

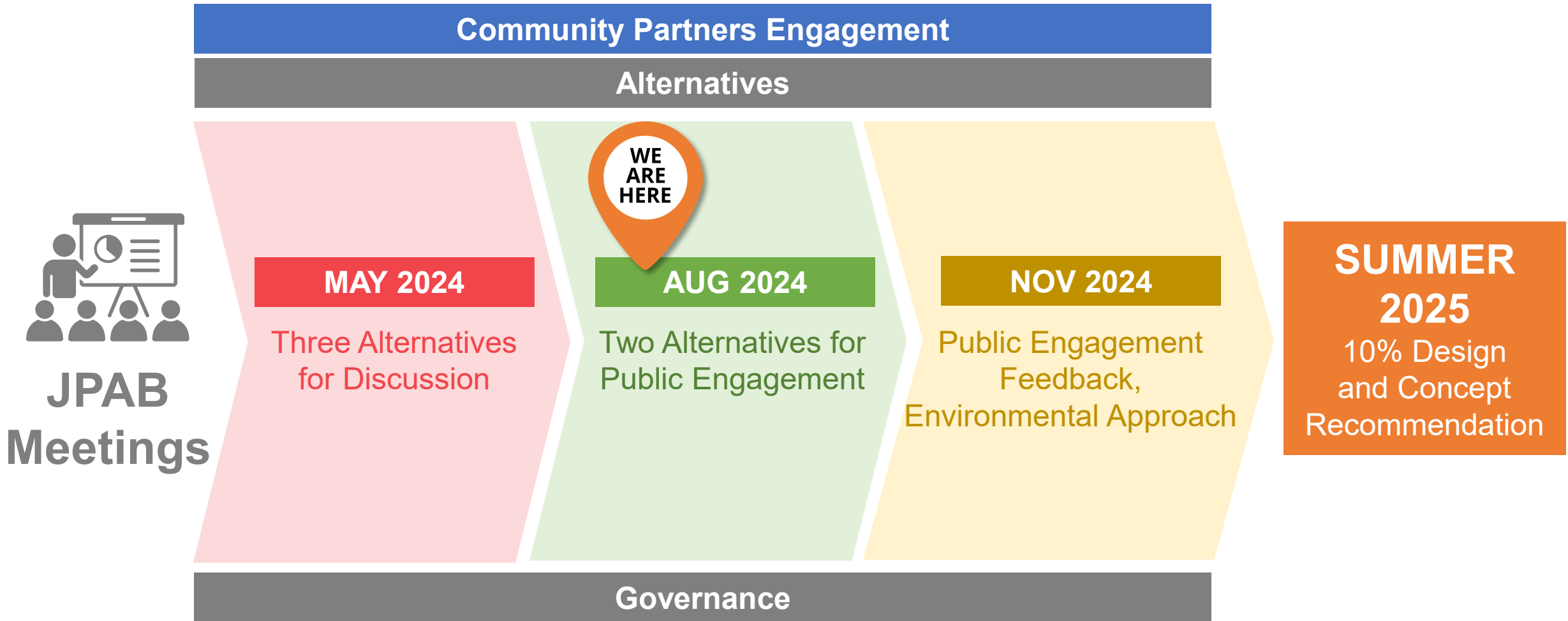


SEPTEMBER 2024

# Diridon Station Business Case Two Alternatives



# Where We're Headed



*Note: 2025 meetings still need to be scheduled*

**1 Overview**

**2 Two Alternatives Recommended**

**3**

**Public Engagement Kick-Off**

- Overview
- Station Area
- North and South Station
- Costs

**4**

**Next Steps**

# Overview



# Emphasis on Safety



- The Partners collectively prioritize safety as core value
- The team is incorporating safety early in design
- The team will integrate safety into the design process to enhance the safety of passengers and the community it serves

# Goals

## ***The Surrounding Community:***

An anchor for economic & community development

## ***Partners & Key Stakeholders:***

Achieving strategic aims and optimizing benefits for Partners and key stakeholders



## ***The Passenger Experience:***

A connected, multi-modal and passenger-friendly station

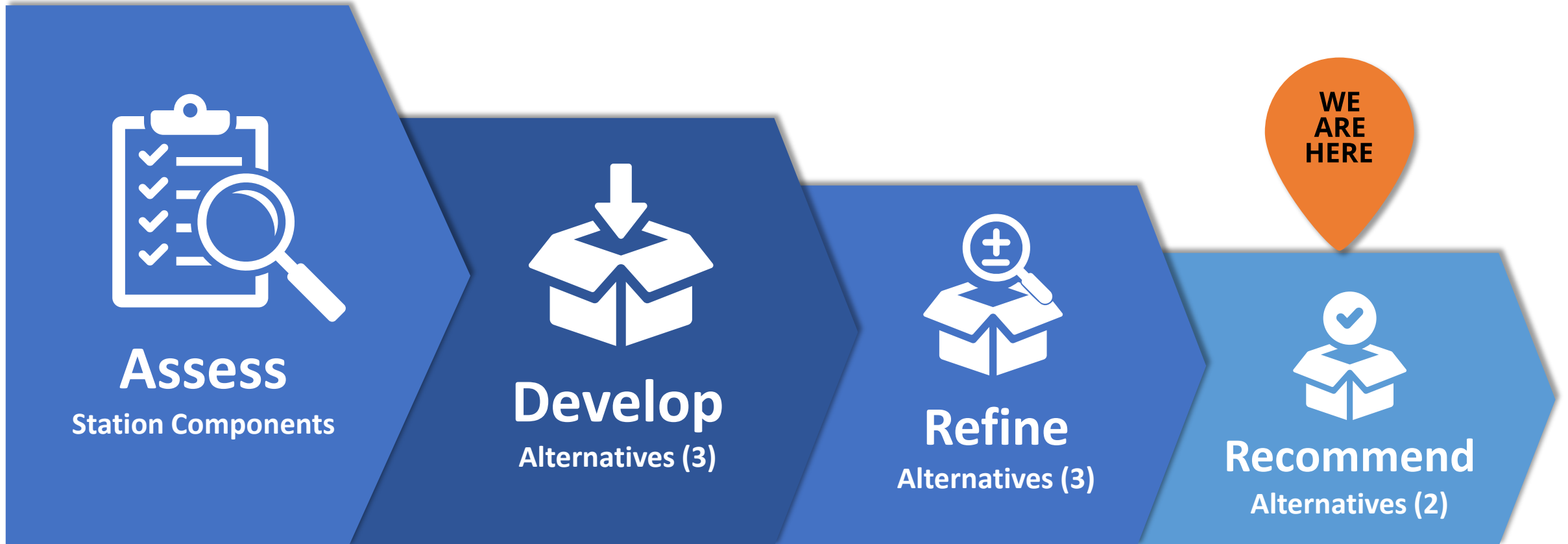
## ***Safe Transit Operators & Operations:***

Providing sufficient capacity, facilitating safe, integrated and reliable transit operations

## ***The Station Building:***

A sustainable, future-proof and resilient station

# Alternatives Development Process



# Two Alternatives Recommended





# May JPAB Alternatives Recap

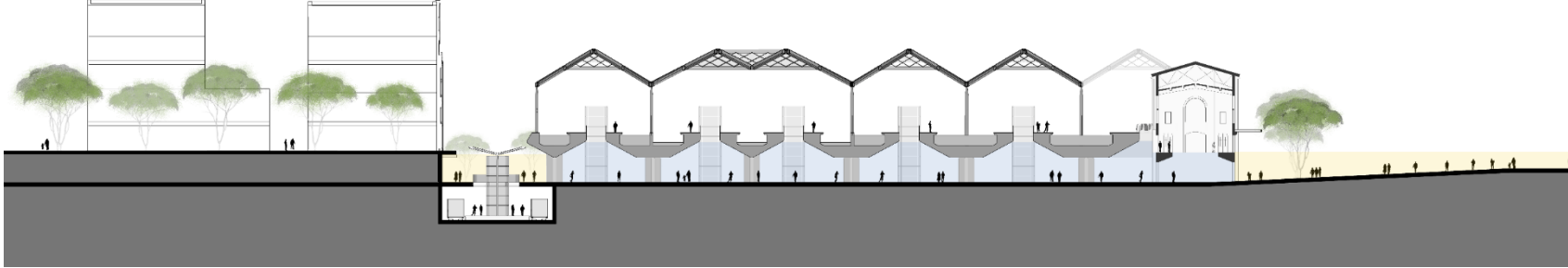


White Street

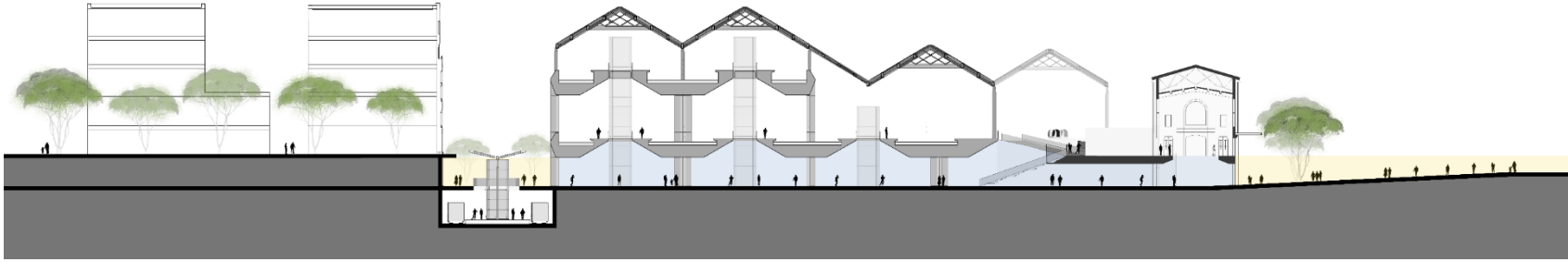
Historic Station

Cahill Street

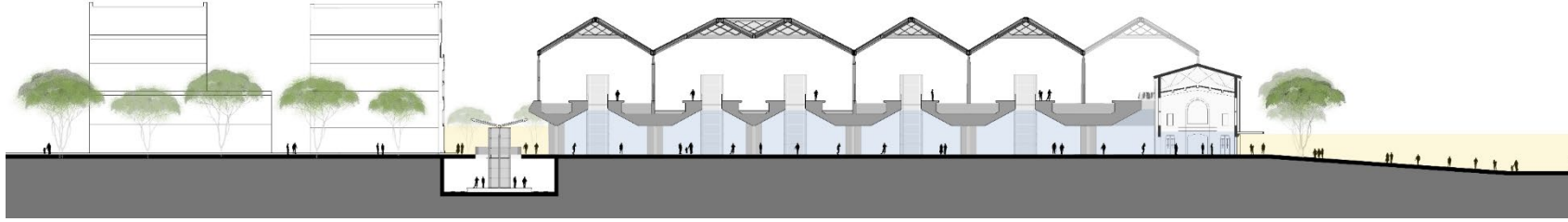
At-Grade



Stacked



Elevated



# Justification for Stacked Elimination



Goals	Criteria topics	At Grade	Elevated	Stacked
Passenger experience	<ul style="list-style-type: none"> <li>Multi-modal connectivity</li> <li>Passenger experience</li> <li>Access for all</li> <li>Construction disruption for passengers</li> </ul>	High Score	High Score	Medium Score
Transit Operations	<ul style="list-style-type: none"> <li>Station capacity</li> <li>Transit operations</li> <li>Construction phasing for transit operation</li> <li>Safety of connection across the tracks</li> </ul>	Medium Score	High Score	Medium Score
Station Building	<ul style="list-style-type: none"> <li>Sustainability</li> <li>Local environment</li> <li>Creating a sense of 'place'</li> <li>Future proofing the station</li> </ul>	High Score	High Score	High Score
Partners and Stakeholders	<ul style="list-style-type: none"> <li>Alignment with stakeholders</li> <li>Program and deliverability</li> <li>Inter-project coordination</li> <li>Construction constraints</li> </ul>	High Score	Medium Score	Low Score
The surrounding community	<ul style="list-style-type: none"> <li>Economic development</li> <li>Housing implications</li> <li>Equity and social impact</li> <li>Creating a vibrant destination</li> </ul>	Medium Score	High Score	Low Score
Construction Cost	<ul style="list-style-type: none"> <li>Limiting CAPEX</li> </ul>	High Score	Low Score	Medium Score

Legend:

- 1 High Score
- 2 Medium Score
- 3 Low Score

## **Eliminate Stacked from further study and continue to refine At-Grade and Elevated**

Stacked falls short compared to At-Grade and Elevated:

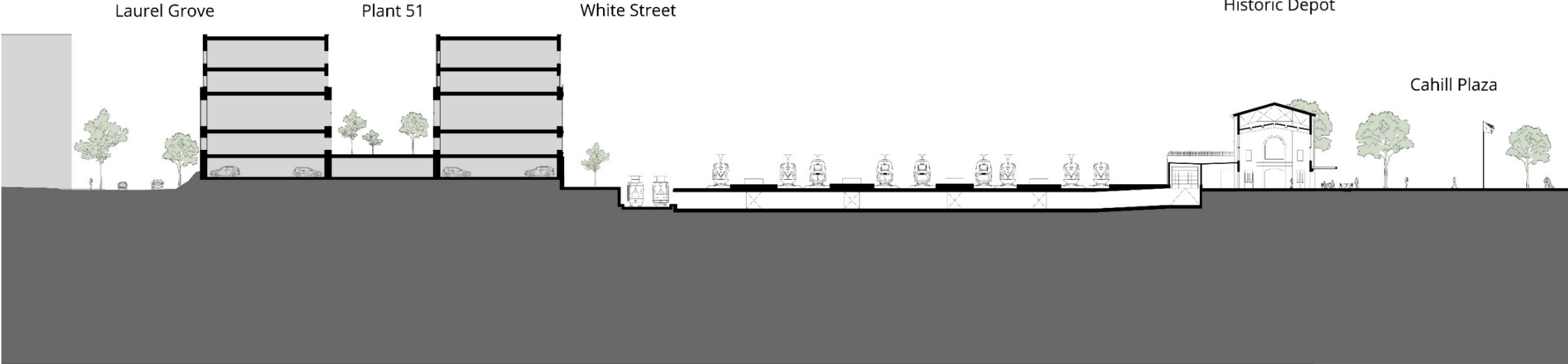
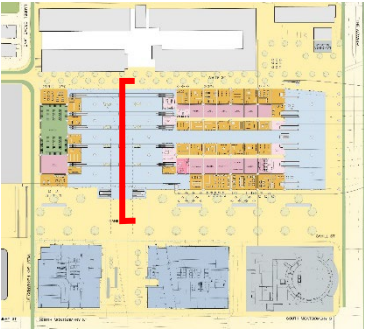
- Inferior intermodal connections
- Large/tall infrastructure
- Negative visual impacts
- Requires closure of grade crossings, impacting access and vulnerable communities
- Biggest land use impact (primarily outside the station area)
- Difficult to construct, impossible to phase
- Higher operating costs

# Public Engagement Kick-Off



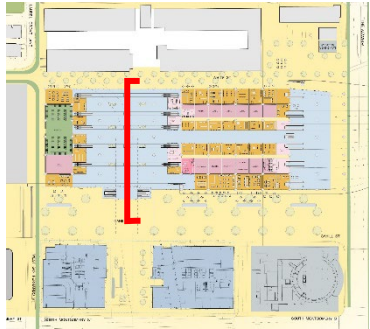
# Existing Section

Looking North Through Southern Concourse, Historic Station



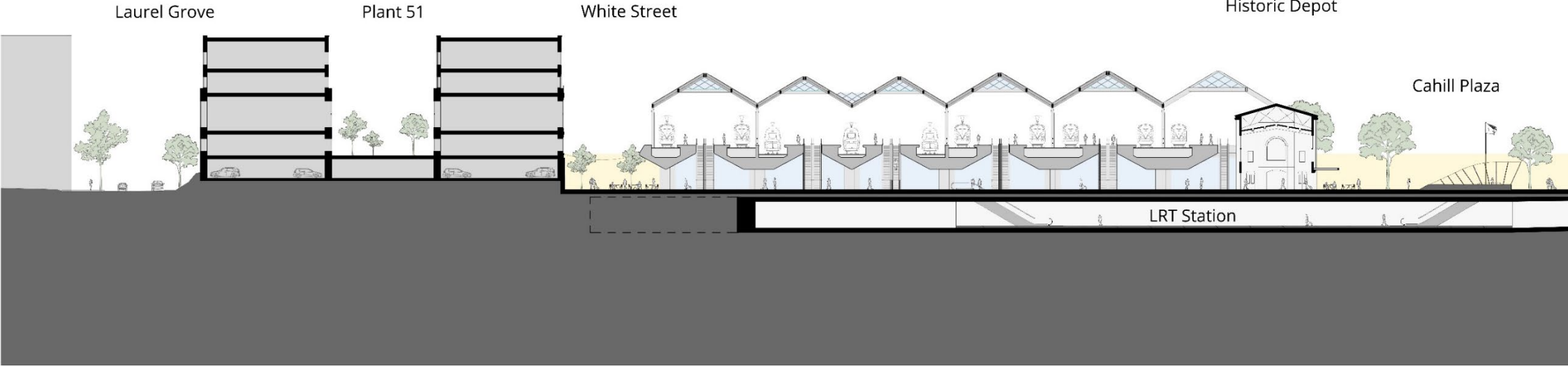
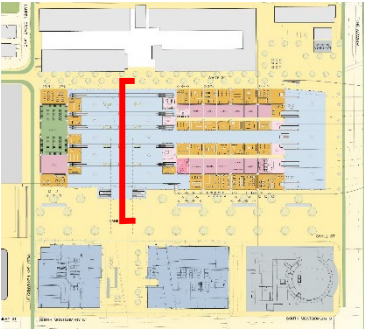
# At-Grade Alternative

Looking North Through Southern Concourse, Historic Station



# Elevated Alternative

Looking North Through Southern Concourse, Historic Station



# At-Grade and Elevated Alternatives Summary



Element	Similarities
Tracks and Platforms	Same number and configuration
Station Components/Layout	Same layout with slight differences based on elevation
Passenger Experience	Same access, vertical circulation, wayfinding, commercial opportunities, etc.
Land Use Impacts	Similar boundaries at station and to the north and south
CEMOF	Same retainment of CEMOF in place with opportunities to expand facility preserved

Element	Differences
Grade Separations	Different treatments at various grade crossings
Visual Impacts	Different visual impacts at station and to the north and south
Construction Complexity/Cost	Different complexity of construction and resulting costs



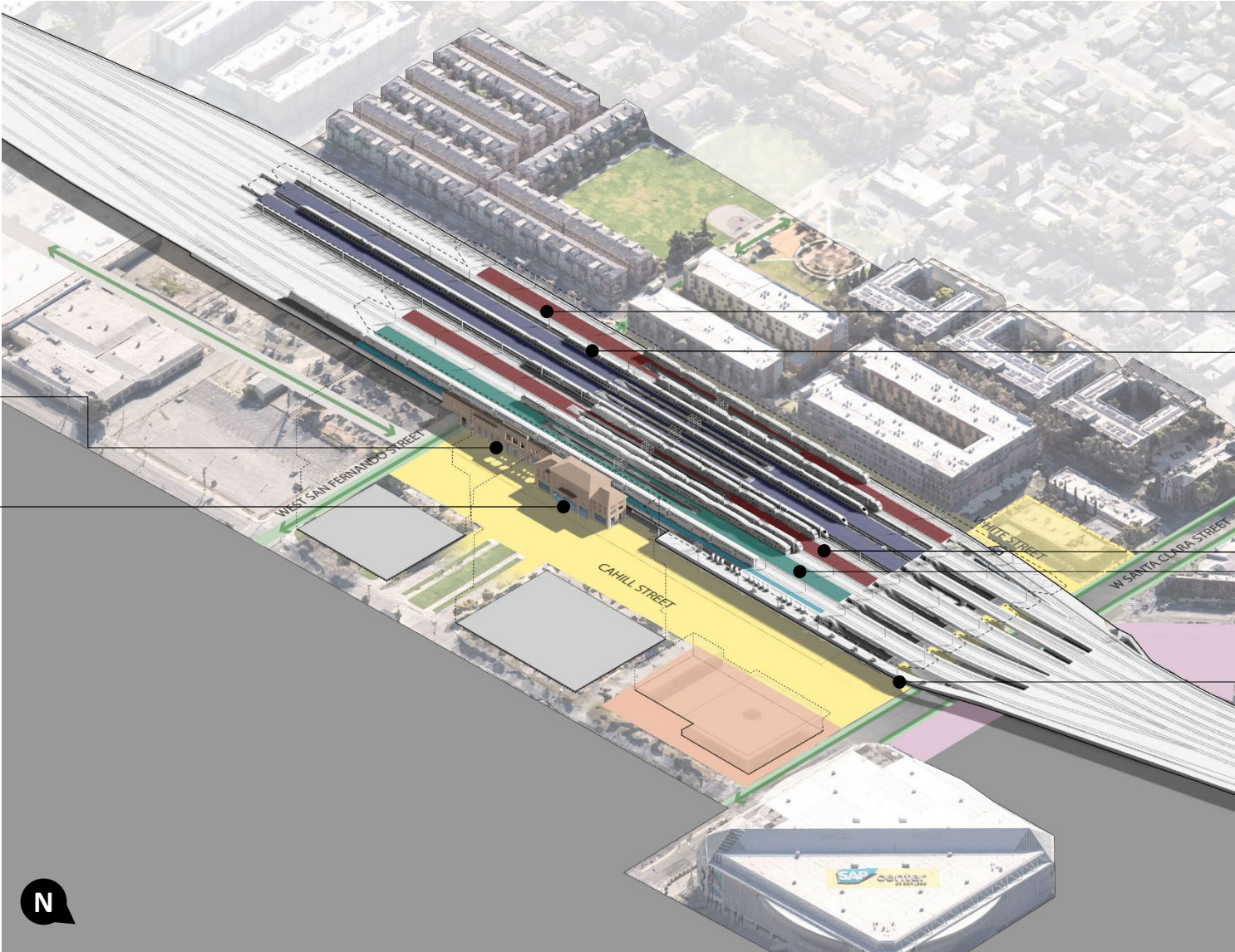
# Station Area



# Heavy Rail Platform Level









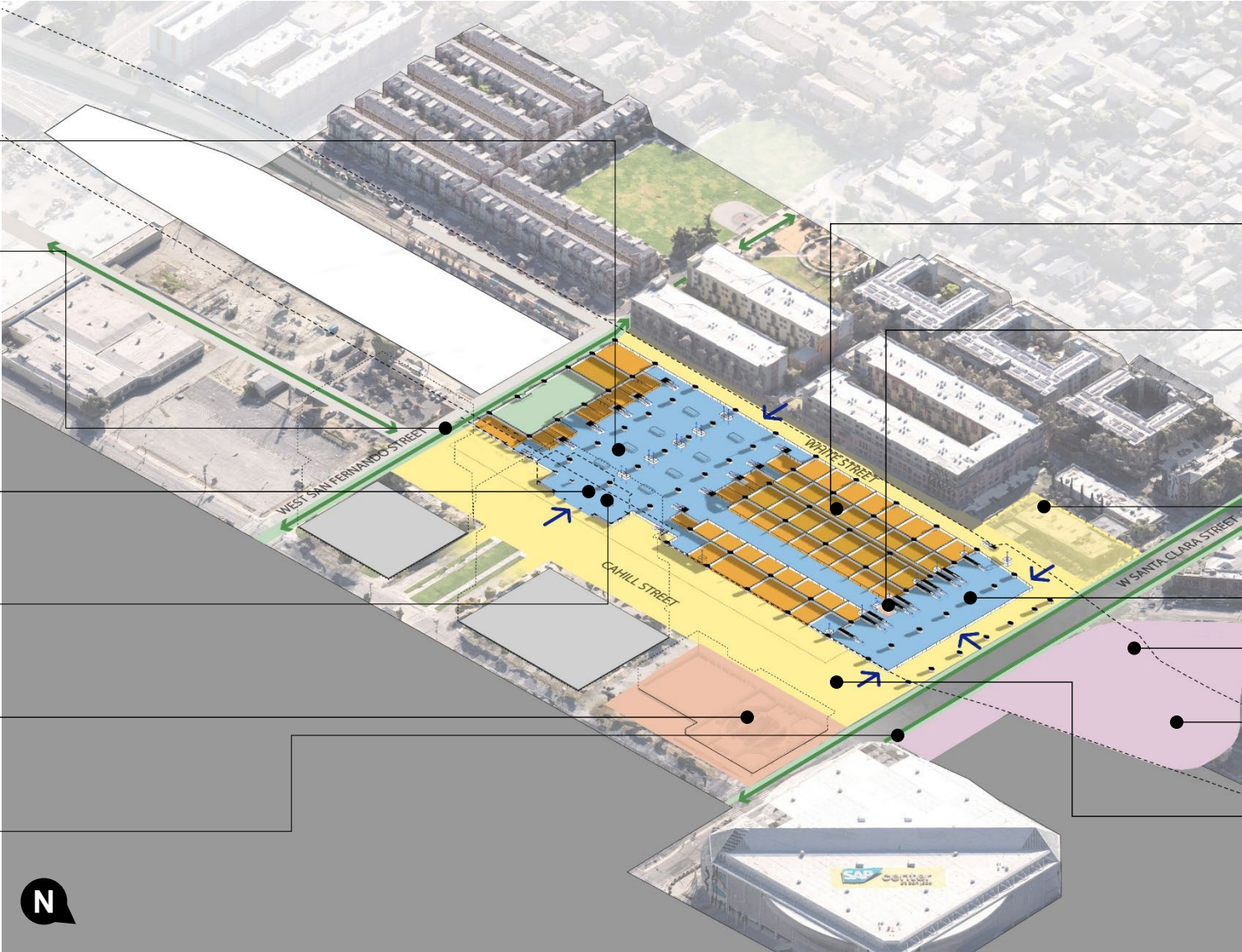
- Historic Annex
- Historic Station










- Caltrain Platforms
- CAHSR Platforms
- Caltrain Platforms
- ACE/Capitol Corridor Platforms
- Amtrak Platform
- Airport Connector

# Concourse Level

-  South Concourse
-  San Fernando Bike Path
-  Historic Station
-  LRT Platforms
-  BSV Headhouse
-  Santa Clara Street Bike Path



- Retail / Operations 
- BSV Entrance to Tunnel 
- Potential New Public Realm 
- North Concourse 
- Car/Taxi/Pick Up/Drop Off 
- Bus Parking 
- New Public Realm 

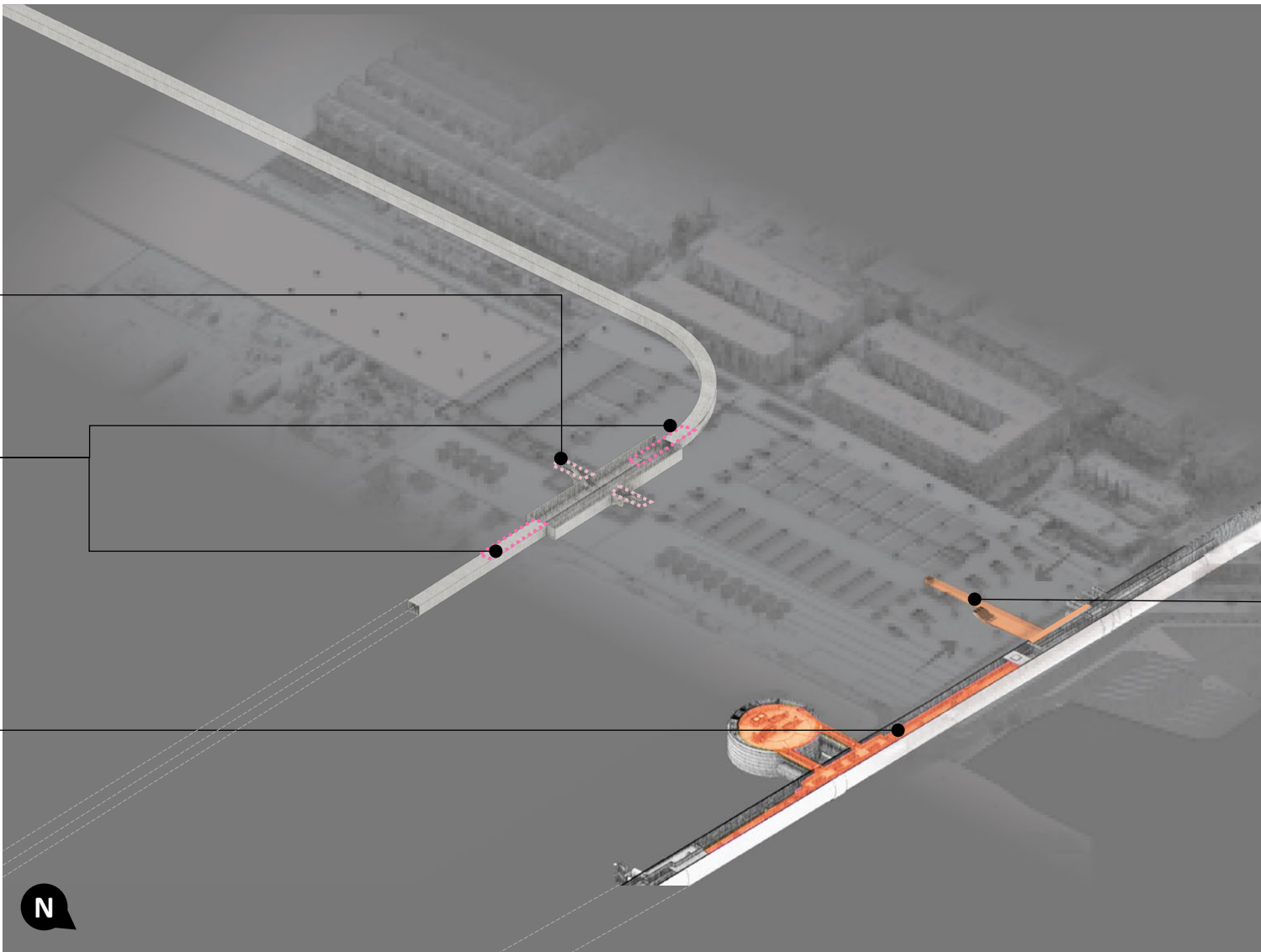
# Below Concourse – LRT + BSV Connections



At Grade –  
LRT Platforms/  
Station Location

Elevated –  
LRT Platforms/  
Station Location

BSV Platforms



BSV Entrance to Tunnel



# San Jose Diridon Station - Fly-Through of Station



# North and South of Station



# Existing and DISC Transit Boundary



Existing Track and Platform Envelope

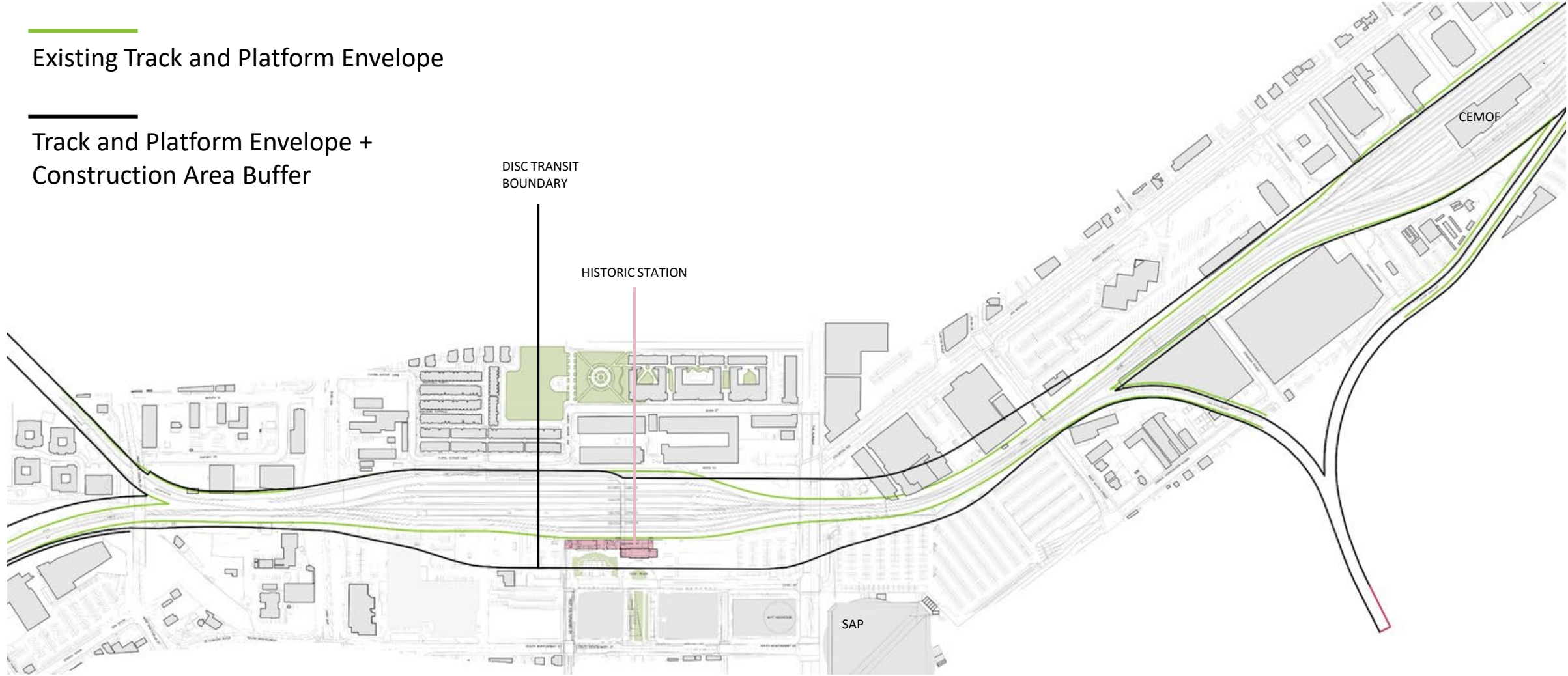
Track and Platform Envelope +  
Construction Area Buffer

DISC TRANSIT  
BOUNDARY

HISTORIC STATION

CEMOF

SAP



NOTE: BSV Western Vent Shaft location is still being assessed

# Proposed Transit Boundary



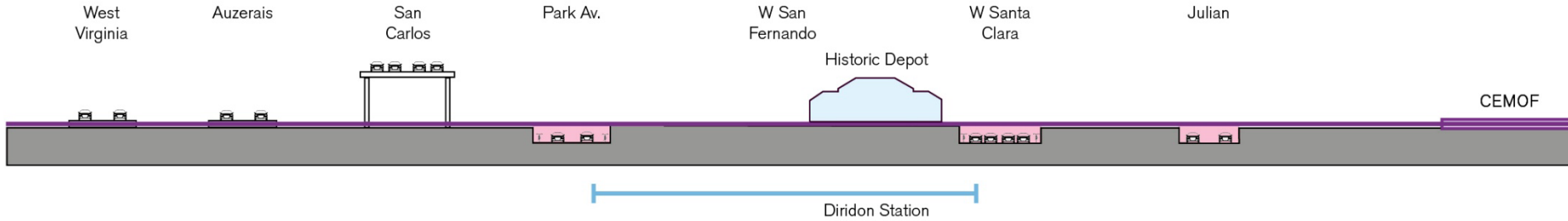
## Station Alternatives Key Findings:

- Based on conceptual design
- Immediate station area land use impact reduced
  - Preserve historic main hall and portion of annex
  - Ability to rebuild PG&E facility on site
- Track modifications north and south of station generally within DISC Transit Boundary
  - Additional technical work in select areas identified
- Additional areas temporarily needed for construction to be identified

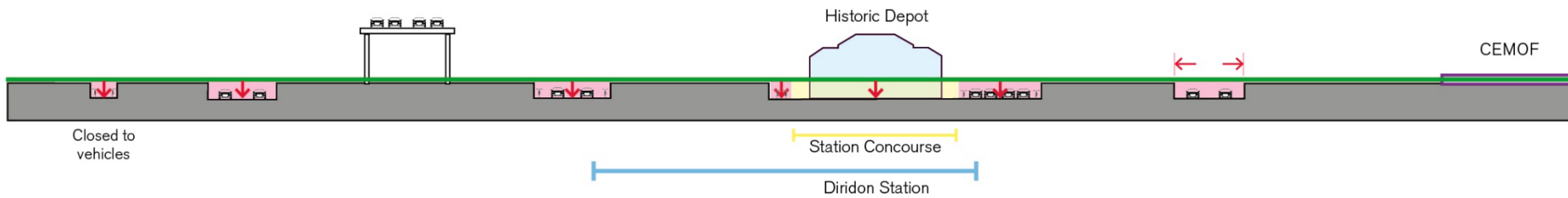


# Grade Crossings and Separations

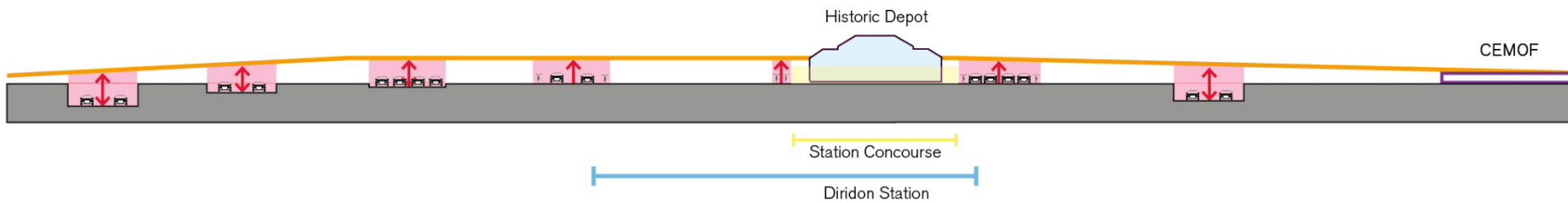
Existing



At-Grade Rail



Elevated Rail



# Grade Crossings and Separations

Grey: Existing Condition

Green: Change

White: No Change

Station Alternatives	W. Virginia	Auzerais	San Carlos	Park Ave.	San Fernando	Santa Clara	Julian
<b>Existing Conditions</b>	<i>No</i>	<i>No</i>	<i>Yes (road over)</i>	<i>Yes (road under)</i>	<i>No</i>	<i>Yes (road under)</i>	<i>Yes (road under)</i>
<b>At-Grade Station</b>	<i>No (closure)*</i>	<i>Yes New (road under)*</i>	<i>Yes</i>	<i>Yes Improve</i>	<i>Yes New (road under)</i>	<i>Yes Modified (road under)</i>	<i>Yes Improve</i>
<b>Elevated Station</b>	<i>Yes New (road under)</i>	<i>Yes New (road under)</i>	<i>Yes Modified (road under)</i>	<i>Yes Improve</i>	<i>Yes New (road under)</i>	<i>Yes Modified (road under)</i>	<i>Yes Improve</i>

\*Additional analysis needed and community discussion.

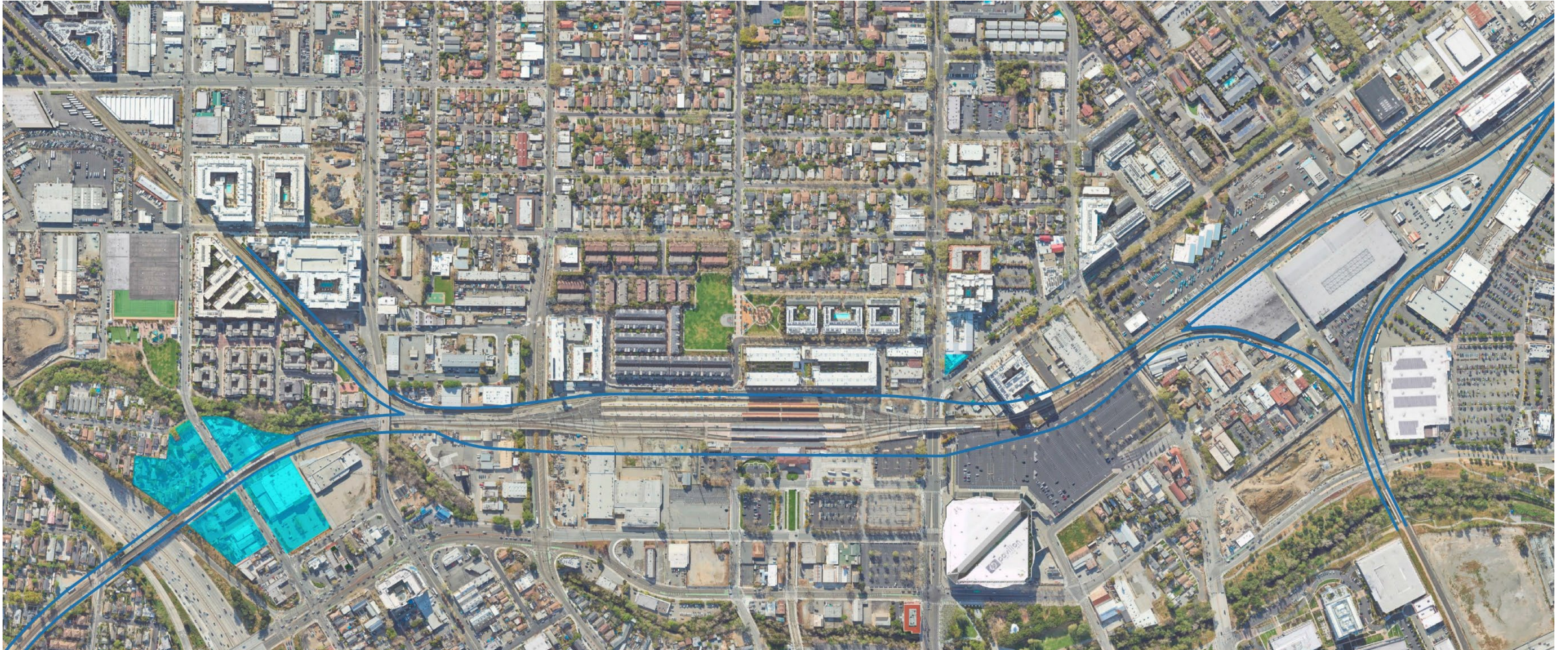
## Benefits

- Separates train and auto traffic
- Improves traffic and circulation
- Reduces train horn noise
- Improves safety and reliability

## Challenges

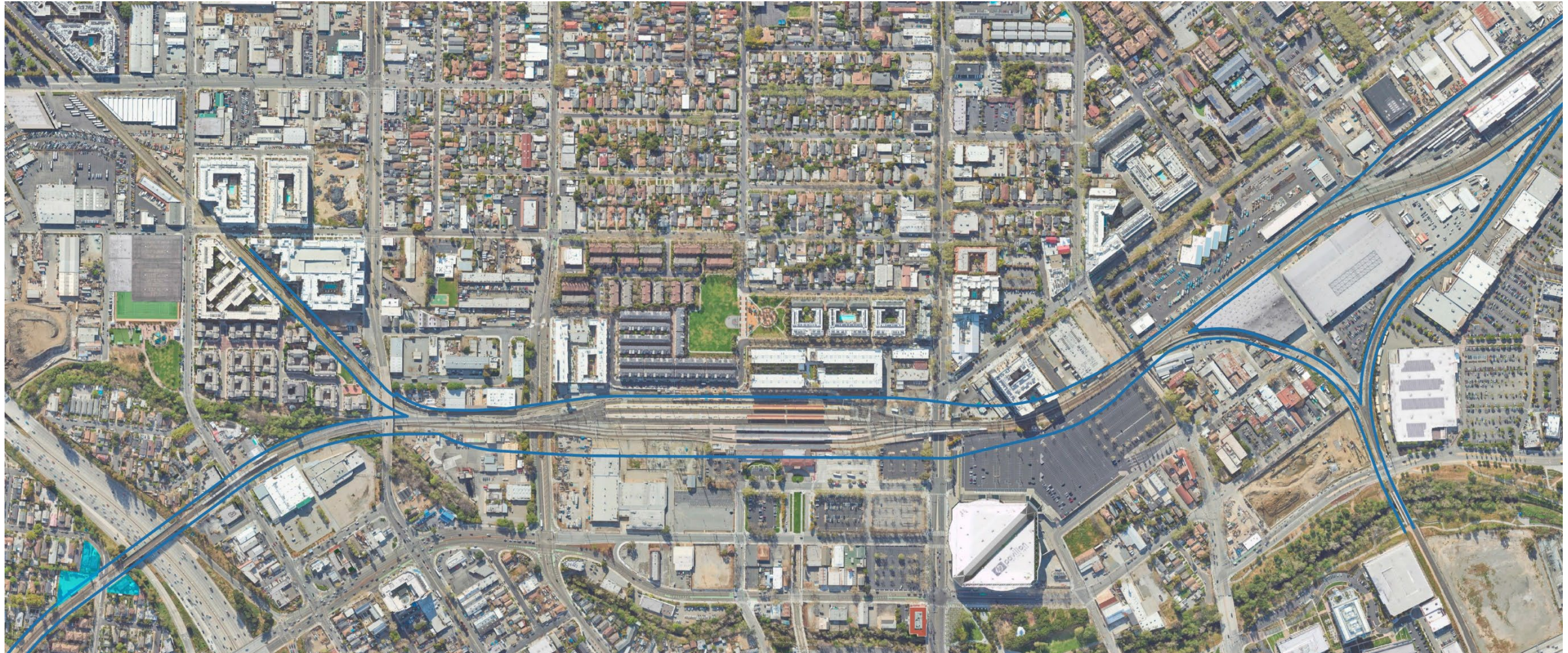
- Requires additional land beyond the station footprint
- Adds challenges to construction
- Adds project cost and time

# Parcels Potentially Affected by Road Crossing Improvements (At-Grade Track Alternative)



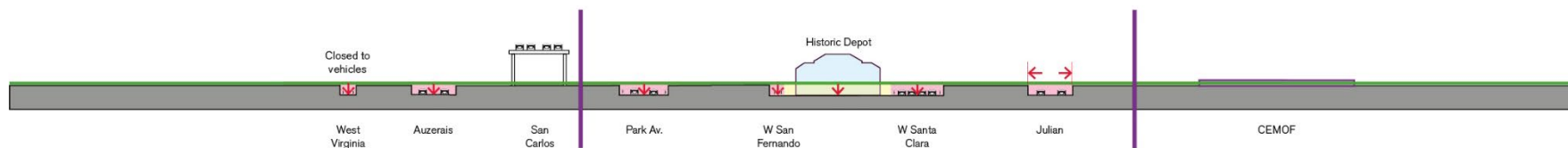
Note: Additional coordination and design work required with potentially impacted parcels / land owners.

# Parcels Potentially Affected by Road Crossing Improvements (Elevated Track Alternative)



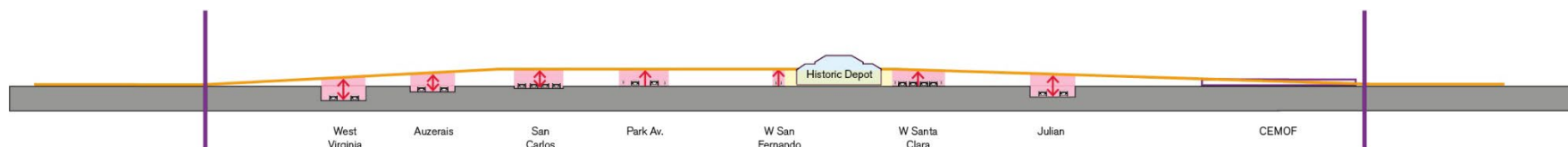
Note: Additional coordination and design work required with potentially impacted parcels / land owners.




# At-Grade Alternative Track Change Area



- REVERT TO EXISTING CORRIDOR
- AT GRADE TRACK CHANGE AREA

# Elevated Alternative Track Change Area



-  REVERT TO EXISTING CORRIDOR
-  TRACKS SLOPING DOWN
-  ELEVATED TRACK CHANGE AREA



# Costs





# Conceptual Cost Ranges (2023\$)



Station Alternative	Low Range	High Range
At-Grade	\$3 b	\$6 b
Elevated	\$5 b	\$10 b

- Costs are conceptual and subject to escalation of between 3-4% per year on average
- Industry best practices used to develop the ranges appropriate for conceptual stage:
  - Low end of ranges is 30% below estimate
  - High end of ranges is 50% above estimate
- The cost of the Elevated alternative is higher mainly due to:
  - increased quantities of materials in the approaches to the station from the north and south to get the tracks up to the elevated platforms
  - increased length of rail track and systems due to the elevation

# Next Steps



# Phase 2: Public Engagement

## Goals



- Build on prior engagement
- Build awareness and momentum
- Seek feedback on station alternatives
- Inform the preferred alternative for environmental review

## Engagement Strategies



- Public meetings
- Online open house
- Station exhibit
- Pop-up events

## Stakeholder & CBO Engagement

- Historic Station Working Group
- Community and business groups, station area landowners, developers, non-profits



# Upcoming Public Engagement



- August 12: Diridon Historic Working Group
- August 15: Alameda Business Association
- Early September: Stakeholder briefings
- September 8: Viva Calle tabling
- **September 12: Community meeting #1**
- September 21: Caltrain Electrification kick-off pop-up
- September Transit Month pop ups
- Late 2024/Early 2025: Station exhibit
- January 2025: Community meeting #2

# Next Steps



- August 14: JPAB
- August 16: City Council Study Session
- September 12: Community Meeting
- September-October: Partner Agency approval of Interim Agreement
- November JPAB:
  - Initial feedback from public engagement
  - Alternatives refinement
  - Environmental approach
  - 2025 lookahead
  - Funding approach for environmental

**Thank You**



# Appendix – Drivers of Stacked Score

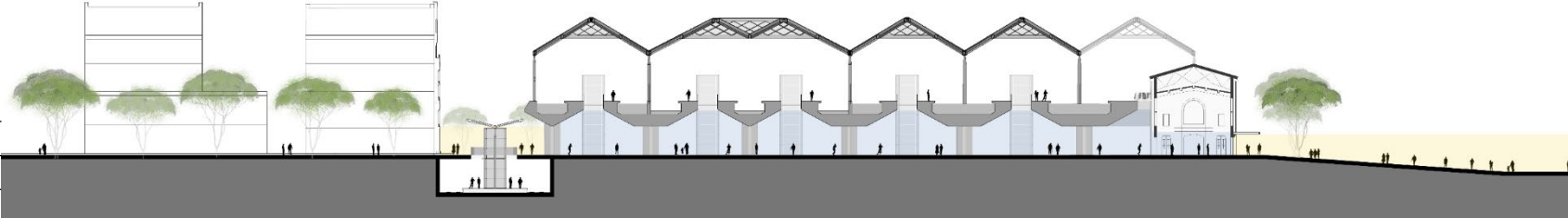


# Station Alternative Overview



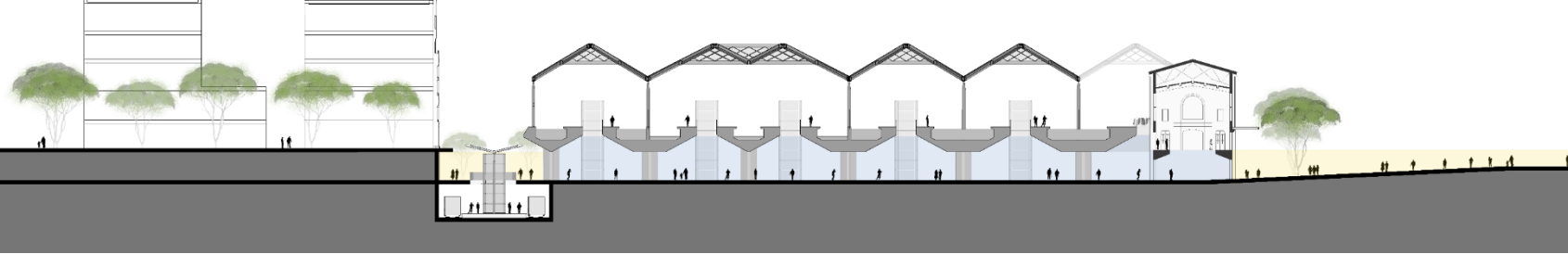
## Elevated

- Upper Level 1
- Ground Level
- Lower Level 1
- Lower Level 2



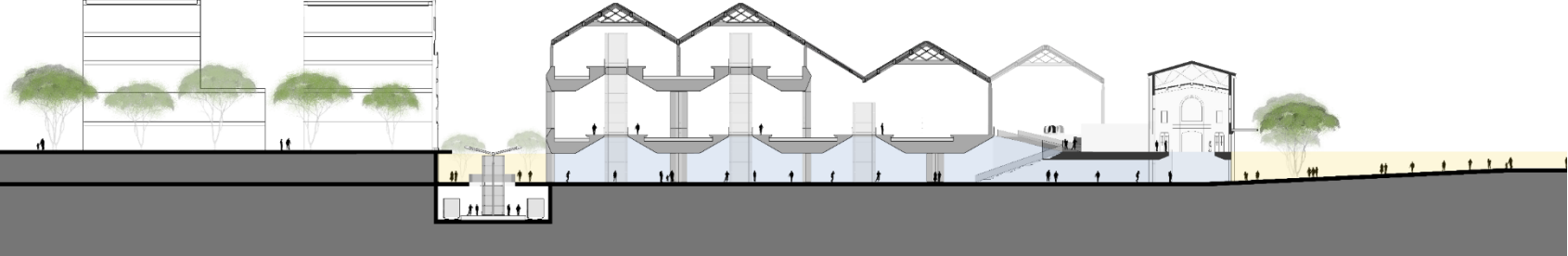
## At-Grade

- Upper Level 1
- Ground Level
- Lower Level 1
- Lower Level 2



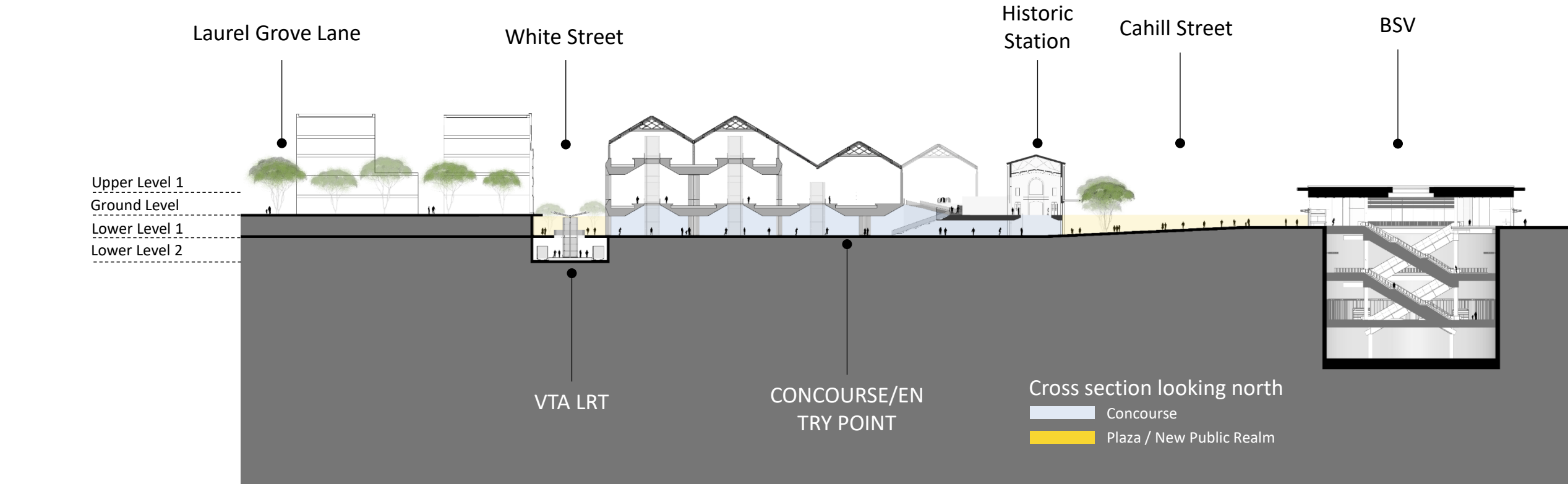
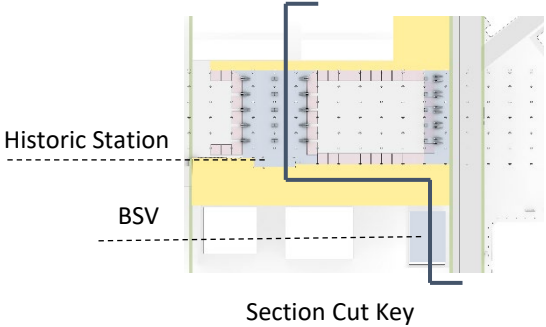
## Stacked

- Upper Level 1
- Ground Level
- Lower Level 1
- Lower Level 2

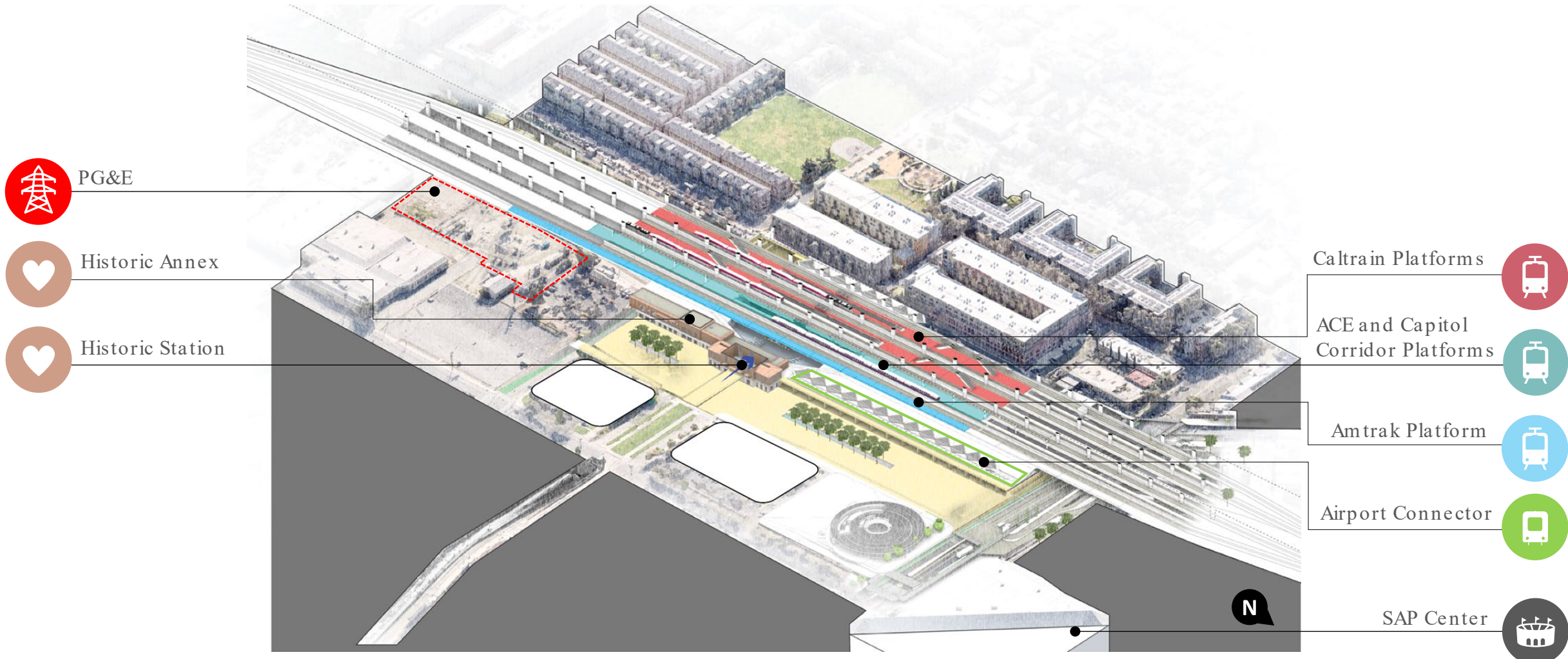




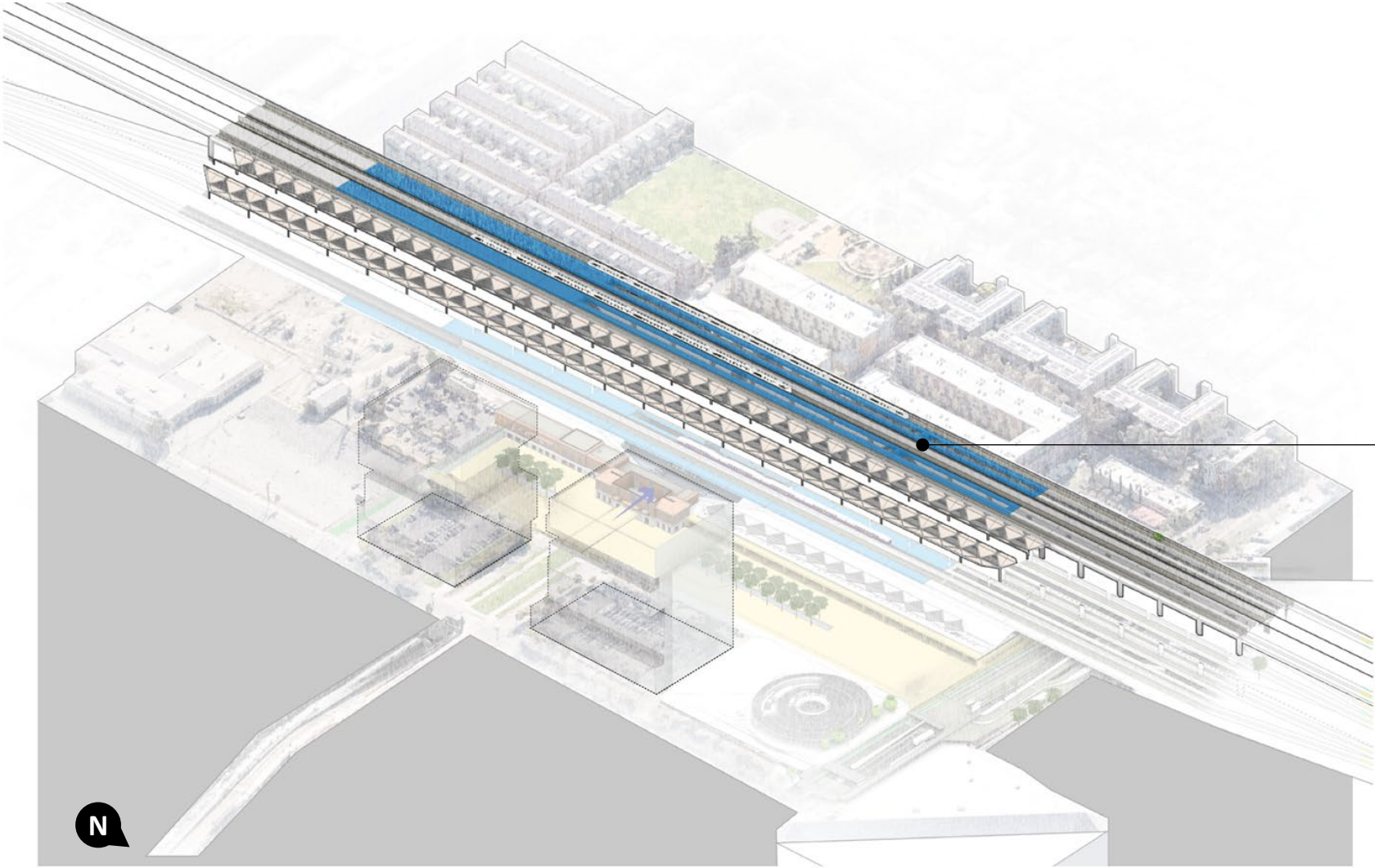
# Stacked Alternative – Cross Section



# Stacked Alternative Main Platform Level



# Stacked Alternative CAHSR Platform Level



CAHSR Platforms



# Stacked Alternative



Looking west from SAP along Santa Clara Street

# Stacked Alternative



Looking east along Santa Clara Street at Stockton Street

# Stacked Alternative



Looking north at the Bus Parking / Pick-Up and Drop-Off  
(Recently Added to Presentation)

# Land Use Impact - Stacked



More property impacts than Elevated and At-Grade Alternatives

# Preliminary Range / Relative Cost Estimate



Range ~\$2.5B – \$13B for station alternatives in 2023 dollars (subject to change)

Station Alternative	Relative Cost	Cost Key Drivers / Differences <i>Note: ROW need TBD</i>
At-Grade	\$	<ul style="list-style-type: none"> <li>Least concrete and steel</li> <li>PG&amp;E facility and Historic Building modification</li> <li>CEMOF remain (expansion possible)</li> </ul>
Stacked	\$\$	<ul style="list-style-type: none"> <li>Medium concrete and steel</li> <li>No impact to PG&amp;E facility and Historic Building</li> <li>CEMOF remain (expansion constrained)</li> </ul>
Elevated	\$\$\$	<ul style="list-style-type: none"> <li>Most concrete and steel</li> <li>PG&amp;E facility and Historic Building modification</li> <li>CEMOF relocation</li> </ul>
Original Concept Layout	\$\$\$\$	<ul style="list-style-type: none"> <li>Most concrete and steel</li> <li>PG&amp;E facility and Historic Building relocation</li> <li>CEMOF relocation</li> </ul>



# Appendix - Visuals



# At Grade



View Looking West towards Cahill Plaza from the SAP Centre on Santa Clara Street

# Elevated



View Looking West towards Cahill Plaza from the SAP Centre on Santa Clara Street

# At Grade



View Looking West towards Cahill Plaza from the SAP Centre on Santa Clara Street

# Elevated



View Looking West towards Cahill Plaza from the SAP Centre on Santa Clara Street

# At Grade



View Looking South Towards Cahill Plaza from Santa Clara Street

# Elevated



View Looking South Towards Cahill Plaza from Santa Clara Street

# At Grade



View Looking East towards White Street from Wholefoods on Santa Clara Street



# Elevated



View Looking West towards Cahill Plaza from the SAP Centre on Santa Clara

# At Grade



View Looking North Towards the Historic Depot from the Legacy Platforms

# Elevated



View Looking North Towards the Historic Depot from the Legacy Platforms

# At Grade

View Looking South Through Historic Station



# Elevated

View Looking South Through Historic Station



# At Grade



View Looking North Across Santa Clara towards the Drop-Off

# Elevated



View Looking North Across Santa Clara towards the Drop-Off