Proposed CHST Phased Implementation

Initial Operating Section (North)

- 2022 IOS Operational

or

Initial Operating Section (South)

- 2022 IOS Operational

Bay to Basin

- 2027 Bay to Basin Operational

Full Phase 1

- 2034 Full Phase 1 Operational

Preliminary - subject to change

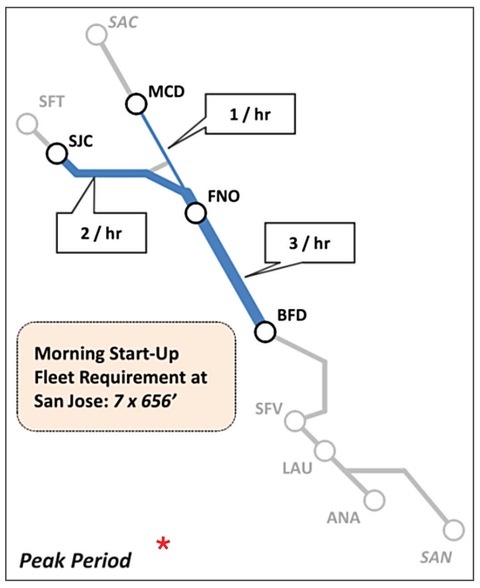
SAN JOSE TO MERCED

CALIFORNIA High-Speed Rail

Proposed CHST Service

Initial Operating Section (North)

Peak Period Service Level



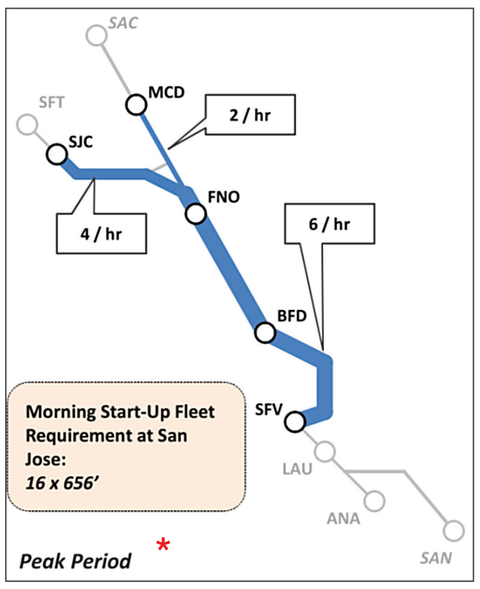
San Jose Station Departure

Southbound - To Gilroy, Fresno and Bakersfield

5a		
6a	-- BFD Local	-- BFD Skip
7a	-- BFD Local	-- BFD Skip
8a	-- BFD Local	
9a	-- BFD Local	
10a	-- BFD Local	
11a	-- BFD Local	
12p	-- BFD Local	

Bay to Basin

Peak Period Service Level



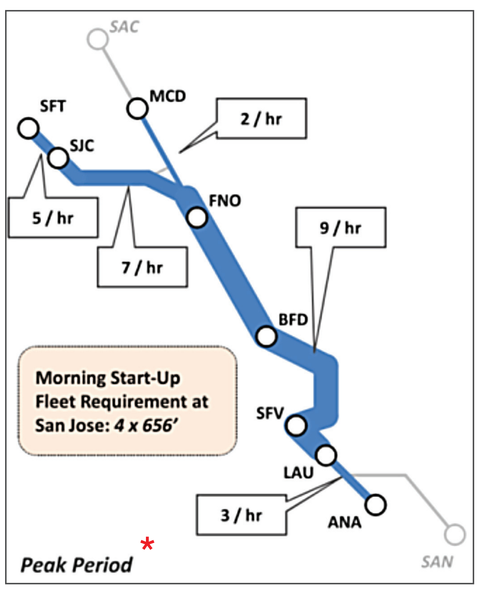
San Jose Station Departure

Southbound - To Fresno, Bakersfield, and San Fernando Valley

5a							
6a	-- SFV Non-Stop	-- SFV Ltd. Exp.	-- SFV Local	-- SFV Skip			
7a	-- SFV Non-Stop	-- SFV Ltd. Exp.	-- SFV Local	-- SFV Skip			
8a	-- SFV Non-Stop	-- SFV Local		-- SFV Skip			
9a		-- SFV Local		-- SFV Skip			
10a	-- SFV Non-Stop	-- SFV Local		-- SFV Skip			
11a		-- SFV Local		-- SFV Skip			
12p	-- SFV Non-Stop	-- SFV Local		-- SFV Skip			

Full Phase 1

Peak Period Service Level



San Jose Station Departure

Southbound - To Fresno, Bakersfield, Los Angeles, and Anaheim

5a														
6a	-- LAU	A2 Skip	-- ANA	B Ltd. Exp.	-- ANA	Non-Stop	-- LAU	B Ltd. Exp.	-- ANA	A1 Skip				
7a	-- ANA	B Ltd. Exp.	-- LAU	B Skip	-- LAU	C1 Skip	-- ANA	Non-Stop	-- LAU	Local	-- ANA	A1 Skip	-- LAU	B Skip
8a	-- ANA	B Ltd. Exp.	-- LAU	B Skip	-- LAU	C1 Skip	-- ANA	Non-Stop			-- ANA	A2 Skip		
9a	-- ANA	B Ltd. Exp.	-- LAU	C2 Skip			-- ANA	A Ltd. Exp.			-- ANA	A2 Skip		
10a	-- ANA	B Ltd. Exp.	-- LAU	C2 Skip			-- ANA	A Ltd. Exp.			-- ANA	A2 Skip		
11a	-- ANA	B Ltd. Exp.	-- LAU	C2 Skip			-- ANA	A Ltd. Exp.			-- ANA	A2 Skip		
12p	-- ANA	B Ltd. Exp.	-- LAU	C2 Skip			-- ANA	A Ltd. Exp.			-- ANA	A2 Skip		

Northbound - To San Francisco

5a														
6a							-- Transbay	Local						
7a	-- Transbay	Local			-- Transbay	Local			-- Transbay	Local				
8a	-- Transbay	B Skip	-- Transbay	C1 Skip	-- Transbay	Non-Stop	-- Transbay	Local	-- Transbay	B Ltd. Exp.	-- Transbay	A1 Skip		
9a			-- 4th/King	B Skip	-- Transbay	C1 Skip	-- Transbay	Non-Stop	-- Transbay	B Ltd. Exp.	-- Transbay	A1 Skip		
10a			-- 4th/King	B Skip	-- Transbay	C1 Skip	-- Transbay	Non-Stop	-- Transbay	B Ltd. Exp.	-- Transbay	A1 Skip		
11a	-- Transbay	C2 Skip	-- Transbay	A Ltd. Exp.	-- Transbay	B Ltd. Exp.			-- Transbay	A2 Skip				
12p	-- Transbay	C2 Skip	-- Transbay	A Ltd. Exp.	-- Transbay	B Ltd. Exp.			-- Transbay	A2 Skip				

Faded slots indicate trains that do not stop in San Jose

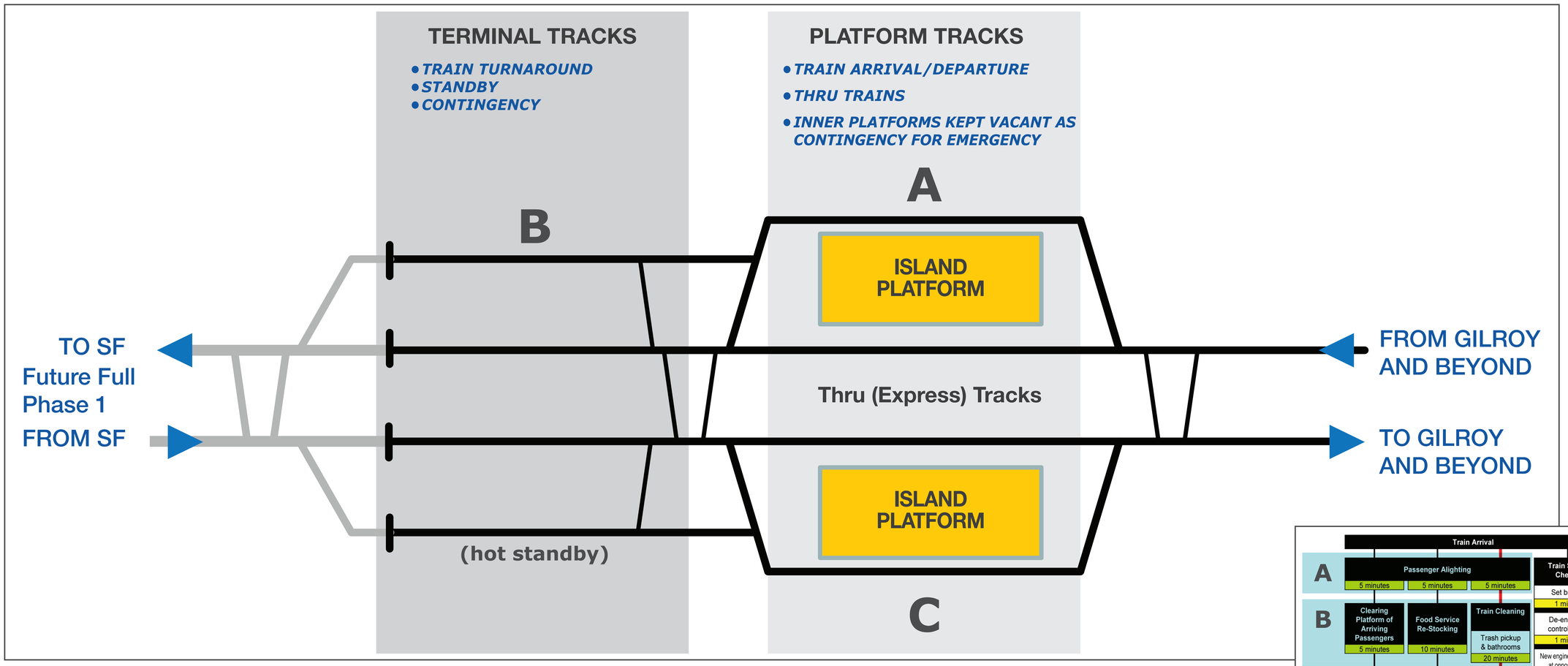
*Service levels shown at end of 5 year ramp-up period. Numbers shown are for one direction only.

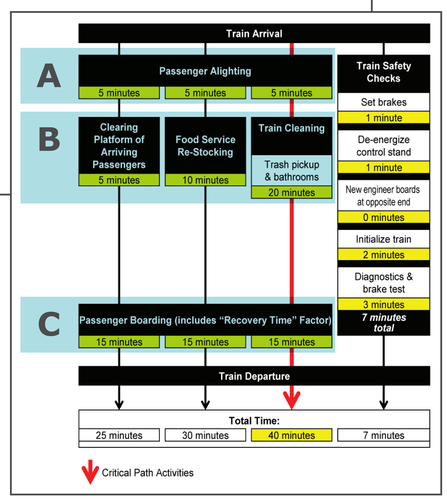
Preliminary - subject to change

SAN JOSE TO MERCED

CALIFORNIA High-Speed Rail

SAN JOSE TERMINAL STATION TURNAROUND PROCESS

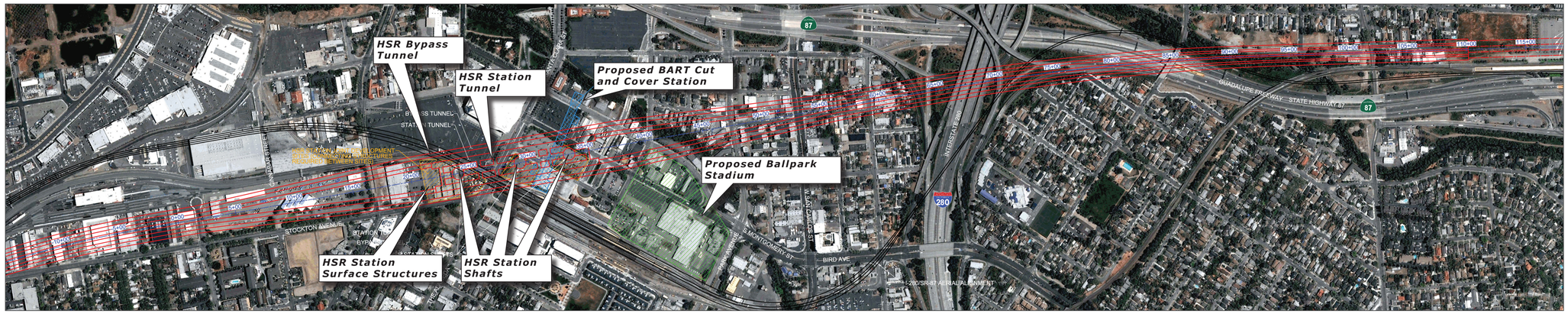


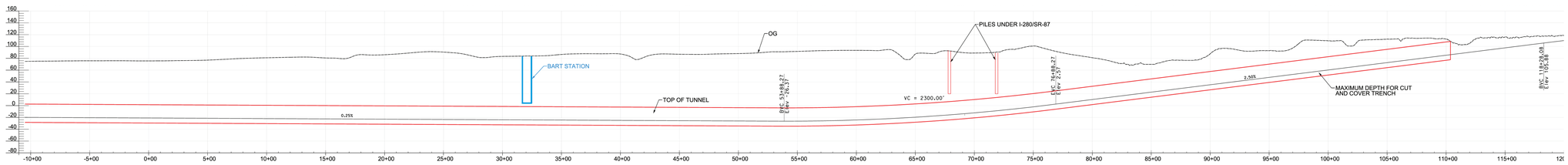


For discussion purposes only.

CALIFORNIA High-Speed Rail

PROJECT SPECIFIC REQUIREMENTS FOR MODIFIED TUNNEL OPTION (MTO) ALIGNMENT





MTO STATION CONFIGURATION

- Three tunnel station layout – two platform tunnels and center concourse tunnel.
- Station tunnels will each be approximately 50 feet diameter.
- Three deep elevator shafts each 100 feet diameter from concourse tunnel to surface.
- HSR tunnels run below and perpendicular to proposed BART cut and cover station.
- Footprint of tunnels for station is 250’ feet wide by 1500’ long.

OPERATIONAL REQUIREMENTS

- Express tunnels constructed by Tunnel Boring Machine (TBM) methods will run around the outside the station. Turnout tracks will be required to diverge the express tracks away from the mainline tracks.
- Crossovers are required at each end of the station special trackwork. These need to be as close as possible to the station turnouts and within 2 miles of the station.
- Ventilation zones within the tunnel every mile.
- Proposed MTO configuration does not provide 4 platform tracks as needed for HST operations.

CONSTRUCTION REQUIREMENTS

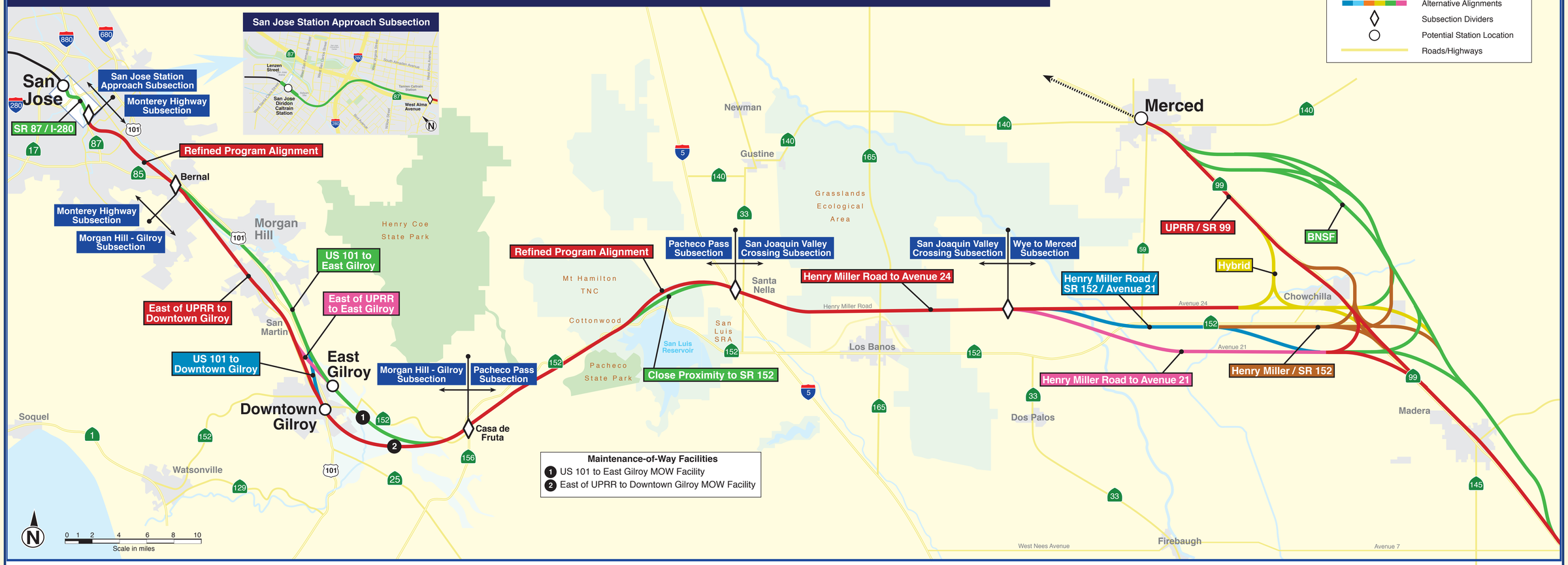
- Tunneling method for station tunnels will be Sequential Excavation Method (SEM).
- Extensive ground treatment from surface by jet grouting required for ground stability prior to tunneling.
- Additional treatment required to prevent water inflow during construction.
- BART cut and cover station and HST station construction has to be fully integrated.

Preliminary – subject to change

CALIFORNIA High-Speed Rail

SAN JOSE TO MERCED SECTION ALIGNMENT ALTERNATIVES

San Jose to Merced Section - Alignment Alternatives



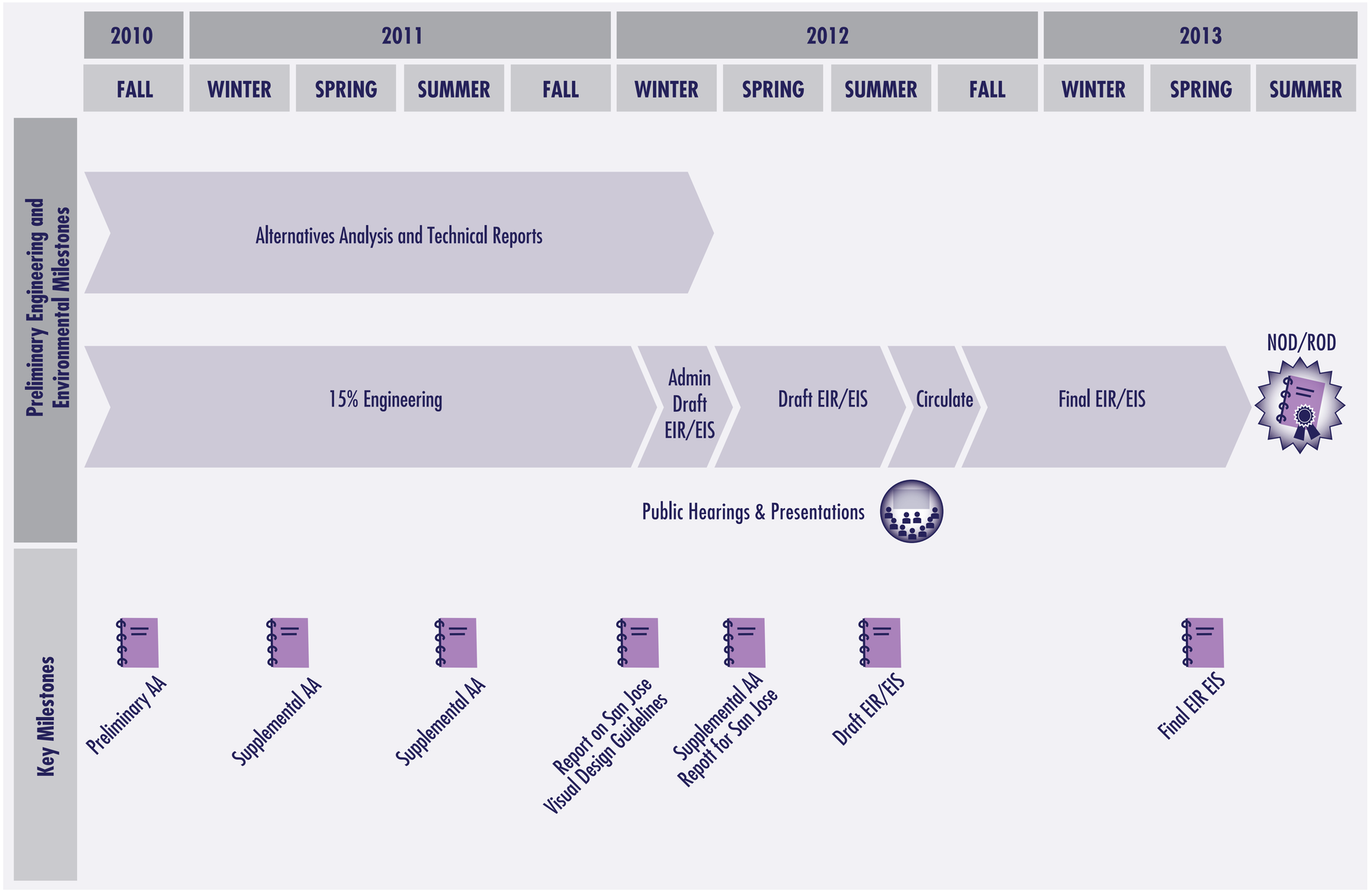
December 2011

Alignments subject to change

SAN JOSE TO MERCED

CALIFORNIA High-Speed Rail

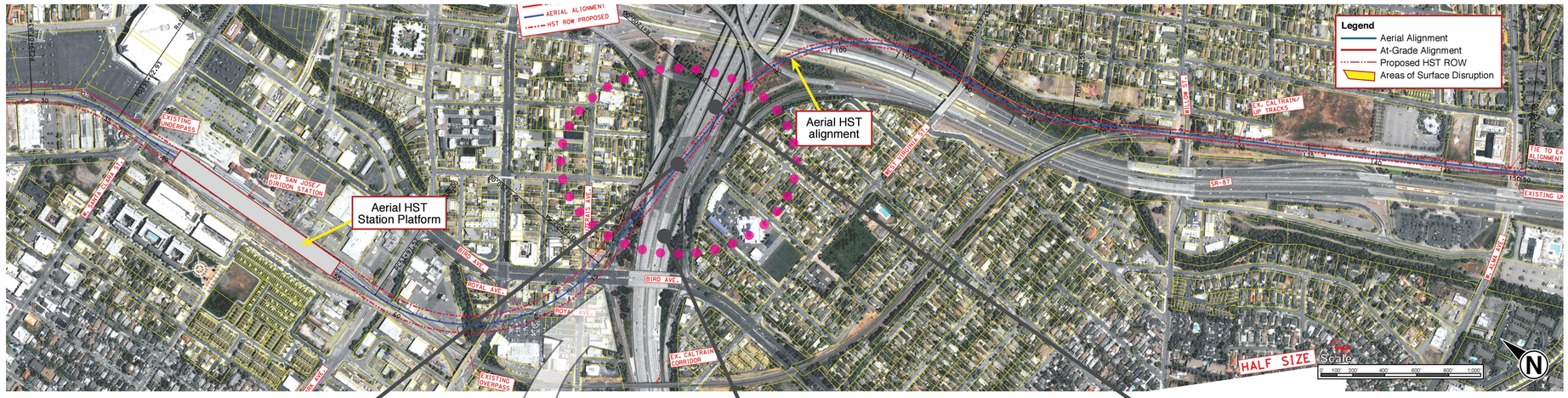
NEXT STEPS



CALIFORNIA High-Speed Rail

I-280/SR-87 ALIGNMENT DESCRIPTION

Follows existing transportation corridor to greatest extent possible
Curvature of alignment not conducive to high speeds

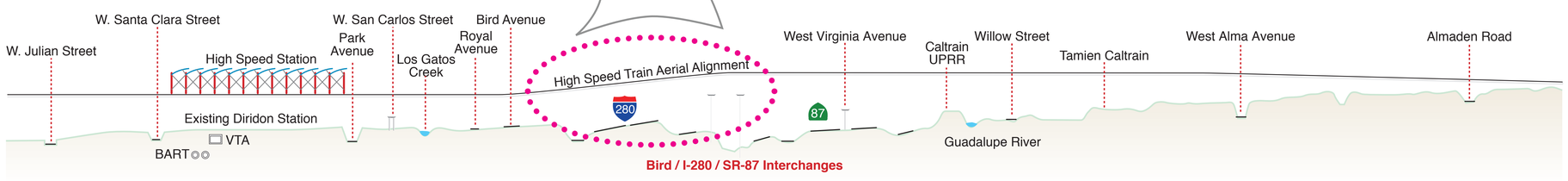


DRAFT – subject to change

City of San Jose interested in an iconic bridge structure

Constructability potentially hindered by need to maintain existing freeway operations

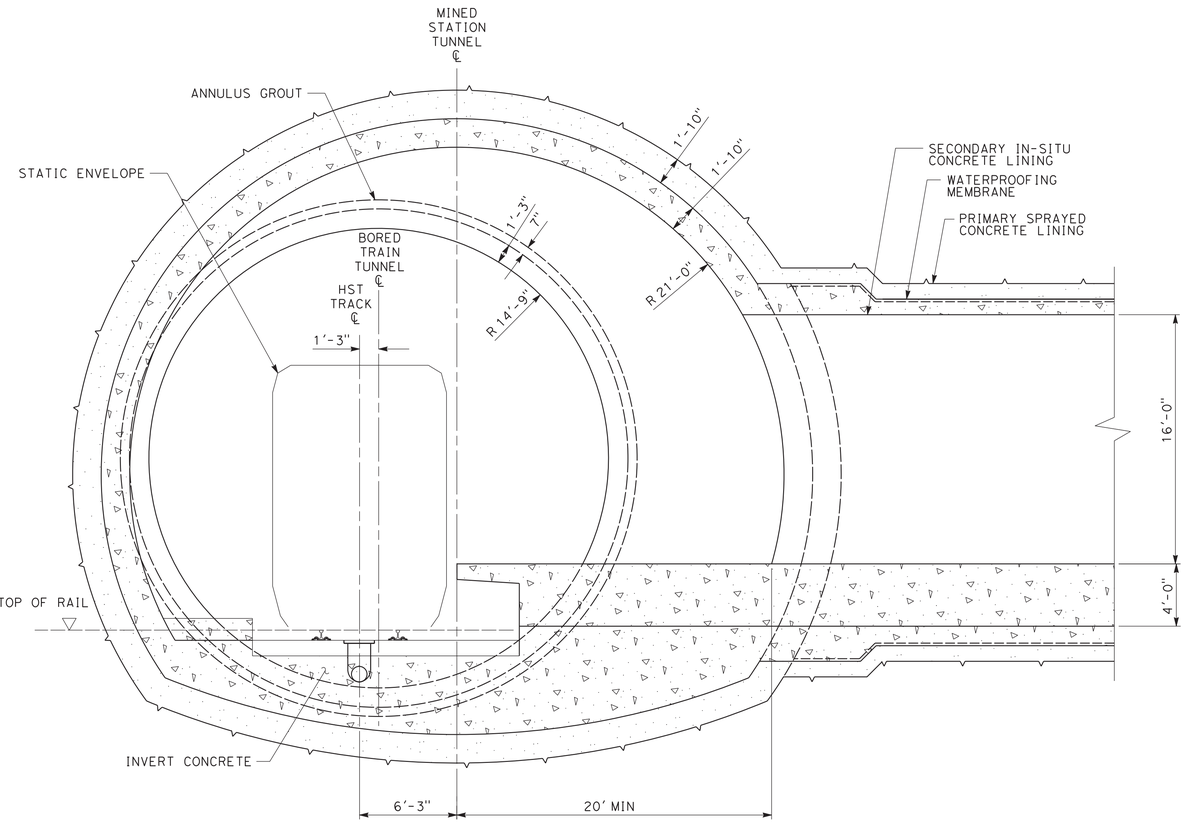
Must avoid impacts to I-280 including the support structure underneath the roadway



Bird / I-280 / SR-87 Interchanges

CALIFORNIA High-Speed Rail

PRELIMINARY
NOT FOR CONSTRUCTION



NOTES:

1. FREE TUNNEL CROSS-SECTIONAL AREAS COMPLY WITH TSI MEDICAL HEALTH CRITERIA, TO MINIMIZE AERODYNAMIC DRAG EFFECTS IN THE TUNNELS. SEE DIRECTIVE DRAWINGS FOR REQUIRED FREE TUNNEL CROSS-SECTIONAL AREAS FOR DESIGN TRAIN SPEEDS AND TUNNEL LENGTH.
2. TYPES, LOCATIONS AND DIMENSIONS OF TEMPORARY SUPPORT AND/OR GROUND TREATMENT NOT DESIGNED.
3. PERMANENT TUNNEL LINING ASSUMED WATERTIGHT/UNDRAINED IN PERMANENT CASE.
4. RUNNING TUNNELS TO BE DRIVEN BY TUNNEL BORING MACHINE.
5. STRUCTURAL COMPONENTS ARE NOT DESIGNED.

4 0 4 8
1/4"=1'-0"

DATE: 09/09/11

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

PARSONS BRINCKERHOFF

CALIFORNIA HIGH-SPEED TRAIN PROJECT
BAY SUBDIVISION

DIRDON STATION 1
MODIFIED TUNNEL OPTION (MTO)
TYPICAL CROSS SECTION

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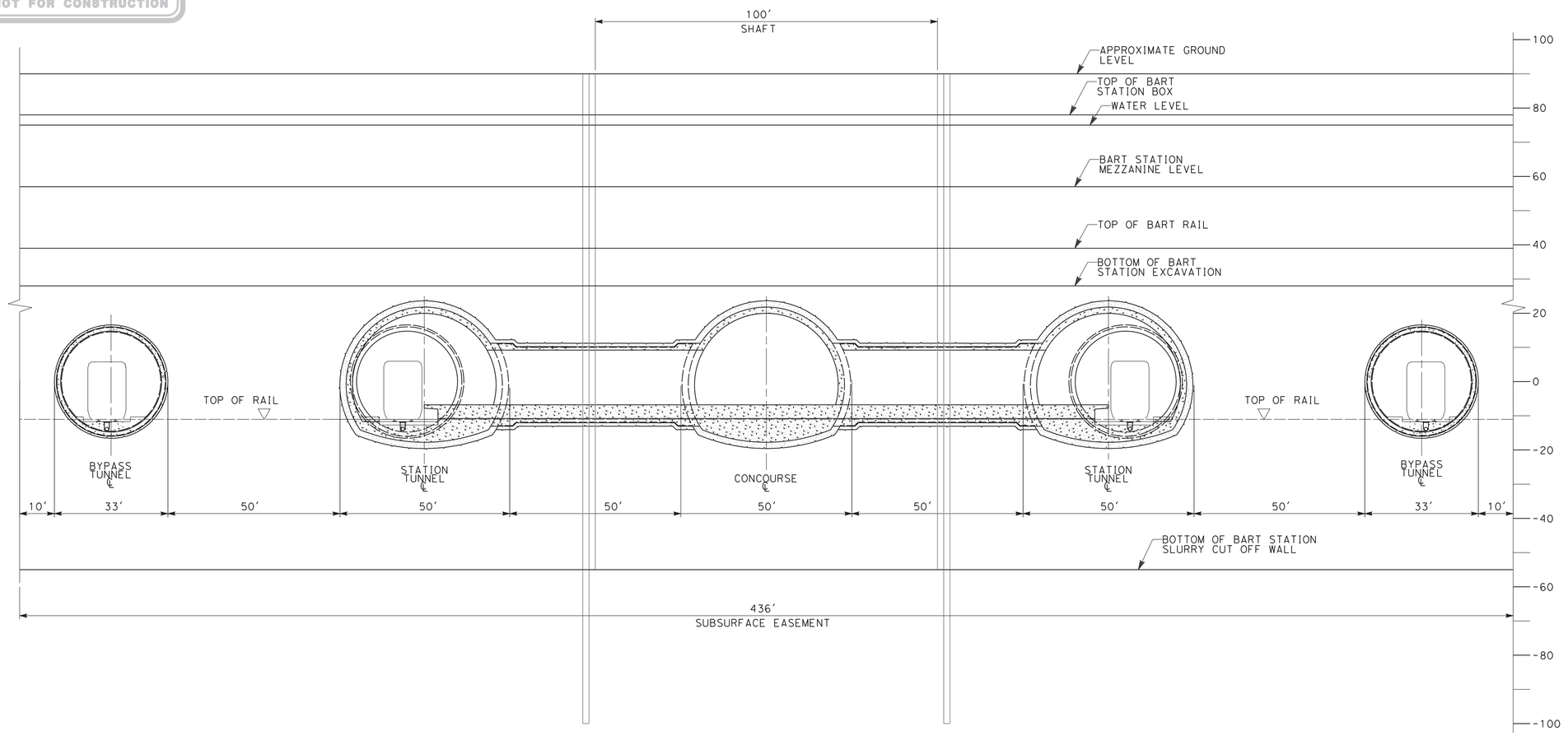
PRELIMINARY
NOT FOR CONSTRUCTION



CROSS SECTION OF CHSTP MTO STATION
AT PROPOSED BART/SVRT STATION
NO SCALE

DATE:

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

PARSONS BRINCKERHOFF

CALIFORNIA HIGH-SPEED TRAIN PROJECT
BAY SUBDIVISION

CONCOURSE PROFILE
MODIFIED TUNNEL OPTION (MTO)
DIRDON STATION 2

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