VTA's BART Silicon Valley—Phase II Extension Project Initial Site Assessment

Prepared for:

Santa Clara Valley Transportation Authority
Federal Transit Administration

Prepared by:

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November 2017

BASELINE Environmental Consulting. 2017. VTA's BART Silicon Valley—Phase II Extension Project Initial Site Assessment. November. Emeryville, CA. Prepared for the Santa Clara Valley Transportation Authority, San Jose, CA, and the Federal Transit Administration, Washington, D.C.

E.1 Introduction

This Errata reflects the modifications to the *Initial Site Assessment* that may have resulted from comments received during the public review of the Supplemental Environmental Impact Statement (SEIS) and Subsequent Environmental Impact Report (SEIR) for the BART Silicon Valley Phase II Extension (Phase II) Project or that were required for purposes of clarifications. Changes to the *Initial Site Assessment* are shown in ~~strikeout~~ text for deletions and in underline text for additions.

These modifications do not alter the conclusions of the environmental analysis such that new significant environmental impacts have been identified, nor do they constitute significant new information. The modifications are provided by chapter and indicated with the page number from the *Initial Site Assessment* that they would replace. This Errata is intended to be used in conjunction with the *Initial Site Assessment*.

E.2 Chapter/Section Changes

E.2.1 Global Changes to the Assessment

Two station names from the Phase I Extension have been renamed: Berryessa Station (or Berryessa BART Station) is now Berryessa/North San Jose Station. Milpitas BART Station is officially the Milpitas Station.

E.2.2 Changes to Chapter 1, *Project Description*

The revised Chapter 1, *Project Description*, is provided below.

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Chapter 2
Project Description

This chapter describes the proposed Project improvements, the potential for hazardous materials to be used during Project construction and operation, and existing regulatory oversight requirements for the assessment and management of hazardous materials that could be encountered during Project construction.

2.1 City of San Jose

2.1.1 Connection to Phase I Berryessa Extension

The BART extension would begin where the Phase I tail tracks end. The at-grade Phase I tail tracks would be partially removed to allow for construction of the bored tunnels, East Tunnel Portal, and supporting facilities.

The alignment would transition from a retained-fill configuration east of U.S. 101 and south of Mabury Road near the end of the Phase I alignment into a retained-cut configuration and enter the East Tunnel Portal nearjust north of Las Plumas Avenue.

South of the portal, the alignment would pass beneath North Marburg Way, then approximately 25 feet below the creek bed of Lower Silver Creek for the Twin-Bore Option, or approximately 30 feet for the Single-Bore Option, just to the east of U.S. 101, then curve under U.S. 101 south of the McKee Road overpass, and enter Alum Rock/28th Street Station.

2.1.2 Alum Rock/28th Street Station

Alum Rock/28th Street Station would be located between U.S. 101 and North 28th Street and between McKee Road and Santa Clara Street. The station would be underground with street-level entrance portals with elevators, escalators, and stairs covered by canopy structures. In general, each station would have a minimum of two entrances. Under the Single-Bore Option, an underground concourse level would span between the two entrances adjacent to the tunnel. A parking structure of up to seven levels would accommodate BART park-and-ride demand with 1,200 parking spaces. The station would include systems facilities both above and below ground.

From Alum Rock/28th Street Station, the alignment would curve under North 28th Street, North 27th Street, and North 26th Street before aligning under Santa Clara Street. The alignment would continue under the Santa Clara Street right-of-way (ROW) until the alignment approaches Coyote Creek.

2.1.3 Tunnel Alignment near Coyote Creek

For the Twin-Bore Option, the alignment would transition north of Santa Clara Street beginning just west of 22nd Street and pass approximately 20 feet beneath the creekbed of Coyote Creek to the north of Santa Clara Street and avoid the Coyote Creek/Santa Clara Street bridge foundations. The alignment would transition back into the Santa Clara Street ROW near 13th Street, west of Coyote Creek. However, for the Single-Bore Option, the alignment would continue directly under Santa Clara Street and pass approximately 55 feet beneath the creekbed of Coyote Creek and approximately 20 feet below the existing bridge foundations.

2.1.4 13th Street Ventilation Structure

A systems facility site would be located at the northwest corner of Santa Clara and 13th Streets. This site would include a tunnel ventilation structure, which would be an aboveground structure with an associated ventilation shaft.

2.1.5 Downtown San Jose Station

There are two station location options for the Downtown San Jose Station: the Downtown San Jose Station East Option and the Downtown San Jose Station West Option, as described in detail below. The alignment for this area would be the same irrespective of the station option.

The station would consist of boarding platform levels and systems facilities aboveground and within the tunnel beneath Santa Clara Street, as well as entrances at street level. In general, each station would have a minimum of two entrances. Elevators, escalators, and stairs that provide pedestrian access to the ~~mezzanine~~concourse would be at station portal entrances. Escalators and stairs would be covered by canopy structures. The station would not have dedicated park-and-ride facilities. Under either Downtown San Jose Station Option, streetscape improvements, guided by San Jose's Master Streetscape Plan, would be provided along Santa Clara Street to create a pedestrian corridor. For the East Option, streetscape improvements would be between 7th and 1st Streets; for the West Option, streetscape improvements would be between 4th and Market Streets.

2.1.5.1 Downtown San Jose Station East Option

The alignment would continue beneath Santa Clara Street to the Downtown San Jose Station East Option. Under the Twin-Bore Option, crossover tracks would be located east of the Downtown San Jose Station between 7th and 5th Streets (within the cut-and-cover box). Under the Single-Bore Option, the crossover tracks would be located east of the station ~~between 9th and 5th Streets~~within the limits of 8th and 13th Streets.

2.1.5.2 Downtown San Jose Station West Option

The alignment would continue beneath Santa Clara Street to the Downtown San Jose Station West Option. Crossover tracks for the Twin-Bore Option would be located east of the Downtown San Jose Station between 2nd and 4th Streets (within the cut-and-cover box). Under the Single-Bore Option, the crossover tracks would be located east of the station ~~between 7th and 2nd~~ within the limits of 8th and 13th Streets.

2.1.6 Tunnel Alignment into Diridon Station

There are two station location options at Diridon Station: the Diridon Station South Option and the Diridon Station North Option, as described in detail below. The alignment into Diridon Station varies between the North and South Options and between the Twin-Bore and Single-Bore Tunnel Options as described below.

2.1.6.1 Tunnel Alignment into Diridon Station South Option

The alignment would continue beneath Santa Clara Street from the Downtown San Jose Station and shift south beginning just west of South ~~Alamaden~~Almaden Boulevard to pass between the SR 87 bridge foundations. For the Twin-Bore Option, the alignment would pass 45~~40~~ feet below the riverbed of the Guadalupe River, pass beneath ~~and~~ a retaining wall west of the river, and ~~over 20~~25 feet below the creekbed of Los Gatos Creek. For the Single-Bore Option, the alignment would pass approximately 50 feet below the riverbed of the Guadalupe River, pass under the retaining wall, and approximately 35 feet below the creekbed of Los Gatos Creek. After passing under Los Gatos Creek, the alignment for both options would enter the Diridon Station between Los Gatos Creek and Autumn Street.

2.1.6.2 Tunnel Alignment east of Diridon Station North Option

Under the Twin-Bore Option, the alignment would continue beneath Santa Clara Street ~~from the Downtown San Jose Station and shift south beginning just west of South Almaden Boulevard to pass between the SR 87 bridge foundations. The alignment would then pass 45~~ then continue approximately 50 feet below the riverbed of the Guadalupe River and ~~a retaining wall, then veer back north to a location just south of and adjacent to Santa Clara Street. The alignment passes 25~~ 30 feet below the creekbed of Los Gatos Creek. After passing under Los Gatos Creek, the alignment would enter Diridon Station ~~under~~ between Autumn and Montgomery Streets and directly south of Santa Clara Street. The Diridon Station North Option is closer to Santa Clara Street in comparison to the South Option.

Under the Single-Bore Option, the alignment would continue and remain beneath Santa Clara Street, and continue 45~~50~~ feet below the riverbed of the Guadalupe River and 40~~50~~ feet below the creekbed of Los Gatos Creek. ~~After passing under Los Gatos Creek, the alignment would shift north and enter Diridon Station~~ The boarding platforms, with the Single-Bore tunnel, would be located between ~~Autumn and~~ Montgomery and White Streets~~, directly south~~

~~of Santa Clara Street~~. The Diridon Station North Option is closer to Santa Clara Street in comparison to the South Option.

2.1.7 Diridon Station

There are two station location options for the Diridon Station: the Diridon Station South Option and the Diridon Station North Option. The alignment varies by station location. Diridon Station would be generally located between Los Gatos Creek to the east, the San Jose Diridon Caltrain Station to the west, Santa Clara Street to the north, and West San Fernando Street to the south. The South Option would be located midway between Santa Clara Street and Stover Street. The North Option would be located adjacent to, and just south of, Santa Clara Street.

The station would consist of a boarding platform level, a ~~mezzanine~~ concourse level, and entrances at street-level portals. Under the Single-Bore Option, an underground concourse level would span between the two entrances adjacent to the tunnel. The station would have a minimum of two entrances. Entrances would have elevators, escalators, and stairs covered by canopy structures. Systems facilities would be located aboveground and underground at each end of the station.

~~An~~ The existing VTA bus transit center would be reconfigured for better access and circulation to accommodate projected bus and shuttle transfers to and from the BART station. The reconfiguration would be compatible/consistent with the Diridon Transportation Facilities Master Plan's design of the area. Kiss-and-ride facilities would be located along Cahill Street. No park-and-ride parking would be provided at this station.

2.1.7.1 Tunnel Alignment West of Diridon Station North Option

For the South Option, west of the station, the alignment for both the Twin-Bore and Single-Bore Options would continue beneath the Diridon Caltrain Station train tracks and White Street. The alignment would then turn towards the north, crossing under The Alameda at Cleaves Avenue and under West Julian Street at Morrison Avenue before aligning under Stockton Avenue.

Under the Diridon Station North Option and Twin-Bore Option, west of the station, the alignment would continue ~~beneath the Diridon Caltrain Station train tracks and~~ under White and Bush Streets south of The Alameda. The alignment would then turn towards the north, crossing under The Alameda at ~~Wilson Avenue~~ Sunol Street and under West Julian Street at Morrison Avenue~~Cleaves Street~~ before aligning under Stockton Avenue.

Under the Diridon Station North Option and Single-Bore Option, west of the station, the alignment would continue under ~~White and Bush Streets south of~~ Santa Clara Street/The Alameda. The alignment would then turn towards the north at Wilson Avenue, crossing under Rhodes Court~~The Alameda at Sunol Street~~ and under West Julian Street ~~at Morrison Avenue~~ before aligning under Stockton Avenue.

2.1.8 Tunnel Alignment along Stockton Avenue

Around Pershing Avenue, all of the options—the Twin-Bore and Single-Bore Options and the Diridon Station South and North Options—converge back onto the same alignment under Stockton Avenue.

2.1.9 Stockton Avenue Ventilation Structure

On the east side of Stockton Avenue between Schiele Avenue and West Taylor Street, there are three alternate locations for a systems facility site that would house a tunnel ventilation structure, which would be an aboveground structure with an associated ventilation shaft.

2.1.10 Tunnel Alignment near I-880

The alignment would continue north and cross under the Caltrain tracks then under~~and~~ Hedding Street. The alignment would continue on the east side of the Caltrain tracks and cross under Interstate (I-) 880 before ascending and exiting the West Tunnel Portal near Newhall Street.

2.2 City of Santa Clara

The BART Extension Alternative in Santa Clara would consist of the Newhall Maintenance Facility, system facilities, storage tracks for approximately 200 BART revenue vehicles (passenger cars), the Santa Clara Station, and tail track. The San Jose/Santa Clara boundary is located approximately midway through the Newhall Maintenance Facility.

2.2.1 Newhall Maintenance Facility

The Newhall Maintenance Facility is approximately 40 acres, would begin north of the West Tunnel Portal at Newhall Street in San Jose, and extend to Brokaw Road near the Santa Clara Station in Santa Clara. A single tail track would extend north from the Santa Clara Station and cross under the De La Cruz Boulevard overpass and terminate on the north side of the overpass. The maintenance facility would serve two purposes: (1) general maintenance, running repairs, and storage of up to 200 BART revenue vehicles and (2) general maintenance of non-revenue vehicles. The facility would also include maintenance and engineering offices and a yard control tower. Several buildings and numerous transfer and storage tracks would be constructed.

2.2.2 Santa Clara Station

The closest streets to the Santa Clara Station would be El Camino Real to the southwest, De La Cruz Boulevard to the northwest, and Coleman Avenue to the northeast near the intersection of Brokaw Road. The station would be at grade, centered at the west end of Brokaw Road, and would contain an at-grade boarding platform with a ~~mezzanine~~concourse

one level below. Access to the ~~mezzanine~~concourse would be provided via elevators, escalators, and stairs covered by canopy structures. An approximately 240-foot-long pedestrian tunnel would connect from the ~~mezzanine~~concourse level of the BART station to the Santa Clara Caltrain plaza, and an approximately 175-foot-long pedestrian tunnel would connect from the ~~mezzanine~~concourse level to a new BART plaza near Brokaw Road. Kiss-and-ride, bus, and shuttle loading areas would be provided on Brokaw Road.

A parking structure of up to five levels would be located north of Brokaw Road and east of the Caltrain tracks within the station area and would accommodate 500 BART park-and-ride parking spaces in addition to public facilities on the site.

An approximately 150-foot-high radio tower and an associated equipment shelter would be located within the systems site.

2.3 VTA's Transit-Oriented Joint Development (CEQA Only)

VTA is proposing to construct Transit-Oriented Joint Development (TOJD) with office, retail, and residential land uses at the four BART stations (Alum Rock/28th Street, Downtown San Jose, Diridon, and Santa Clara), which offers the benefit of encouraging transit ridership. VTA is also proposing to construct TOJD at two mid-tunnel ventilation structure locations (the northwest corner of Santa Clara and 13th Streets and east of Stockton Avenue south of Taylor Street). VTA's primary objective for the proposed TOJD is to encourage transit ridership and support land use development patterns that make the most efficient and feasible use of existing infrastructure and public services while promoting a sense of community as envisioned by the San Jose and Santa Clara General Plans and relevant adopted specific plans. Estimates for VTA's TOJD at the station sites and at the mid-tunnel ventilation structure locations are provided below and are based on current San Jose and Santa Clara general plans, approved area plans, the existing groundwater table constraints, and market conditions.

Table 1 summarizes the land uses at each proposed TOJD location. The number of parking spaces is based on meeting the Cities of San Jose and Santa Clara parking requirements.

2.4 Hazardous Materials and Waste Potential

Construction and operation of the Project would include the routine transport, use, or disposal of hazardous materials, such as motor fuels, oils, solvents, and lubricants. During Project operations, these hazardous materials would be primarily stored and used at the Newhall Maintenance Facility. Diesel would also be used for standby generators located at each station, yard, shop, and pump station, and possibly at the train control buildings.

2.5 Contaminant Management Plan

At the request of the VTA, the San Francisco Bay Regional Water Quality Control Board (RWQCB) agreed to provide regulatory oversight for the assessment and management of hazardous materials that could be encountered during construction of VTA's BART Silicon Valley Program. In 2008, RWQCB approved a Contaminant Management Plan (CMP) that provides a framework for proper characterization and management of contaminated soil, groundwater, railroad ballasts, and building materials that could be encountered during all construction activities (AECOM Technical Services, Inc. 2014). The CMP describes how to meet the following key objectives:

- Identify various scenarios under which large volumes of soil and railroad ballast generated during construction can be safely reused.
- Identify maximum acceptable contaminant levels for each reuse scenario, by combining existing regulatory agency guidance with calculation of risk-based cleanup goals.
- Identify sampling and analysis, stockpiling, transportation, health and safety, and other procedures by which soil and ballast must be managed in order to meet safety, regulatory, and other standards.
- Define how groundwater encountered during construction will be characterized, properly treated, and discharged.
- Define how building materials, if encountered during construction, will be characterized, handled, and disposed.

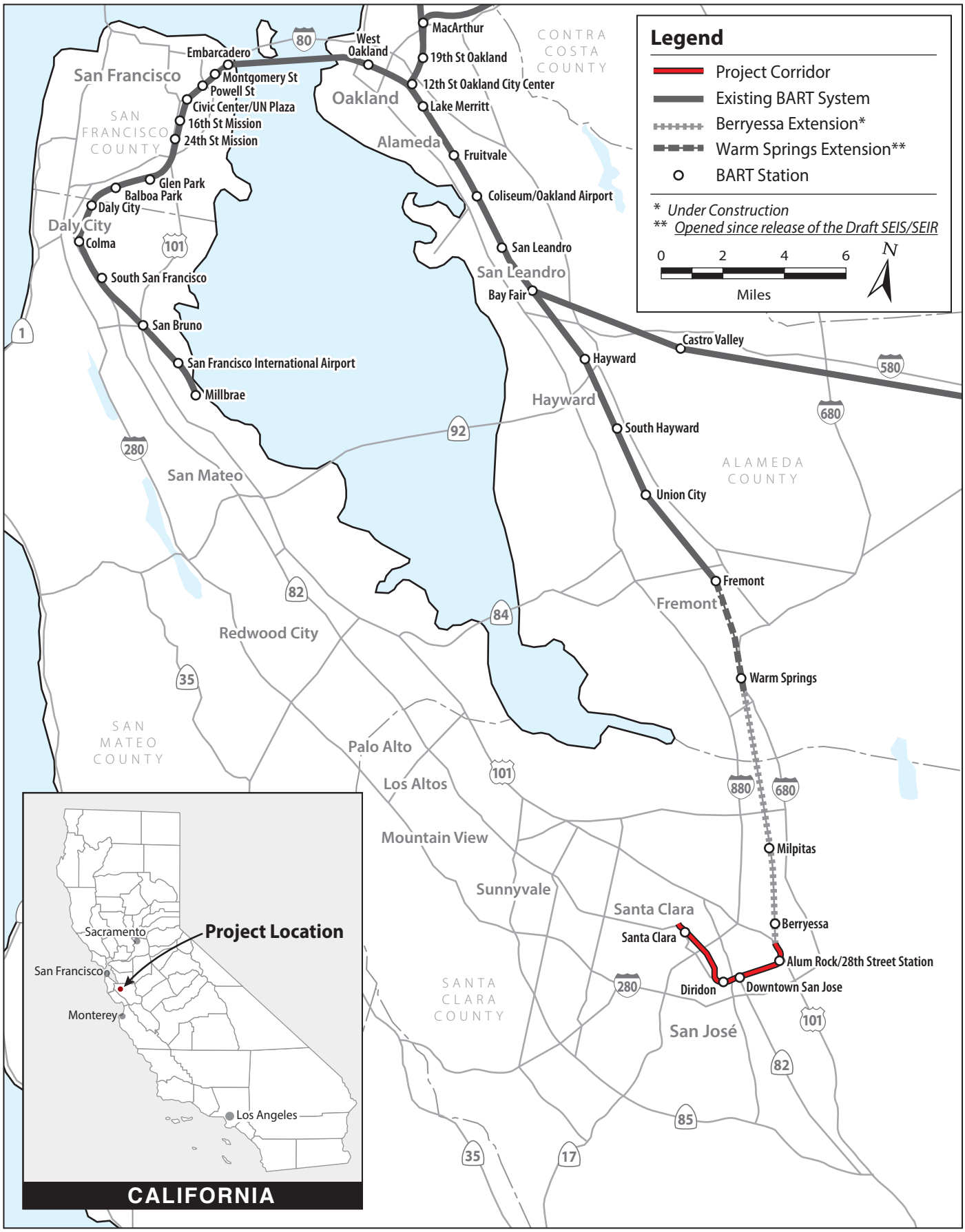

Figure 1
Regional Location (Revised)
VTA's BART Silicon Valley–Phase II Extension Project

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Executive Summary

The Santa Clara Valley Transportation Authority's (VTA) Bay Area Rapid Transit (BART) Silicon Valley—Phase II Extension Project (the "Project") would extend BART service approximately 6 miles through the Cities of San Jose and Santa Clara. The Project improvements would include approximately 5 miles of subway tunnel from Berryessa Station, continuing through downtown San Jose, and terminating at grade near the Santa Clara Caltrain Station. In addition, four passenger stations are proposed. Passenger service on the Phase II Project is scheduled to begin in 2025/2026. The purpose of this Initial Site Assessment (ISA) is to identify and evaluate the level of risk associated with hazardous materials, hazardous waste, and/or contamination on the Project site that could potentially result from the proposed construction activities and/or operations.

This ISA has identified low, medium, and high risk associated with the following hazardous material concerns.

- Potential hazardous building materials in existing buildings proposed for demolition – **Low Risk**
- Potential soil and/or groundwater contamination from undocumented releases associated with commercial and/or industrial properties located on or adjacent to the Project site (Figure 4) – **Medium Risk**
- Residual soil and/or groundwater contamination from closed release sites located on or adjacent to the Project site (Table 3 and Figure 5) – **Medium Risk**
- Potential arsenic and lead contamination in shallow railroad soils and ballasts – **Medium Risk**
- Potential soil and/or groundwater contamination from 13 release sites of concern (Sites 13 through 25 on Table 4 and Figure 6) – **Medium Risk**
- Known soil and/or groundwater contamination from 12 release sites of concern (Sites 1 through 12 on Table 4 and Figure 6) – **High Risk**

Once areas of excavation and demolition are determined, a Preliminary Site Investigation (PSI) should be performed to investigate hazardous materials concerns related to soil, ballasts, groundwater, and hazardous building materials on the Project site, as identified in this ISA. Additional investigation may be required to fully evaluate potential hazardous materials issues if concerns are identified during the PSI. All environmental investigations for the Project should be performed in accordance with current Project Contaminant Management Plan approved by the San Francisco Bay Regional Water Quality Control Board, and the findings should be provided to Project contractors to incorporate into their Health and Safety and Hazard Communication Programs.

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Chapter 1
Introduction

The Phase II Project consists of an approximately six-mile extension of the BART system from the terminus of VTA's BART Silicon Valley—Berryessa Extension Project (Phase I) from San Jose to Santa Clara (see Figure 1). Phase I is currently under construction and scheduled to be operational in late 2017. The Phase II Project would include approximately five miles of subway tunnel from Berryessa Station, continuing through downtown San Jose, and terminating at grade near the Santa Clara Caltrain Station (see Figure 2). In addition, four passenger stations are proposed. Passenger service on the Phase II Project is scheduled to begin in 2025/2026.

There are two construction methods proposed for the five-mile-long tunnel portion of the BART extension—the Twin-Bore and Single-Bore Options—between the East and West Tunnel Portals. Under the Twin-Bore Option, two twin-bore tunnels would be excavated with one track in each. Each tunnel bore would have an outer diameter of approximately 20 feet. The depth of the tunnel would be between 10 and 75 feet below ground surface. The crown, or top, of the tunnel of the Twin-Bore Option would be, on average, 40 feet below the surface. Under the Single-Bore Option, one large-diameter tunnel bore would be excavated which would contain both northbound and southbound tracks. The tunnel bore would have an outer diameter of approximately 45 feet. The crown, or top, of the tunnel of the Single-Bore Option would be, on average, 70 feet below the surface.

BASELINE Environmental Consulting (BASELINE) has prepared this Initial Site Assessment (ISA) for the Project. The purpose of this ISA is to identify and evaluate the level of risk associated with hazardous materials, hazardous waste, and/or contamination on the Project site that could potentially result from the proposed construction activities and/or operations.

Chapter 2
Project Description

This chapter describes the proposed Project improvements, the potential for hazardous materials to be used during Project construction and operation, and existing regulatory oversight requirements for the assessment and management of hazardous materials that could be encountered during Project construction.

2.1 City of San Jose

2.1.1 Connection to Phase I Berryessa Extension

The BART extension would begin where the Phase I tail tracks end. The at-grade Phase I tail tracks would be partially removed to allow for construction of the bored tunnels, East Tunnel Portal, and supporting facilities.

The alignment would transition from a retained-fill configuration east of U.S. 101 and south of Mabury Road near the end of the Phase I alignment into a retained-cut configuration and enter the East Tunnel Portal just north of Las Plumas Avenue.

South of the portal, the alignment would pass beneath North Marburg Way, then approximately 25 feet below the creek bed of Lower Silver Creek for the Twin-Bore Option, or approximately 30 feet for the Single-Bore Option, just to the east of U.S. 101, then curve under U.S. 101 south of the McKee Road overpass, and enter Alum Rock/28th Street Station.

2.1.2 Alum Rock/28th Street Station

Alum Rock/28th Street Station would be located between U.S. 101 and North 28th Street and between McKee Road and Santa Clara Street. The station would be underground with street-level entrance portals with elevators, escalators, and stairs covered by canopy structures. In general, each station would have a minimum of two entrances. A parking structure of up to seven levels would accommodate BART park-and-ride demand with 1,200 parking spaces. The station would include systems facilities both above and below ground.

From Alum Rock/28th Street Station, the alignment would curve under North 28th Street, North 27th Street, and North 26th Street before aligning under Santa Clara Street. The alignment would continue under the Santa Clara Street right-of-way (ROW) until the alignment approaches Coyote Creek.

2.1.3 Tunnel Alignment near Coyote Creek

For the Twin-Bore Option, the alignment would transition north of Santa Clara Street beginning just west of 22nd Street and pass approximately 20 feet beneath the creekbed of

Coyote Creek to the north of Santa Clara Street and avoid the Coyote Creek/Santa Clara Street bridge foundations. The alignment would transition back into the Santa Clara Street ROW near 13th Street, west of Coyote Creek. However, for the Single-Bore Option, the alignment would continue directly under Santa Clara Street and pass approximately 55 feet beneath the creekbed of Coyote Creek and approximately 20 feet below the existing bridge foundations.

2.1.4 13th Street Ventilation Structure

A systems facility site would be located at the northwest corner of Santa Clara and 13th Streets. This site would include a tunnel ventilation structure, which would be an aboveground structure with an associated ventilation shaft.

2.1.5 Downtown San Jose Station

There are two station location options for the Downtown San Jose Station: the Downtown San Jose Station East Option and the Downtown San Jose Station West Option, as described in detail below. The alignment for this area would be the same irrespective of the station option.

The station would consist of boarding platform levels and systems facilities aboveground and within the tunnel beneath Santa Clara Street, as well as entrances at street level. In general, each station would have a minimum of two entrances. Elevators, escalators, and stairs that provide pedestrian access to the mezzanine would be at station portal entrances. Escalators and stairs would be covered by canopy structures. The station would not have dedicated park-and-ride facilities. Under either Downtown San Jose Station Option, streetscape improvements, guided by San Jose's Master Streetscape Plan, would be provided along Santa Clara Street to create a pedestrian corridor. For the East Option, streetscape improvements would be between 7th and 1st Streets; for the West Option, streetscape improvements would be between 4th and Market Streets.

Downtown San Jose Station East Option

The alignment would continue beneath Santa Clara Street to the Downtown San Jose Station East Option. Under the Twin-Bore Option, crossover tracks would be located east of the Downtown San Jose Station between 7th and 5th Streets (within the cut-and-cover box). Under the Single-Bore Option, the crossover tracks would be located east of the station between 9th and 5th Streets.

Downtown San Jose Station West Option

The alignment would continue beneath Santa Clara Street to the Downtown San Jose Station West Option. Crossover tracks for the Twin-Bore Option would be located east of the Downtown San Jose Station between 2nd and 4th Streets (within the cut-and-cover box).

Under the Single-Bore Option, the crossover tracks would be located east of the station between 7th and 2nd Streets.

2.1.6 Tunnel Alignment into Diridon Station

There are two station location options at Diridon Station: the Diridon Station South Option and the Diridon Station North Option, as described in detail below. The alignment into Diridon Station varies between the North and South Options and between the Twin-Bore and Single-Bore Tunnel Options as described below.

Tunnel Alignment into Diridon Station South Option

The alignment would continue beneath Santa Clara Street from the Downtown San Jose Station and shift south beginning just west of South Alamaden Boulevard to pass between the SR 87 bridge foundations. For the Twin-Bore Option, the alignment would pass 40 feet below the riverbed of the Guadalupe River and a retaining wall west of the river, and over 20 feet below the creekbed of Los Gatos Creek. For the Single-Bore Option, the alignment would pass 50 feet below the riverbed of the Guadalupe River, the retaining wall, and the creekbed of Los Gatos Creek. After passing under Los Gatos Creek, the alignment for both options would enter the Diridon Station between Los Gatos Creek and Autumn Street.

Tunnel Alignment east of Diridon Station North Option

Under the Twin-Bore Option, the alignment would continue beneath Santa Clara Street from the Downtown San Jose Station and shift south beginning just west of South Almaden Boulevard to pass between the SR 87 bridge foundations. The alignment would then pass 45 feet below the riverbed of the Guadalupe River and a retaining wall, then veer back north to a location just south of and adjacent to Santa Clara Street. The alignment passes 25 feet below the creekbed of Los Gatos Creek. After passing under Los Gatos Creek, the alignment would enter Diridon Station under Autumn Street and directly south of Santa Clara Street. The Diridon Station North Option is closer to Santa Clara Street in comparison to the South Option.

Under the Single-Bore Option, the alignment would continue beneath Santa Clara Street, continue 50 feet below the riverbed of the Guadalupe River and 50 feet below the creekbed of Los Gatos Creek. After passing under Los Gatos Creek, the alignment would shift north and enter Diridon Station between Autumn and Montgomery Streets, directly south of Santa Clara Street. The Diridon Station North Option is closer to Santa Clara Street in comparison to the South Option.

2.1.7 Diridon Station

There are two station location options for the Diridon Station: the Diridon Station South Option and the Diridon Station North Option. The alignment varies by station location. Diridon Station would be generally located between Los Gatos Creek to the east, the San

Jose Diridon Caltrain Station to the west, Santa Clara Street to the north, and West San Fernando Street to the south. The South Option would be located midway between Santa Clara Street and Stover Street. The North Option would be located adjacent to, and just south of, Santa Clara Street.

The station would consist of a boarding platform level, a mezzanine level, and entrances at street-level portals. The station would have a minimum of two entrances. Entrances would have elevators, escalators, and stairs covered by canopy structures. Systems facilities would be located aboveground and underground at each end of the station.

An existing VTA bus transit center would be reconfigured for better access and circulation to accommodate projected bus and shuttle transfers to and from the BART station. Kiss-and-ride facilities would be located along Cahill Street. No park-and-ride parking would be provided at this station.

Tunnel Alignment West of Diridon Station North Option

For the South Option, west of the station, the alignment for both the Twin-Bore and Single-Bore Options would continue beneath the Diridon Caltrain Station train tracks and White Street. The alignment would then turn towards the north, crossing under The Alameda at Cleaves Avenue and under West Julian Street at Morrison Avenue before aligning under Stockton Avenue.

Under the Diridon Station North Option and Twin-Bore Option, west of the station, the alignment would continue beneath the Diridon Caltrain Station train tracks and White Street. The alignment would then turn towards the north, crossing under The Alameda at Wilson Avenue and under West Julian Street at Cleaves Street before aligning under Stockton Avenue.

Under the Diridon Station North Option and Single-Bore Option, west of the station, the alignment would continue under White and Bush Streets south of The Alameda. The alignment would then turn towards the north, crossing under The Alameda at Sunol Street and under West Julian Street at Morrison Avenue before aligning under Stockton Avenue.

2.1.8 Tunnel Alignment along Stockton Avenue

Around Pershing Avenue, all of the options—the Twin-Bore and Single-Bore Options and the Diridon Station South and North Options—converge back onto the same alignment under Stockton Avenue.

2.1.9 Stockton Avenue Ventilation Structure

On the east side of Stockton Avenue between Schiele Avenue and West Taylor Street, there are three alternate locations for a systems facility site that would house a tunnel ventilation structure, which would be an aboveground structure with an associated ventilation shaft.

2.1.10 Tunnel Alignment near I-880

The alignment would continue north and cross under the Caltrain tracks and Hedding Street. The alignment would continue on the east side of the Caltrain tracks and cross under Interstate (I-) 880 before ascending and exiting the West Tunnel Portal near Newhall Street.

2.2 City of Santa Clara

The BART Extension Alternative in Santa Clara would consist of the Newhall Maintenance Facility, system facilities, storage tracks for approximately 200 BART revenue vehicles (passenger cars), the Santa Clara Station, and tail track. The San Jose/Santa Clara boundary is located approximately midway through the Newhall Maintenance Facility.

2.2.1 Newhall Maintenance Facility

The Newhall Maintenance Facility would begin north of the West Tunnel Portal at Newhall Street in San Jose and extend to Brokaw Road near the Santa Clara Station in Santa Clara. A single tail track would extend north from the Santa Clara Station and cross under the De La Cruz Boulevard overpass and terminate on the north side of the overpass. The maintenance facility would serve two purposes: (1) general maintenance, running repairs, and storage of up to 200 BART revenue vehicles and (2) general maintenance of non-revenue vehicles. The facility would also include maintenance and engineering offices and a yard control tower. Several buildings and numerous transfer and storage tracks would be constructed.

2.2.2 Santa Clara Station

The closest streets to the Santa Clara Station would be El Camino Real to the southwest, De La Cruz Boulevard to the northwest, and Coleman Avenue to the northeast near the intersection of Brokaw Road. The station would be at grade, centered at the west end of Brokaw Road, and would contain an at-grade boarding platform with a mezzanine one level below. Access to the mezzanine would be provided via elevators, escalators, and stairs covered by canopy structures. An approximately 240-foot-long pedestrian tunnel would connect from the mezzanine level of the BART station to the Santa Clara Caltrain plaza, and an approximately 175-foot-long pedestrian tunnel would connect from the mezzanine level to a new BART plaza near Brokaw Road. Kiss-and-ride, bus, and shuttle loading areas would be provided on Brokaw Road.

A parking structure of up to five levels would be located north of Brokaw Road and east of the Caltrain tracks within the station area and would accommodate 500 BART park-and-ride parking spaces in addition to public facilities on the site.

An approximately 150-foot-high radio tower and an associated equipment shelter would be located within the systems site.

2.3 VTA's Transit-Oriented Joint Development (CEQA Only)

VTA is proposing to construct Transit-Oriented Joint Development (TOJD) with office, retail, and residential land uses at the four BART stations (Alum Rock/28th Street, Downtown San Jose, Diridon, and Santa Clara), which offers the benefit of encouraging transit ridership. VTA is also proposing to construct TOJD at two mid-tunnel ventilation structure locations (the northwest corner of Santa Clara and 13th Streets and east of Stockton Avenue south of Taylor Street). VTA's primary objective for the proposed TOJD is to encourage transit ridership and support land use development patterns that make the most efficient and feasible use of existing infrastructure and public services while promoting a sense of community as envisioned by the San Jose and Santa Clara General Plans and relevant adopted specific plans. Estimates for VTA's TOJD at the station sites and at the mid-tunnel ventilation structure locations are provided below and are based on current San Jose and Santa Clara general plans, approved area plans, the existing groundwater table constraints, and market conditions.

Table 1 summarizes the land uses at each proposed TOJD location. The number of parking spaces is based on meeting the Cities of San Jose and Santa Clara parking requirements.

2.4 Hazardous Materials and Waste Potential

Construction and operation of the Project would include the routine transport, use, or disposal of hazardous materials, such as motor fuels, oils, solvents, and lubricants. During Project operations, these hazardous materials would be primarily stored and used at the Newhall Maintenance Facility. Diesel would also be used for standby generators located at each station, yard, shop, and pump station, and possibly at the train control buildings.

2.5 Contaminant Management Plan

At the request of the VTA, the San Francisco Bay Regional Water Quality Control Board (RWQCB) agreed to provide regulatory oversight for the assessment and management of hazardous materials that could be encountered during construction of VTA's BART Silicon Valley Program. In 2008, RWQCB approved a Contaminant Management Plan (CMP) that provides a framework for proper characterization and management of contaminated soil, groundwater, railroad ballasts, and building materials that could be encountered during all construction activities (AECOM Technical Services, Inc. 2014). The CMP describes how to meet the following key objectives:

- Identify various scenarios under which large volumes of soil and railroad ballast generated during construction can be safely reused.

- Identify maximum acceptable contaminant levels for each reuse scenario, by combining existing regulatory agency guidance with calculation of risk-based cleanup goals.
- Identify sampling and analysis, stockpiling, transportation, health and safety, and other procedures by which soil and ballast must be managed in order to meet safety, regulatory, and other standards.
- Define how groundwater encountered during construction will be characterized, properly treated, and discharged.
- Define how building materials, if encountered during construction, will be characterized, handled, and disposed.

Chapter 3
Methodology

As shown in Figure 2, Project improvements and construction staging areas are included in the Area of Potential Effect (APE). Construction staging could occur within any of the Project improvement areas where stations, system facilities, and the Newhall Maintenance Facility are located. In addition, there are several locations north of U.S. 101 where areas would only be used for construction staging. BASELINE performed this assessment in accordance with Chapter 10 of the California Department of Transportation (Caltrans) *Environmental Handbook* (Caltrans 2014) to support the preliminary engineering and environmental review of the Project. As required by Caltrans, potential sources of contamination within the Project APE (also referred to as the "Project site") were identified as Recognized Environmental Conditions[1] (RECs) in accordance with ASTM International's (2013) Standard Practice Method E1527-13, *Standard Practice for Environmental Site Assessments: Phase I Environmental Assessment Process*. The scope of services for this ISA included review and evaluation of the physical setting, historical aerial photographs, environmental records, and previous environmental investigations. A completed ISA checklist for the Project is included as Appendix A.

3.1 Recognized Environmental Conditions

In accordance with ASTM 1527-13, standard data sources were reviewed to identify sites associated with hazardous materials within up to 1 mile of the Project site. The data sources included United States Geological Survey (USGS) topographic maps, historical aerial photographs, environmental records derived from regulatory agency databases, and previous environmental investigations. Based on the review of data sources, potential sites of concern were further evaluated to identify releases of hazardous materials that could result in a REC in connection with the Project. Risk levels associated with identified RECs were then assessed for the Project in accordance with the Caltrans *Environmental Handbook*.

3.2 Other Environmental Concerns

Based on Caltrans *Environmental Handbook* and BASELINE's previous experience working on similar development projects, other environmental concerns that could pose a risk to the Project, but are not considered RECs under ASTM 1527-13, were identified. These

[1] RECs are defined in ASTM E1527-13 as "the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: (1) due to release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment." According to ASTM E1527-13, the term "REC" is not intended to include de minimis conditions that generally do not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies.

environmental concerns include hazardous building materials, naturally occurring asbestos, and soil and ballast along the railroad ROW. Following the evaluation of other environmental concerns, associated risk levels were assessed for the Project in accordance with the Caltrans *Environmental Handbook*.

Chapter 4
Review of Data Sources

This chapter describes the review of the physical setting, historical land uses, environmental records, and previous environmental investigations in the Project vicinity.

4.1 Physical Setting

The elevation profile along the Project alignment is relatively flat and ranges from about 65 to 90 feet (NAVD 88) (USGS 2009). The Project is generally underlain by Holocene alluvium (Graymer et al. 2006) and crosses four waterways (Silver Creek, Coyote Creek, Guadalupe River, and Los Gatos Creek) that discharge to the San Francisco Bay, located north of the Project (Figure 3).

Groundwater levels recently measured in eight monitoring wells near the Project alignment (Figure 3) were reviewed from the State Water Resources Control Board's (SWRCB) (2013) *Groundwater Ambient Monitoring and Assessment* (GAMA) database. Based on review of the GAMA database, groundwater elevations reported near the Project range from about 62 to 84 feet (NAVD 88) and the depth to groundwater ranges from about 8 to 18 feet below ground surface (bgs). According to the 65 percent design plans for the Project, the lower elevation of the Project's tunnels would generally range from about 0 to 40 feet (NAVD 88), which is well below groundwater levels reported in the Project vicinity (Figure 3).

4.2 Historical Aerial Photographs

Historical land uses in the Project vicinity were determined by reviewing historical aerial photographs. The aerial photographs were geocoded and imported into a Geographic Information System (GIS) to spatially analyze land use developments relative to the Project APE. The aerial photographs reviewed for this ISA are included in Appendix B.

As early as 1954, the Project site between Santa Clara Station and Silver Creek had been developed for commercial and industrial land uses, including the Union Pacific Railroad (UPRR) Newhall Yard at the proposed Santa Clara Station and Newhall Maintenance Facility. North of Silver Creek, the Project site appeared to be developed for the UPRR railroad and dry-land farming. By 1960, the farm lands north of Silver Creek had been redeveloped for commercial and industrial land uses. Commercial and industrial land uses have generally remained prevalent on and adjacent to the Project site since the 1960s.

4.3 Environmental Records

BASELINE reviewed environmental records that were reasonably ascertainable[2] from standard sources[3] to identify RECs in connection with the Project site. Standard environmental record sources were not included for state-registered aboveground storage tank (AST) sites, because the records were not reasonably ascertainable. All facilities that have registered ASTs are required to submit information annually to the California Environmental Reporting System (CERS). Information about facilities stored in the CERS database is not currently available to the public. Standard environmental record sources for federal Emergency Response Notification System (ERNS) incidents were not reviewed, because the relatively high density of records reports in the Cities of Santa Clara and San Jose were not practically reviewable.[4] The location description of ERNS incidents are commonly incomplete or too inaccurate to determine if an incident occurred on the Project site without conjecture. In addition, the descriptions of hazardous materials released are commonly too vague to determine if a REC in connection with the Project could potentially exist. As described under Chapter 7, *Data Gaps*, the exclusion of AST and ERNS records does not pose a significant data gap because review of other environmental record sources (described below) was sufficient for this level of analysis to identify RECs in connection with the Project.

The United States Environmental Protection Agency (EPA) oversees facilities that generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). In California, the SWRCB and Department of Toxic Substances Control (DTSC) oversee the cleanup of contaminated properties. The SWRCB and DTSC also oversee the state's underground storage tank (UST) program and permitted hazardous waste facilities, respectively, to minimize the potential threat of future hazardous materials releases. The environmental record sources reviewed for this ISA were derived from the EPA (2015) *RCRAInfo* database, SWRCB (2015) *GeoTracker* database, and DTSC (2015) *EnviroStor* database. A summary of the environmental record sources reviewed is provided on Table 2.

Site information from each record source was imported into a GIS program to spatially analyze sites within the minimum search distances defined by ASTM E1527-13[5] relative to the boundary of the Project site (Table 2). The spatial analysis identified 5 permitted UST facilities and 66 RCRA generators on or adjacent to the Project site (within 500 feet). The spatial analysis identified 437 hazardous materials release sites within up to 1 mile of the Project site.

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[2] Information that is (1) publically available, (2) obtainable from its source within reasonable time and cost restraints, and (3) practically reviewable (ASTM E1527-13).

[3] Defined in Section 8 of ASTM E1527-13.

[4] Information that is provided by the source in a manner and in a form that, upon examination, yields information relevant to the property without the need for extraordinary analysis of irrelevant data (abbreviated from ASTM E1527-13).

[5] The minimum ASTM search distances range from adjacent (about 500 feet) to 1 mile depending on the type of environmental record.

4.4 Previous Environmental Investigations

Numerous environmental investigations have been performed on the Project site and at hazardous materials release sites within 1 mile of the Project site and were identified during the review of environmental records. The findings of the previous environmental investigations at sites of potential concern are summarized in Chapter 5, *Evaluation of Recognized Environmental Conditions*.

Chapter 5
Evaluation of Recognized Environmental Conditions

This chapter describes the evaluation of known and suspected sources of subsurface contamination in the Project vicinity that could result in a REC in connection with the Project.

5.1 Undocumented Hazardous Materials Releases

Numerous commercial and industrial properties have been located on and adjacent to the Project site since 1954. The 5 permitted UST facilities and 66 RCRA generators identified on or adjacent to the Project site (within 500 feet) are generally associated with commercial and industrial properties (e.g., dry cleaners and gas stations) and are distributed along the Project site (Figure 4). The large quantity and apparent long history of commercial and industrial properties that have managed hazardous materials on or adjacent to the Project site has possibly resulted in undocumented releases of hazardous materials. Potential soil and groundwater contamination on the Project site from undocumented hazardous materials releases (if any) could affect Project development and operation. In addition, potential groundwater contamination from adjacent sites could migrate beneath the Project site in the future (due to regional groundwater flow, construction dewatering, and/or tunnel dewatering during operation), posing a risk to the Project.

5.2 Residual Subsurface Contamination

Based on review of the environmental records, 107 of the 437 hazardous materials release sites identified are located on or adjacent to (within 500 feet) the Project site and have obtained regulatory closure (Table 3 and Figure 5). These sites have been closed because residual contamination (if any) does not pose an unacceptable health risk to the current users of the site. However, residual contamination could pose an unacceptable health risk under future land use and development scenarios (e.g., grading, excavation, and/or dewatering). As a result, future developers of many of these sites are required to notify the County of Santa Clara Department of Environmental Health (DEH) and the appropriate planning/building department prior to redevelopment to state that residual contamination exists on the property and to list all measure necessary to protect human health and the environment. Therefore, residual soil and groundwater contamination from closed hazardous materials release sites located on or adjacent to the Project site could affect Project development and operation.

5.3 Hazardous Materials Release Sites of Concern

Based on review of the environmental records, 43 of the 437 hazardous materials release sites identified are under active regulatory oversight and/or have land use restrictions, and are on, adjacent to, or hydraulically upgradient of the Project site. These 43 hazardous release sites were identified as sites of concern that could result in a REC in connection with the Project and are discussed further, below. The other 394 release sites are downgradient of the Project site and/or have a closed regulatory status. Groundwater contamination from sites downgradient of the Project site would not be expected to pose a risk of migrating beneath the Project site. While potential residual contamination from closed release sites close to the Project site could pose a risk of affecting the Project (see Section 5.2, *Residual Subsurface Contamination*), residual contamination from more distant sites would not be expected to pose a risk of migrating beneath the Project site.

Available environmental records and previous investigations were reviewed for the 43 hazardous materials release sites of concern to determine if there are any RECs in connection with the Project. The 43 hazardous materials release site of concern are summarized in Table 4, shown in Figure 6, and discussed in more detail, below. The site names of all the hazardous materials releases sites of concern referenced within this report are derived directly from the SWRCB and DTSC regulatory databases.

5.3.1 Known Subsurface Contamination on the Project

Based on review of environmental records and previous investigations, soil and/or groundwater contamination has been documented on the Project site from 12 of the 43 hazardous materials release sites of concern (Sites 1 through 12 in Table 4 and on Figure 6), as described below.

FMC 333 and 328 West Brokaw Road (Sites 1 and 2)

Portions of the proposed Santa Clara Station would be located on FMC 333 West Brokaw Road and FMC 333 West Brokaw Road (Sites 1 and 2, respectively, on Table 4 and Figures 6 and 7). The primary contaminant of concern (COC) in soil and groundwater is trichloroethylene (TCE). As shown on Figure 7, three TCE plumes are located on the Project site near Brokaw Road, the Newhall Maintenance Facility, and near the eastern terminus of the Santa Clara Station (Parsons 2013). A deed restriction was recorded on the FMC 333 West Brokaw Road property in 1995 that prohibits subsurface work or groundwater extraction at the site without prior approval from the RWQCB (2011a). A deed restriction was also recorded on the FMC 328 West Brokaw Road property in 1996 that prohibits subsurface work or groundwater extraction at the site without prior approval from FMC and the RWQCB (2011b).

BART System Silicon Valley Berryessa Extension Project (Site 3)

Previous investigations for the entire BART Silicon Valley Program are located on the SWRCB *GeoTracker* database under the name "BART System Silicon Valley Berryessa Extension Project" (Site 3 on Table 4 and Figures 6 and 7). Subsurface investigations have been performed at the proposed Santa Clara Station and the Newhall Maintenance Facility. Groundwater is impacted by TCE from FMC 328 West Brokaw Road (Site 2) to the north (Figure 7). Based on the Project CMP, 15 areas have been identified where concentrations of petroleum hydrocarbons and certain metals in shallow soils exceed the soil-reuse criteria, as defined by the CMP (Figure 7). In accordance with the CMP, a Remedial Action Plan (RAP) was developed for the site that describes how shallow soil contamination will be managed and evaluated for re-use or offsite disposal during Project construction (RWQCB 2007a).

Bay Area Petroleum (Site 4)

Bay Area Petroleum is located above the proposed tunnel alignments (Site 4 on Table 4 and Figures 6 and 8). The primary COCs in soil and groundwater are petroleum hydrocarbons. Soil and groundwater have been impacted by petroleum hydrocarbons from former USTs located on the eastern portion of the site directly above the proposed tunnel alignments (Figure 8) (Broadbent & Associates, Inc. 2015). While DEH is currently considering the site for closure (DEH 2015a), residual groundwater contamination remains on the Project site.

E-Z Auto and Transmission (Site 5)

E-Z Auto and Transmission is located adjacent to a proposed staging area near West Taylor Street (Site 5 on Table 4 and Figures 6 and 8). The primary COCs in groundwater are petroleum hydrocarbons. Petroleum hydrocarbon impacts on groundwater from former USTs and/or ASTs have been reported on the eastern portion of the site (Figure 8). A contributing source to the groundwater impacts could possibly originate from within the Project APE (Antea Group 2014).

Farmers Sheet Metal (Site 6)

Farmers Sheet Metal is located above the proposed tunnel alignments (Site 6 on Table 4 and Figures 6 and 8). The site was closed in 2003 with a deed restriction for residual soil and groundwater contamination. The primary COCs are petroleum hydrocarbons in soil and groundwater from a former UST. The deed restriction prohibits subsurface work without preparation of a site health and safety plan and approval from the San Jose Building Department and Santa Clara Valley Water District[6] (RWQCB 2003).

San Jose Arena Block 5A (Site 7)

The San Jose Arena Block 5A is located on the proposed Diridon Station South and North Option sites (Site 7 on Table 4 and Figures 6 and 9). The primary COCs in soil and

[6] Because oversight of the Leaking UST Program was transferred from Santa Clara Valley Water District to DEH in 2004, DEH would likely oversee any excavation activities proposed on the Farmers Sheet Metal site.

groundwater are petroleum hydrocarbons. RWQCB has closed the site, but a deed restriction was recorded in 2001 that prohibits subsurface work or groundwater extraction at the site without prior approval from DEH and the City of San Jose Planning Department (DEH 2009).

Vintage Towers (Site 8)

Vintage Towers is adjacent to and north of the proposed tunnel alignments and Downtown San Jose Station East Option at the intersection of North 6th Street (Site 8 on Table 4 and Figures 6 and 9). The primary COCs in soil and groundwater are petroleum hydrocarbons from a former UST in the sidewalk located south of the property above the proposed tunnel alignments (Trinity Source Group, Inc. 2015).

Art Cleaners (Site 9)

Art Cleaners is adjacent to and south of the proposed tunnel alignment at the intersection of South 9th Street (Site 9 on Table 4 and Figures 6 and 10). The primary COCs in soil and groundwater are petroleum hydrocarbons from a former gas station and chlorinated solvents from a former dry cleaning facility. A groundwater plume of petroleum hydrocarbons and chlorinated solvents extends northwest from the site above the proposed tunnel alignments (Murex Environmental, Inc. 2015).

Parking Lot – 597 East Santa Clara Street (Site 10)

Parking Lot – 597 East Santa Clara Street is on a staging area and adjacent to the tunnel alignments for the Project (Site 10 on Table 4 and Figures 6 and 10). The primary COCs in soil and groundwater are petroleum hydrocarbons from a former gas station (Cornerstone Earth Group 2015a). While DEH is currently considering the site for closure (DEH 2015b), residual soil and groundwater contamination remains on the Project site.

Della Maggiore Stone (Site 11)

Della Maggiore Stone is located on the proposed Alum Rock/28th Street Station and staging area (Site 11 on Table 4 and Figures 6 and 11). The primary COCs in soil and groundwater are petroleum hydrocarbons from former USTs on the southeast portion of the site (Figure 11). A groundwater plume of petroleum hydrocarbons has migrated off site to the south and/or southwest (Geocon Consultants, Inc. 2013). While DEH is currently considering the site for closure (DEH 2015c), residual soil and groundwater contamination remains on the Project site.

San Jose Family Shelter (Site 12)

San Jose Family Shelter is located within a proposed staging area near Las Plumas Avenue (Site 12 on Table 4 and Figures 6 and 11). The primary COCs in soil and groundwater are petroleum hydrocarbons from former USTs and chlorinated solvents that appear to have originated from a former machine shop on the adjacent property to the southwest at 1550 Las Plumas Avenue. Based on previous groundwater sampling at San Jose Family Shelter and the

property at 1150 Las Plumas Avenue, groundwater plumes of petroleum hydrocarbons and chlorinated solvents appear to extend between the two properties (Figure 11) (Cornerstone Earth Group 2015b).

5.3.2 Potential Subsurface Contamination on the Project

Based on review of environmental records and previous investigations, the extent of soil and/or groundwater contamination from 13 of the 43 hazardous materials release sites of concern (Sites 13 through 25 in Table 4 and on Figure 6) has not been fully delineated and could potentially extend onto the Project site or pose a threat of migrating onto the Project site in the future, as described below.

AJ Commercial Laundry/All Chem Supply (Site 13)

AJ Commercial Laundry/All Chem Supply is approximately 600 feet southwest of the Project (Site 13 on Table 4 and Figures 6 and 7). The primary COCs in soil and groundwater are chlorinated solvents. The downgradient extent of the chlorinated solvent groundwater plume has not been delineated (GeoRestoration, Inc. 2011) and could potentially extend onto the Project site or pose a threat of migrating onto the Project site in the future.

Del Monte Plant 51 (Site 14)

Del Monte Plant 51 appears to be adjacent to and/or on the proposed tunnel alignments west of the Diridon Station South and North Option sites (Site 14 on Table 4 and Figures 6 and 9). A leak of chlorinated solvents was reported in 1997 that impacted soil. Previous environmental investigations (if any) were not available for review on the SWRCB (2015) *GeoTracker* database. Soil contamination, and potential undocumented groundwater contamination from Del Monte Plant 51 could possibly be located on the Project site.

Perrucci Properties (Site 15)

Perrucci Properties appears to be at the proposed Diridon Station South and North Option sites (Site 15 on Table 4 and Figures 6 and 9). A release of petroleum hydrocarbons was reported in 1992 that impacted soil. Previous environmental investigations (if any) were not available for review on the SWRCB (2015) *GeoTracker* database. Soil contamination and potentially undocumented groundwater contamination from Perrucci Properties could possibly be located on the Project site.

Marian Johnson (Site 16)

Marian Johnson appears to be about 100 feet south of the proposed Diridon Station South and North Option sites (Site 16 on Table 4 and Figures 6 and 9). A release of petroleum hydrocarbons was reported in 1995, but potential impacts on soil and groundwater have not been reported. Previous environmental investigations (if any) were not available for review on the SWRCB (2015) *GeoTracker* database. Potential undocumented groundwater

contamination from Marian Johnson could potentially extend onto the Project site or pose a threat of migrating onto the Project site in the future.

Divco West Properties [NPDES] (Site 17)

Divco West Properties [NPDES] is about 800 feet southeast of the proposed tunnel alignments (Site 17 on Table 4 and Figures 6 and 9). The primary COCs are chlorinated solvents in groundwater. The chlorinated solvents are reportedly treated in a foundation dewatering treatment system prior to surface water discharge under a National Pollutant Discharge Elimination System (NPDES) permit. The downgradient extent of the chlorinated solvent groundwater plume has not been delineated (SWRCB 2015) and could potentially extend onto the Project site or pose a threat of migrating onto the Project site in the future.

Tower II Phase II Adobe Systems Inc. [NPDES] (Site 18)

Tower II Phase II Adobe Systems Inc. [NPDES] is about 800 feet southeast of the proposed tunnel alignments (Site 18 on Table 4 and Figures 6 and 9). The primary COCs are chlorinated solvents in groundwater. The chlorinated solvents are reportedly treated in a foundation dewatering treatment system prior to surface water discharge under a NPDES permit. The downgradient extent of the chlorinated solvent groundwater plume has not been delineated (SWRCB 2015) and could potentially extend onto the Project site or pose a threat of migrating onto the Project site in the future.

Adobe Systems Tower I Phase II [NPDES] (Site 19)

Adobe Systems Tower I Phase II [NPDES] is about 900 feet southeast of the proposed tunnel alignments (Site 19 on Table 4 and Figures 6 and 9). The primary COCs are chlorinated solvents in groundwater. The chlorinated solvents are reportedly treated in a foundation dewatering treatment system prior to surface water discharge under a NPDES permit. The downgradient extent of the chlorinated solvent groundwater plume has not been delineated (SWRCB 2015) and could potentially extend onto the Project site or pose a threat of migrating onto the Project site in the future.

San Jose Convention Center (Site 20)

The San Jose Convention Center is about 2,200 feet southeast of the proposed tunnel alignments (Site 20 on Table 4 and Figure 6). The primary COCs are petroleum hydrocarbons, chlorinated solvents, and lead in soil and groundwater. The extent of groundwater contamination has not been delineated (RWQCB 2007b) and could potentially extend onto the Project site or pose a threat of migrating onto the Project site in the future.

Dr, Eu Building (Site 21)

The Dr, Eu Building is adjacent to the proposed Downtown San Jose Station West Option site (Site 21 on Table 4 and Figures 6 and 9). The primary COCs in soil and groundwater are chlorinated solvents. The extent and magnitude of chlorinated solvent impacts on soil and groundwater have not been fully delineated (RWQCB 2015). Based on the proximity of the

site to the Project site, groundwater contamination could potentially extend onto the Project site or pose a threat of migrating onto the Project site in the future.

Electric Battery and Carb (Site 22)

Electric Battery and Carb appears to be about 150 feet south of the proposed Downtown San Jose Station West Option site (Site 22 on Table 4 and Figures 6 and 9). A release of petroleum hydrocarbons was reported in 1991, but potential impacts on soil and groundwater have not been reported. Previous environmental investigations (if any) were not available for review on the SWRCB (2015) *GeoTracker* database. Potential undocumented groundwater contamination from Electric Battery and Carb could potentially extend onto the Project site or pose a threat of migrating onto the Project site in the future.

Redevelopment Block 4 (Site 23)

Redevelopment Block 4 appears to be about 550 feet southeast of the proposed Downtown San Jose Station East Option site (Site 23 on Table 4 and Figures 6 and 9). A release of chlorinated solvents was reported in 1987, but potential impacts on soil and groundwater have not been reported. Previous environmental investigations (if any) were not available for review on the SWRCB (2015) *GeoTracker* database. Potential undocumented groundwater contamination from Redevelopment Block 4 could potentially extend onto the Project site or pose a threat of migrating onto the Project site in the future.

Parking Lot – 601 East Santa Clara Street (Site 24)

Parking Lot – 601 East Santa Clara Street is adjacent to a staging area and the proposed tunnel alignments (Site 24 on Table 4 and Figures 6 and 10). The primary COCs in soil and groundwater are petroleum hydrocarbons from a former gas station. The extent and magnitude of petroleum hydrocarbon impacts on soil and groundwater have not been fully delineated (Cornerstone Earth Group 2015a). Based on the proximity of the site to the Project, soil and groundwater contamination from Parking Lot – 601 East Santa Clara Street could potentially extend onto the Project site or pose a threat of migrating onto the Project site in the future.

Corpuz Trust (Site 25)

Corpuz Trust is adjacent to and north of the proposed tunnel alignments at North 24th Street (Site 25 on Table 4 and Figures 6, 10, and 11). The primary COCs in soil and groundwater are chlorinated solvents from a former dry cleaning facility. The extent and magnitude of petroleum hydrocarbon impacts on soil and groundwater have not been fully delineated (Advanced GeoEnvironmental, Inc. 2014). Based on the proximity of the site to the Project site, groundwater contamination from Corpuz Trust could potentially extend onto the Project site or pose a threat of migrating onto the Project site in the future.

5.3.3 No Subsurface Contamination on the Project

Based on review of environmental records and previous investigations, soil and/or groundwater contamination from 18 of the 43 hazardous materials release sites of concern (Sites 26 through 43 on Figure 6) does not extend onto the Project site and would not be expected to migrate onto the Project site in the future, as described below.

CV – Alviso St (Site 26)

CV – Alviso St is approximately 500 feet southwest of the Project (Site 26 on Table 4 and Figures 6 and 7). The primary COCs in shallow soil are metals and motor oil from vehicle maintenance and railroad activities. As groundwater impacts have not been reported at the site (Stantec 2015), contamination from the site would not be expected to affect the Project.

Unocal #0715 (Site 27)

Unocal #0715 is about 2,400 feet southwest of the proposed tunnel alignments (Site 27 on Table 4 and Figure 6). A groundwater plume of petroleum hydrocarbons from former USTs at the Unocal #0715 appears to have stabilized (Stantec 2013); therefore, contamination from the site would not be expected to affect the Project.

Variety Metal Finishing (Site 28)

Variety Metal Finishing is approximately 500 feet southwest of Newhall Maintenance Facility (Site 28 on Table 4 and Figures 6 and 7). A variety of metal finishing businesses have operated at the site since 1986. As the site was operated under a DTSC hazardous waste permit, the facility is subject to corrective action (DTSC 2008); however, no investigations have been performed at the site to determine if a hazardous materials release has occurred. As a hazardous materials release has not been reported, the site would not be expected to affect the Project site.

Housing for Independent People (Site 29)

Housing for Independent People is approximately 1,900 feet southwest of the proposed tunnel alignments (Site 29 on Table 4 and Figures 6 and 7). Shallow soil contaminated with lead is proposed for removal from the site (DEH 2015d). As groundwater impacts have not been reported, contamination from the site would not be expected to affect the Project site.

Empire Gardens Elementary School (Site 30)

Empire Gardens Elementary School is approximately 800 feet southwest of the proposed tunnel alignments (Site 30 on Table 4 and Figures 6 and 8). In 2003, the San Jose Unified School District entered into an environmental oversight agreement with the DTSC to assess potential subsurface contamination from a former UST and general refuse disposal on the site; however, no assessments have been performed at the site to determine if a hazardous materials release has occurred (DTSC 2015). As a hazardous materials release has not been reported, the site would not be expected to affect the Project site.

Diridon Caltrain Station (Site 31)

The Diridon Caltrain Station is adjacent to and southwest of the proposed Diridon Station South and North Option sites (Site 31 on Table 4 and Figures 6 and 9). The primary COCs are petroleum hydrocarbons in groundwater. The extent of groundwater contamination has been delineated to an area approximately 700 feet southwest of the Project site along the existing Caltrain tracks where the source of impacted soils were previously excavated and disposed off site (ERM-West, Inc. 2012). The remaining groundwater plume would be expected to stabilize and naturally attenuate over time; therefore, contamination from the site would not be expected to affect the Project site.

San Jose Sports Arena (Site 32)

The San Jose Sports Arena is immediately north of the proposed Diridon Station South and North Option sites (Site 32 on Table 4 and Figures 6 and 9). The site is a former industrial area that had a Pacific Gas & Electric (PG&E) coal gasification plant, various automobile repair and service businesses, USTs, oil/water clarifiers, and drums. The primary COCs in soil and groundwater are petroleum hydrocarbons, polynuclear aromatic hydrocarbons (PAHs), and lead. A deed restriction was recorded on the site in 2003 that prohibits subsurface work or groundwater extraction at the site without prior approval from the DTSC. Based on historical groundwater quality trends, relatively low to non-detect concentrations of the primary COCs have been reported in the monitoring wells located along the southern boundary of the site that borders the Project site. The closest groundwater impacts are reported about 800 feet north and hydraulically downgradient of the Project site (City of San Jose Environmental Services Department 2013); therefore, contamination from the site would not be expected to affect the Project site.

Ohlone Project (Site 33)

The Ohlone Project is about 2,500 feet southwest of the proposed Diridon Station South and North Option sites (Site 33 on Table 4 and Figure 6). The primary COCs are petroleum hydrocarbons and arsenic in soil. A RAP has been developed to remove impacted soils during future redevelopment activities. As the source of contamination will be removed and groundwater impacts have not been reported at the site (Arcadis U.S. Inc. 2013), contamination from the site would not be expected to affect the Project site.

Pacific Bell – 95 S Almaden (Site 34)

Pacific Bell – 95 S Almaden is about 300 feet southeast of the proposed tunnel alignments (Site 34 on Table 4 and Figures 6 and 9). The primary COCs are petroleum hydrocarbons in soil and groundwater. A groundwater plume of petroleum hydrocarbons from former USTs extends east and northeast across the site, but has not migrated off site (CB&I Environmental & Infrastructure Inc. 2014). In March 2015, a pilot test for chemical in-situ remediation of the groundwater plume was initiated and is scheduled to be completed in March 2016 (CB&I Environmental & Infrastructure Inc. 2015). As contamination has not migrated off site and

the groundwater plume is actively being remediated, the site would not be expected to affect the Project site.

Heart of the City – Block 3 (Site 35)

Heart of the City – Block 3 is about 300 feet southeast of the proposed Downtown San Jose Station East and West Option sites (Site 35 on Table 4 and Figures 6 and 9). The north and south portions of the site have been split into two parcels called the "Phase I Site" and "Phase II Site," respectively. The primary COCs on the Phase I Site were petroleum hydrocarbons and chlorinated solvents in soil and groundwater. In 2010, RWQCB issued a letter for No Further Action for the Phase I Site; therefore, contamination from the Phase I Site would not be expected to impact the Project. Previous environmental investigations (if any) for the Phase II Site were not available for review on the SWRCB (2015) *GeoTracker* database. However, groundwater monitoring results from the downgradient Phase I Site indicate that relatively low concentrations of chlorinated solvents appear to be migrating northwest from the Phase II Site. The chlorinated solvent plume does not appear to extend beyond the Phase I Site and would not be expected to affect the Project site.

52/48, Inc. and Fifty Two Forty Eight Inc. (Sites 36 and 37)

52/48, Inc. (also recorded as Fifty Two Forty Eight Inc.) is about 1,600 feet southeast of the proposed tunnel alignments (Sites 36 and 37, respectively, on Table 4 and Figure 6). The primary COCs are petroleum hydrocarbons in soil and groundwater. The petroleum hydrocarbon plume extends about 70 feet north of the site and appears to be stable (Trinity Source Group, Inc. 2014); therefore, contamination from the site would not be expected to affect the Project site.

Jennings Technology Company LLC (Site 38)

Jennings Technology Company LLC is about 1 mile southeast of the proposed tunnel alignments (Site 38 on Table 4 and Figure 6). The site is listed under the RCRA Corrective Action program, but has been inactive, and no COCs or potentially affected media have been reported (DTSC 2015). Based on the lack of information regarding a documented hazardous materials release (if any) and the distance of the site from the Project site, contamination from the site (if any) would not be expected to affect the Project site.

Jet Gas (1598 Alum Rock) (Site 39)

Jet Gas (1598 Alum Rock) is about 1,100 feet east of the proposed Alum Rock/28th Street Station (Site 39 on Table 4 and Figure 6). The primary COCs are petroleum hydrocarbons in soil and groundwater. Due to the apparent stability and natural attenuation of the contaminant plume, the site is undergoing a final assessment to qualify for the SWRCB's Low-Threat Underground Storage Tank Case Closure Policy (DEH 2015e); therefore, contamination from the site would not be expected to affect the Project site.

Gas and Shop (Site 40)

Gas and Shop is about 500 feet east of the proposed tunnel alignments (Site 40 on Table 4 and Figures 6 and 11). The primary COCs are petroleum hydrocarbons in soil and groundwater from former USTs. Due to the apparent stability and natural attenuation of the contaminant plume, the site is in the process of being closed under the SWRCB's Low-Threat Underground Storage Tank Case Closure Policy (DEH 2015f); therefore, contamination from the site would not be expected to affect the Project site.

Moe's ARCO (Site 41)

Moe's ARCO is about 600 feet east of the proposed tunnel alignments (Site 41 on Table 4 and Figures 6 and 11). The primary COCs are petroleum hydrocarbons in soil and groundwater from former USTS. Due to the apparent stability and natural attenuation of the contaminant plume, the site is in the process of being closed under the SWRCB's Low-Threat Underground Storage Tank Case Closure Policy (DEH 2015g); therefore, contamination from the site would not be expected to affect the Project site.

Las Plumas Warehouse (Sites 42 and 43)

There are two records for Las Plumas Warehouse, which is about 250 feet northeast of a proposed staging area (Sites 42 and 43 on Table 4 and Figures 6 and 11). The primary COCs are petroleum hydrocarbons and chlorinated solvents in soil and groundwater. The extent of soil and groundwater impacts is reportedly limited to the southeast portion of the site and the groundwater plume appears to be stable (Moore Twining Associates, Inc. 2015); therefore, contamination from the site would not be expected to affect the Project site.

Chapter 6
Other Environmental Concerns

This chapter describes the evaluation of other environmental concerns that could pose a risk of affecting the Project but that are not considered RECs under ASTM 1527-13.

6.1 Hazardous Building Materials

Project development may require demolition of existing buildings that could possibly contain hazardous building materials. Building materials such as thermal system insulation, surfacing materials, and asphalt and vinyl flooring materials installed in buildings prior to 1981 may contain asbestos (Title 8, California Code of Regulations, Section 5208). Lead compounds may be present in interior and exterior paints used for commercial buildings, regardless of construction date (DTSC 2006). Lead and asbestos are state-recognized carcinogens (California Environmental Protection Agency 2010). Other hazardous building materials of concern include polychlorinated biphenyl (PCB)-containing light ballasts, mercury vapor lamps, and/or wood, concrete, or sheetrock contaminated from chemical use, storage, and/or handling (AECOM Technical Services, Inc. 2014).

6.2 Naturally Occurring Asbestos

Geologic mapping from the USGS does not show any areas of rock likely to contain naturally occurring asbestos (ultramafic rock) on the Project site (Van Gosen and Clinkenbeard 2011). Therefore, naturally occurring asbestos in bedrock along the Project alignment would not be expected to be a potential hazard during development of the Project.

6.3 Railroad Soil and Ballast

Several investigations were conducted between 2001 and 2008 to evaluate the environmental issues related to the soil and ballast along the existing railroad corridor for the Phase I Project. The results from the investigations indicated there were no significant impacts on soil or ballast from PCBs, volatile organic compounds, semi-volatile organic compounds, or petroleum hydrocarbons. However, significant arsenic and lead contamination in the ballast materials was present along much of the Phase I Project alignment. The primary source of arsenic appears to be slag from metals refining that was used as ballast for track maintenance from about 1960 to 1983, and potential secondary sources may have included use of inorganic pesticides. The occurrence of elevated lead concentrations appears to be attributed to aerially deposited automobile exhaust emissions and lead-acid batteries used to power signals near railroad crossings. Overall, arsenic appears to be the primary metal impacting soil and ballast along the railroad corridor (AECOM Technical Services, Inc. 2014).

Existing and former railroad corridors are located along the following portions of the Project site:

- From Mabury Road to Las Plumas Avenue in the City of San Jose along the general Project alignment (Figure 2);
- Parallel to 28th Street in the City of San Jose along proposed staging areas for the Alum Rock/28th Street Station (Figure 2);
- Immediately west of the proposed Diridon Station North and South Options (Figure 2);
- Near the intersection of Emory Street in the City of San Jose (Figure 2); and
- Immediately south of and parallel to the proposed Santa Clara Station and Newhall Maintenance Facility (Figure 2).

Based on the previous investigations for the Phase I Project, shallow railroad soils and ballasts on the Project site are likely impacted by arsenic and lead.

Chapter 7
Data Gaps

The ASTM E1527-13 requires the identification of data gaps, along with actions taken to address these gaps, and an opinion as to whether these gaps are significant. A data gap may result from a lack of or inability to obtain information during any of the activities required by ASTM E1527-13. In particular, review of reasonably ascertainable historical land use information, including aerial photographs, from the first developed land use to the present that does not provide sufficient detail to assess potential land use changes at 5-year intervals may be considered a data gap. The time intervals between some of the historical land use records exceeds 5 years. These data gaps are not considered significant because the land uses were relatively consistent between the extended time intervals.

ASTM E1527-13 requires interviews with state or local government regulatory agency officials regarding the potential for contamination on a project site. These interviews were not conducted (see Section 8, *ASTM E1527-13 Deviations*) and are not considered a significant data gap because any information obtained would likely duplicate information already reviewed from other standard sources.

Standard environmental record sources associated with state-registered ASTs and federal ERNS incidents were not reviewed, because the records were not reasonably ascertainable and practically reviewable, respectively. These exclusions do not pose a significant data gap because review of other environmental record sources were sufficient for this level of analysis to identify RECs in connection with the Project.

Chapter 8
ASTM E1527-13 Deviations

The purpose of this ISA was not to qualify VTA for landowner liability protections associated with commercial real estate transactions under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). As a result, the following deviations from ASTM E1527-13, which are intended to meet or exceed the federal requirements for landowner liability protections under CERCLA, do not have a significant effect on the findings or conclusions of this ISA:

- The Project site is not a single contiguous commercial parcel, as assumed in ASTM E1527-13, and therefore a title search to identify potential environmental liens and activity and use limitations associated with commercial parcels was not conducted.
- Interviews with past, present, and prospective owners or operators who are likely to have material information regarding the potential for contamination on the Project site were not conducted, because information from environmental records and previous environmental investigations was sufficient for this level of review.
- Interviews with state or local government regulatory agency officials regarding the potential for contamination in the Project vicinity were not conducted, because any information obtained would likely duplicate information already reviewed from federal, state, and local regulatory agency records.
- A site reconnaissance of the Project sites to identify potential sources of undocumented hazardous materials releases was not conducted. Due to the Project corridor's length (about 6 miles) combined with heavy traffic conditions in an urban setting, a windshield site reconnaissance was not considered practical or safe. In addition, a site reconnaissance would not likely alter the findings, conclusions, and recommendations of this ISA, because other data sources indicate potential subsurface contamination on the Project site.

Chapter 9
Findings and Conclusions

In accordance with the Caltrans *Environmental Handbook*, the levels of risk associated with RECs and other environmental concerns identified within the Project APE that could potentially affect proposed Project construction activities and/or operations are described further, below. Risks are categorized as either "low," "medium," or "high" based on the expected effect on the cost, scope, and schedule of the Project.

A high-risk condition typically involves crossing a site or property impacted by a known or suspected hazardous materials release, such as a railroad yard. A high-risk condition can potentially eliminate a build alternative; therefore, high-risk conditions require early investigation to support cost estimates, risk assessments, and adjustments to the project schedule. A medium-risk condition typically involves the management of hazardous materials (e.g., contaminated soils) that require additional investigation, but is not expected to eliminate a build alternative and/or have a significant effect on the project scope, cost, and schedule. A low-risk condition typically includes the management of hazardous materials (e.g., lead-based paint on structures) that may require additional investigation (if necessary), but the effect on the project scope, cost, and schedule can be reasonably estimated based on available information and/or is considered negligible.

9.1 Risk Analysis for Recognized Environmental Conditions

BASELINE has performed this ISA in conformance with the scope and limitations of ASTM E1527-13 for the Project, located between Mabury Road in the City of San Jose and De La Cruz Boulevard in the City of Santa Clara. Any exceptions to, or deletions from, this practice are described in Chapter 8, *ASTM E1527-13 Deviations*, of this report. In accordance with the Caltrans *Environmental Handbook* and ASTM E1527-13, this assessment has identified the following RECs and associated risk levels for hazardous materials, hazardous waste, and/or contamination on the Project site that could potentially affect proposed construction activities and/or operations.

- Potential soil and/or groundwater contamination from undocumented releases associated with commercial and/or industrial properties located on or adjacent to the Project site (Figure 4) – **Medium Risk**
- Residual soil and/or groundwater contamination from closed release sites located on or adjacent to the Project site (Table 3 and Figure 5) – **Medium Risk**
- Known soil and/or groundwater contamination from 12 release sites of concern (Sites 1 through 12 on Table 4 and Figure 6) – **High Risk**

- Potential soil and/or groundwater contamination from 13 release sites of concern (Sites 13 through 25 on Table 4 and Figure 6) – **Medium Risk**

9.2 Risk Analysis for Other Environmental Conditions

This assessment has also identified the following environmental concerns and associated risk levels on the Project site that are considered outside the standard scope of ASTM E1527-13.

- Potential hazardous building materials in existing buildings proposed for demolition – **Low Risk**
- Potential arsenic and lead contamination in shallow railroad soils and ballasts – **Medium Risk**

Chapter 10
Recommendations

Once areas of excavation and demolition are determined, a Preliminary Site Investigation (PSI) should be performed to investigate hazardous materials concerns related to soils, ballasts, groundwater, and hazardous building materials on the Project site, as identified in this ISA. Additional investigation may be required to fully evaluate potential hazardous materials issues if concerns are identified during the PSI. All environmental investigations for the Project should be performed in accordance with current Project CMP approved by RWQCB and the findings should be provided to Project contractors to incorporate into their Health and Safety and Hazard Communication Programs.

Chapter 11
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TABLES

Table 1: Summary of Proposed Transit-Oriented Joint Development

Location	Residential (dwelling units)	Retail (square feet)	Office (square feet)	Parking (spaces)
Alum Rock/28th Street Station	275	20,000	500,000	2,150
Santa Clara and 13th Streets Ventilation Structure	N/A	13,000	N/A	N/A
Downtown San Jose Station – East Option (at 3 sites)	N/A	160,000	303,000	1,398
Downtown San Jose Station – West Option	N/A	10,000	35,000	128
Diridon Station South Option	N/A	72,000	640,000	400
Diridon Station North Option	N/A	72,000	640,000	400
Stockton Ventilation Structure	N/A	15,000	N/A	N/A
Santa Clara Station	220	30,000	500,000	2,200

Note: N/A = not applicable

Table 2: Summary of Environmental Records Reviewed

Environmental Record Source	Search Distance	Reference	Record Source Description
Permitted USTs	500 feet	SWRCB, 2015	Facilities/sites that have a current permit to operate a UST(s) issued by the local permitting agency.
Hazardous Waste Facilities	500 feet	DTSC, 2015	Facilities/sites that were required to obtain a permit or have received a hazardous waste facility permit from the DTSC or U.S. EPA.
RCRA Facilities	500 feet	USEPA, 2015	Facilities/sites that generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act.
Cleanup Program Site (formerly SLIC)	0.5 mile	SWRCB, 2015	Contaminated sites generally not associated with petroleum USTs with Regional Water Board oversight for investigation and/or remediation.
Evaluation	0.5 mile	DTSC, 2015	Suspected, but unconfirmed, contaminated sites that need or have gone through a limited investigation and assessment process.
FUDS	0.5 mile	DTSC, 2015	Military facilities that were FUDS with confirmed or unconfirmed releases and where DTSC is involved in investigation and/or remediation.
HWP / BZP Evaluation	0.5 mile	DTSC, 2015	Significant hazardous waste properties (HWPs) and border zone properties (BZPs) located within 2,000 feet of a significant HWP.
Land Disposal Site	0.5 mile	SWRCB, 2015	Regulated waste management units (e.g., waste piles, surface impoundments, and landfills) that discharge waste to land for treatment, storage and disposal.
LUST Cleanup Site	0.5 mile	SWRCB, 2015	Sites contaminated from leaking USTs with Regional Water Board oversight for investigation and/or remediation.
Military Evaluation	0.5 mile	DTSC, 2015	Closed and open military facilities with confirmed or unconfirmed releases with DTSC oversight for investigation and/or remediation.
Military Cleanup Site	0.5 mile	SWRCB, 2015	Military UST sites, Military Privatized sites, and Military Cleanup sites with Regional Water Board oversight for investigation and/or remediation.
School	0.5 mile	DTSC, 2015	Proposed and existing school sites that are being evaluated by DTSC for possible hazardous materials contamination.
Voluntary Cleanup	0.5 mile	DTSC, 2015	Sites with either confirmed or unconfirmed releases, and the project proponents have requested DTSC oversight for investigation and/or remediation.
Corrective Action	1.0 mile	DTSC, 2015	Investigation or cleanup activities at RCRA or state-only permitted hazardous waste facilities.
Expedited Remedial Action Program	1.0 mile	DTSC, 2015	High-priority and high potential risk sites requiring expedited cleanup with DTSC oversight. This is currently a pilot program.
Federal Superfund	1.0 mile	DTSC, 2015	Sites where the USEPA proposed, listed, or delisted a site on the NPL.
State Response	1.0 mile	DTSC, 2015	High-priority and high potential risk sites requiring cleanup with DTSC oversight.

Table 2: Summary of Environmental Records Reviewed

Notes:

Search distances are defined by ASTM E1527-13 and are relative to the boundary of the Project site.

Land use restrictions for contaminated properties are reported by both the SWRCB and DTSC under the status of an environmental record.

SWRCB = State Water Resources Control Board

DTSC = Department of Toxic Substances Control

RCRA = Resource Conservation and Recovery Act

FUDS = Formerly Used Defense Sites

NPL = National Priorities List

USEPA = United States Environmental Protection Agency

UST = Underground Storage Tank

SLIC = Spills, Leaks, Investigation, and Cleanup

Table 3: Summary of Closed Hazardous Materials Release Sites within 500 Feet of the Project Site

Site ID	Site Name	Address	Environmental Record
C1	Mission City Rebar	1709 Grant St, Santa Clara	LUST Cleanup Site
C2	Caltrans	651 Harrison St, Santa Clara	LUST Cleanup Site
C3	Santa Clara Police Station	501 El Camino Real, Santa Clara	Voluntary Cleanup
C4	Price Costco	1601 Coleman Avenue, Santa Clara	LUST Cleanup Site
C5	Mayfair Packing Plant #4	475 El Camino Real Ave, Santa Clara	LUST Cleanup Site
C6	Mayfair Packing-Site #2	475 El Camino Real, Santa Clara	LUST Cleanup Site
C7	American Motor Haven	1107 Campbell Ave, San Jose	LUST Cleanup Site
C8	Custom Food Machinery	1180 - 1184 Campbell Avenue, San Jose	Voluntary Cleanup
C9	T.W. Smith	1200 Campbell Ave, San Jose	LUST Cleanup Site
C10	Bertram M. Berns Property	1113 Campbell Ave, San Jose	LUST Cleanup Site
C11	San Jose Stair	972 Newhall St, San Jose	LUST Cleanup Site
C12	E.A. Maclean & Sons	951 Hamline St, San Jose	LUST Cleanup Site
C13	Mcnab Enterprises	1098 Stockton Ave, San Jose	LUST Cleanup Site
C14	Wattis Construction	964 Stockton Ave, San Jose	LUST Cleanup Site
C15	Bellarmine College Preparatory	960 W. Hedding Avenue, San Jose	LUST Cleanup Site
C16	Pac West Transportation	795 W Hedding St, San Jose	LUST Cleanup Site
C17	Ferron, Inc	645 W Hedding St, San Jose	LUST Cleanup Site
C18	Body Works The	740 Emory St, San Jose	LUST Cleanup Site
C19	Satori'S Auto Center	795 Stockton Ave., San Jose	LUST Cleanup Site
C20	Berger Property	716 Stockton Ave, San Jose	LUST Cleanup Site
C21	Salvation Army	702 Taylor St W, San Jose	LUST Cleanup Site
C22	Salvation Army	675 Stockton Ave, San Jose	LUST Cleanup Site
C23	Esplanade 1 - Taylor Street	696 Taylor St, San Jose	LUST Cleanup Site
C24	Engine Parts Corporation	716 Stockton Ave, San Jose	LUST Cleanup Site
C25	Consolidated Office Dist.	696 Taylor St, San Jose	LUST Cleanup Site
C26	Royal Coach Tours	644 Stockton Ave, San Jose	LUST Cleanup Site
C27	Royal Coach Tours	630 Stockton Ave, San Jose	LUST Cleanup Site
C28	Diocese Of San Jose	855 Lenzen Ave, San Jose	LUST Cleanup Site
C29	U-Haul	1027 The Alameda, San Jose	LUST Cleanup Site
C30	Unocal #0688	500 Stockton Ave, San Jose	LUST Cleanup Site
C31	Farmers Sheet Metal	725 Lenzen Ave, San Jose	LUST Cleanup Site
C32	Serpa Property	435 Stockton St, San Jose	LUST Cleanup Site
C33	Southern Pacific Trans.	595 Lenzen Ave, San Jose	LUST Cleanup Site
C34	Chevron #9-0882	955 The Alameda, San Jose	LUST Cleanup Site
C35	Campisi Trust	975 The Alameda, San Jose	LUST Cleanup Site
C36	Cinnabar Commons	875 Cinnabar Street, San Jose	Cleanup Program Site
C37	Morrison Park	395 Stockton Avenue, San Jose	Cleanup Program Site
C38	Tim's Auto Trim	369 Stockton Ave, San Jose	LUST Cleanup Site
C39	Bocardo Property	849 The Alameda, San Jose	LUST Cleanup Site
C40	Derby Food Service	55 Sunol St, San Jose	LUST Cleanup Site
C41	Philip San Philippo Properties	735 The Alameda, San Jose	LUST Cleanup Site
C42	Del Monte Plant 51	50 Bush St, San Jose	LUST Cleanup Site
C43	San Jose Arena Ritchey Parcel	60 Montgotmery St N, San Jose	LUST Cleanup Site
C44	San Jose Arena Geisler Parcel	80 Montgomery St N, San Jose	LUST Cleanup Site
C45	San Jose Arena Julian St	70-90 Montgomery N, San Jose	LUST Cleanup Site
C46	Interior Plant Design	589 Santa Clara St W, San Jose	LUST Cleanup Site

Table 3: Summary of Closed Hazardous Materials Release Sites within 500 Feet of the Project Site

Site ID	Site Name	Address	Environmental Record
C47	San Jose Arena Pg & E Parcel	90 Montgomery St N, San Jose	LUST Cleanup Site
C48	San Jose Arena Follosco Parcel	575 Santa Clara St W, San Jose	LUST Cleanup Site
C49	Custom Pad & Pattern La Fiesta	555 St John St W, San Jose	LUST Cleanup Site
C50	Butcher Electric	510 W San Fernando St, San Jose	LUST Cleanup Site
C51	San Jose Arena Block 5A	522 Santa Clara, San Jose	LUST Cleanup Site
C52	Kosich Construction Company	555-561 Santa Clara St W, San Jose	LUST Cleanup Site
C53	Automatic Car Wash	77 S Montgomery St, San Jose	LUST Cleanup Site
C54	SCV Paramedics SJ Ambulance	58 Autumn St N, San Jose	LUST Cleanup Site
C55	Vitale Body Shop	52 S Autumn St, San Jose	LUST Cleanup Site
C56	Bank Of America Wells Fargo	521 Santa Clara St W, San Jose	LUST Cleanup Site
C57	San Jose Arena Holeman Parcel	443 Santa Clara St W, San Jose	LUST Cleanup Site
C58	S & W Land Company	454 W Santa Clara St, San Jose	LUST Cleanup Site
C59	Vitale Auto Body	52 Autumn St S, San Jose	LUST Cleanup Site
C60	City of San Jose Sidewalk	333 W. Santa Clara St., San Jose	LUST Cleanup Site
C61	Manning Property	35 River St N, San Jose	LUST Cleanup Site
C62	Downtown Truck & Trailer	405 Santa Clara St W, San Jose	LUST Cleanup Site
C63	SCVWD Property	361 Santa Clara St W, San Jose	LUST Cleanup Site
C64	Carlysle Development	76 Notre Dame, San Jose	Cleanup Program Site
C65	U.S. Postal Service	101 N 1St St, San Jose	LUST Cleanup Site
C66	Greyhound Lines, Inc.	70 Almaden Ave, San Jose	LUST Cleanup Site
C67	Private Residence	Private Residence, San Jose	LUST Cleanup Site
C68	Cornerstone Property	100 N. Fourth Street, San Jose	LUST Cleanup Site
C69	Century Center	53 S 3Rd St, San Jose	LUST Cleanup Site
C70	Century City Parking Lot	15 South Third Street, San Jose	Cleanup Program Site
C71	PF Changs China Bistro	98 S. 2nd Street, San Jose	LUST Cleanup Site
C72	Loomis Armored, Inc.	128 E Saint John St, San Jose	LUST Cleanup Site
C73	Chevron #9-4259	147 E. Santa Clara Street, San Jose	LUST Cleanup Site
C74	Bank Of Trade Building	100 E Santa Clara St, San Jose	LUST Cleanup Site
C75	N 5Th Sidewalk	24 5Th, San Jose	LUST Cleanup Site
C76	Downtown Auto Express/SJ Redev	154 E Santa Clara St, San Jose	LUST Cleanup Site
C77	Deluxe Cleaners	224 East Santa Clara Street, San Jose	Cleanup Program Site
C78	Texaco	78 S 4Th St, San Jose	LUST Cleanup Site
C79	Horace Mann Elementary	55 N 7Th St, San Jose	LUST Cleanup Site
C80	Mercados Suvianda	272 E. Santa Clara St., San Jose	LUST Cleanup Site
C81	7-Eleven #17496	452 E. Santa Clara St., San Jose	LUST Cleanup Site
C82	Acc-U-Tune	510 E Santa Clara St, San Jose	LUST Cleanup Site
C83	J. W. Construction	478 E Santa Clara St, San Jose	LUST Cleanup Site
C84	San Jose Medical Center	675 E. Santa Clara St., San Jose	LUST Cleanup Site
C85	Pacific National Lease	1346 E Taylor St, San Jose	LUST Cleanup Site
C86	Industrial Landscape	1199 E Taylor St, San Jose	LUST Cleanup Site
C87	City Of San Jose Mabury Yard	1404 Mabury Rd, San Jose	LUST Cleanup Site
C88	Roosevelt Comm. Center	961 E. Santa Clara St., San Jose	LUST Cleanup Site
C89	Graebel Erikson Movers	1460 Mabury Rd, San Jose	LUST Cleanup Site
C90	Butler Johnson Corp.	1480 Nicora Ave, San Jose	LUST Cleanup Site
C91	Thrifty #175	1256 E Julian Ave, San Jose	LUST Cleanup Site
C92	Arco #9601	1256 E Julian St, San Jose	LUST Cleanup Site

Table 3: Summary of Closed Hazardous Materials Release Sites within 500 Feet of the Project Site

Site ID	Site Name	Address	Environmental Record
C93	International Paper	1601 Las Plumas Pl, San Jose	LUST Cleanup Site
C94	Marburg Place Development	350/350A Marburg Way, San Jose	Cleanup Program Site
C95	Carriage House Foods	665 Lenfest Rd, San Jose	LUST Cleanup Site
C96	Dap Inc.	520 N Marburg Way, San Jose	LUST Cleanup Site
C97	International Paper	1601 Las Plumas Ave, San Jose	LUST Cleanup Site
C98	Ecolab Inc	640 Lenfest Rd, San Jose	Cleanup Program Site
C99	Gummow Property	1325 E Julian Ave, San Jose	LUST Cleanup Site
C100	American Drum	545 Nipper Ave, San Jose	LUST Cleanup Site
C101	Ecolab Inc	640 Lenfest Ave, San Jose	Cleanup Program Site
C102	Andrade Trucking	350 Marburg Way, San Jose	LUST Cleanup Site
C103	Torres Motors	1160 E. Santa Clara Street, San Jose	LUST Cleanup Site
C104	Security Contractor Services	170 N 28Th St, San Jose	LUST Cleanup Site
C105	McDonalds Property	E Santa Clara &27Th St St, San Jose	LUST Cleanup Site
C106	San Jose Steel Co., Inc.	195 N 30Th St, San Jose	LUST Cleanup Site
C107	Mission Concrete Products	125 N 30Th St, San Jose	LUST Cleanup Site

Notes:

Site name, address, and status information (including spellings) are derived directly from the regulatory databases.

Site locations are shown on Figure 5.

TABLE 4: Summary of Hazardous Materials Release Sites of Concern

Site ID	Site Name	Address	Status	Contamination on the Project Site?	Environmental Record Source						
					Land Use Restrictions	Cleanup Program Site	LUST Cleanup Site	Corrective Action	School	Evaluation	State Response
1	FMC 333 West Brokaw Road	333 West Brokaw Road, San Jose	Open - Remediation	Yes	X	X					
2	FMC 328 West Brokaw Road	328 West Brokaw Road, Santa Clara	Open - Remediation	Yes	X	X					
3	BART System Silicon Valley Berryessa Extension Project	Various locations along a 16.3 Mile Line, between Milpitas And Santa Clara	Open - Assessment & Interim Remedial Action	Yes		X					
4	Bay Area Petroleum	905 Stockton Ave., San Jose	Open - Eligible for Closure	Yes			X				
5	E-Z Auto and Transmission	698 Stockton, San Jose	Open - Site Assessment	Yes			X				
6	Farmers Sheet Metal	725 Lenzen Ave, San Jose	Completed - Case Closed	Yes	X		X				
7	San Jose Arena Block 5A	522 Santa Clara, San Jose	Completed - Case Closed	Yes	X		X				
8	Vintage Towers	235 E. Santa Clara Street, San Jose	Open - Verification Monitoring	Yes			X				
9	Art Cleaners	400 East Santa Clara Street, San Jose	Open - Assessment & Interim Remedial Action	Yes		X					
10	Parking Lot - 579 E Santa Clara	579 E. Santa Clara Street, San Jose	Open - Eligible for Closure	Yes			X				
11	Della Maggiore Stone	87 N. 30Th Street, San Jose	Open - Eligible for Closure	Yes			X				
12	San Jose Family Shelter	1590 Las Plumas Avenue, San Jose	Open - Remediation	Yes			X				
13	AJ Commercial Laundry/All Chem Supply	1173-1175 Campbell Avenue, San Jose	Active	Maybe							X
14	Del Monte Plant 51	50 Bush, San Jose	Open - Inactive	Maybe		X					
15	Perrucci Properties	53 Montgomery S, San Jose	Open - Inactive	Maybe		X					
16	Marian Johnson	59 South Autumn Street, San Jose	Open - Inactive	Maybe		X					
17	Divco West Properties [NPDES]	150 Almaden Blvd., San Jose	Open - Remediation	Maybe		X					
18	Tower II Phase II Adobe Systems Inc. [NPDES]	151 Almaden Blvd., San Jose	Open - Remediation	Maybe		X					
19	Adobe Systems Tower I Phase II [NPDES]	345 Park Ave., San Jose	Open - Remediation	Maybe		X					
20	San Jose Convention Center	South Market Street, San Jose	Open - Site Assessment	Maybe		X					
21	Dr Eu Building	35 & 43 Santa Clara St E, San Jose	Open - Site Assessment	Maybe		X					
22	Electric Battery and Carb	718 1St St S, San Jose	Open - Inactive	Maybe		X					
23	Redevelopment Block 4	Parcels 2 & 3, San Jose	Open - Inactive	Maybe		X					
24	Parking Lot - 601 E Santa Clara	601 E. Santa Clara Street, San Jose	Open - Eligible for Closure	Maybe			X				
25	Corpuz Trust	1147 East Santa Clara Street, San Jose	Open - Site Assessment	Maybe		X					
26	CV - Alviso St	1525 Alviso St., Santa Clara	Open - Remediation	No		X					
27	Unocal #0715	2665 The Alameda, Santa Clara	Open - Site Assessment	No			X				
28	Variety Metal Finishing	1166 Campbell Drive, San Jose	Inactive - Needs Evaluation	No						X	
29	Housing for Independent People	1072/1082 Vermont St, San Jose	Open - Remediation	No		X					
30	Empire Gardens Elementary School	1060 East Empire Street, San Jose	Inactive - Needs Evaluation	No					X		
31	Diridon Caltrain Station	65 Cahill Street, San Jose	Open - Site Assessment	No		X					
32	San Jose Sports Arena	525 West Santa Clara Street, San Jose	Certified O&M - Land Use Restrictions Only	No	X						X
33	Ohlone Project	860 W San Carlos St, San Jose	Open - Site Assessment	No		X					
34	Pacific Bell - 95 S Almaden	95 S. Almaden Ave., San Jose	Open - Remediation	No			X				
35	Heart of the City - Block 3	100 South Second Street, San Jose	Open - Inactive	No		X					
36	Fifty Two Forty Eight Inc	226 24Th St S, San Jose	Open - Inactive	No			X				
37	52/48, Inc	1165 Peach Court And 224/226 South 24Th Street, San Jose	Open - Assessment & Interim Remedial Action	No		X					
38	Jennings Technology Company LLC	970 McLaughlin Ave, San Jose	Inactive - Needs Evaluation	No				X			
39	Jet Gas (1598 Alum Rock)	1598 Alum Rock Ave., San Jose	Open - Verification Monitoring	No			X				

TABLE 4: Summary of Hazardous Materials Release Sites of Concern

Site ID	Site Name	Address	Status	Contamination on the Project Site?	Environmental Record Source						
					Land Use Restrictions	Cleanup Program Site	LUST Cleanup Site	Corrective Action	School	Evaluation	State Response
40	Gas and Shop	1590 Mckee Road, San Jose	Open - Eligible for Closure	No			X				
41	Moe's Arco	1604 Mckee Road, San Jose	Open - Eligible for Closure	No			X				
42	Las Plumas Warehouse	1608 Las Plumas Ave, San Jose	Open - Site Assessment	No		X					
43	Las Plumas Warehouse	1608 Las Plumas Avenue, San Jose	Open - Site Assessment	No		X					

Notes:

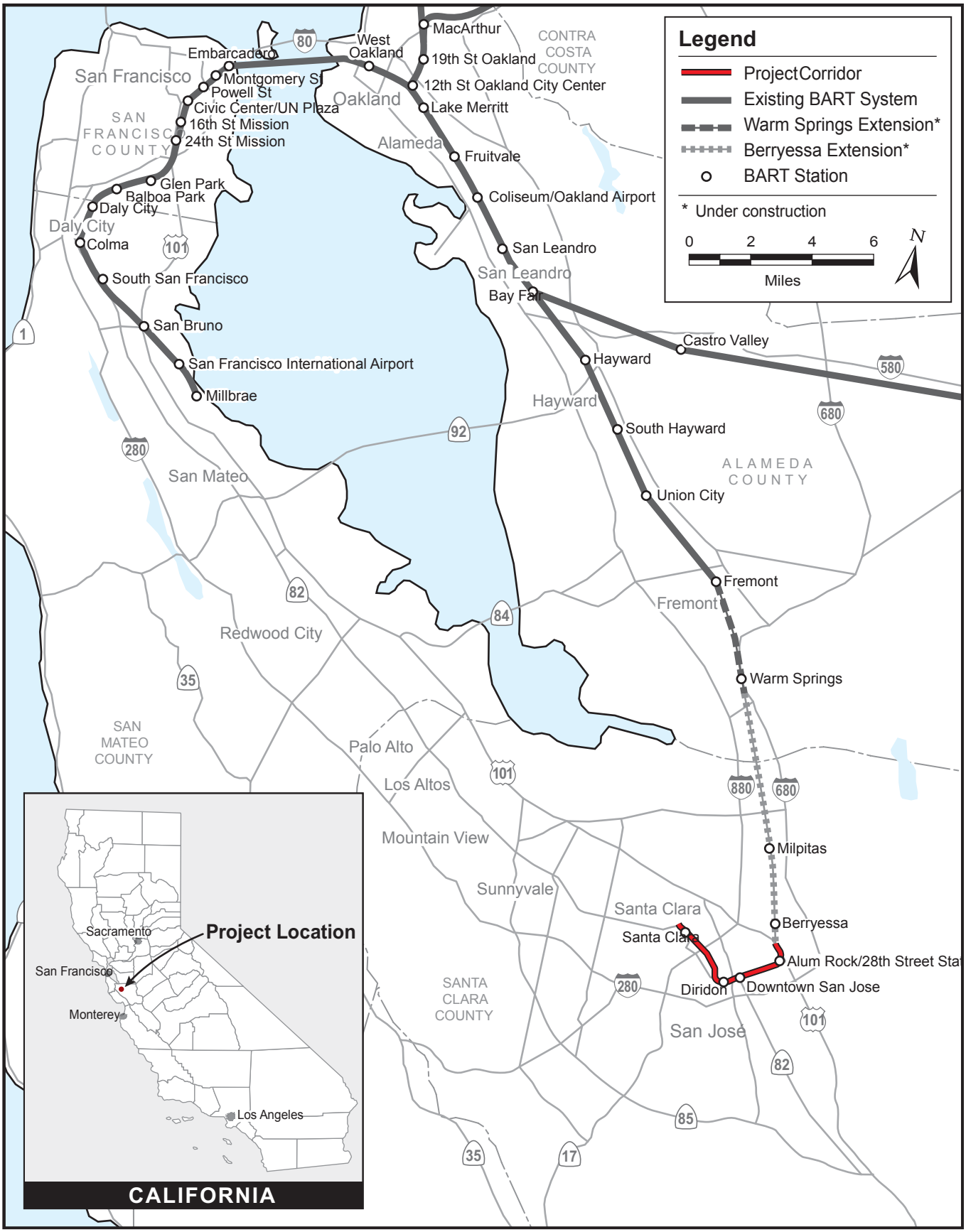
Site names and addresses are derived directly from the SWRCB and DTSC regulatory databases.

Site locations are shown on Figure 6.

FIGURES

Regional Location

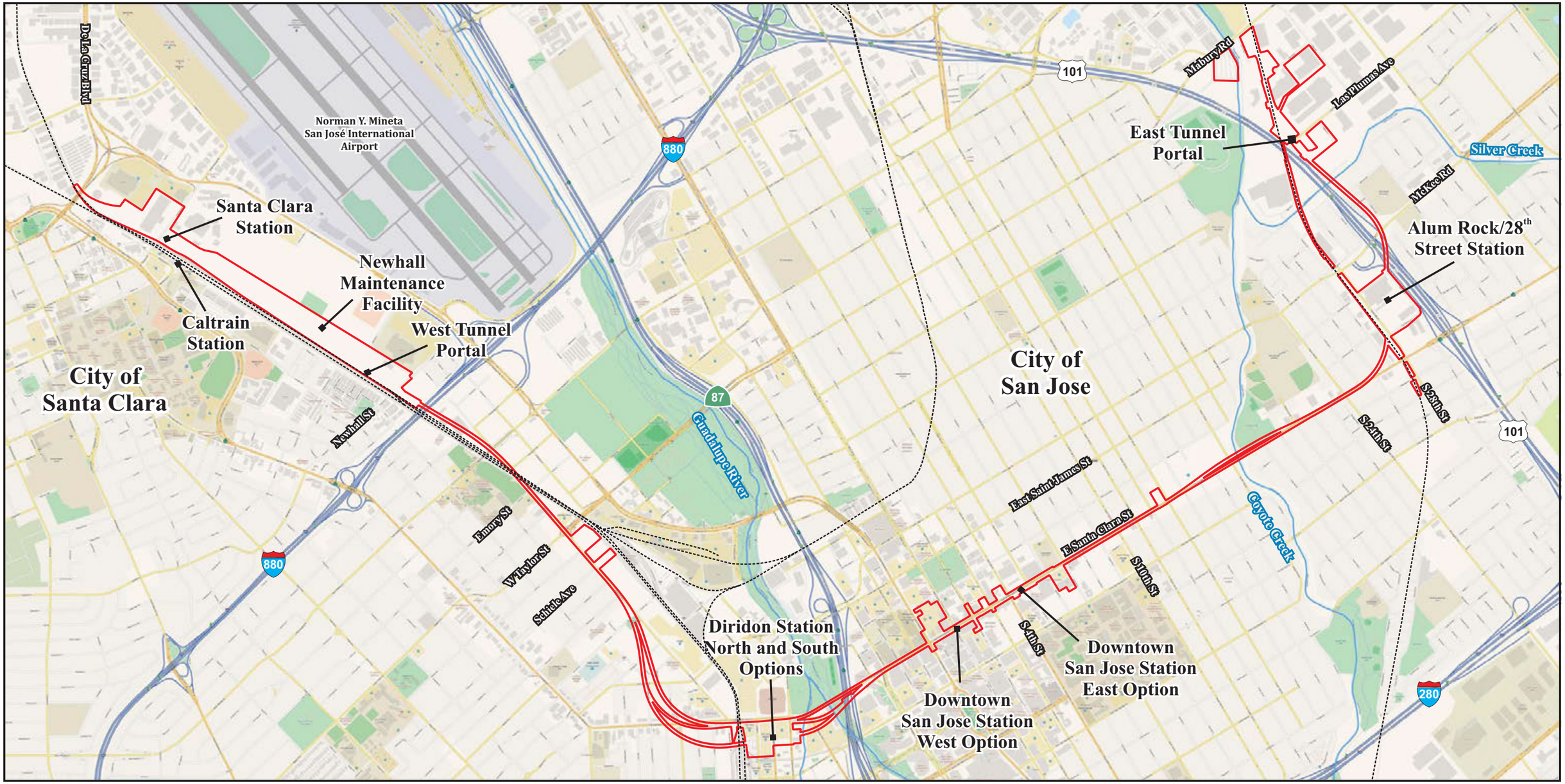
Figure 1



VTA BART Silicon Valley-Phase II Extension Project
Santa Clara County, California

Project Site

Figure 2



Legend

- Project Area of Potential Effect
- Existing/Former Railroad

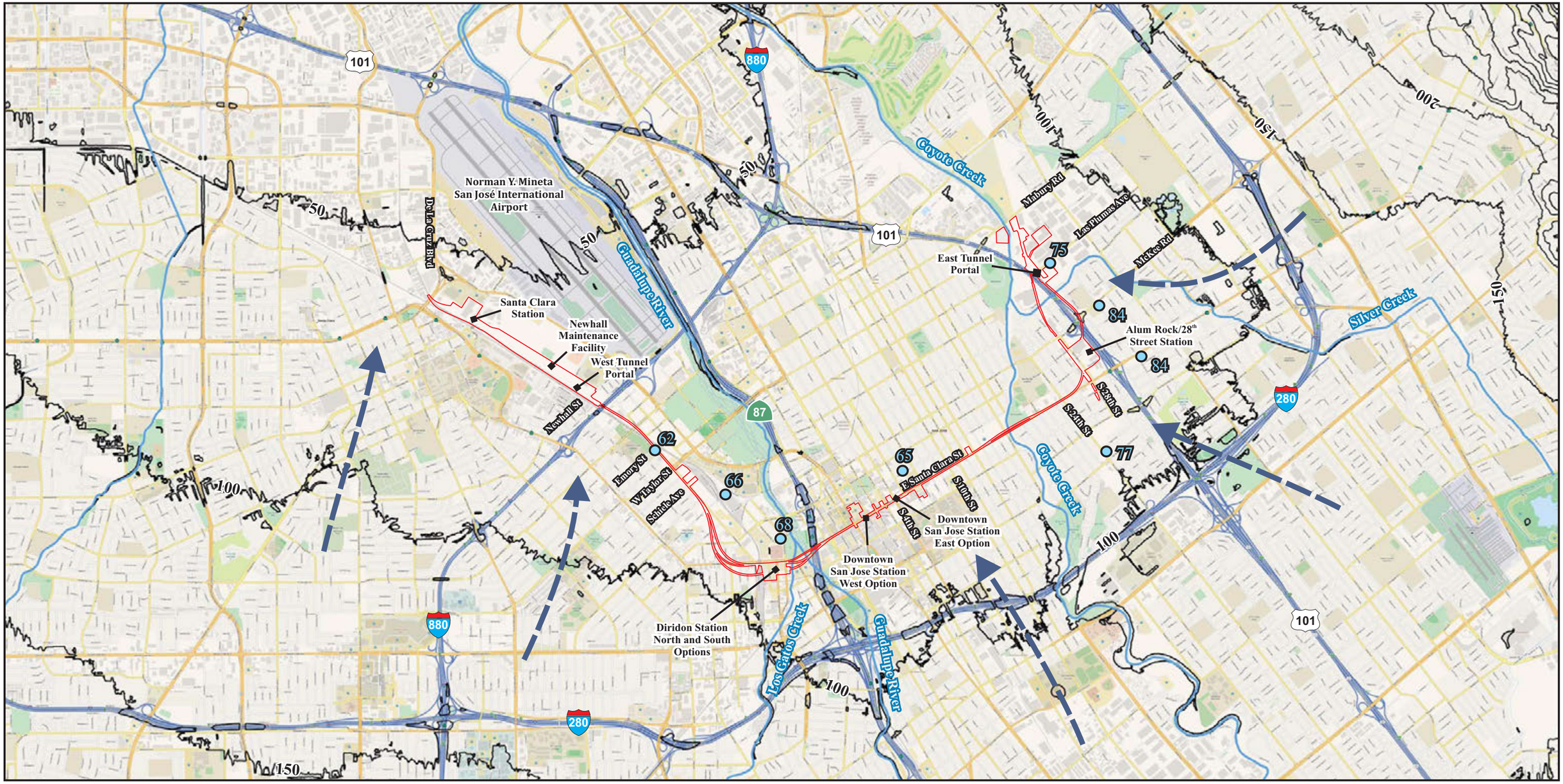
Note: Railroad tracks were formerly located at the Newhall Maintenance Facility.
Base: MapQuest OpenStreetMap.
Source: Existing/Former Railroads (U.S. Census Bureau, 2013).

0 1,700 Feet N

VTA BART Silicon Valley-Phase II Extension Project
Santa Clara County, California

Physical Setting and Regional Hydrogeology

Figure 3



Legend

- Project Area of Potential Effect
- Surface Elevation Contours
- Inferred Groundwater Flow Direction
- –100– Surface Elevation Contour (feet, NAVD 88)
- 68 Approximate Groundwater Elevation (feet, NAVD 88)
- Groundwater Monitoring Well

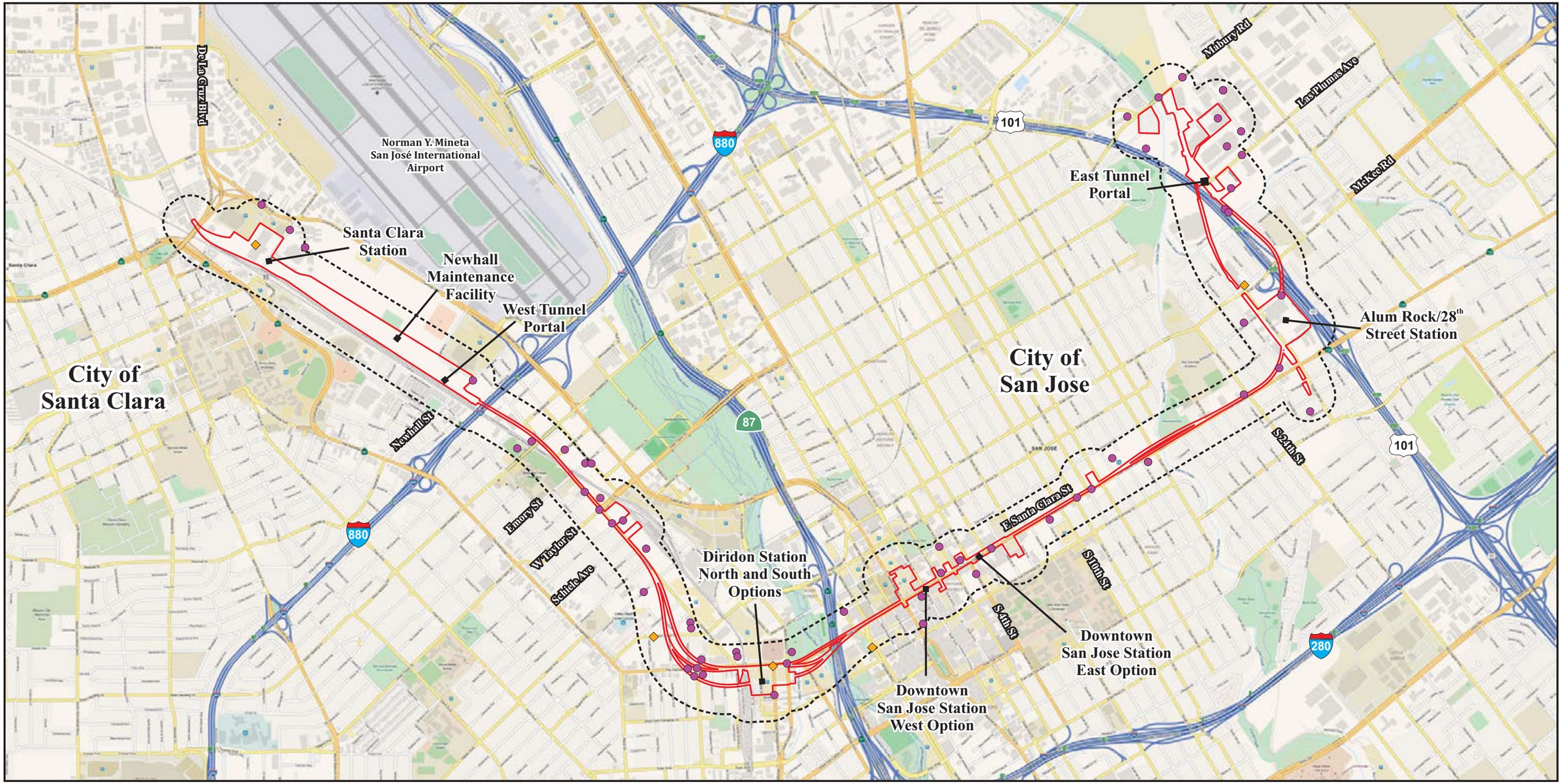
Base: MapQuest OpenStreetMap.
Sources: Groundwater Levels (State Water Resources Control Board, 2013).
Surface Elevation Contours (USGS, 2009).

0 3,400 Feet N

VTA BART Silicon Valley-Phase II Extension Project
Santa Clara County, California

Registered Hazardous Materials Facilities

Figure 4



Legend

- Project Area of Potential Effect
- 500-Foot Buffer
- RCRA Hazardous Waste Generator
- Permitted Underground Storage Tank Facility

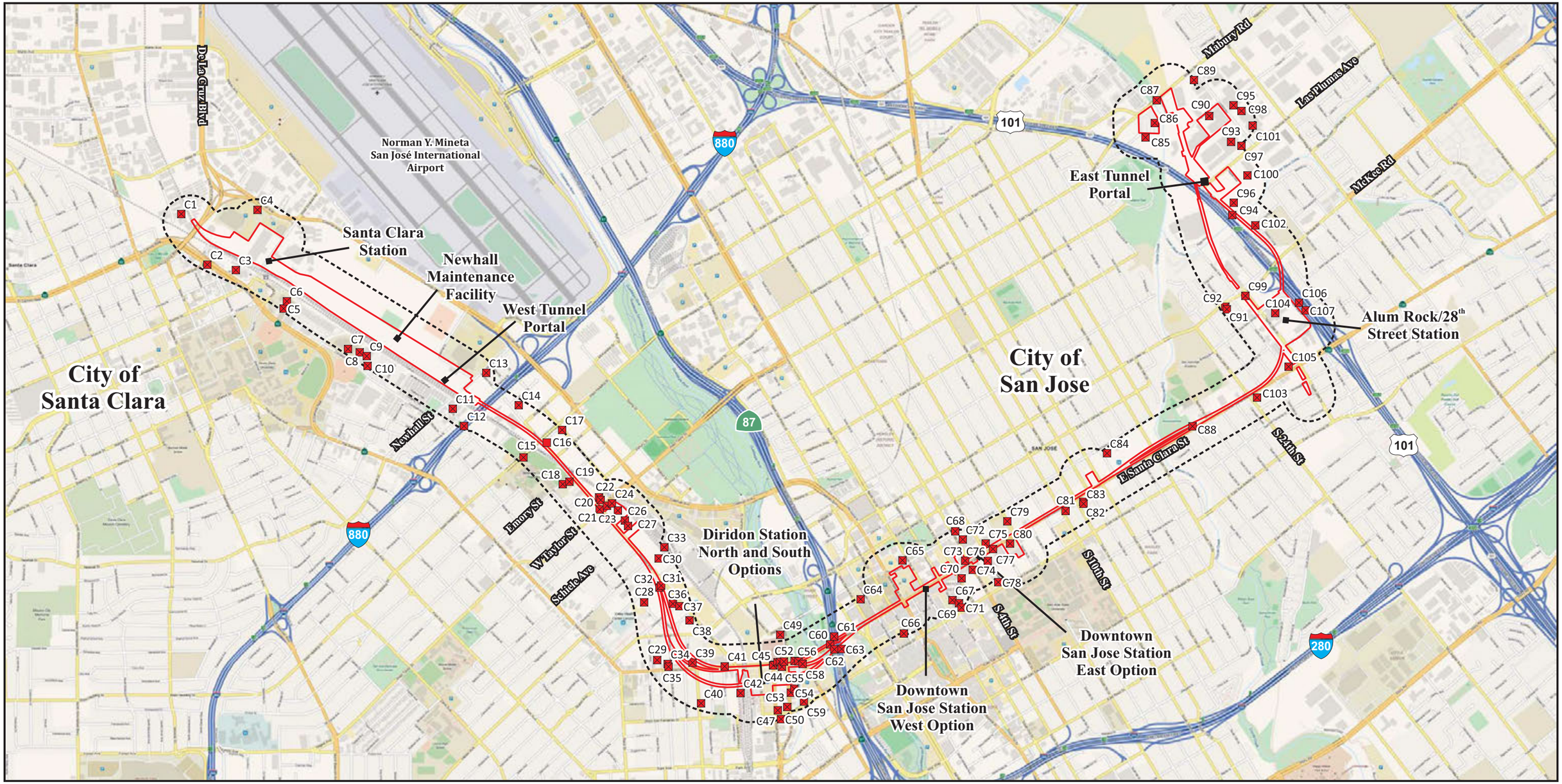
Notes: RCRA = Resource Conservation and Recovery Act
Base: MapQuest OpenStreetMap.
Sources: RCRA hazardous waste generators (USEPA, 2015).
Permitted underground storage tank facilities (DTSC, 2015).

0 2,000 Feet N

VTA BART Silicon Valley-Phase II Extension Project
Santa Clara County, California

Closed Hazardous Materials Release Sites

Figure 5



Legend

- Project Area of Potential Effect
- 500-Foot Buffer
- Closed Hazardous Materials Release Site

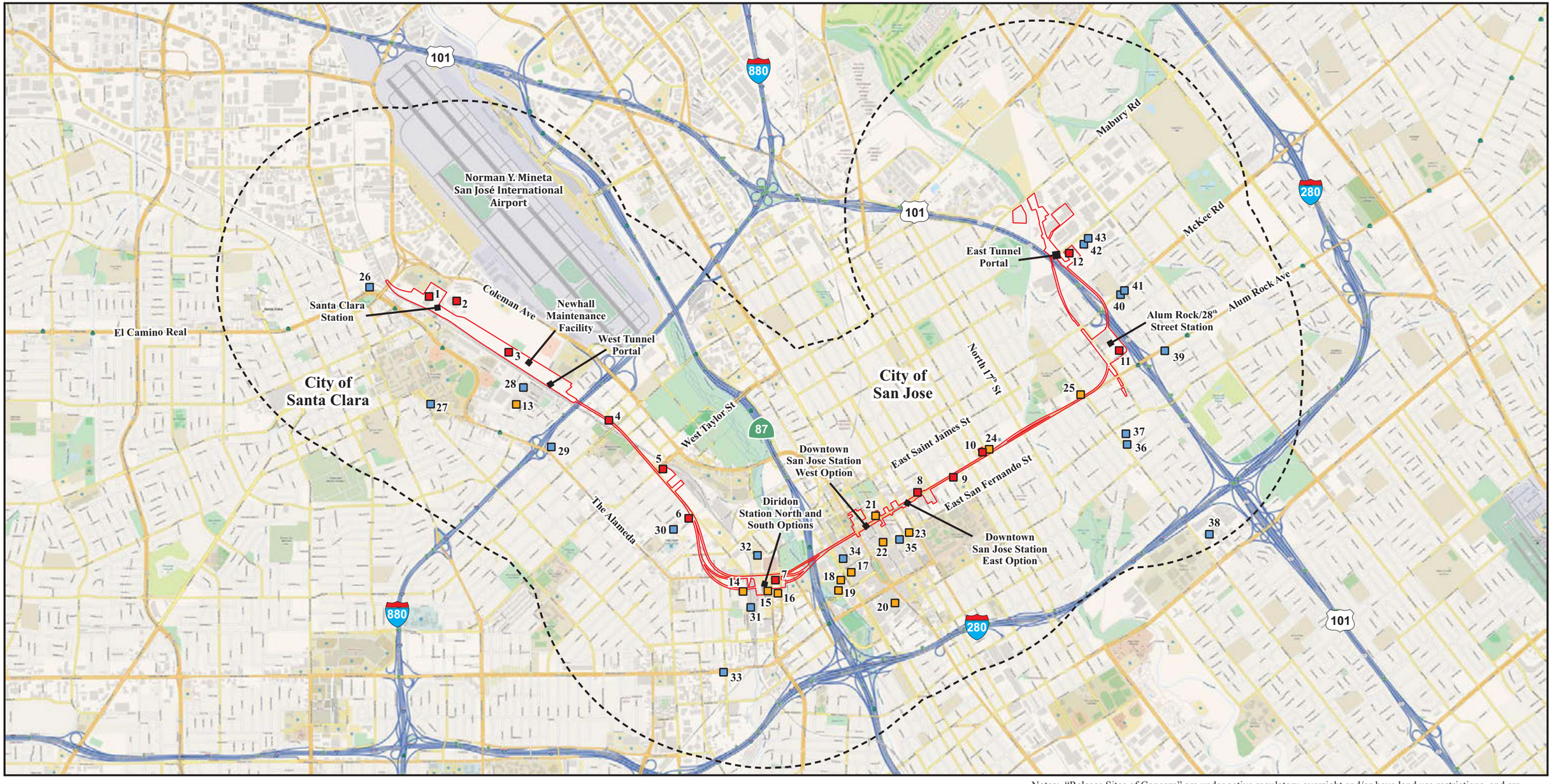
Notes: Site information is summarized in Table 2.
Base: MapQuest OpenStreetMap.
Sources: Closed hazardous materials release sites (SWRCB, 2015 and DTSC, 2015).

0 2,000 Feet N

VTA BART Silicon Valley-Phase II Extension Project
Santa Clara County, California

Hazardous Materials Release Sites of Concern – Project Overview

Figure 6



Legend

- Project Area of Potential Effect
- 1-Mile Buffer
- Release Site of Concern with Known Subsurface Contamination on the Project
- Release Site of Concern with Potential Subsurface Contamination on the Project
- Release Site of Concern with No Subsurface Contamination on the Project

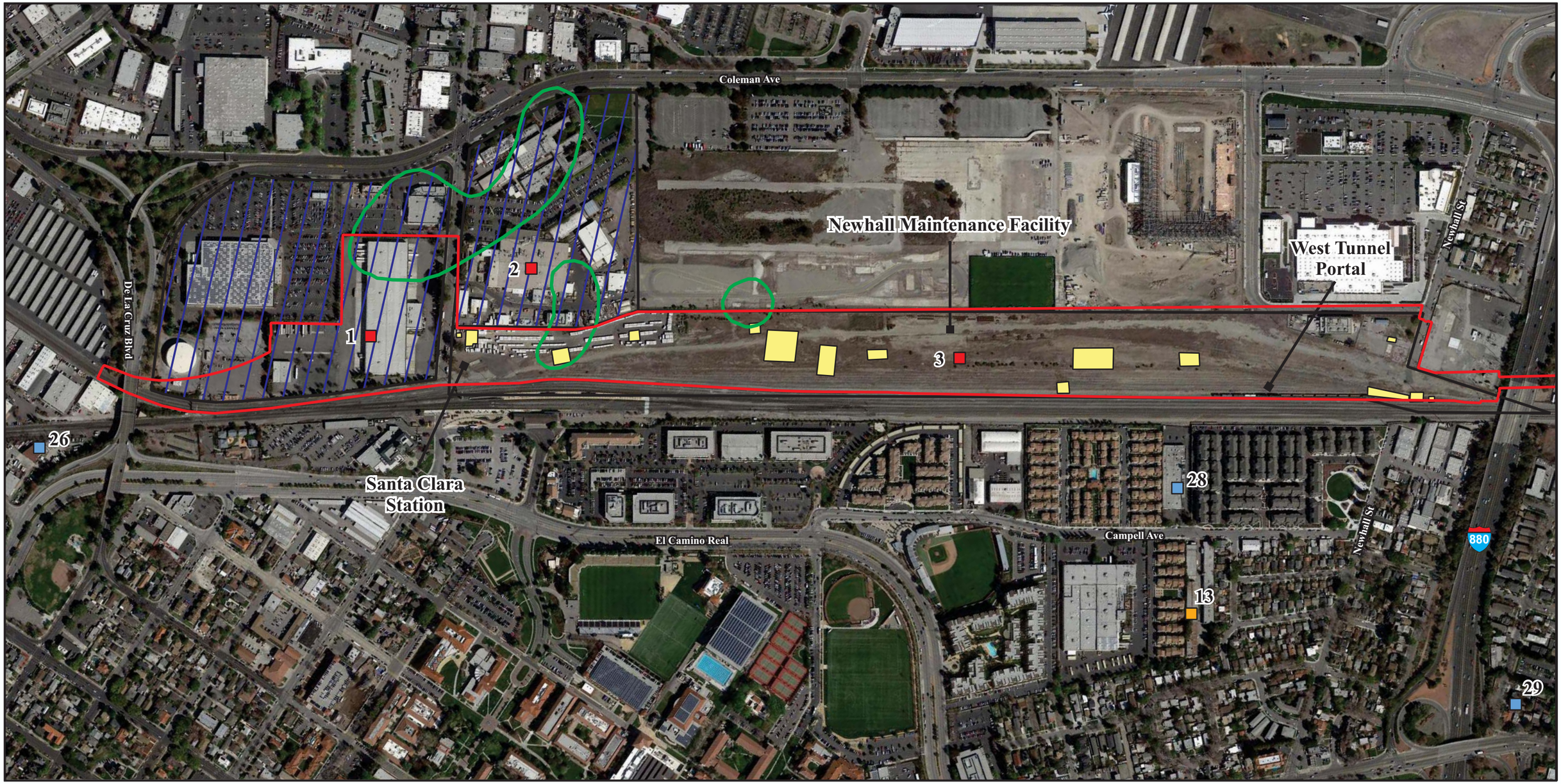
Notes: "Release Sites of Concern" are under active regulatory oversight and/or have land use restrictions, and are located on, adjacent to, or upgradient within one mile of the Project. Site information is summarized in Table 3 and Section 5.3.
Base: MapQuest OpenStreetMap.
Sources: Release Sites of Concern (SWRCB, 2015 and DTSC, 2015).

0 3,000 Feet N

VTA BART Silicon Valley-Phase II Extension Project
Santa Clara County, California

Hazardous Materials Release Sites of Concern - Santa Clara Station and the Newhall Maintenance Facility

Figure 7



Legend

- Project Area of Potential Effect
- Approximate Boundary of Release Site
- Approximate Area of Land Use Restriction
- Shallow Soil Contamination
- TCE Groundwater Plume Contour (5 µg/L)
- Release Site of Concern with Known Subsurface Contamination on the Project
- Release Site of Concern with Potential Subsurface Contamination on the Project
- Release Site of Concern with No Subsurface Contamination on the Project

Note: Site information summarized in Table 4 and Section 5.3.
Construction staging areas can occur anywhere within the Project Area of Potential Effect.
Base: Google Earth.
Sources: TCE Plume Data (Parsons, 2013).
Soil Contamination Data (Earth Tech, Inc., 2007)
Release Sites of Concern (SWRCB, 2015 and DTSC, 2015).

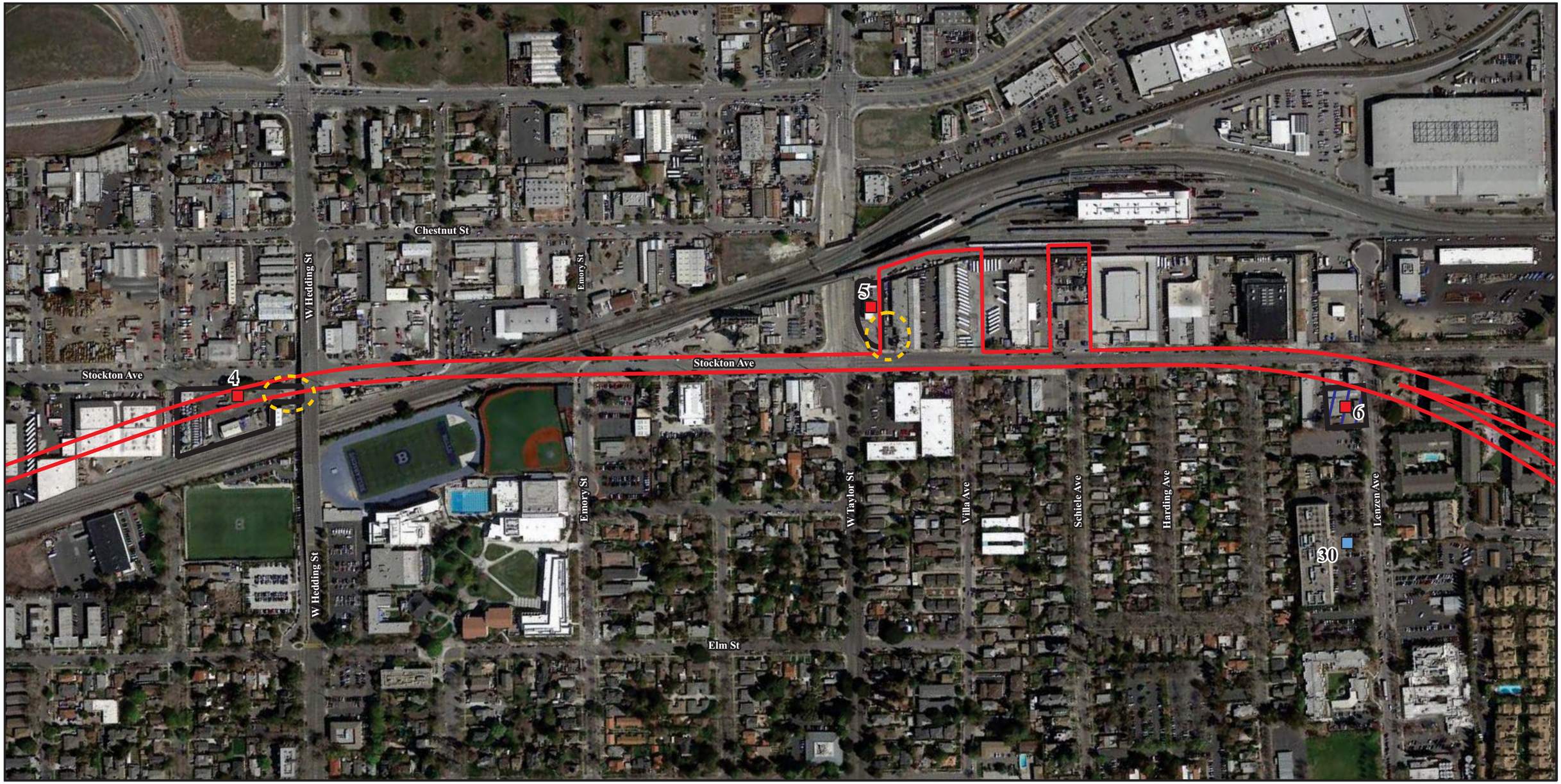
0 500 Feet

N

VTA BART Silicon Valley-Phase II Extension Project
Santa Clara County, California

Hazardous Materials Release Sites of Concern - Western Tunnel Alignment

Figure 8



Legend

- Project Area of Potential Effect
- Approximate Boundary of Release Site
- Approximate Area of Land Use Restriction
- Release Site of Concern with Known Subsurface Contamination on the Project
- Release Site of Concern with No Subsurface Contamination on the Project
- Primary Area of Concern

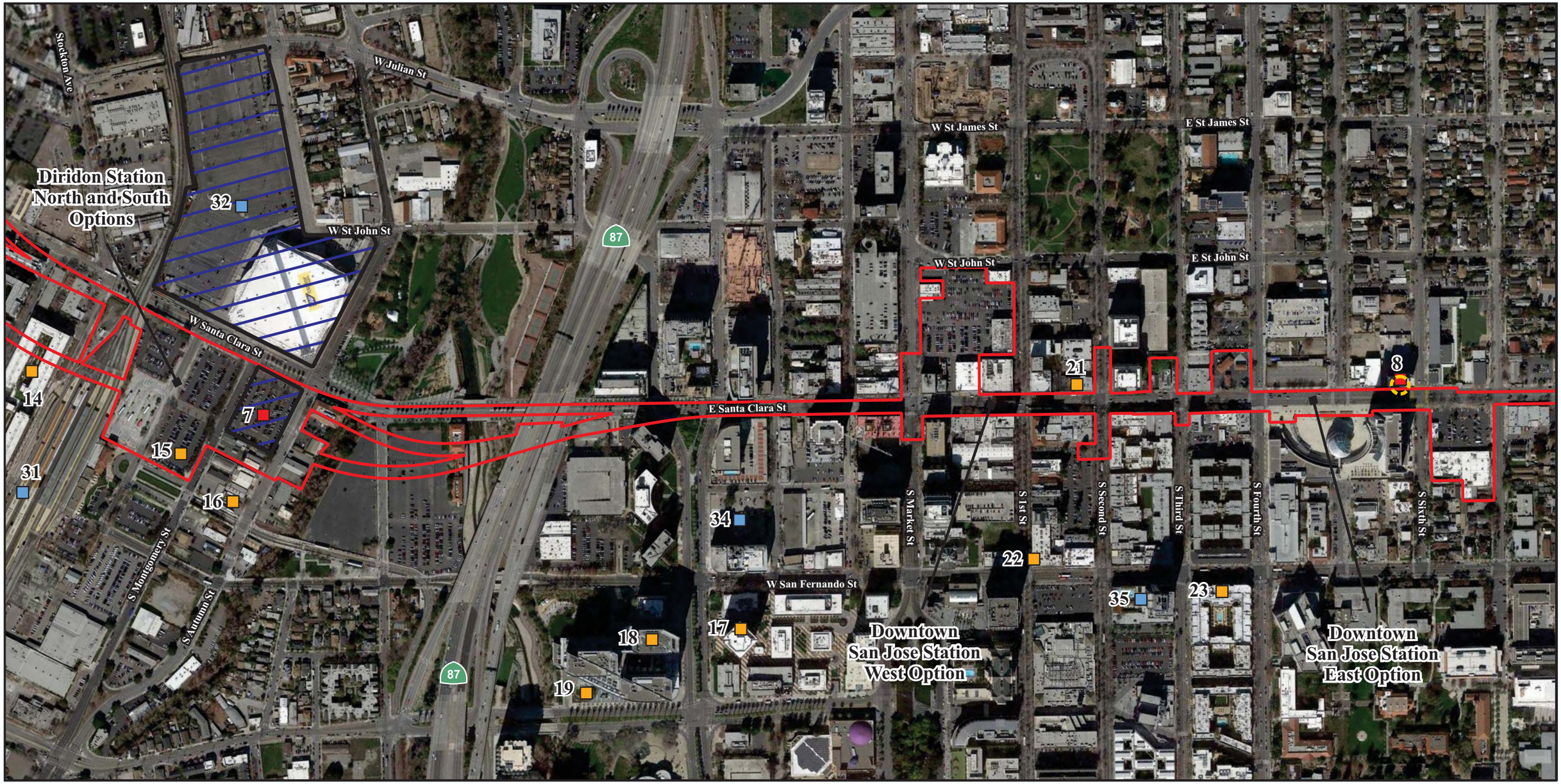
Note: Site information is summarized in Table 3 and Section 5.3.
"Primary Areas of Concern" reported only for releases with known subsurface contamination on the Project.
Construction staging areas can occur anywhere within the Project Area of Potential Effect.
Base: Google Earth.
Sources: Release Sites of Concern (SWRCB, 2015 and DTSC, 2015).

0 350 Feet

VTA BART Silicon Valley-Phase II Extension Project
Santa Clara County, California

Hazardous Materials Release Sites of Concern - Diridon Station Options and Downtown San Jose Station Options

Figure 9



Legend

- Project Area of Potential Effect
- Approximate Boundary of Release Site
- Approximate Area of Land Use Restriction
- Release Site of Concern with Known Subsurface Contamination on the Project
- Release Site of Concern with Potential Subsurface Contamination on the Project
- Release Site of Concern with No Subsurface Contamination on the Project
- Primary Area of Concern

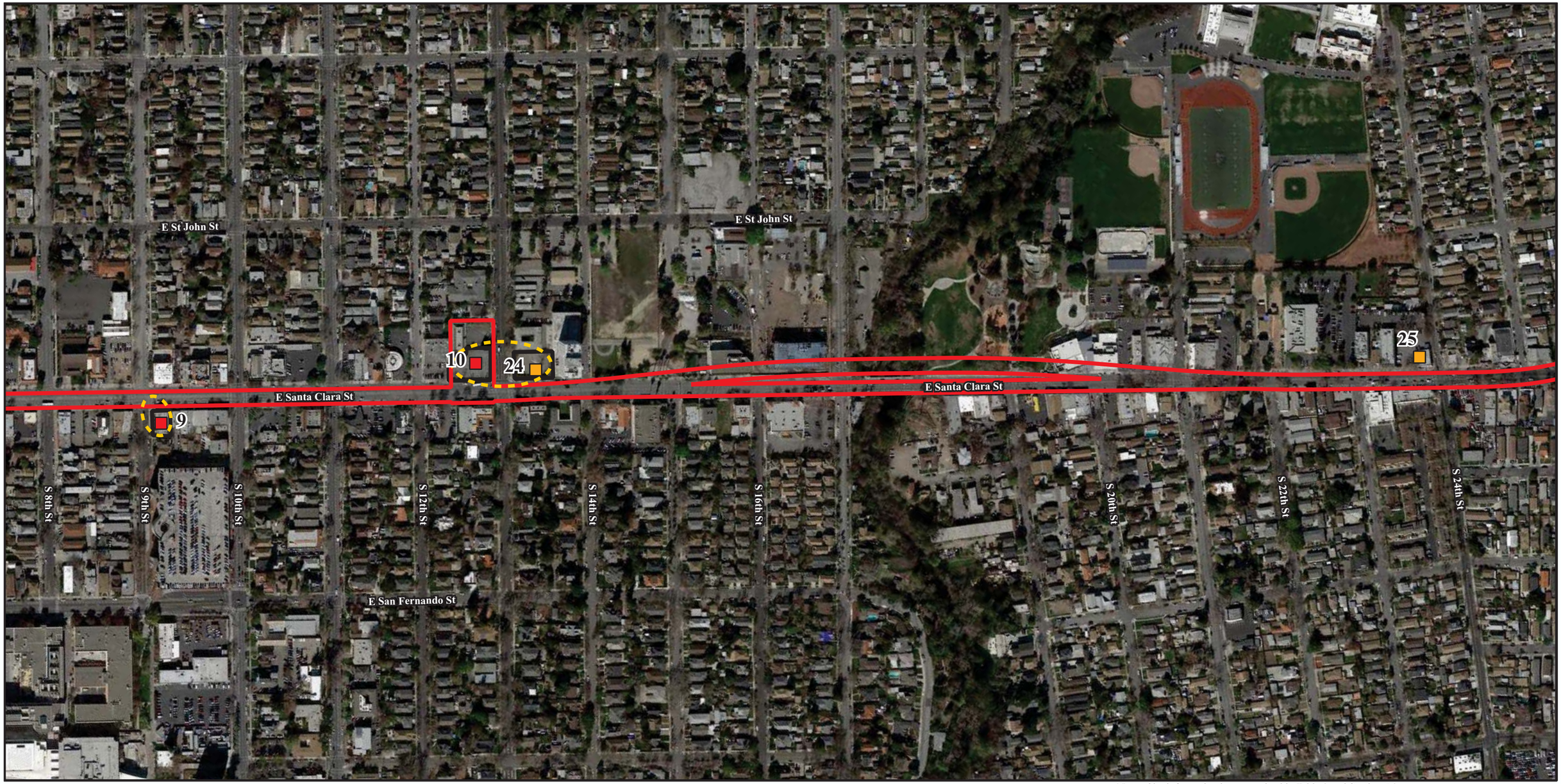
Note: Site information is summarized in Table 3 and Section 5.3.
"Primary Areas of Concern" reported only for releases with known subsurface contamination on the Project.
Construction staging areas can occur anywhere within the Project Area of Potential Effect.
Base: Google Earth.
Sources: Release Sites of Concern (SWRCB, 2015 and DTSC, 2015).

0 425 Feet N

VTA BART Silicon Valley-Phase II Extension Project
Santa Clara County, California

Hazardous Materials Release Sites of Concern - Central Tunnel Alignment

Figure 10



Legend

- Project Area of Potential Effect
- Approximate Boundary of Release Site
- Release Site of Concern with Known Subsurface Contamination on the Project
- Release Site of Concern with Potential Subsurface Contamination on the Project
- Primary Area of Concern

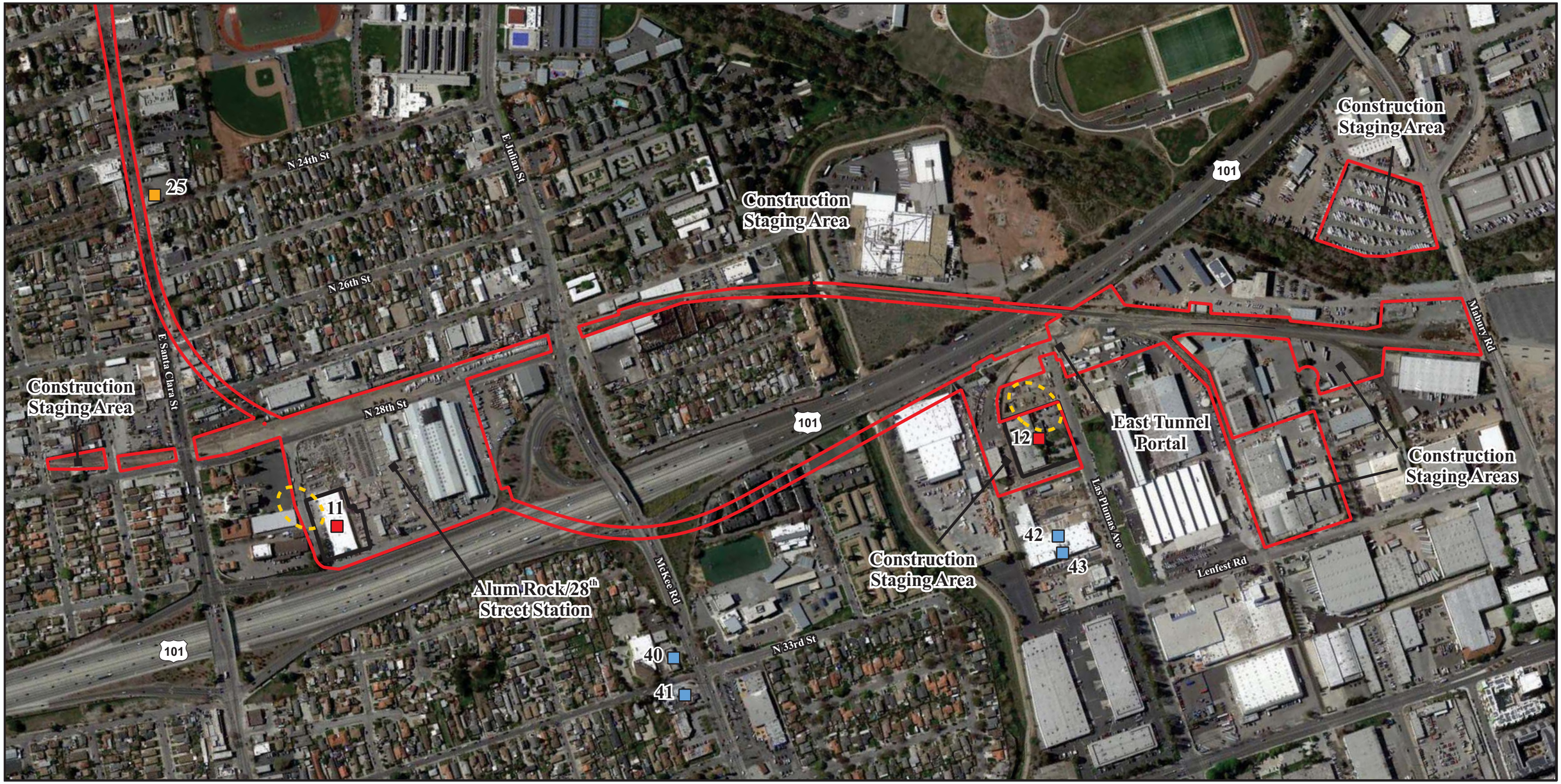
Note: Site information is summarized in Table 3 and Section 5.3.
"Primary Areas of Concern" reported only for releases with known subsurface contamination on the Project.
Construction staging areas can occur anywhere within the Project Area of Potential Effect.
Base: Google Earth.
Sources: Release Sites of Concern (SWRCB, 2015 and DTSC, 2015).

0 350 Feet N

VTA BART Silicon Valley-Phase II Extension Project
Santa Clara County, California

Hazardous Materials Release Sites of Concern - Alum Rock/28th Street Station and the Eastern Tunnel Alignment

Figure 11



Legend

- Project Area of Potential Effect
- Approximate Boundary of Release Site
- Release Site of Concern with Known Subsurface Contamination on the Project
- Release Site of Concern with Potential Subsurface Contamination on the Project
- Release Site of Concern with No Subsurface Contamination on the Project
- Primary Area of Concern

Note: Site information is summarized in Table 3 and Section 5.3.
"Primary Areas of Concern" reported only for releases with known subsurface contamination on the Project.
Construction staging areas can occur anywhere within the Project Area of Potential Effect. In addition, there are several areas that would only be used as construction staging areas as shown in this figure.
Base: Google Earth.
Sources: Release Sites of Concern (SWRCB, 2015 and DTSC, 2015).

0 450 Feet

VTA BART Silicon Valley-Phase II Extension Project
Santa Clara County, California

APPENDIX A

ISA CHECKLIST

Initial Site Assessment (ISA) Checklist

Project Information

District: **04** County: **SCL** EA: **N/A** Post Mile **N/A .**
Route: **The Project alignment would begin at the terminus of VTA's BART Phase I Project (currently under construction) south of Mabury Road in the City of San Jose and terminate in the City of Santa Clara near the existing Caltrain Station (Figure 2).**

Description: **BART Silicon Valley Phase II Santa Clara Extension Project.**

Is the project on the HW Study Minimal-Risk Projects List (HW1)? **No**

Project Manager **Tom Fitzwater** phone # **408-321-5705**

Project Engineer **Krishna Davey** phone # **408-942-6124**

Project Screening

Attach the project location map to this checklist to show location of all known and/or potential HW sites identified. **See Figures 1, 4, 5, and 6 of the ISA report**

1. Project Features:

   New R/W? **Yes**
   Excavation? **Yes**
   Railroad Involvement? **Yes**
   Structure demolition/modification? **Yes**
   Subsurface utility relocation? **Yes**

2. Project Setting:

   Rural or Urban: **Urban**
   Current land uses: **Commercial, industrial, and transportation**
   Adjacent land uses: **Residential, commercial, and industrial**

3. Check federal, State, and local environmental and health regulatory agency records as necessary, to see if any known hazardous waste site is in or near the project area. If a known site is identified, show its location on the attached map and attach additional sheets, as needed, to provide pertinent information for the proposed project.
   See Table 4, Figure 6, and the discussion in Section 5.3 of the ISA report.

4. Field Inspection – Date: **Not applicable; See discussion of deviations in Section 8 of the ISA report.**

   STORAGE STRUCTURES / PIPELINES: **The Project Area of Potential Effect may potentially include the following structures noted below:**

Underground tanks **Yes**	Surface tanks **Yes**
Sumps **Yes**	Ponds **None**
Drums **Yes**	Basins **None**

(continued)

Transformers **Yes** Landfill **None**

Other **None**

CONTAMINATION: (spills, leaks, illegal dumping, etc.)

Surface staining **NA** Oil sheen **NA**

Odors **NA** Vegetation damage **NA**

Other **NA**

HAZARDOUS MATERIALS: (asbestos, lead, etc.)

Buildings **Yes** Spray-on fireproofing **Unknown**

Pipe wrap **Unknown** Friable tile **Unknown**

Acoustical plaster **Unknown**

Serpentine **None mapped in Project vicinity**

Paint **Yes**

Other **None**

5. Additional record search, as necessary, of subsequent land uses that could have resulted in a hazardous waste site.
   Potential contamination from railroad soils and ballasts. See findings and conclusions reported in section 9 of the ISA report.

6. Other comments and/or observations:
   Refer to Executive Summary of the ISA report.

ISA Determination

Does the project have potential hazardous waste involvement? **Yes**

If there is known or potential hazardous waste involvement, is additional ISA work needed before task orders can be prepared for the Investigation? **No.**

A brief memo should be prepared to transmit the ISA conclusions to the Project Manager and Project Engineer. **Executive Summary of the ISA report provided to the Project Manager and Project Engineer.**

ISA Conducted by: **Patrick Sutton, BASELINE Environmental Consulting** Date: **November 2016**

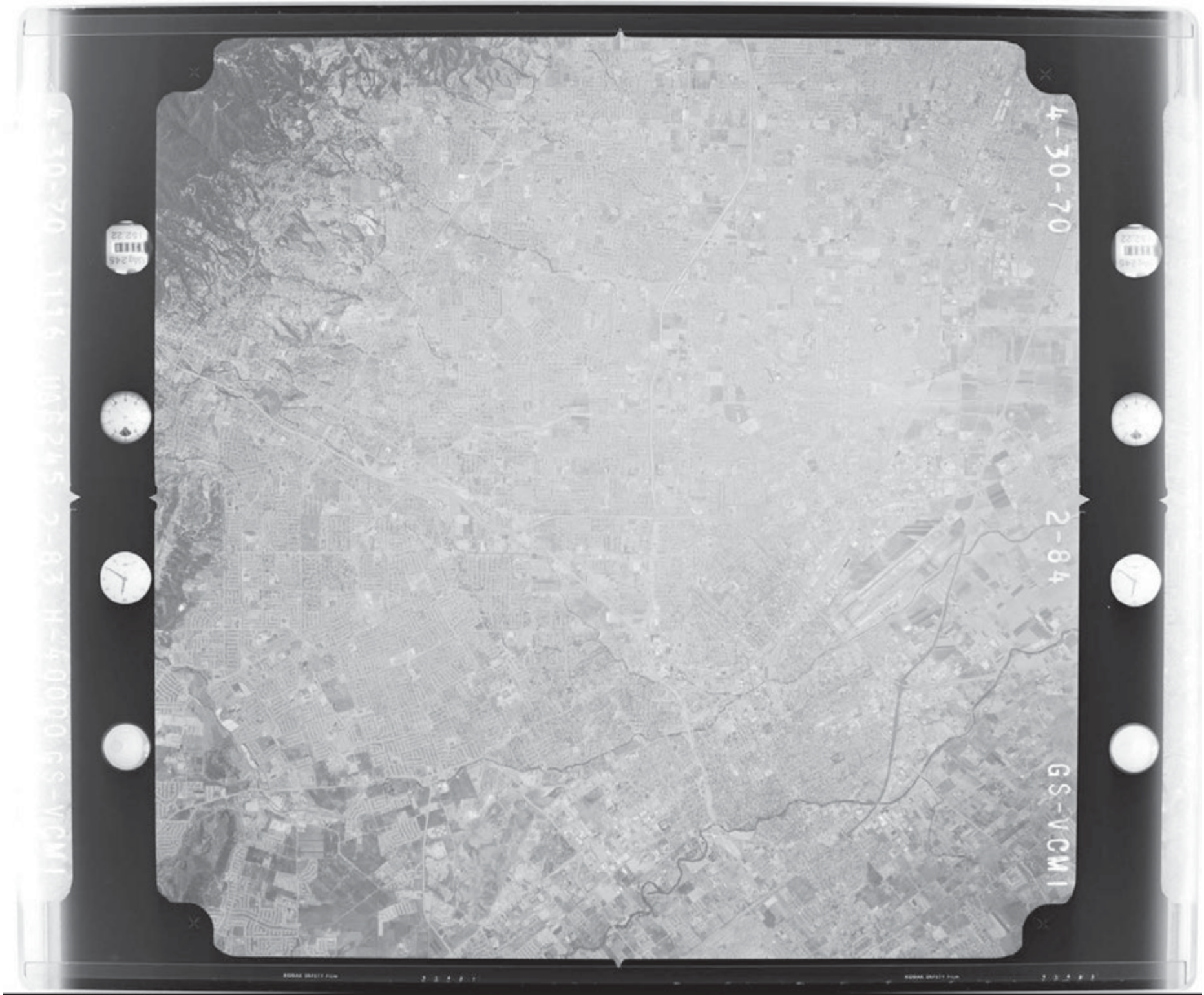
APPENDIX B

HISTORICAL AERIAL PHOTOGRAPHS

1954

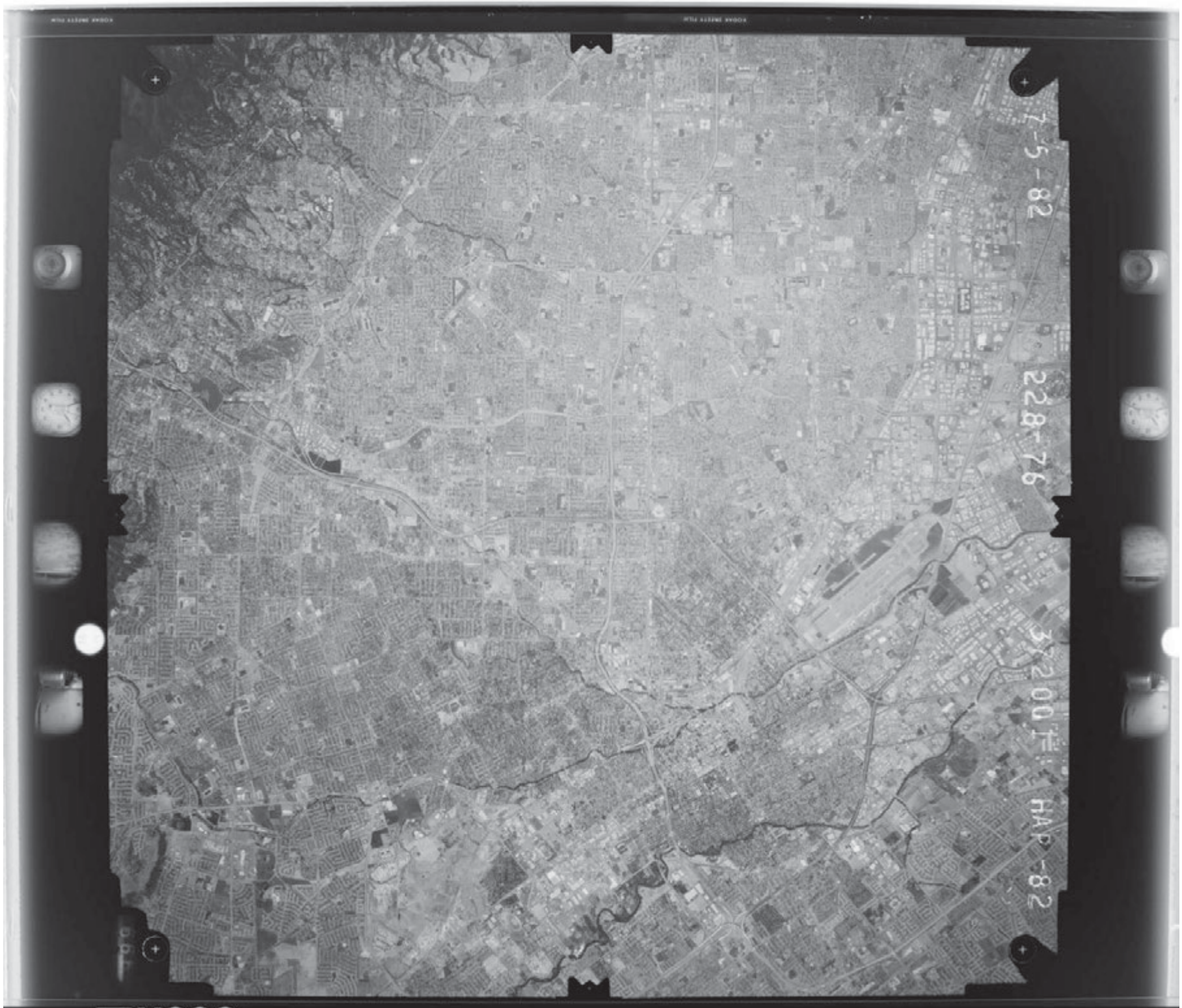
USGS
science for a changing world

1960



USGS
science for a changing world

1970



USGS
science for a changing world

1982

USGS
science for a changing world

1993