CALIFORNIA
High-Speed Rail Authority

WELCOME
TO THE

CALIFORNIA
High-Speed Rail Authority

California High-Speed Train
Fresno to Bakersfield Project Section

PUBLIC INFORMATION MEETING

May 2011

High-Speed Train in the Central Valley

Fresno to Bakersfield Section

- 113 miles from Fresno to Bakersfield; part of 800-mile statewide system.
- Fresno to Bakersfield section selected as part of the first phase of construction, creating the backbone of the system.

Station Locations

- Stations in Fresno, Bakersfield, and proposed in the Hanford area, serving the Kings and Tulare region.

Local Benefits

- Travel time from Fresno to Los Angeles: 1hr 24 min; or Bakersfield to San Francisco: 1hr 50 min.
- Potential to create approximately 20,000 construction jobs in the Central Valley for every $1 billion invested.
- Reduced freeway traffic.
- Improved air quality.

Purpose and Need

Purpose of the High-Speed Train Project

- Provide a new mode of high-speed intercity travel that would link the Central Valley, the Bay Area and Southern California
- Interface with international airports, mass transit, and highways
- Provide added capacity to meet increases in intercity travel demand in California in a manner sensitive to and protective of California's unique natural resources

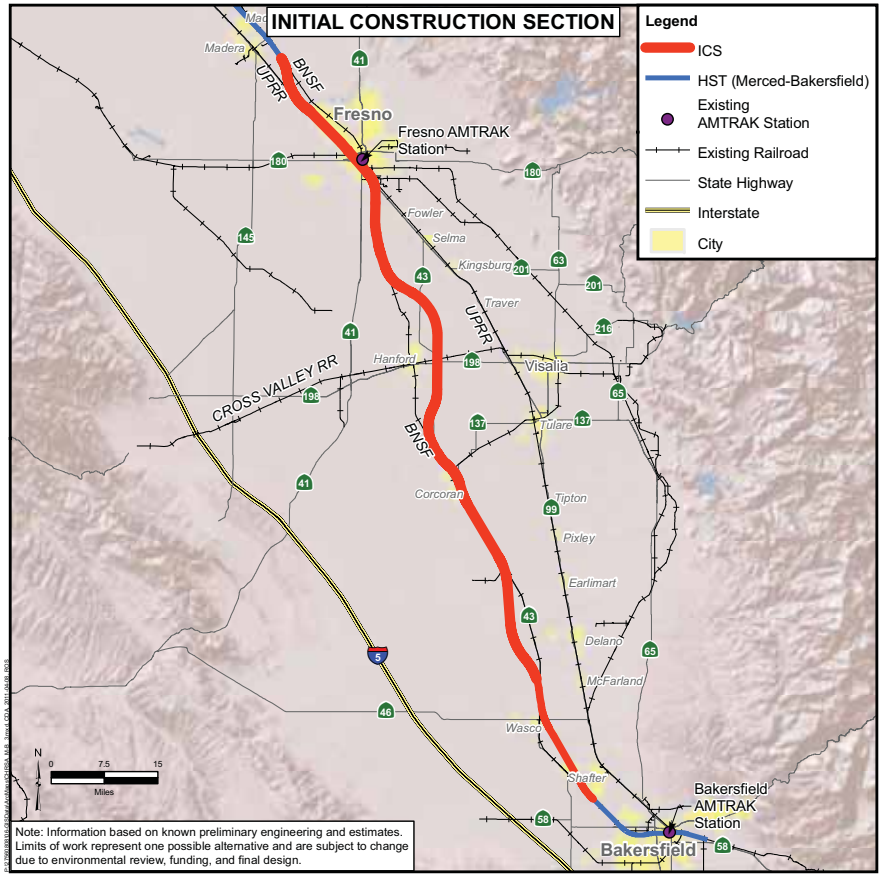
Current and Projected Need

- Expected growth in population
- Increases in intercity travel demand
- Increases in travel delays arising from the growing congestion on California's highways and airports
- Intercity highway system, commercial airports, and conventional passenger rail serving the intercity market at or near capacity
- Negative effects from highway and airport congestion on the economy, quality of life, and air quality in the San Joaquin Valley

Initial Construction

Initial construction will begin in the Central Valley, the backbone of the system:

- Construction starting in second half of 2012, investing $6.33 billion into the economy.
- 140 miles from north of Fresno, near Madera, to Bakersfield – a choice that:
  - Meets state and federal requirements.
  - Provides the greatest flexibility to build both north and south as funding becomes available.
  - Constitutes the backbone of a system that will reach across the whole state.



Statewide High-Speed Train Overview

Map based on 2005 Programmatic EIR/S preferred route, as modified by information from preliminary engineering and estimates for alignments currently under study or in development. Limits of the work represent discrete possible alternatives and are subject to change due to environmental review, funding and final design.

Current Public Funding Summary

FUNDING SOURCE	AWARD	STATE MATCH	TOTAL
American Recovery and Reinvestment Act (ARRA) *January 2010*	$1.85 billion	$1.85 billion	$3.7 billion
High-Speed Intercity Passenger Rail (HSIPR) *Federal FY 10-11, October 2010*	$715 million	$306 million	$1.02 billion
American Recovery and Reinvestment Act (ARRA) *December 2010*	$616 million	$616 million	$1.234 billion
American Recovery and Reinvestment Act (ARRA) *May 2011*	$300 million	$75 million	$375 million

ARRA - American Recovery and Reinvestment Act
HSIPR - High-Speed Intercity Passenger Rail

RECOVERY.GOV

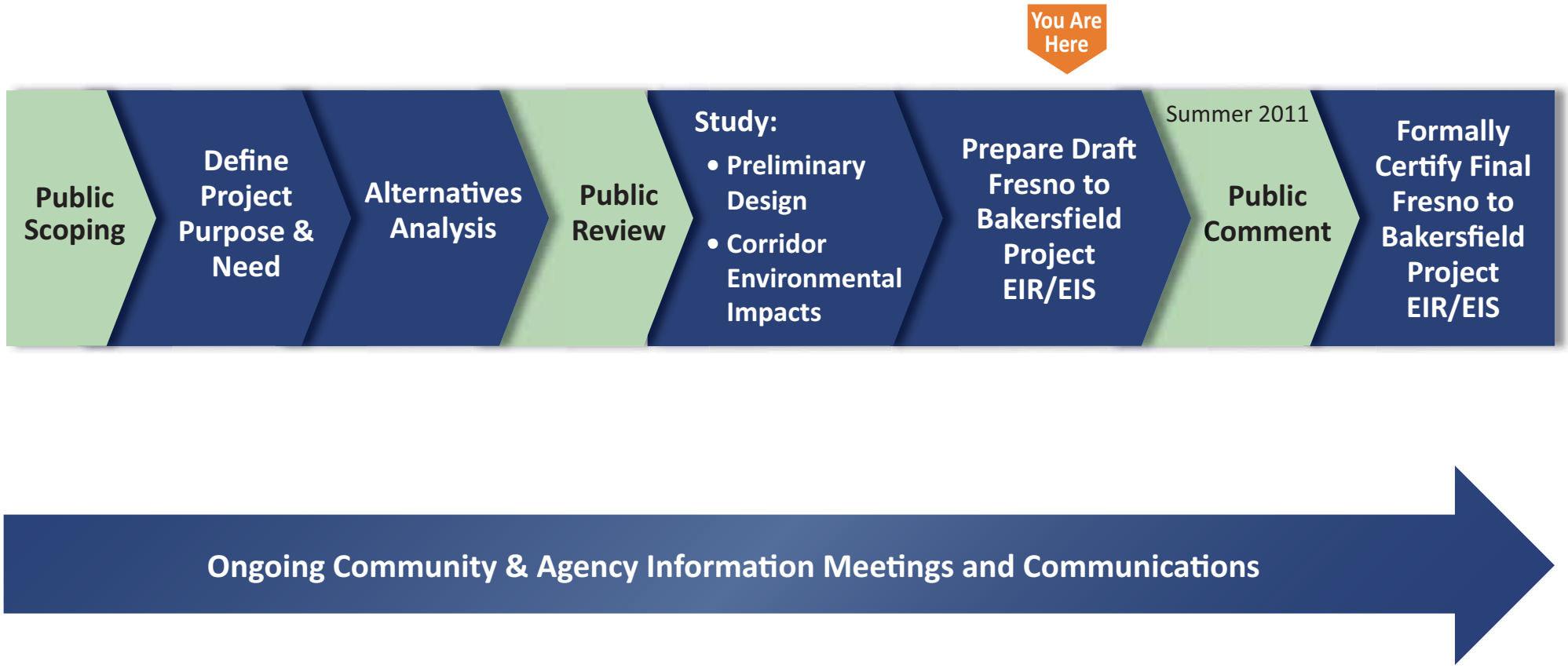
Approximately $6.33 billion is available for initial construction

The Environmental Review Process

- Statewide, Programmatic EIR/EIS – from 2005-2008
  - Defined the preferred corridors and station locations to be further analyzed in the local, project-level EIR/EIS.
  - Selected the BNSF Railway corridor for the route from Fresno to Bakersfield and the UPRR corridor through the urban area of Fresno.
- 2009 Scoping Process
  - Helped to identify the focus and content to be analyzed in the EIR/EIS.
  - Scoping is the process of early consultation with the public and agencies during the initial stages of EIR/EIS preparation.
- Alternatives Analysis and Supplemental Analysis Reports 2009-2011
  - Identified alternative alignments and station locations to be studied in the EIR/EIS.
  - Provided reasoning for which alternatives were carried forward.

The Environmental Review Process

Environmental Impact Report/Environmental Impact Statement (EIR/EIS)



The Environmental Review Process

The Environmental Review Process and planning activities associated with the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA) will:

- **Identify** all environmental impacts
- **Evaluate** reasonable alternatives that could avoid or minimize environmental impacts
- **Develop** detailed mitigation (ways to reduce or avoid environmental impacts)
- **Provide** information for public review and comment
- **Disclose** to decision makers the impacts, mitigation, and public comments

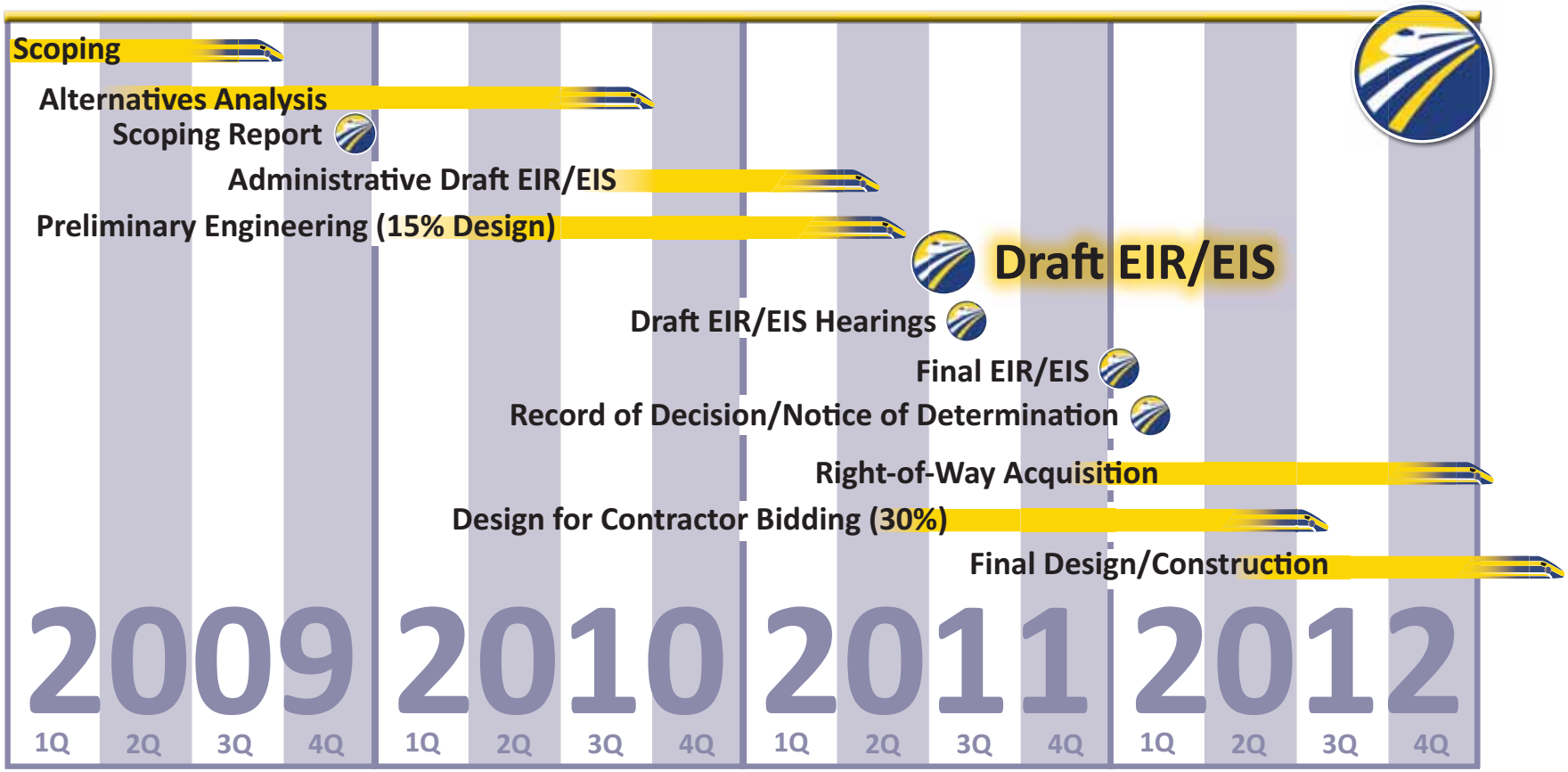
"No Project" Alternative

The "No Build" project alternative would create the need to expand existing intercity highway systems to serve the demand within these transportation corridors.

Highway Corridor	To/From	Number of Additional Lanes *(Total - Both Directions)*	Anticipated Cost of Added Lanes
SR-99	SR-152 to Fresno	2	$1,138 M
SR-99	Fresno to Tulare/Visalia	2	$1,409 M
SR-99	Tulare/Visalia to SR-58	2	$2,309 M
I-5	SR-99 to SR-14	4	$2,173 M
Total Cost			**$7,029 M**

Source: California High-Speed Train Programmatic EIR/EIS

Schedule


Scoping
Alternatives Analysis
Scoping Report
Administrative Draft EIR/EIS
Preliminary Engineering (15% Design)
Draft EIR/EIS
Draft EIR/EIS Hearings
Final EIR/EIS
Record of Decision/Notice of Determination
Right-of-Way Acquisition
Design for Contractor Bidding (30%)
Final Design/Construction
2009
2010
2011
2012
1Q 2Q 3Q 4Q 1Q 2Q 3Q 4Q 1Q 2Q 3Q 4Q 1Q 2Q 3Q 4Q

Impacts Analysis

The EIR/EIS will evaluate the effects of the proposed High-Speed Train project on both the natural (biological) and the human environment. This evaluation will address impacts to, among others:

- Transportation
- Air Quality
- Sound & Vibration*
- Public Utilities & Energy
- Biological Resources & Wetlands
- Hydrology & Water Resources
- Geology, Soils, & Seismicity
- Hazardous Materials
- Safety & Security
- Socioeconomics, Communities & Environmental Justice*
- Local Growth, Station Planning & Land Use
- Agricultural Land*
- Parks, Recreation & Open Space
- Aesthetics & Visual Quality
- Cultural Resources
- Regional Growth

** See additional boards for more information*

Agriculture and High-Speed Train (HST)

Avoidance and/or mitigation of a valuable resource

The HST alignment has been designed to:

- Minimize agricultural impacts by aligning HST features.
- Use a minimum right-of-way width.
- Minimize agricultural parcel severance.
- Maintain access to remnant parcels.

Mitigation measures to be considered:

- Provide crossings, where necessary, for farm equipment.
- Work with the Department of Conservation on mitigation measures for agricultural land set-aside, with the goal of preserving/conserving agricultural land.
- Realign, restore, replace, or relocate irrigation systems (e.g. pumps, wells, pipes, ditches, canals, etc.).

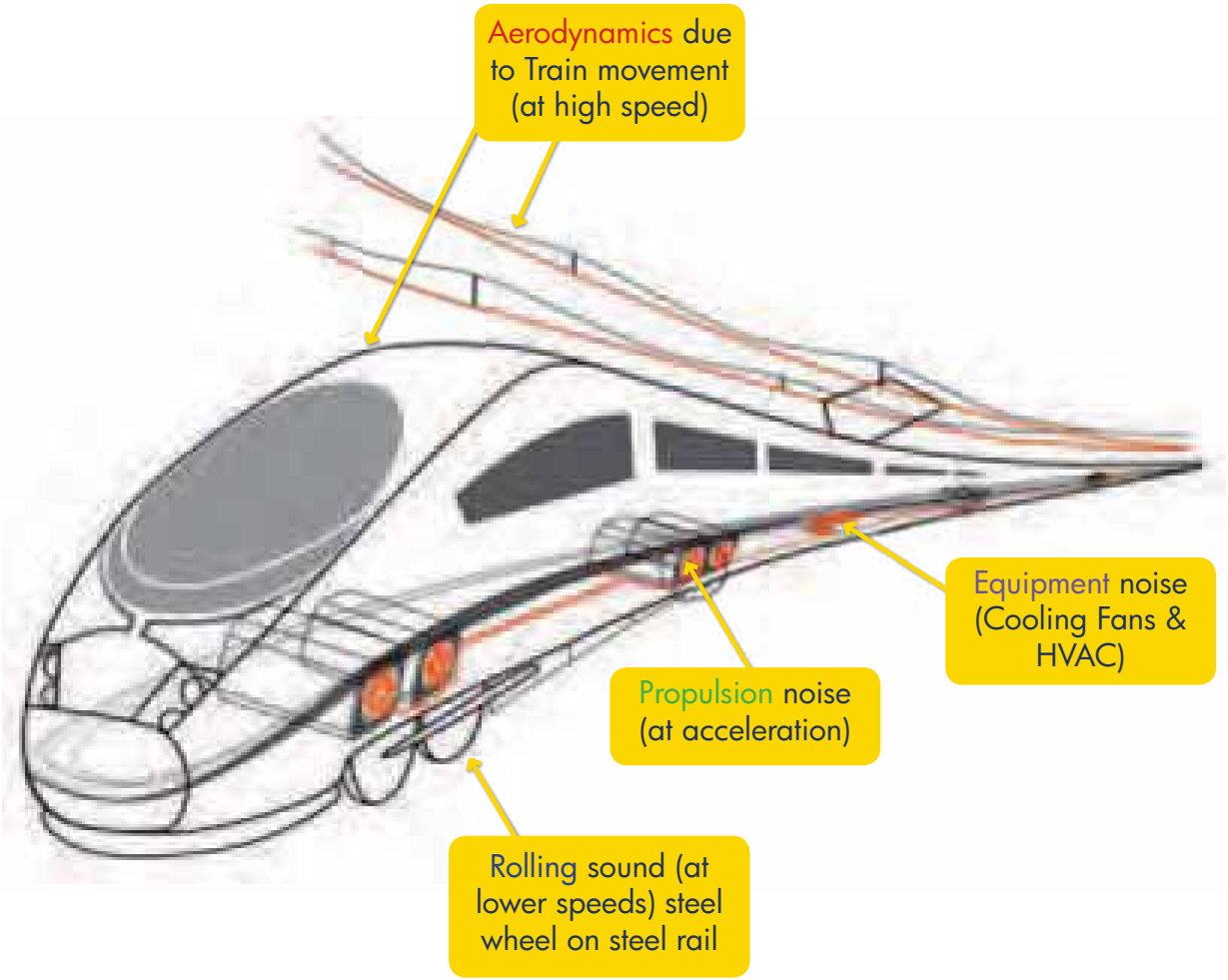
High-Speed Trains Create Four Kinds of Sound

Rolling - sound from the wheels as trains move along the tracks.

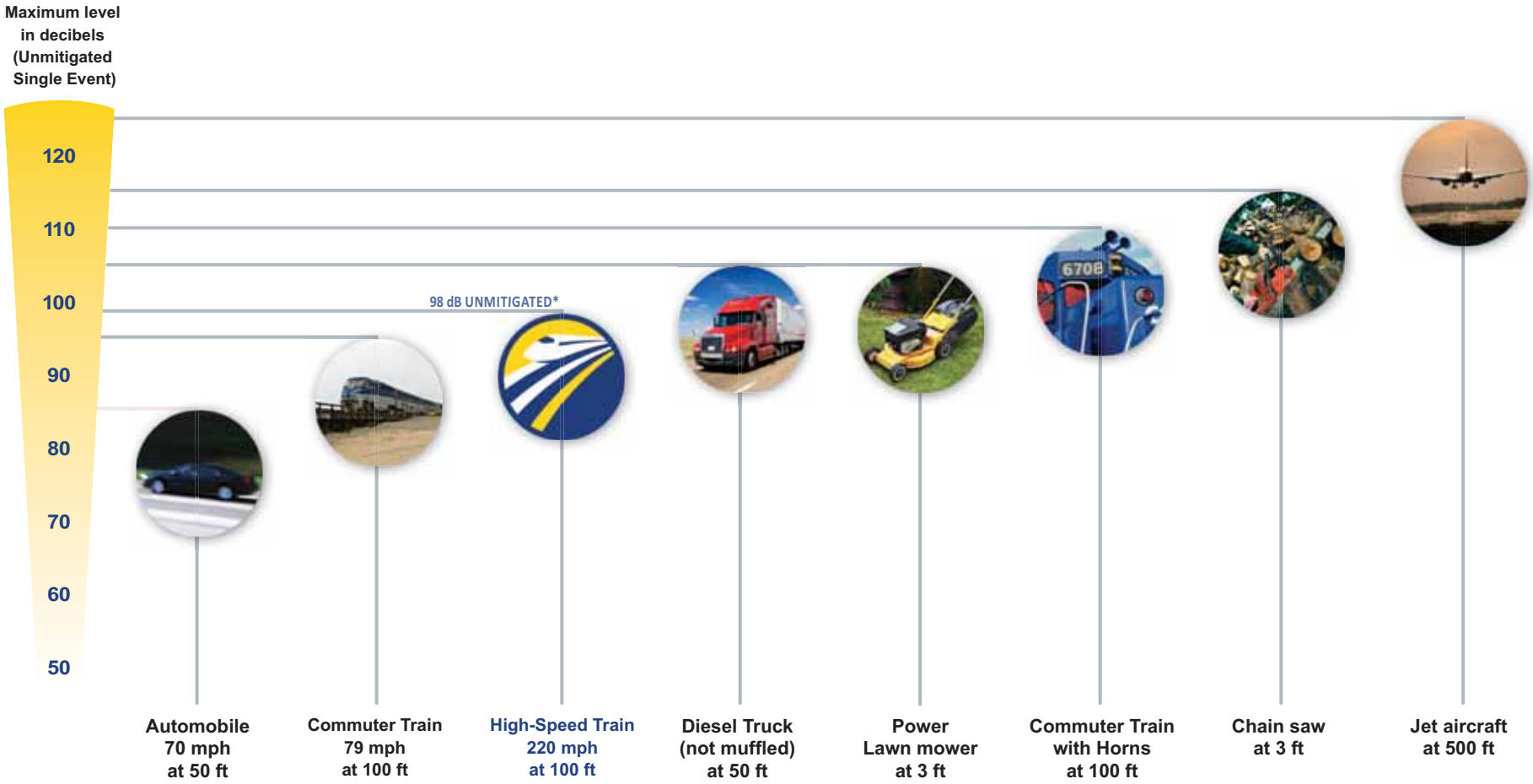
Propulsion - sound from motors and gears that make the train move.

Equipment - sound from cooling fans and air conditioners.

Aerodynamics - sound from the flow of air moving past the train at high speed.



How Does the Sound from High-Speed Trains Measure Up?



* FRA High-Speed Ground Transportation Noise and Vibration Impact Assessment - October 2005

Commitment to Sound Mitigation

Operations

- High-speed trains **will not schedule passenger service between midnight and 5 a.m.**
- The grade-separated system **will not require blaring horns**.

Technology

- Newer high-speed trains **are quieter than earlier models** and conventional trains.
- Modern high-speed trains are electrically powered – **no noisy diesel engines**.

Noise Barriers

- Depending on the height and location relative to the tracks, noise barriers can achieve between 5 and 15 decibels of noise reduction.

Socioeconomics, Communities & Environmental Justice

The EIR/EIS will examine whether or not the project would…

- Change employment as a result of the project
- Change the economy of the Central Valley and individual communities, including impacts to:
  - Agriculture
  - Recreation
  - Other businesses (food processors, packing plants, manufacturing, service industry, etc.)
- Change public service expenditures or local revenues
- Impact community cohesion and interaction by:
  - Displacing or relocating existing residents and businesses
  - Generating construction housing demand in excess of available supply
- Affect low-income or minority communities

Engineering Overview

- Steel wheels on steel rail
- Double-tracked
- 220 mph operating speeds
- 100% clean electric power
- Safely grade-separated and fenced

The alignment will have a range of guideway types:

- At-Grade – on the ground
- Earth Embankment (Retained Fill)
- Elevated Structures/Bridges
- Trench

Grade Separations

Grade Separated from Roadway

Before

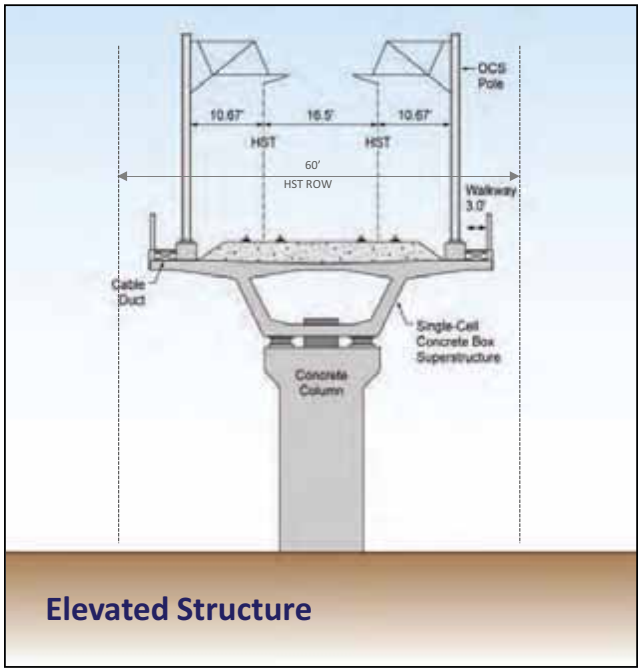
Typical Underpass

After

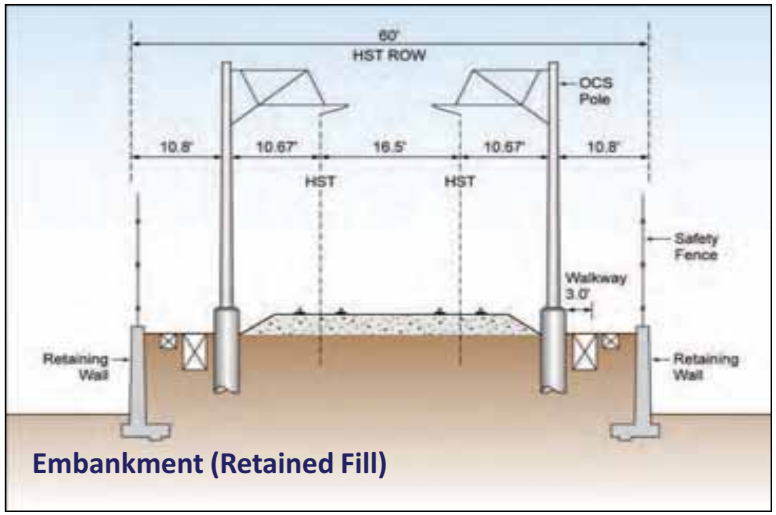
- Grade separations are underpasses and overpasses where roadways cross railroad tracks.
- Grade separations reduce congestion and noise and improve safety.

Typical Sections Along Alignment

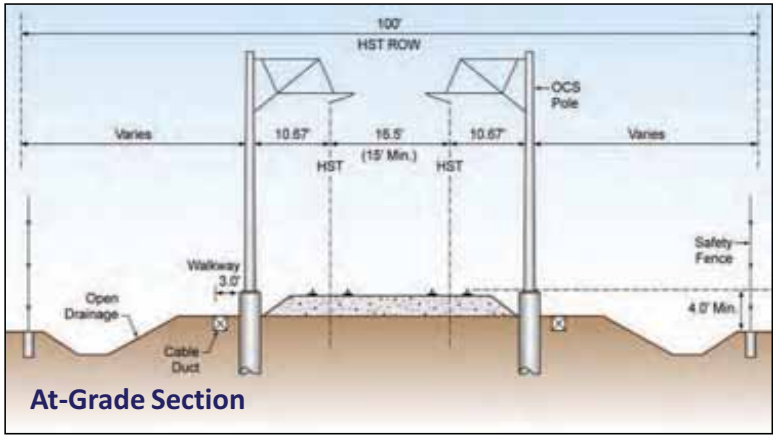
The High-Speed Train alignment will have a range of guideway types, depending on existing topography and built environment.



Elevated Structure

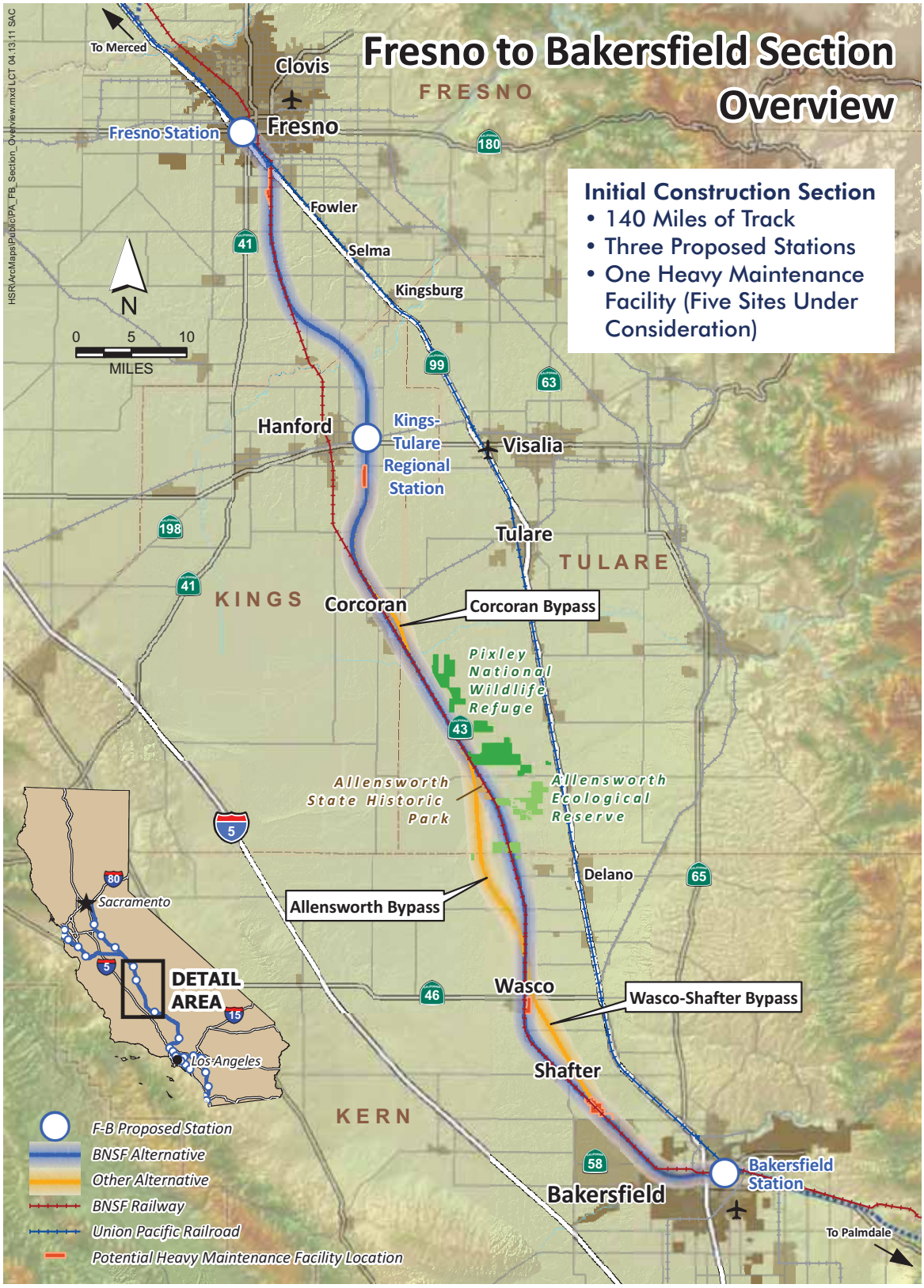


Embankment (Retained Fill)



At-Grade Section

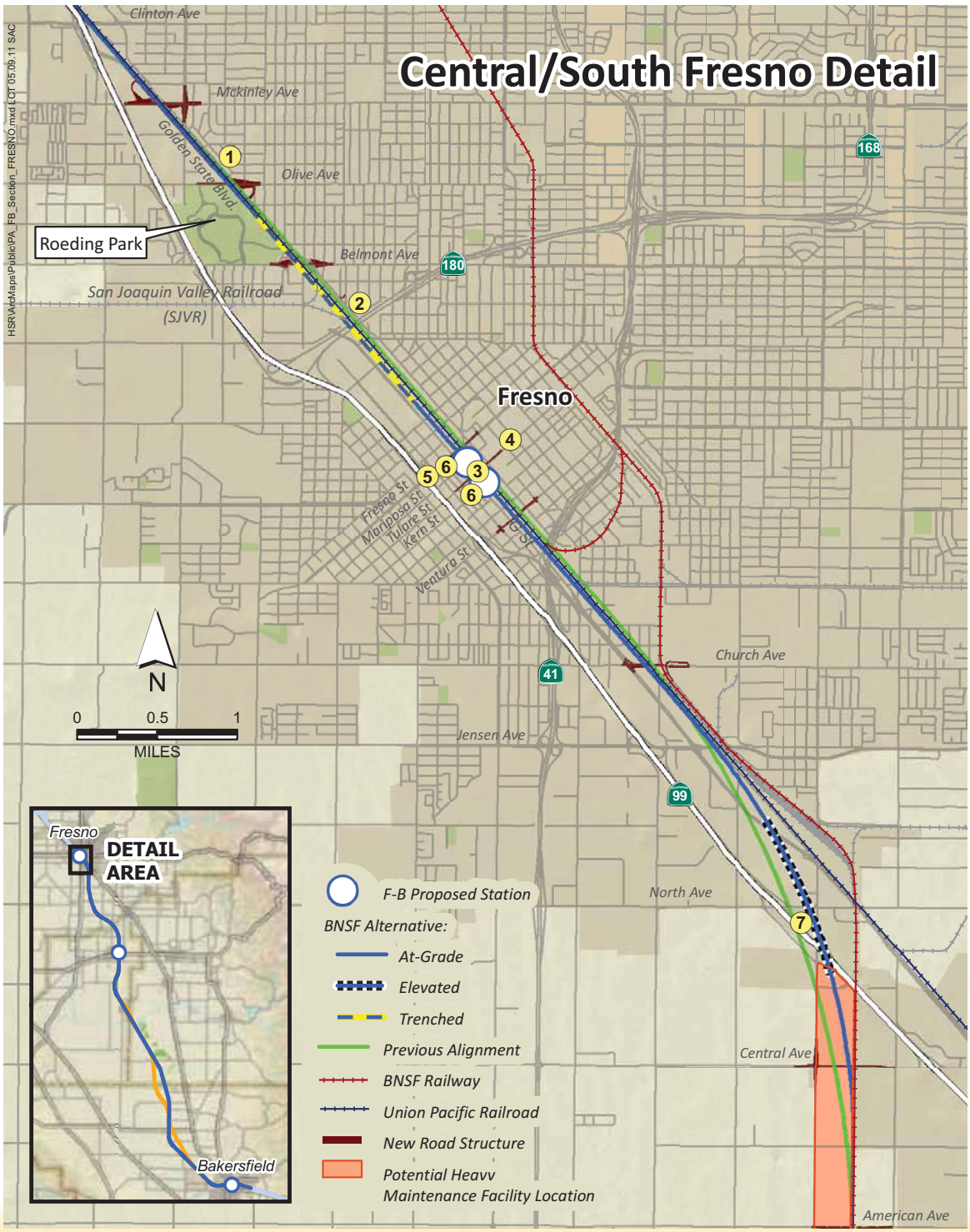
Overview



Preliminary - subject to change

Since We Last Met: Fresno

1. At-grade along Golden State Blvd. from Clinton Ave. to north of Belmont Ave.
2. Undercrossing at Highway 180 and SJVR
3. Station options at Mariposa and Kern Streets
4. Undercrossing and overcrossing options at Tulare St.
5. Extend existing Fresno St. undercrossing to west
6. Eliminate intersections at G St. and Fresno and Tulare Streets (G St. remains a through street)
7. Minor alignment shift to avoid major industrial buildings



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Since We Last Met: Fresno (Detail)

3. Station options at Mariposa and Kern Streets
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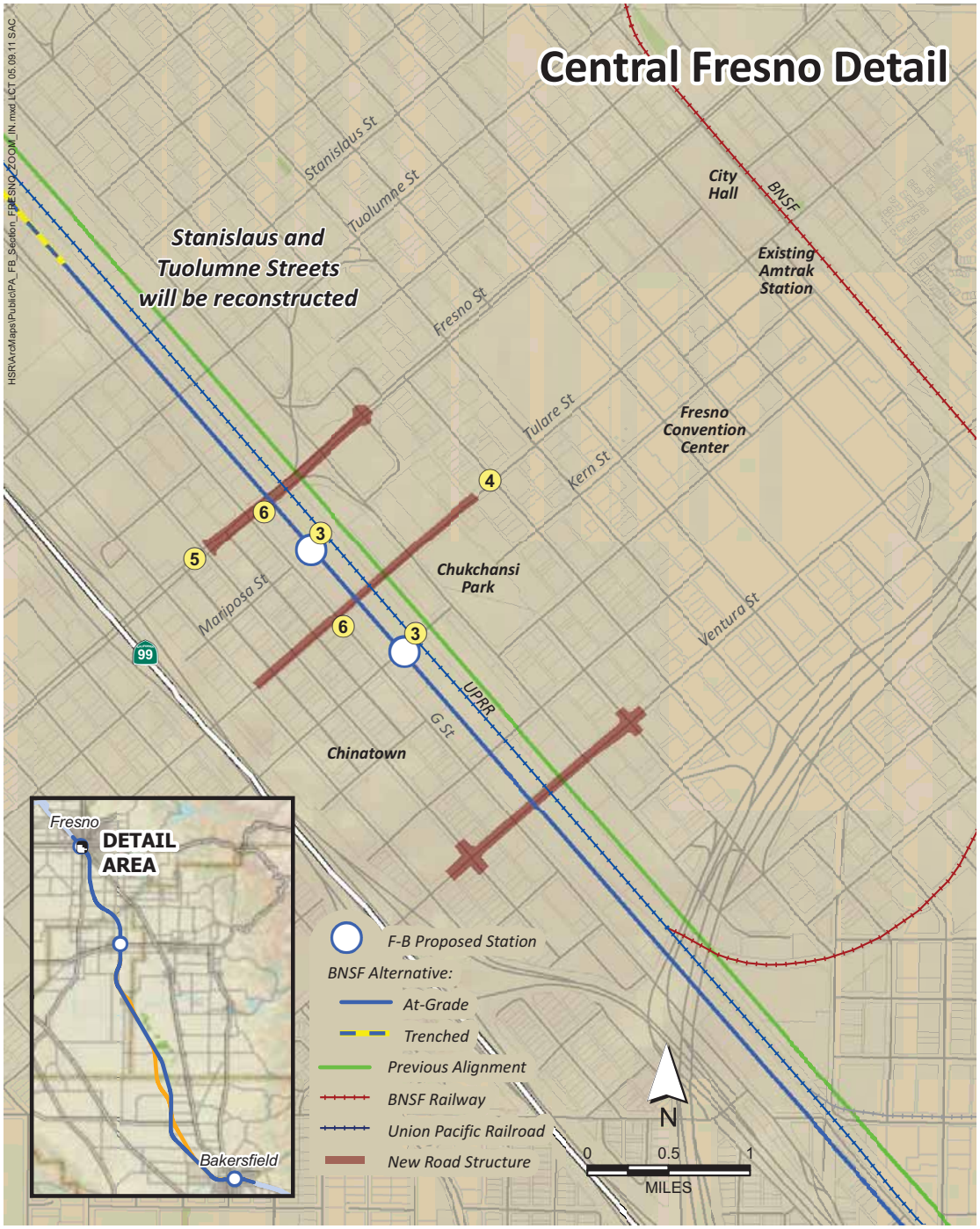
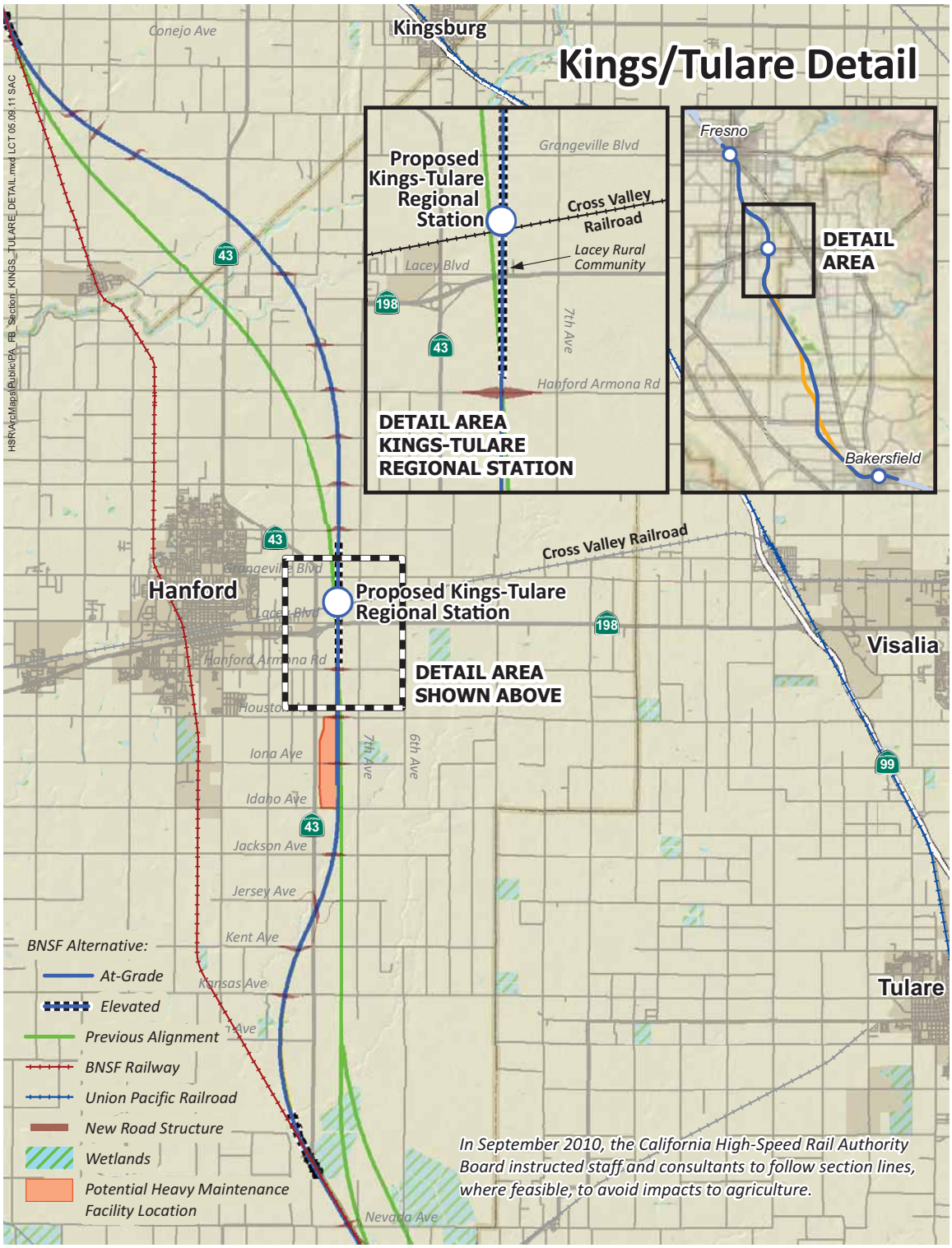


Preliminary - subject to change

Since We Last Met: Kings/Tulare

Alignment modified in order to reduce impacts to wetlands, agricultural lands and infrastructure.



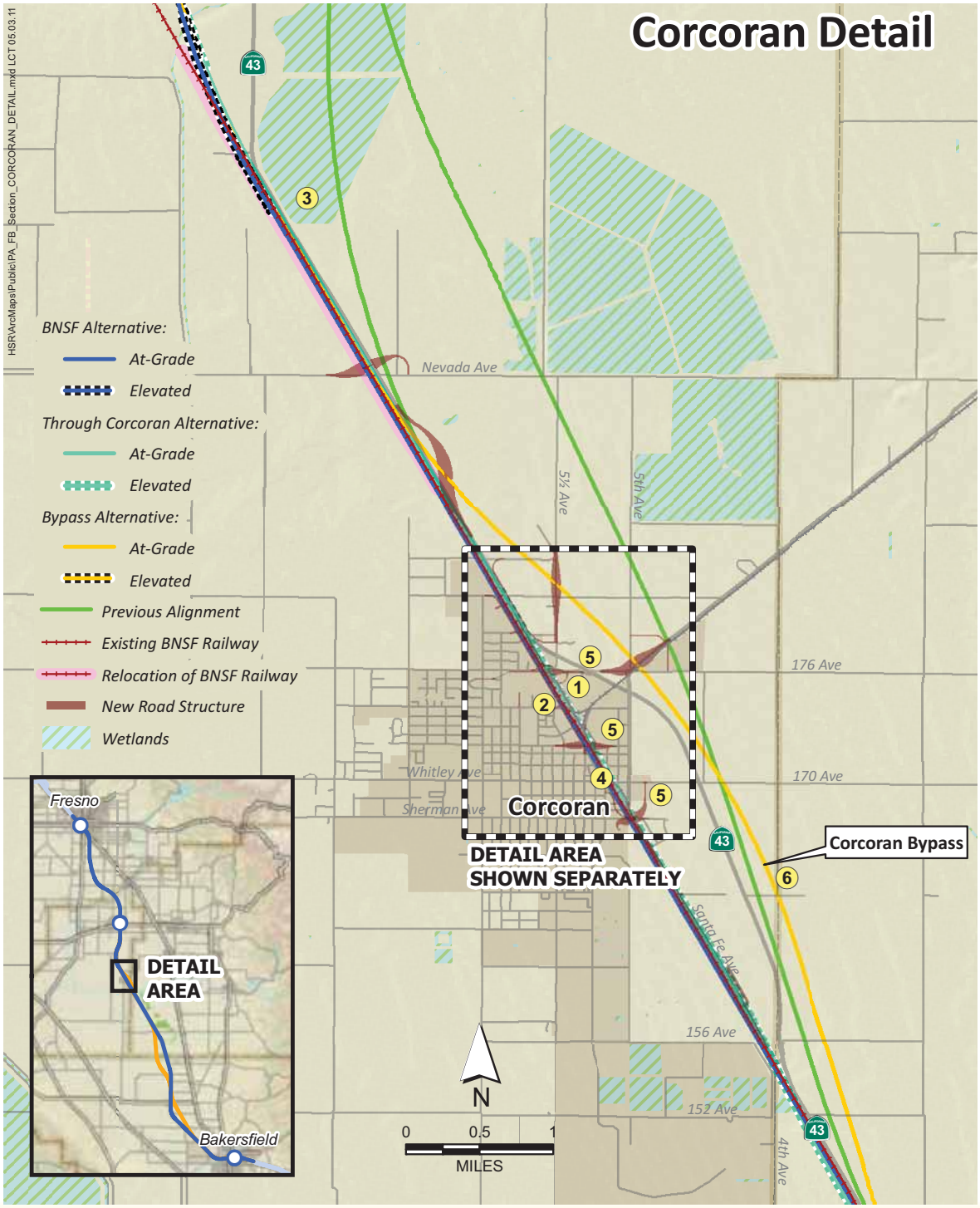
Since We Last Met: Corcoran

Through Town (Two Options):

1. Elevated track on east side of BNSF
2. At-grade track on west side of BNSF
3. Alignments modified to avoid wetlands
4. Pedestrian crossing added at Whitley Ave.
5. Grade separations at Whitley, Sherman, and Brokaw Avenues and Ave 176

Bypass (One Option):

6. Bypass alignment still at grade



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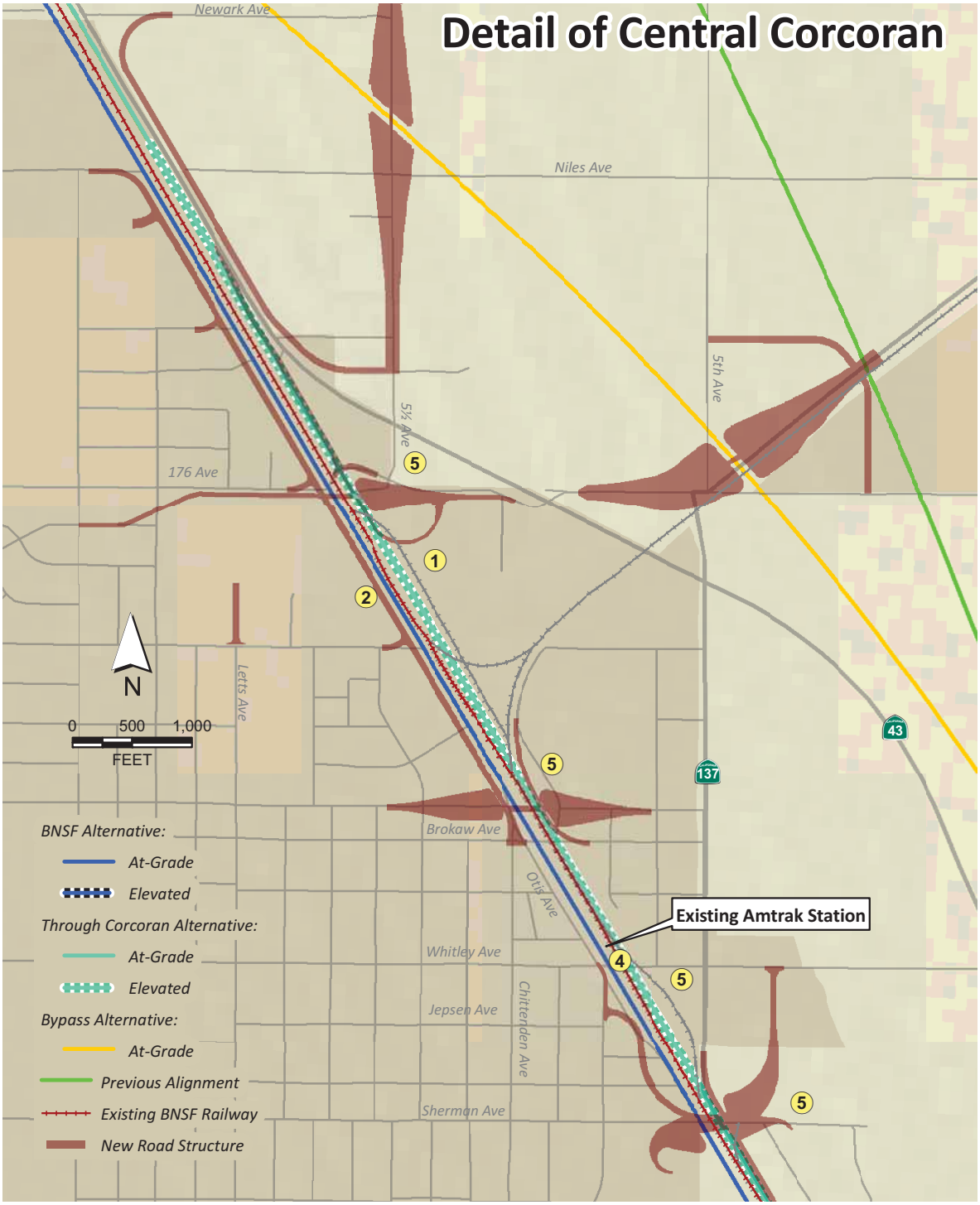


Allensworth

BNSF Alignment:

1. Elevated for approximately two miles near Pixley National Wildlife Refuge to avoid a private rail spur
2. Six grade separations

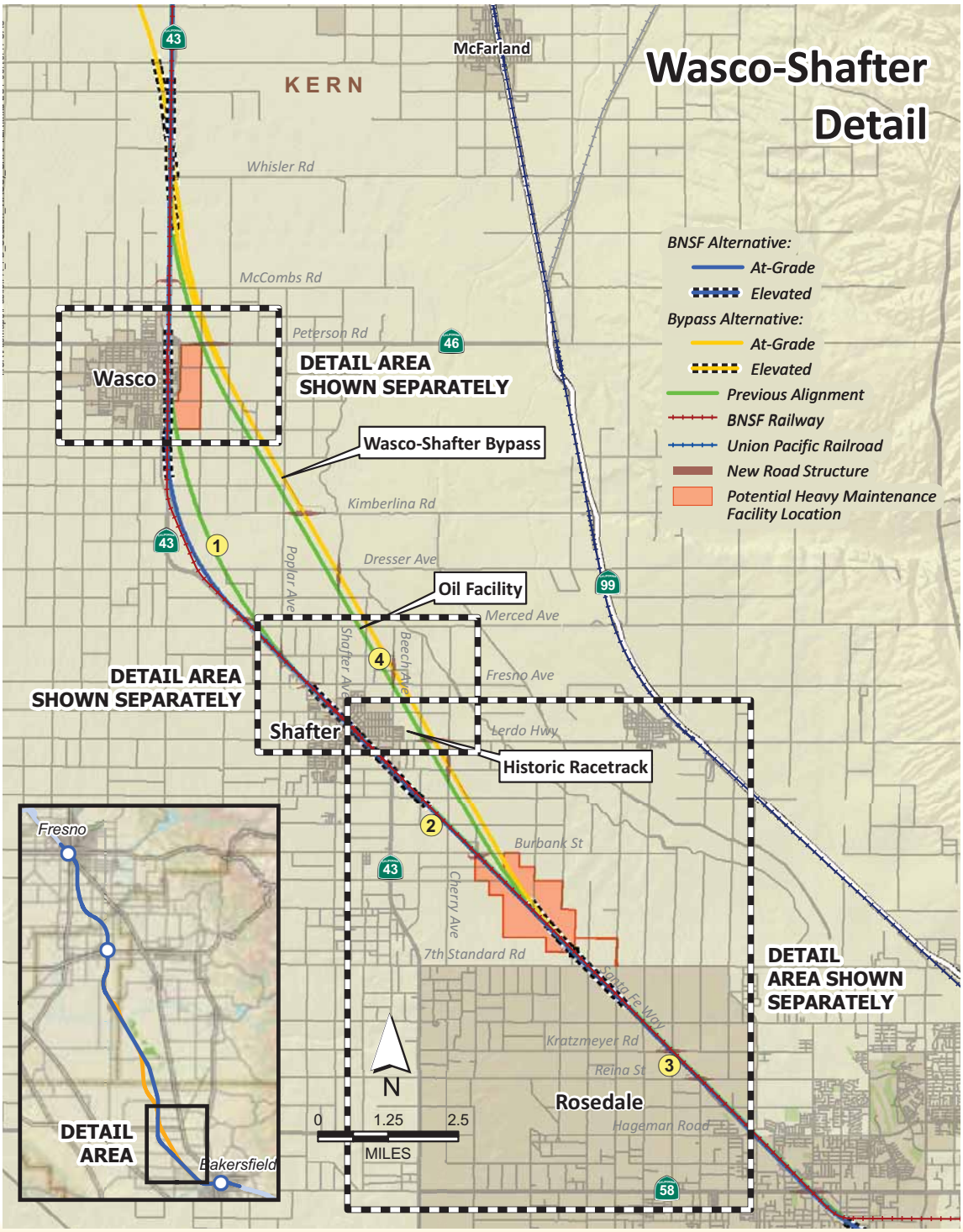
Bypass Alignment:

3. Elevated for approximately two miles near Pixley National Wildlife Refuge to avoid a private rail spur, as well as south of Sherwood Ave to cross BNSF
4. Four grade separations

Preliminary - subject to change

Since We Last Met: Wasco/Shafter

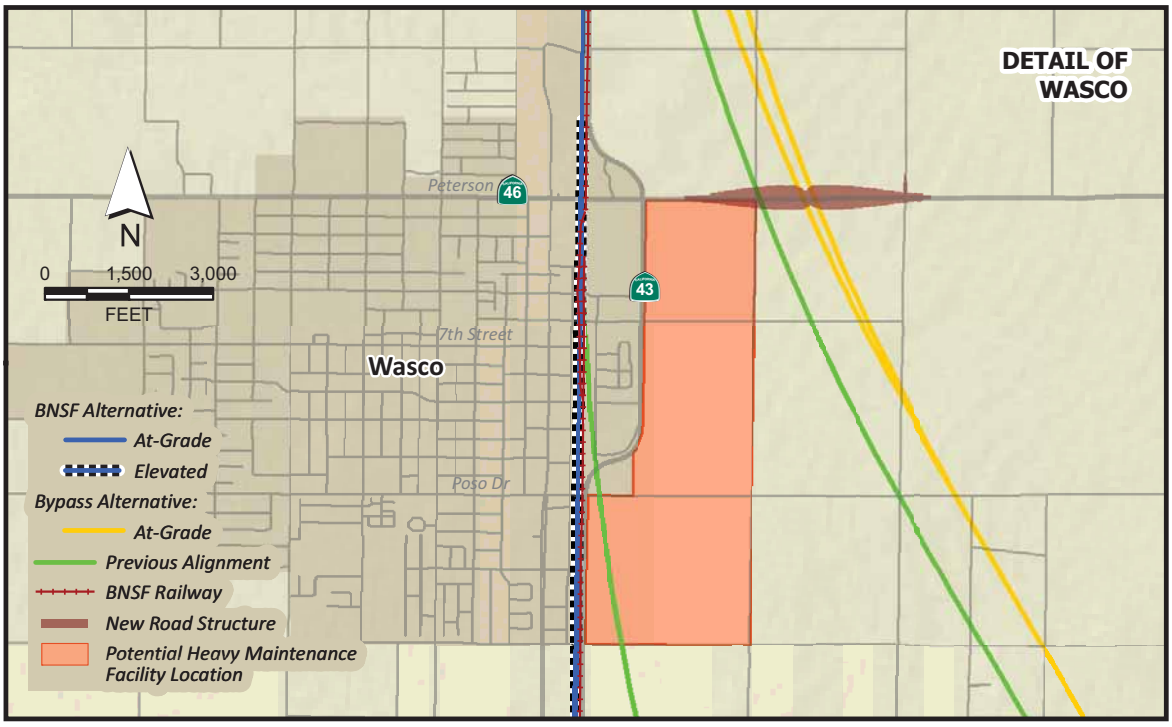
1. Moved alignment to the west to avoid impacts to agricultural land and facilities
2. Lowered from elevated to at-grade
3. Moved from elevated on the east side of BNSF to at-grade on the west side of BNSF
4. Moved bypass alignment to avoid an oil facility and a property eligible for historic designation



Preliminary - subject to change

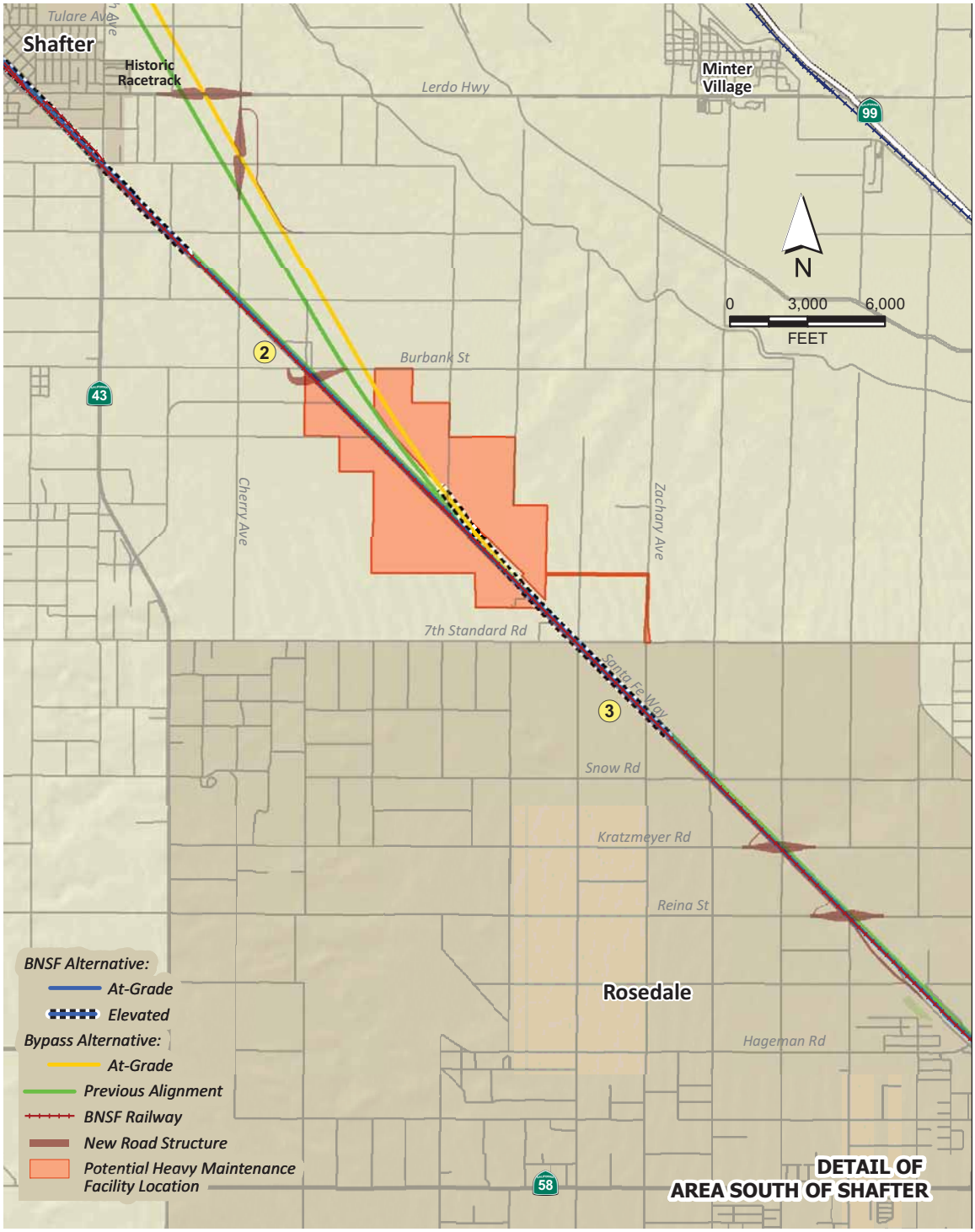
Since We Last Met: Wasco/Shafter (Detail)

4 Moved bypass alignment to avoid an oil facility and a property eligible for historic designation



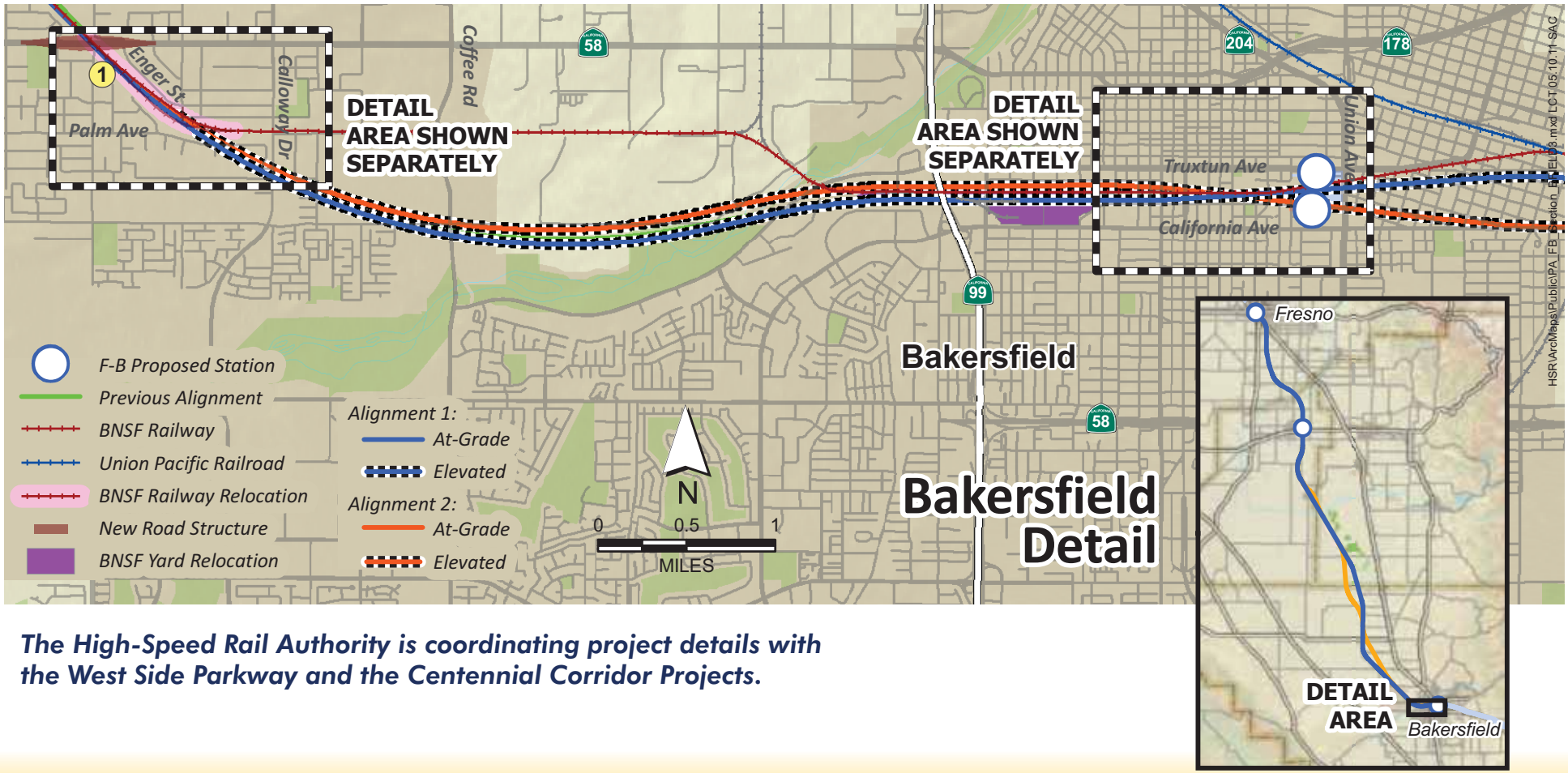
Since We Last Met: Wasco/Shafter (Detail)

2. Lowered from elevated to at-grade
3. Moved from elevated on the east side of BNSF to at-grade on the west side of BNSF



Since We Last Met: Bakersfield

① At-grade from Hageman Road to Palm Ave



The High-Speed Rail Authority is coordinating project details with the West Side Parkway and the Centennial Corridor Projects.

Preliminary - subject to change

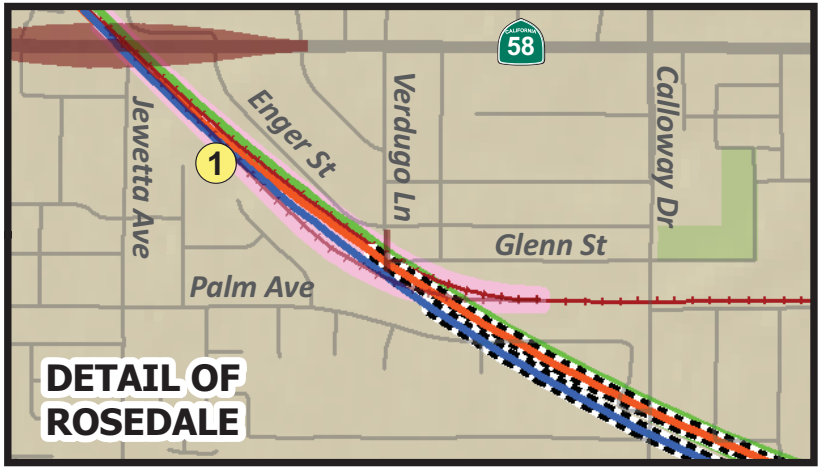
Since We Last Met: Bakersfield

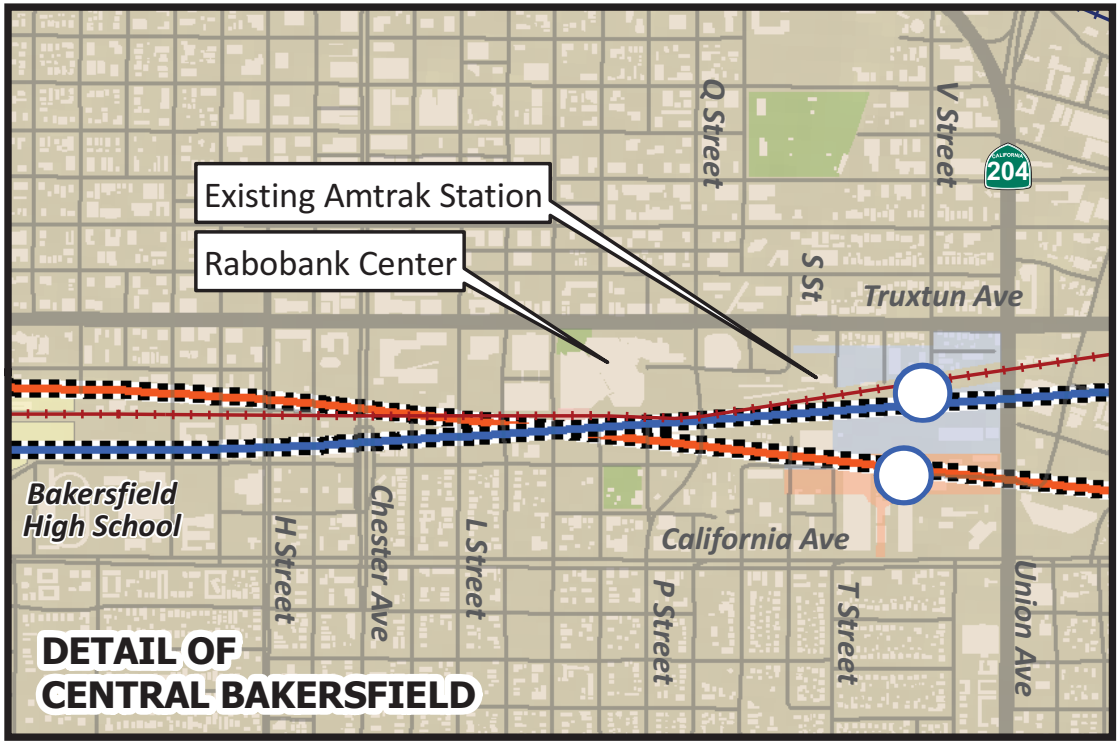
① At-grade from Hageman Road to Palm Ave

- F-B Proposed Station
- Previous Alignment
- BNSF Railway
- BNSF Railway Relocation
- New Road Structure

Alignment 1:
- At-Grade
- Elevated

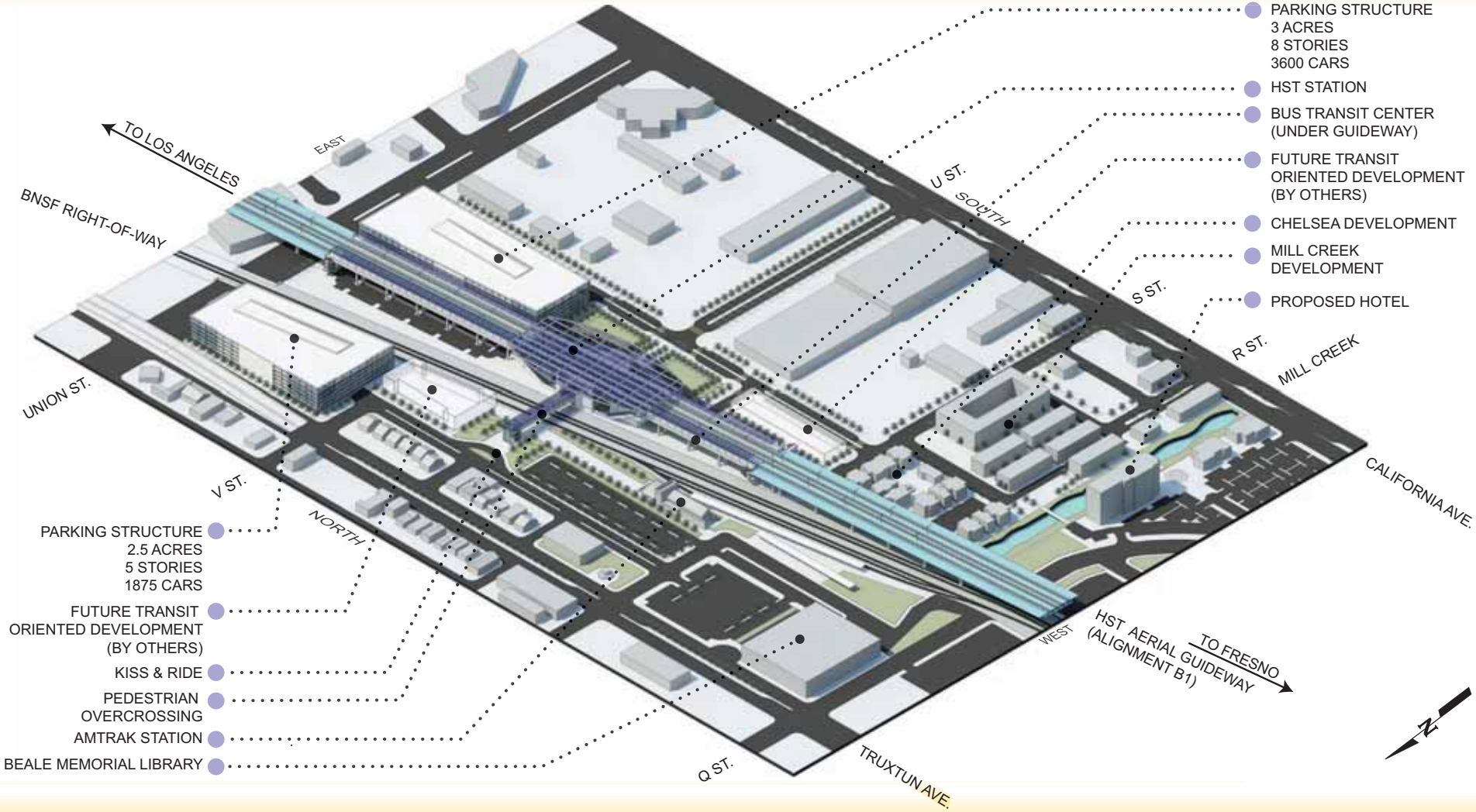
Alignment 2:
- At-Grade
- Elevated





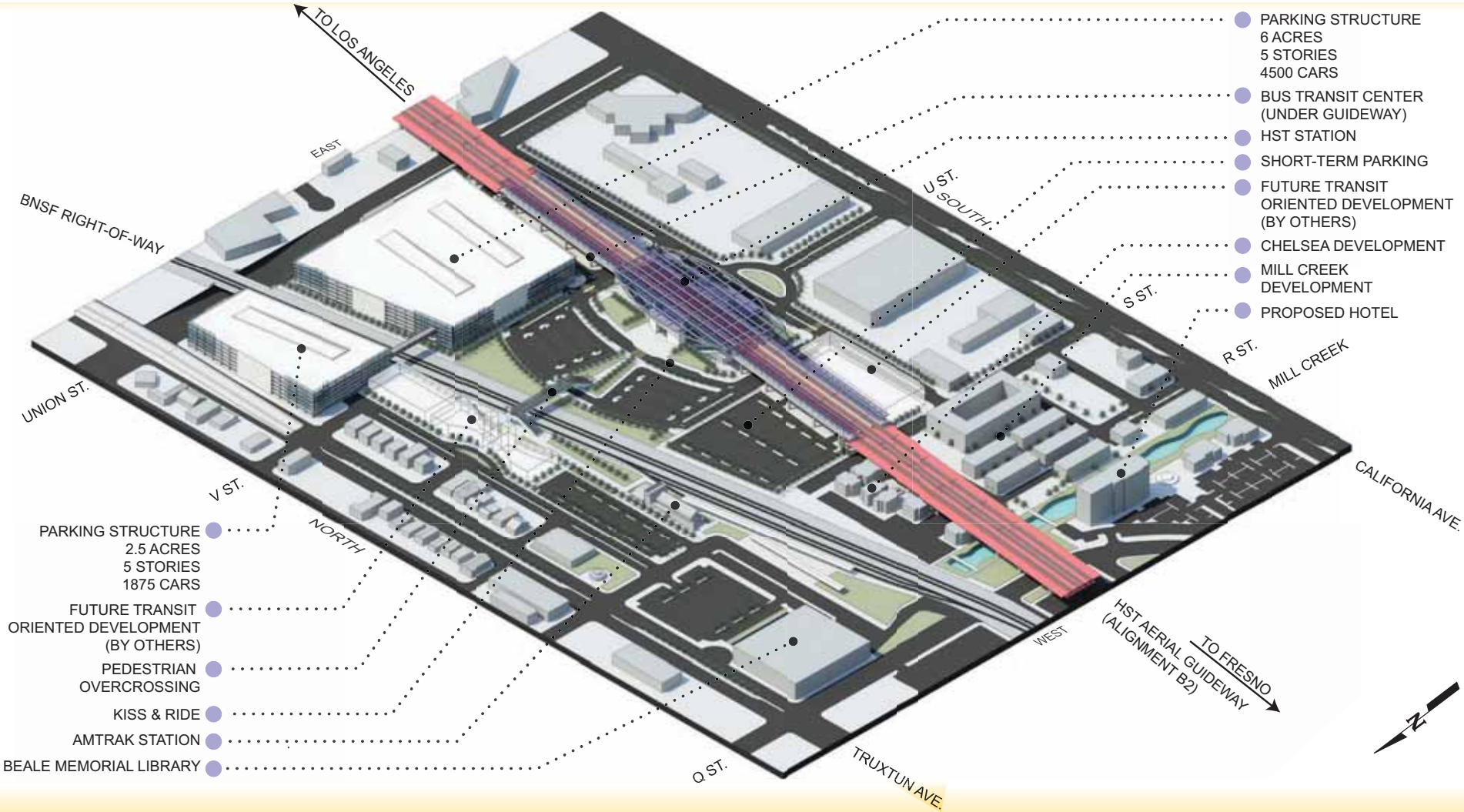
Preliminary - subject to change

Bakersfield Station Concept - North Option



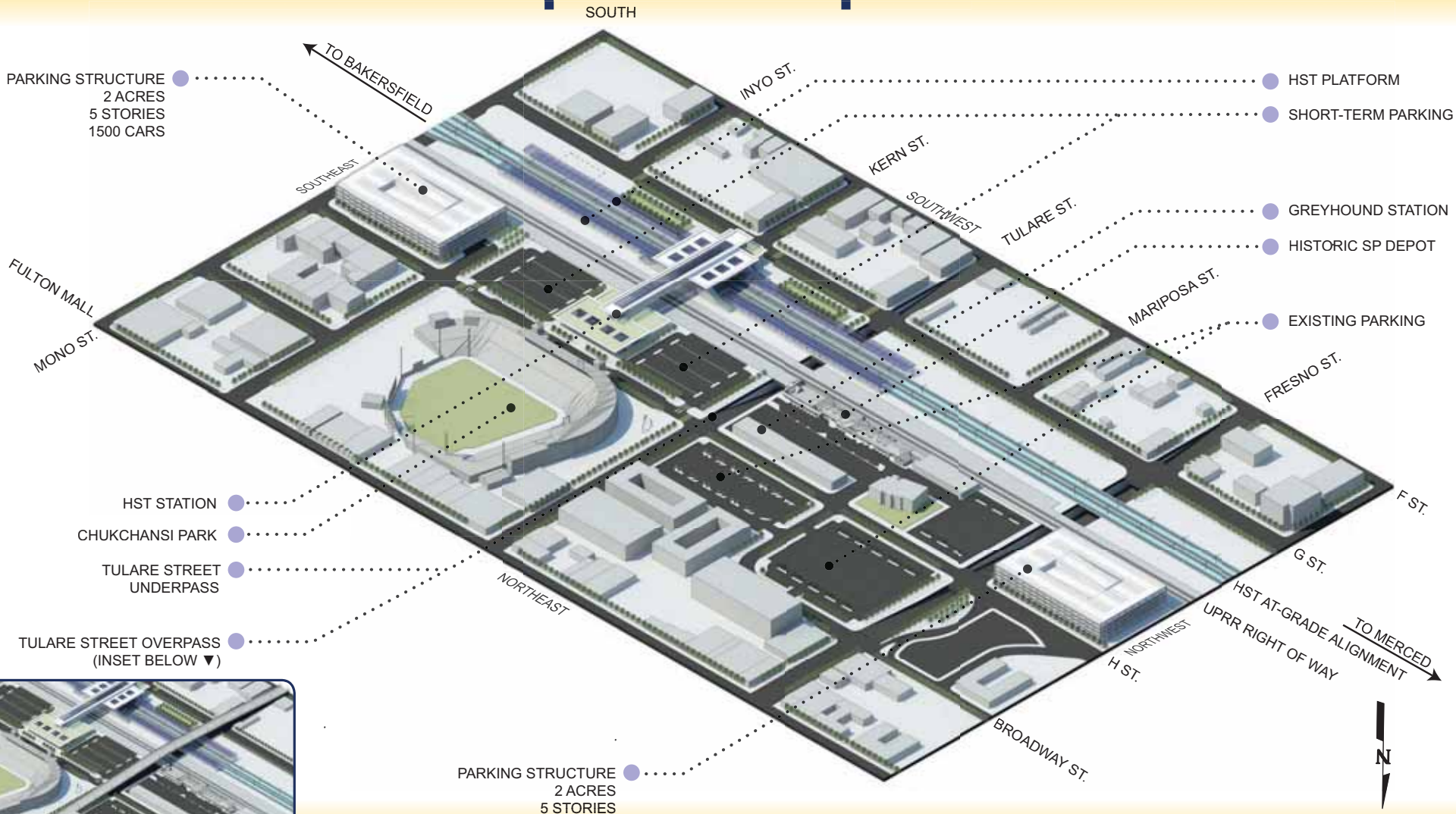
Preliminary - subject to change

Bakersfield Station Concept - South Option



Preliminary - subject to change

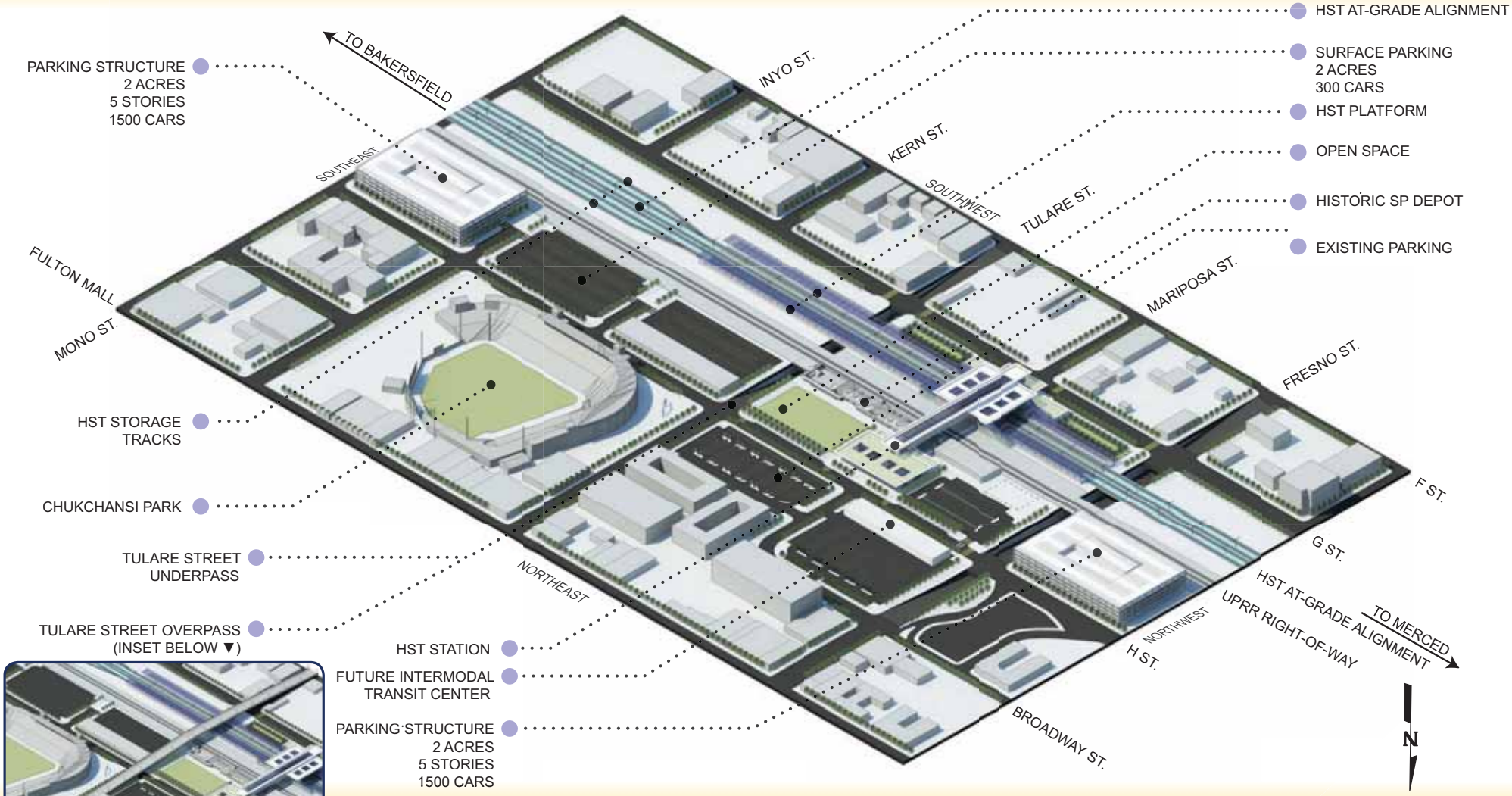
Fresno Station Concept - Kern Option



Preliminary - subject to change

May 2011

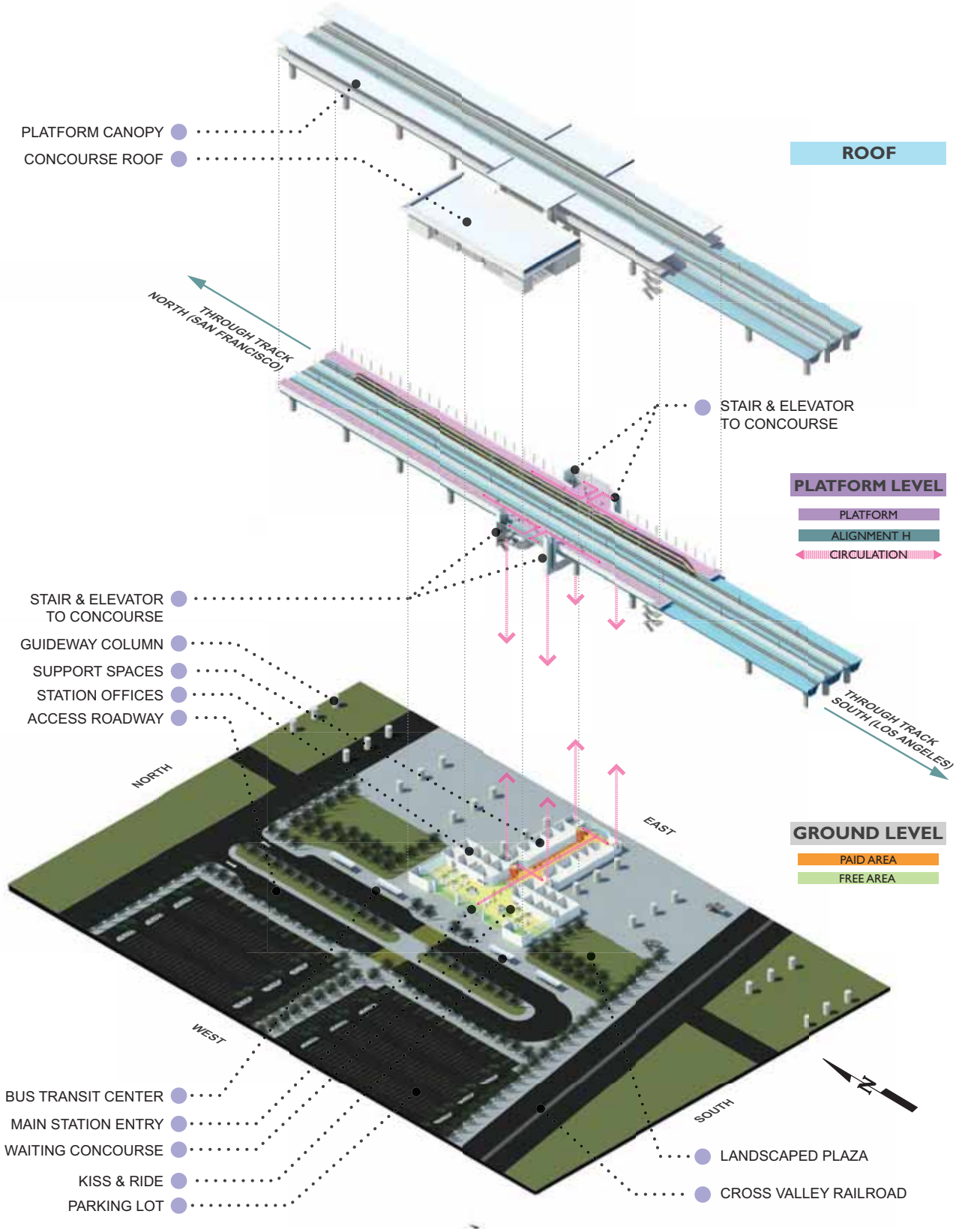
Fresno Station Concept - Mariposa Option



Preliminary - subject to change

May 2011

Kings-Tulare Station Concept

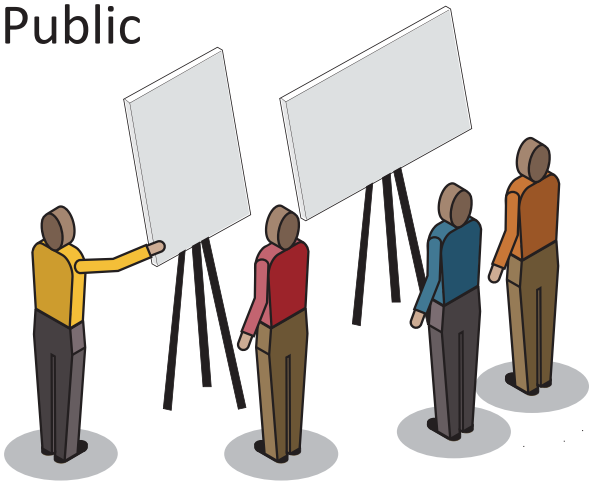


Preliminary - subject to change

How to Get Involved

Ways to Participate:

- Join our mailing list to receive project updates
- Attend a Draft EIR/EIS Public Hearing and submit your comments (Summer 2011)
  - Dates and Locations To Be Announced



- Request information or schedule a meeting with staff by calling (559) 256-1463
- Find more project information at

  Fresno to Bakersfield:
  cahighspeedrail.ca.gov/Fresno_-_Bakersfield.aspx

  Merced to Fresno:
  cahighspeedrail.ca.gov/Merced_-_Fresno.aspx
- Follow the Project on:

  Twitter.com/cahsra

  or find us on Facebook

Employment with the High-Speed Rail Authority

- To be notified of business and employment opportunities:

  - **Individual Opportunities** - Join the California High-Speed Train mailing list and select to receive Business Opportunity Notices - www.CaHighSpeedRail.ca.gov

  - **Business Opportunities** -
    - Register with BidSync to be notified of upcoming contracts - www.BidSync.com
    - Join the California High-Speed Train mailing list and select to receive Business Opportunity Notices - www.CaHighSpeedRail.ca.gov