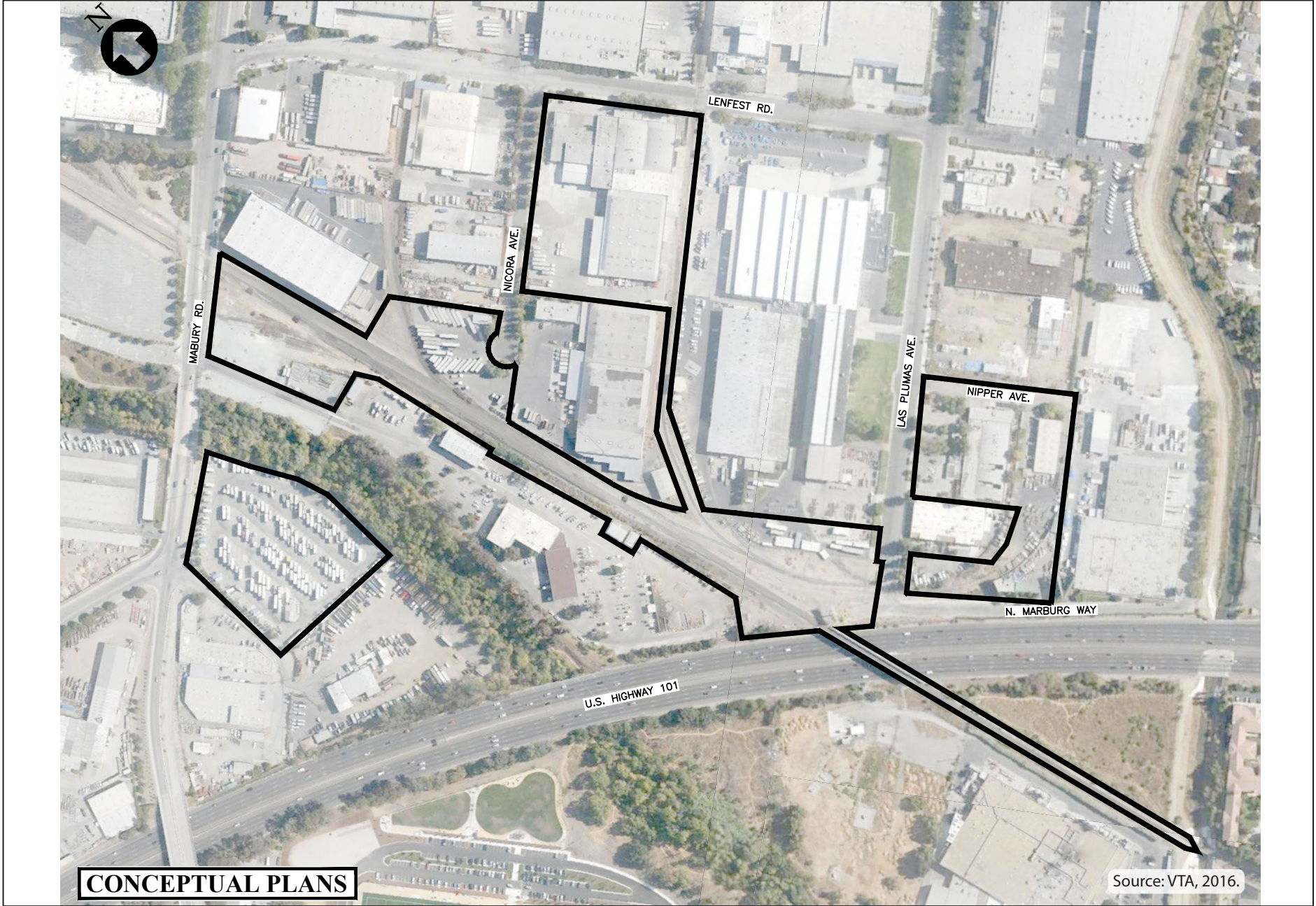


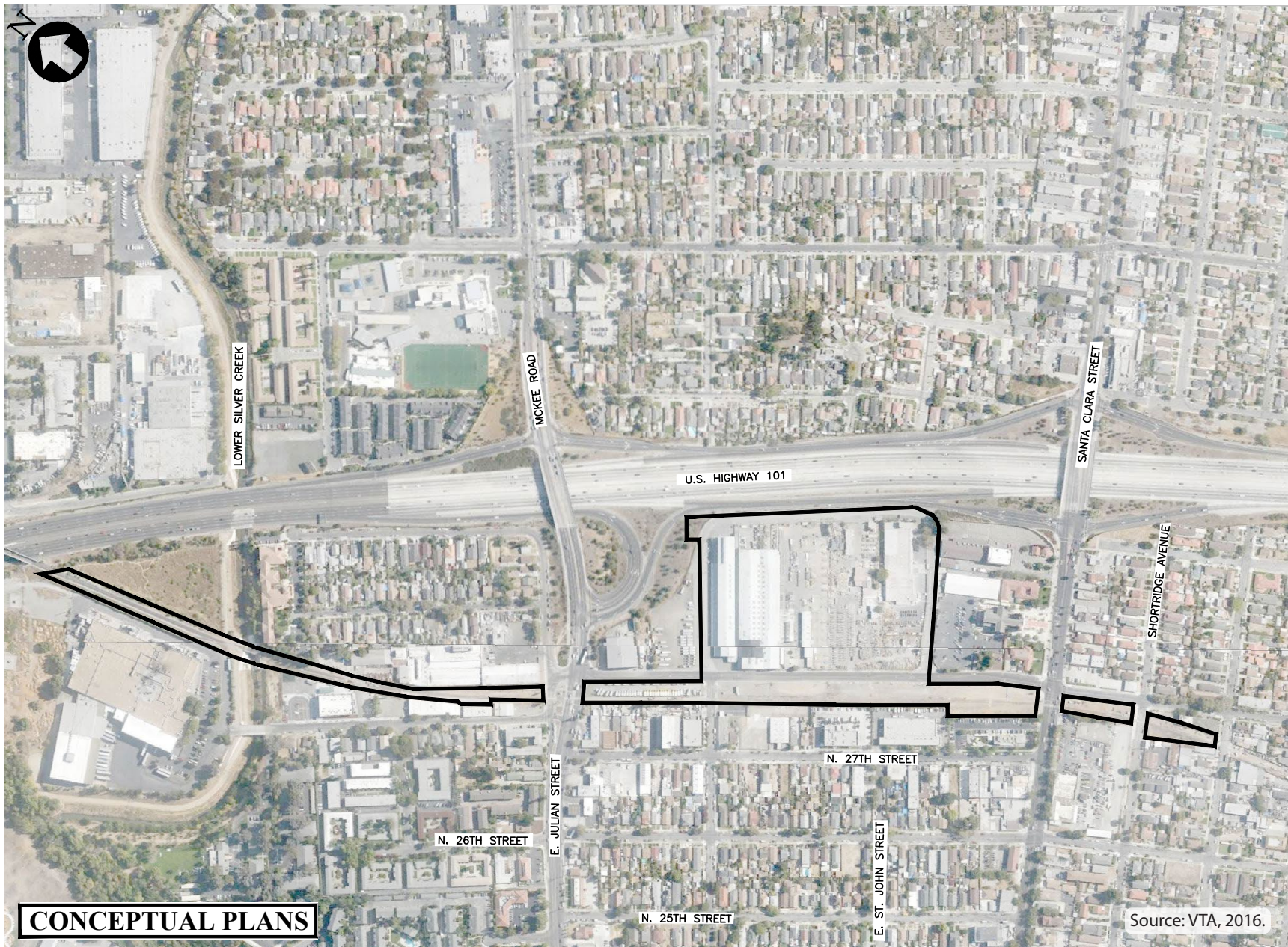
Source: VTA, 2016.

**Figure 5-1**  
**Construction Schedule**  
 VTA's BART Silicon Valley–Phase II Extension Project



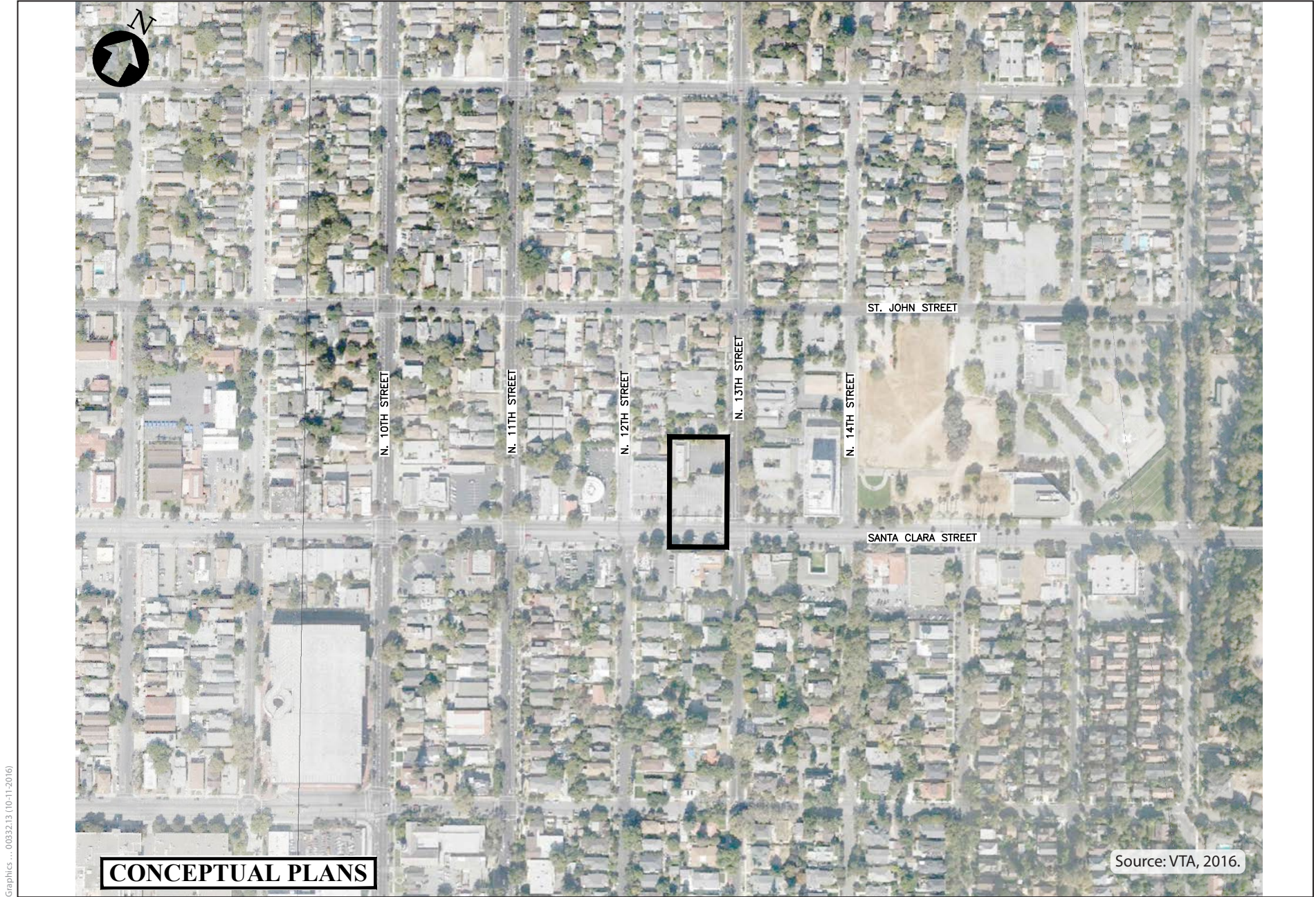
**Figure 5-2**  
**Proposed Mabury Road and U.S. 101 Construction Staging Areas**  
VTA's BART Silicon Valley–Phase II Extension Project





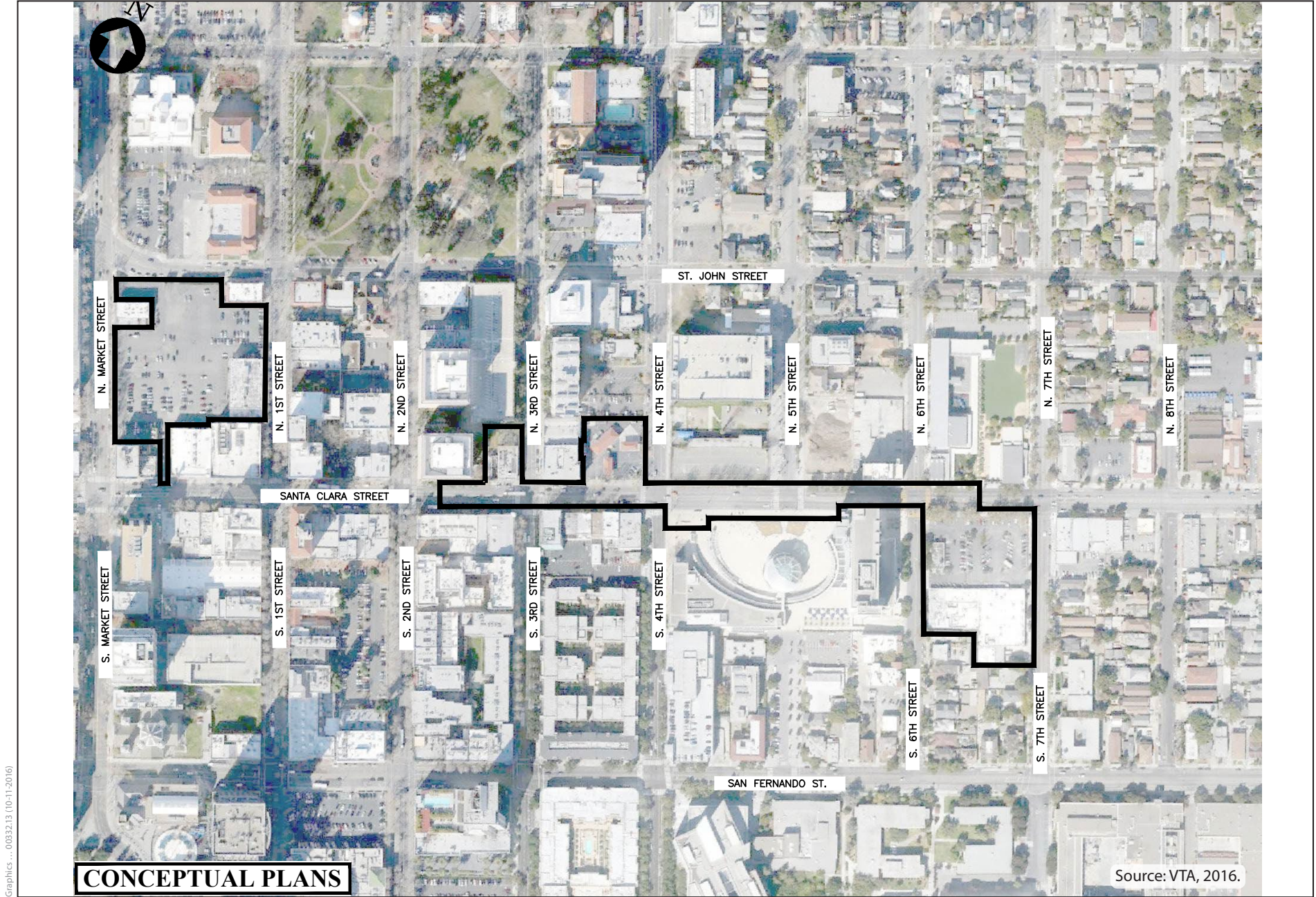
**Figure 5-3**  
**Proposed Alum Rock Construction Staging Areas**  
VTA's BART Silicon Valley–Phase II Extension Project





**Figure 5-4**  
**Proposed 13th Street Mid-Tunnel Ventilation Structure Construction Staging Area**  
VTA's BART Silicon Valley–Phase II Extension Project

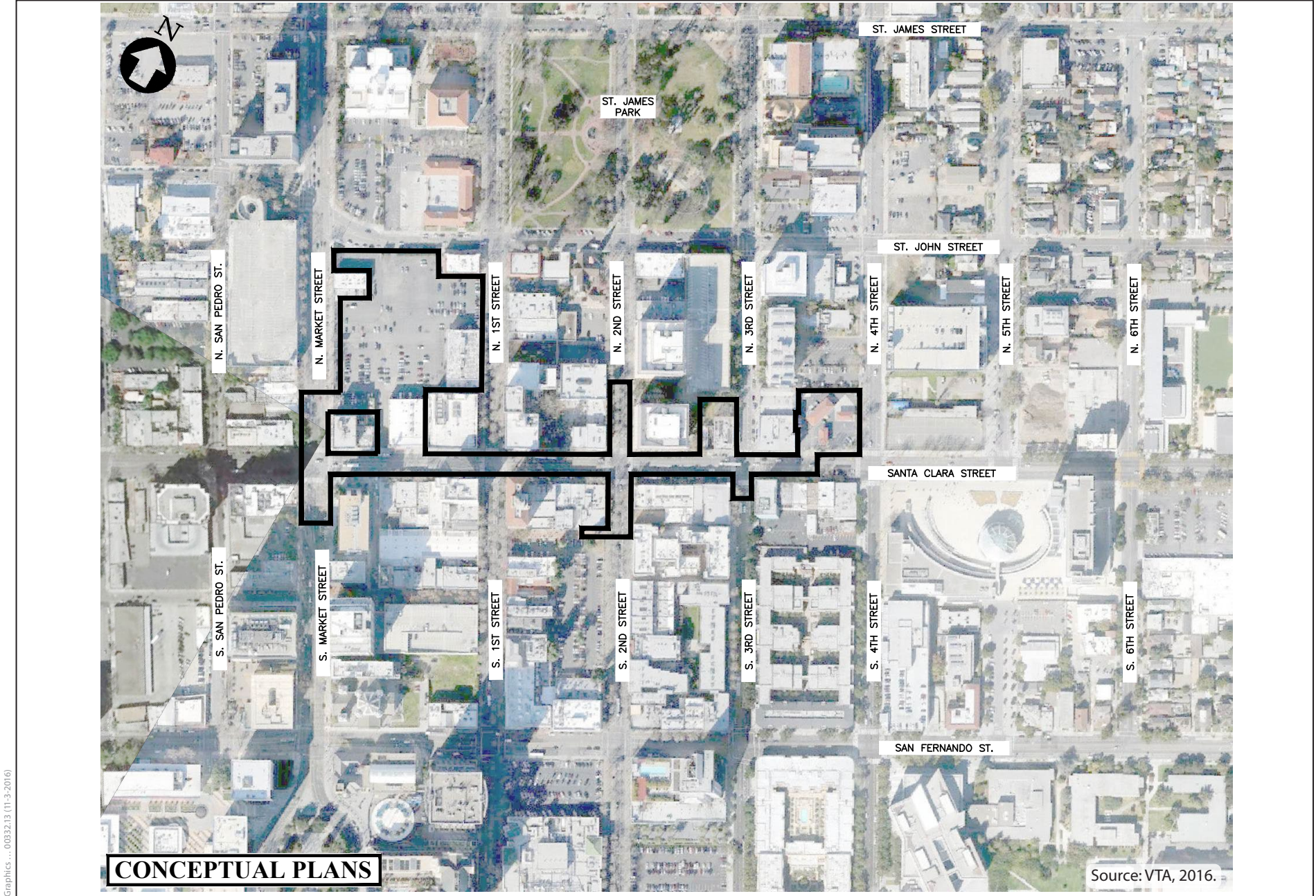




Graphics ... 0033213 (10-11-2016)

**Figure 5-5**  
**Proposed Downtown San Jose Station East Option Construction Staging Areas**  
 VTA's BART Silicon Valley-Phase II Extension Project

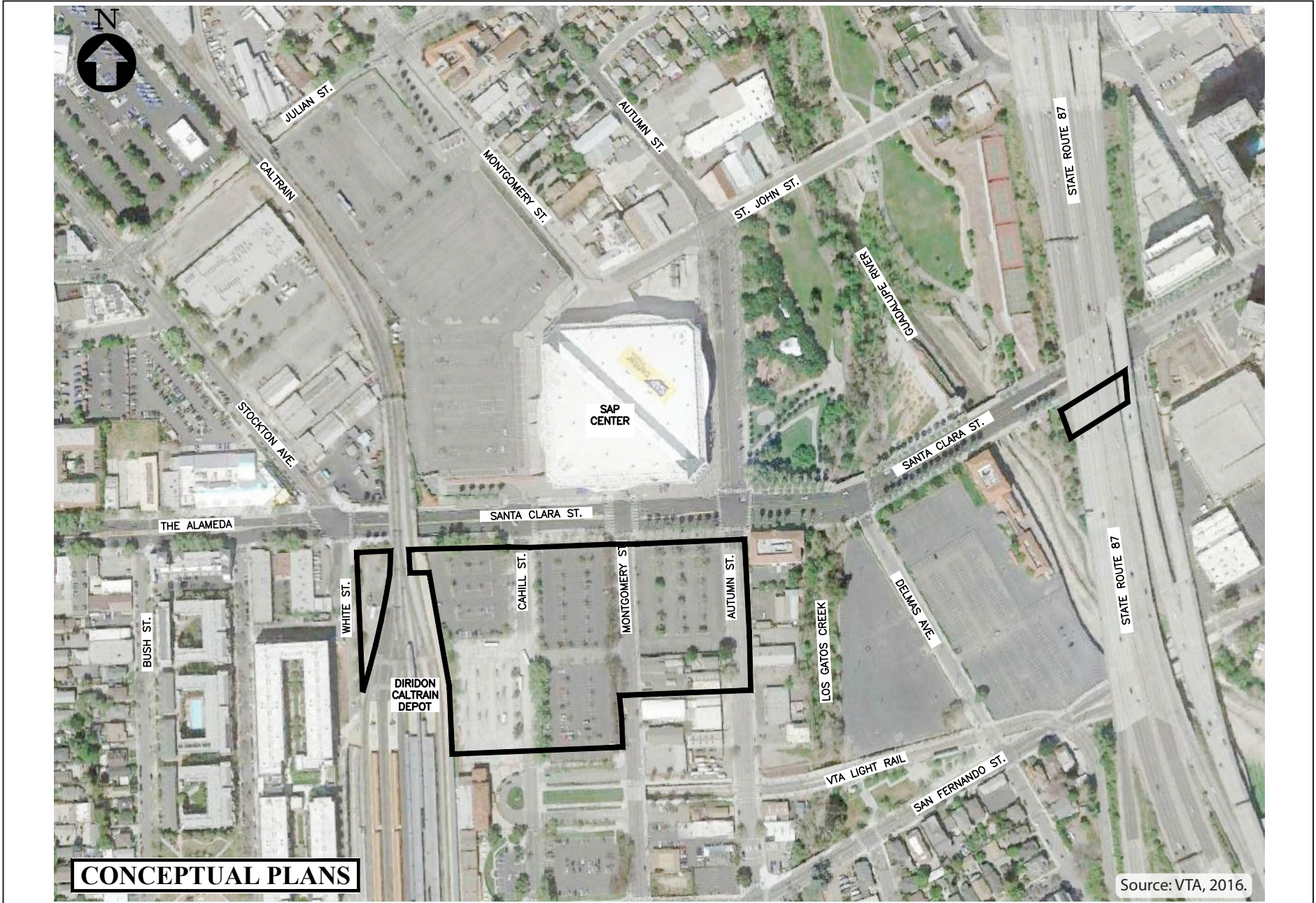




Graphics ... 0033213 (11-3-2016)

**Figure 5-6**  
**Proposed Downtown San Jose Station West Option Construction Staging Areas**  
 VTA's BART Silicon Valley-Phase II Extension Project





Graphics ... 0033213 (10-18-2016)

**Figure 5-7**  
**Proposed Diridon Station North Construction Staging Area**  
 VTA's BART Silicon Valley–Phase II Extension Project





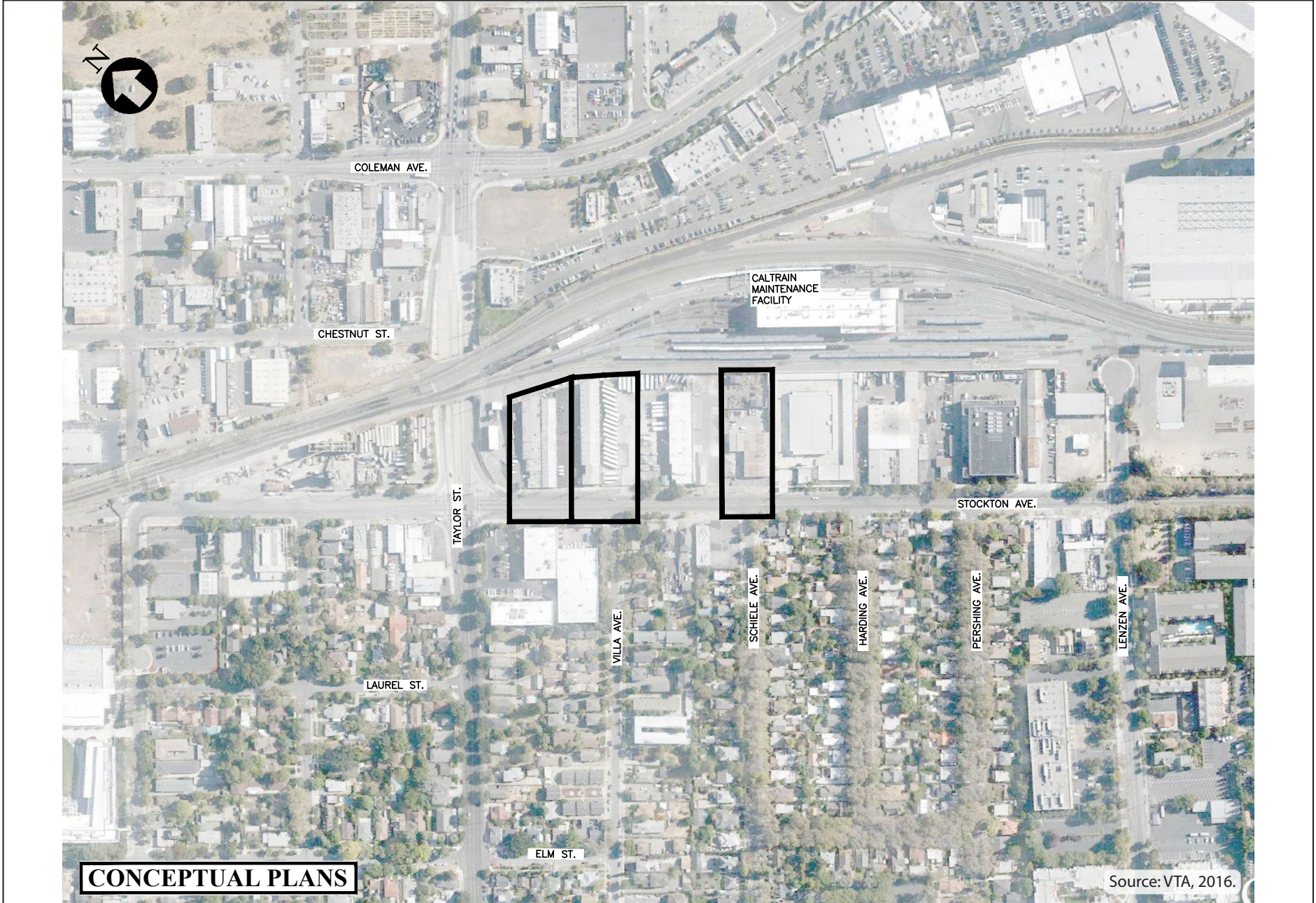
Graphics ... 0033213 (10-11-2016)

**CONCEPTUAL PLANS**

Source: VTA, 2016.

**Figure 5-8**  
**Proposed Diridon Station South Option Construction Staging Areas**  
VTA's BART Silicon Valley–Phase II Extension Project





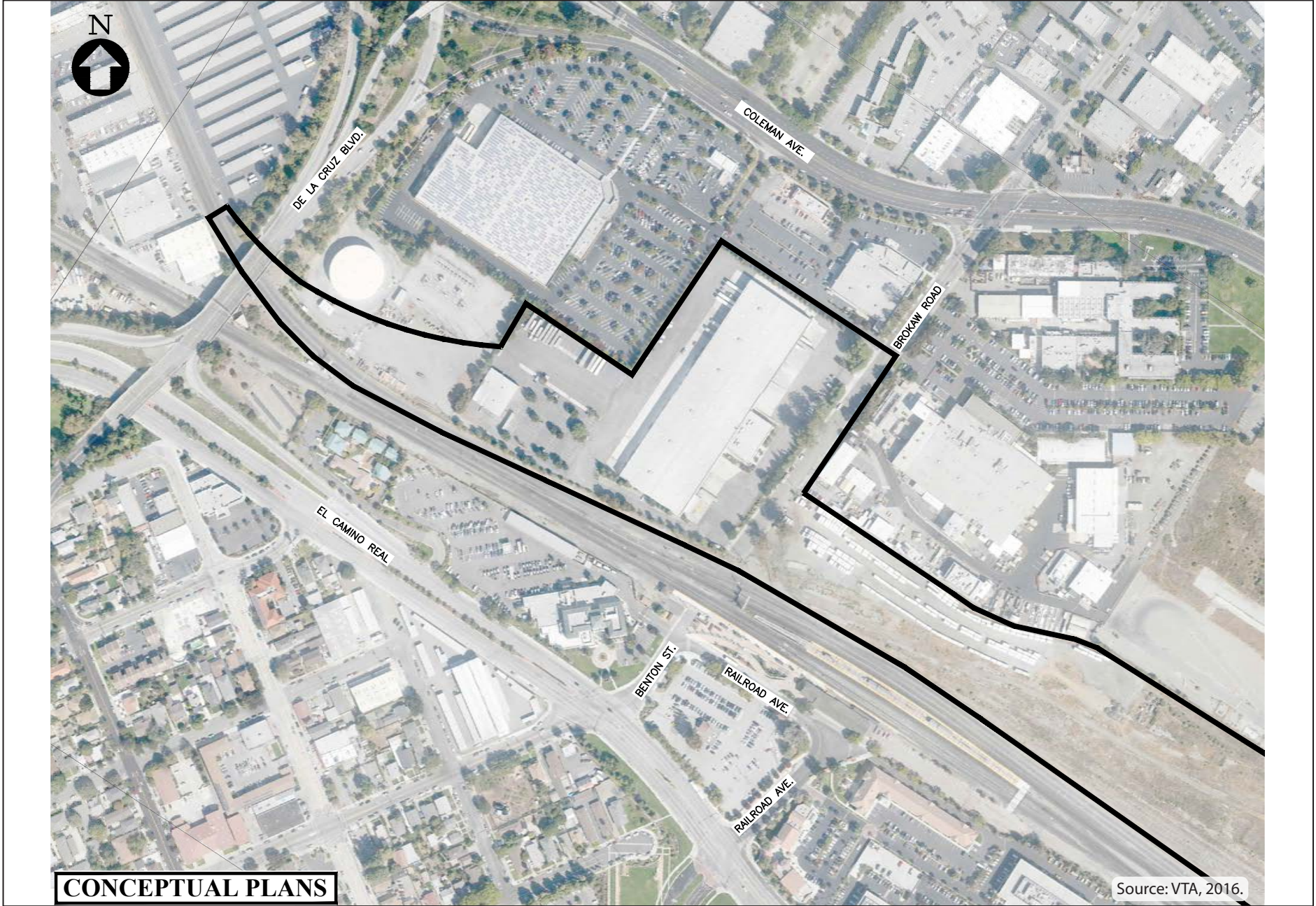
Graphics ... 0033213 (10-11-2016)

**CONCEPTUAL PLANS**

Source: VTA, 2016.

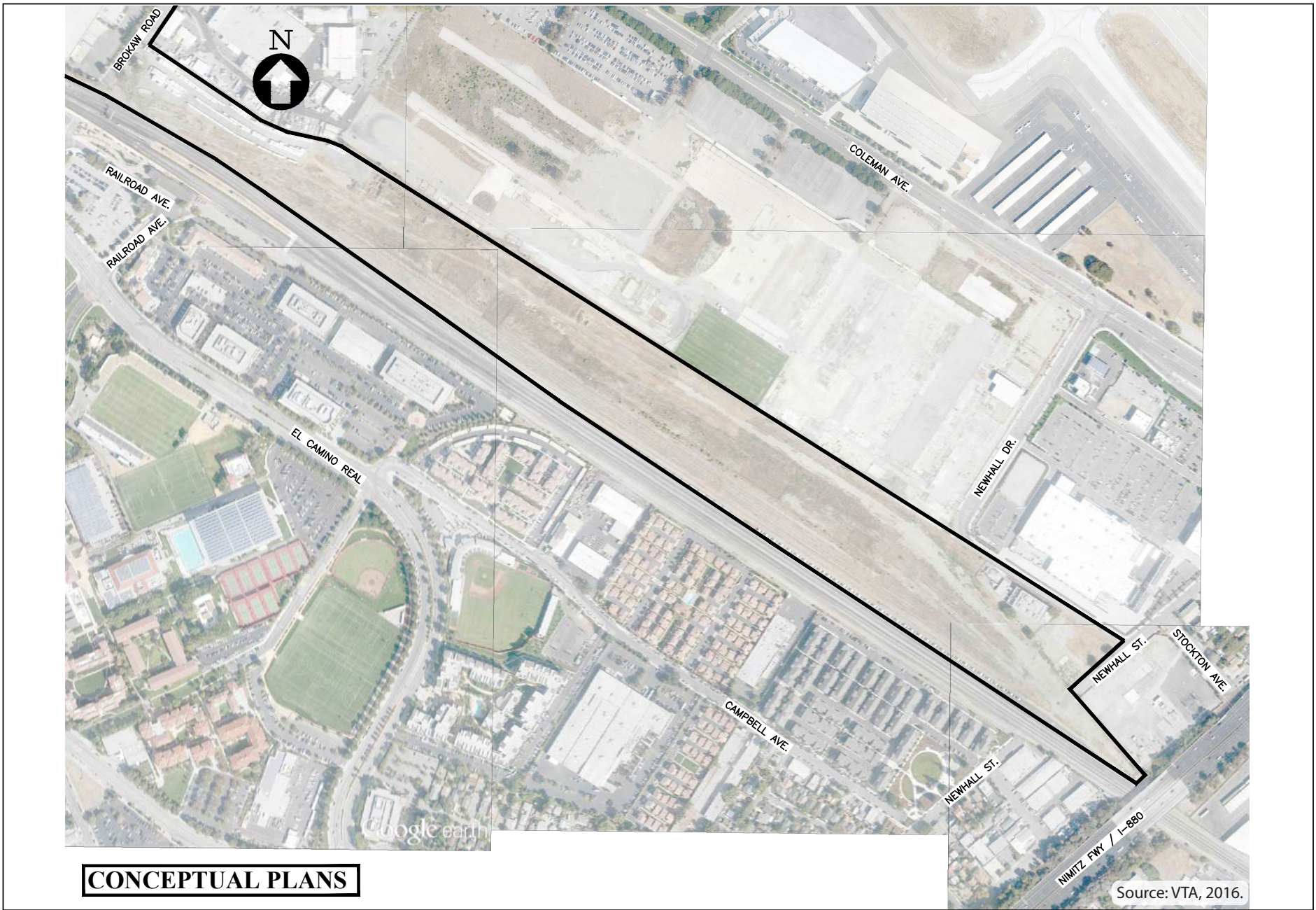
**Figure 5-9**  
**Proposed Stockton Avenue Mid-Tunnel Ventilation Structure Construction Staging Areas**  
VTA's BART Silicon Valley–Phase II Extension Project





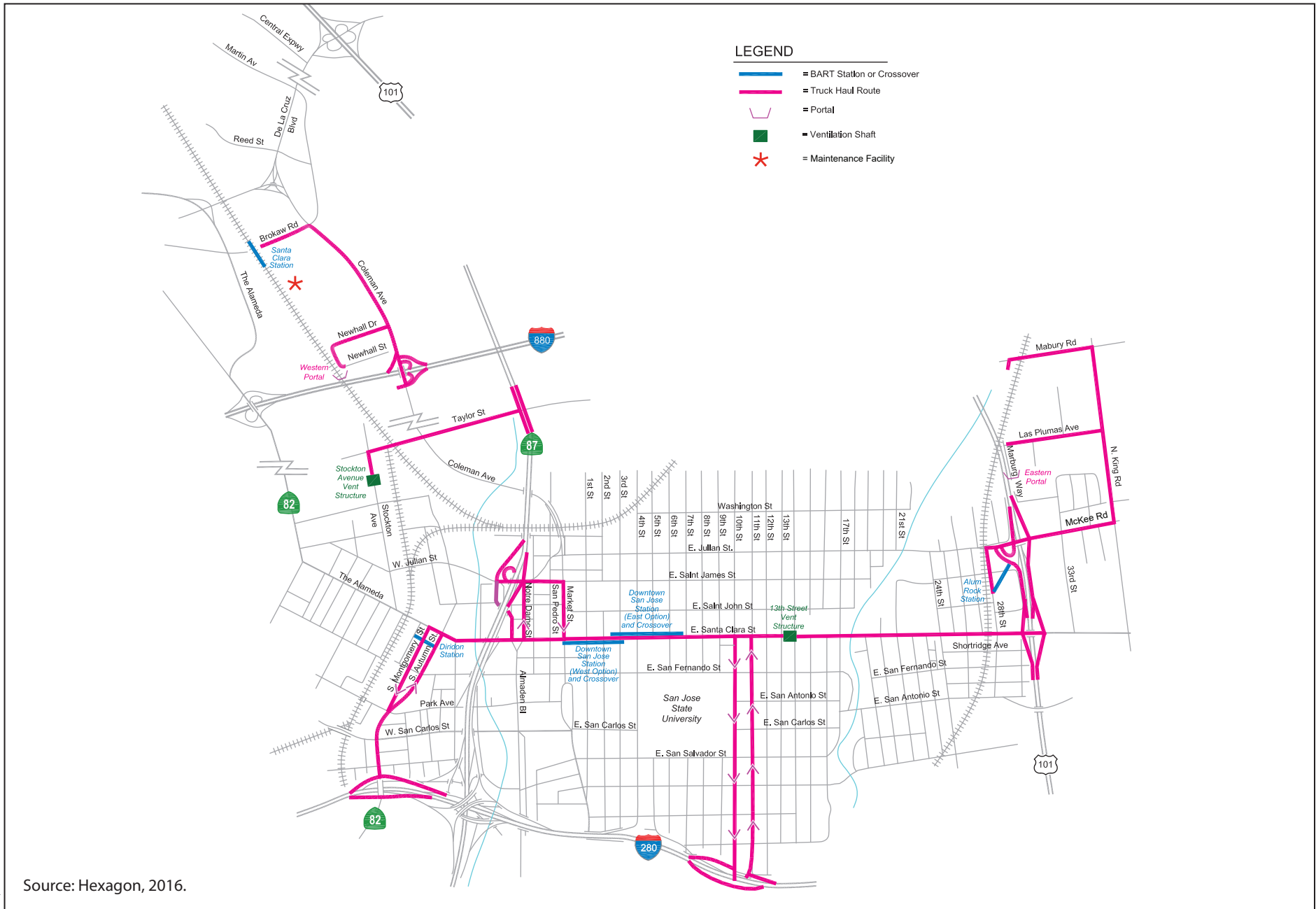
**Figure 5-10**  
**Proposed Santa Clara Station Construction Staging Area**  
VTA's BART Silicon Valley–Phase II Extension Project





**Figure 5-11**  
**Proposed Newhall Maintenance Facility Construction Staging Area**  
VTA's BART Silicon Valley–Phase II Extension Project





Source: Hexagon, 2016.

Graphics ... 00332.13 (6-20-2016)

**Figure 5-12**  
**Truck Haul Routes**  
 VTA's BART Silicon Valley-Phase II Extension Project

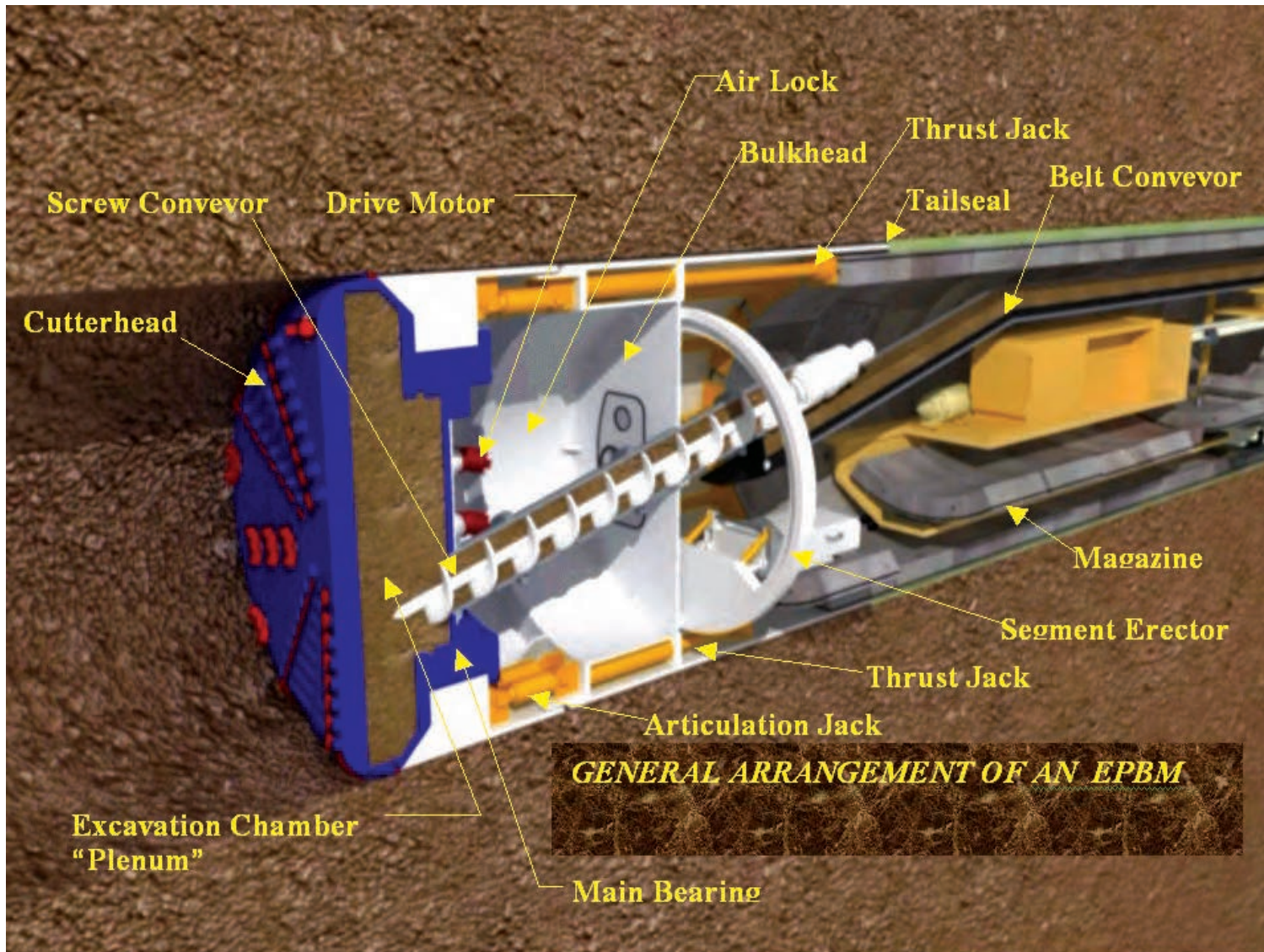




Source: VTA, 2011.

**Figure 5-13**  
**Examples of Tunnel Boring Machines**  
VTA's BART Silicon Valley–Phase II Extension Project





Graphics ... 0033213 (1-14-2016)

Source: VTA, 2011.

**Figure 5-14**  
**General Arrangement of an Earth Pressure Balanced Tunnel Boring Machine**  
 VTA's BART Silicon Valley-Phase II Extension Project





Graphics ... 0033213 (6-20-2016)

Source: VTA, 2011.

**Figure 5-15**  
**Example of Segmental Concrete Lining Units and Rings**  
VTA's BART Silicon Valley-Phase II Extension Project



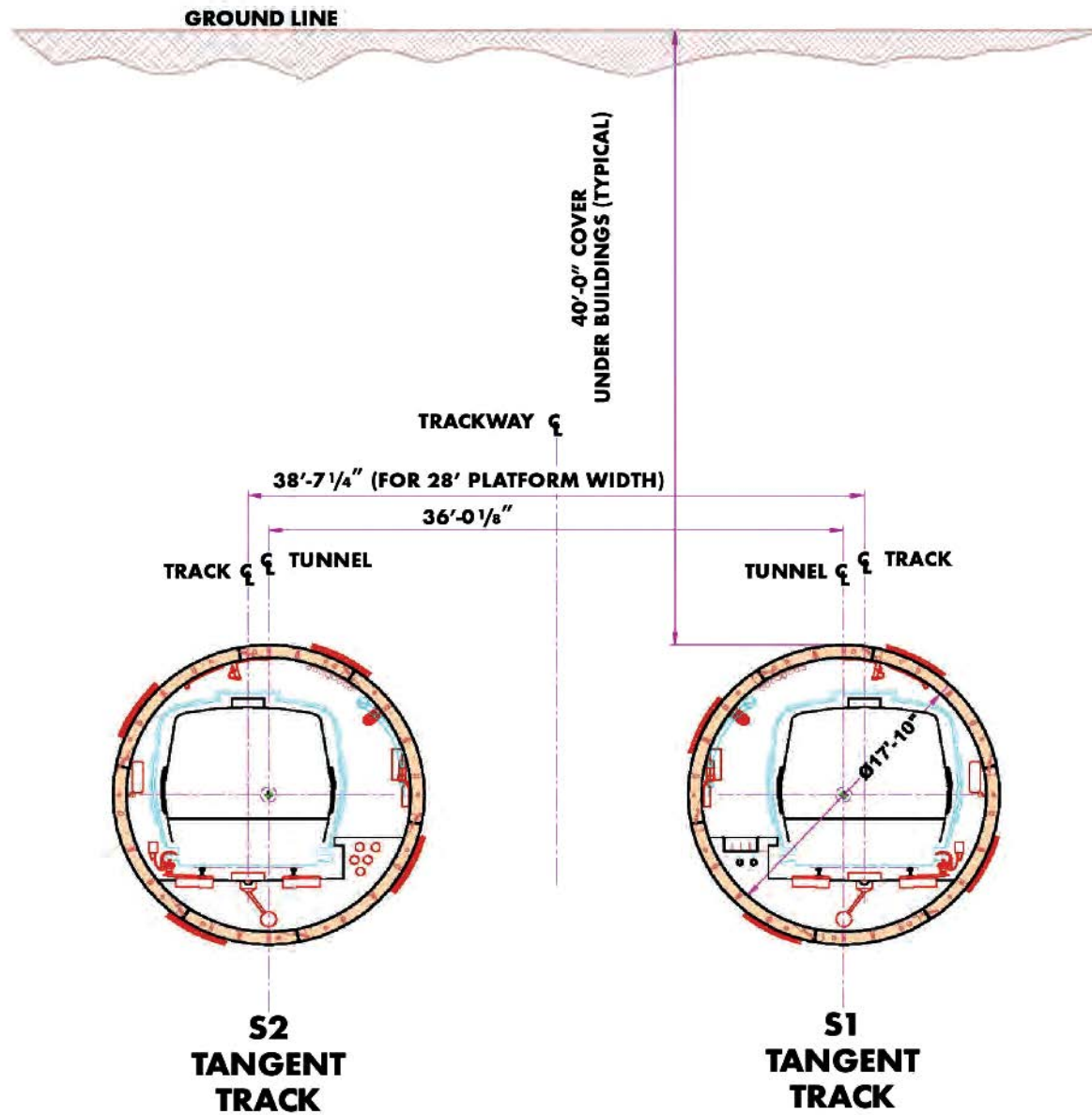


Graphics ... 00382.13 (6-20-2016)

Source: VTA, 2011.

**Figure 5-16**  
**Conveyor System**  
VTA's BART Silicon Valley–Phase II Extension Project





Graphics ... 0033213 (6-20-2016)

Source: VTA, 2011.

**Figure 5-17**  
**Diameter and Spacing of Tunnel Bores (TRD)**  
 VTA's BART Silicon Valley-Phase II Extension Project



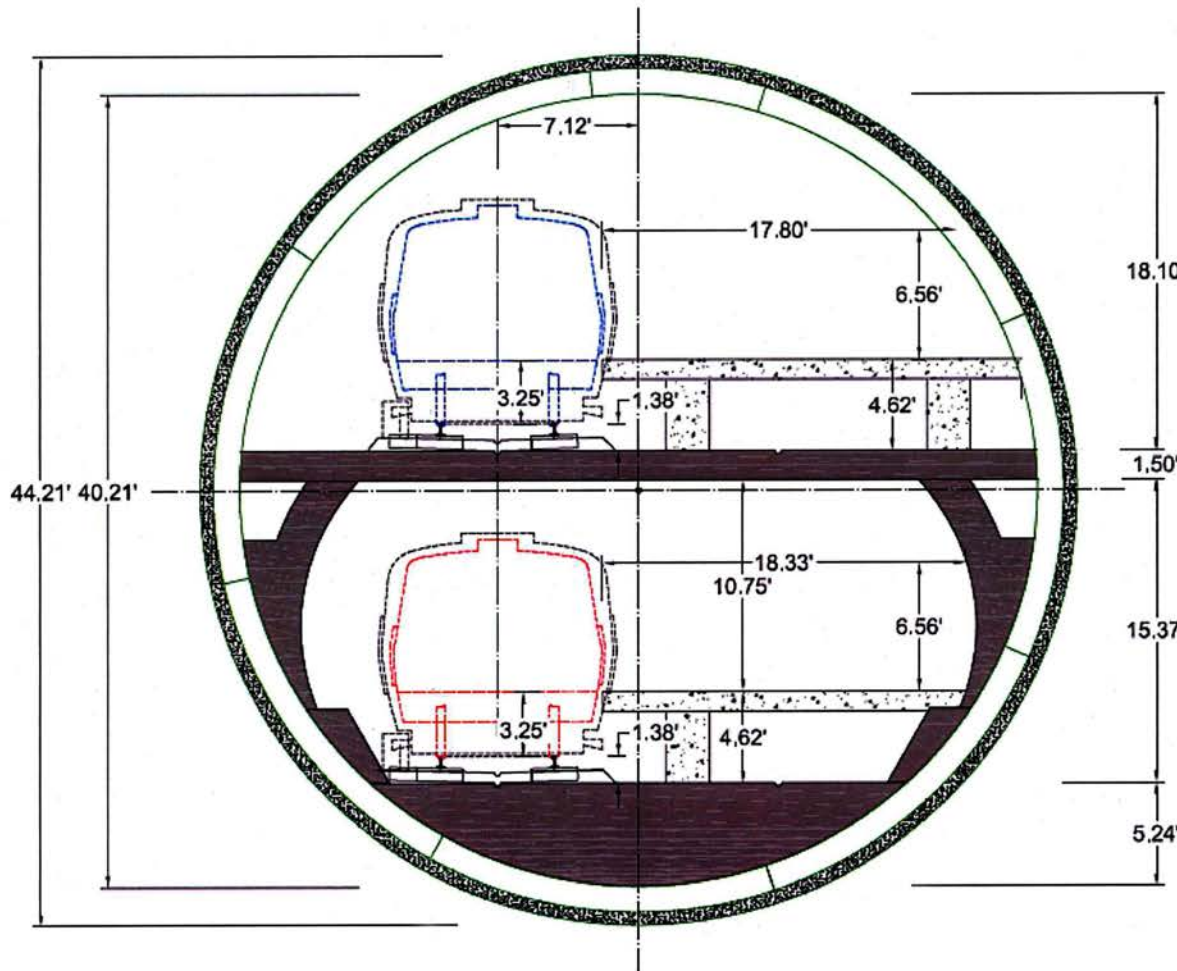


Source: VTA, 2011.

Graphics ... 0033213 (6-20-2016)

**Figure 5-18**  
**Twin Tunnel Bores**  
VTA's BART Silicon Valley–Phase II Extension Project





Diameter - 44.2' (13.3 m)

Platform Capacity =  
2,520 passengers @ 5 sf  
per passenger

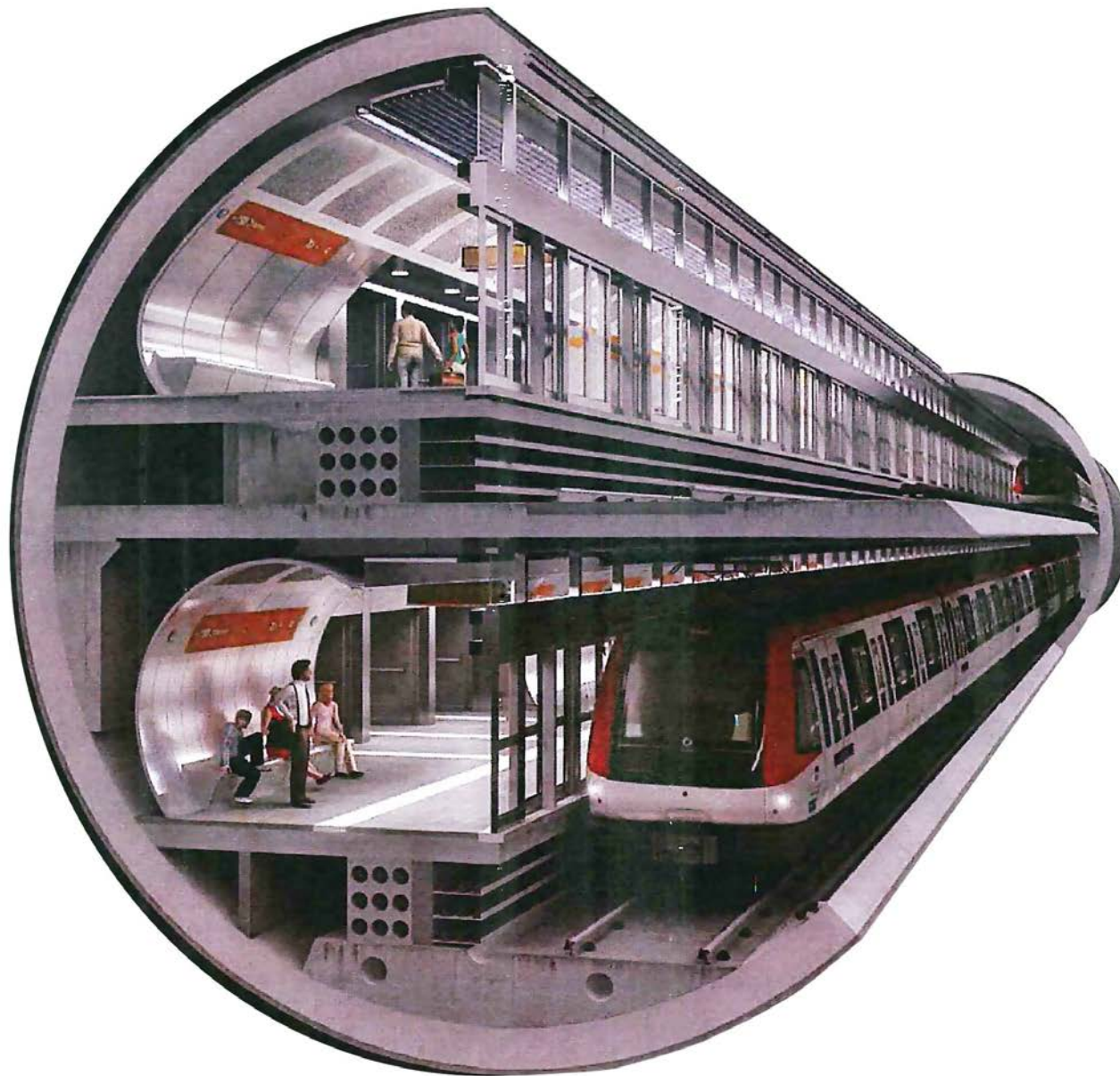
TYPICAL SECTION IN STATION

Source: VTA, 2016.

Graphics ... 0033213 (6-20-2016)

**Figure 5-19**  
**Single-Bore Tunnel Cross Section**  
VTA's BART Silicon Valley-Phase II Extension Project



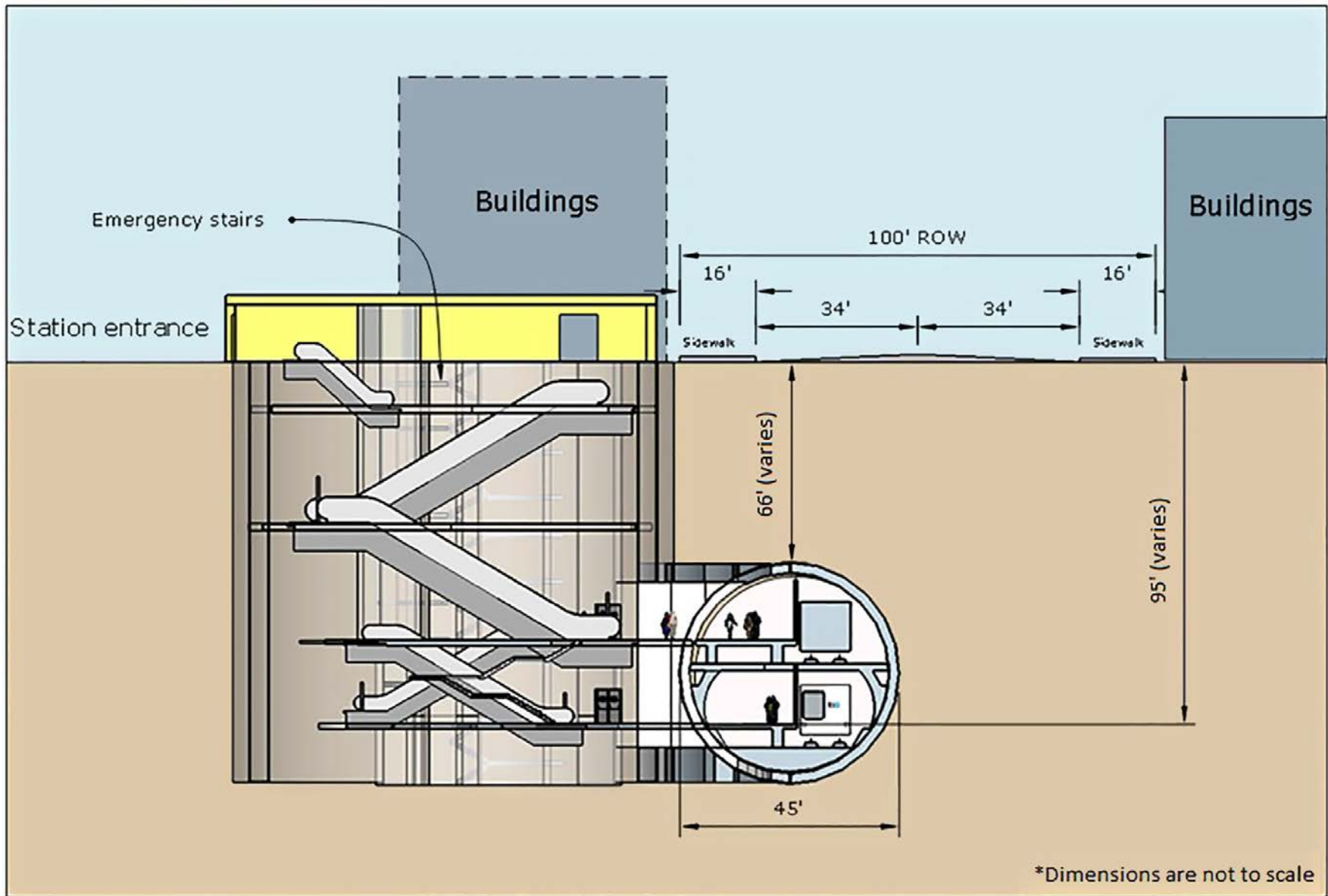


Source: VTA, 2016.

Graphics ... 0033213 (6-20-2016)

**Figure 5-20**  
**Example of Single-Bore Tunnel Transit System**  
VTA's BART Silicon Valley-Phase II Extension Project



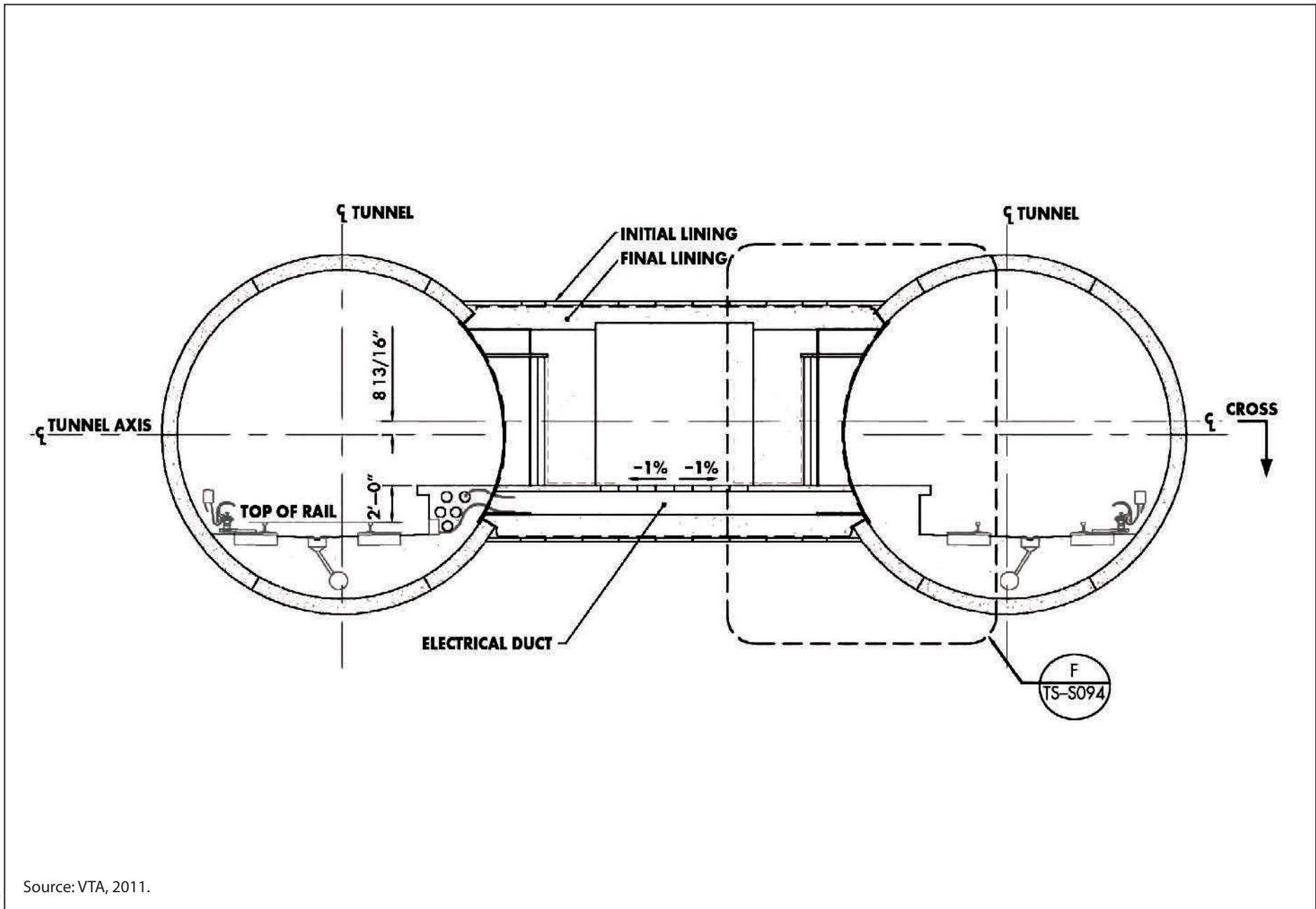


Graphics ... 0033213 (12-7-2016)

Source: VTA, 2016.

**Figure 5-21**  
**Example of Single-Bore Tunnel Station**  
 VTA's BART Silicon Valley-Phase II Extension Project



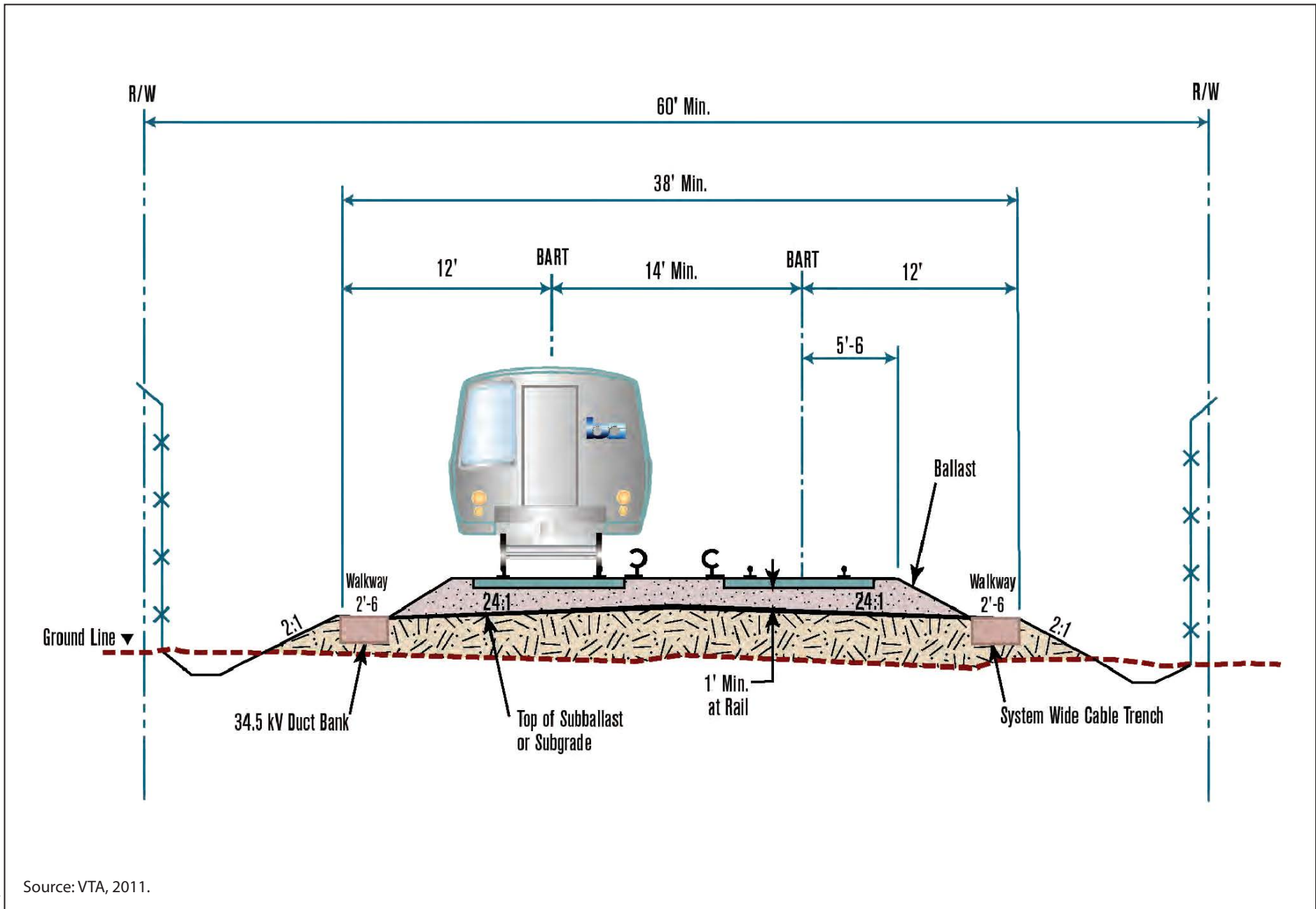


Graphics ... 0033213 (6-20-2016)

Source: VTA, 2011.

**Figure 5-22**  
**Cross-Passage Connecting the Tunnel Bores**  
 VTA's BART Silicon Valley-Phase II Extension Project

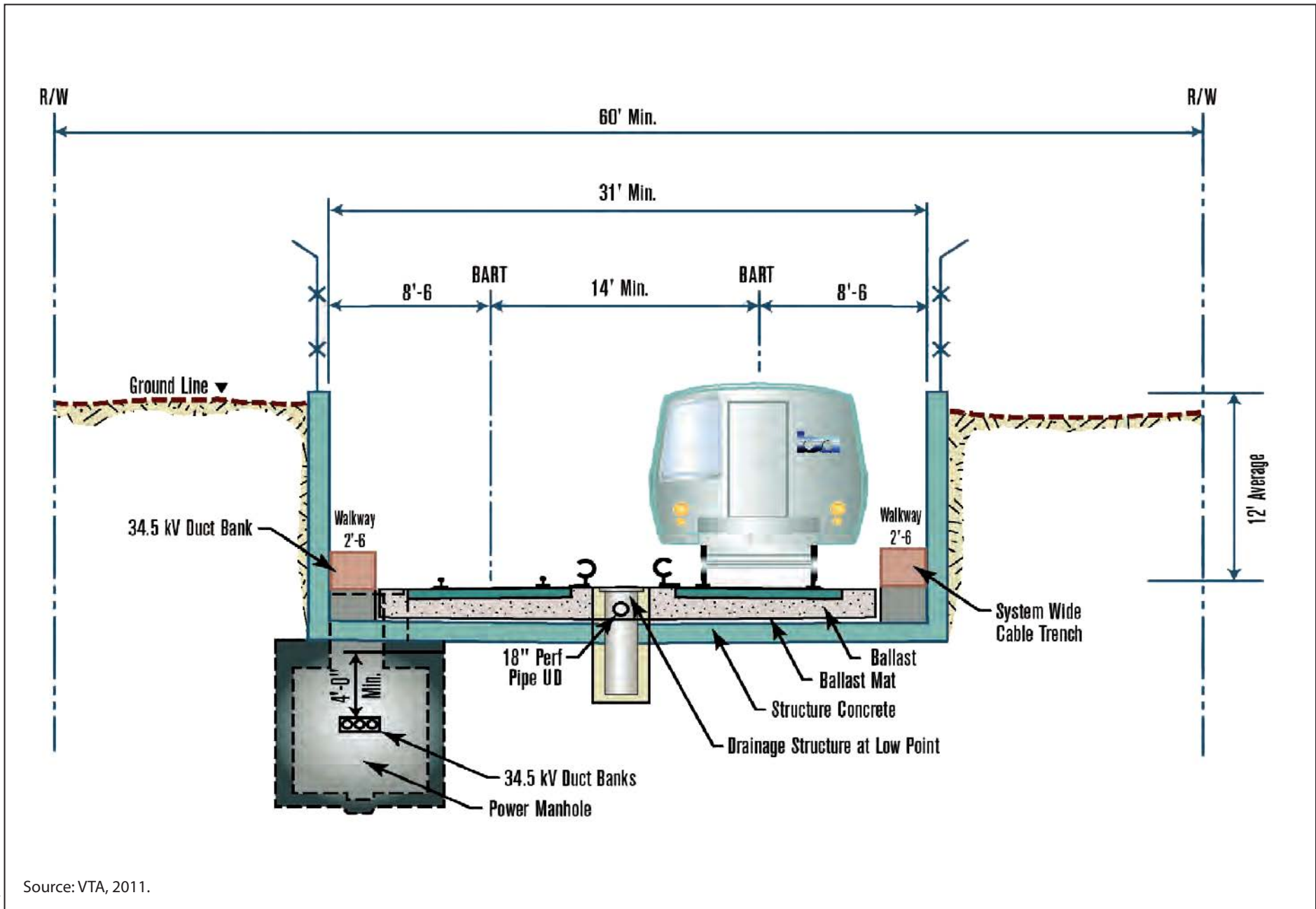




Graphics ... 0033213 (6-20-2016)

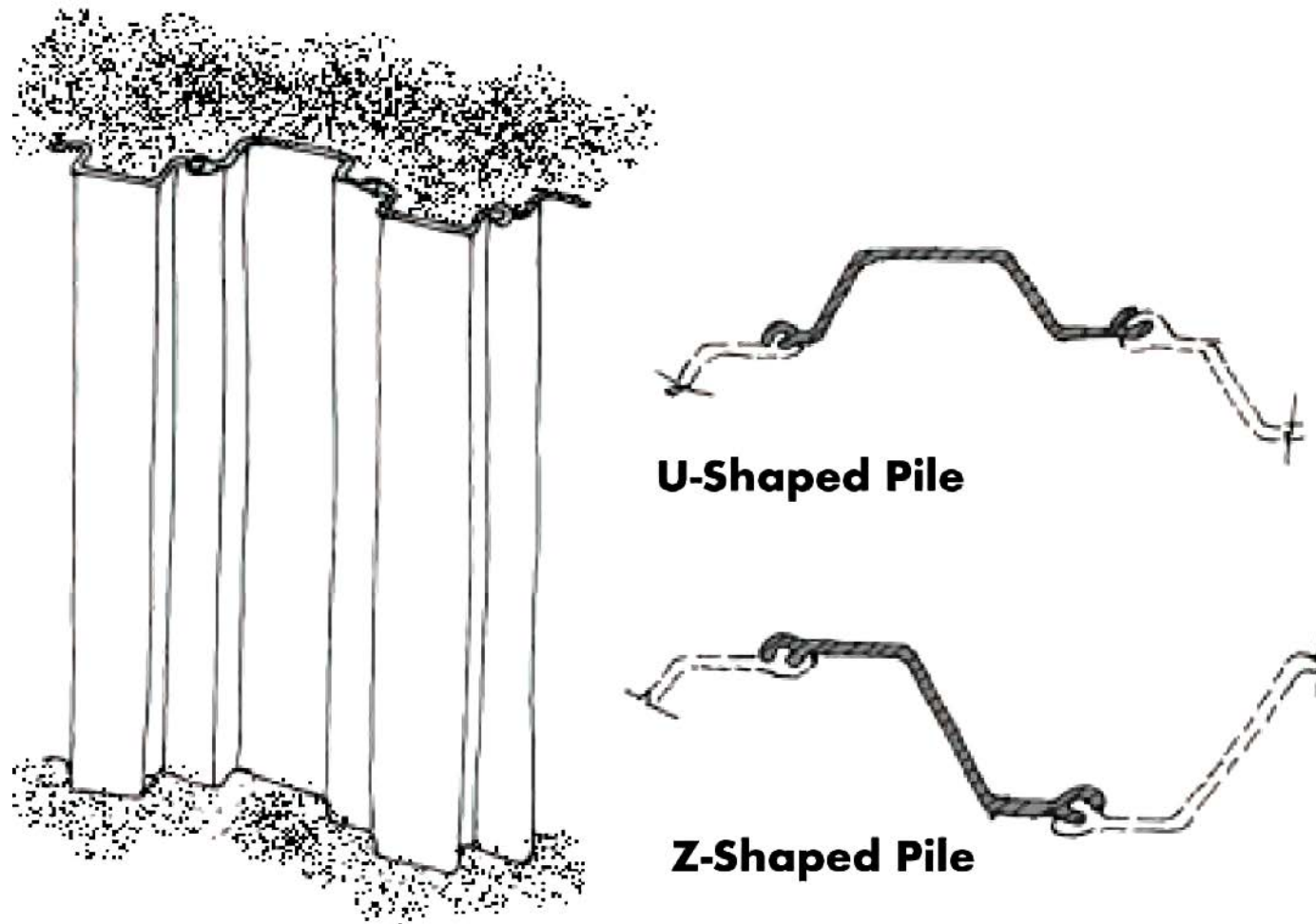
**Figure 5-23**  
**At-Grade Guideway**  
 VTA's BART Silicon Valley-Phase II Extension Project





**Figure 5-24**  
**Retained Cut U-Wall**  
 VTA's BART Silicon Valley-Phase II Extension Project





**U-Shaped Pile**

**Z-Shaped Pile**

Graphics ... 0033213 (6-20-2016)

Source: VTA, 2011.

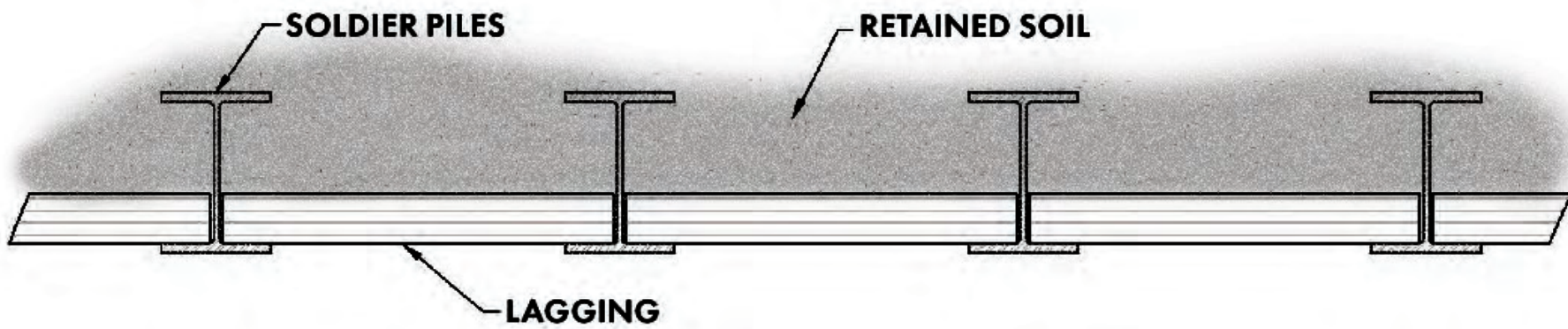
**Figure 5-25**  
**Steel Sheet Piles**  
VTA's BART Silicon Valley-Phase II Extension Project





Source: VTA, 2011.

**Figure 5-26**  
**Lateral Bracing Members**  
VTA's BART Silicon Valley–Phase II Extension Project

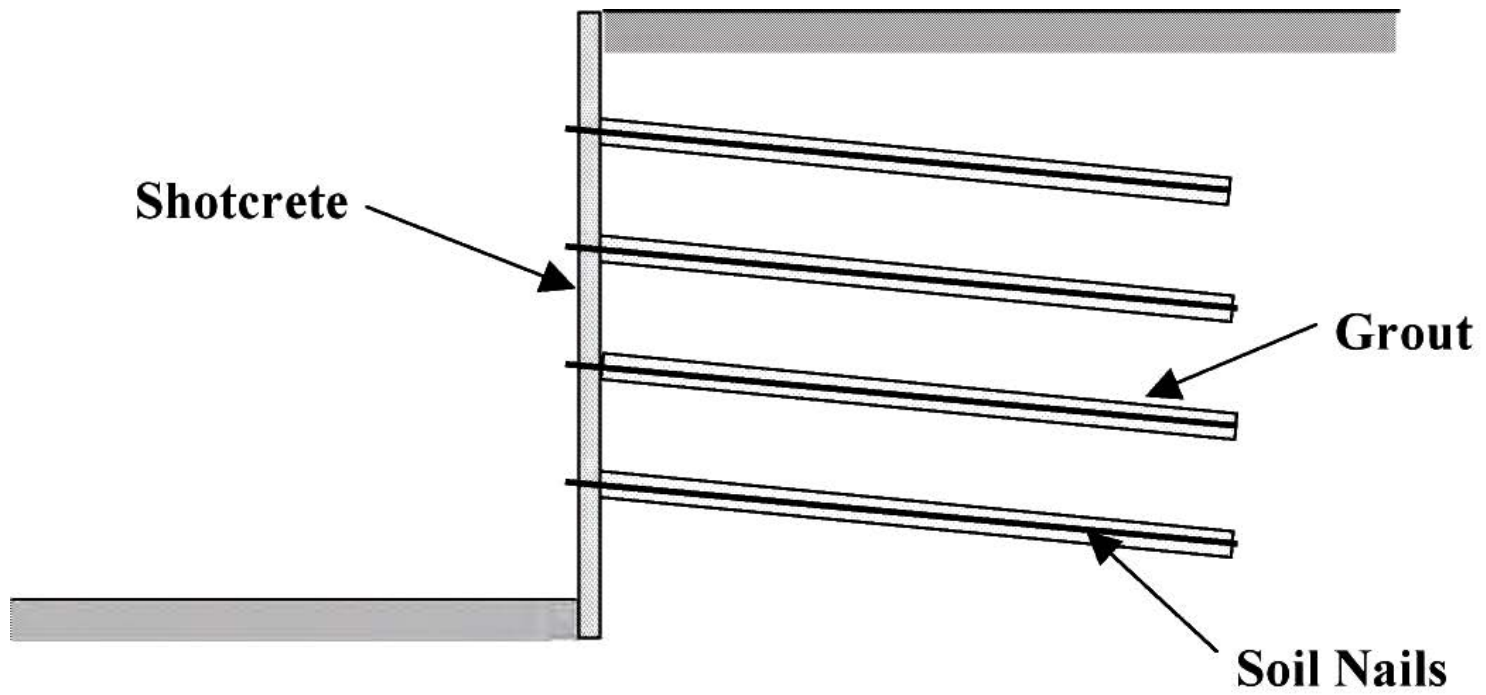


Graphics ... 0033213 (6-20-2016)

Source: VTA, 2011.

**Figure 5-27**  
**Soldier Piles and Lagging**  
VTA's BART Silicon Valley-Phase II Extension Project





Graphics ... 0033213 (6-20-2016)

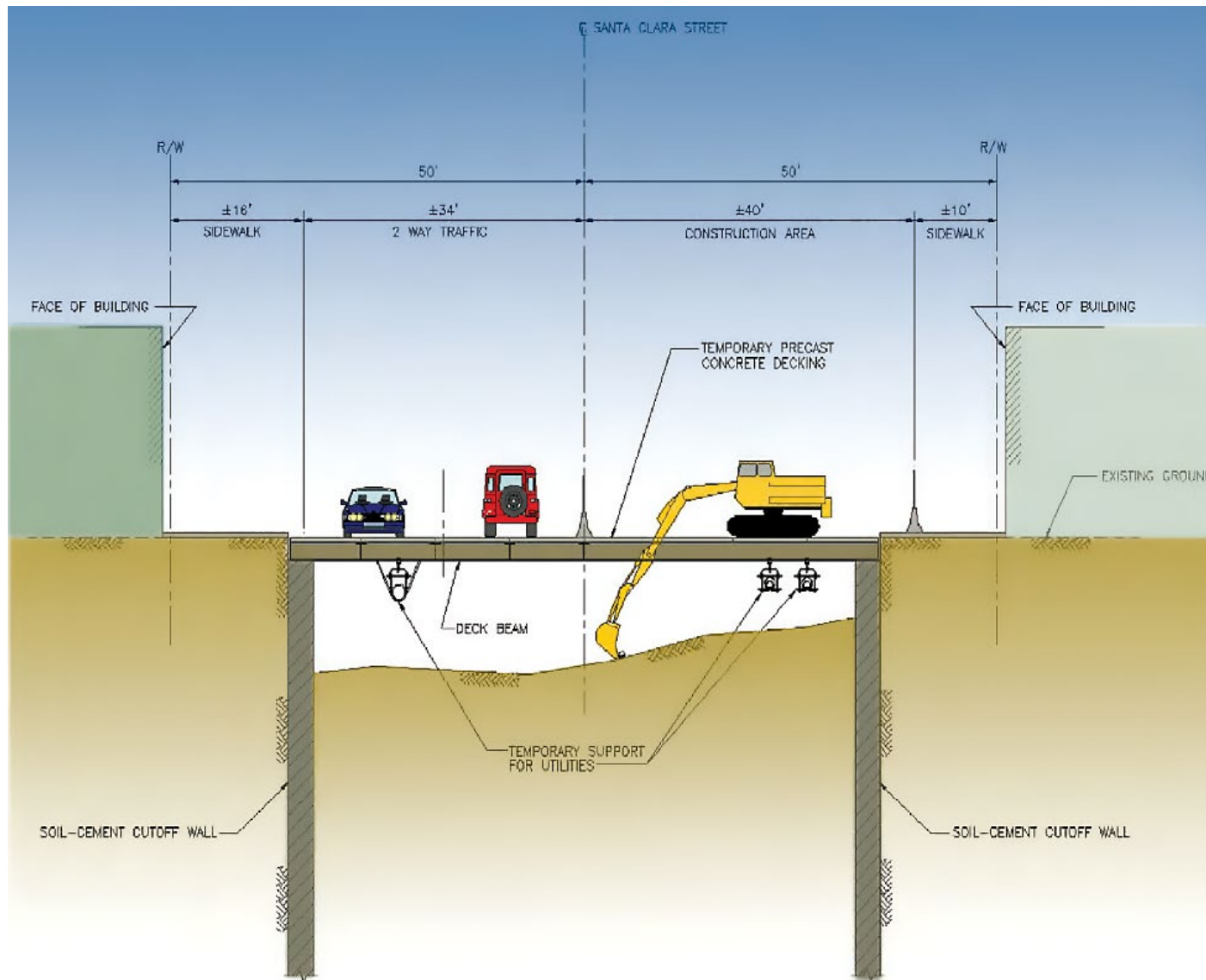
Source: VTA, 2011.

**Figure 5-28**  
**Solid Nail Wall**  
VTA's BART Silicon Valley–Phase II Extension Project



**Figure 5-29**  
**Temporary Deck Installation**  
VTA's BART Silicon Valley–Phase II Extension Project





Source: VTA, 2011.

**Figure 5-30**  
**Ongoing Excavation After Temporary Deck Installation**  
 VTA's BART Silicon Valley-Phase II Extension Project



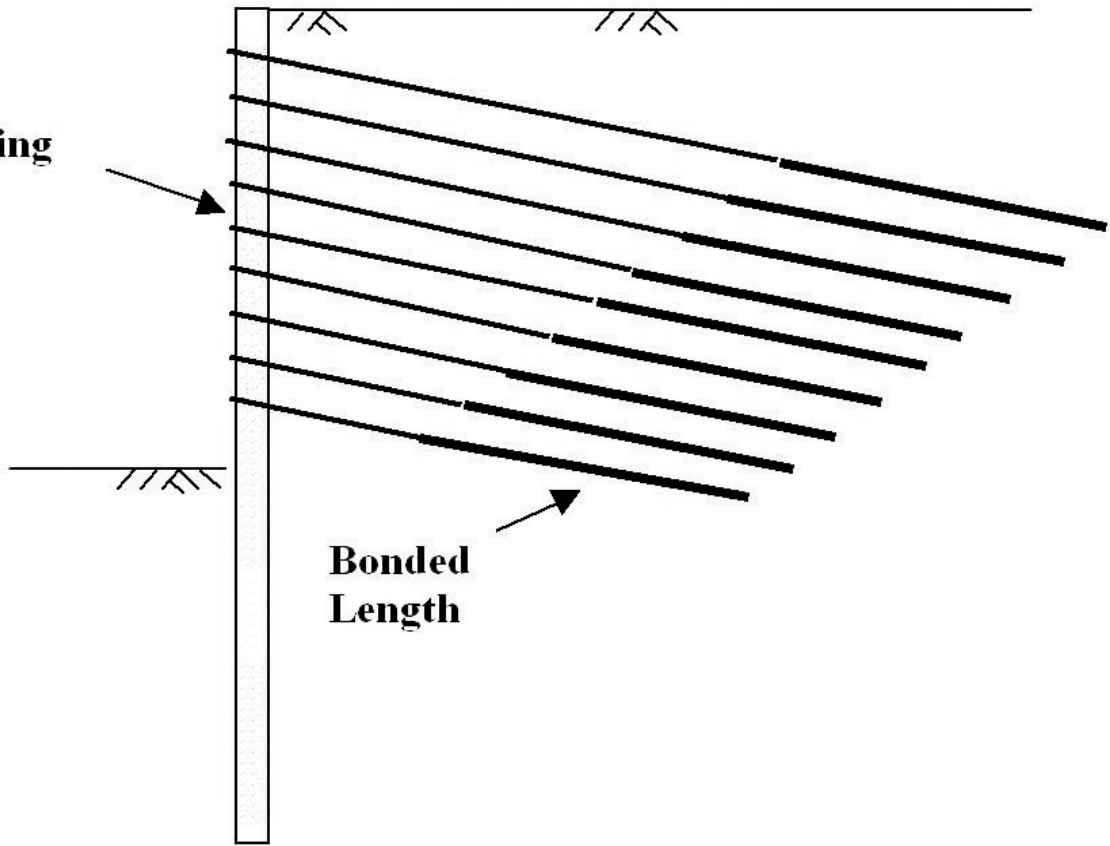
Graphics ... 0033213 (6-20-2016)

Source: VTA, 2011.

**Figure 5-31**  
**Temporary Utility Support in an Excavation**  
VTA's BART Silicon Valley–Phase II Extension Project



**Shoring  
Wall**



**Bonded  
Length**

**Figure 5-32**  
**Basic Components of a Tieback Anchor**  
VTA's BART Silicon Valley–Phase II Extension Project



Source: VTA, 2011.

**Figure 5-33**  
**Deep Soil Mix and Auger Rig Installation**  
VTA's BART Silicon Valley–Phase II Extension Project

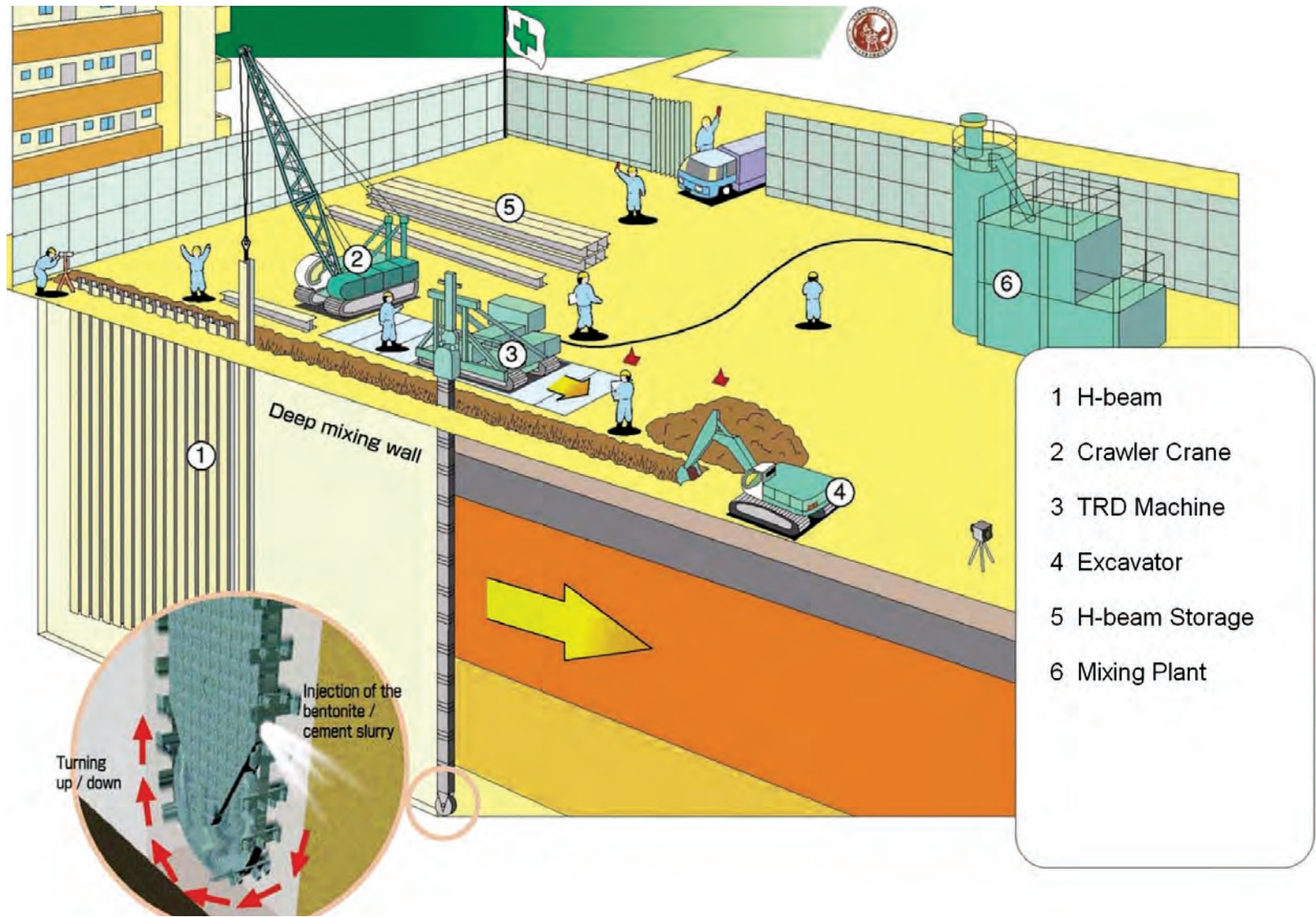




Graphics ... 0033213 (6-20-2016)

Source: VTA, 2011.

**Figure 5-34**  
**Deep Soil Mix and Steel Soldier Piles**  
VTA's BART Silicon Valley–Phase II Extension Project



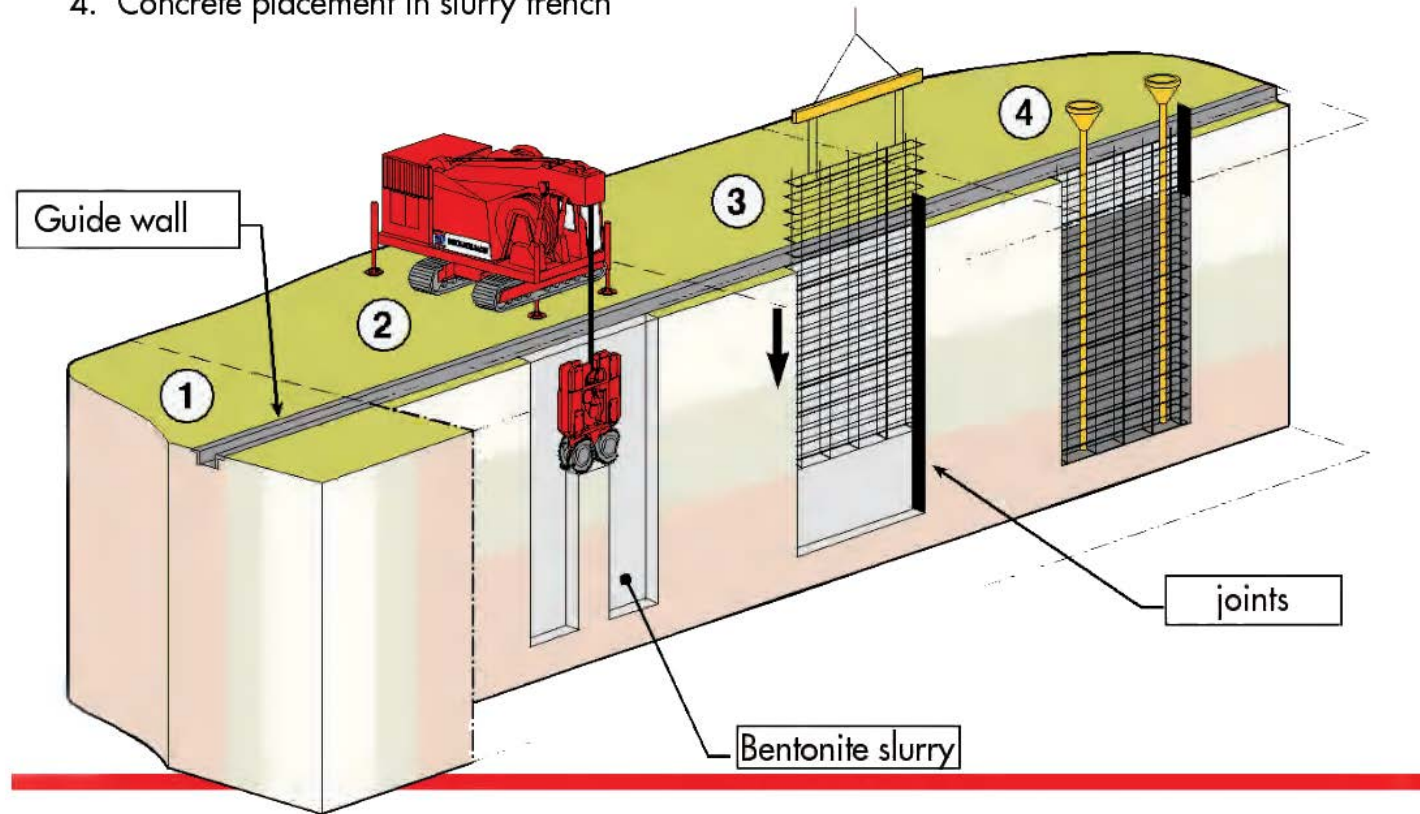
Source: VTA, 2011.

**Figure 5-35**  
**Trench Remixing and Deep-Wall Method (TRD)**  
 VTA's BART Silicon Valley-Phase II Extension Project



In general, slurry wall construction consists of four major steps:

1. Guide wall construction
2. Panel excavation in slurry trench
3. Rebar cage placement
4. Concrete placement in slurry trench



**Figure 5-36**  
**Construction of a Diaphragm Slurry Wall**  
VTA's BART Silicon Valley–Phase II Extension Project



**Legend**

- Transit-Oriented Joint Development
- Parking Lot
- System Facilities
- Underground Station

*San Jose General Plan  
Land Use Designations*

- Urban Village
- Residential Neighborhood
- Neighborhood / Community Commercial
- Public / Quasi-Public
- Mixed Use Neighborhood
- Open Space, Parklands and Habitat
- Light Industrial

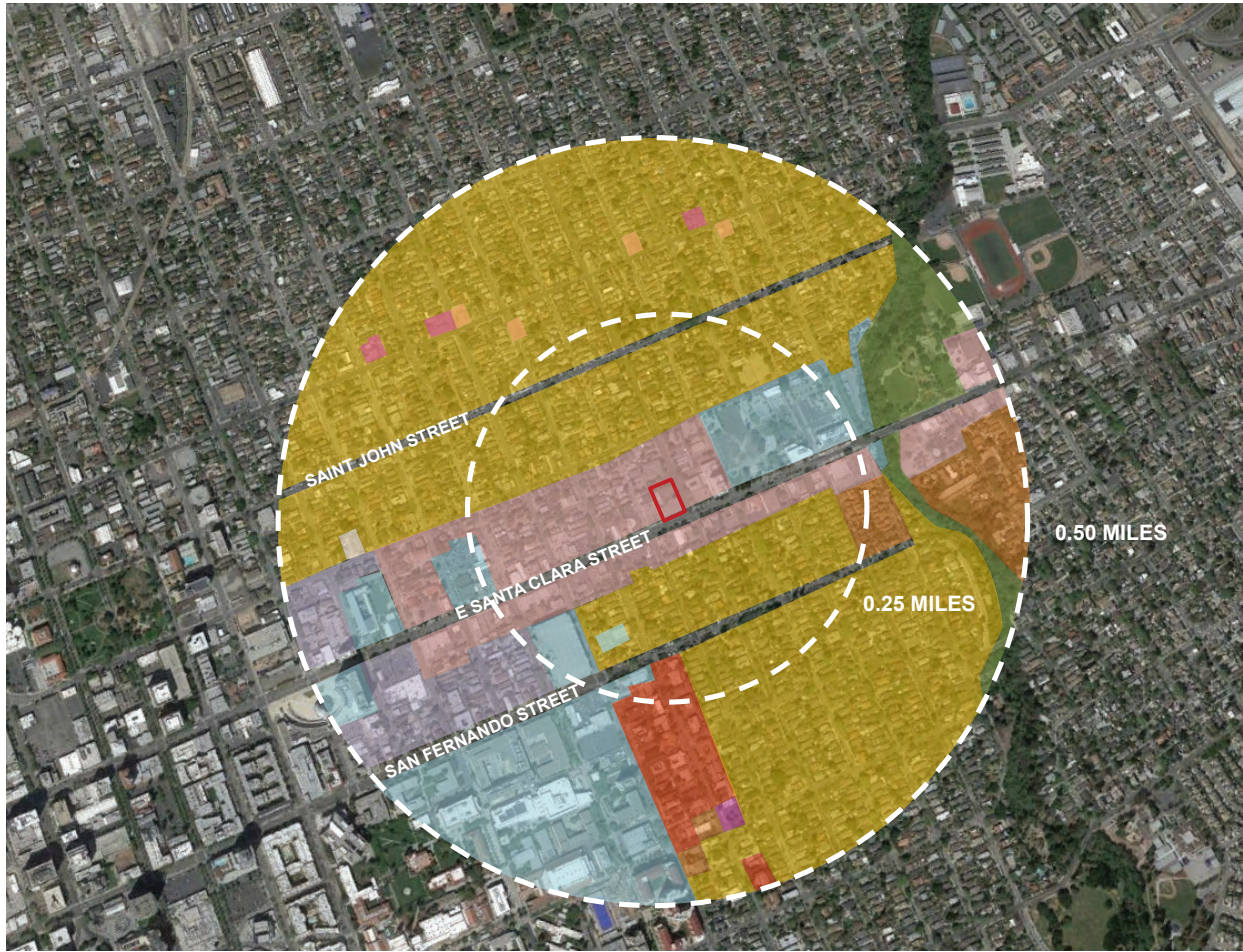
Graphics ... 0033213 (6-9-2016).tcm

Source: Circlepoint; Google Earth, 2015.



**Figure 6.11-1**  
**San Jose General Plan Land Use Designations – Alum Rock/28th Street Station**  
VTA's BART Silicon Valley–Phase II Extension Project





**Legend**

 Transit-Oriented Joint Development

*San Jose General Plan  
Land Use Designations*

-  Urban Village
-  Residential Neighborhood
-  Neighborhood / Community Commercial
-  Public / Quasi-Public
-  Mixed Use Neighborhood
-  Urban Residential
-  Open Space, Parklands and Habitat
-  Downtown

Graphics ... 0033213 (6-9-2016).tcm

Source: Circlepoint; Google Earth, 2015.



**Figure 6.11-2**  
**San Jose General Plan Land Use Designations – 13th Street Ventilation Facility**  
 VTA's BART Silicon Valley–Phase II Extension Project





**Legend**

- Transit-Oriented Joint Development
- Underground Station
- System Facilities

*San Jose General Plan  
Land Use Designations*

- Urban Village
- Urban Residential
- Residential Neighborhood
- Neighborhood / Community Commercial
- Public / Quasi-Public
- Mixed Use Commercial
- Transit Residential
- Open Space, Parklands and Habitat
- Downtown

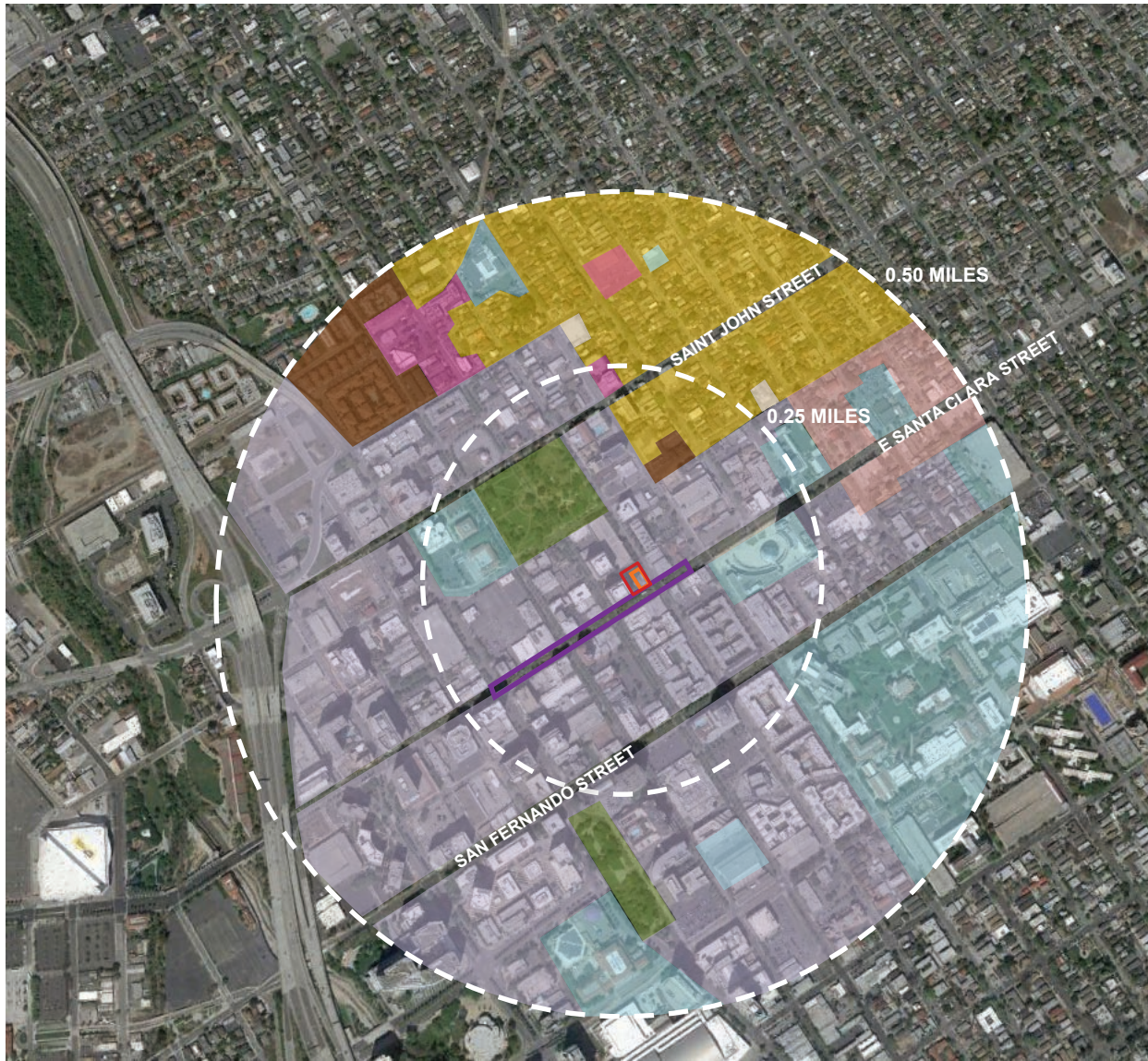
Graphics ... 0033213 (6-9-2016).tcm

Source: Circlepoint; Google Earth, 2015.



**Figure 6.11-3**  
**San Jose General Plan Land Use Designations – Downtown San Jose Station East Option**  
VTA's BART Silicon Valley–Phase II Extension Project





**Legend**

- Transit-Oriented Joint Development
- System Facilities
- Underground Station

*San Jose General Plan  
Land Use Designations*

- Urban Village
- Urban Residential
- Residential Neighborhood
- Neighborhood / Community Commercial
- Public / Quasi-Public
- Mixed Use Commercial
- Transit Residential
- Open Space, Parklands and Habitat
- Downtown

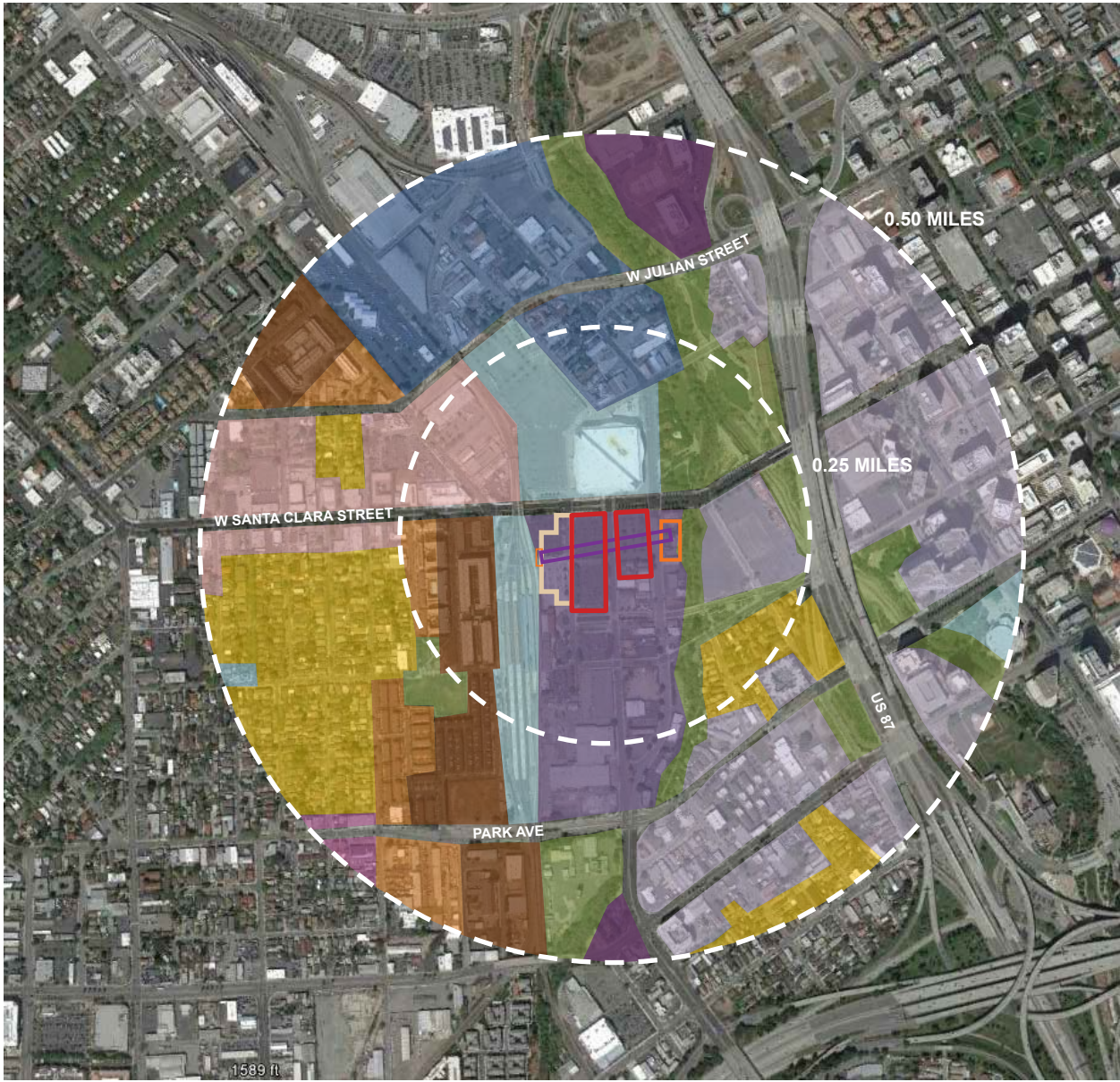


Graphics ... 0033213 (6-9-2016).tcm

Source: Circlepoint; Google Earth, 2015.

**Figure 6.11-4**  
**San Jose General Plan Land Use Designations – Downtown San Jose Station West Option**  
VTA's BART Silicon Valley–Phase II Extension Project





**Legend**

- Transit-Oriented Joint Development / Public Facilities
- Underground Station
- System Facilities
- At Grade Station / Bus Transit Center
  
- Urban Village
- Residential Neighborhood
- Neighborhood / Community Commercial
- Public / Quasi-Public
- Transit Employment Center
- Mixed Use Neighborhood
- Urban Residential
- Transit Residential
- Open Space, Parklands and Habitat
- Downtown
- Commercial Downtown
- Combined Industrial / Commercial

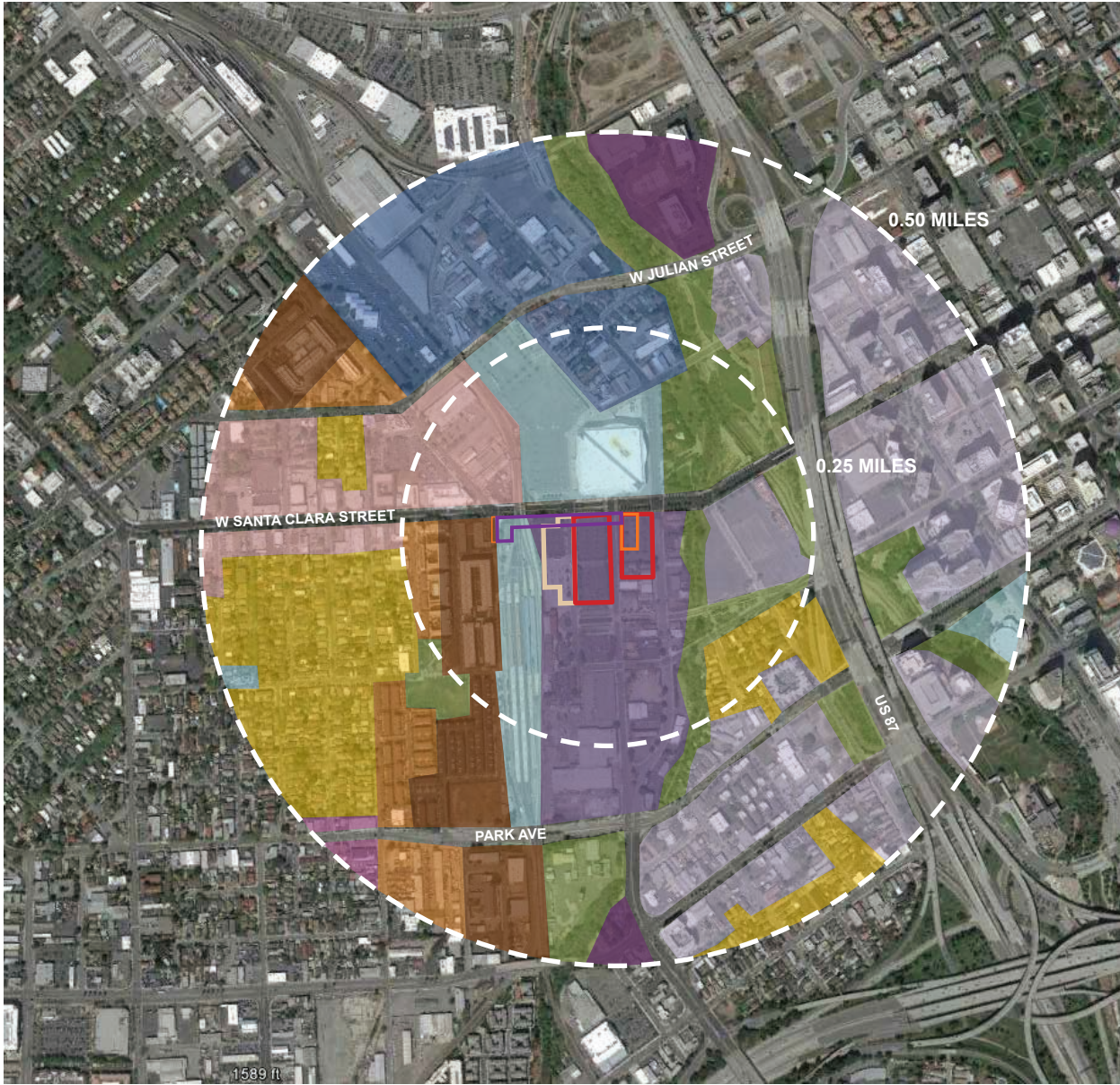


Graphics ... 0033213 (6-9-2016).tm

Source: Circlepoint; Google Earth, 2015.

**Figure 6.11-5**  
**San Jose General Plan Land Use Designations – Diridon Station South Option**  
 VTA's BART Silicon Valley–Phase II Extension Project





**Legend**

- Transit-Oriented Joint Development/Public Facilities
- Underground Station
- System Facilities
- At Grade Station / Bus Transit Center

- Urban Village
- Residential Neighborhood
- Neighborhood / Community Commercial
- Public / Quasi-Public
- Transit Employment Center
- Mixed Use Neighborhood
- Urban Residential
- Transit Residential
- Open Space, Parklands and Habitat
- Downtown
- Commercial Downtown
- Combined Industrial / Commercial

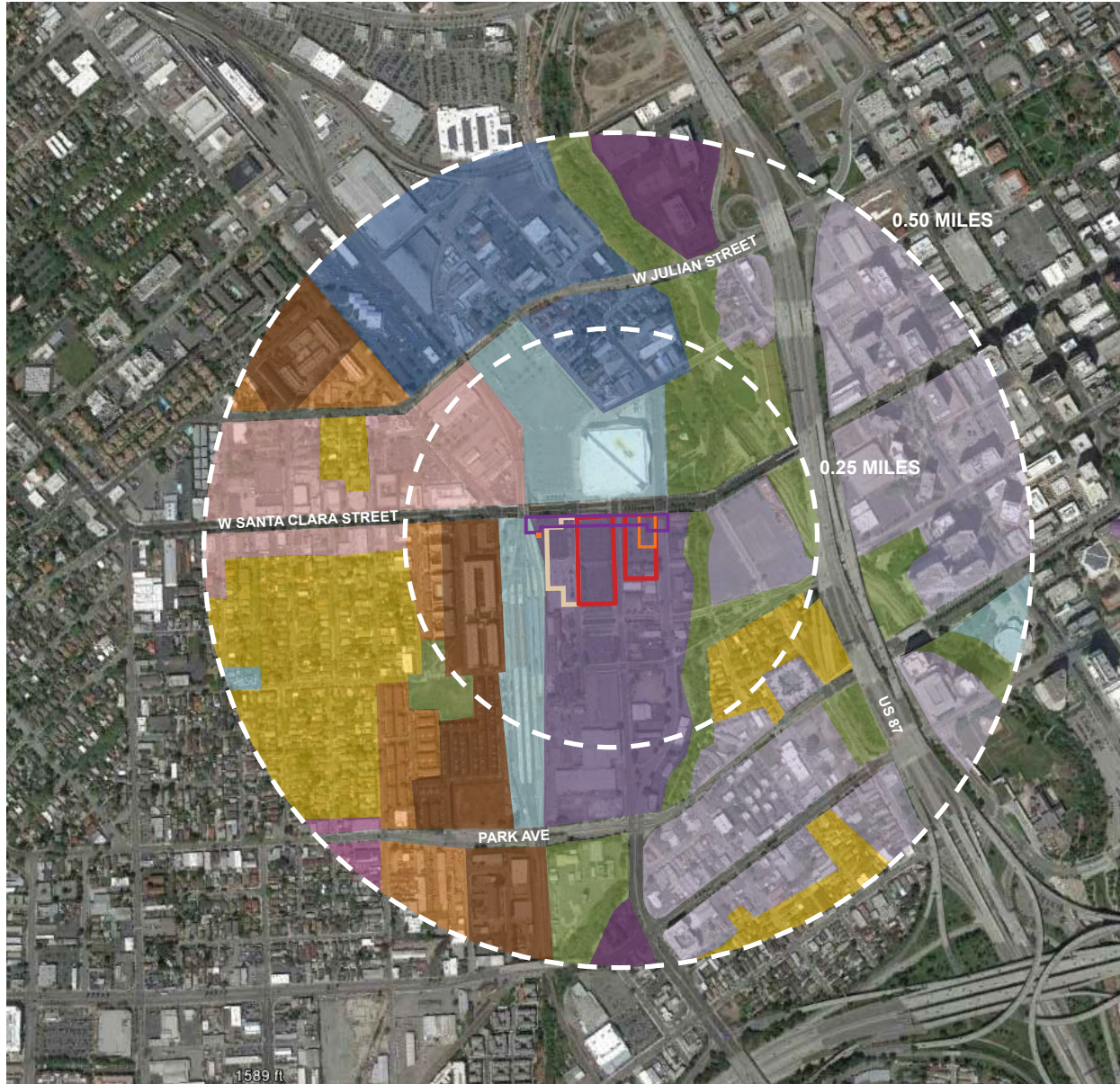


Graphics ... 0033213 (6-9-2016).tm

Source: Circlepoint; Google Earth, 2015.

**Figure 6.11-6**  
**San Jose General Plan Land Use Designations – Diridon Station North, Single-Bore Option**  
 VTA's BART Silicon Valley–Phase II Extension Project





**Legend**

- Transit-Oriented Joint Development/Public Facilities
- Underground Station
- System Facilities
- At Grade Station / Bus Transit Center
  
- Urban Village
- Residential Neighborhood
- Neighborhood / Community Commercial
- Public / Quasi-Public
- Transit Employment Center
- Mixed Use Neighborhood
- Urban Residential
- Transit Residential
- Open Space, Parklands and Habitat
- Downtown
- Commercial Downtown
- Combined Industrial / Commercial

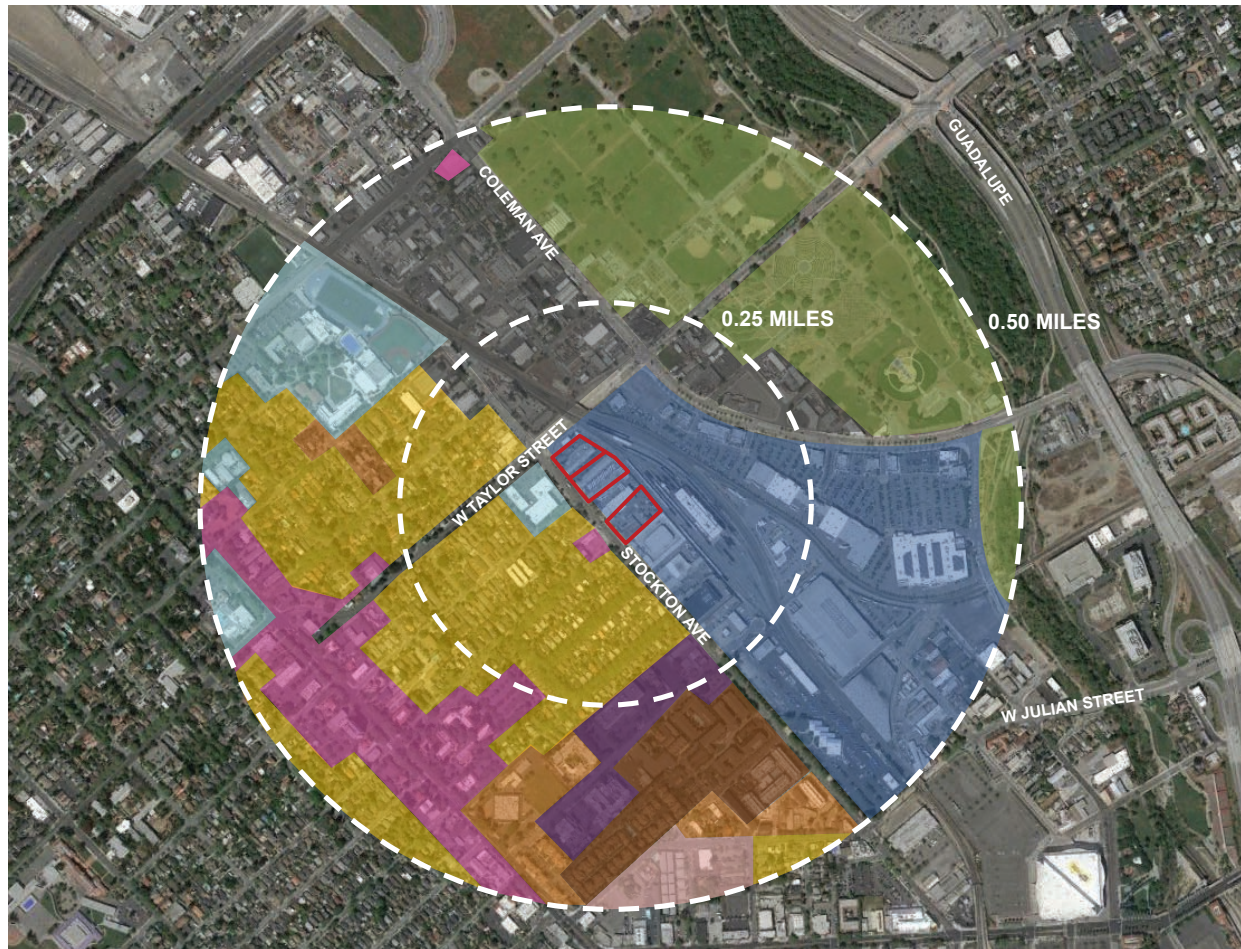


Graphics ... 0033213 (6-9-2016).tm

Source: Circlepoint; Google Earth, 2015.

**Figure 6.11-7**  
**San Jose General Plan Land Use Designations – Diridon Station North, Twin-Bore Option**  
**VTA's BART Silicon Valley–Phase II Extension Project**





**Legend**

 Transit-Oriented Joint Development

*San Jose General Plan  
Land Use Designations*

-  Residential Neighborhood
-  Public / Quasi-Public
-  Open Space, Parklands and Habitat
-  Combined Industrial / Commercial
-  Light Industrial
-  Mixed Use Neighborhood
-  Transit Employment Center
-  Neighborhood / Community Commercial
-  Urban Village
-  Transit Residential

Graphics ... 0033213 (6-9-2016).tcm

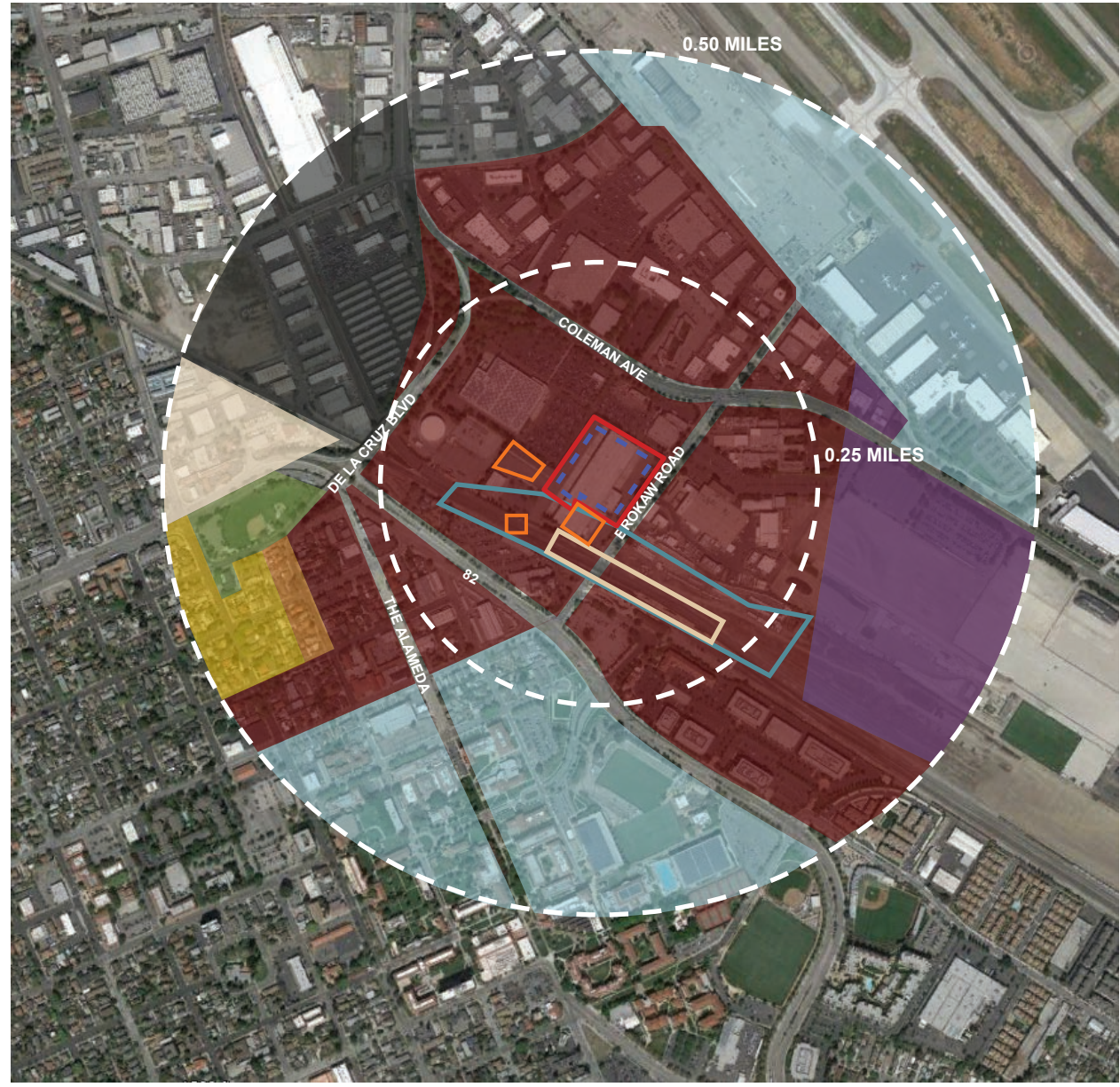
Source: Circlepoint; Google Earth, 2015.



**Figure 6.11-8**  
**San Jose General Plan Land Use Designations – Stockton Avenue Ventilation Facility**  
VTA's BART Silicon Valley–Phase II Extension Project



Graphics ... 0033213 (6-9-2016).tcm



Source: Circlepoint; Google Earth, 2015.

**Legend**

- Transit-Oriented Joint Development
- Parking Lot
- System Facilities
- At-Grade Station / Bus Transit Center
- Maintenance Facility with Vehicle Storage

*Santa Clara General Plan  
Land Use Designations*

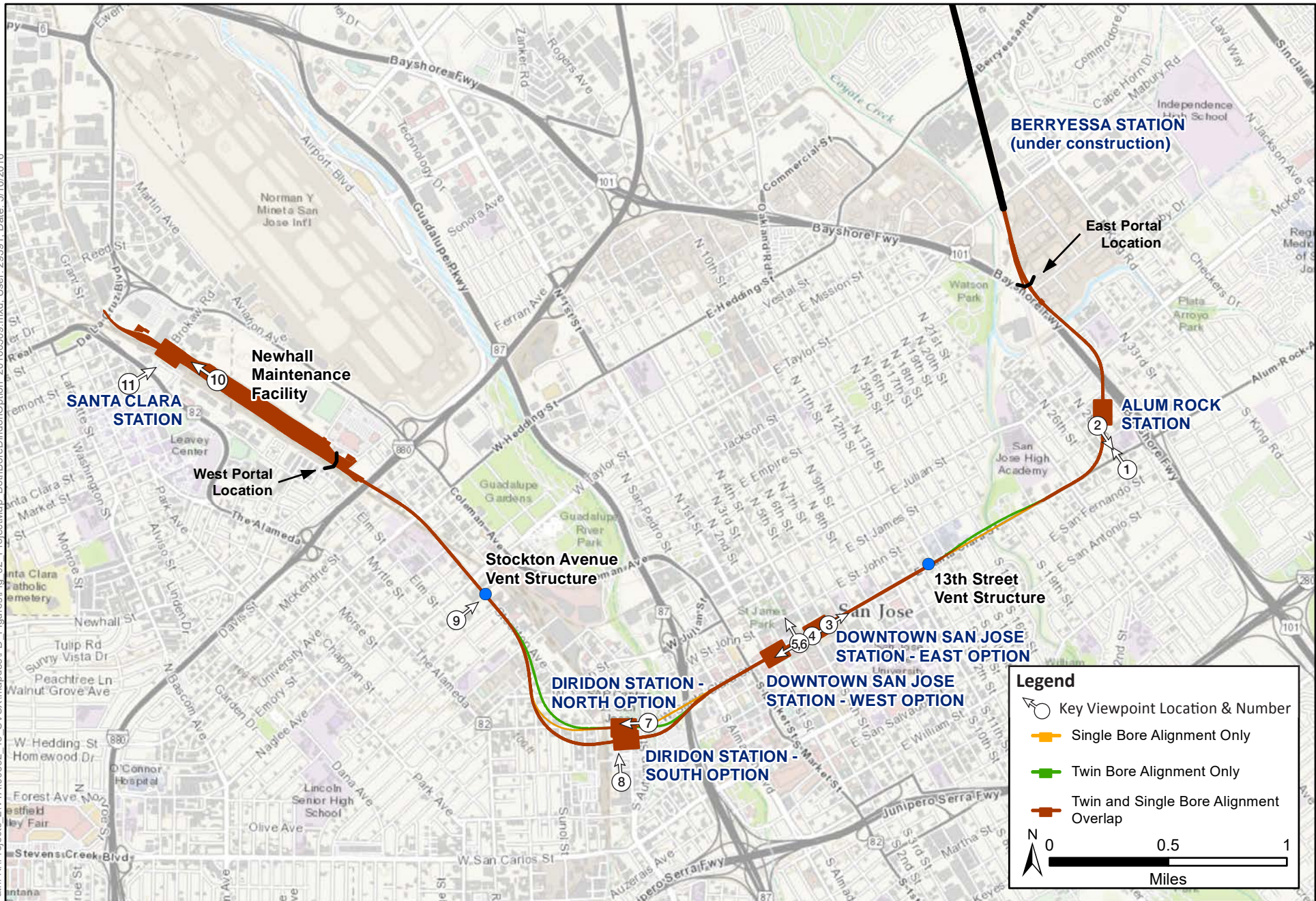
- Residential Neighborhood
- Public / Quasi-Public
- Open Space, Parklands and Habitat
- Combined Industrial / Commercial
- Santa Clara Caltrain Station
- Light Industrial
- Heavy Industrial
- Mixed Use Commercial
- Mixed Use Neighborhood



**Figure 6.11-9**  
**Santa Clara General Plan Land Use Designations – Santa Clara Station**  
 VTA's BART Silicon Valley–Phase II Extension Project



Path: K:\Projects\_2\VTAN00332\_13\_SVX\mapdoc\IPD\_Figures\Fig\_02\_ProjectMap\_BothBoreDiridonOption\_20160509.mxd; User: 293931; Date: 5/10/2016



Source: Station and Track, VTA 2014; Basemap, ESRI 2015

**Figure 6.14-1**  
**Viewpoints Map for Visual Simulations**  
 VTA's BART Silicon Valley – Phase II Extension Project





*Existing view of Five Wounds Church (view to the northwest from the intersection of East Santa Clara Street and North 28th Street)*



*Alum Rock/28th Street Station – BART Extension with TOJD Alternative*

Note: These are intended to be preliminary conceptual representations of the project. Final design and landscaping will be determined in coordination with local cities.  
Source: Circlepoint, 2016.

**Figure 6.14-2**  
**Key Viewpoint 1: Alum Rock/28th Street TOJD – Santa Clara and North 28th Street**  
VTA's BART Silicon Valley–Phase II Extension Project





*Existing view of Five Wounds Church (view to the southeast from the intersection of North 28th Street and Five Wounds Lane)*



*Alum Rock/28th Street Station – BART Extension with TOJD Alternative*

Note: These are intended to be preliminary conceptual representations of the project. Final design and landscaping will be determined in coordination with local cities.  
Source: Circlepoint, 2016.

**Figure 6.14-3**  
**Key Viewpoint 2: Alum Rock/28th Street TOJD – North 28th Street and Five Wounds Lane**  
VTA's BART Silicon Valley–Phase II Extension Project



*Existing view along Santa Clara Street (view to the northeast from the intersection of East Santa Clara Street and 5th Street)*



*Downtown San Jose East Station Option – BART Extension with TOJD Alternative*

Note: These are intended to be preliminary conceptual representations of the project. Final design and landscaping will be determined in coordination with local cities.  
Source: Circlepoint, 2016.

**Figure 6.14-4**  
**Key Viewpoint 3: Downtown San Jose East Station Option – TOJD & Station Entrances at Santa Clara and 6th Streets**  
VTA's BART Silicon Valley–Phase II Extension Project





*Existing view down East Santa Clara Street (view to the northeast near the intersection of East Santa Clara Street and 4th Street)*



*San Jose East Station Option – BART Extension with TOJD Alternative*

Note: These are intended to be preliminary conceptual representations of the project. Final design and landscaping will be determined in coordination with local cities.

Source: Circlepoint, 2016.

**Figure 6.14-5**  
**Key Viewpoint 4: Downtown San Jose East Station Option –**  
**TOJD & Station Entrances at Santa Clara and 4th Streets**  
VTA's BART Silicon Valley–Phase II Extension Project



*Existing view down East Santa Clara Street (view to the southwest at the intersection of East Santa Clara Street and 3rd Street)*



*Downtown San Jose East Station Option – BART Extension with TOJD Alternative*

Note: These are intended to be preliminary conceptual representations of the project. Final design and landscaping will be determined in coordination with local cities.

Source: Circlepoint, 2016.

**Figure 6.14-6**  
**Key Viewpoint 5: Downtown San Jose East Station Option –**  
**TOJD at Santa Clara and 3rd Streets**  
VTA's BART Silicon Valley–Phase II Extension Project





*Existing view down 3rd Street (view to the northwest at the intersection of East Santa Clara Street and 3rd Street)*



*Downtown San Jose West Station Option – BART Extension with TOJD Alternative*

Note: These are intended to be preliminary conceptual representations of the project. Final design and landscaping will be determined in coordination with local cities.

Source: Circlepoint, 2016.

**Figure 6.14-7**  
**Key Viewpoint 6: Downtown San Jose West Station Option –**  
**TOJD & Station Entrances at Santa Clara and 3rd Streets**  
VTA's BART Silicon Valley–Phase II Extension Project



*Existing view down West Santa Clara Street (view to the west from the intersection of Autumn Street and West Santa Clara Street)*



*Diridon Station North and South Option – BART Extension with TOJD Alternative*

Note: These are intended to be preliminary conceptual representations of the project. Final design and landscaping will be determined in coordination with local cities.

Source: Circlepoint, 2016.





*Existing view of the Diridon Caltrain Station (view to the northwest from Cahill Street)*



*Diridon Station South Option – BART Extension with TOJD Alternative*

Note: These are intended to be preliminary conceptual representations of the project. Final design and landscaping will be determined in coordination with local cities.

Source: Circlepoint, 2016.

**Figure 6.14-9a**  
**Key Viewpoint 8: Diridon Station South Option TOJD & Station Entrance on Cahill Street**  
VTA's BART Silicon Valley–Phase II Extension Project



*Existing view of the Diridon Caltrain Station (view to the northwest from Cahill Street)*



*Diridon Station North Option – BART Extension with TOJD Alternative*

Note: These are intended to be preliminary conceptual representations of the project. Final design and landscaping will be determined in coordination with local cities.

Source: Circlepoint, 2016.

**Figure 6.14-9b**  
**Key Viewpoint 8: Diridon Station North Option TOJD on Cahill Street**  
VTA's BART Silicon Valley–Phase II Extension Project





*Existing view from Villa Avenue (view to the northeast toward the intersection of Villa Avenue and Stockton Avenue)*



*Stockton Avenue TOJD – BART Extension with TOJD Alternative*

Note: These are intended to be preliminary conceptual representations of the project. Final design and landscaping will be determined in coordination with local cities.

Source: Circlepoint, 2016.

**Figure 6.14-10**  
**Key Viewpoint 9: Stockton Avenue TOJD from Villa Avenue**  
VTA's BART Silicon Valley–Phase II Extension Project





*Existing view of the Santa Clara Caltrain Station and Platform (view to the northwest from the Santa Clara Caltrain Station platform)*



*Santa Clara Station – BART Extension with TOJD Alternative*

Note: These are intended to be preliminary conceptual representations of the project. Final design and landscaping will be determined in coordination with local cities.  
Source: Circlepoint, 2016.

Graphics ... 0033213 (1-26-2016)

**Figure 6.14-11**  
**Key Viewpoint 10: Santa Clara Station TOJD from the Existing Station Platform**  
VTA's BART Silicon Valley–Phase II Extension Project





*Existing view of the Santa Clara Caltrain Station (view to then northeast from El Camino Real)*



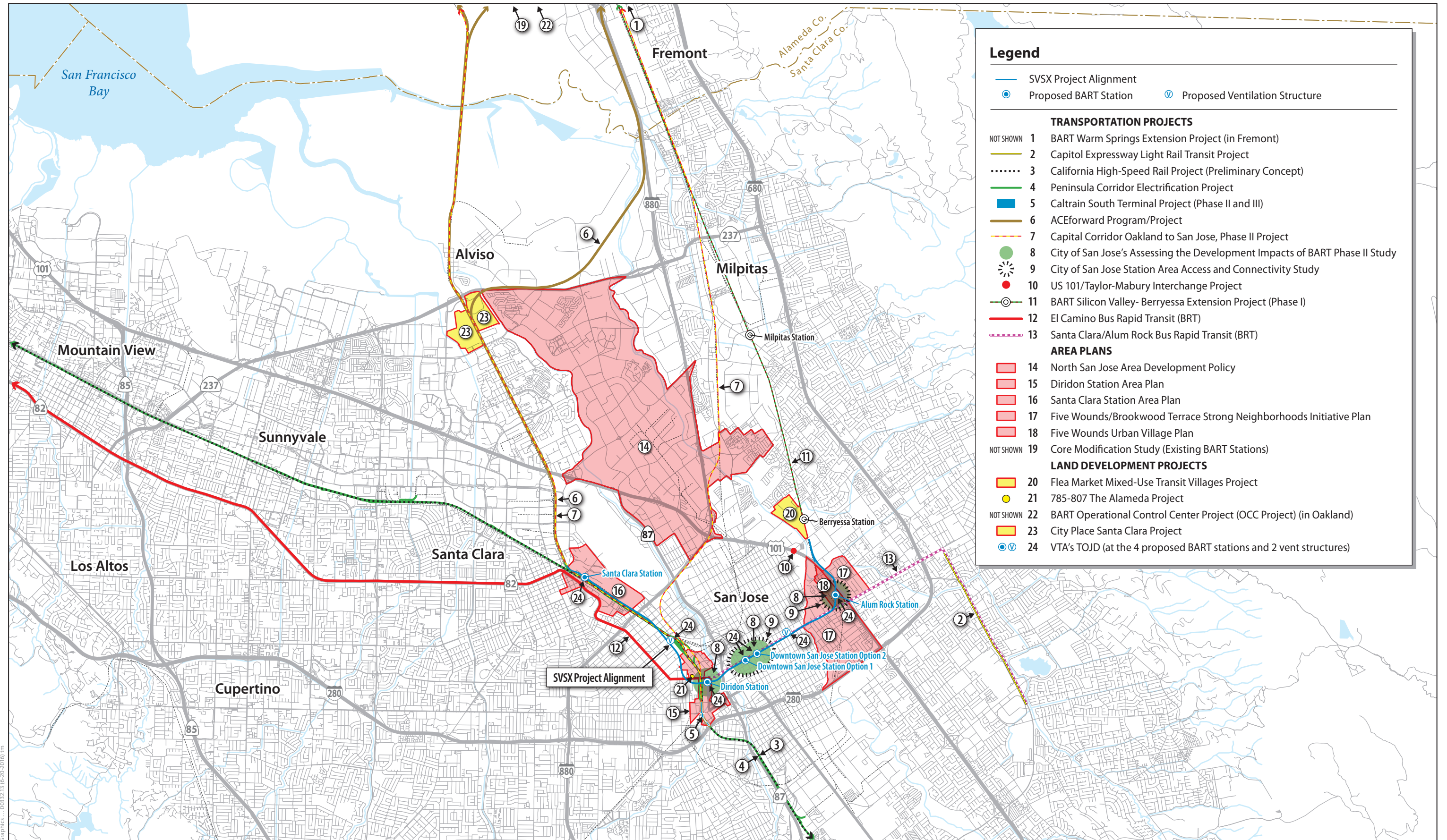
*Santa Clara Station – BART Extension with TOJD Alternative*

Note: These are intended to be preliminary conceptual representations of the project. Final design and landscaping will be determined in coordination with local cities.

Source: Circlepoint, 2016.

**Figure 6.14-12**  
**Key Viewpoint 11: Santa Clara Station TOJD from El Camino Real**  
**VTA's BART Silicon Valley–Phase II Extension Project**



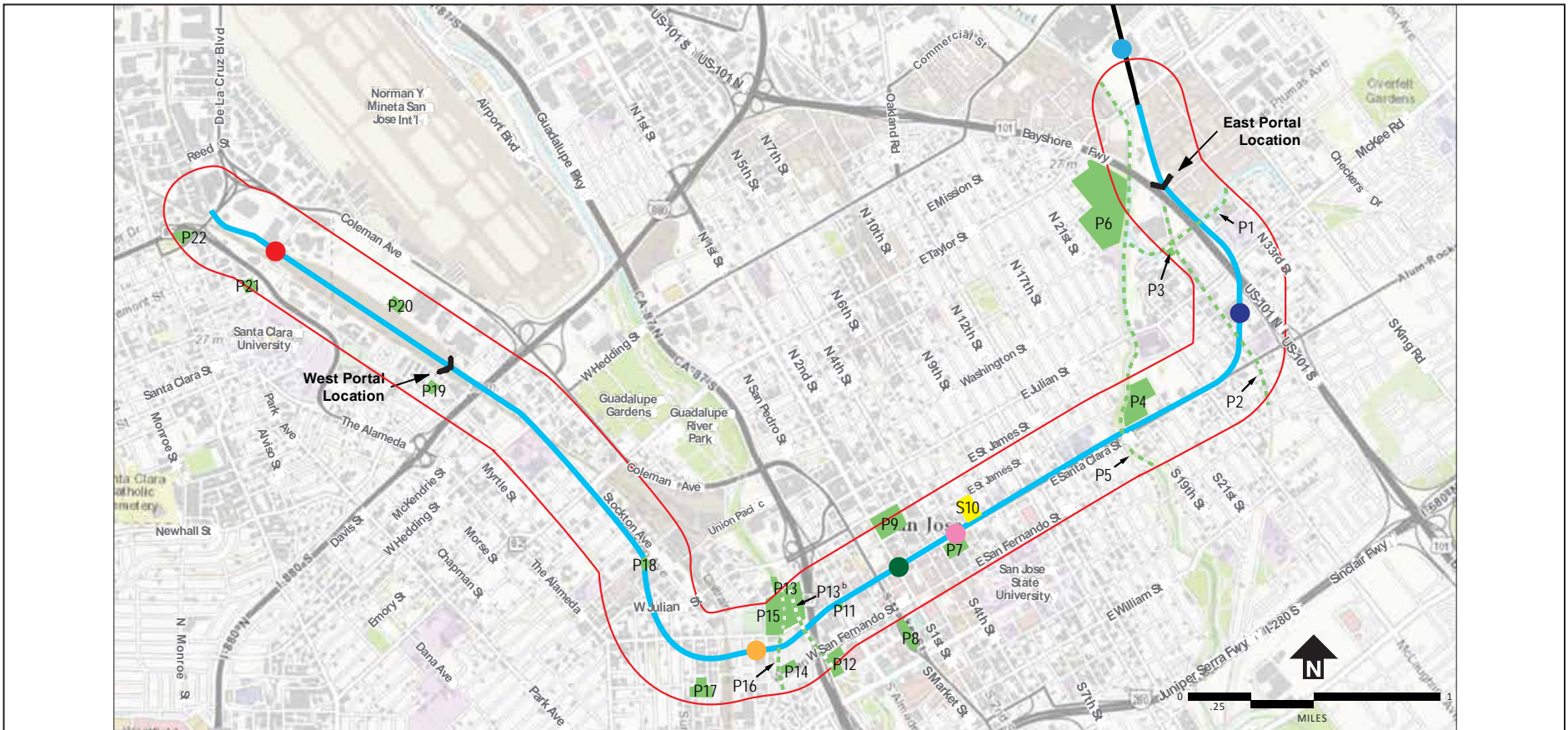


Graphics ... 0033213 (6-20-2016).tm



**Figure 7-1**  
**Cumulative Projects**  
 VTA's BART Silicon Valley-Phase II Extension Project





Source: ESRI, 2015. Google Maps, 2015

**Legend**

- Study Area
- BART Extension Alternative
- Berryessa Extension (under construction)
- - - Proposed Trail
- Berryessa Station (under construction)
- Alum Rock Station
- Downtown San Jose Station - East Option
- Downtown San Jose Station - West Option
- Diridon Station (North and South Options)
- Santa Clara Station
- Park
- School

- | Park and Recreation Facility                | Map Icon |
|---|----------|
| Lower Silver Creek Trail (Proposed) *       | P1       |
| Five Wounds Trail (Proposed) *              | P2       |
| Hacienda Park                               | P3       |
| Roosevelt Park                              | P4       |
| Coyote Creek Trail (Proposed)*              | P5       |
| Watson Park                                 | P6       |
| City Hall Plaza                             | P7       |
| Plaza de Cesar Chavez                       | P8       |
| St. James Park                              | P9       |
| Horace Mann Elementary School               | S10      |
| Almaden Entrance Triangle Park              | P11      |
| McEnery Park                                | P12      |
| Guadalupe River Park & Trail * <sup>b</sup> | P13      |

- | Park and Recreation Facility     | Map Icon |
|----------------------------------|----------|
| San Fernando Station Plaza       | P14      |
| Arena Green                      | P15      |
| Los Gatos Creek Trail (Proposed) | P16      |
| Cahill Park                      | P17      |
| Theodore Lenzen Park             | P18      |
| Newhall Park                     | P19      |
| Coleman Soccer Fields            | P20      |
| The Forge Garden                 | P21      |
| Larry J. Marsalli Park           | P22      |

\* Feature depicted shows those portions within the Study Area

**Figure 8-1  
Park and Recreational Facilities within 1,000 feet of BART Extension Alternative  
VTA's BART Silicon Valley–Phase II Extension Project**

Graphics ... 0033213 (6-23-2016)





