

	<u>Page</u>
ACRONYMS AND ABBREVIATIONS.....	XI
EXECUTIVE SUMMARY	ES-1
READER'S GUIDE	RG-1
1.0 INTRODUCTION	1-1
1.1 OVERVIEW	1-1
1.2 LEAD AGENCY	1-2
1.3 PURPOSE AND LEGAL AUTHORITY	1-2
1.4 PUBLIC REVIEW AND COMMENTS	1-3
1.5 REQUIRED APPROVALS	1-5
1.6 PROJECT BACKGROUND	1-6
1.6.1 Summary of Revisions to the Proposed Healthy Living Campus Master Plan	1-9
1.7 SCOPE OF THE EIR	1-11
1.8 AREAS OF KNOWN PUBLIC CONTROVERSY	1-14
1.9 ORGANIZATION OF THE EIR	1-16
2.0 PROJECT DESCRIPTION.....	2-1
2.1 INTRODUCTION	2-1
2.2 EXISTING PROJECT SITE CHARACTERISTICS.....	2-3
2.2.1 Project Location	2-3
2.2.2 Surrounding Land Uses.....	2-4
2.2.3 Existing Project Site.....	2-9
2.2.4 Existing Access and Circulation	2-14
2.2.4.1 Street Network	2-14
2.2.4.2 Transit	2-15
2.2.4.3 Bicycle and Pedestrian Facilities	2-16
2.2.5 Existing Land Use Designations and Zoning.....	2-17
2.2.6 Existing BCHD Programs.....	2-18
2.2.6.1 Community Services	2-18
2.2.6.2 Center for Health and Fitness	2-19
2.2.6.3 Beach Cities Child Development Center	2-19
2.2.6.4 Beach Cities Partnership for Youth	2-19
2.2.6.5 LiveWell Kids	2-20
2.2.6.6 Blue Zones Project	2-20
2.3 EXISTING TENANTS.....	2-20
2.4 PROJECT OBJECTIVES.....	2-21
2.4.1 BCHD Mission	2-21
2.4.2 Project Background.....	2-22
2.4.3 Project Objectives	2-23
2.5 PROPOSED BCHD HEALTHY LIVING CAMPUS MASTER PLAN	2-24
2.5.1 Phase 1 Preliminary Site Development Plan	2-27

	<u>Page</u>
2.5.1.1 Proposed Uses	2-28
2.5.1.2 Project Architecture and Design	2-34
2.5.1.3 Proposed Access, Circulation, and Parking	2-35
2.5.1.4 Utilities and Services	2-37
2.5.1.5 Sustainability Features	2-38
2.5.1.6 Construction Activities	2-39
2.5.2 Phase 2 Development Program.....	2-45
2.5.2.1 Proposed Uses	2-46
2.5.2.2 Physical Design Considerations and Priority-based Budgeting....	2-47
2.5.2.3 Example Site Plan Scenarios	2-49
2.5.2.4 Construction Activities	2-55
3.0 ENVIRONMENTAL IMPACT ANALYSIS AND MITIGATION MEASURES.....	3-1
3.0.1 Introduction.....	3-1
3.0.2 Cumulative Impacts	3-4
3.1 AESTHETICS AND VISUAL RESOURCES	3.1-1
3.1.1 Environmental Setting	3.1-1
3.1.2 Regulatory Setting	3.1-21
3.1.3 Impact Assessment and Methodology	3.1-28
3.1.4 Project Impacts and Mitigation Measures.....	3.1-33
3.2 AIR QUALITY.....	3.2-1
3.2.1 Environmental Setting	3.2-1
3.2.2 Regulatory Setting	3.2-13
3.2.3 Impact Assessment Methodology	3.2-21
3.2.4 Project Impacts and Mitigation Measures.....	3.2-34
3.3 BIOLOGICAL RESOURCES.....	3.3-1
3.3.1 Environmental Setting	3.3-1
3.3.2 Regulatory Setting	3.3-10
3.3.3 Impact Assessment Methodology	3.3-15
3.3.4 Project Impacts and Mitigation Measures.....	3.3-18
3.4 CULTURAL RESOURCES AND TRIBAL CULTURAL RESOURCES	3.4-1
3.4.1 Environmental Setting	3.4-1
3.4.2 Regulatory Setting	3.4-13
3.4.3 Impact Assessment and Methodology	3.4-18
3.4.4 Project Impacts and Mitigation Measures.....	3.4-23
3.5 ENERGY	3.5-1
3.5.1 Environmental Setting	3.5-1
3.5.2 Regulatory Setting	3.5-6
3.5.3 Impact Assessment Methodology	3.5-13
3.5.4 Project Impacts and Mitigation Measures.....	3.5-15
3.6 GEOLOGY AND SOILS	3.6-1
3.6.1 Environmental Setting	3.6-1
3.6.2 Regulatory Setting	3.6-14
3.6.3 Impact Assessment and Methodology	3.6-21
3.6.4 Project Impacts and Mitigation Measures.....	3.6-23

	<u>Page</u>
3.7 GREENHOUSE GAS EMISSIONS AND CLIMATE CHANGE	3.7-1
3.7.1 Environmental Setting	3.7-1
3.7.2 Regulatory Setting	3.7-9
3.7.3 Impact Assessment and Methodology	3.7-20
3.7.4 Project Impacts and Mitigation Measures.....	3.7-31
3.8 HAZARDS AND HAZARDOUS MATERIALS	3.8-1
3.8.1 Environmental Setting	3.8-2
3.8.2 Regulatory Setting	3.8-14
3.8.3 Impact Assessment and Methodology	3.8-20
3.8.4 Project Impacts and Mitigation Measures.....	3.8-22
3.9 HYDROLOGY AND WATER QUALITY	3.9-1
3.9.1 Environmental Setting	3.9-1
3.9.2 Regulatory Setting	3.9-14
3.9.3 Impact Assessment and Methodology	3.9-27
3.9.4 Project Impacts and Mitigation Measures.....	3.9-30
3.10 LAND USE AND PLANNING.....	3.10-1
3.10.1 Environmental Setting	3.10-1
3.10.2 Regulatory Setting	3.10-8
3.10.3 Impact Assessment and Methodology	3.10-15
3.10.4 Project Impacts and Mitigation Measures.....	3.10-16
3.11 NOISE	3.11-1
3.11.1 Fundamentals of Sound and Environmental Noise.....	3.11-1
3.11.2 Environmental Setting	3.11-5
3.11.3 Regulatory Setting	3.11-13
3.11.4 Impact Assessment and Methodology	3.11-20
3.11.5 Project Impacts and Mitigation Measures.....	3.11-28
3.12 POPULATION AND HOUSING.....	3.12-1
3.12.1 Environmental Setting	3.12-1
3.12.2 Regulatory Setting	3.12-10
3.12.3 Impact Assessment and Methodology	3.12-12
3.12.4 Project Impacts and Mitigation Measures.....	3.12-13
3.13 PUBLIC SERVICES	3.13-1
3.13.1 Environmental Setting - Fire Protection	3.13-2
3.13.2 Regulatory Setting - Fire Protection	3.13-9
3.13.3 Impact Assessment and Methodology - Fire Protection	3.13-14
3.13.4 Project Impacts and Mitigation Measures - Fire Protection	3.13-15
3.13.5 Environmental Setting - Police Protection.....	3.13-19
3.13.6 Regulatory Setting - Law Enforcement	3.13-21
3.13.7 Impact Assessment and Methodology - Law Enforcement	3.13-21
3.13.8 Project Impacts and Mitigation Measures - Law Enforcement	3.13-22
3.14 TRANSPORTATION	3.14-1
3.14.1 Environmental Setting	3.14-2
3.14.2 Regulatory Setting	3.14-22
3.14.3 Impact Assessment and Methodology	3.14-32
3.14.4 Project Impacts and Mitigation Measures.....	3.14-46

TABLE OF CONTENTS

	<u>Page</u>
3.15 UTILITIES AND SERVICE SYSTEMS	3.15-1
3.15.1 Water Infrastructure and Supply	3.15-1
3.15.2 Wastewater Collection, Conveyance, and Treatment	3.15-22
3.15.3 Solid Waste Management Services.....	3.15-34
4.0 OTHER CEQA ISSUES.....	4-1
4.1 SIGNIFICANT UNAVOIDABLE ENVIRONMENTAL EFFECTS	4-1
4.2 REASONS THE PROJECT IS BEING PROPOSED NOTWITHSTANDING ITS SIGNIFICANT AND UNAVOIDABLE IMPACTS	4-2
4.3 SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES.....	4-3
4.4 GROWTH INDUCING IMPACTS	4-4
4.4.1 Removal of Obstacles to Growth.....	4-6
4.5 EFFECTS FOUND NOT TO BE SIGNIFICANT	4-7
5.0 ALTERNATIVES.....	5-1
5.1 INTRODUCTION	5-1
5.2 PROJECT OBJECTIVES.....	5-2
5.3 SUMMARY OF POTENTIALLY SIGNIFICANT IMPACTS	5-3
5.4 ALTERNATIVES CONSIDERED BUT REJECTED FROM FURTHER ANALYSIS	5-9
5.5 ALTERNATIVES ANALYSIS	5-14
5.5.1 Alternative 1 - No Project Alternative (Demolish and Replace with Limited Open Space)	5-15
5.5.2 Alternative 2 - Closure, Sale, and Redevelopment of the BCHD Campus	5-27
5.5.3 Alternative 3 - Revised Access and Circulation	5-31
5.5.4 Alternative 4 - Phase 1 Preliminary Site Development Plan Only	5-53
5.5.5 Alternative 5 - Relocate CHF Permanently and Reduced Parking Structure.....	5-67
5.5.6 Alternative 6 - Reduced Height Alternative	5-83
5.6 IDENTIFICATION OF ENVIRONMENTALLY SUPERIOR ALTERNATIVE	5-97
6.0 LIST OF PREPARERS.....	6-1
7.0 REFERENCES	7-1

LIST OF APPENDICES

- A Initial Study / Notice of Preparation and Scoping Comments
- B Human Health Risk Assessment and CalEEMod Air Quality Calculation Results
- C Biological Resources Technical Studies
- D Cultural Resources Technical Studies
- E Construction and Operational Energy Consumption Calculations
- F Geotechnical Study
- G Phase I and Phase II Environmental Site Assessment
- H Hydrology and Water Quality Study
- I Noise Modeling Results
- J Non-CEQA Intersection Operational Evaluation
- K Vehicle Miles Traveled Study
- L Domestic Water Use and Sewer Capacity Studies
- M Shade and Shadow Study

LIST OF FIGURES

	<u>Page</u>	
Figure 2-1.	Project Vicinity and Regional Setting	2-5
Figure 2-2.	Surrounding Development.....	2-6
Figure 2-3.	Project Site.....	2-10
Figure 2-4.	Existing Campus Uses	2-11
Figure 2-5.	Phase 1 - Residential Care for the Elderly Building Floorplans.....	2-25
Figure 2-6.	Phase 1 - Residential Care for the Elderly Building Cross-Sections	2-26
Figure 2-7.	Phase 1 - Open Space and Landscaping	2-32
Figure 2-8.	Phase 1 - Circulation and Access.....	2-33
Figure 2-9.	Phase 1 - Construction Access and Staging.....	2-41
Figure 2-10.	Construction Haul Routes	2-42
Figure 2-11.	Phase 2 - Example A: Original June 2020 Phase 2 Development.....	2-48
Figure 2-12.	Phase 2 - Example B: Phase 2 Building with Automated Parking	2-51
Figure 2-13.	Phase 2 - Example C: Rotated Phase 2 Building(s) with Automated Parking and a New Medical Office Building.....	2-52
Figure 3.0-1.	Cumulative Projects in the Vicinity of the Proposed Project	3-21
Figure 3.1-1.	Representative View Map.....	3.1-11
Figure 3.1-2.	Existing Summer Solstice	3.1-19
Figure 3.1-3.	Existing Fall Equinox	3.1-20
Figure 3.1-4.	Existing Winter Solstice	3.1-20
Figure 3.1-5.	Summer Solstice with the Implementation of Phase 1	3.1-72
Figure 3.1-6.	Fall Equinox with the Implementation of Phase 1.....	3.1-72
Figure 3.1-7.	Winter Solstice with the Implementation of Phase 1.....	3.1-73
Figure 3.6-1.	Geologic Hazards.....	3.6-8
Figure 3.8-1.	Soil Boring Sample Locations	3.8-9
Figure 3.9-1.	Regional Watershed.....	3.9-2
Figure 3.9-2.	Existing Site Drainage	3.9-13
Figure 3.9-3.	Phase 1 Site Drainage	3.9-29
Figure 3.10-1.	Land Uses in Project Vicinity	3.10-6
Figure 3.10-2.	Zoning in Project Vicinity	3.10-7
Figure 3.11-1.	Noise Monitoring Locations and Sensitive Land Uses.....	3.11-10
Figure 3.14-1.	Existing Circulation and Access	3.14-10
Figure 3.14-2.	Existing and Planned Public Transit Services	3.14-13
Figure 13.5-1.	Existing Utilities at the Project Site.....	3.15-3
Figure 3.15-2.	Proposed Utilities at the Project Site	3.15-17
Figure 5-1.	Revised Circulation Alternative.....	5-34
Figure 5-2.	Reduced Height Alternative.....	5-84

LIST OF TABLES

	<u>Page</u>	
Table ES-1.	Project Impacts, Mitigation Measures and Residual Impacts.....	ES-7
Table ES-2.	Impact Comparison of Alternatives to the Proposed Project.....	ES-46
Table 1-1.	Overview of the Outreach and Planning Process.....	1-7
Table 1-2.	Summary of Revisions to the Proposed Healthy Living Campus Master Plan	1-12
Table 2-1.	Existing Development within the Project Site.....	2-9
Table 2-2.	Phase 1 Preliminary Site Development Plan	2-27
Table 2-3.	Assisted Living Apartment Units	2-29
Table 2-4.	Trade-offs with Example Site Plan Scenarios	2-54
Table 3.0-1.	Planned, Pending, Approved and Recently Completed Public Works Projects in Redondo Beach.....	3-6
Table 3.0-2.	Planned, Pending, Approved, and Recently Completed Projects in Torrance.....	3-14
Table 3.0-3.	Planned, Pending, Approved, and Recently Completed Projects in Hermosa Beach	3-16
Table 3.0-4.	Planned, Pending, Approved, and Recently Completed Projects in Manhattan Beach	3-20
Table 3.1-1.	Buildings Within the Beach Cities and Torrance Over 70 Feet in Height.....	3.1-34
Table 3.1-2.	Potential Conflict with the Redondo Beach General Plan Land Use Element and Parks and Recreation Element Policies	3.1-57
Table 3.1-3.	Consistency with Torrance General Plan Policies.....	3.1-65
Table 3.2-1.	Federal and State Ambient Air Quality Standards for Criteria Pollutants	3.2-7
Table 3.2-2.	Los Angeles County-South Coast Air Basin Federal and State Attainment Status for Criteria Pollutants.....	3.2-8
Table 3.2-3.	Exceedances of Ambient Air Quality Standards for Criteria Pollutants	3.2-10
Table 3.2-4.	Sensitive Receptors in the Vicinity of the Project Site.....	3.2-12
Table 3.2-5.	Unmitigated Maximum Estimated Construction Emissions Compared to SCAQMD Thresholds (lbs/day)	3.2-37
Table 3.2-6.	Unmitigated On-site Construction Emissions (lbs/day) Compared to Localized Significance Thresholds for 25 Meter Receptors.....	3.2-39
Table 3.2-7.	Mitigated On-site Construction Emissions (lbs/day) Compared to Localized Significance Thresholds for 25 Meter Receptors.....	3.2-41
Table 3.2-8.	Maximum Estimated Operational Emissions Compared to SCAQMD Thresholds (lbs/day)	3.2-43
Table 3.2-9.	On-site Operational Emissions (lbs/day) Compared to Localized Significance Thresholds for 25 Meter Receptors (Unmitigated).....	3.2-44
Table 3.2-10.	Cancer Risk and Non-Cancer Health Effects from Unmitigated Construction DPM Emissions.....	3.2-47
Table 3.2-11.	Cancer Risk and Non-Cancer Health Effects from Mitigated Construction DPM Emissions.....	3.2-50
Table 3.3-1.	Plant Species Observed on the Project Site	3.3-5
Table 3.3-2.	Wildlife Species Observed on the Project Site	3.3-7

	<u>Page</u>	
Table 3.3-3.	Special-Status Species with Potential to Occur On-site	3.3-9
Table 3.4-1.	Historic Architectural Resources within Redondo Beach	3.4-10
Table 3.5-1.	State, County, and City Electricity Consumption.....	3.5-2
Table 3.5-2.	Estimated Annual Electricity Demand of the BCHD Campus	3.5-3
Table 3.5-3.	State, County, and City Natural Gas Consumption	3.5-4
Table 3.5-4.	Estimated Annual Natural Gas Demand of the BCHD Campus	3.5-5
Table 3.5-5.	Estimated Project Construction Fuel Consumption.....	3.5-18
Table 3.5-6.	Comparison of Project-related Diesel Fuel Consumption to Annual County Diesel Fuel Consumption.....	3.5-18
Table 3.5-7.	Comparison of Project and Redondo Beach Transportation Fuel Usage	3.5-19
Table 3.5-8.	Estimated Annual Electricity Demand of the Proposed Project.....	3.5-21
Table 3.5-9.	Estimated Annual Natural Gas Demand of the Proposed Project	3.5-21
Table 3.6-1.	Active and Potentially Active Faults in the Project Vicinity.....	3.6-7
Table 3.6-2.	Buried Thrust Fault Related Earthquakes in the Los Angeles Area.....	3.6-7
Table 3.7-1.	City of Redondo Beach GHG Emissions Inventory	3.7-7
Table 3.7-2.	City of Torrance GHG Emissions Inventory	3.7-8
Table 3.7-3.	Existing Annual GHGs Emissions at the BCHD Campus.....	3.7-9
Table 3.7-4.	GHG Emissions from Construction of the Proposed Project	3.7-28
Table 3.7-5.	Annual Operational GHG Emissions for Phase 1 of the Proposed Project.....	3.7-29
Table 3.7-6.	Combined Annual Operational GHG Emissions for the Proposed Project	3.7-29
Table 3.7-7.	Net Annual Operational GHG Emissions for the Proposed Project	3.7-30
Table 3.7-8.	City of Redondo Beach General Plan and Climate Action Plan Policy Consistency Summary	3.7-34
Table 3.7-9.	City of Torrance General Plan and Climate Action Plan Policy Consistency Summary	3.7-40
Table 3.7-10.	Project Consistency Summary with Regional GHG Emissions Reduction Strategies	3.7-47
Table 3.7-11.	Project Consistency Summary with State GHG Emissions Reduction Strategies.....	3.7-51
Table 3.8-1.	Summary of Aerial Photographs Depicting Previous Development on the Project Site and within the Surrounding Vicinity	3.8-2
Table 3.9-1.	Impaired Water Bodies within the Vicinity of the Project Site	3.9-7
Table 3.9-2.	Groundwater Quality Objectives for the West Coast Basin (No. 4- 11.03)	3.9-9
Table 3.9-3.	Existing 85th Percentile 10-, 50- and 100-year Peak Stormwater Discharge at the Project Site.....	3.9-12
Table 3.9-4.	Areas of Pervious and Impervious Surfaces on Project Site Following the Implementation of Phase 1.....	3.9-33
Table 3.9-5.	Peak Flow Rates on Project Site Following the Implementation of Phase 1	3.9-38
Table 3.10-1.	Potential for Significant Environmental Effects Resulting from Conflicts of the proposed Project with Connect SoCal	3.10-17
Table 3.10-2.	Potential for Significant Environmental Effects Resulting from Conflicts of the proposed Project with the 2020 LRTP	3.10-20

	<u>Page</u>
Table 3.10-3. Potential for Significant Environmental Effects Resulting from Conflicts of the proposed Project with the Redondo Beach General Plan	3.10-22
Table 3.10-4. Potential for Significant Environmental Effects Resulting from Conflicts of the proposed Project with the Redondo Beach Municipal Code	3.10-33
Table 3.10-5. Potential for Significant Environmental Effects Resulting from Conflicts of the proposed Project with the Torrance General Plan	3.10-35
Table 3.10-6. Potential for Significant Environmental Effects Resulting from Conflicts of the proposed Project with the Torrance Municipal Code	3.10-43
Table 3.11-1. Representative Noise Levels.....	3.11-3
Table 3.11-2. EMS Calls for the BCHD Campus (2015-2019)	3.11-7
Table 3.11-3. Existing Noise Levels Measured in the Project Vicinity (dBA).....	3.11-9
Table 3.11-4. Daytime and 24-hour Average Noise Levels in the Project Vicinity	3.11-9
Table 3.11-5. Noise-Sensitive Land Uses within 1,000 Feet of the Project Site	3.11-12
Table 3.11-6. Vibration Sensitive Structures within 1,000 Feet of the Project Site	3.11-13
Table 3.11-7. Caltrans Vibration Structural Damage Potential Criteria	3.11-14
Table 3.11-8. Caltrans Vibration Perception Potential Criteria	3.11-15
Table 3.11-9. Redondo Beach Permissible Sound Levels	3.11-18
Table 3.11-10. City of Torrance Permissible Sound Levels	3.11-19
Table 3.11-11. Torrance Municipal Code Noise Regulations.....	3.11-20
Table 3.11-12. Construction Noise Impact Criteria for a Detailed Quantitative Construction Noise Assessment.....	3.11-23
Table 3.11-13. Ground-borne Vibration Impact Criteria for General Assessment.....	3.11-24
Table 3.11-14. FTA Construction Vibration Damage Criteria	3.11-24
Table 3.11-15. Noise Ranges of Typical Construction Equipment.....	3.11-26
Table 3.11-16. Phase 1 Estimated Construction Noise Levels at Sensitive Receptors	3.11-30
Table 3.11-17. Phase 2 Estimated Construction Noise Levels at Sensitive Receptors.....	3.11-31
Table 3.11-18. Noise Barrier Height Requirements to Block the Line of Sight and Reduce Noise Levels in West Torrance.....	3.11-33
Table 3.11-19. Construction Noise Levels at Sensitive Receptors with a 30-foot Noise Barrier during Phase 1	3.11-34
Table 3.11-20. Construction Noise Levels at Sensitive Receptors with a 30-foot Noise Barrier during Phase 2	3.11-35
Table 3.11-21. Estimated Peak Period Construction Traffic Noise Levels at Sensitive Receptors	3.11-36
Table 3.11-22. Vibration Levels from Loaded Haul Trucks at Sensitive Receptors	3.11-40
Table 3.11-23. Estimated Peak Period Traffic Noise Levels at Sensitive Receptors.....	3.11-45
Table 3.12-1. U.S. Census Total Population in 2000-2019.....	3.12-2
Table 3.12-2. SCAG Projected Population, Employment, and Households	3.12-3
Table 3.12-3. City- and County-wide Housing Occupancy and Tenure	3.12-5
Table 3.12-4. City- and County-wide Employment Statistics (2018) (5-Year Estimate)	3.12-8
Table 3.12-5. Top 10 Cities of Employment for Residences within the City of Redondo Beach and the City of Torrance (2019)	3.12-9
Table 3.12-6. Assisted Living Apartment Occupancy	3.12-15

	<u>Page</u>	
Table 3.13-1.	RBFD Response Times and Performance	3.13-4
Table 3.13-2.	TFD Fire Response Call Performance	3.13-6
Table 3.14-1.	Existing Public Transit Services in the Project Area.....	3.14-12
Table 3.14-2.	Number of Collisions in Project Vicinity (2013-2018)	3.14-18
Table 3.14-3.	Peak Period Cut-Through Traffic Between Beryl Street and Del Amo Boulevard.....	3.14-20
Table 3.14-4.	Statewide Annual and Daily VMT in 2017	3.14-20
Table 3.14-5.	City of Redondo Beach Draft VMT Impact Thresholds of Significance ..	3.14-36
Table 3.14-6.	Phase 1 Project Net Trip Generation	3.14-40
Table 3.14-7.	Total Net Trip Generation Resulting from the Proposed Project	3.14-41
Table 3.14-8.	Low VMT Area Screening for Project TAZ.....	3.14-42
Table 3.14-9.	Project TAZ VMT Estimates.....	3.14-43
Table 3.14-10.	ITE Residential Daily Trip Generation Rates.....	3.14-43
Table 3.14-11.	Project VMT Impact Analysis	3.14-54
Table 3.15-1.	Utilities Serving the Existing BCHD Campus.....	3.15-1
Table 3.15-2.	WBMWD Water Supply from FY 2014-2015 to FY 2017-2018 (AF)	3.15-5
Table 3.15-3.	Hermosa-Redondo District Water Demand from FY 2014-2016 to FY 2017-2018 (AF)	3.15-7
Table 3.15-4.	Estimated Existing Project Site Water Demand	3.15-8
Table 3.15-5.	Projected WBMWD Supply	3.15-9
Table 3.15-6.	Projected Hermosa-Redondo District Supplies	3.15-10
Table 3.15-7.	CALGreen Mandatory Maximum Flow Rates	3.15-11
Table 3.15-8.	Projected Water Demand for Phase 1 of the Proposed Project.....	3.15-19
Table 3.15-9.	Projected Water Demand for Phase 2 of the Proposed Project.....	3.15-20
Table 3.15-10.	Estimated Existing Project Site Wastewater Generation.....	3.15-25
Table 3.15-11.	Projected Wastewater Generation for Phase 1 of the Proposed Project	3.15-30
Table 3.15-12.	Projected Wastewater Generation for Phase 2 of the Proposed Project	3.15-31
Table 3.15-13.	Wastewater Conveyance for the Proposed Project.....	3.15-32
Table 3.15-14.	City of Redondo Beach Disposal and Estimated Remaining Disposal Capacity (tons).....	3.15-35
Table 3.15-15.	Existing Solid Waste Generation at the Project Site.....	3.15-37
Table 3.15-16.	Estimated Solid Waste Generated by the Proposed Project	3.15-42
Table 5.5-1.	Estimated Number of Haul Truck Trips Under the No Project Alternative	5-25
Table 5.5-2.	Estimated Project Site Water Demand Comparison for Existing, No Project Alternative, and Proposed Project Conditions.....	5-26
Table 5.5-3.	Estimated Project Site Water Demand Comparison for Existing, Alternative 4, and Proposed Project Conditions.....	5-66
Table 5.5-4.	Estimated Project Site Water Demand Comparison for Existing, Alternative 5, and Proposed Project Conditions	5-81
Table 5.5-5.	Impact Comparison of Alternatives to the Proposed Project.....	5-98

ACRONYMS AND ABBREVIATIONS

°F	degrees Fahrenheit
µg/kg	micrograms per kilogram
AB	Assembly Bill
ACM	asbestos-containing material
ACS	American Community Survey
ADA	Americans with Disabilities Act
ADT	average daily trip
AES	AES Corporation
AF	acre-feet
AFY	acre-feet per year
AHERA	Asbestos Hazard Emergency Response Act of 1986
AIN	Assessor's Identification Number
APS	Alternative Planning Strategy
AQMP	Air Quality Management Plan
ARB	Architectural Review Board
ASTM	American Standard for Testing and Materials
ATSDR	Agency for Toxic Substances and Disease Registry
AVO	average vehicle occupancy
BCHD	Beach Cities Health District
bgs	below ground surface
BMP	best management practice
C&D	construction and demolition
CAA	Clean Air Act of 1963
CAAQS	California Ambient Air Quality Standards
Cal EMA	California Emergency Management Agency
Cal Water	California Water Service Company
CalEEMod	California Emissions Estimator Model
CalEPA	California Environmental Protection Agency
CalGEM	California Geologic Energy Management Division
CALGreen	California Green Building Standards
CalOES	California Office of Emergency Services
CalOSHA	California Occupational Safety and Hazard Administration
Caltrans	California Department of Transportation
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CAT	Climate Action Team
CBC	California Building Code
CBSC	California Building Standards Code
CC	Catalina Corridor
CCAA	California Clean Air Act
CCR	California Code of Regulations
CDC	Centers for Disease Control and Prevention
CDFW	California Department of Fish and Wildlife
CEC	California Energy Commission

ACRONYMS AND ABBREVIATIONS

CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act of 1980
CESA	California Endangered Species Act
CFC	chlorofluorocarbon
CFR	Code of Federal Regulations
cfs	cubic foot per second
CGS	California Geological Survey
CH ₄	methane
CHF	Center for Health and Fitness
CHL	California Historical Landmarks
CHP	California Highway Patrol
CIWMA	California Integrated Waste Management Act
CIWMB	California Integrated Waste Management Board
CNDDB	California Natural Diversity Database
CNEL	Community Noise Equivalent Level
CNPS	California Native Plant Society
CO	carbon monoxide
CO ₂	carbon dioxide
CO _{2e}	carbon dioxide equivalent
CPUC	California Public Utilities Commission
CRHR	California Register of Historic Resources
CRPR	California Rare Plant Rank
CTR	California Toxics Rule
CUP	Conditional Use Permit
CUPA	Certified Unified Program Agency
CWA	Clean Water Act
CWG	Community Working Group
cy	cubic yard
d/D	depth to diameter
dB	decibel
DDE	4,4'-dichlorodiphenyldichloroethylene
DDT	Dichlorodiphenyltrichloroethane
DHS	Department of Health Services
DOGGR	California Department of Conservation, Division of Oil, Gas, and Geothermal Resources
DOT	U.S. Department of Transportation
DPM	diesel particulate matter
DPW	Department of Public Works
DTSC	Department of Toxic Substances Control
DWQ	Division of Water Quality
DWR	California Department of Water Resources
ECL	Edward C. Little
EECAP	Energy Efficiency Climate Action Plans
EIR	Environmental Impact Report

EMFAC	EMission FACTors
EMS	Emergency Medical Services
EPCRA	Emergency Planning and Community Right to Know Act of 1986
EPD	Environmental Programs Division
ESA	Environmental Site Assessment
EV	Electric Vehicle
EWMP	Enhanced Watershed Management Program
FAR	Floor Area Ratio
Federal ESA	Federal Endangered Species Act
FEMA	Federal Emergency Management Agency
FHSZ	Fire Hazard Severity Zone
FY	Fiscal Year
FTA	Federal Transit Administration
g/L	grams per liter
gal/hp/hr	gallons per horsepower per hour
GBMP	Groundwater Basins Master Plan
GHG	greenhouse gas
GIS	geographic information system
GPAC	General Plan Advisory Committee
gpd	gallons per day
gpm	gallons per minute
GSA	groundwater sustainability agency
GSP	groundwater sustainability plan
GWh	gigawatt hours
GWP	global warming potential
H&SC	Health and Safety Code
H ₂ CO ₃	carbonic acid
H ₂ S	hydrogen sulfide
HARP	Hotspots Analysis Reporting Program
HBCSD	Hermosa Beach City School District
HERO	Home Energy Renovation Opportunity
HI	hazard index
HIC	chronic hazard index
HIN	High Injury Network
HOV	High Occupancy Vehicles
HRA	Health Risk Assessment
HVAC	heating, ventilation, and air conditioning
Hyperion	Hyperion Wastewater Treatment Plant
I-	Interstate
IPCC	Intergovernmental Panel on Climate Change
IS	Initial Study
ISO	Insurance Service Office
ITE	Institute of Transportation Engineer
JWPCP	Joint Water Pollution Control Plan

ACRONYMS AND ABBREVIATIONS

kV	kilovolt
KVL	Key Viewing Location
kWh	kilowatt hours
LACDPW	Los Angeles County Public Works Department
LACFCD	Los Angeles County Flood Control District
LACoFD	Los Angeles County Fire Department
LACSD	Los Angeles County Sanitation District
LAUSD	Los Angeles Unified School District
LAX	Los Angeles International Airport
LBP	lead-based paint
LEED	Leadership in Energy and Environmental Design
L _{eq}	Equivalent Continuous Noise Level
L _{dN}	Day-Night Average Noise Level
L _{min}	Minimum Instantaneous Noise Level
L _{max}	Maximum Instantaneous Noise Level
LID	low impact development
LOS	Level of Service
LRA	Local Responsibility Area
LRTP	Long Range Transportation Plan
LST	Localized Significance Threshold
LUST	Leaking Underground Storage Tank
MBTA	Migratory Bird Treaty Act
MBUSD	Manhattan Beach Union School District
MEIR	maximum exposed individual resident
Metro	Los Angeles Metropolitan Transit Authority
mg/cm ²	milligram per square centimeter
mg/kg	milligram per kilogram
mg/L	milligrams per liter
mgd	million gallons per day
MICR	maximum individual cancer risk
MM	Mitigation Measure
MMRP	Mitigation Monitoring and Reporting Program
MODRAT	Modified Rational Method
mph	miles per hour
MPO	Metropolitan Planning Organization
MRF	Materials Recovery Facility
MS4	Municipal Separate Storm Sewer System
MSL	mean sea level
MT CO ₂ e	metric tons of carbon dioxide equivalent
MUTCD	Manual on Uniform Traffic Control Devices
MWD	Metropolitan Water District
N ₂ O	nitrous oxide
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NAL	Numeric Action Level

NASA	National Aeronautics and Space Administration
NCDC	National Climatic Data Center
NEL	Numeric Effluent Limitation
NERHP	National Earthquake Hazards Reduction Program
NESHAP	National Emission Standard for Hazardous Air Pollutants
NFPA	National Fire Protection Association
NHPA	National Historic Preservation Act
NMFS	National Marine Fisheries Service
NO ₂	nitrogen dioxide
NOAA	National Oceanic and Atmospheric Administration
NOI	Notice of Intent
NOP	Notice of Preparation
NO _x	nitrogen oxides
NPDES	National Pollutant Discharge Elimination System
NPPA	Native Plant Protection Act
NRHP	National Register of Historic Places
NWI	National Wetlands Inventory
O ₃	ozone
OEHHA	Office of Environmental Health Hazard Assessment
OHP	California Office of Historic Preservation
OPR	California Governor's Office of Planning and Research
OSHA	Occupational Health and Safety Administration
OTC	Once-Through Cooling
OVA	Organic Vapor Analyzer
PACE	Program of All-Inclusive Care for the Elderly
Pb	lead
PBDE	polybrominated diphenyl ethers
PCB	polychlorinated biphenyl
PCE	tetrachloroethylene
P-CF (zoning)	Public Community Facility zoning
PCH	Pacific Coast Highway
PDWF	Peak Dry Weather Flow
PID	photoionization detector
PM ₁₀	respirable particulate matter
PM _{2.5}	fine particulate matter
PMI	point of maximum impact
ppb	parts per billion
ppm	parts per million
ppmv	parts per million by volume
PRC	Public Resources Code
Project	Healthy Living Campus Master Plan
psi	pounds per square inch
PWWF	Peak Wet Weather Flow
R1 (zoning)	Single Family Residential zoning
RAST	Risk Assessment Standalone Tool

ACRONYMS AND ABBREVIATIONS

RBFD	Redondo Beach Fire Department
RBMC	Redondo Beach Municipal Code
RBDP	Redondo Beach Police Department
RBUSD	Redondo Beach Unified School District
RCFE	Residential Care for the Elderly
RCRA	Resource Conservation and Recovery Act
REC	Recognized Environment Condition
REL	reference exposure level
RGWMP	Regional Groundwater Monitoring Program
RHNA	Regional Housing Needs Assessment
R-LO (zoning)	Low Density Residential zoning
ROG	reactive organic gas
RRP	Rehabilitation and Replacement Program
RTP	Regional Transportation Plan
RTP/SCS	Regional Transportation Plan / Sustainable Communities Strategy
RWQCB	Regional Water Quality Control Board
SB	Senate Bill
SBCCOG	South Bay Cities Council of Governments
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SCCIC	South Central Coastal Information Center
SCE	Southern California Edison
SCH	State Clearinghouse
SCS	Sustainable Communities Strategy
SEA	Significant Ecological Area
SECAP	System Evaluation and Capacity Assurance Plan
sf	square foot/feet
SGMA	Sustainable Groundwater Management Act
SIP	State Implementation Plan
SLIC	Spills, Leaks, Investigations, and Cleanups
SMBRC	Santa Monica Bay Restoration Commission
SO ₂	sulfur dioxide
SoCal Gas	Southern California Gas Company
SR-	State Route
SRRE	Source Reduction and Recycling Elements
SSO	sanitary sewer overflows
SUSMP	Standard Urban Stormwater Mitigation Plan
SVE	Soil Vapor Extraction
SVP	Society for Vertebrate Paleontology
SWITRS	California Highway Patrol Statewide Integrated Traffic Records Systems
SWP	State Water Project
SWPPP	Stormwater Pollution Prevention Plan
SWRCB	State Water Resources Control Board

TAC	toxic air contaminant
TAZ	transportation analysis zone
TCE	dichlorodifluoromethane
TDM	Transportation Demand Management
TDS	total dissolved solids
TFD	Torrance Fire Department
TIMS	Transportation Injury Mapping System
TMC	Torrance Municipal Code
TMDL	Total Maximum Daily Loads
TNC	Transit Network Company
TOD	transit-oriented development
TPA	transit priority area
TPD	Torrance Police Department
TPH	Total Petroleum Hydrocarbons
TSCA	Toxic Substances Control Act of 1976
UBC	Uniform Building Code
UCMP	University of California Museum of Paleontology
USC	U.S. Code
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
USGBC	U.S. Green Building Council
USGS	U.S. Geological Survey
UWMP	Urban Water Management Plan
UWMPA	Urban Water Management Planning Act
V/C	volume to capacity
VMT	vehicle miles traveled
VOC	Volatile organic compounds
W (zoning)	Waterfront zoning
WBMWD	West Basin Municipal Water District
WMA	Watershed Management Area
WMG	Watershed Management Group
WMP	Watershed Management Plan
Wood	Wood Environment & Infrastructure Solutions, Inc.
WRD	Water Replenishment District of Southern California

