



180 Grand Avenue
Suite 1050
Oakland, CA 94612
510.839.5066 [phone](#)
510.839.5825 [fax](#)

esassoc.com

memorandum

date June 10, 2021

to Jeff Schwilk, AICP, Associate Planner, Planning Division,
City of Santa Clara

cc Alexander Abbe, Assistant City Attorney
City of Santa Clara

from Elizabeth Kanner, Senior Managing Associate
Environmental Science Associates

subject City Place Revised Soil Import and Earthwork Plans Project Addendum
Planning/CEQA file number PLN2019-14249 (PLN2014-10554/CEQ2014-01180/SCH2014072078)

Related Santa Clara, Project Applicant for the City Place Santa Clara Project (Original Project), is proposing a revision to the Original Project's earthwork plan.¹ The proposed City Place Revised Soil Import and Earthwork Plans Project (Revised Project) involves changes in the methodology and phasing of the site preparation and grading activities for Phases 1 through 4 on Parcels 4 and 5 in relation to the original Project in the EIR. The Revised Project site is located within the Original Project, for which the City of Santa Clara certified an Environmental Impact Report on June 28, 2016, pursuant to the California Environmental Quality Act (CEQA) and approved General Plan amendments, zoning amendments (including a Master Community Plan or MCP) and other entitlements. Since certification of the EIR, the City adopted three addenda to the EIR in connection with its approval of Development Area Plans (DAP) for Phases 1 and 2 of the Original Project and an Interim Parking Rights Agreement.

The Original Project includes conversion of 240-acres of City-owned property into a multi-phase, mixed-use development. The Project site, as analyzed in the EIR, consists of five parcels: Parcel 1 (36.8 acres), Parcel 2 (60.9 acres), Parcel 3 (34.9 acres), Parcel 4 (86.6 acres), and Parcel 5 (8 acres), which will be further subdivided and developed in approximately eight phases pursuant to the approved MCP and subsequent DAPs. As analyzed in the EIR, the Project included movement of soils cut from one or more parcels to be used for fill at one or more other parcels in order for soils to be balanced within the confines of the Project site. Soils on Parcel 5 were to be moved to other parcels, including approximately 188,650 cubic yards (cy) to Parcel 4 and approximately 28,860 cy of soil to Parcel 2. Soils on Parcel 3 (approximately 287,570 cy) were to be moved to Parcel 4, for a total of approximately 476,220 cy of soil moved to Parcel 4. In addition, soils on Parcel 1 (approximately 46,750 cy)

¹ Although the City Place Santa Clara Project is now referred to as "Related Santa Clara," this addendum uses "City Place Santa Clara" as that is consistent with the naming in the CEQA documents and the Master Community Plan.

were to be moved to Parcel 2, for a total of approximately 75,620 cy of soil moved to Parcel 2. In total, Project construction was to include a total of approximately 551,840 cy of soil moved to Parcels 4 and 2 and a total of approximately 551,840 cy of soil removed from Parcels 1, 3, and 5, and all of these soils were to remain within the Project site. No import or export of soil was proposed to or from off-site locations and off-site import and export of soil was not analyzed in the EIR.

The Revised Project involves changes in the methodology and phasing of the site preparation and grading activities for Phases 1 through 4 on Parcels 4 and 5. It focuses primarily on the change in the type of earthwork,² including importing soil and stockpiling soil for periods longer than 10 days to support construction activities and site preparation, and the change in grading phasing in comparison to the original Project analyzed in the EIR. The Revised Project would avoid cutting into the Parcel 3 hill, and instead import a substantial amount of soil from off-site. The approximately 782,600 cubic yards of imported soil would come from construction projects within a projected 20 miles of the Project site that cannot balance the soil on their sites and thus require excavated soil to be hauled off-site. An estimated 62,616 haul trucks carrying approximately 12.5 cubic yards of soil per load would be required to import the off-site soil.

Purpose

CEQA Guidelines Section 15164 (Addendum to an EIR or Negative Declaration) provides that an Addendum to an EIR shall be prepared if some changes or additions are necessary but none of the conditions of Section 15162 calling for preparation of a subsequent EIR have occurred (see below). The Guidelines provide that a brief explanation of the decision not to prepare a subsequent or supplemental EIR pursuant to Section 15162 should be included in an addendum, in the lead agency's findings, or elsewhere in the record, and requires that decision to be supported by substantial evidence. The Project Applicant prepared the *Draft City Place Revised Soil Import and Earthwork Plans Preliminary Environmental Analysis*, which was subsequently peer reviewed by the City of Santa Clara's environmental consultants (ESA). ESA and the City provided peer review comments to the Project Applicant and those comments have been addressed in the *June 2021] City Place Revised Soil Import and Earthwork Plans Preliminary Environmental Analysis* (Revised Project EA) (see Attachment A).

The purpose of the Revised Project EA and its supporting technical reports is to: describe the Revised Soil Import Project in comparison to the Original Project analyzed in the EIR; provide the required brief explanation of the decision that the Revised Project does not give rise to the conditions calling for preparation of a subsequent environmental impact report; and provide the substantial evidence supporting that conclusion.

CEQA Overview

The Revised Project EA summarizes the impacts and findings of the certified City Place EIR, provides a comparison of the Revised Project to the Original Project analyzed in the EIR, and evaluates the potential environmental impacts that may result from the Revised Project. Pertinent mitigation measures identified in the City Place EIR that would apply to the Revised Project are listed in the Revised Project EA. If the Revised Project EA inadvertently misidentifies or omits a mitigation measure identified in the EIR, the applicability of that mitigation measure to the Revised Project is not affected.

² For the purposes of this analysis, "earthwork" is a generic term used in the EIR to refer to the amount of soil moved at the site either through "cut" (taken from the ground) or "fill" (placed onto or into the ground).

As demonstrated in the Revised Project EA, none of the conditions for preparation of a subsequent EIR per CEQA Guidelines Section 15162 apply to the Revised Project:

- (a) When an EIR has been certified or a negative declaration adopted for a project, no subsequent EIR shall be prepared for that project unless the lead agency determines, on the basis of substantial evidence in the light of the whole record, one or more of the following:
 - (1) Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;
 - (2) Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or Negative Declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or
 - (3) New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the Negative Declaration was adopted, shows any of the following:
 - (A) The project will have one or more significant effects not discussed in the previous EIR or negative declaration;
 - (B) Significant effects previously examined will be substantially more severe than shown in the previous EIR;
 - (C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or
 - (D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.
- (b) If changes to a project or its circumstances occur or new information becomes available after adoption of a negative declaration, the lead agency shall prepare a subsequent EIR if required under subdivision (a). Otherwise the lead agency shall determine whether to prepare a subsequent negative declaration, an addendum, or no further documentation.
- (c) Once a project has been approved, the lead agency's role in project approval is completed, unless further discretionary approval on that project is required. Information appearing after an approval does not require reopening of that approval. If after the project is approved, any of the conditions described in subdivision (a) occurs, a subsequent EIR or negative declaration shall only be prepared by the public agency which grants the next discretionary approval for the project, if any. In this situation no other responsible agency shall grant an approval for the project until the subsequent EIR has been certified or subsequent negative declaration adopted.
- (d) A subsequent EIR or subsequent negative declaration shall be given the same notice and public review as required under Section 15087 or Section 15072. A subsequent EIR or negative declaration shall state where the previous document is available and can be reviewed.

Determination

Based on a review of the final Revised Project EA and supporting technical reports, ESA and the City staff conclude that the Revised Project is within the level of development approved as part of the MCP and analyzed in the EIR, and is generally consistent with the development assumptions within the EIR, and thus within the impact envelope of the Original Project as analyzed in the EIR. The information presented in the Revised Project EA and its appendices explains the substantial evidence supporting a finding that the Revised Project does not call for preparation of a subsequent or supplemental environmental impact report and none of the aforementioned conditions were found for the Revised Project. This memorandum and Attachment A constitute an addendum under CEQA Guidelines Section 15164, and no further analysis is needed.

Attachment A

PRELIMINARY ENVIRONMENTAL ANALYSIS

CITY PLACE REVISED SOIL IMPORT AND EARTHWORK PLANS

PREPARED FOR:

Related Santa Clara
5201 Great America Parkway, Suite 532
Santa Clara, CA 95054
Contact: John Siderides
(213) 393-3889

PREPARED BY:

ICF
201 Mission Street, Suite 1500
San Francisco, CA, 94105
Contact: Jennifer Andersen
(408) 418-0137

June 2021



ICF. 2021. *Preliminary Environmental Analysis for Revised Soil Import and Earthwork Plans*. June. (ICF 00333.14) 201 Mission Street, Suite 1500, San Francisco, CA. Prepared for the City of Santa Clara, Santa Clara, CA.

Contents

List of Tables	ii
List of Figures	ii
List of Acronyms and Abbreviations	iii
Chapter 1 Introduction	1-1
1.1 Project Title	1-1
1.2 Lead Agency Name and Address	1-1
1.3 Contact Person and Phone Number	1-1
1.4 Project Location	1-1
1.5 Project Overview	1-1
1.6 Project Applicant's Name and Address	1-2
1.7 Existing General Plan Designation	1-2
1.8 Existing Zoning	1-2
Chapter 2 Project Description	2-1
2.1 Project Location and Surroundings	2-1
2.2 Project Characteristics	2-1
2.2.1 Off-Site Import to Phase 1	2-3
2.2.2 Off-Site Import to Phase 2	2-6
2.2.3 Off-Site Import to Phases 3 and 4	2-6
2.3 Comparison of Original Project Analyzed in the EIR and Revised Project	2-7
2.4 Project Approvals	2-7
Chapter 3 Preliminary Environmental Analysis	3-1
3.1 Overview	3-1
3.1.1 Impacts Not Further Evaluated	3-2
3.2 Aesthetics	3-8
3.3 Biological Resources	3-10
3.4 Transportation	3-13
3.5 Air Quality	3-18
3.6 Greenhouse Gas Emissions	3-25
3.7 Noise and Vibration	3-27
3.8 Geology and Soils	3-30
3.9 Hazards and Hazardous Materials	3-31
Chapter 4 Conclusion	4-1
Appendix A Construction Traffic Projections – 2021	
Appendix B Technical Memo for Air Quality and Greenhouse Gas Emissions	

Tables

	Page
Table 2-1. Proposed Phasing for Revised Project	2-3
Table 2-2. Estimated Soil Import, Stockpiling, and Grading of Fill Material (Cubic Yards)	2-5
Table 2-3. Soil Movement under the Original Project and Revised Project (Cubic Yards)	2-8
Table 2-4. Earthwork under the Original Project and the Proposed Revised Project (Cubic Yards).....	2-8
Table 3-1. Revised Construction Activities, Start and End Dates, and Daily Trucks and Workers	3-14
Table 3-2. Revised Project Construction Traffic Estimates—Peak Construction Period.....	3-17
Table 3-3. Unmitigated Criteria Air Pollutant Emissions under the Revised Project.....	3-21
Table 3-4. Mitigated Criteria Air Pollutant Emissions under the Revised Project	3-22
Table 3-5. Existing versus Existing Plus Haul Truck Traffic Noise Modeling Results.....	3-29

Figures

	Page
2-1 Revised Project Construction Phasing	2-4

Acronyms and Abbreviations

AB	Assembly Bill
ACE	Altamont Corridor Express
APN	Assessor's Parcel Number
BAAQMD	Bay Area Air Quality Management District
BMX	bicycle-motocross
CalRecycle	California Department of Resources Recycling and Recovery
CEQA	California Environmental Quality Act
CH ₄	methane
CO ₂ e	carbon dioxide equivalent
City	City of Santa Clara
DFW	California Department of Fish and Wildlife
EPA	U.S. Environmental Protection Agency
General Plan	City of Santa Clara 2010–2035 General Plan
revised Project	City Place Revised Soil Import and Earthwork Plans Project
original Project	City Place Santa Clara Project
dB	decibels
EIR	Environmental Impact Report
EO	Executive Order
g/bhp-hr	grams per brake horsepower hour
GHG	greenhouse gas
gsf	gross square foot
LOS	level of service
LEA	Local Enforcement Agency
MT	metric tons
NAVD 88	North American Vertical Datum of 1988
NO _x	nitrogen oxides
PM _{2.5}	particulate matter 2.5 microns in diameter or less
PM ₁₀	Particulate matter 10 microns in diameter or less
PD-MC	Planned Development-Mater Community
QSD	Qualified SWPPP Developer
ROG	reactive organic gas
RWQCB	Regional Water Quality Control Board
SR	State Route
SWPPP	stormwater pollution prevention plan
TDM	Transportation Demand Management
USACE	U.S. Army Corps of Engineers
VMT	vehicle miles traveled

[page left blank intentionally]

1.1 Project Title

City Place Preliminary Environmental Analysis for Revised Soil Import and Earthwork Plans

1.2 Lead Agency Name and Address

City of Santa Clara
Planning Division
1500 Warburton Avenue
Santa Clara, CA 95050

1.3 Contact Person and Phone Number

Jeffrey Schwilk, Associate Planner
Planning Division
jschwilk@santacleara.gov
(408) 615-2456

1.4 Project Location

The City Place Revised Soil Import and Earthwork Plans Project (revised Project) is located on a portion of the site of the City Place Santa Clara Project (original Project). The original Project is located on seven legal parcels totaling approximately 240 acres, generally located north of Tasman Drive, east of Great America Parkway and San Tomas Aquino Creek, west of the Guadalupe River, and south of Great America Way and State Route (SR) 237. These parcels are Assessor's Parcel Numbers (APNs) 097-01-069 (which will be referred to as Parcel 1), 097-01-039 (which will be referred to as Parcel 2), 104-01-102 (which will be referred to as Parcel 3), 104-03-036 and 104-03-037 (which will be merged to form Parcel 4), and 104-03-038 and 104-03-039 (which will be merged to form Parcel 5). The revisions included in the revised Project include only Parcels 3, 4, and 5.

1.5 Project Overview

The original Project was adopted in June 2016, and included the conversion of 240 acres of City-owned property into a multi-phase, mixed-use development consisting of five development parcels (Parcels 1-5). The revised Project involves changes in the methodology and phasing of the site preparation and grading activities for Phases 1 through 4 on Parcels 4 and 5 in relation to the original Project, and involves the importation of soil from off-site, which was not contemplated with the original Project. All other characteristics of the original Project analyzed in the EIR would remain the same.

Under the revised Project, the total amount of earthwork being performed (the combined “cut” and “fill”) would decrease slightly from 1,730,000 cy under the original Project to 1,717,600 cy under the revised Project.¹ In addition, the type of earthwork would change substantially by reducing the amount of “cut” and increasing the amount of “fill”, including no longer taking 287,500 cy of cut from Parcel 3 or 217,510 cy of cut from Parcel 5; increasing the additional fill on Parcel 4 by 292,780 cy, importing off-site soil; and incorporating the use of temporary stockpiling during all phases under the revised Project. Project construction phasing would also be changed under the revised Project in a manner that prevents the increase in total truck trips from affecting the number of peak truck trips. In total, approximately 782,600 cy of off-site soil would be imported, and 913,100 cy of fill material would be graded during all phases of construction under the revised Project. To accommodate the earthwork under revised Project, 62,616 haul truck trips carrying approximately 12.5 cy per load would be required to import the off-site soil. .

1.6 Project Applicant’s Name and Address

Related Santa Clara
5201 Great America Parkway, Suite 532
Santa Clara, CA 95054

1.7 Existing General Plan Designation

Urban Center/Entertainment District

1.8 Existing Zoning

Planned Development-Master Community (PD-MC)

¹ “Earthwork” is a generic term used in the EIR to refer to the amount of soil moved at the site either through “cut” (taken from the ground) or “fill” (placed onto or into the ground).

2.1 Project Location and Surroundings

The City Place Revised Soil Import and Earthwork Plans Project (revised Project) is located on a portion (primarily Parcels 4 and 5) of the site of the City Place Santa Clara Project (original Project). The original Project included conversion of 240 acres of City-owned property into a multi-phase, mixed-use development.² The site of the original Project, as analyzed in the Environmental Impact Report (EIR), consists of five development parcels: Parcel 1 (36.8 acres), Parcel 2 (60.9 acres), Parcel 3 (34.9 acres), Parcel 4 (86.6 acres), and Parcel 5 (8 acres). The Project site also includes the Eastside Retention Basin (12.8 acres). Herein, “Project site” refers to the site of both the original Project and the revised Project, which, as noted above and described in the analysis below, affects only a portion of the entire site.

The Project site is generally located north of Tasman Drive, east of Great America Parkway and San Tomas Aquino Creek, west of the Guadalupe River, and south of Great America Way and SR 237. Most of the site was formerly utilized as a landfill; other portions of the Project site are currently occupied by a bicycle-motocross (BMX) track, the Ameresco Methane Plant, the Eastside Retention Basin, and a City of Santa Clara (City) vehicle washing station. The Santa Clara Golf & Tennis Club, and Fire Station 10, have been closed in advance of construction of Phase 1. All existing buildings on the Project site are located on Parcel 4. Surrounding uses include an industrial park that was recently redesignated for mixed-use development, including residential development (Tasman East), and Levi’s Stadium to the south; the 157,000-gross-square-foot (gsf) Santa Clara Convention Center (Convention Center) to the southwest; office uses (Santa Clara Gateway) to the north and northwest; and residential uses to the east, beyond the Guadalupe River. Access to the area of the Project site west of Lafayette Street is from Tasman Drive via Centennial Boulevard to Stars and Stripes Drive at the southern portion of the Project site. The northeastern portion of the Project site connects to Lafayette Street via an at-grade driveway.

The Project site is currently designated as Urban Center/Entertainment District under the City of Santa Clara 2010–2035 General Plan (General Plan). The City’s Zoning Code designates the Project site as Planned Development-Mater Community (PD-MC) and a Master Community Plan provides the zoning regulations for the site .

2.2 Project Characteristics

As noted above and described in more detail below in Section 2.3, *Comparison of Original Project Analyzed in the EIR and Revised Project*, the revised Project involves changes in the methodology and phasing of the site preparation and grading activities for Phases 1 through 4 on Parcels 4 and 5 in relation to the original Project in the EIR. All other characteristics of the original Project analyzed in the EIR would remain the same.

² Although the City Place Santa Clara Project is now referred to as “Related Santa Clara,” this memorandum uses “City Place Santa Clara” to be consistent with the naming in the CEQA documents.

For the purposes of this analysis, “earthwork” is a generic term used in the EIR to refer to the amount of soil moved at the site either through “cut” (taken from the ground) or “fill” (placed onto or into the ground). “Soil compaction,” as used in this analysis, is a type of earthwork that involves placing permanent fill on existing surfaces in order to prepare the site for later grading and construction activities. As discussed below, the changes to the earthwork plans in the revised Project do not substantially change the total amount of earthwork to be conducted at the facility (that total decreases slightly), but they do substantially change the type of earthwork, decreasing the amount of “cut” and increasing the amount of “fill.”

The Project Description in the EIR for the original Project stated, “Due to the underlying refuse, the site grading at Parcels 1, 2, 3, and 4 is expected to be complex. One important objective is to minimize disturbance of the underlying refuse. However, because of the irregular topography of the refuse, it may be necessary to cut into the refuse at some locations – or may it be encountered by accident.” Another objective of the original Project is “respecting the continuity and integrity of the Landfill cap (clay soil layer).” To accomplish these objectives, the original Project Description states that it will be necessary to develop “strict grading criteria” and “detailed protocols that will focus on minimizing disturbance required to grade the site” in consultation with the City and the Santa Clara County Department of Environmental Health, which serves as the Local Enforcement Agency (LEA) under the state landfill regulations (Draft EIR 2-32).

The revised Project results from development of the grading criteria and protocols to minimize disturbance of the landfill. The original Project Description called for 287,570 cubic yards (cy) to be cut from Parcel 3 and imported to Parcel 4 (see Draft EIR, p. 2-33). To avoid disturbance of the refuse and landfill cap as well as avoiding cutting into the Parcel 3 hill, it would be necessary to import a substantial amount of soil from off-site. This is a change from the original Project Description, which stated, “It is anticipated that soil would be balanced within the confines of the Project site and import and export of soil would not be necessary.”³

The soil imported to the Project site would come from construction projects that cannot balance the soil on their sites and thus require excavated soil to be hauled off-site. The Project Applicant has explored potential sources of such soil and is confident that the full amount of imported soil needed for Phase 2 within the necessary timeframe would be acquired from sites approximately 8 to 10 miles of the Project site. The Project Applicant anticipates the imported soils needed for Phases 3 and 4 can be acquired at sites within 15 miles of the Project site. Nevertheless, because soil availability is subject to changes beyond the control of the Project Applicant, this analysis conservatively assumes that the imported soil would come from 20 miles away, which is the default assumption for soil hauling used by the California Emissions Estimator Model (CalEEMod). To accommodate the earthwork under revised Project, 62,616 haul truck trips carrying approximately 12.5 cy per load would be required to import the off-site soil.

This description of the revised Project is based on the construction site plans and information provided by the Project Applicant. These plans are subject to further refinements after review by the City Planning Division, in collaboration with other City departments and reviewing agencies, through the development review process. Similar to the original Project analyzed in the EIR, the revised Project would be constructed in phases. As each of the revised Project phases are built, the

³ Draft EIR, p. 2-33. However, the evaluation of soil erosion impacts in the EIR characterizes this balancing of soil import and export as a goal that may not be fully achieved. One of the goals of the grading plan is to “balance the cut and fill on-site so that the need for soil import and export is minimized” (emphasis added) (Draft EIR, p. 3.9-20).

on-site infrastructure necessary, such as utilities and roadways, to support the development of the phase would be constructed in the portion of the site where that phase is being developed. On occasion, it would be necessary to construct infrastructure on portions of the revised Project site where future phases would be developed to connect to existing infrastructure and provide a path that would serve the phase that is under development. The refined grading and site improvement plans also resulted in some changes to the phasing of grading as well as site preparation activities reflected in the revised Project, including time periods during which these phases would overlap. Table 2-1 and Figure 2-1 shows the proposed phasing under the revised Project.⁴ This construction phasing applies to Parcels 4 and 5 only.

Table 2-1. Proposed Phasing for Revised Project^a

Phase	Development Parcel	Site Prep or Construction Start	Construction End
1	Parcel 5	May 2022	February 2025
2	Parcel 4	June 2021 ^b	May 2025
3	Parcel 4	January 2024	October 2026
4	Parcel 4	August 2025 ^c	March 2028

Source: Related, 2021.

Note:

^a While the timing may change, these are the projected durations and overlap between activities.

^b The June 2021 construction start date represents the start of early site preparation and soil compaction.

^c The start dates for Phases 3 and 4 reflect the start of construction; however, site preparation and the stockpiling of soil for Phase 2 within these two phase boundaries may occur in advance of those dates, as further explained in Table 2-2 below.

2.2.1 Off-Site Import to Phase 1

Under the revised Project, approximately 13,600 cy of soil import from off-site sources would be required to construct Phase 1 on Parcel 5, as depicted in Table 2-2 below. The import of 13,600 cy of soil from off-site to Phase 1 of the revised Project would be performed as a part of the phased construction activities. The soil would be imported to Phase 1 and graded from February 2023 to June 2023. During this time, approximately 1,088 truck trips would be required to deliver the 13,600 cy of off-site soil import to Phase 1.

Table 2-2 shows the estimated soil import, stockpiling, grading of fill material, and estimated activity duration under the revised Project for each phase. Table 2-2 does not include all construction activities that would occur in a given phase; a full list of activities by phase is provided in Table 3-1 below.

⁴ Pending project approval, the dates provided in the tables are subject to change, however, the durations and overlap of each of the phases would remain the same.



Overall Duration (Including Site P

PHASE 1	May 2022 - February 2025
PHASE 2	June 2021 - May 2025
PHASE 3	January 2024 - October 2026
PHASE 4	August 2025 - March 2028
PHASES 5-7	N/A

Source: Related Santa Clara, LLC, 2020.



Table 2-2. Estimated Soil Import, Stockpiling, and Grading of Fill Material (Cubic Yards)

Phase Boundaries (Activity Duration) ⁵	Soil Source	Import Quantities	Stockpiled >10 days	Directly Graded (Stockpiled <10 days)	Fill Compacted or Graded in This Phase
Phase 1					
Phase 1, Parcel 5 (2/23–6/23)	Phase 1 excavation (temporarily stockpiled on Phase 2)	0	0	130,500	130,500 ⁶
Phase 1, Parcel 5 (2/23–6/23)	Off-site	13,600	0	13,600	13,600
Phase 2					
Phase 2, Parcel 4 (6/21–1/22)	Off-site	347,300	82,900 ⁷	264,400	264,400 ⁸
Phase 2, Parcel 4 (5/22–6/23)	Phase 1 excavation	0	130,500	0	0
Phase 2, Parcel 4 (8/22–3/23)	Off-site (from Phase 2 stockpile – see above)	0	82,900	0	82,900
Phase 2, Parcel 4 (3/23–8/24)	Off-site	37,500	37,500	0	37,500
Phase 2, Parcel 4 (5/24–8/24)	Off-site (from Phases 3 and 4 stockpile - see below)	0	26,500 ^{7,9}	0	26,500
Phases 3 and 4					
Phases 3 and 4, Parcel 4 (6/21–8/24)	Off-site	26,500 ^{7,9}	26,500 ^{7,9}	0	0
Phases 3 and 4, Parcel 4 (Phase 3: 5/24–9/24) (Phase 4: 8/25–2/26)	Off-site	357,700 ¹⁰	0	357,700	357,700
Total Soil Import		782,600¹¹			

⁵ Start dates in Table 2-2 are based on current plans and are subject to change, either to earlier or later dates. However, the duration of each phase would be similar if the start date were to change.

⁶ An unknown portion of the 130,500 cubic yards could ultimately be compacted or graded in Phase 2, in which case the amount of soil from off-site in Phase 2 would decrease and the amount of soil from off-site in Phase 1 would increase.

⁷ Apportionment of the 109,400 cy stockpiled amounts imported from 6/21-1/22 between Phase 2 and Phases 3 and 4 is approximate.

⁸ A small amount of the compacted or graded soil would encroach into Phases 3 and 4 at their boundaries with Phase 2.

⁹ Soil to be imported and stockpiled temporarily within the Phase 3/4 boundaries until it is ultimately used for Phase 2 grading.

¹⁰ Apportionment of import amounts between Phase 3 and 4 is unknown at this time.

¹¹ Phase 1 requires approximately 13,600 cy of import. Phase 2 requires approximately 411,300 cy of import, which includes the 26,500 cy of import temporary stockpiled within the Phase 3/4 boundaries. Phases 3 and 4 require an approximate combined 357,700 cy of import. This equals a total of 782,600 cy of soil import.

2.2.2 Off-Site Import to Phase 2

During Phase 2 of construction, a total of approximately 411,300 cy¹² of off-site soil import would be required to complete Phase 2 and early site preparation and soil compaction within Parcel 4. It is anticipated that this quantity of import would require approximately 32,904 haul trips as well as additional off-road construction equipment to compact this fill material once on the site. The 411,300 cy of soil would be imported, compacted, and graded throughout multiple stages within the overall Phase 2 construction period. These stages are described below and summarized in table 2.2.

Of the 411,300 cy of imported soil required to complete Phase 2 site preparation, compaction, and grading, it is anticipated that 373,800 cy¹³ would be imported between June 2021 and January 2022. This includes 26,500 cy of soil import that would be temporarily stored within Phases 3 and 4 until August 2024, at which point it would be directly compacted or graded in the latter part of Phase 2. A total of approximately 29,904 haul trips would be required to import this material to the project site over this period. This activity is referred to as site preparation and soil compaction and grading because it would start prior to Phase 1 construction activity.

Of the 373,800 cy of soil imported over this period, approximately 264,400 cy would be directly compacted, and approximately 109,400 cy¹⁴ would be stockpiled for use throughout Phase 2 in subsequent compacting and grading activities. Of the 109,400 cy of stockpiled material for Phase 2, approximately 26,500 cy of material would encroach into the Phase 3 and Phase 4 boundaries until Phase 2 grading activities are complete. This early site preparation and compaction would also allow 130,500 cy of soil excavated during Phase 1 site preparation activities to be temporarily stockpiled within Phase 2. This 130,500 cy of material would eventually be regraded within the Phase 1 limits during Phase 1 rough grading (February 2023–June 2023). This Phase 1 excavation is anticipated to begin in May 2022 but may begin somewhat earlier or later.

Once the 373,800 cy of soil imported during early site preparation and soil compaction is in place, it is anticipated that an additional 37,500 cy of soil import would be required to complete the total import of 411,300 cy required to complete Phase 2 grading. The 37,500 cy of material is anticipated for import between March 2023 and August 2024. A total of approximately 3,000 haul trips would be required to import this material to the project site over this period..

2.2.3 Off-Site Import to Phases 3 and 4

Approximately 357,700 cy of off-site loose soil import would be required to construct Phases 3 and 4. Phases 3 and 4 would occur entirely on Parcel 4, and grading activities for these phases could overlap with the end of Phase 2. The import of 357,700 cy of soil from off-site to Phases 3 and 4 would occur as a part of the phased construction activities. During Phase 3, soil would be imported to, and graded within, Parcel 4 from May 2024 to September 2024; and, during Phase 4 from August 2025 to February 2026. During these times, approximately 28,624 truck trips would be required to deliver the 357,700 cy of off-site soil import to be graded within Phases 3 and 4. Additional construction equipment would be required for grading of the 357,700 cy of fill material once on-site.

¹² 347,300 cy + 26,500 cy + 37,500 cy from Table 2-2.

¹³ 347,300 cy + 26,500 cy shown in table 2.2

¹⁴ 82,900 cy + 26,500 cy shown in table 2.2

2.3 Comparison of Original Project Analyzed in the EIR and Revised Project

As mentioned above, the revised Project focuses primarily on the following changes in the construction approach compared to the original Project analyzed in the EIR: 1) changes in the type of earthwork, including importing and stockpiling soil for periods longer than 10 days to support site preparation and construction activities, and 2) changes in the phasing of site preparation, soil compaction, and grading. All other aspects of the original Project analyzed in the EIR, such as the types of construction equipment and activities, amount of development, and operational uses, would remain the same.

Under the revised Project, the total amount of earthwork being performed (the combined amount of “cut” and “fill”) would not substantially change and, in fact, would decrease slightly from 1,730,000 cy to 1,717,600 cy (see Table 2-4). However, the type of earthwork would change substantially by reducing the amount of “cut” and increasing the amount of “fill.” The most notable change from “cut” to “fill” is that there would no longer be 287,500 cy of cut from Parcel 3; there would be 293,280 cy of additional fill on Parcel 4. There would also be an introduction of off-site imported soil (approximately 782,600 cy)¹⁵ to the Project site for the entire revised Project in relation to the original Project analyzed in the EIR.

The changes in the type of earthwork and the introduction of off-site soil import would facilitate the revised Project’s goal to reduce significant cuts into the underlying landfill and its impermeable clay cap. Table 2-3 depicts the soil movement to all project parcels under the revised Project in comparison to the original Project analyzed in the EIR. In addition, Table 2-4 depicts the total amount of earthwork that would occur under the revised Project in comparison to the original Project analyzed in the EIR.

2.4 Project Approvals

The revised Project would require a number of actions and approvals, including, without limitation, the following.

Actions by the City of Santa Clara

- Approval of a license agreement to conduct grading and stockpiling activities on Parcel 4 prior to entering into a ground lease.
- Approval of Building Permits

Actions by Other Agencies

- Approval of Revised Landfill Closure Plan per construction phase by the Regional Water Quality Control Board, Local Enforcement Agency, and CalRecycle

¹⁵ 782,600 = 13,600 (Phase 1) + 384,800 (Phase 2) + 384,200 (Phases 3+4)

Table 2-3. Soil Movement under the Original Project and Revised Project (Cubic Yards)

Soil Movement Activity	Original Project EIR Analysis	Revised Project Analysis
Excavated from Parcel 5 to Parcel 4	188,650	0
Excavated from Parcel 5 to Parcel 2	28,860	0
Exported from Parcel 3 to Parcel 4	287,570	0
Exported from Parcel 1 to Parcel 2	46,750	46,750
Imported off-site for Parcel 5	0	13,600
Imported off-site for Parcel 4 ¹⁶	0	769,000

Table 2-4. Earthwork under the Original Project and the Revised Project (Cubic Yards)

Parcel	Original Project EIR Analysis	Revised Project Analysis
1	410,000	410,000
2	220,000	220,000
3	250,000	0
4	500,000	813,000
5	350,000	274,600
All	1,730,000	1,717,600

¹⁶ Of the soil imported to Parcel 4, approximately 411,300 cy would be used for Phase 2 and approximately 357,700 cy would be used between Phases 3 and 4.

Chapter 3

Preliminary Environmental Analysis

3.1 Overview

The California Environmental Quality Act (CEQA) recognizes that one or more of the following changes may occur between the date when an EIR is certified and a project is fully implemented.

1. The scope of the project may change.
2. The environmental setting in which the project is located may change.
3. Previously unknown information may arise.

CEQA requires a lead agency to evaluate these changes and determine whether they are significant or capable of otherwise substantially affecting the conclusions in a previously certified EIR. The analysis in this chapter summarizes the impacts and findings of the certified City Place EIR (EIR), provides a summary of the potential environmental impacts that may result from the revised Project, and provides a comparison of the revised Project to the original Project analyzed in the EIR. All mitigation measures identified in the EIR that would apply to the revised Project are listed in this chapter. If this preliminary environmental analysis or its attachment inadvertently misidentifies or omits a mitigation measure identified in the EIR, the applicability of that mitigation measure to the revised Project is not affected.

This preliminary environmental analysis hereby incorporates by reference the discussion and analysis of all potential environmental impact topics as presented in the EIR. Based on the limited scope of the revised Project, this CEQA Analysis identifies impact determinations which would be affected by the change in scope under the revised Project to determine if the conditions of Section 15162 calling for preparation of a subsequent EIR are met. This approach uses the significance criteria utilized in the EIR to organize the analysis and provide a determination of whether the revised Project would result in: (1) equal or less severity of impact previously identified in the EIR; (2) substantial increase in severity of previously identified significant impact in the EIR; and/or (3) new significant impact.

In addition, the EIR included a cumulative analysis, which assumed buildout of specific local projects in the city or adjacent cities, full implementation of City and County general plans, and where applicable, full implementation of the general plans of the nine Bay Area counties and associated cities. As described herein, the primary effects of the revised Project relate to construction impacts associated with haul trips. The severity of construction impacts related to the topics analyzed in this document would not substantially increase compared to the original Project, peak-hour construction trips would decrease under the revised Project, and operational impacts would not change compared to the original Project. Greenhouse gas emissions under the revised Project would increase from < 1 percent to < 3 percent compared to the original Project; however, as discussed in greater detail below, this increase would not result in a substantially more severe impact. Therefore, revised Project's contribution to cumulative construction impacts would not increase as compared to what was described in the EIR for the original Project. Also, as described below under Section 3.4, Transportation, construction related peak hour trips under the revised Project would decrease as compared to the original Project. Further, no new information of substantial importance has been

provided or otherwise identified that would result in new or substantially more severe significant impacts as a result of implementation of the revised Project. Nor has any such new information identified new or affected the feasibility of previously studied alternatives or mitigation measures. Although there may have been changes and updates to the relevant regulatory setting or the CEQA Guidelines Appendix G, these changes are not considered new information of substantial importance as described in the CEQA Guidelines.¹⁷ Additionally, they would not result in new physical impacts not previously analyzed or in substantially increasing the severity of previously identified physical impacts. Therefore, none of the aforementioned conditions of Section 15162 calling for preparation of a subsequent EIR were found for the revised Project, as demonstrated and throughout the following CEQA Analysis for topics related to aesthetics, biological resources, transportation, air quality, greenhouse gas (GHG) emissions, noise, geology and soils, and hazards and hazardous materials.

3.1.1 Impacts Not Further Evaluated

The proposed changes under the revised Project would not change the analysis of the following topics, as analyzed under the EIR.

- **Certain Aesthetics Impacts:** The EIR for the original Project concluded that with implementation of Mitigation Measures AES-2.1 (Installation of Low-Profile Lighting), AES-2.2 (Installation of Shielded Fixtures), AES-2.3 (Treat Reflective Surfaces), and AES 2.4 (Provide Obstruction for Glare from Vehicle Headlights in the Proposed Garages), there would be less-than-significant impacts related to the creation of a new source of substantial light or glare. Further, the original Project determined that there would be no impacts related to scenic resources along a State Scenic Highway or impacts on a scenic vista. The impact analysis and conclusions related to these aesthetics topics, specifically light and glare, scenic resources, and scenic vistas, from the EIR for the original Project remain applicable to the revised Project because the project footprint and overall square footage have not changed. See Section 3.2.2, below, for the evaluation of AES-1, Degradation of Visual Character or Quality.
- **All Agriculture and Forestry Resources:** The EIR for the original Project concluded that there would be no impact related to the conversion of Important Farmland or Williamson Act land and no conflict with existing zoning for forestland or timberland. In addition, the original Project would have no impact related to the loss of forestland or the conversion of forestland to non-forest use, as well as the conversion of agricultural and forestry land. The impact analysis and conclusions related to agriculture and forestry resources from the EIR for the original Project remain applicable to the revised Project because the project footprint and limits of ground disturbance have not changed.
- **Certain Air Quality Impacts.** The EIR for the original Project determined that there would be a significant and unavoidable impact related to conflicts with, or obstruction of, an applicable air quality plan, and operational criteria air pollutant emissions even with implementation of Mitigation Measures GHG-1.2 (Operational GHG Emissions Reduction Measures), TRA-1.1 (Vehicle Trip Reduction with Transportation Demand Management), and AQ-2.4 (Offset NO_x Emissions Generated during Construction that are above BAAQMD NO_x Average Daily Emission Threshold). Impacts related to the exposure of sensitive receptors to carbon monoxide hot spots would be less than significant. The EIR for the original Project determined

¹⁷ This also applies to the new vehicle miles traveled (VMT) threshold from CEQA Guidelines Appendix G. Furthermore, the revised Project only changes construction phasing and construction period impacts. Operational VMT would not be affected, and thus is not evaluated in this document.

that impacts related to the exposure of existing or new sensitive receptors to operational toxic air contaminant emissions would be less-than-significant with implementation of Mitigation Measure AQ-7.1 (Provide Filtration Systems for On-Site Residences and Daycare Centers as Necessary to Reduce Operational Cancer Risks and Exposure to Particulate Matter 2.5 Microns in Diameter or Less [PM_{2.5}]). Further, impacts related to the creation of objectionable odors would be less than significant with implementation of Mitigation Measure HAZ-2.1 (Finalize Waste Management Plan for Construction). The impact analysis and conclusions related to these air quality topics, specifically operational impacts, from the EIR for the original Project remain applicable to the revised Project because the project footprint and overall square footage have not changed. Changes to the amount of off-site soil import would not affect project operations and would only affect construction related air quality, which is discussed in Section 3.5, *Air Quality*. See Section 3.5, below, for the evaluation AQ-2, Construction Criteria Air Pollutant Emissions, and AQ-6, Exposure of Sensitive Receptors to Toxic Air Contaminant Emissions during Construction. Further, emissions of PM 10, which was the only pollutant considered for health risk impacts in the EIR, would decrease under the revised Project. Overall, PM 10 emissions have decreased substantially from the levels reported in the EIR. Although there is a chance that localized PM 10 emissions have increased because of the increase in truck trips, the magnitude of impact from truck trips is well below BAAQMD screening levels and for impacts from temporary construction. Therefore, the increase in haul truck trips compared with levels identified in the EIR would not result in considerable health risk impacts. There would be no new impact, impacts would not be more severe than those that were previously identified, and the conclusion in the EIR remains valid.

- **Certain Biological Resources Impacts:** The EIR for the original Project determined that there would be no impact related to the loss or damage to special-status plants, as well as impacts related to conflicts with a habitat conservation plan or natural community conservation plan. The original Project EIR determined that with implementation of Mitigation Measures BIO-1.1 (Protect Nesting Birds) and BIO-1.2 (Implement Bird-Safe Design Standards into Project Buildings and Lighting Design), the potential impact related to interference with the movement of native migratory species would be less than significant with mitigation. Further, Project impacts related to special-status species, such as the burrowing owl and western pond turtle, would be less than significant with implementation of Mitigation Measures BIO-2.1 (Detection of Burrowing Owls), BIO-2.2 (Mitigation for Loss of Burrowing Owl Habitat during construction), and BIO-3.1 (Protect Western Pond Turtles). In addition, impacts on special-status species and critical habitat, specifically the Central California coast steelhead and Central Valley fall-run Chinook salmon, would be less than significant with implementation of mitigation measure BIO-4.1 (Protect Central California Coast Steelhead, Critical Habitat, and Chinook Salmon). Finally, through Project compliance with City regulations for tree removal, the impact related to conflicts with local policies or ordinances protecting the City's Heritage trees would be less than significant. The impact analysis and conclusions related to these biological resources topics from the EIR for the original Project remain applicable to the revised Project because the project footprint and total square footage have not changed as a result of the revised Project, and no additional trees or previously undisturbed areas would be affected by the revised Project. See Section 3.3, below, for the evaluation of BIO-5, Substantial Effect on Wetlands and other Waters.
- **All Cultural Resources Impacts.** The EIR for the original Project determined that impacts related to disturbance of archaeological resources and paleontological resources would be less than significant with implementation of Mitigation Measures CR-1.1 (Conduct Extended

Phase I [XPI] Archaeological Investigations within the Project Site near Recorded Resources within an Area of Archaeological Sensitivity), CR-1.2 (Provide Archaeological Monitoring of the Project Site), CR-1.3 (Stop Work if Cultural Resources are Encountered during Ground Disturbing Activities), CR-2.1 (Paleontological Resource Mitigation Plan), CR-2.2 (Paleontological Resource Monitoring), and CR-2.3 (Paleontological Resource Reporting). Impacts related to disturbance of previously undiscovered human remains would also be less than significant with implementation of Mitigation Measure CR-3.1 (Stop Work if Human Remains are Encountered during Ground-Disturbing Activities). The impact analysis and conclusions related to cultural resources from the EIR for the original Project remain applicable to the revised Project because the project footprint and limits of ground disturbance have not changed.

- **Certain Geology and Soils Impacts:** The original Project EIR determined that there would be no impacts related to septic tanks and alternative wastewater systems and supporting soils. In addition, impacts related to unstable soils would be less than significant with implementation of Mitigation Measures GEO-2.1 (Design-Level Geotechnical Investigation), GEO-2.2 (Final Geotechnical Report Review), GEO-2.3 (Construction Quality Assurance Plan), GEO-2.4 (Final Project Design Review), GEO-2.5 (Site Operation, Monitoring, and Maintenance Plan), and GEO-2.6 (Review and Approval by Relevant Regulatory Agencies). Further, impacts related to fault rupture and/or strong ground shaking from a seismic event would be less than significant. The impact analysis and conclusions related to these geology and soils topics from the EIR for the original Project remain applicable to the revised Project because the project footprint and limits of ground disturbance have not changed. See Section 3.8, below, for evaluation of GEO-1, Soil Erosion.
- **Certain Greenhouse Gas Emissions Impacts:** The original Project EIR determined that impacts related to conflicts with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs would be less than significant for the Assembly Bill (AB) 32 Scoping Plan, less than significant with implementation of Mitigation Measures TRA-1.1 (Vehicle Trip Reduction with Transportation Demand Management) and GHG-1.2 (Operational GHG Emissions Reduction Measures) for the Santa Clara Climate Action Plan (CAP), and significant and unavoidable with implementation of Mitigation Measures TRA-1.1 and GHG-1.2 for Executive Orders (EOs) S-03-05 and B-30-15. The impact analysis and conclusions related to these GHG topics from the EIR for the original Project remain applicable to the revised Project because the project footprint and total square footage have not changed. Changes to the amount of off-site soil import would not affect project operation and would affect only construction-related greenhouse gas emissions (GHG-1), evaluated below in Section 3.6, *Greenhouse Gas Emissions*.
- **Certain Hazards and Hazardous Materials Impacts:** The original Project EIR determined that impacts related to the routine transport, use, or disposal of hazardous materials would be less than significant, as would impacts related to emitting or handling hazardous materials or waste within 0.25 mile of a school, public airport hazards, and impairing implementation of or physically interfering with an adopted emergency response plan or emergency evacuation plan. Further, the original Project EIR determined that impacts related to hazardous landfill contaminants would be less than significant with implementation of Mitigation Measures HAZ-4.1 (Landfill Closure, Monitoring, and Maintenance Plans), HAZ-4.2 (Landfill Gas Collection and Removal System), HAZ-4.3 (Landfill Gas Protection Systems), HAZ-4.4 (Landfill Gas Monitoring and Control System Maintenance), HAZ-4.5 (Building Restrictions), and HAZ-4.6

(Landfill Hazards Disclosure). Impacts related to subsurface contaminants would be less than significant with implementation of Mitigation Measures HAZ-5.1 (Phase II Site Investigation), and HAZ-5.2 (Soil and Groundwater Management Plan). The original Project EIR determined that impacts on groundwater would be less than significant with implementation of Mitigation Measure HAZ-6.1 (Finalize Draft Technical Memorandum: Leachate Collection and Removal System). There would be no impacts related to wildland fire and safety hazards for projects within the vicinity of a private airstrip. Finally, impacts related to subsurface fires would be less than significant with implementation of Mitigation Measures HAZ-9.1 (Subsurface Fire Prevention, Detection, and Response Plan), HAZ-9.2 (Subsurface Fire Prevention and Detection Measures), and HAZ-9.3 (Subsurface Fire Suppression). The impact analysis and conclusions for these hazards and hazardous materials topics from the EIR for the original Project remain applicable to the revised Project because the project footprint, construction assumptions regarding hazardous materials and wastes, and proposed uses have not changed. See Section 3.9, below, for the evaluation of HAZ-2, Accidental Release of Hazardous Materials.

- **All Hydrology and Water Quality Impacts:** The original Project EIR determined that impacts related to violations of water quality standards, or waste discharge requirements would be less than significant with implementation of Mitigation Measure WQ-1.1 (Design and Implement Stormwater Control Measures), as would impacts related to stormwater runoff. Impacts related to groundwater supplies and recharge and exposure of people or structures to flooding due to levee or dam failure would be less than significant. Impacts related to changes to the existing drainage patterns would be less than significant with implementation of Mitigation Measure WQ-3.1 (Design New Bridge and Outfall Structures to Avoid Increase in 100-year Flow and Channel Erosion) and WQ-3.2 (Vegetation Removal from the Retention Basin Drainage Swale). Further impacts related to degradation of water quality would be less than significant with implementation of Mitigation Measure BIO-5.1 and BIO-5.2, previously described under *Biological Resources*. In addition, impacts related to placing housing or structures within a 100-year flood hazard area would be less than significant with implementation of Mitigation Measure WQ-6.1 (Incorporate Flood Warnings for the Lick Mill Boulevard Extension and Other Access Roads for Areas Vulnerable to Flooding), as would impacts related to structural impedance of flood flows. The impact analysis and conclusions related to hydrology and water quality from the EIR for the original Project remain applicable to the revised Project because the project footprint and overall square footage have not changed. No new activities are proposed at the Project site under the revised Project that could adversely alter water quality.
- **All Land Use Impacts:** The original Project EIR determined that there would be significant and unavoidable impacts related to conflicts with adopted City land use plans and policies with regard to the jobs/housing balance as well as the airport land use plan and City policies related to airport noise. Impacts related to conflicts with adopted City land use plans and policies other than jobs/housing balance and airport noise would be less than significant. The impact analysis and conclusions related to land use from the EIR for the original Project remain applicable to the revised Project because the project footprint and overall proposed uses at the Project site have not changed.
- **All Mineral Resources Impacts:** The original Project EIR concluded that there would be no impacts on mineral resources because none are present at the Project site. The impact analysis and conclusions related to mineral resources from the EIR for the original Project remain applicable to the revised Project because the overall project footprint has not changed.

- **Certain Noise Impacts:** The original Project EIR determined that there would be no impacts related to noise associated with private airstrips. Impacts related to operational noise impacts to off-site uses would be significant and unavoidable with implementation of Mitigation Measure NOI-1.2 (Implement Off-Site Traffic Noise Reduction Measures). In addition, impacts related to operational noise impacts to on-site land uses would be significant and unavoidable with implementation of Mitigation Measure NOI-1.3 (Prepare and Implement a Noise Control Plan to Reduce Interior Noise at Sensitive Land Uses). Impacts related to construction vibration impacts to off-site receptors and existing light rail vibration impacts on on-site receptors would be less than significant, and impacts related to construction vibration impacts to on-site receptors would be less than significant with implementation of mitigation measure NOI-2.1 (Restrict Pile Driving). The original Project EIR determined that impacts related to existing train vibration impacts to on-site receptors would be less than significant with implementation of Mitigation Measure NOI-2.2 (Prepare and Implement a Vibration Control Plan to Reduce Vibration from the UPRR for Sensitive Land Uses). Impacts related to the permanent increase in ambient noise levels and the exposure of people to noise from airports would be significant and unavoidable with implementation of Mitigation Measure NOI-1.3. Further, impacts related to temporary or periodic increases in ambient noise levels would be less than significant with Mitigation Measures NOI-1.2, NOI-1.3, and NOI-2.2. The impact analysis and conclusions related to these noise topics from the EIR for the original Project remain applicable to the revised Project because the overall project footprint and total square footage have not changed. Changes to the amount of off-site soil import would not affect project operation and would only affect construction related transportation noise, which is discussed in Section 3.7, *Noise*.
- **All Population and Housing Impacts:** The original Project EIR determined that impacts related to population growth would be significant and unavoidable. Impacts related to the displacement of people would be less than significant, and there would be no impacts related to displacement of housing. The impact analysis and conclusions related to population and housing from the EIR for the original Project remain applicable to the revised Project because the project footprint, proposed uses, and overall population assumptions have not changed.
- **All Public Services and Recreation Impacts:** The original Project EIR determined that impacts related to the provision of new or physically altered fire protection, police protection, school, parks and recreation, and library facilities would be less than significant. The impact analysis and conclusions related to public services from the EIR for the original Project remain applicable to the revised Project because demand for public services and recreation has not changed beyond what was assessed for the original Project.
- **Certain Transportation Impacts:** The original Project EIR determined that impacts related to off-site signalized intersections would be significant and unavoidable with implementation of Mitigation Measures TRA-1.1 (Vehicle Trip Reduction with Transportation Demand Management [TDM]) and TRA-1.2 (Intersection Improvements), as would impacts related to unsignalized off-site intersections with implementation of Mitigation Measures TRA-2.1/2.2 (Traffic Signal Installation). Impacts related to freeway segments would be significant and unavoidable with implementation of Mitigation Measure TRA-3.1 (Freeway Segment Improvements), as would impacts related to signalized intersections with implementation of Mitigation Measures TRA-1.1 and TRA-1a.1 (Intersection Improvements for Existing with Project Phases 1, 2, and 3). In addition, impacts related to on-site intersections on Parcels 4 and 5 would be less than significant. Impacts related to on-site intersections on Parcels 1, 2,

and 3 would be less than significant with implementation of Mitigation Measure TRA-5.1 (Transportation Design Review). Impacts related to intersections with the variant access scheme would be significant and unavoidable with implementation of Mitigation Measures TRA-1.1, TRA-6.1 (Intersection Improvements), and TRA-6.2 (Intersection Improvements for Phases 1, 2, and 3). Impacts related to hazardous conditions for pedestrians would be significant and unavoidable with implementation of Mitigation Measure TRA-7.1 (Sidewalk Gap Closure on Tasman Drive on the Lafayette Street Overcrossing Extending East to Calle Del Sol). The original Project EIR determined that impacts related to bicycle facilities, transit vehicle capacity, emergency access, vehicle and bicycle parking on-site, and station platform passenger capacity would be less than significant. Impacts related to transit operations would be significant and unavoidable with no feasible mitigation. Further, impacts related to signalized off-site intersection in cumulative with-Project conditions would be significant and unavoidable with implementation of Mitigation Measure TRA-14.1 (Signalized Intersection Improvements). Impacts related to unsignalized off-site intersections in cumulative with-Project conditions would be less than significant with implementation of Mitigation Measures TRA-1.1 and TRA-2.2. Impacts related to cumulative with-Project variant access scheme would be significant and unavoidable with implementation of Mitigation Measures TRA-1.1 and TRA-16.1 (Intersection Improvements). The original Project EIR determined that impacts related to freeway segments under cumulative with-Project conditions would be significant and unavoidable with implementation of Mitigation Measures TRA-1.1 and TRA-4.1. Finally, impacts related to traffic operations with special event traffic would be significant and unavoidable with implementation of Mitigation Measure TRA-19.1 (Modified Traffic Management and Operations Plan [TMOP] and Project Traffic and Parking Management Plan). The impact analysis and conclusions related to these transportation topics from the EIR for the original Project remain applicable to the revised Project because the project footprint, overall traffic assumptions, and levels of service provided have not changed. Changes to the amount of off-site soil import would not affect project operation and would affect only construction-related traffic (TR-18), which is evaluated below in Section 3.4, *Transportation*.

- **All Utilities and Service Systems Impacts:** The original Project EIR determined that impacts related to water demand would be less than significant, as would impacts related to landfill capacity. Impacts related to the expansion of existing facilities and stormwater generation would be less than significant with implementation of all relevant mitigation measures included for construction activities in other EIR sections. Further, impacts related to wastewater infrastructure would be less than significant with implementation of Mitigation Measure UT-3.1 (Make a Fair-Share Contribution to Upgrading the Rabello and Northside Pump Station System's Capacity). The original Project EIR determined that impacts related to energy demand would be less than significant with implementation of Mitigation Measures AQ-2.1, AQ-2.2, AQ-2.4, GHG-1.1, GHG-1.2, and TRA-1.1, as well as all relevant mitigation measures included for construction activities in other EIR sections. There would be no impact regarding compliance with solid waste-related statutes and regulations and wastewater treatment requirements. The impact analysis and conclusions related to utilities and service systems from the EIR for the original Project remain applicable to the revised Project because the overall demand for utilities and service systems has not changed beyond what was assessed for the original Project.

3.2 Aesthetics

Impact AES-1: Degradation of Visual Character or Quality. Construction of the Project could change the recreational views along the Guadalupe River Trail. However, operation of the Project would not substantially degrade existing visual character or quality with implementation of the Master Community Plan Design Guidelines.

Construction

The EIR determined the visual impacts resulting from the original Project could be significant because construction on the easternmost portions of Parcels 1 and 2 would be visible for a prolonged period of time from the Guadalupe River Trail, which includes sensitive viewer groups. The visual effects of these construction activities would not be permanent, and the Project site would appear similar to other construction sites, which is not unusual in an urban area. However, because of the duration of the construction activities on Parcels 1 and 2 (approximately 7 years) and the potential for soil imported to Parcel 2 during Phase 1 of construction to sit on the parcel for an extended period of time (approximately 10 years prior to commencement of construction activities), the visual elements that are typical of a construction site would be present over an extended period of time and visible from the Guadalupe River Trail. Therefore, construction impacts on the visual character of the Project site, as seen from the Guadalupe River Trail, were determined to be significant. However, impacts were found to be less than significant with implementation of Mitigation Measure AES-1.1 (Imported Material Storage), and AES-1.2 (Early Implementation of Master Community Plan Landscaping for Parcels 1 and 2). The revised Project would not affect the Guadalupe River Trail or this impact determination and, therefore, it is not discussed further.

The EIR also evaluated visual impacts on the San Tomas Aquino Creek Trail as a result of construction of the original Project. The westernmost portion of the Project site (Parcel 4) is visible from the San Tomas Aquino Creek Trail; however, these views are filtered, meaning they are blocked by existing trees, vegetation, and structures, and they already encompass a manmade environment of medium-scale development. Under the original Project, construction activities on Parcel 4 would have required grading of Parcel 3 and soil export from Parcel 3 to Parcel 4 so that the elevations of the two parcels would be consistent with the development plan. Soil would have also been excavated from Parcel 5 and moved to Parcel 4 under the original Project. The EIR explained that visual effects of these construction activities as seen by users of the San Tomas Aquino Creek Trail would not be permanent and would be shorter in duration than construction activities on Parcels 1 and 2; there would be no equivalent stockpiling of soil for approximately 10 years as with the Parcel 1 and 2 activities visible from Guadalupe Trail. The EIR also explained that from the San Tomas Aquino Creek Trail, the visual effects of the original Project would appear similar to construction activities on other construction sites in urban areas where short-term visibility of construction activities is not unusual. Therefore, the original Project EIR found no significant visual impacts on the San Tomas Aquino Creek Trail resulting from construction activities occurring on Parcel 4, and no mitigation was required.

Similar to the original Project analyzed in the EIR, the revised Project would change the existing visual character and quality of the Project site during construction. As explained in Chapter 2, *Project Description*, the revised Project would include development of Parcel 5 during Phase 1 of construction (a period of approximately 3 years, from 2022 to 2025) and Parcel 4 during Phases 2 through 4 of construction (a period of approximately 7 years, from 2021 to 2028). Under the revised

Project, as shown in Table 2-2 in Chapter 2, *Project Description*, a total of approximately 782,600 cy (including approximately 769,000 cy to be utilized in developing Parcel 4) of off-site soil would be imported. In addition, as shown in Table 2-4, there would be a decrease of approximately 12,400 cy in the amount of overall earthwork needed in relation to the original Project analyzed in the EIR. This decrease represents a reduction in the amount of “cut” and an increase in the amount of “fill”. In total, approximately 913,100 cy of fill material would be graded during all phases of construction under the revised Project.

The amount of soil excavated and exported to Parcel 4 from adjacent parcels near and visible from the San Tomas Aquino Creek Trail would decrease under the revised Project by approximately 287,570 cy because soil would no longer be exported from Parcel 3 to be used in Parcel 4. However, approximately 769,000 cy would be delivered from off-site to Parcel 4 and either be directly graded (approximately 622,100 cy)¹⁸ or stockpiled (approximately 146,900 cy). The approximately 622,100 cy of directly graded soils on Parcel 4 are expected to raise the elevations of the existing grade in the range of 2 to 4 feet. Similar to the original Project, after grading, the graded areas under the revised Project would be treated with fast-germinating native grass seed when soils remain inactive for a period of more than one month.

As indicated in Table 2-2, approximately 146,900 cy¹⁹ of soil delivered to Parcel 4 from off-site is expected to be stockpiled and eventually utilized within Parcel 4. In addition, approximately 130,500 cy of soil from Phase 1, Parcel 5 would be excavated from Parcel 5 and temporarily stockpiled on Parcel 4 before being returned to Parcel 5 for use in the Phase 1 development. While the stockpiles under the revised Project would be set back from San Tomas Aquino Creek Trail by approximately 400 feet, they would remain partially visible from the trail.

Under the proposed schedule, which, as noted above is subject to change, the imported soil stockpiles visible from San Tomas Aquino Trail would largely be directly graded within approximately 14 months of the commencement of stockpiling (far shorter than the approximately 10 years of pre-construction activity stockpiling visible from Guadalupe Trail.) The stockpiles in place prior to the start of construction activities would have a maximum height of approximately 40 feet above existing grade, and an average height of approximately 8 feet above existing grade. The maximum height is equivalent to an elevation of 55 feet NAVD 88, which when compared to the average elevation of the San Thomas Aquino Creek trail (Elevation 23' NAVD 88) is a difference of 32 feet. The slope of the stockpiles would be gradual (10 percent).

Given that the revised Project's stockpiled soils would be set back from San Tomas Aquino Creek Trail and that views of stockpiled soils would be mostly obstructed by existing vegetation and remain characteristic of the urban setting of the trail, the introduction of stockpiled soils under the revised Project would not represent a new or more severe impact. Further, as noted above, the length of time that the soils would be visible from San Tomas Aquino Creek Trail would be relatively short as compared to the duration of the visibility of stockpiled soils from Guadalupe River Trail under the original Project. Additionally, stockpiled soils would be treated with fast-germinating native grass seed when soils remain inactive for a period of more than one month (see MM AQ-2.3, *Implement BAAQMD Additional Construction Mitigation Measures to Reduce Construction-Related Dust and Exhaust Emissions*), which would help reduce the visual effect for trail users.

¹⁸ 622,100 cy = 264,400 cy + 357,700 cy from Table 2-2.

¹⁹ 146,900 cy = 82,900 cy + 37,500 cy + 26,500 cy from Table 2-2.

The revised Project would not change the conclusions reached in the EIR regarding impacts on views from San Tomas Aquino Creek Trail because directly graded soils and stockpiled soils would not substantially degrade views from the trail. As described above, given the height of stockpiled soils above the existing grade, the screening of views of Parcel 4 offered by existing vegetation, the distance of the stockpiles from the trail, and the fact that temporary views of construction activities are not incompatible with views from an urban trail, the revised Project would not result in a new significant visual impact. In addition, the directly graded and stockpiled soils would be treated with fast-germinating native grass seed when soils remain inactive for a period of more than one month, which would help the Project site blend into the existing visual setting. Furthermore, under the revised Project, grading and stockpiling activities adjacent to the San Tomas Aquino Trail would occur over a shorter time period compared to stockpiling activities at the Guadalupe River Trail and would be consistent with the stockpiling activities of a typical construction project. There would be no new impact, impacts would not be more severe than those that were previously identified, and the conclusion in the EIR remains valid.

Operations

As explained in Chapter 2, *Project Description*, the revised Project entails changes in the amount of soil import used for construction activities and construction phasing in comparison to the original Project analyzed in the EIR. Therefore, operation impacts associated with degradation of visual character or quality under the revised Project would remain the same as those analyzed in the EIR and would be less than significant.

3.3 Biological Resources

Impact BIO-5: Substantial Effect on Wetlands and Other Waters. The Project could result in the loss of or damage to wetlands and other waters.

The original Project EIR determined that impacts on wetlands or other waters would be potentially significant as the Project could result in the loss of, or damage to, wetlands or other waters. Waters of the United States and the State of California could be indirectly affected by erosion and stormwater runoff from construction activities. However, compliance with the Stormwater Pollution Prevention Plan (SWPPP), certified by a Qualified SWPPP Developer (QSD) and approved by both the City and RWQCB, and San Francisco Bay MS4 Permit Provision C.3, Stormwater Technical Guidance, would be required for development to mitigate water quality impacts associated with runoff from construction activities to a less-than-significant level. Furthermore, as a result of Project construction, some aquatic land cover types would be lost—specifically, those related to the retention pond, existing drainage ditches on-site, and San Tomas Aquino Creek. Construction activities could temporarily disturb waters of the United States and State, and thus require compensation, which would result in a significant impact. However, with implementation of Mitigation Measure BIO-5.1 (Protect Retention Pond and Drainage Swale Aquatic Habitat during Construction), and BIO-5.2 (Compensate for Wetland Loss), the original Project would have a less-than significant-impact with mitigation on wetlands and other waters.

The revised Project would not change the conclusions reached in the EIR regarding impacts on wetlands and other waters. As with the original Project, the revised Project would minimize temporary erosion impacts on San Tomas Aquino Creek through compliance with regulatory

requirements and mitigation measures outlined in the Statewide Construction General Permit for Stormwater Discharge (2009-0009-DWQ as amended through 2012-0006-DWQ). Compliance with the permit requires the issuance of a Storm Water Pollution Prevention Plan (SWPPP) to guide placement and implementation of erosion and sediment control measures. This includes Best Management Practices (BMPs) such as placement of fiber rolls, silt fences, check dams, sedimentation basins where required, and hydroseeding of inactive surfaces due to reduce sediment mobilization and transport. The project SWPPP also includes standard “good housekeeping” procedures to minimize the potential for non-stormwater discharges. As required by the General Permit, compliance with the SWPPP would be maintained through inspections by the project Qualified SWPPP Practitioner (QSP) and documented in annual reports to the Regional Water Quality Control Board. Implementation of these measures would minimize erosion impacts related to grading and stockpiling.

In addition, because the Project Sponsor is still in the process of obtaining the Section 401 Permit for the Project, early grading activities on Parcel 4 under the revised Project would be conducted such that wetlands would be protected in place with implementation of BMPs. Furthermore, the reduced potential for soil exposure during grading on Parcel 3 under the revised Project would result in a somewhat reduced potential for erosion, thereby resulting in a slight reduction in associated impacts on wetlands and waters compared to the original Project. With this nominal reduction, future construction activities, including construction of phases 1, 2, 3, and 4, would still result in the same impacts to wetlands and other waters, as analyzed in the EIR. Although the activities that would occur under the revised Project are not expected to occur within proximity to the identified wetlands or waters, the same mitigation measures identified in the original Project EIR (Mitigation Measure BIO-5.1—*Protect Retention Pond and Drainage Swale Aquatic Habitat during Construction*, and BIO-5.2—*Compensate for Wetland Loss*), would be applied to overall construction as needed under the revised Project, reducing impacts to a less-than-significant level.

BIO-5.1: *Protect Retention Pond and Eastside Retention Drainage Swale, and San Tomas Aquino Creek and the Guadalupe River Aquatic Habitat during Construction.* For construction activities within 50 feet of the aquatic habitat associated with the retention pond and drainage swale, San Tomas Aquino Creek, and Guadalupe River, protective measures shall be put in place to ensure that impacts on those aquatic features shall be avoided and minimized. The following measures shall be deployed during construction:

- A qualified biologist shall determine the locations where orange construction barrier fencing shall be installed around aquatic resources (U.S. Army Corps of Engineers [USACE] and the Regional Water Board jurisdictional wetlands/waters and California Department of Fish and Wildlife [DFW] jurisdictional lakes and streams) that are to be avoided prior to initiation of construction activities.
- Designate the protected area an Environmentally Sensitive Area and clearly identify the area in the construction specifications.
- Maintain jurisdictional wetlands/water protection fencing throughout the grading and construction period.
- Prohibit grading, construction activity, traffic, equipment, or materials in fenced wetland areas.

BIO-5.2: ***Compensate for Loss of Waters of the U.S. and State (including Wetlands).*** If impacts to jurisdictional waters of the U.S. or State cannot be avoided, the Project Developer shall obtain permits or approvals to develop from the USACE, the Regional Water Board, and DFW, as appropriate and required. Both the Guadalupe River and San Tomas Aquino Creek are subject to both State and federal jurisdiction because of their connection to the Bay. To ensure that the Project results in no net loss of wetland habitat functions and values, the Project Developer shall compensate for the loss of jurisdictional wetlands/waters through one of the following options.

- Purchase of agency-approved mitigation credits from a suitably located mitigation bank prior to construction (ground disturbance that impacts wetlands/waters);
- On-site wetland/waters restoration (re-establishment or rehabilitation) establishment (creation) prior to or concurrent with construction impacts;
- Off-site wetland/waters restoration (re-establishment or rehabilitation)/establishment (creation) prior to or concurrent with construction; or
- A combination of two or more of the above.

The amount of agency approved mitigation credits required from a suitably located mitigation bank and/or size and location(s) of the area(s) to be restored (reestablished)/established (created) shall be based on appropriate mitigation ratios, as derived in consultation with DFW, USACE, and the Regional Water Board. The Project Developer shall prepare and implement a mitigation and management plan (MMP) as part of the permitting process in conformance with the USEPA/USACE 2008 Mitigation Rule. The mitigation ratios shown in the initial draft MMP submitted to the permitting agencies during Project permitting shall be a minimum of 2:1, as determined through the CEQA process. The MMP, if other than sole purchase of mitigation bank credits, shall include the requirements listed below:

- Mitigation implementation plan;
- Performance (success) standards or criteria to be met in order to determine that the mitigation has successfully replaced the impacted wetlands/waters in terms of “no net loss” of the impacted functions and values;
- 5-year monitoring plan for determining that performance criteria have been successfully met through the collection of wetlands/waters vegetation survival and cover field data; hydrology flooding, ponding, and/or soil saturation field data; and habitat area data;
- Adaptive management plan to be implemented if mitigation performance is found through annual monitoring not to be progressing towards success within the 5-year monitoring period;
- Conservation plan to ensure in-perpetuity land use protection of the mitigation site;
- Long-term (in-perpetuity) conservation management plan; and
- Funding plan for mitigation implementation, 5-year mitigation performance monitoring and maintenance, and an endowment (non-wasting fund) for long-term conservation management.

The final MMP shall be determined in consultation with DFW, USACE, and the Regional Water Board. The mitigation plan shall include measure to avoid and minimize the effects of construction on surrounding native habitats. The required performance standard is no net loss of wetland and waters habitat function and values. Monitoring shall occur for a minimum of 5 years, at which time, if the success criteria are met, wetland compensation shall be deemed complete.

Therefore, the revised Project would continue to have a less-than-significant impact with mitigation on wetlands and other waters. There would be no new impact, impacts would not be more severe than those that were previously identified, and the conclusion in the EIR remains valid.

3.4 Transportation

Impact TRA-18: Construction Traffic. Construction traffic would result in short-term increases in traffic volumes that would cause significant impacts on intersection and freeway segment levels of service and temporary road closures requiring detours for vehicles accessing the Great America ACE/Capitol Corridor Station.

The EIR analyzed construction impacts associated with buildout of the original Project. Construction activities for the original Project would include those associated with site preparation and building construction, such as removing the existing parking lots and buildings, excavating and grading the site, constructing temporary roads, and constructing necessary infrastructure, which would require a variety of construction equipment. The duration and intensity of these construction activities would vary over the entire construction period, but construction activities were projected to peak between November 2018 and March 2019, with a daily average of approximately 100 trucks and 2,700 workers traveling to and from the Project site. During this time, these numbers could increase to 150 trucks and 5,300 workers if all of the peak activities were to occur simultaneously. Therefore, construction activities would most likely generate a substantial amount of traffic, which would add traffic greater than 1 percent of the capacities for nearby freeway segments operating at level of service (LOS) F and increase delays at intersections operating at LOS F by more than 4 seconds, causing significant impacts.

Implementation of Mitigation Measure TRA-18.1 (Construction Management Plan) would minimize disruptions to transportation facilities and services, including emergency vehicle response times, caused by Project construction activities. However, the amount of traffic associated with the construction of the original Project would cause significant impacts on freeway segments and intersections with no identified mitigation measures. In addition, temporary road closures would require shuttles to be re-routed. Therefore, the transportation impact of construction activities under the original Project would be significant and unavoidable.

As discussed in Chapter 2, *Project Description*, the revised Project would include a construction and phasing schedule similar to the one analyzed in the EIR. The changes that could affect construction generated traffic would be in the number of truck trips and workers required for the soil import and grading of soil. Under the revised Project, construction activities on Parcels 4 and 5 are expected to commence in June 2021 and be completed by the end of March 2028, although this schedule is subject to change. Construction would occur in phases, as shown in Table 3-1, and is expected to peak between August 2024 and February 2025 if construction activities during Phases 1, 2, and 3 occur concurrently. During February 2025, on an average day, there would be approximately 83 trucks and 2,450 workers traveling to and from the site.

Table 3-1. Revised Construction Activities, Start and End Dates, and Daily Trucks and Workers

Original Project							Revised Project						
Construction Activity	Start Date ^a	End Date ^a	No. of Trucks		No. of Workers		Construction Activity	Start Date ^a	End Date ^a	No. of Trucks		No. of Workers	
			Peak	Average	Peak	Average				Peak	Average	Peak	Average
Parcel 5 Phase 1													
Clearing, Grubbing, and Grading	Oct. 2016	Dec. 2016	5	3	30	15	Site preparation (Garage Excavation), Clearing, and Grubbing	May. 2022	Jul. 2022	0	0	17	12
Demolition	Oct. 2016	Dec. 2016	16	2	0	0	Demolition	May 2022	Jul. 2022	16	2	0	0
							Street Rough Grading	Feb. 2023	Jun. 2023	13	13	18	10
Auger Cast Caissons and Site Utilities	Nov. 2016	Jan. 2017	22	22	120	80	Auger Cast Caissons and Site Utilities	Aug. 2022	Oct. 2022	28	22	120	80
Curb, Gutter, Interiors Roads	June 2017	Sept. 2017	20	6	150	100	Curb, Gutter, Interior Roads	Nov. 2023	May. 2024	20	6	150	100
Building Construction	Feb. 2017	March 2019	30	20	1,000	500	Building Construction	Oct. 2022	Feb. 2025	30	20	1,000	500
Parcel 4 Phase 1 and 2							Parcel 4 Phase 2						
Clearing, Grubbing, and Grading	Feb. 2017	Aug. 2017	7	5	60	30	Site Prep, Clearing, Grubbing, and Soil Compaction	Jun. 2021	Jan. 2022	164	164	18	10
Demolition	Jan. 2017	Feb. 2017	34	34	30	30	Rough Grading (completion of Phase 2a +2b)	Aug. 2022	Mar. 2023	0	0	18	11
							Rough Grading (East Park and CPP)	Mar. 2023	Aug. 2024	7	7	18	11

Original Project							Revised Project						
Construction Activity	Start Date ^a	End Date ^a	No. of Trucks		No. of Workers		Construction Activity	Start Date ^a	End Date ^a	No. of Trucks		No. of Workers	
			Peak	Average	Peak	Average				Peak	Average	Peak	Average
Auger Cast Caissons and Site Utilities	July 2017	March 2018	84	66	300	150	Auger Cast Caissons, and Retaining Walls	Dec. 2022	Jul. 2023	84	66	300	150
Curb, Gutter, Interiors Roads	Dec. 2018	July 2019	32	24	360	200	Curb, Gutter, Interior Roads and Hardscape	Aug. 2024	Apr. 2025	32	24	360	200
Building Construction	March 2018	Aug. 2020	45	29	2,700	1,200	Building Construction	Jun. 2023	May. 2025	45	29	2,700	1,200
Parcel 4 Phase 3													
Clearing, Grubbing, Grading, and Demolition	Nov. 2018	July 2019	16	1	50	30	Site Prep, Clearing, Grubbing, Demolition, Installation, Soil Import, Rough Grading	May 2024	Sep. 2024	165	165	20	10
Auger Cast Caissons and Site Utilities	July 2019	Oct. 2019	56	44	250	150	Auger Cast Caissons	Aug. 2024	Nov. 2024	56	44	250	150
Curb, Gutter, Interiors Roads	Dec. 2018	April 2019	17	5	300	200	Curb, Gutter, Interiors Roads	Jan. 2024	May. 2024	17	5	300	200
Building Construction	Feb. 2019	March 2021	27	10	900	550	Building Construction	Feb. 2025	Oct. 2026	27	10	900	550
Parcel 4 Phase 4													
Clearing, Grubbing, and Grading	Oct. 2020	March 2021	32	23	50	30	Site Prep, Clearing, Grubbing, Demolition, Installation, Soil Import, Rough Grading	Aug. 2025	Feb. 2026	92	92	20	10

Original Project							Revised Project						
Construction Activity	Start Date ^a	End Date ^a	No. of Trucks		No. of Workers		Construction Activity	Start Date ^a	End Date ^a	No. of Trucks		No. of Workers	
			Peak	Average	Peak	Average				Peak	Average	Peak	Average
Auger Cast Caissons and Site Utilities	March 2021	June 2021	28	32	250	150	Auger Cast Caissons and Site Utilities	Mar. 2026	May 2026	28	22	250	150
Curb, Gutter, Interiors Roads	Nov. 2021	April 2022	20	6	300	200	Curb, Gutter, Interiors Roads	Nov. 2026	Mar. 2027	20	6	300	200
Building Construction	July 2021	March 2023	35	23	1,100	550	Building Construction	Jun. 2026	Mar. 2028	35	23	1100	550

Source: Related 2021.

^a The construction schedule is flexible; the actual timing and pace of construction is not certain; the start dates may be earlier or later. The analysis is based on data provided by Related Companies, which is the best available information. The analysis evaluates the projected peak construction period as a conservative assumption.

Notes:

- Start and end dates have been updated based on latest activities schedule provided by Related, but are subject to change pending project approval. However, the duration of each activity would remain approximately the same.
- The haul truck used for the revised Project would be sized to carry 12.5 cy per load.
- Activities including clearing, grubbing, and grading have been updated to include the soil import deliveries based on the specified soil volume and activity durations.
- Soil import deliveries are assumed to be evenly spread across the duration including Saturdays based on the assumption that the contractor would use a fixed fleet of trucks and drivers for soil import operations. Therefore, there are no differences in peak day and average day truck volumes. Any variation from this assumption would not affect the peak construction period traffic illustrated in Table 3-2 since all soil import deliveries occur outside the construction peak activity.
- Based on the updated truck volumes, number of workers, and activity program, the peak construction activities are expected to occur from August 2024 through February 2025, with the highest total construction traffic volume, including trucks and workers, expected in February 2025.
- The updated table includes the truck volumes, number of workers and total traffic for February 2025.

These numbers could increase to 134 trucks and 4,960 workers if all of the peak activities were to occur simultaneously. The daily and peak hour construction traffic estimates for the peak construction period are provided in Table 3-2.

Table 3-2. Revised Project Construction Traffic Estimates—Peak Construction Period

Item	Original Project				Revised Project			
	Daily		Peak Hour		Daily		Peak Hour	
	Peak	Average	Peak	Average	Peak	Average	Peak	Average
Trucks	150	100	15	10	134	83	14	9
Workers	5,300	2,700	1,590	810	4,960	2,450	1,488	735
Passenger Car Equivalents								
Trucks	450	300	45	30	402	249	42	27
Worker Vehicles	3,550	1,800	1,060	540	3,307	1,634	992	490
Total Traffic	4,000	2,100	1,105	570	3,709	1,883	1,034	517
Source: Related 2021.								

Under the revised Project, the peak construction activities would not be affected by the additional soil import since peak construction activities would occur during overlapping building construction for Phases 1, 2, and 3 after the completion of the soil import delivery. Peak building construction activities would generate 1,883 to 3,709 vehicle trips per day with 517 to 1,034 trips during the peak hours. The amount of traffic and number of workers during the peak hours would be lower than the number of vehicle trips and workers generated by the original Project due to the revised construction schedule, which would result in less overlap of different construction activities. However, the revised Project's construction activities would still generate a substantial amount of traffic during peak hours, with several freeway segments and intersections near the site currently operating at an unacceptable LOS and additional intersections projected to operate unacceptably due to planned growth in the Project area.

The CEQA Addendum the City prepared to support its approval of the Phase 2 Development Area Plan (DAP 2) for the City Place Project in June 2020 evaluated updated information about background traffic conditions and concluded that "the traffic analysis in the EIR remains adequate and no additional analysis is needed." Therefore, as with the original Project, the revised Project could cause significant traffic impacts as a result of construction activities, and the same mitigation measure, TRA-18.1 (Construction Management), would be required to ensure that impacts would be reduced.

TRA-18.1 Construction Management. Prior to the issuance of each building permit, the Project Developer and construction contractor shall meet with the Public Works Department to determine traffic management strategies to reduce, to the maximum extent feasible, traffic congestion during construction of the Project and develop acceptable detour routes for emergency vehicles and for shuttles to the Great America Altamont Corridor Express (ACE)/Capitol Corridor station. The City will coordinate with appropriate transit agencies. The Project Developer shall prepare a Construction Management Plan for review and approval by the Public Works Department, which shall share the plan with the Capitol Corridor Joint Power Authority, the Valley Transportation Authority, and ACE for review and comment. The plan, which shall be implemented during construction, shall include at least the following items and requirements:

- A set of comprehensive traffic control measures, including detour signs if required, lane closure procedures, sidewalk closure procedures, signs, cones for drivers, and designated construction access routes.
- Notification procedures for adjacent property owners, the public, transit operators, and public safety personnel regarding when detours and lane closures will occur.
- Location of construction staging areas for materials, equipment, and vehicles (must be located on the Project site).
- Identification of haul routes for movement of construction vehicles that would minimize impacts on vehicular, pedestrian, and transit vehicle traffic, circulation and safety; and provision for monitoring surface streets used for haul routes so that any damage and debris attributable to the haul trucks can be identified and corrected. Construction vehicles shall be required to use designated truck/haul routes.
- Provisions for removal of trash generated by Project construction activity.
- A process for responding to and tracking complaints pertaining to construction activity.
- Construction vehicles and construction workers shall not be allowed to park in adjacent residential neighborhoods. Construction vehicles will be required to park either in the construction zone or in the temporary parking lots.

In summary, although the revised Project would increase total construction trips over the life of the project, this is not a substantial increase in the severity of the impact compared to the original Project because the significance threshold is based on traffic during peak hours, and the revised Project would result in a maximum of 134 trucks and 4,960 workers during the peak construction period compared to the maximum of 150 trucks and 5,300 workers during peak construction periods under the original Project. The revised Project would not result in a greater amount of construction-related traffic during peak periods than what was analyzed under the original Project. Therefore, the revised Project would continue to have a significant and unavoidable impact with mitigation on construction traffic but would not substantially increase the severity of that impact; therefore, the conclusion in the EIR remains valid.

3.5 Air Quality

Impact AQ-2: Construction Criteria Air Pollutant Emissions. Construction activities at the Project site would result in the generation of regional criteria pollutant emissions during construction in excess of Bay Area Air Quality Management District thresholds.

The EIR analyzed construction criteria air pollutant emissions associated with the original Project. As shown in Table 3.4-6 of the EIR, construction emissions would exceed the Bay Area Air Quality Management District's (BAAQMD's) daily nitrogen oxides (NO_x) thresholds during the first year of construction. Examination of the emissions by phase indicated that the overlapping of construction phases would likely result in emissions that could exceed the NO_x average daily threshold only during construction on Parcels 4 and 5 (i.e., construction of Phases 1 through 4). Additionally, BAAQMD does not have quantitative thresholds for fugitive dust. Instead, the threshold is based on compliance with

BMPs. Unmitigated fugitive dust could adversely affect local and regional PM₁₀ (particulate matter of 10 microns in diameter or less) levels, which would result in health impairment due to the inhalation of dust. As detailed under Impact AQ-2 of the EIR, mitigation would be required to reduce NO_x emissions generated by the original Project. Similarly, because BAAQMD considers fugitive dust emissions to be significant without BMPs, mitigation would also be required to control fugitive dust. Mitigation Measure AQ-2.1 (Utilize Clean Diesel-Powered Equipment during Construction to Control Construction-Related Reactive Organic Gas [ROG] and Oxides of Nitrogen (NO_x) Emissions) requires that heavy-duty equipment comply with Tier 3 and Tier 4 emissions standards, whereas Mitigation Measure AQ-2.2 (Use Modern Fleet for On-Road Material Delivery and Haul Trucks during Construction) requires that construction haul trucks utilize model year 2010 engines or newer. Implementation of these measures for the original Project was found to reduce ROG and NO_x emissions from off-road heavy-equipment and on-road vehicles. BAAQMD-recommended BMPs for fugitive dust and equipment exhaust were outlined in Mitigation Measure AQ-2.3 (Implement Bay Area Air Quality Management District [BAAQMD] Additional Construction Mitigation Measures to Reduce Construction-Related Dust and Exhaust Emissions). Lastly, pursuant to Mitigation Measure AQ-2.4 (Offset NO_x Emissions Generated during Construction that Are above BAAQMD NO_x Average Daily Emission Threshold), the Project Developer will pay an off-site mitigation fee for NO_x emissions in excess of BAAQMD thresholds. With implementation of these mitigation measures, impacts under the original Project would be less than significant with mitigation.

The EIR for the original Project reported average daily unmitigated emissions in Year 1 of 146 pounds per day, above the threshold of 54 pounds per day. The revised Project would be projected to exceed the average daily NO_x emissions significance threshold only in Years 1 and 4 of construction, as shown in Table 3-3, with 74 and 71 pounds per day, respectively. Emissions would decrease compared to the analysis completed for the EIR, driven primarily by the change in schedule and improved off-road and on-road vehicle fleets as well as the reduction in cut material on Parcel 3. In the EIR, excess NO_x emissions in 2017 were reduced through Mitigation Measure AQ-2.1 (Utilize Clean Diesel-Powered Equipment during Construction to Control Construction-Related Reactive Organic Gas [ROG] and Oxides of Nitrogen [NO_x] Emissions) and AQ-2.2 (Use Modern Fleet for On-Road Material Delivery and Haul Trucks during Construction), requiring cleaner off-road and on-road equipment. In the revised Project's construction schedule beginning in 2021, the default fleet data from the California Air Resources Board model largely meets or exceeds these mitigation measure requirements, resulting in lower criteria air pollutant emissions. In addition, newer trucks and equipment also often generate lower emissions than the equipment required under the mitigation measures.

Table 3-4 shows the criteria air pollutant emissions under this mitigated scenario. Consistent with the EIR's conclusion for the original Project, average daily mitigated emissions under the revised Project would be projected to exceed the average daily NO_x emissions significance threshold only in Year 1 of construction and at a lower level than that reported in the EIR (total emissions of 90 pounds per day for the EIR and 57 pounds per day for the revised Project). In addition, under the revised Project, the potential for fugitive dust emissions would increase compared to the original Project. However, the same mitigation measure, compliance with BMPs, would continue to apply and therefore they would continue to be less than significant with implementation of the BMPs. The increase in fugitive dust emissions would be almost entirely a result of the increased number of haul truck trips, with emissions occurring off-site (associated with on-road dust), and thus would not be fully addressed by the BMPs described in Mitigation Measure AQ-2.3 (Implement Bay Area Air Quality Management District [BAAQMD] Additional Construction Mitigation Measures to Reduce

Construction-Related Dust and Exhaust Emissions) to control on-site dust from construction activities. However, some elements of Mitigation Measures AQ-2.3, such as tire washing, rumble plates, and watering exposed soils, would partially address off-site dust emissions. Further, under the revised Project, compliance with the SWPPP and additional avoidance measures included in the construction management plan (CMP) prepared for the revised Project would still be required as a condition of approval for the grading permits issued by the City for each phase of development to minimize air quality impacts related to fugitive dust emissions from construction activities. The CMP would address fugitive dust emissions by including the relevant requirements of Mitigation Measure AQ2.3. Approval of the CMP would be required by the City for each phase of development. The CMP would include measures to reduce fugitive dust emissions, such as the following: street sweeping outside of the project perimeter; limiting height of soil loads relative to haul truck container rims; conditioning import soil with moisture to prevent materials from blowing, spilling, or otherwise escaping from the vehicle; covering haul trucks carrying soil, sand, or other loose material; and all applicable BAAQMD Basic Construction Mitigation Measures related to air pollutant emissions. Therefore, the revised Project would still cause significant air quality impacts related to criteria air pollutant emissions and fugitive dust as a result of construction activities, and the same mitigation measures, AQ 2.1 (Utilize Clean Diesel-Powered Equipment during Construction to Control Construction-Related Reactive Organic Gas [ROG] and Oxides of Nitrogen [NO_x] Emissions), AQ-2.2 (Use Modern Fleet for On-Road Material Delivery and Haul Trucks during Construction), AQ-2.3 (Implement Bay Area Air Quality Management District [BAAQMD] Additional Construction Mitigation Measures to Reduce Construction-Related Dust and Exhaust Emissions), and AQ-2.4 (Offset NO_x Emissions Generated during Construction that Are above BAAQMD NO_x Average Daily Emission Threshold), would be required to ensure that impacts would be reduced to a less-than significant level.

- AQ-2.1: *Utilize Clean Diesel-Powered Equipment during Construction to Control Construction-Related Reactive Organic Gas (ROG) and Oxides of Nitrogen (NO_x) Emissions.*** The Project Developer shall ensure that all off-road diesel-powered equipment used during construction between 2017 and 2022 is equipped with the U.S. Environmental Protection Agency (EPA) Tier 3 or cleaner engines, except for specialized construction equipment for which an EPA Tier 3 engine is not available. Consistent with advancements of the statewide fleet average, the Project Developer shall ensure that all off-road diesel-powered equipment used during construction between 2023 and 2030 is equipped with EPA Tier 4 engines, except for specialized construction equipment for which an EPA Tier 4 engine is not available. This requirement will ensure construction equipment remains cleaner than the fleet-wide average.
- AQ-2.2: *Use Modern Fleet for On-Road Material Delivery and Haul Trucks during Construction.*** The Project Developer shall ensure that all on-road heavy-duty diesel trucks with a gross vehicle weight rating of 19,500 pounds or greater used at the Project site comply with EPA 2007 on-road emissions standards for PM₁₀ and NO_x (0.01 grams per brake horsepower-hour [g/bhp-hr] and 0.20 g/bhp-hr, respectively).
- AQ-2.3: *Implement Bay Area Air Quality Management District (BAAQMD) Additional Construction Mitigation Measures to Reduce Construction-Related Dust and Exhaust Emissions.*** The Project Developer shall require all construction contractors to implement the specific construction mitigation measures below to reduce fugitive dust and equipment exhaust emissions. Emission reduction measures shall include, at a

Table 3-3. Unmitigated Criteria Air Pollutant Emissions under the Revised Project

Total Combined Emissions										Daily Emissions ^b							
Year	Days	ROG	NO _x	PM ₁₀			PM _{2.5}			ROG	NO _x	PM ₁₀			PM _{2.5}		
				Total	Exhaust	Fugitive ^a	Total	Exhaust	Fugitive ^a			Total	Exhaust	Fugitive ^a	Total	Exhaust	Fugitive ^a
		tons per year									lbs/work day						
2021	150	0.23	5.6	1.4	0.11	1.3	0.43	0.10	0.33	3.1	74	19	1.4	17	5.8	1.4	4.4
2022	260	1.2	2.5	1.2	0.066	1.1	0.35	0.060	0.29	8.9	19	9.0	0.50	8.5	2.7	0.46	2.2
2023	260	5.3	7.0	8.6	0.14	8.5	2.3	0.13	2.2	41	54	66	1.1	65	18	1.0	17
2024	260	5.7	9.2	13	0.19	13	3.5	0.18	3.4	44	71	102	1.5	100	27	1.4	26
2025	260	2.4	4.1	7.2	0.087	7.1	1.9	0.081	1.8	19	32	55	0.67	54	15	0.62	14
2026	260	2.1	3.5	5.4	0.085	5.3	1.5	0.079	1.4	16	27	42	0.65	41	11	0.61	11
2027	260	1.6	1.9	3.9	0.045	3.8	1.0	0.042	1.0	12	14	30	0.35	29	7.9	0.32	7.6
2028	260	0.55	0.59	1.5	0.014	1.5	0.39	0.013	0.38	4.2	4.6	12	0.11	11	3.0	0.10	2.9
2029	260	2.0	3.3	5.2	0.10	5.1	1.4	0.089	1.3	15	25	40	0.73	40	11	0.68	10
2030	260	1.5	1.2	4.8	0.023	4.7	1.2	0.022	1.2	11	9.3	37	0.18	37	10	0.17	9.4
2031	260	2.4	2.4	6.2	0.054	6.2	1.6	0.052	1.6	19	19	48	0.41	47	13	0.40	12
2032	260	1.2	0.87	3.4	0.016	3.4	0.88	0.015	0.86	8.9	6.7	26	0.12	26	6.8	0.12	6.6
2033	260	2.2	2.2	5.4	0.047	5.4	1.4	0.046	1.4	17	17	42	0.36	41	11	0.35	11
2034	260	1.1	0.82	3.2	0.015	3.2	0.84	0.014	0.83	8.4	6.3	25	0.12	25	6.5	0.11	6.4
2035	115	0.47	0.32	1.5	0.0056	1.5	0.41	0.0053	0.40	8.2	5.6	26	0.10	26	7.1	0.091	7.0
Threshold (lbs/day):										54	54	N/A	82	BMP	—	54	BMP

Source: Ramboll. 2021. *Technical Memo for Air Quality and Greenhouse Gas Emissions*. May 20, 2021.^a Fugitive dust includes all emissions from Tables 4 through 6 from Ramboll's technical memo, plus tire and brake wear calculated using EMFAC2021 emission factors.^b Numbers in bold are above the threshold.PM₁₀ = particulate matter less than 10 micrometers in diameterPM_{2.5} = particulate matter less than 2.5 micrometers in diameter

ROG = reactive organic gas

NO_x = nitrogen oxides

lbs = pounds

Table 3-4. Mitigated²⁰ Criteria Air Pollutant Emissions under the Revised Project

Total Combined Emissions										Daily Emissions ^b							
Year	Days	ROG	NO _x	PM ₁₀			PM _{2.5}			ROG	NO _x	PM ₁₀			PM _{2.5}		
				Total	Exhaust	Fugitive ^a	Total	Exhaust	Fugitive ^a			Total	Exhaust	Fugitive ^a	Total	Exhaust	Fugitive ^a
		tons per year										lbs/work day					
2021	150	0.12	4.3	1.4	0.054	1.3	0.38	0.052	0.33	1.6	57	18	0.72	17	5.1	0.69	4.4
2022	260	1.1	1.3	1.1	0.018	1.1	0.30	0.017	0.29	8.2	10	8.7	0.14	8.5	2.3	0.13	2.2
2023	260	5.1	5.2	8.6	0.063	8.5	2.3	0.059	2.2	40	40	66	0.49	65	17	0.46	17
2024	260	5.5	6.8	13	0.089	13	3.4	0.084	3.4	42	52	101	0.68	100	27	0.64	26
2025	260	2.3	3.1	7.1	0.043	7.1	1.9	0.040	1.8	18	24	55	0.33	54	14	0.31	14
2026	260	1.9	2.2	5.4	0.034	5.3	1.4	0.032	1.4	15	17	41	0.26	41	11	0.25	11
2027	260	1.6	1.3	3.8	0.020	3.8	1.0	0.019	1.0	12	10	29	0.15	29	7.7	0.14	7.6
2028	260	0.54	0.41	1.5	0.0066	1.5	0.39	0.0062	0.38	4.1	3.2	12	0.051	11	3.0	0.047	2.9
2029	260	1.8	1.6	5.2	0.030	5.1	1.4	0.028	1.3	14	12	40	0.23	40	10	0.22	10
2030	260	1.4	1.1	4.8	0.018	4.7	1.2	0.017	1.2	11	8.2	37	0.14	37	10	0.13	9.4
2031	260	2.3	1.9	6.2	0.033	6.2	1.6	0.031	1.6	17	14	48	0.25	47	12	0.24	12
2032	260	1.1	0.79	3.4	0.013	3.4	0.88	0.012	0.86	8.7	6.1	26	0.10	26	6.7	0.094	6.6
2033	260	2.0	1.6	5.4	0.029	5.4	1.4	0.027	1.4	16	12	41	0.22	41	11	0.21	11
2034	260	1.1	0.73	3.2	0.012	3.2	0.84	0.011	0.83	8.1	5.6	25	0.091	25	6.5	0.085	6.4
2035	115	0.46	0.31	1.5	0.0050	1.5	0.41	0.0046	0.40	8.0	5.4	26	0.086	26	7.1	0.080	7.0
Threshold (lbs/day):										54	54	N/A	82	BMP	—	54	BMP

Source: Ramboll. 2021. *Technical Memo for Air Quality and Greenhouse Gas Emissions*. May 20, 2021.^a Fugitive dust includes all emissions from Tables 4 through 6 from Ramboll's technical memo, plus tire and brake wear calculated using EMFAC2021 emission factors.PM₁₀ = particulate matter less than 10 micrometers in diameterPM_{2.5} = particulate matter less than 2.5 micrometers in diameter

ROG = reactive organic gas

NO_x = nitrogen oxides

lbs = pounds

²⁰ Mitigation includes the use of all Tier 4 Final off-road equipment, unless otherwise specified by the Project Sponsor.

minimum, the following measures. Alternative measures may be identified by the Project Developer or its contractor, as appropriate, provided that they are as effective as the measures below. Alternative measures shall be submitted to the City of Santa Clara for approval.

- All exposed surfaces shall be watered at a frequency adequate to maintain minimum soil moisture of 12 percent. Moisture content can be verified by lab samples or moisture probe. If water infiltration into landfill refuse layers is a concern, non-toxic soil stabilizers may be used instead.
- All excavation, grading, and/or demolition activities shall be suspended when average wind speeds exceed 20 miles per hour (mph) for a period of 2 hours or more.
- Windbreaks (e.g., fences) shall be installed on the windward side(s) of actively disturbed areas of construction. Windbreaks shall have at maximum 50 percent air porosity.
- Exposed ground areas that are to be reworked more than 1 month after initial grading shall be sown with fast-germinating native grass seed and watered appropriately until vegetation is established. If grass seeding is not feasible, then non-toxic soil stabilizers may be used.
- All construction trucks and equipment, including tires, involved in ground disturbance or transit through loose soil areas shall be washed off prior to leaving the site.
- Site accesses to a distance of 25 feet from the paved road shall be treated with a 6- to 12-inch compacted layer of wood chips, mulch, or gravel. Alternatively, a rumble plate may be used in place of chips, mulch, or gravel.
- Sandbags or other erosion control measures shall be installed to prevent silt runoff to public roadways from sites with a slope greater than 1 percent.
- Idling time of diesel-powered construction equipment shall be limited to 2 minutes.
- All construction equipment, diesel trucks, and generators shall be equipped with Best Available Control Technology for emission reductions of PM and NO_x.
- All contractors shall use equipment that meets the California Air Resources Board's most recent certification standard for off-road heavy-duty diesel engines.

AQ-2.4: Offset NO_x Emissions Generated during Construction that Are above BAAQMD NO_x Average Daily Emission Threshold. The Project Developer shall track construction activity, estimate emissions, and enter into a construction mitigation contract with BAAQMD to offset NO_x emissions that exceed BAAQMD NO_x average daily threshold of 54 pounds per day.

The average daily emissions shall be calculated on an annual basis by determining total construction-related NO_x emissions in each calendar year and dividing by the number of actual workdays in that calendar year. BAAQMD will use the mitigation fees provided by the Project Developer to implement emissions reduction efforts that offset Project NO_x emissions that exceed BAAQMD threshold.

Implementation of this mitigation measure shall apply only to Phase 1 through Phase 4 construction on Parcels 4 and 5 because only construction on Parcels 4 and 5 has the potential to exceed the BAAQMD average daily NO_x threshold on an annual basis, depending on construction sequencing and overlapping activity.

This mitigation includes the following specific requirements.

- The Project Developer shall require construction contractors to provide annual construction activity monitoring data for Phases 1 through 4 to estimate actual construction emissions, including the effect of equipment emissions reduction measures. The Project Developer shall submit the annual construction activity monitoring data and an estimate of actual annual construction emissions to the City and BAAQMD for review by February 1 of each year for the prior construction year. The City shall examine the construction activity monitoring to ensure it is representative, and BAAQMD shall examine the emissions estimate to ensure it is calculated properly.
- After acceptance of the emissions estimates by BAAQMD for the prior year, the Project Developer shall submit mitigation fees to BAAQMD to fund offsets for the portion of annual emissions that exceed the average daily NO_x threshold. The mitigation fees shall be based on the mitigation contract with BAAQMD (see discussion below) but shall not exceed the emissions-reduction project cost-effectiveness limit set for the Carl Moyer Memorial Air Quality Standards Attainment Program (Carl Moyer Program) for the year in which mitigation fees are paid. The current Carl Moyer Program cost-effectiveness limit is \$18,030 per weighted ton of criteria pollutants (NO_x + ROG + [20*PM]). An administrative fee of 5 percent shall be paid by the Project Developer to BAAQMD to implement the program.
- The mitigation fees shall be used by BAAQMD to fund projects that are eligible for funding under the Carl Moyer Program guidelines or other BAAQMD emissions-reduction incentive programs that meet the Carl Moyer Program cost-effectiveness threshold and are real, surplus, quantifiable, and enforceable.
- The Project Developer shall enter into a mitigation contract with BAAQMD for the emissions-reduction incentive program. The mitigation contract shall include the following.
 - Identification of appropriate off-site mitigation fees required for the Project.
 - Timing for submission of mitigation fees.
 - Processing of mitigation fees paid by the Project Developer.
 - Verification of emissions estimates submitted by the Project Developer.
 - Verification that off-site fees are applied to appropriate mitigation programs within the San Francisco Bay Area Air Basin.
- The mitigation fees shall be submitted within 4 weeks after BAAQMD accepts an emissions estimate provided by the Project Developer showing that the average daily NO_x threshold was exceeded (when measured on an annual basis).

Therefore, with implementation of these mitigation measures, the revised Project would continue to have a less than significant impact with mitigation on construction criteria air pollutant emissions and fugitive dust. There would be no new impact, impacts would not be more severe than those that were previously identified, and the conclusion in the EIR remains valid.

Impact AQ-6: Exposure of Sensitive Receptors to Toxic Air Contaminant Emissions during Construction. Project construction emissions would result in the exposure of sensitive receptors to localized TAC.

With respect to Impact AQ-6: Exposure of Sensitive Receptor to Toxic Air Contaminant Emissions during Construction, the revised Project would continue to result in exposure of sensitive receptors to localized toxic air contaminants. However, exhaust PM₁₀ emissions have decreased substantially from the EIR. PM₁₀, as diesel particulate matter, was the only pollutant considered for health risk impacts. Although the number of haul truck trips has increased, the maximum average daily number of truck trips in any construction phase is 397 truck trips per day. This is well below the lifetime operational screening level of 1,000 trucks per day previously recommend by the BAAQMD,²¹ and for a considerably shorter exposure period. Even if emissions local to the Project site increased despite the overall decrease in PM₁₀ emissions, this suggests that the increase in haul truck trips from the EIR would not result in considerable health risk impacts. There would be no new impact, impacts would not be more severe than those that were previously identified, and the conclusion in the EIR remains valid.

3.6 Greenhouse Gas Emissions

Impact GHG-1: Greenhouse Gas Emissions. The Project would generate GHG emissions, either directly or indirectly, which would have a significant impact on the environment.

The EIR analyzed GHG emissions associated with the original Project, including both operational and construction emissions. Although construction and operational emissions are estimated separately because there is no separate BAAQMD threshold for construction-related GHG emissions, the EIR includes one impact conclusion, encompassing both operational emissions and amortized construction emissions. As discussed in the EIR, although Project annual emissions (including both operational emissions and amortized construction emissions) would not exceed BAAQMD efficiency-based thresholds, the Project would result in a significant and unavoidable impact related to GHG emissions, given the Project's level of emissions compared to the 2030 "substantial progress" metric and the fact that there is not yet a plan for achieving a 2030 or 2050 goal.

As shown in Table 3.5-4 of the EIR, construction of the original Project would generate 26,570 metric tons (MT) of carbon dioxide equivalent (CO₂e) over the projected 15-year construction period. Amortized over 30 years, the construction emissions would be the equivalent of 886 MT CO₂e/year. Total net GHG emissions reported in the EIR were 90,965 to 99,866 MT (depending on the development scheme); therefore, construction represents less than 1 percent of total combined construction and operational GHG emissions. The construction emissions are primarily the result of diesel-powered construction equipment and heavy-duty haul trucks. Grading activities that disturb landfill soil that is underlain by refuse would release methane (CH₄). These emissions would be

²¹ BAAQMD. 2011. BAAQMD CEQA Guidelines. Available: https://www.baaqmd.gov/~media/Files/Planning%20and%20Research/CEQA/BAAQMD%20CEQA%20Guidelines_May%202011_5_3_11.ashx

limited to the grading and excavation periods. As required by Mitigation Measure HAZ-2.1 (Finalize Waste Management Plan for Construction), monitoring and protective measures included in the waste management plan would be implemented that would help to minimize and reduce CH₄ through a landfill collection/extraction system. In addition, consistent with the City's CAP Measure 5.2 and BAAQMD's CEQA Guidelines, the Project would also implement Mitigation Measure GHG-1.1 (Utilize Alternative

Fuels during Construction), which requires 30 percent of construction equipment to switch from conventional technologies to hybrid, compressed natural gas, electric, biodiesel, or renewable diesel. Implementation of the construction and demolition plan and compliance with Mitigation Measure GHG-1.1 (Utilize Alternative Fuels during Construction) would reduce GHG emissions shown in Table 3.5-4 of the EIR and ensure that construction-related GHG emissions are consistent with the City climate action plan and BAAQMD-recommended BMPs.

For the revised Project, total GHG emissions would be 81,202 MT, which would result in a 30-year amortization of 2,707 MT/year. Total net GHG emissions for the revised Project would be roughly 92,800 to 101,710 MT (depending on the development scheme); therefore, construction would represent < 3 percent of total GHG emissions. This would be an increase from the GHG emissions presented in the EIR for the original Project. However, given the small contribution of construction emissions relative to overall Project GHG emissions, the revised Project would not result in an emissions increase large enough to substantially increase the severity of the significant GHG impact. Further, the EIR commits the Project to the BAAQMD-recommended BMPs for reducing construction GHGs, including specific Mitigation Measures GHG-1.1 (Utilize Alternative Fuels during Construction).

Despite the projected increase in GHG emissions compared to the original Project, implementation of this measure would continue to reduce GHG emissions to the extent feasible. In addition, one of the goals of the revised Project is to reduce refuse excavation, which would help to minimize and reduce CH₄ emissions.

GHG-1.1: *Utilize Alternative Fuels during Construction.* Require construction contractors to use alternative fuels in at least 30 percent of the construction equipment that uses diesel fuel. Alternative fuels may include electricity, compressed natural gas, biodiesel, or renewable diesel, such as diesel high-performance renewable.

With implementation of this mitigation measure, there would be no new impact, and impacts would not be substantially more severe than those that were previously identified. As noted above, the EIR found that this impact would be significant and unavoidable for the original Project, and while GHG emissions under the revised Project would increase as compared to the original Project (from < 1 percent to < 3 percent of overall Project GHG emissions) this increase would not result in a substantially more severe impact. Therefore, the conclusion in the EIR remains valid.

Impact GHG-2: Conflicts with Applicable Plans and Policies. The Project would conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs.

In the EIR, the original Project was evaluated against two plans that were adopted for the purposes of reducing GHG emissions relevant to the Project: the AB 32 Scoping Plan and the City of Santa Clara CAP. In addition, the Project's consistency with EO S-03-05 and B-30-15 was also assessed. The original Project was determined to be less than significant and less than significant with mitigation

relative to the AB32 Scoping Plan and Santa Clara CAP, respectively, and significant and unavoidable for the two executive orders. Because the revised Project would consider changes to the construction plan and not the operational phases, the GHG emissions from construction of the revised Project, like those of the original Project, would result in only a temporary increase in GHG emissions, and those emissions would not result in a substantially more severe impact, as discussed in Impact GHG-1. The conclusions of the EIR with respect to potential conflicts with an applicable plan, policy, or regulation adopted for the purpose of reducing emissions of GHGs (Impact GHG-2) remain valid, and the revised Project would not result in a substantially more severe impact. Considering the nature of the revised Project, the conclusions of the EIR remains valid.

3.7 Noise and Vibration

Impact NOI-1: Exposure to Excessive Noise Levels (includes Impact NOI-1a: Construction Noise Impacts on Off-Site Land Uses and Impact NOI-1b: Construction Noise Impacts on On-Site Land Uses)

The EIR analyzed construction impacts associated with the original Project. As discussed in Section 3.6 of the EIR, prior to mitigation, construction of the original Project would have the potential to result in construction noise levels in excess of the applicable standards during non-exempt hours. Although hauling was proposed for the original Project, haul truck noise was not evaluated separately from on-site construction noise. The proposed changes to the Project include an increase in haul truck activity to import soil to the site, resulting in an assessment of the potential for this change to result in greater impacts than previously disclosed. Haul truck noise for the revised Project was estimated to determine if potential noise impacts from project hauling activity would be significant.

Although haul truck activity is temporary in nature, only occurring during the construction window for a project, it can result in substantial increases in ambient noise levels in the vicinity of the haul routes. No specific quantitative threshold exists in the city to assess the significance of haul truck noise increases during construction. The criteria in this assessment are based on the criteria commonly employed to assess the significance of traffic noise increases. Specifically, for the purposes of this analysis, a substantial temporary noise impact would occur if haul truck noise would result in an increase of 3 decibels (dB) over ambient noise levels (considered to be “barely perceptible”) at sensitive uses (e.g., hotel uses, residential uses, or other uses where people generally sleep) along segments where existing or resulting ambient noise levels are above the applicable land use compatibility standard for adjacent uses. Along segments where existing and resulting ambient noise levels are below the applicable land use compatibility standard for adjacent sensitive uses, a 5 dB increase over ambient noise levels is allowed before a significant impact is identified.

Traffic noise modeling was conducted for an Existing (year 2015) plus Haul Truck scenario, based on the haul truck estimates provided by the project sponsor.²² Haul routes were selected for modeling based on the assumption that trucks would be traveling to and from the Project site on nearby highways (e.g., SR 237 and US 101) and avoiding use of local roadways to the greatest extent feasible. The analysis conservatively assumed 100 percent of haul trucks would utilize each haul route identified.

²² Related. 2021. Data Needs Responses. January.

Haul truck routes modeled included Lawrence Expressway to Tasman Drive to the project site, SR 237 to Great American Parkway to the project site, and US 101 to Great American Parkway to the project site or to Tasman Drive to the project site. According to the project sponsor, on a worst-case day and during a worst-case hour, there would be up to 28 deliveries of soil to the project site. Assuming each of these trucks traveled to and from the site during that hour, there would be up to 56 one-way trips per hour (28 round trips) on the segments utilized by haul trucks. During most of project construction, the estimated daily and hourly deliveries would be fewer (with most other phases having between 2 and 20 truck deliveries per hour). To ensure a conservative analysis, worst-hour volumes were used in order to estimate the reasonable maximum noise increase resulting from haul truck activity during a worst-case day.

Although some segments would most likely be used by only a portion of the haul trucks, this analysis conservatively assumes that 100 percent of the haul trucks during a worst-case hour would use each haul route segment. A worst-hour Existing plus Haul Truck Noise scenario was modeled using Existing (2015) data and worst-hour haul truck data provided by the project sponsor. Existing (2015) plus Haul truck traffic noise levels were compared to noise modeling results for Existing (2015) conditions. The results of the Existing and Existing plus Haul Truck worst-hour traffic noise modeling are shown in Table 3-6.

As shown in Table 3-6, hourly haul truck-related noise increases along hauling segments would be below 3 dB for all roadway segments analyzed. Therefore, because revised Project haul truck trips would not result in a 3 or 5 dB increase in noise along any segment (with the applicable criteria depending on the existing ambient noise), increases in ambient noise resulting from temporary hauling activity would not be considered substantial. The revised Project would have a less-than-significant impact on haul truck noise to on- and off-site uses. There would be no new impact, impacts would not be more severe than those that were previously identified, and the conclusion in the EIR remains valid.

Impact C-NOI-2: Cumulative Exposure to Ground-Borne Vibration and Noise

Ground-borne vibration generated by trucks or vehicles traveling on roadways is usually below the threshold of perception at adjacent land uses unless there are severe discontinuities in the roadway surface. Because roadways in the Project area are reasonably maintained, with no severe discontinuities, revised Project-related haul truck trips traveling on the local roadway network would not be expected to result in ground-borne vibration at or perceptible by nearby sensitive uses. Therefore, the revised Project would have a less-than-significant impact on vibration from construction hauling. There would be no new impact, impacts would not be more severe than those that were previously identified, and the conclusion in the EIR remains valid.

Table 3-5. Existing versus Existing Plus Haul Truck Traffic Noise Modeling Results

Roadway	Segment	Existing Worst-Hour dBA Leq ^a	Existing + Haul Worst-Hour dBA Leq ^a	Delta (dB)	Most Sensitive Adjacent Land Use ^b	Significant Haul Truck Noise Impact? (> 3 dB increase)
Tasman Drive	Lawrence Expressway to Birchwood Drive	70.1	71.1	1.1	SFR	No
Tasman Drive	Birchwood Drive to Reamwood Drive	70.2	71.2	1.0	SFR	No
Tasman Drive	Reamwood Drive to Patrick Henry Drive	69.2	70.4	1.3	SFR	No
Tasman Drive	Centennial Boulevard to Calle Del Sol	71.0	71.9	0.9	MFR	No
Lawrence Expressway	Persian Drive to Tasman Drive	75.0	75.6	0.5	SFR	No
Lawrence Expressway	Tasman Drive to Palamos Drive	75.9	76.3	0.4	SFR	No
Great American Parkway	State Route 237 to Yerba Buena Way/Great America Way	72.0	72.7	0.7	O/C/I	No
Great American Parkway	Yerba Buena Way/Great America Way to Old Mountain Road	71.7	72.5	0.8	O/C/I	No
Lafayette Street	Calle De Luna to Tasman Drive	67.7	69.4	1.7	O/C/I	No

dBA Leq = A-weighted decibels equivalent continuous sound level; dB = decibels.

^a Modeling was conducted at a standard distance of 50 feet from the roadway centerline. These results are conservative, as the average number of deliveries is expected to be lower than the values modeled in this analysis.

^b O/C/I = Office/Commercial/Industrial; MFR = Multi-Family Residential; SFR = Single-Family residential.

3.8 Geology and Soils

Impact GEO-1: Soil Erosion. Construction of the Project would expose soil and buried refuse, potentially resulting in substantial soil erosion.

The EIR analyzed construction impacts associated with the original Project. As shown in Table 3.9-4 of the EIR, construction of the original Project would generate approximately 1.73 million cy of material from grading, compaction, and excavating due to the uneven topography at the Project site created by the underlying refuse layers. This material would be used to balance the cut and fill on-site so that the need for soil import and export would be minimized to the extent possible. However, these excavation, compaction, and grading activities would be conducted in proximity to surrounding receiving water bodies (i.e., the Guadalupe River and San Tomas Aquino Creek) and could, if not properly managed, result in discharges of sediment-laden runoff to these waters. As detailed under Impact GEO-1 of the EIR, Mitigation Measure GEO-1.1 (Detailed Grading and Erosion Control Plan), would be implemented to reduce construction-related erosion impacts and ensure that this impact would be less than significant with mitigation.

As discussed in Chapter 2, *Project Description*, the revised Project primarily focuses on the change in the amount of soil import used for construction activities and construction phasing. Compared to the original Project analyzed in the EIR, under the revised Project approximately 782,600 cy of off-site imported soil would be introduced, but a decrease in the overall amount of earthwork by approximately 12,400 cy. The introduction of off-site soil import would facilitate the revised Project's goal to reduce significant cuts into the underlying landfill and impermeable clay cap. All other aspects of the original Project analyzed in the EIR, such as the construction equipment and activities, amount of development, and operational uses, would remain the same. A summary of the earthwork estimates under the revised Project is provided in Table 2-5 in Chapter 2, *Project Description*.

As shown in Table 2-5, the revised Project would decrease the overall amount of earthwork (or disturbed soil), as well as the type of earthwork, required during construction activities. Under the revised Project, the site preparation, soil compaction, and grading would raise existing grades and avoid most cuts into the clay cap and landfill, thereby slightly reducing erosion during these phases of construction. Additionally, because cuts into the clay cap and landfill would be reduced under the revised Project, there would also be a reduction in the need to remove or relocate refuse during these construction phases. Therefore, the revised Project would result in less overall soil disturbance and erosion. Although these impacts would be somewhat reduced under the revised Project, the approximately 1.72 million cy of disturbed material could still expose soil and buried refuse, resulting in a significant impact related to soil erosion. Therefore, the same mitigation measure would be required for the revised Project to ensure that impacts would be reduced.

GEO-1.1: *Detailed Grading and Erosion Control Plan.* A detailed grading and erosion control plan will be prepared and submitted to the City Building Department. The plan shall cover all Project parcels (not just the landfill portions) and off-site areas and include all information required to demonstrate that earthwork activities will be in compliance with California Code of Regulations 21190 et seq. and incorporate by reference the Project's Storm Water Pollution Prevention Plan, as required by the Construction General Permit.

These Grading and Erosion Control Plans will be submitted for approval to the City and the RWQCB, and will include numerous BMPs for grading and erosion control, including air quality measures to reduce dust. Therefore, the revised Project would continue to have a less-than-significant impact with mitigation on soil erosion because the amount of earthwork and exposed refuse would decrease. There would be no new impact, impacts would not be more severe than those that were previously identified, and the conclusion in the EIR remains valid.

3.9 Hazards and Hazardous Materials

Impact HAZ-2: Accidental Release of Hazardous Materials. The Project could create a significant hazard to construction workers, the public, and/or the environment through the release of hazardous materials into the environment during demolition and excavation.

The EIR for the original Project analyzed the potential upset and accident conditions associated with building demolition and excavation activities at the Project site, as well as accidental releases of hazardous materials from nearby facilities. Demolition of the buildings containing hazardous materials on the Project site and in Tasman East could potentially release hazardous materials into the environment. However, because the Project would be required to comply with existing regulations, the original Project would have a less-than-significant impact on the public or the environment during building demolition activities. Additionally, the EIR conducted hazardous waste database searches and determined that there would be a less-than-significant impact on the Project from an accidental release of stored hazardous materials from commercial/industrial facilities within 0.5 mile of the Project since none of the regulated facilities are within 0.5 mile of the Project boundaries. The revised Project would not affect any of these impacts; thus, they are not discussed further.

The EIR also determined that excavation of the Project site would place construction workers in proximity to known contaminants from the underlying refuse beneath the surface, which could result in significant impacts. However, as detailed under Impact HAZ-2 of the EIR, Mitigation Measure HAZ-2.1 (Finalize Waste Management Plan for Construction), would be implemented to reduce construction-related hazardous materials release impacts, specifically those related to the refuse underlying the Project site, and ensure that this impact would be less than significant.

Under the revised Project, the site preparation and grading construction activities would avoid most cuts into the landfill, thereby avoiding substantial exposure of the landfill system and clay cap and the release of harmful gases during these phases of construction. Because the landfill would not be substantially disturbed under the revised Project, there would be a reduced need to remove or relocate refuse during these construction phases. Therefore, the revised Project would result in less overall refuse being exposed, fewer air quality impacts related to refuse exposure, and fewer impacts related to exposure of hazardous materials. While these impacts would be substantially reduced under the revised Project, Mitigation Measure HAZ-2.1 (Finalize Waste Management Plan for Construction) would still be required for these construction phases (Phases 1 through 4) and for future construction phases, which are not the subject of this analysis.

Importing additional soil would not change the impacts identified in the EIR related to the landfill system or groundwater monitoring systems. The clay cap was designed to accommodate large settlement values while maintaining its integrity. Settlement of the landfill is driven primarily by two mechanisms: 1) compression of the refuse and 2) degradation of the refuse. Although total settlement of the refuse would increase as result of compression from additional fill, degradation

would still continue at the same rate. Settlement surcharge pads (5 feet in height) placed on Parcel 4 showed settlements of up to 3 inches over 18 months, which was relatively uniform under the surcharge pad. Differential settlements were on the order of ½ inch over a lateral distance of 50 feet.

Both the stockpile height and area will be larger than the surcharge pad, and long-term settlement is expected to increase but vary gradually with lateral distance away from each stockpile. The largest settlement is expected to be beneath the stockpiles where the stresses are the greatest. The stock pile edges will be sloped, and the stresses in the refuse will gradually decrease with distance from the top edge of the stockpile. The gradual decrease in stresses will result in low differential settlement, which the clay cap can tolerate. Therefore, additional settlement as a result of the weight of the imported soil will not affect the integrity of the landfill cap.

HAZ-2.1: *Finalize Waste Management Plan for Construction.* Prior to Project construction, a final Waste Management Plan shall be prepared and implemented. This plan shall be submitted to the LEA, CalRecycle, Regional Water Board, and BAAQMD for review and approval. Specifically, the final Waste Management Plan shall contain, at a minimum, the following requirements, which are included in the draft Waste Management Plan:

- Waste excavation shall be performed in accordance with a Health and Safety Plan (HASP) designed to minimize impacts from dust, odor, and other nuisances, and assure waste is handled in a safe and environmentally responsible manner.
- During waste excavation and relocation, the worksite shall be monitored for dust, odor, or other nuisances in accordance with general landfill construction practices and the HASP.
- At the end of the working day, any exposed waste shall be covered with soil or an alternative material, such as a geosynthetic blanket, (i.e., interim cover).
- Odors, should they occur, shall be controlled by application of a deodorant, masking agent, neutralizing agent, or lime, and an interim landfill cover at the end of each working day.
- A “Project Contact” shall be designated who will be responsible for responding to any local complaints about dust, odors, or other nuisances associated with the waste excavation and regrading operations.
- During excavation activities, excavation areas shall be monitored using a hand-held instrument calibrated to measure combustible gases (including methane), hydrogen sulfide, oxygen, and VOCs.
- No hot work (e.g., welding) shall be allowed in the vicinity of excavation activities unless methane concentrations are sufficiently below the lower explosive limit of 8 percent. If methane concentrations approach 5 percent, excavation activities shall be stopped until the landfill gas collection system can be modified to reduce the methane concentrations in the excavation area. If methane levels are persistent in areas where earthwork and/or hot work activities are necessary, inert gases (e.g., nitrogen) can be introduced into affected subsurface materials to lower oxygen and methane concentrations. By introducing an inert gas into the affected area, methane and oxygen can be displaced to create insufficient oxygen concentrations to support combustion.

Therefore, the revised Project would continue to have a less-than-significant impact with mitigation on the accidental release of hazardous materials. There would be no new impact, impacts would not be more severe than those that were previously identified, and the conclusion in the EIR remains valid.

[page left blank intentionally]

Chapter 4

Conclusion

The evaluation of the City Place Revised Soil Import and Earthwork Plans (revised Project) above concludes that the Project changes qualify for an EIR addendum. It is consistent with the zoning and land use characteristics established by the *City of Santa Clara General Plan* and City zoning codes, and any potential environmental impacts, specifically those pertaining to construction, associated with its implementation were adequately analyzed and covered by the analysis in the EIR.

The revised Project would be required to comply with applicable mitigation measures identified in the EIR. With implementation of the applicable mitigation measures, the revised Project would not result in a substantial increase in the severity of previously identified significant impacts in the EIR or result in any new significant impacts that were not previously identified in the EIR.

The EIR analyzed the impacts of development on the City Place project site. The revised Project would not result in substantial changes or involve new information not already analyzed in the EIR because the level and extent of construction activities, specifically soil import and earthwork, now proposed for the site is within the broader impact envelope analyzed in the EIR. The revised Project would not cause new significant impacts not previously identified in the EIR, or result in a substantial increase in the severity of previously identified significant impacts. No new mitigation measures would be necessary to reduce significant impacts. As the CEQA Addendum the City prepared to support its approval of the Phase 2 Development Area Plan (DAP 2) for the City Place Project in June 2020 concluded in its evaluation of updated information about background conditions, which showed that the trip estimates in the EIR remain valid, no changes have occurred with respect to surrounding circumstances related to the impacts pertinent to the changes proposed by revised Project that would cause significant environmental impacts to which the revised Project would contribute considerably, and there is no new information of substantial importance that shows that the revised Project would cause new or substantially more severe significant environmental impacts.

As noted above, the EIR included a cumulative analysis, which assumed buildout of specific local projects in the city or adjacent cities, full implementation of City and County general plans, and where applicable, full implementation of the general plans of the nine Bay Area counties and associated cities. As discussed above, the severity of construction impacts related to the topics analyzed in this document would not increase as compared to the original Project, peak hour construction trips would decrease under the revised Project, and operational impacts would not change as compared to the original Project. Therefore, the revised Project's contribution to cumulative construction impacts would not increase as compared to what was described in the EIR for the original Project.

Therefore, no supplemental environmental review is required in accordance with Public Resources Code Section 21166 and CEQA Guidelines Sections 15162 through 15164.

Overall, based on an examination of the analysis, findings, and conclusions of the EIR, which are summarized in Chapter 3 of this document, the potential environmental impacts associated with the revised Project have been adequately analyzed and covered in the EIR. Therefore, an addendum is an appropriate level of CEQA analysis for the revised Project, and no further review or analysis, such as a subsequent EIR, is required under CEQA.

[page left blank intentionally]

Construction Traffic Projections – 2021

Number of trucks entering and exiting the site a day during the peak and on an average day
Number of workers entering and exiting the site a day during the peak and on an average day

[illegible]

Jul-23					
Item	Daily		Peak Hour		
	Peak	Average	Peak	Average	
Trucks	284	232	29	24	
Workers	4188	2021	1257	607	
Passenger Car Equivalents (PCEs)					
Trucks	852	696	87	72	
Workers	2792	1348	838	405	
Total Traffic	3644	2044	925	477	

[illegible]

Appendix B

Technical Memo for Air Quality and Greenhouse Gas Emissions

TECHNICAL MEMO

AIR QUALITY AND GHG

Date: **April 19, 2021**

To: **John Siderides, The Related Companies**

From: **Michael Keinath**
Sarah Manzano

Subject: **CEQA ASSESSMENT FOR PROPOSED PROJECT REVISIONS TO
THE RELATED COMPANIES: CITY PLACE SANTA CLARA**

Dear Mr. Siderides:

At the request of The Related Companies (TRC), Ramboll US Consulting, Inc. ("Ramboll") evaluated air quality and greenhouse gas impacts of proposed updates to the construction schedule for the City Place Santa Clara Project ("Project"). Impacts of the Project were disclosed in a 2015 Environmental Impact Report (EIR), and we understand that TRC would like to understand the changes to those impacts resulting from updated assumptions for the grading phase of construction, as well as a delay in onset of construction from what was assumed in the EIR. The purpose of this memo is to summarize the methodology and results the air quality and greenhouse gas (GHG) calculations we conducted based on the revised Project grading.

Modifications to Construction Schedule and Activity

As part of the proposed project modifications, TRC has provided updates to the construction schedule used in the analysis for the 2015 EIR. The revised construction schedule includes a shift in the overall schedule from a start date in 2016 to a start date in 2021. The revised schedule also replaces several subphases from the EIR with updated subphases to reflect the necessary changes in the project description related to excavation and soil import. These updates include an increase in soil import volumes, which require a greater number of haul truck trips than anticipated in the EIR. The revised schedule also removes any activity associated with Parcel 3 of the Project site.

The updates to the schedule, including revised phase dates and replacement subphases, is included in **Table 1**. The construction equipment activity for the updated phases is included in **Table 2**. For construction subphases not modified other than the start and end dates, Ramboll assumed all construction activity, including off-road equipment and on-road truck and worker trips, was the same as

analysed in the EIR.¹ Emission factors for all such activity were updated to reflect the revised construction schedule.

Construction Emissions Methodology

Ramboll calculated criteria air pollutant (CAP) and GHG emissions from all construction activity under the revised schedule by using the same methodology and data sources as the EIR. Consistent with the EIR, Ramboll calculated emissions from off-road equipment exhaust, on-road vehicle exhaust, soil stockpiling and handling, and on-road vehicle fugitive dust. Emissions associated with demolition, grading, and landfill disturbance were assumed to be the same as presented in the EIR and not altered for this analysis.

Off-Road Equipment

As shown in **Table 2**, TRC provided construction off-road equipment data including equipment description, count, horsepower, engine tier, and operating hours. To calculate exhaust emissions from this equipment, Ramboll relied on emission factors and load factors from the California Air Resources Board (ARB) In-Use Off-Road Equipment Model, OFFROAD2011. Although a more recent version of the model has been published (OFFROAD2017), that version of the model does not have default fleet mix data necessary to calculate unmitigated emissions. The methodology used to calculate emissions from off-road equipment is presented in **Table 3**.

Consistent with the EIR, Ramboll calculated emissions for two scenarios, unmitigated and mitigated. For the unmitigated scenario, Ramboll assumed fleet average emission factors for each type of equipment in the specified construction year, as reported by OFFROAD2011. For the mitigated scenario, Ramboll used emission factors for the specified ARB Engine Tier certification listed with each piece of equipment.

On-Road Vehicles

As with off-road equipment activity, Ramboll calculated exhaust and fugitive emissions associated with on-road trucks and worker vehicles using the same methodology as the EIR. Ramboll relied on updated vehicle counts for the revised construction phases, presented in **Table 1**, and used the same vehicles counts as the EIR for the unmodified phases.

For exhaust emissions and brake and tire wear, Ramboll used emission factors from the most recent version of the ARB on-road vehicle emissions model, EMFAC2021. Emissions from fugitive entrained road dust were calculated using the same emission factors as the EIR. The methodology used to calculate emissions from on-road vehicles is presented in **Table 3**. Total vehicle trip counts and trip lengths are presented in **Table 1**.

Fugitive Emissions from Soil Movement

The EIR also disclosed fugitive dust emissions from activities such as entrained road dust, demolition, soil stockpiling, and bulldozing and grading operations. Of these emission sources, only soil stockpiling emissions are directly dependent on the total amount of soil imported. Ramboll updated these emissions based on the revised soil import totals for each phase, as shown in **Table 4**.

Entrained road dust emissions vary with vehicle miles travelled. Ramboll updated road dust emissions to reflect the revised vehicle trip rates, using the same emission factors as the EIR. These emissions are presented in **Table 5**. Demolition and grading emissions were assumed to be the same as

¹ City of Santa Clara. 2015. Related Santa Clara Final Environmental Impact Report, Appendix 3.4. Available at: <https://www.santaclaraca.gov/home/showdocument?id=15556>

calculated in the EIR. These emissions are presented in **Table 6**. Similarly, **Table 7** includes the EIR GHG emissions from disturbing the landfill under the Project site. Although the revised project description calls for a reduction in potential landfill disturbances, Ramboll has conservatively assumed these emissions would be equal to those calculated in the EIR.

Results and Conclusions

Unmitigated and Mitigated CAP emissions are presented in **Tables 8** and **9**, respectively. GHG emissions are presented in **Table 10**. As shown in **Table 8**, the revised average daily unmitigated emissions appear to have decreased substantially from the EIR, driven primarily by the change in schedule and improved offroad and on-road fleets, but also from the reduced activity associated with Parcel 3. In the EIR, excess NOx emissions in 2017 were reduced through two mitigation measures designed to require cleaner offroad and on-road equipment. Mitigation Measure AQ-2.1 required the use of Tier 3 and Tier 4 offroad equipment, and Mitigation Measure AQ-2.2 required the use of haul trucks model year 2010 or newer. In the revised construction schedule beginning in 2021, the “default” fleet data from ARB models largely meets or exceeds these mitigation measure requirements. In addition, newer trucks and equipment also often generate even lower emissions than the equipment required under the mitigation measures.

While fugitive dust emissions increase compared to the EIR, the increase is almost entirely a result of the increased number of haul truck trips, with emissions occurring off-site (associated with on-road dust). The same mitigation measure, compliance with Best Management Practices, would continue to apply and therefore fugitive dust emissions would continue to be less than significant with implementation of the BMPs.

Total GHG emissions as presented in **Table 10** also increase from those presented in the EIR. As noted in Chapter 3.5 of the Draft EIR, there is no applicable significance threshold for construction-related GHG emissions. However, the EIR commits the Project to following recommended Best Management Practices for reducing construction GHGs, including specific Mitigation Measures GHG-1.1 and AQ-2.4. Implementation of these measures ensures that construction-related GHG emissions are consistent with the City of Santa Clara Climate Action Plan.

Ramboll did not evaluate health risk impacts as part of this analysis. However, exhaust PM10 emissions have decreased substantially from the EIR. PM10, as diesel particulate matter, was the only pollutant considered for health risk impacts. Although the number of haul truck trips has increased, the maximum average daily number of truck trips in any construction phase is 397 truck trips per day. This is well below the lifetime operational screening level of 1,000 trucks per day previously recommend by the BAAQMD,² and for a considerably shorter exposure period. Even if emissions local to the Project site increased despite the overall decrease in PM10 emissions, this suggests that the increase in haul truck trips from the EIR would not result in considerable health risk impacts.

Attachments:

Tables

² BAAQMD. 2011. BAAQMD CEQA Guidelines. Available at: https://www.baaqmd.gov/~media/Files/Planning%20and%20Research/CEQA/BAAQMD%20CEQA%20Guidelines_May%202011_5_3_11.ashx

TABLES

Table 1
Revised Construction Schedule
Related Santa Clara City Center
Santa Clara, California

Phase	Subphase	Start Date	End Date	Year	Days/Week	Total Work Days	Worker Trips per Day	Vendor Trips per Day	Total Haul Truck Trips	Worker Trip Length (mi)	Vendor Trip Length (mi)	Haul Truck Trip Length (mi)
Parcel 5 - Phase 1	Site Prep (garage excavation), Clear and Grub	5/2/2022	7/29/2022	2022	5	62	24	0	0	12.4	7.3	0
Parcel 5 - Phase 1	Demolition	5/2/2022	7/29/2022	2022	5	62	0	4	0	12.4	7.3	0
Parcel 5 - Phase 1	Parcel 5 Street Rough Grading	2/25/2023	6/6/2023	2023	5	72	20	0	2,176	12.4	7.3	20
Parcel 5 - Phase 1	Auger Cast Caissons & Site Utilities	8/2/2022	10/29/2022	2022	5	62	160	44	0	12.4	7.3	0
Parcel 5 - Phase 1	Curb, Gutter & Interior Roads	11/28/2023		2023	5	24	200	12	0	12.4	7.3	0
Parcel 5 - Phase 1	Curb, Gutter & Interior Roads		5/18/2024	2024	5	98	200	12	0	12.4	7.3	0
Parcel 5 - Phase 1	Building Construction	10/4/2022		2022	5	64	1,000	40	0	12.4	7.3	0
Parcel 5 - Phase 1	Building Construction			2023	5	260	1,000	40	0	12.4	7.3	0
Parcel 5 - Phase 1	Building Construction			2024	5	262	1,000	40	0	12.4	7.3	0
Parcel 5 - Phase 1	Building Construction		2/2/2025	2025	5	23	1,000	40	0	12.4	7.3	0
Parcel 4 - Phase 2	Site Prep, Clear and Grub, Rough Grading (Parcel 4 Stockpile)	6/7/2021		2021	5	147	20	0	57,879	12.4	7.3	20
Parcel 4 - Phase 2	Site Prep, Clear and Grub, Rough Grading (Parcel 4 Stockpile)		1/7/2022	2022	5	5	20	0	1,929	12.4	7.3	20
Parcel 4 - Phase 2	Rough Grading (completion of Phase 2a+2b)	8/2/2022		2022	5	108	22	0	0	12.4	7.3	0
Parcel 4 - Phase 2	Rough Grading (completion of Phase 2a+2b)		3/4/2023	2023	5	44	22	0	0	12.4	7.3	0
Parcel 4 - Phase 2	Rough Grading (East Park and CPP)	3/4/2023		2023	5	215	22	0	3,468	12.4	7.3	20
Parcel 4 - Phase 2	Rough Grading (East Park and CPP)		8/6/2024	2024	5	157	22	0	2,532	12.4	7.3	20
Parcel 4 - Phase 2	Auger Cast Caissons & Site Utilities	12/3/2022		2022	5	20	300	132	0	12.4	7.3	0
Parcel 4 - Phase 2	Auger Cast Caissons & Site Utilities		7/19/2023	2023	5	142	300	132	0	12.4	7.3	0
Parcel 4 - Phase 2	Curb, Gutter & Interior Roads	8/4/2024		2024	5	106	400	48	0	12.4	7.3	0
Parcel 4 - Phase 2	Curb, Gutter & Interior Roads		4/30/2025	2025	5	86	400	48	0	12.4	7.3	0
Parcel 4 - Phase 2	Building Construction	6/4/2023		2023	5	150	2,400	58	0	12.4	7.3	0
Parcel 4 - Phase 2	Building Construction			2024	5	261	2,400	58	0	12.4	7.3	0
Parcel 4 - Phase 2	Building Construction		5/17/2025	2025	5	98	2,400	58	0	12.4	7.3	0
Parcel 4 - Phase 3	Site Prep, Clear and Grub, LFG Install and Demo, Soil Import, Rough Grading	5/31/2024	9/10/2024	2024	5	72	20	0	28,624	12.4	7.3	20
Parcel 4 - Phase 3	Auger Cast Caissons & Site Utilities	8/27/2024	11/16/2024	2024	5	57	300	88	0	12.4	7.3	0
Parcel 4 - Phase 3	Curb, Gutter & Interior Roads	1/16/2024	5/11/2024	2024	5	82	400	10	0	12.4	7.3	0
Parcel 4 - Phase 3	Building Construction	2/14/2025		2025	5	228	1,100	20	0	12.4	7.3	0
Parcel 4 - Phase 3	Building Construction		10/7/2026	2026	5	200	1,100	20	0	12.4	7.3	0
Parcel 4 - Phase 4	Site Prep, Clear and Grub, LFG Install and Demo, Soil Import, Rough Grading	8/29/2025		2025	5	88	20	0	19,447	12.4	7.3	20
Parcel 4 - Phase 4	Site Prep, Clear and Grub, LFG Install and Demo, Soil Import, Rough Grading		2/28/2026	2026	5	42	20	0	9,177	12.4	7.3	20
Parcel 4 - Phase 4	Auger Cast Caissons & Site Utilities	3/3/2026	5/23/2026	2026	5	57	300	44	0	12.4	7.3	0
Parcel 4 - Phase 4	Curb, Gutter & Interior Roads	11/3/2026		2026	5	42	400	12	0	12.4	7.3	0
Parcel 4 - Phase 4	Curb, Gutter & Interior Roads		3/20/2027	2027	5	55	400	12	0	12.4	7.3	0
Parcel 4 - Phase 4	Building Construction	6/5/2026		2026	5	150	1,100	46	0	12.4	7.3	0
Parcel 4 - Phase 4	Building Construction			2027	5	261	1,100	46	0	12.4	7.3	0
Parcel 4 - Phase 4	Building Construction		3/26/2028	2028	5	60	1,100	46	0	12.4	7.3	0

Parcel 1 - Phase 5	Site Prep, Clear and Grub, Rough Grading	8/8/2029	10/25/2029	2029	5	55	60	2	0	12.4	7.3	0
Parcel 1 - Phase 5	Auger Cast Caissons & Site Utilities	9/28/2029	12/20/2029	2029	5	59	300	44	0	12.4	7.3	0
Parcel 1 - Phase 5	Curb, Gutter & Interior Roads	9/5/2029		2029	5	83	400	12	0	12.4	7.3	0
Parcel 1 - Phase 5	Curb, Gutter & Interior Roads		1/20/2030	2030	5	14	400	12	0	12.4	7.3	0
Parcel 1 - Phase 5	Building Construction	11/8/2028		2028	5	38	1,400	42	0	12.4	7.3	0
Parcel 1 - Phase 5	Building Construction			2029	5	260	1,400	42	0	12.4	7.3	0
Parcel 1 - Phase 5	Building Construction			2030	5	260	1,400	42	0	12.4	7.3	0
Parcel 1 - Phase 5	Building Construction		8/1/2031	2031	5	153	1,400	42	0	12.4	7.3	0
Parcel 2 - Phase 6	Site Prep, Clear and Grub, Rough Grading	8/6/2031	9/14/2031	2031	5	27	60	2	0	12.4	7.3	0
Parcel 2 - Phase 6	Auger Cast Caissons & Site Utilities	9/17/2031	12/14/2031	2031	5	62	120	44	0	12.4	7.3	0
Parcel 2 - Phase 6	Curb, Gutter & Interior Roads	3/4/2031	7/19/2031	2031	5	97	160	12	0	12.4	7.3	0
Parcel 2 - Phase 6	Building Construction	12/10/2030		2030	5	16	1,000	38	0	12.4	7.3	0
Parcel 2 - Phase 6	Building Construction			2031	5	260	1,000	38	0	12.4	7.3	0
Parcel 2 - Phase 6	Building Construction			2032	5	261	1,000	38	0	12.4	7.3	0
Parcel 2 - Phase 6	Building Construction		7/29/2033	2033	5	150	1,000	38	0	12.4	7.3	0
Parcel 2 - Phase 7	Site Prep, Clear and Grub, Rough Grading	8/3/2033	11/6/2033	2033	5	67	60	2	0	12.4	7.3	0
Parcel 2 - Phase 7	Auger Cast Caissons & Site Utilities	9/28/2033	12/18/2033	2033	5	57	120	44	0	12.4	7.3	0
Parcel 2 - Phase 7	Curb, Gutter & Interior Roads	8/31/2033		2033	5	87	160	12	0	12.4	7.3	0
Parcel 2 - Phase 7	Curb, Gutter & Interior Roads		1/15/2034	2034	5	10	160	12	0	12.4	7.3	0
Parcel 2 - Phase 7	Building Construction	12/20/2032		2032	5	10	1,000	38	0	12.4	7.3	0
Parcel 2 - Phase 7	Building Construction			2033	5	259	1,000	38	0	12.4	7.3	0
Parcel 2 - Phase 7	Building Construction			2034	5	259	1,000	38	0	12.4	7.3	0
Parcel 2 - Phase 7	Building Construction		6/8/2035	2035	5	114	1,000	38	0	12.4	7.3	0

Notes:

- ¹ Italics denote subphases and data that have been updated from the EIR assumptions. All other data is identical to the EIR.
- ² Trip counts and lengths are one-way trips.
- ³ Hauling and vendor trip lengths are CalEEMod default values for Santa Clara County. All trucks were conservatively assumed to be heavy heavy duty.

Abbreviations:

mi - miles

Table 2
Revised Construction Off-Road Equipment List
Related Santa Clara City Center
Santa Clara, California

Phase	Subphase	Equipment	OFFROAD2017 Equipment Type	Quantity	Horsepower	Daily Hours	Mitigated Tier
Parcel 5 - Phase 1	Site Prep (garage excavation), Clear and Grub	Caterpillar 657K Scrapers	Scrapers	4	600	8	Tier 4 Final
Parcel 5 - Phase 1	Site Prep (garage excavation), Clear and Grub	Caterpillar D8T Dozer	Rubber Tired Dozers	1	328	8	Tier 4 Final
Parcel 5 - Phase 1	Site Prep (garage excavation), Clear and Grub	Caterpillar 14M Motor Grader	Graders	1	259	8	Tier 4 Final
Parcel 5 - Phase 1	Site Prep (garage excavation), Clear and Grub	Caterpillar 825H Compactor	Rollers	1	401	8	Tier 4 Final
Parcel 5 - Phase 1	Site Prep (garage excavation), Clear and Grub	Caterpillar 336 Excavator	Excavators	1	311	8	Tier 4 Final
Parcel 5 - Phase 1	Site Prep (garage excavation), Clear and Grub	Caterpillar 623H Scraper	Scrapers	1	407	8	Tier 4 Final
Parcel 5 - Phase 1	Site Prep (garage excavation), Clear and Grub	Terex Soil Mixer/Stabilizer (Lime treatment)	Other Construction Equipment	2	550	8	Tier 3
Parcel 5 - Phase 1	Parcel 5 Street Rough Grading	Caterpillar 825H Compactor	Rollers	1	401	8	Tier 4 Final
Parcel 5 - Phase 1	Parcel 5 Street Rough Grading	Caterpillar 657 Scraper	Scrapers	4	600	8	Tier 4 Final
Parcel 5 - Phase 1	Parcel 5 Street Rough Grading	Caterpillar D8 Dozer	Rubber Tired Dozers	1	328	8	Tier 4 Final
Parcel 5 - Phase 1	Parcel 5 Street Rough Grading	Caterpillar 14G Blade	Graders	1	259	8	Tier 4 Final
Parcel 5 - Phase 1	Parcel 5 Street Rough Grading	Caterpillar 352 Excavator	Excavators	2	424	8	Tier 4 Final
Parcel 5 - Phase 1	Auger Cast Caissons & Site Utilities	John Deere 410K TC Backhoe Loader	Tractors/Loaders/Backhoes	3	106	8	Tier 4 Final
Parcel 5 - Phase 1	Auger Cast Caissons & Site Utilities	Auger Cast Caissons Drill Rig	Bore/Drill Rigs	2	282	8	Tier 4 Final
Parcel 5 - Phase 1	Curb, Gutter & Interior Roads	Putzmeister 47Z - Meter Truck Mounted Concrete Boom Pump	Pumps	1	470	6	Tier 4 Final
Parcel 5 - Phase 1	Curb, Gutter & Interior Roads	AP 600 D Cat Asphalt Paver	Pavers	2	174	8	Tier 4 Final
Parcel 5 - Phase 1	Curb, Gutter & Interior Roads	Ingersoll Rand P185WJD 185 CFM Towable Air Compressor	Air Compressors	3	49	8	Tier 4 Final
Parcel 5 - Phase 1	Building Construction	Putzmeister 47Z - Meter Truck Mounted Concrete Boom Pump	Pumps	1	470	8	Tier 4 Final
Parcel 5 - Phase 1	Building Construction	Link Belt Conventional Lattice Crawler Crane	Cranes	1	282	8	Tier 4 Final
Parcel 4 - Phase 2	Site Prep, Clear and Grub, Rough Grading (Parcel 4 Stockpile)	Dozer D8T / Diesel	Rubber Tired Dozers	1	328	10	Tier 4 Final
Parcel 4 - Phase 2	Site Prep, Clear and Grub, Rough Grading (Parcel 4 Stockpile)	825H Compactors/diesel	Rollers	1	401	10	Tier 4 Final
Parcel 4 - Phase 2	Site Prep, Clear and Grub, Rough Grading (Parcel 4 Stockpile)	MG140M3/diesel	Graders	1	259	10	Tier 4 Final
Parcel 4 - Phase 2	Site Prep, Clear and Grub, Rough Grading (Parcel 4 Stockpile)	skip loader 210K/diesel	Tractors/Loaders/Backhoes	1	90	5	Tier 4 Final
Parcel 4 - Phase 2	Site Prep, Clear and Grub, Rough Grading (Parcel 4 Stockpile)	power sweep isuzu/diesel	Off-Highway Trucks	2	215	10	Tier 4 Final
Parcel 4 - Phase 2	Site Prep, Clear and Grub, Rough Grading (Parcel 4 Stockpile)	hydroseedr Peterbuilt 388	Off-Highway Trucks	1	536	8	Tier 4 Final
Parcel 4 - Phase 2	Rough Grading (completion of Phase 2a+2b)	Scrapers Cat 657G/Diesel	Scrapers	4	600	8	Tier 4 Final
Parcel 4 - Phase 2	Rough Grading (completion of Phase 2a+2b)	Dozer D8T / Diesel	Rubber Tired Dozers	1	328	10	Tier 4 Final
Parcel 4 - Phase 2	Rough Grading (completion of Phase 2a+2b)	825H Compactors/diesel	Rollers	1	401	10	Tier 4 Final
Parcel 4 - Phase 2	Rough Grading (completion of Phase 2a+2b)	MG140M3/diesel	Graders	1	259	10	Tier 4 Final
Parcel 4 - Phase 2	Rough Grading (completion of Phase 2a+2b)	skip loader 210K/diesel	Tractors/Loaders/Backhoes	1	90	5	Tier 4 Final
Parcel 4 - Phase 2	Rough Grading (completion of Phase 2a+2b)	hydroseedr Peterbuilt 388	Off-Highway Trucks	1	536	8	Tier 4 Final
Parcel 4 - Phase 2	Rough Grading (EAST PARK AND CPP)	Cat 14M Motor Grader	Graders	1	259	10	Tier 4 Final
Parcel 4 - Phase 2	Rough Grading (EAST PARK AND CPP)	Cat 657K Scrapers	Scrapers	4	600	8	Tier 4 Final
Parcel 4 - Phase 2	Rough Grading (EAST PARK AND CPP)	Cat D8T Dozer	Rubber Tired Dozers	1	328	8	Tier 4 Final
Parcel 4 - Phase 2	Rough Grading (EAST PARK AND CPP)	Cat 14M Motor Grader	Graders	1	259	10	Tier 4 Final
Parcel 4 - Phase 2	Rough Grading (EAST PARK AND CPP)	Cat 825H Compactor	Rollers	1	401	10	Tier 4 Final
Parcel 4 - Phase 2	Rough Grading (EAST PARK AND CPP)	Cat 336 Excavator	Excavators	1	311	8	Tier 4 Final
Parcel 4 - Phase 2	Auger Cast Caissons & Site Utilities	John Deere 410K TC Backhoe Loader	Tractors/Loaders/Backhoes	5	106	8	Tier 4 Final
Parcel 4 - Phase 2	Auger Cast Caissons & Site Utilities	Auger Cast Caissons Drill Rig	Bore/Drill Rigs	3	282	8	Tier 4 Final
Parcel 4 - Phase 2	Curb, Gutter & Interior Roads	Putzmeister 47Z - Meter Truck Mounted Concrete Boom Pump	Pumps	1	470	6	Tier 4 Final
Parcel 4 - Phase 2	Curb, Gutter & Interior Roads	AP 600 D Cat Asphalt Paver	Pavers	2	174	8	Tier 4 Final
Parcel 4 - Phase 2	Curb, Gutter & Interior Roads	Ingersoll Rand P185WJD 185 CFM Towable Air Compressor	Air Compressors	5	49	4	Tier 4 Final
Parcel 4 - Phase 2	Building Construction	Putzmeister 47Z - Meter Truck Mounted Concrete Boom Pump	Pumps	1	470	8	Tier 4 Final
Parcel 4 - Phase 2	Building Construction	Link Belt Conventional Lattice Crawler Crane	Cranes	4	282	8	Tier 4 Final
Parcel 4 - Phase 2	Building Construction	Link Belt Conventional Lattice Crawler Crane	Cranes	1	282	8	Tier 4 Final
Parcel 4 - Phase 3	Site Prep, Clear and Grub, LFG Install and Demo, Soil Import, Rough Grading	Dozer D8T / Diesel	Rubber Tired Dozers	1	328	7	Tier 4 Final
Parcel 4 - Phase 3	Site Prep, Clear and Grub, LFG Install and Demo, Soil Import, Rough Grading	825H Compactors/diesel	Rollers	1	401	9	Tier 4 Final
Parcel 4 - Phase 3	Site Prep, Clear and Grub, LFG Install and Demo, Soil Import, Rough Grading	MG140M3/diesel	Graders	1	244	10	Tier 4 Final
Parcel 4 - Phase 3	Site Prep, Clear and Grub, LFG Install and Demo, Soil Import, Rough Grading	skip loader 210K/diesel	Tractors/Loaders/Backhoes	1	90	4	Tier 4 Final
Parcel 4 - Phase 3	Site Prep, Clear and Grub, LFG Install and Demo, Soil Import, Rough Grading	power sweep isuzu/diesel	Off-Highway Trucks	2	215	10	Tier 4 Final
Parcel 4 - Phase 3	Site Prep, Clear and Grub, LFG Install and Demo, Soil Import, Rough Grading	hydroseedr Peterbuilt 388	Off-Highway Trucks	1	536	6	Tier 4 Final
Parcel 4 - Phase 3	Site Prep, Clear and Grub, LFG Install and Demo, Soil Import, Rough Grading	Takeuchi TB290 Excavator	Excavators	1	69	8	Tier 4 Final
Parcel 4 - Phase 3	Site Prep, Clear and Grub, LFG Install and Demo, Soil Import, Rough Grading	Cat 420 Backhoe	Tractors/Loaders/Backhoes	1	88	8	Tier 4 Final
Parcel 4 - Phase 3	Site Prep, Clear and Grub, LFG Install and Demo, Soil Import, Rough Grading	Komatsu WA380-7 Loader	Tractors/Loaders/Backhoes	1	97	8	Tier 4 Interim
Parcel 4 - Phase 3	Site Prep, Clear and Grub, LFG Install and Demo, Soil Import, Rough Grading	Kobelco 230SR Excavator	Excavators	1	166	8	Tier 4 Interim
Parcel 4 - Phase 3	Site Prep, Clear and Grub, LFG Install and Demo, Soil Import, Rough Grading	Kobelco 230SR Excavator	Excavators	1	166	8	Tier 4 Interim
Parcel 4 - Phase 3	Site Prep, Clear and Grub, LFG Install and Demo, Soil Import, Rough Grading	Cat 420 Backhoe	Tractors/Loaders/Backhoes	1	110	4	Tier 4 Interim
Parcel 4 - Phase 3	Site Prep, Clear and Grub, LFG Install and Demo, Soil Import, Rough Grading	Komatsu WA380-7 Loader	Tractors/Loaders/Backhoes	1	97	8	Tier 4 Interim
Parcel 4 - Phase 3	Site Prep, Clear and Grub, LFG Install and Demo, Soil Import, Rough Grading	John Deere 644 Loader	Tractors/Loaders/Backhoes	1	253	8	Tier 4 Final
Parcel 4 - Phase 3	Site Prep, Clear and Grub, LFG Install and Demo, Soil Import, Rough Grading	Bauer BG 24 Drill Rig	Bore/Drill Rigs	1	419	8	Tier 4 Final
Parcel 4 - Phase 3	Site Prep, Clear and Grub, LFG Install and Demo, Soil Import, Rough Grading	Bobcat Loader	Tractors/Loaders/Backhoes	1	61	8	Tier 4 Final
Parcel 4 - Phase 3	Site Prep, Clear and Grub, LFG Install and Demo, Soil Import, Rough Grading	Xtreme 10K Forklift	Forklifts	1	74	8	Tier 4 Final
Parcel 4 - Phase 3	Auger Cast Caissons & Site Utilities	John Deere 410K TC Backhoe Loader	Tractors/Loaders/Backhoes	5	106	8	Tier 4 Final
Parcel 4 - Phase 3	Auger Cast Caissons & Site Utilities	Auger Cast Caissons Drill Rig	Bore/Drill Rigs	3	282	8	Tier 4 Final
Parcel 4 - Phase 3	Auger Cast Caissons & Site Utilities	Putzmeister 47Z - Meter Truck Mounted Concrete Boom Pump	Pumps	1	470	8	Tier 4 Final
Parcel 4 - Phase 3	Curb, Gutter & Interior Roads	Putzmeister 47Z - Meter Truck Mounted Concrete Boom Pump	Pumps	1	470	6	Tier 4 Final
Parcel 4 - Phase 3	Curb, Gutter & Interior Roads	AP 600 D Cat Asphalt Paver	Pavers	2	174	8	Tier 4 Final
Parcel 4 - Phase 3	Curb, Gutter & Interior Roads	Ingersoll Rand P185WJD 185 CFM Towable Air Compressor	Air Compressors	5	49	4	Tier 4 Final
Parcel 4 - Phase 3	Building Construction	Putzmeister 47Z - Meter Truck Mounted Concrete Boom Pump	Pumps	1	470	8	Tier 4 Final
Parcel 4 - Phase 3	Building Construction	Link Belt Conventional Lattice Crawler Crane	Cranes	2	282	8	Tier 4 Final
Parcel 4 - Phase 4	Site Prep, Clear and Grub, LFG Install and Demo, Soil Import, Rough Grading	Dozer D8T / Diesel	Rubber Tired Dozers	1	328	7	Tier 4 Final
Parcel 4 - Phase 4	Site Prep, Clear and Grub, LFG Install and Demo, Soil Import, Rough Grading	825H Compactors/diesel	Rollers	1	401	9	Tier 4 Final
Parcel 4 - Phase 4	Site Prep, Clear and Grub, LFG Install and Demo, Soil Import, Rough Grading	MG140M3/diesel	Graders	1	244	10	Tier 4 Final
Parcel 4 - Phase 4	Site Prep, Clear and Grub, LFG Install and Demo, Soil Import, Rough Grading	skip loader 210K/diesel	Tractors/Loaders/Backhoes	1	90	4	Tier 4 Final
Parcel 4 - Phase 4	Site Prep, Clear and Grub, LFG Install and Demo, Soil Import, Rough Grading	power sweep isuzu/diesel	Off-Highway Trucks	2	215	10	Tier 4 Final
Parcel 4 - Phase 4	Site Prep, Clear and Grub, LFG Install and Demo, Soil Import, Rough Grading	hydroseedr Peterbuilt 388	Off-Highway Trucks	1	536	6	Tier 4 Final
Parcel 4 - Phase 4	Site Prep, Clear and Grub, LFG Install and Demo, Soil Import, Rough Grading	Takeuchi TB290 Excavator	Excavators	1	69	8	Tier 4 Final
Parcel 4 - Phase 4	Site Prep, Clear and Grub, LFG Install and Demo, Soil Import, Rough Grading	Takeuchi TB153FR Excavator	Excavators	1	88	8	Tier 4 Final
Parcel 4 - Phase 4	Site Prep, Clear and Grub, LFG Install and Demo, Soil Import, Rough Grading	Komatsu WA380-7 Loader	Tractors/Loaders/Backhoes	1	97	8	Tier 4 Interim
Parcel 4 - Phase 4	Site Prep, Clear and Grub, LFG Install and Demo, Soil Import, Rough Grading	Kobelco 230SR Excavator	Excavators	1	166	8	Tier 4 Interim

Table 2
Revised Construction Off-Road Equipment List
Related Santa Clara City Center
Santa Clara, California

Phase	Subphase	Equipment	OFFROAD2017 Equipment Type	Quantity	Horsepower	Daily Hours	Mitigated Tier
Parcel 4 - Phase 4	Site Prep, Clear and Grub, LFG Install and Demo, Soil Import, Rough Grading	Kobelco 230SR Excavator	Excavators	1	166	8	Tier 4 Interim
Parcel 4 - Phase 4	Site Prep, Clear and Grub, LFG Install and Demo, Soil Import, Rough Grading	Cat 420 Backhoe	Tractors/Loaders/Backhoes	1	110	4	Tier 4 Interim
Parcel 4 - Phase 4	Site Prep, Clear and Grub, LFG Install and Demo, Soil Import, Rough Grading	Komatsu WA380-7 Loader	Tractors/Loaders/Backhoes	1	97	8	Tier 4 Interim
Parcel 4 - Phase 4	Site Prep, Clear and Grub, LFG Install and Demo, Soil Import, Rough Grading	John Deere 644 Loader	Tractors/Loaders/Backhoes	1	253	8	Tier 4 Final
Parcel 4 - Phase 4	Site Prep, Clear and Grub, LFG Install and Demo, Soil Import, Rough Grading	Bauer BG 24 Drill Rig	Bore/Drill Rigs	1	419	8	Tier 4 Final
Parcel 4 - Phase 4	Site Prep, Clear and Grub, LFG Install and Demo, Soil Import, Rough Grading	Bobcat Loader	Tractors/Loaders/Backhoes	1	61	8	Tier 4 Final
Parcel 4 - Phase 4	Site Prep, Clear and Grub, LFG Install and Demo, Soil Import, Rough Grading	Xtreme 10K Forklift	Forklifts	1	74	8	Tier 4 Final
Parcel 4 - Phase 4	Auger Cast Caissons & Site Utilities	John Deere 410K TC Backhoe Loader	Tractors/Loaders/Backhoes	5	106	8	Tier 4 Final
Parcel 4 - Phase 4	Auger Cast Caissons & Site Utilities	Auger Cast Caissons Drill Rig	Bore/Drill Rigs	3	282	8	Tier 4 Final
Parcel 4 - Phase 4	Auger Cast Caissons & Site Utilities	Putzmeister 47Z - Meter Truck Mounted Concrete Boom Pump	Pumps	1	470	8	Tier 4 Final
Parcel 4 - Phase 4	Curb, Gutter & Interior Roads	Putzmeister 47Z - Meter Truck Mounted Concrete Boom Pump	Pumps	1	470	6	Tier 4 Final
Parcel 4 - Phase 4	Curb, Gutter & Interior Roads	AP 600 D Cat Asphalt Paver	Pavers	2	174	8	Tier 4 Final
Parcel 4 - Phase 4	Curb, Gutter & Interior Roads	Ingersoll Rand P185WJD 185 CFM Towable Air Compressor	Air Compressors	5	49	4	Tier 4 Final
Parcel 4 - Phase 4	Building Construction	Putzmeister 47Z - Meter Truck Mounted Concrete Boom Pump	Pumps	1	470	8	Tier 4 Final
Parcel 4 - Phase 4	Building Construction	Link Belt Conventional Lattice Crawler Crane	Cranes	3	282	8	Tier 4 Final
Parcel 1 - Phase 5	Site Prep, Clear and Grub, Rough Grading	Scrapers Cat 657G	Scrapers	3	600	8	Tier 4 Final
Parcel 1 - Phase 5	Site Prep, Clear and Grub, Rough Grading	Dozer D9T	Crawler Tractors	3	436	8	Tier 4 Final
Parcel 1 - Phase 5	Site Prep, Clear and Grub, Rough Grading	Cat 140M3 Grader	Graders	2	200	4	Tier 4 Final
Parcel 1 - Phase 5	Site Prep, Clear and Grub, Rough Grading	Cat 374 F L	Excavators	1	472	2	Tier 4 Final
Parcel 1 - Phase 5	Site Prep, Clear and Grub, Rough Grading	825 Compactors	Crawler Tractors	3	354	8	Tier 4 Final
Parcel 1 - Phase 5	Site Prep, Clear and Grub, Rough Grading	Off Highway Dump Truck Cat 770	Off-Highway Trucks	2	476	8	Tier 4 Final
Parcel 1 - Phase 5	Site Prep, Clear and Grub, Rough Grading	Wheel Loader 986 H	Rubber Tired Loaders	2	409	8	Tier 4 Final
Parcel 1 - Phase 5	Auger Cast Caissons & Site Utilities	John Deere 410K TC Backhoe Loader	Tractors/Loaders/Backhoes	5	106	8	Tier 4 Final
Parcel 1 - Phase 5	Auger Cast Caissons & Site Utilities	Auger Cast Caissons Drill Rig	Bore/Drill Rigs	3	282	8	Tier 4 Final
Parcel 1 - Phase 5	Auger Cast Caissons & Site Utilities	Putzmeister 47Z - Meter Truck Mounted Concrete Boom Pump	Pumps	1	470	8	Tier 4 Final
Parcel 1 - Phase 5	Curb, Gutter & Interior Roads	Putzmeister 47Z - Meter Truck Mounted Concrete Boom Pump	Pumps	1	470	6	Tier 4 Final
Parcel 1 - Phase 5	Curb, Gutter & Interior Roads	AP 600 D Cat Asphalt Paver	Pavers	2	174	8	Tier 4 Final
Parcel 1 - Phase 5	Curb, Gutter & Interior Roads	Ingersoll Rand P185WJD 185 CFM Towable Air Compressor	Air Compressors	5	49	4	Tier 4 Final
Parcel 1 - Phase 5	Building Construction	Putzmeister 47Z - Meter Truck Mounted Concrete Boom Pump	Pumps	2	470	8	Tier 4 Final
Parcel 1 - Phase 5	Building Construction	Link Belt Conventional Lattice Crawler Crane	Cranes	3	282	8	Tier 4 Final
Parcel 1 - Phase 5	Building Construction	Link Belt Conventional Lattice Crawler Crane	Cranes	1	282	8	Tier 4 Final
Parcel 2 - Phase 6	Site Prep, Clear and Grub, Rough Grading	Scrapers Cat 657G	Scrapers	3	600	8	Tier 4 Final
Parcel 2 - Phase 6	Site Prep, Clear and Grub, Rough Grading	Dozer D9T	Crawler Tractors	3	436	8	Tier 4 Final
Parcel 2 - Phase 6	Site Prep, Clear and Grub, Rough Grading	Cat 140M3 Grader	Graders	2	200	4	Tier 4 Final
Parcel 2 - Phase 6	Site Prep, Clear and Grub, Rough Grading	Cat 374 F L	Excavators	1	472	2	Tier 4 Final
Parcel 2 - Phase 6	Site Prep, Clear and Grub, Rough Grading	825 Compactors	Crawler Tractors	3	354	8	Tier 4 Final
Parcel 2 - Phase 6	Site Prep, Clear and Grub, Rough Grading	Off Highway Dump Truck Cat 770	Off-Highway Trucks	2	476	8	Tier 4 Final
Parcel 2 - Phase 6	Site Prep, Clear and Grub, Rough Grading	Wheel Loader 986 H	Rubber Tired Loaders	2	409	8	Tier 4 Final
Parcel 2 - Phase 6	Auger Cast Caissons & Site Utilities	John Deere 410K TC Backhoe Loader	Tractors/Loaders/Backhoes	5	106	8	Tier 4 Final
Parcel 2 - Phase 6	Auger Cast Caissons & Site Utilities	Auger Cast Caissons Drill Rig	Bore/Drill Rigs	3	282	8	Tier 4 Final
Parcel 2 - Phase 6	Auger Cast Caissons & Site Utilities	Putzmeister 47Z - Meter Truck Mounted Concrete Boom Pump	Pumps	1	470	8	Tier 4 Final
Parcel 2 - Phase 6	Curb, Gutter & Interior Roads	Putzmeister 47Z - Meter Truck Mounted Concrete Boom Pump	Pumps	1	470	6	Tier 4 Final
Parcel 2 - Phase 6	Curb, Gutter & Interior Roads	AP 600 D Cat Asphalt Paver	Pavers	2	174	8	Tier 4 Final
Parcel 2 - Phase 6	Curb, Gutter & Interior Roads	Ingersoll Rand P185WJD 185 CFM Towable Air Compressor	Air Compressors	5	49	4	Tier 4 Final
Parcel 2 - Phase 6	Building Construction	Putzmeister 47Z - Meter Truck Mounted Concrete Boom Pump	Pumps	1	470	8	Tier 4 Final
Parcel 2 - Phase 6	Building Construction	Link Belt Conventional Lattice Crawler Crane	Cranes	2	282	8	Tier 4 Final
Parcel 2 - Phase 6	Building Construction	Link Belt Conventional Lattice Crawler Crane	Cranes	1	282	8	Tier 4 Final
Parcel 2 - Phase 7	Site Prep, Clear and Grub, Rough Grading	Scrapers Cat 657G	Scrapers	2	600	8	Tier 4 Final
Parcel 2 - Phase 7	Site Prep, Clear and Grub, Rough Grading	Dozer D9T	Crawler Tractors	3	436	8	Tier 4 Final
Parcel 2 - Phase 7	Site Prep, Clear and Grub, Rough Grading	Cat 140M3 Grader	Graders	2	200	4	Tier 4 Final
Parcel 2 - Phase 7	Site Prep, Clear and Grub, Rough Grading	Cat 374 F L	Excavators	1	472	2	Tier 4 Final
Parcel 2 - Phase 7	Site Prep, Clear and Grub, Rough Grading	825 Compactors	Crawler Tractors	3	354	8	Tier 4 Final
Parcel 2 - Phase 7	Site Prep, Clear and Grub, Rough Grading	Off Highway Dump Truck Cat 770	Off-Highway Trucks	2	476	8	Tier 4 Final
Parcel 2 - Phase 7	Site Prep, Clear and Grub, Rough Grading	Wheel Loader 986 H	Rubber Tired Loaders	2	409	8	Tier 4 Final
Parcel 2 - Phase 7	Auger Cast Caissons & Site Utilities	John Deere 410K TC Backhoe Loader	Tractors/Loaders/Backhoes	5	106	8	Tier 4 Final
Parcel 2 - Phase 7	Auger Cast Caissons & Site Utilities	Auger Cast Caissons Drill Rig	Bore/Drill Rigs	3	282	8	Tier 4 Final
Parcel 2 - Phase 7	Auger Cast Caissons & Site Utilities	Putzmeister 47Z - Meter Truck Mounted Concrete Boom Pump	Pumps	1	470	8	Tier 4 Final
Parcel 2 - Phase 7	Curb, Gutter & Interior Roads	Putzmeister 47Z - Meter Truck Mounted Concrete Boom Pump	Pumps	1	470	6	Tier 4 Final
Parcel 2 - Phase 7	Curb, Gutter & Interior Roads	AP 600 D Cat Asphalt Paver	Pavers	2	174	8	Tier 4 Final
Parcel 2 - Phase 7	Curb, Gutter & Interior Roads	Ingersoll Rand P185WJD 185 CFM Towable Air Compressor	Air Compressors	5	49	4	Tier 4 Final
Parcel 2 - Phase 7	Building Construction	Putzmeister 47Z - Meter Truck Mounted Concrete Boom Pump	Pumps	1	470	8	Tier 4 Final
Parcel 2 - Phase 7	Building Construction	Link Belt Conventional Lattice Crawler Crane	Cranes	2	282	8	Tier 4 Final
Parcel 2 - Phase 7	Building Construction	Link Belt Conventional Lattice Crawler Crane	Cranes	1	282	8	Tier 4 Final

Notes:

¹ Italics denote subphases and data that have been updated from the EIR assumptions. All other data is identical to the EIR.

Table 3
Emissions Calculation Methodology
Related Santa Clara City Center
Santa Clara, California

Type	Source	Methodology and Formula	Reference
Construction Equipment	Off-Road Equipment ¹	$E_c = \Sigma(EF_c * HP * LF * Hr * C)$	OFFROAD2011 and ARB/USEPA Engine Standards
Construction On-Road Mobile Sources ²	Exhaust – Running	$E_R = \Sigma(EF_R * VMT * C)$, where VMT = Trip Length * Trip Number	EMFAC2017
	Fugitive Dust - Running	$E_R = \Sigma(EF_R * VMT * C)$, where VMT = Trip Length * Trip Number	2015 DEIR
	Exhaust - Idling	$E_i = \Sigma(EF_i * Trip\ Number * T_i * C)$	EMFAC2017
Construction Fugitive Dust	Soil Stockpiling	$E = (EF * Soil\ Volume)$	2015 DEIR

Notes:

¹. E_c : off-road equipment exhaust emissions (lb).

EF_c : emission factor (g/hp-hr). CalEEMod 2016.3.2 default emission factors used.

HP: equipment horsepower. OFFROAD2011.

LF: equipment load factor. OFFROAD2011.

Hr: equipment hours.

C: unit conversion factor.

². On-road mobile sources include truck and passenger vehicle trips. Emissions associated with mobile sources were calculated using the following formulas.

E_R : running exhaust, fugitive dust, and running losses emissions (lb).

EF_R : running emission factor (g/mile). From EMFAC2017.

VMT: vehicle miles traveled

C: unit conversion factor

The calculation involves the following assumptions:

a. All material transporting and soil hauling trucks are heavy-heavy duty trucks.

b. Trip Length: The one-way trip length as calculated based on the truck route or the default length from CalEEMod or construction contractor.

c. Trip Number: provided by the construction contractor or estimated in CalEEMod.

E_i : vehicle idling emissions (lb).

EF_i : vehicle idling emission factor (g/hr-trip). From EMFAC2017.

T_i : idling time.

C: unit conversion factor.

Abbreviations:

ARB: California Air Resources Board

EF: emission factor

EMFAC: Emission FACTor Model

g: gram

HP: horsepower

lb: pound

LF: load factor

mi: mile

USEPA: United States Environmental Protection Agency

VMT: vehicle miles traveled

References:

ARB/USEPA. 2017. Table 1: ARB and USEPA Off-Road Compression-Ignition (Diesel) Engine Standards. Available at:

https://ww3.arb.ca.gov/msei/ordiesel/ordas_ef_fcf_2017.pdf and https://ww3.arb.ca.gov/msei/ordiesel/ordas_ef_fcf_2017_v7.xlsx.

ARB. 2017. Emission FACTors Model, 2017 (EMFAC2017). Available at: <http://www.arb.ca.gov/emfac/2017/>

Table 4
Summary of Stockpile Fugitive Emissions
Related Companies
Santa Clara, California

Phase	Subphase	Total Earthworks (CY)	Stockpile			
			PM ₁₀ EF (lb/CY)	PM _{2.5} EF (lb/CY)	PM ₁₀ (tons)	PM _{2.5} (tons)
Parcel 5 - Phase 1	Site Prep (garage excavation), Clear and Grub	274,600	0.0000394	0.000006	0.0054	8.2E-04
Parcel 4 -Phase 2	Site Prep, Clear and Grub, Rough Grading (Parcel 4 Stockpile)	271,000			0.0053	8.1E-04
Parcel 4 -Phase 3	Site Prep, Clear and Grub, LFG Install and Demo, Soil Import, Rough Grading	271,000			0.0053	8.1E-04
Parcel 4 -Phase 4	Site Prep, Clear and Grub, LFG Install and Demo, Soil Import, Rough Grading	271,000			0.0053	8.1E-04
Parcel 1 - Phase 5	Site Prep, Clear and Grub, Rough Grading	410,000			0.0081	0.0012
Parcel 2 - Phase 6	Site Prep, Clear and Grub, Rough Grading	110,000			0.0022	3.3E-04
Parcel 2 - Phase 7	Site Prep, Clear and Grub, Rough Grading	110,000			0.0022	3.3E-04

Notes:

1. Total earthworks provided by Project Sponsor.
2. Emission factors taken from the 2015 DEIR, Appendix 3.4.

Abbreviations:

CY - Cubic Yard
EF - Emission Factor
lb - pound

Table 5
Summary of Road Dust Fugitive Emissions
Related Companies
Santa Clara, California

Year	Total VMT	Re-entrained Paved Road Dust			
		PM ₁₀ EF (g/mi)	PM _{2.5} EF (g/mi)	PM ₁₀ (tons)	PM _{2.5} (tons)
2021	1,194,054	0.83335	0.20834	1.1	0.27
2022	1,136,386			1.0	0.26
2023	8,740,908			8.0	2.0
2024	13,375,450			12	3.1
2025	7,258,413			6.7	1.7
2026	5,484,033			5.0	1.3
2027	3,924,639			3.6	0.90
2028	1,507,996			1.4	0.35
2029	5,297,874			4.9	1.2
2030	4,870,243			4.5	1.1
2031	6,328,202			5.8	1.5
2032	3,438,022			3.2	0.79
2033	5,511,274			5.1	1.3
2034	3,301,298			3.0	0.76
2035	1,451,120			1.3	0.33

Notes:

1. Total VMT calculated from trip counts and distances presented in Table 2.
2. Emission factors taken from the 2015 DEIR, Appendix 3.4.

Abbreviations:

EF - Emission Factor
g - gram
mi - mile
VMT - Vehicle Miles Traveled

Table 6
Summary of Grading and Demolition Fugitive Emissions
Related Companies
Santa Clara, California

Phase	Subphase	Grading		Demolition	
		PM ₁₀ (tons)	PM _{2.5} (tons)	PM ₁₀ (tons)	PM _{2.5} (tons)
Parcel 5 - Phase 1	Site Prep (garage excavation), Clear and Grub	0.0017	1.9E-04	0.0013	1.9E-04
Parcel 4 -Phase 2	Site Prep, Clear and Grub, Rough Grading (Parcel 4 Stockpile)	0.022	0.0024	0.040	0.0061
Parcel 4 -Phase 3	Site Prep, Clear and Grub, LFG Install and Demo, Soil Import, Rough Grading	0	0	0	0
Parcel 4 -Phase 4	Site Prep, Clear and Grub, LFG Install and Demo, Soil Import, Rough Grading	0.011	0.0012	0.0055	8.5E-04
Parcel 1 - Phase 5	Site Prep, Clear and Grub, Rough Grading	0.017	0.0018	2.8E-05	0
Parcel 2 - Phase 6	Site Prep, Clear and Grub, Rough Grading	0.013	0.0014	1.9E-04	2.7E-05
Parcel 2 - Phase 7	Site Prep, Clear and Grub, Rough Grading	0.013	0.0014	1.3E-04	3.4E-05

Notes:

1. All Emissions assumed to be unchanged from the 2015 DEIR.

Table 7
Summary of Additional GHG Emissions
Related Santa Clara City Center
Santa Clara, California

Phase	Subphase	Year	Days	Water Electricity (lb CO2/day)	Water Electricity (MT CO2e)	Landfill GHGs (MT CO2e)	Total CO2e (MT)
Parcel 5 - Phase 1	Site Prep (garage excavation), Clear and Grub	2021	63	8.0	0.23	0	0
Parcel 4 -Phase 2	Site Prep, Clear and Grub, Rough Grading (Parcel 4 Stockpile)	2021	155	50	3.52	199	203
Parcel 4 -Phase 3	Site Prep, Clear and Grub, LFG Install and Demo, Soil Import, Rough Grading	2023	60	17	0.46	15	15
Parcel 4 -Phase 4	Site Prep, Clear and Grub, LFG Install and Demo, Soil Import, Rough Grading	2024	115	15	0.78	5.0	5.8
Parcel 1 - Phase 5	Site Prep, Clear and Grub, Rough Grading	2028	46	49	1.02	278	279
Parcel 2 - Phase 6	Site Prep, Clear and Grub, Rough Grading	2030	22	58	0.58	127	128
Parcel 2 - Phase 7	Site Prep, Clear and Grub, Rough Grading	2032	68	31	0.96	67	68

Notes:

1. All Emissions assumed to be unchanged from the 2015 DEIR.

Table 8
Unmitigated CAP Emissions
Related Santa Clara City Center
Santa Clara, California

Total Combined Emissions										Daily Emissions							
Year	Days	ROG	NO _x	PM ₁₀			PM _{2.5}			ROG	NO _x	PM ₁₀			PM _{2.5}		
				Total	Exhaust	Fugitive	Total	Exhaust	Fugitive			Total	Exhaust	Fugitive	Total	Exhaust	Fugitive
		tons per year										lbs/work day					
2021	150	0.23	5.6	1.4	0.11	1.3	0.43	0.10	0.33	3.1	74	19	1.4	17	5.8	1.4	4.4
2022	260	1.2	2.5	1.2	0.066	1.1	0.35	0.060	0.29	8.9	19	9.0	0.50	8.5	2.7	0.46	2.2
2023	260	5.3	7.0	8.6	0.14	8.5	2.3	0.13	2.2	41	54	66	1.1	65	18	1.0	17
2024	260	5.7	9.2	13	0.19	13	3.5	0.18	3.4	44	71	102	1.5	100	27	1.4	26
2025	260	2.4	4.1	7.2	0.087	7.1	1.9	0.081	1.8	19	32	55	0.67	54	15	0.62	14
2026	260	2.1	3.5	5.4	0.085	5.3	1.5	0.079	1.4	16	27	42	0.65	41	11	0.61	11
2027	260	1.6	1.9	3.9	0.045	3.8	1.0	0.042	1.0	12	14	30	0.35	29	7.9	0.32	7.6
2028	260	0.55	0.59	1.5	0.014	1.5	0.39	0.013	0.38	4.2	4.6	12	0.11	11	3.0	0.10	2.9
2029	260	2.0	3.3	5.2	0.10	5.1	1.4	0.089	1.3	15	25	40	0.73	40	11	0.68	10
2030	260	1.5	1.2	4.8	0.023	4.7	1.2	0.022	1.2	11	9.3	37	0.18	37	10	0.17	9.4
2031	260	2.4	2.4	6.2	0.054	6.2	1.6	0.052	1.6	19	19	48	0.41	47	13	0.40	12
2032	260	1.2	0.87	3.4	0.016	3.4	0.88	0.015	0.86	8.9	6.7	26	0.12	26	6.8	0.12	6.6
2033	260	2.2	2.2	5.4	0.047	5.4	1.4	0.046	1.4	17	17	42	0.36	41	11	0.35	11
2034	260	1.1	0.82	3.2	0.015	3.2	0.84	0.014	0.83	8.4	6.3	25	0.12	25	6.5	0.11	6.4
2035	115	0.47	0.32	1.5	0.0056	1.5	0.41	0.0053	0.40	8.2	5.6	26	0.10	26	7.1	0.091	7.0
Threshold (lbs/day):										54	54	N/A	82	BMP	--	54	BMP

Notes:

¹. Fugitive dust includes all emissions from Tables 4-6, plus tire and brake wear calculated via EMFAC2017 emission factors.

Abbreviations:

g - grams	PM ₁₀ - particulate matter less than 10 micrometers in diameter
lbs - pounds	PM _{2.5} - particulate matter less than 2.5 micrometers in diameter
NO _x - nitrogen oxides	ROG - reactive organic gas

Table 9
Mitigated CAP Emissions
Related Santa Clara City Center
Santa Clara, California

Total Combined Emissions										Daily Emissions							
Year	Days	ROG	NO _x	PM ₁₀			PM _{2.5}			ROG	NO _x	PM ₁₀			PM _{2.5}		
				Total	Exhaust	Fugitive	Total	Exhaust	Fugitive			Total	Exhaust	Fugitive	Total	Exhaust	Fugitive
		tons per year										lbs/work day					
2021	150	0.12	4.3	1.4	0.054	1.3	0.38	0.052	0.33	1.6	57	18	0.72	17	5.1	0.69	4.4
2022	260	1.1	1.3	1.1	0.018	1.1	0.30	0.017	0.29	8.2	10	8.7	0.14	8.5	2.3	0.13	2.2
2023	260	5.1	5.2	8.6	0.063	8.5	2.3	0.059	2.2	40	40	66	0.49	65	17	0.46	17
2024	260	5.5	6.8	13	0.089	13	3.4	0.084	3.4	42	52	101	0.68	100	27	0.64	26
2025	260	2.3	3.1	7.1	0.043	7.1	1.9	0.040	1.8	18	24	55	0.33	54	14	0.31	14
2026	260	1.9	2.2	5.4	0.034	5.3	1.4	0.032	1.4	15	17	41	0.26	41	11	0.25	11
2027	260	1.6	1.3	3.8	0.020	3.8	1.0	0.019	1.0	12	10	29	0.15	29	7.7	0.14	7.6
2028	260	0.54	0.41	1.5	0.0066	1.5	0.39	0.0062	0.38	4.1	3.2	12	0.051	11	3.0	0.047	2.9
2029	260	1.8	1.6	5.2	0.030	5.1	1.4	0.028	1.3	14	12	40	0.23	40	10	0.22	10
2030	260	1.4	1.1	4.8	0.018	4.7	1.2	0.017	1.2	11	8.2	37	0.14	37	10	0.13	9.4
2031	260	2.3	1.9	6.2	0.033	6.2	1.6	0.031	1.6	17	14	48	0.25	47	12	0.24	12
2032	260	1.1	0.79	3.4	0.013	3.4	0.88	0.012	0.86	8.7	6.1	26	0.10	26	6.7	0.094	6.6
2033	260	2.0	1.6	5.4	0.029	5.4	1.4	0.027	1.4	16	12	41	0.22	41	11	0.21	11
2034	260	1.1	0.73	3.2	0.012	3.2	0.84	0.011	0.83	8.1	5.6	25	0.091	25	6.5	0.085	6.4
2035	115	0.46	0.31	1.5	0.0050	1.5	0.41	0.0046	0.40	8.0	5.4	26	0.086	26	7.1	0.080	7.0
Threshold (lbs/day):										54	54	N/A	82	BMP	--	54	BMP

Notes:

- ¹. Mitigation includes the use of all Tier 4 Final offroad equipment, unless otherwise specified by the Project Sponsor.
- ². Fugitive dust includes all emissions from Tables 4-6, plus tire and brake wear calculated via EMFAC2017 emission factors.

Abbreviations:

g - grams	PM ₁₀ - particulate matter less than 10 micrometers in diameter
lbs - pounds	PM _{2.5} - particulate matter less than 2.5 micrometers in diameter
NO _x - nitrogen oxides	ROG - reactive organic gas

Table 10
Project Construction GHG Emissions
Related Companies
Santa Clara, California

Total Combined Emissions				
Year	CH ₄	N ₂ O	CO ₂	CO ₂ e
	MT per year			
2021	0.23	0.33	2,300	2,598
2022	0.18	0.084	2,358	2,385
2023	0.61	0.39	11,454	11,590
2024	0.71	0.55	14,035	14,207
2025	0.32	0.27	6,507	6,587
2026	0.28	0.18	5,460	5,516
2027	0.16	0.11	4,135	4,167
2028	0.054	0.037	1,466	1,756
2029	0.27	0.12	5,484	5,524
2030	0.11	0.10	4,289	4,447
2031	0.19	0.16	7,131	7,178
2032	0.087	0.081	3,493	3,585
2033	0.16	0.14	6,671	6,714
2034	0.080	0.078	3,417	3,439
2035	0.034	0.034	1,500	1,510
Total Emissions				81,202
30-year Amortized Emissions				2,707

Notes:

1. Emissions include landfill gas disturbances presented in
2. CO₂ equivalent emissions calculated using the same Global Warming Potentials as the 2015 EIR (265 for N₂O and 28 for CH₄).

Abbreviations:

CH₄ - methane
CO₂ - carbon dioxide
CO₂e - carbon dioxide equivalents
GHG -greenhouse gas
MT - metric ton
N₂O - nitrous oxide