

Table of Contents

Acronyms and Abbreviations	xi
Executive Summary	ES-1
1.1 - Purpose.....	ES-1
1.2 - Project Summary	ES-1
1.3 - Significant Unavoidable Adverse Impacts	ES-2
1.4 - Summary of Project Alternatives.....	ES-3
1.5 - Areas of Controversy	ES-4
1.6 - Public Review of the Draft EIR	ES-5
1.7 - Executive Summary Matrix.....	ES-7
Section 1: Introduction	1-1
1.1 - Overview of the CEQA Process.....	1-1
1.2 - Scope of the EIR.....	1-3
1.3 - Organization of the EIR.....	1-7
1.4 - Documents Incorporated by Reference.....	1-9
1.5 - Documents Prepared for the Project	1-9
1.6 - Review of the Draft EIR.....	1-10
Section 2: Project Description	2-1
2.1 - Project Location, Setting, and Introduction	2-1
2.2 - Project Summary	2-1
2.3 - Project Objectives.....	2-21
2.4 - Existing Conditions	2-22
2.5 - Project Detail	2-23
2.6 - Intended Uses of this Draft EIR.....	2-40
Section 3: Environmental Impact Analysis	3-1
Organization of Issue Areas	3-1
Issues Addressed in this EIR	3-1
Level of Significance	3-1
Impact Analysis and Mitigation Measure Format	3-2
3.1 - Aesthetics, Light, and Glare.....	3.1-1
3.2 - Agricultural Resources.....	3.2-1
3.3 - Air Quality/Greenhouse Gas Emissions.....	3.3-1
3.4 - Biological Resources	3.4-1
3.5 - Cultural Resources.....	3.5-1
3.6 - Geology, Soils, and Seismicity.....	3.6-1
3.7 - Hazards and Hazardous Materials.....	3.7-1
3.8 - Hydrology and Water Quality	3.8-1
3.9 - Land Use, Population, and Housing	3.9-1
3.10 - Noise.....	3.10-1
3.11 - Public Services and Recreation.....	3.11-1
3.12 - Transportation and Traffic	3.12-1
3.13 - Utilities and Service Systems	3.13-1
Section 4: Cumulative Effects	4-1
4.1 - Introduction.....	4-1
4.2 - Cumulative Impact Analysis	4-2

Section 5: Alternatives to the Proposed Project..... 5-1

- 5.1 - Introduction 5-1
- 5.2 - Project Objectives 5-3
- 5.3 - No Project Alternative..... 5-3
- 5.4 - Reduced Intensity Alternative..... 5-4
- 5.5 - Environmentally Superior Alternative..... 5-8
- 5.6 - Alternatives Rejected From Further Consideration 5-9

Section 6: Other CEQA Considerations..... 6-1

- 6.1 - Significant Unavoidable Impacts..... 6-1
- 6.2 - Growth-Inducing Impacts 6-2
- 6.3 - Mandatory Findings of Significance 6-2
- 6.4 - Energy Conservation 6-3

Section 7: Effects Found not to be Significant 7-1

- 7.1 - Introduction 7-1
- 7.2 - Effects Found not to be Significant 7-1

Section 8: Persons and Organizations Consulted/List of Preparers 8-1

- 8.1 - Persons and Organizations Consulted..... 8-1
- 8.2 - List of Preparers 8-4

Section 9: References 9-1

Appendices

Appendix A: Notice of Preparation and Responses

- A.1 - Notice of Preparation
- A.2 - Revised Notice of Preparation
- A.3 - Responses
- A.4 - Draft EIR Comments

Appendix B: Air Quality and Greenhouse Gas Supporting Information

- B.1 - AQ GHG Model Assumptions
- B.2 - CalEEMod Results
- B.3 - Roadway Screening Calculator
- B.4 - Health Risk Assessment Construction Screening Results

Appendix C: Biological Resource Evaluation Peer Review

- C.1 - Biological Resources Analysis
- C.2 - Peer Review
- C.3 - Arborist Report
- C.4 - Additional Referenced Reports

Appendix D: Cultural Resources Supporting Information

- D.1 - NAHC Letters
- D.2 - Site Photographs
- D.3 - Paleontological Record Search

Appendix E: Geotechnical Supporting Information

- E.1 - Preliminary Geotechnical Report
- E.2 - Geotechnical Exploration

Appendix F: Phase I Environmental Site Assessments

- F.1 - Phase I Environmental Site Assessment, ENGEO, 2015
- F.2 - Phase I Environmental Site Assessment, ENGEO, 2009

Appendix G: Hydrologic Supporting Information

- G.1 - Preliminary Stormwater Management Plan
- G.2 - Hydrologic Modeling of Stormwater Infrastructure

Appendix H: Noise Modeling Data

- H.1 - Noise Monitoring Data
- H.2 - Federal Highway Administration Traffic Noise Model Data
- H.3 - Roadway Construction Noise Model Data

Appendix I: Traffic Impact Study

Appendix J: Water Supply Evaluation

Appendix K: Public Services Responses

Appendix L: The Proposed Tassajara Valley Agricultural Enhancement Area

Appendix M: Potential Future Fire District Parcel Agreements

List of Tables

Table ES-1: Executive Summary Matrix	ES-9
Table 1-1: NOP Comment Letters	1-4
Table 1-2: Draft EIR Comments.....	1-5
Table 2-1: Summary of Preservation Areas	2-13
Table 2-2: Summary of Ground Disturbance Areas	2-14
Table 3.2-1: Contra Costa County Agricultural Economy (2010–2013)	3.2-1
Table 3.2-2: Contra Costa County Top Ten Crop Values (2014).....	3.2-1
Table 3.2-3: Important Farmland Summary (2004–2012)	3.2-2
Table 3.2-4: Storie Index Ratings and Land Capability Class.....	3.2-5
Table 3.3-1: Air Quality Monitoring Summary.....	3.3-4
Table 3.3-2: San Francisco Bay Area Air Basin Attainment Status	3.3-6
Table 3.3-3: 2005 Unincorporated County Baseline by Sector (excluding Stationary Source Emissions)	3.3-9
Table 3.3-4: Description of Air Pollutants.....	3.3-11
Table 3.3-5: BAAQMD Thresholds of Significance	3.3-38
Table 3.3-6: Construction Criteria Air Pollutants Emissions (Annual Tons)	3.3-49
Table 3.3-7: 2017 Construction Criteria Air Pollutants Emissions (Average Daily Rate)	3.3-49
Table 3.3-8: 2018 Construction Criteria Air Pollutants Emissions (Average Daily Rate)	3.3-50
Table 3.3-9: 2019 Construction Criteria Air Pollutants Emissions (Average Daily Rate)	3.3-50

Table 3.3-10: 2020 Construction Criteria Air Pollutants Emissions (Average Daily Rate) 3.3-51

Table 3.3-11: Mitigated Annual Construction Criteria Air Pollutants Emissions 3.3-51

Table 3.3-12: 2017 Mitigated Construction Criteria Air Pollutants Emissions (Average Daily Rate) 3.3-52

Table 3.3-13: 2018 Mitigated Construction Criteria Air Pollutants Emissions (Average Daily Rate) 3.3-52

Table 3.3-14: 2019 Mitigated Construction Criteria Air Pollutants Emissions (Average Daily Rate) 3.3-53

Table 3.3-15: 2020 Mitigated Construction Criteria Air Pollutants Emissions (Average Daily Rate) 3.3-53

Table 3.3-16: Annual Operational Emissions—Phase 1 (100 homes) (2018)..... 3.3-54

Table 3.3-17: Daily Operational Emissions (2018) (Summer)..... 3.3-55

Table 3.3-18: Daily Operational Emissions (2018) (Winter) 3.3-55

Table 3.3-19: Annual Operational Emissions—Buildout (125 homes) (2020)..... 3.3-56

Table 3.3-20: Daily Operational Emissions (2020) (Summer)..... 3.3-56

Table 3.3-21: Daily Operational Emissions (2020) (Winter) 3.3-56

Table 3.3-22: Construction Health Risk Assessment Summary for the NW Receptor Quadrant—Unmitigated Emissions 3.3-60

Table 3.3-23: Construction Health Risk Assessment Summary for the NW Receptor Quadrant with Mitigation 3.3-60

Table 3.3-24: Screening Health Risk Assessment Cumulative Results 3.3-62

Table 3.3-25: Odor Screening Distances..... 3.3-63

Table 3.3-26: Construction Greenhouse Gas Emissions..... 3.3-66

Table 3.3-27: Unmitigated Project Greenhouse Gas Emissions (2020)..... 3.3-67

Table 3.3-28: Mitigated Project Greenhouse Gas Emissions (2020) 3.3-68

Table 3.3-29: Contra Costa County CAP Consistency Analysis 3.3-71

Table 3.3-30: Reductions from Greenhouse Gas Regulations..... 3.3-72

Table 3.3-31: Scoping Plan Consistency Analysis 3.3-74

Table 3.4-1: Additional Special-Status Plant Species with Potential to Occur within the Project Site 3.4-11

Table 3.4-2: General Plan Biological Resource Goal and Policy Consistency 3.4-78

Table 3.5-1: Known Cultural Resources Located within a 0.5-mile Radius of Southern Site 3.5-9

Table 3.5-2: Known Cultural Resources Located within a 0.5-Mile Radius of the Northern Site 3.5-9

Table 3.5-3: Cultural Resources Reports Conducted within 0.5 Mile of the Southern Site 3.5-9

Table 3.5-4: Cultural Resources Reports Conducted within 0.5-Mile of the Northern Site 3.5-10

Table 3.7-1: Aerial Photograph Summary.....	3.7-3
Table 3.7-2: Indoor Radon Testing Summary.....	3.7-7
Table 3.8-1: Dublin Meteorological Summary	3.8-1
Table 3.9-1: Surrounding Land Use and Zoning Designations—Northern Site	3.9-2
Table 3.9-2: Surrounding Land Use and Zoning Designations—Southern Site	3.9-3
Table 3.9-3: Population, Housing, and Employment Characteristics of Unincorporated Contra Costa County (2015).....	3.9-9
Table 3.9-4: Contra Costa County Unincorporated Historic Population Growth	3.9-9
Table 3.9-5: Contra Costa County Population Growth Projections	3.9-9
Table 3.9-6: Contra Costa County Historic Housing Growth	3.9-10
Table 3.9-7: Consistency with EBMUD Policy 3.01 Exceptions	3.9-37
Table 3.10-1: Typical A-Weighted Noise Levels	3.10-2
Table 3.10-2: Typical Construction Equipment Maximum Noise Levels, L_{max}	3.10-3
Table 3.10-3: Vibration Levels of Construction Equipment	3.10-4
Table 3.10-4: Existing Traffic Noise Levels	3.10-9
Table 3.10-5: Summary of EPA Recommended Noise Levels to Protect Public Welfare	3.10-10
Table 3.10-6: Federal Transit Administration Construction Vibration Impact Criteria	3.10-11
Table 3.10-7: Construction Noise Model Results Summary (dBA)	3.10-20
Table 3.10-8: Existing and Future Modeled Roadway Noise Levels ¹	3.10-24
Table 3.11-1: Fire and Emergency Medical Services Apparatus	3.11-1
Table 3.11-2: Response Times	3.11-2
Table 3.11-3: Sheriff Response Times.....	3.11-4
Table 3.11-4: Local School Summary (2015–2016).....	3.11-4
Table 3.11-5: Local Park Summary.....	3.11-5
Table 3.11-6: Regional Parks Summary.....	3.11-6
Table 3.11-7: School Enrollment and Student Generation Summary.....	3.11-14
Table 3.12-1: Existing Conditions Intersection Delay and LOS Results	3.12-11
Table 3.12-2: Existing Conditions Queuing Results.....	3.12-12
Table 3.12-3: Existing Conditions Freeway Analysis	3.12-13
Table 3.12-4: Intersection LOS Definitions	3.12-24
Table 3.12-5: Freeway Segment LOS Criteria.....	3.12-25
Table 3.12-6: Tassajara Parks Trip Generation	3.12-27
Table 3.12-7: Existing Plus Project Conditions Intersection Delay and LOS.....	3.12-35
Table 3.12-8: Existing Plus Project Conditions Queuing Results.....	3.12-36

Table 3.12-9: Existing Plus Project Conditions Freeway Analysis 3.12-37

Table 3.12-10: Near-Term Plus Project Conditions Intersection Delay and LOS 3.12-45

Table 3.12-11: Near-Term Plus Project Conditions Queuing Results 3.12-51

Table 3.12-12: Near-Term Plus Project Conditions Freeway Analysis 3.12-53

Table 3.12-13: Cumulative (2035) Plus Project Conditions Intersection Delay and LOS 3.12-59

Table 3.12-14: Cumulative (2035) Plus Project Conditions Queuing Results 3.12-67

Table 3.12-15: Cumulative (2035) Plus Project Conditions Freeway Analysis 3.12-68

Table 3.12-16: School Dismissal Intersection Delay and LOS 3.12-75

Table 3.13-1: Landfill Summary 3.13-14

Table 3.13-2: Summary of Proposed Project Demand Factors 3.13-24

Table 3.13-3: Summary of Non-Residential Demand Factors 3.13-24

Table 3.13-4: Estimated Project Water Demands 3.13-25

Table 3.13-5: Proposed Project Water Demands under Dry-Year Conditions 3.13-26

Table 3.13-6: Assessment of Sufficiency of CPUD Supplies (Option 1) 3.13-29

Table 3.13-7: Assessment of Sufficiency of Off-site Water Conservation (Option 2) 3.13-30

Table 3.13-8: Construction Solid Waste Generation 3.13-37

Table 3.13-9: Operational Solid Waste Generation 3.13-38

Table 3.13-10: Operational Energy Consumption Estimate 3.13-39

Table 4-1: Cumulative Projects 4-1

Table 5-1: Reduced Density Alternative Residential Trip Generation 5-7

Table 5-2: Summary of Alternatives 5-8

Table 6-1: Approximate Construction Fuel Consumption 6-6

Table 6-2: Approximate Transportation Fuel Consumption Estimate 6-6

List of Exhibits

Exhibit 2-1: Regional Location Map 2-3

Exhibit 2-2: Local Vicinity Map, Aerial Base 2-5

Exhibit 2-3a: Northern Site, Aerial Base 2-7

Exhibit 2-3b: Southern Site, Aerial Base 2-9

Exhibit 2-4: Areas of Disturbance 2-11

Exhibit 2-5: Development, Preservation, and Potential Future Fire District Parcel 2-17

Exhibit 2-6: Proposed Urban Limit Line 2-19

Exhibit 2-7: Residential Site Plan 2-25

Exhibit 2-8: Preliminary Landscaping Plan..... 2-27

Exhibit 2-9: Conceptual Future Equestrian Staging Area..... 2-29

Exhibit 2-10: Grading Impact Areas 2-35

Exhibit 2-11: Depth of Cut and Fill..... 2-37

Exhibit 2-12a: Proposed General Plan Land Use Designations, Northern Site 2-43

Exhibit 2-12b: Proposed General Plan Land Use Designations, Southern Site 2-45

Exhibit 2-13a: Proposed Zoning Designation—Northern Site 2-47

Exhibit 2-13b: Proposed Zoning Designation—Southern Site 2-49

Exhibit 2-14: Development Plan 2-51

Exhibit 3.1-1: Designated Scenic Ridges 3.1-7

Exhibit 3.1-2: Visual Simulation—From Proposed Trail Looking Southwest..... 3.1-9

Exhibit 3.1-3: Visual Simulation—From Camino Tassajara Looking Northwest..... 3.1-11

Exhibit 3.1-4: Visual Simulation—From Camino Tassajara Looking Northeast 3.1-13

Exhibit 3.1-5: Visual Simulation View Point Locations..... 3.1-15

Exhibit 3.1-6: Views from Tassajara Ridge Trail 3.1-21

Exhibit 3.1-7: Conceptual Architectural Styles 3.1-23

Exhibit 3.2-1: Farmland Classifications for the Tassajara Project 3.2-7

Exhibit 3.4-1: Wetland Delineation 3.4-5

Exhibit 3.4-2: CNDDB Occurrences within Two Miles of the Project Site..... 3.4-9

Exhibit 3.4-3: Known Records for Special-Status Plant Species—Northern Site 3.4-15

Exhibit 3.4-4: Known Records for Special-Status Plant Species—Southern Site 3.4-17

Exhibit 3.4-5: Known Records for Special-Status Wildlife Species—Northern and
Southern Site 3.4-23

Exhibit 3.4-6: USFWS Designated Critical Habitats in the Project Vicinity 3.4-25

Exhibit 3.4-7: Special-Status Plant Species—Potential Impacts 3.4-59

Exhibit 3.4-8: Potentially Impacted Wetlands 3.4-85

Exhibit 3.6-1: Northern Site Soil Geologic Conditions 3.6-9

Exhibit 3.6-2: Preliminary Grading and Drainage Plan 3.6-19

Exhibit 3.9-1: Existing General Plan Land Use Designations 3.9-5

Exhibit 3.9-2: Existing Zoning Designations..... 3.9-7

Exhibit 3.9-3a: Proposed General Plan Land Use Designations, Northern Site 3.9-13

Exhibit 3.9-3b: Proposed General Plan Land Use Designations, Southern Site..... 3.9-15

Exhibit 3.9-4a: Proposed Zoning Designation—Northern Site 3.9-19

Exhibit 3.9-4b: Proposed Zoning Designation—Southern Site 3.9-21

Table of Contents

Exhibit 3.10-1: Noise Monitoring Locations..... 3.10-7

Exhibit 3.10-2: Land Use Compatibility Standards 3.10-13

Exhibit 3.10-3: Modeled Receptor Locations 3.10-21

Exhibit 3.12-1: Project Study Area and Vicinity 3.12-3

Exhibit 3.12-2: Existing Conditions Lane Geometry and Traffic Control 3.12-5

Exhibit 3.12-3: Existing Conditions Peak Hour Turning Movements..... 3.12-15

Exhibit 3.12-4: Project Trip Distribution..... 3.12-29

Exhibit 3.12-5: Project Trip Assignment 3.12-31

Exhibit 3.12-6: Existing Plus Project Conditions Peak Hour Turning Movements 3.12-41

Exhibit 3.12-7: Near-Term Intersection Peak Hour Turning Movements 3.12-47

Exhibit 3.12-8: Near-Term Plus Project Peak Hour Turning Movements 3.12-49

Exhibit 3.12-9: Cumulative (2035) Peak Hour Turning Movements..... 3.12-61

Exhibit 3.12-10: Cumulative (2035) Plus Project Peak Hour Turning Movements..... 3.12-63

Exhibit 3.12-11: School Dismissal Intersection Turning Movements 3.12-77

Exhibit 3.12-12: School Parking Lot Conceptual Recommendations 3.12-79

Exhibit 3.12-13: Primary Access Driveway Recommended Geometry and Considerations..... 3.12-83

Exhibit 3.12-14: Future Equestrian Staging Area Driveway Recommended Geometry and
Considerations..... 3.12-87

Exhibit 3.13-1: Historic Monthly Storage Volumes at Schaads Reservoir 3.13-5

Exhibit 3.13-2: Monthly Storage Volumes at Schaads Reservoir with Maximum Deliveries
to West Point 3.13-9

Exhibit 3.13-3: 20-Year Reservoir Storage Record at Schaads Reservoir 3.13-31