

Eastridge to BART Regional Connector

Final Second Supplemental
Environmental Impact Report
Volume I: Revised Draft SEIR-2 and
Response to Comments



Existing Story Road



Proposed Story Light Rail Station

May 2019

Eastridge to BART Regional Connector: Capitol Expressway Light Rail Project

Final Second Supplemental Environmental Impact Report Volume I of III: Revised Draft SEIR-2 and Response to Comments

State Clearinghouse #2001092014

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The Final Second Supplemental EIR is divided into the following three volumes:

- **Volume I:** Response to Comments (including the Revised Draft SEIR-2) as well as Attachment A (Notice of Preparation and Public Scoping with Comments Received), Attachment B (Detailed Description of the Proposed Changes), and Attachment C (Detailed Plans for the Proposed Changes)
- **Volume II:** Revised Draft SEIR-2 technical materials including Attachment D (Supplemental Transportation Analysis), Attachment E (Noise and Vibration Assessment), and Attachment F (Air Quality Modeling Assumptions)
- **Volume III:** Attachment G (Second Subsequent IS and all attachments)

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Chapter 1

Introduction

The Santa Clara Valley Transportation Authority (VTA) has prepared this Final Second Supplemental Environmental Impact Report (Final SEIR-2) for the proposed changes to the Eastridge to BART Regional Connector: Capitol Expressway Light Rail Project (approved project) in accordance with the requirements of the California Environmental Quality Act (CEQA) for a Final EIR. Before approving a project, CEQA requires the Lead Agency to prepare and certify a Final Environmental Impact Report (EIR). The contents of a Final EIR are specified in Section 15132 of the CEQA Guidelines, which state that a Final EIR shall consist of:

- a. The Draft EIR or a revision of the Draft.
- b. Comments and recommendations received on the Draft EIR either verbatim or in summary.
- c. A list of persons, organizations, and public agencies commenting on the Draft EIR.
- d. The responses of the Lead Agency to significant environmental points raised in the review and consultation process.
- e. Any other information added by the Lead Agency.

Section 1.2 Prior Environmental Documentation

The federal and state environmental process for the approved project was initiated in September 2001 with the publication of a Notice of Intent to prepare an Environmental Impact Statement (EIS) in the federal register and the filing of the Notice of Preparation of an Environmental Impact Report (EIR) with the State Clearinghouse. A Draft EIS/EIR was circulated in April 2004, but only a Final EIR was completed as a result of limited opportunities for securing federal funds.

In May 2005, the VTA Board of Directors certified the Final EIR (hereafter referred to as the “2005 Final EIR”) and approved the Light Rail Alternative. As a result of preliminary engineering, the Light Rail Alternative was modified to address agency comments, improve operations, minimize right-of-way acquisition, and lower costs. To address these modifications, the VTA Board of Directors prepared and certified a Final Supplemental EIR (Final SEIR) and approved the modifications in August 2007 (hereafter referred to as the “2007 Final SEIR”).

Due to unprecedented declines in revenues beginning in 2008, the implementation plan for the Light Rail Alternative was modified to construct the project in phases. An Addendum to the Final SEIR was approved in June 2010 that included the installation of pedestrian and bus improvements as Phase 1 and the extension of light rail along Capitol Expressway as Phase 2.

In addition to the state environmental process, VTA reinitiated the federal environmental process on September 9, 2009, with a Notice of Intent to prepare a Supplemental Draft EIS. The Supplemental Draft EIS was circulated on May 18, 2012, for 45 days with comments due on July 3, 2012. The federal environmental process under the National Environmental Policy Act (NEPA) was suspended in 2017 as a result of limited opportunities for securing federal funds.

A Subsequent Initial Study (IS)/Mitigated Negative Declaration (MND) was approved in March 2014 (hereafter referred to as the “2014 Subsequent IS/MND”) that eliminated the Ocala Station, eliminated sidewalk widening and sound wall relocation north of Ocala Avenue, and expanded the Eastridge Park-and-Ride lot.

The Draft SEIR-2 and the Second Subsequent address minor changes to the project as well as incorporate changed circumstances and new information. The Final SEIR-2 consists of the Draft SEIR-2 (including the Second Subsequent IS) and the responses to comments on the Draft SEIR-2.

Section 1.3 Organization of the Final SEIR-2

The organization of the Final SEIR-2 generally follows the organization of the 2005 Final EIR, 2007 Final SEIR, and 2014 Subsequent IS/MND, especially for the environmental analysis. The Final SEIR-2 should be considered together with the prior environmental documentation because, for the most part, the Final SEIR-2 does not repeat information included in the prior environmental documentation that has not changed.

The Final SEIR-2 includes the following sections.

Volume I

- **Chapter 1: Introduction.** Provides an overview of the components of the Final SEIR-2 and describes the certification process for the SEIR-2.
- **Chapter 2: Revised Draft Second Supplemental Environmental Impact Report.** Includes revisions to the text in the body of the Draft Second Supplemental EIR (Revised Draft SEIR-2).
- **Chapter 3: Response to Comments on the Draft Second Supplemental Environmental Impact Report.** Describes the public review process for the Draft SEIR-2. Also includes the comments on the Draft SEIR-2 received by VTA and VTA’s written responses.
- **Chapter 4: Major Revisions to the Draft Second Supplemental Environmental Impact Report.** Identifies additions to the Draft SEIR-2 in *italics* and deletions in ~~strikeout~~ text.
- Attachment A (Notice of Preparation and Public Scoping with Comments Received)
- Attachment B (Detailed Description of the Proposed Changes)
- Attachment C (Detailed Plans for the Proposed Changes)

Volume II

- Attachment D (Supplemental Transportation Analysis)
- Attachment E (Noise and Vibration Assessment)
- Attachment F (Air Quality Modeling Assumptions)

Volume III

- Attachment G (Second Subsequent IS and all attachments)

Section 1.4 Certification of the SEIR-2

The Draft SEIR-2, together with responses to comments on the Draft SEIR-2 and any modifications or corrections to the Draft SEIR-2, will constitute the Final SEIR-2. The VTA Board of Directors will review the Final SEIR-2 (including the Second Subsequent IS included as Attachment G of the SEIR-2), the 2005 Final EIR, the 2007 Final SEIR, and the 2014 Subsequent IS/MND, and any public testimony or comments. Based on that information and all other substantial evidence, the VTA Board of Directors will decide whether to certify the Final SEIR-2 and approve the proposed changes to the approved project. As CEQA Guideline Section 15163(e) requires, the VTA Board of Directors will make a finding for each potentially significant impact identified in the 2005 Final EIR as revised, as well as the Final SEIR-2.

VTA is the “lead agency” in accordance with Sections 15051 and 15367 of the CEQA Guidelines, which define the lead agency as the public agency that has the principal responsibility for carrying out or approving a project. The Lead Agency must provide each agency that commented on the Draft EIR with a copy of the Lead Agencies’ proposed response at least 10 days before certifying the Final EIR.

The Final SEIR-2 allows the public and the VTA Board of Directors an opportunity to review revisions to the Draft SEIR-2 and the response to comments, prior to approval of the proposed changes to the approved project. The Final SEIR-2 serves as the environmental document to support approval of the project, either in whole or in part, if the project is approved.

After completing the Final SEIR-2, and before approving the project, the Lead Agency must take the following three certifications, as required by Section 15090 of the CEQA Guidelines:

- The Final EIR has been completed in compliance with CEQA.
- The Final EIR was presented to the decision-making body of the Lead Agency, and that the decision-making body reviewed and considered the information in the Final EIR prior to approving the project.
- The Final EIR reflects the Lead Agency’s independent judgement and analysis.

As required by Section 15091 of the CEQA Guidelines, no public agency shall approve or carry out a project for which an EIR has been certified that identifies one or more

significant environmental effects of the project unless the public agency makes one or more written findings (Findings of Fact) for each of those significant effects, accompanied by a brief explanation of the rationale for each finding supported by substantial evidence in the record. The possible findings are:

1. Changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effects as identified in the Final EIR.
2. Such changes or alterations are within the responsibility and jurisdiction of another public agency and not the agency making the finding. Such changes have been adopted by such other agency or can and should be adopted by such other agency.
3. Specific economic, legal, social, technological, or other considerations, including the provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or project alternatives identified in the Final EIR.

These certifications and Findings of Fact are included in a separate Findings document. The Final EIR as revised by the Final Supplemental EIR, the Subsequent Initial Study and Mitigated Negative Declaration, and now the Final SEIR-2, and the Findings, are submitted to the VTA Board of Directors for consideration of the proposed changes to the approved project.

Chapter 2

Revised Draft Second Supplemental Environmental Impact Report

In accordance with CEQA Guidelines Section 15088, this chapter includes revisions to the text in the body of the Draft Second Supplemental EIR (Revised Draft SEIR-2, including the revised *Eastridge to BART Regional Connector: Capitol Expressway Light Rail Project Supplemental Transportation Analysis* prepared by Hexagon Transportation Consultants, Inc. and the revised *EBRC – CELR Noise and Vibration Assessment* prepared by ATS Consulting). The Revised Draft SEIR-2 does not indicate additions and deletions to the text. Chapter 4, *Major Revisions to the Draft Second Supplemental Environmental Impact Report*, includes additions noted in *italics* and deletions noted in ~~strikeout~~ text. The additions and deletions to the revised *Eastridge to BART Regional Connector: Capitol Expressway Light Rail Project Supplemental Transportation Analysis* and the revised *EBRC – CELR Noise and Vibration Assessment* are not included in Chapter 4 to maintain the chapter’s clarity.

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Eastridge to BART Regional Connector: Capitol Expressway Light Rail Project

Draft Second Supplemental Environmental Impact Report Volume I of III: Text

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Attachment B: Detailed Description of the Proposed Changes

Attachment C: Detailed Plans for the Proposed Changes

Attachment D: Supplemental Transportation Analysis

Attachment E: Noise and Vibration Assessment

Attachment F: Air Quality Modeling Assumptions

Attachment G: Second Subsequent Initial Study

The Draft Second Supplemental EIR is divided into the following three volumes:

- **Volume I:** Draft SEIR-2 as well as Attachment A (Notice of Preparation and Public Scoping with Comments Received), Attachment B (Detailed Description of the Proposed Changes), and Attachment C (Detailed Plans for the Proposed Changes)
- **Volume II:** Draft SEIR-2 technical materials including Attachment D (Supplemental Transportation Analysis), Attachment E (Noise and Vibration Assessment), and Attachment F (Air Quality Modeling Assumptions)
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Chapter 1

Executive Summary

Section 1.1 Prior Environmental Documentation

The federal and state environmental process for the approved project was initiated in September 2001 with the publication of a Notice of Intent to prepare an Environmental Impact Statement (EIS) in the federal register and the filing of the Notice of Preparation (NOP) of an Environmental Impact Report (EIR) with the State Clearinghouse. A Draft EIS/EIR was circulated in April 2004, but only a Final EIR was completed as a result of limited opportunities for securing federal funds.

In May 2005, the VTA Board of Directors certified the Final EIR (hereafter referred to as the “2005 Final EIR”) and approved the Light Rail Alternative. As a result of preliminary engineering, the Light Rail Alternative was modified to address agency comments, improve operations, minimize right-of-way acquisition, and lower costs. To address these modifications, the VTA Board of Directors prepared and certified a Final Supplemental EIR (Final SEIR) and approved the modifications in August 2007 (hereafter referred to as the “2007 Final SEIR”).

Due to unprecedented declines in revenues beginning in 2008, the implementation plan for the Light Rail Alternative was modified to construct the project in phases. An Addendum to the Final SEIR was approved in June 2010 that included the installation of pedestrian and bus improvements as Phase 1 and the extension of light rail along Capitol Expressway as Phase 2.

In addition to the state environmental process, VTA reinitiated the federal environmental process on September 9, 2009, with a Notice of Intent to prepare a Supplemental Draft EIS. The Supplemental Draft EIS was circulated on May 18, 2012, for 45 days with comments due on July 3, 2012. The federal environmental process under the National Environmental Policy Act (NEPA) was suspended in 2017 as a result of limited opportunities for securing federal funds.

A Subsequent Initial Study (IS)/Mitigated Negative Declaration (MND) was approved in March 2014 (hereafter referred to as the “2014 Subsequent IS/MND”) that eliminated the

Ocala Station, eliminated sidewalk widening and sound wall relocation north of Ocala Avenue, and expanded the Eastridge Park-and-Ride lot.

This Second Supplemental EIR (SEIR-2) and the Second Subsequent IS (included in Attachment G of the SEIR-2 and discussed in Section 1.4, *Explanation for a Subsequent Initial Study and Second Supplemental EIR*) address changes to the project as well as incorporate changed circumstances and new information.

Section 1.2 Explanation for a Second Subsequent IS and Second Supplemental EIR

The California Environmental Quality Act (CEQA) recognizes that between the date projects are approved and the date they are constructed one or more of the following changes may occur: 1) the scope of the project may change, 2) the environmental setting in which the project is located may change, 3) certain environmental laws, regulations, or policies may change, and 4) previously unknown information can come to light. CEQA requires that lead agencies evaluate these changes to determine whether they are significant.

The mechanism for assessing the significance of these changes is found in CEQA Guidelines Sections 15162 to 15164. If the changes involve new significant environmental effects or a substantial increase in the severity of previously identified significant effects, further environmental review (in the form of a Subsequent or Supplemental EIR or IS/MND) would be warranted per CEQA Guidelines Section 15162 and 15163. If the changes do not meet these criteria, then an Addendum is prepared to document a decision that no subsequent or supplemental review is required.

The proposed changes to the approved project would result in new or more significant environmental impacts compared to what was disclosed in the 2005 Final EIR, the 2007 Final SEIR, and the 2014 Subsequent IS/MND. Thus, it has been determined through the analysis in the Second Subsequent IS that a SEIR-2 should be prepared for the proposed changes to the approved project.

The Second Subsequent IS serves to focus the analysis in the SEIR-2 on changes to the environmental impacts identified in the prior environmental documentation that would result from the proposed changes to the approved project. As such, the potential transportation, environmental justice, noise and vibration, air quality and climate change, and construction impacts associated with the proposed changes to the approved project require analysis in the SEIR-2. Other environmental resource areas, where there are no impacts or where impacts can be mitigated to a less than significant level, are analyzed in the Second Subsequent IS. These resource areas analyzed in the Second Subsequent IS include Biological Resources, Community Services, Cultural Resources, Electromagnetic Fields, Energy, Geology/Soils/Seismicity, Hazardous Materials, Hydrology & Water Quality, Land Use, Safety & Security, Socioeconomics, Utilities, and Visual Quality. Thus, the SEIR-2 is focused on the potential for new significant impacts or a substantial increase in the severity of previously identified significant effects related to transportation, environmental justice, noise and vibration, air quality, and construction.

Section 1.3 Approved Project

The approved project would consist of the extension of light rail along Capitol Expressway between the existing Alum Rock Light Rail Station and Eastridge Transit Center, a distance of approximately 2.4 miles. Light rail would operate primarily in the median of Capitol Expressway within exclusive and semi-exclusive rights-of-way. To provide the additional right-of-way to accommodate light rail, high-occupancy vehicle lanes would be removed between Capitol Avenue and Tully Road. The alignment would include an elevated section that would extend north of Capitol Avenue to south of Story Road, and an elevated crossing of Tully Road. The approved project would include new light rail stations at Story Road (aerial) and Eastridge Transit Center (at-grade). At Eastridge Mall, the Park-and-Ride lot would be expanded to accommodate the project. The approved project would also include traction power substations at Ocala Avenue and Eastridge Transit Center. Five 115-kilovolt electrical transmission towers and two tubular steel poles would require relocation from the median of Capitol Expressway to the east side of Capitol Expressway in order to accommodate the approved project.

Section 1.4 Proposed Changes to the Approved Project

As discussed in more detail in Chapter 3, *Changes to the Approved Project, Changes in Circumstances, and Introduction of New Information*, VTA is proposing changes to certain elements of the approved project, including the:

- Extension of the aerial guideway to grade-separate the Ocala Avenue and Cunningham Avenue intersections
- Revisions to Capitol Expressway roadway lane configurations (including the conversion of the existing high-occupancy vehicle lanes to general purpose traffic lanes and maintaining eight lanes between Story Road and Capitol Avenue);
- Modifications to Eastridge Station platforms and track;
- Reduction in parking spaces at Eastridge Park-and-Ride lot;
- Minor shift in the location and straightening of the Story Station pedestrian overcrossing;
- Modification to Story Station pedestrian access;
- Relocation of a construction staging area;
- Relocation of Pacific Gas and Electric (PG&E) electrical transmission facilities; and
- Extension of construction duration and modification to the construction scenario.

Section 1.5 Project Ridership, Travel Time, Capital Costs and Funding, and Construction Schedule

The approved project with the proposed changes is anticipated to have 2,203 boardings in 2023 and 4,534 boardings in 2043. Travel time for the Light Rail Alternative between Alum Rock Station and Eastridge Transit Center is estimated to be 4.3 minutes. The capital cost of the approved project with the proposed changes is projected to be \$453

million and will be funded by the 2000 Measure A, Regional Measure 3, and the Senate Bill 1 funds. Construction would begin in 2019 with utility relocation and end in 2024 or 2025 (depending on the construction methodology) with the beginning of revenue service.

Section 1.6 Summary of Environmental Impacts

Table 1-1 includes a summary of the significant environmental impacts resulting from the proposed changes to the approved project as compared to the 2005 Final EIR, 2007 Final SEIR, and 2014 Subsequent IS/MND. Table 1-1 also includes the mitigation measures to reduce the impacts and the level of significance if mitigation is reasonable and feasible.

Section 1.7 New and More Severe Significant and Unavoidable Impacts

In this SEIR-2, the following new significant and unavoidable impacts associated with the proposed changes to the approved project were identified:

Air Quality and Climate Change (Construction)

- **Cumulative air quality impacts during construction.** Cumulative PM_{2.5} concentrations would be elevated at the receptors located near the corners of Ocala Avenue and Capitol Expressway and Cunningham Avenue and Capitol Expressway due to substantial sources of pollutant concentrations that currently exist in the area where the approved project plus the proposed changes to the approved project would occur. Even without the contribution of emissions from construction, existing PM_{2.5} concentrations near these sensitive receptors are at or exceed the BAAQMD's threshold because Capitol Expressway and its cross streets are heavily traveled roadways, with residences located in close proximity to the roadway edge. The approved project plus the proposed changes to the approved project would cause further exceedances of existing pollutant concentrations, worsening the cumulative exposure of sensitive receptors to toxic air contaminant concentrations. Although the contribution of the approved project plus the proposed changes to the approved project to existing concentrations would not be substantial (approximately 6% at the locations where concentrations are at or exceed 0.8 µg/m³), there would nevertheless be a worsening of an already cumulatively significant impact. The following mitigation measures identified in the 2005 Final EIR would still apply to the proposed changes to the approved project: AQ (CON)-1 (BAAQMD's BMPs to reduce particulate matter emissions from construction activities) and AQ (CON)-2 (BAAQMD's BMPs to reduce GHG emissions from construction equipment). In addition, Mitigation Measure AQ (CON)-3 would require that Tier 3 or Tier 4 equipment be used to further reduce construction-related emissions where possible. Even with inclusion of these mitigation measures, this impact would be "Significant and Unavoidable."

Environmental Justice

- The proposed changes to the approved project would result in new disproportionate and adverse impacts or a substantial increase in the severity of previously identified disproportionate and adverse impacts related to environmental justice. Thus, this impact would be “Significant and Unavoidable.”

In this SEIR-2, the following significant and unavoidable impacts with increased severity associated with the proposed changes were identified:

Transportation (Operation and Construction)

- **Capitol Expressway and Story Road intersection.** The proposed changes to the approved project would result in a significant impact under existing (2017), year 2023, and year 2043 conditions, caused by the removal of the high-occupancy vehicle (HOV) lanes and the addition of HOV lane traffic into the remaining mixed flow lanes. No feasible mitigation was identified for these impacts.
- **Capitol Expressway and Ocala Avenue intersection.** The proposed changes to the approved project would result in a significant impact at this intersection under existing (2017), year 2023, and year 2043 conditions, caused by the removal of the HOV lanes, the removal of a northbound left-turn lane on Capitol Expressway, and the addition of HOV lane traffic into the remaining mixed flow lanes. No feasible mitigation was identified for these impacts.
- **Transportation impacts during construction.** The proposed changes to the approved project would require lane reductions on Capitol Expressway during construction, which may cause study intersections to temporarily operate at LOS F, impacting passenger vehicles, buses, and trucks. The proposed changes to the approved project may also result in the temporary closures of bikeways, bus stops, and sidewalks in the corridor during construction. The duration, times, and locations of temporary closures during construction cannot be predicted with certainty.

Noise and Vibration (Operation and Construction)

- **Nighttime exceedance (10:00 pm to 7:00 am) of the FTA vibration levels from light rail operations at homes within 100 feet of the proposed aerial guideway.** The proposed aerial guideway (direct fixation fasteners) and ballasted track on embankment sections would cause an exceedance of the nighttime impact criteria at 67 sensitive receiver locations during light rail operations. VTA identified tire derived aggregate (TDA), 5-Hertz floating slab track (FST) or bridge bearing vibration isolation system, and speed reductions from 55 mph to 35 mph as potential mitigation measures. VTA is recommending to include TDA on embankment sections to mitigate one impact. However, VTA is not recommending to include FST, bridge

bearing vibration isolation, or implement nighttime speed restrictions to eliminate the other 66 impacts.

VTA is not recommending to include FST or bridge bearing isolation systems as mitigation for several reasons. Future vibration levels, which include a +3 VdB safety factor, are at or slightly above the nighttime vibration impact criteria at many impacted locations, and may not actually exceed the threshold in operation. Many impacted locations are up to 100 feet from the aerial guideway, which is much farther than the typical distance at which nighttime vibration impacts are experienced. Most of the impacts are anticipated to occur between 6:00 am and 7:00 am when VTA would be operating at peak service levels.

In addition, it is VTA's understanding that FST has not been installed on any aerial guideways in the United States and bridge bearing isolations have only been recently installed on one aerial structure in the United States. VTA is only aware of one example of FST installed on an aerial guideway: Hong Kong's KCRC West Rail and of one example of a bridge bearing vibration isolation system installed on an aerial structure at Miami Central Station, on the All Aboard Florida-Brightline network. Thus, additional analysis of the effectiveness of FST and bridge bearing isolation systems on aerial structures would be needed to confirm the level of vibration reduction that would be achieved. Another reason that VTA is not proposing FST or bridge bearing isolation is that it would greatly complicate the track and structural design.

VTA is not recommending to reduce train speeds from 55 mph to 35 mph between 10:00 pm and 7:00 am because it would negatively affect travel time and operations during these time periods.

By not including FST, bridge bearing vibration isolation systems, or speed reductions as mitigation measures, this impact would be "Significant and Unavoidable."

- **Homes within 100 feet of impact piling activity may exceed FTA construction vibration criteria.** There are 64 predicted unmitigated construction vibration impacts, and 0 impacts with the use of non-impact piling methods. However, VTA is only recommending the use of non-impact piling methods in the vicinity of Capitol Avenue and Capitol Expressway. At this location, construction vibration levels are anticipated to be the highest. VTA is not recommending the use of non-impact piling methods at most locations for several reasons. Most locations are only slightly above the FTA Damage Criteria, and therefore may not experience any actual impacts. At the locations with the highest construction vibration levels, structural damage is not anticipated to occur. However, if any structural and cosmetic damage does occur due to construction vibration, the damage shall be repaired by VTA. In addition, non-impact piling methods would require extensive lane closures which would cause additional traffic impacts during construction. Non-impact piling methods are not

recommended at most locations. Thus, this impact would be “Significant and Unavoidable.”

Section 1.8 New or Revised Mitigation Measures

In this SEIR-2 and the Second Supplemental IS, the following new or revised mitigation measures were identified:

The new or revised mitigation measures for Biological Resources can be found in Section 3.3 of the Second Subsequent IS, which is located in Volume III.

Mitigation Measure BIO-7: Conduct Preconstruction Surveys for Nesting and Wintering Western Burrowing Owls and Implement Measures to Avoid or Minimize Adverse Effects if Owls are Present

Preconstruction surveys for Western burrowing owls shall be conducted by a qualified ornithologist before any development within the habitat identified in Figure 3.3-1. These surveys, which shall include any potentially suitable habitat within 250 feet of construction areas, shall be conducted no more than 30 days before the start of site grading, regardless of the time of year in which grading occurs. If breeding owls are located on or immediately adjacent to the site, a construction-free buffer zone (typically 250 feet) around the active burrow must be established as determined by the ornithologist in consultation with CDFW. No activities, including grading or other construction work or relocation of owls, would proceed that may disturb breeding owls. If owls are resident within 250 feet of the Project Area during the nonbreeding season a qualified ornithologist, in consultation with CDFW, shall passively relocate (evict) the owls to avoid the loss of any individuals if the owls are close enough that they or their burrows could potentially be harmed by associated activities.

Mitigation Measure BIO-12: Conduct Preconstruction Surveys for Western Pond Turtles and Implement Measures to Avoid or Minimize Adverse Effects if Turtles are Present

Preconstruction surveys for western pond turtles shall be conducted by a qualified biologist just prior to (i.e., the day of) initiation of any construction in non-developed habitat that occurs within 100 feet of Thompson Creek. If any individual western pond turtles are detected within the project’s impact areas, the individuals shall be moved to suitable habitat within the nearest creek, at least 300 feet outside the project area.

Mitigation Measure BIO-14a: Conduct a Preconstruction Survey for Nesting Raptors

Preconstruction surveys for nesting raptors will be conducted by a qualified ornithologist to ensure that no raptor nests will be disturbed during implementation of the Project. This survey shall be conducted within 48 hours of

construction activity during the breeding season. For nesting raptors, the breeding season is from January 1 to August 31. During this survey, the ornithologist would inspect all trees and suitable grassland habitat in and immediately adjacent to the affected areas for raptor nests. If the survey does not identify any nesting special-status raptor species in the area potentially affected by the proposed activity, no further mitigation is required.

Mitigation Measure BIO-15: Conduct Preconstruction Surveys for Nesting Migratory Birds

If construction activities are scheduled to occur during the migratory bird breeding season (February 1-August 31), a preconstruction survey for nesting migratory birds shall be conducted prior to commencement of construction activities. If an active nest is identified within the study area, construction activities will stop (only where a nest is located) until the young fledge or the nest is removed in accordance with CDFW approval.

The revised mitigation measures for Geology, Soils, and Seismicity can be found in Section 3.8 of the Second Subsequent IS, which is located in Volume III.

Mitigation Measure GEO-4: Incorporate Caltrans Seismic Design Criteria

During the design process, VTA shall design any and all proposed infrastructure in accordance with the appropriate Caltrans Seismic Design Criteria.

Mitigation Measure GEO-6: Minimize Risk of Lateral Spreading, Subsidence, and Collapse

Prior to implementation of the proposed transit improvement activities, the following construction methods shall be employed:

- construct edge containment structures such as berms, dikes, retaining structures, or compacted soil zones;
- remove or treat soils and geologic materials prone to lateral spreading and settling; and
- install drainage measures to lower the groundwater table below the level of settleable soils pursuant to the California Division of Mines and Geology's *Guidelines for Evaluating and Mitigating Seismic Hazards in California, Special Publication 117A* (2008).

The revised mitigation measure for Hydrology and Water Quality can be found in Section 3.10 of the Second Subsequent IS, which is located in Volume III.

Mitigation Measure HYD-11: Comply with All Applicable Regulations and Subsequent Permit Programs Related to Water Quality Control

In implementing the project, VTA will comply with the Clean Water Act (CWA), including all National Pollution Discharge Elimination System (NPDES) permit requirements. VTA will require the construction contractor to develop and implement a Storm Water Pollution Prevention Plan (SWPPP) in accordance with State Water Resources Control Board (SWRCB) regulations and the NPDES Construction General Stormwater permit. VTA will obtain coverage under the State's General Construction Stormwater Permit, and will comply with applicable requirements relative to land grading and erosion control. VTA will comply with the Clean Water Act, including all NPDES permit requirements. VTA will obtain coverage under the State Water Resources Control Board's Construction General Permit for Storm Water, Order No. 2009-0009-DWQ (CGP), and contractors must meet the substantive requirements for discharge of storm water runoff associated with construction activity.

The SWPPP will identify the specific BMPs proposed for the project, including but not limited to erosion prevention, sediment control, waste management, spill prevention/housekeeping, good housekeeping, non-storm water management, and run-on/runoff control, inspection, maintenance, and BMP repair procedures; and certain monitoring requirements, as well as permanent water quality post construction BMPs.

For those areas in VTA right-of-way, VTA will implement water quality measures required pursuant to the Phase II General Permit for Stormwater Discharge from Small Municipal Separate Storm Sewer Systems (MS4), Order No. 2013-0001-DWQ, effective July 30, 2013. The stormwater treatment regulations under this MS4 require new projects that create 5,000 square feet or more of newly constructed or replaced and contiguous impervious surface to comply with post-construction stormwater treatment requirements. BMPs may include avoiding impervious surfaces, providing site controls to manage pollutant sources, and Low Impact Development features such as bioretention basins and vegetated swales. Roadway improvements will comply with the EPA's Greenstreets guidelines. In addition, a long-term maintenance plan (minimum of five years) will be developed in accordance with the Phase II MS4 requirements and will describe the procedures to ensure that the post-construction storm water management measures are adequately maintained.

For those areas in City or County right-of-way, VTA will implement water quality measures required pursuant to provision C.3 of the Municipal Regional Stormwater NPDES Permit (MRP) Order No. R2-2015-0049, overseen by the Santa Clara Valley Urban Runoff Pollution Prevention Program (SCVURPPP). This permit requires projects that result in the displacement of more than 43,560 square feet (1 acre) of impervious surface to implement treatment BMPs to the maximum extent practicable. BMPs may include detention/retention units,

infiltration structures, swales, sand filters, wetlands, or other low impact development measures that improve water quality.

Mitigation Measure HYD-12: Implement Measures to Maintain Operational Water Quality

In accordance with the Phase II MS4 permit, VTA will perform inspections and cleanings such that NPDES permit treatment requirements will be met, and will ensure that outlet structures provide for proper energy dissipation in accordance with standard specifications for storm drainage. VTA will ensure that regular maintenance of parking facilities includes a program to clean curbside pavement areas of litter, fuel, and oils spills. Storm drain inlet traps will be inspected at least annually and cleaned as required.

Pursuant to Provision C.3 of the MRP, those areas in City or County right-of-way that result in the displacement of more than 43,560 square feet (1 acre) of impervious surface must implement treatment BMPs to the maximum extent practicable. Sizing of these BMPs will be in accordance with the most recent guidelines in the MEP and/or issued by the SCVURPPP, and typically relate to volume- or flow-based treatment capacity.

Those BMPs whose primary mode of action to treat stormwater depends on volume capacity, such as detention/retention units or infiltration structures, will typically be designed to treat stormwater runoff equal to either the maximized stormwater quality capture volume for the area, based on historical rainfall records (URQM, 1998); or equal to the volume of annual runoff required to achieve 80% or more capture (CASQA, 1993).

Treatment BMPs such as swales, sand filters, wetlands, and others whose primary mode of action depends on flow capacity will typically be sized to treat 1) 10% of the 50-year peak flow; or 2) the flow of runoff produced by a rain event equal to at least two times the 85th-percentile hourly rainfall intensity for the applicable area, based on historical records of hourly rainfall depths; or 3) the flow of runoff resulting from a rain event equal to at least 0.2-inch-per-hour intensity.

The revised mitigation measures for Noise and Vibration can be found in Section 5.3 of the Draft SEIR-2, which is located in Volume I.

Mitigation Measure NV-1a: Construct Soundwalls

VTA shall construct soundwalls that are a minimum of 3 feet above top of rail on the aerial structure or in the median adjacent to the trackway at the following locations:

- NB/SB: Westboro Drive to Story Road (968+54 to 992+00);
- NB: Kollmar Drive to Cunningham Avenue (997+00 to 1051+00); and
- SB: Kollmar Drive to Ocala Avenue (997+00 to 1038+00).

All soundwall locations and heights are preliminary and are subject to change based on additional noise studies during final design.

Mitigation Measure NV-4b: Use Vibration-Dampening Track Construction Materials

VTA shall install a 12-inch layer of tire-derived aggregate beneath a subballast layer of 12 inches and a ballast layer of 12 inches between Wilbur Avenue and Westboro Drive (Sta. 966+50 to 971+50 NB/SB).

Mitigation Measure NV-1b: Noise Insulation

As a result of the aerial grade separation at Ocala Avenue, this mitigation measure is no longer required.

The revised mitigation measure for Visual Quality can be found in Section 3.16 of the Second Subsequent IS, which is located in Volume III.

Mitigation Measure VQ-4: Incorporate Landscaping

VTA will develop and implement a comprehensive landscaping plan to soften the massing, hardscape, and structural elements of the Project. The landscaping shall be designed to be consistent with vegetation types and patterns within the Capitol Expressway Corridor, and shall provide year-round aesthetic enhancement.

As part of this plan, VTA shall review project designs to ensure that the following elements are implemented in the Project landscaping plan to the extent feasible:

- 85 percent of the species composition of open space areas shall reflect species that are native to the Plan Area and California. The species list should include trees, shrubs, and an herbaceous understory of varying heights, as well as evergreen and deciduous types. Plant variety will increase diversity by providing multiple layers, seasonality, more diverse habitat, and reduced susceptibility to disease.
- 75 percent of the plant composition for landscaping in parks and public/quasi public and commercial areas shall be comprised of species that are native to the Plan Area and California. Use of native species promotes a visual character of California that is being lost through development and reliance on non-native ornamental plant species. Native plant species can be used to create attractive spaces, high in aesthetic quality, that are not only drought-tolerant but attract more wildlife than traditional landscape palettes.
- Under no circumstances will any invasive plant species be used at any location.
- Vegetation shall be planted within the first year following project completion.
- An irrigation and maintenance program shall be implemented during the plant establishment period and carried on an as needed basis, such as in a drought, as supplemental irrigation.

- Irrigation in public and commercial areas shall utilize a smart watering system that evaluates the existing site conditions and plant material against weather conditions to avoid overwatering of such areas. The irrigation system will be managed in such a manner that any broken spray head, pipes, or other components of the system are fixed within 1 to 2 days, or the zone or system will be shut down until it can be fixed to avoid unusually high water flows.

The new or revised mitigation measures for Air Quality can be found in Section 5.4, Air Quality and Climate Change, and Section 5.5, Construction, of this SEIR-2, which is located in Volume I.

Mitigation Measure AQ (CON)-1

In accordance with the BAAQMD's current CEQA guidelines (2017), the project applicant shall implement the following BAAQMD-recommended basic control measures to reduce particulate matter emissions from construction activities. Additional control measures (including watering, washing, and other control measures) as detailed in the 2017 BAAQMD CEQA guidelines (see Additional Construction Mitigation Measures), would further reduce particulate matter emissions and should be implemented when feasible.

- All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
- All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
- All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
- All vehicle speeds on unpaved roads shall be limited to 15 mph.
- All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
- Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.
- All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.
- Post a publicly visible sign with the telephone number and person to contact at the Lead Agency regarding dust complaints. This person shall respond and

take corrective action within 48 hours. The Air District’s phone number shall also be visible to ensure compliance with applicable regulations.

Mitigation Measure AQ (CON)-2

The project applicant shall implement, to the extent feasible, the BAAQMD’s BMPs to reduce GHG emissions from construction equipment. These BMPs are outlined in their 2010 CEQA Guidelines.

- Alternative-fueled (e.g., biodiesel, electric) construction vehicles/equipment of at least 15 percent of the fleet;
- Local building materials of at least 10 percent; and
- Recycle at least 50 percent of construction waste or demolition materials.

Mitigation Measure AQ (CON)-3

Tier 3 or 4 equipment shall be used to further reduce construction-related emissions where possible.

The new or revised mitigation measures for Noise and Vibration can be found in Section 5.3, Noise and Vibration, and Chapter 5.5, Construction, of this SEIR-2, which is located in Volume I.

Mitigation Measure NV (CON)-1h: Use Impact Cushions

A suitable pile cap cushion could be effective at reducing the pile driving noise by up to 5 dB. The construction crew will initially use only burlap bags to reduce noise and then will also use the wood block when pile driving becomes more difficult.

Mitigation Measure NV (CON)-2

A combination of the following measures should be considered if reasonable and feasible to reduce noise and vibration impacts from pile driving:

1. **Noise Shield:** A pile driving noise shield could be effective at reducing the pile driving noise by a minimum 5 dB, depending on the size of the shield and how well it surrounds the pile and hammer. A portable shield/barrier could be implemented to provide a nominal 10 dB noise reduction.
2. **Pre-Drilling Piles:** Pre-drilling a portion of the hole may provide a means to reduce the duration of impact pile driving, and should be explored. Reducing the total impact time to an aggregate duration of no more than 2 hours per day will reduce the equivalent noise level by 6 dB to a range of 80 to 90 dBA (L_{eq}) at a distance of 100ft.
3. **Non-Impact Piles or Cast in Drilled Hole (CIDH) piles:** Using the Soil-Mix or CIDH method would reduce the vibration below the FTA Criteria. This

method is recommended for homes which would be within 75 ft of pile driving.

4. **Reduced Impact Pile Driving Time:** Limiting the hours per day of impact pile driving would reduce the equivalent noise level and would reduce potential work interference.
5. **Excessive Vibration:** If pile driving amplitudes exceed the building threshold criteria, cosmetic repair work may be required at nearby buildings. A detailed preconstruction crack survey will be conducted at homes and businesses where these criteria are expected to be exceeded. Vibration monitoring, crack monitors and photo documentation will be employed at these locations during pile driving activity.
6. **Relocating Items on Shelves:** Since items on shelves and walls may move during pile driving activity, nearby residents will be advised through the community outreach process that they should move fragile and precious items off of shelves and walls for the duration of the impact pile driving. Achievement of standards for building damage would not eliminate annoyance, since the vibration would still be quite perceptible.
7. **Advance Notification (Work Interference):** The impact pile driving vibration may cause interference with persons working at home or the office on their computers. Nearby residents and businesses will be advised in advance of times when piles would be driven, particularly piles within 160 ft of any occupied building, so that they may plan accordingly, if possible.
8. **Notification of Pile Driving Schedule:** Nearby residents and businesses will be notified of the expected pile driving schedule. In particular, these notifications should be made with home-bound residents, homes where there is day-time occupancy (e.g., work at home, stay-at-home parents) and offices/commercial businesses where extensive computer/video monitor work is conducted.
9. **Hotel Accommodations:** Residents at 660 South Capitol Avenue will be provided with hotel accommodations while pile driving activities occur adjacent to the residence.

Contractor Controls

In addition to the above list of specific noise and vibration control measures, the following are recommended for inclusion in the Contractor specifications for the Indicator and Production pile driving programs if reasonable and feasible:

- Comply with the equivalent noise levels (L_{eq}) limits specified on page 12-8 of FTA 2006 and a maximum noise level limits of 90 dBA (slow) or 125 dBC (fast) for residential buildings,
- Comply with the maximum vibration limits specified in Table 12-3 of FTA 2006,
- Perform a detailed survey and photo documentation prior to construction of all potentially affected wood-frame buildings within 135 ft of the piling activity,

- Coordinate and perform noise and vibration monitoring at a representative sampling of potentially affected buildings along the Project corridor,
- Install crack monitors where appropriate and provide photo documentation at all potentially affected buildings during pile driving activity and through construction,
- Community Notification and Involvement:
 - provide a minimum four-week advance notice of the start of piling operations to all affected receptors (e.g., internet, phone and fax), and regular, up-to-date communications. This includes education of the public on the expected noise and vibration,
 - provide a knowledgeable Community Liaison to respond to questions and complaints regarding pile driving noise and vibration, and
 - provide assistance as needed to nearby residents or offices who may require help relocating valuable items off shelves.

Section 1.9 Areas of Controversy

VTA issued a NOP for the Draft SEIR-2 on May 29, 2018 and held a scoping meeting on June 14, 2018. Pursuant to CEQA Guidelines 15123, this SEIR-2 acknowledges the areas of controversy that are known to VTA and/or were raised during the scoping process for the SEIR-2. The six comment letters received on the scope and content of SEIR-2 are included in Attachment A of the SEIR-2.

Comments regarding environmental impacts focused on the following areas:

- Planned construction scope.
- Disruption to nearby schools.
- Contribution to traffic.
- Commission rules and regulations in regards to rail safety.
- Consultation with California Native American tribes.
- Driveways, parking, bicycle parking.
- Motor vehicle, bicycle, and pedestrian transportation design and circulation.
- Bicycle lane design and improvement.
- Bus stop improvements.
- Emergency access.
- Travel time analysis.
- Complete street design for the roadway.
- Coordination with the Tully Road Vision Zero Safety Improvement Project.
- Right-of-way.
- Access to stations for pedestrians, and bicycles.
- Providing closed-circuit televisions.

Table 1-1 Summary of Significant Environmental Impacts and Mitigation Measures

Significant Impact ¹	Mitigation Measures	Level of Significance ²			
		2005 Final EIR	2007 SEIR	2014 Subsequent IS/MND	SEIR-2 or Second Subsequent IS
<i>Transportation (SEIR-2)</i>					
Impact TRN-2a (Traffic Impact at Capitol Expressway/ Story Road in 2018 (now 2023))	No mitigation is feasible	Significant and Unavoidable	Significant and Unavoidable	Less than Significant with Mitigation	Significant and Unavoidable
Impact TRN-2b (Traffic Impact at Capitol Expressway/Ocala Avenue in 2018 (now 2023))	No mitigation is feasible	Significant and Unavoidable	Significant and Unavoidable	Significant and Unavoidable	Significant and Unavoidable
Impact TRN-2c (Traffic Impact at Capitol Expressway/ Tully Road in 2018 (now 2023))	Mitigation Measure TRN-2c (Maintain eight lanes on Capitol Expressway at Tully Road Intersection)	Less than Significant with Mitigation	Less than Significant with Mitigation	N/A	Not evaluated
Impact TRN-8b (Traffic Impact at Capitol Expressway/ Story road in 2025 (now 2043))	No mitigation is feasible	Significant and Unavoidable	Significant and Unavoidable	N/A	Significant and Unavoidable
Impact TRN-8c (Traffic Impact at Capitol Expressway/ Ocala Avenue in 2025 (now 2043))	No mitigation is feasible	Significant and Unavoidable	Significant and Unavoidable	Significant and Unavoidable	Significant and Unavoidable
Impact TRN-8d (Traffic Impact at Capitol Expressway/Tully Road in 2025 (now 2043))	Mitigation Measure TRN-2c (Maintain eight lanes on Capitol Expressway at Tully Road Intersection)	Less than Significant with Mitigation	Less than Significant with Mitigation	N/A	Not evaluated

Significant Impact ¹	Mitigation Measures	Level of Significance ²			
		2005 Final EIR	2007 SEIR	2014 Subsequent IS/MND	SEIR-2 or Second Subsequent IS
Impact TRN (CON) -1 (Long-Term Street or Lane Closure)	Mitigation Measures TRN (CON)-2a (Prepare Traffic Management Plan), TRN (CON)-2b (Inform Public of Traffic Detours), and TRN (CON)-2c (Inform Public of Transit Service Changes)	Less than Significant with Mitigation	Less than Significant with Mitigation	Less than Significant with Mitigation	Significant and Unavoidable
Impact TRN (CON)-2 (Long-Term Loss of Parking or Access Essential for Business Operations)	Mitigation Measures TRN (CON)-2a (Prepare Traffic Management Plan), TRN (CON)-2b (Inform Public of Traffic Detours), and TRN (CON)-2c (Inform Public of Transit Service Changes)	Less than Significant with Mitigation	Less than Significant with Mitigation	Less than Significant with Mitigation	Less than Significant with Mitigation
<i>Air Quality and Climate Change (SEIR-2)</i>					
Impact AQ (CON)-1 (Temporary Increase in Construction-Related Emissions during Grading and Construction Activities)	Mitigation Measures AQ (CON)-1 (BAAQMD's BMPs to reduce particulate matter emissions from construction activities) and AQ (CON)-2 (BAAQMD's BMPs to reduce GHG emissions from construction equipment) and AQ (CON)-3 use Tier 3 or Tier 4 equipment where possible.	Less than Significant with Mitigation	Less than Significant with Mitigation	Less than Significant with Mitigation	Less than Significant with Mitigation
Impact AQ (CON)-3 (Cumulative PM2.5 Concentrations During Construction)	Mitigation Measures CON-1 (AQ) (BAAQMD's BMPs to reduce particulate matter emissions from construction activities) and CON-2 (AQ)	Not evaluated	Not evaluated	Not evaluated	Significant and Unavoidable

Significant Impact ¹	Mitigation Measures	Level of Significance ²			
		2005 Final EIR	2007 SEIR	2014 Subsequent IS/MND	SEIR-2 or Second Subsequent IS
	(BAAQMD’s BMPs to reduce GHG emissions from construction equipment) and AQ (CON)-3 (Use Tier 3 or Tier 4 equipment where possible).				
Biological Resources (Second Subsequent IS)					
Impact BIO-7 (Permanent Loss of Habitat and Disturbance to Species)	Mitigation Measure BIO-7 (Conduct Preconstruction Surveys for Western Burrowing Owls and Implement Measures to Avoid or Minimize Adverse Effects if Owls are Present)	Less than Significant with Mitigation	Less than Significant with Mitigation	Less than Significant with Mitigation	Less than Significant with Mitigation
Impact BIO-8 (Temporary Disturbance of Riparian Forest)	Mitigation Measures BIO-8a Conduct Preconstruction Surveys to Identify Environmentally Sensitive habitat areas) and BIO-8b (Compensate for Disturbed Riparian Forest)	Less than Significant with Mitigation	Less than Significant with Mitigation	N/A	N/A
Impact BIO-10 (Temporary Degradation of Water Quality)	Mitigation Measure BIO-10 (Implement Water Quality Measures)	Less than Significant with Mitigation	Less than Significant with Mitigation	N/A	N/A
Impact BIO-11 (Loss or Disturbance of California Red-Legged Frog Habitat)	Mitigation Measures BIO-11a (Avoid and Minimize Effects to California Red-Legged Frog) and BIO-11b (Compensate for Loss of Aquatic Habitat for	Less than Significant with Mitigation	Less than Significant with Mitigation	N/A	N/A

Significant Impact ¹	Mitigation Measures	Level of Significance ²			
		2005 Final EIR	2007 SEIR	2014 Subsequent IS/MND	SEIR-2 or Second Subsequent IS
	California Red-Legged Frog)				
Impact BIO-12 (Permanent Loss of Aquatic Habitat, Temporary Disturbance of Riparian Habitat, and Temporary Disturbance of Southwestern Pond Turtle)	Mitigation Measure BIO-12 (Conduct Preconstruction Surveys for and Implement Measures to Avoid or Minimize Adverse Effects to Southwestern Pond Turtles if Present)	Less than Significant with Mitigation	Less than Significant with Mitigation	N/A	Less than Significant with Mitigation
Impact BIO-14 (Temporary Disturbance of Nesting Raptors)	Mitigation Measures BIO-14a (Conduct a Preconstruction Survey for Nesting Raptors) and BIO-14b (Avoid Active Raptor Nests)	Less than Significant with Mitigation	Less than Significant with Mitigation	Less than Significant with Mitigation	Less than Significant with Mitigation
Impact BIO-15 (Temporary Disturbance to Nesting Habitat for Migratory Birds)	Mitigation Measure BIO-15 (Conduct Preconstruction Surveys for Nesting Migratory Birds and Stop Construction until the Young have Fledged or the Nest is Removed in Accordance with CDFG)	Less than Significant with Mitigation	Less than Significant with Mitigation	Less than Significant with Mitigation	Less than Significant with Mitigation
Impact BIO-18 (Loss of Trees)	Mitigation Measure BIO-18a (Conduct a Tree Survey) and BIO-18b (Replace Trees)	Less than Significant with Mitigation	Less than Significant with Mitigation	Less than Significant with Mitigation	Less than Significant with Mitigation

Significant Impact ¹	Mitigation Measures	Level of Significance ²			
		2005 Final EIR	2007 SEIR	2014 Subsequent IS/MND	SEIR-2 or Second Subsequent IS
<i>Cultural Resources (Second Subsequent IS)</i>					
Impact CR-5 (Direct or Indirect Impacts to an Archaeological Resource)	Mitigation Measure CR-5a (Develop and Implement a Historic Properties Treatment Plan Prior to Construction Activities)	Less than Significant with Mitigation	Less than Significant with Mitigation	Less than Significant with Mitigation	No Impact (with inclusion of standard practice procedures)
<i>Energy (Second Subsequent IS)</i>					
Impact E (CON)-1 (Consumption of Nonrenewable Energy Resources in a Wasteful, Inefficient, and/or Unnecessary Manner from Project Construction)	Mitigation Measure E (CON)-1 (Adopt Energy Conservation Measures)	Less than Significant with Mitigation	Less than Significant with Mitigation	Less than Significant with Mitigation	Less than Significant with Mitigation
<i>Environmental Justice (SEIR-2)</i>					
Impact EJ-1 (Environmental Justice)	No mitigation is feasible	No Impact	Significant and Unavoidable	N/A	Significant and Unavoidable
<i>Geology, Soils, and Seismicity (Second Subsequent IS)</i>					
Impact GEO-4 (Risk Caused by Strong Seismic Ground Shaking)	Mitigation Measure GEO-4 (Incorporate Caltrans Seismic Design Criteria)	Less than Significant with Mitigation	Less than Significant with Mitigation	Less than Significant with Mitigation	Less than Significant with Mitigation
Impact GEO-5 (Risk Caused by Seismic-Related Ground Failure, Including Liquefaction)	Mitigation Measure GEO-5 (Incorporate Liquefaction Minimization Methods)	Less than Significant with Mitigation	Less than Significant with Mitigation	Less than Significant with Mitigation	Less than Significant with Mitigation
Impact GEO-6 (Risks from Lateral Spreading,	Mitigation Measure GEO-6 (Minimize Risk of Lateral	Less than Significant with Mitigation	Less than Significant with Mitigation	Less than Significant with Mitigation	Less than Significant with Mitigation

Significant Impact ¹	Mitigation Measures	Level of Significance ²			
		2005 Final EIR	2007 SEIR	2014 Subsequent IS/MND	SEIR-2 or Second Subsequent IS
Subsidence, and Collapse)	Spreading, Subsidence, and Collapse)				
Impact GEO-7 (Risk Caused by Expansive Soil)	Mitigation Measure GEO-7 (Minimize Risk of Soil Expansivity)	Less than Significant with Mitigation	Less than Significant with Mitigation	Less than Significant with Mitigation	Less than Significant with Mitigation
<i>Hazardous Materials (Second Subsequent IS)</i>					
Impact HAZ-9 (Hazard to the Public or Environment through Reasonable Foreseeable Upset and Accident Conditions Caused by the Release of Hazardous Materials)	Mitigation Measures HAZ-9a/(CON)-1a (Conduct Subsurface Investigations in Areas of the Corridor That May Be Underlain by Contaminated Soil or Groundwater) and HAZ-9b (Control Contamination Resulting from Previously Unidentified Hazardous Waste Materials)	Less than Significant with Mitigation	Less than Significant with Mitigation	Less than Significant with Mitigation	Less than Significant with Mitigation
Impact HAZ (CON)-1 (Release of Hazardous materials into the Environment)	Mitigation Measures HAZ (CON)-1a (Conduct subsurface Investigations), HAZ (CON)-1b (Control Contamination), and HAZ (CON)-1c (Conduct Lead and Asbestos Surveys Prior to Building Demolition or Renovation),	Less than Significant with Mitigation	Less than Significant with Mitigation	Less than Significant with Mitigation	Less than Significant with Mitigation
<i>Hydrology and Water Quality (Second Subsequent IS)</i>					
Impact HYD-11 (Violation of Water Quality Standards or	Mitigation Measure HYD-11 (Comply with All Applicable Regulations and	Less than Significant with Mitigation	Less than Significant with Mitigation	Less than Significant with Mitigation	N/A

Significant Impact ¹	Mitigation Measures	Level of Significance ²			
		2005 Final EIR	2007 SEIR	2014 Subsequent IS/MND	SEIR-2 or Second Subsequent IS
Waste Discharge Requirements)	Subsequent Permit Programs Related to Water Quality Control)				
Impact HYD-12 (Creation of Additional Runoff)	Mitigation Measure HYD-12 (Maintain Operational Water Quality)	Less than Significant with Mitigation	Less than Significant with Mitigation	N/A	Less than Significant with Mitigation
Impact HYD-13 (Alterations in Existing Drainage Patterns)	Mitigation Measures HYD-11 (Comply with All Applicable Regulations and Subsequent Permit Programs Related to Water Quality Control) and HYD-14 (Construct Facilities to Minimize Flood Impacts)	Less than Significant with Mitigation	Less than Significant with Mitigation	N/A	Less than Significant with Mitigation
Impact HYD-14 (Exposure to Flood Hazards)	Mitigation Measure HYD-14 (Minimize Flood Impacts)	Less than Significant with Mitigation	Less than Significant with Mitigation	Less than Significant with Mitigation	N/A
Impact HYD (CON)-1 (Impair Water Quality)	Mitigation Measure HYD (CON)-1 (Implement Water Quality Control Measures)	Less than Significant with Mitigation	Less than Significant with Mitigation	Less than Significant with Mitigation	Less than Significant with Mitigation
Impact HYD (CON)-2 (Depletion of Groundwater Supplies)	Mitigation Measure HYD (CON)-2 (Use Non-Potable Water)	N/A	N/A	Less than Significant with Mitigation	Less than Significant with Mitigation
Noise and Vibration (SEIR-2)					
Impact NV-1 (Noise Levels from Transit Operations That Would Be Considered a Severe Impact by Federal Transit Administration Criteria)	Mitigation Measures NV-1a (Construct Soundwalls) and NV-1c (Provide Quiet Pavement)	Less than Significant with Mitigation	Less than Significant with Mitigation	Less than Significant with Mitigation	Less than Significant with Mitigation

Significant Impact ¹	Mitigation Measures	Level of Significance ²			
		2005 Final EIR	2007 SEIR	2014 Subsequent IS/MND	SEIR-2 or Second Subsequent IS
Impact NV-4 (Vibration Levels in Buildings from Transit Operations That Exceed Federal Transit Administration Criteria)	Mitigation Measure NV-4b (Use Vibration-Dampening Track Construction Materials). No additional mitigation is recommended.	Less than Significant with Mitigation	Significant and Unavoidable	Less than Significant with Mitigation	Significant and Unavoidable
Impact NV (CON)-1: (Generation of Noise or Vibration That Substantially Affects Nearby Sensitive Receptors) (Noise)	Mitigation Measures NV (CON)-1a (Notify Residents of Construction Activities), NV (CON)-1b (Construct Temporary Noise Barriers During Construction), NV (CON)-1c (Restrict Pile Driving), NV (CON)-1d (Use Noise Suppression Devices), NV (CON)-1e (Locate Stationary Construction Equipment as Far as Possible from Sensitive Receptors), NV (CON)-1f (Reroute Construction-Related Truck Traffic), and NV (CON)-1g (Develop Construction Noise Mitigation Plan), NV (CON)-2, and NV (CON)-1h (Use Impact Cushions)	Less than Significant with Mitigation	Significant and Unavoidable	Significant and Unavoidable	Less than Significant with Mitigation
Impact NV (CON)-1: (Generation of Noise or Vibration That Substantially Affects	Mitigation Measures NV (CON)-1a (Notify Residents of Construction Activities), NV (CON)-1c (Restrict Pile Driving), NV (CON)-1e	Less than Significant with Mitigation	Significant and Unavoidable	Significant and Unavoidable	Significant and Unavoidable

Significant Impact ¹	Mitigation Measures	Level of Significance ²			
		2005 Final EIR	2007 SEIR	2014 Subsequent IS/MND	SEIR-2 or Second Subsequent IS
Nearby Sensitive Receptors) (Vibration)	(Locate Stationary Construction Equipment as Far as Possible from Sensitive Receptors), and NV (CON)-2				
<i>Safety and Security (Second Subsequent IS)</i>					
Impact SS-3 (Pedestrian and/or Bicycle Safety Risks at Gated Crossings)	Mitigation Measure SS-3 (Incorporate Pedestrian Friendly Features)	Less than Significant with Mitigation	Less than Significant with Mitigation	Less than Significant with Mitigation	N/A
Impact SS-4 (Inadequate Lighting or Visual Obstructions at Park-and-Ride Lots)	Mitigation Measures SS-4a (Implement Measures to Deter Crime), SS-4b (Use Lighting, Cameras, and Security Patrols to Enhance Safety), and SS-4c (Define Fire and Life Safety Procedures and Develop Evacuation Plans)	Less than Significant with Mitigation	Less than Significant with Mitigation	Less than Significant with Mitigation	Less than Significant with Mitigation
Impact SS (CON)-1 (Potential for Safety Risks during Construction)	Mitigation Measure SS (CON)-1 (Implement Construction BMPs to Protect Workers and the Public)	Less than Significant with Mitigation	Less than Significant with Mitigation	Less than Significant with Mitigation	Less than Significant with Mitigation
<i>Socioeconomics (Second Subsequent IS)</i>					
Impact SOC-16 (Displacement of Existing Businesses or Housing)	Mitigation Measures SOC-16a (Comply with Legislation for Acquisition and Relocation) and SOC-16b (Inform Residents and Businesses of Project Status)	Less than Significant with Mitigation	Less than Significant with Mitigation	Less than Significant with Mitigation	Less than Significant with Mitigation

Significant Impact ¹	Mitigation Measures	Level of Significance ²			
		2005 Final EIR	2007 SEIR	2014 Subsequent IS/MND	SEIR-2 or Second Subsequent IS
Utilities (Second Subsequent IS)					
Impact UTL-3 (Require Construction of New Stormwater Drainage Facilities or Expansion of Existing Facilities)	Mitigation Measure HYD-14 (Maintain Operational Water Quality)	Less than Significant with Mitigation	Less than Significant with Mitigation	Less than Significant with Mitigation	Less than Significant with Mitigation
Impact UTL (CON)-1 (Disrupt a Utility Service for a Period of 24 Hours or More)	Mitigation Measure UTL (CON)-1 (Coordinate with Utility Service Providers Prior to Construction of Light Rail Facilities)	Less than Significant with Mitigation	Less than Significant with Mitigation	Less than Significant with Mitigation	Less than Significant with Mitigation
Visual Quality (Second Subsequent IS)					
Impact VQ (CON)-1 (Creation of a New Source of Substantial Light or Glare)	Mitigation Measure VQ (CON)-1 (Direct Lighting toward Construction Areas)	Less than Significant with Mitigation	Less than Significant with Mitigation	Less than Significant with Mitigation	Less than Significant with Mitigation
Impact VQ-1 (Creation of Substantial Light or Glare)	Mitigation Measure VQ-1 (Minimize Light and Glare)	Less than Significant with Mitigation	Less than Significant with Mitigation	Less than Significant with Mitigation	Less than Significant with Mitigation
Impact VQ-3 (Degradation of Existing Visual Quality)	Mitigation Measures VQ-3 (Involve Public in Station Design) and VQ-4 (Incorporate Landscaping)	Less than Significant with Mitigation	Less than Significant with Mitigation	Less than Significant with Mitigation	Less than Significant with Mitigation
Construction (SEIR-2)					
See construction-related impacts in the resource areas identified above.					

Significant Impact ¹	Mitigation Measures	Level of Significance ²			
		2005 Final EIR	2007 SEIR	2014 Subsequent IS/MND	SEIR-2 or Second Subsequent IS
<i>Cumulative Effects (SEIR-2)</i>					
See Transportation, Air Quality and Climate Change, Environmental Justice, and Noise and Vibration.					
Impact E-Cum-9 (Increase Demand on Electricity Transmission Infrastructure)	No mitigation is feasible	No Impact	Significant and Unavoidable	N/A	N/A
Impacts NV-Cum-2 (Generate Noise from Pile Driving) and NV-Cum-3 (Generate Vibration from Pile Driving)	Mitigation Measures NV-Cum-2 and NV-Cum-3 (Coordinate activities with other construction projects where feasible and reasonable)	No Impact	Less than Significant with Mitigation	N/A	N/A

Notes:

¹ If an impact is not listed in this table, the approved project and the proposed changes to the approved project would result in no impact or a less-than-significant impact.

² Not Applicable = N/A. The mitigation measure is either not applicable (i.e., not required because there were no significant impacts identified for the approved project for the topic in the relevant environmental document) or the potential impact of the approved project was not analyzed in the relevant environmental document.

Source: ICF 2018.

Chapter 2

Introduction

Section 2.1 Overview of Proposed Changes to the Approved Project

The Santa Clara Valley Transportation Authority's (VTA's) Eastridge to BART Regional Connector: Capitol Expressway Light Rail Project (approved project) is located in the City of San Jose. The approved project would be implemented in two distinct phases. The first phase consists of pedestrian and bus improvements, including sidewalk, landscaping, and lighting along Capitol Expressway; bus stop improvements at Story Road and Ocala Avenue; and the replacement of Eastridge Transit Center. Construction of the pedestrian and bus improvements was completed in 2012 and the replacement of Eastridge Transit Center was completed in 2015. The second phase consists of the extension of light rail along Capitol Expressway between the existing Alum Rock Light Rail Station and Eastridge Transit Center, a distance of approximately 2.4 miles.

As discussed in more detail in Chapter 3, *Changes to the Approved Project, Changes in Circumstances, and Introduction of New Information*, VTA is proposing changes to certain elements of the approved project, including the:

- Extension of the aerial guideway to grade-separate the Ocala Avenue and Cunningham Avenue intersections;
- Revisions to Capitol Expressway roadway lane configurations (including the conversion of the existing high-occupancy vehicle lanes to general purpose traffic lanes and maintaining eight lanes between Story Road and Capitol Avenue);
- Modifications to Eastridge Station platforms and track;
- Reduction in parking spaces at Eastridge Park-and-Ride lot;
- Minor shift in the location and straightening of the Story Station pedestrian overcrossing;
- Modification to Story Station pedestrian access;
- Relocation of a construction staging area;
- Relocation of Pacific Gas and Electric (PG&E) electrical transmission facilities; and
- Extension of construction duration and modification to the construction scenario.

The location and overall elements of the proposed changes to the project are shown in Figure 2-1.

The approved project with the proposed changes is anticipated to have 2,203 boardings in 2023 and 4,534 boardings in 2043. Travel time for the Light Rail Alternative between Alum Rock Station and Eastridge Transit Center is estimated to be 4.3 minutes. The capital cost of the approved project with the proposed changes is projected to be \$453 million and will be funded by the 2000 Measure A, Regional Measure 3, and the Senate Bill 1 funds. Construction would begin in 2019 with utility relocation and end in 2024 or 2025 (depending on the construction methodology) with the beginning of revenue service.

Section 2.2 Prior Environmental Documentation

The federal and state environmental process for the approved project was initiated in September 2001 with the publication of a Notice of Intent to prepare an Environmental Impact Statement (EIS) in the federal register and the filing of the Notice of Preparation of an Environmental Impact Report (EIR) with the State Clearinghouse. A Draft EIS/EIR was circulated in April 2004, but only a Final EIR was completed as a result of limited opportunities for securing federal funds.

In May 2005, the VTA Board of Directors certified the Final EIR (hereafter referred to as the “2005 Final EIR”) and approved the Light Rail Alternative. As a result of preliminary engineering, the Light Rail Alternative was modified to address agency comments, improve operations, minimize right-of-way acquisition, and lower costs. To address these modifications, the VTA Board of Directors prepared and certified a Final Supplemental EIR (Final SEIR) and approved the modifications in August 2007 (hereafter referred to as the “2007 Final SEIR”).

Due to unprecedented declines in revenues beginning in 2008, the implementation plan for the Light Rail Alternative was modified to construct the project in phases. An Addendum to the Final SEIR was approved in June 2010 that included the installation of pedestrian and bus improvements as Phase 1 and the extension of light rail along Capitol Expressway as Phase 2.

In addition to the state environmental process, VTA reinitiated the federal environmental process on September 9, 2009, with a Notice of Intent to prepare a Supplemental Draft EIS. The Supplemental Draft EIS was circulated on May 18, 2012, for 45 days with comments due on July 3, 2012. The federal environmental process under the National Environmental Policy Act (NEPA) was suspended in 2017 as a result of limited opportunities for securing federal funds.

A Subsequent Initial Study (IS)/Mitigated Negative Declaration (MND) was approved in March 2014 (hereafter referred to as the “2014 Subsequent IS/MND”) that eliminated the Ocala Station, eliminated sidewalk widening and sound wall relocation north of Ocala Avenue, and expanded the Eastridge Park-and-Ride lot.

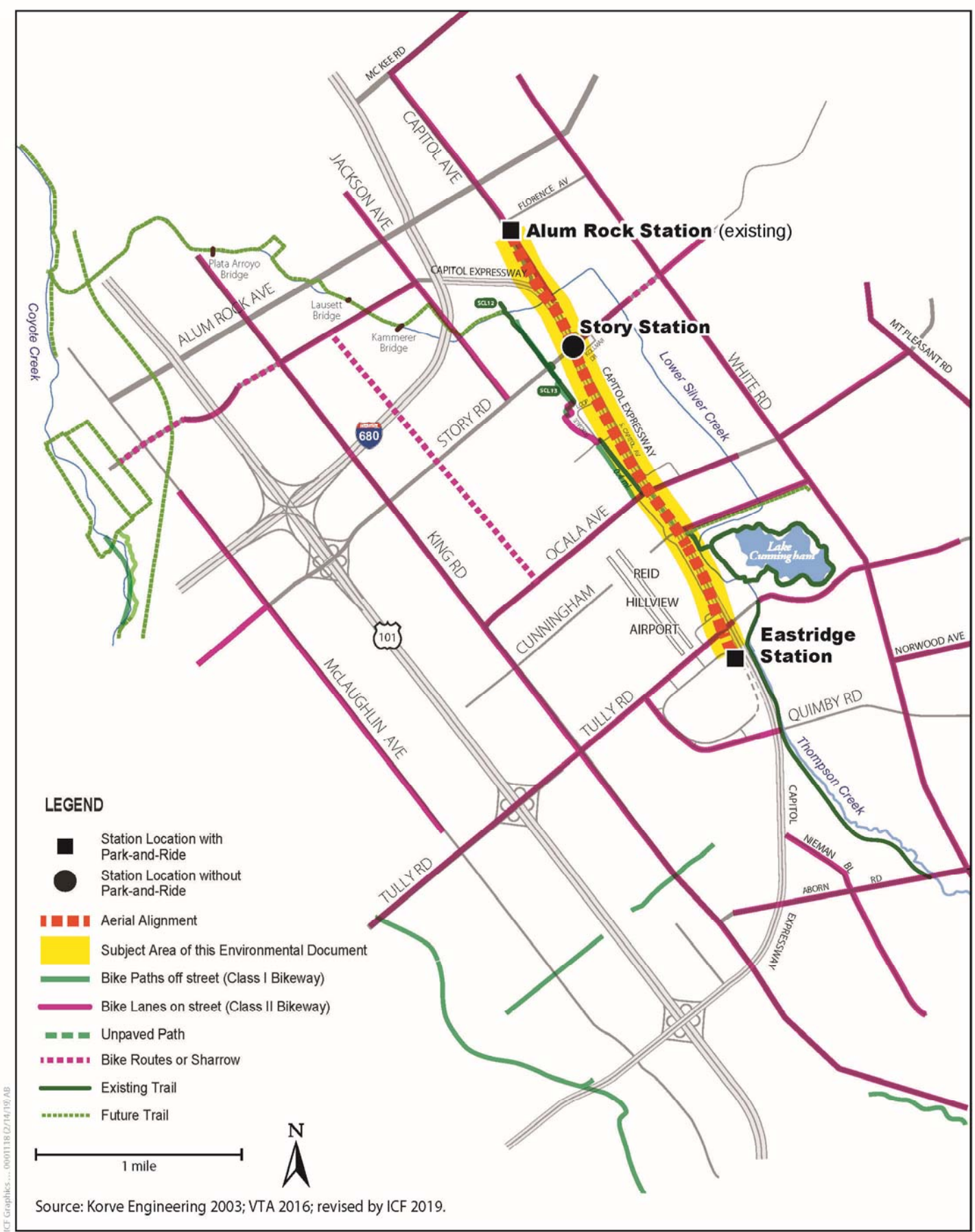


Figure 2-1
Proposed Changes to Capitol Expressway Light Rail Project

This Second Supplemental EIR (SEIR-2) and the Second Subsequent IS (included in Attachment G of the SEIR-2) will address minor changes to the project as well as incorporate changed circumstances and new information.

Section 2.3 Scope of the SEIR-2

According to California Environmental Quality Act (CEQA) Guidelines 15163(b), the SEIR-2 need contain only the information necessary to make the previous EIR adequate for the proposed changes to the approved project. The SEIR-2 augments the previously certified EIR to the extent necessary to address the changed conditions and to examine environmental effects, mitigation measures, and design options accordingly. In preparing the SEIR-2, VTA referenced the 2005 Final EIR, 2007 Final SEIR, and 2014 Subsequent IS/MND and made use of those documents and their supporting administrative record as necessary and appropriate. As a result, the SEIR-2 is focused on providing new information on the environmental effects of the proposed changes to the approved project that is not included in the 2005 Final EIR, 2007 Final SEIR, or the 2014 Subsequent IS/MND. Where the information or analysis from the 2005 Final EIR, 2007 Final SEIR, or the 2014 Subsequent IS/MND applies, the SEIR-2 incorporates by reference the appropriate sections of those documents. In addition, the impact analysis in the SEIR-2 is focused on the potential transportation, environmental justice, noise and vibration, air quality and climate change, and construction impacts associated with the proposed changes to the approved project. All other environmental resource areas are scoped out from requiring further analysis in the Second Subsequent IS.

Section 2.4 Public Participation in the Environmental Review

As part of the environmental process, there will be several opportunities for the public and agencies to comment on the environmental document.

Notice of Preparation. VTA issued a NOP for the Draft SEIR-2 on May 29, 2018 and held a scoping meeting on June 14, 2018. The NOP was sent to over 100 agencies, community organizations, residents, and businesses. In addition, flyers were mailed to approximately 9,000 properties located within 1/2 mile of the corridor. Other outreach included a meeting announcement and reminder on Next Door; door-to-door deliveries of flyers to businesses; a blog post; a webpage announcement; advertisements in the Mercury News, El Observador, Viet Nam Daily, Philippines Today, and Sing Tao; notices at community centers and libraries; email to 751 stakeholder list; listings on Facebook, Twitter, and LinkedIn; and email to 50 organizations on the Title VI list. The six comment letters received on the scope and content of SEIR-2 are included in Attachment A of the SEIR-2.

Comments regarding environmental impacts focused on the following areas:

- Planned construction scope.
- Disruption to nearby schools.

- Contribution to traffic.
- Commission rules and regulations in regards to rail safety.
- Consultation with California Native American tribes.
- Motor vehicle, bicycle, and pedestrian transportation design and circulation.
- Bus stop improvements.
- Emergency access.
- Travel time and mode shift analysis.
- Access to stations for pedestrians, and bicycles.
- Providing closed-circuit televisions.

Draft SEIR-2. VTA requested comments from the public and agencies on the adequacy of the environmental analysis in the Draft SEIR-2. The Draft SEIR-2 was made available for public review for 45 days, from October 3, 2018, to November 19, 2018. The Notice of Availability (NOA) was posted with the Santa Clara County Clerk and sent to more than 100 agencies, community organizations, residents, and businesses. A public meeting notice, with links to the VTA’s website to access the NOA, was mailed to more than 9,000 addresses, including residents, businesses, absentee property owners, and community organizations within 0.5 mile of the corridor. Print advertisements were placed in the Mercury News and translated for print in the *El Observador* (Spanish), *Viet Nam Daily* (Vietnamese), *Philippines Today* (Tagalog), and *Sing Tao* (Chinese) newspapers. A public meeting/open house was held on October 18, 2018, during the public review period, to discuss proposed changes to the project and the Draft SEIR-2 with the public and receive written comments. The NOA and a copy of the mailing list for the Draft SEIR-2 are included in Chapter 3 in Volume I. In addition, VTA responded to all comments in the Final SEIR-2 in Volume I.

Final SEIR-2. Prior to consideration by the VTA Board of Directors, all commenting agencies and individuals will receive a copy of the Final SEIR-2 with VTA’s response to their comments. Any additional comments on the SEIR-2 can be provided in writing or in person at the VTA Board of Directors’ meeting.

Section 2.5 Uses of the SEIR-2

It is anticipated that this SEIR-2 will be relied upon in issuing appropriate project-specific discretionary approvals necessary to implement the proposed changes to the approved project. The following agencies are considered responsible agencies under CEQA, because these agencies possess discretionary authority over the project or a portion of it, as specified.

- **San Francisco Bay Regional Water Quality Control Board:** National Pollutant Discharge Elimination System General Industrial/General Construction Storm Water Discharge Permits.
- **California Department of Fish and Game:** Migratory Bird Treaty Act and Burrowing Owl issues.

- **California Public Utilities Commission:** Construction and alteration of rail crossings and relocation of electrical transmission towers.
- **California Transportation Commission:** Allocation of funding.
- **Santa Clara County:** Encroachment Permit for use of Capitol Expressway right-of-way.
- **City of San Jose:** Encroachment Permit for use within the City right-of-way and discretionary review authority over temporary street closures, utility realignments, pavement repairs, and other related activities within the City right-of-way.
- **Santa Clara Valley Water District:** Encroachment Permit for use of District right-of-way and Construction Permit.

Section 2.6 Organization of the SEIR-2

The organization of the SEIR-2 and the Second Subsequent IS generally follow the organization of the 2005 Final EIR, 2007 Final SEIR, and 2014 Subsequent IS/MND, especially for the environmental analysis. The SEIR-2 and the Second Subsequent IS should be considered together with the prior documentation because, for the most part, the SEIR-2 and the Second Subsequent IS do not repeat information included in the prior environmental documentation that has not changed.

The Draft SEIR-2 includes the following sections.

- **Chapter 1: Executive Summary.** Briefly discusses the reasons for preparing the SEIR-2, generally describes the approved project, and summarizes the proposed changes to the approved project. This section identifies the impacts, mitigations, and the level of significance of the impacts after mitigation in table format.
- **Chapter 2: Introduction.** Describes the scope of the SEIR-2, public participation, the uses of the SEIR-2, the organization of the SEIR-2, and the certification process for the SEIR-2.
- **Chapter 3: Changes to the Approved Project, Changes in Circumstances, and Introduction of New Information.** Describes the approved project and the proposed changes to the approved project. Details the proposed changes to the approved project. Also discusses changes in circumstances and introduces new information since the approval of environmental documentation prepared for the project.
- **Chapter 4: Alternatives Considered.** States that no additional alternatives were considered in this SEIR-2.
- **Chapter 5: Environmental Setting, Impacts, and Mitigation.** Presents new information regarding the environmental setting, describes the effect of the project changes on the environment, identifies new significant impacts or an increase in severity of previously identified impacts, and recommends mitigation measures to reduce impacts so they are no longer significant. The impact analysis in the SEIR-2 is focused on the potential transportation, environmental justice, noise and vibration, air quality and climate change, and construction impacts associated with the proposed changes to the approved project. As discussed in the Second Subsequent IS, all other

- environmental resource areas are scoped out from requiring further analysis in the SEIR-2.
- **Chapter 6: Other CEQA Considerations.** Discusses other environmental issues of importance to CEQA, including significant and irreversible environmental changes, cumulative impacts, and growth-inducing impacts.
 - **Chapter 7: References.** Lists sources referenced in the SEIR-2.
 - **Chapter 8: List of Preparers.** Lists key VTA staff and consultants who contributed to the preparation of the SEIR-2 and the Subsequent IS.

Section 2.7 Certification of the SEIR-2

The Draft SEIR-2, together with responses to comments on the Draft SEIR-2 and any modifications or corrections to the Draft SEIR-2, will constitute the Final SEIR-2. The VTA Board of Directors will review the Final SEIR-2 (including the Second Subsequent IS included as Attachment G of the SEIR-2), the 2005 Final EIR, the 2007 Final SEIR, and the 2014 Subsequent IS/MND, and any public testimony or comments. Based on that information and all other substantial evidence, the VTA Board of Directors will decide whether to certify the Final SEIR-2 and approve the proposed changes to the approved project. As CEQA Guideline Section 15163(e) requires, the VTA Board of Directors will make a finding for each potentially significant impact identified in the 2005 Final EIR as revised, as well as the Final SEIR-2.

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Chapter 3

Changes to the Approved Project, Changes in Circumstances, and Introduction of New Information

This section describes the approved project and discusses the Santa Clara Valley Transportation Authority's (VTA's) proposed changes to that project. In addition, this section discusses changes in circumstances and introduces new information since the approval of environmental documentation prepared for the project (i.e., the 2005 Final Environmental Impact Report, the 2007 Final Supplemental Environmental Impact Report, and the 2014 Subsequent Initial Study [IS]/Mitigated Negative Declaration [MND]).

Section 3.1 Approved Project

The approved project would consist of the extension of light rail along Capitol Expressway between the existing Alum Rock Light Rail Station and Eastridge Transit Center, a distance of approximately 2.4 miles. Light rail would operate primarily in the median of Capitol Expressway within exclusive and semi-exclusive rights-of-way. To provide the additional right-of-way to accommodate light rail, high-occupancy vehicle (carpool) lanes would be removed between Capitol Avenue and Tully Road. The alignment would include an elevated section that would extend north of Capitol Avenue to south of Story Road, and an elevated crossing of Tully Road. The approved project would include new light rail stations at Story Road (aerial) and Eastridge Transit Center (at-grade). At Eastridge Mall, the Park-and-Ride lot would be expanded to accommodate the project. The approved project would also include traction power substations at Ocala Avenue and Eastridge Transit Center. Five 115-kilovolt electrical transmission towers and two tubular steel poles would require relocation from the median of Capitol Expressway to the east side of Capitol Expressway in order to accommodate the approved project. Table 3-1 shows the rail crossings included in the approved project and the proposed changes to the approved project.

Figure 3-1 shows the general location of the approved project described in the 2014 Subsequent IS/MND.

Section 3.2 Changes to the Approved Project

VTA is proposing changes to certain elements of the approved project, which are discussed in detail in this section. The general location and overall elements of the proposed changes to the project are shown generally in Figure 1-1 in Chapter 1, Introduction, of the Second Subsequent IS. A detailed description of the proposed changes to the approved project is included in Attachment B of the SEIR-2.

Extension of the Aerial Guideway to Grade- Separate the Ocala Avenue and Cunningham Avenue Intersections. The proposed change to the project would replace the at-grade track alignment with approximately 1.25 miles of aerial guideway from south of Story Road to north of Tully Road. The aerial guideway would include concrete columns supported on pile foundations. The aerial guideway would also include aerial sound walls. The aerial guideway would typically be 20 to 35 feet at the top-of-rail with a maximum height of approximately 60 feet with the overhead catenary system and poles. Visual simulations of the aerial guideway are provided in Section 3.16, *Visual Quality*, of the Second Subsequent IS.

As a result of an additional left turn pocket (as discussed in detail under Revisions to Capitol Expressway Roadway Lane Configurations) on Capitol Expressway at Story Road, the alignment of the aerial guideway between Story Road and Foxdale Drive would be shifted slightly west by 3 feet.

Table 3-1 shows the rail crossings included in the approved project and the proposed changes to the approved project. As discussed in detail under Section 2.4, *Introduction of New Information*, Senate Bill (SB 215) affected how the California Public Utilities Commission (CPUC) processed formal crossing applications.



Figure 3-1
Previously Approved Capitol Expressway Light Rail Project

Table 3-1 Rail Crossings for the Approved Project and the Proposed Changes to the Approved Project

Cross Street	Track Stationing	Number of Tracks	Pedestrians	Automobiles	Safety Risks	Proposed Crossing Type	Proposed Safety Devices (At Grade Crossings)
Wilbur Avenue/Nuestra Castillo Court	+965+00	2	1 Crosswalk	2 Lanes	VTA buses, Left turns from Wilbur to southbound Capitol Avenue	At-grade (existing crossing with t-signals)	T-signals, Traffic signals
Northbound Capitol Avenue	+974+00	2	2 Sidewalks	2 Lanes	High roadway traffic volumes	Grade separated, Aerial	n/a
Northbound Capitol Expressway	+978+00	2	1 Sidewalk	4 Lanes	High roadway traffic volumes	Grade separated, Aerial	n/a
Story Road	+995+00	2	2 Crosswalks	6 Through lanes, 4 turn lanes	High auto and pedestrian traffic volumes. Left turn movements	Grade separated, Aerial	n/a
Ocala Avenue	+1037+00	2	2 Crosswalks	4 Through lanes, 2 Turn lanes	School children, School buses, Heavy volume of LT movements	Grade separated, Aerial	n/a
Cunningham Avenue	+1050+00	2	2 Crosswalks	2 Lanes	Light traffic volumes, low risk	Grade separated, Aerial	n/a
SB Capitol Expressway	+1067+00	2	1 Sidewalk	3 Lanes	Heavy roadway traffic volumes	Grade separated, Aerial	n/a

Cross Street	Track Stationing	Number of Tracks	Pedestrians	Automobiles	Safety Risks	Proposed Crossing Type	Proposed Safety Devices (At Grade Crossings)
Swift Lane	+1073+00	2	2 Sidewalks	2 Lanes	Light traffic volumes, low risk	Grade separated, Aerial	n/a
Tully Road	+1078+00	2	2 Sidewalks	6 Lanes, 4 Turn lanes	Heavy roadway traffic volumes	Grade separated, Aerial	n/a
Northern Pedestrian Crossing to Platform	+1086+00	1	1 Crossing of SB track	None	Incoming and departing trains	At-grade	Crossing gates, Flashing Lights, and Bells
Southern Pedestrian Crossing to Platform	+1089+80	1	1 Crossing of SB track	None	Train movements in and out of tail track	At-grade	Crossing gates, Flashing Lights, and Bells

Notes:

Shaded rows indicate proposed rail crossing changes to the approved project.

Source: VTA, 2018.

Revisions to Capitol Expressway Roadway Lane Configurations. The Proposed change to the project would revise the roadway lane configurations along Capitol Expressway. In addition, the proposed change would include resurfacing Capitol Expressway with open-graded asphalt concrete (OGAC).¹ A center median between Story Road and Capitol Avenue would separate traffic. Detailed track plans and profiles showing the proposed geometric design changes for the proposed changes to the approved project are included in Attachment C of the SEIR-2. The proposed roadway lane configuration changes include the following.

- *Four traffic lanes in each direction north of Story Road.* Both of the existing high-occupancy vehicle lanes (one northbound and one southbound) would be converted to general purpose traffic lanes, resulting in a total of four general purpose lanes in each direction between Story Road and Capitol Avenue. One southbound inner general purpose lane would end at the introduction of the left turn pockets at Story Road. This proposed change would be accomplished by the widening of Capitol Expressway, a reduction of the median, the removal of landscaping, and the relocation of streetlights. In addition, this would be accomplished by the narrowing of South Capitol Avenue north of Story Road where there would be additional right-of-way requirements.
- *Right turn lanes.* Exclusive right turn lanes on Capitol Expressway would be added at Story Road, Cunningham Avenue, and Tully Road intersections.
- *Bicycle Slot.* At the locations where exclusive right turn lanes are added or maintained on Capitol Expressway, bicycle slots would be included to the left of the right turn lanes. Figure 3-2 includes pictures of a typical bicycle slot with bicycle detector.
- *Left turn lanes.* Longer left turn lanes on Capitol Expressway would be added at the following intersections: northbound and southbound at Story Road, northbound at Ocala Avenue, and southbound at Tully Road. At Ocala Avenue, one northbound left turn lane would be removed.
- *Left turn pocket.* A second left turn pocket would be maintained on northbound Capitol Expressway at Story Road.

¹ Recent studies by Caltrans indicate that OGAC produces noticeably less vehicle noise than other pavement types (i.e., concrete and conventional asphalt).



a. View of an example bike slot facing west at Lawrence Expressway and Cabrillo Avenue in the City of Santa Clara.



b. View of a bike detector embedded in a bike slot. The purpose of a bike detector is to detect a bicyclist approaching an intersection and communicate with the traffic signal cabinet to provide enough time for cyclists to safely cross an intersection.

Source: VTA and ICF 2018.

Figure 3-2
Typical Bike Slot

Modifications to Eastridge Station Platforms and Tracks. The approved project includes two platforms, additional tail tracks, and one traction power substation at the Eastridge Station. The proposed changes to the project include only one center platform at Eastridge Station, which would be adequate for the anticipated patronage.

Additional changes to the Eastridge Station include the following.

- Removal of the siding track.
- Reconfiguration of tail tracks, including the addition of a pocket track.
- Diamond crossover shifted from structure to ballast.
- Addition of passenger access at north end of station (adjacent to the Park-and-Ride Lot).
- Platform shifted north, which would eliminate reconstruction of Eastridge Loop/Capitol Expressway intersection.
- Platform raised on retained fill.
- Tully Road bridge crossing lowered.

Figure 3-3 shows the proposed changes to the Eastridge Station.

Reduction in Parking Spaces at Eastridge Park-and-Ride Lot. The Eastridge Park-and-Ride Lot currently includes approximately 180 parking spaces. The approved project increases the parking to 445 spaces at Eastridge Station to partially address the increased demand of 481 spaces from the project. As part of the proposed changes to the approved project, VTA is proposing to increase the parking to approximately 302 spaces through reconfiguration of the Eastridge Park-and-Ride lot. See Section 2.3, *Changes in Circumstances*, for a discussion of the changes to the existing VTA Paratransit Offices at the Eastridge Park-and-Ride Lot. As shown in Table 3-2, based on updated VTA forecasts, the proposed changes to the approved project would increase existing (2017) parking demand to 114 parking spaces. In years 2023 and 2043, the proposed changes to the approved project would increase parking demand to 293 vehicles and 374 vehicles, respectively.

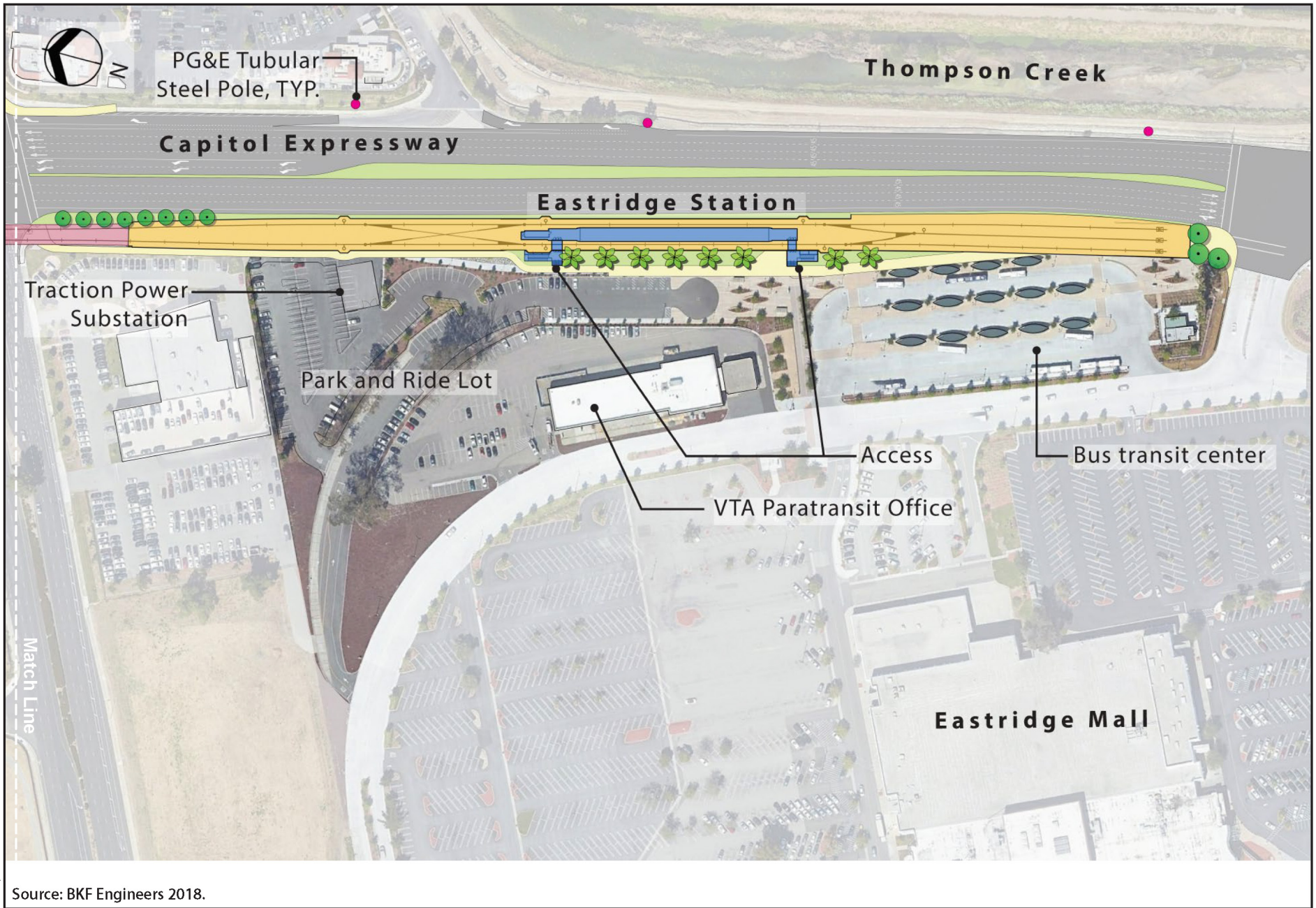


Figure 3-3
Proposed Changes to the Eastridge Station

Table 3-2 Eastridge Park-and-Ride Lot Anticipated Parking Demand for the Approved Project and the Proposed Changes (Existing [2017] Year, Year 2023, Year 2035, and Year 2043)

	Existing (2009 or 2017) ¹	Year 2023 ²	Year 2035 ³	Year 2043 ²
Approved Project				
Demand	16	--	481	--
Supply	115	--	445	--
Proposed Changes to the Approved Project				
Demand	114	293	--	374
Supply	180	302	--	374

Notes:

¹ Existing parking counts provided by VTA Operations on December 20, 2017.

² Future Parking estimates provided by VTA Modelling on May 31, 2018.

³ Only parking forecasts for 2035 were provided in the 2014 Subsequent IS/MND. Updated parking forecasts were not provided for 2035 due to changes in the opening year and future year.

Source: Hexagon 2018.

Minor Shift in the Location and Straightening of the Story Station Pedestrian Overcrossing. The approved project includes a pedestrian overcrossing at the Story Station. The proposed change to the project would adjust the location of the eastern and western landings of the pedestrian overcrossing. On the east, this change will require the removal of an existing driveway along Capitol Expressway into the gas station located south of Story Road due to pedestrian safety and traffic operational concerns. On the west, this change provides for improved clearances at the bottom of the access stairs and the crosswalk ramps and waiting areas at the intersection. Figure 3-4 shows the proposed changes to the Story Station. The proposed change to the project would also straighten out the Story Station Pedestrian Overcrossing, which is currently designed to be curvilinear.



Figure 3-4
Proposed Changes to the Story Station

Modification to Story Station Pedestrian Access. The approved project also includes a pedestrian access point to Story Station at the median. The proposed change to the project would restrict pedestrian access to the Story Station at the median to emergency purposes only.

Relocation of a Construction Staging Area. The approved project includes a construction staging area at Capitol Expressway/Tully Road. The proposed change to the project would eliminate this construction staging area. Thus, the project will require additional areas for staging construction material and equipment. The actual locations and associated access remain to be identified, and it is expected that the laydown areas will be adjacent to the roadway in areas that are either vacant or available for use.

Relocation of Pacific Gas and Electric (PG&E) Electrical Transmission Facilities.

As a result of the change in the vertical profile of the light rail from an at-grade alignment to the proposed aerial guideway, subsequent land use development, and revisions to design standards, Pacific Gas and Electric (PG&E) updated its design to relocate approximately 1.4 miles of its double-circuit Milpitas-Swift and McKee-Piercy 115 kilovolt (kV) power line electrical facilities (lines). There are currently six steel lattice towers and two tubular steel poles (TSPs) located along the Capitol Expressway between Ocala Avenue and Quimby Road in the City of San Jose. These eight structures would be replaced with a total of 10 TSPs as part of the proposed changes compared to the 8 TSPs that were included in the approved project. The relocation would start at an existing structure near the southwest intersection of Silverstone Place and Sunny Glen Drive. Progressing southbound, the lines would shift slightly along west side of Capitol Expressway, then south of Cunningham Avenue, the lines would shift from the median in Capitol Expressway to the east side of the road and continue southerly to the final existing structure located near the southeast intersection of Quimby Road and Capitol Expressway. The TSPs were proposed to be up to 105 feet in height under the approved project and it is now anticipated that the height of at least one TSP would need to be increased to up to approximately 121 feet in height to clear the proposed aerial guideway. As a result of the increase in height and relocation of the TSPs in the proximity to Reid-Hillview Airport, PG&E may need to install Federal Aviation Administration (FAA) obstruction lighting on some or all of the new poles in accordance with FAA requirements. These lights would be powered by either solar panels or local distribution electric lines. The two additional TSPs are a result of the replacement of No. 49 lattice tower with a TSP and the insertion of a new TSP (No. 53A) between Tully Road and Quimby Road. There would also be minor shifts in the location of the replacement TSPs. One of the TSPs (No. 54) may require new right-of-way from the Santa Clara Water District for placing the TSP and its foundation. The new TSPs would be mounted on a concrete foundation. Construction of the foundation for TSP No. 53A, TSP No. 54, and TSP No. 55 may require temporary closure of the Thompson Creek Trail for safety during drilling, and foundation installation. See Section 2.3, *Changes in Circumstances*, for a discussion of the Thompson Creek Trail. Figure 2-5 shows the proposed changes to the electrical transmission facilities.



Figure 3-5
Proposed Changes to Electrical Transmission Facilities (sheet 1 of 2)



Figure 3-5
 Proposed Changes to Electrical Transmission Facilities (sheet 2 of 2)

Extension of Construction Duration and Modification to the Construction Scenario.

Under the approved project, construction activities were anticipated to periodically reduce the capacity of Capitol Expressway from three lanes to two in each direction during the mid-day off peak periods. However, during the peak of the construction phase, the proposed changes to the approved project may require reducing capacity of Capitol Expressway to two lanes in the northbound direction, and one lane in the southbound direction, periodically, during non-peak hours of travel. Three travel lanes in each direction are expected to stay open during peak hours of travel. One left turn lane in each travel direction may be closed at intersections temporarily during various construction events. Lane closures would be contingent on the requirements and restrictions from the County of Santa Clara and City of San Jose. If lane closures for construction activities are further restricted, an increase of approximately one year would be anticipated for the duration of project construction, moving the construction completion from 2024 to 2025 with the proposed changes.

In addition, the proposed changes to the approved project may cause construction work to be necessary during night and early morning periods and weekend periods to minimize traffic disruption. Construction activities at night would involve partial or complete intersection closures along Capitol Expressway at Capitol Avenue, Story Road, Ocala Avenue, Cunningham Avenue, Swift Lane and Tully Road. Complete roadway closures may occur in each travel direction (northbound and southbound) of Capitol Expressway for work on the proposed pedestrian overcrossing.

Section 3.3 Changes in Circumstances

There have been a number of changes in circumstances since the approval of prior environmental documentation. These changes pertain to changes to related projects.

VTA Paratransit Offices at the Eastridge Park-and-Ride Lot. In September 2017, VTA completed improvements to the vacant building located at the Eastridge Transit Center and moved its VTA Access Paratransit staff to the Eastridge Park-and-Ride Lot. At the VTA Access Paratransit Offices, VTA has a call center and performs minor maintenance on Paratransit vehicles. Approximately 124 parking spaces are designated for use by VTA Access Paratransit staff and visitors.

Thompson Creek Trail. Construction of the City of San Jose’s Thompson Creek Trail began in 2016 and was completed in 2017. The 2.25-mile trail is a Class I facility that runs between Lake Cunningham Park and Abom Park and generally follows Thompson Creek (San Jose Trails 2018). Figure 3-6 provides views of Thompson Creek Trail near Capitol Expressway and Tully Road.



a. View of trail facing north toward the intersection of Capitol Expressway and Tully Road.



b. View of trail facing south toward the intersection of Capitol Expressway and Capitol Expressway Connector Road at Eastridge Mall.

Source: ICF 2018.

Lower Silver Creek Flood Protection Project. Construction of the Santa Clara Valley Water District’s Lower Silver Creek Flood Protection Project began in 2003. All flood protection components of the project are complete and the remaining work, which consists of plantings, is anticipated to be completed in 2019. The main benefits of the 5-mile flood protection project are protection from flood damage and reduction in channel bank failures along Lower Silver Creek from Cunningham Reservoir to Interstate 680.

VTA C17131F, Pedestrian Connection to Eastridge Transit Center: In March 2018, VTA completed a project to provide pedestrian safety improvements along Capitol Expressway next to Eastridge Mall and improve connections to the Eastridge Transit Center. This project consisted of construction of a new crosswalk, including curb ramps and enhanced traffic signals at the Eastridge Loop and Capitol Expressway intersection; installation of new street lighting along Capitol Expressway; installation of fencing along the Capitol Expressway median; and construction of a new crosswalk and curb ramp at the shopping center to provide access to the Thompson Creek Trail.

VTA C810, Capitol Expressway Pedestrian/Bus Improvements: In 2012, VTA completed a project that included a multi-use path for pedestrians and bicycles along both sides of Capitol Expressway between Capitol Avenue and Quimby Road, as allowed by available space. The project included landscaping and lighting. In addition, the project included new bus rapid transit stations at Story Road and Ocala Avenue.

VTA C811, Capitol Expressway Light-Rail Project/Eastridge Transit Center: In 2015, VTA replaced the Eastridge Transit Center with a new facility with better access to bus services and shopping at Eastridge Mall. The project included upgrades to security, lighting, signs, and other amenities.

Tully Road Vision Zero Safety Improvements: This project will install buffered bike lanes and LED streetlight retrofits between Monterey Road and Capitol Expressway. It will further evaluate safety issues and determine feasible improvements.

Section 3.4 Introduction of New Information

This document includes the following new information and new technical reports prepared for the proposed changes to the approved project.

- Updates to the California National Diversity Database (see Section 3.3, *Biological Resources*, of the Second Subsequent IS).
- March 28, 2017, *Capitol Expressway Corridor Project – Biological Resources Update prepared by H.T. Harvey & Associates* (see Section 3.3, *Biological Resources*, of the Second Subsequent IS).
- 2016 American Community Service demographic data (see Section 3.14, *Socioeconomics*, of the Second Subsequent IS and Section 5.2, *Environmental Justice*, of the SEIR-2).

- February 2018 *Capitol Expressway Light Rail - Environmental Data Resources (EDR) Radius Map Report with GeoCheck* (see Section 3.9, *Hazardous Materials*, of the Second Subsequent IS).
- Department of Parks and Recreation 523A (Primary Record) and 523B (Building, Structure, Object) forms prepared for 1091–1093 S. Capitol Avenue and 1148 S. Capitol Avenue (see Section 3.5, *Cultural Resources*, of the Second Subsequent IS).
- May 16, 2018, *Eastridge to BART Regional Connector: Capitol Expressway Light Rail Project Final Cultural Resources Memorandum* (see Section 3.5, *Cultural Resources*, of the Second Subsequent IS).
- April 29, 2019, *Eastridge to BART Regional Connector: Capitol Expressway Light Rail Project Supplemental Transportation Analysis* (see Section 5.1, *Transportation*, of the SEIR-2).
- February 14, 2019, *EBRC- CELR Noise and Vibration Assessment* (see Section 5.3, *Noise and Vibration*, of the SEIR-2).

No other new technical reports specific to the changes to the approved project have been prepared since the 2014 Subsequent IS/MND.

Regulations that have gone into effect since the 2014 Subsequent IS/MND, and to which the proposed changes to the project are subject, include Assembly Bill (AB) 52, various stormwater regulations, case law regarding how existing environmental conditions will impact a project's future users or residents, various air quality regulations, the 2017 *Clean Air Plan*, and Senate Bill (SB) 215.

Assembly Bill 52. Effective July 1, 2015, AB 52 formally established new requirements under the California Environmental Quality Act (CEQA) to protect tribal cultural resources. Specifically, the bill requires a lead agency to begin consultation with a California Native American tribe, if requested, and be informed of projects in the geographic area prior to determining if environmental documentation is required. Compliance with AB 52 is discussed in Section 3.5, *Cultural Resources*, of the Second Subsequent IS.

Stormwater Regulations. VTA was newly regulated as a Non-traditional MS4 under the Phase II General Permit for Stormwater Discharge from Small Municipal Separate Storm Sewer Systems (MS4), Order No. 2013-0001-DWQ, effective July 30, 2013. The stormwater treatment regulations under the MS4 permit require new road projects (including sidewalks and bicycle lanes) that create 5,000 square feet or more of newly constructed or replaced and contiguous impervious surface to comply with post-construction stormwater treatment requirements. These types of treatment measures, including avoiding impervious surfaces, providing site controls to manage pollutant sources, and Low Impact Development features such as bioretention basins and vegetated swales will comply with the United States Environmental Protection Agency's (EPA) Greenstreets guidelines (EPA's *Managing Wet Weather with Green Infrastructure Municipal Handbook Green Streets*) (Lukes & Kloss 2008).

Section 303(d) of the Clean Water Act establishes total maximum daily loads to guide the application of state water quality standards. The Clean Water Act requires each state to satisfy its 303(d) and 305(b) reporting obligations every 2 years, a requirement that the State Water Board fulfills by preparing the *California Integrated Report*. The 2002 *California Integrated Report* with 303(d) listings was most recently revised in 2017. For the current listing cycles, the State Water Board has combined its 303(d) List and the 305(b) Report into the 2014 and 2016 *California Integrated Report*.

The 1995 Basin Plan for the San Francisco Bay Basin (Basin Plan) was the master water quality control planning document for the approved project. The Basin Plan, which designates beneficial uses and water quality objectives for waters of the state and includes programs of implementation to achieve water quality objectives, is updated and reviewed every 3 years. The Basin Plan has been updated to reflect amendments adopted through May 4, 2017. Thus, beneficial uses for all water body segments and water quality objectives have been updated in the Basin Plan.

Effective June 30, 2015, VTA's *Stormwater and Landscaping Design Criteria Manual* was developed to assist engineers with incorporating post-construction stormwater treatment into VTA project designs. All roadway projects that create 5,000 square feet or more of newly constructed or replaced and contiguous impervious surface must comply with the post-construction stormwater requirements in the manual. The current State Water Board's Phase II Small MS4 Permit (Order No. 2013-0001-DWQ) was amended (Water Quality Orders 2015-0133-EXEC and 2016-0069-EXEC) to reflect changes to or removal of regulated small MS4 designations. Currently, the State Water Board is considering amending the Small MS4 Permit to incorporate new or revised total maximum daily load implementation language.

In November 2015, the Regional Water Board adopted a renewed San Francisco Bay Region Municipal Regional Stormwater Permit (MRP) (Order No. R2-2015-0049) overseen by the Santa Clara Valley Urban Runoff Pollution Prevention Program (SCVURPPP). The permit regulates Waste Discharge Requirements and the National Pollutant Discharge Elimination System for the discharge of stormwater runoff from MS4s from a number of jurisdictions and entities, including SCVURPPP, and applies to City of San Jose– or Santa Clara County–owned areas that may be impacted by the changes to the project.

The approved project includes both roadway and light rail improvements, and does not require stormwater treatment. The proposed changes to the project would add impervious and rework areas,² which would require stormwater treatment. The proposed stormwater treatment measures within VTA's operational limits would comply with the stormwater guidelines presented in VTA's *Stormwater and Landscaping Design Criteria Manual*, and the proposed stormwater treatment measures for roadway improvements situated outside of VTA's operational limits would comply with the SCVURPPP. Compliance

² Rework area is an area that is currently impervious and would undergo a change in use as a result of the proposed changes to the project. The size of the rework area, even if currently impervious, is included in the calculation of the changes to the project's total treatment area due to the change in usage.

with the stormwater regulations summarized above is discussed in Section 3.10, *Hydrology and Water Quality*, of the Second Subsequent IS.

California Building Industry Assoc. v. Bay Area Air Quality Management District Case Law. In December 2015, the California Supreme Court found that “CEQA generally does not require an analysis of how existing environmental conditions will impact a project’s future users or residents” unless the project “could exacerbate hazards that are already present.” The Supreme Court identified several exceptions to this general rule in which CEQA could apply to impacts of the environment on the project, all of which are statutory provisions in CEQA that specifically require consideration of impacts of the environment, such as consideration of projects near airports, school construction projects, and statutory exemptions for housing and transit priority projects. None of these exceptions apply to the proposed changes to the approved project. (*California Building Industry Assoc. v. Bay Area Air Quality Management District* (2015) 62 Cal.4th 369).

Air Quality Regulations. Senate Bill (SB) 350 (Clean Energy and Pollution Reduction Act of 2015) was approved by the California legislature in September 2015 and signed by Governor Brown in October 2015. Its key provisions are to require the following by 2030: (1) a renewables portfolio standard of 50 percent and (2) a doubling of energy efficiency (electrical and natural gas) by 2030, including improvements to the efficiency of existing buildings. These mandates will be implemented by future actions of the California Public Utilities Commission and California Energy Commission.

SB 32 requires the California Air Resources Board (ARB) to ensure that statewide greenhouse gas (GHG) emissions are reduced to at least 40 percent below 1990 levels by 2030. The companion bill, AB 197, creates requirements to form a Joint Legislative Committee on Climate Change Policies, requires the ARB to prioritize direct emission reductions and consider social costs when adopting regulations to reduce GHG emissions beyond the 2020 statewide limit, requires ARB to prepare reports on sources of GHGs and other pollutants, establishes 6-year terms for voting members of ARB, and adds two legislators as non-voting members of ARB. Pursuant to SB 32, ARB updated the prior AB 32 Scoping Plan to address implementation of GHG reduction strategies to meet the 2030 reduction target. The Final Plan was approved in December 2017. The 2017 plan continues the discussion from the original scoping plan and 2014 update of identifying scientifically backed policies to reduce GHGs within six of the state’s economic sectors. The updated Scoping Plan includes various elements, including doubling energy efficiency savings, increasing the low carbon fuel standard from 10 to 18 percent, adding 4.2 million zero-emission vehicles on the road, implementing the Sustainable Freight Strategy, implementing a post-2020 Cap-and-Trade Program, creating walkable communities with expanded mass transit and other alternatives to traveling by car, and developing an Integrated Natural and Working Lands Action Plan to protect land-based carbon sinks. Compliance with the air quality regulations summarized above is discussed in Section 5.4, *Air Quality*, of the SEIR-2.

Bay Area Air Quality Management District 2017 CEQA Guidelines. In May 2017, the Bay Area Air Quality Management District updated their California Environmental Quality Act (CEQA) Guidelines (Bay Area Air Quality Management District 2017a).

While the 2014 Subsequent IS/MND used the BAAQMD’s 2010 CEQA guidelines to determine significance, the current, 2017 CEQA Guidelines are discussed in Section 5.4, *Air Quality*, and Section 5.5, *Construction*, of the SEIR-2. There have been no substantial changes to any significance thresholds between the 2010 and 2017 guidelines, however.

Bay Area Air Quality Management District/2017 Clean Air Plan. On April 19, 2017, the Bay Area Air Quality Management District Board of Directors adopted an update to the *2010 Clean Air Plan* called the *2017 Clean Air Plan* (Bay Area Air Quality Management District 2017b). Both the *2010 Clean Air Plan* and *2017 Clean Air Plan* focus on protecting public health and protecting the climate, and contain control measures aimed at reducing air pollution in the region. Additionally, many of the control measures included in the *2010 Clean Air Plan* were carried forward into the *2017 Clean Air Plan*. Consistency with the *2017 Clean Air Plan* is discussed in Section 5.4, *Air Quality*, of the SEIR-2.

Senate Bill 215. Effective January 1, 2017, SB 215 amended the Public Utilities Code to change how the California Public Utilities Commission (CPUC) governs, particularly in regards to ex parte communication. Among other changes, SB 215 affected how the CPUC processes formal crossing applications by requiring a commissioner or administrative law judge to oversee each rail crossing application. Compliance with SB 215 is discussed in Section 3.13, *Safety and Security*, of the Second Subsequent IS.

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Chapter 4

Alternatives Considered

The 2005 Final EIR evaluated a range of alternatives to the approved project. No additional alignment alternatives are considered in the SEIR-2.

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Chapter 5

Environmental Setting, Impacts, and Mitigation

Together, this chapter and the Second Subsequent IS (included in Attachment G) describe substantial changes in the environmental setting, impacts, and mitigation measures for each of the environmental resource areas that were evaluated in the 2005 Final EIR, the 2007 Final SEIR, and the 2014 Subsequent IS/MND. Within each environmental resource area, only the proposed changes to the approved project that have the potential to result in an environmental effect or a change in adopted mitigation measures are discussed. For a detailed discussion of the existing setting at the time each prior environmental document was prepared, impacts (including the thresholds of significance), and mitigation measures, refer to Chapter 4 of the 2005 Final EIR, Chapter 5 of the 2007 Final SEIR, and Chapter 3 of the 2014 Subsequent IS/MND.

The SEIR-2 is focused on the potential for new significant impacts or a substantial increase in the severity of previously identified significant effects related to transportation, environmental justice, noise and vibration, air quality and climate change, and construction. Other environmental resource areas, where there are no impacts or where impacts can be mitigated to a less than significant level, are analyzed in the Second Subsequent IS. These resource areas analyzed in the Second Subsequent IS include Biological Resources, Community Services, Cultural Resources, Electromagnetic Fields, Energy, Geology/Soils/Seismicity, Hazardous Materials, Hydrology & Water Quality, Land Use, Safety & Security, Socioeconomics, Utilities, and Visual Quality.

The 2005 Final EIR evaluated three alternatives: No-Project, Baseline, and Light Rail Alternative. In the case of the Light Rail Alternative, numerous design options were reviewed for their environmental effects. Based on the project approved by the VTA Board of Directors in May 2005, the modifications to the project approved by the VTA Board of Directors in August 2007, and the modifications to the project approved by the VTA Board of Directors in March 2014, some of the environmental effects and mitigation measures described in the 2005 Final EIR, 2007 Final SEIR, and 2014 Subsequent IS/MND no longer apply to the proposed changes to the approved project. The 2005 Final EIR identified no adverse effects at Kollmar Drive, which would have been “cul-de-saced” and would have no longer connected to Capitol Avenue. Under the

proposed changes to the approved project, Kollmar Drive would not be “cul-de-saced” and would continue to be a two-way street, eliminating all adverse effects associated with the approved project. The impact and mitigation summary included for each section identifies the impacts and mitigation measures that are still relevant. Table 1-1 in Chapter 1, *Executive Summary*, lists the environmental impacts that apply to the approved project and the proposed changes to the approved project.

Section 5.1 Transportation

This section describes the potential transportation impacts associated with the proposed changes to the approved project. This section supplements Section 4.2 of the 2005 Final EIR, Section 5.1 of the 2007 Final SEIR, and Section 3.1 of the 2014 Subsequent IS/MND. This analysis is based on and supported by the April 29, 2019 *Eastridge to BART Regional Connector: Capitol Expressway Light Rail Project Supplemental Transportation Analysis* prepared by Hexagon Transportation Consultants, Inc. (included in Attachment D).

Environmental Setting

The following discussion describes the changes to the existing roadway operations; existing bicycle, pedestrian, and bus counts at Ocala Avenue; and existing parking demand at the Eastridge Park-and-Ride Lot since the preparation of the transportation analysis in the 2007 Final SEIR and the September 2012 *Capitol Expressway Light Rail Transportation Study for the EIS*. The September 2012 Transportation Study is based on 2009 traffic counts.

The applicable transportation regulations remain unchanged since the 2014 Subsequent IS/MND.

EXISTING TRAFFIC VOLUMES

Traffic counts were conducted at the following four study intersections in November 2017:

- Capitol Expressway and Capitol Avenue;
- Capitol Expressway and Story Road;
- Capitol Expressway and Ocala Avenue; and
- Capitol Expressway and Cunningham Avenue.

Other intersections in the project corridor were not included because the proposed changes were not expected to change future operations. Peak hour traffic counts at the study intersections may fluctuate up to 10 percent due to both random variation and changes in the upstream/downstream conditions. Table 5.1-1 shows the AM peak hour comparison where the 2017 traffic volumes are more than 10 percent different than the 2009 traffic volumes and where the individual movements have changes greater than or equal to 100 vehicles. As shown, differences in the AM peak hour were only within 10

percent of 6,078 total intersection volume for the Capitol Expressway and Capitol Avenue intersection. Table 5.1-2 shows the PM peak hour comparison where the 2016/2017 traffic volumes are more than 10 percent different than the 2009 traffic volumes and where the individual movements have changes greater than or equal to 100 vehicles. As shown, differences in the PM peak hour were within 10 percent for total intersection volume for all four intersections. Year 2016 PM peak hour traffic counts were used at Capitol Expressway’s intersections with Capitol Avenue and Story Road because of minor construction near these locations during the 2017 counts.

Table 5.1-1 AM Peak Hour Historical Traffic Volume Count Comparisons (2009 and 2017)

Intersection	Individual Movement Volume (% Difference)¹	Total 2009 Intersection Volume	Total 2017 Intersection Volume	Total Intersection Volume (% Difference)
Capitol Expressway & Capitol Avenue	Northbound through: - 21.6 Northbound right: + 308.6 Southbound left: + 53.4 Westbound right: + 55.8	6,077	6,078	0
Capitol Expressway & Story Road	Northbound right: + 105.6 Southbound through: + 30.1 Eastbound through: + 34.6 Eastbound right: + 368.9 Westbound left: + 87.9 Westbound right: - 15.3	6,770	7,878	+ 16
Capitol Expressway & Ocala Avenue	Northbound left: + 63.2 Southbound through: + 56.8	5,464	6,064	+ 11
Capitol Expressway & Cunningham Avenue	Northbound right: + 98.1 Southbound through: + 31.2	3,983	4,747	+ 19

Notes:

¹ Individual movement volumes are the total number of vehicles during the AM peak hour for all lanes of that movement. Only individual movements with changes greater than or equal to 100 vehicles and 10% difference in volume between 2009 and 2017 are shown in this table.

Source: Hexagon 2019.

Table 5.1-2 PM Peak Hour Historical Traffic Volume Count Comparisons (2009 and 2016/2017)

Intersection	Individual Movement Volume (% Difference)¹	Total 2009 Intersection Volume	Total 2012 Intersection Volume	Total 2014 Intersection Volume	Total 2016 or 2017 Intersection Volume	Total Intersection Volume (% Difference)
Capitol Expressway & Capitol Avenue ²	Westbound left: + 24.5	6,100	6,395	6,447	6,373	+ 4
Capitol Expressway & Story Road ²	Southbound left: - 26.6 Eastbound through: + 50.8 Eastbound right: + 49.1	7,333	8,025	7,524	7,848	+ 7
Capitol Expressway & Ocala Avenue	Northbound through: + 24.5 Eastbound right: - 38.4	5,662	N/A	N/A	5,758	+ 2
Capitol Expressway & Cunningham Avenue	Northbound through: + 26.0	4,147	N/A	N/A	4,496	+ 8

Notes:

N/A = Not Applicable

¹ Individual movement volumes are the total number of vehicles during the PM peak period for all lanes of that movement. Only individual movements with changes greater than or equal to 100 vehicles and 10 percent difference in volume between 2009 and 2016/2017 are shown in this table.

² 2016 counts were used at these intersections due to minor construction activities occurring in 2017.

Source: Hexagon 2019.

EXISTING HIGH-OCCUPANCY VEHICLE UTILIZATION

Generally, high-occupancy vehicle (HOV) volumes currently comprise between 9 and 25 percent of the total traffic volume on northbound and southbound Capitol Expressway.

EXISTING QUEUING OBSERVATIONS

Westbound left-turn queues from Ocala Avenue to southbound Capitol Expressway are not currently accommodated in the storage provided during the AM (7:00 am to 9:00 am), school PM (2:00 pm to 4:00 pm), or commute PM (4:00 pm to 6:00 pm) peak periods. For all other left-turn movements at the Capitol Expressway and Ocala Avenue intersection, the 95th percentile queues are accommodated during the AM, school PM, and commute PM peak periods.

EXISTING INTERSECTION LEVELS OF SERVICE

Table 5.1-3 shows the intersection LOS under existing conditions. The results of the intersection level of service analysis show that the intersection of Capitol Expressway and Story Road operates at LOS F. All other study intersections currently operate at acceptable levels of service (LOS E or better).

Table 5.1-3 Existing Intersection Level of Service

Intersection	Peak Hour	Average Delay (second/vehicle)	Level of Service
Capitol Expressway & Capitol Avenue ¹	AM	45.5	D
	PM	48.0	D
Capitol Expressway & Story Road ¹	AM	82.5	F
	PM	62.5	E
Capitol Expressway & Ocala Avenue	AM	61.8	E
	PM	52.0	D
Capitol Expressway & Cunningham Avenue	AM	28.9	C
	PM	13.9	B

Notes:

N/A = Not Applicable

¹ Denotes CMP intersection.

Bold indicates substandard Level of Service.

Source: Hexagon 2019.

EXISTING AUTOMOBILE TRAVEL TIME

Table 5.1-4 shows the average travel time of automobiles on Capitol Expressway between Interstate 680 and Tully Road that were computed using a Synchro SimTraffic simulation model supplied by Santa Clara County. The results of the analysis show that, on average, it currently takes between approximately 4 and 7 minutes to travel on Capitol Expressway between Tully Road and Capitol Avenue during commute hours depending on direction and peak hour.

Table 5.1-4 Existing (2017) and Existing Plus Project Travel Time on Capitol Expressway, Tully Road to Capitol Avenue

Direction	Peak Hour	Average Travel Time (min:sec) ¹		Average Speed (mph)	
		Existing	Existing Plus Project	Existing	Existing Plus Project
Northbound	AM	6:01	11:23	19	10
Northbound	PM	5:25	6:41	21	17
Southbound	AM	4:50	5:21	24	22
Southbound	PM	6:39	10:29	17	11

Notes:

LRT Speed and Travel time: Between Alum Rock Station and the Eastridge Station, the average speed of the LRT under the Existing Plus Project Scenario is projected to be 32 mph and the average travel time is 4.5 minutes.

¹ All travel times estimated from Synchro SimTraffic 10 on the Santa Clara County provided network. Reported travel time is average of 10 runs.

NB = northbound; SB = southbound

Source: Hexagon 2019.

EXISTING BICYCLE, PEDESTRIAN, AND BUS COUNTS AT OCALA AVENUE

Much of the pedestrian and bicycle traffic in the vicinity of the Capitol Expressway corridor currently occurs around Ocala Avenue due to the presence of Ocala Middle School, which is located approximately 1,000 feet east of Capitol Expressway on Ocala Avenue. Of particular concern are bicycle and pedestrian crossings of Capitol Expressway by children. On November 1, 2017, counts of after-school bicycle and pedestrian trips crossing the Capitol Expressway and Ocala Avenue intersection during the school PM (2:00 pm to 4:00 pm) peak period show that most bicycle and pedestrian crossings were children (131 of 162 crossings were children) and mostly occurred across Capitol Expressway (as opposed to Ocala Avenue).

In addition, school bus trips were counted at the Capitol Expressway and Ocala Avenue intersection during the AM (7:00 am to 9:00 am), school PM (2:00 pm to 4:00 pm), and commute PM (4:00 pm to 6:00 pm) peak periods on November 1, 2017. During the AM peak period, there were 50 total buses (18 of which crossed Capitol Expressway). During the school PM peak period, there were 44 total buses (14 of which crossed Capitol Expressway). There were only two buses during the commute PM peak period (both crossed Capitol Expressway).

EXISTING EASTRIDGE PARK-AND-RIDE LOT PARKING DEMAND

The Eastridge Park-and-Ride Lot and Transit Center are located at Eastridge Mall. This station provides access to VTA bus routes 12, 22, 26, 31, 39, 70, 71, 77, 103, 180, and 522. Historical parking demand at the Eastridge Park-and-Ride Lot indicates that parking demand has grown between 2011 and 2017 (from as low as 21 parked vehicles in January

2011 to as high as 148 parked vehicles in October 2017). The existing parking supply of 180 currently exceeds parking demand.

EXISTING STATION RIDERSHIP

Estimates of daily transit boardings by station were provided by VTA from the countywide travel demand forecasting model. The existing 2017 daily transit boardings by station, with and without the proposed changes to the approved project, are provided in Table 5.1-5. Daily transit boardings without the proposed changes to the approved project are highest at the Alum Rock Station and lowest at the Eastridge Station.

Table 5.1-5 Existing (2017) Station Boarding Estimates

Daily Boardings	Eastridge Station	Story Station	Alum Rock Station	Total
Light Rail Transit	0	0	781	781
Bus	209	263	359	831
Total	209	263	1,140	1,612

Source: Hexagon 2019.

The existing mode split data for all trips in east San Jose and Milpitas are shown in Table 5.1-6. These data show that “drive alone” and “carpool” mode share are the highest mode shares.

Table 5.1-6 Existing (2017) East San Jose/ Milpitas Trip Mode Split

Mode	Existing 2017
Drive Alone	54.21%
Carpool	35.71%
Transit	2.53%
Bike	1.17%
Walk	6.39%

Source: Hexagon 2019.

VEHICLE MILES TRAVELED

In 2013, the State of California passed Senate Bill (SB) 743, which calls for a shift away from measures based on automobile delay. This is commonly measured by LOS in transportation analysis under CEQA. Since 2013, the State has issued several rounds of guidelines to assist Lead Agencies in implementing SB 743. These guidelines generally recommend the use of a broader measure called vehicle miles traveled (VMT), which measures the total amount of driving over a given area.

In January 2018, the California Natural Resources Agency began a rule-making period for the official changes to the State CEQA Guidelines to implement SB 743. In the Natural Resources Agency’s Proposed Regulatory Text, new Section 15064.3(b)2 states that “Transportation projects that reduce, or have no impact on, vehicle miles traveled should be presumed to cause a less than significant transportation impact.” The proposed changes to the approved project would likely reduce VMT because it would create an enhanced transit service that connects to the regional BART system, which is anticipated to shift some automobile trips to transit. The proposed changes would also reduce roadway capacity for a portion of the corridor by eliminating the HOV lanes on Capitol Expressway between Story Road and Tully Road. According to the Office of Planning and Research’s Technical Advisory on Evaluating Transportation Impacts in CEQA dated April 2018, “reducing roadway capacity (for example, by removing or repurposing motor vehicle travel lanes) will generally reduce VMT and therefore is presumed to cause a less-than-significant impact on transportation.” Generally, no transportation analysis is needed for such projects. Considering all of these factors, it is likely that the proposed changes to the approved project, similar to the approved project, would reduce VMT compared with the no project conditions.

Environmental Impacts and Mitigation

The impact discussion in this section primarily focuses on the proposed changes to the approved project that could result in new or more significant transportation impacts compared to the impacts previously identified and analyzed for the approved project. This discussion describes the near-term traffic conditions with the proposed changes to the approved project, including existing-plus-project conditions, year 2023 (opening year), and year 2043 (long-term) conditions. Future year (2023 and 2043) traffic conditions include existing traffic as well as expected growth between 2018 and the forecast year.

The majority of the proposed changes to the approved project (including the extension of the aerial guideway to grade-separate the Ocala Avenue and Cunningham Avenue intersections; modifications to the Eastridge Station platforms and tracks; reduction in parking spaces at the Eastridge Park-and-Ride lot; minor shift in the location and straightening of the Story Station pedestrian overcrossing and access modification to Story Station pedestrian access; relocation of a construction staging area; and relocation of PG&E electrical transmission facilities) would not result in changes to the transportation impacts previously identified and analyzed for the approved project.

One of the proposed changes to the approved project (revision to Capitol Expressway roadway lane configurations) would affect intersection LOS. This proposed change to the approved project could result in new or more significant transportation impacts compared to the impacts previously identified for the approved project.

IMPACTS ON INTERSECTIONS

At the study intersections, the minimum acceptable LOS was defined as LOS E, and project impacts at signalized intersections occur when:

- The LOS at an intersection drops below its LOS standard when project traffic is added; or
- An intersection that is operating worse than its LOS standard under no project conditions has an increase in critical delay of four or more seconds AND the demand-to-capacity ratio (V/C) is increased by more than 0.01 when project traffic is added.

The exception to these criteria is when the addition of project traffic reduces the amount of average stopped delay for critical movements (i.e. the change in average stopped delay for critical movements is negative). In this case, the criteria is when the project increases the critical V/C value by 0.01 or more. These criteria have changed subsequent to the certification of the 2014 Subsequent IS/MND.

LOS results at the four study intersections under existing (2017), year 2023, and year 2043 conditions with and without the proposed changes to the approved project are shown in Tables 5.1-7, 5.1-8, and 5.1-9, respectively.

Table 5.1-7 Existing (2017) Intersection Level of Service

Intersection	Year 2017					
	No Project			With Proposed Changes to the Approved Project		
	Peak Hour	Avg. Delay (sec/veh)	Level of Service	Avg. Delay (sec/veh)	Level of Service	Increase in Crit. Delay (sec)
Capitol Expressway & Capitol Avenue	AM	45.5	D	46.2	D	-5.7
	PM	48.0	D	45.7	D	-12.4
Capitol Expressway & Story Road	AM ¹	82.5	F	118.8	F	77.6
	PM	62.5	E	86.5	F	32.0
Capitol Expressway & Ocala Avenue	AM	61.8	E	88.1	F	41.9
	PM	52.0	D	56.7	E	10.4
Capitol Expressway & Cunningham Avenue	AM	28.9	C	27.3	C	-6.2
	PM	13.9	B	13.8	B	0.3

Notes:

Bold indicates substandard Level of Service.

Shaded rows indicate significant project impact.

¹ Change in demand-to-capacity ratio from no project to project conditions is + 0.375.

Source: Hexagon 2019.

Table 5.1-8 Year 2023 Intersection Level of Service

Intersection	Year 2023					
	No Project			With Proposed Changes to the Approved Project		
	Peak Hour	Avg. Delay (sec/veh)	Level of Service	Avg. Delay (sec/veh)	Level of Service	Increase in Crit. Delay (sec)
Capitol Expressway & Capitol Avenue	AM	46.1	D	47.4	D	-4.7
	PM	46.5	D	45.3	D	-9.4
Capitol Expressway & Story Road	AM ¹	94.8	F	128.7	F	69.0
	PM	69.3	F	101.3	F	38.0
Capitol Expressway & Ocala Avenue	AM	75.2	E	104.8	F	24.1
	PM	58.1	E	66.2	E	17.0
Capitol Expressway & Cunningham Avenue	AM	55.1	E	47.0	D	-21.2
	PM	14.6	B	14.7	B	0.5

Notes:

Bold indicates substandard Level of Service.

Shaded rows indicate significant project impact.

¹ Change in demand-to-capacity ratio from no project to project conditions is + 0.357.

Source: Hexagon 2019.

Table 5.1-9 Year 2043 Intersection Level of Service

Intersection	Year 2043					
	No Project			With Proposed Changes to the Approved Project		
	Peak Hour	Avg. Delay (sec/veh)	Level of Service	Avg. Delay (sec/veh)	Level of Service	Increase in Crit. Delay (sec)
Capitol Expressway & Capitol Avenue	AM	63.6	E	67.5	E	-4.9
	PM	54.1	D	53.8	D	-9.3
Capitol Expressway & Story Road	AM ¹	114.5	F	144.3	F	65.3
	PM ²	122.6	F	188.6	F	110.2
Capitol Expressway & Ocala Avenue	AM ³	100.5	F	131.8	F	25.0
	PM	67.2	E	97.4	F	55.1
Capitol Expressway & Cunningham Avenue	AM	41.9	E	58.9	E	-12.4
	PM	14.7	B	16.1	B	0.3

Notes:

Bold indicates substandard Level of Service.

Shaded rows indicate significant project impact.

¹ Change in demand-to-capacity ratio from no project to project conditions is +0.348.² Change in demand-to-capacity ratio from no project to project conditions is +0.191.³ Change in demand-to-capacity ratio from no project to project conditions is +0.041.

Source: Hexagon 2019.

Impact: The April 29, 2019 *Eastridge to BART Regional Connector: Capitol Expressway Light Rail Project Supplemental Transportation Analysis* indicates that the proposed changes to the approved project would result in a significant impact related to LOS at the Capitol Expressway and Story Road intersection under existing (2017), year 2023, and year 2043 conditions. This impact is due to the proposed removal of the HOV lanes and the addition of HOV lane traffic into the remaining mixed-flow lanes.

The following impacts from the 2005 Final EIR would still apply to the proposed changes to the approved project: TRN-2a (Traffic Impact at Capitol Expressway/Story Road in 2018 (now 2023)) and TRN-8b (Traffic Impact at Capitol Expressway/Story Road in 2025 (now 2043)).

Mitigation: In the 2005 Final EIR, no feasible mitigation was identified for impacts TRN-2a and TRN-8b. These significant and unavoidable impacts were included in a Statement of Overriding Considerations that was adopted by the VTA Board of Directors in May 2005.

The proposed changes to the approved project would need to include the restoration of the HOV lanes on Capitol Expressway in the northbound and southbound directions to reduce this impact to a less-than-significant level. However, there is currently insufficient right-of-way to restore the HOV lanes and additional right-of-way would require the removal of existing buildings and sidewalks along Capitol Expressway, which is infeasible. There is no feasible mitigation for this impact; thus, this impact would be “Significant and Unavoidable.” Based on the analysis above, the proposed changes to the approved project would result in new significant impacts or a substantial increase in the severity of previously identified significant impacts related to LOS.

Significant and unavoidable impact. No feasible mitigation.

Impact: The April 29, 2019 *Eastridge to BART Regional Connector: Capitol Expressway Light Rail Project Supplemental Transportation Analysis* indicates that the proposed changes to the approved project would result in a significant impact related to LOS at the Capitol Expressway and Ocala Avenue intersection under existing (2017) year, year 2023, and year 2043 conditions. This impact is due to the proposed removal of the HOV lanes, the removal of a northbound left-turn lane on Capitol Expressway, and the addition of HOV lane traffic into the remaining mixed-flow lanes.

The following impacts from the 2005 Final EIR would still apply to the proposed changes to the approved project: TRN-2b (Traffic Impact

at Capitol Expressway/Ocala Avenue in 2018 (now 2023)) and TRN-8c (Traffic Impact at Capitol Expressway/Ocala Avenue in 2025 (now 2043)).

Mitigation: In the 2005 Final EIR, no feasible mitigation was identified for Impact TRN-8c. These significant and unavoidable impacts were included in a Statement of Overriding Considerations that was adopted by the VTA Board of Directors in May 2005.

The proposed changes to the approved project would need to include the restoration of the HOV lanes on Capitol Expressway in the northbound and southbound directions to reduce this impact to a less-than-significant level. There is currently insufficient right-of-way to replace the HOV lanes and additional right-of-way would require the removal of existing buildings and sidewalks along Capitol Expressway, which is infeasible. There is no feasible mitigation for this impact and this impact would be “Significant and Unavoidable.” Based on the analysis above, the proposed changes to the approved project would result in new significant impacts or a substantial increase in the severity of previously identified significant impacts related to LOS.

Significant and unavoidable impact. No feasible mitigation.

IMPACTS ON PARKING AT EASTRIDGE PARK-AND-RIDE LOT

The Eastridge Park-and-Ride Lot currently includes 180 parking spaces provided by VTA. The approved project increases the parking to 445 spaces at Eastridge Station to partially address the anticipated increased demand of 481 spaces from the project. As part of the proposed changes to the approved project, VTA is proposing to increase the number of parking spots added at the Eastridge Park-and-Ride Lot to approximately 302 spaces through reconfiguration of the Eastridge Park-and-Ride lot. See Section 3.3, *Changes in Circumstances*, in Chapter 3 for a discussion of the changes to the existing VTA Paratransit Offices at the Eastridge Park-and-Ride Lot. Table 5.1-10 shows the peak park and ride demand with the proposed changes to the approved project at the Eastridge Park-and-Ride Lot under existing (2017), year 2023, and year 2043 conditions. Based on VTA’s revised forecasts, the proposed changes to the approved project would continue to increase parking demand at the Eastridge Park-and-Ride Lot. VTA recognizes that there may be a shortfall in parking supply as a result of the proposed reduction in the additional parking spaces provided. As part of project operations, VTA would conduct regular monitoring and parking counts at the Eastridge Park-and-Ride lot to ensure that the parking supply provided would be adequate. Should parking demand exceed supply, VTA has at least 135 parking stalls that would be made available to accommodate the future parking demand. As a result of these measures to increase supply or reduce demand, no indirect traffic or air quality impacts would be caused by cars circling and looking for parking at this station.

Table 5.1-10 Eastridge Park-and-Ride Lot Anticipated Parking Demand and Supply (Existing [2017] Year, Year 2023, and Year 2043)

Existing (2017) ¹		Year 2023 ²		Year 2043 ²	
Scenario	Parked Vehicles	Scenario	Parked Vehicles	Scenario	Parked Vehicles
Demand	114	Demand	293	Demand	374
Supply	180	Supply	302	Supply	374

Notes:

¹ Existing parking counts provided by VTA Operations on December 20, 2017.

² Future parking estimates provided by VTA Modeling on May 31, 2018.

Source: Hexagon 2019.

IMPACTS ON STATION RIDERSHIP

The 2023 and 2043 daily transit boardings by station, with and without the proposed changes to the approved project, are provided in Table 5.1-11. With the proposed changes, total transit boardings at the Alum Rock Station would decrease, while the number of boardings at the Story Station and the Eastridge Station would increase in both 2023 and 2043. This is expected given that Alum Rock is currently an end of the line station and the addition of more stations would allow patrons to select the most convenient location. With the proposed changes to the approved project, the highest percentage of light rail transit boardings at the Eastridge Transit Center would arrive by way of bus transfer, while the highest percentage of boardings at the Story and Alum Rock Stations would arrive by walking.

Table 5.1-11 Station Boarding Estimates (Year 2023 and Year 2043)

Daily Boardings	Eastridge Station		Story Station		Alum Rock Station		Total	
	No Project	With Project	No Project	With Project	No Project	With Project	No Project	With Project
Year 2023								
Light Rail Transit	0	860	0	563	1,185	780	1,185	2,203
Bus	1,124	897	330	359	787	578	2,240	1,833
Total	1,124	1,757	330	922	1,972	1,358	3,425	4,036
Year 2043								
Light Rail Transit	0	2,287	0	1,040	2,322	1,207	2,322	4,534
Bus	966	518	472	401	1,036	659	2,474	1,578
Total	966	2,805	472	1,441	3,358	1,866	4,796	6,112

Source: Hexagon 2019.

The mode split data for all trips in east San Jose and Milpitas are shown in Table 5.1-12. These data show that, with the proposed changes to the approved project, there would be a small decrease in “drive alone” and “carpool” mode share and a small increase in transit mode share in both 2023 and 2043 compared to 2017 (shown in Table 5.1-6).

Table 5.1-12 East San Jose/ Milpitas Trip Mode Split (Year 2023 and Year 2043)

Mode	Year 2023		Year 2043	
	No Project	With Project	No Project	With Project
Drive Alone	53.85%	53.82%	50.77%	50.73%
Carpool	35.53%	35.52%	34.05%	34.03%
Transit	3.17%	3.21%	5.84%	5.91%
Bike	1.21%	1.21%	1.59%	1.59%
Walk	6.25%	6.25%	7.74%	7.74%

Source: Hexagon 2019.

IMPACTS ON PEDESTRIANS AND BICYCLISTS, TRAVEL TIME, AND VEHICLE MILES TRAVELED

An overview of the potential impacts of the proposed changes to the approved project on pedestrians, bicyclists, travel time, and VMT is provided below.

- The proposed aerial guideway would result in fewer conflicts between light rail vehicles and school buses, bicyclists, and pedestrians.
- The proposed removal of the existing HOV lanes would result in higher average automobile delays and higher automobile travel times on Capitol Expressway.
- The proposed changes would not materially change the approved project’s construction impacts relative to the approved at-grade alignment. Long delays for traffic on Capitol Expressway would occur during construction. However, VTA would seek to minimize these delays to the greatest extent feasible and provide viable detour routes when appropriate.
- As with the approved project, it is anticipated that the proposed changes would reduce VMT by creating an enhanced transit service that would connect to the Bay Area Rapid Transit (BART) system. It is anticipated that the enhanced transit service would shift some automobile trips to transit. In addition, it is anticipated that the proposed reduction in roadway capacity on Capitol Expressway due to the removal of travel lanes would decrease automobile trips. Both of these effects of the proposed changes would generally reduce VMT.

IMPACTS DURING CONSTRUCTION

Construction-related traffic and equipment would be controlled by flagmen and subject to the procedures contained in a traffic management plan (TMP) prepared for the proposed changes to the approved project. Traffic that may attempt to use neighborhood streets to avoid construction areas would be confined by two characteristics of the existing roadway network adjacent to Capitol Expressway:

- First, there are no efficient, directly parallel detours around Capitol Expressway. However, some nearby arterials are capable of handling traffic diverted from Capitol Expressway: White Road, King Road, and US 101. Portable electronic variable message signs and other static signs would be strategically positioned at approaches of individual construction zones to warn motorists in advance of the construction and to direct traffic to use these alternative routes where feasible. Flagmen would be present at all major construction points to assist in the control of traffic and encourage the use of these roads as a detour.
- Second, there are very few paths of travel through neighborhood streets that offer parallel routes to Capitol Expressway. Therefore, neighborhood streets would be mostly protected from being used as cut-through streets by motorists.

Transit service on-time performance would be expected to drop during the construction period. Alternative bus stops would be located temporarily whenever existing bus stops are disrupted by construction.

Currently, bicyclists are able to use the shoulders of the project corridor. During construction of the proposed changes to the approved project, the shoulders of the project corridor would not be maintained to allow bicyclists to continue effective use of the corridor. Detour signs would be posted directing bicyclists to use alternative corridors during construction, where appropriate.

Several residential properties along the corridor would be affected by construction activities. During short periods of time, access may be restricted, and parking eliminated. VTA would coordinate the construction activities with the homeowners and tenants. Any adjustments to the construction schedule would be conveyed to the residents upon determination of the need to adjust the schedule. The construction duration and disruptions to residents would be kept to a minimum.

Several businesses along the corridor would be temporarily affected by construction. During short periods of time, access may be altered. However, overall access to the businesses would be maintained. Property owners and businesses would be notified in advance of construction and provided with a detailed construction schedule if their access would be restricted. Changes to the construction schedule would be conveyed as soon as possible. Construction duration would be kept to a minimum. Signs would be provided along Capitol Expressway indicating that the business is open during construction and that overall access is available.

Impact: The April 29, 2019 *Eastridge to BART Regional Connector: Capitol Expressway Light Rail Project Supplemental Transportation Analysis* indicates that the proposed lane reductions on Capitol Expressway during construction may cause study intersections to temporarily operate at LOS F, impacting passenger vehicles, buses, and trucks. The proposed changes to the approved project may also result in the temporary closures of bikeways, bus stops, and sidewalks in the corridor during construction. The duration, times, and locations of temporary closures during construction cannot be predicted with certainty.

The following impacts from the 2005 Final EIR would apply to the proposed changes to the approved project: TRN (CON)-1 (Long-Term Street or Lane Closure) and TRN (CON)-2 (Long-Term Loss of Parking or Access Essential for Business Operations).

Mitigation: The following mitigation measures identified in the 2005 Final EIR would still apply to the proposed changes to the approved project: TRN (CON)-2a (Prepare Traffic Management Plan), TRN (CON)-2b (Inform Public of Traffic Detours), and TRN (CON)-2c (Inform Public of Transit Service Changes).

During construction, VTA will prepare traffic handling plans, employ traffic flaggers, and endeavor to minimize peak hour delays to all users. However, such measures cannot guarantee that construction activities would not cause temporary significant impacts to passenger vehicles, buses, trucks, bikes, and pedestrians. There is no feasible mitigation for this impact and this impact would be “Significant and Unavoidable.” Based on the analysis above, the proposed changes to the approved project would result in new significant impacts or a substantial increase in the severity of previously identified significant transportation impacts during construction. With inclusion of these mitigation measures, the proposed changes to the approved project would result “Less than Significant” impacts related to parking during construction.

Significant and unavoidable impact. No feasible mitigation.

Section 5.2 Environmental Justice

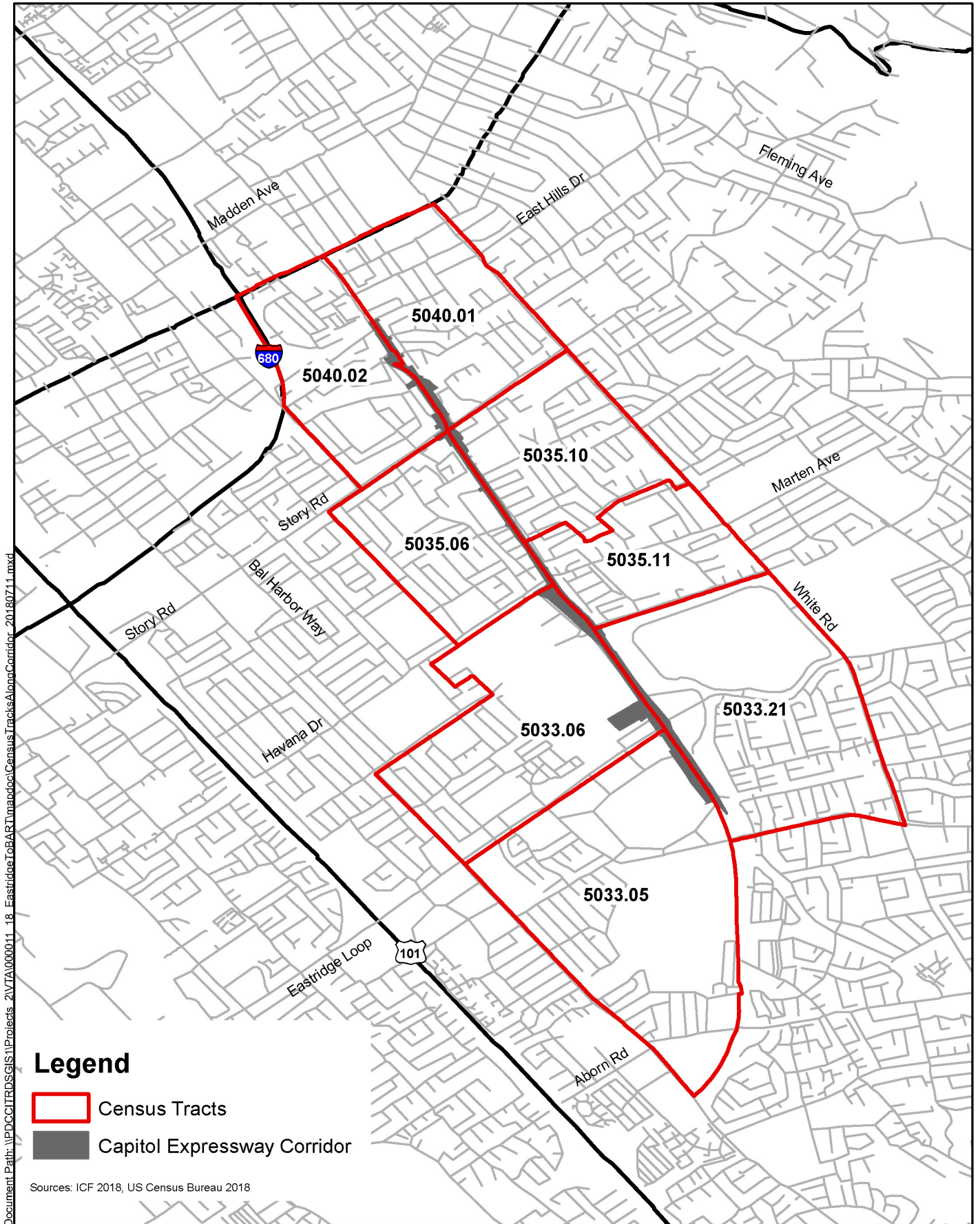
This section describes the potential of the proposed changes to the approved project to result in disproportionately high and adverse health or environmental effects on minority and low-income populations.

Environmental Setting

The following data was updated subsequent to the certification of the 2014 Subsequent IS/MND. The study area for the purposes of the environmental justice analysis includes the census tracts located adjacent to the Capitol Expressway corridor within the project limits (5033.05, 5033.06, 5033.21, 5035.06, 5035.10, 5035.11, 5040.01, and 5040.02), also shown in Figure 5.2-1 (US Census Bureau 2018). Information from the 2000 U.S. Census was used in the 2005 Final EIR to describe poverty, income, and demographic characteristics of the study area for the approved project and the City. For this section, 2016 American Community Survey data are used to describe existing (2017) poverty, income, and demographic characteristics of the study area for the proposed changes to the approved project and the City.

According to the 2005 Final EIR, the average income per capita of the City was \$26,697, while the study area for the approved project averaged \$19,912. Table 5.2-1 shows the existing (2017) poverty and income status and Table 5.2-2 shows the existing minority characteristics of the study area for the proposed changes to the approved project and of the City. The 2018 poverty guideline for a household of four is \$25,100 annual income (U.S. Department of Health and Human Services 2018). As shown in Table 5.2-1, the study area has an existing median household income of \$72,646, which is higher than the U.S. Census-defined poverty level for a household of four. However, the median household income in the City, \$90,303, is higher than in the study area. In addition, the percentage of individuals living below the poverty threshold is higher in the study area (14%) than in the City as a whole (11%). There are four census tracts that meet the low income criteria for environmental justice.

According to the 2005 Final EIR, minorities represented approximately 63% of the total population of the City and approximately 82% of the study area for the approved project. As shown in Table 5.2-2, 2017 demographic data indicate that the existing proportion of the population composed of minority populations in the study area (Hispanic or Latino, Black or African American, Native American, Asian, or Native Hawaiian/ Pacific Islander) is substantially larger than for the City as a whole (94% and 70%, respectively) (Table 5.2-2). Because the percentage of minority populations in all the census tracts in the study area is greater than 50%, and is substantially greater than in the City, all the census tracts in the study area for the proposed changes to the approved project meets the minority criteria for environmental justice.



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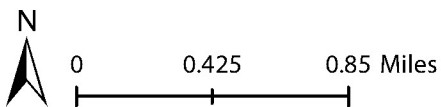


Figure 5.2-1
Census Tracts Along the Capitol Expressway Corridor

Transit dependency is characterized by the population under 18 and over 65 years of age (who are unlikely to drive their own vehicles and therefore more likely to be transit dependent), the number of workers using public transportation, and the number of persons below the poverty line. According to the 2005 Final EIR, the percentages of people under 18 and over 65 are similar in the study area for the approved project (29% and 7%, respectively) and the City (26% and 8%, respectively), although the study area had a slightly higher percentage of persons under 18 and a slightly lower percentage of persons over 65. Workers who use public transportation are also considered a transit-dependent group. The study area for the approved project and the City had the same percentage of workers that use public transportation (4%). Automobile ownership rates in the study area for the approved project were below the county average, according to the 2005 Final EIR.

Table 3.14-2 in Section 3.14, *Socioeconomics*, of the Second Subsequent IS shows the transit dependency characteristics of the City and the study area. The study area has similar percentages of the population that is under 18 (25%) or over 65 (10%) when compared to the City (23% and 11%, respectively). The percentage of the population that uses public transportation to get to work is the same in the study area as in the City (4%). The individual census tracts have varying percentages of workers that use public transportation, varying from 2 to 7%. The percentage of workers with no access to a vehicle is higher in the study area (2%) than in the City as a whole (1%).

Table 5.2-1 Existing (2017) Poverty and Income Status for the City of San Jose and the Study Area

Location/Census Tract	Total Population for Whom Poverty Status Determined	Percent Below Poverty Level	Median Household Income
City of San Jose	998,828	11%	\$90,303
Study Area	44,347	14%	\$72,646
5033.05	6,347	10%	\$73,819
5033.06	4,253	11%	\$63,636
5033.21	4,936	8%	\$105,000
5035.06	6,124	19%	\$60,733
5035.10	6,070	23%	\$56,051
5035.11	3,810	9%	\$97,862
5040.01	6,279	13%	\$66,875
5040.02	6,528	16%	\$57,188

Note: Shading indicates census tracts that meet the low income criteria.

Source: U.S. Census Bureau 2017b, 2017c.

Table 5.2-2 Existing (2017) Minority Status for the City of San Jose and the Study Area

Location/ Census Tract	Total Population	Percent White	Percent Black or African American	Percent American Indian and Alaska Native	Percent Asian	Percent Native Hawaiian and Other Pacific Islander	Percent Some Other Race	Percent Two or More Races	Percent Hispanic or Latino	Percent Minority
City of San Jose	1,009,363	27%	3%	<1%	34%	<1%	<1%	3%	33%	70%
Study Area	44,505	5%	2%	<1%	35%	<1%	<1%	1%	56%	94%
5033.05	6,378	3%	2%	0%	46%	<1%	0%	1%	47%	96%
5033.06	4,276	4%	3%	<1%	32%	0%	0%	0%	61%	96%
5033.21	4,942	4%	3%	0%	76%	0%	<1%	2%	15%	94%
5035.06	6,190	3%	1%	<1%	31%	0%	0%	3%	61%	94%
5035.10	6,079	7%	3%	0%	16%	<1%	<1%	2%	71%	90%
5035.11	3,810	9%	3%	<1%	42%	<1%	0%	0%	42%	91%
5040.01	6,302	5%	2%	0%	19%	0%	<1%	1%	75%	95%
5040.02	6,528	4%	2%	<1%	25%	<1%	<1%	1%	65%	94%

Note: Minority populations include Hispanic or Latino, Black or African American, Native American, Asian, or Native Hawaiian/Pacific Islander. In addition, shading indicates census tracts that meet the minority criteria.

Source: U.S. Census Bureau 2017a.

Environmental Impacts and Mitigation

This impact discussion primarily focuses on the proposed changes to the approved project that could result in new or more significant disproportionate and adverse environmental justice impacts compared to the impacts previously identified and analyzed for the approved project.

As discussed in Section 5.1, *Transportation*; Section 5.3, *Noise and Vibration*; and Section 5.4, *Air Quality and Climate Change*; in the SEIR-2, the proposed changes to the approved project would result in the following new significant and unavoidable impacts that could have a disproportionate and adverse impact on environmental justice populations.

Transportation (Operation and Construction)

- **Capitol Expressway and Story Road intersection.** The proposed changes to the approved project would result in a significant impact under existing (2017), year 2023, and year 2043 conditions, caused by the removal of the high-occupancy vehicle (HOV) lanes and the addition of HOV lane traffic into the remaining mixed flow lanes. No feasible mitigation was identified for these impacts.
- **Capitol Expressway and Ocala Avenue intersection.** The proposed changes to the approved project would result in a significant impact at this intersection under existing (2017), year 2023, and year 2043 conditions, caused by the removal of the HOV lanes, the removal of a northbound left-turn lane on Capitol Expressway, and the addition of HOV lane traffic into the remaining mixed flow lanes. No feasible mitigation was identified for these impacts.
- **Transportation impacts during construction.** The proposed changes to the approved project would require lane reductions on Capitol Expressway during construction, which may cause study intersections to temporarily operate at LOS F, impacting passenger vehicles, buses, and trucks. The proposed changes to the approved project may also result in the temporary closures of bikeways, bus stops, and sidewalks in the corridor during construction. The duration, times, and locations of temporary closures during construction cannot be predicted with certainty.

Noise and Vibration (Operation and Construction)

- **Nighttime exceedance (10:00 pm to 7:00 am) of the FTA vibration levels from light rail operations at homes within 100 feet of the proposed aerial guideway.** Most of the vibration impacts are anticipated to occur between 6:00 am and 7:00 am when VTA would be operating at peak service levels. The proposed aerial guideway (direct fixation fasteners) and ballasted track on embankment sections would cause an exceedance of the nighttime impact criteria at 67 sensitive receiver locations during light rail operations. VTA identified tire

derived aggregate (TDA), 5-Hertz floating slab track (FST) or a bridge bearing vibration isolation system, and speed reductions from 55 mph to 35 mph as potential mitigation measures. VTA is recommending to include TDA on embankment sections to mitigate one impact. However, VTA is not recommending to include FST, bridge bearing vibration isolation, or implement nighttime speed restrictions to eliminate the other 66 impacts.

VTA is not recommending to include FST or bridge bearing isolation systems as mitigation for several reasons. Future vibration levels, which include a +3 VdB safety factor, are at or slightly above the nighttime vibration impact criteria at many impacted locations, and may not actually exceed the threshold in operation. Many impacted locations are up to 100 feet from the aerial guideway, which is much farther than the typical distance at which nighttime vibration impacts are experienced. Most of the impacts are anticipated to occur between 6:00 am and 7:00 am when VTA would be operating at peak service levels.

In addition, it is VTA's understanding that FST has not been installed on any aerial guideways in the United States and bridge bearing isolations have only been recently installed on one aerial structure in the United States. VTA is only aware of one example of FST installed on an aerial guideway: Hong Kong's KCRC West Rail and of one example of a bridge bearing vibration isolation system installed on an aerial structure at Miami Central Station, on the All Aboard Florida-Brightline network. Thus, additional analysis of the effectiveness of FST and bridge bearing isolation systems on aerial structures would be needed to confirm the level of vibration reduction that would be achieved. Another reason that VTA is not proposing FST or bridge bearing isolation is that it would greatly complicate the track and structural design.

VTA is not recommending to reduce train speeds from 55 mph to 35 mph between 10:00 pm and 7:00 am because it would negatively affect travel time and operations during these time periods.

By not including FST, bridge bearing vibration isolation systems, or speed reductions as mitigation measures, this impact would be "Significant and Unavoidable."

- **Homes within 100 feet of impact piling activity may exceed FTA construction vibration criteria.** There are 64 predicted unmitigated construction vibration impacts, and 0 impacts with the use of non-impact piling methods. However, VTA is only recommending the use of non-impact piling methods in the vicinity of Capitol Avenue and Capitol Expressway. At this location, construction vibration levels are anticipated to be the highest. VTA is not recommending the use of non-impact piling methods at other locations for several reasons. Most locations are only slightly above the FTA Damage Criteria, and therefore may not experience any actual impacts. At the locations with the highest construction vibration levels, structural damage is not anticipated to occur. However, if any

structural and cosmetic damage does occur due to construction vibration, the damage shall be repaired by VTA. In addition, non-impact piling methods would require extensive lane closures which would cause additional traffic impacts during construction. Non-impact piling methods are not recommended at most locations. Thus, this impact would be “Significant and Unavoidable.”

Air Quality and Climate Change (Construction)

- **Cumulative air quality impacts during construction.** Cumulative PM_{2.5} concentrations would be elevated at the receptors located near the corners of Ocala Avenue and Capitol Expressway and Cunningham Avenue and Capitol Expressway due to substantial sources of pollutant concentrations that currently exist in the area where the approved project plus the proposed changes to the approved project would occur. Even without the contribution of emissions from construction, existing PM_{2.5} concentrations near these sensitive receptors are at or exceed the BAAQMD’s threshold because Capitol Expressway and its cross streets are heavily traveled roadways, with residences located in close proximity to the roadway edge. The approved project plus the proposed changes to the approved project would cause further exceedances of existing pollutant concentrations, worsening the cumulative exposure of sensitive receptors to toxic air contaminant concentrations. Although the contribution of the approved project plus the proposed changes to the approved project to existing concentrations would not be substantial (approximately 6% at the locations where concentrations are at or exceed 0.8 µg/m³), there would nevertheless be a worsening of an already cumulatively significant impact. The following mitigation measures identified in the 2005 Final EIR would still apply to the proposed changes to the approved project: AQ (CON)-1 (BAAQMD’s BMPs to reduce particulate matter emissions from construction activities) and AQ (CON)-2 (BAAQMD’s BMPs to reduce GHG emissions from construction equipment). In addition, Mitigation Measure AQ (CON)-3 would require that Tier 3 or Tier 4 equipment be used to further reduce construction-related emissions where possible. Even with inclusion of these mitigation measures, this impact would be “Significant and Unavoidable.”

Environmental Justice

The significant and unavoidable impacts identified in this section would occur only within the Capitol Expressway corridor, where the study area population has a higher percentage of minorities than the City as a whole, and where four census tracts have a higher percentage of people below the poverty level than the City as a whole. Thus, the proposed changes to the approved project could result in a disproportionate and adverse impact on environmental justice populations, further discussed below.

The significant and unavoidable transportation impacts would occur only within the study area. However, users of the corridor within the study area would include both populations that reside within the study area (environmental justice populations), and populations that reside outside the study area (non-environmental justice populations) who are passing

through the area, visiting the area, or using the corridor as a regional transportation route. Because the significant and unavoidable transportation impacts would affect both environmental justice populations and non-environmental justice populations, these transportation impacts would not cause a disproportionate and adverse impact on environmental justice communities.

The significant and unavoidable noise and vibration impacts would also only occur within the study area, but would predominately affect environmental justice populations. This is because the impacts would only occur at residences within the study area, which are primarily environmental justice populations. Therefore, noise and vibration impacts would cause a disproportionate and adverse impact on environmental justice communities.

Similarly, the significant and unavoidable cumulative air quality impacts during construction would also only occur within the study area, and would predominately affect environmental justice populations. This is because the impacts would only occur at the receptors located near the corners of Ocala Avenue and Capitol Expressway and Cunningham Avenue and Capitol Expressway, which are primarily environmental justice populations. Therefore, cumulative air quality impacts during construction would cause a disproportionate and adverse impact on environmental justice communities.

Impact: The proposed changes to the approved project would result in new or more severe significant and unavoidable impacts to environmental justice populations related to transportation, noise and vibration, and cumulative air quality impacts during construction. However, disproportionate and adverse environmental effects to environmental justice populations would only result from noise and vibration, and cumulative air quality impacts during construction.

The following impact from the 2007 Final SEIR would still apply to the proposed changes to the approved project: EJ-1 (Environmental Justice).

Mitigation: Transportation (Operation and Construction). There are no feasible mitigation measures to reduce the transportation impacts associated with the proposed changes to the approved project. The project would need to restore the HOV lanes on Capitol Expressway in the northbound and southbound directions that would be removed by the project to provide space for the light rail tracks. However, there is currently insufficient right-of-way to replace the HOV lanes and additional right-of-way would require the removal of existing buildings and sidewalks along Capitol Expressway, which is infeasible. Therefore, the LOS impacts identified at the Capitol Expressway and Story Road intersection and at the Capitol Expressway and Ocala Avenue intersection would be “Significant and Unavoidable.” Additionally, during construction, VTA will prepare traffic handling plans, employ traffic flaggers, and endeavor to

minimize peak hour delays to all users. However, such measures cannot guarantee that construction activities would not cause temporary significant impacts to passenger vehicles, buses, trucks, bikes, and pedestrians. Therefore, this impact is considered “Significant and Unavoidable.” However, for the reasons described above, these transportation impacts would not cause a disproportionate and adverse impact on environmental justice populations.

Noise and Vibration (Operation and Construction). Regarding nighttime exceedance of operational FTA vibration levels at homes within 100 feet of the proposed aerial guideway, VTA identified tire derived aggregate (TDA), 5-Hertz floating slab track (FST) or bridge bearing vibration isolation system, and speed reduction as potential mitigation measures. By not including FST; a bridge bearing vibration isolation system; or implementing speed reductions as mitigation, and because TDA is the only feasible mitigation option to reduce vibration levels from operation, this impact would be “Significant and Unavoidable.” Based on the analysis above, the proposed changes to the approved project would result in new significant impacts related to vibration levels from transit operation. With inclusion of TDA, vibration impacts are expected to occur at 66 sensitive receivers under the proposed changes to the approved project. This is an increase of 14 sensitive receivers compared to the 2005 Final EIR, which concluded 52 sensitive receivers would be potentially exposed to vibration impacts during operation. Therefore, this impact is considered “Significant and Unavoidable” and would result in a disproportionate and adverse impact on environmental justice populations.

Regarding exceedance of FTA construction vibration criteria at homes within 100 feet of the proposed piling activity, VTA is only recommending the use of non-impact piling methods in the vicinity of Capitol Avenue and Capitol Expressway. At this location, construction vibration levels are anticipated to be the highest. VTA is not recommending the use of non-impact piling methods at most locations for several reasons. Most locations are only slightly above the FTA Damage Criteria, and therefore may not experience any actual impacts. At the locations with the highest construction vibration levels, structural damage is not anticipated to occur. However, if any structural and cosmetic damage does occur due to construction vibration, the damage shall be repaired by VTA. In addition, non-impact piling methods would require extensive lane closures which would cause additional traffic impacts during construction. Non-impact piling methods are not recommended at most locations. Thus, this impact would be “Significant and Unavoidable” and would result in a disproportionate and adverse impact on environmental justice populations.

Air Quality and Climate Change (Construction). With respect to cumulative air quality impacts during construction, the following mitigation measures identified in the 2005 Final EIR would still apply to the proposed changes to the approved project: AQ (CON)-1 (BAAQMD’s BMPs to reduce particulate matter emissions from construction activities) and AQ (CON)-2 (BAAQMD’s BMPs to reduce GHG emissions from construction equipment). In addition, Mitigation Measure AQ (CON)-3 would require that Tier 3 or Tier 4 equipment be used to further reduce construction-related emissions where possible. Even with inclusion of these mitigation measures, this impact would be “Significant and Unavoidable”, and would result in a disproportionate and adverse impact on environmental justice populations.

Based on the analysis above, the proposed changes to the approved project would result in new disproportionate and adverse impacts or a substantial increase in the severity of previously identified disproportionate and adverse impacts related to environmental justice.

Significant and unavoidable impact, even with mitigation.

Section 5.3 Noise and Vibration

This section describes the potential noise and vibration impacts associated with the proposed changes to the approved project. This section supplements Section 4.14 of the 2005 Final EIR, Section 5.13 of the 2007 Final SEIR, and Section 3.12 of the 2014 Subsequent IS/MND. This analysis is based on and supported by the February 14, 2019 *EBRC – CELR Noise and Vibration Assessment* prepared by ATS Consulting (included in Attachment E). Mitigation measures are identified for impacts that exceed the significance thresholds included in the 2005 Final EIR.

Environmental Setting

The existing noise environment along the Capitol Expressway corridor is dominated by traffic. Capitol Expressway is an eight-lane facility with six mixed-flow lanes and two carpool lanes. The ambient noise environment within the corridor was measured at four locations in December 2017 to supplement previous noise surveys prepared for the approved project in 2001, 2006, and 2010. A Federal Highway Administration Traffic Noise Model was developed to accurately compare previous and current noise measurements and to estimate the noise at each sensitive receptor due to traffic noise along Capitol Expressway. The existing (2017) noise exposure level ranges from 66.3 to 74.1 L_{dn} , compared to a range of 65 to 73 L_{dn} in 2010, when the most recent noise survey was prepared for the approved project.

The applicable noise and vibration regulations remain unchanged since the 2014 Subsequent IS/MND.

Environmental Impacts and Mitigation

The impact discussion in this section primarily focuses on the proposed changes to the approved project that could result in new or more significant noise and vibration impacts compared to the impacts previously identified and analyzed for the approved project.

The majority of the proposed changes to the approved project (including the modifications to the Eastridge Station platforms and tracks; reduction in parking spaces at the Eastridge Park-and-Ride lot; minor shift in the location and straightening of the Story Station pedestrian overcrossing and access; modification to Story Station pedestrian access; relocation of a construction staging area; and relocation of PG&E electrical transmission facilities) would not result in changes to noise and vibration compared to the impacts previously identified and analyzed for the approved project.

Two proposed changes to the approved project (the extension of the aerial guideway to grade-separate the Ocala Avenue and Cunningham Avenue intersections and revisions to Capitol Expressway roadway lane configurations) would affect noise and vibration levels at sensitive receivers (e.g., residences) located adjacent to the proposed changes to the approved project. As with the approved project, the proposed changes would involve the operation of light rail primarily within the median of Capitol Expressway. However, the

proposed change would replace the at-grade track alignment with approximately 1.25 miles of aerial guideway from south of Story Road to north of Tully Road. The aerial guideway would include concrete columns supported on pile foundations and aerial guideway sound walls. The proposed changes to the approved project would also include resurfacing Capitol Expressway with open-graded asphalt concrete (OGAC).¹ Both of the existing high-occupancy vehicle lanes (one northbound and one southbound) would be converted to general purpose traffic lanes, resulting in a total of four general purpose lanes in each direction between Story Road and Capitol Avenue as a result of the proposed revisions to Capitol Expressway roadway lane configurations. These proposed changes to the approved project could result in new or more significant noise and vibration impacts compared to the impacts previously identified for the approved project.

NOISE LEVELS FROM TRANSIT OPERATION

Table 5.3-1 summarizes the anticipated operational transit noise impacts generated by the proposed changes to the approved project in 2017 and 2043. The table indicates the number of impacts for both years under the following conditions:

- Without the proposed aerial guideway sound walls and without the proposed OGAC;
- With only the proposed aerial guideway sound walls; and
- With both the proposed aerial guideway sound walls and the proposed OGAC.

A more detailed list of anticipated operational noise impacts can be found in Table 9 of the February 14, 2019 *EBRC – CELR Noise and Vibration Assessment* (included in Attachment E).

Impact: The February 14, 2019 *EBRC – CELR Noise and Vibration Assessment* indicates that the proposed changes to the approved project would result in 78 moderate and 23 severe noise impacts in 2017 without the proposed aerial guideway sound walls and without the proposed OGAC. The proposed changes would result in 93 moderate and 59 severe noise impacts in 2043 without the proposed aerial guideway sound walls and without the proposed OGAC. The location of receivers where operational noise impacts are predicted are as follows:

- Twenty properties located east and west of the alignment between Wilbur Avenue and Mervyns Way would experience one severe and nineteen moderate noise impacts.
- Twenty-five properties located west of the alignment between Excalibur Drive and Story Road would experience moderate noise impacts.

¹ Recent studies by Caltrans indicate that OGAC produces noticeably less vehicle noise than other pavement types (i.e., concrete and conventional asphalt).

- Two commercial properties located west of the alignment near the intersection of Story Road and Expressway would experience moderate noise impacts.
- Forty-one properties located east of the alignment between Story Road and Ocala Avenue would experience thirty-eight moderate and three severe noise impacts.
- Seventeen properties located west of the alignment between Story Road and Foxdale Loop would experience four moderate and thirteen severe noise impacts.
- One commercial property located west of the alignment near the intersection of Foxdale Loop and Capitol Expressway would experience a moderate noise impact.
- Twenty-seven properties located east of the alignment between Ocala Avenue and Cunningham Avenue would experience severe noise impacts.
- Nineteen properties located west of the alignment between Foxdale Drive and Ocala Avenue would experience four moderate and fifteen severe noise impacts.

With only the proposed aerial sound walls, the proposed changes would result in 45 moderate and 0 severe noise impacts in 2017 as well as 116 moderate and 0 severe noise impacts in 2043. With both the proposed aerial guideway sound walls and the proposed OGAC, all moderate and severe impacts would be eliminated in 2017 and 2043. For sensitive receivers where a moderate impact is anticipated, VTA does not require mitigation measures under CEQA.

The following impact from the 2005 Final EIR would still apply to the proposed changes to the approved project: NV-1 (Noise Levels from Transit Operations That Would Be Considered a Severe Impact by Federal Transit Administration Criteria).

Mitigation: The following mitigation measures identified in the 2005 Final EIR and the 2007 Final SEIR would still apply to the proposed changes to the approved project: NV-1a (Construct Soundwalls) and NV-1c (Provide Quiet Pavement). Mitigation Measure NV-1a has been revised. Mitigation Measure NV-1b is no longer needed as a result of project changes.

Mitigation Measure NV-1a: Construct Soundwalls

VTA shall construct soundwalls that are a minimum of 3 feet above top of rail on the aerial structure or in the median adjacent to the trackway at the following locations:

- NB/SB: Westboro Drive to Story Road (968+54 to 992+00);
- NB: Kollmar Drive to Cunningham Avenue (997+00 to 1051+00);
and
- SB: Kollmar Drive to Ocala Avenue (997+00 to 1038+00).

All soundwall locations and heights are preliminary and are subject to change based on additional noise studies during final design.

Inclusion of these mitigation measures would reduce these impacts to “Less than Significant.”

Less-than-significant impact with mitigation.

Table 5.3-1 Summary of Existing (2017) and Year 2043 Operational Transit Noise Impacts Associated with the Proposed Changes to the Approved Project

Segment of Capitol Expressway	Number – Type of Receivers ¹	Existing (2017) Noise (Ldn) ²	Without Aerial Guideway Sound Wall & OGAC ³ Year 2043 (Year 2017) ⁴		With Aerial Guideway Sound Wall Year 2043 (Year 2017) ⁴		With Aerial Guideway Sound Wall & OGAC ³ Year 2043 (Year 2017) ⁴	
			Moderate	Severe	Moderate	Severe	Moderate	Severe
NB 964+50 to 981+20 Wilbur Ave. to Mervyns Way	22 - SFR	70-78	17 (12)	1 (0)	0 (0)	0 (0)	0 (0)	0 (0)
NB 986+70 to 995+50 Mervyns Way to Story Road	5 – INST/COM	72-73	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
NB 998+50 to 1035+90 Story Road to Ocala Avenue	41 - SFR	68-75	38 (5)	3 (0)	28 (3)	0 (0)	0 (0)	0 (0)
NB 1037+60 to 1049+50 Ocala Avenue to Cunningham Avenue	27 - SFR	65-67	0 (6)	27 (21)	27 (27)	0 (0)	0 (0)	0 (0)
SB 967+50 to 970+50 S Capitol Avenue	5 - SFR	67-73	2 (0)	0 (0)	1 (0)	0 (0)	0 (0)	0 (0)
SB 971+30 to 973+00 S Capitol Avenue	2 - COM	71-74	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
SB 978+00 to 992+70 Excalibur Drive to Story Road	25 - SFR	72-75	25 (21)	0 (0)	23 (14)	0 (0)	0 (0)	0 (0)
SB 993+10 to 996+50 Story Road	3 - COM	73-74	2 (0)	0 (0)	2 (0)	0 (0)	0 (0)	0 (0)

Segment of Capitol Expressway	Number – Type of Receivers ¹	Existing (2017) Noise (Ldn) ²	Without Aerial Guideway Sound Wall & OGAC ³ Year 2043 (Year 2017) ⁴		With Aerial Guideway Sound Wall Year 2043 (Year 2017) ⁴		With Aerial Guideway Sound Wall & OGAC ³ Year 2043 (Year 2017) ⁴	
			Moderate	Severe	Moderate	Severe	Moderate	Severe
SB 998+80 to 1007+20 Story Road to Foxdale Loop	17 - SFR	65-73	4 (16)	13 (1)	16 (0)	0 (0)	0 (0)	0 (0)
SB 1009+00 E. Capitol Expressway	1 - COM	74	1 (0)	0 (0)	1 (0)	0 (0)	0 (0)	0 (0)
SB 1012+00 to 1018+00 Foxdale Loop	3 - MFR	69	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
SB 1021+00 to 1035+80 Foxdale Drive to Ocala Avenue	19 - SFR	65-67	4 (18)	15 (1)	18 (1)	0 (0)	0 (0)	0 (0)
Number of Impacts:			93 (78)	59 (23)	116 (45)	0 (0)	0 (0)	0 (0)

Notes:

¹ Receiver types include: Single-Family Residence (SFR), Multi-Family Residence (MFR), Commercial/Office Space (COM), and Institutional (INST).

² Day-Night Sound Level (Ldn) is the most common measure of total community noise over a 24-hour period and is used by the FTA to evaluate residential noise impacts from proposed transit projects.

³ Open-graded asphalt concrete (OGAC) is a noise-reducing pavement surface.

⁴ Moderate and severe impacts were determined according to FTA *Noise and Vibration Impact Assessment Guidance Manual* (2006).

Source: ATS Consulting, 2019.

VIBRATION LEVELS FROM TRANSIT OPERATION

Table 5.3-2 summarizes the anticipated operational transit vibration impacts generated by the proposed changes to the approved project. There is no distinction between the number of impacts anticipated in 2017 and 2043 because vibration criteria are not based on cumulative increases in vibration levels (as is the case with noise). The table indicates the number of impacts under the following conditions:

- Without any mitigation; and
- With inclusion of mitigation consisting of only tire derived aggregate (TDA).

Table 5.3-2 Summary of Operational Transit Vibration Impacts Associated with the Proposed Changes to the Approved Project

Direction/Segment of Capitol Expressway	Number – Type of Receivers ¹	Impact Criteria (VdB) ²	Unmitigated ⁴	With TDA ^{4,5}
NB 964+50 to 981+20 Wilbur Avenue to Mervyns Way	22 – SFR	72 - 78	10	10
NB 986+70 to 995+50 Mervyns Way to Story Road	5 – INST/COM	78-84 ³	0	0
NB 998+50 to 1035+90 Story Road to Ocala Avenue	41 – SFR	72 - 78	4	4
NB 1037+60 to 1049+50 Ocala Avenue to Cunningham Avenue	27 – SFR	72 - 78	21	21
SB 967+50 to 970+50 S. Capitol Avenue	5 – SFR	72 - 78	1	0
SB 971+30 to 973+00 S. Capitol Avenue	2 – COM	84 ³	0	0
SB 978+00 to 992+70 Excalibur Drive to Story Road	25 – SFR	72 - 78	2	2
SB 993+10 to 996+50 Story Road	3 – COM	84 ³	0	0
SB 998+80 to 1007+20 Story Road to Foxdale Loop	17 – SFR	72 - 78	15	15
SB 1009+00 E. Capitol Expressway	1 – COM	84 ³	0	0
SB 1012+00 to 1018+00 Foxdale Loop	3 – MFR	72 - 78	0	0
SB 1021+00 to 1035+80 Foxdale Drive to Ocala Avenue	19 – SFR	72 - 78	14	14
Number of Impacts:			67	66

Notes:

¹ Receiver types include: Single-Family Residence (SFR), Multi-Family Residence (MFR), Commercial/Office Space (COM), and Institutional (INST).

² FTA nighttime impact criteria of 72 vibration decibels (VdB) and daytime of 78 VdB.

³ Impact threshold for offices and non-sensitive areas.

⁴ Impacts were determined according to FTA *Noise and Vibration Impact Assessment Guidance Manual* (2006).

⁵ Tire derived aggregate (TDA) is a resilient underlayment for ballasted track that would only be located at the at-grade and embankment sections.

Source: ATS Consulting, 2019.

Impact: The February 14, 2019 *EBRC – CELR Noise and Vibration Assessment* indicates that the proposed changes to the approved project would result in exceedances of the Federal Transit Administration (FTA) nighttime (10:00 pm to 7:00 am) vibration impact criteria at sensitive receivers located within 100 feet of the proposed aerial guideway. Most of the impacts are anticipated to occur between 6:00 am and 7:00 am when VTA would be operating at peak service levels. The proposed aerial guideway (direct fixation fasteners) and ballasted track on embankment sections would cause an exceedance of the nighttime impact criteria at 67 sensitive receiver locations. The location of receivers where operational vibration impacts are predicted are as follows:

- Eleven properties located east and west of the alignment, between Wilbur Avenue and Mervyns Way would experience operational vibration impacts. One home is within 33 feet of the closest support column.
- Two properties located west of the alignment on Capitol Expressway near Story Road would experience operational vibration impacts.
- Fifteen properties located west of the alignment along Brenford Drive would experience operational vibration impacts.
- Fourteen properties located west of the alignment between Foxdale Drive and Ocala Avenue would experience operational vibration impacts.
- Four properties located east of the alignment between South Capitol Avenue and Ocala Avenue would experience operational vibration impacts.
- Twenty-one properties located east of the alignment between Ocala Avenue and Cunningham Avenue would experience operational vibration impacts.

No daytime vibration impacts are anticipated under current train parameters, schedules, headways, and speeds.

The following impact from the 2005 Final EIR would still apply to the proposed changes to the approved project: NV-4 (Vibration Levels in Buildings from Transit Operations That Exceed Federal Transit Administration Criteria).

Mitigation: The following mitigation measure identified in the 2005 Final EIR and 2007 Final SEIR would still apply to the proposed changes to the approved project: NV-4b (Use Vibration-Dampening Track Construction Materials). Mitigation Measure NV-4b has been revised. With inclusion of TDA, vibration would exceed the nighttime impact criteria at 66 sensitive receiver locations at the at-grade and embankment sections of the alignment.

If a 5-Hertz floating slab track (FST) or a bridge bearing vibration isolation system² is included as mitigation, the nighttime impact criteria would not be exceeded at any sensitive receptor locations. In addition, reducing train speed typically results in lower groundborne vibration levels. Specifically, if speeds are reduced from 55 mph to 35 mph between 10:00 pm and 7:00 am, the nighttime impact criteria would not be exceeded at any sensitive receptor locations.

VTA is not recommending to include FST or a bridge bearing isolation system as mitigation for several reasons. Future vibration levels, which include a +3 VdB safety factor, are at or slightly above the nighttime vibration impact criteria at many impacted locations, and may not actually exceed the threshold in operation. Many impacted locations are up to 100 feet from the aerial guideway, which is much farther than the typical distance at which nighttime vibration impacts are experienced. In addition, it is VTA's understanding that FST has not been installed on any aerial guideways in the United States and a bridge bearing isolation system has only been recently installed on one aerial structure in the United States. VTA is only aware of one example of FST installed on an aerial guideway on Hong Kong's KCRC West Rail and of one example of a bridge bearing vibration isolation system installed on an aerial structure at Miami Central Station, on the All Aboard Florida-Brightline network. Thus, there is limited information on the effectiveness of FST and bridge bearing isolation systems on aerial structures.

VTA is also not proposing to include speed reduction as mitigation because it would negatively affect travel time and operations between 10:00 pm and 7:00 am.

By not including FST; a bridge bearing vibration isolation system; or implementing speed reductions as mitigation, and because TDA is the

² A bridge bearing vibration isolation system is a system in which resilient bridge bearings are designed and function like the springs or rubber pads that support floating slab track.

only feasible mitigation option to reduce vibration levels from operation, this impact would be “Significant and Unavoidable.” Based on the analysis above, the proposed changes to the approved project would result in new significant impacts related to vibration levels from transit operation. With inclusion of TDA, vibration impacts are expected to occur at 66 sensitive receivers under the proposed changes to the approved project. This is an increase of 14 sensitive receivers compared to the 2005 Final EIR, which concluded 52 sensitive receivers would be potentially exposed to vibration impacts during operation.

Mitigation Measure NV-4b: Use Vibration-Dampening Track Construction Materials

VTA shall install a 12-inch layer of tire-derived aggregate beneath a subballast layer of 12 inches and a ballast layer of 12 inches between Wilbur Avenue and Westboro Drive (Sta. 966+50 to 971+50 NB/SB).

Significant and unavoidable impact, even with mitigation.

PILE DRIVING (AND ALL OTHER VIBRATORY CONSTRUCTION EQUIPMENT) NOISE IMPACTS DURING CONSTRUCTION

During construction, pile driving would be conducted to install foundation piles for the proposed aerial guideway. Although other vibratory construction equipment would also be used for the project, the anticipated noise levels from this equipment would not exceed the noise levels from pile driving. As a result, Table 5.3-3 focuses on the anticipated pile driving noise impacts generated by the proposed changes to the approved project during construction. The table indicates the number of impacts under the following conditions:

- Without any mitigation;
- With inclusion of mitigation consisting of impact cushions, which involves initially using burlap bags and then adding wood block when pile driving becomes more difficult;
- With inclusion of mitigation consisting of both impact cushions and pre-drilling, which involves pre-drilling 1/3 of a pile to reduce the total duration of impact time; and
- With inclusion of mitigation consisting of both impact cushions and noise shields around the pile equipment, which consists of a frame that secures acoustic blankets or paneling.

A more detailed list of anticipated pile driving noise impacts can be found in Table 14 of the February 14, 2019 *EBRC – CELR Noise and Vibration Assessment* (included in Attachment E).

Table 5.3-3 Summary of Construction Pile Driving Noise Impacts Associated with the Proposed Changes to the Approved Project

Direction/Segment of Capitol Expressway	Number – Type of Receivers¹	Federal Transit Administration Impact Criteria Leq (8-hr) dBA²	Unmitigated³	With Impact Cushions³	With Impact Cushions & Pre-Drilling^{3,5}	With Impact Cushions³ & Noise Shields^{3,6}
NB 964+50 to 981+20 Wilbur Avenue to Mervyns Way	22 – SFR	80	12	9	9	0
NB 986+70 to 995+50 Mervyns Way to Story Road	5 – INST/COM	80/85	5	3	2	0
NB 998+50 to 1035+90 Story Road to Ocala Avenue	41 – SFR	80	41	40	25	0
NB 1037+60 to 1049+50 Ocala Avenue to Cunningham Avenue	27 – SFR	80	27	22	9	0
SB 967+50 to 970+50 S. Capitol Avenue	5 – SFR	80	0	0	0	0
SB 971+30 to 973+00 S. Capitol Avenue	2 – COM	85	0	0	0	0
SB 978+00 to 992+70 Excalibur Drive to Story Road	25 – SFR	80	21	21	21	0
SB 993+10 to 996+50 Story Road	3 – COM	85	3	1	0	0
SB 998+80 to 1007+20 Story Road to Foxdale Loop	17 – SFR	80	17	12	2	0
SB 1009+00 E. Capitol Expressway	1 – COM	85	1	1	0	0

Direction/Segment of Capitol Expressway	Number – Type of Receivers¹	Federal Transit Administration Impact Criteria Leq (8-hr) dBA²	Unmitigated³	With Impact Cushions³	With Impact Cushions & Pre-Drilling^{3,5}	With Impact Cushions³ & Noise Shields^{3,6}
SB 1012+00 to 1018+00 Foxdale Loop	3 – MFR	80	3	3	0	0
SB 1021+00 to 1035+80 Foxdale Drive to Ocala Avenue	19 – SFR	80	19	19	11	0
Number of Impacts:			149	131	79	0

Notes:

¹ Receiver types include: Single-Family Residence (SFR), Multi-Family Residence (MFR), Commercial/Office Space (COM), and Institutional (INST).

² Day-Night Sound Level (Ldn) is the most common measure of total community noise over a 24-hour period and is used by the Federal Transit Administration (FTA) to evaluate residential noise impacts from proposed transit projects.

³ Impacts were determined according to FTA’s *Noise and Vibration Impact Assessment Guidance Manual* (2006).

⁴ An impact cushion is a type of mitigation that involves initially using burlap bags and then adding wood block when pile driving becomes more difficult.

⁵ Pre-drilling is a type of mitigation that consists of pre-drilling 1/3 of a pile to reduce the total duration of impact time.

⁶ A noise shield is a type of mitigation that consists of a frame that secures acoustic blankets or paneling.

Source: ATS Consulting, 2019.

Impact: The February 14, 2019 *EBRC – CELR Noise and Vibration Assessment* indicates that the proposed changes to the approved project would result in exceedances of the FTA construction noise impact criteria at unobstructed homes and businesses (i.e., homes and businesses not shielded by other structures or sound walls) within 300 feet of pile driving activity. The noise impacts would have a duration of 8 to 15 days per sensitive receiver. Pile driving would exceed the construction noise impact criteria of 80 Leq (8-hour) dBA at residences and 85 Leq (8-hour) dBA at commercial properties at 149 sensitive receiver locations. The location of receivers where pile driving noise impacts are predicted are as follows:

- Twelve residential properties located east of the alignment between Wilbur Avenue and Mervyns Way would experience construction noise impacts. One home is within 25 feet of the closest pile.
- Five institutional/commercial properties located east of the alignment between Mervyns Way and Story Road would experience construction noise impacts.
- Forty-one residential properties located east of the alignment between Story Road and Ocala Avenue would experience construction noise impacts.
- Twenty-seven residential properties located east of the alignment between Ocala Avenue and Cunningham Avenue would experience construction noise impacts.
- Twenty-one residential properties located west of the alignment between Excalibur Drive and Story Road would experience construction noise impacts.
- Three commercial properties located west of the alignment near the intersection of Capitol Expressway and Story Road would experience construction noise impacts.
- Seventeen residential properties located west of the alignment between Story Road and Foxdale Loop would experience construction noise impacts.
- One commercial property located west of the alignment near the intersection of Capitol Expressway and Foxdale Loop would experience a construction noise impact.
- Three residential properties located west of the alignment along Foxdale Loop would experience construction noise impacts.
- Nineteen residential properties located west of the alignment between Foxdale Drive and Ocala Avenue would experience construction noise impacts.

The proposed changes to the approved project would result in an increase in the number of construction noise impacts compared to the 2007 Final SEIR due to an increase in the number of foundation piles associated with changing the at-grade track under the approved project to an aerial guideway under the proposed changes.

The following impact from the 2005 Final EIR would still apply to the proposed changes to the approved project: NV (CON)-1: (Generation of Noise or Vibration That Substantially Affects Nearby Sensitive Receptors).

Mitigation: The following mitigation measures identified in the 2005 Final EIR and the 2007 Final SEIR would still apply to the proposed changes to the approved project: NV (CON)-1a (Notify Residents of Construction Activities), NV (CON)-1b (Construct Temporary Noise Barriers During Construction), NV (CON)-1c (Restrict Pile Driving)³, NV (CON)-1d (Use Noise Suppression Devices), NV (CON)-1e (Locate Stationary Construction Equipment as Far as Possible from Sensitive Receptors), NV (CON)-1f (Reroute Construction-Related Truck Traffic), NV (CON)-1g (Develop Construction Noise Mitigation Plan) and NV (CON)-2.

Mitigation Measure NV (CON)-2 has been modified.

Mitigation Measure NV (CON)-2

A combination of the following measures should be considered if reasonable and feasible to reduce noise and vibration impacts from pile driving:

1. **Noise Shield:** A pile driving noise shield could be effective at reducing the pile driving noise by a minimum 5 dB, depending on the size of the shield and how well it surrounds the pile and hammer. A portable shield/barrier could be implemented to provide a nominal 10 dB noise reduction.
2. **Pre-Drilling Piles:** Pre-drilling a portion of the hole may provide a means to reduce the duration of impact pile driving, and should be explored. Reducing the total impact time to an aggregate duration of no more than 2 hours per day will reduce the equivalent noise level by 6 dB to a range of 80 to 90 dBA (L_{eq}) at a distance of 100ft.
3. **Non-Impact Piles or Cast in Drilled Hole (CIDH) piles:** Using the Soil-Mix or CIDH method would reduce the vibration below the

³ In the 2005 Final EIR, this measure restricts pile driving to the hours of 8:00 am to 5:00 pm. To be consistent with the San Jose municipal code, these hours are revised to 7:00 am to 7:00 pm, Monday through Friday.

FTA Criteria. This method is recommended for homes which would be within 75 ft of pile driving.

4. **Reduced Impact Pile Driving Time:** Limiting the hours per day of impact pile driving would reduce the equivalent noise level and would reduce potential work interference.
5. **Excessive Vibration:** If pile driving amplitudes exceed the building threshold criteria, cosmetic repair work may be required at nearby buildings. A detailed preconstruction crack survey will be conducted at homes and businesses where these criteria are expected to be exceeded. Vibration monitoring, crack monitors and photo documentation will be employed at these locations during pile driving activity.
6. **Relocating Items on Shelves:** Since items on shelves and walls may move during pile driving activity, nearby residents will be advised through the community outreach process that they should move fragile and precious items off of shelves and walls for the duration of the impact pile driving. Achievement of standards for building damage would not eliminate annoyance, since the vibration would still be quite perceptible.
7. **Advance Notification (Work Interference):** The impact pile driving vibration may cause interference with persons working at home or the office on their computers. Nearby residents and businesses will be advised in advance of times when piles would be driven, particularly piles within 160 ft of any occupied building, so that they may plan accordingly, if possible.
8. **Notification of Pile Driving Schedule:** Nearby residents and businesses will be notified of the expected pile driving schedule. In particular, these notifications should be made with home-bound residents, homes where there is day-time occupancy (e.g., work at home, stay-at-home parents) and offices/commercial businesses where extensive computer/video monitor work is conducted.
9. **Hotel Accommodations:** Residents at 660 South Capitol Avenue will be provided with hotel accommodations while pile driving activities occur adjacent to the residence.

Contractor Controls

In addition to the above list of specific noise and vibration control measures, the following are recommended for inclusion in the Contractor specifications for the Indicator and Production pile driving programs if reasonable and feasible:

- Comply with the equivalent noise levels (L_{eq}) limits specified on page 12-8 of FTA 2006 and a maximum noise level limits of 90 dBA (slow) or 125 dBC (fast) for residential buildings,
- Comply with the maximum vibration limits specified in Table 12-3 of FTA 2006,
- Perform a detailed survey and photo documentation prior to construction of all potentially affected wood-frame buildings within 135 ft of the piling activity,
- Coordinate and perform noise and vibration monitoring at a representative sampling of potentially affected buildings along the Project corridor,
- Install crack monitors where appropriate and provide photo documentation at all potentially affected buildings during pile driving activity and through construction,
- Community Notification and Involvement:
 - provide a minimum four-week advance notice of the start of piling operations to all affected receptors (e.g., internet, phone and fax), and regular, up-to-date communications. This includes education of the public on the expected noise and vibration,
 - provide a knowledgeable Community Liaison to respond to questions and complaints regarding pile driving noise and vibration, and
 - provide assistance as needed to nearby residents or offices who may require help relocating valuable items off shelves.

Mitigation Measure NV (CON)-1h: Use Impact Cushions

A suitable pile cap cushion could be effective at reducing the pile driving noise by up to 5 dB. The construction crew will initially use only burlap bags to reduce noise and then will also use the wood block when pile driving becomes more difficult.

This new mitigation measure shall be implemented in addition to the measures identified in the Mitigation Monitoring and Reporting Plan (MMRP) prepared for the approved project.

Significant and unavoidable impact, even with mitigation.

PILE DRIVING (AND ALL OTHER VIBRATORY CONSTRUCTION EQUIPMENT) VIBRATION IMPACTS DURING CONSTRUCTION

As discussed above, pile driving would be conducted to install foundation piles for the proposed aerial guideway. Although other vibratory construction equipment would also be used for the project, the anticipated vibration levels from this equipment would not exceed the vibration levels from pile driving. As a result, Table 5.3-4 focuses on the anticipated pile driving vibration impacts generated by the proposed changes to the approved project during construction. The table indicates the number of impacts under the following conditions:

- Without any mitigation; and
- With inclusion of mitigation consisting of non-impact piling (e.g., vibratory piling or cast-in-drilled-hole piling).

A more detailed list of anticipated pile driving vibration impacts can be found in Table 14 of the February 14, 2019 *EBRC – CELR Noise and Vibration Assessment* (included in Attachment E).

Table 5.3-4 Summary of Impact Pile Driving Vibration Impacts Associated with the Proposed Changes to the Approved Project

Direction/Segment of Capitol Expressway	Number – Type of Receivers ¹	Annoy. Criteria PPV ^{2,3} (in/s)	Federal Transit Administration Damage Criteria PPV ^{2,4} (in/s)	Number of Anticipated Federal Transit Administration Impacts (Based on Damage Criteria)	
				Unmitigated	With CIDH Piling ^{5,6}
NB 964+50 to 981+20 Wilbur Avenue to Mervyns Way	22 - SFR	0.03	0.2	9	0
NB 986+70 to 995+50 Mervyns Way to Story Road	5 – INST/COM	0.06	0.5	0	0
NB 998+50 to 1035+90 Story Road to Ocala Avenue	41 - SFR	0.03	0.2	5	0
NB 1037+60 to 1049+50 Ocala Avenue to Cunningham Avenue	27 - SFR	0.03	0.2	21	0
SB 967+50 to 970+50 S. Capitol Avenue	5 - SFR	0.03	0.2	0	0
SB 971+30 to 973+00 S. Capitol Avenue	2 - COM	0.06	0.5	0	0

Direction/Segment of Capitol Expressway	Number – Type of Receivers ¹	Annoy. Criteria PPV ^{2,3} (in/s)	Federal Transit Administration Damage Criteria PPV ^{2,4} (in/s)	Number of Anticipated Federal Transit Administration Impacts (Based on Damage Criteria)	
				Unmitigated	With CIDH Piling ^{5,6}
SB 978+00 to 992+70 Excalibur Drive to Story Road	25 - SFR	0.03	0.2	0	0
SB 993+10 to 996+50 Story Road	3 - COM	0.06	0.5	0	0
SB 998+80 to 1007+20 Story Road to Foxdale Loop	17 - SFR	0.03	0.2	15	0
SB 1009+00 E. Capitol Expressway	1 - COM	0.03	0.5	0	0
SB 1012+00 to 1018+00 Foxdale Loop	3 - MFR	0.03	0.2	0	0
SB 1021+00 to 1035+80 Foxdale Drive to Ocala Avenue	19 - SFR	0.03	0.2	14	0
Number of Impacts:				64	0

Notes:

¹ Receiver types include: Single-Family Residence (SFR), Multi-Family Residence (MFR), Commercial/Office Space (COM), and Institutional (INST).

² Annoyance criteria based on an equivalent PPV to RMS value of 78 VdB for SFR/MFR and 84 VdB for COM, assuming a crest factor of 4.

³ Peak particle velocity (PPV).

⁴ Damage criteria based on FTA *Noise and Vibration Impact Assessment Guidance Manual* (2006).

⁵ Cast in drilled hole piles (CIDH). If vibratory driven piles are used, one impact would remain at NB 977+70 (660 S. Capitol Ave.)

⁶ The use of CIDH pile driving would theoretically reduce the total number of impacts to zero if used throughout construction; however, CIDH pile driving may not be feasible in all cases.

Source: ATS Consulting, 2019.

Impact: The February 14, 2019 *EBRC – CELR Noise and Vibration Assessment* indicates that the proposed changes to the approved project would result in exceedances of the FTA nighttime construction vibration of 0.2 PPV impact criteria at homes within 100 feet of pile driving activity. Pile driving would exceed the construction vibration impact criteria at 64 sensitive receiver locations. The location of receivers where pile driving vibration impacts are predicted are as follows:

- Nine properties located east of the alignment between Wilbur Avenue and Mervyns Way would experience construction vibration impacts. One home is within 25 feet of the closest pile.

- Five properties located east of the alignment between Story Road and Ocala Avenue would experience construction vibration impacts.
- Twenty-one properties located east of the alignment between Ocala Avenue and Cunningham Avenue would experience construction vibration impacts.
- Fifteen properties located west of the alignment between Story Road and Foxdale Loop would experience construction vibration impacts.
- Fourteen properties located west of alignment between Foxdale Drive and Ocala Avenue would experience construction vibration impacts.

The following impact from the 2005 Final EIR would still apply to the proposed changes to the approved project: NV (CON)-1: (Generation of Noise or Vibration That Substantially Affects Nearby Sensitive Receptors).

Mitigation: The following mitigation measures identified in the 2005 Final EIR and the 2007 Final SEIR would still apply to the proposed changes to the approved project: NV (CON)-1a (Notify Residents of Construction Activities), NV (CON)-1c (Restrict Pile Driving), NV (CON)-1e (Locate Stationary Construction Equipment as Far as Possible from Sensitive Receptors) and NV (CON)-2.

VTA is only recommending the use of non-impact piling methods in the vicinity of Capitol Avenue and Capitol Expressway. At this location, construction vibration levels are anticipated to be the highest. VTA is not recommending the use of non-impact piling methods at most locations for several reasons. Most locations are only slightly above the FTA Damage Criteria, and therefore may not experience any actual impacts. At the locations with the highest construction vibration levels, structural damage is not anticipated to occur. However, if any structural and cosmetic damage does occur due to construction vibration, the damage shall be repaired by VTA. In addition, non-impact piling methods would require extensive lane closures which would cause additional traffic impacts during construction. Non-impact piling methods are not recommended at most locations. Thus, this impact would be “Significant and Unavoidable.”

No mitigation proposed. Significant and unavoidable impact.

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Section 5.4 Air Quality and Climate Change

This section describes the potential air quality and climate change impacts associated with the proposed changes to the approved project. This section supplements Section 4.3 of the 2005 Final EIR, Section 5.2 of the 2007 Final SEIR, and Section 3.2 of the 2014 Subsequent IS/MND. This analysis is based on and supported by new information and updated data from the California Air Resources Board (CARB), the U.S. Environmental Protection Agency, and the operational assumptions from VTA.

Environmental Setting

The following discussion describes the changes to the existing regional and local air quality and climate change conditions since the preparation of the air quality and climate change analysis in the 2005 Final EIR, 2007 Final SEIR, and 2014 Subsequent IS/MND. The basic environmental setting of the project area, in terms of climate and topography, existing pollutant concentrations in the Capitol Expressway corridor, and sensitive receptors, is unchanged from the 2005 Final EIR. Regional attainment status in the project area has changed, as discussed below.

Table 5.4-1 provides the most recent available data (2015–2017 time period). The nearest air quality monitoring station to the project corridor is the San Jose-Knox Avenue Station. However, this station does not measure all pollutants, and supplemental data from the next closest station, San Jose-Jackson Street station, are included for ozone and particulate matter less than or equal to 10 microns (PM10). As indicated in Table 5.4-1, the San Jose-Knox Avenue and San Jose-Jackson Street stations experienced violations of 8-hour ozone, PM10, and particulate matter less than or equal to 2.5 microns (PM2.5) standards between 2015 and 2017.

Table 5.4-1 Ambient Criteria Air Pollutant Monitoring Data (2015-2017)

Pollutant Standards	2015	2016	2017
Ozone (O₃) (San Jose – Jackson Street)			
Maximum 1-hour concentration (ppm)	0.094	0.087	0.121
Maximum 8-hour concentration (ppm)	0.081	0.066	0.098
<i>Number of days standard exceeded¹</i>			
CAAQS 1-hour (>0.09 ppm)	0	0	3
CAAQS 8-hour (>0.070 ppm)	2	0	4
NAAQS 8-hour 2008 Standard (>0.075 ppm)	2	0	3
NAAQS 8-hour 2015 Standard (>0.070 ppm)	2	0	4
Carbon Monoxide (CO) (San Jose – Knox Avenue)			
Maximum 8-hour concentration (ppm)	2.0	1.4	2.6
Maximum 1-hour concentration (ppm)	2.7	1.9	1.8

Pollutant Standards	2015	2016	2017
<i>Number of days standard exceeded:¹</i>			
NAAQS 8-hour (≥ 9 ppm)	0	0	0
CAAQS 8-hour (≥ 9.0 ppm)	0	0	0
NAAQS 1-hour (≥ 35 ppm)	0	0	0
CAAQS 1-hour (≥ 20 ppm)	0	0	0
Nitrogen Dioxide (NO₂) (San Jose – Knox Avenue)			
State maximum 1-hour concentration (ppb)	61	52	76
State second-highest 1-hour concentration (ppb)	58	51	71
Annual average concentration (ppb)	17	15	17
<i>Number of days standard exceeded:</i>			
CAAQS 1-hour (180 ppb)	0	0	0
Particulate Matter (PM₁₀)² (San Jose – Jackson Street)			
National ³ maximum 24-hour concentration (g/m ³)	58.8	40.0	69.4
National ³ second-highest 24-hour concentration (g/m ³)	47.2	35.2	67.3
State ⁴ maximum 24-hour concentration (g/m ³)	58.0	41.0	69.8
State ⁴ second-highest 24-hour concentration (g/m ³)	49.3	37.5	67.6
National annual average concentration (g/m ³)	21.3	17.5	20.7
State annual average concentration (g/m ³) ⁵	21.9	18.3	21.3
<i>Number of days standard exceeded:¹</i>			
NAAQS 24-hour (>150 g/m ³) ⁶	0	0	0
CAAQS 24-hour (>50 g/m ³) ⁶	1	0	6
Particulate Matter (PM_{2.5}) (San Jose – Knox Avenue)			
National ³ maximum 24-hour concentration (g/m ³)	46.9	26.5	48.4
National ³ second-highest 24-hour concentration (g/m ³)	31.6	24.4	47.4
State ⁴ maximum 24-hour concentration (g/m ³)	46.9	26.5	48.4
State ⁴ second-highest 24-hour concentration (g/m ³)	31.6	24.4	47.4
National annual average concentration (g/m ³)	8.4	9.1	10.7
State annual average concentration (g/m ³) ⁵	8.4	9.1	10.8
<i>Number of days standard exceeded:^{1,6}</i>			
NAAQS 24-hour (>35 g/m ³)	1	0	8

Notes:

- ppm = parts per million
- NAAQS = National Ambient Air Quality Standards
- CAAQS = California Ambient Air Quality Standards
- g/m³ = micrograms per cubic meter
- mg/m³ = milligrams per cubic meter
- = data not available

¹ An exceedance is not necessarily a violation.

² National statistics are based on standard conditions data. In addition, national statistics are based on samplers using federal reference or equivalent methods.

³ State statistics are based on local conditions data, except in the South Coast Air Basin, for which statistics are based on standard conditions data. In addition, state statistics are based on California approved samplers.

⁴ Measurements usually are collected every 6 days.

⁵ State criteria for ensuring that data are sufficiently complete for calculating valid annual averages are more stringent than the national criteria.

⁶ Mathematical estimate of how many days' concentrations would have been measured as higher than the level of the standard had each day been monitored. Values have been rounded.

Source: California Air Resources Board 2018a; U.S. Environmental Protection Agency 2018a.

Local monitoring data (Table 5.4-1) are used to designate areas as nonattainment, maintenance, attainment, or unclassified for the National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS). The most recent attainment status for Santa Clara County, which is current as of 2018, is shown in Table 5.4-2 for each applicable pollutant.

Table 5.4-2 Federal and State Attainment Status for Santa Clara County (2018)

Criteria Pollutant	Federal Designation	State Designation
O ₃ (8-hour)	Marginal Nonattainment	Nonattainment
CO	Maintenance	Attainment
PM10	Attainment	Nonattainment
PM2.5	Nonattainment	Nonattainment
NO ₂	Attainment	Attainment
SO ₂	Attainment	Attainment
Lead	Attainment	Attainment
Sulfates	(No Federal Standard)	Attainment
Hydrogen Sulfide	(No Federal Standard)	Unclassified
Visibility Reducing Particles	(No Federal Standard)	Unclassified

Notes:

- O₃ = ozone
- CO = carbon monoxide
- PM10 = particulate matter less than or equal to 10 microns
- PM2.5 = particulate matter less than or equal to 2.5 microns
- NO₂ = nitrogen dioxide
- SO₂ = sulfur dioxide

Source: California Air Resources Board 2017; U.S. Environmental Protection Agency 2018b.

As discussed in Chapter 2, *Changes to the Approved Project, Changes in Circumstances, and Introduction of New Information*, Senate Bill 350 was signed by Governor Brown in October 2015 and its key provisions establish benchmarks for renewable energy that electric utilities must meet. In addition, SB 32 requires CARB to ensure that statewide greenhouse gas (GHG) emissions are reduced to at least 40% below 1990 levels by 2030. Pursuant to SB 32, CARB updated the prior AB 32 Scoping Plan to address implementation of GHG reduction strategies to meet the 2030 reduction target. The Final

Plan was approved in December 2017. Furthermore, on April 19, 2017, the BAAQMD Board of Directors adopted an update to the 2010 Clean Air Plan, the *2017 Clean Air Plan*.

Environmental Impacts and Mitigation

The impact discussion in this section primarily focuses on the proposed changes to the approved project that could result in new or more significant air quality impacts compared to the impacts previously identified and analyzed for the approved project.

IMPACTS ON AIR QUALITY EMISSIONS DURING OPERATION

Many of the proposed changes to the approved project (including the revision to Capitol Expressway roadway lane configurations; modifications to the Eastridge Station platforms and tracks; reduction in parking spaces at the Eastridge Park-and-Ride lot; minor shift in the location and straightening of the Story Station pedestrian overcrossing and access; modification to Story Station pedestrian access; relocation of a construction staging area; and relocation of PG&E electrical transmission facilities) would not result in any exceedances of the federal or state ambient air quality standards related to the generation of emissions of reactive organic gases, oxides of nitrogen, and particulate matter from the light rail or on-road vehicles during operation. Thus, these proposed changes to the approved project would not result in changes to the conclusions of the air quality impacts previously identified and analyzed for the approved project.

For this analysis, long-term air quality impacts are those associated with motor vehicles operating on the roadway network, predominantly those operating in the project area on Capitol Expressway and the cross streets along the project corridor. One of the proposed changes to the approved project (the extension of the aerial guideway to grade-separate the Ocala Avenue and Cunningham Avenue intersections) could result in changes to air quality during operation. The rate of emissions of reactive organic gases (ROG), nitrogen dioxide (NO_x), carbon monoxide (CO), PM₁₀, PM_{2.5}, and GHGs from motor vehicles could be increased or decreased based on changes to vehicle miles traveled (VMT) and vehicle speeds that would result from the proposed changes to the approved project. Criteria pollutant emissions associated with the proposed changes to the approved project were quantified using emission factors from the CARB's EMFAC2017 emission factor database and VMT data prepared for the proposed changes by VTA (Santa Clara Valley Transportation Authority 2018). Changes in VMT at the regional level (i.e., the nine-county Bay Area region) that would result from implementation of the proposed changes to the approved project were modeled for an existing conditions scenario in 2017, a project scenario relative to a no project scenario in 2023, and a project scenario relative to a no project scenario in 2043. Emission factors from EMFAC2017 were selected for each analysis year and for the MTC region¹ for an accurate representation of the profile of vehicles that would be affected by the proposed changes to the approved project (i.e., the

¹ MTC refers to the Metropolitan Transportation Commission, which is the regional transportation planning agency for the nine-county Bay Area region.

percentage of vehicles in the MTC region that are light duty, heavy duty, etc.). The VMT data and emission factor assumptions used for the analysis are included in Attachment F.

Under the existing plus project scenario, the proposed changes to the approved project would result in fewer VMT and better intersection performance as compared to the approved project (Black pers. comm.). The proposed changes include an aerial guideway rather than the at-grade alignment included in the approved project. Thus, light rail vehicles could travel at increased speeds as a result of the proposed changes. The aerial guideway would remove the possibility of traffic signal delay that could occur for the approved project’s at-grade alignment, and speeds for light rail vehicles could be increased. The increased speeds would likely result in better system performance and could result in increased ridership, which would lead to lower VMT than with the approved project. Emissions associated with the existing plus project scenario for the proposed changes to the approved project are shown in Table 5.4-3.

Table 5.4-3 Operational Criteria Pollutant Emissions Increases (Existing [2017] Year, Year 2023, and Year 2043)

Daily/Annual Emissions	ROG	NO _x	CO	PM10	PM2.5
Project Scenario Relative to Existing Conditions in 2017					
Maximum Daily Emissions (lbs/day)	-0.1	-0.6	-2.1	-0.01	-0.01
Annual Emissions (tons/year) ¹	-0.02	-0.11	0.37	> -0.01	> -0.01
Project Scenario Relative to No Project in 2023					
Maximum Daily Emissions (lbs/day)	1.9	12.5	52.3	0.18	0.16
Annual Emissions (tons/year) ¹	0.3	2.2	9.1	0.03	0.03
Project Scenario Relative to No Project in 2043					
Maximum Daily Emissions (lbs/day)	-11.0	-87.6	-311.3	-1.0	-1.0
Annual Emissions (tons/year) ¹	-1.9	-15.2	-54.0	-0.2	-0.2
BAAQMD Daily Thresholds² (lbs/day)	54	54	CAAQS	82	54
BAAQMD Annual Thresholds² (tons/year)	10	10	CAAQS	15	10

Notes:

CAAQS = violation of a CAAQS (see impact Carbon Monoxide Hot Spot discussion)

¹ Daily emissions were converted into annual emissions by multiplying by a standard factor of 347 days per year, to account for reduced volumes on weekends.

² Bay Area Air Quality Management District 2017a.

Sources: Vehicle miles traveled data from VTA (2018). Emission factors from EMFAC2017 (California Air Resources Board 2018b) are included in Attachment F.

Existing (2017) Conditions. As shown in Table 5.4-3, criteria pollutant emissions during operation of the proposed changes to the approved project would decrease emissions relative to existing conditions, resulting in a net benefit to regional air quality. With net negative reductions relative to the existing conditions, emissions would not increase as a result of the proposed changes, and there would be no exceedances of the BAAQMD's thresholds of significance for any pollutant. For carbon monoxide (CO), there is no mass emissions threshold, and localized CO concentrations are evaluated with respect to the CAAQS. Localized CO concentrations are evaluated in a separate impact discussion below.

2023 Conditions. The proposed changes to the approved project would result in a slight increase in net VMT relative to the no project conditions in 2023. Although light rail ridership would likely increase for the reasons discussed above, there could be an offset effect from drivers seeking alternative routes, resulting in slightly greater travel distances. This effect is anticipated to be minor but would result in increases of criteria pollutant emissions, as shown in Table 5.4-3. The increases in emissions for all pollutants would be below the BAAQMD's thresholds of significance by a substantial margin. The largest increase in a pollutant relative to no project conditions in 2023 would occur for NO_x, but emissions would be approximately 12.5 pounds per day, which is approximately 41.5 pounds per day less than the BAAQMD's NO_x threshold of 54 pounds per day.

2043 Conditions. The effect of alternative travel routes that would cause VMT and emissions increases in 2023 would be relatively minor; VMT reductions would be experienced by 2043 from increasing light rail ridership, decreasing on-road vehicle travel, and a cleaner, lower-emitting region-wide vehicle fleet in 2043. As shown in Table 5.4-3, criteria pollutant emissions from implementation of the proposed changes to the approved project would decrease emissions of all pollutants relative to no project conditions in 2043, resulting in a net benefit to air quality.

The 2005 Final EIR determined that the approved project would result in decreases to regional criteria pollutants (i.e., a net benefit to air quality) because there would be a decrease in single-occupant vehicle use. The 2014 Subsequent IS/MND determined that the No Ocala Station option could increase VMT slightly (i.e., by less than 0.1%) relative to the Light Rail Alternative with the median Ocala Station, but this minor increase would not be expected to result in exceedances of the federal or state ambient air quality standards. The analysis for the proposed changes to the approved project has determined that, while criteria pollutant emissions would slightly increase in one of the analysis years (2023), the increase would be below the BAAQMD thresholds and there would be a net benefit to air quality in the existing conditions scenario and a long-term, on-going benefit to air quality by 2043 for the proposed changes to the approved project. Thus, the proposed changes to the approved project would not result in any criteria pollutant emissions exceedances nor would the proposed changes result in any exceedances of the federal or state ambient air quality standards beyond the impacts previously identified and analyzed for the approved project.

Impact: The following impact from the 2005 Final EIR would still apply to the proposed changes to the approved project: AQ-6 (Potential Net Increase in Emissions of Reactive Organic Gases, Oxides of Nitrogen, and PM10).

Mitigation: None required. This impact is “Less than Significant.”

Less-than-significant impact. No mitigation required.

IMPACTS ON CARBON MONOXIDE HOT SPOTS

With respect to localized CO impacts at intersections along the Capitol Expressway corridor, the proposed changes to the approved project would result in improved intersection performance compared to the approved project. CO dispersion modeling was conducted in the 2005 Final EIR for the existing year (2001), 2010, and 2025, and no exceedances of the CAAQS were identified. Dispersion modeling was not conducted in the 2007 Final SEIR or the 2014 Subsequent IS/MND. Because the proposed changes to the approved project would result in changes to intersection volumes at four intersections relative to the approved project and no project conditions in 2017, 2023, and 2043, which are years not previously analyzed with respect to CO hot spots, the potential for the proposed changes to the approved project to affect CO hot spots is evaluated in this analysis. Intersection volumes at all four intersections are well below the screening volumes established by the BAAQMD to determine whether a project could result in exceedances of the CAAQS (i.e., generate CO hot spots).² However, because two intersections, Capitol Expressway/Capitol Avenue and Capitol Expressway/Story Road, are considered to be Congestion Management Program intersections, further scrutiny is warranted at these intersections. As concluded in Section 5.1, *Transportation*, the proposed changes to the approved project would result in a significant impact with respect to level of service and delay at the Capitol Expressway/Story Road intersection for the existing plus project scenario, 2023 plus project scenario, and 2043 plus project scenario. No significant level of service or delay impacts are identified at the Capitol Expressway/Capitol Avenue intersection in Section 5.1, *Transportation*.

Because the Capitol Expressway/Story Road intersection is considered a Congestion Management Program intersection and would have a significant impact, the BAAQMD screening methodology for CO hot spots is not used. As such, CO dispersion modeling at

² Heavy traffic congestion can contribute to high levels of CO, and individuals exposed to such hot spots may have a greater likelihood of developing adverse health effects. BAAQMD has adopted screening criteria that provide a conservative indication of whether project-generated traffic would cause a potential CO hot spot. The BAAQMD’s CO screening criteria require that (1) the project traffic would not increase traffic volumes at affected intersections to more than 44,000 vehicles per hour; (2) the project traffic would not increase traffic volumes at affected intersections to more than 24,000 vehicles per hour where vertical and/or horizontal mixing is substantially limited (e.g., tunnel, parking garage, bridge underpass, natural or urban street canyon, below-grade roadway); and (3) the project is consistent with an applicable congestion management program established by the county congestion management agency for designated roads or highways, regional transportation plan, and local congestion management agency plans.

this intersection was conducted for the proposed changes to the approved project in the existing (2017), 2023, and 2043 scenarios using peak hour traffic volumes from the April 29, 2019 *Eastridge to BART Regional Connector: Capitol Expressway Light Rail Project Supplemental Transportation Analysis* prepared by Hexagon Transportation Consultants, Inc. The Capitol Expressway/Story Road intersection analysis is a worst-case analysis because it has the highest volumes among the four intersections that would be modified by the proposed changes to the approved project. In addition, the higher of the AM or PM peak hour volumes for each year were used for the dispersion modeling to further represent a worst-case analysis.

The results of the CO hot spot analysis for the Capitol Expressway/Story Road intersection are provided in Table 5.4-4. As shown in Table 5.4-4, the proposed changes to the approved project would result in lower CO concentrations for all years at the Capitol Expressway/Story Road intersection than the concentrations modeled in the 2005 Final EIR for the intersection. In addition, there would be no exceedances of the CAAQS at the worst-case intersection of Capitol Expressway/Story Road intersection, and the proposed changes to the approved project would not result in any CO hot spots at any of the intersections modified by the proposed changes. Thus, the proposed changes to the approved project would not result in CO hot spot impacts beyond the impacts previously identified and analyzed for the approved project.

Table 5.4-4 CO Modeling Concentration Results at Capitol Expressway and Story Road (Existing [2016] Year, Year 2023, and Year 2043)

Year	Worst Case Concentrations (parts per million)	
	Capitol Expressway and Story Road	
	1-hr CO ¹	8-hr CO ²
Existing (2016 ³) + Project	4.9	3.4
With Project (2023)	5.0	3.5
With Project (2043)	3.7	2.6
CAAQS Threshold ⁴	20.0	9.0
NAAQS Threshold	35.0	9.0

Notes:

¹ Average 1-hour background concentration between 2015 and 2017 was 2.6 ppm at the Knox Avenue Station in San Jose (U.S. Environmental Protection Agency 2018).

² Average 8-hour background concentration between 2015 and 2017 was 1.8 ppm at the Knox Avenue Station in San Jose (U.S. Environmental Protection Agency 2018).

³ At the Capitol Expressway & Story Road intersection, 2016 volumes were used instead of 2017 volumes, because minor construction activities were occurring in 2017. Thus, the existing year at this intersection is 2016.

⁴ The BAAQMD’s threshold of significance for CO impacts is the CAAQS.

Sources: Hourly Roadway segment volumes are included in Attachment F; emission factors from EMFAC2017 (California Air Resources Board 2018b) are included in Attachment F; and dispersion modeling conducted with CALRoads View (Lakes Environmental 2016).

Impact: The following impact from the 2005 Final EIR would still apply to the proposed changes to the approved project: AQ-5 (Violation of State Carbon Monoxide Standards as Determined by Modeling of Carbon Monoxide Emissions).

Mitigation: None required. This impact is “Less than Significant.”

Less-than-significant impact. No mitigation required.

CONSISTENCY WITH THE APPLICABLE AIR QUALITY PLAN

Impacts of the approved project related to consistency with the applicable air quality plan were not previously analyzed in the 2005 Final EIR, the 2007 Final SEIR, or the 2014 Subsequent IS/MND. The most recent air quality plan applicable to the proposed changes to the approved project is the BAAQMD’s *2017 Clean Air Plan*, which provides an integrated strategy to control ozone, PM, TACs, and GHG emissions (Bay Area Air Quality Management District 2017b). The primary goals of the *2017 Clean Air Plan* are to attain air quality standards, reduce population exposure and protect public health in the Bay Area, and reduce GHG emissions and protect the climate.

A project is generally considered to be inconsistent with an air quality plan if the project would result in population and/or employment growth that exceeds the estimates used to develop the plan. The proposed changes to the approved project are not considered a land use development project and would not directly result in any population or employment increases in the region.

Furthermore, because the proposed changes to the approved project would increase the efficiency of light rail by changing the at-grade alignment of the approved project to an elevated guideway, the proposed changes to the approved project would be consistent with the overall goals of the *2017 Clean Air Plan*. Specifically, the proposed changes to the approved project would be consistent with Transportation Control Measure TR-4 of the *2017 Clean Air Plan*, Local and Regional Rail Service. As previously discussed, the proposed changes to the approved project would likely result in increased light rail ridership relative to the approved project due to the improvements in vehicle speed. Thus, the proposed changes to the approved project would complement, not conflict with, the BAAQMD’s *2017 Clean Air Plan* and this impact would be less than significant.

IMPACTS ON SUBSTANTIAL POLLUTANT CONCENTRATIONS

The potential pollutant concentration impacts of the approved project were not previously analyzed in the 2005 Final EIR, the 2007 Final SEIR, or the 2014 Subsequent IS/MND. Based on the results of the daily traffic volume analysis, the operational phase of the proposed changes to the approved project would not result in any major sources of toxic air contaminants that could adversely affect sensitive receptors (e.g., a gas station, or a project that would add a substantial amount of diesel truck or bus traffic). The proposed changes to the approved project would involve light rail vehicles traveling on the proposed aerial guideway and changes to on-road vehicle volumes on Capitol

Expressway and the cross streets. The light rail vehicles would be electrically powered and would not directly generate any exhaust emissions. Because the vast majority of onroad vehicles are gasoline-powered, on-road vehicles are not considered to be appreciable sources of diesel particulate matter. Other toxic air contaminants (e.g., benzene and 1,3-Butadiene) are present in gasoline exhaust emissions and can pose health risks to sensitive receptors.

Table 5.4-5 shows the changes in on-road vehicle traffic volumes that are expected on roadways in the immediate vicinity of the Capitol Expressway corridor as a result of the proposed changes to the project. On nearly all roadways in the vicinity of the corridor, the proposed changes to the approved project would result in a net decrease in traffic volumes in the existing year (2017), 2023, and 2043. On these roadways, the proposed changes to the approved project would result in decreases in pollutant concentrations that are currently affecting sensitive receptors because there would likely be higher light rail ridership and fewer on-road vehicles. Thus, on nearly all roadways, the proposed changes to the approved project would not contribute to existing pollutant concentrations and would not worsen exposure of sensitive receptors to those pollutants concentrations. However, in 2043 on Ocala Avenue, vehicle volumes would increase by approximately 5,109 vehicles per day west of Capitol Expressway and by approximately 1,574 vehicles east of Capitol Avenue. The presence of approximately 5,109 vehicles per day alone would not generate substantial toxic air contaminant emissions and thus would not lead to significant health impacts that exceed the BAAQMD’s health risk thresholds. As such, the incremental effect of the proposed changes to the approved project on Ocala Avenue would not lead to substantial pollutant concentrations and this impact would be less than significant.

Table 5.4-5 Daily¹ Traffic Volume Changes Relative to No Project Conditions (Existing [2017] Year, Year 2023, and Year 2043)²

Roadway	2017 + Project	2023 + Project	2043 + Project
<i>Capitol Avenue Segments</i>			
North of Capitol Avenue ³	-669	-703	-747
Between Capitol Expressway and Story Road ³	-733	-873	-975
Between Story Road and Ocala Avenue	-1,023	-1,012	-1,321
Between Ocala Avenue and Cunningham Avenue	-1,702	-1,710	-854
South of Cunningham Avenue	-1,676	-1,731	-3,274
<i>Cross Street Segments</i>			
Excalibur - West of Capitol Expressway ³	-54	-61	-63
Capitol Avenue - East of Capitol Expressway ³	-393	-568	-628
Story Road - West of Capitol Expressway ³	-580	-300	-1,193
Story Road - East of Capitol Expressway ³	-855	-315	-668
Ocala Avenue - West of Capitol Expressway	-581	-87	5,109

Roadway	2017 + Project	2023 + Project	2043 + Project
Ocala Avenue - East of Capitol Expressway	-993	-478	1,574
Cunningham Avenue - West of Capitol Expressway	-43	-49	-97
Cunningham Avenue - East of Capitol Expressway	-108	-155	-271

Notes:

¹ AM & PM peak-hour intersection volumes were provided by Hexagon Transportation Consultants, Inc. (hourly volumes provided in Attachment F). Hourly volumes were converted into daily volumes by multiplying the PM peak-hour volumes by 10, based on consultation with Hexagon Transportation Consultants, Inc.

² Volume increases are shown in **bold** font.

³ On these roadway segments, 2016 data were used, because minor construction activities were occurring in 2017.

Source: Tse, pers. comm.

IMPACTS ON GHG EMISSIONS

In addition to emissions changes from on-road vehicles, the proposed changes to the approved project would result in the use of electricity and natural gas during its operational phase. Electricity would be used to provide power to the light rail vehicles and lighting, while natural gas would be used to heat the facility where light rail vehicles are maintained.

The GHG emissions associated with consumption of electricity and natural gas were quantified in the 2014 Subsequent IS/MND, which concluded that the net effect of the approved project would be a benefit with respect to climate change in 2035, because the reduction in single-occupancy vehicle-related GHG emissions would be greater than any increases in energy consumption-related GHG emissions. The 2014 Subsequent IS/MND also concluded that for the No Ocala Station option in analysis year 2018, there would be a net increase in GHG emissions, but by 2035 the net effect would be negative GHG emissions. The largest increase in electricity- and natural gas-related emissions from the approved project relative to no-build conditions was 2,029 metric tons of CO₂e per year.³

The proposed aerial guideway would allow the light rail vehicles to avoid traffic signal delay that would occur at intersections for an at-grade alignment. Thus, the proposed changes would eliminate the need for additional energy required for light vehicle acceleration at intersections and would operate more efficiently and with lower energy consumption. Although the acceleration effect is anticipated to be minor, the proposed changes to the approved project would likely result in lower energy consumption and lower GHG emissions than the approved project.

Changes in criteria pollutant emissions from on-road vehicles from construction of the proposed changes to the approved project were quantified using VMT data and the EMFAC2017 database of emission factors. Annual changes in GHG emissions from on-

³ From Table 3.2-2 in the 2014 Subsequent IS/MND, 1,888 metric tons of electricity-related emissions plus 141 metric tons of natural gas-related emissions equals 2,029 metric tons.

road vehicles shown in Table 5.4-6 were quantified using the same method,⁴ and the results follow the same trend as the criteria pollutant emissions (net decrease in GHG emissions from the proposed changes to the approved project in 2017, net increase in 2023, and net decrease in 2043). Table 5.4-6 also shows the total GHG emissions including electricity and natural gas-related emissions.

Table 5.4-6 Summary of Operational GHG Emissions (Existing [2017] Year, Year 2023, and Year 2043)

Year	On-Road Emissions				Total with Energy Emissions ¹
	CO ₂	CH ₄	N ₂ O	CO ₂ e	CO ₂ e
Existing Plus Project Scenario (2017)					
Annual Emissions (metric tons/year) ²	-96	> -0.01	-0.01	-97	1,932
Project Scenario Relative to No Project in 2023					
Annual Emissions (metric tons/year) ²	3,680	0.1	0.2	3,733	5,762
Project Scenario Relative to No Project in 2043					
Annual Emissions (metric tons/year) ²	-26,568	-0.3	-1.3	-26,964	-24,935

Notes:

¹ From Table 3.2-2 in the 2014 Subsequent IS/MND, 1,888 metric tons of electricity-related emissions plus 141 metric tons of natural gas-related emissions equals 2,029 metric tons CO₂e. This amount of emissions is the highest value for any of the alternatives for the approved project. As discussed above, the elevated guideway (i.e. a proposed change to the approved project) would likely result in less energy consumption than the approved project’s partial-elevated alternatives. Thus, these energy-related GHG emissions represent a worst-case estimate.

² Daily GHG emissions were converted into annual emissions by multiplying by a standard factor of 347 days per year, to account for reduced volumes on weekends.

- CO₂ = carbon dioxide
- CH₄ = methane
- N₂O = nitrous oxide
- CO₂e = carbon dioxide equivalent

Sources: Vehicle miles traveled data: Hexagon 2018. Emission factors from EMFAC2017 (California Air Resources Board 2018b) are included in Attachment F.

As shown in Table 5.4-6, the proposed changes to the approved project would result in an initial decrease in traffic-related GHG emissions, but with the addition of the energy consumption emissions (as a worst-case scenario, energy-related GHG emissions are assumed to be equal to the 2014 Subsequent IS/MND energy-related GHG emissions: 2,029 metric tons of CO₂e per year), the net effect of the proposed changes to the approved project would result in a total GHG emission increase in 2017 relative to existing conditions. GHG emissions were not quantified in the 2005 Final EIR and 2007 Final SEIR, because those documents were prepared before it had become a necessity and common practice to evaluate GHG emissions quantitatively. In the 2014 Subsequent IS/MND, GHG emissions were quantified for two alternatives, the at-grade Light Rail

⁴ Emissions of CH₄ were quantified using emission factors from a separate module of EMFAC2017, for Santa Clara County only. Due to model-processing time, running the separate CH₄ module for the whole nine-county region was not feasible.

Alternative and the at-grade Light Rail Alternative with the No Ocala Station option. Compared to the options analyzed in the 2014 Subsequent IS/MND, in 2017, the proposed changes to the approved project would result in more GHG emissions than for the at-grade Light Rail Alternative in 2018, but less GHG emissions than the at-grade Light Rail Alternative with the No Ocala Station option in 2018.

Similarly, in 2023, VMT would increase (for the reasons discussed for criteria pollutants), and there would be an additional increase from energy-related GHG emissions. However, in 2043, VMT and GHG emissions would be net negative by a substantial amount (negative reductions greater than 24,000 metric tons), and the proposed changes to the approved project would result in a net benefit to GHG emissions. This result is consistent with both the at-grade and No Ocala Station options, but the proposed changes to the approved project would result in much larger negative reductions than the options in the 2014 Subsequent IS/MND.

Additionally, over 90% of the energy consumption-related GHG emissions are expected to result from electricity consumption. Any electricity supplied for the proposed changes to the approved project would be subject to Senate Bill (SB) 350, which requires that publicly- and investor-owned utilities procure 33% and 50% of electricity from qualified renewable energy sources by 2020 and 2030, respectively. One of the primary purposes of SB 350 is to support the state's climate change goals as codified in SB 32, which requires a statewide reduction in GHG emissions of 40% below 1990 levels by 2030. As such, the proposed changes to the approved project's energy consumption would become less carbon intensive in the future as utilities increase their renewable energy portfolios, and thus the proposed changes would be considered consistent with the state's plans and goals with respect to reducing GHG emissions (i.e., SB 32). Similarly, the net increase in GHG emissions in 2017 and 2023 would be reduced in future years by the Low Carbon Fuel Standard and other state regulations that have been adopted to support the goals of SB 32.

Overall, the proposed changes to the approved project would result in a net benefit to GHG emissions by 2043, because of the net decreases from reduced single-occupancy vehicle trips, and would result in a substantially greater net reduction in GHG emissions than identified in the 2014 Subsequent MND for the approved project in 2035. A net benefit to GHG emissions would support and be directly consistent with the state's overarching GHG emissions reduction goal to reduce emissions by 80% below 1990 levels by 2050. Thus, the proposed changes to the approved project would not result in new significant impacts or a substantial increase in the severity of previously identified significant impacts related to air quality and climate change.

IMPACTS ON AIR QUALITY EMISSIONS DURING CONSTRUCTION

The impact discussion below focuses on the proposed changes to the approved project in conjunction with the components of the approved project, because air quality and GHG impacts are inherently cumulative. The effects of air quality and GHG emissions do not occur in isolation from individual project components; as such, a comprehensive analysis of all activity that would occur is appropriate.

With respect to construction of the proposed changes to the approved project, the replacement of the at-grade track alignment with an aerial guideway between south of Story Road and north of Tully Road would include concrete columns supported on pile foundations. It is anticipated that construction of the aerial guideway sections between Capitol Avenue and Tully Road would require a traditional percussive or impact hammer to drive the foundation piles at each column location to support a cast-in-place pilecap. It is anticipated that about 6 to 12 piles would be driven per day for 3 to 6 days at each column site. The approximately 76 column sites would be spaced approximately 130 to 150 feet apart. The piles would require subsurface ground disturbance with a depth of up to approximately 100 feet. This depth is similar to the anticipated ground disturbance previously analyzed for the approved project. Overall, construction of the approved project with the proposed changes to the approved project would last for approximately five years. In addition, revisions to the Capitol Expressway roadway configuration could result in construction impacts.

Emissions of Criteria Pollutants and Greenhouse Gases (GHGs). For construction emissions, the 2005 Final EIR and the 2007 Final SEIR relied on BAAQMD’s 1999 CEQA Thresholds. At that time, the BAAQMD’s approach to CEQA analyses of construction impacts was to emphasize implementation of effective and comprehensive control measures rather than detailed quantification of emissions. As a result, the 2005 Final EIR and the 2007 Final SEIR did not quantify construction emissions. Subsequently, the BAAQMD adopted thresholds of significance on June 2, 2010 that included thresholds for construction emissions. Thus, the 2014 Subsequent IS/MND estimated construction emissions for the approved project, as summarized in Table 5.4-7. The analysis of the proposed changes to the approved project includes the emissions anticipated from the construction of approximately 2.4 miles of aerial guideway included in the approved project and the proposed change to the approved project, which would replace the at-grade track alignment with approximately 1.25 miles of aerial guideway from south of Story Road to north of Tully Road (hereafter referred to as “approved project plus proposed changes to the approved project”). All other construction work on the non-guideway components of the approved project, such as roadway widening, intersection curb work, utility relocation, station construction, and paving, are also included in the analysis. In other words, the impacts summarized in this analysis are inclusive of the activities that would occur for the approved project, in addition to the activities required to construct the proposed changes to the approved project.

Table 5.4-7 Summary of Maximum Daily Construction Criteria Pollutant Emissions (Year 2019 - 2023)¹

Maximum Daily Emissions	ROG	NO _x	CO	PM10		PM2.5	
				Dust	Exhaust	Dust	Exhaust
Approved Project (As of the 2014 Subsequent IS/MND)							
Light Rail Alternative ²	5.6	34.1	33.3	450.0	1.8	93.6	1.4
Light Rail Alternative, No Ocala Station Option ²	5.6	34.1	33.3	450.0	1.8	93.6	1.4

Maximum Daily Emissions	ROG	NO _x	CO	PM10		PM2.5	
				Dust	Exhaust	Dust	Exhaust
Approved Project (Including the Proposed Extension of the Aerial Guideway to Grade-Separate the Ocala Avenue and Cunningham Avenue Intersections)³							
Year 2019	1.6	18.5	22.2	0.3	0.6	0.1	0.5
Year 2020	2.4	27.2	32.1	1.0	0.8	0.3	0.7
Year 2021	2.3	24.5	31.7	0.8	0.7	0.2	0.7
Year 2022	2.1	21.6	31.2	1.2	0.6	0.3	0.6
Year 2023	0.4	2.1	19.3	0.3	< 0.1	0.1	< 0.1
Maximum Daily Emissions (lbs/day)	2.4	27.2	32.1	1.2	0.8	0.3	0.7
BAAQMD Daily Thresholds (lbs/day)	54	54	-	BMPs ⁴	82	BMPs ⁴	54
Exceed Thresholds?	No	No	No	N/A	No	N/A	No

Notes:

¹ Construction is expected to occur for approximately five years, beginning in 2019; however, it is possible that the construction period could be extended by one year, depending on whether lane closure restrictions during construction limit the amount of activity that can occur. Emissions for the five year construction period, as reflected in this table, would be a worst-case scenario, because an extended construction schedule would likely result in less daily activity. Thus, although it is possible that construction activity could occur in 2024 or 2025, daily emissions in those years would not exceed the worst-case daily emissions in this table.

² Maximum emissions that would occur for any individual construction phase (i.e., the drainage/utilities/sub-grade phase), as presented in Table 3.18-1 in the 2014 Subsequent IS/MND.

³ This analysis includes the emissions anticipated from the construction of approximately 2.4 miles of aerial guideway included in the approved project and the proposed change to the approved project, which would replace the at-grade track alignment with approximately 1.25 miles of aerial guideway from south of Story Road to north of Tully Road. It also includes other, non-guideway construction work, such as roadway widening, intersection curb work, utility relocation, station construction, and paving.⁴ BMPs = best management practices

Source: ICF, 2018. Construction modeling conducted with CalEEMod and project-specific construction information. See Attachment F for construction assumptions and CalEEMod outputs.

Construction of the aerial guideway would result in changes to the construction equipment and activity that were evaluated for the approved project. As such, the criteria pollutants and GHG emissions that would occur from construction of the proposed changes to the approved project were quantified and evaluated relative to the applicable thresholds adopted by BAAQMD. Construction emissions were modeled using the California Emissions Estimator Model (CalEEMod) version 2016.3.2 and detailed construction equipment and activity data provided by VTA. According to VTA, construction equipment with engine horsepower less than 175 would be equipped with engines that meet Tier 4 engine standards.⁵ All other equipment with engine horsepower 175 or greater were modeled using fleet averages for each engine tier as programmed in CalEEMod. VTA construction specifications will require Tier 4 engine standards in equipment less than 175 horsepower; however, in the event that this requirement cannot be met (e.g., for feasibility or constructability reasons), construction emissions and the

⁵ Tier 4 engine standards are the most stringent emissions standards set by the U.S. Environmental Protection Agency and must be met in new off-road equipment. Older equipment may have engines that are equal to less stringent, more emissions permissive requirements (i.e. Tier 3, Tier 2, etc.).

corresponding impacts would need to be reevaluated inclusive of the actual equipment that would be used. If emissions are higher than modeled in this SEIR-2 such that applicable thresholds may be exceeded, then remedial measures may be necessary, which could include but are not limited to the following: use of different pollution controls, scheduling of work, use of alternative fuels (biofuels, electricity, and/or purchase of air quality offsets). Construction phasing and activity assumptions used to evaluate emissions of construction criteria air pollutants and GHG are included in Attachment F.

Table 5.4-7 shows the maximum daily emissions of criteria pollutants from on-road vehicles (e.g., haul trucks, pick-up trucks, construction worker commute vehicles), off-road equipment (e.g., excavators, pile drivers), and fugitive dust from grading during construction of the approved project including the proposed extension of the aerial guideway to grade-separate the Ocala Avenue and Cunningham Avenue intersections as well as BAAQMD thresholds. As shown in Table 5.4-7, construction activities would not exceed BAAQMD's thresholds for any pollutants in any year. Overall, emissions of ROG, NO_x, CO, and exhaust PM₁₀ and PM_{2.5} as quantified in the 2014 Subsequent IS/MND are similar to the emissions estimates for the approved project plus the proposed changes to the approved project shown in Table 5.4-7. Emissions for the approved project plus the proposed changes to the approved project are lower than the emissions estimated in the 2014 Subsequent IS/MND and are below the BAAQMD threshold.⁶

The estimates of maximum daily emissions were developed using assumptions provided by VTA regarding the types of construction activities that could occur within a 'worst-case' day and the types of activities that could occur on a typical day, and the number of 'worst-case' days and typical days that would occur in one year of construction. A worst-case day involves the most emissions intensive activity, concrete pouring, occurring simultaneously with three other non-concrete pouring activities. The assumptions used to develop the worst-case day scenario are included in Attachment F.

Emissions of PM₁₀ and PM_{2.5} fugitive dust are substantially lower for the approved project plus the proposed changes to the approved project than for the approved project in the 2014 Subsequent IS/MND, however, BAAQMD does not have quantitative thresholds for fugitive dust. Instead, the threshold is based on compliance with best management practices (BMPs). Unmitigated fugitive dust could adversely affect local and regional PM₁₀ and PM_{2.5} levels, which would result in health impairment due to the inhalation of dust. BAAQMD considers fugitive dust emissions to be significant without implementation of BMPs. Thus, the approved project plus the proposed changes to the approved project could result in fugitive dust emissions impacts.

Table 5.4-8 shows the GHG emissions associated with construction of the approved project plus the proposed changes to the approved project. As shown in Table 5.4-8, construction emissions for the approved project were estimated to be between 4,006 and

⁶ The reason for the differences in estimated emissions in the results between the analysis performed for the SEIR-2 and the analysis performed for the 2014 Subsequent IS/MND is due to changes in the methodologies used for each analysis. The analysis in the SEIR-2 uses construction data specific to the proposed changes to the approved project, whereas the analysis in the 2014 Subsequent IS/MND used a more generalized approach and largely model-default assumptions.

4,146 total metric tons of CO₂ per year depending on the alternative,⁷ and construction of the approved project plus proposed changes to the approved project would emit 2,302 metric tons of CO₂e during the entire construction period. As discussed above, there are methodology differences between the previous estimate of emissions for the approved project and the current estimate for the approved project plus the proposed changes. As such, the approved project plus the proposed changes to the approved project would result in a smaller amount of GHG emissions than the previous estimate of GHG emissions for the approved project. BAAQMD’s 2017 CEQA Guidelines do not identify a GHG emission threshold for construction-related emissions. However, the CEQA Guidelines do recommend implementation of BMPs to help control and reduce GHG emissions.

Table 5.4-8 Summary of Annual Construction GHG Emissions (Year 2019 – 2023)

Annual Emissions	CO _e ²	Other ³	CO ₂ e ⁴
Approved Project (As of the 2014 Subsequent IS/MND)			
Light Rail Alternative ⁵	4,146	-	-
Light Rail Alternative, No Ocala Station Option ⁵	4,006	-	-
Approved Project (Including the Proposed Extension of the Aerial Guideway to Grade-Separate the Ocala Avenue and Cunningham Avenue Intersections)⁶			
2019	300	< 1	302
2020	565	< 1	568
2021	788	< 1	791
2022	414	< 1	416
2023	223	< 1	225
Total Combined Emissions	2,290	< 1	2,302

Notes:

¹ Construction is expected to occur for approximately five years, beginning in 2019; however, it is possible that the construction period could be extended by one year, depending on whether lane closure restrictions during construction limit the amount of activity that can occur. Emissions for the five year construction period, as reflected in this table, would be a worst-case scenario, because an extended construction schedule would likely result in less daily activity. Thus, although it is possible that construction activity could occur in 2024 or 2025, daily emissions in those years would not exceed the worst-case daily emissions in this table.

² Carbon dioxide

³ Includes CH₄ and N₂O emissions.

⁴ Carbon dioxide equivalent

⁷ The model used to estimate GHG emissions in the 2014 Subsequent IS/MND, the Sacramento Metropolitan Air Quality Management District Road Construction Emissions Model (RCEM), only calculated emissions in terms of CO₂, not CO₂e. The RCEM is a spreadsheet-based model designed for road construction and linear projects and estimates criteria pollutant and GHG emissions based on a project’s length and area, the type of project, and other generalized information. The RCEM is best suited for projects when the availability of detailed construction information is limited.

⁵ Total CO₂ that would occur for the approved project, as presented in Table 3.18-1 in the 2014 Subsequent IS/MND. The model used to estimate GHG emissions in the 2014 Subsequent IS/MND only calculated emissions in terms of CO₂, not CO₂e.

⁶ This analysis includes the emissions anticipated from the construction of approximately 2.4 miles of aerial guideway included in the approved project and the proposed change to the approved project, which would replace the at-grade track alignment with approximately 1.25 miles of aerial guideway from south of Story Road to north of Tully Road. It also includes other, non-guideway construction work, such as roadway widening, intersection curb work, utility relocation, station construction, and paving.

Sources: ICF, 2018. Construction modeling conducted with CalEEMod and project-specific construction information for the proposed changes to the approved project. See Attachment F for construction assumptions and CalEEMod outputs.

Impact: The following impact from the 2005 Final EIR would still apply to the proposed changes to the approved project: AQ (CON)-1: (Temporary Increase in Construction-Related Emissions during Grading and Construction Activities).

Mitigation: The following mitigation measures identified in the 2005 Final EIR and 2014 Subsequent IS/MND would still apply to the proposed changes to the approved project: AQ (CON)-1 (BAAQMD’s BMPs to reduce particulate matter emissions from construction activities) and AQ (CON)-2 (BAAQMD’s BMPs to reduce GHG emissions from construction equipment). Mitigation Measure AQ (CON)-1 has been revised to be consistent with the BMPs in the 2017 CEQA Guidelines:

Mitigation Measure AQ (CON)-1

In accordance with the BAAQMD’s current CEQA guidelines (2017), the project applicant shall implement the following BAAQMD-recommended basic control measures to reduce particulate matter emissions from construction activities. Additional control measures (including watering, washing, and other control measures) as detailed in the 2017 BAAQMD CEQA guidelines (see Additional Construction Mitigation Measures), would further reduce particulate matter emissions and should be implemented when feasible.

- All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
- All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
- All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
- All vehicle speeds on unpaved roads shall be limited to 15 mph.

- All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
- Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.
- All construction equipment shall be maintained and properly tuned in accordance with manufacturer’s specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.
- Post a publicly visible sign with the telephone number and person to contact at the Lead Agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District’s phone number shall also be visible to ensure compliance with applicable regulations.

Mitigation Measure AQ (CON)-2

The project applicant shall implement, to the extent feasible, the BAAQMD’s BMPs to reduce GHG emissions from construction equipment. These BMPs are outlined in their 2010 CEQA Guidelines.

- Alternative-fueled (e.g., biodiesel, electric) construction vehicles/equipment of at least 15 percent of the fleet;
- Local building materials of at least 10 percent; and
- Recycle at least 50 percent of construction waste or demolition materials.

Inclusion of these mitigation measures would reduce this impact to “Less than Significant.”

Mitigation Measure AQ (CON)-3

Tier 3 or 4 equipment shall be used to further reduce construction-related emissions where possible.

Less-than-significant impact with mitigation.

Exposure of Sensitive Receptors to Substantial Pollutant Concentrations. An evaluation of pollutant concentration exposure on sensitive receptors was not conducted in the 2005 Final EIR, 2007 Final SEIR, or the 2014 Subsequent IS/MND.

Construction of the approved project plus the proposed changes to the approved project would emit PM_{2.5} and diesel particulate matter (DPM), resulting in the exposure of nearby existing sensitive receptors to increased pollutant concentrations and health risks associated with DPM. As such, a health risk assessment (HRA) was conducted to evaluate the potential health effects associated with the approved project plus the proposed changes to the approved project.⁸ EPA’s AERMOD dispersion model was used to predict hourly PM_{2.5} and exhaust DPM concentrations at sensitive land uses; DPM is assumed to be PM_{2.5} exhaust from diesel equipment only. Estimates of project-level cancer risk, non-cancer hazard index, and annual PM_{2.5} concentrations were based on the annual concentrations from AERMOD, anticipated construction durations, and accepted OEHHA and BAAQMD default values (California Office of Environmental Health Hazard Assessment 2015 & Bay Area Air Quality Management District 2017). The risk calculations incorporate OEHHA’s recent guidance update, which includes age-specific factors to take into account the increased sensitivity to carcinogens during early-in-life exposure.

There are many sensitive receptors located along Capitol Expressway near where construction would occur, most of which are single- or multi-family residences. The sensitive receptors that were estimated to experience the highest pollutant concentrations are the various single-family residences located near the intersection of South Capitol Avenue and Capitol Expressway (specifically the residences along Highwood Drive) and the residences near the intersection of Ocala Avenue and Capitol Expressway (specifically the residences along the western portion of Home Gate Drive). Other residential receptors that are directly adjacent to Capitol Expressway would be exposed to pollutant concentrations from construction; however, the maximum risk is expected at residences along Highwood Drive. Exposures of pollutant concentrations on other types of sensitive receptors, including recreational receptors and school receptors, were also modeled.

Table 5.4-9 shows the PM_{2.5} concentration, non-cancer hazard index, and increased cancer risk values modeled for construction of the approved project plus the proposed changes to the approved project. The exposure of all receptor types to pollutant concentrations during construction was assessed by modeling PM_{2.5} and DPM concentrations at the sensitive receptor locations based on the construction emissions generated by the approved project plus the proposed changes to the approved project (see Table 5.4-7). Construction of the approved project plus the proposed changes to the approved project would not result in PM_{2.5} concentrations, hazard index or increased cancer risk values in excess of BAAQMD’s threshold. As such, there would be no unacceptable increase in risks or pollutant concentrations based on BAAQMD’s criteria.

⁸ An HRA is an analysis in which human exposure to toxic substances is estimated and considered together with information regarding the toxic potency of the substances to provide quantitative estimates of health risks.

Table 5.4-9 PM2.5 Concentration, Non-Cancer Hazard Index, and Increased Cancer Risk from Construction

Sensitive Receptor	Maximum Annual PM2.5 Concentration (µg/m³)	Non-Cancer Hazard Index	Increased Cancer Risk (per million)
Residential	< 0.1	< 0.1	4.9
School	< 0.1	< 0.1	0.3
Recreational	< 0.1	< 0.1	0.1
BAAQMD Project-Level Threshold	0.3	1.0	10.0

Source: Dispersion and health risk modeling conducted with AERMOD. See Attachment F for further calculation details.

Impact: Based on the analysis above, the proposed changes to the approved project would not result in new significant impacts or a substantial increase in the severity of previously identified significant impacts related to substantial pollutant concentrations.

Mitigation: None required. This impact is “Less than Significant.”

Less-than-significant construction impact. No mitigation required.

CUMULATIVE IMPACTS

This cumulative analysis examines the effects of the proposed changes to the approved project, in combination with other current projects, probable future projects, and projected future growth within the region.

Operational Criteria Pollutant Emissions. With respect to the emissions of criteria air pollutants, BAAQMD has identified project-level thresholds to evaluate criteria pollutant impacts. In developing these thresholds, BAAQMD considered levels at which project emissions would be cumulatively considerable. As noted in the district’s CEQA Guidelines (Bay Air Quality Management District 2017a):

In developing thresholds of significance for air pollutants, BAAQMD considered the emission levels for which a project’s individual emissions would be cumulatively considerable. If a project exceeds the identified significance thresholds, its emissions would be cumulatively considerable, resulting in significant adverse air quality impacts to the region’s existing air quality conditions. Therefore, additional analysis to assess cumulative impacts is unnecessary.

Therefore, the criteria pollutant thresholds presented in Table 5.4-3 represent the maximum emissions the proposed changes to the approved project may generate before

contributing to a cumulative impact on regional air quality. Consequently, because operational emissions associated with the proposed changes to the approved project are expected to be net negative in 2017 and 2043, and below the applicable thresholds in 2023, operational emissions would not be cumulatively significant. Criteria pollutant emissions for the approved project were estimated to be below the BAAQMD's thresholds in the 2014 Subsequent IS/MND. The proposed changes to the approved project would not result in any impacts related to cumulative criteria pollutant emissions beyond the impacts previously identified and analyzed for the approved project.

CO Hot Spots. The project-level analysis above includes both project and non-project related traffic volumes and thus represents a cumulative CO hot spot analysis. The proposed changes to the approved project would result in lower CO concentrations than the approved project for all years at the Capitol Expressway and Story Road intersection. Additionally, there would be no exceedances of the CAAQS.

GHG Emissions. GHG emissions are fundamentally a cumulative impact issue because no single project would result in sufficient GHG emissions to affect global warming or climate change in isolation. As such, the project-level discussion of GHG emissions is a cumulative impact analysis, and cumulative impacts are not discussed further here.

Operational Pollutant Concentrations/Toxic Air Contaminants. The potential cumulative pollutant concentrations/toxic air contaminants impacts of the approved project were not previously analyzed in the 2005 Final EIR, the 2007 Final SEIR, or the 2014 Subsequent IS/MND. Because there are non-project-related traffic volumes on the roadways that would also contribute to pollutant concentrations, the combined effect of the 5,109 vehicle increase plus the background, non-project related traffic volumes on Ocala Avenue and Capitol Expressway are evaluated as a cumulative impact.

As discussed previously, in 2043 on Ocala Avenue, vehicle volumes would increase by approximately 5,109 vehicles per day west of Capitol Expressway and by approximately 1,574 vehicles east of Capitol Expressway. While the increase in traffic volumes associated with the proposed changes to the approved project would be comparatively small and would not result in substantial toxic air contaminant concentrations, the cumulative effect of the increases plus non-project related traffic volumes could result in health risks or PM_{2.5} concentrations that exceed the BAAQMD's cumulative risk thresholds.

To evaluate the health risks associated with on-road traffic, the BAAQMD recommends the use of their roadway screening calculator. The roadway screening calculator quantifies cancer risk and PM_{2.5} concentrations based on basic details about the roadway (including the roadway directional orientation, direction and distance of the nearest sensitive receptor to the roadway, and the average daily traffic volumes). The roadway screening calculator uses exhaust emissions factor from an older version of CARB's emission factor database, EMFAC2011, for an analysis year of 2014.

To evaluate the health risks associated with the traffic volume increases associated with the proposed changes to the approved project in 2043, a scaling factor of 0.29 is

appropriate to apply to the screening calculator values to account for the substantially cleaner vehicles that will be present in 2043 relative to the calculator’s baseline year of 2014.⁹ The scaling factor also takes into account the increased number of vehicles that will be present in 2043. Finally, a second scaling factor of 1.3744 is appropriate to apply to the cancer risk values (not the PM2.5 concentrations) from the screening calculator to account for updates to age-specific exposure factors not included in the calculator from the California Office of Environmental Health Hazard Assessment’s updated 2015 health risk assessment guidance (California Office of Environmental Health Hazard Assessment 2015).

Table 5.4-10 shows the cancer risk and PM2.5 concentration values for a maximally exposed sensitive receptor located at 1756 Home Gate Drive. The residence at this address is considered maximally exposed because it would be exposed to pollutant concentrations from increased traffic on Ocala Avenue due to the proposed changes to the approved project. The residence is also exposed to traffic on Capitol Expressway. Although the proposed changes to the approved project would reduce traffic volumes on Capitol Expressway relative to no project conditions, pollutant concentrations from traffic on Capitol Expressway would contribute cumulatively to the increased concentrations on Ocala Avenue. As such, Table 5.4-10 shows the cumulative sources of roadway-related concentration that could affect the maximally exposed receptor.

As shown in the Table 5.4-10, the maximally exposed sensitive receptor would not be exposed to cancer risks or PM2.5 concentrations that exceed the cumulative thresholds set by BAAQMD. As such, the cumulative effect of the proposed changes to the approved project plus background sources would not lead to substantial pollutant concentrations and would not result in a significant cumulative impact.

Table 5.4-10 Cancer Risk and PM2.5 Concentrations from Roadway Sources with the Proposed Changes to the Approved Project

Roadway	Average Daily Traffic with Proposed Changes to Approved Project	Cancer Risk (per million)¹	PM2.5 Concentration (µg/m³)¹
Ocala Avenue - East of Capitol Expressway ²	26,063	6.89	0.1
Capitol Expressway at Ocala Avenue ³	63,796	22.94	0.4
Combined Cumulative Exposure	-	29.83	0.5
BAAQMD Cumulative Threshold ⁴		100	0.8

⁹ Two separate scaling factors were applied to the cancer risk values. The first scaling factor of 0.29, is a weighted-scaling factor of PM2.5 exhaust emission rates that accounts for lower-emitting vehicles in future years and increased number of vehicles in future years. The second scaling factor of 1.3744 was applied to account for updated 2015 California Office of Environmental Health Hazard Assessment guidance that was published subsequent to the BAAQMD screening calculator. Only the first scaling factor was applied to PM2.5 concentrations.

Notes:

¹ Two separate scaling factors were applied to the cancer risk values. The first scaling factor of 0.29, is a weighted-scaling factor of PM_{2.5} exhaust emission rates that accounts for lower-emitting vehicles in future years and increased number of vehicles in future years. The second scaling factor of 1.3744 was applied to account for updated 2015 California Office of Environmental Health Hazard Assessment guidance that was published subsequent to the BAAQMD screening calculator. Only the first scaling factor was applied to PM_{2.5} concentrations.

² This roadway was inputted into the BAAQMD screening calculator as an east-west oriented roadway, with the nearest sensitive receptor (1756 Home Gate Drive) located approximately 20 feet south of the roadway.

³ This roadway was inputted into the BAAQMD screening calculator as north-south oriented roadway, with the nearest sensitive receptor (1756 Home Gate Drive) located approximately 20 feet east of the roadway.

⁴ Bay Area Air Quality Management District 2017.

Sources:

Intersection volume data – Tse pers. comm.

Emission factors from EMFAC2017 (California Air Resources Board 2018b) are included in Attachment F.

BAAQMD Roadway Screening Calculator – Bay Area Air Quality Management District 2015.

Construction Criteria Pollutant Emissions. As discussed for cumulative operational criteria pollutant emissions, BAAQMD has identified project-level thresholds to evaluate criteria pollutant impacts that are also considered cumulative thresholds. Because construction criteria pollutant emissions associated with the proposed changes to the approved project are expected to be below the applicable thresholds in all years of construction, construction emissions would not be cumulatively significant. Criteria pollutant emissions for the approved project were estimated to be below the BAAQMD's thresholds in the 2014 Subsequent IS/MND. The proposed changes to the approved project would not result in any impacts related to cumulative criteria pollutant emissions beyond the impacts previously identified and analyzed for the approved project.

Cumulative Air Quality Impacts During Construction. A cumulative evaluation of pollutant concentration exposure on sensitive receptors was not conducted in the 2005 Final EIR, 2007 Final SEIR, or the 2014 Subsequent IS/MND.

In addition to project-level impacts, BAAQMD recommends that projects evaluate the cumulative effect of project impacts plus all background sources of emissions. BAAQMD identified separate cumulative-level risk thresholds for cumulative analyses. For a cumulative analysis of construction of the approved project plus proposed changes to the approved project, background sources of toxic air contaminants were identified using resources from BAAQMD.¹⁰ As previously discussed, the sensitive receptors that would experience the maximum pollutant concentrations from the approved project plus the proposed changes to the approved project are located near the intersection of South Capitol Avenue and Capitol Expressway as well as the intersection of Ocala Avenue and Capitol Expressway. Residences in these locations are directly adjacent to Capitol Expressway, with the closest residential locations (which are the backyards) as close as 15 feet from the edge of Capitol Expressway. Some residences along the eastern side of

¹⁰ The resources used from BAAQMD include the Roadway Screening Analysis Calculator (for evaluating all roadway risks and PM_{2.5} concentrations), and the Stationary Source Screening Analysis Tool (for evaluating all existing stationary sources of TACs the corresponding risks and PM_{2.5} concentrations). These tools can be found at the following link: <http://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/ceqa-tools>.

Capitol Expressway are located as close as 20 feet to the roadway edge and also located as close as 20 feet to the edge of a second roadway (i.e., Ocala Avenue, Cunningham Avenue); these sensitive receptors may be exposed to elevated background concentrations of pollutants from roadway traffic. Thus, for the cumulative analysis, four residential sensitive receptors were evaluated:

- Various residences within the area near Ocala Avenue and Capitol Expressway, which would experience a contribution from the approved project plus proposed changes to the approved project and elevated background concentrations of pollutants from roadway traffic);
- Residential exposure near the corner of Story Road and Capitol Expressway (which would experience a contribution from the approved project plus proposed changes to the approved project and elevated background concentrations of pollutants from roadway traffic);
- Residential exposure near the corner of Cunningham Avenue and Capitol Expressway (which would experience a contribution from the approved project plus proposed changes to the approved project and elevated background concentrations of pollutants from roadway traffic); and
- Residential exposure near the corner of South Capitol Avenue and Capitol Expressway, including the maximally exposed receptor location along Highwood Drive (which would experience a contribution from the approved project plus proposed changes to the approved project and elevated background concentrations of pollutants from roadway traffic).

Table 5.4-11 shows the cumulative PM2.5 concentration, non-cancer hazard index, and increased cancer risk values evaluated at the four residential sensitive receptors.

Table 5.4-11 Cumulative PM2.5 Concentration, Non-Cancer Hazard Index, and Increased Cancer Risk from Construction

Sensitive Receptor	Maximum Annual PM2.5 Concentration (µg/m ³)	Non-Cancer Hazard Index	Increased Cancer Risk (per million)
1. Contribution from Existing Sources¹			
Residential (Corner of Story Road and Capitol Expressway)	0.57	0.01	38.83
Residential (Corner of Ocala Avenue and Capitol Expressway)	0.80	< 0.01	47.67
Residential (Corner of Cunningham Avenue and Capitol Expressway)	0.94	< 0.01	53.63

Sensitive Receptor	Maximum Annual PM2.5 Concentration (µg/m³)	Non-Cancer Hazard Index	Increased Cancer Risk (per million)
Residential (Corner of South Capitol Avenue and Capitol Expressway)	0.49	< 0.01	28.69
2. Contribution from Construction of Approved Project Plus Proposed Changes			
Residential (Corner of Story Road and Capitol Expressway)	0.02	< 0.01	4.58
Residential (Corner of Ocala Avenue and Capitol Expressway)	0.02	< 0.01	4.86
Residential (Corner of Cunningham Avenue and Capitol Expressway)	0.01	< 0.01	3.90
Residential (Corner of South Capitol Avenue and Capitol Expressway)	0.02	< 0.01	4.94
3. Cumulative Totals (Sum of 1 and 2 above)			
Residential (Corner of Story Road and Capitol Expressway)	0.59	0.01	43.41
Residential (Corner of Ocala Avenue and Capitol Expressway)	0.81	< 0.01	52.53
Residential (Corner of Cunningham Avenue and Capitol Expressway)	0.95	< 0.01	57.53
Residential (Corner of South Capitol Avenue and Capitol Expressway)	0.51	< 0.01	33.63
BAAQMD Cumulative Threshold	0.8	10.0	100

Notes:

Exceedances of the thresholds shown in bold

Source: Existing contributions of toxic air contaminants include stationary sources and roadway traffic in the vicinity of the receptors. Stationary source data were obtained from the BAAQMD’s stationary sources tool. Roadway risks were calculated using the BAAQMD’s Roadway Screening Analysis tool (BAAQMD 2012 and 2015). Because the Roadway Screening Analysis tool uses 2014 vehicle emission factors, risk values were scaled by 65% to account for cleaner vehicles in 2020 (when construction will occur) and higher vehicle volumes in 2020. For more detail on the background risks, refer to Attachment F.

As shown in Table 5.4-11, the cumulative hazard index and increased cancer risk values at all sensitive receptors would be below the BAAQMD’s threshold. However, cumulative PM2.5 concentrations would be elevated at the receptors located near the corners of Ocala Avenue and Capitol Expressway and Cunningham Avenue and Capitol Expressway due to substantial sources of pollutant concentrations that currently exist in the area where the approved project plus the proposed changes to the approved project would occur. Even without the contribution of emissions from construction, existing PM2.5 concentrations near these sensitive receptors are at or exceed the BAAQMD’s threshold because Capitol Expressway and its cross streets are heavily traveled roadways, with residences located in close proximity to the roadway edge. The approved project

plus the proposed changes to the approved project would cause further exceedances of existing pollutant concentrations, worsening the cumulative exposure of sensitive receptors to toxic air contaminant concentrations. Although the contribution of the approved project plus the proposed changes to the approved project to existing concentrations would not be substantial (approximately 6% at the locations where concentrations are at or exceed $0.8 \mu\text{g}/\text{m}^3$), there would nevertheless be a worsening of an already cumulatively significant impact. The approved project plus the proposed changes to the approved project would result in temporarily worsened concentrations of pollutants; however, the proposed changes would also result in lower vehicle volumes in future years on nearby all roadways. Thus, after construction is completed, the approved project plus the proposed changes to the approved project would likely result in reduced pollutant concentrations from existing roadway traffic due to increased light rail usage. Nevertheless, the approved project plus the proposed changes to the approved project would result in a cumulatively significant contribution during the temporary construction period.

Impact: Based on the analysis above, the proposed changes to the approved project would result in new significant impacts or a substantial increase in the severity of previously identified significant cumulative impacts related to pollutant concentration exposure on sensitive receptors during construction. This new impact is referred to as AQ (CON)-3 (Cumulative PM_{2.5} Concentrations During Construction).

Mitigation: The following mitigation measures identified in the 2005 Final EIR would still apply to the proposed changes to the approved project: AQ (CON)-1 (BAAQMD’s BMPs to reduce particulate matter emissions from construction activities) and AQ (CON)-2 (BAAQMD’s BMPs to reduce GHG emissions from construction equipment). In addition, Mitigation Measure AQ (CON)-3 would require that Tier 3 or Tier 4 equipment be used to further reduce construction-related emissions where possible. Even with inclusion of these mitigation measures, this impact would be “Significant and Unavoidable.” Based on the analysis above, the proposed changes to the approved project would result in new significant impacts or a substantial increase in the severity of previously identified significant cumulative impacts related to pollutant concentration exposure on sensitive receptors during construction.

Significant and unavoidable cumulative impact, even with mitigation.

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Section 5.5 Construction

This section describes the potential construction impacts associated with the proposed changes to the approved project. This section supplements Section 4.19 of the 2005 Final EIR, Section 5.18 of the 2007 Final SEIR, and Section 3.18 of the 2014 Subsequent IS/MND. Mitigation measures are identified for impacts that exceed the significance thresholds included in the 2005 Final EIR.

Environmental Setting

The 2014 Subsequent IS/MND used the 2010 Bay Area Air Quality Management District (BAAQMD) CEQA Guidelines. As discussed in Chapter 3, *Proposed Design Changes*, the BAAQMD updated their CEQA Guidelines in May 2017. The 2017 CEQA Guidelines are used below to update best management practices (BMPs) for air quality; there have been no substantial changes to any air quality significance thresholds between the 2010 and 2017 guidelines.

The environmental setting for the other environmental topics remain unchanged since the 2014 Subsequent IS/MND.

Construction Duration and Scenario

Details regarding the proposed extension of the construction duration and modification to the construction scenario are included in Chapter 3, *Changes to the Approved Project, Changes in Circumstances, and Introduction of New Information*. Details regarding the nighttime construction scenario are provided below.

Noise-generating construction activities would be conducted during the allowable hours of construction as identified by the City of San Jose, where feasible. However, construction work may be necessary during night and early morning periods to minimize traffic disruption. The most disruptive construction activities that may take place during these periods are as follows:

- Cranes would be used to lift materials up to superstructure levels.
- Partial or complete intersection closures may take place where Capitol Expressway intersects Capitol Avenue, Story Road, Ocala Avenue, and Cunningham Avenue.
- The complete closure of one or more lanes in each travel direction (northbound and southbound) on Capitol Expressway may be needed for various construction activities.
- The Tully Road intersection may be closed for major lift work for the aerial structure.
- Construction activities for the pedestrian overcrossing at Story Road may take place over northbound and southbound Capitol Expressway.
- Other nighttime work may include bridge construction activities, roadway striping, startup and testing of equipment, and trenching for underground utilities.

Construction equipment that could be used during nighttime work includes cranes, backhoes, concrete trucks, concrete pumpers flatbed trucks, and other trucks and equipment. Nighttime lighting, engine noise, and truck back-up alarms could disrupt adjacent properties. Lane and intersection closures may cause roadway traffic disruptions; however, a traffic management plan (TMP) would be prepared to address traffic disruptions from project construction (Mitigation Measure TRN [CON]-2a). The TMP would include outreach to inform the public of the times and locations of upcoming construction, construction signage near and within the project area, and traffic control in the vicinity of construction activities. Temporary detours would be provided and access for emergency response vehicles would be maintained. In addition, should construction activities for the proposed project be limited to non-commuting hours, an increase of approximately one year would be anticipated for the duration of construction.

Environmental Impacts and Mitigation

AIR QUALITY AND GREENHOUSE GAS IMPACTS

Emissions of Criteria Pollutants and Greenhouse Gases (GHGs). For construction emissions, the 2005 Final EIR and the 2007 Final SEIR relied on the Bay Area Air Quality Management District's (BAAQMD) 1999 CEQA Thresholds. At that time, the BAAQMD's approach to CEQA analyses of construction impacts was to emphasize implementation of effective and comprehensive control measures rather than detailed quantification of emissions. As a result, the 2005 Final EIR and the 2007 Final SEIR did not quantify construction emissions. Subsequently, the BAAQMD adopted thresholds of significance on June 2, 2010 that included thresholds for construction emissions. Thus, the 2014 Subsequent IS/MND estimated construction emissions for the approved project, as summarized in Table 5.4-7 in Section 5.4, *Air Quality and Climate Change*, of the SEIR-2.

Table 5.4-7 shows the maximum daily emissions of criteria pollutants from on-road vehicles (e.g., haul trucks, pick-up trucks, construction worker commute vehicles), off-road equipment (e.g., excavators, pile drivers), and fugitive dust from grading during construction of the approved project including the proposed extension of the aerial guideway to grade-separate the Ocala Avenue and Cunningham Avenue intersections as well as BAAQMD thresholds. As shown in Table 5.4-7, construction activities would not exceed BAAQMD's thresholds for any pollutants in any year. Overall, emissions of ROG, NO_x, CO, and exhaust PM₁₀ and PM_{2.5} as quantified in the 2014 Subsequent IS/MND are similar to the emissions estimates for the approved project plus the proposed changes to the approved project shown in Table 5.4-7. Emissions for the approved project plus the proposed changes to the approved project are lower than the emissions estimated in the 2014 Subsequent IS/MND and are below the BAAQMD threshold.¹

¹ The reason for the differences in estimated emissions in the results between the analysis performed for the SEIR-2 and the analysis performed for the 2014 Subsequent IS/MND is due to changes in the methodologies used for each analysis. The analysis in the SEIR-2 uses construction data specific to the proposed changes to the approved project,

Emissions of PM10 and PM2.5 fugitive dust are substantially lower for the approved project plus the proposed changes to the approved project than for the approved project in the 2014 Subsequent IS/MND, however, BAAQMD does not have quantitative thresholds for fugitive dust. Instead, the threshold is based on compliance with best management practices (BMPs). Unmitigated fugitive dust could adversely affect local and regional PM10 and PM2.5 levels, which would result in health impairment due to the inhalation of dust. BAAQMD considers fugitive dust emissions to be significant without implementation of BMPs. Thus, the approved project plus the proposed changes to the approved project could result in fugitive dust emissions impacts.

Table 5.4-8 in Section 5.4, *Air Quality and Climate Change*, of the SEIR-2 shows the GHG emissions associated with construction of the approved project plus the proposed changes to the approved project. As shown in Table 5.4-8, construction emissions for the approved project were estimated to be between 4,006 and 4,146 total metric tons of CO₂ per year depending on the alternative,² and construction of the approved project plus proposed changes to the approved project would emit 2,302 metric tons of CO₂e during the entire construction period. The approved project plus the proposed changes to the approved project would result in a smaller amount of GHG emissions than the previous estimate of GHG emissions for the approved project. BAAQMD's 2017 CEQA Guidelines do not identify a GHG emission threshold for construction-related emissions. However, the CEQA Guidelines do recommend implementation of BMPs to help control and reduce GHG emissions.

Impact: The following impact from the 2005 Final EIR would still apply to the proposed changes to the approved project: AQ (CON)-1: (Temporary Increase in Construction-Related Emissions during Grading and Construction Activities).

Mitigation: The following mitigation measures identified in the 2005 Final EIR and the 2014 Subsequent IS/MND would still apply to the proposed changes to the approved project: AQ (CON)-1 (BAAQMD's BMPs to reduce particulate matter emissions from construction activities) and AQ (CON)-2 (BAAQMD's BMPs to reduce GHG emissions from construction equipment). Mitigation Measure AQ (CON)-1 has been revised to be consistent with the BMPs in the 2017 CEQA Guidelines:

Mitigation Measure AQ (CON)-1

In accordance with the BAAQMD's current CEQA guidelines (2017), the project applicant shall implement the following BAAQMD-recommended basic control measures to reduce particulate matter emissions from construction activities. Additional control measures (including watering, washing, and other control measures) as detailed

whereas the analysis in the 2014 Subsequent IS/MND used a more generalized approach and largely model-default assumptions.

² The model used to estimate GHG emissions in the 2014 Subsequent IS/MND only calculated emissions in terms of CO₂, not CO₂e.

in the 2017 BAAQMD CEQA guidelines (see Additional Construction Mitigation Measures), would further reduce particulate matter emissions and should be implemented when feasible.

- All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
- All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
- All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
- All vehicle speeds on unpaved roads shall be limited to 15 mph.
- All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
- Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.
- All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.
- Post a publicly visible sign with the telephone number and person to contact at the Lead Agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations.

Mitigation Measure AQ (CON)-2

The project applicant shall implement, to the extent feasible, the BAAQMD's BMPs to reduce GHG emissions from construction equipment. These BMPs are outlined in their 2010 CEQA Guidelines.

- Alternative-fueled (e.g., biodiesel, electric) construction vehicles/equipment of at least 15 percent of the fleet;
- Local building materials of at least 10 percent; and

- Recycle at least 50 percent of construction waste or demolition materials.

Inclusion of these mitigation measures would reduce this impact to “Less than Significant.”

Mitigation Measure AQ (CON)-3

Tier 3 or 4 equipment shall be used to further reduce construction-related emissions where possible.

Less-than-significant construction impact with mitigation.

Exposure of Sensitive Receptors to Substantial Pollutant Concentrations. An evaluation of pollutant concentration exposure on sensitive receptors was not conducted in the 2005 Final EIR, 2007 Final SEIR, or the 2014 Subsequent IS/MND.

Table 5.4-9 in Section 5.4, *Air Quality and Climate Change*, of the SEIR-2 shows the PM_{2.5} concentration, non-cancer hazard index, and increased cancer risk values modeled for construction of the approved project plus the proposed changes to the approved project. The exposure of all receptor types to pollutant concentrations during construction was assessed by modeling PM_{2.5} and DPM concentrations at the sensitive receptor locations based on the construction emissions generated by the approved project plus the proposed changes to the approved project (see Table 5.4-7). Construction of the approved project plus the proposed changes to the approved project would not result in PM_{2.5} concentrations, hazard index or increased cancer risk values in excess of BAAQMD’s threshold. As such, there would be no unacceptable increase in risks or pollutant concentrations based on BAAQMD’s criteria.

Impact: Based on the analysis above, the proposed changes to the approved project would not result in new significant impacts or a substantial increase in the severity of previously identified significant impacts related to substantial pollutant concentrations. This impact is referred to as AQ (CON)-2.

Mitigation: None required. This impact is “Less than Significant.”

Less-than-significant construction impact. No mitigation required.

Cumulative Air Quality Impacts During Construction. A cumulative evaluation of pollutant concentration exposure on sensitive receptors was not conducted in the 2005 Final EIR, 2007 Final SEIR, or the 2014 Subsequent IS/MND.

Table 5.4-11 in Section 5.4, *Air Quality and Climate Change*, of the SEIR-2 shows the cumulative PM_{2.5} concentration, non-cancer hazard index, and increased cancer risk values evaluated at four residential sensitive receptors.

As shown in Table 5.4-11, the cumulative hazard index and increased cancer risk values at all sensitive receptors would be below the BAAQMD's threshold. However, cumulative PM_{2.5} concentrations would be elevated at the receptors located near the corners of Ocala Avenue and Capitol Expressway and Cunningham Avenue and Capitol Expressway due to substantial sources of pollutant concentrations that currently exist in the area where the approved project plus the proposed changes to the approved project would occur. Even without the contribution of emissions from construction, existing PM_{2.5} concentrations near these sensitive receptors are at or exceed the BAAQMD's threshold because Capitol Expressway and its cross streets are heavily traveled roadways, with residences located in close proximity to the roadway edge. The approved project plus the proposed changes to the approved project would cause further exceedances of existing pollutant concentrations, worsening the cumulative exposure of sensitive receptors to toxic air contaminant concentrations. Although the contribution of the approved project plus the proposed changes to the approved project to existing concentrations would not be substantial (approximately 6% at the locations where concentrations are at or exceed 0.8 µg/m³), there would nevertheless be a worsening of an already cumulatively significant impact. The approved project plus the proposed changes to the approved project would result in temporarily worsened concentrations of pollutants; however, the proposed changes would also result in lower vehicle volumes in future years on nearby all roadways. Thus, after construction is completed, the approved project plus the proposed changes to the approved project would likely result in reduced pollutant concentrations from existing roadway traffic due to increased light rail usage. Nevertheless, the approved project plus the proposed changes to the approved project would result in a cumulatively significant contribution during the temporary construction period.

Impact: Based on the analysis above, the proposed changes to the approved project would result in new significant impacts or a substantial increase in the severity of previously identified significant cumulative impacts related to pollutant concentration exposure on sensitive receptors during construction. This new impact is referred to as AQ (CON)-3 (Cumulative PM_{2.5} Concentrations During Construction).

Mitigation: The following mitigation measures identified in the 2005 Final EIR would still apply to the proposed changes to the approved project: AQ (CON)-1 (BAAQMD's BMPs to reduce particulate matter emissions from construction activities) and AQ (CON)-2 (BAAQMD's BMPs to reduce GHG emissions from construction equipment). In addition, Mitigation Measure AQ (CON)-3 would require that Tier 3 or Tier 4 equipment be used to further reduce construction-related emissions where possible. Even with inclusion of these mitigation measures, this impact would be "Significant and Unavoidable." Based on the analysis above, the proposed changes to the approved project would result in new significant impacts or a substantial increase in the severity of previously identified significant cumulative impacts related to pollutant concentration exposure on sensitive receptors during construction.

Significant and unavoidable cumulative construction impact, even with mitigation.

BIOLOGICAL RESOURCES IMPACTS

With inclusion of the mitigation measures identified below, impacts related biological resources during construction of the approved project would be less than significant.

Similar to the approved project, the vast majority of the impacts to biological resources that would result from the proposed changes to the approved project would be short-term and construction-related, especially the temporary disturbance of species and their habitats. The construction-related impacts on biological resources and the associated mitigation measures are summarized below and discussed in detail in Section 3.3, *Biological Resources*, of the Second Subsequent IS.

Impact: The following impacts from the 2005 Final EIR would still apply to the proposed changes to the approved project:

- BIO-7 (Permanent Loss of Biological Habitats or Disturbance to Inhabiting Species),
- BIO-14 (Temporary Disturbance of Nesting Raptors during Construction, Including Swallows),
- BIO-15 (Temporary Disturbance of Nesting Habitat for Migratory Birds, Including Swallows), and
- BIO-18 (Loss of Urban Trees).

The March 28, 2017 *Capitol Expressway Corridor Project – Biological Resources Update* determined that burrowing owls do not currently nest on or near the project corridor, and have not nested in the vicinity in three or more years. Thus, it is assumed that breeding burrowing owls are currently absent from the study area. As a result, the proposed changes to the approved project would not result in a significant impact on burrowing owl habitat. Ruderal habitat impacted by the proposed changes to the approved project is ostensibly suitable for the species, and it is possible that occasional migrant or wintering owls may roost or forage on the site. However, because burrowing owls are more abundant and widespread in the South Bay in winter than during the breeding season, suitable habitat for migrants and wintering owls is unlikely to limit South Bay burrowing owl populations. Therefore, impacts on potential, but unoccupied, burrowing owl habitat resulting from the proposed changes to the approved project would not adversely affect baseline regional burrowing owl populations. Thus, the compensatory mitigation for habitat impacts described in the 2005 Final EIR as part of Mitigation Measure BIO-7 is not necessary and the mitigation measure has been revised below accordingly. Nevertheless, ostensibly suitable habitat is

present within the project corridor, and there is some potential for burrowing owls to occur in the project corridor, at least as occasional migrants or winter visitors.

The 2005 Final EIR includes the western pond turtle in the discussion of special-status species that could occur in aquatic habitat, but indicates that the potential for its occurrence on the site is low. The Santa Clara Valley Habitat Plan maps the reach of Thompson Creek south and west of Lake Cunningham as “primary habitat” for the western pond turtle, however biologists did not observe any western pond turtles in either Thompson Creek or Silver Creek during surveys. Nevertheless, this species has the potential to occur in either creek. Western pond turtles are known to occur in permanent or ephemeral aquatic habitats such as rivers, streams, lakes, ponds, lagoons, and marshes, as well as artificial aquatic habitats such as reservoirs, stock ponds, gravel pits, and sewage treatment plants. Turtles use these aquatic habitats for both foraging and dispersing, with known dispersal distances along stream corridors of over 3.1 miles. Stagnant or slack-water relatively deep pools within these aquatic habitats that contain suitable basking and hiding spots (such as exposed and subsurface woody debris, exposed rocks, rooted or undercut banks, emergent vegetation, and branches at the water surface) are important habitat elements for this species, and western pond turtles seem to avoid aquatic habitats that lack these habitat elements. Although neither creek currently contains optimal habitat for the western pond turtle, some of the habitat elements preferred by western pond turtles are present and thus this species could occur here, at least in low numbers. The magnitude of anticipated impacts on this species due to the proposed changes to the approved project would be very low, if at all, given the low number of western pond turtles that may be present in or near the project area. Nevertheless, Mitigation Measure BIO-12 would ensure that impacts to individual western pond turtles do not occur during project construction.

Mitigation: The following mitigation measures identified in the 2005 Final EIR would still apply to the proposed changes to the approved project:

- BIO-7 (Conduct Preconstruction Surveys for Nesting and Wintering Western Burrowing Owls and Implement Measures to Avoid or Minimize Adverse Effects if Owls Are Present),
- BIO-12 (Conduct Preconstruction Surveys for Western Pond Turtles and Implement Measures to Avoid or Minimize Adverse Effects if Turtles are Present),
- BIO-14a (Conduct a Preconstruction Survey for Nesting Raptors),
- BIO-14b (Avoid Active Raptor Nests during the Nesting Season),

- Mitigation Measure BIO-15 (Conduct Preconstruction Surveys for Nesting Migratory Birds),
- BIO-18a (Conduct a Tree Survey to Assess Tree Resources Impacted), and
- BIO-18b (Replace Trees).

Mitigation Measure BIO-7 has been revised based on the recommendations in the March 28, 2017 *Capitol Expressway Corridor Project – Biological Resources Update*. In addition, Mitigation Measures BIO-12, BIO-14a, and BIO-15 have been modified to reflect current conditions as well as current biological resources standards and recommendations by the California Department of Fish and Wildlife (CDFW).

Mitigation Measure BIO-7

Preconstruction surveys for Western burrowing owls shall be conducted by a qualified ornithologist before any development within the habitat identified in Figure 3.3-1. These surveys, which shall include any potentially suitable habitat within 250 feet of construction areas, shall be conducted no more than 30 days before the start of site grading, regardless of the time of year in which grading occurs. If breeding owls are located on or immediately adjacent to the site, a construction-free buffer zone (typically 250 feet) around the active burrow must be established as determined by the ornithologist in consultation with CDFW. No activities, including grading or other construction work or relocation of owls, would proceed that may disturb breeding owls. If owls are resident within 250 feet of the Project Area during the nonbreeding season a qualified ornithologist, in consultation with CDFW, shall passively relocate (evict) the owls to avoid the loss of any individuals if the owls are close enough that they or their burrows could potentially be harmed by associated activities.

Mitigation Measure BIO-12

Preconstruction surveys for western pond turtles shall be conducted by a qualified biologist just prior to (i.e., the day of) initiation of any construction in non-developed habitat that occurs within 100 feet of Thompson Creek. If any individual western pond turtles are detected within the project's impact areas, the individuals shall be moved to suitable habitat within the nearest creek, at least 300 feet outside the project area.

Mitigation Measure BIO-14a

Preconstruction surveys for nesting raptors will be conducted by a qualified ornithologist to ensure that no raptor nests will be disturbed during implementation of the light rail alternative. This survey shall be conducted within 48 hours of construction activity during the breeding season. For nesting raptors, the breeding season is from January 1 to August 31. During this survey, the ornithologist would inspect all trees and suitable grassland habitat in and immediately adjacent to the affected areas for raptor nests. If the survey does not identify any nesting special-status raptor species in the area potentially affected by the proposed activity, no further mitigation is required.

Mitigation Measure BIO-15

If construction activities are scheduled to occur during the migratory bird breeding season (February 1-August 31), a preconstruction survey for nesting migratory birds shall be conducted prior to commencement of construction activities. If an active nest is identified within the study area, construction activities will stop (only where a nest is located) until the young fledge or the nest is removed in accordance with CDFW approval.

Inclusion of these mitigation measures would reduce these impacts to “Less than Significant.”

Less-than-significant construction impact with mitigation.

COMMUNITY SERVICES IMPACTS

With inclusion of the mitigation measures identified below, impacts related to community services during construction of the approved project would be less than significant.

Similar to the approved project, construction activities associated with the proposed changes to the approved project could have short-term and construction-related impacts to police and fire services. The construction-related impacts on community services and the associated mitigation measures are summarized below and discussed in detail in Section 3.4, *Community Services*, of the Second Subsequent IS.

Impact: Based on the analysis above, the proposed changes to the approved project would not result in new significant impacts or a substantial increase in the severity of previously identified significant impacts related to community services.

The following impact from the 2005 Final EIR would apply to the proposed changes to the approved project: CS (Construction)-1 (Temporary Disruption of Emergency Access).

Mitigation: The following mitigation measure identified in the 2005 Final EIR would still apply to the proposed changes to the approved project: Mitigation Measure CS (CON)-1 (Coordinate with Emergency Service Providers). Inclusion of this mitigation measure would reduce this impact to “Less than Significant.”

Less-than-significant construction impact with mitigation.

CULTURAL RESOURCES IMPACTS

With inclusion of the mitigation measures identified below, impacts related to cultural resources during construction of the approved project would be less than significant.

There are no known archaeological resources within the project footprint. However, there is one prehistoric resource outside the project footprint but within 0.25 mile of the southern end of the project footprint. Similarly, there are no isolated human remains, cemeteries, or archaeological resources that contain human remains identified within the project corridor. The horizontal and vertical extent of ground disturbing activities associated with some of the proposed changes to the approved project would be different than those analyzed for the approved project. Thus, the proposed changes to the approved project could result in impacts on unknown archaeological resources. The construction-related impacts on cultural resources and the associated mitigation measures are summarized below and discussed in detail in Section 3.5, *Cultural Resources*, of the Second Subsequent IS.

Impact: The May 16, 2018 *Eastridge to BART Regional Connector: Capitol Expressway Light Rail Project Final Cultural Resources Memorandum* indicates that the total amount of ground disturbance from the instances where the proposed changes to the approved project (0.06 acre) would account for a very small percentage (0.7 percent) of the 9-acre project footprint. Therefore, the conclusions of the prior archaeological reports have not changed, and the potential for the proposed changes to the approved project to affect as-yet undocumented archaeological resources would be minimal.

The following procedures represent standard practice that would be followed in the case of inadvertent discovery of buried cultural resources and human remains:

- **Stop work immediately if buried cultural deposits are encountered during construction activities.** Should any cultural and/or archaeological resources be discovered (such as structural features, unusual amounts of bone or shell, artifacts, human remains, or architectural remains) during construction activities, VTA shall suspend work in the immediate vicinity, and VTA’s construction inspector shall contact VTA’s Environmental Programs Department to coordinate site investigations by a

qualified archaeologist to assess the materials and determine their significance.

- **Stop work immediately if human remains are encountered during construction activities:** If human remains are unearthed during construction, pursuant to Section 50977.98 of the Public Resources Code and Section 7050.5 of the State Health and Safety Code, VTA and Contractor shall immediately suspend work in the immediate vicinity and contact the Santa Clara County coroner. If the Santa Clara County coroner determines the remains are Native American in origin, VTA will contact the Native American Heritage Commission to request a Most Likely Descendent to coordinate the disposition of the remains.
- **Native American monitoring during construction:** VTA shall retain the services of a Native American monitor during construction involving subsurface excavation between Cunningham Avenue and Quimby Avenue.

Based on the analysis above, the proposed changes to the approved project would not result in new significance impacts or a substantial increase in the severity of previously identified significant impacts related to archaeological resources (including human remains).

Mitigation: None required. Inclusion of the standard procedures would reduce this impact to “Less than Significant

Less-than-significant impact. No mitigation required.

ENERGY IMPACTS

With inclusion of the mitigation measure identified below, impacts related to energy during construction of the approved project would be less than significant.

Similar to the approved project, construction-related energy consumption would result from construction of the proposed changes to the approved project and secondary facilities. Energy consumed for construction of the proposed changes would be used for the construction of trackway and support facilities, and for the transportation of materials and equipment to and from the work sites. A secondary facility is a facility (e.g., a factory), that produces construction materials and machinery that would be used in the construction and maintenance of the structures and attendant facilities. The construction-related impacts on energy and the associated mitigation measures are summarized below and discussed in detail in Section 3.7, *Energy*, of the Second Subsequent IS.

Impact: Based on the analysis above, the proposed changes to the approved project would not result in new significant impacts or a substantial

increase in the severity of previously identified significant impacts related to energy.

The following impacts from the 2005 Final EIR would still apply to the proposed changes to the approved project: E (Construction)-1 (Consumption of Nonrenewable Energy Resources in a Wasteful, Inefficient, and/or Unnecessary Manner from Project Construction), E (Construction)-2 (Consumption of Nonrenewable Energy Resources in a Wasteful, Inefficient, and Unnecessary Manner from Secondary Facilities Activities).

Mitigation: The following mitigation measure identified in the 2005 Final EIR would still apply to the proposed changes to the approved project: Mitigation Measure E (CON)-1 (Adopt Energy Conservation Measures). Inclusion of this mitigation measure would reduce this impact to “Less than Significant.”

Less-than-significant construction impact with mitigation.

GEOLOGY, SOILS, AND SEISMICITY IMPACTS

With inclusion of the mitigation measure identified below, impacts related to geology, soils, and seismicity during construction of the approved project would be less than significant.

Similar to the approved project, the proposed changes to the approved project would be located in an area that may be susceptible to lateral spreading, subsidence, collapse, and expansive soils. Soils and underlying geologic materials that are susceptible to lateral spreading, subsidence, and collapse, or that have expansive properties, could increase the risk of structural loss, injury, or death. The construction-related impacts on geology, soils, and seismicity and the associated mitigation measures are summarized below and discussed in detail in Section 3.8, *Geology, Soils, and Seismicity*, of the Second Subsequent IS.

Impact: Based on the analysis above, the proposed changes to the approved project would not result in new significant impacts or a substantial increase in the severity of previously identified significant impacts related to geology, soils, and seismicity impacts.

The following impact from the 2005 Final EIR would still apply to the proposed changes to the approved project: GEO (CON)-1 (Lateral Spreading, Subsidence, and Collapse), and GEO (CON)-2 (Presence of Expansive Soils).

Mitigation: The following mitigation measure identified in the 2005 Final EIR would still apply to the proposed changes to the approved project: Mitigation Measure GEO (CON)-1 (Minimize Lateral Spreading,

Subsidence, and collapse), and GEO (CON)-2 (Minimize Risk of Soil Expansivity). Inclusion of this mitigation measure would reduce this impact to “Less than Significant.”

Less-than-significant construction impact with mitigation.

HAZARDOUS MATERIALS IMPACTS

With inclusion of the mitigation measures identified below, impacts related to hazardous materials during construction of the approved project would be less than significant.

Similar to the approved project, the proposed extensive pile driving required for construction of the proposed aerial guideway included in the proposed changes to the approved project would in some cases require dewatering. Dewatering could cause construction workers to encounter and be exposed to hazardous materials and could expose the surrounding environment to contaminated soils and groundwater from historic hazardous materials handling in the area. The construction-related impacts on hazardous materials and the associated mitigation measures are summarized below and discussed in detail in Section 3.9, *Hazardous Materials*, of the Second Subsequent IS.

Impact: Based on the analysis above, the proposed changes to the approved project would not result in new significant impacts or a substantial increase in the severity of previously identified significant impacts related to hazardous materials.

The following impacts from the 2005 Final EIR would still apply to the proposed changes to the approved project: HAZ (CON)-1 (Release of Hazardous materials into the Environment).

Mitigation: The following mitigation measures identified in the 2005 Final EIR would still apply to the proposed changes to the approved project: Mitigation Measure HAZ (CON)-1a (Conduct subsurface Investigations), HAZ (CON)-1b (Control Contamination), and HAZ (CON)-1c (Conduct Lead and Asbestos Surveys Prior to Building Demolition or Renovation). Inclusion of these mitigation measures would reduce this impact to “Less than Significant.”

Less-than-significant construction impact with mitigation.

HYDROLOGY IMPACTS

With inclusion of the mitigation measures identified below, impacts related to hydrology during construction of the approved project would be less than significant.

Similar to the approved project, construction activities associated with the proposed changes to the approved project involving soil disturbance, excavation, cutting/filling, stockpiling, and grading activities could result in increased erosion and sedimentation to surface waters. In addition, construction activities could result in depletion of water

supplies/interference with groundwater recharge. The construction-related impacts on hydrology and water quality and the associated mitigation measures are summarized below and discussed in detail in Section 3.10, *Hydrology and Water Quality*, of the Second Subsequent IS.

Impact: Based on the analysis above, the proposed changes to the approved project would not result in new significant impacts or a substantial increase in the severity of previously identified significant impacts related to hydrology and water quality.

The following impacts from the 2005 Final EIR would apply to the proposed changes to the approved project: HYD (CON)-1 (Impair Water Quality) and HYD (CON)-2 (Depletion of Groundwater Supplies).

Mitigation: The following mitigation measures identified in the Final EIR would still apply to the proposed changes to the approved project: HYD (CON)-1 (Implement Water Quality Control Measures), HYD (CON)-2 (Use Non-Potable Water). Inclusion of these mitigation measures would reduce this impact to “Less than Significant.”

Less-than-significant construction impact with mitigation.

LAND USE IMPACTS

Impacts related to land use during construction of the approved project would be less than significant.

Similar to the approved project, construction activities associated with the proposed changes to the approved project would temporarily result in lane and street closures, and detours would occur. As with the approved project, a Traffic Management Plan would be implemented to restore traffic capacity and access to local businesses during construction. In addition, signs would be posted to direct pedestrians to intersections where they may cross to proceed along the project corridor and to avoid construction areas. The construction-related impacts on hydrology and water quality and the associated mitigation measures are summarized below and discussed in detail in Section 3.11, *Land Use*, of the Second Subsequent IS.

Impact: Based on the analysis above, the proposed changes to the approved project would not result in new significant impacts or a substantial increase in the severity of previously identified significant impacts related to land use.

The following impact from the 2005 Final EIR would apply to the proposed changes to the approved project: LU (Construction)-1 (Disruption of Local Businesses).

Mitigation: None required. This impact is “Less than Significant.”

Less-than-significant construction impact. No mitigation required.

NOISE IMPACTS

With inclusion of the mitigation measures identified below, impacts related to noise during construction of the approved project would be less than significant.

Similar to the approved project, pile driving would occur during construction of the proposed changes. The construction-related impacts on noise and vibration and the associated mitigation measures are summarized below and discussed in detail in Section 5.3, *Noise and Vibration*, of the SEIR-2.

Impact: The February 14, 2019 *EBRC – CELR Noise and Vibration Assessment* indicates that the proposed changes to the approved project would result in exceedances of the FTA construction noise impact criteria at unobstructed homes and businesses (i.e., homes and businesses not shielded by other structures or sound walls) within 300 feet of pile driving activity. The noise impacts would have a duration of 8 to 15 days per sensitive receiver. Pile driving would exceed the construction noise impact criteria of 80 Leq (8-hour) dBA at residences and 85 Leq (8-hour) dBA at commercial properties at 149 sensitive receiver locations. The location of receivers where pile driving noise impacts are predicted are as follows:

- Twelve residential properties located east of the alignment between Wilbur Avenue and Mervyns Way would experience construction noise impacts. One home is within 25 feet of the closest pile.
- Five institutional/commercial properties located east of the alignment between Mervyns Way and Story Road would experience construction noise impacts.
- Forty-one residential properties located east of the alignment between Story Road and Ocala Avenue would experience construction noise impacts.
- Twenty-seven residential properties located east of the alignment between Ocala Avenue and Cunningham Avenue would experience construction noise impacts.
- Twenty-one residential properties located west of the alignment between Excalibur Drive and Story Road would experience construction noise impacts.
- Three commercial properties located west of the alignment near the intersection of Capitol Expressway and Story Road would experience construction noise impacts.

- Seventeen residential properties located west of the alignment between Story Road and Foxdale Loop would experience construction noise impacts.
- One commercial property located west of the alignment near the intersection of Capitol Expressway and Foxdale Loop would experience a construction noise impact.
- Three residential properties located west of the alignment along Foxdale Loop would experience construction noise impacts.
- Nineteen residential properties located west of the alignment between Foxdale Drive and Ocala Avenue would experience construction noise impacts.

The proposed changes to the approved project would result in an increase in the number of construction noise impacts compared to the 2007 Final SEIR due to an increase in the number of foundation piles associated with changing the at-grade track under the approved project to an aerial guideway under the proposed changes.

The following impact from the 2005 Final EIR would still apply to the proposed changes to the approved project: NV (Construction)-1: (Generation of Noise or Vibration That Substantially Affects Nearby Sensitive Receptors).

Mitigation: The following mitigation measures identified in the 2005 Final EIR and the 2007 Final SEIR would still apply to the proposed changes to the approved project: NV (CON)-1a (Notify Residents of Construction Activities), NV (CON)-1b (Construct Temporary Noise Barriers During Construction), NV (CON)-1c (Restrict Pile Driving)³, NV (CON)-1d (Use Noise Suppression Devices), NV (CON)-1e (Locate Stationary Construction Equipment as Far as Possible from Sensitive Receptors), NV (CON)-1f (Reroute Construction-Related Truck Traffic), NV (CON)-1g (Develop Construction Noise Mitigation Plan) and NV (CON)-2.

Mitigation Measure NV (CON)-2 has been modified.

Mitigation Measure NV (CON)-2

A combination of the following measures should be considered if reasonable and feasible to reduce noise and vibration impacts from pile driving:

1. Noise Shield: A pile driving noise shield could be effective at reducing the pile driving noise by a minimum 5 dB, depending on

³ In the 2005 Final EIR, this measure restricts pile driving to the hours of 8:00 am to 5:00 pm. To be consistent with the San Jose municipal code, these hours are revised to 7:00 am to 7:00 pm, Monday through Friday.

the size of the shield and how well it surrounds the pile and hammer. A portable shield/barrier could be implemented to provide a nominal 10 dB noise reduction.

2. **Pre-Drilling Piles:** Pre-drilling a portion of the hole may provide a means to reduce the duration of impact pile driving, and should be explored. Reducing the total impact time to an aggregate duration of no more than 2 hours per day will reduce the equivalent noise level by 6 dB to a range of 80 to 90 dBA (L_{eq}) at a distance of 100ft.
3. **Non-Impact Piles or Cast in Drilled Hole (CIDH) piles:** Using the Soil-Mix or CIDH method would reduce the vibration below the FTA Criteria. This method is recommended for homes which would be within 75 ft of pile driving.
4. **Reduced Impact Pile Driving Time:** Limiting the hours per day of impact pile driving would reduce the equivalent noise level and would reduce potential work interference.
5. **Excessive Vibration:** If pile driving amplitudes exceed the building threshold criteria, cosmetic repair work may be required at nearby buildings. A detailed preconstruction crack survey will be conducted at homes and businesses where these criteria are expected to be exceeded. Vibration monitoring, crack monitors and photo documentation will be employed at these locations during pile driving activity.
6. **Relocating Items on Shelves:** Since items on shelves and walls may move during pile driving activity, nearby residents will be advised through the community outreach process that they should move fragile and precious items off of shelves and walls for the duration of the impact pile driving. Achievement of standards for building damage would not eliminate annoyance, since the vibration would still be quite perceptible.
7. **Advance Notification (Work Interference):** The impact pile driving vibration may cause interference with persons working at home or the office on their computers. Nearby residents and businesses will be advised in advance of times when piles would be driven, particularly piles within 160 ft of any occupied building, so that they may plan accordingly, if possible.
8. **Notification of Pile Driving Schedule:** Nearby residents and businesses will be notified of the expected pile driving schedule. In particular, these notifications should be made with home-bound residents, homes where there is day-time occupancy (e.g., work at home, stay-at-home parents) and offices/commercial businesses where extensive computer/video monitor work is conducted.

9. Hotel Accommodations: Residents at 660 South Capitol Avenue will be provided with hotel accommodations while pile driving activities occur adjacent to the residence.

Contractor Controls

In addition to the above list of specific noise and vibration control measures, the following are recommended for inclusion in the Contractor specifications for the Indicator and Production pile driving programs if reasonable and feasible:

- Comply with the equivalent noise levels (L_{eq}) limits specified on page 12-8 of FTA 2006 and a maximum noise level limits of 90 dBA (slow) or 125 dBC (fast) for residential buildings,
- Comply with the maximum vibration limits specified in Table 12-3 of FTA 2006,
- Perform a detailed survey and photo documentation prior to construction of all potentially affected wood-frame buildings within 135 ft of the piling activity,
- Coordinate and perform noise and vibration monitoring at a representative sampling of potentially affected buildings along the Project corridor,
- Install crack monitors where appropriate and provide photo documentation at all potentially affected buildings during pile driving activity and through construction,
- Community Notification and Involvement:
 - provide a minimum four-week advance notice of the start of piling operations to all affected receptors (e.g., internet, phone and fax), and regular, up-to-date communications. This includes education of the public on the expected noise and vibration,
 - provide a knowledgeable Community Liaison to respond to questions and complaints regarding pile driving noise and vibration, and
 - provide assistance as needed to nearby residents or offices who may require help relocating valuable items off shelves.

Mitigation Measure NV (CON)-1h: Use Impact Cushions

A suitable pile cap cushion could be effective at reducing the pile driving noise by up to 5 dB. The construction crew will initially use only burlap bags to reduce noise and then will also use the wood block when pile driving becomes more difficult.

This new mitigation measure shall be implemented in addition to the measures identified in the Mitigation Monitoring and Reporting Plan (MMRP) prepared for the approved project.

Significant and unavoidable construction impact, even with mitigation.

Impact: The February 14, 2019 *EBRC – CELR Noise and Vibration Assessment* indicates that the proposed changes to the approved project would result in exceedances of the FTA nighttime construction vibration of 0.2 PPV impact criteria at homes within 100 feet of pile driving activity. Pile driving would exceed the construction vibration impact criteria at 56 sensitive receiver locations. The location of receivers where pile driving vibration impacts are predicted are as follows:

- One property located east of the alignment between Wilbur Avenue and Mervyns Way would experience construction vibration impacts. One home is within 25 feet of the closest pile.
- Five properties located east of the alignment between Story Road and Ocala Avenue would experience construction vibration impacts.
- Twenty-one properties located east of the alignment between Ocala Avenue and Cunningham Avenue would experience construction vibration impacts.
- Fifteen properties located west of the alignment between Story Road and Foxdale Loop would experience construction vibration impacts.
- Fourteen properties located west of alignment between Foxdale Drive and Ocala Avenue would experience construction vibration impacts.

The following impact from the 2005 Final EIR would still apply to the proposed changes to the approved project: NV (Construction)-1: (Generation of Noise or Vibration That Substantially Affects Nearby Sensitive Receptors).

Mitigation: The following mitigation measures identified in the 2005 Final EIR and the 2007 Final SEIR would still apply to the proposed changes to the approved project: NV-1a (Notify Residents of Construction Activities), NV-1c (Restrict Pile Driving), NV-1e (Locate Stationary Construction Equipment as Far as Possible from Sensitive Receptors) and NV (Construction)-2.

VTA is not recommending the use of non-impact piling methods at most locations for a couple of reasons. Most locations are only slightly above the FTA Damage Criteria, and therefore may not experience any actual impacts due to predictions that are based on a high reference level for pile drivers, given uncertainties in the specific equipment that would be used in practice. It is anticipated that the pile drivers that would be used during construction would create lower levels of vibration than estimated in the analysis. At the locations with the highest construction vibration levels, structural damage is not anticipated to occur. However, if any structural and cosmetic damage does occur due to construction vibration, the damage shall be repaired by VTA. As a result, VTA is not recommending to use non-impact piling methods at most locations. Thus, this impact would be “Significant and Unavoidable.”

No mitigation proposed. Significant and unavoidable construction impact.

SAFETY & SECURITY IMPACTS

With inclusion of the mitigation measure identified below, impacts related to safety and security during construction of the approved project would be less than significant.

Similar to the approved project, construction of the proposed changes could result in safety and security impacts. The construction-related impacts on safety and security and the associated mitigation measures are summarized below and discussed in detail in Section 3.13, *Safety and Security*, of the Second Subsequent IS.

Impact: Based on the analysis above, the proposed changes to the approved project would not result in new significant impacts or a substantial increase in the severity of previously identified significant impacts related to safety and security.

The following impact from the 2005 Final EIR would apply to the proposed changes to the approved project: SS (CON)-1 (Potential for Safety Risks during Construction).

Mitigation: The following mitigation measure identified in the 2005 Final EIR would still apply to the proposed changes to the approved project: Mitigation Measure SS (CON)-1 (Implement Construction BMPs to Protect Workers and the Public). Inclusion of this mitigation measure would reduce this impact to “Less than Significant.”

Less-than-significant construction impact with mitigation.

TRANSPORTATION IMPACTS

With inclusion of the mitigation measures identified below, impacts related to transportation during construction of the approved project would be less than significant.

Similar to the approved project, lane and street closures, traffic delays, and detours would occur along the project corridor during construction of the proposed changes. Under the approved project, construction activities were anticipated to periodically reduce the capacity of Capitol Expressway from three lanes to two in each direction during the mid-day off peak periods. However, the proposed changes to the approved project would require lane closures to additionally take place during peak periods of travel. VTA would seek to minimize these delays to the greatest extent feasible and provide viable detour routes as appropriate. The construction-related impacts on noise and vibration and the associated mitigation measures are summarized below and discussed in detail in Section 5.1, *Transportation*, of the SEIR-2.

Impact: The April 29, 2019 *Eastridge to BART Regional Connector: Capitol Expressway Light Rail Project Supplemental Transportation Analysis* indicates that the proposed lane reductions on Capitol Expressway during construction may cause study intersections to temporarily operate at LOS F, impacting passenger vehicles, buses, and trucks. The proposed changes to the approved project may also result in the temporary closures of bikeways, bus stops, and sidewalks in the corridor during construction. The duration, times, and locations of temporary closures during construction cannot be predicted with certainty.

The following impact from the 2005 Final EIR would apply to the proposed changes to the approved project: TRN (CON)-1 (Long-Term Street or Lane Closure) and TRN (CON)-2 (Long-Term Loss of Parking or Access Essential for Business Operations).

Mitigation: The following mitigation measures identified in the 2005 Final EIR would still apply to the proposed changes to the approved project: TRN (CON)-2a (Prepare Traffic Management Plan), TRN (CON)-2b (Inform Public of Traffic Detours), and TRN (CON)-2c (Inform Public of Transit Service Changes).

During construction, VTA will prepare traffic handling plans, employ traffic flaggers, and endeavor to minimize peak hour delays to all users. However, such measures cannot guarantee that construction activities would not cause temporary significant impacts to passenger vehicles, buses, trucks, bikes, and pedestrians. There is no feasible mitigation for this impact and this impact would be “Significant and Unavoidable.” Based on the analysis above, the proposed changes to the approved project would result in new significant impacts or a substantial increase in the severity of previously identified significant

transportation impacts during construction. With inclusion of these mitigation measures, the proposed changes to the approved project would result “Less than Significant” impacts related to parking during construction.

Significant and unavoidable construction impact. No feasible mitigation.

UTILITIES IMPACTS

With inclusion of the mitigation measure identified below, impacts related to utilities during construction of the approved project would be less than significant.

Similar to the approved project, the proposed changes to the approved project would require the relocation of utilities during construction, which requires disruption of service. The proposed changes to the project would require the relocation of a 3-inch high pressure natural gas line under Cunningham Avenue. The construction-related impacts on utilities and the associated mitigation measures are summarized below and discussed in detail in Section 3.14, *Utilities*, of the Second Subsequent IS.

Impact: Based on the analysis above, the proposed changes to the approved project would not result in new significant effects or a substantial increase in the severity of previously identified significant impacts related to utilities.

The following impact from the 2005 Final EIR would apply to the proposed changes to the approved project: UTL (CON)-1 (Disrupt a Utility Service for a Period of 24 Hours or More).

Mitigation: The following mitigation measure identified in the 2005 Final EIR would still apply to the proposed changes to the approved project: UTL (CON)-1 (Coordinate with Utility Service Providers Prior to Construction of Light Rail Facilities). Inclusion of this mitigation measure would reduce this impact to “Less than Significant.”

Less-than-significant construction impact with mitigation.

VISUAL QUALITY IMPACTS

With inclusion of the mitigation measure identified below, impacts related to visual quality during construction of the approved project would be less than significant.

Similar to the approved project, nighttime construction activities associated with the proposed changes would involve the use of lighting equipment that could cause glare, potentially affecting the residents adjacent to the project corridor.

In addition, construction activities associated with the proposed changes would involve the use of heavy equipment, transport of soils and material, and other visual signs of

construction would occur along the Capitol Expressway corridor and at construction staging areas, similar to the approved project. These activities would be most visible to pedestrians along the corridor and residents of adjacent homes. The construction-related impacts on visual quality and the associated mitigation measures are summarized below and discussed in detail in Section 3.16, *Visual Quality*, of the Second Subsequent IS.

Impact: Based on the analysis above, the proposed changes to the approved project would not result in new significant impacts or a substantial increase in the severity of previously identified significant impacts related to light and glare.

The following impact from the 2005 Final EIR would apply to the proposed changes to the approved project: VQ (CON)-1 (Creation of a New Source of Substantial Light or Glare).

Mitigation: The following mitigation measure identified in the 2005 Final EIR would still apply to the proposed changes to the approved project: VQ (CON)-1 (Direct Lighting toward Construction Areas). Inclusion of this mitigation measure would reduce these impacts to “Less than Significant.”

Less-than-significant construction impact with mitigation.

Chapter 6

Other CEQA Considerations

This section presents other environmental issues that are of particular significance to CEQA. It includes a discussion of significant impacts and irreversible environmental changes, cumulative effects, and growth-inducing impacts.

Section 6.1 Significant and Irreversible Environmental Changes

This section supplements Section 5.4 of the 2005 Final EIR, Section 6.1 of the 2007 Final SEIR, and Section 4.1 of the 2014 Subsequent IS/MND. It generally evaluates the effect of the project on nonrenewable resources. The proposed changes to the approved project would not affect the conclusions of the 2005 Final EIR and the 2007 Final SEIR on the potential for significant and irreversible environmental changes.

A commitment of a resource is considered irreversible when its use limits the future options for its use. Irreversible changes may include current or future uses of non-renewable resources, and secondary or growth-inducing impacts that commit future generations to similar uses. In accordance with CEQA Guidelines Section 15126.2(c), this section evaluates the effect of the proposed changes to the approved project associated with three distinct categories of significant irreversible changes: changes in land use that would commit future generations to specific uses, consumption of nonrenewable resources, and irreversible changes from environmental actions.

The approved project and the proposed changes to the approved project would commit a similar amount of land resources due to the right-of-way needs within the corridor. The commitment of long-term land resources for the light rail system is consistent with Envision San José 2040 General Plan, as discussed in Section 3.11, *Land Use*, of the Second Subsequent IS. The proposed changes would not commit future generations to or introduce changes in land use that would vary from the existing conditions or planned development by the City of San Jose.

Non-renewable energy is the primary resource that would be irreversibly affected by the proposed changes. As discussed in Section 3.7, *Energy*, of the Second Subsequent IS, it is anticipated that the proposed replacement of the at-grade track alignment with an aerial

guideway would result in slightly less energy consumption compared to the approved project because the elevated guideway would allow light rail vehicles to avoid traffic signal delay that would occur at intersections for an at-grade alignment. By avoiding traffic signal delay, this proposed change to the project would eliminate the need for additional energy required for light rail vehicle accelerations at intersections. Thus, the system would operate more efficiently, which would lead to lower energy consumption. Although the acceleration effect is anticipated to be minor, this proposed change to the approved project would result in lower energy consumption compared to the impacts previously identified and analyzed for the approved project.

Similar to the approved project, the construction and operation of the proposed changes would entail the irreversible and irretrievable commitment of energy and human resources, including labor required for planning, design, construction, and operations.

The use of these resources would be irrecoverable; however, they are not in short supply, and their use would not affect the continued availability and supply of these resources.

Based on the analysis above, no new significant and irreversible effects or a substantial increase in the severity of previously identified significant and irreversible effects would occur.

Section 6.2 Analysis of Cumulative Effects

This section supplements Section 5.5 of the 2005 Final EIR, Section 6.2 of the 2007 Final SEIR, and Section 4.2 of the 2014 Subsequent IS/MND. It generally evaluates the incremental effect of the proposed changes to the approved project on the environment when considered in conjunction with closely related past, present, and reasonably foreseeable future projects.

The 2005 Final EIR and the 2007 Final SEIR identified significant and unavoidable cumulative effects to transportation at the intersections of Capitol Expressway and Story Road (TRN-2a and TRN-8b), Ocala Avenue (TRN-2b and TRN-8c), Capitol Avenue (TRN-8a), and Quimby Road (TRN-8e). According to the transportation analysis in the 2014 Subsequent IS/MND, the approved project would not result in cumulative effects to transportation at the intersections of Capitol Expressway and Story Road (TRN-2a and TRN-8b) and Quimby Road (TRN-8e), and would result in a reduction in the effect to less than significant with mitigation at Capitol Avenue. As discussed in Section 5.1, *Transportation*, of the SEIR-2, the proposed changes to the approved project would result in significant and unavoidable cumulative effects to transportation at the Capitol Expressway and Story Road (TRN-2a and TRN-8b) and Capitol Expressway and Ocala Avenue (TRN-2b and TRN-8c). Due to recent geometric changes at the intersection of Capitol Expressway and Capitol Avenue, the SEIR-2 no longer identifies a less than significant effect with mitigation at this location.

The 2007 Final SEIR also identified new significant and unavoidable impacts to energy and environmental justice. The 2014 Subsequent IS/MND determined that no new

significant cumulative effects or a substantial increase in the severity of previously identified significant cumulative effects would occur to energy and environmental justice.

In the SEIR-2, new significant and unavoidable impacts associated with the proposed changes to the approved project were identified for air quality and climate change (construction) as well as environmental justice. In addition, in the SEIR-2, significant and unavoidable impacts with increased severity associated with the proposed changes to the approved project were identified for transportation (operation and construction) as well as noise and vibration (operation and construction).

A cumulative analysis evaluates the incremental effect of the project on the environment when considered in conjunction with closely related past, present, and reasonably foreseeable future projects. Cumulative impacts related to transportation, noise, and air quality (during operation and construction), are described and evaluated in Section 5.1, *Transportation*; Section 5.3, *Noise and Vibration*; and Section 5.4; *Air Quality and Climate Change*; of the SEIR-2, respectively. Based on the analysis in the sections, the proposed changes to the approved project would disproportionately affect minority and low-income populations. Thus, the proposed changes would have a cumulative impact on environmental justice (EJ-1). This impact is “Significant and Unavoidable.”

Section 6.3 Growth-Inducing Impacts

This section supplements Section 5.6 of the 2005 Final EIR, Section 6.3 of the 2007 Final SEIR, and Section 4.3 of the 2014 Subsequent IS/MND. It generally evaluates the potential of the proposed changes to the approved project to directly or indirectly foster economic or population growth, or the construction of new housing.

The 2005 Final EIR concluded that the approved project is generally consistent with projected and planned growth in the region and in the project area. However, the 2005 Final EIR did acknowledge that the approved project could have an indirect growth-inducing effect by accelerating planned growth in a more compact, transit-oriented form, particularly in and around planned light rail stations.

The proposed changes to the approved project would not affect the conclusions of the 2005 Final SEIR, 2007 Final SEIR, or the 2014 Subsequent IS/MND regarding the potential for growth-inducing impacts.

Similar to the approved project, the proposed changes to the approved project are consistent with the project and planned growth in the vicinity of the project corridor. The proposed changes would not directly or indirectly induce economic, population, or housing growth in the surrounding environment. As a result, no new significant growth-inducing impacts or increase in the severity of previously identified significant growth-inducing impacts would occur as a result of the proposed changes to the approved project.

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Chapter 7

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Chapter 8

List of Preparers

Section 8.1 Lead Agency

Ann Calnan	Environmental Resources Planning Manager
Ven Prasad	Engineering Group Manager/Project Manager
Christina Jaworski	Senior Environmental Planner
Leana Sossikian	Environmental Planner
Hassan Basma	Transportation Engineering Manager
Harry Yip	Assistant Transportation Engineer

Section 8.2 Environmental Consultants

ICF

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Jessica Viramontes	Project Manager
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Jennifer Andersen	Environmental Planner
Lizetta Quick	Environmental Planner
Cory Matsui	Air Quality Specialist
Seth Hartley	Air Quality Specialist
Matt McFalls	Air Quality Specialist
Jason Volk	Noise Specialist
Katrina Sukola	Hydrologist
Laura Rocha	Hydrologist
Ross Wilming	Biologist
Gretchen Hilyard-Boyce	Cultural Resources Specialist
Tait Elder	Cultural Resources Specialist
Andrea Dumovich	Cultural Resources Specialist
Lily Arias	Cultural Resources Specialist
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Luis Garcia
Chris Adams

Principal and Vice President
Project Manager/Associate
Project Manager

Chapter 3

Response to Comments on the Draft Second Supplemental Environmental Impact Report

The Draft Second Supplemental Environmental Impact Report (SEIR-2) for the Eastridge to BART Regional Connector Project was made available for public review for 45 days, from October 3, 2018, to November 19, 2018. The Notice of Availability (NOA) was posted with the Santa Clara County Clerk and sent to more than 100 agencies, community organizations, residents, and businesses. A public meeting notice, with links to the Santa Clara Valley Transportation Authority's (VTA's) website to access the NOA, was mailed to more than 9,000 addresses, including residents, businesses, absentee property owners, and community organizations within 0.5 mile of the corridor.

Print advertisements were placed in the *Mercury News* and translated for print in the *El Observador* (Spanish), *Viet Nam Daily* (Vietnamese), *Philippines Today* (Tagalog), and *Sing Tao* (Chinese) newspapers.

Additional means of announcing the public meeting and NOA included the following:

- Two Nextdoor postings to neighborhoods in and surrounding the project area, reaching 3,740 residents each time.
- In-person deliveries to churches, community centers, and libraries.
- Two emails via GovDelivery to community stakeholders who subscribed to project notifications (751 records each).
- Blog posting on VTA.org under Headways.
- Social media posts on Facebook, Twitter, LinkedIn.
- Emails to more than 50 community-based organizations (Title VI).
- Notices to VTA Board of Directors and advisory committees for redistribution.

The NOA and a copy of the mailing list for the Draft SEIR-2 are included at the end of this chapter in Attachments A and B, respectively.

A public meeting/open house was held on October 18, 2018, during the public review period, to discuss proposed changes to the project and the Draft SEIR-2 with the public and receive written comments.

Table 3-1 lists the 17 comments on the Draft SEIR-2 received by VTA. In accordance with California Environmental Quality Act (CEQA) Guidelines Section 15088, VTA has evaluated the comments on environmental issues received from persons who reviewed the Draft SEIR-2 and provided written responses.

Prior to consideration by the VTA Board of Directors, all commenting agencies and individuals will receive a copy of the Final SEIR-2, with VTA’s responses to their comments. Any additional comments on the SEIR-2 can be provided in writing or in person at the VTA Board of Directors’ meeting.

Table 3-1 Comments on the Draft SEIR-2

Letter/Speaker	Name	Date
<i>Federal Comments</i>		
None		
<i>State Comments</i>		
S1	State Clearinghouse	November 19, 2018
S2	California Transportation Commission	November 20, 2018
<i>Local Comments (Including Organizations and Individuals)</i>		
L1	City of San Jose	November 19, 2018
L2	County of Santa Clara	November 19, 2018
L3	Santa Clara Valley Water District	November 19, 2018
<i>Public</i>		
P1	Greenscope	October 1, 2018
P2	Evergreenvoice	October 11, 2018
P3	Jose Aguila	October 18, 2018
P4	Ernesto Barajas	October 18, 2018
P5	Danny Garza	October 18, 2018
P6	Victoria Partida	October 18, 2018
P7	Andres Solomonoff	October 18, 2018
P8	Patricia Roach	November 15, 2018
P9	Chris Weitsman	November 17, 2018
P10	Jose Aguila	November 19, 2018
P11	Ray Arthur Wang	November 19, 2018
P12	Russell Mancillas	November 20, 2018



STATE OF CALIFORNIA

Letter S1

GOVERNOR'S OFFICE of PLANNING AND RESEARCH



EDMUND G. BROWN JR.
GOVERNOR

KEN ALEX
DIRECTOR

November 19, 2018

Christina Jaworski
Santa Clara Valley Transportation Authority
3331 North First Street, Bldg B-2
San Jose, CA 95134

Subject: Eastridge to BART Regional Connector: Capitol Expressway Light Rail Project
SCH#: 2001092014

Dear Christina Jaworski:

The State Clearinghouse submitted the above named Supplemental EIR to selected state agencies for review. The review period closed on November 16, 2018, and no state agencies submitted comments by that date. This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act.

Please call the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process. If you have a question about the above-named project, please refer to the ten-digit State Clearinghouse number when contacting this office.

Sincerely,

Scott Morgan
Director, State Clearinghouse

S1-1

**Document Details Report
State Clearinghouse Data Base**

SCH# 2001092014
Project Title Eastridge to BART Regional Connector: Capitol Expressway Light Rail Project
Lead Agency Santa Clara Valley Transportation Authority

Type SIR Supplemental EIR
Description The project proposes to extend light rail along Capitol Expressway between the Alum Rock Light Rail Station and the Eastridge Transit Center, a distance of approx 2.4 miles. In addition, VTA is proposing the following changes to the approved project: extension of the aerial guideway to grade-separate the Ocala Avenue and Cunningham Avenue intersections; revisions to the Capitol Expressway roadway lane configurations; modifications to the Eastridge Station platforms and track; reduction in parking spaces at Eastridge Park-and-Ride lot; relocation of PG&E Electrical Transmission Facilities, and extension of construction duration and modification to construction scenario.

Lead Agency Contact

Name Christina Jaworski
Agency Santa Clara Valley Transportation Authority
Phone 408 321 5789 **Fax**
email
Address 3331 North First Street, Bldg B-2
City San Jose **State** CA **Zip** 95134

Project Location

County Santa Clara
City San Jose
Region
Lat / Long 37° 20' 45.2" N / 122° 49' 25.3" W
Cross Streets Capitol Expressway between Capitol Avenue and north of Quimby Road
Parcel No. Various
Township **Range** **Section** **Base**

Proximity to:

Highways Hwy 130, 680, 101
Airports Reid Hillview Airport
Railways
Waterways Silver Creek, Lake Cunningham, Thompson Creek
Schools Various
Land Use Eight-lane arterial roadway with HOV lanes, bordered by low density residential, open space, a general aviation airport, retail

Project Issues Aesthetic/Visual; Air Quality; Archaeologic-Historic; Biological Resources; Drainage/Absorption; Geologic/Seismic; Flood Plain/Flooding; Noise; Population/Housing Balance; Public Services; Recreation/Parks; Schools/Universities; Sewer Capacity; Soil Erosion/Compaction/Grading; Solid Waste; Toxic/Hazardous; Traffic/Circulation; Vegetation; Water Quality; Water Supply; Wetland/Riparian; Growth Inducing; Landuse; Cumulative Effects

Reviewing Agencies Resources Agency; Department of Fish and Wildlife, Region 3; Office of Historic Preservation; Department of Parks and Recreation; Department of Water Resources; Caltrans, Division of Aeronautics; California Highway Patrol; Caltrans, District 4; Regional Water Quality Control Board, Region 2; Air Resources Board; Department of Toxic Substances Control; California Energy Commission; Native American Heritage Commission; Public Utilities Commission

Date Received 10/03/2018 **Start of Review** 10/03/2018 **End of Review** 11/16/2018

S1 State Clearinghouse, November 19, 2018

S1-1 The comment states that the State Clearinghouse has submitted the Draft SEIR-2 to the state agencies selected for review of the document. In addition, the comment states that no state agencies submitted comments by the close of the review period on November 16, 2018. The comment does not raise an environmental issue that requires a response.

FRAN INMAN, Chair
JAMES EARP, Vice Chair
BOB ALVARADO
YVONNE B. BURKE
LUCETTA DUNN
JAMES C. GHIEMMETTI
CARL GUARDINO
CHRISTINE KEHOE
JAMES MADAFFER
JOSEPH TAVAGLIONE
PAUL VAN KONYNENBURG

STATE OF CALIFORNIA

EDMUND G. BROWN Jr., Governor

SENATOR JIM BEALL, Ex Officio
ASSEMBLY MEMBER JIM FRAZIER, Ex Officio

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CALIFORNIA TRANSPORTATION COMMISSION

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November 20, 2018

Ms. Christina Jaworski
Senior Environmental Planner
Santa Clara Valley Transportation Authority
Environmental Programs
3331 North First Street, Building B-2
San Jose, CA 95134-1927

RE: Draft Second Supplemental Environmental Impact Report for the Eastridge to the Bay Area Rapid Transit Regional Connector: Capitol Expressway Light Rail Project

The California Transportation Commission (Commission), as a Responsible Agency, received the Draft Second Supplemental Environmental Impact Report for the Eastridge to the Bay Area Rapid Transit (BART) Regional Connector: Capitol Expressway Light Rail Project (Project) in Santa Clara County. The environmental report was prepared by the Santa Clara Valley Transportation Authority.

The Project would extend the light rail along Capitol Expressway between the existing Alum Rock Light Rail Station and the Eastridge Transit Center, approximately 2.4-miles. The light rail line would operate primarily in the median of Capitol Expressway within the exclusive and semi-exclusive rights-of-way, and includes elevated tracks along Capitol Expressway, an elevated station at Story Road, and a ground-level station at Eastridge Transit Center. The total Project cost is estimated at \$453 million.

The Commission has no comments with respect to the Project purpose and need, the alternatives studied, the impacts evaluated, and the evaluation methods used to prepare the environmental document. The Commission should be notified as soon as the environmental process is finalized

Ms. Christina Jaworski

DSSIR for the Eastridge to BART Regional Connector: Capitol Expressway Light Rail Project

November 20, 2018

Page 2

since Project funds cannot be allocated for Project design, right of way or construction until the final environmental document is complete. Once the final environmental process is concluded, the Commission will consider the environmental impacts in determining whether to approve the Project for future consideration of funding.

Upon completion of the environmental process, please ensure the Commission is notified in writing whether the selected alternative identified in the final environmental document is consistent with the appropriate Regional Transportation Plan and the Project programmed by the Commission. In the absence of such assurance of consistency, the Project may be considered inconsistent, and thus ineligible for funding.

If you have any questions, please contact Jose Oseguera, Assistant Deputy Director, at (916) 653-2094.

Sincerely,

 Mitch Wei FOR

SUSAN BRANSEN

Executive Director

cc: Jeremiah Ketchum, Acting Chief, California Department of Transportation, Division of Environmental Analysis

S2 California Transportation Commission, November 20, 2018

S2-1 The comment states that the California Transportation Commission received the Draft SEIR-2, requests to be notified when the Final SEIR-2 is available, and requests continued coordination with VTA regarding the approved project. As requested, VTA will notify the California Transportation Commission when the Final SEIR-2 is published. In addition, VTA will continue to coordinate with the California Transportation Commission regarding the approved project and whether it is consistent with the Regional Transportation Plan.

November 19, 2018

VIA E-MAIL AND US MAIL ONLY

Christina Jaworski, Senior Environmental Planner
Santa Clara Valley Transportation Authority
3331 North First Street, Building B-2
San José, CA 95134-1927

RE: City of San José's Comment Letter on VTA's Second Draft Supplemental Environmental Impact Report for the Eastridge to BART Regional Connector: Capitol Expressway Light Rail Project

Dear Ms. Jaworski,

Thank you for providing the City of San José with the opportunity to review and comment on VTA's Second Draft Supplemental Environmental Impact Report (Draft SEIR-2) for the Eastridge to BART Regional Connector: Capitol Expressway Light Rail Project.

The Draft SEIR-2 supplements the Final Environmental Impact Report (Final EIR) (SCH 2001092014), Final Supplemental Environmental Impact Report (Final SEIR-1), and the Subsequent Initial Study/Mitigation Negative Declaration (Subsequent IS/MND), which were certified by the VTA Board of Directors in May 2005, August 2007, and March 2014, respectively.

Project Understanding

VTA's Eastridge to BART Regional Connector: Capitol Expressway Light Rail Project (Project) was planned to be implemented in two phases. Phase I consist of pedestrian and bus improvements, including sidewalk, landscaping, and lighting along Capitol Expressway; bus stop improvements at Story Road and Ocala Avenue; and the replacement of Eastridge Transit Center. Construction of the pedestrian and bus improvements was completed in 2012 and the replacement of Eastridge Transit Center was completed in 2015.

Phase II consists of the extension of light rail along Capitol Expressway between the existing Alum Rock Light Rail Station and Eastridge Transit Center, a distance of approximately 2.4 miles. This Draft SEIR-2 evaluates the changes following prior project approvals and development of Preliminary Engineering to a greater level of detail.

The City fully supports the extension of Capitol Expressway Light Rail Project and recognizes the importance of completing this project while minimizing its impacts. We look forward to working with VTA to address the identified areas of concern, resolve the remaining issues, and collaborate on the Project.

Eastridge to BART Regional Connector Draft SEIR-2

City of San José

November 19, 2018

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The Eastridge to BART Regional Connector: Capital Expressway Light Rail Project creates various opportunities for land uses as well as enabling intensified land uses along the corridor, particularly near the two stations, potentially including the redevelopment of Reid Hillview Airport and re-use of parcels under County's, should the County decide to pursue this. Completion of this regional connector also improves available transportation options into the Evergreen area.

L1-1
Cont.

GENERAL COMMENTS

The City's general comments below serve as a broader summary of our specific comments on the Draft SEIR-2. There are three areas of concern that we recommend be reinforced in the Draft SEIR-:

1. Construction Impact Outreach and Mitigation Plan
2. Agency Jurisdiction, Environmental Compliance and Implications for City
3. Station Access & Parking

L1-2

These comments are based on the information available at this time in the Draft SEIR-2. Although this information is not expected to alter the conclusions of the environmental impact analysis in the Draft SEIR-2, the City may adjust, revise, or provide new comments as needed after review and consideration of any additional information in future.

Construction Impact Mitigation Measures and Public Outreach Plan

For the Construction Impact Mitigation Measures and Public Outreach Plan, the Draft SEIR-2 should be expanded in detail and clarified, thus enabling the City to ensure that construction impacts are minimized to residents and workers in the City.

The San José Municipal Code requires that a Construction Impact Mitigation Plan (CIMP) be provided for a major construction project. The goal of a CIMP is to develop the best and least impactful project, particularly during construction, and establish a construction and associated outreach plan to help transition residents and businesses through the temporary disruption of this major construction projects. While a CIMP is not required for this Project, the City would like to work with VTA and the County to meet the goals of a CIMP.

L1-3

Specifically, the City recommends that VTA enter a *mutually-beneficial master cooperative agreement* with the County and the City that includes specific, proactive construction impact outreach and mitigation plan measures. For example, the measures should include:

- A traffic/transportation management plan that outlines the timing of street, trail and transit service closures and alternative routes for all travelers;
- A detailed outreach and impact mitigation approach that proactively addresses the needs of businesses, residents, employees, and other visitors, with clear, culturally competent

Eastridge to BART Regional Connector Draft SEIR-2

City of San José

November 19, 2018

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and multilingual communication channels, processes and points of contacts; construction noise and vibration must be a key focus of this effort;

- Advance information about the processes for construction easements and/or damages, including for landlords and businesses that are concerned about leasing their properties in anticipation of the project; and
- Truck haul routes that avoid further exacerbating construction impacts, and mitigation for neighborhood streets that are likely to become cut-through routes during construction (for example, signage that can indicate “no through traffic” as appropriate).

The construction outreach and impact mitigation elements should be well-planned and coordinated far in advance of the start of construction, such that negative impacts, anticipated or not, can be responsibly, quickly, and thoroughly addressed. This will provide assurance and certainty for the City, the County, the community, and particularly the residents, businesses, and institutions most impacted by construction of this project.

Agency Jurisdiction, Environmental Compliance and Implications for City

The City’s intent is to provide constructive comments that will assist in the preparation of a Final SEIR that is adequate for the City’s use when taking action on the City’s discretionary approvals. The Draft SEIR-2 fails to clearly identify and explain the roles and responsibilities of various other public agencies, including the City, who will be required to issue or approve various discretionary agreements, permits or licenses as part of the Project. The City seeks certainty about which agency is intended to have jurisdiction for various aspects of the project, i.e., roles, responsibilities, and resource commitments.

The Draft SEIR-2 does not identify the City as one of the responsible agencies under CEQA for certain discretionary actions. The City has discretionary review authority over certain aspects of the Project, such as encroachment permits, temporary street closures, utility realignments, pavement repairs, and other related work outside of the Capitol Expressway but located within the City’s right-of-way. An example is the Project’s extension from Alum Rock Station to the Capitol Expressway that falls within the City’s right-of-way. Under CEQA, the City will be required to consider this SEIR prior to taking action on these discretionary approvals.

The Draft SEIR-2 does not clearly articulate the role and obligation of the City of San José for environmental compliance for the Capitol Expressway Light Rail project. To ensure systematic accountability of mitigation measures and a complete tracking of all of the mitigation measures, the City recommends establishment of an Environmental Management System. This System documents the environmental issues, mitigation measures, implementation timeframe, and responsibility and oversight. This compliance system includes the following key elements:

- Environmental mitigation measures, referred to as the Mitigation Monitoring and Reporting Program (MMRP);
- Design Requirements and Best Management Practices to avoid environmental impacts;
- Property Specific Requirements developed prior to right-of-way acquisition to minimize effects on property owners;

L1-3
Cont.

L1-4

Eastridge to BART Regional Connector Draft SEIR-2

City of San José

November 19, 2018

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- Permit Compliance Monitoring, as jurisdictional agencies' permits are obtained.

A formal agreement articulating the responsibilities of the City, the County, and VTA with regard to mitigation monitoring and compliance with the environmental document is vital. A Master Cooperative Agreement or a similar agreement between the City and the VTA could be the mechanism for specifying roles and responsibilities.

Station Access and Parking

The City, the County and VTA have been working together to address Station Design and Access elements. The City requests the following considerations with respect to station access:

- The VTA Board and committees are currently reviewing a proposed VTA Station Access Policy to ensure that riders are able to easily and comfortably travel to and from the stations and between other transportation options makes transit attractive, convenient, and easy to use. City staff would like to see this Policy applied to the Story Road and Eastridge Transit Center Light Rail Stations.
- Specifically regarding the Story Road Station; safe access for pedestrians is undermined by the remaining presence of the Chevron driveway along Story Road, as further detailed in specific comments below. The City requests that VTA consider closing the driveway to ensure pedestrian safety and/or rethink the Chevron parcel.
- The current analysis shows that parking demand is no longer met by 2023; the Draft SEIR 2 should have discussed what additional access will be provided to address this. Given changes in transportation technologies, these needs may be met by a variety of modes (transportation network companies, shuttles, micromobility, and other options); these modes should be considered and thoughtfully designed into the station areas.
- Please clarify whether long-term parking in the project build-out condition will be consistent with the Envision San José 2040 General Plan and other applicable City policies or ordinances such as the San Jose Municipal Code, Title 20, Chapter 20.90 and City Council Policy 5-1 "Transportation Analysis Policy."

Specific Comments on Draft SEIR-2

The City of San José has the following specific comments on the Eastridge to BART Regional Connector: Capitol Expressway Light Rail Project's Draft SEIR-2. The comments are organized to coincide with the applicable document chapters and sections as far as possible.

Chapter 1: Executive Summary

The Draft SEIR-2 does not address whether there would be train movements between the hours of 1:30 a.m. and 4:30 a.m. If there are train movements at that time, the analysis must include measures to be implemented to reduce noise impacts in accordance with City noise standards.



Chapter 3: Changes to the Project, Changes in Circumstances, and Introduction of New Information

Under Section 3.3, Changes in Circumstances, the following projects have not been included and considered:

- VTA C17131F Pedestrian Connection to Eastridge Transit Center Project
- VTA C810 Capitol Expressway Light Rail Project/Pedestrian Improvements
- VTA C811 Capitol Expressway Light Rail Project/Eastridge Transit Center
- The Tully Road Vision Zero Safety Improvement Project – This project ends at Eastridge Lane before the Capitol Expressway/Tully Road intersection. The City, VTA, and County should coordinate to ensure that the two projects aligns well and include plans for the remaining segment of Tully Road between Eastridge Lane and Capitol Expressway.

Chapter 5: Environmental Setting, Impacts, and Mitigation

Chapter 5.1 Transportation

Reduction of Capitol Expressway Capacity: The City is not supportive of reducing the capacity of Capitol Expressway to one lane in either direction during construction. This would result in significant congestion and traffic diverted with cut-through traffic into the City's neighborhood streets.

Lane Closures: Any lane closures and detours where diversion and cut-through traffic through neighborhood streets must be included in the analysis. The City requests that VTA address these community issues in its Construction Outreach and Mitigation Plan and the cooperative agreement.

Operational Concerns: As described above, the driveway at 2710 Story Road (Chevron - Gas Station) on Capitol Expressway has multiple issues:

1. The driveway conflicts with and creates safety hazard for passengers using the eastern overcrossing entrance and other sidewalk users when traveling across the Chevron Driveway;
2. Negatively affects traffic flow from Capitol Expressway to Story Road and creates sight distance issues;
3. Maintaining the driveway invites people to use the Chevron lot for dropping off light rail riders; this additional traffic exacerbates pedestrian safety issues, congestion in the area, and is not an intended use of the property. How will VTA prevent this type of drop off activity?
4. Violates several of VTA's "Urban Design Principles" as detailed in Attachment B including:
 - a) Design stations to facilitate safe and convenient pedestrian access and to convey the personality and identity of adjacent neighborhoods.
 - b) Introduce special treatments along the edges of the boulevard to reduce visual and

L1-10

L1-11

L1-12

L1-13

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- noise impacts and to create a more positive relationship with adjacent neighborhoods.
- c) Promote opportunities for transit-oriented development that will enhance ridership and the quality of life of the surrounding community.

Based on these concerns, City staff requests that VTA consider transit-oriented development or a multimodal hub in this location. At a minimum, VTA should apply its proposed Station Access Policy to the stations along this corridor and reconsider the proposal to maintain vehicular access to the Chevron Gas Station from Capitol Expressway.

Pedestrian Overpass: Clarify maintenance of the pedestrian overpass (POC). Since the POC is not within the City's right of way (ROW), the City will not maintain the new pedestrian overpass. Overall, the City will not maintain any infrastructure that is not within the City's ROW.

VMT Change: The City recommends that the Draft SEIR-2 (& Appendix D) include an estimated net change in vehicle-miles traveled due to the project.

Chapter 5.2 Environmental Justice

The project area has a higher percentage of minorities than the City as a whole, and a higher percentage of people below the poverty level than the City as a whole and these populations are subject to significant levels of transportation (enumerated above), noise/vibration, air quality impacts.

Noise & Vibration: The significant and unavoidable noise and vibration impacts would predominately affect environmental justice populations. While VTA is recommending use of tire derived aggregate (TDA) on embankment sections to mitigate one operational impact, it is not recommending 5-Hertz floating slab track (FST), or a bridge bearing vibration isolation system and speed reductions from 55 mph to 35 mph as potential mitigation measures. The City urges VTA to examine these mitigation measures to reduce on-going operational impacts.

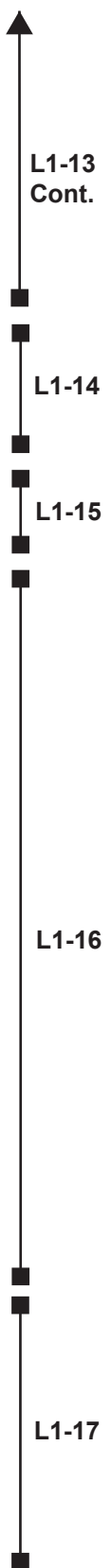
Alternative methods should be explored for pile driving to reduce noise/vibration in areas where residents have been identified to be severely impacted.

The proposed noise and vibration mitigation measures for the residence at 660 S. Capitol Avenue should be extended to other adjacent residences as well. Additionally, the back row of homes (behind homes facing Capitol Expressway) should also be evaluated in areas where significant noise and vibrations levels are expected.

Chapter 5.3: Noise and Vibration

In addition to the comments above on noise and vibration impacts, these are specific comments on the Draft SEIR-2:

p.87: Change heading to: "Pile Driving (and all Other Vibratory Construction Equipment) Noise and Vibration Impacts During Construction"



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p. 91: Last paragraph, first line: Change “should” to “shall” and delete text: “considered if reasonable and feasible”

p. 97: First sentence. Add line at the end of the sentence: “All structural and cosmetic damage to all adjacent structures due to construction vibration shall be repaired by VTA.”

Section 5.5: Construction

p. 127: Add the following mitigation measure: “Use Tier 3 or 4 equipment to further reduce construction related emissions where possible.”

p. 129, top: Delete text “to the extent feasible” and use “where possible”. Also add the following text at the end of the same sentence: “and all other vibratory equipment (including but not limited to vibratory compactors, jack hammers, how rams etc.)”

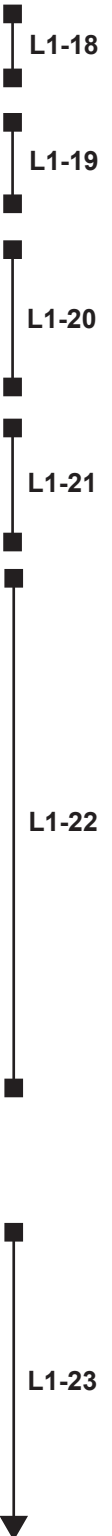
Other Minor Corrections/Clarifications

The City notes that bikeways represented on maps throughout the Draft SEIR-2 are not totally accurate relative to current conditions. Please make the following corrections:

1. Jackson Avenue: Extend the southern limit of the bike lane to Story Road
2. Story Road: Add existing bike lane from McLaughlin westward through the map limit
3. Ocala/Marten Avenues: Remove the bike lane on the section between Ridgemont and White
4. King Road: Add bike lane along the entire corridor
5. Cunningham Avenue: Remove the portion of bike lane west of Reid-Hillview
6. Tully Road: Remove the portion of bike lane between Capitol and Glen Hanleigh

Conclusion

We thank VTA for the opportunity to comment on the Eastridge to BART Regional Connector Draft SEIR-2. The City is committed to the project as a full partner. Our staff are available to work through the issues raised in this comment letter. Other than addressing the various issues in the Final SEIR-2, the City’s primary expectation is that commitments and assurances will be established by an equivalent of a Construction Impact Mitigation Plan and a Master Cooperative Agreement. We also expect VTA to continue working with the City and the County on Station Design and Access to maximize ridership, accessibility, and safety.



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The extension of Eastridge to BART Regional Connector into the east of San José advances the City’s vision of having connected and robust transportation options. The City appreciates the partnership VTA has forged to date on this project with the City and community, and looks forward to working together to make the most of this regional connector Project.

↑
L1-23
Cont.
↓

Sincerely,

Rosalynn Hughey, Director
Planning, Building and Code Enforcement

John Ristow, Acting Director
Department of Transportation

C: Mayor and City Council
City Manager’s Office
City Attorney
Department of Public Works

L1 City of San Jose, November 19, 2018

- L1-1 Support for the approved project and the proposed changes to the approved project is noted and will be forwarded to the VTA Board of Directors for their consideration during the decision-making process. The comment does not raise an environmental issue that requires a response.
- L1-2 The comment provides an overview of the City of San Jose’s (City’s) three areas of concern: construction impact outreach and mitigation plan; agency jurisdiction, environmental compliance, and implications for the City; and station access and parking. Each specific area of concern is addressed in the responses to comments below.
- L1-3 The comment requests that VTA prepare a Construction Impact Mitigation Plan (CIMP) and that VTA enter into a mutually beneficial cooperative agreement with the City and Santa Clara County (County). VTA would prepare a Project Communication and Outreach Plan (PCOP) prior to the start of construction that achieves the goals of a CIMP and cooperative agreement. The PCOP would include a traffic/transportation management plan and detailed outreach plan, as specified in the City of San Jose’s comment. It would also include general information about the processes for obtaining construction easements and/or addressing damages to landlords and businesses.
- L1-4 The comment states that the Draft SEIR-2 does not identify the City of San Jose as one of the responsible agencies under CEQA for certain discretionary actions. Section 2.5, *Uses of the SEIR-2*, in Chapter 2, *Introduction*, of the Draft SEIR-2 specifies the responsible agencies for the project and the specific approvals required by each agency. In response to this comment, the first paragraph of this section has been revised and this text change is documented in Chapter 4, *Major Revisions to the Draft Second Supplemental Environmental Impact Report*. In addition, the sixth bullet point in Section 2.5 has been revised in response to this comment and this text change is documented in Chapter 4.
- The comment also recommends establishment of an Environmental Management System to ensure systematic accountability of mitigation measures and a complete tracking of all mitigation measures. VTA would work with all responsible agencies to track and ensure implementation of mitigation measures and best management practices (BMPs). The tracking of all mitigation measures and BMPs would be distributed to all responsible agencies for review. As standard practice, the VTA Board of Directors would adopt a Mitigation Monitoring and Reporting Program (MMRP) for the approved project with the following elements:
- Identification of mitigation measures, as they appear in the 2005 Final EIR or as amended in the 2007 Final SEIR, 2010 Addendum, 2014 Subsequent IS/MND, and 2019 SEIR-2;

- Identification of the time frame during which each measure is to be implemented and monitored;
- Identification of the party(ies) responsible for implementing and monitoring each mitigation measure; and
- Documentation of compliance activities in quarterly MMRP Status Summary Reports.

Actions to be performed under the MMRP typically include:

- Actions to be taken during project design,
- Actions to be taken before construction,
- Actions to be taken during construction, and
- Actions that require monitoring following construction (operations phase).

The comment also recommends “property-specific requirements developed prior to right-of-way acquisition to minimize effects on property owners” as one of the key elements in the recommended Environmental Management System. These requirements are typically included in the legal agreements associated with the property acquisition process. As such, an Environmental Management System is not considered necessary to ensure accountability and complete tracking of the property-specific requirements.

The last paragraph of the comment recommends a formal agreement, potentially in the form of a Master Cooperative Agreement, for specifying roles and responsibilities of the City, the County, and VTA with regard to mitigation monitoring and compliance with the environmental document. Under Section 15097 (a) of CEQA, the following is stated:

In order to ensure that the mitigation measures and project revisions identified in the EIR or negative declaration are implemented, the public agency shall adopt a program for monitoring or reporting on the revisions it has required in the project and the measures it has imposed to mitigate or avoid significant environmental effects.

If the VTA Board of Directors decides to certify the environmental document and approve the proposed changes to the project, it would also be asked to adopt an MMRP. As the lead agency, VTA is responsible for ensuring that implementation of the mitigation measures occurs in accordance with the program, even if a mitigation measure is not within VTA’s jurisdiction. As a result, VTA does not believe a Master Cooperative Agreement would be needed to articulate roles and responsibilities regarding mitigation monitoring and compliance.

- L1-5 The comment requests that the VTA Station Access Policy be applied to the Story Station and Eastridge Stations. VTA will review this policy and apply as needed during the final design phase of the project.
- L1-6 The comment requests that VTA consider closing the driveway at 2710 Story Road to ensure pedestrian safety. Please see the response to Comment L1-13 for details.
- L1-7 The comment states that the current analysis shows that parking demand is no longer met by 2023. Please see the response to Comment L2-11 for a detailed discussion on parking accommodation and meeting parking demand in 2023.
- The comment also states that, given the changes in transportation technologies, new modes need to be considered and thoughtfully designed into the station areas. VTA would prepare station plans during the final design phase of the project and modify them if needed to accommodate these new modes.
- L1-8 The comment requests clarification on whether long-term parking in the project build-out condition would be consistent with various City of San Jose policies and ordinances (e.g., Envision San José 2040 General Plan; San Jose Municipal Code, Title 20, Chapter 20.90; and City Council Policy 5-1, Transportation Analysis Policy). The City of San Jose has further clarified to VTA that there currently is no parking requirement or requirement for calculating vehicle miles traveled (VMT) from parking for transportation projects. This requirement applies mostly to development projects. VTA understands that one of the main concerns of the City of San Jose is that users who require the automobile as a first- and last-mile connection¹ to the light rail station may consider abandoning the use of light rail transit (LRT) altogether if there is insufficient parking at the stations.
- Under the Envision San José 2040 General Plan, various policies, goals, and actions not only indicate the importance of adequate parking to meet demand but also other modes of access when completing first- and last-mile connections. Although VTA is not proposing to increase the supply of parking at Alum Rock Station or provide any parking at Story Station, VTA would increase parking supply at Eastridge Station to meet demand for the opening year of the project. Please see the response to Comment L2-11 for more details regarding parking at Eastridge Station. VTA would work with the City of San Jose and the County of Santa Clara during the final design phase of the project to increase accessibility to alternative modes at all stations and ensure that parking constraints would not reduce ridership. At Story Station, VTA would explore opportunities to safely accommodate drop-offs/pickups and ridesharing.

¹ First and last-mile connections are the ways in which an individual connects from their origin location, to the core mode of transportation of their trip to their destination, and vice versa. For example, an individual may bike from their home to an LRT station to take LRT to another point along their trip, and then walk the rest of the way to their final destination.

The Eastridge Park-and-Ride lot would include drop-off areas that could be used by rideshare programs. In addition, VTA would provide two dedicated spaces for car-share programs that meet VTA’s insurance requirements and other terms and conditions of VTA’s lease agreements. Also, bicycle parking and connections would be incorporated into the Eastridge Park-and-Ride lot design to ensure comprehensive accessibility by various modes of travel.

As identified in the response to Comment L1-15, the approved project is not anticipated to increase VMT. The approved project would be identified as a transportation project that would reduce or not affect VMT (i.e., project type 6 in the project screening criteria described in Appendix B of the Transportation Analysis Policy). In terms of long-term parking, any additional parking provided at the Eastridge Park-and-Ride lot would be provided to meet parking demand from light rail users, as estimated by the VTA travel demand model. Expansion of the Eastridge Park-and-Ride lot is not anticipated to lead to a net increase in VMT because it would replace VMT with transit miles traveled by improving the accessibility of the station. Therefore, parking associated with the project would not conflict with Policy 5-1.

The San Jose Municipal Code, Title 20, Chapter 20.90, establishes parking specifications to meet the needs generated by a specific use and promotes the efficient utilization of off-street parking facilities. VTA would comply with the provisions set forth in this ordinance during the final design phase of the project.

- L1-9 The comment asks about train movements between the hours of 1:30 am and 4:30 am and indicates that, if there are train movements at that time, measures must be included to reduce noise impacts in accordance with City noise standards. Although VTA currently does not operate any light rail vehicles between the hours of 1:30 am and 4:30 am, VTA may operate vehicles during this timeframe in the future if needed to serve the connection to and from Bay Area Rapid Transit (BART). VTA would coordinate closely with the City if it plans to operate late-night service.
- L1-10 The comment requests four projects be considered “changes and circumstances” and added to Section 3.3. In response to this comment, VTA has added VTA C17131F, Pedestrian Connection to Eastridge Transit Center; VTA C810, Capitol Expressway Pedestrian/Bus Improvements; VTA C811, Capitol Expressway Light-Rail Project/Eastridge Transit Center, and Tully Road Vision Zero Safety Improvements to Section 3.3, *Changes in Circumstances*. This text change is documented in Chapter 4, *Major Revisions to the Draft Second Supplemental Environmental Impact Report*.
- L1-11 The comment states that the City of San Jose is not supportive of reducing the capacity of Capitol Expressway to one lane in either direction during construction. Although VTA would be permanently removing two lanes of Capitol Expressway

at the beginning of construction, VTA would not be closing any additional lanes or reducing the capacity of Capitol Expressway to one lane during peak hours. However, during non-peak hours, VTA would coordinate with the County of Santa Clara and the City of San Jose to establish short-term work windows for reducing lanes and performing necessary construction activities that require lane closures. The number of lanes to be closed for construction along Capitol Expressway would be based on construction requirements, physical constraints, traffic volumes, and construction duration, with the goal of minimizing overall impacts. These closures would be required primarily for the safety of the traveling public and construction personnel.

In addition, lane closure charts would be developed that specify the hours of closure and how many lanes may be closed for specific construction activities. The lane closure charts would be based on traffic volumes. A Project Communication and Outreach Plan would be developed and implemented during construction to keep the community informed of construction activities and corresponding traffic control requirements.

L1-12 The comment states that the effect of lane closures and detours on neighborhood streets as a result of diversions or cut-through traffic should be analyzed. VTA recognizes the potential for diversions and cut-through traffic during construction. During final design and construction of the approved project, VTA would work closely with the City and County to identify neighborhood streets with the potential for cut-through traffic. VTA would collect existing traffic volumes on these streets and identify measures to deter cut-through traffic when detours and lane closures are required for construction. The deterrent measures for cut-through traffic on neighborhood streets would be included in the Traffic Management Plan.

L1-13 This comment expresses concerns about the driveway at 2710 Story Road (Chevron gas station) on Capitol Expressway and requests that VTA consider transit-oriented development or a multimodal hub at this location, apply VTA's Station Access Policy, and reconsider vehicular access to the Chevron gas station from Capitol Expressway.

In response to this request from the City and a similar request from the County citing concerns about pedestrian safety, negative effects on traffic flow, and sight distant issues, VTA is proposing to close the driveway to the Chevron gas station from Capitol Expressway. VTA would also work with the City and the County to refine the station plan during the final design phase of the project and facilitate safe and convenient pedestrian access, increase ridership, and enhance the adjacent neighborhoods. VTA would not be acquiring additional property at this location for transit-oriented development or a multimodal hub.

- L1-14 The comment requests clarification regarding maintenance of the pedestrian overpass (POC) for Story Station. VTA would be responsible for maintaining the POC. Since the footprint encroaches within the County of Santa Clara’s right-of-way, a maintenance agreement would be established with the County for VTA to maintain the POC.
- L1-15 The comment recommends that the Draft SEIR-2 include an estimated net change in vehicle miles traveled (VMT) due to the project. One of the major benefits associated with the proposed changes to the approved project is providing the public with a more reliable travel time via light rail transit (LRT), which would encourage a reduction in automobile trips and increase person throughput through the use of transit. As shown in the Supplemental Transportation Analysis, the Natural Resources Agency’s Proposed Regulatory Text, new Section 15064.3(b)2, states that “Transportation projects that reduce, or have no impact on, vehicle miles traveled should be presumed to cause a less-than-significant transportation impact.” The approved project would likely reduce VMT because it would create an enhanced transit service that would connect to the regional BART system, which should shift some automobile trips to transit. In addition, the proposed changes to the approved project would reduce roadway capacity for a portion of the corridor by eliminating a travel lane on Capitol Expressway between Tully Road and Story Road. Based on the available literature regarding induced travel demand, this reduction in roadway capacity would likely lead to a reduction in VMT. Considering these two factors, it is likely that the EBRC project would reduce VMT compared with no-project conditions.
- The City of San Jose’s Council Policy 5-1, Transportation Analysis Policy, establishes VMT as the metric for CEQA transportation analysis in response to Senate Bill 743. The Transportation Analysis Policy provides project screening criteria to identify projects that are exempt from a detailed VMT analysis. VTA finds that the approved project would be identified as a transportation project that reduces or does not affect VMT, which is described under Project Type 6 of the “Project Screening Criteria” in Appendix B of the City’s Transportation Analysis Policy.
- VTA is in the process of creating a methodology for calculating VMT for transit projects. Providing an estimate of VMT for this project would be preliminary at this time.
- For the reasons described above, a detailed VMT analysis is not be required for the proposed changes to the approved project in the Draft SEIR-2.
- L1-16 The comment urges VTA to examine the use of a 5-Hertz floating slab track (FST), bridge-bearing vibration isolation system, or operational speed reductions to address the residual nighttime operational vibration impacts of the proposed changes to the approved project. The comment relates to the exceedance of

Federal Transit Administration (FTA) thresholds for vibration during nighttime hours (between 10:00 pm and 7:00 am) at homes within 100 feet of the proposed aerial guideway, as identified in Section 5.3, *Noise and Vibration*, of the Draft SEIR-2. If a 5-Hertz FST or a bridge-bearing vibration isolation system is included as mitigation, the nighttime impact criteria would not be exceeded at any sensitive receptor locations.

It is important to note that the Draft SEIR-2 considers receptors that experience a nighttime vibration level of 72 vibration velocity decibels (VdB) under project conditions as affected. To provide context, human perception to vibration is highly subjective and varies from person to person. The FTA Transit Noise and Vibration Impact Assessment considers 72 VdB to be generally in the “barely perceptible” range, with levels above 75 VdB considered to be the onset of annoyance for many people.. Table 10 in the *EBRC – CELR Noise and Vibration Assessment* prepared by ATS Consulting (included in Attachment E in Volume II of the Draft SEIR-2)² shows that the majority of sensitive receptors along the project corridor would experience a maximum unmitigated vibration level that would be under 75 VdB. A safety factor of +3 VdB has also been incorporated to estimate operational vibration levels, showing that the vibration levels are anticipated to be barely perceptible to not felt at all during operations.

After careful consideration and analysis in the Draft SEIR-2, VTA is not recommending to include FST or a bridge-bearing isolation system as mitigation for several reasons. Future vibration levels, which would include a +3 VdB safety factor, would be at or slightly above the nighttime vibration impact criteria at many affected locations and may not actually exceed the threshold during operations. Many affected locations would be up to 100 feet from the aerial guideway, which is much farther than the typical distance at which nighttime vibration impacts are experienced. Typically, ground vibration from aerial guideway operations is below the level of perception for residences at a distance of approximately 50 feet from the guideway columns. In addition, VTA has analyzed the design of both FST and bridge-bearing vibration isolation systems and determined that implementation of these measures would complicate the track and structural design and would not be operationally feasible because of the steepened approach grades of the track profile. Implementation of FST on an aerial structure would require raising the profile of the guideway by 4 feet for accommodation as well as increasing the size of the columns and foundation area. This would increase the zone of influence of the project and could cause additional traffic impacts by requiring further narrowing of Capitol Expressway. The current design of the track has been refined to a slope of approximately 5.5 percent in an effort to meet an optimal grade of 4 percent for light rail transit (LRT) operations. The LRT cannot operate at higher grades or over VTA’s

² This assessment was revised subsequent to the publication of the Draft SEIR-2. The revised assessment is included in Chapter 2 of this Final SEIR-2.

maximum acceptable operating grade of 6 percent because of the high-power draw that would be required for acceleration along this level of incline. At the northern end of the project corridor, the grades for a bridge-bearing vibration isolation system would exceed 6.0 percent. At the southern end, this measure would also cause Eastridge Station to be relocated south into Eastridge Loop Road. For the reasons described above, VTA is not recommending FST or bridge-bearing isolation systems, which would mitigate small exceedances of the FTA structural damage criteria while increasing the complexity of the track and structural design.

VTA is not considering speed reductions as mitigation to reduce operational vibration impacts. One of the major goals for the approved project is to provide fast, reliable, and frequent service to users; a reduction in speed would counter this goal. VTA is committed to providing an effective connection from the light rail extension to the Milpitas BART station, and any reduction in the speed of the system would degrade this connection. It should be noted that frequency and span of service on this line are directly related to planned BART service. Therefore, when BART is operating at reduced frequencies in the late-night and early-morning periods, VTA light rail would also be operating at reduced frequencies. The exception to this would be during the AM peak period of travel, from approximately 6:00 am to 7:00 am, when both BART and VTA light rail would be operating at their peak period service frequencies.

The comment also suggests that alternative pile driving methods be explored to reduce temporary construction noise and vibration for severely affected homes. The construction noise assessment (included in Attachment E in Volume II of the Draft SEIR-2) indicated that pile driving noise impacts are fully mitigated at all homes by employing an integrated pile noise shield and pile impact cushion. The construction vibration assessment indicated that there are 64 locations with predicted levels above the FTA vibration impact criteria. The construction vibration predictions include a level of conservatism. The predictions are based on a high reference level for pile drivers, given uncertainties in the specific equipment that would be used in practice. It is anticipated that the pile drivers that would be used during construction would create lower levels of vibration than estimated in the analysis. However, VTA recognizes that the homes surrounding 660 South Capitol Avenue are the most vulnerable. As a result, VTA would use the cast-in-drilled-hole (CIDH) method from the Highwood Drive intersection to just south of 660 South Capitol Avenue to reduce vibration levels to below the FTA criteria. The use of CIDH would not be feasible along the entire span of the project corridor because of the extensive lane closures that would be required, which would result in additional traffic impacts and right-of-way needs. The use of CIDH in the vicinity of 660 South Capitol Avenue would reduce the number of construction vibration impacts from 64 residences to 56 residences.

The comment states that the noise and vibration mitigation measures proposed for 660 South Capitol Avenue should be extended to adjacent homes and that second-row homes also be evaluated. The CIDH methods would be used at a number of locations and would benefit eight other residences in the vicinity of 660 South Capitol Avenue.

Second-row homes and beyond are generally too far from construction activities to experience vibration impacts. Any affected second-row home implies that the first-row home is affected to a higher degree. Therefore, if a first row home is mitigated to acceptable levels (through mitigation applied near the source of noise or vibration), the second-row home would also mitigated to an acceptable level.

- L1-17 The comment requests that the heading of the section titled “Pile Driving Noise Impacts During Construction” be revised to “Pile-Driving (and all Other Vibratory Construction Equipment) Noise and Vibration Impacts during Construction.” The Draft SEIR-2 already includes a section that addresses pile driving vibration impacts during construction. Therefore, the title of the section that addresses noise was not revised to include vibration. However, in response to this comment, the text “(and all Other Vibratory Construction Equipment)” was added to the headings of both the noise and vibration impacts sections and text regarding other vibratory construction equipment was added to both sections. This text change is documented in Chapter 4, *Major Revisions to the Draft Second Supplemental Environmental Impact Report*.
- L1-18 The comment suggests revising the first sentence under Mitigation Measure NV (CON)-2 in Section 5.3 as follows: “A combination of the following measures ~~should~~ *shall* be ~~considered if reasonable and feasible~~ to reduce noise and vibration impacts from pile driving:” The use of “should” would be consistent with the verb tense used throughout the document in order to speak in one uniform voice, and the “reasonable and feasible” wording would be necessary because some of these measures would be conditional and may require modification in practice. Therefore, the sentence remains unchanged. VTA would collaborate with the City of San Jose and County of Santa Clara to review the appropriate use of each measure listed in Mitigation Measure NV (CON)-2 along the project corridor.
- L1-19 The comment requests adding the following sentence before the last sentence on page 97 of the Draft SEIR-2: “All structural and cosmetic damage to all adjacent structures due to construction vibration shall be repaired by VTA.” In response to this comment, the Draft SEIR-2 was revised to indicate that the use of non-impact piling methods is not recommended by VTA at most locations and that damage due to construction vibration would be repaired by VTA. This text change is documented in Chapter 4, *Major Revisions to the Draft Second Supplemental Environmental Impact Report*.

- L1-20 The comment requests the following mitigation measure be added: “Use Tier 3 or 4 equipment to further reduce construction related emissions where possible.” In response to this comment, Mitigation Measure AQ (CON)-3 has been added to the SEIR-2. This text change is documented in Chapter 4, *Major Revisions to the Draft Second Supplemental Environmental Impact Report*.
- L1-21 The comment requests that VTA add stronger language regarding implementation of BMPs to reduce greenhouse gas emissions from construction equipment, especially vibratory equipment, to Mitigation Measure AQ (CON)-2. These BMPs include using at least 15 percent alternative-fueled construction vehicles/equipment, sourcing at least 10 percent of building materials locally, and recycling at least 50 percent of construction waste or demolition materials. Although VTA would investigate the feasibility of these BMPs during the final design phase of the project, VTA does not have enough information on availability and affordability to make a commitment to these measures at this time.
- L1-22 The comment requests that VTA revise bikeways represented on maps to accurately reflect current conditions. The bikeways shown in Figures 2-1 and 3-1 in the Draft SEIR-2 as well as Figures 1-1 and 2-1 from the Second Subsequent Initial Study (included in Attachment G in Volume III of the Draft SEIR-2) have been revised per the City’s comments. These figure changes are documented in Chapter 4, *Major Revisions to the Draft Second Supplemental Environmental Impact Report*.
- L1-23 The comment reiterates the City of San Jose’s request that commitments and assurances be established by a Construction Impact Mitigation Plan and a Master Cooperative Agreement. The comment also indicates the expectation that VTA work with City and County on station design and access. As described in the response to Comment L1-3, VTA would prepare a Project Communication and Outreach Plan. In addition, VTA would work with the City and the County on station access and design during the final design phase of the project.



November 19, 2018

Letter L2

Christina Jaworski
Environmental Programs and Resources Management
Santa Clara Valley Transportation Authority
3331 North First Street, Building B
San Jose, CA 95134-1927

SUBJECT: Draft Second Supplemental Environmental Impact Report for the Eastridge to BART Regional Connector: Capitol Expressway Light Rail Project

Dear Ms. Jaworski:

The County of Santa Clara Roads and Airports Department appreciates the opportunity to review the Draft Second Supplemental Environmental Impact Report (SEIR2) for the Eastridge to BART Regional Connector project. We appreciate that VTA staff have been proactive in meeting with County staff during project development and geometric design. Below are overarching project comments. Specific SEIR2 comments are provided in Attachment A.

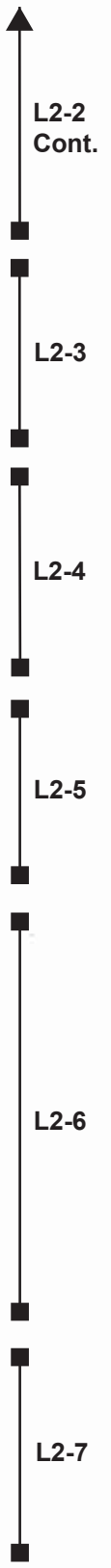
- The project reduces the number of lanes conveying vehicular traffic on Capitol Expressway from four to three in each direction between Tully Road and Story Road. Projected ridership on the new LRT extension will not reduce the peak traffic volumes enough to prevent increased congestion in the corridor. While it is understood that the investment in high quality transit for this corridor provides additional mobility options for Evergreen and East San Jose, efficient vehicular travel will still be necessary to prevent delay and air quality issues. It is therefore imperative that the project provide Intelligent Transportation System (ITS) SMART Corridor hardware and communication technology to maximize the coordinated flow of vehicles on Capitol Expressway from Highway 101 to Highway 680.
- The construction of the project will create significant traffic, noise and vibration impacts. By ordinance, the City of San Jose typically requires a Construction Impact Mitigation Plan (CIMP) for projects of this magnitude to address the various impacts. As a condition of permitting of this project, the County will require a CIMP that

L2-1

L2-2

addresses in detail how Capitol Expressway traffic will likely redistribute along relief detour routes during progressive phases of the project, and at different times of day. Different phases and subphases may have different routes and each will need to be crafted to maximize effective rerouting along arterials and major streets, and minimize residential neighborhood cut-through traffic. Certain interim improvements may be required to accomplish these goals.

- The County is requesting updated vehicle count data at key regional locations and distribution modelling including projected travel times along Capitol Expressway to assess projected traffic patterns during construction. The data should also include anticipated vehicle trip growth that will occur during the project construction period such as the Arcadia development near Capitol Expressway and Quimby Road.
- It is critical to effectively and safely accommodate bicycle and pedestrian movements in the project area during construction. As with vehicular rerouting, interim improvements may be required to accomplish these goals. Pedestrian and bicycle accommodations should be included in stage construction plans and approvals to prevent this from becoming a cost item during construction and ensure high quality, well planned temporary facilities.
- The CIMP should address noise and vibration as well as other construction-related impacts like dust and odor. Regarding noise and vibration during construction, the County is working with the City of San Jose and VTA staff and consultants to study alternatives that will yield the best balance between minimizing these impacts and maximizing construction productivity.
- The station areas at Eastridge Mall and Story Road are important multimodal operation areas located within an expressway and arterial street environment. There will be high concentrations of pedestrians and bicyclists as well as last mile providers such as docked and dockless bike share, scooters, and networked rideshare. It is critical that the project design consider all facets of interaction between modes at these locations while maintaining safe vehicle flow. The proposed pedestrian overcrossing at Story Road is an amenity that offers pedestrians an option to avoid crossing Capitol Expressway at the street level. However, the proximity of the Chevron gas station driveway near the east landing of the overcrossing is concerning. Discussion of this location is ongoing, but the County, is seeking a more effective design that reduces or eliminates right turns from the expressway across the sidewalk near the pedestrian zone.
- The construction of the project will accelerate deterioration of the pavement on Capitol Expressway from Highway 101 to Highway 680. It is essential that the project provide a new wearing course within the project limits and, if warranted, elsewhere between Highway 101 and Highway 680, using the County's minimum paving specifications for the design traffic index and loading.



- Exhaustive public contact, communication and outreach must be provided for this project. Capitol Expressway is a key regional corridor that provides direct connectivity between Highway 101 and Highway 680, and is heavily relied upon by regional commuters, residents and businesses. There are a vast number of stakeholders who need to be continuously informed of project activities that will impact them. The project CIMP will need to include an extensive discussion of the specific approaches that will be taken. The outreach program will need to be led and staffed by the VTA and include an easily accessible project office. Other outreach tools that the project should consider include but are not limited to: issuing full media press releases to regionally significant radio, television, print, and social media resources; including roadway alerts and notifications to expressway users via changeable message signs; developing a project website distinctive and separate from the VTA website. The County will partner to provide any support with roadway alerts and notifications.

L2-8

Thank you for the opportunity to comment on the Eastridge to BART Connector Project. The County looks forward to working jointly with VTA. If you have any questions or concerns about these comments, please contact Ellen Talbo, County Transportation Planner, at (408) 573-2482 or ellen.talbo@rda.sccgov.org.

Sincerely,



Harry Freitas
Director of Roads and Airports

cc: Ven Prasad, Valley Transportation Authority
John Ristow, City of San Jose

Attachment A – CEQA EIR comments related to the Transportation Analysis (TA):

General

To understand the impacts and mitigations clearly, please provide side-by-side previously approved alternative and proposed alternative impacts and mitigations for study intersections.

Trip Distribution

1. Existing condition observation from County staff indicated that there are public transit users either get drop off/pick up by family members or ride sharing services, or park their vehicles using Eastridge Mall’s parking lot spaces. This issue is not seen discussed in the TA but these are project trips directly impact expressway intersections.
2. The TA needs to demonstrate or provide metrics as to how the project’s proposed parking is generated and distributed along the Expressway corridor. How will the VTA plan for the park and ride parking demand avoid spilling over to adjacent shopping mall parking lots, which would then result in more project trips on Capitol than anticipated?
3. Are there any parking spaces provided at the newly proposed LRT stations? Are there more parking spaces added to the Alum Rock Station Park-and-Ride Lot? If yes, provide project trip distribution for anticipated additional project trips on Capitol Expressway. Provide mentioned VTA emails on 4/20/18 and 8/15/18 regarding ridership assumptions and station ridership arrival modes in the TA.

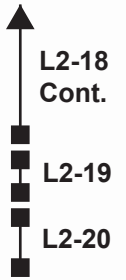
Level of Service Analysis and Travel Time

1. The TA did not use correct timing info to calculate existing LOS conditions, therefore results are not consistent with County's LOS requirements. Appendix B is still showing wrong timing on the revised report.
2. For CMP intersections, the PM existing conditions should have used the 2016 CMP approved LOS and counts. The TA's 2017 counts for SBT at Capitol Avenue and Story Road were much lower than 2016 CMP. The revised report only used volumes but not the associated timings.
3. The eastbound Excalibur approach lane configuration flow rate should be equal to only one lane instead of three lanes. Refer to approved 2016 CMP LOS analysis for eastbound. The revised report still used incorrect lane geometry on EB.
4. Provide analysis as to why existing volumes on Capitol are projected to decrease under project conditions. Provide details explaining fully all causes and assumptions. Transits users? Traffic diversions?
5. Travel Time and Average Speed calculation methodology for the post-project and during constriction conditions are not acceptable to County. The travel time and speed impacts should be for the corridor segment using a corridor analysis method and using other software such as Synchro, VISSIM, etc.
6. The TA should include Queuing Analysis at all locations for the impacted through movements and left turns. The Queuing Analysis needs to include, at a minimum,



existing and all project conditions with 50th and 95th percentile queue length calculations. Additional graphical representation of queue lengths is recommended. What is provided in the report is not complete and does not include all intersections from Excalibur Ave to Quimby Rd.

7. The TA should study impacts of turning movement lane reduction.
8. Traffix files: Some sheets have the date of count missing. Please show the date of counts used in the Volume Module field.



L2 County of Santa Clara, November 19, 2018

- L2-1 The comment requests that VTA install SMART corridor hardware and communications technology on Capitol Expressway from US 101 to Interstate 680. SMART corridor hardware and communications technology uses Intelligent Transportation Systems to optimize roadway operations, improve travel time reliability, and enhance safety. Some examples of improvements include Closed Caption Television (CCTV) cameras, bicycle capable detections at intersections, Bluetooth travel time reader, Pedestrian/Bicycle Adaptive Signal Timing, Americans with Disabilities Act (ADA) push buttons, countdown pedestrian signal heads, and ADA ramps. VTA commits to the installation of SMART corridor infrastructure and equipment (with the exception of communications connections with the Traffic Management Center) within the project limits to assist with the County’s effort to manage traffic during construction and post-construction activities. VTA understands that the implementation of SMART technology could help improve traffic flow throughout the expressway corridor. As a result, VTA would work with the County separate from the approved project to identify funding sources for implementation of SMART technology, including the 2016 Measure B program.
- L2-2 The comment states that the County would require a Construction Impact Mitigation Plan that addresses in detail how Capitol Expressway traffic would redistribute along relief detour routes during progressive phases of the project and at different times of day. VTA is committed to preparing a Project Communication and Outreach Plan (PCOP) as described in the response to Comment L1-3 and conducting an analysis of traffic redistribution during the final design phase of the project. In addition, final design would include detour, construction staging, and signage plans. The PCOP would identify measures to minimize impacts on local streets to the extent feasible during the construction phase of the project. The PCOP would also consider feasible mitigation measures to minimize noise and vibration from construction.
- L2-3 The comment states that the County is requesting updated vehicle count data at key regional locations and distribution modeling, including projected travel times along Capitol Expressway, to assess projected traffic patterns during construction of the approved project. Vehicle counts for the proposed changes to the approved project were conducted in October 2017, and additional counts were conducted in fall 2018. The vehicle counts are included in the *Eastridge to BART Regional Connector: Capitol Expressway Light Rail Project Supplemental Transportation Analysis* prepared by Hexagon Transportation Consultants, Inc. (included in Attachment D in Volume II of the Draft SEIR-2).³ During the final design phase of the project, the project team would coordinate with the County of Santa Clara

³ This analysis was revised subsequent to the publication of the Draft SEIR-2. The revised analysis is included in Chapter 2 of this Final SEIR-2.

to conduct additional traffic counts, at locations to be determined. The data would be analyzed during the design phase of the project to assess projected traffic patterns during construction.

- L2-4 The comment requests bicycle and pedestrian accommodations with high-quality, well-planned temporary facilities as part of the stage construction plans. VTA would prepare stage construction plans that would include plans for bicycle detours off Capitol Expressway. The City of San Jose and County of Santa Clara would be given an opportunity to review the plans before implementation.
- L2-5 The comment states that the Construction Impact Mitigation Plan should address noise and vibration as well as other construction-related impacts, such as dust and odor. Please see the response to Comment L1-3 regarding a Project Communication and Outreach Plan (PCOP). VTA would implement a PCOP that would address noise and vibration as well as other construction-related impacts (e.g., dust and odor).
- L2-6 The comment raises concern over pedestrian and bicycle safety at the pedestrian overcrossing on Story Road in relation to the nearby Chevron gas station driveway. Please see the response to Comment L1-13 for further details regarding the Chevron gas station driveway.
- L2-7 This comment requests that VTA provide a new wearing course within the project limits and elsewhere as needed. VTA would provide a new wearing course within the project limits between Capitol Avenue and the Eastridge access road. Outside the project limits, VTA would require the contractor to perform a preconstruction survey to document existing conditions. The contractor would be required to repair all damaged areas attributable to construction of the approved project.
- L2-8 The comment states that extensive public contact, communication, and outreach must be provided for the project. After the final design phase of the project, VTA would prepare a Project Communication and Outreach Plan (PCOP). The County and City would be given an opportunity to review and respond to the PCOP before its implementation. VTA appreciates the County's offer to provide support with roadway alerts and notifications, as stated in the comment.
- L2-9 The comment requests a side-by-side comparison of the traffic impacts and mitigations of the study intersections for the previously approved project and the proposed changes to the approved project. Table 3-2 was prepared in response to this comment, showing the previously approved alternative from the 2014 Mitigated Negative Declaration, the most recent environmental document approved for the project, and the proposed changes to the approved project analyzed in the SEIR-2. Because the build-out year in the 2014 Subsequent IS/MND is 2035, a comparison of the approved project and the proposed changes cannot be made for the same study year, since the build-out year was updated to 2043 in the SEIR-2. However, the last column shows if the LOS improved, stayed

the same, or degraded by color (green if the LOS improves, yellow if it stays the same, and red if it degrades) from the approved project build-out year to the proposed changes build-out year. The Story Road (PM), Ocala Avenue (AM), and Cunningham Avenue intersections on Capitol Expressway would have greater delay in the proposed changes build-out year of 2043 when compared to the approved project build-out year of 2035. All other intersection would improve.

Table 3-2 Summary of Traffic Impacts

Intersection	Year 2035 No-Build			Year 2043 No-Build		Year 2035 Build (Approved Project)		Year 2043 Build (Proposed Changes to Approved Project)	
	Peak Hour	Avg. Delay (sec/veh)	LOS	Avg. Delay (sec/veh)	LOS	Avg. Delay (sec/veh)	LOS	Avg. Delay (sec/veh)	LOS
Capitol Expressway & Capitol Avenue	AM	106.1	F	55.9	E	172.5	F	67.5	E
	PM	116.6	F	55.5	E	86.9	F	53.8	D
Capitol Expressway & Story Road	AM	161.8	F	113.9	F	156.2	F	144.3	F
	PM	137.8	F	187.1	F	121.9	F	188.6	F
Capitol Expressway & Ocala Avenue	AM	102.9	F	101.5	F	118.1	F	131.8	F
	PM	105.4	F	101.7	F	126.6	F	97.4	F
Capitol Expressway & Cunningham Avenue	AM	12.5	B	41.9	D	12.1	B	58.9	E
	PM	10	A	14.7	B	10.4	B	16.1	B

Source: VTA 2019.

Table 3-3 compares the mitigation measures for traffic under the approved project, as identified in the approved 2005 Final EIR, 2007 SEIR, and 2014 Subsequent IS/MND, and the mitigation proposed in the SEIR-2.

Table 3-3 Summary of Traffic Mitigation Measures

Transportation Impact	Mitigation Measure Code	Mitigation Measure (2005 Final EIR and/or 2014 Subsequent IS/MND)	Mitigation Measure (SEIR-2)¹	Mitigation Measure was Modified, Stayed the Same, or Removed?
Traffic Impacts at Capitol Expressway/Story Road in 2018 (Now 2023)	TRN-2a	No mitigation feasible (2005 Final EIR) ²	No mitigation feasible	Stayed the Same
Traffic Impacts at Capitol Expressway/Ocala Avenue in 2018 (Now 2023)	TRN-2b	No mitigation feasible	No mitigation feasible	Stayed the Same
Traffic Impacts at the Capitol Expressway/Tully Road Intersection in 2018 (Now 2023)	TRN-2c	Maintain HOV Lane on Capitol Expressway as an HOV Bypass Lane	N/A	Stayed the Same. This mitigation measure was included in the 2005 Final EIR and was later removed from the 2014 Subsequent IS/MND as a mitigation measure because it was assumed as a project feature. TRN-2c was added back into the Draft SEIR-2 to be consistent with the 2005 Final EIR and the 2007 SEIR, and to ensure this measure was not overlooked in the final engineering phase.
Traffic Impacts at Capitol Expressway/ Capitol Avenue in 2035 (now 2043)	TRN-8a	Provide a straight-through lane and add a left-turn lane on westbound South Capitol Avenue and eastbound Excalibur Drive.	Provide a straight-through lane and add a left-turn lane on westbound South Capitol Avenue and eastbound Excalibur Drive.	Modified. The current configuration on westbound South Capitol Avenue is two exclusive left turns, a through/left lane, and a right turn lane. VTA would be providing three exclusive left turns, an exclusive through-lane and a right turn lane. The current configuration on eastbound Excalibur Drive is one exclusive left turn lane, an exclusive through-lane and a right turn lane. VTA is providing two exclusive

Transportation Impact	Mitigation Measure Code	Mitigation Measure (2005 Final EIR and/or 2014 Subsequent IS/MND)	Mitigation Measure (SEIR-2) ¹	Mitigation Measure was Modified, Stayed the Same, or Removed?
				<p>left turns, an exclusive through lane and a right turn lane.</p> <p>Therefore, this measure would be incorporated into the current design of the project.</p>
Traffic Impacts at Capitol Expressway/Story Road in 2035 (now 2043)	TRN-8b	No mitigation feasible (2005 Final EIR) ²	No mitigation feasible	Stayed the Same
Traffic Impacts at Capitol Expressway/Ocala Avenue in 2035 (now 2043)	TRN-8c	No mitigation feasible	No mitigation feasible	Stayed the Same
Traffic Impacts at Capitol Expressway/Tully Road in 2035 (now 2043)	TRN-8d	Maintain HOV Lane on Capitol Expressway as an HOV Bypass Lane	N/A	Stayed the Same. This mitigation measure was included in the 2005 Final EIR and was later removed from the 2014 Subsequent IS/MND as a mitigation measure because it was assumed as a project feature. TRN-2c was added back into the Draft SEIR-2 to be consistent with the 2005 Final EIR and the 2007 SEIR, and to ensure this measure was not overlooked in the final engineering phase.
Construction-Related Traffic Impacts	TRN (CON)-2a	VTA shall require its contractors to prepare and implement traffic handling plans in concert with the County of Santa Clara and the City of San Jose. Based on the Traffic Management Plan, contractors would use flagmen and follow a daily construction schedule that would restore traffic capacity during	No change to mitigation measure	Stayed the Same

Transportation Impact	Mitigation Measure Code	Mitigation Measure (2005 Final EIR and/or 2014 Subsequent IS/MND)	Mitigation Measure (SEIR-2) ¹	Mitigation Measure was Modified, Stayed the Same, or Removed?
		<p>peak periods on weekdays (the morning commute period is 7:00 to 9:00 am and the evening commute period is 4:00 to 6:00 pm). VTA would use a Construction Management contractor and assign a specific VTA Construction Management team to oversee construction. Construction equipment traffic from the contractors would be controlled by flagmen and the procedures contained in the Traffic Management Plan. For example, the use of the median to store large pieces of equipment overnight would be regulated. Traffic that may attempt to use neighborhood streets to avoid construction areas would be controlled.</p>		
Construction-Related Traffic Impacts	TRN (CON)-2b	<p>VTA shall coordinate with the appropriate local jurisdiction to provide the public with advance notice of proposed traffic detours and their duration. VTA would continue to use a team of public outreach staff who would be dedicated to the Light Rail Alternative. VTA would establish a field office along the Project that would be open to the public during specific hours of the week and be equipped with a project phone</p>	No change in mitigation measure	Stayed the Same

Transportation Impact	Mitigation Measure Code	Mitigation Measure (2005 Final EIR and/or 2014 Subsequent IS/MND)	Mitigation Measure (SEIR-2) ¹	Mitigation Measure was Modified, Stayed the Same, or Removed?
		hotline to assist with phone calls. The public outreach staff would proactively inform the public of the ongoing project progress and exceptions to the expected plans. The staff would also respond to requests for information and assistance when impacts raise special concerns. Emergency requests would be addressed within a specific time goal.		
Construction-Related Traffic Impacts	TRN (CON)-2c	VTA will provide the public and transit users with advanced notice of reroutes and changes in stops and service. The public and transit users would receive notifications of any changes in transit service due to the construction of the Light Rail Alternative. The program would be part of the Eastridge to BART Regional Connector Project public outreach effort.	No change in mitigation measure	Stayed the Same

Notes:

¹ Not Applicable = N/A. The mitigation measure is either not applicable (i.e., not required because there were no significant impacts identified for the approved project for the topic in the relevant environmental document) or the potential impact of the approved project was not analyzed in the relevant environmental document.

² No impact identified in the 2014 Subsequent IS/MND.

Source: VTA 2019.

- L2-10 The comment states that the *Eastridge to BART Regional Connector: Capitol Expressway Light Rail Project Supplemental Transportation Analysis* prepared by Hexagon Transportation Consultants, Inc. (included in Attachment D in Volume II of the Draft SEIR-2)⁴ does not address effects on expressway intersections from drop-off and pickup trips for transit users as well as rideshare trips. The existing drop-off/pickup/rideshare/Park-and-Ride trips at the Eastridge Station and the Alum Rock Station are captured in the existing expressway traffic counts. With regard to future trips, the analysis uses the VTA travel demand model, which accounts for all modes of access to bus and rail transit, including park-and-ride and kiss-and-ride trips. The kiss-and-ride mode share accounts for rideshare services (e.g., Lyft and Uber). Table 19 in the Supplemental Transportation Analysis shows the modes of access for all stations. The traffic forecasts account for park-and-ride and kiss-and-ride trips along Capitol Expressway. The one exception is Story Station where no park-and-ride or kiss-and-ride trips are anticipated because of the lack of supporting facilities. The Supplemental Transportation Analysis presents a revised analysis specific to the proposed changes to the approved project, including expressway intersections from Capitol Avenue to Cunningham Avenue. Previous iterations of the Transportation Analysis, particularly the 2013 *Addendum Supplemental Traffic Analysis for Capitol Expressway Light Rail Project EIR* in Attachment F and Section 3.1 of the 2014 Subsequent IS/MND, evaluated the effects of park-and-ride/kiss-and-ride trips on all Capitol Expressway intersections.
- L2-11 The comment states that the *Eastridge to BART Regional Connector: Capitol Expressway Light Rail Project Supplemental Transportation Analysis* prepared by Hexagon Transportation Consultants, Inc. (included in Attachment D in Volume II of the Draft SEIR-2)⁵ needs to demonstrate or provide metrics as to how the project's proposed parking would be generated and distributed along the Capitol Expressway corridor and inquires as to how VTA would accommodate parking demand to avoid spill over into the adjacent shopping mall parking lots. As stated in Section 5.1, *Transportation*, of the Draft SEIR-2, under the subheading “Impacts on Parking at Eastridge Park-and-Ride Lot,” currently, the number of parking spots has been reduced because of relocation of VTA Paratransit personnel and vehicles to a remodeled building at this location. The Draft SEIR-2 analyzed parking demand and forecasts for the opening year (2023) of the project and determined that there would be a demand for 293 parking spaces. In response to this comment, VTA would reconfigure the Eastridge Park-and-Ride lot to accommodate a demand for 293 parking spaces by the 2023 opening year, thereby reducing the probability of spillover parking into surrounding areas. The design of the Eastridge Park-and-Ride lot would also accommodate an area for drop-offs

⁴ This analysis was revised subsequent to the publication of the Draft SEIR-2. The revised analysis is included in Chapter 2 of this Final SEIR-2.

⁵ This analysis was revised subsequent to the publication of the Draft SEIR-2. The revised analysis is included in Chapter 2 of this Final SEIR-2.

and pickups to avoid this activity from occurring in neighboring areas. This text change is documented in Chapter 4, *Major Revisions to the Draft Second Supplemental Environmental Impact Report*. As part of project operations, VTA would conduct regular monitoring and parking counts at the Eastridge Park-and-Ride lot to ensure that the parking supply provided would be adequate. Should parking demand begin to exceed supply, VTA has at least 135 parking stalls that would be made available to accommodate future parking demand. Therefore, the 2023 parking demand at the Eastridge Station would be met.

L2-12 The comment requests that the Draft SEIR-2 discuss parking at the new stations and the existing Alum Rock Station. Attachment B, *Detailed Description of the Proposed Changes*, in Volume I of the Draft SEIR-2 includes a detailed description of the proposed changes to the approved project, including the proposed stations and park-and-ride facilities. The project would not include additional parking spaces at Alum Rock Station because of space constraints. In addition, the project would not include parking at Story Station to minimize property acquisition and impacts on businesses. At Eastridge Station, the project would add 122 new spaces through reconfiguration and restriping of the existing Park-and-Ride lot.

The comment also requests emails on April 20, 2018, and August 15, 2018, regarding ridership assumptions and station ridership arrival modes. These emails are included at the end of the responses to the County’s comments. Please note that the reference to the August 15, 2018, email was incorrect and should be August 14, 2018. In addition, it should be noted that the ridership forecasts in this email were subsequently updated based on the 2019 New Service Plan approved by the VTA Board of Directors in May 2019.

L2-13 The comment states that the wrong signal timing was used for the level-of-service (LOS) calculations. In response to this comment, the LOS results were revised with new signal timing provided by the County. Table 5.1-7, Table 5.1-8, and Table 5.1-9 in the Draft SEIR-2 have been revised accordingly. The revised tables are documented in Chapter 4, *Major Revisions to the Draft Second Supplemental Environmental Impact Report*. Overall, the LOS results show no new impacts, and the removal of one impact at Capitol/Ocala in 2023 during the PM peak.

L2-14 The comment states that the *Eastridge to BART Regional Connector: Capitol Expressway Light Rail Project Supplemental Transportation Analysis* prepared by Hexagon Transportation Consultants, Inc. (included in Attachment D in Volume II of the Draft SEIR-2)⁶ used only the 2016 Congestion Management Program’s approved level-of-service (LOS) and counts but not the associated timings. Please see the response to Comment L2-13 regarding the revised LOS results.

⁶ This analysis was revised subsequent to the publication of the Draft SEIR-2. The revised analysis is included in Chapter 2 of this Final SEIR-2.

- L2-15 The comment requests that the flow rate for the eastbound Excalibur approach lane configuration be equal to only one lane instead of three lanes. The level-of-service (LOS) results were revised based on the County’s comment on lane geometry. Overall, the LOS results show no new impacts at this location.
- L2-16 The comment requests further discussion of all assumptions and causes for the projected decrease in existing traffic volumes on Capitol Expressway under project conditions. Congestion Management Program legislation requires that VTA, as the congestion management agency for Santa Clara County, develop and maintain a countywide travel demand model to project future transportation conditions. VTA used the most current and approved travel demand model, which was based on the 2013 Plan Bay Area projections, as standard practice for the proposed changes to the approved project. This transportation model predicts travel patterns according to spatial relationships between the socioeconomic characteristics of the population and employment locations, trip-making and economic activities in those areas, and interconnecting transportation facilities, including roadway, transit, and bicycle and pedestrian modes of travel. The assumptions for the model can be characterized by three basic types of input data:
1. Land use and socio-economic data, including population, households, employed residents, and jobs by category;
 2. Characteristics of the transportation system, such as number of lanes, speeds, capacity, transit stops, and frequencies; and
 3. Pricing characteristics, such as parking costs, transit fares, and auto operating costs.
- Generally, because the proposed changes to the approved project would remove a high-occupancy vehicle lane in each direction between Story Road and Tully Road, the capacity of the roadway would decrease. Therefore, the volume served by the expressway would decrease. As a result, trips appear to disperse to other available routes in the traffic modeling results, especially during peak hours. Little to no dispersion is expected during off-peak hours. The model shows that traffic would disperse to a number of parallel arterials.
- The decreasing traffic volumes along Capitol Expressway would also be attributed to the change in mode split, or increase in transit share, and decrease in automobile trips as a result of improved travel time reliability through the proposed light rail transit (LRT). The project is anticipated to increase LRT ridership by providing an alternative to driving the Capitol Expressway corridor.
- L2-17 The comment expresses concern about the travel-time and average-speed calculation methodology and requests VTA to use a corridor analysis method instead. A simplified methodology was used to calculate the travel time and the average speed for illustrative purposes because travel time and speed are not

significance thresholds under CEQA. VTA would closely work with the County to determine the actual delays to improve operations on the expressway during construction and post-construction activities.

- L2-18 The comment requests that the *Eastridge to BART Regional Connector: Capitol Expressway Light Rail Project Supplemental Transportation Analysis* prepared by Hexagon Transportation Consultants, Inc. (included in Attachment D in Volume II of the Draft SEIR-2)⁷ include a queuing analysis at all locations. The queuing calculations are included in Table 3-4. As shown, most left-turn pockets would be adequate. In addition, several existing deficiencies would be improved with implementation of the approved project. However, at the intersection of Capitol Expressway/Ocala Avenue, the approved project would result in a deficiency for the northbound left-turn movement. This deficiency is created by the replacement of the existing dual left turn with a single left turn. This is because it takes longer to clear vehicles in one lane versus two lanes. During the final design phase of the project, VTA would work closely with the County of Santa Clara to identify feasible opportunities to provide additional left-turn storage capacity at the northbound approach to the Capitol Expressway/Ocala Avenue intersection.

⁷ This analysis was revised subsequent to the publication of the Draft SEIR-2. The revised analysis is included in Chapter 2 of this Final SEIR-2.

Table 3-4 Capitol Expressway Left Turn Queuing Analysis

Intersection	Peak Hour	Existing Storage (ft/ln)	Proposed Storage (ft/ln)	95 th Percentile Queue Lengths (ft)					
				Existing (2017)		2023		2043	
				No Project	With Project	No Project	With Project	No Project	With Project
1. Capitol Expressway & Capitol Avenue									
Northbound Left Turn	AM	255	255	25	25	25	25	50	50
	PM	255	255	75	75	100	100	125	125
Southbound Left Turn	AM	345	345	450	450	475	475	500	500
	PM	345	345	550	525	550	550	550	550
2. Capitol Expressway & Story Road									
Northbound Left Turn	AM	318	645	400	375	425	400	450	400
	PM	318	645	200	200	225	225	325	325
Southbound Left Turn	AM	573	1,010	1,075	1,075	1,300	1,300	1,650	1,625
	PM	573	1,010	875	850	1,000	1,000	1,400	1,350
3. Capitol Expressway & Ocala Avenue									
Northbound Left Turn ¹	AM	325	800	250	950	350	1,150	475	1,350
	PM	325	800	200	425	250	675	525	1,475
Southbound Left Turn	AM	395	545	550	575 ²	625	625	950	900
	PM	395	545	675	600	675	625	775	750
4. Capitol Expressway & Cunningham Avenue									
Northbound Left Turn	AM	320	155	50	50	50	50	50	50
	PM	320	155	50	50	50	50	75	75
Southbound Left Turn	AM	310	300	200	200	250	225	350	300
	PM	310	300	150	150	150	150	175	150

Notes:

Bold indicates deficient left turn storage.

Light gray indicates the project would reduce vehicle queue, or improve storage.

Dark gray indicates the project queue length exceeds storage, and project causes queue to worsen.

¹ Project would convert dual left turn to single left turn lane. Left turn queues based on traffic calcs reduced based on field observations.

² Project would add 25 feet to vehicular queue, but project would add 155 feet of storage.

Source: Hexagon 2019.

- L2-19 The comment states that the *Eastridge to BART Regional Connector: Capitol Expressway Light Rail Project Supplemental Transportation Analysis* prepared by Hexagon Transportation Consultants, Inc. (included in Attachment D in Volume II of the Draft SEIR-2)⁸ should study the impacts of removal of the turning-movement lane. As described in the response to Comment L2-18, the Supplemental Transportation Analysis addresses only changes to the approved project, such as the removal of the left-turn lane at Ocala Avenue. The impacts of the removal of this turning-movement lane are described in Table 5 and page 13 of the Supplemental Transportation Analysis. Table 3-4 included in the response to Comment L2-18, which was generated in response to this comment, shows the left-turn pocket lengths at the intersections of Capitol Expressway within the project limits. The majority of the left-turn pockets would either remain unchanged or would be extended, with the exception of the Cunningham Avenue intersection left-turn lane, which would be slightly reduced because of right-of-way constraints. Because the Cunningham Avenue intersection experiences low average delay and good LOS, it is anticipated that the left-turn pocket would continue to be adequate and accommodate the 95th-percentile queue. Therefore, the proposed changes to the approved project would not adversely affect turning movements from lane reductions at the Cunningham Avenue intersection.
- L2-20 This comment requests that the TRAFFIX sheets that are missing the date of counts used in the Volume Module field be corrected. This change has been made as requested. The TRAFFIX sheets are documented in the revised *Eastridge to BART Regional Connector: Capitol Expressway Light Rail Project Supplemental Transportation Analysis* prepared by Hexagon Transportation Consultants, Inc. included in Chapter 2 of this Final SEIR-2.

⁸ This analysis was revised subsequent to the publication of the Draft SEIR-2. The revised analysis is included in Chapter 2 of this Final SEIR-2.

Jaworski, Christina

From: Jaworski, Christina
Sent: Friday, April 20, 2018 2:31 PM
To: 'Gary Black'
Cc: Eric Tse; 'Chris Adams'; Natalina Bernardi; Prasad, Ven; Basma, Hassan; Yip, Harry; Chen, Peter; Calnan, Ann
Subject: EBRC-CELR Supplemental Traffic Analysis
Attachments: Eastridge to BART REgional Connector Capitol Expressway LRT Project 3-30-18_HY_CJ_ICF.pdf; 2017_TransitbyMode_LRT_04052018.xls

Hi Gary,

Attached is the Supplemental Traffic Analysis with comments from VTA and ICF. In addition, I have enclosed the mode of access data that you requested. Please note that VTA is rerunning the model for the change from six to eight lanes between Capitol and Story with the project, so depending on the results, we may want you to redo some of the LOS calculations with the new volumes. We should have the new volumes next week.

I also wanted to mention that I had some questions about the methodology for forecasting parking demand at Eastridge Transit Center so I understand the basis for the existing plus project, 2023, and 2043. These questions are noted in the attached Supplemental Traffic Analysis.

Lastly, there was an error in the previous summary: 2017 WP Eastridge boardings should be 471; in the previous summary it shows 417.

Please let me know if you have any questions or if you would like me to set up a call to discuss.

Thanks!

Christina Jaworski
Senior Environmental Planner

Santa Clara Valley Transportation Authority
3331 North First Street, Building B
San Jose, CA 95134-1927
Phone [408-321-5751](tel:408-321-5751)



Conserve paper. Think before you print.

Jaworski, Christina

From: Jaworski, Christina
Sent: Tuesday, August 14, 2018 4:45 PM
To: Yip, Harry; Kobayashi, David; Basma, Hassan; Prasad, Ven; Sossikian, Leana; Chatradhi, Shanthi; 'Gary Black'
Cc: 'Jeff Wang'; 'Viramontes, Jessica'; Chris Adams; Luis Garcia; Natalina Bernardi
Subject: RE: EBRC Traffic Analysis Comments from County

Hi Gary,

See below for responses to action items.

If you are able to provide a revised traffic analysis by Friday, August 17, it would be much appreciated.

Thanks!

Christina Jaworski

Senior Environmental Planner

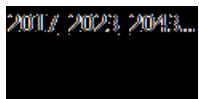
Santa Clara Valley Transportation Authority
3331 North First Street, Building B
San Jose, CA 95134-1927
Phone [408-321-5751](tel:408-321-5751)



From: Jaworski, Christina
Sent: Tuesday, August 07, 2018 4:45 PM
To: Yip, Harry; Kobayashi, David; Basma, Hassan; Prasad, Ven; Sossikian, Leana; Chatradhi, Shanthi; 'Gary Black'
Cc: 'Jeff Wang'
Subject: RE: EBRC Traffic Analysis Comments from County

Here is a summary of the action items from today's meeting:

- Christina to provide Gary with the updated ridership projections.



Key: More important
 Less important

2040 Transportation Network Improvements

RTPID	Improvement	Implementation Period		Anticipated Open Year	To Code in Model?	
		2025	2040			
1	17-07-0023	US 101/Zanker Rd./Skyport Dr./Fourth St. Interchange Improvements. Construct a new interchange at U.S. 101/Zanker Road/Skyport Drive/Fourth Street.	*	*	2025	Yes
2	17-07-0024	Lawrence/Stevens Creek/I-280 Interchange. Provide direct connections between Lawrence Expressway and I-280.	*	*	2025	Yes
3	17-07-0025	I-280/Winchester Blvd Interchange Improvements. Improve I-280/ Winchester Blvd Interchange to relieve congestion and improve operations and local circulation.	*	*	2023	Yes
4	17-07-0026	I-280/Wolfe Road Interchange Improvements. Modify I-280/Wolfe Road Interchange to relieve congestion and improve local circulation.	*	*	2024	Yes
5	17-07-0027	US 101/Mabury Rd./Taylor St. Interchange Improvements. Construct interchange at U.S. 101/Mabury Road/Taylor Street.	*	*	2025	Yes
6	17-07-0028	I-280 New HOV Lane from San Mateo County line to Magdalena Avenue. New HOV lane added to I-280 from existing HOV lane at Magdalena Avenue to the San Mateo County Line. Requires constructing a new lane.	*	*	2029	Yes
7	17-07-0029	I-280/Saratoga Avenue Interchange Improvements. Modify I-280/ Saratoga Avenue interchange to relieve congestion and improve local circulation.	*	*	2026	Yes
8	17-07-0030	I-280 Northbound Braided Ramps between Foothill Expressway and SR 85. Improve braided ramps on northbound I-280 between Foothill Expressway and Route 85.	*	*	2024	Yes
9	17-07-0031	US 101 Southbound/Trimble Rd./De La Cruz Blvd./Central Expwy interchange improvements - Modify existing loop cloverleaf ramp from SB US 101 to Trimble Rd. into a partial cloverleaf ramp. Modify the SB US 101 on-ramp from De La Cruz Blvd./Central Expwy to 1 mixedflow and 1 HOV lane with ramp meter. The De La Cruz Blvd. bridge to be widened from 4 to 6 lanes.	*	*	2021	Yes
10	17-07-0032	I-680/ Alum Rock/ McKee Road Interchange Improvements. Reconfigure interchange, improve access for all modes of transportation, improve traffic operations and relieve congestion at the I-680/ Alum Rock and I-680/ McKee Road interchanges. Construct an Express Bus Station in the Median of I-680 to connect buses using HOV or Express Lanes with Santa Clara Alum Rock BRT Station.	*	*	2025	Yes
11	17-07-0033	SR 237/Mathilda Ave. and US 101/Mathilda Ave. Interchange Improvement. The project proposes to improve local road operations on Mathilda Avenue in the City of Sunnyvale from Almanor Avenue to Innovation Way, including on- and off-ramp improvements at the State Route (SR) 237/Mathilda Avenue and US 101/Mathilda Avenue interchanges.	*	*	2019	Yes
12	17-07-0034	US 101 Interchanges Improvements: San Antonio Rd. to Charleston Rd./Rengstorff Ave. Improve U.S. 101 interchanges at San Antonio Road to Charleston Road/Rengstorff Avenue including new auxiliary lane.	*	*	2024	Yes
13	17-07-0035	US 101/Buena Vista Ave. Interchange Improvements. Construct a full interchange at US 101 and Buena Vista Avenue in Gilroy. The interchange includes a flyover southbound on-ramp to braid with the existing truck exit at the CHP Inspection Station. Off-ramp diagonal ramps will be constructed.	*	*	2024	Yes
14	17-07-0036	SR 85 Northbound to Eastbound SR 237 Connector Ramp and Northbound SR 85 Auxiliary Lane. Widen off-ramp from Northbound SR 85 to SR 237 Eastbound to two lanes; construct auxiliary lane on Eastbound SR 237 between SR 85 on-ramp to Middlefield Rd.; construct braid off-ramp on Eastbound SR 237 between SR 85 and Dana St.	*	*	2023	Yes
15	17-07-0037	SR 85/El Camino Real Interchange Improvements. Improve SR 85 auxiliary lanes between El Camino Real and SR 237, and SR 85/El Camino Real interchange.	*	*	2023	Yes
16	17-07-0038	US 101/Blossom Hill Rd. Interchange Improvements. Widen interchange at U.S. 101/Blossom Hill Road.	*	*	2023	Yes
17	17-07-0039	US 101/Old Oakland Rd. Interchange Improvements. Improve interchange at U.S. 101/Old Oakland Road.	*	*	2024	Yes
18	17-07-0040	US 101/Shoreline Blvd. Interchange Improvements. Interchange improvements at Shoreline Boulevard.	*	*	2025	Yes
19	17-07-0042	SR 237/Great America Parkway WB Off- Ramps Improvements. Modify WB off-ramps at the SR 237/Great America Parkway interchange to improve traffic operations and relieve congestion.	*	*	2024	Yes
20	17-07-0043	SR 237/El Camino Real/Grant Rd. Intersection Improvements. Widen Westbound SR 237 within the existing median to extend both of the left-turn lanes; lengthen the Northbound El Camino Real right-turn lane onto SR 237 starting the lane at Yuba Drive; widen the Southbound El Camino Real left-turn lane within the existing median; and construct a right-turn lane on Southbound El Camino Real for traffic accessing Westbound Grant Rd.	*	*	2023	NO
21	17-07-0044	Double Lane Southbound US 101 off-ramp to Southbound SR 87. Widen Southbound US 101 freeway connector to Southbound SR 87 to add a second lane and install TOS.	*	*	2018	Yes
22	17-07-0051	Widen Calaveras Blvd. overpass from 4 to 6 lanes. Replaces the existing four lane bridge, which currently has a single sidewalk and no bicycle lane over the Union Pacific (UP) Railroad tracks, to a six lane bridge. Project will also add sidewalks and bicycle lanes in both directions.	*	*	2021	Yes
23	17-07-0067	SR 17 Corridor Congestion Relief in Los Gatos. Operational improvements for the SR 17 Corridor, including upgrading Highway 17/Highway 9 interchange to improve pedestrian and bicycle safety, mobility, and roadway operations; deploying advanced transportation technology to reduce freeway cut thru traffic in Los Gatos, including traffic signal control system upgrades in Los Gatos, traveler information system, advanced ramp metering systems and multi-modal congestion relief solutions	*	*	2027	Yes
24	17-07-0068	237 WB Additional Lane from McCarthy to North First. Corridor Improvements in the cities of San Jose, Santa Clara and Milpitas to address mainline congestion and regional connectivity by the addition of SR 237 westbound auxiliary lane between McCarthy Boulevard and North First Street	*	*	2023	Yes
25	17-07-0069	US 101/SR 25 Interchange. The project consists of reconfiguring the interchange at US 101 and SR 25 just south of the City of Gilroy in Santa Clara County, connecting SR 25 and Santa Teresa Boulevard, and widening the existing freeway from 4 to 6 lanes from the Monterey Street interchange to the US 101/SR 25 interchange.	*	*	2023	Yes
26	17-07-0070	SR 237 Express Lanes: North First St. to Mathilda Ave. Convert HOV to express lane in both directions.	*	*	2018	Yes
27	17-07-0074	SR 85 Express Lanes: US 101 (South San Jose) to Mountain View. SR 85 typically has 1 HOV lane and 2 general purpose lanes in both directions with auxiliary lane in some segments. Project will convert existing HOV lane to express lane and add a second express lane between SR 87 and I-280 in both directions.	*	*	2025	Yes
28	17-07-0075	US 101 Express Lanes: Whipple Ave. in San Mateo County to Cochrane Road in Morgan Hill. Convert HOV Lanes to express lane and add a second express lane in some segments.	*	*	2025	Yes
29	17-07-0076	Santa Clara County Express Lanes Operations and Maintenance. This program includes operations and maintenance for the Santa Clara County (VTA) Express Lanes.	VARIES	*	On-going through 2040	No

RTPID	Improvement	Implementation Period		Anticipated Open Year	To Code in Model?
		2025	2040		
30	17-07-0081 I-880 Express Lanes: SR-237 to US-101. Convert existing HOV lane to an express lane in both directions between SR 237 and US 101.	*	*	2023	Yes
31	17-07-0082 SR-87 Express Lanes: I-880 to SR-85. Convert existing HOV lane to an express lane in both directions between I-880 and SR-85.	*	*	2024	Yes
32	17-07-0083 I-680 Express Lanes: SR-237 to US-101. Convert existing general purpose lane to an express lane in both directions between SR-237 and US-101.	*	*	2025	Yes
33	17-07-0084 I-280 Express Lanes: US-101 to Magdalena Avenue. Convert existing HOV lane to an express lane in both directions between US 101 and Magdalena Avenue.	*	*	2029	Yes
34	17-07-0087 Widen San Tomas Expressway to 8 Lanes from Stevens Creek Blvd to Campbell Ave.	*	*	2022	Yes
35	17-07-0088 Senter Road Widening from Umbarger to Lewis. Widening Senter Road between Umbarger Rd. and	*	*	2026	Yes
36	17-07-0089 South Bascom Complete Streets. On South Bascom Ave. from Parkmoor Ave. to Southwest Expressway reduce the road to two lanes and make bicycle and pedestrian improvements in the corridor.	*	*	2027	Yes
37	17-07-0091 Widen Oakland Road from 4-lanes to 6-lanes between U.S. 101 and Montague Expressway. Widens	*	*	2027	Yes
38	17-07-0005 Minor Roadway Expansions. This category includes roadway capacity increasing projects (new roadways or widening/extensions of existing roadways) on minor roads throughout Santa Clara County such as Buena Vista Avenue, bridges over US 101 in Gilroy, Blossom Hill Road, Lark Avenue, Pollard Road, Union Avenue, Butterfield Road, San Antonio Road, Charcot Avenue, King Road, Montague Expressway, San Carlos Street, Zanker Road, Coleman Avenue, Autumn Street, Winchester Boulevard, Center Avenue, DeWitt Avenue, Hill Road, Wastonville Road, Mary Avenue, and Wildwood Avenue Santa Clara Auto	VARIES	*	On-going through 2040	Yes
39	17-07-0078 Envision Expressway (Tier 1 Expressway Plan) Major and Minor Projects. Various operational and capacity improvements to expressways in Santa Clara County comprising the Tier 1 investments from the Santa Clara County Expressway Plan. These projects include capacity improvements for Almaden Expressway, Capitol Expressway, Foothill Expressway, Lawrence Expressway, Montague Expressway, Oregon-Page Mill Expressway, San Tomas Expressway, Santa Teresa Boulevard. This project also includes the following ITS/Signal upgrades: Replace/upgrade/add fiber optic lines; upgrade equipment for new technologies; systemwide pedestrian sensors; enhance/replace bicycle and vehicle detection	VARIES	*	VARIES	Yes
40	17-07-0079 Envision Highway Minor Projects. Includes: 1-280 NB Second exit lane to Foothill Expressway; SR 17 SB/Hamilton Ave Off-Ramp widening; San Tomas expressway at SR-17 Improvements; US101/SR 152 10th Street Ramp and Intersection Improvements; and Charcot Avenue Extension over I-880.	VARIES	*	On-going through 2040	Yes
41	17-07-0005, 17-07-0078 Widen Coleman Avenue from 4-lanes to 6-lanes between I-880 and Taylor Street.	*	*		Yes
42	17-07-0005, 17-07-0078 Conversion of one-way couplets to two-way streets along 10th and 11th Streets, Almaden Avenue and Vine Street, and 2nd and 3rd Streets.	*	*		Yes
43	17-07-0005, 17-07-0078 Widen Central Expressway from 4-lanes to 6-lanes between Lawrence and San Tomas Expressway.	*	*		Yes
44	17-07-0005, 17-07-0078 Conversion HOV lanes on Central Expressway to mixed-flow lanes between De La Cruz Boulevard and San Tomas Expressway.	*	*		Yes
45	17-07-0005, 17-07-0078 Widen San Tomas Expressway to 8 lanes between Williams to El Camino Real.	*	*		Yes
46	17-07-0005, 17-07-0078 Replace and widen San Carlos Street bridge at Caltrain/Vasona LRT.	*	*		Yes
47	17-07-0005, 17-07-0078 Realignment of Julian Street between SR 87 and North 1st Street to extend the downtown urban grid system.	*	*		Yes
48	17-07-0005, 17-07-0078 Conversion of St. James Street from one-way to two-way street from Notre Dame/SR 87 to Market Street (part of the Julian Realignment project).	*	*		Yes
49	17-07-0005, 17-07-0078 Complete the Autumn Street realignment and extension between St. John Street and Coleman Avenue.	*	*		Yes
50	17-07-0005, 17-07-0078 Convert Autumn Street between Santa Clara Street and Park Avenue from a one-way (northbound) street to a two-way street. Autumn Street will become a 4-lane street.	*	*		Yes
51	17-07-0005, 17-07-0078 Convert Montgomery Street between Santa Clara Street and San Fernando Street from a one-way (southbound) street to a two-way street. Montgomery Street will remain a two-lane street.	*	*		Yes
52	17-07-0005, 17-07-0078 Create cul-de-sac at southerly end of Montgomery Street, just north of Park Avenue.	*	*		Yes
53	17-07-0005, 17-07-0078 I-280 between US 101 and Leland Avenue - convert one mixed-flow lane to express lanes.	*	*		Yes
54	17-07-0005, 17-07-0078 I-680 between Montague Expressway and US 101 - convert one mixed-flow lane to express lanes.	*	*		Yes
55	17-07-0005, 17-07-0078 I-280 Downtown San Jose access improvements between 3rd and 7th Streets - reconstruct existing ramps at 7th and 4th Streets. The existing off-ramp connection at 5th Street will be eliminated.	*	*		Yes
56	17-07-0005, 17-07-0078 I-280/Senter Road interchange - extend Senter Road and construct new on-/off-ramps and modify existing on-/off-ramps into a collector/distributor ramp system.	*	*		Yes
57	17-07-0005, 17-07-0078 King Road and McKee Road (SJ) - addition of second eastbound left-turn lane.	*	*		No
58	17-07-0005, 17-07-0078 SR 87 (E) and Julian Street (SJ) - conversion of the existing northbound shared right-through lane to separate through and right-turn lanes; conversion of the existing westbound shared right through lane to a dedicated right-turn lane.	*	*		No
59	17-07-0005, 17-07-0078 Montgomery Street and Santa Clara Street (SJ) - addition of a left-turn and right turn lane on the northbound approach; elimination of one of the existing westbound left-turn lanes.	*	*		No
60	17-07-0005, 17-07-0078 Autumn Street and Santa Clara Street (SJ) - addition of a southbound through lane and conversion of the existing southbound right turn lane to shared right-through lane; addition of a eastbound right-turn lane; and addition of two westbound left-turn lanes and a separate westbound right-turn lane.	*	*		No
61	17-07-0005, 17-07-0078 Montgomery Street and San Fernando Street (SJ) - addition of an all-movement lane on the northbound approach and conversion of all intersection approaches to single all-movement lanes.	*	*		No
62	17-07-0005, 17-07-0078 Autumn Street and San Fernando Street (SJ) - conversion of the existing northbound shared left-through lane to a dedicated left-turn lane; addition of one left-turn, one through, and one shared right through lane on the southbound approach; and conversion of the existing westbound through lane to a shared left-through lane.	*	*		No
63	17-07-0005, 17-07-0078 Montgomery Street and Park Avenue (SJ) - this intersection will become Autumn/Park.	*	*		No
64	17-07-0005, 17-07-0078 Autumn Street and Park Avenue (SJ) - intersection lane configuration will include one left, one through, and one shared right-through lane on the northbound approach; one left, one through, and one shared right-through lane on the southbound approach; one left and one shared right through lane on the eastbound approach; and two left-turn and one shared right-through lane on the westbound approach.	*	*		No
65	17-07-0005, 17-07-0078 Bird Avenue and San Carlos Street (SJ) - addition of a second left-turn lane and conversion of the shared right-through lane to exclusive right-turn lane (reducing the number of through lanes by one) on the northbound approach; and elimination of one southbound through lane.	*	*		No
66	17-07-0005, 17-07-0078 Autumn Street and Julian Street (SJ) - reconfiguration of the northbound and southbound approaches to include one left-turn, one through, and one shared right-through lane.	*	*		No
67	17-07-0005, 17-07-0078 Lafayette Street and El Camino Real (SC) - addition of second left-turn lanes on both the southbound and eastbound approaches.	*	*		No
68	17-07-0005, 17-07-0078 Coleman Avenue and Brokaw Road (SC) - Widening of Coleman Avenue to accommodate a third southbound through lane.	*	*		No
69	17-07-0005, 17-07-0078 San Tomas Expressway and El Camino Real (SC) - addition of second left-turn lanes on both the eastbound and westbound approaches.	*	*		No

Source: (1) Plan Bay Area 2040 Final Supplemental Report, Transportation-Air Quality Conformity Analysis for Plan Bay Area 2040 and Amended 2017 Transportation Improvement Program, July 2017.
(2) VTA staff, Cities of San Jose and Santa Clara staff, 2008 County's Expressway Plan, and VTP 2040 (VTA 2013).
(SJ) = San Jose, (SC) = Santa Clara
(3) Projects 41-69 (local roadway and Intersection Improvements) are included in 17-07-0005, 17-07-0078, and 17-07-0079.

CJ Notes: Deleted projects that are after 2023
 Crossed out local projects that are not in San Jose
 Crossed out local projects that are after 2023

Key: More important
 Less important

2040 Transportation Network Improvements

RTPID	Improvement	Implementation Period		Anticipated Open Year	To Code in Model?	
		2025	2040			
3	17-07-0025	I-280/Winchester Blvd Interchange Improvements. Improve I-280/ Winchester Blvd Interchange to relieve congestion and improve operations and local circulation.	*	*	2023	Yes
9	17-07-0031	US 101 Southbound/Trimble Rd./De La Cruz Blvd./Central Expwy interchange improvements - Modify existing loop cloverleaf ramp from SB US 101 to Trimble Rd. into a partial cloverleaf ramp. Modify the SB US 101 on-ramp from De La Cruz Blvd./Central Expwy to 1 mixedflow and 1 HOV lane with ramp meter. The De La Cruz Blvd. bridge to be widened from 4 to 6 lanes.	*	*	2021	Yes
11	17-07-0033	SR 237/Mathilda Ave. and US 101/Mathilda Ave. Interchange Improvement. The project proposes to improve local road operations on Mathilda Avenue in the City of Sunnyvale from Almanor Avenue to Innovation Way, including on- and off-ramp improvements at the State Route (SR) 237/Mathilda Avenue and US 101/Mathilda Avenue interchanges.	*	*	2019	Yes
14	17-07-0036	SR 85 Northbound to Eastbound SR 237 Connector Ramp and Northbound SR 85 Auxiliary Lane. Widen off-ramp from Northbound SR 85 to SR 237 Eastbound to two lanes; construct auxiliary lane on Eastbound SR 237 between SR 85 on-ramp to Middlefield Rd.; construct braid off-ramp on Eastbound SR 237 between SR 85 and Dana St.	*	*	2023	Yes
15	17-07-0037	SR 85/El Camino Real Interchange Improvements. Improve SR 85 auxiliary lanes between El Camino Real and SR 237, and SR 85/El Camino Real interchange.	*	*	2023	Yes
16	17-07-0038	US 101/Blossom Hill Rd. Interchange Improvements. Widen interchange at U.S. 101/Blossom Hill Road.	*	*	2023	Yes
20	17-07-0043	SR 237/El Camino Real/Grant Rd. Intersection Improvements. Widen Westbound SR 237 within the existing median to extend both of the left-turn lanes; lengthen the Northbound El Camino Real right-turn lane onto SR 237 starting the lane at Yuba Drive; widen the Southbound El Camino Real left-turn lane within the existing median; and construct a right-turn lane on Southbound El Camino Real for traffic accessing Westbound Grant Rd.	*	*	2023	NO
21	17-07-0044	Double Lane Southbound US 101 off-ramp to Southbound SR 87. Widen Southbound US 101 freeway connector to Southbound SR 87 to add a second lane and install TOS.	*	*	2018	Yes
22	17-07-0051	Widen Calaveras Blvd. overpass from 4 to 6 lanes. Replaces the existing four lane bridge, which currently has a single sidewalk and no bicycle lane over the Union Pacific (UP) Railroad tracks, to a six lane bridge. Project will also add sidewalks and bicycle lanes in both directions.	*	*	2021	Yes
24	17-07-0068	237 WB Additional Lane from McCarthy to North First. Corridor Improvements in the cities of San Jose, Santa Clara and Milpitas to address mainline congestion and regional connectivity by the addition of SR 237 westbound auxiliary lane between McCarthy Boulevard and North First Street	*	*	2023	Yes
25	17-07-0069	US 101/SR 25 Interchange. The project consists of reconfiguring the interchange at US 101 and SR 25 just south of the City of Gilroy in Santa Clara County, connecting SR 25 and Santa Teresa Boulevard, and widening the existing freeway from 4 to 6 lanes from the Monterey Street interchange to the US 101/SR 25 interchange.	*	*	2023	Yes
26	17-07-0070	SR 237 Express Lanes: North First St. to Mathilda Ave. Convert HOV to express lane in both directions.	*	*	2018	Yes
30	17-07-0081	I-880 Express Lanes: SR-237 to US-101. Convert existing HOV lane to an express lane in both directions between SR 237 and US 101.	*	*	2023	Yes
34	17-07-0087	Widen San Tomas Expressway to 8 Lanes from Stevens Creek Blvd to Campbell Ave.	*	*	2022	Yes
38	17-07-0005	Minor Roadway Expansions. This category includes roadway capacity increasing projects (new roadways or widening/extensions of existing roadways) on minor roads throughout Santa Clara County such as Buena Vista Avenue, bridges over US 101 in Gilroy, Blossom Hill Road, Lark Avenue, Pollard Road, Union Avenue, Butterfield Road, San Antonio Road, Charcot Avenue, King Road, Montague Expressway, San Carlos Street, Zanker Road, Coleman Avenue, Autumn Street, Winchester Boulevard, Center Avenue, DeWitt Avenue, Hill Road, Wastonville Road, Mary Avenue, and Wildwood Avenue Santa Clara Auto	VARIABLES	*	On-going through 2040	Yes
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40	17-07-0079	Envision Highway Minor Projects. Includes: 1-280 NB Second exit lane to Foothill Expressway; SR 17 SB/Hamilton Ave Off-Ramp widening; San Tomas expressway at SR-17 Improvements; US101/SR 152 10th Street Ramp and Intersection Improvements; and Charcot Avenue Extension over I-880.	VARIABLES	*	On-going through 2040	Yes
41	17-07-0005, 17-07-0078	Widen Coleman Avenue from 4-lanes to 6-lanes between I-880 and Taylor Street.	*	*		Yes
42	17-07-0005, 17-07-0078	Conversion of one-way couplets to two-way streets along 10th and 11th Streets, Almaden Avenue and Vine Street, and 2nd and 3rd Streets.	*	*		Yes
43	17-07-0005, 17-07-0078	Widen Central Expressway from 4 lanes to 6 lanes between Lawrence and San Tomas Expressway.	*	*		Yes

44	17-07-0005, 17-07-0078, Conversion HOV lanes on Central Expressway to mixed flow lanes between De-La-Cruz Boulevard and San Tomas Expressway.	*	*	Yes
45	17-07-0005, 17-07-0078, Widen San Tomas Expressway to 8 lanes between Williams to El Camino Real.	*	*	Yes
46	17-07-0005, 17-07-0078, Replace and widen San Carlos Street bridge at Caltrain/Vasona LRT.	*	*	Yes
47	17-07-0005, 17-07-0078, Realignment of Julian Street between SR 87 and North 1st Street to extend the downtown urban grid system.	*	*	Yes
48	17-07-0005, 17-07-0078, Conversion of St. James Street from one-way to two-way street from Notre Dame/SR 87 to Market Street (part of the Julian Realignment project).	*	*	Yes
49	17-07-0005, 17-07-0078, Complete the Autumn Street realignment and extension between St. John Street and Coleman Avenue.	*	*	Yes
50	17-07-0005, 17-07-0078, Convert Autumn Street between Santa Clara Street and Park Avenue from a one-way (northbound) street to a two-way street. Autumn Street will become a 4-lane street.	*	*	Yes
51	17-07-0005, 17-07-0078, Convert Montgomery Street between Santa Clara Street and San Fernando Street from a oneway (southbound) street to a two-way street. Montgomery Street will remain a two-lane street.	*	*	Yes
52	17-07-0005, 17-07-0078, Create cul de sac at southerly end of Montgomery Street, just north of Park Avenue.	*	*	Yes
53	17-07-0005, 17-07-0078, I-280 between US 101 and Leland Avenue – convert one mixed flow lane to express lanes.	*	*	Yes
54	17-07-0005, 17-07-0078, I-680 between Montague Expressway and US 101 – convert one mixed flow lane to express lanes.	*	*	Yes
55	17-07-0005, 17-07-0078, I-280 Downtown San Jose access improvements between 3rd and 7th Streets – reconstruct existing ramps at 7th and 4th Streets. The existing off ramp connection at 5th Street will be eliminated.	*	*	Yes
56	17-07-0005, 17-07-0078, I-280/Senter Road interchange – extend Senter Road and construct new on /off ramps and modify existing on /off ramps into a collector/distributor ramp system.	*	*	Yes
57	17-07-0005, 17-07-0078, King Road and McKee Road (SJ) - addition of second eastbound left-turn lane.	*	*	No
58	17-07-0005, 17-07-0078, SR 87 (E) and Julian Street (SJ) - conversion of the existing northbound shared right-through lane to separate through and right-turn lanes; conversion of the existing westbound shared right through lane to a dedicated right-turn lane.	*	*	No
59	17-07-0005, 17-07-0078, Montgomery Street and Santa Clara Street (SJ) - addition of a left-turn and right turn lane on the northbound approach; elimination of one of the existing westbound left-turn lanes.	*	*	No
60	17-07-0005, 17-07-0078, Autumn Street and Santa Clara Street (SJ) - addition of a southbound through lane and conversion of the existing southbound right turn lane to shared right-through lane; addition of an eastbound right-turn lane; and addition of two westbound left-turn lanes and a separate westbound right-turn lane.	*	*	No
61	17-07-0005, 17-07-0078, Montgomery Street and San Fernando Street (SJ) - addition of an all-movement lane on the northbound approach and conversion of all intersection approaches to single all-movement lanes.	*	*	No
62	17-07-0005, 17-07-0078, Autumn Street and San Fernando Street (SJ) - conversion of the existing northbound shared left-through lane to a dedicated left-turn lane; addition of one left-turn, one through, and one shared right-through lane on the southbound approach; and conversion of the existing westbound through lane to a shared left-through lane.	*	*	No
63	17-07-0005, 17-07-0078, Montgomery Street and Park Avenue (SJ) - this intersection will become Autumn/Park.	*	*	No
64	17-07-0005, 17-07-0078, Autumn Street and Park Avenue (SJ) - intersection lane configuration will include one left, one through, and one shared right-through lane on the northbound approach; one left, one through, and one shared right-through lane on the southbound approach; one left and one shared rightthrough lane on the eastbound approach; and two left-turn and one shared right-through lane on the westbound approach.	*	*	No
65	17-07-0005, 17-07-0078, Bird Avenue and San Carlos Street (SJ) - addition of a second left-turn lane and conversion of the shared right-through lane to exclusive right-turn lane (reducing the number of through lanes by one) on the northbound approach; and elimination of one southbound through lane.	*	*	No
66	17-07-0005, 17-07-0078, Autumn Street and Julian Street (SJ) - reconfiguration of the northbound and southbound approaches to include one left-turn, one through, and one shared right-through lane.	*	*	No
67	17-07-0005, 17-07-0078, Lafayette Street and El Camino Real (SC) – addition of second left turn lanes on both the southbound and eastbound approaches.	*	*	No
68	17-07-0005, 17-07-0078, Coleman Avenue and Brokaw Road (SC) - Widening of Coleman Avenue to accommodate a third southbound through lane.	*	*	No
69	17-07-0005, 17-07-0078, San Tomas Expressway and El Camino Real (SC) – addition of second left turn lanes on both the eastbound and westbound approaches.	*	*	No

Source: (1) Plan Bay Area 2040 Final Supplemental Report, Transportation-Air Quality Conformity Analysis for Plan Bay Area 2040 and Amended 2017 Transportation Improvement Program, July 2017

(2) VTA staff, Cities of San Jose and Santa Clara staff, 2008 County's Expressway Plan, and VTP 2040 (VTA 2013)

(SJ) = San Jose, (SC) = Santa Clara

(3) Projects 41-69 (local roadway and Intersection Improvements) are included in 17-07-0005, 17-07-0078, and 17-07-0079.

CJ Notes: Crossed out local projects that are not in San Jose

Key: More important
 Less important

2040 Transportation Network Improvements

	RTPID	Improvement	Implementation Period		Anticipated Open Year	To Code in Model?
			2025	2040		
1	17-07-0023	US 101/Zanker Rd./Skyport Dr./Fourth St. Interchange Improvements. Construct a new interchange at U.S. 101/Zanker Road/Skyport Drive/Fourth Street.	*	*	2025	Yes
2	17-07-0024	Lawrence/Stevens Creek/I-280 Interchange. Provide direct connections between Lawrence Expressway and I-280.	*	*	2025	Yes
3	17-07-0025	I-280/Winchester Blvd Interchange Improvements. Improve I-280/ Winchester Blvd Interchange to relieve congestion and improve operations and local circulation.	*	*	2023	Yes
4	17-07-0026	I-280/Wolfe Road Interchange Improvements. Modify I-280/Wolfe Road Interchange to relieve congestion and improve local circulation.	*	*	2024	Yes
5	17-07-0027	US 101/Mabury Rd./Taylor St. Interchange Improvements. Construct interchange at U.S. 101/Mabury Road/Taylor Street.	*	*	2025	Yes
6	17-07-0028	I-280 New HOV Lane from San Mateo County line to Magdalena Avenue. New HOV lane added to I-280 from existing HOV lane at Magdalena Avenue to the San Mateo County Line. Requires constructing a new lane.		*	2029	Yes
7	17-07-0029	I-280/Saratoga Avenue Interchange Improvements. Modify I-280/ Saratoga Avenue Interchange to relieve congestion and improve local circulation.		*	2026	Yes
8	17-07-0030	I-280 Northbound Braided Ramps between Foothill Expressway and SR 85. Improve braided ramps on northbound I-280 between Foothill Expressway and Route 85.	*	*	2024	Yes
9	17-07-0031	US 101 Southbound/Trimble Rd./De La Cruz Blvd./Central Expwy interchange improvements - Modify existing loop cloverleaf ramp from SB US 101 to Trimble Rd. into a partial cloverleaf ramp. Modify the SB US 101 on-ramp from De La Cruz Blvd./Central Expwy to 1 mixedflow and 1 HOV lane with ramp meter. The De La Cruz Blvd. bridge to be widened from 4 to 6 lanes.	*	*	2021	Yes
10	17-07-0032	I-680/ Alum Rock/ McKee Road Interchange Improvements. Reconfigure interchange, improve access for all modes of transportation, improve traffic operations and relieve congestion at the I-680/ Alum Rock and I-680/ McKee Road interchanges. Construct an Express Bus Station in the Median of I-680 to connect buses using HOV or Express Lanes with Santa Clara Alum Rock BRT Station.	*	*	2025	Yes
11	17-07-0033	SR 237/Mathilda Ave. and US 101/Mathilda Ave. Interchange Improvement. The project proposes to improve local road operations on Mathilda Avenue in the City of Sunnyvale from Almanor Avenue to Innovation Way, including on- and off-ramp improvements at the State Route (SR) 237/Mathilda Avenue and US 101/Mathilda Avenue interchanges.	*	*	2019	Yes
12	17-07-0034	US 101 Interchanges Improvements: San Antonio Rd. to Charleston Rd./Rengstorff Ave. Improve U.S. 101 interchanges at San Antonio Road to Charleston Road/Rengstorff Avenue including new auxiliary lane.	*	*	2024	Yes
13	17-07-0035	US 101/Buena Vista Ave. Interchange Improvements. Construct a full interchange at US 101 and Buena Vista Avenue in Gilroy. The interchange includes a flyover southbound on-ramp to braid with the existing truck exit at the CHP Inspection Station. Off-ramp diagonal ramps will be constructed.	*	*	2024	Yes
14	17-07-0036	SR 85 Northbound to Eastbound SR 237 Connector Ramp and Northbound SR 85 Auxiliary Lane. Widen off-ramp from Northbound SR 85 to SR 237 Eastbound to two lanes; construct auxiliary lane on Eastbound SR 237 between SR 85 on-ramp to Middlefield Rd.; construct braid off-ramp on Eastbound SR 237 between SR 85 and Dana St.	*	*	2023	Yes
15	17-07-0037	SR 85/El Camino Real Interchange Improvements. Improve SR 85 auxiliary lanes between El Camino Real and SR 237, and SR 85/El Camino Real interchange.	*	*	2023	Yes
16	17-07-0038	US 101/Blossom Hill Rd. Interchange Improvements. Widen interchange at U.S. 101/Blossom Hill Road.	*	*	2023	Yes
17	17-07-0039	US 101/Old Oakland Rd. Interchange Improvements. Improve interchange at U.S. 101/Old Oakland Road.	*	*	2024	Yes
18	17-07-0040	US 101/Shoreline Blvd. Interchange Improvements. Interchange improvements at Shoreline Boulevard.	*	*	2025	Yes
19	17-07-0042	SR 237/Great America Parkway WB Off- Ramps Improvements. Modify WB off-ramps at the SR 237/Great America Parkway interchange to improve traffic operations and relieve congestion.	*	*	2024	Yes
20	17-07-0043	SR 237/El Camino Real/Grant Rd. Intersection Improvements. Widen Westbound SR 237 within the existing median to extend both of the left-turn lanes; lengthen the Northbound El Camino Real right-turn lane onto SR 237 starting the lane at Yuba Drive; widen the Southbound El Camino Real left-turn lane within the existing median; and construct a right-turn lane on Southbound El Camino Real for traffic accessing Westbound Grant Rd.	*	*	2023	NO
21	17-07-0044	Double Lane Southbound US 101 off-ramp to Southbound SR 87. Widen Southbound US 101 freeway connector to Southbound SR 87 to add a second lane and install TOS.	*	*	2018	Yes
22	17-07-0051	Widen Calaveras Blvd. overpass from 4 to 6 lanes. Replaces the existing four lane bridge, which currently has a single sidewalk and no bicycle lane over the Union Pacific (UP) Railroad tracks, to a six lane bridge. Project will also add sidewalks and bicycle lanes in both directions.	*	*	2021	Yes

23	17-07-0067	SR 17 Corridor Congestion Relief in Los Gatos. Operational improvements for the SR 17 Corridor, including upgrading Highway 17/Highway 9 interchange to improve pedestrian and bicycle safety, mobility, and roadway operations; deploying advanced transportation technology to reduce freeway cut thru traffic in Los Gatos, including traffic signal control system upgrades in Los Gatos, traveler information system, advanced ramp metering systems and multi-modal congestion relief solutions	*		2027	Yes
24	17-07-0068	237 WB Additional Lane from McCarthy to North First. Corridor Improvements in the cities of San Jose, Santa Clara and Milpitas to address mainline congestion and regional connectivity by the addition of SR 237 westbound auxiliary lane between McCarthy Boulevard and North First Street	*	*	2023	Yes
25	17-07-0069	US 101/SR 25 Interchange. The project consists of reconfiguring the interchange at US 101 and SR 25 just south of the City of Gilroy in Santa Clara County, connecting SR 25 and Santa Teresa Boulevard, and widening the existing freeway from 4 to 6 lanes from the Monterey Street interchange to the US 101/SR 25 interchange.	*	*	2023	Yes
26	17-07-0070	SR 237 Express Lanes: North First St. to Mathilda Ave. Convert HOV to express lane in both directions.	*	*	2018	Yes
27	17-07-0074	SR 85 Express Lanes: US 101 (South San Jose) to Mountain View. SR 85 typically has 1 HOV lane and 2 general purpose lanes in both directions with auxiliary lane in some segments. Project will convert existing HOV lane to express lane and add a second express lane between SR 87 and I-280 in both directions.	*	*	2025	Yes
28	17-07-0075	US 101 Express Lanes: Whipple Ave. in San Mateo County to Cochrane Road in Morgan Hill. Convert HOV Lanes to express lane and add a second express lane in some segments.	*		2025	Yes
29	17-07-0076	Santa Clara County Express Lanes Operations and Maintenance. This program includes operations and maintenance for the Santa Clara County (VTA) Express Lanes.	VARIES	*	On-going through 2040	No
30	17-07-0081	I-880 Express Lanes: SR-237 to US-101. Convert existing HOV lane to an express lane in both directions between SR 237 and US 101.	*	*	2023	Yes
31	17-07-0082	SR-87 Express Lanes: I-880 to SR-85. Convert existing HOV lane to an express lane in both directions between I-880 and SR-85.	*	*	2024	Yes
32	17-07-0083	I-680 Express Lanes: SR-237 to US-101. Convert existing general purpose lane to an express lane in both directions between SR-237 and US-101.	*	*	2025	Yes
33	17-07-0084	I-280 Express Lanes: US-101 to Magdalena Avenue. Convert existing HOV lane to an express lane in both directions between US 101 and Magdalena Avenue.	*		2029	Yes
34	17-07-0087	Widen San Tomas Expressway to 8 Lanes from Stevens Creek Blvd to Campbell Ave.	*	*	2022	Yes
35	17-07-0088	Senter Road Widening from Umbarger to Lewis. Widening Senter Road between Umbarger Rd. and South Bascom Complete Streets. On South Bascom Ave. from Parkmoor Ave. to Southwest Expressway	*	*	2026	Yes
36	17-07-0089	reduce the road to two lanes and make bicycle and pedestrian improvements in the corridor.		*	2027	Yes
37	17-07-0091	Widen Oakland Road from 4-lanes to 6-lanes between U.S. 101 and Montague Expressway. Widens		*	2027	Yes
38	17-07-0005	Minor Roadway Expansions. This category includes roadway capacity increasing projects (new roadways or widening/extensions of existing roadways) on minor roads throughout Santa Clara County such as Buena Vista Avenue, bridges over US 101 in Gilroy, Blossom Hill Road, Lark Avenue, Pollard Road, Union Avenue, Butterfield Road, San Antonio Road, Charcot Avenue, King Road, Montague Expressway, San Carlos Street, Zanker Road, Coleman Avenue, Autumn Street, Winchester Boulevard, Center Avenue, DeWitt Avenue, Hill Road, Wastonville Road, Mary Avenue, and Wildwood Avenue Santa Clara Auto	VARIES	*	On-going through 2040	Yes
39	17-07-0078	Envision Expressway (Tier 1 Expressway Plan) Major and Minor Projects. Various operational and capacity improvements to expressways in Santa Clara County comprising the Tier 1 investments from the Santa Clara County Expressway Plan. These projects include capacity improvements for Almaden Expressway, Capitol Expressway, Foothill Expressway, Lawrence Expressway, Montague Expressway, Oregon-Page Mill Expressway, San Tomas Expressway, Santa Teresa Boulevard. This project also includes the following ITS/Signal upgrades: Replace/upgrade/add fiber optic lines; upgrade equipment for new technologies; systemwide pedestrian sensors; enhance/replace bicycle and vehicle detection	VARIES	*	VARIES	Yes
40	17-07-0079	Envision Highway Minor Projects. Includes: 1-280 NB Second exit lane to Foothill Expressway; SR 17 SB/Hamilton Ave Off-Ramp widening; San Tomas expressway at SR-17 Improvements; US101/SR 152 10th Street Ramp and Intersection Improvements; and Charcot Avenue Extension over I-880.	VARIES	*	On-going through 2040	Yes
41	17-07-0005, 17-07-0078	Widen Coleman Avenue from 4-lanes to 6-lanes between I-880 and Taylor Street.	*	*		Yes
42	17-07-0005, 17-07-0078	Conversion of one-way couplets to two-way streets along 10th and 11th Streets, Almaden Avenue and Vine Street, and 2nd and 3rd Streets.	*	*		Yes
43	17-07-0005, 17-07-0078	Widen Central Expressway from 4 lanes to 6 lanes between Lawrence and San Tomas Expressway.	*	*		Yes
44	17-07-0005, 17-07-0078	Conversion HOV lanes on Central Expressway to mixed flow lanes between De La Cruz Boulevard and San Tomas Expressway.	*	*		Yes
45	17-07-0005, 17-07-0078	Widen San Tomas Expressway to 8 lanes between Williams to El Camino Real.	*	*		Yes
46	17-07-0005, 17-07-0078	Replace and widen San Carlos Street bridge at Caltrain/Vasona LRT.	*	*		Yes
47	17-07-0005, 17-07-0078	Realignment of Julian Street between SR 87 and North 1st Street to extend the downtown urban grid system.	*	*		Yes
48	17-07-0005, 17-07-0078	Conversion of St. James Street from one-way to two-way street from Notre Dame/SR 87 to Market Street (part of the Julian Realignment project).	*	*		Yes
49	17-07-0005, 17-07-0078	Complete the Autumn Street realignment and extension between St. John Street and Coleman Avenue.	*	*		Yes
50	17-07-0005, 17-07-0078	Convert Autumn Street between Santa Clara Street and Park Avenue from a one-way (northbound) street to a two-way street. Autumn Street will become a 4-lane street.	*	*		Yes
51	17-07-0005, 17-07-0078	Convert Montgomery Street between Santa Clara Street and San Fernando Street from a oneway (southbound) street to a two-way street. Montgomery Street will remain a two-lane street.	*	*		Yes

52	17-07-0005, 17-07-0078, Create cul-de-sac at southerly end of Montgomery Street, just north of Park Avenue.	*		Yes
53	17-07-0005, 17-07-0078, I-280 between US 101 and Leland Avenue - convert one mixed-flow lane to express lanes.	*		Yes
54	17-07-0005, 17-07-0078, I-680 between Montague Expressway and US 101 - convert one mixed-flow lane to express lanes.	*		Yes
55	17-07-0005, 17-07-0078, I-280 Downtown San Jose access improvements between 3rd and 7th Streets - reconstruct existing ramps at 7th and 4th Streets. The existing off-ramp connection at 5th Street will be eliminated.	*		Yes
56	17-07-0005, 17-07-0078, I-280/Senter Road interchange - extend Senter Road and construct new on-/off-ramps and modify existing on-/off-ramps into a collector/distributor ramp system.	*		Yes
57	17-07-0005, 17-07-0078, King Road and McKee Road (SJ) - addition of second eastbound left-turn lane.	*	*	No
58	17-07-0005, 17-07-0078, SR 87 (E) and Julian Street (SJ) - conversion of the existing northbound shared right-through lane to separate through and right-turn lanes; conversion of the existing westbound shared right through lane to a dedicated right-turn lane.	*	*	No
59	17-07-0005, 17-07-0078, Montgomery Street and Santa Clara Street (SJ) - addition of a left-turn and right turn lane on the northbound approach; elimination of one of the existing westbound left-turn lanes.	*	*	No
60	17-07-0005, 17-07-0078, Autumn Street and Santa Clara Street (SJ) - addition of a southbound through lane and conversion of the existing southbound right turn lane to shared right-through lane; addition of an eastbound right-turn lane; and addition of two westbound left-turn lanes and a separate westbound right-turn lane.	*	*	No
61	17-07-0005, 17-07-0078, Montgomery Street and San Fernando Street (SJ) - addition of an all-movement lane on the northbound approach and conversion of all intersection approaches to single all-movement lanes.	*	*	No
62	17-07-0005, 17-07-0078, Autumn Street and San Fernando Street (SJ) - conversion of the existing northbound shared left-through lane to a dedicated left-turn lane; addition of one left-turn, one through, and one shared right-through lane on the southbound approach; and conversion of the existing westbound through lane to a shared left-through lane.	*	*	No
63	17-07-0005, 17-07-0078, Montgomery Street and Park Avenue (SJ) - this intersection will become Autumn/Park.	*	*	No
64	17-07-0005, 17-07-0078, Autumn Street and Park Avenue (SJ) - intersection lane configuration will include one left, one through, and one shared right-through lane on the northbound approach; one left, one through, and one shared right-through lane on the southbound approach; one left and one shared rightthrough lane on the eastbound approach; and two left-turn and one shared right-through lane on the westbound approach.	*	*	No
65	17-07-0005, 17-07-0078, Bird Avenue and San Carlos Street (SJ) - addition of a second left-turn lane and conversion of the shared right-through lane to exclusive right-turn lane (reducing the number of through lanes by one) on the northbound approach; and elimination of one southbound through lane.	*	*	No
66	17-07-0005, 17-07-0078, Autumn Street and Julian Street (SJ) - reconfiguration of the northbound and southbound approaches to include one left-turn, one through, and one shared right-through lane.	*	*	No
67	17-07-0005, 17-07-0078, Lafayette Street and El Camino Real (SC) - addition of second left turn lanes on both the southbound and eastbound approaches.	*	*	No
68	17-07-0005, 17-07-0078, Coleman Avenue and Brokaw Road (SC) - Widening of Coleman Avenue to accommodate a third southbound through lane.	*	*	No
69	17-07-0005, 17-07-0078, San Tomas Expressway and El Camino Real (SC) - addition of second left turn lanes on both the eastbound and westbound approaches.	*	*	No

Source: (1) Plan Bay Area 2040 Final Supplemental Report, Transportation-Air Quality Conformity Analysis for Plan Bay Area 2040 and Amended 2017 Transportation Improvement Program, July 2017
(2) VTA staff, Cities of San Jose and Santa Clara staff, 2008 County's Expressway Plan, and VTP 2040 (VTA 2013)
(SJ) = San Jose, (SC) = Santa Clara
(3) Projects 41-69 (local roadway and Intersection Improvements) are included in 17-07-0005, 17-07-0078, and 17-07-0079.

Capitol LRT Extension - Mode Split Summary for Super District Zone 12 (East San Jose and Milpitas)

	2023 NP			2023 WP		
	Total Trips	Mode Share	Transit share (1)+(2)	Total Trips	Mode Share	Transit share (1)+(2)
DA	878,788	53.85%		878,335	53.82%	
SR_2	232,566	14.25%		232,516	14.25%	
SR_3+	347,272	21.28%		347,052	21.27%	
Transit_Walk (1)	42,381	2.60%		42,871	2.63%	
Transit_Drive (2)	9,274	0.57%	3.17%	9,521	0.58%	3.21%
Bike	19,675	1.21%		19,669	1.21%	
Walk	102,035	6.25%		102,027	6.25%	
Walk_to_Bart	3,572	0.22%		3,606	0.22%	
Walk_to_Commuter_Rail	837	0.05%		825	0.05%	
Walk_to_LRT	11,791	0.72%		12,783	0.78%	
Walk_to_Express	165	0.01%		164	0.01%	
Walk_to_Local	25,985	1.59%		25,463	1.56%	
PNR	7,519	0.46%		7,732	0.47%	
KNR	1,742	0.11%		1,775	0.11%	
All	1,631,991	100.00%		1,631,992	100.00%	

	2043 NP			2043 WP		
	Total Trips	Mode Share	Transit share (1)+(2)	Total Trips	Mode Share	Transit share (1)+(2)
DA	978,906	50.77%		978,123	50.73%	
SR_2	273,438	14.18%		273,324	14.18%	
SR_3+	383,072	19.87%		382,616	19.85%	
Transit_Walk (1)	90,337	4.69%		91,360	4.74%	
Transit_Drive (2)	22,268	1.15%	5.84%	22,639	1.17%	5.91%
Bike	30,744	1.59%		30,724	1.59%	
Walk	149,190	7.74%		149,171	7.74%	
Walk_to_Bart	21,902	1.14%		21,944	1.14%	
Walk_to_Commuter_Rail	1,794	0.09%		1,781	0.09%	
Walk_to_LRT	23,440	1.22%		25,392	1.32%	
Walk_to_Express	294	0.02%		292	0.02%	
Walk_to_Local	42,866	2.22%		41,909	2.17%	
PNR	17,802	0.92%		18,137	0.94%	
KNR	4,450	0.23%		4,487	0.23%	
All	1,927,956	100.00%		1,927,956	100.00%	

Capitol LRT Extension - Mode Split Summary for Super District Zone 12 (East San Jose and Milpitas)

	2017 Existing					
	Total Trips	Mode Share	Transit share (1)+(2)			
DA	827,802	54.21%				
SR_2	218,068	14.28%				
SR_3+	327,201	21.43%				
Transit_Walk (1)	34,629	2.27%				
Transit_Drive (2)	3,981	0.26%	2.53%			
Bike	17,896	1.17%				
Walk	97,544	6.39%				
Walk_to_Bart	403	0.03%				
Walk_to_Commuter_Rail	494	0.03%				
Walk_to_LRT	9,122	0.60%				
Walk_to_Express	401	0.03%				
Walk_to_Local	24,176	1.58%				
PNR	3,306	0.22%				
KNR	666	0.04%				
All	1,527,120	100.00%				

	2023 NP			2023 WP		
	Total Trips	Mode Share	Transit share (1)+(2)	Total Trips	Mode Share	Transit share (1)+(2)
DA	878,788	53.85%		878,335	53.82%	
SR_2	232,566	14.25%		232,516	14.25%	
SR_3+	347,272	21.28%		347,052	21.27%	
Transit_Walk (1)	42,381	2.60%		42,871	2.63%	
Transit_Drive (2)	9,274	0.57%	3.17%	9,521	0.58%	3.21%
Bike	19,675	1.21%		19,669	1.21%	
Walk	102,035	6.25%		102,027	6.25%	
Walk_to_Bart	3,572	0.22%		3,606	0.22%	
Walk_to_Commuter_Rail	837	0.05%		825	0.05%	
Walk_to_LRT	11,791	0.72%		12,783	0.78%	
Walk_to_Express	165	0.01%		164	0.01%	
Walk_to_Local	25,985	1.59%		25,463	1.56%	
PNR	7,519	0.46%		7,732	0.47%	
KNR	1,742	0.11%		1,775	0.11%	
All	1,631,991	100.00%		1,631,992	100.00%	

	2043 NP			2043 WP		
	Total Trips	Mode Share	Transit share (1)+(2)	Total Trips	Mode Share	Transit share (1)+(2)
DA	978,906	50.77%		978,123	50.73%	
SR_2	273,438	14.18%		273,324	14.18%	
SR_3+	383,072	19.87%		382,616	19.85%	
Transit_Walk (1)	90,337	4.69%		91,360	4.74%	
Transit_Drive (2)	22,268	1.15%	5.84%	22,639	1.17%	5.91%
Bike	30,744	1.59%		30,724	1.59%	
Walk	149,190	7.74%		149,171	7.74%	
Walk_to_Bart	21,902	1.14%		21,944	1.14%	
Walk_to_Commuter_Rail	1,794	0.09%		1,781	0.09%	
Walk_to_LRT	23,440	1.22%		25,392	1.32%	
Walk_to_Express	294	0.02%		292	0.02%	
Walk_to_Local	42,866	2.22%		41,909	2.17%	
PNR	17,802	0.92%		18,137	0.94%	
KNR	4,450	0.23%		4,487	0.23%	
All	1,927,956	100.00%		1,927,956	100.00%	

Eastridge to BART Regional Connector
Mode Split

Mode	Existing (2017)	2023 NP	2023 WP	2043 NP	2043 WP
Drive Alone	54.21%	53.85%	53.82%	50.77%	50.73%
Carpool	35.71%	35.53%	35.52%	34.10%	34.03%
Transit	2.53%	3.17%	3.21%	5.84%	5.91%
Bike	1.17%	1.21%	1.21%	1.59%	1.59%
Walk	6.39%	6.25%	6.25%	7.74%	7.74%
Total	100.00%	100.01%	100.01%	100.05%	100.00%

EBRC Forecast by Year, by Station

Station	Line	2017 NP	2017 WP	2023NP	2023WP*	2043NP	2043WP*
Eastridge	Blue (901)	0	495	0	562	0	961
Story	Blue (901)	0	270	0	374	0	480
Alum Rock	Blue (901)	798	574	823	448	833	431

Eastridge	Orange (903)	0	0	0	663	0	1326
Story	Orange (903)	0	0	0	403	0	560
Alum Rock	Orange (903)	0	0	922	531	1,490	777

Eastridge	Blue + Orange	0	495	0	1,224	0	2,287
Story	Blue + Orange	0	270	0	777	0	1,040
Alum Rock	Blue + Orange	781	574	1,745	979	2,322	1,207
Total		781	1,339	1,745	2,979	2,322	4,534
Difference from NP			558		1,234		2,212

Eastridge	522	209	163	896	918	966	518
	523	0	0	0	0	0	0
Story	522	263	256	379	418	472	401
	523	0	0	0	0	0	0
Alum Rock	522	359	230	862	506	1,036	659
	523	0	0	0	0	0	0
Total		831	648	2,137	1,842	2,474	1,578

LRT+BRT Total		1,612	1,987	3,882	4,821	4,796	6,111
Difference from NP			375		940		1,316

* WP: 522 ends @ Eastridge.

** WP Alt. 1: 522 ends @ Alum Rock LRT Station.

Headways:

Route 522: 12min/12 min

Route 523: 15min/15 min

LRT For 2017:

900: Ohlone Chynoweth - Almaden (15min/15min)

901: Santa Teresa - Alum Rock (15min/15min)

902: Mountain View - Winchester (15min/15min)

903: Santa Teresa - Tasman (PK only) (60min/-)

LRT For 2023 and 2043:

Purple (900): Ohlone Chynoweth - Almaden (15min/15min)

Blue (901): Santa Teresa - Alum Rock (15min/15min)

Green (902): Old Ironsides - Winchester (15min/15min)

Orange (903): Mtn View - Alum Rock, All Stops (15min/15min)

Note: these ridership forecasts were subsequently updated based on the 2019 New Service Plan approved by the VTA Board of Directors in May 2019.

EBRC Forecast by Year, by Mode

Station	2017 NP	2017 WP	2023NP	2023WP*	2023WP - Alt.1**	Compare 2023WP & WP Alt1.	2043NP	2043WP*	2043WP - Alt.1**	Compare 2043WP & WP Alt1.
VTA LRT	50,313	50,952	72,151	73,553	73,730	177	164,737	167256	167510	254
Purple (900)	656	656	959	959	960	1	1,885	1882	1881	-1
Blue (901)	26,137	26,848	31,435	32,091	32,257	166	60,911	62161	62317	156
Green (902)	22,961	22,904	21,487	21,241	21,191	-50	56,041	55740	55723	-17
Orange (903)	559	544	18,270	19,262	19,322	60	45,900	47473	47589	116
Difference from NP		639		1,402	1,579			2,519	2,773	
						0				0
VTA BRT	14,788	14,566	25,162	24,361	21,968	-2,393	36,014	34,968	33,322	-1,646
Route 522	12,670	12,448	12,057	11,279	8,891	-2,388	19,066	17,985	16,344	-1,641
Route 523 (Route 3)	2,118	2,118	13,105	13,082	13,077	-5	16,948	16,983	16,978	-5
Difference from NP		-222		-801	-3,194			-1,046	-2,692	
VTA Local Bus (BRT)	133,430	133,142	187,127	186,239	185,950	-289	318,345	316750	316883	133
Difference from NP		-288		-888	-1,177			-1,595	-1,462	
VTA Express	6,817	6,815	2,443	2,438	2,436	-2	3,979	3983	3982	-1
Difference from NP		-2		-5	-7			4	3	
VTA Shuttle	8,942	9,042				0				0
Difference from NP		100								
VTA System	199,502	199,951	261,721	262,230	262,116	-114	487,061	487,989	488,375	386
Difference from NP		449		509	395			928	1,314	
BART	418,246	418,248	480,547	480,354	480,372	18	726,883	726296	726352	56
Caltrain	47,351	47,340	71,207	71,170	71,137	-33	129,755	129714	129705	-9
Subtotal	465,597	465,588	551,754	551,524	551,509	-15	856,638	856,010	856,057	47
Difference from NP		-9		-230	-245			-628	-581	

* WP: 522 ends @ Eastridge.

** WP Alt. 1: 522 ends @ Alum Rock LRT Station.

Headways:

Route 522: 12min/12 min

Route 523: 15min/15 min

LRT For 2017:

900: Ohlone Chynoweth - Almaden (15min/15r Purple (900): Ohlone Chynoweth - Almaden (15min/15min)

901: Santa Teresa - Alum Rock (15min/15min) Blue (901): Santa Teresa - Alum Rock (15min/15min)

902: Mountain View - Winchester (15min/15mi Green (902): Old Ironsides - Winchester (15min/15min)

903: Santa Teresa - Tasman (PK only) (60min, Orange (903): Mtn View - Alum Rock, All Stops (15min/15min)

LRT For 2023 and 2043:

Model Assumption Changes since the previous summary (presented in the meeting on June 4)	
1	BART transfer fare has \$0.5 discount to VTA LRT and Bus.
2	In 2017, Route 522 frequency is 12min/12min and Route 22 frequency is 15min/15min.
3	In 2017, LRT 902 (Mountain View to Winchester) has 15min/15min frequency, instead of the previous 15min/30min.
4	In 2023, Route 500 serves as a connector between San Jose Downtown and Berryessa BART Station. In 2043, there is no Route 500 due to BART extension to Santa Clara.
5	In 2023, Route 523 is from Sunnyvale/Lockheed Martin LRT Station to Berryessa BART Station. In 2043, Route 523 is from Sunnyvale/Lockheed Martin LRT Station to San Jose Downtown.
6	In both 2023 and 2043, there is no Express service for Santa Teresa/Alum Rock(Eastridge) Line
7	In 2023 LRT has no Vasona Extension. In 2043, Vasona Extension includes in VTA LRT system.
8	In 2017, total employment in City Place (north of Levis Stadium) is changed from 2000 to 300.

File: 28140
Various

Letter L3

November 19, 2018

Ms. Christina Jaworski
Santa Clara Valley Transportation Authority
3331 North First Street, Building B-2
San Jose, CA 95134-1927

Subject: Draft Second Supplemental Environmental Impact Report for the Eastridge to
BART Regional Connector: Capitol Expressway Light Rail Project

Dear Ms. Jaworski:

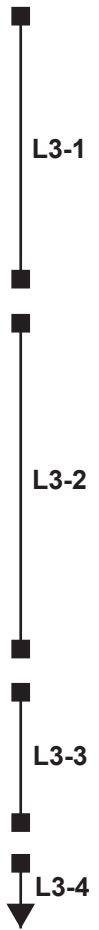
The Santa Clara Valley Water District (District) has reviewed the Draft Second Supplemental Environmental Impact Report (SEIR) for the Eastridge to BART Regional Connector: Capitol Expressway Light Rail (LR) Project dated October 2018 and received by the District on October 3, 2018.

The proposed LR extension will cross two District facilities, Lower Silver Creek and Thompson Creek and proposes to utilize the District's property for the construction staging area and the relocation of Pacific Gas and Electric (PG&E) electrical transmission facilities. These proposed improvements require issuance of District encroachment permit per the District's Water Resources Protection Ordinance and potential land rights transactions subject to approval by our Board of Directors, if acceptable. The Draft Second SEIR does not note that the District is a responsible agency under CEQA for this project and should be revised to reflect the District's role as a responsible agency under CEQA.

The Draft Second SEIR also does not include a discussion of the District's use of the site, potential impacts to District operations due to loss of a portion of or all of the site, and potential mitigation measures and should be revised to include these issues. The District maintenance activities within this reach include vegetation management / removal in and adjacent to the creek and sediment removal from the top of bank using various equipment, including but not limited to excavators, long-reach excavators, scrapers, and front-end loaders, that are designed to restore the flood capacity and minimize the flood hazard. To prevent impacts to the District's existing maintenance operations of the channel, the foundations for the towers / tubular steel poles should be located outside the District's Lower Silver / Thompson Creek fee title right of way. Maintenance of these facilities should also be accessed from Capitol Expressway.

In Attachment C Detailed Plans for the Proposed Changes, it is unclear where the proposed aerial guideway concrete columns will be located when crossing over the District's Lower Silver Creek. The aerial guideway's concrete columns should be located outside of Lower Silver Creek's three (3) box culverts on Capitol Expressway.

We request that VTA continue project design coordination with the District to prevent any impacts to the District's existing maintenance operations and future flood improvement projects.

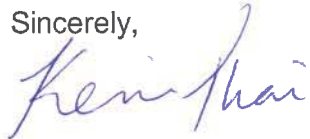


Ms. Jaworski
Page 2
November 8, 2018

Please forward a copy of the final SEIR to the District for review and comment when available. Reference District File No. 28140 on further correspondence regarding this project.

If you have any questions or need further information, you can reach me at (408) 630-3157.

Sincerely,



Kevin Thai
Assistant Engineer II
Community Projects Review Unit

cc: U. Chatwani, C. Grande, J. Codianne, A. Hunt, E. Gabrielsen, K. Thai, File

↑
L3-4
Cont.

L3 Santa Clara Valley Water District, November 19, 2018

- L3-1 The comment requests that the Santa Clara Valley Water District be identified as a responsible agency under CEQA because the project proposes to use the district's property for construction staging and because the project crosses through Lower Silver Creek and Thompson Creek. Section 2.5, *Uses of the SEIR-2*, in Chapter 2, *Introduction*, of the Draft SEIR-2 specifies the responsible agencies for the project and the specific approvals required by each agency. In response to this comment, the first paragraph of this section has been revised and this text change is documented in Chapter 4, *Major Revisions to the Draft Second Supplemental Environmental Impact Report*. Section 2.5 also contains a reference to the Santa Clara Valley Water District and indicates that an encroachment permit for use of district right-of-way and issuance of a construction permit are district discretionary actions that would be required during construction of the approved project.
- L3-2 The comment requests that the foundations for the towers/tubular steel poles (TSPs) be located outside the Santa Clara Valley Water District's Lower Silver/Thompson Creek fee title right-of-way. The Santa Clara Valley Water District also requests in this comment that maintenance of the facilities be accessed from Capitol Expressway. Based on VTA's review of the option of relocating the TSPs to the County right-of-way, it is not possible to relocate the TSPs because of Pacific Gas and Electric (PG&E) and County design standards. In addition, it is not possible for the TSPs to be maintained from Capitol Expressway for safety reasons.
- L3-3 The comment is related to Attachment C, *Detailed Plans for the Proposed Changes*, in Volume I of the Draft SEIR-2. The comment states that it is unclear if the proposed aerial guideway would cross over the Santa Clara Valley Water District's Lower Silver Creek. The comment also requests that the aerial guideway's concrete columns be placed outside Lower Silver Creek's three box culverts on Capitol Expressway. The aerial guideway's columns would be located outside the Lower Silver Creek box culverts. VTA would provide the Santa Clara Valley Water District with the 65 percent design plans, which show the structural foundation footprints relative to the box culverts. In addition, VTA would require the contractor to install shoring around the foundation excavation to ensure that excavation does not affect the structural integrity of the box culverts.
- L3-4 The comment requests that the Santa Clara Valley Water District receive a copy of the Final SEIR-2 and requests continued coordination with VTA regarding the approved project. As requested, the Santa Clara Water District will receive a copy of the Final SEIR-2, and VTA will continue to coordinate with the Santa Clara Valley Water District regarding the design of the approved project. In addition, VTA will reference File No. 28140 in further correspondence regarding the approved project.

From: NICE IMPROVEMENTS [REDACTED]
Sent: Monday, October 01, 2018 4:48 PM
To: EBRC-CELR-Comments
Subject: Two Light rail stations underserved / not used

You need to discontinue and close for good old ironsides and tasman station, they are not needed just as much as the express trains. And after eastridge light rail have an station at silver creek. This is needed. More people will ride to and from baypointe and great america station than what is listed above. Those stations are under served just as much as the express trains and they need to be closed. This over all helps out all of the system not just those station areas. There would be better boardings at the river oaks and champion stations even though most people would make their transfer at baypointe. Make all of vta light rail better and close these two stations. After silver creek make station at monterey shut these two stations down before this extension opens vta this will really help and those stations are not needed just as much as the express trains you discontinued


P1-1

P1 Greenscope, October 1, 2018

P1-1 The comment requests VTA to close Old Ironsides and Tasman Stations because they would not be necessary once Eastridge Station is completed and they are currently underserved. According to 2018 ridership data, Old Ironsides Station has an average weekday ridership of 281 boardings per day, which is average for VTA’s light rail system. According to 2018 ridership data, Tasman Station has an average weekday ridership of 1,702 boardings, which is the second highest in VTA’s light rail system. Ridership at Old Ironsides and Tasman Stations is not anticipated to decrease once the Eastridge Station is completed. The comment also requests that VTA open a station at Silver Creek. Currently, there is no funding available to extend the alignment farther south to Silver Creek. The approved proposes to terminate the alignment at the Eastridge Transit Center.

From: Sossikian, Leana
Sent: Thursday, October 11, 2018 7:57 AM
To: EBRC-CELR-Comments
Subject: Fw: Eastridge to BART Regional Connector: Notice of Availability of Draft SEIR-2

From: [REDACTED]
Sent: Thursday, October 11, 2018 7:28:07 AM
To: Sossikian, Leana
Subject: Re: Eastridge to BART Regional Connector: Notice of Availability of Draft SEIR-2

Greetings. What are the changes?  P2-1

Sent from my iPad

On Oct 3, 2018, at 12:43 PM, Sossikian, Leana <Leana.Sossikian@vta.org> wrote:

October 3, 2018

Eastridge to BART Regional Connector: Capitol Expressway Light Rail
Notice of Availability of a Draft Second Supplemental Environmental Impact Report

Attached to this email is the Notice of Availability (NOA) of a Draft Second Supplemental Environmental Impact Report (SEIR-2) for the Eastridge to BART Regional Connector: Capitol Expressway Light Rail Project (project). The project would extend light rail along Capitol Expressway between the existing Alum Rock Light Rail Station and Eastridge Transit Center in the City of San Jose.

A Supplemental EIR is prepared only if minor additions or changes would be necessary to make the previous EIR adequately apply to the changed situation. According to Section 15163(b) of the California Environmental Quality Act (CEQA) Guidelines, the SEIR needs to only contain the information necessary to make the previous EIR adequate for the project as revised.

The NOA contains the project description, location, public review period dates, public meeting information, summary of significant impacts, presence of hazardous materials sites within the project area pursuant to California Government Code Section 65962.5, and information on where the draft document can be found for review. Additional information on this project, including the Draft SEIR-2 and previous environmental documents, can be found online at www.vta.org/eastridgetobart.

VTA is seeking your comments on the Draft SEIR-2. Comments are due by 5:00pm on **Monday, November 19, 2018**.

If you have any questions about the Draft SEIR-2, please feel free to contact Christina Jaworski, Senior Environmental Planner, at (408) 321-5789 or Christina.Jaworski@vta.org.

Sincerely,

Leana Sossikian

Environmental Planner

Santa Clara Valley Transportation Authority
3331 North First Street, Building B
San Jose, CA 95134-1927
Phone [408-321-5705](tel:408-321-5705)

<image001.png>

Conserve paper. Think before you print.

<EBRC_Notice_of_Availability_100318_web.pdf>

P2 Evergreenvoice, October 11, 2018

P2-1 The comment requests a description of the proposed changes to the approved project. As discussed in detail in Section 3.2 of Chapter 3, *Changes to the Approved Project, Changes in Circumstances, and Introduction of New Information*, in the Draft SEIR-2, VTA is proposing changes to certain elements of the approved project, including:

- Extension of the aerial guideway to grade separate the Ocala Avenue and Cunningham Avenue intersections;
- Revisions to Capitol Expressway roadway lane configurations, including converting existing high-occupancy vehicle lanes to general purpose traffic lanes and maintaining eight lanes between Story Road and Capitol Avenue;
- Modifications to Eastridge Station platforms and track;
- Reduction in planned parking spaces;
- Minor shift in the location and straightening of the Story Station pedestrian overcrossing;
- Modification to Story Station pedestrian access;
- Relocation of a construction staging area;
- Relocation of PG&E electrical transmission facilities; and
- Extension of construction duration and modification to the construction scenario.

YOUR OPINION COUNTS

Letter P3

Date: 10-14-18 Name of Project: Eastridge Extension

I have a question/comment about:

Will VTA provide new
sound proof walls for people
whose houses are adjacent
to project?
(Important)

P3-1

I would like more information about:

- | | | |
|--|---|--|
| <input checked="" type="checkbox"/> Design Features | <input checked="" type="checkbox"/> Community Meetings | <input checked="" type="checkbox"/> Funding |
| <input checked="" type="checkbox"/> Property Acquisition | <input checked="" type="checkbox"/> Environmental Effects | <input checked="" type="checkbox"/> Schedule |
| <input checked="" type="checkbox"/> Construction Impacts | <input type="checkbox"/> Other: _____ | |

Thank you for your comments. If you would like us to respond or be included in our mailing list, please fill out the information below. You may also call the Community Outreach Line at (408) 321-7575. Thank you for your interest.

0806-6409

P3 Jose Aguila, October 18, 2018

P3-1 The comment requests VTA to confirm if the agency is considering providing sound-proof walls for residences adjacent to the project. In Section 5.5 of Chapter 5, *Environmental Setting, Impacts, and Mitigation*, VTA proposes to construct temporary noise barriers for residential and commercial buildings where construction noise impacts exceed FTA thresholds of significance. With implementation of Mitigation Measures NV (CON)-1b (Construct Temporary Noise Barriers During Construction) and NV (CON)-1h (Use Impact Cushions), construction noise impacts would be reduced to less than significant. In addition, in Section 5.3 of Chapter 5, *Environmental Setting, Impacts, and Mitigation*, VTA proposes to construct permanent soundwalls on the aerial guideway where residences may experience operational noise impacts in exceedance of FTA operational noise criteria. Implementation of Mitigation Measure NV-1a (Construct Soundwalls) would reduce operational noise impacts to less than significant. As a result, VTA is not proposing to provide new or replace existing soundwalls for residences adjacent to the approved project.

YOUR OPINION COUNTS

Letter P4

Date: 10/15/18 Name of Project: _____

I have a question/comment about:

this project supost be
finish 30 years ago.
Way they use the money
to the extension to
Los Gatos.

P4-1

I would like more information about:

- Design Features Community Meetings Funding
 Property Acquisition Environmental Effects Schedule
 Construction Impacts Other: _____

Thank you for your comments. If you would like us to respond or be included in our mailing list, please fill out the information below. You may also call the Community Outreach Line at (408) 321-7575. Thank you for your interest.

0806-6409

P4 Ernesto Barajas, October 18, 2018

P4-1 The commenter states that the approved project was supposed to be completed 30 years ago and asks why the funding for the project was not committed to an extension of the light rail to Los Gatos. Beginning in 2008, VTA experienced unprecedented declines in revenue. In response to the severe decline in revenue, VTA modified the approved project to be constructed in phases. In 2012, VTA completed pedestrian and bus improvements along Capitol Expressway. In 2015, VTA completed replacement of the Eastridge Transit Center. In 2016, the VTA Board of Directors approved a full funding plan for the light rail extension to the Eastridge Station through use of 2000 Measure A funds and Regional Measure 3 funds. With the approval of Regional Measure 3 in June 2018, the approved project is considered to have full funding. Regarding the Vasona light rail project, the VTA Board of Directors authorized funding in April 2018 for a study to double track the remaining sections of single track; study the freight track configurations, including potential temporal separation of freight and LRT operations; and prepare conceptual engineering plans for the light rail extension to Vasona Junction.

YOUR OPINION COUNTS

Letter P5

Date: 10-18-11 Name of Project: Capitol Exp

I have a question/comment about:

① Construction Safety
meeting ahead of
Construction P5-1

② Child & Senior Safety
During Construction P5-2

I would like more information about:

- Design Features Community Meetings Funding
 Property Acquisition Environmental Effects Schedule
 Construction Impacts Other: _____

Thank you for your comments. If you would like us to respond or be included in our mailing list, please fill out the information below. You may also call the Community Outreach Line at (408) 321-7575. Thank you for your interest.

YOUR OPINION COUNTS

Date: 10-18-18 Name of Project: Capital Exp. Light Rail

I have a question/comment about:

① I would like to be included in the ART, Community Art Requests for this project

P5-3

I would like more information about:

- Design Features Community Meetings Funding
 Property Acquisition Environmental Effects Schedule
 Construction Impacts Other: Any

Thank you for your comments. If you would like us to respond or be included in our mailing list, please fill out the information below. You may also call the Community Outreach Line at (408) 321-7575. Thank you for your interest.

P5 Danny Garza, October 18, 2018

- P5-1 The commenter requests confirmation that VTA would hold a construction safety meeting prior to the beginning of construction. VTA would conduct community outreach, which would provide information to the public prior to and during construction. Information on construction safety is VTA standard practice during outreach efforts. Construction would be primarily within the central median of Capitol Expressway. Construction on the sidewalk would be limited, thereby reducing impacts on public safety. VTA would also develop stage construction plans, detailing appropriate pedestrian and bicycle detours, along with appropriate signage. VTA standard practice calls for safety oversight by a contractor safety officer and VTA resident engineer.
- P5-2 The commenter has questions regarding child and senior safety impacts during construction. Please see the response to Comment P5-1. Although VTA would hold a community construction safety meeting prior to the beginning of construction, there is no current plan to conduct specialized outreach campaigns regarding safety during construction for children and seniors.
- P5-3 The commenter’s request to be involved in the community art process associated with the approved project is noted and will be provided to the VTA Board of Directors for their consideration during the decision-making process. If the environmental document is approved, VTA would retain the services of an artist who would create artwork that would be installed at appropriate locations within the project limits.

YOUR OPINION COUNTS

Letter P6

Date: 10/18/18 Name of Project: _____

I have a question/comment about:

How will you get community members to ride the light rail?

P6-1

I would like more information about:

- Design Features Community Meetings Funding
 Property Acquisition Environmental Effects Schedule
 Construction Impacts Other: _____

Thank you for your comments. If you would like us to respond or be included in our mailing list, please fill out the information below. You may also call the Community Outreach Line at (408) 321-7575. Thank you for your interest.

0806-6409

P6 **Victoria Partida, October 18, 2018**

P6-1 The commenter requests information regarding how VTA would encourage community members to ride light rail. Increasing ridership for the VTA system, including light rail, is a priority for VTA. Because of the upcoming changes for light rail and bus service with integration of the BART connection to Milpitas and San Jose, VTA is planning outreach regarding these service changes in the fall or late 2019. Further outreach is planned once the extension of light rail to the Eastridge Station is complete.

YOUR OPINION COUNTS

Letter P7

Date: 10/18/18 Name of Project: CAPITAL EXPRESSWAY

I have a question/comment about: LIGHT RAIL

1. ESTIMATED TRAVEL TIME FROM EASTRIDGE

TO: A. SJO?

B. DOWNTOWN SJ?

P7-1

2. WORK WILL CONTINUE THROUGH FUTURE

RECESSION?

P7-2

3. NOISE LEVEL OF OPERATING LIGHT RAIL?

P7-3

I would like more information about:

- Design Features Community Meetings Funding
 Property Acquisition Environmental Effects Schedule
 Construction Impacts Other: _____

Thank you for your comments. If you would like us to respond or be included in our mailing list, please fill out the information below. You may also call the Community Outreach Line at (408) 321-7575. Thank you for your interest.

4. WILL THIS PROJECT RAISE OR LOWER
ADJACENT HOME PROPERTY VALUES?

Name _____

P7-4

0806-6409

P7 Andres Solomonoff, October 18, 2018

P7-1 The comment asks the estimated travel time from Eastridge Station to downtown San Jose and San Jose International Airport. Using light rail, the estimated travel time from Eastridge Station to downtown San Jose is approximately 55 minutes on a typical weekday. Using a combination of light rail and Rapid 522, estimated travel time to downtown San Jose is approximately 30 minutes on a typical weekday. Using a combination of light rail and the Airport Flyer, the estimated travel time from Eastridge Station to San Jose International Airport is approximately 53 minutes on a typical weekday.

P7-2 The comment asks if construction would continue through future recessions. The project has dedicated funds that are anticipated to support the project through construction completion. However, funding is subject to change depending on the severity and duration of future recessions.

P7-3 The commenter requests information about the noise level of the proposed changes to the approved project during operation. Table 5.3-1 in Section 5.3, *Noise and Vibration*, of the Draft SEIR-2, summarizes the anticipated operational transit noise impacts generated by the proposed changes to the approved project in 2017 and 2043. The table indicates the number of impacts for both years under the following conditions:

- Without the proposed aerial guideway soundwalls and without the proposed open-graded asphalt concrete (OGAC),
- With only the proposed aerial guideway soundwalls, and
- With both the proposed aerial guideway soundwalls and the proposed OGAC.

With only the proposed aerial soundwalls, the proposed changes would result in 45 moderate and 0 severe noise impacts in 2017 as well as 116 moderate and 0 severe noise impacts in 2043. With both the proposed aerial guideway soundwalls and the proposed OGAC, all moderate and severe impacts would be eliminated in 2017 and 2043. With implementation of Mitigation Measure NV-1a (Construct Soundwalls) and Mitigation Measure NV-1c (Provide Quiet Pavement), operational noise impacts would be reduced to less than significant. The *EBRC – CELR Noise and Vibration Assessment* (included in Attachment E in Volume II of the Draft SEIR-2)⁹ includes a detailed analysis of the potential noise and vibration impacts of the proposed changes to the approved project.

P7-4 The comment asks if the project would raise or lower adjacent home property values. The economic impacts of a project, such as changes in property values, are subject to CEQA only if the economic impacts themselves result in potentially

⁹ This assessment was revised subsequent to the publication of the Draft SEIR-2. The revised assessment is included in Chapter 2 of this Final SEIR-2.

significant impacts on the physical environment. Based on studies of property values near transit stations prepared for BART, the U.S. Department of Transportation, FTA, and American Public Transportation Association, in partnership with the National Association of Realtors, home value depreciation is unlikely.

From: Patricia Martinez-Roach [REDACTED]
Sent: Thursday, November 15, 2018 11:54 PM
To: EBRC-CELR-Comments
Subject: Questions

What disruptive construction will take place between Alum Rock to Capitol Expressway; How will homeowners be affected; What will noise level be mitigated due to construction and operation of trains; How will traffic be mitigated; How will student crossing at Ocala be addressed?

P8-1

Sincerely,

Sent from my iPhone

P8 Patricia Roach, November 15, 2018

P8-1 The commenter inquires about any proposed disruptive construction between Alum Rock and Capitol Expressway, the effects of the proposed changes to the approved project on homeowners, noise levels and noise mitigation during construction and operation, traffic mitigation, and students crossing at Ocala Avenue.

Construction of the approved project would take approximately five years. The most disruptive phase of construction would be the pile driving for the foundations of the aerial structure because of the noise and vibration. In addition, there would be some nighttime construction required when full or major traffic lane closures are needed for safety reasons. Full intersection closures would be required to install and remove falsework for the construction of the aerial structure. Other construction that could be considered disruptive involves concrete pours, which involve major construction equipment, truck traffic, and potential lane closures.

A description of the nighttime construction scenario is included in Section 5.5, *Construction*, in the Draft SEIR-2. Table 5.3-3 in Section 5.3, *Noise and Vibration*, of the Draft SEIR-2 summarizes the anticipated pile driving noise impacts generated by the proposed changes to the approved project during construction.

A description of the proposed changes to the approved project is included in Section 3.2 in Chapter 3, *Changes to the Approved Project, Changes in Circumstances, and Introduction of New Information*, of the Draft SEIR-2. Regarding the effect of the proposed changes on homeowners, the extension of the aerial guideway to grade separate Ocala Avenue and Cunningham Avenue would have the biggest effect on homeowners. This proposed change to the approved project would increase the number of homes that would be affected by noise and vibration during construction and operation of the approved project. Although most of the noise impacts during construction and operation would be mitigated to less than significant, some vibration impacts would remain significant and unavoidable during construction and operation of the approved project. The extension of the aerial guideway would also increase the number of homes where views would be degraded.

Noise levels during construction of the proposed changes to the approved project would be below FTA's recommended daytime limits of 80 A-weighted decibels (dBA), equivalent sound level (L_{eq}) (8-hour standard), for residential land uses and 85 dBA L_{eq} for commercial land uses with inclusion of mitigation. Noise levels during operation of the proposed changes would also be below FTA's noise impact criteria with the incorporation of mitigation. Mitigation for noise impacts during construction and operation would consist of the following: NV-1a

(Construct Aerial Soundwalls), NV-1c (Provide Quiet Pavement), NV (CON)-1b (Construct Temporary Noise Barriers During Construction), NV (CON)-1c (Restrict Pile Driving), NV (CON)-1d (Use Noise Suppression Devices), NV (CON)-1e (Locate Stationary Construction Equipment as Far as Possible from Sensitive Receptors), NV (CON)-1f (Reroute Construction-Related Truck Traffic), NV (CON)-1g (Develop Construction Noise Mitigation Plan), NV (CON)-2 (Combination of Measures to Reduce Pile Driving Noise and Vibration), and NV (CON)-1h (Use Impact Cushions).

Regarding traffic impacts, significant and unavoidable impacts are anticipated at Capitol Expressway and the intersections at Story Road and Ocala Avenue. Significant and unavoidable traffic impacts are also anticipated during construction as a result of temporary lane closures. There is no feasible mitigation for these impacts.

Regarding safe student crossings at Ocala Avenue, the proposed grade separation at Ocala Avenue would greatly decrease the potential for conflicts between pedestrians and light rail vehicles and therefore could be considered a measure that would increase safety. With the proposed grade separation, impacts on pedestrian crossings would be less than significant.

From: Chris Weitsman [REDACTED]
Sent: Saturday, November 17, 2018 10:56 PM
To: EBRC-CELR-Comments
Subject: Eastridge to BART Regional Connector: Capitol Expressway Light Rail Project Draft SEIR

I support this project I will help us get to eastridge faster

■
|
P9-1
■

P9 **Chris Weitsman, November 17, 2018**

P9-1 Support for the changes to the approved project is noted and will be provided to the VTA Board of Directors for their consideration during the decision-making process. The comment does not raise an environmental issue that requires a response.

To Whom It Concerns:

Project Title: Eastridge to Bart Regional Connector: Capitol Expressway Light Rail Project

Comments:

① The fences adjacent to the project should be made sound proof at projects' expense with (technology) the best available (modern) materials

The actual tracks and aerial section should include all the latest ways to make them sound proof. This includes the methods you claim to not understand and refuse to use. The reason being that once this project is completed; soundproofing for people's peace and quiet can no longer be done. This project is expected to last a lifetime.

You must think of the people affected after the project is completed.

Don't skimp and be cheap. Use all available technology for soundproofing. People's enjoyment of their homes should be a priority. This is San Jose tech capital of the world.

P10-1

P10-2

If you don't use the best and all technology available for soundproofing; The World will laugh if your soundproofing is ineffective and you failed to do everything possible

Comments:

② The aerial section of the track is ugly and will affect property values. Homeowners should be compensated at a premium level financially. People's homes are their main financial asset and they will be affected adversely in the long term (at retirement).

②a.

People's views from their backyard will be adversely affected (enjoyment of view from own home). I would prefer that the aerial section not be done. If it is, people's yards^{who} are adjacent to the aerial section must be compensated. This is California, ~~California~~ One's enjoyment of the views from one's home is considered a basic right.

Thank you for your attention: Jose Angel Aguila
Jose Angel Aguila

P10 Jose Aguila, November 19, 2018

- P10-1 The comment requests VTA to erect sound-proof fences with the best available material for residences adjacent to the project. Please see the response to Comment P3-1.
- P10-2 The comment requests VTA to use the latest sound-proofing technology with the best material available. The commenter expresses concern about the long-term effect of noise impacts on the residences adjacent to the aerial guideway. Please see the response to Comment P3-1.
- P10-3 The commenter states that the aerial guideway would block individuals' views from backyards and affect property values. Therefore, homeowners adjacent to the guideway should be compensated properly. A description of the potential impacts on visual character and quality is included in Section 3.16 of Chapter 3, *Environmental Setting, Impacts, and Mitigation*, of the Second Subsequent Initial Study (included in Attachment G in Volume III of the Draft SEIR-2). The introduction of the aerial guideway into the visual setting would result in a major change in views from the residences along the Capitol Expressway corridor and diminish the privacy of the residences, which would be visible from the aerial guideway. Specifically, the sensitive visual receptors in the adjacent residences would most likely experience an invaded sense of privacy from light rail users being able to look down and into their backyards and upper levels of their residences. In addition, the proposed aerial guideway would dominate the landscape within the Capitol Expressway corridor by creating a less suburban neighborhood feeling and more of an urban neighborhood feeling compared with the approved project because the aerial guideway would introduce large-scale elevated transportation structure into the landscape. In addition, the landscape would be more visually cluttered because of the proposed aerial guideway compared with the approved project. With implementation of Mitigation Measure VQ-3 (Refine Project Design for Consistency with the Community) and Mitigation Measure VQ-4 (Incorporate Landscaping in the Project Design), operational visual quality impacts would be reduced to less than significant.
- The remaining comment is related to property values and compensation for homeowners. Please see the response to Comment P7-4 regarding the effect of the project on property values. Regarding compensation for homeowners for the negative effect of the aerial structure on views, VTA provides compensation only for property or property interests required to construct a project.

From: Ray Arthur Wang [REDACTED]
Sent: Monday, November 19, 2018 4:59 PM
To: EBRC-CELR-Comments
Subject: Comment on the Draft SEIR-2

To Whom It May Concern:

As owner of house at 1049 S. Capitol Ave., San Jose, CA, I read that written comments must be received by 5:00 p.m. on November 19, hence this email before the deadline.

We may lose part of land in the front yard for vta to expand capitol ave.

From the vta map, it looks like vta will turn the store next to our Capitol house into a cul de sac as extention of capitol ave. currently, capitol ave ends at our property. The map shows that the street will be extended into our neighbor store and becomes a circular shaped cul de sac (end of a street). They may remove the tree in front of our property. The only thing is that many lightrail riders probably will park here because the rail station is right next to it at the corner of story rd and create traffic problem. Map also shows vta will take away a small part of our front yard near the tree for widening capitol ave. We ask for compensation for loss of our lot. We ask for compensation of tree removal. We like the tree which gives us privacy. about cmpensation on our loss of property.

P11-1

P11 Ray Arthur Wang, November 19, 2018

P11-1 The comment expresses concern about Story Station light rail riders parking on the commenter’s residential street. The commenter describes impacts on his property at 1049 South Capitol Avenue from acquisition of a portion of his lot and removal of one tree. The commenter requests that VTA compensate him for the loss of land and removal of the tree.

Light rail riders are not anticipated to use South Capitol Avenue in the vicinity of the commenter’s property for Story Station parking. With the closest access being a pedestrian overcrossing on the southwest corner of Capitol Expressway and Story Road, South Capitol Avenue is not only less convenient but also lacking with respect to on-street parking at the southern end of the street (approximately 200 feet).

VTA’s compensation policy for homeowners during property acquisition is detailed below.

If and when it is determined that specific property or property interests are required to construct the project, VTA would hire an independent licensed appraiser to determine the fair market value of the proposed acquisition. The appraisal typically occurs after environmental clearance is complete and after the engineering team confirms the boundaries and nature of the needed property interest. VTA would then prepare an offer, based on just compensation (fair market value, as defined under California law), and present the offer to the property owner. The property owner can accept the offer or make a counter offer to VTA. If the property owner desires to hire his/her own appraiser, VTA would reimburse the owner for his/her costs for the appraisal, up to \$5,000. After VTA and the property owner agree on the purchase price and other terms and conditions, a contract would be signed between the parties, and escrow would be opened. During escrow, issues affecting the title would need to be resolved. Upon close of escrow, the property owner would be paid the agreed-upon purchase price, and the property would be conveyed to VTA.

Property owners must be given “just compensation” for their properties. This means that property owners should receive the fair market value, as defined under California law, for their properties. VTA’s appraiser is required to identify the fair market value of a property but ignore any increase or decrease in the value of the property that results from the project. If VTA acquires only a portion of an owner’s property, VTA is required to pay severance damages if the proposed project decreases the value of the remainder of the property. In addition, businesses may be eligible for compensation for damages related to loss of goodwill if they can demonstrate such losses, as required under state law.

From: Russell Mancillas [REDACTED]
Sent: Tuesday, November 20, 2018 6:14 PM
To: EBRC-CELR-Comments
Subject: Eastridge to BART Regional Connector: Capitol Expressway Light Rail Project Draft SEIR

This extension is a long time coming and should only be the start of more rail line buildup. This extension is a positive aspect and should go forward, I endorse this connection. P12-1

Russ Mancillas
[REDACTED]

P12 Russell Mancillas, November 20, 2018

P12-1 Support for the approved project and the proposed changes is noted and will be provided to the VTA Board of Directors for their consideration during the decision-making process. The comment does not raise an environmental issue that requires a response.

Attachment A

Notice of Completion and Notice of Availability for the Draft Second Supplemental EIR

Notice of Completion & Environmental Document Transmittal

Mail to: State Clearinghouse, P.O. Box 3044, Sacramento, CA 95812-3044 (916) 445-0613
For Hand Delivery/Street Address: 1400 Tenth Street, Sacramento, CA 95814

SCH #2001092014

Project Title: Eastridge to BART Regional Connector: Capitol Expressway Light Rail Project

Lead Agency: Santa Clara Valley Transportation Authority (VTA)

Contact Person: Christina Jaworski

Mailing Address: Env. Programs, 3331 North First Street, Building B-2

Phone: (408) 321-5789

City: San Jose

Zip: 95134-1927

County: Santa Clara

Project Location: County: Santa Clara City/Nearest Community: City of San Jose

Cross Streets: Capitol Expressway between Capitol Avenue and Quimby Road Zip Code: Various

Longitude/Latitude (degrees, minutes and seconds): 37 ° 20 ' 45.2 " N / 122 ° 49 ' 25.3 " W Total Acres: _____

Assessor's Parcel No.: Various Section: _____ Twp.: _____ Range: _____ Base: _____

Within 2 Miles: State Hwy #: 130, 680, 101 Waterways: Silver Creek, Lake Cunningham, Thompson Creek

Airports: Reid Hillview Airport Railways: N/A Schools: Various

Document Type:

- CEQA: NOP Draft EIR NEPA: NOI Other: Joint Document
 Early Cons Supplement/Subsequent EIR EA Final Document
 Neg Dec (Prior SCH No.) _____ Draft EIS Other: _____
 Mit Neg Dec Other: _____ FONSI

State Clearinghouse Planning & Research

OCT 03 2018

Local Action Type:

- General Plan Update Specific Plan Rezone Annexation
 General Plan Amendment Master Plan Prezone Redevelopment
 General Plan Element Planned Unit Development Use Permit Coastal Permit
 Community Plan Site Plan Land Division (Subdivision, etc.) Other: Transit Improvement

Development Type:

- Residential: Units _____ Acres _____
 Office: Sq.ft. _____ Acres _____ Employees _____
 Commercial: Sq.ft. _____ Acres _____ Employees _____
 Industrial: Sq.ft. _____ Acres _____ Employees _____
 Educational: _____
 Recreational: _____
 Water Facilities: Type _____ MGD _____
- Transportation: Type Transit Improvement
 Mining: Mineral _____
 Power: Type _____ MW _____
 Waste Treatment: Type _____ MGD _____
 Hazardous Waste: Type _____
 Other: _____

Project Issues Discussed in Document:

- Aesthetic/Visual Fiscal Recreation/Parks Vegetation
 Agricultural Land Flood Plain/Flooding Schools/Universities Water Quality
 Air Quality Forest Land/Fire Hazard Septic Systems Water Supply/Groundwater
 Archeological/Historical Geologic/Seismic Sewer Capacity Wetland/Riparian
 Biological Resources Minerals Soil Erosion/Compaction/Grading Growth Inducement
 Coastal Zone Noise Solid Waste Land Use
 Drainage/Absorption Population/Housing Balance Toxic/Hazardous Cumulative Effects
 Economic/Jobs Public Services/Facilities Traffic/Circulation Other: Construction, EJ

Present Land Use/Zoning/General Plan Designation:

Eight lane arterial roadway with HOV lanes, bordered by low density residential, open space, a general aviation airport, & retail

Project Description: (please use a separate page if necessary)

The project proposes to extend light rail along Capitol Expressway between the Alum Rock Light Rail Station and the Eastridge Transit Center, a distance of approximately 2.4 miles. In addition, VTA is proposing the following changes to the approved project: extension of the aerial guideway to grade-separate the Ocala Avenue and Cunningham Avenue intersections; revisions to the Capitol Expressway roadway lane configurations; modifications to the Eastridge Station platforms and track; reduction in parking spaces at Eastridge Park-and-Ride lot; relocation of the Story Station pedestrian overcrossing; modification to Story Road Station pedestrian access; relocation of a construction area; relocation of Pacific Gas and Electric (PG&E) Electrical Transmission Facilities, and extension of construction duration and modification to construction scenario.

Note: The State Clearinghouse will assign identification numbers for all new projects. If a SCH number already exists for a project (e.g. Notice of Preparation or previous draft document) please fill in.

Reviewing Agencies Checklist

Lead Agencies may recommend State Clearinghouse distribution by marking agencies below with an "X".
If you have already sent your document to the agency please denote that with an "S".

- | | |
|---|---|
| <input checked="" type="checkbox"/> Air Resources Board | <input checked="" type="checkbox"/> Office of Historic Preservation |
| <input type="checkbox"/> Boating & Waterways, Department of | <input type="checkbox"/> Office of Public School Construction |
| <input type="checkbox"/> California Emergency Management Agency | <input checked="" type="checkbox"/> Parks & Recreation, Department of |
| <input checked="" type="checkbox"/> California Highway Patrol | <input type="checkbox"/> Pesticide Regulation, Department of |
| <input checked="" type="checkbox"/> Caltrans District #4 | <input checked="" type="checkbox"/> Public Utilities Commission |
| <input checked="" type="checkbox"/> Caltrans Division of Aeronautics | <input checked="" type="checkbox"/> Regional WQCB #2 |
| <input type="checkbox"/> Caltrans Planning | <input checked="" type="checkbox"/> Resources Agency |
| <input type="checkbox"/> Central Valley Flood Protection Board | <input type="checkbox"/> Resources Recycling and Recovery, Department of |
| <input type="checkbox"/> Coachella Valley Mtns. Conservancy | <input type="checkbox"/> S.F. Bay Conservation & Development Comm. |
| <input type="checkbox"/> Coastal Commission | <input type="checkbox"/> San Gabriel & Lower L.A. Rivers & Mtns. Conservancy |
| <input type="checkbox"/> Colorado River Board | <input type="checkbox"/> San Joaquin River Conservancy |
| <input type="checkbox"/> Conservation, Department of | <input type="checkbox"/> Santa Monica Mtns. Conservancy |
| <input type="checkbox"/> Corrections, Department of | <input type="checkbox"/> State Lands Commission |
| <input type="checkbox"/> Delta Protection Commission | <input type="checkbox"/> SWRCB: Clean Water Grants |
| <input type="checkbox"/> Education, Department of | <input type="checkbox"/> SWRCB: Water Quality |
| <input type="checkbox"/> Energy Commission | <input type="checkbox"/> SWRCB: Water Rights |
| <input checked="" type="checkbox"/> Fish & Game Region #3 | <input type="checkbox"/> Tahoe Regional Planning Agency |
| <input type="checkbox"/> Food & Agriculture, Department of | <input checked="" type="checkbox"/> Toxic Substances Control, Department of |
| <input type="checkbox"/> Forestry and Fire Protection, Department of | <input checked="" type="checkbox"/> Water Resources, Department of |
| <input type="checkbox"/> General Services, Department of | <input checked="" type="checkbox"/> Other: California Transportation Commission |
| <input type="checkbox"/> Health Services, Department of | <input type="checkbox"/> Other: _____ |
| <input type="checkbox"/> Housing & Community Development | |
| <input checked="" type="checkbox"/> Native American Heritage Commission | |

Local Public Review Period (to be filled in by lead agency)

Starting Date October 3, 2018 Ending Date November 19, 2018

Lead Agency (Complete if applicable):

Consulting Firm: <u>ICF</u>	Applicant: <u>Santa Clara Valley Transportation Authority</u>
Address: <u>201 Mission Street, Suite 1500</u>	Address: <u>3331 North First Street, Building B-2</u>
City/State/Zip: <u>San Francisco, CA 94105</u>	City/State/Zip: <u>San Jose, CA 95134-1927</u>
Contact: <u>Jessica Viramontes</u>	Phone: <u>(408) 321-5789</u>
Phone: <u>(415) 677-7108</u>	

Signature of Lead Agency Representative: Christina Jaworski Date: 10/03/18

Authority cited: Section 21083, Public Resources Code. Reference: Section 21161, Public Resources Code.

County of Santa Clara
Office of the County Clerk-Recorder
Business Division



County Government Center
70 West Hedding Street, E. Wing, 1st Floor
San Jose, California 95110 (408) 299-5688

File Number: ENV21799

ENVIRONMENTAL FILING

No. of Pages: 9

Total Fees: \$0.00

File Date: 10/03/2018

Expires: 11/17/2018

REGINA ALCOMENDRAS, Clerk-Recorder

By: Nina Khamphilath, Deputy Clerk-Recorder

CEQA DOCUMENT DECLARATION

ENVIRONMENTAL FILING FEE RECEIPT

PLEASE COMPLETE THE FOLLOWING:

- LEAD AGENCY: Santa Clara Valley Transportation Authority
- PROJECT TITLE: Eastridge to BART Regional Connector: Capitol Expressway Light Rail Project
- APPLICANT NAME: Christina Jaworski PHONE: 408-321-5789
- APPLICANT ADDRESS: 3331 North First Street, Bldg B-2, San Jose, CA 95134-1927
- PROJECT APPLICANT IS A: Local Public Agency School District Other Special District State Agency Private Entity
- NOTICE TO BE POSTED FOR 45 DAYS.
- CLASSIFICATION OF ENVIRONMENTAL DOCUMENT
 - PROJECTS THAT ARE SUBJECT TO DFG FEES

NA	<input checked="" type="checkbox"/> 1. ENVIRONMENTAL IMPACT REPORT (PUBLIC RESOURCES CODE §21152)	\$ 3,168.00	\$ 3,168.00 0.00 CG
	<input type="checkbox"/> 2. NEGATIVE DECLARATION (PUBLIC RESOURCES CODE §21080(C))	\$ 2,280.75	\$ 0.00
	<input type="checkbox"/> 3. APPLICATION FEE WATER DIVERSION (STATE WATER RESOURCES CONTROL BOARD ONLY)	\$ 850.00	\$ 0.00
	<input type="checkbox"/> 4. PROJECTS SUBJECT TO CERTIFIED REGULATORY PROGRAMS	\$ 1,077.00	\$ 0.00
NA	<input checked="" type="checkbox"/> 5. COUNTY ADMINISTRATIVE FEE (REQUIRED FOR a-1 THROUGH a-4 ABOVE) Fish & Game Code §711.4(e)	\$ 50.00	\$ 50.00 0.00 CG

PROJECTS THAT ARE EXEMPT FROM DFG FEES

1. NOTICE OF EXEMPTION (\$50.00 COUNTY ADMINISTRATIVE FEE REQUIRED) \$ 50.00 \$ 0.00
 2. A COMPLETED "CEQA FILING FEE NO EFFECT DETERMINATION FORM" FROM THE DEPARTMENT OF FISH & GAME, DOCUMENTING THE DFG'S DETERMINATION THAT THE PROJECT WILL HAVE NO EFFECT ON FISH, WILDLIFE AND HABITAT, OR AN OFFICIAL, DATED RECEIPT / PROOF OF PAYMENT SHOWING PREVIOUS PAYMENT OF THE DFG FILING FEE FOR THE "SAME" PROJECT IS ATTACHED (\$50.00 COUNTY ADMINISTRATIVE FEE REQUIRED)
- DOCUMENT TYPE: ENVIRONMENTAL IMPACT REPORT NEGATIVE DECLARATION \$ 50.00 \$ 0.00

NOTICES THAT ARE NOT SUBJECT TO DFG FEES OR COUNTY ADMINISTRATIVE FEES

- OTHER: Notice of Availability NOTICE OF PREPARATION NOTICE OF INTENT NO FEE \$ NO FEE FEE (IF APPLICABLE): \$ No Fee CG
- TOTAL RECEIVED..... \$ ~~3,218.00~~ 0.00 CG

*NOTE: "SAME PROJECT" MEANS NO CHANGES. IF THE DOCUMENT SUBMITTED IS NOT THE SAME (OTHER THAN DATES), A "NO EFFECT DETERMINATION" LETTER FROM THE DEPARTMENT OF FISH AND GAME FOR THE SUBSEQUENT FILING OR THE APPROPRIATE FEES ARE REQUIRED.

THIS FORM MUST BE COMPLETED AND ATTACHED TO THE FRONT OF ALL CEQA DOCUMENTS LISTED ABOVE (INCLUDING COPIES) SUBMITTED FOR FILING. WE WILL NEED AN ORIGINAL (WET SIGNATURE) AND TWO (2) COPIES. IF THERE ARE ATTACHMENTS, PLEASE PROVIDE THREE (3) SETS OF ATTACHMENTS FOR SUBMISSION. (YOUR ORIGINAL WILL BE RETURNED TO YOU AT THE TIME OF FILING.)

CHECKS FOR ALL FEES SHOULD BE MADE PAYABLE TO: SANTA CLARA COUNTY CLERK-RECORDER

PLEASE NOTE: FEES ARE ANNUALLY ADJUSTED (Fish & Game Code §711.4(b)); PLEASE CHECK WITH THIS OFFICE AND THE DEPARTMENT OF FISH AND GAME FOR THE LATEST FEE INFORMATION.

... NO PROJECT SHALL BE OPERATIVE, VESTED, OR FINAL, NOR SHALL LOCAL GOVERNMENT PERMITS FOR THE PROJECT BE VALID, UNTIL THE FILING FEES REQUIRED PURSUANT TO THIS SECTION ARE PAID. Fish & Game Code §711.4(c)(3)

(Fees Effective 01-01-2018)



NOTICE OF AVAILABILITY

October 3, 2018

To:
Reviewing Agencies, Organizations, and
Individuals

From:
Santa Clara Valley Transportation Authority
Environmental Programs
3331 North First Street, Building B-2
San Jose, CA 95134-1927

SUBJECT: Notice of Availability of a Draft Second Supplemental Environmental Impact Report for the Eastridge to BART Regional Connector: Capitol Expressway Light Rail Project

The Santa Clara Valley Transportation Authority (VTA), as the lead agency under the California Environmental Quality Act (CEQA), has prepared a Draft Second Supplemental Environmental Impact Report (Draft SEIR-2) for the Eastridge to BART Regional Connector: Capitol Expressway Light Rail Project (EBRC-CELR or Project). We request the views of your agency as to the content of the Draft SEIR-2, which is germane to your agency's statutory responsibilities in connection with the proposed project. The Draft SEIR-2 will supplement the Final Environmental Impact Report (Final EIR) (SCH 2001092014), Final Supplemental Environmental Impact Report (Final SEIR-1), and the Subsequent Initial Study/Mitigated Negative Declaration (Subsequent IS/MND), which were certified by the VTA Board of Directors in May 2005, August 2007, and March 2014, respectively. Your agency may access the Draft SEIR-2, Final EIR, Final SEIR-1, and Subsequent IS/MND at the following link: <http://www.vta.org/projects-and-programs/transit/capitol-expressway-light-rail-project/library>.

The project description, location, public review period dates, public meeting information, summary of significant impacts, presence of hazardous materials sites within the project area pursuant to California Government Code Section 65962.5, and information on where the draft document can be found for review are contained in the attached materials. A copy of the Draft SEIR-2 is is not attached.

Because of the time limits mandated by State law, your response must be sent at the earliest possible date, but no later than 45 days after receipt of this notice. Comments are respectfully requested by Monday, November 19, 2018.

Please send your written comments to Christina Jaworski at the address shown above. We request that the name for a contact person in your agency be provided with your response.

Project Title: Eastridge to BART Regional Connector: Capitol Expressway Light Rail Project (formerly named "Downtown East Valley Capitol Expressway Corridor" and "Capitol Expressway Corridor")

Project Applicant, if any: Santa Clara Valley Transportation Authority

Date: 10/03/18 **Signature:**
Name: Christina Jaworski
Title: Senior Environmental Planner
Telephone: (408) 321-5789

Reference: California Code of Regulations, Title 14, (State CEQA Guidelines) Section 15082(a), 15103, 15375.



October 3, 2018

Notice of Availability: Draft Second Supplemental Environmental Impact Report for the Eastridge to BART Regional Connector: Capitol Expressway Light Rail Project

The Santa Clara Valley Transportation Authority (VTA), as the lead agency under the California Environmental Quality Act (CEQA), has prepared a Draft Second Supplemental Environmental Impact Report (Draft SEIR-2) for the Eastridge to BART Regional Connector: Capitol Expressway Light Rail Project (EBRC-CELR or Project) located in the City of San José. The Draft SEIR-2 supplements the Final Environmental Impact Report (Final EIR) (SCH 2001092014), Final Supplemental Environmental Impact Report (Final SEIR-1), and the Subsequent Initial Study/Mitigated Negative Declaration (Subsequent IS/MND), which were certified by the VTA Board of Directors in May 2005, August 2007, and March 2014, respectively. The Draft SEIR-2 as well as the Final EIR, Final SEIR-1, and Subsequent IS/MND are available at: www.vta.org/eastridgetobart. The project, as described in these previous environmental documents, is known as the "approved project".

The approved project (discussed below under *Approved Project*) was to be implemented in two distinct phases. Phase 1 consisted of pedestrian and bus improvements, including sidewalk, landscaping, and lighting along Capitol Expressway; bus stop improvements at Story Road and Ocala Avenue; and the replacement of Eastridge Transit Center. Construction of the pedestrian and bus improvements was completed in 2012 and the replacement of Eastridge Transit Center was completed in 2015. Phase 2 consisted of the extension of light rail along Capitol Expressway between the existing Alum Rock Light Rail Station and Eastridge Transit Center, a distance of approximately 2.4 miles. The project elements included in Phase 2 have not been implemented.

Following project approval (discussed below under *Prior Environmental Documents*), work began on Preliminary Engineering (PE) for Phase 2, which advanced designs to a greater level of detail. Because of the nature of the design changes recently proposed during PE (discussed below under *Changes to the Approved Project*), VTA determined that additional environmental review was required and that a Supplemental Environmental Impact Report was the appropriate level of documentation (SEIR). An SEIR is prepared only if minor additions or changes would be necessary to make the previous EIR adequately apply to the changed situation. According to Section 15163(b) of the CEQA Guidelines, the SEIR needs to only contain the information necessary to make the previous EIR adequate for the project as revised.

The Second Subsequent IS serves to focus the analysis in the Draft SEIR-2 on the potential for new significant impacts or a substantial increase in the severity of previously identified significant effects that would result from the proposed changes to the approved project. As such, the potential transportation, environmental justice, noise and vibration, air quality and climate change, and construction impacts associated with the proposed changes to the approved project are the subject of the Draft SEIR-2. Other environmental resource areas, where there are no impacts or where impacts can be mitigated to a less than significant level, are the subject of the Second Subsequent IS. The resource areas analyzed in the Second Subsequent IS include Biological Resources, Community Services, Cultural Resources, Electromagnetic

Fields, Energy, Geology/Soils/Seismicity, Hazardous Materials, Hydrology & Water Quality, Land Use, Safety & Security, Socioeconomics, Utilities, and Visual Quality.

Prior Environmental Documents

The federal and state environmental process for the approved project was initiated in September 2001 with the publication of a Notice of Intent to prepare an Environmental Impact Statement (EIS) in the federal register and the filing of the Notice of Preparation of an Environmental Impact Report (EIR) with the State Clearinghouse. A Draft EIS/EIR was circulated in April 2004, but only a Final EIR was completed as a result of limited opportunities for securing federal funds.

In May 2005, the VTA Board of Directors certified the Final EIR (hereafter referred to as the "2005 Final EIR") and approved the Light Rail Alternative. As a result of Preliminary Engineering, the Light Rail Alternative was modified to address agency comments, improve light rail operation, minimize right-of-way acquisition, and lower costs. To address these modifications, the VTA Board of Directors prepared and certified a Final Supplemental EIR (Final SEIR) and approved the modifications in August 2007 (hereafter referred to as the "2007 Final SEIR").

Due to unprecedented declines in revenues beginning in 2008, the implementation plan for the Light Rail Alternative was modified to construct the project in phases. An Addendum to the Final SEIR was approved in June 2010 that included the installation of pedestrian and bus improvements as Phase 1 and the extension of light rail along Capitol Expressway as Phase 2.

In addition to the state environmental process, VTA reinitiated the federal environmental process on September 9, 2009, with a Notice of Intent to prepare a Supplemental Draft EIS. The Supplemental Draft EIS was circulated on May 18, 2012, for 45 days with comments due on July 3, 2012. The federal environmental process under the National Environmental Policy Act (NEPA) was suspended in 2017 as a result of limited opportunities for securing federal funds.

A Subsequent Initial Study (IS)/Mitigated Negative Declaration (MND) was approved in March 2014 (hereafter referred to as the "2014 Subsequent IS/MND") that eliminated the Ocala Station, eliminated sidewalk widening and sound wall relocation north of Ocala Avenue, and expanded the Eastridge Park-and-Ride lot.

Project Location

The approved project is located along Capitol Expressway, generally between Capitol Avenue and Quimby Road in the City of San José in Santa Clara County. Exhibit 1 depicts the project alignment with the proposed changes to the approved project (discussed below under *Approved Project* and *Proposed Changes to the Approved Project*).

Approved Project

The approved project would consist of the extension of light rail along Capitol Expressway between the existing Alum Rock Light Rail Station and Eastridge Transit Center, a distance of approximately 2.4 miles. Light rail would operate primarily in the median of Capitol Expressway within exclusive and semi-exclusive rights-of-way. To provide the additional right-of-way to accommodate light rail, HOV lanes would be removed

between Capitol Avenue and Tully Road. The alignment would include an elevated section that would extend north of Capitol Avenue to south of Story Road, and an elevated crossing of Tully Road. The approved project would include new light rail stations at Story Road (aerial) and Eastridge Transit Center (at-grade). At Eastridge Mall, the Park-and-Ride lot would be expanded to accommodate parking. The approved project would also include traction power substations at Ocala Avenue and Eastridge Transit Center. Five 115-kilovolt electrical transmission towers and two tubular steel poles would be relocated from the median of Capitol Expressway to the east side of Capitol Expressway in order to accommodate the approved project.

Proposed Changes to the Approved Project

VTA is proposing changes to certain elements of the approved project, as follows:

- Extension of the aerial guideway to grade-separate the Ocala Avenue and Cunningham Avenue intersections;
- Revisions to Capitol Expressway roadway lane configurations (including the conversion of the existing HOV lanes to general purpose traffic lanes and maintaining eight lanes between Story Road and Capitol Avenue);
- Modifications to Eastridge Station platforms and track;
- Reduction in parking spaces at Eastridge Park-and-Ride lot;
- Minor shift in the location and straightening of the Story Station pedestrian overcrossing;
- Modification to Story Station pedestrian access;
- Relocation of a construction staging area;
- Relocation of Pacific Gas and Electric (PG&E) electrical transmission facilities; and
- Extension of construction duration and modification to the construction scenario.

The approved project with the proposed changes is anticipated to have 2,980 boardings in 2023 and 4,534 boardings in 2043. Travel time for the Light Rail Alternative between Alum Rock Station and Eastridge Transit Center is estimated to be 4.3 minutes. The capital cost of the approved project with the proposed changes is projected to be \$453.

Significant Environmental Impacts

The Second Subsequent IS and Draft SEIR-2 identify significant impacts to the following resources: transportation, air quality and climate change, biological resources, energy, environmental justice, geology, hazardous materials, hydrology and water quality, noise and vibration, safety and security, socioeconomics, utilities, visual quality, and cumulative effects. Many of these impacts can be fully mitigated but some cannot. The impacts that would remain significant and unavoidable, as discussed in the Draft SEIR-2, are listed below:



Source: Korve Engineering 2003; VTA 2016; revised by ICF 2018.

Exhibit 1

Proposed Changes to Capitol Expressway Light Rail Project

Transportation (Operation and Construction)

- **Capitol Expressway and Story Road intersection.** The proposed changes to the approved project would result in a significant impact under existing (2017), year 2023, and year 2043 conditions, caused by the removal of the HOV lanes and the addition of HOV lane traffic into the remaining general purpose lanes. No feasible mitigation was identified for these impacts.
- **Capitol Expressway and Ocala Avenue intersection.** The proposed changes to the approved project would result in a significant impact at this intersection under existing (2017), year 2023, and year 2043 conditions, caused by the removal of the HOV lanes, the removal of a northbound left-turn lane on Capitol Expressway, and the addition of HOV lane traffic into the remaining general purpose lanes. No feasible mitigation was identified for these impacts.
- **Transportation impacts during construction.** The proposed changes to the approved project would require lane closures on Capitol Expressway during construction, which may cause select study intersections to temporarily operate at LOS F, impacting passenger vehicles, buses, and trucks. The proposed changes to the approved project may also result in the temporary closures of bikeways, bus stops, and sidewalks in the corridor during construction. The duration, times, and locations of temporary closures during construction cannot be predicted with certainty. As a result, this impact would be "Significant and Unavoidable".

Noise and Vibration (Operation and Construction):

- **Nighttime exceedance (10:00 pm to 7:00 am) of the Federal Transit Administration (FTA) vibration levels from light rail operation at homes within 100 feet of the proposed aerial guideway.** The proposed aerial guideway and ballasted track on embankment sections would cause an exceedance of the nighttime impact criteria of 72 vibration decibels (VdB) at 73 sensitive receiver locations during light rail operation. Most of the impacts are anticipated to occur between 6:00 am and 7:00 am when VTA would be operating at peak service levels. VTA identified tire derived aggregate (TDA), 5-Hertz floating slab track (FST) or bridge bearing vibration isolation system, and speed reductions from 55 mph to 35 mph as potential mitigation measures. VTA is recommending to include TDA on embankment sections to mitigate one impact. However, VTA is not recommending to include FST, bridge bearing vibration isolation, or implement nighttime speed restrictions to eliminate the other 72 impacts. As a result, this impact would be "Significant and Unavoidable".
- **Daytime exceedance of the Federal Transit Administration (FTA) construction noise criteria from pile driving activity at unobstructed homes and businesses that are within 300 feet of pile driving activity.** The noise impacts from pile driving would have a duration of 8 to 15 days per sensitive receiver. Pile driving would exceed the construction noise impact criteria of 80 Leq at residences and 85 Leq at commercial properties at 156 sensitive receiver locations. Mitigation consisting of noise cushions and temporary noise barriers would be implemented; however, noise impacts from pile driving would remain "Significant and Unavoidable" at 2 residences.

- **Homes within 100 feet of pile driving activity may exceed FTA construction vibration criteria.** There are 64 predicted unmitigated construction vibration impacts, and 0 impacts with the use of non-impact piling methods. However, VTA is not recommending the use of non-impact piling methods at any locations. Therefore, this impact would be “Significant and Unavoidable.”

Air Quality (Construction)

- **Cumulative air quality impacts during construction.** The approved project plus the proposed changes to the approved project would cause further exceedances of existing pollutant concentrations, worsening the cumulative exposure of sensitive receptors to toxic air contaminant concentrations primarily from roadway traffic. Although the contribution of the approved project plus the proposed changes to the approved project to existing pollutant concentrations would not be substantial, there would nevertheless be a worsening of an already cumulatively significant impact. Even with inclusion of mitigation measures to reduce particulate matter and greenhouse gas emissions from construction equipment, this impact would be “Significant and Unavoidable.”

Environmental Justice (Operation and Construction)

- **The proposed changes to the approved project would result in new or more severe significant and unavoidable impacts to environmental justice populations related to transportation, noise and vibration, and cumulative air quality impacts during construction.** Disproportionate and adverse environmental effects to environmental justice populations would result from noise during construction, vibration during construction and operation, and cumulative air quality impacts during construction.

Hazardous Materials Sites

Pursuant to California Government Code Section 65962.5, the lead agency is disclosing that the proposed changes to the approved project are located in an area where there are 27 hazardous materials sites listed on State databases. More information on these sites can be found in Section 3.9 of the Second Subsequent IS, which is located in Volume III.

To Obtain a Copy of the Draft SEIR-2

A copy of the document is available online at www.vta.org/eastridgetobart, and at the following locations:

- VTA, River Oaks Building B Lobby, 3331 North First Street, San José, CA 95134
- VTA, Downtown Customer Service Center, 55-A W. Santa Clara Street, San José, CA 95113
- Reid-Hillview Airport Terminal Building Lobby, 2500 Cunningham Avenue, San José, CA 95122
- San José Public Library, Hillview Branch, 1600 Hopkins Dr., San José, CA 95122
- Dr. Roberto Cruz – Alum Rock Branch Library, 3090 Alum Rock Avenue, San José, CA 95127
- Tully Community Branch Library, 880 Tully Road, San José, CA 95121
- Village Square Branch Library, 4001 Evergreen Village Square, San José, CA 95135

A hardcopy or CD can also be obtained by contacting VTA at (408) 321-5789.

To learn more about the Project and Draft SEIR-2, please attend the following Public Meeting:

October 18, 2018, 6 p.m.
Hank Lopez Center, Multi-Purpose Room
1694 Adrian Way, San José, CA 95122
(This location is served by VTA Transit bus lines 70 and 522.)

To Comment on the Draft SEIR-2

Written comments must be received by 5:00 p.m. on Monday, November 19, 2018. Comments will be accepted at the meeting or can be sent via the following methods to:

Mail: Christina Jaworski, Senior Environmental Planner
Santa Clara Valley Transportation Authority
Environmental Programs
3331 North First Street, Building B-2
San José, CA 95134-1927

E-mail: EBRC-CELR-Comments@VTA.org

For further information regarding the environmental process, to be included on the Project mailing list, or to receive additional information about the Project, please contact Christina Jaworski at (408) 321-5789. Individuals with special needs should contact VTA Community Outreach at (408) 321-7575/TTY (408) 321-2330.

¿Puede usted leer este documento? Si no, nosotros podemos ayudarlo a leerlo. Para recibir asistencia gratuita, por favor llámenos al Departamento de Relaciones con la Comunidad de VTA al (408) 321-7575.

您能看懂本文件嗎？

如您不能，我們可以請人幫助您。如需幫助，請致電 VTA 社區外展部，電話是：(408) 321-7575。

이 문서를 읽으실 수 있습니까?

그렇지 못하실 경우, 읽으실 수 있도록 도와드릴 사람이 있습니다. 무료로 도움을 받으시려면 VTA 지역봉사부 (408) 321-7575 로 전화 주십시오.

Mababasa mo ba ang dokumentong ito? Kung hindi, maari kaming kumuha ng taong tutulong sa iyo na basahin ito. Para sa libheng tulong, mangyaring tumawag sa VTA Community Outreach sa (408) 321-7575.

Attachment B

Mailing List for the Draft Second Supplemental EIR

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Chapter 4

Major Revisions to the Draft Second Supplemental Environmental Impact Report

The Draft SEIR-2 has been revised to clarify text, provide updated project information, and to correct typographical and grammatical errors. The substantive revisions are noted below and are organized by chapter, section, and page number. Additions are noted in *italics* and deletions are noted in ~~strikeout~~ text. Chapter 2, *Revised Draft Second Supplemental Environmental Impact Report*, includes revisions to the text in the body of the Draft SEIR-2.

Draft SEIR-2

CHAPTER 1, EXECUTIVE SUMMARY

Section 1.5 has been revised as follows:

The approved project with the proposed changes is anticipated to have ~~2,980~~ 2,203 boardings in 2023 and 4,534 boardings in 2043. Travel time for the Light Rail Alternative between Alum Rock Station and Eastridge Transit Center is estimated to be 4.3 minutes. The capital cost of the approved project with the proposed changes is projected to be \$453 million and will be funded by the 2000 Measure A, Regional Measure 3, and the Senate Bill 1 funds. Construction would begin in 2019 with utility relocation and end in 2024 or 2025 (depending on the construction methodology) with the beginning of revenue service.

Section 1.7, first bullet point under subheading *Air Quality and Climate Change (Construction)*, has been revised as follows:

Cumulative air quality impacts during construction. Cumulative PM2.5 concentrations would be elevated at the receptors located near the corners of Ocala Avenue and Capitol Expressway and Cunningham Avenue and Capitol Expressway due to substantial sources of pollutant concentrations that currently exist in the area where the approved project plus the proposed changes to the approved project would occur. Even without the contribution of emissions from construction, existing PM2.5 concentrations near these sensitive receptors are at or exceed the BAAQMD's threshold because Capitol Expressway and its cross streets are heavily traveled roadways, with residences located in close proximity to the roadway edge. The approved project plus the proposed changes to the

approved project would cause further exceedances of existing pollutant concentrations, worsening the cumulative exposure of sensitive receptors to toxic air contaminant concentrations. Although the contribution of the approved project plus the proposed changes to the approved project to existing concentrations would not be substantial (approximately 6% at the locations where concentrations are at or exceed $0.8 \mu\text{g}/\text{m}^3$), there would nevertheless be a worsening of an already cumulatively significant impact. The following mitigation measures identified in the 2005 Final EIR would still apply to the proposed changes to the approved project: AQ (CON)-1 (BAAQMD’s BMPs to reduce particulate matter emissions from construction activities) and AQ (CON)-2 (BAAQMD’s BMPs to reduce GHG emissions from construction equipment). *In addition, Mitigation Measure AQ (CON)-3 would require that Tier 3 or Tier 4 equipment be used to further reduce construction-related emissions where possible.* Even with inclusion of these mitigation measures, this impact would be “Significant and Unavoidable.”

Section 1.7, first bullet point under subheading *Noise and Vibration (Operation and Construction)*, has been revised as follows:

- **Nighttime exceedance (10:00 pm to 7:00 am) of the FTA vibration levels from light rail operations at homes within 100 feet of the proposed aerial guideway.** The proposed aerial guideway (direct fixation fasteners) and ballasted track on embankment sections would cause an exceedance of the nighttime impact criteria at ~~73~~ 67 sensitive receiver locations during light rail operations. VTA identified tire derived aggregate (TDA), 5-Hertz floating slab track (FST) or bridge bearing vibration isolation system, and speed reductions from 55 mph to 35 mph as potential mitigation measures. VTA is recommending to include TDA on embankment sections to mitigate one impact. However, VTA is not recommending to include FST, bridge bearing vibration isolation, or implement nighttime speed restrictions to eliminate the other ~~72~~ 66 impacts.

Section 1.7, second bullet point under subheading *Noise and Vibration (Operation and Construction)*, has been revised as follows:

- ~~Daytime exceedance of the Federal Transit Administration (FTA) noise levels from pile driving activity at unobstructed homes and businesses that are within 300 feet of pile driving activity.~~ The noise impacts would have a duration of 8 to 15 days per sensitive receiver. Pile driving would exceed the construction noise impact criteria of 80 Leq at residences and 85 Leq at commercial properties at 156 sensitive receiver locations. With inclusion of impact cushions, pile driving would exceed the construction noise impact criteria at 135 sensitive receiver locations. With inclusion of impact cushions and pre-drilling, pile driving would exceed the construction noise

~~impact criteria at 80 sensitive receiver locations. With inclusion of impact cushions and noise shields around the pile equipment, pile driving would exceed the construction noise impact criteria at 2 sensitive receiver locations. VTA is recommending to mitigate this impact with noise cushions and temporary noise barriers. Thus, even with inclusion of mitigation measures, this impact would be “Significant and Unavoidable” at two sensitive receiver locations.~~

Section 1.7, third bullet point under subheading *Noise and Vibration (Operation and Construction)*, has been revised as follows:

- **Homes within 100 feet of impact piling activity may exceed FTA construction vibration criteria.** There are ~~64~~ 56 predicted unmitigated construction vibration impacts, and 0 impacts with the use of non-impact piling methods. However, VTA is not recommending the use of non-impact piling methods at ~~any~~ most locations for a couple of reasons. Most locations are only slightly above the FTA Damage Criteria, and therefore may not experience any actual impacts ~~due to the +3 VdB safety factor included to estimate construction vibration levels.~~ At the locations with the highest construction vibration levels, structural damage is not anticipated to occur. *However, if any structural and cosmetic damage does occur due to construction vibration, the damage shall be repaired by VTA.* As a result, VTA is not recommending to use non-impact piling methods at ~~any~~ most locations. Thus, this impact would be “Significant and Unavoidable.”

Section 1.8, below the biological mitigation measures, has been revised to include the revised mitigation measures as follows:

The revised mitigation measures for Geology, Soils, and Seismicity can be found in Section 3.8 of the Second Subsequent IS, which is located in Volume III.

Mitigation Measure GEO-4: Incorporate Caltrans Seismic Design Criteria

During the design process, VTA shall design any and all proposed infrastructure in accordance with the appropriate Caltrans Seismic Design Criteria.

Mitigation Measure GEO-6: Minimize Risk of Lateral Spreading, Subsidence, and Collapse

Prior to implementation of the proposed transit improvement activities, the following construction methods shall be employed:

- *construct edge containment structures such as berms, dikes, retaining structures, or compacted soil zones;*

- *remove or treat soils and geologic materials prone to lateral spreading and settling; and*
- *install drainage measures to lower the groundwater table below the level of settleable soils pursuant to the California Division of Mines and Geology's Guidelines for Evaluating and Mitigating Seismic Hazards in California, Special Publication 117A (2008).*

The revised mitigation measure for Hydrology and Water Quality can be found in Section 3.10 of the Second Subsequent IS, which is located in Volume III.

Mitigation Measure HYD-11: Comply with All Applicable Regulations and Subsequent Permit Programs Related to Water Quality Control

In implementing the project, VTA will comply with the Clean Water Act (CWA), including all National Pollution Discharge Elimination System (NPDES) permit requirements. VTA will require the construction contractor to develop and implement a Storm Water Pollution Prevention Plan (SWPPP) in accordance with State Water Resources Control Board (SWRCB) regulations and the NPDES Construction General Stormwater permit. VTA will obtain coverage under the State's General Construction Stormwater Permit, and will comply with applicable requirements relative to land grading and erosion control. VTA will comply with the Clean Water Act, including all NPDES permit requirements. VTA will obtain coverage under the State Water Resources Control Board's Construction General Permit for Storm Water, Order No. 2009-0009-DWQ (CGP), and contractors must meet the substantive requirements for discharge of storm water runoff associated with construction activity.

The SWPPP will identify the specific BMPs proposed for the project, including but not limited to erosion prevention, sediment control, waste management, spill prevention/housekeeping, good housekeeping, non-storm water management, and run-on/runoff control, inspection, maintenance, and BMP repair procedures; and certain monitoring requirements, as well as permanent water quality post construction BMPs.

For those areas in VTA right-of-way, VTA will implement water quality measures required pursuant to the Phase II General Permit for Stormwater Discharge from Small Municipal Separate Storm Sewer Systems (MS4), Order No. 2013-0001-DWQ, effective July 30, 2013. The stormwater treatment regulations under this MS4 require new projects that create 5,000 square feet or more of newly constructed or replaced and contiguous impervious surface to comply with post-construction stormwater treatment requirements. BMPs may include avoiding impervious surfaces, providing site controls to manage pollutant sources, and Low Impact Development features such as bioretention basins and vegetated swales. Roadway improvements will comply with the EPA's Greenstreets guidelines. In addition, a long-term maintenance plan (minimum of five years) will be developed in accordance with the Phase II MS4 requirements and will

describe the procedures to ensure that the post-construction storm water management measures are adequately maintained.

For those areas in City or County right-of-way, VTA will implement water quality measures required pursuant to provision C.3 of the Municipal Regional Stormwater NPDES Permit (MRP) Order No. R2-2015-0049, overseen by the Santa Clara Valley Urban Runoff Pollution Prevention Program (SCVURPPP). This permit requires projects that result in the displacement of more than 43,560 square feet (1 acre) of impervious surface to implement treatment BMPs to the maximum extent practicable. BMPs may include detention/retention units, infiltration structures, swales, sand filters, wetlands, or other low impact development measures that improve water quality.

Mitigation Measure HYD-12: Implement Measures to Maintain Operational Water Quality

In accordance with the Phase II MS4 permit, VTA will perform inspections and cleanings such that NPDES permit treatment requirements will be met, and will ensure that outlet structures provide for proper energy dissipation in accordance with standard specifications for storm drainage. VTA will ensure that regular maintenance of parking facilities includes a program to clean curbside pavement areas of litter, fuel, and oils spills. Storm drain inlet traps will be inspected at least annually and cleaned as required.

Pursuant to Provision C.3 of the MRP, those areas in City or County right-of-way that result in the displacement of more than 43,560 square feet (1 acre) of impervious surface must implement treatment BMPs to the maximum extent practicable. Sizing of these BMPs will be in accordance with the most recent guidelines in the MEP and/or issued by the SCVURPPP, and typically relate to volume- or flow-based treatment capacity.

Those BMPs whose primary mode of action to treat stormwater depends on volume capacity, such as detention/retention units or infiltration structures, will typically be designed to treat stormwater runoff equal to either the maximized stormwater quality capture volume for the area, based on historical rainfall records (URQM, 1998); or equal to the volume of annual runoff required to achieve 80% or more capture (CASQA, 1993).

Treatment BMPs such as swales, sand filters, wetlands, and others whose primary mode of action depends on flow capacity will typically be sized to treat 1) 10% of the 50-year peak flow; or 2) the flow of runoff produced by a rain event equal to at least two times the 85th-percentile hourly rainfall intensity for the applicable area, based on historical records of hourly rainfall depths; or 3) the flow of runoff resulting from a rain event equal to at least 0.2-inch-per-hour intensity.

The revised mitigation measures for Noise and Vibration can be found in Section 5.3 of the Draft SEIR-2, which is located in Volume I.

Mitigation Measure NV-1a: Construct Soundwalls

VTA shall construct soundwalls that are a minimum of 3 feet above top of rail on the aerial structure or in the median adjacent to the trackway at the following locations:

- *NB/SB: Westboro Drive to Story Road (968+54 to 992+00);*
- *NB: Kollmar Drive to Cunningham Avenue (997+00 to 1051+00); and*
- *SB: Kollmar Drive to Ocala Avenue (997+00 to 1038+00).*

All soundwall locations and heights are preliminary and are subject to change based on additional noise studies during final design.

Mitigation Measure NV-4b: Use Vibration-Dampening Track Construction Materials

VTA shall install a 12-inch layer of tire-derived aggregate beneath a subballast layer of 12 inches and a ballast layer of 12 inches between Wilbur Avenue and Westboro Drive (Sta. 966+50 to 971+50 NB/SB).

Mitigation Measure NV-1b: Noise Insulation

As a result of the aerial grade separation at Ocala Avenue, this mitigation measure is no longer required.

The revised mitigation measure for Visual Quality can be found in Section 3.16 of the Second Subsequent IS, which is located in Volume III.

Mitigation Measure VQ-4: Incorporate Landscaping

VTA will develop and implement a comprehensive landscaping plan to soften the massing, hardscape, and structural elements of the Project. The landscaping shall be designed to be consistent with vegetation types and patterns within the Capitol Expressway Corridor, and shall provide year-round aesthetic enhancement.

As part of this plan, VTA shall review project designs to ensure that the following elements are implemented in the Project landscaping plan to the extent feasible:

- *85 percent of the species composition of open space areas shall reflect species that are native to the Plan Area and California. The species list should include trees, shrubs, and an herbaceous understory of varying heights, as well as evergreen and deciduous types. Plant variety will increase diversity by providing multiple layers, seasonality, more diverse habitat, and reduced susceptibility to disease.*
- *75 percent of the plant composition for landscaping in parks and public/quasi public and commercial areas shall be comprised of species that are native to the Plan Area and California. Use of native species promotes a visual character of California that is being lost through development and reliance on*

non-native ornamental plant species. Native plant species can be used to create attractive spaces, high in aesthetic quality, that are not only drought-tolerant but attract more wildlife than traditional landscape palettes.

- *Under no circumstances will any invasive plant species be used at any location.*
- *Vegetation shall be planted within the first year following project completion.*
- *An irrigation and maintenance program shall be implemented during the plant establishment period and carried on an as needed basis, such as in a drought, as supplemental irrigation.*
- *Irrigation in public and commercial areas shall utilize a smart watering system that evaluates the existing site conditions and plant material against weather conditions to avoid overwatering of such areas. The irrigation system will be managed in such a manner that any broken spray head, pipes, or other components of the system are fixed within 1 to 2 days, or the zone or system will be shut down until it can be fixed to avoid unusually high water flows.*

Section 1.8, list of air quality mitigation measures, has been revised to add a mitigation measure as follows:

Mitigation Measure AQ (CON)-3

Tier 3 or 4 equipment shall be used to further reduce construction-related emissions where possible.

Section 1. 8, list of noise and vibration mitigation measures, has been revised to remove and revise mitigation measures as follows:

Mitigation Measure NV (CON)-2

A combination of the following measures should be considered if reasonable and feasible to reduce noise and vibration impacts from pile driving:

1. **Noise Shield:** A pile driving noise shield could be effective at reducing the pile driving noise by a minimum 5 dBA, depending on the size of the shield and how well it surrounds the pile and hammer. A portable shield/barrier could be implemented to provide a nominal 10 dBA noise reduction.
2. **Pre-Drilling Piles:** Pre-drilling a portion of the hole may provide a means to reduce the duration of impact pile driving, and should be explored. Reducing the total impact time to an aggregate duration of no more than 2 hours per day will reduce the equivalent noise level by 6 dBA to a range of 80 to 90 dBA (L_{eq}) at a distance of 100ft.

Section 1.9, Table 1-1, first row under subheading *Air Quality and Climate Change (SEIR-2)*, has been revised as follows:

Significant Impact ¹	Mitigation Measures	Level of Significance ²			
		2005 Final EIR	2007 SEIR	2014 Subsequent IS/MND	SEIR-2 or Second Subsequent IS
Impact AQ (CON)-1 (Temporary Increase in Construction-Related Emissions during Grading and Construction Activities)	Mitigation Measures AQ (CON)-1 (BAAQMD’s BMPs to reduce particulate matter emissions from construction activities) and AQ (CON)-2 (BAAQMD’s BMPs to reduce GHG emissions from construction equipment) and AQ (CON)-3 to use Tier 3 or Tier 4 equipment where possible.	Less than Significant with Mitigation	Less than Significant with Mitigation	Less than Significant with Mitigation	Less than Significant with Mitigation

Section 1.9, Table 1-1, first row under subheading *Hydrology and Water Quality (Second Subsequent IS)*, has been revised as follows:

Significant Impact ¹	Mitigation Measures	Level of Significance ²			
		2005 Final EIR	2007 SEIR	2014 Subsequent IS/MND	SEIR-2 or Second Subsequent IS
Impact HYD-11 (Violation of Water Quality Standards or Waste Discharge Requirements)	Mitigation Measure HYD-11 (Comply with Water Quality Control Regulations and Permit Programs Comply with All Applicable Regulations and Subsequent Permit Programs Related to Water Quality Control)	Less than Significant with Mitigation	Less than Significant with Mitigation	Less than Significant with Mitigation	N/A

Section 1.9, Table 1-1, second row under subheading *Noise and Vibration (SEIR-2)*, has been revised as follows:

Significant Impact ¹	Mitigation Measures	Level of Significance ²			
		2005 Final EIR	2007 SEIR	2014 Subsequent IS/MND	SEIR-2 or Second Subsequent IS
Impact NV-4 (Vibration Levels in Buildings from Transit Operations That Exceed Federal Transit Administration Criteria)	<i>Mitigation Measure NV-4b (Use Vibration-Dampening Track Construction Materials).</i> No additional mitigation is recommended	Less than Significant with Mitigation	Significant and Unavoidable	Less than Significant with Mitigation	Significant and Unavoidable

Section 1.9, Table 1-1, third row under subheading *Noise and Vibration (SEIR-2)*, has been revised as follows:

Significant Impact ¹	Mitigation Measures	Level of Significance ²			
		2005 Final EIR	2007 SEIR	2014 Subsequent IS/MND	SEIR-2 or Second Subsequent IS
Impact NV (CON)-1: (Generation of Noise or Vibration That Substantially Affects Nearby Sensitive Receptors) (Noise)	Mitigation Measures NV (CON)-1a (Notify Residents of Construction Activities), NV (CON)-1b (Construct Temporary Noise Barriers During Construction), NV (CON)-1c (Restrict Pile Driving), NV (CON)-1d (Use Noise Suppression Devices), NV (CON)-1e (Locate Stationary Construction Equipment as Far as Possible from Sensitive Receptors), NV (CON)-1f (Reroute Construction-Related Truck Traffic), and NV (CON)-1g (Develop Construction Noise Mitigation Plan), NV (CON)-2, and NV (CON)-1h (Use Impact Cushions)	Less than Significant with Mitigation	Significant and Unavoidable	Significant and Unavoidable	Significant and Unavoidable Less than Significant with Mitigation

CHAPTER 2, INTRODUCTION

Section 2.1, last paragraph, has been revised as follows:

The approved project with the proposed changes is anticipated to have 2,980,203 boardings in 2023 and 4,534 boardings in 2043. Travel time for the Light Rail Alternative between Alum Rock Station and Eastridge Transit Center is estimated to be 4.3 minutes. The capital cost of the approved project with the proposed changes is projected to be \$453 million and will be funded by the 2000 Measure A, Regional Measure 3, and the Senate Bill 1 funds. Construction would begin in 2019 with utility relocation and end in 2024 or 2025 (depending on the construction methodology) with the beginning of revenue service.

Section 2.5, first paragraph, has been revised as follows:

It is anticipated that this SEIR-2 will be relied upon in issuing the appropriate project-specific discretionary approvals necessary to implement the proposed changes to the approved project. *The following agencies are considered responsible agencies under CEQA, because these agencies possess discretionary authority over the project or a portion of it, as specified. These actions include the following approvals by the agencies indicated.*

Section 2.5, sixth bullet, has been revised as follows:

- **City of San Jose:** Encroachment permit for work within the City right-of-way and discretionary review authority over temporary street closures, utility realignments, pavement repairs, and other related activities within the City right-of-way.

Figure 2-1 has been revised as shown on the following page.

CHAPTER 3, CHANGES TO THE APPROVED PROJECT, CHANGES IN CIRCUMSTANCES, AND INTRODUCTION OF NEW INFORMATION

Section 3.2, first paragraph under subheading *Reduction in Parking Spaces at Eastridge Park-and-Ride Lot* and Table 3-2, have been revised as follows:

The Eastridge Park-and-Ride Lot currently includes approximately 180 parking spaces. The approved project increases the parking to 445 spaces at Eastridge Station to partially address the increased demand of 481 spaces from the project. As part of the proposed changes to the approved project, VTA is proposing to ~~reduce~~ increase the parking to approximately 200-302 spaces *through reconfiguration of the Eastridge Park-and-Ride lot due to the relocation of VTA Paratransit staff and vehicles to a remodeled building at this location in September 2017. The relocation of VTA Paratransit staff and vehicles to this location has reduced the availability of parking at the Eastridge Park and Ride lot.* See Section 2.3, *Changes in Circumstances*, for a discussion of the changes to the existing

VTA Paratransit Offices at the Eastridge Park-and-Ride Lot. As shown in Table 3-2, based on updated VTA forecasts, the proposed changes to the approved project would increase existing (2017) parking demand to 114 parking spaces. In years 2023 and 2043, the proposed changes to the approved project would increase parking demand to 293 vehicles and 374 vehicles, respectively.

Table 4-1 Eastridge Park-and-Ride Lot Anticipated Parking Demand for the Approved Project and the Proposed Changes (Existing [2017] Year, Year 2023, Year 2035, and Year 2043)

	Existing (2009 or 2017) ¹	Year 2023 ²	Year 2035 ³	Year 2043 ²
Approved Project				
Demand	16	--	481	--
Supply	115	--	445	--
Proposed Changes to the Approved Project				
Demand	114	293	--	374
Supply	180	302	--	200 374

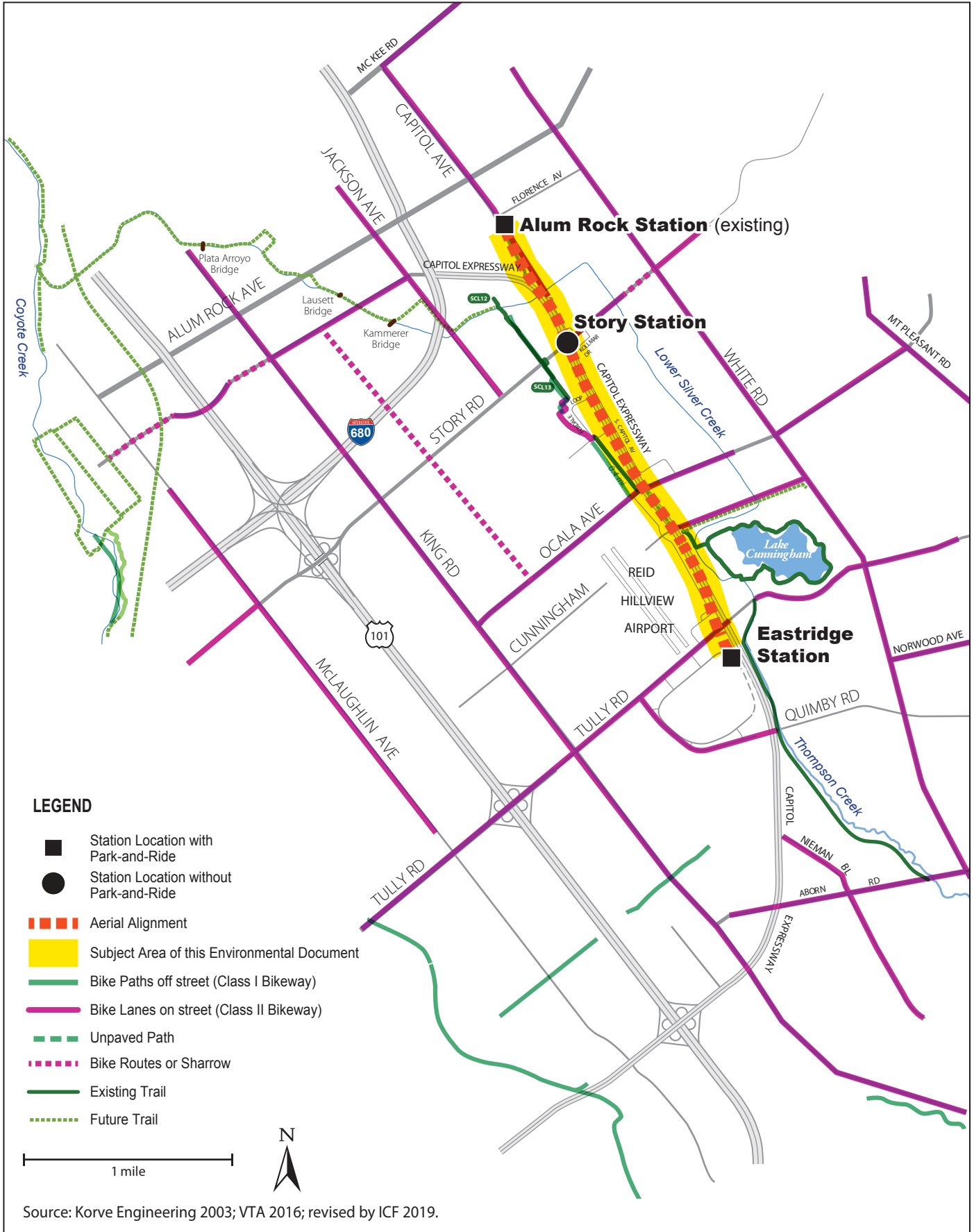
Notes:

¹ Existing parking counts provided by VTA Operations on December 20, 2017.

² Future Parking estimates provided by VTA Modelling on May 31, 2018.

³ Only parking forecasts for 2035 were provided in the 2014 Subsequent IS/MND. Updated parking forecasts were not provided for 2035 due to changes in the opening year and future year.

Source: Hexagon 2018.



Source: Korve Engineering 2003; VTA 2016; revised by ICF 2019.

Figure 2-1
Proposed Changes to Capitol Expressway Light Rail Project

Section 3.3, after the last paragraph, has been added as follows:

VTA C17131F, Pedestrian Connection to Eastridge Transit Center: In March 2018, VTA completed a project to provide pedestrian safety improvements along Capitol Expressway next to Eastridge Mall and improve connections to the Eastridge Transit Center. This project consisted of construction of a new crosswalk, including curb ramps and enhanced traffic signals at the Eastridge Loop and Capitol Expressway intersection; installation of new street lighting along Capitol Expressway; installation of fencing along the Capitol Expressway median; and construction of a new crosswalk and curb ramp at the shopping center to provide access to the Thompson Creek Trail.

VTA C810, Capitol Expressway Pedestrian/Bus Improvements: In 2012, VTA completed a project that included a multi-use path for pedestrians and bicycles along both sides of Capitol Expressway between Capitol Avenue and Quimby Road, as allowed by available space. The project included landscaping and lighting. In addition, the project included new bus rapid transit stations at Story Road and Ocala Avenue.

VTA C811, Capitol Expressway Light-Rail Project/Eastridge Transit Center: In 2015, VTA replaced the Eastridge Transit Center with a new facility with better access to bus services and shopping at Eastridge Mall. The project included upgrades to security, lighting, signs, and other amenities.

Tully Road Vision Zero Safety Improvements: This project will install buffered bike lanes and LED streetlight retrofits between Monterey Road and Capitol Expressway. It will further evaluate safety issues and determine feasible improvements.

Figures 3-1 and 3-4 have been revised as shown on the following pages.



Source: Korve Engineering 2003; VTA 2016; revised by ICF 2019.

Figure 3-1
Previously Approved Capitol Expressway Light Rail Project



Figure 3-4
Proposed Changes to the Story Station

SECTION 5.1, TRANSPORTATION

Table 5.1-3 has been revised as follows:

Table 5.1-3 Existing Intersection Level of Service

Intersection	Peak Hour	Average Delay (second/vehicle)	Level of Service
Capitol Expressway & Capitol Avenue ¹	AM	41.4 45.5	D
	PM	47.6 48.0	D
Capitol Expressway & Story Road ¹	AM	82.5	F
	PM	111.2 62.5	F E
Capitol Expressway & Ocala Avenue	AM	62.2 61.8	E
	PM	74.0 52.0	E D
Capitol Expressway & Cunningham Avenue	AM	22.6 28.9	C
	PM	12.6 13.9	B

Notes:

N/A = Not Applicable

¹ Denotes CMP intersection.

Bold indicates substandard Level of Service.

Source: Hexagon 2019.

First paragraph under subheading *Existing Automobile Travel Time and Average Speed* has been revised as follows:

EXISTING AUTOMOBILE TRAVEL TIME AND AVERAGE SPEED

Table 5.1-4 shows the average travel time ~~and average speed~~ of automobiles on Capitol Expressway between Interstate 680 and Tully Road *that were computed using a Synchro SimTraffic simulation model supplied by Santa Clara County. The results of the analysis show that, on average, it currently takes between approximately 4 and 7 minutes to travel on Capitol Expressway between Tully Road and Capitol Avenue during commute hours depending on direction and peak hour. On October 25 and 26, 2017, it took between approximately 4.5 minutes and 10 minutes to travel on Capitol Expressway between Interstate 680 and Tully Road during commute hours depending on direction, peak hour, and whether an HOV lane was utilized. Average travel speeds ranged between 23 and 34 miles per hour. Generally, traffic in the HOV lanes experienced a slightly lower average automobile travel time and slightly higher automobile average travel speed.*

Table 5.1-4 has been deleted and replaced with the table as follows:

Table 5.1-4 Existing Travel Time and Average Speed on Capitol Expressway, Interstate 680 to Tully Road

Vehicle Type	Direction	Peak Hour	Travel Time (min:sec)		Speed (miles per hour)	
			Average	Range	Average	Range
Mixed Flow	NB	AM	9:48	3:30-17:28	23	10-39
HOV	NB	AM	9:04	3:43-16:59	24	13-38
Mixed Flow	NB	PM	6:02	4:31-7:44	29	20-35
HOV	NB	PM	6:40	5:31-8:08	27	21-30
Mixed Flow	SB	AM	5:08	3:25-7:04	31	16-43
HOV	SB	AM	4:29	3:08-5:51	34	26-44
Mixed Flow	SB	PM	5:53	4:01-7:24	30	20-38
HOV	SB	PM	5:41	4:15-7:06	30	23-36

Notes:

Travel time data from October 25 and 26, 2017, approximately 16 runs per peak hour.

HOV = high occupancy vehicle; NB = northbound; SB = southbound

Source: Hexagon 2019.

Table 5.1-4 Existing (2017) and Existing Plus Project Travel Time on Capitol Expressway, Tully Road to Capitol Avenue

Direction	Peak Hour	Average Travel Time (min:sec) ¹		Average Speed (mph)	
		Existing	Existing Plus Project	Existing	Existing Plus Project
Northbound	AM	6:01	11:23	19	10
Northbound	PM	5:25	6:41	21	17
Southbound	AM	4:50	5:21	24	22
Southbound	PM	6:39	10:29	17	11

Notes:

LRT Speed and Travel time: Between Alum Rock Station and the Eastridge Station, the average speed of the LRT under the Existing Plus Project Scenario is projected to be 32 mph and the average travel time is 4.5 minutes.

¹ All travel times estimated from Synchro SimTraffic 10 on the Santa Clara County provided network. Reported travel time is average of 10 runs.

NB = northbound; SB = southbound

Source: Hexagon 2019.

Table 5.1-7 has been revised as follows:

Table 5.1-7 Existing (2017) Intersection Level of Service

Intersection	Year 2017					
	No Project			With Proposed Changes to the Approved Project		
	Peak Hour	Avg. Delay (sec/veh)	Level of Service	Avg. Delay (sec/veh)	Level of Service	Increase in Crit. Delay (sec)

Capitol Expressway & Capitol Avenue	AM	41.4 45.5	D	44.8 46.2	D	-1.0 -5.7
	PM	47.6 48.0	D	47.7 45.7	D	-1.5 -12.4
Capitol Expressway & Story Road	AM ¹	82.5	F	119.2 118.8	F	71.6 77.6
	PM	111.2 62.5	F E	137.2 86.5	F	9.5 32.0
Capitol Expressway & Ocala Avenue	AM	62.2 61.8	E	91.2 88.1	F	24.9 41.9
	PM	74.0 52.0	E D	73.2 56.7	E	10.8 10.4
Capitol Expressway & Cunningham Avenue	AM	22.6 28.9	C	22.4 27.3	C	0.3 -6.2
	PM	12.6 13.9	B	12.4 13.8	B	0.2 0.3

Notes:

Bold indicates substandard Level of Service.

Shaded rows indicate significant project impact.

¹ Change in demand-to-capacity ratio from no project to project conditions is + 0.375.

Source: Hexagon 2018 2019.

Table 5.1-8 has been revised as follows:¹

Table 5.1-8 Year 2023 Intersection Level of Service

Intersection	Year 2023					
	No Project			With Proposed Changes to the Approved Project		
	Peak Hour	Avg. Delay (sec/veh)	Level of Service	Avg. Delay (sec/veh)	Level of Service	Increase in Crit. Delay (sec)
Capitol Expressway & Capitol Avenue	AM	42.5 46.1	D	49.6 47.4	D	3.7 -4.7
	PM	48.3 46.5	D	48.9 45.3	D	-1.1 -9.4
Capitol Expressway & Story Road	AM ¹	94.4 94.8	F	128.9 128.7	F	66.5 69.0
	PM ²	123.0 69.3	F	159.0 101.3	F	22.9 38.0
Capitol Expressway & Ocala Avenue	AM	75.6 75.2	E	108.5 104.8	F	28.6 24.1
	PM ³	80.3 58.1	F E	85.2 66.2	F E	-51.2 17.0
Capitol Expressway & Cunningham Avenue	AM	33.0 55.1	C E	29.8 47.0	C D	-3.5 -21.2
	PM	13.3 14.6	B	13.2 14.7	B	0.2 0.5

Notes:

Bold indicates substandard Level of Service.

Shaded rows indicate significant project impact.

¹ Change in demand-to-capacity ratio from no project to project conditions is + 0.279 0.357.

² Change in demand-to-capacity ratio from no project to project conditions is + 0.095.

³ Change in demand-to-capacity ratio from no project to project conditions is +0.158.

Source: Hexagon 2018 2019.

¹ The shading in the PM row for the Capitol Expressway & Ocala Avenue intersection was removed, as there would no longer be a significant project impact during the PM peak hour at this intersection. Due to the nature of the revision, it is not shown in *italics* or ~~strikeout~~ text.

Table 5.1-9 has been revised as follows:

Table 5.1-9 Year 2043 Intersection Level of Service

Intersection	Year 2043					
	No Project			With Proposed Changes to the Approved Project		
	Peak Hour	Avg. Delay (sec/veh)	Level of Service	Avg. Delay (sec/veh)	Level of Service	Increase in Crit. Delay (sec)
Capitol Expressway & Capitol Avenue	AM	55.9 63.6	E	67.0 67.5	E	6.3 -4.9
	PM	55.5 54.1	E D	69.4 53.8	E D	49.1 -9.3
Capitol Expressway & Story Road	AM ¹	113.9 114.5	F	144.5 144.3	F	60.2 65.3
	PM ²	187.1 122.6	F	251.4 188.6	F	75.2 110.2
Capitol Expressway & Ocala Avenue	AM ³	101.5 100.5	F	132.7 131.8	F	24.5 25.0
	PM ⁴	101.7 67.2	F E	142.8 97.4	F	-35.9 55.1
Capitol Expressway & Cunningham Avenue	AM	41.9	D E	36.5 58.9	D E	-6.5 -12.4
	PM	14.7	B	14.8 16.1	B	0.1 0.3

Notes:

Bold indicates substandard Level of Service.

Shaded rows indicate significant project impact.

¹ Change in demand-to-capacity ratio from no project to project conditions is ~~+0.318~~ 0.348.

² Change in demand-to-capacity ratio from no project to project conditions is ~~+0.124~~ 0.191.

³ Change in demand-to-capacity ratio from no project to project conditions is +0.041.

⁴ ~~Change in demand-to-capacity ratio from no project to project conditions is +0.198.~~

Source: Hexagon ~~2018~~ 2019.

First paragraph under subheading *Impacts on Parking at Eastridge Park-and-Ride Lot* and Table 5.1-10 have been revised as follows:

The Eastridge Park-and-Ride Lot currently includes 180 parking spaces provided by VTA. The approved project increases the parking to 445 spaces at Eastridge Station to partially address the anticipated increased demand of 481 spaces from the project. As part of the proposed changes to the approved project, VTA is proposing to ~~reduce~~ *increase* the number of parking spots added at the Eastridge Park-and-Ride Lot to approximately ~~200~~ 302 *spaces through reconfiguration of the Eastridge Park-and-Ride lot* ~~due to the relocation of VTA Paratransit staff and vehicles to a remodeled building at this location in September 2017, which has reduced the availability of parking there.~~ See Section 3.3, *Changes in Circumstances*, in Chapter 3 for a discussion of the changes to the existing VTA Paratransit Offices at the Eastridge Park-and-Ride Lot. Table 5.1-10 shows the peak park and ride demand with the proposed changes to the approved project at the Eastridge Park-and-Ride Lot under existing (2017), year 2023, and year 2043 conditions. Based on VTA’s revised forecasts, the proposed changes to the approved project would continue to increase parking demand at the Eastridge Park-and-Ride Lot. VTA recognizes that there may be a shortfall in parking supply as a result of the proposed reduction in the additional parking spaces provided. ~~VTA will monitor the demand and will increase parking as necessary, if~~

possible. If increasing the parking supply is not possible, VTA will evaluate measures to promote non-vehicular access to the station and will coordinate with VTA Paratransit to reduce their demand for parking. As part of project operations, VTA would conduct regular monitoring and parking counts at the Eastridge Park-and-Ride lot to ensure that the parking supply provided would be adequate. Should parking demand exceed supply, the 135 parking stalls currently used for Paratransit would be vacated in any portion as needed in order to accommodate the parking demand. As a result of these measures to increase supply or reduce demand, no indirect traffic or air quality impacts would be caused by cars circling and looking for parking at this station.

Table 5.1-10 Eastridge Park-and-Ride Lot Anticipated Parking Demand and Supply (Existing [2017] Year, Year 2023, and Year 2043)

Existing (2017) ¹		Year 2023 ²		Year 2043 ²	
Scenario	Parked Vehicles	Scenario	Parked Vehicles	Scenario	Parked Vehicles
Demand	114	Demand	293	Demand	374
Supply	180	Supply	200 302	Supply	200 374

Notes:

¹ Existing parking counts provided by VTA Operations on December 20, 2017.

² Future parking estimates provided by VTA Modeling on May 31, 2018.

Source: Hexagon 2019.

Table 5.1-11 has been revised as follows:

Table 5.1-11 Station Boarding Estimates (Year 2023 and Year 2043)

Daily Boardings	Eastridge Station		Story Station		Alum Rock Station		Total	
	No Project	With Project	No Project	With Project	No Project	With Project	No Project	With Project
Year 2023								
Light Rail Transit	0	1,224 860	0	777 563	1,745 1,185	979 780	1,745 1,185	2,980 2,203
Bus	896 1,124	918 897	379 330	418 359	862 787	506 578	2,137 2,240	1,842 1,833
Total	896 1,124	2,142 1,757	379 330	1,195 922	2,607 1,972	1,485 1,358	3,882 3,425	4,822 4,036
Year 2043								
Light Rail Transit	0	2,287	0	1,040	2,322	1,207	2,322	4,534
Bus	966	518	472	401	1,036	659	2,474	1,578
Total	966	2,805	472	1,441	3,358	1,866	4,796	6,112

Source: Hexagon 2019.

SECTION 5.2, ENVIRONMENTAL JUSTICE

First paragraph under subheading *Air Quality and Climate Change (Construction)* has been revised as follows:

- **Cumulative air quality impacts during construction.** Cumulative PM_{2.5} concentrations would be elevated at the receptors located near the corners of Ocala Avenue and Capitol Expressway and Cunningham Avenue and Capitol Expressway due to substantial sources of pollutant concentrations that currently exist in the area where the approved project plus the proposed changes to the approved project would occur. Even without the contribution of emissions from construction, existing PM_{2.5} concentrations near these sensitive receptors are at or exceed the BAAQMD’s threshold because Capitol Expressway and its cross streets are heavily traveled roadways, with residences located in close proximity to the roadway edge. The approved project plus the proposed changes to the approved project would cause further exceedances of existing pollutant concentrations, worsening the cumulative exposure of sensitive receptors to toxic air contaminant concentrations. Although the contribution of the approved project plus the proposed changes to the approved project to existing concentrations would not be substantial (approximately 6% at the locations where concentrations are at or exceed 0.8 µg/m³), there would nevertheless be a worsening of an already cumulatively significant impact. The following mitigation measures identified in the 2005 Final EIR would still apply to the proposed changes to the approved project: AQ (CON)-1 (BAAQMD’s BMPs to reduce particulate matter emissions from construction activities) and AQ (CON)-2 (BAAQMD’s BMPs to reduce GHG emissions from construction equipment). *In addition, Mitigation Measure AQ (CON)-3 would require that Tier 3 or Tier 4 equipment be used to further reduce construction-related emissions where possible.* Even with inclusion of these mitigation measures, this impact would be “Significant and Unavoidable.”

Second paragraph of the Noise and Vibration mitigation discussion under subheading Environmental Justice has been revised as follows:

~~Regarding daytime exceedance of FTA noise levels from pile driving activity, the following mitigation measures identified in the 2005 Final EIR and the 2007 Final SEIR would still apply to the proposed changes to the approved project: NV (CON) 1a (Notify Residents of Construction Activities), NV (CON) 1b (Construct Temporary Noise Barriers During Construction), NV (CON) 1c (Restrict Pile Driving)², NV (CON) 1d (Use Noise Suppression Devices), NV (CON) 1e (Locate Stationary Construction Equipment as Far as Possible from~~

² In the 2005 Final EIR, this measure restricts pile driving to the hours of 8:00 am to 5:00 pm. To be consistent with the San Jose municipal code, these hours are revised to 7:00 am to 7:00 pm, Monday through Friday.

~~Sensitive Receptors), NV (CON) 1f (Reroute Construction-Related Truck Traffic), NV (CON) 1g (Develop Construction Noise Mitigation Plan), NV (CON) 2, which has been modified (see Section 5.3 for a full description), and NV (CON) 1h (Use Impact Cushions). With inclusion of impact cushions, pile driving would exceed the construction noise impact criteria at 135 sensitive receiver locations. With inclusion of impact cushions and pre-drilling, pile driving would exceed the construction noise impact criteria at 80 sensitive receiver locations. With inclusion of impact cushions and noise shields around the pile equipment, pile driving would exceed the construction noise impact criteria at 2 sensitive receiver locations. VTA is recommending to mitigate this impact with noise cushions and temporary noise barriers. Even with inclusion of these mitigation measures, this impact would be “Significant and Unavoidable” and would result in a disproportionate and adverse impact on environmental justice populations.~~

First paragraph of the Air Quality and Climate Change mitigation discussion under subheading *Environmental Justice* has been revised as follows:

Air Quality and Climate Change (Construction). With respect to cumulative air quality impacts during construction, the following mitigation measures identified in the 2005 Final EIR would still apply to the proposed changes to the approved project: AQ (CON)-1 (BAAQMD’s BMPs to reduce particulate matter emissions from construction activities) and AQ (CON)-2 (BAAQMD’s BMPs to reduce GHG emissions from construction equipment). *In addition, Mitigation Measure AQ (CON)-3 would require that Tier 3 or Tier 4 equipment be used to further reduce construction-related emissions where possible.* Even with inclusion of these mitigation measures, this impact would be “Significant and Unavoidable”, and would result in a disproportionate and adverse impact on environmental justice populations.

SECTION 5.3, NOISE AND VIBRATION

Introductory paragraph under subheading *Section 5.3 Noise and Vibration* has been revised as follows:³

This section describes the potential noise and vibration impacts associated with the proposed changes to the approved project. This section supplements Section 4.14 of the 2005 Final EIR, Section 5.13 of the 2007 Final SEIR, and Section 3.12 of the 2014 Subsequent IS/MND. This analysis is based on and supported by the ~~September 21, 2018~~ *February 14, 2019 EBRC – CELR Noise and Vibration Assessment* prepared by ATS Consulting (included in Attachment E). Mitigation

³ This revision to the preparation date is not shown for every instance the date occurs in the Draft SEIR-2 to maintain the clarity of this chapter.

measures are identified for impacts that exceed the significance thresholds included in the 2005 Final EIR.

Second paragraph, the impact discussion, and the mitigation discussion under subheading *Noise Levels From Transit Operation* have been revised as follows:

A more detailed list of anticipated ~~pile-driving-vibration~~*operational noise* impacts can be found in Table 9 of the ~~September 21, 2018~~ *February 14, 2019 EBRC – CELR Noise and Vibration Assessment* (included in Attachment E).

Impact: The ~~September 21, 2018~~ *February 14, 2019 EBRC – CELR Noise and Vibration Assessment* indicates that the proposed changes to the approved project would result in 78 moderate and 23 severe noise impacts in 2017 without the proposed aerial guideway sound walls and without the proposed OGAC. The proposed changes would result in ~~96~~ 93 moderate and 59 severe noise impacts in 2043 without the proposed aerial guideway sound walls and without the proposed OGAC. The location of receivers where ~~pile-driving-vibration~~*operational noise* impacts are predicted are as follows:

- ~~Twenty-three~~ properties located east and west of the alignment between Wilbur Avenue and Mervyns Way would experience one severe and ~~twenty-two~~ *nineteen* moderate noise impacts.

Mitigation: The following mitigation measures identified in the 2005 Final EIR and the 2007 Final SEIR would still apply to the proposed changes to the approved project: NV-1a (Construct Soundwalls) and NV-1c (Provide Quiet Pavement). *Mitigation Measure NV-1a has been revised.* Mitigation Measure NV-1b is no longer needed as a ~~rest~~ *result* of project changes.

Mitigation Measure NV-1a: Construct Soundwalls

VTA shall construct soundwalls that are a minimum of 3 feet above top of rail on the aerial structure or in the median adjacent to the trackway at the following locations:

- *NB/SB: Westboro Drive to Story Road (968+54 to 992+00);*
- *NB: Kollmar Drive to Cunningham Avenue (997+00 to 1051+00); and*
- *SB: Kollmar Drive to Ocala Avenue (997+00 to 1038+00).*

All soundwall locations and heights are preliminary and are subject to change based on additional noise studies during final design.

Table 5.3-1 has been revised as follows:

Table 5.3-1 Summary of Existing (2017) and Year 2043 Operational Transit Noise Impacts Associated with the Proposed Changes to the Approved Project

Segment of Capitol Expressway	Number – Type of Receivers ¹	Existing (2017) Noise (Ldn) ²	Without Aerial Guideway Sound Wall & OGAC ³ Year 2043 (Year 2017) ⁴		With Aerial Guideway Sound Wall Year 2043 (Year 2017) ⁴		With Aerial Guideway Sound Wall & OGAC ³ Year 2043 (Year 2017) ⁴	
			Moderate	Severe	Moderate	Severe	Moderate	Severe
NB 964+50 to 981+20 Wilbur Ave. to Mervyns Way	22 - SFR	70-78	18 17 (12)	1 (0)	0 (0)	0 (0)	0 (0)	0 (0)
NB 986+70 to 995+50 Mervyns Way to Story Road	5 – INST/COM	72-73	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
NB 998+50 to 1035+90 Story Road to Ocala Avenue	41 - SFR	68-75	38 (5)	3 (0)	28 (3)	0 (0)	0 (0)	0 (0)
NB 1037+60 to 1049+50 Ocala Avenue to Cunningham Avenue	27 - SFR	65-67	0 (6)	27 (21)	27 (27)	0 (0)	0 (0)	0 (0)
SB 967+50 to 970+50 S Capitol Avenue	5 - SFR	67-73	4 2 (0)	0 (0)	1 (0)	0 (0)	0 (0)	0 (0)
SB 971+30 to 973+00 S Capitol Avenue	2 - COM	71-74	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
SB 978+00 to 992+70 Excalibur Drive to Story Road	25 - SFR	72-75	25 (21)	0 (0)	23 (14)	0 (0)	0 (0)	0 (0)
SB 993+10 to 996+50	3 - COM	73-74	2 (0)	0 (0)	2 (0)	0 (0)	0 (0)	0 (0)

Segment of Capitol Expressway	Number – Type of Receivers ¹	Existing (2017) Noise (Ldn) ²	Without Aerial Guideway Sound Wall & OGAC ³ Year 2043 (Year 2017) ⁴		With Aerial Guideway Sound Wall Year 2043 (Year 2017) ⁴		With Aerial Guideway Sound Wall & OGAC ³ Year 2043 (Year 2017) ⁴	
			Moderate	Severe	Moderate	Severe	Moderate	Severe
Story Road								
SB 998+80 to 1007+20 Story Road to Foxdale Loop	17 - SFR	65-73	4 (16)	13 (1)	16 (0)	0 (0)	0 (0)	0 (0)
SB 1009+00 E. Capitol Expressway	1 - COM	74	1 (0)	0 (0)	1 (0)	0 (0)	0 (0)	0 (0)
SB 1012+00 to 1018+00 Foxdale Loop	3 - MFR	69	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
SB 1021+00 to 1035+80 Foxdale Drive to Ocala Avenue	19 - SFR	65-67	4 (18)	15 (1)	18 (1)	0 (0)	0 (0)	0 (0)
Number of Impacts:			96 93 (78)	59 (23)	116 (45)	0 (0)	0 (0)	0 (0)

Notes:

¹ Receiver types include: Single-Family Residence (SFR), Multi-Family Residence (MFR), Commercial/Office Space (COM), and Institutional (INST).

² Day-Night Sound Level (Ldn) is the most common measure of total community noise over a 24-hour period and is used by the FTA to evaluate residential noise impacts from proposed transit projects.

³ Open-graded asphalt concrete (OGAC) is a noise-reducing pavement surface.

⁴ Moderate and severe impacts were determined according to FTA *Noise and Vibration Impact Assessment Guidance Manual* (2006).

Source: ATS Consulting, 2018/2019.

Table 5.3-2 has been revised as follows:

Table 5.3-2 Summary of Operational Transit Vibration Impacts Associated with the Proposed Changes to the Approved Project

Direction/Segment of Capitol Expressway	Number – Type of Receivers ¹	Impact Criteria (VdB) ²	Unmitigated ⁴	With TDA ^{4,5}
NB 964+50 to 981+20 Wilbur Avenue to Mervyns Way	22 – SFR	72 - 78	44 10	44 10
NB 986+70 to 995+50 Mervyns Way to Story Road	5 – INST/COM	78-84 ³	0	0
NB 998+50 to 1035+90 Story Road to Ocala Avenue	41 – SFR	72 - 78	4	4
NB 1037+60 to 1049+50 Ocala Avenue to Cunningham Avenue	27 – SFR	72 - 78	21	21
SB 967+50 to 970+50 S. Capitol Avenue	5 – SFR	72 - 78	3 1	2 0
SB 971+30 to 973+00 S. Capitol Avenue	2 – COM	84 ³	0	0
SB 978+00 to 992+70 Excalibur Drive to Story Road	25 – SFR	72 - 78	2	2
SB 993+10 to 996+50 Story Road	3 – COM	84 ³	0	0
SB 998+80 to 1007+20 Story Road to Foxdale Loop	17 – SFR	72 - 78	15	15
SB 1009+00 E. Capitol Expressway	1 – COM	84 ³	0	0
SB 1012+00 to 1018+00 Foxdale Loop	3 – MFR	72 - 78	0	0
SB 1021+00 to 1035+80 Foxdale Drive to Ocala Avenue	19 – SFR	72 - 78	14	14
Number of Impacts:			73 67	72 66

Notes:

¹ Receiver types include: Single-Family Residence (SFR), Multi-Family Residence (MFR), Commercial/Office Space (COM), and Institutional (INST).

² FTA nighttime impact criteria of 72 vibration decibels (VdB) and daytime of 78 VdB.

³ Impact threshold for offices and non-sensitive areas.

⁴ Impacts were determined according to FTA *Noise and Vibration Impact Assessment Guidance Manual* (2006).

⁵ Tire derived aggregate (TDA) is a resilient underlayment for ballasted track that would only be located at the at-grade and embankment sections.

Source: ATS Consulting, ~~2018~~2019.

The impact discussion and the mitigation discussion under subheading *Vibration Levels From Transit Operation* have been revised as follows:

Impact: The ~~February 14, 2019~~ ~~September 21, 2018~~ *EBRC – CELR Noise and Vibration Assessment* indicates that the proposed changes to the approved project would result in exceedances of the Federal Transit Administration (FTA) nighttime (10:00 pm to 7:00 am) vibration impact criteria at sensitive receivers located within 100 feet of the proposed aerial guideway. Most of the impacts are anticipated to occur between 6:00 am and 7:00 am when VTA would be operating at peak service levels. The proposed aerial guideway (direct fixation fasteners) and ballasted track on embankment sections would cause an exceedance of the nighttime impact criteria at ~~73~~ ~~67~~ sensitive receiver locations. The location of receivers where operational vibration impacts are predicted are as follows:

- ~~Seventeen~~ *Eleven* properties located east and west of the alignment, between Wilbur Avenue and Mervyns Way would experience operational vibration impacts. One home is within 33 feet of the closest support column.

Mitigation: The following mitigation measure identified in the 2005 Final EIR and 2007 Final SEIR would still apply to the proposed changes to the approved project: NV-4b (Use Vibration-Dampening Track Construction Materials). *Mitigation Measure NV-4b has been revised.* With inclusion of TDA, vibration would exceed the nighttime impact criteria at ~~72~~ ~~66~~ sensitive receiver locations at the at-grade and embankment sections of the alignment.

By not including FST; a bridge bearing vibration isolation system; or implementing speed reductions as mitigation, and because TDA is the only feasible mitigation option to reduce vibration levels from operation, this impact would be “Significant and Unavoidable.” Based on the analysis above, the proposed changes to the approved project would result in new significant impacts related to vibration levels from transit operation. With inclusion of TDA, vibration impacts are expected to occur at ~~72~~ ~~66~~ sensitive receivers under the proposed changes to the approved project. This is an increase of ~~20~~ ~~14~~ sensitive receivers compared to the 2005 Final EIR, which concluded 52 sensitive receivers would be potentially exposed to vibration impacts during operation.

Mitigation Measure NV-4b: Use Vibration-Dampening Track Construction Materials

VTA shall install a 12-inch layer of tire-derived aggregate beneath a subballast layer of 12 inches and a ballast layer of 12 inches

between Wilbur Avenue and Westboro Drive (Sta. 966+50 to 971+50 NB/SB).

Subheading and first paragraph under subheading *Pile Driving Noise Impacts During Construction* has been revised as follows:

PILE DRIVING (AND ALL OTHER VIBRATORY CONSTRUCTION EQUIPMENT) NOISE IMPACTS DURING CONSTRUCTION

During construction, pile driving would be conducted to install foundation piles for the proposed aerial guideway. *Although other vibratory construction equipment would also be used for the project, the anticipated noise levels from this equipment would not exceed the noise levels from pile driving. As a result, Table 5.3-3 summarizes focuses on the anticipated pile-driving noise impacts generated by the proposed changes to the approved project during construction.*

Table 5.3-3 has been revised as follows:

Table 5.3-3 Summary of Construction Pile Driving Noise Impacts Associated with the Proposed Changes to the Approved Project

Direction/Segment of Capitol Expressway	Number – Type of Receivers¹	Federal Transit Administration Impact Criteria Leq (8-hr) dBA²	Unmitigated³	With Impact Cushions³	With Impact Cushions & Pre-Drilling^{3,5}	With Impact Cushions³ & Noise Shields^{3,6}
NB 964+50 to 981+20 Wilbur Avenue to Mervyns Way	22 – SFR	80	15 12	11 9	9	0
NB 986+70 to 995+50 Mervyns Way to Story Road	5 – INST/COM	80/85	5	3	2	0
NB 998+50 to 1035+90 Story Road to Ocala Avenue	41 – SFR	80	41	40	25	0
NB 1037+60 to 1049+50 Ocala Avenue to Cunningham Avenue	27 – SFR	80	27	22	9	0
SB 967+50 to 970+50 S. Capitol Avenue	5 – SFR	80	0	0	0	0
SB 971+30 to 973+00 S. Capitol Avenue	2 – COM	85	0	0	0	0
SB 978+00 to 992+70 Excalibur Drive to Story Road	25 – SFR	80	21	21	21	0
SB 993+10 to 996+50 Story Road	3 – COM	85	3	1	0	0
SB 998+80 to 1007+20 Story Road to Foxdale Loop	17 – SFR	80	17	12	2	0
SB 1009+00 E. Capitol Expressway	1 – COM	85	1	1	0	0

Direction/Segment of Capitol Expressway	Number – Type of Receivers¹	Federal Transit Administration Impact Criteria Leq (8-hr) dBA²	Unmitigated³	With Impact Cushions³	With Impact Cushions & Pre-Drilling^{3,5}	With Impact Cushions³ & Noise Shields^{3,6}
SB 1012+00 to 1018+00 Foxdale Loop	3 – MFR	80	3	3	0	0
SB 1021+00 to 1035+80 Foxdale Drive to Ocala Avenue	19 – SFR	80	19	19	11	0
Number of Impacts:			156 149	135 131	80 79	2 0

Notes:

¹ Receiver types include: Single-Family Residence (SFR), Multi-Family Residence (MFR), Commercial/Office Space (COM), and Institutional (INST).

² Day-Night Sound Level (Ldn) is the most common measure of total community noise over a 24-hour period and is used by the Federal Transit Administration (FTA) to evaluate residential noise impacts from proposed transit projects.

³ Impacts were determined according to FTA’s *Noise and Vibration Impact Assessment Guidance Manual* (2006).

⁴ An impact cushion is a type of mitigation that involves initially using burlap bags and then adding wood block when pile driving becomes more difficult.

⁵ Pre-drilling is a type of mitigation that consists of pre-drilling 1/3 of a pile to reduce the total duration of impact time.

⁶ A noise shield is a type of mitigation that consists of a frame that secures acoustic blankets or paneling.

Source: ATS Consulting, 2018/2019.

The impact under subheading *Pile Driving Noise Impacts During Construction* has been revised as follows:

Impact: The ~~February 14, 2019~~ ~~September 21, 2018~~ *EBRC – CELR Noise and Vibration Assessment* indicates that the proposed changes to the approved project would result in exceedances of the FTA construction noise impact criteria at unobstructed homes and businesses (i.e., homes and businesses not shielded by other structures or sound walls) within 300 feet of pile driving activity. The noise impacts would have a duration of 8 to 15 days per sensitive receiver. Pile driving would exceed the construction noise impact criteria of 80 Leq (8-hour) *dBA* at residences and 85 Leq (8-hour) *dBA* at commercial properties at ~~156~~ 149 sensitive receiver locations. The location of receivers where pile driving noise impacts are predicted are as follows:

- ~~Fifteen~~ *Twelve* residential properties located east of the alignment between Wilbur Avenue and Mervyns Way would experience construction noise impacts. One home is within 25 feet of the closest pile.
- Five institutional/commercial properties located east of the alignment between Mervyns Way and Story Road would experience construction noise impacts.
- Forty-one residential properties located east of the alignment between Story Road and Ocala Avenue would experience construction noise impacts.
- Twenty-seven residential properties located east of the alignment between Ocala Avenue and Cunningham Avenue would experience construction noise impacts.
- ~~Two residential properties located west of the alignment along South Capitol Avenue would experience construction noise impacts.~~
- ~~Two commercial properties located west of the alignment along South Capitol Avenue would experience construction noise impacts.~~
- Twenty-one residential properties located west of the alignment between Excalibur Drive and Story Road would experience construction noise impacts.
- Three commercial properties located west of the alignment near the intersection of Capitol Expressway and Story Road would experience construction noise impacts.

- Seventeen residential properties located west of the alignment between Story Road and Foxdale Loop would experience construction noise impacts.
- One commercial property located west of the alignment near the intersection of Capitol Expressway and Foxdale Loop would experience a construction noise impact.
- Three residential properties located west of the alignment along Foxdale Loop would experience construction noise impacts.
- Nineteen residential properties located west of the alignment between Foxdale Drive and Ocala Avenue would experience construction noise impacts.

The first two measures in Mitigation Measure NV (CON)-2 under subheading *Pile Driving Noise Impacts During Construction* have been revised as follows:

Mitigation Measure NV (CON)-2

A combination of the following measures should be considered if reasonable and feasible to reduce noise and vibration impacts from pile driving:

3. Noise Shield: A pile driving noise shield could be effective at reducing the pile driving noise by a minimum 5 dBA, depending on the size of the shield and how well it surrounds the pile and hammer. A portable shield/barrier could be implemented to provide a nominal 10 dBA noise reduction.
4. Pre-Drilling Piles: Pre-drilling a portion of the hole may provide a means to reduce the duration of impact pile driving, and should be explored. Reducing the total impact time to an aggregate duration of no more than 2 hours per day will reduce the equivalent noise level by 6 dBA to a range of 80 to 90 dBA (L_{eq}) at a distance of 100ft.

The last paragraph of the mitigation discussion under subheading *Pile Driving Noise Impacts During Construction* has been revised as follows:

~~With inclusion of impact cushions, pile driving would exceed the construction noise impact criteria at 135 sensitive receiver locations. With inclusion of impact cushions and pre-drilling, pile driving would exceed the construction noise impact criteria at 80 sensitive receiver locations. With inclusion of impact cushions and noise shields around the pile equipment, pile driving would exceed the construction noise impact criteria at 2 sensitive receiver locations. VTA is recommending to mitigate this impact with noise cushions and temporary noise barriers. Even with inclusion of these mitigation measures, this impact would be “Significant and Unavoidable.” Based on the analysis above,~~

~~the proposed changes to the approved project would result in new significant impacts related to pile driving noise impacts during construction.~~

Subheading and first paragraph under subheading *Pile Driving Vibration Impacts During Construction* has been revised as follows:

PILE DRIVING (AND ALL OTHER VIBRATORY CONSTRUCTION EQUIPMENT) VIBRATION IMPACTS DURING CONSTRUCTION

As discussed above, pile driving would be conducted to install foundation piles for the proposed aerial guideway. *Although other vibratory construction equipment would also be used for the project, the anticipated vibration levels from this equipment would not exceed the vibration levels from pile driving. As a result, Table 5.3-3 summarizes focuses on the anticipated pile-driving vibration impacts generated by the proposed changes to the approved project during construction.*

The impact discussion under subheading *Pile Driving Vibration Impacts During Construction* has been revised as follows:

Impact: The September 21, 2018 *EBRC – CELR Noise and Vibration Assessment* indicates that the proposed changes to the approved project would result in exceedances of the FTA nighttime construction vibration of 0.2 PPV impact criteria at homes within 100 feet of pile driving activity. Pile driving would exceed the construction vibration impact criteria at ~~64~~ 56 sensitive receiver locations. The location of receivers where pile driving vibration impacts are predicted are as follows:

- ~~Nine properties~~ *One property* located east of the alignment between Wilbur Avenue and Mervyns Way would experience construction vibration impacts. One home is within 25 feet of the closest pile.
- Five properties located east of the alignment between Story Road and Ocala Avenue would experience construction vibration impacts.
- Twenty-one properties located east of the alignment between Ocala Avenue and Cunningham Avenue would experience construction vibration impacts.
- Fifteen properties located west of the alignment between Story Road and Foxdale Loop would experience construction vibration impacts.

- Fourteen properties located west of alignment between Foxdale Drive and Ocala Avenue would experience construction vibration impacts.

The following impact from the 2005 Final EIR would still apply to the proposed changes to the approved project: NV (CON)-1: (Generation of Noise or Vibration That Substantially Affects Nearby Sensitive Receptors).

The last paragraph of the mitigation discussion under subheading *Pile Driving Vibration Impacts During Construction* has been revised as follows:

VTA is not recommending the use of non-impact piling methods at ~~any~~ most locations for a couple of reasons. Most locations are only slightly above the FTA Damage Criteria, and therefore may not experience any actual impacts due to *predictions that are based on a high reference level for pile drivers, given the uncertainties in the specific equipment that would be used in practice. It is anticipated that the pile drivers that would be used during construction would create lower levels of vibration than estimated in the analysis. the +3 VdB safety factor included to estimate construction vibration levels.* At the locations with the highest construction vibration levels, structural damage is not anticipated to occur. *However, if any structural and cosmetic damage does occur due to construction vibration, the damage shall be repaired by VTA.* As a result, VTA is not recommending to use non-impact piling methods at ~~any~~ most locations. Thus, this impact would be “Significant and Unavoidable.”

SECTION 5.4, AIR QUALITY AND CLIMATE CHANGE

Mitigation discussion under subheading *Impacts on Air Quality Emissions During Construction* has been revised to add a mitigation measure as follows:

Mitigation Measure AQ (CON)-3

Tier 3 or 4 equipment shall be used to further reduce construction-related emissions where possible.

Mitigation discussion under subheading *Cumulative Impacts* has been revised as follows:

The following mitigation measures identified in the 2005 Final EIR would still apply to the proposed changes to the approved project: AQ (CON)-1 (BAAQMD’s BMPs to reduce particulate matter emissions from construction activities) and AQ (CON)-2 (BAAQMD’s BMPs to reduce GHG emissions from construction equipment). *In addition, Mitigation Measure AQ (CON)-3 would require that Tier 3 or Tier 4 equipment be used to further reduce construction-related emissions where possible.* Even with inclusion of these mitigation

measures, this impact would be “Significant and Unavoidable.” Based on the analysis above, the proposed changes to the approved project would result in new significant impacts or a substantial increase in the severity of previously identified significant cumulative impacts related to pollutant concentration exposure on sensitive receptors during construction.

SECTION 5.5, CONSTRUCTION

The revisions noted in other sections that would also result in revisions to this section (specifically Section 5.3, *Noise and Vibration*, and Section 5.4, *Air Quality and Climate Change*) are not duplicated here to maintain this chapter’s clarity.

Draft SEIR-2 Attachments

ATTACHMENT B

First paragraph under subheading *Recommended Light Rail Alternative* has been revised as follows:

The Recommended Light Rail Alternative would extend along Capitol Expressway from the existing Alum Rock Light Rail Station to the Eastridge Transit Center a distance of approximately 2.4 miles. Light rail will operate primarily in the median of Capitol Expressway within exclusive and semi-exclusive rights-of-way. Property acquisition for the project would be minimized through the removal of two high-occupancy vehicle (HOV) lanes on Capitol Expressway between Story Road and Tully Road. The project will include new light rail stations at Story Road (aerial) and Eastridge Transit Center (at-grade). The project will also include traction power substations at Ocala Avenue and Eastridge Transit Center. Relocation and replacement of a number of 115-kilovolt steel lattice electrical transmission towers with Tubular Steel Poles (TSPs) *will also be included in the project.*

Second paragraph under subheading *Right-Of-Way Requirements* has been revised as follows:⁴

In addition, 6 steel lattice towers and 2 Tubular Steep Poles [TSPs] carrying the Pacific Gas & Electric Company’s (PG&E) McKee-Piercy and Milpitas-Swift sections of the 115 kilovolt transmission lines would need to be relocated between Ocala Avenue and north of Quimby Road. A total of 10 new TSPs would be installed. It is anticipated that the TSPs would need to be up to 121 feet in height in order to clear the aerial guideway. As a result of the increase in height of the TSPs and the proximity to Reid-Hillview Airport, PG&E may need to install red light-emitting diode (LED) obstruction lighting on some or all of the new or

⁴ The revision to this paragraph is in the last sentence. A space was added between “Figures 6a and 6b” and “show the proposed project work...” Due to the nature of the revision, it is not shown in *italics* or ~~strikeout~~ text.

modified towers or poles in accordance with Federal Aviation Administration (FAA) requirements. These lights would be powered either by solar panels or local distribution electric lines. One of the TSPs (No. 54) may require right-of-way from the Santa Clara Valley Water District for placing the TSP and its foundation. The new TSPs would be mounted on a drilled foundation. Figures 6a and 6b show the proposed project work for the electrical transmission facilities.

Second paragraph under subheading *Park-and-Ride Facilities* has been revised as follows:

To serve the approved project, there would be no increase in parking at Alum Rock Station because of space constraints. The Eastridge Park-and-Ride lot currently includes 180 parking spaces because of relocation of VTA Paratransit personnel and vehicles to a remodeled building at this location in September 2017. VTA is proposing to increase the parking to approximately ~~200~~ 302 spaces *through reconfiguration of the Eastridge park-and-ride lot. As part of project operations, VTA would conduct regular monitoring and parking counts at the Eastridge Park-and-Ride lot to ensure that the parking supply provided would be adequate. Should parking demand exceed supply, the 135 parking spaces currently used for Paratransit would be vacated as needed to accommodate parking demand.*

Table 2 under subheading Right-of-Way Requirements has been revised. The revisions are consistent with the revised Table 3.14-3 at the end of this chapter.

ATTACHMENT C

The revised detailed plans are included in Chapter 2 of this Final SEIR-2.

ATTACHMENT D

The revised *Eastridge to BART Regional Connector: Capitol Expressway Light Rail Project Supplemental Transportation Analysis* is included in Volume II.

ATTACHMENT E

The revised *EBRC – CELR Noise and Vibration Assessment* is included in Volume II.

ATTACHMENT G

The revised Second Subsequent IS is included in Volume III.

Section 2.2, first paragraph under subheading *Reduction in Parking Spaces at Eastridge Park-and-Ride Lot* and Table 2-2, have been revised as follows:

The Eastridge Park-and-Ride lot currently includes approximately 180 parking spaces. The approved project increases the parking to 445 spaces at Eastridge

Station to partially address the increased demand of 481 spaces from the project. As part of the proposed changes to the approved project, VTA is proposing to ~~reduce~~ *increase* the parking to approximately ~~200~~ 302 spaces *through reconfiguration of the Eastridge Park-and-Ride lot due to the relocation of VTA Paratransit staff and vehicles to a remodeled building at this location in September 2017. The relocation of VTA Paratransit staff and vehicles to this location has reduced the availability of parking at the Eastridge park and ride lot.* See Section 2.3, *Changes in Circumstances*, for a discussion of the changes to the existing VTA Paratransit offices at the Eastridge Park-and-Ride lot. As shown in Table 2-2, based on updated VTA forecasts, the proposed changes to the approved project would increase existing (2017) parking demand to 114 parking spaces. In 2023 and 2043, the proposed changes to the approved project would increase parking demand to 293 vehicles and 374 vehicles, respectively. *As part of project operations, VTA would conduct regular monitoring and parking counts at the Eastridge Park-and-Ride lot to ensure that the parking supply provided would be adequate. Should parking demand exceed supply, the 135 parking spaces currently used for VTA Paratransit would be vacated as needed to accommodate parking demand.*

Table 2-2 Eastridge Park-and-Ride Lot Anticipated Parking Demand for the Approved Project and the Proposed Changes (Existing [2017] Year, Year 2023, Year 2035, and Year 2043)

	Existing (2009 or 2017) ¹	Year 2023 ²	Year 2035 ³	Year 2043 ²
Approved Project				
Demand	16	--	481	--
Supply	115	--	445	--
Proposed Changes to the Approved Project				
Demand	114	293	--	374
Supply	180	302	--	200 374

Notes:

¹ Existing parking counts provided by VTA Operations on December 20, 2017.

² Future Parking estimates provided by VTA Modelling on May 31, 2018.

³ Only parking forecasts for 2035 were provided in the 2014 Subsequent IS/MND. Updated parking forecasts were not provided for 2035 due to changes in the opening year and future year.

Source: Hexagon 2018.

Section 3.10, third paragraph under subheading *Environmental Impacts and Mitigation*, has been revised as follows:

In addition, construction of the proposed changes to the approved project would in some cases require dewatering and the associated discharge of groundwater or dewatering effluent. This is an impact that was not analyzed in the 2005 Final EIR. Construction of the proposed changes to the approved project would require additional dewatering activities associated with installation of the concrete columns for the proposed aerial guideway. When temporary and limited groundwater dewatering would be required for construction activities, dewatering effluent would be treated and discharged ~~(in accordance with provisions of the Construction General Permit)~~ back to the nearby surface water, if possible, providing an opportunity for groundwater recharge. ~~Thus, the discharged effluent would have the opportunity to recharge the aquifer.~~ *A dewatering plan will be submitted and approved by VTA to determine treatment and disposal options for extracted groundwater prior to any dewatering activities.*

Figures 1-1, 2-1, 2-4, 3.14-1 have been revised as shown on the following pages.

Table 3.14-3 has been revised as shown on the following pages.

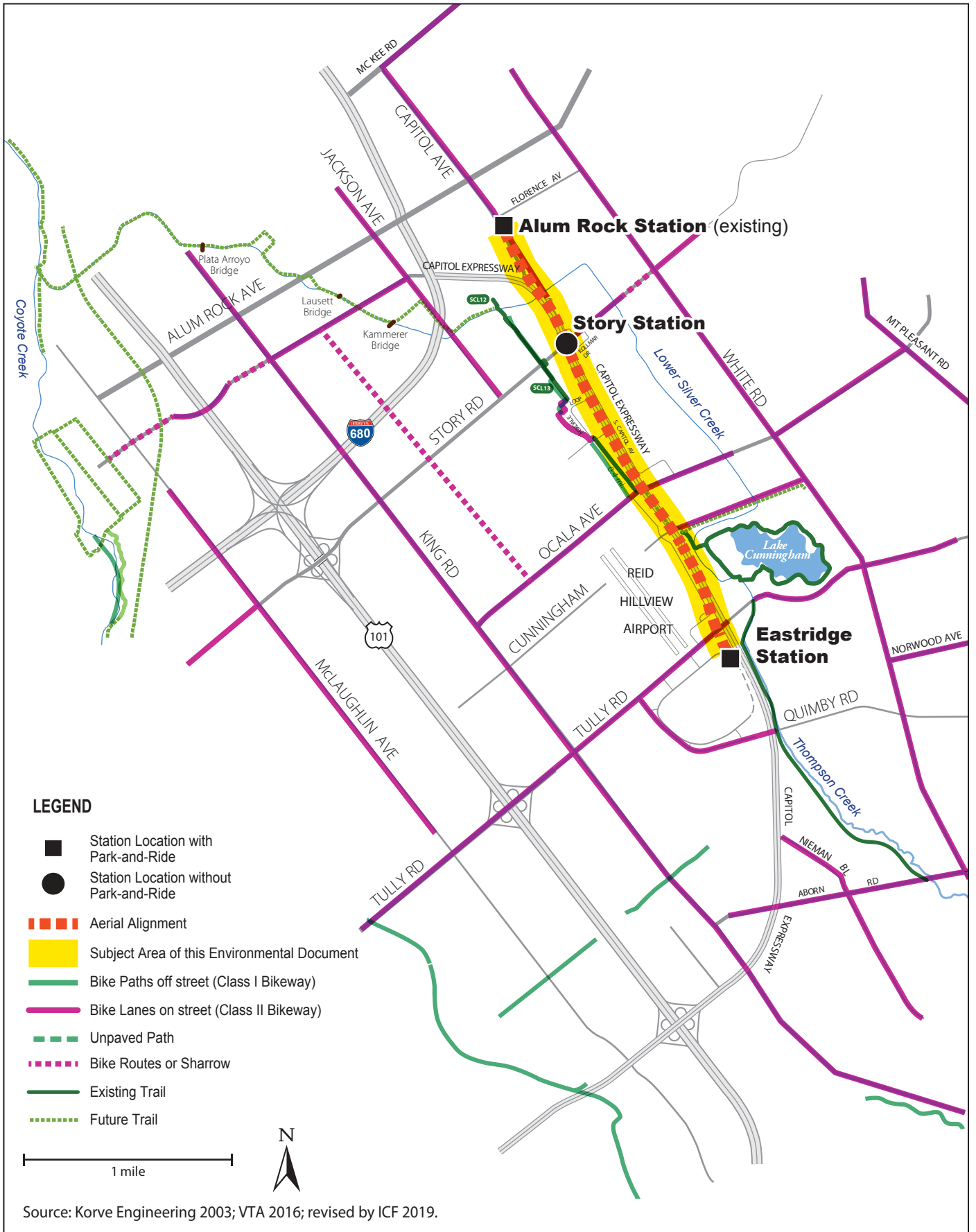


Figure 1-1
Proposed Changes to Capitol Expressway Light Rail Project



Figure 2-1
Previously Approved Capitol Expressway Light Rail Project

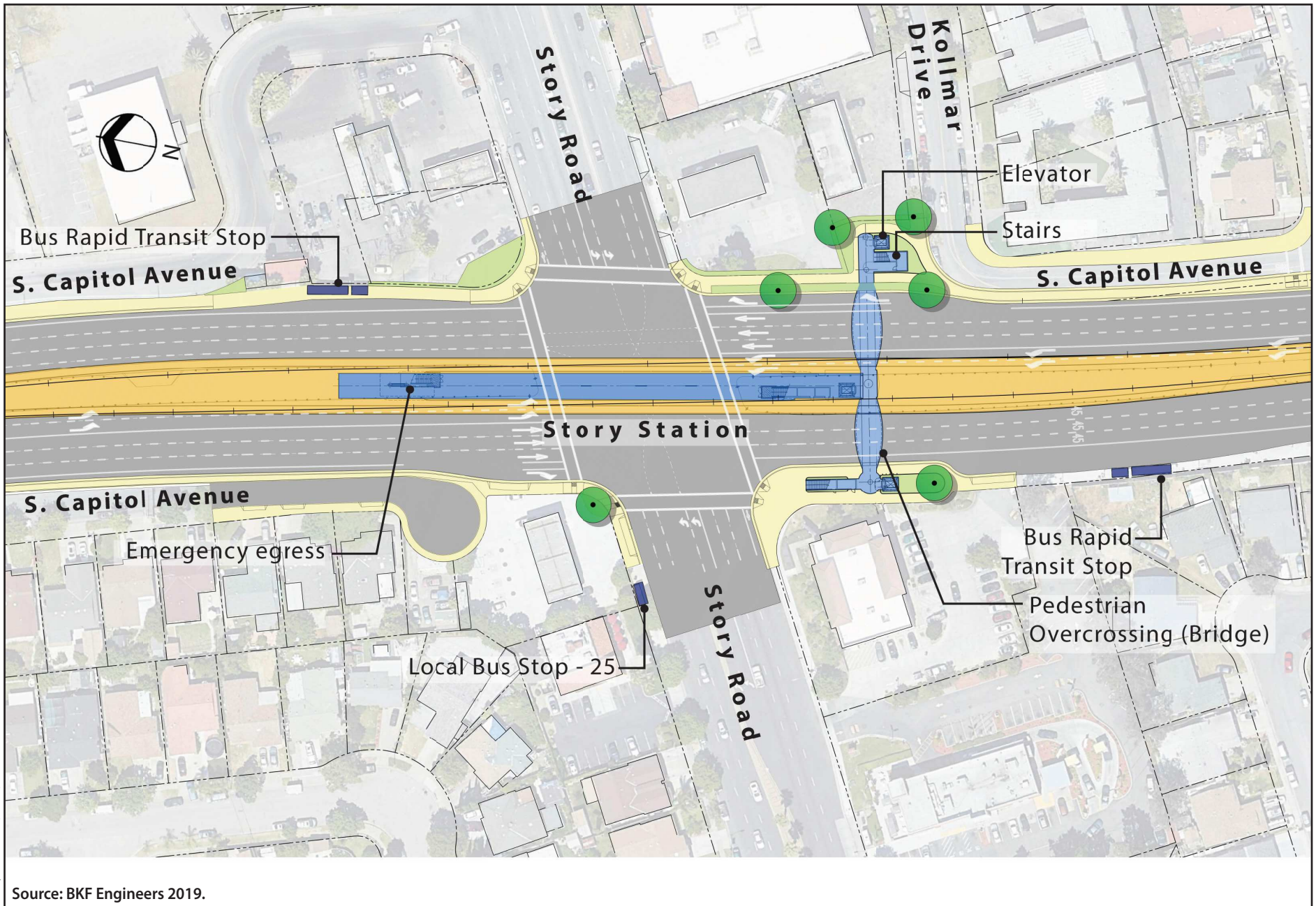
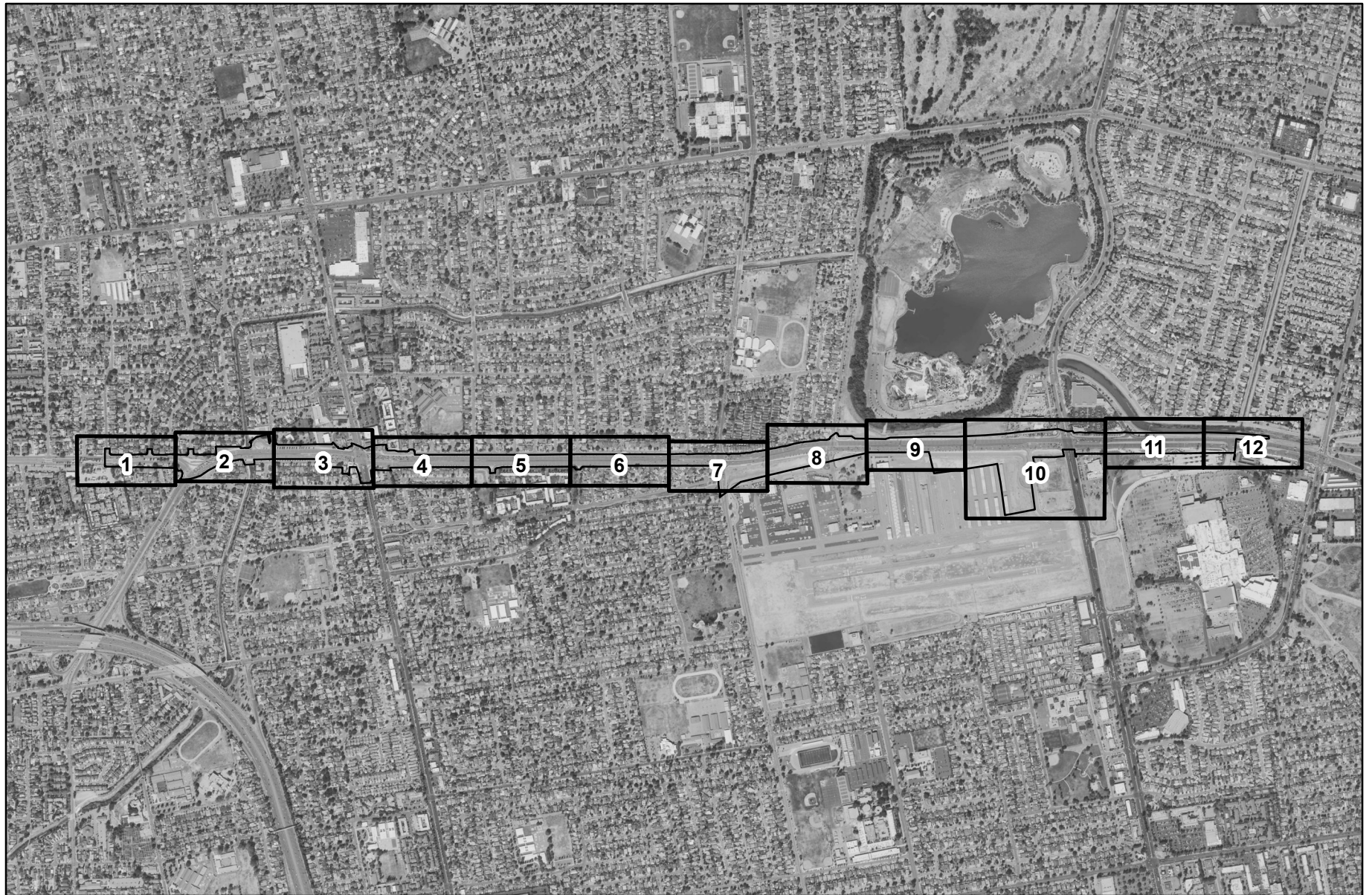




Figure 2-4
Proposed Changes to the Story Station



Service Layer Credits: Esri, USDA Farm Service Agency, ICF 2019, BKF 2019

Legend

-  Capitol Expressway Corridor
-  Map Book Sheet

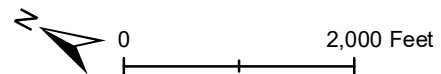
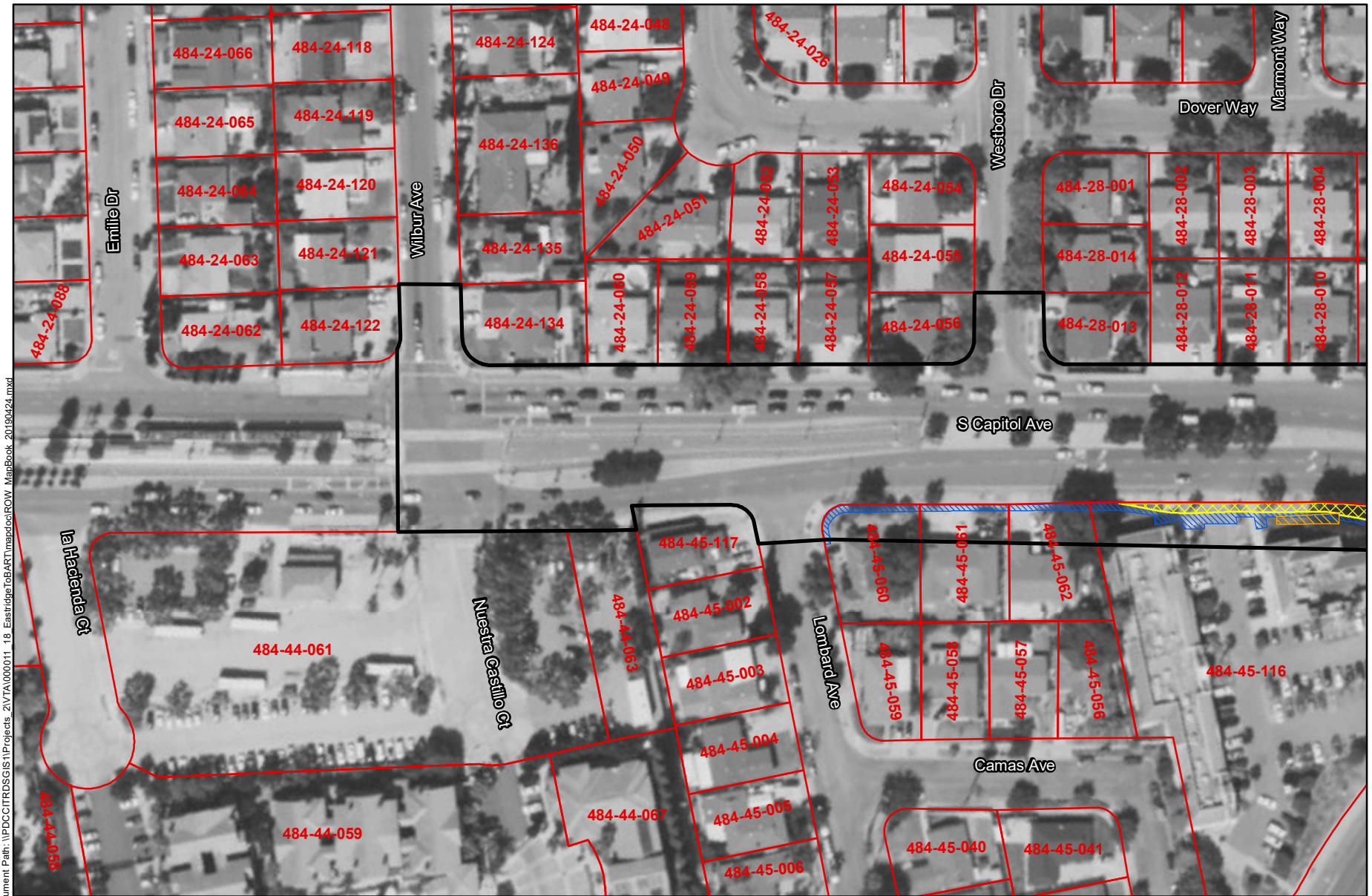


Figure 3.14-1
Right-of-Way Requirements for
the Proposed Changes



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 	Legend Capitol Expressway Corridor Parcel Boundary Assessor 111-11-111 Parcel Numbers	Permanent Impacts Right-of-Way Take Maintenance Easement PG&E Electrical Transmission Easement (Overhead Easement) Private Ingress Egress Easement	Public Service Easement Roadway Easement Temporary Impacts Temporary Construction Easement Staging Area	Figure 3.14-1 Right-of-Way Requirements for the Proposed Changes (Sheet 1 of 12)
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Legend

Capitol Expressway Corridor
 Parcel Boundary
 Assessor Parcel Numbers
 111-11-111

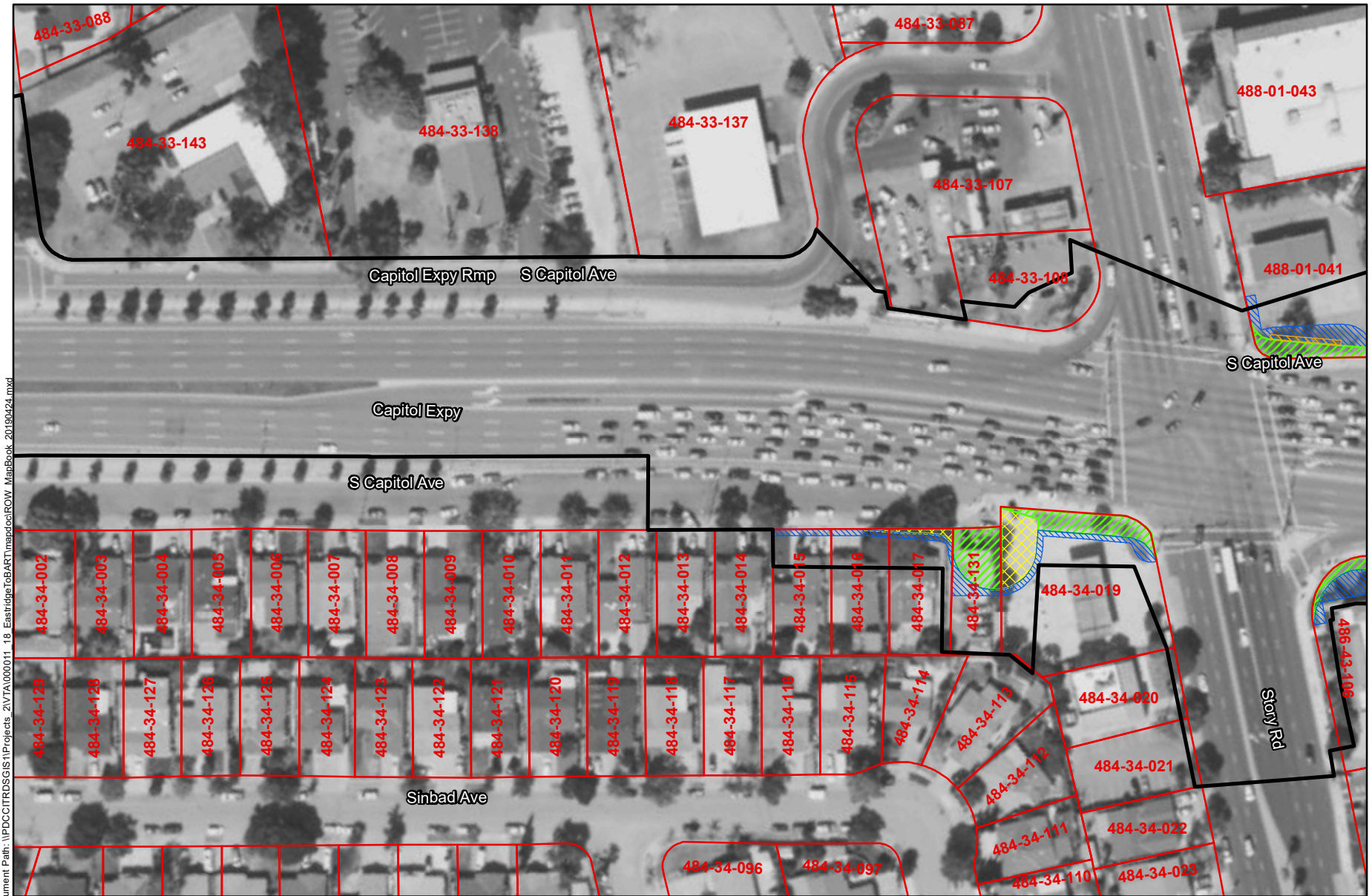
Permanent Impacts

Right-of-Way Take
 Maintenance Easement
 PG&E Electrical Transmission Easement (Overhead Easement)
 Private Ingress Egress Easement

Temporary Impacts

Public Service Easement
 Roadway Easement
 Temporary Construction Easement
 Staging Area

Figure 3.14-1
Right-of-Way Requirements for the Proposed Changes
 (Sheet 2 of 12)



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Legend

- Capitol Expressway Corridor
- Parcel Boundary
- Assessor Parcel Numbers
- 111-11-111 Parcel Numbers

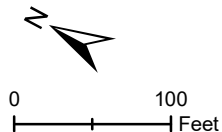
Permanent Impacts

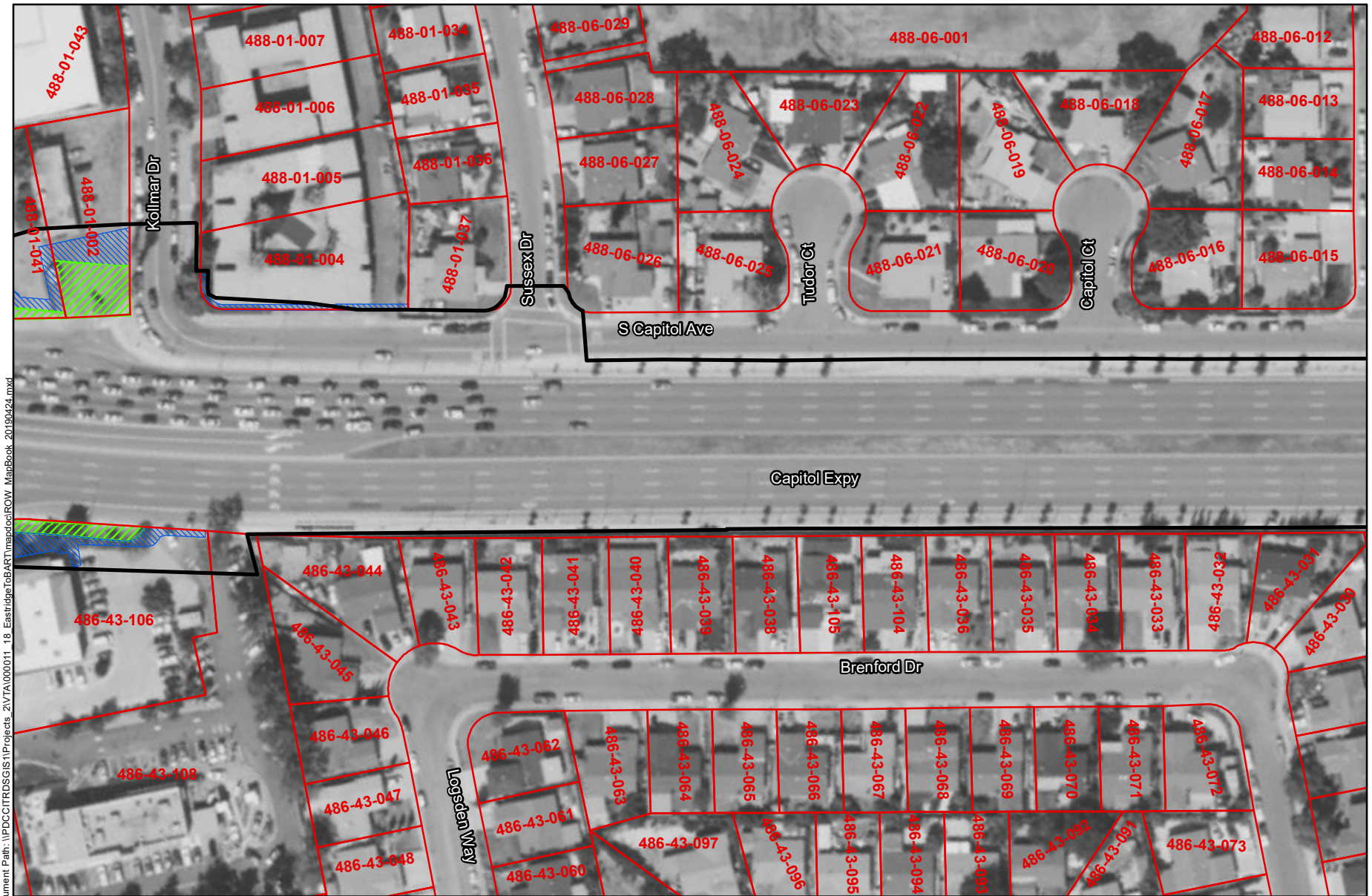
- Right-of-Way Take
- Maintenance Easement
- PG&E Electrical Transmission Easement (Overhead Easement)
- Private Ingress Egress Easement

Temporary Impacts

- Public Service Easement
- Roadway Easement
- Temporary Construction Easement
- Staging Area

Figure 3.14-1
Right-of-Way Requirements for the Proposed Changes
 (Sheet 3 of 12)





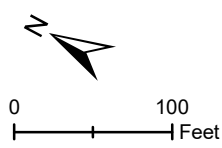
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	Legend		Permanent Impacts	Public Service Easement	Figure 3.14-1 Right-of-Way Requirements for the Proposed Changes (Sheet 4 of 12)
	Capitol Expressway Corridor Parcel Boundary Assessor Parcel Numbers 111-11-111 Parcel Numbers	Right-of-Way Take Maintenance Easement PG&E Electrical Transmission Easement (Overhead Easement) Private Ingress Egress Easement	Roadway Easement Temporary Impacts Temporary Construction Easement Staging Area		



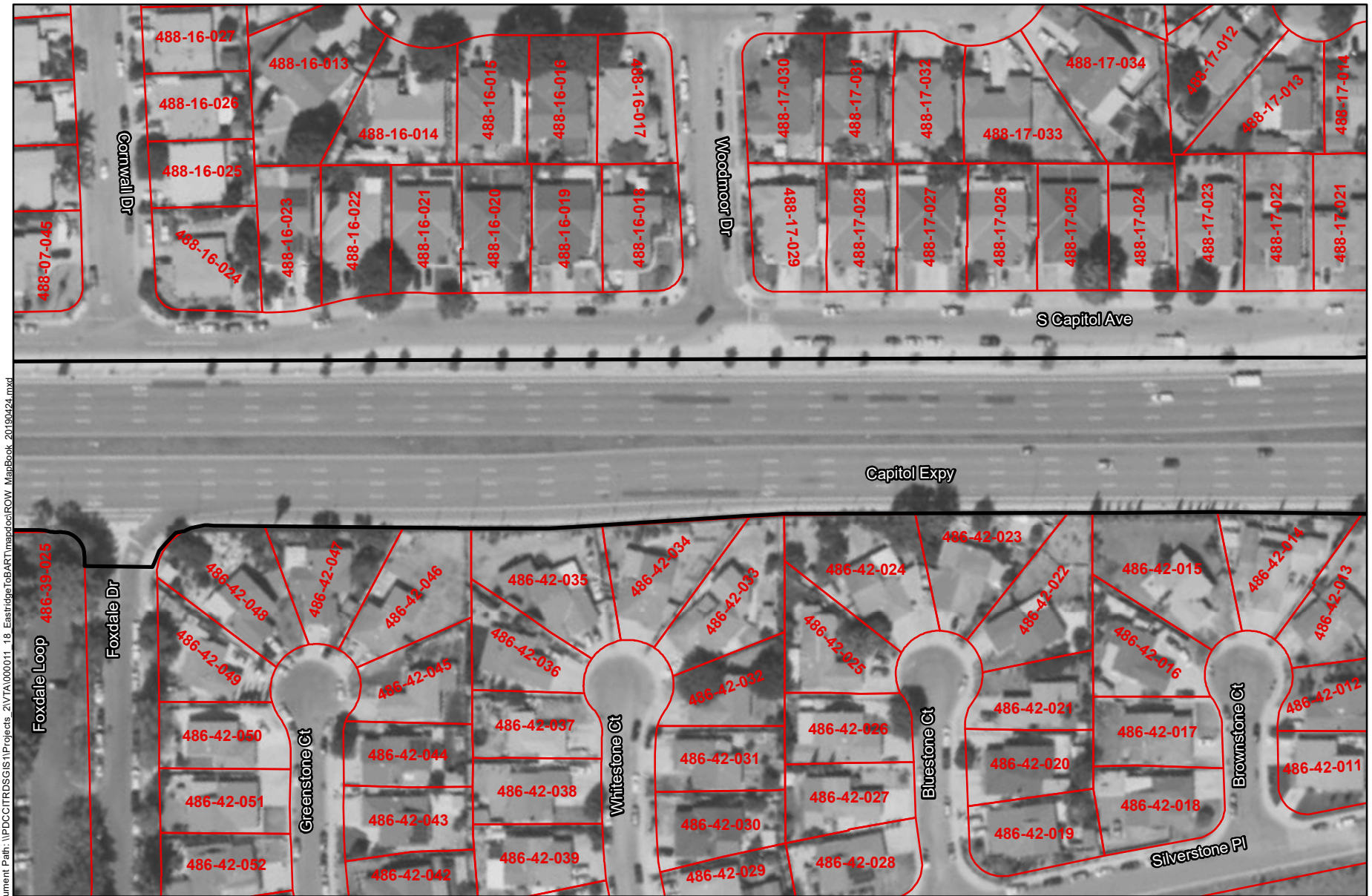
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|---------------|-----------------------------|--------------------------|---|--------------------------|---------------------------------|
| Legend | | Permanent Impacts | | Temporary Impacts | |
| | Capitol Expressway Corridor | | Right-of-Way Take | | Public Service Easement |
| | Parcel Boundary | | Maintenance Easement | | Roadway Easement |
| | Assessor Parcel Numbers | | PG&E Electrical Transmission Easement (Overhead Easement) | | Temporary Construction Easement |
| | 111-11-111 Parcel Numbers | | Private Ingress Egress Easement | | Staging Area |

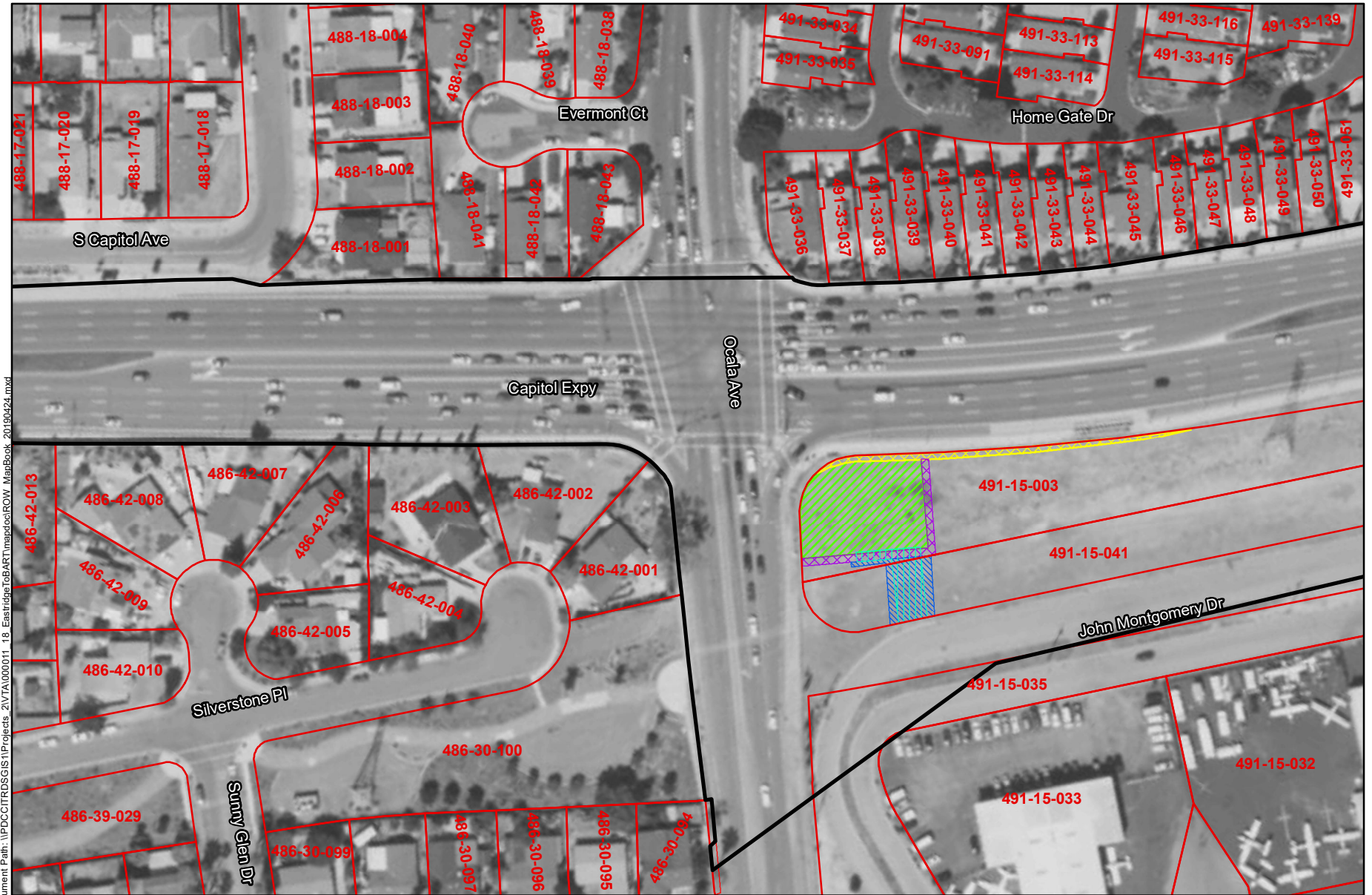
Figure 3.14-1
Right-of-Way Requirements for the Proposed Changes
 (Sheet 5 of 12)



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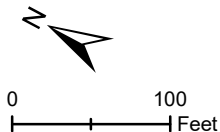
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	Parcel Boundary		Maintenance Easement		Roadway Easement
	Assessor Parcel Numbers		PG&E Electrical Transmission Easement (Overhead Easement)		Temporary Construction Easement
	111-11-111 Parcel Numbers		Private Ingress Egress Easement		Staging Area

Figure 3.14-1
Right-of-Way Requirements for the Proposed Changes
(Sheet 6 of 12)



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<p>Legend</p> <p> Capitol Expressway Corridor</p> <p> Parcel Boundary</p> <p>Assessor 111-11-111 Parcel Numbers</p>	<p>Permanent Impacts</p> <p> Right-of-Way Take</p> <p> Maintenance Easement</p> <p> PG&E Electrical Transmission Easement (Overhead Easement)</p> <p> Private Ingress Egress Easement</p>	<p> Public Service Easement</p> <p> Roadway Easement</p> <p>Temporary Impacts</p> <p> Temporary Construction Easement</p> <p> Staging Area</p>	<p>Figure 3.14-1 Right-of-Way Requirements for the Proposed Changes (Sheet 7 of 12)</p>
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Legend

- Capitol Expressway Corridor
- Parcel Boundary
- Assessor
- Parcel Numbers

Permanent Impacts

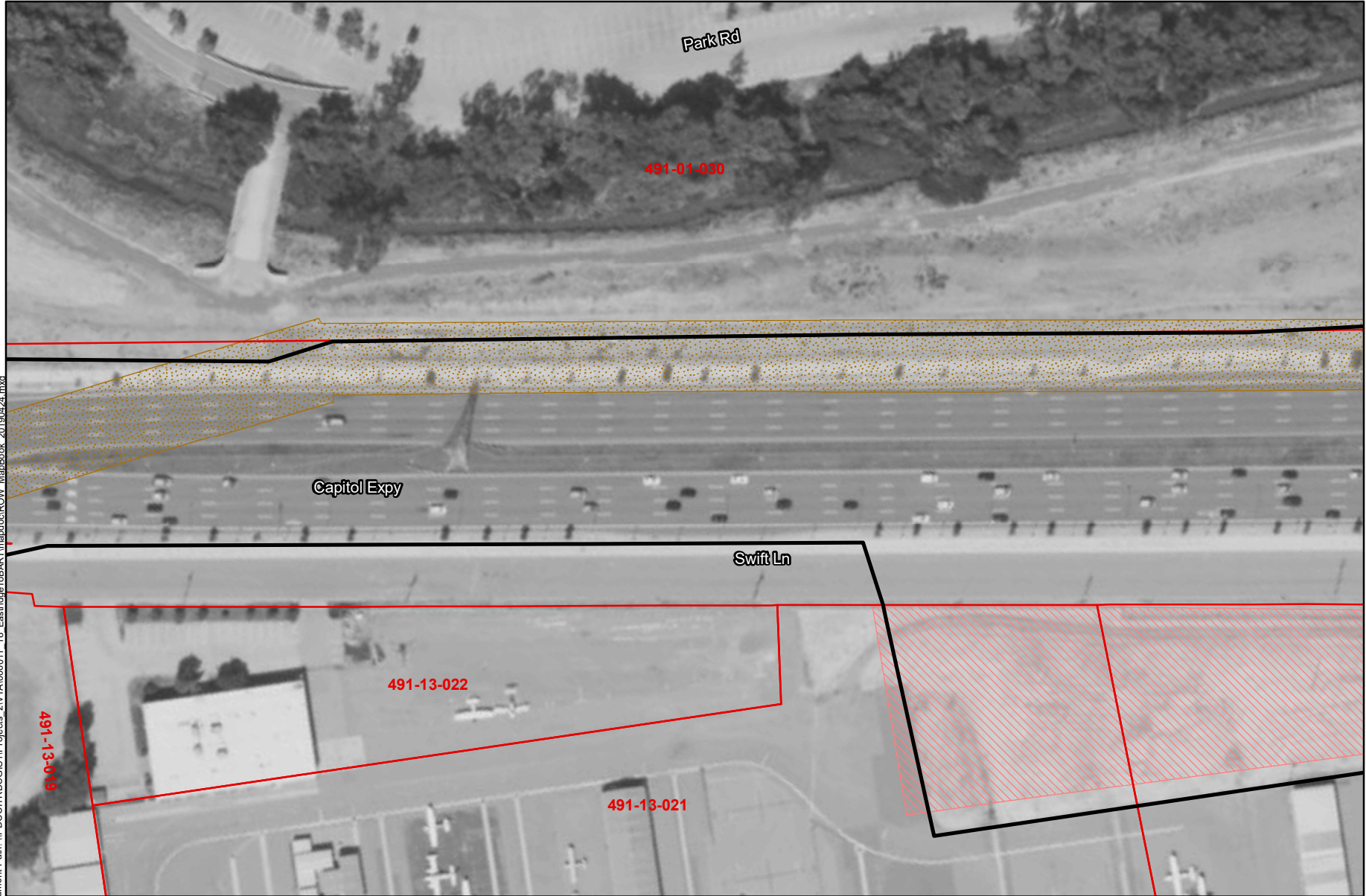
- Right-of-Way Take
- Maintenance Easement
- PG&E Electrical Transmission Easement (Overhead Easement)
- Private Ingress Egress Easement

- Public Service Easement
- Roadway Easement

Temporary Impacts

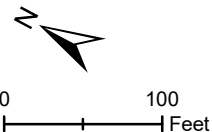
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- Staging Area

Figure 3.14-1
Right-of-Way Requirements for
the Proposed Changes
 (Sheet 8 of 12)



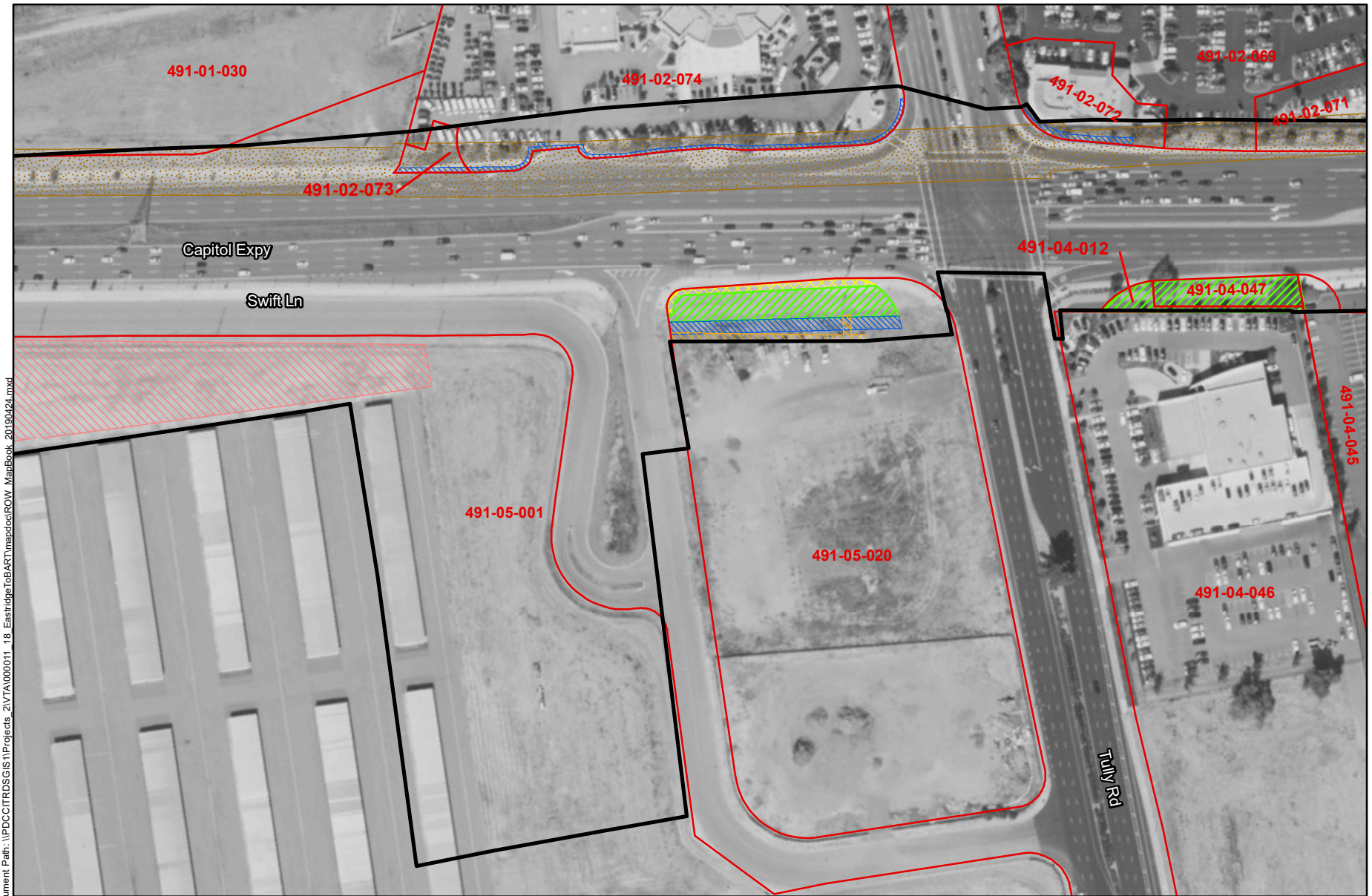
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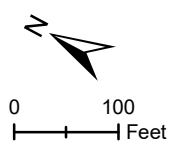


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| Legend | | Permanent Impacts | | Temporary Impacts | |
| | Capitol Expressway Corridor | | Right-of-Way Take | | Public Service Easement |
| | Parcel Boundary | | Maintenance Easement | | Roadway Easement |
| | Assessor | | PG&E Electrical Transmission Easement (Overhead Easement) | | Temporary Construction Easement |
| | Parcel Numbers | | Private Ingress Egress Easement | | Staging Area |
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Figure 3.14-1
Right-of-Way Requirements for the Proposed Changes
 (Sheet 9 of 12)

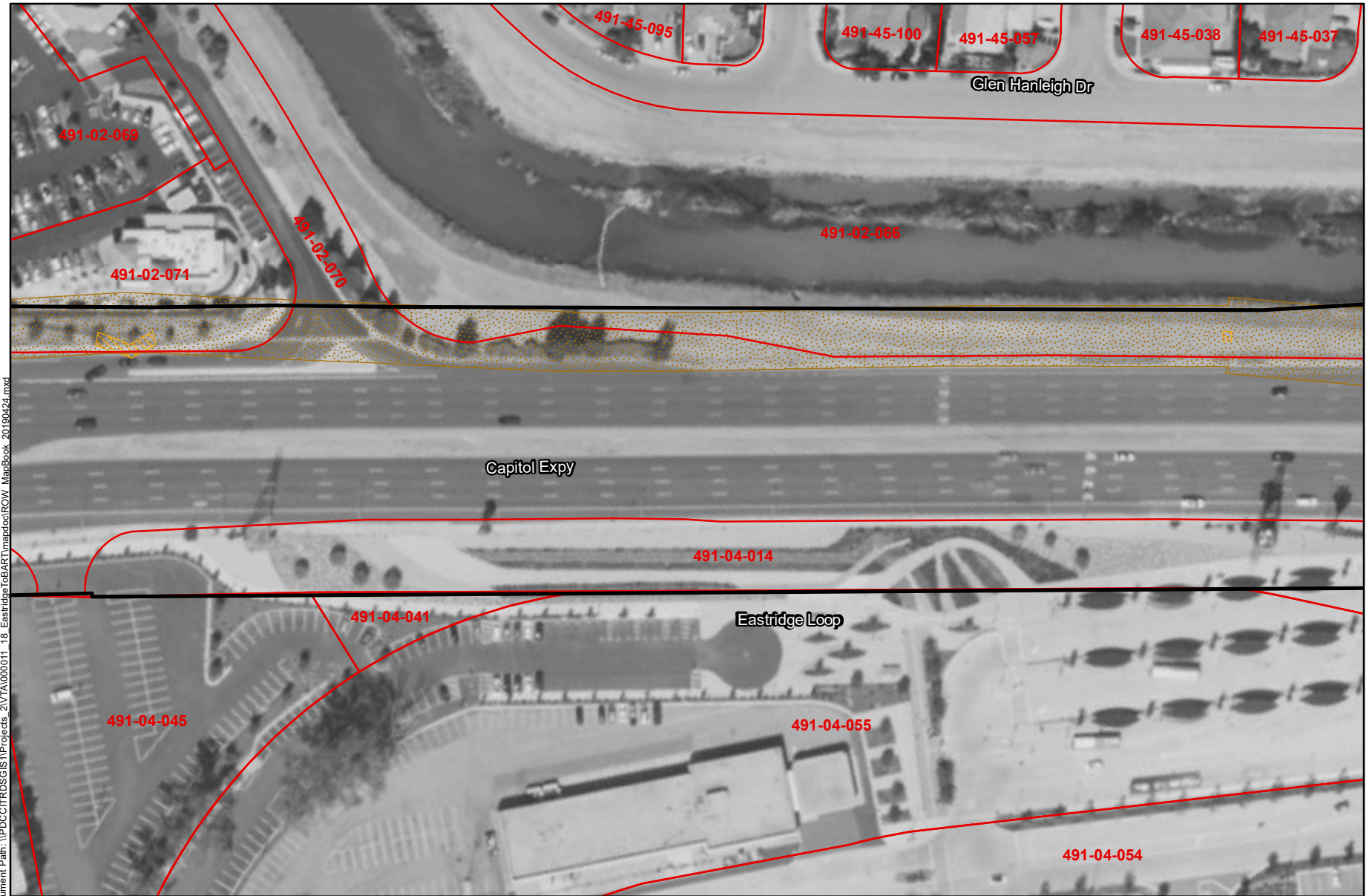


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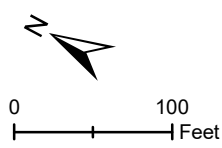
Legend		Permanent Impacts		Temporary Impacts	
	Capitol Expressway Corridor		Right-of-Way Take		Public Service Easement
	Parcel Boundary		Maintenance Easement		Roadway Easement
	Assessor		PG&E Electrical Transmission Easement (Overhead Easement)		Temporary Construction Easement
	Parcel Numbers		Private Ingress Egress Easement		Staging Area

Figure 3.14-1
Right-of-Way Requirements for the Proposed Changes
 (Sheet 10 of 12)



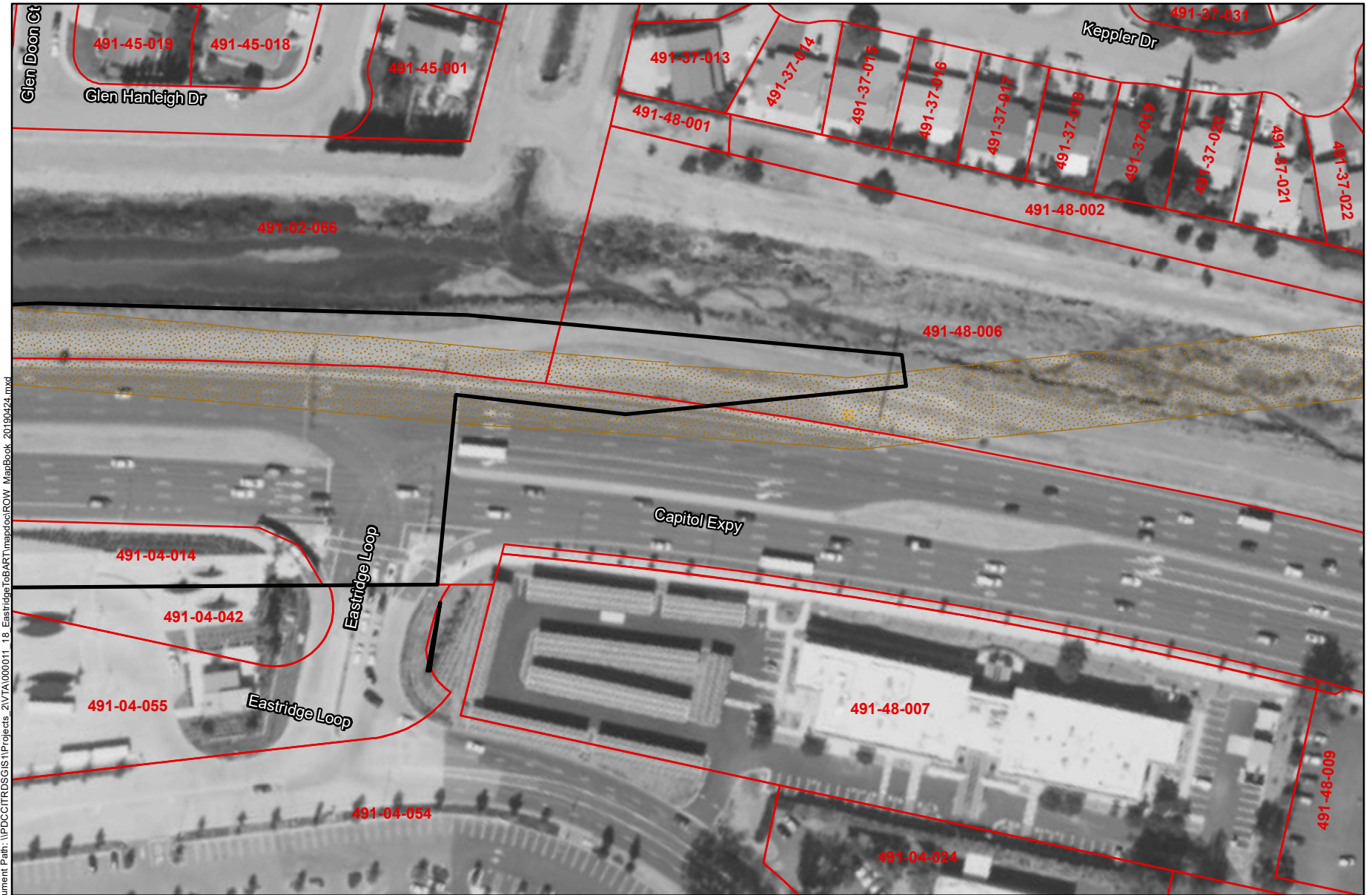
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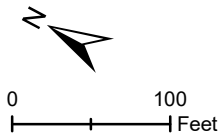
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|---------------|-----------------------------|--------------------------|---|--------------------------|---------------------------------|
| Legend | | Permanent Impacts | | Temporary Impacts | |
| | Capitol Expressway Corridor | | Right-of-Way Take | | Public Service Easement |
| | Parcel Boundary | | Maintenance Easement | | Roadway Easement |
| | Assessor | | PG&E Electrical Transmission Easement (Overhead Easement) | | Temporary Construction Easement |
| | Parcel Numbers | | Private Ingress Egress Easement | | Staging Area |

Figure 3.14-1
Right-of-Way Requirements
for the Proposed Changes
 (Sheet 11 of 12)



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- Legend**
- Capitol Expressway Corridor
 - Parcel Boundary
 - Assessor
 - Parcel Numbers

- Permanent Impacts**
- Right-of-Way Take
 - Maintenance Easement
 - PG&E Electrical Transmission Easement (Overhead Easement)
 - Private Ingress Egress Easement

- Public Service Easement
 - Roadway Easement
- Temporary Impacts**
- Temporary Construction Easement
 - Staging Area

Figure 3.14-1
Right-of-Way Requirements for the Proposed Changes
 (Sheet 12 of 12)

Table 3.14-3 Preliminary Property Right-of-Way Requirements for the Proposed Changes

No.	Assessor's Parcel Number	Address	Existing Use	Right-of-Way Needed	Right-of-Way Requirement (square feet)		Partial or Full Right-of-Way Requirement
					Permanent	Temporary	
1	484-33-108	2701 Story Road	Business	TCE	0	237	Partial
2 1	488-01-041	2710 Story Road	Business	Partial Fee Take, TCE, Permanent Easement, Access Restriction	1,175	1,845 2,405	Partial
3 2	488-01-002	1148 Kollmar Drive	Business	Partial or Full Fee Take, ¹ TCE	2,428	1,523	Partial
4 3	488-01-004	2710 Kollmar Drive	Multi-Family	TCE	0	687 978	Partial
5	488-01-037	2709 Sussex Drive	Single-Family	TCE	0	74	Partial
6 4	491-01-016	SE Corner of Capitol Expressway & Cunningham Avenue	Public	Partial Fee Take, TCE ²	514 761	701 771	Partial
7 5	491-02-073	3000 E. Capitol Expressway	Business	Partial Fee Take, TCE, Permanent Easement	2,246 2,470	1,757 473	Partial
8 6	491-02-074	3001 E. Capitol Expressway	Business	Partial Fee Take, TCE, Permanent Easement	8,496 13,400	10,582 3,122	Partial
9 7	491-02-069	2880 E. Capitol Expressway	Business	Permanent Easement	922 2,260	0	Partial
10 8	491-02-070	2950 E. Capitol Expressway	Business	Permanent Easement	1,582 2,514	0	Partial
11 9	491-02-071	2950 E. Capitol Expressway	Business	Permanent Easement	4,644 9,786	0	Partial
12 10	491-02-072	2990 E. Capitol Expressway	Business	TCE, Permanent Easement	1,194 4,445	1,917	Partial
13 11	491-02-066	Thompson Creek	Public	Permanent Easement	21,770 38,690	0	Partial
14 12	491-48-006	Thompson Creek	Public	Permanent Easement	4,706 43,240	0	Partial

No.	Assessor's Parcel Number	Address	Existing Use	Right-of-Way Needed	Right-of-Way Requirement (square feet)		Partial or Full Right-of-Way Requirement
					Permanent	Temporary	
15 13	484-45-060	2686 Lombard Avenue	Single-Family	TCE	0	465	Partial
16 14	484-45-061	353 S. Capitol Avenue	Single-Family	TCE	0	337	Partial
17 15	484-45-062	455 S. Capitol Avenue	Single-Family	TCE	0	310	Partial
18 16	484-45-116	461 S. Capitol Avenue	Business	Partial Fee Take, TCE	2,277 2,168	2,223 2,462	Partial
19 17	484-34-015	1017 S. Capitol Avenue	Single-Family	TCE	0	250	Partial
20 18	484-34-016	1033 S. Capitol Avenue	Single-Family	Partial Fee Take, Permanent Easement, TCE	22	250	Partial
21 19	484-34-017	1049 S. Capitol Avenue	Single-Family	Partial or Full Fee Take, ⁺ Permanent Easement, TCE	225	335	Partial
22 20	484-34-131	1091 & 1093 S. Capitol Avenue	Business	Partial or Full Fee Take ¹ , TCE	1,829	277 533	Partial or Full
23 21	484-34-019	2695 Story Road	Business	Partial Fee Take, TCE	3,977 3,979	878 957	Partial
24 22	486-39-025	1330 Foxdale Loop	Multi-Family	TCE	0	4,593 943	Partial
25 23	486-43-106	2690 Story Road	Business	Partial Fee Take, TCE	1,479 1,629	3,343 2,364	Partial
26	486-43-108	2680 Story Road	Business	TCE, Permanent Easement	3	6	Partial
27 24	491-15-003	Reid-Hillview Airport	Public	Partial Fee Take, TCE, Permanent Easement	8,299 10,600	1,084 1,154	Partial

No.	Assessor's Parcel Number	Address	Existing Use	Right-of-Way Needed	Right-of-Way Requirement (square feet)		Partial or Full Right-of-Way Requirement
					Permanent	Temporary	
28 25	491-15-041	Swift Avenue	Utility	Partial Fee Take, TCE Permanent Easement ²	1,817	816 2,746	Partial
29 26	491-13-009	Reid-Hillview Airport	Public	Permanent Easement	1,401	0	Partial
30	491-05-001	North of Airport Access Road	Public	TCE, Permanent Easement	1,699	106,481	Partial
34 27	491-05-020	Reid-Hillview Airport	Public	Partial Fee Take, Permanent Easement, TCE	16,598 16,598	5,169 5,169	Partial
32 28	491-04-012	290 E. Capitol Expressway	Business	Full Fee Take	3,030 3,019	0	Full
33 29	491-04-047	290 E. Capitol Expressway	Business	Full Fee Take	5,864 5,852	0	Full
34 30	484-33-110	2785 Mervyns Way	Public	Partial Fee Take, TCE	374 841	642 640	Partial
35 31	NA 491-13-021	NA² Laydown Area at Reid-Hillview	Public Right-of-Way	Permanent Easement TCE	32,575 0	0 26,067	Partial
36 32	NA 491-05-001	NA² Laydown Area at Reid-Hillview	Public Right-of-Way	Permanent Easement TCE	4,134 0	0 73,553	Partial
33	491-01-030	City-owned Parcel at Lake Cunningham	Public	Permanent Easement	47	0	Partial
34	491-37-106	2530 Quimby Road	Single-Family	Permanent Easement	823	0	Partial
35	-	Capitol Expressway	Public	Permanent Easement (Sanitary Sewer)	519	0	Partial
Total Right-of-Way Needed:					135,280 172,666	146,782 129,724	NA

No.	Assessor's Parcel Number	Address	Existing Use	Right-of-Way Needed	Right-of-Way Requirement (square feet)		Partial or Full Right-of-Way Requirement
					Permanent	Temporary	

Notes:

TCE = Temporary Construction Easement; NA = Not Applicable; IEE = Ingress Egress Easement

Partial Fee Take refers to the partial right-of-way need of a parcel; Full Fee Take refers to the full right-of-way need of a parcel.

¹ These areas are within public right-of-way, and do not have an Assessor's Parcel Number or address associated with them.

Source: BKF 2018 2019.

Attachment A

Notice of Preparation and Public Scoping with Comments Received

NOTICE OF PREPARATION

May 29, 2018

To:
Reviewing Agencies and Organizations

From:
Santa Clara Valley Transportation Authority
Environmental Programs
3331 North First Street, Building B-2
San Jose, CA 95134-1927

SUBJECT: Notice of Preparation of a Draft Second Supplemental Environmental Impact Report for the Eastridge to BART Regional Connector: Capitol Expressway Light Rail Project

The Santa Clara Valley Transportation Authority (VTA), as the lead agency under the California Environmental Quality Act (CEQA), will prepare a Draft Second Supplemental Environmental Impact Report (Draft SEIR-2) for the Eastridge to BART Regional Connector: Capitol Expressway Light Rail Project (EBRC-CELR or Project). We request the views of your agency as to the scope and content of the environmental information, which is germane to your agency's statutory responsibilities in connection with the proposed project. The Draft SEIR-2 will supplement the Final Environmental Impact Report (Final EIR) (SCH 2001092014), Final Supplemental Environmental Impact Report (Final SEIR-1), and the Subsequent Initial Study/Mitigation Negative Declaration (Subsequent IS/MND), which were certified by the VTA Board of Directors in May 2005, August 2007, and March 2014, respectively. Your agency may need to use the Final EIR, Final SEIR-1, and Subsequent IS/MND available here: <http://www.vta.org/projects-and-programs/transit/capitol-expressway-light-rail-project/library> as well as this SEIR-2 prepared by our agency when considering permits or other approvals for the EBRC-CELR Project.

The project description, location, overview, and potential environmental effects are contained in the attached materials. A copy of the Initial Study is is not attached.


Because of the time limits mandated by State law, your response must be sent at the earliest possible date, but no later than 30 days after receipt of this notice.

Please send your response to Christina Jaworski at the address shown above or via email at EBRC-CELR-Comments@vta.org . We request that the name for a contact person in your agency be provided with your response.

Project Title: Eastridge to BART Regional Connector: Capitol Expressway Light Rail Project (formerly named "Downtown East Valley Capitol Expressway Corridor" and "Capitol Expressway Corridor")

Project Applicant, if any: Santa Clara Valley Transportation Authority

Date: 05/29/18

Signature: 

Name: Christina Jaworski

Title: Senior Environmental Planner

Telephone: (408) 321-5789

Email: EBRC-CELR-Comments@vta.org

Reference: California Code of Regulations, Title 14, (State CEQA Guidelines) Section 15082(a), 15103, 15375.

**Attachment to the Notice of Preparation of a
Draft Second Supplemental Environmental Impact Report for the
Eastridge to BART Regional Connector: Capitol Expressway Light Rail Project**

Introduction

The Santa Clara Valley Transportation Authority's (VTA's) Eastridge to BART Regional Connector: Capitol Expressway Light Rail Project (approved project) is located in the City of San José. The approved project (discussed below under *Approved Project*) would be implemented in two distinct phases. The first phase consisted of pedestrian and bus improvements, including sidewalk, landscaping, and lighting along Capitol Expressway; bus stop improvements at Story Road and Ocala Avenue; and the replacement of Eastridge Transit Center. Construction of the pedestrian and bus improvements was completed in 2012 and the replacement of Eastridge Transit Center was completed in 2015. The second phase consists of the extension of light rail along Capitol Expressway between the existing Alum Rock Light Rail Station and Eastridge Transit Center, a distance of approximately 2.4 miles.

Following project approval (discussed below under *Prior Environmental Documentation*), work began on Preliminary Engineering (PE), which advanced designs to a greater level of detail. Because of the nature of the design changes recently proposed during PE (discussed below under *Changes to the Approved Project*), VTA determined that additional environmental review is required and that a Draft Second Supplemental Environmental Impact Report (Draft SEIR-2) is the appropriate level of documentation. An SEIR is prepared only if minor additions or changes would be necessary to make the previous EIR adequately apply to the changed situation. According to Section 15163(b) of the California Environmental Quality Act (CEQA) Guidelines, the SEIR needs to only contain the information necessary to make the previous EIR adequate for the project as revised.

Prior Environmental Documentation

The federal and state environmental process for the approved project was initiated in September 2001 with the publication of a Notice of Intent (NOI) to prepare an Environmental Impact Statement (EIS) in the federal register and the filing of the Notice of Preparation of an Environmental Impact Report (EIR) with the State Clearinghouse. A Draft EIS/EIR was circulated in April 2004, but only a Final EIR was completed as a result of limited opportunities for securing federal funds.

In May 2005, the VTA Board of Directors certified the Final EIR and approved the Light Rail Alternative. As a result of PE, the Light Rail Alternative was modified to address agency comments, improve operations, minimize right-of-way acquisition and lower costs. The VTA Board of Directors certified a Final Supplemental EIR (Final SEIR) and approved these modifications in August 2007.

Due to unprecedented declines in revenues beginning in 2008, the implementation plan for the Light Rail Alternative was modified to construct the project in phases. An Addendum was approved in June 2010 that included the installation of pedestrian and bus

improvements as Phase 1 and the extension of light rail along Capitol Expressway as Phase 2.

A Subsequent Initial Study/Mitigated Negative Declaration (IS/MND) was approved in March 2014 that eliminated the Ocala Station, eliminated sidewalk widening and sound wall relocation north of Ocala Avenue, and expanded the Eastridge Park-and-Ride lot.

Proposed Location

The approved project is located along Capitol Expressway, generally between Capitol Avenue and north of Quimby Road in the City of San Jose in Santa Clara County. Exhibit 1 depicts the approved project alignment and the proposed changes to the approved project (discussed below under *Approved Project* and *Changes to the Approved Project*).

Approved Project

The approved project would consist of the extension of light rail along Capitol Expressway between the existing Alum Rock Light Rail Station and Eastridge Transit Center, a distance of approximately 2.4 miles. Light rail would operate primarily in the median of Capitol Expressway within exclusive and semi-exclusive rights-of-way. To provide the additional right-of-way to accommodate light rail, high-occupancy vehicle lanes (HOV lanes) would be removed between Capitol Avenue and Tully Road. The alignment would include an elevated section that would extend from Capitol Avenue north of the Capitol Expressway intersection to south of Story Road, and an elevated crossing of Tully Road. The approved project would include new light rail stations at Story Road (aerial) and Eastridge Transit Center (at-grade). At Eastridge Station, the existing Park-and-Ride lot would be expanded to accommodate the project. The approved project would also include traction power substations at Ocala Avenue and Eastridge Transit Center. Five 115-kilovolt electrical transmission towers and two tubular steel poles (TSPs) would require relocation from the median of Capitol Expressway to the east side of Capitol Expressway in order to accommodate the approved project.

Changes to the Approved Project

VTA is proposing changes to certain elements of the approved project, including:

- Extension of the aerial guideway (south of Story Road) to grade-separate the Ocala Avenue and Cunningham Avenue intersections;
- Revisions to Capitol Expressway roadway lane configurations (including the conversion of the existing high-occupancy vehicle lanes to general purpose traffic lanes and maintaining eight lanes between Story Road and Capitol Avenue);
- Modifications to Eastridge Station platforms and track;
- Reduction in parking spaces at Eastridge Park-and-Ride lot;
- Modification of the Story Station pedestrian overcrossing;
- Modification to Story Station pedestrian access; and
- Relocation of a construction staging area.

Exhibit 2 provides a detailed description of the proposed changes to the approved project.

Proposed Scope and Content of the SEIR-2

The purpose of the SEIR-2 is to disclose the environmental consequences of the proposed changes to the approved project. The SEIR-2 will explore the extent to which the proposed changes will result in environmental impacts and discuss actions to reduce or eliminate such impacts. Based on the proposed changes, VTA is proposing to focus the SEIR-2 on the following topics of potential environmental effects:

- Transportation
- Noise and Vibration
- Environmental Justice

To ensure that the significant environmental issues are identified, and reasonable alternatives and mitigation measures are considered, comments and suggestions are invited from all interested parties on the scope and content of the SEIR-2. Comments or questions on the SEIR-2 should be directed to VTA as noted below.

Scoping Meeting

VTA will hold a public scoping meeting for the project. The meeting will begin with staff presentations on the project's history, proposed changes to the project, and the environmental process. The meeting will conclude with an open house where attendees can receive additional project information, ask questions, and submit written comments on the scope and content of the SEIR-2. Details of the scoping meeting are as follows:

Thursday, June 14, 2018

6:00 to 8:00 p.m.

William C. Overfelt High School

Multi-Purpose Room (Building F, Room 5F)

1835 Cunningham Avenue

San Jose, CA 95122

This location is served by VTA Bus routes 22, 70, and 77.

Individuals who require language translation, American Sign Language, or documents in accessible formats are requested to contact VTA Community Outreach at (408) 321-7575 / TTY (408) 321-2330 at least five business days before the meeting. The meeting facility is accessible to persons with disabilities.

Comment Due Date

Written scoping comments must be received by **June 28, 2018** and can be sent via the following methods to:

Mail: Christina Jaworski, Senior Environmental Planner
Santa Clara Valley Transportation Authority
Environmental Programs
3331 North First Street, Building B-2
San Jose, CA 95134-1927

E-mail: EBRC-CELR-Comments@VTA.org

For Further Information Contact

For further information regarding the environmental process, to be included on the project mailing list, or to receive additional information about the project, please contact Christina Jaworski at (408) 321-5789. People with special needs should contact VTA Community Outreach at (408) 321-7575 / TTY (408) 321-2330.

Issued on: May 29, 2018

Signature: Christina Jaworski
Christina Jaworski
Senior Environmental Planner
Environmental Programs and Resources Management



Exhibit 1
Proposed Changes to Capitol Expressway Light Rail Project

Exhibit 2: Detailed Description of the Proposed Changes to Approved Project

Location	Proposed Changes to the Approved Project
Capitol Expressway, from south of Story Road to north of Tully Road	<p data-bbox="558 336 1386 403"><u>Extension of the Aerial Guideway to Grade-Separate the Ocala Avenue and Cunningham Avenue Intersections</u></p> <p data-bbox="558 411 1386 609">The proposed change to the approved project would replace the at-grade track alignment with approximately 1.25 miles of aerial guideway from south of Story Road to north of Tully Road. The aerial guideway would include concrete columns supported on pile foundations. The aerial guideway would also include aerial sound walls.</p> <p data-bbox="558 625 1386 760">As a result of an additional left turn pocket (as discussed in detail below) on Capitol Expressway at Story Road, the alignment of the aerial guideway between Story Road and Foxdale Drive would be shifted slightly west by three feet.</p>
Capitol Expressway, between Capitol Avenue and Story Road, and at Story Road, Cunningham Avenue, and Tully Road intersections	<p data-bbox="558 772 1386 806"><u>Revisions to Capitol Expressway Roadway Lane Configurations</u></p> <p data-bbox="558 814 1386 911">The proposed change to the approved project would revise the roadway lane configurations along Capitol Expressway. The proposed roadway lane configuration changes include:</p> <ul data-bbox="558 919 1386 1814" style="list-style-type: none"> <li data-bbox="558 919 1386 1184">• <i>Four traffic lanes in each direction north of Story Road.</i> Both of the existing high occupancy vehicle (HOV) lanes (one northbound and one southbound) would be converted to general purpose (GP) traffic lanes, resulting in a total of four GP lanes in each direction between Story Road and Capitol Avenue. One southbound inner GP lane would end at the introduction of the left turn pockets at Story Road. This proposed change would be accomplished by the widening of Capitol Expressway and a reduction of the median. <li data-bbox="558 1192 1386 1255">• <i>Maintain two way street on Kollmar Drive between Story Road and Sussex Drive.</i> <li data-bbox="558 1264 1386 1398">• <i>Right turn lanes.</i> Exclusive right turn lanes on southbound Capitol Expressway would be added at Story Road, Cunningham Avenue, and Tully Road intersections. Exclusive right turn lanes will be maintained on northbound Capitol Expressway at Story Road. <li data-bbox="558 1407 1386 1566">• <i>Bicycle Slot.</i> At the locations where exclusive right turn lanes are added or maintained on Capitol Expressway (as discussed in detail above), bicycle slots would be included to the left of the right turn lanes. Exhibit 3 includes pictures of a typical bicycle slot with bicycle detector. <li data-bbox="558 1575 1386 1734">• <i>Left turn lanes.</i> Longer left turn lanes on Capitol Expressway would be added at the following intersections: northbound and southbound at Story Road, northbound at Ocala Avenue, and southbound at Tully Road. At Ocala Avenue, one northbound left turn lane would be removed. <li data-bbox="558 1743 1386 1814">• <i>Left turn pocket.</i> A second left turn pocket would be maintained on northbound Capitol Expressway at Story Road.
West of the Capitol Expressway, between	<p data-bbox="558 1827 1386 1860"><u>Modifications to Eastridge Station Platforms and Track.</u></p> <p data-bbox="558 1869 1386 1894">The approved project includes two platforms, additional tail tracks,</p>

Location	Proposed Changes to the Approved Project
Tully Road and Eastridge Loop	<p>and one traction power substation at the Eastridge Station. The proposed changes to the project include only one, center platform at Eastridge Station, which would be adequate for the anticipated patronage.</p> <p>Additional changes to the Eastridge Station include:</p> <ul style="list-style-type: none"> • Removal of the siding track; • Reconfigure tail tracks, including the addition of a pocket track; • Diamond crossover shifted from structure to ballast; • Addition of passenger access at north end of station (adjacent to the Park-and-Ride Lot); • Shift platform to north, which would eliminate reconstruction of Eastridge Loop/Capitol Expressway intersection; • Platform would be raised on retained fill; and, • Tully Road bridge crossing would be lowered.
West of the Capitol Expressway, between Tully Road and Eastridge Loop	<p><u>Reduction in Parking Spaces at Eastridge Park-and-Ride Lot</u></p> <p>The approved project includes 445 spaces at Eastridge Station to partially address the increased demand for parking from the project. VTA is proposing to reduce the parking to approximately 200 spaces due to the relocation of VTA Paratransit staff and vehicles to a remodeled building at this location in September 2017.</p>
Capitol Expressway (northbound), south of Story Road	<p><u>Modification of the Story Station Pedestrian Overcrossing</u></p> <p>The approved project includes a pedestrian overcrossing at the Story Station. The proposed change to the project would adjust the location of the eastern and western landings of the pedestrian overcrossing. On the east side of the pedestrian overcrossing, this change would maintain an existing driveway along Capitol Expressway into the gas station located south of Story Road. On the west side of the pedestrian overcrossing, this change would provide for improved clearances at the bottom of the access stairs, the crosswalk ramps, and the waiting areas at the intersection.</p>
Capitol Expressway/ Story Road intersection	<p><u>Modification to Story Station Pedestrian Access</u></p> <p>The approved project also includes a pedestrian access point to Story Station at the median. The proposed change to the project would restrict pedestrian access to the Story Station at the median to emergency purposes only.</p>
Northwest corner of the Capitol Expressway/ Tully Road intersection	<p><u>Relocation of a Construction Staging Area</u></p> <p>The approved project includes a construction staging area at Capitol Expressway/Tully Road. The proposed change to the project would eliminate this construction staging area. Thus, the project will require additional areas for staging construction material and equipment. The actual locations and associated access remain to be identified, and it is expected that the laydown areas will be adjacent to the roadway in areas that are either vacant or available for use.</p>



a. View of an example bike slot facing west at Lawrence Expressway and Cabrillo Avenue in the City of Santa Clara.



b. View of a bike detector embedded in a bike slot. The purpose of a bike detector is to detect a bicyclist approaching an intersection and communicate with the traffic signal cabinet to provide enough time for cyclists to safely cross an intersection.

Source: VTA and ICF 2018.

Viramontes, Jessica

Subject: FW: Eastridge to BART Regional Connector: Notice of Preparation

From: Sheppard, Barry [<mailto:B2SZ@pge.com>]
Sent: Tuesday, June 26, 2018 12:51 PM
To: Jaworski, Christina
Cc: Feron, Ethan; Galicia, Mark; Liddell, Brandon; Thomas, David; Techangam, Mae
Subject: FW: Eastridge to BART Regional Connector: Notice of Preparation

Christina

Please see PG&E comments below, the scope description in the NOP page 2 does not match the planned construction scope planned by PG&E.
Please let me know if you have any questions.

Thanks
Barry
Cell 415 320 2246

From: Galicia, Mark
Sent: Thursday, June 07, 2018 4:47 PM
To: Sheppard, Barry <B2SZ@pge.com>
Cc: Purugganan, Steve <STP9@pge.com>; Techangam, Mae <C2TI@pge.com>; Liddell, Brandon <BxLg@pge.com>; Thomas, David <DLTg@pge.com>; Quach, Ted <TPQ1@pge.com>; Withrow, Kevin <KIW1@pge.com>
Subject: RE: Eastridge to BART Regional Connector: Notice of Preparation

Barry,

Page 2 of the NOP does not reflect the Tline scope per current design. Currently the documents reads:

Five 115-kilovolt electrical transmission towers and two tubular steel poles (TSPs) would require relocation from the median of Capitol Expressway to the east side of Capitol Expressway in order to accommodate the approved project.

Per our current design, six towers and two tubular steel poles (TSPs) would require relocation, and two new TSPs would be installed. There will be a total of 10 TSPs installed including both structure replacements and new structures. Of the existing structures being relocated, only 2 towers are currently located on the median.

*Mark Galicia, PE
Project Engineer
Pacific Gas & Electric Company
6111 Bollinger Canyon Rd. Room 2120-J
San Ramon, CA 94583
925-328-5340*

From: Sheppard, Barry
Sent: Tuesday, May 29, 2018 7:15 PM
To: Liddell, Brandon; Thomas, David; Quach, Ted; Galicia, Mark; Withrow, Kevin

Cc: Purugganan, Steve; Techangam, Mae
Subject: FW: Eastridge to BART Regional Connector: Notice of Preparation

All
Please let me know your comments by COB 6/8/18
Barry

From: Jaworski, Christina [<mailto:Christina.Jaworski@VTA.Org>]
Sent: Tuesday, May 29, 2018 4:18 PM
To: Sheppard, Barry <B2SZ@pge.com>
Subject: Eastridge to BART Regional Connector: Notice of Preparation

*******CAUTION: This email was sent from an EXTERNAL source. Think before clicking links or opening attachments.*******

May 29, 2018

Eastridge to BART Regional Connector: Capitol Expressway Light Rail
Notice of Preparation of a Draft Second Supplemental Environmental Impact Report

Attached to this email is the Notice of Preparation (NOP) of a Draft Second Supplemental Environmental Impact Report (SEIR-2) for the Eastridge to BART Regional Connector: Capitol Expressway Light Rail Project (project). The project would extend light rail along Capitol Expressway between the existing Alum Rock Light Rail Station and Eastridge Transit Center in the City of San Jose.

A Supplemental EIR is prepared only if minor additions or changes would be necessary to make the previous EIR adequately apply to the changed situation. According to Section 15163(b) of the California Environmental Quality Act (CEQA) Guidelines, the SEIR needs to only contain the information necessary to make the previous EIR adequate for the project as revised.

The NOP describes the project location, purpose and need, approved project, proposed changes to the project, probable environmental effects, and the time and location of the public scoping meeting. Additional information on this project can be found online at www.vta.org/eastridgetobart.

VTA is seeking your comments on the scope and content of the Draft SEIR-2. Comments are due by 5:00pm on **Thursday, June 28, 2018**.

If you have any questions about the NOP, please feel free to contact Christina Jaworski, Senior Environmental Planner, at (408) 321-5751 or Christina.Jaworski@vta.org.

Sincerely,

Christina Jaworski
Senior Environmental Planner

Santa Clara Valley Transportation Authority
3331 North First Street, Building B
San Jose, CA 95134-1927
Phone **408-321-5751**



Conserve paper. Think before you print.

FRAN INMAN, Chair
JAMES EARP, Vice Chair
BOB ALVARADO
YVONNE B. BURKE
LUCETTA DUNN
JAMES C. GHIEMMETTI
CARL GUARDINO
CHRISTINE KEHOE
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PAUL VAN KONYNENBURG

STATE OF CALIFORNIA

EDMUND G. BROWN Jr., Governor

SENATOR JIM BEALL, Ex Officio
ASSEMBLY MEMBER JIM FRAZIER, Ex Officio

SUSAN BRANSEN, Executive Director



CALIFORNIA TRANSPORTATION COMMISSION

1120 N STREET, MS-52
SACRAMENTO, CA 95814
P. O. BOX 942873
SACRAMENTO, CA 94273-0001
(916) 654-4245
FAX (916) 653-2134
<http://www.catc.ca.gov>

June 20, 2018

Ms. Christina Jaworski
Santa Clara Valley Transportation Authority
Environmental Programs
3331 North First Street, Building B-2
San Jose, CA 95134-1927

RE: Draft Second Supplemental Environmental Impact Report for the Eastridge to BART
Regional Connector: Capital Expressway Light Rail Project

The California Transportation Commission (Commission), as a Responsible Agency, received the Draft Second Supplemental Environmental Impact Report prepared by the Santa Clara Valley Transportation Authority to construct regional connector improvements in two phases. The first phase, which was already constructed in 2012 and 2015, consisted of pedestrian and bus improvements, including, sidewalk, landscaping, and lighting along Capitol Expressway; bus stop improvements at Story Road and Ocala Avenue; and the replacement of the Eastridge Transit Center. The second phase consists of the extension of light rail along Capitol Expressway between the existing Alum Rock Light Rail Station and Eastridge Transit Center, a distance of approximately 2.4 miles. The total project cost for Phase 1 and 2 is estimated at \$453,000,000.

The Commission has no comments with respect to the project purpose and need, the alternatives studied, the impacts evaluated, or the evaluation methods used. Please notify the Commission as soon as the environmental process is finalized since project funds cannot be allocated for project design, right of way, or construction until the final environmental document is complete. Once

Ms. Christina Jaworski
Draft Second Supplemental Environmental Impact Report
June 20, 2018
Page 2

the final environmental process is concluded, the Commission will consider the environmental impacts in determining whether to approve the project for future funding consideration.

Upon completion of the environmental process, please ensure the Commission is notified in writing whether the selected alternative identified in the final environmental document is consistent with the project as programmed by the Commission and included in the appropriate Regional Transportation Plan. In the absence of such assurance of consistency, the project may be considered inconsistent, and thus ineligible for funding.

If you have any questions, please contact Jose Oseguera, Assistant Deputy Director, at (916) 653-2094.

Sincerely,

Mitchell Wein FOR

SUSAN BRANSEN
Executive Director

c: Phil Stolarski, Chief, California Department of Transportation, Division of Environmental Analysis

Viramontes, Jessica

Subject: FW: Eastridge to BART Regional Connector: Capitol Expressway Light Rail Project Draft SEIR

From: Veronica Macias [<mailto:vmacias@mpesd.org>]

Sent: Tuesday, June 26, 2018 12:00 PM

To: EBRC-CELR-Comments

Subject: Eastridge to BART Regional Connector: Capitol Expressway Light Rail Project Draft SEIR

I oppose the construction of this expansion. I have a deep concern since currently on Ocala /Marten there are 5-6 schools and approximately another 8-10 schools along Story, Capital, Tully. Traffic is already an issue because of this on Capital Expressway. Losing lanes in both directions on Capital Expressway is not practical since school age children would not benefit from using the lightrail.

Veronica Macias
408-674-0174

PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298



June 27, 2018

Christina Jaworski
Santa Clara Valley Transportation Authority
3331 North First Street, Bldg. B-2
San Jose, CA 95134

Re: Notice of Preparation
Eastridge to BART Regional Connector: Capitol Expressway Light Rail Project draft
Environmental Impact Report
SCH # 2001092014

Dear Ms. Jaworski:

The California Public Utilities Commission (Commission) has jurisdiction over the safety of highway-rail crossings (crossings) in California. The California Public Utilities Code requires Commission approval for construction or alteration of crossings and grants the Commission exclusive power on design, alteration, and/or closure of rail crossings in California. The Commission's Rail Crossings and Engineering Branch (RCEB) has received a copy of the *Notice of Preparation (NOP)* from the State Clearinghouse for Santa Clara Valley Transportation Authority's (VTA's) proposed Eastridge to BART Regional Connector: Capitol Expressway Light Rail project.

According to the NOP, the project proposes a light rail extension along Capitol Expressway between Alum Rock Light Rail Station and Eastridge Transit Center. The light rail extension would continue the proposed aerial guideway to grade separate the Ocala Avenue and Cunningham Avenue intersections as well as construct associated pedestrian access to Story Station. Construction of new public crossings requires a formal application to the Commission for authorization, as discussed below.

Commission Rules and Regulations

The following link provides resources on the Commission's rules and regulations in regard to rail safety: <http://www.cpuc.ca.gov/rail/>.

Any modification to an existing or proposed new crossing is subject to a number of rules and regulations involving the Commission, including:

- California Public Utilities Code, Sections 1201 et al, which requires Commission authority to construct rail crossings;
- Commission's Rules of Practice and Procedure, which details the Formal Application process for construction or modification of a public crossing; and
- Commission's General Order (GO) 88-B, Rules for Altering Public Highway-Rail Crossings.

The design criteria for any proposed modification or new crossing construction shall comply with the following GOs:

- GO 26-D, Clearance on Railroads and Street Railroads as to Side and Overhead Structures, Parallel Tracks and Crossings;

- GO 72-B, Construction and Maintenance of Crossings – Standard Types of Pavement Construction at Railroad Grade Crossings;
- GO 75-D, Warning Devices for At-Grade Railroad Crossings;
- GO 118-A, Construction, Reconstruction and Maintenance of Walkways and Control, of Vegetation Adjacent to Railroad Tracks; and
- GO 128, Construction or Underground and Electrical Supply and Communication.

Federal Rules and Regulations

The project shall ensure compliance with federal regulations as well, including:

- Code of Federal Regulations, Title 49, Part 213 (49 CFR Part 213), Track Safety Standards;
- 49 CFR Part 214 Railroad Workplace Safety;
- 49 CFR Part 234, Grade Crossing Signal System;
- 49 CFR Part 236, Rules Standards and Instructions Governing the Installation, Inspection Maintenance, and Repair of Signal and Train Control Systems Devices, and Appliances.

Crossing Authorizations

RCEB staff is available for consultation on crossing safety matters. The following link provides more information on the Commission's GO 88-B and formal crossing application process:
<http://www.cpuc.ca.gov/crossings/>.

1. Formal Application

A Formal Application is required for construction of all new at-grade and grade separated crossings along the corridor in accordance with the Commission's Rules of Practice and Procedure. When the Capitol Expressway Light Rail project is clearly defined and prior to submission of a Formal Application, VTA should contact RCEB staff to arrange a diagnostic meeting with Commission staff and all interested parties to discuss relevant safety issues at each proposed crossing location, if any.

As part of its mission to reduce hazards associated with at-grade railroad crossings, the Commission's policy is to reduce the number of such crossings. New at-grade crossings would typically not be supported by Commission staff and long-term planning for the grade separation of the existing at-grade rail crossings should be considered.

2. GO 88-B Requests

Modification (including closure) of existing rail crossings is typically authorized through the Commission's GO 88-B process. If interested parties do not reach agreement regarding proposed modifications, a Formal Application to the Commission will be required in order to obtain authorization to implement the modifications.

Prior to submission of a GO 88-B request for authorization, VTA should arrange a diagnostic meeting with Commission staff and all interested parties to discuss relevant safety issues at the crossing location. Commission crossing safety web page is found at this link: <http://www.cpuc.ca.gov/crossings/>.

Christina Jaworski
SCH # 2001092014
Page 3 of 3
June 27, 2018

Thank you for your consideration of these comments. If you have any questions in this matter, please feel free to contact me at (415) 703-1327 or by email at willard.lam@cpuc.ca.gov.

Sincerely,

A handwritten signature in black ink, appearing to read 'Willard Lam', with a long, sweeping horizontal stroke extending to the left.

Willard Lam
Utilities Engineer
Rail Crossings and Engineering Branch
505 Van Ness Avenue
San Francisco, CA 94102

CC: State Clearinghouse

NATIVE AMERICAN HERITAGE COMMISSION

Environmental and Cultural Department
1550 Harbor Blvd., Suite 100
West Sacramento, CA 95691
Phone (916) 373-3710
Fax (916) 373-5471
Email: nahc@nahc.ca.gov
Website: <http://www.nahc.ca.gov>
Twitter: @CA_NAHC



June 27, 2018

Christina Jaworski
Santa Clara Valley Transportation Authority
3331 North First Street, Bldg B2
San Jose, CA 95134

RE: SCH#2001092014 Eastridge to Bart Regional Connector

Dear Ms. Jaworski,

The Native American Heritage Commission has received the Notice of Preparation (NOP), Draft Environmental Impact Report (DEIR) or Early Consultation for the project referenced above. The California Environmental Quality Act (CEQA) (Pub. Resources Code § 21000 et seq.), specifically Public Resources Code section 21084.1, states that a project that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment. (Pub. Resources Code § 21084.1; Cal. Code Regs., tit. 14, § 15064.5 (b) (CEQA Guidelines Section 15064.5 (b)). If there is substantial evidence, in light of the whole record before a lead agency, that a project may have a significant effect on the environment, an environmental impact report (EIR) shall be prepared. (Pub. Resources Code § 21080 (d); Cal. Code Regs., tit. 14, § 15064 subd.(a)(1) (CEQA Guidelines § 15064 (a)(1)). In order to determine whether a project will cause a substantial adverse change in the significance of a historical resource, a lead agency will need to determine whether there are historical resources with the area of project effect (APE).

CEQA was amended significantly in 2014. Assembly Bill 52 (Gatto, Chapter 532, Statutes of 2014) (AB 52) amended CEQA to create a separate category of cultural resources, "tribal cultural resources" (Pub. Resources Code § 21074) and provides that a project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment. (Pub. Resources Code § 21084.2). Public agencies shall, when feasible, avoid damaging effects to any tribal cultural resource. (Pub. Resources Code § 21084.3 (a)). **AB 52 applies to any project for which a notice of preparation or a notice of negative declaration or mitigated negative declaration is filed on or after July 1, 2015.** If your project involves the adoption of or amendment to a general plan or a specific plan, or the designation or proposed designation of open space, on or after March 1, 2005, it may also be subject to Senate Bill 18 (Burton, Chapter 905, Statutes of 2004) (SB 18). **Both SB 18 and AB 52 have tribal consultation requirements.** If your project is also subject to the federal National Environmental Policy Act (42 U.S.C. § 4321 et seq.) (NEPA), the tribal consultation requirements of Section 106 of the National Historic Preservation Act of 1966 (154 U.S.C. 300101, 36 C.F.R. § 800 et seq.) may also apply.

The NAHC recommends consultation with California Native American tribes that are traditionally and culturally affiliated with the geographic area of your proposed project as early as possible in order to avoid inadvertent discoveries of Native American human remains and best protect tribal cultural resources. Below is a brief summary of portions of AB 52 and SB 18 as well as the NAHC's recommendations for conducting cultural resources assessments. **Consult your legal counsel about compliance with AB 52 and SB 18 as well as compliance with any other applicable laws.**

AB 52

AB 52 has added to CEQA the additional requirements listed below, along with many other requirements:

1. Fourteen Day Period to Provide Notice of Completion of an Application/Decision to Undertake a Project: Within fourteen (14) days of determining that an application for a project is complete or of a decision by a public agency to undertake a project, a lead agency shall provide formal notification to a designated contact of, or tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice, to be accomplished by at least one written notice that includes:
 - a. A brief description of the project.
 - b. The lead agency contact information.
 - c. Notification that the California Native American tribe has 30 days to request consultation. (Pub. Resources Code § 21080.3.1 (d)).
 - d. A "California Native American tribe" is defined as a Native American tribe located in California that is on the contact list maintained by the NAHC for the purposes of Chapter 905 of Statutes of 2004 (SB 18). (Pub. Resources Code § 21073).
2. Begin Consultation Within 30 Days of Receiving a Tribe's Request for Consultation and Before Releasing a Negative Declaration, Mitigated Negative Declaration, or Environmental Impact Report: A lead agency shall begin the consultation process within 30 days of receiving a request for consultation from a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project. (Pub. Resources Code § 21080.3.1, subs. (d) and (e)) and prior to the release of a negative declaration, mitigated negative declaration or environmental impact report. (Pub. Resources Code § 21080.3.1(b)).
 - a. For purposes of AB 52, "consultation shall have the same meaning as provided in Gov. Code § 65352.4 (SB 18). (Pub. Resources Code § 21080.3.1 (b)).
3. Mandatory Topics of Consultation If Requested by a Tribe: The following topics of consultation, if a tribe requests to discuss them, are mandatory topics of consultation:
 - a. Alternatives to the project.
 - b. Recommended mitigation measures.
 - c. Significant effects. (Pub. Resources Code § 21080.3.2 (a)).
4. Discretionary Topics of Consultation: The following topics are discretionary topics of consultation:
 - a. Type of environmental review necessary.
 - b. Significance of the tribal cultural resources.
 - c. Significance of the project's impacts on tribal cultural resources.
 - d. If necessary, project alternatives or appropriate measures for preservation or mitigation that the tribe may recommend to the lead agency. (Pub. Resources Code § 21080.3.2 (a)).
5. Confidentiality of Information Submitted by a Tribe During the Environmental Review Process: With some exceptions, any information, including but not limited to, the location, description, and use of tribal cultural resources submitted by a California Native American tribe during the environmental review process shall not be included in the environmental document or otherwise disclosed by the lead agency or any other public agency to the public, consistent with Government Code sections 6254 (r) and 6254.10. Any information submitted by a California Native American tribe during the consultation or environmental review process shall be published in a confidential appendix to the environmental document unless the tribe that provided the information consents, in writing, to the disclosure of some or all of the information to the public. (Pub. Resources Code § 21082.3 (c)(1)).
6. Discussion of Impacts to Tribal Cultural Resources in the Environmental Document: If a project may have a significant impact on a tribal cultural resource, the lead agency's environmental document shall discuss both of the following:
 - a. Whether the proposed project has a significant impact on an identified tribal cultural resource.
 - b. Whether feasible alternatives or mitigation measures, including those measures that may be agreed to pursuant to Public Resources Code section 21082.3, subdivision (a), avoid or substantially lessen the impact on the identified tribal cultural resource. (Pub. Resources Code § 21082.3 (b)).

7. Conclusion of Consultation: Consultation with a tribe shall be considered concluded when either of the following occurs:
 - a. The parties agree to measures to mitigate or avoid a significant effect, if a significant effect exists, on a tribal cultural resource; or
 - b. A party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached. (Pub. Resources Code § 21080.3.2 (b)).

8. Recommending Mitigation Measures Agreed Upon in Consultation in the Environmental Document: Any mitigation measures agreed upon in the consultation conducted pursuant to Public Resources Code section 21080.3.2 shall be recommended for inclusion in the environmental document and in an adopted mitigation monitoring and reporting program, if determined to avoid or lessen the impact pursuant to Public Resources Code section 21082.3, subdivision (b), paragraph 2, and shall be fully enforceable. (Pub. Resources Code § 21082.3 (a)).

9. Required Consideration of Feasible Mitigation: If mitigation measures recommended by the staff of the lead agency as a result of the consultation process are not included in the environmental document or if there are no agreed upon mitigation measures at the conclusion of consultation, or if consultation does not occur, and if substantial evidence demonstrates that a project will cause a significant effect to a tribal cultural resource, the lead agency shall consider feasible mitigation pursuant to Public Resources Code section 21084.3 (b). (Pub. Resources Code § 21082.3 (e)).

10. Examples of Mitigation Measures That, If Feasible, May Be Considered to Avoid or Minimize Significant Adverse Impacts to Tribal Cultural Resources:
 - a. Avoidance and preservation of the resources in place, including, but not limited to:
 - i. Planning and construction to avoid the resources and protect the cultural and natural context.
 - ii. Planning greenspace, parks, or other open space, to incorporate the resources with culturally appropriate protection and management criteria.
 - b. Treating the resource with culturally appropriate dignity, taking into account the tribal cultural values and meaning of the resource, including, but not limited to, the following:
 - i. Protecting the cultural character and integrity of the resource.
 - ii. Protecting the traditional use of the resource.
 - iii. Protecting the confidentiality of the resource.
 - c. Permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or utilizing the resources or places.
 - d. Protecting the resource. (Pub. Resource Code § 21084.3 (b)).
 - e. Please note that a federally recognized California Native American tribe or a nonfederally recognized California Native American tribe that is on the contact list maintained by the NAHC to protect a California prehistoric, archaeological, cultural, spiritual, or ceremonial place may acquire and hold conservation easements if the conservation easement is voluntarily conveyed. (Civ. Code § 815.3 (c)).
 - f. Please note that it is the policy of the state that Native American remains and associated grave artifacts shall be repatriated. (Pub. Resources Code § 5097.991).

11. Prerequisites for Certifying an Environmental Impact Report or Adopting a Mitigated Negative Declaration or Negative Declaration with a Significant Impact on an Identified Tribal Cultural Resource: An environmental impact report may not be certified, nor may a mitigated negative declaration or a negative declaration be adopted unless one of the following occurs:
 - a. The consultation process between the tribes and the lead agency has occurred as provided in Public Resources Code sections 21080.3.1 and 21080.3.2 and concluded pursuant to Public Resources Code section 21080.3.2.
 - b. The tribe that requested consultation failed to provide comments to the lead agency or otherwise failed to engage in the consultation process.
 - c. The lead agency provided notice of the project to the tribe in compliance with Public Resources Code section 21080.3.1 (d) and the tribe failed to request consultation within 30 days. (Pub. Resources Code § 21082.3 (d)).

The NAHC's PowerPoint presentation titled, "Tribal Consultation Under AB 52: Requirements and Best Practices" may be found online at: http://nahc.ca.gov/wp-content/uploads/2015/10/AB52TribalConsultation_CalEPAPDF.pdf

SB 18

SB 18 applies to local governments and requires local governments to contact, provide notice to, refer plans to, and consult with tribes prior to the adoption or amendment of a general plan or a specific plan, or the designation of open space. (Gov. Code § 65352.3). Local governments should consult the Governor's Office of Planning and Research's "Tribal Consultation Guidelines," which can be found online at: https://www.opr.ca.gov/docs/09_14_05_Updated_Guidelines_922.pdf

Some of SB 18's provisions include:

1. **Tribal Consultation:** If a local government considers a proposal to adopt or amend a general plan or a specific plan, or to designate open space it is required to contact the appropriate tribes identified by the NAHC by requesting a "Tribal Consultation List." If a tribe, once contacted, requests consultation the local government must consult with the tribe on the plan proposal. **A tribe has 90 days from the date of receipt of notification to request consultation unless a shorter timeframe has been agreed to by the tribe.** (Gov. Code § 65352.3 (a)(2)).
2. **No Statutory Time Limit on SB 18 Tribal Consultation.** There is no statutory time limit on SB 18 tribal consultation.
3. **Confidentiality:** Consistent with the guidelines developed and adopted by the Office of Planning and Research pursuant to Gov. Code section 65040.2, the city or county shall protect the confidentiality of the information concerning the specific identity, location, character, and use of places, features and objects described in Public Resources Code sections 5097.9 and 5097.993 that are within the city's or county's jurisdiction. (Gov. Code § 65352.3 (b)).
4. **Conclusion of SB 18 Tribal Consultation:** Consultation should be concluded at the point in which:
 - a. The parties to the consultation come to a mutual agreement concerning the appropriate measures for preservation or mitigation; or
 - b. Either the local government or the tribe, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached concerning the appropriate measures of preservation or mitigation. (Tribal Consultation Guidelines, Governor's Office of Planning and Research (2005) at p. 18).

Agencies should be aware that neither AB 52 nor SB 18 precludes agencies from initiating tribal consultation with tribes that are traditionally and culturally affiliated with their jurisdictions before the timeframes provided in AB 52 and SB 18. For that reason, we urge you to continue to request Native American Tribal Contact Lists and "Sacred Lands File" searches from the NAHC. The request forms can be found online at: <http://nahc.ca.gov/resources/forms/>

NAHC Recommendations for Cultural Resources Assessments

To adequately assess the existence and significance of tribal cultural resources and plan for avoidance, preservation in place, or barring both, mitigation of project-related impacts to tribal cultural resources, the NAHC recommends the following actions:

1. Contact the appropriate regional California Historical Research Information System (CHRIS) Center (http://ohp.parks.ca.gov/?page_id=1068) for an archaeological records search. The records search will determine:
 - a. If part or all of the APE has been previously surveyed for cultural resources.
 - b. If any known cultural resources have been already been recorded on or adjacent to the APE.
 - c. If the probability is low, moderate, or high that cultural resources are located in the APE.
 - d. If a survey is required to determine whether previously unrecorded cultural resources are present.
2. If an archaeological inventory survey is required, the final stage is the preparation of a professional report detailing the findings and recommendations of the records search and field survey.
 - a. The final report containing site forms, site significance, and mitigation measures should be submitted immediately to the planning department. All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum and not be made available for public disclosure.

Viramontes, Jessica

Subject: FW: City of San Jose EBRC-CELR Comments

From: Nguyen, Joe D [<mailto:joed.nguyen@sanjoseca.gov>]

Sent: Thursday, June 28, 2018 3:28 PM

To: EBRC-CELR-Comments

Cc: Kimura, Josephine; Nguyen, Thuy (DOT); Gulzadah, Zahir

Subject: City of San Jose EBRC-CELR Comments

Hi Christina,

Please see attached for an Excel Sheet containing comments/concerns from City of San Jose Staff. Please note that these comments have been discussed with the County and they may be submitting similar comments.

Thank you,

Joe Nguyen

City of San José | Department of Transportation

200 E. Santa Clara St. 8th Floor

San José, CA 95113

P: (408) 794-7514

E: joed.nguyen@sanjoseca.gov

Comm	Comment
1	Remove driveway at station 997+00 on the eastside where Chevron Gas station is.
2	Driveway at Chevron by station 997+00 presents sight distance issues, will need to be eliminated.
3	Design at southeast corner of Story/Capitol Ex seems suboptimal; appears to prioritize maintaining gas station. Have you considered TOD opportunities? Also, ped access to POC could be improved.
4	Consider implementing a pick up & drop off zone or park & ride zone at the Story station
5	The plans appear to prioritize driveway access at the expense of station access and TOD opportunities as well as traffic operations (e.g. Story Rd intersection).
6	Where will the parking right lot be located for the Story Station? Potential neighborhood intrusion if parking is not available.
7	Extend bike lane along SB Capitol Ave up to Capitol Av/Capitol Expy intersection.
8	<p>Provide Class IV Separated Bike Lane on Capitol Expressway. The #1 lanes along Capitol Expressway can be decreased from 13' to 11' to increase the 8' bike lane to 10'. This will allow 2' of protection by installing k-rail for physical separation. Once the bike lane reaches the portion where the left turn pockets begin (where we no longer have the extra 2' from the #1 lane), bike lane will be brought up onto the sidewalk and converted to Class I Shared-use Path which would be shared with pedestrians through the intersection and the Class IV Separated Bike Lane will continue when the extra 2' is available again. The crosswalk through the intersection would have to be widened to accommodate the bicyclists and pedestrians.</p> <p>At south of Tully Rd/Capitol Expy intersection, remove the median island at the entrance to In-N-Out Burger plaza, eliminate the dedicated right turn lane, widen sidewalk between south of the median island and intersection to bring Class IV bike lane to sidewalk south of plaza entrance.</p>
9	<p>Narrow travel lanes to 11' generally, and 12' inside lane (#1/next to median). Use extra space to provide better bike and ped accommodation. As a standard through the corridor, include Class IV one-way protected bikeway (6'+3' separation).</p> <ul style="list-style-type: none"> -Where not feasible due to ROW constraints, maintain minimum 6' wide Class II bike lane -Where not feasible due to right turn lanes or large/busy driveways, use Green Pavement Enhancement (GPE) in transition area to highlight conflict zone -Do not exceed 7' width bike lane (if wider, it looks like travel lane and cars drive in)
10	Add two-stage left turn boxes for bikes at all signalized intersections (to facilitate left turn from Capitol onto cross street).
11	Where bike lane and parking are not present, provide 12' curb lane width as gutter does not serve as driving space. (i.e, SB Capitol Av right turn movement to WB Capitol Expy).
12	Apply Green Pavement Enhancement (GPE) to bikeways at signalized intersection approaches/departures, per DOT standards.
13	Provide Class II or IV Bikeways into/out of Eastridge entrance.

Comm	Comment
14	Include secure bike parking at LRT station area (e.g. electronic bike lockers, bike racks)
15	How will people with bikes get their bike up onto elevated platforms? -Include bike stair channels in stairs to platform.
16	Include ped median harbors with push button at all controlled, marked ped crossings of Capitol. (Currently plans have some, but not all. Use extra ROW from (1) above to fit.) Capitol is hugely wide and difficult for elderly or disabled to cross in one signal cycle.
17	Maintain bike/ped Neighborhood Access Points to Capitol (e.g., east side of Capitol, 400' north of Ocala, at S. Capitol Ave). Add more near bus and LRT stops on Capitol where neighborhood streets have only a fence (no buildings, etc.) separating them from Capitol.
18	NB Capitol Exp to NB Capitol Ave Right Turn: Square up corner and add stop control (remove free merging RTOL).
19	Excalibur at Capitol - Excalibur/Bambi/S.Capitol Ave will be a neighborhood bikeway connector south and west from Capitol to Jackson, Lower Silver Creek Trail, Goss School, Capitol Park. - Add Right, Thru, Left bike lanes.
20	At station 1073+00, add a teardrop island at the crosswalk on the west side of Capitol Expressway.
21	At station 1080+00 on the east side of Capitol Expressway, straighten the curb and sidewalk.
22	At stations 994+00, realign the crosswalk from median island of Capitol Expressway to the west side so that the crosswalk is closer to the intersection and will end closer to the center of the curb return.
23	At stations 982+00 to 984+00, new sidewalk on the east side should be 10' consistently and tree wells should be added to this new sidewalk.
24	At station 1084+00 to 1085+00 on the east side of Capitol Expressway, tighten the curb returns. The crosswalk should connect to the Thompson
25	As described in the NOP, Phase 1 of the Project includes bus stop improvements at Story Road and Ocala Avenue. Consider to include the following improvements at these bus stops: - ADA accessibility improvements - Construction/replacement of bus stop pavement pads, passenger waiting pads, and shelter pads - Addition or relocation of lighting - Crosswalk improvements such as special pavement, bollards, pedestrian-activated in-pavement lights, countdown signals, narrowing pedestrian crossing distance including reduced curve radii and/or curb bulbouts, etc.
26	Design of cul-de-sac at northwest corner of Story/Capitol Ex seems suboptimal. Consider redesigning. Provide pedestrian/bike access from S Capitol Ave frontage Rd (north of Story Rd) to the main street in order to provide access to the light rail station.

Comm	Comment
27	The Emergency access on the north side of the Story Rd intersection should be reoriented to the crosswalk and a made a general access entrance which can also serve emergency access.
28	The existing 8' to 10' sidewalk/path/trail must be sustained between Ocala and Tully. This alignment is defined as part of the Council-approved Lower Silver Creek Trail Master Plan. That does appear to occur with this plan, but We want to insure that the width of this facility is not compromised as the plans develop further.
29	On the northeast corner of Capitol Ave/Capitol Expressway, align crosswalk to the neighborhood path and sidewalk.
30	At stations 972+00 through 974+00, keep SB through/right turn lane all the way to intersection and remove pork chop island.
31	At station 1072+00 to 1072+50 on the east side of Capitol Expressway, tighten the curb returns.
32	At the northwest and southwest corners of Tully Rd/Capitol Expressway, tighten the curb returns.
33	Remove pork chop islands in the intersection of Capitol Ave & Capitol Expressway and tighten curb returns.
34	Evaluate curb return radii at T-intersection. The large curb radii cannot effectively slow down the turning movement from Capitol Expy to side streets (i.e, NB Capitol Expy Sta 1072+00, SB Capitol Expy Sta 1073+00, SB Capitol Expy Sta 1095+00, etc.)
35	At intersection of Story Rd/Capitol, the northeast and southwest curb returns should be tightened. On Story Rd, add a dedicated westbound right turn lane and eastbound right turn lane.
36	Since this is a Second Supplemental EIR for proposed changes to the already-approved project, include an analysis of both the approved project and the proposed changes for comparison.
37	Despite not a CEQA metric, consider to include a travel time analysis in the EIR and/or the appended transportation analysis report. Travel time by mode on Capitol Expressway between Existing and Project conditions can be roughly estimated using existing travel time data and intersection delay calculations.
38	Despite not a CEQA metric, consider to include estimated absolute and relative amount of mode shift to transit due to the Project, as well as the associated reduction in vehicle-miles traveled in the proximate area.
39	Consider to include complete street elements on Capitol Expressway (e.g. enhanced crossing, signage, and other bus stop improvements besides Ocala) to improve last-mile connection for transit riders.
40	Incorporate City's complete street design for the roadway. This is a transit corridor; people being able to access the transit particularly by non-vehicular modes, is important to the success of this project.
41	The Tully Road Vision Zero Safety Improvement Project has a project area on Tully Road that ends at Eastridge Lane before the Capitol/Tully intersection. The City, VTA, and the County should coordinate to ensure that the Project aligns well with the safety improvement project on Tully Road, including plans for the remaining segment of Tully Road between Eastridge Lane and Capitol Expressway.

Comm	Comment
42	Extend the second SB left turn queue lane at Story Rd and Capitol Expressway further north by cutting into the median. Light rail aerial alignment would have to be reworked between stations 979+00 and 982+00 in order to have the columns land further east on the median to create room for the lane extension.
43	Per Highway Design Manual 309.2 (2), " Pedestrian over-crossings shall have a minimum vertical clearance 2 feet greater than the standard for major structures for the State facility in question. " 15.5' vertical clearance is required for major structure for this project, therefore 17.5' vertical clearance is required for pedestrian overcrossing. It currently shows 17' in the minimum vertical clearance table.
44	Please evaluate if ROW take is required between north of Tully Rd/Capitol Expy intersection and end of project.
45	Please provide: a. Horizontal clearance between face of column and median face of curb on cross sections. Provide design standard where this horizontal clearance refers to. b. Design standard where the pedestrian vertical clearance refers to. It currently shows a 9' in the minimum vertical clearance table.
46	At stations 974+00 to 975+00 close off Highwood Dr that connects to NB Capitol Avenue.
47	On NB Excalibur Dr entering Capitol Ave/Capitol Expressway intersection, City do not support double left turn lanes. Roadway should be narrow
48	At station 1000+50, on the east side on Kollmar Dr, there is no need to convert to one-way. This will cut off access to high density residential apartments.
49	Kollmar Dr at station 998+00, street is too narrow.
50	At stations 997+00 to 997+50, on the west side of Capitol Expressway, do not bulbout sidewalk south of the elevator in order to provide deceleration area to the driveway. Also narrow and realign the driveway to the end of the bus pad.
51	Provide CCTV at Capitol Ave and Capitol Expressway.
52	Provide CCTV at Ocala and Capitol Expressway.
53	Provide CCTV at Story and Capitol Expressway.
54	Provide CCTV at Cunningham Ave and Capitol Expressway.
55	Provide CCTV at Tully and Capitol Expressway.
56	Provide conduit for communication between Capitol Ave & Capitol Expressway to Eastridge Transit Center.
57	Provide fiber optic cable from Alum Rock & Capitol Ave to Eastridge Transit Center.
58	Install 3" conduit for ITS (video surveillance and TSP)
59	Install PTZ cameras as part of traffic signal modifications for Capitol Ave/Capitol Exp, Story Rd/Capitol Exp, Ocala Ave/Capitol Exp, and Cunnigham Ave/Capitol Exp
60	Consider implementing new technology suitable for LRT priority, more advanced TSP.

Comm	Comment
61	Consider complete streets concept along corridor. Consider streetlights to be installed on Capitol Expressway beyond project limits.
62	Keep HOV lanes. Do not convert to mixed flow. This is contrary to CSJ GP mode shift goals.

Attachment B

Detailed Description of the Proposed Changes

Description of Recommended Light Rail Alternative

The following section integrates the approved components of the Light Rail Alternative from the 2005 Final Environmental Impact Report (EIR), 2007 Supplemental EIR, and the 2014 Subsequent Mitigated Negative Declaration (MND) with the proposed changes to provide a complete project description of the Recommended Light Rail Alternative.

Recommended Light Rail Alternative

The Recommended Light Rail Alternative would extend light rail along Capitol Expressway from the existing Alum Rock Light Rail Station to the Eastridge Transit Center a distance of approximately 2.4 miles. Light rail will operate primarily in the median of Capitol Expressway within exclusive and semi-exclusive rights-of-way. Property acquisition for the project would be minimized through the removal of two high-occupancy vehicle (HOV) lanes on Capitol Expressway between Story Road and Tully Road. The project will include new light rail stations at Story Road (aerial) and Eastridge Transit Center (at-grade). The project will also include traction power substations at Ocala Avenue and Eastridge Transit Center. Relocation and replacement of a number of 115-kilovolt steel lattice electrical transmission towers with Tubular Steel Poles (TSP) will be included in the project.

Figure 1 shows the location of the Recommended Light Rail Alternative.

Benefits of the Recommended Light Rail Alternative are related to speed and travel time. The light rail trains would travel at high speeds and would be minimally impacted by roadway congestion. As a result, travel times for the Recommended Light Rail Alternative would generally be faster, more reliable and dependable than other modes.

In addition, the Recommended Light Rail Alternative would benefit transit users by providing a direct light rail connection to the Bay Area Rapid Transit (BART) at the Milpitas BART Station.



Figure 1 Recommended Light Rail Alternative Project Area

Background. The Eastridge to BART Regional Connector Project is the last portion of the larger Capitol Expressway Corridor Project that transforms Capitol Expressway into a multi-modal boulevard offering pedestrian improvements, bus rapid transit (BRT), light rail transit (LRT), and convenient connections to the regional transit system. VTA first addressed pedestrian access and improved safety measures along Capitol Expressway between Quimby Road and Capitol Avenue. This was completed in Fall 2012 and included new sidewalks, street lighting, and landscaping . VTA also replaced the Eastridge Transit Center, which was completed in 2015.

In June 2016, VTA Board of Directors approved \$70 million to complete design, acquire right of way and relocate utilities for the project. In October 2016, VTA Board of Directors approved a full funding plan for the project. In May 2018, the VTA Board of Directors directed staff to proceed with environmental review of proposed changes to the project that resulted from the update to the engineering plans. At the same time, the VTA Board of Directors also approved a funding strategy to address the increase in capital cost of \$76 million. In June 2018, voters approved Regional Measure 3, which included \$130 million in funding for the project.

URBAN DESIGN

Since the conceptual engineering phase of the Capitol Expressway Corridor Project, there has been a consistent effort to incorporate attractive, urban design elements into the Light Rail Alternative. These principles reflect the policy guidance of the PAB. The following section highlights the key urban design elements of the Light Rail Alternative.

Urban Design Principles

- Transform the expressway from an auto-oriented corridor to a multi-modal boulevard.
- Establish pedestrian and bicycle linkages along and across the corridor to connect neighborhoods to activity centers.
- Design stations to facilitate safe and convenient pedestrian access and to convey the personality and identity of adjacent neighborhoods.
- Introduce special treatments along the edges of the boulevard to reduce visual and noise impacts and to create a more positive relationship with adjacent neighborhoods.
- Promote opportunities for transit-oriented development that will enhance ridership and the quality of life of the surrounding community.

STATIONS AS NEIGHBORHOOD GATEWAYS

The design of stations and their relationship with the adjacent neighborhoods is critical to promote a viable transit environment. Convenience, safety, and ease of

access for residents and employees arriving by foot, bike, bus, or car are primary design objectives. Additionally, stations can create identities and gateways to communities. Stations can also provide opportunities for neighborhood-serving retail uses and/or a mix of commercial, residential, and recreational uses. The Recommended Light Rail Alternative will be consistent with the goal to integrate high-quality design enhancements, designed by artists and project architects, that reflect the identity of the communities and neighborhoods in which they are located.

There are numerous examples of community influenced design enhancements that have been incorporated into VTA's existing light rail stations. For example, at Alum Rock Station, artists working in coordination with the community designed special railings, shelter canopy glass, pavers, art tile benches, and entry markers.

ALIGNMENT DESCRIPTION

The Recommended Light Rail Alternative would be designed to reduce travel time and to support higher speed transit operations with grade separation at congested intersections. Construction of the light rail would alter the roadway geometry along some portions of Capitol Expressway. Perhaps the most dramatic change would be the removal of existing HOV lanes between Story Road and Tully Road to provide the additional right-of-way to accommodate light rail. While some property needs would be required for improvements and for utility relocations, especially at stations and substations, the removal of the HOV lanes would minimize the need for additional property for the Recommended Light Rail Alternative and would be consistent with past policy decisions in the City of San Jose's Evergreen Specific Plan, Evergreen Specific Plan Transportation Improvements EIR and the Evergreen-East Hills Development Policy.

Alum Rock LRT Station to Story Road

The light rail alignment would begin at the existing Alum Rock LRT Station. In this section of the corridor, an aerial guideway would be constructed for the full distance from south of the Alum Rock LRT Station to south of Story Road to support higher speed transit operations and minimize congestion at major intersections. The guideway would be located largely in the median of Capitol Avenue and Capitol Expressway. The aerial guideway would include concrete columns supported on piled foundations. The aerial guideway would also include aerial sound walls where necessary to mitigate noise levels. Visual simulations of the aerial guideway are provided in Section 3.16, Visual Quality. At its northern end, the aerial structure would cross the northbound lanes of Capitol Avenue and Capitol Expressway and transition to an alignment in the median of Capitol Expressway. The light rail alignment would continue on the aerial structure over Story Road.

Story Road to Eastridge Transit Center

From south of Story Road, the Recommended Light Rail Alternative would continue on an aerial guideway for 1.25 miles to north of Tully Road. Before reaching Tully

Road, the aerial guideway would transition from median-running north of Tully Road to side-running south of Tully Road. The light rail alignment would continue on the aerial structure over Tully Road and return to grade on an embankment structure as it terminates at the Eastridge Transit Center

CROSSINGS

The Recommended Light Rail Alternative would include rail crossings along the corridor as shown in Table 1.

PROPOSED STATIONS AND PARK-AND-RIDE FACILITIES

Two new stations are included with the Recommended Light Rail Alternative between the northern terminus at the existing Alum Rock LRT Station and the southern terminus at the existing Eastridge Transit Center. The stations would be located approximately 1.0 miles apart. The placement of the proposed stations was based on the desire to balance convenient passenger access and minimize travel time delay. The following sections describe each station along the alignment of the Recommended Light Rail Alternative.

Alum Rock LRT Station (existing)

At its northern end, the Light Rail Alternative would connect to the existing light rail network at the Alum Rock LRT Station. No improvements are anticipated at this station.

Story Station (proposed)

The Recommended Light Rail Alternative includes a two-level station in the median of Story Road with a mezzanine level and an elevated center platform. Since the traffic volumes and pedestrian/bicycle activity at the Story Road intersection are high, a single set of pedestrian overcrossings (POC) would be located south of Story Road connecting the southern corners of the intersections to the station. From the mezzanine level, an elevator and stairs would provide access to the station platform. The Recommended Light Rail Alternative would restrict pedestrian access to the Story Station at the median to emergency purposes only.

Figure 2 shows the proposed project features at Story Station.

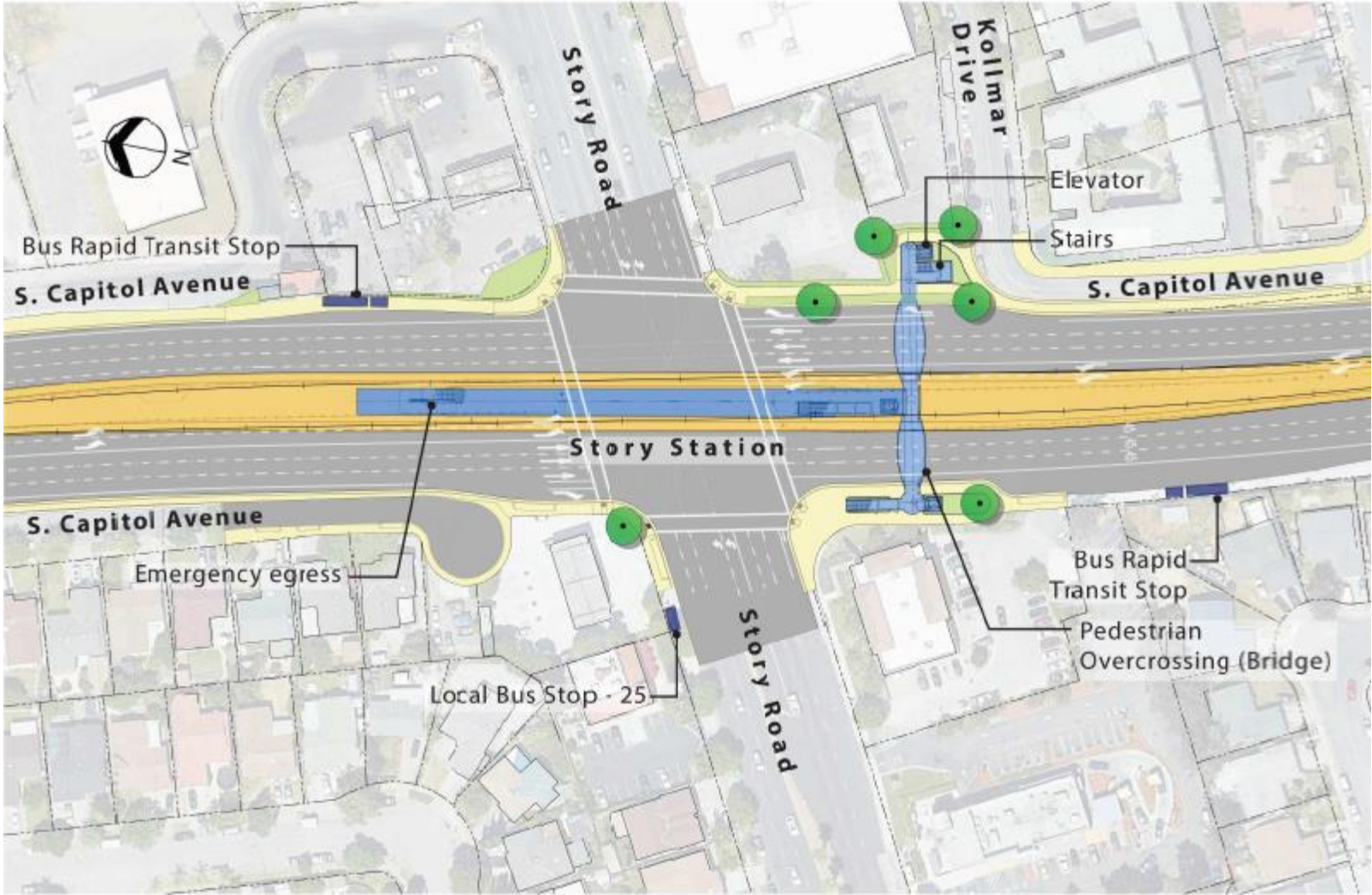


Figure 2 Proposed Story Station

Table 1 Rail Crossings of the Recommended Light Rail Alternative

Cross Street	Track Stationing	Number of Tracks	Pedestrians	Automobiles	Safety Risks	Proposed Crossing Type	Proposed Safety Devices (At Grade Crossings)
Wilbur Avenue/Nuestra Castillo Court	+965+00	2	1 Crosswalk	2 Lanes	VTA buses, Left turns from Wilbur to southbound Capitol Avenue	At-grade (existing crossing with t-signals)	T-signals, Traffic signals
Northbound Capitol Avenue	+974+00	2	2 Sidewalks	2 Lanes	High roadway traffic volumes	Grade separated, Aerial	n/a
Northbound Capitol Expressway	+978+00	2	1 Sidewalk	4 Lanes	High roadway traffic volumes	Grade separated, Aerial	n/a
Story Road	+995+00	2	2 Crosswalks	6 Through lanes, 4 turn lanes	High auto and pedestrian traffic volumes. Left turn movements	Grade separated, Aerial	n/a
Ocala Avenue	+1037+00	2	2 Crosswalks	4 Through lanes, 2 Turn lanes	School children, School buses, Heavy volume of LT movements	Grade separated, Aerial	n/a
Cunningham Avenue	+1050+00	2	2 Crosswalks	2 Lanes	Light traffic volumes, low risk	Grade separated, Aerial	n/a
SB Capitol Expressway	+1067+00	2	1 Sidewalk	3 Lanes	Heavy roadway traffic volumes	Grade separated, Aerial	n/a

Table 1 Rail Crossings of the Recommended Light Rail Alternative

Cross Street	Track Stationing	Number of Tracks	Pedestrians	Automobiles	Safety Risks	Proposed Crossing Type	Proposed Safety Devices (At Grade Crossings)
Swift Lane	+1073+00	2	2 Sidewalks	2 Lanes	Light traffic volumes, low risk	Grade separated, Aerial	n/a
Tully Road	+1078+00	2	2 Sidewalks	6 Lanes, 4 Turn lanes	Heavy roadway traffic volumes	Grade separated, Aerial	n/a
Northern Pedestrian Crossing to Platform	+1086+00	1	1 Crossing of SB track	None	Incoming and departing trains	At-grade	Crossing gates, Flashing Lights, and Bells
Southern Pedestrian Crossing to Platform	+1089+80	1	1 Crossing of SB track	None	Train movements in and out of tail track	At-grade	Crossing gates, Flashing Lights, and Bells

Notes:

Shaded rows indicate proposed rail crossing changes to the approved project.

Source: VTA, 2018.

Eastridge Station (proposed)

The Eastridge Transit Center is currently the second busiest transfer point in the VTA system, with significant bus transfer activity and a Park-and-Ride lot. Most bus routes serving the Downtown/East Valley area terminate at or pass through the center. The Recommended Light Rail Alternative includes an at-grade station with one platform, tail tracks, and one traction power substation at the Eastridge Station. Additional project work at the Eastridge Station would include the following:

- Tail tracks, including a pocket track;
- Diamond crossover on the ballasted section of track;
- Passenger access at north and south ends of station;
- Platform raised on retained fill; and

Figure 3 shows the proposed project features at the Eastridge Station.

Park-and-Ride Facilities

Two existing Park-and-Ride lots are located along the alignment: Alum Rock Station and Eastridge Transit Center.

To serve the Recommended Light Rail Alternative, there would be no increase in parking at Alum Rock Station due to space constraints. The Eastridge Park-and-Ride Lot currently includes 180 parking spaces. VTA is proposing to increase the parking to approximately 302 spaces through reconfiguration of the Eastridge park-and-ride lot.

SUPPORT SYSTEMS

In addition to the primary alignment, stations, and Park-and-Ride facilities, the Recommended Light Rail Alternative would incorporate light rail support systems, including traction power and substations, overhead contact, communications, signaling, gates, Intrusion Detection System, closed-circuit television (CCTV) cameras, a fare collection system, and noise and vibration abatement. Support systems are described in the following sections.

Traction Power System and Substations

A traction power system is a distribution system that converts high-voltage commercial electrical power received from substations to medium-voltage direct current (DC) and distributes it to the light rail vehicles via the overhead catenary or contact wire as they travel along the alignment. A traction power system consists of the power distribution mechanism and electrical substations. For the Recommended Light Rail Alternative, the traction power system

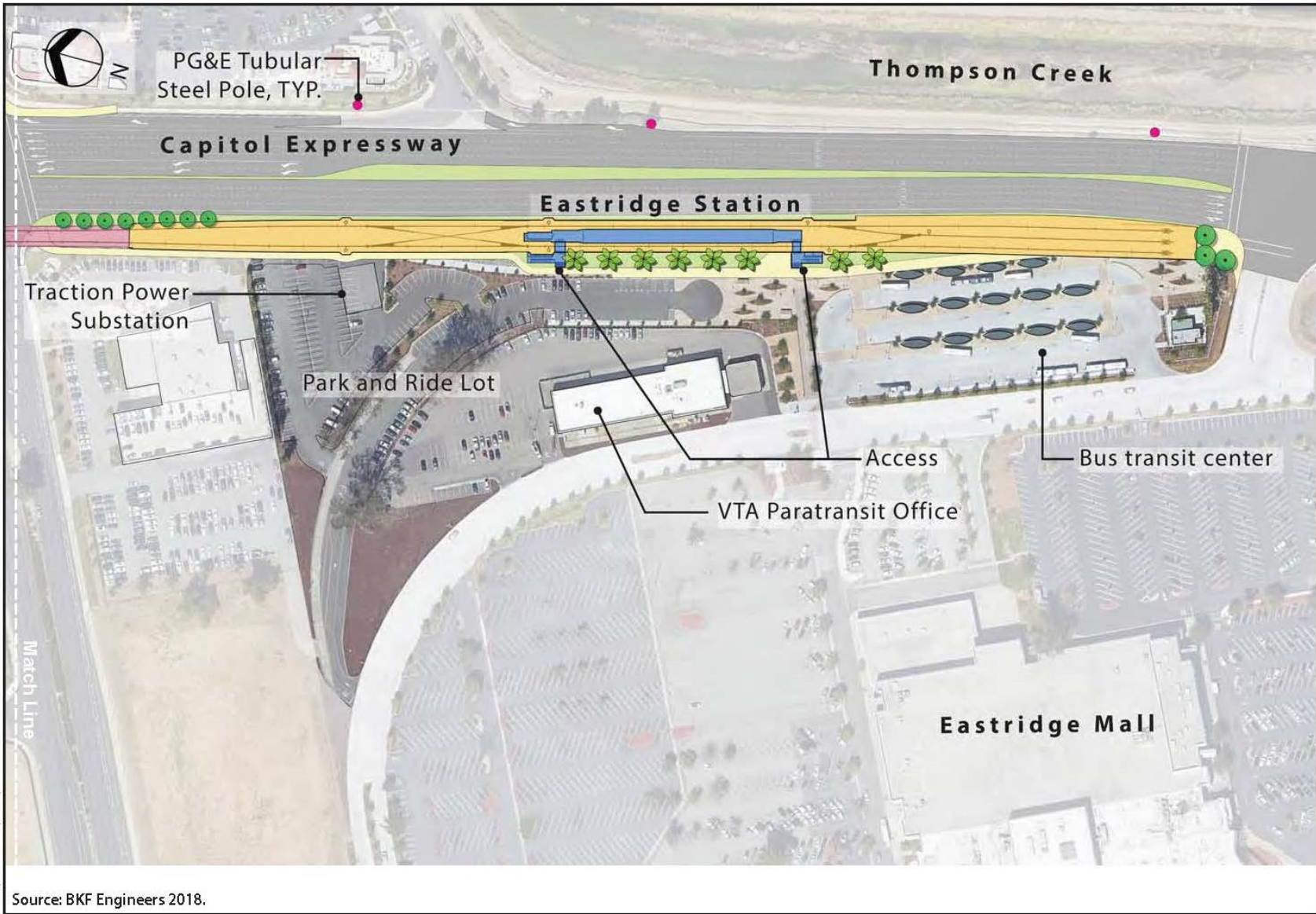


Figure 3 Recommended Light Rail Alternative at Eastridge Station

would provide the potential for three-car light rail trains operating at speeds up to 55 mph on approximately 5-minute headways, as provided by VTA Service Design Guidelines. During peak periods of use, such as during special events, the traction power system is anticipated to accommodate 3-minute headways.

The alignment would require a total of two substations, not including one existing substation south of the Alum Rock LRT Station near the Park-and-Ride lot shown in Figure 2.

Locations for new substations include the following:

- Southwest corner of Capitol Expressway and Ocala Avenue
- Eastridge Transit Center

Electrical power would be supplied to each traction power substation (TPSS) by an underground feeder from the electrical utility distribution system. Alternate substations would be equipped with two primary feeders from the utility company and an automatic transfer switch to supply reliable power to the substation. Each TPSS would be contained in a prefabricated substation housing that is factory wired to accommodate internal components and built on a concrete foundation. Foundations would be equipped with embedded conduit to accommodate incoming alternating current primary power cables, control and communication cables, and the DC feeder cables to the overhead contact system.

The estimated size for each TPSS building would be approximately 650–750 square feet in area and 12–15 feet in height. Parcels used as substation sites would need to be large enough to provide for side clearance from passing trains and automobiles and to allow a service vehicle to park, unless convenient parking is available on an adjacent roadway.

Overhead Contact System

The overhead contact system (OCS) would be an auto-tensioned simple catenary (ATSC) consisting of a contact wire, a messenger wire, and counterweight terminations (see Figure 4). This configuration represents the typical application for the VTA light rail system. The height of the contact wire would conform to the requirements of *VTA Light Rail Design Criteria Manual* and the California Public Utilities Commission's (CPUC's) General Order 95 (California Public Utilities Commission 1941). All OCS poles, except counterweight poles, would be constructed as tubular, hollow, tapered, round poles made of rigid galvanized steel.



Figure 4 Overhead Contact System at Alum Rock Station

Counterweight poles would be nontapered. The pole height would be adjusted to suit the contact wire height and match the existing system as closely as possible. The OCS poles would be located between the tracks or on the outside of the tracks, depending on space restrictions.

Communications Systems

The communications equipment and design would be fully compatible with the communications system that serves VTA's existing light rail operations. A wayside cable system, fiber optic cable, and two-way radio system would link light rail

stations and TPSSs with the existing Operations Control Center. The communications system would consist of the following main components:

- Public address system with two-way voice announcement linking the Operations Control Center and the light rail stations.
- Two-way radio system with two-way voice announcement linking the Operations Control Center and light rail vehicles.
- Capability to monitor and control the TPSS switchgear functions from the Operations Control Center via the remote terminal units and wayside cable system.
- Cable transmission system designed to incorporate both the backbone communications distribution (fiber optics) and metallic distribution.

Wayside cabling would utilize a combined systems duct installed continuously along the corridor.

Signaling and Gates System

The signal system for the Recommended Light Rail Alternative would be an extension of the existing light rail signal system and functionally compatible with the existing lines. The signal system would include a wayside color light aspect with no cab signal and Automatic Block Signaling (ABS). (*Wayside color light aspect* refers to a signal at the side of the tracks indicating the next block is either clear or occupied.) The signal system would be designed to support the train headway goals of the Recommended Light Rail Alternative. Generally, the alignment would not be gated except at the at-grade pedestrian crossing at Eastridge Station.

Intrusion Detection System

Intrusion detection would be provided at the ends of the station platforms and at the aerial guideway approach embankments to provide warning of people either trespassing or walking in restricted areas. This information would be provided to VTA Operations Control Center to initiate a response from VTA security and to alert train operators to proceed with caution.

VEHICLE STORAGE FACILITIES

The Recommended Light Rail Alternative does not include any new vehicle maintenance and overnight storage facilities. Heavy maintenance activities for vehicles used on this line would continue to be performed at the existing Guadalupe Light Rail Division on Younger Street in San Jose.

PEDESTRIAN AND LANDSCAPING ENHANCEMENTS

A separate project constructed pedestrian and landscaping improvements at various locations along Capitol Expressway between Capitol Avenue and Quimby Road. The

Recommended Light Rail Alternative will relocate or upgrade these improvements where there are conflicts with the proposed alignment, especially where additional right-of-way is required for aerial guideways, stations, and utility relocations. The enhancements could include sidewalk, landscaping, or a multi-use path consisting of sidewalk, landscaping, and street lighting.

Between Foxdale Drive and Ocala Avenue, VTA will not replace the existing sidewalk along the west side of Capitol Expressway with a new multi-use path and landscaping for a distance of about 1,500 feet in order to minimize the acquisition of property from the backyards of adjacent residences.

To accommodate bicyclists to the greatest extent possible, curb lanes on both sides of Capitol Expressway will be 17–18 feet for the entire length to allow use of the shoulders by bicycles.

CAPITOL EXPRESSWAY ROADWAY LANE CONFIGURATIONS.

In addition to restriping, a slight reduction in lane width, and minor modifications to traffic lanes, the project would revise the roadway lane configurations along Capitol Expressway. The project could include resurfacing Capitol Expressway with rubberized, open-graded asphalt concrete (OGAC).¹ Detailed track plans and profiles showing the proposed geometric design changes are included in Attachment D of the SEIR-2. The proposed roadway lane configuration includes the following.

- *Four traffic lanes in each direction north of Story Road.* Both of the existing high-occupancy vehicle lanes (one northbound and one southbound) would be converted to general purpose traffic lanes, resulting in a total of four general purpose lanes in each direction between Story Road and Capitol Avenue. One southbound inner general purpose lane would end at the introduction of the left turn pockets at Story Road. This would be accomplished by the widening of Capitol Expressway and a reduction of the median.
- *Right turn lanes.* Exclusive right turn lanes on Capitol Expressway would be added at Story Road, Cunningham Avenue, and Tully Road intersections.
- *Bicycle Slot.* At the locations where exclusive right turn lanes are added or maintained on Capitol Expressway, bicycle slots would be included to the left of the right turn lanes. Figure 5 includes pictures of a typical bicycle slot with bicycle detector.
- *Left turn lanes.* Longer left turn lanes on Capitol Expressway would be added at the following intersections: northbound and southbound at Story Road, northbound at Ocala Avenue, and southbound at Tully Road. At Ocala Avenue, one northbound left turn lane would be removed.

¹ Recent studies by Caltrans indicate that OGAC produces noticeably less vehicle noise than other pavement types (i.e., concrete and conventional asphalt).

- *Left turn pocket.* A second left turn pocket would be maintained on northbound Capitol Expressway at Story Road.



a. View of an example bike slot facing west at Lawrence Expressway and Cabrillo Avenue in the City of Santa Clara.



b. View of a bike detector embedded in a bike slot. The purpose of a bike detector is to detect a bicyclist approaching an intersection and communicate with the traffic signal cabinet to provide enough time for cyclists to safely cross an intersection.

Source: VTA and ICF 2018.

Figure 5 Representation Of Bicycle Slots

UTILITY RELOCATIONS

The project will include minor utility relocations (e.g., water, gas, communications, electric lines, sanitary sewer, stormwater, etc.), as necessary.

In addition, 6 steel lattice towers and 2 Tubular Steel Poles [TSPs] carrying the Pacific Gas & Electric Company's (PG&E) McKee-Piercy and Milpitas-Swift sections of the 115 kilovolt transmission lines would need to be relocated between Ocala Avenue and north of Quimby Road. A total of 10 new TSPs would be installed. It is anticipated that the TSPs would need to be up to 121 feet in height in order to clear the aerial guideway. As a result of the increase in height of the TSPs and the proximity to Reid-Hillview Airport, PG&E may need to install red light-emitting diode (LED) obstruction lighting on some or all of the new or modified towers or poles in accordance with Federal Aviation Administration (FAA) requirements. These lights would be powered by either solar panels or local distribution electric lines. One of the TSPs (No. 54) may require right-of-way from the Santa Clara Valley Water District for placing the TSP and its foundation. The new TSPs would be mounted on a drilled foundation. Figures 6a and 6b show the proposed project work for the electrical transmission facilities.

The new TSPs would be mounted on a drilled foundation, and construction of the foundation for TSP No. 53A, 54, and 55 may require temporary closure of the Thompson Creek Trail for safety during drilling, and foundation operations. For TSPs located immediately adjacent to Capitol Expressway, a pull-out area will be provided for safe ingress and egress of PG&E maintenance vehicles.

RIGHT-OF-WAY REQUIREMENTS

The majority of the improvements will be constructed within existing public right-of-way. There are a number of locations, however, where the Recommended Light Rail Alternative will require minor amounts of additional right-of-way. Based on preliminary designs, the locations where additional right-of-way will be required are listed in Table 2.

Easements and other right-of-way requirements may change (i.e., increase or decrease in size, change type, and/or change from permanent to temporary, etc.) during final design while being within the scope of the project and minor in nature. It is the intent of this environmental document to environmentally clear easements and other right-of-way requirements that are generally indicative of the type of work required, recognizing some adjustments may be necessary based on final design and/or working with individual property owners during the real estate acquisition process. Should modifications beyond the scope of the project trigger the need for additional environmental review pursuant to CEQA and NEPA, subsequent environmental analysis would be required.



Figure 6a Electrical Transmission Facilities



Figure 6b Electrical Transmission Facilities

Table 2 Preliminary Right-of-Way Requirements for the Recommended Light Rail Alternative

No.	Assessor's Parcel Number	Address	Existing Use	Right-of-Way Needed	Right-of-Way Requirement (square feet)		Partial or Full Right-of-Way Requirement
					Permanent	Temporary	
1	488-01-041	2710 Story Road	Business	Partial Fee Take, TCE, Permanent Easement, Access Restriction	1,175	2,405	Partial
2	488-01-002	1148 Kollmar Drive	Business	Partial Fee Take, ¹ TCE	2,428	1,523	Partial
3	488-01-004	2710 Kollmar Drive	Multi-Family	TCE	0	978	Partial
4	491-01-016	SE Corner of Capitol Expressway & Cunningham Avenue	Public	Partial Fee Take, TCE ²	761	771	Partial
5	491-02-073	3000 E. Capitol Expressway	Business	Partial Fee Take, TCE, Permanent Easement	2,470	473	Partial
6	491-02-074	3001 E. Capitol Expressway	Business	Partial Fee Take, TCE, Permanent Easement	13,400	3,122	Partial
7	491-02-069	2880 E. Capitol Expressway	Business	Permanent Easement	2,260	0	Partial
8	491-02-070	2950 E. Capitol Expressway	Business	Permanent Easement	2,514	0	Partial
9	491-02-071	2950 E. Capitol Expressway	Business	Permanent Easement	9,786	0	Partial
10	491-02-072	2990 E. Capitol Expressway	Business	TCE, Permanent Easement	4,445	1,917	Partial
11	491-02-066	Thompson Creek	Public	Permanent Easement	38,754	0	Partial
12	491-48-006	Thompson Creek	Public	Permanent Easement	43,304	0	Partial
13	484-45-060	2686 Lombard Avenue	Single-Family	TCE	0	465	Partial
14	484-45-061	353 S. Capitol Avenue	Single-Family	TCE	0	337	Partial
15	484-45-062	455 S. Capitol Avenue	Single-Family	TCE	0	310	Partial
16	484-45-116	461 S. Capitol Avenue	Business	Partial Fee Take, TCE	2,168	2,462	Partial
17	484-34-015	1017 S. Capitol Avenue	Single-Family	TCE	0	250	Partial

Table 2 Preliminary Right-of-Way Requirements for the Recommended Light Rail Alternative

No.	Assessor's Parcel Number	Address	Existing Use	Right-of-Way Needed	Right-of-Way Requirement (square feet)		Partial or Full Right-of-Way Requirement
					Permanent	Temporary	
18	484-34-016	1033 S. Capitol Avenue	Single-Family	Permanent Easement, TCE	22	250	Partial
19	484-34-017	1049 S. Capitol Avenue	Single-Family	Permanent Easement, TCE	225	335	Partial
20	484-34-131	1091 & 1093 S. Capitol Avenue	Business	Partial or Full Fee Take ¹ , TCE	1,829	533	Partial or Full
21	484-34-019	2695 Story Road	Business	Partial Fee Take, TCE	3,979	957	Partial
22	486-39-025	1330 Foxdale Loop	Multi-Family	TCE	0	943	Partial
23	486-43-106	2690 Story Road	Business	Partial Fee Take, TCE	1,629	2,364	Partial
24	491-15-003	Reid-Hillview Airport	Public	Partial Fee Take, TCE, Permanent Easement	10,600	1,154	Partial
25	491-15-041	Swift Avenue	Utility	Partial Fee Take, TCE Permanent Easement ²	1,817	2,746	Partial
26	491-13-009	Reid-Hillview Airport	Public	Permanent Easement	1,401	0	Partial
27	491-05-020	Reid-Hillview Airport	Public	Partial Fee Take, Permanent Easement, TCE	16,598	5,169	Partial
28	491-04-012	290 E. Capitol Expressway	Business	Full Fee Take	3,019	0	Full
29	491-04-047	290 E. Capitol Expressway	Business	Full Fee Take	5,852	0	Full
30	484-33-110	2785 Mervyns Way	Public	Partial Fee Take, TCE	841	640	Partial
31	491-13-021	Laydown Area at Reid-Hillview	Public Right-of-Way	TCE	0	26,067	Partial
32	491-05-001	Laydown Area at Reid-Hillview	Public Right-of-Way	TCE	0	73,553	Partial
33	491-01-030	City-owned Parcel at Lake Cunningham	Public	Permanent Easement	47	0	Partial

Table 2 Preliminary Right-of-Way Requirements for the Recommended Light Rail Alternative

No.	Assessor's Parcel Number	Address	Existing Use	Right-of-Way Needed	Right-of-Way Requirement (square feet)		Partial or Full Right-of-Way Requirement
					Permanent	Temporary	
34	491-37-106	2530 Quimby Road	Single-Family	Permanent Easement	823	0	Partial
35	-	Capitol Expressway	Public	Permanent Easement (Sanitary Sewer)	519	0	Partial
Total Right-of-Way Needed:					172,666	129,724	NA

Notes:

TCE = Temporary Construction Easement; NA = Not Applicable; IEE = Ingress Egress Easement

Partial Fee Take refers to the partial right-of-way need of a parcel; Full Fee Take refers to the full right-of-way need of a parcel.

¹These areas are within public right-of-way, and do not have an Assessor's Parcel Number or address associated with them.

Source: BKF 2019.

OPERATING ASSUMPTIONS

For the purposes of environmental analysis, the operating assumptions are based on past, current, and reasonably foreseeable future service plans. The purpose is to assess the project’s effect on the environment under the “worst-case” conditions. The key operating assumptions are as follows:

- The Recommended Light Rail Alternative is assumed to operate on the proposed new line from Mountain View to Alum Rock.
- The Recommended Light Rail Alternative is assumed to operate one to three-car train consists depending on ridership demands. Initially, VTA plans to operate two-car trains during peak hours in this corridor.
- The hours of operation are assumed to be between 4:30 a.m. and 1:30 a.m.
- Initially, VTA plans to operate on 15 minute headways. For the segment of the alignment between the Alum Rock LRT Station and Eastridge Transit Center, the estimated running time would be approximately 4.3 minutes, as shown in Table 3.
- Generally, the Recommended Light Rail Alternative will be designed for 55 mph operations.

Table 3 LRT Estimated Travel Time and Speed

LRT Segments	Distance/Average Speed/Time		
	Miles	mph	min.
Alum Rock TC to Story Station	0.6	25	1.4
Story Station to Eastridge Station	1.8	45	2.9
Corridor Total	2.4	35	4.3

Notes:

¹ Travel speed and time are assumed to be approximately the same for AM and PM hours as well as northbound and southbound directions as the aerial guideway would not be affected by vehicular traffic.

² Approximately 30 seconds of dwell time would be experienced at Story Station.

Source: BKF, 2018.

CONSTRUCTION SCENARIO

Project construction would take place over several years. Most of the construction work would occur in multiple locations along the project corridor between Alum Rock LRT Station and Eastridge Transit Center. Utility relocations would take place in 2019. Construction of the Recommended Light Rail Alternative is anticipated begin in 2020 and end in 2024. Construction would consist of clearing and grubbing, grading, structural work, trackwork, and paving. Major construction at Eastridge Mall during the holiday season will be minimized to the extent practicable.

At the height of construction, a number of construction employees and equipment would occupy portions of the street, including the median and potentially including

parking spaces, at active construction locations. In the most active areas, construction activities would periodically reduce the capacity of Capitol Expressway to two lanes in the northbound direction, and one lane in the southbound direction during non-peak hours of travel. Three travel lanes in each direction are expected to stay open during peak hours of travel. One left turn lane in each travel direction may be closed at intersections temporarily during various construction events. Lane closures would be contingent on the requirements and restrictions of the County of Santa Clara and the City of San Jose. If lane closures for construction activities are further restricted, an increase of approximately one year would be anticipated in the duration of project construction, changing the construction period to 2019 to 2025.

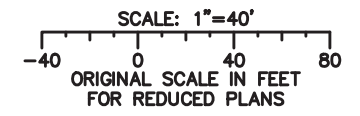
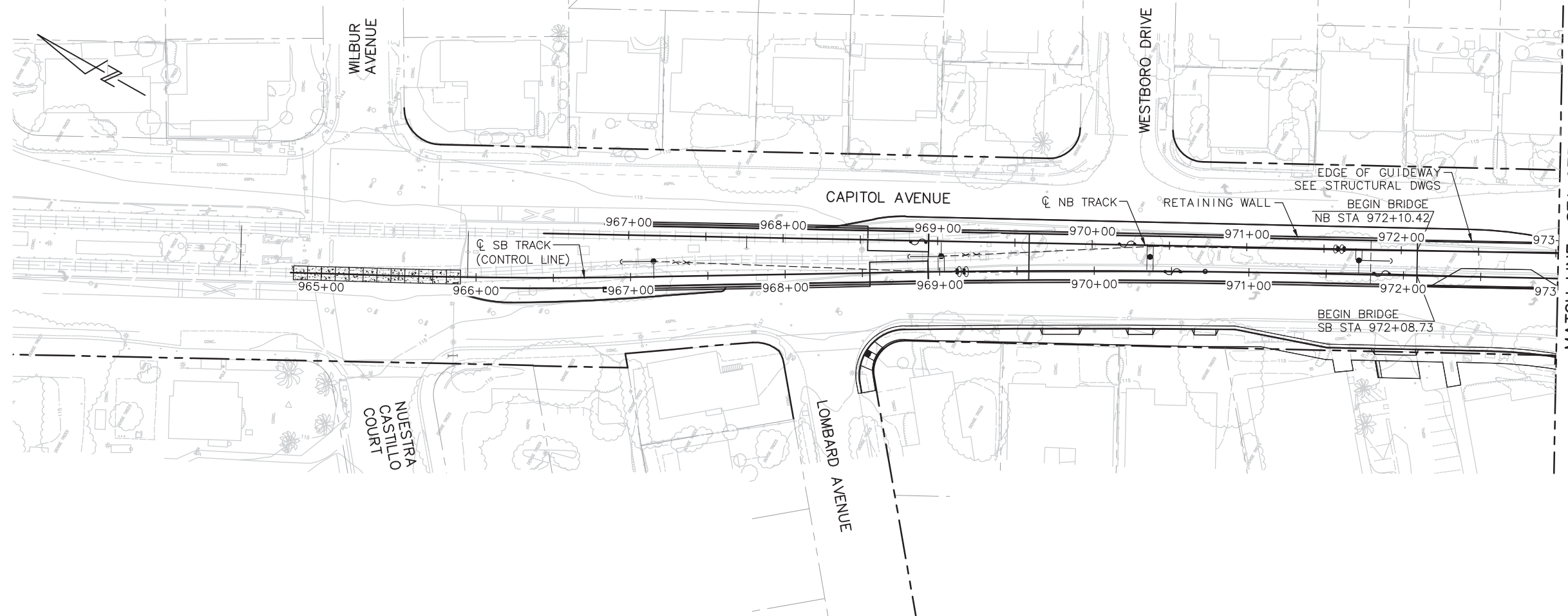
In addition, construction activities may be necessary during night, early morning, and weekend periods to minimize traffic disruption. Nighttime construction activity would be limited to temporary short-term periods. Construction activities that may take place during these periods would involve partial or complete intersection closures along Capitol Expressway at Capitol Avenue, Story Road, Ocala Avenue, Cunningham Avenue, Swift Lane and Tully Road. Complete intersection closures may occur in each travel direction (northbound and southbound) of Capitol Expressway for work on the proposed aerial structure.

The aerial guideway sections would require extensive pile driving. It is anticipated that 6 to 12 piles would be driven per day for 3 to 6 days at each column site. The column sites are spaced approximately 120 to 130 feet apart. Pile driving could occur simultaneously at 2 locations along the alignment.

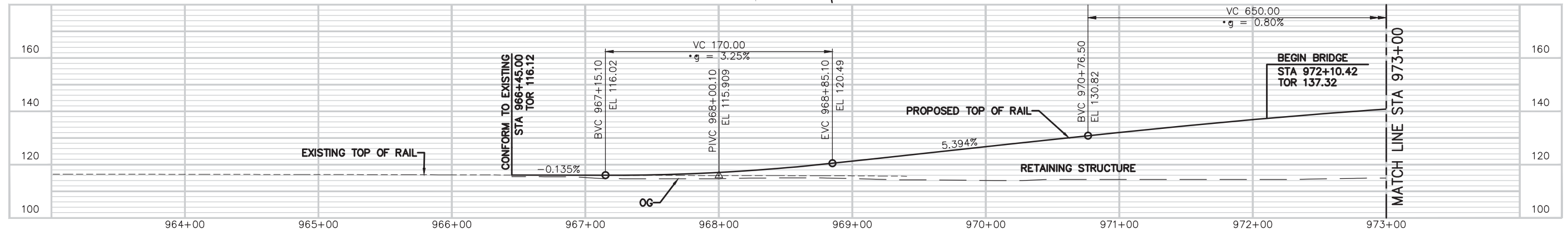
The main construction staging area would likely occur on vacant airport property between Cunningham Avenue and Tully Road and at Eastridge Transit Center subject to the concurrence of Santa Clara County Roads and Airports. The median would also be used as a staging area for daily activities.

Attachment C

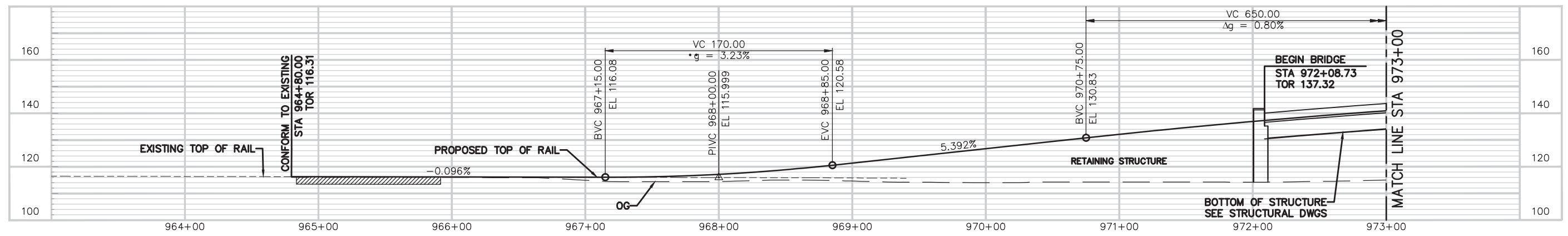
Detailed Plans for the Proposed Changes



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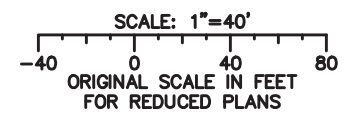
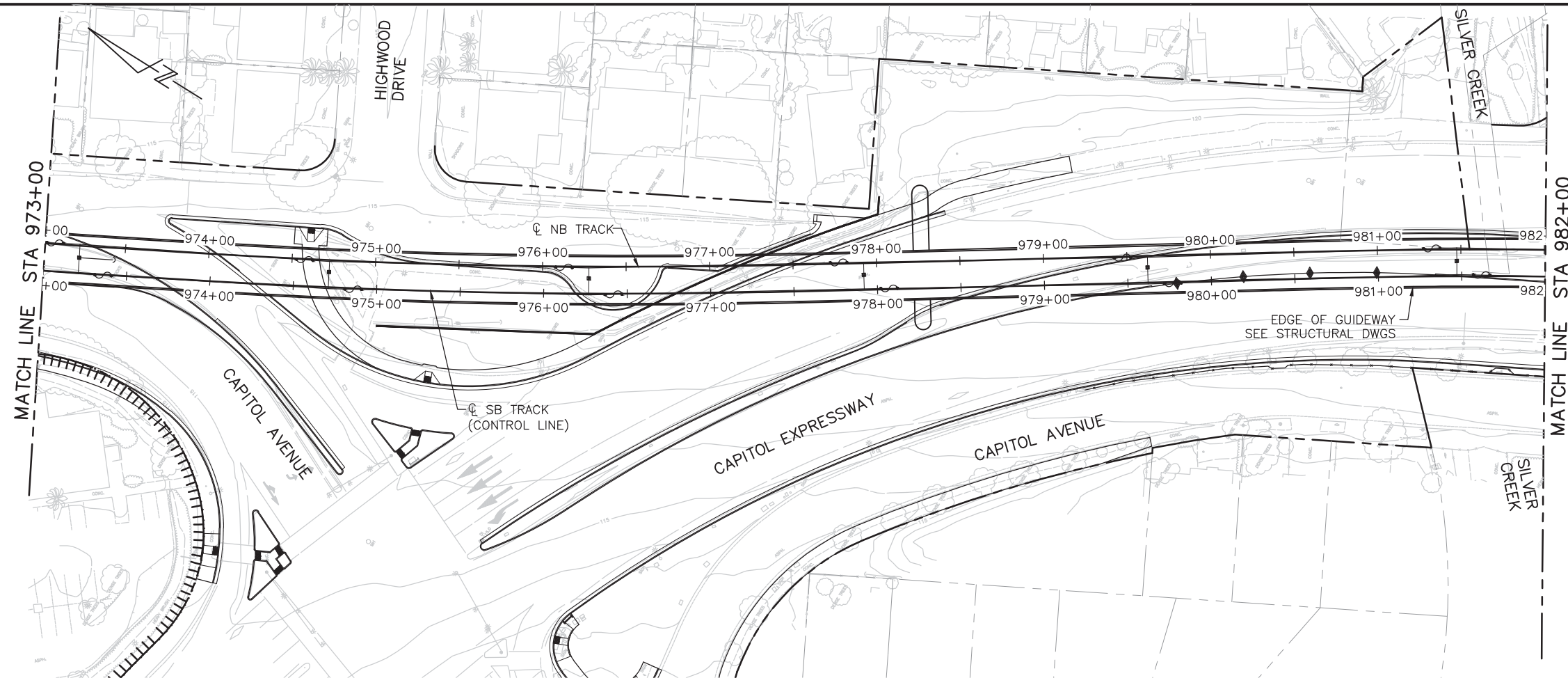
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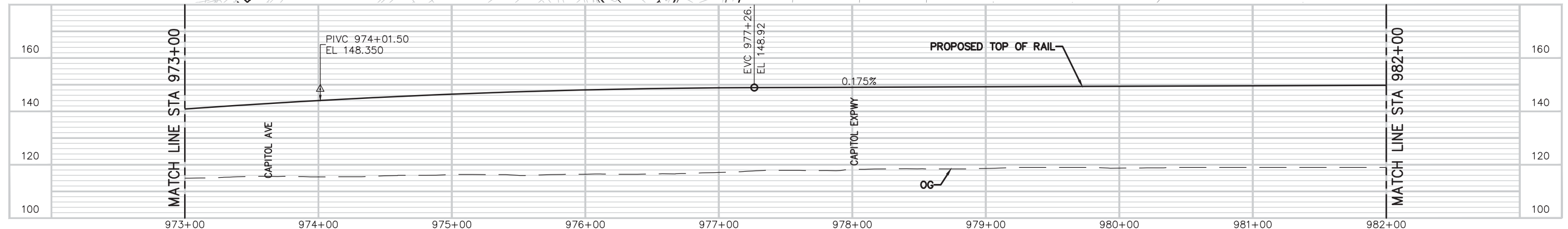
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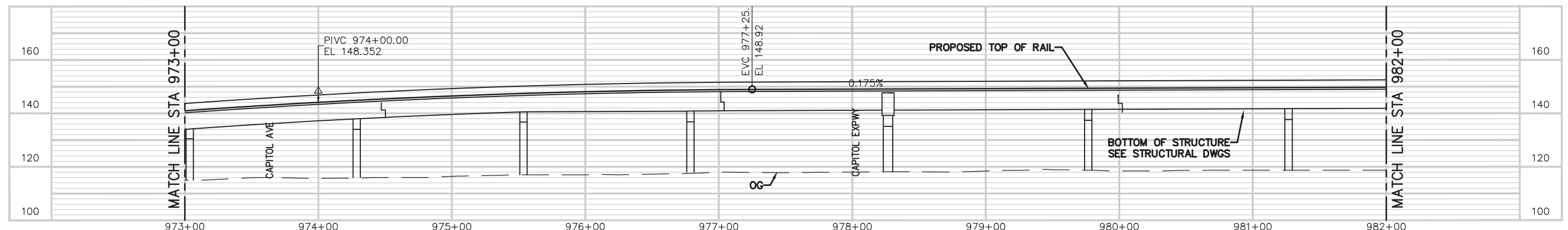
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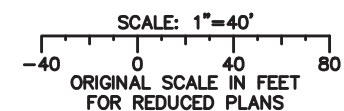
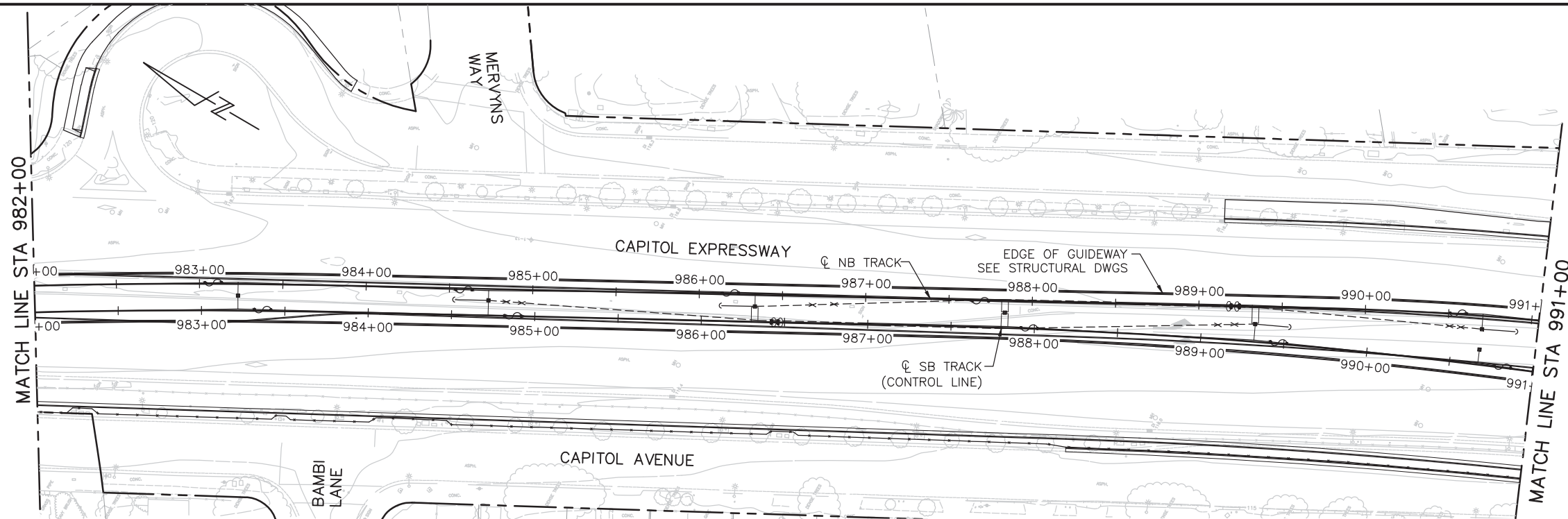
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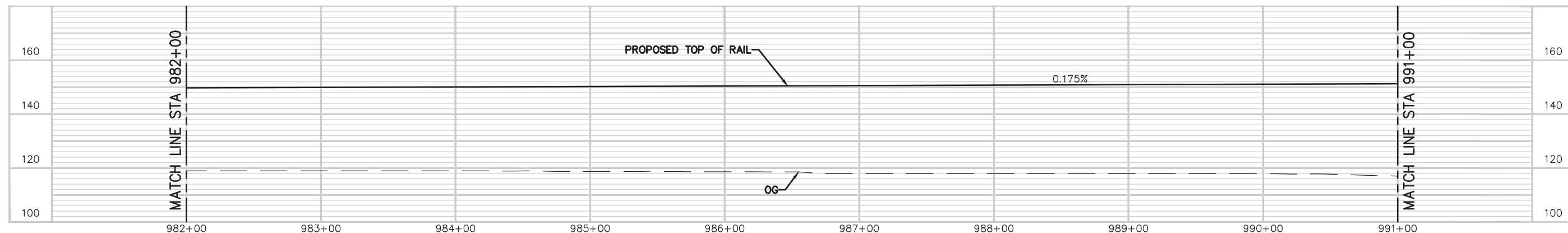
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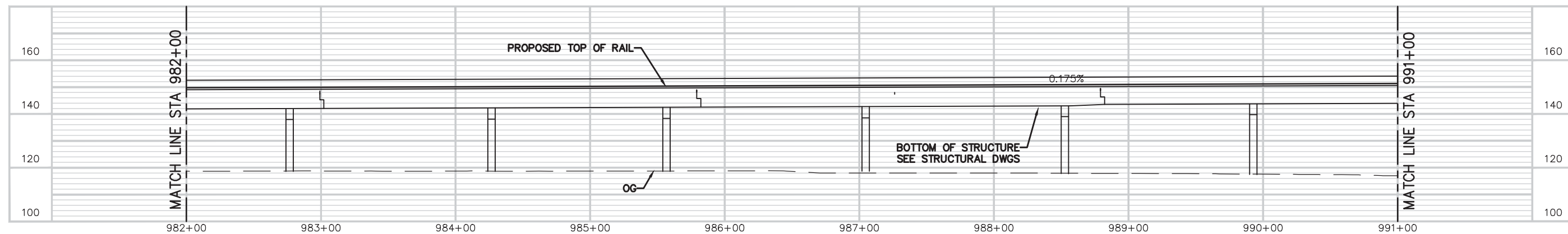
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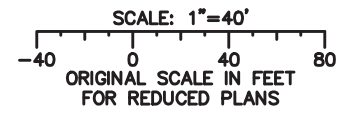
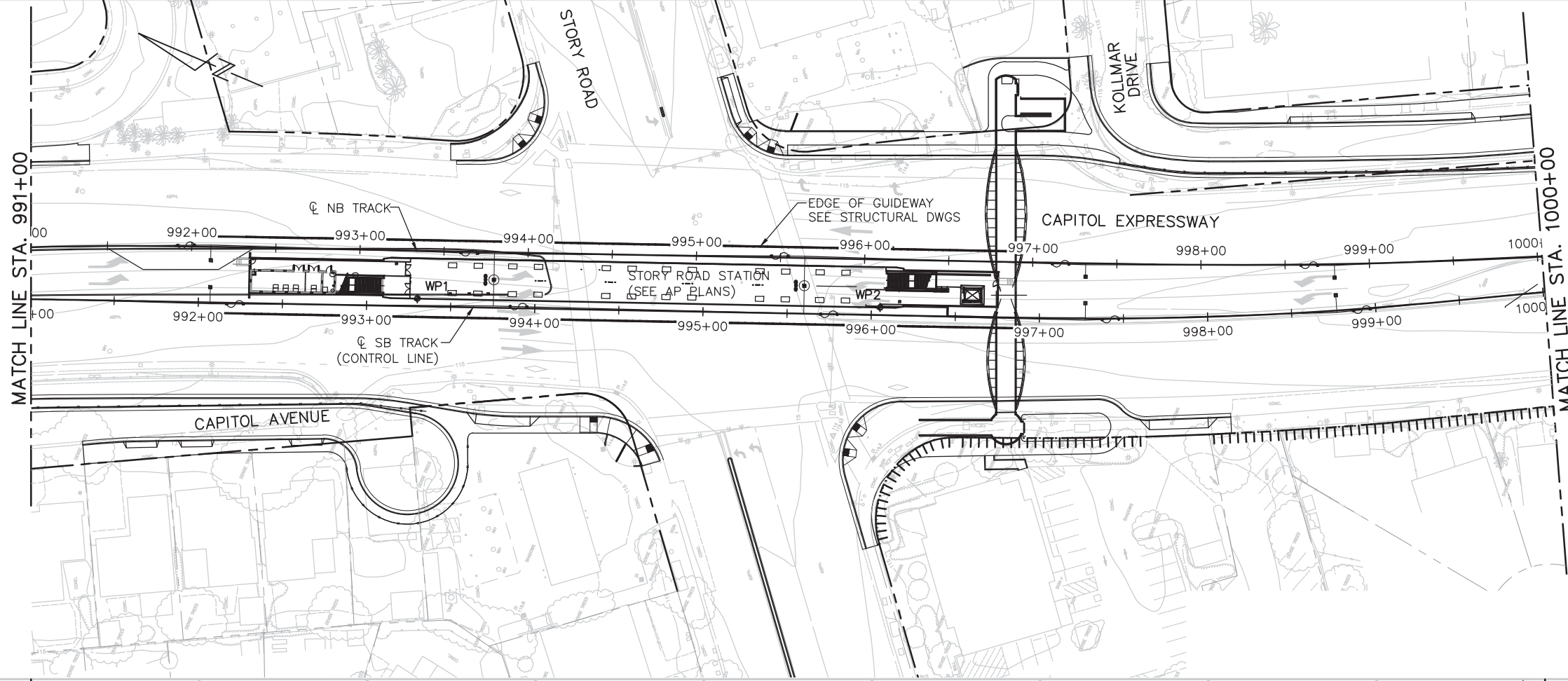
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BOARD APPROVAL DATE:

EASTRIDGE TO BART REGIONAL CONNECTOR
CAPITOL EXPRESSWAY LIGHT RAIL PROJECT

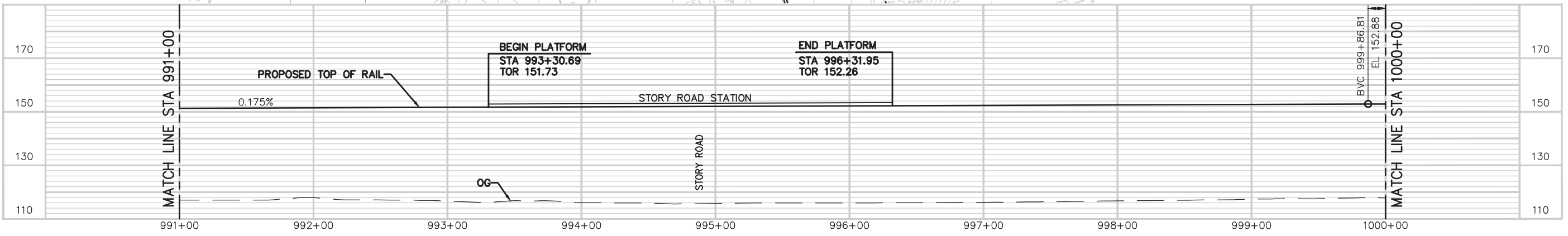
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PLA NO. CONTRACT NO. C801 FILE LOCATION PROJECTWISE

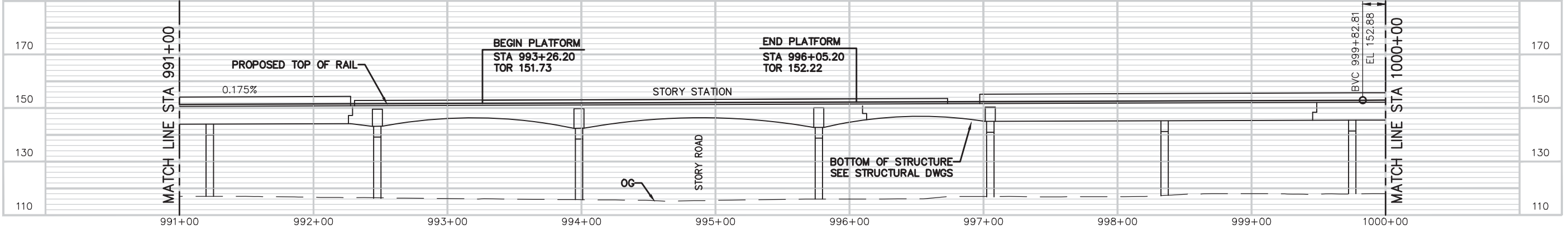
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OF	15
DRAWING NO.	EX003
REVISION	



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SB TRACK PROFILE



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NO.	DATE	REVISIONS

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DESIGNED	CHECKED
DRAWN	CADD FILE NAME 801EX004.dwg



APPROVED

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SUBMITTAL DATE:

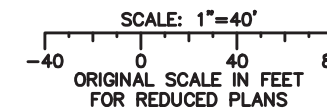
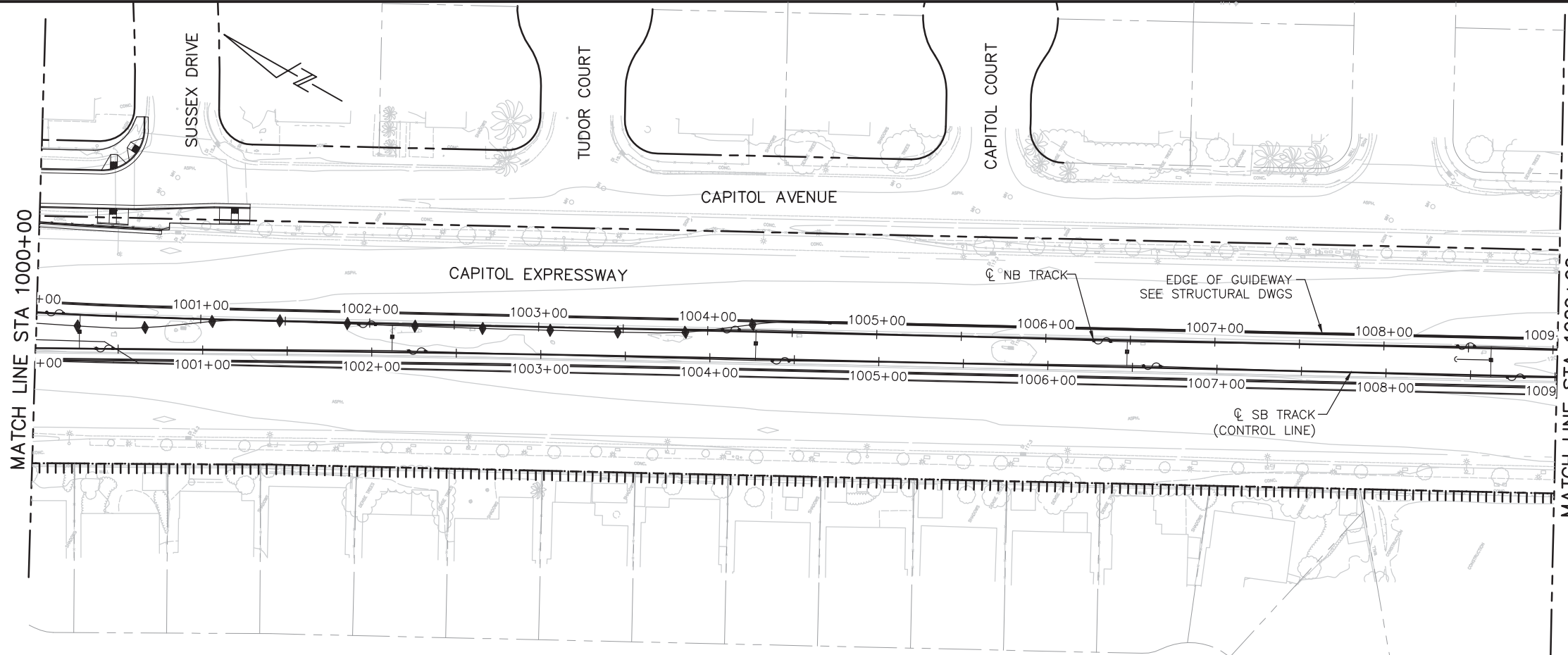
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BOARD APPROVAL DATE:

EASTRIDGE TO BART REGIONAL CONNECTOR
CAPITOL EXPRESSWAY LIGHT RAIL PROJECT

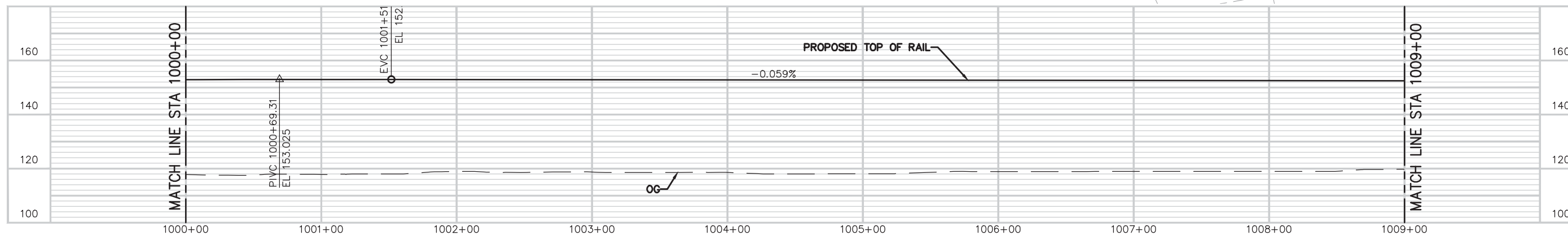
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PCA NO. CONTRACT NO. C801 FILE LOCATION PROJECTWISE

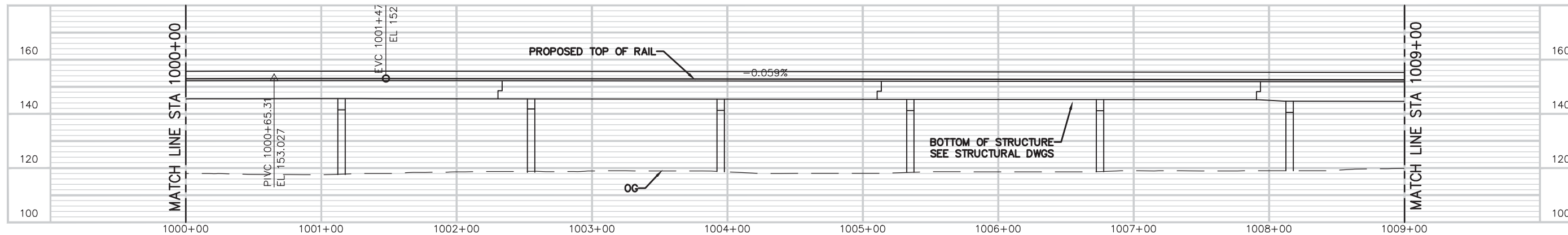
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OF	15
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REVISION	



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SB TRACK PROFILE



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NO.	DATE	REVISIONS

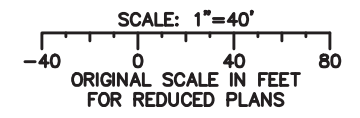
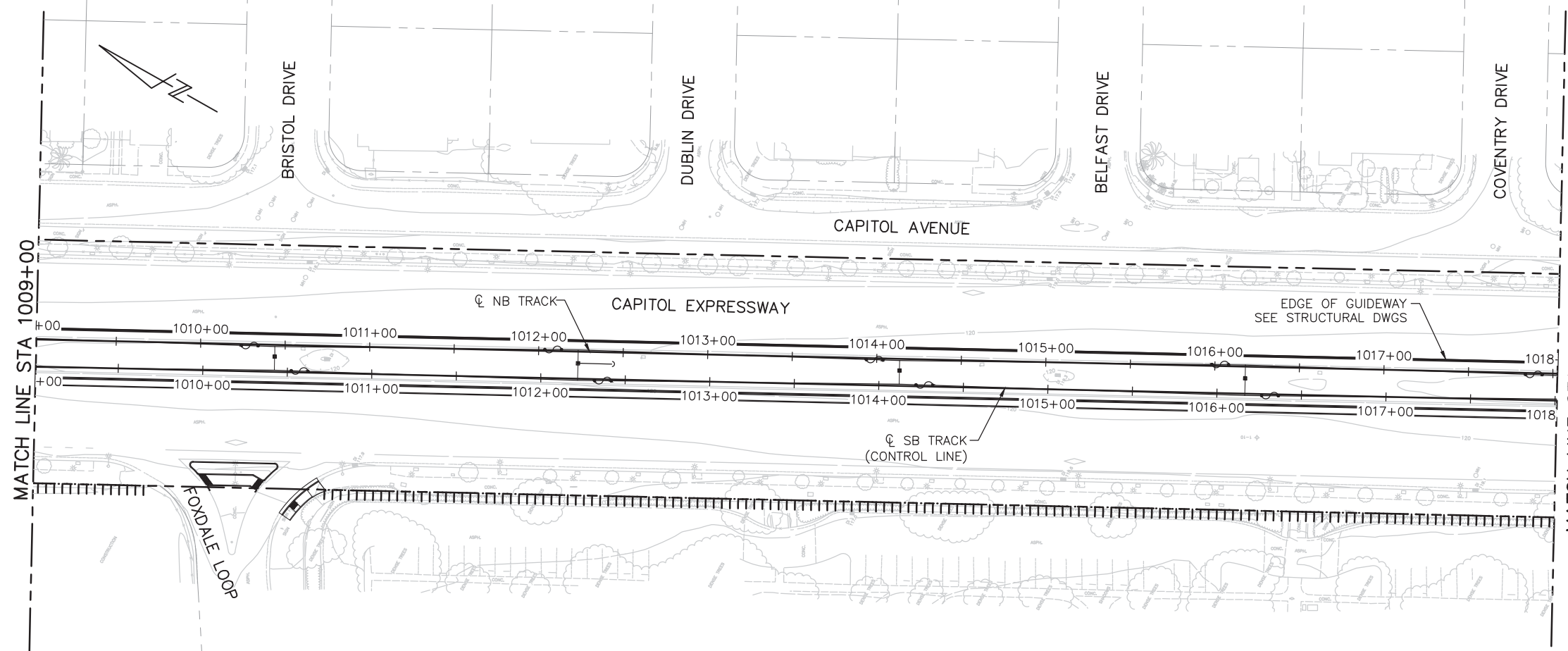
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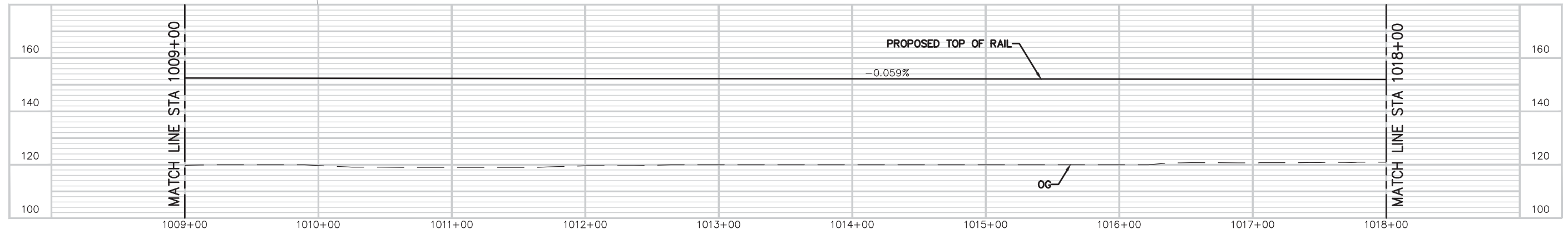
APPROVED	
BKF 100+ YEARS ENGINEERS / SURVEYORS / PLANNERS	
CADD FILE DATE 04/18/2019	SCALE 1"=40' H; 1"=20' V
SUBMITTAL DATE	BOARD APPROVAL DATE

EASTRIDGE TO BART REGIONAL CONNECTOR CAPITOL EXPRESSWAY LIGHT RAIL PROJECT		
ENVIRONMENTAL EXHIBITS STA 1000+00 TO STA 1009+00		
PCA NO.	CONTRACT NO. C801	FILE LOCATION PROJECTWISE

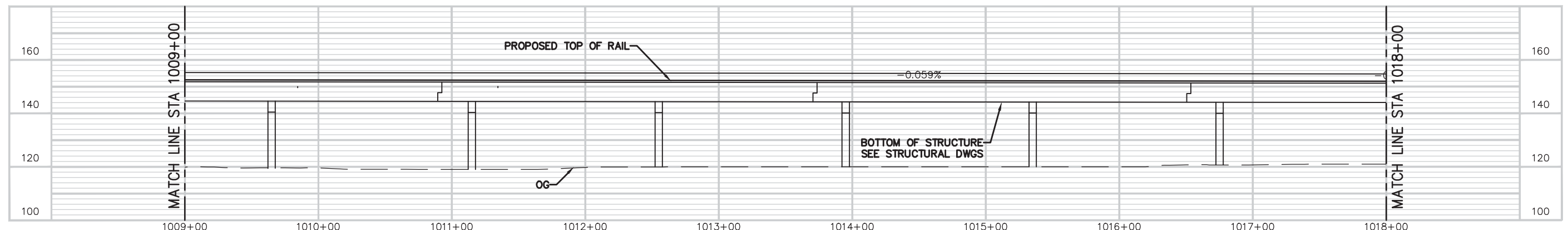
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REVISION	



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SB TRACK PROFILE



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NO.	DATE	REVISIONS

SUBMITTED	
DESIGNED	CHECKED
DRAWN	CADD FILE NAME 801EX006.dwg



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SUBMITTAL DATE:

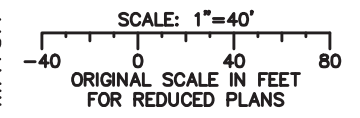
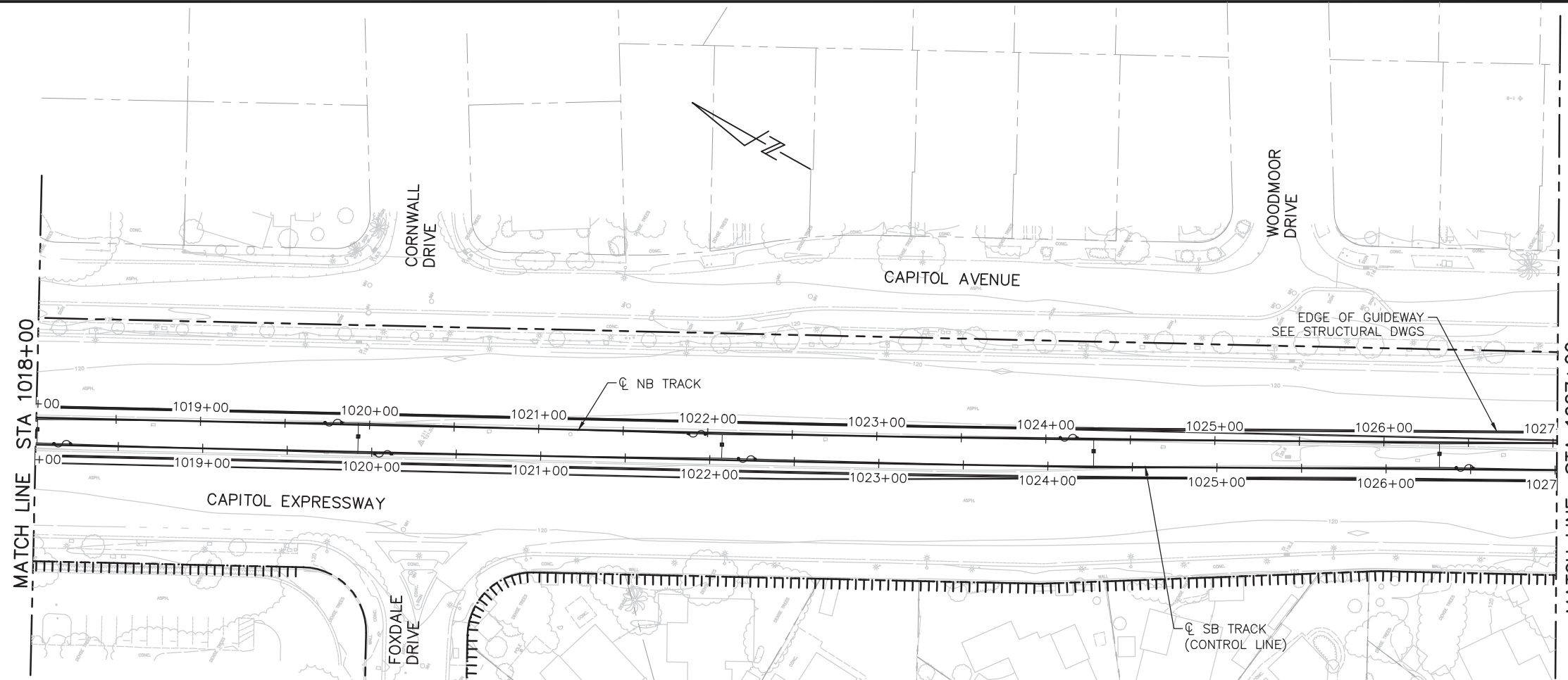
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EASTRIDGE TO BART REGIONAL CONNECTOR
CAPITOL EXPRESSWAY LIGHT RAIL PROJECT

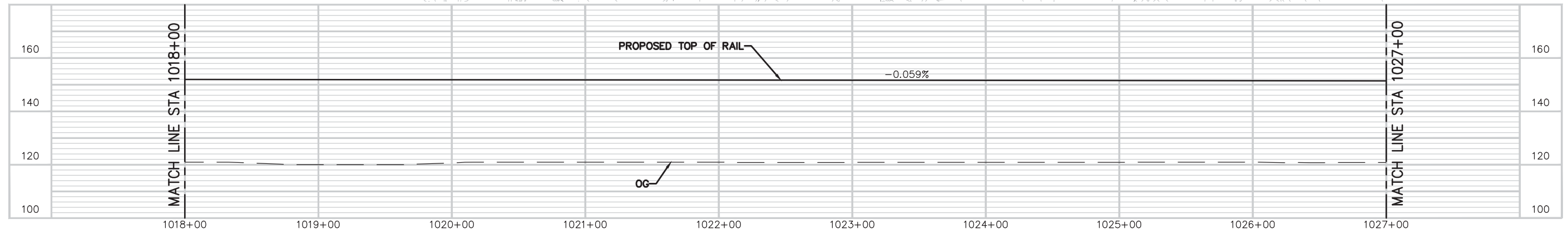
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PCA NO. CONTRACT NO. C801 FILE LOCATION PROJECTWISE

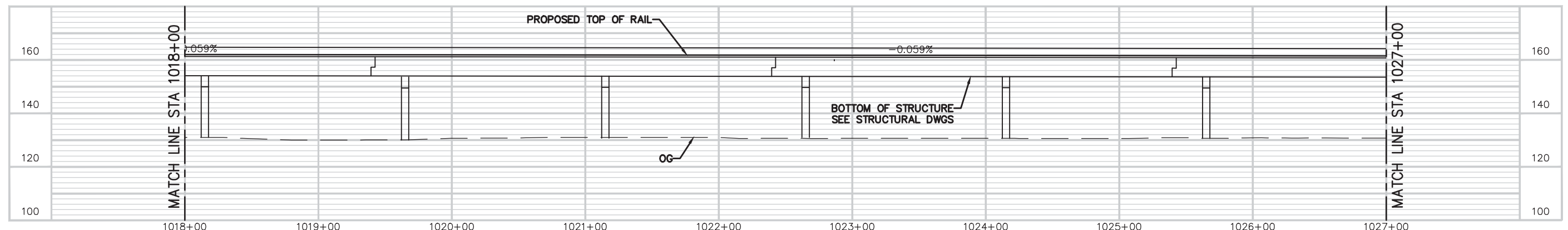
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OF	15
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REVISION	



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NO.	DATE	REVISIONS

SUBMITTED	
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DRAWN	CADD FILE NAME 801EX007.dwg

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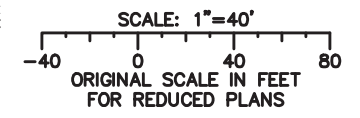
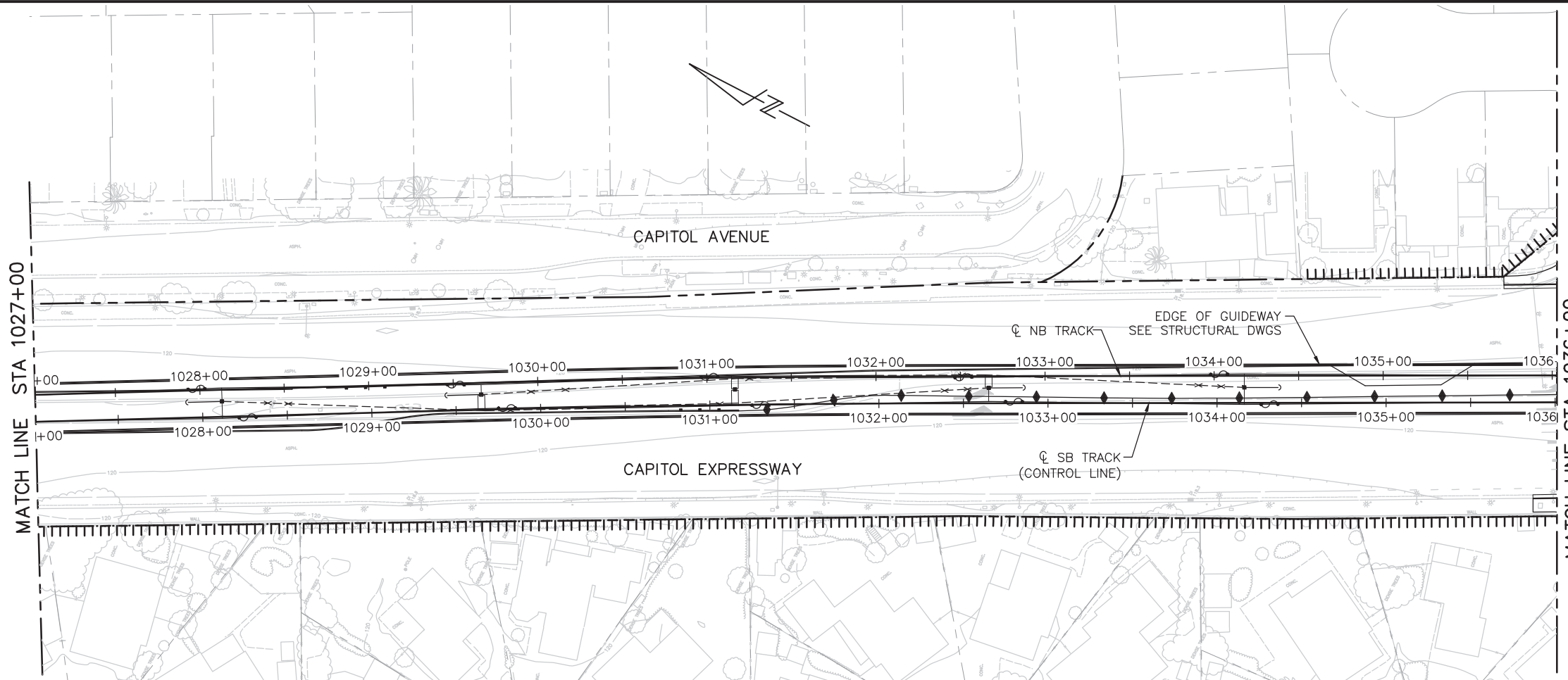
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SUBMITTAL DATE	BOARD APPROVAL DATE

EASTRIDGE TO BART REGIONAL CONNECTOR
CAPITOL EXPRESSWAY LIGHT RAIL PROJECT

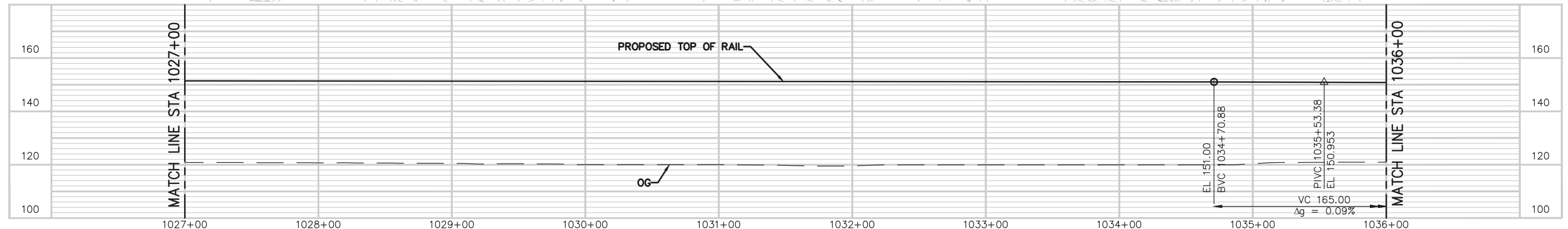
ENVIRONMENTAL EXHIBITS
STA 1018+00 TO STA 1027+00

PCA NO.	CONTRACT NO. C801	FILE LOCATION PROJECTWISE
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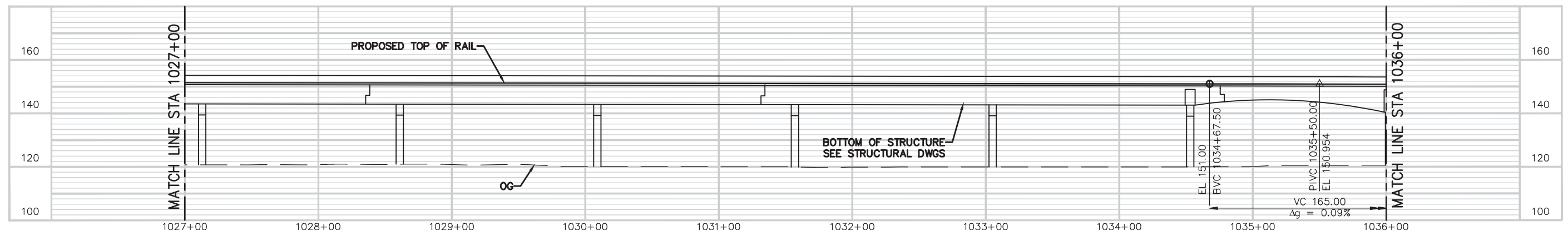
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REVISION	



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NO.	DATE	REVISIONS

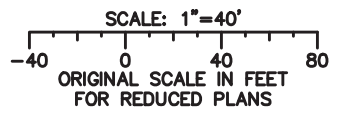
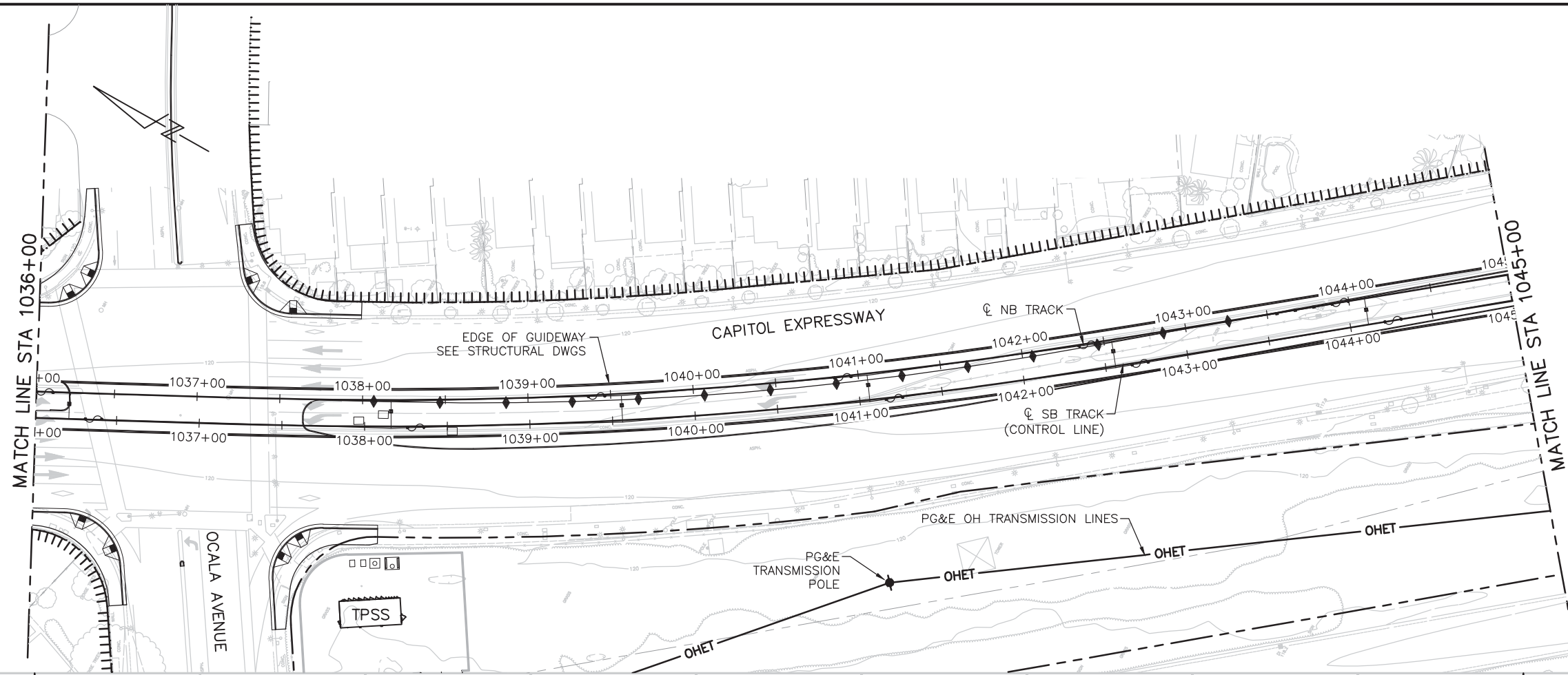
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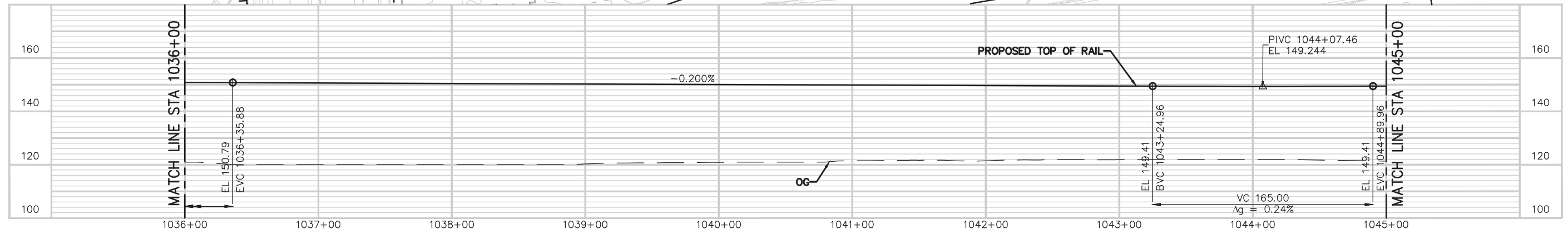
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BKF 100+ YEARS ENGINEERS / SURVEYORS / PLANNERS	
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SUBMITTAL DATE	BOARD APPROVAL DATE

EASTRIDGE TO BART REGIONAL CONNECTOR CAPITOL EXPRESSWAY LIGHT RAIL PROJECT		
ENVIRONMENTAL EXHIBITS STA 1027+00 TO STA 1036+00		
PCA NO.	CONTRACT NO. C801	FILE LOCATION PROJECTWISE

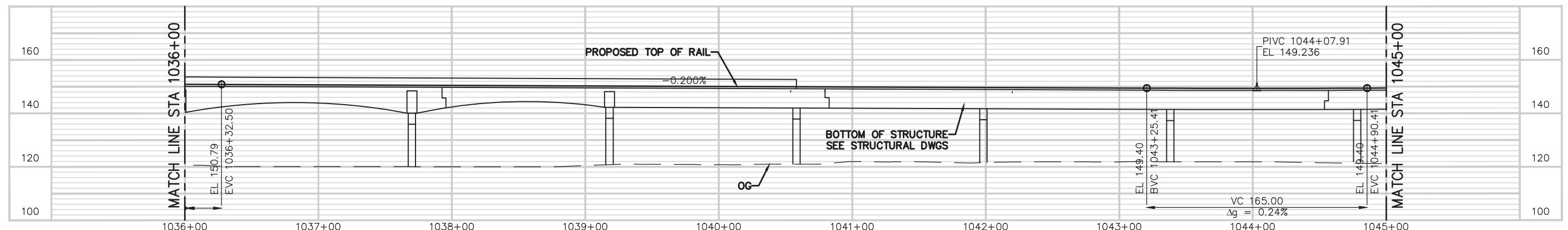
SHEET 8
OF 15
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SB TRACK PROFILE



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NO.	DATE	REVISIONS

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DESIGNED	CHECKED
DRAWN	CADD FILE NAME 801EX009.dwg



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SUBMITTAL DATE:

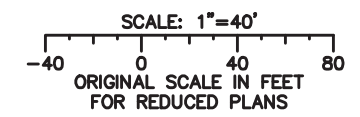
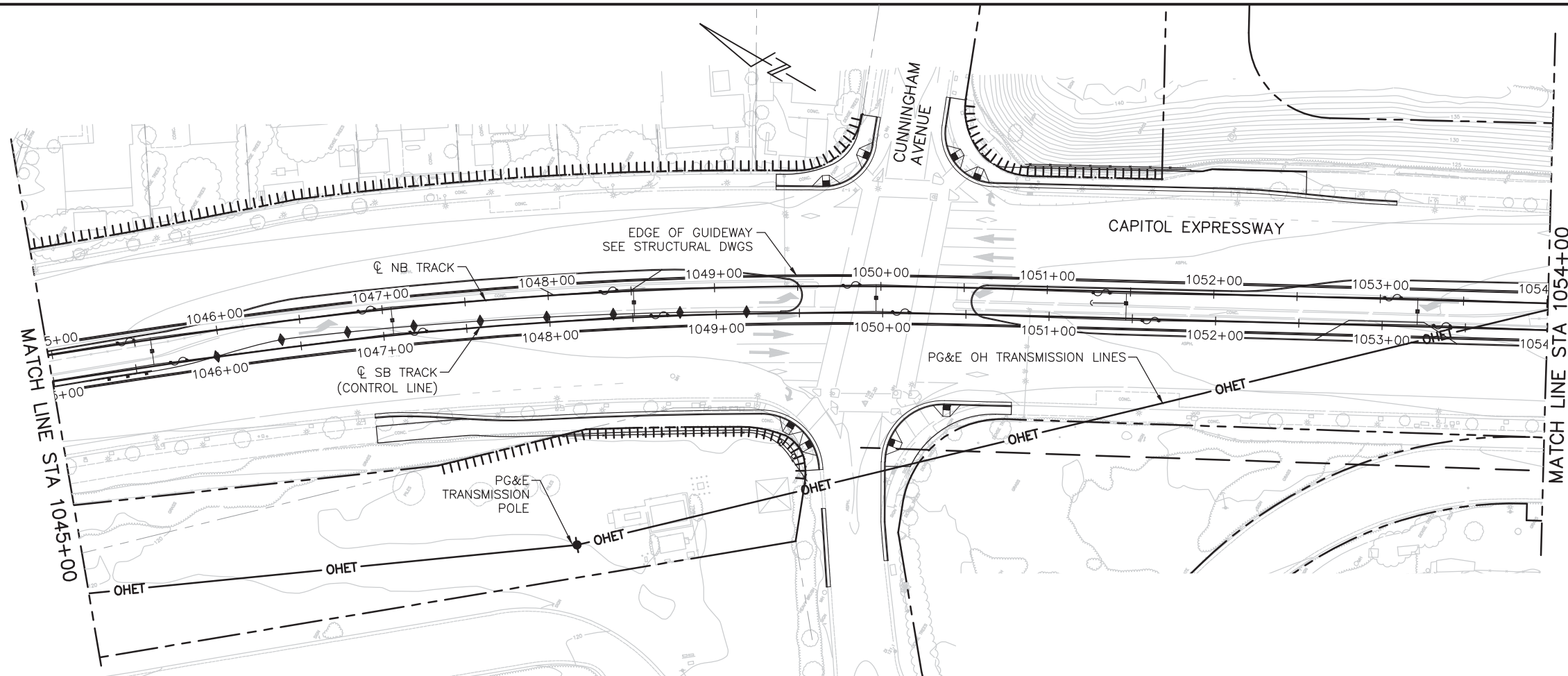
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BOARD APPROVAL DATE:

EASTRIDGE TO BART REGIONAL CONNECTOR
CAPITOL EXPRESSWAY LIGHT RAIL PROJECT

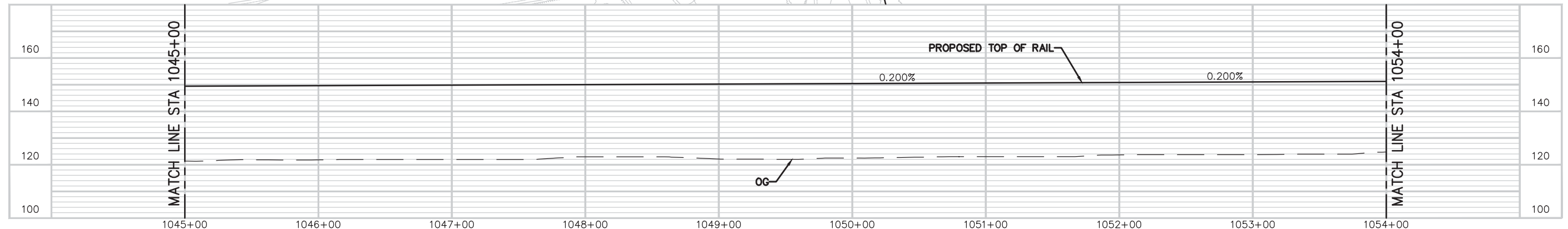
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PCA NO. CONTRACT NO. C801 FILE LOCATION PROJECTWISE

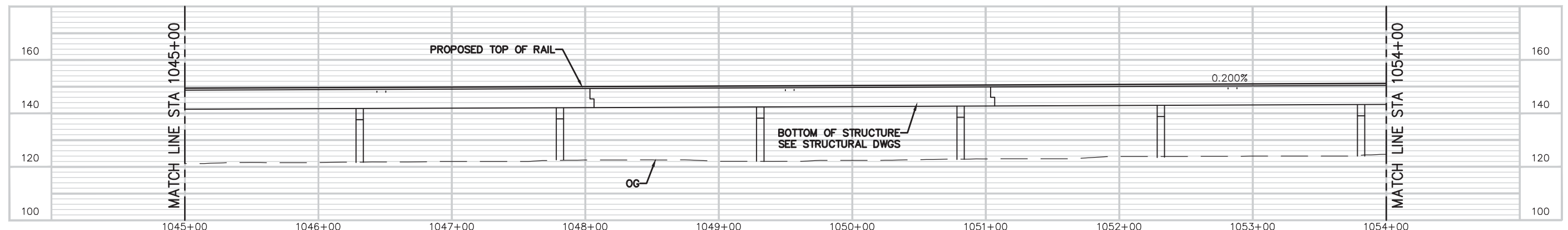
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NO.	DATE	REVISIONS

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CADD FILE DATE: 04/18/2019
SUBMITTAL DATE:

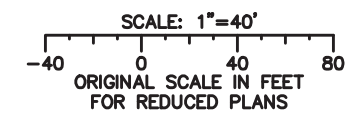
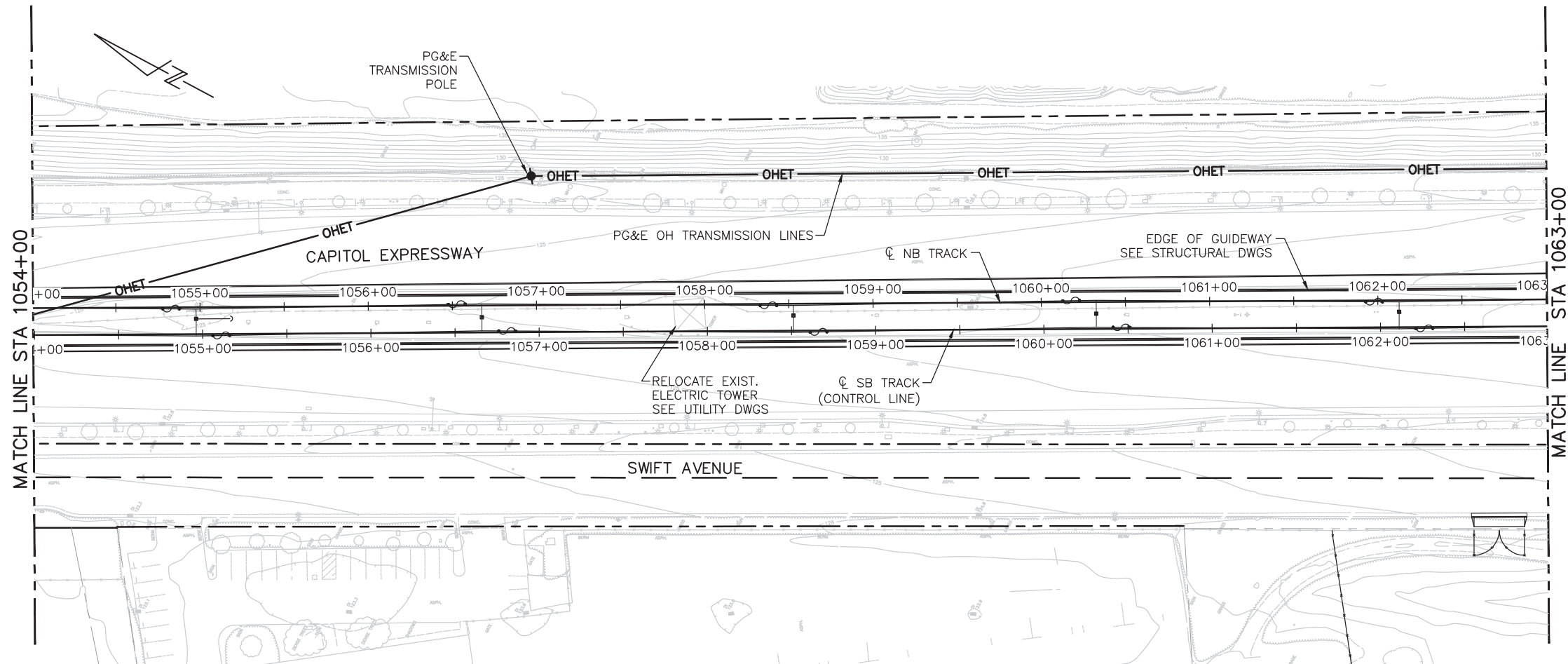
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EASTRIDGE TO BART REGIONAL CONNECTOR
CAPITOL EXPRESSWAY LIGHT RAIL PROJECT

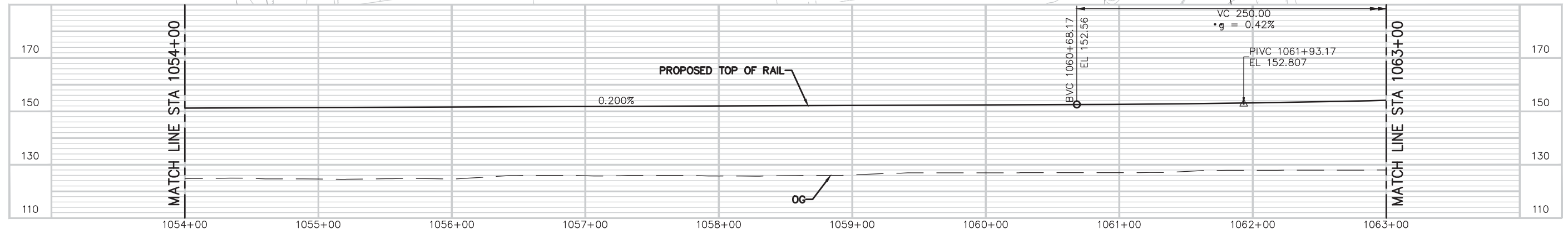
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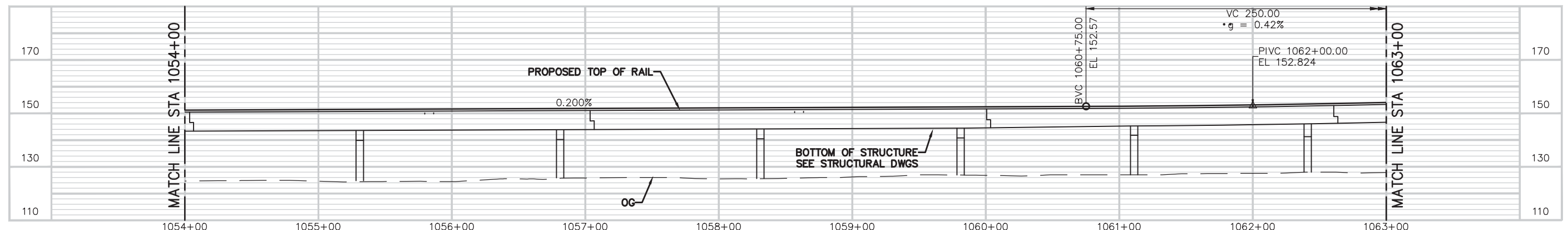
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NO.	DATE	REVISIONS

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DESIGNED	CHECKED
DRAWN	CADD FILE NAME 801EX011.dwg

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CADD FILE DATE: 04/18/2019
SUBMITTAL DATE:

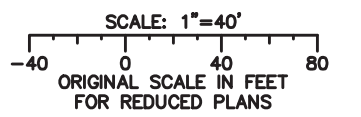
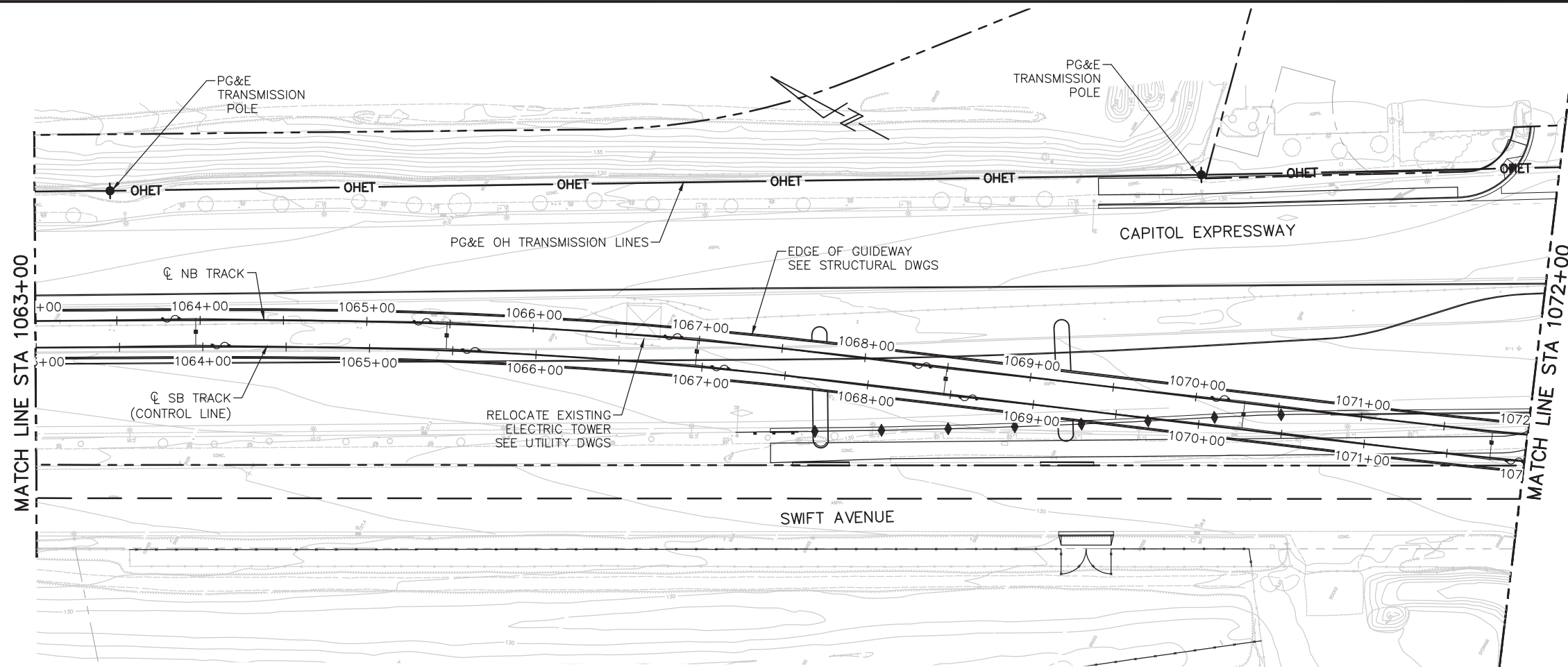
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EASTRIDGE TO BART REGIONAL CONNECTOR
CAPITOL EXPRESSWAY LIGHT RAIL PROJECT

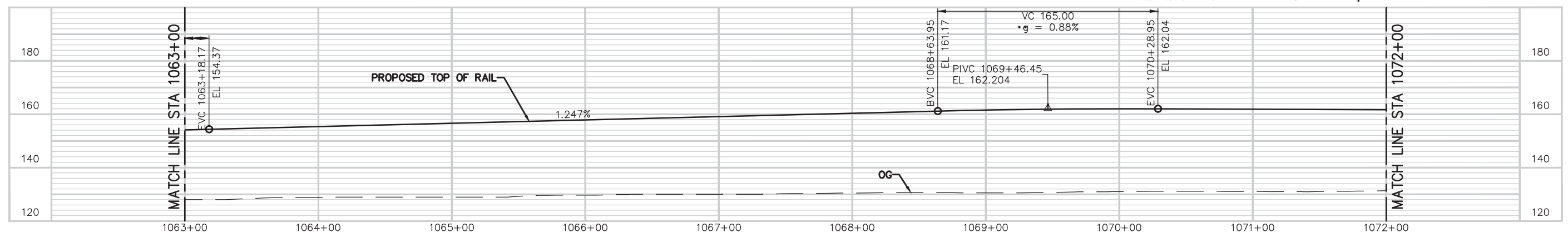
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PLA NO. CONTRACT NO. C801 FILE LOCATION PROJECTWISE

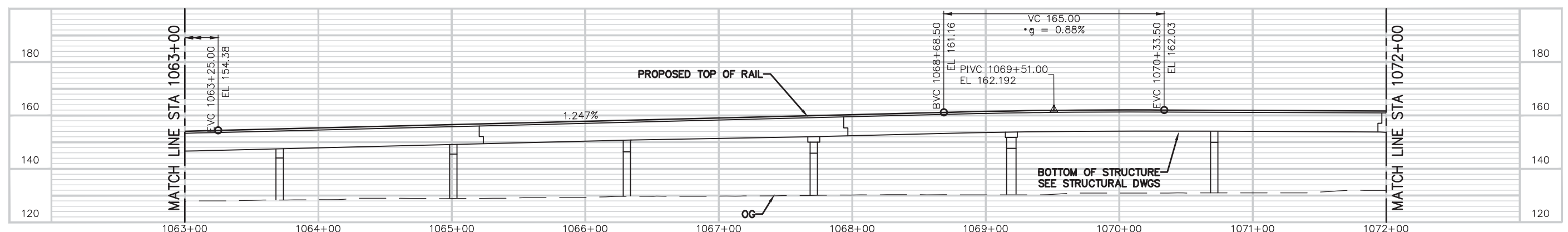
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REVISION	



NB TRACK PROFILE



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NO.	DATE	REVISIONS

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SUBMITTAL DATE:

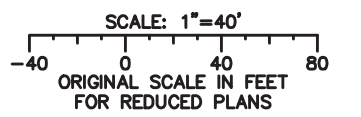
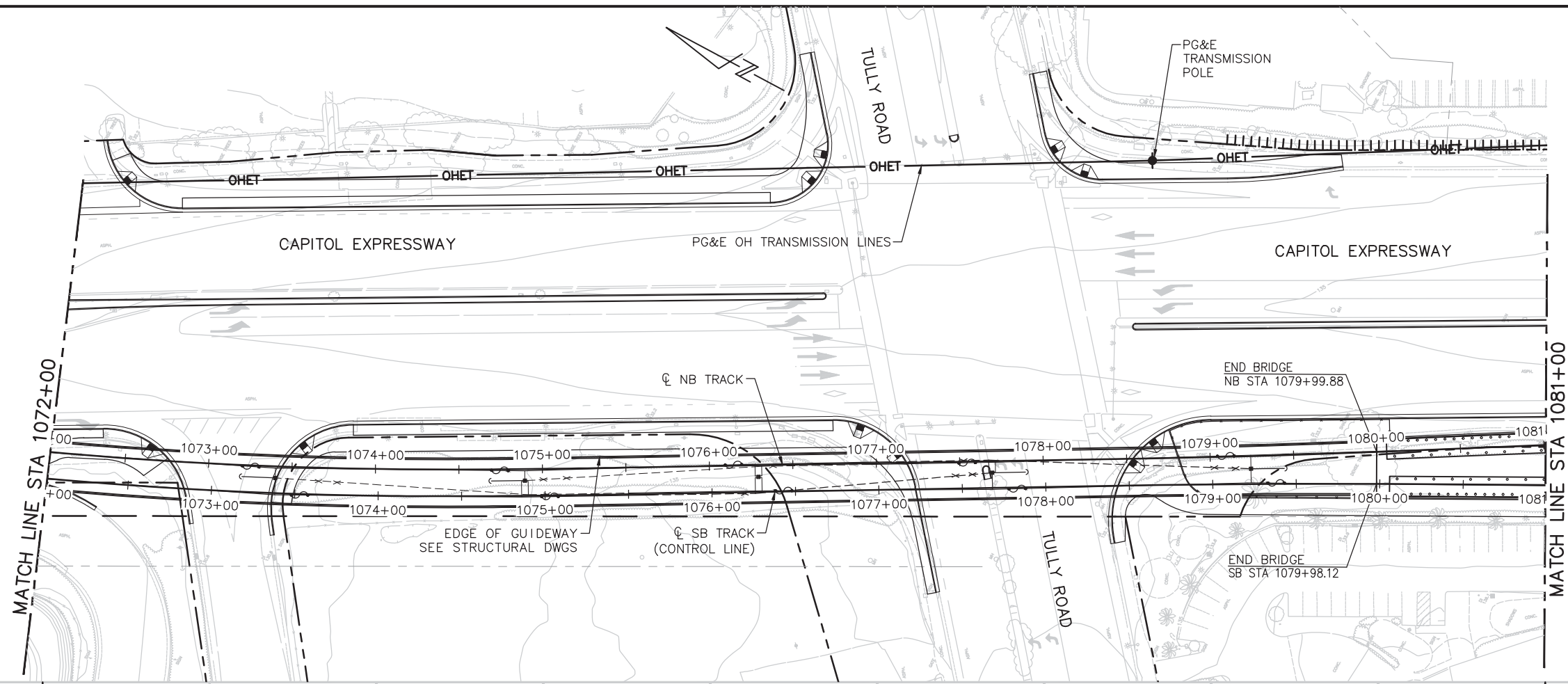
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EASTRIDGE TO BART REGIONAL CONNECTOR
CAPITOL EXPRESSWAY LIGHT RAIL PROJECT

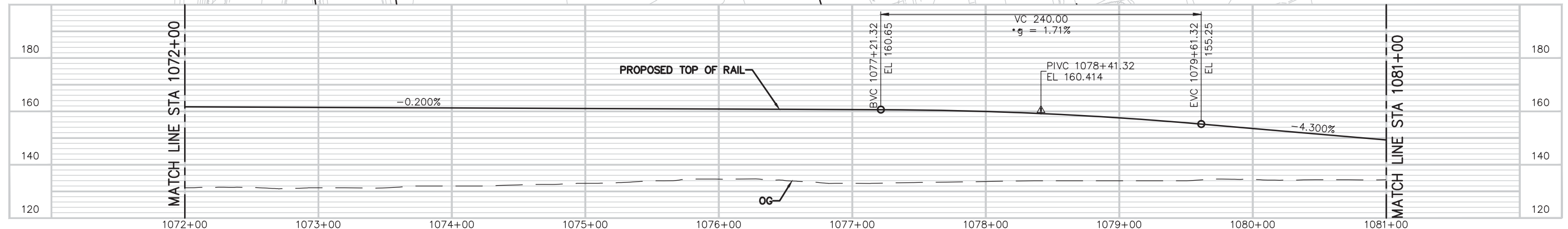
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PCA NO. CONTRACT NO. C801 FILE LOCATION PROJECTWISE

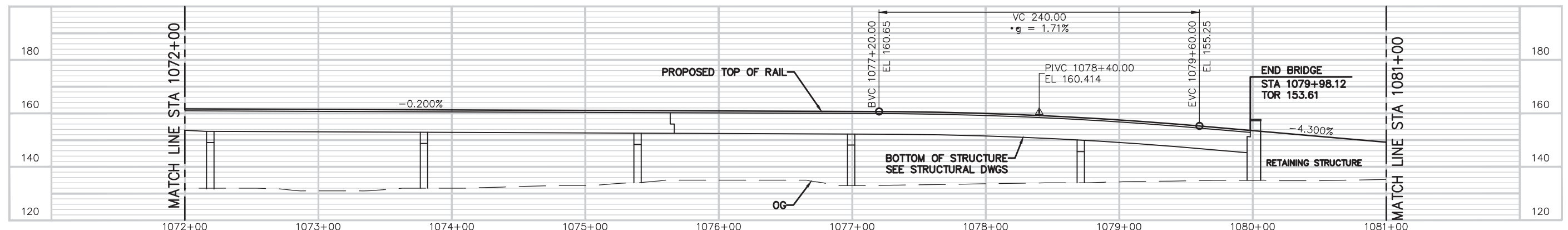
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OF	15
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NO.	DATE	REVISIONS

SUBMITTED	
DESIGNED	CHECKED
DRAWN	CADD FILE NAME 801EX013.dwg



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SUBMITTAL DATE:

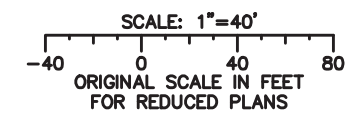
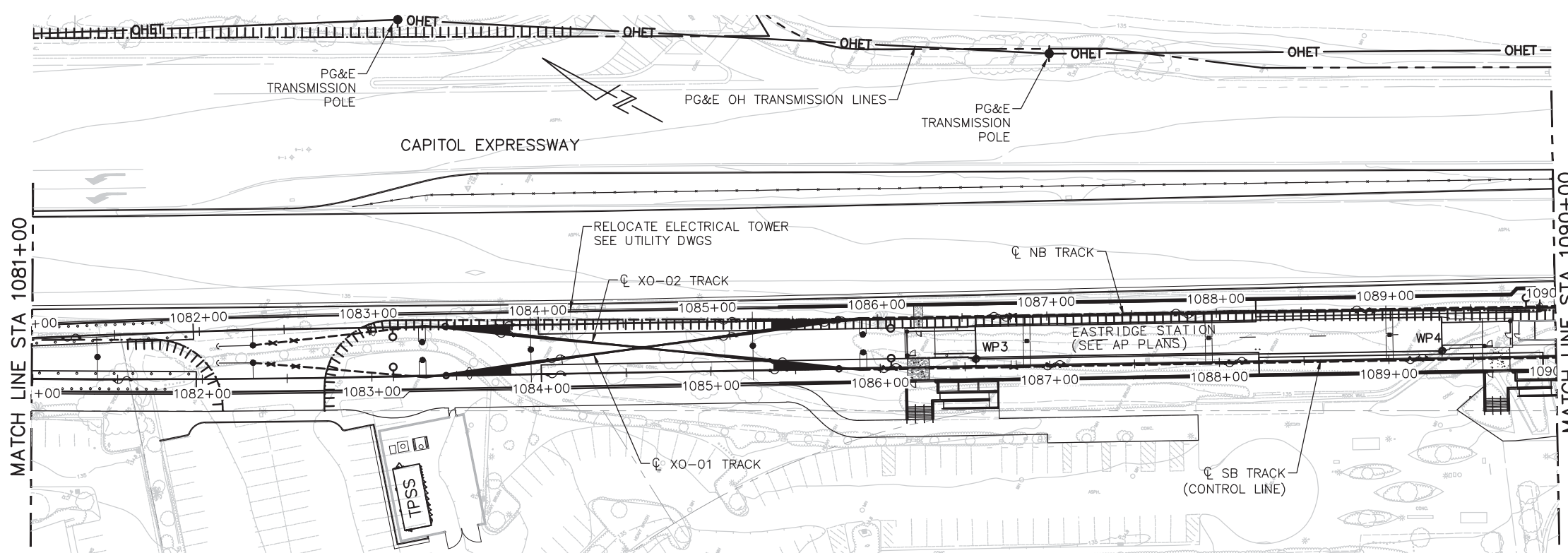
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EASTRIDGE TO BART REGIONAL CONNECTOR
CAPITOL EXPRESSWAY LIGHT RAIL PROJECT

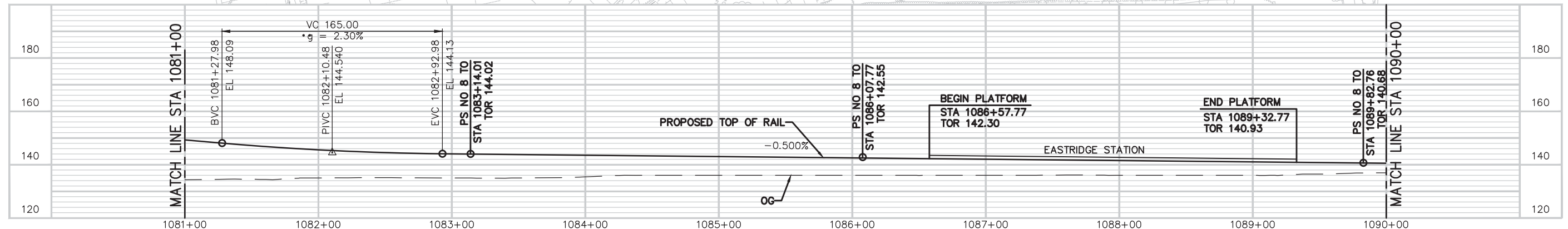
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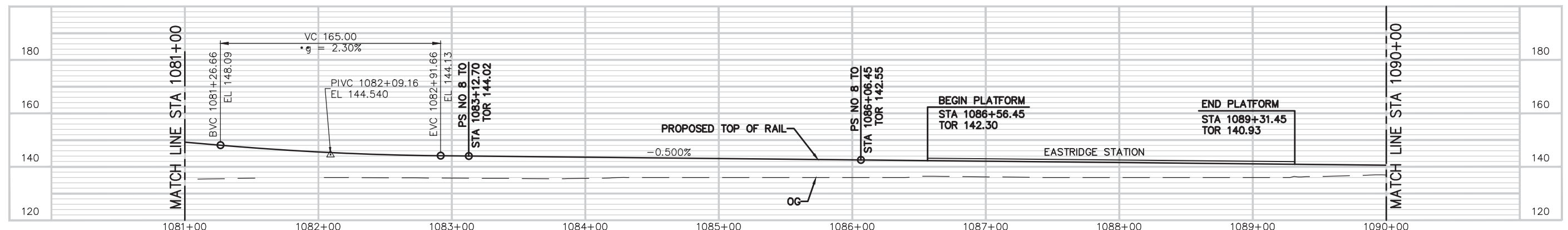
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NO.	DATE	REVISIONS

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DESIGNED	CHECKED
DRAWN	CADD FILE NAME 801EX014.dwg



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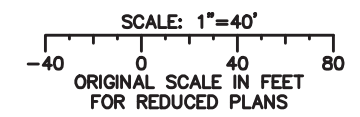
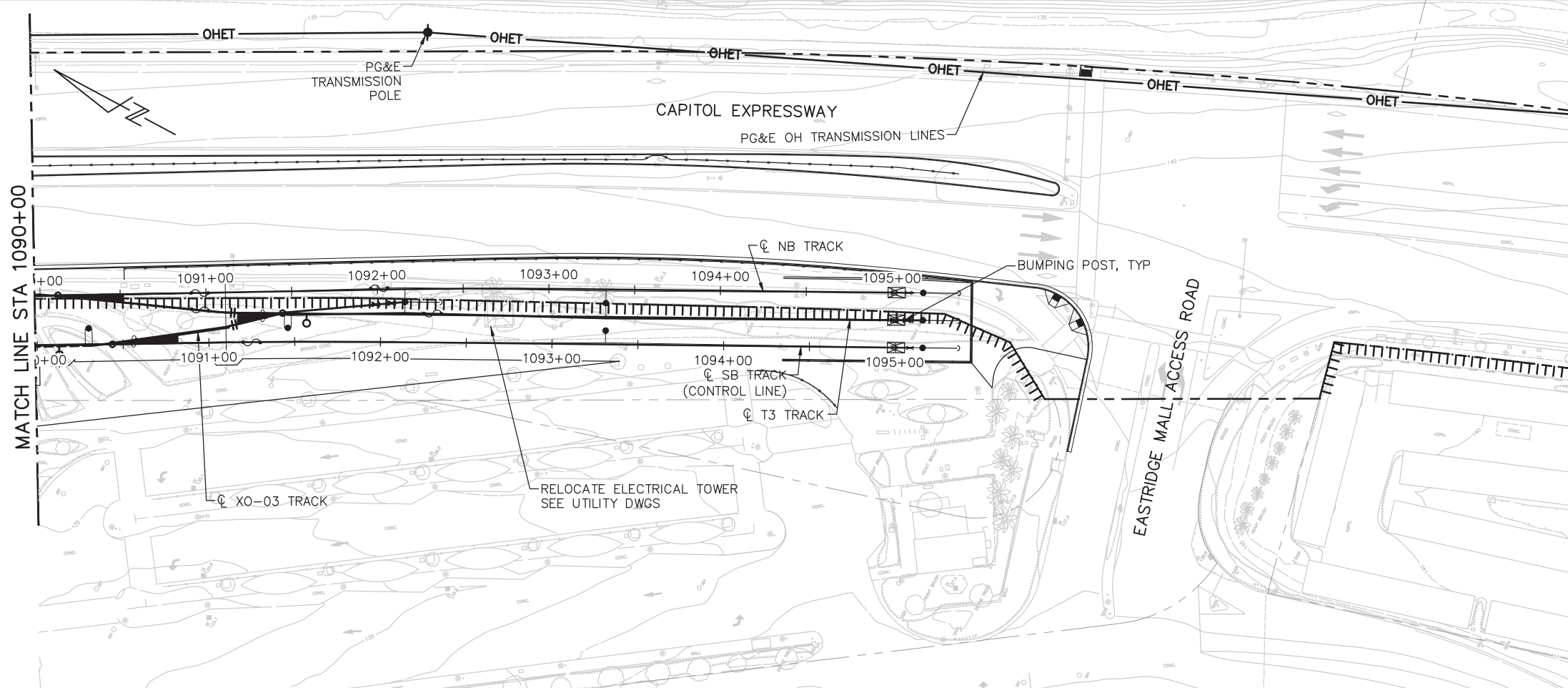
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CAPITOL EXPRESSWAY LIGHT RAIL PROJECT

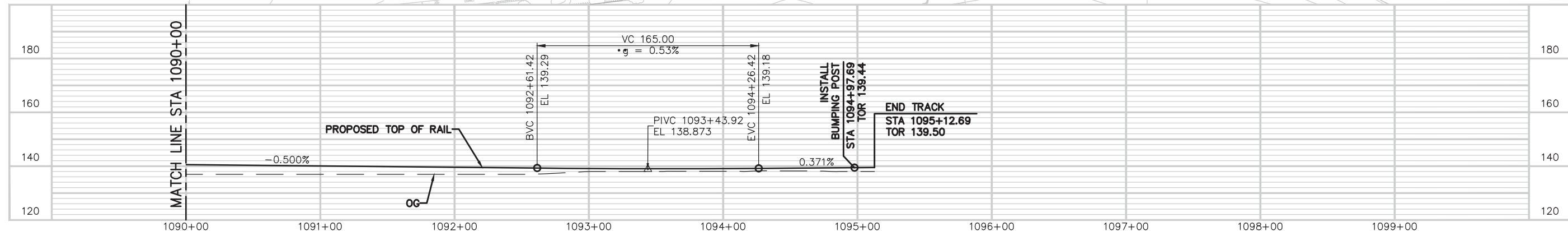
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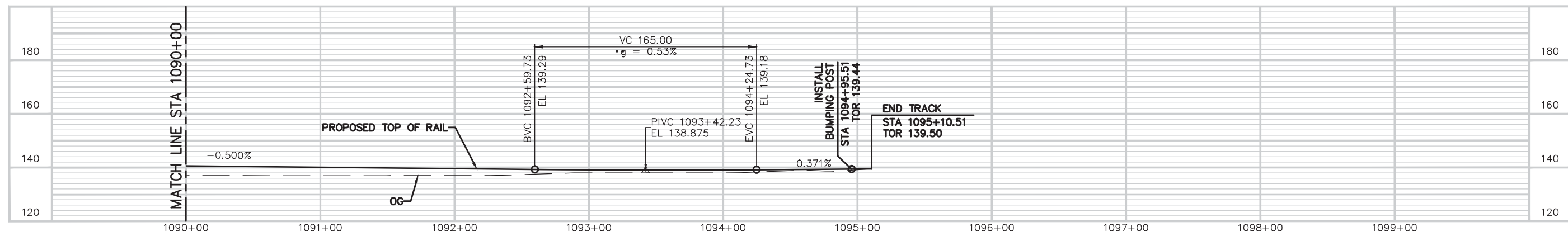
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OF	15
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REVISION	



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NO.	DATE	REVISIONS

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DESIGNED	CHECKED
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SUBMITTAL DATE:

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BOARD APPROVAL DATE:

EASTRIDGE TO BART REGIONAL CONNECTOR
CAPITOL EXPRESSWAY LIGHT RAIL PROJECT

ENVIRONMENTAL EXHIBITS
STA 1090+00 TO STA 1096+00

PCA NO. CONTRACT NO. C801 FILE LOCATION PROJECTWISE

SHEET	15
OF	15
DRAWING NO.	EX015
REVISION	

