

DRAFT

***GREAT PARK
NEIGHBORHOODS
SUPPLEMENTAL
ENVIRONMENTAL
IMPACT REPORT***

***SCH NO.
#2002101020***



prepared by:

CITY OF IRVINE

Contact:
Barry Curtis
Community Development
Administrator

JUNE 2011

DRAFT

GREAT PARK

NEIGHBORHOODS

SUPPLEMENTAL

ENVIRONMENTAL

IMPACT REPORT

SCH NO.

#2002101020



prepared by:

CITY OF IRVINE

P.O. Box 19575
Irvine, California 92623-9575
Tel: 949.724.7453 • Fax: 949.724.6440

Contact:
Barry Curtis
Community Development
Administrator

HFL-01.0E

JUNE 2011

Section	Page
1. EXECUTIVE SUMMARY.....	1-1
1.1 INTRODUCTION	1-1
1.2 ENVIRONMENTAL PROCEDURES	1-2
1.2.1 EIR Format	1-2
1.2.2 Type and Purpose of This DSEIR	1-5
1.3 PROJECT LOCATION.....	1-6
1.4 PROJECT SUMMARY	1-7
1.5 SUMMARY OF PROJECT ALTERNATIVES	1-17
1.5.1 No Project/Density Bonus Units Not Located Alternative	1-18
1.5.2 No Project/Density Bonus Units Located Alternative	1-18
1.5.3 Conversion Alternative	1-19
1.5.4 Relocated Residential Units Alternative	1-19
1.5.5 School Mitigation Alternative.....	1-20
1.6 ISSUES TO BE RESOLVED	1-21
1.7 AREAS OF CONTROVERSY	1-21
1.8 SUMMARY OF ENVIRONMENTAL IMPACTS, MITIGATION MEASURES, AND LEVELS OF SIGNIFICANCE AFTER MITIGATION	1-22
2. INTRODUCTION	2-1
2.1 PURPOSE OF THE ENVIRONMENTAL IMPACT REPORT	2-1
2.2 NOTICE OF PREPARATION AND INITIAL STUDY	2-2
2.3 DSEIR SCOPING MEETING	2-3
2.4 SCOPE OF THIS DSEIR.....	2-3
2.4.1 Impacts Unchanged or Considered Less Than Significant	2-4
2.4.2 Potentially Significant Adverse Impacts	2-4
2.4.3 Unavoidable Significant Adverse Impacts.....	2-4
2.5 INCORPORATION BY REFERENCE	2-5
2.6 FINAL EIR CERTIFICATION	2-6
2.7 CEQA FINDINGS FOR PROJECT APPROVAL	2-7
2.8 MITIGATION MONITORING	2-8
3. PROJECT DESCRIPTION	3-1
3.1 PROJECT LOCATION.....	3-1
3.2 STATEMENT OF OBJECTIVES	3-1
3.3 PROJECT CHARACTERISTICS	3-9
3.3.1 Previous Environmental Documentation	3-10
3.3.2 Description of the Modified Project	3-13
3.4 INTENDED USES OF THE DSEIR	3-54
3.4.1 Subsequent Discretionary and Ministerial Actions.....	3-55
4. ENVIRONMENTAL SETTING	4-1
4.1 INTRODUCTION	4-1
4.2 REGIONAL ENVIRONMENTAL SETTING	4-1
4.2.1 Regional Location.....	4-1

Table of Contents

Section	Page
4.2.2 Regional Climate	4-1
4.2.3 Regional Planning Considerations	4-2
4.3 LOCAL ENVIRONMENTAL SETTING.....	4-4
4.4 ENVIRONMENTAL RESOURCES AND INFRASTRUCTURE.....	4-5
4.5 ASSUMPTIONS REGARDING CUMULATIVE IMPACTS	4-17
5. ENVIRONMENTAL ANALYSIS	5.1-1
5.1 AESTHETICS	5.1-1
5.1.1 Environmental Setting	5.1-1
5.1.2 Thresholds of Significance	5.1-3
5.1.3 The Approved Project	5.1-3
5.1.4 Environmental Impacts of the Modified Project.....	5.1-3
5.1.5 Cumulative Impacts	5.1-8
5.1.6 Level of Significance Before Mitigation	5.1-9
5.1.7 Mitigation Measures	5.1-9
5.1.8 Level of Significance After Mitigation	5.1-9
5.2 AIR QUALITY	5.2-1
5.2.1 Environmental Setting	5.2-1
5.2.2 Thresholds of Significance	5.2-10
5.2.3 The Certified EIR.....	5.2-12
5.2.4 Environmental Impacts of the Modified Project.....	5.2-13
5.2.5 Cumulative Impacts	5.2-23
5.2.6 Level of Significance Before Mitigation	5.2-23
5.2.7 Mitigation Measures	5.2-24
5.2.8 Level of Significance After Mitigation	5.2-27
5.3 GREENHOUSE GAS EMISSIONS.....	5.3-1
5.3.1 Environmental Setting	5.3-1
5.3.2 Thresholds of Significance	5.3-10
5.3.3 The Approved Project	5.3-11
5.3.4 Environmental Impacts of the Modified Project.....	5.3-12
5.3.5 Level of Significance Before Mitigation	5.3-22
5.3.6 Mitigation Measures	5.3-23
5.3.7 Level of Significance After Mitigation	5.3-23
5.4 HAZARDS AND HAZARDOUS MATERIALS	5.4-1
5.4.1 Environmental Setting	5.4-2
5.4.2 Thresholds of Significance	5.4-20
5.4.3 The Approved Project	5.4-21
5.4.4 Environmental Impacts of the Modified Project.....	5.4-22
5.4.5 Cumulative Impacts	5.4-35
5.4.6 Level of Significance Before Mitigation	5.4-35
5.4.7 Mitigation Measures	5.4-36
5.4.8 Level of Significance After Mitigation	5.4-39
5.5 HYDROLOGY AND WATER QUALITY	5.5-1
5.5.1 Hydrology	5.5-1
5.5.2 Water Quality	5.5-8

Table of Contents

Section	Page
5.6	LAND USE AND PLANNING5.6-1
5.6.1	Environmental Setting5.6-1
5.6.2	Thresholds of Significance5.6-7
5.6.3	The Approved Project5.6-8
5.6.4	Environmental Impacts of the Modified Project.....5.6-8
5.6.5	Cumulative Impacts5.6-56
5.6.6	Level of Significance Before Mitigation5.6-57
5.6.7	Mitigation Measures5.6-57
5.6.8	Level of Significance After Mitigation5.6-57
5.7	NOISE.....5.7-1
5.7.1	Environmental Setting5.7-1
5.7.2	Thresholds of Significance5.7-9
5.7.3	The Approved Project5.7-11
5.7.4	Environmental Impacts of the Modified Project.....5.7-12
5.7.5	Cumulative Impacts5.7-72
5.7.6	Level of Significance Before Mitigation5.7-73
5.7.7	Mitigation Measures5.7-73
5.7.8	Level of Significance After Mitigation5.7-74
5.8	POPULATION AND HOUSING5.8-1
5.8.1	Environmental Setting5.8-1
5.8.2	Thresholds of Significance5.8-8
5.8.3	The Approved Project5.8-8
5.8.4	Environmental Impacts of the Modified Project.....5.8-9
5.8.5	Cumulative Impacts5.8-15
5.8.6	Level of Significance Before Mitigation5.8-15
5.8.7	Mitigation Measures5.8-15
5.8.8	Level of Significance After All Mitigation5.8-15
5.9	PUBLIC SERVICES.....5.9-1
5.9.1	Fire Protection and Emergency Services5.9-1
5.9.2	Police Protection.....5.9-7
5.9.3	School Services.....5.9-11
5.9.4	Library Services.....5.9-18
5.10	RECREATION.....5.10-1
5.10.1	Environmental Setting5.10-1
5.10.2	Thresholds of Significance5.10-7
5.10.3	The Approved Project5.10-7
5.10.4	Environmental Impacts of the Modified Project.....5.10-8
5.10.5	Cumulative Impacts5.10-12
5.10.6	Level of Significance Before Mitigation5.10-13
5.10.7	Mitigation Measures5.10-13
5.10.8	Level of Significance After Mitigation5.10-14
5.11	TRANSPORTATION AND TRAFFIC5.11-1
5.11.1	Environmental Setting5.11-1
5.11.2	Thresholds of Significance5.11-33
5.11.3	The Certified EIR.....5.11-33

Table of Contents

Section	Page
5.11.4 Environmental Impacts of the Modified Project.....	5.11-35
5.11.5 Cumulative Impacts	5.11-92
5.11.6 Level of Significance Before Mitigation	5.11-95
5.11.7 Mitigation Measures	5.11-95
5.11.8 Level of Significance After Mitigation	5.11-100
5.12 UTILITIES AND SERVICE SYSTEMS	5.12-1
5.12.1 Water Services	5.12-2
5.12.2 Wastewater.....	5.12-26
5.12.3 Solid Waste	5.12-34
5.12.4 Electricity, Natural Gas, and Telecommunications	5.12-40
6. SIGNIFICANT UNAVOIDABLE ADVERSE IMPACTS.....	6-1
6.1 SIGNIFICANT AND UNAVOIDABLE IMPACTS.....	6-1
6.1.1 Air Quality	6-1
6.1.2 Population and Housing.....	6-1
6.1.3 Transportation/Traffic	6-2
7. ALTERNATIVES TO THE MODIFIED PROJECT	7-1
7.1 INTRODUCTION	7-1
7.1.1 Purpose and Scope	7-1
7.1.2 Project Objectives	7-2
7.2 ALTERNATIVES CONSIDERED AND REJECTED DURING THE SCOPING/PROJECT PLANNING PROCESS	7-4
7.2.1 No Project/ No Development.....	7-4
7.2.2 Reduction of Dwelling Units	7-4
7.2.3 Low Density Alternative	7-4
7.2.4 Different Site Alternative	7-5
7.3 ALTERNATIVES SELECTED FOR FURTHER ANALYSIS.....	7-6
7.4 NO PROJECT/DENSITY BONUS UNITS NOT LOCATED ALTERNATIVE.....	7-9
7.4.1 Ability to Reduce Environmental Impacts.....	7-15
7.4.2 Ability to Achieve Project Objectives.....	7-15
7.5 NO PROJECT/ DENSITY BONUS UNITS LOCATED ALTERNATIVE.....	7-15
7.5.1 Ability to Reduce Environmental Impacts.....	7-21
7.5.2 Ability to Achieve Project Objectives.....	7-21
7.6 CONVERSION ALTERNATIVE	7-22
7.6.1 Ability to Reduce Impacts	7-30
7.6.2 Ability to Achieve Project Objectives.....	7-30
7.7 RELOCATED RESIDENTIAL UNITS ALTERNATIVE	7-30
7.7.1 Ability to Reduce Impacts	7-36
7.7.2 Ability to Achieve Project Objectives.....	7-36
7.8 SCHOOL MITIGATION ALTERNATIVE	7-36
7.8.1 Ability to Reduce Impacts	7-43
7.8.2 Ability to Achieve Project Objectives.....	7-43
7.9 ENVIRONMENTALLY SUPERIOR ALTERNATIVE	7-44

<i>Section</i>	<i>Page</i>
8. IMPACTS FOUND NOT TO BE SIGNIFICANT	8-1
8.1 ASSESSMENT IN THE INITIAL STUDY	8-1
9. SIGNIFICANT IRREVERSIBLE CHANGES DUE TO THE MODIFIED PROJECT	9-1
10. GROWTH-INDUCING IMPACTS OF THE MODIFIED PROJECT.....	10-1
11. ORGANIZATIONS AND PERSONS CONSULTED	11-1
11.1 CITY OF IRVINE (LEAD AGENCY)	11-1
11.2 OTHER PERSONS CONSULTED	11-2
11.3 SERVICE PROVIDERS	11-2
12. QUALIFICATIONS OF PERSONS PREPARING THE SEIR.....	12-1
12.1 AECOM.....	12-1
12.2 THE PLANNING CENTER.....	12-1
12.3 ENGEO	12-2
12.4 ENVIRON	12-3
12.5 RBF CONSULTING.....	12-3
12.6 URBAN CROSSROADS	12-3
12.7 WESTON SOLUTIONS, INC.....	12-4
13. BIBLIOGRAPHY	13-1
13.1 REFERENCES	13-1
13.2 WEBSITES.....	13-7
13.3 OTHER COMMUNICATION.....	13-10

Table of Contents

<i>Section</i>	<i>Page</i>
-----------------------	--------------------

APPENDICES

A.	Notice of Preparation (NOP)
B.	NOP Responses
C.	Draft General Plan Amendments
D.	Draft Amendments to Zoning and Municipal Codes
E.	Tentative Tract Maps
F.	Master Plans
G.	Air Quality Technical Report
H.	Greenhouse Gas (GHG) Technical Report
I.	Hydrology Technical Reports
J.	Water Quality Technical Reports
K.	Noise Technical Report
L.	Public Services Correspondence
M.	Traffic Impact Analysis
N.	Water Supply Assessment and Water Supply Verification
O.	Fire Safety Risk Analysis
P.	Additional Technical Information Related to Alternatives
Q.	Geology and Seismicity Update

Figure		Page
Figure 3-1	Regional Location	3-3
Figure 3-2	Local Vicinity.....	3-5
Figure 3-3	Aerial Photograph	3-7
Figure 3-4	Proposed Ridge Valley Alignment.....	3-15
Figure 3-5	Existing Zoning	3-19
Figure 3-6	Proposed Zone Changes	3-21
Figure 3-7	Proposed Zoning	3-23
Figure 3-8	VTTM 17283A.....	3-27
Figure 3-9	VTTM 17368.....	3-29
Figure 3-10	VTTM 17366.....	3-31
Figure 3-11	VTTM 17202.....	3-33
Figure 3-12	VTTM 17364.....	3-35
Figure 3-13	Master Plan of Intensity Allocation.....	3-37
Figure 3-14	Master Plan for VTTM 17283A.....	3-39
Figure 3-15	Master Plan for VTTM 17368.....	3-41
Figure 3-16	Master Plan for VTTM 17366.....	3-43
Figure 3-17	Master Plan for VTTM 17202.....	3-45
Figure 3-18	Master Plan for VTTM 17364.....	3-47
Figure 3-19	Park Plan	3-49
Figure 4-1	General Plan Land Use Designation	4-13
Figure 4-2	City of Irvine Planning Areas.....	4-21
Figure 5.2-1	Maximum Offsite Concentrations for Construction Emissions	5.2-21
Figure 5.4-1	FOST Areas.....	5.4-9
Figure 5.4-2	Installation Restoration Program Sites	5.4-13
Figure 5.7-1	Noise Attenuation Measures for VTTM 17202.....	5.7-43
Figure 5.7-2	Noise Attenuation Measures for VTTM 17283A.....	5.7-45
Figure 5.7-3	Noise Attenuation Measures for VTTM 17364.....	5.7-47
Figure 5.7-4	Noise Attenuation Measures for VTTM 17366.....	5.7-49
Figure 5.7-5	Noise Attenuation Measures for VTTM 17368.....	5.7-51
Figure 5.7-6	Project Area Districts	5.7-65
Figure 5.7-7	Construction-Related Sensitive Receptors	5.7-67
Figure 5.11-1	Traffic Analysis Study Area.....	5.11-3
Figure 5.11-2	Existing Circulation System.....	5.11-9
Figure 5.11-3	Existing ADT Volumes	5.11-11
Figure 5.11-4	Existing ADT V/C Ratios.....	5.11-13
Figure 5.11-5	Existing Intersection Location Map	5.11-23
Figure 5.11-6	Existing Freeway Interchange Locations	5.11-25
Figure 5.11-7	2015 Circulation System	5.11-27
Figure 5.11-8	2030 Circulation System	5.11-29
Figure 5.11-9	General Plan Buildout (Post-2030) Circulation System.....	5.11-31
Figure 5.11-10	Existing-Plus-Modified Project ADT Volumes	5.11-39
Figure 5.11-11	Existing-Plus-Modified Project ADT V/C Ratios.....	5.11-41
Figure 5.11-12a	Year 2015 ADT Volumes – With 2015 Modified Project	5.11-45
Figure 5.11-12b	Year 2015 ADT Volumes – With 2015 Modified Project	5.11-47
Figure 5.11-13a	Year 2015 ADT V/C Ratios – With 2015 Modified Project	5.11-49
Figure 5.11-13b	Year 2015 ADT V/C Ratios – With 2015 Modified Project	5.11-51

List of Figures

<i>Figure</i>		<i>Page</i>
Figure 5.11-14	Year 2015 Intersection Location Map.....	5.11-53
Figure 5.11-15	Year 2015 Freeway Interchange Locations.....	5.11-57
Figure 5.11-16a	Year 2030 ADT Volumes – with Modified Project	5.11-59
Figure 5.11-16b	Year 2030 ADT Volumes – with Modified Project	5.11-61
Figure 5.11-17a	Year 2030 ADT V/C Ratios – With Modified Project.....	5.11-63
Figure 5.11-17b	Year 2030 ADT V/C Ratios – With Modified Project.....	5.11-65
Figure 5.11-18	Year 2030 Intersection Location Map.....	5.11-69
Figure 5.11-19	Year 2030 Freeway Interchange Locations.....	5.11-71
Figure 5.11-20a	Post-2030 ADT Volumes – With Modified Project	5.11-75
Figure 5.11-20b	Post-2030 ADT Volumes – With Modified Project	5.11-77
Figure 5.11-21a	Post-2030 ADT V/C Ratios – With Modified Project.....	5.11-79
Figure 5.11-21b	Post-2030 ADT V/C Ratios – With Modified Project.....	5.11-81
Figure 5.11-22	Post-2030 Intersection Location Map	5.11-83
Figure 5.11-23	Post-2030 Freeway Interchange Locations	5.11-87
Figure 5.12-1	Proposed Domestic Water Facilities	5.12-17
Figure 5.12-2	Proposed Non-Potable Water Facilities.....	5.12-21
Figure 5.12-3	Proposed Sewer Collection System.....	5.12-31

List of Tables

Table	Page
Table 1-1	Proposed Vesting Tentative Tract Maps 1-13
Table 1-2	Neighborhood Parks to be Developed as part of the Modified Project's Five Proposed VTTMs..... 1-14
Table 1-3	Summary of Environmental Impacts, Mitigation Measures and Levels of Significance After Mitigation 1-23
Table 2-1	NOP Written Comment Summary 2-3
Table 3-1	Proposed Vesting Tentative Tract Maps 3-26
Table 3-2	Neighborhood Parks to be Developed as part of the Modified Project's Five Proposed VTTMs..... 3-51
Table 4-1	General Plan Land Use by Planning Area..... 4-19
Table 5.2-1	Ambient Air Quality Standards for Criteria Pollutants 5.2-6
Table 5.2-2	Attainment Status of Criteria Pollutants in the South Coast Air Basin 5.2-8
Table 5.2-3	Ambient Air Quality Monitoring Summary 5.2-9
Table 5.2-4	SCAQMD Regional Significance Thresholds..... 5.2-11
Table 5.2-5	SCAQMD Localized Significance Thresholds 5.2-12
Table 5.2-6	SCAQMD Toxic Air Contaminants Incremental Risk Thresholds 5.2-12
Table 5.2-7	Employment, Population, and VMT Generation Comparison 5.2-16
Table 5.2-8	Maximum Daily Construction Emissions – Approved Project and Modified Project 5.2-17
Table 5.2-9	Maximum Daily Operational Phase Emissions 5.2-18
Table 5.2-10	Localized Construction Modeling 5.2-19
Table 5.3-1	Greenhouse Gases and Their Relative Global Warming Potential Compared to CO ₂ 5.3-3
Table 5.3-2	CARB Scoping Plan Greenhouse Gas Reduction Measures and Reductions toward 2020 Target..... 5.3-8
Table 5.3-3	The Modified Project GHG Emissions Inventory – Efficiency Metric..... 5.3-19
Table 5.3-4	The Approved Project and Modified Project GHG Emissions Inventories – Total Emissions..... 5.3-20
Table 5.3-5	Consistency with Existing Plans, Policies, and Programs..... 5.3-21
Table 5.4-1	No Further Action IRP Sites and Zoning 5.4-11
Table 5.4-2	Action Required IRP Sites and Zoning – Modified Project 5.4-12
Table 5.5-1	Hydrologic Nodes 5.5-3
Table 5.5-2	Modified Hydrologic Node Summary..... 5.5-5
Table 5.5-3	Impaired Proposed Project Site Receiving Water Bodies (EPA 303d and RWQCB, Santa Ana)..... 5.5-11
Table 5.5-4	TMDL Status of Proposed Project Site Receiving Water Bodies (303d and RWQCB, Santa Ana) 5.5-12
Table 5.5-5	Approved Project Pollutants of Concern..... 5.5-15
Table 5.5-6	Approved Project Source Control BMPs 5.5-16
Table 5.5-7	Approved Project Treatment Control BMPs 5.5-17
Table 5.5-8	Preliminary District Water Quality Basins for the Modified Project 5.5-21
Table 5.6-1	General Plan Consistency Analysis..... 5.6-11
Table 5.6-2	Consistency with SCAG's 2008 Regional Comprehensive Plan 5.6-37
Table 5.6-3	SCAG's 2008 Regional Transportation Plan Goals Consistency Analysis..... 5.6-51
Table 5.6-4	Compass Blueprint 2% Strategy Area Principles Consistency Analysis 5.6-53
Table 5.7-1	Change in Sound Pressure Level (dB) 5.7-2

List of Tables

Table	Page
Table 5.7-2	Typical Noise Levels from Noise Sources5.7-3
Table 5.7-3	State of California Land Use Compatibility for Exterior Community Noise5.7-6
Table 5.7-4	City of Irvine Interior and Exterior Noise Standards5.7-7
Table 5.7-5	City of Irvine Exterior Noise Standards by Noise Zone.....5.7-8
Table 5.7-6	Groundborne Vibration and Noise Impact Criteria, Structural Damage5.7-9
Table 5.7-7	Roadway Parameters5.7-13
Table 5.7-8	Hourly Traffic Flow Distribution ¹5.7-13
Table 5.7-9	General Plan Buildout (Post-2030) Off-Site Average Daily Traffic Volumes (1,000s).....5.7-14
Table 5.7-10	Roadway Parameters5.7-26
Table 5.7-11	General Plan Buildout (Post-2030) With Modified Project Off-Site Project-Related Traffic Noise Impacts.....5.7-30
Table 5.7-12	Off-Site Traffic-Related Exterior Noise Impact Analysis Summary5.7-42
Table 5.7-13	VTTM 17202 Future Exterior Noise Levels5.7-53
Table 5.7-14	VTTM 17283A Future Exterior Noise Levels5.7-54
Table 5.7-15	VTTM 17283A and 17364 Transportation-Related Park Site Noise Contours.....5.7-56
Table 5.7-16	VTTM 17364 Future Exterior Noise Levels5.7-57
Table 5.7-17	VTTM 17366 Future Exterior Noise Levels5.7-59
Table 5.7-18	VTTM 17368 Future Exterior Noise Levels5.7-60
Table 5.7-19	Reference Noise Level Measurements5.7-62
Table 5.7-20	Stationary Noise Level Impact Projections of VTTM Park Activities.....5.7-62
Table 5.7-21	Construction Noise Impact Analysis Summary ^{1,2}5.7-64
Table 5.7-22	Vibration Levels for Construction Equipment5.7-71
Table 5.8-1	Orange County Population and Housing, 2000-2010.....5.8-1
Table 5.8-2	City of Irvine Population and Housing, 2000-20105.8-2
Table 5.8-3	OCP-2010 Projections for Orange County and the City of Irvine, 2008 Through 2035.....5.8-3
Table 5.8-4	Housing Units by Type (Estimated), City of Irvine, 20105.8-4
Table 5.8-5	City of Irvine Regional Housing Needs Assessment Targets, 1998–2005.....5.8-5
Table 5.8-6	City of Irvine Regional Housing Needs Assessment Targets, 2006–2014.....5.8-6
Table 5.8-7	Jobs to Housing Ratio for Orange County and the City of Irvine 2008 Through 2035 Based on OCP-2010.....5.8-8
Table 5.8-8	Estimated Population Generation for the Approved Project and the Modified Project5.8-11
Table 5.8-9	Non-Residential Land Uses Analyzed in Certified EIR.....5.8-12
Table 5.8-10	Estimated Employment Generated by Approved and Modified Projects’ Non-Residential Land Uses5.8-13
Table 5.9-1	OCFA Responding Stations5.9-2
Table 5.9-2	Capacity of IUSD Schools within Attendance Boundaries of Proposed Project Site.....5.9-12
Table 5.9-3	Elementary and Middle Schools with Capacity to Serve the Proposed Project Site.....5.9-12
Table 5.9-4	Overall IUSD High School Capacities5.9-13
Table 5.9-5	Modified Project Student Generation (IUSD).....5.9-16

List of Tables

Table	Page
Table 5.9-6	Orange County Public Library Facilities (City of Irvine)5.9-19
Table 5.10-1	City of Irvine – Public Community Park Amenities and Facilities in Irvine.....5.10-2
Table 5.10-2	Public Neighborhood Park Amenities and Facilities in Irvine Within 2 Miles of the Proposed Project Site.....5.10-5
Table 5.10-3	Private Neighborhood Parks within Two Miles of the Proposed Project Site5.10-6
Table 5.10-4	Neighborhood Parkland Demand Generated by the Originally Approved 3,625 dwelling units.....5.10-7
Table 5.10-5	OCGP Master Plan Land Area Summary (part of Approved Project as modified by Addendum 4, August 2007)5.10-8
Table 5.10-6	Parkland Demand Generated by Modified Project.....5.10-10
Table 5.10-7	Parks to be Developed as part of Five Proposed VTTMs5.10-12
Table 5.11-1	Volume/Capacity Ratio Level of Service (LOS) Ranges.....5.11-5
Table 5.11-2	HCM Intersection Delay Level of Service (LOS) Ranges5.11-6
Table 5.11-3	Existing Caltrans Ramp Intersection LOS Summary (HCM Methodology) Interchanges Adjacent to Proposed Project Site5.11-15
Table 5.11-4	Existing Freeway/Tollway Ramp LOS Summary5.11-16
Table 5.11-5	Existing Freeway/Tollway Mainline LOS Summary5.11-20
Table 5.11-6	Land Use Based Trip Generation Rates5.11-35
Table 5.11-7	Land Use Based Trip Generation Comparison.....5.11-37
Table 5.11-8	Existing-Plus-Modified Project Intersection ICU LOS Modified Project Impact Location With Mitigation5.11-43
Table 5.11-9	Intersection ICU LOS With Year 2015 Modified Project Project Impact Location5.11-44
Table 5.11-10	Year 2015 Intersection ICU LOS With 2015 Modified Project Project Impact Location With Partial NITM Improvement5.11-56
Table 5.11-11	Year 2030 Intersection ICU LOS With Modified Project Project Impact Locations.....5.11-67
Table 5.11-12	Year 2030 Intersection ICU LOS With Modified Project Project Impact Locations With Mitigation.....5.11-73
Table 5.11-13	Post-2030 Intersection ICU LOS With Modified Project Project Impact Locations.....5.11-74
Table 5.11-14	Post-2030 Intersection ICU LOS With Modified Project Project Impact Location With Restriping / Signal Modification Mitigation.....5.11-86
Table 5.11-15	Post-2030 Peak Hour V/C Ratio With the Proposed Mitigation Measure for I-5 Southbound Off-Ramp at Sand Canyon5.11-89
Table 5.11-16	Post-2030 Peak Hour V/C Ratio With the Proposed Mitigation Measure for I-5 Southbound Off-Ramp at Alton Parkway5.11-89
Table 5.11-17	Locations of Significant Impacts of Modified Project Before Mitigation.....5.11-95
Table 5.12-1	IRWD’s Existing Sources of Water Supply5.12-3
Table 5.12-2	IRWD Existing Supply and Demand for Potable Water5.12-6
Table 5.12-3	IRWD Existing Supply and Demand for Nonpotable Water5.12-7
Table 5.12-4	Total Water Demand Buildout of the Modified Project5.12-16
Table 5.12-5	IRWD Buildout Supply and Demand for Potable Water5.12-20
Table 5.12-6	IRWD Buildout Supply and Demand for Nonpotable Water5.12-23

List of Tables

Table		Page
Table 5.12-7	IRWD Buildout Supply and Demand for Potable Water Under Temporary MWD Allocation Conditions	5.12-24
Table 5.12-8	Estimated Modified Project Wastewater Generation	5.12-28
Table 5.12-9	Proposed Sewers On the Proposed Project Site	5.12-30
Table 5.12-10	OCWR Landfills	5.12-34
Table 5.12-11	Estimated Solid Waste Generation Rates by Land Use Type	5.12-37
Table 5.12-12	Modified Project Estimated Solid Waste Generation.....	5.12-38
Table 5.12-13	Total Projected Electricity Demand For the Modified Project.....	5.12-44
Table 5.12-14	Estimated Natural Gas Demand For the Modified Project.....	5.12-45
Table 7-1	Summary of Alternatives to the Modified Project	7-7
Table 7-2	Evaluation of the No Project/Density Bonus Units Not Located Alternative and the Modified Project Objectives.....	7-15
Table 7-3	Evaluation of the No Project/Density Bonus Units Located Alternative and the Modified Project Objectives.....	7-21
Table 7-4	Reduction in Estimated Employment Generation by Conversion Alternative Compared to Modified Project.....	7-22
Table 7-5	Estimated Differences in Water Demand and Wastewater and Solid Waste Generation, Conversion Alternative versus Modified Project	7-29
Table 7-6	Evaluation of Evaluation of the Conversion Alternative and the Modified Project Objectives	7-30
Table 7-7	Relocate Residential Units Alternative Compared to Modified Project.....	7-31
Table 7-8	Impacts Comparison: Alternatives versus Approved Project/Modified Project	7-44
Table 7-9	Ability of Each Alternative to Meet the Project Objectives	7-45
Table 8-1	Modified Project Impacts Found Not to Be Significant	8-2

List of Defined Terms

Applicant	Heritage Fields El Toro LLC
Approved Project	The approved project consisting of 4,894 units and 6,585,594 square feet of non-residential development
Certified EIR	The 2003 OCGP EIR and subsequent Addenda
Environmental Baseline	For purposes of this Supplemental EIR and consistent with relevant case law, the Environmental Baseline is the Approved Project.
Modified Project	The Modified Project would modify the Approved Project by: locating 1,100 low density residential units, previously located on a programmatic basis within Districts 5 and 7, in the locations depicted on the proposed Vesting Tentative Tract Maps (“VTTMs”) described below, and changing the General Plan land use designation and the associated zoning of these units from Low Density (0-5 du/ac) to Multi-Use (0-40 du/ac); locating 1,500 residential units, previously located on a programmatic basis in the portion of the Transit Oriented District (“TOD”) located within Planning Areas 30 and 51, to the locations depicted on the proposed VTTMs; locating the 1,269 density bonus units, which have not previously been located on a programmatic basis, in the locations depicted on the proposed VTTMs; locating the remaining 1,025 residential units on the proposed VTTMs; transferring development intensities between certain zones as detailed below and other minor text/graphic modifications to the General Plan and Zoning Code; and realigning Ridge Valley and “O” Street at Irvine Boulevard. These changes will be achieved and implemented through the proposed General Plan Amendment, Zone Change, VTTMs, Vesting Tentative Tract Map amendments and Master Plans pursuant to Zoning Code 2-17, Comprehensive Parks Plans, Master Trails Plan and Master Walls and Fences Plan, all as more specifically described below. Consistent with the Approved Project, the Modified Project includes a total of 4,894 dwelling units and 6,585,594 square feet of non-residential uses.
2003 OCGP EIR	The original Orange County Great Park EIR certified in May 2003
Proposed Project Site	The Orange County Great Park, encompassing Planning Areas 30 and 51, in the City of Irvine
Project Title	Great Park Neighborhoods

Abbreviations and Acronyms

AAQS	Ambient Air Quality Standards
AB	Assembly Bill
ACM	Asbestos-Containing Materials
ADT	Average Daily Traffic
AQMP	Air Quality Management Plan
AST	Aboveground Storage Tank
ASTM	American Society for Testing and Materials
ATCM	Airborne Toxic Control Measures
bgs	below ground surface
BLM	Bureau of Land Management
BMP	Best Management Practices
CAA	Clean Air Act
CAAQS	California Ambient Air Quality Standards
CalEEMod	California Emissions Estimator Model
Cal/OSHA	California Occupational Safety and Health Administration
Caltrans	California Department of Transportation
CARB	California Air Resources Board
CBC	California Building Code
CCAA	California Clean Air Act
CCR	California Code of Regulations
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CFR	Code of Federal Regulations
CGS	California Geologic Survey
CIWMB	California Integrated Waste Management Board
CLSA	California Library Services Act
CMP	Congestion Management Program
CNEL	Community Noise Equivalent Level
CO	carbon monoxide
CRS	Community Rating System
CSO	Combined Sewer Overflows
CUP	Conditional Use Permit
CUPA	Certified Unified Program Agency

Abbreviations and Acronyms

CWA	Clean Water Act
dB	decibel
dBA	A-weighted decibel
EIR	Environmental Impact Report
EIS	Environmental Impact Statement
EPCRA	Emergency Planning and Community Right-to-Know Act
FDPA	Flood Disaster Protection Act
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FIRM	Flood Insurance Rate Map
FRA	Federal Railroad Administration
FTA	Federal Transit Administration
HCM	Highway Capacity Manual
HMS	Hazardous Materials Sites database
HVAC	Heating, Ventilating, and Air Conditioning System
HWMP	Hazardous Waste Management Plan
IPCC	Intergovernmental Panel on Climate Change
IRWD	Irvine Ranch Water District
ITAM	Irvine Transportation Analysis Model
IUDA	Industry Urban Development Agency
IUSD	Irvine Unified School District
IWMP	Integrated Waste Management Plan
L _{dn}	day-night noise level
LEPC	Local Emergency Planning Committee
L _{eq}	equivalent continuous noise level
LOS	Level of Service
LST	Localized Significance Thresholds
LUFT	Leaking Underground Fuel Tank
MCL	Maximum Contaminant Level
MEP	Maximum Extent Practical
mgd	million gallons per day
MRF	Materials Recovery Facility
MSDS	Material Safety Data Sheets

Abbreviations and Acronyms

msl	mean sea level
MSW	Municipal Solid Waste
MTBE	methyl tert-butyl ether
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NFIP	National Flood Insurance Program
NHPA	National Habitat Preservation Authority
NITM	North Irvine Transportation Mitigation Program
NOI	Notice of Intent
NOP	Notice of Preparation
NO _x	nitrogen oxides
NPDES	National Pollution Discharge Elimination System
NPDWR	National Primary Drinking Water Regulations
NPL	National Priorities List
O ₃	ozone
OCFA	Orange County Fire Authority
OES	California Office of Emergency Services
Pb	lead
PCE	perchloroethylene
PM	particulate matter
POTW	Publicly Owned Treatment Works
PPV	Peak Particle Velocity
RCP	Reinforced Concrete Pipe
RCRA	Resource Conservation and Recovery Act
REC	Recognized Environmental Conditions
RMP	Risk Management Plans
RMS	root mean square
ROG/VOC	Reactive Organic Gases/Volatile Organic Gases
RWQCB	Regional Water Quality Control Board
SB	Senate Bill
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SDWA	Safe Drinking Water Act

Abbreviations and Acronyms

SERC	State Emergency Response Commission
SFHA	Special Flood Hazard Areas
SIC	Standard Industrial Codes
SoCAB	South Coast Air Basin
SO _x	sulfur oxides
SPCC	Spill Prevention, Control and Countermeasure
SQMP	Stormwater Quality Management Plan
SRA	Source Receptor Area
SUSMP	Standard Urban Stormwater Mitigation Plan
SVOC	Semi-Volatile Organic Compounds
SWPPP	Stormwater Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TAC	Toxic Air Contaminants
TCE	trichloroethylene
TNM	Transportation Noise Model
tpd	tons per day
tpd-6	tons per day (six-day average)
TRI	Toxic Release Inventory
TTCP	Traditional Tribal Cultural Places
UBC	Uniform Building Code
USACE	U.S. Army Corps of Engineers
USDOT	United States Department of Transportation
USEPA	United States Environmental Protection Agency
UST	Underground Storage Tank
UWMP	Urban Water Management Plan
V/C	volume-to-capacity ratio
VdB	velocity decibels
VOC	Volatile Organic Compounds
WDR	Waste Discharge Requirements
WIP	Well Investigation Program
WQMP	Water Quality Management Plan
WRD	Water Replenishment District of Southern California
WRP	Water Reclamation Plant

Abbreviations and Acronyms

This page intentionally left blank.