



From Freeway Stub to a Sustainable Mobility System for a Reconnected Community:

Reimagining Pasadena's Relinquished 710 Freeway Stub



A once in a lifetime project!

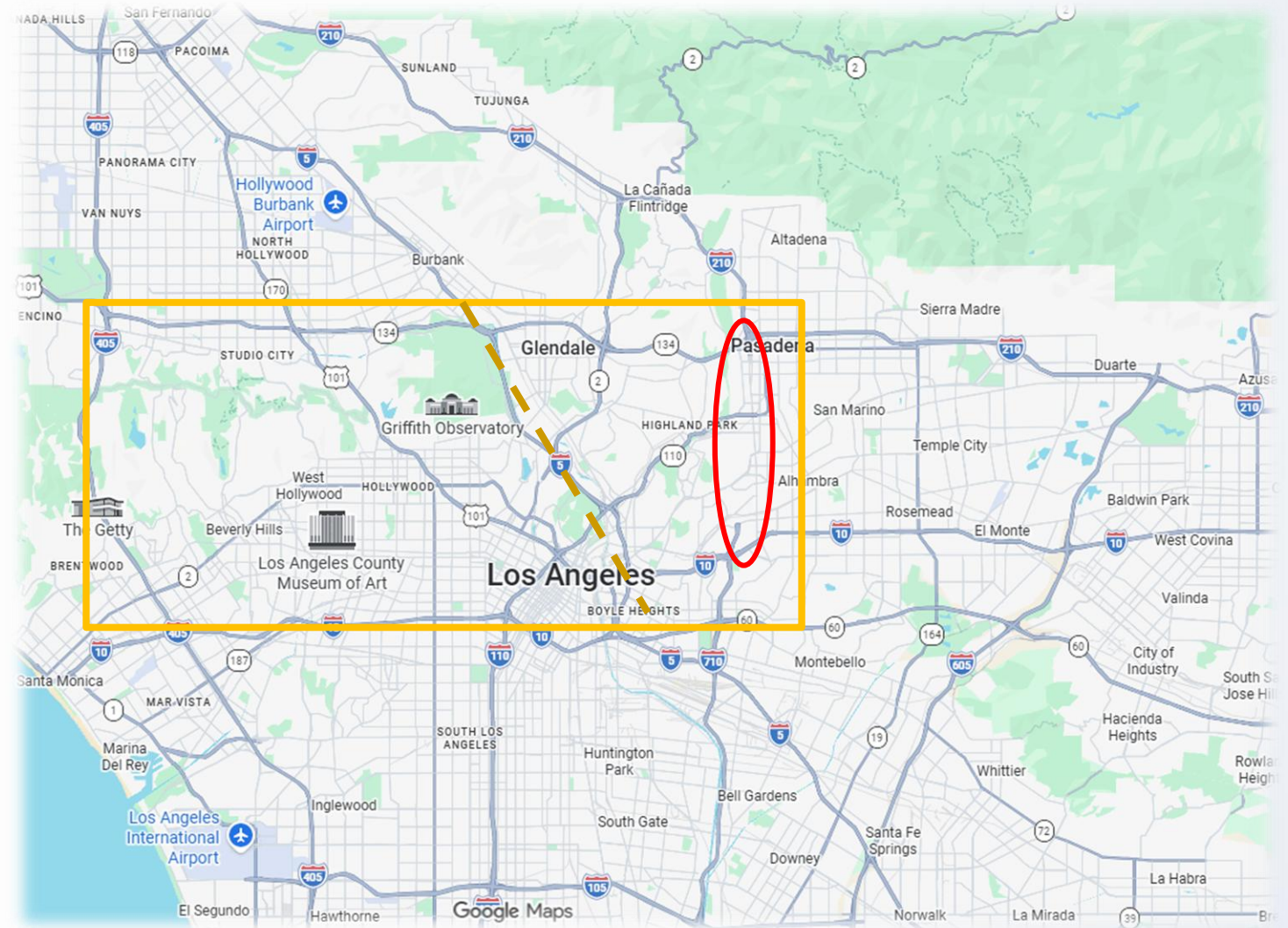
Agenda

- History of the 710 Freeway Gap
- A Half-century of Fight!
- The Relinquishment
- Reconnecting Pasadena
- The Community Vision
- Multimodal Mobility Plan
- Next steps



The Regional Context

- Over 600 Miles of Freeways in Los Angeles County
- 105 million vehicle miles traveled daily
- Master planned in 1940s
- Planned 42 and 52 mile loops around Downtown
- 710 envisioned as eastern bypass especially for commercial traffic to/from the ports
- After completion of I-210 and SR-118, I-105 was the last freeway built in 1993
- Many more freeways were never built
- 1960s “Freeway Revolt”
- The SR-710 4.5-mile gap



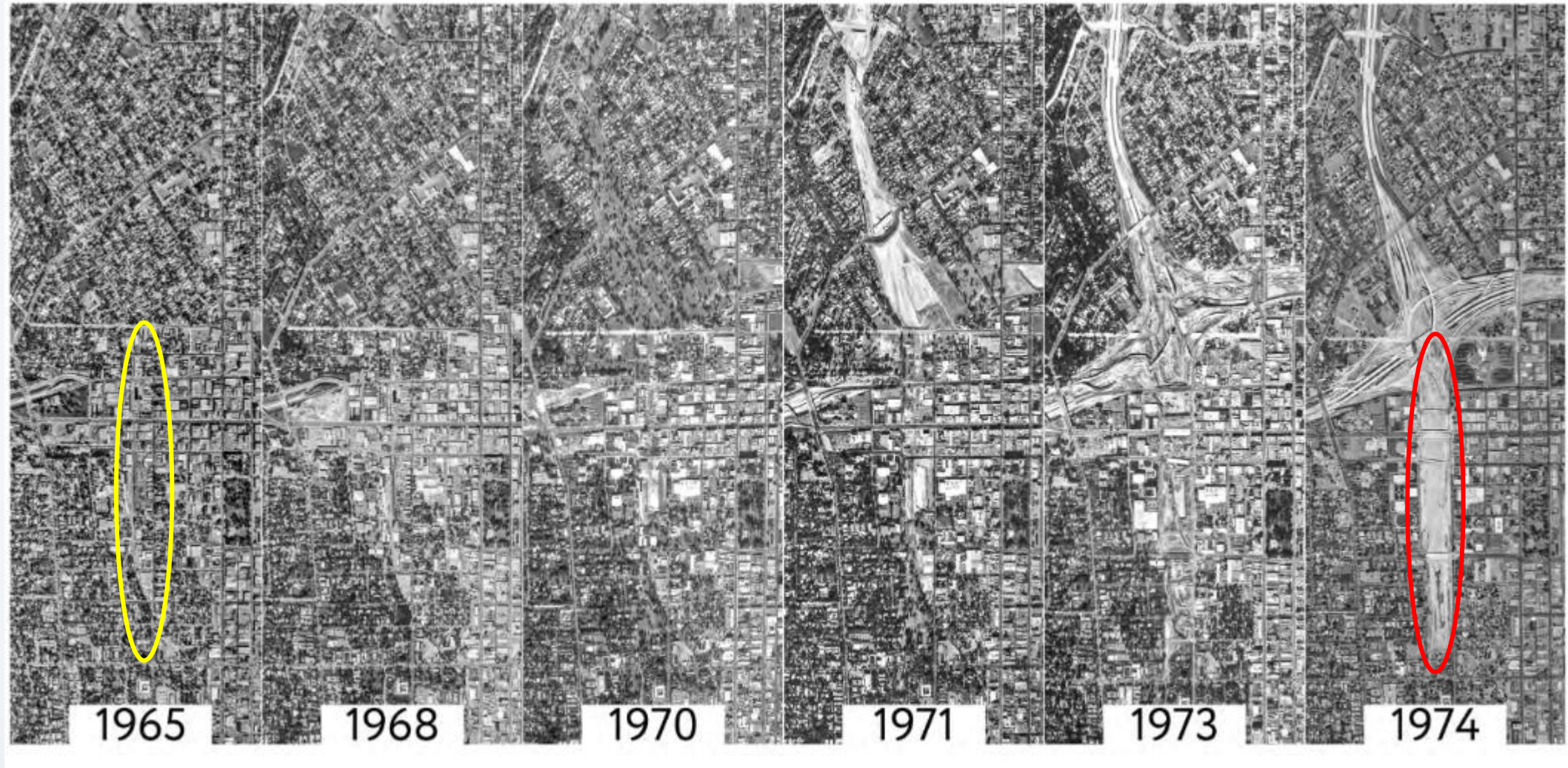
The beginning -- and the end!

A long and bitter history!

- 1940s Initial freeway planning efforts begins
- 1950s Construction begins
- **Property acquisition begins and construction continues until 1970s**
- 1960s highways reach Pasadena
- South Pasadena began opposition in 1940s
- 1973 Federal injunction won by South Pasadena
- 1999 Extension halted
- 2015 Comprehensive environmental studies of avoidance alternatives including a tunnel
- 2017 SR-710 defunded by LA Metro
- 2018 TSM Alternative selected
- 2019 Officially removed from State Highway Plan
- 2022 Transfer of Land Relinquishment
- 2023 Comprehensive Reconnect Pasadena Effort Begins



Nine years of demolition!



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California Department of Transportation

United States Department of Transportation
Federal Highway Administration

Record of Decision

FOR THE STATE ROUTE 710 NORTH PROJECT IMPROVEMENTS ON THE STATE ROUTE 710 AND/OR SURROUNDING AREA FROM NORTH TO INTERSTATE 210, SOUTH TO INTERSTATE 10, EAST TO INTERSTATE 605 AND WEST TO INTERSTATE 5 AND STATE ROUTE 2

LOS ANGELES COUNTY, CALIFORNIA
DISTRICT 7-LA-710 (SR 710)
E.A. 187900/EFIS 070000091

The environmental review, consultation, and any other actions required by environmental laws for this project are being, or have been, carried out by C 23 USC 327 and the Memorandum of Understanding dated December 23, 2019, by FHWA and Caltrans.

Governor Signs Senate Bill 7 Ending the Decades Long Battle to Stop the 710 "North Gap Closure" Project

October 12, 2019

Governor Gavin Newsom signed the long-awaited SB 7 into law effectively halting the massive project from any further consideration. The provisions of the law are summarized as follows:

- Alternatives F-5, F-6 and F-7 as defined in the 2012 Alternatives Analysis report by LAMTA and other freeway or tunnel alternatives to close the gap are no longer deemed to be feasible
- On January 1, 2024, the portion of Route 710 between Alhambra Avenue in the City of Los Angeles and California Blvd in the City of Pasadena will be removed from the California freeway and expressway system
- Relinquishes to the City of Pasadena the specified portions of Route 710 within its city limits under a joint agreement
- Restricts rent increases to tenants within the 710 corridor, participating in the Affordable Rent program
- Defines the priorities and methods of how the state agency will dispose of (sell) surplus residential properties to tenants and nonprofit businesses

A. Decision

This Record of Decision (ROD) approves the Selected Alternative, which is the Management/Transportation Demand Management (TSM/TDM) Alternative. The North Project Final Environmental Impact Statement (Final EIS). The Selected Alternative after the following had occurred:

- Public review of the Draft Environmental Impact Report (EIR)/Environmental and Focused Recirculated Draft EIR/Supplemental Draft EIS (Focused ROD)
- Full consideration of the technical studies and performance evaluations prepared, public comments, and agency input.
- Consideration of the comments on the Final EIS.

Caltrans has selected the TSM/TDM Alternative to meet the project purpose and need to improve efficiency of the existing regional freeway and transit networks and reduce congestion on local arterials adversely affected due to accommodating regional traffic volumes, while minimizing environmental impacts. This decision was also based upon the potential impacts identified in the Final EIS, avoidance, minimization, mitigation measures, funding availability, community input, and coordination with regulatory agencies and local stakeholders.

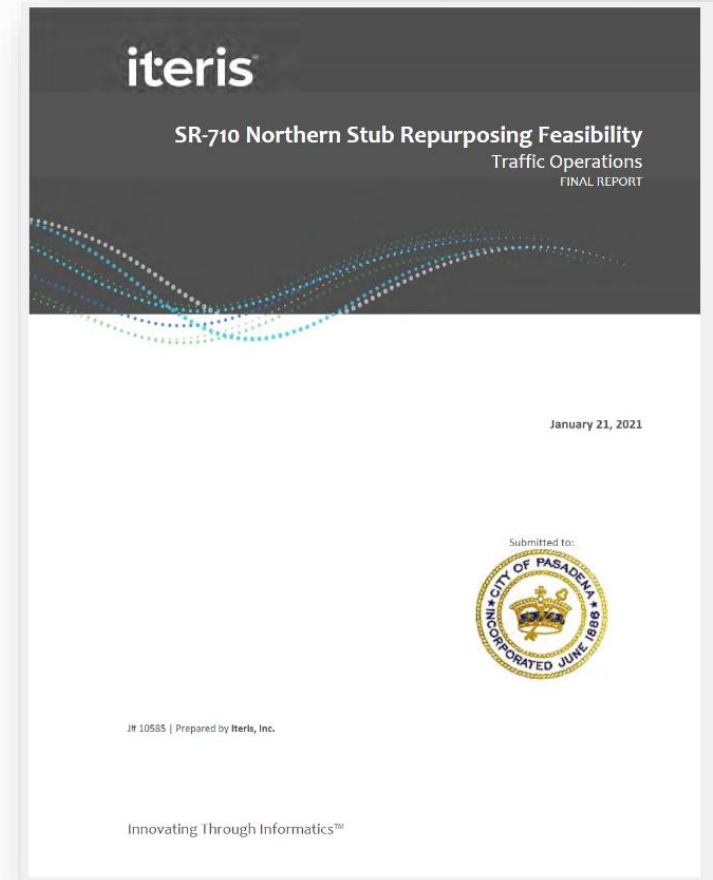
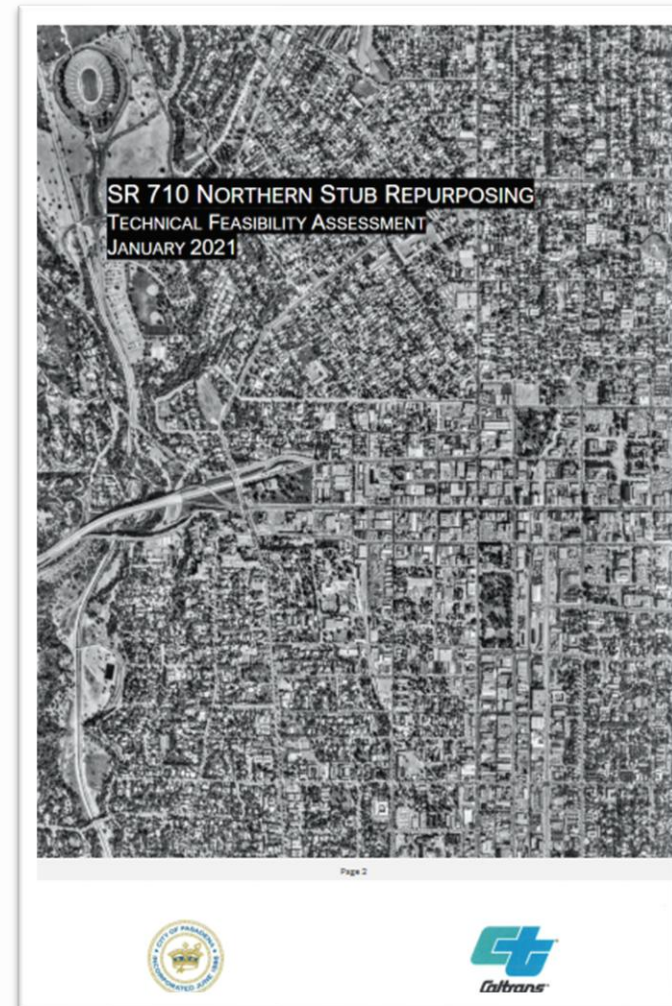
It is not just a freeway stub!

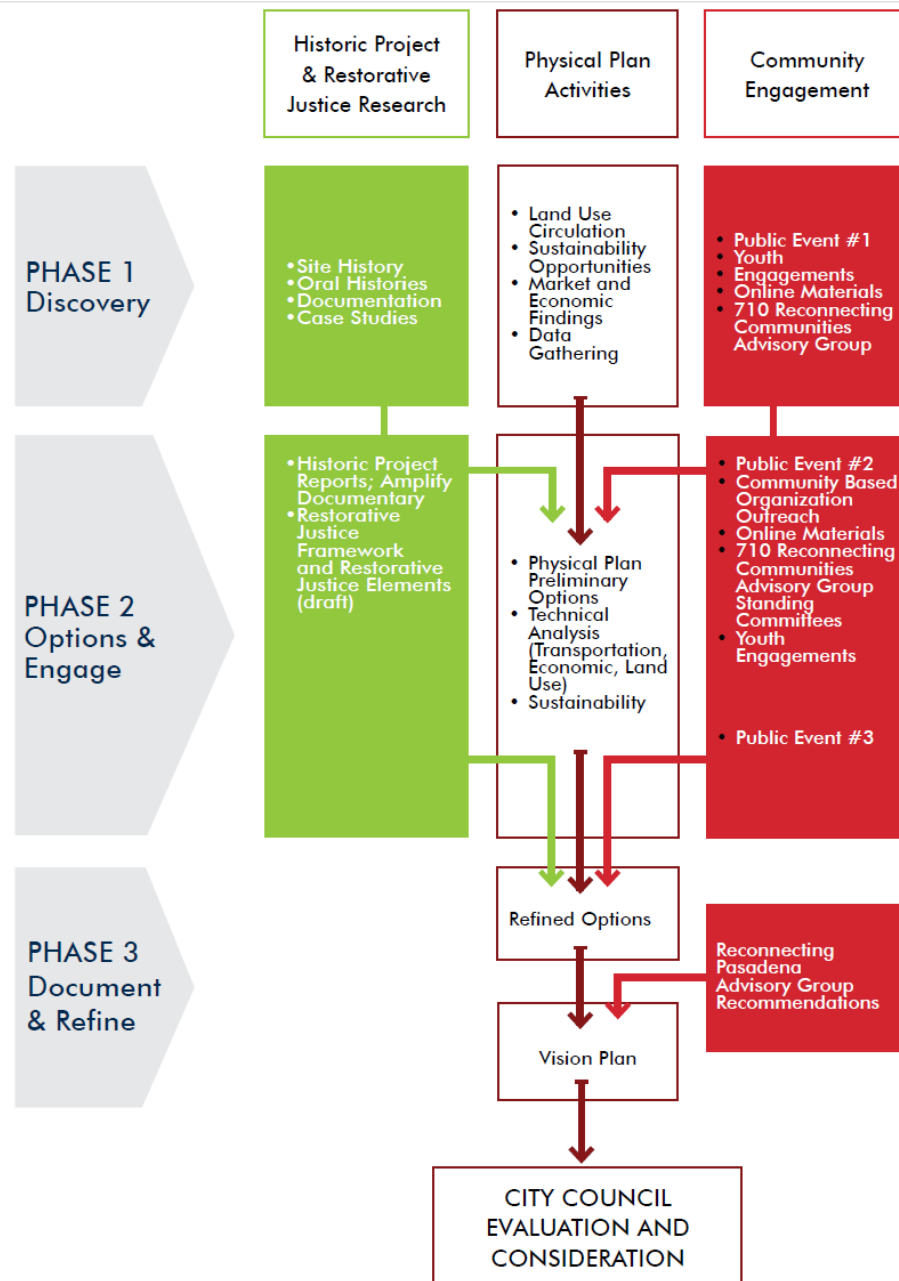
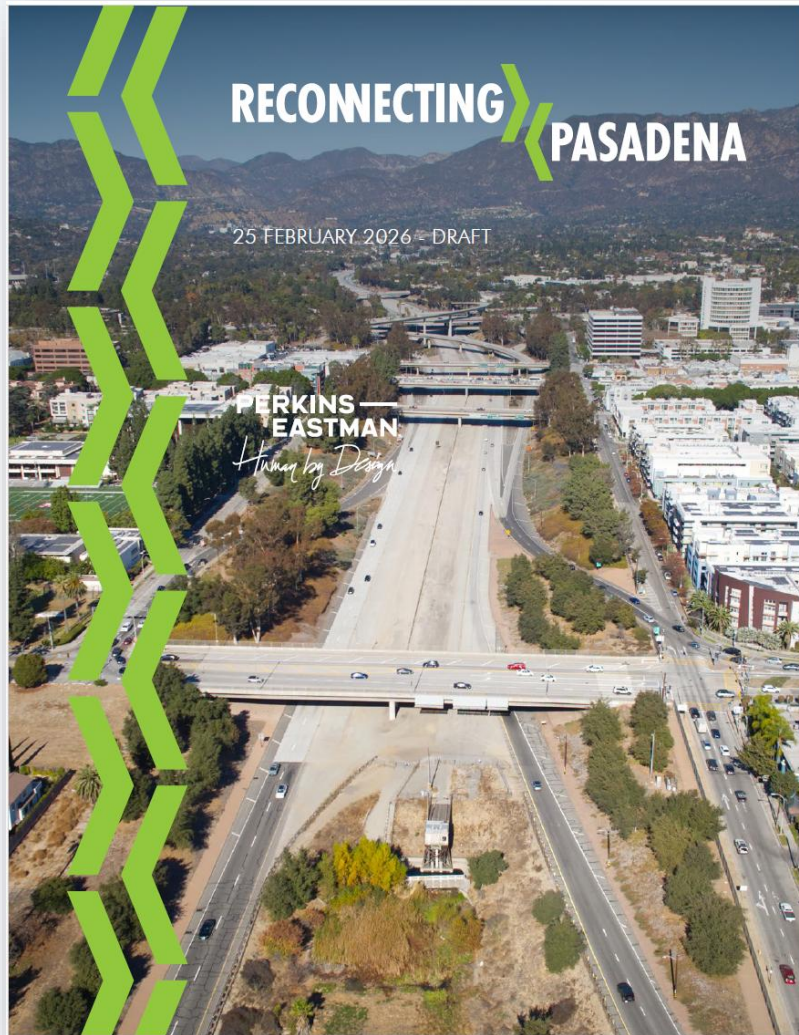
- 210/710/134 Freeway to freeway interchange fully built out
- All 8 direct connectors
- At-grade frontage roads Pasadena and St. John extend Maple and Walnut
- Local on/off ramps
- Street overcrossing bridges
- SR-710 mainline extended over ½ mile in a 30' deep ditch



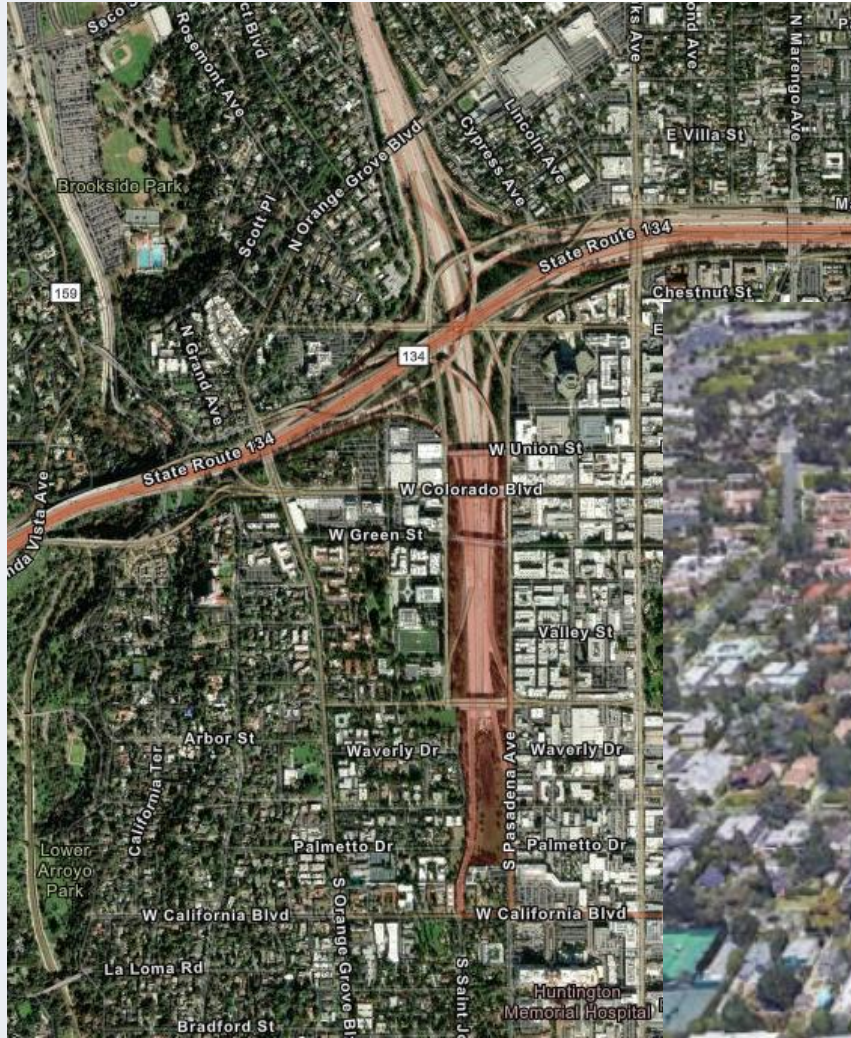
First Step: Feasibility Assessment

- Commissioned in 2019 by Pasadena and Caltrans
- Traffic Analysis concluded in 2021
- Detailed safety study
- Regional VMT Analysis
- Alternatives evaluation
- No land use assumptions only analysis of freeway impacts
- Caltrans endorses results and relinquishment agreements commence
- Full relinquishment in 2022





50 acres of Land Returned to the City



Vision Plan Organizing Concepts

- **Physical Connections**
 - How can local and regional circulation changes transform a freeway into a neighborhood
- **Place Creation**
 - How can the Project Area add to Pasadena's inventory of well loved place
- **Community Cohesion**
 - How can new land use programs complement and connect with adjacent neighborhoods and contribute to a welcoming environment?
- **Community Repair, Health and Well Being**
 - The Project provides a path to restorative investments
- **Economic Vitality**
 - The Project attracts & expands opportunity
- **Sustainability, Climate and Resiliency**
 - The Project is a proactive contributor to the local ecosystem



A PHYSICAL MODEL OF PROJECT AREA AS SHOWN AT EVENT TWO



AN EXISTING CONDITIONS MODEL WAS SHOWN AT MANY LOCAL EVENTS

What can we develop?

- 50 Acres raw undesignated land
- Multi-level opportunities
- Potentially 3.5 million gross sq ft program
- Two generalized land use and urban form concepts
 - **Gardens and Terraces** (less intervention, larger developable area)
 - **Boulevards and Paseos** (more resolved roadway network and realigned St. John)



Gardens



Boulevards



FIG 7.1: VERTICAL DEVELOPMENT WILL BE DEVELOPED IN CONCERT WITH NEW INFRASTRUCTURE FOR ROADWAYS, ENERGY, WATER AND POWER

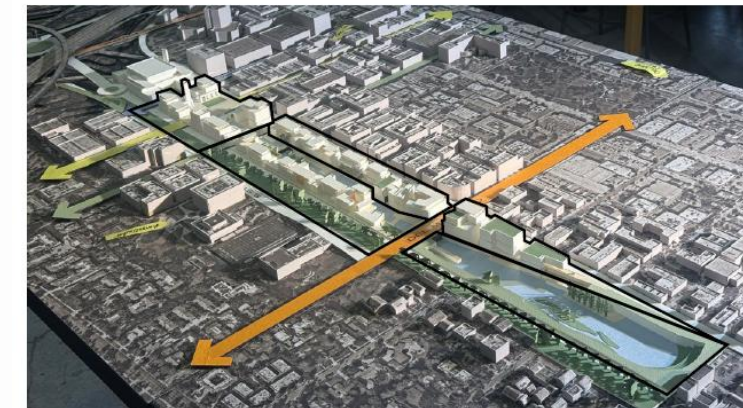
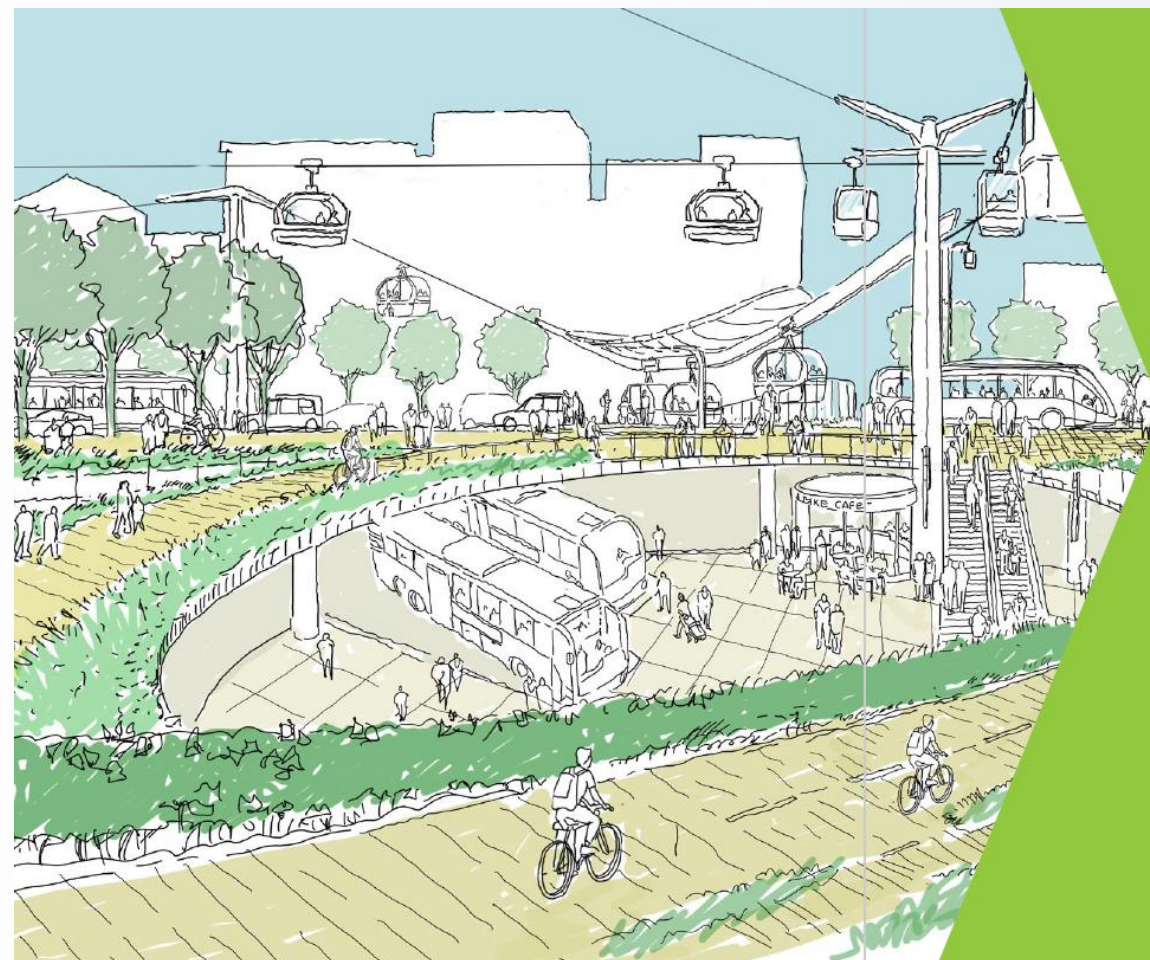


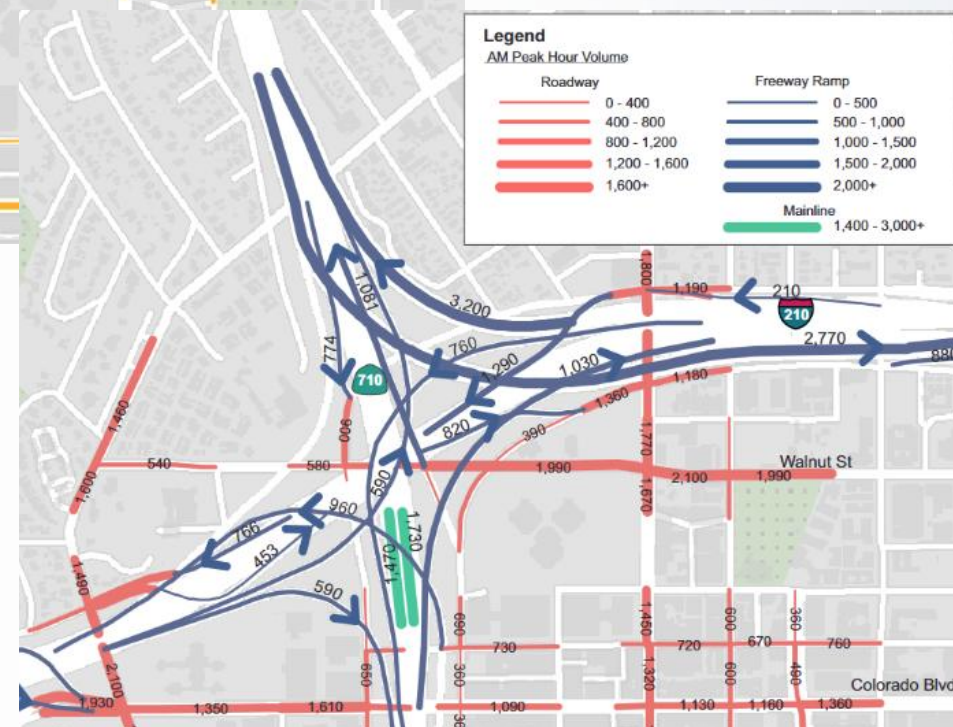
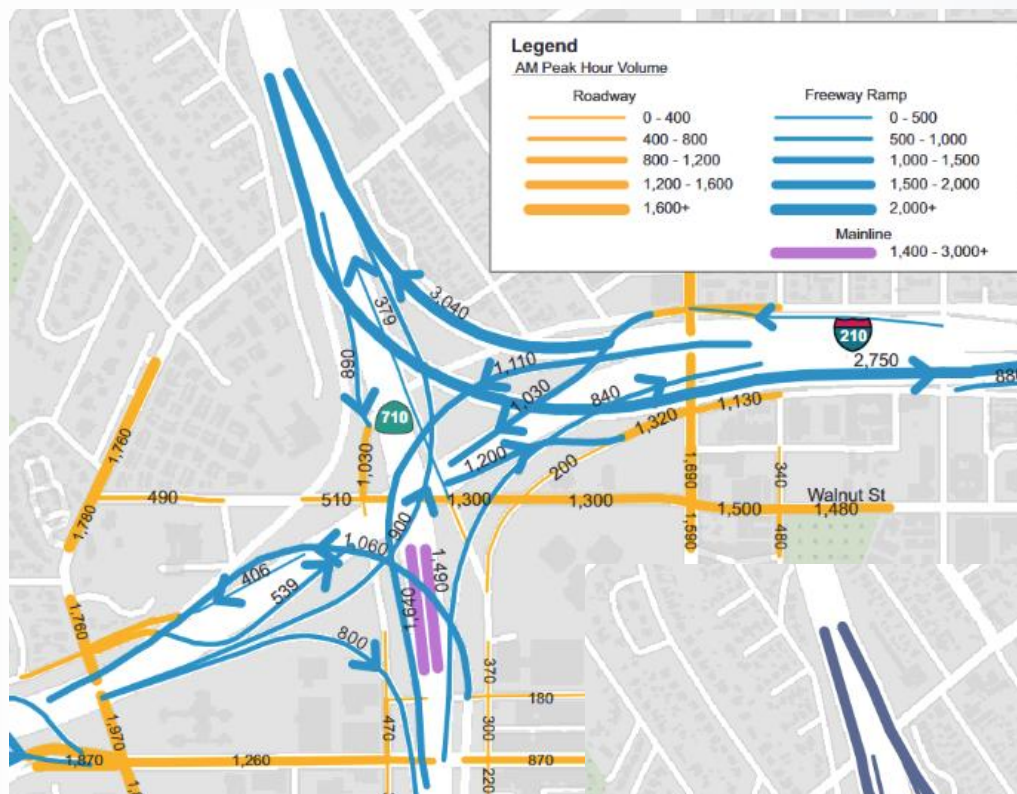
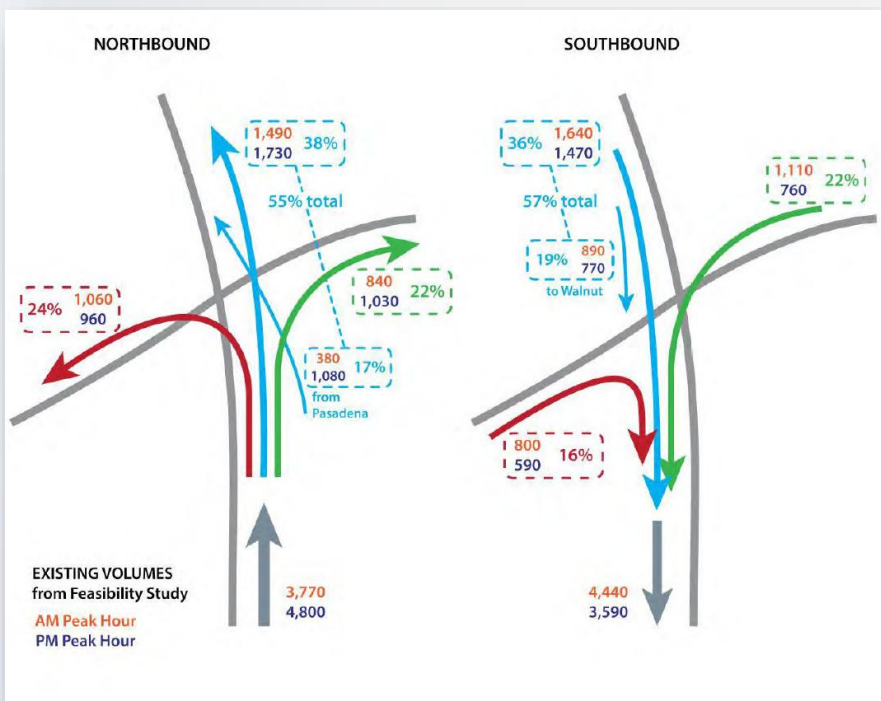
FIGURE 7.2: FUTURE PHASES MAY COMBINE BOTH VERTICAL AND HORIZONTAL DEVELOPMENTS TO ACHIEVE KEY PUBLIC OBJECTIVES. BLACK LINES ARE AN EXAMPLE OF HOW PHASES COULD BE BROKEN OUT.

Mobility Goals

- Reconnect between **neighborhoods**; create places with the circulation plan.
- Design for **safe speeds** and safety for all road users.
- Build out over time; circulation plan must provide a framework that **supports change**.
- **Transit** service: Make connections to and enable future transit options.
- “**Right-size**” the local circulation system and regional connections.
- Provide for **balanced mobility** and access on new and existing streets.
- Create opportunities for **walking and cycling** across and through the stub.
- Reduce regional **cut-through** traffic on North/South Streets, including Orange Grove Blvd.



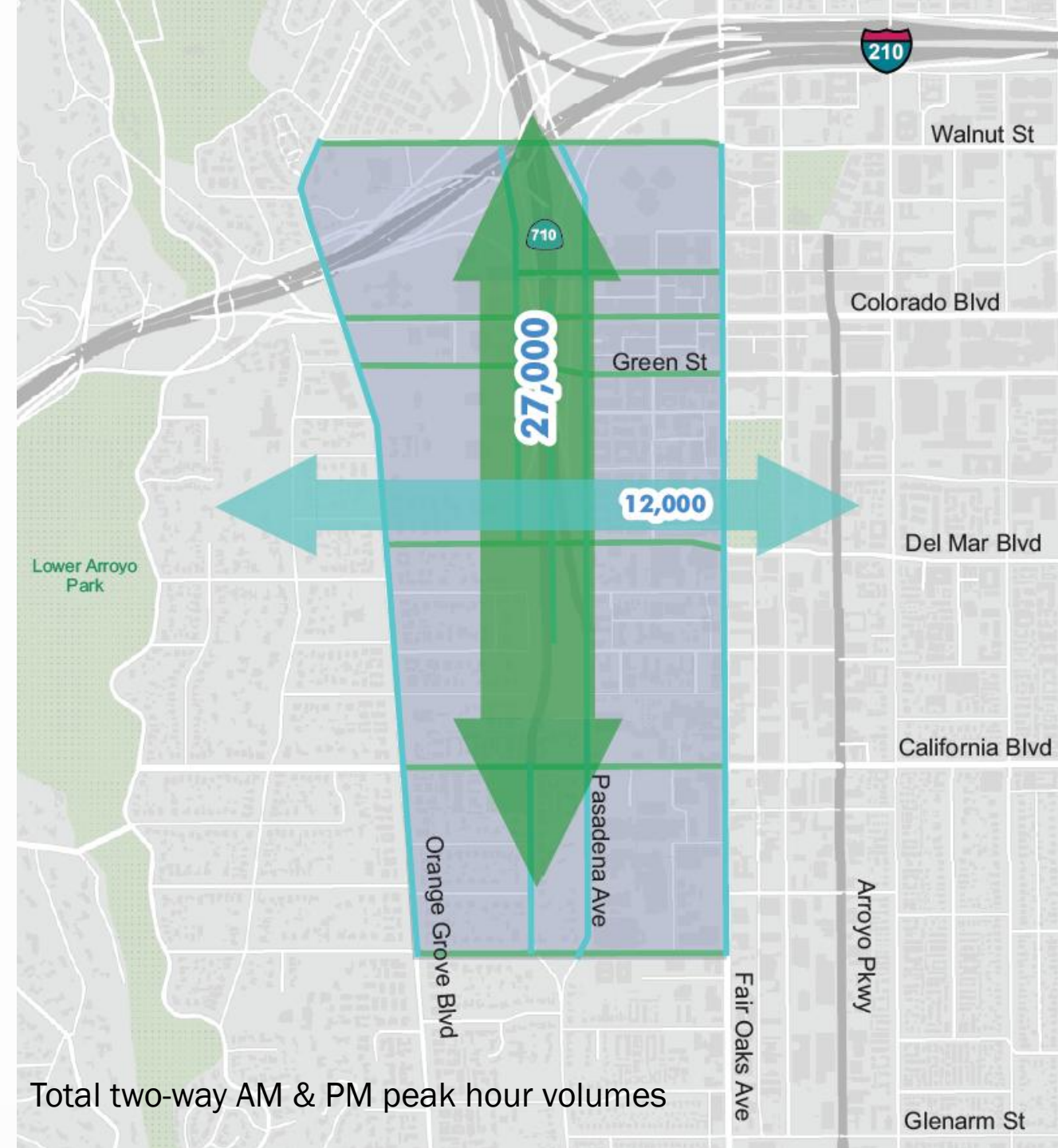
Understanding the Dynamics of the Interchange Movements



- Dominance of the I-210 to I-210 movements
- Through traffic

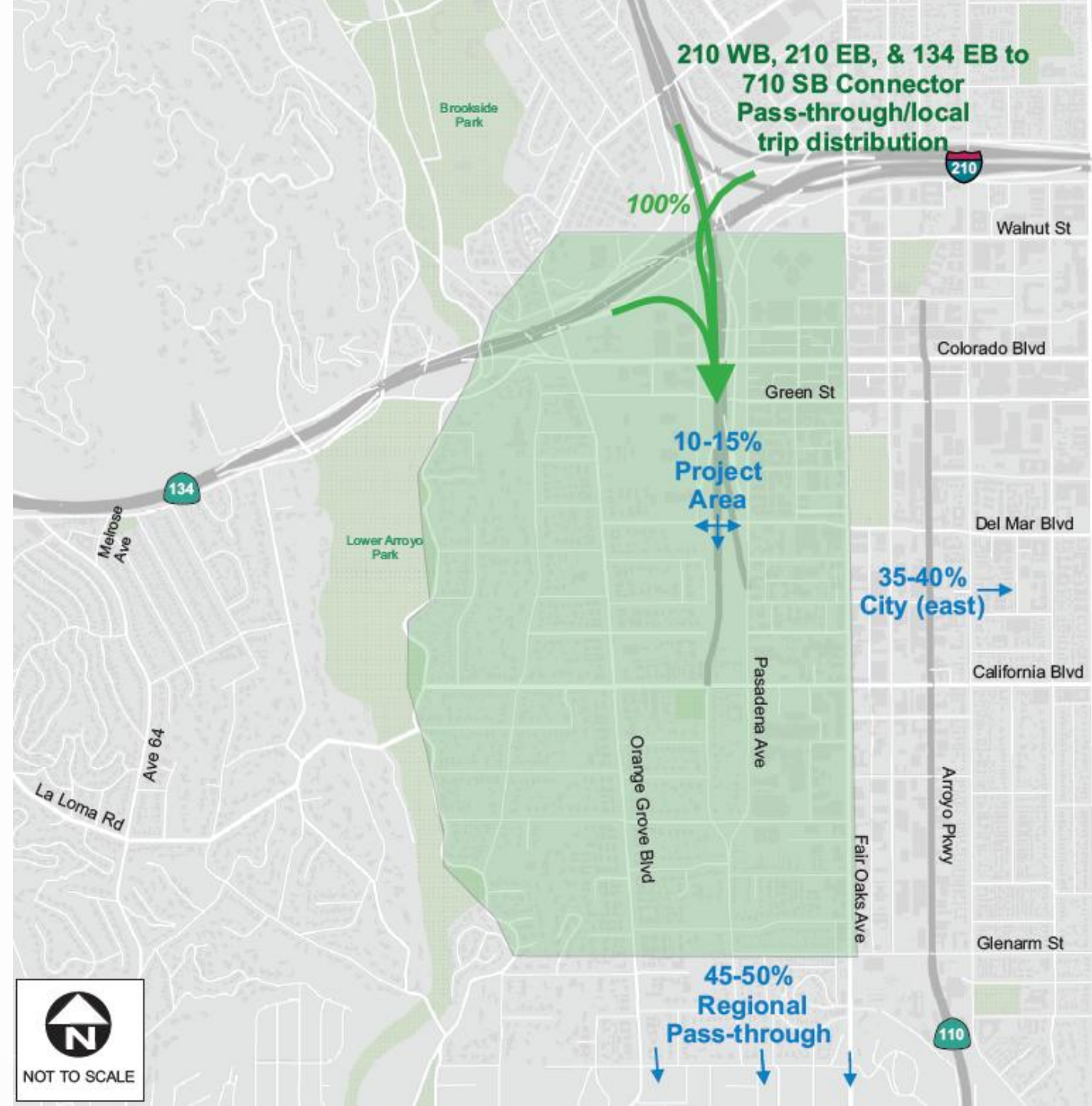
Magnitude and Scale of Peak Hour Travel Through the Area

More than twice as many vehicles travel the stub area on **5** north-south facilities than on **7** east-west roadways



Where are the cars going?

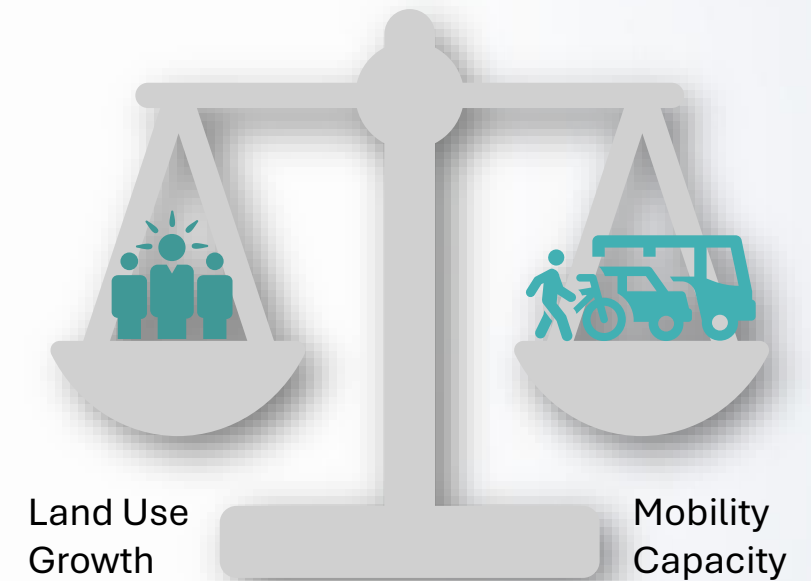
- Patterns developed over 50 years
- Origin/Destination Patterns
- 45-50% of traffic entering the stub area from three freeway-freeway connectors passes through the area



Mobility Analysis Process

- Develop future traffic projections given regional and local growth and project generated traffic using and refining the City's Travel Demand Model
- Analyze and compare model outputs including trips, peak hour traffic volumes, potential congestion and vehicle miles traveled (VMT)
- Identify how traffic could re-distribute in the region
- Apply potential trip reduction strategies
- Determine which circulation network provides optimal balance between serving the new neighborhoods, the City and regional traffic

Goal is to develop the “right-sized” **multimodal** circulation system and **local and** regional connections

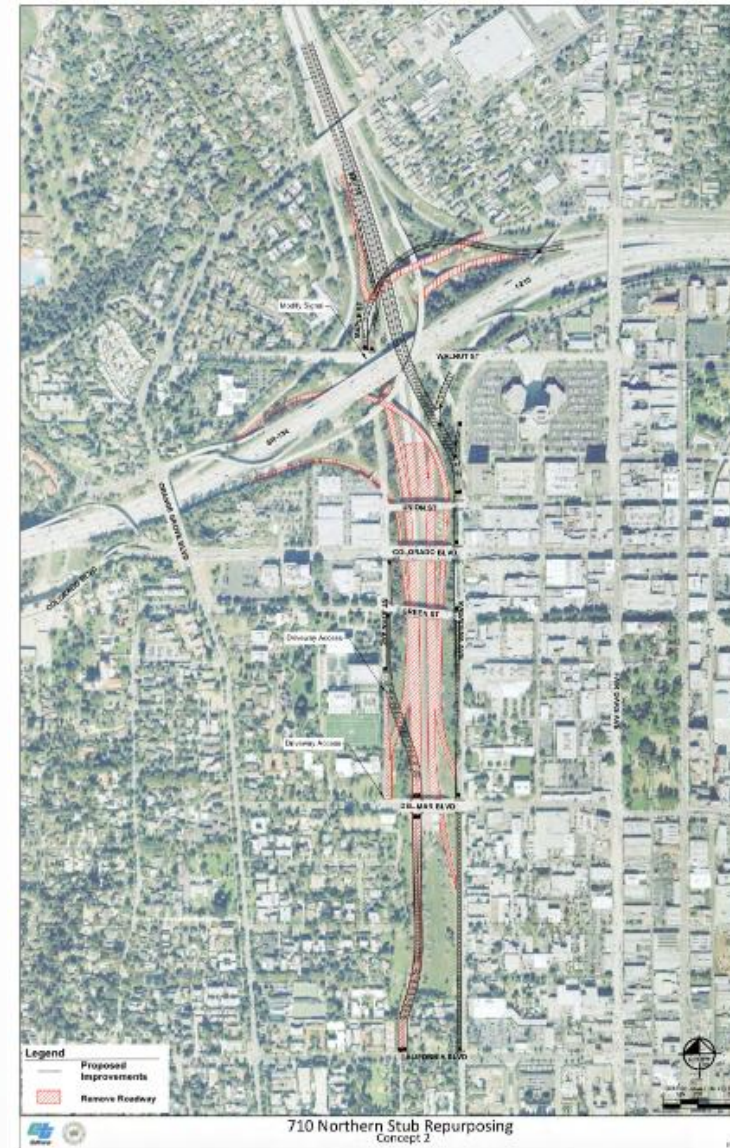


Start with Feasibility Study Concepts

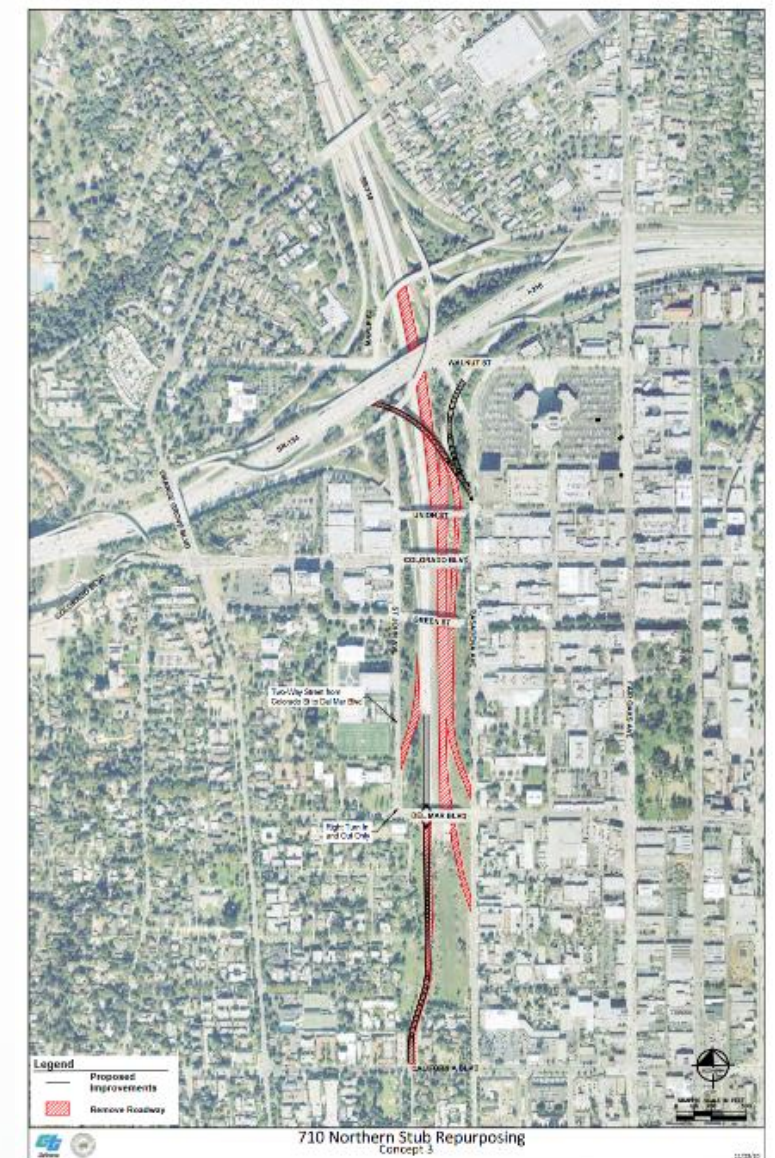
GRAPHIC C • POTENTIAL CONCEPT 1



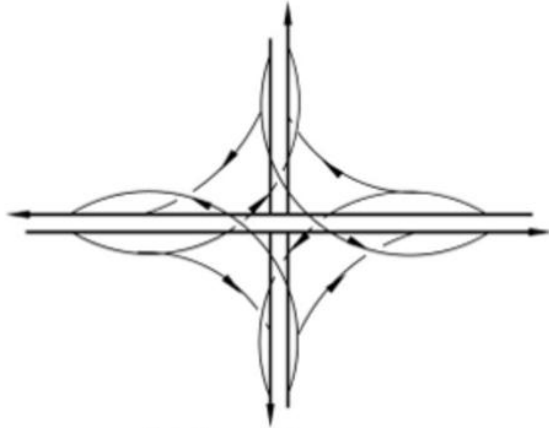
GRAPHIC D • POTENTIAL CONCEPT 2



GRAPHIC E • POTENTIAL CONCEPT 3

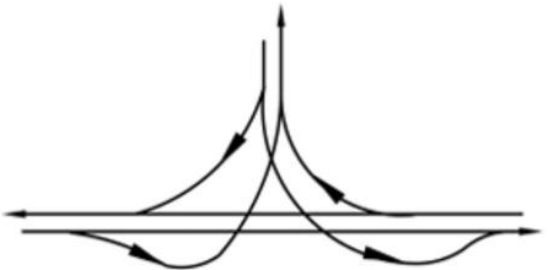


Reconfiguring the Full Interchange



Existing 4-leg
Type F-1 Interchange

Will be converted to:



Future 3-leg
Type F-5 Interchange

- System connector ramps and sequence
- Need for changes to other local street service interchanges
- Need for additional Connections to surface streets
- Speed reduction, safety strategies
- Ramp terminal control types (e.g. signals, stop signs, roundabouts, etc.)
- Freeway Signage for “End Freeway” warning
- Modifications to current overhead signs

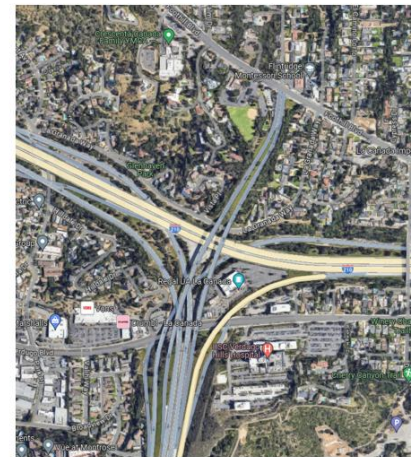


I-605 north terminus at I-210



Characteristics:

- I-605 Freeway terminates at local intersection
- Other legs have high speed and connector ramps
- Mainline center exit ramp



SR-2 north terminus at I-210



Characteristics:

- SR-2 Freeway terminates at local intersection
- Other legs have local interchanges
- Includes a half-diamond
- Mainline center exit ramp and right-side exit

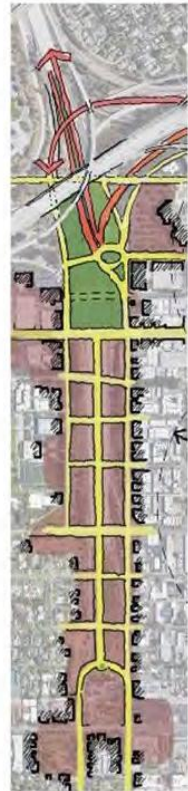
Initial Blue Sky Network Ideas



1.
Urban Blvd



2.
Paseos



3.
Gateway Park



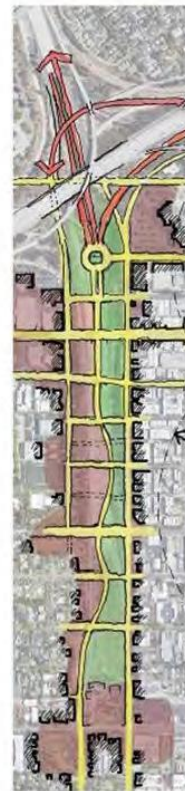
4.
Wedge Park



5.
City Plaza



6.
Garden Squares



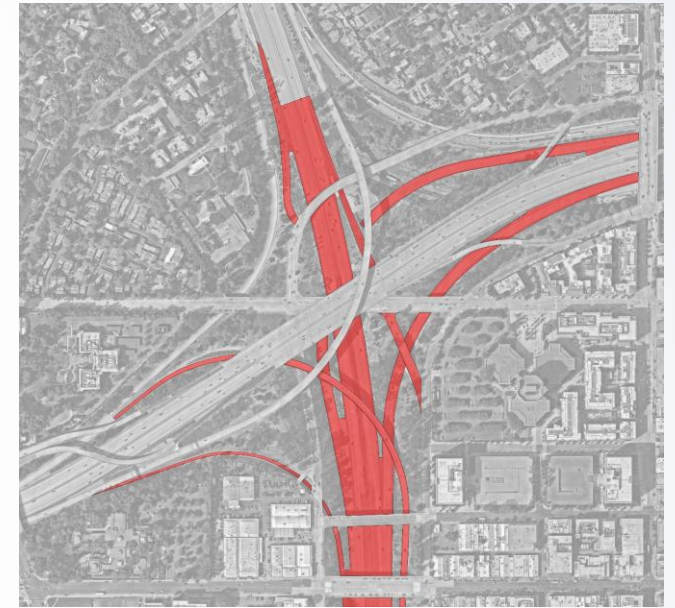
7.
Linear Park



8.
Celebration Sq.

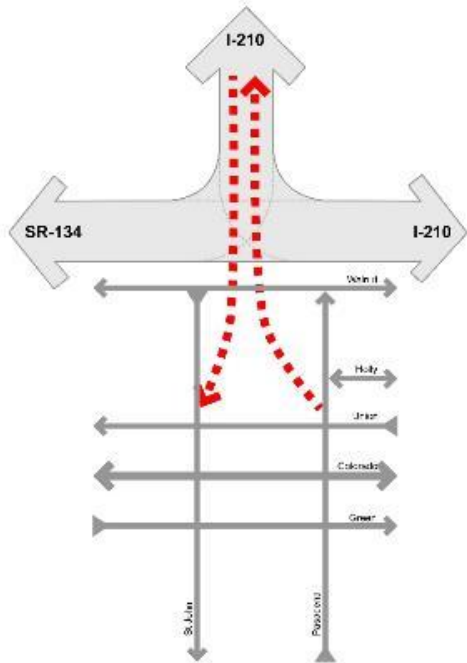
Multiple Tests of Circulation Scenarios

- **Over 20** different permutations
- Alternative arterial network configurations (one-way vs. two-way, number of lanes, extension, addition of east-west streets)
- Alternative connections to the regional freeway system to/from I-210/SR-134 (no connections, full intersection, roundabout, selected ramps, etc.)
 - Traffic safety as we terminate the freeway
 - Options to connect into the interchange north of Walnut, at Holly, at Union, at street or lower level
- Number of east-west crossings
- Number of lanes and preliminary dimensions of local streets, how to design to accommodate capacity and vision
- Refinements to land use assumptions per outcomes from public meetings to test trip reduction strategies

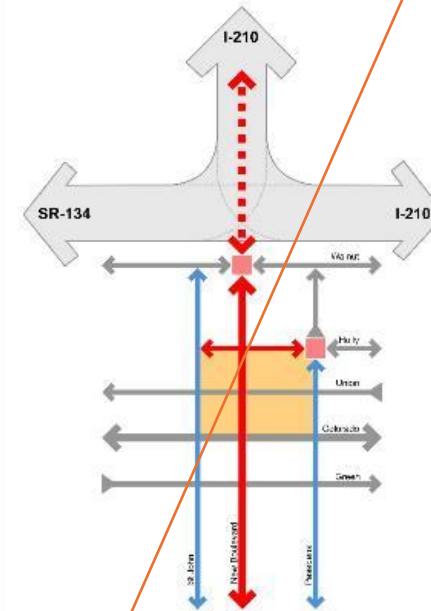
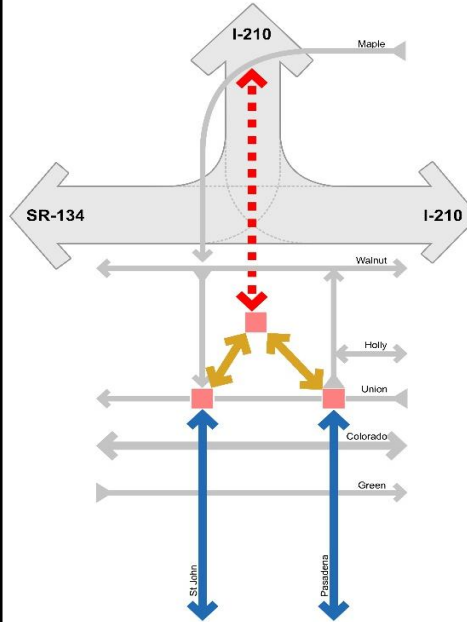


Tested Circulation Scenarios

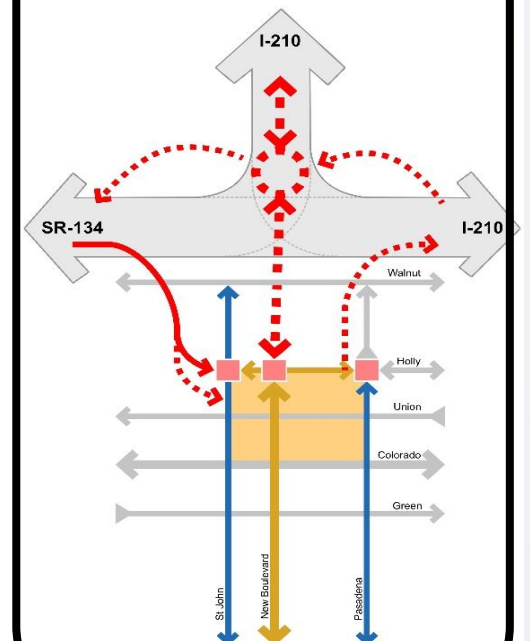
BASELINE / RELINQUISHMENT



GARDENS & TERRACES



BOULEVARD AND PASEOS



Scenarios tested on how to unlink the area from the freeway. Scenarios build from feasibility study and discussion with Caltrans Working Group and City

-  Existing Infrastructure
-  New Regional Infrastructure
-  New Local Infrastructure
-  Improved Local Infrastructure

Land Use Planning

Boulevard and Paseos

Land Use Assumptions:

- 1.9 million square feet Residential
- 1.3 million square feet Commercial

Gardens and Terraces

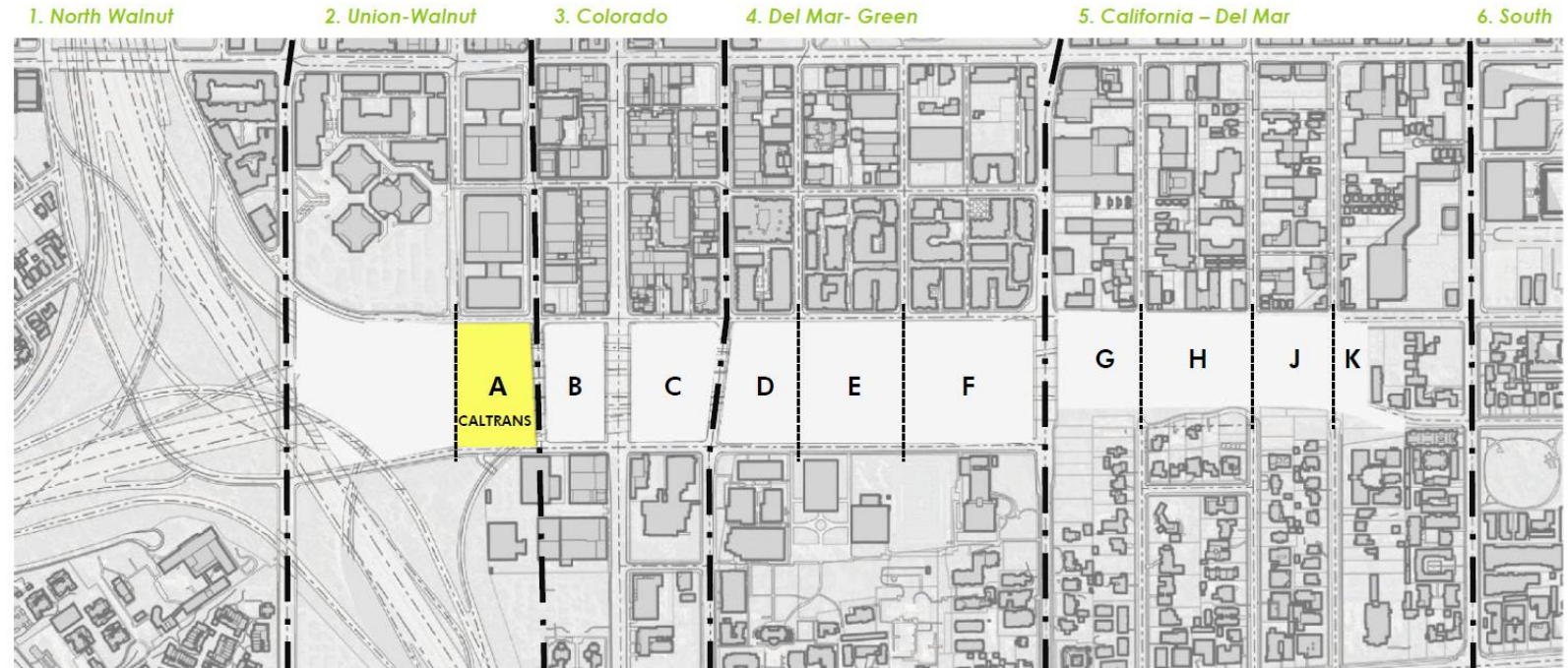
Land Use Assumptions:

- 2.1 million square feet Residential
- 1.4 million Square feet Commercial

Residential Units:

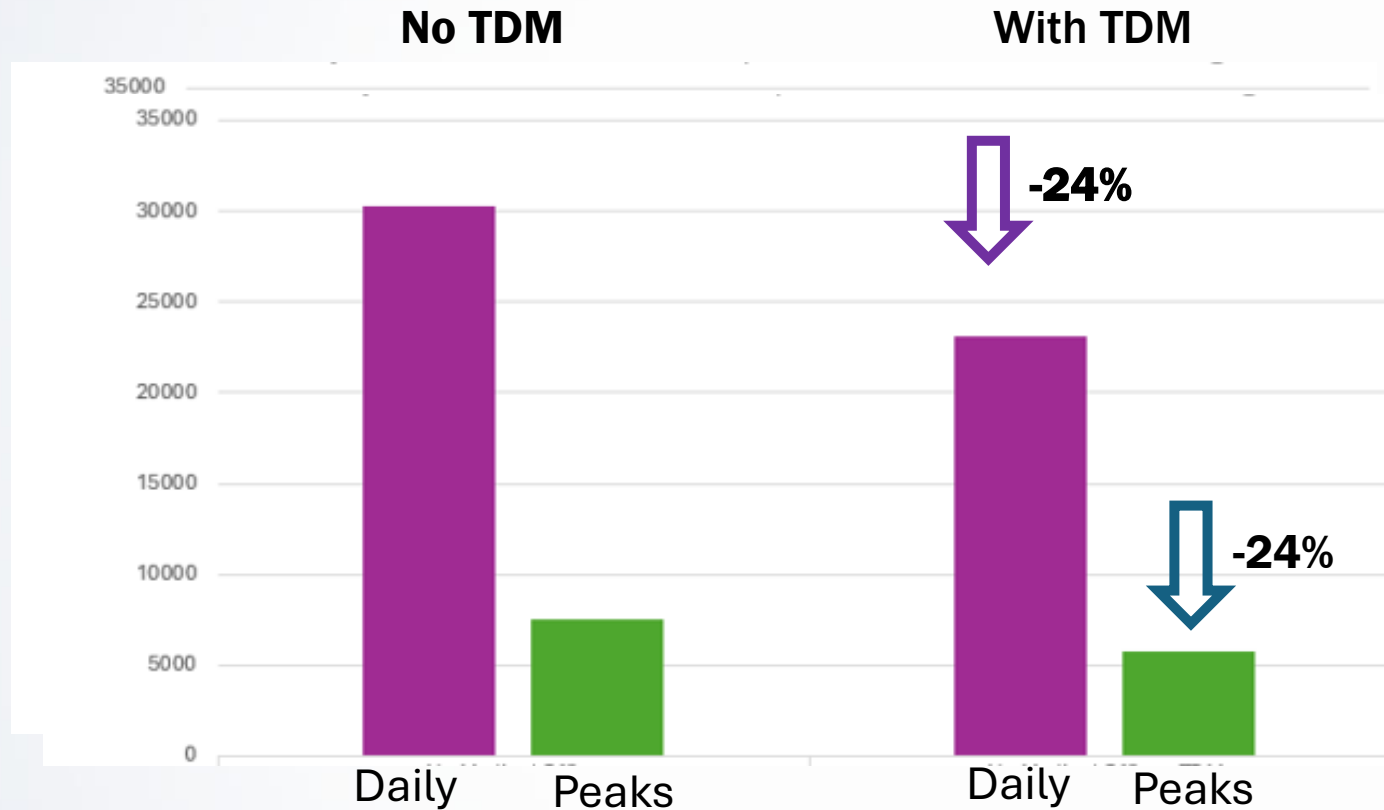
1,600 – 1,900

Zones



RECONNECTING
PASADENA

Estimated Project Trips from the Proposed Land Uses



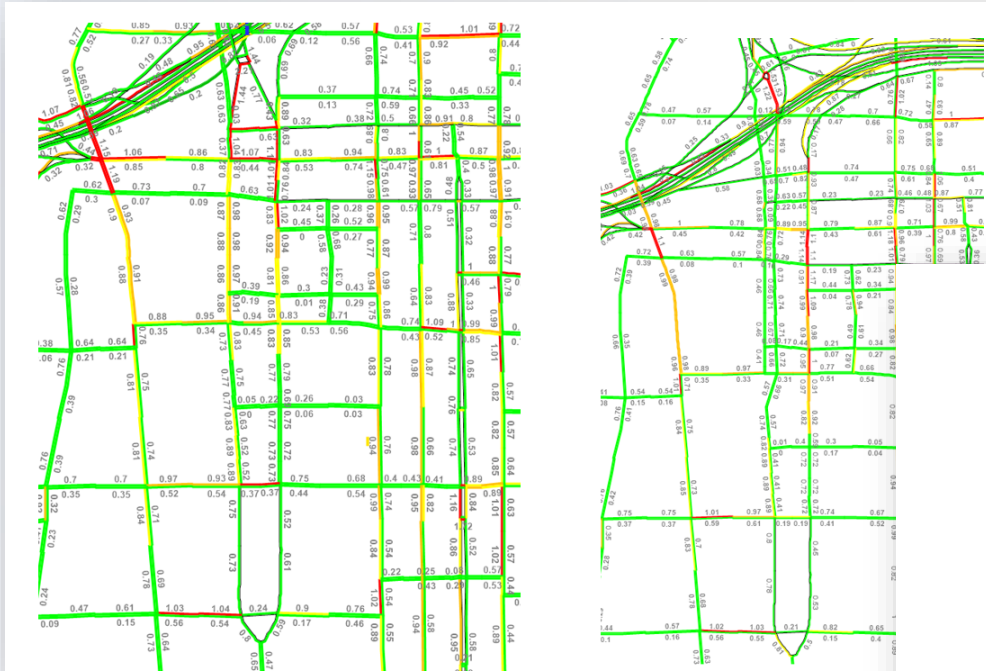
Daily and AM/PM Peak hour Project Trip Generation
Relinquishment area and TDM impacts

- Daily Total Trips = 30,300
- With TDM = 23,100 (-24%)
- AM+PM Peak Hour = 7,500
- With TDM = 5,700 (-24%)

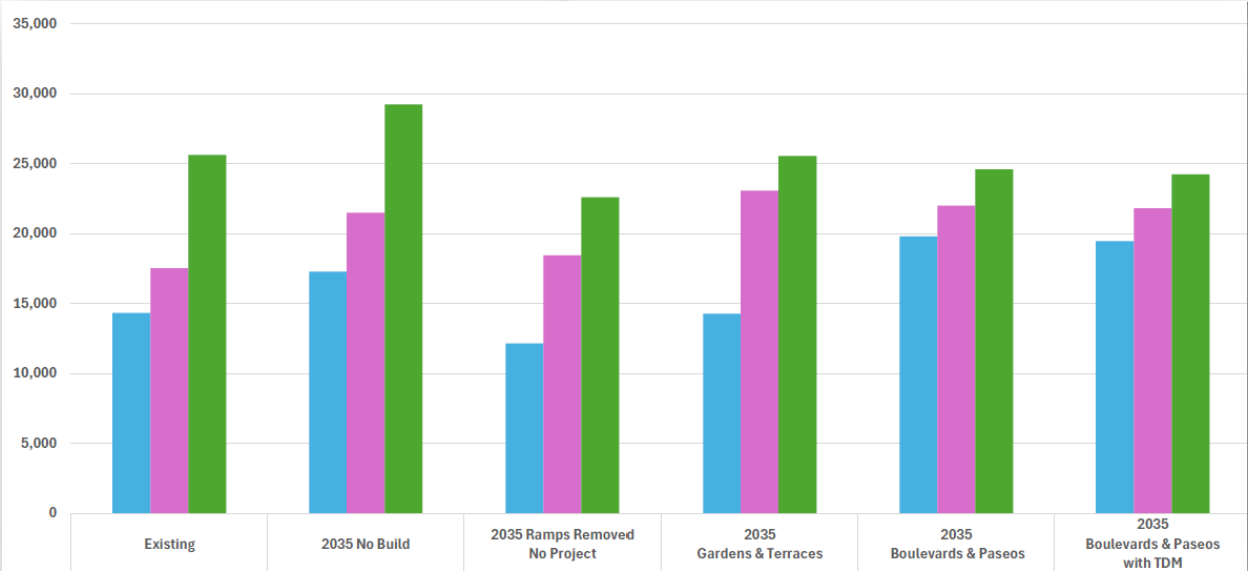
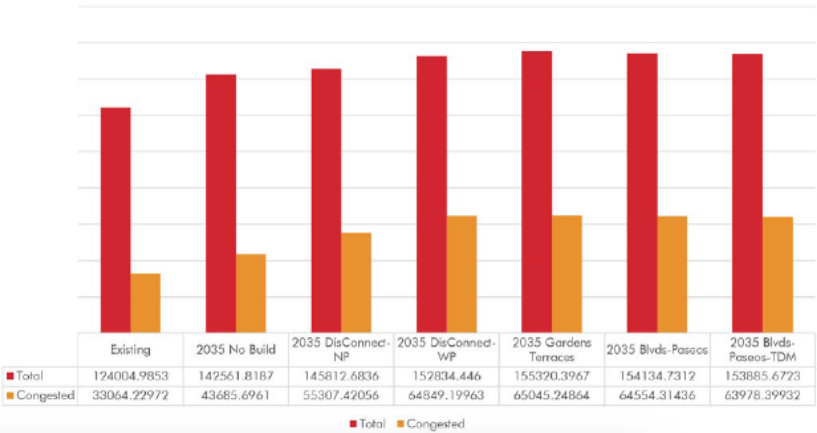
Adopting California Air Pollution Control Officers Association (CAPCOA) handbook measures to proactively implement Transportation Demand Management (TDM) measures

Traffic Analysis Tools

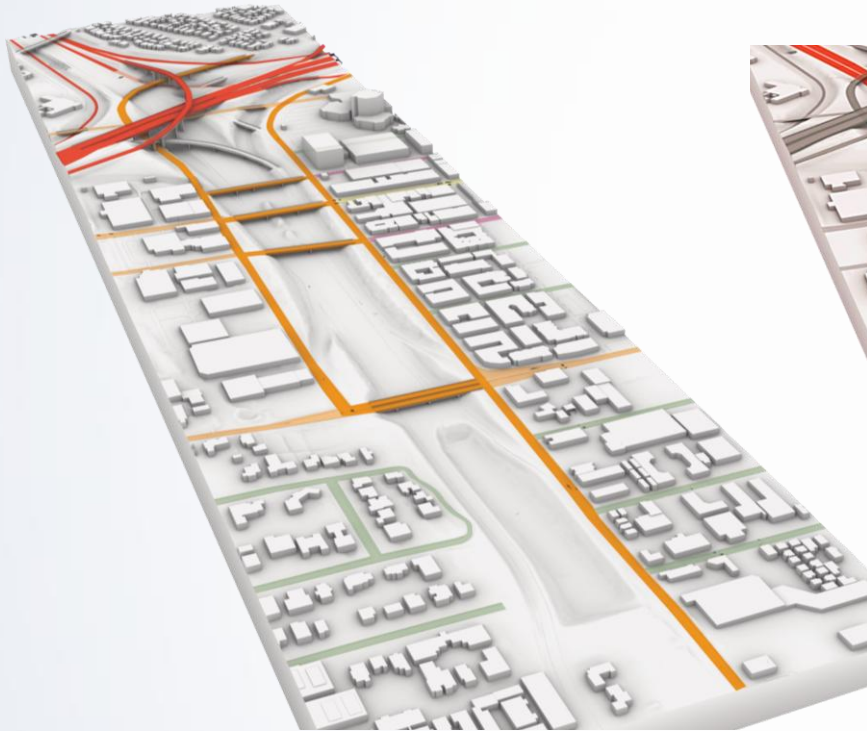
PM Peak
Hour V/C



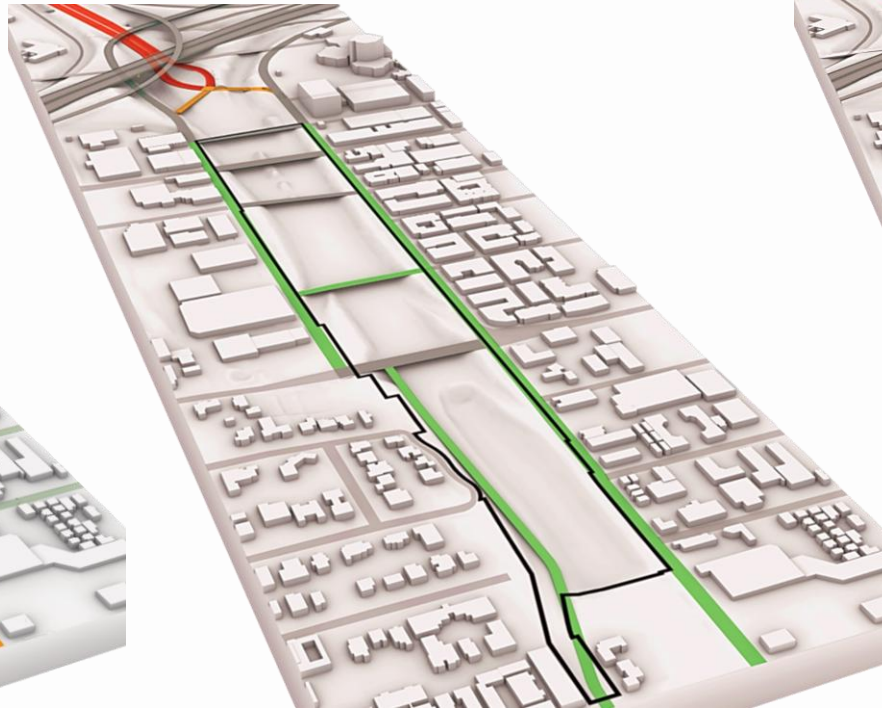
Arterial Roadways AM+PM Peak Hour VMT



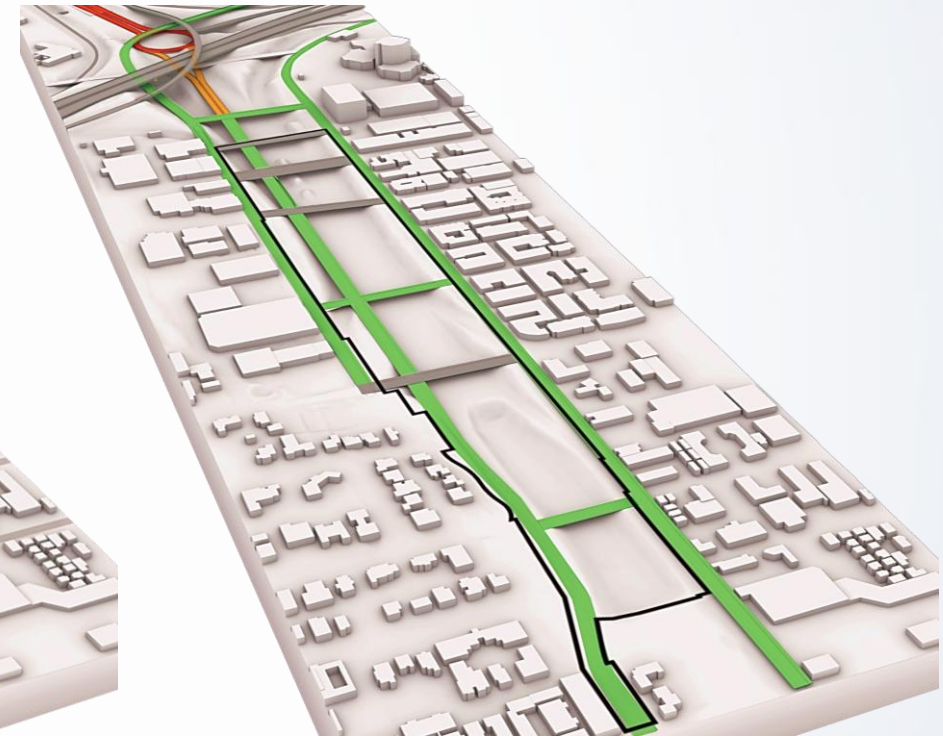
Final Circulation Alternatives



Disconnect



Gardens and
Terraces



Boulevards
and Paseos

The Transformation



FIGURE 4.7: ONE OF THE OPTIONS FOR A STREET NETWORK AND STREET CLASSIFICATIONS, SHOWING A SHIFT TOWARDS MORE LOCAL CONNECTIONS. THIS FIGURE SHOWS THE "BOULEVARD AND PASEOS" CIRCULATION NETWORK FOR PURPOSES OF ILLUSTRATION. THE DIAGRAM REMOVES THE REGIONAL LINKS AND REPLACES THEM WITH THREE SURFACE LEVEL STREETS (SHOWN IN GREEN).

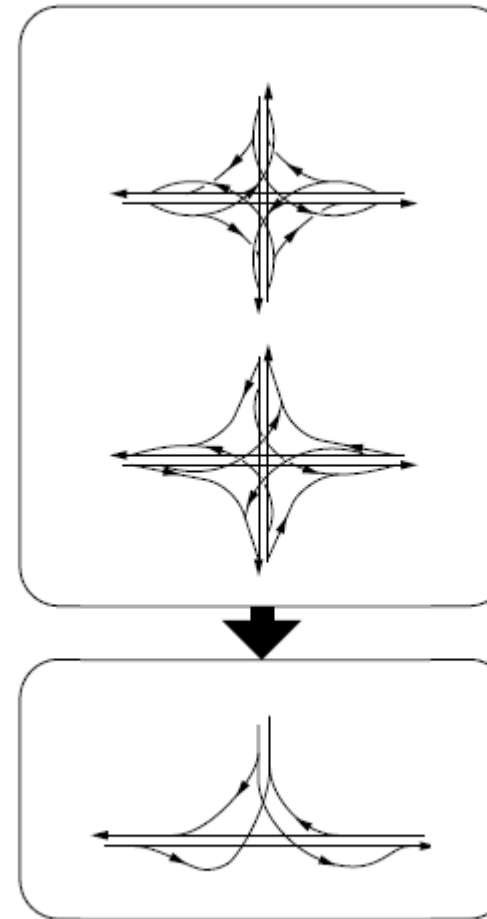
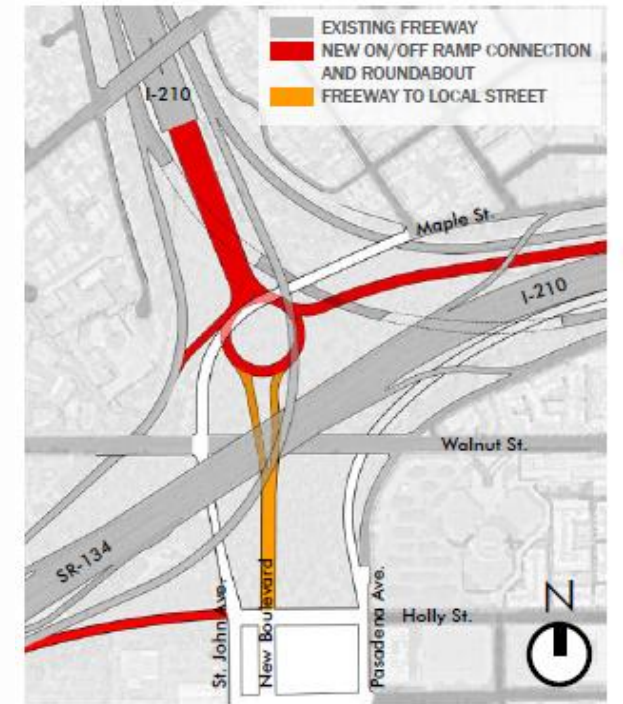


FIGURE 4.1: TYPE F-1 INTERCHANGE, TRANSFORMING TO A VARIATION OF THE TYPE F-5 INTERCHANGE IN THE FUTURE WITH A NEW TERMINATION.



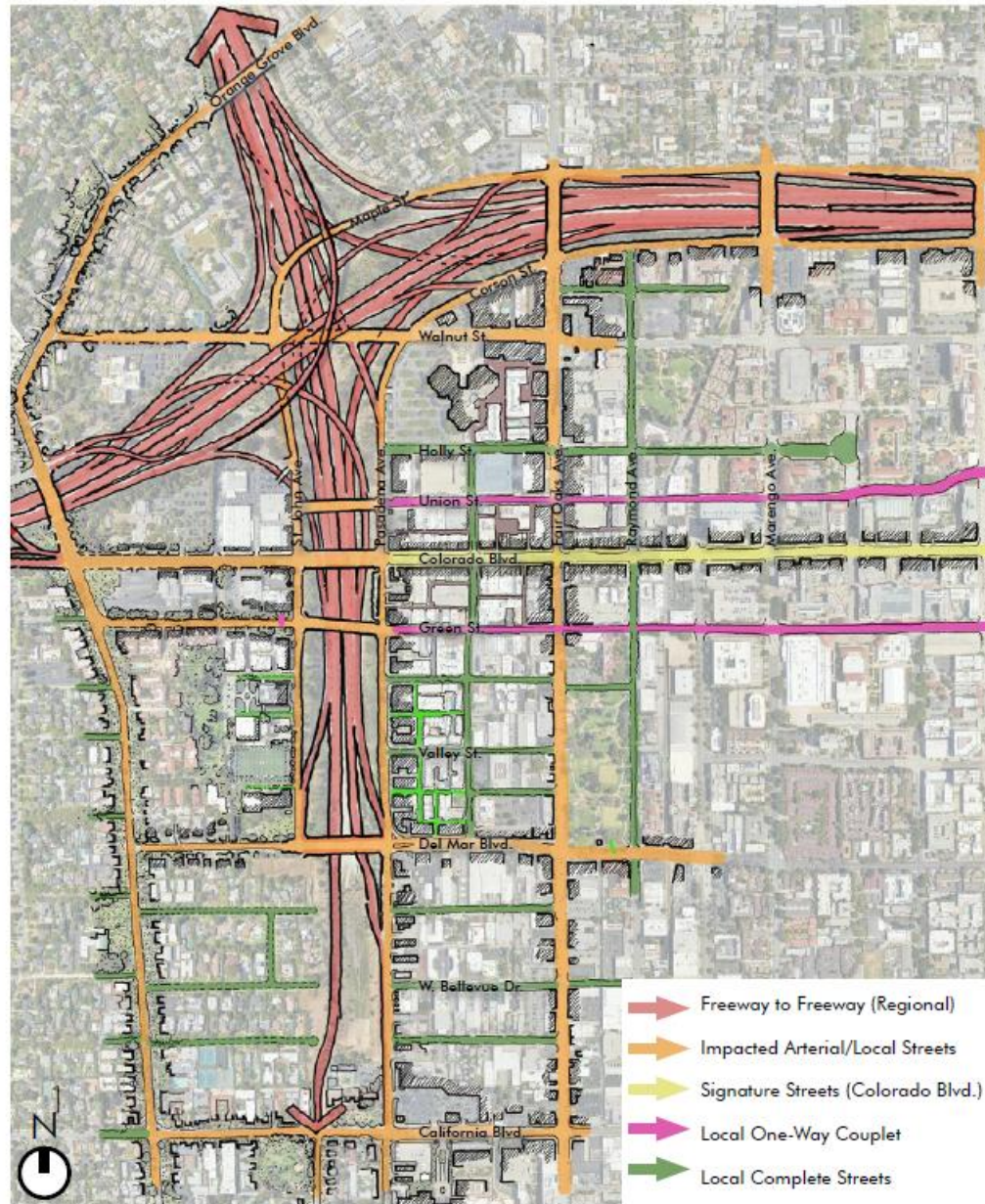


FIGURE 4.2: CURRENT STREET NETWORK AND STREET CLASSIFICATIONS

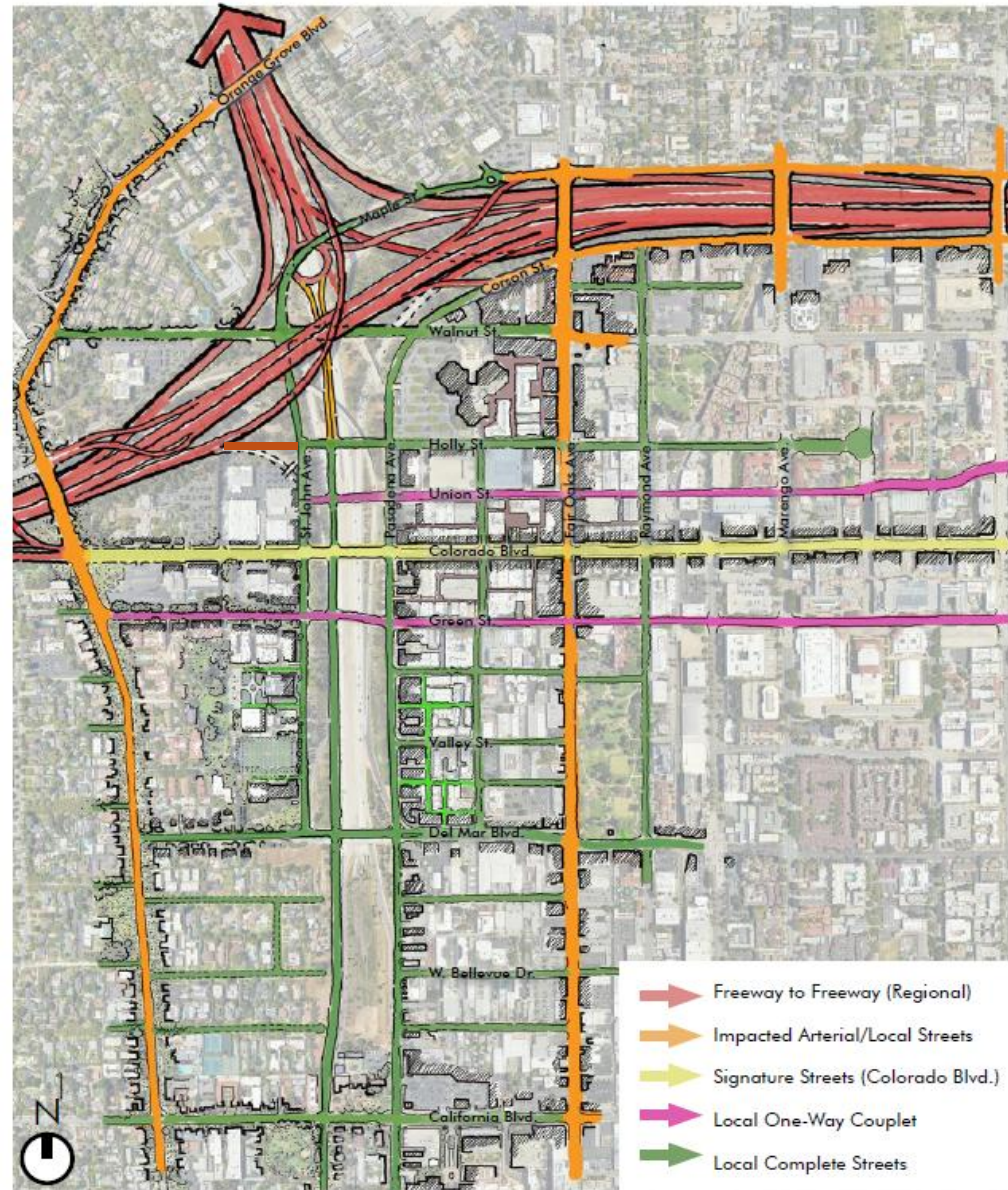


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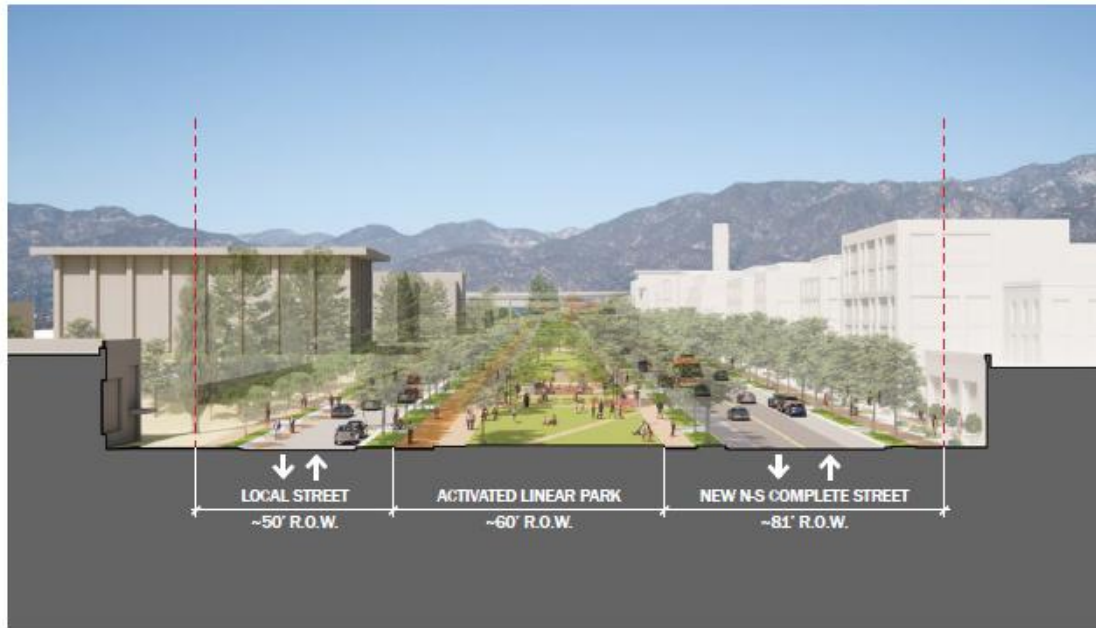
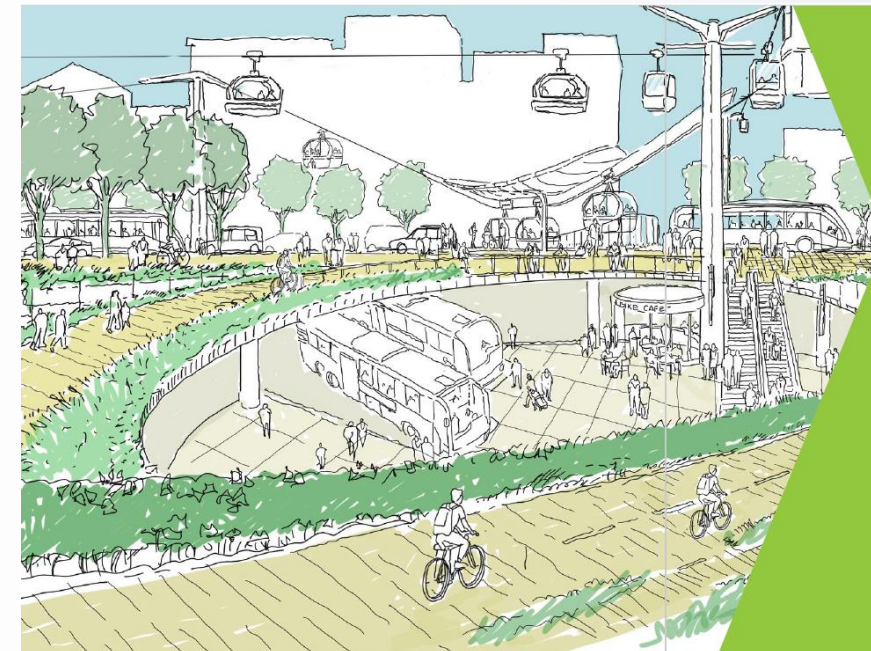
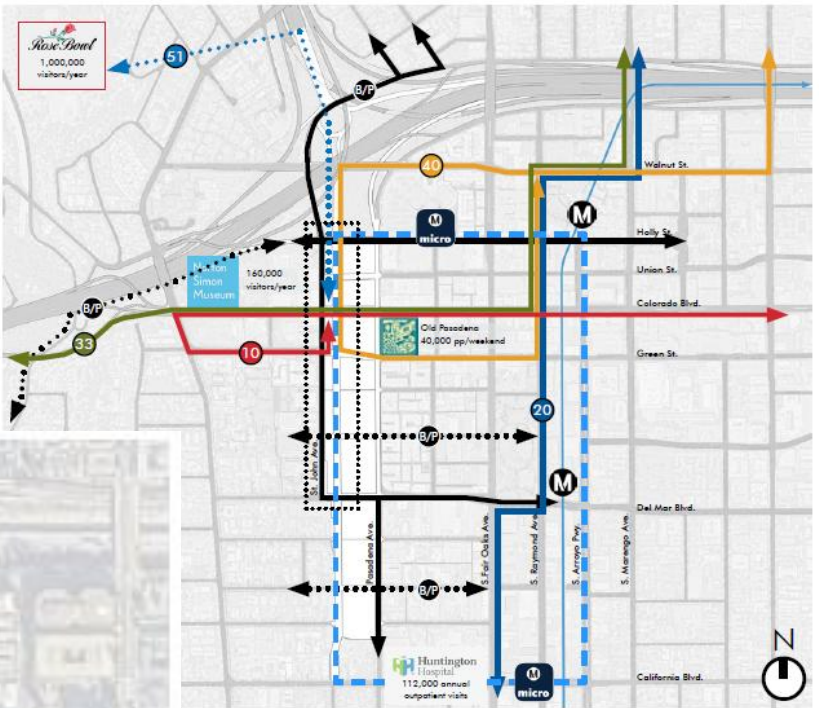
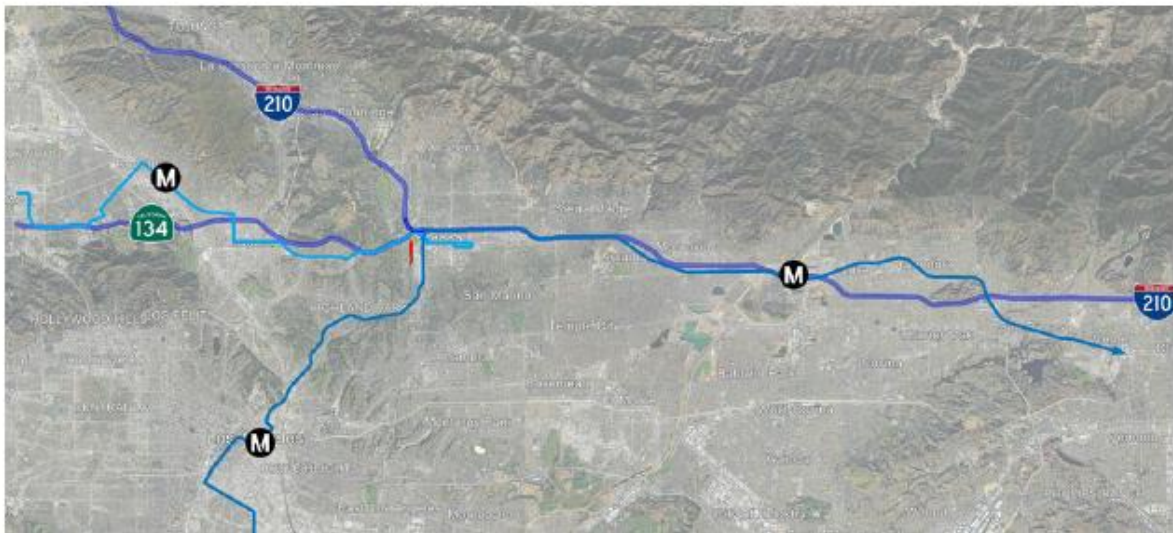


FIGURE 4.18: A NEW CENTRAL BOULEVARD COULD ENABLE ST. JOHN AVE. TO ACT AS A LOCAL STREET. THIS SECTION SHOWS A LINEAR PARK, AND ADDS A NEW SURFACE LEVEL NORTH-SOUTH COMPLETE STREET.



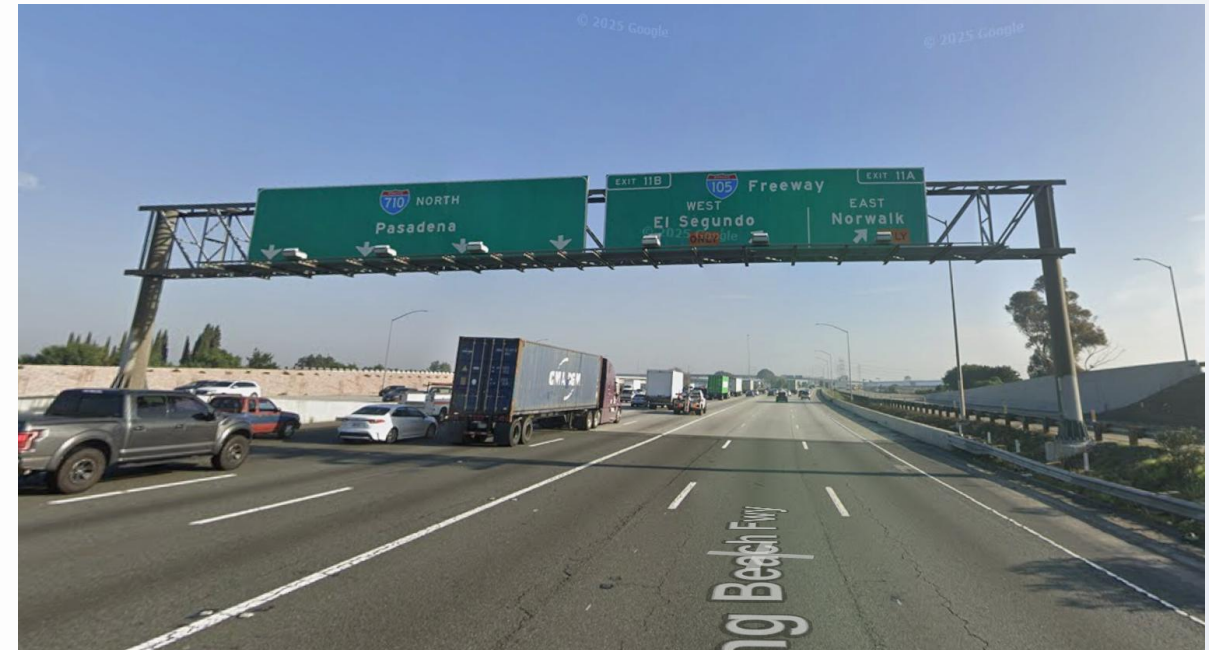
Transit and Regional Connectivity



Mobility Hub!

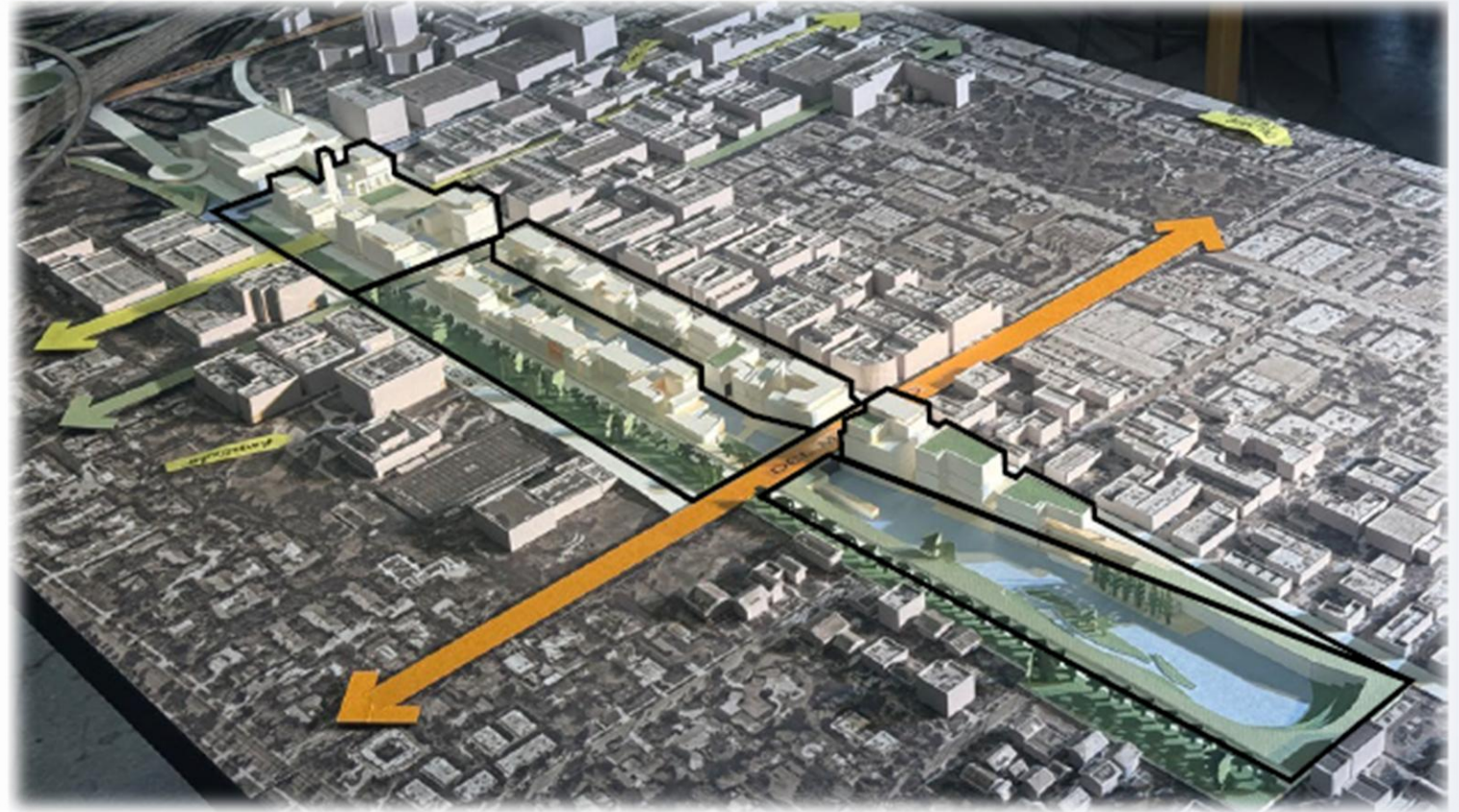
Next Steps for Regional Traffic Management and Caltrans Interface

- Re-evaluate connections to/from SR-134 & I-210
- Solutions for deceleration and safety at terminus
- Rethink directional signage to reduce through traffic
- Partner with Caltrans for early termination options north of Union St



Overall Next Steps

- Restorative Justice
- Physical Reconnection
Mobility and Circulation
- Land Use Programs
and Affordability
- Sustainability
Objectives
- Funding and Finance



Thank you!

Viggen Davidian, PE

Iteris, Inc.

Almaviva Group

vjd@iteris.com

TABLE 7.1 ROADWAY ONLY INFRASTRUCTURE COST ESTIMATES			
COST ESTIMATES	GARDEN AND TERRACES	BOULEVARD AND PASEOS	
	<i>Maintains/adapts majority of east-to-west bridges</i>	<i>Rebuilds East-to-West Street on Fill</i>	<i>Rebuilds East-to-West Streets Slab on Deck</i>
Low Range	\$127 million	\$235 million	\$339 million
Estimated Probable Cost	\$132 million	\$247 million	\$355 million
High Range	\$147 million	\$272 million	\$392 million

TABLE 7.2 PROPERTY TAX PROCEEDS				
	GARDEN AND TERRACES		BOULEVARD AND PASEOS	
	75% Residential	60% Residential	75% Residential	60% Residential
Land Use Mix Assumptions				
100-Year Property Tax Proceeds	\$12.1 billion	\$11.4 billion	\$11.0 billion	\$10.3 billion
Estimated City Share (20%)	\$2.4 billion	\$2.3 billion	\$2.2 billion	\$2.1 billion

SOURCE: AECOM