AMENDED
ORANGE COUNTY EMPLOYEES RETIREMENT SYSTEM
BOARD OF RETIREMENT
2223 E. WELLINGTON AVENUE, SUITE 100
SANTA ANA, CALIFORNIA

REGULAR MEETING
Monday, June 17, 2024
9:30 A.M.

Members of the public who wish to observe and/or participate in the meeting may do so (1) from the OCERS Boardroom or (2) via the Zoom app or telephone (information below) from any location.

OCERS Zoom Video/Teleconference information	
Join Using Zoom App (Video & Audio) **Join Zoom Meeting** https://ocers.zoom.us/j/83019890413 **Meeting ID: 830 1989 0413** **Passcode: 682836** Go to https://www.zoom.us/download to download Zoom app before meeting Go to https://zoom.us to connect online using any browser.	**Join by Telephone (Audio Only)** Dial by your location +1 669 900 6833 US (San Jose) +1 346 248 7799 US (Houston) +1 253 215 8782 US +1 301 715 8592 US +1 312 626 6799 US (Chicago) +1 929 436 2866 US (New York) **Meeting ID: 830 1989 0413** **Passcode: 682836**
A Zoom Meeting Participant Guide is available on OCERS website Board & Committee meetings page	

AGENDA

The Orange County Board of Retirement welcomes you to this meeting. This agenda contains a brief general description of each item to be considered. The Board of Retirement may take action on any item included in the following agenda; however, except as otherwise provided by law, no action shall be taken on any item not appearing on the agenda. The Board of Retirement may consider matters included on the agenda in any order, and not necessarily in the order listed.

1. **CALL MEETING TO ORDER AND ROLL CALL**

2. **PLEDGE OF ALLEGIANCE**

3. **BOARD MEMBER STATEMENT REGARDING PARTICIPATION VIA ZOOM (IF NECESSARY) (Government Code section 54953(f))**

4. **PUBLIC COMMENTS**

   Members of the public who wish to provide comment during the meeting may do so by "raising your hand" in the Zoom app, or if joining by telephone, by pressing * 9 on your telephone keypad. Members of the public who participate in the meeting from the OCERS Boardroom and who wish to provide comment during the meeting may do so from the podium located in the OCERS Boardroom.

When addressing the Board, please state your name for the record prior to providing your comments. Speakers will be limited to three (3) minutes.

At this time, members of the public may comment on (1) matters not included on the agenda, provided that the matter is within the subject matter jurisdiction of the Board; and (2) any matter appearing on the Consent Agenda.

In addition, public comment on matters listed on this agenda will be taken at the time the item is addressed.

CONSENT AGENDA

All matters on the Consent Agenda are to be approved by one action unless a Board Member requests separate action on a specific item.

BENEFITS

C-1 OPTION 4 RETIREMENT ELECTION

Recommendation: Grant election of retirement benefit payment, Option 4, based on Segal Consulting's actuarial report.

- Lavall Nelson
- Larry Costa
- Scott Steiner

ADMINISTRATION

C-2 BOARD MEETING MINUTES

Regular Board Meeting Minutes May 20, 2024

Recommendation: Approve minutes.

C-3 OUTCOMES FROM THE DISABILITY COMMITTEE MEETING HELD ON MAY 20, 2024

Recommendation: The Disability Committee recommends the Board adopt the following:

1. Disability Retirement Reassignment Policy, with non-substantive revisions and modified title;
2. Hearing Officer Selection and Retention Policy, as presented;
3. Disability Presumptions OAP, as presented.

C-4 OUTCOMES FROM THE GOVERNANCE COMMITTEE MEETING HELD ON MAY 23, 2024

Recommendation: The Governance Committee recommends the Board adopt the following:

1. Cost Impacting Policy with no substantive revisions;
2. Extraordinary Expense Recovery Policy with no substantive revisions;

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DISABILITY/MEMBER BENEFITS AGENDA
9:30 AM

NOTE: WHEN CONSIDERING DISABILITY RETIREMENT APPLICATIONS OR MEMBER APPEALS OF DISABILITY RETIREMENT DETERMINATIONS, THE BOARD MAY ADJOURN TO CLOSED SESSION TO DISCUSS MATTERS RELATING TO THE MEMBER'S APPLICATION OR APPEAL PURSUANT TO GOVERNMENT CODE SECTIONS 54957 OR 54956.9. IF THE MATTER IS A DISABILITY APPLICATION UNDER SECTION 54957, THE MEMBER MAY REQUEST THAT THE DISCUSSION BE IN PUBLIC.

OPEN SESSION

CONSENT ITEMS

All matters on the Consent Agenda are to be approved by one action unless a Board member requires separate action on a specific item. If separate action is requested, the item will be discussed in closed session during agenda item DA-1.

A. Disability Committee Recommendations:
None

B. CEO Recommendations:

DC-1: AMIJO CHIPPARI
Group Counselor I, Orange County Social Services Agency (General)

Recommendation: Steve Delaney, CEO, recommends that the Board:
- Grant service-connected disability retirement.
- Set the effective date as May 5, 2023.

DC-2: DEBRA MARTIN
Senior Social Worker, Orange County Social Services Agency (General)

Recommendation: Steve Delaney, CEO, recommends that the Board:
- Deny service and non-service connected disability retirement without prejudice due to the member's decision not to join in the application.

DC-3: GUADALUPE PRADO
Sheriff Special Officer II, Orange County Sheriff's Department (General)

Recommendation: Steve Delaney, CEO, recommends that the Board:
- Grant service-connected disability retirement.
- Set the effective date as June 2, 2023.

DC-4: JEFFREY WACKERMAN
Fire Apparatus Engineer/Paramedic, Orange County Fire Authority (Safety)

Recommendation: Steve Delaney, CEO, recommends that the Board:
- Grant service-connected disability retirement.
- Set the effective date as July 25, 2023.

DC-5: CRAIG WILMOVSKY
Fire Captain, Orange County Fire Authority (Safety)

Recommendation: Steve Delaney, CEO, recommends that the Board:
- Grant service-connected disability retirement.
- Set the effective date as March 24, 2023.

CLOSED SESSION

Government Code section 54957

Adjourn to Closed Session under Government Code section 54957 to consider member disability applications and to discuss member medical records submitted in connection therewith. The applicant may waive confidentiality and request his or her disability application to be considered in Open Session. As per the OCERS Bylaws, for disability matters before the Board, the applicant or their attorney is allowed to present for a maximum of ten (10) minutes. The opposing counsel is allowed a time limit of seven (7) minutes for argument, followed by a three (3) minute rebuttal from the applicant or their attorney.

DA-1: INDIVIDUAL ACTION ON ANY ITEM TRAILED FROM THE DISABILITY/MEMBER BENEFITS CONSENT AGENDA

OPEN SESSION

REPORT OF ACTIONS TAKEN IN CLOSED SESSION

ACTION ITEMS

NOTE: Public comment on matters listed in this agenda will be taken at the time the item is addressed, prior to the Board's discussion of the item. **Members of the public who wish to provide comment in connection with any matter listed in this agenda may do so by "raising your hand" in the Zoom app, or if joining by telephone, by pressing * 9, at the time the item is called. Persons attending the meeting in person and wishing to provide comment on a matter listed on the agenda should fill out a speaker card located at the back of the Boardroom and deposit it in the Recording Secretary's box located near the back counter.**

A-1 INDIVIDUAL ACTION ON ANY ITEM TRAILED FROM THE CONSENT AGENDA

A-2 **DECEMBER 31, 2023 ACTUARIAL VALUATION- FINAL APPROVAL**
Presentation by Segal

Recommendation: Approve the Actuarial Valuation and Review as of December 31, 2023 and adopt contribution rates for Fiscal Year 2025 – 2026 as recommended by Segal.

A-3 **2023 AUDITED FINANCIAL STATEMENTS AND ANNUAL COMPREHENSIVE FINANCIAL REPORTS**
Presentation by Brenda Shott, Assistant Chief Executive Officer, Internal Operations, and Tracy Bowman, Director of Finance, OCERS

Recommendation: Approve the following recommendations presented to the Audit Committee during a meeting held on June 6, 2024:

1. Approve OCERS' audited financial statements for the year ended December 31, 2023
2. Direct staff to finalize OCERS' 2023 Annual Comprehensive Financial Report (Annual Report)
3. Approve the Governmental Accounting Standards Board (GASB) Statement 67 Actuarial Valuation as of December 31, 2023
4. Receive and file Moss Adams LLP's "OCERS' Report to the Audit Committee for the Year Ended December 31, 2023" and their "Independent Auditor's Report on Internal Control Over Financial Reporting and on Compliance and Other Matters Based on an Audit of Financial Statements Performed in Accordance with Government Auditing Standards"

A-4 **GASB 68 VALUATION AND AUDIT REPORT**
Presentation by Brenda Shott, Assistant Chief Executive Officer, Internal Operations, and Tracy Bowman, Director of Finance, OCERS

Recommendation: Approve the following recommendations from the Audit Committee during a meeting held on June 6, 2024:

1. Approve OCERS' audited Schedule of Allocated Pension Amounts by Employer as of and for the Year Ended December 31, 2023.
2. Approve the Governmental Accounting Standards Board (GASB) Statement 68 Actuarial Valuation as of December 31, 2023 for distribution to employers.

A-5 **CONSIDERATION OF SUPPORT FOR AB 2284**
Presentation by Manuel Serpa, General Counsel, OCERS

Recommendation: Adopt a position in support of AB 2284.

A-6 **OUTCOMES FROM THE BUILDING COMMITTEE MEETING HELD ON MAY 31, 2024: OCERS REPLACEMENT HQ PROJECT – DESIGN BUILD ENTITY PREDEVELOPMENT SERVICES CONTRACT**
Presentation by Brenda Shott, Assistant Chief Executive Officer, Internal Operations, OCERS

Recommendation: The Building Committee recommends the Board adopt the following:

1. Recommend that the Board approve executing a contract with Snyder Langston-Gensler as the Design/Build Entity (DBE) for the OCERS Replacement Headquarters Project (Project) with a fixed fee for comprehensive predevelopment services of $1,861,506. The

contract calls for the issuance of a Guaranteed Maximum Price for the Project as then proposed by the DBE for subsequent Board approval at the end of Predevelopment.

INFORMATION ITEMS

Each of the following informational items will be presented to the Board for discussion.

I-1 **KEVIN FERGUSON'S REQUEST RE DECEASED ALTERNATE PAYEE'S CONTINUING BENEFITS**
Presentation by Manuel D. Serpa, General Counsel and Rosie Baek, Staff Attorney

I-2 **AB 1234 TRAINING - CALIFORNIA PUBLIC RECORDS ACT TRAINING**
Presentation by Manuel Serpa, General Counsel, OCERS

WRITTEN REPORTS

The following are written reports that will not be discussed unless a member of the Board requests discussion.

R-1 **MEMBER MATERIALS DISTRIBUTED**

Application Notices	June 17, 2024
Death Notices	June 17, 2024

R-2 **COMMITTEE MEETING MINUTES**

- March 2024- Governance Committee Minutes
- March 2024- Audit Committee Minutes
- April 15, 2024- Building Committee Minutes

R-3 **CEO FUTURE AGENDAS AND 2024 OCERS BOARD WORK PLAN**
Written Report

R-4 **QUIET PERIOD – NON-INVESTMENT CONTRACTS**
Written Report

R-5 **BOARD COMMUNICATIONS**
Written Report

R-6 **LEGISLATIVE UPDATE**
Written Report

R-7 **OCERS TRAVEL POLICY APPROVED CONFERENCES LIST**
Written Report

R-8 **OCERS 2024 BUSINESS PLAN - MID-YEAR REVIEW**
Written Report

R-9 **STRATEGIC PLANNING WORKSHOP – PROPOSED FORMAT AND AGENDA TOPICS**
Written Report

R-10 **UPDATE BOARD ELECTIONS: SAFETY MEMBER, ALTERNATE SAFETY MEMBER AND GENERAL MEMBER**
Written Report

R-11 **REPORT OF ATTENDANCE AT CONFERENCE- RICHARD OATES- MOTLEY RICE- PIC US**
Written Report

R-12 **REPORT OF ATTENDANCE AT CONFERENCE- ADELE TAGALOA- MOTLEY RICE- PIC US**
Written Report

R-13 **REPORT OF ATTENDANCE AT CONFERENCE- ADELE TAGALOA- 2024 NASP- SOUTHERN CALIFORNIA**
Written Report

CIO COMMENTS

CHIEF EXECUTIVE OFFICER/STAFF COMMENTS

COUNSEL COMMENTS

BOARD MEMBER COMMENTS

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ADJOURNMENT: (IN MEMORY OF THE ACTIVE MEMBERS, RETIRED MEMBERS, AND SURVIVING SPOUSES WHO PASSED AWAY THIS PAST MONTH)

NOTICE OF NEXT MEETINGS

BUILDING COMMITTEE MEETING
June 27, 2024
9:30 A.M.

ORANGE COUNTY EMPLOYEES RETIREMENT SYSTEM
2223 E. WELLINGTON AVENUE, SUITE 100
SANTA ANA, CA 92701

PERSONNEL COMMITTEE MEETING
July 8, 2024
1:30 P.M.

ORANGE COUNTY EMPLOYEES RETIREMENT SYSTEM
2223 E. WELLINGTON AVENUE, SUITE 100
SANTA ANA, CA 92701

DISABILITY COMMITTEE MEETING
July 15, 2024
8:30 A.M.

ORANGE COUNTY EMPLOYEES RETIREMENT SYSTEM
2223 E. WELLINGTON AVENUE, SUITE 100
SANTA ANA, CA 92701

REGULAR BOARD MEETING
July 15, 2024
9:30 A.M.

ORANGE COUNTY EMPLOYEES RETIREMENT SYSTEM
2223 E. WELLINGTON AVENUE, SUITE 100
SANTA ANA, CA 92701

AVAILABILITY OF AGENDA MATERIALS - Documents and other materials that are non-exempt public records distributed to all or a majority of the members of the OCERS Board or Committee of the Board in connection with a matter subject to discussion or consideration at an open meeting of the Board or Committee of the Board are available at the OCERS website: https://www.ocers.org/board-committee-meetings. If such materials are distributed to members of the Board or Committee of the Board less than 72 hours prior to the meeting, they will be made available on the OCERS website at the same time as they are distributed to the Board or Committee members. Non-exempt materials distributed during an open meeting of the Board or Committee of the Board will be made available on the OCERS' website as soon as practicable and will be available promptly upon request.

It is OCERS' intention to comply with the Americans with Disabilities Act ("ADA") in all respects. If, as an attendee or participant at this meeting, you will need any special assistance beyond that normally provided, OCERS will attempt to accommodate your needs in a reasonable manner. Please contact OCERS via email at adminsupport@ocers.org or call 714-558-6200 as soon as possible prior to the meeting to tell us about your needs and to determine if accommodation is feasible. We would appreciate at least 48 hours' notice, if possible. Please also advise us if you plan to attend meetings on a regular basis.

Memorandum

DATE: June 17, 2024

TO: Members of the Board of Retirement

FROM: Irene Warkentine, Member Services Benefits Analyst

SUBJECT: **OPTION 4 RETIREMENT ELECTION – LARRY COSTA**

Recommendation

Grant election of retirement benefit payment, Option 4, based on Segal Consulting's actuarial report.

Background/Discussion

This member elected Option 4 as the benefit payment option for his service retirement allowance as required by his Domestic Relations Order (DRO), effective April . The Orange County Employees Retirement System (OCERS) was joined in the member's dissolution of marriage and under the terms of the DRO, the member's ex-spouse was awarded a lifetime continuance as a percentage of the member's allowance.

The approval of Option 4 will not increase OCERS liability because the cost of this Option 4 benefit is proportional to the cost of the other benefit plans. Segal Consulting has calculated the member's monthly allowance as indicated in the attached letter, as well as the allowance payable to the member's ex-spouse and the current spouse's continuance (upon the member's death).

Submitted by:

I.W. – APPROVED

Irene Warkentine
Member Services Benefits Analyst

Segal

Molly Calcagno, ASA, MAAA, EA
Senior Actuary
T 415.263.8254
M 415.265.6078
mcalcagno@segalco.com

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Suite 1100
San Francisco, CA 94105-6147
segalco.com

Personal and Confidential

June 4, 2024

Jonathea Tallase
Member Services Manager
Orange County Employees Retirement System
2223 Wellington Avenue
Santa Ana, CA 92701-3101

**Re: Orange County Employees Retirement System (OCERS)
Option 4 Calculation for Larry Costa**

Dear Jonathea:

Pursuant to your request, we have determined the Option 4 benefits payable to Larry Costa, his ex-spouse, and his current spouse based on the unmodified benefit and other information provided in the System's request received on May 30, 2024.

The monthly benefits payable to the member, the ex-spouse, and the current spouse, and the data we used for our calculations are as follows:

Data Element	Data Provided by OCERS
Member's date of birth	[redacted]
Date of retirement	April 9, 2024
Plan of membership	General Plan B and Safety Plan F
Monthly unmodified benefit — Total	$9,518.13
• Monthly unmodified benefit — Plan B	$553.24
• Monthly unmodified benefit — Plan F	$8,964.89
Ex-spouse's date of birth	[redacted]
Ex-spouse's share of unmodified benefit	22.35%
Current spouse's date of birth	[redacted]
Continuance payable to current spouse	60%

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Calculations

We have determined the Option 4 benefits using a two-part process. In Part One, we first calculated the adjustment to the member's unmodified benefit to provide a 22.35% continuance to the ex-spouse. As instructed by OCERS, the cost to provide the continuance benefit to the ex-spouse is paid for entirely by the ex-spouse.

Part One: Before Adjustment for Continuance to Current Spouse

Monthly Benefit Type	Payable while the Member is Alive	Payable after the Member's Death
Payable to member		
• Plan B Annuity:	$89.31	
• Plan B Pension:	340.28	
• Plan F Annuity:	1,455.92	
• Plan F Pension:	5,505.32	
– **Total payable to member**	**$7,390.83**	**$0.00**
Payable to ex-spouse*	**$1,937.00**	**$1,937.00**

In Part Two, we further adjusted the member's benefit in Part One so that a continuance benefit of 60% can be paid to the member's current spouse. In addition, the cost to provide this continuance benefit would be paid for entirely by the member.

Part Two: After Adjustment for Continuance to Current Spouse
60% Continuance

Monthly Benefit Type	Payable while the Member is Alive	Payable after the Member's Death
Payable to member		
• Plan B Annuity:	$82.72	
• Plan B Pension:	315.16	
• Plan F Annuity:	1,348.47	
• Plan F Pension:	5,099.00	
– **Total payable to member**	**$6,845.35**	**$0.00**
Payable to ex-spouse*	**$1,937.00**	**$1,937.00**
Payable to current spouse	**$0.00**	**$4,107.21**

* This is equal to 22.35% of the member's unmodified benefit (i.e., 22.35% * $9,518.13 or $2,127.30) adjusted further to provide a benefit payable over the ex-spouse's lifetime or to the estate of the ex-spouse if the ex-spouse pre-deceases the member.

Actuarial assumptions

We have calculated the Option 4 benefits based on the following actuarial assumptions:*

Interest

Effective interest rate of 4.136253% per year, calculated using an investment return assumption of 7.00% per year together with a cost-of-living adjustment assumption of 2.75% per year.

Mortality Table

Pub-2010 Safety Healthy Retiree Amount-Weighted Above-Median Mortality Table, projected generationally with the two-dimensional mortality improvement scale MP-2019 associated with a retirement year of 2024, weighted 80% male and 20% female for members.

Pub-2010 General Contingent Survivor Amount-Weighted Above-Median Mortality Table with rates increased by 5%, projected generationally with the two-dimensional mortality improvement scale MP-2019 associated with a retirement year of 2024, weighted 20% male and 80% female for beneficiaries.

Other considerations

The actuarial calculations contained in this letter were prepared under my supervision. I am a member of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion herein.

Please let us know if you have any comments or questions. As in all matters pertaining to the interpretation and application of the law, Plan, or individual Option 4 Calculation provisions, you should be guided by the advice of the Plan's Legal Counsel.

Sincerely,

Molly Calcagno

Molly Calcagno, ASA, MAAA, EA
Senior Actuary

JY/bbf

cc: Irene Warkentine

* Since the member last worked as a Safety member, we used Safety assumptions in determining optional benefits even for benefits paid from the General Plan.

Memorandum

DATE: June 17, 2024

TO: Members of the Board of Retirement

FROM: Irene Warkentine, Member Services Benefits Analyst

SUBJECT: **OPTION 4 RETIREMENT ELECTION – LAVALL NELSON**

Recommendation

Grant election of retirement benefit payment, Option 4, based on Segal Consulting's actuarial report.

Background/Discussion

This member elected Option 4 as the benefit payment option for his service retirement allowance as required by his Domestic Relations Order (DRO), effective February 08, 2024. The Orange County Employees Retirement System (OCERS) was joined in the member's dissolution of marriage and under the terms of the DRO, the member's ex-spouse was awarded a lifetime continuance as a percentage of the member's allowance.

The approval of Option 4 will not increase OCERS liability because the cost of this Option 4 benefit is proportional to the cost of the other benefit plans. Segal Consulting has calculated the member's monthly allowance as indicated in the attached letter, as well as the allowance payable to the member's ex-spouse.

Submitted by:

I.W. – APPROVED

Irene Warkentine
Member Services Benefits Analyst

Segal

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Senior Actuary
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San Francisco, CA 94105-6147
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Personal and Confidential

May 7, 2024

Jonathea Tallase
Member Services Manager
Orange County Employees Retirement System
2223 Wellington Avenue
Santa Ana, CA 92701-3101

**Re: Orange County Employees Retirement System (OCERS)
Option 4 Calculation for Lavall Nelson**

Dear Jonathea:

Pursuant to your request, we have determined the Option 4 benefits payable to Lavall Nelson and his ex-spouse based on the unmodified benefit and other information provided in the System's request received on May 3, 2024.

The monthly benefits payable to the member and the ex-spouse, and the data we used for our calculations are as follows:

Data Element	Data Provided by OCERS
Member's date of birth	[redacted]
Date of retirement	February 8, 2024
Plan of membership	General Plan B and Safety Plan D
Monthly unmodified benefit — Total	$942.62
• Monthly unmodified benefit — Plan B	$181.64
• Monthly unmodified benefit — Plan D	$760.98
Ex-spouse's date of birth	[redacted]
Ex-spouse's share of unmodified benefit	50.00%

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Calculations

We calculated the adjustment to the member's unmodified benefit to provide a 50.00% continuance to the ex-spouse. As instructed by OCERS, the cost to provide the continuance benefit to the ex-spouse is paid for entirely by the ex-spouse.

Monthly Benefit Type	Payable while the Member is Alive	Payable after the Member's Death
Payable to member		
• Plan B Annuity:	$9.23	
• Plan B Pension:	81.59	
• Plan D Annuity:	47.44	
• Plan D Pension:	333.05	
– **Total payable to member**	**$471.31**	**$0.00**
Payable to ex-spouse[1]	**$413.28**	**$413.28**

Actuarial assumptions

We have calculated the Option 4 benefits based on the following actuarial assumptions:[2]

Interest

Effective interest rate of 4.136253% per year, calculated using an investment return assumption of 7.00% per year together with a cost-of-living adjustment assumption of 2.75% per year.

Mortality Table

Pub-2010 Safety Healthy Retiree Amount-Weighted Above-Median Mortality Table, projected generationally with the two-dimensional mortality improvement scale MP-2019 associated with a retirement year of 2024, weighted 80% male and 20% female for members.

Pub-2010 General Contingent Survivor Amount-Weighted Above-Median Mortality Table with rates increased by 5%, projected generationally with the two-dimensional mortality improvement scale MP-2019 associated with a retirement year of 2024, weighted 20% male and 80% female for beneficiaries.

[1] This is equal to 50.00% of the member's unmodified benefit (i.e., 50.00% * 942.62 or $471.31) adjusted further to provide a benefit payable over the ex-spouse's lifetime or to the estate of the ex-spouse if the ex-spouse pre-deceases the member.

[2] Since the member last worked as a Safety member, we used Safety assumptions in determining optional benefits even for benefits paid from the General Plan.

Other considerations

The actuarial calculations contained in this letter were prepared under my supervision. I am a member of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion herein.

Please let us know if you have any comments or questions. As in all matters pertaining to the interpretation and application of the law, Plan, or individual Option 4 Calculation provisions, you should be guided by the advice of the Plan's Legal Counsel.

Sincerely,

Molly Calcagno

Molly Calcagno, ASA, MAAA, EA
Senior Actuary

JY/bbf

cc: Irene Warkentine

ORANGE COUNTY
OCERS
EMPLOYEES RETIREMENT SYSTEM

May 7, 2024

Lavall S. Nelson
[redacted]

Re: Retirement Election Confirmation – Option 4

Dear Mr. NELSON:

You have elected Option 4 as your retirement option. This option will provide a 50.00% of your monthly benefit, for the life of the benefit, to:

Vivica R Nelson

This designation is irrevocable; you will not be allowed to change your retirement option or designated beneficiary.

Please complete this form and return to OCERS as soon as possible.

( ) I understand that my retirement option is irrevocable; by choosing Option 4 I will take a monthly reduction in order to provide a 50.00% continuance to Vivica R Nelson.

5/15/24
Member Signature/Date

Sincerely,

David Viramontes
Retirement Program Specialist

PO Box 1229, Santa Ana, CA 92702 • Telephone (714) 558-6200 • www.ocers.org
"We provide secure retirement and disability benefits with the highest standards of excellence."

Memorandum

DATE: June 17, 2024

TO: Members of the Board of Retirement

FROM: Irene Warkentine, Member Services Benefits Analyst

SUBJECT: **OPTION 4 RETIREMENT ELECTION – SCOTT STEINER**

Recommendation

Grant election of retirement benefit payment, Option 4, based on Segal Consulting's actuarial report.

Background/Discussion

This member elected Option 4 as the benefit payment option for his service retirement allowance as required by his Domestic Relations Order (DRO), effective April 19, 2024. The Orange County Employees Retirement System (OCERS) was joined in the member's dissolution of marriage and under the terms of the DRO, the member's ex-spouse was awarded a lifetime continuance as a percentage of the member's allowance.

The approval of Option 4 will not increase OCERS liability because the cost of this Option 4 benefit is proportional to the cost of the other benefit plans. Segal Consulting has calculated the member's monthly allowance as indicated in the attached letter, as well as the allowance payable to the member's ex-spouse.

Submitted by:

I.W. – APPROVED

Irene Warkentine
Member Services Benefits Analyst

Segal

Molly Calcagno, ASA, MAAA, EA
Senior Actuary
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mcalcagno@segalco.com

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Personal and Confidential

June 4, 2024

Jonathea Tallase
Member Services Manager
Orange County Employees Retirement System
2223 Wellington Avenue
Santa Ana, CA 92701-3101

**Re: Orange County Employees Retirement System (OCERS)
Option 4 Calculation for Scott Steiner**

Dear Jonathea:

Pursuant to your request, we have determined the Option 4 benefits payable to Scott Steiner and his ex-spouse based on the unmodified benefit and other information provided in the System's request received on May 31, 2024.

The monthly benefits payable to the member and the ex-spouse and the data we used for our calculations are as follows:

Data Element	Data Provided by OCERS
Member's date of birth	[redacted]
Date of retirement	April 19, 2024
Plan of membership	General Plan J
Monthly unmodified benefit	$2,670.48
Ex-spouse's date of birth	[redacted]
Ex-spouse's share of unmodified benefit	50.00%

Jonathea Tallase
June 4, 2024
Page 2

Calculations

We calculated the adjustment to the member's unmodified benefit to provide a 50.00% continuance to the ex-spouse. As instructed by OCERS, the cost to provide the continuance benefit to the ex-spouse is paid for entirely by the ex-spouse.

Monthly Benefit Type	Payable while the Member is Alive	Payable after the Member's Death
Payable to member		
• Annuity:	$334.74	
• Pension:	1,000.50	
– **Total payable to member**	**$1,335.24**	**$0.00**
Payable to ex-spouse*	**$1,229.77**	**$1,229.77**

Actuarial assumptions

We have calculated the Option 4 benefits based on the following actuarial assumptions:

Interest

Effective interest rate of 4.136253% per year, calculated using an investment return assumption of 7.00% per year together with a cost-of-living adjustment assumption of 2.75% per year.

Mortality Table

Pub-2010 General Healthy Retiree Amount-Weighted Above-Median Mortality Table with rates increased by 5%, projected generationally with the two-dimensional mortality improvement scale MP-2019 associated with a retirement year of 2024, weighted 40% male and 60% female for members.

Pub-2010 General Contingent Survivor Amount-Weighted Above-Median Mortality Table with rates increased by 5%, projected generationally with the two-dimensional mortality improvement scale MP-2019 associated with a retirement year of 2024, weighted 60% male and 40% female for beneficiaries.

* This is equal to 50.00% of the member's unmodified benefit (i.e., 50.00% * $2,670.48 or $1,335.24) adjusted further to provide a benefit payable over the ex-spouse's lifetime or to the estate of the ex-spouse if the ex-spouse pre-deceases the member.

Other considerations

The actuarial calculations contained in this letter were prepared under my supervision. I am a member of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion herein.

Please let us know if you have any comments or questions. As in all matters pertaining to the interpretation and application of the law, Plan, or individual Option 4 Calculation provisions, you should be guided by the advice of the Plan's Legal Counsel.

Sincerely,

Molly Calcagno

Molly Calcagno, ASA, MAAA, EA
Senior Actuary

JY/bbf

cc: Irene Warkentine

ORANGE COUNTY
OCERS
EMPLOYEES RETIREMENT SYSTEM

June 5, 2024

Scott A. Steiner
[redacted]

Re: Retirement Election Confirmation – Option 4

Dear Mr. STEINER:

You have elected Option 4 as your retirement option. This option will provide a 50% of your monthly benefit, for the life of the benefit, to:

Caron Y Steiner

This designation is irrevocable; you will not be allowed to change your retirement option or designated beneficiary.

Please complete this form and return to OCERS as soon as possible.

( ) I understand that my retirement option is irrevocable; by choosing Option 4 I will take a monthly reduction in order to provide a 50% continuance to Caron Y Steiner.

6.5.24

Member Signature/Date

Sincerely,

David Viramontes
Retirement Program Specialist

ORANGE COUNTY EMPLOYEES RETIREMENT SYSTEM
BOARD OF RETIREMENT
2223 E. WELLINGTON AVENUE, SUITE 100
SANTA ANA, CALIFORNIA

REGULAR MEETING
Monday, May 20, 2024
9:30 A.M.

MINUTES

Chair Tagaloa called the meeting to order at 9:30 a.m.

Recording Secretary administered the Roll Call attendance.

Attendance was as follows:

Present in Person:	Charles Packard, Vice Chair; Richard Oates, Arthur Hidalgo, Jeremy Vallone, Wayne Lindholm, Roger Hilton
Present via Teleconference:	Adele Tagaloa, Chair
Present via Zoom (under Government Code Section 54953(f)):	Chris Prevatt
Also Present:	Steve Delaney, Chief Executive Officer; Suzanne Jenike, Assistant CEO, External Operations; Brenda Shott, Assistant CEO, Internal Operations; Manuel Serpa, General Counsel; Molly Murphy, Chief Investment Officer; David Kim, Director of Internal Audit; Will Tsao, Director of EPMO; Kwame Addo, Chief Compliance Officer; Anthony Beltran, Audio-Visual Technician; Carolyn Nih, Recording Secretary
Guests:	Todd Tauzer and Andy Young, Segal; Maytak Chin and Mariah Fairley, ReedSmith; Jenny Kringle, Tax Fiduciary Attorney
Absent:	Shawn Dewane (online observer), Shari Freidenrich

Public Comment provided by Mr. Kevin Ferguson.

CONSENT AGENDA

BENEFITS

C-1 OPTION 4 RETIREMENT ELECTION

Recommendation: Grant election of retirement benefit payment, Option 4, based on Segal Consulting's actuarial report.

- Hartney, Michelle

- Martin, Siobhan
- Valentine, Bradley
- Rodriguez, Gene
- Vu, John

ADMINISTRATION

C-2 BOARD MEETING MINUTES

Regular Board Meeting Minutes April 15, 2024

Recommendation: Approve minutes.

MOTION by Mr. Packard, **seconded** by Mr. Hilton, to approve the Consent Agenda.

The motion passed **unanimously**.

****

DISABILITY/MEMBER BENEFITS AGENDA
9:30 AM

OPEN SESSION
CONSENT ITEMS

A. Disability Committee Recommendations:
NONE

B. CEO Recommendations:

DC-1: ROCKY CASTELLANO
Sergeant, Orange County Sheriff's Department (Safety)

Recommendation: Steve Delaney, CEO, recommends that the Board:
- Grant service-connected disability retirement.
- Set the effective date as March 24, 2023.

DC-2: AARON CLARK
Fire Battalion Chief, Orange County Fire Authority (Safety)

Recommendation: Steve Delaney, CEO, recommends that the Board:
- Grant service-connected disability retirement.
- Set the effective date as March 9, 2023.

DC-3: JAYME FERGUSON
Sheriff's Special Officer, Orange County Sheriff's Department (General)

Recommendation: Steve Delaney, CEO, recommends that the Board:
- Grant service-connected disability retirement.
- Set the effective date as June 30, 2023.

DC-4: WILLIAM GROVER
Deputy Sheriff, Orange County Sheriff's Department (Safety)

Recommendation: Steve Delaney, CEO, recommends that the Board:
- Grant service-connected disability retirement.
- Set the effective date as November 30, 2022.

DC-5: CARMEN WHITMORE
Group Counselor I, Orange County Social Services Agency (General)

Recommendation: Steve Delaney, CEO, recommends that the Board:
- Grant service-connected disability retirement.
- Set the effective date as April 7, 2023.

DC-6: ROBERT WILSON
Fire Captain, Orange County Fire Authority (Safety)

Recommendation: Steve Delaney, CEO, recommends that the Board:
- Grant service-connected disability retirement.
- Set the effective date as March 24, 2023.

MOTION by Mr. Oates, **seconded** by Mr. Packard, to approve staff recommendations.

The motion passed **unanimously**.

Without additional questions and a need for further discussion, the Board did not adjourn to closed session.

DA-2 TODD HART
Administrative Manager II, Orange County District Attorney's Office

Recommendation: Staff recommends the Board grant Applicant Todd Hart's application for service-connected disability retirement based on the Medical Evaluation Report by OCERS Independent Medical Examiner (IME).

MOTION by Mr. Lindholm, **seconded** by Mr. Packard, to approve staff recommendations.

The motion passed **unanimously**.

INFORMATION ITEMS

I-1 PRELIMINARY DECEMBER 31, 2023 ACTUARIAL VALUATION
Presentation by Todd Tauzer and Andy Yeung, Segal

Mr. Tauzer and Mr. Yeung from Segal shared the preliminary actuarial valuation for the year ending with December 31, 2023.

I-2 REVIEW OF OCERS MULTIPLE PLANS
Presentation by Suzanne Jenike, Assistant CEO, External Operations, OCERS

Ms. Jenike shared about the collection of plans (formulas) that is serviced by OCERS.

I-3 UPDATE ON THE WORK ASSOCIATED TO THE ALAMEDA IMPLEMENTATION
Presentation by Suzanne Jenike, Assistant CEO, External Operations, OCERS

The Board recessed for break at 10:49 a.m.

The Board reconvened from break at 11:05 a.m.

Recording Secretary administered the Roll Call attendance.

The Board adjourned to closed session at 11:07 a.m.

CLOSED SESSION ITEMS

E-1 CONFERENCE WITH LEGAL COUNSEL--ANTICIPATED LITIGATION (Government Code Section 54956.9(d)(2))
One potential case

Recommendation: Take appropriate action.

The Board returned from Closed Session at 12:21 p.m.

Recording Secretary administered the Roll Call.

REPORT OF ACTIONS TAKEN IN CLOSED SESSION- no reportable actions taken

Mr. Lindholm left the meeting at 12:27p.m.

ACTION ITEMS

A-2 ALAMEDA IMPLICATIONS FOR EMPLOYEES OF OCDA AND OCSD COVERED BY THE COUNTY BOARD OF SUPERVISORS RESOLUTION
Presentation by Suzanne Jenike, Assistant CEO, External Operations, OCERS

Recommendation:

1. Make a system-wide exception pursuant to Section 4 of the Overpaid and Underpaid Plan Contributions Policy, by collecting the interest associated with an ongoing payment plan from the Employer through the actuarial UAAL process and not from the member directly, and;
2. Make a system-wide exception pursuant to Section 4 of the Overpaid and Underpaid Plan Benefits Policy, to provide that the active members' installment payments be repaid over the life expectancy of the member as determined by the actuary, and;
3. Direct the CEO to extend the time-period for a retired or deferred member's installment payment to a period not exceeding the expected life expectancy of the member as

determined by the actuary pursuant to Section 9 (b) of the Overpaid and Underpaid Plan Benefits Policy.

MOTION by Mr. Oates, **seconded** by Mr. Packard, to moved item to a future date after additional research.

The motion passed **unanimously**.

WRITTEN REPORTS

The following are written reports that will not be discussed unless a member of the Board requests discussion.

R-1 MEMBER MATERIALS DISTRIBUTED

Application Notices	May 20, 2024
Death Notices	May 20, 2024

R-2 COMMITTEE MEETING MINUTES

- February 2024- Personnel Committee Minutes
- April 4, 2024- Building Committee Minutes

R-3 CEO FUTURE AGENDAS AND 2024 OCERS BOARD WORK PLAN
Written Report

R-4 QUIET PERIOD – NON-INVESTMENT CONTRACTS
Written Report

R-5 BOARD COMMUNICATIONS
Written Report

R-6 LEGISLATIVE UPDATE
Written Report

R-7 OCERS TRAVEL POLICY APPROVED CONFERENCES LIST
Written Report

R-8 FIRST QUARTER 2024 BUDGET TO ACTUALS REPORT
Written Report

R-9 FIRST QUARTER UNAUDITED FINANCIAL STATEMENTS FOR THE THREE MONTHS ENDED MARCH 31, 2024
Written Report

R-10 UPDATE BOARD ELECTIONS: SAFETY MEMBER, ALTERNATE SAFETY MEMBER AND GENERAL MEMBER
Written Report

R-11 OUTCOMES FROM THE PERSONNEL COMMITTEE MEETING ON APRIL 23, 2024
Written Report

R-12 REPORT OF ATTENDANCE AT CONFERENCE- SARAH ABRAHAMSON- WORKHUMAN LIVE
Written Report

CHIEF EXECUTIVE OFFICER/STAFF COMMENTS- CEO shared the video from Bring a Kid to Work Day.

COUNSEL COMMENTS- None

BOARD MEMBER COMMENTS- None

Meeting **ADJOURNED** at 12:40 p.m. in memory of active members, retired members, and surviving spouses who passed away this passed month.

Submitted by:	Approved by:
__________________________	______________________________
Steve Delaney	Adele Tagaloa
Secretary to the Board	Chairperson

ORANGE COUNTY OCERS EMPLOYEES RETIREMENT SYSTEM

Memorandum

DATE: June 17, 2024

TO: Members of the Board of Retirement

FROM: Nicole McIntosh, Director of Disabilities

SUBJECT: **OUTCOMES FROM THE DISABILITY COMMITTEE MEETING HELD ON MAY 20, 2024**

Recommendation

The Disability Committee recommends that the Board adopt the following:

1. **Disability Retirement Reassignment Policy,** with non-substantive revisions and modified title**;**
2. **Hearing Officer Selection and Retention Policy,** as presented**;**
3. **Disability Presumptions OAP,** as presented.

Background/Discussion

The Disability Committee met on May 20, 2024, and reviewed the above-listed policies. The Committee now recommends that the Board adopt the revisions to all the policies, as set forth below.

Non-substantive Revisions to the Disability Retirement Reassignment Policy

There were no substantive revisions to the Disability Retirement Reassignment Policy recommended or approved by the Committee. The committee recommends the Board approve the modified title “Supplemental Disability Retirement Policy (Reassignment)”.

Revisions to the Hearing Officer Selection and Retention Policy

Staff recommended to the Committee, and the Committee approved, all changes as presented except for a single change. Staff originally recommended that paragraph five under the subheading “Roles and Responsibilities” read:

> 5. The role of the General Counsel with respect to the selection of Hearing Officers is to monitor compliance with this policy.

The Committee instructed Staff to remove the modification to paragraph five and restore its original wording which reads:

> 5. The role of the Disability Committee with respect to the selection of Hearing Officers is to monitor compliance with this policy.

Revisions to the Disability Presumptions OAP

Staff recommended to the Committee, and the Committee approved, revisions to the Disability Presumptions OAP to reflect recent legislative changes. The revisions are set forth in underlined/strikeout text in the attached copy of the OAP.

Attachments

Submitted by:

NM-Approved

Nicole McIntosh
Director of Disabilities

ORANGE COUNTY OCERS EMPLOYEES RETIREMENT SYSTEM

OCERS Board Policy

Supplemental Disability ~~Retirement~~ Allowance Policy (Reassignment) ~~Policy~~

Purpose and Background

1. The purpose of this policy is to encourage the reassignment of disability retirement recipients in alternate positions under Sections 31725.5, 31725.6 and 31725.65 of the California Government Code, to provide staff with a method for delivering benefits and related services to those members and their beneficiaries and to manage the assets of the system in a prudent manner.

Policy Objectives

2. The objectives of this policy are to:

   a. Provide a method by which the Board of Retirement (Board) can establish that a member who is permanently incapacitated from performing the duties of their position may be medically qualified to perform the duties required of an alternate position with an OCERS' employer;

   b. Facilitate communication between OCERS, permanently incapacitated members, and employers to identify those members who will engage in a reassignment plan and to identify available positions meeting the member's medical criteria;

   c. Provide guidance to OCERS' staff and the employer to ensure appropriate treatment during the reassignment period and upon subsequent retirement.

Policy Guidelines

3. The Board adopts the following approach for all disability retirement recipients who are reassigned under Sections 31725.5, 31725.6 or 31725.65 of the California Government Code:

   a. Reassigned members will be considered active members of the retirement system for all purposes except death benefit entitlement;

   b. Reassigned members will not be entitled to a second disability retirement;

   c. Reassigned members will receive a supplemental disability retirement allowance, which will be the difference between the job salary for the position that the member is ~~permantnently~~ permanently incapacitated from performing and the job salary for the alternate position. The supplemental disability allowance will not exceed the amount of the member's original disability retirement allowance, as adjusted by Cost of Living increases;

   d. Reassigned members will pay contributions to OCERS and earn service credit;

   e. Reassigned members will have their disability retirement allowances recalculated at the time of retirement from the alternate position.

OCERS Board Policy

Supplemental Disability ~~Retirement~~ Allowance Policy (Reassignment) ~~Policy~~

Policy Review

4. The Board will review this policy at least every three years to ensure that it remains relevant and appropriate. In the event of legislative changes to the pertinent sections addressed in this policy, the Board will review the policy as appropriate.

Policy History

5. The Board adopted this policy on April 17, 2006. The Board reviewed this policy on August 24, 2009, November 19, 2012, July 17, 2017, and April 19, 2021.

Secretary's Certificate

I, the undersigned, the duly appointed Secretary of the Orange County Employees Retirement System, hereby certify the adoption of this policy.

~~04/19/21~~

Steve Delaney
Secretary of the Board

Date

OCERS Board Policy

Supplemental Disability Allowance Policy (Reassignment)

Purpose and Background

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    c. Provide guidance to OCERS' staff and the employer to ensure appropriate treatment during the reassignment period and upon subsequent retirement.

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    b. Reassigned members will not be entitled to a second disability retirement;
    c. Reassigned members will receive a supplemental disability retirement allowance, which will be the difference between the job salary for the position that the member is permanently incapacitated from performing and the job salary for the alternate position. The supplemental disability allowance will not exceed the amount of the member's original disability retirement allowance, as adjusted by Cost of Living increases;
    d. Reassigned members will pay contributions to OCERS and earn service credit;
    e. Reassigned members will have their disability retirement allowances recalculated at the time of retirement from the alternate position.

Policy Review

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OCERS Board Policy

Supplemental Disability Allowance Policy (Reassignment)

Policy History

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Secretary's Certificate

I, the undersigned, the duly appointed Secretary of the Orange County Employees Retirement System, hereby certify the adoption of this policy.

Steve Delaney
Secretary of the Board

Date

ORANGE COUNTY OCERS EMPLOYEES RETIREMENT SYSTEM

OCERS Board Policy

Hearing Officer Selection and Retention Policy

Purpose and Background

1. The purpose of the Hearing Officer Selection and Retention Policy (Policy) is to provide OCERS with procedures for the selection and retention of Hearing Officers who will conduct administrative hearings. The Board of Retirement (Board) is charged with the responsibility of administering the System in a manner to assure prompt delivery of benefits to plan participants and their beneficiaries. Selection of competent Hearing Officers must be made in a manner that ensures the due process rights of plan participants and their beneficiaries are met.
2. Pursuant to Government Code Section 31533, the Board may appoint either a member of the Board or a member of the State Bar of California to serve as a Hearing Officer in an administrative hearing. -This Policy ~~apply~~applies only to the appointment of members of the State Bar of California as Hearing Officers.

Policy Objectives

3. The objectives of the Hearing Officer Selection and Retention Policy are to:
   a. Establish a ~~procedure~~process for the selection and retention of Hearing Officers that complies with the due process rights of plan participants and their beneficiaries;
   b. Establish a ~~procedure~~process for the selection and retention of Hearing Officers that ensures only qualified, competent, and impartial Hearing Officers are appointed;
   c. Establish a ~~procedure~~process for monitoring and evaluating Hearing Officers' performance so only qualified and competent Hearing Officers are retained after they have been appointed; and
   d. Establish a ~~procedure~~process for the assignment of Hearing Officers to individual cases that ensures the due process rights of plan participants and their beneficiaries.

Roles and Responsibilities

4. The role of the Board of Retirement with respect to the selection of Hearing Officers is to:
   a. Establish appropriate policies with respect to the selection and evaluation of Hearing Officers; and
   b. Approve, upon the recommendation of the Hearing Officer Selection Panel (Panel), the appointment of qualified Hearing Officers.

~~4.~~ The role of the Disability Committee with respect to the selection of Hearing Officers is to ~~:~~

~~b.~~5. ~~Monitor~~monitor compliance with this ~~Policy~~policy.

~~5.~~6. ~~A~~The Panel will consist -of ~~(i)~~ the Chief Executive Officer~~, (ii)~~; -the General Counsel ~~(iii) either~~; -the Assistant CEO ~~for~~of External Operations ~~or~~; the Director of Member Services; and ~~(iv) either~~ the Chair or Vice Chair of the Disability Committee and ~~will be~~is responsible for:

   a. Interviewing and recommending to the Board for its approval ~~competent and~~ qualified Hearing Officers in conformity with the Selection Process set forth in this Policy~~;~~.

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ORANGE COUNTY OCERS EMPLOYEES RETIREMENT SYSTEM

OCERS Board Policy

Hearing Officer Selection and Retention Policy

~~Evaluating the performance of Hearing Officers in accordance with the process for conducting performance evaluations of Hearing Officers set forth in this Policy;~~

A ~~Hearing Officer Qualifications~~

Factors for consideration when selecting Hearing Officers will include the following:
adjudicator (e.g.~~.~~, judge, judge pro-tem, arbitrator etc.); and
compensation law, and all relevant provisions of the County Employees Retirement Law, as amended.

~~Hearing Officer Selection and Retention Procedure~~

8. Request for ~~Proposals~~Proposal (RFP)

   a. ~~Whenever~~When the General Counsel determines that it is necessary ~~in order~~ to maintain a sufficient ~~number~~panel of Hearing Officers, ~~the Panel~~they will initiate a Request for ~~Proposals (RFP).~~Proposal.

   b. ~~At the discretion of the Chief Executive Officer, the~~ The RFP may be published in major legal periodicals, journals, and~~/or~~ bar association magazines. The RFP ~~may~~will also be posted ~~at~~on OCERS' ~~web site~~website, social media platforms, law schools, and ~~at~~ other ~~job~~ related ~~web sites~~websites. In addition, the RFP ~~may~~will be sent to potential candidates that are brought to the attention of the General Counsel or have previously served as a Hearing Officer for OCERS.

9. Selection Process

   a. The General Counsel or their designee will collect and review ~~the~~ responses to the RFP and ~~select~~refer the most qualified candidates ~~for formal interviews.~~to the Panel.

   b. The Panel will conduct ~~formal~~ interviews of the selected candidates ~~selected by the General Counsel. The interviews may~~. Interviews will be conducted in person or virtually. ~~The Panel will review writing~~ Writing samples, references, ~~or~~and other materials that would reflect ~~upon~~ the candidate's ability to ~~competently~~ perform the duties of a Hearing Officer~~.~~ will be evaluated. Based on the interviews ~~and review of materials,~~ the Panel will select ~~the~~ candidates to recommend to the Board for appointment as Hearing Officers.

   ~~Prior to submitting the~~ A list of ~~recommended~~ candidates ~~to the Board, the list~~ will be submitted to OCERS employers ~~of OCERS~~ and employee ~~representation units. Those entities~~ labor groups who will be ~~provided~~given a brief ~~outline~~summary of the qualifications of the candidates ~~and be given~~. They will have fifteen (15) days to comment ~~on the list of proposed Hearing Officers~~.

~~Employers, employee representation units may provide additional comments in writing or in person with respect to the proposed list of candidates at the time that the Board is to vote on the list of proposed Hearing Officers.~~

~~9. Term of Appointment~~

1. ~~Expiration of Agreement for Hearing Officer Services~~

   The Agreement ~~shall~~will terminate at the end of ~~its seven~~the six year (6) term, ~~provided~~ however, ~~that~~ the term may be extended ~~by the Chief Executive Officer and General Counsel in order~~ for the Hearing Officer to complete any appeals that are not yet final (as defined by the OCERS Administrative Review and Hearing Policy~~) as of the end of the seven year term.~~). Upon expiration of the Agreement, the Hearing Officer is prohibited from reapplying to serve as a Hearing Officer for a period of two (2) years after the expiration

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ORANGE COUNTY OCERS EMPLOYEES RETIREMENT SYSTEM

OCERS Board Policy

Hearing Officer Selection and Retention Policy

of the previous Agreement~~, and must participate in the Hearing Officer Selection Process again as a condition to being awarded a new contract~~.

~~Compliance with OCERS Administrative Review and Hearing Policy~~

~~Code of Judicial Ethics~~

~~Hearing Officer *Performance* Evaluations~~

the General Counsel or their designee to determine whether they are well-~~-~~reasoned and logically apply the law to the facts of a given case.

~~contract term.~~

include a finding by the General Counsel that the Hearing Officer has ~~repeatedly failed to file their Proposed Findings of Fact and Recommended Decision in a timely manner,~~ engaged in fraudulent billing practices, or ~~or has been publicly disciplined~~ disciplined by the State Bar of California.

~~General Counsel will recommend to the Board that it terminate~~ for any other material breach of the Agreement ~~prior to its normal expiration date or take other appropriate action as necessary.~~

Number of Hearing Officers

~~1. At all times, the General Counsel will make reasonable efforts to maintain a list of Hearing Officers sufficient in number to meet the needs of OCERS, and if the General Counsel concludes that the number of Hearing Officers is insufficient, recommend to the Panel that additional Hearing Officers are necessary. The General Counsel will determine the number of Hearing Officers necessary to meet those needs based upon the following factors:~~

Compensation

~~25.~~12. Before the issuance of any RFP the General Counsel will review~~, from time to time and before the issuance of any RFP,~~ the contracted rate of pay for OCERS' Hearing Officers~~. The purpose of the review will be to~~ and determine ~~whether OCERS'~~ if that rate ~~of pay~~ is competitive with ~~current market~~ rates paid for Hearing Officer services by other public retirement systems ~~similarly situated to OCERS~~.

~~26.~~13. Based on this review, the General Counsel may recommend that the Board of Retirement consider modifications to the Hearing Officers' rate of pay.

Document Terms

~~27.~~14. For purposes of this policy, the term Hearing Officer shall have the same meaning as the term referee, as that term is used in the relevant sections of the California Government Code.

Policy Review

~~28.~~15. The Board will review this Policy at least every three (3) years to ensure that it remains relevant and appropriate.

Policy History

~~29.~~16. This Policy was adopted by the Board on April 17, 2000. It was amended on February 22, 2005 and May 16, 2005; reviewed on June 18, 2007 with no changes; and amended on August 23, 2010, January 21, 2014, December 19, 2016, January 16, 2018, ~~and~~ April 19, 2021~~.~~, and [date].

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OCERS Board Policy

Hearing Officer Selection and Retention Policy

I, the undersigned, the duly appointed Secretary of the Orange County Employees Retirement System, hereby certify the adoption of this policy.

~~04~~	
Steve Delaney, Secretary of the Board	Date

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ORANGE COUNTY OCERS EMPLOYEES RETIREMENT SYSTEM

OCERS Board Policy

Hearing Officer Selection and Retention Policy

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Policy Objectives

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   a. Establish a process for the selection and retention of Hearing Officers that complies with the due process rights of plan participants and their beneficiaries;
   b. Establish a process for the selection and retention of Hearing Officers that ensures only qualified, competent, and impartial Hearing Officers are appointed;
   c. Establish a process for monitoring and evaluating Hearing Officers' performance so only qualified and competent Hearing Officers are retained after they have been appointed; and
   d. Establish a process for the assignment of Hearing Officers to individual cases that ensures the due process rights of plan participants and their beneficiaries.

Roles and Responsibilities

4. The role of the Board of Retirement with respect to the selection of Hearing Officers is to:
   a. Establish appropriate policies with respect to the selection and evaluation of Hearing Officers; and
   b. Approve, upon the recommendation of the Hearing Officer Selection Panel (Panel), the appointment of qualified Hearing Officers.
5. The role of the Disability Committee with respect to the selection of Hearing Officers is to monitor compliance with this policy.
6. The Panel will consist of the Chief Executive Officer; the General Counsel; the Assistant CEO of External Operations; the Director of Member Services; and the Chair or Vice Chair of the Disability Committee and is responsible for:
   a. Interviewing and recommending to the Board for its approval qualified Hearing Officers in conformity with the Selection Process set forth in this Policy.

Qualifications

ORANGE COUNTY OCERS EMPLOYEES RETIREMENT SYSTEM

OCERS Board Policy

Hearing Officer Selection and Retention Policy

7. A Hearing Officer must be a member of the State Bar of California.

Factors for consideration when selecting Hearing Officers will include the following: past experience as an adjudicator (e.g., judge, judge pro tem, arbitrator etc.); and past experience in disability retirement, workers' compensation law, and all relevant provisions of the County Employees Retirement Law, as amended.

Selection Process

8. Request for Proposal (RFP)

    a. When the General Counsel determines that it is necessary to maintain a sufficient panel of Hearing Officers, they will initiate a Request for Proposal.

    b. The RFP may be published in major legal periodicals, journals, and bar association magazines. The RFP will also be posted on OCERS' website, social media platforms, law schools, and other related websites. In addition, the RFP will be sent to potential candidates that are brought to the attention of the General Counsel or have previously served as a Hearing Officer for OCERS.

9. Selection Process

    a. The General Counsel or their designee will collect and review responses to the RFP and refer the most qualified candidates to the Panel.

    b. The Panel will conduct interviews of the selected candidates. Interviews will be conducted in person or virtually. Writing samples, references, and other materials that would reflect the candidate's ability to perform the duties of a Hearing Officer will be evaluated. Based on the interviews the Panel will select candidates to recommend to the Board for appointment as Hearing Officers.

    A list of candidates will be submitted to OCERS employers and employee labor groups who will be given a brief summary of the qualifications of the candidates. They will have fifteen (15) days to comment.

Hearing Officer Agreement

10. Each Hearing Officer will execute an Agreement for Hearing Officer Services (Agreement). The term of that Agreement will be for six (6) years and will allow for the termination of the Agreement by either party with cause.

1.

The Agreement will terminate at the end of the six-year (6) term, however, the term may be extended for the Hearing Officer to complete any appeals that are not yet final (as defined by the OCERS Administrative Review and Hearing Policy). Upon expiration of the Agreement, the Hearing Officer is prohibited from reapplying to serve as a Hearing Officer for a period of two (2) years after the expiration of the previous Agreement.

The Agreement will contain a provision stating the Hearing Officer agrees they will be bound by OCERS' Administrative Review and Hearing Policy and their duties will be performed within the time frames set forth in the policy.

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Each Agreement will contain a provision stating the Hearing Officer agrees they are subject to and bound by the provisions of subdivision D of Canon 6 of the Code of Judicial Ethics.

The Proposed Findings of Fact and Recommended Decisions issued by the Hearing Officer will be reviewed by the General Counsel or their designee to determine whether they are well-reasoned and logically apply the law to the facts of a given case. The General Counsel or their designee may evaluate any Hearing Officer during the term of the Agreement to determine if cause exists to terminate the Agreement. Cause for termination may include a finding by the General Counsel that the Hearing Officer has engaged in fraudulent billing practices, or disciplined by the State Bar of California, failing to maintain an active status with the State Bar of California, or for any other material breach of the Agreement.

Number of Hearing Officers

11. The General Counsel will maintain a panel of Hearing Officers sufficient to meet OCERS' needs.

Compensation

12. Before the issuance of any RFP the General Counsel will review the contracted rate of pay for OCERS' Hearing Officers and determine if that rate is competitive with rates paid for Hearing Officer services by other public retirement systems.
13. Based on this review, the General Counsel may recommend that the Board of Retirement consider modifications to the Hearing Officers' rate of pay.

Document Terms

14. For purposes of this policy, the term Hearing Officer shall have the same meaning as the term referee, as that term is used in the relevant sections of the California Government Code.

Policy Review

15. The Board will review this Policy at least every three (3) years to ensure that it remains relevant and appropriate.

Policy History

16. This Policy was adopted by the Board on April 17, 2000. It was amended on February 22, 2005 and May 16, 2005; reviewed on June 18, 2007 with no changes; and amended on August 23, 2010, January 21, 2014, December 19, 2016, January 16, 2018, April 19, 2021, and [date].

Secretary's Certificate

I, the undersigned, the duly appointed Secretary of the Orange County Employees Retirement System, hereby certify the adoption of this policy.

Steve Delaney

Steve Delaney, Secretary of the Board

Date

OCERS Board Policy

Hearing Officer Selection and Retention Policy

ORANGE COUNTY OCERS EMPLOYEES RETIREMENT SYSTEM

OCERS Administrative Procedure (OAP)

Disability Presumptions

I. Purpose

The purpose of this OCERS administrative procedure (OAP) is to describe how the OCERS~~[1]~~ Board of Retirement (Board), the Board's Disability Committee, and the OCERS Chief Executive Officer (CEO) apply the rules governing disability presumptions under Government Code sections 31720.5, 31720.6, 31720.7, 31720.9, 31720.91, 31720.92, 31720.93, 31720.96, and 31720.97~~7523.1, and 7523.2~~.

II. Authority

This OAP is established pursuant to the CEO Charter, which directs the CEO to develop staff policies and procedures to ensure the effective and efficient administration of member benefits. The OAP is in conformance with Board policy, the County Employees Retirement Law (California Government Code section 31450, *et seq.*) (CERL), and the Public Employees' Pension Reform Act (Government Code, sections 7522 - 7522.74) (PEPRA).

III. Introduction

A member of OCERS is eligible for a service-connected disability retirement allowance if:

1. The Board finds the member permanently incapacitated, physically or mentally, from performing the usual duties of ~~any~~ a permanent assignment within their job classification;[i] and
2. The incapacity arose out of and in the course of their employment, and such employment contributed substantially to their being incapacitated.[ii]

This "arose out of and in the course of employment" element (sometimes referred to as AOE/COE or industrial causation) is necessary for service-connection. The member must establish that the incapacitating injury or disease arose out of and in the course of employment by offering evidence of a real and measurable connection between the employment and the injury or illness that causes the permanent incapacity.[iii] Normally, ~~T~~the member has the burden to prove this connection by a preponderance of the evidence.

Ultimately, the Board determines from the evidence whether there is or is not a sufficient causal connection between the employment and the incapacity for the disability to be service-connected.

The disability presumptions ("heart trouble" at Gov. Code, § 31720.5, cancer at § 31720.6, blood-borne infectious disease or MRSA skin infection at § 31720.7, ~~and~~ exposure to biochemical substances at § 31720.9, post-traumatic stress disorder at § 31720.91, tuberculosis at § 31720.92, meningitis at § 31720.93, ~~skin cancer at § 31720.94, Lyme disease at § 31720.95,~~ lower back

ORANGE COUNTY OCERS EMPLOYEES RETIREMENT SYSTEM

impairments at § 31720.96, and hernia or pneumonia at § 31720.97) relieve the member of their burden to prove ~~provide a means of establishing the~~ service-connection.[iv] ~~ed~~

~~element for disability retirement when the member is unable to prove directly that their employment substantially contributed to their incapacity. In addition, there is a COVID-19 presumption that is effective until January 1, 2024.~~Each presumption statute specifies prerequisites that a member must satisfy in order for the presumption to apply. It is the member's burden to establish these prerequisites by a preponderance of the evidence. **Upon doing so, the presumption applies, and the member does not have to prove industrial causation; instead, OCERS must disprove it.**

The~~se~~ presumption statutes do not create a presumption that the member is incapacitated for duty. **The member ~~must~~ still** bears the burden of **prov**ing~~e~~ **that they are permanently incapacitated. ~~Then, if a preponderance of the evidence establishes the other prerequisites for triggering the presumption, the incapacity is presumed to be service-connected.~~**

~~When the criteria of a disability presumption are met, the member is relieved of the burden of proving that the incapacitating injury or illness arose out of and in the course of employment, and industrial causation is presumed to exist. Accordingly, the member's burden is only to prove the existence of the prerequisites specified in the Government Code section that give rise to the presumption of service-connection.~~

~~By establishing the criteria of one of the disability presumptions, the member does not have to prove industrial causation; instead, OCERS must disprove it.~~

The presumptions are rebuttable, i.e., they may be overcome by contrary evidence. A rebuttable presumption establishes the existence of a fact unless evidence is introduced which would support a finding that the presumed fact does not exist.[v] For example, the heart trouble presumption (Gov. Code, § 31720.5) shifts the burden of proof on the issue of service-connection from the ~~public safety worker~~member ~~, who would otherwise have to prove that their heart trouble arose out of and in the course of employment and that the employment contributed substantially to the disability,~~ to the ~~employer~~ retirement system, which must~~to~~ prove that the heart trouble did not arise out of ~~and~~ or occur in the course of employment.

IV. Heart Trouble Presumption

If a member in one of the designated occupations has at least five years of service credit and becomes permanently incapacitated due to heart trouble, it will be presumed that the heart trouble developed out of and in the course and scope of their employment~~, unless there is evidence of a contemporaneous non-industrial cause~~. Unless rebutted, ~~T~~the member's ~~resulting~~ disability retirement will be ~~deemed~~ service-connected.

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Disability Presumptions

Prerequisites for application of the heart trouble presumption under Gov. Code, § 31720.5

1. **The member must be a safety member,[vi] a fireman member, or a member in active law enforcement**
   - "Fireman member" and "member in active law enforcement" include~~s~~ a member engaged in active fire suppression or active law enforcement *regardless* of whether they are a safety member.
   - "Active law enforcement" includes positions with principal duties which pertain to the active investigation and suppression of crime, the arrest and detention of criminals, and the administrative control of such duties in the offices of the sheriff and district attorney, including Sheriff's Special Officers (SSOs).[vii]
2. **The member must have at least five years of service**
   - The member must have completed five years or more of service with OCERS, another retirement system established under the CERL or the Public Employees Retirement System (CalPERS), or a pension system established by the County Peace Officers' Retirement Law (Gov. Code, §§ 31900, *et seq*.), or the County Fire Service Retirement Law (Gov. Code, §§ 32200, *et seq*.). The "five years or more of service" does not have to be entirely with the county from which the member is retiring.
3. **The member must develop heart trouble**
   - "Heart trouble" is any disease or malfunction of the heart.
   - The heart trouble must ~~begin~~ develop or manifest ~~prior to the termination of service or the last day on which the member worked in the specified occupation~~during a period while the member is in the service of the specified department, office, or unit.
4. **Time limit**
   - The presumption is extended to a member following termination of service for a period of 3 calendar months for each full year of the requisite service, but shall not exceed 60 months regardless of the member's length of service, commencing with the last date the member actually worked as a firefighter member or member in active law enforcement. The member is permitted to demonstrate incapacity within the period that the presumption applies, even if the incapacity manifests after termination of service.~~three (3) calendar months for each full year of requisite service, but shall not exceed 60 months, and commencing with the last date the member actually worked in the classification.~~

ORANGE COUNTY OCERS EMPLOYEES RETIREMENT SYSTEM

OCERS Administrative Procedure (OAP)

Disability Presumptions

Once the member establishes ~~that they are in one of the designated occupations, have sufficient years of service, and developed heart trouble that is permanently incapacitating~~these prerequisites, the presumption of service connection will apply unless OCERS rebuts it.

The presumption is rebuttable by evidence to the contrary. OCERS may also prove the member did not meet one or more prerequisites.

The presumption includes a **non-attribution provision** stating that the heart trouble will not be attributed to any disease existing before the development or manifestation of the heart trouble. However, the presumption may be rebutted by, for example, proof that a contemporaneous nonwork-related event was the cause of the heart trouble.

V. Cancer Presumption

If a member in one of the designated occupations has at least five years of service credit and becomes permanently incapacitated due to cancer ~~If a specified safety member with at least five years of service credit becomes permanently incapacitated due to a **non-skin** cancer~~ and establishes they were exposed to a known carcinogen as a result of the performance of their job duties, it will be presumed that the cancer developed out of and in the course of employment. Unless rebutted, ~~T~~the resulting disability retirement ~~allowance~~ will be service-connected.

Prerequisites for application of the cancer presumption under Gov. Code, § 31720.6

1. **Occupation**
   - The member must be, or must have been, a safety member,[viii] a firefighter, or a member in active law enforcement.[ix]
   - "Firefighter" and "member in active law enforcement" include~~s~~ a member engaged in active fire suppression or active law enforcement *regardless* of whether they are a safety member.
   - "Member in active law enforcement " includes Sheriff’s Special Officers (SSOs).
2. **At least five years of service**

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Disability Presumptions

- The member must have completed five years or more of service with OCERS, another retirement system established under the CERL or the Public Employees Retirement System (CalPERS), or a pension system established by the County Peace Officers' Retirement Law (Gov. Code, §§ 31900, *et seq.*), or the County Fire Service Retirement Law (Gov. Code, §§ 32200, *et seq.*). The "five years or more of service" does not have to be entirely with the county from which the member is retiring.

3. The member develops ~~a *non-skin*~~ cancer

- The cancer must develop during a period while the member is in the service of the specified department or unit.

~~3.~~4. Permanent Incapacity

- The member must be permanently incapacitated for the performance of duty because of the cancer ~~to be entitled to the presumption~~.

~~4.~~5. Exposure to carcinogen

- The member must demonstrate that they were exposed to a "known carcinogen" due to the performance of job duties.
- "Known carcinogen" is defined as a carcinogenic agent recognized by the International Agency for Research on Cancer (IARC) or the Director of the Division of Industrial Accidents.[x]
- There must be substantial evidence of a real and measurable exposure to a known carcinogen, albeit not necessarily a carcinogen that causes the cancer from which the member suffers.

~~5.~~6. Time limit

- The presumption is extended to a member following termination of service for a period of 3 calendar months for each full year of the requisite service, but shall not exceed 60 months in any circumstance, commencing with the last date the member actually worked in the specified capacity. The member is permitted to demonstrate incapacity within the period that the presumption applies, even if the incapacity manifests after termination of service. ~~The presumption is extended to a member three (3) calendar months for each full year of requisite service, but shall not exceed sixty (60) months, and commencing with the last date the member actually worked in the classification. The time limitation in Section 31720.6, subdivision (c), must not~~

~~have been exceeded. This presumption is extended to a member following termination of service for a period of three calendar months for each full year of the requisite service. The extension is from termination, but not to exceed sixty months commencing with the last day actually worked in the specified capacity, not from the date that service is discontinued. Therefore, if the member last worked in the specified occupation sixty months or more before the termination of service, the presumption does not apply.~~

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Once the member establishes these prerequisites, the presumption of service connection will apply unless OCERS rebuts it.~~Once the member establishes the six prerequisites above, the presumption of service connection will apply unless it is rebutted by OCERS.~~

The presumption is rebuttable by OCERS and may be controverted by evidence that the carcinogen to which the member has demonstrated exposure is not reasonably linked to the disabling cancer, *provided* that the primary site of the cancer has been established. Therefore, to rebut the presumption of service-connection, evidence must be provided that (1) the primary site of the cancer is established and (2) that exposure to the identified carcinogen is not reasonably linked to the member's disabling cancer.

The presumption includes a non-attribution provision stating that the cancer will not be attributed to any disease existing prior to the development or manifestation of the cancer. Therefore, OCERS may not rebut the presumption by attributing the cancer to disease the member had previously.

~~Skin Cancer Presumption~~

~~If a specified safety member with at least five years of service credit becomes permanently incapacitated due to a ***skin*** cancer and establishes they were exposed to a known carcinogen as a result of the performance of their job duties, it will be presumed that the cancer developed out of and in the course of employment. The resulting disability retirement allowance will be service-connected.~~

~~Prerequisites for application of the skin cancer presumption under Gov. Code, § 31720.94~~

- **~~Occupation~~**
  - ~~The member must be, or must have been, an active lifeguard.~~ [xi]
- **~~At least three months of service~~**

- ~~The member must have completed three consecutive months or more of service as an active lifeguard.~~

~~**The member develops a skin cancer**~~

- ~~The skin cancer must develop or manifest while the member is in service.~~

~~**Permanent Incapacity**~~

- ~~The member must be permanently incapacitated for the performance of duty because of the cancer to be entitled to the presumption.~~

~~**Time limit**~~

- ~~The presumption is extended to a member three (3) calendar months for each full year of requisite service, but shall not exceed sixty (60) months, and commencing with the last date the member actually worked in the classification.~~

~~The presumption is rebuttable by evidence to the contrary. To rebut the presumption, OCERS must prove the member did not meet one or more prerequisites.~~

VI. Blood-borne Infectious Disease Presumption

If a member in one of the designated occupations ~~and~~ becomes permanently incapacitated due to ~~exposure to~~ a blood-borne infectious disease or methicillin-resistant Staphylococcus aureus skin infection (MRSA), it will be presumed that the disease developed out of and in the course of their employment~~, unless rebutted by contrary evidence~~. Unless rebutted, ~~T~~the resulting disability retirement will ~~thus~~ be ~~considered~~ service-connected.

Prerequisites for application of the blood-borne infectious disease presumption under Gov. Code, § 31720.7

1. **Occupation**

- The member must be, or must have been, a safety member,[xii] a firefighter, a county probation officer, or a member in active law enforcement. A "member in active law enforcement" is expressly defined for purposes of Section 31720.7[xiii] and encompasses Sheriff's Special Officers.~~[xiv]~~

- ~~A "member in active law enforcement" includes those who are not classified as a safety member and Sheriff's Special Officers (SSOs).~~

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- *Absent from the blood-borne infectious disease presumption is the requirement that the member have five years of service.*

2. **Member develops blood borne disease or MRSA**

- "Blood borne infectious disease" is defined as "a disease caused by exposure to pathogenic microorganisms that are present in human blood that can cause disease in humans, including, but not limited to, those pathogenic microorganisms defined as blood-borne pathogens by the Department of Industrial Relations." ~~(Gov. Code, § 31720.7, subsection (d))[xv].~~
- The Department of Industrial Relations has defined the following as blood borne pathogens: hepatitis B virus (HBV), hepatitis C virus (HCV), and human immunodeficiency virus (HIV).[xvi]
- Proof of on-the-job exposure to a blood borne infectious disease or MRSA is *not* required for the presumption to arise.
- The blood-borne infectious disease or MRSA must develop or manifest during a period while the member is in the service of the specified office, staff, division, department, or unit.

3. **Member becomes incapacitated for duty**

- The permanent incapacity must result from blood borne infectious disease or MRSA skin infection.

4. **Time limit~~limitation to develop disease not exceeded~~**

- In the case of a blood-borne disease, the presumption is extended to a member following termination of service for a period of 3 calendar months for each full year of the requisite service, but shall not exceed 60 months in any circumstance, commencing with the last date the member actually worked in the specified capacity. ~~In the case of a blood-borne infectious disease, this presumption is extended to a member following termination of service for a period of three (3) calendar months for each full year of the requisite service, but not to exceedshall not exceed sixty (60) months, commencing with the last date actually worked in the specified capacity. For example, a firefighter with three years of service would be eligible for the presumption if the disease developed within nine months of the date they stopped working.~~
- In the case of a MRSA skin infection, the presumption is extended to a member following termination of service for a period of ninety days, commencing with the last day actually worked in the specified capacity.

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Disability Presumptions

- The member is permitted to demonstrate incapacity within the period that the presumption applies, even if the incapacity manifests after termination of service.

Once the member establishes these prerequisites, the presumption of service connection will apply unless OCERS rebuts it.

The presumption is rebuttable by ~~other evidence~~evidence to the contrary. ~~To rebut the presumption,~~ OCERS ~~must~~ may also prove the member did not meet one or more prerequisites.

The presumption includes a non-attribution provision stating that the blood-borne infectious disease or MRSA will in no case be attributed to any disease or skin infection existing prior to its development or manifestation.

VII. Exposure to Biochemical Substances Presumption

If a member in one of the designated occupations becomes ill or dies due to exposure to a biochemical substance, it will be presumed that the illness or injury resulting from exposure to a biochemical substance developed out of and in the course of employment.~~,~~ ~~u~~Unless rebutted by contrary evidence, ~~. Thus,~~ the resulting disability will be considered service-connected.

Prerequisites for application of the biochemical substance exposure presumption under Gov. Code, § 31720.9

1. **Occupation**

- The member must be a "p~~P~~eace o~~O~~fficer" ~~(~~as defined in Penal Code sections 830.1 to 830.5, ~~)~~ or a f~~F~~irefighter. Peace officers include a sheriff, undersheriff, deputy sheriff, district attorney investigator, and probation officers.
- Section 31720.9 does not expressly include those who are engaged in active law enforcement or active firefighting who are not safety members but does exclude a member whose principal duties are clerical or otherwise do not fall within the scope of active law enforcement services or active firefighting services, such as stenographers, telephone operators, and other office workers (Gov. Code, § 31720.9, subsection (d)).
- *Absent from the biochemical substance presumption is the requirement that the member have five years of service.*

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2. **Exposure to a biochemical substance**

   - The member must identify the actual exposure to a weaponized biological or chemical agent, or nuclear or radiological agent, as defined in Penal Code § 11417.[xvii]

3. **Member must be permanently incapacitated from exposure to a biochemical substance**

   - The member must become ill (or die) due to exposure to a biochemical substance, and the illness must render them permanently incapacitated for the performance of duty.

4. **The illness ~~(or death)~~ must develop or manifest during a period in which the member is in the service of the department or unit~~resulting from the exposure must manifest while in service or within the extended period.~~**

~~4.~~5. ~~Ti~~ **Time Limit**

   - ~~This~~ The presumption is extended to a member following termination of service for a period of three (3) calendar months for each full year of the requisite service, but ~~not to~~shall not exceed sixty (60) months in any circumstance, commencing with ~~from~~ the last date actually worked in the specified capacity. The member is permitted to demonstrate incapacity within the period that the presumption applies, even if the incapacity manifests after termination of service.

Once the member establishes these prerequisites, the presumption of service connection will apply unless OCERS rebuts it.

The presumption may be rebutted by ~~other evidence~~evidence to the contrary. OCERS may also prove the member did not meet one or more prerequisites. The presumption includes a non-attribution provision, stating that the illness that develops or manifests due to the exposure will not be attributed to any illness existing prior to that development or manifestation. However, OCERS may rebut the presumption by, for example, evidence that there was no exposure, that the member is not incapacitated by the resulting illness, or by scientific evidence that there is no reasonable link between the specific exposure and the incapacitating illness.

VIII. Post-Traumatic Stress Disorder Presumption

(effective until January 1, 2025)

If a member in one of the designated occupations becomes permanently incapacitated due to post-traumatic stress disorder ("PTSD"), it will be presumed that the disorder arose out of and in the course of employment. Unless rebutted, ~~T~~the resulting disability retirement ~~allowance~~ will be service-connected.

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OCERS Administrative Procedure (OAP)

Disability Presumptions

Prerequisites for application of the PTSD presumption under Gov. Code, § 31720.91

1. Occupation

- The member must be, or must have been, in a classification listed under Labor Code section 3212.15, which includes ~~an~~ active firefighting members ~~or~~ and peace officers primarily engaged in active law enforcement, including members of a sheriff's office, district attorney investigators, and probation officers.~~.~~[xviii]

~~"Peace officer" includes a member engaged in active law enforcement.~~

2. The Member develops PTSD

- The PTSD must develop or manifest itself while the member is in the service of a specified department, office, or unit.
- The PTSD ~~is defined as "a~~must be diagnosed~~is~~ based on the most recent edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM) published by the American Psychiatric Association.[xix]~~"~~ ~~(Gov. Code, § 31720.91, subsection (c)(1)).~~

3. Permanent Incapacity

- The member must be permanently incapacitated ~~for the performance of duty~~ because of the PTSD ~~to be entitled to the presumption~~.

4. Time limit

- The presumption is extended to a member following termination of service for a period of 3 calendar months for each full year of the requisite service, but shall not exceed 60 months regardless of the member's length of service, commencing with the last date the member actually worked in the classification specified. The member is permitted to demonstrate incapacity within the period that the presumption applies, even if the incapacity manifests after termination of service.~~The presumption is extended to a member three (3) calendar months for each full year of requisite service, but shall not exceed 60 months, and commencing with the last date the member actually worked in the classification.~~

5. The presumption expires January 1, 2025

Once the member establishes these prerequisites, the presumption of service connection will apply unless OCERS rebuts it.

The presumption is rebuttable by evidence to the contrary. OCERS may also prove the member did not meet one or more prerequisites. ~~To rebut the presumption, OCERS must prove the member did not meet one or more prerequisites.~~

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Disability Presumptions

IX. Tuberculosis Presumption

If a member in one of the designated occupations becomes permanently incapacitated due to tuberculosis, it will be presumed that the disorder arose out of and in the course of employment. Unless rebutted, ~~T~~the resulting disability retirement ~~allowance~~ will be service-connected.

Prerequisites for application of the tuberculosis presumption under Gov. Code, § 31720.92

1. **Occupation**
   - The member must be, or must have been, in a classification listed under Labor Code section 3212.6, which includes members of a sheriff's department, fire department, district attorney investigators, prison or jail guards, or correctional officers whose principal duties clearly fall within the scope of active law enforcement, firefighting, or emergency first-aid response~~an *active* member of the Sheriff's office or Fire Department, a District Attorney Investigator, or a Correctional Officer~~. [xx]
   - ~~The presumption does not apply to members whose principal duties are clerical or do not clearly fall within the scope of active law enforcement, firefighting, or emergency first-aid response.~~
2. **The member develops tuberculosis**
   - The tuberculosis must develop or manifest during a period while the member is in the service of a specified department, office, or unit.
3. **Permanent Incapacity**
   - The member must be permanently incapacitated ~~for the performance of duty~~ because of the tuberculosis~~ to be entitled to the presumption~~.
4. **Time limit**
   - The presumption is extended to a member following termination of service for a period of 3 calendar months for each full year of the requisite service, but shall not exceed 60 months regardless of the member's length of service, commencing with the last date the member actually worked in the classification specified. The member is permitted to demonstrate incapacity within the period that the presumption applies, even if the incapacity manifests after termination of service.~~The presumption is extended to a member three (3) calendar months for each full year of requisite service, but shall not exceed 60 months, and commencing with the last date the member actually worked in the classification.~~

Once the member establishes these prerequisites, the presumption of service connection will apply unless OCERS rebuts it.

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Disability Presumptions

The presumption is rebuttable by evidence to the contrary. To rebut the presumption, OCERS must prove the member did not meet one or more prerequisites.

X. Meningitis Presumption

If a member in one of the designated occupations becomes permanently incapacitated due to meningitis, it will be presumed that the disorder arose out of and in the course of employment. Unless rebutted, ~~T~~the resulting disability retirement allowance will be service-connected.

Prerequisites for application of the meningitis presumption under Gov. Code, § 31720.93

1. Occupation

- The member must be, or must have been, in a classification listed under Labor Code Section 3212.9, which includes members of the sheriff's office, fire department, probation officers, and district attorney investigator whose principal duties clearly fall within the scope of active law enforcement or firefighting.~~an *active* member of the Sheriff's office or Fire Department, a District Attorney Investigator, or a Probation Officer.~~ [xxi]

~~The presumption does not apply to members whose principal duties are clerical or do not clearly fall within the scope of active law enforcement or firefighting.~~

2. The member develops meningitis

- The meningitis must develop or manifest while the member is in service.

3. Permanent Incapacity

- The member must be permanently incapacitated for the performance of duty because of the meningitis~~ to be entitled to the presumption~~.

4. Time limit

- The presumption is extended to a member following termination of service for a period of 3 calendar months for each full year of the requisite service, but shall not exceed 60 months regardless of the member's length of service, commencing with the last date the member actually worked in the classification specified. The member is permitted to demonstrate incapacity within the period that the presumption applies, even if the incapacity manifests after termination of service.~~The presumption is extended to a member three (3) calendar months for each full year of requisite service, but shall not exceed 60 months, and commencing with the last date the member actually worked in the classification.~~

Once the member establishes these prerequisites, the presumption of service connection will apply unless OCERS rebuts it.

The presumption is rebuttable by evidence to the contrary. ~~To rebut the presumption,~~ OCERS ~~must~~may also prove the member did not meet one or more prerequisites.

~~Lyme Disease Presumption~~

~~If a member in one of the designated occupations becomes permanently incapacitated due to Lyme disease, it will be presumed that the disorder arose out of and in the course of employment. The resulting disability retirement allowance will be service-connected.~~

~~**Prerequisites for application of the meningitis presumption under Gov. Code, § 31720.95**~~

- ~~**Occupation**~~
  - ~~The member must be, or must have been, a qualifying employee of the Attorney General, Department of Justice, Fish & Game, Parks & Recreation, or Forestry & Fire Protection.~~ [xxii]
- ~~**The member develops Lyme disease**~~
  - ~~The Lyme disease must develop or manifest while the member is in service.~~
- ~~**Permanent Incapacity**~~
  - ~~The member must be permanently incapacitated for the performance of duty because of the Lyme disease to be entitled to the presumption.~~
- ~~**Time limit**~~
  - ~~The presumption is extended to a member three (3) calendar months for each full year of requisite service, but shall not exceed 60 months, and commencing with the last date the member actually worked in the classification.~~

~~**The presumption is rebuttable by evidence to the contrary.** To rebut the presumption, OCERS must prove the member did not meet one or more prerequisites.~~

XI. Lower Back Impairment Presumption

If a member in one of the designated occupations becomes permanently incapacitated due to lower back impairments, it will be presumed that the disorder arose out of and in the course of

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employment. Unless rebutted, ~~T~~the resulting disability retirement ~~allowance~~ will be service-connected.

Prerequisites for application of the lower back impairment presumption under Gov. Code, § 31720.96

1. **Occupation**
   - The member must be, or must have been, in a classification listed under Labor Code Section 3213.2, which includes members of a sheriff's office.~~a member of a police department, sheriff's office, peace officer employed by the Department of the California Highway Patrol or by the University of California.~~ [xxiii]
2. **~~At least five years of service~~Employed full-time for at least five years**
   - The member must have been employed for at least five years on a full-time basis in a specified classification. The five years may include full-time employment while a member of OCERS or ~~completed five years or more of service with OCERS,~~ another retirement system established under the CERL, ~~or~~ the Public Employees Retirement System (CalPERS), ~~or~~ a pension system established by the County Peace Officers' Retirement Law (Gov. Code, §§ 31900, et seq.), or the County Fire Service Retirement Law (Gov. Code, §§ 32200, et seq.) The ~~"~~five years or more of full-time employment~~service"~~ do~~es~~ not have to be entirely with the county from which the member is retiring.
3. **Required to wear a duty belt**
   - The member must have been required to wear a duty belt as a condition of employment. "Duty belt" is defined as "a belt used for the purpose of holding a gun, handcuffs, baton, and other items related to law enforcement." [xxiv]
4. **The Member develops lower back impairment**
   - The lower back impairment must develop or manifest while the member is in the service of the specified department, office, or unit.
5. **Permanent Incapacity**
   - The member must be permanently incapacitated ~~for the performance of duty~~ because of the lower back impairment.~~s to be entitled to the presumption.~~
6. **Time limit**
   - The presumption is extended to a member following termination of service for a period of 3 calendar months for each full year of the requisite service, but shall not exceed 60 months regardless of the member's length of service, commencing with the last date

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the member actually worked in the classification specified. The member is permitted to demonstrate incapacity within the period that the presumption applies, even if the incapacity manifests after termination of service. ~~three (3) calendar months for each full year of requisite service, but shall not exceed 60 months, and commencing with the last date the member actually worked in the classification.~~

Once the member establishes these prerequisites, the presumption of service connection will apply unless OCERS rebuts it.

The presumption is rebuttable by evidence to the contrary. ~~To rebut the presumption,~~ OCERS ~~must~~may also prove the member did not meet one or more prerequisites.

XII. Hernia or Pneumonia Presumption

If a member in one of the designated occupations becomes permanently incapacitated due to hernia or pneumonia, it will be presumed that the disorder arose out of and in the course of employment. Unless rebutted, ~~T~~the resulting disability retirement ~~allowance~~ will be service-connected.

Prerequisites for application of the hernia or pneumonia presumption under Gov. Code, § 31720.97

1. Occupation

- The member must be, or must have been, in a classification listed under Labor Code Section 3213.2, which includes members of a sheriff's office and district attorney investigators whose principal duties clearly fall within the scope of active law enforcement, and members of a firefighting department, except those whose principal duties are clerical.~~a safety member,[xxv] a firefighter, or a member in active law enforcement.[xxvi]~~
- The presumption applies to a member whose principal duties are within the scope of ~~"Firefighter" and "member in~~ active law enforcement~~"~~ ~~includes a member engaged in~~or active fire suppression ~~or active law enforcement~~ *regardless* of whether they are a safety member.
- "Member in active law enforcement~~-~~" includes Sheriff's Special Officers (SSOs).

2. The member develops a hernia or pneumonia

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- The hernia or pneumonia must develop or manifest during a period while the member is in the service of the specified office, staff, division, department, or unit.

3. Permanent Incapacity

- The member must be permanently incapacitated ~~for the performance of duty~~ because of the hernia or pneumonia ~~to be entitled to the presumption~~.

4. Time limit

- The presumption is extended to a member following termination of service for a period of 3 calendar months for each full year of the requisite service, but shall not exceed 60 months regardless of the member's length of service, commencing with the last date the member actually worked in the classification specified. The member is permitted to demonstrate incapacity within the period that the presumption applies, even if the incapacity manifests after termination of service. ~~The presumption is extended to a member three (3) calendar months for each full year of requisite service, but shall not exceed 60 months, and commencing with the last date the member actually worked in the classification.~~

Once the member establishes these prerequisites, the presumption of service connection will apply unless OCERS rebuts it.

The presumption is rebuttable by evidence to the contrary. ~~To rebut the presumption,~~ OCERS ~~must~~may also prove the member did not meet one or more prerequisites.

~~VIII. COVID-19 Presumption~~ ~~*(effective only until January 1, 2024)*~~

~~If a member retires for disability due, in whole or in part, to a COVID-19-related illness, it will be presumed that the disability arose out of, or in the course of, the member's employment.[xxvii] Thus, the resulting disability retirement will be service-connected unless the presumption is rebutted by contrary evidence.~~

~~*Note that this presumption is not restricted to safety members and there is no requirement of at least five years of service.*~~

~~This COVID-19 disability retirement presumption will remain in effect until January 1, 2024.[xxviii]~~

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[i] See OCERS Administrative Procedure: Disability – Performance of Duty

[ii] Gov. Code, § 31720

[iii] *Bowen v. Board of Retirement* (1986) 42 Cal.3d 572, 577-579

[iv] Government Code section 31720.95 provides a presumption for Lyme disease. This presumption, however, does not apply to OCERS membership. The express language limits application to employees of various State of California agencies. In addition, Government Code section 31720.94 provides a presumption for skin cancer that applies only to active lifeguards. However, there are no active lifeguards within OCERS membership as of the effective date of this OCERS Administrative Procedure (OAP) Disability Presumptions.

[v] Evid. Code, §§ 604 and 606

[vi] "Safety member" is defined by Government Code sections 31469.3 and 31469.4. ~~§ 31469.4. "Safety members" defined~~

~~"Safety member" means persons employed as probation officers, juvenile hall or juvenile home group counselors, and group supervisors who are primarily engaged in the control and custody of delinquent youths who must be detained under physical security in order not to be harmful to themselves or others.~~

~~The provisions of this section shall not be applicable in any county until the board of supervisors by resolution make the provisions applicable.~~

~~Gov. Code, § 31469.4~~

[vii] 22 Ops.Cal.Atty.Gen. 227 (1953) at p. 229

[viii] "Safety member" is defined by Government Code sections 31469.3 and 31469.4. ~~as defined by Gov. Code, § 31469.4~~

[ix] "Active law enforcement" includes positions with principal duties which pertain to the active investigation and suppression of crime, the arrest and detention of criminals, and the administrative control of such duties in the offices of the sheriff and district attorney, including Sheriff's Special Officers (SSOs).

[x] For the IARC list of carcinogens go to the IARC web site at www.iarc.fr/. For the list of carcinogens recognized by the Director of the Division of Industrial Accidents, see Cal. Code Regs., tit. 8, § 330.

~~[xi] Labor Code § 3212.11~~

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[xii] "Safety member" is defined by Government Code sections 31469.3 and 31469.4.~~"Safety member" as defined by Gov. Code, § 31469.4~~

[xiii] "Member in active law enforcement" for purposes of Section 31720.7 is expressly defined as "members employed by a sheriff's office, by a police or fire department…or who are employed by any county forestry or firefighting department or unit, except any of those members whose principal duties are clerical or otherwise do not clearly fall within the scope of active law enforcement services or active firefighting services, such as stenographers, telephone operators, and other office workers, and includes a member engaged in active law enforcement who is not classified as a safety member." (Gov. Code, § 31720.7, subd. (e).)

~~[xiv] "Member in active law enforcement" for purposes of Section 31720.7 is expressly defined as "members employed by a sheriff's office, by a police or fire department…or who are employed by any county forestry or firefighting department to unit, except any of those members whose principal duties are clerical or otherwise do not clearly fall within the scope of active law enforcement services or active firefighting services, such as stenographers, telephone operators, and other office workers, and includes a member engaged in active law enforcement who is not classified as a safety member." (Gov. Code, § 31720.7, subd. (e).)means members employed by a sheriff's office, including Sheriff's Special Officers (SSOs), by a police or fire department of a city, county, city and county, or district or another public or municipal corporation or political subdivision, or who are described in Chapter 4.5 of the Penal Code, or members who are employed by a county forestry or firefighting department or unit, except any of those members whose principle duties are clerical or otherwise do not clearly fall within the scope of active law enforcement services or active firefighting services, such as stenographers, telephone operators, and other office workers, and includes a member engaged in active law enforcement who is not classified as a safety member.~~

[xv] Gov. Code, § 31720.7, subd. (d).

[xvi] Cal. Code Regs., tit. 8, § 5193

[xvii] § 11417. Definitions

(a) For the purposes of this article, the following terms have the following meanings:

(1) "Weapon of mass destruction" includes chemical warfare agents, weaponized biological or biologic warfare agents, restricted biological agents, nuclear agents, radiological agents, or the intentional release of industrial agents as a weapon, or an aircraft, vessel, or vehicle, as described in Section 34500 of the Vehicle Code, which is used as a destructive weapon.

(2) "Chemical Warfare Agents" includes, but is not limited to, the following weaponized agents, or any analog of these agents:

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(A) Nerve agents, including Tabun (GA), Sarin (GB), Soman (GD), GF, and VX.

(B) Choking agents, including Phosgene (CG) and Diphosgene (DP).

(C) Blood agents, including Hydrogen Cyanide (AC), Cyanogen Chloride (CK), and Arsine (SA).

(D) Blister agents, including mustards (H, HD [sulfur mustard], HN-1, HN-2, HN-3 [nitrogen mustard]), arsenicals, such as Lewisite (L), urticants, such as CX; and incapacitating agents, such as BZ.

(3) "Weaponized biological or biologic warfare agents" include weaponized pathogens, such as bacteria, viruses, rickettsia, yeasts, fungi, or genetically engineered pathogens, toxins, vectors, and endogenous biological regulators (EBRs).

(4) "Nuclear or radiological agents" includes any improvised nuclear device (IND) which is any explosive device designed to cause a nuclear yield; any radiological dispersal device (RDD) which is any explosive device utilized to spread radioactive material; or a simple radiological dispersal device (SRDD) which is any act or container designed to release radiological material as a weapon without an explosion.

(5) "Vector" means a living organism or a molecule, including a recombinant molecule, or a biological product that may be engineered as a result of biotechnology, that is capable of carrying a biological agent or toxin to a host.

(6) "Weaponization" is the deliberate processing, preparation, packaging, or synthesis of any substance for use as a weapon or munition. "Weaponized agents" are those agents or substances prepared for dissemination through any explosive, thermal, pneumatic, or mechanical means.

(7) For purposes of this section, "used as a destructive weapon" means to use with the intent of causing widespread great bodily injury or death by causing a fire or explosion or the release of a chemical, biological, or radioactive agent.

(b) The intentional release of a dangerous chemical or hazardous material generally utilized in an industrial or commercial process shall be considered use of a weapon of mass destruction when a person knowingly utilizes those agents with the intent to cause harm and the use places persons or animals at risk of serious injury, illness, or death, or endangers the environment.

(c) The lawful use of chemicals for legitimate mineral extraction, industrial, agricultural, or commercial purposes is not proscribed by this article.

(d) No university, research institution, private company, individual, or hospital engaged in scientific or public health research and, as required, registered with the Centers for Disease Control and Prevention (CDC) pursuant to Part 113 (commencing with Section 113.1) of Subchapter E of Chapter 1 of Title 9 or

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pursuant to Part 72 (commencing with Section 72.1) of Subchapter E of Chapter 1 of Title 42 of the Code of Federal Regulations, or any successor provisions, shall be subject to this article.

Pen. Code, § 11417

[xviii] Labor Code § 3212.15

[xix] The DSM V-TR is the most recent edition as of the effective date of this OCERS Administrative Procedure (OAP) Disability Presumptions.

[xx] Labor Code § 3212.6.

[xxi] Labor Code § 3212.9.

~~[xxii] Labor Code § 3212.12.~~

[xxiii] Labor Code § 3213.2.

[xxiv] Labor Code § 3213.2.

~~[xxv] "Safety member" as defined by Gov. Code, § 31469.4~~

[xxvi] "Active law enforcement" includes positions with principal duties which pertain to the active investigation and suppression of crime, the arrest and detention of criminals, and the administrative control of such duties in the offices of the sheriff and district attorney, including Sheriff's Special Officers (SSOs).

~~[xxvii] Gov. Code, § 7523.1~~

~~[xxviii] Gov. Code, § 7523.2~~

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I. Purpose

The purpose of this OCERS administrative procedure (OAP) is to describe how the OCERS Board of Retirement (Board), the Board's Disability Committee, and the OCERS Chief Executive Officer (CEO) apply the rules governing disability presumptions under Government Code sections 31720.5, 31720.6, 31720.7, 31720.9, 31720.91, 31720.92, 31720.93, 31720.96, and 31720.97.

II. Authority

This OAP is established pursuant to the CEO Charter, which directs the CEO to develop staff policies and procedures to ensure the effective and efficient administration of member benefits. The OAP is in conformance with Board policy, the County Employees Retirement Law (California Government Code section 31450, *et seq*.) (CERL), and the Public Employees' Pension Reform Act (Government Code, sections 7522 - 7522.74) (PEPRA).

III. Introduction

A member of OCERS is eligible for a service-connected disability retirement allowance if:

1. The Board finds the member permanently incapacitated, physically or mentally, from performing the usual duties of a permanent assignment within their job classification;[i] and
2. The incapacity arose out of and in the course of their employment, and such employment contributed substantially to their being incapacitated.[ii]

This "arose out of and in the course of employment" element (sometimes referred to as AOE/COE or industrial causation) is necessary for service-connection. The member must establish that the incapacitating injury or disease arose out of and in the course of employment by offering evidence of a real and measurable connection between the employment and the injury or illness that causes the permanent incapacity.[iii] Normally, the member has the burden to prove this connection by a preponderance of the evidence.

Ultimately, the Board determines from the evidence whether there is or is not a sufficient causal connection between the employment and the incapacity for the disability to be service-connected.

The disability presumptions ("heart trouble" at Gov. Code, § 31720.5, cancer at § 31720.6, blood-borne infectious disease or MRSA skin infection at § 31720.7, exposure to biochemical substances at § 31720.9, post-traumatic stress disorder at § 31720.91, tuberculosis at § 31720.92, meningitis at § 31720.93, lower back impairments at § 31720.96, and hernia or pneumonia at § 31720.97) relieve the member of their burden to prove service-connection. [iv]

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Each presumption statute specifies prerequisites that a member must satisfy in order for the presumption to apply. It is the member's burden to establish these prerequisites by a preponderance of the evidence. **Upon doing so, the presumption applies, and the member does not have to prove industrial causation; instead, OCERS must disprove it.**

The presumption statutes do not create a presumption that the member is incapacitated for duty. **The member still bears the burden of proving that they are permanently incapacitated.**

The presumptions are rebuttable, i.e., they may be overcome by contrary evidence. A rebuttable presumption establishes the existence of a fact unless evidence is introduced which would support a finding that the presumed fact does not exist.[v] For example, the heart trouble presumption (Gov. Code, § 31720.5) shifts the burden of proof on the issue of service-connection from the member to the retirement system, which must prove that the heart trouble did not arise out of or occur in the course of employment.

IV. Heart Trouble Presumption

If a member in one of the designated occupations has at least five years of service credit and becomes permanently incapacitated due to heart trouble, it will be presumed that the heart trouble developed out of and in the course and scope of their employment. Unless rebutted, the member's disability retirement will be service-connected.

Prerequisites for application of the heart trouble presumption under Gov. Code, § 31720.5

1. **The member must be a safety member,[vi] a fireman member, or a member in active law enforcement**
   - "Fireman member" and "member in active law enforcement" include a member engaged in active fire suppression or active law enforcement *regardless* of whether they are a safety member.
   - "Active law enforcement" includes positions with principal duties which pertain to the active investigation and suppression of crime, the arrest and detention of criminals, and the administrative control of such duties in the offices of the sheriff and district attorney, including Sheriff's Special Officers (SSOs).[vii]
2. **The member must have at least five years of service**
   - The member must have completed five years or more of service with OCERS, another retirement system established under the CERL or the Public Employees Retirement System (CalPERS), or a pension system established by the County Peace Officers' Retirement Law (Gov. Code, §§ 31900, *et seq.*), or the County Fire Service

Retirement Law (Gov. Code, §§ 32200, *et seq*.). The "five years or more of service" does not have to be entirely with the county from which the member is retiring.

3. **The member must develop heart trouble**
   - "Heart trouble" is any disease or malfunction of the heart.
   - The heart trouble must develop or manifest during a period while the member is in the service of the specified department, office, or unit.
4. **Time limit**
   - The presumption is extended to a member following termination of service for a period of 3 calendar months for each full year of the requisite service, but shall not exceed 60 months regardless of the member's length of service, commencing with the last date the member actually worked as a firefighter member or member in active law enforcement. The member is permitted to demonstrate incapacity within the period that the presumption applies, even if the incapacity manifests after termination of service.

Once the member establishes these prerequisites, the presumption of service connection will apply unless OCERS rebuts it.

The presumption is rebuttable by evidence to the contrary. OCERS may also prove the member did not meet one or more prerequisites.

The presumption includes a **non-attribution provision** stating that the heart trouble will not be attributed to any disease existing before the development or manifestation of the heart trouble. However, the presumption may be rebutted by, for example, proof that a contemporaneous nonwork-related event was the cause of the heart trouble.

V. Cancer Presumption

If a member in one of the designated occupations has at least five years of service credit and becomes permanently incapacitated due to cancer and establishes they were exposed to a known carcinogen as a result of the performance of their job duties, it will be presumed that the cancer developed out of and in the course of employment. Unless rebutted, the resulting disability retirement will be service-connected.

Prerequisites for application of the cancer presumption under Gov. Code, § 31720.6

1. **Occupation**
   - The member must be, or must have been, a safety member,[viii] a firefighter, or a member in active law enforcement.[ix]

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- "Firefighter" and "member in active law enforcement" include a member engaged in active fire suppression or active law enforcement *regardless* of whether they are a safety member.
- "Member in active law enforcement " includes Sheriff's Special Officers (SSOs).

2. At least five years of service

- The member must have completed five years or more of service with OCERS, another retirement system established under the CERL or the Public Employees Retirement System (CalPERS), or a pension system established by the County Peace Officers' Retirement Law (Gov. Code, §§ 31900, *et seq*.), or the County Fire Service Retirement Law (Gov. Code, §§ 32200, *et seq*.). The "five years or more of service" does not have to be entirely with the county from which the member is retiring.

3. The member develops cancer

- The cancer must develop during a period while the member is in the service of the specified department or unit.

4. Permanent Incapacity

- The member must be permanently incapacitated for the performance of duty because of the cancer.

5. Exposure to carcinogen

- The member must demonstrate that they were exposed to a "known carcinogen" due to the performance of job duties.
- "Known carcinogen" is defined as a carcinogenic agent recognized by the International Agency for Research on Cancer (IARC) or the Director of the Division of Industrial Accidents.[x]
- There must be substantial evidence of a real and measurable exposure to a known carcinogen, albeit not necessarily a carcinogen that causes the cancer from which the member suffers.

6. Time limit

- The presumption is extended to a member following termination of service for a period of 3 calendar months for each full year of the requisite service, but shall not exceed 60 months in any circumstance, commencing with the last date the member actually worked in the specified capacity. The member is permitted to demonstrate incapacity within the period that the presumption applies, even if the incapacity manifests after termination of service.

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Once the member establishes these prerequisites, the presumption of service connection will apply unless OCERS rebuts it.

The presumption is rebuttable by OCERS and may be controverted by evidence that the carcinogen to which the member has demonstrated exposure is not reasonably linked to the disabling cancer, *provided* that the primary site of the cancer has been established. Therefore, to rebut the presumption of service-connection, evidence must be provided that (1) the primary site of the cancer is established and (2) that exposure to the identified carcinogen is not reasonably linked to the member's disabling cancer.

The presumption includes a non-attribution provision stating that the cancer will not be attributed to any disease existing prior to the development or manifestation of the cancer. Therefore, OCERS may not rebut the presumption by attributing the cancer to disease the member had previously.

VI. Blood-borne Infectious Disease Presumption

If a member in one of the designated occupations becomes permanently incapacitated due to a blood-borne infectious disease or methicillin-resistant Staphylococcus aureus skin infection (MRSA), it will be presumed that the disease developed out of and in the course of their employment. Unless rebutted, the resulting disability retirement will be service-connected.

Prerequisites for application of the blood-borne infectious disease presumption under Gov. Code, § 31720.7

1. **Occupation**
   - The member must be, or must have been, a safety member,[xi] a firefighter, a county probation officer, or a member in active law enforcement. A "member in active law enforcement" is expressly defined for purposes of Section 31720.7[xii] and encompasses Sheriff's Special Officers.
   - *Absent from the blood-borne infectious disease presumption is the requirement that the member have five years of service.*
2. **Member develops blood borne disease or MRSA**
   - "Blood borne infectious disease" is defined as "a disease caused by exposure to pathogenic microorganisms that are present in human blood that can cause disease in humans, including, but not limited to, those pathogenic microorganisms defined as blood-borne pathogens by the Department of Industrial Relations."[xiii]

- The Department of Industrial Relations has defined the following as blood borne pathogens: hepatitis B virus (HBV), hepatitis C virus (HCV), and human immunodeficiency virus (HIV).[xiv]
- Proof of on-the-job exposure to a blood borne infectious disease or MRSA is *not* required for the presumption to arise.
- The blood-borne infectious disease or MRSA must develop or manifest during a period while the member is in the service of the specified office, staff, division, department, or unit.

3. **Member becomes incapacitated for duty**
   - The permanent incapacity must result from blood borne infectious disease or MRSA skin infection.
4. **Time limit**
   - In the case of a blood-borne disease, the presumption is extended to a member following termination of service for a period of 3 calendar months for each full year of the requisite service, but shall not exceed 60 months in any circumstance, commencing with the last date the member actually worked in the specified capacity.
   - In the case of a MRSA skin infection, the presumption is extended to a member following termination of service for a period of ninety days, commencing with the last day actually worked in the specified capacity.
   - The member is permitted to demonstrate incapacity within the period that the presumption applies, even if the incapacity manifests after termination of service.

Once the member establishes these prerequisites, the presumption of service connection will apply unless OCERS rebuts it.

The presumption is rebuttable by evidence to the contrary. OCERS may also prove the member did not meet one or more prerequisites. The presumption includes a non-attribution provision stating that the blood-borne infectious disease or MRSA will in no case be attributed to any disease or skin infection existing prior to its development or manifestation.

VII. Exposure to Biochemical Substances Presumption

If a member in one of the designated occupations becomes ill or dies due to exposure to a biochemical substance, it will be presumed that the illness or injury resulting from exposure to a biochemical substance developed out of and in the course of employment. Unless rebutted by contrary evidence, the resulting disability will be considered service-connected.

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Prerequisites for application of the biochemical substance exposure presumption under Gov. Code, § 31720.9

1. **Occupation**
   - The member must be a "peace officer" as defined in Penal Code sections 830.1 to 830.5, or a firefighter. Peace officers include a sheriff, undersheriff, deputy sheriff, district attorney investigator, and probation officers.
   - Section 31720.9 does not expressly include those who are engaged in active law enforcement or active firefighting who are not safety members but does exclude a member whose principal duties are clerical or otherwise do not fall within the scope of active law enforcement services or active firefighting services, such as stenographers, telephone operators, and other office workers (Gov. Code, § 31720.9, subsection (d)).
   - *Absent from the biochemical substance presumption is the requirement that the member have five years of service.*
2. **Exposure to a biochemical substance**
   - The member must identify the actual exposure to a weaponized biological or chemical agent, or nuclear or radiological agent, as defined in Penal Code § 11417.[xv]
3. **Member must be permanently incapacitated from exposure to a biochemical substance**
   - The member must become ill (or die) due to exposure to a biochemical substance, and the illness must render them permanently incapacitated for the performance of duty.
4. **The illness must develop or manifest during a period in which the member is in the service of the department or unit**
5. **Time Limit**
   - The presumption is extended to a member following termination of service for a period of three (3) calendar months for each full year of the requisite service, but shall not exceed sixty (60) months in any circumstance, commencing with the last date actually worked in the specified capacity. The member is permitted to demonstrate incapacity within the period that the presumption applies, even if the incapacity manifests after termination of service.

Once the member establishes these prerequisites, the presumption of service connection will apply unless OCERS rebuts it.

The presumption may be rebutted by evidence to the contrary. OCERS may also prove the member did not meet one or more prerequisites. The presumption includes a non-attribution provision, stating that the illness that develops or manifests due to the exposure will not be attributed to any illness existing prior to that development or manifestation. However, OCERS may rebut the presumption by, for example, evidence that there was no exposure, that the member is not incapacitated by the resulting illness, or by scientific evidence that there is no reasonable link between the specific exposure and the incapacitating illness.

VIII. Post-Traumatic Stress Disorder Presumption

(effective until January 1, 2025)

If a member in one of the designated occupations becomes permanently incapacitated due to post-traumatic stress disorder ("PTSD"), it will be presumed that the disorder arose out of and in the course of employment. Unless rebutted, the resulting disability retirement will be service-connected.

Prerequisites for application of the PTSD presumption under Gov. Code, § 31720.91

1. **Occupation**
   - The member must be, or must have been, in a classification listed under Labor Code section 3212.15, which includes active firefighting members and peace officers primarily engaged in active law enforcement, including members of a sheriff's office, district attorney investigators, and probation officers.[xvi]
2. **The Member develops PTSD**
   - The PTSD must develop or manifest itself while the member is in the service of a specified department, office, or unit.
   - The PTSD must be diagnosed based on the most recent edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM) published by the American Psychiatric Association.[xvii]
3. **Permanent Incapacity**
   - The member must be permanently incapacitated because of the PTSD.
4. **Time limit**
   - The presumption is extended to a member following termination of service for a period of 3 calendar months for each full year of the requisite service, but shall not exceed 60 months regardless of the member's length of service, commencing with the last date the member actually worked in the classification specified. The member is permitted to demonstrate incapacity within the period that the presumption applies, even if the incapacity manifests after termination of service.

5. **The presumption expires January 1, 2025**

Once the member establishes these prerequisites, the presumption of service connection will apply unless OCERS rebuts it.

The presumption is rebuttable by evidence to the contrary. OCERS may also prove the member did not meet one or more prerequisites.

IX. Tuberculosis Presumption

If a member in one of the designated occupations becomes permanently incapacitated due to tuberculosis, it will be presumed that the disorder arose out of and in the course of employment. Unless rebutted, the resulting disability retirement will be service-connected.

Prerequisites for application of the tuberculosis presumption under Gov. Code, § 31720.92

1. **Occupation**
   - The member must be, or must have been, in a classification listed under Labor Code section 3212.6, which includes members of a sheriff's department, fire department, district attorney investigators, prison or jail guards, or correctional officers whose principal duties clearly fall within the scope of active law enforcement, firefighting, or emergency first-aid response. [xviii]
2. **The member develops tuberculosis**
   - The tuberculosis must develop or manifest during a period while the member is in the service of a specified department, office, or unit.
3. **Permanent Incapacity**
   - The member must be permanently incapacitated because of the tuberculosis.
4. **Time limit**
   - The presumption is extended to a member following termination of service for a period of 3 calendar months for each full year of the requisite service, but shall not exceed 60 months regardless of the member's length of service, commencing with the last date the member actually worked in the classification specified. The member is permitted to demonstrate incapacity within the period that the presumption applies, even if the incapacity manifests after termination of service.

Once the member establishes these prerequisites, the presumption of service connection will apply unless OCERS rebuts it.

The presumption is rebuttable by evidence to the contrary. To rebut the presumption, OCERS must prove the member did not meet one or more prerequisites.

OCERS Administrative Procedure (OAP)

Disability Presumptions

X. Meningitis Presumption

If a member in one of the designated occupations becomes permanently incapacitated due to meningitis, it will be presumed that the disorder arose out of and in the course of employment. Unless rebutted, the resulting disability retirement allowance will be service-connected.

Prerequisites for application of the meningitis presumption under Gov. Code, § 31720.93

1. **Occupation**
   - The member must be, or must have been, in a classification listed under Labor Code Section 3212.9, which includes members of the sheriff's office, fire department, probation officers, and district attorney investigator whose principal duties clearly fall within the scope of active law enforcement or firefighting.[xix]
2. **The member develops meningitis**
   - The meningitis must develop or manifest while the member is in service.
3. **Permanent Incapacity**
   - The member must be permanently incapacitated for the performance of duty because of the meningitis.
4. **Time limit**
   - The presumption is extended to a member following termination of service for a period of 3 calendar months for each full year of the requisite service, but shall not exceed 60 months regardless of the member's length of service, commencing with the last date the member actually worked in the classification specified. The member is permitted to demonstrate incapacity within the period that the presumption applies, even if the incapacity manifests after termination of service.

Once the member establishes these prerequisites, the presumption of service connection will apply unless OCERS rebuts it.

The presumption is rebuttable by evidence to the contrary. OCERS may also prove the member did not meet one or more prerequisites.

XI. Lower Back Impairment Presumption

ORANGE COUNTY OCERS EMPLOYEES RETIREMENT SYSTEM

OCERS Administrative Procedure (OAP)
Disability Presumptions

If a member in one of the designated occupations becomes permanently incapacitated due to lower back impairments, it will be presumed that the disorder arose out of and in the course of employment. Unless rebutted, the resulting disability retirement will be service-connected.

Prerequisites for application of the lower back impairment presumption under Gov. Code, § 31720.96

1. **Occupation**
   - The member must be, or must have been, in a classification listed under Labor Code Section 3213.2, which includes members of a sheriff's office.[xx]
2. **Employed full-time for at least five years**
   - The member must have been employed for at least five years on a full-time basis in a specified classification. The five years may include full-time employment while a member of OCERS or another retirement system established under the CERL, the Public Employees Retirement System (CalPERS), a pension system established by the County Peace Officers' Retirement Law (Gov. Code, §§ 31900, et seq.), or the County Fire Service Retirement Law (Gov. Code, §§ 32200, et seq.) The five years or more of full-time employment do not have to be entirely with the county from which the member is retiring.
3. **Required to wear a duty belt**
   - The member must have been required to wear a duty belt as a condition of employment. "Duty belt" is defined as "a belt used for the purpose of holding a gun, handcuffs, baton, and other items related to law enforcement."[xxi]
4. **The Member develops lower back impairment**
   - The lower back impairment must develop or manifest while the member is in the service of the specified department, office, or unit.
5. **Permanent Incapacity**
   - The member must be permanently incapacitated because of the lower back impairment.
6. **Time limit**
   - The presumption is extended to a member following termination of service for a period of 3 calendar months for each full year of the requisite service, but shall not exceed 60 months regardless of the member's length of service, commencing with the last date the member actually worked in the classification specified. The member is permitted to

demonstrate incapacity within the period that the presumption applies, even if the incapacity manifests after termination of service.

Once the member establishes these prerequisites, the presumption of service connection will apply unless OCERS rebuts it.

The presumption is rebuttable by evidence to the contrary. OCERS may also prove the member did not meet one or more prerequisites.

XII. Hernia or Pneumonia Presumption

If a member in one of the designated occupations becomes permanently incapacitated due to hernia or pneumonia, it will be presumed that the disorder arose out of and in the course of employment. Unless rebutted, the resulting disability retirement will be service-connected.

Prerequisites for application of the hernia or pneumonia presumption under Gov. Code, § 31720.97

1. **Occupation**
   - The member must be, or must have been, in a classification listed under Labor Code Section 3213.2, which includes members of a sheriff's office and district attorney investigators whose principal duties clearly fall within the scope of active law enforcement, and members of a firefighting department, except those whose principal duties are clerical.[xxii]
   - The presumption applies to a member whose principal duties are within the scope of active law enforcement or active fire suppression *regardless* of whether they are a safety member.
   - "Member in active law enforcement" includes Sheriff's Special Officers (SSOs).
2. **The member develops a hernia or pneumonia**
   - The hernia or pneumonia must develop or manifest during a period while the member is in the service of the specified office, staff, division, department, or unit.
3. **Permanent Incapacity**
   - The member must be permanently incapacitated because of the hernia or pneumonia.
4. **Time limit**
   - The presumption is extended to a member following termination of service for a period of 3 calendar months for each full year of the requisite service, but shall not exceed 60 months regardless of the member's length of service, commencing with the last date

the member actually worked in the classification specified. The member is permitted to demonstrate incapacity within the period that the presumption applies, even if the incapacity manifests after termination of service.

Once the member establishes these prerequisites, the presumption of service connection will apply unless OCERS rebuts it.

The presumption is rebuttable by evidence to the contrary. OCERS may also prove the member did not meet one or more prerequisites.

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[i] See OCERS Administrative Procedure: Disability – Performance of Duty

[ii] Gov. Code, § 31720

[iii] *Bowen v. Board of Retirement* (1986) 42 Cal.3d 572, 577-579

[iv] Government Code section 31720.95 provides a presumption for Lyme disease. This presumption, however, does not apply to OCERS membership. The express language limits application to employees of various State of California agencies. In addition, Government Code section 31720.94 provides a presumption for skin cancer that applies only to active lifeguards. However, there are no active lifeguards within OCERS membership as of the effective date of this OCERS Administrative Procedure (OAP) Disability Presumptions.

[v] Evid. Code, §§ 604 and 606

[vi] "Safety member" is defined by Government Code sections 31469.3 and 31469.4.

[vii] 22 Ops.Cal.Atty.Gen. 227 (1953) at p. 229

[viii] "Safety member" is defined by Government Code sections 31469.3 and 31469.4.

[ix] "Active law enforcement" includes positions with principal duties which pertain to the active investigation and suppression of crime, the arrest and detention of criminals, and the administrative control of such duties in the offices of the sheriff and district attorney, including Sheriff's Special Officers (SSOs).

[x] For the IARC list of carcinogens go to the IARC web site at www.iarc.fr/. For the list of carcinogens recognized by the Director of the Division of Industrial Accidents, see Cal. Code Regs., tit. 8, § 330.

ORANGE COUNTY OCERS EMPLOYEES RETIREMENT SYSTEM

[xi] "Safety member" is defined by Government Code sections 31469.3 and 31469.4.

[xii] "Member in active law enforcement" for purposes of Section 31720.7 is expressly defined as "members employed by a sheriff's office, by a police or fire department…or who are employed by any county forestry or firefighting department or unit, except any of those members whose principal duties are clerical or otherwise do not clearly fall within the scope of active law enforcement services or active firefighting services, such as stenographers, telephone operators, and other office workers, and includes a member engaged in active law enforcement who is not classified as a safety member." (Gov. Code, § 31720.7, subd. (e).)

[xiii] Gov. Code, § 31720.7, subd. (d).

[xiv] Cal. Code Regs., tit. 8, § 5193

[xv] § 11417. Definitions

(a) For the purposes of this article, the following terms have the following meanings:

(1) "Weapon of mass destruction" includes chemical warfare agents, weaponized biological or biologic warfare agents, restricted biological agents, nuclear agents, radiological agents, or the intentional release of industrial agents as a weapon, or an aircraft, vessel, or vehicle, as described in Section 34500 of the Vehicle Code, which is used as a destructive weapon.

(2) "Chemical Warfare Agents" includes, but is not limited to, the following weaponized agents, or any analog of these agents:

(A) Nerve agents, including Tabun (GA), Sarin (GB), Soman (GD), GF, and VX.

(B) Choking agents, including Phosgene (CG) and Diphosgene (DP).

(C) Blood agents, including Hydrogen Cyanide (AC), Cyanogen Chloride (CK), and Arsine (SA).

(D) Blister agents, including mustards (H, HD [sulfur mustard], HN-1, HN-2, HN-3 [nitrogen mustard]), arsenicals, such as Lewisite (L), urticants, such as CX; and incapacitating agents, such as BZ.

(3) "Weaponized biological or biologic warfare agents" include weaponized pathogens, such as bacteria, viruses, rickettsia, yeasts, fungi, or genetically engineered pathogens, toxins, vectors, and endogenous biological regulators (EBRs).

(4) "Nuclear or radiological agents" includes any improvised nuclear device (IND) which is any explosive device designed to cause a nuclear yield; any radiological dispersal device (RDD) which is any explosive

device utilized to spread radioactive material; or a simple radiological dispersal device (SRDD) which is any act or container designed to release radiological material as a weapon without an explosion.

(5) "Vector" means a living organism or a molecule, including a recombinant molecule, or a biological product that may be engineered as a result of biotechnology, that is capable of carrying a biological agent or toxin to a host.

(6) "Weaponization" is the deliberate processing, preparation, packaging, or synthesis of any substance for use as a weapon or munition. "Weaponized agents" are those agents or substances prepared for dissemination through any explosive, thermal, pneumatic, or mechanical means.

(7) For purposes of this section, "used as a destructive weapon" means to use with the intent of causing widespread great bodily injury or death by causing a fire or explosion or the release of a chemical, biological, or radioactive agent.

(b) The intentional release of a dangerous chemical or hazardous material generally utilized in an industrial or commercial process shall be considered use of a weapon of mass destruction when a person knowingly utilizes those agents with the intent to cause harm and the use places persons or animals at risk of serious injury, illness, or death, or endangers the environment.

(c) The lawful use of chemicals for legitimate mineral extraction, industrial, agricultural, or commercial purposes is not proscribed by this article.

(d) No university, research institution, private company, individual, or hospital engaged in scientific or public health research and, as required, registered with the Centers for Disease Control and Prevention (CDC) pursuant to Part 113 (commencing with Section 113.1) of Subchapter E of Chapter 1 of Title 9 or pursuant to Part 72 (commencing with Section 72.1) of Subchapter E of Chapter 1 of Title 42 of the Code of Federal Regulations, or any successor provisions, shall be subject to this article.

Pen. Code, § 11417

[xvi] Labor Code § 3212.15

[xvii] The DSM V-TR is the most recent edition as of the effective date of this OCERS Administrative Procedure (OAP) Disability Presumptions.

[xviii] Labor Code § 3212.6.

[xix] Labor Code § 3212.9.

[xx] Labor Code § 3213.2.

[xxi] Labor Code § 3213.2.

[xxii] "Active law enforcement" includes positions with principal duties which pertain to the active investigation and suppression of crime, the arrest and detention of criminals, and the administrative control of such duties in the offices of the sheriff and district attorney, including Sheriff's Special Officers (SSOs).

Memorandum

DATE: June 17, 2024

TO: Members of the Board of Retirement

FROM: Manuel D. Serpa, General Counsel

SUBJECT: **OUTCOMES OF THE MEETING OF THE GOVERNANCE COMMITTEE HELD ON MAY 23, 2024**

Recommendation

The Governance Committee recommends that the Board adopt the following:

(1) **Cost Impacting Policy** with no substantive revisions;
(2) **Extraordinary Expense Recovery Policy** with no substantive revisions;

Background/Discussion

The Governance Committee met on May 23, 2024, and reviewed the above-listed policies. The Committee now recommends that the Board adopt the revisions to all the policies, as set forth below.

Non-substantive Revisions to the Cost Impacting Policy
There were no substantive revisions to the Write Off Policy recommended or approved by the Committee. An unmarked version of the policy is attached.

Non-substantive Revisions to the Extraordinary Expense Recovery Policy
There were no substantive revisions to the Extraordinary Expense Recovery Policy recommended or approved by the Committee. An unmarked version of the policy is attached.

Attachments.

Submitted by:

MDS-Approved

Manuel D. Serpa
General Counsel

OCERS Board Policy

Cost Impacting Policy

Background

1. The Board of Retirement recognizes that some of its actions can materially impact employers' and members' financial interests. OCERS believes it prudent, when considering such impactful decisions, to provide appropriate notice and an opportunity for stakeholders to be heard on such matters before taking final action. The Board retains full authority to adopt, modify or repeal OCERS' policies.

Policy Guidelines

2. In the ordinary course of conducting its business, the Board intends to introduce actions, including without limitation, the adoption or modification of policies or regulations, that can materially impact employers' and members' financial interests, at an initial duly noticed, public meeting, followed by subsequent duly noticed, public meeting(s), as appropriate, to consider the proposal, alternative proposals and comments from stakeholders, the Board, OCERS staff and consultants.

Policy Review

3. Absent exigent circumstances, the Board will use the following procedure when taking action on cost-impacting decisions covered by this policy:
   a. No action on any such proposal will be taken at the introductory meeting other than scheduling, direction to staff and consultants and other related matters;
   b. Action to be taken on proposals relating to the subject of the proposed action will be taken at one or more subsequent duly-noticed public meetings;
   c. At the meeting where the Board decides to take action (i.e., vote) on a cost-impacting decision, if only a single alternative is presented and discussed (not counting maintaining the *status quo* if that also is an alternative), the vote will constitute the Board's final determination on the matter;
   d. However, at the meeting where the Board decides to take action (i.e., vote) on a cost-impacting decision, if more than a single alternative is presented and discussed (not counting maintaining the *status quo* if that also is an alternative), the Board's vote will be considered a tentative determination on the matter and will become the Board's final determination *only if* the Board votes to ratify the tentative determination at a subsequent duly-noticed public meeting without material changes; and
   e. If material changes to the tentative determination are made at the meeting where the ratification vote is taken, that vote (with the changes) will become the Board's final determination on the matter *only if* the Board votes to ratify it at a subsequent duly-noticed public meeting without additional material changes.
4. Challenges to any Board action based on a claim that the procedures in this policy were not properly followed must be brought and fully resolved prior to the end of the next regularly-

scheduled Board meeting following the Board meeting where the final vote or final ratification vote on the challenged action takes place.

Policy Review

5. The Board will review this policy at least every three (3) years to ensure that it remains relevant and appropriate.

Policy History

6. This policy was adopted by the OCERS' Board of Retirement on May 17, 2011. It was revised on December 19, 2011, July 20, 2015, August 20, 2018, April 19, 2021, and .

Secretary's Certificate

I, the undersigned, the duly appointed Secretary of the Orange County Employees Retirement System, hereby certify the adoption of this policy.

Steve Delaney
Secretary of the Board

Date

OCERS Board Policy

Cost Impacting Policy

Background

1. The Board of Retirement recognizes that some of its actions can materially impact employers' and members' financial interests. OCERS believes it prudent, when considering such impactful decisions, to provide appropriate notice and an opportunity for stakeholders to be heard on such matters before taking final action. The Board retains full authority to adopt, modify or repeal OCERS' policies.

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   d. However, at the meeting where the Board decides to take action (i.e., vote) on a cost-impacting decision, if more than a single alternative is presented and discussed (not counting maintaining the *status quo* if that also is an alternative), the Board's vote will be considered a tentative determination on the matter and will become the Board's final determination *only if* the Board votes to ratify the tentative determination at a subsequent duly-noticed public meeting without material changes; and
   e. If material changes to the tentative determination are made at the meeting where the ratification vote is taken, that vote (with the changes) will become the Board's final determination on the matter *only if* the Board votes to ratify it at a subsequent duly-noticed public meeting without additional material changes.
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OCERS Board Policy

Cost Impacting Policy

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Secretary's Certificate

I, the undersigned, the duly appointed Secretary of the Orange County Employees Retirement System, hereby certify the adoption of this policy.

~~04/19/2021~~

Steve Delaney
Secretary of the Board

Date

ORANGE COUNTY OCERS EMPLOYEES RETIREMENT SYSTEM

OCERS Board Policy

Extraordinary Expense Recovery Policy

Purpose and Background

1. The Extraordinary Expense Recovery Policy is intended to establish guidelines and codify existing practices by which OCERS' Board of Retirement and staff can identify expenses incurred as a result of requests by third parties, other than expenses related to public records requests and employer and stakeholder data requests, which are handled in accordance with OCERS' Public Records and Data Request Policy, that are outside of the ordinary course and scope of the business of the System ("Extraordinary Expenses"), and establish a mechanism for recovering such expenses from the responsible party(ies).

Policy Objectives

2. The objectives of the policy are to ensure that:
   a. OCERS expends trust funds on authorized administrative expenses consistent with the law;
   b. There are clear expectations when third parties cause OCERS to incur Extraordinary Expenses;
   c. The identification of Extraordinary Expenses is clearly defined; and
   d. The method for recovering Extraordinary Expenses is clearly defined.

Policy Guidelines

3. The following guidelines will be used to identify Extraordinary Expenses:
   a. OCERS CEO, or his or her designee, will gather the following information:
      i. The name of the person or organization responsible for the expense;
      ii. The purpose of the expense;
      iii. The amount of the expense;
      iv. Whether the expense benefits OCERS' membership generally, or a significant number of employers, and to what extent; and
      v. Whether the expense is necessary for the administration of the System.
   b. Upon review of all of the above-listed information, the CEO or his or her designee will initially determine whether the expense is beneficial to the membership generally or to a significant number of employers, and whether it is necessary for the administration of the System. If, in the discretion of the CEO or his or her designee, the expense is not beneficial to the membership generally or to a significant number of employers nor necessary for the administration of the System, the CEO or his or her designee will determine the amount of the expense and make a recommendation to the Board for recovery of the full amount of the expense.

OCERS Board Policy

Extraordinary Expense Recovery Policy

c. If the CEO or his or her designee initially determines that the party responsible for the expense should reimburse OCERS, the issue will be placed on a Board agenda for consideration by the Board in a public meeting.

d. The CEO or his or her designee will notify the responsible party of the date and time of the Board meeting at which the Board's consideration will take place. The responsible party may be heard on the matter in open session.

e. If the Board determines that OCERS should be reimbursed for the Extraordinary Expenses, the CEO or his or her designee will provide a written request to the responsible party for reimbursement, detailing the amount of reimbursement requested and a brief statement as to the reason why the Board determined that the party was responsible for the Extraordinary Expenses. The written request will specify that payment is to be received by OCERS within 90 days of the request.

f. The Board, in its discretion, may allow the party to reimburse OCERS through an installment payment plan that is reasonably designed to allow OCERS to recoup the entire expense plus reasonable interest.

g. If the responsible party fails to reimburse OCERS within 90 days from the date of the written request or fails to make payments under an installment payment plan, OCERS will take appropriate action under the law to recover the amount of the Extraordinary Expenses.

Policy Review

4. The Board will review this policy at least every three (3) years to ensure that it remains relevant and appropriate.

Policy History

5. The OCERS Board of Retirement adopted this policy on May 26, 2009. The Board revised this policy on February 19, 2013, July 20, 2015, August 20, 2018, April 19, 2021, and .

Secretary's Certificate

I, the undersigned, the duly appointed Secretary of the Orange County Employees Retirement System, hereby certify the adoption of this policy.

Steve Delaney
Secretary of the Board

Date

OCERS Board Policy

Extraordinary Expense Recovery Policy

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Policy Objectives

2. The objectives of the policy are to ensure that:
    a. OCERS expends trust funds on authorized administrative expenses consistent with the law;
    b. There are clear expectations when third parties cause OCERS to incur Extraordinary Expenses;
    c. The identification of Extraordinary Expenses is clearly defined; and
    d. The method for recovering Extraordinary Expenses is clearly defined.

Policy Guidelines

3. The following guidelines will be used to identify Extraordinary Expenses:
    a. OCERS CEO, or his or her designee, will gather the following information:
        i. The name of the person or organization responsible for the expense;
        ii. The purpose of the expense;
        iii. The amount of the expense;
        iv. Whether the expense benefits OCERS' membership generally, or a significant number of employers, and to what extent; and
        v. Whether the expense is necessary for the administration of the System.
    b. Upon review of all of the above-listed information, the CEO or his or her designee will initially determine whether the expense is beneficial to the membership generally or to a significant number of employers, and whether it is necessary for the administration of the System. If, in the discretion of the CEO or his or her designee, the expense is not beneficial to the membership generally or to a significant number of employers nor necessary for the administration of the System, the CEO or his or her designee will determine the amount of the expense and make a recommendation to the Board for recovery of the full amount of the expense.

OCERS Board Policy

Extraordinary Expense Recovery Policy

c. If the CEO or his or her designee initially determines that the party responsible for the expense should reimburse OCERS, the issue will be placed on a Board agenda for consideration by the Board in a public meeting.

d. The CEO or his or her designee will notify the responsible party of the date and time of the Board meeting at which the Board's consideration will take place. The responsible party may be heard on the matter in open session.

e. If the Board determines that OCERS should be reimbursed for the Extraordinary Expenses, the CEO or his or her designee will provide a written request to the responsible party for reimbursement, detailing the amount of reimbursement requested and a brief statement as to the reason why the Board determined that the party was responsible for the Extraordinary Expenses. The written request will specify that payment is to be received by OCERS within 90 days of the request.

f. The Board, in its discretion, may allow the party to reimburse OCERS through an installment payment plan that is reasonably designed to allow OCERS to recoup the entire expense plus reasonable interest.

g. If the responsible party fails to reimburse OCERS within 90 days from the date of the written request or fails to make payments under an installment payment plan, OCERS will take appropriate action under the law to recover the amount of the Extraordinary Expenses.

Policy Review

4. The Board will review this policy at least every three (3) years to ensure that it remains relevant and appropriate.

Policy History

5. The OCERS Board of Retirement adopted this policy on May 26, 2009. The Board revised this policy on February 19, 2013, July 20, 2015, August 20, 2018, ~~and~~ April 19, 2021, and .

Secretary's Certificate

I, the undersigned, the duly appointed Secretary of the Orange County Employees Retirement System, hereby certify the adoption of this policy.

~~04/19/2021~~

Steve Delaney
Secretary of the Board

Date

ORANGE COUNTY OCERS EMPLOYEES RETIREMENT SYSTEM

Memorandum

DATE: June 17, 2024

TO: Members of the Board of Retirement

FROM: Brenda Shott, Assistant CEO, Finance and Internal Operations

SUBJECT: **DECEMBER 31, 2023 ACTUARIAL VALUATION- FINAL APPROVAL**

Recommendation

Approve the Actuarial Valuation and Review as of December 31, 2023 and adopt contribution rates for Fiscal Year 2025 – 2026 as recommended by Segal.

Background/Discussion

In May, the OCERS Board of Retirement considered the preliminary results of the December 31, 2023 Actuarial Valuation in PowerPoint format with Mr. Todd Tauzer and Mr. Andy Yeung from Segal.

On June 17, Segal will present the complete Actuarial Valuation and Review as of December 31, 2023 and the Board will be requested to formally adopt that report and the contribution rates that will go into effect in Fiscal Year 2025-2026.

The Board considers the Actuarial Valuation report in this two-step process as a courtesy to our many stakeholders, allowing them an opportunity to consider the initial data and provide comment prior to a formal adoption. To-date we have received no comments or concerns regarding the Actuarial Valuation as of December 31, 2023.

Submitted by:

BS - Approved

Brenda Shott
Assistant CEO of Internal Operations

Orange County Employees Retirement System

Actuarial Valuation and Review as of December 31, 2023

Segal

Segal

180 Howard Street
Suite 1100
San Francisco, CA 94105-6147
segalco.com
T 415.263.8200

June 5, 2024

Board of Retirement
Orange County Employees Retirement System
2223 Wellington Avenue
Santa Ana, CA 92701

Dear Board Members:

We are pleased to submit this Actuarial Valuation and Review as of December 31, 2023. It summarizes the actuarial data used in the valuation, analyzes the preceding year's experience, and establishes the funding requirements for fiscal year 2025-2026.

This report has been prepared in accordance with generally accepted actuarial principles and practices for the exclusive use and benefit of the Board of Retirement, based upon information provided by the staff of OCERS and the Plan's other service providers.

Segal does not audit the data provided. The accuracy and comprehensiveness of the data is the responsibility of those supplying the data. To the extent we can, however, Segal does review the data for reasonableness and consistency. Based on our review of the data, we have no reason to doubt the substantial accuracy of the information on which we have based this report and we have no reason to believe there are facts or circumstances that would affect the validity of these results.

The measurements shown in this actuarial valuation may not be applicable for other purposes. Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements; and changes in plan provisions or applicable law.

The actuarial calculations were directed under the supervision of Andy Yeung, ASA, MAAA, FCA and Enrolled Actuary. We are members of the American Academy of Actuaries and we meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion herein. To the best of our knowledge, the information supplied in this actuarial valuation is complete and accurate. The assumptions used in this actuarial valuation were selected by the Board of Retirement based upon our analysis and recommendations. In our opinion, the assumptions are reasonable and take into account the experience of OCERS and reasonable expectations. In addition, in our opinion, the combined effect of these assumptions is expected to have no significant bias.

Board of Retirement
June 5, 2024

Segal makes no representation or warranty as to the future status of the Plan and does not guarantee any particular result. This document does not constitute legal, tax, accounting or investment advice or create or imply a fiduciary relationship. The Board is encouraged to discuss any issues raised in this report with the Plan's legal, tax and other advisors before taking, or refraining from taking, any action.

We look forward to reviewing this report at your next meeting and to answering any questions.

Sincerely,

Segal

Paul Angelo, FSA, MAAA, FCA, EA
Senior Vice President and Actuary

Andy Yeung, ASA, MAAA, FCA, EA
Vice President and Actuary

Todd Tauzer, FSA, MAAA, FCA, CERA
Senior Vice President and Actuary

Molly Calcagno, ASA, MAAA, EA
Senior Actuary

JY/jl

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Section 1: Actuarial Valuation Summary

Purpose and basis

This report has been prepared by Segal to present a valuation of the Orange County Employees Retirement System ("the Plan") as of December 31, 2023. The valuation was performed to determine whether the assets and contribution rates are sufficient to provide the prescribed benefits.

The contribution requirements presented in this report are based on:

- The benefit provisions of the Plan, as administered by the Board of Retirement;
- The characteristics of covered active members, inactive members and retired members and beneficiaries as of December 31, 2023, provided by the Retirement System;
- The assets of the Plan as of December 31, 2023, provided by Retirement System;
- Economic assumptions regarding future salary increases and investment earnings adopted by the Board of Retirement for the December 31, 2023 valuation;
- Other actuarial assumptions regarding employee terminations, retirement, death, etc. adopted by the Board of Retirement for the December 31, 2023 valuation and
- The funding policy adopted by the Board of Retirement.

Certain disclosure information required by Governmental Accounting Standards Board (GASB) Statements No. 67 and 68 as of December 31, 2023 for the Plan and the employer are provided in separate reports.

One of the general goals of an actuarial valuation is to establish contributions which fully fund the System's liabilities, and which, as a percentage of payroll, remain as level as possible for each generation of active members. Annual actuarial valuations measure the progress toward this goal, as well as test the adequacy of the contribution rates.

The contribution requirements are determined as a percentage of payroll. The System's employer rates provide for both normal cost and a contribution to amortize any unfunded or overfunded actuarial accrued liabilities. In this valuation, we have applied the funding policy adopted by the Board in 2014 (reaffirmed in 2018 and revised with some non-substantive changes in 2022 and modified in 2024 to indicate that the Board may exercise discretion in determining whether to delay or change contribution rates immediately when there is a plan amendment). Details of the funding policy are provided in *Section 4, Exhibit 1* starting on page 105.

Section 1: Actuarial Valuation Summary

The rates calculated in this report may be adopted by the Board of Retirement for the fiscal year that extends from July 1, 2025 through June 30, 2026.

Valuation highlights

Experience study

1. The results of this valuation reflect changes in the actuarial assumptions as recommended by Segal and adopted by the Board of Retirement for the December 31, 2023 valuation. These changes were documented in our January 1, 2020 through December 31, 2022 Actuarial Experience Study report dated August 11, 2023 and are also outlined in *Section 4, Exhibit 1* starting on page 105 of this report.

   These assumption changes, including slight changes in retirement, termination, disability, mortality and salary increase assumptions together with two technical refinements[1] in calculating normal cost rates, resulted in an increase in the average employer rate of 0.81% of payroll and a decrease in the average member rate of 0.12% of payroll. There is also an increase in the unfunded actuarial accrued liability (UAAL) by $145.0 million associated with the updated assumptions.

   Note that there was one additional refinement included in the experience study report that has been deferred to allow for further discussion with OCERS, involving a change in allocation of the normal cost associated with providing COLA benefits for legacy Safety members with 30 or more years of service. If implemented, the cost impact of this change will depend on the demographic profile of legacy Safety members (i.e., proportion of members with 30 or more years of service) at implementation.

Funding measures

2. The funded ratio (the ratio of valuation value of assets to the actuarial accrued liability) increased from 81.51% to 82.63%. This ratio is one measure of funding status, and its history is a measure of funding progress. Using the market value of assets, the funded ratio increased from 76.95% to 80.76%. These measurements are not necessarily appropriate for assessing the sufficiency of plan assets to cover the estimated cost of settling the Plan's benefit obligation or the need for, or the amount of, future contributions. A history of the System's funded ratios is provided in *Section 2, Subsection G* on pages 50 and 51.
3. The UAAL (the difference between the actuarial accrued liability and the valuation value of assets) decreased from $4,695.0 million to $4,652.8 million. The decrease in UAAL is primarily due to payments of required UAAL contributions and investment

[1] The two refinements are (1) improvement in reflecting the timing of decrements in calculating the total normal cost rate for each plan and (2) use the individual (instead of the aggregate) version of the Entry Age cost allocation method to determine the normal cost of the COLA benefits.

Section 1: Actuarial Valuation Summary

return on the valuation value (i.e., after asset smoothing) greater than the assumed rate of 7.00% used in the December 31, 2022 valuation, offset somewhat by the changes in actuarial assumptions, individual salary increases greater than expected, and other experience losses. A reconciliation of the System's UAAL from the prior year is provided in *Section 2, Subsection E* on page 30.

A schedule of the current UAAL amortization balances and payments may be found in *Section 3, Exhibit H* starting on page 88. A graphical projection of the UAAL amortization balances and payments is provided in *Section 3, Exhibit I* starting on page 103.

Actuarial experience

4. The net actuarial loss of $24.4 million, or 0.09% of actuarial accrued liability, is due to an investment gain of $158.5 million, or 0.60% of actuarial accrued liability, offset to some degree by a net loss from sources other than investments of $182.9 million, or 0.69% of the actuarial accrued liability, prior to reflection of assumption changes, if applicable. The loss from sources other than investments was due to individual salary increases greater than expected and other actuarial losses.
5. The rate of return on the market value of assets was 11.61% for the year ending December 31, 2023. The return on the valuation value of assets was 7.77% for the same period due to the recognition of prior years' investment gains and losses. This resulted in an actuarial gain when measured against the assumed rate of return of 7.00% used in the December 31, 2022 valuation. This actuarial investment gain (after asset smoothing) decreased the average employer contribution rate by 0.50% of payroll. A history of the System's investment returns is provided in *Section 2, Subsection B* on page 25.
6. On July 30, 2020, the California Supreme Court issued a decision in the case of Alameda County Deputy Sheriffs' Association et al. v. Alameda County Employees' Retirement Association (ACERA) and Board of Retirement at ACERA. That decision has important implications for OCERS and its members. In particular, the decision requires pension systems like OCERS to exclude certain pay items from a legacy member's compensation earnable. It should be noted that as of December 31, 2023, OCERS has refunded contributions previously paid by certain members in conjunction with such pay items and changed benefit amounts previously determined using those pay items. However, we understand some of these adjustments are still ongoing and therefore the final impact of the decision has not been fully reflected in this valuation.

Contributions

7. The average employer rate calculated in this valuation has decreased from 38.30% to 38.09% of payroll. This decrease is primarily due to amortizing prior year's UAAL over a larger than expected total payroll and the investment return on the valuation value (i.e., after asset smoothing) greater than the assumed rate of 7.00% used in the December 31, 2022 valuation, offset to some degree by the changes in actuarial assumptions and individual salary increases greater than expected. A complete reconciliation of the System's aggregate employer rate is provided in *Section 2, Subsection F* on page 32.

Section 1: Actuarial Valuation Summary

We note that the impact on contribution rates of the items noted in item 3 (i.e., the investment return on the valuation value (i.e., after asset smoothing) greater than the assumed rate of 7.00% used in the December 31, 2022 valuation, the changes in actuarial assumptions, and individual salary increases different than expected) is not uniform across the rate groups. That non-uniform impact is dependent on the particular demographics of the members within each rate group (e.g., actual negotiated salary increases for active members covered), as well as the ratio of the payroll to the assets and liabilities within each rate group. That non-uniform impact is exacerbated by the fact that some rate groups had higher than expected total payroll growth while other rate groups have lower total than expected payroll growth between the December 31, 2022 and the December 31, 2023 valuations. A detailed reconciliation of the employer contribution rate for each rate group is provided in *Section 4, Exhibit 5* starting on page 177. That exhibit is followed by a detailed reconciliation of the UAAL for each rate group provided in *Section 4, Exhibit 6* starting on page 180.

8. The average member rate calculated in this valuation has decreased from 11.84% to 11.74% of payroll due to the changes in actuarial assumptions (including two technical refinements), offset to some degree by the changes in active member demographics. A complete reconciliation of the System's aggregate member rate is provided in *Section 2, Subsection F* on page 33.

   The detailed member rates by cost group are provided in *Section 4, Exhibit 3* starting on page 152.

9. This report reflects the $13.8 million in additional contributions made by O.C. Fire Authority (OCFA) towards their UAAL. The $13.8 million of additional contributions made by OCFA has been amortized as a level percent of pay over a period of twenty years effective on December 31, 2023 and used to reduce their UAAL rates for fiscal year 2025-2026.

10. Segal strongly recommends an actuarial funding method that targets 100% funding of the actuarial accrued liability. Generally, this implies payments that are ultimately at least enough to cover normal cost, interest on the UAAL and the principal balance. The funding policy adopted by the Board of Retirement meets this standard.

Future expectations

11. The total unrecognized net investment **loss** as of December 31, 2023 is $500 million as compared to an unrecognized net investment **loss** of $1,157 million in the previous valuation. This net deferred loss of $500 million will be recognized in the determination of the actuarial value of assets for funding purposes in the next few years as shown in *Section 2, Subsection B* on page 23.

    The net deferred loss of $500 million represent about 2.3% of the market value of assets. Unless offset by future investment gains or other favorable experience, the recognition of the $500 million net market loss is expected to have an impact on the System's future funded ratio and contribution rate requirements. This potential impact may be illustrated as follows:

Section 1: Actuarial Valuation Summary

a. If the net deferred loss was recognized immediately in the valuation value of assets, the funded percentage would decrease from 82.63% to 80.76%.

   For comparison purposes, if the net deferred loss in the December 31, 2022 valuation had been recognized immediately in the December 31, 2022 valuation, the funded percentage would have decreased from 81.51% to 76.95%.

b. If the net deferred loss was recognized immediately in the valuation value of assets, the average employer contribution rate would increase from 38.09% to 39.77% of payroll.

   For comparison purposes, if the net deferred loss in the December 31, 2022 valuation had been recognized immediately in the December 31, 2022 valuation, the average employer contribution rate would have increased from 38.71% to 42.88% of payroll.

Risk

12. It is important to note that this actuarial valuation is based on plan assets as of December 31, 2023. The Plan's funded status does not reflect short-term fluctuations of the market, but rather is based on the market values on the last day of the plan year. Moreover, this actuarial valuation does not include any possible short-term or long-term impacts on mortality of the covered population that may emerge after December 31, 2023. Segal is available to prepare projections of potential outcomes of market conditions and other demographic experience upon request.

13. Because the actuarial valuation results are dependent on a given set of assumptions, there is a risk that emerging results may differ significantly as actual experience proves to be different from the assumptions. We have been engaged to perform a detailed analysis of the potential range of the impact of risk relative to the Plan's future financial condition and that report will be provided at a later date. We have also included a brief discussion of some risks that may affect the Plan in *Section 2, Subsection I*, beginning on page 53.

14. The risk assessment in *Section 2, Subsection I* includes the disclosure of a "Low-Default-Risk Obligation Measure" (LDROM). This disclosure, along with commentary on the significance of the LDROM, is a new requirement under Actuarial Standard of Practice No. 4 (ASOP 4) for all pension funding actuarial valuation reports and can be found on pages 55-56.

GASB

15. This report constitutes an actuarial valuation for the purpose of determining a reasonable actuarially determined contribution (ADC) under ASOP 4 and the Plan's funding policy and measuring the progress of that funding policy. The Net Pension Liability and Pension Expense under GASB Statements No. 67 and No. 68, for inclusion in the Plan's and employer's financial statements as of December 31, 2023, will be provided separately. The accounting disclosures will utilize different methodologies

Section 1: Actuarial Valuation Summary

from those employed in the funding valuation, as required by the GASB. However, the ADC in this valuation is expected to be used as the ADC for GASB financial reporting.

Other

16. The balance in the O.C. Sanitation District UAAL Deferred Account has increased from $14.4 million as of December 31, 2022 to $16.0 million as of December 31, 2023 to reflect market experience. As of December 31, 2023, there was no transfer required from this account to pay off their UAAL.
17. O.C. Sanitation District (Rate Group #3), Transportation Corridor Agency (Rate Group #9), and O.C. Law Library (Rate Group #12) remain overfunded as of December 31, 2023, but less than 120% funded. Under CalPEPRA, the employer's contribution rate cannot be less than the Normal Cost unless the funded ratio is over 120% and other conditions in CalPEPRA are met. Therefore, their contribution rates are set equal to their Normal Cost rates.

Section 1: Actuarial Valuation Summary

Summary of key valuation results

Average Employer Contribution Calculated as of December 31

Rate Group	2023 Contribution Rate	2023 Annual Amount[1] ($ in '000s)	2022 Contribution Rate[2]	2022 Annual Amount[2] ($ in '000s)
General				
• Rate Group #1 – Plans A, B and U (County and IHSS)	13.22%	$14,665	13.70%	$15,202
• Rate Group #2 – Plans I, J, O, P, S, T, U and W (County et al.)	38.09%	522,078	38.09%	521,996
• Rate Group #3 – Plans B, G, H and U (OCSD)	11.65%	9,745	11.39%	9,532
• Rate Group #5 – Plans A, B and U (OCTA)	30.65%	38,389	30.26%	37,897
• Rate Group #9 – Plans M, N and U (TCA)	13.08%	1,004	11.93%	916
• Rate Group #10 – Plans I, J, M, N and U (OCFA)	23.14%	8,274	22.82%	8,158
• Rate Group #11 – Plans M and N, future service, and U (Cemetery)	14.23%	286	14.86%	300
• Rate Group #12 – Plans G, H, future service, and U (Law Library)	13.58%	164	12.75%	154
Safety				
• Rate Group #6 – Plans E, F and V (Probation)	60.31%	34,041	58.07%	32,775
• Rate Group #7 – Plans E, F, Q, R and V (Law Enforcement)	58.18%	177,776	59.90%	183,050
• Rate Group #8 – Plans E, F, Q, R and V (OCFA)	34.28%	61,354	34.90%	62,467
All Categories Combined	**38.09%**	**$867,776**	**38.30%**	**$872,447**

[1] Based on December 31, 2023 projected annual compensation as shown on page 46.

[2] For those rate groups with plan specific contribution rates, the total rates shown above have been recalculated by applying the plan specific contribution rates determined in the December 31, 2022 valuation to the corresponding projected payrolls reported as of December 31, 2023.

Section 1: Actuarial Valuation Summary

Average Member Contribution Calculated as of December 31

Rate Group	2023 Contribution Rate	2023 Annual Amount[1] ($ in ’000s)	2022 Contribution Rate[2]	2022 Annual Amount[1] ($ in ’000s)
General				
• Rate Group #1 – Plans A, B and U (County and IHSS)	9.92%	$11,007	9.90%	$10,984
• Rate Group #2 – Plans I, J, O, P, S, T, U and W (County et al.)	10.12%	138,690	10.13%	138,827
• Rate Group #3 – Plans B, G, H and U (OCSD)	10.97%	9,177	10.99%	9,194
• Rate Group #5 – Plans A, B and U (OCTA)	10.69%	13,389	10.71%	13,414
• Rate Group #9 – Plans M, N and U (TCA)	11.01%	845	10.83%	831
• Rate Group #10 – Plans I, J, M, N and U (OCFA)	10.92%	3,905	10.91%	3,901
• Rate Group #11 – Plans M and N, future service, and U (Cemetery)	10.45%	211	10.32%	208
• Rate Group #12 – Plans G, H, future service, and U (Law Library)	12.79%	155	13.08%	158
Safety				
• Rate Group #6 – Plans E, F and V (Probation)	15.71%	8,867	16.41%	9,262
• Rate Group #7 – Plans E, F, Q, R and V (Law Enforcement)	17.19%	52,529	17.61%	53,813
• Rate Group #8 – Plans E, F, Q, R and V (OCFA)	16.05%	28,726	16.27%	29,120
All Categories Combined	**11.74%**	**$267,501**	**11.84%**	**$269,712**

[1] Based on December 31, 2023 projected annual compensation as shown on page 46.
[2] Average December 31, 2022 member contribution rates have been recalculated by applying the individual entry age-based rates determined in the December 31, 2022 valuation to the System membership as of December 31, 2023.

Section 1: Actuarial Valuation Summary

Valuation Results

($ in '000s)

Line Description	As of December 31, 2023	As of December 31, 2022
Actuarial accrued liability		
• Retired members and beneficiaries	$16,903,604	$15,847,604
• Inactive members[1]	624,749	574,151
• Active members	9,259,688	8,964,914
– Total actuarial accrued liability	26,788,041	25,386,669
• Normal cost for plan year beginning December 31	583,960	554,786
Assets		
• Market value of assets (MVA)[2]	$21,635,294	$19,534,631
• Actuarial value of assets (AVA)[2]	22,135,285	20,691,659
• Actuarial value of assets as a percentage of market value of assets	102.31%	105.92%
• Valuation value of assets (VVA)	$22,135,285	$20,691,659
Funded status		
• UAAL on market value of assets[3]	$5,152,747	$5,852,038
• Funded percentage on MVA basis	80.76%	76.95%
• UAAL on valuation value of assets	$4,652,756	$4,695,010
• Funded percentage on VVA basis	82.63%	81.51%
Key assumptions		
• Net investment return	7.00%	7.00%
• Inflation rate	2.50%	2.50%
• Payroll growth	3.00%	3.00%
• Cost-of-living adjustments	2.75%	2.75%

[1] Includes members who chose to leave their contributions on deposit even though they have less than five years of service.

[2] Excludes County Investment Account (funded by pension obligation bond proceeds held by OCERS), prepaid employer contributions account, O.C. Sanitation District UAAL Deferred Account (after transfer) and non-valuation reserves (if any).

[3] Both the UAAL and the funded percentage on MVA basis have been calculated by using the MVA reduced by non-valuation reserves in the amount of $0 as of both December 31, 2023 and December 31, 2022.

Section 1: Actuarial Valuation Summary

Demographic Data

Demographic Data by Status	As of December 31, 2023	As of December 31, 2022	Change
Active members			
• Number of members	22,782	22,061	3.3%
• Average age	44.2	44.5	(0.3)
• Average service	11.5	12.0	(0.5)
• Total projected compensation	$2,277,976,151	$2,124,679,380	7.2%
• Average projected compensation	$99,990	$96,309	3.8%
Retired members and beneficiaries			
• Number of members			
– Service retired	16,754	16,311	2.7%
– Disability retired	1,628	1,588	2.5%
– Beneficiaries	2,901	2,779	4.4%
• Total	21,283	20,678	2.9%
• Average age	70.6	70.4	0.2
• Average monthly benefit[1]	$4,737	$4,563	3.8%
Inactive members			
• Number of members[2]	8,579	7,894	8.7%
• Average Age	45.0	44.9	0.1
Total members	**52,644**	**50,633**	**4.0%**

[1] Excludes monthly benefits payable from the Supplemental Targeted Adjustment for Retirees Cost of Living Adjustment (STAR COLA).
[2] Includes members who chose to leave their contributions on deposit even though they have less than five years of service.

Section 1: Actuarial Valuation Summary

Important information about actuarial valuations

An actuarial valuation is a budgeting tool with respect to the financing of future projected obligations of a pension plan. It is an estimated forecast – the actual long-term cost of the plan will be determined by the actual benefits and expenses paid and the actual investment experience of the plan.

In order to prepare a valuation, Segal relies on a number of input items. These include:

Input Item	Description
Plan provisions	Plan provisions define the rules that will be used to determine benefit payments, and those rules, or the interpretation of them, may change over time. Even where they appear precise, outside factors may change how they operate. It is important to keep Segal informed with respect to plan provisions and administrative procedures, and to review the plan summary included in our report to confirm that Segal has correctly interpreted the plan of benefits.
Member information	An actuarial valuation for a plan is based on data provided to the actuary by the System. Segal does not audit such data for completeness or accuracy, other than reviewing it for obvious inconsistencies compared to prior data and other information that appears unreasonable. It is important for Segal to receive the best possible data and to be informed about any known incomplete or inaccurate data.
Financial information	Part of the cost of a plan will be paid from existing assets — the balance will need to come from future contributions and investment income. The valuation is based on the asset values as of the valuation date, typically reported by the System. A snapshot as of a single date may not be an appropriate value for determining a single year's contribution requirement, especially in volatile markets. Plan sponsors often use an "actuarial value of assets" that differs from market value to gradually reflect year-to-year changes in the market value of assets in determining the contribution requirements.
Actuarial assumptions	In preparing an actuarial valuation, Segal starts by developing a forecast of the benefits to be paid to existing plan members for the rest of their lives and the lives of their beneficiaries. This requires actuarial assumptions as to the probability of death, disability, withdrawal, and retirement of members in each year, as well as forecasts of the plan's benefits for each of those events. In addition, the benefits forecasted for each of those events in each future year reflect actuarial assumptions as to salary increases and cost-of-living adjustments (if applicable). The forecasted benefits are then discounted to a present value, typically based on an estimate of the rate of return that will be achieved on the plan's assets. All of these factors are uncertain and unknowable. Thus, there will be a range of reasonable assumptions, and the results may vary materially based on which assumptions are selected within that range. That is, there is no right answer (except with hindsight). It is important for any user of an actuarial valuation to understand and accept this constraint. The actuarial model may use approximations and estimates that will have an immaterial impact on our results. In addition, the actuarial assumptions may change over time, and while this can have a significant impact on the reported results, it does not mean that the previous assumptions or results were unreasonable or wrong.

Section 1: Actuarial Valuation Summary

The user of Segal's actuarial valuation (or other actuarial calculations) should keep the following in mind:

- The actuarial valuation is prepared at the request of the System. Segal is not responsible for the use or misuse of its report, particularly by any other party.
- An actuarial valuation is a measurement at a specific date — it is not a prediction of a plan's future financial condition. Accordingly, Segal did not perform an analysis of the potential range of financial measurements, except where otherwise noted.
- If OCERS is aware of any event or trend that was not considered in this valuation that may materially change the results of the valuation, Segal should be advised, so that we can evaluate it.
- Segal does not provide investment, legal, accounting or tax advice and is not acting as a fiduciary to the Plan. This valuation is based on Segal's understanding of applicable guidance in these areas and of the Plan's provisions, but they may be subject to alternative interpretations. The System should look to their other advisors for expertise in these areas.
- While Segal maintains extensive quality assurance procedures, an actuarial valuation involves complex computer models and numerous inputs. In the event that an inaccuracy is discovered after presentation of Segal's valuation, Segal may revise that valuation or make an appropriate adjustment in the next valuation.
- Segal's report shall be deemed to be final and accepted by OCERS upon delivery and review. OCERS should notify Segal immediately of any questions or concerns about the final content.

Section 2: Actuarial Valuation Results

A. Member information

The Actuarial Valuation and Review considers the number and demographic characteristics of covered members, including active members, inactive vested members, retired members and beneficiaries.

This section presents a summary of significant statistical data on these member groups. More detailed information for this valuation year and the preceding valuation can be found in *Section 3, Exhibits A, B, and C*.

Member Population as of December 31

Year Ended December 31	Active Members	Inactive Members[1]	Retired Members and Beneficiaries	Total Non-Actives	Ratio of Non-Actives to Actives	Ratio of Retired Members and Beneficiaries to Actives
2014	21,459	4,789	15,169	19,958	0.93	0.71
2015	21,525	5,091	15,810	20,901	0.97	0.73
2016	21,746	5,370	16,369	21,739	1.00	0.75
2017	21,721	5,803	16,947	22,750	1.05	0.78
2018	21,929	6,026	17,674	23,700	1.08	0.81
2019	22,257	6,520	18,420	24,940	1.12	0.83
2020	21,559	6,818	19,419	26,237	1.22	0.90
2021	22,011	7,238	19,826	27,064	1.23	0.90
2022	22,061	7,894	20,678	28,572	1.30	0.94
2023	22,782	8,579	21,283	29,862	1.31	0.93

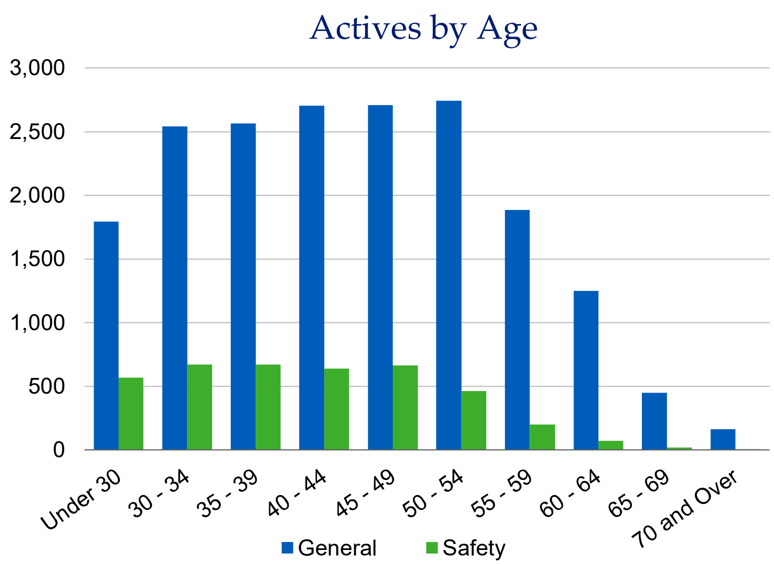
[1] Includes members who chose to leave their contributions on deposit even though they have less than five years of service.

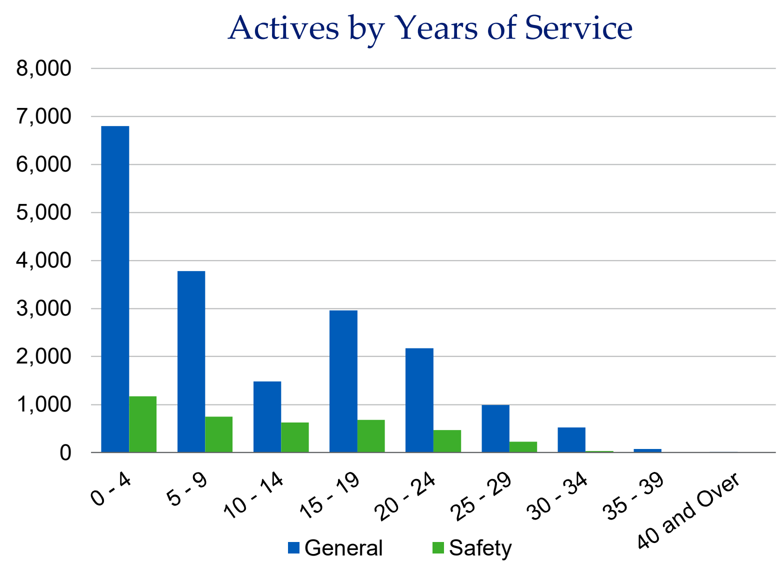
Section 2: Actuarial Valuation Results

Active members

Demographic Data	As of December 31, 2023	As of December 31, 2022	Change
Active members	22,782	22,061	3.3%
Average age[1]	44.2	44.5	(0.3)
Average years of service	11.5	12.0	(0.5)
Average compensation	$99,990	$96,309	3.8%

Distribution of Active Members as of December 31, 2023





Inactive members

Demographic Data	As of December 31, 2023	As of December 31, 2022	Change
Inactive members[2]	8,579	7,894	8.7%

[1] Among the active members, there were none with unknown age information.
[2] Includes members who chose to leave their contributions on deposit even though they have less than five years of service.

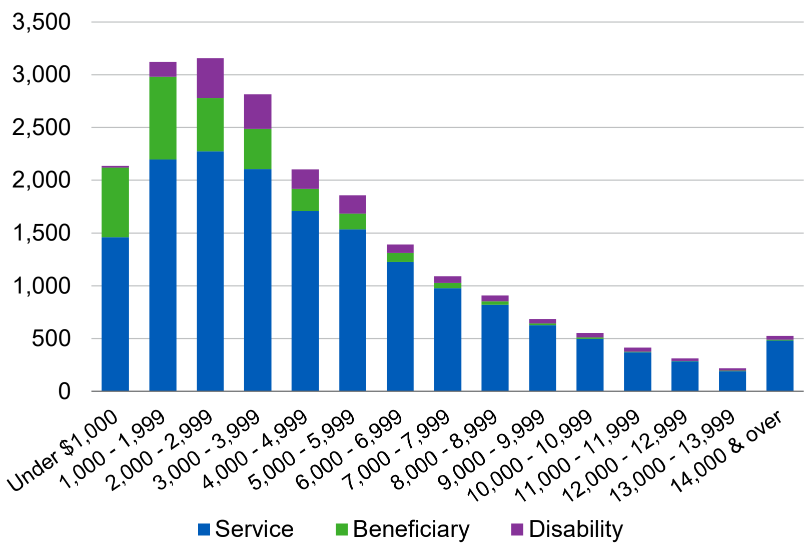
Section 2: Actuarial Valuation Results

Retired members and beneficiaries

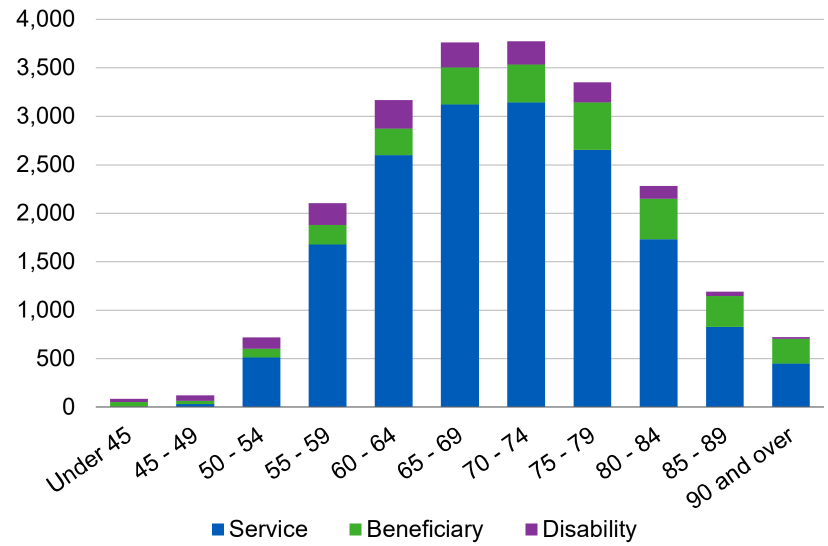
Demographic Data	As of December 31, 2023	As of December 31, 2022	Change
Retired members	18,382	17,899	2.7%
Beneficiaries	2,901	2,779	4.4%
Average age	70.6	70.4	0.2
Average monthly amount[1]	$4,737	$4,563	3.8%
Total monthly amount	$100,814,875	$94,344,734	6.9%

Distribution of Retired Members and Beneficiaries as of December 31, 2023

By Type and Monthly Amount



By Type and Age



[1] Excludes monthly benefits payable from the Supplemental Targeted Adjustment for Retirees Cost of Living Adjustment (STAR COLA).

Section 2: Actuarial Valuation Results

Historical plan population

The chart below demonstrates the progression of the active population over the last ten years. The chart also shows the growth among the retired population over the same time period.

Member Data Statistics

Active Members versus Retired Members and Beneficiaries (Pay Status)

As of December 31	Active Count	Active Average Age	Active Average Service	Pay Status Count	Pay Status Average Age	Pay Status Monthly Amount[1]
2014	21,459	45.6	13.2	15,169	69.4	$3,455
2015	21,525	45.5	13.1	15,810	69.5	3,560
2016	21,746	45.4	12.9	16,369	69.7	3,637
2017	21,721	45.3	12.9	16,947	69.8	3,745
2018	21,929	45.1	12.8	17,674	70.0	3,913
2019	22,257	44.9	12.5	18,420	70.1	4,077
2020	21,559	44.8	12.5	19,419	70.2	4,251
2021	22,011	44.9	12.4	19,826	70.4	4,379
2022	22,061	44.5	12.0	20,678	70.4	4,563
2023	22,782	44.2	11.5	21,283	70.6	4,737

[1] Excludes monthly benefits payable from the Supplemental Targeted Adjustment for Retirees Cost of Living Adjustment (STAR COLA).

Section 2: Actuarial Valuation Results

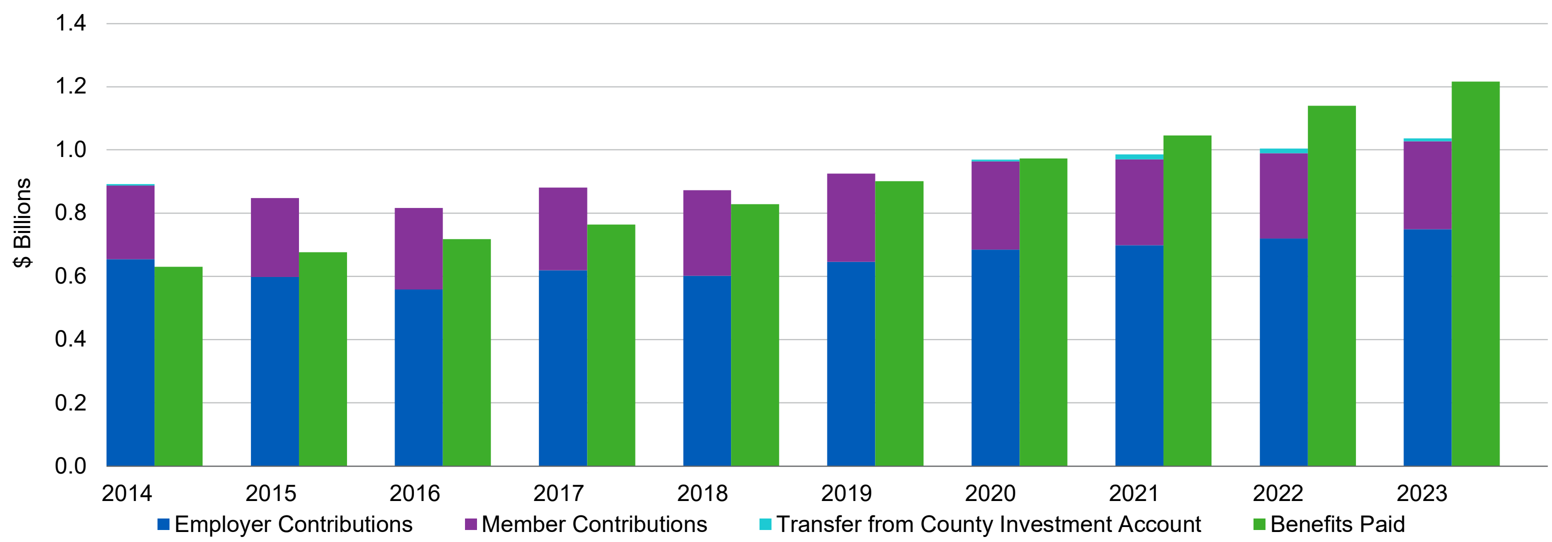
B. Financial information

Retirement plan funding anticipates that, over the long term, both contributions and investment earnings (less investment fees and administrative expenses) will be needed to cover benefit payments and administrative expenses. Retirement plan assets change as a result of the net impact of these income and expense components.

Additional financial information, including a summary of transactions for the valuation year, is presented in *Section 3, Exhibits D, E, F and G.*

It is desirable to have level and predictable plan costs from one year to the next. For this reason, the Board has approved an asset valuation method that gradually adjusts to market value. Under this valuation method, the full value of market fluctuations is not recognized in a single year and, as a result, the valuation asset value and the plan costs are more stable. The amount of the adjustment to recognize market value is treated as income, which may be positive or negative. Realized and unrealized gains and losses are treated equally and, therefore, the sale of assets has no immediate effect on the actuarial value.

Comparison of Contributions Made with Benefits for Years Ended December 31



Section 2: Actuarial Valuation Results

Determination of Actuarial Value and Valuation Value of Assets for Year Ended December 31, 2023

Step		Actual Return	Expected Return	Investment Gain/(Loss)	Percent Deferred	Deferred Amount	Amount
1.	Market value of assets[1]						$21,635,294,000
2.	Calculation of unrecognized return						
	a. Year ended December 31, 2019	$2,123,258,000	$1,004,779,000	$1,118,479,000	0%	$0	
	b. Year ended December 31, 2020	1,982,757,000	1,155,523,000	827,234,000	20%	165,447,000	
	c. Year ended December 31, 2021	3,273,348,000	1,293,495,000	1,979,853,000	40%	791,941,000	
	d. Year ended December 31, 2022	(2,106,139,000)	1,518,273,000	(3,624,412,000)	60%	(2,174,647,000)	
	e. Year ended December 31, 2023	2,258,475,000	1,361,890,000	896,585,000	80%	717,268,000	
	f. Total deferred return[2]						**$(499,991,000)**
3.	**Actuarial value of assets 1 – 2f**						**$22,135,285,000**
4.	Ratio of actuarial to market value **3 ÷ 1**						102.31%
5.	Non-valuation reserves						
	a. Unclaimed member deposit						$0
	b. Medicare medical insurance reserve						0
	c. Total Sum of 5a through 5b						**$0**
6.	**Valuation value of assets 3 – 5c**						**$22,135,285,000**

Note: Results may be slightly off due to rounding.

Consistent with OCERS Actuarial Funding Policy, Segal has reviewed the pattern of recognition of net deferred investment gains or losses provided in footnote (2) and determined, based on our professional judgement, that the net deferred investment gains or losses are not relatively small and the pattern of such recognition is not so markedly non-level as to warrant additional study or action by the Board.

[1] Excludes $146,110,000 in County Investment Account (funded by pension obligation bond proceeds held by OCERS), $38,502,000 in Prepaid Employer Contributions and $16,025,000 in O.C. Sanitation District UAAL Deferred Account.

[2] Total deferred return is equal to the **sum of 2a through 2e**. The total deferred return as of December 31, 2023 is recognized in each of the next four years as follows:

a. Amount recognized on December 31, 2024	$15,852,000
b. Amount recognized on December 31, 2025	(149,595,000)
c. Amount recognized on December 31, 2026	(545,565,000)
d. Amount recognized on December 31, 2027	179,317,000

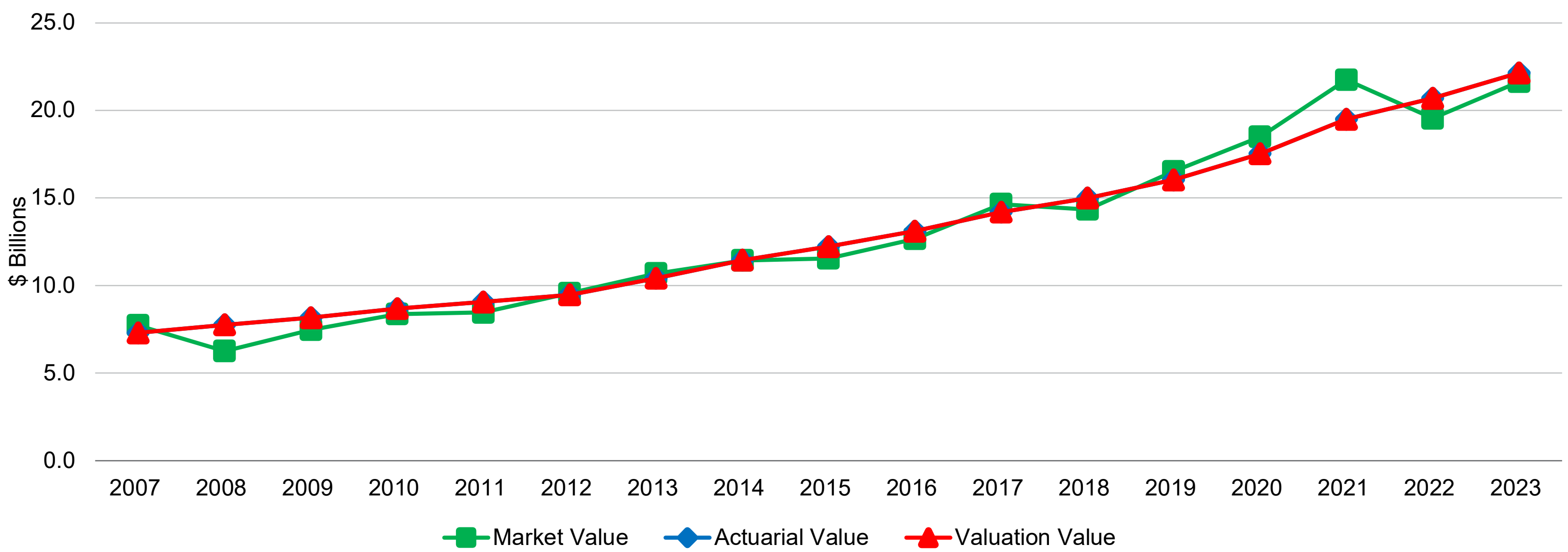
Section 2: Actuarial Valuation Results

Asset history

The market value, actuarial value and valuation value of assets are representations of the Plan's financial status. As investment gains and losses are gradually taken into account, the actuarial value of assets tracks the market value of assets. The valuation value of assets is generally the actuarial value, excluding any non-valuation reserves.

The valuation value of assets is significant because the Plan's liabilities are compared to these assets to determine what portion, if any, remains unfunded. Amortization of the UAAL is an important element in determining the contribution requirement.

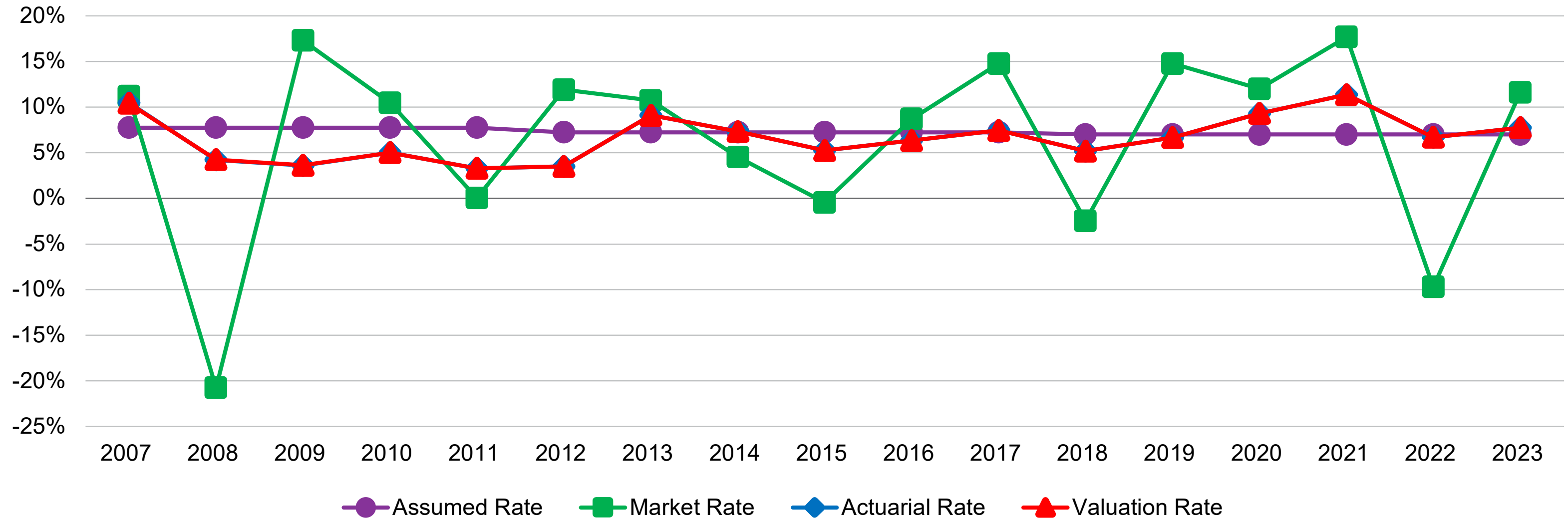
Market Value, Actuarial Value, and Valuation Value of Assets as of December 31



Section 2: Actuarial Valuation Results

Historical investment returns

Market, Actuarial and Valuation Rates of Return for Years Ended December 31



Legend	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
■ Market rate	11.18%	(20.76%)	17.32%	10.47%	0.04%	11.92%	10.73%	4.52%	(0.45%)	8.72%	14.79%	(2.46%)	14.79%	12.01%	17.71%	(9.71%)	11.61%
◆ Actuarial rate	10.49%	4.23%	3.60%	5.02%	3.28%	3.49%	9.11%	7.34%	5.26%	6.33%	7.44%	5.20%	6.66%	9.31%	11.38%	6.69%	7.77%
▲ Valuation rate	10.45%	4.25%	3.62%	5.02%	3.29%	3.49%	9.11%	7.34%	5.26%	6.33%	7.44%	5.20%	6.66%	9.31%	11.38%	6.69%	7.77%
● Assumed rate	7.75%	7.75%	7.75%	7.75%	7.75%	7.25%	7.25%	7.25%	7.25%	7.25%	7.25%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%

Average Rates of Return	Market Value	Actuarial Value	Valuation Value
Most recent five-year geometric average return:	8.81%	8.35%	8.35%
Most recent 10-year geometric average return:	6.81%	7.32%	7.32%
Most recent 15-year geometric average return:	7.84%	6.50%	6.50%

Section 2: Actuarial Valuation Results

C. Actuarial experience

To calculate any actuarially determined contribution, assumptions are made about future events that affect the amount and timing of benefits to be paid and assets to be accumulated. Each year actual experience is measured against the assumptions. If overall experience is more favorable than anticipated (an actuarial gain), the actuarially determined contribution will decrease from the previous year. On the other hand, the actuarially determined contribution will increase if overall actuarial experience is less favorable than expected (an actuarial loss).

Taking account of experience gains or losses in one year without making a change in assumptions reflects the belief that the single year's experience was a short-term development and that, over the long term, experience will return to the original assumptions. For contribution requirements to remain stable, assumptions should approximate experience.

If assumptions are changed, the contribution requirement is adjusted to take into account a change in experience anticipated for all future years.

The actuarial experience for the year can be found below and a discussion of the major components can be found on the following pages.

Actuarial Experience for Year Ended December 31, 2023

	Source	Amount
1.	Net (gain)/loss from investments[1]	$(158,556,000)
2.	Net (gain)/loss from contributions	38,941,000
3.	Net gain from additional UAAL contributions[2]	(17,643,000)
4.	Net (gain)/loss from other experience[3]	161,616,000
5.	**Net experience (gain)/loss Sum of 1 through 4**	**$24,358,000**

[1] Details on next page.
[2] Includes additional UAAL contributions from OCFA and scheduled payments from DOE and U.C.I.
[3] See *Subsection E* for further details. Does not include the effect of plan, method or assumption changes, if any.

Section 2: Actuarial Valuation Results

Investment experience

A major component of projected asset growth is the assumed rate of return. The assumed return should represent the expected long-term rate of return, based on the Plan's investment policy.

For valuation purposes, the assumed rate of return on the valuation value of assets is 7.00% based on the December 31, 2022 valuation. The actual rate of return on a valuation basis for the 2023 plan year was 7.77% after considering the recognition of prior years' investment gains and losses. Since the actual return for the year was greater than the assumed return, the Plan experienced an actuarial gain during the year ended December 31, 2023 with regard to its investments.

Investment Experience for Year Ended December 31, 2023

	Line Description	Market Value	Actuarial Value	Valuation Value
1.	Net investment income	$2,258,475,000	$1,601,438,000	$1,601,438,000
2.	Average value of assets	$19,455,574,000	$20,612,602,000	$20,612,602,000
3.	Rate of return **1 ÷ 2**	11.61%[1]	7.77%	7.77%
4.	Assumed rate of return	7.00%	7.00%	7.00%
5.	Expected investment income **2 × 4**	$1,361,890,000	$1,442,882,000	1,442,882,000
6.	**Investment gain/(loss) 1 − 5**	**$896,585,000**	**$158,556,000**	**$158,556,000**

[1] Return on market value was calculated using a modified dollar-weighted approach based on pension plan assets net of accounting liabilities. Actual investment income on net pension plan assets was $2,258,475,000 during 2023 after including both the administrative expenses and discount for prepaid contributions while excluding the amount credited to County Investment Account and O.C. Sanitation District UAAL Deferred Account. Without these adjustments, the actual investment income was $2,325,481,000.

Section 2: Actuarial Valuation Results

Contributions

Contributions for the year ended December 31, 2023 totaled $1,058.4 million[1], compared to the projected amount of $1,079.7 million. This resulted in a loss of $21.3 million for the year, when adjusted for timing.

Other experience

There are other differences between the expected and the actual experience that appear when the new valuation is compared with the projections from the previous valuation. These include:

- Mortality experience (more or fewer than expected deaths)
- The extent of turnover among members
- Retirement experience (earlier or later than projected)
- The number of disability retirements (more or fewer than projected)
- Salary increases (greater or smaller than projected)
- Cost-of-living adjustments (COLAs) higher or lower than anticipated.

The net loss from this other experience for the year ended December 31, 2023 amounted to $161.6 million, which is 0.6% of the actuarial accrued liability. See *Section 2, Subsection E* for a detailed development of the UAAL.

[1] Includes additional UAAL contributions from OCFA and scheduled payments from DOE and U.C.I. Without those amounts, the loss would have been about $39 million.

Section 2: Actuarial Valuation Results

D. Other changes impacting the actuarial accrued liability

Actuarial assumptions and methods

The results of this valuation reflect changes in the actuarial assumptions as recommended by Segal and adopted by the Board of Retirement for the December 31, 2023 valuation. These assumption changes, including slight changes in retirement, termination, disability, mortality and salary increase assumptions together with two technical refinements in calculating normal cost rates, resulted in an increase in the average employer rate of 0.81% of payroll and a decrease in the average member rate of 0.12% of payroll. There is also an increase in UAAL by $145.0 million associated with the updated assumptions.

The two refinements included an improvement in reflecting the timing of decrements in calculating the total normal cost rate for each plan and using the individual (instead of the aggregate) version of the Entry Age cost allocation method to determine the normal cost of the COLA benefits, resulting in an increase in the employer normal cost rate and a decrease in the member normal cost rate, primarily for the Safety rate groups.

Note that there was one additional refinement included in the experience study report that has been deferred until it is fully vetted by OCERS, involving a change in allocation of the normal cost associated with providing COLA benefits for legacy Safety members with 30 or more years of service. Relative to the impact estimated in the experience study, the impact of this change would have been smaller if it were implemented in this valuation. However, the final impact is dependent on the demographic profile of legacy Safety members (i.e., proportion of members with 30 or more years of service) at implementation.

Details on actuarial assumptions and methods are in *Section 4, Exhibit 1*.

Plan provisions

There were no changes in plan provisions since the prior valuation.

A summary of plan provisions is in *Section 4, Exhibit 2*.

Section 2: Actuarial Valuation Results

E. Unfunded actuarial accrued liability

Development of Unfunded Actuarial Accrued Liability for Year Ended December 31, 2023

Line Description		Amount
1.	Unfunded actuarial accrued liability at beginning of year	$4,695,010,000
2.	Normal cost at middle of year	554,786,000
3.	Expected employer and member contributions	(1,079,004,000)
4.	Interest to end of year	312,639,000
5.	**Expected unfunded actuarial accrued liability at end of year Sum of 1 though 4**	**$4,483,431,000**
6.	Changes due to:	
	a. Investment return greater than expected, after asset smoothing	$(158,556,000)
	b. Actual contributions less than expected under funding policy	38,941,000
	c. Additional UAAL contributions from OCFA, and scheduled payments[1] from DOE and U.C.I.	(17,643,000)
	d. Individual salary increases greater than expected	84,355,000
	e. COLA increases greater than expected in 2024[2]	14,660,000
	f. Other net experience (gain)/loss[3]	62,601,000
	g. Changes in actuarial assumptions	144,967,000
	h. Total changes Sum of 6a through 6g	**$169,325,000**
7.	**Unfunded actuarial accrued liability at end of year 5 + 6h**	**$4,652,756,000**

Note: The sum of items 6d, 6e and 6f equals the "Net (gain)/loss from other experience" shown in *Section 2, Subsection C.*

[1] Segal provided separate letters for DOE and U.C.I. with regard to their required UAAL contributions based on the Board's Declining Employer Payroll policy. These contributions have not been reflected in the contribution rates developed in this valuation. Segal also provided separate letters for O.C. Vector Control and Cypress Recreation and Parks with regard to their updated withdrawal liabilities based on the Board's Withdrawing Employer Policy, although no contributions were required to be made by O.C. Vector Control and CRPD during the past calendar year. CRPD had no withdrawal liability as of December 31, 2022 and even though O.C. Vector Control had a withdrawal liability of $113,784 as of December 31, 2022, they did not have a withdrawal liability as of December 31, 2020 which was the valuation used to determine their require contribution until the next review as of December 31, 2023 after the experience study.

[2] Actuarial loss from payment of COLAs higher than the 2.75% COLA assumption (based on actual CPI of 3.50%, 3.00% COLA expected to be paid April 1st 2024, 2025 and 2026, for members without COLA Banks as of April 1, 2024).

[3] Other differences in actual versus expected experience including (but not limited to) mortality, retirement, disability and termination experience.

Section 2: Actuarial Valuation Results

F. Recommended contribution

The recommended contribution is equal to the employer normal cost payment and a payment on the UAAL. As of December 31, 2023, the average recommended employer contribution is 38.09% of payroll.

The Board sets the funding policy used to calculate the recommended contribution based on layered 20-year[1] amortization periods as a level percentage of payroll. See *Section 4, Exhibit 1* for further details on the funding policy. Based on this policy, there is no negative amortization and each amortization layer is fully funded in 20 years. A more detailed projection of the UAAL, funded status and employer contribution rates will be provided in a separate report.

The current funding policy is intended to fully fund the cost of the benefits and to allocate the cost of benefits reasonably and equitably over time while minimizing the volatility of employer contributions. The recommended contribution is expected to remain level as a percent of payroll, except when any current amortization layer is fully amortized and assuming there are no future actuarial gains or losses. Furthermore, the funded ratio is expected to increase as the UAAL is methodically funded by employer contributions.

Average Recommended Employer Contribution Calculated as of December 31

Line Description	2023 Amount ($ in '000s)	2023 % of Projected Compensation	2022 Amount ($ in '000s)	2022 % of Projected Compensation
1. Total normal cost	$583,960	25.63%	$554,786	26.12%
2. Expected member normal cost contributions	267,501	11.74%	256,561	12.08%
3. Employer normal cost **1 – 2**	$316,459	13.89%	$298,225	14.04%
4. Actuarial accrued liability	$26,788,041		$25,386,669	
5. Valuation value of assets	22,135,285		20,691,659	
6. UAAL **4 – 5**	$4,652,756		$4,695,010	
7. Payment on UAAL	$551,317	24.20%	$524,218	24.67%
8. Average recommended employer contribution 3 + 7	**$867,776**	**38.09%**	**$822,443**	**38.71%**
9. Projected payroll	$2,277,976		$2,124,678	

Note: Contributions are assumed to be paid at the middle of the year.

[1] Changes in UAAL due to actuarial gains or losses, changes in actuarial assumptions or methods, and plan amendments for each valuation are amortized over separate 20-year periods.

Section 2: Actuarial Valuation Results

Reconciliation of average recommended employer contribution rate

Reconciliation from December 31, 2022 to December 31, 2023

	Item	Contribution Rate	Estimated Annual Dollar Amount ($ in '000s)[1]
1.	Average recommended employer contribution as of December 31, 2022	38.30%	$872,447
2.	**Changes due to:**		
a.	Investment return greater than expected after asset smoothing	(0.50%)	$(11,390)
b.	Actual contributions less than expected[2]	0.12%	2,734
c.	Additional UAAL contributions for OCFA	(0.05%)	(1,139)
d.	Individual salary increases greater than expected	0.27%	6,151
e.	COLA increases greater than expected in 2024[3]	0.05%	1,139
f.	Amortizing prior year's UAAL over a (larger)/smaller than expected total payroll	(0.97%)	(22,096)
g.	Other net experience (gain)/loss[4]	0.06%	1,479
h.	Changes in actuarial assumptions	0.81%	18,451
i.	**Total change Sum of 2a through 2h**	**(0.21%)**	**$(4,671)**
3.	**Average recommended employer contribution as of December 31, 2023 1 + 2i**	**38.09%**	**$867,776**

[1] Based on December 31, 2023 projected annual compensation as shown on page 46.
[2] Includes impact difference between actual and expected normal cost and UAAL contributions due to actual payroll different than expected during 2023.
[3] Actuarial loss from payment of COLAs higher than the 2.75% COLA assumption (based on actual CPI of 3.50%, 3.00% COLA expected to be paid April 1st 2024, 2025 and 2026, for members without COLA Banks as of April 1, 2024).
[4] Net of an effect of adjusting the rate to normal cost for Rates Groups that are fully funded as of December 31, 2023.

Section 2: Actuarial Valuation Results

Reconciliation of average recommended member contribution rate

Reconciliation from December 31, 2022 to December 31, 2023

Item	Contribution Rate	Estimated Annual Dollar Amount ($ in '000s)[1]
1. Average recommended member contribution as of December 31, 2022[2]	11.84%	$269,712
2. Changes due to:		
a. Change in member demographics on normal cost	0.02%	$523
b. Changes in actuarial assumptions	(0.12%)	(2,734)
c. Total change Sum of 2a through 2b	**(0.10%)**	**$(2,211)**
3. Average recommended member contribution as of December 31, 2023 1 + 2c	**11.74%**	**$267,501**

1 Based on December 31, 2023 projected annual compensation as shown on page 46.
2 Rates have been recalculated by applying the individual entry age-based rates determined in the December 31, 2022 valuation to the System membership as of December 31, 2023.

Section 2: Actuarial Valuation Results

Recommended employer contribution rate

Recommended Employer Contribution Calculated as of December 31

Component by Rate Group and Plan	2023 Contribution Rate	2023 Estimated Annual Amount[1] ($ in '000s)	2022 Contribution Rate	2022 Estimated Annual Amount[1] ($ in '000s)
Rate Group #1 – Plans A and B (2.0% @ 57 and 1.64% @ 57 – County and IHSS)				
Normal cost	10.39%	$3,078	10.26%	$3,040
UAAL[2]	2.93%	868	3.61%	1,069
Total contribution	**13.32%**	**$3,946**	**13.87%**	**$4,109**
Rate Group #1 – Plan U (2.5% @ 67 PEPRA)[3]				
Normal cost	10.25%	$8,336	10.03%	$8,157
UAAL[2]	2.93%	2,383	3.61%	2,936
Total contribution	**13.18%**	**$10,719**	**13.64%**	**$11,093**
Rate Group #1 – Plans A, B and U Combined				
Normal cost	10.29%	$11,414	10.09%	$11,197
UAAL[2]	2.93%	3,251	3.61%	4,005
Total contribution	**13.22%**	**$14,665**	**13.70%**	**$15,202**

1 Based on December 31, 2023 projected annual compensation as shown on page 46.
2 UAAL rate has been adjusted to reflect 18-month delay between date of valuation and date of rate implementation.
3 Applicable for members hired on or after January 1, 2013.

Section 2: Actuarial Valuation Results

Component by Rate Group and Plan	2023 Contribution Rate	2023 Estimated Annual Amount[1] ($ in '000s)	2022 Contribution Rate	2022 Estimated Annual Amount[1] ($ in '000s)
Rate Group #2 – Plans I and J (2.7% @ 55 – non-Children and Families Commission)[2]				
Normal cost	15.29%	$100,995	14.57%	$96,240
UAAL[3]	26.78%	176,891	27.14%	179,269
Total contribution	**42.07%**	**$277,886**	**41.71%**	**$275,509**
Rate Group #2 – Plans I and J (2.7% @ 55 – Children and Families Commission)				
Normal cost	15.29%	$83	14.57%	$79
UAAL[3,4,5]	5.46%	30	4.79%	26
Total contribution	**20.75%**	**$113**	**19.36%**	**$105**
Rate Group #2 – Plans O and P (1.62% @ 65)				
Normal cost	6.54%	$940	6.17%	$887
UAAL[3]	26.78%	3,849	27.14%	3,900
Total contribution	**33.32%**	**$4,789**	**33.31%**	**$4,787**
Rate Group #2 – Plan S (2.0% @ 57)				
Normal cost	16.79%	$241	15.97%	$229
UAAL[3]	26.78%	385	27.14%	390
Total contribution	**43.57%**	**$626**	**43.11%**	**$619**
Rate Group #2 – Plan T (1.62% @ 65 PEPRA)[6]				
Normal cost	7.34%	$41,686	7.29%	$41,402
UAAL[3]	26.78%	152,092	27.14%	154,136
Total contribution	**34.12%**	**$193,778**	**34.43%**	**$195,538**

1 Based on December 31, 2023 projected annual compensation as shown on page 46.
2 For Orange County Employees Retirement System (the employer) with future service only benefit improvements under 2.7% @ 55, refer to the employer rates on page 47.
3 UAAL rate has been adjusted to reflect 18-month delay between date of valuation and date of rate implementation.
4 UAAL rate has been adjusted to reflect future service only benefit improvement under 2.7% @ 55.
5 Unlike the other non-Children & Families employers, the decrease in the employer UAAL rate due to total payroll growth greater than expected for the amortization layers established prior to December 31, 2023 for Children & Families was not large enough to offset the rate increases due to changes in actuarial assumptions and other experience losses established in the December 31, 2023 valuation.
6 Applicable for members hired on or after January 1, 2013 except for County Attorneys, SJC members, OCERS management members, Superior Court members, and Children and Families members.

Section 2: Actuarial Valuation Results

Component by Rate Group and Plan	2023 Contribution Rate	2023 Estimated Annual Amount[1] ($ in '000s)	2022 Contribution Rate	2022 Estimated Annual Amount[1] ($ in '000s)
Rate Group #2 – Plan U (2.5% @ 67 PEPRA – non-Children and Families Commission)[2,3]				
Normal cost	9.15%	$11,362	9.24%	$11,473
UAAL[4]	26.78%	33,253	27.14%	33,700
Total contribution	**35.93%**	**$44,615**	**36.38%**	**$45,173**
Rate Group #2 – Plan U (2.5% @ 67 PEPRA – Children and Families Commission)[5]				
Normal cost	9.15%	$108	9.24%	$109
UAAL[4,6,7]	5.46%	65	4.79%	57
Total contribution	**14.61%**	**$173**	**14.03%**	**$166**
Rate Group #2 – Plan W (1.62% @ 65 PEPRA)[8]				
Normal cost	7.88%	$22	7.82%	$22
UAAL[4]	26.78%	76	27.14%	77
Total contribution	**34.66%**	**$98**	**34.96%**	**$99**
Rate Group #2 – Plans I, J, O, P, S, T, U and W Combined				
Normal cost	11.34%	$155,437	10.98%	$150,441
UAAL[4]	26.75%	366,641	27.11%	371,555
Total contribution	**38.09%**	**$522,078**	**38.09%**	**$521,996**

[1] Based on December 31, 2023 projected annual compensation as shown on page 46.
[2] Applicable for County Attorneys, SJC members, OCERS management members, and Superior Court members hired on or after January 1, 2013.
[3] For Orange County Employees Retirement System (the employer) with future service only benefit improvements under 2.7% @ 55, refer to the employer rates on page 47.
[4] UAAL rate has been adjusted to reflect 18-month delay between date of valuation and date of rate implementation.
[5] Applicable for Children and Family members hired on or after January 1, 2013.
[6] UAAL rate has been adjusted to reflect future service only benefit improvement under 2.7% @ 55.
[7] Unlike the other non-Children & Families employers, the decrease in the employer UAAL rate due to total payroll growth greater than expected for the amortization layers established prior to December 31, 2023 for Children & Families was not large enough to offset the rate increases due to changes in actuarial assumptions and other experience losses established in the December 31, 2023 valuation.
[8] Applicable for SJC members hired on or after January 1, 2016 and not electing Plan U.

Section 2: Actuarial Valuation Results

Component by Rate Group and Plan	2023 Contribution Rate	2023 Estimated Annual Amount[1] ($ in '000s)	2022 Contribution Rate	2022 Estimated Annual Amount[1] ($ in '000s)
Rate Group #3 – Plans G and H (2.5% @ 55 – OCSD)				
Normal cost	14.05%	$4,115	13.36%	$3,913
UAAL[2,3]	0.00%	0	0.00%	0
Total contribution	**14.05%**	**$4,115**	**13.36%**	**$3,913**
Rate Group #3 – Plan B (1.64% @ 57 – OCSD)				
Normal cost	13.09%	$916	12.81%	$896
UAAL[2,3]	0.00%	0	0.00%	0
Total contribution	**13.09%**	**$916**	**12.81%**	**$896**
Rate Group #3 – Plan U (2.5% @ 67 PEPRA)[4]				
Normal cost	9.95%	$4,714	9.97%	$4,723
UAAL[2,3]	0.00%	0	0.00%	0
Total contribution	**9.95%**	**$4,714**	**9.97%**	**$4,723**
Rate Group #3 – Plans B, G, H and U Combined				
Normal cost	11.65%	$9,745	11.39%	$9,532
UAAL[2,3]	0.00%	0	0.00%	0
Total contribution	**11.65%**	**$9,745**	**11.39%**	**$9,532**

[1] Based on December 31, 2023 projected annual compensation as shown on page 46.
[2] UAAL rate has been adjusted to reflect 18-month delay between date of valuation and date of rate implementation.
[3] Under CalPEPRA, the employer's contribution rate cannot be less than the Normal Cost unless the funded ratio is over 120% and other conditions in CalPEPRA are met.
[4] Applicable for members hired on or after January 1, 2013.

Section 2: Actuarial Valuation Results

Component by Rate Group and Plan	2023 Contribution Rate	2023 Estimated Annual Amount[1] ($ in '000s)	2022 Contribution Rate	2022 Estimated Annual Amount[1] ($ in '000s)
Rate Group #5 – Plans A and B (2.0% @ 57 and 1.64% @ 57 – OCTA)				
Normal cost	12.60%	$9,453	12.32%	$9,243
UAAL[2]	18.31%	13,737	18.11%	13,586
Total contribution	**30.91%**	**$23,190**	**30.43%**	**$22,829**
Rate Group #5 – Plan U (2.5% @ 67 PEPRA)[3]				
Normal cost	11.95%	$6,002	11.89%	$5,972
UAAL[2]	18.31%	9,197	18.11%	9,096
Total contribution	**30.26%**	**$15,199**	**30.00%**	**$15,068**
Rate Group #5 – Plans A, B and U Combined				
Normal cost	12.34%	$15,455	12.15%	$15,215
UAAL[2]	18.31%	22,934	18.11%	22,682
Total contribution	**30.65%**	**$38,389**	**30.26%**	**$37,897**

[1] Based on December 31, 2023 projected annual compensation as shown on page 46.
[2] UAAL rate has been adjusted to reflect 18-month delay between date of valuation and date of rate implementation.
[3] Applicable for members hired on or after January 1, 2015.

Section 2: Actuarial Valuation Results

Component by Rate Group and Plan	2023 Contribution Rate	2023 Estimated Annual Amount[1] ($ in '000s)	2022 Contribution Rate	2022 Estimated Annual Amount[1] ($ in '000s)
Rate Group #9 – Plans M and N (2.0% @ 55 – TCA)				
Normal cost [2]	16.17%	$449	13.95%	$387
UAAL[3,4]	0.00%	0	0.00%	0
Total contribution	**16.17%**	**$449**	**13.95%**	**$387**
Rate Group #9 – Plan U (2.5% @ 67 PEPRA)[5]				
Normal cost	11.32%	$555	10.79%	$529
UAAL[3,4]	0.00%	0	0.00%	0
Total contribution	**11.32%**	**$555**	**10.79%**	**$529**
Rate Group #9 – Plans M, N and U Combined				
Normal cost	13.08%	$1,004	11.93%	$916
UAAL[3,4]	0.00%	0	0.00%	0
Total contribution	**13.08%**	**$1,004**	**11.93%**	**$916**

1 Based on December 31, 2023 projected annual compensation as shown on page 46.
2 The increase in the employer normal cost rate from last year to this year is primarily due to the change in the average entry age from 35.9 to 37.2.
3 UAAL rate has been adjusted to reflect 18-month delay between date of valuation and date of rate implementation.
4 Under CalPEPRA, the employer's contribution rate cannot be less than the Normal Cost unless the funded ratio is over 120% and other conditions in CalPEPRA are met.
5 Applicable for members hired on or after January 1, 2013.

Section 2: Actuarial Valuation Results

Component by Rate Group and Plan	2023 Contribution Rate	2023 Estimated Annual Amount[1] ($ in '000s)	2022 Contribution Rate	2022 Estimated Annual Amount[1] ($ in '000s)
Rate Group #10 – Plans I and J (2.7% @ 55 – OCFA)				
Normal cost	15.56%	$1,465	14.99%	$1,411
UAAL[2]	10.51%	989	10.50%	988
Total contribution	**26.07%**	**$2,454**	**25.49%**	**$2,399**
Rate Group #10 – Plans M and N (2.0% @ 55 – OCFA)				
Normal cost	17.88%	$897	17.22%	$864
UAAL[2]	10.51%	527	10.50%	527
Total contribution	**28.39%**	**$1,424**	**27.72%**	**$1,391**
Rate Group #10 – Plan U (2.5% @ 67 PEPRA)[3]				
Normal cost	10.10%	$2,154	9.98%	$2,129
UAAL[2]	10.51%	2,242	10.50%	2,239
Total contribution	**20.61%**	**$4,396**	**20.48%**	**$4,368**
Rate Group #10 – Plans I, J, M, N and U Combined				
Normal cost	12.63%	$4,516	12.32%	$4,404
UAAL[2]	10.51%	3,758	10.50%	3,754
Total contribution	**23.14%**	**$8,274**	**22.82%**	**$8,158**

[1] Based on December 31, 2023 projected annual compensation as shown on page 46.
[2] UAAL rate has been adjusted to reflect 18-month delay between date of valuation and date of rate implementation.
[3] Applicable for members hired on or after January 1, 2013.

Section 2: Actuarial Valuation Results

Component by Rate Group and Plan	2023 Contribution Rate	2023 Estimated Annual Amount[1] ($ in '000s)	2022 Contribution Rate	2022 Estimated Annual Amount[1] ($ in '000s)
Rate Group #11 – Plans M and N, future service (2.0% @ 55 – Cemetery)				
Normal cost	12.88%	$157	12.67%	$154
UAAL[2]	1.57%	19	2.45%	30
Total contribution	**14.45%**	**$176**	**15.12%**	**$184**
Rate Group #11 – Plan U (2.5% @ 67 PEPRA)[3]				
Normal cost	12.26%	$98	12.04%	$96
UAAL[2]	1.57%	12	2.45%	20
Total contribution	**13.83%**	**$110**	**14.49%**	**$116**
Rate Group #11 – Plans M, N and U Combined				
Normal cost	12.66%	$255	12.41%	$250
UAAL[2]	1.57%	31	2.45%	50
Total contribution	**14.23%**	**$286**	**14.86%**	**$300**

1 Based on December 31, 2023 projected annual compensation as shown on page 46.
2 UAAL rate has been adjusted to reflect 18-month delay between date of valuation and date of rate implementation.
3 Applicable for members hired on or after January 1, 2013.

Section 2: Actuarial Valuation Results

Component by Rate Group and Plan	2023 Contribution Rate	2023 Estimated Annual Amount[1] ($ in '000s)	2022 Contribution Rate	2022 Estimated Annual Amount[1] ($ in '000s)
Rate Group #12 – Plans G and H, future service (2.5% @ 55 – Law Library)				
Normal cost[2]	14.54%	$133	13.49%	$124
UAAL[3,4,5]	0.00%	0	0.00%	0
Total contribution	**14.54%**	**$133**	**13.49%**	**$124**
Rate Group #12 – Plan U (2.5% @ 67 PEPRA)[6]				
Normal cost	10.67%	$31	10.48%	$30
UAAL[3,4,5]	0.00%	0	0.00%	0
Total contribution	**10.67%**	**$31**	**10.48%**	**$30**
Rate Group #12 – Plans G, H, future service, and U Combined				
Normal cost	13.58%	$164	12.75%	$154
UAAL[3,4,5]	0.00%	0	0.00%	0
Total contribution	**13.58%**	**$164**	**12.75%**	**$154**

[1] Based on December 31, 2023 projected annual compensation as shown on page 46.
[2] The increase in the employer normal cost rate from last year to this year is primarily due to changes in actuarial assumptions.
[3] UAAL rate has been adjusted to reflect 18-month delay between date of valuation and date of rate implementation.
[4] UAAL rate has been adjusted to reflect future service only benefit improvement under 2.5% @ 55.
[5] Under CalPEPRA, the employer's contribution rate cannot be less than the Normal Cost unless the funded ratio is over 120% and other conditions in CalPEPRA are met.
[6] Applicable for members hired on or after January 1, 2013.

Section 2: Actuarial Valuation Results

Component by Rate Group and Plan	2023 Contribution Rate	2023 Estimated Annual Amount[1] ($ in '000s)	2022 Contribution Rate	2022 Estimated Annual Amount[1] ($ in '000s)
Rate Group #6 – Plans E and F (3% @ 50 – Probation)				
Normal cost	23.81%	$11,259	22.65%	$10,710
UAAL[2]	37.76%	17,855	36.48%	17,250
Total contribution	**61.57%**	**$29,114**	**59.13%**	**$27,960**
Rate Group #6 – Plan V (2.7% @ 57 PEPRA)[3]				
Normal cost	16.05%	$1,470	16.11%	$1,475
UAAL[2]	37.76%	3,457	36.48%	3,340
Total contribution	**53.81%**	**$4,927**	**52.59%**	**$4,815**
Rate Group #6 – Plans E, F and V Combined				
Normal cost	22.55%	$12,729	21.59%	$12,185
UAAL[2]	37.76%	21,312	36.48%	20,590
Total contribution	**60.31%**	**$34,041**	**58.07%**	**$32,775**

[1] Based on December 31, 2023 projected annual compensation as shown on page 46.
[2] UAAL rate has been adjusted to reflect 18-month delay between date of valuation and date of rate implementation.
[3] Applicable for members hired on or after January 1, 2013.

Section 2: Actuarial Valuation Results

Component by Rate Group and Plan	2023 Contribution Rate	2023 Estimated Annual Amount[1] ($ in '000s)	2022 Contribution Rate	2022 Estimated Annual Amount[1] ($ in '000s)
Rate Group #7 – Plans E and F (3% @ 50 – Law Enforcement)				
Normal cost	26.65%	$27,605	26.26%	$27,201
UAAL[2]	36.26%	37,559	37.86%	39,217
Total contribution	**62.91%**	**$65,164**	**64.12%**	**$66,418**
Rate Group #7 – Plans Q and R (3% @ 55 – Law Enforcement)				
Normal cost	23.84%	$13,808	24.38%	$14,120
UAAL[2]	36.26%	21,001	37.86%	21,928
Total contribution	**60.10%**	**$34,809**	**62.24%**	**$36,048**
Rate Group #7 – Plan V (2.7% @ 57 PEPRA)[3]				
Normal cost	17.74%	$25,560	18.07%	$26,035
UAAL[2]	36.26%	52,243	37.86%	54,549
Total contribution	**54.00%**	**$77,803**	**55.93%**	**$80,584**
Rate Group #7 – Plans E, F, Q, R and V Combined				
Normal cost	21.92%	$66,973	22.04%	$67,356
UAAL[2]	36.26%	110,803	37.86%	115,694
Total contribution	**58.18%**	**$177,776**	**59.90%**	**$183,050**

1 Based on December 31, 2023 projected annual compensation as shown on page 46.
2 UAAL rate has been adjusted to reflect 18-month delay between date of valuation and date of rate implementation.
3 Applicable for members hired on or after January 1, 2013.

Section 2: Actuarial Valuation Results

Component by Rate Group and Plan	2023 Contribution Rate	2023 Estimated Annual Amount[1] ($ in '000s)	2022 Contribution Rate	2022 Estimated Annual Amount[1] ($ in '000s)
Rate Group #8 – Plans E and F (3% @ 50 – OCFA)				
Normal cost	25.38%	$20,778	25.93%	$21,228
UAAL[2]	12.62%	10,331	12.96%	10,610
Total contribution	**38.00%**	**$31,109**	**38.89%**	**$31,838**
Rate Group #8 – Plans Q and R (3% @ 55 – OCFA)				
Normal cost	26.38%	$6,504	26.48%	$6,529
UAAL[2]	12.62%	3,112	12.96%	3,195
Total contribution	**39.00%**	**$9,616**	**39.44%**	**$9,724**
Rate Group #8 – Plan V (2.7% @ 57 PEPRA)[3]				
Normal cost	15.85%	$11,485	15.89%	$11,514
UAAL[2]	12.62%	9,144	12.96%	9,391
Total contribution	**28.47%**	**$20,629**	**28.85%**	**$20,905**
Rate Group #8 – Plans E, F, Q, R and V Combined				
Normal cost	21.66%	$38,767	21.94%	$39,271
UAAL[2]	12.62%	22,587	12.96%	23,196
Total contribution	**34.28%**	**$61,354**	**34.90%**	**$62,467**

[1] Based on December 31, 2023 projected annual compensation as shown on page 46.
[2] UAAL rate has been adjusted to reflect 18-month delay between date of valuation and date of rate implementation.
[3] Applicable for members hired on or after January 1, 2013.

Section 2: Actuarial Valuation Results

Component by Rate Group and Plan	2023 Contribution Rate	2023 Estimated Annual Amount[1] ($ in '000s)	2022 Contribution Rate	2022 Estimated Annual Amount[1] ($ in '000s)
Rate Groups #1 – #12 Combined				
Normal cost	13.89%	$316,459	13.65%	$310,921
UAAL[2]	24.20%	551,317	24.65%	561,526
Total contribution	**38.09%**	**$867,776**	**38.30%**	**$872,447**

Rate Group and Plan	Projected Annual Compensation ($ in '000s)	Rate Group and Plan	Projected Annual Compensation ($ in '000s)	Rate Group and Plan	Projected Annual Compensation ($ in '000s)
General Employers				Safety Employers	
Rate Group #1 – Plans A and B	$29,625	Rate Group #3 – Plan U	$47,375	Rate Group #6 – Plans E and F	$47,286
Rate Group #1 – Plan U	81,328	Rate Group #5 – Plans A and B	75,022	Rate Group #6 – Plan V	9,156
Rate Group #2 – Plans I and J non-Children and Families Commission	660,533	Rate Group #5 – Plan U	50,228	Rate Group #7 – Plans E and F	103,583
Rate Group #2 – Plans I and J Children and Families Commission	542	Rate Group #9 – Plans M and N	2,775	Rate Group #7 – Plans Q and R	57,918
Rate Group #2 – Plans O and P	14,371	Rate Group #9 – Plan U	4,900	Rate Group #7 – Plan V	144,080
Rate Group #2 – Plan S	1,436	Rate Group #10 – Plans I and J	9,413	Rate Group #8 – Plans E and F	81,866
Rate Group #2 – Plan T	567,930	Rate Group #10 – Plans M and N	5,018	Rate Group #8 – Plans Q and R	24,656
Rate Group #2 – Plan U non-Children and Families Commission	124,171	Rate Group #10 – Plan U	21,328	Rate Group #8 – Plan V	72,459
Rate Group #2 – Plan U Children and Families Commission	1,185	Rate Group #11 – Plans M and N	1,219		
Rate Group #2 – Plan W	285	Rate Group #11 – Plan U	796		
Rate Group #3 – Plans G and H	29,286	Rate Group #12 – Plans G and H	917		
Rate Group #3 – Plan B	6,998	Rate Group #12 – Plan U	291		
				Total Combined	**$2,277,976**

[1] Based on December 31, 2023 projected annual compensation as shown above.
[2] UAAL rate has been adjusted to reflect 18-month delay between date of valuation and date of rate implementation.

Section 2: Actuarial Valuation Results

Component by Rate Group and Plan	2023 Contribution Rate[1]	2023 Contribution Rate[2]	2022 Contribution Rate[1]	2022 Contribution Rate[2]
Rate Group #2 – Plans I and J (2.7% @ 55 – OCERS)				
Normal cost	15.29%	15.29%	14.57%	14.57%
UAAL[3]	25.79%	26.78%	25.92%	27.14%
Total contribution	**41.08%**	**42.07%**	**40.49%**	**41.71%**
Rate Group #2 – Plan U (2.5% @ 67 PEPRA – OCERS)[4]				
Normal cost	9.15%	9.15%	9.24%	9.24%
UAAL[3]	25.79%	26.78%	25.92%	27.14%
Total contribution	**34.94%**	**35.93%**	**35.16%**	**36.38%**

[1] These rates are **after** reflecting future service only benefit improvements under 2.7% @ 55.
[2] These rates are **before** reflecting future service only benefit improvements under 2.7% @ 55.
[3] UAAL rate has been adjusted to reflect 18-month delay between date of valuation and date of rate implementation.
[4] Applicable for Orange County Employees Retirement System members hired on or after January 1, 2013.

Section 2: Actuarial Valuation Results

"Pick-up" discount percentages for non-PEPRA tier members

For every dollar of member contribution "picked up" by the employer for non-PEPRA tier members and not deposited in the member's contribution account, the employer can contribute less than a dollar. This is because the "pick-up" amount is not deposited in the member's contribution account and so is not payable to a member who withdraws his or her contributions following termination of employment, and is not payable as an additional death benefit. The contribution discount percentages are as follows:

Rate Group and Plan	2023 Tier 1 Pick-up Percentage	2023 Tier 2 Pick-up Percentage	2022 Tier 1 Pick-up Percentage	2022 Tier 2 Pick-up Percentage
General				
• Rate Group #1 Plan A/B (County and IHSS)	Plan A: N/A	Plan B: 99.40%	Plan A: N/A	Plan B: 98.94%
• Rate Group #2 (2.7% @ 55 – non-OCFA)	Plan I: 100.00%	Plan J: 99.46%	Plan I: 100.00%	Plan J: 99.06%
• Rate Group #2 (1.62% @ 65)	Plan O: N/A	Plan P: 99.09%	Plan O: N/A	Plan P: 98.52%
• Rate Group #2 (2.0% @ 57)		Plan S: 99.30%		Plan S: 98.76%
• Rate Group #3 (2.5% @ 55 – OCSD)	Plan G: N/A	Plan H: 99.50%	Plan G: N/A	Plan H: 99.13%
• Rate Group #3 (1.64% @ 57 – OCSD)		Plan B: 99.12%		Plan B: 98.53%
• Rate Group #5 Plan A/B (OCTA)	Plan A: 100.00%	Plan B: 99.04%	Plan A: 100.00%	Plan B: 98.62%
• Rate Group #9 (2.0% @ 55 – TCA)	Plan M: N/A	Plan N: 99.33%	Plan M: N/A	Plan N: 98.81%
• Rate Group #10 (2.7% @ 55 – OCFA)	Plan I: N/A	Plan J: 99.52%	Plan I: N/A	Plan J: 99.17%
• Rate Group #10 (2.0% @ 55 – OCFA)	Plan M: N/A	Plan N: 99.35%	Plan M: N/A	Plan N: 98.85%
• Rate Group #11 (2.0% @ 55 – Cemetery)	Plan M: N/A	Plan N: 99.48%	Plan M: N/A	Plan N: 99.30%
• Rate Group #12 (2.5% @ 55 – Law Library)	Plan G: N/A	Plan H: 99.69%	Plan G: N/A	Plan H: 99.41%
Safety				
• Rate Group #6 (3.0% @ 50 – Probation)	Plan E: N/A	Plan F: 99.80%	Plan E: N/A	Plan F: 99.83%
• Rate Group #7 (3.0% @ 50 – Law Enforcement)	Plan E: N/A	Plan F: 99.90%	Plan E: N/A	Plan F: 99.91%
• Rate Group #7 (3.0% @ 55 – Law Enforcement)	Plan Q: N/A	Plan R: 9977%	Plan Q: N/A	Plan R: 99.80%
• Rate Group #8 (3.0% @ 50 – OCFA)	Plan E: N/A	Plan F: 99.87%	Plan E: N/A	Plan F: 99.89%
• Rate Group #8 (3.0% @ 55 – OCFA)	Plan Q: N/A	Plan R: 99.81%	Plan Q: N/A	Plan R: 99.84%

Section 2: Actuarial Valuation Results

“Pick-up" average entry age

The following table provides the average entry age by employer used in determining the “pick-up” contributions under Section 31581.1.

Employer	Code	Average Entry Age for All non PEPRA Members
General		
• Orange County	101	30
• Cemetery District	102	27
• Law Library	103	40
• Retirement System	105	30
• OCFA	106	32
• Transportation Corridor Agency	109	35
• City of San Juan Capistrano	110	32
• Sanitation District	111	32
• OCTA	112	34
• Children & Families Commission	118	28
• Local Agency Formation Commission	119	38
• Superior Court	121	31
• IHSS Public Authority	122	44
Safety		
• Probation	101	26
• Law Enforcement	101	26
• OCFA	106	28

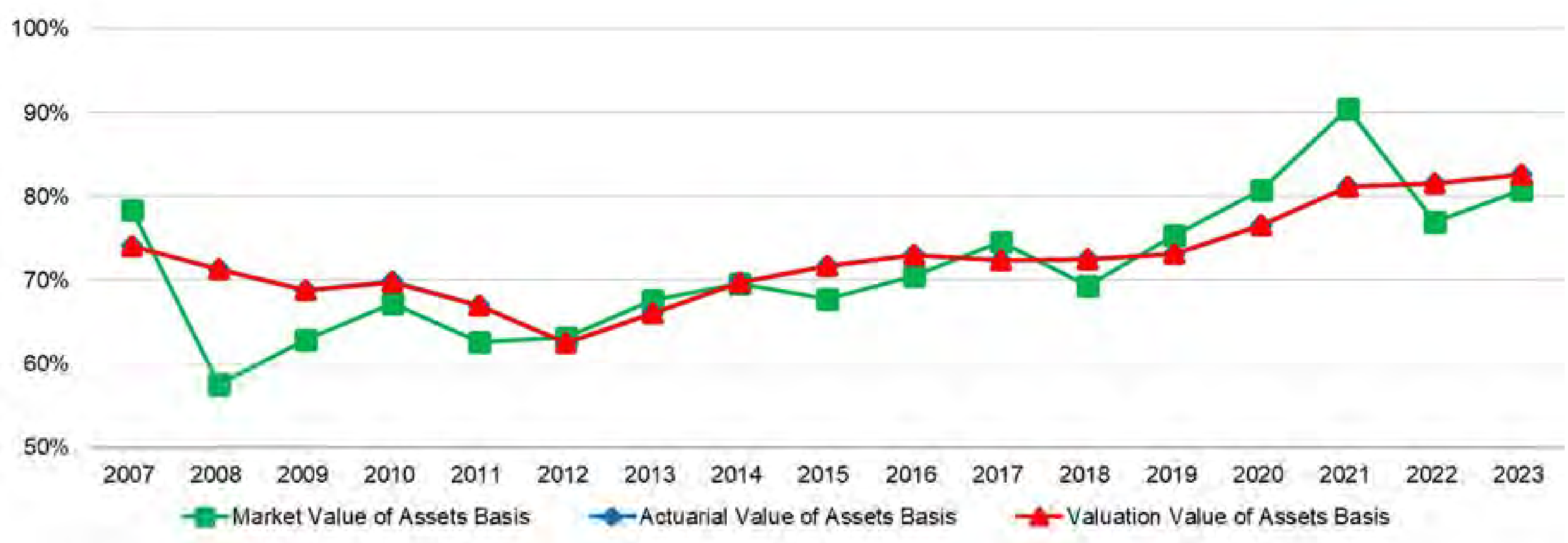
Section 2: Actuarial Valuation Results

G. Funded status

A commonly reported piece of information regarding the Plan's financial status is the funded ratio. These ratios compare the market, actuarial and valuation value of assets to the actuarial accrued liability of the Plan. Higher ratios indicate a relatively well-funded plan while lower ratios may indicate recent changes to actuarial assumptions, funding of the plan below actuarial requirements, poor asset performance, or a variety of other causes.

The funded status measures shown in this valuation are appropriate for assessing the need for or amount of future contributions. However, they are not necessarily appropriate for assessing the sufficiency of Plan assets to cover the estimated cost of settling the Plan's benefit obligations. As the chart below shows, the measures are different depending on whether the market, actuarial, or valuation value of assets is used.

Funded Ratio as of December 31



Section 2: Actuarial Valuation Results

Schedule of Funding Progress

Actuarial Valuation as of December 31	Valuation Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded AAL (UAAL) (b) – (a)	Funded Ratio (a) / (b)	Projected Compensation (c)	UAAL as a % of Projected Compensation [(b) – (a)] / (c)
2014	$11,449,911,000	$16,413,124,000	$4,963,213,000	69.76%	$1,648,160,000	301.14%
2015	12,228,009,000	17,050,357,000	4,822,348,000	71.72%	1,633,112,000	295.29%
2016	13,102,978,000	17,933,461,000	4,830,483,000	73.06%	1,759,831,000	274.49%
2017	14,197,125,000	19,635,427,000	5,438,302,000	72.30%	1,811,877,000	300.15%
2018	14,994,420,000	20,703,349,000	5,708,929,000	72.43%	1,875,370,000	304.42%
2019	16,036,869,000	21,916,730,000	5,879,861,000	73.17%	1,952,534,000	301.14%
2020	17,525,117,000	22,904,975,000	5,379,858,000	76.51%	1,962,869,000	274.08%
2021	19,488,761,000	24,016,073,000	4,527,312,000	81.15%	2,052,706,000	220.55%
2022	20,691,659,000	25,386,669,000	4,695,010,000	81.51%	2,124,678,000	220.98%
2023	22,135,285,000	26,788,041,000	4,652,756,000	82.63%	2,277,976,000	204.25%

For informational purposes only, we have also developed the funded ratio determined using the historical **market** value of assets after adjustment for amounts in the County Investment Account (funded by pension obligation bond proceeds held by OCERS), prepaid employer contributions, O.C. Sanitation District UAAL Deferred Account (after transfer), unclaimed member reserve and Medicare Medical Insurance Reserve.

Actuarial Valuation as of December 31	Funded Ratio Based on Net Market Value of Assets	Actuarial Valuation as of December 31	Funded Ratio Based on Net Market Value of Assets
2014	69.63%	2019	75.36%
2015	67.73%	2020	80.74%
2016	70.58%	2021	90.52%
2017	74.62%	2022	76.95%
2018	69.31%	2023	80.76%

Section 2: Actuarial Valuation Results

H. Actuarial balance sheet

An overview of the Plan's funding is given by an actuarial balance sheet. In this approach, first the amount and timing of all future payments that will be made by the Plan for current members is determined. Then these payments are discounted at the valuation interest rate to the date of the valuation, thereby determining the present value, referred to as the "liability" of the Plan.

Second, this liability is compared to the assets. The "assets" for this purpose include the net amount of assets already accumulated by the Plan, the present value of future member contributions, the present value of future employer normal cost contributions, and the present value of future employer amortization payments for the UAAL.

Actuarial Balance Sheet

($ in '000s)

Line Description	As of December 31, 2023	As of December 31, 2022
Liabilities		
Present value of benefits for retired members and beneficiaries	$16,903,604	$15,847,604
Present value of benefits for inactive members[1]	624,749	574,151
Present value of benefits for active members	14,245,599	13,711,728
Total liabilities	**$31,773,952**	**$30,133,483**
Current and Future Assets		
Total valuation value of assets	$22,135,285	$20,691,659
Present value of future contributions by members	2,353,776	2,249,521
Present value of future employer contributions for:		
• Entry age normal cost	2,632,135	2,497,293
• UAAL	4,652,756	4,695,010
Total of current and future assets	**$31,773,952**	**$30,133,483**

[1]This includes members who chose to leave their contributions on deposit even though they have less than five years of service.

Section 2: Actuarial Valuation Results

I. Risk

Because the actuarial valuation results are dependent on a fixed set of assumptions and data as of a specific date, there is risk that emerging results may differ, perhaps significantly, as actual experience is fluid and will not exactly track current assumptions. This potential divergence may have a significant impact on the future financial condition of the plan.

This report does not contain a detailed analysis of the potential range of future measurements, but does include a concise discussion of some of the primary risks that may affect the Plan's future financial condition. We recommend a more detailed assessment of the risks to provide the Board with a better understanding of the risks inherent in the Plan that can inform both financial preparation and future decision making. This assessment would enable us to work with the Board to highlight and illustrate particular risks or potential future outcomes they may be interested in discussing and could include scenario testing, sensitivity testing, stress testing and stochastic modeling. As noted in the valuation highlights section of this report the results of our more detailed risk assessment will be provided in a separate stand-alone report.

This section provides descriptions and basic assessments of the primary risks that are likely to have an ongoing influence on the Plan's financial health, as well as a discussion of historical trends and maturity measures:

Risk assessments

- **Asset/Liability Mismatch Risk** (the potential that future plan experience does not affect asset and liability values in the same way, causing them to diverge)

  The most significant asset/liability mismatch risk to the Plan is investment risk, as discussed below. In fact, investment risk has the potential to impact asset/liability mismatch in two ways. The first is evident in annual valuations; when asset values deviate from assumptions they are typically independent from liability changes. The second can be caused when systemic asset deviations from assumptions may signal the need for an assumption change, which causes liability values and contribution rates to move in the opposite direction from any change in the expected experience of asset growth rates.

  Asset/liability mismatch can also be caused by demographic assumption risk such as longevity, which affects liabilities but has no impact on asset levels. This risk is also discussed below.

- **Investment Risk** (the risk that investment returns will be different than expected)

  The investment return assumption is a long-term, static assumption for valuation purposes even though in reality market experience can be quite volatile in any given year. That volatility can cause significant changes in the financial condition of the Plan, affecting both funded status and contribution rates. The inherent year-to-year volatility is reduced by smoothing through the valuation value of assets, however investment experience can still have a sizable impact. As discussed in *Section 2, Subsection J,*

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Volatility Ratios, on page 57, a 1% asset gain or loss (relative to the assumed investment return) translates to about 9.5% of one-year's payroll. Since actuarial gains and losses are amortized over 20 years, there would be a 0.7% of payroll decrease/(increase) in the required contribution for each 1% asset gain/(loss).

The year-by-year market value rate of return over the last 10 years has ranged from a low of -9.71% to a high of 17.71%.

- **Longevity Risk** (the risk that mortality experience will be different than expected)

  The actuarial valuation includes current life expectancy assumptions and an expectation of future improvement in life expectancy, which are significant assumptions given the relatively long duration of liabilities for pension plans. Emerging plan experience that does not match these expectations will result in increases or decreases in the actuarially determined contribution over time. This risk can be reduced by using tables appropriate for the Plan (public experience tables) that are weighted by benefit levels, and by using generational mortality projections. The Board has adopted mortality tables based on this methodology.

- **Other Risks**

  In addition to longevity, the valuation includes a variety of other assumptions that are unlikely to match future experience exactly. One example is projected salary scales over time. As salary is central to the determination of benefits paid in retirement, deviations from the projected salary scales could have a material impact on the benefits anticipated for each member. Examples of other demographic assumptions include retirement, termination and disability assumptions, and will likely vary in significance for different groups (for example, disability assumptions are typically more significant for Safety groups).

Some plans also carry significant contribution risk, defined as the potential for actual future contributions deviating from expected future contributions. However, the employers have a proven track-record of making the actuarially determined contributions based on the Board's Actuarial Funding Policy, so contribution risk is minimal.

Evaluation of historical trends

Past experience can help demonstrate the sensitivity of key results to the Plan's actual experience. Over the past ten years:

- The funded percentage on the valuation value of assets basis has increased from 69.8% to 82.6%. This is primarily due to contributions made to amortize the UAAL (i.e., amortizing each layer of UAAL over 20 years as a level percentage of pay) and average recent years' investment return on a smoothed basis greater than the assumption. For a more detailed history see *Section 2, Subsection G, Funded status* starting on page 50.
- The average geometric investment return on the valuation value of assets over the last 10 years was 7.32%. This includes a high of 11.38% and a low of 5.20%. The average over the last five years is 8.35%. For more details see the *Section 2, Subsection B, Historical investment returns* on page 25.

Section 2: Actuarial Valuation Results

- Beyond investment experience, the primary source of new UAAL was the strengthening of assumptions through multiple assumption changes. While the assumption changes in 2014 decreased the unfunded liability by $103 million, the assumption changes in 2017 that changed the discount rate from 7.25% to 7.00% (as well as various other changes) added $822 million in unfunded liability, the assumption changes in 2020 added $24.3 million in unfunded liability, and the assumption changes in 2023 added $145.0 million in unfunded liability. For more details on unfunded liability changes see *Section 3, Exhibit H, Table of Amortization Bases* starting on page 88. A graphical representation of historical changes in UAAL by source will be included in the stand-alone risk assessment report.
- The plan's funding policy effectively deals with these unfunded liabilities over time. This can be seen most clearly in *Section 3, Exhibit J, Projection of UAAL balances and payments* starting on page 103.

Maturity measures

In the last 10 years the ratio of members in pay status to active participants has increased from 0.71 to 0.93. An increased ratio indicates that the plan has grown in maturity over time. This is to be expected, but is also informative for understanding plan sensitivity to particular risks. For more details see *Section 2, Subsection A, Member information* on page 18.

As pension plans mature, the cash needed to fulfill benefit obligations will increase over time. Therefore, cash flow projections and analysis should be performed to assure that the Plan's asset allocation is aligned to meet emerging pension liabilities. Over the past year, benefits paid were $158 million more than contributions received. Plans with high levels of negative cash flows may have a need for a larger allocation to income generating assets, which can create a drag on investment return. However, the Plan currently has a relatively low level of negative cash flow when compared to the total assets and is relatively well funded (at an 82.6% funded ratio). For more details on historical cash flows see *Section 2, Subsection B, Financial information* on page 22.

A further discussion of plan maturity measures and how they relate to changes in assets and liabilities is included in *Section 2, Subsection J, Volatility ratios* on page 57.

Low-Default-Risk Obligation Measure (LDROM)

In December 2021, the Actuarial Standards Board issued a revision of Actuarial Standard of Practice No. 4 (ASOP 4) *Measuring Pension Obligations and Determining Pension Plan Costs or Contributions*. One of the revisions to ASOP 4 requires the disclosure of a Low-Default-Risk Obligation Measure (LDROM) when performing a funding valuation. The LDROM presented in this report is calculated using the same methodology and assumptions used to determine the AAL used for funding, except for the discount rate. The LDROM is required to be calculated using "a discount rate…derived from low-default-risk fixed income securities whose cash flows are reasonably consistent with the pattern of benefits expected to be paid in the future."

Section 2: Actuarial Valuation Results

The LDROM is a calculation assuming a plan's assets are invested in an all-bond portfolio, generally lowering expected long-term investment returns. The discount rate selected and used for this purpose is the Bond Buyer General Obligation 20-year Municipal Bond Index Rate, published at the end of each week. The last published rate in December of the measurement period, by The Bond Buyer, is 3.26% for use effective December 31, 2023. This is the rate used to determine the discount rate for valuing reported public pension plan liabilities in accordance with Governmental Accounting Standards when plan assets are projected to be insufficient to make projected benefit payments, and the 20-year period reasonably approximates the duration of plan liabilities. The LDROM is not used to determine a plan's funded status or actuarially determined contribution rates. The plan's expected return on assets, currently 7.00%, is used for these calculations.

As of December 31, 2023, the LDROM for the Plan is $45.7 billion. The difference between the Plan's AAL of $26.8 billion and the LDROM can be thought of as the increase in the AAL if the entire portfolio were invested in low-default-risk securities. Alternatively, this difference could also be viewed as representing the expected savings from investing in the Plan's diversified portfolio compared to investing only in low-default-risk securities.

ASOP 4 requires commentary to help the intended user understand the significance of the LDROM with respect to the funded status of the plan, plan contributions, and the security of member benefits. In general, if plan assets were invested exclusively in low-default-risk securities, the funded status would be lower and the actuarially determined contribution would be higher. While investing in a portfolio with low-default-risk securities may be more likely to reduce investment volatility and the volatility of employer contributions, it also may be more likely to result in higher employer contributions or lower benefits.

J. Volatility ratios

Retirement plans are subject to volatility in the level of required contributions. This volatility tends to increase as retirement plans become more mature.

The Asset Volatility Ratio (AVR), which is equal to the market value of assets divided by total projected compensation, provides an indication of the potential contribution volatility for any given level of investment volatility. A higher AVR indicates that the plan is subject to a greater level of contribution volatility. This is a current measurement since it is based on the current level of assets.

The current AVR is about 9.5. This means that a 1% asset gain or loss (relative to the assumed investment return) translates to about 9.5% of one-year's payroll. Since actuarial gains and losses are amortized over 20 years, there would be a 0.7% of payroll decrease/(increase) in the required contribution for each 1% asset gain/(loss).

The Liability Volatility Ratio (LVR), which is equal to the actuarial accrued liability divided by total projected compensation, provides an indication of the longer-term potential for contribution volatility for any given level of investment volatility. This is because, over an extended period of time, the plan's assets should track the plan's liabilities. For example, if a plan is 50% funded on a market value basis, the liability volatility ratio would be double the asset volatility ratio and the plan sponsor should expect contribution volatility to increase over time as the plan becomes better funded.

The LVR also indicates how volatile contributions will be in response to changes in the actuarial accrued liability due to actual experience or to changes in actuarial assumptions. The current total Plan LVR is about 11.8 but is 10.4 for General compared to 16.1 for Safety. This means, for example, that assumption changes will have a greater impact on employer contribution rates for Safety than for General. The total Plan LVR is about 24% higher than the AVR. Therefore, we would expect that contribution volatility will increase over the long term.

Section 2: Actuarial Valuation Results

Volatility Ratios

Asset Volatility Ratio (AVR) versus Liability Volatility Ratio (LVR)

As of December 31	AVR General	AVR Safety	AVR Total	LVR General	LVR Safety	LVR Total
2014	6.2	9.4	6.9	8.9	13.6	10.0
2015	6.3	9.6	7.1	9.3	14.3	10.4
2016	6.4	9.9	7.2	9.0	14.2	10.2
2017	7.2	11.0	8.1	9.6	14.8	10.8
2018	6.8	10.5	7.7	9.8	15.2	11.0
2019	7.5	11.5	8.5	9.9	15.3	11.2
2020	8.4	12.7	9.4	10.5	15.2	11.7
2021	9.3	14.5	10.6	10.5	15.4	11.7
2022	8.0	12.9	9.2	10.6	16.1	11.9
2023	8.2	13.6	9.5	10.4	16.1	11.8

Section 3: Supplemental Information

Exhibit A: Table of plan demographics

Total Plan

Demographic Data by Status	As of December 31, 2023	As of December 31, 2022	Change
Active members			
• Number	22,782	22,061	3.3%
• Average age	44.2	44.5	(0.3)
• Average years of service	11.5	12.0	(0.5)
• Total projected compensation[1]	$2,277,976,151	$2,124,679,380	7.2%
• Average projected compensation	$99,990	$96,309	3.8%
• Account balances	$3,479,433,053	$3,387,061,008	2.7%
• Total active vested members	15,375	15,326	0.3%
Inactive members[2]			
• Number	8,579	7,894	8.7%
• Average age	45.0	44.9	0.1
Retired members			
• Number	16,754	16,311	2.7%
• Average age	70.5	70.3	0.2
• Average monthly benefit[3]	$5,080	$4,909	3.5%
Disabled members			
• Number	1,628	1,588	2.5%
• Average age	66.5	66.4	0.1
• Average monthly benefit[3]	$4,986	$4,611	8.1%
Beneficiaries			
• Number	2,901	2,779	4.4%
• Average age	73.6	73.4	0.2
• Average monthly benefit[3]	$2,616	$2,499	4.7%

1 Calculated by increasing full-time equivalent calendar year pensionable salary by the assumed salary scale.
2 Includes members who chose to leave their contributions on deposit even though they have less than five years of service.
3 Excludes monthly benefits payable from the Supplemental Targeted Adjustment for Retirees Cost of Living Adjustment (STAR COLA).

Section 3: Supplemental Information

Rate Group #1 for Plans A, B and U (County and IHSS)[1]

Demographic Data by Status	As of December 31, 2023	As of December 31, 2022	Change
Active members			
• Number	1,787	1,619	10.4%
• Average age	42.7	42.8	(0.1)
• Average years of service	7.7	8.6	(0.9)
• Total projected compensation[2]	$110,953,731	$99,025,407	12.0%
• Average projected compensation	$62,089	$61,165	1.5%
• Account balances	$74,228,639	$71,263,922	4.2%
• Total active vested members	790	818	(3.4%)
Inactive members[3]			
• Number	869	761	14.2%
• Average age	43.1	43.0	0.1
Retired members			
• Number	720	710	1.4%
• Average age	74.9	75.0	(0.1)
• Average monthly benefit[4]	$2,990	$2,969	0.7%
Disabled members			
• Number	35	37	(5.4%)
• Average age	68.1	68.2	(0.1)
• Average monthly benefit[4]	$2,884	$2,720	6.0%
Beneficiaries			
• Number	100	99	1.0%
• Average age	77.4	76.6	0.8
• Average monthly benefit[4]	$1,664	$1,562	6.5%

1 Includes payees from Vector Control, Cypress Recreation and Parks, U.C.I. and DOE.
2 Calculated by increasing full-time equivalent calendar year pensionable salary by the assumed salary scale.
3 Includes members who chose to leave their contributions on deposit even though they have less than five years of service.
4 Excludes monthly benefits payable from the Supplemental Targeted Adjustment for Retirees Cost of Living Adjustment (STAR COLA).

Section 3: Supplemental Information

Rate Group #2 for Plans I, J, O, P, S, T, U and W

Demographic Data by Status	As of December 31, 2023	As of December 31, 2022	Change
Active members			
• Number	14,724	14,271	3.2%
• Average age	44.7	45.0	(0.3)
• Average years of service	11.7	12.1	(0.4)
• Total projected compensation[1]	$1,370,454,760	$1,269,983,733	7.9%
• Average projected compensation	$93,076	$88,991	4.6%
• Account balances	$2,279,297,007	$2,243,968,625	1.6%
• Total active vested members	10,016	9,940	0.8%
Inactive members[2]			
• Number	5,846	5,341	9.5%
• Average age	44.8	44.8	0.0
Retired members			
• Number	11,214	10,956	2.4%
• Average age	71.5	71.4	0.1
• Average monthly benefit[3]	$4,555	$4,394	3.7%
Disabled members			
• Number	542	553	(2.0%)
• Average age	68.2	67.9	0.3
• Average monthly benefit[3]	$3,045	$2,932	3.9%
Beneficiaries			
• Number	1,758	1,689	4.1%
• Average age	75.6	75.4	0.2
• Average monthly benefit[3]	$2,339	$2,237	4.6%

[1] Calculated by increasing full-time equivalent calendar year pensionable salary by the assumed salary scale.
[2] Includes members who chose to leave their contributions on deposit even though they have less than five years of service.
[3] Excludes monthly benefits payable from the Supplemental Targeted Adjustment for Retirees Cost of Living Adjustment (STAR COLA).

Section 3: Supplemental Information

Rate Group #3 for Plans B, G, H and U (OCSD)

Demographic Data by Status	As of December 31, 2023	As of December 31, 2022	Change
Active members			
• Number	608	605	0.5%
• Average age	45.9	46.4	(0.5)
• Average years of service	10.8	11.4	(0.6)
• Total projected compensation[1]	$83,658,659	$80,358,365	4.1%
• Average projected compensation	$137,596	$132,824	3.6%
• Account balances	$90,813,375	$96,144,378	(5.5%)
• Total active vested members	440	431	2.1%
Inactive members[2]			
• Number	161	145	11.0%
• Average age	48.4	48.2	0.2
Retired members			
• Number	522	491	6.3%
• Average age	69.1	68.9	0.2
• Average monthly benefit[3]	$6,868	$6,512	5.5%
Disabled members			
• Number	19	20	(5.0%)
• Average age	69.1	67.9	1.2
• Average monthly benefit[3]	$4,199	$4,114	2.1%
Beneficiaries			
• Number	93	92	1.1%
• Average age	70.8	71.3	(0.5)
• Average monthly benefit[3]	$2,870	$2,721	5.5%

1 Calculated by increasing full-time equivalent calendar year pensionable salary by the assumed salary scale.
2 Includes members who chose to leave their contributions on deposit even though they have less than five years of service.
3 Excludes monthly benefits payable from the Supplemental Targeted Adjustment for Retirees Cost of Living Adjustment (STAR COLA).

Section 3: Supplemental Information

Rate Group #5 for Plans A, B and U (OCTA)

Demographic Data by Status	As of December 31, 2023	As of December 31, 2022	Change
Active members			
• Number	1,264	1,279	-1.2%)
• Average age	49.5	49.7	(0.2)
• Average years of service	12.4	12.7	(0.3)
• Total projected compensation[1]	$125,249,916	$117,981,140	6.2%
• Average projected compensation	$99,090	$92,245	7.4%
• Account balances	$143,997,284	$142,048,966	1.4%
• Total active vested members	834	863	(3.4%)
Inactive members[2]			
• Number	759	740	2.6%
• Average age	50.3	50.0	0.3
Retired members			
• Number	1,123	1,085	3.5%
• Average age	72.0	71.6	0.4
• Average monthly benefit[3]	$3,166	$3,058	3.5%
Disabled members			
• Number	262	266	(1.5%)
• Average age	69.0	68.4	0.6
• Average monthly benefit[3]	$2,786	$2,692	3.5%
Beneficiaries			
• Number	231	217	6.5%
• Average age	73.2	73.4	(0.2)
• Average monthly benefit[3]	$1,700	$1,571	8.2%

[1] Calculated by increasing full-time equivalent calendar year pensionable salary by the assumed salary scale.
[2] Includes members who chose to leave their contributions on deposit even though they have less than five years of service.
[3] Excludes monthly benefits payable from the Supplemental Targeted Adjustment for Retirees Cost of Living Adjustment (STAR COLA).

Section 3: Supplemental Information

Rate Group #9 for Plans M, N and U (TCA)

Demographic Data by Status	As of December 31, 2023	As of December 31, 2022	Change
Active members			
• Number	59	55	7.3%
• Average age	48.5	47.7	0.8
• Average years of service	8.2	8.6	(0.4)
• Total projected compensation[1]	$7,674,578	$6,883,620	11.5%
• Average projected compensation	$130,078	$125,157	3.9%
• Account balances	$5,734,104	$5,891,948	(2.7%)
• Total active vested members	34	33	3.0%
Inactive members[2]			
• Number	78	75	4.0%
• Average age	47.8	47.2	0.6
Retired members			
• Number	66	63	4.8%
• Average age	70.3	69.8	0.5
• Average monthly benefit[3]	$3,770	$3,472	8.6%
Disabled members			
• Number	0	0	N/A
• Average age	N/A	N/A	N/A
• Average monthly benefit[3]	N/A	N/A	N/A
Beneficiaries			
• Number	7	7	0.0%
• Average age	72.9	71.9	1.0
• Average monthly benefit[3]	$915	$889	2.9%

[1] Calculated by increasing full-time equivalent calendar year pensionable salary by the assumed salary scale.
[2] Includes members who chose to leave their contributions on deposit even though they have less than five years of service.
[3] Excludes monthly benefits payable from the Supplemental Targeted Adjustment for Retirees Cost of Living Adjustment (STAR COLA).

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Rate Group #10 for Plans I, J, M, N and U (OCFA)

Demographic Data by Status	As of December 31, 2023	As of December 31, 2022	Change
Active members			
• Number	325	316	2.8%
• Average age	44.1	44.2	(0.1)
• Average years of service	9.9	10.2	(0.3)
• Total projected compensation[1]	$35,758,725	$34,319,033	4.2%
• Average projected compensation	$110,027	$108,605	1.3%
• Account balances	$34,270,981	$33,289,999	2.9%
• Total active vested members	197	200	(1.5%)
Inactive members[2]			
• Number	293	254	15.4%
• Average age	42.7	43.0	(0.3)
Retired members			
• Number	220	209	5.3%
• Average age	67.8	67.2	0.6
• Average monthly benefit[3]	$5,177	$5,071	2.1%
Disabled members			
• Number	13	12	8.3%
• Average age	65.5	64.6	0.9
• Average monthly benefit[3]	$3,805	$3,648	4.3%
Beneficiaries			
• Number	16	14	14.3%
• Average age	66.6	65.7	0.9
• Average monthly benefit[3]	$1,962	$1,923	2.0%

1 Calculated by increasing full-time equivalent calendar year pensionable salary by the assumed salary scale.
2 Includes members who chose to leave their contributions on deposit even though they have less than five years of service.
3 Excludes monthly benefits payable from the Supplemental Targeted Adjustment for Retirees Cost of Living Adjustment (STAR COLA).

Section 3: Supplemental Information

Rate Group #11 for Plans M and N, Future Service, and U (Cemetery)

Demographic Data by Status	As of December 31, 2023	As of December 31, 2022	Change
Active members			
• Number	24	25	(4.0%)
• Average age	52.4	50.5	1.9
• Average years of service	17.2	15.6	1.6
• Total projected compensation[1]	$2,015,550	$2,028,678	(0.6%)
• Average projected compensation	$83,981	$81,147	3.5%
• Account balances	$3,173,685	$2,839,047	11.8%
• Total active vested members	20	20	0.0%
Inactive members[2]			
• Number	5	4	25.0%
• Average age	35.1	35.6	(0.5)
Retired members			
• Number	7	7	0.0%
• Average age	72.9	71.9	1.0
• Average monthly benefit[3]	$3,579	$3,450	3.7%
Disabled members			
• Number	0	0	N/A
• Average age	N/A	N/A	N/A
• Average monthly benefit[3]	N/A	N/A	N/A
Beneficiaries			
• Number	7	6	16.7%
• Average age	77.1	78.0	(0.9)
• Average monthly benefit[3]	$1,488	$1,609	(7.5%)

[1] Calculated by increasing full-time equivalent calendar year pensionable salary by the assumed salary scale.
[2] Includes members who chose to leave their contributions on deposit even though they have less than five years of service.
[3] Excludes monthly benefits payable from the Supplemental Targeted Adjustment for Retirees Cost of Living Adjustment (STAR COLA).

Section 3: Supplemental Information

Rate Group #12 for Plans G, H, Future Service, and U (Law Library)

Demographic Data by Status	As of December 31, 2023	As of December 31, 2022	Change
Active members			
• Number	14	14	0.0%
• Average age	59.1	58.1	1.0
• Average years of service	20.0	19.0	1.0
• Total projected compensation[1]	$1,207,717	$1,174,795	2.8%
• Average projected compensation	$86,265	$83,914	2.8%
• Account balances	$3,642,468	$3,320,423	9.7%
• Total active vested members	13	12	8.3%
Inactive members[2]			
• Number	3	3	0.0%
• Average age	49.4	48.4	1.0
Retired members			
• Number	11	13	(15.4%)
• Average age	73.2	73.7	(0.5)
• Average monthly benefit[3]	$3,234	$3,431	(5.7%)
Disabled members			
• Number	0	0	N/A
• Average age	N/A	N/A	N/A
• Average monthly benefit[3]	N/A	N/A	N/A
Beneficiaries			
• Number	0	0	N/A
• Average age	N/A	N/A	N/A
• Average monthly benefit[3]	N/A	N/A	N/A

[1] Calculated by increasing full-time equivalent calendar year pensionable salary by the assumed salary scale.
[2] Includes members who chose to leave their contributions on deposit even though they have less than five years of service.
[3] Excludes monthly benefits payable from the Supplemental Targeted Adjustment for Retirees Cost of Living Adjustment (STAR COLA).

Section 3: Supplemental Information

Rate Group #6 for Plans E, F and V (Probation)

Demographic Data by Status	As of December 31, 2023	As of December 31, 2022	Change
Active members			
• Number	599	616	(2.8%)
• Average age	44.8	44.8	0.0
• Average years of service	17.9	17.9	0.0
• Total projected compensation[1]	$56,441,606	$56,547,543	(0.2%)
• Average projected compensation	$94,226	$91,798	2.6%
• Account balances	$154,110,083	$150,801,591	2.2%
• Total active vested members	525	535	(1.9%)
Inactive members[2]			
• Number	224	227	(1.3%)
• Average age	44.7	44.0	0.7
Retired members			
• Number	533	499	6.8%
• Average age	65.0	65.1	(0.1)
• Average monthly benefit[3]	$6,104	$5,995	1.8%
Disabled members			
• Number	40	39	2.6%
• Average age	54.5	53.6	0.9
• Average monthly benefit[3]	$3,272	$3,169	3.3%
Beneficiaries			
• Number	57	50	14.0%
• Average age	68.0	67.5	0.5
• Average monthly benefit[3]	$2,906	$2,790	4.2%

[1] Calculated by increasing full-time equivalent calendar year pensionable salary by the assumed salary scale.
[2] Includes members who chose to leave their contributions on deposit even though they have less than five years of service.
[3] Excludes monthly benefits payable from the Supplemental Targeted Adjustment for Retirees Cost of Living Adjustment (STAR COLA).

Section 3: Supplemental Information

Rate Group #7 for Plans E, F, Q, R and V (Law Enforcement)

Demographic Data by Status	As of December 31, 2023	As of December 31, 2022	Change
Active members			
• Number	2,143	2,049	4.6%
• Average age	40.0	40.3	(0.3)
• Average years of service	11.4	11.9	(0.5)
• Total projected compensation[1]	$305,580,877	$287,654,395	6.2%
• Average projected compensation	$142,595	$140,388	1.6%
• Account balances	$443,950,893	$412,272,223	7.7%
• Total active vested members	1,599	1,570	1.8%
Inactive members[2]			
• Number	205	215	(4.7%)
• Average age	41.4	41.4	0.0
Retired members			
• Number	1,792	1,742	2.9%
• Average age	65.0	64.5	0.5
• Average monthly benefit[3]	$8,311	$8,048	3.3%
Disabled members			
• Number	429	405	5.9%
• Average age	64.1	64.4	(0.3)
• Average monthly benefit[3]	$6,720	$6,324	6.3%
Beneficiaries			
• Number	472	457	3.3%
• Average age	69.8	69.4	0.4
• Average monthly benefit[3]	$3,869	$3,680	5.1%

[1] Calculated by increasing full-time equivalent calendar year pensionable salary by the assumed salary scale.
[2] Includes members who chose to leave their contributions on deposit even though they have less than five years of service.
[3] Excludes monthly benefits payable from the Supplemental Targeted Adjustment for Retirees Cost of Living Adjustment (STAR COLA).

Section 3: Supplemental Information

Rate Group #8 for Plans E, F, Q, R and V (OCFA)

Demographic Data by Status	As of December 31, 2023	As of December 31, 2022	Change
Active members			
• Number	1,235	1,212	1.9%
• Average age	40.8	41.1	(0.3)
• Average years of service	12.4	12.4	0.0
• Total projected compensation[1]	$178,980,032	$168,722,671	6.1%
• Average projected compensation	$144,923	$139,210	4.1%
• Account balances	$246,214,535	$225,219,886	9.3%
• Total active vested members	907	904	0.3%
Inactive members[2]			
• Number	136	129	5.4%
• Average age	38.2	39.4	(1.2)
Retired members			
• Number	545	535	1.9%
• Average age	67.1	66.7	0.4
• Average monthly benefit[3]	$9,429	$9,265	1.8%
Disabled members			
• Number	288	256	12.5%
• Average age	65.8	65.8	0.0
• Average monthly benefit[3]	$8,654	$8,101	6.8%
Beneficiaries			
• Number	160	148	8.1%
• Average age	65.7	65.4	0.3
• Average monthly benefit[3]	$3,823	$3,757	1.8%

[1] Calculated by increasing full-time equivalent calendar year pensionable salary by the assumed salary scale.
[2] Includes members who chose to leave their contributions on deposit even though they have less than five years of service.
[3] Excludes monthly benefits payable from the Supplemental Targeted Adjustment for Retirees Cost of Living Adjustment (STAR COLA).

Section 3: Supplemental Information

Exhibit B: Members in active service as of December 31, 2023 by age, years of service, and average projected compensation

Total

Age	Total	0–4 Years	5–9 Years	10–14 Years	15–19 Years	20–24 Years	25–29 Years	30–34 Years	35–39 Years	40 Years and Over
Under 25	417	416	1	—	—	—	—	—	—	—
	$66,778	$66,687	$104,813	—	—	—	—	—	—	—
25–29	1,946	1,696	248	2	—	—	—	—	—	—
	$80,699	$77,365	$102,996	$143,087	—	—	—	—	—	—
30–34	3,214	1,955	1,104	154	1	—	—	—	—	—
	$90,718	$83,893	$99,167	$117,007	$57,136	—	—	—	—	—
35–39	3,237	1,297	1,079	518	341	2	—	—	—	—
	$100,284	$88,408	$103,924	$119,204	$105,321	$78,187	—	—	—	—
40–44	3,343	873	695	509	1,032	233	1	—	—	—
	$105,624	$92,704	$105,399	$117,087	$111,681	$103,020	$62,259	—	—	—
45–49	3,375	633	468	298	917	842	214	3	—	—
	$107,262	$90,328	$101,688	$117,618	$113,388	$110,152	$117,436	$112,182	—	—
50–54	3,207	523	351	243	611	771	510	195	3	—
	$109,366	$98,674	$104,956	$112,697	$109,184	$113,081	$118,895	$103,074	$91,130	—
55–59	2,087	347	297	177	365	408	269	203	20	1
	$104,091	$93,414	$109,478	$111,749	$100,952	$103,988	$110,793	$105,236	$100,130	$84,701
60–64	1,319	173	177	138	256	271	148	111	38	7
	$101,660	$92,131	$106,805	$115,479	$101,226	$96,659	$106,546	$98,631	$99,653	$99,730
65–69	469	48	91	52	90	70	61	38	12	7
	$95,157	$83,921	$97,552	$100,189	$92,515	$91,988	$101,246	$96,434	$87,551	$122,379
70 and over	168	11	21	17	30	45	16	13	8	7
	$89,883	$88,603	$101,531	$98,906	$79,632	$90,784	$91,127	$82,558	$92,770	$80,636
Total	**22,782**	**7,972**	**4,532**	**2,108**	**3,643**	**2,642**	**1,219**	**563**	**81**	**22**
	$99,990	**$85,386**	**$103,127**	**$116,078**	**$108,535**	**$107,206**	**$114,058**	**$102,104**	**$96,982**	**$100,178**

Section 3: Supplemental Information

Rate Group #1 for Plans A, B and U (County and IHSS)

Age	Total	0–4 Years	5–9 Years	10–14 Years	15–19 Years	20–24 Years	25–29 Years	30–34 Years	35–39 Years	40 Years and Over
Under 25	46	46	—	—	—	—	—	—	—	—
	$73,538	$73,538	—	—	—	—	—	—	—	—
25–29	182	175	7	—	—	—	—	—	—	—
	$63,222	$63,329	$60,552	—	—	—	—	—	—	—
30–34	321	264	52	5	—	—	—	—	—	—
	$60,097	$58,961	$65,287	$66,108	—	—	—	—	—	—
35–39	269	175	56	20	18	—	—	—	—	—
	$59,730	$56,723	$65,619	$65,483	$64,252	—	—	—	—	—
40–44	248	125	52	32	28	10	1	—	—	—
	$61,477	$56,146	$66,106	$67,814	$66,891	$68,539	$62,259	—	—	—
45–49	228	96	32	16	39	35	10	—	—	—
	$62,096	$57,232	$64,060	$66,061	$66,450	$65,710	$66,525	—	—	—
50–54	209	66	27	19	38	27	22	10	—	—
	$63,075	$56,376	$64,418	$66,279	$66,652	$66,072	$67,025	$67,202	—	—
55–59	138	38	24	14	18	19	7	16	2	—
	$63,178	$55,322	$64,682	$64,661	$66,102	$66,099	$66,073	$69,982	$65,415	—
60–64	87	13	14	18	11	10	7	11	3	—
	$63,890	$55,302	$65,481	$63,944	$65,528	$66,184	$64,345	$67,140	$66,736	—
65–69	51	8	11	7	8	6	4	7	—	—
	$65,113	$57,332	$65,635	$65,299	$69,177	$67,411	$65,256	$66,303	—	—
70 and over	8	—	1	2	2	1	1	—	1	—
	$65,161	—	$63,684	$66,407	$65,056	$64,972	$64,734	—	$64,972	—
Total	**1,787**	**1,006**	**276**	**133**	**162**	**108**	**52**	**44**	**6**	**—**
	$62,089	**$59,116**	**$65,127**	**$65,960**	**$66,346**	**$66,262**	**$66,168**	**$68,054**	**$66,002**	**—**

Section 3: Supplemental Information

Rate Group #2 for Plans I, J, O, P, S, T, U and W

Age	Total	0–4 Years	5–9 Years	10–14 Years	15–19 Years	20–24 Years	25–29 Years	30–34 Years	35–39 Years	40 Years and Over
Under 25	242	242	—	—	—	—	—	—	—	—
	$56,441	$56,441	—	—	—	—	—	—	—	—
25–29	1,178	1,066	112	—	—	—	—	—	—	—
	$71,530	$70,730	$79,153	—	—	—	—	—	—	—
30–34	1,986	1,211	712	62	1	—	—	—	—	—
	$82,689	$80,309	$86,605	$84,604	$57,136	—	—	—	—	—
35–39	2,041	827	749	253	210	2	—	—	—	—
	$92,047	$86,390	$96,637	$101,066	$87,214	$78,187	—	—	—	—
40–44	2,141	547	473	291	668	162	—	—	—	—
	$97,597	$90,732	$99,454	$106,594	$99,447	$91,569	—	—	—	—
45–49	2,177	392	362	174	600	517	129	3	—	—
	$98,955	$87,468	$98,586	$103,286	$103,869	$100,322	$100,406	$112,182	—	—
50–54	2,201	289	257	139	447	556	353	157	3	—
	$103,416	$92,157	$102,140	$99,901	$104,820	$108,578	$106,894	$99,476	$91,130	—
55–59	1,421	209	187	107	263	287	208	145	14	1
	$98,581	$89,634	$102,314	$97,760	$95,828	$99,662	$105,249	$100,190	$103,335	$84,701
60–64	904	120	119	64	196	200	109	72	20	4
	$98,775	$91,695	$102,623	$110,609	$100,212	$96,987	$101,664	$93,841	$88,671	$86,978
65–69	302	27	63	26	60	49	47	18	9	3
	$91,972	$90,694	$95,892	$82,565	$91,116	$89,455	$96,052	$101,389	$79,870	$76,746
70 and over	131	9	15	11	25	36	12	13	5	5
	$86,235	$74,279	$97,902	$91,790	$80,406	$86,751	$96,694	$82,558	$94,096	$62,556
Total	**14,724**	**4,939**	**3,049**	**1,127**	**2,470**	**1,809**	**858**	**408**	**51**	**13**
	$93,076	**$81,223**	**$95,357**	**$101,497**	**$99,717**	**$101,013**	**$104,118**	**$98,374**	**$91,820**	**$75,049**

Section 3: Supplemental Information

Rate Group #3 for Plans B, G, H and U (OCSD)

Age	Total	0–4 Years	5–9 Years	10–14 Years	15–19 Years	20–24 Years	25–29 Years	30–34 Years	35–39 Years	40 Years and Over
Under 25	1	1	—	—	—	—	—	—	—	—
	$117,420	$117,420	—	—	—	—	—	—	—	—
25–29	29	28	1	—	—	—	—	—	—	—
	$108,113	$108,290	$103,155	—	—	—	—	—	—	—
30–34	71	43	26	2	—	—	—	—	—	—
	$121,313	$117,226	$127,310	$131,221	—	—	—	—	—	—
35–39	94	45	35	10	4	—	—	—	—	—
	$131,097	$122,218	$135,651	$147,785	$149,419	—	—	—	—	—
40–44	116	35	39	16	21	5	—	—	—	—
	$141,708	$128,472	$144,404	$141,991	$160,618	$133,004	—	—	—	—
45–49	85	22	20	12	21	10	—	—	—	—
	$142,893	$131,426	$146,859	$146,301	$147,380	$146,677	—	—	—	—
50–54	79	15	17	16	10	12	5	4	—	—
	$148,871	$122,520	$152,512	$157,511	$147,825	$156,688	$167,321	$153,747	—	—
55–59	62	8	12	6	16	11	5	4	—	—
	$152,069	$166,425	$132,984	$158,352	$157,763	$155,589	$170,707	$115,434	—	—
60–64	51	7	11	11	11	4	3	4	—	—
	$133,480	$134,727	$127,873	$137,851	$124,284	$137,269	$127,547	$160,642	—	—
65–69	14	1	4	1	2	2	3	1	—	—
	$147,824	$110,959	$146,766	$136,878	$129,272	$143,466	$171,537	$174,552	—	—
70 and over	6	—	2	1	1	2	—	—	—	—
	$136,577	—	$144,330	$149,326	$73,864	$153,805	—	—	—	—
Total	**608**	**205**	**167**	**75**	**86**	**46**	**16**	**13**	**—**	**—**
	$137,596	**$123,421**	**$138,927**	**$147,208**	**$148,461**	**$149,286**	**$161,712**	**$145,680**	**—**	**—**

Section 3: Supplemental Information

Rate Group #5 for Plans A, B and U (OCTA)

Age	Total	0–4 Years	5–9 Years	10–14 Years	15–19 Years	20–24 Years	25–29 Years	30–34 Years	35–39 Years	40 Years and Over
Under 25	17	17	—	—	—	—	—	—	—	—
	$68,688	$68,688	—	—	—	—	—	—	—	—
25–29	58	49	9	—	—	—	—	—	—	—
	$86,697	$84,759	$97,246	—	—	—	—	—	—	—
30–34	109	77	31	1	—	—	—	—	—	—
	$86,629	$83,605	$94,350	$80,128	—	—	—	—	—	—
35–39	115	72	26	15	2	—	—	—	—	—
	$94,066	$89,006	$95,214	$114,359	$109,096	—	—	—	—	—
40–44	137	54	32	10	35	6	—	—	—	—
	$103,310	$97,788	$105,109	$103,192	$112,265	$91,363	—	—	—	—
45–49	158	50	20	16	37	30	5	—	—	—
	$102,625	$84,968	$103,295	$115,908	$107,686	$119,865	$93,109	—	—	—
50–54	193	52	23	24	41	38	7	8	—	—
	$102,750	$92,865	$109,089	$107,979	$100,921	$106,627	$118,117	$110,611	—	—
55–59	216	51	25	24	42	38	16	18	2	—
	$102,211	$81,071	$108,003	$126,280	$108,202	$97,755	$105,387	$115,771	$91,455	—
60–64	181	24	12	17	32	44	14	21	14	3
	$102,799	$82,713	$100,596	$126,860	$102,800	$92,537	$106,411	$115,579	$116,379	$116,732
65–69	70	9	9	10	15	8	5	11	2	1
	$98,900	$75,663	$114,255	$107,346	$88,279	$97,277	$134,002	$100,146	$79,021	$108,200
70 and over	10	—	—	1	1	5	2	—	—	1
	$98,761	—	—	$88,637	$120,793	$104,907	$81,216	—	—	$91,211
Total	**1,264**	**455**	**187**	**118**	**205**	**169**	**49**	**58**	**18**	**5**
	$99,090	**$86,430**	**$102,404**	**$115,448**	**$105,115**	**$102,278**	**$108,179**	**$112,026**	**$109,459**	**$109,921**

Section 3: Supplemental Information

Rate Group #9 for Plans M, N and U (TCA)

Age	Total	0–4 Years	5–9 Years	10–14 Years	15–19 Years	20–24 Years	25–29 Years	30–34 Years	35–39 Years	40 Years and Over
Under 25	1	1	—	—	—	—	—	—	—	—
	$70,154	$70,154	—	—	—	—	—	—	—	—
25–29	5	4	1	—	—	—	—	—	—	—
	$79,675	$80,489	$76,418	—	—	—	—	—	—	—
30–34	5	4	1	—	—	—	—	—	—	—
	$105,228	$108,545	$91,961	—	—	—	—	—	—	—
35–39	3	1	1	1	—	—	—	—	—	—
	$131,106	$133,712	$105,723	$153,883	—	—	—	—	—	—
40–44	7	2	3	1	1	—	—	—	—	—
	$138,066	$171,514	$142,309	$116,355	$80,154	—	—	—	—	—
45–49	7	4	—	1	1	1	—	—	—	—
	$170,915	$193,104	—	$186,648	$159,184	$78,158	—	—	—	—
50–54	14	7	5	2	—	—	—	—	—	—
	$130,746	$111,028	$144,262	$165,967	—	—	—	—	—	—
55–59	7	2	1	1	—	2	1	—	—	—
	$127,804	$128,863	$138,598	$163,684	—	$107,648	$119,326	—	—	—
60–64	7	1	2	—	3	1	—	—	—	—
	$147,241	$181,734	$109,727	—	$149,131	$182,103	—	—	—	—
65–69	2	1	—	—	—	1	—	—	—	—
	$102,588	$114,034	—	—	—	$91,143	—	—	—	—
70 and over	1	1	—	—	—	—	—	—	—	—
	$162,789	$162,789	—	—	—	—	—	—	—	—
Total	**59**	**28**	**14**	**6**	**5**	**5**	**1**	**—**	**—**	**—**
	$130,078	**$127,462**	**$127,171**	**$158,751**	**$137,347**	**$113,340**	**$119,326**	**—**	**—**	**—**

Section 3: Supplemental Information

Rate Group #10 for Plans I, J, M, N and U (OCFA)

Age	Total	0–4 Years	5–9 Years	10–14 Years	15–19 Years	20–24 Years	25–29 Years	30–34 Years	35–39 Years	40 Years and Over
Under 25	1	1	—	—	—	—	—	—	—	—
	$65,439	$65,439	—	—	—	—	—	—	—	—
25–29	33	29	4	—	—	—	—	—	—	—
	$84,238	$81,754	$102,245	—	—	—	—	—	—	—
30–34	49	37	12	—	—	—	—	—	—	—
	$91,564	$86,124	$108,336	—	—	—	—	—	—	—
35–39	42	26	15	1	—	—	—	—	—	—
	$100,702	$92,960	$111,986	$132,743	—	—	—	—	—	—
40–44	54	22	19	4	7	2	—	—	—	—
	$112,201	$104,579	$117,106	$133,410	$110,665	$112,422	—	—	—	—
45–49	47	23	5	4	11	4	—	—	—	—
	$121,162	$130,546	$85,073	$90,418	$128,918	$121,739	—	—	—	—
50–54	43	13	11	4	3	8	2	2	—	—
	$122,443	$101,938	$139,349	$143,272	$139,774	$119,417	$131,933	$97,698	—	—
55–59	33	4	8	3	3	9	4	2	—	—
	$124,343	$135,402	$120,346	$142,577	$123,837	$95,817	$170,311	$128,054	—	—
60–64	13	1	2	4	1	2	3	—	—	—
	$144,611	$58,883	$113,267	$163,472	$83,902	$83,426	$229,961	—	—	—
65–69	8	1	2	1	1	3	—	—	—	—
	$132,074	$65,684	$113,197	$312,770	$93,227	$119,507	—	—	—	—
70 and over	2	—	1	—	—	1	—	—	—	—
	$69,455	—	$73,776	—	—	$65,134	—	—	—	—
Total	**325**	**157**	**79**	**21**	**26**	**29**	**9**	**4**	**—**	**—**
	$110,027	**$97,672**	**$114,702**	**$142,644**	**$121,566**	**$107,586**	**$181,666**	**$112,876**	**—**	**—**

Section 3: Supplemental Information

Rate Group #11 for Plans M AND N, Future Service, and U (Cemetery)

Age	Total	0–4 Years	5–9 Years	10–14 Years	15–19 Years	20–24 Years	25–29 Years	30–34 Years	35–39 Years	40 Years and Over
Under 25	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—
25–29	1	1	—	—	—	—	—	—	—	—
	$60,228	$60,228	—	—	—	—	—	—	—	—
30–34	1	—	1	—	—	—	—	—	—	—
	$63,246	—	$63,246	—	—	—	—	—	—	—
35–39	1	—	1	—	—	—	—	—	—	—
	$61,102	—	$61,102	—	—	—	—	—	—	—
40–44	1	—	—	—	—	1	—	—	—	—
	$82,823	—	—	—	—	$82,823	—	—	—	—
45–49	5	1	—	—	2	1	1	—	—	—
	$85,503	$69,011	—	—	$76,513	$88,821	$116,653	—	—	—
50–54	3	2	1	—	—	—	—	—	—	—
	$84,234	$67,031	$118,642	—	—	—	—	—	—	—
55–59	8	—	2	—	1	1	2	1	1	—
	$87,820	—	$78,920	—	$196,028	$88,055	$65,196	$64,510	$65,733	—
60–64	2	—	1	—	—	—	1	—	—	—
	$92,157	—	$67,660	—	—	—	$116,653	—	—	—
65–69	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—
70 and over	2	—	1	—	—	—	—	—	1	—
	$90,532	—	$64,410	—	—	—	—	—	$116,653	—
Total	**24**	**4**	**7**	**—**	**3**	**3**	**4**	**1**	**2**	**—**
	$83,981	**$65,825**	**$76,129**	**—**	**$116,352**	**$86,567**	**$90,925**	**$64,510**	**$91,193**	**—**

Section 3: Supplemental Information

Rate Group #12 for Plans G, H, Future Service, and U (Law Library)

Age	Total	0–4 Years	5–9 Years	10–14 Years	15–19 Years	20–24 Years	25–29 Years	30–34 Years	35–39 Years	40 Years and Over
Under 25	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—
25–29	1	1	—	—	—	—	—	—	—	—
	$51,968	$51,968	—	—	—	—	—	—	—	—
30–34	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—
35–39	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—
40–44	1	—	1	—	—	—	—	—	—	—
	$71,281	—	$71,281	—	—	—	—	—	—	—
45–49	2	—	—	—	1	1	—	—	—	—
	$100,563	—	—	—	$119,473	$81,653	—	—	—	—
50–54	2	—	1	—	—	1	—	—	—	—
	$118,943	—	$167,351	—	—	$70,534	—	—	—	—
55–59	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—
60–64	3	—	—	—	—	2	—	1	—	—
	$94,164	—	—	—	—	$100,420	—	$81,653	—	—
65–69	2	—	—	1	—	—	1	—	—	—
	$74,169	—	—	$58,282	—	—	$90,057	—	—	—
70 and over	3	—	—	—	1	—	1	—	1	—
	$71,542	—	—	—	$54,036	—	$70,534	—	$90,057	—
Total	**14**	**1**	**2**	**1**	**2**	**4**	**2**	**1**	**1**	**—**
	$86,265	**$51,968**	**$119,316**	**$58,282**	**$86,755**	**$88,256**	**$80,295**	**$81,653**	**$90,057**	**—**

Section 3: Supplemental Information

Rate Group #6 for Plans E, F and V (Probation)

Age	Total	0–4 Years	5–9 Years	10–14 Years	15–19 Years	20–24 Years	25–29 Years	30–34 Years	35–39 Years	40 Years and Over
Under 25	12	12	—	—	—	—	—	—	—	—
	$60,530	$60,530	—	—	—	—	—	—	—	—
25–29	35	31	4	—	—	—	—	—	—	—
	$68,535	$66,629	$83,313	—	—	—	—	—	—	—
30–34	43	26	16	1	—	—	—	—	—	—
	$78,541	$73,339	$85,233	$106,746	—	—	—	—	—	—
35–39	44	7	12	11	14	—	—	—	—	—
	$88,019	$72,725	$87,767	$90,397	$94,012	—	—	—	—	—
40–44	105	3	5	6	74	17	—	—	—	—
	$92,880	$83,356	$92,172	$85,611	$92,739	$97,946	—	—	—	—
45–49	201	1	—	4	48	125	23	—	—	—
	$98,409	$70,339	—	$81,168	$94,056	$98,457	$111,452	—	—	—
50–54	118	—	2	1	10	48	51	6	—	—
	$105,074	—	$80,884	$76,936	$84,667	$92,646	$122,307	$104,786	—	—
55–59	31	—	1	—	7	12	6	5	—	—
	$102,763	—	$82,226	—	$80,674	$100,279	$128,320	$113,090	—	—
60–64	7	—	—	1	—	3	3	—	—	—
	$95,376	—	—	$80,235	—	$85,433	$110,367	—	—	—
65–69	3	—	1	—	1	—	—	1	—	—
	$93,904	—	$101,096	—	$81,378	—	—	$99,237	—	—
70 and over	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—
Total	**599**	**80**	**41**	**24**	**154**	**205**	**83**	**12**	**—**	**—**
	$94,226	**$69,102**	**$86,735**	**$87,359**	**$92,119**	**$96,970**	**$119,302**	**$107,784**	**—**	**—**

Section 3: Supplemental Information

Rate Group #7 for Plans E, F, Q, R and V (Law Enforcement)

Age	Total	0–4 Years	5–9 Years	10–14 Years	15–19 Years	20–24 Years	25–29 Years	30–34 Years	35–39 Years	40 Years and Over
Under 25	60	59	1	—	—	—	—	—	—	—
	$96,779	$96,643	$104,813	—	—	—	—	—	—	—
25–29	301	202	97	2	—	—	—	—	—	—
	$114,110	$105,891	$130,628	$143,087	—	—	—	—	—	—
30–34	400	137	186	77	—	—	—	—	—	—
	$131,081	$113,231	$138,437	$145,071	—	—	—	—	—	—
35–39	408	54	106	173	75	—	—	—	—	—
	$141,909	$123,164	$139,173	$145,334	$151,373	—	—	—	—	—
40–44	310	29	26	93	138	24	—	—	—	—
	$150,815	$125,079	$146,839	$145,596	$156,478	$173,883	—	—	—	—
45–49	275	25	12	25	88	85	40	—	—	—
	$163,259	$141,132	$159,025	$154,284	$155,176	$172,775	$181,526	—	—	—
50–54	226	64	4	12	32	54	55	5	—	—
	$164,241	$151,201	$147,860	$157,690	$156,923	$166,947	$182,747	$174,026	—	—
55–59	117	32	36	2	10	14	13	9	1	—
	$160,549	$150,876	$167,960	$180,732	$153,439	$153,566	$159,017	$180,029	$176,435	—
60–64	36	7	14	5	2	3	4	1	—	—
	$162,049	$149,662	$168,890	$169,741	$181,695	$137,286	$162,988	$145,769	—	—
65–69	8	1	1	3	3	—	—	—	—	—
	$174,243	$149,195	$171,131	$174,998	$182,875	—	—	—	—	—
70 and over	2	1	1	—	—	—	—	—	—	—
	$158,211	$143,327	$173,096	—	—	—	—	—	—	—
Total	**2,143**	**611**	**484**	**392**	**348**	**180**	**112**	**15**	**1**	**—**
	$142,595	**$118,259**	**$141,219**	**$147,001**	**$155,374**	**$169,089**	**$178,851**	**$175,744**	**$176,435**	**—**

Section 3: Supplemental Information

Rate Group #8 for Plans E, F, Q, R and V (OCFA)

Age	Total	0–4 Years	5–9 Years	10–14 Years	15–19 Years	20–24 Years	25–29 Years	30–34 Years	35–39 Years	40 Years and Over
Under 25	37	37	—	—	—	—	—	—	—	—
	$77,063	$77,063	—	—	—	—	—	—	—	—
25–29	123	110	13	—	—	—	—	—	—	—
	$106,268	$102,590	$137,388	—	—	—	—	—	—	—
30–34	229	156	67	6	—	—	—	—	—	—
	$127,137	$119,690	$143,574	$137,211	—	—	—	—	—	—
35–39	220	90	78	34	18	—	—	—	—	—
	$141,305	$129,728	$143,622	$154,449	$164,321	—	—	—	—	—
40–44	223	56	45	56	60	6	—	—	—	—
	$155,256	$142,563	$150,570	$150,010	$172,288	$187,507	—	—	—	—
45–49	190	19	17	46	69	33	6	—	—	—
	$167,747	$148,066	$147,949	$166,982	$173,407	$175,457	$184,534	—	—	—
50–54	119	15	3	26	30	27	15	3	—	—
	$178,505	$178,167	$151,660	$163,612	$180,701	$170,802	$214,175	$205,142	—	—
55–59	54	3	1	20	5	15	7	3	—	—
	$171,465	$161,830	$145,924	$174,017	$143,883	$174,875	$163,026	$221,215	—	—
60–64	28	—	2	18	—	2	4	1	1	—
	$140,915	—	$141,887	$136,129	—	$148,385	$143,772	$155,784	$183,878	—
65–69	9	—	—	3	—	1	1	—	1	3
	$161,551	—	—	$166,541	—	$136,555	$125,829	—	$173,734	$172,738
70 and over	3	—	—	2	—	—	—	—	—	1
	$153,800	—	—	$150,469	—	—	—	—	—	$160,463
Total	**1,235**	**486**	**226**	**211**	**182**	**84**	**33**	**7**	**2**	**4**
	$144,923	**$120,243**	**$145,060**	**$157,068**	**$172,531**	**$173,610**	**$186,725**	**$204,979**	**$178,806**	**$169,669**

Section 3: Supplemental Information

Exhibit C: Reconciliation of member data

Line Description	Active Members	Inactive Members[1]	Retired Members	Disabled Members	Beneficiaries	Total
Number as of December 31, 2022	22,061	7,894	16,311	1,588	2,779	50,633
New members	2,375	266	1	0	263	2,905
Terminations with vested rights	(799)	799	0	0	0	0
Contribution refunds	(127)	(127)	0	0	0	(254)
Retirements	(750)	(146)	896	0	0	0
New disabilities	(39)	(11)	(39)	89	0	0
Return to work	91	(89)	(2)	0	0	0
Died with or without beneficiary	(30)	(7)	(408)	(47)	(121)	(613)
Data adjustments	0	0	(5)	(2)	(20)	(27)
Number as of December 31, 2023	**22,782**	**8,579**	**16,754**	**1,628**	**2,901**	**52,644**

[1] Includes members who chose to leave their contributions on deposit even though they have less than five years of service.

Section 3: Supplemental Information

Exhibit D: Summary statement of income and expenses on a market value basis

Line Description	Year Ended December 31, 2023	Year Ended December 31, 2022
Net assets at market value at the beginning of the year[1]	$19,534,631,000	$21,738,794,000
Contribution income		
• Employer contributions	$749,776,000	$719,691,000
• Member contributions	277,455,000	269,999,000
• Discount for prepaid contributions	21,205,000	37,039,000
• Transfer from County Investment Account[2]	10,000,000	14,962,000
– **Net contribution income**	**$1,058,436,000**	**$1,041,691,000**
Investment income		
• Interest, dividends and other income	$2,460,188,000	$(1,936,411,000)
• Less investment and administrative fees	(201,713,000)	(169,728,000)
– **Net investment income**	**$2,258,475,000**	**$(2,106,139,000)**
Total income available for benefits	**$3,316,911,000**	**$(1,064,448,000)**
Less benefit payments		
• Benefits paid	$(1,201,497,000)	$(1,117,476,000)
• Refund of contributions	(14,751,000)	(22,239,000)
– **Net benefit payments**	**$(1,216,248,000)**	**$(1,139,715,000)**
Change in market value of assets	**$2,100,663,000**	**$(2,204,163,000)**
Net assets at market value at the end of the year	**$21,635,294,000**	**$19,534,631,000**

Note: Results may be slightly off due to rounding.

[1] See footnote 1 on next page for further detail.
[2] Funded by pension obligation bond proceeds held by OCERS.

Section 3: Supplemental Information

Exhibit E: Summary statement of plan assets

Line Description	Year Ended December 31, 2023	Year Ended December 31, 2022
Cash equivalents	$370,116,000	$401,414,000
Accounts receivable		
• Contributions	$41,072,000	$15,437,000
• Investment income	20,749,000	14,940,000
• Securities settlements	128,372,000	137,974,000
• All other	10,397,000	7,685,000
– **Total accounts receivable**	**$200,590,000**	**$176,036,000**
Investments		
• Equities	$13,647,586,000	$11,818,959,000
• Fixed income investments	3,151,461,000	1,594,045,000
• Alternative investments and diversified credit	4,828,005,000	6,327,985,000
• Security lending collateral	318,302,000	197,093,000
• Fixed assets net of accumulated depreciation	6,927,000	9,088,000
– **Total investments at market value**	**$21,952,281,000**	**$19,947,170,000**
Total assets	**$22,522,987,000**	**$20,524,620,000**
Accounts payable		
• Securities settlements	$(238,504,000)	$(199,341,000)
• Securities lending liability	(318,302,000)	(197,093,000)
• All other	(130,249,000)	(118,155,000)
– **Total accounts payable**	**$(687,055,000)**	**$(514,589,000)**
Net assets at market value[1]	**$21,635,294,000**	**$19,534,631,000**
Net assets at actuarial value	**$22,135,285,000**	**$20,691,659,000**
Net assets at valuation value	**$22,135,285,000**	**$20,691,659,000**

Note: Results may be slightly off due to rounding.

[1] The market value excludes $146,110,000 and $140,992,000 as of December 31, 2023 and December 31, 2022, respectively, in the County Investment Account (funded by pension obligation bond proceeds held by OCERS), $38,502,000 and $320,009,000 as of December 31, 2023 and December 31, 2022, respectively, in the prepaid employer contributions account, $16,025,000 and $14,398,000 as of December 31, 2023 and December 31, 2022, respectively in the O.C. Sanitation District UAAL Deferred Account (after transfer).

Section 3: Supplemental Information

Exhibit F: Summary of reported reserve information

Reserve Information as of December 31, 2023

Line Description	Reserves
Used in development of valuation value of assets	
• Active Members Reserve	$3,915,650,000
• Retired Members Reserve	16,015,993,000
• Employer Advanced Reserve	3,198,389,000
• ERI Contribution Reserve	16,187,000
• STAR COLA Contribution Reserve	0
• Unrealized Appreciation/(Depreciation) Included in Valuation Value of Assets	(1,010,934,000)
Valuation value of assets	**$22,135,285,000**
Not used in development of valuation value of assets	
• Unclaimed Member Deposit	$0
• Medicare Medical Insurance Reserve	0
Actuarial value of assets	**$22,135,285,000**
• Unrecognized Investment Gain / (Loss)	(499,991,000)
Market value of assets (net of County Investment Account,[1] Prepaid Employer Contributions, and O.C. Sanitation District UAAL Deferred Account)	**$21,635,294,000**
• County Investment Account[1]	146,110,000
• Prepaid Employer Contributions	38,502,000
• O.C. Sanitation District UAAL Deferred Account	16,025,000
Gross market value of assets	**$21,835,931,000**

[1] Funded by pension obligation bond proceeds held by OCERS.

Section 3: Supplemental Information

Exhibit G: Development of the Plan through December 31, 2023

Year Ended December 31	Employer Contributions[1]	Member Contributions	Net Investment Return[2,3]	Benefit Payments	Market Value of Assets at Year-End	Valuation Value of Assets at Year-End	Valuation Value as a Percent of Market Value
2014	$659,634,000	$232,656,000	$487,104,000	$630,678,000	$11,428,223,000	$11,449,911,000	100.19%
2015	598,599,000	249,271,000	(51,601,000)	675,963,000	11,548,529,000	12,228,009,000	105.88%
2016	558,020,000	258,297,000	1,010,548,000	717,976,000	12,657,418,000	13,102,978,000	103.52%
2017	619,067,000	262,294,000	1,878,172,000	764,344,000	14,652,607,000	14,197,125,000	96.89%
2018	616,712,000	270,070,000	(361,321,000)	828,278,000	14,349,790,000	14,994,420,000	104.49%
2019	664,589,000	279,373,000	2,123,258,000	900,902,000	16,516,108,000	16,036,869,000	97.10%
2020	689,538,000	279,384,000	1,982,757,000	973,325,000	18,494,462,000	17,525,117,000	94.76%
2021	745,388,000	271,334,000	3,273,348,000	1,045,738,000	21,738,794,000	19,488,761,000	89.65%
2022	771,692,000	269,999,000	(2,106,139,000)	1,139,715,000	19,534,631,000	20,691,659,000	105.92%
2023	780,981,000	277,455,000	2,258,475,000	1,216,248,000	21,635,294,000	22,135,285,000	102.31%

[1] Includes discount for prepaid contributions, asset transfers from County Investment Account and asset transfer from O.C. Sanitation District UAAL Deferred Account, if any.
[2] On a market value basis, net of investment and administrative expenses.
[3] Actual investment gains or losses on net pension plan assets includes both the administrative expenses and discount for prepaid contributions while excluding the investment gains or losses credited to County Investment Account and O.C. Sanitation District UAAL Deferred Account, if any.

Section 3: Supplemental Information

Exhibit H: Table of amortization bases

All Rate Groups Combined

($ in '000s)

Base Type	Date Established	Initial Amount	Initial Period	Outstanding Balance	Years Remaining	Annual Payment[1]
2012 Restart amortization	December 31, 2013	$5,395,674	20	$4,398,063	10	$538,288
Actuarial (gain) or loss	December 31, 2013	(281,532)	20	(229,477)	10	(28,086)
Actuarial (gain) or loss	December 31, 2014	(152,703)	20	(129,913)	11	(14,714)
Assumption changes	December 31, 2014	(103,213)	20	(87,667)	11	(9,930)
Actuarial (gain) or loss	December 31, 2015	(76,285)	20	(67,260)	12	(7,108)
Actuarial (gain) or loss	December 31, 2016	57,904	20	52,577	13	5,218
Actuarial (gain) or loss	December 31, 2017	(168,282)	20	(156,465)	14	(14,678)
Assumption changes	December 31, 2017	821,239	20	763,558	14	71,623
Actuarial (gain) or loss	December 31, 2018	340,064	20	322,783	15	28,752
Actuarial (gain) or loss	December 31, 2019	291,741	20	281,469	16	23,911
Entry age method change	December 31, 2020	(35,289)	20	(34,477)	17	(2,804)
Actuarial (gain) or loss	December 31, 2020	(318,622)	20	(311,267)	17	(25,317)
Assumption changes	December 31, 2020	13,117	20	12,813	17	1,041
Actuarial (gain) or loss	December 31, 2021	(663,306)	20	(654,935)	18	(51,169)
Actuarial (gain) or loss	December 31, 2022	325,688	20	324,057	19	24,392
Actuarial (gain) or loss	December 31, 2023	20,356	20	20,356	20	1,479
Assumption changes	December 31, 2023	137,105	20	137,105	20	9,970
Subtotal				**$4,641,320**		**$550,868**

[1] Level percentage of payroll, assumes payments at the end of the month.

Section 3: Supplemental Information

Base Type	Outstanding Balance
Rate Group #1 – Plans A, B and U for O.C. Vector Control	$(1,025)
Rate Group #1 – Plans A, B and U for Department of Education	2,729
Rate Group #1 – Plans A, B and U for U.C.I.	23,501
Rate Group #1 – Plans A, B and U for Cypress Recreation and Parks	(721)
Rate Group #3 – Plans B, G, H and U (OCSD)	(8,411)
Rate Group #9 – Plans M, N and U (TCA)	(2,220)
Rate Group #12 – Plans G, H, future service, and U (Law Library)	(2,417)
Subtotal	**$11,436**

	Outstanding Balance
Total	**$4,652,756**

Note: The equivalent single amortization period is about 10 years.

Section 3: Supplemental Information

Rate Group #1 – Plans A, B and U (County and IHSS)

($ in '000s)

Base Type	Date Established	Initial Amount	Initial Period	Outstanding Balance	Years Remaining	Annual Payment[1]
2012 Restart amortization	December 31, 2013	$70,164	20	$57,176	10	$6,998
Actuarial (gain) or loss	December 31, 2013	(5,744)	20	(4,681)	10	(573)
Actuarial (gain) or loss	December 31, 2014	(2,744)	20	(2,334)	11	(264)
Assumption changes	December 31, 2014	(6,545)	20	(5,564)	11	(630)
Actuarial (gain) or loss	December 31, 2015	(1,650)	20	(1,455)	12	(154)
Actuarial (gain) or loss	December 31, 2016	(9,719)	20	(8,821)	13	(876)
Actuarial (gain) or loss	December 31, 2017	(5,386)	20	(5,009)	14	(470)
Assumption changes	December 31, 2017	21,899	20	20,361	14	1,910
Actuarial (gain) or loss	December 31, 2018	44	20	42	15	4
Actuarial (gain) or loss	December 31, 2019	(6,588)	20	(6,356)	16	(540)
Entry age method change	December 31, 2020	(222)	20	(217)	17	(18)
Actuarial (gain) or loss	December 31, 2020	(6,313)	20	(6,167)	17	(502)
Assumption changes	December 31, 2020	76	20	74	17	6
Actuarial (gain) or loss	December 31, 2021	(15,861)	20	(15,661)	18	(1,224)
Actuarial (gain) or loss	December 31, 2022	526	20	523	19	39
Actuarial (gain) or loss	December 31, 2023	(7,512)	20	(7,512)	20	(546)
Assumption changes	December 31, 2023	1,860	20	1,860	20	135
Subtotal				**$16,259**		**$3,295**

[1] Level percentage of payroll, assumes payments at the end of the month.

Section 3: Supplemental Information

Base Type	Outstanding Balance
Rate Group #1 – Plans A, B and U for O.C. Vector Control[1]	$(1,025)
Rate Group #1 – Plans A, B and U for Department of Education[1]	2,729
Rate Group #1 – Plans A, B and U for U.C.I.[1]	23,501
Rate Group #1 – Plans A, B and U for Cypress Recreation and Parks[1]	(721)
Subtotal	**$24,484**

	Outstanding Balance
Rate Group #1 Total	**$40,743**

[1] In determining the UAALs for the O.C. Vector Control District, Department of Education, U.C.I and Cypress Recreation and Parks, we first start by rolling forward the VVAs of these employers as of December 31, 2022 to December 31, 2023 to reflect the actual contributions, benefit payments and return on their VVAs during 2023. The AALs for these employers are obtained from internal valuation results.

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Rate Group #2 – Plans I, J, O, P, S, T, U and W

($ in '000s)

Base Type	Date Established	Initial Amount	Initial Period	Outstanding Balance	Years Remaining	Annual Payment[1]
2012 Restart amortization	December 31, 2013	$3,438,555	20	$2,801,994	10	$342,941
Actuarial (gain) or loss	December 31, 2013	(173,790)	20	(141,616)	10	(17,333)
Actuarial (gain) or loss	December 31, 2014	(78,001)	20	(66,333)	11	(7,513)
Assumption changes	December 31, 2014	(246,714)	20	(209,810)	11	(23,763)
Actuarial (gain) or loss	December 31, 2015	(65,063)	20	(57,358)	12	(6,061)
Actuarial (gain) or loss	December 31, 2016	39,445	20	35,802	13	3,554
Subtotal[2]				**$2,362,679**		**$291,825**
Actuarial (gain) or loss	December 31, 2017	$(59,911)	20	(55,704)	14	(5,225)
Assumption changes	December 31, 2017	481,098	20	447,309	14	41,958
Actuarial (gain) or loss	December 31, 2018	207,573	20	197,024	15	17,550
Actuarial (gain) or loss	December 31, 2019	186,003	20	179,452	16	15,245
Entry age method change	December 31, 2020	(15,846)	20	(15,480)	17	(1,259)
Actuarial (gain) or loss	December 31, 2020	(118,155)	20	(115,428)	17	(9,388)
Assumption changes	December 31, 2020	183,272	20	179,042	17	14,562
Actuarial (gain) or loss	December 31, 2021	(330,889)	20	(326,713)	18	(25,526)
Actuarial (gain) or loss	December 31, 2022	195,127	20	194,150	19	14,614
Actuarial (gain) or loss	December 31, 2023	38,728	20	38,728	20	2,816
Assumption changes	December 31, 2023	123,452	20	123,452	20	8,977
Subtotal[3]				**$845,832**		**$74,324**
Rate Group #2 Total				**$3,208,511**		**$366,149**

[1] Level percentage of payroll, assumes payments at the end of the month.
[2] This amount is spread over the payroll for all employers in Rate Group #2 excluding the payroll for Children and Families Commission.
[3] This amount is spread over the payroll for all employers in Rate Group #2 including the payroll for Children and Families Commission.

Section 3: Supplemental Information

Note: We have made an adjustment to the amortization bases to reflect the $1.7 million additional contributions made by Children and Families Commission to pay off their UAAL as of December 31, 2016. With that adjustment, we have reduced the amortization layers established on or before December 31, 2016 for Rate Group #2 by that amount on a pro-rata basis. The UAAL contribution rate for Children and Families Commission is determined based on the amortization layers established on or after December 31, 2017.

Section 3: Supplemental Information

Rate Group #3 – Plans B, G, H and U (OCSD)

($ in '000s)

Base Type	Date Established	Initial Amount	Initial Period	Outstanding Balance	Years Remaining	Annual Payment[1]
Rate Group #3 Total				**$(8,411)**		**$0**

[1] Level percentage of payroll, assumes payments at the end of the month.

Section 3: Supplemental Information

Rate Group #5 – Plans A, B and U (OCTA)

($ in '000s)

Base Type	Date Established	Initial Amount	Initial Period	Outstanding Balance	Years Remaining	Annual Payment[1]
2012 Restart amortization	December 31, 2013	$232,513	20	$189,625	10	$23,209
Actuarial (gain) or loss	December 31, 2013	(13,471)	20	(10,985)	10	(1,344)
Actuarial (gain) or loss	December 31, 2014	4,522	20	3,849	11	436
Assumption changes	December 31, 2014	(19,944)	20	(16,975)	11	(1,923)
Actuarial (gain) or loss	December 31, 2015	(933)	20	(823)	12	(87)
Actuarial (gain) or loss	December 31, 2016	(9,743)	20	(8,852)	13	(879)
Actuarial (gain) or loss	December 31, 2017	(9,948)	20	(9,249)	14	(868)
Assumption changes	December 31, 2017	43,481	20	40,426	14	3,792
Actuarial (gain) or loss	December 31, 2018	22,318	20	21,184	15	1,887
Actuarial (gain) or loss	December 31, 2019	12,234	20	11,804	16	1,003
Entry age method change	December 31, 2020	(2,414)	20	(2,359)	17	(192)
Actuarial (gain) or loss	December 31, 2020	(30,867)	20	(30,154)	17	(2,453)
Assumption changes	December 31, 2020	4,801	20	4,690	17	381
Actuarial (gain) or loss	December 31, 2021	(49,440)	20	(48,816)	18	(3,814)
Actuarial (gain) or loss	December 31, 2022	37,213	20	37,027	19	2,787
Actuarial (gain) or loss	December 31, 2023	4,392	20	4,392	20	319
Assumption changes	December 31, 2023	7,669	20	7,669	20	558
Rate Group #5 Total				**$192,453**		**$22,812**

[1] Calculated as a level percentage of payroll, payable at the end of the month.

Section 3: Supplemental Information

Rate Group #9 – Plans M, N and U (TCA)

($ in '000s)

Base Type	Date Established	Initial Amount	Initial Period	Outstanding Balance	Years Remaining	Annual Payment[1]
Rate Group #9 Total				**$(2,220)**		**$0**

[1] Level percentage of payroll, assumes payments at the end of the month.

Section 3: Supplemental Information

Rate Group #10 – Plans I, J, M, N and U (OCFA)

($ in '000s)

Base Type	Date Established	Initial Amount	Initial Period	Outstanding Balance	Years Remaining	Annual Payment[1]
2012 Restart amortization	December 31, 2013	$72,750	20	$59,330	10	$7,262
Actuarial (gain) or loss	December 31, 2013	(2,659)	20	(2,168)	10	(265)
Actuarial (gain) or loss	December 31, 2014	(3,755)	20	(3,196)	11	(362)
Assumption changes	December 31, 2014	(4,489)	20	(3,822)	11	(433)
Actuarial (gain) or loss	December 31, 2015	626	20	552	12	58
Actuarial (gain) or loss	December 31, 2016	134	20	122	13	12
Actuarial (gain) or loss	December 31, 2017	(15,281)	20	(14,208)	14	(1,333)
Assumption changes	December 31, 2017	9,159	20	8,516	14	799
Actuarial (gain) or loss	December 31, 2018	(6,934)	20	(6,582)	15	(586)
Actuarial (gain) or loss	December 31, 2019	76	20	73	16	6
Entry age method change	December 31, 2020	(2,018)	20	(1,972)	17	(160)
Actuarial (gain) or loss	December 31, 2020	(12,238)	20	(11,956)	17	(972)
Assumption changes	December 31, 2020	3,814	20	3,726	17	303
Actuarial (gain) or loss	December 31, 2021	(10,169)	20	(10,041)	18	(784)
Actuarial (gain) or loss	December 31, 2022	2,038	20	2,028	19	153
Actuarial (gain) or loss	December 31, 2023	(1,617)	20	(1,617)	20	(118)
Assumption changes	December 31, 2023	2,135	20	2,135	20	155
Rate Group #10 Total				**$20,920**		**$3,735**

[1] Calculated as a level percentage of payroll, payable at the end of the month.

Section 3: Supplemental Information

Rate Group #11 – Plans M and N, future service, and U (Cemetery)

($ in '000s)

Base Type	Date Established	Initial Amount	Initial Period	Outstanding Balance	Years Remaining	Annual Payment[1]
Restart amortization & Assumption changes	December 31, 2017	$281	20	$260	14	$24
Actuarial (gain) or loss	December 31, 2018	(244)	20	(231)	15	(21)
Actuarial (gain) or loss	December 31, 2019	613	20	592	16	50
Entry age method change	December 31, 2020	(43)	20	(43)	17	(3)
Actuarial (gain) or loss	December 31, 2020	(178)	20	(174)	17	(14)
Assumption changes	December 31, 2020	218	20	213	17	17
Actuarial (gain) or loss	December 31, 2021	(394)	20	(389)	18	(30)
Actuarial (gain) or loss	December 31, 2022	337	20	335	19	25
Actuarial (gain) or loss	December 31, 2023	(366)	20	(366)	20	(27)
Assumption changes	December 31, 2023	150	20	150	20	11
Rate Group #11 Total				**$347**		**$32**

[1] Calculated as a level percentage of payroll, payable at the end of the month.

Section 3: Supplemental Information

Rate Group #12 – Plans G, H, future service, and U (Law Library)

($ in '000s)

Base Type	Date Established	Initial Amount	Initial Period	Outstanding Balance	Years Remaining	Annual Payment[1]
Rate Group #12 Total				**$(2,417)**		**$0**

[1] Level percentage of payroll, assumes payments at the end of the month.

Section 3: Supplemental Information

Rate Group #6 – Plans E, F and V (Probation)

($ in '000s)

Base Type	Date Established	Initial Amount	Initial Period	Outstanding Balance	Years Remaining	Annual Payment[1]
2012 Restart amortization	December 31, 2013	$192,912	20	$157,327	10	$19,256
Actuarial (gain) or loss	December 31, 2013	(14,039)	20	(11,449)	10	(1,401)
Actuarial (gain) or loss	December 31, 2014	(2,596)	20	(2,210)	11	(250)
Assumption changes	December 31, 2014	36,260	20	30,862	11	3,495
Actuarial (gain) or loss	December 31, 2015	(10,703)	20	(9,444)	12	(998)
Actuarial (gain) or loss	December 31, 2016	13,799	20	12,535	13	1,244
Actuarial (gain) or loss	December 31, 2017	(6,566)	20	(6,105)	14	(573)
Assumption changes	December 31, 2017	50,030	20	46,516	14	4,363
Actuarial (gain) or loss	December 31, 2018	8,046	20	7,637	15	680
Actuarial (gain) or loss	December 31, 2019	8,063	20	7,780	16	661
Entry age method change	December 31, 2020	(44)	20	(44)	17	(4)
Actuarial (gain) or loss	December 31, 2020	(14,580)	20	(14,243)	17	(1,158)
Assumption changes	December 31, 2020	(36,195)	20	(35,360)	17	(2,876)
Actuarial (gain) or loss	December 31, 2021	(39,490)	20	(38,991)	18	(3,046)
Actuarial (gain) or loss	December 31, 2022	21,662	20	21,553	19	1,622
Actuarial (gain) or loss	December 31, 2023	(106)	20	(106)	20	(8)
Assumption changes	December 31, 2023	1,185	20	1,185	20	86
Rate Group #6 Total				**$167,443**		**$21,093**

[1] Calculated as a level percentage of payroll, payable at the end of the month.

Section 3: Supplemental Information

Rate Group #7 – Plans E, F, Q, R and V (Law Enforcement)

($ in '000s)

Base Type	Date Established	Initial Amount	Initial Period	Outstanding Balance	Years Remaining	Annual Payment[1]
2012 Restart amortization	December 31, 2013	$988,833	20	$806,436	10	$98,701
Actuarial (gain) or loss	December 31, 2013	(51,652)	20	(42,124)	10	(5,156)
Actuarial (gain) or loss	December 31, 2014	(34,729)	20	(29,559)	11	(3,348)
Assumption changes	December 31, 2014	102,262	20	87,037	11	9,858
Actuarial (gain) or loss	December 31, 2015	23,666	20	20,881	12	2,207
Actuarial (gain) or loss	December 31, 2016	39,724	20	36,084	13	3,582
Actuarial (gain) or loss	December 31, 2017	(27,922)	20	(25,960)	14	(2,435)
Assumption changes	December 31, 2017	161,417	20	150,080	14	14,078
Actuarial (gain) or loss	December 31, 2018	69,329	20	65,806	15	5,862
Actuarial (gain) or loss	December 31, 2019	75,023	20	72,381	16	6,149
Entry age method change	December 31, 2020	(4,900)	20	(4,787)	17	(389)
Actuarial (gain) or loss	December 31, 2020	(62,670)	20	(61,223)	17	(4,980)
Assumption changes	December 31, 2020	(88,103)	20	(86,070)	17	(7,000)
Actuarial (gain) or loss	December 31, 2021	(138,239)	20	(136,495)	18	(10,664)
Actuarial (gain) or loss	December 31, 2022	73,109	20	72,743	19	5,476
Actuarial (gain) or loss	December 31, 2023	(12,680)	20	(12,680)	20	(922)
Assumption changes	December 31, 2023	765	20	765	20	56
Rate Group #7 Total				**$913,315**		**$111,075**

[1] Calculated as a level percentage of payroll, payable at the end of the month.

Section 3: Supplemental Information

Rate Group #8 – Plans E, F, Q, R and V (OCFA)

($ in '000s)

Base Type	Date Established	Initial Amount	Initial Period	Outstanding Balance	Years Remaining	Annual Payment[1]
2012 Restart amortization	December 31, 2013	$399,947	20	$326,175	10	$39,921
Actuarial (gain) or loss	December 31, 2013	(20,177)	20	(16,454)	10	(2,014)
Actuarial (gain) or loss	December 31, 2014	(35,400)	20	(30,130)	11	(3,413)
Assumption changes	December 31, 2014	35,957	20	30,605	11	3,466
Actuarial (gain) or loss	December 31, 2015	(22,228)	20	(19,613)	12	(2,073)
Actuarial (gain) or loss	December 31, 2016	(15,736)	20	(14,293)	13	(1,419)
Actuarial (gain) or loss	December 31, 2017	(43,031)	20	(40,010)	14	(3,753)
Assumption changes	December 31, 2017	53,637	20	49,870	14	4,678
Actuarial (gain) or loss	December 31, 2018	39,932	20	37,903	15	3,376
Actuarial (gain) or loss	December 31, 2019	16,317	20	15,743	16	1,337
Entry age method change	December 31, 2020	(9,802)	20	(9,575)	17	(779)
Actuarial (gain) or loss	December 31, 2020	(73,621)	20	(71,922)	17	(5,850)
Assumption changes	December 31, 2020	(54,766)	20	(53,502)	17	(4,352)
Actuarial (gain) or loss	December 31, 2021	(78,824)	20	(77,829)	18	(6,081)
Actuarial (gain) or loss	December 31, 2022	(4,324)	20	(4,302)	19	(324)
Actuarial (gain) or loss	December 31, 2023	(483)	20	(483)	20	(35)
Assumption changes	December 31, 2023	(111)	20	(111)	20	(8)
Rate Group #8 Total				**$122,072**		**$22,677**

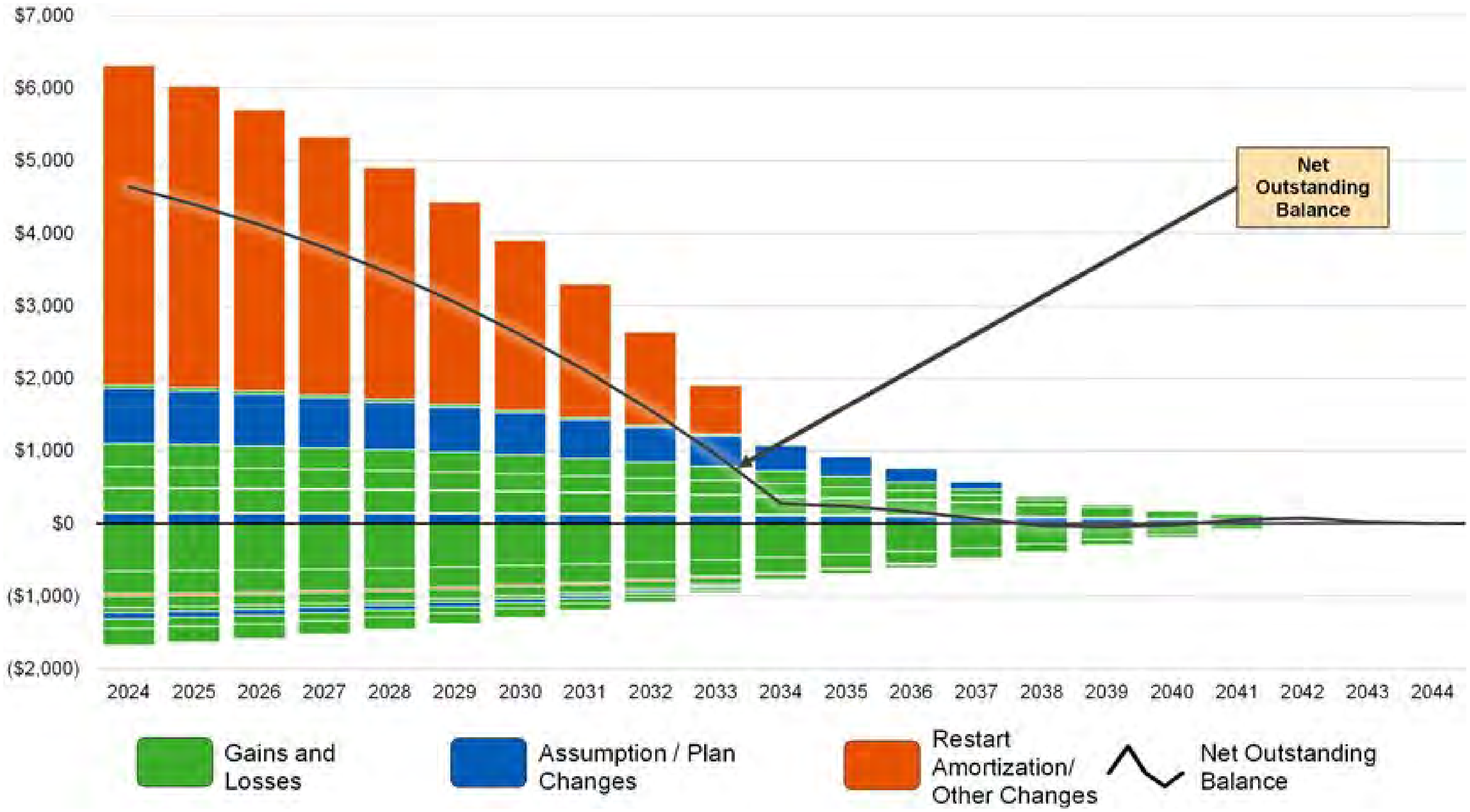
[1] Calculated as a level percentage of payroll, payable at the end of the month.

Section 3: Supplemental Information

Exhibit I: Projection of UAAL balances and payments

Outstanding Balance of $4.7 Billion in Net UAAL as of December 31, 2023[1]

($ in Millions)

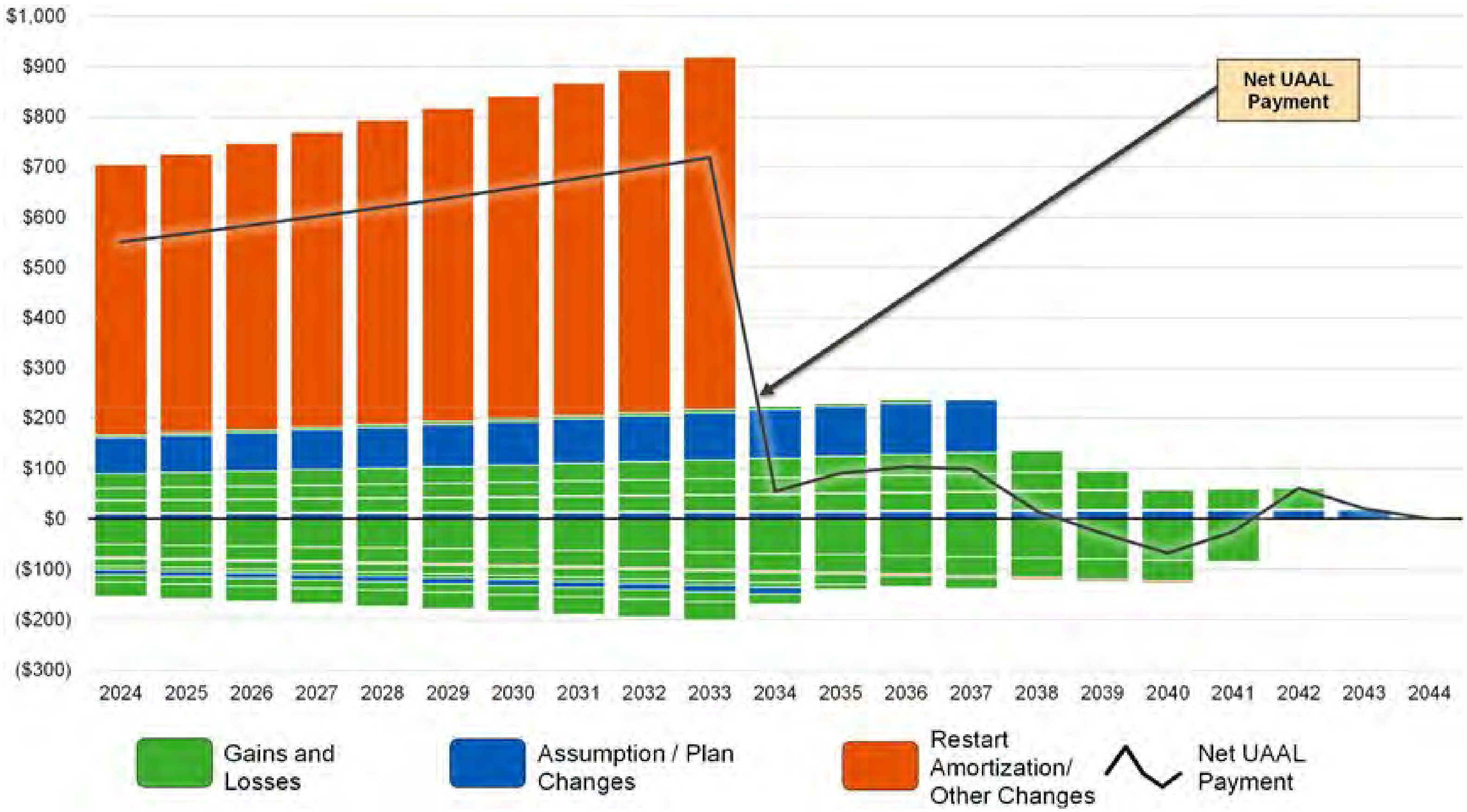


[1] As of December 31, 2037, the Net Outstanding Balance of OCERS' UAAL for all rate groups combined is projected to become negative even though the UAAL for some individual rate groups is still expected to be positive. Since this graph is for illustrative purposes only, we have not refined the Net UAAL amount in calendar years 2038 and thereafter to show only the UAAL for those rate groups that have a positive UAAL and are still required to make annual UAAL contributions as shown on the next page.

Section 3: Supplemental Information

Annual Payments Required to Amortize $4.7 Billion in Net UAAL as of December 31, 2023[1]

($ in Millions)



[1] Please refer to the footnote shown on previous page for annual UAAL contribution amount in calendar years 2038 and thereafter.

Section 4: Actuarial Valuation Basis

Exhibit 1: Actuarial assumptions, methods and models

Rationale for assumptions

The information and analysis used in selecting each assumption that has a significant effect on this actuarial valuation is shown in the January 1, 2020 through December 31, 2022 Actuarial Experience Study dated August 11, 2023. Unless otherwise noted, all actuarial assumptions and methods shown below apply to all members for all tiers. These assumptions were adopted by the Board.

Net investment return

7.00%; net of administrative and investment expenses.

Based on the Actuarial Experience Study referenced above, expected administrative and investment expenses represent about 0.30% of the actuarial value of assets.

Inflation rate

Increase of 2.50% per year.

Cost-of-Living Adjustment (COLA)

Retiree COLA increases of 2.75% per year. For members that have COLA banks, we assume they receive 3.00% COLA increases until their COLA banks are exhausted and 2.75% thereafter.

The actual COLA granted by OCERS on April 1, 2024 has been reflected for non-active members in the December 31, 2023 valuation.

Member contribution crediting rate

5.00%, compounded semi-annually.

Section 4: Actuarial Valuation Basis

Payroll

Inflation of 2.50% per year plus “across-the-board” salary increase of 0.50% per year, used to amortize the UAAL as a level percentage of payroll.

Increase in Section 7522.10 Compensation Limit

Increase of 2.50% per year from the valuation date.

Section 4: Actuarial Valuation Basis

Salary increase

The annual rate of compensation increase includes:

- Inflation at 2.50%, plus
- "Across-the-board" salary increase of 0.50% per year, plus
- Merit and promotion increase based on years of service:

Merit and Promotion Increases[1]

Years of Service	General	Safety
Less than 1	5.00%	12.00%
1–2	7.25%	10.00%
2–3	6.50%	8.75%
3–4	5.50%	7.75%
4–5	4.50%	6.75%
5–6	3.75%	5.75%
6–7	3.00%	5.00%
7–8	2.75%	3.75%
8–9	2.00%	3.00%
9–10	1.80%	2.75%
10–11	1.60%	2.00%
11–12	1.50%	1.85%
12–13	1.40%	1.85%
13–14	1.30%	1.85%
14–15	1.25%	1.85%
15–16	1.25%	1.60%
16–17	1.15%	1.60%
17–18	1.10%	1.60%
18–19	1.10%	1.60%
19–20	0.90%	1.50%
20 and over	0.90%	1.50%

[1] In addition to the individual salary increase assumptions, we have applied an average of two hours of additional salary annually for leap-year salary adjustment.

Section 4: Actuarial Valuation Basis

Post-retirement mortality rates

The Pub-2010 mortality tables and adjustments as shown below reasonably reflect the mortality experience as of the measurement date. These mortality tables were adjusted to future years using the generational projection to reflect future mortality improvement between the measurement date and those years.

Healthy

- **General members:** Pub-2010 General Healthy Retiree Amount-Weighted Above-Median Mortality Table (separate tables for males and females) increased 5% for females, projected generationally with the two-dimensional mortality improvement scale MP-2021.
- **Safety members:** Pub-2010 Safety Healthy Retiree Amount-Weighted Above-Median Mortality Table (separate tables for males and females) decreased 5% for females, projected generationally with the two-dimensional mortality improvement scale MP-2021.

Disabled

- **General members:** Pub-2010 Non-Safety Disabled Retiree Amount-Weighted Mortality Table (separate tables for males and females) decreased 5% for males and females, projected generationally with the two-dimensional mortality improvement scale MP-2021.
- **Safety members:** Pub-2010 Safety Disabled Retiree Amount-Weighted Mortality Table (separate tables for males and females) decreased 5% for females, projected generationally with the two-dimensional mortality improvement scale MP-2021.

Beneficiary

- **Beneficiaries not currently in pay status:** Pub-2010 General Healthy Retiree Amount-Weighted Above-Median Mortality Table (separate tables for males and females) increased 5% for females, projected generationally with the two-dimensional mortality improvement scale MP-2021.
- **Beneficiaries in pay status:** Pub-2010 Contingent Survivor Amount-Weighted Above Median Mortality Table (separate tables for males and females) increased 10% for males, projected generationally with the two-dimensional mortality improvement scale MP-2021.

Section 4: Actuarial Valuation Basis

Pre-retirement mortality rates

- **General members:** Pub-2010 General Employee Amount-Weighted Above-Median Mortality Table (separate tables for males and females), projected generationally with the two-dimensional mortality improvement scale MP-2021.
- **Safety members:** Pub-2010 Safety Employee Amount-Weighted Above-Median Mortality Table (separate tables for males and females), projected generationally with the two-dimensional mortality improvement scale MP-2021.

Pre-Retirement Mortality Rates — Before Generational Projection from 2010

Age	General Male	General Female	Safety Male	Safety Female
20	0.04%	0.01%	0.04%	0.02%
25	0.02%	0.01%	0.03%	0.02%
30	0.03%	0.01%	0.04%	0.02%
35	0.04%	0.02%	0.04%	0.03%
40	0.06%	0.03%	0.05%	0.04%
45	0.09%	0.05%	0.07%	0.06%
50	0.13%	0.08%	0.10%	0.08%
55	0.19%	0.11%	0.15%	0.11%
60	0.28%	0.17%	0.23%	0.14%
65	0.41%	0.27%	0.35%	0.20%
70	0.61%	0.44%	0.66%	0.39%

All General pre-retirement deaths are assumed to be non-service connected.

For Safety, 90% of pre-retirement deaths are assumed to be non-service connected. The other 10% are assumed to be service connected.

Section 4: Actuarial Valuation Basis

Mortality rates for member contributions

- **General members:** Pub-2010 General Healthy Retiree Amount-Weighted Above-Median Mortality Table (separate tables for males and females) increased 5% for females, projected 30 years (from 2010) with the two-dimensional mortality improvement scale MP 2021, weighted 40% male and 60% female.
- **Safety members:** Pub-2010 Safety Healthy Retiree Amount-Weighted Above-Median Mortality Table (separate tables for males and females) decreased by 5% for females, projected 30 years (from 2010) with the two-dimensional mortality improvement scale MP-2021, weighted 85% male and 15% female.

Section 4: Actuarial Valuation Basis

Disability incidence

Disability Incidence Rates

Age	General All Other	General OCTA	Safety Law & Fire	Safety Probation
20	0.00%	0.00%	0.00%	0.00%
25	0.00%	0.00%	0.02%	0.03%
30	0.01%	0.03%	0.08%	0.08%
35	0.03%	0.20%	0.19%	0.13%
40	0.07%	0.36%	0.34%	0.18%
45	0.13%	0.46%	0.46%	0.26%
50	0.21%	0.56%	1.22%	0.36%
55	0.28%	0.72%	3.38%	0.49%
60	0.30%	1.04%	5.40%	0.22%
65	0.30%	1.68%	7.50%	0.00%

75% of General All Other disabilities are assumed to be service-connected disabilities. The other 25% are assumed to be non-service connected.

85% of General OCTA disabilities are assumed to be service-connected disabilities. The other 15% are assumed to be non-service connected.

100% of Safety Law Enforcement and Fire disabilities are assumed to be service-connected disabilities.

85% of Safety Probation disabilities are assumed to be service-connected disabilities. The other 15% are assumed to be non-service connected.

Section 4: Actuarial Valuation Basis

Termination

Termination Rates

Years of Service	General All Other	General OCTA	Safety Law & Fire	Safety Probation
Less than 1	11.25%	16.50%	4.00%	12.50%
1–2	7.25%	11.50%	3.00%	11.50%
2–3	6.50%	9.25%	2.50%	9.50%
3–4	5.50%	8.25%	2.25%	5.00%
4–5	5.25%	7.75%	2.00%	4.00%
5–6	4.75%	6.50%	1.75%	3.25%
6–7	4.25%	4.25%	1.25%	2.75%
7–8	4.00%	4.00%	1.20%	2.75%
8–9	3.50%	3.50%	1.15%	2.50%
9–10	3.00%	2.75%	1.10%	1.75%
10–11	2.50%	2.75%	1.05%	1.50%
11–12	2.00%	2.50%	1.00%	1.50%
12–13	1.75%	2.50%	0.95%	1.25%
13–14	1.75%	2.25%	0.65%	1.00%
14–15	1.60%	2.25%	0.60%	0.75%
15–16	1.50%	2.00%	0.55%	0.75%
16–17	1.40%	2.00%	0.50%	0.75%
17–18	1.30%	1.75%	0.45%	0.75%
18–19	1.20%	1.75%	0.40%	0.50%
19–20	1.00%	1.25%	0.30%	0.25%
20 and over	0.50%	0.75%	0.15%	0.20%

Section 4: Actuarial Valuation Basis

Election for withdrawal of contributions

Election Rates

Years of Service	General All Other	General OCTA	Safety Law & Fire	Safety Probation
Less than 5	25.00%	35.00%	25.00%	20.00%
5–9	17.50%	30.00%	25.00%	20.00%
10–14	17.50%	25.00%	12.50%	20.00%
15 and over	15.00%	15.00%	12.50%	15.00%

Section 4: Actuarial Valuation Basis

Retirement rates

Retirement Rates — General

Age	Enhanced <30 Years of Service	Enhanced 30+ Years of Service	Non-Enhanced[1] <30 Years of Service	Non-Enhanced[1] 30+ Years of Service
49	0.00%	30.00%	0.00%	25.00%
50	2.25%	5.00%	2.75%	2.75%
51	2.25%	5.00%	2.75%	2.75%
52	2.50%	5.00%	2.75%	2.75%
53	3.00%	9.00%	2.75%	2.75%
54	7.50%	16.00%	2.75%	2.75%
55	13.00%	35.00%	3.25%	3.50%
56	10.00%	24.00%	3.25%	3.50%
57	10.00%	22.00%	5.50%	5.50%
58	10.00%	22.00%	6.50%	6.50%
59	11.00%	24.00%	6.50%	6.50%
60	12.00%	24.00%	8.00%	12.00%
61	12.00%	24.00%	8.00%	15.00%
62	14.00%	24.00%	8.00%	18.00%
63	14.00%	24.00%	10.00%	22.00%
64	17.00%	30.00%	12.00%	25.00%
65	25.00%	30.00%	22.00%	30.00%
66	25.00%	30.00%	25.00%	32.00%
67	25.00%	30.00%	27.00%	32.00%
68	25.00%	25.00%	32.00%	32.00%
69	25.00%	25.00%	30.00%	30.00%
70	25.00%	25.00%	25.00%	30.00%
71	25.00%	25.00%	20.00%	30.00%
72	22.00%	25.00%	20.00%	30.00%
73	20.00%	25.00%	20.00%	30.00%
74	20.00%	25.00%	20.00%	30.00%
75	100.00%	100.00%	100.00%	100.00%

The retirement rates only apply to members that are eligible to retire at the age shown.

[1] These assumptions are also used for the CalPEPRA 1.62% @ 65 formula (Plan T and Plan W).

Section 4: Actuarial Valuation Basis

Retirement Rates — Safety

Age	Law (31664.1) <30 Years of Service	Law (31664.1) 30+ Years of Service	Fire (31664.1) <30 Years of Service	Fire (31664.1) 30+ Years of Service	Probation (31664.1) <30 Years of Service	Probation (31664.1) 30+ Years of Service
45	2.50%	16.00%	2.00%	10.00%	3.00%	5.00%
46	2.50%	16.00%	2.00%	10.00%	3.00%	5.00%
47	2.50%	16.00%	2.00%	10.00%	3.00%	5.00%
48	2.50%	16.00%	2.00%	10.00%	3.00%	5.00%
49	12.00%	16.00%	2.00%	10.00%	3.00%	5.00%
50	18.00%	20.00%	4.50%	10.00%	9.00%	12.00%
51	18.00%	20.00%	4.50%	10.00%	7.00%	10.00%
52	18.00%	20.00%	4.50%	10.00%	5.00%	9.00%
53	20.00%	35.00%	9.00%	20.00%	7.00%	9.00%
54	24.00%	35.00%	12.00%	25.00%	7.00%	12.00%
55	24.00%	35.00%	12.00%	25.00%	12.00%	30.00%
56	24.00%	35.00%	12.00%	25.00%	18.00%	30.00%
57	24.00%	35.00%	20.00%	25.00%	25.00%	30.00%
58	24.00%	40.00%	20.00%	30.00%	25.00%	30.00%
59	24.00%	40.00%	25.00%	30.00%	18.00%	30.00%
60	30.00%	40.00%	25.00%	30.00%	20.00%	40.00%
61	30.00%	40.00%	25.00%	30.00%	20.00%	40.00%
62	30.00%	40.00%	25.00%	30.00%	20.00%	40.00%
63	30.00%	40.00%	25.00%	30.00%	20.00%	40.00%
64	30.00%	40.00%	25.00%	30.00%	20.00%	40.00%
65	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

The retirement rates only apply to members that are eligible to retire at the age shown.

Section 4: Actuarial Valuation Basis

Retirement Rates

Age	General SJC (31676.12)	Safety Law (31664.2)	Safety Fire (31664.2)
50	4.00%	12.00%	8.00%
51	4.00%	12.50%	9.00%
52	4.00%	13.00%	10.00%
53	4.00%	18.00%	12.00%
54	4.00%	19.00%	14.00%
55	4.00%	35.00%	24.00%
56	5.00%	25.00%	23.00%
57	6.00%	25.00%	25.00%
58	7.00%	25.00%	25.00%
59	9.00%	30.00%	35.00%
60	10.00%	40.00%	40.00%
61	12.00%	40.00%	40.00%
62	13.00%	40.00%	40.00%
63	13.00%	40.00%	40.00%
64	19.00%	40.00%	40.00%
65	22.00%	100.00%	100.00%
66	26.00%	100.00%	100.00%
67	26.00%	100.00%	100.00%
68	26.00%	100.00%	100.00%
69	26.00%	100.00%	100.00%
70	45.00%	100.00%	100.00%
71	45.00%	100.00%	100.00%
72	45.00%	100.00%	100.00%
73	45.00%	100.00%	100.00%
74	45.00%	100.00%	100.00%
75	100.00%	100.00%	100.00%

The retirement rates only apply to members that are eligible to retire at the age shown.

Section 4: Actuarial Valuation Basis

Retirement Rates

Age	CalPEPRA 2.5% @ 67 General Formula	CalPEPRA 2.7% @ 57 Safety Formula Probation	CalPEPRA 2.7% @ 57 Safety Formula Law	CalPEPRA 2.7% @ 57 Safety Formula Fire
50	0.00%	3.00%	11.50%	6.00%
51	0.00%	3.00%	12.00%	6.50%
52	5.50%	3.50%	12.50%	8.00%
53	2.00%	3.50%	16.50%	10.00%
54	2.00%	6.00%	17.50%	12.00%
55	2.75%	12.00%	30.00%	20.00%
56	3.75%	12.00%	20.00%	19.00%
57	5.50%	15.00%	20.00%	21.00%
58	7.50%	25.00%	25.00%	25.00%
59	7.50%	25.00%	30.00%	30.00%
60	7.50%	40.00%	40.00%	40.00%
61	7.50%	40.00%	40.00%	40.00%
62	14.00%	40.00%	40.00%	40.00%
63	14.00%	40.00%	40.00%	40.00%
64	15.00%	40.00%	40.00%	40.00%
65	20.00%	100.00%	100.00%	100.00%
66	22.00%	100.00%	100.00%	100.00%
67	23.00%	100.00%	100.00%	100.00%
68	23.00%	100.00%	100.00%	100.00%
69	23.00%	100.00%	100.00%	100.00%
70	25.00%	100.00%	100.00%	100.00%
71	25.00%	100.00%	100.00%	100.00%
72	25.00%	100.00%	100.00%	100.00%
73	25.00%	100.00%	100.00%	100.00%
74	25.00%	100.00%	100.00%	100.00%
75	100.00%	100.00%	100.00%	100.00%

The retirement rates only apply to members that are eligible to retire at the age shown.

Section 4: Actuarial Valuation Basis

Retirement age and benefit for deferred vested members

For current and future deferred vested members without reciprocity, retirement age assumptions are as follows:

General retirement age:	58
Safety retirement age:	54

For current and future deferred vested members with reciprocity, retirement age assumptions are as follows:

General retirement age:	60
Safety retirement age:	54

General and Safety deferred vested members who terminate with less than five years of service and are not vested are assumed to retire at age 70 for both General and Safety if they decide to leave their contributions on deposit.

12.5% of future General and 20% of future Safety deferred vested members are assumed to continue to work for a reciprocal employer. For reciprocals, 3.90% and 4.50% compensation increase per annum are assumed for General and Safety, respectively.

Liability calculation for current deferred vested members

Liability for a current deferred vested member is calculated based on salary (adjusted with the additional cashout assumptions for non-CalPEPRA members), service, and eligibility for reciprocal benefit as provided by the Retirement System. For those members without salary information that have 3 or more years of service, we used an average salary. For those members without salary information that have less than 3 years of service or for those members without service information, we assumed a refund of account balance.

Future benefit accruals

1.0 year of service per year of employment. There is no assumption to anticipate conversion of unused sick leave at retirement.

Unknown data for members

Same as those exhibited by members with similar known characteristics. If not specified, members are assumed to be male.

Section 4: Actuarial Valuation Basis

Inclusion of deferred vested members

All deferred vested members are included in the valuation.

Definition of active members

First day of employment.

Form of payment

All active and inactive members are assumed to elect the unmodified option at retirement.

Percent married

For all active and inactive members, 75% of male members and 55% of female members are assumed to be married at pre-retirement death or retirement.

Age and gender of spouse

For all active and inactive members, male members are assumed to have a female spouse who is 3 years younger than the member and female members are assumed to have a male spouse who is 2 years older than the member.

Section 4: Actuarial Valuation Basis

Cashout assumptions

Additional compensation amounts are expected to be received during a member's final average earnings period. The percentages used in this valuation are:

Rates

Plan	Final One Year Salary	Final Three Year Salary
General Non CalPEPRA	3.00%	3.20%
Safety Probation Non CalPEPRA	N/A	3.50%
Safety Law Non CalPEPRA	N/A	6.60%
Safety Fire Non CalPEPRA	N/A	1.50%
General CalPEPRA	N/A	N/A
Safety Probation CalPEPRA	N/A	N/A
Safety Law CalPEPRA	N/A	N/A
Safety Fire CalPEPRA	N/A	N/A

The additional cashout assumptions are the same for service and disability retirements.

Actuarial cost method

Entry age actuarial cost method.

Entry age is the age on the valuation date minus the lesser of years of employment or years of benefit service. Normal cost and AAL are calculated on an individual basis and are based on costs allocated as a level percentage of compensation. The normal cost rate is calculated assuming their entry age is the date they entered service with OCERS.

Please note that for Probation members who have prior benefit service in another General OCERS plan, the normal cost rate for the current plan is calculated assuming their entry age is the date they entered service with their current plan.

Section 4: Actuarial Valuation Basis

Actuarial value of assets

Market value of assets less unrecognized returns in each of the last five annual accounting periods. Unrecognized returns are equal to the difference between the actual market return and the expected return on the market value, and are recognized annually over a five-year period.

Valuation value of assets

The actuarial value of assets reduced by the value of the non-valuation reserves.

Amortization policy

Effective December 31, 2013, the outstanding balance of the UAAL from the December 31, 2012 valuation was combined and re-amortized over a declining 20-year period (10 years remaining as of December 31, 2023).

Any new UAAL resulting from plan amendments are amortized over separate decreasing 15-year periods; early retirement incentive programs (ERIPs) are amortized over separate decreasing 5-year periods; assumption and method changes are amortized over separate decreasing 20-year periods; and experience gains/losses are also amortized over separate decreasing 20-year periods.

Employer contributions

The recommended employer contributions are provided in *Section 2, Subsection F* and consist of two components:

Normal cost

The annual contribution rate that, if paid annually from a member's first year of membership through the year of retirement, would accumulate to the amount necessary to fully fund the member's retirement-related benefits. Accumulation includes annual crediting of interest at the assumed investment earning rate.

The contribution rate is determined as a level percentage of the member's compensation.

Contribution to the UAAL

The annual contribution rate that, if paid annually over the UAAL amortization period, would accumulate to the amount necessary to fully fund the UAAL. Accumulation includes annual crediting of interest at the assumed investment earning rate.

Section 4: Actuarial Valuation Basis

The contribution (or rate credit in the case of a negative UAAL) is calculated to remain as a level percentage of future active member payroll (including payroll for new members as they enter the System) assuming a constant number of active members. In order to remain as a level percentage of payroll, amortization payments (credits) are scheduled to increase at the annual payroll growth rate assumption.

Member contributions

The member contribution rates for all members are provided in *Section 4, Exhibit 3*.

Non-CalPEPRA Members

Articles 6 and 6.8 of the CERL define the methodology to be used in the calculation of member basic contribution rates for General members and Safety members, respectively. The basic contribution rate is determined so that the accumulation of a member's basic contributions made each year until a certain age (age is 60 for General Plans A, B, M, N, O, P and S, 55 for General Plans G, H, I and J, and 50 for Safety Plans E, F, Q and R) will be sufficient to fund an annuity at that age that is equal to:

- 1/200 of Final Average Salary for General Plan A;
- 1/120 of Final Average Salary for General Plan B;
- 1/100 of Final Average Salary for General Plans G, H, I, J, and S;
- 1/120 of Final Average Salary for General Plans M, N, O, and P;
- 1/200 of Final Average Salary for Safety Plans E and Q, and;
- 1/100 of Final Average Salary for Safety Plans F and R.

It is assumed that contributions are made annually at the same rate, starting at entry age.

In addition to the basic contributions, members also pay one-half of the total normal cost necessary to fund cost-of-living benefits which is calculated separately for each rate group, with the exception of Rate Groups #9 and #11, which are developed on a combined or pooled basis as described in our Cost Sharing Structure letter dated July 30, 2010. Within each rate group, the COLA normal cost is either pooled for Tiers 1 and 2 because the same 3% COLA is provided for both Tiers, or it differs by a set formula based on past practice we carried over from the OCERS' prior actuary. Accumulation includes crediting of interest at the assumed investment earnings rate.

Effective with the December 31, 2014 valuation, for determining the cost of the total benefit (i.e., basic and COLA components), the effect of the assumed additional cashouts are recognized in the valuation as an employer and member cost.

Section 4: Actuarial Valuation Basis

CalPEPRA Members

Pursuant to Section 7522.30(a) of the Government Code, members in Plans T, U, V and W are required to contribute at least 50% of the Normal Cost rate. We have assumed that exactly 50% of the Normal Cost would be paid by the members in these Plans. Also of note is that based on our recommendation, OCERS decided to use the discretion made available by AB1380 to not round the member's contribution rate to the nearest ¼% as previously required by CalPEPRA.

For members in Plan T and Plan W, their basic rates have been calculated using a methodology similar to that used for Plan P. For members in Plan U or Plan V, their basic rates have been calculated using a methodology outlined in our letter dated December 4, 2012 that was previously approved by the Board.

Internal Revenue Code Section 415

Section 415 of the Internal Revenue Code (IRC) specifies the maximum benefits that may be paid to an individual from a defined benefit plan and the maximum amounts that may be allocated each year to an individual's account in a defined contribution plan.

A qualified pension plan may not pay benefits in excess of the Section 415 limits. The ultimate penalty for non-compliance is disqualification: active members could be taxed on their vested benefits and the IRS may seek to tax the income earned on the plan's assets.

Section 415(b) of the IRC limits the maximum annual benefit payable at the normal retirement age to a dollar limit of $160,000 indexed for inflation. That limit is $275,000 for 2024. Normal retirement age for these purposes is age 62. These are the limits in simplified terms. They must be adjusted based on each participant's circumstances, for such things as age at retirement, form of benefits chosen and after-tax contributions.

Non-CalPEPRA benefits in excess of the limits may be paid through a qualified governmental excess plan that meets the requirements of Section 415(m).

Legal Counsel's review and interpretation of the law and regulations should be sought on any questions in this regard.

Non-CalPEPRA contribution rates determined in this valuation have not been reduced for the Section 415 limitations. Actual limitations will result in gains as they occur.

Section 4: Actuarial Valuation Basis

Models

Segal valuation results are based on proprietary actuarial modeling software. The actuarial valuation models generate a comprehensive set of liability and cost calculations that are presented to meet regulatory, legislative and client requirements. Our Actuarial Technology and Systems unit, comprised of both actuaries and programmers, is responsible for the initial development and maintenance of these models. The models have a modular structure that allows for a high degree of accuracy, flexibility and user control. The client team programs the assumptions and the plan provisions, validates the models, and reviews test lives and results, under the supervision of the responsible actuary.

Justification for change in actuarial assumptions, methods or models

Based on past experience and future expectations, the following actuarial assumptions were changed. Previously these assumptions were as follows:

Section 4: Actuarial Valuation Basis

Salary increase

The annual rate of compensation increase includes:

- Inflation at 2.50%, plus
- "Across-the-board" salary increase of 0.50% per year, plus
- Merit and promotion increase based on years of service:

Merit and Promotion Increases[1]

Years of Service	General	Safety
Less than 1	8.00%	12.00%
1–2	7.25%	10.00%
2–3	6.25%	8.50%
3–4	5.25%	7.50%
4–5	4.25%	6.50%
5–6	3.50%	5.50%
6–7	2.75%	5.00%
7–8	2.50%	4.00%
8–9	1.70%	3.00%
9–10	1.70%	2.50%
10–11	1.60%	1.85%
11–12	1.60%	1.85%
12–13	1.50%	1.85%
13–14	1.50%	1.85%
14–15	1.25%	1.85%
15–16	1.25%	1.60%
16–17	1.00%	1.60%
17–18	1.00%	1.60%
18–19	1.00%	1.60%
19–20	1.00%	1.60%
20 and over	1.00%	1.60%

[1] In addition to the individual salary increase assumptions, we have applied an average of two hours of additional salary annually for leap-year salary adjustment.

Section 4: Actuarial Valuation Basis

Post-retirement mortality rates

The Pub-2010 mortality tables and adjustments as shown below reasonably reflect the mortality experience as of the measurement date. These mortality tables were adjusted to future years using the generational projection to reflect future mortality improvement between the measurement date and those years.

Healthy

- **General members:** Pub-2010 General Healthy Retiree Amount-Weighted Above-Median Mortality Table (separate tables for males and females) increased 5% for males and females, projected generationally with the two-dimensional mortality improvement scale MP-2019.
- **Safety members:** Pub-2010 Safety Healthy Retiree Amount-Weighted Above-Median Mortality Table (separate tables for males and females), projected generationally with the two-dimensional mortality improvement scale MP-2019.

Disabled

- **General members:** Pub-2010 Non-Safety Disabled Retiree Amount-Weighted Mortality Table (separate tables for males and females) decreased 5% for males and females, projected generationally with the two-dimensional mortality improvement scale MP-2019.
- **Safety members:** Pub-2010 Safety Disabled Retiree Amount-Weighted Mortality Table (separate tables for males and females), projected generationally with the two-dimensional mortality improvement scale MP-2019.

Beneficiary

- **All beneficiaries:** Pub-2010 Contingent Survivor Amount-Weighted Above Median Mortality Table (separate tables for males and females) increased 5% for males and females, projected generationally with the two-dimensional mortality improvement scale MP-2019.

Section 4: Actuarial Valuation Basis

Pre-retirement mortality rates

- **General members:** Pub-2010 General Employee Amount-Weighted Above-Median Mortality Table (separate tables for males and females), projected generationally with the two-dimensional mortality improvement scale MP-2019.
- **Safety members:** Pub-2010 Safety Employee Amount-Weighted Above-Median Mortality Table (separate tables for males and females), projected generationally with the two-dimensional mortality improvement scale MP-2019.

Pre-Retirement Mortality Rates — Before Generational Projection from 2010

Age	General Male	General Female	Safety Male	Safety Female
20	0.04%	0.01%	0.04%	0.02%
25	0.02%	0.01%	0.03%	0.02%
30	0.03%	0.01%	0.04%	0.02%
35	0.04%	0.02%	0.04%	0.03%
40	0.06%	0.03%	0.05%	0.04%
45	0.09%	0.05%	0.07%	0.06%
50	0.13%	0.08%	0.10%	0.08%
55	0.19%	0.11%	0.15%	0.11%
60	0.28%	0.17%	0.23%	0.14%
65	0.41%	0.27%	0.35%	0.20%
70	0.61%	0.44%	0.66%	0.39%

All General pre-retirement deaths are assumed to be non-service connected.

For Safety, 90% of pre-retirement deaths are assumed to be non-service connected. The other 10% are assumed to be service connected.

Section 4: Actuarial Valuation Basis

Mortality rates for member contributions

- **General members:** Pub-2010 General Healthy Retiree Amount-Weighted Above-Median Mortality Table (separate tables for males and females) increased 5%, projected 30 years (from 2010) with the two-dimensional mortality improvement scale MP 2019, weighted 40% male and 60% female.
- **Safety members:** Pub-2010 Safety Healthy Retiree Amount-Weighted Above-Median Mortality Table (separate tables for males and females), projected 30 years (from 2010) with the two-dimensional mortality improvement scale MP-2019, weighted 80% male and 20% female.

Section 4: Actuarial Valuation Basis

Disability incidence

Disability Incidence Rates

Age	General All Other	General OCTA	Safety Law & Fire	Safety Probation
20	0.00%	0.00%	0.00%	0.00%
25	0.00%	0.00%	0.01%	0.03%
30	0.01%	0.03%	0.07%	0.08%
35	0.03%	0.20%	0.19%	0.10%
40	0.08%	0.39%	0.31%	0.13%
45	0.14%	0.48%	0.44%	0.21%
50	0.20%	0.53%	1.10%	0.28%
55	0.27%	0.70%	2.70%	0.42%
60	0.33%	1.22%	5.00%	0.20%

65% of General All Other disabilities are assumed to be service-connected disabilities. The other 35% are assumed to be non-service connected.

80% of General OCTA disabilities are assumed to be service-connected disabilities. The other 20% are assumed to be non-service connected.

100% of Safety Law Enforcement and Fire disabilities are assumed to be service-connected disabilities.

75% of Safety Probation disabilities are assumed to be service-connected disabilities. The other 25% are assumed to be non-service connected.

Section 4: Actuarial Valuation Basis

Termination

Termination Rates

Years of Service	General All Other	General OCTA	Safety Law & Fire	Safety Probation
Less than 1	11.00%	17.00%	4.25%	14.00%
1–2	7.25%	11.50%	2.75%	13.00%
2–3	6.50%	9.00%	2.25%	11.00%
3–4	5.50%	8.50%	1.75%	5.00%
4–5	5.00%	8.00%	1.50%	4.00%
5–6	4.50%	7.00%	1.25%	3.25%
6–7	4.00%	4.25%	1.00%	2.75%
7–8	3.50%	4.00%	0.95%	2.75%
8–9	3.25%	3.25%	0.90%	2.50%
9–10	3.00%	3.00%	0.85%	1.75%
10–11	2.50%	2.75%	0.80%	1.50%
11–12	2.00%	2.50%	0.75%	1.50%
12–13	2.00%	2.50%	0.70%	1.25%
13–14	2.00%	2.25%	0.65%	1.00%
14–15	1.50%	2.25%	0.60%	0.75%
15–16	1.40%	2.25%	0.55%	0.75%
16–17	1.30%	2.00%	0.50%	0.75%
17–18	1.20%	1.80%	0.45%	0.75%
18–19	1.10%	1.60%	0.40%	0.50%
19–20	1.00%	1.40%	0.30%	0.25%
20 and over	0.75%	1.20%	0.15%	0.15%

Section 4: Actuarial Valuation Basis

Election for withdrawal of contributions

Election Rates

Years of Service	General All Other	General OCTA	Safety Law & Fire	Safety Probation
Less than 5	30.00%	40.00%	20.00%	25.00%
5–9	25.00%	30.00%	20.00%	25.00%
10–14	25.00%	25.00%	10.00%	25.00%
15 and over	17.50%	15.00%	10.00%	15.00%

Section 4: Actuarial Valuation Basis

Retirement rates

Retirement Rates — General

Age	Enhanced <30 Years of Service	Enhanced 30+ Years of Service	Non-Enhanced[1] <30 Years of Service	Non-Enhanced[1] 30+ Years of Service
49	0.00%	30.00%	0.00%	25.00%
50	2.00%	4.00%	3.00%	3.00%
51	2.00%	4.00%	3.00%	3.00%
52	2.50%	5.00%	2.00%	2.00%
53	2.50%	5.00%	3.50%	3.50%
54	7.00%	14.00%	2.75%	2.75%
55	12.00%	30.00%	3.25%	3.25%
56	9.00%	19.00%	3.50%	3.50%
57	9.00%	18.00%	5.00%	5.00%
58	9.00%	18.00%	5.50%	5.50%
59	10.00%	20.00%	6.50%	6.50%
60	11.00%	20.00%	9.00%	13.50%
61	11.00%	20.00%	9.00%	13.50%
62	13.00%	20.00%	9.00%	18.00%
63	13.00%	22.00%	9.50%	19.00%
64	16.00%	24.00%	10.00%	20.00%
65	24.00%	28.00%	22.00%	26.40%
66	24.00%	30.00%	25.00%	30.00%
67	24.00%	30.00%	25.00%	30.00%
68	22.00%	27.50%	30.00%	27.50%
69	22.00%	27.50%	30.00%	27.50%
70	25.00%	27.50%	20.00%	27.50%
71	25.00%	27.50%	20.00%	27.50%
72	25.00%	27.50%	20.00%	27.50%
73	20.00%	27.50%	20.00%	27.50%
74	20.00%	27.50%	20.00%	27.50%
75	100.00%	100.00%	100.00%	100.00%

The retirement rates only apply to members that are eligible to retire at the age shown.

[1] These assumptions are also used for the CalPEPRA 1.62% @ 65 formula (Plan T and Plan W).

Section 4: Actuarial Valuation Basis

Retirement Rates — Safety

Age	Law (31664.1) <30 Years of Service	Law (31664.1) 30+ Years of Service	Fire (31664.1) <30 Years of Service	Fire (31664.1) 30+ Years of Service	Probation (31664.1) <30 Years of Service	Probation (31664.1) 30+ Years of Service
45	1.00%	16.00%	2.00%	10.00%	3.00%	5.00%
46	1.00%	16.00%	2.00%	10.00%	3.00%	5.00%
47	1.00%	16.00%	2.00%	10.00%	3.00%	5.00%
48	1.00%	16.00%	2.00%	10.00%	3.00%	5.00%
49	11.00%	16.00%	2.00%	10.00%	3.00%	5.00%
50	16.00%	16.00%	4.00%	10.00%	9.00%	12.00%
51	16.00%	16.00%	4.00%	10.00%	7.00%	10.00%
52	17.00%	16.00%	4.00%	10.00%	5.00%	9.00%
53	19.00%	30.00%	9.00%	20.00%	7.00%	9.00%
54	24.00%	30.00%	12.00%	25.00%	7.00%	12.00%
55	24.00%	30.00%	12.00%	25.00%	12.00%	30.00%
56	22.00%	30.00%	12.00%	25.00%	18.00%	30.00%
57	22.00%	30.00%	18.00%	25.00%	25.00%	30.00%
58	22.00%	40.00%	18.00%	30.00%	25.00%	30.00%
59	22.00%	40.00%	18.00%	30.00%	18.00%	30.00%
60	30.00%	40.00%	18.00%	30.00%	20.00%	40.00%
61	30.00%	40.00%	18.00%	30.00%	20.00%	40.00%
62	30.00%	40.00%	18.00%	35.00%	20.00%	40.00%
63	30.00%	40.00%	18.00%	35.00%	20.00%	40.00%
64	30.00%	40.00%	18.00%	35.00%	20.00%	40.00%
65	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

The retirement rates only apply to members that are eligible to retire at the age shown.

Section 4: Actuarial Valuation Basis

Retirement Rates

Age	General SJC (31676.12)	Safety Law (31664.2)	Safety Fire (31664.2)
50	4.00%	11.50%	8.00%
51	4.00%	12.00%	9.00%
52	4.00%	12.70%	10.00%
53	4.00%	17.90%	12.00%
54	4.00%	18.80%	14.00%
55	4.00%	35.00%	23.00%
56	5.00%	25.00%	22.00%
57	6.00%	25.00%	25.00%
58	7.00%	25.00%	25.00%
59	9.00%	30.00%	35.00%
60	10.00%	40.00%	40.00%
61	12.00%	40.00%	40.00%
62	13.00%	40.00%	40.00%
63	13.00%	40.00%	40.00%
64	19.00%	40.00%	40.00%
65	20.00%	100.00%	100.00%
66	25.00%	100.00%	100.00%
67	25.00%	100.00%	100.00%
68	25.00%	100.00%	100.00%
69	25.00%	100.00%	100.00%
70	45.00%	100.00%	100.00%
71	45.00%	100.00%	100.00%
72	45.00%	100.00%	100.00%
73	45.00%	100.00%	100.00%
74	45.00%	100.00%	100.00%
75	100.00%	100.00%	100.00%

The retirement rates only apply to members that are eligible to retire at the age shown.

Section 4: Actuarial Valuation Basis

Retirement Rates

Age	CalPEPRA 2.5% @ 67 General Formula	CalPEPRA 2.7% @ 57 Safety Formula Probation	CalPEPRA 2.7% @ 57 Safety Formula Law	CalPEPRA 2.7% @ 57 Safety Formula Fire
50	0.00%	3.00%	11.00%	6.00%
51	0.00%	3.00%	11.50%	6.50%
52	6.00%	3.50%	12.00%	8.00%
53	2.00%	3.50%	16.00%	10.00%
54	2.00%	6.00%	17.00%	11.50%
55	2.50%	12.00%	29.00%	20.00%
56	3.50%	12.00%	19.00%	19.00%
57	5.50%	15.00%	19.00%	21.00%
58	7.50%	25.00%	23.00%	24.00%
59	7.50%	25.00%	26.00%	30.00%
60	7.50%	40.00%	40.00%	40.00%
61	7.50%	40.00%	40.00%	40.00%
62	14.00%	40.00%	40.00%	40.00%
63	14.00%	40.00%	40.00%	40.00%
64	14.00%	40.00%	40.00%	40.00%
65	20.00%	100.00%	100.00%	100.00%
66	22.00%	100.00%	100.00%	100.00%
67	23.00%	100.00%	100.00%	100.00%
68	23.00%	100.00%	100.00%	100.00%
69	23.00%	100.00%	100.00%	100.00%
70	25.00%	100.00%	100.00%	100.00%
71	25.00%	100.00%	100.00%	100.00%
72	25.00%	100.00%	100.00%	100.00%
73	25.00%	100.00%	100.00%	100.00%
74	25.00%	100.00%	100.00%	100.00%
75	100.00%	100.00%	100.00%	100.00%

The retirement rates only apply to members that are eligible to retire at the age shown.

Section 4: Actuarial Valuation Basis

Retirement age and benefit for deferred vested members

For current and future deferred vested members, retirement age assumptions are as follows:

General retirement age: 59

Safety retirement age: 54

General and Safety deferred vested members who terminate with less than five years of service and are not vested are assumed to retire at age 70 for both General and Safety if they decide to leave their contributions on deposit.

15% of future General and 20% of future Safety deferred vested members are assumed to continue to work for a reciprocal employer. For reciprocals, 4.00% and 4.60% compensation increase per annum are assumed for General and Safety, respectively.

Cashout assumptions

Additional compensation amounts are expected to be received during a member's final average earnings period. The percentages used in this valuation are:

Rates

Plan	Final One Year Salary	Final Three Year Salary
General Non CalPEPRA	3.00%	2.90%
Safety Probation Non CalPEPRA	3.80%	3.40%
Safety Law Non CalPEPRA	N/A	6.90%
Safety Fire Non CalPEPRA	N/A	1.50%
General CalPEPRA	N/A	N/A
Safety Probation CalPEPRA	N/A	N/A
Safety Law CalPEPRA	N/A	N/A
Safety Fire CalPEPRA	N/A	N/A

The additional cashout assumptions are the same for service and disability retirements.

Exhibit 2: Summary of plan provisions

This exhibit summarizes the major provisions of the Plan included in the valuation. It is not intended to be, nor should it be interpreted as, a complete statement of all plan provisions. If the System should find the plan summary not in accordance with the actual provisions, the System should alert the actuary so they can both be sure the proper provisions are valued.

Plan year

January 1 through December 31

Membership eligibility

Membership with OCERS begins with the day of employment in an eligible position by the County or a participating employer.

Non-CalPEPRA General Plans

2.5% @ 55 Plans (Orange County Sanitation District[1] and Law Library[2])

Plan G	General members hired before September 21, 1979.
Plan H	General members hired on or after September 21, 1979.

2.7% @ 55 Plans (City of San Juan Capistrano, Orange County Members except bargaining unit AFSCME members, Orange County Superior Court, Local Agency Formation Commission,[2] Orange County Employees Retirement System,[3] Children and Families Commission[4] and Orange County OCFA)

Plan I	General members hired before September 21, 1979.
Plan J	General members hired on or after September 21, 1979.

[1] Sanitation District members within Supervisors and Professional unit hired on or after October 1, 2010 are in Plan B.
[2] Improvement is prospective only for service after June 23, 2005.
[3] Improvement for management members is prospective only for service after June 30, 2005.
[4] Improvement is prospective only for service after December 22, 2005.

Section 4: Actuarial Valuation Basis

2.0% @ 55 Plans (Transportation Corridor Agency, Cemetery District[1] and General OCFA)

Plan M	General members hired before September 21, 1979 and General OCFA members hired on or after July 1, 2011.
Plan N	General members hired on or after September 21, 1979.

1.62% @ 65 Plans (Orange County Members, Orange County Superior Court, Local Agency Formation Commission and County Managers unit)

Plan O	County OCEA members and Superior Court members rehired on or after May 7, 2010, LAFCO members rehired on or after July 1, 2010 and County Managers unit members rehired on or after August 17, 2010 and not electing to rejoin Plan I.
Plan P	County OCEA members and Superior Court members hired on or after May 7, 2010, LAFCO members hired on or after July 1, 2010 and County Managers unit members hired on or after August 17, 2010 and not electing Plan J.

2.0% @ 57 Plan (City of San Juan Capistrano)

Plan S	General members hired on or after July 1, 2012.

All Other General Employers

Plan A	General members hired before September 21, 1979.
Plan B	General members hired on or after September 21, 1979 and Sanitation District members within Supervisors and Professional unit hired on or after October 1, 2010.

[1] Improvement is prospective only for service after December 7, 2007.

Section 4: Actuarial Valuation Basis

Non-CalPEPRA Safety Plans

3.0% @ 50 Plans (Law Enforcement, OCFA and Probation Members)

Plan E	Safety members hired before September 21, 1979.
Plan F	Safety members hired on or after September 21, 1979 and before April 9, 2010 for Law Enforcement, before July 1, 2011 for Safety members of OCFA Executive Management, and before July 1, 2012 for other OCFA Safety members.

3% @ 55 Plans (Law Enforcement, OCFA)

Plan Q	Safety Law Enforcement members rehired on or after April 9, 2010, Safety members of OCFA Executive Management rehired on or after July 1, 2011, and other OCFA Safety members rehired on or after July 1, 2012 and previously in Plan E.
Plan R	Safety Law Enforcement members hired on or after April 9, 2010, Safety members of OCFA Executive Management hired on or after July 1, 2011, and other OCFA Safety members hired on or after July 1, 2012.

CalPEPRA General Plans

1.62% @ 65 Plan (Orange County Members except County Attorneys, Orange County Employees Retirement System except Management Members, Local Agency Formation Commission, and Orange County Superior Court)

Plan T	General members with membership dates on or after January 1, 2013.

2.5% @ 67 Plan (All Other General Employers, Orange County Attorneys, Orange County Superior Court,[1] Orange County Employees Retirement System Management Members)

Plan U	General Non-Orange County Transportation Authority members with membership dates on or after January 1, 2013 and Orange County Transportation Authority members with membership dates on or after January 1, 2015.

[1] Improvement is prospective only for service after July 1, 2023.

Section 4: Actuarial Valuation Basis

1.62% @ 65 Plan (City of San Juan Capistrano)

Plan W	General members with membership dates on or after January 1, 2016 and not electing Plan U.

CalPEPRA Safety Plans

2.7% @ 57 Plan (Law Enforcement, OCFA and Probation Members)

Plan V	Safety members with membership dates on or after January 1, 2013.

Final average compensation

Plans A, E, G, I, M, O and Q	Highest consecutive 12 months of compensation earnable (§31462.1) (FAS1).
Plans B, F, H, J, N, P, R and S	Highest consecutive 36 months of compensation earnable (§31462) (FAS3).
Plan T	Highest 36 months of pensionable compensation (§7522.32 and §7522.34) (FAS3).
Plans U, V and W	Highest 36 months of pensionable compensation (§7522.10(c), §7522.32 and §7522.34) (FAS3).

Compensation limit

Plan U, V and W	Pensionable compensation is limited to $151,446 for 2024 for an employer that is enrolled in Social Security. For an employer that is not enrolled in Social Security, the maximum amount for 2024 is 120% of $151,446, or $181,734. (reference: Section 7522.10). These amounts should be adjusted for changes to the Consumer Price Index for All Urban Consumers after 2024. (reference: Section 7522.10(d)).

Service

Years of service (Yrs) are generally based on a member’s employment during a period of time for which deductions are made from their compensation.

Section 4: Actuarial Valuation Basis

Service retirement

General Plans A, B, G, H, I, J, M, N, O, P, S, T and W

Eligibility	Age 50 with 10 years of service, or age 70 regardless of service, or after 30 years of service regardless of age (§31672). All part time members over age 55 with 10 years of employment may retire with five years of service.
Benefit formula	The benefit formula varies by plan as shown below.

General Plan G – 2.5% @ 55 (§31676.18)

Retirement Age	Benefit Formula
50	2.00% × FAS1 × Yrs
55	2.50% × FAS1 × Yrs
60	2.50% × FAS1 × Yrs
62 and over[1]	2.62% × FAS1 × Yrs

General Plan H – 2.5% @ 55 (§31676.18)

Retirement Age	Benefit Formula
50	2.00% × FAS3 × Yrs
55 and over	2.50% × FAS3 × Yrs

General Plan I – 2.7% @ 55 (§31676.19)

Retirement Age	Benefit Formula
50	2.00% × FAS1 × Yrs
55 and over	2.70% × FAS1 × Yrs

[1] Reflects benefit factors from Plan A as they provide a better benefit than those under 2.5% @ 55.

Section 4: Actuarial Valuation Basis

General Plan J – 2.7% @ 55 (§31676.19)

Retirement Age	Benefit Formula
50	2.00% × FAS3 × Yrs
55 and over	2.70% × FAS3 × Yrs

General Plan M – 2.0% @ 55 (§31676.16)

Retirement Age	Benefit Formula
50	1.43% × FAS1 × Yrs
55	2.00% × FAS1 × Yrs
60[1]	2.34% × FAS1 × Yrs
62 and over[1]	2.62% × FAS1 × Yrs

General Plan N – 2.0% @ 55 (§31676.16)

Retirement Age	Benefit Formula
50	1.43% × FAS3 × Yrs
55	2.00% × FAS3 × Yrs
60	2.26% × FAS3 × Yrs
62	2.37% × FAS3 × Yrs
65 and over[2]	2.43% × FAS3 × Yrs

[1] Reflects benefit factors from Plan A as they provide a better benefit than those under 2.0% @ 55.
[2] Reflects benefit factors from Plan B as they provide a better benefit than those under 2.0% @ 55.

Section 4: Actuarial Valuation Basis

General Plan O – 1.62% @ 65 (§31676.01)

Retirement Age	Benefit Formula
50	0.79% x FAS1 x Yrs
55	0.99% x FAS1 x Yrs
60	1.28% x FAS1 x Yrs
62	1.39% x FAS1 x Yrs
65 and over	1.62% x FAS1 x Yrs

General Plans P, T and W – 1.62% @ 65 (§31676.01)

Retirement Age	Benefit Formula
50	0.79% x FAS3 x Yrs
55	0.99% x FAS3 x Yrs
60	1.28% x FAS3 x Yrs
62	1.39% x FAS3 x Yrs
65 and over	1.62% x FAS3 x Yrs

General Plan S – 2.0% @ 57 (§31676.12)

Retirement Age	Benefit Formula
50	1.34% x FAS3 x Yrs
55	1.77% x FAS3 x Yrs
60	2.34% x FAS3 x Yrs
62 and over	2.62% x FAS3 x Yrs

Section 4: Actuarial Valuation Basis

General Plan A – 2.0% @ 57 (§31676.12)

Retirement Age	Benefit Formula
50	1.34% x FAS1 x Yrs
55	1.77% x FAS1 x Yrs
60	2.34% x FAS1 x Yrs
62 and over	2.62% x FAS1 x Yrs

General Plan B – 1.64% @ 57 (§31676.1)

Retirement Age	Benefit Formula
50	1.18% x FAS3 x Yrs
55	1.49% x FAS3 x Yrs
60	1.92% x FAS3 x Yrs
62	2.09% x FAS3 x Yrs
65 and over	2.43% x FAS3 x Yrs

General Plan U

Eligibility: Age 52 with 5 years of service (§7522.20(a)) or age 70 regardless of service (§31672.3).

Benefit formula

General Plan U – 2.5% @ 67 (§7522.20(a))

Retirement Age	Benefit Formula
52	1.00% x FAS3 x Yrs
55	1.30% x FAS3 x Yrs
60	1.80% x FAS3 x Yrs
62	2.00% x FAS3 x Yrs
65	2.30% x FAS3 x Yrs
67 and over	2.50% x FAS3 x Yrs

Section 4: Actuarial Valuation Basis

Safety Plans E, F, Q and R

Eligibility

Age 50 with 10 years of service, or age 70 regardless of service, or after 20 years regardless of age (§31663.25). All part time members over age 55 with 10 years of employment may retire with 5 years of service.

Benefit formula

The benefit formula varies by plan as shown below.

Safety Plan E – 3.0% @ 50 (§31664.1)

Retirement Age	Benefit Formula
50 and over	3.00% × FAS1 × Yrs

Safety Plan F – 3.0% @ 50 (§31664.1)

Retirement Age	Benefit Formula
50 and over	3.00% × FAS3 × Yrs

Safety Plan Q – 3.0% @ 55 (§31664.2)

Retirement Age	Benefit Formula
50	2.29% × FAS1 × Yrs
55 and over	3.00% × FAS1 × Yrs

Safety Plan R – 3.0% @ 55 (§31664.2)

Retirement Age	Benefit Formula
50	2.29% × FAS3 × Yrs
55 and over	3.00% × FAS3 × Yrs

Section 4: Actuarial Valuation Basis

Safety Plan V

Eligibility — Age 50 with 5 years of service (§7522.25(d)) or age 70 regardless of service (§31672.3).

Benefit formula

Safety Plan V – 2.7% @ 57 (§7522.25(d))

Retirement Age	Benefit Formula
50	2.00% × FAS3 × Years of Service
55	2.50% × FAS3 × Years of Service
57 and over	2.70% × FAS3 × Years of Service

Maximum benefit

Plans A, B, E, F, G, H, I, J, M, N, O, P, Q, R, S, T and W — 100% of final average compensation (§31676.01, §31676.1, §31676.12, §31676.16, §31676.18, §31676.19, §31664.1, §31664.2).

Plans U and V — None.

Section 4: Actuarial Valuation Basis

Non-service connected disability

General Plans A, G, I, M and O

Eligibility	Five years of service (§31720).
Benefit formula	1.8% of final average compensation per year of service. If the benefit does not exceed one-third of final average compensation, the service is projected to 62, but the total projected benefit cannot be more than one-third of final average compensation (§31727.1). The service retirement benefit is payable, if greater.

General Plans B, H, J, N, P, S, T, U and W

Eligibility	Five years of service (§31720).
Benefit formula	1.5% of final average compensation per year of service. If the benefit does not exceed one-third of final average compensation, the service is projected to 65, but the total projected benefit cannot be more than one-third of final average compensation (§31727). The service retirement benefit is payable, if greater.

Safety Plans

Eligibility	Five years of service (§31720).
Benefit formula	1.8% of final average compensation per year of service. If the benefit does not exceed one-third of final average compensation, the service is projected to 55, but the total projected benefit cannot be more than one-third of final average compensation (§31727.2). The service retirement benefit is payable, if greater.

Service-connected disability

Eligibility	No age or service requirements (§31720).
Benefit formula	50% of the final average compensation or 100% of service retirement benefit, if larger (§31727.4).

Section 4: Actuarial Valuation Basis

Pre-retirement death

Eligibility	None.
Basic lump sum benefit	Refund of employee contributions with interest, plus one month's compensation for each year of service, to a maximum of six months' compensation (§37181). A lump sum benefit in the amount of $1,000 is payable upon the death of a member (with 10 years of service) to his/her eligible beneficiary (§31790).
Service-connected death	50% of final average compensation or 100% of service retirement benefit, if greater, payable to spouse or minor children (§31787).

Vested members

Eligibility	Five years of service.
Basic benefit	60% of the greater of service retirement or non-service-connected disability benefit payable to surviving eligible spouse (§31765.1, §31781.1), in lieu of the basic lump sum benefit above (§31781).
Service-connected death	50% of final average compensation or 100% of service retirement benefit, if greater, payable to spouse or minor children (§31787).

Post-retirement death

Service retirement	Unless another option was selected at retirement, 60% of member's unmodified allowance continued to eligible spouse (§31760.1).[1] A lump sum benefit amount of $1,000 is payable upon the death of a member (with 10 years of service) to his/her eligible beneficiary (§31790).
Non-service connected disability	Unless another option was selected at retirement, 60% of member's unmodified allowance continued to eligible spouse (§31760.1).[1] A lump sum benefit amount of $1,000 is payable upon the death of a member (with 10 years of service) to his/her eligible beneficiary (§31790).
Service-connected disability	Unless another option was selected at retirement, 100% of member's unmodified allowance continued to eligible spouse (§31786).[1] A lump sum benefit amount of $1,000 is payable upon the death of a member (with 10 years of service) to his/her eligible beneficiary (§31790).

[1] An eligible spouse is a surviving spouse who was married to the member at least one year prior to the date of retirement.

Section 4: Actuarial Valuation Basis

Leaving before retirement

Refund	Refund of accumulated employee contributions with interest.
Less than five years of service	Effective January 1, 2003, in lieu of a refund of employee contributions, a member may elect to leave contributions on deposit in the retirement fund (§31629.5). If contributions left on deposit, eligible for retirement benefits at age 70 (§31628).
Five or more years of service	If contributions left on deposit, eligible for retirement benefits at any time after eligible to retire (§31700).

Post-retirement cost-of-living benefits

Annual adjustment based on Consumer Price Index to a maximum of 3% per year; excess “banked” (§31870.1).

Supplemental benefit

Non-vested supplemental COLA benefit is also paid by the System to eligible retirees and survivors. This benefit has been excluded from this valuation.

Member normal cost contributions

Please refer to *Section 4, Exhibit 3* for specific rates.

General Plan A

Basic	Entry-age based rates that provide for an annuity at age 60 equal to 1/200 of FAS1 (§31621.5).
Cost-of-living	Entry-age based rates that provide for one-half of future cost-of-living costs.

General Plan B

Basic	Entry-age based rates that provide for an annuity at age 60 equal to 1/120 of FAS3 (§31621).
Cost-of-living	Entry-age based rates that provide for one-half of future cost-of-living costs.

Section 4: Actuarial Valuation Basis

General Plans G, H, I and J

Basic	Entry-age based rates that provide for an annuity at age 55 equal to 1/100 of FAS3 (FAS1 for Plans G and I) (§31621.8).
Cost-of-living	Entry-age based rates that provide for one-half of future cost-of-living costs.

General Plans M, N, O and P

Basic	Entry-age based rates that provide for an annuity at age 60 equal to 1/120 of FAS3 (FAS1 for Plans M and O) (§31621).
Cost-of-living	Entry-age based rates that provide for one-half of future cost-of-living costs.

General Plan S

Basic	Entry-age based rates that provide for an annuity at age 60 equal to 1/100 of FAS3 (§31621.2).
Cost-of-living	Entry-age based rates that provide for one-half of future cost-of-living costs.

Plans E and Q

Basic	Entry-age based rates that provide for an annuity at age 50 equal to 1/200 of FAS1 (§31639.5).
Cost-of-living	Entry-age based rates that provide for one-half of future cost-of-living costs.

Plans F and R

Basic	Entry-age based rates that provide for an annuity at age 50 equal to 1/100 of FAS3 (§31639.25).
Cost-of-living	Entry-age based rates that provide for one-half of future cost-of-living costs.

Plans T, U, V and W

Entry-age based rates that provide for one-half of the total normal cost rate.

Other information

Non-CalPEPRA Safety members with 30 or more years of benefit service are exempt from paying member contributions. This also applies for General members hired on or before March 7, 1973.

Section 4: Actuarial Valuation Basis

Changes in Plan Provisions

There have been no changes in plan provisions since the prior valuation.

Section 4: Actuarial Valuation Basis

Exhibit 3: Member contribution rates

General Tier 1 Members' Contribution Rates

(as a % of Monthly Payroll)

Entry Age	Plan I (2.7% @ 55) Normal	Plan I (2.7% @ 55) Total	Plan A (OCTA) Normal	Plan A (OCTA) Total
16	7.26%	10.24%	3.14%	5.26%
17	7.39%	10.43%	3.19%	5.36%
18	7.53%	10.62%	3.25%	5.46%
19	7.67%	10.81%	3.31%	5.56%
20	7.81%	11.01%	3.38%	5.67%
21	7.95%	11.22%	3.44%	5.77%
22	8.10%	11.42%	3.50%	5.88%
23	8.25%	11.63%	3.57%	5.99%
24	8.40%	11.85%	3.63%	6.10%
25	8.56%	12.07%	3.70%	6.21%
26	8.71%	12.29%	3.77%	6.32%
27	8.88%	12.52%	3.84%	6.44%
28	9.04%	12.76%	3.91%	6.56%
29	9.21%	13.00%	3.98%	6.68%
30	9.39%	13.24%	4.05%	6.81%
31	9.57%	13.49%	4.13%	6.93%
32	9.75%	13.75%	4.21%	7.06%
33	9.94%	14.02%	4.29%	7.19%
34	10.13%	14.29%	4.37%	7.33%
35	10.33%	14.58%	4.45%	7.47%
36	10.52%	14.85%	4.53%	7.61%
37	10.72%	15.12%	4.62%	7.75%
38	10.92%	15.40%	4.71%	7.90%
39	11.11%	15.68%	4.80%	8.06%
40	11.32%	15.96%	4.90%	8.22%

Section 4: Actuarial Valuation Basis

Entry Age	Plan I (2.7% @ 55) Normal	Plan I (2.7% @ 55) Total	Plan A (OCTA) Normal	Plan A (OCTA) Total
41	11.53%	16.26%	4.99%	8.37%
42	11.74%	16.56%	5.08%	8.53%
43	11.95%	16.86%	5.17%	8.68%
44	12.17%	17.17%	5.27%	8.84%
45	12.38%	17.47%	5.36%	9.00%
46	12.60%	17.77%	5.46%	9.17%
47	12.75%	17.98%	5.56%	9.34%
48	12.89%	18.18%	5.66%	9.50%
49	12.97%	18.30%	5.77%	9.68%
50	12.99%	18.33%	5.87%	9.85%
51	12.92%	18.23%	5.97%	10.02%
52	12.74%	17.98%	6.04%	10.14%
53	12.45%	17.57%	6.11%	10.25%
54	12.21%	17.23%	6.15%	10.32%
55	12.21%	17.23%	6.16%	10.33%
56	12.21%	17.23%	6.12%	10.28%
57	12.21%	17.23%	6.04%	10.14%
58	12.21%	17.23%	5.90%	9.90%
59	12.21%	17.23%	5.79%	9.72%
60 and over	12.21%	17.23%	5.79%	9.72%
COLA loading		*41.07%*		*67.85%*

Interest: 7.00% per annum
COLA: 2.75%
Mortality: See *Section 4, Exhibit 1*
Salary increase: Inflation (2.50%) + “across-the-board” (0.50%) + merit and promotion (See *Section 4, Exhibit 1*)
Additional cashouts: See *Section 4, Exhibit 1*

Section 4: Actuarial Valuation Basis

General Tier 2 Members' Contribution Rates

(as a % of Monthly Payroll)

Entry Age	Plan J (2.7% @ 55 non-OCFA) Normal	Plan J (2.7% @ 55 non-OCFA) Total	Plan H (2.5% @ 55 OCSD) Normal	Plan H (2.5% @ 55 OCSD) Total	Plan N (2.0% @ 55)[1] Normal	Plan N (2.0% @ 55)[1] Total
16	6.99%	9.87%	6.99%	9.64%	5.04%	7.55%
17	7.12%	10.05%	7.12%	9.82%	5.13%	7.69%
18	7.25%	10.23%	7.25%	10.00%	5.23%	7.83%
19	7.39%	10.42%	7.39%	10.18%	5.33%	7.98%
20	7.52%	10.61%	7.52%	10.37%	5.42%	8.12%
21	7.66%	10.81%	7.66%	10.56%	5.52%	8.27%
22	7.80%	11.01%	7.80%	10.75%	5.63%	8.43%
23	7.95%	11.21%	7.95%	10.95%	5.73%	8.58%
24	8.09%	11.42%	8.09%	11.15%	5.83%	8.74%
25	8.24%	11.63%	8.24%	11.36%	5.94%	8.90%
26	8.39%	11.84%	8.39%	11.57%	6.05%	9.06%
27	8.55%	12.06%	8.55%	11.79%	6.16%	9.23%
28	8.71%	12.29%	8.71%	12.00%	6.28%	9.40%
29	8.87%	12.52%	8.87%	12.23%	6.39%	9.57%
30	9.04%	12.75%	9.04%	12.46%	6.51%	9.75%
31	9.21%	12.99%	9.21%	12.69%	6.63%	9.93%
32	9.38%	13.24%	9.38%	12.94%	6.75%	10.12%
33	9.56%	13.49%	9.56%	13.18%	6.88%	10.30%
34	9.74%	13.75%	9.74%	13.43%	7.01%	10.50%
35	9.92%	14.00%	9.92%	13.68%	7.14%	10.69%
36	10.10%	14.25%	10.10%	13.92%	7.27%	10.90%
37	10.28%	14.50%	10.28%	14.17%	7.41%	11.10%
38	10.46%	14.76%	10.46%	14.42%	7.55%	11.32%
39	10.64%	15.02%	10.64%	14.67%	7.70%	11.53%
40	10.83%	15.28%	10.83%	14.93%	7.84%	11.74%

[1] Payable by members in Rate Group #9 and Rate Group #11.

Section 4: Actuarial Valuation Basis

Entry Age	Plan J (2.7% @ 55 non-OCFA) Normal	Plan J (2.7% @ 55 non-OCFA) Total	Plan H (2.5% @ 55 OCSD) Normal	Plan H (2.5% @ 55 OCSD) Total	Plan N (2.0% @ 55)[1] Normal	Plan N (2.0% @ 55)[1] Total
41	11.02%	15.54%	11.02%	15.18%	7.98%	11.95%
42	11.20%	15.80%	11.20%	15.44%	8.12%	12.16%
43	11.39%	16.06%	11.39%	15.69%	8.26%	12.38%
44	11.57%	16.32%	11.57%	15.94%	8.41%	12.59%
45	11.72%	16.53%	11.72%	16.16%	8.55%	12.81%
46	11.85%	16.71%	11.85%	16.33%	8.70%	13.03%
47	11.93%	16.83%	11.93%	16.45%	8.85%	13.25%
48	11.97%	16.89%	11.97%	16.50%	8.99%	13.47%
49	11.94%	16.85%	11.94%	16.46%	9.13%	13.68%
50	11.83%	16.69%	11.83%	16.31%	9.26%	13.87%
51	11.64%	16.42%	11.64%	16.04%	9.36%	14.02%
52	11.44%	16.14%	11.44%	15.77%	9.42%	14.12%
53	11.82%	16.67%	11.82%	16.29%	9.46%	14.16%
54	12.21%	17.23%	12.21%	16.84%	9.43%	14.13%
55	12.21%	17.23%	12.21%	16.84%	9.35%	14.00%
56	12.21%	17.23%	12.21%	16.84%	9.19%	13.77%
57	12.21%	17.23%	12.21%	16.84%	9.04%	13.54%
58	12.21%	17.23%	12.21%	16.84%	9.33%	13.98%
59	12.21%	17.23%	12.21%	16.84%	9.65%	14.45%
60 and over	12.21%	17.23%	12.21%	16.84%	9.65%	14.45%
COLA loading		*41.07%*		*37.84%*		*49.80%*

Interest: 7.00% per annum
COLA: 2.75%
Mortality: See *Section 4, Exhibit 1*
Salary increase: Inflation (2.50%) + “across-the-board” (0.50%) + merit and promotion (See *Section 4, Exhibit 1*)
Additional cashouts: See *Section 4, Exhibit 1*

[1] Payable by members in Rate Group #9 and Rate Group #11.

Section 4: Actuarial Valuation Basis

General Tier 2 Members' Contribution Rates

(as a % of Monthly Payroll)

Entry Age	Plan B (OCTA) Normal	Plan B (OCTA) Total	Plan B (County and IHSS) Normal	Plan B (County and IHSS) Total	Plan J (2.7% @ 55 OCFA) Normal	Plan J (2.7% @ 55 OCFA) Total
16	5.04%	7.09%	5.04%	6.89%	6.99%	9.80%
17	5.13%	7.22%	5.13%	7.02%	7.12%	9.98%
18	5.23%	7.36%	5.23%	7.15%	7.25%	10.17%
19	5.33%	7.49%	5.33%	7.28%	7.39%	10.36%
20	5.42%	7.63%	5.42%	7.42%	7.52%	10.55%
21	5.52%	7.77%	5.52%	7.56%	7.66%	10.74%
22	5.63%	7.92%	5.63%	7.69%	7.80%	10.94%
23	5.73%	8.06%	5.73%	7.84%	7.95%	11.14%
24	5.83%	8.21%	5.83%	7.98%	8.09%	11.34%
25	5.94%	8.36%	5.94%	8.13%	8.24%	11.55%
26	6.05%	8.51%	6.05%	8.28%	8.39%	11.77%
27	6.16%	8.67%	6.16%	8.43%	8.55%	11.99%
28	6.28%	8.83%	6.28%	8.58%	8.71%	12.21%
29	6.39%	8.99%	6.39%	8.74%	8.87%	12.44%
30	6.51%	9.16%	6.51%	8.90%	9.04%	12.67%
31	6.63%	9.33%	6.63%	9.07%	9.21%	12.91%
32	6.75%	9.50%	6.75%	9.24%	9.38%	13.16%
33	6.88%	9.68%	6.88%	9.41%	9.56%	13.41%
34	7.01%	9.86%	7.01%	9.58%	9.74%	13.66%
35	7.14%	10.04%	7.14%	9.76%	9.92%	13.91%
36	7.27%	10.23%	7.27%	9.95%	10.10%	14.16%
37	7.41%	10.43%	7.41%	10.14%	10.28%	14.41%
38	7.55%	10.63%	7.55%	10.33%	10.46%	14.66%
39	7.70%	10.83%	7.70%	10.53%	10.64%	14.92%
40	7.84%	11.03%	7.84%	10.72%	10.83%	15.18%

Section 4: Actuarial Valuation Basis

Entry Age	Plan B (OCTA) Normal	Plan B (OCTA) Total	Plan B (County and IHSS) Normal	Plan B (County and IHSS) Total	Plan J (2.7% @ 55 OCFA) Normal	Plan J (2.7% @ 55 OCFA) Total
41	7.98%	11.23%	7.98%	10.91%	11.02%	15.44%
42	8.12%	11.42%	8.12%	11.11%	11.20%	15.70%
43	8.26%	11.63%	8.26%	11.30%	11.39%	15.96%
44	8.41%	11.83%	8.41%	11.50%	11.57%	16.21%
45	8.55%	12.03%	8.55%	11.70%	11.72%	16.43%
46	8.70%	12.24%	8.70%	11.90%	11.85%	16.61%
47	8.85%	12.45%	8.85%	12.10%	11.93%	16.73%
48	8.99%	12.65%	8.99%	12.30%	11.97%	16.78%
49	9.13%	12.85%	9.13%	12.49%	11.94%	16.74%
50	9.26%	13.02%	9.26%	12.66%	11.83%	16.59%
51	9.36%	13.17%	9.36%	12.80%	11.64%	16.32%
52	9.42%	13.26%	9.42%	12.89%	11.44%	16.04%
53	9.46%	13.31%	9.46%	12.93%	11.82%	16.57%
54	9.43%	13.27%	9.43%	12.90%	12.21%	17.12%
55	9.35%	13.15%	9.35%	12.78%	12.21%	17.12%
56	9.19%	12.94%	9.19%	12.57%	12.21%	17.12%
57	9.04%	12.72%	9.04%	12.36%	12.21%	17.12%
58	9.33%	13.13%	9.33%	12.77%	12.21%	17.12%
59	9.65%	13.57%	9.65%	13.20%	12.21%	17.12%
60 and over	9.65%	13.57%	9.65%	13.20%	12.21%	17.12%
COLA loading		*40.71%*		*36.78%*		*40.18%*

Interest:	7.00% per annum
COLA:	2.75%
Mortality:	See *Section 4, Exhibit 1*
Salary increase:	Inflation (2.50%) + “across-the-board” (0.50%) + merit and promotion (See *Section 4, Exhibit 1*)
Additional cashouts:	See *Section 4, Exhibit 1*

Section 4: Actuarial Valuation Basis

General Tier 2 Members' Contribution Rates

(as a % of Monthly Payroll)

Entry Age	Plan P (1.62% @ 65) Normal	Plan P (1.62% @ 65) Total	Plan B (OCSD) Normal	Plan B (OCSD) Total	Plan N (OCFA) Normal	Plan N (OCFA) Total
16	5.04%	6.37%	5.04%	7.22%	5.04%	7.91%
17	5.13%	6.48%	5.13%	7.36%	5.13%	8.06%
18	5.23%	6.60%	5.23%	7.49%	5.23%	8.21%
19	5.33%	6.73%	5.33%	7.63%	5.33%	8.36%
20	5.42%	6.85%	5.42%	7.77%	5.42%	8.51%
21	5.52%	6.98%	5.52%	7.92%	5.52%	8.67%
22	5.63%	7.11%	5.63%	8.06%	5.63%	8.83%
23	5.73%	7.24%	5.73%	8.21%	5.73%	8.99%
24	5.83%	7.37%	5.83%	8.36%	5.83%	9.16%
25	5.94%	7.51%	5.94%	8.51%	5.94%	9.33%
26	6.05%	7.64%	6.05%	8.67%	6.05%	9.50%
27	6.16%	7.78%	6.16%	8.83%	6.16%	9.67%
28	6.28%	7.93%	6.28%	8.99%	6.28%	9.85%
29	6.39%	8.07%	6.39%	9.16%	6.39%	10.03%
30	6.51%	8.22%	6.51%	9.33%	6.51%	10.22%
31	6.63%	8.37%	6.63%	9.50%	6.63%	10.41%
32	6.75%	8.53%	6.75%	9.68%	6.75%	10.60%
33	6.88%	8.69%	6.88%	9.86%	6.88%	10.80%
34	7.01%	8.85%	7.01%	10.04%	7.01%	11.00%
35	7.14%	9.02%	7.14%	10.23%	7.14%	11.20%
36	7.27%	9.19%	7.27%	10.42%	7.27%	11.42%
37	7.41%	9.36%	7.41%	10.62%	7.41%	11.63%
38	7.55%	9.54%	7.55%	10.83%	7.55%	11.86%
39	7.70%	9.72%	7.70%	11.03%	7.70%	12.08%
40	7.84%	9.90%	7.84%	11.23%	7.84%	12.30%

Section 4: Actuarial Valuation Basis

Entry Age	Plan P (1.62% @ 65) Normal	Plan P (1.62% @ 65) Total	Plan B (OCSD) Normal	Plan B (OCSD) Total	Plan N (OCFA) Normal	Plan N (OCFA) Total
41	7.98%	10.08%	7.98%	11.43%	7.98%	12.52%
42	8.12%	10.26%	8.12%	11.64%	8.12%	12.74%
43	8.26%	10.44%	8.26%	11.84%	8.26%	12.97%
44	8.41%	10.62%	8.41%	12.05%	8.41%	13.19%
45	8.55%	10.80%	8.55%	12.26%	8.55%	13.42%
46	8.70%	10.99%	8.70%	12.47%	8.70%	13.66%
47	8.85%	11.18%	8.85%	12.68%	8.85%	13.89%
48	8.99%	11.36%	8.99%	12.89%	8.99%	14.11%
49	9.13%	11.54%	9.13%	13.09%	9.13%	14.34%
50	9.26%	11.69%	9.26%	13.27%	9.26%	14.53%
51	9.36%	11.82%	9.36%	13.41%	9.36%	14.69%
52	9.42%	11.91%	9.42%	13.51%	9.42%	14.79%
53	9.46%	11.94%	9.46%	13.55%	9.46%	14.84%
54	9.43%	11.91%	9.43%	13.52%	9.43%	14.80%
55	9.35%	11.81%	9.35%	13.39%	9.35%	14.67%
56	9.19%	11.61%	9.19%	13.17%	9.19%	14.43%
57	9.04%	11.42%	9.04%	12.95%	9.04%	14.19%
58	9.33%	11.79%	9.33%	13.37%	9.33%	14.65%
59	9.65%	12.19%	9.65%	13.82%	9.65%	15.14%
60 and over	9.65%	12.19%	9.65%	13.82%	9.65%	15.14%
COLA loading		*26.32%*		*43.31%*		*56.96%*

Interest: 7.00% per annum
COLA: 2.75%
Mortality: See *Section 4, Exhibit 1*
Salary increase: Inflation (2.50%) + “across-the-board” (0.50%) + merit and promotion (See *Section 4, Exhibit 1*)
Additional cashouts: See *Section 4, Exhibit 1*

Section 4: Actuarial Valuation Basis

General Tier 2 Members' Contribution Rates

(as a % of Monthly Payroll)

Entry Age	Plan S (City of SJC) Normal	Plan S (City of SJC) Total	Plan H (2.5% @ 55 (Law Library) Normal	Plan H (2.5% @ 55 (Law Library) Total
16	6.05%	8.87%	6.99%	9.58%
17	6.16%	9.03%	7.12%	9.75%
18	6.27%	9.20%	7.25%	9.93%
19	6.39%	9.37%	7.39%	10.11%
20	6.51%	9.54%	7.52%	10.30%
21	6.63%	9.72%	7.66%	10.49%
22	6.75%	9.90%	7.80%	10.68%
23	6.87%	10.08%	7.95%	10.88%
24	7.00%	10.26%	8.09%	11.08%
25	7.13%	10.45%	8.24%	11.28%
26	7.26%	10.64%	8.39%	11.49%
27	7.39%	10.84%	8.55%	11.71%
28	7.53%	11.04%	8.71%	11.92%
29	7.67%	11.24%	8.87%	12.15%
30	7.81%	11.45%	9.04%	12.38%
31	7.96%	11.66%	9.21%	12.61%
32	8.10%	11.88%	9.38%	12.85%
33	8.25%	12.10%	9.56%	13.10%
34	8.41%	12.33%	9.74%	13.34%
35	8.57%	12.56%	9.92%	13.59%
36	8.73%	12.80%	10.10%	13.83%
37	8.89%	13.04%	10.28%	14.08%
38	9.07%	13.29%	10.46%	14.32%
39	9.24%	13.54%	10.64%	14.57%
40	9.41%	13.79%	10.83%	14.83%

Section 4: Actuarial Valuation Basis

Entry Age	Plan S (City of SJC) Normal	Plan S (City of SJC) Total	Plan H (2.5% @ 55 (Law Library) Normal	Plan H (2.5% @ 55 (Law Library) Total
41	9.57%	14.04%	11.02%	15.08%
42	9.74%	14.28%	11.20%	15.34%
43	9.91%	14.53%	11.39%	15.59%
44	10.09%	14.79%	11.57%	15.84%
45	10.26%	15.05%	11.72%	16.05%
46	10.44%	15.31%	11.85%	16.22%
47	10.62%	15.56%	11.93%	16.34%
48	10.79%	15.82%	11.97%	16.39%
49	10.96%	16.07%	11.94%	16.35%
50	11.11%	16.28%	11.83%	16.20%
51	11.23%	16.46%	11.64%	15.94%
52	11.31%	16.58%	11.44%	15.67%
53	11.35%	16.63%	11.82%	16.18%
54	11.32%	16.59%	12.21%	16.72%
55	11.22%	16.44%	12.21%	16.72%
56	11.03%	16.17%	12.21%	16.72%
57	10.85%	15.90%	12.21%	16.72%
58	11.20%	16.42%	12.21%	16.72%
59	11.58%	16.97%	12.21%	16.72%
60 and over	11.58%	16.97%	12.21%	16.72%
COLA loading		*46.60%*		*36.92%*

Interest: 7.00% per annum
COLA: 2.75%
Mortality: See *Section 4, Exhibit 1*
Salary increase: Inflation (2.50%) + “across-the-board” (0.50%) + merit and promotion (See *Section 4, Exhibit 1*)
Additional cashouts: See *Section 4, Exhibit 1*

Section 4: Actuarial Valuation Basis

General CalPEPRA Members' Contribution Rates

(as a % of Monthly Payroll)[1]

Entry Age	Rate Group #1 (Plan U) Normal	Rate Group #1 (Plan U) Total	Rate Group #2 (Plan T) Normal	Rate Group #2 (Plan T) Total	Rate Group #2 (Plan U) Normal	Rate Group #2 (Plan U) Total
16	5.95%	8.05%	3.83%	5.13%	5.46%	7.41%
17	5.69%	7.70%	3.90%	5.23%	5.22%	7.08%
18	5.42%	7.33%	3.98%	5.33%	4.97%	6.74%
19	5.52%	7.47%	4.05%	5.42%	5.07%	6.87%
20	5.62%	7.61%	4.12%	5.52%	5.16%	7.00%
21	5.73%	7.75%	4.20%	5.63%	5.26%	7.13%
22	5.84%	7.89%	4.28%	5.73%	5.36%	7.26%
23	5.95%	8.04%	4.36%	5.84%	5.46%	7.40%
24	6.06%	8.19%	4.44%	5.94%	5.56%	7.53%
25	6.17%	8.34%	4.52%	6.05%	5.66%	7.67%
26	6.28%	8.50%	4.60%	6.17%	5.77%	7.82%
27	6.40%	8.66%	4.69%	6.28%	5.87%	7.96%
28	6.52%	8.82%	4.78%	6.40%	5.98%	8.11%
29	6.64%	8.98%	4.86%	6.52%	6.09%	8.26%
30	6.76%	9.14%	4.95%	6.64%	6.21%	8.41%
31	6.89%	9.31%	5.05%	6.76%	6.32%	8.57%
32	7.01%	9.49%	5.14%	6.89%	6.44%	8.73%
33	7.14%	9.66%	5.24%	7.02%	6.56%	8.89%
34	7.28%	9.84%	5.34%	7.15%	6.68%	9.05%
35	7.41%	10.02%	5.44%	7.28%	6.80%	9.22%
36	7.55%	10.21%	5.54%	7.42%	6.93%	9.39%
37	7.69%	10.40%	5.65%	7.56%	7.06%	9.56%
38	7.83%	10.59%	5.76%	7.71%	7.19%	9.74%
39	7.98%	10.79%	5.87%	7.86%	7.32%	9.92%
40	8.13%	10.99%	5.98%	8.01%	7.46%	10.11%

[1] It is our understanding that in the determination of pension benefits under the CalPEPRA 2.5% at 67 formula and the Plan W 1.62% at 65 formula, the maximum compensation that can be taken into account should be limited by the compensation limit as noted in *Section 4, Exhibit 2*, page 140 (§7522.10). These amounts should be adjusted for changes to the Consumer Price Index for All Urban Consumers for future years (§7522.10(d)).

Section 4: Actuarial Valuation Basis

Entry Age	Rate Group #1 (Plan U) Normal	Rate Group #1 (Plan U) Total	Rate Group #2 (Plan T) Normal	Rate Group #2 (Plan T) Total	Rate Group #2 (Plan U) Normal	Rate Group #2 (Plan U) Total
41	8.28%	11.20%	6.09%	8.15%	7.60%	10.30%
42	8.44%	11.41%	6.20%	8.30%	7.74%	10.50%
43	8.60%	11.63%	6.31%	8.45%	7.89%	10.70%
44	8.76%	11.85%	6.42%	8.60%	8.04%	10.90%
45	8.93%	12.08%	6.53%	8.75%	8.20%	11.11%
46	9.10%	12.31%	6.65%	8.91%	8.36%	11.33%
47	9.27%	12.54%	6.77%	9.06%	8.51%	11.54%
48	9.44%	12.77%	6.88%	9.22%	8.67%	11.75%
49	9.61%	13.00%	7.00%	9.37%	8.82%	11.96%
50	9.79%	13.23%	7.10%	9.51%	8.98%	12.17%
51	9.96%	13.47%	7.18%	9.62%	9.14%	12.39%
52	10.14%	13.71%	7.25%	9.70%	9.31%	12.61%
53	10.32%	13.95%	7.28%	9.75%	9.47%	12.84%
54	10.50%	14.20%	7.28%	9.75%	9.64%	13.06%
55	10.68%	14.44%	7.24%	9.69%	9.80%	13.29%
56	10.86%	14.68%	7.15%	9.58%	9.96%	13.51%
57	11.01%	14.89%	7.08%	9.49%	10.11%	13.70%
58	11.15%	15.07%	7.31%	9.80%	10.23%	13.87%
59	11.24%	15.20%	7.56%	10.13%	10.32%	13.99%
60	11.30%	15.28%	7.56%	10.13%	10.37%	14.06%
61	11.30%	15.28%	7.56%	10.13%	10.37%	14.06%
62	11.23%	15.19%	7.56%	10.13%	10.31%	13.97%
63	11.10%	15.01%	7.56%	10.13%	10.18%	13.80%
64	10.99%	14.86%	7.56%	10.13%	10.09%	13.67%
65	11.35%	15.35%	7.56%	10.13%	10.42%	14.12%
66 and over	11.73%	15.87%	7.56%	10.13%	10.77%	14.60%
COLA loading		*35.23%*		*33.94%*		*35.55%*

Interest: 7.00% per annum
COLA: 2.75%
Mortality: See *Section 4, Exhibit 1*
Salary increase: Inflation (2.50%) + “across-the-board” (0.50%) + merit and promotion (See *Section 4, Exhibit 1*)

Section 4: Actuarial Valuation Basis

General CalPEPRA Members' Contribution Rates

(as a % of Monthly Payroll)[1]

Entry Age	Rate Group #2 (Plan W) Normal	Rate Group #2 (Plan W) Total	Rate Group #3 (Plan U) Normal	Rate Group #3 (Plan U) Total	Rate Group #5 (Plan U) Normal	Rate Group #5 (Plan U) Total
16	3.95%	5.01%	5.63%	7.63%	6.44%	8.75%
17	4.03%	5.10%	5.38%	7.30%	6.15%	8.36%
18	4.10%	5.20%	5.13%	6.95%	5.86%	7.96%
19	4.18%	5.29%	5.22%	7.08%	5.97%	8.11%
20	4.26%	5.39%	5.32%	7.21%	6.08%	8.27%
21	4.33%	5.49%	5.42%	7.35%	6.19%	8.42%
22	4.41%	5.59%	5.52%	7.48%	6.31%	8.58%
23	4.50%	5.70%	5.62%	7.62%	6.43%	8.74%
24	4.58%	5.80%	5.73%	7.76%	6.55%	8.90%
25	4.66%	5.91%	5.83%	7.91%	6.67%	9.06%
26	4.75%	6.02%	5.94%	8.06%	6.79%	9.23%
27	4.84%	6.13%	6.05%	8.20%	6.92%	9.40%
28	4.93%	6.24%	6.17%	8.36%	7.05%	9.58%
29	5.02%	6.36%	6.28%	8.51%	7.18%	9.76%
30	5.11%	6.48%	6.40%	8.67%	7.31%	9.94%
31	5.21%	6.60%	6.51%	8.83%	7.45%	10.12%
32	5.30%	6.72%	6.63%	8.99%	7.58%	10.31%
33	5.40%	6.85%	6.76%	9.16%	7.72%	10.50%
34	5.51%	6.97%	6.88%	9.33%	7.87%	10.69%
35	5.61%	7.11%	7.01%	9.50%	8.01%	10.89%
36	5.72%	7.24%	7.14%	9.68%	8.16%	11.09%
37	5.83%	7.38%	7.27%	9.86%	8.31%	11.30%
38	5.94%	7.53%	7.41%	10.04%	8.47%	11.51%
39	6.05%	7.67%	7.54%	10.23%	8.62%	11.72%
40	6.17%	7.81%	7.69%	10.42%	8.79%	11.94%

[1] It is our understanding that in the determination of pension benefits under the CalPEPRA 2.5% at 67 formula and the Plan W 1.62% at 65 formula, the maximum compensation that can be taken into account should be limited by the compensation limit as noted in *Section 4, Exhibit 2*, page 140 (§7522.10). These amounts should be adjusted for changes to the Consumer Price Index for All Urban Consumers for future years (§7522.10(d)).

Section 4: Actuarial Valuation Basis

Entry Age	Rate Group #2 (Plan W) Normal	Rate Group #2 (Plan W) Total	Rate Group #3 (Plan U) Normal	Rate Group #3 (Plan U) Total	Rate Group #5 (Plan U) Normal	Rate Group #5 (Plan U) Total
41	6.28%	7.95%	7.83%	10.61%	8.95%	12.17%
42	6.39%	8.10%	7.98%	10.82%	9.12%	12.40%
43	6.51%	8.24%	8.13%	11.02%	9.29%	12.63%
44	6.62%	8.39%	8.29%	11.23%	9.47%	12.88%
45	6.74%	8.54%	8.45%	11.45%	9.66%	13.13%
46	6.86%	8.69%	8.61%	11.67%	9.84%	13.38%
47	6.98%	8.84%	8.77%	11.89%	10.03%	13.63%
48	7.10%	9.00%	8.93%	12.10%	10.21%	13.88%
49	7.22%	9.15%	9.09%	12.32%	10.39%	14.13%
50	7.32%	9.28%	9.25%	12.54%	10.58%	14.38%
51	7.41%	9.39%	9.42%	12.77%	10.77%	14.64%
52	7.48%	9.47%	9.59%	13.00%	10.96%	14.90%
53	7.51%	9.52%	9.76%	13.23%	11.16%	15.16%
54	7.51%	9.52%	9.93%	13.46%	11.35%	15.43%
55	7.47%	9.46%	10.10%	13.69%	11.55%	15.69%
56	7.38%	9.35%	10.27%	13.92%	11.74%	15.95%
57	7.31%	9.26%	10.42%	14.12%	11.91%	16.18%
58	7.55%	9.56%	10.54%	14.29%	12.05%	16.38%
59	7.80%	9.88%	10.63%	14.41%	12.15%	16.52%
60	7.80%	9.88%	10.69%	14.49%	12.22%	16.60%
61	7.80%	9.88%	10.69%	14.48%	12.21%	16.60%
62	7.80%	9.88%	10.62%	14.40%	12.14%	16.50%
63	7.80%	9.88%	10.49%	14.22%	11.99%	16.30%
64	7.80%	9.88%	10.40%	14.09%	11.88%	16.15%
65	7.80%	9.88%	10.73%	14.55%	12.27%	16.68%
66 and over	7.80%	9.88%	11.10%	15.04%	12.68%	17.24%
COLA loading		*26.69%*		*35.54%*		*35.92%*

Interest: 7.00% per annum
COLA: 2.75%
Mortality: See *Section 4, Exhibit 1*
Salary increase: Inflation (2.50%) + "across-the-board" (0.50%) + merit and promotion (See *Section 4, Exhibit 1*)

Section 4: Actuarial Valuation Basis

General CalPEPRA Members' Contribution Rates

(as a % of Monthly Payroll)[1]

Entry Age	Rate Group #9 (Plan U) Normal	Rate Group #9 (Plan U) Total	Rate Group #10 (Plan U) Normal	Rate Group #10 (Plan U) Total	Rate Group #11 (Plan U) Normal	Rate Group #11 (Plan U) Total
16	5.74%	7.71%	5.85%	7.94%	6.34%	8.48%
17	5.49%	7.37%	5.59%	7.59%	6.06%	8.10%
18	5.22%	7.02%	5.32%	7.23%	5.77%	7.72%
19	5.32%	7.15%	5.42%	7.36%	5.88%	7.86%
20	5.42%	7.29%	5.53%	7.50%	5.99%	8.01%
21	5.52%	7.42%	5.63%	7.64%	6.10%	8.16%
22	5.63%	7.56%	5.73%	7.78%	6.21%	8.31%
23	5.73%	7.70%	5.84%	7.93%	6.33%	8.46%
24	5.84%	7.85%	5.95%	8.08%	6.45%	8.62%
25	5.95%	7.99%	6.06%	8.23%	6.57%	8.78%
26	6.06%	8.14%	6.17%	8.38%	6.69%	8.95%
27	6.17%	8.29%	6.29%	8.54%	6.81%	9.11%
28	6.28%	8.45%	6.40%	8.69%	6.94%	9.28%
29	6.40%	8.60%	6.52%	8.85%	7.07%	9.45%
30	6.52%	8.76%	6.64%	9.02%	7.20%	9.63%
31	6.64%	8.92%	6.77%	9.19%	7.33%	9.80%
32	6.76%	9.09%	6.89%	9.35%	7.46%	9.99%
33	6.89%	9.26%	7.02%	9.53%	7.60%	10.17%
34	7.01%	9.43%	7.15%	9.70%	7.74%	10.36%
35	7.14%	9.60%	7.28%	9.88%	7.89%	10.55%
36	7.28%	9.78%	7.42%	10.07%	8.03%	10.75%
37	7.41%	9.96%	7.55%	10.25%	8.18%	10.94%
38	7.55%	10.15%	7.69%	10.44%	8.33%	11.15%
39	7.69%	10.34%	7.84%	10.64%	8.49%	11.36%
40	7.83%	10.53%	7.98%	10.84%	8.65%	11.57%

[1] It is our understanding that in the determination of pension benefits under the CalPEPRA 2.5% at 67 formula and the Plan W 1.62% at 65 formula, the maximum compensation that can be taken into account should be limited by the compensation limit as noted in *Section 4, Exhibit 2*, page 140 (§7522.10). These amounts should be adjusted for changes to the Consumer Price Index for All Urban Consumers for future years (§7522.10(d)).

Section 4: Actuarial Valuation Basis

Entry Age	Rate Group #9 (Plan U) Normal	Rate Group #9 (Plan U) Total	Rate Group #10 (Plan U) Normal	Rate Group #10 (Plan U) Total	Rate Group #11 (Plan U) Normal	Rate Group #11 (Plan U) Total
41	7.98%	10.73%	8.13%	11.04%	8.81%	11.79%
42	8.13%	10.93%	8.29%	11.25%	8.98%	12.01%
43	8.29%	11.14%	8.45%	11.47%	9.15%	12.24%
44	8.45%	11.35%	8.61%	11.69%	9.33%	12.48%
45	8.61%	11.57%	8.78%	11.91%	9.51%	12.72%
46	8.78%	11.80%	8.94%	12.14%	9.69%	12.96%
47	8.94%	12.02%	9.11%	12.37%	9.87%	13.20%
48	9.10%	12.23%	9.28%	12.59%	10.05%	13.44%
49	9.27%	12.45%	9.44%	12.82%	10.23%	13.69%
50	9.43%	12.68%	9.61%	13.05%	10.41%	13.93%
51	9.60%	12.90%	9.79%	13.28%	10.60%	14.18%
52	9.77%	13.14%	9.96%	13.52%	10.79%	14.43%
53	9.95%	13.37%	10.14%	13.76%	10.98%	14.69%
54	10.12%	13.60%	10.32%	14.00%	11.17%	14.95%
55	10.30%	13.84%	10.49%	14.24%	11.37%	15.20%
56	10.47%	14.07%	10.67%	14.48%	11.55%	15.46%
57	10.62%	14.27%	10.82%	14.69%	11.72%	15.68%
58	10.75%	14.44%	10.95%	14.87%	11.86%	15.87%
59	10.84%	14.57%	11.05%	14.99%	11.96%	16.01%
60	10.89%	14.64%	11.10%	15.07%	12.03%	16.09%
61	10.89%	14.64%	11.10%	15.07%	12.02%	16.08%
62	10.83%	14.55%	11.03%	14.98%	11.95%	15.99%
63	10.70%	14.38%	10.90%	14.80%	11.81%	15.80%
64	10.60%	14.24%	10.80%	14.66%	11.70%	15.65%
65	10.94%	14.71%	11.15%	15.14%	12.08%	16.16%
66 and over	11.31%	15.20%	11.53%	15.65%	12.49%	16.70%
COLA loading		*34.39%*		*35.75%*		*33.77%*

Interest: 7.00% per annum
COLA: 2.75%
Mortality: See *Section 4, Exhibit 1*
Salary increase: Inflation (2.50%) + "across-the-board" (0.50%) + merit and promotion (See *Section 4, Exhibit 1*)

Section 4: Actuarial Valuation Basis

General CalPEPRA Members' Contribution Rates

(as a % of Monthly Payroll)[1]

Entry Age	Rate Group #12 (Plan U) Normal	Rate Group #12 (Plan U) Total
16	5.75%	7.74%
17	5.49%	7.40%
18	5.23%	7.05%
19	5.33%	7.18%
20	5.43%	7.31%
21	5.53%	7.45%
22	5.63%	7.59%
23	5.74%	7.73%
24	5.85%	7.88%
25	5.95%	8.02%
26	6.07%	8.17%
27	6.18%	8.32%
28	6.29%	8.48%
29	6.41%	8.63%
30	6.53%	8.79%
31	6.65%	8.95%
32	6.77%	9.12%
33	6.90%	9.29%
34	7.02%	9.46%
35	7.15%	9.64%
36	7.29%	9.81%
37	7.42%	10.00%
38	7.56%	10.18%
39	7.70%	10.37%
40	7.84%	10.57%

[1] It is our understanding that in the determination of pension benefits under the CalPEPRA 2.5% at 67 formula and the Plan W 1.62% at 65 formula, the maximum compensation that can be taken into account should be limited by the compensation limit as noted in *Section 4, Exhibit 2*, page 140 (§7522.10). These amounts should be adjusted for changes to the Consumer Price Index for All Urban Consumers for future years (§7522.10(d)).

Section 4: Actuarial Valuation Basis

Entry Age	Rate Group #12 (Plan U) Normal	Rate Group #12 (Plan U) Total
41	7.99%	10.77%
42	8.14%	10.97%
43	8.30%	11.18%
44	8.46%	11.40%
45	8.62%	11.62%
46	8.79%	11.84%
47	8.95%	12.06%
48	9.11%	12.28%
49	9.28%	12.50%
50	9.45%	12.72%
51	9.61%	12.95%
52	9.79%	13.18%
53	9.96%	13.42%
54	10.13%	13.65%
55	10.31%	13.89%
56	10.48%	14.12%
57	10.63%	14.32%
58	10.76%	14.49%
59	10.85%	14.62%
60	10.91%	14.69%
61	10.91%	14.69%
62	10.84%	14.60%
63	10.71%	14.43%
64	10.61%	14.29%
65	10.96%	14.76%
66 and over	11.32%	15.26%
COLA loading		*34.71%*

Interest: 7.00% per annum
COLA: 2.75%
Mortality: See *Section 4, Exhibit 1*
Salary increase: Inflation (2.50%) + "across-the-board" (0.50%) + merit and promotion (See *Section 4, Exhibit 1*)

Section 4: Actuarial Valuation Basis

Safety Tier 2 Members' Contribution Rates

(as a % of Monthly Payroll)

Entry Age	Plan F (OCFA) Normal	Plan F (OCFA) Total	Plan F (Law Enforcement) Normal	Plan F (Law Enforcement) Total	Plan F (Probation) Normal	Plan F (Probation) Total
16	8.77%	13.84%	9.18%	14.81%	8.93%	13.89%
17	8.90%	14.05%	9.31%	15.03%	9.06%	14.10%
18	9.03%	14.26%	9.45%	15.25%	9.20%	14.31%
19	9.17%	14.47%	9.59%	15.48%	9.34%	14.53%
20	9.31%	14.69%	9.74%	15.71%	9.48%	14.75%
21	9.45%	14.92%	9.88%	15.95%	9.62%	14.97%
22	9.60%	15.15%	10.03%	16.19%	9.77%	15.20%
23	9.74%	15.38%	10.19%	16.44%	9.92%	15.43%
24	9.90%	15.62%	10.34%	16.69%	10.07%	15.67%
25	10.05%	15.87%	10.50%	16.95%	10.23%	15.92%
26	10.21%	16.13%	10.67%	17.22%	10.39%	16.17%
27	10.38%	16.39%	10.84%	17.49%	10.56%	16.43%
28	10.55%	16.66%	11.01%	17.77%	10.73%	16.70%
29	10.73%	16.93%	11.19%	18.06%	10.91%	16.98%
30	10.90%	17.21%	11.37%	18.35%	11.09%	17.25%
31	11.09%	17.50%	11.56%	18.65%	11.27%	17.54%
32	11.28%	17.80%	11.75%	18.96%	11.46%	17.84%
33	11.47%	18.10%	11.94%	19.27%	11.65%	18.13%
34	11.66%	18.41%	12.13%	19.58%	11.85%	18.44%
35	11.86%	18.72%	12.33%	19.90%	12.04%	18.74%
36	12.07%	19.05%	12.54%	20.23%	12.25%	19.07%
37	12.29%	19.40%	12.75%	20.58%	12.47%	19.41%
38	12.50%	19.73%	12.96%	20.91%	12.68%	19.73%
39	12.69%	20.04%	13.14%	21.20%	12.87%	20.02%
40	12.85%	20.28%	13.27%	21.42%	13.02%	20.25%

Section 4: Actuarial Valuation Basis

Entry Age	Plan F (OCFA) Normal	Plan F (OCFA) Total	Plan F (Law Enforcement) Normal	Plan F (Law Enforcement) Total	Plan F (Probation) Normal	Plan F (Probation) Total
41	12.94%	20.43%	13.35%	21.54%	13.10%	20.39%
42	12.97%	20.47%	13.35%	21.54%	13.12%	20.41%
43	12.92%	20.39%	13.26%	21.39%	13.05%	20.31%
44	12.80%	20.20%	13.08%	21.12%	12.91%	20.09%
45	12.60%	19.89%	12.82%	20.69%	12.69%	19.74%
46	12.32%	19.45%	12.45%	20.09%	12.37%	19.25%
47	11.93%	18.83%	11.93%	19.25%	11.93%	18.56%
48	12.31%	19.43%	12.31%	19.86%	12.31%	19.15%
49	12.71%	20.06%	12.71%	20.50%	12.71%	19.77%
50 and over	12.71%	20.06%	12.71%	20.50%	12.71%	19.77%
COLA loading		*57.87%*		*61.37%*		*55.61%*

Interest: 7.00% per annum
COLA: 2.75%
Mortality: See *Section 4, Exhibit 1*
Salary increase: Inflation (2.50%) + “across-the-board” (0.50%) + merit and promotion (See *Section 4, Exhibit 1*)
Additional cashouts: See *Section 4, Exhibit 1*

Section 4: Actuarial Valuation Basis

Safety Tier 2 Members' Contribution Rates

(as a % of Monthly Payroll)

Entry Age	Plan R (OCFA) Normal	Plan R (OCFA) Total	Plan R (Law Enforcement) Normal	Plan R (Law Enforcement) Total
16	8.77%	14.13%	9.18%	14.22%
17	8.90%	14.35%	9.31%	14.43%
18	9.03%	14.56%	9.45%	14.64%
19	9.17%	14.78%	9.59%	14.86%
20	9.31%	15.01%	9.74%	15.08%
21	9.45%	15.23%	9.88%	15.31%
22	9.60%	15.47%	10.03%	15.54%
23	9.74%	15.71%	10.19%	15.78%
24	9.90%	15.95%	10.34%	16.02%
25	10.05%	16.21%	10.50%	16.27%
26	10.21%	16.47%	10.67%	16.53%
27	10.38%	16.73%	10.84%	16.79%
28	10.55%	17.01%	11.01%	17.06%
29	10.73%	17.29%	11.19%	17.34%
30	10.90%	17.58%	11.37%	17.62%
31	11.09%	17.87%	11.56%	17.90%
32	11.28%	18.18%	11.75%	18.20%
33	11.47%	18.49%	11.94%	18.50%
34	11.66%	18.80%	12.13%	18.79%
35	11.86%	19.11%	12.33%	19.10%
36	12.07%	19.45%	12.54%	19.42%
37	12.29%	19.81%	12.75%	19.76%
38	12.50%	20.15%	12.96%	20.07%
39	12.69%	20.46%	13.14%	20.35%
40	12.85%	20.71%	13.27%	20.56%

Section 4: Actuarial Valuation Basis

Entry Age	Plan R (OCFA) Normal	Plan R (OCFA) Total	Plan R (Law Enforcement) Normal	Plan R (Law Enforcement) Total
41	12.94%	20.87%	13.35%	20.68%
42	12.97%	20.91%	13.35%	20.67%
43	12.92%	20.82%	13.26%	20.53%
44	12.80%	20.63%	13.08%	20.27%
45	12.60%	20.31%	12.82%	19.86%
46	12.32%	19.86%	12.45%	19.29%
47	11.93%	19.23%	11.93%	18.47%
48	12.31%	19.84%	12.31%	19.06%
49	12.71%	20.48%	12.71%	19.68%
50 and over	12.71%	20.48%	12.71%	19.68%
COLA loading		*61.21%*		*54.89%*

Interest: 7.00% per annum
COLA: 2.75%
Mortality: See *Section 4, Exhibit 1*
Salary increase: Inflation (2.50%) + “across-the-board” (0.50%) + merit and promotion (See *Section 4, Exhibit 1*)
Additional cashouts: See *Section 4, Exhibit 1*

Section 4: Actuarial Valuation Basis

Safety CalPEPRA Members' Contribution Rates

(as a % of Monthly Payroll)[1]

Entry Age	Rate Group #6 (Plan V) Normal	Rate Group #6 (Plan V) Total	Rate Group #7 (Plan V) Normal	Rate Group #7 (Plan V) Total	Rate Group #8 (Plan V) Normal	Rate Group #8 (Plan V) Total
16	9.48%	13.33%	10.02%	14.28%	9.13%	13.03%
17	9.62%	13.53%	10.17%	14.50%	9.26%	13.23%
18	9.76%	13.73%	10.32%	14.71%	9.40%	13.42%
19	9.91%	13.93%	10.48%	14.93%	9.54%	13.62%
20	10.05%	14.14%	10.63%	15.15%	9.68%	13.82%
21	10.20%	14.35%	10.79%	15.38%	9.82%	14.03%
22	10.36%	14.56%	10.95%	15.61%	9.97%	14.24%
23	10.51%	14.78%	11.12%	15.84%	10.12%	14.45%
24	10.67%	15.00%	11.28%	16.08%	10.27%	14.67%
25	10.83%	15.23%	11.45%	16.32%	10.43%	14.89%
26	10.99%	15.46%	11.63%	16.57%	10.59%	15.12%
27	11.16%	15.70%	11.80%	16.82%	10.75%	15.35%
28	11.33%	15.94%	11.99%	17.08%	10.91%	15.58%
29	11.51%	16.18%	12.17%	17.34%	11.08%	15.82%
30	11.69%	16.44%	12.36%	17.61%	11.25%	16.07%
31	11.87%	16.69%	12.55%	17.89%	11.43%	16.32%
32	12.06%	16.96%	12.75%	18.17%	11.61%	16.58%
33	12.25%	17.23%	12.96%	18.47%	11.80%	16.85%
34	12.45%	17.51%	13.17%	18.77%	11.99%	17.12%
35	12.66%	17.81%	13.39%	19.08%	12.19%	17.41%
36	12.87%	18.10%	13.61%	19.40%	12.39%	17.70%
37	13.09%	18.40%	13.84%	19.72%	12.60%	17.99%
38	13.31%	18.71%	14.07%	20.05%	12.81%	18.30%
39	13.54%	19.04%	14.32%	20.40%	13.03%	18.61%
40	13.77%	19.36%	14.56%	20.75%	13.26%	18.93%

[1] It is our understanding that in the determination of pension benefits under the CalPEPRA 2.7% at 57 formula, the maximum compensation that can be taken into account should be limited by the compensation limit as noted in *Section 4, Exhibit 2*, page 140 (§7522.10). These amounts should be adjusted for changes to the Consumer Price Index for All Urban Consumers for future years (§7522.10(d)).

Section 4: Actuarial Valuation Basis

Entry Age	Rate Group #6 (Plan V) Normal	Rate Group #6 (Plan V) Total	Rate Group #7 (Plan V) Normal	Rate Group #7 (Plan V) Total	Rate Group #8 (Plan V) Normal	Rate Group #8 (Plan V) Total
41	14.00%	19.70%	14.81%	21.10%	13.48%	19.25%
42	14.24%	20.03%	15.06%	21.47%	13.71%	19.58%
43	14.50%	20.39%	15.34%	21.85%	13.96%	19.94%
44	14.77%	20.78%	15.62%	22.26%	14.22%	20.31%
45	15.03%	21.14%	15.90%	22.65%	14.47%	20.67%
46	15.27%	21.47%	16.15%	23.01%	14.70%	20.99%
47	15.46%	21.74%	16.35%	23.30%	14.89%	21.26%
48	15.59%	21.92%	16.48%	23.49%	15.01%	21.43%
49	15.63%	21.98%	16.53%	23.55%	15.05%	21.49%
50	15.58%	21.91%	16.48%	23.48%	15.00%	21.42%
51	15.45%	21.73%	16.34%	23.28%	14.87%	21.24%
52	15.23%	21.42%	16.11%	22.95%	14.67%	20.94%
53	14.93%	20.99%	15.78%	22.49%	14.37%	20.52%
54	14.50%	20.39%	15.33%	21.85%	13.96%	19.94%
55	14.96%	21.04%	15.82%	22.55%	14.40%	20.57%
56 and over	15.45%	21.72%	16.34%	23.28%	14.87%	21.24%
COLA loading		*40.63%*		*42.50%*		*42.80%*

Interest: 7.00% per annum
COLA: 2.75%
Mortality: See *Section 4, Exhibit 1*
Salary increase: Inflation (2.50%) + “across-the-board” (0.50%) + merit and promotion (See *Section 4, Exhibit 1*)

Section 4: Actuarial Valuation Basis

Exhibit 4: Funded percentages by rate group

The funded percentages on a Valuation Value of Assets basis by rate group provided for informational purposes only are as follows:

	As of December 31, 2023	As of December 31, 2022
General		
• Rate Group #1 – Plans A, B and U (County and IHSS)[1]	92.84%	90.47%
• Rate Group #2 – Plans I, J, O, P, S, T, U and W (County et al.)	78.45%	77.45%
• Rate Group #3 – Plans B, G, H and U (OCSD)	100.89%	102.84%
• Rate Group #5 – Plans A, B and U (OCTA)	84.19%	83.59%
• Rate Group #9 – Plans M, N and U (TCA)	103.39%	105.06%
• Rate Group #10 – Plans I, J, M, N and U (OCFA)	93.77%	92.90%
• Rate Group #11 – Plans M and N, future service, and U (Cemetery)	97.77%	96.10%
• Rate Group #12 – Plans G, H, future service, and U (Law Library)	119.94%	108.98%
Safety		
• Rate Group #6 – Plans E, F and V (Probation)	85.19%	83.63%
• Rate Group #7 – Plans E, F, Q, R and V (Law Enforcement)	82.58%	80.60%
• Rate Group #8 – Plans E, F, Q, R and V (OCFA)	94.84%	93.86%

[1] Includes payees from Vector Control, Cypress Recreation and Parks, U.C.I. and DOE.

Section 4: Actuarial Valuation Basis

Exhibit 5: Reconciliation of employer contribution rates by rate group

The reconciliation of the employer contribution rates for the General Rate Groups #1 to #5 are as follows:

Item	RG #1	RG #2	RG #3	RG #5
1. Average recommended employer contribution as of December 31, 2022	13.70%	38.09%	11.39%	30.26%
2. Changes due to:				
a. Investment return greater than expected after asset smoothing	(0.19%)	(0.44%)	(0.60%)	(0.43%)
b. Actual contributions (more)/less than expected[1]	0.03%	0.14%	0.08%	0.19%
c. Additional UAAL contributions for OCFA	0.00%	0.00%	0.00%	0.00%
d. Individual salary increases (less)/greater than expected	(0.13)%	0.41%	0.35%	0.69%
e. COLA increases greater than expected in 2024[2]	0.01%	0.04%	0.05%	0.03%
f. Amortizing prior year's UAAL over a (larger)/smaller than expected total payroll[3]	(0.31%)	(1.28%)	0.00%	(0.56%)
g. Other net experience (gain)/loss[4,5,6]	(0.09%)	(0.05%)	(0.51%)	(0.25%)
h. Changes in actuarial assumptions[7,8]	0.20%	1.18%	0.89%	0.72%
i. Total change Sum of 2a through 2h	**(0.48%)**	**0.00%**	**0.26%**	**0.39%**
3. Average recommended employer contribution as of December 31, 2023 1 + 2i	**13.22%**	**38.09%**	**11.65%**	**30.65%**

[1] Includes impact of difference between actual and expected normal cost and UAAL contributions due to actual payroll different than expected during 2023.
[2] Actuarial loss from payment of COLAs higher than the 2.75% COLA assumption (based on actual CPI of 3.50%, 3.00% COLA expected to be paid April 1st 2024, 2025 and 2026, for members without COLA Banks as of April 1, 2024).
[3] The increase in total payroll for RG #2 was 7.9%.
[4] Includes an adjustment to reflect 18-month delay between date of valuation and date of rate implementation.
[5] Effect of other experience (gains)/losses for RG #3 includes a 0.96% increase due to earlier than expected active retirements.
[6] Includes the effect of adjusting the rate to normal cost for RG#3, which was fully funded as of December 31, 2023. Under CalPEPRA, the employer's contribution rate cannot be less than the normal cost unless the funded ratio is over 120% and other conditions in CalPEPRA are met.
[7] The changes in assumed retirement rates had the largest impact for RG #2 due to their higher liability volatility ratio.
[8] For Rates Groups that are fully funded as of December 31, 2023, the increase in the UAAL rate due to changes in actuarial assumptions is 0.64% for RG #3, offset by the adjustment discussed in footnote 6. The resulting net impact of the changes in actuarial assumptions for RG #3 is 0.25%.

Section 4: Actuarial Valuation Basis

The reconciliation of the employer contribution rates for the General Rate Groups #9 to #12 are as follows:

Item		RG #9	RG #10	RG #11	RG #12
1.	Average recommended employer contribution as of December 31, 2022	11.93%	22.82%	14.86%	12.75%
2.	**Changes due to:**				
a.	Investment return greater than expected after asset smoothing	(0.46%)	(0.46%)	(0.39%)	(0.63%)
b.	Actual contributions (more)/less than expected[1]	(0.16%)	(0.02%)	0.14%	0.02%
c.	Additional UAAL contributions for OCFA	0.00%	0.00%	0.00%	0.00%
d.	Individual salary increases (less)/greater than expected[2]	0.26%	(0.05%)	(1.49%)	(0.43%)
e.	COLA increases greater than expected in 2024[3]	0.04%	0.04%	0.01%	0.01%
f.	Amortizing prior year's UAAL over a (larger)/smaller than expected total payroll	0.00%	(0.13%)	0.09%	0.00%
g.	Other net experience (gain)/loss[4,5]	0.91%	0.18%	0.08%	1.14%
h.	Changes in actuarial assumptions[6]	0.56%	0.76%	0.93%	0.72%
i.	**Total change Sum of 2a through 2h**	**1.15%**	**0.32%**	**(0.63%)**	**0.83%**
3.	**Average recommended employer contribution as of December 31, 2023 1 + 2i**	**13.08%**	**23.14%**	**14.23%**	**13.58%**

[1] Includes impact of difference between actual and expected normal cost and UAAL contributions due to actual payroll different than expected during 2023.

[2] The average individual salary increase for continuing actives in RG #11 was 2.6%.

[3] Actuarial loss from payment of COLAs higher than the 2.75% COLA assumption (based on actual CPI of 3.50%, 3.00% COLA expected to be paid April 1st 2024, 2025 and 2026, for members without COLA Banks as of April 1, 2024).

[4] Includes an adjustment to reflect 18-month delay between date of valuation and date of rate implementation.

[5] Includes the effect of adjusting the rate to normal cost for RG#9 and RG#12, which were fully funded as of December 31, 2023. Under CalPEPRA, the employer's contribution rate cannot be less than the normal cost unless the funded ratio is over 120% and other conditions in CalPEPRA are met.

[6] For Rates Groups that are fully funded as of December 31, 2023, the increase in the UAAL rate due to changes in actuarial assumptions of 0.33% and 0.14% for RG #9 and RG #12, respectively, are offset by the adjustment discussed in footnote 5. The resulting net impact of the changes in actuarial assumptions for RG #9 and RG #12 are 0.23% and 0.58%, respectively.

Section 4: Actuarial Valuation Basis

The reconciliation of the employer contribution rates for the Safety Rate Groups are as follows:

	Item	RG #6	RG #7	RG #8
1.	Average recommended employer contribution as of December 31, 2022	58.07%	59.90%	34.90%
2.	**Changes due to:**			
a.	Investment return greater than expected after asset smoothing	(0.89%)	(0.74%)	(0.65%)
b.	Actual contributions (more)/less than expected[1]	0.62%	0.17%	(0.11%)
c.	Additional UAAL contributions for OCFA	0.00%	0.00%	(0.58%)
d.	Individual salary increases (less)/greater than expected	(0.23%)	(0.19%)	0.10%
e.	COLA increases greater than expected in 2024[2]	0.09%	0.10%	0.06%
f.	Amortizing prior year’s UAAL over a (larger)/smaller than expected total payroll[3]	1.14%	(1.14%)	(0.38%)
g.	Other net experience (gain)/loss[4,5]	0.34%	0.11%	1.07%
h.	Changes in actuarial assumptions[6]	1.17%	(0.03%)	(0.13%)
i.	**Total change Sum of 2a through 2h**	**2.24%**	**(1.72%)**	**(0.62%)**
3.	**Average recommended employer contribution as of December 31, 2023 1 + 2i**	**60.31%**	**58.18%**	**34.28%**

[1] Includes impact of difference between actual and expected normal cost and UAAL contributions due to actual payroll different than expected during 2023.

[2] Actuarial loss from payment of COLAs higher than the 2.75% COLA assumption (based on actual CPI of 3.50%, 3.00% COLA expected to be paid April 1st 2024, 2025 and 2026, for members without COLA Banks as of April 1, 2024).

[3] Similar to the observation at the 12/31/2022 valuation, RG #6 experienced a decrease in active headcount (2.8%) and a decrease in total payroll (0.2%) while RG #7 and RG #8 experienced increases in active headcounts (4.6% and 1.9%, respectively) and total payrolls (6.2% and 6.1%, respectively.)

[4] Includes an adjustment to reflect 18-month delay between date of valuation and date of rate implementation.

[5] Effect of other experience losses for RG #8 includes an increase of 0.82% due to more active disabilities than expected and the approvals of disability retirements from service retirement.

[6] The increase for RG #6 is primarily due to the use of individual (instead of the aggregate) version of the entry age cost allocation method to determine the normal cost of the COLA benefits, as adopted by the Board for the experience study.

Section 4: Actuarial Valuation Basis

Exhibit 6: Reconciliation of UAAL by rate group

The reconciliation of UAAL for the General Rate Groups #1 to #5 are as follows ($ in '000s):

Line Description	RG #1	RG #2	RG #3	RG #5
1. Unfunded actuarial accrued liability at beginning of year	$53,112	$3,178,711	$(25,368)	$189,122
2. Normal cost at middle of year	19,661	276,789	18,367	26,931
3. Expected employer and member contributions	(23,235)	(621,013)	(18,367)	(48,297)
4. Interest to end of year	3,580	211,844	(1,776)	12,636
5. Expected unfunded actuarial accrued liability at end of year Sum of 1 though 4	**$53,118**	**$3,046,331**	**$(27,144)**	**$180,392**
6. Changes due to:				
a. Investment return greater than expected, after asset smoothing	$(3,790)	$(83,687)	$(6,946)	$(7,357)
b. Actual contributions (more)/less than expected under funding policy	413	25,540	973	3,206
c. Additional UAAL contributions from OCFA, and scheduled payments[1] from DOE and U.C.I.	(3,414)	0	0	0
d. Individual salary increases (less)/greater than expected	(2,006)	78,184	3,995	11,957
e. COLA increases greater than expected in 2024[2]	166	6,920	563	522
f. Other net experience (gain)/loss[3]	(5,704)	11,771	12,756	(3,936)
g. Change in actuarial assumptions	1,960	123,452	7,392	7,669
h. Total changes Sum of 6a through 6g	**$(12,375)**	**$162,180**	**$18,733**	**$12,061**
7. Unfunded actuarial accrued liability at end of year 5 + 6h	**$40,743**	**$3,208,511**	**$(8,411)**	**$192,453**

[1] Segal provided separate letters for DOE and U.C.I. with regard to their required UAAL contributions based on the Board's Declining Employer Payroll policy. These contributions have not been reflected in the contribution rates developed in this valuation. Segal also provided separate letters for O.C. Vector Control and Cypress Recreation and Parks with regard to their updated withdrawal liabilities based on the Board's Withdrawing Employer Policy, although no contributions were made by O.C. Vector Control and CRPD during the past calendar year. CRPD had no withdrawal liability as of December 31, 2022.

[2] Actuarial loss from payment of COLAs higher than the 2.75% COLA assumption (based on actual CPI of 3.50%, 3.00% COLA expected to be paid April 1st 2024, 2025 and 2026, for members without COLA Banks as of April 1, 2024).

[3] Other differences in actual versus expected experience including (but not limited to) mortality, retirement, disability and termination experience. In particular, $11,038,000 of other losses for RG #3 is due to active retirement experience.

Section 4: Actuarial Valuation Basis

The reconciliation of UAAL for the General Rate Groups #9 to #12 are as follows ($ in ‘000s):

Line Description		RG #9	RG #10	RG #11	RG #12
1.	Unfunded actuarial accrued liability at beginning of year	$(3,069)	$22,526	$572	$(1,128)
2.	Normal cost at middle of year	1,570	8,109	460	306
3.	Expected employer and member contributions	(1,570)	(11,712)	(510)	(306)
4.	Interest to end of year	(215)	1,479	41	(79)
5.	**Expected unfunded actuarial accrued liability at end of year Sum of 1 though 4**	**$3,284)**	**$20,402**	**$563**	**$(1,207)**
6.	Changes due to:				
	a. Investment return greater than expected, after asset smoothing	$(488)	$(2,256)	$(109)	$(104)
	b. Actual contributions (more)/less than expected under funding policy	(174)	(123)	40	4
	c. Additional UAAL contributions from OCFA, and scheduled payments from DOE and U.C.I.	0	0	0	0
	d. Individual salary increases (less)/greater than expected	279	(235)	(412)	(71)
	e. COLA increases greater than expected in 2024[1]	45	174	2	2
	f. Other net experience (gain)/loss[2]	1,055	823	113	(1,064)
	g. Change in actuarial assumptions	347	2,135	150	23
	h. Total changes Sum of 6a through 6g	**$1,064**	**$518**	**$(216)**	**$(1,210)**
7.	**Unfunded actuarial accrued liability at end of year 5 + 6h**	**$(2,220)**	**$20,920**	**$347**	**$(2,417)**

[1] Actuarial loss from payment of COLAs higher than the 2.75% COLA assumption (based on actual CPI of 3.50%, 3.00% COLA expected to be paid April 1st 2024, 2025 and 2026, for members without COLA Banks as of April 1, 2024).

[2] Other differences in actual versus expected experience including (but not limited to) mortality, retirement, disability and termination experience.

Section 4: Actuarial Valuation Basis

The reconciliation of UAAL for the Safety Rate Groups are as follows ($ in '000s):

	Line Description	RG #6	RG #7	RG #8
1.	Unfunded actuarial accrued liability at beginning of year	$175,151	$969,473	$135,908
2.	Normal cost at middle of year	21,774	115,402	65,417
3.	Expected employer and member contributions	(42,403)	(224,308)	(87,283)
4.	Interest to end of year	11,842	64,663	8,624
5.	**Expected unfunded actuarial accrued liability at end of year Sum of 1 though 4**	**$166,364**	**$925,230**	**$122,666**
6.	Changes due to:			
	a. Investment return greater than expected, after asset smoothing	$(6,885)	$(30,944)	$(15,990)
	b. Actual contributions (more)/less than expected under funding policy	4,832	7,029	(2,799)
	c. Additional UAAL contributions from OCFA and CRPD, and scheduled payments from DOE and U.C.I.	0	0	(14,229)
	d. Individual salary increases (less)/greater than expected	(1,802)	(7,892)	2,358
	e. COLA increases greater than expected in 2024[1]	669	4,071	1,526
	f. Other net experience (gain)/loss[2]	3,080	15,056	28,651
	g. Change in actuarial assumptions	1,185	765	(111)
	h. Total changes Sum of 6a through 6g	**$1,079**	**$(11,915)**	**$(594)**
7.	**Unfunded actuarial accrued liability at end of year 5 + 6h**	**$167,443**	**$913,315**	**$122,072**

[1] Actuarial loss from payment of COLAs higher than the 2.75% COLA assumption (based on actual CPI of 3.50%, 3.00% COLA expected to be paid April 1st 2024, 2025 and 2026, for members without COLA Banks as of April 1, 2024).

[2] Other differences in actual versus expected experience including (but not limited to) mortality, retirement, disability and termination experience. In particular, $20,182,000 of other losses for RG #8 is due to active disability experience and the approvals of disability retirement from service retirement.

Appendix A: Definition of Pension Terms

The following list defines certain technical terms for the convenience of the reader:

Term	Definition
Actuarial accrued liability for actives	The equivalent of the accumulated normal costs allocated to the years before the valuation date.
Actuarial accrued liability for retirees and beneficiaries	Actuarial present value of lifetime benefits to existing retirees and beneficiaries. This sum takes account of life expectancies appropriate to the ages of the annuitants and the interest that the sum is expected to earn before it is entirely paid out in benefits.
Actuarial cost method	A procedure allocating the actuarial present value of future benefits to various time periods; a method used to determine the normal cost and the actuarial accrued liability that are used to determine the actuarially determined contribution.
Actuarial gain or loss	A measure of the difference between actual experience and that expected based upon a set of actuarial assumptions, during the period between two actuarial valuation dates. To the extent that actual experience differs from that assumed, actuarial accrued liabilities emerge which may be the same as forecasted or may be larger or smaller than projected. Actuarial gains are due to favorable experience, e.g., assets earn more than projected, salary increases are less than assumed, members retire later than assumed, etc. Favorable experience means actual results produce actuarial liabilities not as large as projected by the actuarial assumptions. On the other hand, actuarial losses are the result of unfavorable experience, i.e., actual results yield actuarial liabilities that are larger than projected.
Actuarially equivalent	Of equal actuarial present value, determined as of a given date and based on a given set of actuarial assumptions.
Actuarial present value	The value of an amount or series of amounts payable or receivable at various times, determined as of a given date by the application of a particular set of actuarial assumptions. Each such amount or series of amounts is: Adjusted for the probable financial effect of certain intervening events (such as changes in compensation levels, marital status, etc.) Multiplied by the probability of the occurrence of an event (such as survival, death, disability, withdrawal, etc.) on which the payment is conditioned, and Discounted according to an assumed rate (or rates) of return to reflect the time value of money.

Appendix A: Definition of Pension Terms

Term	Definition
Actuarial present value of future benefits	The actuarial present value of benefit amounts expected to be paid at various future times under a particular set of actuarial assumptions, taking into account such items as the effect of advancement in age, anticipated future compensation, and future service credits. The actuarial present value of future benefits includes the liabilities for active members, retired members, beneficiaries receiving benefits, and inactive members entitled to either a refund of member contributions or a future retirement benefit. Expressed another way, it is the value that would have to be invested on the valuation date so that the amount invested plus investment earnings would provide sufficient assets to pay all projected benefits and expenses when due.
Actuarial valuation	The determination, as of a valuation date, of the Normal cost, actuarial accrued liability, actuarial value of assets, and related actuarial present values for a plan, as well as actuarially determined contributions.
Actuarial value of assets	The value of the Plan's assets as of a given date, used by the actuary for valuation purposes. This may be the market or fair value of plan assets, but commonly plans use a smoothed value in order to reduce the year-to-year volatility of calculated results, such as the funded ratio and the actuarially determined contribution.
Actuarially determined	Values that have been determined utilizing the principles of actuarial science. An actuarially determined value is derived by application of the appropriate actuarial assumptions to specified values determined by provisions of the Plan.
Actuarially determined contribution	The employer's contributions, expressed as a dollar amount or a percentage of covered plan compensation, determined under the Plan's funding policy. The actuarially determined contribution consists of the employer normal cost and the amortization payment.
Amortization method	A method for determining the amortization payment. The most common methods used are level dollar and level percentage of payroll. Under the level dollar method, the amortization payment is one of a stream of payments, all equal, whose actuarial present value is equal to the unfunded actuarial accrued liability. Under the level percentage of pay method, the amortization payment is one of a stream of increasing payments, whose actuarial present value is equal to the unfunded actuarial accrued liability. Under the level percentage of pay method, the stream of payments increases at the assumed rate at which total covered payroll of all active members will increase.
Amortization payment	The portion of the pension plan contribution, or actuarially determined contribution, that is intended to pay off the unfunded actuarial accrued liability.
Assumptions or actuarial assumptions	The estimates upon which the cost of the Plan is calculated, including: **Investment return** — the rate of investment yield that the Plan will earn over the long-term future; **Mortality rates** — the rate or probability of death at a given age for employees and retirees; **Retirement rates** — the rate or probability of retirement at a given age or service; **Disability rates** — the rate or probability of disability retirement at a given age; **Withdrawal rates** — the rate or probability at which employees of various ages are expected to leave employment for reasons other than death, disability, or retirement; **Salary increase rates** — the rates of salary increase due to inflation, real wage growth and merit and promotion increases.

Appendix A: Definition of Pension Terms

Term	Definition
Closed amortization period	A specific number of years that is counted down by one each year, and therefore declines to zero with the passage of time. For example, if the amortization period is initially set at 20 years, it is 19 years at the end of one year, 18 years at the end of two years, etc. See "open amortization period."
Decrements	Those causes/events due to which a member's status (active-inactive-retiree-beneficiary) changes, that is: death, retirement, disability, or withdrawal.
Defined benefit plan	A retirement plan in which benefits are defined by a formula based on the member's compensation, age and/or years of service.
Defined contribution plan	A retirement plan, such as a 401(k) plan, a 403(b) plan, or a 457 plan, in which the contributions to the plan are assigned to an account for each member, the plan's earnings are allocated to each account, and each member's benefits are a direct function of the account balance.
Employer normal cost	The portion of the normal cost to be paid by the employer. This is equal to the normal cost less expected member contributions.
Experience study	A periodic review and analysis of the actual experience of the Plan that may lead to a revision of one or more actuarial assumptions. Actual rates of decrement and salary increases are compared to the actuarially assumed values and modified based on recommendations from the Actuary.
Funded ratio	The ratio of the valuation value of assets to the actuarial accrued liability. Plans sometimes also calculate a market funded ratio, using the market value of assets, rather than the valuation value of assets.
GASB 67 and GASB 68	Governmental Accounting Standards Board (GASB) Statements No. 67 and No. 68. These are the governmental accounting standards that set the accounting rules for public retirement systems and the employers that sponsor or contribute to them. Statement No. 68 sets the accounting rules for the employers that sponsor or contribute to public retirement systems, while Statement No. 67 sets the rules for the systems themselves.
Investment return	The rate of earnings of the Plan from its investments, including interest, dividends and capital gain and loss adjustments, computed as a percentage of the average value of the fund. For actuarial purposes, the investment return often reflects a smoothing of the capital gains and losses to avoid significant swings in the value of assets from one year to the next.
Negative amortization	Negative amortization is a result of an increase in the unfunded actuarial accrued liability when the amortization payment is less than the interest accrued on the unfunded actuarial accrued liability.
Net pension liability	The net pension liability is equal to the total pension liability minus the plan fiduciary net position.
Normal cost	The portion of the actuarial present value of future benefits and expenses, if applicable, allocated to a valuation year by the actuarial cost method. Any payment with respect to an unfunded actuarial accrued liability is not part of the normal cost (see "amortization payment"). For pension plan benefits that are provided in part by employee contributions, normal cost refers to the total of member contributions and employer normal cost unless otherwise specifically stated.

Appendix A: Definition of Pension Terms

Term	Definition
Open amortization period	An open amortization period is one which is used to determine the amortization payment but which does not change over time. If the initial period is set as 30 years, the same 30-year period is used in each future year in determining the amortization period.
Plan fiduciary net position	Market value of assets.
Service costs	The portions of the actuarial present value of projected benefit payments that are attributed to valuation years.
Total pension liability	The actuarial accrued liability under the entry age normal cost method and based on the blended discount rate as described in GASB 67 and 68.
Unfunded actuarial accrued liability	The excess of the actuarial accrued liability over the valuation value of assets. This value may be negative, in which case it may be expressed as a negative unfunded actuarial accrued liability, also called the funding surplus or an overfunded actuarial accrued liability.
Valuation date or actuarial valuation date	The date as of which the value of assets is determined and as of which the Actuarial Present Value of Future Benefits is determined. The expected benefits to be paid in the future are discounted to this date.
Valuation value of assets	The actuarial value of assets reduced by the value of non-valuation reserves.

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Memorandum

DATE: June 17, 2024

TO: Members, Board of Retirement

FROM: Brenda Shott, Assistant CEO, Finance and Internal Operations; Tracy Bowman, Director of Finance

SUBJECT: **2023 AUDITED FINANCIAL STATEMENTS AND ANNUAL COMPREHENSIVE FINANCIAL REPORT**

Recommendation

Approve the following recommendations presented to the Audit Committee during a meeting held on June 6, 2024:

1. Approve OCERS' audited financial statements for the year ended December 31, 2023
2. Direct staff to finalize OCERS' 2023 Annual Comprehensive Financial Report (Annual Report)
3. Approve the Governmental Accounting Standards Board (GASB) Statement 67 Actuarial Valuation as of December 31, 2023
4. Receive and file Moss Adams LLP's (Moss Adams) "OCERS' Report to the Audit Committee for the Year Ended December 31, 2023" and their "Independent Auditor's Report on Internal Control Over Financial Reporting and on Compliance and Other Matters Based on an Audit of Financial Statements Performed in Accordance with *Government Auditing Standards*."

Background/Discussion

The attached draft of OCERS' 2023 Annual Report, including the audited financial statements and related notes for the year ended December 31, 2023, are in substantial final form and include the unmodified (clean) audit opinion from Moss Adams, OCERS' independent auditors. The audited financial statements and related notes are included in the Financial Section of OCERS' 2023 Annual Report.

The attached Governmental Accounting Standards Board (GASB) Statement 67 Actuarial Valuation as of December 31, 2023, is used for reporting purposes and is separate and distinct from the funding actuarial valuation. This valuation has been audited by Moss Adams and contains necessary information and schedules that have been incorporated into Note 8 and the Required Supplementary Information sections of OCERS' 2023 Annual Report in compliance with GASB Statement No. 67, *Financial Reporting for Pension Plans*.

As part of the normal course of an annual financial statement audit, Moss Adams has issued their "Report to the Audit Committee" that includes the required communications of the independent auditors, comments and recommendations based on their 2023 audit of OCERS. Moss Adams has also issued an "Independent Auditor's Report on Internal Control over Financial Reporting and on Compliance and Other Matters Based on an Audit of Financial Statements, Performed in Accordance with *Government Auditing Standards*."

Moss Adams presented their reports to the Audit Committee Meeting on June 6, 2024, and provided a detailed verbal report on their audit. Due to the short turn-around time between the Audit Committee meeting and the Regular Board meeting, those minutes are not yet available.

Memorandum

California's Government Code Section 7504 requires all state and local retirement agencies, including OCERS, to submit annual financial information to the State Controller within six months of the end of the fiscal year end. The State Controller's Office (SCO) has an automated system to allow retirement systems to provide the prescribed report containing specific financial and plan information to the SCO (this report is referred to as the State Controller's Report). In addition to the State Controller's Report, OCERS is also required to submit the annual audited financial statements and the most current funding actuarial valuation. Once the Board approves the financial statements for the year ended December 31, 2023, staff will file a timely submission of the State Controller's Report and submit OCERS' 2023 Annual Report and the Actuarial Valuation (for funding purposes) as of December 31, 2023, by the deadline of June 30, 2024.

As required by Government Code Section 315971.1, OCERS Chief Executive Officer will file in the office of the County Auditor and with the Board of Supervisors a sworn statement which will exhibit the financial condition of OCERS at the close of the preceding calendar year and its financial transactions for the year ending on December 31, 2023.

Submitted by:	Approved by:
TB - Approved	BS - Approved
Tracy Bowman	Brenda Shott
Director of Finance	Asst. CEO, Finance & Internal Operations

ORANGE COUNTY OCERS EMPLOYEES RETIREMENT SYSTEM

2023 Financial Statement Audit

Presented on June 17, 2024

Brenda Shott and Tracy Bowman

Recommendation

Approve the following recommendations presented to the Audit Committee during a meeting held on June 6, 2024:

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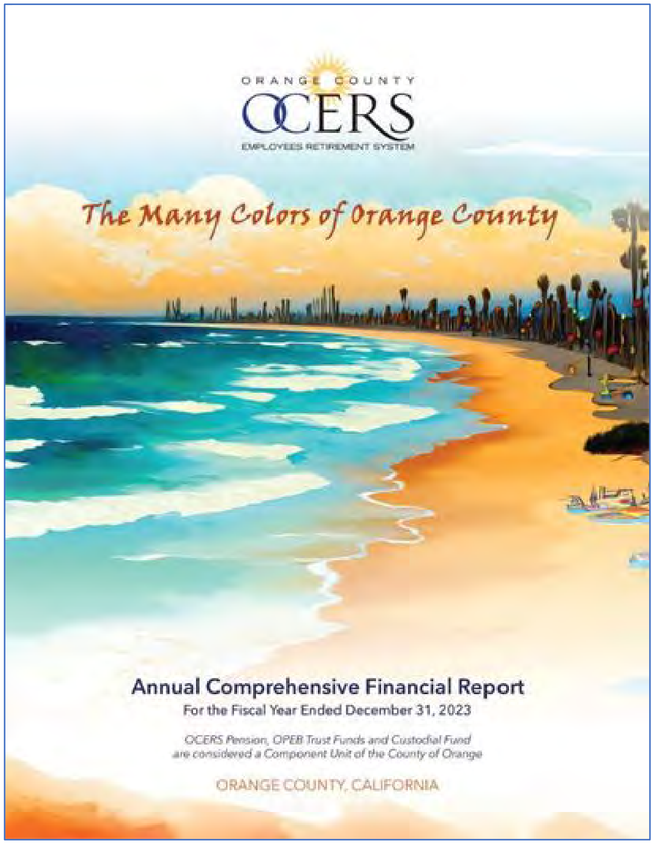
2023 Annual Report

- Third year audit was performed by Moss Adams
- Preliminary unaudited financial statements provided to the Board in March
    - ➢ No material changes reflected in final audited version included in the Annual Report
- Theme: **The Many Colors of Orange County**
- No new GASB pronouncements adopted; GASB Statement No. 96, *Subscription-Based Information Technology Arrangements (SBITA),* was evaluated, but determined to have an insignificant impact to OCERS financials



Financial Highlights – MD&A

- Net position in 2023 totaled **$22.4 billion**, an **increase of $2.2 billion** or 10.6% from the prior year
- Total additions increased from -$1.1 billion in 2022 to $3.4 billion in 2023
  - ➢ Net investment income of $2.4 billion or 11.4% vs. a loss of -$2.1 billion, or -7.8% in the prior year
  - ➢ Employee and employer contributions of approximately $1.0 billion
- Total deductions increased 6.8% from $1.2 billion in 2022 to $1.3 billion in 2023
  - ➢ Member pension benefit payments increased 7.6% from $1.1 billion in 2022 to $1.2 billion in 2023

Table 2 : Changes in Fiduciary Net Position
For the Years Ended December 31, 2023 and 2022
(Dollars in Thousands)

	12/31/2023	12/31/2022	Increase / (Decrease)	Percentage Change
Additions				
Employer Pension Contributions	$ 749,776	$ 719,691	$ 30,085	4.2%
Employer Health Care Contributions	26,245	44,821	(18,576)	-41.4%
Employee Pension Contributions	277,455	269,999	7,456	2.8%
Employer OPEB Contributions	794	655	139	21.2%
Net Investment Income/(Loss)	2,384,772	(2,105,160)	4,489,932	213.3%
Total Additions	**3,439,042**	**(1,069,994)**	**4,509,036**	**421.4%**
Deductions				
Participant Benefits - Pension	1,200,307	1,115,918	84,389	7.6%
Participant Benefits - Health Care	43,994	43,671	323	0.7%
Death Benefits	1,190	1,558	(368)	-23.6%
Member Withdrawals and Refunds	14,751	22,239	(7,488)	-33.7%
Employer OPEB Payments	1,531	1,466	65	4.4%
Administrative Expenses - Pension	29,056	23,546	5,510	23.4%
Administrative Expenses - Health Care and Employer	70	68	2	2.9%
Total Deductions	**1,290,899**	**1,208,466**	**82,433**	**6.8%**
Increase/(Decrease) in Net Position Restricted for Pension, Other Postemployment Benefits and Employer	2,148,143	(2,278,460)	4,426,603	194.3%
Net Position Restricted for Pension, Other Postemployment Benefits and Employer				
Beginning of the Year	20,210,967	22,489,427		
End of the Year	$ 22,359,110	$ 20,210,967		

Orange County Employees Retirement System

Financial Highlights – MD&A (continued)

Table 3: Membership Data
As of December 31, 2023 and 2022

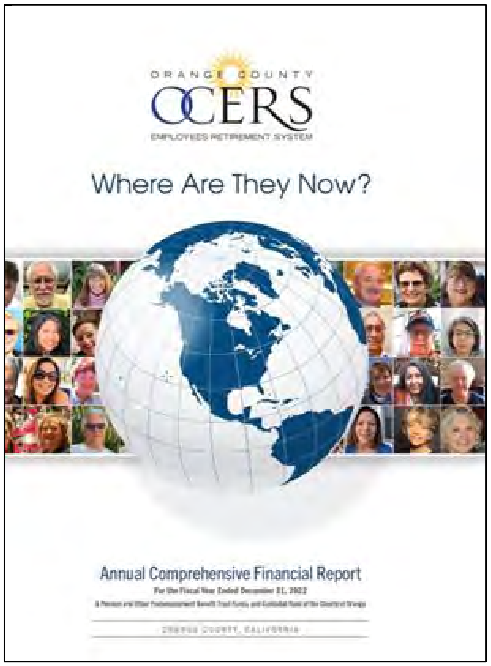
	12/31/2023	12/31/2022	Increase/ (Decrease)	Percentage Change
Active Members	22,782	22,061	721	3.3%
Retired Members	21,283	20,678	605	2.9%
Deferred Members	8,579	7,894	685	8.7%
Total Membership	52,644	50,633	2,011	4.0%

- Increases in member pension benefit payments can be attributed to a net increase in the number of retirees receiving a benefit
  - Number of retirees increased by 2.9% or 605, for a total of 21,283 payees as of December 31, 2023
  - The average annual benefit paid to retired members and beneficiaries during 2023 was $56,397 vs. $53,966 in 2022, an increase of 4.5%

Financial Highlights – MD&A (continued)

- Annual Report includes information from the December 31, 2022 funding valuation, which is the most currently available information at the time the Annual Report is completed
  - Funding status based on actuarial value of assets (which smooths market gains and losses over five years) was 81.5% versus 77.0% if market gains and losses were recognized immediately
  - In comparison, in the December 31, 2023 funding valuation to be presented at the June Board meeting, the funding status based on actuarial value of assets was 82.6% versus 80.8% if market gains and losses were recognized immediately

2022 Annual Report Awards



GASB 67

- GASB 67 Valuation is prepared by Segal for ***reporting purposes only***
  - ➢ Information is incorporated into the Notes (Note 8) and Required Supplementary Information sections of the Annual Report
  - ➢ Total Pension Liability (TPL) is based on rolling forward the TPL from the 2022 valuation to the December 31, 2023 measurement date
- 2023 Net Pension Liability (NPL) decreased from $5.4 billion to $4.8 billion, primarily due to higher-than-expected returns
  - ➢ 2023 NPL is amount used in GASB 68 proportionate share calculation

Conclusion

Questions?

Thank you!

Brenda Shott

Assistant CEO, Finance and Internal Operations

(714) 558-6201

bshott@ocers.org

Tracy Bowman

Director of Finance

(714) 558-6206

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ORANGE COUNTY OCERS EMPLOYEES RETIREMENT SYSTEM

www.ocers.org

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ORANGE COUNTY OCERS EMPLOYEES RETIREMENT SYSTEM

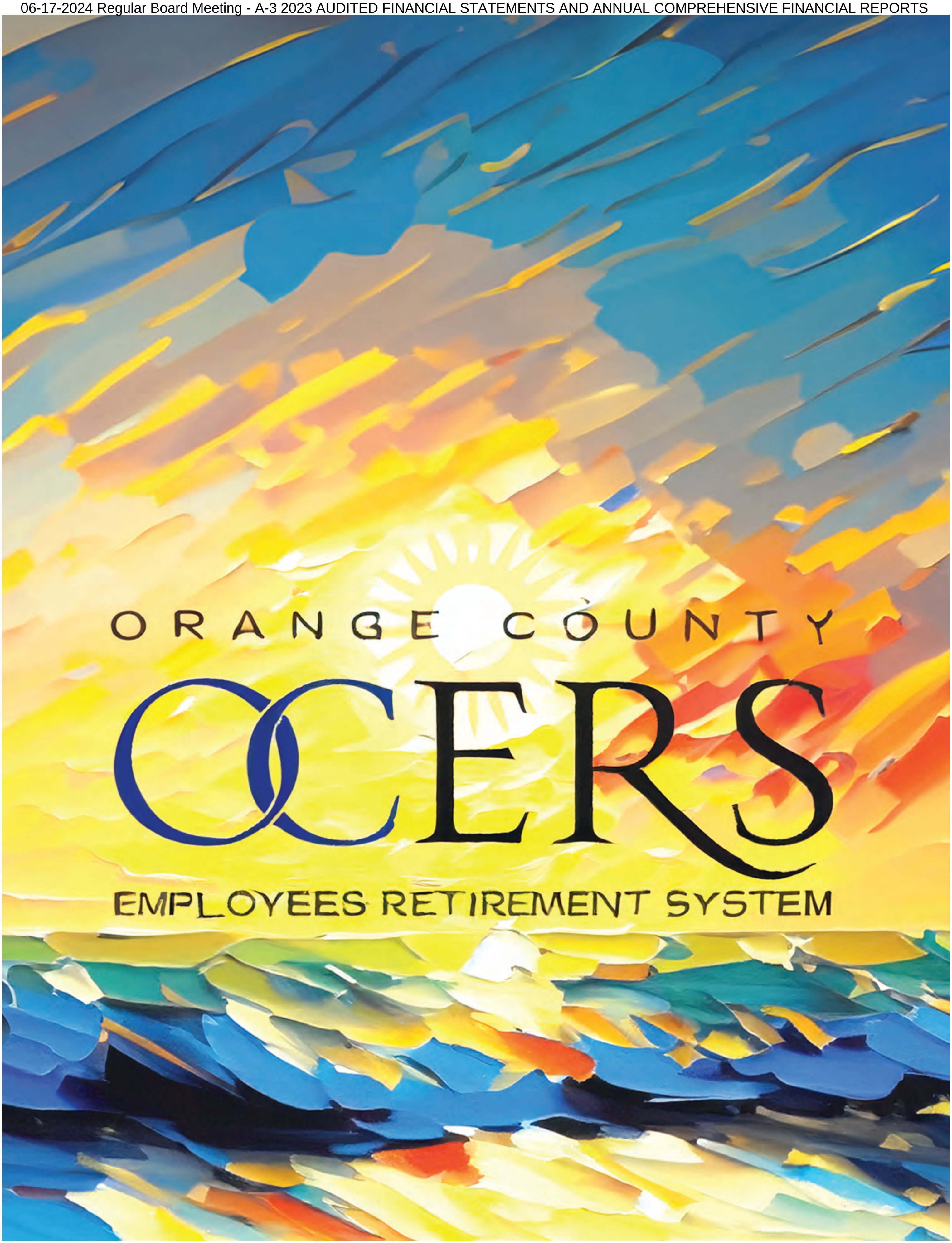
The Many Colors of Orange County

Annual Comprehensive Financial Report

For the Fiscal Year Ended December 31, 2023

OCERS Pension, OPEB Trust Funds and Custodial Fund are considered a Component Unit of the County of Orange

ORANGE COUNTY, CALIFORNIA


ORANGE COUNTY
OCERS
EMPLOYEES RETIREMENT SYSTEM

Orange County Employees Retirement System

ANNUAL COMPREHENSIVE FINANCIAL REPORT

For the Year Ended December 31, 2023

Prepared by: The Finance Department of the
Orange County Employees Retirement System

Issued by: Steve Delaney, Chief Executive Officer
Brenda Shott, Assistant CEO of Finance and Internal Operations

Orange County Employees Retirement System
2223 East Wellington Avenue, Suite 100
Santa Ana, CA 92701-3161

Mailing Address:
P.O. Box 1229
Santa Ana, CA 92702

714.558.6200
www.ocers.org

OCERS Pension, OPEB Trust Funds and Custodial Fund
are considered a Component Unit of the County of Orange

ORANGE COUNTY
OCERS
EMPLOYEES RETIREMENT SYSTEM

Mission

We provide secure retirement and disability benefits with the highest standards of excellence.

Vision

To be a trusted partner providing premier pension administration, distinguished by consistent, quality member experiences and prudent financial stewardship.

Values

Open and Transparent

Commitment to Superior Service

Engaged and Dedicated Workforce

Reliable and Accurate

Secure and Sustainable

Table of Contents

Section 1
Introductory

County of Orange

Contrary to popular belief, the name "Orange County" originated not from the region's citrus groves, but from a desire to establish a separate county in Southern California. In the late 1800s, Anaheim spearheaded efforts to break away from Los Angeles County, seeking both city incorporation and county formation. While the City of Anaheim was successfully incorporated in 1870, attempts to create Anaheim County faced opposition in the State Legislature.

Despite setbacks, the idea of county division persisted, with support from growing communities like Santa Ana and Tustin. In 1872, at a meeting in Gallatin (now part of Downey), the name "Orange County" was proposed for the new venture, reflecting the semi-tropical paradise image of Southern California. Although oranges were not yet the dominant crop in the area, the name was chosen for its appealing sound and association with the region's idealized Mediterranean climate. Efforts to establish Orange County continued through subsequent years, ultimately leading to its official formation in 1889 as a distinct county within California.

Letter of Transmittal

ORANGE COUNTY OCERS EMPLOYEES RETIREMENT SYSTEM

Active Participating Employers:

City of San Juan Capistrano

County of Orange

Orange County Cemetery District

Orange County Children & Families Commission

Orange County Employees Retirement System

Orange County Fire Authority

Orange County In-Home Supportive Services Public Authority

Orange County Local Agency Formation Commission

Orange County Public Law Library

Orange County Sanitation District

Orange County Transportation Authority

Superior Court of California, County of Orange

Transportation Corridor Agencies

June 6, 2024

Members of the OCERS Board of Retirement:

We are pleased to present the Annual Comprehensive Financial Report (Annual Report) of the Orange County Employees Retirement System (OCERS or System) as of and for the year ended December 31, 2023. The information contained in this report is intended to provide a detailed overview of the System's financial and investment results for the year ended December 31, 2023. It also includes information from the current actuarial valuations as of December 31, 2022.

OCERS HISTORY, PARTICIPANTS, AND SERVICES

Established in 1945, OCERS is a public retirement system that has provided service retirement, disability, death and survivor benefits to its members for 78 years, administered in accordance with the County Employees Retirement Law of 1937 (CERL) and the California Public Employees' Pension Reform Act of 2013 (PEPRA).

Pursuant to certain provisions of CERL, OCERS is an independent governmental unit within the County of Orange, with a separate operating budget and professional staff. The California Constitution gives the Board of Retirement full authority over the administration of the System, which includes administering plan benefits for over 52,000 members, managing $22.4 billion in net assets, and serving 13 participating employers. A complete listing of both active and inactive employers as of December 31, 2023, can be found on page 30, Section 2 of the Annual Report, Under Note 1: Plan Descriptions.

In 2023, OCERS continued its tradition of exceptional member service while embracing a return to normalcy. Many of our partner employers resumed hosting in-person health and benefits fairs and inviting us to deliver live presentations at their headquarters or satellite offices. It was a delight to reconnect with our members countywide, sharing stories of our enjoyable experiences with loved ones throughout Orange County.

This year's Annual Report theme, "The Many Colors of Orange County," celebrates our county's diverse and stunning landscapes. We eagerly welcome each new day with renewed appreciation, exploring the vibrant hues of our shared surroundings alongside Orange County employers, members, stakeholders, and the public. What a magnificent tapestry of colors this county boasts!

MAJOR INITIATIVES AND SIGNIFICANT EVENTS

Vision 2030

During 2023, OCERS continued to make progress with the Vision 2030 initiative, the long-term strategic goal of leveraging technology and we are actively pursuing opportunities using some form of Robotic Process Automation (RPA), Machine Learning (ML) and/or Artificial Intelligence (AI). In addition, OCERS has hired a vendor to perform business procedure documentation services to assist staff with a comprehensive standardized library of business processes and procedures across the organization. This will ensure consistent application of rules and procedures by OCERS staff, as well as lay a foundation for programming a new pension administration system that will support Vision 2030.

Letter of Transmittal

(continued)

Staffing

At the December 11, 2023, Board meeting, the Board of Retirement approved the addition of seven new positions as part of the 2024 Staffing Plan. These positions were distributed among multiple departments within the agency. The goal is to tackle forthcoming challenges, including supporting a growing number of retirees, navigating the complexities of our investment portfolio, and enhancing service levels for all stakeholders.

Key Staff Additions

In 2023, OCERS made significant organizational changes, appointing two new positions: Kwame Addo as Chief Compliance Officer and Will Tsao as Director of the Enterprise Project Management Office. Additionally, we elevated the Communications Manager role to Director of Communications and brought Mary-Joy Coburn on board to fulfill this new responsibility. Furthermore, Manuel Serpa, previously Deputy Counsel, was promoted to General Counsel.

Communications

In the fourth quarter of 2023, a new communications team was assembled and swiftly mobilized. By year-end, the team had accomplished a multitude of tasks: enhanced branding across all agency materials; crafted a revamped social media policy; amplified OCERS' online presence to bolster public relations and draw in new talent, increased social media engagement by 15%, orchestrated countless events and videos showcasing the organization's vibrancy and diversity. The OCERS' Communications Team also conducted member surveys regarding the 'At Your Service Newsletter.' Subsequently, they launched an updated edition, incorporating feedback such as integrating QR codes, enriching content with more videos, and featuring more informative articles tailored for all members.

Alameda Decision

In late July 2020, the California Supreme Court issued an opinion in what is known as the “Alameda” case (Alameda County Deputy Sheriffs Association et al. v. Alameda County Employees Retirement Association and Board of Retirement of ACERA (S247095)). This decision impacted how OCERS and other public pension systems in California pay benefits to members who receive certain pay items. OCERS has no authority or discretion to calculate pension benefits in a manner inconsistent with the Supreme Court decision. Although the decision impacts only a small number of OCERS retirees, staff have continued to complete several complex and crucial tasks related to recalculating the retirement allowances of impacted retirees. Additional completed tasks include crediting or refunding overpaid employee contributions after being offset against overpayments. OCERS staff have completed an analysis of the Orange County Board of Supervisor Resolution passed in December 2022 and have determined the impact of the members included in the resolution.

FINANCIAL INFORMATION

OCERS’ management is responsible for the complete and fair presentation of the financial information in accordance with accounting principles generally accepted in the United States of America (GAAP). To the best of our knowledge, the enclosed data is accurate in all material respects and reported in a manner designed to fairly present the financial position and operating results of OCERS. Moss Adams LLP audited the accompanying basic financial statements and related disclosures and has issued an unmodified opinion in the independent auditor’s report found on page 14, Section 2 of the Annual Report. The financial audit provides reasonable assurance that OCERS’ financial statements are presented in conformity with GAAP and are free from material misstatement.

The Annual Report was prepared in accordance with GAAP and reporting guidelines set forth by the Governmental Accounting Standards Boards (GASB) and CERL. GAAP requires that management provide a narrative introduction, overview and analysis to accompany the basic financial statements in the form of management’s discussion and analysis (MD&A). This letter of transmittal is designed to complement the MD&A and should be read in conjunction with it. OCERS’ MD&A can be found immediately following the independent auditor’s report.

Letter of Transmittal

(continued)

OCERS' management is responsible for establishing a system of internal controls to safeguard assets, maintain accurate and reliable accounting records, protect member privacy, detect and prevent fraud, and provide a reasonable basis for asserting that financial statements are fairly presented. OCERS' internal controls are designed to provide reasonable, but not absolute, assurance these objectives are met. The concept of reasonable assurance recognizes that the cost of a control should not exceed the benefits likely to be derived and that the valuation of costs and benefits requires estimates and judgment by management. In addition, oversight of internal controls and operational efficiency is provided by OCERS' Audit Committee and supported by internal auditing staff.

INVESTMENT ACTIVITIES

The Board of Retirement (with the participation of the Investment Committee, OCERS' Investments Team, and Investment Consultants) has exclusive control of all investments of the System and is responsible for the establishment of investment objectives, strategies, and policies.

OCERS' Investment Policy Statement helps guide decisions that impact OCERS' investment structure with the overall objective to invest the assets of the System solely for the benefit of its members while attempting to minimize employer contributions and investment and administration costs. OCERS' Investments Team conducted 677 total meetings and virtual calls with current and prospective investment managers in 2023.

OCERS' Investment Committee adopted a new asset allocation policy in April 2023. The new asset allocation policy slightly increased the target allocations to private equity by 2%, real assets by 1%, and private income strategies by 1%, while decreasing the allocations to public equity and public income strategies by 2% each. During 2023, OCERS' Investments Team completed a custodial bank RFP, renewing a contract with their existing custodian, State Street Bank and Trust Company. The OCERS Investments Team continued to build out the co-investment portfolio within the private equity asset class to participate in potentially profitable investments without paying the usual fee structure associated with private equity funds. OCERS' Investments Team issued an RFP for secondary sale advisory services in August 2023. The secondary sale advisory services RFP is expected to be completed in the first half of 2024.

For the year ended December 31, 2023, OCERS' investment portfolio had a gain of 11.4%, net of fees. This is much higher than the long-term actuarial assumed rate of return of 7.0%. As the average years of service for a new OCERS retiree approximates 23 years for general and 22 years for safety members, our net annualized return of 6.9% over the last 20 years closely aligns with the assumed earnings rate over a similar period.

PENSION ACTUARIAL FUNDING STATUS

OCERS maintains a funding goal to establish contributions that fully fund the System's liabilities, and that, as a percentage of payroll, remain as level as possible for each generation of active members. It also ensures that contributions are sufficient for each generation of active members to avoid an intergenerational burden on future active members. Actuarial valuations are performed annually with actuarial experience investigations conducted triennially in accordance with state statute. The use of realistic assumptions is important in maintaining the necessary funding while paying promised benefits. Each year the actual experience of the System is compared to our assumptions and the differences are studied to determine whether changes in the contribution requirements are necessary. In addition, triennially, the actuarial experience investigation is undertaken to review the actuarial assumptions and compare the actual experience during the preceding three-year period with that expected under those assumptions. The latest experience investigation was completed during 2023 for plan years ending in 2020 through 2022. The Board adopted the recommendations for several major assumption categories that were incorporated into the 2022 actuarial valuation, including maintaining the assumed rate of return at 7.0%, the inflation rate at 2.50%, and the retiree cost-of-living assumption at 2.75%. As of the most current actuarial valuation for the year ended December 31, 2022, OCERS' funding status was 81.5% on a valuation value of assets basis, versus 77.0% on a market value of assets basis, with an Unfunded Actuarial Accrued Liability (UAAL) of $4.7 billion. Average employer and employee contribution rates for the year ended December 31, 2022, were 38.7% and 12.1%, respectively.

Letter of Transmittal

(continued)

BUDGET

The Board of Retirement approves OCERS' annual budget. The 1937 Act limits OCERS' annual administrative expenses, excluding the costs of administration for computer software and hardware and computer technology consulting services, to twenty-one hundredths of one percent (0.21%) of OCERS' actuarial accrued liability. OCERS' 2023 allowable administrative expense of $27.4 million was 0.10% of OCERS' Actuarial Accrued Liability.

AWARDS AND RECOGNITION

The Government Finance Officers Association of the United States and Canada (GFOA) awarded a Certificate of Achievement for Excellence in Financial Reporting to OCERS for its Annual Comprehensive Financial Report for the year ended December 31, 2022. To be awarded a certificate of Achievement, a government agency must publish an easily readable and efficiently organized annual comprehensive financial report. This report must satisfy both generally accepted accounting principles and applicable legal requirements.

A Certificate of Achievement is valid for a period of one year only. We believe that our current Annual Report continues to meet the Certificate of Achievement Program's requirements and we are submitting it to the GFOA to determine its eligibility for another certificate.

OCERS was also the recipient of the Public Pension Coordinating Council (PPCC) Award in recognition of compliance with professional standards for plan funding and administration for the year ended December 31, 2022. This is awarded to a retirement system that meets the professional standards for plan design and administration as set forth in the Public Pension Standards, including a Comprehensive Benefit Program, Funding Adequacy, Actuarial Valuation, Independent Audit, Investments, and Communications. A Public Pension Standards Award is valid for a period of one year.

OCERS was also recognized by the Institute of Internal Auditors (IIA) for its hard work and dedication. The organization earned the IIA's highest rating for an external quality assessment review and was awarded for diligently fulfilling the stringent quality assessment requirements.

In their review, the IIA highlighted the organization's exceptional efforts in providing excellent service to its stakeholders. The client survey results demonstrated OCERS' value as a trusted partner, with scores exceeding the average results from all other organizations reviewed by the IIA.

ACKNOWLEDGEMENTS

We would like to take this opportunity to thank the members of the System for their continued confidence in OCERS during the past year. Also, we would like to express our thanks to the Board of Retirement for its dedicated efforts in supporting the System throughout this past year. Finally, we would like to thank our team members and consultants for their commitment to OCERS and their diligent work to assure the System's continued success.

Respectfully submitted,

Steve Delaney
Chief Executive Officer

Brenda Shott
Assistant Chief Executive Officer, Finance & Internal Operations

Members of the Board of Retirement

As of December 31, 2023

Shawn Dewane
Chair
Appointed by
the Board of Supervisors

Adele Tagaloa
Vice Chair
Elected by
the General Members

Shari L. Freidenrich
Treasurer-Tax Collector
County of Orange

Arthur Hidalgo
Appointed by
the Board of Supervisors

Roger Hilton
Elected by
the Retired Members

Wayne Lindholm
Appointed by
the Board of Supervisors

Richard Oates
Elected by
the Safety Members

Charles E. Packard
Appointed by
the Board of Supervisors

Chris Prevatt
Elected by
the General Members

Jeremy Vallone
Alternate Elected by
the Safety Members

Organization of OCERS

Board of Retirement

The Board of Retirement is responsible for establishing policies governing the administration of the retirement plan, disability determinations, assuring benefit payments, establishing investment policy for the System and monitoring execution of its policies. The Board of Retirement consists of nine members and one alternate. Four members of the Board of Retirement are appointed by the Board of Supervisors of the County; four members are elected by active members of the System, including two by the general members, two by the safety members, of which one is the alternate member; one member is elected by the retirees; and the Treasurer of the County, elected by registered voters in the County, serves as an Ex-Officio member.

Executive Division

This division consists of the Chief Executive Officer (CEO) who implements and executes policies promulgated by the Board of Retirement. Two Assistant CEOs, a Director of Internal Audit, a Chief Investment Officer, a General Counsel and a Director of Enterprise Project Management Office assist the CEO in the daily operations of the System.

Investment Division

This division is responsible for the administration and management of the investment program, in accordance with policies, regulations, and guidelines set forth by the Board of Retirement. It is responsible for the interface with investment managers, including hiring and termination of investment managers, monitoring investment performance objectives, adherence to investment guidelines, conducting due diligence visits to investment managers' sites, and interviewing prospective investment managers. This division is also responsible for the interface with outside investment consultants in reviewing and evaluating all investment managers' performance and investment manager fees. Refer to the Investment Section on pages 91 and 92 for the Schedule of Commissions and Schedule of Investment Expenses and Investment Summary.

External Operations Division

This division is comprised of the following departments: Member Services, Disabilities, and Communications.

The Member Services Department is responsible for providing all benefit services to the members of the System. This includes benefit calculations, preparation of data to support applications for retirement, preparation of the retiree payroll, processing contribution transmittals, membership counseling, and retirement seminars.

The Disabilities Department is responsible for reviewing claims and medical records of the members of the System; interviewing applicants and witnesses; preparing written reports of findings and recommendations; and making presentations to the Disability Committee and the Board of Retirement regarding the disposition of cases.

The Communications Department is responsible for developing and coordinating information for members and employers through publications, newsletters, seminars, video content, social media and publishing content to the website.

Internal Operations Division

This division is comprised of the following departments: Finance, Information Technology, Information Security, Human Resources, and Operations Support Services.

The Finance Department is responsible for all of the financial records and reports of OCERS. This includes the preparation of the Annual Comprehensive Financial Report, monthly and quarterly financial statements and the annual operating budget. The Finance Department also maintains OCERS' system of internal controls; processes and accounts for retirement payroll and refunds of contributions and interest to members; collects and accounts for employers' and members' contributions; reconciles investment portfolios; and pays costs incurred for goods received and services rendered.

The Information Technology Department is responsible for managing and supporting OCERS' technology infrastructure and systems and plays a crucial role in maintaining and securing computer networks, servers, and databases. In addition they oversee the development, implementation, and maintenance of software applications, provides technical support to users and is responsible for data management.

The Information Security Department is responsible for overseeing the security of OCERS' data and systems with a focus on protecting members' information and the systems, which are relied on for daily operations.

The Human Resources Department is responsible for providing human resources services including leading recruitment and on-boarding efforts, training and developing staff, supporting a high performing workforce, health and safety, maintaining intraoffice relationships, and other labor relations.

The Operations Support Services Department is responsible for procurement and contract administration, operational risk management, facilities management, building safety and security, and mailroom operations. In addition, this department is responsible for overseeing the business continuity/disaster recovery program.

Legal Division

This division provides legal advice, representation to the Board of Retirement and OCERS on a wide variety of issues, and administers the compliance program. Among other things, this includes issues involving pension benefits, disability retirements, investments, legislation and vendor contracts.

Internal Audit Department

This department is responsible for objectively assessing the organization's governance, risk management and internal control processes.

Administrative Organization Chart

As of December 31, 2023

List of Professional Consultants

As of December 31, 2023

Actuary
The Segal Company

Investment Consultant
Meketa Investment Group

Private Equity and Private Real Assets Consultant
Aksia LLC

Real Estate Consultant
The Townsend Group, an Aon Company

Independent Auditor
Moss Adams LLP

Investment Counsel
Foley and Lardner, LLP
Foster Garvey PC
K&L Gates LLP
Morgan, Lewis & Bockius LLP
Nossaman LLP

Fiduciary Counsel
Reed Smith, LLP

Tax Counsel
Buchalter

Custodian
State Street Bank and Trust Company

Note: Please refer to pages 92-94 in the Investment Section for the Schedule of Commissions, Schedule of Investment Expenses and Investment Summary and List of Investment Managers.

Certificate of Achievement for Excellence in Financial Reporting

Public Pension Standards Award for Funding and Administration

PPCC

Public Pension Coordinating Council

Public Pension Standards Award
For Funding and Administration
2023

Presented to

Orange County Employees Retirement System

In recognition of meeting professional standards for
plan funding and administration as
set forth in the Public Pension Standards.

Presented by the Public Pension Coordinating Council, a confederation of

National Association of State Retirement Administrators (NASRA)
National Conference on Public Employee Retirement Systems (NCPERS)
National Council on Teacher Retirement (NCTR)

Alan H. Winkle

Alan H. Winkle
Program Administrator

Section 2

Financial

San Juan Capistrano

Nestled in the heart of Orange County, the historic town of San Juan Capistrano beckons visitors with its timeless charm and storied past. Here, amidst cobalt-blue skies and the tranquil waters of nearby creeks, echoes of history resonate through the streets, intertwining with the vibrant pulse of modern life. As the sun casts its cerulean glow upon the adobe walls of the Mission San Juan Capistrano, visitors are transported to a bygone era, where Spanish missionaries once walked and indigenous peoples thrived.

Wandering through the town's picturesque streets, visitors are greeted by a symphony of blue hues that dance harmoniously with the rhythm of daily life. From the vibrant shutters gracing historic buildings to the deep-hued tiles of the iconic mission, every corner of San Juan Capistrano tells a tale of resilience, adaptation, and cultural exchange. Here, amidst the timeless beauty of Orange County's oldest neighborhood, visitors are invited to immerse themselves in the rich tapestry of history and heritage that defines San Juan Capistrano.

Independent Auditor's Report

MOSSADAMS

Report of Independent Auditors

The Board of Retirement
Orange County Employees Retirement System

Report on the Audit of the Financial Statements

Opinions

We have audited the accompanying pension trust fund, heath care fund – County, health care fund – OCFA, and the custodial trust fund – OCTA in the statement of fiduciary net position of Orange County Employees Retirement System (the System) as of and for the year ended December 31, 2023, and the related pension trust fund, heath care fund – County, health care fund – OCFA, and the custodial trust fund – OCTA in the statement of changes in fiduciary net position for the year then ended, and the related notes to the financial statements.

In our opinion, the accompanying financial statements referred to above present fairly, in all material respects, the respective fiduciary net position of the pension trust fund, heath care fund – County, health care fund – OCFA, and the custodial trust fund – OCTA of the System as of December 31, 2023, and the related respective changes in fiduciary net position for the year then ended in accordance with accounting principles generally accepted in the United States of America.

Basis for Opinions

We conducted our audit in accordance with auditing standards generally accepted in the United States of America (GAAS) and the standards applicable to financial audits contained in *Government Auditing Standards (Government Auditing Standards)*, issued by the Comptroller General of the United States. Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Financial Statements section of our report. We are required to be independent of the System and to meet our other ethical responsibilities, in accordance with the relevant ethical requirements relating to our audit. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinions.

Financial Reporting Entity

As discussed in Note 1, the financial statements present only the fiduciary net position and changes in fiduciary net position of the System and do not purport to, and do not, present fairly the financial position of the County of Orange, California, as of December 31, 2023, the changes in its financial position, or, where applicable, its cash flows for the year then ended in accordance with accounting principles generally accepted in the United States of America. Our opinion is not modified with respect to this matter.

Responsibilities of Management for the Financial Statements

Management is responsible for the preparation and fair presentation of the financial statements in accordance with accounting principles generally accepted in the United States of America, and for the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Independent Auditor's Report

(continued)

Auditor's Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinions. Reasonable assurance is a high level of assurance but is not absolute assurance and therefore is not a guarantee that an audit conducted in accordance with GAAS and *Government Auditing Standards* will always detect a material misstatement when it exists. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control. Misstatements are considered material if there is a substantial likelihood that, individually or in the aggregate, they would influence the judgment made by a reasonable user based on the financial statements.

In performing an audit in accordance with GAAS and *Government Auditing Standards*, we

- Exercise professional judgment and maintain professional skepticism throughout the audit.
- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, and design and perform audit procedures responsive to those risks. Such procedures include examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of System's internal control. Accordingly, no such opinion is expressed.
- Evaluate the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluate the overall presentation of the financial statements.

We are required to communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit, significant audit findings, and certain internal control–related matters that we identified during the audit.

Prior-Year Comparative Information

We have previously audited the System's 2022 financial statements, and we expressed an unmodified opinion on the pension trust fund, heath care fund – County, health care fund – OCFA, and the custodial trust fund – OCTA of the System, which are summarized in the comparative totals 2022 column, in our report dated June 1, 2023. In our opinion, the summarized comparative information presented herein as of and for the year ended December 31, 2022, is consistent, in all material respects, with the audited financial statements from which it has been derived.

Independent Auditor's Report

(continued)

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis, the schedule of changes in net pension liability of participating employers, schedule of investment returns, schedule of employer contributions, notes to the required supplementary information and significant factors affecting trends in actuarial information – pension plan (collectively, the required supplementary information) be presented to supplement the basic financial statements. Such information is the responsibility of management and, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Supplementary Information

Our audit was conducted for the purpose of forming opinions on the financial statements that collectively comprise the System's basic financial statements. The schedule of contributions, schedule of administrative expenses, schedule of investment expenses, and schedule of payments for professional services (collectively, the supplementary information) are presented for purposes of additional analysis and are not a required part of the basic financial statements. Such information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the basic financial statements. The information has been subjected to the auditing procedures applied in the audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the supplementary information is fairly stated, in all material respects, in relation to the basic financial statements as a whole.

Other Information

Management is responsible for the other information included in the annual report. The other information comprises the introductory, investments, actuarial and statistical sections but does not include the basic financial statements and our auditor's report thereon. Our opinions on the basic financial statements do not cover the other information, and we do not express an opinion or any form of assurance thereon.

In connection with our audit of the basic financial statements, our responsibility is to read the other information and consider whether a material inconsistency exists between the other information and the basic financial statements, or the other information otherwise appears to be materially misstated. If, based on the work performed, we conclude that an uncorrected material misstatement of the other information exists, we are required to describe it in our report.

Independent Auditor's Report

(continued)

Other Reporting Required by *Government Auditing Standards*

In accordance with *Government Auditing Standards*, we have also issued our report dated June 6, 2024 on our consideration of the Orange County Employees Retirement System's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is solely to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the System's internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the System's internal control over financial reporting and compliance.

Moss Adams LLP

Irvine, California
June 6, 2024

Management's Discussion and Analysis

The Management's Discussion and Analysis (MD&A) of the Orange County Employees Retirement System (OCERS or System) presents the financial performance and provides a summary of OCERS' financial position and activities as of and for the year ended December 31, 2023. The narrative overview and analysis are presented in conjunction with the Letter of Transmittal, included in Section 1: Introductory of this Annual Comprehensive Financial Report. The MD&A should be read in conjunction with OCERS' Basic Financial Statements as presented in this report. Amounts in this section have been grouped together to facilitate readability.

OCERS administers the OCERS pension plan—a cost-sharing multiple-employer defined benefit pension plan (the Plan) as well as acts as a trustee and custodian for retirement health benefit plan funds that are sponsored by participating employers. OCERS' financial information is comprised of four fiduciary funds: a defined benefit pension trust fund, two other postemployment benefit (OPEB) trust funds for retiree medical plans and a custodial fund held for the Orange County Transportation Authority (OCTA), a participating employer of OCERS.

Financial Highlights

- The net position restricted for pension, OPEB and employer as of December 31, 2023, totaled $22.4 billion, an increase of $2.2 billion or 10.6% from the prior year. The increase is primarily due to higher returns on investments during the year.
- Total additions to fiduciary net position increased 421.4% from -$1.1 billion in 2022 to $3.4 billion in 2023.
  - Net investment income/(loss) increased from -$2.1 billion in 2022 to $2.4 billion in 2023. The net year-to-date rate of return/(loss) on investments on a fair value basis was an 11.4% return in 2023 versus a -7.8% loss in 2022.
  - Contributions received from employers and employees totaled $1.1 billion in 2023, an increase of 1.8% compared to 2022.
- Total deductions from fiduciary net position increased 6.8% from $1.2 billion in 2022 to $1.3 billion in 2023.
  - Member pension benefit payments increased 7.6% from $1.1 billion in 2022 to $1.2 billion in 2023.
  - The number of retired members and beneficiaries receiving a benefit payment increased 2.9% from 20,678 payees at the end of 2022 to 21,283 payees as of December 31, 2023.
  - The average annual benefit paid to retired members and beneficiaries during 2023 was $56,397, an increase of 4.5% over the average annual benefit payment of $53,966 in 2022.
- The annual actuarial funding valuation as of December 31, 2023 is not yet available at this time. Based upon the most recent actuarial funding valuation dated as of December 31, 2022, the funding status for the pension plan, as measured by the ratio of the actuarial value of assets (which smooths market gains and losses over five years) to the actuarial value of accrued liabilities was 81.5% versus 77.0% if market gains and losses were recognized immediately.
- The net pension liability of participating employers as calculated in the December 31, 2023, Governmental Accounting Standards Board (GASB) Statement No. 67 Actuarial Valuation used for financial reporting purposes is $4.8 billion, which as a percentage of covered payroll is 237.3%. The plan fiduciary net position of the pension trust fund of $21.8 billion as a percentage of the total pension liability of $26.6 billion is 81.8%.

Overview of the Financial Statements

The following discussion and analysis serve as an introduction and overview of the OCERS' Basic Financial Statements. The Basic Financial Statements and required disclosures are prepared in accordance with accounting principles and reporting guidelines as set forth by the GASB. These pronouncements require OCERS to make certain disclosures and to report using the full accrual method of accounting.

Management's Discussion and Analysis

(continued)

OCERS' Basic Financial Statements are comprised of the following:

Statement of Fiduciary Net Position

The Statement of Fiduciary Net Position presents the major categories of assets and liabilities and their related value as of year-end. The difference between assets and liabilities is reported as "Net Position Restricted for Pension, Other Postemployment Benefits and Employer," representing funds available to pay future benefits to plan participants. The Statement of Fiduciary Net Position includes prior year-end total balances for comparative purposes. Increases and decreases in Net Position Restricted for Pension, Other Postemployment Benefits and Employer, when analyzed over time, may serve as an indicator of whether OCERS' financial position is improving or deteriorating. Other factors, such as market conditions, should also be considered when measuring the overall financial health of the System.

The County of Orange (County) and Orange County Fire Authority (OCFA) participate in irrevocable postemployment health care plan trusts (retiree medical plans) that are reported as other postemployment benefit trust funds in the Statement of Fiduciary Net Position as separate health care funds. OCERS serves as trustee for these trusts. Assets are commingled with pension trust assets for investment purposes and are used exclusively to pay health allowances. The County and OCFA have financial reporting responsibility of the retiree medical plans, including financial statement disclosures and required supplementary information regarding the retiree medical plans funded status and contributions, in accordance with GASB Statement No.74, *Financial Reporting for Postemployment Benefit Plans Other than Pension Plans.*

The OCTA has revocable trust assets held by OCERS in an investment capacity that are reported as a separate custodial fund. The purpose of the employer's trust is to provide certain OPEB benefits to eligible retired OCTA members. Assets are not commingled with those of the pension plan and health care plan trusts.

Statement of Changes in Fiduciary Net Position

The Statement of Changes in Fiduciary Net Position provides information about the financial activities during the reporting period that increased and decreased Net Position Restricted for Pension, Other Postemployment Benefits and Employer. The trend of additions versus deductions to the Plan indicates the strength of OCERS' financial position over time. For comparative purposes, prior year-end total balances are also provided.

To distinguish the activities of the health care plan trusts and the employer trust from the pension plan, the health care plan trusts and employer trust are reported separately in the Statement of Changes in Fiduciary Net Position as health care funds and a custodial fund, respectively.

Notes to the Basic Financial Statements

The Notes to the Basic Financial Statements are an integral part of the basic financial statements and provide additional information that is essential to acquire a full understanding of the information provided in the two statements discussed above. The notes include further discussion and details regarding OCERS' key policies, programs, investments and activities that occurred during the year.

Required Supplementary Information

The Required Supplementary Information (RSI) presents historical trend information related to the pension plan reported in the Basic Financial Statements. The pension plan includes a schedule of changes in net pension liability, a schedule of investment returns, a schedule of employer contributions and other required supplementary information as required by GASB Statement No.67, *Financial Reporting for Pension Plans – an Amendment of GASB Statement No. 25* (GASB 67). The information contained in the schedules is based on the actuarial valuation prepared for the pension plan and includes additional actuarial information that contributes to the understanding of the changes in the net pension liability of participating employers in the pension plan. The actuarial information is based upon assumptions made regarding future events at the time the valuation was performed. Therefore, the amounts presented in the schedules are management's estimates. A summary of factors that affected the trends of the actuarial information is included in this section as well.

Management's Discussion and Analysis

(continued)

Other Supplementary Information

The Other Supplementary Information includes schedules pertaining to contributions by employers and members, administrative expenses, investment expenses, and payments for professional services.

Financial Analysis

Tables 1 and 2 compare and summarize OCERS' financial activity for the current and prior years.

Table 1 : Fiduciary Net Position

As of December 31, 2023 and 2022
(Dollars in Thousands)

	12/31/2023	12/31/2022	Increase / (Decrease)	Percentage Change
Assets				
Cash and Cash Equivalents	$ 380,010	$ 412,122	$ (32,112)	-7.8%
Securities Lending Collateral	326,270	202,096	124,174	61.4%
Receivables	204,584	180,114	24,470	13.6%
Investments at Fair Value	22,187,331	20,258,889	1,928,442	9.5%
Capital Assets, Net	6,927	9,088	(2,161)	-23.8%
Total Assets	**23,105,122**	**21,062,309**	**2,042,813**	**9.7%**
Liabilities				
Obligations Under Securities Lending Program	326,271	202,096	124,175	61.4%
Securities Purchased	244,475	204,403	40,072	19.8%
Other	175,266	444,843	(269,577)	-60.6%
Total Liabilities	**746,012**	**851,342**	**(105,330)**	**-12.4%**
Net Position Restricted for Pension, Other Postemployment Benefits and Employer	**$ 22,359,110**	**$ 20,210,967**	**$ 2,148,143**	**10.6%**

As of December 31, 2023, OCERS has a net position of $22.4 billion restricted for pension, other postemployment benefits and employer. Net position increased $2.2 billion, an increase of 10.6% compared to 2022. The increase in net position includes an increase in total assets of $2.0 billion and a decrease in total liabilities of $105.3 million.

The $2.0 billion increase in total assets is primarily attributed to a $1.9 billion increase in total investments at fair value, a $124.2 million increase in securities lending collateral, and a $24.5 million increase in receivables. These increases were offset by a decrease in cash and cash equivalents of $32.1 million.

The increase in investments at fair value can be attributed to the total portfolio reporting a net return of 11.4% for the one year-year period. Securities lending collateral increased $124.2 million due to an increase in the demand in the securities lending program for OCERS' U.S. corporate bond and equity positions. Receivables increased by $24.5 million, primarily due to employer contributions earned, but not yet received. The decrease in cash and cash equivalents of $32.1 million is due to the timing of investing redemptions, distributions, and contributions received near year-end.

Management's Discussion and Analysis

(continued)

Total liabilities decreased $105.3 million, which is attributed to a decrease in other liabilities of $269.6 million, consisting primarily of a decrease in unearned contributions due to the County of Orange opting to not participate in the fiscal year 2023-2024 contribution prepayment program. This decrease was offset by an increase of $124.2 million in the obligations under the securities lending program, which is directly related to the increase in securities lending collateral, as previously discussed. Securities purchased increased by $40.1 million due to the timing of securities purchased.

Table 2 : Changes in Fiduciary Net Position

For the Years Ended December 31, 2023 and 2022

(Dollars in Thousands)

	12/31/2023	12/31/2022	Increase / (Decrease)	Percentage Change
Additions				
Employer Pension Contributions	$ 749,776	$ 719,691	$ 30,085	4.2%
Employer Health Care Contributions	26,245	44,821	(18,576)	-41.4%
Employee Pension Contributions	277,455	269,999	7,456	2.8%
Employer OPEB Contributions	794	655	139	21.2%
Net Investment Income/(Loss)	2,384,772	(2,105,160)	4,489,932	213.3%
Total Additions	**3,439,042**	**(1,069,994)**	**4,509,036**	**421.4%**
Deductions				
Participant Benefits - Pension	1,200,307	1,115,918	84,389	7.6%
Participant Benefits - Health Care	43,994	43,671	323	0.7%
Death Benefits	1,190	1,558	(368)	-23.6%
Member Withdrawals and Refunds	14,751	22,239	(7,488)	-33.7%
Employer OPEB Payments	1,531	1,466	65	4.4%
Administrative Expenses - Pension	29,056	23,546	5,510	23.4%
Administrative Expenses - Health Care and Employer	70	68	2	2.9%
Total Deductions	**1,290,899**	**1,208,466**	**82,433**	**6.8%**
Increase/(Decrease) in Net Position Restricted for Pension, Other Postemployment Benefits and Employer	2,148,143	(2,278,460)	4,426,603	194.3%
Net Position Restricted for Pension, Other Postemployment Benefits and Employer				
Beginning of the Year	20,210,967	22,489,427		
End of the Year	**$ 22,359,110**	**$ 20,210,967**		

Management's Discussion and Analysis

(continued)

Additions to Fiduciary Net Position

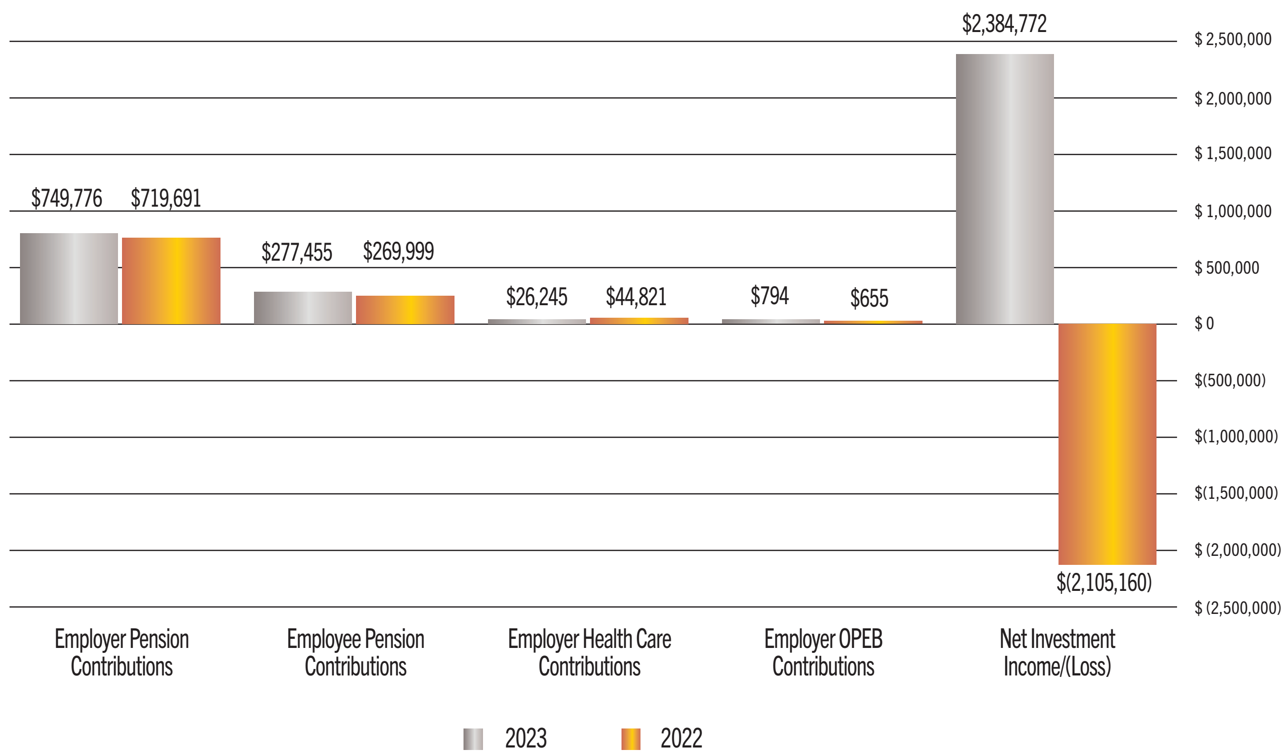
The primary funding sources of pension benefits are the collection of participating employer and member contributions and earnings on investments, net of investment expenses. Total additions for the year ended December 31, 2023 were $3.4 billion compared to -$1.1 billion for the year ended December 31, 2022; the total increase of 421.4%, or $4.5 billion, is comprised of an increase in net investment income of $4.5 billion and an increase in total contributions of $19.0 million.

Overall net investment returns/(losses) for the year ended December 31, 2023 were a year-to-date return of 11.4% compared to a year-to-date loss of -7.8% in 2022. This can be attributed to stronger year-to-date returns in 2023 compared to year-to-date returns in 2022 across most investment categories. Global public equity saw the strongest performance coming from U.S. Large Cap Stocks and reported a one-year return of 22.9% and private equity reported a one-year return of 2.5%. Income strategies, which consists of core fixed income and credit, reported a one-year return of 6.7%. Real assets reported a loss of -0.4% for the one-year period; the real estate portfolio has continued to post losses due to the higher interest rate environment and posted losses of -10.5% compared to positive returns for its peers in energy and infrastructure of 13.8% and 11.2%, respectively. Risk mitigation, designed to protect the portfolio during down periods, reported a return of 1.5% for the one-year period. Unique strategies reported a one-year return of 2.9%.

Total contributions increased $19.0 million over the prior year mainly due to employer pension contributions, which increased $30.1 million over the prior year, and employee contributions, which increased $7.5 million. These increases can be attributed to an increase in both employer and employee pension contribution rates. Employer health care contributions decreased $18.6 million due to no employer contributions received in the County health care fund.

Additions to Fiduciary Net Position

(Dollars in Thousands)



Management's Discussion and Analysis

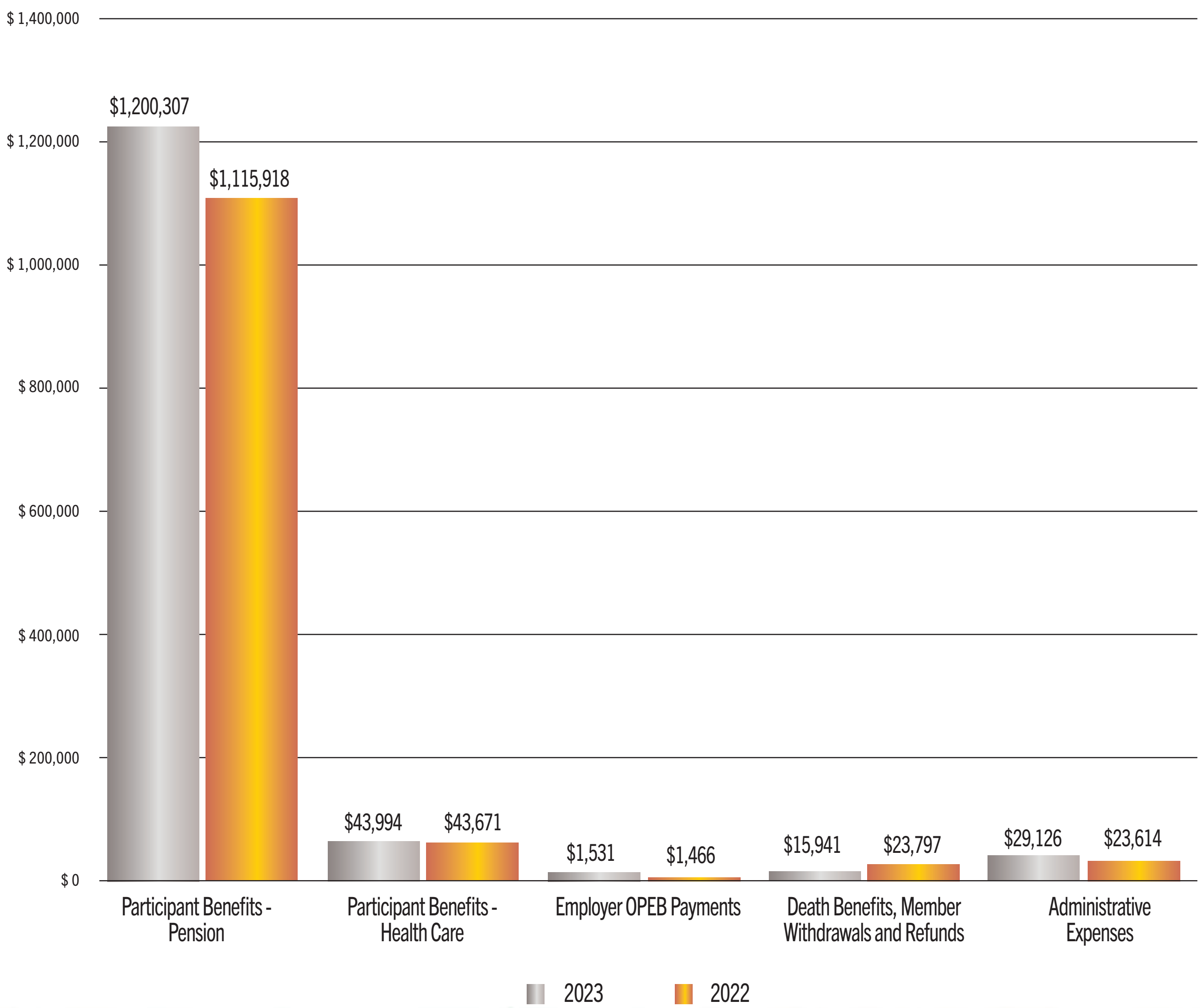
(continued)

Deductions from Fiduciary Net Position

Expenses incurred by OCERS include payments of benefits to members and their beneficiaries, refunds of contributions to terminated members and the costs of administering the plan. Deductions from fiduciary net position increased $82.4 million or 6.8% compared to the prior year, primarily due to the continued and anticipated growth in member pension benefit payments, both in the total number of OCERS' retired members receiving a pension benefit and the average benefit received. Participant benefit payments for pension and health care have increased by $84.4 million and $0.3 million, respectively. Total benefit recipients increased by 605, from 20,678 to 21,283. The average annual pension benefit increased from $53,966 to $56,397.

Deductions from Fiduciary Net Position

(Dollars in Thousands)



Management's Discussion and Analysis

(continued)

OCERS Membership

The table below provides comparative OCERS' membership data for the last two years.

Table 3 : Membership Data

As of December 31, 2023 and 2022

	12/31/2023	12/31/2022	Increase/ (Decrease)	Percentage Change
Active Members	22,782	22,061	721	3.3%
Retired Members	21,283	20,678	605	2.9%
Deferred Members	8,579	7,894	685	8.7%
Total Membership	**52,644**	**50,633**	**2,011**	4.0%

Total OCERS' membership increased during 2023 by 2,011 members. The number of active members increased by 721 or 3.3% and the number of retirees and deferred members increased by 605 or 2.9% and 685 or 8.7%, respectively, suggesting that during 2023 the number of employees hired exceeded the replacement of the members who left their employment for retirement or other opportunities.

Actuarial Valuations

To determine the current status of Net Position Restricted for Pension Benefits compared to future obligations, a calculation of the actuarial funding requirement is performed. An actuarial valuation includes an appraisal of both the assets available to pay future benefits and the liabilities of the System, which represent the actuarial present value of all future benefits expected to be paid for each member. One of the primary purposes of the valuation is to determine the amount of future contributions by the employees and employers, which will be required to pay all expected future benefits. OCERS utilizes an independent actuarial firm, The Segal Company (Segal), to prepare an annual valuation. The most recent Annual Actuarial Valuation as of December 31, 2022 is included in the Actuarial Section of this report and contains a detailed discussion of the funding requirements. This valuation is used for funding purposes and establishing employer and employee contribution rates. Segal also prepared a Governmental Accounting Standards Board (GASB) Statement No.67 Actuarial Valuation as of December 31, 2023, used for financial reporting purposes.

To prepare the valuations, the actuary must use several assumptions with regards to OCERS' members such as their life expectancy, projected salary increases over time, and the age at which members will retire. The actuary must also utilize assumptions with regards to how the assets will perform over time. All assumptions used by the actuary are reviewed and adjusted, as required, on a triennial basis and adopted by the Board of Retirement. The most recent triennial study was adopted by the Board on August 21, 2023, for the three-year experience period ended December 31, 2022. As a result, the following assumptions will be maintained as of the December 31, 2023 valuation: investment return at 7.0%; inflation at 2.50%; retiree cost-of-living at 2.75%; and active member payroll increases at 3.00%. Projected salary increases for general members lowered from a range of 4.00% to 11.00% to a range of 3.90% to 8.00% and for safety members, the range was changed from 4.60% to 15.00% to 4.50% to 15.00%. In addition, mortality rates apply Pub-2010 Benefit-Weighted mortality tables as a starting point ("base table"), projected generationally using the two-dimensional mortality improve scale MP-2021, with adjustments to reflect mortality trends specific to OCERS.

The GASB 67 valuation provides the calculation of the employers' pension liability. To accommodate the annual reporting requirements of our employers in a timely manner, the valuation was prepared using the December 31, 2022 valuation as the basis for calculating the total pension liability (TPL) and rolled forward to December 31, 2023. Based on this actuarial valuation, the TPL was $26.6 billion compared to a fiduciary net position of $21.8 billion, resulting in the employers' net pension liability (NPL) of $4.8 billion and a fiduciary net position as a percentage of the TPL of 81.8%. The NPL as a percentage of covered payroll was 237.3%.

Management's Discussion and Analysis

(continued)

In the actuarial funding valuation for the pension plan as of December 31, 2022, the funding ratio of the valuation value of assets to actuarial accrued liabilities was 81.5%. The calculation of funding status takes into account OCERS' policy to smooth the impact of market volatility by spreading each year's gains or losses over five years. Using the market value of assets as of the valuation date, the funded status of OCERS' pension plan was 77.0% in 2022.

Investment Summary

The OCERS portfolio gained 11.4%, net of fees, for calendar year 2023, driven largely by an impressive year for public equity markets. OCERS' 2023 calendar year return ranked in the 49th percentile versus peers (peer rankings are based on defined benefit public funds with over $1 billion in assets). Over the trailing three-, five-, and ten-year periods, OCERS had respective returns of 6.2%, 8.8%, and 6.9% annualized, net of fees, ranking in the 13th, 34th, and 33rd percentiles, respectively. The OCERS portfolio ended 2023 with a market value of $22.2 billion, up from $20.3 billion at the end of 2022.

Slowing inflation led to hopefulness that interest rates could peak in 2023. In addition, the continued strength of the U.S. consumer due to a strong labor market created a positive environment for equity markets during 2023.

OCERS' global public equity portfolio earned 22.9% in 2023. U.S. equities gained 25.5% during 2023, while non-U.S. developed market equities returned 19.3% for the year. OCERS' emerging market equity portfolio trailed developed markets but still earned 17.7%.

Fixed income markets enjoyed a strong fourth quarter in 2023 as interest rates declined significantly during the quarter. The U.S. 10-year Treasury yield fell from 4.57% to 3.87% during the final quarter of 2023 as inflation was softening and expectations were growing for future lower policy rates. OCERS' income strategies gained 4.9% in the fourth quarter and 6.7% for the year.

It is customary to report private market performance on a quarterly lag. Therefore, OCERS' year-end performance will reflect returns as of the end of the third quarter for many private equity, private credit, and private real assets managers. OCERS' private real assets portfolio returned an impressive 12.2% during the year as energy and infrastructure assets benefitted from the higher inflationary environment. OCERS' real estate portfolio struggled in 2023 declining 10.5% as the higher interest rates caused real estate cap rates to increase. This resulted in real estate valuations declining in 2023. OCERS' private equity portfolio returned 2.5% during 2023.

Request for Financial Information

This Annual Comprehensive Financial Report is designed to provide the Board of Retirement, plan members, participating employers, taxpayers, investment managers and other interested parties with a general overview of OCERS' financial condition and to demonstrate OCERS' accountability for the funds under its stewardship.

Please address any questions about this report or requests for additional information to:

Orange County Employees Retirement System
P.O. Box 1229
Santa Ana, CA 92702

Section 2

Financial | Basic Financial Statements

Heritage Hill Historical Park

Nestled amidst the rolling hills of Orange County, Heritage Hill Historical Park stands as a living testament to the region's rich and vibrant past. Here, amidst meticulously preserved buildings and lush landscapes, visitors are transported back in time to experience the echoes of bygone eras. The park's cobalt-blue hues, reflected in the azure skies above, serve as a poignant backdrop to the narratives of yesteryear that unfold within its historic walls.

As visitors wander through the park's pathways, they are enveloped in the tranquil embrace of blue, a color that symbolizes both the serenity of the present and the enduring legacy of the past. From the quaint charm of the 19th-century homes to the solemn beauty of the adobe chapel, every corner of Heritage Hill resonates with the stories of those who came before. Here, amidst the whispers of history carried on the gentle breeze, visitors are invited to pause, reflect, and immerse themselves in the timeless beauty of Orange County's heritage.

Statement of Fiduciary Net Position

As of December 31, 2023
(with summarized comparative amounts as of December 31, 2022)
(Dollars in Thousands)

	Pension Trust Fund	Health Care Fund-County	Health Care Fund-OCFA	Custodial Fund - OCTA	Total Funds	Comparative Totals 2022
Assets						
Cash and Short-Term Investments						
Cash and Cash Equivalents	$ 370,116	$ 7,945	$ 1,321	$ 628	$ 380,010	$ 412,122
Securities Lending Collateral	318,301	6,833	1,136	-	326,270	202,096
Total Cash and Short-Term Investments	688,417	14,778	2,457	628	706,280	614,218
Receivables						
Investment Income	20,749	445	74	-	21,268	15,320
Securities Sales	128,372	2,756	458	-	131,586	141,477
Contributions	41,072	-	-	-	41,072	15,437
Foreign Currency Forward Contracts	1,614	35	6	-	1,655	-
Other Receivables	8,783	189	31	-	9,003	7,880
Total Receivables	200,590	3,425	569	-	204,584	180,114
Investments at Fair Value						
Global Public Equity	10,137,573	217,627	36,172	13,293	10,404,665	8,828,613
Private Equity	3,510,013	75,351	12,524	-	3,597,888	3,301,871
Income Strategies	3,151,461	67,653	11,245	5,543	3,235,902	3,389,808
Real Assets	2,938,286	63,077	10,484	-	3,011,847	2,907,077
Risk Mitigation	1,769,520	37,987	6,314	-	1,813,821	1,757,155
Unique Strategies	120,199	2,580	429	-	123,208	74,365
Total Investments at Fair Value	21,627,052	464,275	77,168	18,836	22,187,331	20,258,889
Capital Assets, Net	6,927	-	-	-	6,927	9,088
Total Assets	**22,522,986**	**482,478**	**80,194**	**19,464**	**23,105,122**	**21,062,309**
Liabilities						
Obligations Under Securities Lending Program	318,302	6,833	1,136	-	326,271	202,096
Securities Purchased	238,504	5,120	851	-	244,475	204,403
Unearned Contributions	38,502	-	-	-	38,502	320,009
Foreign Currency Forward Contracts	16	-	-	-	16	2,367
Retiree Payroll Payable	98,751	5,011	716	-	104,478	98,325
Other	31,482	676	112	-	32,270	24,142
Total Liabilities	**725,557**	**17,640**	**2,815**	**-**	**746,012**	**851,342**
Net Position Restricted for Pension, Other Postemployment Benefits and Employer	**$21,797,429**	**$ 464,838**	**$ 77,379**	**$ 19,464**	**$22,359,110**	**$20,210,967**

The accompanying notes are an integral part of these financial statements.

Statement of Changes in Fiduciary Net Position

For the Year Ended December 31, 2023
(with summarized comparative amounts for the Year Ended December 31, 2022)
(Dollars in Thousands)

	Pension Trust Fund	Health Care Fund-County	Health Care Fund-OCFA	Custodial Fund - OCTA	Total Funds	Comparative Totals 2022
Additions						
Contributions						
Employer	$ 749,776	$ -	$ 26,245	$ -	$ 776,021	$ 764,512
Employee	277,455	-	-	-	277,455	269,999
Employer OPEB Contributions	-	-	-	794	794	655
Total Contributions	1,027,231	-	26,245	794	1,054,270	1,035,166
Investment Income						
Net Appreciation/(Depreciation) in Fair Value of Investments	2,197,191	46,225	6,850	2,982	2,253,248	(2,463,745)
Dividends, Interest, and Other Investment Income	296,432	6,363	1,058	24	303,877	507,687
Securities Lending Income						
Gross Earnings	12,220	262	44	-	12,526	4,406
Less: Borrower Rebates and Bank Charges	(11,295)	(242)	(40)	-	(11,577)	(3,612)
Net Securities Lending Income	925	20	4	-	949	794
Total Investment Income/(Loss)	2,494,548	52,608	7,912	3,006	2,558,074	(1,955,264)
Investment Fees and Expenses	(169,067)	(3,629)	(603)	(3)	(173,302)	(149,896)
Net Investment Income/(Loss)	2,325,481	48,979	7,309	3,003	2,384,772	(2,105,160)
Total Additions	**3,352,712**	**48,979**	**33,554**	**3,797**	**3,439,042**	**(1,069,994)**
Deductions						
Participant Benefits	1,200,307	36,837	7,157	-	1,244,301	1,159,589
Death Benefits	1,190	-	-	-	1,190	1,558
Member Withdrawals and Refunds	14,751	-	-	-	14,751	22,239
Employer OPEB Payments	-	-	-	1,531	1,531	1,466
Administrative Expenses	29,056	24	23	23	29,126	23,614
Total Deductions	**1,245,304**	**36,861**	**7,180**	**1,554**	**1,290,899**	**1,208,466**
Net Increase /(Decrease)	2,107,408	12,118	26,374	2,243	2,148,143	(2,278,460)
Net Position Restricted For Pension, Other Postemployment Benefits and Employer, Beginning of Year	19,690,021	452,720	51,005	17,221	20,210,967	22,489,427
Ending Net Position Restricted For Pension, Other Postemployment Benefits and Employer	**$ 21,797,429**	**$ 464,838**	**$ 77,379**	**$ 19,464**	**$ 22,359,110**	**$ 20,210,967**

The accompanying notes are an integral part of these financial statements.

Notes to the Basic Financial Statements

NOTE 1 : Plan Descriptions

The Orange County Employees Retirement System (OCERS or System) was established in 1945 under the provisions of the County Employees Retirement Law of 1937 (CERL). OCERS is governed by a ten-member Board of Retirement, nine voting members and one alternate member. Board membership consists of four members appointed by the County of Orange Board of Supervisors, five members elected by the members of the System, including an alternate, two by the general members, one by the safety members, and one by the retired members. Safety members elect the alternate member. The County of Orange Treasurer Tax-Collector, elected by the voters registered in the County, serves as an Ex-Officio member.

OCERS operates as a cost-sharing multiple-employer defined benefit pension plan for the County of Orange, Orange County Superior Court of California, City of San Juan Capistrano, and ten special districts: Orange County Cemetery District, Children and Families Commission of Orange County, Orange County Employees Retirement System, Orange County Fire Authority, Orange County In-Home Supportive Services Public Authority, Orange County Local Agency Formation Commission (LAFCO), Orange County Public Law Library, Orange County Sanitation District, Orange County Transportation Authority and Transportation Corridor Agencies. Capistrano Beach Sanitary District, Cypress Recreation & Parks District, Orange County Mosquito and Vector Control District, City of Rancho Santa Margarita, the Orange County Department of Education and the University of California, Irvine Medical Center and Campus are no longer active employers, but retired members and their beneficiaries, as well as deferred members, remain in the System. OCERS is legally and fiscally independent of the County of Orange.

Pension Plan Membership

OCERS provides retirement, disability and death benefits to general and safety members. Safety membership includes those members serving in active law enforcement, fire suppression and as probation officers. General membership applies to all other occupations. Plan retirement benefits are tiered based upon date of OCERS membership. Tier I members were hired prior to September 21, 1979 and use their highest one-year average salary to determine their retirement allowance while Tier II members were hired on or after September 21, 1979 and use their highest three-year average salary to determine their retirement allowance. All Public Employees' Pension Reform Act (PEPRA) members hired on or after January 1, 2013 are Tier II and use their highest three-year average salary to determine their retirement allowance. Member rate groups are determined by employer, bargaining unit, and benefit plan (a description of the benefit plans can be found under Member Retirement Benefits). The benefit plan represents the benefit formula and tier that will be used in calculating a retirement benefit. All regular employees scheduled to work 20 hours or more per week become members of the plan upon commencing employment with one of OCERS' employers, with the exception of a provision adopted in 2014 that allows new members over the age of 60 to opt out of the plan if their employer has implemented the provision. Active members are categorized as vested in the following table upon accumulating five years of accredited service or attaining the age of 70. Additional information regarding the pension plan's benefit structure is included in the Summary Plan Description that is available on the web at **https://www.ocers.org/summary-plan-description.**

The following table is a summary of OCERS' general and safety membership as of December 31, 2023, consisting of active members, retired members or their beneficiaries, and deferred members who have terminated, but are not yet receiving benefits (further information regarding benefit eligibility for deferred members is described under the Deferred Members Benefits section):

Notes to the Basic Financial Statements

NOTE 1 : Plan Descriptions (continued)

OCERS Membership - General Members

As of December 31, 2023

Rate Group	Benefit Plan	Tier	Active Vested	Active Non-Vested	Retired Members & Beneficiaries	Deferred Members	Total
1	A	I	-	-	270	1	271
1	B	II	443	4	566	267	1,280
1	U	II-PEPRA	338	1,002	19	601	1,960
Rate Group 1 Total			**781**	**1,006**	**855**	**869**	**3,511**
2	A	I	-	-	2,316	7	2,323
2	B	II	-	-	1,834	524	2,358
2	I	I	6	-	1,112	-	1,118
2	J	II	6,406	79	8,179	2,329	16,993
2	P	II	142	10	20	104	276
2	S	II	7	2	4	11	24
2	T	II-PEPRA Compliant	2,822	4,063	40	2,716	9,641
2	U	II-PEPRA	406	779	9	155	1,349
2	W	II-PEPRA Alternative	1	1	-	-	2
Rate Group 2 Total			**9,790**	**4,934**	**13,514**	**5,846**	**34,084**
3	A	I	-	-	67	1	68
3	B	II	40	12	72	40	164
3	G	I	-	-	30	-	30
3	H	II	191	-	460	52	703
3	U	II-PEPRA	172	193	5	68	438
Rate Group 3 Total			**403**	**205**	**634**	**161**	**1,403**
4	H	II	-	-	1	-	1
Rate Group 4 Total			**-**	**-**	**1**	**-**	**1**
5	A	I	1	-	346	2	349
5	B	II	679	13	1,262	496	2,450
5	U	II-PEPRA	129	442	8	261	840
Rate Group 5 Total			**809**	**455**	**1,616**	**759**	**3,639**
9	A	I	-	-	4	-	4
9	B	II	-	-	10	12	22
9	N	II	16	2	56	38	112
9	U	II-PEPRA	16	25	3	28	72
Rate Group 9 Total			**32**	**27**	**73**	**78**	**210**
10	A	I	-	-	6	-	6
10	B	II	-	-	38	6	44
10	I	I	-	-	16	-	16
10	J	II	74	-	179	85	338
10	N	II	22	14	5	30	71
10	U	II-PEPRA	72	143	5	172	392
Rate Group 10 Total			**168**	**157**	**249**	**293**	**867**
11	A	I	-	-	3	-	3
11	B	II	-	-	3	-	3
11	N	II	13	-	8	2	23
11	U	II-PEPRA	7	4	0	3	14
Rate Group 11 Total			**20**	**4**	**14**	**5**	**43**
12	B	II	-	-	3	1	4
12	H	II	11	-	8	2	21
12	U	II-PEPRA	2	1	-	-	3
Rate Group 12 Total			**13**	**1**	**11**	**3**	**28**
Total General Members			12,016	6,789	16,967	8,014	43,786

Notes to the Basic Financial Statements

NOTE 1 : Plan Descriptions (continued)

OCERS Membership - Safety Members

As of December 31, 2023

Rate Group	Benefit Plan	Tier	Active Vested	Active Non-Vested	Retired Members & Beneficiaries	Deferred Members	Total
6	C	I	-	-	87	-	87
6	D	II	-	-	45	33	78
6	E	I	-	-	45	-	45
6	F	II	476	1	453	164	1,094
6	V	II-PEPRA	43	79	-	27	149
Rate Group 6 Total			**519**	**80**	**630**	**224**	**1,453**
7	C	I	-	-	405	-	405
7	D	II	-	-	285	20	305
7	E	I	-	-	276	-	276
7	F	II	631	-	1,660	81	2,372
7	R	II	360	33	31	36	460
7	V	II-PEPRA	542	577	36	68	1,223
Rate Group 7 Total			**1,533**	**610**	**2,693**	**205**	**5,041**
8	C	I	-	-	27	-	27
8	D	II	-	-	69	2	71
8	E	I	-	-	16	-	16
8	F	II	484	1	866	32	1,383
8	R	II	92	67	10	14	183
8	V	II-PEPRA	173	418	5	88	684
Rate Group 8 Total			**749**	**486**	**993**	**136**	**2,364**
Total Safety Members			2,801	1,176	4,316	565	8,858
Grand Total			14,817	7,965	21,283	8,579	52,644

Member Retirement Benefits

Members are entitled to receive a retirement allowance with ten or more years of service credit beginning at age 50 (5 years of service and age 52 for General PEPRA plans and 5 years of service and age 50 for Safety PEPRA, for all plans except those identified as PEPRA compliant and PEPRA alternative), at any age with thirty years of service credit (twenty years of service credit for safety members), or if a part-time employee at age 55 or older with five or more years of service credit and at least ten years of active employment with a sponsoring agency covered by OCERS. Members attaining age 70 are eligible to retire regardless of credited service. Benefits received are determined by plan formula, age, years of service and final average salary. Member rate groups and benefit plans as of December 31, 2023, are as follows:

Notes to the Basic Financial Statements

NOTE 1 : Plan Descriptions (continued)

Rate Groups and Benefit Plans

As of December 31, 2023

Rate Group	Plan Type	Benefit Plan	Benefit Formula per Year of Service	Sponsoring Agencies
#1	General	A	2.0% @ 57	County of Orange and OC In-Home Supportive Services Public Authority (OC Department of Education, UCI Medical Center and Campus, Capistrano Beach Sanitary District, Cypress Recreation & Parks District, and OC Mosquito and Vector Control District are no longer active employers)
		B	1.67% @ 57.5	
		U	2.5% @ 67 PEPRA	
#2	General	A	2.0% @ 57	County of Orange; City of San Juan Capistrano; Orange County LAFCO; OCERS; Orange County Superior Court of California; and Children and Families Commission of Orange County
		B	1.67% @ 57.5	
		I	2.7% @ 55	
		J	2.7% @ 55	
		P	1.62% @ 65	
		S	2.0% @ 57	
		T	1.62% @ 65 PEPRA Compliant	
		U	2.5% @ 67 PEPRA	
		W	1.62% @ 65 PEPRA Alternative	
#3	General	A	2.0% @ 57	OC Sanitation District
		B	1.67% @ 57.5	
		G	2.5% @ 55	
		H	2.5% @ 55	
		U	2.5% @ 67 PEPRA	
#4	General	H	2.5% @ 55	City of Rancho Santa Margarita (no longer an active employer)
#5	General	A	2.0% @ 57	OC Transportation Authority
		B	1.67% @ 57.5	
		U	2.5% @ 67 PEPRA	
#6	Safety	C	2.0% @ 50	County of Orange (Probation)
		D	2.0% @ 50	
		E	3.0% @ 50	
		F	3.0% @ 50	
		V	2.7% @ 57 PEPRA	
#7	Safety	C	2.0% @ 50	County of Orange (Law Enforcement)
		D	2.0% @ 50	
		E	3.0% @ 50	
		F	3.0% @ 50	
		R	3.0% @ 55	
		V	2.7% @ 57 PEPRA	
#8	Safety	C	2.0% @ 50	OC Fire Authority
		D	2.0% @ 50	
		E	3.0% @ 50	
		F	3.0% @ 50	
		R	3.0% @ 55	
		V	2.7% @ 57 PEPRA	

Notes to the Basic Financial Statements

NOTE 1 : Plan Descriptions (continued)

Rate Groups and Benefit Plans (continued)

As of December 31, 2023

Rate Group	Plan Type	Benefit Plan	Benefit Formula per Year of Service	Sponsoring Agencies
#9	General	A	2.0% @ 57	Transportation Corridor Agencies
		B	1.67% @ 57.5	
		N	2.0% @ 55	
		U	2.5% @ 67 PEPRA	
#10	General	A	2.0% @ 57	OC Fire Authority
		B	1.67% @ 57.5	
		I	2.7% @ 55	
		J	2.7% @ 55	
		N	2.0% @ 55	
		U	2.5% @ 67 PEPRA	
#11	General	A	2.0% @ 57	OC Cemetery District
		B	1.67% @ 57.5	
		N	2.0% @ 55	
		U	2.5% @ 67 PEPRA	
#12	General	B	1.67% @ 57.5	OC Law Library
		H	2.5% @ 55	
		U	2.5% @ 67 PEPRA	

Public Employees’ Pension Reform Act (PEPRA)

During 2012, the Public Employees Pension Reform Act (PEPRA) was signed into law, resulting in the creation of three new benefit formulas for employees entering OCERS on or after January 1, 2013: 1.62% @ 65 PEPRA - General; 2.5% @ 67 PEPRA - General; and 2.7% @ 57 PEPRA – Safety. New plan provisions include a cap on pensionable compensation at 120% of the social security taxable wage base limit, three year final average salary, and new cost-sharing requirements by members to pay at least 50% of the total normal cost of the plan.

Deferred Member Benefits

If a member terminates employment with a participating employer, the member is entitled to either withdraw the employee contributions made, together with accumulated interest, unless the member enters a reciprocal retirement system within 180 days and establishes reciprocity or if they can receive a deferred retirement allowance when eligible. There are different deferred retirement eligibility requirements for members with less than five years of service when terminating and leaving funds on deposit. It is possible for these members to earn a deferred retirement allowance upon attaining the age of 70, or upon accumulating reciprocal service. Members who terminate employment with a participating employer, and defer with five or more years of service may become eligible for a service retirement allowance when they would have accrued ten years of service and attain the age of 50 or greater (5 years of service and age 52 for PEPRA).

Notes to the Basic Financial Statements

NOTE 1 : Plan Descriptions (continued)

Disability Benefits

Members found by the Board of Retirement to be permanently incapacitated from the performance of their job are eligible for disability retirement benefits. A disability retirement benefit may either be service-connected or non-service-connected. Members applying for non-service-connected disability must have five or more years of eligible service credit. There are no service credit requirements for members applying for service-connected disability benefits, but the disabling condition must be a result of a permanent incapacitating injury or disease arising out of or in the course of the member's employment.

Death Benefits

Death benefits are payable to eligible beneficiaries of OCERS members. Eligible beneficiaries of retired members may receive a percentage of a deceased member's retirement allowance based upon the retirement option selected by the member at the time of retirement. The beneficiary of a retired member will also receive a $1,000 burial benefit.

Survivor benefits for members who die prior to retirement are dependent upon a number of factors including whether or not the member was eligible for a service retirement or disability retirement at the time of death, and whether the death was job related. The eligible beneficiary of a member who is not eligible for service retirement or disability retirement is eligible to receive the member's accumulated contributions plus one month's salary for each year of creditable service, subject to a maximum of six month's salary. The eligible beneficiary of a member who is entitled to receive a service retirement or disability retirement, in lieu of the benefit described above, may elect to receive a monthly retirement allowance equal to 60% of the monthly allowance the member would have received for a non-service connected disability as of the day after the date of death, or a monthly allowance equal to the higher of 50% of the member's monthly compensation and service retirement allowance if the death was found to be service-connected.

Survivor benefits for deferred members (with no reciprocity) that are not eligible for service retirement consist of a refund to eligible beneficiaries of all contributions and interest accumulated by the member as of the date of death.

Cost-of-Living Adjustments

Retired member monthly allowances will be adjusted annually in accordance with changes in the cost-of-living, as determined by the average annual change in the Consumer Price Index (CPI) for the Los Angeles-Long Beach-Anaheim area for the prior calendar year. The cost-of-living adjustment (COLA) is limited to a maximum increase or decrease of three percent per year as established by the Board of Retirement. The 2023 cost-of-living adjustment was 7.5% ; this adjustment will increase benefit recipients allowances by 3% with the remaining 4.5% added to the recipients COLA bank. The COLA bank can be used in subsequent years when the change in CPI falls below 3%.

STAR COLA

Retired members and eligible beneficiaries who have lost more than 20% of their original retirement benefit's purchasing power due to inflation are eligible to receive the STAR COLA (Supplemental Targeted Adjustment for Retirees Cost-of-Living Adjustment). STAR COLA benefits are reviewed annually by the Board of Retirement and as of December 31, 2023, the Board has determined that presently only those members that retired on or before April 1, 1980 are eligible to receive the STAR COLA benefit.

Postemployment Health Care Plans

OCERS serves as trustee for the County of Orange (County) multiple-employer cost-sharing defined benefit postemployment health care plan trust and Orange County Fire Authority (OCFA) single-employer postemployment health care plan trust established under Internal Revenue Code section 401(h), which are reported as other postemployment benefit trust funds in OCERS basic financial statements. Health care assets for the 401(h) trusts are commingled with pension trust assets for investment purposes and are used exclusively to pay health allowances to eligible retired members of the County of Orange and participating special districts including OCERS and the OCFA.

Notes to the Basic Financial Statements

NOTE 1 : Plan Descriptions (continued)

In July 2007, the County of Orange established under Internal Revenue Code both a 115 trust and a 401(h) trust as funding sources of retiree health care benefits, including grants, for the County of Orange Retiree Medical Plan (the "Plan"). The County maintains control and custody of all the 115 trust assets, which acts as a conduit for collecting contributions and passing them through to the 401(h) trust at their discretion, as well as distributing lump sum health care grant payments as part of a termination program that is being phased-out. OCERS maintains custody of the assets in the 401(h) trust and pays all primary benefits of the Plan as directed by the County. The County has evaluated the structure of its plan and related roles and responsibilities and has determined that the County is the plan administrator. Therefore, the County has taken financial reporting responsibility of the plan including financial statement disclosures and required supplementary information regarding the plan's funded status and contributions, in accordance with Governmental Accounting Standards Board (GASB) Statement No. 74, *Financial Reporting for Postemployment Benefit Plans Other than Pension Plans* (GASB 74). A publicly available financial report can be obtained from the County of Orange at 12 Civic Center Plaza, Santa Ana, California 92702 or their website at **http://ac.ocgov.com.**

As trustee of OCFA's 401(h) Other Postemployment Benefit (OPEB) trust fund, the sole source of funding for OCFA's postemployment health care plan, OCFA has evaluated the structure of its plan and related roles and responsibilities and has determined that OCFA is the plan administrator. Therefore, OCFA has taken financial reporting responsibility of the Plan including financial statement disclosures and required supplementary information regarding the plan's funded status and contributions, in accordance with GASB 74. A publicly available financial report can be obtained from the Orange County Fire Authority at 1 Fire Authority, Irvine, California 92602 or their website at **http://ocfa.org**.

Assets are allocated on the Statement of Fiduciary Net Position between the pension plan and the two 401(h) health care trusts based upon pro-rata shares of the net position after balances and transactions specific to the respective trusts are assigned. Contributions and benefit payment information for the pension plan and individual health care trusts are readily identified; however, investment income must be allocated and is based upon the individual health care trusts' pro-rata share of total fund assets.

Custodial Fund

In addition to serving as Trustee for the two 401(h) health care trusts, OCERS also provides investment advisory services to the Orange County Transportation Authority (OCTA) health care plan established in accordance with Internal Revenue Code section 115 (115 Plan). Investments in the 115 Plan are not commingled with those of the pension plan and 401(h) plan trusts, but rather are invested in separately managed index funds. OCTA's 115 Plan assets held by OCERS in an investment capacity are reported as a Custodial Fund. Additional information regarding the OCTA 115 Plan is available by contacting OCTA at 550 S. Main Street, Orange, California 92868 or their website at **http://www.octa.net.**

NOTE 2 : Summary of Significant Accounting Policies

Reporting Entity

OCERS is an independent public employees' retirement system with its own governing board. Due to the nature of the relationship between OCERS and the County of Orange (County), OCERS' Pension Plan and Other Postemployment Benefit Trust Funds and Custodial Fund are reflected as fiduciary funds within the County's basic financial statements.

Basis of Accounting

The accompanying financial statements have been prepared on the accrual basis of accounting and in accordance with accounting principles generally accepted in the United States of America (GAAP). Employee and employer contributions are recognized in the period in which contributions are due pursuant to legal requirements, and benefits and refunds are recognized when currently due and payable in accordance with plan terms. Unearned contributions represent prepaid employer contributions that will be recognized as an addition to plan net position in future periods. Investment income is recognized as revenue when earned. The net appreciation/(depreciation) in the fair value of investments is recorded as an increase/(decrease) to investment income based upon investment valuations, which includes both realized and unrealized gains and losses on investments.

Notes to the Basic Financial Statements

NOTE 2 : Summary of Significant Accounting Policies (continued)

Investment Policy and Valuation

State Street Bank and Trust (State Street) maintains custody of the majority of OCERS' investments held as of December 31, 2023. The acquisition of investments is authorized by state statute and OCERS' Investment Policy Statement (refer to Note 3: Investments for further information). Investments are reported at fair value on a trade-date basis. The allocation of investment assets is approved by OCERS' Board of Retirement, as outlined in the Investment Policy Statement, and System assets are invested solely for the benefit of plan participants and beneficiaries while attempting to minimize employer contributions and investment and administration costs. The Investment Policy Statement calls for an asset allocation plan that seeks to optimize long-term returns for the level of risk that the Board of Retirement considers appropriate. The current asset allocation adopted by the Board of Retirement as of December 31, 2023, is detailed in Note 3: Investments and Section 3: Investments. The Board of Retirement conducts a periodic review of the asset allocation plan to maintain an optimal allocation, and may also revise the asset allocation in response to significantly changing market conditions that may affect valuations and forward-looking expected returns of asset classes.

Plan investments consist of global public equity securities, income strategies (including fixed income and credit instruments), real assets, risk mitigation, unique strategies, and private equity. Investments are reported at fair value and the overall valuation process and information sources by major asset classification are as follows:

Cash and Short-Term Investments

Cash and short-term investments represent funds held in operating accounts with State Street, Wells Fargo Bank and deposits held in a pooled account with the County of Orange Treasurer. Short-term investments are expected to be utilized within 30-90 days and are reported at fair value. OCERS is a participant in the County Treasurer's Orange County Investment Pool (OCIP). The OCIP is an external investment pool, is not rated, and is not registered with the Securities and Exchange Commission. The County Treasury Oversight Committee conducts OCIP oversight. Cash on deposit in the OCIP is stated at fair value. The OCIP values participant shares on an amortized cost basis during the year and adjusts to fair value at year-end. Deposits held in the OCIP are invested in the Orange County Money Market Fund and the Extended Fund. The Orange County Money Market Fund is rated AAAm by Standard & Poor's. The Extended Fund is not rated. For further information regarding the OCIP, refer to the County of Orange's most recently available Annual Comprehensive Financial Report.

Global Public Equity

The majority of OCERS' domestic, international and global securities, including those traded in emerging markets, consist of institutional funds that are valued based on the fair value of underlying investments using pricing models or other valuation methodologies that use pricing inputs that are either directly or indirectly observable on the valuation date for the securities or assets held in the fund. Other domestic, international and global securities are actively traded on major security exchanges, or over-the-counter. Fair value for exchange traded securities is determined as of the close of the trading date in the primary market or agreed upon exchange. The last known price is used for listed securities that did not trade on a particular date. Fair value is obtained from third-party pricing sources for securities traded over-the-counter.

Income Strategies

Income strategies includes core fixed income and credit strategies. Core fixed income is actively traded debt instruments such as those securities issued by the U.S. Treasury, Federal Agencies and corporate issuers are reported at fair value as of the close of the trading date. Fair values of irregularly traded debt securities are obtained from pricing vendors who employ modeling techniques in determining security values. Inputs typically employed by pricing vendors include cash flows, maturity and credit rating.

Notes to the Basic Financial Statements

NOTE 2 : Summary of Significant Accounting Policies (continued)

Credit is a global allocation that includes a number of diverse fixed-income related strategies. It represents an allocation that is diversified by region, by credit quality, and by sources of risk. The general shared characteristics of these strategies are a degree of illiquidity, and a focus on current yield as a principal source of expected return. Hedging of market and individual security risks and diversified risk-controlled tactical trading may be permitted.

Credit is a combination of liquid and illiquid credit strategies and the fair value depends on the nature of the investment. For credit funds structured as partnerships, the fair values are based on NAV. Credit included in Level 2 of the fair value hierarchy may be estimated by the underlying managers in the absence of observable market data or the general partner may estimate the fair value in good faith using the best information available, which may incorporate the general partner's own assumptions. The liquid strategies comprised of multi-strategies are actively traded and are generally reported at fair value as of the close of the trading date. The illiquid strategies comprised of mortgages, direct lending and energy-based credit funds are valued initially at cost as an approximation of fair value with subsequent adjustments to fair value as determined by the general partner. The factors considered include readily available market quotes, earnings-multiple analysis using comparable companies or discounted cash flow analysis.

Real Assets

OCERS invests in real assets, which include agriculture, energy, infrastructure, and real estate. The fair value for real estate, energy, infrastructure and agriculture are determined based on independent appraisals and/or estimates made in good faith by the general partner or management.

Real estate assets are in commingled real estate funds structured as either limited partnerships or trust funds. Properties held in commingled funds are based on the investment's net asset value (NAV) per share provided by the investment management firms/general partners, who perform regular internal appraisals and obtained at regular intervals independent third-party appraisals and are further supported by annual financial statements, which are audited by an independent third-party accountant. Primary determinants of fair value include market and property type specific information, which typically involve a degree of expert judgment.

Other real asset funds, agriculture, energy, and infrastructure, are held in limited partnerships. The investment's NAV per share are provided by the investment management firms/general partners, and are further supported by annual financial statements, which are audited by an independent third-party accountant. Primary determinants of fair value include market specific information, which involves a degree of expert judgment.

Other Investments

OCERS invests in a variety of alternative strategies which include private equity, unique strategies, and risk mitigation investments.

Private equity and unique strategies are alternative strategies. The fair value of these alternative investments depends upon the nature of the investment and the underlying business. Typically, alternative investments are less liquid and subject to redemption restrictions. Fair value is determined either quarterly or semi-annually with valuations conducted by general partners, management and valuation specialists. Valuation techniques vary by investment type and involve expert judgment or estimates made in good faith using the best information available, including the general partner's or management's own assumptions. Investments reported at NAV are based on audited financial statements.

Risk mitigation investments include generally liquid investments with shorter redemption periods. Risk mitigation funds included in Level 2 are short-term investment funds and NAV is determined daily; for risk mitigation funds structured as partnerships, the fair values are based on NAV. Risk mitigation investments are uncorrelated or negatively correlated to economic growth assets.

Notes to the Basic Financial Statements

NOTE 2 : Summary of Significant Accounting Policies (continued)

Capital Assets

Capital assets consist of furniture, equipment, intangible assets, including internally generated computer software, construction-in-progress, and building and improvements for the portion of the OCERS headquarters building used for plan administration. Capital assets are defined by OCERS as assets with an initial, individual cost of more than $25,000 and an estimated useful life in excess of one year. Such assets are recorded at cost and reflected on the statement of fiduciary net position, net of accumulated depreciation/amortization. Depreciation/amortization is charged to operations using the straight-line method on the estimated useful life of the related asset and is included in administrative expenses on the statement of changes in fiduciary net position. Generally, estimated useful lives range from a minimum of more than one year to approximately 40 years.

Capital Assets
As of December 31, 2023
(Dollars in Thousands)

Building and Improvements	$	5,356
Computer Software - Pension Administration System		21,854
Construction-In-Progress		346
Data Center		1,234
Furniture and Equipment		891
Total Capital Assets (at cost)		29,681
Less: Accumulated Depreciation and Amortization		(22,754)
Total Capital Assets (Net of Depreciation and Amortization)	**$**	**6,927**

Use of Estimates

The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect reported amounts of net position. Actual results could differ from those estimates.

Comparative Totals

The basic financial statements include certain prior-year summarized comparative information in total but not at the level of detail required for a presentation in conformity with GAAP. Accordingly, such information should be read in conjunction with OCERS' financial statements for the year ended December 31, 2022, from which the summarized information was derived.

Effect of New GASB Pronouncement

GASB issued Statement No. 96, *Subscription-Based Information Technology Arrangements* (SBITA) (GASB 96), which is effective for the fiscal year ended December 31, 2023. This statement identifies a SBITA as a contract that conveys control of capital assets (the underlying IT assets), as specified in the contract for a period of time (excluding SBITAs that are 12 months or less), in an exchange or exchange-like transaction. GASB 96 establishes that a SBITA results in a right-to-use subscription asset and a corresponding subscription liability; provides the capitalization criteria for outlays other than subscription payments, including implementation costs of a SBITA; and requires note disclosures regarding a SBITA. OCERS completed a thorough evaluation of GASB 96 and determined that the recognition and measurement criteria applied to OCERS' current SBITA contracts would have an immaterial impact to financial reporting. Therefore, there are no new SBITA contract disclosures included in OCERS' December 31, 2023 financial statements. OCERS will continue to evaluate SBITAs with respect to impact in future periods.

Notes to the Basic Financial Statements

NOTE 3 : Investments

OCERS may invest, in accordance with state statutes, in any form or type of investment deemed prudent by the Board of Retirement. Pension and 401(h) health care plan assets are restricted for the exclusive purposes of providing benefits to plan participants and defraying reasonable expenses of administering the plans. The Board of Retirement may invest, or delegate the authority to invest, the assets of the funds through the purchase, holding, or sale of any form or type of investment, financial instrument, or financial transaction. Custodial fund assets, restricted pursuant to section 115 of the Internal Revenue Code, are separately invested in domestic equity, international equity and domestic bond index funds in accordance with the respective OCTA Third-Party Administrative and Investment Management Agreement.

The following table shows the Investment Allocation as of December 31, 2023:

Investment Allocation
As of December 31, 2023

Investment Category	Policy	Target Ranges	Actual
Global Public Equity	45%	38% - 52%	46%
Private Equity	15%	10% - 20%	16%
Income Strategies	17%	12% - 22%	14%
Real Assets	13%	8% - 18%	14%
Risk Mitigation	10%	6% - 14%	8%
Unique Strategies	0%	0% - 5%	1%
Cash & Cash Equivalents	0%	0% - 5%	1%
Total	**100%**		**100%**

During 2023, changes made to the investment allocation include combining the Core Fixed Income and Credit categories to create the Income Strategies category, and slight allocation adjustments.

Custodial Credit Risk

Custodial credit risk for deposits is the risk that in the event of a financial institution's failure, OCERS would not be able to recover its deposits. Deposits are exposed to custodial risk if they are not insured or not collateralized. As of December 31, 2023, OCERS' deposits with a financial institution are fully insured by Federal Deposit Insurance Corporation (FDIC) insurance up to $250,000 with the remaining balance exposed to custodial credit risk as it is not insured; however, the financial institution does collateralize the deposit of monies in excess of the FDIC insurance amount with eligible securities held by the pledging financial institution, but not in OCERS' name, which approximates $109.3 million. Deposits held by OCERS' custodial bank are not exposed to custodial credit risk as they are held in a qualified pool trust, separate from the custodial bank assets.

For an investment, custodial credit risk is the risk that, in the event of a counterparty failure, OCERS will not be able to recover the value of its investments or collateral securities that are in the possession of counterparties. Investment securities are exposed to custodial credit risk if the securities are uninsured, are not registered in OCERS' name or by other qualified third-party administrator trust accounts.

OCERS' investments and collateral received through securities lending are not exposed to custodial credit risk because all securities are held by OCERS' custodial bank in OCERS' name or by other qualified third-party administrator trust accounts. The risk is managed by the custodian bank by diversifying the number of counterparties, with periodic review of the credit quality of counterparties and by regularly posting/receiving margins. OCERS does not maintain any general policies regarding custodial credit risk.

Notes to the Basic Financial Statements

NOTE 3 : Investments (continued)

Credit Risk

By definition, credit risk measures the risk that an issuer or counterparty will not fulfill its obligations. S&P Global defines investment grade as those fixed income securities with ratings between AAA and BBB. OCERS' investment policy permits, on an opportunistic basis, the investment in fixed income securities rated below investment grade. A rating of NR represents pooled funds and other securities that have not been rated by S&P Global and NA represents securities explicitly guaranteed by the U.S. Government that are not subject to the GASB Statement No. 40 disclosure requirements. The credit ratings for individual OCERS' fixed income portfolios are monitored regularly.

As of December 31, 2023, the S&P Global credit ratings of the OCERS' fixed income portfolio were as follows:

Credit Ratings

As of December 31, 2023

(Dollars in Thousands)

Rating	Pooled	U.S. Treasuries	Corporates	Mortgages	Asset-Backed	Municipals	Agencies	International	Swaps	Total
AAA	$ -	$ -	$ -	$ 13,660	$ 9,909	$ 2,584	$ -	$ -	$ -	$ 26,153
AA	-	-	8,085	385,851	7,744	14,416	-	432	-	416,528
A	-	-	42,071	915	3,982	10,413	-	18,845	-	76,226
BBB	-	-	171,768	368	3,893	-	-	83,399	-	259,428
BB	-	-	59,318	430	2,157	916	-	22,268	-	85,089
B	-	-	33,809	198	829	962	-	11,232	-	47,030
CCC	-	-	9,309	113	1,309	-	-	3,078	-	13,809
CC	-	-	4,015	-	-	-	-	-	-	4,015
D	-	-	249	-	889	-	-	178	-	1,316
NR	470,772	-	13,818	25,592	32,418	2,759	3,031	6,878	870	556,138
NA	-	306,294	-	24,144	-	-	-	-	-	330,438
Total	**$470,772**	**$ 306,294**	**$ 342,442**	**$ 451,271**	**$ 63,130**	**$ 32,050**	**$ 3,031**	**$ 146,310**	**$ 870**	**$1,816,170**

This schedule reflects credit ratings for OCERS' fixed income portfolio, which excludes $120.6 million of non-fixed income securities that are included in the Income Strategies investment category on the Statement of Fiduciary Net Position.

Notes to the Basic Financial Statements

NOTE 3 : Investments (continued)

Interest Rate Risk

Interest rate risk is the risk that changes in interest rates will adversely affect the fair value of an investment. Duration is a measure of the price sensitivity of a fixed-income portfolio to changes in interest rates. It is calculated as the weighted average time to receive a bond's coupon and principal payments. The longer the duration of a portfolio, the greater its price sensitivity to changes in interest rates.

Interest rate risk is managed through OCERS' investment policies requiring that investment managers investing on behalf of OCERS have applicable investment guidelines and that the effective durations of fixed income portfolios remain within a defined range of the benchmark's effective duration. The primary benchmark for domestic fixed income is a blend of two indices, the Bloomberg US Universal (85%) and the Bloomberg US Treasury TIPS (15%). As of December 31, 2023, the durations of these indices are 6.17 years and 2.36 years, respectively for a blended duration of 5.60 years. All investment managers were in compliance within their defined range.

OCERS invests in a variety of fixed income instruments including asset-backed securities, corporate obligations and commercial mortgage-backed securities. The value, liquidity and income of these securities are sensitive to changes in overall economic conditions and the fair value of these securities may be affected by changes in interest rates, default rates and the value of the underlying securities.

The interest rate risk schedule presents the duration of fixed income securities by investment category as of December 31, 2023:

Interest Rate Risk Schedule

As of December 31, 2023
(Dollars in Thousands)

Category	Amount	Duration (in Years)	Percent
Pooled	$ 470,772	3.36	26%
U.S. Treasuries	306,294	9.26	17%
Corporates	333,575	5.17	18%
Mortgages	440,337	4.75	24%
Asset-Backed	58,641	3.08	3%
Municipals	30,678	8.70	2%
Agencies	3,031	3.24	0%
International	146,059	4.38	8%
No Effective Duration:			
Corporates	8,867	N/A	1%
Mortgages	10,934	N/A	1%
Asset-Backed	4,489	N/A	0%
Municipals	1,372	N/A	0%
International	251	N/A	0%
Swaps	870	N/A	0%
Total	**$ 1,816,170**	**5.14**	**100%**

This schedule reflects interest rate risk for OCERS' fixed income portfolio, which excludes $120.6 million of non-fixed income securities that are included in the Income Strategies investment category on the Statement of Fiduciary Net Position.

Notes to the Basic Financial Statements

NOTE 3 : Investments (continued)

Foreign Currency Risk

The value of deposits or investments denominated in foreign currency may be adversely affected by changes in currency exchange rates. OCERS' investment policy permits investment in international securities that includes investments in international equity securities, global equity securities, emerging markets equity securities and debt, public real estate securities, and real return. Investment managers monitor currency exposures daily.

The following schedule represents OCERS' net exposure to foreign currency risk in U.S. dollars as of December 31, 2023:

Foreign Currency Risk Schedule
As of December 31, 2023
(Dollars in Thousands)

Currency in U.S. Dollar	Cash	Equity	Fixed Income	Forward Contracts	Swaps	Total
Australian Dollar	$ 241	$ 27,093	$ -	$ (376)	$ 13	$ 26,971
Brazilian Real	-	4,851	3,779	14	14	8,658
Canadian Dollar	1,545	28,780	142	712	(167)	31,012
Danish Krone	25	32,165	-	(9)	-	32,181
Euro Currency	4,403	457,752	1,433	(369)	91	463,310
Hong Kong Dollar	82	21,722	-	1	-	21,805
Indonesian Rupiah	-	1,080	-	-	-	1,080
Japanese Yen	141	175,525	-	1,006	27	176,699
Mexican Peso	5	-	226	(7)	-	224
New Israeli Shekel	-	1,175	-	62	-	1,237
New Zealand Dollar	-	1,467	-	19	-	1,486
Norwegian Krone	-	6,031	-	1,934	-	7,965
Polish Zloty	-	-	-	(123)	-	(123)
Pound Sterling	432	118,690	1,171	(146)	75	120,222
Russian Ruble	-	4,770	-	-	-	4,770
Singapore Dollar	102	8,281	-	8	-	8,391
South African Rand	5	-	-	-	-	5
South Korean Won	-	10,301	-	-	-	10,301
Swedish Krona	153	32,578	-	(243)	(42)	32,446
Swiss Franc	5	56,675	-	(843)	(16)	55,821
Amount Exposed to Foreign Currency Risk	**$ 7,139**	**$ 988,936**	**$ 6,751**	**$ 1,640**	**$ (5)**	**$ 1,004,461**

The foreign currency amounts above are included within the cash and cash equivalents, global public equity, and income strategies categories on the Statement of Fiduciary Net Position as of December 31, 2023.

Notes to the Basic Financial Statements

NOTE 3 : Investments (continued)

Concentration of Credit Risk

Concentration of credit risk is the risk of loss attributed to the magnitude of OCERS' investment in a single issuer. By policy, OCERS did not hold investments in any one issuer that represented five percent (5%) or more of plan net position and net investments. Investments issued or explicitly guaranteed by the U.S. Government and pooled investments are excluded from this policy requirement.

Concentration of Investments

As of December 31, 2023, OCERS did not hold investments in any one organization that represented five percent (5%) or more of the plan's fiduciary net position. Investments issued or explicitly guaranteed by the U.S. Government and pooled investments are excluded from this requirement.

Derivative Instruments

As of December 31, 2023, all derivative instruments held by OCERS are considered investments and not hedges for accounting purposes. Any reference to the term hedging in these financial statements references an economic activity and not an accounting method. All gains and losses associated with these activities are recognized as incurred in the Statement of Changes in Fiduciary Net Position.

The table that follows presents the related net appreciation/(depreciation) in fair value, the fair value amounts and the notional amounts of derivative instruments outstanding as of December 31, 2023:

Notes to the Basic Financial Statements

NOTE 3 : Investments (continued)

Derivative Instruments

As of December 31, 2023
(Amounts in Thousands)

Derivative Instruments	Changes in Fair Value Net Appreciation/ (Depreciation) [4] Amount [1]	Fair Value at December 31, 2023 Classification	Fair Value at December 31, 2023 Amount [2]	Notional [3]
Commodity Futures Long	$ (406)	Cash	$ -	$ 465
Commodity Futures Short	115	Cash	-	-
Credit Default Swaps Bought	-	Cash	-	-
Credit Default Swaps Written	391	Income Strategies	592	28,380
Fixed Income Futures Long	(4,155)	Cash / Income Strategies	-	69,761
Fixed Income Futures Short	(1,291)	Income Strategies	-	(38,883)
Fixed Income Options Bought	(153)	Income Strategies	-	-
Fixed Income Options Written	1,967	Income Strategies	(59)	(11,400)
Foreign Currency Futures Long	35	Cash	-	-
Foreign Currency Futures Short	(1)	Cash	-	-
Foreign Currency Options Written	8	Income Strategies	-	-
Futures Options Written	19	Income Strategies	-	-
FX Forwards	2,438	Foreign Currency Forward Contracts Receivables and Payables	1,640	363,330
Index Futures Long	18,878	Cash/Global Public Equity	-	1,964
Index Futures Short	(5,447)	Global Public Equity	-	(34)
Pay Fixed Interest Rate Swaps	503	Income Strategies	1,880	32,864
Receive Fixed Interest Rate Swaps	530	Income Strategies	(1,602)	85,896
Rights	(458)	Global Public Equity	-	-
Total Return Swaps Bond	(1,970)	Global Public Equity	(123)	24,146
Total Return Swaps Equity	2,443	Global Public Equity	99	(12,903)
Grand Totals	$ 13,446		$ 2,427	

[1] Negative values (in brackets) refer to losses
[2] Negative values refer to liabilities and are reported net of investments
[3] Notional may be a dollar amount or size of underlying for futures and options, negative values refer to short positions
[4] Excludes futures margin payments

Notes to the Basic Financial Statements

NOTE 3 : Investments (continued)

Valuation of Derivative Instruments

Non-exchange traded instruments, such as swaps, are valued using similar methods as those described for debt securities.

Futures contracts are traded on exchanges and typically derive their value from underlying indices and are marked to market daily. All gains and losses associated with changes in the value of futures contracts also settle on a daily basis and result in the contracts themselves having no fair value at the end of any trading day, including December 31, 2023. Future variation margin accounts also settle daily and are recognized in the financial statements under net appreciation/(depreciation) in the fair value of the investments as incurred.

In general, option values are dependent upon a number of different factors, including the current market price of the underlying security, the strike price of the option, costs associated with holding a position in the underlying security including interest and dividends, the length of time until the option expires and an estimate of the future price volatility of the underlying security relative to the time period of the option.

Foreign currency forward contracts are agreements to buy or sell a currency at a specified exchange rate on a specified date. The fair value of a foreign currency forward is determined by the difference between the specified exchange rate and the closing exchange rate at December 31, 2023.

Custodial Credit Risk – Derivative Instruments

As of December 31, 2023, all investments in derivative instruments are held in OCERS' name and are not exposed to custodial credit risk as described in the previous discussion of custodial credit risk.

Notes to the Basic Financial Statements

NOTE 3 : Investments (continued)

Counterparty Credit Risk – Derivative Instruments

A summary of counterparty credit ratings relating to non-exchange traded derivatives in asset positions as of December 31, 2023 is as follows:

Counterparty Credit Risk Schedule for Derivative Instruments

As of December 31, 2023

(Dollars in Thousands)

Counterparty Name	S&P Rating	Foreign Currency Forward Contracts	Swaps	Total Fair Value
Bank of America, CME	A-	$ -	$ 776	$ 776
Bank of America, ICE	A-	-	424	424
Bank of America Merrill Lynch Securities Inc.	A-	-	2,051	2,051
Bank of America, N.A.	A+	81	-	81
BNP Paribas SA	A+	37	-	37
Citibank N.A.	A+	2,487	-	2,487
Credit Event	NR	-	156	156
Goldman Sachs International	A+	-	8	8
JP Morgan Chase Bank, N.A.	A+	2,407	65	2,472
Morgan Stanley and Co. International PLC	A-	23	-	23
Morgan Stanley Co Incorporated	A-	-	116	116
Total Non-Exchange Traded Derivatives in Asset Position		**$ 5,035**	**$ 3,596**	**$ 8,631**

Notes to the Basic Financial Statements

NOTE 3 : Investments (continued)

Interest Rate Risk – Derivatives

At December 31, 2023, OCERS is exposed to interest rate risk on its investments in various swap arrangements based on daily interest rates for BRCDI (Brazilian Interbank Deposit Rate), BBSW (Australia bank bill swap rate), CETIP (Latin America largest central depository), SOFR (Secured Overnight Financing Rate) and European reference rates. The following table illustrates the maturity periods of these investments:

Interest Rate Risk - Schedules for Derivative Instruments

As of December 31, 2023
(Dollars in Thousands)

		Investment Maturities (in years)			
Investment Type	**Fair Value**	**Less Than 1**	**1-5**	**6-10**	**More than 10**
Credit Default Swaps Written	$ 592	$ 10	$ 644	$ -	$ (62)
Fixed Income Options Bought	(59)	(59)	-	-	-
Pay Fixed Interest Rate Swaps	1,880	-	107	175	1,598
Receive Fixed Interest Rate Swaps	(1,602)	(126)	(1,777)	104	197
Total Return Swaps Bond	(123)	(123)	-	-	-
Total Return Swaps Equity	99	99	-	-	-
Total	$ 787	$ (199)	$ (1,026)	$ 279	$ 1,733

Derivative Instruments Highly Sensitive to Interest Rate Changes

As of December 31, 2023
(Dollars in Thousands)

Investment Type	Receive Rate	Payable Rate	Fair Value	Notional
Pay Fixed Interest Swaps	Variable 3-month SOFR	Fixed 2.00%-2.06%	$ 207	$ 720
Pay Fixed Interest Swaps	Variable 12-month SOFR	Fixed 1.75%-4.25%	1,840	28,200
Pay Fixed Interest Swaps	Variable 3-month CAD	Fixed 3.50%-3.75%	(167)	3,944
Total Pay Fixed Interest Rate Swaps			$ 1,880	
Received Fixed Interest Rate Swaps	Fixed 4.75%	Variable 3-month BBSW	90	9,007
Received Fixed Interest Rate Swaps	Fixed 10.21%-11.84%	Variable 0-month BRCDI	15	9,737
Received Fixed Interest Rate Swaps	Fixed 10.21%	Variable 0-month CETIP	(1)	21
Received Fixed Interest Rate Swaps	Fixed 2.25%	Variable 3-month EURIB	(11)	1,988
Received Fixed Interest Rate Swaps	Fixed 0.65%-3.00%	Variable 6-month EURIB	17	7,843
Received Fixed Interest Rate Swaps	Fixed 2.00%	Variable 3-month SOFR	(281)	3,500
Received Fixed Interest Rate Swaps	Fixed 1.83%-4.75%	Variable 12-month SOFR	(1,431)	53,800
Total Receive Fixed Interest Rate Swaps			$ (1,602)	
Total Interest Rate Swaps			$ 278	

Notes to the Basic Financial Statements

NOTE 3 : Investments (continued)

Foreign Currency Risk – Derivatives

At December 31, 2023, OCERS is exposed to foreign currency risk on investments in swaps and forward currency contracts denominated in foreign currencies that may be adversely affected by changes in the currency exchange rates.

Foreign Currency Risk Schedule for Derivative Instruments

As of December 31, 2023
(Dollars in Thousands)

		Currency Forward Contracts			
Currency Name	**Options**	**Net Receivables**	**Net Payables**	**Swaps**	**Total Exposure**
Australian Dollar	$ -	$ 50	$ (426)	$ 13	$ (363)
Brazilian Real	-	112	(98)	14	28
Canadian Dollar	-	762	(50)	(167)	545
Danish Krone	-	13	(22)	-	(9)
Euro Currency	-	488	(857)	91	(278)
Hong Kong Dollar	-	1	-	-	1
Japanese Yen	-	1,336	(330)	27	1,033
Mexican Peso	-	-	(7)	-	(7)
New Israeli Shekel	-	63	(1)	-	62
New Zealand Dollar	-	19	-	-	19
Norwegian Krone	-	1,994	(60)	-	1,934
Polish Zloty	-	-	(123)	-	(123)
Pound Sterling	-	138	(284)	75	(71)
Singapore Dollar	-	9	(1)	-	8
Swedish Krona	-	38	(281)	(42)	(285)
Swiss Franc	-	12	(855)	(16)	(859)
Total Foreign Currency	**$ -**	**$ 5,035**	**$ (3,395)**	**$ (5)**	**$ 1,635**
U.S. Dollar	(59)	-	-	851	792
Total	**$ (59)**	**$ 5,035**	**$ (3,395)**	**$ 846**	**$ 2,427**

Rate of Return

For the year ended December 31, 2023, the annual money-weighted rate of return on the assets of the plan, net of investment expense, was 11.44%. The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the timing of cash flows and the changing amounts actually invested.

Notes to the Basic Financial Statements

NOTE 3 : Investments (continued)

Securities Lending

OCERS is authorized by investment policy and state law to lend its investment securities including global public equities, and income strategies to broker/dealers in exchange for collateral in the form of either cash or securities. Lent domestic and international securities are collateralized with an initial fair value of not less than 102% or 105% depending on the nature of the loaned securities and the collateral received, of fair value of the loaned securities. The lending agent receives cash and non-cash collateral for the securities on loan. There are no restrictions on the value of securities that can be lent at one time. State Street Bank serves, in accordance with a Securities Lending Authorization Agreement, as OCERS' agent to loan domestic and international securities. State Street Bank does not have the ability to pledge or sell collateral securities delivered absent a borrower default.

Cash collateral received on loaned securities is invested together with the cash collateral of other qualified tax-exempt investors in a collective investment fund managed by State Street. The collective investment fund is not rated and is comprised of one liquidity investment pool. As of December 31, 2023, the liquidity pool had an average duration of 109 days and a weighted average maturity of 25 days. Because loans are terminable at will, the duration of the loans did not generally match the duration of the investments made with the cash collateral. The Securities Lending Authorization Agreement requires State Street to indemnify OCERS if the broker/dealer fails to return any borrowed securities. During 2023, there were no failures to return loaned securities or to pay distributions by the borrowers. Furthermore, there were no losses due to borrower defaults. The fair value of securities on loan and the total cash and non- cash collateral held as of December 31, 2023 was $316.0 million and $326.3 million, respectively. The following table shows fair values of securities on loan and cash collateral received by asset class:

Securities on Loan and Collateral Received

As of December 31, 2023
(Dollars in Thousands)

Security Lent for Cash Collateral	Fair Value of OCERS' Securities Lent	Cash Collateral Received	Collateral Investment Value
Global Public Equity	$ 185,494	$ 192,598	$ 192,598
Income Strategies	130,552	133,673	133,673
Total	**$ 316,046**	**$ 326,271**	**$ 326,271**

Investments – Fair Value Measurements

OCERS categorizes its fair value measurements of its investments based on the three level fair value hierarchy established by GAAP. The fair value hierarchy is based on the valuation inputs used to measure fair value of the asset or liability and gives the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities (Level 1 inputs) and the lowest priority to unobservable inputs (Level 3 inputs). Unobservable inputs are developed using the best information available about the assumptions that market participants would use when pricing an investment. The three levels of the fair value hierarchy are:

- Level 1 - Unadjusted quoted prices for identical instruments in active markets.
- Level 2 - Quoted prices for similar instruments in active markets; quoted prices for identical or similar instruments in markets that are not active; and model-derived valuations in which all significant inputs are observable.
- Level 3 - Valuations are derived from valuation techniques in which significant inputs are unobservable. Investments that are measured at fair value using the net asset value per share (or its equivalent) as a practical expedient are not classified in the fair value hierarchy.

Notes to the Basic Financial Statements

NOTE 3 : Investments (continued)

The following table represents the fair value measurements as of December 31, 2023:

Investments and Derivative Instruments Measured at Fair Value

As of December 31, 2023
(Dollars in Thousands)

	12/31/2023	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Investments by Fair Value Level				
Income Strategies:				
U.S. Fixed Income:				
Pooled	$ 470,772	$ -	$ 470,772	$ -
U.S. Treasuries	306,294	-	306,294	-
Corporates	342,442	-	342,442	-
Mortgages	451,271	-	451,271	-
Asset-backed	63,130	-	63,130	-
Municipals	32,050	-	32,050	-
Agencies	3,031	-	3,031	-
International	146,310	-	146,310	-
Total Income Strategies	**1,815,300**	**-**	**1,815,300**	**-**
Global Public Equity Investments:				
Domestic Equity	6,615,303	586,841	6,028,462	-
International Equity	2,330,138	820,524	1,509,614	-
Emerging Markets Equity	359,003	-	359,003	-
Total Global Public Equity	**9,304,444**	**1,407,365**	**7,897,079**	**-**
Real Assets:				
Agriculture	15,172	-	-	15,172
Real Estate	11,001	-	-	11,001
Total Real Assets	**26,173**	**-**	**-**	**26,173**
Other Investments:				
Risk Mitigation	537,609	-	537,609	-
Total Other Investments	**537,609**	**-**	**537,609**	**-**
Total Investments by Fair Value Level	**$ 11,683,526**	**$ 1,407,365**	**$ 10,249,988**	**$ 26,173**

Notes to the Basic Financial Statements

NOTE 3 : Investments (continued)

Investments and Derivative Instruments Measured at Fair Value

As of December 31, 2023
(Dollars in Thousands)
(Continued)

	12/31/2023	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Investments Measured at the Net Asset Value (NAV)				
Global Public Equity:				
International Equity	$ 535,424			
Emerging Markets Equity	686,365			
Total Global Public Equity	**1,221,789**			
Real Assets:				
Energy	772,562			
Infrastructure	699,990			
Real Estate	1,520,550			
Total Real Assets	**2,993,102**			
Other Investments:				
Income Strategies	1,299,996			
Private Equity	3,588,711			
Risk Mitigation	1,276,213			
Unique Strategies	123,207			
Total Other Investments	**6,288,127**			
Total Investments Measured at the NAV	**$ 10,503,018**			
Investments Derivative Instruments				
Swaps:				
Interest Rate Swaps	$ 278	$ -	$ 278	$ -
Credit Default Swaps	592	-	592	-
Total Return Swaps	(24)	-	(24)	-
Options	(59)	-	(59)	-
Total Investment Derivative Instruments	**787**	**$ -**	**$ 787**	**$ -**
Total Investments Measured at Fair Value	**$ 22,187,331**			

Income Strategies in the above schedule excludes $120.6 million of non-fixed income securities and derivatives that are included in the Income Strategies investment category on the Statement of Fiduciary Net Position.

Notes to the Basic Financial Statements

NOTE 3 : Investments (continued)

Income Strategies include actively traded debt instruments such as those securities issued by the United States government, federal agencies, municipal obligations, foreign governments, and both U.S. and foreign corporate issuers. These fixed income securities are reported at fair value as of the close of the trading date. Fair values for securities not traded on a regular basis are obtained from pricing vendors who employ modeling techniques, such as matrix pricing or discounted cash flow method, in determining security values. These inputs are observable, which supports the Level 2 fair value hierarchy.

Global public equity include U.S. and international equity securities, and emerging markets equity securities. Global public equity securities classified in Level 1 of the fair value hierarchy are primarily common and preferred stock or real estate investment trusts. Fair value for these exchange traded securities is determined as of the close of the trading date in the primary market or agreed upon exchange. The last known price is used for listed securities that did not trade on a particular date. Fair value is obtained from third-party pricing sources for securities traded over-the-counter. Global public equity securities classified in Level 2 of the fair value hierarchy consist of institutional funds that are valued based on the fair value of underlying investments using pricing models or other valuation methodologies that use pricing inputs that are either directly or indirectly observable on the valuation date for the securities or assets held in the fund.

Real assets investments at fair value include a variety of real return investments in agriculture and, real estate, which are held directly. Real estate assets held directly are appraised by independent third-party appraisers in accordance with the Uniform Standards of Professional Appraisal Practice. Independent appraisals use professional judgment, which is unobservable input, to determine the fair value of the asset; therefore these real estate investments are classified as Level 3. Agriculture investments included in Level 3 are based on independent appraisals and/or the good faith estimates of management.

Other investments include one risk mitigation fund. These investments are classified in Level 2 of the fair value hierarchy and include primarily institutional mutual funds that are valued based on the fair value of underlying investments using pricing models or other valuation methodologies that use pricing inputs that are either directly or indirectly observable on the valuation date for the securities or assets held in the fund.

Derivative instruments classified as Level 2 are valued using a market approach with observable inputs from major indices as well as benchmark interest rates and foreign exchange rates.

Notes to the Basic Financial Statements

NOTE 3 : Investments (continued)

Investments Measured at NAV, Unfunded Commitments and Redemption Terms

As of December 31, 2023
(Dollars in Thousands)

The System uses the Net Asset Value (NAV) to determine the fair value of the underlying investments, when an investment does not have a readily determinable fair value, provided that the NAV is calculated and used as a practical expedient to estimate fair value in accordance with GAAP requirements.

	Fair Value Measured at NAV	Unfunded Commitments	Redemption Frequency (If Currently Eligible)[1]	Redemption Notice Period
Investments Measured at the Net Asset Value (NAV)				
Global Public Equity:				
International Equity	$ 535,424	$ -	W	7 days
Emerging Markets Equity	686,365	-	M	30 days
Total Global Public Equity Investments	**1,221,789**	**-**		
Real Assets:				
Agriculture	-	22,451	Q	60 days
Energy	772,562	507,101	N/A	N/A
Infrastructure	699,990	426,290	N/A	N/A
Real Estate	1,520,550	618,012	Q, N/A	7-90 days, N/A
Total Real Assets	**2,993,102**	**1,573,854**		
Other Investments:				
Income Strategies	1,299,996	776,350	M, Q, N/A	5-90 days, N/A
Private Equity	3,588,711	1,953,080	N/A	N/A
Risk Mitigation	1,276,213	-	D, W, M, Q	1-75 days
Unique Strategies	123,207	206,096	Q, N/A	60 days, N/A
Total Other Investments	**6,288,127**	**2,935,526**		
Total Investments Measured at the NAV	**$ 10,503,018**	**$ 4,509,380**		

[1] D=Daily, W=Weekly, M=Monthly, Q=Quarterly, N/A = No redemption or frequency period

Notes to the Basic Financial Statements

NOTE 3 : Investments (continued)

The investment types listed in the above table were measured at the Net Asset Value (NAV) as explained below:

Global public equity includes five institutional funds. Two funds focus on international securities and three funds focus on emerging markets equities. The fair value of each fund has been determined using NAV per share or unit of the investments.

Real assets: Agriculture includes one fund that invests in a diversified portfolio of vegetable and permanent crop farmland in select major agricultural states. The fund is an open-end, infinite life, private REIT (real estate investment trust) subject to the redemption terms in the above schedule.

Real assets: Energy consists of twenty-three limited partnerships that invest primarily in oil and gas related investments. There are no redemption terms for any of these partnerships. These investments are considered illiquid. During the life of the partnerships, distributions are received as underlying partnership investments are realized. The fair values of this investment type have been determined using estimates provided by the underlying partnerships and are at NAV.

Real assets: Infrastructure consists of eleven limited partnerships that invest primarily in digital, transportation and logistics, energy transition/renewables, power/utilities, and midstream infrastructure. There are no redemption terms for any of these partnerships. These investments are considered illiquid. During the life of the partnerships, distributions are received as underlying partnership investments are realized. The fair values of this investment type have been determined using estimates provided by the underlying partnerships and are at NAV.

Real assets: Real estate investments include twenty-five funds consisting of primarily trust funds and limited partnerships. The purpose of these funds is to acquire, own, invest in real estate and real estate related assets with the intention of achieving current income, capital appreciation or both. These investments are valued through independent appraisals and other unobservable methods. The majority of these funds are closed-end funds with structured investment periods, and considered illiquid investments. All other funds have no redemption restrictions other than the restrictions noted above.

Income Strategies includes investments in twenty-five limited partnership funds and one equity fund. Eighteen of these funds are considered private credit investments, which are closed-end funds and are considered illiquid investments. These investments represent approximately 66% of the value. The remaining seven funds allow for redemption based on the terms noted above. The fair value of these investments has been determined using NAV per share of the investments.

Private equity includes primarily investments in limited partnership funds, managed by various different investment managers. Generally, the partnership strategies are to maximize the return by participating in private equity and equity-related investments through a diversified portfolio of venture capital, growth equity, buyouts, special situation partnerships and other limited liability vehicles. Investments in these partnerships are typically for 10-12 years and are considered illiquid. Redemptions are restricted over the life of the partnership. During the life of the partnerships, distributions are received as underlying partnership investments are realized. The fair values of this investment type have been determined using NAV per share of the System's ownership interest in partners' capital.

Risk mitigation includes eight limited partnership funds, which allow redemption with proper notification. The funds assist in diversifying the portfolio and protecting in an economic downturn of growth assets. The strategies are uncorrelated or negatively correlated to economic growth assets. The fair value of these investments has been determined using NAV per share.

Unique strategies includes five limited partnership funds, one of the funds allows for redemptions and the other funds have no redemption terms and are considered illiquid investments. This asset class provides additional diversification which can be used to help mitigate risk and provide value to the OCERS portfolio. These investments are valued at NAV.

Notes to the Basic Financial Statements

NOTE 4 : Funding Policy - Pension Plan

Employer and employee/member pension plan contribution requirements are determined as a percentage of employer payrolls. In determining contributions, assumptions are made about future events that affect the amount and timing of benefits to be paid and assets to be accumulated. The projected total pensionable compensation for all OCERS' employers for the year ended December 31, 2023 was $2.1 billion. Employer contribution rates are determined using the entry age actuarial cost method based upon a level percentage of payroll. The employer contributions provide for both normal cost and an amount to amortize any unfunded or overfunded actuarial accrued liabilities. By definition, the normal cost is the annual contribution rate that, if paid annually from a member's first year of membership through the year of retirement, would accumulate to the amount necessary to fully fund the member's retirement benefit if all underlying assumptions are met. The actuarial valuation report as of December 31, 2020 established the contribution rates for the first six months of calendar year 2023 (second half of fiscal year 2022-2023), and the actuarial valuation report as of December 31, 2021 established the contribution rates for the last six months of calendar year 2023 (first half of fiscal year 2023-2024). For the year ended December 31, 2023, employer contribution rates ranged from 11.82% of payroll to 58.70% depending upon the benefit plan type. Employer pension contributions were $749.8 million for the year ended December 31, 2023 of which approximately $571.1 million and $82.2 million, net of prepayment discounts, were made by the County of Orange and the Orange County Fire Authority, respectively. Participating employers are required by Government Code sections 31453.5 and 31454 to contribute a percentage of covered salary to the Plan. The contribution requirements of participating active members and employers are established and may be amended by the OCERS' Board of Retirement. Participating employers may pay a portion of the participating active employees' contributions through negotiations and bargaining agreements. Employer contributions paid for by the employee through negotiated reverse pick-up arrangements are treated and reported as employee contributions. Employee contributions elected to be paid for by the employer under Section 31581.1 are treated and reported as employer contributions as these payments do not become part of the accumulated contributions of the employee and are immaterial. Employee contributions elected to be paid for by the employer under Section 31581.2 are treated and reported as employee contributions as these payments are credited to the employee account and become a part of their accumulated contributions.

Employee contributions are established by the OCERS' Board of Retirement and guided by state statute (Government Code sections 31621, 31621.5, 31621.8, 31639.25 and 31639.5) and vary based upon employee age at the time of entering OCERS membership. OCERS received $277.5 million in employee pension contributions for the year ended December 31, 2023. Average employee contribution rates for the year ended December 31, 2023 ranged between 9.77% and 17.39%.

NOTE 5 : Plan Reserves

The OCERS Board of Retirement adopted the Reserves and Interest-Crediting Policy to identify all the reserves maintained by OCERS and how funds are distributed to and from the relevant reserve. Employer and employee contributions are deposited into various legally-required reserve accounts established on a book value basis. Set forth below are the descriptions of OCERS' various reserve accounts:

Pension Reserve

Pension reserve represents funding set aside for retirement payments derived from employer contributions. Additions include transfers from the employer contribution reserve and interest credited. Deductions include benefit payments made to retired members.

Employee Contribution Reserve

Employee contribution reserve represents the balance of member contributions. Additions include member contributions and interest credited. Deductions include member refunds and transfers to the annuity reserve fund retirement benefits.

Employer Contribution Reserve

Employer contribution reserve represents the balance of employer contributions for active member future retirement benefits. Additions include employer contributions and interest credited. Deductions include transfers to the pension reserves in order to fund retirement benefits, disability benefits and death benefits.

Annuity Reserve

Annuity reserve represents funding set aside for retirement payments derived from contributions made by members. Additions include transfers from the employee contribution reserve and interest credited. Deductions include benefit payments made to retired members.

Notes to the Basic Financial Statements

NOTE 5 : Plan Reserves (continued)

Contra Account

A positive balance in this account represents excess earnings. A negative balance in this account represents the amount of interest credited to the reserve accounts that has not been paid for out of current or excess earnings. Additions include net increases to the fiduciary net position, which are decreased by interest credited to the reserves account.

County Investment Account (POB Proceeds) Reserve

County investment account (POB Proceeds) reserve represents the remaining proceeds from the County of Orange's 1994 Pension Obligation Bond issuance. The remaining proceeds are utilized, in accordance with a long standing agreement between OCERS and the County of Orange, to offset a portion of the annual actuarially-determined contribution rates for the County of Orange. In 2023, $10.0 million of the remaining proceeds were utilized to offset the actuarially determined contributions for the County of Orange.

OCSD UAAL Deferred Reserve

The Orange County Sanitation District (OCSD) Unfunded Actuarial Accrued Liability (UAAL) Reserve represents the payment made by OCSD for its deferred UAAL. OCERS shall make annual transfers from the OCSD reserve account into the OCERS' employer contribution reserve account in the amount necessary to satisfy the actual UAAL attributed to OCSD. The intent of this transfer is to provide that the OCSD's future annual employer contribution obligation to OCERS shall consist of either the normal cost portion only, or the normal cost and amortizing installments of only such amount of future actual UAAL that exceeds to the amount of funds remaining in the OCSD reserve account.

Actuarial Deferred Return/(Loss)

The actuarial deferred return/(loss) represents the balance of deferred earnings created by a five-year smoothing of actual gains and losses compared to the assumed investment rate of return.

Health Care Plan Reserves

Health care plan reserves represent assets held to pay medical benefits for eligible retirees of the 401(h) health care plans. Additions include employer contributions and investment earnings. Deductions include medical payments and administrative expenses.

Custodial Fund Reserve

Custodial fund reserve represents custodial assets held by OCERS in an investment capacity for the OCTA health care plan. Additions include other postemployment benefit contributions and investment earnings. Deductions include other postemployment benefits and administrative expenses.

Total Plan Reserves

As of December 31, 2023

(Dollars in Thousands)

Valuation Reserves	
Pension Reserve	$ 13,115,567
Employee Contribution Reserve	3,915,650
Employer Contribution Reserve	3,214,949
Annuity Reserve	2,900,053
Contra Account	(1,010,934)
Non-Valuation Reserves	
County Investment Account (POB Proceeds) Reserve	146,110
OCSD UAAL Deferred Reserve	16,025
Total Pension Fund Reserves (smoothed market actuarial value)	**22,297,420**
Actuarial Deferred Return/(Loss)	(499,991)
Net Position Restricted for Pension	**21,797,429**
Net Position Restricted for Other Postemployment Benefits	
Health Care Plan Reserves	542,217
Net Position Restricted for Employer	
Custodial Fund Reserve	19,464
Net Position Restricted for Pension, Other Postemployment Benefits and Employer	**$ 22,359,110**

Notes to the Basic Financial Statements

NOTE 6 : Administrative Expenses - Pension

As permitted by Government Code (Code) Section 31580.2, the Board of Retirement adopts an annual budget, financed from the System's assets, covering the entire expenses for the administration of OCERS. The Code provides that administrative expenses incurred in any year are to be charged against the earnings of the pension trust fund and are not to exceed twenty-one hundredths of one percent (0.21%) of OCERS' actuarial accrued liabilities, excluding investment related costs and expenditures for computer software, hardware and related technology consulting services. Administrative expenses incurred in calendar year 2023 were within the limits established by the Code. The following schedule represents the excess of the maximum allowed over actual administrative expenses for the year ended December 31, 2023.

Administrative Expense Compared to Actuarial Accrued Liability

For the Year Ended December 31, 2023

(Dollars in Thousands)

Actuarial Accrued Liability (AAL) as of December 31, 2023	$	26,477,040
Maximum Allowed for Administrative Expense (AAL * 0.21%)		55,602
Actual Administrative Expense[1]		27,366
Excess of Allowed Over Actual Expense	**$**	**28,236**
Actual Administrative Expense for the year ended December 31, 2023 as a Percentage of Actuarial Accrued Liability as of December 31, 2023		0.10%
[1] Administrative Expense Reconciliation		
Administrative Expense per Statement of Changes in Fiduciary Net Position	$	29,056
Less: Administrative Expense Not Considered per CERL Section 31596.1		(1,690)
Administrative Expense Allowable Under CERL Section 31580.2	**$**	**27,366**

NOTE 7: Contingencies

At December 31, 2023, OCERS was involved in various litigation matters. In management's opinion, and after consultation with legal counsel, the outcome of these matters is not expected to have a material adverse effect on OCERS' financial position.

Notes to the Basic Financial Statements

NOTE 8 : Pension Disclosures

The net pension liability was measured as of December 31, 2023. The plan fiduciary net position was valued as of the measurement date while the total pension liability was determined based upon rolling forward the total pension liability from the actuarial valuation as of December 31, 2022. The components of the net pension liability as of December 31, 2023 are as follows:

Net Pension Liability
For the Year Ended December 31, 2023
(Dollars in Thousands)

Total Pension Liability	$ 26,644,141
Less: Plan Fiduciary Net Position	(21,797,429)
Net Pension Liability	**$ 4,846,712**
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	**81.81%**

Actuarial Assumptions

Actuarial valuations involve estimates of the value of reported amounts and assumptions about the probability of events far into the future. Examples include future salary increases and investment earnings, expected retirement age, life expectancy and other relevant factors. Actuarially determined amounts are subject to continual revision as results are compared to past expectations and new estimates are made about the future. OCERS' independent actuary and Board of Retirement review the economic and demographic assumptions every three years and the actuarially determined contributions annually.

In preparing the actuarial valuation, the actuary has complied with the parameters set forth in GASB Statement No. 67, *Financial Reporting for Pension Plans – an Amendment of GASB Statement No. 25* (GASB 67), and employed generally accepted actuarial methods and assumptions to measure the total pension liability of employers. The actuary's calculations are based upon member data and financial information provided by the System. Projection of benefits for financial reporting purposes is based on all benefits estimated to be payable through the System to current active, retired and inactive employees as a result of their past service and their expected future service.

The total pension liability as of December 31, 2023 was determined by rolling forward the liability as determined in the actuarial valuation as of December 31, 2022. The actuarial assumptions used were based on the results of an experience study for the period from January 1, 2020 through December 31, 2022 and they are the same assumptions used in the December 31, 2023 funding valuation for OCERS. In particular, the following actuarial assumptions were applied in the measurement:

Inflation	2.50%
Salary Increases	General: 3.90% to 8.00% and Safety: 4.50% to 15.00%, vary by service, including inflation
Cost of Living Adjustments (COLA)	Retiree COLA increases of 2.75% per year. For members that have COLA banks, it is assumed they receive 3.00% COLA increases until their COLA banks are exhausted and 2.75% thereafter.
Investment Rate of Return	7.00%, net of pension plan investment expense, including inflation
Mortality Rates	Pub-2010 Amount Weighted Above-Median Mortality Table, projected generationally using two-dimensional MP-2021 scale, adjusted separately for healthy and disabled for both general and safety members.
Other Assumptions	Actuarial experience study during the period of January 1, 2020 through December 31, 2022

Notes to the Basic Financial Statements

NOTE 8 : Pension Disclosures (continued)

Long-Term Expected Real Rate of Return

The long-term expected rate of return on pension plan investments[1] was determined using a building-block method in which expected future real rates of return (expected returns, net of inflation) are developed for each major asset class. These returns are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage, adding expected inflation and subtracting expected investment expenses and a risk margin. The target allocation and projected arithmetic real rates of return for each major asset class, after deducting inflation and beginning with December 31, 2023, after deducting any applicable investment management expenses are shown in the following table. This information was used in the derivation of the long-term expected investment rate of return assumption for the December 31, 2023 actuarial valuation. This information will change every three years based on the actuarial experience study.

Long-Term Expected Real Rate of Return

For the Year Ended December 31, 2023

Asset Class	Target Allocation	Long-Term Expected Arithmetic Real Rate of Return [2]
Global Equity	45.00%	7.05%
Investment Grade Bonds	9.00%	1.97%
High Yield Bond	0.50%	4.63%
TIPS	2.00%	1.77%
Emerging Market Debt	0.50%	4.72%
Long-Term Government Bonds	3.30%	2.82%
Real Estate	3.00%	3.86%
Private Equity	15.00%	9.84%
Private Credit	3.50%	6.47%
Value Added Real Estate	3.00%	7.38%
Opportunistic Real Estate	1.00%	9.74%
Energy	2.00%	10.89%
Infrastructure (Core Private)	1.00%	5.98%
Infrastructure (Non-Core Private)	3.00%	8.88%
Global Macro	1.70%	3.17%
CTA (Trend Following)	3.30%	3.15%
Alternative Risk Premia	1.70%	3.24%
Special Situations Lending	1.50%	8.96%
Total	**100.00 %**	**6.55%**

[1] The investment return assumption for funding purposes is developed net of both investment and administrative expenses; however, the same investment return assumption is used for financial reporting purposes, where it is considered gross of administrative expenses.

[2] Arithmetic real rates are net of inflation

Notes to the Basic Financial Statements

NOTE 8 : Pension Disclosures (continued)

Discount Rate

The discount rate used to measure the total pension liability was 7.00% for the year ended December 31, 2023. The projection of cash flows used to determine the discount rate assumed plan member contributions will be made at the current contribution rate and that employer contributions will be made at rates equal to the actuarially determined contribution rates. For this purpose, only employer contributions that are intended to fund benefits for current plan members and their beneficiaries are included. Projected employer contributions that are intended to fund the service costs for future plan members and their beneficiaries, as well as projected contributions from future plan members, are not included. Based on those assumptions, the plan fiduciary net position was projected to be available to make all projected future benefit payments for current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability as of December 31, 2023.

Sensitivity of the Net Pension Liability to Changes in the Discount Rate

The following table represents the net pension liability as of December 31, 2023, of participating employers calculated using the discount rate of 7.00%, as well as what the net pension liability would be if it were calculated using a discount rate that is 1.00% lower (6.00%) or 1.00% higher (8.00%) than the current rate:

Sensitivity of Net Pension Liability to Changes in the Discount Rate

As of December 31, 2023
(Dollars in Thousands)

1% Decrease (6.00%)	Current Discount Rate (7.00%)	1% Increase (8.00%)
$8,494,917	$4,846,712	$1,864,403

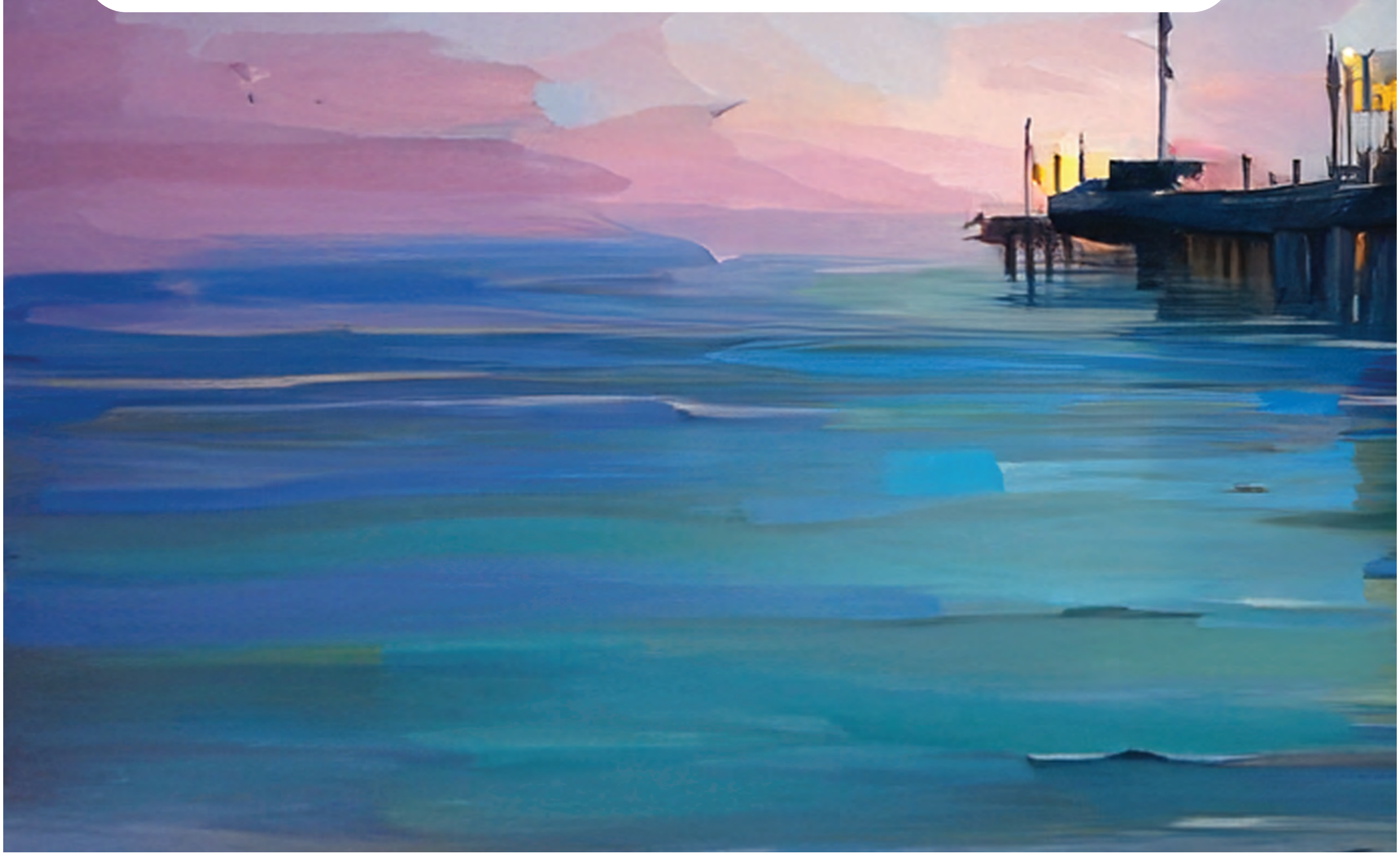
Section 2

Financial | Required Supplementary Information

Huntington Beach Pier

The Huntington Beach Pier stands as a timeless testament to Orange County's deep connection with the boundless expanse of the ocean. Stretching majestically into the Pacific, it becomes a stage where surfers ride the cresting waves and seagulls glide effortlessly on the salty breeze. Beyond its weathered wooden planks lies a world of endless possibilities, where day transitions into night amidst the mesmerizing spectacle of the setting sun.

As sunlight dances upon the rippling ocean surface, shades of azure spring to life, weaving a mosaic of serenity that enchants all who stroll along these pristine shores. From dawn's first light to dusk's final embrace, the Huntington Beach Pier serves as a beacon of resilience and vitality, inviting all who behold it to immerse themselves in the ever-changing tapestry of the sea.



Schedule of Changes in Net Pension Liability of Participating Employers

For the Years Ended December 31, 2014 through 2023
(Dollars in Thousands)

	2023	2022	2021	2020	2019
Total Pension Liability					
Service Cost	$ 536,400	$ 526,769	$ 510,863	$ 512,255	$ 499,256
Interest	1,750,651	1,675,053	1,609,891	1,535,954	1,452,644
Differences Between Expected and Actual Experience	326,785	46,500	(113,046)	162,336	24,383
Changes of Assumptions	165,526	-	-	18,967	-
Benefit Payments, Including Refunds of Employee Contributions	(1,216,248)	(1,139,715)	(1,045,738)	(973,325)	(900,902)
Other	-	-	-	-	-
Net Change in Total Pension Liability	1,563,114	1,108,607	961,970	1,256,187	1,075,381
Total Pension Liability - Beginning	25,081,027	23,972,420	23,010,450	21,754,263	20,678,882
Total Pension Liability - Ending (a)	**$ 26,644,141**	**$ 25,081,027**	**$ 23,972,420**	**$ 23,010,450**	**$ 21,754,263**
Plan Fiduciary Net Position					
Contributions - Employer[2]	$ 749,776	$ 719,691	$ 698,791	$ 659,807	$ 653,793[3]
Contributions - Employee	277,455	269,999	271,334	279,384	279,373
Net Investment Income/(Loss)	2,325,481	(2,058,590)	3,222,065	2,173,184	2,183,808
Benefit Payments, Including Refunds of Employee Contributions	(1,216,248)	(1,139,715)	(1,045,738)	(973,325)	(900,902)
Administrative Expense	(29,056)	(23,546)	(21,473)	(20,428)	(19,171)
Net Change in Plan Fiduciary Net Position	2,107,408	(2,232,161)	3,124,979	2,118,622	2,196,901
Plan Fiduciary Net Position - Beginning	19,690,021	21,922,182	18,797,203	16,678,581	14,481,680
Plan Fiduciary Net Position - Ending (b)	21,797,429	19,690,021	21,922,182	18,797,203	16,678,581
Net Pension Liability (a) - (b) = (c)	**$ 4,846,712**	**$ 5,391,006**	**$ 2,050,238**	**$ 4,213,247**	**$ 5,075,682**
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability (b)/(a)	81.81%	78.51%	91.45%	81.69 %	76.67%
Covered Payroll (d)[4]	$ 2,042,240	$ 1,932,374	$ 1,870,387	$ 1,909,268	$ 1,783,054
Plan Net Pension Liability as a Percentage of Covered Payroll (c)/(d)	237.32%	278.98%	109.62%	220.67 %	284.66%

[1] Orange County Public Law Library was separated out from the Orange County Sanitation District in Rate Group #3 and put into their own Rate Group (Rate Group #12) after the valuation as of December 31, 2015. There was an adjustment to the UAAL for Rate Group #3 that was originally included in the December 31, 2015 valuation. There was a credit of $509 given to the Orange County Public Law Library to reflect that their future service enhancement did not increase the UAAL.

[2] Reduced by discount for prepaid contributions and transfers from County Investment Account.

[3] Transfers from the Orange County Sanitation District Deferred UAAL Account which were required to offset a UAAL increase for assumption changes in 2017 and actuarial losses in 2018 and 2019 have been excluded from this amount.

[4] Covered payroll represents payroll on which contributions to the pension plan are based.

Schedule of Changes in Net Pension Liability of Participating Employers

For the Years Ended December 31, 2014 through 2023
(Dollars in Thousands)

(continued)

	2018	2017	2016	2015	2014
Total Pension Liability					
Service Cost	$ 491,373	$ 452,412	$ 427,473	$ 439,454	$ 438,600
Interest	1,379,917	1,305,268	1,241,080	1,197,308	1,153,352
Differences Between Expected and Actual Experience	(118,124)	(66,964)	(323,566)	(205,463)	(327,402)
Changes of Assumptions	-	827,197	-	-	(127,729)
Benefit Payments, Including Refunds of Employee Contributions	(828,278)	(764,344)	(717,976)	(675,963)	(630,678)
Other	-	-	(509)[1]	-	-
Net Change in Total Pension Liability	924,888	1,753,569	626,502	755,336	506,143
Total Pension Liability - Beginning	19,753,994	18,000,425	17,373,923	16,618,587	16,112,444
Total Pension Liability - Ending (a)	**$ 20,678,882**	**$ 19,753,994**	**$ 18,000,425**	**$ 17,373,923**	**$ 16,618,587**
Plan Fiduciary Net Position					
Contributions - Employer[2]	$ 580,905[3]	$ 572,104[3]	$ 567,196	$ 571,298	$ 625,520
Contributions - Employee	270,070	262,294	258,297	249,271	232,656
Net Investment Income/(Loss)	(324,628)	1,939,635	1,061,243	(10,873)	499,195
Benefit Payments, Including Refunds of Employee Contributions	(828,278)	(764,344)	(717,976)	(675,963)	(630,678)
Administrative Expense	(18,284)	(17,002)	(16,870)	(12,521)	(11,905)
Net Change in Plan Fiduciary Net Position	(320,215)	1,992,687	1,151,890	121,212	714,788
Plan Fiduciary Net Position - Beginning	14,801,895	12,809,208	11,657,318	11,536,106	10,821,318
Plan Fiduciary Net Position - Ending (b)	14,481,680	14,801,895	12,809,208	11,657,318	11,536,106
Net Pension Liability (a) - (b) = (c)	**$ 6,197,202**	**$ 4,952,099**	**$ 5,191,217**	**$ 5,716,605**	**$ 5,082,481**
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability (b)/(a)	70.03%	74.93%	71.16%	67.10%	69.42%
Covered Payroll (d)[4]	$ 1,718,798	$ 1,678,322	$ 1,602,675	$ 1,521,036	$ 1,513,206
Plan Net Pension Liability as a Percentage of Covered Payroll (c)/(d)	360.55%	295.06%	323.91%	375.84%	335.88%

Schedule of Investment Returns

For the Years Ended December 31, 2014 Through 2023

Year Ended December 31	Annual Money Weighted Rate of Return, Net of Investment Expense
2014	4.64%
2015	-0.51%
2016	8.71%
2017	14.74%
2018	-1.31%
2019	14.81%
2020	11.22%
2021	16.67%
2022	-7.88%
2023	11.44%

Schedule of Employer Contributions

For the Years Ended December 31, 2014 through 2023
(Dollars in Thousands)

Year Ended December 31	Actuarially Determined Contributions[1]	Actual Contributions[1]	Contribution Deficiency / (Excess)	Covered Payroll [2]	Contributions as a % of Covered Payroll [1, 2]
2014	$ 476,320	$ 625,520[3]	$ (149,200)	$ 1,513,206	41.34%
2015	502,886	571,298[3]	(68,412)	1,521,036	37.56%
2016	521,447	567,196[3]	(45,749)	1,602,675	35.40%
2017	536,726	572,104[3]	(35,378)	1,678,322	34.09%
2018	556,728	580,905[3]	(24,177)	1,718,798	33.80%
2019	583,057	653,793[3]	(70,736)	1,783,054	36.67%
2020	638,215	659,807[3]	(21,592)	1,909,268	34.56%
2021	684,142	698,791[3]	(14,649)	1,870,387	37.36%
2022	707,318	719,691[3]	(12,373)	1,932,374	37.24%
2023	736,016	749,776[3]	(13,760)	2,042,240	37.39%

[1] Excludes employer pickup of member contributions, discount for prepaid contributions, transfers from County Investment Account (funded by pension obligation proceeds held by OCERS) and transfers from Orange County Sanitation District UAAL Account (amount required to offset UAAL increases for assumption changes in 2017 and actuarial losses in 2018 and 2019). Those amounts are as follows: (Dollars in Thousands)

Year Ended December 31	Discount for Prepaid Contributions	Transfers from County Investment Account	Transfers from O.C. Sanitation District UAAL Deferred Account	Year Ended December 31	Discount for Prepaid Contributions	Transfers from County Investment Account	Transfers from O.C. Sanitation District UAAL Deferred Account
2014	$ 29,114	$ 5,000	$ -	2019	$ 22,049	$ -	$ 18,631
2015	27,301	-	-	2020	24,731	5,000	-
2016	24,353	-	-	2021	31,520	15,077	-
2017	22,921	-	24,042	2022	37,039	14,962	-
2018	21,218	-	14,589	2023	21,205	10,000	-

[2] Covered payroll represents payroll on which contributions to the pension plan are based.

[3] Includes additional contributions made by employers towards the reduction of their UAAL.

Notes to the Required Supplementary Information

Actuarial Valuation Methods and Assumptions

The actuarial determined contribution rates in the schedule of employer contributions are calculated as of December 31. Rates are effective eighteen months after the valuation date for the fiscal year that begins July 1. The following actuarial methods and assumptions were used to calculate the actuarially determined contributions for the year ended December 31, 2023:

Valuation Date	Actuarially determined contribution rates for the first six months of calendar year 2023 or the second half of fiscal year 2022-2023 are calculated based on the December 31, 2020 valuation. Actuarially determined contribution rates for the last six months of calendar year 2023 or the first half of fiscal year 2023-2024 are calculated based on the December 31, 2021 valuation.
Actuarial Cost Method	Entry Age Actuarial Cost Method
Amortization Method	Level percent of payroll for total unfunded actuarial accrued liability
Remaining Amortization Period	Effective December 31, 2013, the outstanding balance of the UAAL from the December 31, 2012 valuation was combined and re-amortized over a declining 20-year period. Any changes in UAAL due to actuarial gains or losses or due to changes in assumptions or methods will be amortized over separate 20-year periods. Any changes in UAAL due to plan amendments will be amortized over separate 15-year periods and any change in UAAL due to early retirement incentive programs will be amortized over a separate period of up to 5 years.
Asset Valuation Method	The Actuarial Value of Assets is determined by recognizing any difference between the actual and the expected market return over a five-year period. The Valuation Value of Assets is the Actuarial Value of Assets reduced by the value of the non-valuation reserves.

Actuarial Assumptions:	
December 31, 2020 Valuation	
Investment Rate of Return	7.00% net of pension plan investment expense, including inflation
Inflation Rate	2.50%
Real Across-the-Board Salary Increase	0.50%
Projected Salary Increases	General: 4.00% to 11.00% and Safety: 4.60% to 15.00%, vary by service, including inflation
Cost of Living Adjustments (COLA)	Retiree COLA increases of 2.75% per year. For members that have COLA banks, it is assumed they receive 3.00% COLA increases until their COLA banks are exhausted and 2.75% thereafter.
Other Assumptions	Same as those used in the December 31, 2020 funding actuarial valuation
December 31, 2021 Valuation	
Investment Rate of Return	7.00% net of pension plan investment expense, including inflation
Inflation Rate	2.50%
Real Across-the-Board Salary Increase	0.50%
Projected Salary Increases	General: 4.00% to 11.00% and Safety: 4.60% to 15.00%, vary by service, including inflation
Cost of Living Adjustments (COLA)	Retiree COLA increases of 2.75% per year. For members that have COLA banks, it is assumed they receive 3.00% COLA increases until their COLA banks are exhausted and 2.75% thereafter
Other Assumptions	Same as those used in the December 31, 2021 funding actuarial valuation

Significant Factors Affecting Trends in Actuarial Information – Pension Plan

Changes in Benefit Terms

2021 • Superior Court of California, County of Orange adopted Plan U (2.5% at 67 PEPRA) on a go forward basis for all existing employees in Plan T and any future PEPRA eligible employees with an effective date of July 1, 2023. This enhancement resulted in a slight decrease to the employer and employee normal cost rates for Plan T and a slight increase to the employer and employee normal cost for Plan U as reported for Rate Group #2 in the original 12/31/2021 actuarial valuation.

2016 • New employees hired by the City of San Juan Capistrano on and after July 1, 2016 will be offered a choice in retirement plan formulas; the PEPRA Plan U (2.5% at 67 PEPRA – General) or the alternate plan formula, Plan W (1.62% at 65 PEPRA – General).

• Orange County Public Law Library was moved from Rate Group #3 into its own rate group, Rate Group #12.

Significant Factors Affecting Trends in Actuarial Information – Pension Plan

(continued)

Changes in Assumptions

2023

- Projected salary increases for general members of 4.00% to 11.00% changed to 3.90% to 8.00% and safety members changed from 4.60% to 15.00% to 4.50% to 15.00%.
- Maintain Pub-2010 Benefit-Weighted mortality tables as a starting point ("base table"), projected generationally using mortality improvement scale MP-2021, with adjustments. For beneficiaries not currently in pay status, update to use the same table as General Healthy Retirees. Administrative tables still use static projection for member contribution rates.

2020

- The inflation rate was reduced from 2.75% to 2.50% (retiree cost-of-living assumption maintained at 2.75%).
- Projected salary increases for general members of 4.25% to 12.25% changed to 4.00% to 11.00% and safety members changed from 4.75% to 17.25% to 4.60% to 15.00%.
- Mortality rate tables changed to Pub-2010 Amount Weighted Above-Median Mortality Table, projected generationally using two-dimensional MP-2019 scale, adjusted separately for healthy and disabled for both general and safety members.
- The cost impact of assumption changes to employers is $19 million.

2017

- The assumed rate of return was decreased from 7.25% to 7.00%.
- The inflation rate was decreased from 3.00% to 2.75%.
- Projected salary increases for general members of 4.25% to 13.50% changed to 4.25% to 12.25% and safety members changed from 5.00% to 17.50% to 4.75% to 17.25%.
- Mortality rate tables changed to a Headcount-Weighted RP-2014 Healthy Annuitant Mortality Table, projected generationally using two-dimensional MP-2016 scale, adjusted separately for healthy and disabled for both general and safety members.
- Impact due to assumption changes to be phased-in over three years.

2014

- The inflation rate was reduced from 3.25% to 3.00%
- Total wage inflation and payroll growth was reduced from 3.75% to 3.50%.
- Inclusion of additional cash-out assumptions in developing basic member contribution rates in the legacy plans.
- Mortality rates for after service retirement were changed to reflect longer life expectancies for Safety members and shorter life expectancies for General members and longer life expectancies for both General and Safety members for after disability retirement. The cost impact to employer to be phased in over three years.

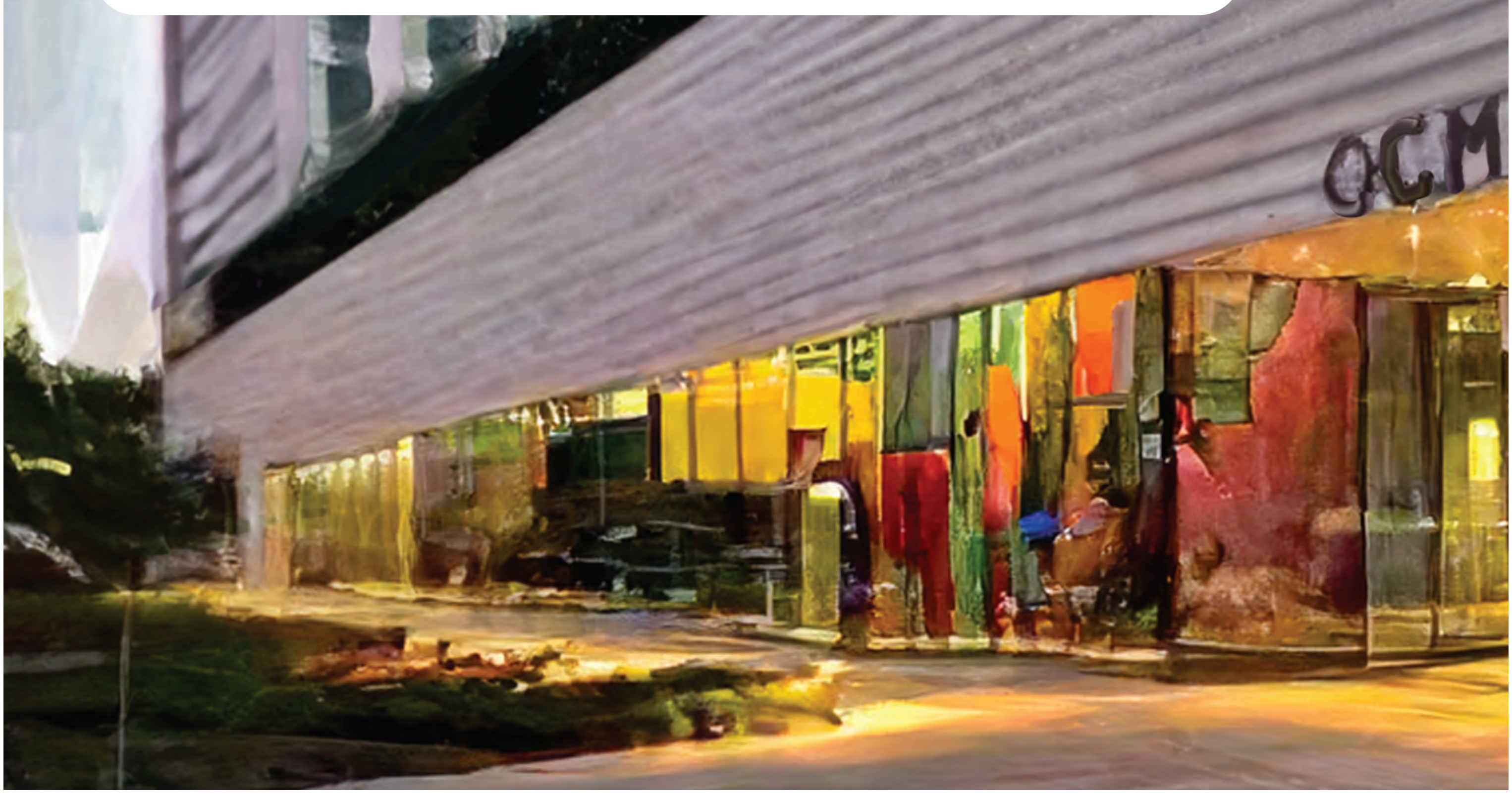
Section 2

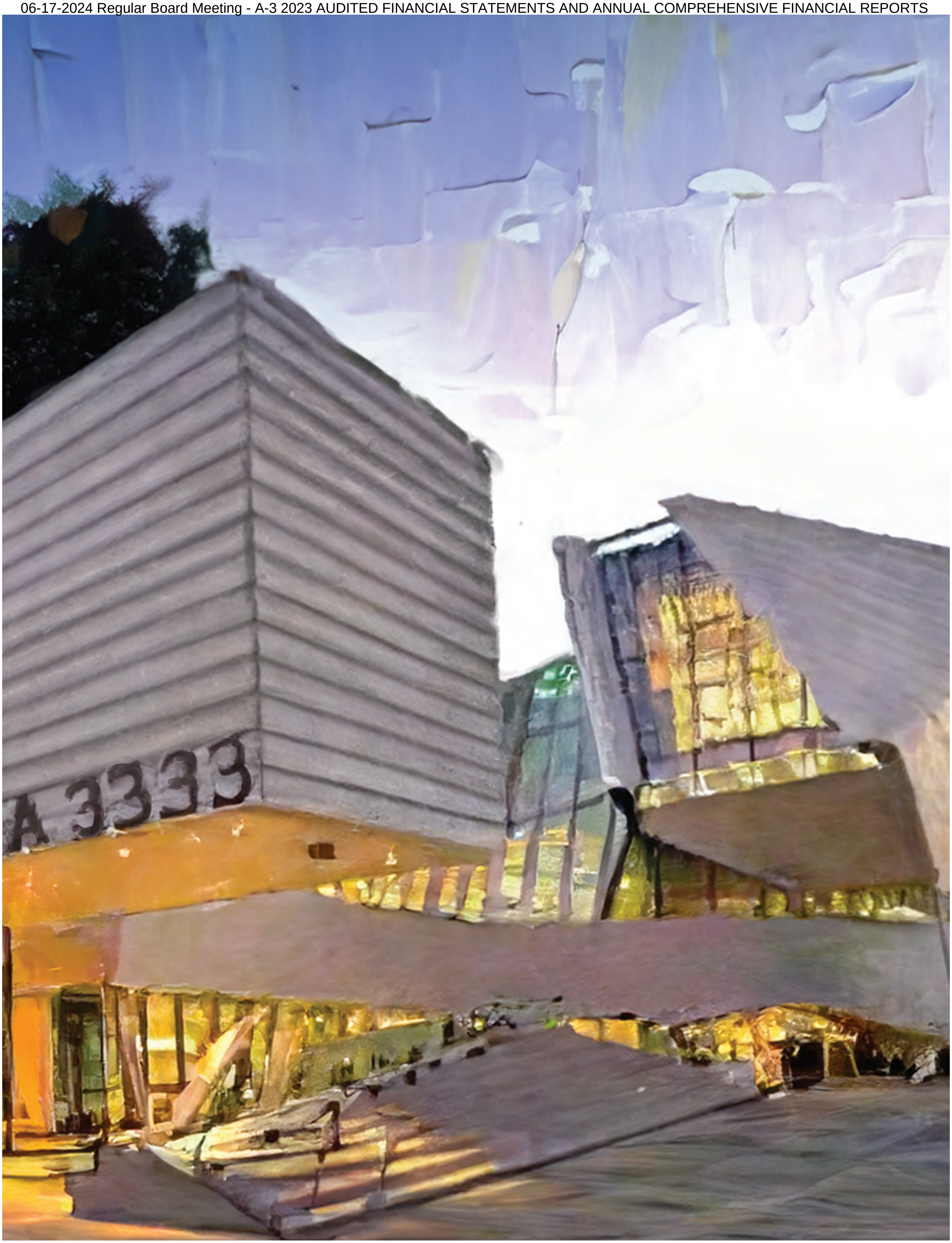
Financial | Other Supplementary Information

Orange County Museum of Art

Just a short drive from the ocean in Costa Mesa, the Orange County Museum of Art stands as a testament to the region's vibrant artistic spirit. Its sleek architecture, adorned with expansive glass windows that mirror the azure skies above, invites visitors to embark on a journey of exploration and imagination. Within its galleries, a kaleidoscope of blue hues adorns the walls, serving as the backdrop for an eclectic array of contemporary masterpieces.

As visitors wander through the museum's halls, they are enveloped in the tranquil embrace of blue, a color that ignites the creative spark and inspires boundless innovation. From the serene cerulean tones of abstract paintings to the deep indigos of immersive installations, every artwork housed within the museum's walls tells a story of passion, expression, and discovery. Here, amidst the azure canvases of creativity, visitors are invited to immerse themselves in the transformative power of art and celebrate the diverse voices that shape Orange County's cultural landscape.

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Schedule of Contributions

For the Year Ended December 31, 2023
(Dollars in Thousands)

	Employee	Employer
Pension Trust Fund Contributions		
County of Orange	$ 205,958	$ 587,980
Orange County Fire Authority	31,508	84,071[1]
Orange County Superior Court of California	15,971	44,704
Orange County Transportation Authority	11,860	33,340
City of San Juan Capistrano	624	2,261
Orange County Sanitation District	8,539	8,887
UCI Medical Center & Campus	-	2,980[2]
Orange County Employees Retirement System	1,363	4,477
Transportation Corridor Agencies	871	867
Orange County Department of Education	-	317[2]
Orange County Cemetery District	198	274
Orange County Children & Families Commission	174	254
Orange County Local Agency Formation Commission	57	237
Orange County In-Home Supportive Services Public Authority	160	202
Orange County Public Law Library	172	130
Contributions Before Prepaid Discount	277,455	770,981
Prepaid Employer Contribution Discount	-	(21,205)
Total Pension Trust Fund Contributions	**277,455**	**749,776**
Health Care Fund - OCFA Contributions	**-**	**26,245**
Custodial Fund - OCTA Employer OPEB Contributions	**-**	**794**
Total Contributions	**$ 277,455**	**$ 776,815**

[1] Unfunded actuarial accrued liability payments were made for $10.3 million by the Orange County Fire Authority.

[2] Unfunded actuarial liability payments have been made in accordance with a separate 20-year level dollar payment schedule to include liabilities for employee benefits related to past service credit.

Schedule of Administrative Expenses

For the Year Ended December 31, 2023
(Dollars in Thousands)

Pension Trust Fund Administrative Expenses	
Expenses Subject to the Statutory Limit	
Personnel Services	
Employee Salaries and Benefits	$ 17,829
Board Members' Allowance	13
Total Personnel Services	17,842
Office Operating Expenses	
Depreciation/Amortization	2,695
Professional Services	3,266
General Office and Administrative Expenses	2,750
Rent/Leased Real Property	813
Total Office Operating Expenses	9,524
Total Expenses Subject to the Statutory Limit	27,366
Expenses Not Subject to the Statutory Limit	
Information Technology Professional Services	617
Information Technology Security Professional Services	144
Finance Software Professional Services	9
Actuarial Fees	377
Equipment / Software	543
Total Expenses Not Subject to the Statutory Limit	1,690
Total Pension Trust Fund Administrative Expenses	**29,056**
Health Care Fund - County Administrative Expenses	**24**
Health Care Fund - OCFA Administrative Expenses	**23**
Custodial Fund - OCTA Administrative Expenses	**23**
Total Administrative Expenses	**$ 29,126**

Schedule of Investment Expenses

For the Year Ended December 31, 2023
(Dollars in Thousands)

Investment Management Fees*	
Global Public Equity	$ 16,337
Income Strategies	14,928
Real Assets	31,417
Private Equity	38,894
Risk Mitigation	10,034
Unique Strategies	2,332
Short-Term Investments	123
Total Investment Management Fees	**114,065**
Other Fund Expenses[1]	**51,695**
Other Investment Expenses	
Consulting/Research Fees	2,272
Investment Department Expenses	4,226
Legal Services	435
Custodian Services	580
Investment Service Providers	26
Total Other Investment Expenses	**7,539**
Security Lending Activity	
Security Lending Fees	245
Rebate Fees	11,332
Total Security Lending Activity	**11,577**
Custodial Fund - OCTA Investment Fees and Expenses	**3**
Total Investment Expenses	**$ 184,879**

* Does not include undisclosed fees deducted at source.

[1] These costs include, but are not limited to, foreign income tax and other indirect flow-through investment expenses such as organizational expenses in limited partnership structures.

Schedule of Payments for Professional Services

For the Year Ended December 31, 2023
(Dollars in Thousands)

Type of Services*	
Professional Expenses Subject to the Statutory Limit	
Medical/Disability Services	$ 483
Information Technology Services	164
Legal Counsel	966
Other Consulting/Services	883
Operations Support Services	352
Audit Services	117
Other Legal Services	107
Human Resources Services	141
Finance Services	53
Total Professional Expenses Subject to the Statutory Limit	**3,266**
Professional Expenses Not Subject to the Statutory Limit	
Consulting/Research Fees	2,272
Information Technology Consultants	617
Custodian Services	580
Investment Legal Services	435
Actuarial Services	377
Information Security Consultants	144
Finance Software Consultants	9
Investment Service Providers	26
Total Professional Expenses Not Subject to the Statutory Limit	**4,460**
Total Payments for Professional Expenses	**$ 7,726**

* Detail for fees paid to investment professionals is presented in the Investment Section.

Section 3

Investments

Irvine Regional Park

Irvine Regional Park, nestled in the heart of Orange County, is a verdant oasis known for its lush green landscapes and natural beauty. As Orange County's oldest park and a beloved historic landmark as the first regional park in California, it offers visitors a peaceful retreat amid towering trees, expansive meadows, and winding trails. The park's abundant greenery provides a refreshing escape from urban life, inviting visitors to explore its scenic picnic areas, serene lakes, and shaded pathways.

Established in 1897, Irvine Regional Park encompasses diverse ecosystems, including oak woodlands and riparian habitats, that support a variety of wildlife and plant species. The park's commitment to conservation and outdoor recreation makes it a popular destination for nature enthusiasts, families, and outdoor adventurers alike. Whether strolling along shaded paths under canopies of green or enjoying recreational activities like hiking, biking, and picnicking, Irvine Regional Park offers a tranquil and rejuvenating experience immersed in the vibrant green landscapes of Orange County's natural environment.


RVINE REGIONAL PARK

Investment Consultant's Statement

MEKETA

5796 Armada Drive
Suite 110
Carlsbad, CA 92008

760.795.3450
Meketa.com

MEMORANDUM

TO: Board Members, Orange County Employees Retirement System
FROM: Stephen McCourt, Allan Emkin, Laura Wirick, Stephanie Sorg, Meketa Investment Group
DATE: May 10, 2024
RE: Investment Consultant's Statement for 2023 Annual Comprehensive Financial Report

This letter reviews the investment performance of the Orange County Employees Retirement System ("OCERS") portfolio for the fiscal year ending December 31, 2023.

OCERS' stated mission is to provide secure retirement and disability benefits with the highest standards of excellence. To this end, OCERS strives to align the portfolio's asset allocation, investments, and other related decisions with the goals of the overall System. This alignment is a fundamental part of the Investment Committee's regular meetings, where performance is examined (both on an overall portfolio basis and at the manager level), asset allocation is reviewed and modified to fit changes in expected return, strategic and tactical decisions are discussed, and the System's liabilities are reviewed. Meketa Investment Group, OCERS' general consultant, works to provide guidance to the Board (the System's fiduciary), and assist the Board with performance evaluation, asset allocation, manager selection, and other industry best practices.

State Street Bank and Trust Company, OCERS' custodian, independently prepared the performance data used in this report. Rates of return are represented using a time-weighted rate of return methodology based upon market values.

Calendar 2023 Year in Review

Coming into the year, many market observers were calling for a recession in 2023, following the aggressive monetary policy tightening by the Federal Reserve in 2022 (they increased rates by over 4%). Despite concerns over slowing growth, optimism was building that interest rates could peak in 2023 given slowing inflation. The continued strength of the US consumer due to a strong labor market, rising wages, and pandemic related savings also had many thinking that if the US economy did hit a recession, it would be mild.

The first quarter of 2023, however, was a volatile one driven by investors continuing to adjust their interest rate and inflation expectations, coinciding with the failure of Silicon Valley Bank and a few other regional banks. Ultimately, however, the swift emergency actions taken by the Federal Reserve, the Treasury, and other government agencies, helped alleviate some of the concerns connected to the banking sector. This, and a focus on slowing inflation and potentially peaking rates, led to most asset classes experiencing positive results for the first quarter of 2023, with riskier assets leading the way.

In the first quarter of 2023, the US equity market (Russell 3000) returned 7.2%[1], while international developed market equities (MSCI EAFE) had the best quarterly results returning 8.5%. Emerging market

Investment Consultant's Statement

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May 10, 2024

equities (MSCI Emerging Markets) were also positive for the quarter, returning 4.0%. Chinese equities (MSCI China) rose 4.7% but generally lagged developed markets as optimism over the reopening of the economy from the pandemic was tempered by increased tensions with the US.

Fixed income markets also posted gains for the first quarter, in a volatile period for interest rates, particularly for shorter maturities. Overall, the change in monetary policy expectations and flight-to-safety flows during the height of the concerns surrounding the banking sector drove most interest rates lower. The two-year Treasury fell from 4.4% to 4.0% while the ten-year Treasury fell from 3.9% to 3.5%. The yield curve remained inverted at the end of March. The broad US investment grade bond market (Bloomberg US Aggregate) and high yield bonds (Bloomberg High Yield) rose 3.0% and 3.6%[1] during the first quarter, respectively. High yield bonds particularly benefitted from the positive risk sentiment.

Financial markets were mixed in the second quarter, as investors continued to contend with the track of inflation, the path of monetary policy, lingering fears from the regional banking crisis, and an uncertain economic outlook. Most equity markets posted strong positive returns for the quarter as the Fed kept interest rates unchanged at their June meeting for the first time since early 2022. Hopes were also growing that the Fed could reduce inflation without widespread disruptions to equity markets and the economy. Fixed income markets did not fare as well falling slightly for the quarter, as rates rose, with bond investors more focused on the continuing tightening policy of the Federal Reserve.

Of the major asset classes, the US equity market (Russell 3000) led the way, returning 8.4%[1] for the second quarter with most of the gains (6.8%) coming just in the month of June 2023. Notably, relatively few stocks (mainly large technology companies) accounted for most of the gains in the first and second quarters of 2023 driven by optimism over artificial intelligence ("AI") technology. Looking at the S&P 500, the index was up 16.9% in the first two quarters of the year. Without the top performing 44 stocks, the index would have been negative over the same period.[2]

Developed international equities (MSCI EAFE) returned 3.0% for the second quarter, while emerging market equities (MSCI Emerging Markets) lagged, returning just 0.9%. On-going signaling from the central banks in Europe and the UK to continue increasing interest rates along with an overall stronger US dollar weighed on relative results in developed markets. Chinese equities weighed heavily on overall results in emerging markets with the MSCI China index falling -9.7% for the second quarter. Chinese equities suffered due to a lackluster economic reopening, weak economic data, concerns over the property market, and heightened tensions with the US.

Treasuries reversed course in the second quarter as the Federal Reserve indicated additional rate hikes were needed to combat persistent inflation. The policy sensitive two-year Treasury increased significantly from 4.0% up to 4.9% while the ten-year Treasury rose more modestly from 3.5% to 3.8%. The yield curve inverted further given these dynamics. The broad US investment grade bond market (Bloomberg US Aggregate) fell 0.8%[1] in the second quarter in this environment. High yield bonds (Bloomberg High Yield) benefited from the "risk-on" sentiment, returning 1.7%[1] in the second quarter[1].

Investment Consultant's Statement

(continued)

May 10, 2024

Commodities (Bloomberg Commodity Index) continued to soften on weakening global growth expectations and developments with China, declining -2.6% for the second quarter.[1]

The second half of calendar year 2023 began with a continuation of the positive sentiment from June, as economic activity and corporate data came in above expectations. However, once the Federal Reserve increased interest rates 25 basis points to a range of 5.25% - 5.5%, sentiment began to shift. This came after a pause at their June meeting on the pretext of waiting for further data to assess the impact of their rate hikes on the economy.

Given the Fed's comments and above expectations economic data, it was around this time investors started to recognize that rates could stay higher for longer. Combined with a downgrade in US debt and weakening economic data out of Europe and China, equity markets began to decline. Of the major asset classes, the US equity market (Russell 3000) fell by -3.3% in the third quarter. Outside the US, developed markets (MSCI EAFE) lost -4.1% and emerging market equities (MSCI Emerging Markets) were down -2.9%. Within emerging markets, Chinese equities (MSCI China) were down -1.9% in the third quarter of 2023.

Rates continued to drift upward in the third quarter with longer dated maturities increasing the most this time driving a flattening of the yield curve. The two-year Treasury rose slightly from 4.9% to 5.1% while the ten-year Treasury increased from 3.8% to 4.6%. Higher rates resulted in negative returns for investment grade bonds. The broad US investment grade bond market (Bloomberg US Aggregate) fell -3.2%[3]. Returns for High Yield bonds (Bloomberg High Yield) remained robust on few signs of distress and increased by 0.5% over the period.

As the fourth calendar quarter of 2023 began, futures markets were still pricing in a small chance of an additional rate hike in the cycle, with two to three potential rate decreases in 2024. Markets continued searching for overall direction though, on the path of inflation, growth, and interest rates both here in the US and abroad. As the quarter progressed, economic data started to come in below expectations and optimism built that major central banks could start cutting rates in 2024. This shift in sentiment rekindled the broad risk-on environment experienced earlier in 2023.

Among equity asset classes, the US equity market (Russell 3000) returned an impressive 12.1% in the final three months of the year. Outside the US, developed markets (MSCI EAFE) increased by 10.4% in the fourth quarter with more than half the gains coming from a depreciating US dollar. Emerging market equities (MSCI Emerging Markets) were up 7.9% over the same period. Within emerging markets, Chinese equities (MSCI China) were still down -4.2%, despite the enthusiasm around the globe.

Following a softening in inflation and expectations of lower policy rates, interest rates fell significantly in the fourth quarter, resulting in positive returns for investment grade asset classes. The two-year Treasury fell from 5.1% to 4.3%, while the ten-year Treasury declined from 4.6% to 3.9%. The broad US investment grade bond market (Bloomberg US Aggregate) was up 6.8%[1], the strongest quarterly performance on record for that benchmark. Returns for high yield bonds (Bloomberg High Yield) continued the positive trend and increased by 7.2% over the fourth quarter.

Investment Consultant's Statement

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May 10, 2024

Remarkably, despite a calendar year in which a recession was the consensus forecast, GDP growth and unemployment remained unexpectedly robust, and inflation continued to decline closer to the Federal Reserve's target. GDP growth in the US was 2.2%[4], 2.1%[4], 4.9%[4] and 3.2%[4] for the first, second, third, and fourth quarters, respectively, for calendar year 2023. Unemployment increased slightly over the calendar year, starting at 3.5% and ending at 3.7%[5] but remained remarkably low. All of this occurred while the headline year-over-year inflation number decreased from 6.5% in December 2022 to 3.4%[5] by year-end.

Outside the US, unemployment and inflation painted a more mixed picture. The Eurozone ended calendar year 2023 with unemployment numbers at 6.5%[1], down from 6.7%[1] at the beginning of the calendar year.[1] Japan ended with an unemployment figure of 2.5%, right where it started for the year. Inflation in the Eurozone ended the calendar year at 2.9%[6], down from 9.2%[6] a year earlier. Inflation in Japan ended calendar year 2023 at 2.6% versus 4.0%[1] at the beginning of the calendar year. China notably had inflation levels during calendar year 2023 close to 0% or below, given a disappointing reopening after Covid, issues in the property sector, geopolitical tensions, and capital flight out of the country.

Calendar Year 2024 Outlook

In calendar year 2023, the US economy defied most expectations, with inflation coming down quickly without significant damage to the economy despite a historically rapid increase in rates over the previous 18 months. The Federal Funds rate ended the year above 5%, while economic growth remained far from recessionary territory. This resulted in enthusiasm in equity and fixed income markets, especially toward the end of the calendar year, that rate cuts could lie ahead, and a "soft landing" might be achievable this cycle. As we look toward the rest of 2024, there are several areas that could guide markets, both positively and negatively. These include:

→ Can the good news on growth, employment, and earnings continue?

- In 2024 we will be watching as the Federal Reserve continues to attempt to manage a "soft landing" of the US economy.[7] A soft landing is when the Fed is able to sufficiently reduce inflation without increasing unemployment and turning growth negative.[8] The Fed is forecasting that the US will grow 1.4% in 2024.[9] That being said, some recession models still have the chance of a US recession at that of a coin flip.[10]
- Often, as policy rates peak, inflation starts to fall due to the impact of the rate increases flowing through the economy and slowing demand. However, in this most recent cycle, the supply-side shocks of the pandemic that disrupted the supply of food, fuel, goods, and services were a large part of the spike in inflation. As these supply-chain bottlenecks eased, inflationary pressures also diminished.[11] Throughout this inflationary period, markets' long-run inflation expectations remained close to the Fed's inflation target of 2%. This expectation helped place an implicit cap on longer-term interest rates and bond yields. The inversion of the yield curve, where short-term interest rates are higher than long-term interest rates, persisted through 2023 and into 2024.

Investment Consultant's Statement

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- This inverted yield curve allowed governments and companies to issue longer-dated debt (or refinance existing debt) at lower rates than if they were issuing short-term debt. In addition, credit spreads tightened in 2023, thus lowering borrowing costs for some corporate issuers. At the start of 2024, US corporations issued a record amount of debt at an average yield of 5.44% for ten-year corporate bonds.[12] For now, credit markets have low levels of distress and narrow spreads.[13] The net result is that, rather than facing elevated borrowing costs in 2024, many companies may be able to issue longer-dated debt at attractive rates.
- Like the resilient credit markets, the US labor market remains healthy, with forecasts for only slight increases in unemployment for 2024 and 2025 (e.g., the Fed is forecasting an unemployment rate of 4.1% for both years).[14] In 2022, the Fed forecasted that unemployment would rise in 2023 to 4.4%. Instead at year-end 2023 the unemployment rate was just 3.7%.[15] While the pace of job creation in the US slowed in 2023, the US economy still added a healthy 2.7 million jobs last year.[16] The current number of job openings (~9.0 million) continues to exceed the number of available workers with ratio of openings to available workers at 1.4.[17] Wage increases year-over-year have slowed from their peak of around 6% to 4.3%, but they are now positive in real terms.[18]
- The prospects for corporate earnings are linked to all these factors. Higher borrowing costs cut into earnings, so lower rates would ease that burden. If economic growth continues to be better than expected, it will bode well for earnings growth. Finally, rising wages can cut both ways. Higher labor costs may dampen earnings, but full employment implies that the broad population will be in a better position to fuel growth.

→ Consumers versus inflation.

- Inflation, after surging during and after the global pandemic, has significantly declined from its peak in the US and other advanced economies. However, inflation remains above the Fed's target, largely driven by the "stickier"[19] services sectors. In February 2024, the Consumer Price Index ("CPI") was at 3.2%, well below its peak of 9.1% in June of 2022.[20] Core CPI, which strips out the volatile food and fuel components, finished the year at 3.9%[1] and is slightly lower now at 3.8% down from a 6.6% peak.[21] Core inflation is higher than headline inflation, as price increases for parts of the services sector, particularly shelter, medical care, and auto insurance, remain elevated. We will be watching the path of inflation closely on this (hopefully) final leg toward the Fed's target. We will pay particularly close attention to the stickier parts of the CPI basket.
- So far, the US consumer has weathered higher prices, increased borrowing costs, and fears of a potential recession. However, some pressures are building under the surface for the US consumer related to debt. Much of the savings that was accumulated during the pandemic has now been spent, and despite wage increases recently becoming positive in real terms, overall wage gains have not kept pace with inflation.[22] This has led to consumers turning to borrowing at a time of rapidly rising interest rates. Recently, total US consumer credit soared to over one trillion dollars, a record high, while the average interest rate on this debt also reached a record

Investment Consultant's Statement

(continued)

May 10, 2024

of over 20%.[23] This has not created a major strain on the consumer yet,[24] but that could rapidly change if economic growth slows, and the labor market weakens.

→ Uncertainty remains on the path of interest rates.

- The median of the Fed's dot plot forecasts a Fed Funds Rate of 4.6% by the end of 2024, while futures markets expect a similar rate by the end of the year.[25] This is a recent change as previously there was a wide gap between the Fed's interest rate outlook and that of the market. Although both are now forecasting similar declines in interest rates this year, questions remain on the timing of rate of cuts. Market expectations are pricing the probability of an interest rate cut at below 50% for many of the upcoming meetings. The timing of cuts and their magnitude may prove to be a key driver of results this year.
- Market participants increased their bets late last year and into early this year on how many times the Fed would lower rates in 2024 from two all the way to seven. At peak rate-cutting enthusiasm, the timing of the first rate cut was expected to take place in March. Given strong economic data and recent Fed guidance, the number of cuts anticipated by the markets for 2024 has since been reduced to two or three, with the first cut now expected in the second half of 2024.[26]
- This year we will be closely watching key economic data releases for any clues to the path of Fed policy. If the Fed cuts interest rates at a faster pace than is currently expected, we could see further gains in risk assets. However, if the timing of cuts is further delayed or the magnitude of cuts is lower than expected, we see the potential for an asymmetric risk to the downside for risk assets, as this adjustment would likely be driven by continued strength in the labor market and inflation remaining elevated.

→ Geopolitical risks.

- China is one of the first countries we inspect on the world stage, given its economic and political heft, not to mention its rivalry with the US. China's geopolitical ambitions continue to worry its neighbors and the US. Tensions may escalate for any number of reasons, such as the US signaling support for the pro-independence party winning in Taiwan's recent election. While the re-election of Taiwan's ruling Democratic Progressive party was expected, US-China strain has not subsided despite President Xi's visit to the US last summer.[27]
- A proliferation of ongoing and latent regional conflicts has the potential to destabilize markets as well. The war in Ukraine continues to demand more military and financial support.[28] Hamas' attack on Israel and the response of the Israeli Defense Force in Gaza has placed Israel's allies in a difficult position. While Iran has denied involvement in the attack, the long association between Iran and Hamas has prompted concerns regarding a resurgence of proxy wars. The pressure on global supply chains has risen considerably as Houthi rebels (another group considered to be a proxy force for Iran) attack NATO/Israeli allied ships in the Red Sea.[30] So far, the attacks have provoked the re-routing of at least $200 billion in cargo, adding over 10 days and 3,000 miles to the transport route.[29]

Investment Consultant's Statement

(continued)

May 10, 2024

- China, with its own troubled domestic economy and real estate crisis, could continue to favor pro-nationalist policies over economic growth. Politically, China might try to thwart US multilateral efforts to restore peace in the Middle East and contain President Putin.[30] Foreign investors are pulling a record amount of capital out of China, making China's economic woes worse.[31] Despite Chinese policy makers scrambling to restore investor confidence and battle deflation, public markets in China continue to decline.
- We will continue to evaluate these geopolitical concerns, with an eye toward their impact on inflation and growth. Increases in geopolitical conflicts could hamper supply chains and once again drive-up inflation. As the world's second largest economy, the health of the Chinese economy is important to many corporations and investors.

OCERS 2023 Performance

OCERS' portfolio returned 11.4% in 2023, compared to the Policy Index's trailing 12-month return of 12.1%. The portfolio return ranked above the median of the Public Defined Benefit > $1 Billion peer universe. Global Public Equity had the strongest absolute performance of all asset classes, returning 22.9%, while the Total Real Estate asset class had the weakest 2023 performance of -10.5%, driven by the continued elevation in interest rates and lack of transaction activity.

Over the trailing three- and five-year periods, the OCERS portfolio returned 6.2% and 8.8% on average annually. For the trailing three years, OCERS' performance ranked in the 13th percentile compared to peers,[32] and over the trailing five years, ranked in the 34th percentile.

If you have any questions, please contact us at (760) 795-3450.

LBW/SBS/jls

Investment Consultant's Statement

(continued)

May 10, 2024

1 Source: Bloomberg.
2 Source: S&P Dow Jones Indices.
3 Source: OECD.
4 Source: Bureau of Economic Analysis.
5 Source: Bureau of Labor Statistics.
6 Source: Eurostat.
7 Source: Federal Reserve of St. Louis, " K. Engermann, " " A Soft Landing for the E c
able to tame inflation in the late 1970s and early 1980s without triggering economi
8 Source: Federal Reserve of St. Louis, " K. Engermann, " to" Aeroff 2 Landing for the Ec
9 Source: IMF, " World Economic Outlook, " 5% January 2024. S for U.S. Summa
December 2023. Real GDP for US in 2024 range from 0.8% to 2.5%.
10 Source: Wall Street Journal, H. Troy et al. U.S. Fed Recession. NY Fed ...
recession below fifty percent. The rear econom...
11 Source: Federal Reserve of Cleveland, M. Gordon, " Impacts of Supply Chain Disruption on Inf
the Face of Supply Shocks: 2-28, 2023. of Inflation Expectations, " June 26
12 Source: Bloomberg, " US Corporate Bond Sales Hit $188 Billion in January, " January 29
13 Source: Federal Reserve of New York, " Corporate Bond Market Distress Index", Janua
14 Source: Federal Reserve, " Summary of Economic Projections, " December 2023 ... September
unemployment to rise to 4.4% in 2023.
15 Source: BLS as of January 2024. FOMC, " Summary of Economic Projections, " September
16 Source: Bureau of Labor Statistics, January 2024
17 Source: BLS, February 2024. In 2022 the US economy added 4.8 million jobs at an av
18 Source: Employment Cost Index, December 31, 2023.
19 Source: Federal Reserve Bank of Cleveland, ... May 19, 20
for goods and services that do not respond quickly to aggregate demand. Medical c
services and goods. About 70% of headline CPI includes goods and services with a not he
in response to consumer demand.
20 Source: Bureau of Labor Statistics as of February 13, 2024
21 Source: Bureau of Labor Statistics as of February 13, 2024 ... In January 2024, shelt
22 Source: BLS, January 2024.
23 Source: FRED, data as of September 2023. Student loans reached $1.7 Trillion dollars. Rev
Commercial Bank Interest Rate of Credit Card Plans reached 21.5% as of November 20
24 Source: FRED, data as of September 2023 ... 9% ... as a P er c
25 Source: Federal Reserve, " Summary of Economic Projections, " ... December 2023. FOMC ...
where ... observers can ... heavy ... December's f
26 Source: Chicago Mercantile Exchange, February 27, 2024.
27 Source: Center for Strategic ... "Taiwan's 2024 Election ... Implications, " Ja
communications to the US, Japan, and the EU ... Taiwan.
28 Source: Financial Times, C. Mansi ... 2024 ...
29 Source: Council on Foreign Relations, N. Berman, " How Houthi Attacks ... the Red Sea
30 Source: Brookings ... Kaitlin ... 2024 ...
31 Source: Peterson Institute for International Economics (PIIE), N. Lardy, " Foreign
32 Peer Group: Investment Metrics Public DB > $1B Net.

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Investment Returns

The table below details the annualized rates of return for the different asset categories over various time periods ended December 31, 2023. The returns for each asset class represent the composite returns of all the manager portfolios within the asset class. All returns are net of fees, which is a change from the reporting in prior years when only indirect or at source fees were deducted from the returns being presented. The method of computation of investment returns is time-weighted approximation.

	1 Year	3 Year	5 Year
Global Public Equity (%)	22.89	5.65	12.25
MSCI ACWI IMI (%)	*21.58*	*5.46*	*11.49*
Private Equity (%)	2.47	15.66	14.80
Cambridge Private Equity Lagged (%)	*7.47*	*18.21*	*14.96*
Income Strategies (%)	6.71	-0.02	3.19
Income Strategies Benchmark (1) (%)	*N/A*	*N/A*	*N/A*
Real Asset (%)	-0.42	12.07	6.17
Real Asset Custom Index (2) (%)	*-3.28*	*9.59*	*4.31*
Risk Mitigation (%)	1.45	4.07	4.89
Risk Mitigation Custom Index (3) (%)	*1.27*	*2.00*	*3.67*
Unique Strategies (%)	2.86	3.24	N/A
Short Term Investments (%)	*5.52*	*2.36*	*2.01*
Cash Overlay (%)	6.38	-1.32	4.40
91-day Treasury Bill (%)	*5.01*	*2.15*	*1.88*
Total Fund (%)	**11.44**	**6.18**	**8.81**
Composite Policy Benchmark (4) (%)	***12.08***	***6.19***	***8.51***

1 Income Strategies Benchmark = 60% Bloomberg U.S. Aggregate + 11% Bloomberg U.S. TIPS Index + 17% Credit Suisse Leveraged Loan Index + 12% Credit Suisse Western European Leveraged Loan Index.

2 Real Assets Custom Index = 45% NCREIF ODCE Index + 36% Cambridge Private Equity Energy Lagged + 13% Cambridge Infrastructure Index + 6% NCREIF Farmland Index through 6/30/2020, 58% NCREIF ODCE Index + 17% Cambridge Private Equity Energy Lagged + 25% Cambridge Infrastructure Index through 06/30/2023, 54% NCREIF ODCE Index + 16% Cambridge Private Equity Energy Lagged + 30% Cambridge Infrastructure Index thereafter.

3 Risk Mitigation Custom Index = 50% HFRI Macro: Systematic Diversified CTA + 50% Bloomberg Long Term U.S. Treasury Index through 9/30/2019, 33.33% Bloomberg Long Term U.S. Treasury Index + 33.33% HFRI Macro: Systematic Diversified CTA + 33.33% SG Trend Index through 12/31/2019, 25% Bloomberg Long Term U.S. Treasury Index + 25% HFRX Macro: Systematic Diversified CTA + 25% SG Trend Index + 25% SG Multi Alternative Risk Premia through 6/30/2020, 25% Bloomberg Long Term U.S. Treasury Index + 25% HFRI Macro Total Index + 25% SG Trend Index + 25% SG Multi Alternative Risk Premia through 3/31/2022, 33.33% Bloomberg Long Term U.S. Treasury Index + 16.67% HFRI Macro Total Index + 33.33% SG Trend Index + 16.67% SG Multi Alternative Risk Premia thereafter.

4 Policy Benchmark = 45% MSCI ACWI IMI Index + 15% Cambridge Private Equity 1-Quarter Lag Index + 17% Income Strategies Benchmark 1 + 13% Real Assets Custom Index 2 + 10% Risk Mitigation Custom Index 3

N/A - Represents new investment category and custom index; data not available.

Statement of Investment Objectives and Policies

General
The primary goal of the Orange County Employees Retirement System's investment program is to provide Plan participants with retirement benefits as required by the County Employees Retirement Law of 1937. This goal is accomplished through Employers' and Plan participants' contributions and the implementation of a carefully planned and monitored long-term investment program. The Board of Retirement (with the participation of the Investment Committee, staff and advisors) has exclusive control of all investments of the Plan and is responsible for the establishment of investment objectives, strategies and policies.

The Board of Retirement is authorized to invest in any form or type of investment deemed prudent in the informed opinion of the Board. The Investment Committee has adopted an Investment Policy Statement that provides a frame work for the management of OCERS' investments. This purpose of the Investment Policy Statement is to assist the Investment Committee in effectively supervising, monitoring, and evaluating the investment of the system's assets.

Investment Objectives
OCERS' goal is to meet the promised retirement benefits due its members. OCERS invests the assets of the system solely for the benefit of plan participants and beneficiaries while minimizing employer contributions and investment and administration costs. The long-term performance objective for the portfolio is to exceed the actuarially assumed rate of return net of fees and expenses, with a secondary objective of exceeding the return on an appropriate designated benchmark over a complete economic cycle and relevant longer periods, also net of fees and expenses.

Strategic Asset Allocation Policy and Maintenance
A pension fund's strategic asset allocation policy, implemented in a consistent and timely manner, is generally recognized to have the most impact on a fund's investment performance. The asset allocation policy determines a fund's optimal long-term asset class mix (target allocation). This policy is expected to achieve a specific set of investment goals, such as risk and return objectives. The policy also establishes ranges around the targeted levels which assets levels are permitted to fluctuate. Fluctuations outside the permitted range act as triggers for reallocating assets to ensure adherence to targeted weights.

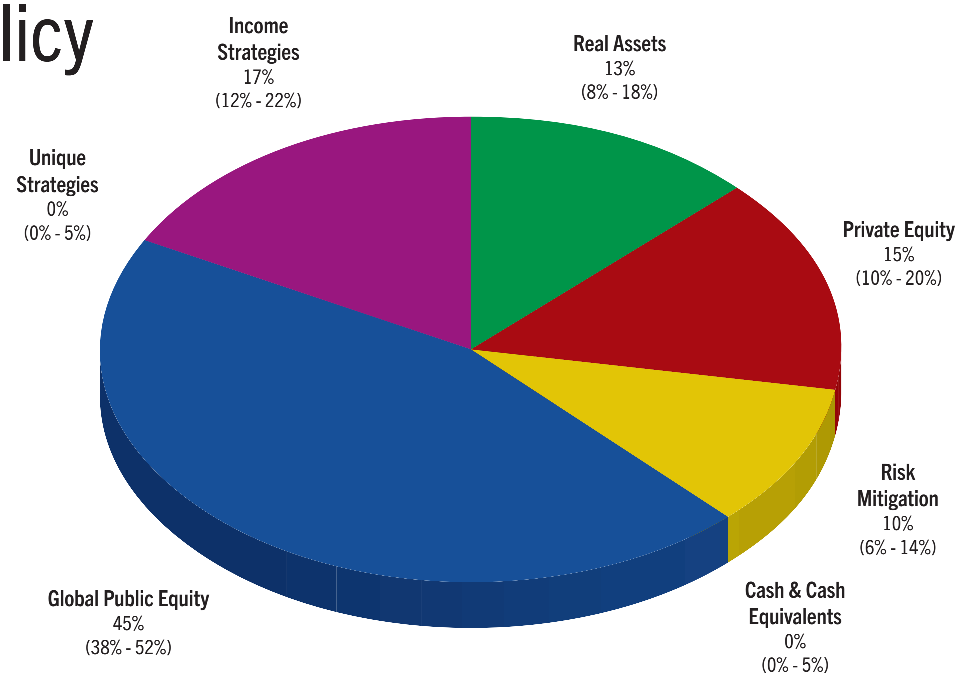
Program Administration and Manager Structure
For each major asset class, the System shall diversify assets by employing managers with demonstrated skill in their particular areas of expertise. The System will retain managers who utilize varied investment approaches and allocate assets in a manner that is consistent with the overall investment plan. For example, the sum of all domestic equity managers should exhibit characteristics that are similar, but not necessarily identical, to the overall equity market. When asset fluctuation causes the asset class to exhibit characteristics that are dissimilar from the plan, staff shall direct cash flows to or from the various managers so that actual characteristics are consistent with the plan.

Use of Proxies
OCERS utilizes the services of Institutional Shareholder Services (ISS) to vote public equity proxies on OCERS' behalf. ISS is solely responsible for voting all proxies for securities, consistent with the ISS Global Board-Aligned Policy, as approved by the Investment Committee. If the ISS Global Board-Aligned Policy does not contain recommended voting guidelines for the subject of the proxy vote, ISS will contact OCERS for guidance prior to casting the vote to ensure proxy votes are in accordance with OCERS' guidelines to protect and enhance returns on behalf of plan participants.

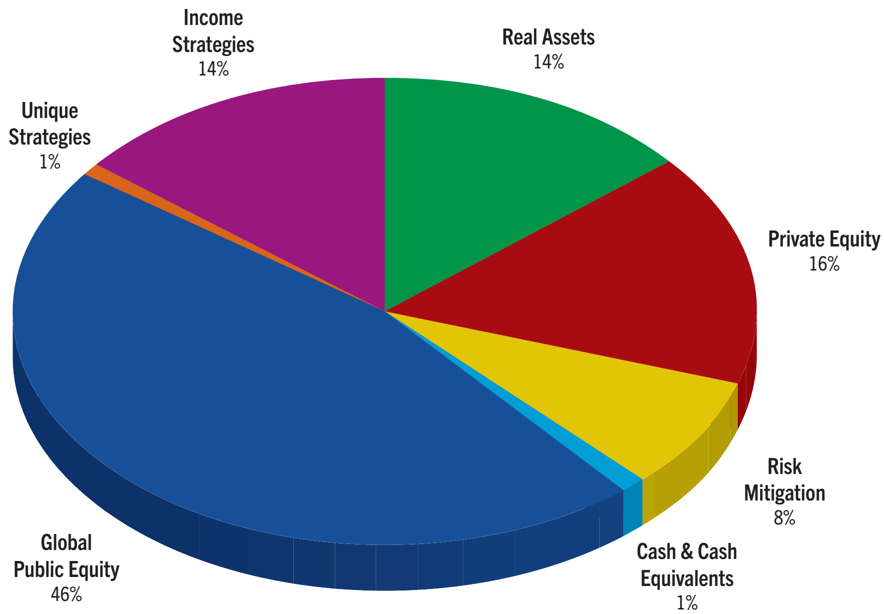
Asset Diversification

December 31, 2023

Policy

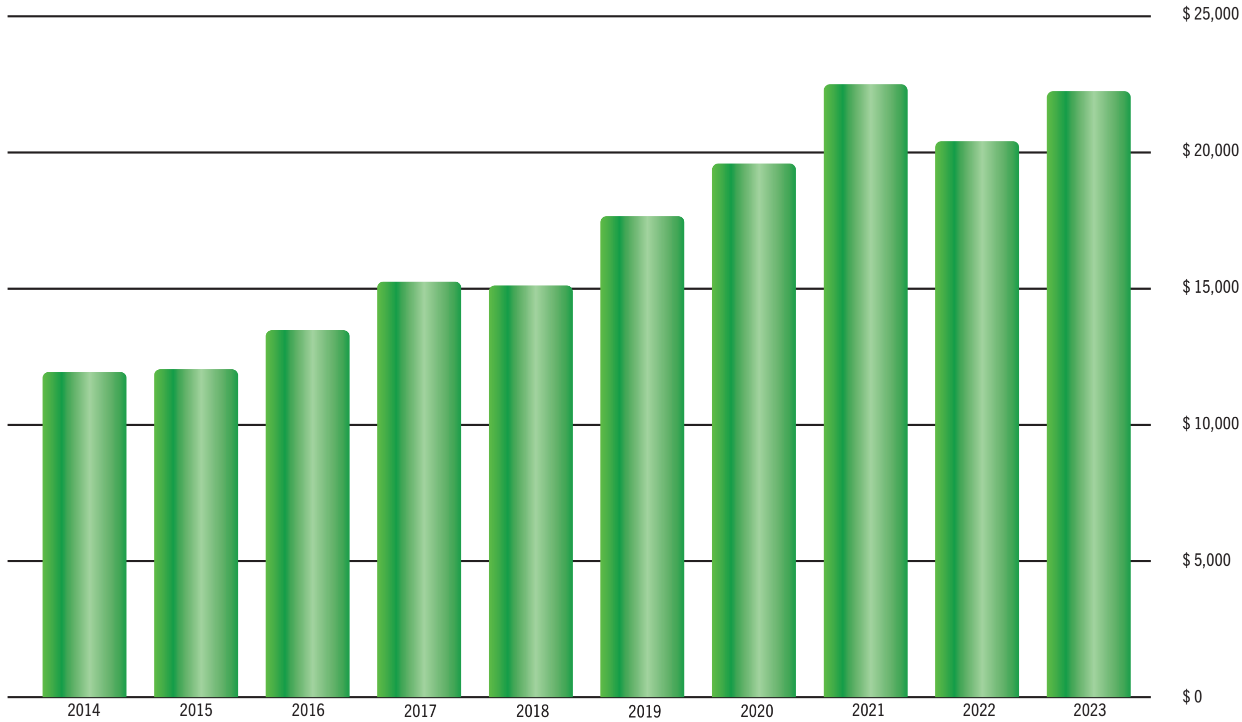


Actual



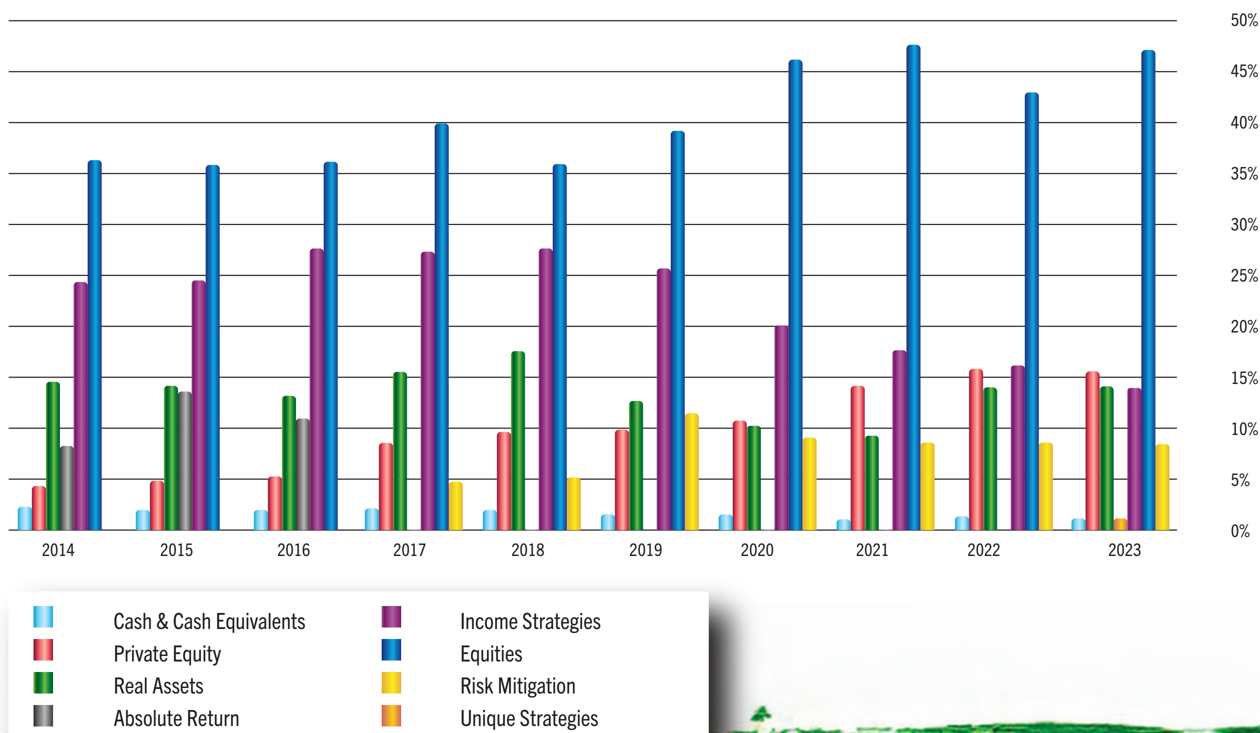
Growth of System Net Investments at Fair Value

For the Ten Years Ended December 31, 2023
(in Millions of Dollars)



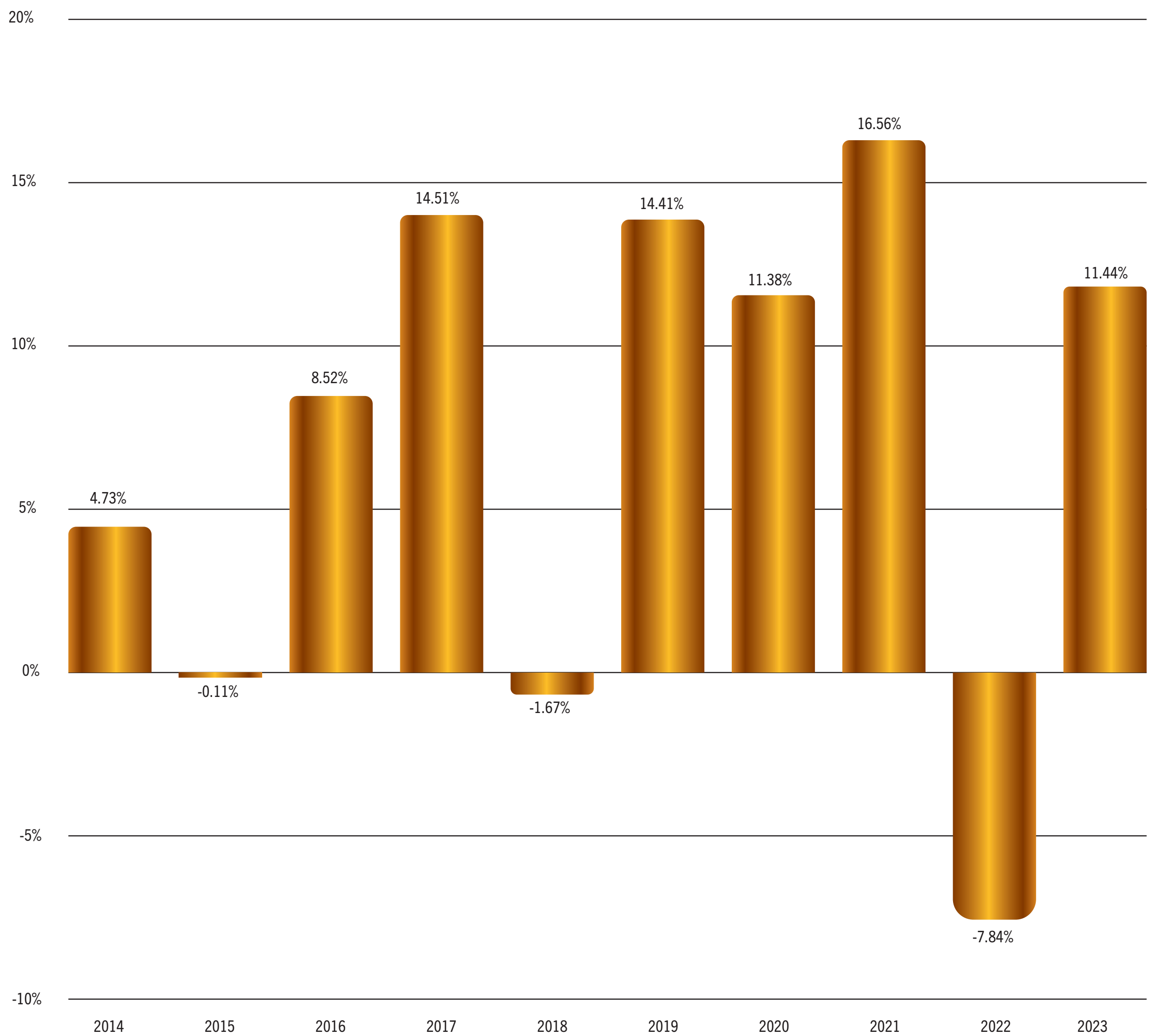
Historical Asset Allocation

December 2014 - December 2023
(Actual)



History of Performance - Net

December 2014 - December 2023
(Actual)



As of 2016, all History of Performance rates of returns have been recalculated from the prior years' reporting to report net of all fees. In prior years, the rates of returns in the above schedule included indirect or at source fees, but excluded other direct fees.

Schedule of Largest Equity Holdings

(by Fair Value) [1, 2]

As of December 31, 2023
(Amounts in Thousands)

Common Stock	Shares	Fair Value
ASML HOLDING NV	22	$ 16,788
NOVO NORDISK A/S B	156	16,183
SAFRAN SA	75	13,142
NESTLE SA REG	85	9,839
FIRST CITIZENS BCSHS CL A	7	9,507
TOTALENERGIES SE	124	8,453
ABB LTD REG	188	8,318
SAP SE	52	7,981
ONTO INNOVATION INC	51	7,841
HSBC HOLDINGS PL C	956	7,745

Schedule of Largest Fixed Income Holdings

(by Fair Value) [1]

As of December 31, 2023
(Amounts in Thousands)

Asset	CPN/ Maturity	Fair Value
FNMA TBA 30 YR 5.5	5.5% / 02-13-2054	$ 22,901
US TREASURY N/B	3.4% / 08-15-2042	21,102
SWPC0M330 CDS USD R F 1.00000	1.0% / 12-20-2028	19,675
FNMA TBA 30 YR 4.5	4.5% / 02-13-2054	17,653
FNMA TBA 30 YR 2.5	2.5% / 01-16-2054	17,183
FNMA TBA 30 YR 3.5	3.5% / 02-13-2054	14,876
US TREASURY N/B	1.4% / 12-31-2028	14,789
US TREASURY N/B	1.5% / 02-15-2030	14,784
US TREASURY N/B	4.1% / 08-15-2053	13,072
US TREASURY N/B	1.3% / 05-15-2050	13,014

[1] A complete list of portfolio holdings is available for review at the OCERS' office.
[2] The holding schedules pertain to holdings of individual securities; they do not reflect OCERS' investments in commingled funds.

Schedule of Commissions

For the Year Ended December 31, 2023
(Amounts in Thousands)

Broker Name	Number of Shares Traded	Commission per Share (in cents)	Total Commission
Barclays Capital	907	0.88	$ 8
BNP Paribas Securities	8,025	0.10	8
Citigroup Global Markets, Inc.	1,748	0.80	14
Credit Lyonnais Securities	503	0.60	3
Cowen and Company LLC	974	1.03	10
Credit Suisse	3,279	0.18	6
Goldman Sachs	7,763	0.53	41
Instinet	4,430	0.27	12
J.P. Morgan Securities	13,981	0.21	29
Jefferies	1,852	1.46	27
Jones Trading Institutional Services LLC	530	3.02	16
Liquidnet	1,008	1.19	12
MacQuarie	2,396	0.21	5
Merrill Lynch	11,549	0.22	25
Morgan Stanley & Company, Inc.	14,174	0.23	32
RBC	639	2.04	13
UBS	14,982	0.14	21
Virtu	2,164	0.83	18
Other*	6,946	1.74	121
Total	**97,850**	**0.43**	**$ 421**

* Other includes 96 additional firms that comprise approximately 29% of total commissions and approximately 7% of the total number of shares traded. The average commission per share is 1.74 cents.

Commission Recapture Program

OCERS implemented a direct brokerage program where investment managers can trade with specific brokerage firms for the purpose of reducing trading commissions. The brokerage firms utilized for these services are Abel Noser, Capital Institutional Services, Cowen Execution Services Limited, and State Street Bank.

Schedule of Investment Expenses and Investment Summary

For the Year Ended December 31, 2023
(Dollars in Thousands)

Type of Investment Expenses	Assets Under Management at Fair Value	Percentage	Fees
Investment Management Fees*			
Investments at Fair Value:			
Global Public Equity	$ 10,404,665	46%	$ 16,337
Income Strategies	3,235,902	14%	14,928
Real Assets	3,011,847	14%	31,417
Private Equity	3,597,888	16%	38,894
Risk Mitigation	1,813,821	8%	10,034
Unique Strategies	123,208	1%	2,332
Total Investments at Fair Value	**22,187,331**		**113,942**
Short-Term Investments[1]	51,842	1%	123
Total Investment Management Fees	**$ 22,239,173**	**100%**	**114,065**
Other Fund Expenses[2]			**51,695**
Other Investment Expenses			
Consulting/Research Fees			2,272
Investment Department Expenses			4,226
Legal Services			435
Custodian Services			580
Investment Service Providers			26
Total Other Investment Expenses			**7,539**
Securities Lending Activity			
Securities Lending Fees			245
Rebate Fees			11,332
Total Securities Lending Activity			**11,577**
Custodial Fund - OCTA Investment Fees and Expenses			**3**
Total Investment Expenses			**$ 184,879**

* Does not include undisclosed fees deducted at source.

[1] These costs include, but are not limited to, foreign income tax and other indirect flow-through investment expenses such as organizational expenses in limited partnership structures.

List of Investment Managers

As of December 31, 2023

Cash Overlay
Parametric

Income Strategies
Ares Management
BlackRock Institutional Trust Company
Dodge & Cox
Longfellow Investment Management Co., LLC
Pacific Investment Management Company
Schroders
Alcentra
Arcmont Asset Management
Beach Point Capital Management
Blue Owl Capital
Crayhill
Crescent Capital Group
Cross Ocean Partners
CarVal Investors
Hayfin Capital Management
HPS
Loomis, Sayles & Company, L.P.
Monroe Capital
NXT Capital
OCP Asia
Pathlight Capital
Pharo Management
Silver Rock Financial
Strategic Value Partners
Wellington Trust Company, NA

Global Public Equity
Acadian Asset Management
AQR Capital Management, LLC
Artisan Partners
BlackRock Institutional Trust Company
Capital Group
City of London
Eagle Asset Management
Fidelity Institutional Asset Management
GQG Partners
Harris Associates
Systematic Financial Management
William Blair & Co.

Private Equity
Abbott Capital
Accel-KKR
Adams Street Partners, LLC.
Advent International Corporation
Alcentra
Altaris Partners

Private Equity (continued)
Altor Fund Manager AB
Archimed Group
American Industrial Partners
Battery Ventures
CBC Group
Cinven
Clearlake Capital Partners
DBL Partners
EQT
FSN Capital
General Catalyst
Genstar Capital
GGV Capital
Greenoaks Capital Partners
H.I.G. Capital
HarbourVest Partners, LLC
Harvest Partners
HealthQuest Capital Management
Hellman & Friedman Capital Partners
Hg
Insight Partners
Investindustrial
Mayfield
Mesirow Financial
Monroe Capital
NEA
Nordic Capital
Oak HC/FT
One Rock Capital Partners
OCP Asia
Orchid Asia Group
PAI Partners
Pantheon Ventures
Park Square Capital
Spark Capital
Stellex Capital Partners
Spark Capital
Stellex Capital Partners
Stone Point Capital
Thoma Bravo, LLC
TPG
Vista Equity Partners
Vitruvian Partners
WestCap

Real Assets
AEW Capital Management
Almanac Realty Investors
Angelo, Gordon & Co.
Argo Infrastructure Partners
Asana Partners

Real Assets (continued)
BlackRock Institutional Trust Company
Blackstone
Brigade
Cerberus Institutional Real Estate GP
Clarion Partners
Cortland
DigitalBridge
EIG Management Company, LLC
EnCap
EnerVest, Ltd
EQT
Global Infrastructure Partners
Grain Management
I Squared Capital
Jamestown
Kayne Anderson Capital Advisors
LBA Logistics
LS Power
Manulife Investment Management
Morgan Stanley
Oaktree Capital Management
Principal Financial Group
Quantum Energy Partners
Stonepeak Infrastructure Partners
TPG Real Estate
True North Management Group
Warwick Group
Waterton Associates
Westbrook Partners

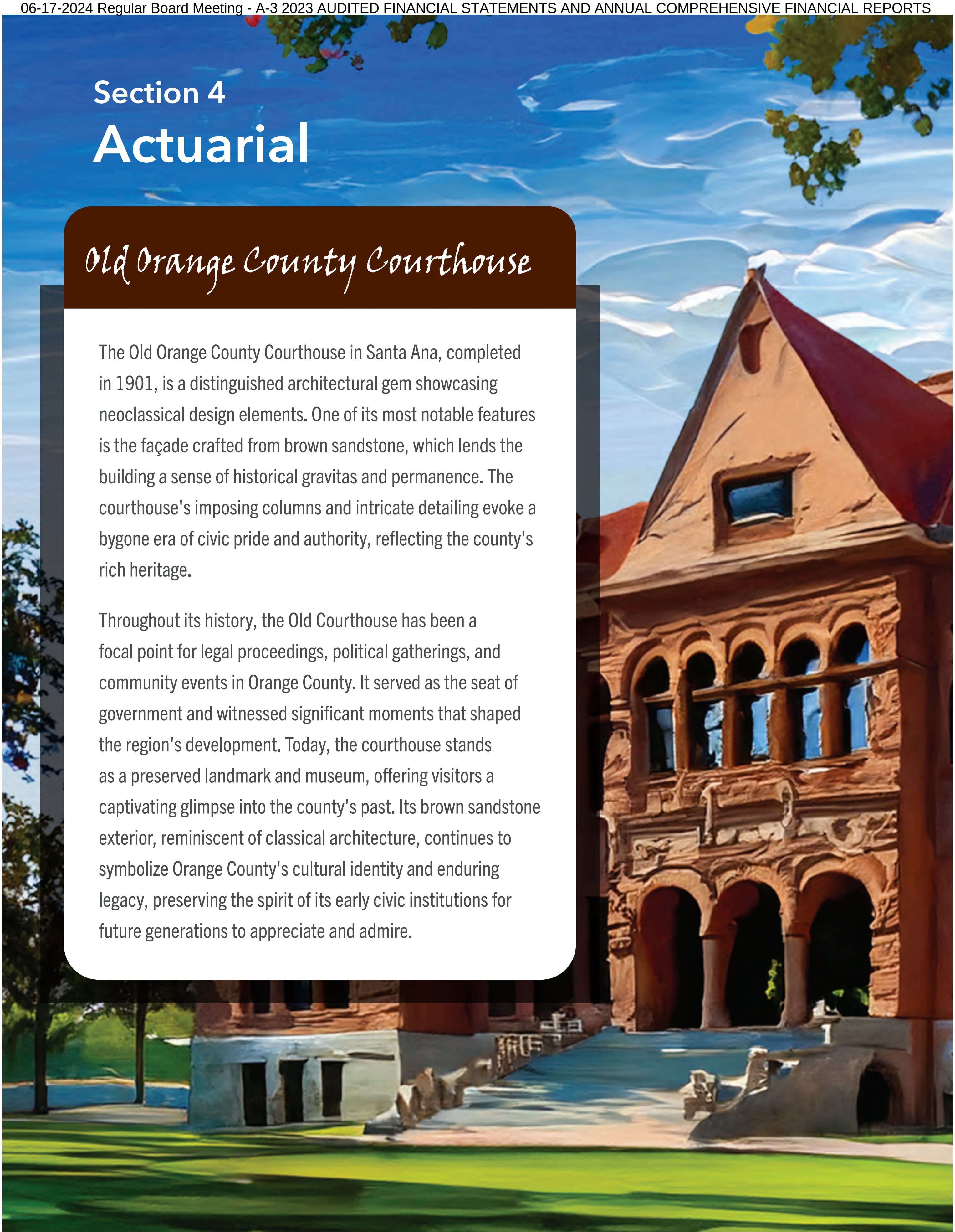
Risk Mitigation
Alpha Simplex Group, LLC
Alpstone Capital
AQR Capital Management, LLC
Brevan Howard - DG Partners
BlackRock Institutional Trust Company
Graham Capital Management, L.P.
Pacific Investment Management Company
Systematica Investments
Two Sigma Investments

Unique Strategies
Blackstone
Capital Constellation
Waterfront Capital Partners
TCG Crossover Management
Collective Global Management

ORANGE COUNTY

OCERS

EMPLOYEES RETIREMENT SYSTEM



Section 4

Actuarial

Old Orange County Courthouse

The Old Orange County Courthouse in Santa Ana, completed in 1901, is a distinguished architectural gem showcasing neoclassical design elements. One of its most notable features is the façade crafted from brown sandstone, which lends the building a sense of historical gravitas and permanence. The courthouse's imposing columns and intricate detailing evoke a bygone era of civic pride and authority, reflecting the county's rich heritage.

Throughout its history, the Old Courthouse has been a focal point for legal proceedings, political gatherings, and community events in Orange County. It served as the seat of government and witnessed significant moments that shaped the region's development. Today, the courthouse stands as a preserved landmark and museum, offering visitors a captivating glimpse into the county's past. Its brown sandstone exterior, reminiscent of classical architecture, continues to symbolize Orange County's cultural identity and enduring legacy, preserving the spirit of its early civic institutions for future generations to appreciate and admire.

Actuary's Certification Letter

Segal

180 Howard Street
Suite 1100
San Francisco, CA 94105-6147
T 415.263.8200
segalco.com

May 17, 2024

Board of Retirement
Orange County Employees Retirement System
2223 Wellington Avenue
Santa Ana, CA 92701-3101

Re: Orange County Employees Retirement System (OCERS)
Certification for Pension Plan as of December 31, 2022

Dear Members of the Board:

Segal prepared the December 31, 2022 annual actuarial valuation of the Orange County Employees Retirement System (OCERS or System). We certify that the valuation was performed in accordance with generally accepted actuarial principles and practices and OCERS' funding policy that was last reviewed and adopted by the Board in 2014 (reaffirmed in 2018 and revised with some non-substantive changes in 2022). In particular, it is our understanding that the assumptions and methods used for funding purposes meet the parameters set by Actuarial Standards of Practice (ASOPs). A discussion of the assumptions and methods used in the separate December 31, 2023 actuarial valuation for financial reporting purposes under Governmental Accounting Standards Board (GASB) Statement No. 67 is presented at the end of this letter.

December 31, 2022 Actuarial Valuation for Funding Purposes

Actuarial valuations are performed on an annual basis with the last valuation completed as of December 31, 2022. The actuarial calculations presented in the valuation report have been made on a basis consistent with our understanding of the historical funding methods used in determination of the liability for statutory retirement benefits.

The December 31, 2022 actuarial valuation is based on the plan of benefits verified by OCERS and on participant and financial data provided by OCERS. Segal conducted an examination of all participant data for reasonableness and we concluded that it was reasonable and consistent with the prior year's data. Summaries of the employee data used in performing the actuarial valuations over the past several years are provided in our valuation report.

We did not audit the System's financial statements. For actuarial valuation purposes, Plan assets are valued at actuarial value. Under this method, the assets used to determine employer contribution rates take into account market value by recognizing the differences between the actual and expected return on market value over a five-year period. The development of the

Actuary's Certification Letter

(Continued)

Board of Retirement
Orange County Employees Retirement System
May 17, 2024
Page 2

actuarial value as of December 31, 2022 is provided in the Development of Actuarial and Valuation Value of Assets.

One funding objective of the Plan is to establish rates, which, over time, will remain level as a percentage of payroll unless Plan benefit provisions are changed. Actuarial funding is based on the Entry Age Cost Method. Under this method, the employer contribution rate provides for current cost (normal cost) plus a level percentage of payroll to amortize any unfunded actuarial accrued liability (UAAL). One of the funding objectives of the System is to reduce that UAAL to zero over a declining period. Effective December 31, 2013, the outstanding balance of the UAAL from the December 31, 2012 valuation was combined and reamortized over a declining 20-year period. Any changes in UAAL due to actuarial gains or losses or due to changes in assumptions or methods will be amortized over separate 20-year periods. Any changes in UAAL due to plan amendments will be amortized over separate 15-year periods and any change in UAAL due to early retirement incentive programs will be amortized over a separate period of up to five years. The progress being made toward the realization of the funding objectives through December 31, 2022 is illustrated in the Schedule of Funding Progress.

Segal prepared all of the supporting schedules in the actuarial section of the System's Annual Comprehensive Financial Report (ACFR) based on the results of the December 31, 2022 actuarial valuation for funding purposes. A listing of the supporting schedules related to the statutory retirement plan benefits that Segal prepared for inclusion in the actuarial section of the System's ACFR is provided below. OCERS' staff prepared the remaining trend data schedules in the statistical section.

Actuarial Section (based on December 31, 2022 Actuarial Valuation for Funding Purposes)

1. Schedule of Funding Progress
2. History of Employer Contribution Rates
3. Summary of Active Membership
4. Summary of Retired Membership
5. Development of Actuarial and Valuation Value of Assets
6. Schedule of Funded Liabilities by Type
7. Actuarial Methods and Assumptions
8. Summary of Major Plan Provisions
9. Experience Analysis

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Segal

Actuary's Certification Letter

(Continued)

Board of Retirement
Orange County Employees Retirement System
May 17, 2024
Page 3

The valuation assumptions used in this valuation were included in the Actuarial Section. The results of this valuation were prepared using the actuarial assumptions and methods developed in the triennial actuarial experience study as of December 31, 2019. All of the assumptions recommended in the study were adopted by the Board. Actuarial valuations are performed on an annual basis and the experience analysis is performed every three years. The most recent experience analysis as of December 31, 2022 has been adopted by the Board* and any changes in assumptions will be reflected in the December 31, 2023 valuation.

In the December 31, 2022 valuation, the ratio of the valuation value of assets to actuarial accrued liabilities increased from 81.2% to 81.5%. The aggregate employer rate (average of the County and all special districts rates combined) has changed from 37.51% of payroll to 38.71% of payroll. The aggregate member's rate has changed from 12.06% of payroll to 12.08% of payroll.

In the December 31, 2022 valuation, the actuarial value of assets excluded $1,157.0 million in unrecognized investment losses, which represented 5.9% of the market value of assets. If these deferred investment losses were recognized immediately in the actuarial value of assets, the funded percentage would decrease from 81.5% to 77.0% and the aggregate employer contribution rate, expressed as a percent of payroll would increase from 38.7% to 42.9%.

To the best of our knowledge, the December 31, 2022 funding valuation report is complete and accurate and, in our opinion, presents the Plan's current funding information.

December 31, 2022 GASB Statement 67 Actuarial Valuation for Financial Reporting Purposes

Segal prepared the December 31, 2023 GASB Statement 67 actuarial valuation for financial reporting purposes. The valuation was performed in order to comply with GASB Statement 67 and we certify that the assumptions and methods used for financial reporting purposes meet the parameters set by ASOPs and our understanding of generally accepted accounting principles (GAAP) applicable in the United States of America as promulgated by GASB. The GASB rules only redefine pension liability and expense for financial reporting purposes, and do not apply to contribution amounts for pension funding purposes.

When measuring pension liability, GASB uses the same actuarial cost method (Entry Age method) and the same type of discount rate (expected return on assets) as OCERS uses for funding. The Net Pension Liabilities (NPLs) measured as of December 31, 2023 and December 31, 2022 have been determined by rolling forward the Total Pension Liabilities (TPLs) for the statutory Retirement Plan benefits as of December 31, 2022 and December 31, 2021, respectively. In addition, any changes in actuarial assumptions or plan provisions that occurred between the valuation date and the measurement date have been reflected.

* The Board decided to defer the change in the allocation of normal cost associated with providing COLA benefits for legacy Safety members with 30 or more years of service until after OCERS has the opportunity to fully vet the impact of the change.

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Segal

Actuary's Certification Letter

(Continued)

Board of Retirement
Orange County Employees Retirement System
May 17, 2024
Page 4

Note number 8 to the Basic Financial Statements and the Required Supplementary Information included in the Financial Section of the ACFR was prepared by the System based on the results of the GASB Statement No. 67 actuarial valuation as of December 31, 2023 prepared by Segal.

This document has been prepared for the exclusive use and benefit of OCERS, based upon information provided by OCERS or otherwise made available to Segal at the time this document was created. Segal makes no representation or warranty as to the accuracy of any forward-looking statements and does not guarantee any particular outcome or result. Except as may be required by law, this document should not be shared, copied or quoted, in whole or in part, without the consent of Segal. This document does not constitute legal, tax or investment advice or create or imply a fiduciary relationship. You are encouraged to discuss any issues raised with your legal, tax and other advisors before taking, or refraining from taking, any action.

The undersigned are Members of the American Academy of Actuaries and meet the qualification requirements to render the actuarial opinion contained herein.

Sincerely,

Paul Angelo, FSA, MAAA, FCA, EA
Senior Vice President & Actuary

Andy Yeung, ASA, MAAA, FCA, EA
Vice President & Actuary

Todd Tauzer, FSA, MAAA, FCA, CERA
Senior Vice President & Actuary

JY/bbf
Attachments

5840095v4/05794.001

Segal

Schedule of Funding Progress

(Dollars in Thousands)

Valuation Date	Actuarial Accrued Liability	Valuation Value of Assets	Unfunded Actuarial Accrued Liability	Ratio of Assets to Actuarial Accrued Liability	Projected Covered Payroll	Ratio of Unfunded Actuarial Accrued Liability to Projected Covered Payroll
12/31/13	$ 15,785,042	$ 10,417,125	$ 5,367,917	65.99%	$ 1,604,496	334.55%
12/31/14	16,413,124	11,449,911	4,963,213	69.76%	1,648,160	301.14%
12/31/15	17,050,357	12,228,009	4,822,348	71.72%	1,633,112	295.29%
12/31/16	17,933,461	13,102,978	4,830,483	73.06%	1,759,831	274.49%
12/31/17	19,635,427	14,197,125	5,438,302	72.30%	1,811,877	300.15%
12/31/18	20,703,349	14,994,420	5,708,929	72.43%	1,875,370	304.42%
12/31/19	21,916,730	16,036,869	5,879,861	73.17%	1,952,534	301.14%
12/31/20	22,904,975	17,525,117	5,379,858	76.51%	1,962,869	274.08%
12/31/21	24,016,073	19,488,761	4,527,312	81.15%	2,052,706	220.55%
12/31/22	25,386,669	20,691,659	4,695,010	81.51%	2,124,678	220.98%

Notes:

- **The December 31, 2022 valuation included the following change:**
  O.C. Superior Court adopted Plan U for CalPEPRA member service earned effective July 1, 2023.

- **There were no assumption or plan changes in the December 31, 2021 valuation.**
- **The December 31, 2020 valuation included the following changes:**
  Assumption Changes:
  Changes in inflation, mortality, disability, termination, retirement, salary scale, and additional cash-out assumptions in the December 31, 2019 triennial experience study increased the UAAL by $24 million.

  Method Change:
  A refinement to the Entry Age actuarial cost method was made. Before the refinement, Entry Age was calculated as the age of the member as of the valuation date minus years of employment, including non-OCERS reciprocal employers. After the refinement, only years of employment with OCERS employers are used.

  Other Change:
  The actual COLA granted by OCERS for the upcoming April 1st was reflected in the valuation.

- **There were no assumption or plan changes in the December 31, 2019 valuation.**
- **There were no assumptions or plan changes in the December 31, 2018 valuation.**

Schedule of Funding Progress

(continued)

- **The December 31, 2017 valuation included the following assumptions changes:**
  Changes in investment return, inflation, mortality, disability, termination, retirement, salary scale, and additional cash-out assumptions in the December 31, 2016 triennial experience study increased the UAAL by $854 million.

- **The December 31, 2016 valuation included the following change:**
  O.C. Law Library was separated from O.C. Sanitation District in Rate Group #3 and put into their own Rate Group (Rate Group #12) after the valuation as of December 31, 2015.

- **The December 31, 2015 valuation included the following benefit changes:**
  City of San Juan Capistrano adopted an optional 1.62% of final average salary at age 65 for members hired on or after July 1, 2016.

  Effective January 1, 2015, new OCTA members were placed in CalPEPRA Plan U (2.50% of final average salary at age 67).

- **The December 31, 2014 valuation included the following changes:**
  <u>Assumption Changes:</u>
  Changes in inflation, mortality, disability, termination, retirement, salary scale, and additional cashout assumptions in the December 31, 2013 triennial experience study decreased the UAAL by $122 million.

  <u>Method Change:</u>
  The cashout assumptions are now used in developing basic member contribution rates for employees in the legacy plans (impact is only on Normal Cost).

- **The December 31, 2013 valuation included the following method change:**
  The outstanding balance of the December 31, 2012 UAAL was combined and re-amortized over a 20-year period.

Schedule of Funding Progress

(continued)

The assets exclude amounts in the County Investment Account and prepaid employer contributions. For years ending December 31, 2016, December 31, 2017, December 31, 2019, December 31, 2020, and December 31, 2021, and December 31, 2022 the assets also exclude amounts in the O.C. Sanitation District UAAL Deferred Account.

Valuation Date	Amount Excluded from Assets		
	County Investment Account	Prepaid Employer Contributions	O.C. Sanitation District UAAL Deferred Account
12/31/13	$ 109,254,000	$ 172,348,000	$ -
12/31/14	109,103,000	207,829,000	-
12/31/15	108,789,000	227,166,000	-
12/31/16	117,723,000	222,524,000	34,067,000
12/31/17	134,417,000	244,552,000	14,871,000
12/31/18	131,890,000	246,133,000	-
12/31/19	150,416,000	259,285,000	12,057,000
12/31/20	160,378,000	293,948,000	13,433,000
12/31/21	167,745,000	304,504,000	15,643,000
12/31/22	140,992,000	320,009,000	14,398,000

For informational purposes only, we have also developed the funded ratio determined using the historical market value of assets after adjustment for amounts in the County Investment Account, prepaid employer contributions, amounts in the O.C. Sanitation District UAAL Deferred Account, unclaimed member reserve and Medicare Medical Insurance Reserve.

Valuation Date	Funded Ratio based on Net Market Value of Assets
12/31/13	67.65%
12/31/14	69.63%
12/31/15	67.73%
12/31/16	70.58%
12/31/17	74.62%
12/31/18	69.31%
12/31/19	75.36%
12/31/20	80.74%
12/31/21	90.52%
12/31/22	76.95%

History of Employer Contribution Rates

Employer Contribution Rate (% of pay)

Valuation Date	General (Non-OCTA, Non-OCSD)	General (1.62% @ 65, Non-OCTA)	General (2.7% @ 55)	General (2.0% @ 57)	General (OCTA)	General (2.5% @ 55, OCSD)
12/31/13[1]	NC 9.82%	NC 5.61%	NC 13.66%	NC 12.46%	NC 11.81%	NC 12.89%
	UAAL 11.34	UAAL 23.72	UAAL 23.72	UAAL 23.72	UAAL 15.22	UAAL[2] 21.87
	Total 21.16%	**Total 29.33%**	**Total 37.38%**	**Total 36.18%**	**Total 27.03%**	**Total 34.76%**
12/31/14	NC 9.67%	NC 5.49%	NC 13.22%	NC 10.54%	NC 10.78%	NC 12.40%
	UAAL[4] 8.62	UAAL 21.72	UAAL 21.72	UAAL 21.72	UAAL 14.40	UAAL[5] 6.26
	Total 18.29%	**Total 27.21%**	**Total 34.94%**	**Total 32.26%**	**Total 25.18%**	**Total 18.66%**
With 3-Year Phase-In	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**
12/31/15	NC 9.58%	NC 5.46%	NC 13.19%	NC 11.40%	NC 10.70%	NC 12.33%
	UAAL[6] 9.22	UAAL 22.45	UAAL 22.45	UAAL 22.45	UAAL 15.52	UAAL[7] 1.42
	Total 18.80%	**Total 27.91%**	**Total 35.64%**	**Total 33.85%**	**Total 26.22%**	**Total 13.75%**
With 3-Year Phase-In	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**
12/31/16	NC 9.51%	NC 5.53%	NC 13.19%	NC 10.35%	NC 10.76%	NC 12.28%
	UAAL[9] 7.25	UAAL 21.72	UAAL[10] 21.72	UAAL 21.72	UAAL 14.76	UAAL 0.00
	Total 16.76%	**Total 27.25%**	**Total 34.91%**	**Total 32.07%**	**Total 25.52%**	**Total 12.28%**
12/31/17	NC 10.73%	NC 6.21%	NC 14.39%	NC 11.51%	NC 12.10%	NC 13.30%
	UAAL[12] 9.58	UAAL 25.05	UAAL[13] 25.05	UAAL 25.05	UAAL 18.26	UAAL 0.00
	Total 20.31%	**Total 31.26%**	**Total 39.44%**	**Total 36.56%**	**Total 30.36%**	**Total 13.30%**
With 3-Year Phase-In	**18.62%**	**28.88%**	**37.06%**	**34.18%**	**28.04%**	**N/A**
12/31/18	NC 10.73%	NC 6.23%	NC 14.36%	NC 12.13%	NC 12.03%	NC 13.24%
	UAAL[14] 9.40	UAAL 26.24	UAAL[15] 26.24	UAAL 26.24	UAAL 19.76	UAAL[16] 0.86
	Total 20.13%	**Total 32.47%**	**Total 40.60%**	**Total 38.37%**	**Total 31.79%**	**Total 14.10%**
With 3-Year Phase-In	**19.28%**	**31.28%**	**39.41%**	**37.18%**	**30.63%**	**N/A**
12/31/19	NC 10.68%	NC 6.10%	NC 14.34%	NC 12.61%	NC 11.97%	NC 13.22%
	UAAL[18] 5.16	UAAL 27.38	UAAL[19] 27.38	UAAL 27.38	UAAL 19.54	UAAL 0.00
	Total 15.84%	**Total 33.48%**	**Total 41.72%**	**Total 39.99%**	**Total 31.51%**	**Total 13.22%**
12/31/20	NC 10.38%	NC 6.26%	NC 14.69%	NC 16.45%	NC 12.59%	NC 13.46%
	UAAL[18] 5.03	UAAL 28.97	UAAL[20] 28.97	UAAL 28.97	UAAL 19.12	UAAL 0.00
	Total 15.41%	**Total 35.23%**	**Total 43.66%**	**Total 45.42%**	**Total 31.71%**	**Total 13.46%**
12/31/21	NC 10.42%	NC 6.22%	NC 14.67%	NC 16.61%	NC 12.54%	NC 13.47%
	UAAL[18] 3.33	UAAL 26.14	UAAL[21] 26.14	UAAL 26.14	UAAL 16.37	UAAL 0.00
	Total 13.75%	**Total 32.36%**	**Total 40.81%**	**Total 42.75%**	**Total 28.91%**	**Total 13.47%**
12/31/22	NC 10.26%	NC 6.17%	NC 14.57%	NC 15.97%	NC 12.32%	NC 13.36%
	UAAL[18] 3.61	UAAL 27.14	UAAL[23] 27.14	UAAL 27.14	UAAL 18.11	UAAL 0.00
	Total 13.87%	**Total 33.31%**	**Total 41.71%**	**Total 43.11%**	**Total 30.43%**	**Total 13.36%**

History of Employer Contribution Rates

(continued)

Employer Contribution Rate (% of pay)

Valuation Date	General (1.64% @ 57, OCSD)	General (2.0% @ 55, TCA)	General (2.0% @ 55, Cemetery, future service)	General (2.7% @ 55, OCFA)	General (2.0% @ 55, OCFA)	General (2.5% @ 55, Law Library)
12/31/13[1]	NC 10.53%	NC 14.13%	NC 12.33%	NC 14.06%	NC 14.15%	NC 12.89%
	UAAL[2] 21.87	UAAL 12.28	UAAL[3] 9.87	UAAL 23.34	UAAL 23.34	UAAL 21.87
	Total 32.40%	**Total 26.41%**	**Total 22.20%**	**Total 37.40%**	**Total 37.49%**	**Total 34.76%**
12/31/14	NC 10.30%	NC 13.59%	NC 11.79%	NC 13.53%	NC 12.47%	NC 12.40%
	UAAL[5] 6.26	UAAL 12.78	UAAL 0.00	UAAL 20.28	UAAL 20.28	UAAL 20.21
	Total 16.56%	**Total 26.37%**	**Total 11.79%**	**Total 33.81%**	**Total 32.75%**	**Total 32.61%**
With 3-Year Phase-In	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**
12/31/15	NC 10.30%	NC 13.44%	NC 11.33%	NC 13.44%	NC 12.72%	NC 12.33%
	UAAL[7] 1.42	UAAL 13.79	UAAL 0.00	UAAL 20.53	UAAL 20.53	UAAL[8] 22.08
	Total 11.72%	**Total 27.23%**	**Total 11.33%**	**Total 33.97%**	**Total 33.25%**	**Total 34.41%**
With 3-Year Phase-In	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**
12/31/16	NC 10.21%	NC 13.30%	NC 11.09%	NC 13.61%	NC 12.64%	NC 13.32%
	UAAL 0.00	UAAL 11.46	UAAL 0.00	UAAL 18.35	UAAL 18.35	UAAL[11] 9.69
	Total 10.21%	**Total 24.76%**	**Total 11.09%**	**Total 31.96%**	**Total 30.99%**	**Total 23.01%**
12/31/17	NC 11.25%	NC 14.51%	NC 11.98%	NC 14.72%	NC 13.46%	NC 14.11%
	UAAL 0.00	UAAL 12.74	UAAL 1.44	UAAL 17.62	UAAL 17.62	UAAL 0.00
	Total 11.25%	**Total 27.25%**	**Total 13.42%**	**Total 32.34%**	**Total 31.08%**	**Total 14.11%**
With 3-Year Phase-In	**N/A**	**26.00%**	**12.46%**	**30.46%**	**29.20%**	**N/A**
12/31/18	NC 11.11%	NC 14.51%	NC 12.05%	NC 14.71%	NC 13.50%	NC 14.28%
	UAAL[16] 0.86	UAAL[17] 15.29	UAAL 0.22	UAAL 15.90	UAAL 15.90	UAAL 1.77
	Total 11.97%	**Total 29.80%**	**Total 12.27%**	**Total 30.61%**	**Total 29.40%**	**Total 16.05%**
With 3-Year Phase-In	**N/A**	**29.17%**	**12.05%**	**29.67%**	**28.46%**	**N/A**
12/31/19	NC 11.23%	NC 14.23%	NC 11.62%	NC 14.75%	NC 13.68%	NC 14.20%
	UAAL 0.00	UAAL 0.39	UAAL 3.01	UAAL 14.06	UAAL 14.06	UAAL 0.19
	Total 11.23%	**Total 14.62%**	**Total 14.63%**	**Total 28.81%**	**Total 27.74%**	**Total 14.39%**
12/31/20	NC 13.25%	NC 14.95%	NC 12.83%	NC 15.22%	NC 16.83%	NC 13.88%
	UAAL 0.00	UAAL 0.00	UAAL 2.85	UAAL 11.49	UAAL 11.49	UAAL 0.00
	Total 13.25%	**Total 14.95%**	**Total 15.68%**	**Total 26.71%**	**Total 28.32%**	**Total 13.88%**
12/31/21	NC 13.09%	NC 14.89%	NC 12.71%	NC 15.25%	NC 16.98%	NC 13.79%
	UAAL 0.00	UAAL 0.00	UAAL 1.02	UAAL 9.37	UAAL 9.37	UAAL 0.00
	Total 13.09%	**Total 14.89%**	**Total 13.73%**	**Total 24.62%**	**Total 26.35%**	**Total 13.79%**
12/31/22	NC 12.81%	NC 13.95%	NC 12.67%	NC 14.99%	NC 17.22%	NC 13.49%
	UAAL 0.00	UAAL 0.00	UAAL 2.45	UAAL 10.50	UAAL 10.50	UAAL 0.00
	Total 12.81%	**Total 13.95%**	**Total 15.12%**	**Total 25.49%**	**Total 27.72%**	**Total 13.49%**

History of Employer Contribution Rates

(continued)

Employer Contribution Rate (% of pay)

Valuation Date	Safety Law Enforcement (3% @ 50)	Safety Law Enforcement (3% @ 55)	Safety Fire Authority (3% @ 50)	Safety Fire Authority (3% @ 55)	Safety Probation
12/31/13[1]	NC 24.23% UAAL 32.47 **Total 56.70%**	NC 22.58% UAAL 32.47 **Total 55.05%**	NC 25.86% UAAL 24.14 **Total 50.00%**	NC 21.70% UAAL 24.14 **Total 45.84%**	NC 21.00% UAAL 19.72 **Total 40.72%**
12/31/14	NC 25.79% UAAL 37.46 **Total 63.25%**	NC 23.55% UAAL 37.46 **Total 61.01%**	NC 27.05% UAAL 24.42 **Total 51.47%**	NC 22.38% UAAL 24.42 **Total 46.80%**	NC 22.17% UAAL 25.01 **Total 47.18%**
With 3-Year Phase-In	**58.92%**	**56.88%**	**48.60%**	**43.93%**	**42.84%**
12/31/15	NC 25.56% UAAL 39.16 **Total 64.72%**	NC 23.24% UAAL 39.16 **Total 62.40%**	NC 26.87% UAAL 23.81 **Total 50.68%**	NC 22.10% UAAL 23.81 **Total 45.91%**	NC 21.92% UAAL 25.32 **Total 47.24%**
With 3-Year Phase-In	**62.55%**	**60.34%**	**49.24%**	**44.47%**	**45.07%**
12/31/16	NC 25.63% UAAL 38.19 **Total 63.82%**	NC 23.00% UAAL 38.19 **Total 61.19%**	NC 26.84% UAAL 22.27 **Total 49.11%**	NC 21.86% UAAL 22.27 **Total 44.13%**	NC 21.87% UAAL 26.06 **Total 47.93%**
12/31/17	NC 26.69% UAAL 41.07 **Total 67.76%**	NC 23.69% UAAL 41.07 **Total 64.76%**	NC 27.24% UAAL 23.09 **Total 50.33%**	NC 21.97% UAAL 23.09 **Total 45.06%**	NC 23.71% UAAL 33.00 **Total 56.71%**
With 3-Year Phase-In	**64.05%**	**61.05%**	**48.04%**	**42.77%**	**52.45%**
12/31/18	NC 26.64% UAAL 42.56 **Total 69.20%**	NC 23.48% UAAL 42.56 **Total 66.04%**	NC 26.97% UAAL 24.99 **Total 51.96%**	NC 21.83% UAAL 24.99 **Total 46.82%**	NC 23.45% UAAL 34.41 **Total 57.86%**
With 3-Year Phase-In	**67.35%**	**64.19%**	**50.81%**	**45.67%**	**55.73%**
12/31/19	NC 26.57% UAAL 43.65 **Total 70.22%**	NC 23.58% UAAL 43.65 **Total 67.23%**	NC 27.48% UAAL 23.79 **Total 51.27%**	NC 25.77% UAAL 23.79 **Total 49.56%**	NC 23.25% UAAL 36.92 **Total 60.17%**
12/31/20	NC 26.66% UAAL 39.73 **Total 66.39%**	NC 24.23% UAAL 39.73 **Total 63.96%**	NC 27.31% UAAL 16.36 **Total 43.67%**	NC 27.25% UAAL 16.36 **Total 43.61%**	NC 23.39% UAAL 34.06 **Total 57.45%**
12/31/21	NC 26.62% UAAL 35.53 **Total 62.15%**	NC 24.74% UAAL 35.53 **Total 60.27%**	NC 27.09% UAAL 12.35 **Total 39.44%**	NC 26.65% UAAL 12.35 **Total 39.00%**	NC 23.16% UAAL 30.55 **Total 53.71%**
12/31/22	NC 26.26% UAAL 37.86 **Total 64.12%**	NC 24.38% UAAL 37.86 **Total 62.24%**	NC 25.93% UAAL 12.96 **Total 38.89%**	NC 26.48% UAAL 12.96 **Total 39.44%**	NC 22.65% UAAL 36.48 **Total 59.13%**

History of Employer Contribution Rates

(continued)

Employer Contribution Rate (% of pay)

Valuation Date	CalPEPRA Rate Group #1 2.5% @ 67	CalPEPRA Rate Group #2 1.62% @ 65 (Plan T)	CalPEPRA Rate Group #2 2.5% @ 67	CalPEPRA Rate Group #2 1.62% @ 67 (Plan W)	CalPEPRA Rate Group #3 2.5% @ 67	CalPEPRA Rate Group #5 2.5% @ 67
12/31/13[1]	NC 9.39% UAAL 11.34 **Total 20.73%**	NC 6.70% UAAL 23.72 **Total 30.42%**	NC 8.56% UAAL 23.72 **Total 32.28%**	N/A	NC 9.66% UAAL[2] 21.87 **Total 31.53%**	N/A
12/31/14	NC 8.87% UAAL[4] 8.62 **Total 17.49%**	NC 6.61% UAAL 21.72 **Total 28.33%**	NC 8.33% UAAL 21.72 **Total 30.05%**	N/A	NC 9.00% UAAL[5] 6.26 **Total 15.26%**	NC 10.04% UAAL 14.40 **Total 24.44%**
With 3-Year Phase-In	**N/A**	**N/A**	**N/A**		**N/A**	**N/A**
12/31/15	NC 8.92% UAAL[6] 9.22 **Total 18.14%**	NC 6.56% UAAL 22.45 **Total 29.01%**	NC 8.35% UAAL 22.45 **Total 30.80%**	NC 6.68% UAAL 22.45 **Total 29.13%**	NC 9.25% UAAL[7] 1.42 **Total 10.67%**	NC 10.12% UAAL 15.52 **Total 25.64%**
With 3-Year Phase-In	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**
12/31/16	NC 8.63% UAAL[9] 7.25 **Total 15.88%**	NC 6.58% UAAL 21.72 **Total 28.30%**	NC 8.28% UAAL[10] 21.72 **Total 30.00%**	NC 6.68% UAAL 21.72 **Total 28.40%**	NC 9.27% UAAL 0.00 **Total 9.27%**	NC 10.25% UAAL 14.76 **Total 25.01%**
12/31/17	NC 9.93% UAAL[12] 9.58 **Total 19.51%**	NC 7.11% UAAL 25.05 **Total 32.16%**	NC 8.78% UAAL[13] 25.05 **Total 33.83%**	NC 8.56% UAAL 25.05 **Total 33.61%**	NC 10.37% UAAL 0.00 **Total 10.37%**	NC 11.32% UAAL 18.26 **Total 29.58%**
With 3-Year Phase-In	**17.82%**	**29.78%**	**31.45%**	**31.23%**	**N/A**	**27.26%**
12/31/18	NC 9.93% UAAL[14] 9.40 **Total 19.33%**	NC 7.12% UAAL 26.24 **Total 33.36%**	NC 8.78% UAAL[15] 26.24 **Total 35.02%**	NC 8.73% UAAL 26.24 **Total 34.97%**	NC 10.02% UAAL[16] 0.86 **Total 10.88%**	NC 11.32% UAAL 19.76 **Total 31.08%**
With 3-Year Phase-In	**18.48%**	**32.17%**	**33.83%**	**33.78%**	**N/A**	**29.92%**
12/31/19	NC 10.05% UAAL[18] 5.16 **Total 15.21%**	NC 7.14% UAAL 27.38 **Total 34.52%**	NC 8.81% UAAL[19] 27.38 **Total 36.19%**	NC 8.54% UAAL 27.38 **Total 35.92%**	NC 9.88% UAAL 0.00 **Total 9.88%**	NC 11.59% UAAL 19.54 **Total 31.13%**
12/31/20	NC 9.89% UAAL[18] 5.03 **Total 14.92%**	NC 7.06% UAAL 28.97 **Total 36.03%**	NC 8.37% UAAL[20] 28.97 **Total 37.34%**	NC 8.43% UAAL 28.97 **Total 37.40%**	NC 9.86% UAAL 0.00 **Total 9.86%**	NC 11.73% UAAL 19.12 **Total 30.85%**
12/31/21	NC 10.08% UAAL[18] 3.33 **Total 13.41%**	NC 7.09% UAAL[22] 26.14 **Total 33.23%**	NC 9.17% UAAL[21, 22] 26.14 **Total 35.31%**	NC 8.95% UAAL 26.14 **Total 35.09%**	NC 9.82% UAAL 0.00 **Total 9.82%**	NC 11.99% UAAL 16.37 **Total 28.36%**
12/31/22	NC 10.03% UAAL[18] 3.61 **Total 13.64%**	NC 7.29% UAAL 27.14 **Total 34.43%**	NC 9.24% UAAL[23] 27.14 **Total 36.38%**	NC 7.82% UAAL 27.14 **Total 34.96%**	NC 9.97% UAAL 0.00 **Total 9.97%**	NC 11.89% UAAL 18.11 **Total 30.00%**

[1] The outstanding balance of the December 31, 2012 UAAL has been combined and re-amortized over a period of 20 years.
[2] This is the UAAL rate for O.C. Sanitation District for FY 15-16 before reflecting the additional UAAL contributions made during calendar year 2014.
[3] This is the UAAL rate for O.C. Cemetery District for FY 15-16 before reflecting the additional UAAL contributions made during calendar year 2014.
[4] The net UAAL contribution rates for County and O.C. IHSS Public Authority (i.e., excluding U.C.I and Department of Education) is 5.67% as of December 31, 2014.
[5] This is the UAAL rate for O.C. Sanitation District for FY 16-17 before reflecting the additional UAAL contributions made during calendar year 2015.
[6] The net UAAL contribution rates for County and O.C. IHSS Public Authority (i.e., excluding U.C.I and Department of Education) is 5.57% as of December 31, 2015.
[7] This is the UAAL rate for O.C. Sanitation District for FY 17-18 before reflecting the additional UAAL contributions made during calendar year 2016.
[8] The net UAAL contribution rates for County and O.C. IHSS Public Authority (i.e., excluding U.C.I and Department of Education) is 4.18% as of December 31, 2016.
[9] This is the UAAL rate for O.C. Children and Families Commission for FY 18-19 before reflecting the additional UAAL contributions made during calendar year 2017.
[10] This is the UAAL rate for Law Library for FY 17-18 before reflecting the additional UAAL contributions made during calendar year 2016.
[11] This is the UAAL rate for Law Library for FY 18-19 before reflecting the additional UAAL contributions made during calendar year 2017.
[12] The net UAAL contribution rates for County and O.C. IHSS Public Authority (i.e., excluding U.C.I., Department of Education and Cypress Recreation and Parks) is 6.09% (or 4.61% after the three-year phase-in) as of December 31, 2017.

History of Employer Contribution Rates

(continued)

Employer Contribution Rate (% of pay)

Valuation Date	CalPEPRA Rate Group #9 2.5% @ 67	CalPEPRA Rate Group #10 2.5% @ 67	CalPEPRA Rate Group #11 2.5% @ 67	CalPEPRA Rate Group #12 2.5% @ 67	CalPEPRA Rate Group #6 2.7% @ 57	CalPEPRA Rate Group #7 2.7% @ 57	CalPEPRA Rate Group #8 2.7% @ 57
12/31/13[1]	NC 11.40%	NC 9.71%	NC 8.66%	NC 9.66%	NC 13.95%	NC 19.17%	NC 16.85%
	UAAL 12.28	UAAL 23.34	UAAL[3] 9.87	UAAL 21.87	UAAL 19.72	UAAL 32.47	UAAL 24.14
	Total 23.68%	**Total 33.05%**	**Total 18.53%**	**Total 31.53%**	**Total 33.67%**	**Total 51.64%**	**Total 40.99%**
12/31/14	NC 9.85%	NC 9.63%	NC 11.81%	NC 9.00%	NC 15.25%	NC 20.10%	NC 15.71%
	UAAL 12.78	UAAL 20.28	UAAL 0.00	UAAL 20.21	UAAL 25.01	UAAL 37.46	UAAL 24.42
	Total 22.63%	**Total 29.91%**	**Total 11.81%**	**Total 29.21%**	**Total 40.26%**	**Total 57.56%**	**Total 40.13%**
With 3-Year Phase-In	**N/A**	**N/A**	**N/A**	**N/A**	**36.02%**	**54.01%**	**38.08%**
12/31/15	NC 10.57%	NC 8.81%	NC 12.23%	NC 9.25%	NC 15.00%	NC 20.04%	NC 15.30%
	UAAL 13.79	UAAL 20.53	UAAL 0.00	UAAL[8] 22.08	UAAL 25.32	UAAL 39.16	UAAL 23.81
	Total 24.36%	**Total 29.34%**	**Total 12.23%**	**Total 31.33%**	**Total 40.32%**	**Total 59.20%**	**Total 39.11%**
With 3-Year Phase-In	**N/A**	**N/A**	**N/A**	**N/A**	**38.20%**	**57.42%**	**38.09%**
12/31/16	NC 10.40%	NC 8.99%	NC 9.98%	NC 7.59%	NC 15.24%	NC 19.39%	NC 14.84%
	UAAL 11.46	UAAL 18.35	UAAL 0.00	UAAL[11] 9.69	UAAL 26.06	UAAL 38.19	UAAL 22.27
	Total 21.86%	**Total 27.34%**	**Total 9.98%**	**Total 17.28%**	**Total 41.30%**	**Total 57.58%**	**Total 37.11%**
12/31/17	NC 11.02%	NC 10.41%	NC 12.03%	NC 9.36%	NC 16.63%	NC 19.29%	NC 15.44%
	UAAL 12.74	UAAL 17.62	UAAL 1.44	UAAL 0.00	UAAL 33.00	UAAL 41.07	UAAL 23.09
	Total 23.76%	**Total 28.03%**	**Total 13.47%**	**Total 9.36%**	**Total 49.63%**	**Total 60.36%**	**Total 38.53%**
With 3-Year Phase-In	**22.51%**	**26.15%**	**12.51%**	**N/A**	**45.37%**	**56.65%**	**36.24%**
12/31/18	NC 11.13%	NC 10.16%	NC 12.33%	NC 10.32%	NC 16.76%	NC 19.04%	NC 15.27%
	UAAL[17] 15.29	UAAL 15.90	UAAL 0.22	UAAL 1.77	UAAL 34.41	UAAL 42.56	UAAL 24.99
	Total 26.42%	**Total 26.06%**	**Total 12.55%**	**Total 12.09%**	**Total 51.17%**	**Total 61.60%**	**Total 40.26%**
With 3-Year Phase-In	**25.79%**	**25.12%**	**12.33%**	**N/A**	**49.04%**	**59.75%**	**39.11%**
12/31/19	NC 11.14%	NC 10.05%	NC 12.25%	NC 10.37%	NC 16.82%	NC 18.46%	NC 15.66%
	UAAL 0.39	UAAL 14.06	UAAL 3.01	UAAL 0.19	UAAL 36.92	UAAL 43.65	UAAL 23.79
	Total 11.53%	**Total 24.11%**	**Total 15.26%**	**Total 10.56%**	**Total 53.74%**	**Total 62.11%**	**Total 39.45%**
12/31/20	NC 10.98%	NC 9.82%	NC 11.80%	NC 10.51%	NC 16.26%	NC 17.73%	NC 15.11%
	UAAL 0.00	UAAL 11.49	UAAL 2.85	UAAL 0.00	UAAL 34.06	UAAL 39.73	UAAL 16.36
	Total 10.98%	**Total 21.31%**	**Total 14.65%**	**Total 10.51%**	**Total 50.32%**	**Total 57.46%**	**Total 31.47%**
12/31/21	NC 11.18%	NC 9.87%	NC 11.97%	NC 10.48%	NC 16.11%	NC 17.76%	NC 15.29%
	UAAL 0.00	UAAL 9.37	UAAL 1.02	UAAL 0.00	UAAL 30.55	UAAL 35.53	UAAL 12.35
	Total 11.18%	**Total 19.24%**	**Total 12.99%**	**Total 10.48%**	**Total 46.66%**	**Total 53.29%**	**Total 27.64%**
12/31/22	NC 10.79%	NC 9.98%	NC 12.04%	NC 10.48%	NC 16.11%	NC 18.07%	NC 15.89%
	UAAL 0.00	UAAL 10.50	UAAL 2.45	UAAL 0.00	UAAL 36.48	UAAL 37.86	UAAL 12.96
	Total 10.79%	**Total 20.48%**	**Total 14.49%**	**Total 10.48%**	**Total 52.59%**	**Total 55.93%**	**Total 28.85%**

[13] The net UAAL contribution rates for O.C. Children and Families Commission is 3.13% (or 1.04% after the three-year phase-in) as of December 31, 2017.

[14] The net UAAL contribution rates for County and O.C. IHSS Public Authority (i.e., excluding U.C.I., Department of Education and Cypress Recreation and Parks) is 5.80% (or 5.06% after the three-year phase-in) as of December 31, 2018.

[15] The net UAAL contribution rates for O.C. Children and Families Commission is 4.30% (or 3.26% after the three-year phase-in) as of December 31, 2018.

[16] This is the UAAL rate for O.C. Sanitation District for FY 20-21 before reflecting the additional UAAL contributions made during calendar year 2019.

[17] This is the UAAL rate for Transportation Corridor Agency for FY 20-21 before reflecting the additional UAAL contributions made during calendar year 2019.

[18] This is the net UAAL contribution rate for County and IHSS Public Authority without reflecting the UAAL contributions required for Vector Control, Cypress Parks and Recreation, U.C.I. and DOE.

[19] The net UAAL contribution rates for O.C. Children and Families Commission is 5.36% as of December 31, 2019.

[20] The net UAAL contribution rate for O.C. Children and Families Commission is 5.98% as of December 31, 2020.

[21] The net UAAL contribution rate for O.C. Children and Families Commission is 3.50% as of December 31, 2021.

[22] After reflecting implementation of Plan U by Superior Court for their PEPRA members.

[23] The net UAAL contribution rate for O.C. Children and Families Commission is 4.79% as of December 31, 2022.

Summary of Active Membership

Valuation Date	Number	Annual Salary	Annual Average Salary	Increase in Average Salary (%)
12/31/13				
General	17,547	$ 1,227,153,000	$ 69,935	-1.05
Safety	3,821	377,343,000	98,755	-0.70
Total	**21,368**	**$ 1,604,496,000**	**$ 75,089**	**-0.84**
12/31/14				
General	17,705	$ 1,267,582,000	$ 71,595	2.37
Safety	3,754	380,578,000	101,379	2.66
Total	**21,459**	**$ 1,648,160,000**	**$ 76,805**	**2.29**
12/31/15				
General	17,839	$ 1,254,521,000	$ 70,325	-1.77
Safety	3,686	378,590,000	102,710	1.31
Total	**21,525**	**$ 1,633,111,000**	**$ 75,870**	**-1.22**
12/31/16				
General	18,072	$ 1,353,363,000	$ 74,887	6.49
Safety	3,674	406,470,000	110,634	7.71
Total	**21,746**	**$ 1,759,833,000**	**$ 80,927**	**6.67**
12/31/17				
General	17,941	$ 1,385,356,000	$ 77,217	3.11
Safety	3,780	426,523,000	112,837	1.99
Total	**21,721**	**$ 1,811,879,000**	**$ 83,416**	**3.08**
12/31/18				
General	18,150	$ 1,432,041,000	$ 78,900	2.18
Safety	3,779	443,331,000	117,314	3.97
Total	**21,929**	**$ 1,875,372,000**	**$ 85,520**	**2.52**
12/31/19				
General	18,356	$ 1,481,966,000	$ 80,735	2.33
Safety	3,901	470,568,000	120,628	2.82
Total	**22,257**	**$ 1,952,534,000**	**$ 87,727**	**2.58**
12/31/20				
General	17,733	$ 1,479,418,000	$ 83,427	3.33
Safety	3,826	483,451,000	126,359	4.75
Total	**21,559**	**$ 1,962,869,000**	**$ 91,046**	**3.78**
12/31/21				
General	18,128	$ 1,548,180,000	$ 85,403	2.37
Safety	3,883	504,526,000	129,932	2.83
Total	**22,011**	**$ 2,052,706,000**	**$ 93,258**	**2.43**
12/31/22				
General	18,184	$ 1,611,755,000	$ 88,636	3.79
Safety	3,877	512,924,000	132,299	1.82
Total	**22,061**	**$ 2,124,679,000**	**$ 96,309**	**3.27**

Excludes Deferred and Pending members.

Summary of Retired Membership

Plan Year Ending	At Beginning of Year	Added to Rolls		Removed from Rolls		At End of Year	Annual Allowance (in 000's)	% Increase in Annual Allowance	Average Monthly Allowance
		Number	Annual Allowance (in 000's)	Number	Annual Allowance (in 000's)				
2013	13,947	911	$ 52,319	(353)	$ (9,958)	14,505	$ 585,866	7.79	$ 3,366
2014	14,505	995	52,838	(331)	(9,812)	15,169	628,892	7.34	3,455
2015	15,169	1,053	58,679	(412)	(12,077)	15,810	675,494	7.41	3,560
2016	15,810	989	51,759	(430)	(12,895)	16,369	714,358	5.75	3,637
2017	16,369	1,039	62,374	(461)	(15,155)	16,947	761,577	6.61	3,745
2018	16,947	1,155	82,438	(428)	(14,191)	17,674	829,824	8.96	3,913
2019	17,674	1,207	86,521	(461)	(15,215)	18,420	901,130	8.59	4,077
2020	18,420	1,449	104,439	(450)	(14,896)	19,419	990,673	9.94	4,251
2021	19,419	953	71,304	(546)	(20,271)	19,826	1,041,706	5.15	4,379
2022	19,826	1,381	111,237	(529)	(20,806)	20,678	1,132,137	8.68	4,563

Note: Annual allowances exclude RMBR and STAR COLA.

Development of Actuarial and Valuation Value of Assets

As of December 31, 2022

Plan Year Ending	Total Actual Market Return (net)	Expected Market Return (net)	Investment Gain/ (Loss)	Deferred Factor	Deferred Return
2018	$ (361,321,000)	$ 1,026,583,000	$ (1,387,904,000)	0.0	$ -
2019	2,123,258,000	1,004,779,000	1,118,479,000	0.2	223,696,000
2020	1,982,757,000	1,155,523,000	827,234,000	0.4	330,894,000
2021	3,273,348,000	1,293,495,000	1,979,853,000	0.6	1,187,912,000
2022	(2,106,139,000)	1,518,273,000	(3,624,412,000)	0.8	(2,899,530,000)

(1)	Total Deferred Return	$ (1,157,028,000)
(2)	Net Market Value of Assets (Excludes $140,992,000 in County Investment Account, $320,009,000 in Prepaid Employer Contributions and $14,398,000 in O.C. Sanitation District UAAL Deferred Account)	$ 19,534,631,000
(3)	Actuarial Value of Assets (2) – (1)	$ 20,691,659,000[1]
(4)	Non-valuation Reserves	
	(a) Unclaimed member deposit	$ -
	(b) Medicare medical insurance reserve	-
	(c) Subtotal	$ -
(5)	Valuation Value of Assets (3) – (4)(c)	$ 20,691,659,000
(6)	Deferred Return Recognized in Each of the Next 4 Years	
	(a) Amount recognized on 12/31/2023	$ 60,231,000
	(b) Amount recognized on 12/31/2024	(163,465,000)
	(c) Amount recognized on 12/31/2025	(328,912,000)
	(d) Amount recognized on 12/31/2026	(724,882,000)
	(e) Subtotal (may not total exactly due to rounding)	$ (1,157,028,000)

[1] Ratio of Actuarial Value of Assets to Net Market Value of Assets is 105.9% ((3) ÷ (2)).

Schedule of Funded Liabilities by Type

(Dollars in Thousands)

	(1)	(2)	(3)		Portion of Accrued Liability Covered by Valuation Assets (%)		
Valuation Date	Active Member Contributions	Liability for Inactive Participants	Liability for Active Members (Employer Financed Portion)	Valuation Value of Assets	(1)	(2)	(3)
12/31/13	$ 2,126,182	$ 8,502,269	$ 5,156,591	$ 10,417,125	100	97.51	0.00
12/31/14	2,298,744	9,017,874	5,096,506	11,449,911	100	100	2.62
12/31/15	2,488,757	9,696,776	4,864,824	12,228,009	100	100	0.87
12/31/16	2,654,599	10,109,528	5,169,334	13,102,978	100	100	6.56
12/31/17	2,815,839	11,121,965	5,697,623	14,197,125	100	100	4.55
12/31/18	2,980,108	12,018,354	5,704,887	14,994,420	100	99.97	0.00
12/31/19	3,116,707	13,131,453	5,668,570	16,036,869	100	98.39	0.00
12/31/20	3,167,835	14,109,921	5,627,219	17,525,117	100	100	4.40
12/31/21	3,364,884	14,921,449	5,729,740	19,488,761	100	100	20.99
12/31/22	3,387,061	16,421,755	5,577,853	20,691,659	100	100	15.83

Actuarial Methods and Assumptions

Economic Assumptions

The information and analysis used in selecting each assumption that has a significant effect on this actuarial valuation is shown in the January 1, 2017 through December 31, 2019 Actuarial Experience Study dated August 6, 2020 and PowerPoint presentation dated August 17, 2020. Unless otherwise noted, all actuarial assumptions and methods shown below apply to members for all tiers. These assumptions were adopted by the Board.

Net Investment Return: 7.00%; net of investment expenses and administrative expenses.

Member Contribution Crediting Rate: 5.00%, compounded semi-annually.

Inflation Rate: Increase of 2.50% per year.

Cost of Living Adjustments: Retiree COLA increases of 2.75% per year subject to a 3.0% maximum change per year. The actual COLA granted by OCERS on April 1, 2023 has been reflected in the December 31, 2022 valuation.

Payroll Growth: Inflation of 2.50% per year plus "across the board" real salary increases of 0.50% per year.

Increase in Section 7522.10 Compensation Limit: Increase of 2.50% per year from the valuation date.

Individual Salary Increases: 2.50% per year plus "across the board" real salary increases of 0.50% per year, plus the following merit and promotion increases:

Annual Rate of Compensation Increase (%)

Inflation: 2.50% per year, plus "across the board" real salary increases of 0.50% per year, plus the following merit and promotion increases:		
Years of Service	**General**	**Safety**
Less than 1	8.00	12.00
1-2	7.25	10.00
2-3	6.25	8.50
3-4	5.25	7.50
4-5	4.25	6.50
5-6	3.50	5.50
6-7	2.75	5.00
7-8	2.50	4.00
8-9	1.70	3.00
9-10	1.70	2.50
10-11	1.60	1.85
11-12	1.60	1.85
12-13	1.50	1.85
13-14	1.50	1.85
14-15	1.25	1.85
15-16	1.25	1.60
16-17	1.00	1.60
17-18	1.00	1.60
18-19	1.00	1.60
19-20	1.00	1.60
20 & over	1.00	1.60

In addition to the individual salary increase assumptions, we have applied an average of two hours of additional salary annually for leap-year salary adjustment.

Actuarial Methods and Assumptions

(continued)

Demographic Assumptions

Post-Retirement Mortality Rates:

Healthy:

For General Members: Pub-2010 General Healthy Retiree Amount-Weighted Above-Median Mortality Table (separate tables for males and females) with rates increased by 5%, projected generationally with the two-dimensional mortality improvement scale MP-2019.

For Safety Members: Pub-2010 Safety Healthy Retiree Amount-Weighted Above-Median Mortality Table (separate tables for males and females), projected generationally with the two-dimensional mortality improvement scale MP-2019.

Disabled:

For General Members: Pub-2010 Non-Safety Disabled Retiree Amount-Weighted Mortality Table (separate tables for males and females) with rates decreased by 5%, projected generationally with the two-dimensional mortality improvement scale MP-2019.

For Safety Members: Pub-2010 Safety Disabled Retiree Amount-Weighted Mortality Table (separate tables for males and females), projected generationally with the two-dimensional mortality improvement scale MP-2019.

All Beneficiaries:

Pub-2010 General Contingent Survivor Amount-Weighted Above-Median Mortality Table (separate tables for males and females) with rates increased by 5%, projected generationally with the two-dimensional mortality improvement scale MP-2019.

The Pub-2010 mortality tables and adjustments as shown above reflect the mortality experience as of the measurement date. The generational projection is a provision for future mortality improvement.

Employee Contribution Rates:

For General Members: Pub-2010 General Healthy Retiree Amount-Weighted Above-Median Mortality Table (separate tables for males and females) with rates increased by 5%, projected 30 years (from 2010) with the two-dimensional mortality improvement scale MP 2019, weighted 40% male and 60% female.

For Safety Members: Pub-2010 Safety Healthy Retiree Amount-Weighted Above-Median Mortality Table (separate tables for males and females), projected 30 years (from 2010) with the two-dimensional mortality improvement scale MP-2019, weighted 80% male and 20% female.

Pre-Retirement Mortality Rates:

For General Members: Pub-2010 General Employee Amount-Weighted Above-Median Mortality Table (separate tables for males and females), projected generationally with the two-dimensional mortality improvement scale MP-2019.

For Safety Members: Pub-2010 Safety Employee Amount-Weighted Above-Median Mortality Table (separate tables for males and females), projected generationally with the two-dimensional mortality improvement scale MP-2019.

Actuarial Methods and Assumptions

(continued)

Termination Rates Before Retirement

Mortality Rates

Age	Rate (%)[1] Mortality			
	General		Safety	
	Male	Female	Male	Female
25	0.02	0.01	0.03	0.02
30	0.03	0.01	0.04	0.02
35	0.04	0.02	0.04	0.03
40	0.06	0.03	0.05	0.04
45	0.09	0.05	0.07	0.06
50	0.13	0.08	0.10	0.08
55	0.19	0.11	0.15	0.11
60	0.28	0.17	0.23	0.14
65	0.41	0.27	0.35	0.20
70	0.61	0.44	0.66	0.39

All General pre-retirement deaths are assumed to be non-service connected. For Safety, 90% of pre-retirement deaths are assumed to be non-service connected. The other 10% are assumed to be service connected.

Disability Incidence Rates

Age	Rate (%) Disability			
	General All Other [2]	General OCTA [3]	Safety - Law & Fire [4]	Safety - Probation [5]
20	0.00	0.00	0.00	0.00
25	0.00	0.00	0.01	0.03
30	0.01	0.03	0.07	0.08
35	0.03	0.20	0.19	0.10
40	0.08	0.39	0.31	0.13
45	0.14	0.48	0.44	0.21
50	0.20	0.53	1.10	0.28
55	0.27	0.70	2.70	0.42
60	0.33	1.22	5.00	0.20

[1] Generational projections beyond the base year (2010) are not reflected in the above mortality rates.
[2] 65% of General All Other disabilities are assumed to be service connected disabilities. The other 35% are assumed to be non-service connected.
[3] 80% of General OCTA disabilities are assumed to be service connected disabilities. The other 20% are assumed to be non-service connected.
[4] 100% of Safety Law Enforcement and Fire disabilities are assumed to be service connected disabilities.
[5] 75% of Safety Probation disabilities are assumed to be service connected disabilities. The other 25% are assumed to be non-service connected.

Actuarial Methods and Assumptions

(continued)

Termination Rates Before Retirement

(continued)

Termination Rates

Years of Service	Rate (%) Termination			
	General All Other	General OCTA	Safety - Law & Fire	Safety - Probation
Less than 1	11.00	17.00	4.25	14.00
1-2	7.25	11.50	2.75	13.00
2-3	6.50	9.00	2.25	11.00
3-4	5.50	8.50	1.75	5.00
4-5	5.00	8.00	1.50	4.00
5-6	4.50	7.00	1.25	3.25
6-7	4.00	4.25	1.00	2.75
7-8	3.50	4.00	0.95	2.75
8-9	3.25	3.25	0.90	2.50
9-10	3.00	3.00	0.85	1.75
10-11	2.50	2.75	0.80	1.50
11-12	2.00	2.50	0.75	1.50
12-13	2.00	2.50	0.70	1.25
13-14	2.00	2.25	0.65	1.00
14-15	1.50	2.25	0.60	0.75
15-16	1.40	2.25	0.55	0.75
16-17	1.30	2.00	0.50	0.75
17-18	1.20	1.80	0.45	0.75
18-19	1.10	1.60	0.40	0.50
19-20	1.00	1.40	0.30	0.25
20 & over	0.75	1.20	0.15	0.15

Election for Withdrawal of Contributions Rates

Years of Service	Rate (%) Election for Withdrawal of Contributions			
	General All Other	General OCTA	Safety - Law & Fire	Safety - Probation
Less than 5	30.00	40.00	20.00	25.00
5-9	25.00	30.00	20.00	25.00
10-14	25.00	25.00	10.00	25.00
15 & over	17.50	15.00	10.00	15.00

Actuarial Methods and Assumptions

(continued)

Retirement Rates

Age	Rate (%)[1] Retirement			
	General		General Non-Enhanced[2]	
	Less than 30 Years of Service	Greater than 30 Years of Service	Less than 30 Years of Service	Greater than 30 Years of Service
49	0.00	30.00	0.00	25.00
50	2.00	4.00	3.00	3.00
51	2.00	4.00	3.00	3.00
52	2.50	5.00	2.00	2.00
53	2.50	5.00	3.50	3.50
54	7.00	14.00	2.75	2.75
55	12.00	30.00	3.25	3.25
56	9.00	19.00	3.50	3.50
57	9.00	18.00	5.00	5.00
58	9.00	18.00	5.50	5.50
59	10.00	20.00	6.50	6.50
60	11.00	20.00	9.00	13.50
61	11.00	20.00	9.00	13.50
62	13.00	20.00	9.00	18.00
63	13.00	22.00	9.50	19.00
64	16.00	24.00	10.00	20.00
65	24.00	28.00	22.00	26.40
66	24.00	30.00	25.00	30.00
67	24.00	30.00	25.00	30.00
68	22.00	27.50	30.00	27.50
69	22.00	27.50	30.00	27.50
70	25.00	27.50	20.00	27.50
71	25.00	27.50	20.00	27.50
72	25.00	27.50	20.00	27.50
73	20.00	27.50	20.00	27.50
74	20.00	27.50	20.00	27.50
75	100.00	100.00	100.00	100.00

[1] The retirement rates only apply to members that are eligible to retire at the age shown.

[2] These assumptions are also used for the CalPEPRA 1.62% @ 65 formula (Plan T and Plan W).

Actuarial Methods and Assumptions

(continued)

Retirement Rates

(continued)

Age	Rate (%)[1] Retirement					
	Safety Law (31664.1)		Safety Law (31664.1)		Safety Probation (31664.1)	
	Less than 30 Years of Service	Greater than 30 Years of Service	Less than 30 Years of Service	Greater than 30 Years of Service	Less than 30 Years of Service	Greater than 30 Years of Service
45	1.00	16.00	2.00	10.00	3.00	5.00
46	1.00	16.00	2.00	10.00	3.00	5.00
47	1.00	16.00	2.00	10.00	3.00	5.00
48	1.00	16.00	2.00	10.00	3.00	5.00
49	11.00	16.00	2.00	10.00	3.00	5.00
50	16.00	16.00	4.00	10.00	9.00	12.00
51	16.00	16.00	4.00	10.00	7.00	10.00
52	17.00	16.00	4.00	10.00	5.00	9.00
53	19.00	30.00	9.00	20.00	7.00	9.00
54	24.00	30.00	12.00	25.00	7.00	12.00
55	24.00	30.00	12.00	25.00	12.00	30.00
56	22.00	30.00	12.00	25.00	18.00	30.00
57	22.00	30.00	18.00	25.00	25.00	30.00
58	22.00	40.00	18.00	30.00	25.00	30.00
59	22.00	40.00	18.00	30.00	18.00	30.00
60	30.00	40.00	18.00	30.00	20.00	40.00
61	30.00	40.00	18.00	30.00	20.00	40.00
62	30.00	40.00	18.00	35.00	20.00	40.00
63	30.00	40.00	18.00	35.00	20.00	40.00
64	30.00	40.00	18.00	35.00	20.00	40.00
65	100.00	100.00	100.00	100.00	100.00	100.00

[1] The retirement rates only apply to members that are eligible to retire at the age shown.

Actuarial Methods and Assumptions

(continued)

Retirement Rates

(continued)

Age	Rate (%)[1] Retirement		
	General SJC (31676.12)	Safety Law (31664.2)	Safety Probation (31664.1)
50	4.00	11.50	8.00
51	4.00	12.00	9.00
52	4.00	12.70	10.00
53	4.00	17.90	12.00
54	4.00	18.80	14.00
55	4.00	35.00	23.00
56	5.00	25.00	22.00
57	6.00	25.00	25.00
58	7.00	25.00	25.00
59	9.00	30.00	35.00
60	10.00	40.00	40.00
61	12.00	40.00	40.00
62	13.00	40.00	40.00
63	13.00	40.00	40.00
64	19.00	40.00	40.00
65	20.00	100.00	100.00
66	25.00	100.00	100.00
67	25.00	100.00	100.00
68	25.00	100.00	100.00
69	25.00	100.00	100.00
70	45.00	100.00	100.00
71	45.00	100.00	100.00
72	45.00	100.00	100.00
73	45.00	100.00	100.00
74	45.00	100.00	100.00
75	100.00	100.00	100.00

[1] The retirement rates only apply to members that are eligible to retire at the age shown.

Actuarial Methods and Assumptions

(continued)

Retirement Rates

(continued)

	Rate (%)[1] Retirement			
Age	CalPEPRA 2.5% @ 67 General Formula	CalPEPRA 2.5% @ 57 Safety Formula Probation	CalPEPRA 2.5% @ 57 Safety Formula Law	CalPEPRA 2.5% @ 57 Safety Formula Fire
50	0.00	3.00	11.00	6.00
51	0.00	3.00	11.50	6.50
52	6.00	3.50	12.00	8.00
53	2.00	3.50	16.00	10.00
54	2.00	6.00	17.00	11.50
55	2.50	12.00	29.00	20.00
56	3.50	12.00	19.00	19.00
57	5.50	15.00	19.00	21.00
58	7.50	25.00	23.00	24.00
59	7.50	25.00	26.00	30.00
60	7.50	40.00	40.00	40.00
61	7.50	40.00	40.00	40.00
62	14.00	40.00	40.00	40.00
63	14.00	40.00	40.00	40.00
64	14.00	40.00	40.00	40.00
65	20.00	100.00	100.00	100.00
66	22.00	100.00	100.00	100.00
67	23.00	100.00	100.00	100.00
68	23.00	100.00	100.00	100.00
69	23.00	100.00	100.00	100.00
70	25.00	100.00	100.00	100.00
71	25.00	100.00	100.00	100.00
72	25.00	100.00	100.00	100.00
73	25.00	100.00	100.00	100.00
74	25.00	100.00	100.00	100.00
75	100.00	100.00	100.00	100.00

[1] The retirement rates only apply to members that are eligible to retire at the age shown.

Actuarial Methods and Assumptions

(continued)

Retirement Age and Benefit for Deferred Vested Members:

For current and future deferred vested members, we make the following retirement age assumptions:

General Age: 59

Safety Age: 54

Future deferred vested members who terminate with less than five years of service and are not vested are assumed to retire at age 70 for both General and Safety if they decide to leave their contributions on deposit.

15% of future General and 20% of future Safety deferred vested members are assumed to continue to work for a reciprocal employer. For reciprocals, 4.00% and 4.60% compensation increases are assumed per annum for General and Safety, respectively.

Liability Calculation for Current Deferred Vested Members:

Liability for a current deferred vested member is calculated based on salary (adjusted with the additional cash out assumptions for non-CalPEPRA members), service, and eligibility for reciprocal benefit as provided by the Retirement System. For those members without salary information that have three or more years of service, we used an average salary. For those members without salary information that have less than three years of service or for those members without service information, we assumed a refund of account balance.

Future Benefit Accruals:

1.0 year of service per year of employment. There is no assumption to anticipate conversion of unused sick leave at retirement.

Unknown Data for Members:

Same as those exhibited by members with similar known characteristics. If not specified, members are assumed to be male.

Percent Married:

For all active and inactive members, 75% of male members and 55% of female members are assumed to be married at pre-retirement death or retirement.

Age and Gender of Spouse:

For all active and inactive members, male members are assumed to have a female spouse who is three years younger than the member and female members are assumed to have a male spouse who is two years older than the member.

Additional Cashout Assumptions:

Additional compensation amounts are expected to be received during a member's final average earnings period. The percentages used in this valuation are:

	Rate (%)	
Years of Service	**Final One Year Salary**	**Final Three Year Salary**
General Non-CalPEPRA	3.00%	2.90%
Safety Probation Non-CalPEPRA	3.80%	3.40%
Safety Law Non-CalPEPRA	N/A	6.90%
Safety Fire Non-CalPEPRA	N/A	1.50%
General CalPEPRA	N/A	N/A
Safety Probation CalPEPRA	N/A	N/A
Safety Law CalPEPRA	N/A	N/A
Safety Fire CalPEPRA	N/A	N/A

The additional cashout assumptions are the same for service and disability retirements.

Actuarial Methods and Assumptions

(continued)

Actuarial Value of Assets:	Market value of assets less unrecognized returns in each of the last five years. Unrecognized return is equal to the difference between the actual and the expected return on a market value basis, and is recognized over a five-year period.
Valuation Value of Assets:	The Valuation Value of Assets is the Actuarial Value of Assets reduced by the value of the non-valuation reserves.
Actuarial Cost Method:	Entry Age Actuarial Cost Method. Entry Age is the age on the valuation date minus the lesser of years of employment or years of benefit service. Normal Cost and Actuarial Accrued Liability are calculated on an individual basis and are based on costs allocated as a level percentage of compensation. The normal cost rate is calculated assuming their Entry Age is the date they entered service with OCERS. Please note that for Probation members who have prior benefit service in another General OCERS plan, the normal cost rate for the current plan is calculated assuming their Entry Age is the date they entered service with their current plan.
Amortization Policy:	Effective December 31, 2013, the outstanding balance of the UAAL from the December 31, 2012 valuation was combined and re-amortized over a declining 20-year period. Any changes in UAAL due to actuarial gains or losses or due to changes in assumptions or methods will be amortized over separate 20-year periods. Any changes in UAAL due to plan amendments will be amortized over separate 15-year periods and any change in UAAL due to early retirement incentive programs will be amortized over a separate period of up to 5 years. Please note that for Probation members who have prior benefit service in another OCERS plan, the normal cost rate for the current plan is calculated assuming their Entry Age is the date they entered service with their current plan.

Summary of Major Plan Provisions

This section summarizes the major provisions of OCERS included in the valuation. It is not intended to be, nor should it be interpreted as, a complete statement of all plan provisions.

Membership Eligibility:	Membership with OCERS begins with the day of employment in an eligible position by the County or a participating employer.
Non-CalPEPRA General Plans:	
2.5% @ 55 Plans	*(Orange County Sanitation District[1] and Law Library[2])*
Plan G	General members hired before September 21, 1979.
Plan H	General members hired on or after September 21, 1979.
	[1] Sanitation District members within Supervisors and Professional unit hired on or after October 1, 2010 are in Plan B.
	[2] Improvement is prospective only for service after June 23, 2005.
2.7% @ 55 Plans	*(City of San Juan Capistrano, Orange County Employees except bargaining unit AFSCME members, Orange County Superior Court, Orange County Local Agency Formation Commission[3], Orange County Employees Retirement System[4], Children and Family Commission[5] and Orange County Fire Authority)*
Plan I	General members hired before September 21, 1979.
Plan J	General members hired on or after September 21, 1979.
	[3] Improvement is prospective only for service after June 23, 2005.
	[4] Improvement for management employees is prospective only for service after June 30, 2005.
	[5] Improvement is prospective only for service after December 22, 2005.
2.0% @ 55 Plans	*(Transportation Corridor Agency, Cemetery District[6] and General OCFA employees effective July 1, 2011)*
Plan M	General members hired before September 21, 1979.
Plan N	General members hired on or after September 21, 1979.
	[6] Improvement is prospective only for service after December 7, 2007.
1.62% @ 65 Plans	*(Orange County Employees, Orange County Superior Court, Orange County Local Agency Formation Commission and Orange County Managers Unit)*
Plan O	County OCEA members and Superior Court members rehired on or after May 7, 2010, LAFCO members rehired on or after July 1, 2010 and County Managers unit members rehired on or after August 17, 2010 and not electing to rejoin Plan I.
Plan P	County OCEA members and Superior Court members hired on or after May 7, 2010, LAFCO members hired on or after July 1, 2010 and County Managers unit members hired on or after August 17, 2010 and not electing Plan J.
2.0% @ 57 Plan	*(City of San Juan Capistrano)*
Plan S	*General members hired on or after July 1, 2012.*
All Other General Employers:	
Plan A	General members hired before September 21, 1979.
1.67% @ 57.5 Plans Plan B	General members hired on or after September 21, 1979 and Sanitation District members within Supervisors and Professional unit hired on or after October 1, 2010.

Summary of Major Plan Provisions

(continued)

Membership Eligibility: (continued)

Non-CalPEPRA Safety Plans:

3% @ 50 Plans	*(Law Enforcement, Fire Authority and Probation)*
Plan E	Safety members hired before September 21, 1979.
Plan F	Safety members hired on or after September 21, 1979 and before April 9, 2010 for Law Enforcement, before July 1, 2011 for Safety employees of OCFA Executive Management, and before July 1, 2012 for other OCFA Safety employees.
3% @ 55 Plans	*(Law Enforcement and Fire Authority)*
Plan Q	Safety Law Enforcement members rehired on or after April 9, 2010, Safety employees of OCFA Executive Management rehired on or after July 1, 2011, and other OCFA Safety employees rehired on or after July 1, 2012 and previously in Plan E.
Plan R	Safety Law Enforcement members hired on or after April 9, 2010, Safety employees of OCFA Executive Management hired on or after July 1, 2011, and other OCFA Safety employees hired on or after July 1, 2012.

CalPEPRA General Plans:

1.62% @ 65 Plan	*(Orange County Employees except County Attorneys, Orange County Employees Retirement System except Management Employees, Children and Family Commission, Local Agency Formation Commission, and Orange County Superior Court)*[1]
Plan T	General members with membership dates on or after January 1, 2013.
2.5% @ 67 Plan	*(All Other General Employers, Orange County Attorneys, Orange County Employees Retirement System Management Employees)*
Plan U	General Non-Orange County Transportation Authority members with membership dates on or after January 1, 2013 and Orange County Transportation Authority members with membership dates on or after January 1, 2015.
1.62% @ 65 Plan	*(City of San Juan Capistrano)*
Plan W	General members with membership dates on or after January 1, 2016 and not electing Plan U.

CalPEPRA Safety Plans:

2.7% @ 57 Plan	*(Law Enforcement, Fire Authority and Probation Members)*
Plan V	Safety members with membership dates on or after January 1, 2013.

[1] Orange County Superior Court adopted Plan U (2.5% at 67 Plan) on a go forward basis for all existing employees in Plan T (1.62% at 65 Plan) and any future PEPRA eligible employees with an effective date of July 1, 2023.

Summary of Major Plan Provisions

(continued)

Final Compensation for Benefit Determination:

Plans A, E, G, I, M, O and Q	Highest consecutive twelve months of compensation earnable. (§31462.1) (FAS1)
Plans B, F, H, J, N, P, R and S	Highest consecutive thirty-six months of compensation earnable. (§31462) (FAS3)
Plan T	Highest consecutive thirty-six months of pensionable compensation. (§7522.32 and §7522.34) (FAS3)
Plans U, V and W	Highest consecutive thirty-six months of pensionable compensation. (§7522.10(c), §7522.32 and §7522.34) (FAS3)
Service:	Years of service. (Yrs) are generally based on a member's employment during a period of time for which deductions are made from their compensation.

Service Retirement Eligibility:

Plans A, B, G, H, I, J, M, N, O, P, S, T, and W	Age 50 with 10 years of service, or age 70 regardless of service, or after 30 years, regardless of age. (§31672) All part-time employees over age 55 with 10 years of employment may retire with 5 years of service.
Plan U	Age 52 with 5 years of service (§7522.20(a)) or age 70 regardless of service. (§31672.3)
Plans E, F, Q and R	Age 50 with 10 years of service, or age 70 regardless of service, or after 20 years, regardless of age. (§31663.25) All part-time employees over age 55 with 10 years of employment may retire with 5 years of service.
Plan V	Age 50 with 5 years of service (§7522.20(d)) or age 70 regardless of service. (§31672.3)

Summary of Major Plan Provisions

(continued)

Benefit Formula: General Plans

General Plans	Retirement Age	Benefit Formula
2.5% @ 55		
Plan G (§31676.18) Tier 1	50	(2.00% x FAS1 x Yrs)
	55	(2.50% x FAS1 x Yrs)
	60	(2.50% x FAS1 x Yrs)
	62	(2.62% x FAS1 x Yrs)[1]
	65 or later	(2.62% x FAS1 x Yrs)[1]
Plan H (§31676.18)	50	(2.00% x FAS3 x Yrs)
Tier 2	55	(2.50% x FAS3 x Yrs)
	60	(2.50% x FAS3 x Yrs)
	62	(2.50% x FAS3 x Yrs)
	65 or later	(2.50% x FAS3 x Yrs)

[1] Reflects benefit factors from Plan A as they provide a better benefit than those under 2.5% @ 55.

2.7% @ 55		
Plan I (§31676.19) Tier 1	50	(2.00% x FAS1 x Yrs)
	55	(2.70% x FAS1 x Yrs)
	60	(2.70% x FAS1 x Yrs)
	62	(2.70% x FAS1 x Yrs)
	65 or later	(2.70% x FAS1 x Yrs)
Plan J (§31676.19)	50	(2.00% x FAS3 x Yrs)
Tier 2	55	(2.70% x FAS3 x Yrs)
	60	(2.70% x FAS3 x Yrs)
	62	(2.70% x FAS3 x Yrs)
	65 or later	(2.70% x FAS3 x Yrs)
2.0% @ 55		
Plan M (§31676.16) Tier 1	50	(1.43% x FAS1 x Yrs)
	55	(2.00% x FAS1 x Yrs)
	60	(2.34% x FAS1 x Yrs)[1]
	62	(2.62% x FAS1 x Yrs)[1]
	65 or later	(2.62% x FAS1 x Yrs)[1]
Plan N (§31676.16)	50	(1.43% x FAS3 x Yrs)
Tier 2	55	(2.00% x FAS3 x Yrs)
	60	(2.26% x FAS3 x Yrs)
	62	(2.37% x FAS3 x Yrs)
	65 or later	(2.43% x FAS3 x Yrs)[2]

[1] Reflects benefit factors from Plan A as they provide a better benefit than those under 2.0% @ 55.
[2] Reflects benefit factors from Plan B as they provide a better benefit than those under 2.0% @ 55.

Summary of Major Plan Provisions

(continued)

Benefit Formula: General Plans (continued)

General Plans	Retirement Age	Benefit Formula
1.62% @ 65		
Plan O (§31676.01) Tier 1	50	(0.79% x FAS1 x Yrs)
	55	(0.99% x FAS1 x Yrs)
	60	(1.28% x FAS1 x Yrs)
	62	(1.39% x FAS1 x Yrs)
	65 or later	(1.62% x FAS1 x Yrs)
Plan P, Plan T and Plan W (§31676.01) Tier 2	50	(0.79% x FAS3 x Yrs)
	55	(0.99% x FAS3 x Yrs)
	60	(1.28% x FAS3 x Yrs)
	62	(1.39% x FAS3 x Yrs)
	65 or later	(1.62% x FAS3 x Yrs)
2.0% @ 57		
Plan S (§31676.12) Tier 2	50	(1.34% x FAS3 x Yrs)
	55	(1.77% x FAS3 x Yrs)
	60	(2.34% x FAS3 x Yrs)
	62	(2.62% x FAS3 x Yrs)
	65 or later	(2.62% x FAS3 x Yrs)
Plan A (§31676.12) Tier 1	50	(1.34% x FAS1 x Yrs)
	55	(1.77% x FAS1 x Yrs)
	60	(2.34% x FAS1 x Yrs)
	62	(2.62% x FAS1 x Yrs)
	65 or later	(2.62% x FAS1 x Yrs)
1.67% @ 57.5		
Plan B (§31676.1) Tier 2	50	(1.18% x FAS3 x Yrs)
	55	(1.49% x FAS3 x Yrs)
	60	(1.92% x FAS3 x Yrs)
	62	(2.09% x FAS3 x Yrs)
	65 or later	(2.43% x FAS3 x Yrs)
2.5% @ 67		
Plan U (§7522.20(a))	52	(1.00% x FAS3 x Yrs)
	55	(1.30% x FAS3 x Yrs)
	60	(1.80% x FAS3 x Yrs)
	62	(2.00% x FAS3 x Yrs)
	65	(2.30% x FAS3 x Yrs)
	67 or later	(2.50% x FAS3 x Yrs)

Summary of Major Plan Provisions

(continued)

Benefit Formula: Safety Plans

Safety Plans	Retirement Age	Benefit Formula
3% @ 50		
Plan E (§31664.1) *Tier 1*	50	(3.00% x FAS1 x Yrs)
	55	(3.00% x FAS1 x Yrs)
	60 or later	(3.00% x FAS1 x Yrs)
Plan F (§31664.1)	50	(3.00% x FAS3 x Yrs)
Tier 2	55	(3.00% x FAS3 x Yrs)
	60 or later	(3.00% x FAS3 x Yrs)
3% @ 55		
Plan Q (§31664.2)	50	(2.29% x FAS1 x Yrs)
Tier 1	55	(3.00% x FAS1 x Yrs)
	60 or later	(3.00% x FAS1 x Yrs)
Plan R (§31664.2) *Tier 2*	50	(2.29% x FAS3 x Yrs)
	55	(3.00% x FAS3 x Yrs)
	60 or later	(3.00% x FAS3 x Yrs)
2.7% @ 57		
Plan V (§7522.25(d))	50	(2.00% x FAS3 x Yrs)
	55	(2.50% x FAS3 x Yrs)
	57 or later	(2.70% x FAS3 x Yrs)

Summary of Major Plan Provisions

(continued)

Maximum Benefit:

Plans A, B, E, F, G, H, I, J, M, N, O, P, Q, R, S, T and W	100% of Highest Average Compensation. (§31676.01, §31676.1, §31676.12, §31676.16, §31676.18, §31676.19, §31664.1, §31664.2)
Plans U and V	None

Ordinary Disability:

General Plans:

Plans A, B, G, H, I, J, M, N, O, P, S, T, U and W

Eligibility — Five years of service. (§31720)

Benefit Formula

- **Plans A, G, I, M, and O:**
  1.8% per year of service. If the benefit does not exceed one-third of Final Compensation, the service is projected to 62, but the total benefit cannot be more than one-third of Final Compensation. (§31727.1)

- **Plans B, H, J, N, P, S, T, U and W:**
  1.5% per year of service. If the benefit does not exceed one-third of Final Compensation, the service is projected to 65, but the total benefit cannot be more than one-third of Final Compensation. (§31727)

Safety Plans:

Plans E, F, Q, R and V

Eligibility — Five years of service. (§31720)

Benefit Formula — 1.8% per year of service. If the benefit does not exceed one-third of Final Compensation, the service is projected to 55, but the total benefit cannot be more than one-third of Final Compensation (§31727.2)

For all members, 100% of the service retirement benefit will be paid, if greater.

Line-of-Duty Disability:

All Members:

Eligibility — No age or service requirements. (§31720)

Benefit Formula — 50% of the Final Compensation or 100% of Service Retirement benefit, if greater. (§31727.4)

Pre-Retirement Death:

All Members:

Eligibility — None

Benefit — Refund of member contributions with interest plus one month's compensation for each year of service to a maximum of six month's compensation. (§31781) A lump sum benefit in the amount of $1,000 is payable upon death of a member (with 10 years of service) to his/her eligible beneficiary. (§31790)

Death in line of duty — 50% of Final Compensation or 100% of Service Retirement benefit, if greater, payable to spouse or minor-children. (§31787)

Or

Vested Members:

Eligibility — Five years of service.

Benefit — 60% of the greater of Service or Ordinary Disability Retirement benefit payable to eligible surviving spouse (§31765.1, §31781.1), in lieu of §31781.

Summary of Major Plan Provisions

(continued)

Death After Retirement:	
All Members:	
Service or Ordinary Disability Retirement	60% of member's unmodified allowance continued to eligible spouse. (§31760.1) A lump sum benefit in the amount of $1,000 is payable upon death of a member (with 10 years of service) to his/her eligible beneficiary. (§31790) An eligible spouse is a surviving spouse who was married to or registered with the member one year prior to the effective retirement date. Certain surviving spouses or domestic partners may also be eligible if marriage or domestic partnership was at least two years prior to the date of death and the surviving spouse or domestic partner has attained age 55. (§31760.1)
Line-of-Duty Disability	100% of member's allowance continued to eligible spouse. (§31786) A lump sum benefit in the amount of $1,000 is payable upon death of a member (with 10 years of service) to his/her eligible beneficiary. (§31790)
Withdrawal Benefits:	
Less than Five Years of Service	Refund of accumulated member contributions with interest or earned benefit at age 70 (§31628). Effective January 1, 2003, a member may also elect to leave their contributions on deposit in the retirement fund. (§31629.5)
Five or More Years of Service	Refund of accumulated employee contributions with interest. If contributions left on deposit, a member is entitled to earned benefits commencing at any time after eligible to retire. (§31700)
Post-Retirement Cost-of-Living Benefits:	Future changes based on Consumer Price Index to a maximum of 3% per year, excess "banked." (§31870.1)
Supplemental Benefit:	Non-vested supplemental COLA and medical benefits are also paid by the System to eligible retirees and survivors. These benefits have been excluded from this valuation.
Member Contributions:	
Non-CalPEPRA General Plans:	
Plan A	
Basic	Provide for an average annuity at age 60 equal to 1/200 of FAS1. (§31621.5)
Cost-of-Living	Provide for 50% of future Cost-of-Living costs.
Plan B	
Basic	Provide for an average annuity at age 60 equal to 1/120 of FAS3. (§31621)
Cost-of-Living	Provide for 50% of future Cost-of-Living costs.
Plans G, H, I and J	
Basic	Provide for an average annuity at age 55 equal to 1/100 of FAS3 (FAS1 for Plans G and I). (§31621.8)
Cost-of-Living	Provide for 50% of future Cost-of-Living costs.
Plans M, N, O and P	
Basic	Provide for an average annuity payable at age 60 equal to 1/120 of FAS3 (FAS1 for Plans M and O). (§31621)
Cost-of-Living	Provide for 50% of future Cost-of-Living costs.
Plan S	
Basic	Provide for an average annuity at age 60 equal to 1/100 of FAS3. (§31621.2)
Cost-of-Living	Provide for 50% of future Cost-of-Living costs.

Summary of Major Plan Provisions

(continued)

Member Contributions: (continued)

Non-CalPEPRA Safety Plans:	
Plans E and Q	
Basic	Provide for an average annuity at age 50 equal to 1/200 FAS1. (§31639.5)
Cost-of-Living	Provide for 50% of future Cost-of-Living costs.
Plans F and R	
Basic	Provide for an average annuity at age 50 equal to 1/100 of FAS3. (§31639.25)
Cost-of-Living	Provide for 50% of future Cost-of-Living costs.
CalPEPRA Plans:	
Plans T, U, V and W	50% of total Normal Cost rate.
Other Information:	Non-CalPEPRA Safety members with 30 or more years of benefit service are exempt from paying member contributions. The same applies for General members hired on or before March 7, 1973.

Note: The summary of major plan provisions is designed to outline principal plan benefits as interpreted for purposes of the actuarial valuation. If the System should find the plan summary not in accordance with the actual provisions, the System should alert the actuary so that both can be sure the proper provisions are valued.

Experience Analysis

(2013 - 2022)
(Dollars in Thousands)

Gains & Losses in Actuarial Accrued Liabilities During Years Ended December 31, Resulting from Differences Between Assumed Experience & Actual Experience (Dollar Amounts in Thousands)

Type of Activity	Gains (or Losses) Per Year				
	2013	2014	2015	2016	2017
Retirements	$ -	$ -	$ (62,070)	$ -	$ -
Pay Increases	294,326	125,746	282,696	(204,603)	66,399
COLA Increases	-	153,484	119,367	186,039	95,796
Investment Income	176,930	9,570	(229,138)	(113,103)	24,401
Other	30,354	(4,476)	10,056	(4,119)	5,316
Gain (or Loss) During Year From Experience	**$ 501,610**	**$ 284,324**	**$ 120,911**	**$ (135,786)**	**$ 191,912**
Nonrecurring Items:					
Method and Procedure Changes	-	-	-	92,587*	-
Plan Amendments and Assumption Changes	-	122,171	-	-	(853,538)
Composite Gain (or Loss) During Year	**$ 501,610**	**$ 406,495**	**$ 120,911**	**$ (43,199)**	**$ (661,626)**

Gains & Losses in Actuarial Accrued Liabilities During Years Ended December 31, Resulting from Differences Between Assumed Experience & Actual Experience (Dollar Amounts in Thousands)

Type of Activity	Gains (or Losses) Per Year				
	2018	2019	2020	2021	2022
Retirements	$ -	$ -	$ -	$ -	$ -
Pay Increases	71,908	52,716	62,291	87,162	(27,467)
COLA Increases	(24,279)	(131,220)	123,844[1]	(148,830)	(261,281)
Investment Income	(255,908)	(50,514)	370,675	767,019	(59,849)
Other	(143,172)	(161,090)	(193,593)	(10,716)	(2,978)
Gain (or Loss) During Year From Experience	**$ (351,451)**	**$ (290,108)**	**$ 363,217**	**$ 694,635**	**$ (351,575)**
Nonrecurring Items:					
Method and Procedure Changes	-	-	37,783[2]	-	-
Plan Amendments and Assumption Changes	-	-	(24,273)	-	-
Composite Gain (or Loss) During Year	**$ (351,451)**	**$ (290,108)**	**$ 376,727**	**$ 694,635**	**$ (351,575)**

[1] Beginning with the December 31, 2020 valuation, the COLA for the upcoming April 1 is reflected in the valuation.

[2] Effect of reallocating present value benefits between NC and AAL.

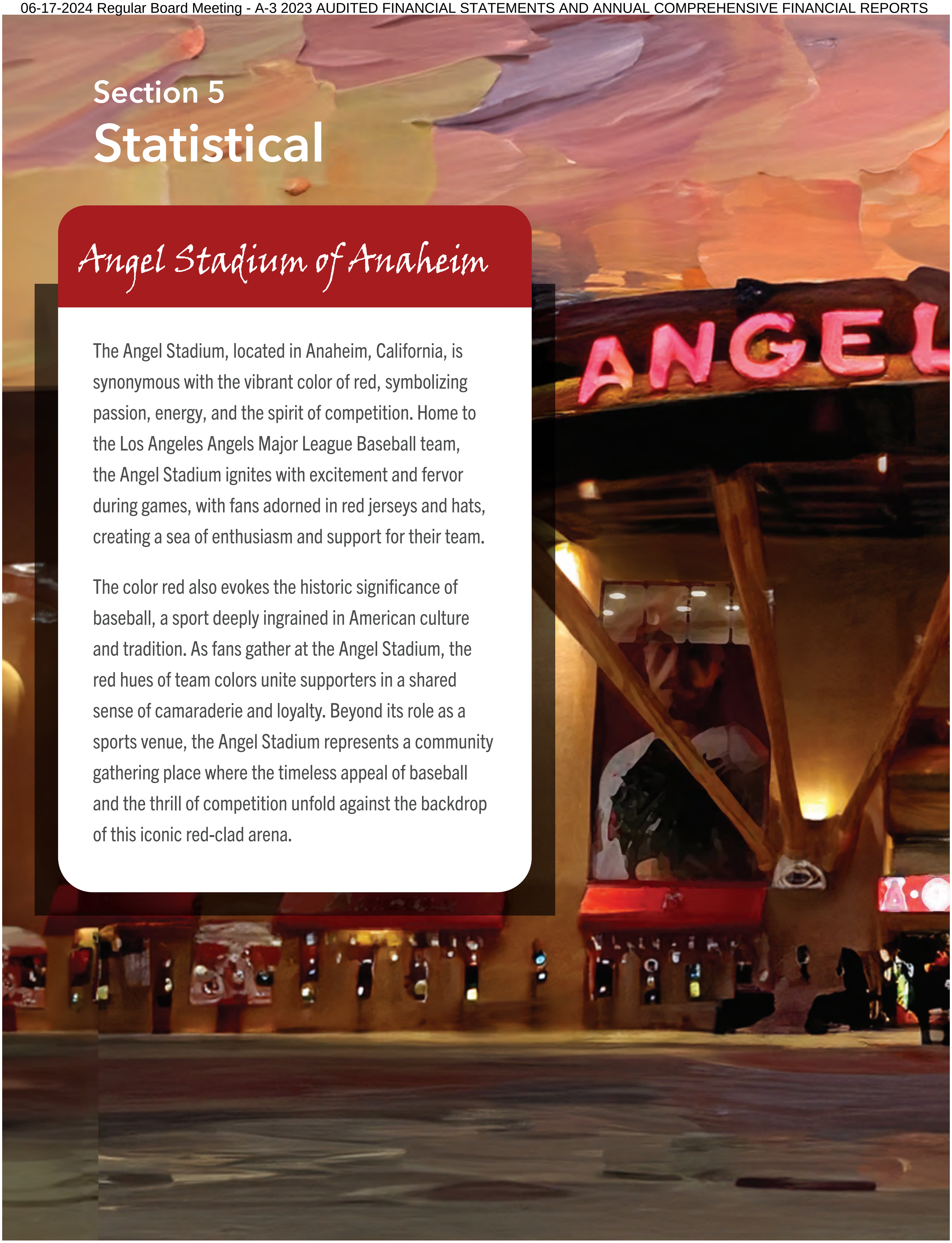
* Includes leap year salary adjustment, revised benefit and eligibility service credits from V3 pension administration system and automatic continuance benefit for child beneficiary.

Section 5
Statistical

Angel Stadium of Anaheim

The Angel Stadium, located in Anaheim, California, is synonymous with the vibrant color of red, symbolizing passion, energy, and the spirit of competition. Home to the Los Angeles Angels Major League Baseball team, the Angel Stadium ignites with excitement and fervor during games, with fans adorned in red jerseys and hats, creating a sea of enthusiasm and support for their team.

The color red also evokes the historic significance of baseball, a sport deeply ingrained in American culture and tradition. As fans gather at the Angel Stadium, the red hues of team colors unite supporters in a shared sense of camaraderie and loyalty. Beyond its role as a sports venue, the Angel Stadium represents a community gathering place where the timeless appeal of baseball and the thrill of competition unfold against the backdrop of this iconic red-clad arena.




STADIUM
ANAHEIM
GATE
TONIGHT

Statistical Section Review

The Statistical Section of the Annual Comprehensive Financial Report provides additional information in order to promote a more comprehensive understanding of the financial statements, note disclosures and supplemental information.

The Governmental Accounting Standards Board (GASB) established five categories of information to be provided in the Statistical Section: Financial Trends, Revenues, Expenses, Demographic and Economic, and Operating Information.

This section provides multi-year trend information to facilitate an understanding of how OCERS as an organization has changed over time.

Information of financial trends, revenues and expenses for the last ten years is presented in the Schedules of Changes in Fiduciary Net Position, Schedule and Graph of Fiduciary Revenue by Source, and Schedule and Graph of Expenses by Type.

Schedule of Changes in Fiduciary Net Position - Pension Trust Fund

2014 – 2023
(Dollars in Thousands)

Years Ended December 31	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Additions										
Employer Contributions	$ 625,520	$ 571,298	$ 567,196	$ 572,104	$ 580,905	$ 653,793	$ 659,807	$ 698,791	$ 719,691	$ 749,776
Employee Contributions	232,656	249,271	258,297	262,294	270,070	279,373	279,384	271,334	269,999	277,455
Investment Income/(Loss)	497,760	(11,903)	1,060,040	1,938,025	(326,145)	2,182,666	2,172,339	3,221,132	(2,059,364)	2,324,556
Net Securities Lending	1,435	1,030	1,203	1,610	1,517	1,142	845	933	774	925
Total Additions	**$ 1,357,371**	**$ 809,696**	**$ 1,886,736**	**$ 2,774,033**	**$ 526,347**	**$ 3,116,974**	**$ 3,112,375**	**$ 4,192,190**	**$ (1,068,900)**	**$ 3,352,712**
Deductions										
Benefits	$ 630,678	$ 675,963	$ 717,976	$ 764,344	$ 828,278	$ 900,902	$ 973,325	$ 1,045,738	$ 1,139,715	$ 1,216,248
Administrative Expenses	11,905	12,521	16,870	17,002	18,284	19,171	20,428	21,473	23,546	29,056
Total Deductions	**$ 642,583**	**$ 688,484**	**$ 734,846**	**$ 781,346**	**$ 846,562**	**$ 920,073**	**$ 993,753**	**$ 1,067,211**	**$ 1,163,261**	**$ 1,245,304**
Changes in Fiduciary Net Position	**$ 714,788**	**$ 121,212**	**$ 1,151,890**	**$ 1,992,687**	**$ (320,215)**	**$ 2,196,901**	**$ 2,118,622**	**$ 3,124,979**	**$ (2,232,161)**	**$ 2,107,408**

Schedule of Changes in Fiduciary Net Position - Health Care Fund - County

2014 – 2023
(Dollars in Thousands)

Years Ended December 31	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Additions										
Employer Contributions	$ 64,852	$ 36,557	$ 42,411	$ 59,864	$ 52,520	$ 54,788	$ 41,559	$ 41,049	$ 41,889	$ -
Investment Income/(Loss)	7,374	(698)	16,902	34,087	(5,888)	43,523	40,706	66,688	(38,483)	48,959
Net Securities Lending	25	18	21	32	31	25	19	21	18	20
Total Additions	$ 72,251	$ 35,877	$ 59,334	$ 93,983	$ 46,663	$ 98,336	$ 82,284	$ 107,758	$ 3,424	$ 48,979
Deductions										
Benefits	$ 29,299	$ 30,107	$ 30,818	$ 32,042	$ 33,290	$ 35,012	$ 36,784	$ 37,262	$ 37,013	$ 36,837
Administrative Expenses	20	22	22	22	20	20	22	23	23	24
Total Deductions	$ 29,319	$ 30,129	$ 30,840	$ 32,064	$ 33,310	$ 35,032	$ 36,806	$ 37,285	$ 37,036	$ 36,861
Changes in Fiduciary Net Position	$ 42,932	$ 5,748	$ 28,494	$ 61,919	$ 13,353	$ 63,304	$ 45,478	$ 70,473	$ (33,612)	$ 12,118

Schedule of Changes in Fiduciary Net Position - Health Care Fund - OCFA

2014 – 2023
(Dollars in Thousands)

Years Ended December 31	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Additions										
Employer Contributions	$ 2,667	$ 2,624	$ 2,414	$ 2,380	$ 4,536	$ 2,111	$ 1,976	$ 16,773	$ 2,932	$ 26,245
Investment Income/(Loss)	1,583	(99)	2,845	5,113	(725)	5,288	4,140	6,746	(4,705)	7,305
Net Securities Lending	5	3	3	4	4	3	2	2	2	4
Total Additions	$ 4,255	$ 2,528	$ 5,262	$ 7,497	$ 3,815	$ 7,402	$ 6,118	$ 23,521	$ (1,771)	$ 33,554
Deductions										
Benefits	$ 3,138	$ 3,448	$ 3,867	$ 3,978	$ 5,077	$ 5,018	$ 5,539	$ 5,999	$ 6,658	$ 7,157
Administrative Expenses	22	22	22	27	30	21	22	24	22	23
Total Deductions	$ 3,160	$ 3,470	$ 3,889	$ 4,005	$ 5,107	$ 5,039	$ 5,561	$ 6,023	$ 6,680	$ 7,180
Changes in Fiduciary Net Position	$ 1,095	$ (942)	$ 1,373	$ 3,492	$ (1,292)	$ 2,363	$ 557	$ 17,498	$ (8,451)	$ 26,374

Schedule of Changes in Fiduciary Net Position - Custodial Fund - OCTA

2014 – 2023
(Dollars in Thousands)

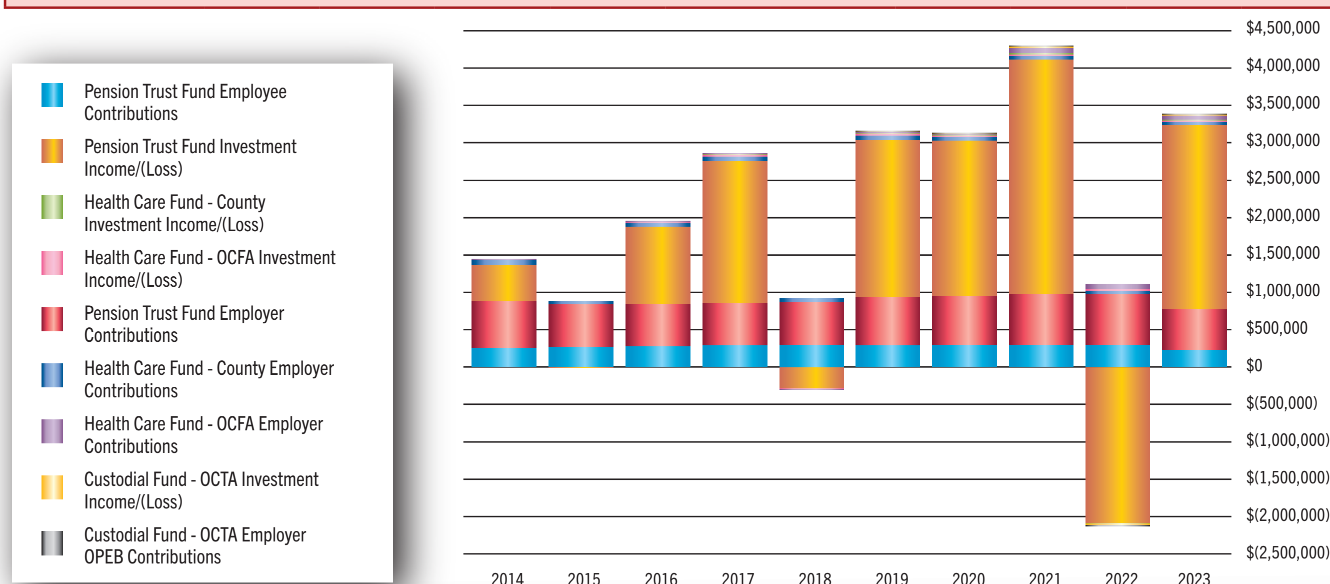
Years Ended December 31	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Additions										
Employer OPEB Contributions	N/A	N/A	N/A	N/A	N/A	$ 613	$ 613	$ 605	$ 655	$ 794
Investment Income/(Loss)	N/A	N/A	N/A	N/A	N/A	3,250	2,350	2,715	(3,402)	3,003
Total Additions	$ -	$ -	$ -	$ -	$ -	$ 3,863	$ 2,963	$ 3,320	$(2,747)	$ 3,797
Deductions										
Employer OPEB Payments	N/A	N/A	N/A	N/A	N/A	$ 1,318	$ 1,383	$ 1,419	$ 1,466	$ 1,531
Administrative Expenses	N/A	N/A	N/A	N/A	N/A	20	22	23	23	23
Total Deductions	$ -	$ -	$ -	$ -	$ -	$ 1,338	$ 1,405	$ 1,442	$ 1,489	$ 1,554
Changes in Fiduciary Net Position	$ -	$ -	$ -	$ -	$ -	$ 2,525	$ 1,558	$ 1,878	$(4,236)	$ 2,243

N/A: Detailed information not available. This is a 10-year schedule. Information in this schedule is not available prior to 2019 due to the implementation of GASB 84. Additional years will be added to this schedule in future fiscal years until 10 years of data is presented.

Schedule and Graph of Fiduciary Revenues by Source

2014 – 2023
(Dollars in Thousands)

Years Ended December 31	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Pension Trust Fund										
Employee Contributions	$ 232,656	$ 249,271	$ 258,297	$ 262,294	$ 270,070	$ 279,373	$ 279,384	$ 271,334	$ 269,999	$ 277,455
Employer Contributions	625,520	571,298	567,196	572,104	580,905	653,793	659,807	698,791	719,691	749,776
Investment Income/(Loss)[1]	499,195	(10,873)	1,061,243	1,939,635	(324,628)	2,183,808	2,173,184	3,222,065	(2,058,590)	2,325,481
Health Care Fund - County										
Employer Contributions	64,852	36,557	42,411	59,864	52,520	54,788	41,559	41,049	41,889	-
Investment Income/(Loss)[1]	7,399	(680)	16,923	34,119	(5,857)	43,548	40,725	66,709	(38,465)	48,979
Health Care Fund - OCFA										
Employer Contributions	2,667	2,624	2,414	2,380	4,536	2,111	1,976	16,773	2,932	26,245
Investment Income/(Loss)[1]	1,588	(96)	2,848	5,117	(721)	5,291	4,142	6,748	(4,703)	7,309
Custodial Fund - OCTA										
Employer OPEB Contributions	N/A	N/A	N/A	N/A	N/A	613	613	605	655	794
Investment Income/(Loss)[1]	N/A	N/A	N/A	N/A	N/A	3,250	2,350	2,715	(3,402)	3,003
Total	$ 1,433,877	$ 848,101	$ 1,951,332	$ 2,875,513	$ 576,825	$ 3,226,575	$ 3,203,740	$ 4,326,789	$ (1,069,994)	$ 3,439,042



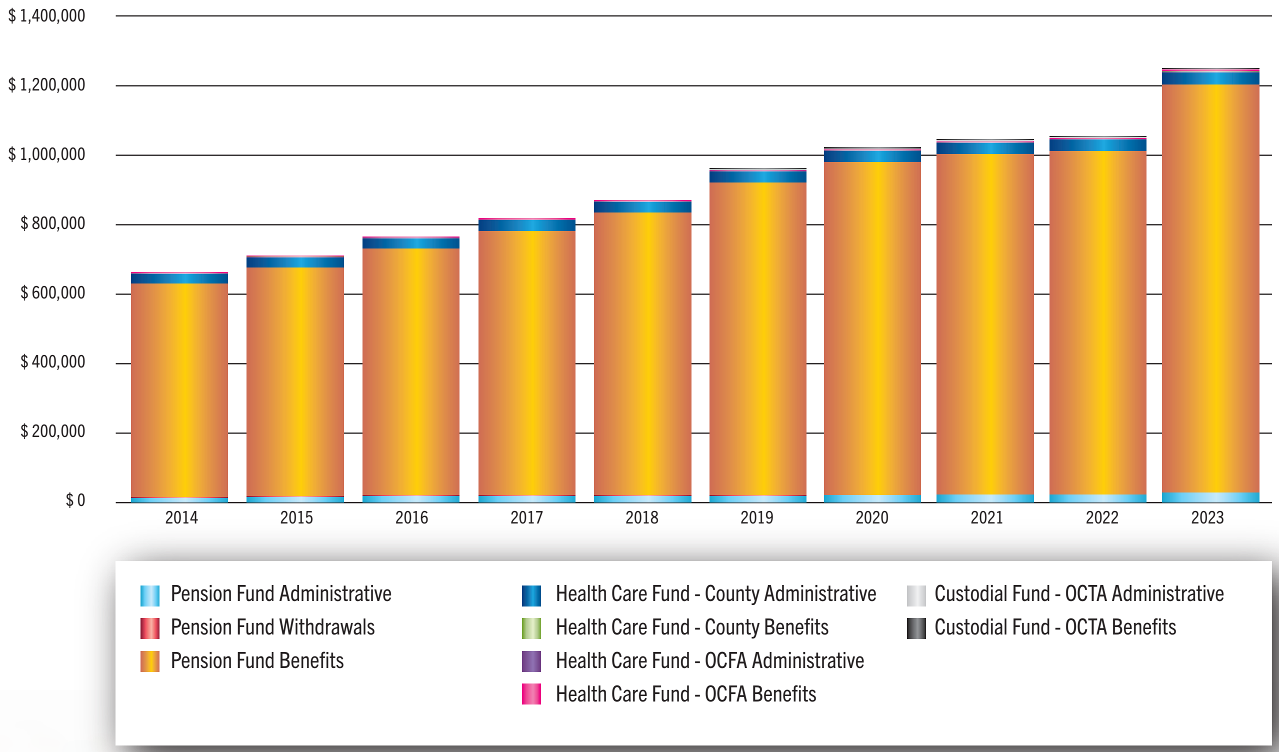
N/A: Detailed information not available.

[1] Investment Income/(Loss) includes net appreciation/(depreciation) less investment manager fees, security lending fees and commission recapture.

Schedule and Graph of Expenses by Type

2014 – 2023
(Dollars in Thousands)

Years Ended December 31	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Pension Trust Fund										
Administrative	$ 11,905	$ 12,521	$ 16,870	$ 17,002	$ 18,284	$ 19,171	$ 20,428	$ 21,473	$ 23,546	$ 29,056
Withdrawals										
Separation	9,843	10,764	9,411	9,294	10,681	9,458	6,883	8,323	12,810	8,497
Death	1,887	1,093	4,232	4,572	3,252	3,791	4,664	6,126	9,429	6,254
Benefits	618,948	664,106	704,333	750,478	814,345	887,653	961,778	1,031,289	1,117,476	1,201,497
Health Care Fund - County										
Administrative	20	22	22	22	20	20	22	23	23	24
Benefits	29,299	30,107	30,818	32,042	33,290	35,012	36,784	37,262	37,013	36,837
Health Care Fund - OCFA										
Administrative	22	22	22	27	30	21	22	24	22	23
Benefits	3,138	3,448	3,867	3,978	5,077	5,018	5,539	5,999	6,658	7,157
Custodial Fund - OCTA										
Administrative	N/A	N/A	N/A	N/A	N/A	20	22	23	23	23
Benefits	N/A	N/A	N/A	N/A	N/A	1,318	1,383	1,419	1,466	1,531
Total	$ 675,062	$ 722,083	$ 769,575	$ 817,415	$ 884,979	$ 961,482	$ 1,037,525	$ 1,111,961	$ 1,208,466	$ 1,290,899

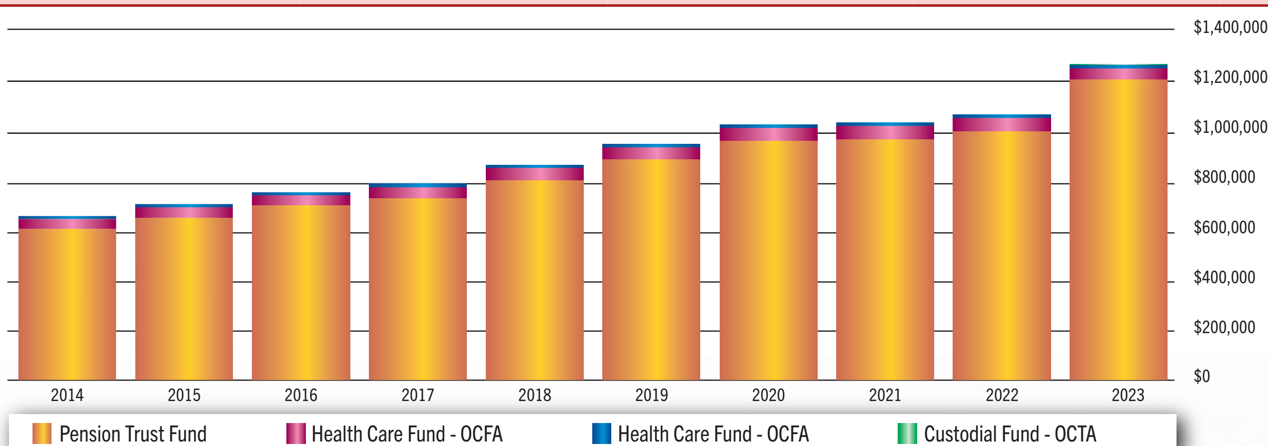


N/A: Detailed information not available.

Schedule and Graph of Benefit Expenses by Type

2014– 2023
(Dollars in Thousands)

Years Ended December 31	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Pension Trust Fund										
Participant Benefits										
Service Retiree Payroll										
General	N/A	$ 446,534	$ 475,838	$ 502,396	$ 545,028	$ 593,394	$ 644,351	$ 691,732	$ 744,922	$ 795,885
Safety	N/A	158,247	167,723	180,747	199,029	218,482	238,671	252,733	285,227	300,296
Service Retiree Payroll	N/A	604,781	643,561	683,143	744,057	811,876	883,022	944,465	1,030,149	1,096,181
Disability Retiree Payroll										
General	N/A	25,298	25,891	29,462	29,177	31,474	30,831	31,980	31,980	32,859
Safety	N/A	33,503	34,497	37,179	40,541	43,653	46,993	53,789	53,789	71,277
Disability Retiree Payroll	N/A	58,801	60,388	66,641	69,718	75,127	77,824	85,769	85,769	104,136
Total Participant Benefits										
General	N/A	471,832	501,729	531,858	574,205	624,868	675,182	723,712	776,902	828,744
Safety	N/A	191,750	202,220	217,926	239,570	262,135	285,664	306,522	339,016	371,563
Total Participant Benefits	$ 618,233	663,582	703,949	749,784	813,775	887,003	960,846	1,030,234	1,115,918	1,200,307
Membership Withdrawals and Refunds										
General Membership	N/A	N/A	12,778	13,063	12,288	12,536	10,693	12,897	18,311	13,451
Safety Membership	N/A	N/A	865	803	1,645	713	854	1,552	3,928	1,300
Total Withdrawals and Refunds	11,730	11,857	13,643	13,866	13,933	13,249	11,547	14,449	22,239	14,751
Death Benefits										
Total Death Benefits	715	524	384	694	570	650	932	1,055	1,558	1,190
Total Pension Trust Fund	630,678	675,963	717,976	764,344	828,278	900,902	973,325	1,045,738	1,139,715	1,216,248
Health Care Fund - County										
Health Care	29,299	30,107	30,818	32,042	33,290	35,012	36,784	37,262	37,013	36,837
Health Care Fund - OCFA										
Health Care	3,138	3,448	3,867	3,978	5,077	5,018	5,539	5,999	6,658	7,157
Custodial Fund - OCTA										
Employer OPEB Payments	N/A	N/A	N/A	N/A	N/A	1,318	1,383	1,419	1,466	1,531
Total	$ 663,115	$ 709,518	$ 752,661	$ 800,364	$ 866,645	$ 942,250	$1,017,031	$1,090,418	$1,184,852	$1,261,773

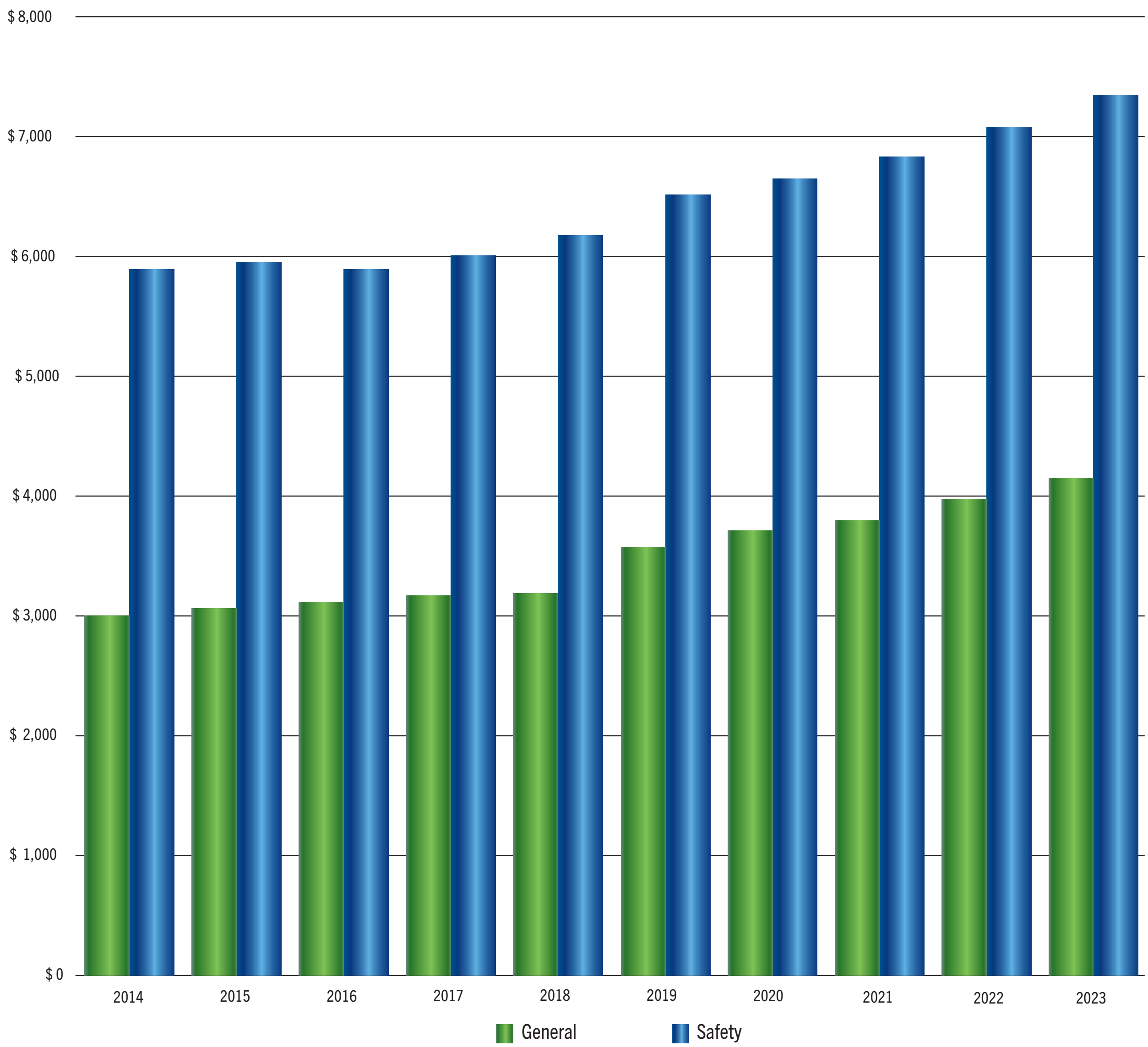


N/A: Detailed information not available.

Schedule and Graph of Average Monthly Pension Check

2014 – 2023

Years Ended December 31	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
General	$ 2,991	$ 3,103	$ 3,142	$ 3,244	$ 3,372	$ 3,520	$ 3,686	$ 3,791	$ 3,944	$ 4,093
Safety	$ 5,914	$ 5,974	$ 5,917	$ 6,017	$ 6,245	$ 6,499	$ 6,680	$ 6,825	$ 7,048	$ 7,277



Source: OCERS' Pension Administration System Solution

Schedule of Average Pension Benefit Payments by Years of Service

	Years of Service						
Service Retirement Effective Dates	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30 & Over**
Period 1/1/14-12/31/14							
Average Monthly Pension Benefits	$ 421	$ 1,152	$ 1,925	$ 3,188	$ 4,117	$ 6,444	$ 6,719
Monthly Final Average Salary	$ 8,176	$ 6,955	$ 6,301	$ 6,961	$ 7,003	$ 8,463	$ 7,349
Number of Retired Members	23	45	146	96	143	192	138
Period 1/1/15-12/31/15							
Average Monthly Pension Benefits	$ 582	$ 1,263	$ 1,755	$ 2,850	$ 3,895	$ 5,679	$ 7,235
Monthly Final Average Salary	$ 8,802	$ 6,888	$ 5,970	$ 6,673	$ 6,800	$ 7,893	$ 8,352
Number of Retired Members	22	63	128	119	110	200	182
Period 1/1/16-12/31/16							
Average Monthly Pension Benefits	$ 427	$ 1,244	$ 2,135	$ 2,886	$ 4,272	$ 5,549	$ 6,782
Monthly Final Average Salary	$ 8,298	$ 6,907	$ 6,911	$ 6,580	$ 7,383	$ 7,651	$ 7,762
Number of Retired Members	24	56	121	120	113	195	163
Period 1/1/17-12/31/17							
Average Monthly Pension Benefits	$ 541	$ 1,215	$ 2,073	$ 3,062	$ 4,513	$ 5,851	$ 7,069
Monthly Final Average Salary	$ 7,952	$ 6,800	$ 6,844	$ 6,810	$ 7,743	$ 7,975	$ 7,931
Number of Retired Members	21	47	122	147	112	190	153
Period 1/1/18-12/31/18							
Average Monthly Pension Benefits	$ 554	$ 1,190	$ 1,943	$ 2,879	$ 4,681	$ 6,074	$ 7,439
Monthly Final Average Salary	$ 10,584	$ 7,287	$ 6,904	$ 6,859	$ 8,134	$ 8,246	$ 8,561
Number of Retired Members	23	62	125	144	127	205	208
Period 1/1/19-12/31/19							
Average Monthly Pension Benefits	$ 367	$ 1,424	$ 2,332	$ 3,073	$ 4,831	$ 6,475	$ 7,324
Monthly Final Average Salary	$ 7,568	$ 8,243	$ 7,509	$ 6,985	$ 8,088	$ 8,591	$ 8,249
Number of Retired Members	31	54	121	150	135	249	191
Period 1/1/20-12/31/20							
Average Monthly Pension Benefits	$ 536	$ 1,475	$ 2,149	$ 3,422	$ 4,697	$ 6,151	$ 6,825
Monthly Final Average Salary	$ 9,267	$ 8,556	$ 6,784	$ 7,473	$ 8,046	$ 8,340	$ 7,917
Number of Retired Members	29	59	128	166	237	281	288
Period 1/1/21-12/31/21							
Average Monthly Pension Benefits	$ 540	$ 1,524	$ 2,361	$ 3,532	$ 5,406	$ 6,602	$ 7,219
Monthly Final Average Salary	$ 9,897	$ 8,823	$ 7,781	$ 7,749	$ 9,348	$ 8,941	$ 8,377
Number of Retired Members	27	53	87	102	142	112	128
Period 1/1/22-12/31/22							
Average Monthly Pension Benefits	$ 644	$ 1,545	$ 2,631	$ 3,798	$ 5,690	$ 7,481	$ 8,077
Monthly Final Average Salary	$10,744	$ 9,289	$ 8,821	$ 8,432	$ 9,473	$10,023	$ 9,238
Number of Retired Members	33	91	117	127	226	210	224
Period 1/1/23-12/31/23							
Average Monthly Pension Benefits	$ 421	$ 1,584	$ 2,815	$ 3,837	$ 5,083	$ 7,496	$ 7,399
Monthly Final Average Salary	$10,111	$ 9,737	$ 9,249	$ 8,347	$ 8,452	$10,150	$ 8,439
Number of Retired Members	29	60	61	114	188	181	210

Source: OCERS' Pension Administration System Solution

Schedule of Pension Benefit Recipients by Type of Benefit

December 31, 2023

Monthly Benefit	Normal Retirement for Age and Service	Survivor Payment - Normal Retirement	Service-Connected Disability Retirement	Nonservice-Connected Disability Retirement	Survivor Payment - Disability Retirement	DRO (Domestic Relations Order Payees)	Active Deaths	Total
$1-500	529	115	2	2	13	82	9	752
$501-1,000	928	231	-	11	25	131	48	1,374
$1,001-1,500	1,102	209	2	35	37	115	84	1,584
$1,501-2,000	1,096	169	35	64	22	90	63	1,539
$2,001-2,500	1,120	143	99	37	19	83	24	1,525
$2,501-3,000	1,152	129	226	13	35	46	24	1,625
$3,001-3,500	1,055	118	184	23	35	50	10	1,475
$3,501-4,000	1,055	99	112	12	24	39	5	1,346
$4,001-4,500	902	66	84	6	19	19	6	1,102
$4,501-5,000	807	57	94	4	26	12	7	1,007
$5,001-5,500	778	47	105	2	12	8	4	956
$5,501-6,000	755	52	65	1	16	7	5	901
$6,001-6,500	630	33	41	3	7	5	1	720
$6,501-7,000	596	25	36	1	8	2	3	671
Over $7,000	4,249	90	327	2	30	4	4	4,706
Total	16,754	1,583	1,412	216	328	693	297	21,283

Definition of Terms

Eligible Spouse: A member's spouse is considered eligible if the member has been legally married for at least one year at the time of retirement and remains married throughout the member's retirement. Eligible Spouse also includes Qualified Domestic Partner registered in accordance with applicable Family Law provisions.

Eligible Child: An eligible child is an unmarried child under the age of 18, or under the age of 22 if a full-time student. This includes adopted children. Eligible Child can also include a stepchild living or domiciled with the member at the time of the member's death for purposes of an active member Nonservice-connected or Service-connected death benefit only.

Source: OCERS' Pension Administration System Solution

Schedule of Pension Benefit Recipients by Option Selected

December 31, 2023

Monthly Benefit	UM	OP1	OP2	OP3	OP4	DB	UMC	O2C	O3C	O4C	SCDC	NSCDC	LSRC	AN	Total
$1-500	494	1	23	2	2	81	108	8	8	4	1	7	1	12	752
$501-1,000	880	2	53	1	3	131	238	12	4	2	5	27	16	-	1,374
$1,001-1,500	1,083	-	50	2	4	115	234	15	-	2	4	62	13	-	1,584
$1,501-2,000	1,157	1	34	2	1	90	184	10	4	-	-	51	5	-	1,539
$2,001-2,500	1,202	1	38	6	9	83	147	15	2	1	-	17	4	-	1,525
$2,501-3,000	1,358	1	25	-	7	46	156	15	1	-	1	12	3	-	1,625
$3,001-3,500	1,236	-	18	2	6	50	148	4	1	-	2	7	1	-	1,475
$3,501-4,000	1,145	1	24	2	7	39	115	7	-	2	-	3	1	-	1,346
$4,001-4,500	968	-	10	2	12	19	77	10	-	-	-	2	2	-	1,102
$4,501-5,000	874	-	17	1	13	12	83	6	-	-	1	-	-	-	1,007
$5,001-5,500	856	-	19	1	9	8	56	4	-	-	1	2	-	-	956
$5,501-6,000	795	-	15	1	10	7	64	7	-	-	1	1	-	-	901
$6,001-6,500	658	-	11	1	4	5	33	7	1	-	-	-	-	-	720
$6,501-7,000	617	1	7	-	8	2	33	2	-	-	1	-	-	-	671
Over $7,000	4,459	2	59	2	56	4	107	15	-	-	-	1	1	-	4,706
Total	17,782	10	403	25	151	692	1,783	137	21	11	17	192	47	12	21,283

Definition of Options:

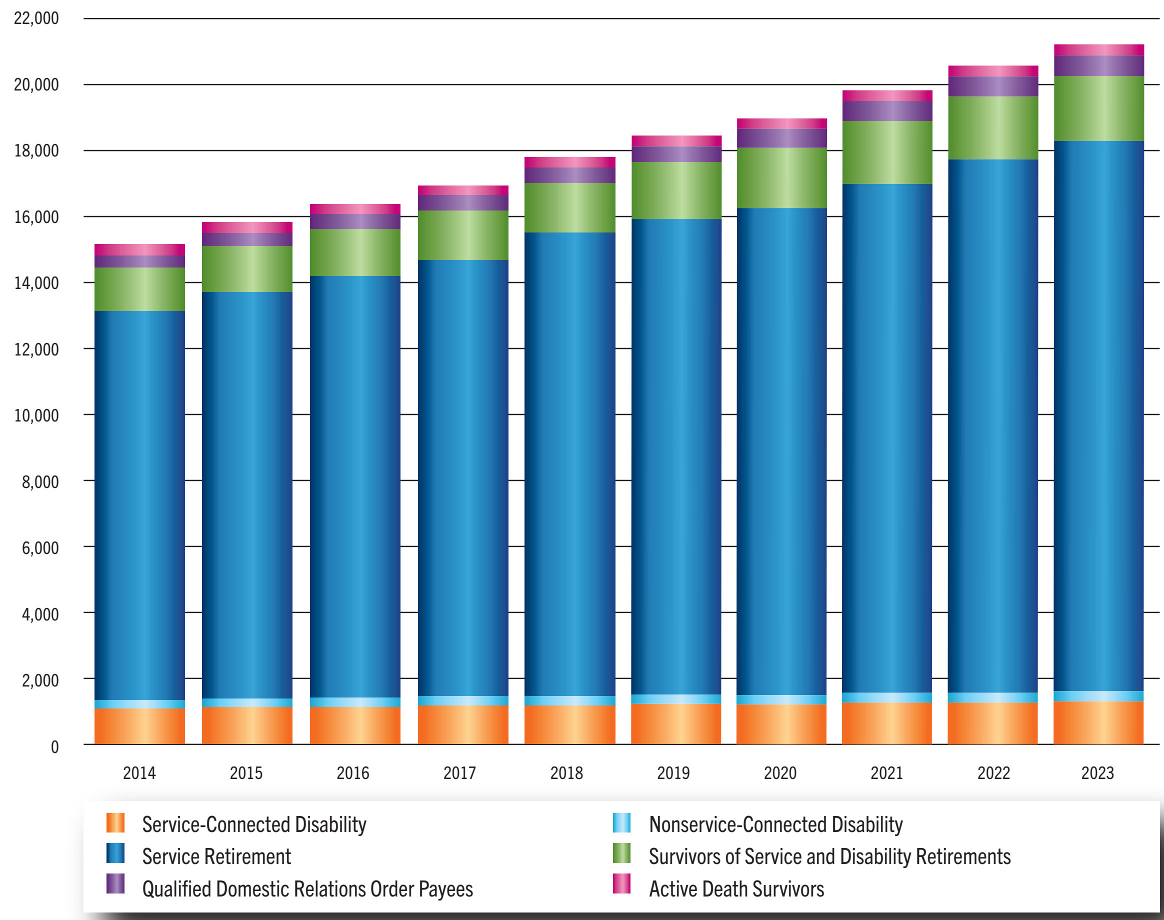
UM: Unmodified -- Maximum retirement allowance
OP1: Option 1 -- Reduced retirement allowance, at death of retiree beneficiary receives remaining balance on account
OP2: Option 2 -- Reduced retirement allowance
OP3: Option 3 -- Reduced retirement allowance
OP4: Option 4 -- Reduced retirement allowance
DB: DRO benefit -- Benefit as provided in Domestic Relations Order
UMC: Unmodified continuance -- Beneficiary receives 60% of maximum retirement allowance
O2C: Option 2 continuance -- Beneficiary receives same monthly allowance
O3C: Option 3 continuance -- Beneficiary receives 50% of monthly allowance
O4C: Option 4 continuance -- Multiple beneficiaries receive allowance as previously approved
SCDC: SCD continuance -- Service Connected Disability
NSCDC: NSCD continuance -- Non Service Connected Disability
LSRC: Lump sum and reduced continuance
AN: Annuity

Source: OCERS' Pension Administration System Solution

Schedule and Graph of Pension Benefit Recipients

2014 – 2023

Years Ended December 31	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Service-Connected Disability	1,098	1,131	1,161	1,185	1,232	1,261	1,289	1,333	1,364	1,412
Nonservice-Connected Disability	265	271	257	261	250	244	236	228	224	216
Service Retirement	11,760	12,278	12,768	13,240	13,827	14,448	15,339	15,607	16,311	16,754
Survivors of Service and Disability Retirements	1,336	1,423	1,448	1,496	1,559	1,631	1,678	1,744	1,820	1,911
Qualified Domestic Relations Order Payees	366	399	426	455	495	530	573	616	662	693
Active Death Survivors	344	308	309	310	311	306	304	298	297	297
Total	**15,169**	**15,810**	**16,369**	**16,947**	**17,674**	**18,420**	**19,419**	**19,826**	**20,678**	**21,283**



Source: OCERS' Pension Administration System Solution

Schedule of Average Retirement Age

2014 – 2023

Years Ended December 31	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
General	60.79	59.37	59.44	60.79	61.30	61.14	61.02	60.49	60.70	60.77
Safety	54.06	53.51	53.58	55.09	55.15	54.53	54.15	53.63	55.33	54.21

Schedule of Average Years of Service at Retirement

2014 – 2023

Years Ended December 31	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
General	21.13	18.22	19.56	21.41	22.08	21.95	23.18	20.87	21.99	23.40
Safety	24.47	24.18	22.81	23.92	24.60	24.36	23.87	22.16	21.82	21.93

Schedule of Beneficiaries Receiving a Pension

2014 – 2023

Years Ended December 31	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
General	1,457	1,498	1,514	1,540	1,593	1,652	1,685	1,728	1,780	1,854
Safety	223	233	243	266	277	285	297	314	337	354
Total	**1,680**	**1,731**	**1,757**	**1,806**	**1,870**	**1,937**	**1,982**	**2,042**	**2,117**	**2,208**

Schedule of Active and Deferred Members

2014 – 2023

Years Ended December 31	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
General										
Active	17,873	17,838	18,072	17,941	18,150	18,356	17,733	18,128	18,184	18,805
Deferred	4,380	4,668	4,940	5,341	5,547	6,004	6,280	6,680	7,323	8,014
Safety										
Active	3,587	3,687	3,674	3,780	3,779	3,901	3,826	3,883	3,877	3,977
Deferred	409	424	430	462	479	516	538	558	571	565
Total	**26,249**	**26,617**	**27,116**	**27,524**	**27,955**	**28,777**	**28,377**	**29,249**	**29,955**	**31,361**

Source: OCERS' Pension Administration System Solution

Schedule of Participating Employers - Pension Plan

2014 – 2023

Years Ended December 31		Total	Orange County	OCTA	OC Superior Court	OC Fire Authority	OC Sanitation District	City of San Juan Capistrano	Trans-portation Corridor Agencies	All Other Employers
2014	Number of Covered Employees	21,460	16,453	1,454	1,460	1,213	594	80	65	141
	Percentage to Total System	100%	76.67%	6.78%	6.80%	5.65%	2.77%	0.37%	0.30%	0.66%
2015	Number of Covered Employees	21,525	16,574	1,409	1,462	1,224	572	75	63	146
	Percentage to Total System	100%	77.00%	6.55%	6.79%	5.69%	2.66%	0.35%	0.29%	0.68%
2016	Number of Covered Employees	21,746	16,756	1,372	1,486	1,263	578	80	68	143
	Percentage to Total System	100%	77.05%	6.31%	6.83%	5.81%	2.66%	0.37%	0.31%	0.66%
2017	Number of Covered Employees	21,721	16,778	1,313	1,455	1,288	592	81	64	150
	Percentage to Total System	100%	77.24%	6.04%	6.70%	5.93%	2.73%	0.37%	0.29%	0.69%
2018	Number of Covered Employees	21,929	17,048	1,279	1,419	1,262	616	78	62	165
	Percentage to Total System	100%	77.75%	5.83%	6.47%	5.75%	2.81%	0.36%	0.28%	0.75%
2019	Number of Covered Employees	22,257	17,160	1,350	1,419	1,416	608	76	61	167
	Percentage to Total System	100%	77.10%	6.07%	6.38%	6.36%	2.73%	0.34%	0.27%	0.75%
2020	Number of Covered Employees	21,559	16,474	1,322	1,399	1,457	618	67	54	168
	Percentage to Total System	100%	76.42%	6.13%	6.48%	6.76%	2.87%	0.31%	0.25%	0.78%
2021	Number of Covered Employees	22,011	16,899	1,315	1,384	1,508	620	51	61	173
	Percentage to Total System	100%	76.78%	5.97%	6.28%	6.85%	2.82%	0.23%	0.28%	0.79%
2022	Number of Covered Employees	22,061	16,915	1,279	1,437	1,528	605	55	55	187
	Percentage to Total System	100%	76.68%	5.80%	6.50%	6.93%	2.74%	0.25%	0.25%	0.85%
2023	Number of Covered Employees	22,782	17,581	1,264	1,459	1,560	608	55	59	196
	Percentage to Total System	100%	77.17%	5.55%	6.40%	6.85%	2.67%	0.24%	0.26%	0.86%

Source: OCERS' Pension Administration System Solution

History of Actuarial Assumption Rates

For the Period January 1945 - December 2023

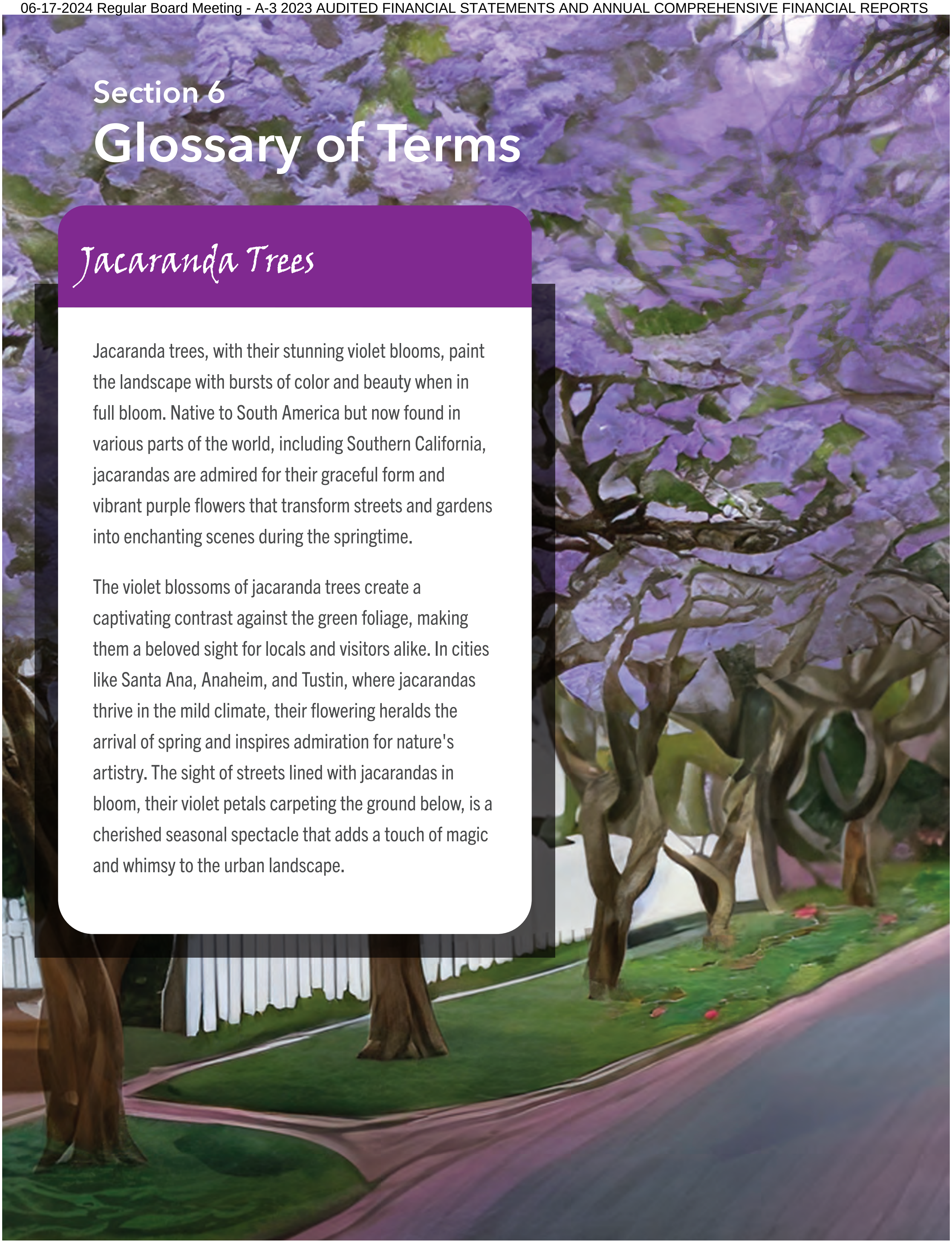
The table shown below is a comprehensive history of the change in interest rate assumption and the salary assumption rates corresponding to the Orange County Employees Retirement System since the inception of the System. These rates are adopted by the Retirement Board and used by the consulting actuary in the creation of the actuarial valuation of the System.

Specifically, the interest rate assumption estimates the rate at which the funds of the System's investment portfolio will realize earnings over many years into the future. The salary assumption rate estimates the relative increases in the salary of a member from the date of the valuation to the estimated date of separation of the member from active service.

Effective Date	Interest Rate	Salary Assumption Rate
1/1/45	2.50%	0.00%
7/1/62	3.50%	0.00%
12/31/65	4.00%	0.00%
7/1/69	4.50%	0.00%
6/30/70	5.00%	0.00%
8/31/73	5.75%	0.00%
7/1/75	6.00%	0.00%
7/1/81	7.25%	5.00%
7/1/89	7.50%	5.50%
7/1/91	8.00%	6.00%
7/1/96	8.00%	3.50%
7/1/00	8.00%	5.50%
7/1/03	7.50%	4.50%
12/31/04	7.75%	3.50%[1]
12/31/07	7.75%	3.50%[2]
12/31/11	7.75%	3.50%[3]
12/31/12	7.25%	3.25%[4]
12/31/14	7.25%	3.25%[4]
12/31/17	7.00%	3.25%[4]
12/31/20	7.00%	3.00%[4]

[1] Inflation per year plus merit and promotion increases ranging from 0.6% to 0.7%
[2] Inflation per year plus merit and promotion increases ranging from 1% to 10%
[3] Inflation per year plus 0.25% across-the-board real salary increases plus merit and promotion increases ranging from 1% to 14%
[4] Inflation per year plus 0.50% across-the-board real salary increase

Source: The Segal Company



Section 6

Glossary of Terms

Jacaranda Trees

Jacaranda trees, with their stunning violet blooms, paint the landscape with bursts of color and beauty when in full bloom. Native to South America but now found in various parts of the world, including Southern California, jacarandas are admired for their graceful form and vibrant purple flowers that transform streets and gardens into enchanting scenes during the springtime.

The violet blossoms of jacaranda trees create a captivating contrast against the green foliage, making them a beloved sight for locals and visitors alike. In cities like Santa Ana, Anaheim, and Tustin, where jacarandas thrive in the mild climate, their flowering heralds the arrival of spring and inspires admiration for nature's artistry. The sight of streets lined with jacarandas in bloom, their violet petals carpeting the ground below, is a cherished seasonal spectacle that adds a touch of magic and whimsy to the urban landscape.

Glossary of Terms

Accrual Basis
The recording of the financial effects on a government of transactions and other events and circumstances that have financial consequences for the government in the periods in which those transactions, events and circumstances occur, rather than only in the periods in which cash is received or paid by the government.

Accumulated Plan Benefits
Benefits attributable under the provisions of a pension plan to employees for services rendered to the benefit information date.

Actuarial Accrued Liability
The actuarial accrued liability, as determined by a particular cost method, equals the total present value of benefits that is attributable to past service credit.

Actuarial Assumptions
Assumptions used in the actuarial valuation process as to the occurrence of future events affecting pension costs, such as mortality, withdrawal, disablement and retirement; changes in compensation and national pension benefits; rates of investments earnings and asset appreciation or depreciation: procedures used to determine the actuarial value of assets; characteristics of future entrants for open group actuarial cost methods and other relevant items.

Actuarial Determined Contribution
A target or recommended contribution to a defined benefit pension plan for the reporting period, determined in conformity with Actuarial Standards of Practice based on the most recent measurement available when the contribution for the reporting period was adopted.

Actuarial Gain (Loss)
A measure of the difference between actuarial and expected experience based upon a set of actuarial assumptions. Examples include higher than expected salaries increases (loss) and a higher return on fund assets than anticipated (gain).

Actuarial Present Value
The discounted value of an amount or series of amounts payable or receivable at various times, determined as of a given date by the application of a particular set of actuarial assumptions.

Amortization
1. The portion of the cost of a limited-life or intangible asset charged as an expense during a particular period.
2. The reduction of debt by regular payments of principal and interest sufficient to retire the debt by maturity.

Annual Comprehensive Financial Report (Annual Report)
The Annual Report is the official annual report of a governmental entity. It includes the basic financial statements and their related notes prepared in conformity with GAAP. It also includes supporting schedules necessary to demonstrate compliance with finance-related legal and contractual provisions, required supplementary information, extensive introductory material and a detailed statistical section.

Cost-sharing Multiple-employer Defined Benefit Pension Plan (cost-sharing pension plan)
A multiple-employer defined benefit pension plan in which the pension obligations to the employees of more than one employer are pooled and pension plan assets can be used to pay the benefits of the employees of any employer that provides pensions through the pension plan.

Discount Rate
The single rate of return that, when applied to all projected benefit payments, results in an actuarial present value of projected benefit payments equal to the total of the following:

1. The actuarial present value of benefit payments projected to be made in future periods in which (a) the amount of the pension plan's fiduciary net position is projected (under the requirements of GASB Statement No. 67) to be greater than the benefit payments that are projected to be made in that period and (b) pension plan assets up to that point are expected to be invested using a strategy to achieve the long-term expected rate of return, calculated using the long-term expected rate of return on pension plan investments.
2. The actuarial present value of projected benefit payments not included in (1), calculated using the municipal bond rate.

Glossary of Terms

(Continued)

Entry Age Actuarial Cost Method

A method under which the actuarial present value of the projected benefits of each individual included in an actuarial valuation is allocated on the level basis over the earnings or services of the individual between entry age and assumed exit age(s).

Generally Accepted Accounting Principles (GAAP)

Generally Accepted Accounting Principles (GAAP) are a collection of commonly followed accounting rules and standards for financial reporting. The purpose of GAAP is to ensure transparency and consistency for financial reporting.

Independent Auditor's Report

In the context of a financial audit, a statement by the auditor describing the scope of the audit and the auditing standards applied in the examination, and setting forth the auditor's opinion on the fairness of presentation of the basic financial statements in conformity with generally accepted accounting principles (GAAP).

Money-weighted Rate of Return

A method of calculating period-by-period returns on pension plan investments that adjusts for the changing amounts actually invested. For purposes of GASB Statement No. 67, money-weighted rate of return is calculated as the internal rate of return on pension plan investments, net of pension plan investment expense.

Net Pension Liability

The liability of employers and non-employer contributing entities to plan members for benefits provided through a defined benefit pension plan.

Normal Cost

The ongoing annual cost allocated to the system by a particular actuarial cost method for providing benefits (future cost). Normal cost payments are made during the working lifetime of the member.

Pension Contribution

The amount paid into a pension plan by an employer (and/or employee), pursuant to the terms of the plan, state law, actuarial calculations or some other basis for determinations.

Pension Trust Fund

A fund used to account for public employee retirement benefits. Pension trust funds use the accrual basis of accounting and have a capital maintenance focus.

Total Pension Liability

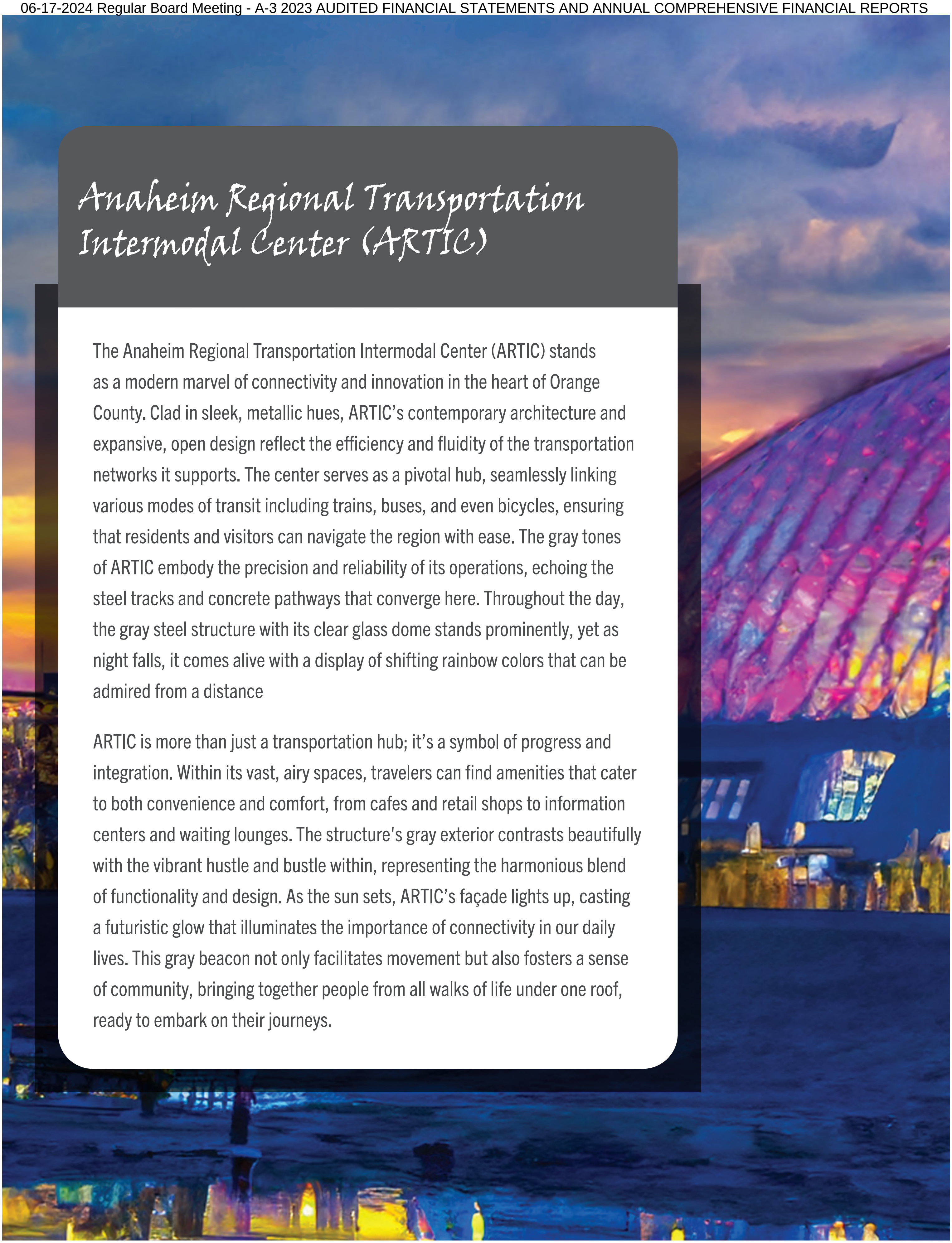
The portion of the actuarial present value of projected benefit payments that is attributed to past periods of member service in conformity with the requirements of GASB Statement No. 67.

Unfunded Actuarial Accrued Liability (UAAL)

The excess of the actuarial accrued liability over the actuarial value of assets represents the unfunded actuarial accrued liability.

UAAL Amortization Payment

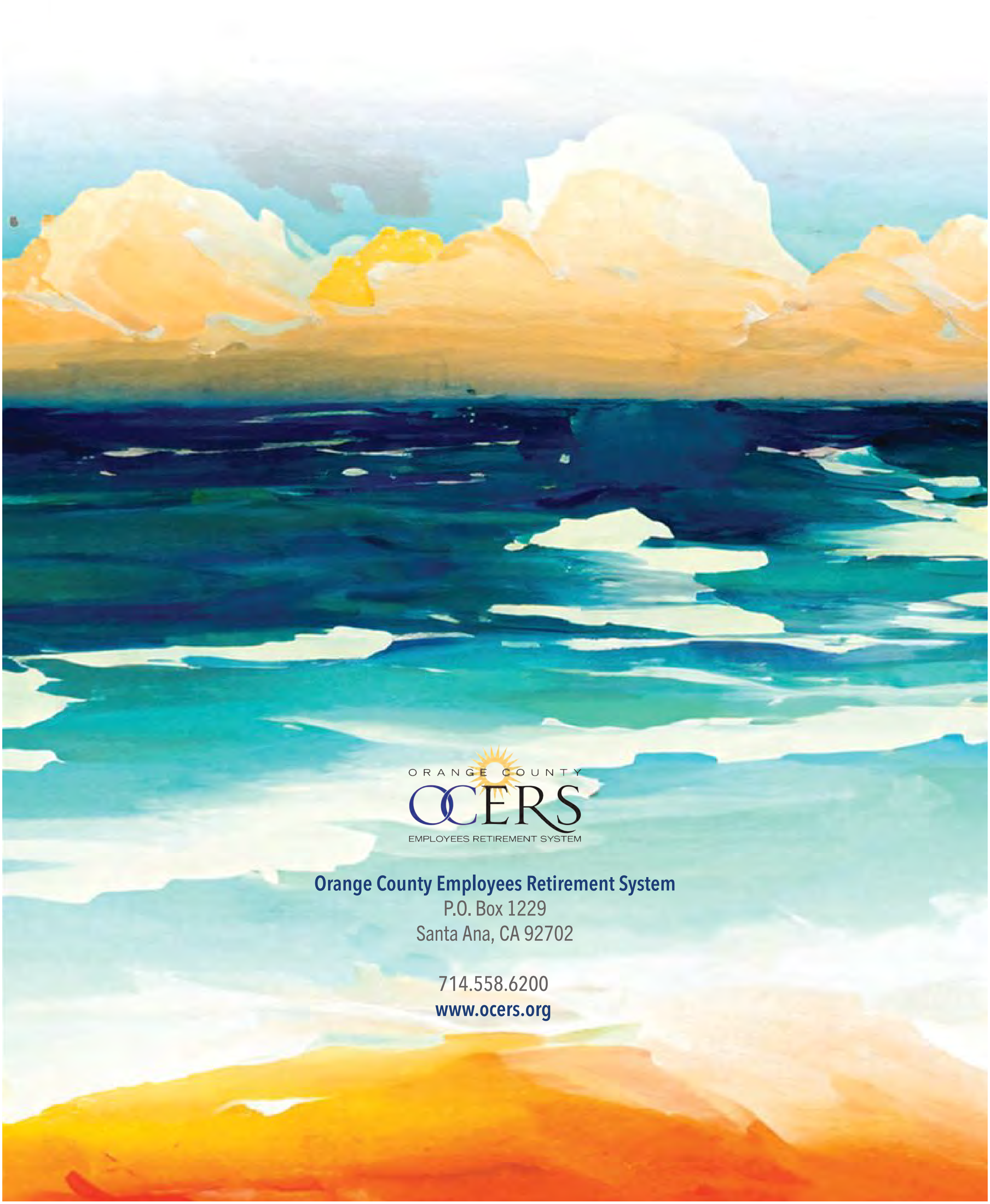
The UAAL amortization payment is the portion of pension contributions, which is designed to pay off (amortize) the UAAL in a systematic fashion. Equivalently, it is a series of periodic payments required to pay off a debt.



Anaheim Regional Transportation Intermodal Center (ARTIC)

The Anaheim Regional Transportation Intermodal Center (ARTIC) stands as a modern marvel of connectivity and innovation in the heart of Orange County. Clad in sleek, metallic hues, ARTIC’s contemporary architecture and expansive, open design reflect the efficiency and fluidity of the transportation networks it supports. The center serves as a pivotal hub, seamlessly linking various modes of transit including trains, buses, and even bicycles, ensuring that residents and visitors can navigate the region with ease. The gray tones of ARTIC embody the precision and reliability of its operations, echoing the steel tracks and concrete pathways that converge here. Throughout the day, the gray steel structure with its clear glass dome stands prominently, yet as night falls, it comes alive with a display of shifting rainbow colors that can be admired from a distance

ARTIC is more than just a transportation hub; it’s a symbol of progress and integration. Within its vast, airy spaces, travelers can find amenities that cater to both convenience and comfort, from cafes and retail shops to information centers and waiting lounges. The structure's gray exterior contrasts beautifully with the vibrant hustle and bustle within, representing the harmonious blend of functionality and design. As the sun sets, ARTIC’s façade lights up, casting a futuristic glow that illuminates the importance of connectivity in our daily lives. This gray beacon not only facilitates movement but also fosters a sense of community, bringing together people from all walks of life under one roof, ready to embark on their journeys.



ORANGE COUNTY OCERS EMPLOYEES RETIREMENT SYSTEM

Orange County Employees Retirement System
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Orange County Employees Retirement System (OCERS)

Governmental Accounting Standards Board Statement No. 67 Actuarial Valuation as of December 31, 2023

Segal

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May 8, 2024

Board of Retirement
Orange County Employees Retirement System
2223 Wellington Avenue
Santa Ana, CA 92701

Dear Board Members:

We are pleased to submit this Governmental Accounting Standards Board Statement No. 67 (GASB 67) Accounting Valuation as of December 31, 2023 for the Orange County Employees Retirement System ("OCERS" or "the Plan"). It contains various information that will need to be disclosed in order to comply with GASB 67. Please refer to OCERS' Actuarial Valuation and Review as of December 31, 2022 for the data and OCERS' Actuarial Valuation and Review as of December 31, 2023 for the assumptions and plan of benefits underlying these calculations.

This report has been prepared in accordance with generally accepted actuarial principles and practices for the exclusive use and benefit of the Board of Retirement (the Board), based upon information provided by the staff of the Plan and the Plan's other service providers.

The measurements shown in this actuarial valuation may not be applicable for other purposes. Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; and changes in plan provisions or applicable law.

The actuarial calculations were completed under the supervision of Andy Yeung, ASA, MAAA, FCA, Enrolled Actuary. We are members of the American Academy of Actuaries and we meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion herein. To the best of our knowledge, the information supplied in the actuarial valuation is complete and accurate. The assumptions used in this actuarial valuation were selected by the Board of Retirement based upon our analysis and recommendations. In our opinion, the assumptions are reasonable and take into account the experience of OCERS and reasonable expectations. In addition, in our opinion, the combined effect of these assumptions is expected to have no significant bias.

Board of Retirement
May 8, 2024

Segal makes no representation or warranty as to the future status of the Plan and does not guarantee any particular result. This document does not constitute legal, tax, accounting or investment advice or create or imply a fiduciary relationship. The Board is encouraged to discuss any issues raised in this report with the Plan's legal, tax and other advisors before taking, or refraining from taking, any action.

We look forward to reviewing this report with you and to answering any questions.

Sincerely,

Segal

Paul Angelo, FSA, MAAA, FCA, EA
Senior Vice President and Actuary

Andy Yeung, ASA, MAAA, FCA, EA
Vice President and Actuary

Todd Tauzer, FSA, MAAA, FCA, CERA
Senior Vice President and Actuary

JY/jl

Table of Contents

Section 1: Actuarial Valuation Summary

Purpose and basis

This report has been prepared by Segal to present certain disclosure information required by Governmental Accounting Standards Board Statement No. 67 (GASB 67) as of December 31, 2023. This report is based on:

- The benefit provisions of OCERS, as administered by the Board;
- The characteristics of covered active, inactive, and retired members and beneficiaries as of December 31, 2022, provided by the staff of OCERS;
- The assets of the Plan as of December 31, 2023, provided by OCERS;
- Economic assumptions regarding future salary increases and investment earnings adopted by the Board for the December 31, 2023 valuation; and
- Other actuarial assumptions, regarding employee terminations, retirement, death, etc. adopted by the Board for the December 31, 2023 valuation.

General observations on a GASB 67 Actuarial Valuation

1. The Governmental Accounting Standards Board (GASB) rules only define pension liability and expense for financial reporting purposes, they do not apply to contribution amounts for pension funding purposes. Employers and plans should continue to develop and adopt funding policies under current practices.
2. When measuring pension liability, GASB uses the same actuarial cost method (Entry Age method) and the same type of discount rate (expected return on assets) as OCERS uses for funding. This means that the Total Pension Liability (TPL) measure for financial reporting shown in this report is generally determined on the same basis as OCERS' Actuarial Accrued Liability (AAL) measure for funding. We note that the same is generally true for the service cost for financial reporting shown in this report and the normal cost component of the annual plan cost for funding.
3. The Net Pension Liability (NPL) is equal to the difference between the TPL and the Plan Fiduciary Net Position (FNP). The Plan FNP is equal to the fair value of assets and therefore, the NPL measure is very similar to an Unfunded Actuarial Accrued Liability (UAAL) on a market value basis.

Section 1: Actuarial Valuation Summary

Highlights of the valuation

1. The reporting date for the Plan is December 31, 2023 and the NPL was measured as of the same date. The TPL was determined based upon rolling forward the TPL from the actuarial funding valuation as of December 31, 2022 while the Plan FNP was valued as of the measurement date.
2. The NPL decreased from $5,391.0 million as of December 31, 2022 to $4,846.7 million as of December 31, 2023 primarily due to a return on the market value of assets of 11.9%[1] during calendar year 2023 that was more than the assumption of 7.00% used in the December 31, 2022 valuation (a gain of about $954.8 million). Changes in these values during the last two fiscal years can be found in *Section 2, Exhibit 3 - Schedule of changes in Net Pension Liability* on page 20.
3. The discount rate used to measure the TPL and NPL as of December 31, 2023 was 7.00%, following the same assumptions used by OCERS in the actuarial funding valuation as of December 31, 2023. The detailed calculations used in the derivation of the 7.00% discount rate can be found in *Appendix A*. Various other information that is required to be disclosed can be found throughout *Section 2*.
4. The Plan FNP of $19,690,021,000 as of December 31, 2022 is equal to the final market value of assets in the Pension Trust Fund as of December 31, 2022. This differs from the $19,534,631,000 market value of assets used in our December 31, 2022 funding valuation because the market value of assets in the funding valuation excludes $140,992,000 in the County Investment Account and $14,398,000 in O.C. Sanitation District UAAL Deferred Account.

   The Plan FNP of $ $21,797,429,000 as of December 31, 2023 is equal to the final market value of assets in the Pension Trust Fund as of December 31, 2023. This differs from the $21,635,294,000 market value of assets used in our December 31, 2023 funding valuation because the market value of assets in the funding valuation excludes $146,110,000 in the County Investment Account and $16,025,000 in O.C. Sanitation District UAAL Deferred Account.
5. On July 30, 2020, the California Supreme Court issued a decision in the case of Alameda County Deputy Sheriffs' Association et al. v. Alameda County Employees' Retirement Association (ACERA) and Board of Retirement at ACERA. That decision has important implications for OCERS and its members. In particular, the decision requires pension systems like OCERS to exclude certain pay items from a legacy member's compensation earnable. It should be noted that as of December 31, 2023, OCERS has refunded contributions previously paid by certain members in conjunction with such pay items and changed benefit amounts previously determined using those pay items. However, we understand some of these adjustments are still ongoing and therefore the final impact of the decision has not been fully reflected in this valuation.

[1] As documented in the funding valuation report, return on the market value was calculated using a modified dollar-weighted approach based on pension plan assets net of accounting liabilities. Actual investment return on net pension plan assets was $2,258,475,000 during 2023 after including both the administrative expenses and discount for prepaid contributions while excluding the gains credited to County Investment Account and O.C. Sanitation District UAAL Deferred Account. Without these adjustments, the actual investment return was $2,325,481,000.

Section 1: Actuarial Valuation Summary

Summary of key valuation results

Line Description	Current Year	Prior Year
Reporting and Measurement Date	December 31, 2023	December 31, 2022
Disclosure elements		
Service cost[1]	$536,399,540	$526,768,913
Total Pension Liability	26,644,141,574	25,081,027,171
Plan Fiduciary Net Position	21,797,429,000	19,690,021,000
Net Pension Liability	4,846,712,574	5,391,006,171
Schedule of contributions		
Actuarially determined contributions	$736,016,000	$707,319,000
Actual contributions[2]	749,776,000	719,691,000
Contribution deficiency / (excess)[3]	(13,760,000)	(12,372,000)
Demographic data		
Number of retired members and beneficiaries	21,283	20,678
Number of inactive members[4]	8,579	7,894
Number of active members	22,782	22,061
Key assumptions		
Investment rate of return	7.00%	7.00%
Inflation rate	2.50%	2.50%
"Across-the-board" salary increase	0.50%	0.50%
Projected salary increases[5]	General: 3.90% to 8.00% Safety: 4.50% to 15.00%	General: 4.00% to 11.00% Safety: 4.60% to 15.00%
Cost-of-living adjustments	2.75% of retirement income	2.75% of retirement income

[1] The service cost is based on the previous year's valuation, meaning the service cost as of the December 31, 2023 and December 31, 2022 measurement dates are based on the valuations as of December 31, 2022 and December 31, 2021, respectively. Both service costs have been calculated using the assumptions shown in the Prior Year column, as there had been no changes in the actuarial assumptions between the December 31, 2022 and December 31, 2021 valuations.

[2] Reduced by discount for prepaid contributions and transfer from County Investment Account, if any.

[3] Includes additional contributions made by employers toward the reduction of their UAAL. Details are shown in *Section 2, Exhibit 3 - Schedule of employer contributions* on page 21.

[4] Includes members who chose to leave their contributions on deposit even though they have less than five years of service.

[5] Includes inflation at 2.50% plus "across-the-board" salary increase of 0.50% plus merit and promotion increases that vary by service.

Section 1: Actuarial Valuation Summary

Important information about actuarial valuations

In order to prepare a valuation, Segal relies on a number of input items. These include:

Input Item	Description
Plan provisions	Plan provisions define the rules that will be used to determine benefit payments, and those rules, or the interpretation of them, may change over time. Even where they appear precise, outside factors may change how they operate. It is important to keep Segal informed with respect to plan provisions and administrative procedures, and to review the plan summary included in our report (as well as the plan summary included in our funding valuation report) to confirm that Segal has correctly interpreted the plan of benefits.
Member information	An actuarial valuation for a plan is based on data provided to the actuary by OCERS. Segal does not audit such data for completeness or accuracy, other than reviewing it for obvious inconsistencies compared to prior data and other information that appears unreasonable. It is important for Segal to receive the best possible data and to be informed about any known incomplete or inaccurate data.
Financial information	The valuation is based on the fair value of assets as of the measurement date, as provided by OCERS.
Actuarial assumptions	In preparing an actuarial valuation, Segal starts by developing a forecast of the benefits to be paid to existing plan members for the rest of their lives and the lives of their beneficiaries. This requires actuarial assumptions as to the probability of death, disability, withdrawal, and retirement of members in each year, as well as forecasts of the plan's benefits for each of those events. In addition, the benefits forecasted for each of those events in each future year reflect actuarial assumptions as to salary increases and cost-of-living adjustments (if any). The forecasted benefits are then discounted to a present value, typically based on an estimate of the rate of return that will be achieved on the plan's assets. All of these factors are uncertain and unknowable. Thus, there will be a range of reasonable assumptions, and the results may vary materially based on which assumptions are selected within that range. That is, there is no right answer (except with hindsight). It is important for any user of an actuarial valuation to understand and accept this constraint. The actuarial model may use approximations and estimates that will have an immaterial impact on our results. In addition, the actuarial assumptions may change over time, and while this can have a significant impact on the reported results, it does not mean that the previous assumptions or results were unreasonable or wrong.
Actuarial models	Segal valuation results are based on proprietary actuarial modeling software. The actuarial valuation models generate a comprehensive set of liability and cost calculations that are presented to meet regulatory, legislative and client requirements. Deterministic cost projections are based on a proprietary forecasting model. Our Actuarial Technology and Systems unit, comprised of both actuaries and programmers, is responsible for the initial development and maintenance of these models. The models have a modular structure that allows for a high degree of accuracy, flexibility and user control. The client team programs the assumptions and the plan provisions, validates the models, and reviews test lives and results, under the supervision of the responsible actuary.

Section 1: Actuarial Valuation Summary

The user of Segal's actuarial valuation (or other actuarial calculations) should keep the following in mind:

- The actuarial valuation is prepared at the request of the Board. Segal is not responsible for the use or misuse of its report, particularly by any other party.
- An actuarial valuation is a measurement at a specific date — it is not a prediction of a plan's future financial condition. Accordingly, Segal did not perform an analysis of the potential range of financial measurements, except where otherwise noted.
- If OCERS is aware of any event or trend that was not considered in this valuation that may materially change the results of the valuation, Segal should be advised, so that we can evaluate it.
- Segal does not provide investment, legal, accounting or tax advice and is not acting as a fiduciary to the Plan. This valuation is based on Segal's understanding of applicable guidance in these areas and of the Plan's provisions, but they may be subject to alternative interpretations. The Board should look to their other advisors for expertise in these areas.
- While Segal maintains extensive quality assurance procedures, an actuarial valuation involves complex computer models and numerous inputs. In the event that an inaccuracy is discovered after presentation of Segal's valuation, Segal may revise that valuation or make an appropriate adjustment in the next valuation.
- Segal's report shall be deemed to be final and accepted by OCERS upon delivery and review. OCERS should notify Segal immediately of any questions or concerns about the final content.

Section 2: GASB 67 Information

General information about the pension plan

Plan administration

The Orange County Employees Retirement System ("OCERS" or "the Plan") was established by the County of Orange in 1945. OCERS is administered by the Board of Retirement and governed by the County Employees' Retirement Law of 1937 (California Government Code Section 31450 et. seq.).

OCERS is a cost-sharing multiple employer public employee retirement system whose main function is to provide service retirement, disability, death and survivor benefits to the Safety and General members employed by the County of Orange. OCERS also provides retirement benefits to the employee members of the Orange County Courts, the Orange County Retirement System, two cities and thirteen special districts.

The management of OCERS is vested with the Orange County Board of Retirement (the Board). The Board consists of nine members and one alternate:

- The County Treasurer is a member of the Board by law;
- Four members are appointed by the Board of Supervisors, one of whom may be a County Supervisor;
- Two members are elected by the General membership;
- One member and one alternate are elected by the Safety membership; and
- One member is elected by the retired members of the System.

All members of the Board of Retirement serve terms of three years except for the County Treasurer whose term runs concurrent with the County Treasurer term.

Section 2: GASB Information

Plan membership

At December 31, 2023, pension plan membership consisted of the following:

Membership	Count
Retired members and beneficiaries	21,283
Inactive members*	8,579
Active members	22,782
Total	**52,644**

Note: Data as of December 31, 2023 is not used in the measurement of the TPL as of December 31, 2023.

Benefits provided

OCERS provides service retirement, disability, death and survivor benefits to eligible employees. All regular full-time employees of the County of Orange or contracting agencies who work a minimum of 20 hours per week become members of OCERS effective on the first day of employment in an eligible position. There are separate retirement plans for General and Safety member employees. Safety membership is extended to those involved in active law enforcement, fire suppression, and certain probation officers. All other employees are classified as General members.

Any new member who becomes a member on or after January 1, 2013 is designated as PEPRA General or PEPRA Safety and is subject to the provisions of California Public Employees' Pension Reform Act of 2013 (PEPRA), California Government Code 7522 et seq.

The retirement benefit the member will receive is based upon age at retirement, final average compensation, years of retirement service credit and retirement plan and tier. Final average compensation consists of the highest 12 consecutive months for a General Tier 1 or Safety Tier 1 member and the highest 36 consecutive months for a General Tier 2, General PEPRA, Safety Tier 2 or Safety PEPRA member. For members with membership dates before January 1, 2013, including all members of Plan T and Plan W hired on or after January 1, 2013, the maximum monthly retirement allowance is 100% of final compensation. There is no maximum for members with membership dates on or after January 1, 2013, excluding members of Plan T and Plan W.

The member may elect an unmodified retirement allowance or choose an optional retirement allowance. The unmodified retirement allowance provides the highest monthly benefit and a 60% continuance to an eligible surviving spouse or domestic partner. An eligible surviving spouse or domestic partner is one married to or registered with the member one year prior to the effective

* Includes members who chose to leave their contributions on deposit even though they have less than five years of service.

Section 2: GASB Information

retirement date. Certain surviving spouses or domestic partners may also be eligible if marriage or domestic partnership was at least two years prior to the date of death and the surviving spouse or domestic partner has attained age 55. There are four optional retirement allowances the member may choose. Each of the optional retirement allowances requires a reduction in the unmodified retirement allowance in order to allow the member the ability to provide certain benefits to a surviving spouse, domestic partner, or named beneficiary having an insurable interest in the life of the member.

OCERS provides an annual cost-of-living adjustment (COLA) benefit to all retirees. The COLA, based upon the ratio of the past two annual Consumer Price Indices for All Urban Consumers for the Los Angeles-Long Beach-Anaheim Area, is capped at 3.0%.

General members

General members hired prior to January 1, 2013, including all members of Plan T and Plan W hired on or after January 1, 2013, are eligible to retire once they attain the age of 50 and have acquired 10 or more years of retirement service credit. A member with 30 years of retirement service credit is eligible to retire regardless of age. General members who are first hired on or after January 1, 2013, excluding members of Plan T and Plan W, are eligible to retire once they have attained the age of 52, and have acquired 5 years of retirement service credit. All General members can also retire at the age of 70 regardless of service.

General member benefits are calculated pursuant to the provisions of Sections 31676.01, 31676.1, 31676.12, 31676.16, 31676.18 or 31676.19. For Section 31676.01, the monthly allowance is equal to one-ninetieth of final compensation times years of accrued retirement service credit times age factor from that Section. For Section 31676.1, the monthly allowance is equal to one-sixtieth of final compensation times years of accrued retirement service credit times age factor from that Section. For Sections 31676.12, 31676.16, 31676.18 or 31676.19, the monthly allowance is equal to one-fiftieth of final compensation times years of accrued retirement service credit times age factor from the corresponding Section. General member benefits for those who are first hired on or after January 1, 2013, excluding members of Plan T and Plan W, are calculated pursuant to the provision of California Government Code Section 7522.20(a). The monthly allowance is equal to the final compensation multiplied by years of accrued retirement credit multiplied by the age factor from Section 7522.20(a).

Safety members

Safety members hired prior to January 1, 2013, are eligible to retire once they attain the age of 50 and have acquired 10 or more years of retirement service credit. A member with 20 years of retirement service credit is eligible to retire regardless of age. Safety members who are first hired on or after January 1, 2013, are eligible to retire once they have attained the age of 50, and have acquired 5 years of retirement service credit. All Safety members can also retire at the age of 70 regardless of service.

Safety member benefits are calculated pursuant to the provisions of California Government Code Sections 31664.1 and 31664.2. The monthly allowance is equal to 3% of final compensation times years of accrued retirement service credit times age factor from the corresponding Section. Safety member benefits for those who are first hired on or after January 1, 2013, are calculated pursuant to the provision of California Government Code Section 7522.25(d). The monthly allowance is equal to the final compensation multiplied by years of accrued retirement credit multiplied by the age factor from Section 7522.25(d).

Contributions

The County of Orange and contracting agencies contribute to the retirement plan based upon actuarially determined contribution rates adopted by the Board of Retirement. Employer contribution rates are adopted annually based upon recommendations received from OCERS' actuary after the completion of the annual actuarial valuation. The average employer contribution rate for the first six months of calendar year 2023 or the second half of fiscal year 2022-2023 (based on the December 31, 2020 valuation) was 41.16%[1] of compensation. The average employer contribution rate for the last six months of calendar year 2023 or the first half of fiscal year 2023-2024 (based on the December 31, 2021 valuation) was 37.82%[1] of compensation.

All members are required to make contributions to OCERS regardless of the retirement plan or tier in which they are included. The average member contribution rate for the first six months of calendar year 2023 or the second half of fiscal year 2022-2023 (based on the December 31, 2020 valuation) was 12.16%[2] of compensation. The average member contribution rate for the last six months of calendar year 2023 or the first half of fiscal year 2023-2024 (based on the December 31, 2021 valuation) was 12.08%[2] of compensation.

[1] These employer contribution rates may be higher or lower than the composite rate for 2023 as shown on page 20 of this report because these rates have not been adjusted to reflect any pick-ups or reverse pick-ups. These employer contribution rates also do not reflect any change in proportion of payroll between the membership groups as well as the shift in payroll to the lower cost plans from the valuation date to the date of rate implementation.

[2] It should be noted that these member contribution rates provided above have not been adjusted to reflect any pick-ups or reverse pick-ups.

Section 2: GASB Information

Exhibit 1 – Net Pension Liability

Line Description	Current Year	Prior Year
Reporting and Measurement Date	December 31, 2023	December 31, 2022
Components of the Net Pension Liability		
Total Pension Liability	$26,644,141,574	$25,081,027,171
Plan Fiduciary Net Position	(21,797,429,000)	(19,690,021,000)
Net Pension Liability	**$4,846,712,574**	**$5,391,006,171**
Plan Fiduciary Net Position as a percentage of the Total Pension Liability*	81.81%	78.51%

The NPL for the Plan in this valuation was measured as of December 31, 2023. The Plan FNP was valued as of the measurement date and the TPL was determined based upon rolling forward the TPL from the actuarial funding valuation as of December 31, 2022.

Plan provisions

The plan provisions used in the measurement of the NPL as of December 31, 2023 are the same as those used in OCERS' actuarial funding valuation as of December 31, 2023.

Actuarial assumptions

The TPL as of December 31, 2023 uses the same actuarial assumptions as the actuarial funding valuation as of December 31, 2023. The TPL as of December 31, 2023 was remeasured by (a) revaluing the TPL as of December 31, 2022 (before the roll forward) to reflect the actuarial assumptions adopted in the experience study for the period January 1, 2020 through December 31, 2022, and (b) using this revalued TPL in rolling forward the results from December 31, 2022 to December 31, 2023. In particular, the following actuarial assumptions were applied to all periods included in the measurement:

* These funded percentages are not necessarily appropriate for assessing the sufficiency of Plan assets to cover the estimated cost of settling the Plan's benefit obligation or the need for or the amount of future contributions.

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Assumption Type	Assumption
Investment rate of return	7.00%, net of pension plan investment expense, including inflation
Inflation rate	2.50%
"Across-the-board" salary increase	0.50%
Salary increases	General: 3.90% to 8.00% Safety: 4.50% to 15.00% The above salary increases vary by service and include inflation and "across-the-board" salary increase
Cost-of-living adjustments	Retiree COLA increases of 2.75% per year For members that have COLA banks, we assume they receive 3.00% COLA increases until their COLA banks are exhausted and 2.75% thereafter
Other assumptions	See analysis of actuarial experience during the period January 1, 2020 through December 31, 2022

Detailed information regarding all actuarial assumptions can be found in the December 31, 2023 Actuarial Valuation and Review.

The following actuarial assumptions were applied to all periods included in the measurement of the TPL as of December 31, 2022:

Assumption Type	Assumption
Investment rate of return	7.00%, net of pension plan investment expense, including inflation
Inflation rate	2.50%
"Across-the-board" salary increase	0.50%
Salary increases	General: 4.00% to 11.00% Safety: 4.60% to 15.00% The above salary increases vary by service and include inflation and "across-the-board" salary increase
Cost-of-living adjustments	Retiree COLA increases of 2.75% per year For members that have COLA banks, we assume they receive 3.00% COLA increases until their COLA banks are exhausted and 2.75% thereafter
Other assumptions	See analysis of actuarial experience during the period January 1, 2017 through December 31, 2019

Detailed information regarding all actuarial assumptions can be found in the December 31, 2022 Actuarial Valuation and Review.

Exhibit 2 – Discount rate

Determination of discount rate and investment rates of return

The long-term expected rate of return on pension plan investments* was determined using a building-block method in which expected future real rates of return (expected returns, net of inflation and, beginning with December 31, 2023, any applicable investment management expenses) are developed for each major asset class. These returns are combined to produce the long-term expected arithmetic rate of return for the portfolio by weighting the expected arithmetic real rates of return by the target asset allocation percentage, adding expected inflation and subtracting expected investment expenses (beginning with December 31, 2023, including only investment consulting fees, custodian fees and other miscellaneous investment expenses and fees but excluding investment manager fees) and a risk margin. Beginning with December 31, 2023 this portfolio return is further adjusted to an expected geometric real rate of return for the portfolio.

The target allocation (approved by the Board) and projected arithmetic real rates of return for each major asset class, after deducting inflation, are shown in the following tables. For December 31, 2022 these rates are before deducting investment management expenses while for December 31, 2023 they are after deducting applicable investment management expenses. This information was used in the derivation of the long-term expected investment rate of return assumption in the actuarial valuations as of December 31, 2023 and December 31, 2022. This information will be subject to change every three years based on the results of an actuarial experience study.

* Note that the investment return assumption for funding purposes was developed net of both investment and administrative expenses; however, the same investment return assumption was used for financial reporting purposes, where it is considered gross of administrative expenses. This results in an increase in the margin for adverse deviation when using that investment return assumption for financial reporting.

Section 2: GASB Information

December 31, 2023

Asset Class	Target Allocation	Long-Term Expected Arithmetic Real Rate of Return*
Global Equity	45.00%	7.05%
Investment Grade Bonds	9.00%	1.97%
High Yield Bond	0.50%	4.63%
TIPS	2.00%	1.77%
Emerging Market Debt	0.50%	4.72%
Long-Term Government Bonds	3.30%	2.82%
Real Estate	3.00%	3.86%
Private Equity	15.00%	9.84%
Private Credit	3.50%	6.47%
Value Added Real Estate	3.00%	7.38%
Opportunistic Real Estate	1.00%	9.74%
Energy	2.00%	10.89%
Infrastructure (Core Private)	1.00%	5.98%
Infrastructure (Non-Core Private)	3.00%	8.88%
Global Macro	1.70%	3.17%
CTA (Trend Following)	3.30%	3.15%
Alternative Risk Premia	1.70%	3.24%
Special Situations Lending	1.50%	8.96%
Total	**100.00%**	**6.55%**

* Arithmetic real rates of return are net of inflation.

Section 2: GASB Information

December 31, 2022

Asset Class	Target Allocation	Long-Term Expected Arithmetic Real Rate of Return*
Large Cap Equity	23.10%	5.43%
Small Cap Equity	1.90%	6.21%
International Developed Equity	13.00%	6.67%
Emerging Markets Equity	9.00%	8.58%
Core Bonds	9.00%	1.10%
High Yield Bonds	1.50%	2.91%
TIPS	2.00%	0.65%
Emerging Market Debt	2.00%	3.25%
Corporate Credit	1.00%	0.53%
Long Duration Fixed Income	2.50%	1.44%
Real Estate	3.01%	4.42%
Private Equity	13.00%	9.41%
Value Added Real Estate	3.01%	7.42%
Opportunistic Real Estate	0.98%	10.18%
Energy	2.00%	9.68%
Infrastructure (Core Private)	1.50%	5.08%
Infrastructure (Non-Core Private)	1.50%	8.92%
CTA - Trend Following	2.50%	2.38%
Global Macro	2.50%	2.13%
Private Credit	2.50%	5.47%
Alternative Risk Premia	2.50%	2.50%
Total	**100.00%**	**5.67%**

* Arithmetic real rates of return are net of inflation.

Section 2: GASB Information

Discount rate

The discount rate used to measure the TPL was 7.00% as of both December 31, 2023 and December 31, 2022.

The projection of cash flows used to determine the discount rate assumes plan member contributions will be made at the current contribution rates and that employer contributions will be made at rates equal to the actuarially determined contribution rates.* Projected employer contributions that are intended to fund the service costs for future plan members and their beneficiaries, as well as projected contributions from future plan members, are not included. Based on those assumptions, the Plan FNP was projected to be available to make all projected future benefit payments for current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the TPL as of both December 31, 2023 and December 31, 2022.

Discount rate sensitivity

The following presents the NPL of OCERS as of December 31, 2023 calculated using the current discount rate of 7.00%, as well as what OCERS' NPL would be if it were calculated using a discount rate that is 1-percentage-point lower (6.00%) or 1-percentage-point higher (7.00%) than the current rate.

Item	1% Decrease in Discount Rate (6.00%)	Current Discount Rate (7.00%)	1% Increase in Discount Rate (8.00%)
Net Pension Liability	$8,494,916,861	$4,846,712,574	$1,864,403,075

* For this purpose, only employer contributions that are intended to fund benefits of current plan members and their beneficiaries are included.

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Exhibit 3 – Schedule of changes in Net Pension Liability

Line Description	Current Year	Prior Year
Reporting and Measurement Date	December 31, 2023	December 31, 2022
Total Pension Liability		
Service cost	$536,399,540	$526,768,913
Interest	1,750,651,189	1,675,053,178
Change of benefit terms	0	0
Differences between expected and actual experience	326,785,307	46,500,358
Changes of assumptions	165,526,367	0
Benefit payments, including refunds of member contributions	(1,216,248,000)	(1,139,715,000)
Transfer of members among Rate Groups	0	0
Other	0	0
Net change in Total Pension Liability	**$1,563,114,403**	**$1,108,607,449**
Total Pension Liability — beginning	25,081,027,171	23,972,419,722
Total Pension Liability — ending	**$26,644,141,574**	**$25,081,027,171**
Plan Fiduciary Net Position		
Contributions — employer[1]	$749,776,000	$719,691,000
Contributions — member	277,455,000	269,999,000
Net investment income	2,325,481,000	(2,058,590,000)
Benefit payments, including refunds of member contributions	(1,216,248,000)	(1,139,715,000)
Transfer of members among Rate Groups	0	0
Administrative expense	(29,056,000)	(23,546,000)
Other	0	0
Net change in Plan Fiduciary Net Position	**$2,107,408,000**	**$(2,232,161,000)**
Plan Fiduciary Net Position — beginning	19,690,021,000	21,922,182,000
Plan Fiduciary Net Position — ending	**$21,797,429,000**	**$19,690,021,000**
Net Pension Liability		
Net Pension Liability — ending	$4,846,712,574	$5,391,006,171
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	81.81%	78.51%
Covered payroll[2]	$2,042,240,000	$1,932,374,000
Plan Net Pension Liability as percentage of covered payroll	237.32%	278.98%

[1] Reduced by discount for prepaid contributions and transfer from County Investment Account, if any.
[2] Covered payroll represents payroll on which contributions to the pension plan are based.

Section 2: GASB Information

Exhibit 4 – Schedule of employer contributions

Year Ended December 31	Actuarially Determined Contributions[1,2]	Contributions in Relation to the Actuarially Determined Contributions[1,2]	Contribution Deficiency / (Excess)	Covered Payroll[3]	Contributions as a Percentage of Covered Payroll[2]
2014	$476,320,000	$625,520,000[4]	$(149,200,000)	$1,513,206,000	41.34%
2015	502,886,000	571,298,000[5]	(68,412,000)	1,521,036,000	37.56%
2016	521,447,000	567,196,000[6]	(45,749,000)	1,602,675,000	35.40%
2017	536,726,000	572,104,000[7]	(35,378,000)	1,678,322,000	34.09%
2018	556,728,000	580,905,000[8]	(24,177,000)	1,718,798,000	33.80%
2019	583,057,000	653,793,000[9]	(70,736,000)	1,783,054,000	36.67%
2020	638,215,000	659,807,000[10]	(21,592,000)	1,909,268,000	34.56%
2021	684,142,000[11]	698,791,000[11,12]	(14,649,000)	1,870,387,000	37.36%
2022	707,318,000	719,691,000[13]	(12,373,000)	1,932,374,000	37.24%
2023	736,016,000	749,776,000[14]	(13,760,000)	2,042,240,000	37.39%

See accompanying notes to this schedule on next page.

1 The Actuarially Determined Contributions through December 31, 2014 were determined as the Annual Required Contribution under GAS 25 and 27.

2 Reduced by discount for prepaid contributions, transfers from County Investment Account, and transfers from O.C. Sanitation District Deferred UAAL Account. Those amounts are as shown on the next page.

3 Covered payroll represents payroll on which contributions to the pension plan are based.

4 Includes additional contributions of $1,663,000 made by O.C. Cemetery District, $22,537,000 made by O.C. Fire Authority and $125,000,000 made by O.C. Sanitation District towards the reduction of their UAAL.

5 Includes additional contributions of $18,412,000 made by O.C. Fire Authority and $50,000,000 made by O.C. Sanitation District towards the reduction of their UAAL.

6 Includes additional contributions of $5,133,000 made by O.C. Fire Authority, $1,500,000 made by Law Library and $5,587,000 made by O.C. Sanitation District towards the reduction of their UAAL as well as $33,529,000 made by O.C. Sanitation District to their UAAL Deferred Account.

7 Includes additional contributions of $32,096,000 made by O.C. Fire Authority, $1,538,000 made by Law Library and $1,744,000 made by O.C. Children and Families Commission towards the reduction of their UAAL.

8 Includes additional contributions of $23,437,000 made by O.C. Fire Authority and $740,000 made by Cypress Recreation and Parks District towards the reduction of their UAAL.

9 Includes additional contributions of $19,043,000 made by O.C. Fire Authority, $878,000 made by O.C. Vector Control, $12,815,000 Transportation Corridor and $8,116,000 made by O.C. Sanitation District towards the reduction of their UAAL as well as $29,884,000 made by O.C. Sanitation District to their UAAL Deferred Account.

10 Includes additional contributions of $21,592,000 made by O.C. Fire Authority towards the reduction of their UAAL.

11 Includes a contribution of $6,500,000 made by City of San Juan Capistrano related to transferring its Water Department employees to a separate special district, which resulted in a triggering event under the Board's Declining Employer Payroll policy.

12 Includes additional contributions of $14,649,000 made by O.C. Fire Authority towards the reduction of their UAAL.

13 Includes additional contributions of $11,777,000 made by O.C. Fire Authority and $596,000 made by Cypress Recreation and Parks District towards the reduction of their UAAL.

14 Includes additional contributions of $13,760,000 made by O.C. Fire Authority towards the reduction of their UAAL.

Section 2: GASB Information

Methods and assumptions used to establish the actuarially determined contribution for the year ended December 31, 2023

Contributions and transfers excluded from Actuarially Determined Contributions and Contributions in Relation to the Actuarially Determined Contributions

The contributions are reduced by discount for prepaid contributions, transfers from County Investment Account (funded by pension obligation proceeds held by OCERS), and transfers from O.C. Sanitation District Deferred UAAL Account (amount required to offset UAAL increases for assumption changes in 2017 and actuarial losses in 2018). Those amounts are as follows:

Year Ended December 31	Discount for Prepaid Contributions	Transfers from County Investment Account	Transfers from O.C. Sanitation District UAAL Deferred Account	Year Ended December 31	Discount for Prepaid Contributions	Transfers from County Investment Account	Transfers from O.C. Sanitation District UAAL Deferred Account
2014	$29,114,000	$5,000,000	$0	2019	$22,049,000	$0	$18,631,000
2015	27,301,000	0	0	2020	24,731,000	5,000,000	0
2016	24,353,000	0	0	2021	31,520,000	15,077,000	0
2017	22,921,000	0	24,042,000	2022	37,039,000	14,962,000	0
2018	21,218,000	0	14,589,000	2023	21,205,000	10,000,000	0

Valuation date

Actuarially determined contribution rates for the first six months of calendar year 2023 (i.e., the second half of fiscal year 2022–2023) are calculated based on the December 31, 2020 valuation. Actuarially determined contribution rates for the last six months of calendar year 2023 (i.e., the first half of fiscal year 2023–2024) are calculated based on the December 31, 2021 valuation.

Actuarial cost method

Entry Age Actuarial Cost Method

Amortization method

Level percent of payroll (3.00% payroll growth assumed in the December 31, 2020 valuation and 3.00% payroll growth assumed in the December 31, 2021 valuation)

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Remaining amortization period

December 31, 2020 valuation

Effective December 31, 2013, the outstanding balance of the UAAL from the December 31, 2012 valuation was combined and re-amortized over a declining 20-year period. Any changes in UAAL due to actuarial gains or losses or due to changes in assumptions or methods will be amortized over separate 20-year periods. Any changes in UAAL due to plan amendments will be amortized over separate 15-year periods and any change in UAAL due to early retirement incentive programs will be amortized over a separate period of up to 5 years.

December 31, 2021 valuation

Effective December 31, 2013, the outstanding balance of the UAAL from the December 31, 2012 valuation was combined and re-amortized over a declining 20-year period. Any changes in UAAL due to actuarial gains or losses or due to changes in assumptions or methods will be amortized over separate 20-year periods. Any changes in UAAL due to plan amendments will be amortized over separate 15-year periods and any change in UAAL due to early retirement incentive programs will be amortized over a separate period of up to 5 years.

Asset valuation method

The Actuarial Value of Assets is determined by recognizing any difference between the actual and the expected market return over a five-year period. The Valuation Value of Assets is the Actuarial Value of Assets reduced by the value of the non-valuation reserves.

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Actuarial assumptions

Assumption Type	Assumption Used in the December 31, 2020 Actuarial Valuation	Assumption Used in the December 31, 2021 Actuarial Valuation
Investment rate of return	7.00%, net of pension plan administrative and investment expense, including inflation	7.00%, net of pension plan administrative and investment expense, including inflation
Inflation rate	2.50%	2.50%
“Across-the-board” salary increase	0.50%	0.50%
Salary increases	General: 4.00% to 11.00% Safety: 4.60% to 15.00% The above salary increases vary by service and include inflation and “across-the-board” salary increase	General: 4.00% to 11.00% Safety: 4.60% to 15.00% The above salary increases vary by service and include inflation and “across-the-board” salary increase
Cost-of-living adjustments	Retiree COLA increases of 2.75% per year For members that have COLA banks, we assume they receive 3.00% COLA increases until their COLA banks are exhausted and 2.75% thereafter	Retiree COLA increases of 2.75% per year For members that have COLA banks, we assume they receive 3.00% COLA increases until their COLA banks are exhausted and 2.75% thereafter
Other assumptions	Same as those used in the funding actuarial valuation as of December 31, 2020	Same as those used in the funding actuarial valuation as of December 31, 2021

Appendix A: Projection of Plan Fiduciary Net Position

Projection of Plan Fiduciary Net Position for use in the Calculation of Discount Rate as of December 31, 2023 ($ in millions)

Year Beginning January 1	Beginning Plan Fiduciary Net Position (a)	Total Contributions[1] (b)	Benefit Payments (c)	Administrative Expenses (d)	Investment Earnings (e)	Ending Plan Fiduciary Net Position (a) + (b) – (c) – (d) + (e)
2023	$19,690	$1,027	$1,216	$29	$2,325	$21,797
2024	21,797	1,046	1,299	32	1,516	23,028
2025	23,028	1,054	1,372	34	1,600	24,276
2026	24,276	1,074	1,446	36	1,685	25,553
2027	25,553	1,119	1,523	38	1,774	26,886
2028	26,886	1,108	1,601	40	1,864	28,216
2029	28,216	1,114	1,682	42	1,954	29,561
2030	29,561	1,122	1,765	44	2,046	30,920
2031	30,920	1,130	1,848	46	2,138	32,294
2032	32,294	1,138	1,933	48	2,232	33,683
2048	39,177	215	3,042	58	2,643	38,935
2049	38,935	205	3,076	57	2,624	38,630
2050	38,630	195	3,106	57	2,601	38,264
2051	38,264	186	3,132	56	2,575	37,837
2097	26,935	55	143	40	1,881	28,688
2098	28,688	56	112	42	2,005	30,594
2099	30,594	57	87	45	2,139	32,658
2100	32,658	59	66	48	2,284	34,886
2131	264,762	391[2]	0	391	18,533	283,295[3]

1 Of all the projected total contributions, only the first year's (i.e., 2023) contribution has been reduced by discount for prepaid contributions and transfers from County Investment Account, if any.

2 Mainly attributable to employer contributions to fund each year's annual administrative expenses.

3 The Plan Fiduciary Net Position of $283,295 million has a value of $190 million as of December 31, 2023 when discounted with interest at the rate of 7.00% per annum. Of this amount, about $146 million is the balance available in the County Investment Account and $16 million is the O.C. Sanitation District UAAL Deferred Account as of December 31, 2023.

Appendix A: Projection of Plan Fiduciary Net Position

Notes

1. Amounts may not total exactly due to rounding.
2. Amounts shown in the year beginning January 1, 2023 row are actual amounts, based on the final audited financial statements provided by OCERS.
3. Certain years have been omitted from the table.
4. **Column (a):** Except for the "discounted value" for 2131 shown in footnote 3 on the previous page, all of the projected beginning Plan FNP amounts shown have not been adjusted for the time value of money.
5. **Column (b):** We have not utilized the balance in the County Investment Account to reduce the projected total contributions even though those amounts have been used to reduce the NPL for the County as of December 31, 2023.
6. **Column (b):** Projected total contributions include member and employer normal cost rates applied to closed group projected payroll (based on covered active members as of December 31, 2022), plus employer contributions to the Unfunded Actuarial Accrued Liability. Contributions are assumed to occur halfway through the year, on average.
7. **Column (c):** Projected benefit payments have been determined in accordance with paragraph 39 of GASB Statement No. 67, and are based on the closed group of active, inactive vested, retired members, and beneficiaries as of December 31, 2022. The projected benefit payments reflect the cost-of-living increase assumptions used in the December 31, 2023 valuation report.
8. **Column (d):** Projected administrative expenses are calculated as approximately 0.15% of the projected beginning Plan FNP amount. The 0.15% portion was based on the actual calendar year 2023 administrative expenses (unaudited) as a percentage of the actual beginning Plan FNP as of January 1, 2023. Administrative expenses are assumed to occur halfway through the year, on average.
9. **Column (e):** Projected investment earnings are based on the assumed investment rate of return of 7.00% per annum and reflect the assumed timing of cashflows, as noted above.
10. As illustrated in this appendix, the Plan FNP was projected to be available to make all projected future benefit payments for current Plan members. In other words, there is no projected “cross-over date” when projected benefits are **not** covered by projected assets. Therefore, the long-term expected rate of return on Plan investments of 7.00% per annum was applied to all periods of projected benefit payments to determine the TPL as of December 31, 2023 shown earlier in this report, pursuant to paragraph 44 of GASB Statement No. 67.

Appendix B: Definition of terms

Definitions of certain terms as they are used in GASB Statement No. 67. The terms may have different meanings in other contexts.

Term	Definition
Active employees	Individuals employed at the end of the reporting or measurement period, as applicable.
Actual contributions	Cash contributions recognized as additions to the Plan Fiduciary Net Position.
Actuarial present value of projected benefit payments	Projected benefit payments discounted to reflect the expected effects of the time value (present value) of money and the probabilities of payment.
Actuarial valuation	The determination, as of a point in time (the actuarial valuation date), of the service cost, Total Pension Liability, and related actuarial present value of projected benefit payments for pensions performed in conformity with Actuarial Standards of Practice unless otherwise specified by the GASB.
Actuarial valuation date	The date as of which an actuarial valuation is performed.
Actuarially determined contribution	A target or recommended contribution to a defined benefit pension plan for the reporting period, determined in conformity with Actuarial Standards of Practice based on the most recent measurement available when the contribution for the reporting period was adopted.
Ad hoc cost-of-living adjustments (Ad Hoc COLAs)	Cost-of-living adjustments that require a decision to grant by the authority responsible for making such decisions.
Ad hoc postemployment benefit changes	Postemployment benefit changes that require a decision to grant by the authority responsible for making such decisions.
Agent employer	An employer whose employees are provided with pensions through an agent multiple-employer defined benefit pension plan.
Agent multiple-employer defined benefit pension plan (agent pension plan)	A multiple-employer defined benefit pension plan in which pension plan assets are pooled for investment purposes but separate accounts are maintained for each individual employer so that each employer's share of the pooled assets is legally available to pay the benefits of only its employees.
Automatic cost-of-living adjustments (Automatic COLAs)	Cost-of-living adjustments that occur without a requirement for a decision to grant by a responsible authority, including those for which the amounts are determined by reference to a specified experience factor (such as the earnings experience of the pension plan) or to another variable (such as an increase in the consumer price index).
Automatic postemployment benefit changes	Postemployment benefit changes that occur without a requirement for a decision to grant by a responsible authority, including those for which the amounts are determined by reference to a specified experience factor (such as the earnings experience of the pension plan) or to another variable (such as an increase in the consumer price index).

Appendix B: Definition of terms

Term	Definition
Closed period	A specific number of years that is counted from one date and declines to zero with the passage of time. For example, if the recognition period initially is five years on a closed basis, four years remain after the first year, three years after the second year, and so forth.
Contributions	Additions to the Plan Fiduciary Net Position for amounts from employers, non-employer contributing entities (for example, state government contributions to a local government pension plan), or employees. Contributions can result from cash receipts by the pension plan or from recognition by the pension plan of a receivable from one of these sources.
Cost-of-living adjustments	Postemployment benefit changes intended to adjust benefit payments for the effects of inflation.
Cost-sharing employer	An employer whose employees are provided with pensions through a cost-sharing multiple-employer defined benefit pension plan.
Cost-sharing multiple employer defined benefit pension plan (Cost-sharing pension plan)	A multiple-employer defined benefit pension plan in which the pension obligations to the employees of more than one employer are pooled and pension plan assets can be used to pay the benefits of the employees of any employer that provides pensions through the pension plan.
Covered payroll	Payroll on which contributions to a pension plan are based.
Deferred retirement option program (DROP)	A program that permits an employee to elect a calculation of benefit payments based on service credits and salary, as applicable, as of the DROP entry date. The employee continues to provide service to the employer and is paid for that service by the employer after the DROP entry date; however, the pensions that would have been paid to the employee (if the employee had retired and not entered the DROP) are credited to an individual employee account within the defined benefit pension plan until the end of the DROP period.
Defined benefit pension plans	Pension plans that are used to provide defined benefit pensions.
Defined benefit pensions	Pensions for which the income or other benefits that the employee will receive at or after separation from employment are defined by the benefit terms. The pensions may be stated as a specified dollar amount or as an amount that is calculated based on one or more factors such as age, years of service, and compensation. (A pension that does not meet the criteria of a defined contribution pension is classified as a defined benefit pension for purposes of GASB Statement No. 67.)
Defined contribution pension plans	Pension plans that are used to provide defined contribution pensions.

Appendix B: Definition of terms

Term	Definition
Defined contribution pensions	Pensions having terms that: 1. Provide an individual account for each employee; 2. Define the contributions that an employer is required to make (or the credits that it is required to provide) to an active employee's account for periods in which that employee renders service; and 3. Provide that the pensions an employee will receive will depend only on the contributions (or credits) to the employee's account, actual earnings on investments of those contributions (or credits), and the effects of forfeitures of contributions (or credits) made for other employees, as well as pension plan administrative costs, that are allocated to the employee's account.
Discount rate	The single rate of return that, when applied to all projected benefit payments, results in an actuarial present value of projected benefit payments equal to the total of the following: 1. The actuarial present value of benefit payments projected to be made in future periods in which: a. The amount of the Plan Fiduciary Net Position is projected (under the requirements of GASB Statement No. 67) to be greater than the benefit payments that are projected to be made in that period, and b. Pension plan assets up to that point are expected to be invested using a strategy to achieve the long-term expected rate of return, calculated using the long-term expected rate of return on pension plan investments. 2. The actuarial present value of projected benefit payments not included in 1., calculated using the municipal bond rate.
Entry age actuarial cost method	A method under which the actuarial present value of the projected benefits of each individual included in an actuarial valuation is allocated on a level basis over the earnings or service of the individual between entry age and assumed exit age(s). The portion of this actuarial present value allocated to a valuation year is called the normal cost. The portion of this actuarial present value not provided for at a valuation date by the actuarial present value of future normal costs is called the actuarial accrued liability.
Inactive employees	Terminated individuals that have accumulated benefits but are not yet receiving them, and retirees or their beneficiaries currently receiving benefits.
Measurement period	The period between the prior and the current measurement dates.
Multiple-employer defined benefit pension plan	A defined benefit pension plan that is used to provide pensions to the employees of more than one employer.
Net Pension Liability (NPL)	The liability of employers and non-employer contributing entities to employees for benefits provided through a defined benefit pension plan.

Appendix B: Definition of terms

Term	Definition
Non-employer contributing entities	Entities that make contributions to a pension plan that is used to provide pensions to the employees of other entities.
Other postemployment benefits	All postemployment benefits other than retirement income (such as death benefits, life insurance, disability, and long-term care) that are provided separately from a pension plan, as well as postemployment healthcare benefits, regardless of the manner in which they are provided. Other postemployment benefits do not include termination benefits.
Pension plans	Arrangements through which pensions are determined, assets dedicated for pensions are accumulated and managed and benefits are paid as they come due.
Pensions	Retirement income and, if provided through a pension plan, postemployment benefits other than retirement income (such as death benefits, life insurance, and disability benefits). Pensions do not include postemployment healthcare benefits and termination benefits.
Plan members	Individuals that are covered under the terms of a pension plan. Plan members generally include: 1. Employees in active service (active plan members), and 2. Terminated employees who have accumulated benefits but are not yet receiving them and retirees or their beneficiaries currently receiving benefits (inactive plan members).
Postemployment	The period after employment.
Postemployment benefit changes	Adjustments to the pension of an inactive employee.
Postemployment healthcare benefits	Medical, dental, vision, and other health-related benefits paid subsequent to the termination of employment.
Projected benefit payments	All benefits estimated to be payable through the pension plan to current active and inactive employees as a result of their past service and their expected future service.
Public employee retirement system	A special-purpose government that administers one or more pension plans; also may administer other types of employee benefit plans, including postemployment healthcare plans and deferred compensation plans.
Real rate of return	The rate of return on an investment after adjustment to eliminate inflation.
Service costs	The portions of the actuarial present value of projected benefit payments that are attributed to valuation years.
Single employer	An employer whose employees are provided with pensions through a single-employer defined benefit pension plan.
Single-employer defined benefit pension plan (Single-employer pension plan)	A defined benefit pension plan that is used to provide pensions to employees of only one employer.

Appendix B: Definition of terms

Term	Definition
Special funding situations	Circumstances in which a non-employer entity is legally responsible for making contributions directly to a pension plan that is used to provide pensions to the employees of another entity or entities and either of the following conditions exists: 1. The amount of contributions for which the non-employer entity legally is responsible is not dependent upon one or more events or circumstances unrelated to the pensions. 2. The non-employer entity is the only entity with a legal obligation to make contributions directly to a pension plan.
Termination benefits	Inducements offered by employers to active employees to hasten the termination of services, or payments made in consequence of the early termination of services. Termination benefits include early-retirement incentives, severance benefits, and other termination-related benefits.
Total Pension Liability (TPL)	The portion of the actuarial present value of projected benefit payments that is attributed to past periods of employee service in conformity with the requirements of GASB Statement No. 67.

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Orange County Employees Retirement System

2023 AUDIT RESULTS

Report to Audit Committee
June 6, 2024

Issued Reports

We will issue the following reports for the year ended December 31, 2023:

- Audit report on the annual comprehensive financial report
- Report on internal control over financial reporting in accordance with *government auditing standards*
- Audit report on the schedule of allocated pension amounts by employer

Unmodified opinions

Financial statements and schedule of allocated pension amounts are presented fairly in accordance with accounting principles generally accepted in the United States of America

No material weaknesses or significant deficiencies reported

Financial Highlights – Pension Trust Fund

(in thousands)	2023	2022	2021
Total pension liability (a)	**$ 26,644,141**	**$ 25,081,027**	**$ 23,972,420**
Plan fiduciary net position			
Employer contributions	$ 749,776	$ 719,691	$ 698,791
Member contributions	277,455	269,999	271,334
Net investment income (loss)	2,325,481	(2,058,590)	3,222,065
Benefit payments	(1,216,248)	(1,139,715)	(1,045,738)
Administrative expense	(29,056)	(23,546)	(21,473)
Net change in plan fiduciary net position	2,107,408	(2,232,161)	3,124,979
Plan fiduciary net position			
Beginning of year	19,690,021	21,922,182	18,797,203
End of year (b)	**$ 21,797,429**	**$ 19,690,021**	**$ 21,922,182**
Net pension liability (a) - (b)	**$ 4,846,712**	**$ 5,391,006**	**$ 2,050,238**
Funded status (b) / (a)	**81.8%**	**78.5%**	**91.4%**

Financial Highlights (continued)

(in thousands)	County Health Care Fund	OCFA Health Care Fund	OCTA Custodial Fund
Plan fiduciary net position			
Employer contributions	$ -	$ 26,245	$ 794
Net investment income	48,979	7,309	3,003
Benefit payments	(36,837)	(7,157)	(1,531)
Administrative expense	(24)	(23)	(23)
Net change in plan fiduciary net position	12,118	26,374	2,243
Plan fiduciary net position			
Beginning of year	452,720	51,005	17,221
End of year	**$ 464,838**	**$ 77,379**	**$ 19,464**

Areas of Audit Emphasis

INTERNAL CONTROLS

- Investments (authorization and monitoring)
- Contributions (employer and member)
- Benefit payments
- Financial reporting
- IT systems

ANALYTICAL PROCEDURES

- Investment earnings
- Benefits payments
- Expenses
- Trends, comparisons, and expectations

SUBSTANTIVE PROCEDURES

- Investment (valuation and confirmations)
- Contributions
- Benefit payments
- Actuarial assumptions and measurements
- Representations from legal counsel and management

Alternative Investment Testing

Assess risk related to alternative investments

- Met with investment managers
- Test controls over due diligence and ongoing monitoring

Select investments to confirm

- $12.0 billion in alternative investments
- Selection based on risk assessment, investment balance, and life of investment

Test alternative investments

- Confirmed 45 funds
- Other procedures on the remainder of the funds
- Test adjustment to fair value made by management

GASB No. 96 *Subscription Based Information Technology Arrangements* (SBITA)

- Reviewed management's analysis and memo on the adoption of GASB 96
- Made selection of contracts and reviewed provisions to conclude on management's determination of applicability
- Management concluded that contracts under GASB No. 96 would have a minimal impact on the financial statements

Construction in Progress

- Reviewed several invoices to determine if the amounts capitalized in construction in progress meet GAAP

Required Communications

- Significant accounting policies are summarized in Note 2 to financial statements
- Financial statement disclosures are consistent, clear, and understandable
- Written and oral representations to be received from management
- No audit adjustments (other than fair value adjustments to investments provided by management during audit)
- No uncorrected misstatements noted
- No disagreements with management

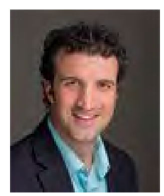
Required Communications (continued)

- Consultation with other independent auditors (none of which we are aware)
- No difficulties encountered during the audit
- Illegal acts (none noted)
- Ability to continue as a going concern (no disclosure necessary)
- Our audit report does not cover other information included in annual comprehensive financial report
- No circumstances noted that affect the form and content of the audit report
- Consideration of fraud in a financial statement audit
  - ➢ Procedures performed included journal entry testing and interviews of personnel
- Moss Adams is independent with respect to OCERS and its participating employers

THANK YOU

- Audit performed within the scope, and timeline discussed during our entrance meeting and audit planning
- Attitude from management and staff was candid, helpful and open in response to audit requests

Kory Hoggan
Engagement Partner
kory.hoggan@mossadams.com
(505) 878-7214



Aaron Hamilton
Audit Senior Manager
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(505) 837-7630

REPORT OF INDEPENDENT AUDITORS ON INTERNAL CONTROL OVER FINANCIAL REPORTING AND ON COMPLIANCE AND OTHER MATTERS BASED ON AN AUDIT OF FINANCIAL STATEMENTS PERFORMED IN ACCORDANCE WITH *GOVERNMENT AUDITING STANDARDS*

ORANGE COUNTY EMPLOYEES RETIREMENT SYSTEM

December 31, 2023

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Report of Independent Auditors on Internal Control Over Financial Reporting and on Compliance and Other Matters Based on an Audit of Financial Statements Performed in Accordance with *Government Auditing Standards*

The Board of Retirement
Orange County Employees Retirement System

We have audited, in accordance with the auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States, the pension trust fund, heath care fund – County, health care fund – OCFA, and the custodial trust fund – OCTA in the statement of fiduciary net position of Orange County Employees Retirement System (the System) as of and for the year ended December 31, 2023, and the related pension trust fund, heath care fund – County, health care fund – OCFA, and the custodial trust fund – OCTA in the statement of changes in fiduciary net position for the year then ended, and the related notes to the financial statements, and have issued our report thereon dated June 6, 2024.

Report on Internal Control Over Financial Reporting

In planning and performing our audit of the financial statements, we considered the System's internal control over financial reporting (internal control) as a basis for designing audit procedures that are appropriate in the circumstances for the purpose of expressing our opinion on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the System's internal control. Accordingly, we do not express an opinion on the effectiveness of the System's internal control.

A *deficiency in internal control* exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, misstatements on a timely basis. A *material weakness* is a deficiency, or a combination of deficiencies, in internal control such that there is a reasonable possibility that a material misstatement of the entity's financial statements will not be prevented, or detected and corrected, on a timely basis. A *significant deficiency* is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

Our consideration of internal control was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or significant deficiencies. Given these limitations, during our audit we did not identify any deficiencies in internal control that we consider to be material weaknesses. However, material weaknesses or significant deficiencies may exist that were not identified.

Report on Compliance and Other Matters

As part of obtaining reasonable assurance about whether the System's financial statements are free from material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could have a direct and material effect on the financial statements. However, providing an opinion on compliance with those provisions was not an objective of our audit, and accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards*.

Purpose of this Report

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the entity's internal control or on compliance. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the entity's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

Moss Adams LLP

Irvine, California
June 6, 2024

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Memorandum

DATE: June 17, 2024

TO: Members of the Board of Retirement

FROM: Brenda Shott, Assistant CEO, Finance and Internal Operations; Tracy Bowman, Director of Finance

SUBJECT: GASB 68 Valuation and Audit Report

Recommendations

Approve the following recommendations from the Audit Committee during a meeting held on June 6, 2024:

1. Approve OCERS' audited Schedule of Allocated Pension Amounts by Employer as of and for the Year Ended December 31, 2023.
2. Approve the Governmental Accounting Standards Board (GASB) Statement 68 Actuarial Valuation as of December 31, 2023 for distribution to employers.

Background/Discussion

GASB Statement No. 68, *Accounting and Financial Reporting for Pensions – an Amendment of GASB Statement No. 27*, requires employers to record their proportionate share of the total pension liability less the plan's fiduciary net position (i.e., net pension liability) on the face of their financial statements. A proportionate share of the total pension expense and collective deferred inflows of resources and deferred outflows of resources of the pension trust fund at OCERS will also be shown on the face of each employer's financial statements.

Net Pension Liability vs. Unfunded Actuarial Accrued Liability

The attached Governmental Accounting Standards Board Statement 68 (GASB 68) Actuarial Valuation Based on December 31, 2023 Measurement Date for Employer Reporting as of June 30, 2024 is used for financial reporting purposes and was prepared by Segal Consulting. This report is *separate and distinct from the funding actuarial valuation*. The net pension liability (NPL) shown in Section 2 of the GASB 68 valuation as of December 31, 2023 is approximately $4.8 billion compared to the unfunded actuarial accrued liability (UAAL) of $4.7 billion in the funding actuarial valuation as of December 31, 2023. The differences between the NPL and the UAAL are a direct result of the different liability and asset values used in measuring these amounts as detailed in the attached letter from Segal Consulting which includes a reconciliation of the Plan's December 31, 2023 NPL and UAAL. The primary differences can be attributed to NPL being calculated using the Plan's current market value of assets, including the proceeds available in the County Investment Account and the Orange County Sanitation District (OCSD) UAAL Deferred Account; the UAAL is calculated by adjusting the market value of assets for asset smoothing per OCERS Actuarial Funding Policy and excludes the County Investment Account reserves and OCSD UAAL Deferred Account. Differences are also created by timing differences of when actuarial gains and losses are recognized in the liability calculation for financial reporting purposes compared to funding valuation purposes.

Schedule of Allocated Pension Amounts by Employer

The attached Schedule of Allocated Pension Amounts by Employer as of and for the Year Ended December 31, 2023 and related notes were audited by OCERS' independent auditor, Moss Adams LLP (Moss Adams).

Memorandum

The proportionate share allocation is based on rate groups. All rate groups, with the exception of rate groups 1 and 2, have only one active employer, so all of the NPL for those rate groups is allocated to that employer. For rate groups 1 and 2, the NPL is allocated based on the actual employer contributions within the rate group and excludes employers with inactive membership. If an employer participates in several rate groups, the employer's total proportionate share of the NPL is the sum of its allocated NPL from each rate group.

The audit report and GASB 68 valuation, once approved by the Audit Committee and Board of Retirement, will be made available to participating employers with the following disclaimer:

> *To complete its financial statements, each participating employer will need to record its own proportionate share of collective pension amounts for all benefits provided through OCERS' cost-sharing multiple-employer defined benefit pension plan. OCERS has provided a schedule of pension amounts by employer, prepared by independent actuary Segal Consulting, in accordance with the methodology set forth in GASB 68, based on data maintained and provided by OCERS. This schedule has been audited by independent auditor, Moss Adams. Please note that OCERS is not responsible for employers' compliance with the requirements of GASB 68. Employers are solely responsible for accurately presenting their financial statements within the requirements of GASB 68.*

Submitted by:

TB - Approved

____

Tracy Bowman

Director of Finance

Approved by:

BS - Approved

____

Brenda Shott

Asst. CEO, Finance & Internal Operations

ORANGE COUNTY OCERS EMPLOYEES RETIREMENT SYSTEM

GASB 68 Valuation and Audit Report

Presented on June 17, 2024

Brenda Shott and Tracy Bowman

Recommendation

Approve the following recommendations from the Audit Committee during a meeting held on June 6, 2024:

1. Approve OCERS' audited Schedule of Allocated Pension Amounts by Employer as of and for the Year Ended December 31, 2023
2. Approve the Governmental Accounting Standards Board (GASB) Statement 68 Actuarial Valuation as of December 31, 2023 for distribution to employers

Overview

- This information is needed by Employers for their annual financial reporting.
- **Reports are prepared for GASB reporting purposes only - there are no actionable decisions to be made on content.**
- This item is brought before you because the Audit Committee Charter requires approval of all audit reports.

Audit Report on GASB 68 Schedules

- Using the Net Pension Liability (NPL) calculated for GASB 67, Segal prepares the Schedule of Allocated Pension Amounts by Employer (included in Appendix B of the full GASB 68 valuation - Section 3)
- Moss Adams audits this schedule which includes amounts and information required for GASB 68 reporting for each employer
- Moss Adams has issued an unmodified opinion on the 2023 schedule and related notes which will allow our Employers' auditors to rely on Moss Adam's work, avoiding multiple audits of OCERS' information.

Conclusion

Questions?

Thank you!

Brenda Shott

Assistant CEO, Finance and Internal Operations

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Tracy Bowman

Director of Finance

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ORANGE COUNTY OCERS EMPLOYEES RETIREMENT SYSTEM

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Orange County Employees Retirement System (OCERS)

Governmental Accounting Standards Board Statement No. 68 Actuarial Valuation as of December 31, 2023 for Employer Reporting as of June 30, 2024

Segal

Segal

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May 30, 2024

Board of Retirement
Orange County Employees Retirement System
2223 Wellington Avenue
Santa Ana, CA 92701

Dear Board Members:

We are pleased to submit this Governmental Accounting Standards Board Statement No. 68 (GASB 68) Actuarial Valuation as of December 31, 2023 for the Orange County Employees Retirement System ("OCERS" or "the Plan") for employer reporting as of June 30, 2024. It contains various information that will need to be disclosed in order for OCERS employers to comply with GASB 68. Please refer to OCERS' Actuarial Valuation and Review as of December 31, 2022 for the data and OCERS' Actuarial Valuation and Review as of December 31, 2023 for the assumptions and plan of benefits underlying these calculations.

This report has been prepared in accordance with generally accepted actuarial principles and practices for the exclusive use and benefit of the Board of Retirement (the Board), based upon information provided by the staff of the Plan and the Plan's other service providers.

The measurements shown in this actuarial valuation may not be applicable for other purposes. Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; and changes in plan provisions or applicable law.

The actuarial calculations were completed under the supervision of Andy Yeung, ASA, MAAA, FCA, Enrolled Actuary. We are members of the American Academy of Actuaries and we meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion herein. To the best of our knowledge, the information supplied in the actuarial valuation is complete and accurate. The assumptions used in this actuarial valuation were selected by the Board of Retirement based upon our analysis and recommendations. In our opinion, the assumptions are reasonable and take into account the experience of OCERS and reasonable expectations. In addition, in our opinion, the combined effect of these assumptions is expected to have no significant bias.

Board of Retirement
May 30, 2024

Segal makes no representation or warranty as to the future status of the Plan and does not guarantee any particular result. This document does not constitute legal, tax, accounting or investment advice or create or imply a fiduciary relationship. The Board is encouraged to discuss any issues raised in this report with the Plan's legal, tax and other advisors before taking, or refraining from taking, any action.

We look forward to reviewing this report with you and to answering any questions.

Sincerely,

Segal

Paul Angelo, FSA, MAAA, FCA, EA
Senior Vice President and Actuary

Andy Yeung, ASA, MAAA, FCA, EA
Vice President and Actuary

Todd Tauzer, FSA, MAAA, FCA, CERA
Senior Vice President and Actuary

JY/jl

Table of Contents

Section 1: Actuarial Valuation Summary

Purpose and basis

This report has been prepared by Segal to present certain disclosure information required by Governmental Accounting Standards Board Statement No. 68 (GASB 68) as of December 31, 2023 for employer reporting as of June 30, 2024. The results used in preparing this GASB 68 report are comparable to those used in preparing the Governmental Accounting Standards Board Statement No. 67 (GASB 67) report for the plan based on a reporting date and a measurement date as of December 31, 2023. This report is based on:

- The benefit provisions of OCERS, as administered by the Board;
- The characteristics of covered active, inactive, and retired members and beneficiaries as of December 31, 2022, provided by the staff of OCERS;
- The assets of the Plan as of December 31, 2023, provided by OCERS;
- Economic assumptions regarding future salary increases and investment earnings adopted by the Board for the December 31, 2023 valuation; and
- Other actuarial assumptions, regarding employee terminations, retirement, death, etc. adopted by the Board for the December 31, 2023 valuation.

General observations on a GASB 68 Actuarial Valuation

1. The Governmental Accounting Standards Board (GASB) rules only define pension liability and expense for financial reporting purposes, they do not apply to contribution amounts for pension funding purposes. Employers and plans should continue to develop and adopt funding policies under current practices.
2. When measuring pension liability, GASB uses the same actuarial cost method (Entry Age method) and the same type of discount rate (expected return on assets) as OCERS uses for funding. This means that the Total Pension Liability (TPL) measure for financial reporting shown in this report is generally determined on the same basis as OCERS' Actuarial Accrued Liability (AAL) measure for funding. We note that the same is generally true for the service cost for financial reporting shown in this report and the normal cost component of the annual plan cost for funding.
3. The Net Pension Liability (NPL) is equal to the difference between the TPL and the Plan Fiduciary Net Position (FNP). The Plan FNP is equal to the fair value of assets and therefore, the NPL measure is very similar to an Unfunded Actuarial Accrued Liability (UAAL) on a market value basis.

Section 1: Actuarial Valuation Summary

Highlights of the valuation

1. The reporting date for the employer is June 30, 2024 and the NPL was measured as of December 31, 2023. The TPL was determined based upon rolling forward the TPL from the actuarial funding valuation as of December 31, 2022 while the Plan FNP was valued as of the measurement date.
2. The results of this valuation reflect an experience study of the actuarial assumptions based on the experience during the period January 1, 2020 through December 31, 2022. Based on that study and the recommendations provided in our report dated August 11, 2023, the Board adopted updated actuarial assumptions for use in this valuation.
3. The NPL decreased from $5,391.0 million as of December 31, 2022 to $4,846.7 million as of December 31, 2023 primarily due to a return on the market value of assets of 11.9%* during calendar year 2023 that was more than the assumption of 7.00% used in the December 31, 2022 valuation (a gain of about $954.8 million). Changes in these values during the last two fiscal years can be found in *Section 2, Exhibit 3 - Schedule of changes in Net Pension Liability* on page 23.
4. The pension expense decreased from $728.3 million as of December 31, 2022 to a pension expense of $475.0 million as of December 31, 2023. The primary cause of the decrease was due to the favorable investment return on the market value of assets during 2023, which resulted in a decrease in the pension expense of about $191.0 million this year.
5. The discount rate used to measure the TPL and NPL as of December 31, 2023 was 7.00%, following the same assumptions used by OCERS in the actuarial funding valuation as of December 31, 2023. The detailed calculations used in the derivation of the 7.00% discount rate can be found in *Appendix A*. Various other information that is required to be disclosed can be found throughout *Section 2*.
6. The Plan FNP of $19,690,021,000 as of December 31, 2022 is equal to the final market value of assets in the Pension Trust Fund as of December 31, 2022. This differs from the $19,534,631,000 market value of assets used in our December 31, 2022 funding valuation because the market value of assets in the funding valuation excludes $140,992,000 in the County Investment Account and $14,398,000 in O.C. Sanitation District UAAL Deferred Account.

   The Plan FNP of $ $21,797,429,000 as of December 31, 2023 is equal to the final market value of assets in the Pension Trust Fund as of December 31, 2023. This differs from the $21,635,294,000 market value of assets used in our December 31, 2023 funding valuation because the market value of assets in the funding valuation excludes $146,110,000 in the County Investment Account and $16,025,000 in O.C. Sanitation District UAAL Deferred Account.
7. On July 30, 2020, the California Supreme Court issued a decision in the case of Alameda County Deputy Sheriffs' Association et al. v. Alameda County Employees' Retirement Association (ACERA) and Board of Retirement at ACERA. That decision has

* As documented in the funding valuation report, return on market value was calculated using a modified dollar-weighted approach based on pension plan assets net of accounting liabilities. Actual investment return on net pension plan assets was $2,258,475,000 during 2023 after including both the administrative expenses and discount for prepaid contributions while excluding the gains credited to County Investment Account and O.C. Sanitation District UAAL Deferred Account. Without these adjustments, the actual investment return was $2,325,481,000.

Section 1: Actuarial Valuation Summary

important implications for OCERS and its members. In particular, the decision requires pension systems like OCERS to exclude certain pay items from a legacy member's compensation earnable. It should be noted that as of December 31, 2023, OCERS has refunded contributions previously paid by certain members in conjunction with such pay items and changed benefit amounts previously determined using those pay items. However, we understand some of these adjustments are still ongoing and therefore the final impact of the decision has not been fully reflected in this valuation.

8. Results shown in this report exclude any employer contributions made after the measurement date of December 31, 2023. Employers should consult with their auditors to determine the deferred outflow that should be created for these contributions.

9. All Rate Groups except Rate Groups #1 and #2 only have one active employer, so all of the NPL for those Rate Groups is allocated to that employer.

   For Rate Groups #1 and #2, the NPL is allocated based on the actual employer contributions within the Rate Group. The steps we used are as follows:

   - Calculate ratio of employer's contributions to the total contributions for the Rate Group.
   - Multiply this ratio by the NPL for the Rate Group to determine the employer's proportionate share of the NPL for the Rate Group.

   If the employer is in several Rate Groups, the employer's total allocated NPL is the sum of its allocated NPL from each Rate Group. Proportionate share of total plan NPL is then the ratio of the employer's total allocated NPL to the total NPL of all employers. Details on the allocation of the NPL by employer can be found in *Section 2, Exhibit 5 – Determination of proportionate share* starting on page 28.

10. In *Appendix B*, we show the Schedule of Pension Amounts by Employer. The expanded information shown in *Appendix B* has been used to prepare the Schedules that show the Pension Expense as well as the Deferred Outflows of Resources and Deferred Inflows of Resources.

Section 1: Actuarial Valuation Summary

Summary of key valuation results

Line Description	Current Year	Prior Year
Reporting date for Employer under GASB 68	June 30, 2024	June 30, 2023
Measurement date	December 31, 2023	December 31, 2022
Disclosure elements		
Service cost[1]	$536,399,540	$526,768,913
Total Pension Liability	26,644,141,574	25,081,027,171
Plan Fiduciary Net Position	21,797,429,000	19,690,021,000
Net Pension Liability	4,846,712,574	5,391,006,171
Pension expense	474,974,502	728,323,232
Schedule of contributions		
Actuarially determined contributions	$736,016,000	$707,319,000
Actual contributions[2]	749,776,000	719,691,000
Contribution deficiency / (excess)[3]	(13,760,000)	(12,372,000)
Demographic data[4]		
Number of retired members and beneficiaries	21,283	20,678
Number of inactive members[5]	8,579	7,894
Number of active members	22,782	22,061
Key assumptions		
Investment rate of return	7.00%	7.00%
Inflation rate	2.50%	2.50%
"Across-the-board" salary increase	0.50%	0.50%
Projected salary increases[6]	General: 3.90% to 8.00% Safety: 4.50% to 15.00%	General: 4.00% to 11.00% Safety: 4.60% to 15.00%
Cost-of-living adjustments	2.75% of retirement income	2.75% of retirement income

1 The service cost is based on the previous year's valuation, meaning the service cost as of the December 31, 2023 and December 31, 2022 measurement dates are based on the valuations as of December 31, 2022 and December 31, 2021, respectively. Both service costs have been calculated using the assumptions shown in the Prior Year column, as there had been no changes in the actuarial assumptions between the December 31, 2022 and December 31, 2021 valuations.
2 Reduced by discount for prepaid contributions and transfer from County investment Account, if any.
3 Includes additional contributions made by employers toward the reduction of their UAAL. Details are shown in *Section 2, Exhibit 3 - Schedule of employer contributions* on page 24.
4 Data shown as of the December 31, 2022 measurement date is used in the measurement of the TPL as of December 31, 2023.
5 Includes members who chose to leave their contributions on deposit even though they have less than five years of service.
6 Includes inflation at 2.50% plus "across-the-board" salary increase of 0.50% plus merit and promotion increases that vary by service.

Section 1: Actuarial Valuation Summary

Important information about actuarial valuations

In order to prepare a valuation, Segal relies on a number of input items. These include:

Input Item	Description
Plan provisions	Plan provisions define the rules that will be used to determine benefit payments, and those rules, or the interpretation of them, may change over time. Even where they appear precise, outside factors may change how they operate. It is important to keep Segal informed with respect to plan provisions and administrative procedures, and to review the plan summary included in our report (as well as the plan summary included in our funding valuation report) to confirm that Segal has correctly interpreted the plan of benefits.
Member information	An actuarial valuation for a plan is based on data provided to the actuary by OCERS. Segal does not audit such data for completeness or accuracy, other than reviewing it for obvious inconsistencies compared to prior data and other information that appears unreasonable. It is important for Segal to receive the best possible data and to be informed about any known incomplete or inaccurate data.
Financial information	The valuation is based on the fair value of assets as of the measurement date, as provided by OCERS.
Actuarial assumptions	In preparing an actuarial valuation, Segal starts by developing a forecast of the benefits to be paid to existing plan members for the rest of their lives and the lives of their beneficiaries. This requires actuarial assumptions as to the probability of death, disability, withdrawal, and retirement of members in each year, as well as forecasts of the plan's benefits for each of those events. In addition, the benefits forecasted for each of those events in each future year reflect actuarial assumptions as to salary increases and cost-of-living adjustments (if any). The forecasted benefits are then discounted to a present value, typically based on an estimate of the rate of return that will be achieved on the plan's assets. All of these factors are uncertain and unknowable. Thus, there will be a range of reasonable assumptions, and the results may vary materially based on which assumptions are selected within that range. That is, there is no right answer (except with hindsight). It is important for any user of an actuarial valuation to understand and accept this constraint. The actuarial model may use approximations and estimates that will have an immaterial impact on our results. In addition, the actuarial assumptions may change over time, and while this can have a significant impact on the reported results, it does not mean that the previous assumptions or results were unreasonable or wrong.
Actuarial models	Segal valuation results are based on proprietary actuarial modeling software. The actuarial valuation models generate a comprehensive set of liability and cost calculations that are presented to meet regulatory, legislative and client requirements. Deterministic cost projections are based on a proprietary forecasting model. Our Actuarial Technology and Systems unit, comprised of both actuaries and programmers, is responsible for the initial development and maintenance of these models. The models have a modular structure that allows for a high degree of accuracy, flexibility and user control. The client team programs the assumptions and the plan provisions, validates the models, and reviews test lives and results, under the supervision of the responsible actuary. The discount rate used for calculating Total Pension Liability is based on a model developed by our Actuarial Technology and Systems unit, comprised of both actuaries and programmers. The model allows the client team, under the supervision of the responsible actuary, control over the entry of future expected contribution income, benefit payments and administrative expenses. The projection of fiduciary net position and the discounting of benefits is part of the model.

Section 1: Actuarial Valuation Summary

The user of Segal's actuarial valuation (or other actuarial calculations) should keep the following in mind:

- The actuarial valuation is prepared at the request of the Board. Segal is not responsible for the use or misuse of its report, particularly by any other party.
- An actuarial valuation is a measurement at a specific date — it is not a prediction of a plan's future financial condition. Accordingly, Segal did not perform an analysis of the potential range of financial measurements, except where otherwise noted.
- If OCERS is aware of any event or trend that was not considered in this valuation that may materially change the results of the valuation, Segal should be advised, so that we can evaluate it.
- Segal does not provide investment, legal, accounting or tax advice and is not acting as a fiduciary to the Plan. This valuation is based on Segal's understanding of applicable guidance in these areas and of the Plan's provisions, but they may be subject to alternative interpretations. The Board should look to their other advisors for expertise in these areas.
- While Segal maintains extensive quality assurance procedures, an actuarial valuation involves complex computer models and numerous inputs. In the event that an inaccuracy is discovered after presentation of Segal's valuation, Segal may revise that valuation or make an appropriate adjustment in the next valuation.
- Segal's report shall be deemed to be final and accepted by OCERS upon delivery and review. OCERS should notify Segal immediately of any questions or concerns about the final content.

Section 2: GASB 68 Information

General information about the pension plan

Plan administration

The Orange County Employees Retirement System ("OCERS" or "the Plan") was established by the County of Orange in 1945. OCERS is administered by the Board of Retirement and governed by the County Employees' Retirement Law of 1937 (California Government Code Section 31450 et. seq.).

OCERS is a cost-sharing multiple employer public employee retirement system whose main function is to provide service retirement, disability, death and survivor benefits to the Safety and General members employed by the County of Orange. OCERS also provides retirement benefits to the employee members of the Orange County Courts, the Orange County Retirement System, two cities and thirteen special districts.

The management of OCERS is vested with the Orange County Board of Retirement (the Board). The Board consists of nine members and one alternate:

- The County Treasurer is a member of the Board by law;
- Four members are appointed by the Board of Supervisors, one of whom may be a County Supervisor;
- Two members are elected by the General membership;
- One member and one alternate are elected by the Safety membership; and
- One member is elected by the retired members of the System.

All members of the Board of Retirement serve terms of three years except for the County Treasurer whose term runs concurrent with the County Treasurer term.

Section 2: GASB 68 Information

Plan membership

At December 31, 2023, pension plan membership consisted of the following:

Membership	Count
Retired members and beneficiaries	21,283
Inactive members*	8,579
Active members	22,782
Total	**52,644**

Note: Data as of December 31, 2023 is not used in the measurement of the TPL as of December 31, 2023.

Benefits provided

OCERS provides service retirement, disability, death and survivor benefits to eligible employees. All regular full-time employees of the County of Orange or contracting agencies who work a minimum of 20 hours per week become members of OCERS effective on the first day of employment in an eligible position. There are separate retirement plans for General and Safety member employees. Safety membership is extended to those involved in active law enforcement, fire suppression, and certain probation officers. All other employees are classified as General members.

Any new member who becomes a member on or after January 1, 2013 is designated as PEPRA General or PEPRA Safety and is subject to the provisions of California Public Employees' Pension Reform Act of 2013 (PEPRA), California Government Code 7522 et seq.

The retirement benefit the member will receive is based upon age at retirement, final average compensation, years of retirement service credit and retirement plan and tier. Final average compensation consists of the highest 12 consecutive months for a General Tier 1 or Safety Tier 1 member and the highest 36 consecutive months for a General Tier 2, General PEPRA, Safety Tier 2 or Safety PEPRA member. For members with membership dates before January 1, 2013, including all members of Plan T and Plan W hired on or after January 1, 2013, the maximum monthly retirement allowance is 100% of final compensation. There is no maximum for members with membership dates on or after January 1, 2013, excluding members of Plan T and Plan W.

The member may elect an unmodified retirement allowance, or choose an optional retirement allowance. The unmodified retirement allowance provides the highest monthly benefit and a 60% continuance to an eligible surviving spouse or domestic partner. An eligible surviving spouse or domestic partner is one married to or registered with the member one year prior to the effective

* Includes members who chose to leave their contributions on deposit even though they have less than five years of service.

Section 2: GASB 68 Information

retirement date. Certain surviving spouses or domestic partners may also be eligible if marriage or domestic partnership was at least two years prior to the date of death and the surviving spouse or domestic partner has attained age 55. There are four optional retirement allowances the member may choose. Each of the optional retirement allowances requires a reduction in the unmodified retirement allowance in order to allow the member the ability to provide certain benefits to a surviving spouse, domestic partner, or named beneficiary having an insurable interest in the life of the member.

OCERS provides an annual cost-of-living adjustment (COLA) benefit to all retirees. The COLA, based upon the ratio of the past two annual Consumer Price Indices for All Urban Consumers for the Los Angeles-Long Beach-Anaheim Area, is capped at 3.0%.

General members

General members hired prior to January 1, 2013, including all members of Plan T and Plan W hired on or after January 1, 2013, are eligible to retire once they attain the age of 50 and have acquired 10 or more years of retirement service credit. A member with 30 years of retirement service credit is eligible to retire regardless of age. General members who are first hired on or after January 1, 2013, excluding members of Plan T and Plan W, are eligible to retire once they have attained the age of 52, and have acquired 5 years of retirement service credit. All General members can also retire at the age of 70 regardless of service.

General member benefits are calculated pursuant to the provisions of Sections 31676.01, 31676.1, 31676.12, 31676.16, 31676.18 or 31676.19. For Section 31676.01, the monthly allowance is equal to one-ninetieth of final average compensation times years of accrued retirement service credit times age factor from that Section. For Section 31676.1, the monthly allowance is equal to one-sixtieth of final average compensation times years of accrued retirement service credit times age factor from that Section. For Sections 31676.12, 31676.16, 31676.18 or 31676.19, the monthly allowance is equal to one-fiftieth of final average compensation times years of accrued retirement service credit times age factor from the corresponding Section. General member benefits for those who are first hired on or after January 1, 2013, excluding members of Plan T and Plan W, are calculated pursuant to the provision of California Government Code Section 7522.20(a). The monthly allowance is equal to the final average compensation multiplied by years of accrued retirement credit multiplied by the age factor from Section 7522.20(a).

Safety members

Safety members hired prior to January 1, 2013, are eligible to retire once they attain the age of 50 and have acquired 10 or more years of retirement service credit. A member with 20 years of retirement service credit is eligible to retire regardless of age. Safety members who are first hired on or after January 1, 2013, are eligible to retire once they have attained the age of 50, and have acquired 5 years of retirement service credit. All Safety members can also retire at the age of 70 regardless of service.

Safety member benefits are calculated pursuant to the provisions of California Government Code Sections 31664.1 and 31664.2. The monthly allowance is equal to 3% of final average compensation times years of accrued retirement service credit times age

Section 2: GASB 68 Information

factor from the corresponding Section. Safety member benefits for those who are first hired on or after January 1, 2013, are calculated pursuant to the provision of California Government Code Section 7522.25(d). The monthly allowance is equal to the final average compensation multiplied by years of accrued retirement credit multiplied by the age factor from Section 7522.25(d).

Contributions

The County of Orange and contracting agencies contribute to the retirement plan based upon actuarially determined contribution rates adopted by the Board of Retirement. Employer contribution rates are adopted annually based upon recommendations received from OCERS' actuary after the completion of the annual actuarial valuation. The average employer contribution rate for the first six months of calendar year 2023 or the second half of fiscal year 2022-2023 (based on the December 31, 2020 valuation) was 41.16%[1] of compensation. The average employer contribution rate for the last six months of calendar year 2023 or the first half of fiscal year 2023-2024 (based on the December 31, 2021 valuation) was 37.82%[1] of compensation.

All members are required to make contributions to OCERS regardless of the retirement plan or tier in which they are included. The average member contribution rate for the first six months of calendar year 2023 or the second half of fiscal year 2022-2023 (based on the December 31, 2020 valuation) was 12.16%[2] of compensation. The average member contribution rate for the last six months of calendar year 2023 or the first half of fiscal year 2023-2024 (based on the December 31, 2021 valuation) was 12.08%[2] of compensation.

[1] These employer contribution rates may be higher or lower than the composite rate for 2023 as shown on page 24 of this report because these rates have not been adjusted to reflect any pick-ups or reverse pick-ups. These employer contribution rates also do not reflect any change in proportion of payroll between the membership groups as well as the shift in payroll to the lower cost plans from the valuation date to the date of rate implementation.

[2] It should be noted that these member contribution rates provided above have not been adjusted to reflect any pick-ups or reverse pick-ups.

Section 2: GASB 68 Information

Exhibit 1 – Net Pension Liability

Line Description	Current Year	Prior Year
Reporting and Measurement Dates		
Reporting date for Employer under GASB 68	June 30, 2024	June 30, 2023
Measurement date	December 31, 2023	December 31, 2022
Components of the Net Pension Liability		
Total Pension Liability	$26,644,141,574	$25,081,027,171
Plan Fiduciary Net Position	(21,797,429,000)	(19,690,021,000)
Net Pension Liability	**$4,846,712,574**	**$5,391,006,171**
Plan Fiduciary Net Position as a percentage of the Total Pension Liability*	81.81%	78.51%

The NPL for the Plan in this valuation was measured as of December 31, 2023. The Plan FNP was valued as of the measurement date and the TPL was determined based upon rolling forward the TPL from the actuarial funding valuation as of December 31, 2022.

Plan provisions

The plan provisions used in the measurement of the NPL as of December 31, 2023 are the same as those used in OCERS' actuarial funding valuation as of December 31, 2023.

Actuarial assumptions

The TPL as of December 31, 2023 uses the same actuarial assumptions as the actuarial funding valuation as of December 31, 2023. The TPL as of December 31, 2023 was remeasured by (a) revaluing the TPL as of December 31, 2022 (before the roll forward) to reflect the actuarial assumptions adopted in the experience study for the period January 1, 2020 through December 31, 2022, and (b) using this revalued TPL in rolling forward the results from December 31, 2022 to December 31, 2023. In particular, the following actuarial assumptions were applied to all periods included in the measurement:

* These funded percentages are not necessarily appropriate for assessing the sufficiency of Plan assets to cover the estimated cost of settling the Plan's benefit obligation or the need for or the amount of future contributions.

Section 2: GASB 68 Information

Assumption Type	Assumption
Investment rate of return	7.00%, net of pension plan investment expense, including inflation
Inflation rate	2.50%
"Across-the-board" salary increase	0.50%
Salary increases	General: 3.90% to 8.00% Safety: 4.50% to 15.00% The above salary increases vary by service and include inflation and "across-the-board" salary increase
Cost-of-living adjustments	Retiree COLA increases of 2.75% per year For members that have COLA banks, we assume they receive 3.00% COLA increases until their COLA banks are exhausted and 2.75% thereafter
Other assumptions	See analysis of actuarial experience during the period January 1, 2020 through December 31, 2022

Detailed information regarding all actuarial assumptions can be found in the December 31, 2023 Actuarial Valuation and Review.

The following actuarial assumptions were applied to all periods included in the measurement of the TPL as of December 31, 2022:

Assumption Type	Assumption
Investment rate of return	7.00%, net of pension plan investment expense, including inflation
Inflation rate	2.50%
"Across-the-board" salary increase	0.50%
Salary increases	General: 4.00% to 11.00% Safety: 4.60% to 15.00% The above salary increases vary by service and include inflation and "across-the-board" salary increase
Cost-of-living adjustments	Retiree COLA increases of 2.75% per year For members that have COLA banks, we assume they receive 3.00% COLA increases until their COLA banks are exhausted and 2.75% thereafter
Other assumptions	See analysis of actuarial experience during the period January 1, 2017 through December 31, 2019

Detailed information regarding all actuarial assumptions can be found in the December 31, 2022 Actuarial Valuation and Review.

Section 2: GASB 68 Information

Exhibit 2 – Discount rate

Determination of discount rate and investment rates of return

The long-term expected rate of return on pension plan investments* was determined using a building-block method in which expected future real rates of return (expected returns, net of inflation and, beginning with December 31, 2023, any applicable investment management expenses) are developed for each major asset class. These returns are combined to produce the long-term expected arithmetic rate of return for the portfolio by weighting the expected arithmetic real rates of return by the target asset allocation percentage, adding expected inflation and subtracting expected investment expenses (beginning with December 31, 2023, including only investment consulting fees, custodian fees and other miscellaneous investment expenses and fees but excluding investment manager fees) and a risk margin. Beginning with December 31, 2023 this portfolio return is further adjusted to an expected geometric real rate of return for the portfolio.

The target allocation (approved by the Board) and projected arithmetic real rates of return for each major asset class, after deducting inflation, are shown in the following tables. For December 31, 2022 these rates are before deducting investment management expenses while for December 31, 2023 they are after deducting applicable investment management expenses. This information was used in the derivation of the long-term expected investment rate of return assumption in the actuarial valuations as of December 31, 2023 and December 31, 2022. This information will be subject to change every three years based on the results of an actuarial experience study.

* Note that the investment return assumption for funding purposes was developed net of both investment and administrative expenses; however, the same investment return assumption was used for financial reporting purposes, where it is considered gross of administrative expenses. This results in an increase in the margin for adverse deviation when using that investment return assumption for financial reporting.

Section 2: GASB 68 Information

December 31, 2023

Asset Class	Target Allocation	Long-Term Expected Arithmetic Real Rate of Return*
Global Equity	45.00%	7.05%
Investment Grade Bonds	9.00%	1.97%
High Yield Bond	0.50%	4.63%
TIPS	2.00%	1.77%
Emerging Market Debt	0.50%	4.72%
Long-Term Government Bonds	3.30%	2.82%
Real Estate	3.00%	3.86%
Private Equity	15.00%	9.84%
Private Credit	3.50%	6.47%
Value Added Real Estate	3.00%	7.38%
Opportunistic Real Estate	1.00%	9.74%
Energy	2.00%	10.89%
Infrastructure (Core Private)	1.00%	5.98%
Infrastructure (Non-Core Private)	3.00%	8.88%
Global Macro	1.70%	3.17%
CTA (Trend Following)	3.30%	3.15%
Alternative Risk Premia	1.70%	3.24%
Special Situations Lending	1.50%	8.96%
Total	**100.00%**	**6.55%**

* Arithmetic real rates of return are net of inflation.

Section 2: GASB 68 Information

December 31, 2022

Asset Class	Target Allocation	Long-Term Expected Arithmetic Real Rate of Return*
Large Cap Equity	23.10%	5.43%
Small Cap Equity	1.90%	6.21%
International Developed Equity	13.00%	6.67%
Emerging Markets Equity	9.00%	8.58%
Core Bonds	9.00%	1.10%
High Yield Bonds	1.50%	2.91%
TIPS	2.00%	0.65%
Emerging Market Debt	2.00%	3.25%
Corporate Credit	1.00%	0.53%
Long Duration Fixed Income	2.50%	1.44%
Real Estate	3.01%	4.42%
Private Equity	13.00%	9.41%
Value Added Real Estate	3.01%	7.42%
Opportunistic Real Estate	0.98%	10.18%
Energy	2.00%	9.68%
Infrastructure (Core Private)	1.50%	5.08%
Infrastructure (Non-Core Private)	1.50%	8.92%
CTA - Trend Following	2.50%	2.38%
Global Macro	2.50%	2.13%
Private Credit	2.50%	5.47%
Alternative Risk Premia	2.50%	2.50%
Total	**100.00%**	**5.67%**

* Arithmetic real rates of return are net of inflation.

Section 2: GASB 68 Information

Discount rate

The discount rate used to measure the TPL was 7.00% as of both December 31, 2023 and December 31, 2022.

The projection of cash flows used to determine the discount rate assumes plan member contributions will be made at the current contribution rates and that employer contributions will be made at rates equal to the actuarially determined contribution rates.* Projected employer contributions that are intended to fund the service costs for future plan members and their beneficiaries, as well as projected contributions from future plan members, are not included. Based on those assumptions, the Plan FNP was projected to be available to make all projected future benefit payments for current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the TPL as of both December 31, 2023 and December 31, 2022.

* For this purpose, only employer contributions that are intended to fund benefits of current plan members and their beneficiaries are included.

Section 2: GASB 68 Information

Discount rate sensitivity

The following presents the NPL of OCERS as of December 31, 2023 calculated using the current discount rate of 7.00%, as well as what OCERS' NPL would be if it were calculated using a discount rate that is 1-percentage-point lower (6.00%) or 1-percentage-point higher (8.00%) than the current rate.

Employer	1% Decrease in Discount Rate (6.00%)	Current Discount Rate (7.00%)	1% Increase in Discount Rate (8.00%)
Orange County	$6,778,900,961	$4,061,810,157	$1,840,661,044
O.C. Cemetery District	3,167,403	993,411	(783,769)
O.C. Law Library	768,976	(1,034,826)	(2,509,386)
O.C. Vector Control District	4,705,117	752,245	(2,479,123)
O.C. Retirement System	55,184,382	34,539,527	17,662,910
O.C. Fire Authority	533,655,246	168,457,678	(130,081,574)
Cypress Recreation and Parks	372,692	(641,475)	(1,470,530)
Department of Education	4,728,697	3,189,922	1,932,015
Transportation Corridor Agency	6,902,932	(1,889,567)	(9,077,200)
City of San Juan Capistrano	27,869,530	17,443,348	8,920,223
O.C. Sanitation District	109,406,478	(18,531,537)	(123,117,445)
O.C. Transportation Authority	373,417,299	207,825,439	72,458,519
U.C.I.	39,458,619	26,555,318	16,007,215
O.C. Children and Families Comm.	1,254,795	189,581	(681,203)
Local Agency Formation Comm.	2,724,090	1,704,989	871,902
Rancho Santa Margarita	6,292	119	(4,927)
O.C. Superior Court	551,030,286	344,886,083	176,368,707
O.C. IHSS Public Authority	1,363,066	462,162	(274,303)
Total for all Employers	**$8,494,916,861**	**$4,846,712,574**	**$1,864,403,075**

Section 2: GASB 68 Information

Exhibit 3 – Schedule of changes in Net Pension Liability

Line Description	Current Year	Prior Year
Reporting and Measurement Dates		
Reporting date for Employer under GASB 68	June 30, 2024	June 30, 2023
Measurement date	December 31, 2023	December 31, 2022
Total Pension Liability		
Service cost	$536,399,540	$526,768,913
Interest	1,750,651,189	1,675,053,178
Change of benefit terms	0	0
Differences between expected and actual experience	326,785,307	46,500,358
Changes of assumptions	165,526,367	0
Benefit payments, including refunds of member contributions	(1,216,248,000)	(1,139,715,000)
Transfer of members among Rate Groups	0	0
Other	0	0
Net change in Total Pension Liability	**$1,563,114,403**	**$1,108,607,449**
Total Pension Liability — beginning	25,081,027,171	23,972,419,722
Total Pension Liability — ending	**$26,644,141,574**	**$25,081,027,171**
Plan Fiduciary Net Position		
Contributions — employer[1]	$749,776,000	$719,691,000
Contributions — member	277,455,000	269,999,000
Net investment income	2,325,481,000	(2,058,590,000)
Benefit payments, including refunds of member contributions	(1,216,248,000)	(1,139,715,000)
Transfer of members among Rate Groups	0	0
Administrative expense	(29,056,000)	(23,546,000)
Other	0	0
Net change in Plan Fiduciary Net Position	**$2,107,408,000**	**$(2,232,161,000)**
Plan Fiduciary Net Position — beginning	19,690,021,000	21,922,182,000
Plan Fiduciary Net Position — ending	**$21,797,429,000**	**$19,690,021,000**
Net Pension Liability		
Net Pension Liability — ending	$4,846,712,574	$5,391,006,171
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	81.81%	78.51%
Covered payroll[2]	$2,042,240,000	$1,932,374,000
Plan Net Pension Liability as percentage of covered payroll	237.32%	278.98%

[1] Reduced by discount for prepaid contributions and transfer from County Investment Account, if any.
[2] Covered payroll represents payroll on which contributions to the pension plan are based.

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Exhibit 4 – Schedule of employer contributions

Year Ended December 31	Actuarially Determined Contributions[1,2]	Contributions in Relation to the Actuarially Determined Contributions[1,2]	Contribution Deficiency / (Excess)	Covered Payroll[3]	Contributions as a Percentage of Covered Payroll[2]
2014	$476,320,000	$625,520,000[4]	$(149,200,000)	$1,513,206,000	41.34%
2015	502,886,000	571,298,000[5]	(68,412,000)	1,521,036,000	37.56%
2016	521,447,000	567,196,000[6]	(45,749,000)	1,602,675,000	35.40%
2017	536,726,000	572,104,000[7]	(35,378,000)	1,678,322,000	34.09%
2018	556,728,000	580,905,000[8]	(24,177,000)	1,718,798,000	33.80%
2019	583,057,000	653,793,000[9]	(70,736,000)	1,783,054,000	36.67%
2020	638,215,000	659,807,000[10]	(21,592,000)	1,909,268,000	34.56%
2021	684,142,000[11]	698,791,000[11,12]	(14,649,000)	1,870,387,000	37.36%
2022	707,318,000	719,691,000[13]	(12,373,000)	1,932,374,000	37.24%
2023	736,016,000	749,776,000[14]	(13,760,000)	2,042,240,000	37.39%

See accompanying notes to this schedule on next page.

1 The Actuarially Determined Contributions through December 31, 2014 were determined as the Annual Required Contribution under GASB 25 and 27.
2 Reduced by discount for prepaid contributions, transfers from County Investment Account, and transfers from O.C. Sanitation District Deferred UAAL Account. Those amounts are as shown on the next page.
3 Covered payroll represents payroll on which contributions to the pension plan are based.
4 Includes additional contributions of $1,663,000 made by O.C. Cemetery District, $22,537,000 made by O.C. Fire Authority and $125,000,000 made by O.C. Sanitation District towards the reduction of their UAAL.
5 Includes additional contributions of $18,412,000 made by O.C. Fire Authority and $50,000,000 made by O.C. Sanitation District towards the reduction of their UAAL.
6 Includes additional contributions of $5,133,000 made by O.C. Fire Authority, $1,500,000 made by Law Library and $5,587,000 made by O.C. Sanitation District towards the reduction of their UAAL as well as $33,529,000 made by O.C. Sanitation District to their UAAL Deferred Account.
7 Includes additional contributions of $32,096,000 made by O.C. Fire Authority, $1,538,000 made by Law Library and $1,744,000 made by O.C. Children and Families Commission towards the reduction of their UAAL.
8 Includes additional contributions of $23,437,000 made by O.C. Fire Authority and $740,000 made by Cypress Recreation and Parks District towards the reduction of their UAAL.
9 Includes additional contributions of $19,043,000 made by O.C. Fire Authority, $878,000 made by O.C. Vector Control, $12,815,000 Transportation Corridor and $8,116,000 made by O.C. Sanitation District towards the reduction of their UAAL as well as $29,884,000 made by O.C. Sanitation District to their UAAL Deferred Account.
10 Includes additional contributions of $21,592,000 made by O.C. Fire Authority towards the reduction of their UAAL.
11 Includes a contribution of $6,500,000 made by City of San Juan Capistrano related to transferring its Water Department employees to a separate special district, which resulted in a triggering event under the Board's Declining Employer Payroll policy.
12 Includes additional contributions of $14,649,000 made by O.C. Fire Authority towards the reduction of their UAAL.
13 Includes additional contributions of $11,777,000 made by O.C. Fire Authority and $596,000 made by Cypress Recreation and Parks District towards the reduction of their UAAL.
14 Includes additional contributions of $13,760,000 made by O.C. Fire Authority towards the reduction of their UAAL.

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Methods and assumptions used to establish the actuarially determined contribution for the year ended December 31, 2023

Contributions and transfers excluded from Actuarially Determined Contributions and Contributions in Relation to the Actuarially Determined Contributions

The contributions are reduced by discount for prepaid contributions, transfers from County Investment Account (funded by pension obligation proceeds held by OCERS), and transfers from O.C. Sanitation District Deferred UAAL Account (amount required to offset UAAL increases for assumption changes in 2017 and actuarial losses in 2018 and 2019). Those amounts are as follows:

Year Ended December 31	Discount for Prepaid Contributions	Transfers from County Investment Account	Transfers from O.C. Sanitation District UAAL Deferred Account	Year Ended December 31	Discount for Prepaid Contributions	Transfers from County Investment Account	Transfers from O.C. Sanitation District UAAL Deferred Account
2014	$29,114,000	$5,000,000	$0	2019	$22,049,000	$0	$18,631,000
2015	27,301,000	0	0	2020	24,731,000	5,000,000	0
2016	24,353,000	0	0	2021	31,520,000	15,077,000	0
2017	22,921,000	0	24,042,000	2022	37,039,000	14,962,000	0
2018	21,218,000	0	14,589,000	2023	21,205,000	10,000,000	0

Valuation date

Actuarially determined contribution rates for the first six months of calendar year 2023 (i.e., the second half of fiscal year 2022–2023) are calculated based on the December 31, 2020 valuation. Actuarially determined contribution rates for the last six months of calendar year 2023 (i.e., the first half of fiscal year 2023–2024) are calculated based on the December 31, 2021 valuation.

Actuarial cost method

Entry Age Actuarial Cost Method

Amortization method

Level percent of payroll (3.00% payroll growth assumed in the December 31, 2020 valuation and 3.00% payroll growth assumed in the December 31, 2021 valuation)

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Remaining amortization period

December 31, 2020 valuation

Effective December 31, 2013, the outstanding balance of the UAAL from the December 31, 2012 valuation was combined and re-amortized over a declining 20-year period. Any changes in UAAL due to actuarial gains or losses or due to changes in assumptions or methods will be amortized over separate 20-year periods. Any changes in UAAL due to plan amendments will be amortized over separate 15-year periods and any change in UAAL due to early retirement incentive programs will be amortized over a separate period of up to 5 years.

December 31, 2021 valuation

Effective December 31, 2013, the outstanding balance of the UAAL from the December 31, 2012 valuation was combined and re-amortized over a declining 20-year period. Any changes in UAAL due to actuarial gains or losses or due to changes in assumptions or methods will be amortized over separate 20-year periods. Any changes in UAAL due to plan amendments will be amortized over separate 15-year periods and any change in UAAL due to early retirement incentive programs will be amortized over a separate period of up to 5 years.

Asset valuation method

The Actuarial Value of Assets is determined by recognizing any difference between the actual and the expected market return over a five-year period. The Valuation Value of Assets is the Actuarial Value of Assets reduced by the value of the non-valuation reserves.

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Actuarial assumptions

Assumption Type	Assumption Used in the December 31, 2020 Actuarial Valuation	Assumption Used in the December 31, 2021 Actuarial Valuation
Investment rate of return	7.00%, net of pension plan administrative and investment expense, including inflation	7.00%, net of pension plan administrative and investment expense, including inflation
Inflation rate	2.50%	2.50%
“Across-the-board” salary increase	0.50%	0.50%
Salary increases	General: 4.00% to 11.00% Safety: 4.60% to 15.00% The above salary increases vary by service and include inflation and “across-the-board” salary increase	General: 4.00% to 11.00% Safety: 4.60% to 15.00% The above salary increases vary by service and include inflation and “across-the-board” salary increase
Cost-of-living adjustments	Retiree COLA increases of 2.75% per year For members that have COLA banks, we assume they receive 3.00% COLA increases until their COLA banks are exhausted and 2.75% thereafter	Retiree COLA increases of 2.75% per year For members that have COLA banks, we assume they receive 3.00% COLA increases until their COLA banks are exhausted and 2.75% thereafter
Other assumptions	Same as those used in the funding actuarial valuation as of December 31, 2020	Same as those used in the funding actuarial valuation as of December 31, 2021

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Exhibit 5 – Determination of proportionate share

Actual Contributions* by Employer and Rate Group

January 1, 2022 to December 31, 2022

Employer	Rate Group #1	Rate Group #1 Percentage	Rate Group #2	Rate Group #2 Percentage	Rate Group #3	Rate Group #3 Percentage
Orange County	$13,706,000	98.583%	$370,256,000	88.630%	$0	0.000%
O.C. Cemetery District	0	0.000%	0	0.000%	0	0.000%
O.C. Law Library	0	0.000%	0	0.000%	0	0.000%
O.C. Vector Control District	0	0.000%	0	0.000%	0	0.000%
O.C. Retirement System	0	0.000%	3,614,000	0.865%	0	0.000%
O.C. Fire Authority	0	0.000%	0	0.000%	0	0.000%
Cypress Recreation and Parks	0	0.000%	0	0.000%	0	0.000%
Department of Education	0	0.000%	0	0.000%	0	0.000%
Transportation Corridor Agency	0	0.000%	0	0.000%	0	0.000%
City of San Juan Capistrano	0	0.000%	2,138,000	0.512%	0	0.000%
O.C. Sanitation District	0	0.000%	0	0.000%	8,686,000	100.000%
O.C. Transportation Authority	0	0.000%	0	0.000%	0	0.000%
U.C.I.	0	0.000%	0	0.000%	0	0.000%
O.C. Children and Families Comm.	0	0.000%	187,000	0.045%	0	0.000%
Local Agency Formation Comm.	0	0.000%	182,000	0.044%	0	0.000%
Rancho Santa Margarita	0	0.000%	0	0.000%	0	0.000%
O.C. Superior Court	0	0.000%	41,375,000	9.904%	0	0.000%
O.C. IHSS Public Authority	197,000	1.417%	0	0.000%	0	0.000%
Total for all Employers	**$13,903,000**	**100.000%**	**$417,752,000**	**100.000%**	**$8,686,000**	**100.000%**

Note: Results may not total due to rounding.

* Excluding Employer Paid Member Contributions and Employee Paid Reverse Pick-up Contributions, and not Reduced for Discount due to Prepaid Contributions.

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Actual Contributions* by Employer and Rate Group

January 1, 2022 to December 31, 2022

Employer	Rate Group #4	Rate Group #4 Percentage	Rate Group #5	Rate Group #5 Percentage	Rate Group #9	Rate Group #9 Percentage
Orange County	$0	0.000%	$0	0.000%	$0	0.000%
O.C. Cemetery District	0	0.000%	0	0.000%	0	0.000%
O.C. Law Library	0	0.000%	0	0.000%	0	0.000%
O.C. Vector Control District	0	0.000%	0	0.000%	0	0.000%
O.C. Retirement System	0	0.000%	0	0.000%	0	0.000%
O.C. Fire Authority	0	0.000%	0	0.000%	0	0.000%
Cypress Recreation and Parks	0	0.000%	0	0.000%	0	0.000%
Department of Education	0	0.000%	0	0.000%	0	0.000%
Transportation Corridor Agency	0	0.000%	0	0.000%	895,000	100.000%
City of San Juan Capistrano	0	0.000%	0	0.000%	0	0.000%
O.C. Sanitation District	0	0.000%	0	0.000%	0	0.000%
O.C. Transportation Authority	0	0.000%	33,081,000	100.000%	0	0.000%
U.C.I.	0	0.000%	0	0.000%	0	0.000%
O.C. Children and Families Comm.	0	0.000%	0	0.000%	0	0.000%
Local Agency Formation Comm.	0	0.000%	0	0.000%	0	0.000%
Rancho Santa Margarita	0	100.000%	0	0.000%	0	0.000%
O.C. Superior Court	0	0.000%	0	0.000%	0	0.000%
O.C. IHSS Public Authority	0	0.000%	0	0.000%	0	0.000%
Total for all Employers	**$0**	**100.000%**	**$33,081,000**	**100.000%**	**$895,000**	**100.000%**

Note: Results may not total due to rounding.

* Excluding Employer Paid Member Contributions and Employee Paid Reverse Pick-up Contributions, and not Reduced for Discount due to Prepaid Contributions.

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Actual Contributions* by Employer and Rate Group

January 1, 2022 to December 31, 2022

Employer	Rate Group #10	Rate Group #10 Percentage	Rate Group #11	Rate Group #11 Percentage	Rate Group #12	Rate Group #12 Percentage
Orange County	$0	0.000%	$0	0.000%	$0	0.000%
O.C. Cemetery District	0	0.000%	285,000	100.000%	0	0.000%
O.C. Law Library	0	0.000%	0	0.000%	128,000	100.000%
O.C. Vector Control District	0	0.000%	0	0.000%	0	0.000%
O.C. Retirement System	0	0.000%	0	0.000%	0	0.000%
O.C. Fire Authority	8,293,000	100.000%	0	0.000%	0	0.000%
Cypress Recreation and Parks	0	0.000%	0	0.000%	0	0.000%
Department of Education	0	0.000%	0	0.000%	0	0.000%
Transportation Corridor Agency	0	0.000%	0	0.000%	0	0.000%
City of San Juan Capistrano	0	0.000%	0	0.000%	0	0.000%
O.C. Sanitation District	0	0.000%	0	0.000%	0	0.000%
O.C. Transportation Authority	0	0.000%	0	0.000%	0	0.000%
U.C.I.	0	0.000%	0	0.000%	0	0.000%
O.C. Children and Families Comm.	0	0.000%	0	0.000%	0	0.000%
Local Agency Formation Comm.	0	0.000%	0	0.000%	0	0.000%
Rancho Santa Margarita	0	0.000%	0	0.000%	0	0.000%
O.C. Superior Court	0	0.000%	0	0.000%	0	0.000%
O.C. IHSS Public Authority	0	0.000%	0	0.000%	0	0.000%
Total for all Employers	**$8,293,000**	**100.000%**	**$285,000**	**100.000%**	**$128,000**	**100.000%**

Note: Results may not total due to rounding.

* Excluding Employer Paid Member Contributions and Employee Paid Reverse Pick-up Contributions, and not Reduced for Discount due to Prepaid Contributions.

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Actual Contributions* by Employer and Rate Group

January 1, 2022 to December 31, 2022

Employer	Rate Group #6	Rate Group #6 Percentage	Rate Group #7	Rate Group #7 Percentage	Rate Group #8	Rate Group #8 Percentage
Orange County	$31,341,000	100.000%	$171,671,000	100.000%	$0	0.000%
O.C. Cemetery District	0	0.000%	0	0.000%	0	0.000%
O.C. Law Library	0	0.000%	0	0.000%	0	0.000%
O.C. Vector Control District	0	0.000%	0	0.000%	0	0.000%
O.C. Retirement System	0	0.000%	0	0.000%	0	0.000%
O.C. Fire Authority	0	0.000%	0	0.000%	69,659,000	100.000%
Cypress Recreation and Parks	0	0.000%	0	0.000%	0	0.000%
Department of Education	0	0.000%	0	0.000%	0	0.000%
Transportation Corridor Agency	0	0.000%	0	0.000%	0	0.000%
City of San Juan Capistrano	0	0.000%	0	0.000%	0	0.000%
O.C. Sanitation District	0	0.000%	0	0.000%	0	0.000%
O.C. Transportation Authority	0	0.000%	0	0.000%	0	0.000%
U.C.I.	0	0.000%	0	0.000%	0	0.000%
O.C. Children and Families Comm.	0	0.000%	0	0.000%	0	0.000%
Local Agency Formation Comm.	0	0.000%	0	0.000%	0	0.000%
Rancho Santa Margarita	0	0.000%	0	0.000%	0	0.000%
O.C. Superior Court	0	0.000%	0	0.000%	0	0.000%
O.C. IHSS Public Authority	0	0.000%	0	0.000%	0	0.000%
Total for all Employers	**$31,341,000**	**100.000%**	**$171,671,000**	**100.000%**	**$69,659,000**	**100.000%**

Note: Results may not total due to rounding.

* Excluding Employer Paid Member Contributions and Employee Paid Reverse Pick-up Contributions, and not Reduced for Discount due to Prepaid Contributions.

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Actual Contributions[1] by Employer and Rate Group

January 1, 2022 to December 31, 2022

Employer	Total Contributions[2]	Total Percentage
Orange County	$586,974,000	77.674%
O.C. Cemetery District	285,000	0.038%
O.C. Law Library	128,000	0.017%
O.C. Vector Control District	0	0.000%
O.C. Retirement System	3,614,000	0.478%
O.C. Fire Authority	77,952,000	10.315%
Cypress Recreation and Parks	0	0.000%
Department of Education	0	0.000%
Transportation Corridor Agency	895,000	0.118%
City of San Juan Capistrano	2,138,000	0.283%
O.C. Sanitation District	8,686,000	1.149%
O.C. Transportation Authority	33,081,000	4.378%
U.C.I.	0	0.000%
O.C. Children and Families Comm.	187,000	0.025%
Local Agency Formation Comm.	182,000	0.024%
Rancho Santa Margarita	0	0.000%
O.C. Superior Court	41,375,000	5.475%
O.C. IHSS Public Authority	197,000	0.026%
Total for all Employers	**$755,694,000**	**100.000%**

Note: Results may not total due to rounding.

[1] Excluding Employer Paid Member Contributions and Employee Paid Reverse Pick-up Contributions, and not Reduced for Discount due to Prepaid Contributions.
[2] Excludes combined additional contributions of $11,777,000 made by O.C. Fire Authority towards the reduction of their UAALs, combined contributions of $4,186,000 made by Department of Education, U.C.I., and Cypress Recreation & Parks and combined employer pick-up contributions of $33,000 made by O.C. Children and Families Commission and Local Agency Formation Commission.

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Allocation of December 31, 2022 Net Pension Liability

Employer	Rate Group #1	Rate Group #1 Percentage	Rate Group #2	Rate Group #2 Percentage	Rate Group #3	Rate Group #3 Percentage
Orange County	$43,084,275	56.320%	$3,141,103,763	88.388%	$0	0.000%
O.C. Cemetery District	0	0.000%	0	0.000%	0	0.000%
O.C. Law Library	0	0.000%	0	0.000%	0	0.000%
O.C. Vector Control District*	47,967	0.063%	0	0.000%	0	0.000%
O.C. Retirement System	0	0.000%	31,526,121	0.887%	0	0.000%
O.C. Fire Authority	0	0.000%	0	0.000%	0	0.000%
Cypress Recreation and Parks*	61,016	0.080%	0	0.000%	0	0.000%
Department of Education*	3,323,372	4.344%	0	0.000%	0	0.000%
Transportation Corridor Agency	0	0.000%	0	0.000%	0	0.000%
City of San Juan Capistrano	0	0.000%	18,650,483	0.525%	0	0.000%
O.C. Sanitation District	0	0.000%	0	0.000%	(10,604,801)	100.000%
O.C. Transportation Authority	0	0.000%	0	0.000%	0	0.000%
U.C.I.*	29,314,724	38.321%	0	0.000%	0	0.000%
O.C. Children and Families Comm.	0	0.000%	(21,846)	(0.001%)	0	0.000%
Local Agency Formation Comm.	0	0.000%	1,587,646	0.045%	0	0.000%
Rancho Santa Margarita	0	0.000%	0	0.000%	0	0.000%
O.C. Superior Court	0	0.000%	360,927,849	10.156%	0	0.000%
O.C. IHSS Public Authority	666,697	0.872%	0	0.000%	0	0.000%
Total for all Employers	**$76,498,051**	**100.000%**	**$3,553,774,016**	**100.000%**	**$(10,604,801)**	**100.000%**

Note: Results may not total due to rounding.

* In determining the NPLs for the O.C. Vector Control District, Cypress Recreation and Parks, Department of Education and U.C.I., we first start by rolling forward the VVAs of these employers as of December 31, 2021 to December 31, 2022 for the actual contributions, benefit payments and return on their VVAs during 2022. Those VVAs are then marked to the Plan FNP as of December 31, 2022. The TPLs for these employers are obtained from internal valuation results (by rolling forward their TPLs from December 31, 2021).

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Allocation of December 31, 2022 Net Pension Liability

Employer	Rate Group #4	Rate Group #4 Percentage	Rate Group #5	Rate Group #5 Percentage	Rate Group #9	Rate Group #9 Percentage
Orange County	$0	0.000%	$0	0.000%	$0	0.000%
O.C. Cemetery District	0	0.000%	0	0.000%	0	0.000%
O.C. Law Library	0	0.000%	0	0.000%	0	0.000%
O.C. Vector Control District	0	0.000%	0	0.000%	0	0.000%
O.C. Retirement System	0	0.000%	0	0.000%	0	0.000%
O.C. Fire Authority	0	0.000%	0	0.000%	0	0.000%
Cypress Recreation and Parks	0	0.000%	0	0.000%	0	0.000%
Department of Education	0	0.000%	0	0.000%	0	0.000%
Transportation Corridor Agency	0	0.000%	0	0.000%	(659,689)	100.000%
City of San Juan Capistrano	0	0.000%	0	0.000%	0	0.000%
O.C. Sanitation District	0	0.000%	0	0.000%	0	0.000%
O.C. Transportation Authority	0	0.000%	207,132,957	100.000%	0	0.000%
U.C.I.	0	0.000%	0	0.000%	0	0.000%
O.C. Children and Families Comm.	0	0.000%	0	0.000%	0	0.000%
Local Agency Formation Comm.	0	0.000%	0	0.000%	0	0.000%
Rancho Santa Margarita	1,652	100.000%	0	0.000%	0	0.000%
O.C. Superior Court	0	0.000%	0	0.000%	0	0.000%
O.C. IHSS Public Authority	0	0.000%	0	0.000%	0	0.000%
Total for all Employers	**$1,652**	**100.000%**	**$207,132,957**	**100.000%**	**$(659,689)**	**100.000%**

Note: Results may not total due to rounding.

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Allocation of December 31, 2022 Net Pension Liability

Employer	Rate Group #10	Rate Group #10 Percentage	Rate Group #11	Rate Group #11 Percentage	Rate Group #12	Rate Group #12 Percentage
Orange County	$0	0.000%	$0	0.000%	$0	0.000%
O.C. Cemetery District	0	0.000%	1,031,416	100.000%	0	0.000%
O.C. Law Library	0	0.000%	0	0.000%	(321,987)	100.000%
O.C. Vector Control District	0	0.000%	0	0.000%	0	0.000%
O.C. Retirement System	0	0.000%	0	0.000%	0	0.000%
O.C. Fire Authority	37,555,646	100.000%	0	0.000%	0	0.000%
Cypress Recreation and Parks	0	0.000%	0	0.000%	0	0.000%
Department of Education	0	0.000%	0	0.000%	0	0.000%
Transportation Corridor Agency	0	0.000%	0	0.000%	0	0.000%
City of San Juan Capistrano	0	0.000%	0	0.000%	0	0.000%
O.C. Sanitation District	0	0.000%	0	0.000%	0	0.000%
O.C. Transportation Authority	0	0.000%	0	0.000%	0	0.000%
U.C.I.	0	0.000%	0	0.000%	0	0.000%
O.C. Children and Families Comm.	0	0.000%	0	0.000%	0	0.000%
Local Agency Formation Comm.	0	0.000%	0	0.000%	0	0.000%
Rancho Santa Margarita	0	0.000%	0	0.000%	0	0.000%
O.C. Superior Court	0	0.000%	0	0.000%	0	0.000%
O.C. IHSS Public Authority	0	0.000%	0	0.000%	0	0.000%
Total for all Employers	**$37,555,646**	**100.000%**	**$1,031,416**	**100.000%**	**$(321,987)**	**100.000%**

Note: Results may not total due to rounding.

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Allocation of December 31, 2022 Net Pension Liability

Employer	Rate Group #6	Rate Group #6 Percentage	Rate Group #7	Rate Group #7 Percentage	Rate Group #8	Rate Group #8 Percentage
Orange County	$199,228,663	100.000%	$1,085,865,303	100.000%	$0	0.000%
O.C. Cemetery District	0	0.000%	0	0.000%	0	0.000%
O.C. Law Library	0	0.000%	0	0.000%	0	0.000%
O.C. Vector Control District	0	0.000%	0	0.000%	0	0.000%
O.C. Retirement System	0	0.000%	0	0.000%	0	0.000%
O.C. Fire Authority	0	0.000%	0	0.000%	241,504,944	100.000%
Cypress Recreation and Parks	0	0.000%	0	0.000%	0	0.000%
Department of Education	0	0.000%	0	0.000%	0	0.000%
Transportation Corridor Agency	0	0.000%	0	0.000%	0	0.000%
City of San Juan Capistrano	0	0.000%	0	0.000%	0	0.000%
O.C. Sanitation District	0	0.000%	0	0.000%	0	0.000%
O.C. Transportation Authority	0	0.000%	0	0.000%	0	0.000%
U.C.I.	0	0.000%	0	0.000%	0	0.000%
O.C. Children and Families Comm.	0	0.000%	0	0.000%	0	0.000%
Local Agency Formation Comm.	0	0.000%	0	0.000%	0	0.000%
Rancho Santa Margarita	0	0.000%	0	0.000%	0	0.000%
O.C. Superior Court	0	0.000%	0	0.000%	0	0.000%
O.C. IHSS Public Authority	0	0.000%	0	0.000%	0	0.000%
Total for all Employers	**$199,228,663**	**100.000%**	**$1,085,865,303**	**100.000%**	**$241,504,944**	**100.000%**

Note: Results may not total due to rounding.

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Allocation of December 31, 2022 Net Pension Liability

Employer	Total NPL	Total Percentage
Orange County	$4,469,282,004	82.903%
O.C. Cemetery District	1,031,416	0.019%
O.C. Law Library	(321,987)	(0.006%)
O.C. Vector Control District*	47,967	0.001%
O.C. Retirement System	31,526,121	0.585%
O.C. Fire Authority	279,060,590	5.176%
Cypress Recreation and Parks*	61,016	0.001%
Department of Education*	3,323,372	0.062%
Transportation Corridor Agency	(659,689)	(0.012%)
City of San Juan Capistrano	18,650,483	0.346%
O.C. Sanitation District	(10,604,801)	(0.197%)
O.C. Transportation Authority	207,132,957	3.842%
U.C.I.*	29,314,724	0.544%
O.C. Children and Families Comm.	(21,846)	0.000%
Local Agency Formation Comm.	1,587,646	0.029%
Rancho Santa Margarita	1,652	0.000%
O.C. Superior Court	360,927,849	6.695%
O.C. IHSS Public Authority	666,697	0.012%
Total for all Employers	**$5,391,006,171**	**100.000%**

Note: Results may not total due to rounding.

* In determining the NPLs for the O.C. Vector Control District, Cypress Recreation and Parks, Department of Education and U.C.I., we first start by rolling forward the VVAs of these employers as of December 31, 2021 to December 31, 2022 for the actual contributions, benefit payments and return on their VVAs during 2022. Those VVAs are then marked to the Plan FNP as of December 31, 2022. The TPLs for these employers are obtained from internal valuation results (by rolling forward their TPLs from December 31, 2021).

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Notes regarding determination of proportionate share as of December 31, 2022 measurement date

1. Based on the January 1, 2022 through December 31, 2022 employer contributions as provided by OCERS. These contributions have been adjusted to include transfers made from the County Investment Account and to exclude employer paid member contributions and they have not been reduced for discount due to prepaid contributions.
2.
   a. The Net Pension Liability (NPL) for each Rate Group is the Total Pension Liability (TPL) minus the Plan Fiduciary Net Position (FNP). The TPL for each Rate Group is obtained from internal valuation results. The Plan FNP for each Rate Group is estimated by adjusting the Valuation Value of Assets (VVA) for each membership class by the ratio of the total OCERS Plan FNP (excluding the balance of the County Investment Account and the O.C. Sanitation District UAAL Deferred Account) to total OCERS VVA. As previously directed by OCERS, the County Investment Account is then allocated among the four County Rate Groups using the proportions of County POB contributions applied during 2022. These amounts are provided in item 3. The O.C. Sanitation District UAAL Deferred Account is allocated entirely to Rate Group #3 and the balance of that account has decreased from $15,643,000 to $14,398,000 at the end of the year. The balance of the O.C. Sanitation District UAAL Deferred Account was used to reduce the NPL for the O.C. Sanitation District as of the measurement date.

   b. Each of General Rate Groups #3, #4, #5, #9, #10, #11 and #12 and Safety Rate Groups #6, #7 and #8 have only one active employer, so all of the NPL for that Rate Group is allocated to the corresponding employer.

   c. For General Rate Groups #1 and #2, the NPL is allocated based on the actual employer contributions within the General Rate Group.
      - The NPL for Rate Group #1 was adjusted by the NPLs for the O.C. Vector Control District, Cypress Recreation and Parks, Department of Education and U.C.I. prior to allocating the net NPL to the other employers in Rate Group #1 as the NPLs for these four employers were calculated separately.
      - Calculate ratio of employer's contributions to the total contributions for the Rate Group. For this purpose, the employer contributions exclude the following amounts:

        i) Rate Group #1 (Department of Education): $366,917
        ii) Rate Group #1 (U.C.I.): $3,223,630
        iii) Rate Group #1 (Cypress Recreation & Parks): $595,600

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- Multiply this ratio (unrounded) by the NPL for the Rate Group to determine the employer's proportionate share of the NPL for the Rate Group.
- The UAAL contributions referenced in (i), (ii) and (iii) above are adjusted with interest to December 31, 2022 and are used to reduce the NPL for the three employers as of December 31, 2022.

3. The percentages of contributions by employer are not exactly equal to the percentages we use to allocate the NPL by employer because the NPL for the County has been reduced to reflect the portion of the County Investment Account that has been allocated among the four County Rate Groups. The amounts of the County Investment Account that have been allocated to those Rate Groups are as follows:

Group	Amount
Rate Group #1:	$3,300,236
Rate Group #2:	88,762,138
Rate Group #6:	7,563,286
Rate Group #7:	41,366,340
Total:	**$140,992,000**

In addition, the NPL for Rate Group #2 was allocated prior to applying the adjusted balance of the $1,744,454 in additional UAAL contributions made by O.C. Children and Families Commission on November 15, 2017. That balance is equal to $1,704,902 as of December 31, 2021 and is equal to $1,653,109 as of December 31, 2022 when adjusted with interest for the entire year and UAAL contribution offset starting from January 1, 2022 to December 31, 2022. We would continue to maintain the outstanding balance of the additional UAAL contributions for use in determining the NPL for this employer.

4. If the employer is in several Rate Groups, the employer's total allocated NPL is the sum of its allocated NPL from each Rate Group. Proportionate share of total plan NPL is then the ratio of the employer's total allocated NPL to the total NPL of all employers.

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Actual Contributions* by Employer and Rate Group

January 1, 2023 to December 31, 2023

Employer	Rate Group #1	Rate Group #1 Percentage	Rate Group #2	Rate Group #2 Percentage	Rate Group #3	Rate Group #3 Percentage
Orange County	$13,260,000	98.499%	$387,681,000	88.195%	$0	0.000%
O.C. Cemetery District	0	0.000%	0	0.000%	0	0.000%
O.C. Law Library	0	0.000%	0	0.000%	0	0.000%
O.C. Vector Control District	0	0.000%	0	0.000%	0	0.000%
O.C. Retirement System	0	0.000%	4,477,000	1.018%	0	0.000%
O.C. Fire Authority	0	0.000%	0	0.000%	0	0.000%
Cypress Recreation and Parks	0	0.000%	0	0.000%	0	0.000%
Department of Education	0	0.000%	0	0.000%	0	0.000%
Transportation Corridor Agency	0	0.000%	0	0.000%	0	0.000%
City of San Juan Capistrano	0	0.000%	2,261,000	0.514%	0	0.000%
O.C. Sanitation District	0	0.000%	0	0.000%	8,888,000	100.000%
O.C. Transportation Authority	0	0.000%	0	0.000%	0	0.000%
U.C.I.	0	0.000%	0	0.000%	0	0.000%
O.C. Children and Families Comm.	0	0.000%	231,000	0.053%	0	0.000%
Local Agency Formation Comm.	0	0.000%	221,000	0.050%	0	0.000%
Rancho Santa Margarita	0	0.000%	0	0.000%	0	0.000%
O.C. Superior Court	0	0.000%	44,704,000	10.170%	0	0.000%
O.C. IHSS Public Authority	202,000	1.501%	0	0.000%	0	0.000%
Total for all Employers	**$13,462,000**	**100.000%**	**$439,575,000**	**100.000%**	**$8,888,000**	**100.000%**

Note: Results may not total due to rounding.

* Excluding Employer Paid Member Contributions and Employee Paid Reverse Pick-up Contributions, and not Reduced for Discount due to Prepaid Contributions.

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Actual Contributions* by Employer and Rate Group

January 1, 2023 to December 31, 2023

Employer	Rate Group #4	Rate Group #4 Percentage	Rate Group #5	Rate Group #5 Percentage	Rate Group #9	Rate Group #9 Percentage
Orange County	$0	0.000%	$0	0.000%	$0	0.000%
O.C. Cemetery District	0	0.000%	0	0.000%	0	0.000%
O.C. Law Library	0	0.000%	0	0.000%	0	0.000%
O.C. Vector Control District	0	0.000%	0	0.000%	0	0.000%
O.C. Retirement System	0	0.000%	0	0.000%	0	0.000%
O.C. Fire Authority	0	0.000%	0	0.000%	0	0.000%
Cypress Recreation and Parks	0	0.000%	0	0.000%	0	0.000%
Department of Education	0	0.000%	0	0.000%	0	0.000%
Transportation Corridor Agency	0	0.000%	0	0.000%	867,000	100.000%
City of San Juan Capistrano	0	0.000%	0	0.000%	0	0.000%
O.C. Sanitation District	0	0.000%	0	0.000%	0	0.000%
O.C. Transportation Authority	0	0.000%	33,339,000	100.000%	0	0.000%
U.C.I.	0	0.000%	0	0.000%	0	0.000%
O.C. Children and Families Comm.	0	0.000%	0	0.000%	0	0.000%
Local Agency Formation Comm.	0	0.000%	0	0.000%	0	0.000%
Rancho Santa Margarita	0	100.000%	0	0.000%	0	0.000%
O.C. Superior Court	0	0.000%	0	0.000%	0	0.000%
O.C. IHSS Public Authority	0	0.000%	0	0.000%	0	0.000%
Total for all Employers	**$0**	**100.000%**	**$33,339,000**	**100.000%**	**$867,000**	**100.000%**

Note: Results may not total due to rounding.

* Excluding Employer Paid Member Contributions and Employee Paid Reverse Pick-up Contributions, and not Reduced for Discount due to Prepaid Contributions.

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Actual Contributions* by Employer and Rate Group

January 1, 2023 to December 31, 2023

Employer	Rate Group #10	Rate Group #10 Percentage	Rate Group #11	Rate Group #11 Percentage	Rate Group #12	Rate Group #12 Percentage
Orange County	$0	0.000%	$0	0.000%	$0	0.000%
O.C. Cemetery District	0	0.000%	274,000	100.000%	0	0.000%
O.C. Law Library	0	0.000%	0	0.000%	130,000	100.000%
O.C. Vector Control District	0	0.000%	0	0.000%	0	0.000%
O.C. Retirement System	0	0.000%	0	0.000%	0	0.000%
O.C. Fire Authority	8,040,000	100.000%	0	0.000%	0	0.000%
Cypress Recreation and Parks	0	0.000%	0	0.000%	0	0.000%
Department of Education	0	0.000%	0	0.000%	0	0.000%
Transportation Corridor Agency	0	0.000%	0	0.000%	0	0.000%
City of San Juan Capistrano	0	0.000%	0	0.000%	0	0.000%
O.C. Sanitation District	0	0.000%	0	0.000%	0	0.000%
O.C. Transportation Authority	0	0.000%	0	0.000%	0	0.000%
U.C.I.	0	0.000%	0	0.000%	0	0.000%
O.C. Children and Families Comm.	0	0.000%	0	0.000%	0	0.000%
Local Agency Formation Comm.	0	0.000%	0	0.000%	0	0.000%
Rancho Santa Margarita	0	0.000%	0	0.000%	0	0.000%
O.C. Superior Court	0	0.000%	0	0.000%	0	0.000%
O.C. IHSS Public Authority	0	0.000%	0	0.000%	0	0.000%
Total for all Employers	**$8,040,000**	**100.000%**	**$274,000**	**100.000%**	**$130,000**	**100.000%**

Note: Results may not total due to rounding.

* Excluding Employer Paid Member Contributions and Employee Paid Reverse Pick-up Contributions, and not Reduced for Discount due to Prepaid Contributions.

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Actual Contributions* by Employer and Rate Group

January 1, 2023 to December 31, 2023

Employer	Rate Group #6	Rate Group #6 Percentage	Rate Group #7	Rate Group #7 Percentage	Rate Group #8	Rate Group #8 Percentage
Orange County	$28,844,000	100.000%	$168,194,000	100.000%	$0	0.000%
O.C. Cemetery District	0	0.000%	0	0.000%	0	0.000%
O.C. Law Library	0	0.000%	0	0.000%	0	0.000%
O.C. Vector Control District	0	0.000%	0	0.000%	0	0.000%
O.C. Retirement System	0	0.000%	0	0.000%	0	0.000%
O.C. Fire Authority	0	0.000%	0	0.000%	62,271,000	100.000%
Cypress Recreation and Parks	0	0.000%	0	0.000%	0	0.000%
Department of Education	0	0.000%	0	0.000%	0	0.000%
Transportation Corridor Agency	0	0.000%	0	0.000%	0	0.000%
City of San Juan Capistrano	0	0.000%	0	0.000%	0	0.000%
O.C. Sanitation District	0	0.000%	0	0.000%	0	0.000%
O.C. Transportation Authority	0	0.000%	0	0.000%	0	0.000%
U.C.I.	0	0.000%	0	0.000%	0	0.000%
O.C. Children and Families Comm.	0	0.000%	0	0.000%	0	0.000%
Local Agency Formation Comm.	0	0.000%	0	0.000%	0	0.000%
Rancho Santa Margarita	0	0.000%	0	0.000%	0	0.000%
O.C. Superior Court	0	0.000%	0	0.000%	0	0.000%
O.C. IHSS Public Authority	0	0.000%	0	0.000%	0	0.000%
Total for all Employers	**$28,844,000**	**100.000%**	**$168,194,000**	**100.000%**	**$62,271,000**	**100.000%**

Note: Results may not total due to rounding.

* Excluding Employer Paid Member Contributions and Employee Paid Reverse Pick-up Contributions, and not Reduced for Discount due to Prepaid Contributions.

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Actual Contributions[1] by Employer and Rate Group

January 1, 2023 to December 31, 2023

Employer	Total Contributions[2]	Total Percentage
Orange County	$597,979,000	78.283%
O.C. Cemetery District	274,000	0.036%
O.C. Law Library	130,000	0.017%
O.C. Vector Control District	0	0.000%
O.C. Retirement System	4,477,000	0.586%
O.C. Fire Authority	70,311,000	9.204%
Cypress Recreation and Parks	0	0.000%
Department of Education	0	0.000%
Transportation Corridor Agency	867,000	0.113%
City of San Juan Capistrano	2,261,000	0.296%
O.C. Sanitation District	8,888,000	1.164%
O.C. Transportation Authority	33,339,000	4.364%
U.C.I.	0	0.000%
O.C. Children and Families Comm.	231,000	0.030%
Local Agency Formation Comm.	221,000	0.029%
Rancho Santa Margarita	0	0.000%
O.C. Superior Court	44,704,000	5.852%
O.C. IHSS Public Authority	202,000	0.026%
Total for all Employers	**$763,884,000**	**100.000%**

Note: Results may not total due to rounding.

[1] Excluding Employer Paid Member Contributions and Employee Paid Reverse Pick-up Contributions, and not Reduced for Discount due to Prepaid Contributions.

[2] Excludes combined additional contributions of $13,760,000 made by O.C. Fire Authority towards the reduction of their UAALs, combined contributions of $3,297,000 made by Department of Education and U.C.I. and combined employer pick-up contributions of $42,000 made by O.C. Children and Families Commission, Local Agency Formation Commission, and Orange County Law Enforcement.

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Allocation of December 31, 2023 Net Pension Liability

Employer	Rate Group #1	Rate Group #1 Percentage	Rate Group #2	Rate Group #2 Percentage	Rate Group #3	Rate Group #3 Percentage
Orange County	$27,102,081	47.200%	$2,896,260,193	87.898%	$0	0.000%
O.C. Cemetery District	0	0.000%	0	0.000%	0	0.000%
O.C. Law Library	0	0.000%	0	0.000%	0	0.000%
O.C. Vector Control District*	752,245	1.310%	0	0.000%	0	0.000%
O.C. Retirement System	0	0.000%	34,539,527	1.048%	0	0.000%
O.C. Fire Authority	0	0.000%	0	0.000%	0	0.000%
Cypress Recreation and Parks*	(641,475)	(1.117%)	0	0.000%	0	0.000%
Department of Education*	3,189,922	5.555%	0	0.000%	0	0.000%
Transportation Corridor Agency	0	0.000%	0	0.000%	0	0.000%
City of San Juan Capistrano	0	0.000%	17,443,348	0.529%	0	0.000%
O.C. Sanitation District	0	0.000%	0	0.000%	(18,531,537)	100.000%
O.C. Transportation Authority	0	0.000%	0	0.000%	0	0.000%
U.C.I.*	26,555,318	46.247%	0	0.000%	0	0.000%
O.C. Children and Families Comm.	0	0.000%	189,581	0.006%	0	0.000%
Local Agency Formation Comm.	0	0.000%	1,704,989	0.052%	0	0.000%
Rancho Santa Margarita	0	0.000%	0	0.000%	0	0.000%
O.C. Superior Court	0	0.000%	344,886,083	10.467%	0	0.000%
O.C. IHSS Public Authority	462,162	0.805%	0	0.000%	0	0.000%
Total for all Employers	**$57,420,253**	**100.000%**	**$3,295,023,721**	**100.000%**	**$(18,531,537)**	**100.000%**

Note: Results may not total due to rounding.

* In determining the NPLs for the O.C. Vector Control District, Cypress Recreation and Parks, Department of Education and U.C.I., we first start by rolling forward the VVAs of these employers as of December 31, 2022 to December 31, 2023 for the actual contributions, benefit payments and return on their VVAs during 2023. Those VVAs are then marked to the Plan FNP as of December 31, 2023. The TPLs for these employers are obtained from internal valuation results (by rolling forward their TPLs from December 31, 2022). The TPLs as of December 31, 2023 were remeasured by (a) revaluing the TPLs as of December 31, 2022 (before the roll forward) to reflect the actuarial assumptions adopted in the experience study for the period January 1, 2020 through December 31, 2022, and (b) using the revalued TPLs in rolling forward the results from December 31, 2022 to December 31, 2023.

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Allocation of December 31, 2023 Net Pension Liability

Employer	Rate Group #4	Rate Group #4 Percentage	Rate Group #5	Rate Group #5 Percentage	Rate Group #9	Rate Group #9 Percentage
Orange County	$0	0.000%	$0	0.000%	$0	0.000%
O.C. Cemetery District	0	0.000%	0	0.000%	0	0.000%
O.C. Law Library	0	0.000%	0	0.000%	0	0.000%
O.C. Vector Control District	0	0.000%	0	0.000%	0	0.000%
O.C. Retirement System	0	0.000%	0	0.000%	0	0.000%
O.C. Fire Authority	0	0.000%	0	0.000%	0	0.000%
Cypress Recreation and Parks	0	0.000%	0	0.000%	0	0.000%
Department of Education	0	0.000%	0	0.000%	0	0.000%
Transportation Corridor Agency	0	0.000%	0	0.000%	(1,889,567)	100.000%
City of San Juan Capistrano	0	0.000%	0	0.000%	0	0.000%
O.C. Sanitation District	0	0.000%	0	0.000%	0	0.000%
O.C. Transportation Authority	0	0.000%	207,825,439	100.000%	0	0.000%
U.C.I.	0	0.000%	0	0.000%	0	0.000%
O.C. Children and Families Comm.	0	0.000%	0	0.000%	0	0.000%
Local Agency Formation Comm.	0	0.000%	0	0.000%	0	0.000%
Rancho Santa Margarita	119	100.000%	0	0.000%	0	0.000%
O.C. Superior Court	0	0.000%	0	0.000%	0	0.000%
O.C. IHSS Public Authority	0	0.000%	0	0.000%	0	0.000%
Total for all Employers	**$119**	**100.000%**	**$207,825,439**	**100.000%**	**$(1,889,567)**	**100.000%**

Note: Results may not total due to rounding.

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Allocation of December 31, 2023 Net Pension Liability

Employer	Rate Group #10	Rate Group #10 Percentage	Rate Group #11	Rate Group #11 Percentage	Rate Group #12	Rate Group #12 Percentage
Orange County	$0	0.000%	$0	0.000%	$0	0.000%
O.C. Cemetery District	0	0.000%	993,411	100.000%	0	0.000%
O.C. Law Library	0	0.000%	0	0.000%	(1,034,826)	100.000%
O.C. Vector Control District	0	0.000%	0	0.000%	0	0.000%
O.C. Retirement System	0	0.000%	0	0.000%	0	0.000%
O.C. Fire Authority	27,738,768	100.000%	0	0.000%	0	0.000%
Cypress Recreation and Parks	0	0.000%	0	0.000%	0	0.000%
Department of Education	0	0.000%	0	0.000%	0	0.000%
Transportation Corridor Agency	0	0.000%	0	0.000%	0	0.000%
City of San Juan Capistrano	0	0.000%	0	0.000%	0	0.000%
O.C. Sanitation District	0	0.000%	0	0.000%	0	0.000%
O.C. Transportation Authority	0	0.000%	0	0.000%	0	0.000%
U.C.I.	0	0.000%	0	0.000%	0	0.000%
O.C. Children and Families Comm.	0	0.000%	0	0.000%	0	0.000%
Local Agency Formation Comm.	0	0.000%	0	0.000%	0	0.000%
Rancho Santa Margarita	0	0.000%	0	0.000%	0	0.000%
O.C. Superior Court	0	0.000%	0	0.000%	0	0.000%
O.C. IHSS Public Authority	0	0.000%	0	0.000%	0	0.000%
Total for all Employers	**$27,738,768**	**100.000%**	**$993,411**	**100.000%**	**$(1,034,826)**	**100.000%**

Note: Results may not total due to rounding.

Section 2: GASB 68 Information

Allocation of December 31, 2023 Net Pension Liability

Employer	Rate Group #6	Rate Group #6 Percentage	Rate Group #7	Rate Group #7 Percentage	Rate Group #8	Rate Group #8 Percentage
Orange County	$179,894,626	100.000%	$958,553,257	100.000%	$0	0.000%
O.C. Cemetery District	0	0.000%	0	0.000%	0	0.000%
O.C. Law Library	0	0.000%	0	0.000%	0	0.000%
O.C. Vector Control District	0	0.000%	0	0.000%	0	0.000%
O.C. Retirement System	0	0.000%	0	0.000%	0	0.000%
O.C. Fire Authority	0	0.000%	0	0.000%	140,718,910	100.000%
Cypress Recreation and Parks	0	0.000%	0	0.000%	0	0.000%
Department of Education	0	0.000%	0	0.000%	0	0.000%
Transportation Corridor Agency	0	0.000%	0	0.000%	0	0.000%
City of San Juan Capistrano	0	0.000%	0	0.000%	0	0.000%
O.C. Sanitation District	0	0.000%	0	0.000%	0	0.000%
O.C. Transportation Authority	0	0.000%	0	0.000%	0	0.000%
U.C.I.	0	0.000%	0	0.000%	0	0.000%
O.C. Children and Families Comm.	0	0.000%	0	0.000%	0	0.000%
Local Agency Formation Comm.	0	0.000%	0	0.000%	0	0.000%
Rancho Santa Margarita	0	0.000%	0	0.000%	0	0.000%
O.C. Superior Court	0	0.000%	0	0.000%	0	0.000%
O.C. IHSS Public Authority	0	0.000%	0	0.000%	0	0.000%
Total for all Employers	**$179,894,626**	**100.000%**	**$958,553,257**	**100.000%**	**$140,718,910**	**100.000%**

Note: Results may not total due to rounding.

Section 2: GASB 68 Information

Allocation of December 31, 2023 Net Pension Liability

Employer	Total NPL	Total Percentage
Orange County	$4,061,810,157	83.805%
O.C. Cemetery District	993,411	0.020%
O.C. Law Library	(1,034,826)	(0.021%)
O.C. Vector Control District*	752,245	0.015%
O.C. Retirement System	34,539,527	0.713%
O.C. Fire Authority	168,457,678	3.476%
Cypress Recreation and Parks*	(641,475)	(0.013%)
Department of Education*	3,189,922	0.066%
Transportation Corridor Agency	(1,889,567)	(0.039%)
City of San Juan Capistrano	17,443,348	0.360%
O.C. Sanitation District	(18,531,537)	(0.382%)
O.C. Transportation Authority	207,825,439	4.288%
U.C.I.*	26,555,318	0.548%
O.C. Children and Families Comm.	189,581	0.004%
Local Agency Formation Comm.	1,704,989	0.035%
Rancho Santa Margarita	119	0.000%
O.C. Superior Court	344,886,083	7.116%
O.C. IHSS Public Authority	462,162	0.009%
Total for all Employers	**$4,846,712,574**	**100.000%**

Note: Results may not total due to rounding.

* In determining the NPLs for the O.C. Vector Control District, Cypress Recreation and Parks, Department of Education and U.C.I., we first start by rolling forward the VVAs of these employers as of December 31, 2022 to December 31, 2023 for the actual contributions, benefit payments and return on their VVAs during 2023. Those VVAs are then marked to the Plan FNP as of December 31, 2023. The TPLs for these employers are obtained from internal valuation results (by rolling forward their TPLs from December 31, 2022). The TPLs as of December 31, 2023 were remeasured by (a) revaluing the TPLs as of December 31, 2022 (before the roll forward) to reflect the actuarial assumptions adopted in the experience study for the period January 1, 2020 through December 31, 2022, and (b) using the revalued TPLs in rolling forward the results from December 31, 2022 to December 31, 2023.

Section 2: GASB 68 Information

Notes regarding determination of proportionate share as of December 31, 2023 measurement date

1. Based on the January 1, 2023 through December 31, 2023 employer contributions as provided by OCERS. These contributions have been adjusted to include transfers made from the County Investment Account and to exclude employer paid member contributions and they have not been reduced for discount due to prepaid contributions.
2.
   a. The Net Pension Liability (NPL) for each Rate Group is the Total Pension Liability (TPL) minus the Plan Fiduciary Net Position (FNP). The TPL for each Rate Group is obtained from internal valuation results. The Plan FNP for each Rate Group is estimated by adjusting the Valuation Value of Assets (VVA) for each membership class by the ratio of the total OCERS Plan FNP (excluding the balance of the County Investment Account and the O.C. Sanitation District UAAL Deferred Account) to total OCERS VVA. As previously directed by OCERS, the County Investment Account is then allocated among the four County Rate Groups using the proportions of County POB contributions applied during 2023. These amounts are provided in item 3. The O.C. Sanitation District UAAL Deferred Account is allocated entirely to Rate Group #3 and the balance of that account has increased from $14,398,000 to $16,025,000 at the end of the year. The balance of the O.C. Sanitation District UAAL Deferred Account was used to reduce the NPL for the O.C. Sanitation District as of the measurement date.
   b. Each of General Rate Groups #3, #4, #5, #9, #10, #11 and #12 and Safety Rate Groups #6, #7 and #8 have only one active employer, so all of the NPL for that Rate Group is allocated to the corresponding employer.
   c. For General Rate Groups #1 and #2, the NPL is allocated based on the actual employer contributions within the General Rate Group.
      - The NPL for Rate Group #1 was adjusted by the NPLs for the O.C. Vector Control District, Cypress Recreation and Parks, Department of Education and U.C.I. prior to allocating the net NPL to the other employers in Rate Group #1 as the NPLs for these four employers were calculated separately.
      - Calculate ratio of employer's contributions to the total contributions for the Rate Group. For this purpose, the employer contributions exclude the following amounts:

        i) Rate Group #1 (Department of Education): $316,960

        ii) Rate Group #1 (U.C.I.): $2,980,443
      - Multiply this ratio (unrounded) by the NPL for the Rate Group to determine the employer's proportionate share of the NPL for the Rate Group.
      - The UAAL contributions referenced in (i) and (ii) above are adjusted with interest to December 31, 2023 and are used to reduce the NPL for the three employers as of December 31, 2023.

Section 2: GASB 68 Information

3. The percentages of contributions by employer are not exactly equal to the percentages we use to allocate the NPL by employer because the NPL for the County has been reduced to reflect the portion of the County Investment Account that has been allocated among the four County Rate Groups. The amounts of the County Investment Account that have been allocated to those Rate Groups are as follows:

Group	Amount
Rate Group #1:	$3,235,878
Rate Group #2:	94,652,961
Rate Group #6:	7,074,542
Rate Group #7:	41,146,619
Total:	**$146,110,000**

In addition, the NPL for Rate Group #2 was allocated prior to applying the adjusted balance of the $1,744,454 in additional UAAL contributions made by O.C. Children and Families Commission on November 15, 2017. That balance is equal to $1,653,109 as of December 31, 2022 and is equal to $1,592,557 as of December 31, 2023 when adjusted with interest for the entire year and UAAL contribution offset starting from January 1, 2023 to December 31, 2023. We would continue to maintain the outstanding balance of the additional UAAL contributions for use in determining the NPL for this employer.

Section 2: GASB 68 Information

4. If the employer is in several Rate Groups, the employer's total allocated NPL is the sum of its allocated NPL from each Rate Group. Proportionate share of total plan NPL is then the ratio of the employer's total allocated NPL to the total NPL of all employers.

   For the active employers, the following items are allocated based on the corresponding proportionate share within each Rate Group:

   a. Net Pension Liability
   b. Service cost
   c. Interest on the Total Pension Liability
   d. Current-period benefit changes
   e. Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability
   f. Expensed portion of current-period changes of assumptions or other inputs
   g. Member contributions
   h. Projected earnings on plan investments
   i. Expensed portion of current-period differences between actual and projected earnings on plan investments
   j. Administrative expense
   k. Recognition of beginning of year deferred outflows of resources as pension expense
   l. Recognition of beginning of year deferred inflows of resources as pension expense

Section 2: GASB 68 Information

Exhibit 6 – Pension expense

Total for All Employers

Line Description	Current Year	Prior Year
Reporting and Measurement Dates		
Reporting date for Employer under GASB 68	June 30, 2024	June 30, 2023
Measurement date	December 31, 2023	December 31, 2022
Components of Pension Expense		
Service cost	$536,399,540	$526,768,913
Interest on the Total Pension Liability	1,750,651,189	1,675,053,178
Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	0	0
Benefit changes	0	0
Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	61,081,366	8,595,262
Expensed portion of current-period changes of assumptions or other inputs	30,939,509	0
Member contributions*	(277,497,000)	(270,032,000)
Projected earnings on plan investments	(1,370,658,364)	(1,528,466,374)
Expensed portion of current-period differences between projected and actual earnings on plan investments	(190,964,528)	717,411,276
Administrative expense	29,056,000	23,546,000
Other	0	0
Recognition of beginning of year deferred outflows of resources as pension expense	807,826,542	487,751,950
Recognition of beginning of year deferred inflows of resources as pension expense	(901,859,752)	(912,304,973)
Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions	0	0
Pension expense	**$474,974,502**	**$728,323,232**

* Member contributions include employer paid member contributions, if any.

Section 2: GASB 68 Information

Exhibit 6 – Pension expense

Orange County

Line Description	Current Year	Prior Year
Reporting and Measurement Dates		
Reporting date for Employer under GASB 68	June 30, 2024	June 30, 2023
Measurement date	December 31, 2023	December 31, 2022
Components of Pension Expense		
Service cost	$386,526,125	$380,041,954
Interest on the Total Pension Liability	1,301,503,117	1,251,187,176
Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	(2,748,624)	1,786,458
Benefit changes	0	0
Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	42,699,713	4,117,589
Expensed portion of current-period changes of assumptions or other inputs	23,752,462	0
Member contributions*	(205,220,382)	(201,176,237)
Projected earnings on plan investments	(989,243,833)	(1,106,094,213)
Expensed portion of current-period differences between projected and actual earnings on plan investments	(137,865,610)	518,370,000
Administrative expense	21,976,640	17,678,496
Other	0	0
Recognition of beginning of year deferred outflows of resources as pension expense	573,376,226	356,184,404
Recognition of beginning of year deferred inflows of resources as pension expense	(639,315,324)	(645,848,775)
Net amortization of deferred amounts from changes in proportion and differences between employer’s contributions and proportionate share of contributions	4,069,056	3,818,335
Pension expense	**$379,509,566**	**$580,065,187**

* Member contributions include employer paid member contributions, if any.

Section 2: GASB 68 Information

Exhibit 6 – Pension expense

O.C. Cemetery District

Line Description	Current Year	Prior Year
Reporting and Measurement Dates		
Reporting date for Employer under GASB 68	June 30, 2024	June 30, 2023
Measurement date	December 31, 2023	December 31, 2022
Components of Pension Expense		
Service cost	$444,699	$407,963
Interest on the Total Pension Liability	1,019,489	944,512
Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	0	0
Benefit changes	0	0
Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	65,715	19,388
Expensed portion of current-period changes of assumptions or other inputs	29,580	0
Member contributions*	(198,000)	(191,000)
Projected earnings on plan investments	(931,669)	(1,029,298)
Expensed portion of current-period differences between projected and actual earnings on plan investments	(127,450)	489,415
Administrative expense	12,898	10,944
Other	0	0
Recognition of beginning of year deferred outflows of resources as pension expense	663,846	423,199
Recognition of beginning of year deferred inflows of resources as pension expense	(629,519)	(664,112)
Net amortization of deferred amounts from changes in proportion and differences between employer’s contributions and proportionate share of contributions	0	0
Pension expense	**$349,589**	**$411,011**

* Member contributions include employer paid member contributions, if any.

Section 2: GASB 68 Information

Exhibit 6 – Pension expense

O.C. Law Library

Line Description	Current Year	Prior Year
Reporting and Measurement Dates		
Reporting date for Employer under GASB 68	June 30, 2024	June 30, 2023
Measurement date	December 31, 2023	December 31, 2022
Components of Pension Expense		
Service cost	$334,491	$319,023
Interest on the Total Pension Liability	887,611	839,331
Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	0	0
Benefit changes	0	0
Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	(30,934)	6,542
Expensed portion of current-period changes of assumptions or other inputs	4,773	0
Member contributions*	(172,000)	(165,000)
Projected earnings on plan investments	(896,769)	(1,010,753)
Expensed portion of current-period differences between projected and actual earnings on plan investments	(122,312)	480,213
Administrative expense	8,344	6,733
Other	0	0
Recognition of beginning of year deferred outflows of resources as pension expense	511,347	288,619
Recognition of beginning of year deferred inflows of resources as pension expense	(724,022)	(740,456)
Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions	0	0
Pension expense	**$(199,471)**	**$24,252**

* Member contributions include employer paid member contributions, if any.

Section 2: GASB 68 Information

Exhibit 6 – Pension expense

O.C. Vector Control District

Line Description	Current Year	Prior Year
Reporting and Measurement Dates		
Reporting date for Employer under GASB 68	June 30, 2024	June 30, 2023
Measurement date	December 31, 2023	December 31, 2022
Components of Pension Expense		
Service cost	$0	$0
Interest on the Total Pension Liability	1,828,491	1,803,819
Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	0	0
Benefit changes	0	0
Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	334,638	122,278
Expensed portion of current-period changes of assumptions or other inputs	36,235	0
Member contributions*	0	0
Projected earnings on plan investments	(1,825,133)	(2,188,933)
Expensed portion of current-period differences between projected and actual earnings on plan investments	(256,650)	1,054,636
Administrative expense	0	0
Other	0	0
Recognition of beginning of year deferred outflows of resources as pension expense	1,255,728	773,823
Recognition of beginning of year deferred inflows of resources as pension expense	(1,656,992)	(1,674,671)
Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions	0	0
Pension expense	**$(283,683)**	**$(109,048)**

* Member contributions include employer paid member contributions, if any.

Section 2: GASB 68 Information

Exhibit 6 – Pension expense

O.C. Retirement System

Line Description	Current Year	Prior Year
Reporting and Measurement Dates		
Reporting date for Employer under GASB 68	June 30, 2024	June 30, 2023
Measurement date	December 31, 2023	December 31, 2022
Components of Pension Expense		
Service cost	$2,805,187	$2,306,862
Interest on the Total Pension Liability	10,185,318	8,273,183
Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	871,227	(125,526)
Benefit changes	0	0
Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	307,377	36,835
Expensed portion of current-period changes of assumptions or other inputs	273,035	0
Member contributions*	(1,643,242)	(1,365,769)
Projected earnings on plan investments	(7,587,658)	(7,167,638)
Expensed portion of current-period differences between projected and actual earnings on plan investments	(1,065,033)	3,354,700
Administrative expense	171,604	114,335
Other	0	0
Recognition of beginning of year deferred outflows of resources as pension expense	4,488,967	2,397,791
Recognition of beginning of year deferred inflows of resources as pension expense	(4,682,049)	(3,997,514)
Net amortization of deferred amounts from changes in proportion and differences between employer’s contributions and proportionate share of contributions	1,018,297	1,185,182
Pension expense	**$5,143,030**	**$5,012,441**

* Member contributions include employer paid member contributions, if any.

Section 2: GASB 68 Information

Exhibit 6 – Pension expense

O.C. Fire Authority

Line Description	Current Year	Prior Year
Reporting and Measurement Dates		
Reporting date for Employer under GASB 68	June 30, 2024	June 30, 2023
Measurement date	December 31, 2023	December 31, 2022
Components of Pension Expense		
Service cost	$71,080,267	$71,985,133
Interest on the Total Pension Liability	177,235,065	166,418,627
Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	0	0
Benefit changes	0	0
Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	2,408,223	4,851,903
Expensed portion of current-period changes of assumptions or other inputs	559,062	0
Member contributions*	(31,508,000)	(30,119,000)
Projected earnings on plan investments	(156,580,908)	(172,732,558)
Expensed portion of current-period differences between projected and actual earnings on plan investments	(21,539,655)	81,400,488
Administrative expense	3,216,967	2,801,567
Other	0	0
Recognition of beginning of year deferred outflows of resources as pension expense	96,558,035	48,039,184
Recognition of beginning of year deferred inflows of resources as pension expense	(109,134,518)	(113,363,957)
Net amortization of deferred amounts from changes in proportion and differences between employer’s contributions and proportionate share of contributions	0	0
Pension expense	**$32,294,538**	**$59,281,387**

* Member contributions include employer paid member contributions, if any.

Section 2: GASB 68 Information

Exhibit 6 – Pension expense

Cypress Recreation and Parks

Line Description	Current Year	Prior Year
Reporting and Measurement Dates		
Reporting date for Employer under GASB 68	June 30, 2024	June 30, 2023
Measurement date	December 31, 2023	December 31, 2022
Components of Pension Expense		
Service cost	$0	$0
Interest on the Total Pension Liability	318,034	319,876
Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	0	0
Benefit changes	0	0
Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	(95,426)	(6,841)
Expensed portion of current-period changes of assumptions or other inputs	3,961	0
Member contributions*	0	0
Projected earnings on plan investments	(313,762)	(345,920)
Expensed portion of current-period differences between projected and actual earnings on plan investments	(43,485)	161,776
Administrative expense	0	14,170
Other	0	0
Recognition of beginning of year deferred outflows of resources as pension expense	233,006	868,805
Recognition of beginning of year deferred inflows of resources as pension expense	(194,086)	(187,246)
Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions	0	0
Pension expense	**$(91,758)**	**$824,620**

* Member contributions include employer paid member contributions, if any.

Section 2: GASB 68 Information

Exhibit 6 – Pension expense

Department of Education

Line Description	Current Year	Prior Year
Reporting and Measurement Dates		
Reporting date for Employer under GASB 68	June 30, 2024	June 30, 2023
Measurement date	December 31, 2023	December 31, 2022
Components of Pension Expense		
Service cost	$0	$0
Interest on the Total Pension Liability	751,807	752,044
Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	0	0
Benefit changes	0	0
Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	68,493	88,973
Expensed portion of current-period changes of assumptions or other inputs	(3,962)	0
Member contributions*	0	0
Projected earnings on plan investments	(529,310)	(658,415)
Expensed portion of current-period differences between projected and actual earnings on plan investments	(78,639)	316,706
Administrative expense	8,965	8,729
Other	0	0
Recognition of beginning of year deferred outflows of resources as pension expense	517,872	353,747
Recognition of beginning of year deferred inflows of resources as pension expense	(443,127)	(646,524)
Net amortization of deferred amounts from changes in proportion and differences between employer’s contributions and proportionate share of contributions	0	0
Pension expense	**$292,099**	**$215,260**

* Member contributions include employer paid member contributions, if any.

Section 2: GASB 68 Information

Exhibit 6 – Pension expense

Transportation Corridor Agency

Line Description	Current Year	Prior Year
Reporting and Measurement Dates		
Reporting date for Employer under GASB 68	June 30, 2024	June 30, 2023
Measurement date	December 31, 2023	December 31, 2022
Components of Pension Expense		
Service cost	$1,517,776	$1,719,824
Interest on the Total Pension Liability	4,187,221	4,004,357
Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	0	0
Benefit changes	0	0
Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	230,931	(70,168)
Expensed portion of current-period changes of assumptions or other inputs	98,900	0
Member contributions*	(871,000)	(769,000)
Projected earnings on plan investments	(4,184,666)	(4,700,977)
Expensed portion of current-period differences between projected and actual earnings on plan investments	(574,327)	2,231,602
Administrative expense	47,831	38,494
Other	0	0
Recognition of beginning of year deferred outflows of resources as pension expense	2,478,533	1,160,518
Recognition of beginning of year deferred inflows of resources as pension expense	(2,723,219)	(2,917,822)
Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions	0	0
Pension expense	**$207,980**	**$696,828**

* Member contributions include employer paid member contributions, if any.

Section 2: GASB 68 Information

Exhibit 6 – Pension expense

City of San Juan Capistrano

Line Description	Current Year	Prior Year
Reporting and Measurement Dates		
Reporting date for Employer under GASB 68	June 30, 2024	June 30, 2023
Measurement date	December 31, 2023	December 31, 2022
Components of Pension Expense		
Service cost	$1,416,691	$1,364,714
Interest on the Total Pension Liability	5,143,847	4,894,318
Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	6,333	(691,040)
Benefit changes	0	0
Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	155,233	21,791
Expensed portion of current-period changes of assumptions or other inputs	137,890	0
Member contributions*	(829,879)	(807,973)
Projected earnings on plan investments	(3,831,962)	(4,240,291)
Expensed portion of current-period differences between projected and actual earnings on plan investments	(537,869)	1,984,601
Administrative expense	86,664	67,639
Other	0	0
Recognition of beginning of year deferred outflows of resources as pension expense	2,267,044	1,418,505
Recognition of beginning of year deferred inflows of resources as pension expense	(2,364,555)	(2,364,883)
Net amortization of deferred amounts from changes in proportion and differences between employer’s contributions and proportionate share of contributions	(782,450)	182,364
Pension expense	**$866,987**	**$1,829,745**

* Member contributions include employer paid member contributions, if any.

Section 2: GASB 68 Information

Exhibit 6 – Pension expense

O.C. Sanitation District

Line Description	Current Year	Prior Year
Reporting and Measurement Dates		
Reporting date for Employer under GASB 68	June 30, 2024	June 30, 2023
Measurement date	December 31, 2023	December 31, 2022
Components of Pension Expense		
Service cost	$17,756,049	$17,682,577
Interest on the Total Pension Liability	60,516,087	57,349,037
Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	0	0
Benefit changes	0	0
Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	4,423,910	2,583,448
Expensed portion of current-period changes of assumptions or other inputs	1,676,370	0
Member contributions*	(8,539,000)	(8,371,000)
Projected earnings on plan investments	(60,592,819)	(69,189,314)
Expensed portion of current-period differences between projected and actual earnings on plan investments	(8,349,540)	32,900,795
Administrative expense	480,151	394,721
Other	0	0
Recognition of beginning of year deferred outflows of resources as pension expense	42,123,623	23,879,318
Recognition of beginning of year deferred inflows of resources as pension expense	(40,971,577)	(41,874,971)
Net amortization of deferred amounts from changes in proportion and differences between employer’s contributions and proportionate share of contributions	0	0
Pension expense	**$8,523,254**	**$15,354,611**

* Member contributions include employer paid member contributions, if any.

Section 2: GASB 68 Information

Exhibit 6 – Pension expense

O.C. Transportation Authority

Line Description	Current Year	Prior Year
Reporting and Measurement Dates		
Reporting date for Employer under GASB 68	June 30, 2024	June 30, 2023
Measurement date	December 31, 2023	December 31, 2022
Components of Pension Expense		
Service cost	$26,035,180	$24,124,909
Interest on the Total Pension Liability	77,920,180	76,125,814
Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	0	0
Benefit changes	0	0
Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	7,169,015	(3,790,022)
Expensed portion of current-period changes of assumptions or other inputs	1,607,156	0
Member contributions*	(11,860,000)	(11,226,000)
Projected earnings on plan investments	(63,075,124)	(70,749,224)
Expensed portion of current-period differences between projected and actual earnings on plan investments	(8,989,687)	33,238,497
Administrative expense	1,228,167	1,010,939
Other	0	0
Recognition of beginning of year deferred outflows of resources as pension expense	34,696,608	21,776,737
Recognition of beginning of year deferred inflows of resources as pension expense	(48,264,405)	(47,521,666)
Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions	0	0
Pension expense	**$16,467,090**	**$22,989,984**

* Member contributions include employer paid member contributions, if any.

Section 2: GASB 68 Information

Exhibit 6 – Pension expense

U.C.I.

Line Description	Current Year	Prior Year
Reporting and Measurement Dates		
Reporting date for Employer under GASB 68	June 30, 2024	June 30, 2023
Measurement date	December 31, 2023	December 31, 2022
Components of Pension Expense		
Service cost	$0	$0
Interest on the Total Pension Liability	6,400,356	6,588,721
Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	0	0
Benefit changes	0	0
Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	262,674	188,437
Expensed portion of current-period changes of assumptions or other inputs	16,124	0
Member contributions*	0	0
Projected earnings on plan investments	(4,452,071)	(5,503,209)
Expensed portion of current-period differences between projected and actual earnings on plan investments	(660,624)	2,644,474
Administrative expense	84,304	76,694
Other	0	0
Recognition of beginning of year deferred outflows of resources as pension expense	3,351,956	2,481,257
Recognition of beginning of year deferred inflows of resources as pension expense	(3,436,470)	(4,219,897)
Net amortization of deferred amounts from changes in proportion and differences between employer’s contributions and proportionate share of contributions	0	0
Pension expense	**$1,566,249**	**$2,256,477**

* Member contributions include employer paid member contributions, if any.

Section 2: GASB 68 Information

Exhibit 6 – Pension expense

O.C. Children and Families Comm.

Line Description	Current Year	Prior Year
Reporting and Measurement Dates		
Reporting date for Employer under GASB 68	June 30, 2024	June 30, 2023
Measurement date	December 31, 2023	December 31, 2022
Components of Pension Expense		
Service cost	$15,397	$(1,598)
Interest on the Total Pension Liability	55,905	(5,733)
Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	70,624	265,607
Benefit changes	0	0
Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	1,687	(26)
Expensed portion of current-period changes of assumptions or other inputs	1,499	0
Member contributions*	(9,019)	946
Projected earnings on plan investments	(41,647)	4,967
Expensed portion of current-period differences between projected and actual earnings on plan investments	(5,846)	(2,325)
Administrative expense	942	(79)
Other	0	0
Recognition of beginning of year deferred outflows of resources as pension expense	24,639	(1,662)
Recognition of beginning of year deferred inflows of resources as pension expense	(25,699)	2,770
Net amortization of deferred amounts from changes in proportion and differences between employer’s contributions and proportionate share of contributions	(30,266)	(374,763)
Pension expense	**$58,216**	**$(111,896)**

* Member contributions include employer paid member contributions, if any.

Section 2: GASB 68 Information

Exhibit 6 – Pension expense

Local Agency Formation Comm.

Line Description	Current Year	Prior Year
Reporting and Measurement Dates		
Reporting date for Employer under GASB 68	June 30, 2024	June 30, 2023
Measurement date	December 31, 2023	December 31, 2022
Components of Pension Expense		
Service cost	$138,474	$116,173
Interest on the Total Pension Liability	502,782	416,635
Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	36,039	(35,036)
Benefit changes	0	0
Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	15,173	1,855
Expensed portion of current-period changes of assumptions or other inputs	13,478	0
Member contributions*	(81,116)	(68,780)
Projected earnings on plan investments	(374,553)	(360,960)
Expensed portion of current-period differences between projected and actual earnings on plan investments	(52,574)	168,942
Administrative expense	8,471	5,758
Other	0	0
Recognition of beginning of year deferred outflows of resources as pension expense	221,591	120,752
Recognition of beginning of year deferred inflows of resources as pension expense	(231,122)	(201,314)
Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions	12,308	39,141
Pension expense	**$208,951**	**$203,166**

* Member contributions include employer paid member contributions, if any.

Section 2: GASB 68 Information

Exhibit 6 – Pension expense

Rancho Santa Margarita

Line Description	Current Year	Prior Year
Reporting and Measurement Dates		
Reporting date for Employer under GASB 68	June 30, 2024	June 30, 2023
Measurement date	December 31, 2023	December 31, 2022
Components of Pension Expense		
Service cost	$0	$0
Interest on the Total Pension Liability	3,016	3,016
Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	0	0
Benefit changes	0	0
Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	184	182
Expensed portion of current-period changes of assumptions or other inputs	0	0
Member contributions*	0	0
Projected earnings on plan investments	(2,900)	(3,452)
Expensed portion of current-period differences between projected and actual earnings on plan investments	(527)	1,467
Administrative expense	0	0
Other	0	0
Recognition of beginning of year deferred outflows of resources as pension expense	2,039	1,146
Recognition of beginning of year deferred inflows of resources as pension expense	(1,767)	(3,040)
Net amortization of deferred amounts from changes in proportion and differences between employer’s contributions and proportionate share of contributions	0	0
Pension expense	**$45**	**$(681)**

* Member contributions include employer paid member contributions, if any.

Section 2: GASB 68 Information

Exhibit 6 – Pension expense

O.C. Superior Court

Line Description	Current Year	Prior Year
Reporting and Measurement Dates		
Reporting date for Employer under GASB 68	June 30, 2024	June 30, 2023
Measurement date	December 31, 2023	December 31, 2022
Components of Pension Expense		
Service cost	$28,010,519	$26,410,194
Interest on the Total Pension Liability	101,703,026	94,715,812
Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	1,760,352	(1,226,025)
Benefit changes	0	0
Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	3,069,235	421,707
Expensed portion of current-period changes of assumptions or other inputs	2,726,324	0
Member contributions*	(16,408,191)	(15,636,056)
Projected earnings on plan investments	(75,764,724)	(82,058,946)
Expensed portion of current-period differences between projected and actual earnings on plan investments	(10,634,625)	38,406,398
Administrative expense	1,713,509	1,308,963
Other	0	0
Recognition of beginning of year deferred outflows of resources as pension expense	44,823,495	27,451,185
Recognition of beginning of year deferred inflows of resources as pension expense	(46,751,470)	(45,765,677)
Net amortization of deferred amounts from changes in proportion and differences between employer’s contributions and proportionate share of contributions	(4,266,729)	(4,814,963)
Pension expense	**$29,980,721**	**$39,212,592**

* Member contributions include employer paid member contributions, if any.

Section 2: GASB 68 Information

Exhibit 6 – Pension expense

O.C. IHSS Public Authority

Line Description	Current Year	Prior Year
Reporting and Measurement Dates		
Reporting date for Employer under GASB 68	June 30, 2024	June 30, 2023
Measurement date	December 31, 2023	December 31, 2022
Components of Pension Expense		
Service cost	$318,685	$291,185
Interest on the Total Pension Liability	489,837	422,633
Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	4,049	25,562
Benefit changes	0	0
Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	(4,475)	1,391
Expensed portion of current-period changes of assumptions or other inputs	6,622	0
Member contributions*	(157,171)	(137,131)
Projected earnings on plan investments	(428,856)	(437,240)
Expensed portion of current-period differences between projected and actual earnings on plan investments	(60,075)	208,891
Administrative expense	10,543	7,897
Other	0	0
Recognition of beginning of year deferred outflows of resources as pension expense	231,987	134,622
Recognition of beginning of year deferred inflows of resources as pension expense	(309,831)	(315,218)
Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions	(20,216)	(35,296)
Pension expense	**$81,099**	**$167,296**

* Member contributions include employer paid member contributions, if any.

Section 2: GASB 68 Information

Exhibit 7 – Deferred outflows and deferred inflows of resources

Total for All Employers

Line Description		Current Year	Prior Year
Reporting and Measurement Dates			
Reporting date for Employer under GASB 68		June 30, 2024	June 30, 2023
Measurement date		December 31, 2023	December 31, 2022
Deferred Outflows of Resources			
Changes in proportion and differences between employer's contributions and proportionate share of contributions*		$27,613,400	$25,097,401
Changes of assumptions or other inputs		198,937,580	101,253,219
Net difference between projected and actual earnings on pension plan investments (if any)		2,152,233,822	2,869,645,098
Difference between actual and expected experience in the Total Pension Liability		377,651,069	163,731,917
Total deferred outflows		**$2,756,435,871**	**$3,159,727,635**
Deferred Inflows of Resources			
Changes in proportion and differences between employer's contributions and proportionate share of contributions*		$27,613,400	$25,097,401
Changes of assumptions or other inputs		58,441,920	90,703,515
Net difference between actual and projected earnings on pension plan investments (if any)		1,729,371,061	1,783,252,999
Difference between expected and actual experience in the Total Pension Liability		79,305,152	129,435,283
Total deferred inflows		**$1,894,731,533**	**$2,028,489,198**
Recognition of Deferred Outflows/(Inflows) by Reporting Date for Employer			
	June 30, 2024	N/A	$(94,033,210)
	June 30, 2025	$57,543,241	156,486,894
	June 30, 2026	249,644,599	348,588,252
	June 30, 2027	617,728,800	716,672,453
	June 30, 2028	(95,419,601)	3,524,048
	June 30, 2029	32,207,299	0

* Calculated in accordance with paragraphs 54 and 55 of GASB 68.

Section 2: GASB 68 Information

Exhibit 7 – Deferred outflows and deferred inflows of resources

Orange County

Line Description		Current Year	Prior Year
Reporting and Measurement Dates			
Reporting date for Employer under GASB 68		June 30, 2024	June 30, 2023
Measurement date		December 31, 2023	December 31, 2022
Deferred Outflows of Resources			
Changes in proportion and differences between employer's contributions and proportionate share of contributions*		$10,300,302	$16,413,390
Changes of assumptions or other inputs		154,874,422	81,544,510
Net difference between projected and actual earnings on pension plan investments (if any)		1,549,490,233	2,073,479,998
Difference between actual and expected experience in the Total Pension Liability		244,533,088	85,249,532
Total deferred outflows		**$1,959,198,045**	**$2,256,687,430**
Deferred Inflows of Resources			
Changes in proportion and differences between employer's contributions and proportionate share of contributions*		$15,444,066	$5,531,581
Changes of assumptions or other inputs		38,617,023	59,952,702
Net difference between actual and projected earnings on pension plan investments (if any)		1,249,169,736	1,293,513,728
Difference between expected and actual experience in the Total Pension Liability		29,192,872	55,012,441
Total deferred inflows		**$1,332,423,697**	**$1,414,010,452**
Recognition of Deferred Outflows/(Inflows) by Reporting Date for Employer			
	June 30, 2024	N/A	$(61,967,363)
	June 30, 2025	$43,691,695	118,419,418
	June 30, 2026	187,524,536	262,742,907
	June 30, 2027	445,011,678	521,061,361
	June 30, 2028	(71,749,797)	2,420,655
	June 30, 2029	22,296,236	0

* Calculated in accordance with paragraphs 54 and 55 of GASB 68.

Section 2: GASB 68 Information

Exhibit 7 – Deferred outflows and deferred inflows of resources

O.C. Cemetery District

Line Description		Current Year	Prior Year
Reporting and Measurement Dates			
Reporting date for Employer under GASB 68		June 30, 2024	June 30, 2023
Measurement date		December 31, 2023	December 31, 2022
Deferred Outflows of Resources			
Changes in proportion and differences between employer's contributions and proportionate share of contributions*		$0	$0
Changes of assumptions or other inputs		181,187	82,339
Net difference between projected and actual earnings on pension plan investments (if any)		1,468,243	1,957,658
Difference between actual and expected experience in the Total Pension Liability		542,855	401,601
Total deferred outflows		**$2,192,285**	**$2,441,598**
Deferred Inflows of Resources			
Changes in proportion and differences between employer's contributions and proportionate share of contributions*		$0	$0
Changes of assumptions or other inputs		0	0
Net difference between actual and projected earnings on pension plan investments (if any)		1,157,741	1,193,794
Difference between expected and actual experience in the Total Pension Liability		71,657	155,323
Total deferred inflows		**$1,229,398**	**$1,349,117**
Recognition of Deferred Outflows/(Inflows) by Reporting Date for Employer			
	June 30, 2024	N/A	$34,327
	June 30, 2025	$145,830	177,985
	June 30, 2026	327,694	359,849
	June 30, 2027	480,218	512,373
	June 30, 2028	(24,208)	7,947
	June 30, 2029	33,353	0

* Calculated in accordance with paragraphs 54 and 55 of GASB 68.

Section 2: GASB 68 Information

Exhibit 7 – Deferred outflows and deferred inflows of resources

O.C. Law Library

Line Description		Current Year	Prior Year
Reporting and Measurement Dates			
Reporting date for Employer under GASB 68		June 30, 2024	June 30, 2023
Measurement date		December 31, 2023	December 31, 2022
Deferred Outflows of Resources			
Changes in proportion and differences between employer's contributions and proportionate share of contributions*		$0	$0
Changes of assumptions or other inputs		47,821	42,717
Net difference between projected and actual earnings on pension plan investments (if any)		1,440,637	1,920,850
Difference between actual and expected experience in the Total Pension Liability		29,992	45,465
Total deferred outflows		**$1,518,450**	**$2,009,032**
Deferred Inflows of Resources			
Changes in proportion and differences between employer's contributions and proportionate share of contributions*		$0	$0
Changes of assumptions or other inputs		0	0
Net difference between actual and projected earnings on pension plan investments (if any)		1,117,024	1,166,471
Difference between expected and actual experience in the Total Pension Liability		421,803	472,570
Total deferred inflows		**$1,538,827**	**$1,639,041**
Recognition of Deferred Outflows/(Inflows) by Reporting Date for Employer			
	June 30, 2024	N/A	$(212,675)
	June 30, 2025	$(150,202)	(1,729)
	June 30, 2026	(18,547)	129,926
	June 30, 2027	303,313	451,786
	June 30, 2028	(145,788)	2,683
	June 30, 2029	(9,153)	0

* Calculated in accordance with paragraphs 54 and 55 of GASB 68.

Section 2: GASB 68 Information

Exhibit 7 – Deferred outflows and deferred inflows of resources

O.C. Vector Control District

Line Description		Current Year	Prior Year
Reporting and Measurement Dates			
Reporting date for Employer under GASB 68		June 30, 2024	June 30, 2023
Measurement date		December 31, 2023	December 31, 2022
Deferred Outflows of Resources			
Changes in proportion and differences between employer's contributions and proportionate share of contributions*		$0	$0
Changes of assumptions or other inputs		192,850	56,144
Net difference between projected and actual earnings on pension plan investments (if any)		3,163,908	4,218,544
Difference between actual and expected experience in the Total Pension Liability		1,976,449	700,950
Total deferred outflows		**$5,333,207**	**$4,975,638**
Deferred Inflows of Resources			
Changes in proportion and differences between employer's contributions and proportionate share of contributions*		$0	$0
Changes of assumptions or other inputs		0	0
Net difference between actual and projected earnings on pension plan investments (if any)		2,385,741	2,582,253
Difference between expected and actual experience in the Total Pension Liability		524,310	958,190
Total deferred inflows		**$2,910,051**	**$3,540,443**
Recognition of Deferred Outflows/(Inflows) by Reporting Date for Employer			
	June 30, 2024	N/A	$(401,264)
	June 30, 2025	$293,926	179,703
	June 30, 2026	630,232	516,009
	June 30, 2027	1,204,836	1,090,613
	June 30, 2028	164,357	50,134
	June 30, 2029	129,805	0

* Calculated in accordance with paragraphs 54 and 55 of GASB 68.

Section 2: GASB 68 Information

Exhibit 7 – Deferred outflows and deferred inflows of resources

O.C. Retirement System

Line Description	Current Year	Prior Year
Reporting and Measurement Dates		
Reporting date for Employer under GASB 68	June 30, 2024	June 30, 2023
Measurement date	December 31, 2023	December 31, 2022
Deferred Outflows of Resources		
Changes in proportion and differences between employer's contributions and proportionate share of contributions*	$4,993,789	$2,347,774
Changes of assumptions or other inputs	1,802,479	814,678
Net difference between projected and actual earnings on pension plan investments (if any)	11,891,923	13,418,801
Difference between actual and expected experience in the Total Pension Liability	1,727,337	480,173
Total deferred outflows	**$20,415,528**	**$17,061,426**
Deferred Inflows of Resources		
Changes in proportion and differences between employer's contributions and proportionate share of contributions*	$428,045	$553,571
Changes of assumptions or other inputs	0	0
Net difference between actual and projected earnings on pension plan investments (if any)	9,609,522	8,372,177
Difference between expected and actual experience in the Total Pension Liability	80,095	185,187
Total deferred inflows	**$10,117,662**	**$9,110,935**
Recognition of Deferred Outflows/(Inflows) by Reporting Date for Employer		
June 30, 2024	N/A	$854,892
June 30, 2025	$2,216,813	1,644,189
June 30, 2026	2,846,078	2,114,489
June 30, 2027	4,373,916	3,373,284
June 30, 2028	352,984	(36,363)
June 30, 2029	508,075	0

* Calculated in accordance with paragraphs 54 and 55 of GASB 68.

Section 2: GASB 68 Information

Exhibit 7 – Deferred outflows and deferred inflows of resources

O.C. Fire Authority

Line Description		Current Year	Prior Year
Reporting and Measurement Dates			
Reporting date for Employer under GASB 68		June 30, 2024	June 30, 2023
Measurement date		December 31, 2023	December 31, 2022
Deferred Outflows of Resources			
Changes in proportion and differences between employer's contributions and proportionate share of contributions*		$0	$0
Changes of assumptions or other inputs		3,185,426	1,263,564
Net difference between projected and actual earnings on pension plan investments (if any)		244,201,463	325,601,951
Difference between actual and expected experience in the Total Pension Liability		40,056,478	44,228,199
Total deferred outflows		**$287,443,367**	**$371,093,714**
Deferred Inflows of Resources			
Changes in proportion and differences between employer's contributions and proportionate share of contributions*		$0	$0
Changes of assumptions or other inputs		19,418,863	30,147,517
Net difference between actual and projected earnings on pension plan investments (if any)		194,620,351	198,693,451
Difference between expected and actual experience in the Total Pension Liability		13,281,661	21,455,804
Total deferred inflows		**$227,320,875**	**$250,296,772**
Recognition of Deferred Outflows/(Inflows) by Reporting Date for Employer			
	June 30, 2024	N/A	$(12,576,483)
	June 30, 2025	$(4,354,524)	14,217,846
	June 30, 2026	14,776,701	33,349,071
	June 30, 2027	65,244,858	83,817,228
	June 30, 2028	(16,583,091)	1,989,280
	June 30, 2029	1,038,548	0

* Calculated in accordance with paragraphs 54 and 55 of GASB 68.

Section 2: GASB 68 Information

Exhibit 7 – Deferred outflows and deferred inflows of resources

Cypress Recreation and Parks

Line Description		Current Year	Prior Year
Reporting and Measurement Dates			
Reporting date for Employer under GASB 68		June 30, 2024	June 30, 2023
Measurement date		December 31, 2023	December 31, 2022
Deferred Outflows of Resources			
Changes in proportion and differences between employer's contributions and proportionate share of contributions*		$0	$0
Changes of assumptions or other inputs		17,230	232
Net difference between projected and actual earnings on pension plan investments (if any)		485,329	647,105
Difference between actual and expected experience in the Total Pension Liability		101,487	172,485
Total deferred outflows		**$604,046**	**$819,822**
Deferred Inflows of Resources			
Changes in proportion and differences between employer's contributions and proportionate share of contributions*		$0	$0
Changes of assumptions or other inputs		4,647	7,213
Net difference between actual and projected earnings on pension plan investments (if any)		376,709	387,447
Difference between expected and actual experience in the Total Pension Liability		438,432	30,171
Total deferred inflows		**$819,788**	**$424,831**
Recognition of Deferred Outflows/(Inflows) by Reporting Date for Employer			
	June 30, 2024	N/A	$38,920
	June 30, 2025	$(48,338)	86,612
	June 30, 2026	(25,370)	109,580
	June 30, 2027	27,736	162,686
	June 30, 2028	(137,758)	(2,807)
	June 30, 2029	(32,012)	0

* Calculated in accordance with paragraphs 54 and 55 of GASB 68.

Section 2: GASB 68 Information

Exhibit 7 – Deferred outflows and deferred inflows of resources

Department of Education

Line Description		Current Year	Prior Year
Reporting and Measurement Dates			
Reporting date for Employer under GASB 68		June 30, 2024	June 30, 2023
Measurement date		December 31, 2023	December 31, 2022
Deferred Outflows of Resources			
Changes in proportion and differences between employer's contributions and proportionate share of contributions*		$0	$0
Changes of assumptions or other inputs		0	589
Net difference between projected and actual earnings on pension plan investments (if any)		950,116	1,266,822
Difference between actual and expected experience in the Total Pension Liability		704,856	607,487
Total deferred outflows		**$1,654,972**	**$1,874,898**
Deferred Inflows of Resources			
Changes in proportion and differences between employer's contributions and proportionate share of contributions*		$0	$0
Changes of assumptions or other inputs		55,533	59,457
Net difference between actual and projected earnings on pension plan investments (if any)		729,838	804,206
Difference between expected and actual experience in the Total Pension Liability		75,925	108,970
Total deferred inflows		**$861,296**	**$972,633**
Recognition of Deferred Outflows/(Inflows) by Reporting Date for Employer			
	June 30, 2024	N/A	$74,745
	June 30, 2025	$159,475	173,583
	June 30, 2026	211,619	225,727
	June 30, 2027	377,622	391,730
	June 30, 2028	22,373	36,480
	June 30, 2029	22,587	0

* Calculated in accordance with paragraphs 54 and 55 of GASB 68.

Section 2: GASB 68 Information

Exhibit 7 – Deferred outflows and deferred inflows of resources

Transportation Corridor Agency

Line Description		Current Year	Prior Year
Reporting and Measurement Dates			
Reporting date for Employer under GASB 68		June 30, 2024	June 30, 2023
Measurement date		December 31, 2023	December 31, 2022
Deferred Outflows of Resources			
Changes in proportion and differences between employer's contributions and proportionate share of contributions*		$0	$0
Changes of assumptions or other inputs		495,686	104,567
Net difference between projected and actual earnings on pension plan investments (if any)		6,694,806	8,926,408
Difference between actual and expected experience in the Total Pension Liability		1,274,675	477,961
Total deferred outflows		**$8,465,167**	**$9,508,936**
Deferred Inflows of Resources			
Changes in proportion and differences between employer's contributions and proportionate share of contributions*		$0	$0
Changes of assumptions or other inputs		0	0
Net difference between actual and projected earnings on pension plan investments (if any)		5,218,632	5,366,673
Difference between expected and actual experience in the Total Pension Liability		672,291	950,161
Total deferred inflows		**$5,890,923**	**$6,316,834**
Recognition of Deferred Outflows/(Inflows) by Reporting Date for Employer			
	June 30, 2024	N/A	$(244,686)
	June 30, 2025	$206,332	450,828
	June 30, 2026	688,333	932,829
	June 30, 2027	1,837,406	2,081,902
	June 30, 2028	(273,267)	(28,771)
	June 30, 2029	115,440	0

* Calculated in accordance with paragraphs 54 and 55 of GASB 68.

Section 2: GASB 68 Information

Exhibit 7 – Deferred outflows and deferred inflows of resources

City of San Juan Capistrano

Line Description		Current Year	Prior Year
Reporting and Measurement Dates			
Reporting date for Employer under GASB 68		June 30, 2024	June 30, 2023
Measurement date		December 31, 2023	December 31, 2022
Deferred Outflows of Resources			
Changes in proportion and differences between employer's contributions and proportionate share of contributions*		$2,248,881	$3,130,785
Changes of assumptions or other inputs		910,298	481,954
Net difference between projected and actual earnings on pension plan investments (if any)		6,005,726	7,938,405
Difference between actual and expected experience in the Total Pension Liability		872,350	284,065
Total deferred outflows		**$10,037,255**	**$11,835,209**
Deferred Inflows of Resources			
Changes in proportion and differences between employer's contributions and proportionate share of contributions*		$3,940,450	$5,632,351
Changes of assumptions or other inputs		0	0
Net difference between actual and projected earnings on pension plan investments (if any)		4,853,056	4,952,882
Difference between expected and actual experience in the Total Pension Liability		40,450	109,555
Total deferred inflows		**$8,833,956**	**$10,694,788**
Recognition of Deferred Outflows/(Inflows) by Reporting Date for Employer			
	June 30, 2024	N/A	$(879,118)
	June 30, 2025	$(362,772)	(129,643)
	June 30, 2026	477,920	706,533
	June 30, 2027	1,496,071	1,717,042
	June 30, 2028	(512,727)	(274,393)
	June 30, 2029	104,807	0

* Calculated in accordance with paragraphs 54 and 55 of GASB 68.

Section 2: GASB 68 Information

Exhibit 7 – Deferred outflows and deferred inflows of resources

O.C. Sanitation District

Line Description		Current Year	Prior Year
Reporting and Measurement Dates			
Reporting date for Employer under GASB 68		June 30, 2024	June 30, 2023
Measurement date		December 31, 2023	December 31, 2022
Deferred Outflows of Resources			
Changes in proportion and differences between employer's contributions and proportionate share of contributions*		$0	$0
Changes of assumptions or other inputs		10,975,775	5,759,591
Net difference between projected and actual earnings on pension plan investments (if any)		98,702,383	131,603,178
Difference between actual and expected experience in the Total Pension Liability		33,942,756	21,845,552
Total deferred outflows		**$143,620,914**	**$159,208,321**
Deferred Inflows of Resources			
Changes in proportion and differences between employer's contributions and proportionate share of contributions*		$0	$0
Changes of assumptions or other inputs		0	0
Net difference between actual and projected earnings on pension plan investments (if any)		76,337,381	79,859,618
Difference between expected and actual experience in the Total Pension Liability		9,903,026	13,954,206
Total deferred inflows		**$86,240,407**	**$93,813,824**
Recognition of Deferred Outflows/(Inflows) by Reporting Date for Employer			
	June 30, 2024	N/A	$1,152,046
	June 30, 2025	$9,079,208	11,328,468
	June 30, 2026	15,940,192	18,189,452
	June 30, 2027	31,416,059	33,665,319
	June 30, 2028	(1,190,048)	1,059,212
	June 30, 2029	2,135,096	0

* Calculated in accordance with paragraphs 54 and 55 of GASB 68.

Section 2: GASB 68 Information

Exhibit 7 – Deferred outflows and deferred inflows of resources

O.C. Transportation Authority

Line Description		Current Year	Prior Year
Reporting and Measurement Dates			
Reporting date for Employer under GASB 68		June 30, 2024	June 30, 2023
Measurement date		December 31, 2023	December 31, 2022
Deferred Outflows of Resources			
Changes in proportion and differences between employer's contributions and proportionate share of contributions*		$0	$0
Changes of assumptions or other inputs		8,058,375	1,729,712
Net difference between projected and actual earnings on pension plan investments (if any)		99,715,493	132,953,990
Difference between actual and expected experience in the Total Pension Liability		32,212,886	1,823,315
Total deferred outflows		**$139,986,754**	**$136,507,017**
Deferred Inflows of Resources			
Changes in proportion and differences between employer's contributions and proportionate share of contributions*		$0	$0
Changes of assumptions or other inputs		0	0
Net difference between actual and projected earnings on pension plan investments (if any)		80,654,909	82,873,325
Difference between expected and actual experience in the Total Pension Liability		23,702,731	33,789,970
Total deferred inflows		**$104,357,640**	**$116,663,295**
Recognition of Deferred Outflows/(Inflows) by Reporting Date for Employer			
	June 30, 2024	N/A	$(13,567,797)
	June 30, 2025	$(898,628)	(685,112)
	June 30, 2026	7,968,319	8,181,835
	June 30, 2027	27,255,189	27,468,705
	June 30, 2028	(1,767,427)	(1,553,909)
	June 30, 2029	3,071,661	0

* Calculated in accordance with paragraphs 54 and 55 of GASB 68.

Section 2: GASB 68 Information

Exhibit 7 – Deferred outflows and deferred inflows of resources

U.C.I.

Line Description		Current Year	Prior Year
Reporting and Measurement Dates			
Reporting date for Employer under GASB 68		June 30, 2024	June 30, 2023
Measurement date		December 31, 2023	December 31, 2022
Deferred Outflows of Resources			
Changes in proportion and differences between employer's contributions and proportionate share of contributions*		$0	$0
Changes of assumptions or other inputs		70,139	4,733
Net difference between projected and actual earnings on pension plan investments (if any)		7,933,424	10,577,898
Difference between actual and expected experience in the Total Pension Liability		2,326,206	1,886,324
Total deferred outflows		**$10,329,769**	**$12,468,955**
Deferred Inflows of Resources			
Changes in proportion and differences between employer's contributions and proportionate share of contributions*		$0	$0
Changes of assumptions or other inputs		343,353	533,050
Net difference between actual and projected earnings on pension plan investments (if any)		6,113,058	6,709,422
Difference between expected and actual experience in the Total Pension Liability		0	7,913
Total deferred inflows		**$6,456,411**	**$7,250,385**
Recognition of Deferred Outflows/(Inflows) by Reporting Date for Employer			
	June 30, 2024	N/A	$(84,514)
	June 30, 2025	$514,504	896,330
	June 30, 2026	1,109,359	1,491,185
	June 30, 2027	2,456,484	2,838,310
	June 30, 2028	(304,567)	77,259
	June 30, 2029	97,578	0

* Calculated in accordance with paragraphs 54 and 55 of GASB 68.

Section 2: GASB 68 Information

Exhibit 7 – Deferred outflows and deferred inflows of resources

O.C. Children and Families Comm.

Line Description		Current Year	Prior Year
Reporting and Measurement Dates			
Reporting date for Employer under GASB 68		June 30, 2024	June 30, 2023
Measurement date		December 31, 2023	December 31, 2022
Deferred Outflows of Resources			
Changes in proportion and differences between employer's contributions and proportionate share of contributions*		$1,267,036	$1,255,317
Changes of assumptions or other inputs		9,893	(565)
Net difference between projected and actual earnings on pension plan investments (if any)		65,273	(9,299)
Difference between actual and expected experience in the Total Pension Liability		9,481	(333)
Total deferred outflows		**$1,351,683**	**$1,245,120**
Deferred Inflows of Resources			
Changes in proportion and differences between employer's contributions and proportionate share of contributions*		$358,869	$684,632
Changes of assumptions or other inputs		0	0
Net difference between actual and projected earnings on pension plan investments (if any)		52,745	(5,801)
Difference between expected and actual experience in the Total Pension Liability		440	(128)
Total deferred inflows		**$412,054**	**$678,703**
Recognition of Deferred Outflows/(Inflows) by Reporting Date for Employer			
	June 30, 2024	N/A	$(30,153)
	June 30, 2025	$127,202	51,885
	June 30, 2026	290,123	208,523
	June 30, 2027	319,508	227,274
	June 30, 2028	176,962	108,888
	June 30, 2029	25,834	0

* Calculated in accordance with paragraphs 54 and 55 of GASB 68.

Section 2: GASB 68 Information

Exhibit 7 – Deferred outflows and deferred inflows of resources

Local Agency Formation Comm.

Line Description		Current Year	Prior Year
Reporting and Measurement Dates			
Reporting date for Employer under GASB 68		June 30, 2024	June 30, 2023
Measurement date		December 31, 2023	December 31, 2022
Deferred Outflows of Resources			
Changes in proportion and differences between employer's contributions and proportionate share of contributions*		$282,490	$196,618
Changes of assumptions or other inputs		88,977	41,027
Net difference between projected and actual earnings on pension plan investments (if any)		587,026	675,767
Difference between actual and expected experience in the Total Pension Liability		85,267	24,181
Total deferred outflows		**$1,043,760**	**$937,593**
Deferred Inflows of Resources			
Changes in proportion and differences between employer's contributions and proportionate share of contributions*		$161,952	$220,544
Changes of assumptions or other inputs		0	0
Net difference between actual and projected earnings on pension plan investments (if any)		474,359	421,620
Difference between expected and actual experience in the Total Pension Liability		3,954	9,326
Total deferred inflows		**$640,265**	**$651,490**
Recognition of Deferred Outflows/(Inflows) by Reporting Date for Employer			
	June 30, 2024	N/A	$4,079
	June 30, 2025	$78,364	58,086
	June 30, 2026	110,734	83,480
	June 30, 2027	193,121	154,062
	June 30, 2028	(1,368)	(13,604)
	June 30, 2029	22,644	0

* Calculated in accordance with paragraphs 54 and 55 of GASB 68.

Section 2: GASB 68 Information

Exhibit 7 – Deferred outflows and deferred inflows of resources

Rancho Santa Margarita

Line Description		Current Year	Prior Year
Reporting and Measurement Dates			
Reporting date for Employer under GASB 68		June 30, 2024	June 30, 2023
Measurement date		December 31, 2023	December 31, 2022
Deferred Outflows of Resources			
Changes in proportion and differences between employer's contributions and proportionate share of contributions*		$0	$0
Changes of assumptions or other inputs		0	3
Net difference between projected and actual earnings on pension plan investments (if any)		4,401	5,868
Difference between actual and expected experience in the Total Pension Liability		1,779	1,548
Total deferred outflows		**$6,180**	**$7,419**
Deferred Inflows of Resources			
Changes in proportion and differences between employer's contributions and proportionate share of contributions*		$0	$0
Changes of assumptions or other inputs		334	518
Net difference between actual and projected earnings on pension plan investments (if any)		3,390	2,825
Difference between expected and actual experience in the Total Pension Liability		71	113
Total deferred inflows		**$3,795**	**$3,456**
Recognition of Deferred Outflows/(Inflows) by Reporting Date for Employer			
	June 30, 2024	N/A	$272
	June 30, 2025	$687	1,030
	June 30, 2026	606	949
	June 30, 2027	1,295	1,638
	June 30, 2028	(267)	74
	June 30, 2029	64	0

* Calculated in accordance with paragraphs 54 and 55 of GASB 68.

Section 2: GASB 68 Information

Exhibit 7 – Deferred outflows and deferred inflows of resources

O.C. Superior Court

Line Description		Current Year	Prior Year
Reporting and Measurement Dates			
Reporting date for Employer under GASB 68		June 30, 2024	June 30, 2023
Measurement date		December 31, 2023	December 31, 2022
Deferred Outflows of Resources			
Changes in proportion and differences between employer's contributions and proportionate share of contributions*		$8,413,239	$1,634,440
Changes of assumptions or other inputs		17,998,217	9,326,865
Net difference between projected and actual earnings on pension plan investments (if any)		118,743,916	153,625,590
Difference between actual and expected experience in the Total Pension Liability		17,247,907	5,497,276
Total deferred outflows		**$162,403,279**	**$170,084,171**
Deferred Inflows of Resources			
Changes in proportion and differences between employer's contributions and proportionate share of contributions*		$7,168,015	$12,313,476
Changes of assumptions or other inputs		0	0
Net difference between actual and projected earnings on pension plan investments (if any)		95,953,559	95,849,149
Difference between expected and actual experience in the Total Pension Liability		799,768	2,120,124
Total deferred inflows		**$103,921,342**	**$110,282,749**
Recognition of Deferred Outflows/(Inflows) by Reporting Date for Employer			
	June 30, 2024	N/A	$(6,137,475)
	June 30, 2025	$6,914,743	9,634,746
	June 30, 2026	16,778,235	19,191,692
	June 30, 2027	35,547,584	37,442,227
	June 30, 2028	(3,403,193)	(329,768)
	June 30, 2029	2,644,568	0

* Calculated in accordance with paragraphs 54 and 55 of GASB 68.

Section 2: GASB 68 Information

Exhibit 7 – Deferred outflows and deferred inflows of resources

O.C. IHSS Public Authority

Line Description		Current Year	Prior Year
Reporting and Measurement Dates			
Reporting date for Employer under GASB 68		June 30, 2024	June 30, 2023
Measurement date		December 31, 2023	December 31, 2022
Deferred Outflows of Resources			
Changes in proportion and differences between employer's contributions and proportionate share of contributions*		$107,663	$119,077
Changes of assumptions or other inputs		28,805	559
Net difference between projected and actual earnings on pension plan investments (if any)		689,522	835,564
Difference between actual and expected experience in the Total Pension Liability		5,220	6,136
Total deferred outflows		**$831,210**	**$961,336**
Deferred Inflows of Resources			
Changes in proportion and differences between employer's contributions and proportionate share of contributions*		$112,003	$161,246
Changes of assumptions or other inputs		2,167	3,058
Net difference between actual and projected earnings on pension plan investments (if any)		543,310	509,759
Difference between expected and actual experience in the Total Pension Liability		95,666	115,387
Total deferred inflows		**$753,146**	**$789,450**
Recognition of Deferred Outflows/(Inflows) by Reporting Date for Employer			
	June 30, 2024	N/A	$(90,963)
	June 30, 2025	$(71,074)	(17,331)
	June 30, 2026	7,835	54,216
	June 30, 2027	181,906	214,913
	June 30, 2028	(42,771)	11,051
	June 30, 2029	2,168	0

* Calculated in accordance with paragraphs 54 and 55 of GASB 68.

Section 2: GASB 68 Information

There are changes in each employer's proportionate share of the total NPL during the measurement period ended December 31, 2023. The net effect of the change on the employer's proportionate share of the collective NPL and collective deferred outflows of resources and deferred inflows of resources for the current period (i.e., 2023) is recognized over the average of the expected remaining service lives of all employees that are provided with pensions through OCERS which is 5.35 years determined as of December 31, 2022 (the beginning of the measurement period ended December 31, 2023). This is described in Paragraph 33a. of GASB 68.

In addition, the difference between the actual employer contributions and the proportionate share of the employer contributions during the measurement period ended December 31, 2023 is recognized over the same period.

The net effects of the change on the employer's proportionate share of the collective NPL and collective deferred outflows of resources and deferred inflows of resources for prior periods are continued to be recognized based on the expected remaining service lives of all employees calculated as of those prior measurement dates.

The average of the expected service lives of all employees is determined by:

- Calculating each active employees' expected remaining service life as the present value of $1 per year of future service at zero percent interest.
- Setting the remaining service life to zero for each nonactive or retired member.
- Dividing the sum of the above amounts by the total number of active employee, nonactive and retired members.

Section 2: GASB 68 Information

Exhibit 8 – Reconciliation of Net Pension Liability

Total for All Employers

Line Description	Current Year	Prior Year
Reporting and Measurement Dates		
Reporting date for Employer under GASB 68	June 30, 2024	June 30, 2023
Measurement date	December 31, 2023	December 31, 2022
Reconciliation of Net Pension Liability		
Beginning Net Pension Liability	$5,391,006,171	$2,050,237,722
Pension expense	474,974,502	728,323,232
Employer contributions	(749,734,000)	(719,658,000)
New net deferred outflows/(inflows)	(363,567,309)	2,907,550,194
Change in allocation of prior deferred outflows/(inflows)	0	0
New net deferred flows due to change in proportion*	0	0
Recognition of prior deferred outflows/(inflows)	94,033,210	424,553,023
Recognition of prior deferred flows due to change in proportion*	0	0
Ending Net Pension Liability	**$4,846,712,574**	**$5,391,006,171**

* Includes differences between employer contributions and proportionate share of contributions.

Section 2: GASB 68 Information

Exhibit 8 – Reconciliation of Net Pension Liability

Orange County

Line Description	Current Year	Prior Year
Reporting and Measurement Dates		
Reporting date for Employer under GASB 68	June 30, 2024	June 30, 2023
Measurement date	December 31, 2023	December 31, 2022
Reconciliation of Net Pension Liability		
Beginning Net Pension Liability	$4,469,282,004	$2,047,576,018
Pension expense	379,509,566	580,065,187
Employer contributions	(571,078,784)	(539,567,438)
New net deferred outflows/(inflows)	(262,395,479)	2,091,638,561
Change in allocation of prior deferred outflows/(inflows)	(3,420,675)	(4,154,637)
New net deferred flows due to change in proportion*	(11,956,517)	7,878,277
Recognition of prior deferred outflows/(inflows)	65,939,098	289,664,371
Recognition of prior deferred flows due to change in proportion*	(4,069,056)	(3,818,335)
Ending Net Pension Liability	**$4,061,810,157**	**$4,469,282,004**

* Includes differences between employer contributions and proportionate share of contributions.

Section 2: GASB 68 Information

Exhibit 8 – Reconciliation of Net Pension Liability

O.C. Cemetery District

Line Description	Current Year	Prior Year
Reporting and Measurement Dates		
Reporting date for Employer under GASB 68	June 30, 2024	June 30, 2023
Measurement date	December 31, 2023	December 31, 2022
Reconciliation of Net Pension Liability		
Beginning Net Pension Liability	$1,031,416	$(1,394,665)
Pension expense	349,589	411,011
Employer contributions	(258,000)	(269,000)
New net deferred outflows/(inflows)	(95,267)	2,043,157
Change in allocation of prior deferred outflows/(inflows)	0	0
New net deferred flows due to change in proportion*	0	0
Recognition of prior deferred outflows/(inflows)	(34,327)	240,913
Recognition of prior deferred flows due to change in proportion*	0	0
Ending Net Pension Liability	**$993,411**	**$1,031,416**

* Includes differences between employer contributions and proportionate share of contributions.

Section 2: GASB 68 Information

Exhibit 8 – Reconciliation of Net Pension Liability

O.C. Law Library

Line Description	Current Year	Prior Year
Reporting and Measurement Dates		
Reporting date for Employer under GASB 68	June 30, 2024	June 30, 2023
Measurement date	December 31, 2023	December 31, 2022
Reconciliation of Net Pension Liability		
Beginning Net Pension Liability	$(321,987)	$(2,629,777)
Pension expense	(199,471)	24,252
Employer contributions	(123,000)	(118,000)
New net deferred outflows/(inflows)	(603,043)	1,949,701
Change in allocation of prior deferred outflows/(inflows)	0	0
New net deferred flows due to change in proportion*	0	0
Recognition of prior deferred outflows/(inflows)	212,675	451,837
Recognition of prior deferred flows due to change in proportion*	0	0
Ending Net Pension Liability	**$(1,034,826)**	**$(321,987)**

* Includes differences between employer contributions and proportionate share of contributions.

Section 2: GASB 68 Information

Exhibit 8 – Reconciliation of Net Pension Liability

O.C. Vector Control District

Line Description	Current Year	Prior Year
Reporting and Measurement Dates		
Reporting date for Employer under GASB 68	June 30, 2024	June 30, 2023
Measurement date	December 31, 2023	December 31, 2022
Reconciliation of Net Pension Liability		
Beginning Net Pension Liability	$47,967	$(5,501,623)
Pension expense	(283,683)	(109,048)
Employer contributions	0	0
New net deferred outflows/(inflows)	586,697	4,757,790
Change in allocation of prior deferred outflows/(inflows)	0	0
New net deferred flows due to change in proportion*	0	0
Recognition of prior deferred outflows/(inflows)	401,264	900,848
Recognition of prior deferred flows due to change in proportion*	0	0
Ending Net Pension Liability	**$752,245**	**$47,967**

* Includes differences between employer contributions and proportionate share of contributions.

Section 2: GASB 68 Information

Exhibit 8 – Reconciliation of Net Pension Liability

O.C. Retirement System

Line Description	Current Year	Prior Year
Reporting and Measurement Dates		
Reporting date for Employer under GASB 68	June 30, 2024	June 30, 2023
Measurement date	December 31, 2023	December 31, 2022
Reconciliation of Net Pension Liability		
Beginning Net Pension Liability	$31,526,121	$16,375,725
Pension expense	5,143,030	5,012,441
Employer contributions	(4,477,000)	(3,614,000)
New net deferred outflows/(inflows)	(1,735,340)	13,581,243
Change in allocation of prior deferred outflows/(inflows)	1,118,093	309,742
New net deferred flows due to change in proportion*	3,789,838	(553,571)
Recognition of prior deferred outflows/(inflows)	193,082	1,599,723
Recognition of prior deferred flows due to change in proportion*	(1,018,297)	(1,185,182)
Ending Net Pension Liability	**$34,539,527**	**$31,526,121**

* Includes differences between employer contributions and proportionate share of contributions.

Section 2: GASB 68 Information

Exhibit 8 – Reconciliation of Net Pension Liability

O.C. Fire Authority

Line Description	Current Year	Prior Year
Reporting and Measurement Dates		
Reporting date for Employer under GASB 68	June 30, 2024	June 30, 2023
Measurement date	December 31, 2023	December 31, 2022
Reconciliation of Net Pension Liability		
Beginning Net Pension Liability	$279,060,590	$(104,907,413)
Pension expense	32,294,538	59,281,387
Employer contributions	(82,223,000)	(87,637,000)
New net deferred outflows/(inflows)	(73,250,933)	346,998,843
Change in allocation of prior deferred outflows/(inflows)	0	0
New net deferred flows due to change in proportion*	0	0
Recognition of prior deferred outflows/(inflows)	12,576,483	65,324,773
Recognition of prior deferred flows due to change in proportion*	0	0
Ending Net Pension Liability	**$168,457,678**	**$279,060,590**

* Includes differences between employer contributions and proportionate share of contributions.

Section 2: GASB 68 Information

Exhibit 8 – Reconciliation of Net Pension Liability

Cypress Recreation and Parks

Line Description	Current Year	Prior Year
Reporting and Measurement Dates		
Reporting date for Employer under GASB 68	June 30, 2024	June 30, 2023
Measurement date	December 31, 2023	December 31, 2022
Reconciliation of Net Pension Liability		
Beginning Net Pension Liability	$61,016	$(103,379)
Pension expense	(91,758)	824,620
Employer contributions	0	(595,600)
New net deferred outflows/(inflows)	(571,813)	616,934
Change in allocation of prior deferred outflows/(inflows)	0	0
New net deferred flows due to change in proportion*	0	0
Recognition of prior deferred outflows/(inflows)	(38,920)	(681,559)
Recognition of prior deferred flows due to change in proportion*	0	0
Ending Net Pension Liability	**$(641,475)**	**$61,016**

* Includes differences between employer contributions and proportionate share of contributions.

Section 2: GASB 68 Information

Exhibit 8 – Reconciliation of Net Pension Liability

Department of Education

Line Description	Current Year	Prior Year
Reporting and Measurement Dates		
Reporting date for Employer under GASB 68	June 30, 2024	June 30, 2023
Measurement date	December 31, 2023	December 31, 2022
Reconciliation of Net Pension Liability		
Beginning Net Pension Liability	$3,323,372	$1,523,058
Pension expense	292,099	215,260
Employer contributions	(316,960)	(366,917)
New net deferred outflows/(inflows)	(33,844)	1,659,194
Change in allocation of prior deferred outflows/(inflows)	0	0
New net deferred flows due to change in proportion*	0	0
Recognition of prior deferred outflows/(inflows)	(74,745)	292,777
Recognition of prior deferred flows due to change in proportion*	0	0
Ending Net Pension Liability	**$3,189,922**	**$3,323,372**

* Includes differences between employer contributions and proportionate share of contributions.

Section 2: GASB 68 Information

Exhibit 8 – Reconciliation of Net Pension Liability

Transportation Corridor Agency

Line Description	Current Year	Prior Year
Reporting and Measurement Dates		
Reporting date for Employer under GASB 68	June 30, 2024	June 30, 2023
Measurement date	December 31, 2023	December 31, 2022
Reconciliation of Net Pension Liability		
Beginning Net Pension Liability	$(659,689)	$(10,881,786)
Pension expense	207,980	696,828
Employer contributions	(820,000)	(849,000)
New net deferred outflows/(inflows)	(862,544)	8,616,965
Change in allocation of prior deferred outflows/(inflows)	0	0
New net deferred flows due to change in proportion*	0	0
Recognition of prior deferred outflows/(inflows)	244,686	1,757,304
Recognition of prior deferred flows due to change in proportion*	0	0
Ending Net Pension Liability	**$(1,889,567)**	**$(659,689)**

* Includes differences between employer contributions and proportionate share of contributions.

Section 2: GASB 68 Information

Exhibit 8 – Reconciliation of Net Pension Liability

City of San Juan Capistrano

Line Description	Current Year	Prior Year
Reporting and Measurement Dates		
Reporting date for Employer under GASB 68	June 30, 2024	June 30, 2023
Measurement date	December 31, 2023	December 31, 2022
Reconciliation of Net Pension Liability		
Beginning Net Pension Liability	$18,650,483	$11,742,303
Pension expense	866,987	1,829,745
Employer contributions	(2,137,000)	(2,027,000)
New net deferred outflows/(inflows)	(876,391)	8,034,504
Change in allocation of prior deferred outflows/(inflows)	31,761	1,354,403
New net deferred flows due to change in proportion*	27,547	(3,047,486)
Recognition of prior deferred outflows/(inflows)	97,511	946,378
Recognition of prior deferred flows due to change in proportion*	782,450	(182,364)
Ending Net Pension Liability	**$17,443,348**	**$18,650,483**

* Includes differences between employer contributions and proportionate share of contributions.

Section 2: GASB 68 Information

Exhibit 8 – Reconciliation of Net Pension Liability

O.C. Sanitation District

Line Description	Current Year	Prior Year
Reporting and Measurement Dates		
Reporting date for Employer under GASB 68	June 30, 2024	June 30, 2023
Measurement date	December 31, 2023	December 31, 2022
Reconciliation of Net Pension Liability		
Beginning Net Pension Liability	$(10,604,801)	$(178,731,247)
Pension expense	8,523,254	15,354,611
Employer contributions	(8,436,000)	(8,220,000)
New net deferred outflows/(inflows)	(6,861,944)	142,996,182
Change in allocation of prior deferred outflows/(inflows)	0	0
New net deferred flows due to change in proportion*	0	0
Recognition of prior deferred outflows/(inflows)	(1,152,046)	17,995,653
Recognition of prior deferred flows due to change in proportion*	0	0
Ending Net Pension Liability	**$(18,531,537)**	**$(10,604,801)**

* Includes differences between employer contributions and proportionate share of contributions.

Section 2: GASB 68 Information

Exhibit 8 – Reconciliation of Net Pension Liability

O.C. Transportation Authority

Line Description	Current Year	Prior Year
Reporting and Measurement Dates		
Reporting date for Employer under GASB 68	June 30, 2024	June 30, 2023
Measurement date	December 31, 2023	December 31, 2022
Reconciliation of Net Pension Liability		
Beginning Net Pension Liability	$207,132,957	$73,424,051
Pension expense	16,467,090	22,989,984
Employer contributions	(31,560,000)	(31,266,000)
New net deferred outflows/(inflows)	2,217,595	116,239,993
Change in allocation of prior deferred outflows/(inflows)	0	0
New net deferred flows due to change in proportion*	0	0
Recognition of prior deferred outflows/(inflows)	13,567,797	25,744,929
Recognition of prior deferred flows due to change in proportion*	0	0
Ending Net Pension Liability	**$207,825,439**	**$207,132,957**

* Includes differences between employer contributions and proportionate share of contributions.

Section 2: GASB 68 Information

Exhibit 8 – Reconciliation of Net Pension Liability

U.C.I.

Line Description	Current Year	Prior Year
Reporting and Measurement Dates		
Reporting date for Employer under GASB 68	June 30, 2024	June 30, 2023
Measurement date	December 31, 2023	December 31, 2022
Reconciliation of Net Pension Liability		
Beginning Net Pension Liability	$29,314,724	$17,134,332
Pension expense	1,566,249	2,256,477
Employer contributions	(2,980,443)	(3,223,630)
New net deferred outflows/(inflows)	(1,429,726)	11,408,905
Change in allocation of prior deferred outflows/(inflows)	0	0
New net deferred flows due to change in proportion*	0	0
Recognition of prior deferred outflows/(inflows)	84,514	1,738,640
Recognition of prior deferred flows due to change in proportion*	0	0
Ending Net Pension Liability	**$26,555,318**	**$29,314,724**

* Includes differences between employer contributions and proportionate share of contributions.

Section 2: GASB 68 Information

Exhibit 8 – Reconciliation of Net Pension Liability

O.C. Children and Families Comm.

Line Description	Current Year	Prior Year
Reporting and Measurement Dates		
Reporting date for Employer under GASB 68	June 30, 2024	June 30, 2023
Measurement date	December 31, 2023	December 31, 2022
Reconciliation of Net Pension Liability		
Beginning Net Pension Liability	$(21,846)	$(811,951)
Pension expense	58,216	(111,896)
Employer contributions	(220,000)	(177,000)
New net deferred outflows/(inflows)	(9,525)	(9,411)
Change in allocation of prior deferred outflows/(inflows)	44,194	(456,571)
New net deferred flows due to change in proportion*	307,216	1,171,328
Recognition of prior deferred outflows/(inflows)	1,060	(1,108)
Recognition of prior deferred flows due to change in proportion*	30,266	374,763
Ending Net Pension Liability	**$189,581**	**$(21,846)**

* Includes differences between employer contributions and proportionate share of contributions.

Section 2: GASB 68 Information

Exhibit 8 – Reconciliation of Net Pension Liability

Local Agency Formation Comm.

Line Description	Current Year	Prior Year
Reporting and Measurement Dates		
Reporting date for Employer under GASB 68	June 30, 2024	June 30, 2023
Measurement date	December 31, 2023	December 31, 2022
Reconciliation of Net Pension Liability		
Beginning Net Pension Liability	$1,587,646	$912,794
Pension expense	208,951	203,166
Employer contributions	(209,000)	(165,000)
New net deferred outflows/(inflows)	(85,662)	683,947
Change in allocation of prior deferred outflows/(inflows)	49,059	65,827
New net deferred flows due to change in proportion*	156,772	(154,509)
Recognition of prior deferred outflows/(inflows)	9,531	80,562
Recognition of prior deferred flows due to change in proportion*	(12,308)	(39,141)
Ending Net Pension Liability	**$1,704,989**	**$1,587,646**

* Includes differences between employer contributions and proportionate share of contributions.

Section 2: GASB 68 Information

Exhibit 8 – Reconciliation of Net Pension Liability

Rancho Santa Margarita

Line Description	Current Year	Prior Year
Reporting and Measurement Dates		
Reporting date for Employer under GASB 68	June 30, 2024	June 30, 2023
Measurement date	December 31, 2023	December 31, 2022
Reconciliation of Net Pension Liability		
Beginning Net Pension Liability	$1,652	$(6,231)
Pension expense	45	(681)
Employer contributions	0	0
New net deferred outflows/(inflows)	(1,306)	6,670
Change in allocation of prior deferred outflows/(inflows)	0	0
New net deferred flows due to change in proportion*	0	0
Recognition of prior deferred outflows/(inflows)	(272)	1,894
Recognition of prior deferred flows due to change in proportion*	0	0
Ending Net Pension Liability	**$119**	**$1,652**

* Includes differences between employer contributions and proportionate share of contributions.

Section 2: GASB 68 Information

Exhibit 8 – Reconciliation of Net Pension Liability

O.C. Superior Court

Line Description	Current Year	Prior Year
Reporting and Measurement Dates		
Reporting date for Employer under GASB 68	June 30, 2024	June 30, 2023
Measurement date	December 31, 2023	December 31, 2022
Reconciliation of Net Pension Liability		
Beginning Net Pension Liability	$360,927,849	$186,750,735
Pension expense	29,980,721	39,212,592
Employer contributions	(44,703,000)	(41,375,000)
New net deferred outflows/(inflows)	(17,327,822)	155,485,317
Change in allocation of prior deferred outflows/(inflows)	2,156,100	3,131,518
New net deferred flows due to change in proportion*	7,657,531	(5,406,768)
Recognition of prior deferred outflows/(inflows)	1,927,975	18,314,492
Recognition of prior deferred flows due to change in proportion*	4,266,729	4,814,963
Ending Net Pension Liability	**$344,886,083**	**$360,927,849**

* Includes differences between employer contributions and proportionate share of contributions.

Section 2: GASB 68 Information

Exhibit 8 – Reconciliation of Net Pension Liability

O.C. IHSS Public Authority

Line Description	Current Year	Prior Year
Reporting and Measurement Dates		
Reporting date for Employer under GASB 68	June 30, 2024	June 30, 2023
Measurement date	December 31, 2023	December 31, 2022
Reconciliation of Net Pension Liability		
Beginning Net Pension Liability	$666,697	$(233,222)
Pension expense	81,099	167,296
Employer contributions	(191,813)	(187,415)
New net deferred outflows/(inflows)	(230,962)	841,699
Change in allocation of prior deferred outflows/(inflows)	21,468	(250,282)
New net deferred flows due to change in proportion*	17,613	112,729
Recognition of prior deferred outflows/(inflows)	77,844	180,596
Recognition of prior deferred flows due to change in proportion*	20,216	35,296
Ending Net Pension Liability	**$462,162**	**$666,697**

* Includes differences between employer contributions and proportionate share of contributions.

Section 2: GASB 68 Information

Exhibit 9 – Schedule of proportionate share of Net Pension Liability

Total for All Employers

Reporting Date for Employer under GASB 68 as of June 30	Proportion of NPL	Proportionate Share of NPL	Covered Payroll*	Proportionate Share of NPL as a Percentage of Covered Payroll	Plan FNP as a Percentage of TPL
2015	100.000%	$5,082,480,673	$1,513,206,357	335.87%	69.42%
2016	100.000%	5,716,604,741	1,521,035,820	375.84%	67.10%
2017	100.000%	5,191,216,603	1,602,675,426	323.91%	71.16%
2018	100.000%	4,952,099,401	1,678,322,080	295.06%	74.93%
2019	100.000%	6,197,202,089	1,718,798,287	360.55%	70.03%
2020	100.000%	5,075,682,463	1,783,054,087	284.66%	76.67%
2021	100.000%	4,213,246,650	1,909,268,347	220.67%	81.69%
2022	100.000%	2,050,237,722	1,870,386,937	109.62%	91.45%
2023	100.000%	5,391,006,171	1,932,374,427	278.98%	78.51%
2024	100.000%	4,846,712,574	2,042,240,364	237.32%	81.81%

* Covered payroll represents payroll on which contributions to the pension plan are based.

Section 2: GASB 68 Information

Exhibit 9 – Schedule of proportionate share of Net Pension Liability

Orange County

Reporting Date for Employer under GASB 68 as of June 30	Proportion of NPL	Proportionate Share of NPL	Covered Payroll*	Proportionate Share of NPL as a Percentage of Covered Payroll	Plan FNP as a Percentage of TPL
2015	76.680%	$3,897,232,634	$1,107,550,873	351.88%	68.16%
2016	76.813%	4,391,070,880	1,117,547,827	392.92%	65.66%
2017	77.898%	4,043,855,643	1,199,272,843	337.19%	69.56%
2018	80.445%	3,983,695,231	1,246,487,036	319.59%	72.85%
2019	79.367%	4,918,576,912	1,271,800,976	386.74%	68.06%
2020	81.254%	4,124,212,240	1,312,799,835	314.15%	74.47%
2021	84.200%	3,547,545,979	1,403,384,933	252.78%	79.31%
2022	99.870%	2,047,576,018	1,374,766,971	148.94%	88.59%
2023	82.903%	4,469,282,004	1,418,885,341	314.99%	76.17%
2024	83.805%	4,061,810,157	1,497,990,398	271.15%	79.53%

* Covered payroll represents payroll on which contributions to the pension plan are based.

Section 2: GASB 68 Information

Exhibit 9 – Schedule of proportionate share of Net Pension Liability

O.C. Cemetery District

Reporting Date for Employer under GASB 68 as of June 30	Proportion of NPL	Proportionate Share of NPL	Covered Payroll*	Proportionate Share of NPL as a Percentage of Covered Payroll	Plan FNP as a Percentage of TPL
2015	(0.002%)	$(95,350)	$1,202,916	(7.93%)	101.24%
2016	0.009%	533,906	1,247,006	42.82%	93.62%
2017	0.004%	222,409	1,288,388	17.26%	97.47%
2018	(0.004%)	(173,677)	1,419,045	(12.24%)	101.78%
2019	0.016%	962,119	1,518,808	63.35%	91.02%
2020	(0.004%)	(228,119)	1,595,506	(14.30%)	102.07%
2021	(0.003%)	(145,195)	1,730,433	(8.39%)	101.16%
2022	(0.068%)	(1,394,665)	1,787,176	(78.04%)	110.35%
2023	0.019%	1,031,416	1,883,493	54.76%	92.81%
2024	0.020%	993,411	1,906,684	52.10%	93.74%

* Covered payroll represents payroll on which contributions to the pension plan are based.

Section 2: GASB 68 Information

Exhibit 9 – Schedule of proportionate share of Net Pension Liability

O.C. Law Library

Reporting Date for Employer under GASB 68 as of June 30	Proportion of NPL	Proportionate Share of NPL	Covered Payroll*	Proportionate Share of NPL as a Percentage of Covered Payroll	Plan FNP as a Percentage of TPL
2015	0.063%	$3,221,570	$1,193,852	269.85%	66.76%
2016	0.061%	3,472,003	1,153,022	301.12%	62.38%
2017	0.034%	1,770,282	1,106,587	159.98%	80.96%
2018	(0.001%)	(36,317)	1,095,599	(3.31%)	100.35%
2019	0.009%	573,252	1,075,119	53.32%	94.64%
2020	(0.001%)	(74,515)	1,057,915	(7.04%)	100.66%
2021	(0.023%)	(949,226)	1,109,082	(85.59%)	108.09%
2022	(0.128%)	(2,629,777)	1,059,907	(248.11%)	122.03%
2023	(0.006%)	(321,987)	1,109,677	(29.02%)	102.56%
2024	(0.021%)	(1,034,826)	1,148,601	(90.09%)	107.86%

* Covered payroll represents payroll on which contributions to the pension plan are based.

Section 2: GASB 68 Information

Exhibit 9 – Schedule of proportionate share of Net Pension Liability

O.C. Vector Control District

Reporting Date for Employer under GASB 68 as of June 30	Proportion of NPL	Proportionate Share of NPL	Covered Payroll*	Proportionate Share of NPL as a Percentage of Covered Payroll	Plan FNP as a Percentage of TPL
2015	0.057%	$2,900,367	$0	N/A	89.85%
2016	0.034%	1,941,891	0	N/A	92.66%
2017	0.032%	1,669,793	0	N/A	93.78%
2018	0.024%	1,166,920	0	N/A	95.89%
2019	0.040%	2,492,695	0	N/A	90.92%
2020	(0.012%)	(625,500)	0	N/A	102.29%
2021	(0.040%)	(1,681,965)	0	N/A	106.03%
2022	(0.268%)	(5,501,623)	0	N/A	120.52%
2023	0.001%	47,967	0	N/A	99.82%
2024	0.016%	752,245	0	N/A	97.39%

* Covered payroll represents payroll on which contributions to the pension plan are based.

Section 2: GASB 68 Information

Exhibit 9 – Schedule of proportionate share of Net Pension Liability

O.C. Retirement System

Reporting Date for Employer under GASB 68 as of June 30	Proportion of NPL	Proportionate Share of NPL	Covered Payroll*	Proportionate Share of NPL as a Percentage of Covered Payroll	Plan FNP as a Percentage of TPL
2015	0.406%	$20,656,114	$5,655,725	365.22%	67.15%
2016	0.433%	24,747,342	6,063,327	408.15%	64.73%
2017	0.422%	21,886,393	6,190,905	353.52%	68.69%
2018	0.433%	21,427,080	6,486,488	330.33%	71.95%
2019	0.465%	28,844,760	7,501,588	384.52%	67.06%
2020	0.528%	26,824,264	8,491,615	315.89%	73.18%
2021	0.592%	24,954,057	9,414,503	265.06%	76.95%
2022	0.799%	16,375,725	9,518,018	172.05%	85.88%
2023	0.585%	31,526,121	9,950,919	316.82%	73.88%
2024	0.713%	34,539,527	12,581,491	274.53%	77.09%

* Covered payroll represents payroll on which contributions to the pension plan are based.

Section 2: GASB 68 Information

Exhibit 9 – Schedule of proportionate share of Net Pension Liability

O.C. Fire Authority

Reporting Date for Employer under GASB 68 as of June 30	Proportion of NPL	Proportionate Share of NPL	Covered Payroll*	Proportionate Share of NPL as a Percentage of Covered Payroll	Plan FNP as a Percentage of TPL
2015	9.188%	$466,968,323	$129,187,729	361.46%	70.35%
2016	9.056%	517,669,806	129,452,647	399.89%	68.90%
2017	9.043%	469,430,660	124,514,004	377.01%	73.11%
2018	7.485%	370,674,668	148,890,685	248.96%	80.44%
2019	7.531%	466,731,526	155,479,486	300.19%	76.63%
2020	6.982%	354,395,457	164,583,742	215.33%	83.51%
2021	4.299%	181,121,638	190,254,989	95.20%	91.96%
2022	(5.117%)	(104,907,413)	189,061,641	(55.49%)	104.45%
2023	5.176%	279,060,590	193,780,939	144.01%	88.92%
2024	3.476%	168,457,678	202,864,559	83.04%	93.68%

* Covered payroll represents payroll on which contributions to the pension plan are based.

Section 2: GASB 68 Information

Exhibit 9 – Schedule of proportionate share of Net Pension Liability

Cypress Recreation and Parks

Reporting Date for Employer under GASB 68 as of June 30	Proportion of NPL	Proportionate Share of NPL	Covered Payroll*	Proportionate Share of NPL as a Percentage of Covered Payroll	Plan FNP as a Percentage of TPL
2015	0.000%	$0	$0	N/A	N/A
2016	0.000%	0	0	N/A	N/A
2017	0.000%	0	0	N/A	N/A
2018	0.015%	718,340	0	N/A	83.78%
2019	0.007%	408,781	0	N/A	90.81%
2020	0.005%	262,415	0	N/A	94.23%
2021	0.004%	185,117	0	N/A	96.03%
2022	(0.005%)	(103,379)	0	N/A	102.18%
2023	0.001%	61,016	0	N/A	98.70%
2024	(0.013%)	(641,475)	0	N/A	115.18%

* Covered payroll represents payroll on which contributions to the pension plan are based.

Section 2: GASB 68 Information

Exhibit 9 – Schedule of proportionate share of Net Pension Liability

Department of Education

Reporting Date for Employer under GASB 68 as of June 30	Proportion of NPL	Proportionate Share of NPL	Covered Payroll*	Proportionate Share of NPL as a Percentage of Covered Payroll	Plan FNP as a Percentage of TPL
2015	0.072%	$3,637,615	$0	N/A	75.31%
2016	0.075%	4,306,689	0	N/A	69.50%
2017	0.085%	4,415,517	0	N/A	68.18%
2018	0.051%	2,530,324	0	N/A	80.00%
2019	0.057%	3,517,372	0	N/A	71.79%
2020	0.061%	3,099,339	0	N/A	74.84%
2021	0.063%	2,661,390	0	N/A	77.81%
2022	0.074%	1,523,058	0	N/A	86.62%
2023	0.062%	3,323,372	0	N/A	70.69%
2024	0.066%	3,189,922	0	N/A	71.62%

* Covered payroll represents payroll on which contributions to the pension plan are based.

Section 2: GASB 68 Information

Exhibit 9 – Schedule of proportionate share of Net Pension Liability

Transportation Corridor Agency

Reporting Date for Employer under GASB 68 as of June 30	Proportion of NPL	Proportionate Share of NPL	Covered Payroll*	Proportionate Share of NPL as a Percentage of Covered Payroll	Plan FNP as a Percentage of TPL
2015	0.210%	$10,682,807	$6,118,067	174.61%	69.62%
2016	0.222%	12,713,136	6,088,331	208.81%	66.45%
2017	0.239%	12,423,364	6,431,272	193.17%	69.93%
2018	0.207%	10,242,769	6,775,031	151.18%	76.84%
2019	0.214%	13,253,632	6,609,886	200.51%	71.83%
2020	(0.035%)	(1,753,164)	6,809,655	(25.75%)	103.35%
2021	(0.092%)	(3,881,366)	7,257,523	(53.48%)	107.11%
2022	(0.531%)	(10,881,786)	6,686,314	(162.75%)	119.16%
2023	(0.012%)	(659,689)	7,068,237	(9.33%)	101.11%
2024	(0.039%)	(1,889,567)	6,943,494	(27.21%)	102.94%

* Covered payroll represents payroll on which contributions to the pension plan are based.

Section 2: GASB 68 Information

Exhibit 9 – Schedule of proportionate share of Net Pension Liability

City of San Juan Capistrano

Reporting Date for Employer under GASB 68 as of June 30	Proportion of NPL	Proportionate Share of NPL	Covered Payroll*	Proportionate Share of NPL as a Percentage of Covered Payroll	Plan FNP as a Percentage of TPL
2015	0.548%	$27,866,378	$6,863,345	406.02%	67.15%
2016	0.512%	29,249,120	6,464,876	452.43%	64.73%
2017	0.483%	25,089,009	6,636,488	378.05%	68.69%
2018	0.528%	26,138,852	7,227,226	361.67%	71.95%
2019	0.519%	32,142,058	7,253,654	443.12%	67.06%
2020	0.516%	26,191,970	7,294,439	359.07%	73.18%
2021	0.477%	20,116,465	6,701,987	300.16%	76.95%
2022	0.573%	11,742,303	6,112,331	192.11%	85.88%
2023	0.346%	18,650,483	5,334,212	349.64%	73.88%
2024	0.360%	17,443,348	5,694,424	306.32%	77.09%

* Covered payroll represents payroll on which contributions to the pension plan are based.

Section 2: GASB 68 Information

Exhibit 9 – Schedule of proportionate share of Net Pension Liability

O.C. Sanitation District

Reporting Date for Employer under GASB 68 as of June 30	Proportion of NPL	Proportionate Share of NPL	Covered Payroll*	Proportionate Share of NPL as a Percentage of Covered Payroll	Plan FNP as a Percentage of TPL
2015	1.130%	$57,418,760	$58,641,163	97.92%	89.61%
2016	0.742%	42,439,759	59,789,927	70.98%	92.74%
2017	(0.200%)	(10,384,510)	60,000,017	(17.31%)	101.70%
2018	(0.799%)	(39,571,102)	62,341,796	(63.47%)	105.96%
2019	0.468%	29,029,145	66,475,479	43.67%	95.86%
2020	(0.974%)	(49,446,617)	71,395,906	(69.26%)	106.64%
2021	(1.629%)	(68,643,380)	73,290,519	(93.66%)	108.50%
2022	(8.718%)	(178,731,247)	73,539,248	(243.04%)	121.74%
2023	(0.197%)	(10,604,801)	74,669,376	(14.20%)	101.22%
2024	(0.382%)	(18,531,537)	77,104,645	(24.03%)	101.98%

* Covered payroll represents payroll on which contributions to the pension plan are based.

Section 2: GASB 68 Information

Exhibit 9 – Schedule of proportionate share of Net Pension Liability

O.C. Transportation Authority

Reporting Date for Employer under GASB 68 as of June 30	Proportion of NPL	Proportionate Share of NPL	Covered Payroll*	Proportionate Share of NPL as a Percentage of Covered Payroll	Plan FNP as a Percentage of TPL
2015	4.006%	$203,591,950	$95,061,437	214.17%	74.00%
2016	4.377%	250,192,983	93,109,984	268.71%	69.82%
2017	4.436%	230,260,478	94,507,309	243.64%	73.17%
2018	4.283%	212,117,162	94,528,116	224.40%	77.15%
2019	4.353%	269,788,642	97,229,545	277.48%	71.97%
2020	4.419%	224,284,548	101,980,885	219.93%	77.80%
2021	4.415%	186,024,390	102,499,571	181.49%	82.52%
2022	3.581%	73,424,051	97,538,254	75.28%	93.26%
2023	3.842%	207,132,957	105,542,209	196.26%	81.45%
2024	4.288%	207,825,439	111,089,018	187.08%	82.82%

* Covered payroll represents payroll on which contributions to the pension plan are based.

Section 2: GASB 68 Information

Exhibit 9 – Schedule of proportionate share of Net Pension Liability

U.C.I.

Reporting Date for Employer under GASB 68 as of June 30	Proportion of NPL	Proportionate Share of NPL	Covered Payroll*	Proportionate Share of NPL as a Percentage of Covered Payroll	Plan FNP as a Percentage of TPL
2015	0.523%	$26,578,391	$574,780	4624.10%	77.81%
2016	0.633%	36,184,065	285,025	12695.05%	69.50%
2017	0.696%	36,113,699	43,707	82626.81%	68.96%
2018	0.558%	27,644,960	14,874	185860.97%	75.13%
2019	0.562%	34,808,679	0	N/A	67.93%
2020	0.595%	30,213,739	0	N/A	71.62%
2021	0.601%	25,337,145	0	N/A	75.38%
2022	0.836%	17,134,332	0	N/A	82.75%
2023	0.544%	29,314,724	0	N/A	69.63%
2024	0.548%	26,555,318	0	N/A	71.82%

* Covered payroll represents payroll on which contributions to the pension plan are based.

Section 2: GASB 68 Information

Exhibit 9 – Schedule of proportionate share of Net Pension Liability

O.C. Children and Families Comm.

Reporting Date for Employer under GASB 68 as of June 30	Proportion of NPL	Proportionate Share of NPL	Covered Payroll*	Proportionate Share of NPL as a Percentage of Covered Payroll	Plan FNP as a Percentage of TPL
2015	0.078%	$3,957,425	$1,043,030	379.42%	67.15%
2016	0.071%	4,066,523	1,042,786	389.97%	64.73%
2017	0.061%	3,158,290	925,031	341.43%	68.69%
2018	0.019%	962,204	849,266	113.30%	90.09%
2019	0.010%	630,610	966,061	65.28%	91.49%
2020	(0.013%)	(646,472)	1,061,044	(60.93%)	115.26%
2021	(0.015%)	(612,417)	1,167,468	(52.46%)	112.42%
2022	(0.040%)	(811,951)	1,304,766	(62.23%)	112.84%
2023	0.000%	(21,846)	1,209,958	(1.81%)	100.35%
2024	0.004%	189,581	1,659,517	11.42%	97.56%

* Covered payroll represents payroll on which contributions to the pension plan are based.

Section 2: GASB 68 Information

Exhibit 9 – Schedule of proportionate share of Net Pension Liability

Local Agency Formation Comm.

Reporting Date for Employer under GASB 68 as of June 30	Proportion of NPL	Proportionate Share of NPL	Covered Payroll*	Proportionate Share of NPL as a Percentage of Covered Payroll	Plan FNP as a Percentage of TPL
2015	0.026%	$1,303,484	$334,804	389.33%	67.15%
2016	0.020%	1,156,534	287,698	402.00%	64.73%
2017	0.026%	1,340,888	374,792	357.77%	68.69%
2018	0.026%	1,268,133	394,760	321.24%	71.95%
2019	0.026%	1,582,703	419,538	377.25%	67.06%
2020	0.029%	1,489,642	475,099	313.54%	73.18%
2021	0.030%	1,248,133	463,507	269.28%	76.95%
2022	0.044%	912,794	511,264	178.54%	85.88%
2023	0.029%	1,587,646	488,433	325.05%	73.88%
2024	0.035%	1,704,989	599,088	284.60%	77.09%

* Covered payroll represents payroll on which contributions to the pension plan are based.

Section 2: GASB 68 Information

Exhibit 9 – Schedule of proportionate share of Net Pension Liability

Rancho Santa Margarita

Reporting Date for Employer under GASB 68 as of June 30	Proportion of NPL	Proportionate Share of NPL	Covered Payroll*	Proportionate Share of NPL as a Percentage of Covered Payroll	Plan FNP as a Percentage of TPL
2015	0.000%	$1,729	$0	N/A	96.78%
2016	0.000%	6,660	0	N/A	88.06%
2017	0.000%	9,332	0	N/A	82.95%
2018	(0.000%)	(2,320)	0	N/A	104.91%
2019	0.000%	1,284	0	N/A	97.28%
2020	(0.000%)	(2,214)	0	N/A	104.69%
2021	(0.000%)	(2,733)	0	N/A	105.92%
2022	(0.000%)	(6,231)	0	N/A	113.82%
2023	0.000%	1,652	0	N/A	96.34%
2024	0.000%	119	0	N/A	99.74%

* Covered payroll represents payroll on which contributions to the pension plan are based.

Section 2: GASB 68 Information

Exhibit 9 – Schedule of proportionate share of Net Pension Liability

O.C. Superior Court

Reporting Date for Employer under GASB 68 as of June 30	Proportion of NPL	Proportionate Share of NPL	Covered Payroll*	Proportionate Share of NPL as a Percentage of Covered Payroll	Plan FNP as a Percentage of TPL
2015	7.002%	$355,886,410	$99,034,265	359.36%	67.15%
2016	6.926%	395,957,480	97,656,241	405.46%	64.73%
2017	6.726%	349,173,850	100,413,439	347.74%	68.69%
2018	6.716%	332,589,831	100,683,255	330.33%	71.95%
2019	6.338%	392,760,910	101,374,099	387.44%	67.06%
2020	6.635%	336,766,149	104,356,239	322.71%	73.18%
2021	7.112%	299,663,880	110,862,286	270.30%	76.95%
2022	9.109%	186,750,735	107,375,606	173.92%	85.88%
2023	6.695%	360,927,849	111,160,998	324.69%	73.88%
2024	7.116%	344,886,083	121,249,250	284.44%	77.09%

* Covered payroll represents payroll on which contributions to the pension plan are based.

Section 2: GASB 68 Information

Exhibit 9 – Schedule of proportionate share of Net Pension Liability

O.C. IHSS Public Authority

Reporting Date for Employer under GASB 68 as of June 30	Proportion of NPL	Proportionate Share of NPL	Covered Payroll*	Proportionate Share of NPL as a Percentage of Covered Payroll	Plan FNP as a Percentage of TPL
2015	0.013%	$672,066	$744,371	90.29%	75.26%
2016	0.016%	895,964	847,123	105.77%	73.52%
2017	0.015%	781,506	970,644	80.51%	79.30%
2018	0.014%	706,343	1,128,903	62.57%	84.20%
2019	0.018%	1,097,009	1,094,048	100.27%	77.97%
2020	0.014%	719,301	1,152,206	62.43%	86.11%
2021	0.007%	304,738	1,131,545	26.93%	93.94%
2022	(0.011%)	(233,222)	1,125,442	(20.72%)	104.54%
2023	0.012%	666,697	1,290,634	51.66%	88.70%
2024	0.009%	462,162	1,409,194	32.80%	92.98%

* Covered payroll represents payroll on which contributions to the pension plan are based.

Section 2: GASB 68 Information

Exhibit 10 – Schedule of recognition of changes in Net Pension Liability

The following tables present the increase/(decrease) in pension expense due to various changes in Net Pension Liability.

Differences between Expected and Actual Experience on Total Pension Liability

Reporting Date for Employer under GASB 68 as of June 30	Total Change	Recognition Period	2023	2024	2025	2026	2027	2028	2029	Thereafter
2017[1]	$(323,565,741)	5.94	$0	$0	$0	$0	$0	$0	$0	$0
2018[1]	(66,963,603)	6.01	(11,142,029)	(111,429)	0	0	0	0	0	0
2019[1]	(118,124,401)	5.91	(19,987,206)	(18,188,371)	0	0	0	0	0	0
2020[1]	24,382,911	5.86	4,160,905	4,160,905	3,578,386	0	0	0	0	0
2021[1]	162,335,537	5.81	27,940,714	27,940,714	27,940,714	22,631,967	0	0	0	0
2022[1]	(113,046,194)	5.45	(20,742,423)	(20,742,423)	(20,742,423)	(20,742,423)	(9,334,079)	0	0	0
2023	46,500,358	5.41	8,595,262	8,595,262	8,595,262	8,595,262	8,595,262	3,524,048	0	0
2024	326,785,307	5.35	N/A	61,081,366	61,081,366	61,081,366	61,081,366	61,081,366	21,378,477	0
Total[2]	**N/A**	**N/A**	**$(11,174,777)**	**$62,736,024**	**$80,453,305**	**$71,566,172**	**$60,342,549**	**$64,605,414**	**$21,378,477**	**$0**

As described in the Schedule of Deferred Outflows of Resources and Deferred Inflows of Resources, for the current period, the average of the expected remaining service lives of all employees that are provided with pensions through OCERS (active and inactive employees) determined as of December 31, 2022 (the beginning of the measurement period ending December 31, 2023) is 5.35 years.

[1] The amortization amounts prior to June 30, 2023 have been omitted from this schedule. Those amounts can be found in prior years' GASB 68 reports.
[2] Net increase (decrease) in pension expense.

Section 2: GASB 68 Information

Assumption Changes or Other Inputs

Reporting Date for Employer under GASB 68 as of June 30	Total Change	Recognition Period	2023	2024	2025	2026	2027	2028	2029	Thereafter
2017[1]	$0	5.94	$0	$0	$0	$0	$0	$0	$0	$0
2018[1]	827,197,075	6.01	137,636,784	1,376,371	0	0	0	0	0	0
2019[1]	0	5.91	0	0	0	0	0	0	0	0
2020[1]	0	5.86	0	0	0	0	0	0	0	0
2021[1]	18,966,926	5.81	3,264,531	3,264,531	3,264,531	2,644,271	0	0	0	0
2022[1]	0	5.45	0	0	0	0	0	0	0	0
2023	0	5.41	0	0	0	0	0	0	0	0
2024	165,526,367	5.35	N/A	30,939,509	30,939,509	30,939,509	30,939,509	30,939,509	10,828,822	0
Total[2]	**N/A**	**N/A**	**$140,901,315**	**$35,580,411**	**$34,204,040**	**$33,583,780**	**$30,939,509**	**$30,939,509**	**$10,828,822**	**0**

As described in the Schedule of Deferred Outflows of Resources and Deferred Inflows of Resources, for the current period, the average of the expected remaining service lives of all employees that are provided with pensions through OCERS (active and inactive employees) determined as of December 31, 2022 (the beginning of the measurement period ending December 31, 2023) is 5.35 years.

[1] The amortization amounts prior to June 30, 2023 have been omitted from this schedule. Those amounts can be found in prior years' GASB 68 reports.
[2] Net increase (decrease) in pension expense.

Section 2: GASB 68 Information

Differences between Projected and Actual Earnings on Pension Plan Investments

Reporting Date for Employer under GASB 68 as of June 30	Total Change	Recognition Period	2023	2024	2025	2026	2027	2028	2029	Thereafter
2017[1]	$(213,982,570)	5.00	$0	$0	$0	$0	$0	$0	$0	$0
2018[1]	(1,009,651,572)	5.00	0	0	0	0	0	0	0	0
2019[1]	1,360,278,701	5.00	272,055,737	0	0	0	0	0	0	0
2020[1]	(1,170,895,935)	5.00	(234,179,185)	(234,179,195)	0	0	0	0	0	0
2021[1]	(1,008,043,756)	5.00	(201,608,751)	(201,608,751)	(201,608,752)	0	0	0	0	0
2022[1]	(1,909,760,501)	5.00	(381,952,100)	(381,952,100)	(381,952,100)	(381,952,100)	0	0	0	0
2023	3,587,056,374	5.00	717,411,276	717,411,276	717,411,276	717,411,270	717,411,276	0	0	0
2024	(954,822,636)	5.00	N/A	(190,964,528)	(190,964,528)	(190,964,528)	(190,964,528)	(190,964,524)	0	0
Total[2]	**N/A**	**N/A**	**$171,726,977**	**$(291,293,298)**	**$(57,114,104)**	**$144,494,647**	**$526,446,742**	**$(190,964,524)**	**$0**	**$0**

The differences between projected and actual earnings on pension plan investments are recognized over a five-year period per Paragraph 33b. of GASB 68.

[1] The amortization amounts prior to June 30, 2023 have been omitted from this schedule. Those amounts can be found in prior years' GASB 68 reports.
[2] Net increase (decrease) in pension expense.

Section 2: GASB 68 Information

Total Increase/(Decrease) in Pension Expense

Reporting Date for Employer under GASB 68 as of June 30	Total Change	Recognition Period	2023	2024	2025	2026	2027	2028	2029	Thereafter
2017[1]	$(537,548,311)	N/A	$0	$0	$0	$0	$0	$0	$0	$0
2018[1]	(249,418,100)	N/A	126,494,755	1,264,942	0	0	0	0	0	0
2019[1]	1,242,154,300	N/A	252,068,531	(18,188,371)	0	0	0	0	0	0
2020[1]	(1,146,513,024)	N/A	(230,018,280)	(230,018,290)	3,578,386	0	0	0	0	0
2021[1]	(826,741,293)	N/A	(170,403,506)	(170,403,506)	(170,403,507)	25,276,238	0	0	0	0
2022[1]	(2,022,806,695)	N/A	(402,694,523)	(402,694,523)	(402,694,523)	(402,694,524)	(9,334,079)	0	0	0
2023	3,633,556,732	N/A	726,006,538	726,006,538	726,006,538	726,006,538	726,006,532	3,524,048	0	0
2024	(462,510,962)	N/A	N/A	(98,943,653)	(98,943,653)	(98,943,653)	(98,943,653)	(98,943,649)	32,207,299	0
Total[2]	**N/A**	**N/A**	**$301,453,515**	**$(192,976,863)**	**$57,543,241**	**$249,644,599**	**$617,728,800**	**$(95,419,601)**	**$32,207,299**	**$0**

[1] The amortization amounts prior to June 30, 2023 have been omitted from this schedule. Those amounts can be found in prior years' GASB 68 reports.
[2] Net increase (decrease) in pension expense.

Section 2: GASB 68 Information

Exhibit 11 – Schedule of recognition of changes in proportionate share

In addition to the amounts shown in *Section 2, Exhibit 10 – Schedule of recognition of changes in Net Pension Liability*, there are changes in each employer's proportionate share of the NPL during the measurement period ending on December 31, 2023.

The net effect of the change in the employer's proportionate share of the collective NPL and collective deferred outflows of resources and deferred inflows of resources along with the difference between the actual employer contributions and the proportionate share of the employer contributions is recognized over the average of the expected remaining service lives of all employees that are provided with pensions through OCERS as shown earlier.

The following tables illustrate the scheduled increase/(decrease) in pension expense due to the change in proportion and difference in employer contributions. While these amounts are different for each employer, they sum to zero over the entire OCERS.

Section 2: GASB 68 Information

Change in Proportion and Difference in Employer Contributions for the Year Ended December 31, 2023

Employer	Total Change	Recognition Period	2024	2025	2026	2027	2028	2029	Thereafter
Orange County	$(14,705,141)	5.35	$(2,748,624)	$(2,748,624)	$(2,748,624)	$(2,748,624)	$(2,748,624)	$(962,021)	$0
O.C. Cemetery District	0	5.35	0	0	0	0	0	0	0
O.C. Law Library	0	5.35	0	0	0	0	0	0	0
O.C. Vector Control District	0	5.35	0	0	0	0	0	0	0
O.C. Retirement System	4,661,065	5.35	871,227	871,227	871,227	871,227	871,227	304,930	0
O.C. Fire Authority	0	5.35	0	0	0	0	0	0	0
Cypress Recreation and Parks	0	5.35	0	0	0	0	0	0	0
Department of Education	0	5.35	0	0	0	0	0	0	0
Transportation Corridor Agency	0	5.35	0	0	0	0	0	0	0
City of San Juan Capistrano	33,880	5.35	6,333	6,333	6,333	6,333	6,333	2,215	0
O.C. Sanitation District	0	5.35	0	0	0	0	0	0	0
O.C. Transportation Authority	0	5.35	0	0	0	0	0	0	0
U.C.I.	0	5.35	0	0	0	0	0	0	0
O.C. Children and Families Comm.	377,840	5.35	70,624	70,624	70,624	70,624	70,624	24,720	0
Local Agency Formation Comm.	192,811	5.35	36,039	36,039	36,039	36,039	36,039	12,616	0
Rancho Santa Margarita	0	5.35	0	0	0	0	0	0	0
O.C. Superior Court	9,417,883	5.35	1,760,352	1,760,352	1,760,352	1,760,352	1,760,352	616,123	0
O.C. IHSS Public Authority	21,662	5.35	4,049	4,049	4,049	4,049	4,049	1,417	0
Total for All Employers	**$0**		**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**

Section 2: GASB 68 Information

Change in Proportion and Difference in Employer Contributions for the Year Ended December 31, 2022

Employer	Total Change	Recognition Period	2023	2024	2025	2026	2027	2028	Thereafter
Orange County	$9,664,735	5.41	$1,786,458	$1,786,458	$1,786,458	$1,786,458	$1,786,458	$732,445	$0
O.C. Cemetery District	0	5.41	0	0	0	0	0	0	0
O.C. Law Library	0	5.41	0	0	0	0	0	0	0
O.C. Vector Control District	0	5.41	0	0	0	0	0	0	0
O.C. Retirement System	(679,097)	5.41	(125,526)	(125,526)	(125,526)	(125,526)	(125,526)	(51,467)	0
O.C. Fire Authority	0	5.41	0	0	0	0	0	0	0
Cypress Recreation and Parks	0	5.41	0	0	0	0	0	0	0
Department of Education	0	5.41	0	0	0	0	0	0	0
Transportation Corridor Agency	0	5.41	0	0	0	0	0	0	0
City of San Juan Capistrano	(3,738,526)	5.41	(691,040)	(691,040)	(691,040)	(691,040)	(691,040)	(283,326)	0
O.C. Sanitation District	0	5.41	0	0	0	0	0	0	0
O.C. Transportation Authority	0	5.41	0	0	0	0	0	0	0
U.C.I.	0	5.41	0	0	0	0	0	0	0
O.C. Children and Families Comm.	1,436,935	5.41	265,607	265,607	265,607	265,607	265,607	108,900	0
Local Agency Formation Comm.	(189,545)	5.41	(35,036)	(35,036)	(35,036)	(35,036)	(35,036)	(14,365)	0
Rancho Santa Margarita	0	5.41	0	0	0	0	0	0	0
O.C. Superior Court	(6,632,793)	5.41	(1,226,025)	(1,226,025)	(1,226,025)	(1,226,025)	(1,226,025)	(502,668)	0
O.C. IHSS Public Authority	138,291	5.41	25,562	25,562	25,562	25,562	25,562	10,481	0
Total for All Employers	**$0**		**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**

Section 2: GASB 68 Information

Change in Proportion and Difference in Employer Contributions for the Year Ended December 31, 2021

Employer	Total Change	Recognition Period	2022	2023	2024	2025	2026	2027	Thereafter
Orange County	$(5,478,436)	5.45	$(1,005,218)	$(1,005,218)	$(1,005,218)	$(1,005,218)	$(1,005,218)	$(452,346)	$0
O.C. Cemetery District	0	5.45	0	0	0	0	0	0	0
O.C. Law Library	0	5.45	0	0	0	0	0	0	0
O.C. Vector Control District	0	5.45	0	0	0	0	0	0	0
O.C. Retirement System	1,428,471	5.45	262,105	262,105	262,105	262,105	262,105	117,946	0
O.C. Fire Authority	0	5.45	0	0	0	0	0	0	0
Cypress Recreation and Parks	0	5.45	0	0	0	0	0	0	0
Department of Education	0	5.45	0	0	0	0	0	0	0
Transportation Corridor Agency	0	5.45	0	0	0	0	0	0	0
City of San Juan Capistrano	4,941,332	5.45	906,666	906,666	906,666	906,666	906,666	408,002	0
O.C. Sanitation District	0	5.45	0	0	0	0	0	0	0
O.C. Transportation Authority	0	5.45	0	0	0	0	0	0	0
U.C.I.	0	5.45	0	0	0	0	0	0	0
O.C. Children and Families Comm.	(435,875)	5.45	(79,977)	(79,977)	(79,977)	(79,977)	(79,977)	(35,990)	0
Local Agency Formation Comm.	228,184	5.45	41,869	41,869	41,869	41,869	41,869	18,839	0
Rancho Santa Margarita	0	5.45	0	0	0	0	0	0	0
O.C. Superior Court	(456,452)	5.45	(83,753)	(83,753)	(83,753)	(83,753)	(83,753)	(37,687)	0
O.C. IHSS Public Authority	(227,224)	5.45	(41,692)	(41,692)	(41,692)	(41,692)	(41,692)	(18,764)	0
Total for All Employers	**$0**		**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**

Section 2: GASB 68 Information

Change in Proportion and Difference in Employer Contributions for the Year Ended December 31, 2020

Employer	Total Change	Recognition Period	2021	2022	2023	2024	2025	2026	Thereafter
Orange County	$12,901,296	5.81	$2,220,532	$2,220,532	$2,220,532	$2,220,532	$2,220,532	$1,798,636	$0
O.C. Cemetery District	0	5.81	0	0	0	0	0	0	0
O.C. Law Library	0	5.81	0	0	0	0	0	0	0
O.C. Vector Control District	0	5.81	0	0	0	0	0	0	0
O.C. Retirement System	562,430	5.81	96,804	96,804	96,804	96,804	96,804	78,410	0
O.C. Fire Authority	0	5.81	0	0	0	0	0	0	0
Cypress Recreation and Parks	0	5.81	0	0	0	0	0	0	0
Department of Education	0	5.81	0	0	0	0	0	0	0
Transportation Corridor Agency	0	5.81	0	0	0	0	0	0	0
City of San Juan Capistrano	(4,539,080)	5.81	(781,253)	(781,253)	(781,253)	(781,253)	(781,253)	(632,815)	0
O.C. Sanitation District	0	5.81	0	0	0	0	0	0	0
O.C. Transportation Authority	0	5.81	0	0	0	0	0	0	0
U.C.I.	0	5.81	0	0	0	0	0	0	0
O.C. Children and Families Comm.	173,659	5.81	29,890	29,890	29,890	29,890	29,890	24,209	0
Local Agency Formation Comm.	(136,351)	5.81	(23,468)	(23,468)	(23,468)	(23,468)	(23,468)	(19,011)	0
Rancho Santa Margarita	0	5.81	0	0	0	0	0	0	0
O.C. Superior Court	(8,930,323)	5.81	(1,537,061)	(1,537,061)	(1,537,061)	(1,537,061)	(1,537,061)	(1,245,018)	0
O.C. IHSS Public Authority	(31,631)	5.81	(5,444)	(5,444)	(5,444)	(5,444)	(5,444)	(4,411)	0
Total for All Employers	**$0**		**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**

Section 2: GASB 68 Information

Change in Proportion and Difference in Employer Contributions for the Year Ended December 31, 2019

Employer	Total Change	Recognition Period	2020	2021	2022	2023	2024	2025	Thereafter
Orange County	$(5,692,697)	5.86	$(971,449)	$(971,449)	$(971,449)	$(971,449)	$(971,449)	$(835,452)	$0
O.C. Cemetery District	0	5.86	0	0	0	0	0	0	0
O.C. Law Library	0	5.86	0	0	0	0	0	0	0
O.C. Vector Control District	0	5.86	0	0	0	0	0	0	0
O.C. Retirement System	2,634,131	5.86	449,510	449,510	449,510	449,510	449,510	386,581	0
O.C. Fire Authority	0	5.86	0	0	0	0	0	0	0
Cypress Recreation and Parks	0	5.86	0	0	0	0	0	0	0
Department of Education	0	5.86	0	0	0	0	0	0	0
Transportation Corridor Agency	0	5.86	0	0	0	0	0	0	0
City of San Juan Capistrano	(1,157,951)	5.86	(197,603)	(197,603)	(197,603)	(197,603)	(197,603)	(169,936)	0
O.C. Sanitation District	0	5.86	0	0	0	0	0	0	0
O.C. Transportation Authority	0	5.86	0	0	0	0	0	0	0
U.C.I.	0	5.86	0	0	0	0	0	0	0
O.C. Children and Families Comm.	(1,110,175)	5.86	(189,450)	(189,450)	(189,450)	(189,450)	(189,450)	(162,925)	0
Local Agency Formation Comm.	157,671	5.86	26,906	26,906	26,906	26,906	26,906	23,141	0
Rancho Santa Margarita	0	5.86	0	0	0	0	0	0	0
O.C. Superior Court	5,149,368	5.86	878,732	878,732	878,732	878,732	878,732	755,708	0
O.C. IHSS Public Authority	19,653	5.86	3,354	3,354	3,354	3,354	3,354	2,883	0
Total for All Employers	**$0**		**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**

Section 2: GASB 68 Information

Change in Proportion and Difference in Employer Contributions for the Year Ended December 31, 2018

Employer	Total Change	Recognition Period	2019	2020	2021	2022	2023	2024	Thereafter
Orange County	$13,152,991	5.91	$2,225,549	$2,225,549	$2,225,549	$2,225,549	$2,225,549	$2,025,246	$0
O.C. Cemetery District	0	5.91	0	0	0	0	0	0	0
O.C. Law Library	0	5.91	0	0	0	0	0	0	0
O.C. Vector Control District	0	5.91	0	0	0	0	0	0	0
O.C. Retirement System	2,177,730	5.91	368,482	368,482	368,482	368,482	368,482	335,320	0
O.C. Fire Authority	0	5.91	0	0	0	0	0	0	0
Cypress Recreation and Parks	0	5.91	0	0	0	0	0	0	0
Department of Education	0	5.91	0	0	0	0	0	0	0
Transportation Corridor Agency	0	5.91	0	0	0	0	0	0	0
City of San Juan Capistrano	(142,910)	5.91	(24,181)	(24,181)	(24,181)	(24,181)	(24,181)	(22,005)	0
O.C. Sanitation District	0	5.91	0	0	0	0	0	0	0
O.C. Transportation Authority	0	5.91	0	0	0	0	0	0	0
U.C.I.	0	5.91	0	0	0	0	0	0	0
O.C. Children and Families Comm.	(361,087)	5.91	(61,098)	(61,098)	(61,098)	(61,098)	(61,098)	(55,597)	0
Local Agency Formation Comm.	13,795	5.91	2,334	2,334	2,334	2,334	2,334	2,125	0
Rancho Santa Margarita	0	5.91	0	0	0	0	0	0	0
O.C. Superior Court	(14,826,827)	5.91	(2,508,769)	(2,508,769)	(2,508,769)	(2,508,769)	(2,508,769)	(2,282,982)	0
O.C. IHSS Public Authority	(13,692)	5.91	(2,317)	(2,317)	(2,317)	(2,317)	(2,317)	(2,107)	0
Total for All Employers	**$0**		**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**

Section 2: GASB 68 Information

Change in Proportion and Difference in Employer Contributions for the Year Ended December 31, 2017

Employer	Total Change	Recognition Period	2018	2019	2020	2021	2022	2023	Thereafter
Orange County	$8,107,013	6.01	$1,348,921	$1,348,921	$1,348,921	$1,348,921	$1,348,921	$1,348,921	$13,487
O.C. Cemetery District	0	6.01	0	0	0	0	0	0	0
O.C. Law Library	0	6.01	0	0	0	0	0	0	0
O.C. Vector Control District	0	6.01	0	0	0	0	0	0	0
O.C. Retirement System	49,770	6.01	8,281	8,281	8,281	8,281	8,281	8,281	84
O.C. Fire Authority	0	6.01	0	0	0	0	0	0	0
Cypress Recreation and Parks	0	6.01	0	0	0	0	0	0	0
Department of Education	0	6.01	0	0	0	0	0	0	0
Transportation Corridor Agency	0	6.01	0	0	0	0	0	0	0
City of San Juan Capistrano	1,675,195	6.01	278,735	278,735	278,735	278,735	278,735	278,735	2,785
O.C. Sanitation District	0	6.01	0	0	0	0	0	0	0
O.C. Transportation Authority	0	6.01	0	0	0	0	0	0	0
U.C.I.	0	6.01	0	0	0	0	0	0	0
O.C. Children and Families Comm.	(445,507)	6.01	(74,128)	(74,128)	(74,128)	(74,128)	(74,128)	(74,128)	(739)
Local Agency Formation Comm.	(51,088)	6.01	(8,500)	(8,500)	(8,500)	(8,500)	(8,500)	(8,500)	(88)
Rancho Santa Margarita	0	6.01	0	0	0	0	0	0	0
O.C. Superior Court	(9,400,312)	6.01	(1,564,112)	(1,564,112)	(1,564,112)	(1,564,112)	(1,564,112)	(1,564,112)	(15,640)
O.C. IHSS Public Authority	64,929	6.01	10,803	10,803	10,803	10,803	10,803	10,803	111
Total for All Employers	**$0**		**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**

Section 3: Actuarial Assumptions and Methods

The following presents the actuarial assumptions, methods and models used in the December 31, 2023 Measurement Date for Employer Reporting as of June 30, 2024.

Actuarial assumptions

Rationale for assumptions

The information and analysis used in selecting each assumption that has a significant effect on this actuarial valuation is shown in the January 1, 2020 through December 31, 2022 Actuarial Experience Study dated August 11, 2023. Unless otherwise noted, all actuarial assumptions and methods shown below apply to all members for all tiers. These assumptions were adopted by the Board.

Net investment return

7.00%; net of administrative and investment expenses.

Based on the Actuarial Experience Study referenced above, expected administrative and investment expenses represent about 0.30% of the actuarial value of assets.

Inflation rate

Increase of 2.50% per year.

Cost-of-Living Adjustment (COLA)

Retiree COLA increases of 2.75% per year. For members that have COLA banks, we assume they receive 3.00% COLA increases until their COLA banks are exhausted and 2.75% thereafter.

Member contribution crediting rate

5.00%, compounded semi-annually.

Section 3: Actuarial Assumptions and Methods

Payroll

Inflation of 2.50% per year plus “across-the-board” salary increase of 0.50% per year, used to amortize the UAAL as a level percentage of payroll for calculating the actuarially determined contribution.

Increase in Section 7522.10 Compensation Limit

Increase of 2.50% per year from the valuation date.

Salary increase

The annual rate of compensation increase includes:

- Inflation at 2.50%, plus
- “Across-the-board” salary increase of 0.50% per year, plus
- Merit and promotion increase based on years of service:

Section 3: Actuarial Assumptions and Methods

Merit and Promotion Increases*

Years of Service	General	Safety
Less than 1	5.00%	12.00%
1–2	7.25%	10.00%
2–3	6.50%	8.75%
3–4	5.50%	7.75%
4–5	4.50%	6.75%
5–6	3.75%	5.75%
6–7	3.00%	5.00%
7–8	2.75%	3.75%
8–9	2.00%	3.00%
9–10	1.80%	2.75%
10–11	1.60%	2.00%
11–12	1.50%	1.85%
12–13	1.40%	1.85%
13–14	1.30%	1.85%
14–15	1.25%	1.85%
15–16	1.25%	1.60%
16–17	1.15%	1.60%
17–18	1.10%	1.60%
18–19	1.10%	1.60%
19–20	0.90%	1.50%
20 and over	0.90%	1.50%

* In addition to the individual salary increase assumptions, we have applied an average of two hours of additional salary annually for leap-year salary adjustment.

Section 3: Actuarial Assumptions and Methods

Post-retirement mortality rates

The Pub-2010 mortality tables and adjustments as shown below reasonably reflect the mortality experience as of the measurement date. These mortality tables were adjusted to future years using the generational projection to reflect future mortality improvement between the measurement date and those years.

Healthy

- **General members:** Pub-2010 General Healthy Retiree Amount-Weighted Above-Median Mortality Table (separate tables for males and females) increased 5% for females, projected generationally with the two-dimensional mortality improvement scale MP-2021.
- **Safety members:** Pub-2010 Safety Healthy Retiree Amount-Weighted Above-Median Mortality Table (separate tables for males and females) decreased 5% for females, projected generationally with the two-dimensional mortality improvement scale MP-2021.

Disabled

- **General members:** Pub-2010 Non-Safety Disabled Retiree Amount-Weighted Mortality Table (separate tables for males and females) decreased 5% for males and females, projected generationally with the two-dimensional mortality improvement scale MP-2021.
- **Safety members:** Pub-2010 Safety Disabled Retiree Amount-Weighted Mortality Table (separate tables for males and females) decreased 5% for females, projected generationally with the two-dimensional mortality improvement scale MP-2021.

Beneficiary

- **Beneficiaries not currently in pay status:** Pub-2010 General Healthy Retiree Amount-Weighted Above-Median Mortality Table (separate tables for males and females) increased 5% for females, projected generationally with the two-dimensional mortality improvement scale MP-2021.
- **Beneficiaries in pay status:** Pub-2010 Contingent Survivor Amount-Weighted Above Median Mortality Table (separate tables for males and females) increased 10% for males, projected generationally with the two-dimensional mortality improvement scale MP-2021.

Section 3: Actuarial Assumptions and Methods

Pre-retirement mortality rates

- **General members:** Pub-2010 General Employee Amount-Weighted Above-Median Mortality Table (separate tables for males and females), projected generationally with the two-dimensional mortality improvement scale MP-2021.
- **Safety members:** Pub-2010 Safety Employee Amount-Weighted Above-Median Mortality Table (separate tables for males and females), projected generationally with the two-dimensional mortality improvement scale MP-2021.

Pre-Retirement Mortality Rates — Before Generational Projection from 2010

Age	General Male	General Female	Safety Male	Safety Female
20	0.04%	0.01%	0.04%	0.02%
25	0.02%	0.01%	0.03%	0.02%
30	0.03%	0.01%	0.04%	0.02%
35	0.04%	0.02%	0.04%	0.03%
40	0.06%	0.03%	0.05%	0.04%
45	0.09%	0.05%	0.07%	0.06%
50	0.13%	0.08%	0.10%	0.08%
55	0.19%	0.11%	0.15%	0.11%
60	0.28%	0.17%	0.23%	0.14%
65	0.41%	0.27%	0.35%	0.20%
70	0.61%	0.44%	0.66%	0.39%

All General pre-retirement deaths are assumed to be non-service connected.

For Safety, 90% of pre-retirement deaths are assumed to be non-service connected. The other 10% are assumed to be service connected.

Section 3: Actuarial Assumptions and Methods

Mortality rates for member contributions

- **General members:** Pub-2010 General Healthy Retiree Amount-Weighted Above-Median Mortality Table (separate tables for males and females) increased 5% for females, projected 30 years (from 2010) with the two-dimensional mortality improvement scale MP 2021, weighted 40% male and 60% female.
- **Safety members:** Pub-2010 Safety Healthy Retiree Amount-Weighted Above-Median Mortality Table (separate tables for males and females) decreased by 5% for females, projected 30 years (from 2010) with the two-dimensional mortality improvement scale MP-2021, weighted 85% male and 15% female.

Section 3: Actuarial Assumptions and Methods

Disability incidence

Disability Incidence Rates

Age	General All Other	General OCTA	Safety Law & Fire	Safety Probation
20	0.00%	0.00%	0.00%	0.00%
25	0.00%	0.00%	0.02%	0.03%
30	0.01%	0.03%	0.08%	0.08%
35	0.03%	0.20%	0.19%	0.13%
40	0.07%	0.36%	0.34%	0.18%
45	0.13%	0.46%	0.46%	0.26%
50	0.21%	0.56%	1.22%	0.36%
55	0.28%	0.72%	3.38%	0.49%
60	0.30%	1.04%	5.40%	0.22%
65	0.30%	1.68%	7.50%	0.00%

75% of General All Other disabilities are assumed to be service-connected disabilities. The other 25% are assumed to be non-service connected.

85% of General OCTA disabilities are assumed to be service-connected disabilities. The other 15% are assumed to be non-service connected.

100% of Safety Law Enforcement and Fire disabilities are assumed to be service-connected disabilities.

85% of Safety Probation disabilities are assumed to be service-connected disabilities. The other 15% are assumed to be non-service connected.

Section 3: Actuarial Assumptions and Methods

Termination

Termination Rates

Years of Service	General All Other	General OCTA	Safety Law & Fire	Safety Probation
Less than 1	11.25%	16.50%	4.00%	12.50%
1–2	7.25%	11.50%	3.00%	11.50%
2–3	6.50%	9.25%	2.50%	9.50%
3–4	5.50%	8.25%	2.25%	5.00%
4–5	5.25%	7.75%	2.00%	4.00%
5–6	4.75%	6.50%	1.75%	3.25%
6–7	4.25%	4.25%	1.25%	2.75%
7–8	4.00%	4.00%	1.20%	2.75%
8–9	3.50%	3.50%	1.15%	2.50%
9–10	3.00%	2.75%	1.10%	1.75%
10–11	2.50%	2.75%	1.05%	1.50%
11–12	2.00%	2.50%	1.00%	1.50%
12–13	1.75%	2.50%	0.95%	1.25%
13–14	1.75%	2.25%	0.65%	1.00%
14–15	1.60%	2.25%	0.60%	0.75%
15–16	1.50%	2.00%	0.55%	0.75%
16–17	1.40%	2.00%	0.50%	0.75%
17–18	1.30%	1.75%	0.45%	0.75%
18–19	1.20%	1.75%	0.40%	0.50%
19–20	1.00%	1.25%	0.30%	0.25%
20 and over	0.50%	0.75%	0.15%	0.20%

Section 3: Actuarial Assumptions and Methods

Election for withdrawal of contributions

Election Rates

Years of Service	General All Other	General OCTA	Safety Law & Fire	Safety Probation
Less than 5	25.00%	35.00%	25.00%	20.00%
5–9	17.50%	30.00%	25.00%	20.00%
10–14	17.50%	25.00%	12.50%	20.00%
15 and over	15.00%	15.00%	12.50%	15.00%

Section 3: Actuarial Assumptions and Methods

Retirement rates

Retirement Rates — General

Age	Enhanced <30 Years of Service	Enhanced 30+ Years of Service	Non-Enhanced* <30 Years of Service	Non-Enhanced* 30+ Years of Service
49	0.00%	30.00%	0.00%	25.00%
50	2.25%	5.00%	2.75%	2.75%
51	2.25%	5.00%	2.75%	2.75%
52	2.50%	5.00%	2.75%	2.75%
53	3.00%	9.00%	2.75%	2.75%
54	7.50%	16.00%	2.75%	2.75%
55	13.00%	35.00%	3.25%	3.50%
56	10.00%	24.00%	3.25%	3.50%
57	10.00%	22.00%	5.50%	5.50%
58	10.00%	22.00%	6.50%	6.50%
59	11.00%	24.00%	6.50%	6.50%
60	12.00%	24.00%	8.00%	12.00%
61	12.00%	24.00%	8.00%	15.00%
62	14.00%	24.00%	8.00%	18.00%
63	14.00%	24.00%	10.00%	22.00%
64	17.00%	30.00%	12.00%	25.00%
65	25.00%	30.00%	22.00%	30.00%
66	25.00%	30.00%	25.00%	32.00%
67	25.00%	30.00%	27.00%	32.00%
68	25.00%	25.00%	32.00%	32.00%
69	25.00%	25.00%	30.00%	30.00%
70	25.00%	25.00%	25.00%	30.00%
71	25.00%	25.00%	20.00%	30.00%
72	22.00%	25.00%	20.00%	30.00%
73	20.00%	25.00%	20.00%	30.00%
74	20.00%	25.00%	20.00%	30.00%
75	100.00%	100.00%	100.00%	100.00%

The retirement rates only apply to members that are eligible to retire at the age shown.

* These assumptions are also used for the CalPEPRA 1.62% @ 65 formula (Plan T and Plan W).

Section 3: Actuarial Assumptions and Methods

Retirement Rates — Safety

Age	Law (31664.1) <30 Years of Service	Law (31664.1) 30+ Years of Service	Fire (31664.1) <30 Years of Service	Fire (31664.1) 30+ Years of Service	Probation (31664.1) <30 Years of Service	Probation (31664.1) 30+ Years of Service
45	2.50%	16.00%	2.00%	10.00%	3.00%	5.00%
46	2.50%	16.00%	2.00%	10.00%	3.00%	5.00%
47	2.50%	16.00%	2.00%	10.00%	3.00%	5.00%
48	2.50%	16.00%	2.00%	10.00%	3.00%	5.00%
49	12.00%	16.00%	2.00%	10.00%	3.00%	5.00%
50	18.00%	20.00%	4.50%	10.00%	9.00%	12.00%
51	18.00%	20.00%	4.50%	10.00%	7.00%	10.00%
52	18.00%	20.00%	4.50%	10.00%	5.00%	9.00%
53	20.00%	35.00%	9.00%	20.00%	7.00%	9.00%
54	24.00%	35.00%	12.00%	25.00%	7.00%	12.00%
55	24.00%	35.00%	12.00%	25.00%	12.00%	30.00%
56	24.00%	35.00%	12.00%	25.00%	18.00%	30.00%
57	24.00%	35.00%	20.00%	25.00%	25.00%	30.00%
58	24.00%	40.00%	20.00%	30.00%	25.00%	30.00%
59	24.00%	40.00%	25.00%	30.00%	18.00%	30.00%
60	30.00%	40.00%	25.00%	30.00%	20.00%	40.00%
61	30.00%	40.00%	25.00%	30.00%	20.00%	40.00%
62	30.00%	40.00%	25.00%	30.00%	20.00%	40.00%
63	30.00%	40.00%	25.00%	30.00%	20.00%	40.00%
64	30.00%	40.00%	25.00%	30.00%	20.00%	40.00%
65	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

The retirement rates only apply to members that are eligible to retire at the age shown.

Section 3: Actuarial Assumptions and Methods

Retirement Rates

Age	General SJC (31676.12)	Safety Law (31664.2)	Safety Fire (31664.2)
50	4.00%	12.00%	8.00%
51	4.00%	12.50%	9.00%
52	4.00%	13.00%	10.00%
53	4.00%	18.00%	12.00%
54	4.00%	19.00%	14.00%
55	4.00%	35.00%	24.00%
56	5.00%	25.00%	23.00%
57	6.00%	25.00%	25.00%
58	7.00%	25.00%	25.00%
59	9.00%	30.00%	35.00%
60	10.00%	40.00%	40.00%
61	12.00%	40.00%	40.00%
62	13.00%	40.00%	40.00%
63	13.00%	40.00%	40.00%
64	19.00%	40.00%	40.00%
65	22.00%	100.00%	100.00%
66	26.00%	100.00%	100.00%
67	26.00%	100.00%	100.00%
68	26.00%	100.00%	100.00%
69	26.00%	100.00%	100.00%
70	45.00%	100.00%	100.00%
71	45.00%	100.00%	100.00%
72	45.00%	100.00%	100.00%
73	45.00%	100.00%	100.00%
74	45.00%	100.00%	100.00%
75	100.00%	100.00%	100.00%

The retirement rates only apply to members that are eligible to retire at the age shown.

Section 3: Actuarial Assumptions and Methods

Retirement Rates

Age	CalPEPRA 2.5% @ 67 General Formula	CalPEPRA 2.7% @ 57 Safety Formula Probation	CalPEPRA 2.7% @ 57 Safety Formula Law	CalPEPRA 2.7% @ 57 Safety Formula Fire
50	0.00%	3.00%	11.50%	6.00%
51	0.00%	3.00%	12.00%	6.50%
52	5.50%	3.50%	12.50%	8.00%
53	2.00%	3.50%	16.50%	10.00%
54	2.00%	6.00%	17.50%	12.00%
55	2.75%	12.00%	30.00%	20.00%
56	3.75%	12.00%	20.00%	19.00%
57	5.50%	15.00%	20.00%	21.00%
58	7.50%	25.00%	25.00%	25.00%
59	7.50%	25.00%	30.00%	30.00%
60	7.50%	40.00%	40.00%	40.00%
61	7.50%	40.00%	40.00%	40.00%
62	14.00%	40.00%	40.00%	40.00%
63	14.00%	40.00%	40.00%	40.00%
64	15.00%	40.00%	40.00%	40.00%
65	20.00%	100.00%	100.00%	100.00%
66	22.00%	100.00%	100.00%	100.00%
67	23.00%	100.00%	100.00%	100.00%
68	23.00%	100.00%	100.00%	100.00%
69	23.00%	100.00%	100.00%	100.00%
70	25.00%	100.00%	100.00%	100.00%
71	25.00%	100.00%	100.00%	100.00%
72	25.00%	100.00%	100.00%	100.00%
73	25.00%	100.00%	100.00%	100.00%
74	25.00%	100.00%	100.00%	100.00%
75	100.00%	100.00%	100.00%	100.00%

The retirement rates only apply to members that are eligible to retire at the age shown.

Section 3: Actuarial Assumptions and Methods

Retirement age and benefit for deferred vested members

For current and future deferred vested members without reciprocity, retirement age assumptions are as follows:

General retirement age:	58
Safety retirement age:	54

For current and future deferred vested members with reciprocity, retirement age assumptions are as follows:

General retirement age:	60
Safety retirement age:	54

General and Safety deferred vested members who terminate with less than five years of service and are not vested are assumed to retire at age 70 for both General and Safety if they decide to leave their contributions on deposit.

12.5% of future General and 20% of future Safety deferred vested members are assumed to continue to work for a reciprocal employer. For reciprocals, 3.90% and 4.50% compensation increase per annum are assumed for General and Safety, respectively.

Liability calculation for current deferred vested members

Liability for a current deferred vested member is calculated based on salary (adjusted with the additional cashout assumptions for non-CalPEPRA members), service, and eligibility for reciprocal benefit as provided by the Retirement System. For those members without salary information that have 3 or more years of service, we used an average salary. For those members without salary information that have less than 3 years of service or for those members without service information, we assumed a refund of account balance.

Future benefit accruals

1.0 year of service per year of employment. There is no assumption to anticipate conversion of unused sick leave at retirement.

Unknown data for members

Same as those exhibited by members with similar known characteristics. If not specified, members are assumed to be male.

Section 3: Actuarial Assumptions and Methods

Inclusion of deferred vested members

All deferred vested members are included in the valuation.

Definition of active members

First day of employment.

Form of payment

All active and inactive members are assumed to elect the unmodified option at retirement.

Percent married

For all active and inactive members, 75% of male members and 55% of female members are assumed to be married at pre-retirement death or retirement.

Age and gender of spouse

For all active and inactive members, male members are assumed to have a female spouse who is 3 years younger than the member and female members are assumed to have a male spouse who is 2 years older than the member.

Section 3: Actuarial Assumptions and Methods

Cashout assumptions

Additional compensation amounts are expected to be received during a member's final average earnings period. The percentages used in this valuation are:

Rates

Plan	Final One Year Salary	Final Three Year Salary
General Non CalPEPRA	3.00%	3.20%
Safety Probation Non CalPEPRA	N/A	3.50%
Safety Law Non CalPEPRA	N/A	6.60%
Safety Fire Non CalPEPRA	N/A	1.50%
General CalPEPRA	N/A	N/A
Safety Probation CalPEPRA	N/A	N/A
Safety Law CalPEPRA	N/A	N/A
Safety Fire CalPEPRA	N/A	N/A

The additional cashout assumptions are the same for service and disability retirements.

Actuarial methods

Actuarial cost method

Entry age actuarial cost method.

Entry age is the age on the valuation date minus the lesser of years of employment or years of benefit service. Normal cost and AAL are calculated on an individual basis and are based on costs allocated as a level percentage of compensation. The normal cost rate is calculated assuming their entry age is the date they entered service with OCERS.

Please note that for Probation members who have prior benefit service in another General OCERS plan, the normal cost rate for the current plan is calculated assuming their entry age is the date they entered service with their current plan.

Section 3: Actuarial Assumptions and Methods

Expected remaining service lives

The average of the expected service lives of all employees is determined by:

- Calculating each active employee's expected remaining service life as the present value of $1 per year of future service at zero percent interest.
- Setting the remaining service life to zero for each non-active or retired member.
- Dividing the sum of item 1 and item 3 by the total number of active, non-active and retired members.

Actuarial Models

Segal valuation results are based on proprietary actuarial modeling software. The actuarial valuation models generate a comprehensive set of liability and cost calculations that are presented to meet regulatory, legislative and client requirements. Our Actuarial Technology and Systems unit, comprised of both actuaries and programmers, is responsible for the initial development and maintenance of these models. The models have a modular structure that allows for a high degree of accuracy, flexibility and user control. The client team programs the assumptions and the plan provisions, validates the models, and reviews test lives and results, under the supervision of the responsible actuary.

Justification for change in actuarial assumptions, methods or models

Based on past experience and future expectations, the following actuarial assumptions were changed. Previously these assumptions were as follows:

Section 3: Actuarial Assumptions and Methods

Salary increase

The annual rate of compensation increase includes:

- Inflation at 2.50%, plus
- “Across-the-board” salary increase of 0.50% per year, plus
- Merit and promotion increase based on years of service:

Merit and Promotion Increases*

Years of Service	General	Safety
Less than 1	8.00%	12.00%
1–2	7.25%	10.00%
2–3	6.25%	8.50%
3–4	5.25%	7.50%
4–5	4.25%	6.50%
5–6	3.50%	5.50%
6–7	2.75%	5.00%
7–8	2.50%	4.00%
8–9	1.70%	3.00%
9–10	1.70%	2.50%
10–11	1.60%	1.85%
11–12	1.60%	1.85%
12–13	1.50%	1.85%
13–14	1.50%	1.85%
14–15	1.25%	1.85%
15–16	1.25%	1.60%
16–17	1.00%	1.60%
17–18	1.00%	1.60%
18–19	1.00%	1.60%
19–20	1.00%	1.60%
20 and over	1.00%	1.60%

* In addition to the individual salary increase assumptions, we have applied an average of two hours of additional salary annually for leap-year salary adjustment.

Section 3: Actuarial Assumptions and Methods

Post-retirement mortality rates

The Pub-2010 mortality tables and adjustments as shown below reasonably reflect the mortality experience as of the measurement date. These mortality tables were adjusted to future years using the generational projection to reflect future mortality improvement between the measurement date and those years.

Healthy

- **General members:** Pub-2010 General Healthy Retiree Amount-Weighted Above-Median Mortality Table (separate tables for males and females) increased 5% for males and females, projected generationally with the two-dimensional mortality improvement scale MP-2019.
- **Safety members:** Pub-2010 Safety Healthy Retiree Amount-Weighted Above-Median Mortality Table (separate tables for males and females), projected generationally with the two-dimensional mortality improvement scale MP-2019.

Disabled

- **General members:** Pub-2010 Non-Safety Disabled Retiree Amount-Weighted Mortality Table (separate tables for males and females) decreased 5% for males and females, projected generationally with the two-dimensional mortality improvement scale MP-2019.
- **Safety members:** Pub-2010 Safety Disabled Retiree Amount-Weighted Mortality Table (separate tables for males and females), projected generationally with the two-dimensional mortality improvement scale MP-2019.

Beneficiary

- **All beneficiaries:** Pub-2010 Contingent Survivor Amount-Weighted Above Median Mortality Table (separate tables for males and females) increased 5% for males and females, projected generationally with the two-dimensional mortality improvement scale MP-2019.

Section 3: Actuarial Assumptions and Methods

Pre-retirement mortality rates

- **General members:** Pub-2010 General Employee Amount-Weighted Above-Median Mortality Table (separate tables for males and females), projected generationally with the two-dimensional mortality improvement scale MP-2019.
- **Safety members:** Pub-2010 Safety Employee Amount-Weighted Above-Median Mortality Table (separate tables for males and females), projected generationally with the two-dimensional mortality improvement scale MP-2019.

Pre-Retirement Mortality Rates — Before Generational Projection from 2010

Age	General Male	General Female	Safety Male	Safety Female
20	0.04%	0.01%	0.04%	0.02%
25	0.02%	0.01%	0.03%	0.02%
30	0.03%	0.01%	0.04%	0.02%
35	0.04%	0.02%	0.04%	0.03%
40	0.06%	0.03%	0.05%	0.04%
45	0.09%	0.05%	0.07%	0.06%
50	0.13%	0.08%	0.10%	0.08%
55	0.19%	0.11%	0.15%	0.11%
60	0.28%	0.17%	0.23%	0.14%
65	0.41%	0.27%	0.35%	0.20%
70	0.61%	0.44%	0.66%	0.39%

All General pre-retirement deaths are assumed to be non-service connected.

For Safety, 90% of pre-retirement deaths are assumed to be non-service connected. The other 10% are assumed to be service connected.

Section 3: Actuarial Assumptions and Methods

Mortality rates for member contributions

- **General members:** Pub-2010 General Healthy Retiree Amount-Weighted Above-Median Mortality Table (separate tables for males and females) increased 5%, projected 30 years (from 2010) with the two-dimensional mortality improvement scale MP 2019, weighted 40% male and 60% female.
- **Safety members:** Pub-2010 Safety Healthy Retiree Amount-Weighted Above-Median Mortality Table (separate tables for males and females), projected 30 years (from 2010) with the two-dimensional mortality improvement scale MP-2019, weighted 80% male and 20% female.

Section 3: Actuarial Assumptions and Methods

Disability incidence

Disability Incidence Rates

Age	General All Other	General OCTA	Safety Law & Fire	Safety Probation
20	0.00%	0.00%	0.00%	0.00%
25	0.00%	0.00%	0.01%	0.03%
30	0.01%	0.03%	0.07%	0.08%
35	0.03%	0.20%	0.19%	0.10%
40	0.08%	0.39%	0.31%	0.13%
45	0.14%	0.48%	0.44%	0.21%
50	0.20%	0.53%	1.10%	0.28%
55	0.27%	0.70%	2.70%	0.42%
60	0.33%	1.22%	5.00%	0.20%

65% of General All Other disabilities are assumed to be service-connected disabilities. The other 35% are assumed to be non-service connected.

80% of General OCTA disabilities are assumed to be service-connected disabilities. The other 20% are assumed to be non-service connected.

100% of Safety Law Enforcement and Fire disabilities are assumed to be service-connected disabilities.

75% of Safety Probation disabilities are assumed to be service-connected disabilities. The other 25% are assumed to be non-service connected.

Section 3: Actuarial Assumptions and Methods

Termination

Termination Rates

Years of Service	General All Other	General OCTA	Safety Law & Fire	Safety Probation
Less than 1	11.00%	17.00%	4.25%	14.00%
1–2	7.25%	11.50%	2.75%	13.00%
2–3	6.50%	9.00%	2.25%	11.00%
3–4	5.50%	8.50%	1.75%	5.00%
4–5	5.00%	8.00%	1.50%	4.00%
5–6	4.50%	7.00%	1.25%	3.25%
6–7	4.00%	4.25%	1.00%	2.75%
7–8	3.50%	4.00%	0.95%	2.75%
8–9	3.25%	3.25%	0.90%	2.50%
9–10	3.00%	3.00%	0.85%	1.75%
10–11	2.50%	2.75%	0.80%	1.50%
11–12	2.00%	2.50%	0.75%	1.50%
12–13	2.00%	2.50%	0.70%	1.25%
13–14	2.00%	2.25%	0.65%	1.00%
14–15	1.50%	2.25%	0.60%	0.75%
15–16	1.40%	2.25%	0.55%	0.75%
16–17	1.30%	2.00%	0.50%	0.75%
17–18	1.20%	1.80%	0.45%	0.75%
18–19	1.10%	1.60%	0.40%	0.50%
19–20	1.00%	1.40%	0.30%	0.25%
20 and over	0.75%	1.20%	0.15%	0.15%

Section 3: Actuarial Assumptions and Methods

Election for withdrawal of contributions

Election Rates

Years of Service	General All Other	General OCTA	Safety Law & Fire	Safety Probation
Less than 5	30.00%	40.00%	20.00%	25.00%
5–9	25.00%	30.00%	20.00%	25.00%
10–14	25.00%	25.00%	10.00%	25.00%
15 and over	17.50%	15.00%	10.00%	15.00%

Section 3: Actuarial Assumptions and Methods

Retirement rates

Retirement Rates — General

Age	Enhanced <30 Years of Service	Enhanced 30+ Years of Service	Non-Enhanced* <30 Years of Service	Non-Enhanced* 30+ Years of Service
49	0.00%	30.00%	0.00%	25.00%
50	2.00%	4.00%	3.00%	3.00%
51	2.00%	4.00%	3.00%	3.00%
52	2.50%	5.00%	2.00%	2.00%
53	2.50%	5.00%	3.50%	3.50%
54	7.00%	14.00%	2.75%	2.75%
55	12.00%	30.00%	3.25%	3.25%
56	9.00%	19.00%	3.50%	3.50%
57	9.00%	18.00%	5.00%	5.00%
58	9.00%	18.00%	5.50%	5.50%
59	10.00%	20.00%	6.50%	6.50%
60	11.00%	20.00%	9.00%	13.50%
61	11.00%	20.00%	9.00%	13.50%
62	13.00%	20.00%	9.00%	18.00%
63	13.00%	22.00%	9.50%	19.00%
64	16.00%	24.00%	10.00%	20.00%
65	24.00%	28.00%	22.00%	26.40%
66	24.00%	30.00%	25.00%	30.00%
67	24.00%	30.00%	25.00%	30.00%
68	22.00%	27.50%	30.00%	27.50%
69	22.00%	27.50%	30.00%	27.50%
70	25.00%	27.50%	20.00%	27.50%
71	25.00%	27.50%	20.00%	27.50%
72	25.00%	27.50%	20.00%	27.50%
73	20.00%	27.50%	20.00%	27.50%
74	20.00%	27.50%	20.00%	27.50%
75	100.00%	100.00%	100.00%	100.00%

The retirement rates only apply to members that are eligible to retire at the age shown.

* These assumptions are also used for the CalPEPRA 1.62% @ 65 formula (Plan T and Plan W).

Section 3: Actuarial Assumptions and Methods

Retirement Rates — Safety

Age	Law (31664.1) <30 Years of Service	Law (31664.1) 30+ Years of Service	Fire (31664.1) <30 Years of Service	Fire (31664.1) 30+ Years of Service	Probation (31664.1) <30 Years of Service	Probation (31664.1) 30+ Years of Service
45	1.00%	16.00%	2.00%	10.00%	3.00%	5.00%
46	1.00%	16.00%	2.00%	10.00%	3.00%	5.00%
47	1.00%	16.00%	2.00%	10.00%	3.00%	5.00%
48	1.00%	16.00%	2.00%	10.00%	3.00%	5.00%
49	11.00%	16.00%	2.00%	10.00%	3.00%	5.00%
50	16.00%	16.00%	4.00%	10.00%	9.00%	12.00%
51	16.00%	16.00%	4.00%	10.00%	7.00%	10.00%
52	17.00%	16.00%	4.00%	10.00%	5.00%	9.00%
53	19.00%	30.00%	9.00%	20.00%	7.00%	9.00%
54	24.00%	30.00%	12.00%	25.00%	7.00%	12.00%
55	24.00%	30.00%	12.00%	25.00%	12.00%	30.00%
56	22.00%	30.00%	12.00%	25.00%	18.00%	30.00%
57	22.00%	30.00%	18.00%	25.00%	25.00%	30.00%
58	22.00%	40.00%	18.00%	30.00%	25.00%	30.00%
59	22.00%	40.00%	18.00%	30.00%	18.00%	30.00%
60	30.00%	40.00%	18.00%	30.00%	20.00%	40.00%
61	30.00%	40.00%	18.00%	30.00%	20.00%	40.00%
62	30.00%	40.00%	18.00%	35.00%	20.00%	40.00%
63	30.00%	40.00%	18.00%	35.00%	20.00%	40.00%
64	30.00%	40.00%	18.00%	35.00%	20.00%	40.00%
65	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

The retirement rates only apply to members that are eligible to retire at the age shown.

Section 3: Actuarial Assumptions and Methods

Retirement Rates

Age	General SJC (31676.12)	Safety Law (31664.2)	Safety Fire (31664.2)
50	4.00%	11.50%	8.00%
51	4.00%	12.00%	9.00%
52	4.00%	12.70%	10.00%
53	4.00%	17.90%	12.00%
54	4.00%	18.80%	14.00%
55	4.00%	35.00%	23.00%
56	5.00%	25.00%	22.00%
57	6.00%	25.00%	25.00%
58	7.00%	25.00%	25.00%
59	9.00%	30.00%	35.00%
60	10.00%	40.00%	40.00%
61	12.00%	40.00%	40.00%
62	13.00%	40.00%	40.00%
63	13.00%	40.00%	40.00%
64	19.00%	40.00%	40.00%
65	20.00%	100.00%	100.00%
66	25.00%	100.00%	100.00%
67	25.00%	100.00%	100.00%
68	25.00%	100.00%	100.00%
69	25.00%	100.00%	100.00%
70	45.00%	100.00%	100.00%
71	45.00%	100.00%	100.00%
72	45.00%	100.00%	100.00%
73	45.00%	100.00%	100.00%
74	45.00%	100.00%	100.00%
75	100.00%	100.00%	100.00%

The retirement rates only apply to members that are eligible to retire at the age shown.

Section 3: Actuarial Assumptions and Methods

Retirement Rates

Age	CalPEPRA 2.5% @ 67 General Formula	CalPEPRA 2.7% @ 57 Safety Formula Probation	CalPEPRA 2.7% @ 57 Safety Formula Law	CalPEPRA 2.7% @ 57 Safety Formula Fire
50	0.00%	3.00%	11.00%	6.00%
51	0.00%	3.00%	11.50%	6.50%
52	6.00%	3.50%	12.00%	8.00%
53	2.00%	3.50%	16.00%	10.00%
54	2.00%	6.00%	17.00%	11.50%
55	2.50%	12.00%	29.00%	20.00%
56	3.50%	12.00%	19.00%	19.00%
57	5.50%	15.00%	19.00%	21.00%
58	7.50%	25.00%	23.00%	24.00%
59	7.50%	25.00%	26.00%	30.00%
60	7.50%	40.00%	40.00%	40.00%
61	7.50%	40.00%	40.00%	40.00%
62	14.00%	40.00%	40.00%	40.00%
63	14.00%	40.00%	40.00%	40.00%
64	14.00%	40.00%	40.00%	40.00%
65	20.00%	100.00%	100.00%	100.00%
66	22.00%	100.00%	100.00%	100.00%
67	23.00%	100.00%	100.00%	100.00%
68	23.00%	100.00%	100.00%	100.00%
69	23.00%	100.00%	100.00%	100.00%
70	25.00%	100.00%	100.00%	100.00%
71	25.00%	100.00%	100.00%	100.00%
72	25.00%	100.00%	100.00%	100.00%
73	25.00%	100.00%	100.00%	100.00%
74	25.00%	100.00%	100.00%	100.00%
75	100.00%	100.00%	100.00%	100.00%

The retirement rates only apply to members that are eligible to retire at the age shown.

Section 3: Actuarial Assumptions and Methods

Retirement age and benefit for deferred vested members

For current and future deferred vested members, retirement age assumptions are as follows:

General retirement age: 59

Safety retirement age: 54

General and Safety deferred vested members who terminate with less than five years of service and are not vested are assumed to retire at age 70 for both General and Safety if they decide to leave their contributions on deposit.

15% of future General and 20% of future Safety deferred vested members are assumed to continue to work for a reciprocal employer. For reciprocals, 4.00% and 4.60% compensation increase per annum are assumed for General and Safety, respectively.

Cashout assumptions

Additional compensation amounts are expected to be received during a member's final average earnings period. The percentages used in this valuation are:

Rates

Plan	Final One Year Salary	Final Three Year Salary
General Non CalPEPRA	3.00%	2.90%
Safety Probation Non CalPEPRA	3.80%	3.40%
Safety Law Non CalPEPRA	N/A	6.90%
Safety Fire Non CalPEPRA	N/A	1.50%
General CalPEPRA	N/A	N/A
Safety Probation CalPEPRA	N/A	N/A
Safety Law CalPEPRA	N/A	N/A
Safety Fire CalPEPRA	N/A	N/A

The additional cashout assumptions are the same for service and disability retirements.

Appendix A: Projection of Plan Fiduciary Net Position

Projection of Plan Fiduciary Net Position for use in the Calculation of Discount Rate as of December 31, 2023 ($ in millions)

Year Beginning January 1	Beginning Plan Fiduciary Net Position (a)	Total Contributions[1] (b)	Benefit Payments (c)	Administrative Expenses (d)	Investment Earnings (e)	Ending Plan Fiduciary Net Position (a) + (b) – (c) – (d) + (e)
2023	$19,690	$1,027	$1,216	$29	$2,325	$21,797
2024	21,797	1,046	1,299	32	1,516	23,028
2025	23,028	1,054	1,372	34	1,600	24,276
2026	24,276	1,074	1,446	36	1,685	25,553
2027	25,553	1,119	1,523	38	1,774	26,886
2028	26,886	1,108	1,601	40	1,864	28,216
2029	28,216	1,114	1,682	42	1,954	29,561
2030	29,561	1,122	1,765	44	2,046	30,920
2031	30,920	1,130	1,848	46	2,138	32,294
2032	32,294	1,138	1,933	48	2,232	33,683
2048	39,177	215	3,042	58	2,643	38,935
2049	38,935	205	3,076	57	2,624	38,630
2050	38,630	195	3,106	57	2,601	38,264
2051	38,264	186	3,132	56	2,575	37,837
2097	26,935	55	143	40	1,881	28,688
2098	28,688	56	112	42	2,005	30,594
2099	30,594	57	87	45	2,139	32,658
2100	32,658	59	66	48	2,284	34,886
2131	264,762	391[2]	0	391	18,533	283,295[3]

[1] Of all the projected total contributions, only the first year's (i.e., 2023) contribution has been reduced by discount for prepaid contributions and transfers from County Investment Account, if any.

[2] Mainly attributable to employer contributions to fund each year's annual administrative expenses.

[3] The Plan Fiduciary Net Position of $283,295 million has a value of $190 million as of December 31, 2023 when discounted with interest at the rate of 7.00% per annum. Of this amount, about $146 million is the balance available in the County Investment Account and $16 million is the O.C. Sanitation District UAAL Deferred Account as of December 31, 2023.

Appendix A: Projection of Plan Fiduciary Net Position

Notes

1. Amounts may not total exactly due to rounding.
2. Amounts shown in the year beginning January 1, 2023 row are actual amounts, based on the final audited financial statements provided by OCERS.
3. Certain years have been omitted from the table.
4. **Column (a):** Except for the "discounted value" for 2131 shown in footnote 3 on the previous page, all of the projected beginning Plan FNP amounts shown have not been adjusted for the time value of money.
5. **Column (b):** We have not utilized the balance in the County Investment Account to reduce the projected total contributions even though those amounts have been used to reduce the NPL for the County as of December 31, 2023.
6. **Column (b):** Projected total contributions include member and employer normal cost rates applied to closed group projected payroll (based on covered active members as of December 31, 2022), plus employer contributions to the Unfunded Actuarial Accrued Liability. Contributions are assumed to occur halfway through the year, on average.
7. **Column (c):** Projected benefit payments have been determined in accordance with paragraph 39 of GASB Statement No. 67, and are based on the closed group of active, inactive vested, retired members, and beneficiaries as of December 31, 2022. The projected benefit payments reflect the cost-of-living increase assumptions used in the December 31, 2023 valuation report.
8. **Column (d):** Projected administrative expenses are calculated as approximately 0.15% of the projected beginning Plan FNP amount. The 0.15% portion was based on the actual calendar year 2023 administrative expenses (unaudited) as a percentage of the actual beginning Plan FNP as of January 1, 2023. Administrative expenses are assumed to occur halfway through the year, on average.
9. **Column (e):** Projected investment earnings are based on the assumed investment rate of return of 7.00% per annum and reflect the assumed timing of cashflows, as noted above.
10. As illustrated in this appendix, the Plan FNP was projected to be available to make all projected future benefit payments for current Plan members. In other words, there is no projected “cross-over date” when projected benefits are **not** covered by projected assets. Therefore, the long-term expected rate of return on Plan investments of 7.00% per annum was applied to all periods of projected benefit payments to determine the TPL as of December 31, 2023 shown earlier in this report, pursuant to paragraph 44 of GASB Statement No. 67.

Appendix B: Schedule of Pension Amounts by Employer as of December 31, 2023

Line Description	Orange County	O.C. Cemetery District	O.C. Law Library	O.C. Vector Control District
Deferred Outflows of Resources				
Difference between actual and expected experience in the Total Pension Liability	$244,533,088	$542,855	$29,992	$1,976,449
Net difference between projected and actual earnings on pension plan investments	1,549,490,233	1,468,243	1,440,637	3,163,908
Changes of assumptions or other inputs	154,874,422	181,187	47,821	192,850
Changes in proportion and differences between employer's contributions and proportionate share of contributions	10,300,302	0	0	0
Total deferred outflows	**$1,959,198,045**	**$2,192,285**	**$1,518,450**	**$5,333,207**
Deferred Inflows of Resources				
Difference between actual and expected experience in the Total Pension Liability	$29,192,872	$71,657	$421,803	$524,310
Net difference between projected and actual earnings on pension plan investments	1,249,169,736	1,157,741	1,117,024	2,385,741
Changes of assumptions or other inputs	38,617,023	0	0	0
Changes in proportion and differences between employer's contributions and proportionate share of contributions	15,444,066	0	0	0
Total deferred inflows	**$1,332,423,697**	**$1,229,398**	**$1,538,827**	**$2,910,051**
Net Pension Liability				
NPL as of December 31, 2022	$4,469,282,004	$1,031,416	$(321,987)	$47,967
NPL as of December 31, 2023	$4,061,810,157	$993,411	$(1,034,826)	$752,245
Pension Expense				
Proportionate share of allocable plan pension expense	$378,189,134	$349,589	($199,471)	($283,683)
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions	1,320,432	0	0	0
Total employer pension expense excluding that attributable to employer paid member contributions	**$379,509,566**	**$349,589**	**($199,471)**	**($283,683)**

Appendix B: Schedule of Pension Amounts by Employer as of December 31, 2023

Line Description	O.C. Retirement System	O.C. Fire Authority	Cypress Recreation and Parks	Department of Education
Deferred Outflows of Resources				
Difference between actual and expected experience in the Total Pension Liability	$1,727,337	$40,056,478	$101,487	$704,856
Net difference between projected and actual earnings on pension plan investments	11,891,923	244,201,463	485,329	950,116
Changes of assumptions or other inputs	1,802,479	3,185,426	17,230	0
Changes in proportion and differences between employer's contributions and proportionate share of contributions	4,993,789	0	0	0
Total deferred outflows	**$20,415,528**	**$287,443,367**	**$604,046**	**$1,654,972**
Deferred Inflows of Resources				
Difference between actual and expected experience in the Total Pension Liability	$80,095	$13,281,661	$438,432	$75,925
Net difference between projected and actual earnings on pension plan investments	9,609,522	194,620,351	376,709	729,838
Changes of assumptions or other inputs	0	19,418,863	4,647	55,533
Changes in proportion and differences between employer's contributions and proportionate share of contributions	428,045	0	0	0
Total deferred inflows	**$10,117,662**	**$227,320,875**	**$819,788**	**$861,296**
Net Pension Liability				
NPL as of December 31, 2022	$31,526,121	$279,060,590	$61,016	$3,323,372
NPL as of December 31, 2023	$34,539,527	$168,457,678	$(641,475)	$3,189,922
Pension Expense				
Proportionate share of allocable plan pension expense	$3,253,506	$32,294,538	($91,758)	$292,099
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions	1,889,524	0	0	0
Total employer pension expense excluding that attributable to employer paid member contributions	**$5,143,030**	**$32,294,538**	**($91,758)**	**$292,099**

Appendix B: Schedule of Pension Amounts by Employer as of December 31, 2023

Line Description	Transportation Corridor Agency	City of San Juan Capistrano	O.C. Sanitation District	O.C. Transportation Authority
Deferred Outflows of Resources				
Difference between actual and expected experience in the Total Pension Liability	$1,274,675	$872,350	$33,942,756	$32,212,886
Net difference between projected and actual earnings on pension plan investments	6,694,806	6,005,726	98,702,383	99,715,493
Changes of assumptions or other inputs	495,686	910,298	10,975,775	8,058,375
Changes in proportion and differences between employer's contributions and proportionate share of contributions	0	2,248,881	0	0
Total deferred outflows	**$8,465,167**	**$10,037,255**	**$143,620,914**	**$139,986,754**
Deferred Inflows of Resources				
Difference between actual and expected experience in the Total Pension Liability	$672,291	$40,450	$9,903,026	$23,702,731
Net difference between projected and actual earnings on pension plan investments	5,218,632	4,853,056	76,337,381	80,654,909
Changes of assumptions or other inputs	0	0	0	0
Changes in proportion and differences between employer's contributions and proportionate share of contributions	0	3,940,450	0	0
Total deferred inflows	**$5,890,923**	**$8,833,956**	**$86,240,407**	**$104,357,640**
Net Pension Liability				
NPL as of December 31, 2022	$(659,689)	$18,650,483	$(10,604,801)	$207,132,957
NPL as of December 31, 2023	$(1,889,567)	$17,443,348	$(18,531,537)	$207,825,439
Pension Expense				
Proportionate share of allocable plan pension expense	$207,980	$1,643,104	$8,523,254	$16,467,090
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions	0	(776,117)	0	0
Total employer pension expense excluding that attributable to employer paid member contributions	**$207,980**	**$866,987**	**$8,523,254**	**$16,467,090**

Appendix B: Schedule of Pension Amounts by Employer as of December 31, 2023

Line Description	U.C.I.	O.C. Children and Families Comm.	Local Agency Formation Comm.	Rancho Santa Margarita
Deferred Outflows of Resources				
Difference between actual and expected experience in the Total Pension Liability	$2,326,206	$9,481	$85,267	$1,779
Net difference between projected and actual earnings on pension plan investments	7,933,424	65,273	587,026	4,401
Changes of assumptions or other inputs	70,139	9,893	88,977	0
Changes in proportion and differences between employer's contributions and proportionate share of contributions	0	1,267,036	282,490	0
Total deferred outflows	**$10,329,769**	**$1,351,683**	**$1,043,760**	**$6,180**
Deferred Inflows of Resources				
Difference between actual and expected experience in the Total Pension Liability	$0	$440	$3,954	$71
Net difference between projected and actual earnings on pension plan investments	6,113,058	52,745	474,359	3,390
Changes of assumptions or other inputs	343,353	0	0	334
Changes in proportion and differences between employer's contributions and proportionate share of contributions	0	358,869	161,952	0
Total deferred inflows	**$6,456,411**	**$412,054**	**$640,265**	**$3,795**
Net Pension Liability				
NPL as of December 31, 2022	$29,314,724	$(21,846)	$1,587,646	$1,652
NPL as of December 31, 2023	$26,555,318	$189,581	$1,704,989	$119
Pension Expense				
Proportionate share of allocable plan pension expense	$1,566,249	$17,858	$160,604	$45
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions	0	40,358	48,347	0
Total employer pension expense excluding that attributable to employer paid member contributions	**$1,566,249**	**$58,216**	**$208,951**	**$45**

Appendix B: Schedule of Pension Amounts by Employer as of December 31, 2023

Line Description	O.C. Superior Court	O.C. IHSS Public Authority	Total for all Employers
Deferred Outflows of Resources			
Difference between actual and expected experience in the Total Pension Liability	$17,247,907	$5,220	$377,651,069
Net difference between projected and actual earnings on pension plan investments	118,743,916	689,522	2,152,233,822
Changes of assumptions or other inputs	17,998,217	28,805	198,937,580
Changes in proportion and differences between employer's contributions and proportionate share of contributions	8,413,239	107,663	27,613,400
Total deferred outflows	**$162,403,279**	**$831,210**	**$2,756,435,871**
Deferred Inflows of Resources			
Difference between actual and expected experience in the Total Pension Liability	$799,768	$95,666	$79,305,152
Net difference between projected and actual earnings on pension plan investments	95,953,559	543,310	1,729,371,061
Changes of assumptions or other inputs	0	2,167	58,441,920
Changes in proportion and differences between employer's contributions and proportionate share of contributions	7,168,015	112,003	27,613,400
Total deferred inflows	**$103,921,342**	**$753,146**	**$1,894,731,533**
Net Pension Liability			
NPL as of December 31, 2022	$360,927,849	$666,697	$5,391,006,171
NPL as of December 31, 2023	$344,886,083	$462,162	$4,846,712,574
Pension Expense			
Proportionate share of allocable plan pension expense	$32,487,098	$97,266	$474,974,502
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions	(2,506,377)	(16,167)	0
Total employer pension expense excluding that attributable to employer paid member contributions	**$29,980,721**	**$81,099**	**$474,974,502**

Appendix B: Schedule of Pension Amounts by Employer as of December 31, 2023

Notes

Amounts shown in *Appendix B* were allocated by employer based on the Employer Allocation Percentage calculated in *Section 2, Exhibit 5 – Determination of proportionate share* in this report.

In determining the pension expense:

- Any differences between projected and actual investment earnings on pension plan investments are recognized over a period of five years beginning with the year in which they occur.
- Current-period (i.e., 2023) differences between expected and actual experience and changes of assumptions are recognized over the average of the expected remaining service lives of all employees that are provided with pensions through OCERS determined as of December 31, 2022 (the beginning of the measurement period ending December 31, 2023) and is 5.35 years.
- Prior-period differences between expected and actual experience and changes of assumptions are continued to be recognized based on the expected remaining service lives of all employees calculated as of those prior measurement dates.

The average of the expected remaining service lives of all employees was determined by:

- Calculating each active employee's expected remaining service life as the present value of $1 per year of future service at zero percent interest.
- Setting the remaining service life to zero for each nonactive or retired members.
- Dividing the sum of the above amounts by the total number of active employee, nonactive and retired members.

There was a decrease in the total employer pension expense from $728.3 million calculated last year to $475.0 million calculated this year. The primary cause of the decrease was due to an investment gain of $954.8 million with $191.0 million being recognized in this year's expense.

Appendix C: Definition of terms

Definitions of certain terms as they are used in GASB Statement No. 68. The terms may have different meanings in other contexts.

Term	Definition
Active employees	Individuals employed at the end of the reporting or measurement period, as applicable.
Actual contributions	Cash contributions recognized as additions to the Plan Fiduciary Net Position.
Actuarial present value of projected benefit payments	Projected benefit payments discounted to reflect the expected effects of the time value (present value) of money and the probabilities of payment.
Actuarial valuation	The determination, as of a point in time (the actuarial valuation date), of the service cost, Total Pension Liability, and related actuarial present value of projected benefit payments for pensions performed in conformity with Actuarial Standards of Practice unless otherwise specified by the GASB.
Actuarial valuation date	The date as of which an actuarial valuation is performed.
Actuarially determined contribution	A target or recommended contribution to a defined benefit pension plan for the reporting period, determined in conformity with Actuarial Standards of Practice based on the most recent measurement available when the contribution for the reporting period was adopted.
Ad hoc cost-of-living adjustments (Ad Hoc COLAs)	Cost-of-living adjustments that require a decision to grant by the authority responsible for making such decisions.
Ad hoc postemployment benefit changes	Postemployment benefit changes that require a decision to grant by the authority responsible for making such decisions.
Agent employer	An employer whose employees are provided with pensions through an agent multiple-employer defined benefit pension plan.
Agent multiple-employer defined benefit pension plan (agent pension plan)	A multiple-employer defined benefit pension plan in which pension plan assets are pooled for investment purposes but separate accounts are maintained for each individual employer so that each employer's share of the pooled assets is legally available to pay the benefits of only its employees.
Automatic cost-of-living adjustments (Automatic COLAs)	Cost-of-living adjustments that occur without a requirement for a decision to grant by a responsible authority, including those for which the amounts are determined by reference to a specified experience factor (such as the earnings experience of the pension plan) or to another variable (such as an increase in the consumer price index).
Automatic postemployment benefit changes	Postemployment benefit changes that occur without a requirement for a decision to grant by a responsible authority, including those for which the amounts are determined by reference to a specified experience factor (such as the earnings experience of the pension plan) or to another variable (such as an increase in the consumer price index).

Appendix C: Definition of terms

Term	Definition
Closed period	A specific number of years that is counted from one date and declines to zero with the passage of time. For example, if the recognition period initially is five years on a closed basis, four years remain after the first year, three years after the second year, and so forth.
Collective deferred outflows of resources and deferred inflows of resources related to pensions	Deferred outflows of resources and deferred inflows of resources related to pensions arising from certain changes in the collective Net Pension Liability.
Collective Net Pension Liability	The Net Pension Liability for benefits provided through (1) a cost-sharing pension plan or (2) a single-employer or agent pension plan in circumstances in which there is a special funding situation.
Collective pension expense	Pension expense arising from certain changes in the collective Net Pension Liability.
Contributions	Additions to the Plan Fiduciary Net Position for amounts from employers, non-employer contributing entities (for example, state government contributions to a local government pension plan), or employees. Contributions can result from cash receipts by the pension plan or from recognition by the pension plan of a receivable from one of these sources.
Cost-of-living adjustments	Postemployment benefit changes intended to adjust benefit payments for the effects of inflation.
Cost-sharing employer	An employer whose employees are provided with pensions through a cost-sharing multiple-employer defined benefit pension plan.
Cost-sharing multiple employer defined benefit pension plan (Cost-sharing pension plan)	A multiple-employer defined benefit pension plan in which the pension obligations to the employees of more than one employer are pooled and pension plan assets can be used to pay the benefits of the employees of any employer that provides pensions through the pension plan.
Covered payroll	Payroll on which contributions to a pension plan are based.
Deferred retirement option program (DROP)	A program that permits an employee to elect a calculation of benefit payments based on service credits and salary, as applicable, as of the DROP entry date. The employee continues to provide service to the employer and is paid for that service by the employer after the DROP entry date; however, the pensions that would have been paid to the employee (if the employee had retired and not entered the DROP) are credited to an individual employee account within the defined benefit pension plan until the end of the DROP period.
Defined benefit pension plans	Pension plans that are used to provide defined benefit pensions.

Appendix C: Definition of terms

Term	Definition
Defined benefit pensions	Pensions for which the income or other benefits that the employee will receive at or after separation from employment are defined by the benefit terms. The pensions may be stated as a specified dollar amount or as an amount that is calculated based on one or more factors such as age, years of service, and compensation. (A pension that does not meet the criteria of a defined contribution pension is classified as a defined benefit pension for purposes of GASB Statement No. 68.)
Defined contribution pension plans	Pension plans that are used to provide defined contribution pensions.
Defined contribution pensions	Pensions having terms that: 1. Provide an individual account for each employee; 2. Define the contributions that an employer is required to make (or the credits that it is required to provide) to an active employee's account for periods in which that employee renders service; and 3. Provide that the pensions an employee will receive will depend only on the contributions (or credits) to the employee's account, actual earnings on investments of those contributions (or credits), and the effects of forfeitures of contributions (or credits) made for other employees, as well as pension plan administrative costs, that are allocated to the employee's account.
Discount rate	The single rate of return that, when applied to all projected benefit payments, results in an actuarial present value of projected benefit payments equal to the total of the following: 1. The actuarial present value of benefit payments projected to be made in future periods in which: a. The amount of the Plan Fiduciary Net Position is projected (under the requirements of GASB Statement No. 68) to be greater than the benefit payments that are projected to be made in that period, and b. Pension plan assets up to that point are expected to be invested using a strategy to achieve the long-term expected rate of return, calculated using the long-term expected rate of return on pension plan investments. 2. The actuarial present value of projected benefit payments not included in 1., calculated using the municipal bond rate.
Entry age actuarial cost method	A method under which the actuarial present value of the projected benefits of each individual included in an actuarial valuation is allocated on a level basis over the earnings or service of the individual between entry age and assumed exit age(s). The portion of this actuarial present value allocated to a valuation year is called the normal cost. The portion of this actuarial present value not provided for at a valuation date by the actuarial present value of future normal costs is called the actuarial accrued liability.

Appendix C: Definition of terms

Term	Definition
Inactive employees	Terminated individuals that have accumulated benefits but are not yet receiving them, and retirees or their beneficiaries currently receiving benefits.
Measurement period	The period between the prior and the current measurement dates.
Multiple-employer defined benefit pension plan	A defined benefit pension plan that is used to provide pensions to the employees of more than one employer.
Net Pension Liability (NPL)	The liability of employers and non-employer contributing entities to employees for benefits provided through a defined benefit pension plan.
Non-employer contributing entities	Entities that make contributions to a pension plan that is used to provide pensions to the employees of other entities.
Other postemployment benefits	All postemployment benefits other than retirement income (such as death benefits, life insurance, disability, and long-term care) that are provided separately from a pension plan, as well as postemployment healthcare benefits, regardless of the manner in which they are provided. Other postemployment benefits do not include termination benefits.
Pension plans	Arrangements through which pensions are determined, assets dedicated for pensions are accumulated and managed and benefits are paid as they come due.
Pension expense	Pension expense arising from certain changes in the Net Pension Liability.
Pensions	Retirement income and, if provided through a pension plan, postemployment benefits other than retirement income (such as death benefits, life insurance, and disability benefits). Pensions do not include postemployment healthcare benefits and termination benefits.
Plan members	Individuals that are covered under the terms of a pension plan. Plan members generally include: 1. Employees in active service (active plan members), and 2. Terminated employees who have accumulated benefits but are not yet receiving them and retirees or their beneficiaries currently receiving benefits (inactive plan members).
Postemployment	The period after employment.
Postemployment benefit changes	Adjustments to the pension of an inactive employee.
Postemployment healthcare benefits	Medical, dental, vision, and other health-related benefits paid subsequent to the termination of employment.
Projected benefit payments	All benefits estimated to be payable through the pension plan to current active and inactive employees as a result of their past service and their expected future service.

Appendix C: Definition of terms

Term	Definition
Public employee retirement system	A special-purpose government that administers one or more pension plans; also may administer other types of employee benefit plans, including postemployment healthcare plans and deferred compensation plans.
Real rate of return	The rate of return on an investment after adjustment to eliminate inflation.
Service costs	The portions of the actuarial present value of projected benefit payments that are attributed to valuation years.
Single employer	An employer whose employees are provided with pensions through a single-employer defined benefit pension plan.
Single-employer defined benefit pension plan (Single-employer pension plan)	A defined benefit pension plan that is used to provide pensions to employees of only one employer.
Special funding situations	Circumstances in which a non-employer entity is legally responsible for making contributions directly to a pension plan that is used to provide pensions to the employees of another entity or entities and either of the following conditions exists: 1. The amount of contributions for which the non-employer entity legally is responsible is not dependent upon one or more events or circumstances unrelated to the pensions. 2. The non-employer entity is the only entity with a legal obligation to make contributions directly to a pension plan.
Termination benefits	Inducements offered by employers to active employees to hasten the termination of services, or payments made in consequence of the early termination of services. Termination benefits include early-retirement incentives, severance benefits, and other termination-related benefits.
Total Pension Liability (TPL)	The portion of the actuarial present value of projected benefit payments that is attributed to past periods of employee service in conformity with the requirements of GASB Statement No. 68.

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Segal

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Via Email

June 5, 2024

Mr. Steve Delaney
Chief Executive Officer
Orange County Employees Retirement System
2223 Wellington Avenue
Santa Ana, CA 92701-3101

**Re: Orange County Employees Retirement System (OCERS)
Reconciliation of the Plan's December 31, 2023 Net Pension Liability (NPL) and Unfunded Actuarial Accrued Liability (UAAL)**

Dear Steve:

We have been requested by OCERS to reconcile, for each Rate Group, the December 31, 2023 Net Pension Liability (NPL) and the Unfunded Actuarial Accrued Liability (UAAL) as shown in the December 31, 2023 Governmental Accounting Standards Board (GASB) Statement 67 addendum letter and funding valuation report, respectively. (The breakdown of the NPL as disclosed in the GASB 67 addendum letter also appears in our GASB 68 financial report.)

The reconciliation is provided in Attachment A of this letter. The difference between the NPL and the UAAL is a direct result of the different liability and asset values we used in those developments.

Liability

The Total Pension Liability (TPL) shown in the GASB 67 addendum letter was measured based on the December 31, 2022 demographic data by: (i) rolling forward the liability from December 31, 2022* to December 31, 2023 and (ii) assuming that the actuarial experience of the System would match with that anticipated by the demographic assumptions. On the other hand, the Actuarial Accrued Liability (AAL) shown in the funding valuation report was measured based on the December 31, 2023 demographic data.

The differences between the TPL and the AAL were primarily due to: (a) actuarial gains/losses on the liability items as documented in *Section 4, Exhibit 6* of the December 31, 2023 funding valuation report for each Rate Group and (b) differences between the rolled forward liabilities and the actual liabilities.

* As the Board has adopted a new set of actuarial assumptions for use in the pension funding valuation as of December 31, 2023, we have included the impact of these assumption changes by revaluing the TPL as of December 31, 2022 prior to the rollforward.

Assets

The Plan Fiduciary Net Position (FNP) shown in the GASB 67 report as of December 31, 2023 (that we subsequently used for our GASB 67 addendum letter) was based on the plan's Market Value of Assets (MVA) including the proceeds available in the County Investment Account and O.C. Sanitation District (OCSD) UAAL Deferred Account. On the other hand, the funding valuation report used the Valuation Value of Assets (VVA) after adjusting the MVA for asset smoothing and excludes the proceeds available to the County Investment Account and the OCSD UAAL Deferred Account.*

The differences between the Plan FNP and the VVA were primarily due to the adjustment for the deferred investment loss.

The NPL and UAAL were calculated by taking the TPL and the AAL and subtracting the Plan FNP and the VVA, respectively.

Other considerations

This document has been prepared for the exclusive use and benefit of the client, based upon information provided by OCERS or otherwise made available to Segal at the time this document was created. Segal makes no representation or warranty as to the accuracy of any forward-looking statements and does not guarantee any particular outcome or result. Except as may be required by law, this document should not be shared, copied or quoted, in whole or in part, without the consent of Segal. This document does not constitute legal, tax or investment advice or create or imply a fiduciary relationship. You are encouraged to discuss any issues raised with your legal, tax and other advisors before taking, or refraining from taking, any action.

The undersigned is a member of the American Academy of Actuaries and meets the Qualification Standard of the American Academy of Actuaries to render the actuarial opinion contained herein.

* There were no non-valuation reserves as of December 31, 2023.

Mr. Steve Delaney
June 5, 2024
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Please let us know if you have any questions or comments.

Sincerely,

Andy Yeung, ASA, MAAA, FCA, EA
Vice President & Actuary

JY/bbf
Enclosures

cc: Tracy Bowman
Brenda Shott
Jennifer Reyes

Attachment A

All Rate Groups (Results are as of December 31, 2023)

(A) Liability Reconciliation	Rate Group #1	Rate Group #2	Rate Group #3	Rate Group #4
(1) Total Pension Liability Included in the development of the GASB 67 Addendum Letter	$577,061,029	$14,804,042,039	$934,377,110	$45,080
(2) (Gain)/Loss from (Lower)/Higher than Expected Salary Increases*	(2,006,000)	78,184,000	3,995,000	0
(3) Loss from Higher than Expected COLA Increases*	166,000	6,920,000	563,000	0
(4) Other Experience (Gain)/Loss*	(5,704,000)	11,771,000	12,756,000	0
(5) Other (Gain)/Loss from Rolled Forward Liabilities to Actual Liabilities	(435,029)	(14,255,039)	(1,567,110)	920
(6) Actuarial Accrued Liability Included in the Funding Valuation Report (sum of items (1) through (5))	**$569,082,000**	**$14,886,662,000**	**$950,124,000**	**$46,000**

(B) Asset Reconciliation				
(1) Market Value of Assets Excluding County Investment Account and OCSD UAAL Deferred Account	$516,404,898	$11,414,365,357	$936,883,647	$44,961
(2) County Investment Account and OCSD UAAL Deferred Account	3,235,878	94,652,961	16,025,000	0
(3) Plan Fiduciary Net Position Included in the development of the GASB 67 Addendum Letter (1) + (2)	519,640,776	11,509,018,318	952,908,647	44,961
(4) Adjustment for Deferred Investment Return, Non-Valuation Reserve	11,934,102	263,785,643	21,651,353	1,039
(5) Valuation of Assets Included in the Funding Valuation Report (1) + (4)	**$528,339,000**	**$11,678,151,000**	**$958,535,000**	**$46,000**

Net Pension Liability Shown in the GASB 67 Addendum Letter (A1) - (B3)	**$57,420,253**	**$3,295,023,721**	**$(18,531,537)**	**$119**
Unfunded Actuarial Accrued Liability Shown in the Funding Valuation Report (A6) - (B5)	**$40,743,000**	**$3,208,511,000**	**$(8,411,000)**	**$0**

* These actuarial gain/loss items can be found in *Section 4, Exhibit 6* of our December 31, 2023 funding valuation report.

Attachment A

All Rate Groups (Results are as of December 31, 2023)

(A) Liability Reconciliation	Rate Group #5	Rate Group #9	Rate Group #10	Rate Group #11
(1) Total Pension Liability Included in the development of the GASB 67 Addendum Letter	$1,209,376,621	$64,214,764	$335,411,461	$15,877,441
(2) (Gain)/Loss from (Lower)/Higher than Expected Salary Increases*	11,957,000	279,000	(235,000)	(412,000)
(3) Loss from Higher than Expected COLA Increases*	522,000	45,000	174,000	2,000
(4) Other Experience (Gain)/Loss*	(3,936,000)	1,055,000	823,000	113,000
(5) Other (Gain)/Loss from Rolled Forward Liabilities to Actual Liabilities	(769,621)	(181,764)	(470,461)	(5,441)
(6) Actuarial Accrued Liability Included in the Funding Valuation Report (sum of items (1) through (5))	**$1,217,150,000**	**$65,412,000**	**$335,703,000**	**$15,575,000**

(B) Asset Reconciliation				
(1) Market Value of Assets Excluding County Investment Account and OCSD UAAL Deferred Account	$1,001,551,182	$66,104,331	$307,672,693	$14,884,030
(2) County Investment Account and OCSD UAAL Deferred Account	0	0	0	0
(3) Plan Fiduciary Net Position Included in the development of the GASB 67 Addendum Letter (1) + (2)	1,001,551,182	66,104,331	307,672,693	14,884,030
(4) Adjustment for Deferred Investment Return, Non-Valuation Reserve	23,145,818	1,527,669	7,110,307	343,970
(5) Valuation of Assets Included in the Funding Valuation Report (1) + (4)	**$1,024,697,000**	**$67,632,000**	**$314,783,000**	**$15,228,000**

Net Pension Liability Shown in the GASB 67 Addendum Letter (A1) - (B3)	**$207,825,439**	**$(1,889,567)**	**$27,738,768**	**$993,411**
Unfunded Actuarial Accrued Liability Shown in the Funding Valuation Report (A6) - (B5)	**$192,453,000**	**$(2,220,000)**	**$20,920,000**	**$347,000**

* These actuarial gain/loss items can be found in *Section 4, Exhibit 6* of our December 31, 2023 funding valuation report.

Attachment A

All Rate Groups (Results are as of December 31, 2023)

(A) Liability Reconciliation	Rate Group #12	Rate Group #6	Rate Group #7	Rate Group #8	Total
(1) Total Pension Liability Included in the development of the GASB 67 Addendum Letter	$13,173,813	$1,128,030,274	$5,230,774,859	$2,331,757,083	$26,644,141,574
(2) (Gain)/Loss from (Lower)/Higher than Expected Salary Increases*	(71,000)	(1,802,000)	(7,892,000)	2,358,000	84,355,000
(3) Loss from Higher than Expected COLA Increases*	2,000	669,000	4,071,000	1,526,000	14,660,000
(4) Other Experience (Gain)/Loss*	(1,064,000)	3,080,000	15,056,000	28,651,000	62,601,000
(5) Other (Gain)/Loss from Rolled Forward Liabilities to Actual Liabilities	79,187	274,726	160,141	(547,083)	(17,716,574)
(6) Actuarial Accrued Liability Included in the Funding Valuation Report (sum of items (1) through (5))	**$12,120,000**	**$1,130,252,000**	**$5,242,170,000**	**$2,363,745,000**	**$26,788,041,000**

(B) Asset Reconciliation	Rate Group #12	Rate Group #6	Rate Group #7	Rate Group #8	Total
(1) Market Value of Assets Excluding County Investment Account and OCSD UAAL Deferred Account	$14,208,639	$941,061,106	$4,231,074,983	$2,191,038,173	$21,635,294,000
(2) County Investment Account and OCSD UAAL Deferred Account	0	7,074,542	41,146,619	0	162,135,000
(3) Plan Fiduciary Net Position Included in the development of the GASB 67 Addendum Letter (1) + (2)	14,208,639	948,135,648	4,272,221,602	2,191,038,173	21,797,429,000
(4) Adjustment for Deferred Investment Return, Non-Valuation Reserve	328,361	21,747,894	97,780,017	50,634,827	499,991,000
(5) Valuation of Assets Included in the Funding Valuation Report (1) + (4)	**$14,537,000**	**$962,809,000**	**$4,328,855,000**	**$2,241,673,000**	**$22,135,285,000**
Net Pension Liability Shown in the GASB 67 Addendum Letter (A1) - (B3)	**$(1,034,826)**	**$179,894,626**	**$958,553,257**	**$140,718,910**	**$4,846,712,574**
Unfunded Actuarial Accrued Liability Shown in the Funding Valuation Report (A6) - (B5)	**$(2,417,000)**	**$167,443,000**	**$913,315,000**	**$122,072,000**	**$4,652,756,000**

* These actuarial gain/loss items can be found in *Section 4, Exhibit 6* of our December 31, 2023 funding valuation report.

ORANGE COUNTY EMPLOYEES
RETIREMENT SYSTEM
Cost-Sharing Multiple-Employer Defined Benefit Pension Plan
Schedule of Allocated Pension Amounts by Employer
As of and for the Year Ended December 31, 2023

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MOSSADAMS

Report of Independent Auditors

The Board of Retirement
Orange County Employees Retirement System

Report on the Audit of the Schedule

Opinion

We have audited the totals for all employers of the deferred outflows of resources, deferred inflows of resources, net pension liability (asset), and pension expense (income) excluding that attributable to employer-paid member contributions as of and for the year ended December 31, 2023 in the Schedule of Allocated Pension Amounts by Employer (specific column totals) of the Orange County Employees Retirement System (the System) and the related notes (the schedule).

In our opinion, the accompanying schedule referred to above presents fairly, in all material respects, the totals for all the System's employers of the deferred outflows of resources, deferred inflows of resources, net pension liability (asset), and pension expense (income) excluding that attributable to employer-paid member contributions as of and for the year ended December 31, 2023, in accordance with accounting principles generally accepted in the United States of America.

Basis for Opinion

We conducted our audit in accordance with auditing standards generally accepted in the United States of America (GAAS). Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Schedule section of our report. We are required to be independent of the System and to meet our other ethical responsibilities, in accordance with the relevant ethical requirements relating to our audit. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Financial Statements

We have audited, in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States, the financial statements of the System as of and for the year ended December 31, 2023, and our report thereon dated June 6, 2024 expressed an unmodified opinion on those financial statements.

Responsibilities of Management for the Schedule

Management is responsible for the preparation and fair presentation of the schedule in accordance with accounting principles generally accepted in the United States of America, and for the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of schedule that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibilities for the Audit of the Schedule

Our objectives are to obtain reasonable assurance about whether the schedule as a whole is free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance but is not absolute assurance and therefore is not a guarantee that an audit conducted in accordance with GAAS will always detect a material misstatement when it exists. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control. Misstatements are considered material if there is a substantial likelihood that, individually or in the aggregate, they would influence the judgment made by a reasonable user based on the schedule.

In performing an audit in accordance with GAAS, we

- Exercise professional judgment and maintain professional skepticism throughout the audit.
- Identify and assess the risks of material misstatement of the schedule, whether due to fraud or error, and design and perform audit procedures responsive to those risks. Such procedures include examining, on a test basis, evidence regarding the amounts and disclosures in the schedule.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the System's internal control. Accordingly, no such opinion is expressed.
- Evaluate the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluate the overall presentation of the schedule.

We are required to communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit, significant audit findings, and certain internal control–related matters that we identified during the audit.

Restriction on Use

Our report is intended solely for the information and use of the management, members of the Board of Retirement, and the System's participating employers and their auditors, and is not intended to be and should not be used by anyone other than these specified parties.

Moss Adams LLP

Irvine, California
June 6, 2024

Orange County Employees Retirement System
Cost-Sharing Multiple-Employer Defined Benefit Pension Plan
Schedule of Allocated Pension Amounts by Employer
As of and for the Year Ended December 31, 2023

Deferred Outflows of Resources	**County of Orange**	**O.C. Cemetery District**	**O.C. Public Law Library**	**O.C. Mosquito and Vector Control District**	**O.C. Employees Retirement System**
Differences Between Expected and Actual Experience	$ 244,533,088	$ 542,855	$ 29,992	$ 1,976,449	$ 1,727,337
Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	300,320,497	310,502	323,613	778,167	2,282,401
Changes of Assumptions	154,874,422	181,187	47,821	192,850	1,802,479
Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	10,300,302	-	-	-	4,993,789
Total Deferred Outflows of Resources	**$ 710,028,309**	**$ 1,034,544**	**$ 401,426**	**$ 2,947,466**	**$ 10,806,006**
Deferred Inflows of Resources					
Differences Between Expected and Actual Experience	$ 29,192,872	$ 71,657	$ 421,803	$ 524,310	$ 80,095
Changes of Assumptions	38,617,023	-	-	-	-
Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	15,444,066	-	-	-	428,045
Total Deferred Inflows of Resources	**$ 83,253,961**	**$ 71,657**	**$ 421,803**	**$ 524,310**	**$ 508,140**
Net Pension Liability/(Asset) as of December 31, 2023	**$ 4,061,810,157**	**$ 993,411**	**$ (1,034,826)**	**$ 752,245**	**$ 34,539,527**
Pension Expense Excluding That Attributable to Employer-Paid Member Contributions					
Proportionate Share of Allocable Plan Pension Expense/(Income)	$ 378,189,134	$ 349,589	$ (199,471)	$ (283,683)	$ 3,253,506
Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,320,432	-	-	-	1,889,524
Total Employer Pension Expense/(Income) Excluding That Attributable to Employer-Paid Member Contributions	**$ 379,509,566**	**$ 349,589**	**$ (199,471)**	**$ (283,683)**	**$ 5,143,030**

(Continued)

The accompanying notes are an integral part of these schedules.

Orange County Employees Retirement System
Cost-Sharing Multiple-Employer Defined Benefit Pension Plan
Schedule of Allocated Pension Amounts by Employer
As of and for the Year Ended December 31, 2023

Deferred Outflows of Resources	**O.C. Fire Authority**	**Cypress Recreation & Parks District**	**O.C. Department of Education**	**Transportation Corridor Agencies**	**City of San Juan Capistrano**
Differences Between Expected and Actual Experience	$ 40,056,478	$ 101,487	$ 704,856	$ 1,274,675	$ 872,350
Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	49,581,112	108,620	220,278	1,476,174	1,152,670
Changes of Assumptions	3,185,426	17,230	-	495,686	910,298
Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	-	-	-	2,248,881
Total Deferred Outflows of Resources	**$ 92,823,016**	**$ 227,337**	**$ 925,134**	**$ 3,246,535**	**$ 5,184,199**
Deferred Inflows of Resources					
Differences Between Expected and Actual Experience	$ 13,281,661	$ 438,432	$ 75,925	$ 672,291	$ 40,450
Changes of Assumptions	19,418,863	4,647	55,533	-	-
Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	-	-	-	3,940,450
Total Deferred Inflows of Resources	**$ 32,700,524**	**$ 443,079**	**$ 131,458**	**$ 672,291**	**$ 3,980,900**
Net Pension Liability/(Asset) as of December 31, 2023	**$ 168,457,678**	**$ (641,475)**	**$ 3,189,922**	**$ (1,889,567)**	**$ 17,443,348**
Pension Expense Excluding That Attributable to Employer-Paid Member Contributions					
Proportionate Share of Allocable Plan Pension Expense/(Income)	$ 32,294,538	$ (91,758)	$ 292,099	$ 207,980	$ 1,643,104
Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	-	-	-	(776,117)
Total Employer Pension Expense/(Income) Excluding That Attributable to Employer-Paid Member Contributions	**$ 32,294,538**	**$ (91,758)**	**$ 292,099**	**$ 207,980**	**$ 866,987**

(Continued)

The accompanying notes are an integral part of these schedules.

Orange County Employees Retirement System
Cost-Sharing Multiple-Employer Defined Benefit Pension Plan
Schedule of Allocated Pension Amounts by Employer
As of and for the Year Ended December 31, 2023

Deferred Outflows of Resources	**O.C. Sanitation District**	**O.C. Transportation Authority**	**U.C.I. Medical Center and Campus**	**Children and Families Commission of O.C.**	**O.C. Local Agency Formation Commission**
Differences Between Expected and Actual Experience	$ 33,942,756	$ 32,212,886	$ 2,326,206	$ 9,481	$ 85,267
Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	22,365,002	19,060,584	1,820,366	12,528	112,667
Changes of Assumptions	10,975,775	8,058,375	70,139	9,893	88,977
Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	-	-	1,267,036	282,490
Total Deferred Outflows of Resources	**$ 67,283,533**	**$ 59,331,845**	**$ 4,216,711**	**$ 1,298,938**	**$ 569,401**
Deferred Inflows of Resources					
Differences Between Expected and Actual Experience	$ 9,903,026	$ 23,702,731	$ -	$ 440	$ 3,954
Changes of Assumptions	-	-	343,353	-	-
Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	-	-	358,869	161,952
Total Deferred Inflows of Resources	**$ 9,903,026**	**$ 23,702,731**	**$ 343,353**	**$ 359,309**	**$ 165,906**
Net Pension Liability/(Asset) as of December 31, 2023	**$ (18,531,537)**	**$ 207,825,439**	**$ 26,555,318**	**$ 189,581**	**$ 1,704,989**
Pension Expense Excluding That Attributable to Employer-Paid Member Contributions					
Proportionate Share of Allocable Plan Pension Expense/(Income)	$ 8,523,254	$ 16,467,090	$ 1,566,249	$ 17,858	$ 160,604
Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	-	-	40,358	48,347
Total Employer Pension Expense/(Income) Excluding That Attributable to Employer-Paid Member Contributions	**$ 8,523,254**	**$ 16,467,090**	**$ 1,566,249**	**$ 58,216**	**$ 208,951**

(Continued)

The accompanying notes are an integral part of these schedules.

Orange County Employees Retirement System
Cost-Sharing Multiple-Employer Defined Benefit Pension Plan
Schedule of Allocated Pension Amounts by Employer
As of and for the Year Ended December 31, 2023

Deferred Outflows of Resources	**City of Rancho Santa Margarita**	**O.C. Superior Court of California**	**O.C. IHSS Public Authority**	**Total for all Employers**
Differences Between Expected and Actual Experience	$ 1,779	$ 17,247,907	$ 5,220	$ 377,651,069
Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	1,011	22,790,357	146,212	422,862,761
Changes of Assumptions	-	17,998,217	28,805	198,937,580
Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	8,413,239	107,663	27,613,400
Total Deferred Outflows of Resources	**$ 2,790**	**$ 66,449,720**	**$ 287,900**	**$ 1,027,064,810**
Deferred Inflows of Resources				
Differences Between Expected and Actual Experience	$ 71	$ 799,768	$ 95,666	$ 79,305,152
Changes of Assumptions	334	-	2,167	58,441,920
Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	7,168,015	112,003	27,613,400
Total Deferred Inflows of Resources	**$ 405**	**$ 7,967,783**	**$ 209,836**	**$ 165,360,472**
Net Pension Liability/(Asset) as of December 31, 2023	**$ 119**	**$ 344,886,083**	**$ 462,162**	**$ 4,846,712,574**
Pension Expense Excluding That Attributable to Employer-Paid Member Contributions				
Proportionate Share of Allocable Plan Pension Expense/(Income)	$ 45	$ 32,487,098	$ 97,266	$ 474,974,502
Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	(2,506,377)	(16,167)	-
Total Employer Pension Expense/(Income) Excluding That Attributable to Employer-Paid Member Contributions	**$ 45**	**$ 29,980,721**	**$ 81,099**	**$ 474,974,502**

The accompanying notes are an integral part of these schedules.

Orange County Employees Retirement System

Cost-Sharing Multiple-Employer Defined Benefit Pension Plan

Notes to the Schedule of Allocated Pension Amounts by Employer
As of and for the Year Ended December 31, 2023

NOTE 1 – PLAN DESCRIPTION

The Orange County Employees Retirement System (OCERS or System) administers a cost-sharing multiple-employer defined benefit pension plan (the Plan) for the County of Orange, Orange County Superior Court of California, City of San Juan Capistrano, and ten special districts: Orange County Cemetery District, Children and Families Commission of Orange County, Orange County Employees Retirement System, Orange County Fire Authority, Orange County In-Home Supportive Services Public Authority, Orange County Local Agency Formation Commission, Orange County Public Law Library, Orange County Sanitation District, Orange County Transportation Authority and the Transportation Corridor Agencies. The Orange County Department of Education, University of California, Irvine Medical Center and Campus, Capistrano Beach Sanitation District, Cypress Recreation & Parks District, Orange County Mosquito and Vector Control District and City of Rancho Santa Margarita are no longer active employers, but retired members and their beneficiaries, as well as deferred members, remain in the System. Capistrano Beach is not presented in the accompanying schedule as this employer is no longer in existence and OCERS does not have the ability to collect any unfunded liabilities from this inactive employer. OCERS is legally and fiscally independent of the County of Orange.

OCERS provides retirement, disability, and death benefits to general and safety members. Safety membership includes those members serving in active law enforcement, fire suppression and as probation officers. General membership applies to all other occupations. Plan retirement benefits are tiered based upon the date of OCERS membership. Additional information regarding the pensions plan's benefit structure is included in the Summary of Plan Description that is available on the web at: https://www.ocers.org/summary-plan-description.

NOTE 2 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Basis of Presentation and Basis of Accounting

Employers participating in the Plan are required to report pension information in their financial statements in accordance with Governmental Accounting Standards Board (GASB) Statement No. 68, *Accounting and Financial Reporting for Pensions – an Amendment of GASB Statement No. 27*. The Schedule of Allocated Pension Amounts by Employer (the Schedule) along with OCERS' audited financial statements, the GASB Statement 67 Actuarial Valuation as of December 31, 2023 and the GASB Statement 68 Actuarial Valuation Based on the December 31, 2023 Measurement Date for Employer Reporting as of June 30, 2023, prepared by OCERS' third-party actuary, provide the required information for financial reporting related to the Plan that employers may use in their financial statements.

The accompanying Schedule was prepared by OCERS' third-party actuary and was derived from information provided by OCERS in accordance with accounting principles generally accepted in the United States of America (GAAP) as applicable to governmental organizations.

Orange County Employees Retirement System

Cost-Sharing Multiple-Employer Defined Benefit Pension Plan

Notes to the Schedule of Allocated Pension Amounts by Employer

As of and for the Year Ended December 31, 2023

NOTE 2 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

Basis of Presentation and Basis of Accounting (Continued)

Legally or statutorily required employer contributions for the year ended December 31, 2023, less any amounts of those legally or statutorily required contributions that are paid by the employees (referred to as reverse pick-ups), are used as the basis for determining each employer's proportion of total contributions. For the year ended December 31, 2023, employer paid member contributions of $42,000 under Government Code Section 31581.1 which OCERS reports as employer contributions as these payments do not become part of the accumulated employee contributions, have been excluded in determining each employer's proportion of total contributions. Contributions made by the employer on behalf of employees under Government Code Section 31581.2 are classified as employee contributions and are not included in the proportionate share calculation for the year ended December 31, 2023.

Employer contributions have not been reduced for discount due to prepaid contributions. Contributions for each employer are assigned to its respective participating Rate Group. Rate Groups are a collection of members who are or were employed by employers that offer similar pension benefit formula(s). Rate Groups exist for the purpose of risk-pooling and the contribution rates developed by the actuary should, in the long-term, fairly and accurately reflect the benefits offered/promised to members in each group. Rate Groups can contain one or more employers and employers may be included in one or more Rate Groups. If an employer participates in several Rate Groups, the employer's total proportionate share of the Net Pension Liability (NPL) and related allocated pension amounts is the sum of its NPL and allocated pension amounts from each Rate Group.

The following Rate Groups have only one active employer, so all of the NPL for that Rate Group is allocated to the corresponding employer:

Rate Group	Employer
3	Orange County Sanitation District
4	City of Rancho Santa Margarita
5	Orange County Transportation Authority
6	County of Orange (Probation)
7	County of Orange (Law Enforcement)
8	Orange County Fire Authority (Safety)
9	Transportation Corridor Agencies
10	Orange County Fire Authority (General)
11	Orange County Cemetery District
12	Orange County Public Law Library

Orange County Employees Retirement System
Cost-Sharing Multiple-Employer Defined Benefit Pension Plan
Notes to the Schedule of Allocated Pension Amounts by Employer
As of and for the Year Ended December 31, 2023

NOTE 2 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

Basis of Presentation and Basis of Accounting (Continued)

The total Plan contributions are determined through OCERS' annual actuarial valuation process. The actuarially determined rate is the estimated amount necessary to finance the costs of benefits earned by employees during the year, with an additional amount to finance any unfunded accrued liability. California Government Code Title 3, Division 4, Parts 3 and 3.9, Articles 6 and 6.8 define the methodology used to calculate member basic contribution rates for General members and Safety members. The employer is required to contribute the difference between the actuarially determined rate and the contribution rate of employees. Legally or statutorily required employer contributions were determined by multiplying the employers' contribution rate by the employers' payrolls for the fiscal year.

The NPL is the Total Pension Liability (TPL) minus the Plan Fiduciary Net Position (plan assets). The TPL for each Rate Group is obtained from valuation results. The Fiduciary Net Position for each Rate Group is estimated by adjusting the valuation value of assets for each membership class by the ratio of the total Plan Fiduciary Net Position (excluding the balance of the County of Orange (County) Investment Account and the Orange County Sanitation District (OCSD) Unfunded Actuarial Accrued Liability (UAAL) Deferred Account) to total OCERS' valuation value of assets. The County Investment Account is then allocated among the four County Rate Groups using the proportion of the County's most recent contributions that were derived from the proceeds of the Pension Obligation Bonds for each of the four County Rate Groups. The OCSD UAAL Deferred Account balance of $16,025,000 was allocated entirely to Rate Group 3 as of December 31, 2023 and was used to reduce the NPL for the OCSD as of the measurement date. The NPL is then allocated to the respective employers based on the legally or statutorily required employer contributions within each Rate Group.

In developing the pension expense amounts, the NPL proportionate share percentage is used to calculate the employer's pension expense components (service cost, interest, change in benefit terms, differences between expected and actual experience, changes in assumptions and benefit payments, including refunds of employee contributions), with the exception of the Orange County Mosquito and Vector Control District (Vector Control), Cypress Recreation & Parks District (CRPD), University of California, Irvine Medical Center and Campus (UCI) and the Orange County Department of Education (OCDE), which were adjusted to reflect the appropriate amount of service costs based on their current inactive membership.

The employer contributions used to determine the NPL proportionate share percentage excludes UCI and OCDE employer contributions of $2,980,443 and $316,960, respectively. These employer contributions were intended to reduce the NPL of the specific employer, not the respective Rate Group as a whole. The percentages of contributions by employer do not equal the percentages used to allocate the NPL by employer because the NPL for the County has been reduced to reflect the portion of the County Investment Account, as described above. The amounts of the County Investment Account that have been allocated to those Rate Groups as of December 31, 2023 are as follows:

Orange County Employees Retirement System

Cost-Sharing Multiple-Employer Defined Benefit Pension Plan

Notes to the Schedule of Allocated Pension Amounts by Employer

As of and for the Year Ended December 31, 2023

NOTE 2 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

Basis of Presentation and Basis of Accounting (Continued)

Rate Group	Amount
1	$ 3,235,878
2	94,652,9614
6	7,074,542
7	41,146,619
Total	$ 146,110,000

In addition, the NPL for Rate Group 1 was adjusted by the NPL for Vector Control, OCDE, UCI and CRPD prior to allocating the net NPL to the other employers in Rate Group 1. The NPL for these four employers were calculated separately as follows:

> The Vector Control is no longer an active employer, but retired members and their beneficiaries, as well as deferred members, remain in the Plan. For this employer, the allocated net pension liability is based on the most recent estimate of the withdrawal liability and adjusted to reflect the Plan Fiduciary Net Position as of December 31, 2023.
>
> The participation in the Plan for the OCDE and UCI is closed to new members. The funding obligation for these employers' UAAL is no longer pro-rata based on its payroll as there are no active members. Instead, the employer's UAAL is determined based on its specific actuarial accrued liability and a share of assets allocated to the employer. The employer's contributions for its UAAL are to be paid at level, fixed-dollar amounts over a period not to exceed twenty years. The employer will also be liable, or receive a credit, for any change in its funding obligation determined annually thereafter as a result of actuarial experience or changes in actuarial assumptions.
>
> On October 19, 2015, the Board of Retirement approved the amortization schedule for payment of the OCDE UAAL and UCI UAAL of $3,238,000 and $27,586,000, respectively. These balances were calculated based on the December 31, 2014 actuarial valuation assuming fixed-dollar payments over twenty years beginning on July 1, 2016. As per OCERS' Declining Payroll Policy, the UAAL balances were updated as of the December 31, 2022 actuarial valuation to reflect actuarial gains or losses and other events that will be captured in a new twenty-year closed amortization layer. The amortization schedules for the new UAAL layers for the OCDE and UCI, after being adjusted for interest to December 31, 2023, can be found on OCERS' website as discussed in Note 4 – Additional Financial and Actuarial Information.

Orange County Employees Retirement System

Cost-Sharing Multiple-Employer Defined Benefit Pension Plan

Notes to the Schedule of Allocated Pension Amounts by Employer

As of and for the Year Ended December 31, 2023

NOTE 2 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

Basis of Presentation and Basis of Accounting (Continued)

CRPD and Capistrano Beach Sanitary District (CBSD) are no longer active employers. CRPD has twenty-one retired members and beneficiaries, as well as four deferred members, and CBSD has three retired members remaining in the Plan. At the time these employers left the System, OCERS did not have an express policy addressing how the UAAL would be funded for inactive employers. On October 15, 2018, OCERS entered into a withdrawing employer and continuing contribution agreement with the City of Cypress and received payment of the UAAL associated with CRPD members, including interest through October 14, 2018, for a total of $740,000. As of December 31, 2020, and every three years thereafter, CRPD's UAAL obligation will be recalculated and in the event there is any new UAAL obligation, CRPD will have three years following the effective date of the recalculation to satisfy the obligation in full, including accrued interest. As of December 31, 2023, the allocated net pension asset is based on the most recent estimate of the withdrawal liability and adjusted to reflect the Plan Fiduciary Net Position as of December 31, 2023. CBSD is no longer in existence and OCERS does not have the ability to collect any UAAL from this inactive employer under OCERS' Declining Employer Payroll Policy; unpaid liabilities from this employer are deemed immaterial.

Use of Estimates in the Preparation of Financial Schedules

The preparation of the Schedule in conformity with GAAP requires management to make significant estimates and assumptions that affect the reported amounts during the reporting period. Actual results could differ from those estimates.

The components of the NPL related to OCERS' plan at December 31, 2023, are as follows (dollars in thousands):

Total pension liability	$ 26,644,141
Less: Plan fiduciary net position	(21,797,429)
Net pension liability	$ 4,846,712

For the measurement period ended December 31, 2023 (the measurement date), total pension liability was determined by rolling forward the December 31, 2022 (the valuation date) total pension liability. The actuarial assumptions used were based on the results of an experience study for the period from January 1, 2020 through December 31, 2022.

Orange County Employees Retirement System
Cost-Sharing Multiple-Employer Defined Benefit Pension Plan
Notes to the Schedule of Allocated Pension Amounts by Employer
As of and for the Year Ended December 31, 2023

NOTE 3 – ACTUARIAL METHODS AND ASSUMPTIONS

Actuarial Methods and Assumptions Used to Determine Total Pension Liability

The December 31, 2023 total pension liability was based on the following actuarial methods and assumptions:

Actuarial Experience Study	Three-Year Period Ending December 31, 2022
Actuarial Cost Method	Entry Age in accordance with the requirements of GASB Statement No. 68
Actuarial Assumptions:	
Investment Rate of Return	7.00%. net of pension plan investment expenses, including inflation
Inflation Rate	2.50%
Projected Salary Increases	General: 3.90% to 8.00% and Safety: 4.50% to 15.00%, vary by service, includes inflation and "across-the-board" salary increase of 0.50%
Consumer Price Index (CPI) and Cost of Living Adjustments (COLA)	CPI increases of 2.75% per year Retiree COLA increases of 2.75% per year. For members that have COLA banks, we assume they receive 3.00% COLA increases until their COLA banks are exhausted and 2.75% thereafter

Mortality Assumptions

The mortality assumptions used in the TPL at December 31, 2023, were based on the results of the actuarial experience study for the period January 1, 2020 through December 31, 2022, using the Public Retirement Plans Mortality tables (Pub-2010) published by the Society of Actuaries. Within the Pub-2010 family of mortality tables, OCERS has adopted both the General and Safety Amount-Weighted Above-Median Mortality Tables (adjusted for OCERS experience), projected generationally using the two-dimensional mortality improvement scale MP-2021, adjusted separately for healthy and disabled for both general and safety members.

Discount Rate

The discount rate used to measure the TPL as of December 31, 2023 was 7.00%. The projection of cash flows used to determine the discount rate assumed plan member contributions will be made at the current contribution rate and that employer contributions will be made at rates equal to the actuarially determined contribution rates. For this purpose, only employer contributions that are intended to fund benefits for current plan members and their beneficiaries are included. Projected employer contributions that are intended to fund the service costs for future plan members and their beneficiaries, as well as projected contributions from future plan members, are not included. Based on those assumptions, the Plan's fiduciary net position was projected to be available to make all projected future benefit payments for current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability as of December 31, 2023.

Orange County Employees Retirement System

Cost-Sharing Multiple-Employer Defined Benefit Pension Plan

Notes to the Schedule of Allocated Pension Amounts by Employer

As of and for the Year Ended December 31, 2023

NOTE 3 – ACTUARIAL METHODS AND ASSUMPTIONS (CONTINUED)

Actuarial Methods and Assumptions Used to Determine Total Pension Liability (Continued)

According to Paragraph 30 of Statement 68, the long-term expected rate of return should be determined net of pension plan investment expense but without reduction for pension plan administrative expense.

The 7.00% investment return assumption used in the actuarial valuation for funding is net of administrative expenses. Administrative expenses are assumed to be 15 basis points. The investment return assumption remained the same for reporting purposes, where it is considered gross of administrative expenses. This results in an increase in the margin for adverse deviation when using the same investment return assumption for financial reporting; however, the impact of including administrative expenses is deemed to have an immaterial impact on the overall assumed rate of return.

The long-term expected rate of return on pension plan investments was determined using a building-block method in which expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These returns are combined to produce the long-term expected arithmetic rate of return by weighting the expected arithmetic real rates of return by the target asset allocation percentage, adding expected inflation and subtracting expected investment expenses (beginning with December 31, 2023, including only investment consulting fees, custodian fees and other miscellaneous investment expenses and fees but excluding investment manager fees) and a risk margin. Additional information on the target allocation and projected arithmetic real rate of return for each major asset class is available in the OCERS' GASB Statement No. 67 Actuarial Valuation as of December 31, 2023.

<u>Amortization of Deferred Outflows and Deferred Inflows of Resources</u>

The net difference between projected and actual investment earnings on pension plan investments in the Schedule represents the unamortized balance relating to the current measurement period and the prior measurement periods on a net basis. The net difference between projected and actual investment earnings on pension plan investments is amortized over a five-year period on a straight-line basis beginning with the year in which they occur. One-fifth was recognized in pension expense during the measurement period, and the remaining net difference between projected and actual investment earnings on pension plan investments at the measurement date is to be amortized over the remaining period.

Deferred outflows of resources and deferred inflows of resources related to the differences between expected and actual experience, changes of assumptions, and changes in proportion and differences between employer contributions and proportionate share of contributions are recognized over the average of the expected remaining service lives of all employees that are provided with pensions through the Plan determined as of December 31, 2022 (the beginning of the measurement period ending December 31, 2023) which is 5.35 years. Prior measurement period differences between expected and actual experience, changes of assumptions, and changes in proportion and differences between employer contributions and proportionate share of contributions continue to be recognized based on the expected remaining service lives of all employees calculated as of the beginning of those measurement periods.

Orange County Employees Retirement System
Cost-Sharing Multiple-Employer Defined Benefit Pension Plan
Notes to the Schedule of Allocated Pension Amounts by Employer
As of and for the Year Ended December 31, 2023

NOTE 3 – ACTUARIAL METHODS AND ASSUMPTIONS (CONTINUED)

Actuarial Methods and Assumptions Used to Determine Total Pension Liability (Continued)

The Schedule of Allocated Pension Amounts by Employer does not reflect contributions made to OCERS subsequent to the measurement date as defined in GASB Statement No. 68 paragraph 57. Appropriate treatment of such amounts is the responsibility of the employers.

NOTE 4 – ADDITIONAL FINANCIAL AND ACTUARIAL INFORMATION

Additional financial and actuarial information required for GASB Statement No. 68 disclosures is presented in OCERS' Annual Comprehensive Financial Report as of and for the year ended December 31, 2023, the OCERS' GASB Statement No. 67 Actuarial Valuation as of December 31, 2023, the OCERS' GASB Statement No. 68 Actuarial Valuation Based on the December 31, 2023, Measurement Date for Employer Reporting as of June 30, 2023, and the Unfunded Actuarial Liability and Associated Amortization Schedules as of the December 31, 2022 valuation for the Orange County Department Education and University of California, Irvine Medical Center and Campus, which can be found on OCERS' website at www.ocers.org.

Memorandum

DATE: June 17, 2024

TO: Members of the Board of Retirement

FROM: Steve Delaney, Chief Executive Officer, and Manuel D. Serpa, General Counsel

SUBJECT: **Consideration of Support for AB 2284**

Recommendation

Adopt a position in support of AB 2284.

Background

OCERS Legislative Policy states that the Board of Retirement (Board) is responsible for analyzing legislative proposals suggested by OCERS' Board members, staff, or interested third parties and determining appropriate action. The Board is also responsible for adopting an official OCERS position for pertinent legislative proposals affecting the system. Staff monitors proposed legislation, analyzes it, and reports to the Board on legislation that affects OCERS.

In monitoring legislation for the current session of the legislature, staff has analyzed AB 2284, introduced by Assembly Member Timothy Grayson, and concluded that it is a bill OCERS should support.

Summary of Bill

AB 2284 makes changes to the County Employees' Retirement Law (CERL) by authorizing a CERL retirement system to define "grade," that relates to compensation and retirement. Its major provisions are to:

> 1) Authorize a CERL system that has not defined "**grade**," as this term is described in the Government Code Section 31461 definition of "compensation earnable," to define it to mean a number of employees considered together because they share similarities in job duties, schedules, unit recruitment requirements, work location, collective bargaining unit, or other logical work-related group or class. A single employee shall not constitute a group or class.
>
> 2) Expressly state that "Nothing in this section shall change the holding in Alameda County Deputy Sheriff's Association v. Alameda County Employees' Retirement Association (2020) 9 Cal.5th 1032, and to the extent that there is any conflict between this section and line 32 the holding in that case, the latter shall prevail."

Position

Staff has analyzed AB 2284 and concluded that it is appropriate for the Board to consider supporting the bill. An endorsement of AB 2284 is consistent with the principle contained in the Legislative Policy to "support legislative proposals that clarify statutory interpretation of '37 Act provisions unless inconsistent with OCERS' legally sound interpretation and implementation of the provision." By providing a definition of the term "grade," the amendment clarifies the reference group used for the calculation of compensation earnable. Per § 31461, "compensation earnable" means the average compensation for the period under consideration upon the basis of the average number of days *ordinarily worked by persons in the same grade or class of positions* during the period, and the same rate of pay, subject to certain exceptions. However, at present, the CERL does not define the term grade. The current language of the statute, which categorizes employees by class or grade without clearly defining the terms, adds to the difficulty of ensuring compliance with PEPRA.

The bill also supports the goal of consistency between the CERL and the Public Employees' Retirement Law (PERL) as it attempts to align the definition of "grade" with the parallel definition of "group or class" contained in the PERL, which is as follows:

> …(e)(1) As used in this part, "**group or class of employment**" means a number of employees considered together because they share similarities in job duties, work location, collective bargaining unit, or other logical work-related grouping. A single employee is not a group or class…
>
> Gov. Code, § 20636

For the reasons above, the staff recommends that the Board take an official position in favor of AB 2284.

<u>Attachments</u>

(1) AB 2284

Submitted by:

SD - Approved

Steve Delaney
Chief Executive Officer

Submitted by:

MDS-Approved

Manuel D. Serpa
General Counsel

AMENDED IN SENATE JUNE 10, 2024

AMENDED IN ASSEMBLY MAY 20, 2024

AMENDED IN ASSEMBLY APRIL 18, 2024

CALIFORNIA LEGISLATURE—2023–24 REGULAR SESSION

ASSEMBLY BILL No. 2284

Introduced by Assembly Member Grayson

February 8, 2024

An act to amend Section 31461 of the Government Code, relating to retirement.

LEGISLATIVE COUNSEL'S DIGEST

AB 2284, as amended, Grayson. County employees' retirement: compensation.

Existing law, the California Public Employees' Pension Reform Act of 2013 (PEPRA), generally requires a public retirement system, as defined, to modify its plan or plans to comply with the act. PEPRA, among other things, establishes new defined benefit formulas and caps on pensionable compensation.

The County Employees Retirement Law of 1937 (CERL) authorizes counties to establish retirement systems pursuant to its provisions in order to provide pension benefits to their employees. CERL generally vests management of each retirement system in a board of retirement.

CERL defines "compensation earnable" by a member, for the purpose of calculating benefits, to mean the average compensation, as determined by the board, for the period under consideration upon the basis of the average number of days ordinarily worked by persons in the same grade or class of positions during the period, and the same rate of pay, subject to certain exceptions.

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This bill would authorize a retirement system, to the extent it has not defined "grade" in the above-described circumstances, to define "grade" to mean a number of employees considered together because they share similarities in job duties, schedules, unit recruitment requirements, work location, collective bargaining unit, or other logical work-related group or class, as specified.

Vote: majority. Appropriation: no. Fiscal committee: no. State-mandated local program: no.

The people of the State of California do enact as follows:

SECTION 1. Section 31461 of the Government Code is amended to read:

31461. (a) (1) "Compensation earnable" by a member means the average compensation as determined by the board, for the period under consideration upon the basis of the average number of days ordinarily worked by persons in the same grade or class of positions during the period, and at the same rate of pay. The computation for any absence shall be based on the compensation of the position held by the member at the beginning of the absence. Compensation, as defined in Section 31460, that has been deferred shall be deemed "compensation earnable" when earned, rather than when paid.

(2) To the extent a retirement system has not defined "grade," it may define "grade," as described in paragraph (1), to mean a number of employees considered together because they share similarities in job duties, schedules, unit recruitment requirements, work location, collective bargaining unit, or other logical work-related group or class. A single employee shall not constitute a group or class.

(b) "Compensation earnable" does not include, in any case, the following:

(1) Any compensation determined by the board to have been paid to enhance a member's retirement benefit under that system. That compensation may include:

(A) Compensation that had previously been provided in kind to the member by the employer or paid directly by the employer to a third party other than the retirement system for the benefit of the member, and which was converted to and received by the member in the form of a cash payment in the final average salary period.

(B) Any one-time or ad hoc payment made to a member, but not to all similarly situated members in the member's grade or class.

(C) Any payment that is made solely due to the termination of the member's employment, but is received by the member while employed, except those payments that do not exceed what is earned and payable in each 12-month period during the final average salary period regardless of when reported or paid.

(2) Payments for unused vacation, annual leave, personal leave, sick leave, or compensatory time off, however denominated, whether paid in a lump sum or otherwise, in an amount that exceeds that which may be earned and payable in each 12-month period during the final average salary period, regardless of when reported or paid.

(3) Payments for additional services rendered outside of normal working hours, whether paid in a lump sum or otherwise.

(4) Payments made at the termination of employment, except those payments that do not exceed what is earned and payable in each 12-month period during the final average salary period, regardless of when reported or paid.

(c) The terms of subdivision (b) are intended to be consistent with and not in conflict with the holdings in Salus v. San Diego County Employees Retirement Association (2004) 117 Cal.App.4th 734 and In re Retirement Cases (2003) 110 Cal.App.4th 426.

(d) ~~This section is intended to be consistent with and not in conflict with~~ *Nothing in this section shall change* the holding in Alameda County Deputy Sheriff's Association v. Alameda County Employees' Retirement Association (2020) 9 Cal.5th ~~1032.~~ *1032, and to the extent that there is any conflict between this section and the holding in that case, the latter shall prevail.*

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Memorandum

DATE: June 17, 2024

TO: Members of the Board of Retirement

FROM: Brenda Shott, Assistant CEO, Finance and Internal Operations

SUBJECT: **BUILDING COMMITTEE OUTCOME: OCERS REPLACEMENT HEADQUARTERS PROJECT – DESIGN BUILD ENTITY SELECTION**

Recommendation

The Building Committee recommends that the Board approve executing a contract with Snyder Langston-Gensler as the Design/Build Entity (DBE) for the OCERS Replacement Headquarters Project (Project) with a fixed fee for comprehensive predevelopment services of $1,861,506. The contract calls for the issuance of a Guaranteed Maximum Price for the Project as then proposed by the DBE for subsequent Board approval at the end of Predevelopment.

Background/Discussion

Our existing headquarters building was constructed in 1979. With its many systems already exceeded their service life, it is increasingly troublesome and costly to operate and maintain the building at an acceptable service level. These physical plant issues and the need for additional office space to accommodate our growing operation spearheaded conversations in 2018 for options that ranged from a complete reconfiguration of the existing headquarters' interiors to purchasing and remodeling a larger existing office building within close proximity of our current location.

When the 1200 N. Tustin Avenue property (Tustin Property), adjacent to our current headquarters site, became available in August 2019 targeting residential developers, the Board directed staff to explore purchasing said property to build a new replacement OCERS Headquarters or market both properties together to developers and relocate the OCERS Headquarters. The purchase of Tustin Property closed in February 2020.

The Project thereafter was placed on hold during the Covid-19 pandemic from March 2020 until April 2022. The Building Committee (Committee) then recommended, and the Board approved, pursuing the construction of a replacement headquarters on the Tustin Property and to continue to explore the best use(s) for the remainder.

Staff proceeded to discuss possible scenarios with our Santa Ana city partners; met with several architects and received high-level conceptual site plans; staffed our Operations Support Services Department with a professional civil engineer experienced in horizontal and vertical construction projects; toured nearby award-winning city halls and the new county administrative buildings in downtown Santa Ana; and engaged a legal firm experienced in construction and real estate to advise OCERS through the Project.

Given that our Operations Support Services Department is not staffed to handle this large and complex construction project, the Committee at its January 2023 meeting instructed staff to seek an Owner Representative/Program and Construction Manager (OR/PM) to serve as an extension of OCERS staff to assist and shepherd this Project. Through the open and public competitive RFQ and RFP processes, Griffin Structures (Griffin) was selected out of the five (5) respondents and two (2) Committee interviewed finalists. The OR/PM contract with Griffin was executed in August 2023 for a fixed fee amount not-to exceed $2,180,011 paid monthly ($53,171) and a term of forty-one (41) months, with an optional 6-month extension, if and as required.

With Griffin onboard, the Committee directed staff to competitively seek DBE teams interested in delivering this Project through the progressive design build method. A Request For Qualifications for DBE Pre-Development services was issued in December 2023. Upon scoring the Statement of Qualifications submitted by the six (6) respondents, the four (4) highest-ranked teams were invited to propose. All four invited teams proposed.

With the proposals scored similarly by the staff review panel comprised of Steve Delaney, CEO, Brenda Shott, Assistant CEO and Fong Tse, Senior Operations Support Services Manager, these teams were invited to present to the Committee on April 4, 2024. Each team was allotted forty (40) minutes for presentation followed by a 20-minute Q&A discussion. While all four teams are well known and respected in Southern California for their vertical construction successes, each team's ideas and approach to our project had some notable differences. At the conclusion of the interviews, the Committee and the OCERS Project Team, deliberated on each DBE team's strengths and weaknesses as well as how closely their visions meet OCERS' needs. It was also generally agreed that the presentations and the question-answer discussions provided additional pertinent information that were absent from the submitted written proposals. As such, the Committee directed the staff review panel to score each team on all information received (written proposals, presentation, Q&A) in accordance with the scoring criteria set forth in the Request For Proposals and return to the Committee on a later date with the rankings and recommendation.

Accordingly, staff returned to the Committee on April 15, 2024, with the below composite scores that are the summation of the points from each review panelist.

		DBE TEAM			
RFP Scoring Category	Max Points	Bernards – HOK	CW Driver – Ware Malcomb	Snyder Langston– Gensler	Swinerton – LPA
Project Team Organization and Key Personnel	75	50	62	72	51
Project Requirements/Enhancements	30	26	30	30	26
Approach to the Work	135	98	102	122	87
Quality Control / Management Plan	30	26	28	29	27
Design & Construction Schedule	30	28	30	29	30
Proposed Compensation Fees	150	112	134	121	131
Maximum Total Possible	450				
	Total	340	386	403	352
	Ranking	4th	2nd	1st	3rd

Staff shared with the Committee that while all teams can design and construct an office building that will meet today's daily needs, the Snyder Langston – Gensler team (SL-G) offers more modern environments that resonate to the next generation of workers that employers such as us must compete to recruit and retain. Our ability to attract and keep quality employees in the future, will affect our ability to continue to provide superior service in the years to come.

The SL-G team was well represented at the in-person interviews with the Senior Executives and key team members including the day-to-day contact of both Snyder Langston and Gensler being present and actively engaged. Snyder Langston is a construction company that believes they have added value to their clients by providing design-build services for over 100 projects. They have extensive experience in construction projects specifically throughout Orange County since 1959 with a strong history on government projects. Snyder-Langston shared that they are a proven trusted partner evidenced by repeat clients representing 75% of their revenue. Gensler is a global architecture, design, and planning firm with a local office in Newport Beach. Gensler is well known in the industry for their high quality and forward-thinking design for innovative workplaces and headquarters. The two firms have a successful past together as they have partnered on several projects including the Hyundai Motor America North American Headquarters, Masimo Headquarters and The Boardwalk projects, all located in Orange County.

The Committee approved staff's recommendation to negotiate with SL-G for a Design Build agreement with acceptable contract terms and costs. The Committee set the negotiation period to thirty days. The Committee further directed staff to begin negotiation with the next team if satisfactory conclusion could not be reached with SL-G.

The OCERS Project Team along with Legal Counsel that prepared the RFP and the included draft contract immediately focused on responding to the draft contract questions posted by SL-G during the RFP period. The revised draft contract was provided to SL-G on April 29, 2024, effectively starting the 30-day negotiation period with an end of negotiation deadline of May 29, 2024.

A series of correspondences as well as virtual and in-person meetings were held during the course of the negotiations. The cooperative and bilateral negotiations toward a common goal resulted in some manageable compromises that ended with a proposed agreement that supports a productive project partnership moving forward. One of the notable areas that needed to be addressed as we entered negotiations were the design fees that were originally proposed by SL-G. After sharing our concerns with SL-G, they responded with notable concessions on both the predevelopment fixed fee and development fee (bid as a percentage of actual construction direct costs). Staff requested a second round of price concessions and was satisfied with the further reductions on price that were made, which are included below.

Item Description	Original Fees	Reduced Fees	Reduction Amount
Pre-Development Design	$2,245,537	$1,505,500	$740,037
Pre-Development GC	$356,006	$356,006	$0
Total Pre-Development Fee	$2,601,543	$1,861,506	$740,037
Design Fee for Development Phase as % of Construction Cost	4.61%	3.72%	0.89%
Subcontractor Default Insurance as % of Direct Trade Cost	1.25%	1.25%	0.00%
General Liability Insurance as % of Direct Trade Cost	1.37%	1.37%	0.00%
GC Payment and Performance Bonds as % of Construction Cost	0.60%	0.60%	0.00%
General Contractor Fees/Overhead Based on Est. Construction Cost	3.85%	3.85%	0.00%

Under the proposed contract terms, SL-G is allotted 330 calendar days to gather and analyze all available ideas and options to:

- Develop and finalize one (1) set of project design-development level plans complete with all necessary details required for OCERS decision and preliminary city reviews
- Process and secure City of Santa Ana Approval-In-Concept
- Pursue the possibility of securing administrative approval(s) for the option of a 3-story replacement building entirely within the Tustin property parcel
- Coordinate with Verizon Wireless on their cellular communications tower relocation work by Verizon's consultants and contractors independent of our project

- Prepare all other additional necessary investigative engineering studies and designs and be responsible for all designers/contractors coordination and constructability reviews in substantial details as necessary to formulate and present an all-inclusive not-to-exceed Guaranteed Maximum Price (GMP) proposal at the end of the Predevelopment Phase for the (next) Project Development Phase which would take us through final construction and building occupancy

In case of unexcused tardy completion, OCERS, at its option, could assess liquidated damages in the amount of $2,000 for each calendar day beyond the 330 calendar days Predevelopment allotment.

On May 31, 2024, staff reported the contract negotiation results to the Committee. The Committee unanimously approved staff's recommendation to recommend that the Board authorize staff to execute the Design Build Contract by and between OCERS and Snyder Langston-Gensler for the OCERS Replacement Headquarters Project. SL-G has indicated that they have availability to begin work upon contract execution and issuance of Notice to Proceed.

As noted earlier, this Predevelopment phase will be followed by a separate Development Phase with a GMP to complete the remaining construction documents and the construction. The GMP will come to the Committee and then to the Board as an amendment to the proposed contract. OCERS has the sole discretion of approving or rejecting the GMP and contract amendment for the Development phase.

Staff will provide the Committee with quarterly status updates. The Committee will also meet regularly to provide direction to staff regarding scope, schedule, milestone completion, schematic design and budget issues that arise. The Committee will review and make recommendations to the Board on the following milestones/decisions:

- City-Review-Ready Site Plan for the project
- Targeted building certifications
    - Leadership in energy and environmental design (LEED)
    - Human health and well-being design (WELL)
- Purchase of owner's property liability insurance
- Approval of DBE contract amendment for the GMP
- Final construction documents

The negotiated draft contract in substantial final form is attached.

Funding for the contract has been included as part of the approved 2024 Budget in the Capital Project category.

Conclusion

The OCERS Replacement Headquarters Project is an important project. A new modern facility will provide a central location to serve our members in the future as well as serve as a tool in recruiting and retaining our team members for decades to come. The project is at a pivotal point where we are looking to enter into an agreement with a design build entity who will be our partner in delivering this highly anticipated project. After a thorough procurement process and successful negotiations with the top ranked firm, the Building Committee unanimously recommends that the Board authorize staff to execute a contract with Snyder Langston-Gensler as the Design Build Entity (DBE) for the OCERS Replacement Headquarters Project (Project) with a fixed fee for comprehensive predevelopment services of $1,861,506. The contract calls for the issuance of a Guaranteed Maximum Price for the Project as then proposed by the DBE for subsequent Board approval at the end of Predevelopment. Members of both Snyder Langston's and Gensler's senior management team will be present at the June 17, 2024 meetings to participate in discussion with the Board on this item.

Submitted by:

OCERS B.S. - Approved

Brenda Shott, CPA
Assistant CEO, Finance and Internal Operations

Attachments

1. Cost Proposals Summary
2. Draft Contract

ORANGE COUNTY OCERS EMPLOYEES RETIREMENT SYSTEM

OCERS Replacement Headquarters Project

Design Build Entity (DBE) Selection

Brenda Shott

Assistant CEO, Finance and Internal Operations

Introduction

Orange County Employees Retirement System

Our Path Here:

- Building Committee
- Owner's Representative Firm Procurement
  - Griffin Structures
- Strategic Planning – Board Direction
- Needs Assessment
- Preliminary studies/surveys

Our Path Here:

- RFQ
- RFP
- Building Committee Interviews
- Deliberations
- Scoring

  #1 = Snyder Langston-Gensler
- Building Committee Direction to Staff to Negotiate

Snyder Langston
Building with Mastery

Gensler

Negotiation Results:

- ✓Terms
- ✓Cost Concessions
  - ✓Predevelopment Fee
  - ✓Development Fee

Revised Cost Proposal

Item Description	Original Fees	Reduced Fees	Reduction Amount
Pre-Development Design	$2,245,537	$1,505,500	$740,037
Pre-Development GC	$356,006	$356,006	$0
Total Pre-Development Fee	$2,601,543	$1,861,506	$740,037
Design Fee for Development Phase as % of Construction Cost	4.61%	3.72%	0.89%
Subcontractor Default Insurance as % of Direct Trade Cost	1.25%	1.25%	0.00%
General Liability Insurance as % of Direct Trade Cost	1.37%	1.37%	0.00%
GC Payment and Performance Bonds as % of Construction Cost	0.60%	0.60%	0.00%
General Contractor Fees/Overhead Based on Est. Construction Cost	3.85%	3.85%	0.00%

Orange County Employees Retirement System

Agreement Highlights

- Two Phases
  - Predevelopment – Fixed Fee
    - Design-development documents
    - City reviews
    - Prepare required studies
    - Prepare Guaranteed Maximum Price (GMP)
      - Mark-Ups and Overhead/Profit for Development Stage already agreed to
  - Development - GMP
    - Mutual agreement of GMP
      - Contract Amendment
      - Building Committee and Board Approval
        - Sole discretion to cancel or approve
      - Contingency
    - Complete design and construction documents
    - Subcontractor Procurement
    - Construction
- Liquidated Damages
  - $2K/day for Predevelopment
  - TBD with GMP for Development Phase

WHY SNYDER LANGSTON?

- **Extensive Design-Build Experience**
- **History of Building Successful Projects in Santa Ana**
- **40 Years Building with Gensler Architects**
- **65 Years Contracting with OC Subcontractors**
- **Database of 6,000 Prequalified Subcontractors**
- **Competitive Open Book Bidding Processes**
- **Solution-Oriented Mindset**
- **ISO 9001-2015 Quality Management System**

✓ **The Right PDB Contractor!**

"Snyder Langston stands out for the mind-set it takes to create a product that will withstand the test of time. I know them to be a firm of integrity with respect to making and keeping commitments."

- Clarence Barker, (former) President, Irvine Company

Gensler

WHY GENSLER?

- **Global architectural firm with over 40 years in Orange County**
- **Designers of over 20 headquarters in OC and hundreds of HQs world-wide**
- **Leaders in interior design research with over 16,000 client workplace surveys in 2024**
- **Multiple active projects in the City of Santa Ana**
- **Collaborative approach with your team from OCERS Visioning 2018**
- **Extensive experience with progressive design-build**

✓ **Your Trusted Advisor!**

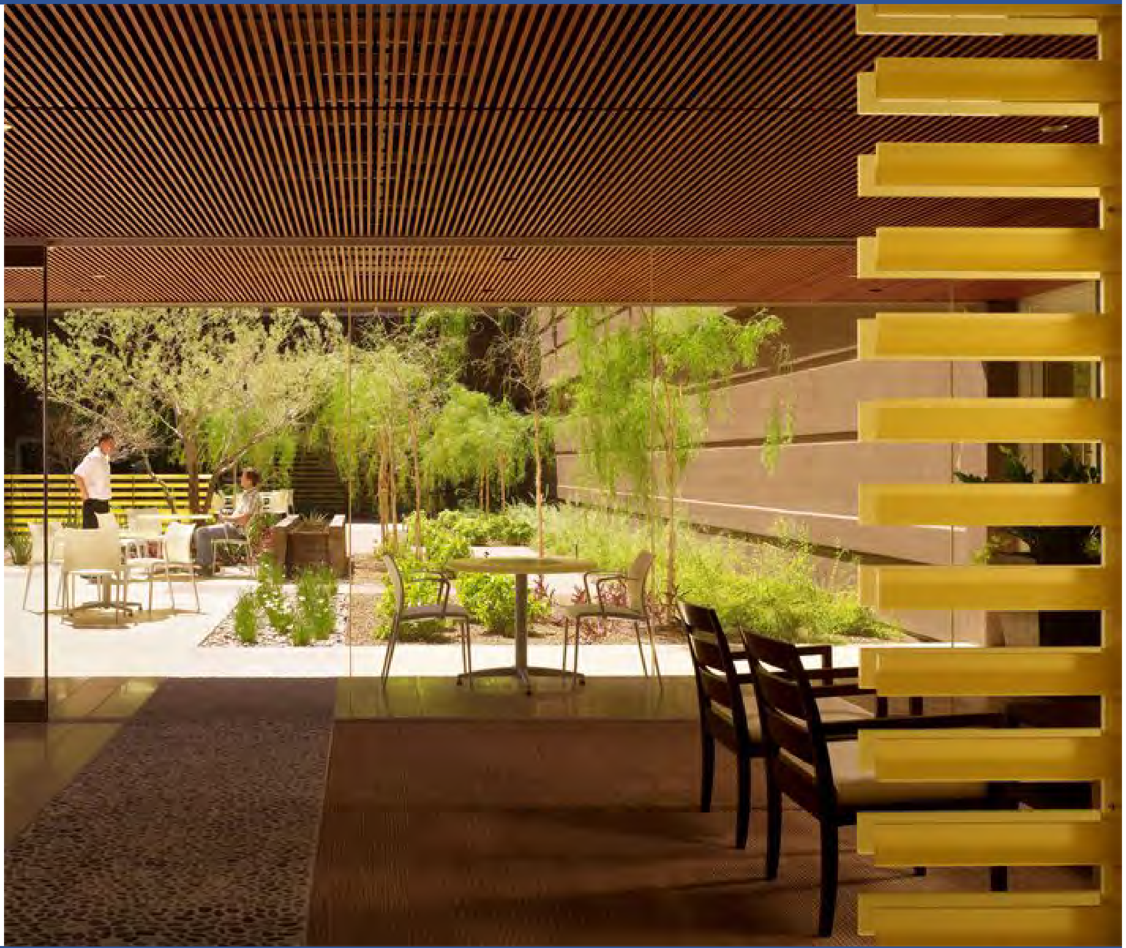
"We intentionally reinvent ourselves and lead the profession."
- Art Gensler, Founder

Gensler

PROGRESSIVE DESIGN-BUILD (PDB) DELIVERY METHOD

Advantages

- **OCERS maintains more design control than with Design-Build**
- **Program certainty for OCERS**
- **Risk Transfer from OCERS to PDB**
- **Early trade input optimizing design**
- **Constructability review & input 5 times prior to procurement and start of construction**
- **Three budget checks prior to establishing GMP**
- **OCERS controls contingency**
- **OCERS participates in all trade purchases**
- **SmartBid.com efficiently invites more subcontractors to bid yielding lower costs**



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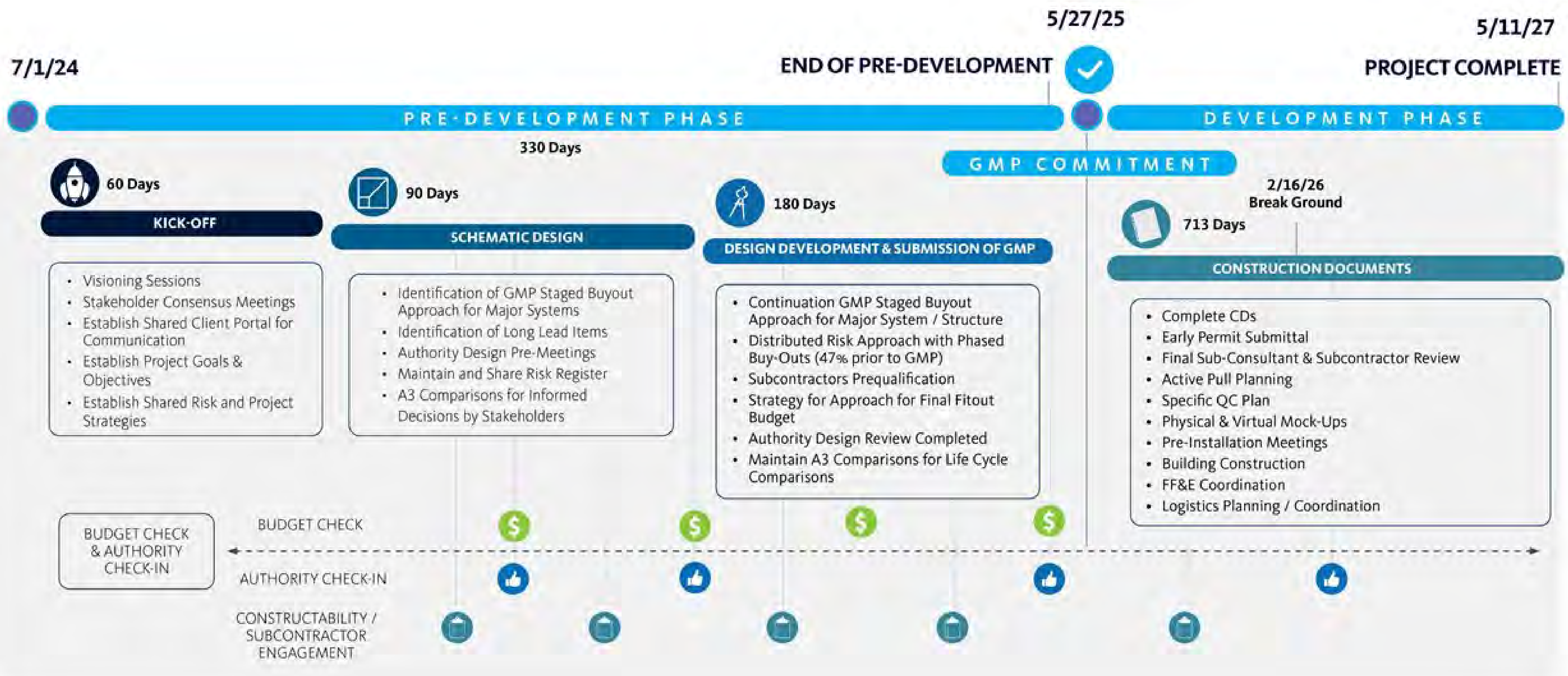
SCHEDULE // DELIVERY STRATEGY



Gensler

Future Board Actions

- Designer-Builder Entity (DBE) Contract
- City-Review-Ready Site Plan
- Targeted Building Certification level
  - leadership in energy and environmental design (LEED)
  - human health and well-being design (WELL).
- Owner's Property Liability Insurance
- GMP, project contingency and project financing
- Final Construction Documents

Building Committee's Recommendation

Approve executing a contract with Snyder Langston-Gensler as the Design/Build Entity (DBE) for the OCERS Replacement Headquarters Project (Project) with a fixed fee for comprehensive predevelopment services of $1,861,506. The contract calls for the issuance of a Guaranteed Maximum Price for the Project as then proposed by the DBE for subsequent Board approval at the end of Predevelopment.

Thank you!

Brenda Shott

Assistant CEO, Finance and Internal Operations

714-558-6201

bshott@ocers.org

ORANGE COUNTY OCERS EMPLOYEES RETIREMENT SYSTEM

www.ocers.org

@myOCERS

OCERS REPLACEMENT HQ PROJECT DBE FEES (May 28, 2024)

Line No.	Item of Work	Bernards-HOK	CW Driver-Ware Malcomb	Snyder Langston-Gensler	Swinerton-LPA
1	Pre-Development Design	$1,793,200	$968,100	$1,505,500	$1,155,000
2	Pre-Development GC	$648,590	$310,603	$356,006	$220,000
3	Total Pre-Development Fee	$2,441,790	$1,278,703	$1,861,506	$1,375,000
4	Design Fee for Development Phase as % of Construction	5.25%	2.88%	3.72%	3.90%
5	GC/Subs Insurance and Bonds Costs as % of Construction	3.01%	2.84%	3.23%	1.77%
6	GC Fee/Overhead as % of Construction	5.00%	4.67%	3.85%	4.50%
7	A/E Fees as % of GC Total Cost	7.71%	4.57%	6.76%	6.00%
8	Fee Through Schematic Design	18.04%	20.44%	20.00%	15.00%
9	Fee Through Design Development	42.31%	38.50%	45.00%	35.00%
10	Fee Through Building Permits	71.88%	83.24%	83.00%	70.00%
11	Fee Through Project Completion	100.00%	100.00%	100.00%	100.00%

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DESIGN BUILD CONTRACT
BY AND BETWEEN
ORANGE COUNTY EMPLOYEES RETIREMENT SYSTEM
AND SNYDER-LANGSTON/GENSLER
REPLACEMENT HEADQUARTERS PROJECT)

This DESIGN BUILD CONTRACT ("**Contract**") is entered into and effective on_________**2024** ("**Effective Date**"), by and between **Orange County Employees Retirement System,** a public entity organized under the laws of the State of California ("**Agency**"), and **@Design Build Entity**, a corporation organized under the laws of the State of ______________("**Design Build Entity**"). Agency and Design Build Entity may be referred to herein individually as a "**Party**" or collectively as the "**Parties**".

RECITALS

A. Agency owns and operates its administrative offices at 223 E. Wellington Avenue, Suite 100, Santa Ana, CA 92701("**Site**") and desires to design and construct the Headquarters Project, as more specifically described in **Exhibit A** ("**Project**").

B. Agency's governing board ("**Board**") has authorized Agency to solicit, and enter into a contract for design-build services with a qualified and appropriately licensed design-build entity to design and construct the Project based on the Project's Program and Site Feasibility documents, that are attached to **Exhibit A** as **Attachment 2** ("**Program and Site Feasibility Documents**") and detailed Plans and Specifications (as defined below) prepared by the design-build entity, and approved by all relevant governmental authorities and Agency.

C. On or about_______________**2023**, Agency published a Request for Qualifications for Design Build Entities, attached hereto as **Exhibit J** and incorporated herein by reference ("**RFQ**") to qualify contractors to be able to submit proposals to design and construction the Project, and after Agency qualified Design Build Entity, to the Agency issued a Request for Proposal for Design Build Services on or about February__ **2024** attached hereto as **Exhibit K** and incorporated herein by reference ("**RFP**"). On or about on or about March_ **2024**, Design Build Entity submitted a proposal, which is attached hereto as **Exhibit L** and incorporated herein by reference ("**Proposal**") and, based on Agency's review and evaluation of the Proposal, Agency determined that Design Build Entity offered the best value to Agency to design and construct the Project.

D. Agency desires that Design Build Entity design and construct the Project pursuant to the terms of this Contract, and Design Build Entity desires to design the Project consistent with the Target GMP (as defined below), solicit subcontractors for the project, and, if accepted by Agency, construct the Project within the final GMP (as defined below) and Contract Time (asdefined below), and consistent with the Contract Documents (as defined below).

E. Design Build Entity certifies and warrants that it has the experience, expertise, capability, training, and any certification(s) and/or license(s) necessary to perform all services required by the Contract Documents to fully design and construct the Project for compensation in an amount not-to-exceed the final GMP (as defined below) and within the Contract Time (as defined below), and that, if it is not sufficiently licensed to design any portion of the Work as required by applicable law, Design Build Entity shall directly hire a consultant with sufficient licensure to design that portion of the Work.

NOW THEREFORE, for and in consideration of the mutual covenants herein contained, the Parties hereto agree as follows:

AGREEMENT

1. **Incorporation of Recitals & Defined Terms.** This Contract shall be read in conjunction with all provisions of the Contract Documents (as defined below). Any capitalized term, title or phrase used in this Contract shall have the meaning provided in the Contract Documents, unless a specific meaning is contained in thisContract.

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2. **Contract Price.** Design Build Entity shall furnish the Services or Work as further described in the Contract Documents to Agency in two main phases, the Predevelopment Phase and the Development Phase with the Contract Price established as follows:

2.1. Predevelopment Phase. The parties have mutually agreed that the Design Build Entity shall be entitled to the fixed **NOT TO EXCEED** price of ____ **Dollars** (**$**__________________) ("**Contract Price**") for the Predevelopment Phase Services set forth herein, provided the services are provided within the timeframe set forth on the Project Schedule attached as Exhibit D, except as may otherwise be altered pursuant to the provisions of the Contract Documents.

2.2. Development Phase. Upon completion of the Predevelopment Phase services, the Design Build Entity shall prepare a proposed final **NOT TO EXCEED** guaranteed maximum price ("**Final GMP**") for completion of all remaining design and construction services necessary to complete the Project. The Final GMP shall be memorialized in a separate mutually agreed upon written amendment to this Contract. The Design Build Entity acknowledges and agrees that this is a Guaranteed Maximum Price as will be established pursuant to the requirements of the Contract and Design Build Entity shall not be entitled to any additional compensation unless expressly authorized by the Contract Documents. The Contract Price is broken down by stages as follows:

Stage	Total of Stage
Predevelopment Phase Services Compensation	$_____
Target GMP for Development Phase Services ("Target GMP") NOTE: Will be replaced with Final GMP (as defined below) after the Parties execute the GMP Amendment (as defined below)	$_____

2.3. Limitations on Contract Price on Effective Date.

2.3.1. The Contract Price, as of the Effective Date, includes the cost for Predevelopment Phase Services. No portion of the Target GMP is payable unless and until the Agency accepts the Final GMP prepared by Design Build Entity and after Design Build Entity completes Predevelopment Phase Services and presents Agency with a proposed Final GMP to be incorporated into a mutually agreed upon written amendment to the Contract.

2.3.2. The Target GMP is only an estimate of the GMP and sets the cost parameters towards which Design Build Entity shall perform the Predevelopment Phase Services. The Target GMP may only be adjusted upon mutual agreement of the Parties consistent with the Contract Documents. If the Parties agree to a Final GMP, then the Parties will amend the Contract Documents to replace the Target GMP with the Final GMP accepted by Agency and Agency will issue a Notice to Proceed (as defined below) for Development Phase and all remaining Design Stage/Construction Stage Services.

2.3.3. Design Build Entity acknowledges and agrees that its compensation for the performance of the Predevelopment Phase Services is fixed as of the Effective Date, and that compensation for Development Phase Services authorized only after the Parties execute the Final GMP Amendment (as defined below) and the Agency issues a Notice to Proceed for such Services.

2.3.4. DESIGN BUILD ENTITY UNDERSTANDS AND AGREES THAT AGENCY EXPRESSLY RESERVES THE RIGHT, IN ITS SOLE DETERMINATION, TO AGREE TO A FINAL GMP. DESIGN BUILD ENTITY FURTHER WARRANTS AND REPRESENTS THAT IT FULLY UNDERSTANDS AGENCY MAY TERMINATE THE WORK DURING ANY STAGE AND/OR MAY NOT AGREE TO THE PROPOSED FINAL GMP. IN ANY SUCH EVENT, AGENCY MAY OBTAIN ANY WORK FROM ANOTHER ENTITY IN AGENCY'S SOLE DISCRETION.

2.3.5. **GMP**. The GMP includes the following costs for Construction Work:

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2.3.5.1. "**Design Build Entity's General Conditions**" means the costs for activities, facilities, and services required to support the Construction Stage for the Project and manage the Site, without mark-up, as identified in Design Build Entity's proposal, which shall include only the items listed in Design Build Entity's proposal.

2.3.5.2. "**Direct Cost of Work**" means all of Design Build Entity's actual and direct costs of any Work performed, without mark-up. The Direct Cost of Work includes, as applicable:

2.3.5.2.1. Total Subcontractor(s)' costs, fees and charges for Subcontractor performed Construction Stage Services, including bond costs, and all other costs necessary for Subcontractor(s) to perform Work pursuant to the Contract Documents; and

2.3.5.2.2. Total Design Build Entity's costs, fees, charges for self-performed Construction Stage Services and all other costs necessary for Design Build Entity to perform such Work pursuant to the Contract Documents; and

2.3.5.3. **Design Costs.** All Design Build Entity's Development Phase costs that the Parties agree are fixed as of the Effective Date of the Final GMP amendment once mutually agreed to by the parties in writing.

2.3.5.4. **Costs of Construction Administration**. The costs of construction administration during the Construction Stage.

2.3.5.5. **Cost of Construction Work**. The Direct Cost of Work for Construction Stage Services.

2.3.5.6. **Bonds**. Performance Bond and Payment Bond costs calculated as the product of the percentage identified for bond costs applied to the Direct Cost of Work in Design Build Entity's Final GMP proposal and amendment if executed.

2.3.5.7. **Insurance**. Design Build Entity and every Subcontractor must bid the Project to include the costs of the required insurance consistent with the requirements of the General Conditions of Contract (**Exhibit C**).

2.3.5.8. **Overhead and Profit**.

2.3.5.8.1. Design Build Entity's mark-up for overhead and profit calculated as the product of the percentage identified for mark-up for overhead and profit applied to the Direct Cost of Work and General Conditions in Design Build Entity's proposal. Overhead and profit shall be the full compensation owed to Design Build Entity for all mark-up for Direct Cost of Work. Design Build Entity shall not be entitled to apply mark-up for overhead and profit to any cost other than the Direct Cost of Work, unless otherwise provided in the Contract Documents.

2.3.5.8.2. Subcontractor's mark-up for overhead and profit on Subcontractor performed work calculated as the product of 15% applied to the Direct Cost of the Subcontracted Work for any Change Order work.

2.3.5.9. **Allowances**. Agency may either direct that an Allowance(s) be included in the GMP (Agency Allowance) or authorize Design-Build Entity's inclusion of a requested Allowance(s) in the GMP (Design-Build Entity Allowance), in its sole and absolute

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discretion and consistent with the Contract Documents. Design Build Entity allowances are not permitted in the GMP unless expressly authorized in writing by Agency prior to submission and/or acceptance of the Final GMP. Design Build Entity shall **NOT** be entitled to mark-up for bonds, insurance, and overhead and profit on the Direct Cost of Work for allowance(s). All allowances, if any, shall at all times remain the property of the Agency and any unused balances at the end of the Project shall be returned to the Agency.

2.3.5.10. **Contingency**. Agency shall authorize the Design-Build Entity's inclusion of a Contingency in the GMP consistent with the Contract Documents. Any other Contingencies are not permitted in the GMP unless expressly authorized in writing by Agency prior to submission and/or acceptance of the Final GMP. Design Build Entity shall be entitled to mark-up for bonds, insurance, and overhead and profit on the Direct Cost of Work for use of Contingency. Any unused Contingency balances at the end of the Project shall be split between the Agency and the Design Build Entity in the percentages identified as part of the Final GMP Amendment.

2.3.6. **No Adjustment to GMP and Limitations on Escalation**.

2.3.6.1. Unless otherwise provided in the Contract Documents, once Design Build Entity accepts the GMP, Design Build Entity shall not be entitled for any reason to any increase or decrease in the Contract Price for escalation or any other increased costs associated with the Construction Stage, including, without limitation, an increase to Design Build Entity's General Conditions or increase in Subcontractor costs, except as permitted in this section and the General Conditions of the Contract (**Exhibit C**).

2.3.6.2. **Escalation for General Conditions**. If, and only if, there is an unreasonable delay in the issuance of a Notice to Proceed for the Construction Stage or an unreasonable delay in the Construction Stage caused solely by the Agency, and to the extent such delay constitutes an Excusable Delay (as defined below), will Design Build Entity be entitled to an increase in the hourly rates or other costs contained in Design Build Entity's General Conditions. Design Build Entity must demonstrate to the reasonable satisfaction of Agency that specific, individual costs in Design Build Entity's General Conditions have increased, and that those increases correspond to the change in the current Consumer Price Index of the Bureau of Labor Statistic (Construction) applicable to the geographic area in which the Project is located for the time period in which the delay occurred. Design Build Entity shall only be entitled to the pro- rata difference between: (i) the price of each specific, individual costs of Design Build Entity's General Conditions that Design Build Entity demonstrated have escalated during the delay period; and (ii) the costs when the Parties initially established the GMP. Any additional compensation hereunder shall be conditioned upon Design Build Entity's compliance with all applicable provisions of the Contract Documents related to adjustments to the Contract Price and Contract Time.

2.3.6.3. **Subcontractor Escalation**. Design Build Entity shall not be entitled to additional payment for Subcontractor performed Construction Stage Services if the requested increase results from an escalation of Subcontractor costs compared to the Subcontractor's original bid during GMP Preparation (as defined below). Design Build Entity shall be entitled to such escalation costs only if: (i) the Work is suspended consistent with the provisions of the Contract Documents; and/or (ii) there is a delay in the issuance of a Notice to Proceed by Agency or a delay in the Construction Stage caused solely by the Agency or there is a delay which constitutes an Excusable Delay, and any such delay is not the fault of Design Build Entity or a Subcontractor. In either event, Design Build Entity must satisfy the requirements of the "Materials Escalation" section below if Design Build Entity seeks escalation costs for materials. Any additional compensation hereunder shall be conditioned upon Design Build Entity's compliance with all applicable provisions of the Contract Documents related to adjustments to the Contract Price and Contract Time. These provisions shall be included in any Subcontractor subcontract.

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2.3.6.4. **Materials Escalation**. Design Build Entity may seek additional costs for escalation of materials after the establishment of the Final GMP, if, and only if, Design Build Entity demonstrates **all** the following conditions are satisfied:

2.3.6.4.1. **Condition 1**. Design Build Entity establishes that the escalation was caused by: (i) a force majeure as identified in the General Conditions of Contract (**Exhibit C**); or (ii) an event that would qualify as an event for Compensable Delay;

2.3.6.4.2. **Condition 2**. The escalated cost did not result from any action of Design Build Entity, including, without limitation, failing to properly or diligently plan, sequence, schedule, or coordinate the Work;

2.3.6.4.3. **Condition 3**. Design Build Entity or the applicable Subcontractor timely ordered and/or purchased the materials at issue;

2.3.6.4.4. **Condition 4**. Design Build Entity's material costs, as reflected in Subcontractor bids, were reasonable at the time that Design Build Entity solicited Subcontractors during the Subcontractor Procurement Process;

2.3.6.4.5. **Condition 5**. The escalation of a particular material is significant. The term "significant" herein shall mean when the price of an item increases by 3% or more from the later of the following: (i) the date Design Build Entity Accepts the GMP; or (ii) the date that Design Build Entity enters a subcontract with a Subcontractor purchasing the material or a contract with a supplier to furnish that material.

2.3.6.4.6. **Condition 6**. Design Build Entity demonstrates an actual increase in the cost of materials after the Parties agreed to the GMP reflected in Design Build Entity's material cost paid either at time of purchase or delivery, whichever is earlier;

2.3.6.4.7. **Condition 7**. An actual price increase has occurred and can be substantiated by the Engineering News-Record 20-City Average Material Cost Index for the material at issue that demonstrates the increase in price of the material during the period of the delay; **and**

2.3.6.4.8. **Condition 8**. Design Build Entity complies with all procedures applicable to Change Orders or Claims.

If Design Build Entity satisfies all these conditions, Design Build Entity shall be entitled to compensation for demonstrated escalation costs. The escalation shall be calculated as the difference between the costs Design Build Entity would have paid, and the escalated costs of materials. Design Build Entity shall require that all subcontracts with Subcontractors include this provision, or that all Subcontractors review, acknowledge, and agree to these requirements.

3. **The Work.** Payment of the above Contract Price shall be Design Build Entity's total compensation to perform all Work for the Project pursuant to the requirements of the Contract Documents, which are part of the Project to engineer, design, procure, demolish, construct, install, program, field test and commission the Project ("**Services**" or "**Work**"):

3.1. Design.

3.1.1. Definitions.

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3.1.1.1. The term "**Drawings"** shall mean the graphic and pictorial portions of the deliverables produced by Design Build Entity during the Design Stage showing the design, location, and dimensions of the Work, generally including, without limitation, plans, elevations, sections, details, schedules, and diagrams.

3.1.1.2. The term "**Specifications**" shall mean the written requirements that complement the Drawings for materials, equipment, systems, standards, execution, and workmanship for the Construction Stage Services, and performance of related services. The Specifications include both the "**Technical Specifications**" (Divisions 2-49) and the "**Division 1 Specifications**" (General Requirements). The Specifications are included in the Construction Documents and prepared by Design Build Entity and approved by Agency.

3.1.1.3. The term "**Construction Documents**" (or "**Plans and Specifications**" or "**CD(s)**") shall mean means the final, permitted Drawings and Specifications, as well as shop drawings, reports, schedules, diagrams, and samples, fully completed by Design Build Entity that Design Build Entity shall utilize to perform the Construction Stage Services for the Project, and that: (i) comply with all requirements of the Contract Documents; (ii) are approved by Design Build Entity's architect of record and applicable subconsultants; (iii) are accepted by Agency (as applicable); and (iv) have received all required approvals and permits from authorities having jurisdiction over the Project (as applicable).

3.1.2. **General Description of Design Services.** The Early Design Stage, Schematic Design Stage, Design Development Stage, 50% Construction Documents Stage and 100% Construction Documents Stage, and GMP Preparation, as further described in **Exhibit B,** may be referred to collectively as "**Design Stage Services**" or the "**Design Stage**".

3.2. **Build (Construction Stage).** Design Build Entity shall be responsible for the construction, programming, field testing and commissioning of the Project at the Site, including, without limitation, incorporating and ensuring compatibility of all appurtenant and necessary components for a complete and fully operational system(s). All the work of the Project shall be based on the Construction Documents that are to be reviewed by Agency and, if required, approved by all governmental authorities having jurisdiction over the Project ("**AHJ(s)**"). This portion of the Work may be referred to as the "**Construction Stage**" and/or "**Construction Stage Services**".

4. **Contract Price Breakdown / Contract Time / Project Schedule.** The Work established by the Final GMP amendment will be performed in phases as identified in **Exhibit D** with the Contract Price payable in each phase consistent with the requirements of the Contract, including, without limitation, the General Conditions of Contract (**Exhibit C**). Work for the Project and each milestone shall be completed within the time specified in **Exhibit D** attached hereto ("**Project Schedule**") from the date specified in Agency's Notice(s) to Proceed (as defined below), as applicable to the Project or milestone. The time for the performance of the Work, or portion thereof, shall be the "**Contract Time**," which shall only be adjusted consistent with the terms of the Contract Documents**.**

5. **Contract Documents**

5.1. **Intent**. The Contract Documents (as defined below) are complementary, intended to be read cooperatively, and what is required by one shall be as binding as if required by all. Design Build Entity shall be required to perform any work to the extent consistent with, and reasonably inferable from, the Contract Documents.

5.2. **Contract Documents and Interpretation (Order of Precedence)**. The Contract includes only the documents listed below, which are incorporated herein by this reference ("**Contract Documents**"). By signing this Contract, Design Build Entity agrees to comply with all Contract Documents. The Contract Documents are listed below in order of precedence and if there is a conflict between terms of the Contract Documents, that order of precedence shall apply:

5.2.1. Authorized changes to the Contract, the most recent taking priority, including, without limitation, amendments and Change Orders;

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5.2.2. **Exhibit G** (List of Plans and Specifications), in the following order:
- 5.2.2.1. Division 1 Specifications
- 5.2.2.2. Technical Specifications
- 5.2.2.3. Drawings

5.2.3. Contract
5.2.4. **Exhibit C** (General Conditions)
5.2.5. **Exhibit B** (Design Stage Services Scope of Work)
5.2.6. **Exhibit A** (Description of Project & Bridging Documents)
5.2.7. **Exhibit H** (Subcontractor Procurement Process)
5.2.8. **Exhibit K** (RFP)
5.2.9. **Exhibit J** (RFQ)
5.2.10. All remaining Contract Documents (in no particular order)
- 5.2.10.1.1. Exhibit M - OCERS responses to RFP questions dated ____, 2024
- 5.2.10.1.2. Exhibit L DBE's Proposal dated _________, 2024
- 5.2.10.2. **Exhibit D** (Project Schedule)
- 5.2.10.3. **Exhibit E** (Construction Cost Worksheet) ("**Construction Cost Worksheet**")
- 5.2.10.4. **Exhibit F** (Agency's Rules and Regulations)
- 5.2.10.5. **Exhibit I** (Bonds & Certifications)
  - 5.2.10.4.1. Non-collusion Declaration
  - 5.2.10.4.2. Prevailing Wage Certification
  - 5.2.10.4.3. Workers' Compensation Certification
  - 5.2.10.4.4. Public Works Contractor Registration Certification
  - 5.2.10.4.5. Certification Regarding Workers' Compensation
  - 5.2.10.4.6. Drug-Free Workplace / Tobacco-Free Environment Certification
  - 5.2.10.4.7. Asbestos & Other Hazardous Materials Certification
  - 5.2.10.4.8. Conflict of Interest Certification
  - 5.2.10.4.9. Iran Contracting Act Certification
  - 5.2.10.4.10. Executive Order N-6-22 Certification
  - 5.2.10.4.11. Performance Bond (Agency's Form)
  - 5.2.10.4.12. Payment Bond (Agency's Form)
  - 5.2.10.4.13. Insurance Certificates and Endorsements

5.3. **Technical Specifications and Drawings**. With respect to the Technical Specifications and Drawings, the most recent, Agency-accepted shall take priority; provided, however, that the Construction Documents shall take priority over all other Drawings and Specifications.

5.4. **No Order Indicated / Conflict**. Where no order of precedence is stated, or in cases of conflict, the greater quantity and/or higher standard of workmanship shall apply unless Agency expressly accepts in writing a lesser quantity or lower quality of workmanship and the Contract Price is adjusted accordingly. The decision of Agency in the matter shall be final. If it is not possible to determine the greater quantity and/or higher standard of workmanship, the more expensive of the requirements shown or specified shall be controlling.

5.5. **Differences from Solicitation Documents.** The Parties acknowledge that the Contract Documents may differ in some respect(s) from the RFQ, RFP, Proposal, and documents attached thereto. The Proposal is **NOT** part of the Contract Documents and is attached hereto for reference only. Unless agreed to in writing by the Parties, the Design-Built Entity's Proposal shall not prevail over any contrary provision in the Contract Documents.

5.6. Interpretive Provisions.

5.6.1. Unless otherwise stated in the Contract Documents, technical words and abbreviations are used in accordance with commonly understood design/engineering and construction industry meanings. Non-technical words and abbreviations are used in accordance with their commonly understood meanings.

5.6.2. The Contract Documents may omit modifying words such as "all" and "any" and articles such as

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"the" and "an" but the fact that a modifier or an article is absent from one statement and appears in another is not intended to affect the interpretation of either statement. The use of the word "including" when following any general statement, shall not be construed to limit such statement to specific items or matters set forth immediately following such word or to similar items or matters, whether or not non-limiting language (such as "without limitation", "but not limited to", or words of similar import) is used, but shall instead be read as including non-limiting language and be deemed to refer to all other items or matters that could reasonably fall within the broadest possible scope of that general statement.

5.6.3. The terms "shall", "will", or "must" are mandatory and "may" is permissive.

5.6.4. Whenever the context so requires, the use of the singular number shall be deemed to include the plural and vice versa. The captions and headings of the various subdivisions of the Contract Documents are intended only for reference and convenience and in no way define, limit, or prescribe the scope or intent of the Contract Documents or any subdivision thereof.

5.7. **Integration/ Modification.** The Contract Documents and any documents specifically incorporated by reference are completely integrated as the complete and exclusive statement of the terms of this Contract. This Contract supersedes all previous contracts, agreements, and/or communications, both oral and written, and constitutes the entire understanding of Agency and Design Build Entity. No extrinsic evidence whatsoever shall be admissible or used to explain or supplement the terms of this Contract, Contract Documents, or any items incorporated by reference. No changes, amendments or alterations shall be effective unless in writing, signed by both Parties, and unless provided otherwise by the Contract Documents.

6. **Notice(s) to Proceed (NTP(s)).** Agency will issue one or more notice(s) to proceed ("**Notice(s) to Proceed**" or "**NTP(s)**") for the Predevelopment Phase Services, and a Notice(s) to Proceed for Construction Stage Services, at which time Design Build Entity shall proceed with the Work. For Construction Stage Services, Agency reserves the right to issue a Notice to Proceed for construction for each Site individually, for a group of Site, or for all Site, in its sole discretion. If Agency issues a Notice to Proceed for each Site individually or for a group of Site, the Parties shall make necessary adjustments to the Project Schedule, and amend this Contract accordingly. Agency reserves the right to issue one or more Notice(s) to Proceed for stage of the Project, or a portion thereof. The Parties specifically acknowledge that any Work which requires AHJ approval shall not commence until all AHJ approval(s) has(ve) been obtained. Design Build Entity shall only be authorized to perform Work as indicated in the particular Notice to Proceed. The time to complete the Work authorized by a particular Notice to Proceed shall be as indicated in the Notice to Proceed.

7. **Liquidated Damages.** Time is of the essence for all Work to be performed. It is hereby understood and agreed that it is and will be difficult and/or impossible to ascertain and determine the actual damage that Agency will sustain in the event of and by reason of Design Build Entity's delay; therefore, pursuant to Government Code section 53069.85 and Public Contract Code section 7203, Design Build Entity shall forfeit and pay to Agency the following sum(s) as liquidated damages ("**Liquidated Damages**"):

7.1. **Completion of Predevelopment Phase Services.** **Two Thousand Dollars ($2,000)** per day as Liquidated Damages for each and every day's delay beyond the time herein prescribed on approved Project Schedule for the completion of the Predevelopment Phase Services (i.e., completion and approval of the Design Development), as such time may be extended in accordance with the provisions of the Contract Documents.

7.2. **Project Completion.** A mutually agreed upon amount per day shall be established and memorialized in the Final GMP amendment as Liquidated Damages for each and every day's delay beyond the Contract Time to complete all the Work at the Site for the beneficial use by the Agency. If there are different deadlines for completion of the Work at an individual Site(s), or group of Sites, as set forth in the Project Schedule, Agency may assess liquidated damages cumulatively as set forth below if Design Build Entity fails to complete all the Work for the individual Site(s), or group of Sites, within the Contract Time as applicable.

7.3. Each portion of the Liquidated Damages shall be calculated cumulatively. For example, if Design Build Entity is late in completing two milestones and the entire Project, Design Build Entity will forfeit and pay

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three separate Liquidated Damages amounts.

7.4. It is hereby understood and agreed that neither the total cumulative Liquidated Damages amount, nor any portion of the Liquidated Damage amount, are penalties.

7.5. Agency may deduct Liquidated Damages from money due or that may become due Design Build Entity under this Contract. Design Build Entity's forfeiture of Liquidated Damages to Agency, and Agency's right to retain Liquidated Damages, are as indicated in Government Code section 53069.85 and as indicated herein and in the General Conditions.

7.6. Liquidated Damages are automatically, and without notice of any kind, forfeited and payable by Design Build Entity upon the accrual of each day of delay. Neither Agency's failure nor delay in deducting Liquidated Damages from payments otherwise due Design Build Entity, nor Agency's failure or delay in notifying Design Build Entity of the forfeiture and payment of Liquidated Damages, shall be deemed a waiver of Agency's right to Liquidated Damages and/or Agency's right to withhold Liquidated Damages from any amounts that would otherwise be payable to Design Build Entity.

7.7. Design Build Entity and its surety shall be liable for and pay to Agency the entire amount of Liquidated Damages including any portion that exceeds the amount of the Contract Price then held, retained or controlled by Agency.

7.8. Liquidated Damages shall be in addition, and not in lieu of, Agency's right to charge Design Build Entity for Agency's cost of completing or correcting items of the Work.

Initials: Agency_______ Design Build Entity _______

8. **Insurance/Bonds.** Design Build Entity shall not commence any Work under this Contract until Design Build Entity has submitted and Agency has approved the endorsement(s) of insurance required under the General Conditions of Contract (**Exhibit C**) and Agency has issued a Notice to Proceed. Design Build Entity shall not perform any Work during the Construction Stage until Design Build Entity has submitted and Agency has approved the performance bond and the payment (labor and material) bonds. Design Build Entity shall submit updated bonds as the Parties include compensation for additional Construction Stage Services of the Project.

9. **CEQA.** Agency and Design Build Entity recognize that the Project activities contemplated by this Contract are subject to environmental review under the California Environmental Quality Act ("**CEQA**"), and that Agency, for the Project and its future use, must comply with the CEQA requirements as set forth in CEQA and in 14 California Code of Regulations sections 15000, et seq. ("**CEQA Guidelines**"). Pursuant to CEQA Guidelines Section 15004(b)(2)(A), the Parties acknowledge that (i) approval and execution of this Contract by the Parties does not constitute Agency authorizing, approving, or awarding a "project" as defined by CEQA, and (ii) the Construction Stage of the Project shall not commence until Agency's Board provides Design Build Entity with a specific notice to proceed authorizing construction activity. In the event Agency does not issue such a Notice to Proceed authorizing construction activity and instead issues a notice of suspension or notice of termination, Agency will pay for Design Build Entity's undisputed and documented design and/or planning services rendered to the date of that notice.

10. **CARB Compliance.** To the extent applicable, Design Build Entity, shall comply, and shall ensure all subcontractors comply, with all requirements of the most current version of the California Air Resources Board ("**CARB**") including, without limitation, all applicable terms of Title 13, California Code of Regulations Division 3, Chapter 9 and all pending amendments ("Regulation").

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10.1. Throughout Project, and for three (3) years thereafter, Design Build Entity shall make available for inspection and copying any and all documents or information associated with Design Build Entity's and subcontractors' fleet including, without limitation, the CRCs, fuel/refueling records, maintenance records, emissions records, and any other information the Design Build Entity is required to produce, keep or maintain pursuant to the Regulation upon two (2) calendar days' notice from the Agency. Design Build Entity shall be solely liable for any and all costs associated with complying with the Regulation as well as for any and all penalties, fines, damages, or costs associated with any and all violations, or failures to comply with the Regulation in force as the Date of this Contract. Design Build Entity shall defend, indemnify and hold harmless the Agency, its officials, officers, employees and authorized volunteers free and harmless from any claims, liabilities, costs, penalties or interest arising out of any failure or alleged failure to comply with the Regulation.

11. **Inspector of Record.** Design Build Entity hereby acknowledges that Agency may retain a Project Inspector(s) ("**Inspector**" or "**IOR**") and, to the extent applicable to the scope of work, the Agency and IOR have authority to approve and/or stop Work if Design Build Entity's Work does not comply with the requirements of the Contract, Title 24 of the California Code of Regulations, or all applicable laws. Design Build Entity shall be liable for any delay caused and extra work required by its non-compliant Work. Design Build Entity shall not be liable for delay to the extent caused by Agency, Inspector or their agents.

12. **Inspection of Work.** Inspection and acceptance of the Work shall be performed by:

12.1. The Inspector with whom Agency will contract at or prior to Design Build Entity's commencement of construction of the Project;

12.2. The director of construction for Agency and/or designee ("**Agency Representative**");

12.3. Agency's program architect ("**Architect**"), if applicable.

13. **Construction Management.** Design Build Entity recognizes that Agency reserves the right to obtain the services of a construction manager ("**Construction Manager**") for this Project. The Construction Manager, if any, would be authorized to give Design Build Entity Services authorizations, and issue written approvals and Notices to Proceed on behalf of Agency. Agency reserves the right to designate a different Construction Manager at any time. Agency shall provide forty-eight (48) hours' notice to Design Build Entity if Agency designates a different Construction Manager. Any task, including, but not limited to, reviews or approvals that Agency may perform pursuant to this Contract may be performed by the Construction Manager, unless that task indicates it shall be performed by Agency's Board.

14. **Key Personnel.** The following individuals are Design Build Entity's key personnel, none of whom can be replaced unless approved by Agency as provided herein (such approval not to be unreasonably withheld or delayed) :

Project Director	
Estimator (Subcontractor Bidding)	
Superintendent	
Design Principal-in-Charge	
Design Project Manager	
Project Architect	
Structural	
Civil	
Landscape Architect	
Mechanical & Plumbing	
Electrical	

15. **Classification of Design Build Entity's License.** Design Build Entity hereby acknowledges that it currently holds valid____________________Contractor's license(s) issued by the State of California, Contractor's State Licensing Board, in accordance with division 3, chapter 9, of the Business and Professions Code and in the classification called for in the Contract Documents.

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16. **Licensing**. Design Build Entity represents that it, its employees, consultants, and all its subcontractors have all licenses, permits, qualifications, and approvals of whatever nature that are legally required to perform the work required by the Contract Documents, and that such licenses and approvals shall be maintained throughout the term of the Contract.

17. **Authority of Design Build Entity's Representative.** Design Build Entity hereby certifies that its legal representative(s) on the Project and the person(s) it employees as the Project Manager has the authority to act on behalf of and bind Design Build Entity; provided, however, that such employees have no authority whatsoever to bind Design Build Entity by way of oral agreement.

18. **Certification.** By signing the Contract, the Parties certify, under penalty of perjury, that all the information provided in the Contract is true, complete, and correct, to the best of its knowledge at the time it signs the Contract. If, at any time after signing the Contract, it becomes known that the information provided in the Contract is no longer true, complete, and correct, each Party shall have a duty to provide the updated or differing information.

19. **Notice.** Any notice required or permitted to be given under this Contract shall be deemed to have been given, served, and received if given in writing and either personally delivered or sent by overnight delivery service addressed as follows:

AGENCY Orange County Employees Retirement System	**DESIGN-BUILD ENTITY** @Design Build Entity
ATTN: ______________________ Email: : ______________________	ATTN: ______________________ Email: : ______________________
With a copy to: Manuel Serpa Esq. General Counsel PO Box 1229 Santa Ana, CA 92702 Email: mserpa@ocers.org	**With a copy to:** ATTN: Email: : ______________________

Any notice personally given shall be effective upon receipt. Any notice sent by overnight delivery service shall be effective the business day next following delivery thereof to the overnight delivery service.

20. **Information regarding Design Build Entity.**

Type of Business Entity:
_____Individual
_____Sole Proprietorship
_____Partnership
_____Limited Partnership
_____Corporation
_____Limited Liability Company
_____Other: ________________

Employer Identification and/or Social Security Number

NOTE: United States Code, title 26, sections 6041 and 6109 require non-corporate recipients of $600.00 or more to furnish their taxpayer identification number to the payer. The United States Code also provides that a penalty may be imposed for failure to furnish the taxpayer identification number. In order to comply with these rules, Agency requires your federal tax identification number or Social Security number, whichever is applicable.

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ACCEPTED AND AGREED on the date indicated below:

Dated:________________________________, 2022

Orange County Employees Retirement System

Signature:_____________________________________
Print Name: ___________________________________
Print Title: ___________________________________
Address: ______________________________________

Telephone: ____________________________________
E-Mail: ________________________________

Dated:________________________________, 2022

@Design Build Entity
Signature:_____________________________________
Print Name: ___________________________________
Print Title: ___________________________________
CA Contractor License No.: ______________________
Architect License: ______________________________
Engineer License: ______________________________
DIR Registration No.: ___________________________
Design Build Entity Local Representative:
Address: ______________________________________

Telephone:_____________________________________
Facsimile:_____________________________________
E-Mail: _______________________________________

Subcontractor License Information

Architect License:

Mechanical Engineer License:

Electrical Engineer License:

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EXHIBIT A

DESCRIPTION OF PROJECT & SCOPE OF WORK

1. **General Description.** Design Build Entity shall perform all Work to design and construct the Project pursuant to the Contract Documents and subject to this **Exhibit A**. The Design Build Entity's initial scope of work for the Predevelopment Phase Services for the fixed, not to exceed fee, set forth in the Contract, shall be as attached hereto in Exhibit **A, Attachment 1.**

2. **Description of the Project.** The Project generally consists of the design and construction of the following:

   2.1. OCERS desires to construct on the Land a new headquarters office building which will encompass a two-story office building of approximately 71,000 square feet, to include a board room with public seating capacity of 70 persons and on-site surface parking on Parcels 1 and 2.

3. **Program and Site Feasibility Documents.** Agency has attached the Program and Site Feasibility Documents in **Attachment 2** to this **Exhibit A.** Design Build Entity's Predevelopment Phase and Development Phase Services shall at all times be consistent with the Program and Site Feasibility documents unless otherwise approved in writing by the Agency. Any conflicts between and deliverable prepared by Design Build Entity, including the final Drawings and Specifications, shall be corrected at no cost to Agency.

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ATTACHMENT 1
TO EXHIBIT A

PREDEVELOPMENT PHASE SCOPE OF WORK

[To be Attached]

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ATTACHMENT 2
TO EXHIBIT A

PROGRAM AND SITE FEASILBITY DOCUMENTS

[Begins on the Following Page]

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EXHIBIT B

DESIGN STAGE SERVICES SCOPE OF WORK

1. **Design Services**

1.1. This **Exhibit B** sets forth Design Build Entity's obligations for Design Services for both the Predevelopment Phase Services and the Development Phase Services, subject to any limitation on approvals as set forth in the Contract Documents.

1.2. During the Design Stage and during the Construction Stage of the Project, Design Build Entity will meet with Agency to review the Program and Site Feasibility Documents, the Predevelopment Phase deliverables, the Project Schedule, conceptual documents, quality assurance plan and the basis of design.

1.3. During the Design Stage and during the Construction Stage of the Project, Design Build Entity will meet with Agency to review equipment, scope of work, and installation plans that relate to the design and construction of the Project.

1.4. During the Work, and at least weekly, Design Build Entity will meet so that Design Build Entity may provide reports to Agency of the general status and progress of the Work, and to review the general status and progress of the Work.

1.5. Although the Parties acknowledge that Design Build Entity's Services are not completely severable between design, procurement, installation, construction, commissioning, and training, the following scope of Services will be generally referred to as the Services or Work that Design Build Entity shall perform during the Design Stage and, when the Design Stage is associated with construction, some of that Work during the Construction Stage of the Project, as applicable based on the Project as indicated in and consistent with the Construction Documents.

1.6. Scope, Responsibilities, and Services of Design Build Entity

1.6.1. Design Build Entity shall provide Services that shall comply with professional engineering standards, recognized industry standards professional skill and judgment, and applicable requirements of federal, state, and local law. Design Build Entity shall, at its sole cost and expense, perform any Design Services to correct errors and/or omissions in any deliverable submitted to Agency, or to perform revisions requested by Agency as allowed by the Contract Documents.

1.6.2. Design Build Entity agrees to design and construct the Project in consideration for Agency's payment up to the Contract Price, which may only be adjusted pursuant to the provisions of the Contract Documents.

1.6.3. To the extent not already performed by Design Build Entity during the solicitation process for the Project, Design Build Entity shall utilize building components that provide Agency the best value based on initial cost, life expectancy, cost of operation and maintenance.

1.6.4. Design Build Entity shall prepare and update at each document submittal milestone the detailed estimates of cost of construction to substantiate that the Project will not exceed the Contract Price.

1.6.5. Prepare and update monthly the detailed Project Schedule to confirm the Project delivery within the milestones in **Exhibit D**.

1.6.6. Design Build Entity acknowledges that all California public entities are now obligated to develop and implement storm water requirements.

1.6.7. Design Build Entity is responsible to include in its schedule Agency quality assurance reviews of deliverables prepared during Design Stage Services.

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1.6.8. During the course of the Work, upon Agency's reasonable request, Design Build Entity shall provide reports to Agency of the general status and progress of the Work appropriate for dissemination to community and end-users. Reports shall cover, without limitation, budget, schedule, scope, quality and communication.

1.6.9. Design Build Entity shall receive written approval by Agency before proceeding further with the Design Stage and the Construction Stage.

1.6.10. Design Build Entity is to design the Project towards, and not-to-exceed, the Target GMP. At the conclusion of each stage of the Design Stage, Design Build Entity shall prepare and submit to Agency an estimate for the cost of the Construction Stage of the Project ("**Cost Estimate**"). Design Build Entity acknowledges that the purpose of the estimate(s) is to ensure that the cost of the Construction Stage Services shall not exceed the Target GMP. If there is a Contingency, Contingency preparation and use shall comply with the Contract Documents. If at any time during Design Stage Services, Design Build Entity believes that the cost of Construction Stage Services shall exceed the cost indicated in the Contract Price, Design Build Entity shall immediately notify Agency. **IF, AT ANY TIME, DESIGN BUILD ENTITY'S COST ESTIMATE(S) SUBMITTED TO AGENCY EXCEEDS THE TARGET GMP, THEN DESIGN-BUILD ENTITY SHALL REDESIGN THE PROJECT CONSISTENT WITH THE SCOPE OF THE PROGRAM AND SITE FEASIBILITY DOCUMENTS TO BRING THE COST ESTIMATE INTO ALIGNMENT WITH THE TARGET GMP AT NO ADDITIONAL COST TO AGENCY; PROVIDED, HOWEVER, THAT DESIGN-BUILT ENTITY MAY BE ENTITLED TO ADDITIONAL COMPENSATION FOR DESIGN SERVICES IF THE AGENCY MATERIALLY INCREASES THE SCOPE OF WORK FOR THE PROJECT AFTER THE EFFECTIVE DATE.**

1.6.11. Design Build Entity shall maintain consistency of formatting all documents during the Design Stage and during the Construction Stage throughout for all engineering disciplines and subcontractors.

1.6.12. Design Build Entity shall contract for or employ at Design Build Entity's expense, consultant(s) necessary for completion of its Services on the Project which may include architects, mechanical, electrical, and structural, as necessary, licensed as required by the State of California. Nothing in the foregoing procedure shall create any contractual relationship between Agency and any consultant employed by Design Build Entity under terms of the Contract.

1.6.13. Design Build Entity is responsible for all areas of contract administration, including but not limited to Document Controls, Project Cost Controls, Project Scope control, Schedules, Communication, Quality Assurance and Control, and Value-Engineering Studies (if applicable). All documents shall be available to Agency in PDF digital format. Design Build Entity shall review on going contract administration and deliverables during the Construction Stage with Agency prior to commencement of any construction Work. Submittals and documents submitted by Design Build Entity shall be in a format accessible by Agency.

1.6.14. Agency shall provide to Design Build Entity information and documentation for use in preparation of the Design that Agency currently has related to the Site including geotechnical reports, topographic surveys, and related items. If Design Build Entity believes that the information or documentation Agency provides is insufficient for purposes of design or if Design Build Entity believes it needs additional information, including a topographical survey; geotechnical report; structural, mechanical, and/or chemical tests; tests for air and/or water pollution; test borings; test pits; determinations of soil bearing values; determinations of the location of all subsurface utilities; percolation tests; ground corrosion tests; resistivity tests; tests for hazardous materials; tests for anticipating subsoil conditions; and/or other tests reasonably related to performance of the Project, Design Build Entity shall inform Agency of that fact and the Parties shall mutually agree on the items required and the process and responsibility to procure and pay for those items.

1.6.15. Design Build Entity shall coordinate with Agency personnel and/or its designated representatives as may be requested and desirable, including with other professionals employed by Agency for the design, coordination, or management of other work on the Site.

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1.6.16. Where applicable, Design Build Entity shall identify authorities having jurisdiction over essential building and design elements and coordinate with and implement the requirements of AHJs or their authorized agents, including, without limitation, State and local fire marshal(s) or departments, county and city health inspectors and any regulatory office or agency that has authority for review and supervision of the Project or Site.

1.6.17. As required, Design Build Entity shall provide Services required to obtain authorities having jurisdiction's (e.g., City, County, etc.) approval for off-Site work related to the Project, if applicable.

1.6.18. Design Build Entity shall coordinate with all Inspector(s).

1.6.19. Design Build Entity shall use reasonable efforts to provide pictures downloaded to computer files, updated as requested by Agency, that Agency may use on its website. Pictures shall be limited to Design Build Entity's Project scope.

1.6.20. Design Build Entity Deliverables shall include but are not limited to the following:

1.1.1.1. Design Stage Deliverables

1.1.1.1.1. Construction Documents (50% and 100%) at time of submittal to the applicable authority having jurisdiction;

1.1.1.1.2. Cost Estimates with supporting cost documentation;

1.1.1.1.3. Final, approved Construction Documents;

1.1.1.1.4. At 100% Construction Documents, Design Build Entity shall provide an updated final Cost Estimate to perform Construction Stage Services for the Project with documentation supporting that cost, broken down by scope of work (Subcontractor and self-performed), line-item cost for Design Build Entity's General Conditions, and mark-ups;

1.1.1.1.5. Final Project Schedule and, if applicable, phasing plan for Construction Stage; and

1.1.1.1.6. Schedule of Values

1.1.1.2. Construction Stage Deliverables:

1.1.1.2.1. Project Management Plan

1.1.1.2.1.1. Update as required

1.1.1.2.2. Site Specific Safety Plan

1.1.1.2.2.1. Safety Site Inspections

1.1.1.2.2.2. Site Inspections

1.1.2. Monthly Project status report with progress photos, every month.

1.1.3. As part of the Services, Design Build Entity is **NOT** responsible for the following, however, it shall coordinate and integrate its Work with any of the following information and/or services provided by Agency:

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1.1.3.1. Ground contamination or hazardous material analysis.

1.1.3.2. Any asbestos and/or lead and/or any other Environmentally Regulated Materials (ERM) testing, specifications, design, or reports and any required remediation.

1.1.3.3. Inspector Fees.

1.2. Design Build Entity Staff

1.2.1. Design Build Entity has been selected to perform the Services herein because of its skills and expertise.

1.2.2. Design Build Entity shall not change any of the key personnel without prior written approval by Agency, unless said personnel cease to be employed by Design Build Entity. In either case, Agency shall be allowed to interview and approve replacement personnel. Such approval shall not be unreasonably withheld or delayed.

1.2.3. If any designated lead or key person fails to perform to the reasonable satisfaction of Agency, then upon written notice Design Build Entity shall have five (5) days to remove that person from the Project and replace that person with one reasonably acceptable to Agency.

1.2.4. Design Build Entity agrees that any Drawings and/or Specifications included in the Services shall be prepared under the supervision of licensed personnel, and that licensed personnel shall be in "responsible charge" of persons who observe the construction.

1.3. Ownership of Data

1.3.1. The Contract creates a non-exclusive and perpetual license for Agency to use, at its discretion, all plans, including, but not limited to, record drawings, specifications, and estimates that Design Build Entity or its consultants, prepares or causes to be prepared pursuant to this Contract, limited to this Work.

1.3.2. Design Build Entity retains all rights to all copyrights, designs and other intellectual property embodied in the plans, record drawings, specifications, estimates, and other documents that Design Build Entity or its consultants prepares or causes to be prepared pursuant to this Contract.

1.3.3. Design Build Entity shall perform the Services and prepare design documents under the Contract with the assistance of Computer Aided Design Drafting ("**CADD**") (e.g., Revit or AutoCAD) Technology, utilizing a program suite acceptable to the Agency. Design Build Entity shall deliver the design documents to Agency, on request, in a "thumb" drive, and/or compact disc format, and compatible with AutoCAD 2020 (not .pdf), or a more recent version if available. As to any drawings that Design Build Entity provides in a CADD file format, Agency acknowledges that anomalies and errors may be introduced into data when it is transferred or used in a computer environment, and that Agency should rely on hard copies of all documents.

1.3.4. In order to document exactly what CADD information was given to Agency, Design Build Entity and Agency shall each sign a "hard" copy of reproducible documents that depict the information at the time Design Build Entity produces the CADD information. Agency agrees to release Design Build Entity from all liability, damages, and/or claims that arise due to any changes made to this information by anyone other than Design Build Entity or Consultant(s) subsequent to it being given to Agency.

1.3.5. Following the termination of the Contract, for any reason whatsoever, Design Build Entity shall promptly deliver to Agency upon written request the following items ("**Instruments of Service**") in electronic format (Microsoft Word), assuming Agency has made all payments to Design Build Entity as required by the termination provisions in this Contract.

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1.3.5.1. One set of the Contract, including the bidding requirements, Specifications, and all existing cost estimates for the Project, in hard copy, reproducible format.

1.3.5.2. Where applicable, one set of fixed image CADD files in DXF format of the Drawings that are part of the Contract.

1.3.5.3. Where applicable, one set of non-fixed image CADD drawing files in DXF and/or DWG format of the site plan, floor plans (architectural, plumbing, structural mechanical and electrical), roof plan, sections and exterior elevations of the Project.

1.3.5.4. All finished or unfinished documents, studies, reports, calculations, Drawings, maps, models, photographs, and reports prepared by Design Build Entity under the Contract.

1.3.6. In the event Agency changes or uses any fully or partially completed documents without Design Build Entity's knowledge and participation, Agency agrees to release Design Build Entity of responsibility for such changes, and shall indemnify, defend and hold Design Build Entity harmless from and against any and all claims, liabilities, suits, demands, losses, costs and expenses, including, but not limited to, reasonable attorneys' fees, on account of any damages or losses to property or persons, including injuries or death, or economic losses, arising out of that change or use except to the extent Design Build Entity is found to be liable in a forum of competent jurisdiction. In the event Agency uses any fully or partially completed documents without Design Build Entity's full involvement, Agency shall remove all title blocks and other information that might identify Design Build Entity and Design Build Entity's consultants.

1.4. **Certificate of Design Build Entity.** Design Build Entity certifies that Design Build Entity is properly licensed under the laws and regulations of the State of California to provide the professional Services that it has herein agreed to perform.

2. Scope of Design Stage Services

2.1. **Early Design Stage.** Design Build Entity agrees to provide the services for the Early Design Stage as described below:

2.1.1. Design Build Entity shall be responsible for the professional quality and technical accuracy of all studies, reports, projections, master plans, designs, drawings, specifications and other Services furnished by Design Build Entity under the Contract, as well as coordination with all Master plans, studies, reports and other information provided by Agency. Design Build Entity shall, without additional compensation, correct or revise any errors or omissions in its studies, reports, projections, master plans, design, drawings, specifications and other Services.

2.1.2. Agency shall provide all information available to it to the extent the information relates to Design Build Entity's scope of work. This information shall include, if available:

2.1.2.1. Physical characteristics;

2.1.2.2. Legal limitations and utility locations for the Project site(s);

2.1.2.3. Written legal description(s) of the Project site(s);

2.1.2.4. Grades and lines of streets, alleys, pavements, and adjoining property and structures;

2.1.2.5. Adjacent drainage;

2.1.2.6. Rights-of-way, restrictions, easements, encroachments, zoning, deed restrictions, and boundaries and contours of the Project site(s);

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2.1.2.7. Locations, dimensions and necessary data with respect to existing buildings, other improvements and trees;

2.1.2.8. Information concerning available utility services and lines, mechanical and other services, both public and private, above and below grade, including inverts and depths;

2.1.2.9. Surveys, reports, as-built drawings;

2.1.2.10. Geotechnical Report including: Subsoil data, chemical data, and other data logs of borings;

2.1.3. Design Build Entity shall Visually Verify this information and all existing utilities and systems related to the Project, including capacity, and document the location of existing utility lines, vents, telephone, water, sewage, storm drains and other lines on or around the Project to the extent determinable by the documents provided by Agency.

2.1.4. Design Build Entity shall prepare and submit three complete conceptual design options with pricing of the project including site plan and building massing.

2.1.5. **Schematic Design Stage.** Upon Agency's acceptance of Design Build Entity's Work in the Early Design Stage and assuming Agency has not delayed or terminated the Contract, Design Build Entity shall prepare a set of Schematic Design documents for review by Agency ("**Schematic Design Stage**"), containing the following items as applicable to the Project scope:

2.1.5.1. Prepare and review with Agency staff a scope of Work list and Work plan identifying specific tasks including, but not limited to: interviews, data collection, analysis, report preparation, planning, architectural programming, demolition, concepts and schematic design preparation and estimating that are part of the work of the Project. Also identified will be milestone activities or dates, specific task responsibilities of Design Build Entity, required completion times necessary for the review and approval by Agency and by pertinent regulatory agencies and additional definition of deliverables.

2.1.5.2. Design Build Entity to provide furnishing and fixture design.

2.1.5.3. Review the developed Work plan with Agency and its representatives to familiarize them with the proposed tasks and schedule and develop necessary modifications.

2.1.5.4. Quality Management Plan

2.1.5.5. Risk Management and Issues Log

2.1.6. Architectural

2.1.6.1. Scaled floor plans showing overall dimensions, identifying the various major areas and their relationship. Include circulation and room-by-room tabulation of all net usable floor areas and a summary of gross floor area. Also, provide typical layouts of major equipment or operational layout.

2.1.6.2. Preliminary building exterior elevations and sections in sufficient detail to demonstrate design concept indicating location and size of fenestration.

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2.1.6.3. As applicable, identify proposed roof system, deck, insulation system, and drainage technique.

2.1.6.4. Identify on the floor plans all door sizes and swings, interior and exterior window locations and sizes, and the use of movable partitions or other unique openings.

2.1.6.5. Identify minimum finish requirements, including ceiling, floors, walls, doors, windows, and types of hardware.

2.1.6.6. Identify code requirements, include occupancy classification(s) and type of construction.

2.1.7. Structural

2.1.7.1. Layout structural systems with dimensions and floor elevations. Identify structural systems (including pre-cast, structural steel with composite deck, structural steel bar joists, post and beams, and sheer walls); with preliminary sizing identified.

2.1.7.2. Identify foundation systems (including fill requirements, piles, caissons, spread footings); with preliminary sizing identified.

2.1.8. Mechanical

2.1.8.1. Calculate block heating, ventilation, and cooling loads including skin versus internal loading.

2.1.8.2. Select a minimum of two (2) HVAC systems that appear compatible with loading conditions for subsequent life cycle costing.

2.1.8.3. Show selected system on Drawings as follows:

2.1.8.3.1. Single line drawing(s) of all mechanical equipment spaces, ductwork and pipe chases.

2.1.8.3.2. Location and preliminary sizing of all major equipment and duct work in allocated spaces.

2.1.8.3.3. Schematic piping.

2.1.8.3.4. Temperature control zoning.

2.1.8.3.5. Provide design criteria to include the intent base of design for the Projects.

2.1.8.3.6. Evaluate and confirm the load requirements of all equipment and systems, the impact of those on existing facilities, and the requirements to increase these loads to accommodate the increase.

2.1.9. Electrical

2.1.9.1. Calculate overall approximate electrical loads.

2.1.9.2. Identify proposed electrical system for service, power, lighting, low voltage and communication loads.

2.1.9.3. Show system(s) selected on Drawings as follows:

2.1.9.4. Single line drawing(s) showing major distribution system.

2.1.9.5. Location and preliminary sizing of all major electrical systems and components including:

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2.1.9.5.1. Load centers.

2.1.9.5.2. Main panels.

2.1.9.5.3. Switch gear.

2.1.9.5.4. Provide design criteria to include the intent base of design for the projects.

2.1.9.5.5. Evaluate and confirm the load requirements of all equipment and systems, the impact of those on existing facilities, and the requirements to increase these loads to accommodate the increase.

2.1.10. Civil

2.1.10.1. Develop on and off site utility systems such as sewer, water, storm drain, firewater lines, and fire hydrants.

2.1.10.2. Identify surface improvements including roadways, walkways, parking (with assumed wheel weights), preliminary finish grades, and drainage.

2.1.10.3. Coordinate finish floor elevations with architectural site plan.

2.1.11. **Landscape.** Develop and coordinate landscape design concepts entailing analysis of existing conditions, proposed components and how the occupants will use the facility. Include location and description of planting, ground improvements, and visual barriers.

2.1.12. **Preliminary Specifications.** Prepare Specifications of proposed architectural, structural, mechanical and electrical materials, systems and equipment and their criteria and quality standards. Design Build Entity is to use Agency's standardized equipment/material list for new construction and modernization in development of the Project design and Specifications.

2.1.13. **Meetings.** During this stage, Design Build Entity shall attend, take part in, and, when indicated, conduct meetings, site visits, and workshops as indicated below.

2.1.14. **Deliverables and Numbers of Copies.** Design Build Entity shall provide to Agency one hard copy of the above noted items produced in this phase, together with one copy of each item in electronic format:

2.1.14.1. Two (2) copies of meeting Reports/Minutes;

2.1.14.2. Two (2) copies of Schematic Design drawing set from all professional disciplines necessary to deliver the Project;

2.1.14.3. Two (2) copies of approvals files with AHJs, including all correspondence and meeting notes to date, or notification in writing that Design Build Entity has not met or corresponded with AHJs;

2.1.14.4. Two (2) copies of Project Schedule;

2.1.14.5. Two (2) copies of Commissioning Plan;

2.1.14.6. Two (2) copies of preliminary Cost Estimate;

2.1.14.7. Two (2) copies of Risk Management and Issues Log.

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2.1.14.8. Updated Cost Estimate

2.2. **Design Development Stage.** Design Build Entity shall prepare Design Development documents (the "**Design Development Stage**") consisting of the following for each proposed system within Design Build Entity's scope of Work where applicable to the Work:

2.2.1. Architectural

2.2.1.1. Identification of all fixed equipment to be installed in contract.

2.2.1.2. Site plan completely drawing with beginning notes and dimensions.

2.2.1.3. Preliminary development of details.

2.2.1.4. Elevation Drawings of exterior and interior where equipment, material or fixtures are wall mounted.

2.2.1.5. Abbreviations that are specific to the Project.

2.2.1.6. Plans that are consistently formatted, including title block, for all disciplines.

2.2.1.7. Legend showing all symbols used on Drawings.

2.2.1.8. Floor plans identifying new equipment and systems.

2.2.1.9. Further refinement of Outline Specification for architectural, structural, mechanical, electrical, low voltage, controls, civil and landscape manuals, systems and equipment.

2.2.1.10. Typical reflected ceiling development including ceiling grid and heights for affected ceilings, showing:

2.2.1.10.1. Light fixtures.

2.2.1.10.2. Ceiling registers or diffusers.

2.2.1.10.3. Access Panels.

2.2.2. Structural

2.2.2.1. Structural drawing with all affected members located and sized.

2.2.2.2. Preliminary Specifications.

2.2.3. Mechanical

2.2.3.1. Heating and cooling load calculations as required and major duct or pipe runs sized to interface with structural for the chosen system.

2.2.3.2. New mechanical equipment should be scheduled indicating size and capacity.

2.2.3.3. New Ductwork and piping should be substantially located and sized.

2.2.3.4. New Devices in ceiling should be located.

2.2.3.5. Legend showing all symbols used on Drawings.

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2.2.3.6. More developed Outline Specifications indicating quality level and manufacture.

2.2.3.7. Riser diagram should be substantially complete.

2.2.3.8. New Control Systems or point of contacts to be identified.

2.2.3.9. Confirmation of the load requirements of new equipment and systems.

2.2.4. Electrical

2.2.4.1. New electrical equipment should be scheduled indicating size and capacity.

2.2.4.2. A single line diagram for new equipment being installed or replaced.

2.2.4.3. Legend showing all symbols used on Drawings.

2.2.4.4. More developed and detailed Outline Specifications indicating quality level and manufacture.

2.2.4.5. Confirmation of the load requirements of all new equipment and systems.

2.2.4.6. Design Build Entity shall be responsible for the coordination of the design and the layout of the technology backbone system of the Work with Agency's Information Technology Department and/or Agency's technology consultant, and lay out any included technology backbone system. The coordination effort shall include location and routing of raceways, conduits and outlets and the required spaces to accommodate electrical, data and communication wiring. Design Build Entity and consultant(s) shall prepare and be responsible for documents prepared by Design Build Entity based on the information provided by Agency's technology consultant as appropriate to the level of design completion.

2.2.5. Deliverables and Numbers of Copies ("Design Development Documents")

2.2.5.1. Two (2) copies of Design Development drawing set from all professional disciplines necessary to deliver the Project;

2.2.5.2. Electronic copies of continued proposed revision to Specifications;

2.2.5.3. Electronic copies of files with AHJs, including all correspondence and meeting notes to date, or notification in writing that Design Build Entity has not met or corresponded with AHJs;

2.2.5.4. Electronic copies of the Cost Estimate;

2.2.5.5. Electronic copies of Project Schedule;

2.2.5.6. The Design Development deliverables shall be revised within the accepted program parameters until a final concept within the Contract Price.

2.2.5.7. The Design Development Stage will be reviewed and approved after Quality Assurance review by Agency. Design Build Entity to include Quality Assurance Review in its schedule.

2.2.5.8. Design Build Entity to maintain both a Risk Management Plan and Issues Log. All risks shall be reviewed by Agency. Both perceived risks and issues shall be reviewed and approved by Agency before proceeding to the Construction Documents Stage.

2.2.5.9. Narrative resolving any/all outstanding quality issues from the Schematic Design Quality Assurance review.

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2.2.5.10. Updated Cost Estimate

2.2.6. **Meetings.** During this stage, Design Build Entity shall attend, take part in, and, when indicated, conduct meetings, site visits, and workshops as indicated below.

2.3. Construction Documents Stage

2.3.1. Construction Documents. The Construction Documents Phase results in Construction Documents that set forth in detail the requirements for the construction of the Project. Based on approved Design Development documents, and any adjustments authorized by OCERS in the Project Program, Project Schedule, and Project Budget, Architect will prepare Construction Documents for approval by OCERS. The design must comply with the approved Basis of Design and Schematic Design in Attachment #4 respectively, of the Prime Contract to the Prior Contract. Architect will manage and oversee all architectural and engineering disciplines and specialty Consultants for the preparation of Construction Documents by preparing the deliverables listed below required to obtain building permits and being able to build from. Construction Documents will include, but are not limited to, Building Department submittal, General and Special Conditions, Complete Construction Drawings including details, reports, solutions and final technical specifications for all Architectural, Structural, Mechanical, Electrical, Plumbing, Lighting, Signage and Graphics, Civil, Landscaping, and waterproofing. Architect must process the Construction Documents through approving agencies and incorporate all revisions/corrections as necessary to obtain the required approvals from those agencies. Architect will participate in technical reviews of the Construction Documents and cost estimates with OCERS prior to review and approval by OCERS at the 90% completion stage. The Construction Documents will include drawings and specifications that establish in detail the quality levels of materials and systems required for the Project and will graphically illustrate the extent, configuration, location, relationships, and dimensions of the Project, and are coordinated with the work of Consultants retained by Architect as part of its Basic Services and other Consultants (including those retained by Construction Manager or OCERS). It is incumbent upon Architect as a construction industry professional to set forth designs that are economical to build and use standard industry assemblies, systems, and components. The final Construction Documents will incorporate comments and mark-ups from appropriate governmental entities (Building, Fire Departments etc.) and will consist of:

2.3.1.1. CAD Scale Drawings:

(1) Site Plan;

(2) Floor, podium slab, roof, , stair & elevator plans (each level as applicable and required);

(3) Building, Enlarged plans, exterior, enlarged, key interior, stair & elevator sections and elevations;

(4) Building details;

(5) Project Specifications

(6) Grading Plan

(7) Utilities Plan

(8) Landscape Plan

(9) Planting Plan

(10) Irrigation Plan

(11) Landscape Lighting Plan & Fixture Selection

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(12) Floor Plan for each level

(13) Building Sections

(14) Enlarged Elevation

(15) Architectural Details

(16) Waterproofing Details

(17) Structural Plans and Details

(18) MEP Plans and Details

(19) Interior Design Plans, Elevations, and Reflected Ceiling Plans

(20) Interior Finish Plans

(21) Interior finish selections

(22) Interior Plumbing & Lighting Fixture selections

(23) Window wall and curtainwall Plans

(24) Intentionally left blank

(25) Audio/video systems plans

(26) Civil Engineering Plans

(27) Elevator Plans

(28) Acoustics Details

(29) Area Calculations

(30) Furniture plans

2.3.1.2. Informational Drawings:

(1) Drawing index/cover sheet;

(2) Note sheets;

(3) Schedules (door, window, hardware, & finishes);

(4) Project data and area totals;

(5) Code analysis and exiting plans.

2.3.1.3. Specifications:

Full Specifications showing the quality requirements of the Project plus delineate OCERS's selections.

2.3.2. Construction Document Package. Architect and/or its Consultants will (a) sign/seal Construction Documents as required by Building Department officials, (b) submit the Construction Drawings for Plan Check review and approval (OCERS to pay all plan check fees), (c) revise as needed for governmental and jurisdictional approval, advising OCERS of the required changes and (d) assist in resolving issues that may arise during plan check and amend the Construction Documents as may be required by the governing authority and do all things necessary to obtain the building permit. If government agency regulations are changed and become inconsistent with earlier regulations upon which written approvals were received and necessitate revisions, then Architect will be compensated for any such revisions as an Additional Service. After final review and

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OCERS acceptance of the 100% Construction Documents, Architect will deliver a complete Construction Document package to OCERS.

2.3.3. LEED. Provide LEED/Sustainable consulting services in the Project's pursuit of LEED Silver certification from the U.S. Green Building Council.

2.3.4. Reproduction. As part of its Basic Services, Architect will provide OCERS with one set of reproducible, and one set of printed final Construction Documents (the cost of the printed Construction Documents is a reimbursable expense). The reproducible set will be provided after OCERS accepts the Construction Documents. Architect will upload the final Construction Documents to the FTP site established for the Project. As part of its Basic Services, Architect will issue specifications for the Project in compliance with all applicable Code Requirements, and provide OCERS with one electronic set of approved specifications (in Word format).

2.3.5. Coordination. Architect will retain, coordinate, and manage the civil engineer, mechanical engineer, electrical engineer, plumbing engineer, structural engineer, interior design consultant, landscape architect, code compliance consultant, LEED consultant, elevator consultant, audio/video consultant, and acoustics consultant, and will coordinate the geotechnical engineer, testing and inspections consultants, and other related Consultants in its efforts to prepare Construction Documents. Architect's Basic Services include all meetings required to accomplish this objective, including but not limited to formal meetings with OCERS to review Architect's efforts; meetings to follow up on corrections required by OCERS or governmental agencies; formal pre-construction meetings with the DBE and any other party involved with the construction effort; and management and coordination meetings with basic Consultants.

2.3.6. Coordination with OCERS' Consultants. As part of its Basic Services, Architect will consult with OCERS, Construction Manager, and their respective Consultants in regard to geotechnical engineering and dry utility coordination components. Geotechnical and dry utility coordination work will be fully coordinated with Architect's drawings so that all features are coordinated within Architect's drawings. It is not intended that Architect replicate items outside of Architect's Scope of Services in Architect's drawings, but to illustrate proper locations, spatial requirements, and trade coordination and to allow for inclusion of other Consultant's work within the buildings. OCERS will provide Architect with any OCERS provided design drawings in a timely manner so that such designs can be properly coordinated within Architect's drawings. Revisions to such OCERS produced designs after incorporation by Architect will be an Additional Service and will be reimbursed by OCERS at the rates set forth in this Agreement. Architect is not responsible for the acts, errors, or omissions of Consultants that are not retained by Architect.

2.3.7. Shared Documents Website. All Construction Documents Deliverables will be available electronically on Architect's shared website and formatted into an 11x17 color PDF file format so that it can be readily printed by OCERS.

2.3.8. Electronic Copy. Architect will provide OCERS with an electronic version (in CAD and/or Revit format for drawings) of all Construction Documents (e.g., CAD files, Specifications, etc.) upon completion of the Construction Documents Phase.

2.3.9. Construction Documents (CD) Final Back-Check / 100% Construction Documents (where applicable)

2.3.9.1. The Construction Documents final back-check phase ("**100% Construction Documents Stage**") shall be for the purpose of Design Build Entity incorporating all regulatory agencies' comments into the Drawings, Specifications, and schedules and to produce final Construction Documents. All changes made by Design Build Entity during this stage shall be at no additional cost to Agency.

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2.3.9.2. The final Construction Documents delivered to Agency upon completion of Design Build Entity's Work shall be the final set and shall consist of the original Drawings with designers' and engineers' State license stamp.

2.3.9.3. Design Build Entity shall attend, take part in, and, conduct meetings and Site visits as required for the Work and Services at no additional cost to Agency.

2.3.9.4. Upon Agency's receipt and approval of the above-referenced items, Agency shall review and shall determine whether to approve of final pricing. Any approval by Agency shall be made in writing in its sole and absolute discretion.

2.3.9.5. Design Build Entity shall **NOT** commence applicable Construction Stage Services until Agency has issued a Notice(s) to Proceed for Construction Stage Services and Design Build Entity has provided all required bonds and insurance to Agency as required by this Contract.

2.4. Final GMP Preparation and Subcontractor Procurement ("GMP Preparation")

2.4.1. After or during (if directed by Agency) Predevelopment Phase Services, Design Build Entity shall provide Agency a Final GMP proposal including all costs necessary to complete the design and construct the Project for review and approval consistent with the Construction Cost Budget and the requirements of the Contract.

2.4.2. Upon Agency's approval, in its sole and absolute discretion, Design Build Entity shall solicit and procure subcontractors pursuant to the Subcontractor Procurement Process attached hereto as Exhibit E.

2.4.3. After Design Build Entity completes the Subcontractor Procurement Process, and Agency approves of the subcontractor bids, Design Build Entity shall present Agency with the following:

2.4.3.1. A Final GMP not exceeding the Target GMP that is supported by and includes:

2.4.3.1.1. Detailed breakdown of the costs to construct the Project by scope of work, identifying Subcontractor and self-performed work (if any);

2.4.3.1.2. A completed Construction Cost Worksheet**;**

2.4.3.1.3. A detailed Project Schedule for the Project consistent with the requirements of the General Conditions of Contract (**Exhibit C**); and

2.4.3.1.4. A Schedule of Values for the Project.

2.4.3.2. Upon Agency receipt and approval of the above-referenced items, Agency shall review and shall determine whether to approve of final pricing. Any approval by Agency shall be made in writing.

2.4.4. **Rebidding the Work.** Design Build Entity is responsible for ensuring that Design Build Entity's proposed Final GMP does not exceed the Target GMP. As a result, if Design Build Entity's proposed Final GMP exceeds the Target GMP, as determined by Agency in its sole and absolute discretion, Agency may, in its sole and absolute discretion, require Design Build Entity to either:

2.4.4.1. Perform design services to reasonably eliminate scope and reduce the cost of construction consistent with the Construction Cost Budget; or

2.4.4.2. Proceed again through the Subcontractor Procurement Process and rebid the construction of the Project.

2.4.4.3. For either, Agency shall **NOT** owe Design Build Entity any additional compensation in excess of the GMP.

2.4.5. Once the Parties have agreed in principle to the Final GMP for the Project, the Parties shall execute an amendment to the Contract incorporating the GMP (the "GMP Amendment"). No compensation shall be owed to Design Build Entity for Development Phase and Construction Stage Services unless and until the Parties execute the GMP Amendment. Agency is not required to execute the GMP Amendment unless it approves of Design Build Entity's proposed Final GMP, in its sole and absolute discretion.

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2.4.6. Design Build Entity shall **NOT** commence the Development Phase and Construction Stage Services until the Parties have executed the GMP Amendment, Agency has issued a Notice(s) to Proceed for Construction Stage Services, or any portion thereof, and Design Build Entity has provided all required bonds and insurance to Agency as required by this Contract.

2.5. **As-Built & Record Drawings.** During Construction Stage Services, Design Build Entity shall incorporate all information on As-Builts, sketches, details, and clarifications, and prepare one set of final Record Drawings for Agency. The Record Drawings shall incorporate onto one set of electronic Drawings, changes from As-Builts, sketches, details, and clarifications. Design Build Entity shall deliver the Record Drawings to Agency at completion of the construction and it shall be a condition precedent to Agency's approval of Design Build Entity's final payment.

2.5.1. All changes illustrated on as-built Drawings and Specifications ("**As-Built Plans and Specifications**") must be performed by an experienced and qualified professional or draftsperson using a software program or suite approved in advance by the Agency or Construction Manager. Such changes must utilize dimensioning techniques and other drafting standards that are consistent with those used in the Contract Documents. Each of the improved or modified utilities including, without limitation, the electrical, plumbing, mechanical and storm drain system shall be clearly marked with designated colors. If the Plans and Specifications are not of sufficient size, scale, or detail to appropriately illustrate the as-built Work, the Design Build Entity shall furnish its own drawings showing appropriate details and dimension. If shop drawings are used to illustrate portions of the as-built Work, the applicable portions of the As-Built Plans and Specifications must be marked to reference such Drawings. Changes, supplemental information and notes must be recorded in blank areas of the As-Built Plans and Specifications, such as page margins or the backs of opposite pages, or on separate sheets of paper inserted into the As-Built Plans and Specifications. As-built changes to text must include lining out any superseded text so that it is still legible and can be compared to the inserted text. Each update to the As-Built Plans and Specifications must include the name of the person who made the changes to the As-Built Plans and Specifications and the date such changes were made. The Construction Manager or Architect may provide a standard certification block for use by the Contractor in submitting updates to the As-Built Plans and Specifications.

2.5.2. Design Build Entity must obtain final approval of the As-Built Plans and Specifications from the Construction Manager and Inspector of Record. After obtaining such approval the Design Build Entity must employ a competent draftsperson to: (i) transfer the as-built information to the Plans on electronic files using the most current version of AutoCAD or other commonly used program, as directed, or approved; and (ii) prepare a complete set of As-Built Plans through Bluebeam, unless another software or method is otherwise approved by the Construction Manager. Upon Completing the electronic As-Built Plans, the Design Build Entity must submit to the Construction Manager: (i) one archive-quality PF electronic file of the As-Built Plans and Specifications approved by the Inspector of Record that have been certified by the Design Build Entity as being complete and fully and accurately representing the as-built condition of the Work, provided on USB or via download link; and (ii) one complete set full color, bonded-paper copy of the As-Built Plans.

2.6. **O&M Manuals / Warranties.** Design Build Entity shall review equipment, operation and maintenance manuals, and a complete set of warranty documents for all equipment and installed systems, to ensure that they meet the requirements of the Construction Documents. Design Build Entity shall deliver one hard copy sets and electronic PDF set of the O&M Manuals / Warranties to Agency at completion of the construction and it shall be a condition precedent to Agency's approval of Design Build Entity's final payment for the Project, or for the Construction Stage Services. Training shall be provided for all major equipment installation. Video recordings of training sessions shall be provided to Agency in a form, format, and quality that permits Agency and Agency staff to adequately understand the training. All products and equipment will include manufacturer's warranty and labor installation guarantee. O&M Manuals and Warranties will

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be in PDF digital format packaged for the Project with an outline of information included in the package and a schedule of warranty periods for each product or equipment determined at beneficial occupancy or filing of Notice of Completion.

2.7. **Design Errors.** Design Build Entity shall be solely responsible for all design errors and for the correction of same at no additional cost to Agency, including, but not limited to, errors, inconsistencies or omissions in the Construction Documents, and errors, omissions and inconsistencies that do not conform to the standards established Contract Documents.

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EXHIBIT C GENERAL

CONDITIONS

1. **SITE EXAMINATION:**

1.1. Pre-Contract Site Examination Requirements:

1.1.1. "**Visually Verify(ied)(cation)**" (or "**Verify(ied)(ification)**") means confirmed by diligent physical inspection without any destructive or invasive action.

1.1.2. At the time that Design Build Entity enters this Contract, Design Build Entity acknowledges that Agency provided information available to Agency to the extent the information relates to Design Build Entity's Work. This information included:

1.1.2.1. Physical characteristics;

1.1.2.2. Written legal description(s) of the Site;

1.1.2.3. Grades and lines of streets, alleys, pavements, and adjoining property and structures;

1.1.2.4. Adjacent drainage;

1.1.2.5. Rights-of-way, restrictions, easements, encroachments, zoning, deed restrictions, and boundaries and contours of the Project site(s);

1.1.2.6. Locations, dimensions and necessary data with respect to existing buildings, other improvements and trees;

1.1.2.7. Information concerning available utility services and lines, mechanical and other services, both public and private, above and below grade, including inverts and depths;

1.1.2.8. Surveys, reports, as-built drawings;

1.1.2.9. Subsoil data, chemical data, and other data logs of borings;

1.1.2.10. The location and physical characteristics of existing utility lines, telephone, water, sewage, storm drains and other lines on or around or relating to the Project.

1.1.3. Design Build Entity has Visually Verified the existence of the conditions identified by this information to the extent determinable by the documents provided by Agency ("**Site Examination**"). Design Build Entity has relied on its Site Examination in defining its scope of Work. Agency acknowledges and agrees that some of the information provided above was prepared by third parties and that Design Build Entity will have no liability for errors or omissions in such information.

1.1.4. **Variations.** If there are any variations to the scope of Work resulting from conditions not determinable from such Visually Verified information, Design Build Entity shall submit to Agency a PCO based on those conditions.

1.2. Post-Contract Site Examination Requirements:

1.2.1. The Site Examination shall not relieve Design Build Entity of its obligations to Verify the conditions of the Site and to satisfy itself that the conditions of the Site that may be discovered by a diligent physical inspection of the Site prior to performing Work. Notwithstanding the foregoing, after Agency issues a Notice(s) to Proceed to Design Build Entity, Design Build Entity shall again Visually Verify the conditions of the Site prior to performing any Work to satisfy itself of above-ground and utility conditions at the Site ("**Further Site Examination**").

1.3. Effect of Examinations:

1.3.1. Design Build Entity acknowledges and agrees that the Contract Price is based on the Site Examination and Further Site Examination and that the Contract Price includes Work related to all conditions Visually Verified by Design Build Entity during each, and the cost of the Site Examination and Further Site Examination.

1.3.2. No claim for allowance of time or money will be allowed as to any other undiscovered condition on a Site that could and should have been discovered and Visually Verified during the Site Examination and Further Site Examination. Notwithstanding the foregoing, should Design Build Entity discover any latent or materially differing conditions, or any other condition which could not diligently have been discovered during the Site Examination or Further Site Examination, materially impacting the performance of the Work or materially increasing the Contract Price or Contract Time, Design Build Entity shall immediately inform Agency of such

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fact in writing. This written notice may take the form of a PCO. Design Build Entity shall not be entitled to an increase to the Contract Price or Contract Time for Work relating to the conditions discussed in this provision unless Agency issues a Change Order authorizing such Work.

2. **OVERALL PROGRESSION OF THE WORK:**

2.1. **Design Stage Services**:

2.1.1. Prior to the commencement of Construction Stage Services, Design Build Entity shall prepare Drawings and Specifications consistent with the requirements of the Contract Documents, including, without limitation **Exhibit A** and **Exhibit B.**

2.1.2. Design Build Entity, its designers, contractors, and inspectors shall determine if any of the Work requires approval from AHJs and, if applicable, provide documentation for all approvals required by such AHJs.

2.2. Construction Stage Services:

2.2.1. Design Build Entity install and construct the Work at the Site. The Work shall be installed and constructed to conform to requirements of any AHJs and all applicable building codes. Design Build Entity's Work shall include meetings and discussions as needed with AHJs and others as needed to achieve Project approval.

2.2.2. Construction Stage Services shall commence only upon Agency's issuance of a Notice to Proceed for Construction Stage Services. Agency may issue more than one Notice to Proceed for Construction Stage Services depending on the phasing of those Services.

2.2.3. Design Build Entity's performance of Work for Construction Stage Services shall comply with all requirements of the Contract Documents and all laws applicable to the Project.

2.2.4. In addition to all other requirement herein, Design Build Entity shall comply with all requirements of the Plans and Specifications referenced herein in **Exhibit G.**

2.2.5. Design Build Entity shall notify Agency and Agency's Project Inspector(s) of required inspections and shall provide reasonable access and accommodations for inspections.

3. **EQUIPMENT AND LABOR:** Design Build Entity shall furnish all tools, equipment, apparatus, facilities, transportation, labor, and material necessary to furnish the Work herein described, the Work to be performed at such times and places as directed by and subject to the approval of the authorized Agency representative.

4. **SUBCONTRACTORS:**

4.1. Design Build Entity shall procure Subcontractors by complying the Subcontractor Procurement Process attached hereto as **Exhibit H** and incorporated herein by reference.

4.2. All subcontractors will be afforded the protections of State law, and all Work is subject to applicable prevailing wage laws.

4.3. Subcontractors, if any, engaged by Design Build Entity for any Service or Work under this Contract shall be subject to the approval of Agency, which shall not be unreasonably withheld.

4.4. Design Build Entity agrees to bind every subcontractor by the terms of the Contract as far as such terms are applicable to subcontractor's work, including, without limitation, all indemnification, insurance, bond, and warranty requirements.

4.5. Design Build Entity shall be responsible for all Work performed under this Contract. All persons engaged in the Work of the Project are the responsibility and under the control of Design Build Entity. Design Build Entity shall give personal attention to fulfillment of this Contract and shall keep the Work under Design Build Entity's control. In no event shall Design Build Entity refer Agency to any subcontractor or consultant of Design Build Entity for response or resolution of any matters related to this Contract, the Work or any obligations of Design Build Entity hereunder. If Design Build Entity shall subcontract any part of this Contract, Design Build Entity shall be fully responsible to Agency for acts and omissions of subcontractors and of persons either directly or indirectly employed by Design Build Entity.

4.6. Nothing contained in the Contract shall create any contractual relations between any subcontractor and Agency. Design Build Entity expressly acknowledges that its subcontractors are not third-party beneficiaries of this Contract.

5. **TERMINATION:**

5.1. If Design Build Entity fails to perform Design Build Entity's duties as required by this Contract, or if Design Build Entity fails to fulfill in a timely and professional manner Design Build Entity's material obligations under this Contract, or if Design Build Entity shall violate any of the material terms or provisions of this Contract and any such failure or violation is not excused by the terms of this Contract, Agency shall have the right to terminate this Contract, in whole or in part, unless such failures and

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violations are caused by Agency, effective immediately upon Agency giving fifteen (15) business days prior written notice thereof to Design Build Entity, during which time Design Build Entity may attempt to correct such failures and violations to Agency's reasonable satisfaction, unless otherwise agreed to by the parties in writing, such agreement will not be unreasonably withheld. In the event of a termination pursuant to this subdivision, Design Build Entity may invoice Agency for all Services performed until the date of termination, but Agency shall have the right to withhold payment and deduct any amounts equal to Agency's costs because of Design Build Entity's negligent actions, errors, or omissions that caused Agency to terminate Design Build Entity. Agency may, at its discretion, provide Design Build Entity additional time to cure its default or breach.

5.2. Agency shall have the right in its sole discretion to terminate the Contract for its own convenience with fourteen (14) days prior written notice. In the event of a termination for convenience, Design Build Entity may invoice Agency and Agency shall pay all undisputed invoice(s) for Services performed and all undisputed costs incurred before the date of termination and actually and necessarily caused by the termination, as reasonably substantiated by Design Build Entity, including, without limitation, the actual cost of demobilization, actual charges incurred for specially fabricated materials and equipment, and such charges actually incurred by Design Build Entity's subcontractors/suppliers that Design Build Entity is contractually bound to compensate the subcontractor/supplier for, from Agency's Notice to Proceed until the date of termination.

5.3. Except as indicated in this Article, termination shall have no effect upon any of the rights and obligations of the Parties arising out of any transaction occurring prior to the effective date of termination.

5.4. Design Build Entity has the right to terminate this Contract if Agency does not fulfill its material obligations under this Contract. Termination shall be effective upon fourteen (14) days prior written notice to Agency. Design Build Entity may invoice Agency and Agency shall pay all undisputed invoice(s) for Services performed and costs incurred, as set for in the termination for convenience, until the date of termination.

5.5. If Agency suspends the Project for more than ninety (90) consecutive days, Design Build Entity shall be compensated for Work performed prior to the notice of suspension plus the reasonable costs of demobilization. When the Project is resumed, the Project Schedule shall be adjusted and Design Build Entity's compensation shall be equitably adjusted to provide for expenses incurred resuming Work, including any material price escalations if Design Build Entity establishes: (i) the materials were scheduled to be procured during the suspension; (ii) Design Build Entity was unable with reasonable diligence to procure materials prior to the suspension; **and** (iii) Design Build Entity was not a cause of its own failure to procure any materials prior to suspension. If Agency suspends the Project for more than one (1) year or in the event of an Excusable Delay (as defined below) lasting more than one (1) year, Design Build Entity may terminate this Contract by giving written notice and shall receive compensation as if Agency terminated the Contract for its own convenience as described above. If Agency suspends this Contract because Agency does not have sufficient funds to pay for the Work resulting from Agency's budget for the succeeding fiscal year being reduced, and/or the State reducing funding to Agency, then Design Build Entity may elect to either: (i) after ninety (90) consecutive days of suspension, terminate the Contract; or (ii) after one hundred twenty (120) consecutive days of suspension, elect to maintain the Contract and demobilize from the Site until Agency gives written notice to Design Build Entity to recommence the Work. In either event, Design Build Entity may invoice Agency for all costs actually incurred by Design Build Entity directly caused by the suspension. Design Build Entity shall provide documentation, to Agency's reasonable satisfaction, substantiating that all claimed costs were incurred during and caused by the suspension. Design Build Entity shall make all reasonable efforts to mitigate any costs before invoicing Agency for such costs. If Design Build Entity elects to terminate the Contract, Design Build Entity may only invoice Agency from the date of suspension up to and until the date of termination; provided, however, Design Build Entity shall not be entitled to invoice Agency for costs incurred after one hundred twenty (120) consecutive days. If Design Build Entity elects to maintain the Contract, Design Build Entity shall be entitled to invoice Agency for costs caused by the suspension from the date of the notice of suspension up to and until the date Agency provides written notice to Design Build Entity to recommence the Work. In either event, Design Build Entity shall be entitled to invoice the Agency for the actual costs incurred due to the suspension, including the reasonable costs of demobilization and mobilization actually incurred by Design Build Entity exclusive of any consequential or economic damages. Any adjustment to the Contract Price hereunder shall be adjusted pursuant to a written Change Order. If the Parties disagree as to the cost owed to Design Build Entity, if any, Agency reserves the right to issue a Unilateral Change Order, and Design Build Entity may proceed as if any unpaid sums

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constitute a Claim. Notwithstanding the foregoing, Design Build Entity shall be entitled tocompensation for Work actually performed to Agency's reasonable satisfaction prior to the date of any suspension.

6. **SAFETY AND SECURITY:**

6.1. Design Build Entity is responsible for maintaining safety in its performance of this Contract. Design Build Entity shall be responsible to ascertain from Agency the rules and regulations pertaining to safety, security, and driving on Agency grounds, as per the requirements of **Exhibit F** ("**Agency's Rules and Regulations**") to the extent applicable. Design Build Entity shall coordinate with Agency regarding the applicability of Agency's Rules and Regulations. In the event Agency's Rules and Regulations conflict with any other terms of this Contract, the terms of this Contract shall prevail.

6.2. The Site may have above-grade and below-grade structures, utility lines, and other installations that are known or believed to exist in the area of the Work. Design Build Entity shall locate these existing installations before proceeding with demolition and other operations that could damage same; maintain them in service, where appropriate; and repair damage to them caused by the performance of the Work. Should damage occur to these existing installations, then the costs of repair shall be at Design Build Entity's expense and made to Agency's satisfaction.

6.3. Design Build Entity shall be alert to the possibility of the existence of additional structures and utilities. If Design Build Entity encounters additional structures and utilities, Design Build Entity will immediately report to Agency for disposition of same as indicated in the General Conditions.

6.4. To the extent that Design Build Entity's work involves undergrounding power lines, Design Build Entity shall conduct an engineering evaluation to determine whether any undergrounding power lines will create the potential for electrolytic corrosion of any other underground utilities near such power lines. Where the potential for electrolytic corrosion exists, Design Build Entity shall also design and install a cathodic protection system to protect such utilities.

6.5. Specific measures include:

6.5.1. Written Design Build Entity Safety Plans, signs and temporary fencing as needed.

6.5.2. Written Design Build Entity Quality Management Plan.

6.5.3. Engineering and stamped drawings for Agency, and approval from all AHJs (to the extent applicable).

6.5.4. To the extent applicable, Layout drawings for Fire Department review.

6.5.5. To the extent applicable, Single line and electrical drawings for applicable utility companies.

6.5.6. Layout drawings for Agency Technology Department review.

7. **INFECTIOUS DISEASE**

7.1. **Compliance with Orders**. Design Build Entity and its Subcontractors, agents and employees thereof, are responsible for complying with all applicable and existing federal, State, and/or local statutes, orders, rules, regulations, ordinances, and/or directives in any way relating to construction site safety, the Work, the Project, and Site, in connection with any infectious and communicable disease in any form, whether bacterial or viral, including, without limitation, MSRA, influenza, COVID-19, and/or any similar virus or derivative strain ("**Infectious Disease**"). Design Build Entity's obligations hereunder shall include, without limitation providing personal protective equipment ("**PPE**") to its employees and to ensure that its Subcontractors provide PPE to its employees to prevent the spread of an Infectious Disease at the Site.

7.2. **Infectious Disease and Contract Time**. Design Build Entity agrees that the Contract Time is based on Design Build Entity's full compliance with all applicable and existing federal, State, and/or local statutes, orders, rules, regulations, ordinances, and/or directives relating to construction site safety, the Work, the Project, and the Site in connection with an Infectious Disease. Any dispute concerning the Contract Time in connection with any delay associated with an Infectious Disease shall be resolved pursuant to the Claims procedures in these General Conditions.

7.3. Infectious Disease and Extra/Change Work.

7.3.1. Design Build Entity agrees that the Contract Price and the Contract Time are based on Design Build Entity's full compliance with all applicable and existing federal, state, and/or local statutes, orders, rules, regulations, ordinances, and/or directives relating to construction site safety, the Work, the Project, and the Site in relation with an Infectious Disease at the time the Parties entered into the Contract, or any amendment thereto. Therefore, any additional costs to Design Build Entity associated with an Infectious Disease, or any federal, state, or local order relating thereto, shall not be considered compensable unless:

7.3.1.1. It occurred after the date of the award of the Project to Design Build Entity;

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7.3.1.2. It materially increases the Contract Price or the Contract Time by imposing different, additional or more stringent requirements; and

7.3.1.3. Design Build Entity notifies Agency within ten (10) Days of notice of any new public health order(s), including the anticipated increase to the Contract Price or Contract Time due to the new public health order(s), and Design Build Entity substantiates those costs with detailed supporting documentation as required in these General Conditions, including, without limitation, comply with the Proposed Change Orders and, to the extent applicable, Claims provisions.

7.3.2. If, during the Work, the applicable and existing federal, state, and/or local statutes, orders, rules, regulations, ordinances, and/or directives relating to construction site safety, the Work, the Project, and/or the Site in connection with an Infectious Disease, are changed or rescinded (e.g., by the reduction of potential exposure or risk due to vaccinations), the parties agree to reduce Design Build Entity price and the Contract Time due to the removal of the required efforts. If the parties cannot mutually agree on the appropriate reduction, Agency may issue a Unilateral Change Order for an amount of time and money it determines to be both reasonable and appropriate. Any dispute concerning the application of this procedure shall be resolved pursuant to the Claims procedures in these General Conditions.

7.4. **Infectious Disease Release**. Design Build Entity acknowledges that it is voluntarily and freely entering into the Contract for this Project and deciding to perform the Work which will require Design Build Entity to enter upon and into the Site and that Design Build Entity use of the Site includes the possible exposure to and illness from an Infectious Disease. Design Build Entity further acknowledges the dangers involved and with full knowledge of these dangers, voluntarily agrees to assume all risks of bodily injury, death, or property damage, whether those risks are known or unknown. Design Build Entity hereby releases Agency, its agents, representatives, officers, consultants, employees, trustees, and volunteers from any and all liabilities, causes of action, lawsuits, claims, demands, or damages of any kind whatsoever that Design Build Entity, its staff, participants, relatives, children, spouse, partner, household members, family members, employees, guests, invitees, volunteers, agents, consultants, Subcontractors, and any other person tracing exposure or illness to Design Build Entity, now have, or may have in the future, for injury, trauma, illness, loss, unwanted contact, harassment, disability, death or property damages related to being exposed to or contracting an Infectious Disease while using the Site for the performance of the Work. Design Build Entity shall include this paragraph in all subcontracts with Subcontractors.

7.5. Design Build Entity shall ensure it has supervisor employees onsite that are trained and knowledgeable of all of these requirements to ensure full compliance on Site.

7.6. Except as provided above, any cost to comply with these "**Infectious Disease**" provisions shall be at Design Build Entity's sole expense, but may be included in the Contract Price.

8. PROJECT SCHEDULE:

8.1. General Requirements:

8.1.1. In addition to the Project Schedule in **Exhibit D** that sets forth the schedule for the completion of the Project, Design Build Entity shall prepare a detailed Project Schedule setting forth the critical path of the Project from the Notice to Proceed to Completion of the Project.

8.1.2. All costs associated with compliance with this Section shall be included in the Contract Price. All schedules to be provided by Design Build Entity shall fully integrate the work of all subcontractors and major suppliers and must comply fully with the milestones in **Exhibit D**.

8.2. **Time for Baseline Detailed Project Schedule:** Design Build Entity shall provide the detailed Project Schedule to Agency within seven (7) days of the execution of the Contract for review and approval. When submitting initial baseline Project Schedule, Design Build Entity shall attach a narrative report which explains Design Build Entity's chosen method of determination and/or assumptions used for activity durations, its assumptions regarding crew sizes, equipment requirements and production rates, any potential areas of concern or specific areas requiring coordination it may have identified and any long-lead time materials or equipment in the Work.

8.3. **Minimum Requirements for Detailed Project Schedule:** At a minimum, the detailed Project Schedule shall:

8.3.1. Include all milestones in **Exhibit D**;

8.3.2. Utilize a Critical Path Method ("**CPM**") format showing tasks, durations, and precedence between tasks;

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8.3.3. Be prepared utilizing the Oracle Primavera (P6) software (latest version) and utilizing the CPM format in development and maintenance of the Project Schedule network in Precedence Diagram Mode (PDM);
8.3.4. Include all applicable review times by Review Agencies;
8.3.5. Include the then current date for Completion of the Project;
8.3.6. Show all major tasks, both on site construction and procurement including shop drawing review;
8.3.7. Include tasks of parties other than the Design Build Entity that directly affect the Work;
8.3.8. Show submittals, approval and procurement activities with reasonable durations;
8.3.9. Include time for closeout activities;
8.3.10. Take into account all foreseeable factors or risks affecting, or which may affect, the performance of the Work, including historical and predicted weather conditions, applicable laws, regulations, or collective bargaining agreements pertaining to labor, transportation, traffic, air quality, noise and any other applicable regulatory requirements;
8.3.11. Not use any "float suppression" techniques such as preferential sequencing or logic, special lead/lag constraints or unjustifiably over-estimating activity durations in preparing its Project Schedule.
8.3.12. Include a phasing plan for the Work, that complies with the following:
8.3.12.1. Sequence of work areas consist with the schedule in the Proposal;
8.3.12.2. Phase construction to work around existing Site operation causing minimal disruption. Individual construction areas will generally be available to the Design Build Entity. When construction is completed in these areas, Site staff may reoccupy them, making other spaces available for construction.
8.3.12.3. Work shall be performed as specified in the phasing plan and in morning and evening working shifts. Design Build Entity may perform critical work during non-business hours with Agency approval.

8.4. **Construction Stage Requirements.** For the Construction Stage **ONLY**, the following shall apply:
8.4.1. All Construction Activities shall have appropriate predecessors and successors.
8.4.2. No Construction activities shall:
8.4.2.1. Be constrained except for the milestones;
8.4.2.2. Have negative lags.
8.4.3. For any item which Design Build Entity believes may have long lead times that may be impacted by unanticipated supply chain disruptions ("**Impacted Item(s)**"):
8.4.3.1. Identify the item(s);
8.4.3.2. The anticipated lead time for the specific item(s), including a date on which Design Build Entity shall place an order for the item(s); and
8.4.3.3. The anticipated date of delivery for the item(s).
8.4.3.4. One (1) week of float for **each** Impacted Item ("**Supply Float**"). Before seeking a time extension for any delay in Project arising from the late delivery of an Impacted Item, Design Build Entity shall utilize all available Supply Float for that Impacted Item.

8.5. Additional Requirements for Impacted Items:
8.5.1. Concurrently with the detailed Project Schedule, Design Build Entity shall provide to Agency a list of Impacted Item(s).
8.5.2. Design Build Entity shall retain in its files evidence that supports the specific lead time(s) and anticipated delivery schedule(s) for an Impacted Item(s), which may be used to justify a request for a time extension. Design Build Entity need not submit this information with the detailed Project Schedule, but shall present the information to Agency in the event it seeks a time extension whether in a PCO or Claim as substantiation that the item constitutes an Impacted Item.

8.6. **Float:** Float is not for exclusive use or benefit of either Agency or Design Build Entity but is an expiring resource available to both Parties on a non-discriminatory basis. Either Party may use float, as needed, to meet the Project Schedule and Contract Completion dates. Contract Time extensions for Contract performance will be granted only to extent that delays or disruptions to affected work path exceed total float along those paths of current updated Project Schedule (updated schedule) in effect at time of delay or disruptions. These delays or disruptions must also cause end date of Work to exceed current contract date and be beyond control and without fault or negligence of Design Build Entity or any subcontractor at any tier. Delays or disruptions impact an already negative

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float path; Design Build Entity will not receive a time extension unless and until activity with highest negative float is driven even further negative. Delays or disruptions will not be a basis for time extension to this Contract unless, and until, such delays or disruptions are resolved as set forth in General Conditions. All extensions of Contract Time shall be subject to the requirements of the Contract Documents.

8.7. Updated Detailed Project Schedule:

8.7.1. **Three Week Look Ahead Schedules:** 48 hours prior to each weekly progress meeting, Design Build Entity shall submit three week look ahead schedules. During the weekly progress meeting, three week look ahead schedules will be reviewed and discussed in detail.

8.7.2. **Status Report / Monthly Updates:** Design Build Entity shall update the Project Schedule week and shall submit with each Application for Payment updated detailed Project Schedule that complies with the requirements herein, as well as the follow:

8.7.2.1. Include computer generated CPM network exhibits; and

8.7.2.2. Include bar charts, generated separately using the format template provided by Agency (and if none, in a format chosen by Design Build Entity) for:

8.7.2.2.1. Contract Milestones only (Baseline vs. forecast)

8.7.2.2.2. Summary Level (sorted by craft/trade and area);

8.7.2.2.3. Detail (sorted by Dates);

8.7.2.2.4. Detail (sorted by Responsibility),

8.7.2.2.5. Variance (Baseline vs. forecast);

8.7.2.2.6. Progress Curves (baseline vs. earned/forecast); and

8.7.2.2.7. Float (sorted low to high).

8.7.2.3. Provide all software backup/export data files electronically.

8.7.3. **Other Updates:** Design Build Entity shall revise the Project Schedule for Project scope changes. Should actual progress fall behind the Project Schedule **twenty-one (21) calendar days or more**, Design Build Entity shall submit for acceptance a recovery schedule and plan and shall take necessary remedial measures to recover lost time and finish on schedule, which may require additional resources, work hours, or changes in work plan, .

8.8. **Review and Acceptance:** The Construction Manager and Agency will review the Project Schedule and provide comments to the Design Build Entity within seven (7) working days. The Design Build Entity will then complete and resubmit for final acceptance within seven (7) working days. The Construction Manager will not process Design Build Entity payment requests until the Project Schedule has been reviewed and accepted.

8.9. Failure to Comply with Requirements:

8.9.1. If Design Build Entity fails to comply with the requirements specified herein, Agency reserves the right, but will not be required, to engage an independent scheduling consultant or provide its own expertise to fulfill those requirements, and back-charge Design Build Entity an amount equal to the payment Design Build Entity would have been due had it self-performed the delinquent or non-complying work.

8.9.2. In such event, Agency will require the participation of Design Build Entity to ensure that the information produced accurately reflects Design Build Entity's plan to execute the Work and the progress of the Work, in compliance with the Contract Documents.

8.9.3. If Design Build Entity fails to promptly cooperate by participating with Agency or its Consultant, or Agency's Representative in developing or in implementing the jointly-developed Project Schedule, Agency will complete the effort to the best of its ability with the information provided by Design Build Entity and issue that Schedule for the mandatory and immediate utilization by Design Build Entity in a unilateral Change Order to the Contract.

9. ALLOWANCES

9.1. "**Allowance(s)**" means an allocation(s) of the Contract Price to cover a scope(s) of Construction Stage Services that is not known or could not be specified sufficiently at the time Design Build Entity prepares and submits a Final GMP. The Project may include two types of Allowances: (i) The "**Agency Allowance(s)**" that are those included in the Final GMP by Design Build Entity as directed by Agency;

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(ii) and/or the "**Design Build Entity Allowances**" that are those requested by Design Build Entity and approved by Agency for inclusion in the GMP as outlined herein.

9.2. **Permissible Allowances & Development of Allowances**.

9.2.1. Agency may direct that the Final GMP include a Agency Allowance(s) as set forth in the Contract Documents.

9.2.2. Other than those Allowances specified by Agency, a Design Build Entity Allowance(s) shall not be included in the Final GMP unless accepted and approved in writing by Agency **before** Design Build Entity presents Agency with the Final GMP. Design Build Entity shall work collaboratively with Agency to review all Allowances submitted by Design Build Entity for approval to determine whether **all** the following conditions are satisfied:

9.2.2.1. **Condition 1.** Design Build Entity demonstrates the Allowance is necessary by establishing that: (i) the Work constitutes Allowance Work; **and** (ii) the failure to obtain pricing or bids did not result from any Error or Omission, or any other error, by Design Build Entity, including, without limitation, Design Build Entity's failure to comply with the Subcontractor Procurement Process.

9.2.2.2. **Condition 2.** The Allowance valuation is reasonable based on the design information available at the time the GMP is established.

9.2.2.3. **Condition 3.** Design Build Entity adequately and specifically described the scope of Allowance Work. Any description must include a degree of specificity enabling Agency to price the Allowance Work and to ensure that the Allowance(s) is necessary. This may include references to Drawings and Specifications.

9.2.3. Agency may, in its reasonable discretion, require that Design Build Entity perform any of the following at its sole cost and expense before Agency provides acceptance of any Allowance: (i) bid or re-bid the Allowance Work; (ii) to re-price the Allowance Work; or (iii) redesign or perform value engineering to reduce the price of the Allowance Work.

9.2.4. An Allowance(s) shall **NOT** be approved for Design Work Stage Services.

9.3. Allowance Use and Approval Process

9.3.1. An Allowance(s) may only be used for the specific and discrete scope(s) of Work for which Design Build Entity identified as set forth above. No part of an Allowance may be used to recover cost deficits arising from Design Build Entity's failure to adequately price other scopes of Construction Work when preparing the GMP.

9.3.2. Design Build Entity shall only utilize an Allowance(s) upon prior written approval of Agency. To receive Agency written approval for use of an Allowance(s), Design Build Entity shall submit a written request to Agency for use of the Allowance(s) that:

9.3.2.1. Includes a description of the requested use, including the description of the Allowance Work and why it is necessary to complete the Construction Work;

9.3.2.2. Identifies which Allowance(s) the Allowance Work will be paid from and demonstrates that the proposed use falls within the specific and discrete scope of an Allowance(s); and

9.3.2.3. Substantiates the costs of the Allowance Work in the same manner Design Build Entity would substantiate a PCO; provided, however, Agency may waive this requirement and instead direct that Design Build Entity perform the Allowance Work on a time and material basis that in no event shall exceed the amount identified for that Allowance(s) in the Final GMP. In that event, the Parties shall comply with the procedures for establishing and pricing time and materials Change Work in the "Changes in the Work" section of these General Conditions .

9.3.3. After Agency authorizes the use of an Allowance(s) and Design Build Entity performs the Allowance Work, Design Build Entity shall provide the following documentation with its next Application for Payment: (i) itemization for Design Build Entity's use of the Allowance(s); and (ii) an updated Schedule of Values indicating the amount of the Allowance(s) used and the remaining balance for that Allowance(s), if any.

9.3.4. If the Direct Costs of the Allowance Work for a Design Build Entity Allowance(s) exceed the cost specified for that Allowance(s), then Design Build Entity may use the Contingency, if any Contingency funds are available and Agency approves the use of those funds in its reasonable discretion. If the Contingency is exhausted or Agency does not approve the use of Project Contingency funds, Design Build Entity shall be responsible for any overage costs for the associated Allowance work at Design Build Entity's sole cost and expense.

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9.3.5. If the Direct Costs of the Allowance Work for a Agency Allowance exceed the amount specified for the Allowance(s) in the GMP, the GMP will be adjusted by an additive Change Order; provided, however, that Design Build Entity substantiates any costs by submitting a Proposed Change Order.

9.3.6. If the actual cost of the Allowance Work is less than the cost authorized by Agency, Agency shall be entitled to issue a deductive Change Order crediting Agency for unused portion of any Allowance(s).

9.3.7. At Completion, Agency shall retain any unused portion of any Allowance(s). If any unused Allowance(s) has not been credited to Agency, Agency shall issue a deductive Change Order crediting Agency for the unused portion of the Allowance(s), from any amounts due Design Build Entity.

10. CONTINGENCY

10.1. "**Contingency"** The Guaranteed Maximum Price includes a contingency (the "Contingency"), said Contingency shall not exceed the percentage of the Cost of the Work established in the Final GMP Amendment and must be identified as a lump sum line item in the schedule of values provided in connection with DBEs Guaranteed Maximum Price Proposal as submitted. The DBEs shall obtain Agency's advance approval in writing at least five (5) business days prior to any use of the Contingency, which approval shall not be unreasonably withheld, and shall supply Agency with detailed information and backup related to such proposed use of the Contingency and its justification. Further, the DBE will provide the Agency with a weekly updated summary report of all Contingency amounts expended for the Project. The Contingency may not be used for (1) items for which a Change Order is allowed, (2) amounts in excess of the Guaranteed Maximum Price, and (3) DBE Fee or any similar fees or mark-ups. Subject to Agency's prior-written approval, the DBE may use the Contingency for the following: (A) conditions or events not foreseen or known to the DBE during the performance of the pre-construction services, or at the time the Guaranteed Maximum Price was established and agreed upon by the parties; (B) gaps in the DBE or any Subcontractor's scopes of Work which were not foreseen or known to the DBE during the performance of the pre-construction services, or at the time the Guaranteed Maximum Price was established and agreed to by the parties; (C) non-compensable delays which were not foreseen or known to the DBE during the performance of the pre-construction services, or at the time the Guaranteed Maximum Price was agreed to by the parties. However, at no time shall Contingency be used for any condition or event that arises out of the DBE's Design Build Entity's negligence (i.e., a breach of the Design Build Entity's standard of care), gross negligence, or willful misconduct. In addition, compensation for delays eligible for Contingency use shall only include compensation for actual delay costs and not consequential, estimated or speculative costs.

10.2. **Unused Contingency**. The parties have agreed that while any Contingency during the Project shall at all times remain the property of the Agency for the benefit of the Project, any unused Contingency remaining after completion of the Project shall be shared between the parties. The percentage shared split of such unused Contingency shall be established with the total Contingency amount as part of the Final GMP Amendment and shall be calculated and disbursed at the time of final completion of the Project.

10.3. **Design Build Entity Proposed Contingency Use.** If Design Build Entity desires to utilize the Contingency, it may propose to utilize the Contingency for the following:

10.3.1. Construction Stage Work shown or inferred on the Drawings and Specifications but missing from bid packages;

10.3.2. Expenditures directed by Design Build Entity and agreed to by Agency, in its reasonable discretion, for the benefit of the Project;

10.3.3. Coordination of installation tolerances between trades;

10.3.4. Overages on Design Build Entity requested Allowances that were specifically approved by Agency;

10.3.5. Acceleration of the Contract Time;

10.3.6. Costs attributable to Design Build Entity, excluding costs arising from Design Build Entity's breach of the Design Build Entity's standard of care, gross negligence, or willful misconduct;

10.3.7. Material or equipment price changes, to the extent not resulting from Design Build Entity's actions or failure to act; or

10.3.8. Correcting defective or non-conforming work that Design Build Entity cannot reasonably recover from the

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responsible Trade Contractor(s) and that cannot be recovered by subcontractor bond or subcontractor default insurance.

10.4. **Prohibited Contingency Use.** The Contingency may never be used for:

10.4.1. Additional or extended Design Build Entity's General Conditions, including Project management staff for Construction Stage Work resulting from dbe's gross negligence

10.4.2. Weather protection for Work in place, or materials to protect the work of a Subcontractor.

10.4.3. Insurance co-pay costs.

10.4.4. Construction Stage Work specified in subcontracts with Subcontractors of any tier.

10.5. **Project Contingency Use and Approval Process**.

10.5.1. Any written request by Design Build Entity to utilize the Project Contingency shall be supported by:

10.5.1.1. A detailed description of the portion of the Construction Stage Work to which the request pertains. The description must demonstrate that the Construction Work falls within a permissible use(s) of Contingency as provided for herein; and

10.5.1.2. Substantiation for the Direct Cost of Work arising from the proposed use ofaudit

10.5.1.3. in the same manner Design Build Entity would substantiate a PCO; provided, however, Agency may waive this requirement and instead direct that Design Build Entity perform the Construction Stage Work on a time and material basis.

10.5.2. Design Build Entity's use of Contingency shall be documented by a separate accounting accompanying Design Build Entity's monthly Application for Payment and not solely as a line item in any Schedule of Values. The accounting shall include documentation and information in the level of detail required by the Contract Documents, including, without limitation: (i) a description of the Construction Stage Work for which Contingency was used; (ii) a breakdown of the costs of Contingency use; and (iii) an itemization of the amount used and an accounting of the Contingency balance.

11. CHANGE IN SCOPE OF WORK:

11.1. Any change in the scope of the Work, method of performance, nature of materials or price thereof, or any other matter materially affecting the performance or nature of the Work shall not be paid for or accepted unless such change, addition, or deletion is approved in advance and in writing by a valid, mutually-agreed change order or amendment executed by the Parties.

11.2. **No Changes or Design Stage Services.** Design Build Entity shall not be entitled to any changes to the Contract Price for Design Stage Services unless authorized by the Contract Documents.

11.3. Proposed Change Order:

11.3.1. **Definition of Proposed Change Order:** A Proposed Change Order ("**PCO**") is a written request prepared by Design Build Entity requesting that Agency issue a Change Order based upon a proposed change to the Work.

11.3.2. **Time to Submit PCO:** Design Build Entity shall submit its PCO within ten (10) business days of the date Design Build Entity discovers, or reasonably should discover, the circumstances giving rise to the proposed change order, unless additional time to submit a proposed change order is granted in writing by Agency. If additional time is necessary to estimate and prepare a PCO, then Design Build Entity shall submit to Agency within five (5) business days a written explanation of the reasons with a request for a specified extension to submit the PCO; provided, however, that any such request may be granted or denied in Agency's reasonable discretion. If the extension does not provide enough time for Design Build Entity to adequately price or determine the precise scope for any PCO, Design Build Entity shall submit a placeholder PCO which sets forth a description of the Work and the price based on information available to Design Build Entity at that time. Within five (5) days that Design Build Entity knows the scope and price of the PCO, Design Build Entity shall submit a final PCO fully compliant with the Contract Documents. Time is of the essence in Design Build Entity's written notice pursuant to the preceding sentence so that Agency can promptly investigate and consider alternative measures to the address the basis for the PCO. Accordingly, Design Build Entity acknowledges that its failure, for any reason, to give written notice (with Supporting Documentation to permit Agency's review and evaluation) within this time frame shall be deemed Design Build Entity's waiver, release, discharge and relinquishment of any right to assert or claim any entitlement to an adjustment of the Contract Time or the Contract Price on account of the circumstances giving

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rise to the PCO.

11.3.3. **Changes in Contract Price:** A PCO shall include breakdowns pursuant to the revisions herein to validate any change in Contract Price.

11.3.4. **Changes in Contract Time:** A PCO shall also include any changes in time required to complete the Project. Any additional time requested shall not be the number of days to make the proposed change, but must be based upon the impact to the Project Schedule as defined in the Contract Documents. If Design Build Entity fails to request a time extension in a PCO, then Design Build Entity is thereafter precluded from requesting time and/or claiming a delay.

11.3.5. **Conditions Precedent for a Change Order:** Design Build Entity may only request changes to the Contract Price or Contract Time for Additional Work or delays to completion of the Project caused by the acts, errors, or omissions of Agency, or its agents or employees, or caused by Unforeseen Site Conditions, or Force Majeure if, and only if, Design Build Entity follows the procedures specified in this section. As used herein, "**Additional Work**" means new or unforeseen Work that Agency determines is not covered by the Contract Documents.

11.3.6. **Unknown and/or Unforeseen Conditions:** If Design Build Entity encounters conditions at the Project Site that are (1) subsurface or otherwise concealed physical conditions that differ materially from those indicated in the Contract Documents or (2) unknown physical conditions of an unusual nature, that differ materially from those ordinarily found to exist and generally recognized as inherent in construction activities of the character provided for in the Contract Documents ("**Unforeseen Site Conditions**"), Design Build Entity shall promptly provide notice to Agency before conditions are disturbed and in no event later than five (5) working days after first observance of the conditions. Agency will promptly investigate the conditions and, if Agency reasonably determines that they differ materially and cause an increase or decrease in Design Build Entity's cost of, or time required for, performance of any part of the Work, Design Build Entity shall be entitled to an equitable adjustment in the Contract Price or Contract Time, or both. If Agency reasonably determines that the conditions at the Project Site are not materially different from those indicated in the Contract Documents and that no change in the terms of the Contract is justified, Agency shall promptly notify Design Build Entity in writing, stating the reasons. If Design Build Entity disputes Agency's determination, Design Build Entity shall perform the Work without any increase in Contract Price and/or Contract Time and may proceed under a reservation of rights and may seek compensation pursuant to the Claims Resolution provisions in the Contract.

11.3.7. **Format for Proposed Change Order:** The following format shall be used as applicable by Agency and Design Build Entity (e.g. Change Orders, PCO's) to communicate proposed additions and deductions to the Contract, attaching documentation substantiating the change.

	SUBCONTRACTOR PERFORMED WORK	ADD	DEDUCT
(a)	**Material** (attach itemized quantity and unit cost plus sales tax)		
(b)	**Add Labor** (attach itemized hours and rates, fully encumbered) Rates per prevailing wage scale of work classifications, including Fringe Benefits		
(c)	**Add Equipment** (attach suppliers' invoice)		
(d)	**SUBTOTAL**		
(e)	**Add Subcontractor's overhead and profit,** not to exceed [Insert Percentage] (XX%) of **item (d)**		
(f)	**SUBTOTAL**		
(g)	**Add Design Build Entity's fee, overhead, profit & general conditions**, not to exceed [Insert Percentage] (XX%) of the sum of **item (f)**		
(h)	SUBTOTAL		
(i)	**Add Bond and Insurance,** not to exceed [Insert Percentage] (XX%) of **Item (h)**		
(j)	**TOTAL**		
(k)	**Time**	_______	**Days**

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	DESIGN-BUILD ENTITY PERFORMED WORK	ADD	DEDUCT
(a)	**Material** (attach itemized quantity and unit cost plus sales tax)		
(b)	**Add Labor** (attach itemized hours and rates, fully encumbered. Rates per prevailing wage scale of work classifications, including Fringe Benefits)		
(c)	**Add Equipment** (attach suppliers' invoice)		
(d)	**SUBTOTAL**		
(e)	**Add Design Build Entity's fee, overhead, profit & general conditions**, not to exceed [Insert Percentage] (XX%) multiplied against the sum of **item (d)**		
(f)	SUBTOTAL		
(i)	**Add Bond and Insurance,** not to exceed one and one half percent (1.5%) of **item (f)**		
(j)	TOTAL		
(k)	Time		_______**Days**

11.3.8. **Requirement to Substantiate:** PCOs must include documentation reasonably necessary to substantiate all material, labor, and equipment included in Design Build Entity's request for an increase or decrease to the Contract Price. If Agency believes that Design Build Entity failed to adequately substantiate the PCO, Agency may require Design Build Entity to provide additional reasonable substantiation for the PCO. Design Build Entity's failure to respond to Agency's request for additional substantiation within a reasonable time shall constitute a waiver of Design Build Entity's claim for additional compensation for the work included in the PCO.

11.3.9. **Deleted Work:** All deductive change orders must be prepared pursuant to the provisions herein. Where a portion of the Work is deleted from the Contract, the reasonable value of the deleted work shall be considered the appropriate deduction. The value submitted on the Schedule of Values shall be used to calculate the credit. If the deleted work was to be performed by Design Build Entity, the deduction shall include a minimum of ten (10) percent for the total profit and overhead to be deducted with the value of the work. If the deleted work was to be performed by Design Build Entity's subcontractors, the deduction shall include a minimum of five (5) percent for the total profit and overhead to be deducted with the value of the work.

11.3.10. **Escalation**. Design Build Entity shall substantiate any request for additional compensation arising from escalation costs as required by the Contract.

11.3.11. **Delay:** Any request for an extension to the Contract Price or Contract Time relating to any alleged delay shall be included in a PCO and conform to the following requirements:

11.3.11.1. Design Build Entity's Notice of Delay:

11.3.11.1.1. In addition to the requirements indicated in this subsection, Design Build Entity shall submit any request for an adjustment of the Contract Price or the Contract Time through the Change Order provisions.

11.3.11.1.2. Design Build Entity shall, within **SEVEN (7)** calendar days of any delay impacting the critical path in completing the Work, notify Agency in writing of the causes of the delay including documentation and facts explaining the delay.

11.3.11.1.3. Any request by Design Build Entity for an adjustment of the Contract Price or the Contract Time for a delay shall be submitted in a PCO. When requesting time, requests must be submitted with full justification and documentation. Such justification must be based on the official approved Project Schedule as updated and approved by Agency at the time of occurrence of the delay or execution of Work related to any changes to the Work.

11.3.11.1.4. Any claim for delay must include the following information as support, without limitation:

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11.3.11.1.4.1. **Duration:** The duration of the activity relating to the changes in the Work and the resources (manpower, equipment, material, etc.) required to perform the activities within the stated duration.

11.3.11.1.4.2. **Logical Ties / Fragnets:** Specific logical ties to the Project Schedule for the proposed changes and/or delay showing the activity/activities in the Project Schedule that are affected by the change and/or delay (A portion of any delay of seven (7) days or more must be provided). Include a "fragnet" analysis for the portion of the schedule and the activities Design Build Entity contends are impacted by the delay.

11.3.11.1.4.3. **Updated Project Schedule:** A recovery or updated Project Schedule for all affected Site.

11.3.11.1.5. Agency shall review the facts and extent of any noticed delay and may grant Contract Time extension(s) of time for completing Work when, in Agency's reasonable judgment, the findings of fact justify an extension.

11.3.11.1.6. Extension(s) of time shall apply only to that portion of Work affected by delay, and shall not apply to other portions of Work not so affected.

11.3.11.1.7. An extension of time may only be granted if Design Build Entity has timely submitted the updated Project Schedule as required herein.

11.3.11.1.8. Following submission of a notice of delay, Agency may determine whether the delay is to be considered:

11.3.11.1.8.1. Excusable and Compensable, Excusable and Non-Compensable, or Unexcused;

11.3.11.1.8.2. How long the delay continues; and

11.3.11.1.8.3. To what extent the prosecution and Completion of the Work might be delayed thereby.

11.3.11.2. **Strict Compliance.** Design Build Entity's failure to request adjustment(s) of the Contract Time in strict conformance with applicable provisions herein shall be deemed Design Build Entity's waiver of its right to assert a claim for a delay.

11.3.11.3. **Limitations Upon Adjustment of Contract Time on Account of Delays:** Any adjustment of the Contract Time on account of an Excusable Delay or a Compensable Delay shall be limited as set forth herein. No adjustment of the Contract Time shall be made on account of any Excusable Delays or Compensable Delays unless those delay(s) actually and directly impact Work or Work activities on the critical path of the then current and updated approved Project Schedule as of the date on which a delay first occurs. Agency shall not be deemed in breach of, or otherwise in default of any obligation hereunder, if Agency shall deny a request by Design Build Entity for an adjustment of the Contract Time for any delay that does not actually and directly impact Work on the then current and updated approved Project Schedule. In submitting a request for an adjustment of Contract Time, and as a condition precedent to Agency's review of that request, Design Build Entity shall insert into the then current and updated approved Project Schedule and a "fragnet" analysis representing the event that Design Build Entity claims to result in delay to the critical path as depicted in the updated approved Project Schedule. If an Excusable Delay and a Compensable Delay occur concurrently, the maximum extension of the Contract Time shall be the number of days from the commencement of the first delay to the cessation of the delay that ends last. If an Unexcused Delay impacting the critical path in completing the work occurs concurrently with either an Excusable Delay or a Compensable Delay, the maximum extension of the Contract Time shall be the number of days of if any which the Excusable Delay or the Compensable

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Delay exceeds the period of time of the Unexcused Delay.

11.3.12. Excusable and Compensable Delay(s):

11.3.12.1. Design Build Entity is not entitled to additional compensation for any delay, even a delay caused by an Excusable Delay unless **all** of the following conditions are met ("**Compensable Delay**"):

11.3.12.1.1. Agency, a utility, or an authority having jurisdiction is responsible for the delay;

11.3.12.1.2. The delay is unreasonable under the circumstances involved, impacts the critical path of the Work, and extends the most current date for Completion of the Project, stage(s), and/or Work at a Site;

11.3.12.1.3. The delay was not within the contemplation of Agency and Design Build Entity, determined based on the events that were included in the Project Schedule or should have reasonably been included therein;

11.3.12.1.4. Design Build Entity complies with the Change Order procedures, and if necessary, the Claims procedures of the Contract;

11.3.12.1.5. The delay could not have been avoided or reasonably mitigated by Design Build Entity's care, prudence, foresight, and diligence;

11.3.12.1.6. The delay extends the most current Completion date (for the Project or any stage of the Project); and

11.3.12.1.7. The delay is not concurrent with a Design Build Entity -caused delay or other type of Excusable Delay.

11.3.12.2. In accordance with California Public Contract Code section 7102, if Design Build Entity's progress is delayed by the events described in the preceding subsection, Design Build Entity shall not be precluded from the recovery of damages directly and proximately resulting therefrom. In that event, Design Build Entity's damages, if any, shall be limited to direct, actual and unavoidable additional costs of labor, materials or construction equipment directly resulting from that delay, and shall exclude special, indirect or consequential damages. In no event shall Design Build Entity seek costs or damages for delays, interruptions, hindrances or disruptions to the Work for on-Site or off-Site costs or damages based upon formulas, e.g. Eichleay or other formula. Except as expressly provided for herein, Design Build Entity shall not have any other claim, demand or right to adjustment of the Contract Price arising out of delay, interruption, hindrance or disruption to the progress of the Work. Design Build Entity shall only be entitled to the actual costs to Design Build Entity for any Compensable Delay, and Design Build Entity shall not be entitled to calculate those costs by any other formula including, without limitation, jury verdict method, total cost method, or modified total cost method.

11.3.13. Excusable and Non-Compensable Delay(s):

11.3.13.1. An "**Excusable Delay(s)**" shall mean an interruption of the Work beyond the reasonable control of Design Build Entity and that:

11.3.13.1.1. Could have not been avoided by Design Build Entity exercising reasonable care, prudence, foresight, and diligence, and

11.3.13.1.2. Actually extends the most current date for Completion of the Project, stage(s), and/or Work at a Site.

11.3.13.2. Design Build Entity may be entitled to an extension of the Project Completion date if there is an Excusable Delay, but Design Build Entity shall not be entitled to additional compensation for an Excusable Delay.

11.3.13.3. Excusable Delays are limited to interruptions that satisfy the above requirements, or that are acts of God; acts of a public enemy; fires; floods; windstorms; tornadoes; earthquakes; wars; riots; insurrections; epidemics or

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pandemics; quarantine restrictions; strikes; lockouts; fuel shortages; freight embargoes; supply chain disruptions beyond the contemplation of the Parties as of the Effective Date for an Impacted Item or unavailability of an Impacted Item; and Adverse Weather that satisfies the requirements herein.

11.3.13.3.1. Supply chain disruptions and unavailability of materials or equipment may constitute an interruption that may support Excusable Delay for an Impacted Item **only**, if Design Build Entity demonstrates **all** the following conditions are satisfied:

11.3.13.3.1.1. The supply chain disruption causes the procurement of an Impacted Item to exceed the amount of days for the delivery for the Impacted Item as indicated in the **initial** detailed Project Schedule;

11.3.13.3.1.2. Design Build Entity has exhausted any Supply Float for that Impacted Item;

11.3.13.3.1.3. Delay in the procurement of the Impacted Item materially impacts the progress of the Work by impacting the critical path of the Project; and

11.3.13.3.1.4. Design Build Entity in no way causes the delay in the procurement of the Impacted Item. Without in any way limiting the generality of the foregoing, Design Build Entity shall be deemed to "cause" a delay In the procurement of an Impacted Item if: (i) Design Build Entity unreasonably delays ordering the Impacted Item; and/or (ii) Design Build Entity fails to request permission from Agency to purchase the Impacted Item sufficiently in advance given then-current information regarding lead times for an Impacted Item and to store the Impacted Item on the Site or off-Site, with such storage complying with the requirements of the Contract Documents.

11.3.13.4. Design Build Entity is aware that governmental agencies and utilities, including, without limitation, gas companies, electrical utility companies, water districts, and other agencies ("**Review Agencies**") may have to approve Design Build Entity-prepared drawings or approve a proposed installation. Design Build Entity has included in the Contract Price and design schedule, time for possible review of its drawings and for reasonable delays and damages that may be caused by such agencies. Design Build Entity is only entitled to an extension to the Contract Time arising from delays caused by review of Design Build Entity's drawings or other approvals of Review Agencies if any such event satisfies the conditions applicable to Review Agencies in the "**Force Majeure**" section below.

11.3.13.5. Neither the financial resources of Design Build Entity or any person or entity directly or indirectly engaged by Design Build Entity in performance of any portion of the Work shall be deemed conditions beyond the control of Design Build Entity. If an event of Excusable Delay occurs, the Contract Time shall be subject to adjustment hereunder only if Design Build Entity establishes: (i) full compliance with all applicable provisions of the General Conditions relative to the method, manner and time for Design Build Entity's notice and request for adjustment of the Contract Time; (ii) that the event(s) forming the basis for Design Build Entity's request to adjust the Contract Time are outside the reasonable control and without any fault or neglect of Design Build Entity or any person or entity directly or indirectly engaged by Design Build Entity in performance of any portion of the Work; and (iii) that the event(s) forming the basis for Design Build Entity's request to adjust the Contract Time directly and

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adversely impacted the critical path of the Work as indicated in the approved Project Schedule or the most recent updated approved Project Schedule relative to the date(s) of the claimed event(s) of Excusable Delay.

11.3.13.6. Notwithstanding any other provision herein to the contrary, in the event of an Excusable Delay, nothing in this Section 11.3 shall preclude Design Build Entity from using the Contingency to cover the costs incurred as a result of such Excusable Delay, in accordance with the provisions of Section 10.1, above.

11.3.14. Unexcused Delay(s):

11.3.14.1. Unexcused Delays refer to any delay to the progress of the Work caused by events or factors other than those specifically identified in the "**Excusable and Compensable Delay(s)**" or the "**Excusable and Non-Compensable Delay(s)**" sections above. Neither the Contract Price nor the Contract Time shall be adjusted on account of Unexcused Delays.

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11.3.14.2. Design Build Entity shall not forfeit or pay liquidated damages for an Excusable Delay or an Excusable and Compensable Delay but instead shall be entitled to an extension of the Contract Time for such delay.

11.3.15. Delays Due to **Weather:** Design Build Entity may obtain an extension of time in the event of Weather as set forth in this section 11.3.15.

11.3.15.1. Design Build Entity will only be allowed a time extension for Excusable Delay caused by Weather if requested by Design Build Entity and only if the following conditions are met:

11.3.15.1.1. Design Build Entity can verify that the Weather caused delays in excess of five hours of the indicated labor required to complete the scheduled tasks of Work on the day affected by the Weather; or

11.3.15.1.2. Design Build Entity's crew is dismissed as a result of the Weather; and/or

11.3.15.1.3. The number of days of delay for the month exceed those indicated in this table:

January	**10**	July	**0**
February	**10**	August	**0**
March	**5**	September	**1**
April	**5**	October	**4**
May	**3**	November	**5**
June	**1**	December	**5**

A day-for-day extension will only be allowed for those days in excess of those indicated in this table.

12. **TRENCH SHORING:** If this Contract is in excess of $25,000 and is for the excavation of any trench deeper than five (5) feet, Design Build Entity must submit and obtain Agency acceptance, in advance of excavation, of a detailed plan showing the design of shoring, bracing, sloping, or other provisions to be made for worker protection from the hazard of caving ground during the excavation of such trench or trenches. If the plan varies from the shoring system standards, the plan shall be prepared by a registered civil or structural engineer.

13. EXCAVATIONS OVER FOUR FEET:

13.1. If this Contract includes excavations over four (4) feet, Design Build Entity shall in compliance with Public Contract Code section 7104, promptly, and before the following conditions are disturbed, notify Agency, in writing, of any: (1) Material that Design Build Entity suspects may be hazardous waste, as defined in Section 25117 of the Health and Safety Code, that is required to be removed to a Class I, Class II, or Class III disposal site in accordance with provisions of existing law; (2) Subsurface or latent physical conditions at the Site that differ from those indicated in the Construction Documents; or (3)

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Unknown physical conditions at the Site of any unusual nature, or materially different from conditions ordinarily encountered and generally recognized as inherent in the character of the Work. Agency shall promptly investigate the conditions, and if it finds that the conditions do materially differ, or involve hazardous waste, and cause a decrease or increase in Design Build Entity's cost of, or the time required for, performance of any part of the Work, Agency shall issue a change order or amendment as provided herein.

13.2. In the event that a dispute arises between Agency and Design Build Entity regarding whether the conditions materially differ, or involve hazardous waste, or cause a decrease or increase in Design Build Entity's cost of, or time required for, performance of any part of the Work, if possible, Design Build Entity shall proceed with other Work to be performed under the Contract which is not subject to the dispute. Design Build Entity shall retain any and all rights provided either by Contract or by law which pertain to the resolution of disputes and protests between the Parties.

13.3. Notwithstanding the above, the Work does not include directly or indirectly performing or arranging for the detection, monitoring, handling, storage, removal, transportation, disposal or treatment of Hazardous Materials, as defined in the Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended, the regulations promulgated thereunder, and other applicable federal, state or local law ("**Hazardous Materials**"). The Work has been contemplated and priced based on the absence of Hazardous Materials at the Site. Design Build Entity will notify Agency immediately if it discovers or suspects the presence of any Hazardous Materials, and such discovery shall entitle Design Build Entity to suspend the Work until Agency can arrange proper remediation and the Parties can negotiate mutually-agreeable terms to complete the rest of the Work, if feasible.

14. **WORKERS:** Design Build Entity shall at all times enforce strict discipline and good order among its employees and the employees of its subcontractors and shall not employ or work any unfit person or anyone not skilled in work assigned to him or her. Any person in the employ of Design Build Entity or a subcontractor whom Agency may deem incompetent or unfit shall be dismissed from the Site and shall not again be employed at the Site without written consent from Agency.
15. **CORRECTION OF ERRORS:** Design Build Entity shall perform any work necessary to correct errors or omissions which are caused by Design Build Entity's failure to comply with the Contract and code requirements.
16. **SUBSTITUTIONS:** No substitutions of material from those specified in the approved final design shall be made without the prior written approval of Agency, which shall not be unreasonably withheld.
17. **DESIGN-BUILD ENTITY SUPERVISION:** Design Build Entity shall provide competent supervision of personnel employed on the Site, use of equipment, and quality of workmanship. Design Build Entity shall provide a full-time Project manager and a full-time, on-Site, non-working Project superintendent subject to acceptance of Agency.
18. **CLEAN UP:** Debris from the Work shall be removed from the Site by Design Build Entity. The Site shall be in order at all times when Work is not being performed and shall at all times be maintained in a reasonably clean condition.
19. **ACCESS TO WORK:** Agency shall provide Design Build Entity with the required Site access. Agency representatives shall at all times have access to the Work. Design Build Entity shall provide safe and proper facilities for Agency's access.
20. **PROTECTION OF WORK AND PROPERTY:** Design Build Entity shall erect and properly maintain all necessary safeguards, signs, barriers, lights, and security persons for protection of workers, the public and the Work and shall post clear and conspicuous notice warning of any hazards created by the Work. In an emergency affecting life, safety, Work, or adjoining property, Design Build Entity, without special instruction or authorization from Agency, is permitted to take any action Design Build Entity thinks necessary to prevent such threatened loss or injury.
21. **OTHER CONTRACTS/CONTRACTORS:** Design Build Entity acknowledges that it shall not have exclusive occupancy of the Site or of the Project. Agency reserves the right to let other contracts, and/or to perform other work with its own forces at the Site. Design Build Entity shall afford Agency's contractors reasonable opportunity for introduction and storage of materials and execution of contractor's work at the Site. If applicable, Design Build Entity shall properly coordinate and connect the Work with the work of Agency's contractors. In addition to Design Build Entity's obligation to protect its own Work, Design Build Entity shall use its best efforts to protect the work of any other contractor that Design Build Entity encounters while working on the Project. Design Build Entity shall not cause any unnecessary hindrance or delay to the use and/or operation(s) of the Site and/or to Agency or any other contractor working on the Project. If simultaneous execution of any contract or operation is

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likely to cause interference with performance of Design Build Entity's Contract, Design Build Entity shall coordinate with those contractor(s), person(s), and/or entity(s) and shall notify Agency of the resolution.

22. **ASSIGNMENT OF CONTRACT:** Design Build Entity shall not assign or transfer in any way any or all of its rights, burdens, duties, or obligations under this Contract without the prior written consent of Agency. This provision shall not limit Design Build Entity's right to subcontract portions of its Work to other entities and assign this Contract and all related contracts without the consent of Agency (i) to direct affiliate of Design Build Entity; (ii) to an entity that is controlled by, controls, or is under common control with Design Build Entity; or (iii) pursuant to a merger, consolidation, transfer of substantially all its assets, or by operation of law. This Contract will be binding on, enforceable by, and inure to the benefit of, the Parties and their respective successors and permitted assigns. Any assignment made in contravention of this clause shall be void and unenforceable.

23. COMMISSIONING:

23.1. Summary

23.1.1. Commissioning is a process for validating and documenting that the facility and its systems are constructed and perform in conformity with the Contract.

23.1.2. The objective of the commissioning process is to verify that the performance of the facility and its systems meet or exceed the design intent.

23.1.3. Commissioning includes special facility start-up processes used to bring the facility to a fully operational state, free of deficiencies in an efficient and timely manner.

23.1.4. Training on related systems and equipment operation and maintenance shall be scheduled to commence only after start-up is complete and systems are verified to be 100% complete and functional.

23.2. Description

23.2.1. Design Build Entity Startup: prior to Agency's acceptance of Work, Design Build Entity shall perform a program of activities including starting, testing, inspecting, adjusting balancing, correcting deficiencies and other similar activities.

23.2.2. Agency and the Project Inspector (IOR) (if any) shall be present to observe, inspect, and identify deficiencies in Building Systems Operations.

23.2.3. The completion of startup means the entire Project including startup and fine tuning has been performed to the requirements of the Contract and is verified in writing by Agency and the IOR.

23.2.4. Fine Tuning: Fine tuning is the responsibility of Design Build Entity after Agency occupancy and ending one year after Agency occupancy. During this time, Design Build Entity is responsible for optimizing systems and correcting deficiencies arising under normal operating conditions.

23.2.5. Includes a period after occupancy where systems are optimized under "live" operating conditions and any outstanding construction deficiencies are corrected.

23.2.6. Fine Tuning shall extend from date of Agency occupancy to one year after occupancy.

23.2.7. Design Build Entity is to include in its Building Life Cycle Cost Analysis the Commissioning scope of work.

23.3. Definition of Terms

23.3.1. Design Build Entity's Pre-Commissioning Checklists: Includes installation and start-up items as specified to be completed by the appropriate contractors prior to operational verification through the functional testing process.

23.3.2. Installation Verification Process: Includes the on-site inspection and review of related system components for conformance to the Contract. Design Build Entity shall verify systems readiness for functional testing procedures prior to the start of functional testing. Deficiencies will be documented by Agency and the IOR for future resolution.

23.3.3. Functional Performance Testing Process: Includes the documented testing of system parameters, under actual or simulated operating conditions. Final performance commissioning of systems will begin only after the appropriate Design Build Entity certifies that systems are 100% complete and ready for functional testing. The contractors will be required to schedule, coordinate and perform device tests, calibration and functional performance test procedures.

23.3.4. Deficiencies and Resolutions List: Includes a list of noted deficiencies discovered as a result of the commissioning process. This list also includes the current disposition of issues, and the date of final resolution as confirmed by Agency and the IOR Deficiencies are defined as those issues where products execution or performance does not satisfy the Contract and/or the design intent.

23.3.5. Commissioning Duties and ResponsibilitiesDesign Build Entity Duties and Responsibilities:

23.3.5.1. Assure the participation and cooperation of subcontractors and suppliers under

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their jurisdictions as required to complete the commissioning process.

23.3.5.2. Complete Commissioning Report Forms. Reports are to be completed in a neat easily readable condition.

23.3.5.3. Complete the respective start-up and check out procedures and insure readiness of equipment and systems prior to the start of the functional performance testing. Written confirmation of system readiness for performance testing is required.

23.3.5.4. Provide qualified representatives for the functional performance commissioning process.

23.3.6. Assure that all subcontractors and suppliers include in their respective contracts cost necessary to participate in and complete the commissioning process.

23.3.7. Duties and responsibilities of others for Commissioning: The commissioning process requires the active participation of Agency and the IOR, and any other related Consultants on the project.

24. COMPLETION:

24.1. **Early Design Stage:** Design Build Entity shall be complete with this stage upon Agency's acceptance of final Early Design Stage Services, including, without limitation, the approval of any deliverables required to be provided by Design Build Entity to Agency.

24.2. **Schematic Design Documents:** Design Build Entity shall be complete with this stage upon Agency's acceptance of final Schematic Design Documents, including, without limitation, the approval of any deliverables required to be provided by Design Build Entity to Agency.

24.3. **Design Development Documents:** Design Build Entity shall be complete with this stage upon Agency's acceptance of final Design Development Documents, including, without limitation, the approval of any deliverables required to be provided by Design Build Entity to Agency.

24.4. **50% Construction Documents:** Design Build Entity shall be complete with this stage upon Agency's acceptance of Construction Documents at 50% of completion, including, without limitation, the approval of any deliverables required to be provided by Design Build Entity to Agency.

24.5. **100% Construction Documents:** Design Build Entity shall be complete with this stage upon:

24.5.1. Agency's acceptance of final Construction Documents and Design Build Entity's submittal of those documents to AHJs, where applicable; and

24.5.2. After Design Build Entity procures Subcontractors and Agency and Design Build Entity agree to the cost to perform Construction Stage Services**.**

24.6. Construction:

24.6.1. Design Build Entity acknowledges that the requirements for "**Completion**" hereunder apply to Construction Stage Services for the Project.

24.6.2. Walk-Through as Prerequisite to Determination of Completion:

24.6.2.1. Design Build Entity shall notify Agency when it thinks that the Work is complete except for minor corrective items. Design Build Entity shall provide to Agency a preliminary list of all minor corrective items that must be corrected. Agency and Design Build Entity shall then schedule a final walk-through of the Project to be attended by Design Build Entity, Agency, and the Inspector to determine whether and to what extent the Work is complete. Agency will schedule the walkthrough within five (5) business days after Agency's receipt of Design Build Entity's preliminary list, except in the event that all parties necessary for the walkthrough are reasonably not available (including, without limitation, the Construction Manager or IOR). Any erroneous claims of completion by Design Build Entity resulting in a premature walk-through shall be at Design Build Entity's sole cost and expense, and Agency shall be entitled to reduce its payments to Design Build Entity under the Contract by an amount equal to any costs incurred by Agency due to the erroneous claims by Design Build Entity that the Project is complete.

24.6.2.2. Design Build Entity's preliminary list of all minor corrective items will be used by Design Build Entity to prepare a corrective items list ("**Punch-List**") that shall be identified in the final walk-through of the Project. Agency shall approve the Punch-List and may add omitted or missing items and provide a copy of an updated Punch-List to Design Build Entity at the conclusion of the walk-through or within a reasonable time thereafter, not to exceed five (5) days.

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24.6.2.3. Agency may, at its sole discretion, accept as complete partial scopes or phases of Work as each is completed prior to completion of the entire Work or Project.

24.6.2.4. No later than five (5) business days after the walk through, Agency shall determine whether the Work is eligible for Completion.

24.6.2.5. If Design Build Entity and Agency (through its Agency Representative) determine that the Work is available for beneficial use and occupancy and therefore is eligible for Completion, then the date of that determination shall constitute the final day of the Construction Stage of the Project when calculating Liquidated Damages ("**Staff Determination**") and start of the Warranty Period. Staff Determination of eligibility for Completion shall not be unreasonably withheld, delayed or conditioned; provided, however, that Agency's determination, in its sole and reasonable discretion, that any Work is not complete in conformance with all Contract Documents shall not be considered "unreasonable". Additionally, Agency shall promptly include the approval and acceptance of the Project and Notice of Completion on the Board's next available agenda.

24.6.2.6. Design Build Entity shall attend a post-construction interview with Agency and provide a narrative of lessons learned for the Project.

24.6.3. **Agency's Acceptance of Work:** Agency may either:

24.6.3.1. Accept the Work as complete notwithstanding Punch List items (as distinguished from incomplete Work), if the Work has otherwise been completed to the satisfaction of Agency and the Inspector; or

24.6.3.2. Refrain from accepting the Work as complete until the entire Work and all portions thereof, including all Punch-List items, have been completed to the satisfaction of Agency and the Inspector; provided however, that completion of Punch List items is not required for Agency to deem the Work at a Site Complete and cease the accrual or assessment of Liquidated Damages, if **all** other Work is complete.

24.6.4. The Work shall be accepted as complete by an action of Agency's Board ("**Final Completion**" or "**Complete(ion)**" as defined in 24.6.2.5.).

24.6.5. **Notice of Completion:** Once Agency accepts the Work, Agency may thereafter cause a Notice of Completion to be recorded in the County Recorder's Office.

24.6.6. **Design Build Entity's Failure to Correct Punch-List Items:** If Agency elects to accept Work with incomplete Punch List items, and Design Build Entity fails to complete the Punch List items within forty-five (45) days of days of Completion of the Project, Agency shall withhold from the final payment due Design Build Entity an amount equal to one hundred and fifty percent (150%) of the estimated cost, as reasonably determined by Agency, of each Punch List item and all portions related thereto, until the item is complete.

24.6.7. **Time is of the Essence:** Time is of the essence in the performance of and compliance with each of the provisions and conditions of this Contract.

25. **PARTIAL OCCUPANCY / BENEFICIAL USE:** Agency may occupy or use any completed or partially completed portion of the Work at any time provided that doing so does not unreasonably interfere with Design Build Entity's ability to complete and Work. Neither Agency's final acceptance, final payment, any provision in Contract Documents, nor the use or occupancy of the Work, in whole or in part, by Agency shall constitute acceptance of Work not in accordance with the Contract Documents nor relieve Design Build Entity or Design Build Entity's Performance Bond Surety from liability with respect to any warranties or responsibility for faulty or defective Work or materials, equipment and workmanship incorporated therein. Agency and Design Build Entity shall agree in writing to the responsibilities assigned to each of them for payments, security, maintenance, heat, utilities, damage to the Work, insurance, the period for correction of the Work, and the commencement of warranties required by the Contract Documents. Any dispute as to responsibilities, or determination of Completion, shall be resolved pursuant to the Claims and Disputes provisions herein, with the added provision that during the dispute process, Agency shall have the right to occupy or use any portion of the Work that it needs or desires to use.

26. FORCE MAJEURE CLAUSE:

26.1. The term "**Force Majeure**" shall mean those events caused beyond the control of the affected Party and which by the exercise of due diligence the Party could not reasonably avoid and which it has been unable to overcome, including acts of God and public enemy; fire; disease, strike; loss or shortage of transportation facilities; lock-out; commandeering of materials, product, plant, or facilities by the

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government; relocation or construction of transmission facilities or the shutdown of such facilities for the purpose of necessary repairs; work by local utility directly impacting the Project; flood; earthquake; tornado; severe storm; insurrections; epidemics; pandemics; quarantine restrictions; strikes; civil disobedience; sabotage; supply chain disruptions; general unavailability of materials in the region in which the Work is to be performed beyond the contemplation of the Parties as of the Effective Date; restraint by court order or public authority (whether valid or invalid); which is beyond the control of the affected Party and which by the exercise of due diligence the Party could not reasonably have been expected to avoid and which it has been unable to overcome.

26.2. Neither Party shall be considered to be in default in the performance of any material obligation of the Contract during the time and to the extent that the Party is prevented from obtaining delivery or performing by a Force Majeure event. Neither Party shall be relieved of its obligation to perform if its failure is due to causes arising out of the Party's negligence or due to removable or remediable causes which the Party fails to remove or remedy with the exercise of all best efforts within a reasonable time period. Either Party rendered unable to fulfill its obligations under the Contract by reason of an event of Force Majeure shall give prompt written notice of the fact to the other Party. Notwithstanding a Force Majeure event, the Party claiming a Force Majeure event shall provide the other Party satisfactory evidence that the event caused the delay or lack of performance and was not due to the fault or neglect of the Party claiming a Force Majeure event.

26.3. Design Build Entity is aware that Review Agencies may have to approve Design Build Entity-prepared drawings, plans or approve a proposed installation. Design Build Entity shall include in the Project Schedule time for possible review of its drawings, plans, and proposed installation and for reasonable delays or damages that may be caused by the Review Agencies. Design Build Entity shall be entitled to additional time in the Project Schedule for review of Design Build Entity's drawings, plans or proposed installation or other approvals from the Review Agencies, if all of the following conditions have been satisfied:

26.3.1. The time for this review is in excess of the time expressly allocated for this review in the Project Schedule; and

26.3.2. Design Build Entity has diligently pursued approval from the Review Agencies; and

26.3.3. The delay in Review Agencies' approval is not related to an uncured defect, error, or omission in Design Build Entity's drawings, plans, or proposed installation.

27. INDEMNIFICATION / HOLD HARMLESS CLAUSE:

27.1. To the furthest extent permitted by California law, Design Build Entity shall defend, indemnify, and hold harmless Agency, its trustees, members, agents, representatives, officers, consultants, employees, and volunteers (the "**Indemnified Parties**") from any and all third party demands, losses, liabilities, claims, suits, and actions (the "**Indemnity Claim(s)**") of any kind, nature, and description, including, but not limited to, reasonable attorneys' fees and costs, directly or indirectly arising from personal or bodily injuries, death, property damage, or otherwise arising out of, connected with, or resulting from the performance of this Contract to the extent the Indemnity Claims are caused by the negligence, recklessness, or willful misconduct of Design Build Entity. Agency shall have the right to accept or reject any legal representation that Design Build Entity proposes to defend Agency. However, such acceptance shall not be unreasonably withheld. This indemnification, defense, and hold harmless obligation includes any failure or alleged failure by Design Build Entity to: (1) comply with any provision of law, and (2) timely and properly fulfill all of its obligations under the Contract, including, without limitation, any stop payment notice actions or liens, including liens by the California Department of Labor Standards Enforcement, provided that Agency is not in breach of its payment obligations under this Agreement.

27.2. Further, Design Build Entity shall be directly liable to the Indemnified Parties for and, to the furthest extent permitted by California law, shall defend, indemnify, and hold harmless the Indemnified Parties from any Indemnity Claims of any kind, nature, and description arising out of, connected with, or resulting from the design component of the Project.

27.3. Design Build Entity's duty to defend under either of the above provisions shall begin upon Agency's notification to Design Build Entity of an Indemnity Claim. At that time, Design Build Entity shall pay for that defense at its sole cost. Design Build Entity's duty to indemnify and defend under this Contract shall apply during the term of this Contract and shall survive any expiration or termination of this Contract until any such Indemnity Claim(s) is barred by the applicable statute of limitations and is in addition to any other rights or remedies that Agency may have under the law or under this Contract.

28. PAYMENT:

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28.1. **Transfer of Title:** Title to all or a portion of the Project equipment, supplies and other components of the Work will pass to Agency upon the date of payment for such Project equipment, supplies or components or portion thereof is made by Agency.

28.2. Design Stage Services:

28.2.1. Invoices shall be on a form approved by Agency and are to be submitted to Agency via Agency's authorized representative.

28.2.2. Design Build Entity shall submit to Agency on a monthly basis documentation showing proof that payments were made to its consultant(s).

28.2.3. Design Build Entity shall submit to Agency for approval a copy of Design Build Entity's monthly pay request format.

28.2.4. Upon receipt and approval of Design Build Entity's invoices, Agency agrees to make payments within thirty (30) days of receipt of the invoice.

28.3. Construction Stage Services:

28.3.1. During Construction Stage Services of the Project, Design Build Entity shall prepare and submit a separate Schedule of Values and separate Application for Payment consistent with the requirements below, as applicable.

28.3.2. On a monthly basis, Design Build Entity shall submit an application for payment based upon the estimated value for materials delivered or Services and Work performed under the Contract as of the date of submission ("**Application for Payment**") and consistent with the Project Cost Values set forth in **Exhibit D**, attached hereto. Design Build Entity shall certify each Application for Payment and the Inspector shall verify that the materials, Services, or Work were delivered or performed.

28.3.3. **Schedule of Values:** Design Build Entity shall provide a preliminary Schedule of Values for all of the Work, which must include quantities and prices of items aggregating the Contract Price and must subdivide the Work into component parts in sufficient detail to serve as the basis for progress payments during construction ("**Schedule of Values**"). This preliminary Schedule of Values shall include, at a minimum, the following information and the following structure:

28.3.3.1. Divided into the following categories, to the extent applicable for the Work:

28.3.3.1.1. Overhead and profit;
28.3.3.1.2. Supervisions;
28.3.3.1.3. General conditions;
28.3.3.1.4. Layout
28.3.3.1.5. Mobilization;
28.3.3.1.6. Submittals;
28.3.3.1.7. Bonds and insurance;
28.3.3.1.8. Closeout documentation;
28.3.3.1.9. Demolition;
28.3.3.1.10. Installation;
28.3.3.1.11. Finishes;
28.3.3.1.12. Rough-in;
28.3.3.1.13. Testing;
28.3.3.1.14. Punchlist and acceptance;
28.3.3.1.15. Allowance(s), if applicable;
28.3.3.1.16. Contingency(ies), if applicable;

28.3.3.2. Divided by each of the following areas:

28.3.3.2.1. Site work;
28.3.3.2.2. By major trades;
28.3.3.2.3. By building;
28.3.3.2.4. By each floor (if applicable)

28.3.3.3. The preliminary Schedule of Values shall not provide for values any greater than the following percentages of the value of the portion of the Contract Price associated with Construction Stage Services:

28.3.3.3.1. Mobilization and layout combined to equal not more than 1%;
28.3.3.3.2. Submittals, samples and shop drawings combined to equal not more than 3%,
28.3.3.3.3. Bonds and insurance combined to equal not more than 2%.

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28.3.3.4. **Closeout Documentation:** Closeout Documentation shall have a value in the preliminary Schedule of Values of not less than 1%. The value for Closeout Documentation shall be in addition to and shall not be a part of any retention. Closeout Documentation shall include the following, without limitation, as applicable for the Construction Stage Services:

28.3.3.4.1. A full set of final As-Built Drawings, as further defined herein.

28.3.3.4.2. All Operations & Maintenance Manuals and information, as further defined herein.

28.3.3.4.3. All Warranties, as further defined herein.

28.3.3.5. Notwithstanding any provision of the Contract Documents to the contrary, payment of Design Build Entity's overhead, supervision, general conditions costs, and profit shall be paid by Agency, based on percentage complete consistent with the disbursement of progress payments and the final payment.

28.3.3.6. Design Build Entity shall certify that the preliminary Schedule of Values as submitted to Agency is accurate and reflects the costs as developed in preparing Design Build Entity's bid. The preliminary Schedule of Values shall be subject to Agency's review and approval of the form and content thereof. In the event that Agency objects to any portion of the preliminary Schedule of Values, Agency shall notify Design Build Entity, in writing, of Agency's objection(s) to the preliminary Schedule of Values. Within five (5) calendar days of the date of Agency's written objection(s), Design Build Entity shall submit a revised preliminary Schedule of Values to Agency for review and approval. The foregoing procedure for the preparation, review and approval of the preliminary Schedule of Values shall continue until Agency has approved the entirety of the preliminary Schedule of Values as compliant with the Contract Documents. Any approval herein shall not be unreasonably withheld.

28.3.3.7. Once the preliminary Schedule of Values is approved by Agency, this shall become the Schedule of Values. The Schedule of Values shall not be thereafter modified or amended by Design Build Entity without the prior consent and approval of Agency, which shall not be unreasonably withheld.

28.3.4. Within thirty (30) days after Agency's receipt of the Application for Payment, Design Build Entity shall be paid a sum equal to **Ninety-Five Percent** (**95%**) of the value of the Work performed (assuming the value of the Work performed is verified by Inspector and certified by Design Build Entity) up to the last day of the previous month, less the aggregate of previous payments and amounts to be withheld. Agency shall retain **Five Percent** (**5%**) from all amounts owing Design Build Entity as retention. Retention shall be paid pursuant to Public Contract Code sections 7107 and 7200.

28.3.5. To the extent applicable, with respect to any tax deduction and/or credit Design Build Entity receives based on the Project per Internal Revenue Code section 179(d), Design Build Entity shall issue a credit to Agency as an offset to Design Build Entity's fee equal to the amount of the credit minus any costs incurred by Design Build Entity in establishing that the Project qualifies for the credit.

28.3.6. After advance written notice and thirty (30) days opportunity to cure, Agency may deduct from any payment an amount reasonably necessary to protect Agency from loss due to:

28.3.6.1. Liquidated Damages which have accrued as of the date of Application for Payment;

28.3.6.2. Any sums expended by Agency in performing any of Design Build Entity's obligations under the Contract which Design Build Entity has failed to perform or has performed inadequately;

28.3.6.3. Defective Work not remedied;

28.3.6.4. Stop payment notices as allowed by state law;

28.3.6.5. Reasonable doubt that the Work can be completed for the unpaid balance of the Contract Price or by the scheduled Project completion date;

28.3.6.6. Unsatisfactory prosecution of the Work by Design Build Entity;

28.3.6.7. Unauthorized material deviations from the Contract;

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28.3.6.8. Failure of Design Build Entity to maintain or submit on a timely basis proper and sufficient documentation as required by the Contract during the performance of the Work;

28.3.6.9. Knowingly false estimates submitted by Design Build Entity of the value of the Work performed;

28.3.6.10. Any sums representing expenses, losses, or damages reasonably incurred by Agency for which Design Build Entity is liable under the Contract;

28.3.6.11. Failure to comply with skilled and trained workforce requirements; and

28.3.6.12. Any other sums which Agency is entitled to recover from Design Build Entity under the terms of the Contract or pursuant to state law, including section 1727 of the California Labor Code. The failure by Agency to deduct any of these sums from Design Build Entity's progress payment shall not constitute a waiver of Agency's right to the sums.

28.3.7. Payment or deposits needed for long-lead material items and for materials stored on or off the Site may be allowed at the sole discretion of Agency. If allowed, proof of off-site material purchases (invoices and checks and/or bills of lading) and appropriate insurance coverage shall be required. Design Build Entity shall furnish to Agency written consent from Design Build Entity's Surety approving the advanced payment for materials stored off Site. The maximum prepayment allowed by Agency shall be **One Hundred Percent** (**100%**) of the actual value of the material being considered, less retention. Design Build Entity shall protect stored materials from damage and shall be liable for any damage thereto. Damaged materials, even though paid for, shall not be incorporated into the Work. Design Build Entity shall be responsible to replace any damaged stored materials at its sole cost and expense.

29. **LOGISTIC PLAN:** Design Build Entity shall provide a staging and logistics plan identifying laydown areas, loading and unloading areas, crane locations, fence locations, temporary utility connections, trailer locations, and emergency evacuation meeting area. This Logistics Plan must be approved by Agency prior to Design Build Entity mobilizing on the Site for Construction Stage Services, which Agency may require be updated as reasonably required based on changes to the Work.

30. PERMITS, APPROVALS, AND LICENSES:

30.1. Design Build Entity and its employees, agents, and subcontractors shall secure and maintain in force, at Design Build Entity's sole cost and expense, all licenses and permits as are required by law, in connection with the furnishing of materials, supplies, Services or Work.

30.2. Design Build Entity is responsible for obtaining on behalf of Agency and at Design Build Entity's expense, local, county and state permits and approvals, required for the building, installation, and start-up of the Work which are required to complete the Project. Notwithstanding the foregoing, Agency is solely responsible for payment for the Inspector and any special inspections required.

30.3. Agency will cooperate and assist Design Build Entity in obtaining all permits required by the Contract or to perform the Work.

30.4. Agency shall be responsible for obtaining any other permits or approvals that may be required, including annual operating permits as applicable, inspections and any special inspections required.

31. **INDEPENDENT CONTRACTOR STATUS:** While performing the Services, Design Build Entity is an independent contractor, and not an officer, employee, agent, partner, or joint venture of Agency. Design Build Entity shall be solely responsible for its Worker's Compensation insurance, taxes, and other similar charges or obligations. Design Build Entity shall be liable for its actions, including Design Build Entity's negligence or gross negligence, and shall be liable for the acts, omissions, or errors of Design Build Entity's agents or employees.

32. **ANTI-DISCRIMINATION:** It is the policy of Agency that in connection with any work performed under contract with Agency, there be no discrimination against any employee engaged in the work because of race, national origin, ancestry, religion, age, physical or mental disability, sex, or sexual orientation of persons. Design Build Entity shall comply, and require compliance by all Design Build Entity subcontractors, with applicable Federal and California laws including, but not limited to, the California Fair Employment and Housing Act, Government Code section 12900 et seq., and Labor Code section 1735.

PAYMENT BOND AND PERFORMANCE BOND: Design Build Entity shall not commence Construction Stage Services until it provides Agency, in the form provided by Agency herein, a Payment (Labor and Material) Bond and a Performance Bond, each in an amount equivalent to **One Hundred Percent** (**100%**) of the Contract Price. The Payment and Performance Bonds must be issued by a surety admitted to issue bonds in the State of California and otherwise acceptable to Agency.

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33. **DESIGN-BUILD ENTITY'S INSURANCE:** During the entire term of the Contract, Design-Build Entity shall have and maintain in force, the minimum policy limits indicated in this Article. Design-Build Entity shall not commence Work, nor allow any subcontractor, employee, or agent to commence Work until the insurance required of Design-Build Entity, subcontractor, or agent has been obtained. Design-Build Entity's policy(ies) shall be primary and any insurance carried by Agency shall be secondary and supplemental. All policies shall contain waivers of subrogation against Agency, Construction Manager. Excess/Umbrella policies can be used to satisfy the insurance required of Design-Build Entity.

33.1. All of Design-Build Entity's insurance shall be placed with insurers **ADMITTED** or licensed to conduct business in California with a current A.M. Best's rating of no less than **A—** or **A:VII**. Design-Build Entity shall provide documentation to Agency demonstrating this rating.

33.2. The limits of insurance shall not be less than the following amounts:

Commercial General Liability	Includes: Personal & Advertising Injury, Product Liability and Completed Operations and Third Party Property	$2,000,000 each occurrence; $4,000,000 general aggregate
Automobile Liability – Any Auto	Combined Single Limit	$2,000,000 per occurrence
Workers Compensation		Statutory limits pursuant to State law
Employers' Liability		$2,000,000 each accident, each disease; $2,000,000 policy limit
Professional Liability		$2,000,000 each occurrence; $4,000,000 general aggregate

33.3. **Commercial General Liability Insurance:** Coverage to be written on an occurrence form. Coverage to be at least as broad as ISO form CG 0001 (04/13). Agency shall be named as an additional insured on Design-Build Entity's Commercial General Liability policy for any liability arising out of the Work.

33.4. **Automobile Liability:** Coverage to be written on an occurrence form. Agency shall be named as an additional insured on Design-Build Entity's Automobile Liability policy for any liability arising out of the Work with the use of owned, non-owned or hired autos.

33.5. **Excess Liability Insurance:** Coverage to be written on an occurrence form. Coverage terms and limits to apply excess of the per occurrence and/or aggregate limits provided for Commercial General Liability, Auto Liability. Coverage terms and limits to also apply in excess of those required for Employers Liability. Agency, by way of policy language, shall be an additional insured on Design-Build Entity's Excess Liability Insurance which follows the underlying insurance policy.

33.6. **Workers Compensation:** Statutory limits.

33.7. **Employers' Liability:** As indicated above.

Builder's Risk Insurance: Design-Build Entity shall procure and maintain a Builder's Risk Insurance Policy in relation to the Project that shall be effective when Agency issues a Notice to Proceed for any Construction Stage Services for the Project, which shall: (i) be written on a full replacement cost, "all risk" form, subject to customary sublimit and commercial availability (except that any insurer must be a California Admitted Insurer) or licensed to conduct business in California (ii) cover the entire Work, including all equipment, materials, machinery, supplies, structures and other items intended to become a permanent part of the Project, and (iii) be maintained until the Commercial Operation Date. This Builder's Risk Insurance Policy shall include the interests of Agency, Design-Build Entity, subcontractors, sub-subcontractors, vendors, and suppliers in the Work, naming each as loss payees. Third Party Property: Issued for the value and scope of Work stored off-site. (iv) shall include third party property issued for the value and Scope of Work stored off-site.

33.8. Professional Liability Insurance:

33.8.1. Coverage to be written on a claims-made form and shall cover all non-construction Services including, all programming, design, engineering, and architectural Services performed by Design-Build Entity.

33.8.2. **Subcontractors / Subconsultants:** Subcontractors who perform non-construction services for the Project shall carry professional liability insurance at the same limits required of Design-Build Entity to cover that subcontractor's work.

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33.8.3. Mutual Waiver of Subrogation:

33.9. The Owner and Contractor waive all rights against (1) each other and any of their subcontractors, sub-subcontractors, agents and employees, each of the other, and (2) the Architect, Architect's consultants, separate contractors described in Article 6, if any, and any of their subcontractors, sub-subcontractors, agents and employees, for damages caused by fire or other causes of loss to the extent covered by property insurance obtained pursuant to this Section 11.3 or other property insurance applicable to the Work, except such rights as they have to proceeds of such insurance held by the Owner as fiduciary. The Owner or Contractor, as appropriate, shall require of the Architect, Architect's consultants, separate contractors described in Article 6, if any, and the subcontractors, sub-subcontractors, agents and employees of any of them, by appropriate agreements, written where legally required for validity, similar waivers each in favor of other parties enumerated herein. The policies shall provide such waivers of subrogation by endorsement or otherwise. A waiver of subrogation shall be effective as to a person or entity even though that person or entity would otherwise have a duty of indemnification, contractual or otherwise, did not pay the insurance premium directly or indirectly, and whether or not the person or entity had an insurable interest in the property damaged.

33.10. **Additional Insured Endorsement Requirements:** On those policies described in this section where an additional insured requirement is included, Design-Build Entity shall name Agency, its trustees, members, officers, and employees, Construction Manager, as additional insureds. Subcontractors shall name Design-Build Entity, Agency, its trustees, members, officers, and employees as additional insureds. The Additional Insured Endorsement included on all such insurance policies shall be an ISO CG 20 10 (04/13), or an ISO CG 20 38 (04/13), or their equivalent as determined by Agency in its sole discretion, and must state that coverage is afforded the additional insured with respect to claims arising out of operations performed by or on behalf of the insured. If the additional insureds have other insurance which is applicable to the loss, such other insurance shall be on an excess or contingent basis. The insurance provided by Design-Build Entity pursuant to this section must be designated in the policy as primary to any insurance obtained by Agency. The amount of the insurer's liability shall not be reduced by the existence of such other insurance.

34. **SUBCONTRACTOR INSURANCE REQUIREMENTS:** Design Build Entity shall require its Subcontractor(s) to procure and maintain Commercial General Liability Insurance, Automobile Liability Insurance, and Umbrella Liability Insurance with limits equal to the amounts required of Design Build Entity, unless Agency and Design Build Entity agree otherwise. Design Build Entity shall require its Subcontractor(s) to procure and maintain Commercial General Liability Insurance, Automobile Liability Insurance and Umbrella Liability Insurance.

35. **CERTIFICATES OF INSURANCE AND ENDORSEMENTS:** Design Build Entity shall provide to Agency certificate(s) of insurance and endorsements satisfactory to Agency. Design Build Entity shall provide Agency at least thirty (30) days' prior written notice of the cancellation, or non-renewal of the insurance. Furthermore, Design Build Entity shall indemnify Agency for any loss suffered by Agency to the extent that the loss is attributable to Design Build Entity's failure to provide Agency with thirty (30) days' prior written notice. Excess/Umbrella policies can be used to satisfy the insurance required of Design Build Entity.

36. **WARRANTY/QUALITY:** Except for any longer warranty called for elsewhere in the Contract Design Build Entity, manufacturer, or assigned agents shall guarantee the Work or Services performed against defective workmanship, defects or failures of materials for a period of **ONE (1)** year from date that components of the Project are commissioned and verified by Design Build Entity as being fully functional and operative, or upon Beneficial Use, whichever occurs first. All workmanship and merchandise must be warranted to be in compliance with the Contract Documents and applicable California energy, conservation, and environmental standards.

36.1. At Agency's sole option, Design Build Entity shall repair or replace any and all of that Work, together with any other Work that may be displaced in so doing, that may prove defective in workmanship and/or materials within the warranty period described above, without expense whatsoever to Agency. In the event of failure of Design Build Entity and/or Surety to commence and pursue with diligence said replacements or repairs within **TEN (10)** days after being notified in writing; provided, however, that if Design Build Entity and/or Surety provide a reasonable reason for its inability to commence the replacement or repair within that time, Agency shall grant a reasonable extension of time, not to exceed **THIRTY (30)** days, Design Build Entity and Surety hereby acknowledge and agree that Agency is authorized to proceed to have defects repaired and made good at expense of Design Build Entity and/or Surety who hereby agree to pay costs and charges therefore immediately on demand.

36.2. If, in the opinion of Agency, defective work creates a dangerous condition or requires immediate correction or attention to prevent further loss to Agency or to prevent interruption of operations of

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Agency, Agency will attempt to give the notice required above. If Design Build Entity or Surety cannot be contacted or neither complies with Agency's request for correction within a reasonable time as determined by Agency, Agency may, notwithstanding the above provision, proceed to make all corrections and/or provide attentions Agency believes are necessary. The costs of correction or attention shall be charged against Design Build Entity and Surety of the guarantees provided in this Section or elsewhere in the Contract Documents.

36.3. The above provisions do not in any way limit the guarantees on any items for which a longer guarantee is specified or on any items for which a manufacturer gives a guarantee for a longer period, but after the expiration of the **one** (**1**) year Design Build Entity warranty period, Agency shall look solely to such manufacturer to resolve any warranty issues. Design Build Entity shall furnish to Agency all appropriate guarantee or warranty certificates as indicated in the Specifications or upon request by Agency.

36.4. Nothing herein shall limit any other rights or remedies available to Agency.

37. **CONFLICT OF INTEREST:** Design Build Entity understands that its professional responsibility is solely to Agency. Design Build Entity warrants that it and its employees and/or subcontractors presently have no interest and will not acquire any direct or indirect interest that would conflict with its performance under the Contract, including, without limitation, any direct and/or indirect interest with: (a) entity(ies) performing construction in the same discipline and in competition with any contractor on a Agency project; (b) entity(ies) connected or related to a trade union or joint labor management committee; or (c) Agency.

38. **COMPLIANCE WITH LAWS:** Design Build Entity shall give all notices and comply with all laws, ordinance, rules and regulations bearing on conduct of the Work as indicated or specified. If Design Build Entity observes that any of the Work is at variance with any laws, ordinance, rules or regulations, Design Build Entity shall notify Agency, in writing, and, at Agency's option, any necessary changes to the scope of the Work shall be made and the Contract shall be appropriately amended in writing, or the Contract shall be terminated effective upon Design Build Entity's receipt of a written notice of termination. If Design Build Entity performs any Work that is in violation of any laws, ordinances, rules or regulations, without first notifying Agency of the violation, Design Build Entity shall bear all costs or expenses arising therefrom.

39. **STANDARD OF CARE:** Design Build Entity shall perform the Work and Services to the standard of care of an entity performing similar work for California public agencies in or around the same geographic area of Agency, as follows:

39.1. For all Work other than Construction Stage Services, the standard of care of architects or professional engineers; and

39.2. For all Construction Stage Services, the standard of care of licensed contractors.

39.3. If Design Build Entity has not met this standard of care, Design Build Entity shall be held liable consistent with the "**Indemnification/Hold Harmless**" section herein.

40. **AGENCY'S RIGHT TO AUDIT:** Agency retains the right to review and audit, at Agency's sole cost and expense, and the reasonable right of access to Design Build Entity's and any sub-consultant's non-confidential and non-proprietary records to review and audit Design Build Entity's compliance with the provisions of the Contract ("**Agency's Right**"). Agency's Right includes the right to inspect, photocopy, and to retain copies of any and all non-confidential and non-proprietary Project-related records with appropriate safeguards. Agency shall keep this information confidential, as allowed by applicable law.

40.1. Agency's Right includes the right to examine any and all non-confidential and non-proprietary Project books, records, documents and any other evidence of Project-related procedures and practices that are reasonably necessary to discover and verify that Design Build Entity is in compliance with all requirements of the Contract. This includes Design-Build Entity's express acknowledgement and agreement that this Contract is to be administered on an "open book" arrangement relative to costs of the Work. Design-Build Entity shall keep full and detailed accounts and exercise such controls as may be necessary for proper financial management, using accounting and control systems in accordance with generally accepted accounting principles and as may be provided in the Contract Documents. During the performance of the Work and for the period set forth below, Agency and Agency's accountants shall be afforded access to, and the right to audit from time to time, upon reasonable notice, Design-Build Entity's records, books, correspondence, receipts, subcontracts, purchase orders, vouchers, memoranda, and other data relating to the Work, all of which Design-Build Entity shall preserve for the period and subject to the conditions set forth herein. Such inspection shall take place at Design-Build Entity's offices during normal business hours unless another location and time is agreed to by the parties. Any multipliers or markups agreed to by Agency and Design-Build Entity as part of this Contract are only subject to audit to confirm that such multiplier or markup has been charged in accordance with this Contract, but the composition of such multiplier or markup is not subject to audit.

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40.2. If there is a claim for additional compensation or for extra services or work, Agency's Right includes the right to examine non-confidential and non-proprietary Project-related books, records, documents, and accounting procedures and practices that are reasonably necessary to discover and verify all Project-related direct and indirect costs, of whatever nature, which are claimed to have been incurred, or anticipated to be incurred.

40.3. Design Build Entity shall maintain complete and accurate Project-related records in accordance with generally accepted accounting practices in the industry, and in no event for less than five (5) years after Final Completion. Design Build Entity shall make available to Agency for review and audit all Project-related accounting records and documents, and any other financial data. Upon Agency's request and at Agency's sole expense, Design Build Entity shall submit exact duplicates of originals of all requested records to Agency.

40.4. Design Build Entity shall include these audit provisions in any and all of its subcontracts, and shall ensure that these sections are binding upon all subcontractors.

40.5. Design Build Entity shall comply with these provisions within thirty (30) days of Agency's written request to review and audit any or all of Design Build Entity's Project-related records and information.

41. CLAIMS RESOLUTION:

41.1. Exclusive Remedy:

41.1.1. Compliance with the claim resolution process and timelines described in this Claims Resolution section as well as the notice provisions of the Contract are express conditions precedent to Design Build Entity's right to commence litigation or arbitration, file a claim under the California Government Code, or commence any other legal action related to the Project ("**Claims Resolution Process**").

41.1.2. Design Build Entity acknowledges that its failure, for any reason, to provide written notice and all required supporting documentation to permit Agency's review and evaluation within the time frame required by this Claims Resolution Process, shall be deemed Design Build Entity's waiver, release, discharge and relinquishment of any right to assert, request, or demand any entitlement to an adjustment of the Contract Time or the Contract Price on account of any instruction, request, Drawings, Specifications, action, condition, omission, default or other situation.

41.1.3. To the extent any provision(s) of this Claims Resolution Process conflict with or otherwise impair the timeframes and procedures of Public Contract Code section 9204, the provisions of Section 9204 shall control. If provisions of this Claims Resolution Process are supplementary and/or in addition to the requirements of Section 9204, but do not conflict with or otherwise impair the timeframes and procedures of Section 9204, the provisions of this Claims Resolution Process and the Contract shall control.

41.2. **Performance during Claim Resolution Process:** Design Build Entity shall diligently proceed with Work on the Project at the same time that Claims are addressed under the Claims Resolution Process. It is the intent of Agency to resolve Claims with Design Build Entity as close to the events giving rise to the Claims as possible, and to avoid stale or late Claims and the late documenting of Claims. Design Build Entity's failure to diligently proceed in accordance with Agency's instructions or the Contract terms will be considered a material breach of the Contract.

41.3. **Waiver:** If Design Build Entity fails to timely submit any written notices required under the terms of the Contract or in this Claims Resolution section, Design Build Entity waives and releases its rights regarding further review of its Claim, unless Design Build Entity and Agency mutually agree in writing to other time limits. Nothing herein shall modify or alter Design Build Entity's obligation to comply with statutory notice requirements, including but not limited to, Government Code section 910 *etseq.*

41.4. **Intention:** The Claims Resolution Process required herein is intended to provide a concise mechanism for resolving Claims as they arise during the Project, while requiring accurate documentation related to contested issues as to those Claims that are not contemporaneously resolved.

41.5. **Other Provisions:** If portions of the Contract, other than this Claims Resolution Process, establish a specific process regarding a specific subject, then that process shall govern and control the resolutions of any disagreements thereunder. Otherwise, the provisions in this Claims Resolution Process shall control the resolution of all Claims.

41.6. Claim Presentation:

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41.6.1. **Claim:** A claim is a written demand by Design Build Entity (or by Design Build Entity on behalf of a Subcontractors) that Design Build Entity must submit by **registered mail or certified mail return receipt requested** for ("**Claim**"):

41.6.1.1. An extension to the Contract Time, including relief from damages or penalties assessed by Agency for delay;

41.6.1.2. Payment of money or damages arising from work done by, or on behalf of, Design Build Entity pursuant to the Contract and payment that is not otherwise expressly provided for in the Contract Documents or Design Build Entity is not otherwise entitled; or

41.6.1.3. Payment that is disputed by Agency.

41.7. Subcontractors:

41.7.1. Public Contract Code section 9204(d)(5) states that Design Build Entity may present to Agency a Claim on behalf of a subcontractor or lower tier subcontractor. A subcontractor may request in writing, either on his or her own behalf or on behalf of a lower tier subcontractor, that Design Build Entity present a claim for Work which was performed by the subcontractor or by a lower tier subcontractor on behalf of the subcontractor. The subcontractor requesting that the Claim be presented to Agency shall furnish reasonable documentation to support the Claim. Within 45 days of receipt of this written request, Design Build Entity shall notify the subcontractor in writing as to whether Design Build Entity presented the claim to Agency and, if Design Build Entity did not present the Claim, provide the subcontractor with a statement of the reasons for not having done so.

41.7.2. Design Build Entity is responsible for providing this Claims Resolution Process to its subcontractors and for ensuring that all subcontractors or others who may assert Claims by and through subcontractors and/or Design Build Entity are informed of this Claims Resolution Process. No Claim submitted by any party that fails to follow the provisions of this Claims Resolution Process will be considered. Design Build Entity shall indemnify, keep and hold harmless Agency and its consultants, against all suits, claims, damages, losses, and expenses, including but not limited to attorney's fees, caused by, arising out of, resulting from, or incidental to, the failure to provide this Claims Resolution Process to its subcontractors or others who may assert Claims by and through subcontractors and/or Design Build Entity.

41.8. Design Build Entity Must Timely Identify, Present and Document Any Claim:

41.8.1. Every Claim shall be stated with specificity in writing and signed by Design Build Entity under penalty of perjury and presented to Agency within thirty (30) calendar days from the date Design Build Entity discovers or reasonably should discover, that an act, error or omission of Agency, its agents or employees, or action, condition or other situation has occurred that may entitle Design Build Entity to make a Claim. This shall include Design Build Entity's actual or constructive knowledge of any instruction, request, Drawings, Specifications, action, condition, omission, default or other situation for which Design Build Entity believes there should an adjustment of the Contract Price or Contract Time. Design Build Entity shall provide this writing even if Design Build Entity has not yet been damaged, delayed, or incurred extra cost when Design Build Entity discovers, or reasonably should discover, the act, error, omission, action, condition or situation giving rise to the incidents giving rise to the Claim. The writing shall:

41.8.1.1. Identify all of the issues, events, conditions, circumstances and/or causes giving rise to the Claim;

41.8.1.2. Identify all pertinent dates and/or durations and all actual and/or anticipated effects on the Contract Price, milestones and/or Contract Time adjustments to the extent that Design Build Entity knows or reasonably should know of such adjustments; and

41.8.1.3. Identify in detail line-item costs if the Claim seeks money.

41.8.1.4. If the Claim involves extra work, a detailed cost breakdown of the amounts Design Build Entity is seeking, including actual cost records (including without limitation, payroll records, material and rental invoices and the like) demonstrating that those costs have actually been incurred. To the extent costs have not yet been incurred at the time the Claim is submitted, actual cost records must be submitted on a current basis not less than once every two (2) weeks during

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any periods costs are incurred. A cost record will be considered current if submitted within ten (10) days of the date the cost reflected in the record is incurred. At the request of Agency, extra costs may be subject to further verification procedures (such as having an inspector verify the performance of alleged extra work on a daily basis).

41.8.1.5. Include an affirmative representation under penalty of perjury by Design Build Entity and any affected Subcontractor and suppliers that the error or omission was not discovered prior to submitting a proposal for the Work, and

41.8.1.6. Include a detailed statement demonstrating that the error or omission reasonably should not have been discovered, by Design Build Entity, its Subcontractors and suppliers, prior to submitting a proposal for the Work.

41.8.2. Design Build Entity shall not be entitled to compensation for escalation of materials costs unless Design Build Entity demonstrates to the satisfaction of Agency that such cost escalation is the result of unusual, unforeseeable market conditions, not the fault of Design Build Entity, and were not reasonably foreseeable at the time of the award of the Contract. Design Build Entity shall provide evidence to Agency of the costs included in the Contract for those materials and that those costs were reasonable at the time and that Design Build Entity timely ordered the materials at issue. Any increase to the Contract Price for escalation in the cost of materials shall be documented in a Change Order executed in accordance with the Contract Documents, and will be subject to Agency's sole discretion.

41.8.3. The writing shall be accompanied by all documents substantiating Design Build Entity's position regarding the Claim.

41.8.4. A Claim that asserts an effect on any schedule milestones and/or Contract Time shall include all pertinent scheduling data demonstrating the impact(s) on the critical path(s), milestone(s) and/or Contract Time.

41.9. **Certification:** Each copy of the Claim Documentation shall be certified by a responsible officer of Design Build Entity in accordance with the requirements of the Contract Documents. This certification shall be under penalty of perjury and must include the following language immediately above or before Design Build Entity's signature: "***I declare under penalty of perjury under the laws of the State of California that the information provided and statements made in this Claim are true and correct, substantiated and of merit***." Design Build Entity acknowledges that this requirement is not a mere formality but is intended to ensure that Design Build Entity only submits Claims that it believes are true and correct, substantiated and have merit. Should Design Build Entity fail to submit the foregoing written statement signed under penalty of perjury, Design Build Entity waives and releases its Claim, including all rights and remedies in connection therewith. This certification must include a certification of any portion of the Claim from Subcontractors(s) or others who are asserting Claims by and through Subcontractors and/or Design Build Entity.

41.10. **Agency's Written Statement/Decision on Claim:** Agency shall issue a written statement/decision regarding the Claim to Design Build Entity within forty-five (45) days of receipt of the written Claim from Design Build Entity, or three (3) days after Agency's first regular Board meeting after that 45-day period if Agency's Board does not meet within that first 45-day period. If Agency fails to timely provide a written statement/decision regarding the Claim, the Claim shall be deemed rejected in its entirety.

41.11. Design Build Entity Must Demand an Informal Meet and Confer Conference if Design Build Entity Pursues Any Claim:

41.11.1. FAILURE OF A DESIGN-BUILD ENTITY TO TIMELY DEMAND A MEET AND CONFER CONFERENCE IS A WAIVER OF ITS RIGHT TO PURSUE ALL OR A PORTION OF ITS CLAIM.

41.11.2. **Where There Is No Agreement:** If there is no agreement between Design Build Entity and Agency on a Claim, then within ten (10) calendar days of the date of Agency's written statement/decision in response to a Claim or PCO, if Design Build Entity pursues that Claim, then Design Build Entity must demand, by **registered mail or certified mail return receipt requested,** a meet and confer conference with Agency staff. A meet and confer conference with Agency staff shall be a condition precedent to Design Build Entity seeking any further relief, including a mediation as indicated below.

41.11.3. **Where There Is Partial Agreement:** If Design Build Entity and Agency partially agree on a Claim but do not reach complete agreement, then the Parties shall complete a change order or

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amendment, if applicable, for the issues and/or amounts agreed to. For those issues not agreed to, if Design Build Entity pursues those issues from that Claim, then Design Build Entity must demand, by **registered mail or certified mail return receipt requested,** a meet and confer conference with Agency staff regarding those issues. A meet and confer conference with Agency staff shall be a condition precedent to Design Build Entity seeking any further relief, including a mediation as indicated below, in connection with Agency's rejection.

41.11.4. **Meet and Confer Conference:** Agency and Design Build Entity shall schedule the meet and confer conference as soon as reasonably possible after Design Build Entity's written demand for a meet and confer conference, but in no case later than thirty (30) days after Design Build Entity's demand.

41.11.5. **Agency's Written Decision:** Within ten (10) **business** days of the meet and confer conference, Agency shall issue a written decision. If Agency fails to timely provide a written statement/decision after the meet and confer conference, all Claim issues that were part of the meet and confer conference shall be deemed rejected in their entirety.

41.11.5.1. If Agency's decision completely resolves the Claim, then the Parties shall complete a change order or amendment, if applicable, for the issues and/or amounts agreed to.

41.11.5.2. If Agency rejects Design Build Entity's Claim in whole or in part or does not issue a timely written response, then the parties shall mediate the remaining issues of the Claim.

41.11.5.3. Design Build Entity's costs incurred in seeking relief for Claims are not recoverable from Agency.

41.12. Mediation:

41.12.1. At Agency's sole discretion, this mediation may be a multiple-party mediation with the Construction Manager, the Inspector, and/or other Agency consultants.

41.12.2. Agency and Design Build Entity shall mutually agree to a mediator within ten (10) **business** days after the disputed portion of the Claim has been identified in writing. If the parties cannot agree upon a mediator, each party shall select a mediator and those mediators shall select a qualified neutral third party to mediate with regard to the disputed portion of the Claim. Each party shall bear the fees and costs charged by its respective mediator in connection with the selection of the neutral mediator.

41.13. **Design Build Entity's Obligation to File a Government Code Claim:** Nothing in this Contract, including this Claims Resolution Process, waives, modifies or tolls Design Build Entity's obligation to present a timely claim under Government Code section 910, et seq. Therefore, in addition to complying with this Claims Resolution Process, Design Build Entity is required to present claims to Agency pursuant to Government Code section 910, et seq. If after the requirements of this Claims Resolution Process are satisfied, and all or a portion of the Claim remains unresolved, and if the Government Code claim is rejected by Agency, Design Build Entity may proceed under the post-mediation provisions of this Claims Resolution Process.

41.14. Post Mediation Provisions:

41.14.1. **Claims of $375,000 or Less:** The provisions of Public Contract Code § 20104.4 shall apply. Pursuant to Public Contract Code § 20104.4(a), within sixty (60) days, but no earlier than thirty (30) days, following the filing of responsive pleadings, the court shall submit the matter to nonbinding mediation unless waived by mutual stipulation of both parties. Pursuant to Public Contract Code § 9204(d)(2)(D), a mediation conducted pursuant to this Claims Resolution Process shall excuse the obligation under Public Contract Code § 20104.4(a) to mediate after litigation has been commenced unless otherwise agreed to by the parties in writing.

41.14.2. **Litigation of Claims in Excess of $375,000:** If, after a mediation as indicated above, the Parties have not resolved the Claim, either Party may commence an action in a court of competent jurisdiction to contest that decision within ninety (90) days following the conclusion of that mediation or one (1) year following the accrual of the cause of action, whichever is later. By mutual agreement, the Parties can agree to instead resolve the Claim through arbitration.

41.15. Agency shall be entitled to remedy any false claims, as defined in California Government Code section 12650 *et seq*., made to Agency by Design Build Entity or any subcontractors under the standards set forth in Government Code section 12650 *et seq*. Any Design Build Entity or subcontractors who submits a false claim shall be liable to Agency for three times the amount of damages that Agency sustains

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because of the false claim. A Design Build Entity or subcontractor who submits a false claim shall also be liable to Agency for (a) the costs, including attorney fees, of a civil action brought to recover any of those penalties or damages, and (b) a civil penalty of up to $11,000 for each false claim.

41.16. **Documentation of Resolution:** If a Claim is resolved, Agency shall determine if that resolution shall be documented in an Agreement and Release of Any and All Claims form or other document, as appropriate. If Agency determines that an Agreement and Release of Any and All Claims form or other document is appropriate, Design Build Entity shall cooperate and execute that form and/or other document.

41.17. **Claim Resolution Process – Non-Applicability:** The procedures and provisions in this Claims Resolution section shall **not** apply to:

41.17.1. Agency's determination of what Work is or will be constructed, or whether the Work complies with the Contract Documents for purposes of accepting the Work;

41.17.2. Agency's rights and obligations as a public entity, such as, but without limitation, the revocation of pre-qualified or qualified status, barring a Design Build Entity from Agency contracts, the imposition of penalties or forfeitures prescribed by statute or regulation; provided, however, that penalties imposed against a public entity by statutes such as Section 7107 of the Public Contract Code, shall be subject to the mandatory dispute resolution provisions of this Claims Resolution section and the Contract;

41.17.3. Personal injury, wrongful death or property damage claims;

41.17.4. Latent defect or breach of warranty or guarantee to repair;

41.17.5. Stop notices or stop payment notices; or

41.17.6. Any other Agency rights as set forth herein.

41.18. Agency's failure to respond to a Claim from Design Build Entity within the time periods described herein or to otherwise meet the time requirements of Public Contract Code section 9204 shall automatically result in the Claim being deemed rejected in its entirety, with no admission by Agency as to the merits of the Claim.

41.19. If Agency fails to timely issue payment for any Claim or portion of a Claim as required pursuant to these Claim Resolution Procedures, Design Build Entity is permitted to assess interest indicated in Public Contract Code section 9204. Notwithstanding this provision, and in accordance with California Public Contract Code §7107, Agency is entitled to withhold up to 150% of disputed amounts and Agency shall not be liable for payment of interest on such disputed amounts pending final adjudication of such disputes.

42. **LABOR CODE REQUIREMENTS:** Pursuant to sections 1770 et seq. of the California Labor Code, Design Build Entity and all subcontractors under Design Build Entity shall pay all workers on all Work performed pursuant to the Contract not less than the general prevailing rate of per diem wages and the general prevailing rate for holiday and overtime work as determined by the Director of the State of California Department of Industrial Relations (DIR) for the type of Work performed and the locality in which the Work is to be performed within the boundaries of Agency. Agency, as awarding body, shall comply with its obligations under the Labor Code. Copies of the general prevailing rates of per diem wages for each craft, classification, or type of worker needed to execute the Contract, as determined by the DIR, are available from Agency or on the internet (http://www. dir.ca.gov). Agency shall make such copies available to any interested party upon request.

42.1. Design Build Entity shall comply with the registration and compliance monitoring provisions of Labor Code section 1771.4, including furnishing its Certified Payroll Records to the Labor Commissioner of California and complying with any applicable enforcement by the Department of Industrial Relations. Labor Code section 1771.1(a) states the following:

> *"A contractor or subcontractor shall not be qualified to bid on, be listed in a bid proposal, subject to the requirements of Section 4104 of the Public Contract Code, or engage in the performance of any contract for public work, as defined in this chapter, unless currently registered and qualified to perform public work pursuant to Section 1725.5. It is not a violation of this section for an unregistered contractor to submit a bid that is authorized by Section 7029.1 of the Business and Professions Code or by Section 10164 or 20103.5 of the Public Contract Code, provided the contractor is registered to perform public work pursuant to Section 1725.5 at the time the contract is awarded."*

42.2. Design Build Entity acknowledges that, for purposes of Labor Code section 1725.5, this Work is a public work to which Labor Code section 1771 applies. Design Build Entity shall comply with Labor Code section 1725.5, including without limitation the registration requirements. Additionally, all

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"subcontractors" (as defined by Labor Code section 1722.1) shall comply with Labor Code section 1725.5 to be qualified to bid on, be listed in a bid proposal, subject to the requirements of Section 4104 of the Public Contract Code, or engage in the performance of the Contract. Design Build Entity represents to Agency that all "subcontractors" (as defined by Labor Code section 1722.1) are registered pursuant to Labor Code section 1725.5.

42.3. The Project is subject to compliance monitoring and enforcement by the Department of Industrial Relations. Design Build Entity shall post job site notices, as prescribed by regulation. Design Build Entity shall comply with all requirements of Labor Code section 1771.4, except the requirements that are exempted by the Labor Commissioner for the Project.

43. **SKILLED AND TRAINED WORKFORCE REQUIREMENT:** Design Build Entity is familiar with the hiring requirements set forth in Public Contract Code section 2601, et. seq., and as a condition of entering into this Agreement, Design Build Entity understands and agrees that Design Build Entity and its Subcontractors at every tier will use a skilled and trained workforce, as defined in Public Contract Code section 2601(d) ("**Skilled and Trained Workforce**"), to perform all Work on the Project that falls within an apprenticeable occupation in the building and construction trades.

43.1. **Monthly Workforce Report:** Design Build Entity will provide to Agency's Board on a monthly basis while the Project is being performed, a report demonstrating compliance by Design Build Entity and its Subcontractors at every tier with the skilled work force requirements described in Public Contract Code section 2602 ("**Workforce Report(s)**").

43.2. **Content of Workforce Report(s):** The Workforce Reports will state the following:

43.2.1. Each Subcontractor's name and license number, or list Design Build Entity if Design Build Entity is self-performing the applicable scope of Work;

43.2.2. That each worker is either a registered apprentice in an apprenticeship program approved by the State or a skilled journeyperson;

43.2.3. Of the skilled journeypersons for each subcontractor and Design Build Entity, which are graduates of an approved apprenticeship program. It shall be sufficient for Design Build Entity to state the number of workers in each applicable category. Design Build Entity is not required to identify each individual worker who performed work on the Project in Design Build Entity's monthly report;

43.2.4. The monthly and cumulative percentages that entity has achieved of those graduates. If a subcontractor (or Design Build Entity) is meeting the percentage cumulatively, Agency may utilize that information when it determines whether the report is sufficient.

Time Frame: Each monthly Workforce Report must include all work performed during the preceding month and must be submitted to Agency no later than thirty (30) days after the end of the preceding month. (i.e., the monthly Workforce Report for activity during March must be submitted no laterthan April 30.)

43.3. **No Report or Incomplete Report:** If the Design Build Entity fails to provide a Workforce Report or provides a Workforce Report that is incomplete, the following shall apply:

43.3.1. Agency shall withhold further payments until Design Build Entity provides a complete Workforce Report for that month. Agency shall withhold from Design Build Entity an amount equal to one hundred and fifty percent (150%) of the value of the monthly billing for the relevant Subcontractor(s), which Design Build Entity shall be entitled to withhold from the Subcontractor(s).

43.3.2. **Plan:** If Design Build Entity submits to Agency a plan to achieve substantial compliance with Public Contract Code section 2601, et seq., Agency shall resume making payments to Design Build Entity, including all previously withheld payments, unless, within a reasonable time, Agency rejects the plan as insufficient. In the event that Agency rejects Design Build Entity's plan as insufficient, Agency shall provide an explanation in writing of the basis of for Agency's rejection of Design Build Entity's plan.

43.3.3. If the Workforce Report is incomplete due to the failure of a Subcontractor to timely submit to Design Build Entity information demonstrating compliance at every tier with the skilled workforce requirements, Agency shall only withhold from Design Build Entity an amount equal to one hundred and fifty percent (150%) of the value of the monthly billing for the Subcontractor that failed to submit the required information to Design Build Entity.

43.3.4. Agency shall forward to the Labor Commissioner a copy of a Workforce Report submitted to Agency that fails to comply with Public Contract Code section 2602, et seq. In the event that Design Build Entity submits a plan to Agency to achieve substantial compliance with Public

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Contract Code 2601 et. seq., Agency shall forward a copy of that plan to the Labor Commissioner, and the response to that plan, if any, by Agency.

43.4. End-of-Project Reconciliation:

43.4.1. At the end of the Project, if Design Build Entity cannot demonstrate that it has met the applicable participation level for all work that falls within an apprenticeable occupation as defined in Public Contract Code section 2600, et seq., Design Build Entity may remedy its failure by paying to the appropriate trade apprenticeship fund(s), an amount equal to the number of additional hours required to meet the percentage, multiplied by the "Training" amount for that trade, at the Basic Hourly Rate. Design Build Entity must provide documentation to Agency reasonably sufficient to demonstrate this payment and the trade apprenticeship funds' acceptance of payment(s).

43.4.2. If payment(s) to the applicable trade apprenticeship fund(s) are not made or accepted, then Agency shall have the right to permanently retain ten percent (10%) of the price for the out of compliance apprenticeable occupation's Work, per month, as reflected in the Project's schedule of values, not to exceed the monthly amounts for first-time violations indicated in Public Contract Code 2603(a). Agency shall withhold those funds until the Labor Commissioner makes its determination of violations pursuant to Public Contract Code section 2603. At that time, Agency will distribute those funds as directed by the Labor Commissioner or, if the Labor Commissioner determines that no violation was made or the penalty(ies) are less than the amount Agency is withholding, Agency shall pay the applicable withheld amounts to the Design Build Entity, with no interest or penalty.

43.4.3. The Parties agree that these end-of-Project remedies are reasonable and sufficient, subject to a determination made by Department of Industrial Relations or a court of competent jurisdiction that one or both of these remedies is insufficient.

43.4.4. Any payments Agency withholds from Design Build Entity for noncompliance will be reflective only of the trade(s) or Subcontractor(s) out of compliance and will be paid once the subcontractor(s) and/or trade(s) are cumulatively compliant, subject to the End-of-Project Reconciliation process indicated herein above.

44. **ANTI-TRUST CLAIM:** Design Build Entity and its subcontractor(s) agree to assign to Agency all rights, title, and interest in and to all causes of action they may have under Section 4 of the Clayton Act (15 U.S.C. Sec. 15) or under the Cartwright Act (Chapter 2 (commencing with Section 16700) of Part 2 of Division 7 of the Business and Professions Code), arising from purchases of goods, services, or materials pursuant to the Contract or a subcontract. This assignment shall be made and become effective at the time Agency tenders final payment to Design Build Entity, without further acknowledgment by the Parties.
45. **GOVERNING LAW:** The Contract shall be governed by and construed in accordance with the laws of the State of California with venue of any action in a County in which Agency administration office is located.
46. **PROVISIONS REQUIRED BY LAW DEEMED INSERTED:** Each and every provision of law and clause required by law to be inserted in this Contract shall be deemed to be inserted herein and this Contract shall be read and enforced as though it were included therein.
47. **BINDING CONTRACT:** This Contract shall be binding upon the Parties and upon their successors and assigns, and shall inure to the benefit of said parties and their successors and assigns.
48. **WAIVER:** Waiver by either Party of any term, condition, covenant or waiver of a breach of any term, condition or covenant shall not constitute the waiver of any other term, condition or covenant or the waiver of a breach of any other term, condition or covenant.
49. **INVALID TERM:** If any provision of this Contract is declared or determined by any court of competent jurisdiction to be illegal, invalid or unenforceable, the legality, validity or enforceability of the remaining parts, terms and provisions shall not be affected thereby, and said illegal, unenforceable or invalid part, term or provision will be deemed not to be a part of this Contract.
50. **ENTIRE CONTRACT:** The Contract sets forth the entire Contract between the Parties and fully supersedes any and all prior agreements, understanding, written or oral, between the Parties pertaining to the subject matter herein. The Contract may be modified only by a writing evidencing mutual consent of the Parties.
51. **OWNERSHIP OF CERTAIN PROPRIETARY PROPERTY RIGHTS:** Agency shall not, by virtue of the Contract, acquire any interest in any formulas, patterns, devices, secret inventions or processes, copyrights, patents, other intellectual or proprietary rights, or similar items of property which are or may be used in connection with the Project. Design Build Entity shall grant to Agency a perpetual, irrevocable royalty-free license for any

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and all software or other intellectual property rights necessary for Agency to continue to operate, maintain, and repair all equipment that is part of the Project in a manner consistent with its continued use.

52. **OWNERSHIP OF ANY EXISTING EQUIPMENT:** Ownership of any equipment and materials existing at the Site at the time the Contract is executed, shall remain the property of Agency even if it is replaced or its operation made unnecessary by Work performed by Design Build Entity. If applicable, Design Build Entity shall advise Agency in writing of all equipment and materials that will be replaced at the Site and Agency shall, within five (5) business days of Design Build Entity' notice, designate in writing to Design Build Entity which replaced equipment and materials should not be disposed of off-Site by Design Build Entity (the "**Retained Items**"). It is understood and agreed to by both Parties that Agency shall be responsible for and designate the location and storage for the Retained Items. Design Build Entity shall be responsible for the disposal of replaced equipment and materials, except for the Retained Items. Design Build Entity shall use commercially reasonable efforts to remove the Retained Items in such a manner as to avoid damage thereto, or if it is unreasonable to avoid damage altogether, to minimize any damage.

53. **RESPONSIBILITIES OF AGENCY:**

53.1. Agency shall examine the documents submitted by Design Build Entity and shall render decisions so as to avoid unreasonable delay in the performance of Work.

53.2. Agency shall verbally and in writing promptly advise Design Build Entity if Agency becomes aware of any fault or defect in the Project, including any errors, omissions, or inconsistencies in Design Build Entity's documents. Failure to provide such notice shall not relieve Design Build Entity of its responsibility therefore, if any.

53.3. In the event Hazardous Materials are present at the Site, and unless Agency and Design Build Entity agree that a Hazardous Materials consultant shall be a consultant of Design Build Entity, Agency shall furnish the services of a Hazardous Materials consultant or other consultants when the services are requested in writing by Design Build Entity and deemed necessary by Agency or are requested by Agency. These services shall include: asbestos and lead paint survey; abatement documentation; and specifications related to said matters which are to be incorporated into documents prepared by Design Build Entity. If the hazardous materials consultant is furnished by Agency and not a consultant of Design Build Entity, the specifications shall include a note to the effect that they are included in Design Build Entity's documents for Agency's convenience and have not been prepared or reviewed by Design Build Entity. The note shall also direct questions about the specifications to its preparer. Agency shall be responsible for the abatement and certification of identified hazardous materials, as applicable.

53.4. Agency personnel and/or its designated representatives shall coordinate with Design Build Entity as may be requested and desirable for the coordination or management of work related to the Project.

53.5. Agency shall provide Design Build Entity all relevant information in Agency's possession regarding the Project that Design Build Entity needs to perform its Services. Agency shall provide this information in a timely manner.

53.6. Review Design Build Entity's proposed schedule throughout the project.

53.7. Oversee Design Build Entity's quality assurance/control program.

53.8. Select and pay for Project Inspector with approval by Design Build Entity.

53.9. Review and approve payment applications from Design Build Entity.

53.10. Review construction progress and adherence to the schedule (and any recovery schedules).

53.11. Assist with the resolution of any disagreements.

53.12. Facilitate Project Post-Construction Interview (Lessons Learned/Best Practices).

54. **LIABILITY OF AGENCY:**

54.1. Other than as provided in the Contract, Agency's financial obligations under the Contract shall be limited to the payment of the Contract Price. In no event shall Agency be liable, regardless of whether any claim is based on contract or tort, for any special, consequential, indirect or incidental damages, including, but not limited to, lost profits or revenue, arising out of or in connection with the Contract for the Services or Work.

54.2. Agency shall not be responsible for any damage to persons or property as a result of the use, misuse, or failure of any equipment used by Design Build Entity, or by its employees, even though such equipment be furnished or loaned to Design Build Entity by Agency.

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EXHIBIT D

PROJECT SCHEDULE

The days indicated below will begin once Agency issues a Notice to Proceed for the Project. The Parties acknowledge the following. Agency intends to issue a Notice to Proceed for the Project as set forth below.

Any milestone hereunder shall only be extended consistent with the requirements of the Contract Documents.

Except for the Project Completion milestone date indicated herein, the other milestone dates are for reference only. Any delay in achieving the milestone dates indicated herein shall not be a basis upon which Design Build Entity can request an extension of the last milestone – Project Completion.

Design Build Entity shall have no right to request additional time to perform the Work unless authorized by the Contract Documents.

PROJECT		
Milestone	**Date to Complete**	**Liquidated Damages per Calendar Day**
Agency Issues a Notice to Proceed for Predevelopment Phase Services	________, 202X	N/A
Design Build Entity Completes Predevelopment Phase Services	________, 202X	**$2,000**
Agency Issues a Notice(s) to Proceed for Construction Stage Services	________, 202X	N/A
Submittal of any item listed on the Project Schedule	Varies Per Item	$100
Construction Mobilization	________, 202X	N/A
Completion of Project	________, 202X	**TBD with Final GMP**

Although Design Build Entity shall control its means and methods of Work, including staffing, Design Build Entity is solely responsible to ensure that the Project achieves Completion as set forth in the Project Schedule. Any additional staffing costs, including, without limitation have staff work seven (7) days per week, to maintain access and the Project Schedule, and to protect the Work under construction from the effects of weather shall be Design Build Entity's sole cost; provided, however, that if Agency directs Design Build Entity to accelerate the Work as a result of Excusable Delay or Compensable Delay to ensure Completion within the Contract Time, Design Build Entity may be entitled to compensation for acceleration if Design Build Entity complies with requirements of the Contract Time for a Change Order and, if necessary, a Claim.

The Contract Time has been determined with consideration given to the average climate weather conditions prevailing in the County in which the Project is located.

Design Build Entity shall prepare a detailed Project Schedule compliant with the Contract Documents that includes the above-milestones.

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EXHIBIT E CONSTRUCTION

COST WORKSHEET

When preparing the GMP, Design Build Entity shall utilize the following Construction Cost Worksheet to calculate and breakdown its Final GMP.

1. **GMP Calculation Chart.** Design Build Entity shall calculate the GMP as follows, or an alternative approach subject to Agency prior written approval:

(A)	**Cost to Perform Work** Design Build Entity and Subcontractor Direct Costs of Work for all Construction Stage Services		$______________
(B)	**General Conditions**		$______________
(C)	**SUBTOTAL OF COST TO PERFORM WORK & GENERAL CONDITIONS**		$_________________
MARK-UPS			
(D)	**Bonds** [Percentage in RFP]% multiplied by amount from **(C)**	%________	$______________
(E)	**Insurance** [Percentage in RFP]% multiplied by amount from **(C)**		$______________
(F)	**Overhead & Profit** [Percentage in RFP]% multiplied by amount from **(C)**	%	$______________
(G)	**TOTAL INITIAL MARK-UP**		$_________________
CONTINGENCIES(S) / ALLOWANCES			
(H)	**Contingency**	**% of (C)**	$______________
(I)	**Allowance(s)**		$______________
(J)	**TOTAL CONTINGENCIES & ALLOWANCES**		$______________
	TOTAL CONSTRUCTION WORK COSTS ((C) + (G) + (J))		$__________________

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2. **Detailed Cost Breakdown**. Design Build Entity shall provide a detailed cost breakdown of the above calculation as follows:

Design Build Entity may add and/or revise subdivisions or components as outlined in this sample form and format as applicable to the Project.

01000	General Requirements / General Conditions	$____________
	Project Manager	$____________
	Project Superintendent	$____________
	Foreman	$____________
	Clerical	$____________
	Safety Officer / Coordinator	$____________
	Vehicles	$____________
	Trailer	$____________
	Communications	$____________
	Office Equipment / Supplies	$____________
	Security	$____________
	Temporary Utilities	$____________
	Site Cleaning	$____________
	Toilets	$____________
	Mobilization / Layout (no more than 1%)	$____________
	Layout	$____________
	Fencing / Barricades	$____________
	Dust Control	$____________
	Waste Disposal	$____________
	Count/City/Etc. Fees	$____________
	Submittals, shop drawings (no more than 3%)	$____________
	Close-out Documentation (not less than 5%)	$____________
	Testing	$____________
	Punch-List	$____________
	Clean Up	$____________
	Miscellaneous	$____________
	Subtotal	**$____________**
	(Add all subdivisions as required for detailed pricing)	
[2]	[SITE WORK]	$____________
[3]	[CONCRETE]	$____________
[4]	[MASONRY]	$____________
[5]	[METALS]	$____________
[6]	[WOOD AND PLASTICS]	$____________
[7]	[THERMAL AND MOISTURE PROTECTION]	$____________
[8]	[DOORS AND WINDOWS]	$____________
[9]	[FINISHES]	$____________
[10]	[SPECIALTIES]	$____________
[11]	[EQUIPMENT]	$____________
[12]	[FURNISHINGS]	$____________
[13]	[SPECIAL CONSTRUCTION]	$____________

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[14]	[CONVEYING SYSTEMS]	$____________
[15]	[MECHANICAL]	$____________
[16]	[ELECTRICAL]	$____________
[17]	[COMMUNICATIONS]	$____________
	Subtotal	**$____________**
	Bonds	$____________
	Insurance	$____________
	Overhead & Profit	$____________
	Contingency	$____________
	Allowances	$____________
	(Preliminary) Project Cost	**$____________**

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EXHIBIT F

AGENCY'S RULES AND REGULATIONS

1. **Maintaining Services**. Design Build Entity is advised that if Work is to be performed in spaces regularly scheduled for work. Interruption and/or periods of shutdown of public access, electrical service, water service, lighting, or other utilities may be required in connection with the Project. These shall be only as arranged in advance with Agency. Design Build Entity shall provide temporary services to all facilities interrupted by Design Build Entity's Work.

2. **Maintaining Utilities**. Design Build Entity shall maintain in operation during duration of Contract, drainage lines, storm drains, sewers, water, gas, electrical, steam, and other utility service lines within working area.

3. **Alcohol & Firearms**. Design Build Entity shall ensure that no alcohol, firearms, weapons, or controlled substances enter or are used at the Site. Design Build Entity shall immediately remove from the Site and terminate the employment of any employee(s) found in violation of this provision.

4. **Work During Agency Operations**. Design Build Entity affirms that Work may be performed during ongoing operations in existing facilities. If so, Design Build Entity agrees to cooperate to the best of its ability to minimize any disruption to Agency operations at the Site up to, and including, rescheduling specific work activities, at no additional cost to Agency.

5. **Work Shall Not Disturb Staff or Members of Public**. Design Build Entity shall, at no additional cost to Agency and at Agency's request, coordinate its Work to not disturb Agency staff or members of the public.

6. **Language.** Unacceptable and/or loud language will not be tolerated, "cat calls" or other derogatory language toward staff or members of the public will not be allowed.

7. **Disturbing the Peace (Noise and Lighting).**

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7.1. Design Build Entity shall observe the noise ordinance of the Site at all times including, without limitation, all applicable local, city, and/or state laws, ordinances, and/or regulations regarding noise and allowable noise levels.

7.2. The use of radios, etc., shall be controlled to keep all sound at a level that cannot be heard beyond the immediate area of use. Agency reserves the right to prohibit the use of radios at the Site, except for handheld communication radios (e.g., Nextel phones or radios).

7.3. If portable lights are used after dark, all light must be located so as not to direct light into neighboring property.

7.4. Equipment and impact tools shall have intake and exhaust mufflers.

7.5. Design Build Entity shall cooperate with Agency to minimize and/or seize the use of noisy and vibratory equipment if that equipment becomes objectionable by its longevity.

7.6. Design Build Entity acknowledges that adjacent facilities may remain in operation during all or a portion of the Work period, and it shall take all reasonable precautions to minimize noise as required by applicable laws and the Contract Documents.

7.7. Notice of proposed noisy operations, including without limitation, operation of pneumatic demolition tools, concrete saws, and other equipment, shall be submitted to Agency a minimum of forty-eight (48) hours in advance of their performance.

8. Utility Shutdowns And Interruptions.

8.1. Design Build Entity shall give Agency a minimum of three (3) days written notice in advance of any need to shut off existing utility services or to effect equipment interruptions. Agency will set exact time and duration for shutdown, and will assist Design Build Entity with shutdown. Work required to re-establish utility services shall be performed by Design Build Entity.

9. Traffic.

9.1. Driving on the Premises shall be limited to periods when members of the public are not present. If driving or deliveries must be made during the business hours, two (2) or more ground guides shall lead the vehicle across the area of travel. The speed limit on-the Site shall be five (5) miles per hour (maximum) or less if conditions require.

9.2. All paths of travel for deliveries, including without limitation, material, equipment, and supply deliveries, shall be reviewed and approved by Agency in advance. Any damage will be repaired to the pre-damaged condition by Design Build Entity.

9.3. Agency shall designate a construction entry to the Site. If Design Build Entity requests, Agency determines it is required, and to the extent possible, Agency shall designate a staging area so as not to interfere with the normal functioning of Agency operations. Location of gates and fencing shall be approved in advance with Agency and at Design Build Entity's expense.

9.4. Parking areas shall be reviewed and approved by Agency in advance. No parking is to occur under the drip line of trees or in areas that could otherwise be damaged.

10. Barriers and Enclosures.

10.1. Design Build Entity shall obtain Agency's written permission for locations and types of temporary barriers and enclosures, including fire-rated materials proposed for use, prior to their installation.

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10.2. Design Build Entity shall provide and maintain temporary enclosures to prevent public entry and to protect persons using other buildings and portions of the Site and/or Premises, the public, and workers. Design Build Entity shall also protect the Work and existing facilities from the elements, and adjacent construction and improvements, persons, and trees and plants from damage and injury from demolition and construction operations.

10.3. Design Build Entity shall provide site access to existing facilities for persons using other buildings and portions of the Site, the public, and for deliveries and other services and activities.

11. Tree and Plant Protection.

11.1. Design Build Entity shall preserve and protect existing trees and plants on the Premises that are not designated or required to be removed, and those adjacent to the Premises.

11.2. Design Build Entity shall provide barriers to a minimum height of 4'-0" around drip line of each tree and plant, around each group of trees and plants, as applicable, in the proximity of demolition and construction operations.

11.3. Design Build Entity shall not park trucks, store materials, perform Work or cross over landscaped areas. Design Build Entity shall not dispose of paint thinners, water from cleaning, plastering or concrete operations, or other deleterious materials in landscaped areas, storm drain systems, or sewers. Plant materials damaged as a result of the performance of the Work shall, at the option of Agency and at Design Build Entity's expense, either be replaced with new plant materials equal in size to those damaged or by payment of an amount representing the value of the damaged materials as determined by Agency.

11.4. Design Build Entity shall remove soil that has been contaminated during the performance of the Work by oil, solvents, and other materials which could be harmful to trees and plants, and replace with good soil, at Design Build Entity's expense.

12. Excavation around Trees.

12.1. Excavation within drip lines of trees shall be done only where absolutely necessary and with written permission from Agency.

12.2. Where trenching for utilities is required within drip lines, tunneling under and around roots shall be by hand digging and shall be approved by Agency. Main lateral roots and taproots shall not be cut. All roots 2 inches in diameter and larger shall be tunneled under and heavily wrapped with wet burlap so as to prevent scarring or excessive drying. Smaller roots that interfere with installation of new work may be cut with prior approval by Agency. Roots must first be cut with a Vermeer, or equivalent, root cutter prior to any trenching.

12.3. Where excavation for new construction is required within drip line of trees, hand excavation shall be employed to minimize damage to root system. Roots shall be relocated in backfill areas wherever possible. If encountered immediately adjacent to location of new construction, roots shall be cut approximately 6 inches back from new construction.

12.4. Approved excavations shall be carefully backfilled with the excavated materials approved for backfilling. Backfill shall conform to adjacent grades without dips, sunken areas, humps, or other surface irregularities. Do not use mechanical equipment to compact backfill. Tamp carefully using hand tools, refilling and tamping until Final Acceptance as necessary to offset settlement.

12.5. Exposed roots shall not be allowed to dry out before permanent backfill is placed. Temporary earth cover shall be provided, or roots shall be wrapped with four layers of wet, untreated burlap and temporarily supported and protected from damage until permanently relocated and covered with backfill.

12.6. Accidentally broken roots should be sawed cleanly 3 inches behind ragged end.

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13. Security.

13.1. Design Build Entity shall be responsible for Project security for materials, tools, equipment, supplies, and completed and partially completed Work.

14. Dust and Dirt.

14.1. Design Build Entity shall conduct demolition and construction operations to minimize the generation of dust and dirt, and prevent dust and dirt from interfering with the progress of the Work and from accumulating in the Work and adjacent areas including, without limitation, occupied facilities.

14.2. Design Build Entity shall periodically water exterior demolition and construction areas to minimize the generation of dust and dirt.

14.3. Design Build Entity shall ensure that all hauling equipment and trucks carrying loads of soil and debris shall have their loads sprayed with water or covered with tarpaulins, and as otherwise required by local and state ordinance.

14.4. Design Build Entity shall prevent dust and dirt from accumulating on walks, roadways, parking areas, and planting, and from washing into sewer and storm drain lines.

15. Job Sign(s): Signs other than a Agency-approved Project sign and/or signs required by law, for safety, or for egress, shall not be permitted, unless otherwise approved in advance by Agency.

16. Publicity Releases. Design Build Entity shall not release any information, story, photograph, plan, or drawing relating information about the Project to anyone, including press and other public communications medium, including, without limitation, on website(s).

17. Infectious Disease. Design Build Entity shall comply with all of the "**Infectious Disease**" provisions in the Contract Documents related to Design Build Entity's staffing requirements and its compliance with all applicable and existing federal, state, and/or local statutes, orders, rules, regulations, ordinances, and/or directives relating to construction site safety in connection with any Infectious Disease.

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EXHIBIT G

LIST OF PLANS AND

SPECIFICATIONS

The Parties agree to amend the Contract and replace this **Exhibit G** after when Design Build Entity completes Construction Documents.

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EXHIBIT H

SUBCONTRACTOR PROCUREMENT PROCESS

Bidding for Subcontractor Work. The subcontractor procurement process for all Design Build Entity's subcontractors performing work valued in excess of 1% of the Contract Price shall be the following:

1. **Public Notice**. Design Build Entity shall provide notice of bidding for subcontractors in accordance with the publication requirements applicable to the competitive bidding process of the Agency to solicit Subcontractors in compliance with statutory requirements, if applicable, and Agency's process. **Agency intends to work with the successful Design Build Entity for the Project to issue an advertisement to solicit Subcontractors in compliance with statutory requirements, if applicable, and Agency's process. Design Build Entity's Subcontractor advertisement must be approved by Agency prior to publication.**

2. **Agency Review of Bid Packages and Notice.** At least fourteen (14) days prior to the bidding of subcontractor bid packages, Design Build Entity shall provide Agency with a copy of the written notice it will publish (including newspaper advertising) to solicit subcontractors, and the subcontractor bid packages for each scope of work. Agency reserves the right to request that Design Build Entity reasonably revise its published notice and adjust bid packages.

3. **Three Bona Fide Bids.** Design Build Entity is required to receive **at least** three (3) bona fide bids from subcontractors for all scopes of Work on the Project that constitute more than three percent (3%) of the total Project scope of Work. Prior to Design Build Entity seeking bids, Agency may, in its sole discretion, and upon Design Build Entity's written request, authorize Design Build Entity to utilize a different minimum number of bona fide bids from subcontractors.

4. **Prequalification.** Design Build Entity's subcontractors performing work valued in excess of of 1% of the GPC must comply with the following:

   a. **MEP Prequalification.** If the Project has electrical, mechanical, and plumbing components that will be performed by subcontractors performing under the following license classification(s) (C-4, C-7, C-10, C-16, C-20, C-34, C-36, C-38, C-42, C-43, and/or C-46; "**MEP Subcontractor(s)**"), and those MEP Subcontractors will be first-tier subcontractors to the contractor, those MEP Subcontractors must be prequalified with Agency to be eligible to be included in a Design Build Entity's proposal. MEP Subcontractors shall prequalify with Agency utilizing Agency's Prequalification Questionnaire. **Agency highly recommends that Design Build Entity informs all of its potential MEP Subcontractors that must be prequalified to immediately complete the prequalification process to ensure their eligibility to be included as MEP Subcontractors for the Project.**

   b. **Non-MEP Subcontractor Prequalification Criteria and Standards.** For this Project, Design Build Entity may prequalify non-MEP subcontractors solicited for work on this Project.

   c. **LIMIT ON "BEST VALUE" SELECTION.** DESIGNER/BUILDER ACKNOWLEDGES THAT THIS PROCESS – THE PREQUALIFICATION OR ANY ASSOCIATED QUALIFICATION PROCESS – IS THE ONLY "BEST VALUE" SELECTION PROCESS THAT THE AGENCY HAS APPROVED FOR THIS PROJECT. THE DESIGNER/BUILDER MAY REQUEST, AT LEAST FOURTEEN (14) DAYS PRIOR TO THE BIDDING OF SUBCONTRACTOR BID PACKAGES, THAT THE AGENCY APPROVE OTHER SELECTION PROCESS(ES) OR CRITERIA THAT THE DESIGNER/BUILDER DESIRES TO IMPLEMENT ON THIS PROJECT. DESIGNER/BUILDER CAN ONLY IMPLEMENT THOSE IF THE AGENCY PRE-APPROVES THEM, IN ITS SOLE DISCRETION.

5. **Open-Book / Bid Opening**. Design Build Entity shall invite Agency to attend all bid opening(s) for the Project and shall within 48 hours of the bid opening(s) provide copies or access to all bid documents provided by all Subcontractors.

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6. **Missing Scopes of Work in Subcontractor Bids ("Bid Levelling").** When Design Build Entity has received all Subcontractor bids, Design Build Entity shall identify all scope(s) of construction Work for which Design Build Entity did not receive a bid and provide a written justification as to why the scope(s) of construction Work was either not included in a subcontractor bid or was not bid on ("**Unbid Work**"). Agency expects very little if any Unbid Work, far less than 1% of the direct construction cost (before markups). After Agency reviews Design Build Entity's justification, the Parties shall meet and confer and Agency shall reasonably determine, in its sole discretion, whether to:

    a. Direct Design Build Entity to rebid the Unbid Work; or

    b. If Design Build Entity requests, allow Design Build Entity to self-perform the Unbid Work. If Design Build Entity self-performs the Unbid Work, Design Build Entity shall provide substantiation for the pricing for the Unbid Work that Design Build Entity intends to self-perform. The Parties shall negotiate in good faith to determine a reasonable price for the Unbid Work that Design Build Entity intends to self-perform. Agency reserves the right to seek its own pricing of that Work to verify the value of Design Build Entity proposed pricing.

7. **Low Bid.** Because the "best value" process was implemented as part of the subcontractor procurement process, once Design Build Entity receives Subcontractor bids, Design Build Entity shall award subcontracts to subcontractors with the **lowest responsive, responsible bid** that have satisfied the above prequalification and/or qualification steps, as applicable.

8. **Self-Performing Construction Work.** If Design Build Entity intends to propose to self-perform portion(s) of the construction Work, it must

    a. Receive Agency's prior written approval.

    b. Provide its pricing (its bid) to Agency 48 hours prior to Design Build Entity receipt of subcontractor bids for those portion(s) of the Work.

    c. Receive a minimum number of two (2) bona fide bids from subcontractors for scope(s) of Work that Design Build Entity is bidding to self-perform, not including Design Build Entity pricing/bid.

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EXHIBIT I BONDS AND

CERTIFICATIONS

[Documents Following This Page]

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NON-COLLUSION DECLARATION
PUBLIC CONTRACT CODE SECTION 7106

TO BE EXECUTED BY DESIGN-BUILD ENTITY

The undersigned declares:

I am the____ **[PRINT YOUR TITLE]**

of____ **[PRINT FIRM NAME],**

the party making the foregoing Contract.

The Contract is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation. The Contract is genuine and not collusive or sham. Design Build Entity has not directly or indirectly induced or solicited any other Design Build Entity ("**Design Build Entity**") to put in a false or sham Contract. Design Build Entity has not directly or indirectly colluded, conspired, connived, or agreed with any proposer or anyone else to put in a sham Contract, or to refrain from proposing. Design Build Entity has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the Contract price of Design Build Entity or any other proposer, or to fix any overhead, profit, or cost element of the Contract price, or of that of any other proposer. All statements contained in the Contract are true. Design Build Entity has not, directly or indirectly, submitted his or her Contract price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, to any corporation, partnership, company, association, organization, Contract depository, or to any member or agent thereof, to effectuate a collusive or sham Contract, and has not paid, and will not pay, any person or entity for such purpose.

Any person executing this declaration on behalf of a Design Build Entity that is a corporation, partnership, joint venture, limited liability company, limited liability partnership, or any other entity, hereby represents that he or she has full power to execute, and does execute, this declaration on behalf of Design Build Entity.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct and that this declaration is executed on the following date:

Date: ____
Proper Name of Design Build Entity: ____
Signature: ____
Print Name: ____
Title: ____
(ATTACH NOTARIAL ACKNOWLEDGMENT FOR THE ABOVE SIGNATURE)

END OF DOCUMENT

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PREVAILING WAGE CERTIFICATION

I hereby certify that I will conform to the State of California Public Works Contract requirements regarding prevailing wages, benefits, on-site audits with 48-hours' notice, payroll records, and apprentice and trainee employment requirements, for all Work on the Project.

Date: ____
Proper Name of Design Build Entity: ____
Signature: ____
Print Name: ____
Title: ____

WORKERS' COMPENSATION CERTIFICATION

Labor Code section 3700 in relevant part provides:

> Every employer except the State shall secure the payment of compensation in one or more of the following ways:
>
> a. By being insured against liability to pay compensation by one or more insurers duly authorized to write compensation insurance in this state.
>
> b. By securing from the Director of Industrial Relations a certificate of consent to self-insure, which may be given upon furnishing proof satisfactory to the Director of Industrial Relations of ability to self-insure and to pay any compensation that may become due to his employees.

I am aware of the provisions of section 3700 of the Labor Code which require every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of that code, and I will comply with such provisions before commencing the performance of the Work.

Date: ____
Proper Name of Design Build Entity: ____
Signature: ____
Print Name: ____
Title: ____

(In accordance with Article 5 - commencing at section 1860, chapter 1, part 7, division 2 of the Labor Code, the above certificate must be signed and filed with the awarding body prior to performing any Work under this Contract.)

END OF DOCUMENT

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PUBLIC WORKS CONTRACTOR REGISTRATION CERTIFICATION

Pursuant to Labor Code sections 1725.5 and 1771.1, all contractors and subcontractors that wish to bid on, be listed in a bid proposal, or enter into a contract to perform public work must be registered with the Department of Industrial Relations. See http://www.dir.ca.gov/Public-Works/PublicWorks.html for additional information.

No proposal will be accepted nor any contract entered into without proof of the contractor's and subcontractors' current registration with the Department of Industrial Relations to perform public work.

Design Build Entity hereby certifies that it is aware of the registration requirements set forth in Labor Code sections 1725.5 and 1771.1 and is currently registered as a contractor with the Department of Industrial Relations.[1]

Name of Design Build Entity:______________________________________

DIR Registration Number:____

DIR Registration Expiration:_________________________

Small Project Exemption:______Yes or______No

Unless Design Build Entity is exempt pursuant to the small project exemption, Design Build Entity further acknowledges:

1. Design Build Entity shall maintain a current DIR registration for the duration of the project.
2. Design Build Entity shall include the requirements of Labor Code sections 1725.5 and 1771.1 in its contract with subcontractors and ensure that all subcontractors are registered at the time of bid opening and maintain registration status for the duration of the project.
3. Failure to submit this form or comply with any of the above requirements may result in a finding that the bid is non-responsive.

Name of Design Build Entity____

Signature____

Name and Title____

Dated____

END OF DOCUMENT

[1] If the Project is exempt from the contractor registration requirements pursuant to the small project exemption under Labor Code Sections 1725.5 and 1771.1, please mark "Yes" in response to "Small Project Exemption."

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DESIGN-BUILD ENTITY'S CERTIFICATE REGARDING WORKERS' COMPENSATION

I am aware of the provisions of section 3700 of the Labor Code which require every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of that code, and I will comply with such provisions before commencing the performance of the work of this Contract.

Name of Design Build Entity ___________________________________

Signature ____

Name ____

Title ____

Dated ____

END OF DOCUMENT

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DRUG-FREE WORKPLACE / TOBACCO-FREE ENVIRONMENT CERTIFICATION

Government Code section 8350 et seq., the Drug-Free Workplace Act of 1990 (herein only, the "**Act**"), requires that every person or organization awarded a contract or grant for the procurement of any property or service from any state agency must certify that it will provide a drug-free workplace by doing certain specified acts. In addition, the Act provides that each contract or grant awarded by a state agency may be subject to suspension of payments or termination of the contract or grant, and Design Build Entity or grantee may be subject to debarment from future contracting, if the contracting agency determines that specified acts have occurred. Agency is not a "state agency" as defined in the applicable section(s) of the Government Code, but Agency is a local agency under California law and requires all Design Build Entities on Agency projects to comply with the provisions and requirements of the Act. Design Build Entity shall certify that it will provide a drug-free workplace by doing all of the following:

1 Publishing a statement notifying employees that the unlawful manufacture, distribution, dispensation, possession, or use of a controlled substance is prohibited in the person's or organization's workplace and specifying actions which will be taken against employees for violations of the prohibition;

2 Establishing a drug-free awareness program to inform employees about all of the following:
   a. The dangers of drug abuse in the workplace.
   b. The person's or organization's policy of maintaining a drug-free workplace.
   c. The availability of drug counseling, rehabilitation, and employee-assistance programs.
   d. The penalties that may be imposed upon employees for drug abuse violations.

3 Requiring that each employee engaged in the performance of the contract or grant be given a copy of the statement required above, and that, as a condition of employment on the contract or grant, the employee agrees to abide by the terms of the statement.

I understand that if Agency determines that I have either (a) made a false certification herein, or (b) violated this certification by failing to carry out the requirements of section 8355, that the Contract awarded herein is subject to termination, suspension of payments, or both. I further understand that, should I violate the terms of the Drug-Free Workplace Act of 1990, I may be subject to debarment in accordance with the requirements of section 8350 et seq.

I acknowledge that I am aware of the provisions of Government Code section 8350 et seq. and hereby certify that I will adhere to the requirements of the Drug-Free Workplace Act of 1990.

In addition, and pursuant to, without limitation, 20 U.S.C. section 6083, Labor Code section 6400 et seq., Health & Safety Code section 104350 et seq. and Agency Board Policies, all Agency sites, including the Project Site, are tobacco-free environments. Smoking and the use of tobacco products by all persons is prohibited on or in Agency property. Agency property includes buildings and Agency owned vehicles and vehicles owned by others while on Agency property. I acknowledge that I am aware of Agency's policy regarding tobacco-free environments and hereby certify that I will adhere to the requirements of that policy and not permit any of my firm's employees, agents, subcontractors, or my firm's subcontractors' employees or agents to use tobacco and/or smoke on the Project site

Date: ______________________________
Proper Name of Design Build Entity: ______________________________
Signature: ______________________________
Print Name: ______________________________
Title: ______________________________

END OF DOCUMENT

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ASBESTOS & OTHER HAZARDOUS MATERIALS CERTIFICATION

Design Build Entity hereby certifies that no Asbestos, or Asbestos-Containing Materials, polychlorinated biphenyl (PCB), or any material listed by the federal or state Environmental Protection Agency or federal or state health agencies as a hazardous material, or any other material defined as being hazardous under federal or state laws, rules, or regulations ("**New Hazardous Material**") shall be furnished, installed, or incorporated in any way into the Project or in any tools, devices, clothing, or equipment used to affect any portion of Design Build Entity's Work on the Project for Agency.

Design Build Entity further certifies that it has instructed its employees with respect to the above-mentioned standards, hazards, risks, and liabilities.

Asbestos and/or asbestos-containing material shall be defined as all items containing but not limited to chrysotile, crocidolite, amosite, anthophyllite, tremolite, and actinolite. Any or all material containing greater than one-tenth of one percent (.1%) asbestos shall be defined as asbestos-containing material.

Any disputes involving the question of whether or not material is New Hazardous Material shall be settled by electron microscopy or other appropriate and recognized testing procedure. The costs of any such tests shall be paid by Design Build Entity if the material is found to be New Hazardous Material.

All Work or materials found to be New Hazardous Material or Work or material installed with "New Hazardous Material"-containing equipment will be immediately rejected and this Work will be removed at Design Build Entity's expense at no additional cost to Agency.

Design Build Entity has read and understood the document Hazardous Materials Procedures & Requirements, and shall comply with all the provisions outlined therein.

Date: ______________________________
Proper Name of Design Build Entity: ______________________________
Signature: ______________________________
Print Name: ______________________________
Title: ______________________________

END OF DOCUMENT

DRAFT

CONFLICT OF INTEREST CERTIFICATION

I,____, ____
Name Name of Design Build Entity

am the authorized representative of____("**Design Build Entity**"), which hereby certifies that no employee, officer, agent, consultant, or subcontractor of Design Build Entity has any financial interest or business relationship with Agency, Agency's staff or any individual member of Agency's governing board; nor does Design Build Entity have any actual knowledge or reason to know that any such Agency board member(s) or staff will obtain a financial interest or present or anticipated benefit from the agreement contemplated by this Project that would constitute a conflict of interest under California Public Contract Code section 10365.5; Government Code sections 1090 et seq. or 87100 et seq., pertaining to conflicts of interest in public contracting.

Date: ____
Proper Name of Design Build Entity: ____
Signature: ____
Print Name: ____
Title: ____

END OF DOCUMENT

DRAFT

IRAN CONTRACTING ACT CERTIFICATION (Public Contract Code § 2204)

Pursuant to Public Contract Code (PCC) section 2204, an Iran Contracting Act certification is required for solicitations of goods or services of one million dollars ($1,000,000) or more.

Design Build Entity shall complete **ONLY ONE** of the following two paragraphs.

☐ 1. Design Build Entity's Proposal is less than one million dollars ($1,000,000).

OR

☐ 2. Design Build Entity's Proposal is one million dollars ($1,000,000) or more, but Design Build Entity is **not** on the current list of persons engaged in investment activities in Iran created by the California Department of General Services ("**DGS**") pursuant to Public Contract Code § 2203(b), and Design Build Entity is not a financial institution extending twenty million dollars ($20,000,000) or more in credit to another person, for 45 days or more, if that other person will use the credit to provide goods or services in the energy sector in Iran and is identified on the current list of persons engaged in investment activities in Iran created by DGS.

OR

☐ 3. Design Build Entity's Proposal is one million dollars ($1,000,000) or more, but Agency has given prior written permission to Design Build Entity to submit a proposal pursuant to PCC 2203(c) or (d). **A copy of the written permission from Agency is included with this Contract**.

I certify that I am duly authorized to legally bind Design Build Entity to this certification, that the contents of this certification are true, and that this certification is made under the laws of the State of California.

Date: ______________________________
Proper Name of Design Build Entity: ______________________________
Signature: ______________________________
Print Name: ______________________________
Title: ______________________________

END OF DOCUMENT

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EXECUTIVE ORDER N-6-22 CERTIFICATION

Executive Order N-6-22 issued by Governor Gavin Newsom on March 4, 2022, directs all agencies and departments that are subject to the Governor's authority to (a) terminate any contracts with any individuals or entities that are determined to be a target of economic sanctions against Russia and Russian entities and individuals; and (b) refrain from entering into any new contracts with such individuals or entities while the aforementioned sanctions are in effect.

Executive Order N-6-22 also requires that any contractor that: (1) currently has a contract with the Orange County Employees Retirement System funded through grant funds provided by the State of California; and/or (2) submits a bid or proposal or otherwise proposes to or enter into or renew a contract with the Orange County Employees Retirement System with State of California grant funds, certify that the person is not the target of any economic sanctions against Russia and Russian entities and individuals.

The Design Build Entity hereby certifies, SUBJECT TO PENALTY FOR PERJURY, that a) the Design Build Entity is not a target of any economic sanctions against Russian and Russian entities and individuals as discussed in Executive Order N-6-22 and b) the person signing below is duly authorized to legally bind the Design Build Entity. This certification is made under the laws of the State of California.

Signature:____

Printed Name:______________________________________

Title:____

Design Build Entity Name:_______________________________

Date:____

END OF DOCUMENT

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PERFORMANCE BOND (100% of Contract Price)
(Note: Design Build Entity must use this form, NOT a surety company form.)

KNOW ALL PERSONS BY THESE PRESENTS:
THAT WHEREAS, the Orange County Employees Retirement System, (hereinafter referred to as "Agency") has awarded to__________________________, (hereinafter referred to as the "Contractor") an agreement for ____, (hereinafter referred to as the "Project").

WHEREAS, the work to be performed by the Contractor is more particularly set forth in the Contract Documents for the Project dated ________________, (hereinafter referred to as "Contract Documents"), the terms and conditions of which are expressly incorporated herein by reference; and

WHEREAS, the Contractor is required by said Contract Documents to perform the terms thereof and to furnish a bond for the faithful performance of said Contract Documents.

NOW, THEREFORE, we, ______________________, the undersigned Contractor and ____as Surety, a corporation organized and duly authorized to transact business under the laws of the State of California, are held and firmly bound unto the Agency in the sum of ___________________________DOLLARS, ($____________), said sum being not less than one hundred percent (100%) of the total amount of the Contract, for which amount well and truly to be made, we bind ourselves, our heirs, executors and administrators, successors and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH, that, if the Contractor, his or its heirs, executors, administrators, successors or assigns, shall in all things stand to and abide by, and well and truly keep and perform the covenants, conditions and agreements in the Contract Documents and any alteration thereof made as therein provided, on its part, to be kept and performed at the time and in the manner therein specified, and in all respects according to their intent and meaning; and shall faithfully fulfill all obligations including the one (1) year guarantee of all materials and workmanship; and shall indemnify and save harmless the Agency, its officials, officers, employees, and authorized volunteers, as stipulated in said Contract Documents, then this obligation shall become null and void; otherwise it shall be and remain in full force and effect.

As a part of the obligation secured hereby and in addition to the face amount specified therefore, there shall be included costs and reasonable expenses and fees including reasonable attorney's fees, incurred by Agency in enforcing such obligation.

As a condition precedent to the satisfactory completion of the Contract Documents, unless otherwise provided for in the Contract Documents, the above obligation shall hold good for a period of one (1) year after the acceptance of the work by Agency, during which time if Contractor shall fail to make full, complete, and satisfactory repair and replacements and totally protect the Agency from loss or damage resulting from or caused by defective materials or faulty workmanship. The obligations of Surety hereunder shall continue so long as any obligation of Contractor remains. Nothing herein shall limit the Agency's rights or the Contractor or Surety's obligations under the Contract, law or equity, including, but not limited to, California Code of Civil Procedure Section 337.15.

Whenever Contractor shall be, and is declared by the Agency to be, in default under the Contract Documents, the Surety shall remedy the default pursuant to the Contract Documents, or shall promptly, at the Agency's option:

i. Take over and complete the Project in accordance with all terms and conditions in the Contract Documents; or

ii. Obtain a bid or bids for completing the Project in accordance with all terms and conditions in the Contract Documents and upon determination by Surety of the lowest responsive and responsible bidder, arrange for a Contract between such bidder, the Surety and the Agency, and make available as work progresses sufficient funds to pay the cost of completion of the Project, less the balance of the contract price, including other costs and damages for which Surety may be liable. The term "balance of the contract

DRAFT

price" as used in this paragraph shall mean the total amount payable to Contractor by the Agency under the Contract and any modification thereto, less any amount previously paid by the Agency to the Contractor and any other set offs pursuant to the Contract Documents.

iii. Permit the Agency to complete the Project in any manner consistent with California law and make available as work progresses sufficient funds to pay the cost of completion of the Project, less the balance of the contract price, including other costs and damages for which Surety may be liable. The term "balance of the contract price" as used in this paragraph shall mean the total amount payable to Contractor by the Agency under the Contract and any modification thereto, less any amount previously paid by the Agency to the Contractor and any other set offs pursuant to the Contract Documents.

Surety expressly agrees that the Agency may reject any contractor or subcontractor which may be proposed by Surety in fulfillment of its obligations in the event of default by the Contractor.

Surety shall not utilize Contractor in completing the Project nor shall Surety accept a bid from Contractor for completion of the Project if the Agency, when declaring the Contractor in default, notifies Surety of the Agency's objection to Contractor's further participation in the completion of the Project.

The Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the Contract Documents or to the Project to be performed thereunder shall in any way affect its obligations on this bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the Contract Documents or to the Project, including but not limited to the provisions of sections 2819 and 2845 of the California Civil Code.

By their signatures hereunder, Surety and Contractor hereby confirm under penalty of perjury that surety is an admitted surety insurer authorized to do business in the State of California.

[REMAINDER OF PAGE LEFT INTENTIONALLY BLANK]

DRAFT

IN WITNESS WHEREOF, we have hereunto set our hands and seals this________day of______________, 20___.

(Corporate Seal)

____
Contractor/ Principal

By____

Title____

(Corporate Seal)

Surety ____

By ____
Attorney-in-Fact

(Attach Attorney-in-Fact Certificate)

Title____

The rate of premium on this bond is_____________per thousand. The total amount of premium charges is $_______________________________.
(The above must be filled in by corporate attorney.)

<u>THIS IS A REQUIRED FORM</u>

Any claims under this bond may be addressed to:

(Name and Address of Surety) ____
____
____

(Name and Address of Agent or Representative for service of process in California, if different from above) ____
____
____

(Telephone number of Surety and Agent or Representative for service of process in California) ____

DRAFT

Notary Acknowledgment

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

STATE OF CALIFORNIA
COUNTY OF _______________

On________________________, 20___, before me,_________________________________, Notary Public, personally

appeared____, who proved to me on the basis of satisfactory

evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature of Notary Public ____

OPTIONAL

Though the information below is not required by law, it may prove valuable to persons relying on the document and could prevent fraudulent removal and reattachment of this form to another document.

CAPACITY CLAIMED BY SIGNER

- ☐ Individual
- ☐ Corporate Officer

Title(s)

- ☐ Partner(s) ☐ Limited ☐ General
- ☐ Attorney-In-Fact
- ☐ Trustee(s)
- ☐ Guardian/Conservator
- ☐ Other:

Signer is representing:
Name Of Person(s) Or Entity(ies)

____

____

DESCRIPTION OF ATTACHED DOCUMENT

____
Title or Type of Document

____
Number of Pages

____
Date of Document

____
Signer(s) Other Than Named Above

NOTE: This acknowledgment is to be completed for Contractor/Principal.

DRAFT

Notary Acknowledgment

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STATE OF CALIFORNIA
COUNTY OF _______________

On________________________, 20___, before me,_________________________________, Notary Public, personally

appeared____, who proved to me on the basis of satisfactory

evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature of Notary Public ____

OPTIONAL

Though the information below is not required by law, it may prove valuable to persons relying on the document and could prevent fraudulent removal and reattachment of this form to another document.

CAPACITY CLAIMED BY SIGNER

- ☐ Individual
- ☐ Corporate Officer

Title(s)

- ☐ Partner(s) ☐ Limited ☐ General
- ☐ Attorney-In-Fact
- ☐ Trustee(s)
- ☐ Guardian/Conservator
- ☐ Other:

Signer is representing:
Name Of Person(s) Or Entity(ies)

____

____

DESCRIPTION OF ATTACHED DOCUMENT

____
Title or Type of Document

____
Number of Pages

____
Date of Document

____
Signer(s) Other Than Named Above

NOTE: This acknowledgment is to be completed for the Attorney-in-Fact. The Power-of Attorney to local representatives of the bonding company must also be attached.

END OF PERFORMANCE BOND

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PAYMENT BOND
Contractor's Labor & Material Bond (100% of Contract Price)
(Note: Design Build Entity must use this form, NOT a surety company form.)

KNOW ALL PERSONS BY THESE PRESENTS:

WHEREAS, the Orange County Employees Retirement System (hereinafter designated as the "Agency"), by action taken or a resolution passed____________________, 20_, has awarded to ________________________________ hereinafter designated as the "Principal," a contract for the work described as follows: ____(the "Project"); and

WHEREAS, the work to be performed by the Principal is more particularly set forth in the Contract Documents for the Project dated __________________ ("Contract Documents"), the terms and conditions of which are expressly incorporated by reference; and

WHEREAS, said Principal is required to furnish a bond in connection with said contract; providing that if said Principal or any of its Subcontractors shall fail to pay for any materials, provisions, provender, equipment, or other supplies used in, upon, for or about the performance of the work contracted to be done, or for any work or labor done thereon of any kind, or for amounts due under the Unemployment Insurance Code or for any amounts required to be deducted, withheld, and paid over to the Employment Development Department from the wages of employees of said Principal and its Subcontractors with respect to such work or labor the Surety on this bond will pay for the same to the extent hereinafter set forth.

NOW THEREFORE, we, the Principal and____________________________as Surety, are held and firmly bound unto the Agency in the penal sum of________________Dollars ($____________) lawful money of the United States of America, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH that if said Principal, his or its subcontractors, heirs, executors, administrators, successors or assigns, shall fail to pay any of the persons named in Civil Code Section 9100, fail to pay for any materials, provisions or other supplies, used in, upon, for or about the performance of the work contracted to be done, or for any work or labor thereon of any kind, or amounts due under the Unemployment Insurance Code with respect to work or labor performed under the contract, or for any amounts required to be deducted, withheld, and paid over to the Employment Development Department or Franchise Tax Board from the wages of employees of the contractor and his subcontractors pursuant to Revenue and Taxation Code Section 18663, with respect to such work and labor the Surety or Sureties will pay for the same, in an amount not exceeding the sum herein above specified, and also, in case suit is brought upon this bond, all litigation expenses incurred by the Agency in such suit, including reasonable attorneys' fees, court costs, expert witness fees and investigation expenses.

This bond shall inure to the benefit of any of the persons named in Civil Code Section 9100 so as to give a right of action to such persons or their assigns in any suit brought upon this bond.

It is further stipulated and agreed that the Surety on this bond shall not be exonerated or released from the obligation of this bond by any change, extension of time for performance, addition, alteration or modification in, to, or of any contract, plans, specifications, or agreement pertaining or relating to any scheme or work of improvement herein above described, or pertaining or relating to the furnishing of labor, materials, or equipment therefore, nor by any change or modification of any terms of payment or extension of the time for any payment pertaining or relating to any scheme or work of improvement herein above described, nor by any rescission or attempted rescission or attempted rescission of the contract, agreement or bond, nor by any conditions precedent or subsequent in the bond attempting to limit the right of recovery of claimants otherwise entitled to recover under any such contract or agreement or under the bond, nor by any fraud practiced by any person other than the claimant seeking to recover on the bond and that this bond be construed most strongly against the Surety and in favor of all persons for whose benefit such bond is given, and under no circumstances shall Surety be released from liability to those for whose benefit such bond has been given, by reason of any breach of contract between the owner or Agency and original contractor or on the part of any obligee named in

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such bond, but the sole conditions of recovery shall be that claimant is a person described in Civil Code Section 9100, and has not been paid the full amount of his claim and that Surety does hereby waive notice of any such change, extension of time, addition, alteration or modification herein mentioned, including but not limited to the provisions of sections 2819 and 2845 of the California Civil Code.

By their signatures hereunder, Surety and Principal hereby confirm under penalty of perjury that surety is an admitted surety insurer authorized to do business in the State of California.

IN WITNESS WHEREOF, we have hereunto set our hands and seals this________day of______________, 20_.

(Corporate Seal)

____
Contractor/ Principal

By____________________________________

Title____

(Corporate Seal)

____
Surety

By ____
Attorney-in-Fact

(Attach Attorney-in-Fact Certificate)

Title____

Signatures of those signing for the Contractor and Surety must be notified and evidence of corporate authority attached. A Power-of-Attorney authorizing the person signing on behalf of the Surety to do so much be attached hereto.

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Notary Acknowledgment

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

STATE OF CALIFORNIA
COUNTY OF _______________

On________________________, 20___, before me,_________________________________, Notary Public, personally

appeared____, who proved to me on the basis of satisfactory

evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature of Notary Public ____

OPTIONAL

Though the information below is not required by law, it may prove valuable to persons relying on the document and could prevent fraudulent removal and reattachment of this form to another document.

CAPACITY CLAIMED BY SIGNER

☐ Individual
☐ Corporate Officer

Title(s)

☐ Partner(s) ☐ Limited
☐ General

☐ Attorney-In-Fact
☐ Trustee(s)
☐ Guardian/Conservator
☐ Other:

Signer is representing:
Name Of Person(s) Or Entity(ies)

____

____

DESCRIPTION OF ATTACHED DOCUMENT

____
Title or Type of Document

____
Number of Pages

____
Date of Document

____
Signer(s) Other Than Named Above

NOTE: This acknowledgment is to be completed for Contractor/Principal.

DRAFT

Notary Acknowledgment

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

STATE OF CALIFORNIA
COUNTY OF ______________

On______________________, 20___, before me,______________________________, Notary Public, personally

appeared____, who proved to me on the basis of satisfactory

evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature of Notary Public ____

OPTIONAL

Though the information below is not required by law, it may prove valuable to persons relying on the document and could prevent fraudulent removal and reattachment of this form to another document.

CAPACITY CLAIMED BY SIGNER

- ☐ Individual
- ☐ Corporate Officer

Title(s)

- ☐ Partner(s) ☐ Limited ☐ General
- ☐ Attorney-In-Fact
- ☐ Trustee(s)
- ☐ Guardian/Conservator
- ☐ Other:

Signer is representing:
Name Of Person(s) Or Entity(ies)

____

____

DESCRIPTION OF ATTACHED DOCUMENT

____
Title or Type of Document

____
Number of Pages

____
Date of Document

____
Signer(s) Other Than Named Above

NOTE: This acknowledgment is to be completed for the Attorney-in-Fact. The Power-of-Attorney to local representatives of the bonding company must also be attached.

END OF PAYMENT BOND

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EXHIBIT J

RFQ

[Documents Following This Page]

DRAFT

EXHIBIT K

RFP

[Documents Following This Page]

DRAFT

EXHIBIT L

PROPOSAL

[Documents Following This Page]

DRAFT

[INSERT FORM DB CONTRACT]

DRAFT

ATTACHMENT 6
SCOPE OF PREDEVELOPMENT PHASE WORK

[INSERT ON THE FOLLOWING PAGE]

Memorandum

DATE: June 17, 2024

TO: Members of the Board of Retirement

FROM: Manuel D. Serpa, General Counsel; Rosie Baek, Staff Attorney

SUBJECT: **Kevin Ferguson's Request re Deceased Alternate Payee's Continuing Benefits**

Background

Jeffrey Ferguson ("Member") entered employment on February 27, 1983. He separated from his spouse ("Alternate Payee") on September 30, 1996, and the parties filed their Domestic Relations Order ("DRO"). The DRO effectively provides that if the Alternate Payee predeceases the Member, her share must be paid to her estate. Alternate Payee passed away on March 29, 2024.

On May 20, 2024, the parties' son, Kevin Ferguson, appeared before the Board and requested that OCERS directly pay the Alternate Payee's continuing benefits to him, not her estate, on the basis that he is her designated beneficiary. Mr. Ferguson submitted a letter addressed to the Board and Staff on the same day.

On May 24, 2024, Mr. Ferguson provided Staff with a "small estate affidavit."

Analysis

Family Code section 2610 states that the court must make "whatever orders are necessary … to ensure that each party receives the party's full community property share in any retirement plan," including "the disposition of retirement benefits payable upon or after the death of either party." Thus, statute requires that the court apportion retirement benefits between spouses. The DRO issued by the court is clear that "any and all payments which would have been made to the Alternate Payee pursuant to this order, had she lived, will be paid instead to the estate of the Alternate Payee in accordance with In re Marriage of Powers, (1990) 218 Cal.App.3d 626." (DRO, page 4.)

In re Marriage of Powers confirms that "if the nonemployee spouse dies before the employee spouse, his or her interest in the employee spouse's pension plan … becomes part of the nonemployee spouse's estate." (*In re Marriage of Powers* (1990) 218 Cal.App.3d 626, 639.) The DRO and the legal authority it relies upon instruct OCERS to pay the Alternate Payee's benefits to her estate.

On May 24, 2024, Mr. Ferguson provided Staff with a "small estate affidavit." A small estate affidavit is a document that permits the transfer of property to a decedent's successor without requiring them to go through probate court if certain legal requirements are met. The affidavit requires that the affiant declare that no other person has a superior right to the decedent's interest in the described property and that the property is valued at $184,500 or less. (Probate Code § 13100.)

OCERS cannot transfer Alternate Payee's continuing benefit to Mr. Ferguson based on the small estate affidavit because the property does not constitute a "small estate." The total value of the continuing benefit cannot be determined to be $184,500 or less. The benefits may exceed $184,500, as her estate will continue to receive benefits for as long as Member does.

Moreover, OCERS cannot rely in good faith on the statements made in the small estate affidavit. In Mr. Ferguson's letter to the Board and Staff, he stated that he wanted Alternate Payee's continuing benefit to be paid directly to him, and not her estate, because:

> "If I'm forced to establish an estate for my mom, the process will take months. We'll end up spending thousands in legal and administrative costs, and *if my mom incurred any debt (a near certainty), her creditors would have first claim to the benefit*. It would be prohibitively difficult, and we'd likely never see the benefit." (Letter to the Board, page 2.) (emphasis added).

In the small estate affidavit, however, Mr. Ferguson declared that "no other person has a superior right to the interest of the decedent in the described property." (Affidavit, page 1).

Having been made aware that Alternate Payee very likely owed money to creditors who have a superior claim to her estate's funds, OCERS cannot rely in good faith on the statements made in the small estate affidavit and transfer the continuing benefit.

Conclusion

The terms of the DRO and its supporting legal authority make clear that Alternate Payee's continuing benefits must be paid to her estate upon her passing. OCERS cannot transfer the continuing benefits to Mr. Ferguson based on the small estate affidavit because the total value of the benefits cannot be determined to constitute a "small estate," as defined by the Probate Code. Furthermore, OCERS cannot rely in good faith upon the small estate affidavit after it has been put on notice that there are likely unsecured debts of the decedent that have yet to be paid.

Legal has drafted a letter on behalf of Member Services to notify Mr. Ferguson that OCERS has considered his request and has determined that the Alternate Payee's continuing benefit must be paid to her estate. Staff will send this letter to Mr. Ferguson following today's Board meeting of June 17, 2024. That draft letter, the small estate affidavit, and Mr. Ferguson's letter to the Board are attached.

<u>Attachments</u>

(1) Draft Benefit Determination Letter to Kevin Ferguson
(2) Small Estate Affidavit
(3) Kevin Ferguson's Letter to OCERS Board of Retirement

Submitted by:

MDS-Approved

Manuel D. Serpa
General Counsel

Submitted by:

RB-Approved

Rosie Baek
Staff Attorney

ORANGE COUNTY OCERS EMPLOYEES RETIREMENT SYSTEM

June [x], 2024

Mr. Kevin Ferguson
[Address]

Re: Benefit Determination – Jeffrey Ferguson/Terri Susan Mason

Dear Mr. Ferguson:

This letter is in response to your appearance before the Board on May 20, 2024 and the materials submitted to the Board and Staff. As explained below, OCERS must pay Ms. Mason's continuing benefits to her estate.

Family Code section 2610 states that the court must make "whatever orders are necessary … to ensure that each party receives the party's full community property share in any retirement plan," including "the disposition of retirement benefits payable upon or after the death of either party." In other words, statute requires that the court apportion retirement benefits between spouses. The DRO issued by the court is clear that "any and all payments which would have been made to the Alternate Payee pursuant to this order, had she lived, will be paid instead to the estate of the Alternate Payee." (DRO, page 4.) The DRO and the legal authority it relies upon instruct OCERS to pay the Alternate Payee's benefits to her estate.

On May 24, 2024, you provided Staff with a "small estate affidavit." A small estate affidavit requires that the affiant declare that no other person has a superior right to the decedent's interest in the described property and that the property is valued at $184,500 or less. (Probate Code § 13100.)

OCERS cannot transfer Ms. Mason's continuing benefit to you based on the small estate affidavit because OCERS cannot rely in good faith on the statements made therein. In your letter to the Board and Staff, you explained that you wanted Ms. Mason's continuing benefit to be paid directly to him, and not her estate, because:

> "If I'm forced to establish an estate for my mom, the process will take months. We'll end up spending thousands in legal and administrative costs, and if my mom incurred any debt (a near certainty), her creditors would have first claim to the benefit. It would be prohibitively difficult, and we'd likely never see the benefit." (Letter to the Board, page 2.)

In the small estate affidavit, however, you declared that "no other person has a superior right to the interest of the decedent in the described property." (Affidavit, page 1).

Having been made aware that Ms. Mason very likely owed money to creditors who have a superior claim to her estate's funds, OCERS cannot rely in good faith on the statements made in the small estate affidavit and transfer the continuing benefit. Moreover, Ms. Mason's continuing benefit may not constitute a "small estate," because the total value of the continuing benefit cannot be determined to be $184,500 or less. The benefits may exceed $184,500, as her estate will continue to receive benefits for as long as Mr. Jeffrey Ferguson does.

For these reasons, OCERS must pay Ms. Mason's continuing to her estate. Please do not hesitate to contact us if you have any questions. Thank you for your attention.

Sincerely,

Member Services

Affidavit for Collection of Personal Property
California Probate Code Section 13100

The undersigned state(s) as follows:

1. Terri Susan Mason died on March 29, 20 24, in the County of Orange, State of California.

2. At least 40 days have elapsed since the death of the decedent, as shown in a certified copy of the decedent's death certificate attached to this affidavit or declaration.

3. ☒ No proceeding is now being or has been conducted in California for administration of the decedent's estate.

OR

☐ The decedent's personal representative has consented in writing to the payment, transfer, or delivery to the affiant or declarant of the property described in the affidavit or declaration.

4. The current gross fair market value of the decedent's real and personal property in California, excluding the property described in Section 13050 of the California Probate Code, does not exceed $184,500, the adjusted dollar amount in effect on the date of the decedent's death. A list of adjusted dollar amounts, published in accordance with subdivision (c) of [Probate Code] Section 890, is attached to this affidavit.

5. ☐ An inventory and appraisal of the real property included in the decedent's estate is attached.

☒ There is no real property in the estate.

6. The following property to be transferred, delivered, or paid to the affiant under the provisions of California Probate Code section 13100:
OCERS Pension Benefit, OID 265387

7. The successor(s) of the decedent, as defined in Probate Code Section 13006 is/are:
Kevin McCall Ferguson

8. ☒ The affiant or declarant is the successor of the decedent (as defined in Section 13006 of the California Probate Code) to the decedent's interest in the described property.

☒ The affiant or declarant is authorized under Section 13051 of the California Probate Code to act on behalf of the successor of the decedent (as defined in Section 13006 of the California Probate Code) with respect to the decedent's interest in the described property.

9. No other person has a superior right to the interest of the decedent in the described property.

10. The affiant or declarant requests that the described property be paid, delivered, or transferred to the affiant or declarant.

The affiant or declarant affirms or declares under penalty of perjury under the laws of the State of California that the foregoing is true and correct.

Dated: 5/24/24

Signed: Kevin Ferguson

NOTICE TO HOLDER OF DECEDENT'S PROPERTY

When properly filled out, this form meets California requirements under Probate Code 13100-13117.

1. You are **required** to transfer the described property to the affiant/declarant. You must pay the claimant's attorney fees if a lawsuit is necessary because you refuse. Cal. Prob. C. 13105.
2. You are **discharged from all liability** for the money or property when you transfer it based on good faith reliance on this affidavit. Cal. Prob. C. 13106.
3. When you rely in good faith on the affidavit, you have **no duty to inquire** into the truth of the statements in it. Cal. Prob. C. 13106.

saclaw.org

ACKNOWLEDGMENT

A Notary Public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that

State of California
County of Los Angeles)

On May 24, 2024 before me, Victor Macias, Notary Public
(insert name and title of the officer)

personally appeared Kevin McCall Ferguson
who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

VICTOR MACIAS
COMM #2376783
Notary Public - California
SAN BERNARDINO COUNTY
My Comm Exp Oct 16, 2025

Signature ______________________ (Seal)

MAXIMUM VALUES FOR SMALL ESTATE SET-ASIDE & DISPOSITION OF ESTATE WITHOUT ADMINISTRATION

This form lists the maximum dollar values of a decedent's estate or specific property in that estate, as of the date of the decedent's death, for purposes of determining eligibility for

(1) an order setting the estate aside for the decedent's surviving spouse and minor children; or

(2) disposition of the estate or specific real or personal property in the estate informally, without full administration.

NOTE: The values in the left column apply to the estate of a decedent who died before April 1, 2022. The values in the right column apply to property of a decedent who died on or after April 1, 2022.

The amount of the adjustment of the prior values is based on the change in the United States city average of the Consumer Price Index for All Urban Consumers for the three-year period ending December 31, 2021, with each adjusted value rounded to the nearest $25. (See Prob. Code, § 890(b).) Unless otherwise provided by statute after April 1, 2022, these values will next be adjusted April 1, 2025.

Probate Code Section	Description	Amount (for death before Apr. 1, 2022)	Amount (for death on or after Apr. 1, 2022)
1. SMALL ESTATE SET-ASIDE UNDER PROBATE CODE SECTIONS 6600–6613			
§§ 6602, 6609	As of the date of the decedent's death, the net value of the decedent's estate, excluding all liens and encumbrances at the date of death and the value of any probate homestead set apart under Probate Code section 6520, must not exceed:	$ 85,900	$ 95,325
2. DISPOSITION OF ESTATE WITHOUT ADMINISTRATION UNDER SECTIONS 13000–13606			
a. PROPERTY EXCLUDED FROM DETERMINING VALUE OF ESTATE			
§ 13050(c)	The amount of any salary or other compensation owed to the decedent, not to exceed:	$ 16,625	$ 18,450
b. AFFIDAVIT FOR COLLECTION, RECEIPT, OR TRANSFER OF PERSONAL PROPERTY			
§§ 13100, 13101	The gross value of the decedent's real and personal property in California, excluding the property described in Probate Code section 13050, must not exceed:	$ 166,250	$ 184,500
c. PETITION & COURT ORDER DETERMINING SUCCESSION TO PROPERTY			
§§ 13151, 13152, 13154	The gross value of the decedent's real and personal property in California, excluding the property described in Probate Code section 13050, must not exceed:	$ 166,250	$ 184,500
d. AFFIDAVIT FOR SUCCESSION TO REAL PROPERTY OF SMALL VALUE			
§ 13200	The gross value of all real property in the decedent's estate located in California, excluding the real property described in Probate Code section 13050, must not exceed:	$ 55,425	$ 61,500
e. AFFIDAVIT FOR COLLECTION OF COMPENSATION OWED TO DECEASED SPOUSE			
§§ 13600, 13601	Net salary or other compensation owed, in aggregate, by one or more employers for personal services of the deceased spouse, must not exceed: *(This limit does not apply if the decedent was a firefighter or peace officer described in Government Code section 22820(a).)*	$ 16,625	$ 18,450

NOTICE

If the decedent died on or after April 1, 2022, this form must be attached to

- an affidavit or declaration furnished under Probate Code section 13101;
- a *Petition to Determine Succession to Real Property* (form DE-310) filed under Probate Code section 13151;
- an *Affidavit re: Real Property of Small Value* (form DE-305) filed under Probate Code section 13200; or
- an affidavit or declaration furnished under Probate Code section 13601.

Form Adopted for Mandatory Use
Judicial Council of California
DE-300 [New April 1, 2022]

Probate Code, §§ 890, 6602, 6609, 13050, 13100–13101, 13151–13154, 13200, 13600–13601
www.courts.ca.gov

To the Staff and Board at OCERS,

My name is Kevin Ferguson. I'm writing this letter to make an unusual request, and I hope you'll read my story.

My father is Jeffrey Ferguson. He is a former prosecutor for Orange County District Attorney's Office and since served as a judge at North Court in Fullerton. On August 3, 2023, he shot and killed his wife, Sheryl Ferguson. Sheryl was my stepmom. He's currently awaiting trial for the case. Perhaps you read about this story in the news.

My mother is Susan Mason (Terri Susan Mason her full legal name). She died of kidney failure March 29 of this year. Susan was married to Jeff from 1980 until the early 1990s. When the two separated, they agreed my mom would receive a portion of his OCERS pension once he retired as a prosecutor. It served as my mom's main source of income during the last years of her life.

After her death, OCERS informed me my mom had chosen me (her only child) to receive her benefit. My wife and I recently became new parents (Simone, our daughter, is 15 months old, pictures enclosed, sorry). This news came as a rare bright spot in what's been an extraordinarily difficult year for me and my family: the deaths of both my mom and stepmom, the chaos and media scrutiny a murder case brings, and the devastation the events of August have wrought on our relationship with Jeff.

The funds from this would allow us to save for our daughter's education and any emergencies that may come up. It will allow my family to replenish our depleted savings, after having had to cover for my mom's funeral arrangements and last affairs completely out of pocket. I work as a podcast producer at a small, employee owned company and my wife is a preschool teacher. We live in a rent controlled apartment and aren't wealthy.

I hope you can appreciate, then, the disappointment we felt when we learned that OCERS would be unable to process these payments, because of what amounts to a wording issue on my mom's divorce agreement from over 30 years ago.

Even though she'd designated me as the beneficiary for her pension, the wording on the agreement stipulated that the pension benefit should go to her estate in the event of her death. Had the lawyer my parents hired instead used language like "estate or heir or designated beneficiary" this wouldn't have been an issue.

Obviously, this was an oversight on the part of my parents. Jeffrey Ferguson has confirmed this, and my mom having designated me as a beneficiary should be a clear indication of her last wishes and intent. It's not something anyone can correct now that she's passed, and it's not something I was able to anticipate being an issue in the time running up to my mom's death.

If I'm forced to establish an estate for my mom, the process will take months. We'll end up spending thousands in legal and administrative costs, and if my mom incurred any debt (a near certainty), her creditors would have first claim to the benefit. It would be prohibitively difficult, and we'd likely never receive the benefit.

I am asking - begging, really - that OCERS work with me towards a resolution that avoids that outcome. Doing so would both be a blessing for my family after an extremely challenging year, and would honor my mother's last wishes. I understand what I'm asking almost certainly outside of OCERS' typical policies and procedures, but my hope and prayer is that you and your colleagues can find a way to help us on the grounds of compassion.

Thank you for your time and attention, and God bless.

Kevin, Kelly and Simone Ferguson

[redacted]

Memorandum

DATE: June 17, 2024

TO: Members of the Board of Retirement

FROM: Manuel D. Serpa, OCERS General Counsel

SUBJECT: **AB 1234 TRAINING - CALIFORNIA PUBLIC RECORDS ACT**

Presentation

Pursuant to OCERS Trustee Education Policy and AB 1234, members of the OCERS legal team will present training on the California Public Records Act (codified at Government Code §§ 7920.000 - 7930.215).

Submitted by:

MDS-Approved

Manuel D. Serpa
General Counsel

ORANGE COUNTY OCERS EMPLOYEES RETIREMENT SYSTEM

AB 1234 Training CALIFORNIA PUBLIC RECORDS ACT (CPRA)

2024

Manuel D. Serpa
General Counsel

Constitutional Right

The people have the right of access to information concerning the conduct of the people's business, and, therefore, the meetings of public bodies and the writings of public officials and agencies shall be open to public scrutiny.

CAL. CONST. ART. I, § 3(B).

What Is It?

California Public Records Act ("CPRA" or "PRA"):

A California statute that requires disclosure of "public records," which is most of the information retained by government agencies in their course of business.

Codified at Government Code §§ 7920.000 - 7930.215

Basics

- An agency must disclose practically any document.
- Only a statutory exemption or a need for confidentiality that clearly outweighs the public's right to access will justify non-disclosure.

What are "Public Records?"

- A "public record" is any **writing** containing information related to the **public's business** that is prepared, owned, used, or retained by the agency regardless of its form or the manner in which it is stored.
- The CPRA covers requests for paper and electronic documents, including texts and emails

What Constitutes a Public Records Request?

- **Any person** may make a request and no specific language is required. The request may be made in writing, in person, or by phone.

- *Ask that oral requests be put in writing and refer all requests to the Legal Division.*

Deadline for Response

- A written response is required within 10 days of the receipt of the request.

- Once the agency determines that it has records that are responsive to a request, the records must be made available *promptly*.

Parameters of Search

- A public agency must make a reasonable effort to search for requested records. The Legal Division determines the scope of the search.
- You may be asked to conduct a thorough search of your records, including your own personal files, devices, email accounts, and texts to see if you have any public records related to a request.

Exemptions

Three Categories of Exemption

– Express exemptions contained in the Public Records Act

– Information that is confidential or privileged under other law

– Balancing test or "Catchall Exemption"

Example Exemptions

– Attorney-Client privileged communications and certain documents related to litigation.

– Type of retirement, i.e., that a particular retiree receives service or disability retirement benefits, per Gov. Code § 31532.

–Trade Secrets.

– The Alternative Investments exemption, per Gov. Code § 7928.710.

Best Practices

- Assume everything you create in your role as a Trustee can be made public.
- Be thoughtful about what you write and conscientious about deleting no longer-needed records.
- Practice email etiquette.

Remedy

- Anyone can sue a public agency to enforce their right to access public records subject to disclosure. If the agency loses or otherwise produces the records as a result of the lawsuit, it must pay costs and attorneys' fees.

ORANGE COUNTY OCERS EMPLOYEES RETIREMENT SYSTEM

Retirement Board Meeting
June 17, 2024
Application Notices

MEMBER NAME	AGENCY/EMPLOYER	RETIREMENT DATE
ADVIENTO, EVELIA	Fire Authority (OCFA)	4/5/2024
AGUILAR, LUZ	Social Services Agency	3/29/2024
ARTHUR, KENT	Transportation Corridor Agency (TCA)	3/23/2024
BACON, ALEX	Sheriff's Dept	3/22/2024
BANDATMAKUR, SAILENDRA	OCTA	4/6/2024
BIRKHOLZ, TREVOR	Health Care Agency	3/30/2024
BOGGS, CINDY	Probation	3/29/2024
BRANCH, RAY	Social Services Agency	4/2/2024
CASSEDY, MOLLY	Health Care Agency	1/15/2024
CHOUM, LEA	John Wayne Airport	3/29/2024
CORTEZ, VIANEY	Social Services Agency	3/22/2024
COSTELLO, ELIZABETH	District Attorney	3/29/2024
CRAMER, BARBARA	OCTA	3/30/2024
DAWES, PATRICK	OCTA	4/12/2024
EDWARDS, KEITH	OCTA	3/24/2024
ERVAIS, ROBERT	County Counsel	3/31/2024
FIGUEROA-LEON, MIRIAM	Superior Court	4/11/2024
FRIES, REGINALD	City of San Juan Capistrano	3/30/2024
GONZALEZ MORENO, MARIA	Social Services Agency	3/22/2024
HACKETT, CASEY	OCTA	3/23/2024
HART, JOAN	Superior Court	3/29/2024
HARTNEY, MICHELLE	Sheriff's Dept	3/22/2024
HO, TAN	Superior Court	3/23/2024
HWANG, STEVEN	Social Services Agency	3/29/2024
JARAMILLO, HECTOR	OCTA	4/11/2024
JENKINS, CEDRIC	Social Services Agency	3/29/2024
JENSEN, ALVA	Sheriff's Dept	4/15/2024
JETER, DEBORAH	OCTA	4/1/2024
JUAREZ, REBECA	Health Care Agency	3/22/2024

ORANGE COUNTY OCERS EMPLOYEES RETIREMENT SYSTEM

Retirement Board Meeting
June 17, 2024
Application Notices

KEUNG, WINNIE	Auditor Controller	3/30/2024
KO, YIU	Sheriff's Dept	4/19/2024
KUO, LINDA	Social Services Agency	2/29/2024
LAI, QUAN	Superior Court	3/23/2024
LIN, EMILY	Auditor Controller	3/29/2024
LIN, SHIOU	OCTA	3/30/2024
LIPTON, MICHELLE	District Attorney	3/29/2024
LOPEZ, ROGER	OCTA	3/24/2024
LOYA, MAUREEN	Social Services Agency	4/1/2024
LUXENBERG, LOUIS	OCTA	3/24/2024
LYLE, BRUCE	Sheriff's Dept	3/31/2024
MAKHIJANI, JAYSHREE	Sheriff's Dept	3/22/2024
MARTIN, SIOBHAN	Social Services Agency	3/22/2024
MEDINA, DANNY	Probation	3/22/2024
MIRRA, PAUL	Sheriff's Dept	3/30/2024
MOE, TIMOTHY	County Executive Office (CEO)	4/1/2024
MOTEN, SANDRA	Superior Court	3/30/2024
NAKADA, NANNETTE	Auditor Controller	3/29/2024
NGUYEN, CHRISTIE	Superior Court	3/23/2024
NGUYEN, LAN	Social Services Agency	3/30/2024
NGUYEN, MIEN	OCTA	4/1/2024
PECK, PAUL	Sheriff's Dept	4/1/2024
PHELPS, RACHEL	OCTA	3/22/2024
RANSOM, RANDOLPH	Sheriff's Dept	3/27/2024
ROBB, ANNETTE	Social Services Agency	3/8/2024
RODRIGUEZ, GENE	Sheriff's Dept	3/8/2024
SAKOGUCHI, KATHLEEN	Public Defender	3/30/2024
SARMIENTO, ERWIN	Auditor Controller	3/29/2024
SKEHAR, MELANIE	District Attorney	4/5/2024
SKULIC, GERALDINE	OCTA	3/31/2024
THOMAS, MELONY	Health Care Agency	3/29/2024

ORANGE COUNTY OCERS EMPLOYEES RETIREMENT SYSTEM

Retirement Board Meeting

June 17, 2024

Application Notices

THOMPSON, AFA	Probation	3/8/2024
TU, THANH	Social Services Agency	3/1/2024
VALENTINE, BRADLEY	Sheriff's Dept	3/8/2024
VASQUEZ, RICARDO	Sheriff's Dept	3/22/2024
VUONG, TIFFANY	Superior Court	3/28/2024
YONG, EROS	Sanitation District	3/29/2024
ZAMBRANO, GABRIELA	Child Support Services	3/29/2024

ORANGE COUNTY OCERS EMPLOYEES RETIREMENT SYSTEM

Retirement Board Meeting

June 17, 2024

Death Notices

ACTIVE DEATHS	AGENCY/EMPLOYER

RETIRED MEMBERS	AGENCY/EMPLOYER
BJERUM, HELEN J	Human Resources Dept
BLANKENSHIP, DONALD L	District Attorney
BRAY, RAYMOND L	OCTA
BROOKS, GARRY L	Health Care Agency
CASTILLO, ROBERT E	Fire Authority (OCFA)
COBB, STEPHEN F	Fire Authority (OCFA)
CULP, ROBIN A	Fire Authority (OCFA)
EKENSTAM, LEONARD J	Superior Court
ESTRADA, PAUL C	Social Services Agency
FERNANDES, WILLIAM J	Social Services Agency
GLENDINNING, MARILYN	Superior Court
HADDAD, YVONNE M	Social Services Agency
HADDOCK, ALICE I	Social Services Agency
HOANG, BICH	Sheriff's Dept
JOHNSON, JANICE L	Social Services Agency
KEITH, RONALD GEORGE	OCTA
LAZ, CREIGHTON B	Superior Court
LEACH, GARY H	Auditor Controller
LYONS, JOSEPH E	Probation
MALLONEE, DALE R	OCTA
MASON, MARVIN W	District Attorney
MC CLELLAN, LEA A	Public Defender
MURPHY, TERRANCE J	John Wayne Airport
NGUYEN, UYEN G	Probation
PETERSON, ARDIS E	Superior Court
PHAM, BETTY N	Social Services Agency
RAMOS, NANCY C	Social Services Agency
REOVAN, O.A. RAY	OCTA
RYDER, LESLIE A	Public Defender
SIMS, ROBERT A	Sheriff's Dept
WADE, LYLE W	OC Public Works
WALTER, ROBERT A	Registrar of Voters
WHITE, CHARLES	Sanitation District
WHITE, ROBERT W	OC Public Works
WILLIAMS, LAVA A	Sheriff's Dept
WOOLLEY, GEORGE E	Health Care Agency

SURVIVING SPOUSES	
COWAN, CONSTANCE M	

ORANGE COUNTY OCERS EMPLOYEES RETIREMENT SYSTEM

Retirement Board Meeting

June 17, 2024

Death Notices

DAVIS, PATRICIA	
MC MINN, EVERETT J	
MELLAH, FARID	
PAULSON, LEONARD WYNN	
PEDRAZA, ELISA M	
REYNOLDS, DORIS GAIL	
SATO, HERBERT Y	
VALERIANO, NAPOLEON	

ORANGE COUNTY EMPLOYEES RETIREMENT SYSTEM
2223 E. WELLINGTON AVENUE, SUITE 100
SANTA ANA, CALIFORNIA 92701

GOVERNANCE COMMITTEE MEETING
Thursday, March 21, 2024
9:30 a.m.

MINUTES

The Chair called the meeting to order at 9:32 a.m.

Recording Secretary administered the roll call.

Attendance was as follows:

Present: Chris Prevatt, Chair; Arthur Hidalgo, Vice-Chair; Roger Hilton, Board Member; Richard Oates, Board Member.

Also present: Steve Delaney, CEO; Manuel Serpa, General Counsel; Brenda Shott, Assistant CEO, Internal Operations; Suzanne Jenike, Assistant CEO, External Operations; Jeff Lamberson, Director of Retirement Operations - Member Services; Silviu Ardeleanu, Director of Member & Employer Relations Section - Member Services; Tracy Bowman, Director of Finance; Bill Singleton, Paralegal; Amanda Evenson, Executive Secretary; Will Tsao, Director of Enterprise Project Management Office; Kwame Addo, Chief Compliance Officer; Mary-Joy Coburn, Director of Communications; Carolyn Nih, Executive Secretary; David Kim, Director of Internal Audit; Jenny Davey, Internal Auditor; Mike Persi, Member Services Manager; Mark Adviento, Senior Internal Auditor; Jenny Sadoski, Director of IT; Anthony Beltran, Audio Visual Technician; Rebeca Gonzalez-Verdugo, Recording Secretary.

CONSENT AGENDA

C-1 APPROVE GOVERNANCE COMMITTEE MEETING MINUTES

Governance Committee Meeting Minutes November 16, 2023

MOTION by Mr. Oates, **seconded** by Mr. Hilton, to approve the Minutes.

The motion passed **unanimously**.

ACTION ITEMS

A-1 INDIVIDUAL ACTION ON ANY ITEM TRAILED FROM THE CONSENT AGENDA

No items were trailed from the Consent Agenda.

A-2 TRIENNIAL REVIEW OF THE GENERAL COUNSEL CHARTER
Presentation by Manuel Serpa, General Counsel

Recommendation: Approve and recommend that the Board adopt revisions to the General Counsel Charter.

After discussion, **MOTION** by Mr. Hilton, **seconded** by Mr. Oates to adopt staff's recommendations.

The motion passed **unanimously.**

A-3 TRIENNIAL REVIEW OF THE ASSISTANT CEO, FINANCE AND INTERNAL OPERATIONS CHARTER
Presentation by Brenda Shott, Assistant CEO, Finance and Internal Operations

Recommendation: Approve and recommend that the Board adopt revisions to the Assistant CEO, Finance and Internal Operations Charter.

After discussion, **MOTION** by Mr. Oates, **seconded** by Mr. Hilton to adopt staff's recommendations.

The motion passed **unanimously.**

A-4 OFF-CYCLE REVIEW OF THE SECURITIES LITIGATION POLICY
Presentation by Manuel Serpa, General Counsel

Recommendation: Approve and recommend that the Board adopt revisions to the Securities Litigation Policy.

After discussion, Committee consensus was to return Policy back to staff for further development.

The Committee provided direction to staff to clarify the Monitoring Firms final selection/approval process by including the duration of the contract and the criteria of the selection process.

The Committee recommended the following additional revisions to the Policy:

20. "With the approval of the CEO, the General Counsel will engage a pool of at least five and not more than 15 firms…"
20. "… and the General Counsel will notify the Board of Retirement simultaneously upon the issuing of any related solicitation and prior to any award…"
23. "OCERS cost will be covered by the firm if not approved by the firm."

A-5 OFF-CYCLE REVIEW OF THE ACTUARIAL FUNDING POLICY
Presentation by Brenda Shott, Assistant CEO, Finance and Internal Operations

Recommendation: Approve and recommend that the Board approve revisions to the Actuarial Funding Policy as presented.

After discussion, **MOTION** by Mr. Hilton, **seconded** by Mr. Oates to adopt staff's recommendations.

The motion passed **unanimously.**

A-6 OFF-CYCLE REVIEW OF THE TRAVEL POLICY

Presentation by Manuel Serpa, General Counsel

Recommendation: Approve and recommend that the Board approve revisions to the Travel Policy as presented.

After discussion, **MOTION** by Mr. Hilton, **seconded** by Mr. Oates, to adopt all of staff's recommended revisions to the Policy, with the following additions/changes:

3. "… unless a conference/seminar agenda contains ~~an average of five (5) hours of~~ substantive educational content per day…"
23. "The Board or staff member must provide ~~both~~ an itemized receipt, including evidence of payment charge receipt ~~(when a payment card is used~~)."
24. "Board members and eligible OCERS staff members ~~who travel frequently in the course of their job responsibilities~~ may request a Corporate Credit Card. In accordance with the Corporate Credit Card Policy, the Corporate Credit Card may be used only for official OCERS' business, including, but not limited to, travel costs such as parking, air travel, hotel accommodations, ground transportation and car rental, or meals in conjunction with official OCERS' business. ~~All cardholders are required to sign an OCERS Corporate Credit Card Agreement acknowledging their agreement to the Corporate Credit Card Policy rules and guidelines. The Board Chair, in cooperation with the Chief Executive Officer, is responsible for all disciplinary action surrounding misuse of cards by a Trustee. The Vice Chair, in cooperation with the Chief Executive Officer, is responsible for all disciplinary action surrounding misuse of card by the Board Chair, and the Chief Executive Officer and the Assistant Chief Executive Officer of Finance and Internal Operations are responsible for all disciplinary action surrounding misuse of cards for OCERS employees."~~
28. "~~Expense costs for extra days prior to or after a conference will be reimbursed only if such extension results in lower overall trip costs. For staff, cost comparisons for trip extensions shall include the cost of salary for any workdays lost by the extension.~~"
30. "… the GSA rate for each purchased meal, upon request."
31. "… the GSA rate for each purchased meal, upon request."
39. "Parking and tolls will be reimbursed ~~at current rates~~."
40. "~~Public~~ Transportation"
41. "Use of taxis… will be reimbursed ~~at current rates~~."

The Committee provided further direction to staff to create separate Travel Policy and Corporate Credit Card Policy for the Board and staff.

The motion passed **unanimously**.

A-7 TRIENNIAL REVIEW OF THE WRITE OFF POLICY

Presentation by Jeff Lamberson, Director of Retirement Operations – Member Services

Recommendation: Approve, and recommend that the Board adopt, revisions to the Write Off Policy.

After discussion, **MOTION** by Mr. Oates, **seconded** by Mr. Hilton to adopt staff's recommendations.

The motion passed **unanimously.**

INFORMATION ITEMS

I-1 GOVERNANCE COMMITTEE WORK PLAN AND MEETING SCHEDULE FOR 2024
Presentation by Manuel Serpa, General Counsel

I-2 REVIEW OF NEW PAY ITEMS PURSUANT TO THE PAY ITEM REVIEW POLICY
Presentation by Suzanne Jenike, Assistant CEO, External Operations

COMMITTEE MEMBER COMMENTS
The Committee thanked the staff for their hard work.

CHIEF EXECUTIVE OFFICER/STAFF COMMENTS
Mr. Delaney shared that the OCERS Annual Review began today.

COUNSEL COMMENTS
None

ADJOURNMENT
Chair adjourned meeting at 12:32 p.m.

Submitted by:		**Approved by:**
______________________	______________________	______________________
Manuel Serpa	Steve Delaney	Chris Prevatt
General Counsel/Staff Liaison	Chief Executive Officer/Secretary	Chair

ORANGE COUNTY EMPLOYEES RETIREMENT SYSTEM
2223 E. WELLINGTON AVENUE, SUITE 100
SANTA ANA, CALIFORNIA

AUDIT COMMITTEE MEETING
THURSDAY, March 28, 2024
9:30 A.M.

MINUTES

OPEN SESSION

Chair Packard called the meeting to order at 9:32 a.m.

Recording Secretary administered the Roll Call attendance.

Attendance was as follows:

Present:	Charles Packard, Chair; Adele Tagaloa, Vice Chair; Shari Freidenrich, Ex-Officio Member; Chris Prevatt; Board Member
Also Present:	Steve Delaney, Chief Executive Officer; Suzanne Jenike, Assistant CEO of External Operations, Brenda Shott, Assistant CEO of Internal Operations; Manuel Serpa, General Counsel; David Kim, Director of Internal Audit; Kwame Addo, Chief Compliance Officer; Jeff Lamberson, Director of Member Services; Mark Adviento, Senior Internal Auditor; Jenny Davey, Internal Auditor; Laura Barker, Finance Manager, Anthony Beltran, Audio Visual Technician; Marielle Horst, Recording Secretary.
Guests:	Kory Hogan and Aaron Hamilton, Moss Adams

PUBLIC COMMENT
None.

CONSENT AGENDA

C-1 APPROVE AUDIT COMMITTEE MEETING MINUTES

Audit Committee Meeting Minutes January 19, 2023

MOTION by Ms. Freidenrich, **seconded** by Mr. Prevatt, to approve the Minutes.

The motion passed **unanimously.**

INFORMATIONAL ITEM

I-1 2023 FINANCIAL STATEMENT AUDIT – ENTRANCE CONFERENCE
Presentation by Kory Hoggan and Aaron Hamilton, Moss Adams

Mr. Hamilton presented the audit plan, which included a list of reports that will be provided at the end of the audit. Mr. Hamilton noted employers are very responsive which is a testament to the collaboration between OCERS and the employers.

ACTION ITEMS

A-1 INDIVIDUAL ACTION ON ANY ITEM TRAILED FROM THE CONSENT AGENDA

None.

A-2 ADOPTION OF THE CHIEF COMPLIANCE OFFICER CHARTER
Presentation by Kwame Addo, Chief Compliance Officer

Recommendation: Approve and recommend that the Board approve the adoption of the Chief Compliance Officer Charter as presented.

Mr. Addo presented the Chief Compliance Charter and informed the committee of the hierarchy for reporting to the Audit Committee and Board. Mr. Delaney clarified to the Committee that the Compliance Officer is not an auditor, but rather an essential part of risk mitigation.

After further discussion, a **MOTION** by Mr. Prevatt, **seconded** by Ms. Freidenrich, to approve and recommend that the Board approve the adoption of the Chief Compliance Officer Charter with the suggested changes.

The motion passed **unanimously.**

A-3 ADOPTION OF THE COMPLIANCE PROGRAM CHARTER
Presentation by Kwame Addo, Chief Compliance Officer

Recommendation: Approve and recommend that the Board approve the adoption of the Compliance Program Charter as presented.

Mr. Addo presented the Compliance Program Charter, noting that the compliance model follows a first, second (Compliance), and third (Audit) line of defense.

MOTION by Ms. Freidenrich, **seconded** by Ms. Tagaloa, to approve and recommend that the Board approve the adoption of the Compliance Program Charter as presented.

After discussion, an **AMENDED MOTION** by Ms. Freidenrich, **seconded** by Ms. Tagaloa, to approve and recommend that the Board approve the Compliance Program Charter with the suggested changes.

The motion passed **unanimously.**

A-4 OUT-OF-CYCLE REVIEW OF THE AUDIT COMMITTEE CHARTER
Presentation by David Kim, Director of Internal Audit

Recommendation: Approve and recommend that the Board approve the revisions to the Audit Committee Charter as presented.

Mr. Kim presented the revised Audit Committee Charter, which incorporated suggested changes from the IIA Quality Assurance review team and incorporated changes from the Compliance Officer Charter. After discussion, Ms. Freidenrich provided direction to staff to attach guidelines as a reference when presenting changes going forward.

MOTION by Ms. Freidenrich, **seconded** by Mr. Prevatt, to approve and recommend that the Board approve the revisions to the Audit Committee Charter with suggested changes.

The motion passed **unanimously.**

A-5 OUT-OF-CYCLE REVIEW OF THE INTERNAL AUDIT CHARTER
Presentation by David Kim, Director of Internal Audit

Recommendation: Approve and recommend that the Board approve the revisions to the Internal Audit Charter as presented.

Mr. Kim presented the Internal Audit Charter, which provided clarification on the independence of Internal Audit, as well as the responsibilities to coordinate with Compliance.

MOTION by Ms. Freidenrich, **seconded** by Ms. Tagaloa, to Approve and recommend that the Board approve the revisions to the Internal Audit Charter as presented.

The motion passed **unanimously.**

A-6 OUT-OF-CYCLE REVIEW OF THE ETHICS, COMPLIANCE, AND FRAUD HOTLINE POLICY
Presentation by David Kim, Director of Internal Audit

Recommendation: Approve and recommend that the Board approve the revisions to the Ethics, Compliance, and Fraud Hotline Policy as presented.

Mr. Kim presented the Ethics, Compliance, and Fraud Hotline Policy, the changes made reflect the responsibility shifting from Internal Audit to Compliance.

MOTION by Ms. Freidenrich, **seconded** by Ms. Tagaloa, to approve and recommend that the Board approve the revisions to the Ethics, Compliance, and Fraud Hotline Policy as presented.

The motion passed **unanimously.**

A-7 CONTINUOUS AUDIT OF FINAL AVERAGE SALARY CALCULATIONS (Q3 2023)
Presentation by David Kim, Director of Internal Audit and Mark Adviento, Senior Internal Auditor

Recommendation: Receive and file.

Mr. Adviento presented the audit of Final Average Salary Calculations. The audit contained two observations over the ten-dollar threshold. Mr. Delany commented he shared the audit results with employers, noting the low dollar amounts of the calculation errors and the limited impact on the basic benefit. Additionally, the use of automation will remove human error in the future.

Ms. Freidenrich inquired if the automation bot had been used to perform calculations. Mr. Lamberson clarified the automation bot was not used in these particular calculations, however, the bot will be able to catch these errors going forward. Ms. Freidenrich suggested having the bot perform a validation test when an error is found. Mr. Kim noted Internal Audit used an automation bot to perform part of the audit testing.

Ms. Freidenrich directed staff to provide a report on the automation bots used and the processes they perform and present to the Board.

MOTION by Ms. Freidenrich, **seconded** by Mr. Prevatt, to receive and file.

The motion passed **unanimously.**

A-8 AUDIT REPORT - OCERS PAYROLL TRANSMITTAL PROCESS
Presentation by David Kim, Director of Internal Audit and Mark Adviento, Senior Internal Auditor

Recommendation: Receive and file.

Mr. Adviento presented the audit report on OCERS Payroll Transmittal Process and found four observations. Ms. Tagaloa suggested creating a policy that would hold OCERS and its employers accountable for providing accurate information. Mr. Delaney and Ms. Jenike updated the committee that a Service Level Agreement policy will be presented to the Governance Committee in May.

Ms. Freidenrich questioned if the MOU outlined the terms and conditions and if it could be enforced. Mr. Serpa provided clarification that the CERL allows OCERS to charge fees for services incurred. Mr. Packard would like to shift costs, rather than OCERS incurring the expense of hiring additional employees, the employer should be responsible for providing accurate data.

MOTION by Ms. Freidenrich, **seconded** by Ms. Tagaloa, to receive and file.

The motion passed **unanimously.**

A-9 AUDIT REPORT - OCERS ACCOUNTS PAYABLE PROCESS
Presentation by David Kim, Director of Internal Audit and Mark Adviento, Senior Internal Auditor

Recommendation: Receive and file.

Mr. Adviento presented the report on the Accounts Payable Process and noted two observations regarding process documentation and record retention. Mr. Packard inquired if there is a records retention policy in place. Mr. Adviento advised that there is a policy and a department matrix. Mr. Prevatt noted that the new Chief Compliance Officer should send out a policy reminder to all departments.

MOTION by Ms. Tagaloa, **seconded** by Ms. Freidenrich, to receive and file.

The motion passed **unanimously.**

A-10 INVESTMENT ALLOCATION AND REBALANCING AUDIT
Presentation by David Kim, Director of Internal Audit and Mark Adviento, Senior Internal Auditor

Recommendation: Receive and file.

Mr. Adviento presented the Investment Allocation and Rebalancing Audit and noted no observations. Ms. Freidenrich directed staff to rename the title "asset allocation" to be consistent with investment reports. Ms. Freidenrich also thanked the audit team for their good work.

MOTION by Ms. Tagaloa, **seconded** by Ms. Freidenrich, to receive and file.

The motion passed **unanimously.**

A-11 CONSIDERATION OF REVISED 2024 AUDIT PLAN
Presentation by David Kim, Director of Internal Audit

Recommendation: Receive and file.

Mr. Kim presented the revised audit plan incorporating changes the Committee directed to reduce the number of audits performed on Final Average Salary and Alameda Recalcuations and focus on alternate areas.

MOTION by Ms. Tagaloa, **seconded** by Ms. Freidenrich, to receive and file.

The motion passed **unanimously.**

CLOSED SESSION ITEMS

The Committee adjourned to closed session at 12:10 p.m.

E-1 THREAT TO PUBLIC SERVICES OR FACILITIES

(Government Code Section § 54957)
Consultation with OCERS Director of Cyber Security

Recommendation: Take appropriate action.

OPEN SESSION

The Committee reconvened to open session at 1:18 p.m.

REPORT OF ACTIONS TAKEN IN CLOSED SESSION

Chair Packard reported no reportable action was taken during closed session.

INFORMATION ITEM

I-2 AUDIT COMMITTEE FEEDBACK AND DIRECTION SUMMARY
Presentation by David Kim, Director of Internal Audit

Mr. Kim presented the Audit Committee Feedback and Direction Summary from the January 19, 2024, Audit Committee meeting, requesting clarification on the format and content of the document. Mr. Packard noted the summary is very helpful. The Committee directed Mr. Kim to provide quarterly updates presented in a high-level, bulleted summary.

WRITTEN REPORTS

R-1 OPERATIONAL RISK MANAGEMENT ANNUAL REPORT
Written Report

R-2 MANAGEMENT ACTION PLAN VERIFICATION REPORT
Written Report

R-3 STATUS UPDATE OF 2024 AUDIT PLAN
Written Report

STAFF/COUNSEL/COMMITTEE MEMBER COMMENTS
None.

CHIEF EXECUTIVE OFFICER
Mr. Delaney clarified that the Employer Data Reporting Policy will be discussed at the Governance Committee on May 23rd, and not during the Personnel Committee.

ADJOURNMENT

Chair Packard adjourned the meeting at 1:30 p.m.

Submitted by:	Submitted by:	Approved by:
____________________	____________________	____________________
David Kim Committee Liaison	Steve Delaney Secretary to the Board	Charles Packard Chair

ORANGE COUNTY EMPLOYEES RETIREMENT SYSTEM
BOARD OF RETIREMENT
2223 E. WELLINGTON AVENUE, SUITE 100
SANTA ANA, CALIFORNIA

BUILDING COMMITTEE MEETING
Monday, April 15, 2024
8:30 A.M.

MINUTES

Chair Lindholm called the meeting to order at 8:40 A.M.

Recording Secretary administered the Roll Call attendance.

Attendance was as follows:

Present: Wayne Lindholm, Chair; Chris Prevatt, Vice Chair; Arthur Hidalgo, Board Member; Jeremy Vallone, Board Member

Also Present: Steve Delaney, CEO; Brenda Shott, Assistant CEO, Finance and Internal Operations; Manuel Serpa, General Counsel; Fong Tse, Sr. Manager of Facilities and Operations Support Services; Anthony Beltran, Audio Visual Technician; Amanda Evenson, Recording Secretary; Adele Tagaloa, Board Chair; Richard Oates, Board Member; Charles Packard, Board Vice Chair; Roger Torriero (Zoom), Griffin Structures; Deryl Robinson (Zoom), Griffin Structures

PUBLIC COMMENT
None.

CONSENT AGENDA

C-1 COMMITTEE MEETING MINUTES:

Building Committee Meeting Minutes April 4, 2024

Recommendation: Approve minutes.

A **Motion** by Mr. Prevatt, **seconded** by Mr. Vallone, to approve the minutes.

The motion passed **unanimously**.

ACTION ITEMS

A-1 INDIVIDUAL ACTION ON ANY ITEM TRAILED FROM THE CONSENT AGENDA

No items were trailed from the Consent Agenda.

A-2 OCERS REPLACEMENT HEADQUARTERS PROJECT – INTERVIEW OF RESPONDENTS TO DESIGN BUILD ENTITY RFP AND SELECTION OF DESIGN BUILD ENTITY

Recommendation:

1. Direct staff to negotiate with the highest rated firm: Snyder Langston-Gensler, to serve as Design/Build entity (DBE) for the OCERS Replacement Headquarters Project and recommend that the Board award a contract for the scope of services as outlined in the Designer/Builder for OCERS Replacement Headquarters Project RFP, subject to satisfactory negotiation of terms.
2. If negotiation of terms is not satisfactorily met with Snyder Langston-Gensler within thirty days (unless staff deems more time is reasonable and that additional time will end in satisfactory terms), then direct staff to begin negotiations with the second highest rated firm: CW Driver-Ware Malcomb, to serve as Design/Build Entity (DBE) for the OCERS Replacement Headquarters Project and recommend that the Board award a contract for the scope of services as outlined in the Designer/Builder for OCERS Replacement Headquarters Project RFP, subject to satisfactory negotiation of terms.
3. If negotiation of terms is not satisfactorily met with the first or second ranked firm, direct staff to continue the same process as outlined above with the third then fourth firms as appropriate.

After discussion, a **Motion** by Mr. Prevatt, **seconded** by Mr. Hidalgo, to approve the staff recommendation.

The motion passed **unanimously**.

STAFF COMMENTS
CEO COMMENTS
COUNSEL COMMENTS
COMMITTEE MEMBER COMMENTS
None.

The meeting **ADJOURNED** at 8:59 A.M.

Submitted by:	Submitted by:	Approved by:
Brenda Shott	Steve Delaney	Wayne Lindholm
Staff Liaison to the Committee	Secretary to the Committee	Chair

Memorandum

DATE: June 17, 2024

TO: Members of the Board of Retirement

FROM: Steve Delaney, Chief Executive Officer

SUBJECT: **CEO FUTURE AGENDAS AND 2024 OCERS BOARD WORKPLAN**

Written Report

AGENDA TOPICS FOR THE OCERS BOARD OF RETIREMENT

JULY

Ethics Training Pt 1
Approve Early Payment of Contributions for FY 2025-2026
Strategic Planning Workshop – Proposed Agenda
SEGAL Valuation Cost Illustrations
Quarterly 2024-2026 Strategic Plan Review
Contract Status for Named Services Providers
Quarterly Travel and Training Expense Report

AUGUST

Ethics Training Pt 2
Employer Employee Contribution Matrix
OCERS by the Numbers
The Evolution of the OCERS UAAL
Strategic Planning Workshop – Final Agenda
Quarterly Unaudited Financial Statements
Quarterly Budget vs Actual Report

SEPTEMBER

Employer Annual Report
Quality of Member Services Report
2024-2026 Strategic Plan Review
The Current State of OCERS – Annual Report
Proposed Board meeting schedule for 2025

Submitted by:

SD - Approved

Steve Delaney
Chief Executive Officer

OCERS RETIREMENT BOARD - 2024 Work Plan

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep (Offsite)	Oct	Nov	Dec
System Oversight	Receive Quality of Member Services Report **(I)**	STAR COLA Posting **(I)**	Approve 2024 STAR COLA **(A)**	SACRS Board of Directors Election **(A)**	Preliminary December 31, 2023 Valuation **(I)**	Mid-Year Review of 2024 Business Plan Progress **(I)**	Approve Early Payment Rates for Fiscal Year 2024-26 **(A)**	Review 2nd Quarter Budget to Actuals Financial Report **(I)**	Strategic Planning Workshop **(I)**	Adopt 2025 Board Meeting Calendar **(A)**	Review 3rd Quarter Budget to Actuals Financial Report **(I)**	
	Receive OCERS Innovation Report **(I)**	Approve 2024 COLA **(A)**	Quarterly Budget vs Actual Report **(I)**	Quarterly Travel and Training Expense Report **(I)**	Quarterly Unaudited Financial Statements **(I)**	Approve December 31, 2023 Actuarial Valuation & Funded Status of OCERS **(A)**	Quarterly Travel and Training Expense Report **(I)**	Receive OCERS by the Numbers **(I)**	Annual OCERS Employer Review **(I)**	Approve 2025-2027 Strategic Plan **(A)**	Approve 2025 Administrative (Operating) Budget **(A)**	
	Annual Disability Statistics **(I)**	Annual Overpaid And Underpaid Plan Benefits Report **(I)**	Quarterly Unaudited Financial Statements **(I)**	Quarterly 2024-2026 Strategic Plan Review **(A)**	Quarterly Budget vs Actual Report **(I)**	Approve 2023 Comprehensive Annual Financial Report **(A)**	Quarterly 2024-2026 Strategic Plan Review **(A)**	Receive Evolution of the UAAL **(I)**	State of OCERS **(I)**	Approve 2025 Business Plan **(A)**	Annual CEO Performance Review and Compensation **(A)**	
	Quarterly Travel and Training Expense Report **(I)**	Annual Report of Contracts >$100,000 **(I)**						Quarterly Unaudited Financial Statements **(I)**	Annual 2024-2026 Strategic Plan Review **(A)**	Employer & Employee Pension Cost Comparison **(I)**	Quarterly Unaudited Financial Statements **(I)**	
	Quarterly 2024-2026 Strategic Plan Review **(A)**							Employer Employee Contribution Matrix **(I)**	Propose 2025 Board Meeting Calendar **(I)**	SACRS Business Meeting Direction **(A)**		
									Receive Quality of Member Services Report **(I)**	Quarterly Travel and Training Expense Report **(I)**		
Board Governance												Adopt Annual Work Plan for 2025 **(A)**
												Vice-Chair Election **(A)**
												Receive 2025 Board Committee Appointments **(A)**
Regulation / Policies	Communication Policy Fact Sheet **(I)**											
Compliance	Status of Board Education Hours for 2023 **(I)**	Annual Policy Compliance Report **(I)**	Semi Annual Business Continuity Disaster Recovery Updates **(I)**	Form 700 Due **(A)**		Receive Financial Audit **(I)**				Semi Annual Business Continuity Disaster Recovery Updates **(I)**		
	Annual Information Security Summary (closed session) **(I)**											

(A) = Action **(I) = Information**

Memorandum

DATE: June 17, 2024

TO: Members of the Board of Retirement

FROM: Jim Doezie, Contracts, Risk and Performance Administrator

SUBJECT: **QUIET PERIOD – NON-INVESTMENT CONTRACTS**

Written Report
Background/Discussion

1. ***Quiet Period Policy Guidelines***
   The following guidelines established by the Quiet Period Policy, section 3.c, will govern a search process for any contract to be awarded by OCERS:

   "…Board Members and OCERS staff shall not knowingly communicate with any party financially interested in any prospective contract with OCERS regarding the contract, the services to be provided under the contract or the selection process;"

2. ***Quiet Period Guidelines***
   In addition, the following language is included in all distributed Requests for Proposals (RFP):

   "From the date of issuance of this RFP until the selection of one or more respondents is completed and announced, respondents are not permitted to communicate with any OCERS staff member or Board Members regarding this procurement, except through the Point of Contact named herein. Respondents violating the communications prohibition may be disqualified at OCERS' discretion. Respondents having current business with OCERS must limit their communications to the subject of such business."

Distributed RFP's

The RFP and RFQ's noted below are subject to the quiet period until such time as a contract is finalized.

- An RFP was distributed in September 2023 for a Pension Administration Project Oversight Consultant. The need for this consultant is to help guide OCERS into selecting and implementing a new Pension Administration System. Four proposals were received that are currently being evaluated.
- An RFP for SharePoint Migration Services was distributed in November 2023. These services are needed to help OCERS migrate/upgrade our current SharePoint (OCERS internal Intranet) solution. Seven Proposals were received. Contract negotiations were completed and a contract was executed with Planet Technologies.
- An RFP for OCERS Replacement Headquarters Project DBE Services was distributed in February 2024. This Request for Proposal was sent to four qualified candidates. Contract negotiations with the selected vendor has concluded, pending Board approval to execute contract.
- An RFP for Investment Counsel Services was posted in March 2024. Our legal services agreement with three of our five investment counsels expire at the end of June, prompting us to bid out these services. Although our agreement with our other two investment counsels are not expiring this year, we have requested them to participate in this RFP process. We received twelve (12) proposals, and

Memorandum

seven (7) finalists have been selected. We are now completing our diligence procedures and finalizing our contract for each of the finalists.

Submitted by:

JD - Approved

Jim Doezie
Contracts, Risk and Performance Administrator

Memorandum

DATE: June 17, 2024

TO: Members of the Board of Retirement

FROM: Steve Delaney, Chief Executive Officer

SUBJECT: **BOARD COMMUNICATIONS**

Written Report

Background/Discussion

To ensure that the public has free and open access to those items that could have bearing on the decisions of the Trustees of the Board of Retirement, the OCERS Board has directed that all written communications to the entire Board during the interim between regular Board meetings be included in a monthly communications summary.

News Links

The following news and informational item was provided by the CEO for distribution to the entire Board:

From Mary-Joy Coburn, Director of Communications:

- NASRA News Clips

Other Items: (See Attached)

- Monthly summary of OCERS staff activities and updates, starting with an overview of key customer service metrics, for the month of April 2024.

Submitted by:

SD - Approved

Steve Delaney
Chief Executive Officer

OCERS Activities and Update Report
April 2024

To the members of the OCERS Board of Retirement,

The following is my regular monthly summary of OCERS' team activity, starting with an overview of key customer service statistics as well as activity highlights followed by updates for APRIL 2024.

MEMBER SERVICES MONTHLY METRICS

Retirement Applications Received			
Month	2022	2023	2024
January	346	244	278
February	151	152	151
March	120	135	68
April	47	54	82
May	65	60	
June	73	45	
July	54	28	
August	58	45	
September	42	46	
October	70	54	
November	78	50	
December	86	39	
Grand Total	1190	952	579

Customer Service Statistics						
Month	Unplanned Recalculations	Member Satisfaction Approval Rate	Calls Received via Call Center	Calls Direct to Extension	Calls Received by Operator	Total Calls (monthly)
January	0	98%	2,528	3,143	857	6,528
February	0	98%	2,877	3,262	916	7,055
March	0	98%	2,300	3,647	611	6,558
April	2	98%	2,070	2,526	572	5,168
May						
June						
July						
August						
September						
October						
November						
December						
Grand Total	2	98%	9,775	12,578	2,956	25,309

MEMBER SURVEY RESPONSES

"I wanted to reach out to share some positive feedback about the RPS's exceptional service. The member visited OCERS today seeking assistance with her tax withholding. She expressed her satisfaction and gratitude for the excellent service provided by OCERS, particularly with the RPS's assistance. The member mentioned feeling initially confused about her taxes but left feeling calm and blessed after receiving information from the RPS. Kudos to the RPS for a job well done!!"

April 2024

"I'd like to thank the RPS, who helped me with my application. The RPS did a Great job!"

March 2024

"I just wanted to offer compliments and recognition to this team member. In a very short amount of time, this team member became familiar and well versed at his role. (much faster than I did). He very quickly began jumping in the phone queue and taking calls, and meeting with walk-ins. He has also always handled the Counselor of the Day role with composure. He is always friendly, pleasant, and helpful to our members and his colleagues. He is always reliable, sometimes starting early and finishing late, in order to address members' needs. He's an asset to our department, and a joy to work with. Of course our whole team is outstanding in my opinion, but I felt the need to single out this team member for accomplishing so much in such little time. "

February 2024

OCERS Activities and Update Report April 2024

ACTIVITIES

EMPLOYER DATA

In April, the OCERS Employer Payroll team continued to reach out to Employers to assist with challenges, and some Employers have responded already to the items shared with them.

Work was done to categorize errors/exceptions, in anticipation of the May 14 meeting with employers, as well as individual, on-site meetings with Employers starting in June.

Additionally, the concept of how to report Cashable hours and Holiday Compensation hours was expanded, to be shared with Employers in more detail, to give one example of how the items could be reported on the biweekly Data Transmittal.

A status update was provided by Silviu Ardeleanu, Member & Employer Relations Director at the April 24, 2024 Informational Update Meeting, as well as reminder for the May 14th meeting.

The Employer Payroll team made gains also with development of a Data Transmittal Procedure, outlining OCERS' and Employers' processes and responsibilities.

The legal team developed a draft of the OCERS Employee Data Policy, which was anticipated to be brought to the May 23rd Governance Committee but is in the development/refining stage. Employers have been notified that the Policy will be shared with them before it's finalized for their input.

NEW EMPLOYEE ORIENTATION – A SPECIAL GUEST

We were honored to have Trustee Vallone join us in April to share with our latest class of new hires an overview of the OCERS mission and the work performed by the OCERS Board.

OCERS Activities and Update Report April 2024

UPDATES

COMMUNICATIONS

Ms. Coburn reports:

April was a busy month for the Communications team. We visited the Orange County Sanitation District to meet with staff, understand their culture, and collaborate on upcoming projects to improve our service to our members. Additionally, we played a crucial role in hosting nearly 30 kids for our 'Bring a Kid to Work Day' event, creating a delightful video where they shared their thoughts on retirement. We are also partnering with the Compliance Team on a video to support the launch of their program within the organization. Moreover, Director Coburn completed the first module of the CALAPERS Management/Leadership Academy in Pasadena, a program designed to help new and existing managers within the California pension system collaborate with peers and acquire practical leadership skills. All these activities aim to position OCERS as a leader in the pension sector and as an outstanding workplace.

Comms Specialist Clark, Comms Director Coburn, RPS Garcia with OC San Public Affairs Senior Specialist Corruvias taking a tour of the OC San Headquarters in Fountain Valley, CA.

Nearly 30 kids visited the Communications Department to learn more about the department's function and to be on-camera for the 'Bring a Kid to Work Day' video.

Director Coburn (foruth from the left) pictured with other California pension system leaders at the CALAPERS Management Academy in Pasadena, CA.

DIGITAL OUTREACH

myOCERS Social Media Chart

Platform	Number of Subscribers
LinkedIn	785 (+19 since April 2024)
Twitter (X)	607
Instagram	157 (+7 April 2024)
Facebook	209 (+1 April 2024)

OCERS Activities and Update Report April 2024

For the latest updates, visit our official OCERS accounts on Linkedin, Twitter, Instagram, and Facebook @myOCERS.

OCERS Website

For the period between April 1st and April 30th, the agency website had 52,441 views.

Top Pages Visited	Views
Homepage	20,941
About OCERS	3,850
Benefits Calculator	2,436
Board Committee Meetings	1,658
Active Member Information	1,125

MEMBER SERVICES

Mr. Ardeleanu reports:

The Customer Service team participated in several events during the month of April 2024.

The various events were well attended, with members engaged and asking lots of relevant questions.

- 04.10.2024 – OCERS In-Person Pre Retirement Seminar – Aileen Daag
- 04.24.2024 – OCERS Virtual Pre Retirement Seminar – Nicholas Holt
- 04.25.2024 – Financial Wellness Fair – Kamron Nahavandi

SERVICE CREDIT PURCHASE UPDATE

Mr. Lamberson Reports:

The SCP team continues to make progress on the Service Credit Purchase/Buy-Back project. As you can see in the chart below, we have reduced our 2023 items as of the end of April to 128 transactions from 218 at the beginning of January. We will continue to work on clearing all 2023 requests while keeping our 2024 requests within our 120-day turnaround timelines.

OCERS Activities and Update Report April 2024

OCERS SCP PROJECT REPORT					
Status	2023 As of 12/31/23	2024 Jan	Feb	Mar	Apr
New	0	88	46	62	51
In Queue	218	218	240	226	221
Processed	0	-66	-60	-67	-16
Ending	218	240	226	221	256

AGING	
2023 Remaining at the end of April	128
2024 Remaining at the end of April	128
Total	256

INVESTMENTS

Ms. Walander-Sarkin reports:

As of March 31, 2024, the portfolio year-to-date is up 4.7% net of fees, while the one-year return is up 13.0%. The fund value now stands at $23.3 billion. OCERS' Investments Team closed on one new private equity fund in April. During the month, the Investments Team participated in a co-investments and private markets pacing training session at Aksia's offices in San Diego. Multiple team members also attended the Institutional Investor Allocators and Public Funds Roundtable conference in the month of April. Finally, OCERS' Investments Team conducted second round interviews for the two open Investment Officer positions in April.

HUMAN RESOURCES

Ms. Hockless reports:

In April, the HR Department onboarded nine new employees. Specifically, Member Services hired two new Retirement Program Specialists, an Office Technician, and an Accounting Technician. Other April hires included two HR Staff Assistants, an IT Automation Developer, a Disability Retirement Investigator, and a Contracts/CIP Staff Specialist.

Furthermore, one employee within the Member Services department was promoted to a Retirement Program Specialist.

As of April 19, 2024, OCERS had a budgeted workforce of 132 positions. At that time, there were 120 employees on payroll, leaving 12 vacancies and resulting in a **vacancy rate** of **9.09%**. April experienced no new separations, bringing the year-to-date total to seven and yielding a **turnover rate** of **5.83%.**

OCERS Activities and Update Report
April 2024

As a reminder, you will see this memo included with the BOARD COMMUNICATIONS document as part of the informational agenda for the June 17, 2024 meeting of the OCERS Board of Retirement.

Memorandum

DATE: June 17, 2024

TO: Members of the Board of Retirement

FROM: Manuel D. Serpa, General Counsel

SUBJECT: **LEGISLATIVE UPDATE**

Written Report

State Legislative Update

The California Legislature reconvened on January 3, 2024, for the second year of the 2023 – 24 Legislative Session. May 24th was the last day for each house to pass bills introduced in that house. The Legislature will adjourn for summer recess on July 3rd.

New or updated information since the last report to the Board is indicated in bold text.

SACRS Sponsored Bills

None to report.

Bills That Would Amend the CERL or Other Laws (PEPRA, the Brown Act, etc.) That Apply to OCERS

AB 817 (Pacheco, Wilson) – Amended in Senate on 05/29/2024

The Brown Act generally requires for teleconferencing that the legislative body of a local agency that elects to use teleconferencing post agendas at all teleconference locations, identify each teleconference location in the notice and agenda of the meeting or proceeding, and have each teleconference location be accessible to the public. Existing law also requires that, during the teleconference, at least a quorum of the members of the legislative body participate from locations within the boundaries of the territory over which the local agency exercises jurisdiction.

Existing law authorizes the legislative body of a local agency to use alternate teleconferencing provisions during a proclaimed state of emergency (emergency provisions) and, until January 1, 2026, in certain circumstances related to the particular member if at least a quorum of its members participate from a singular physical location that is open to the public and situated within the agency's jurisdiction and other requirements are met (nonemergency provisions). Existing law imposes different requirements for notice, agenda, and public participation, as prescribed, when a legislative body is using alternate teleconferencing provisions. The nonemergency provisions impose restrictions on remote participation by a member of the legislative body and require the legislative body to **provide** specific means by which the public may remotely hear and visually observe the meeting.

This bill**,** until January 1, 2026, would authorize a subsidiary body, defined as a legislative body that serves exclusively in an advisory capacity and that is not authorized to take final action on legislation, regulations, contracts, licenses, permits, or any other entitlements, to use similar alternative teleconferencing provisions and would impose requirements for notice, agenda, and public participation, as prescribed. **The bill would require at least one staff member of the local agency to be present at a designated primary physical meeting location during the meeting. The bill would require the local agency to post the agenda at the primary physical meeting location. The bill would require the members of the subsidiary body to visibly appear on camera during the open portion of a meeting that is publicly accessible via the internet or other online platform, as specified. The bill would also require the subsidiary body to list a member of the subsidiary body who participates in a teleconference meeting from a remote location in the minutes of the meeting.** In order to use teleconferencing pursuant to this act, the bill would require the legislative body that established the subsidiary body by charter, ordinance, resolution, or other formal action to make specified findings by majority vote, before the subsidiary body uses teleconferencing for the first time and every 12 months thereafter.
(STATUS: Introduced; Read first time on 02/13/23. Referred to Com. on L. GOV.; from committee chair, with author's amendments: Amend, and re-refer to Com. on L. GOV.; read second time and amended on 03/16/23. Re-referred to Com. on L. GOV. on 03/20/23. In committee: Hearing postponed by committee on 04/25/23. From committee: Amend, and do pass as amended on 01/16/24. Read second time and amended. Ordered returned to second reading on 01/17/24. Read second time. Ordered to third reading 01/18/24. Read third time. Passed. Ordered to the Senate. In Senate. Read first time. To Com. on RLS. for assignment on 01/25/24. **Referred to Coms. On L. GOV. and JUD. on 05/01/24. In committee: Set, first hearing. Hearing canceled at the request of author on 05/21/24. From committee chair, with author's amendments: Amend, and re-refer to committee. Read second time, amended, and re-referred to Com. on L. GOV. on 05/29/24.**)

AB 2284 (Grayson) – Code Section Amended in Assembly on 05/20/24
PEPRA generally requires a public retirement system, as defined, to modify its plan or plans to comply with the act. PEPRA, among other things, establishes new defined benefit formulas and caps on pensionable compensation. The CERL authorizes counties to establish retirement systems pursuant to its provisions in order to provide pension benefits to their employees. CERL generally vests management of each retirement system in a board of retirement. CERL defines “compensation earnable” by a member, for the purpose of calculating benefits, to mean the average compensation, as determined by the board, for the period under consideration upon the basis of the average number of days ordinarily worked by persons in the same grade or class of positions during the period, and the same rate of pay, subject to certain exceptions. This bill would authorize a retirement system, to the extent it has not defined “grade” in the above-described circumstances, to define “grade” to mean a number of employees considered together because they share similarities in job duties, schedules, unit recruitment requirements, work location, collective bargaining unit, or other logical work-related group or class, as specified.
(STATUS: Introduced on 02/08/24. Referred to Com. On P.E. & R. on 02/26/24. From committee: Amend, and do pass as amended on 04/17/24. Read second time and amended. Ordered returned to second reading on 04/18/24. Read second time. Ordered to third reading on 04/22/24. **Read third time and amended. Ordered to third reading on 05/20/24. Read third time. Passed. Ordered to the Senate on 05/23/24. In Senate. Read first time. To Com. on RLS. for assignment on 05/24/24.**)

AB 2301 (Assembly Members Nguyen, Hoover, McCarty, and Flora, Senators Dodd, Niello, and Ashby) – Applies only to Sacramento Area Sewer District

The CERL authorizes a county to establish a retirement system, as specified, in order to provide pension benefits to county, city, and district employees. Under that law, all officers and employees of a district become members of the county's retirement association on the first day of the calendar month after adoption, by specified vote thresholds, of a resolution by the governing body of the district providing for inclusion of the district in the retirement association and, if the county board of supervisors is not the governing body of the district, the board of retirement consents by majority vote.

This bill would enact the Sacramento Area Sewer District Pension Protection Act of 2024, which, on and after the effective date of a resolution of the Board of Retirement of the Sacramento County Employees' Retirement Association consenting to membership by employees of the Sacramento Area Sewer District as described above, would provide that all employees of the county allocated exclusively to the successor entity, would be deemed to be employees of the sewer district and that all duties and obligations in the employment relationship would be assumed by the sewer district. The bill would specify that the sewer district is a "district" for purposes of the County Employees Retirement Law of 1937. The bill would provide that the sewer district would assume the rights, obligations, and status previously occupied by the County of Sacramento with regard to the portion of the county safety plan, which is that portion of the county's defined benefit plan attributed to retirement system members and beneficiaries of the Sacramento Area Sewer District, as specified, to the replacement benefits program, and to all benefit provisions, including optional benefits, within the County Employees Retirement Law of 1937 or the Public Employees' Pension Reform Act of 2013, as those rights exist at the time of the transfer of rights, duties, and obligations to the sewer district. The bill would state that its provisions are severable. This bill would make legislative findings and declarations as to the necessity of a special statute for the County of Sacramento. This bill would declare that it is to take effect immediately as an urgency statute.
(STATUS: Introduced on 02/12/24. Referred to Com. On P.E. & R. on 02/26/24. From committee chair, with author's amendments: Amend, and re-refer to Com. on P.E. & R. Read second time and amended on 03/21/24. Re-referred to Com. on P.E. & R. on 04/01/24. From committee: Do pass. To Consent Calendar on 04/03/24. Read second time. Ordered to Consent Calendar on 04/04/24. From Consent Calendar by request of Assembly Member Essayli. To Third Reading on 04/11/24. Read third time. Urgency clause adopted. Passed. Ordered to the Senate on 04/15/24. In Senate. Read first time. To Com. on RLS. for assignment on 04/15/24. **Referred to Com. on L., P.E. & R. on 05/01/24.**)

AB 2474 (Lackey) – Amended in Senate on 05/28/24

The CERL authorizes counties and districts to establish retirement systems in order to provide pension benefits to their employees and their beneficiaries and prescribes the rights, benefits, and duties of members in this regard. CERL defines compensation and compensation earnable for purposes of its provisions. PEPRA prescribed various limitations on public employees, employers, and retirement systems concerning, among other things, the types of remuneration that may be included in compensation that is applied to pensions.
Under CERL, the board of retirement is required to comply with and give effect to a revocable written authorization signed by a retired member or beneficiary of a retired member, as described, authorizing the treasurer or other entity authorized by the board to deliver the monthly warrant, check, or electronic fund transfer for the retirement allowance or benefit to any specified bank, savings and loan institution, or credit

union to be credited to the account of the retired member or survivor of a deceased retired member. This bill would also define “account of the retired member or survivor of a deceased retired member” to include an account held in a living trust or an income-only trust, as specified.

This bill, until January 1, 2028*,* would additionally authorize the board of retirement for the County of Los Angeles to have the monthly warrant, check, or electronic fund transfer for the retirement allowance or benefit be delivered to a prepaid account, as defined. Under CERL, any person entitled to the receipt of benefits may authorize the payment of the benefits to be directly deposited by electronic fund transfer into the person’s account at the financial institution of the person’s choice, as specified.

This bill, until January 1, 2028*,* would authorize the board of retirement for the County of Los Angeles to permit a person entitled to receive benefit payments to have them deposited into a prepaid account, as described. This bill would also require the retirement system for the County of Los Angeles, no later than November 30, 2027, to submit a report to specified legislative committees that includes certain information regarding the implementation of these provisions.

Under CERL, any person who has retired may be employed and paid in a position requiring special skills or knowledge for a period of time not to exceed 90 working days or 720 hours, whichever is greater, in any one fiscal year or any other 12-month period designated by the board of supervisors. That law authorizes a county to extend, as specified, that period of time, not to exceed 120 working days or 960 hours, whichever is greater, in any one fiscal year or any other 12-month period, as specified. That law also authorizes other specified retired members to be reemployed and paid in a position requiring special skills or knowledge for a period of time not to exceed 120 working days or 960 hours, whichever is greater, in any one fiscal year. **That law further authorizes** this employment without reinstatement into the system, termination or suspension of their retirement allowance, or deductions to their salary as contributions to the system.

Under PEPRA, a retired person is prohibited from serving, or being employed by, as specified, a public employer in the same public retirement system from which the retiree receives the benefit without reinstatement from retirement, unless an exception applies. Under PEPRA, one of those exceptions authorizes a retired person to serve without reinstatement if appointed by the appointing power of a public employer during an emergency to prevent stoppage of public business or because the retired person has skills needed to perform work of limited duration. That law limits those appointments to a total for all employers in that system of 960 hours or other equivalent limit, in a calendar or fiscal year, depending on the administrator of the system.

This bill would **prohibit a person who has been retired under CERL from being employed in any capacity thereafter by a county or district of the retirement system unless the person has first been reinstated from retirement or is authorized under CERL or PEPRA. The bill would prohibit a person whose employment without reinstatement is authorized from acquiring service credit or retirement rights under CERL with respect to that employment. The bill would require a retired member employed in violation of specified provisions of CERL and PEPRA to reimburse the retirement system for any allowance received during the period in violation and to pay other related amounts, as specified.**

The bill would also require a public employer that employs a retired member in violation of CERL or PEPRA, if the retired member is reinstated, to pay the retirement system an amount of money equal to the employer contributions that would otherwise have been paid, plus interest, for the period of time that the member was employed in violation of these provisions, and to contribute toward reimbursement for reasonable administrative expenses of the system. The bill would further authorize the board of a retirement system under CERL to assess certain fees upon an employer that fails to enroll a retired member without reinstatement, subject to certain procedural and notice requirements.
(STATUS: Introduced on 02/13/24. Referred to Com. on P.E. & R. on 02/26/24. From committee: Amend, and do pass as amended. To Consent Calendar on 04/17/24. Read second time and amended. Ordered returned to second reading on 04/18/24. Read second time. Ordered to Consent Calendar on 04/22/24. Read third time. Passed. Ordered to the Senate. In Senate. Read first time. To Com. on RLS. for assignment on 04/25/24. **Referred to Com. on L., P.E. & R. on 05/05/24. From committee chair, with author's amendments: Amend, and re-refer to committee. Read second time, amended, and re-referred to Com. on L., P.E. & R. on 05/28/24.**)

AB 2715 (Boener)
The Ralph M. Brown Act, generally requires that all meetings of a legislative body of a local agency be open and public and that all persons be permitted to attend and participate. Existing law authorizes a legislative body to hold a closed session on, among other things, matters posing a threat to the security of essential public services, as specified. This bill would additionally authorize a legislative body to hold a closed session with other law enforcement or security personnel and to hold a closed session on a threat to critical infrastructure controls or critical infrastructure information, as defined, relating to cybersecurity.

Existing constitutional provisions require that a statute that limits the right of access to the meetings of public bodies or the writings of public officials and agencies be adopted with findings demonstrating the interest protected by the limitation and the need for protecting that interest.
This bill would make legislative findings to that effect.
The California Constitution requires local agencies, for the purpose of ensuring public access to the meetings of public bodies and the writings of public officials and agencies, to comply with a statutory enactment that amends or enacts laws relating to public records or open meetings and contains findings demonstrating that the enactment furthers the constitutional requirements relating to this purpose. This bill would make legislative findings to that effect.
(STATUS: Introduced on 02/14/24. Referred to Com. on L. GOV. on 03/04/24. In committee: Set, first hearing. Hearing canceled at the request of author on 04/09/24. From committee chair, with author's amendments: Amend, and re-refer to Com. on L. GOV. Read second time and amended on 04/24/24. Re-referred to Com. on L. GOV. on 04/25/24. **From committee: Do pass. on 05/01/24. Read second time. Ordered to third reading on 05/02/24. Read third time. Passed. Ordered to the Senate. In Senate. Read first time. To Com. on RLS. for assignment on 05/16/24. Referred to Coms. On L. GOV. and JUD. on 05/29/24.**)

AB 3025 (Valencia) – Amended in Assembly on 05/02/24
PEPRA generally requires a public retirement system, as defined, to modify its plan or plans to comply with the act. PEPRA, among other things, establishes new defined benefit formulas and caps on pensionable compensation.

The CERL authorizes counties to establish retirement systems pursuant to its provisions in order to provide pension benefits to their employees. CERL generally vests management of each retirement system in a board of retirement. CERL authorizes a board of retirement to correct errors in the calculation of a retired member's monthly allowances or other benefits under CERL in certain circumstances, including if the member caused their final compensation to be improperly increased or otherwise overstated at the time of retirement, and the system applied that overstated amount as the basis for calculating the member's monthly retirement allowance or benefits under CERL, subject to certain limitations.

The PERL also authorizes its board of administration to adjust retirement payments due to errors or omissions, including for cases in which the retirement systems that the benefits of a member or annuitant are, or would be, based on disallowed compensation that conflicts with PEPRA and other specified laws and is thus impermissible.

This bill would require a retirement system established under CERL, upon determining that the compensation reported for a member is disallowed compensation, to require the employer, as defined, to discontinue reporting the disallowed compensation. The bill would require, for an active member, the retirement system to credit all **employer** contributions made on the disallowed compensation against future contributions to the benefit of the employer that reported the disallowed compensation, and return any **member** contribution paid by, or on behalf of, that member, to the member **directly and indirectly through** the employer that reported the disallowed compensation, except in certain circumstances in which a system has already initiated a process, as defined, to recalculate compensation. The bill would require the system, for a retired member, survivor, or beneficiary whose final compensation was predicated upon the disallowed compensation, to credit the **employer** contributions made on the disallowed compensation against future contributions, to the benefit of the employer that reported the disallowed compensation, **to return and member contributions paid by, or on behalf of, that member, to the member directly,** and to permanently adjust the benefit of the affected retired member, survivor, or beneficiary to reflect the exclusion of the disallowed compensation. The bill would establish other conditions required to be satisfied with respect to a retired member, survivor, or beneficiary when final compensation was predicated upon disallowed compensation, including, among others, requiring a specified payment to be made by the employer that reported contributions on the disallowed compensation to the retired member, survivor, or beneficiary, as appropriate. The bill would authorize a retirement system that has initiated a process prior to January 1, 2024, to permanently adjust the benefit of the affected retired member, survivor, or beneficiary to reflect the exclusion of the disallowed compensation to use that system in lieu of specified provisions that the bill would enact. The bill would also require certain information regarding the relevant retired member, survivor, or beneficiary needed for purposes of these provisions to be kept confidential by the recipient.

This bill would authorize an employer to submit to a retirement system for review a compensation item proposed to be included in an agreement, as specified, on and after January 1, 2025, that is intended to form the basis of a pension benefit calculation and would require the system to provide guidance on the matter. The bill would prescribe a process in this regard. The bill would specify that it does not affect or otherwise alter a party's right to appeal any determination regarding disallowed compensation made by the system after July 30, 2020.

(STATUS: Introduced on 02/16/24. Referred to Com. on P.E. & R. From committee chair, with author's amendments: Amend, and re-refer to Com. on P.E. & R. Read second time and amended on 03/18/24. Re-referred to Com. on P.E. & R. on 03/19/24. **From committee: Amend, and do pass as amended on 05/01/24. Read second time and amended. Ordered returned to second reading on 05/02/24. Read second time. Ordered to third reading on 05/06/24. Read third time. Passed. Ordered to the Senate on 05/06/24. In Senate. Read first time. To Com. on RLS. for assignment on 05/21/24. Referred to Coms. On L., P.E. & R. and JUD. on 05/29/24.**)

SB 1189 (Limon)
The CERL authorizes counties to establish retirement systems pursuant to its provisions in order to provide pension benefits to their employees. CERL authorizes the board of retirement to appoint a retirement administrator, chief financial officer, chief operations officer, chief investment officer, and general counsel. This bill would also authorize the board to appoint a chief technology officer.
(STATUS: Introduced on 02/14/24. Referred to Com. on L., P.E. & R. on 02/21/24. From committee: Do pass. Ordered to consent calendar on 04/17/24. Read second time. Ordered to consent calendar on 04/18/24. Read third time. Passed. Ordered to the Assembly on 04/25/24. In Assembly. Read first time. Held at Desk on 04/25/24. **Referred to Com. on P.E. & R. on 05/06/24.**)

Other Bills of Interest

AB 2421 (Low)
The Meyers-Milias-Brown Act, the Ralph C. Dills Act, provisions relating to public schools, provisions relating to higher education, and provisions relating to the San Francisco Bay Area Rapid Transit District, prohibits employers from taking certain actions relating to employee organization, including imposing or threatening to impose reprisals on employees, discriminating or threatening to discriminate against employees, or otherwise interfering with, restraining, or coercing employees because of their exercise of their guaranteed rights. Those provisions of existing law further prohibit denying to employee organizations the rights guaranteed to them by existing law. This bill would also prohibit a local public agency employer, a state employer, a public-school employer, a higher education employer, or the district from questioning any employee or employee representative regarding communications made in confidence between an employee and an employee representative in connection with representation relating to any matter within the scope of the recognized employee organization’s representation.
(STATUS: Introduced on 02/13/24. Referred to Com. on P.E. & R. on 02/26/24. From committee: Do pass and re-refer to Com. on APPR. Re-referred to Com. on APPR. on 04/03/24. In committee: Set, first hearing. Referred to suspense file on 04/24/24. **From committee: Do pass. on 05/16/24. Read second time. Ordered to third reading on 05/20/24. Read third time. Passed. Ordered to the Senate on 05/22/24. In Senate. Read first time. To Com. on RLS. for assignment on 05/23/24.**)

AB 2770 (Members McKinnor, Boerner, Hart, Stephanie Nguyen, and Luz Rivas) – Committee Bill
Teachers’ Retirement Law, establishes CalSTRS, and sets forth the provisions for its administration and the delivery of benefits to its members. Existing law authorizes a member to request to purchase additional service credit and to redeposit accumulated retirement contributions returned to the member, as provided. *Existing law specifies the basis for the contribution amount, depending on whether the member is or is not employed to*

perform creditable service subject to coverage by the Defined Benefit Program on the date of the request to purchase additional service credit. Existing law requires additional regular interest to be added to the contributions, as specified, if the member is not employed to perform creditable service subject to coverage by the Defined Benefit Program on the date of the request to purchase additional service credit.
This bill would *revise that interest calculation. The bill would* require the member to sign and return the completed statement of contributions and interest required from CalSTRS to purchase service credit at a specific cost no later than 35 calendar days from the date of the offer. The bill would also require a member to sign and return the completed election to repay accumulated retirement contributions from CalSTRS to redeposit at a specific cost no later than 35 calendar days from the date of the offer.
Existing law authorizes members to request to redeposit all or a portion of specified contributions with regular interest from the date of refund to the date of payment. This bill would instead authorize members to request to redeposit all or a portion of specified contributions with regular interest from the date of refund to the date CalSTRS receives the request to redeposit. This bill would also make various technical changes.

The CERL, prescribes the rights, benefits, and duties of members of the retirement systems established pursuant to its provisions. Existing law provides that participants in certain membership categories may be entitled to special benefits if the injury that causes their disability arises in the course of their employment. Existing law creates a presumption, for purposes of qualification for disability retirement benefits for specified members, that certain injuries, including post-traumatic stress disorder, as defined, arose out of, or in the course of, the member's employment. Existing law authorizes the presumption relating to these injuries to be rebutted by evidence to the contrary, but unless controverted, the applicable governing board of a public retirement system is required to find in accordance with the presumption. Existing law repeals the provisions related to post-traumatic stress disorder on January 1, 2025.

This bill would instead repeal the provisions related to post-traumatic stress disorder on January 1, 2029. Existing law prescribes the procedures the retirement board must follow to pay a member their accumulated contributions, if the service of a member is discontinued other than by death or retirement, including requiring the board to send to the member, a registered or certified letter, return receipt requested, as specified. Existing law also requires the board to attempt to locate a person or estate entitled to payment of a member's accumulated contributions or any other benefit that fails to claim the payment or cannot be located through means that the board in its sound discretion deems reasonable including, but not limited to, a registered or certified letter, return receipt requested, as specified. This bill would remove the return receipt requirements.

The Judges' Retirement Law prescribes retirement benefits for judges, as defined, who were first elected or appointed to judicial office before November 9, 1994. Existing law establishes the Judges' Retirement System II, which provides retirement and other benefits to its members and is administered by CalPERS. Existing law requires a judge who leaves judicial office before accruing at least 5 years of service to be paid the amount of the judge's contributions to the system.

Under the Judges' Retirement System II, a judge is eligible to retire upon attaining both 65 years of age and 20 or more years of service, or upon attaining 70 years of age with a minimum of 5 years of service . Existing law, on and after January 1, 2024, and until January 1, 2029, additionally authorizes a judge who is 60 years of age and has 15 years or more of service or 65 years of age and has 10 years or more of service who is not eligible to retire pursuant to the provisions described above to elect to retire and defer receipt of a monthly allowance, subject to specified formulations . Existing law grants a judge who elects to retire under the provisions operative January 1, 2024, benefits and options given to a judge who elects to retire upon attaining both 65 years of age and 20 or more years of service, or upon attaining 70 years of age with a minimum of 5 years of service, including, among others, requiring the retirement allowance to be increased for the cost of living. Existing law

also permits a member of the Judges' Retirement System II to select from various optional settlements for the purpose of structuring their retirement benefits. This bill would make various technical changes to these provisions of the Judges' Retirement Law.
(STATUS: Introduced on 02/15/24. Referred to Com. on L., P.E. & R. on 03/04/24. From committee chair, with author's amendments: Amend, and re-refer to Com. on P.E. & R. Read second time and amended on 03/11/24. Re-referred to Com. On P.E. & R. on 03/12/24. From committee: Do pass and re-refer to Com. on APPR. with recommendation: To Consent Calendar. Re-referred to Com. on APPR. on 04/03/24. From committee: Do pass. To Consent Calendar on 04/17/24. Read second time. Ordered to Consent Calendar on 04/18/24. Read third time. Passed. Ordered to the Senate. In Senate. Read first time. To Com. on RLS. for assignment on 04/25/24. **Referred to Com. on L., P.E. & R. on 05/08/24.**)

SB 962 (Padilla) Applies only to San Diego Unified Port District – Code Section Amended in Senate on 05/20/24
PEPRA generally requires a public retirement system, as defined, to modify its pension plan or plans to comply with the act and, among other things, requires a public employer that offers a defined benefit pension plan to provide specified retirement formulas for new members, as defined. PEPRA permits a public employer to adopt a new defined benefit formula, on or after January 1, 2013, that is not consistent with PEPRA, if that formula is determined and certified by the chief actuary and the board of that employer's retirement system to not have a greater risk or greater cost to the sponsoring employer than the defined benefit formula required by PEPRA, and the plan is approved by the Legislature. This bill would approve a specified defined benefit formula applicable to employees of the San Diego Unified Port District. This bill would declare that it is to take effect immediately as an urgency statute.
(STATUS: Introduced; read first time on 01/30/24. Referred to Com. On L., P.E. & R. on 02/14/24. From committee: Do pass as amended on 04/18/24. Read second time and amended. Ordered to third reading on 04/18/24. **Read third time and amended. Ordered to second reading on 05/20/24. Read second time. Ordered to third reading on 05/21/24. Read third time. Urgency clause adopted. Passed. Ordered to the Assembly on 05/23/24. In Assembly. Read first time. Held at Desk on 05/24/24.**)

SB 1240 (Alvarado-Gill) – Applies only to El Dorado County Fire Protection District and Diamond Springs Fire Protection District. – Amended in Assembly on 05/08/24
The PERL establishes CalPERS, which provides a defined benefit to members of the system based on final compensation, credited service, and age at retirement, subject to certain variations. PERL authorizes any public agency to make its employees members of CalPERS by contract. Under existing law, when a contracting agency is succeeded by another agency, the successor agency may become a contracting agency of PERS. Existing law provides that if the successor agency contracts with PERS, the contract of the former agency shall merge with the contract of the succeeding agency. Existing law authorizes specified successor agencies to provide employees the defined benefit plan or formula that those employees received from their respective contracting agency employer prior to the consolidation.

This bill would authorize a successor agency for the El Dorado County Fire Protection District and the Diamond Springs**-El Dorado** Fire Protection District to provide employees the defined benefit plan or formula that those employees received from their respective employer prior to the annexation.
This bill would make legislative findings and declarations as to the necessity of a special statute for the County of El Dorado. This bill would declare that it is to take effect immediately as an urgency statute.
(STATUS: Introduced on 02/15/24. Referred to Com. on L., P.E. & R. on 02/29/24. From committee with author's amendments. Read second time and amended. Re-referred to Com. on L., P.E. & R. on 03/21/24. From committee: Do pass and re-refer to Com. on APPR with recommendation: To consent calendar. Re-referred to Com. on APPR. on 04/10/24. From committee: Be ordered to second reading pursuant to Senate Rule 28.8 and ordered to consent calendar on 04/22/24. Read second time. Ordered to consent calendar on 04/23/24. Read

third time. Urgency clause adopted. Passed. Ordered to the Assembly. In Assembly. Read first time. Held at Desk on 04/25/24. **Referred to Com. on P.E. & R. on 05/06/24. From committee with author's amendments. Read second time and amended. Re-referred to Com. on P.E. & R. on 05/08/24.**)

SB 1499 (Glazer)
The Personal Income Tax Law, in modified conformity with federal income tax laws, generally allows various deductions in computing the income that is subject to taxes imposed by that law, including a deduction for qualified retirement contributions. The Consolidated Appropriations Act, 2023, among other things, expanded the deduction for qualified retirement contributions by indexing catch-up limitations for persons 50 years of age or older to inflation, increasing catch-up limits for persons 60 to 63 years of age, inclusive, and increasing contribution limits for simple plans, as defined. This bill would conform state law to the above-referenced changes to federal law. Existing law requires any bill authorizing a new tax expenditure to contain, among other things, specific goals, purposes, and objectives that the tax expenditure will achieve, detailed performance indicators, and data collection requirements. The bill would also include additional information required for any bill authorizing a new tax expenditure. This bill would take effect immediately as a tax levy.
(STATUS: Introduced on 02/16/24. Referred to Com. on REV. & TAX. on 02/29/24. From committee with author's amendments. Read second time and amended. Re-referred to Com. on REV. & TAX. on 04/03/24. From committee: Do pass and re-refer to Com. on APPR with recommendation: To consent calendar. Re-referred to Com. on APPR. on 04/10/24. Placed on APPR suspense file on 04/22/24. **From committee: Do pass. Read second time. Ordered to third reading on 05/16/24. Ordered to special consent calendar on 05/20/24. Read third time. Passed. Ordered to the Assembly on 05/23/24. In Assembly. Read first time. Held at Desk on 05/24/24.**)

Bills that Apply to CalPERS and/or CalSTRS Only

AB 1997 (McKinnor)
Teachers' Retirement Law establishes the CalSTRS and creates the Defined Benefit Program of the State Teachers' Retirement Plan, which provides a defined benefit to members of the program, based on final compensation, creditable service, and age at retirement, subject to certain variations. CalSTRS is administered by the Teachers' Retirement Board. Existing law requires employers and employees to make contributions to the system based on the member's creditable compensation. Existing law defines terms for the purposes of CalSTRS.

Existing law defines "annualized pay rate" to mean the salary or wages, as described, a person could earn during a school term for an assignment if creditable service were performed for that assignment on a full-time basis. Existing law establishes a pay rate when creditable service is not performed on a full-time basis because a member is performing activities pursuant to specified law.

This bill would redefine "annualized pay rate" to mean the salary, as described, a person could earn during a school term in a position subject to membership if creditable service were performed for that position on a full-time basis, to be determined pursuant to a publicly available pay schedule by a prescribed method. The bill, if no annualized pay rate exists for a position subject to membership, would deem all compensation earned in that position "supplemental pay," as prescribed.

Existing law defines "compensation earnable" for these calculations to be the sum of the average annualized pay rate, determined as the quotient obtained when salary or wages, as described, paid in a school year is divided by the service credited for that school year and remuneration that is paid in addition to salary or wages for the school year, as prescribed.

This bill would revise the definition of “compensation earnable” to be the sum of the average annualized pay rate, determined as the quotient obtained when salary earned in a school year is divided by the service credited for that salary and special pay, as prescribed.

Existing law defines “creditable compensation” to mean cash payments from an employer to all persons in the same class of employees for performing creditable service in that position of salary or wages pursuant to contract and remuneration that is paid in addition to salary or wages, as prescribed. Existing law alternatively defines “creditable compensation” for members who are subject to PEPRA, as prescribed.

This bill would repeal both of those provisions and redefine “creditable compensation” to mean cash remuneration that includes base pay and supplemental pay, as prescribed.

Existing law defines “creditable service” to mean specified activities relating to education performed for employers, including specified K-12 employers, community college employers, and charter school employers. This bill would redefine “creditable service” to mean service in a position subject to membership. The bill would for this purpose define “position subject to membership” to mean prescribed positions at various educational institutions. The bill would also include in that definition certain positions in which a member performed creditable service before the operative date of the added definition of “position subject to membership,” provided that the same member remains continuously employed to perform service in that position on and after that date.

Existing law establishes alternate definitions for “credited service” for members based on whether they are subject to PEPRA. This bill would instead define “credited service” to mean service for which the required contributions have been paid and service for which required contributions would have been paid in absence of prescribed limits.

Existing law defines “service” to means work performed for compensation in a position subject to coverage under the defined benefit program, except as otherwise specifically provided in existing law, providing the contributions on compensation for that work are not credited to a defined benefit supplement program. This bill would redefine “service” to mean work performed for compensation, except as otherwise specifically provided in existing law.

Existing law establishes a cap on the amount of compensation that is taken into account in computing benefits payable for a member who first joins the program on or after July 1, 1996. This bill would additionally specify a cap for a member subject to PEPRA.

Existing law provides for the computation of service to be credited for service performed before July 1, 1972,or on or after July 1, 1972. This bill would provide for the computation of service to be credited for service performed on or after a date determined by the board as described below. This bill would require the board to determine a date when CalSTRS has the capacity to implement the above-described changes and to post the date on the STRS internet website no later than July 1, 2028. The bill would make those provisions with the changes operative on the date determined by the board, would make the existing provisions inoperative on that same date, and would repeal those existing provisions on July 1, 2028. The bill would provide that the changes are consistent with prescribed principles that support the integrity of the retirement fund. The bill would require the board to adopt regulations to the extent required in order to continue to administer the bill accordingly.

Existing law creates the Teachers' Retirement Fund, which is continuously appropriated for specified purposes, into which certain moneys are deposited, including employee contributions. By making the changes to creditable compensation that affect contributions to the fund, the bill would make an appropriation.
(STATUS: Introduced; read first time on 01/30/24. May be heard in committee March 1. Referred to Com. On P.E. & R. on 02/12/24. From committee chair, with author's amendments: Amend, and re-refer to Com. on P.E. & R. Read second time and amended on 03/11/24. Re-referred to Com. on P.E. & R. on 03/12/24. From committee chair, with author's amendments: Amend, and re-refer to Com. on P.E. & R. Read second time and amended on 04/01/24. Re-referred to Com. on P.E. & R. on 04/02/24. From committee: Do pass and re-refer to Com. on APPR. Re-referred to Com. on APPR. on 04/03/24. In committee: Set, first hearing. Referred to suspense file on 04/17/24. **From committee: Do pass on 05/16/24. Read second time. Ordered to third reading on 05/20/24. Read third time. Passed. Ordered to the Senate on 05/21/24. In Senate. Read first time. To Com. on RLS. for assignment on 05/22/24. Referred to Com. on L., P.E. & R. on 05/29/24.**)

SB 1379 (Dodd) – Applies only to Solano County
CalPERS provides pension and other benefits to members of the system and prescribes limitations on the service that retired members may perform, without the member reinstating in the system, for employers that participate in the system. PEPRA also prescribes limitations on the activities of retired members of these retirement systems, which supersede the provisions of CalPERS with which they conflict. Under both CalPERS and PEPRA, a retired member is generally subject to a limit of 960 hours of employment within a calendar or fiscal year, depending on the administrator of the system, for specified employers without reinstating in the system.

This bill would create an exception **from** the above-described limit for hours worked by a retired person for the Solano County Sheriff's Department to perform a function or functions regularly performed by a deputy sheriff, evidence technician, or communications operator, subject to meeting certain requirements. The bill would repeal these provisions on January 1, **2027**. This bill would make legislative findings and declarations as to the necessity of a special statute for the County of Solano. This bill would declare that it is to take effect immediately as an urgency statute.
(STATUS: Introduced on 02/16/24. Referred to Com. On L., P.E. & R. on 02/29/24. April 10 set for first hearing canceled at the request of author. Set for hearing April 24. From committee: Do pass as amended and re-refer to Com. on APPR. on 04/24/24. Read second time and amended. Re-referred to Com. on APPR. on 04/25/24. **From committee: Be ordered to second reading pursuant to Senate Rule 28.8. on 05/13/24. Read second time. Ordered to third reading on 05/14/24. Read third time. Urgency clause adopted. Passed. Ordered to the Assembly on 05/21/24. In Assembly. Read first time. Held at Desk on 05/22/24. Referred to Com. on P.E. & R. on 05/28/24.**)

Divestment Proposals (CalPERS and CalSTRS Only)

None to report.

Attachments:
2024 Tentative Legislative Calendar

Submitted by:

MDS-Approved

Manuel D. Serpa
General Counsel

2024 TENTATIVE LEGISLATIVE CALENDAR

COMPILED BY THE OFFICE OF THE SECRETARY OF THE SENATE AND THE OFFICE OF THE ASSEMBLY CHIEF CLERK

Revised 11/4/22

JANUARY

S	M	T	W	TH	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

FEBRUARY

S	M	T	W	TH	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29		

MARCH

S	M	T	W	TH	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

APRIL

S	M	T	W	TH	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30				

MAY

S	M	T	W	TH	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

DEADLINES

Jan. 1 Statutes take effect (Art. IV, Sec. 8(c)).

Jan. 3 **Legislature Reconvenes** (J.R. 51(a)(4)).

Jan. 10 Budget must be submitted by Governor (Art. IV, Sec. 12(a)).

Jan. 12 Last day for **policy committees** to hear and report **to fiscal committees** fiscal bills introduced in their house in the **odd-numbered year** (J.R. 61(b)(1)).

Jan. 15 Martin Luther King, Jr. Day.

Jan. 19 Last day for any committee to hear and report to the **floor** bills introduced in that house in the odd-numbered year (J.R. 61(b)(2)).

Last day to **submit bill requests** to the Office of Legislative Counsel.

Jan. 31 Last day for each house **to pass bills introduced** in that house in the odd-numbered year (J.R. 61(b)(3), (Art. IV, Sec. 10(c)).

Feb. 16 Last day for bills to be **introduced** (J.R. 61(b)(4), (J.R. 54(a)).

Feb. 19 Presidents' Day.

Mar. 21 **Spring Recess** begins upon adjournment of this day's session (J.R. 51(b)(1)).

Mar. 29 Cesar Chavez Day observed.

Apr. 1 Legislature Reconvenes from **Spring Recess** (J.R. 51(b)(1)).

Apr. 26 Last day for **policy committees** to hear and report to **fiscal committees fiscal bills** introduced in their house (J.R. 61(b)(5)).

May 3 Last day for **policy committees** to hear and report to the floor **non-fiscal** bills introduced in their house (J.R. 61(b)(6)).

May 10 Last day for **policy committees** to meet prior to May 28 (J.R. 61(b)(7)).

May 17 Last day for **fiscal committees** to hear and report to the floor bills introduced in their house (J.R. 61(b)(8)).

Last day for **fiscal committees** to meet prior to May 28 (J.R. 61(b)(9)).

May 20- 24 **Floor Session only.** No committees, other than conference or Rules committees, may meet for any purpose (J.R. 61 (b)(10)).

May 24 Last day for each house to pass bills introduced in that house (J.R. 61(b)(11)).

May 27 Memorial Day.

May 28 Committee meetings may resume (J.R. 61(b)(12)).

*Holiday schedule subject to Senate Rules committee approval

2024 TENTATIVE LEGISLATIVE CALENDAR

COMPILED BY THE OFFICE OF THE SECRETARY OF THE SENATE AND THE OFFICE OF THE ASSEMBLY CHIEF CLERK
Revised 11/4/22

JUNE						
S	M	T	W	TH	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30						

June 15 Budget Bill must be passed by **midnight** (Art. IV, Sec. 12(c)(3)).

June 27 Last day for a legislative measure to qualify for the Nov. 5 General Election ballot (Elections Code Sec. 9040).

JULY						
S	M	T	W	TH	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

July 3 Last day for **policy committees** to meet and report bills (J.R. 61(b)(13)).

Summer Recess begins upon adjournment provided Budget Bill has been passed (J.R. 51(b)(2)).

July 4 Independence Day.

AUGUST						
S	M	T	W	TH	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

Aug. 5 Legislature Reconvenes from **Summer Recess** (J.R. 51(b)(2)).

Aug. 16 Last day for **fiscal committees** to meet and report bills (J.R. 61(b)(14)).

Aug. 19-31 **Floor Session only.** No committees, other than conference and Rules committees, may meet for any purpose (J.R. 61(b)(15)).

Aug. 23 Last day to **amend** on the floor (J.R. 61(b)(16)).

Aug. 31 Last day for **each house to pass bills**. (Art. IV, Sec. 10(c), (J.R. 61(b)(17)).

Final Recess begins upon adjournment (J.R. 51(b)(3)).

***Holiday schedule subject to Senate Rules committee approval**

IMPORTANT DATES OCCURRING DURING FINAL STUDY RECESS

2024

Sept. 30 Last day for Governor to sign or veto bills passed by the Legislature before Sept. 1 and in the Governor's possession on or after Sept. 1 (Art. IV, Sec. 10(b)(2)).

Nov. 5 General Election

Nov. 30 Adjournment *Sine Die* at midnight (Art. IV, Sec. 3(a)).

Dec. 2 12 Noon convening of the 2025-26 Regular Session (Art. IV, Sec. 3(a)).

2025

Jan. 1 Statutes take effect (Art. IV, Sec. 8(c)).

Memorandum

DATE: June 17, 2024

TO: Members of the Board of Retirement

FROM: Steve Delaney, Chief Executive Officer

SUBJECT: **OCERS TRAVEL POLICY APPROVED CONFERENCES LIST**

Written Report

Background/Discussion

At the Board's request, OCERS' executive staff produced a calendar and running list of upcoming OCERS Travel Policy approved conferences and Board education opportunities.

Attachment:

1. Annual Calendar with Travel Policy Section 10 conferences (dates boxed in red) and scheduled Board and Committee meeting dates
2. Legend and details for Travel Policy Section 10 conferences
3. Appendix of additional pre-approved conferences and Board education opportunities.

Submitted by:

SD - Approved

Steve Delaney
Chief Executive Officer

2024 Calendar

January

Su	Mo	Tu	We	Th	Fr	Sa
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

February

Su	Mo	Tu	We	Th	Fr	Sa
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29		

March

Su	Mo	Tu	We	Th	Fr	Sa
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

April

Su	Mo	Tu	We	Th	Fr	Sa
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30				

May

Su	Mo	Tu	We	Th	Fr	Sa
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12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

June

Su	Mo	Tu	We	Th	Fr	Sa
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30						

July

Su	Mo	Tu	We	Th	Fr	Sa
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

August

Su	Mo	Tu	We	Th	Fr	Sa
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

September

Su	Mo	Tu	We	Th	Fr	Sa
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					

October

Su	Mo	Tu	We	Th	Fr	Sa
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

November

Su	Mo	Tu	We	Th	Fr	Sa
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

December

Su	Mo	Tu	We	Th	Fr	Sa
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

Federal Holidays 2024

Jan 1	New Year's Day	May 27	Memorial Day	Sep 2	Labor Day	Nov 28	Thanksgiving Day
Jan 15	Martin Luther King Day			Sep 27	Native American Day	Dec 25	Christmas Day
Feb 19	Presidents' Day	Jul 4	Independence Day	Nov 11	Veterans Day		

Federal Holidays	Audit Committee Meeting
Regular Board Meeting	Building Committee Meeting
Disability Committee Meeting	Governance Committee Meeting
Strategic Planning Workshop	Personnel Committee Meeting
Investment Committee Meeting	Informational Update Meeting

Date Start	Date Ends	Conference Org	Conference Name	Location	Notes
1/21/2024	1/22/2024	NCPERS	Pension Comm Summit	Washington DC	
1/22/2024	1/24/2024	NCPERS	Legislative Conference	Washington DC	
1/28/2024	1/30/2024	NAPO	Annual Pension and Benefits Seminar	Las Vegas, NV	
2/24/2024	2/26/2024	NASRA	Winter Meeting	Washington DC	
2/26/2024	2/27/2024	NIRS	Annual Conference	Washington DC	
3/2/2024	3/5/2024	CALAPRS	General Assembly	Rancho Mirage	
5/7/2024	5/10/2024	SACRS	Spring Conference	Santa Barbara, CA	
5/19/2024	5/22/2024	NCPERS	Annual Conference & Exhibition (ACE)	Seattle WA	
6/17/2024	6/19/2024	NCPERS	Chief Officers Summit	Nashville, TN	
7/14/2024	7/17/2024	NAPO	Annual Convention	Nashville, TN	
8/3/2024	8/7/2024	NASRA	Annual Conference	Pittsburgh, PA	
8/18/2024	8/20/2024	NCPERS	Public Pension Funding Forum	Boston, MA	
9/24/2024	9/26/2024	NCPERS	Public Pension HR Summit	Denver, CO	
10/27/2024	10/30/2024	NCPERS	Public Safety Conference	Palm Springs, CA	
11/3/2024	11/6/2024	CRCEA	Contra Costa (CCREA)	Contra Costa	
11/12/2024	11/15/2024	SACRS	Fall Conference	Monterey, CA	
N/A	N/A	NCPERS	FALL Conference	N/A	None in 2024

The following are upcoming conferences and Board education opportunities, pre-approved under the Travel Policy section 12 (highlighted in yellow) and section 14. Note that conferences pre-approved under section 14 AND require overnight accommodations are subject to the limit of three events per year.

March 2024

Date Start	Date Ends	Conference Org	Conference Name	Location	Notes
3/3/2024	3/6/2024	WithIntelligence	Women's Private Equity Summit	Phoenix, AZ	Section 14
3/4/2024	3/6/2024	CII	2024 Spring Conference: Governance as a Guidepost	Washington DC	Section 14
3/6/2024	3/7/2024	IFEBP	Investments Institute	Rancho Mirage	Section 14
3/6/2024	3/7/2024	Pacific Pension Inst (PPI)	2024 Winter Roundtable	Napa, CA	Section 14
3/6/2024	3/6/2024	Markets Group	8TH ANNUAL REAL ESTATE WEST FORUM	San Francisco, CA	Section 14
3/10/2024	3/12/2024	P&I	2024 Defined Contribution East Conference	Orlando, FL	Section 14
3/17/2024	3/19/2024	Opal	Real Estate Investment Summit 2024	West Palm Beach, FL	Section 14
3/17/2024	3/19/2024	Opal	ESG & Impact Investing Forum 2024	West Palm Beach, FL	Section 14
3/18/2024	3/20/2024	Markets Group	ALTSLA	Los Angeles, CA	Section 14
3/19/2024	3/21/2024	IREI	2024 Editorial Advisory Board Meeting – Real Assets Adviser	New Orleans	Section 14
3/21/2024	3/22/2024	PREA	2024 Spring Conference	Nashville, TN	Section 14
3/27/2024	3/29/2024	CALAPRS	Advanced Principals of Pension Governance for Trustees at UCLA	Los Angeles, CA	Section 12

April 2024

Date Start	Date Ends	Conference Org	Conference Name	Location	Notes
4/7/2024	4/8/2024	Opal	Data and AI Executive Summit 2024	Atlanta, GA	Section 14
4/7/2024	4/10/2024	Investment and Wealth Inst	Investment and Wealth Experience 2024	Las Vegas, NV	Section 14
4/8/2024	4/10/2024	IREI	2024 Spring Editorial Advisory Board Meeting – Institutional Real Estate Americas	Charleston, SC	Section 14
4/9/2024	4/10/2024	P&I	2024 Private Markets Conference	Chicago	Section 14
4/9/2024	4/10/2024	SuperReturn	SuperReturn US West	Los Angeles, CA	Section 14
4/15/2024	4/19/2024	Wharton	Investment Strategies and Portfolio Management	Philadelphia	Section 12
4/15/2024	4/17/2024	WithIntelligence	Pension Bridge The Annual 2024	Half Moon Bay, CA	Section 14
4/21/2024	4/24/2024	PRISM	2024 PRISM Conference	Austin, TX	Section 14

May 2024

Date Start	Date Ends	Conference Org	Conference Name	Location	Notes
5/7/2024	5/7/2024	Markets Group	8TH ANNUAL PACIFIC NORTHWEST INSTITUTIONAL FORUM	Seattle WA	Section 14
5/18/2024	5/19/2024	NCPERS	Trustee Educational Seminar (TEDS)	Seattle WA	Section 12
5/18/2024	5/19/2024	NCPERS	NCPERS Accredited Fiduciary Program (NAF) Modules 1&2	Seattle WA	Section 12
5/18/2024	5/19/2024	NCPERS	NCPERS Accredited Fiduciary Program (NAF) Modules 3&4	Seattle WA	Section 12
5/29/2024	5/29/2024	Institutional Investor	2024 Asia Single Family Office Roundtable	Singapore	Section 14

June 2024

Date Start	Date Ends	Conference Org	Conference Name	Location	Notes
6/4/2024	6/4/2024	Markets Group	3RD ANNUAL SOUTHERN CALIFORNIA INSTITUTIONAL FORUM	Los Angeles, CA	Section 14
6/5/2024	6/7/2024	IREI	2024 Visions, Insights & Perspective (VIP) Infrastructure	Washington DC	Section 14
6/11/2024	6/12/2024	P&I	2024 Sustainable Returns Conference	Chicago	Section 14
6/11/2024	6/13/2024	WithIntelligence	Women's Private Credit Summit	Chicago	Section 14
6/18/2024	6/18/2024	P&I	2024 Retirement Income Conference	Chicago	Section 14
6/22/2024	6/23/2024	IFEBP	Trustee Institute: Level 2	Las Vegas, NV	Section 14
6/24/2024	6/26/2024	IFEBP	Advanced Trustees and Administrators Institute	Las Vegas, NV	Section 14
6/24/2024	6/26/2024	IFEBP	Trustee Institute: Level 1 (New Trustees)	Las Vegas, NV	Section 14

July 2024

Date Start	Date Ends	Conference Org	Conference Name	Location	Notes
7/10/2024	7/12/2024	Pacific Pension Inst (PPI)	2024 SUMMER ROUNDTABLE	Amsterdam, Netherlands	Section 14
7/14/2024	7/17/2024	SACRS	SACRS/UC Berkeley	Berkeley, CA	Section 12
7/22/2024	7/24/2024	Opal	Public Funds Summit East 2024	Newport, RI	Section 14
7/22/2024	7/24/2024	WithIntelligence	Pension Bridge Private Equity Exclusive 2024	Chicago	Section 14

August 2024

Date Start	Date Ends	Conference Org	Conference Name	Location	Notes
8/26/2024	8/29/2024	CALAPRS	Principles of Pension Governance for Trustees at Pepperdine University	Malibu	Section 12

September 2024

Date Start	Date Ends	Conference Org	Conference Name	Location	Notes
9/9/2024	9/11/2024	CII	2024 Fall Conference: Brooklyn, NY	Brooklyn, NY	Section 14
9/9/2024	9/11/2024	IREI	2024 Fall Editorial Advisory Board Meeting – Institutional Real Estate Americas	Half Moon Bay, CA	Section 14
9/12/2024	9/12/2024	P&I	2024 Influential Women in Institutional Investing	Chicago	Section 14
9/24/2024	9/27/2024	CALAPRS	Administrators Institute	Carmel-By-The-Sea	Section 12

October 2024

Date Start	Date Ends	Conference Org	Conference Name	Location	Notes
10/14/2024	10/18/2024	Wharton	Investment Strategies and Portfolio Management	Philadelphia	Section 12
10/15/2024	10/16/2024	Markets Group	7TH ANNUAL PRIVATE EQUITY SAN FRANCISCO FORUM	San Francisco, CA	Section 14
10/16/2024	10/17/2024	WithIntelligence	Pension Bridge Alternatives 2024	NY, NY	Section 14
10/21/2024	10/23/2024	Global ARC	21st Annual Global ARC Boston	Boston, MA	Section 14
10/23/2024	10/25/2024	PREA	34th Annual Institutional Investor Conference	Washington DC	Section 14
10/23/2024	10/25/2024	Pacific Pension Inst (PPI)	2024 ASIA PACIFIC ROUNDTABLE	Hong Kong	Section 14
10/26/2024	10/27/2024	NCPERS	NCPERS Accredited Fiduciary Program (NAF) Modules 1&2	Palm Springs, CA	Section 12
10/26/2024	10/27/2024	NCPERS	NCPERS Accredited Fiduciary Program (NAF) Modules 3&4	Palm Springs, CA	Section 12
10/26/2024	10/27/2024	NCPERS	Program for Advanced Trustee Studies (PATS)	Palm Springs, CA	Section 12

November 2024

Date Start	Date Ends	Conference Org	Conference Name	Location	Notes
11/10/2024	11/13/2024	IFEBP	70th Annual Employee Benefits Conference	San Diego, CA	Section 14
11/12/2024	11/12/2024	Inst Limited Partners Association	ILPA Summit 2024	TBD	Section 14

11/12/2024	11/12/2024	Markets Group	8TH ANNUAL PRIVATE WEALTH SOUTHERN CALIFORNIA FORUM	Los Angeles, CA	Section 14
11/20/2024	11/22/2024	IREI	2024 iREOC Annual Membership Meeting	Austin, TX	Section 14

December 2024

Date Start	Date Ends	Conference Org	Conference Name	Location	Notes
12/4/2024	12/6/2024	Opal	CLO Summit 2024	Dana Point, CA	Section 14
12/4/2024	12/4/2024	Markets Group	11TH ANNUAL REAL ESTATE GLOBAL FORUM	NYC	Section 14
12/10/2024	12/11/2024	Markets Group	11TH ANNUAL NORTHERN CALIFORNIA INSTITUTIONAL FORUM	Napa, CA	Section 14

Ad Hoc/No schedule available yet

Global Financial Markets Inst	Ad Hoc	Section 12
IFEBP	Public Employee Benefits Institute- **Not Yet Scheduled**	Section 14
Inst Shareholder Services Media Solutions	No Schedule Available Yet	Section 14

Memorandum

DATE: June 17, 2024

TO: Members of the Board of Retirement

FROM: Steve Delaney, Chief Executive Officer

SUBJECT: **OCERS 2024 BUSINESS PLAN - MID YEAR REVIEW**

Written Report

Background/Discussion

The OCERS Board's "Monitoring and Reporting" policy calls for an annual report on the status of the Business Plan, which we provide in June of each year.

CURRENT STATUS:

The 2024 Business Plan lays out the details as to how OCERS staff is advancing towards the goals and objectives approved as part of the OCERS Board's 2024-2026 Strategic Plan.

Three initiatives stand out as priorities for your staff, because their successful implementation will lead to greater efficiencies in accomplishing OCERS' mission. All four initiatives are found under EXCELLENT SERVICE AND SUPPORT:

1(C) Continue implementation of the Alameda decision

2(A) Work with all employers regarding the data requirements needed to automate the reporting of data through their payroll system

2(B) Continue to develop a master repository for procedures and business process documents

2(C) Continue implementing Robotic Process Automation use cases

Submitted by:

SD - Approved

Steve Delaney
Chief Executive Officer

Orange County Employees Retirement System
2223 E. Wellington Avenue | Santa Ana | 92701

2024 BUSINESS PLAN

MISSION, VISION, AND VALUES

MISSION STATEMENT:

We provide secure retirement and disability benefits with the highest standards of excellence.

VISION STATEMENT:

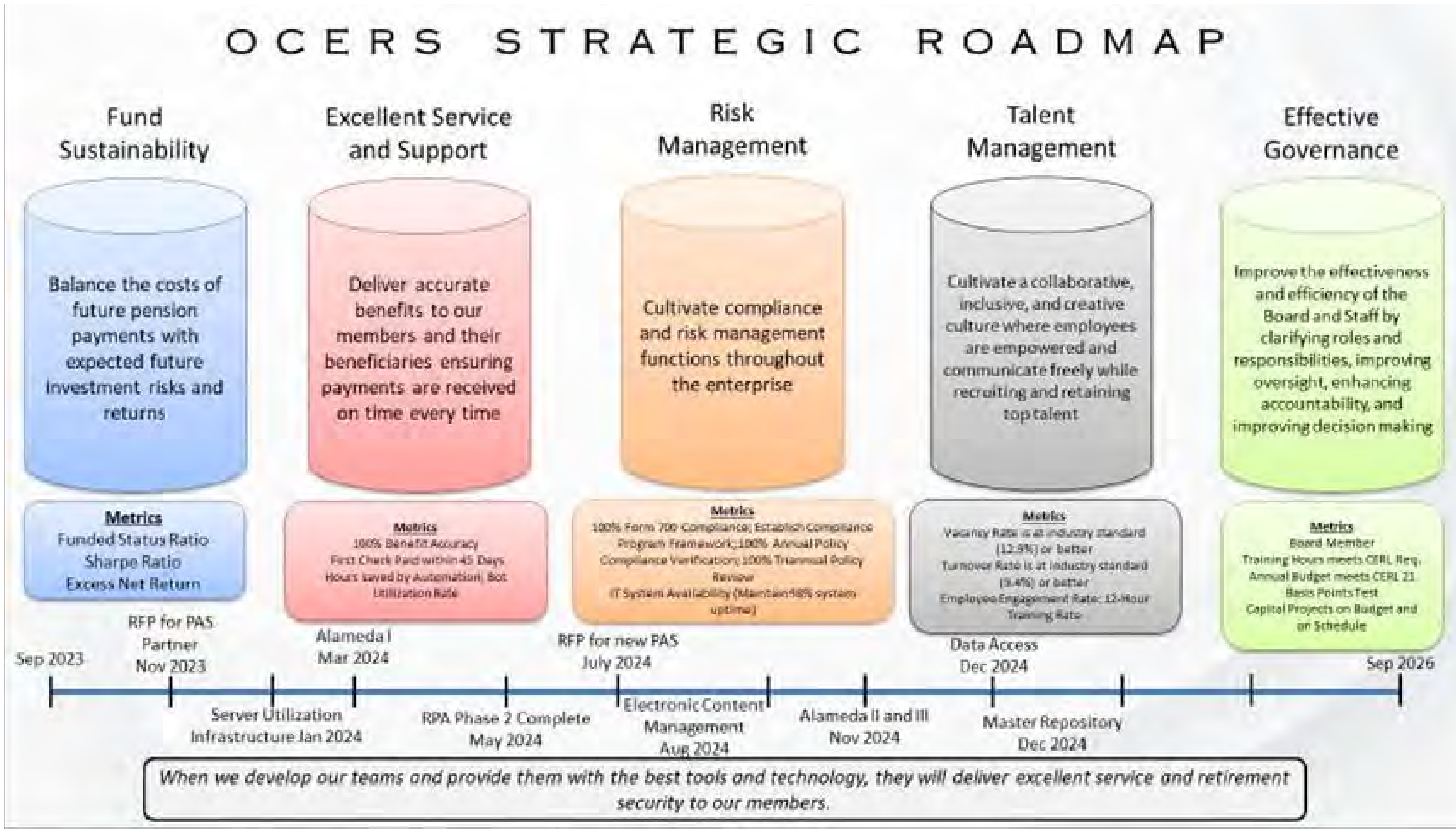
To be a trusted partner providing premier pension administration, distinguished by consistent, quality member experiences and prudent financial stewardship.

VALUES:

- **O**pen and Transparent
- **C**ommitment to Superior Service
- **E**ngaged and Dedicated Workforce
- **R**eliable and Accurate
- **S**ecure and Sustainable

2024-2026 STRATEGIC GOALS

- Fund Sustainability
- Excellent Service and Support
- Risk Management
- Talent Management
- Effective Governance


OCERS STRATEGIC ROADMAP
Fund Sustainability
Balance the costs of future pension payments with expected future investment risks and returns
Metrics
Funded Status Ratio
Sharpe Ratio
Excess Net Return
Excellent Service and Support
Deliver accurate benefits to our members and their beneficiaries ensuring payments are received on time every time
Metrics
100% Benefit Accuracy
First Check Paid within 45 Days
Hours saved by Automation; Bot Utilization Rate
Risk Management
Cultivate compliance and risk management functions throughout the enterprise
Metrics
100% Form 700 Compliance; Establish Compliance Program Framework; 100% Annual Policy Compliance Verification; 100% Triannual Policy Review
IT System Availability (Maintain 98% system uptime)
Talent Management
Cultivate a collaborative, inclusive, and creative culture where employees are empowered and communicate freely while recruiting and retaining top talent
Metrics
Vacancy Rate is at industry standard (12.9%) or better
Turnover Rate is at industry standard (9.4%) or better
Employee Engagement Rate; 12-Hour Training Rate
Effective Governance
Improve the effectiveness and efficiency of the Board and Staff by clarifying roles and responsibilities, improving oversight, enhancing accountability, and improving decision making
Metrics
Board Member
Training Hours meets CERL Req.
Annual Budget meets CERL 21 Basis Points Test
Capital Projects on Budget and on Schedule
Sep 2023
RFP for PAS Partner Nov 2023
Server Utilization Infrastructure Jan 2024
Alameda I Mar 2024
RPA Phase 2 Complete May 2024
RFP for new PAS July 2024
Electronic Content Management Aug 2024
Alameda II and III Nov 2024
Data Access Dec 2024
Master Repository Dec 2024
Sep 2026
When we develop our teams and provide them with the best tools and technology, they will deliver excellent service and retirement security to our members.

FUND SUSTAINABILITY

BALANCE THE COSTS OF FUTURE PENSION PAYMENTS WITH EXPECTED FUTURE INVESTMENT RISKS AND RETURNS

Performance Metric: Funded Status Ratio greater than 100%
Performance Metric: Sharpe Ratio above the peer median
Performance Metric: Excess net return over Actuarial Expected Return
Executive Lead – Molly Murphy

Objective 1: Achieve Fully Funded Status

Initiative 1A: Create contingency plans based upon different hypothetical scenarios that show impacts, potential risks, and other data that would enable us to proactively make/provide sound, financial decisions/recommendations to governance and stakeholders. Ongoing

Initiative 1B: Foster collaborative communication designed to keep stakeholders better informed as they make their decisions. Ongoing

Objective 2: Achieve a Risk-Adjusted Return above the Peer median over a trailing 10-Year period

Initiative 2A: Utilize consultants, custodians, technology solutions, and risk management tools to monitor and simulate portfolio risks to aid in the design and execution of risk-aware investment strategies. Ongoing

Objective 3: Achieve the OCERS' Actuarial Expected Rate of Return over a trailing 10-Year period

Initiative 3A: Create and execute asset allocation models designed to achieve the actuarial expected return with a greater than 50% probability based on a 20-year investment horizon. Ongoing

EXCELLENT SERVICE AND SUPPORT

DELIVER ACCURATE BENEFITS TO OUR MEMBERS AND THEIR BENEFICIARIES ENSURING PAYMENTS ARE RECEIVED ON TIME EVERY TIME

Performance Metric: 100% Benefit Accuracy Rate
Performance Metric: First Check Paid within 45-60 Days
Performance Metric: Hours Saved by Automation (increase by 1% over the next year); Bot Utilization Rate (increase by 1% over the next year)

Executive Lead – Suzanne Jenike

Objective 1: Provide world-class Service and Support to our Employers, Members, and Payees

Initiative 1A: Finalize a dedicated call center ($20,000) CANCELLED (Current staffing levels do not support a dedicated call center)

Initiative 1B: Provide retirement and benefits education and resources.

- Transition critical member and employer forms to electronic format Ongoing
- Investigate using digital signatures for member forms Ongoing
- Create educational videos for our members for viewing on our website Ongoing

Initiative 1C: Continue implementation of the Alameda decision. ($541,000) IN PROGRESS – PRIORITIZED PROJECT

Objective 2: Continuously improve Business Processes and Procedures to be efficient and effective

Initiative 2A: Work with all employers regarding the data requirements needed to automate the reporting of data through their payroll system. IN

PROGRESS – PRIORITIZED PROJECT

Initiative 2B: Continue preparation work for the next generation Pension Administration System.

- Continue to develop a master repository for procedures and business process documents ($650,000) IN PROGRESS – PRIORITIZED PROJECT
- Issue an RFP for a new Pension Administration System (TBD) Pending
- Implement V3 data validation and clean-up procedures IN PROGRESS

Initiative 2C: Continue the investigation and implementation of Intelligent Automation initiatives.

- Implement an Electronic Content and Document Management System ($250,000) DEFERRED
- Continue implementing Robotic Process Automation use cases: Phase 2 ($650,000) IN PROGRESS – PRIORITIZED PROJECT

RISK MANAGEMENT

CULTIVATE COMPLIANCE AND RISK MANAGEMENT FUNCTIONS THROUGHOUT THE ENTERPRISE

Performance Metric: 100% Form 700 Compliance
Establish Compliance Program Framework (achieve 100% in next 2 years)
100% Annual Policy Compliance Verification
100% Triennial Policy Review
Performance Metric: IT System Availability (Maintain 98% system uptime)
Executive Leads – Brenda Shott

Objective 1: Reduce Risk by identifying gaps through Compliance Audits

Initiative 1A: Build an agency-wide Compliance Program that reflects industry frameworks and best practices. In Progress

- Incorporate the Operational Risk Management Program into the new agency-wide Compliance Program Completed

Initiative 1B: Develop Risk Management Performance Metrics. In Progress

Objective 2: Provide Information Systems that support the Agency's Administrative and Operational Needs

Initiative 2A: Replace end-of-life Server Virtualization platform. ($50,000) COMPLETE

Initiative 2B: Investigate and upgrade systems to support intelligent automation. IN PROGRESS

Objective 3: Provide a Safe and Secure Workspace and Public Service Facility

Initiative 3A: Design and build a replacement OCERS headquarters facility. IN PROGRESS

TALENT MANAGEMENT

CULTIVATE A COLLABORATIVE, INCLUSIVE, AND CREATIVE CULTURE WHERE EMPLOYEES ARE EMPOWERED AND COMMUNICATE FREELY WHILE RECRUITING AND RETAINING TOP TALENT

Performance Metric: Vacancy Rate is at industry standard (12.9%) or better

Performance Metric: Turnover Rate is at industry standard (9.4%) or better

Performance Metric: Employee Engagement Rate 12-Hour Training Rate

Executive Lead – Steve Delaney

Objective 1: Recruit and Retain a Diverse High-Performing Workforce to meet Organizational Priorities

Initiative 1A: Pursue moving the workforce to be 100% employed by OCERS as a single agency.

- Continue the Classification and Compensation Study of the County positions at OCERS, in partnership with the County of Orange ($45,000) In Progress
- Pursue legislation at start of 2025 to allow 100% OCERS direct workforce Pending

Initiative 1B: Develop a long-range Agency-wide staffing plan.

- Prepare Department organization charts indicating additional positions to be recommended and address backfilling positions to dedicate Subject Matter Experts to the next-generation Pension Administration System project Pending
- Revamp the Careers webpage on the OCERS website In Progress

Objective 2: Develop and Empower Every Member of the Team

Initiative 2A: Continue implementation of a Comprehensive Training Program. (TBD)

- Creation of microlearning videos In Progress
- Continue development of specialized, personal, cross-department, and mid-level leaders training programs In Progress
- Creation of a pre-employment test Completed

Objective 3: Cultivate a Collaborative, Inclusive and Creative Culture

Initiative 3A: Continue to implement diversity, equity, and inclusion (DEI) strategies that promote an inclusive workplace. ($30,000) In Progress

Initiative 3B: Enhance mental health awareness.

- Expand onsite mental health awareness resources In Progress

EFFECTIVE GOVERNANCE

IMPROVE THE EFFECTIVENESS AND EFFICIENCY OF THE BOARD AND STAFF BY CLARIFYING ROLES AND RESPONSIBILITIES, IMPROVING OVERSIGHT, ENHANCING ACCOUNTABILITY, AND IMPROVING DECISION MAKING

Performance Metric: Board Member Training Hours Meets CERL Requirements (24 hours every 2 years)
Performance Metric: Annual Budget meets CERL 21 Basis Point Test
Performance Metric: Capital Projects on Budget and on Schedule
Executive Lead – Manuel Serpa

Objective 1: Employ a Governance Structure that supports a Dynamic System

Initiative 1A: Update and digitize the Board Handbook and resources. In Progress

Initiative 1B: Create a governance policy for Artificial Intelligence. In Progress

Objective 2: Stay Within the Statutory Limit of the CERL 21 Basis Points Test

Initiative 2A: Continue to monitor and report the basis point test through the budget process. Ongoing

Objective 3: Continue the build out of the Enterprise Project Management Office

Initiative 3A: Continue implementation of A3 Thinking. Ongoing

Initiative 3B: Ensure Enterprise-wide projects are allocated as Work-In-Progress (WIP) properly and prioritized as appropriate. Ongoing

ORANGE COUNTY EMPLOYEES RETIREMENT SYSTEM

www.ocers.org

Memorandum

DATE: June 17, 2024

TO: Members of the Board of Retirement

FROM: Steve Delaney, Chief Executive Officer

SUBJECT: **STRATEGIC PLANNING WORKSHOP – PROPOSED FORMAT AND AGENDA TOPICS**

Written Report

Background/Discussion

It's time to begin planning for OCERS' annual Strategic Planning Workshop scheduled for Tuesday, September 10 and Wednesday, September 11, 2024.

The workshop has traditionally had multiple goals, with the overall strategic direction of both the agency and the investment fund being the binding theme**:**

- Combine both education and discussion on topics pertinent to operations and investments over the next several years. Seek consensus on Board and agency priorities for the coming calendar year.
- Focus is generally on operational issues as they relate to the agency's strategic objectives, and their funding. Investment operations and strategic goals are covered as well.
- Presentations and discussions provide the opportunity for sharing of ideas among OCERS' trustees, staff and consultants, truly an opportunity for thinking outside the box as OCERS pursues "continuous improvement."

Though held off-site in the past, no matter where this meeting is held it is a public meeting, and has consistently had an audience of a size similar to regular OCERS Board meetings.

Format

1. Presently your staff is preparing to once again hold the two-day Strategic Planning Workshop in-person at The Westin South Coast Plaza. To ensure a more intimate discussion this year, the Strategic Planning Workshop will be held in the first floor Lido Room instead of the Terrace Pavilion.

Pre-Arranged Agenda Topics:

The annual Strategic Planning workshop is the first occasion for the Board to consider staff's early proposals for the coming year 2025's business plan goals, as well as any updates to the multi-year strategic plan.

For general administration issues:

1. STATE OF OCERS
   Due to time constraints in collecting and updating system data, beginning in 2019 I have delivered the annual presentation of the "STATE OF OCERS" at the Strategic Planning Workshop.

2. STAKEHOLDER COMMENTS
   Once again we will open with comments from representatives of our participating employers and labor groups. This allows the Board of Trustees to hear directly from our stakeholders regarding the economic and life challenges being faced by employers and members in relation to the retirement benefits this Board administers.

Other Possible Agenda Topics:

Each June I lay out possible topics that could be considered at the workshop, and request that Trustees offer suggestions as well. Some topics we believe may be of interest:

- Leveraging AI in Public Pensions (Vision 2030)
- Detailed discussion of OCERS' New HQ Project
- Actuarial Issues Update

Please let me know if there is a topic that you would like explored at this year's workshop and I will work with the Board Chair and Investment Committee Chair to give each request full consideration. I will return to the Board in July with an update for the 2024 Strategic Planning Workshop for the Board's final review and approval.

Submitted by:

SD - Approved

Steve Delaney
Chief Executive Officer

ORANGE COUNTY OCERS EMPLOYEES RETIREMENT SYSTEM

Memorandum

DATE: June 17, 2024

TO: Members of the Board of Retirement

FROM: Cynthia Hockless, Director of Human Resources

SUBJECT: **UPDATE BOARD ELECTIONS: SAFETY MEMBER, ALTERNATE SAFETY MEMBER AND GENERAL MEMBER**

Written Report

Background

OCERS is currently conducting an election for the Safety Member and Alternate Safety Member, with a term of office from July 1, 2024, through June 30, 2027.

The Registrar of Voters has provided OCERS with an election schedule, and OCERS notified eligible members about the Board of Retirement election set for June 18, 2024, via U.S. mail.

Two qualified Safety Members have submitted their nomination paperwork:

- **JEREMY VALLONE, incumbent Alternate Safety Member**
- **RICHARD OATES, incumbent Safety Member**

Ballots for the Safety Election were mailed during the week of May 13, 2024. The deadline for receiving mailed ballots is June 25, 2024. To be counted, ballots must be postmarked on or before Election Day and received by the Registrar of Voters within seven days after the election. Once the Registrar of Voters completes the tally, the Orange County Board of Supervisors will certify the election results on July 23, 2024. This certification date aligns with a new rule that allows seven days after the election for all ballots to be counted. Therefore, the next available certification date is July 23, 2024.

On Wednesday, April 17, 2024, the nomination period for the General Member election ended. **Iriss Barriga, a Senior Child Support Specialist**, submitted one completed and qualified petition for candidacy in the General Member election. According to the Election Procedures outlined by the Orange County Employees Retirement System:

> ***If there is only one qualified candidate for an office, no ballot will be printed, and no election will be held. The Registrar will notify the CEO and then prepare an Agenda Item Transmittal for the Orange County Board of Supervisors, and the Board of Supervisors will declare that candidate to be appointed to the Board for the term specified.***

The Registrar of Voters is scheduled to recommend that the Board of Supervisors approve the appointment of Iriss Barriga, Senior Child Support Specialist, as General Member at their July 23, 2024, Board meeting with a term or office of January 01, 2025, through December 31, 2027.

We remain on schedule and will keep you updated as we advance through the process.

Attachments:

1. Registrar of Voters Safety Calendar

Submitted by:

CH - Approved

Cynthia Hockless
Director of Human Resources

The election schedule is as follows:

1 SAFETY MEMBER AND 1 ALTERNATE MEMBER

March 1 and March 15 (E-109 and E-95)	The Orange County Retirement office shall notify the Safety Members of the Retirement System that an election will be conducted on June 18, 2024. The notice shall include the filing period, qualifications and requirements to be a candidate for Safety Member and Alternate Member of the Orange County Retirement Board of Directors and shall be provided with the payrolls on March 1, 2024, and March 15, 2024.
March 11 (E-99)	The Retirement Office shall provide the number of eligible Safety Members to the Registrar of Voters' Office.
March 11 (E-99)	The Retirement Office shall provide the Registrar of Voters' Office with Willingness to Serve forms.
March 18 (E-92)	First day the Nomination Petition is available for pick up from the Registrar of Voters' Office. A Safety Member requires 75 nomination signatures.
April 17 (E-62)	Last day to file the Nomination Petition, Willingness to Serve Form, and Biographical Statement with the Registrar of Voters' office by 5:00 p.m.
April 18 (E-61)	Random draw will be held to determine the candidate placement on the ballot.
April 29 (E-50)	Retirement Office shall provide the Registrar of Voters with names and addresses of eligible Safety Members in an electronic format.
May 13 (E-36)	Mailing of ballots begins.
June 18 (E-0)	Tally voted ballots at the Registrar of Voters' Office.
June 25 (E+7)	Deadline to receive mailed ballots. Ballots that are mailed must be postmarked on or before election day and received by the Registrar of Voters no later than seven (7) calendar days after Election Day.
July 1 (E+13)	Term begins for Safety Member and Alternate Member. Term expires on June 30, 2027.

ORANGE COUNTY OCERS EMPLOYEES RETIREMENT SYSTEM

Report of Attendance at Conference or Seminar

Name of Member Attending: Richard Oates

Name of Conference/Seminar: Motley-Rice Pension Investor Conference, United States

Location of Conference/Seminar: Charleston, South Carolina

Conference/Seminar Sponsor: Motley-Rice

Dates of Attendance: April 28-30, 2024

Total Cost of Attendance: $1,432.38

Brief Summary of Information and Knowledge Gained:

Conference provided insight on the current trends regarding domestic and foreign securities litigation practices.

Evaluation of the Conference or Seminar:

The conference was very informative and I learned a lot about not only securities litigation, but national safety issues regarding the PPE worn by fire fighters.

Recommendation Concerning Future Attendance:

I recommend this conference to anyone looking to stay current in the areas of securities litigation, investing and safety member trends

Richard Oates

Signature

Return to: Executive Assistant

Copies to: Board Members
Chief Executive Officer
Assistant Chief Executive Officers

ORANGE COUNTY OCERS EMPLOYEES RETIREMENT SYSTEM

Report of Attendance at Conference or Seminar

Name of Member Attending: Adele Tagaloa

Name of Conference/Seminar: Pension Investor Conference US

Location of Conference/Seminar: Charleston, SC

Conference/Seminar Sponsor: Motley Rice (Broadridge, AB Data)

Dates of Attendance: 4/29/24 – 4/30/24

Total Cost of Attendance: ______________________________

Brief Summary of Information and Knowledge Gained:

Some of the topics included private credit, AI, and social media algorithms and the impact on pension funds. What I gained was the importance of good governance which will impact your pension fund's returns (for better or worse), and why it is key to have multiple active, competent litigation teams working on behalf of your pension fund. Dawn Staley, Head Coach at the University of Carolina Women' Basketball, 3x NCAA National Champion, and gold medalist, spoke on many leadership topics, but what resonated with me was the importance of giving other leaders the opportunity to develop and see potential in team members to achieve the desired outcomes.

Evaluation of the Conference or Seminar:

Conference was well attended by various size of funds and the programming was professional and stayed on agenda. Panelists were interactive, extremely knowledgeable, and offered data-driven examples. Most of the trustees/staff from fire and police were in attendance, but it gave an opportunity to hear the different experience and challenges from other pension funds across the US expanding our network.

Recommendation Concerning Future Attendance:

The conference does not require a full week of attendance, as it was a two-day conference in one location offering topics that were current with panelists who truly understand their audience. I would recommend for trustees to attend this conference.

Adele Tagaloa

Signature

Return to: Executive Assistant

Copies to: Board Members
Chief Executive Officer
Assistant Chief Executive Officers

ORANGE COUNTY OCERS EMPLOYEES RETIREMENT SYSTEM

Report of Attendance at Conference or Seminar

Name of Member Attending: Adele Tagaloa

Name of Conference/Seminar: NASP Southern California 2024 Annual Day of Education in Private Equity for Trustees and Staff Conference

Location of Conference/Seminar: Marina Del Rey, CA

Conference/Seminar Sponsor: National Association of Securities Professionals Southern California

Dates of Attendance: Evening of 3/30 and 3/21

Total Cost of Attendance: ______________________________

Brief Summary of Information and Knowledge Gained:

Some of the topics included Private Equity, trends in Private Credit, and the hot topic of the day was the subject of the interest rates: will the Fed raise or lower rates? The Economist from GLJ Research, LLC gave a straightforward scenario of the financial landscape based on data trends that some economist might provide a positive spin to appease the audience. He was insightful and I gained a new understanding of interest rates and how it the effects pension funds. The CIO panel gave a broad view of allocators and what they are forecasting for their funds. The General Session 1 Private Equity moderator made the session memorable and that there are private equity firms that are as diverse as our members and staff. What sets this conference apart is the dedication to invest in local high school students with scholarships to pursue higher education during the luncheon.~~,~~

Evaluation of the Conference or Seminar:

Conference was well attended by trustees and investment staff from various pension funds. Agenda was followed and ran on-time. Content was relevant and the flow of the panels was seamless.

Recommendation Concerning Future Attendance:

This is a one evening and one-day local conference that I would highly recommend our investment team and trustees attend for education, networking, and potential new investment ideas.

Adele Tagaloa

Signature

Return to: Executive Assistant

Copies to: Board Members
Chief Executive Officer
Assistant Chief Executive Officers