



COUNTY OF EL DORADO
DEPARTMENT OF TRANSPORTATION
With
SHIMMICK CONSTRUCTION



Mosquito Road Bridge

At the South Fork of the American River

PROJECT UPDATE TOWN HALL MEETING

September 26, 2024



AGENDA

- ➔ Welcome / Introductions
- ➔ Project Review
- ➔ Bridge Sequence Video
- ➔ Work Completed this Year
- ➔ Upcoming Operations
- ➔ Anticipated Schedule
- ➔ Traffic Control & Impacts
- ➔ Q&A



Welcome/ Introductions

- ➔ Brian Franklin – Resident Engineer
- ➔ Aradhana Kochar – Structure Representative
- ➔ Charlie Marrow – Shimmick Project Manager





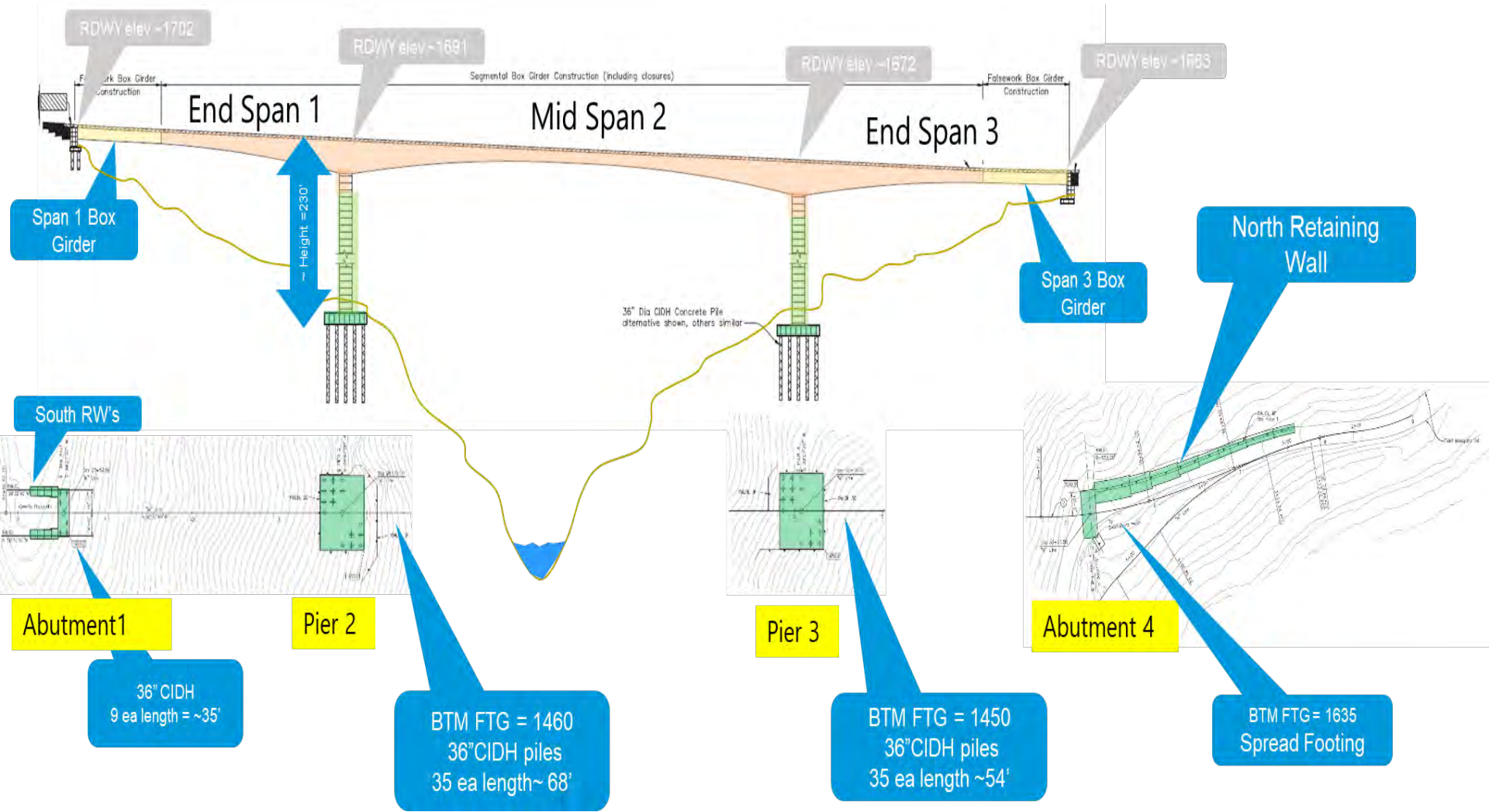
Project Features

- ➔ 1,180 LF Balanced Cantilever Segmental Bridge
- ➔ Approx. 400 Vertical Feet above river channel
- ➔ Approx. 200 Vertical Feet Piers



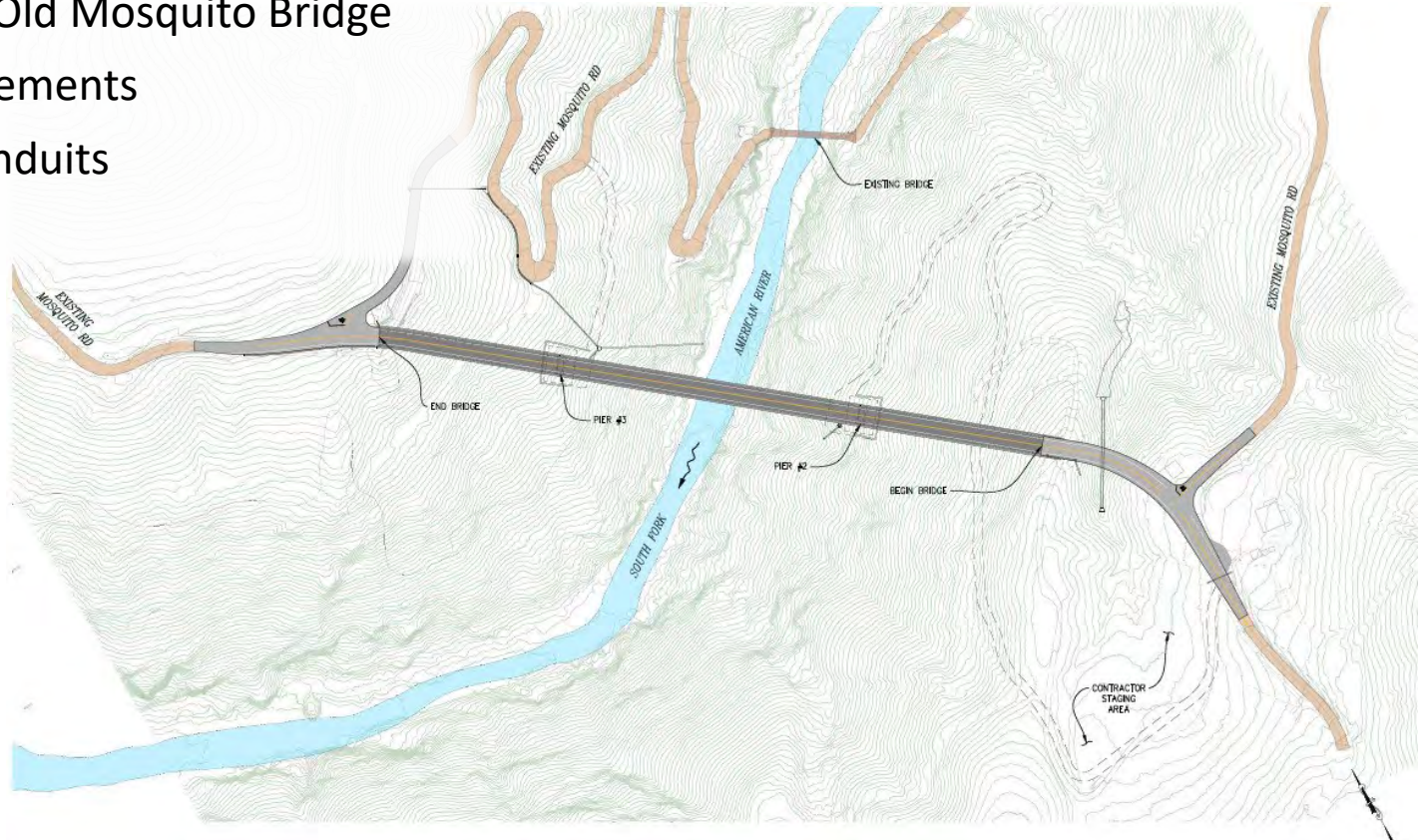


Project Features



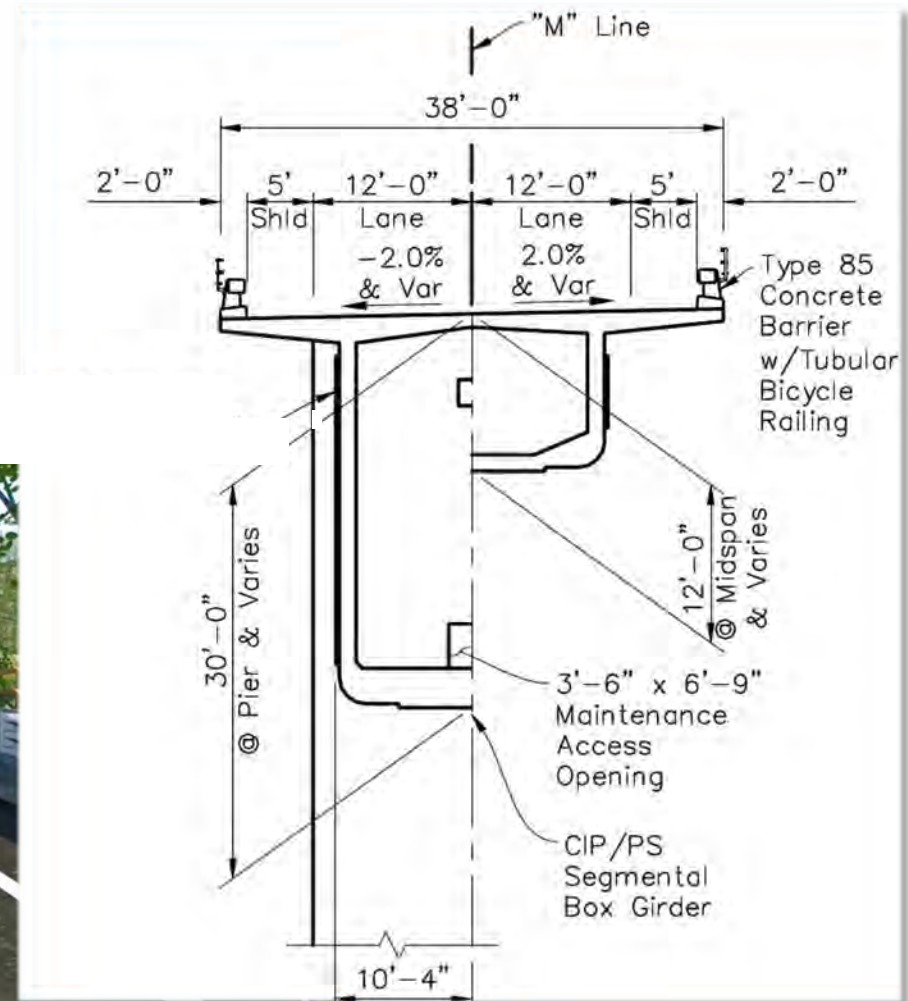
Project Features

- ➔ New Mosquito Road Intersections (North and South)
- ➔ Realignment of existing Mosquito Road (North)
- ➔ Gated Access to Old Mosquito Bridge
- ➔ Drainage Improvements
- ➔ Future Utility Conduits



Project Overview

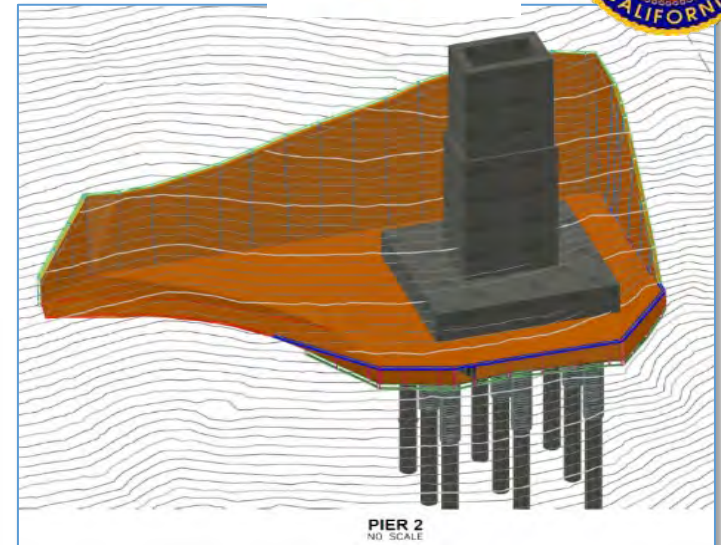
- ➔ 2 Lanes (12' wide, 5' shoulders)
- ➔ 54" High Barrier with Tubular Railing(Exceeds Standard)
- ➔ Timber Textured Barrier
- ➔ Natina Finished Railing (& MBGR)
- ➔ Suicide Prevention Signs





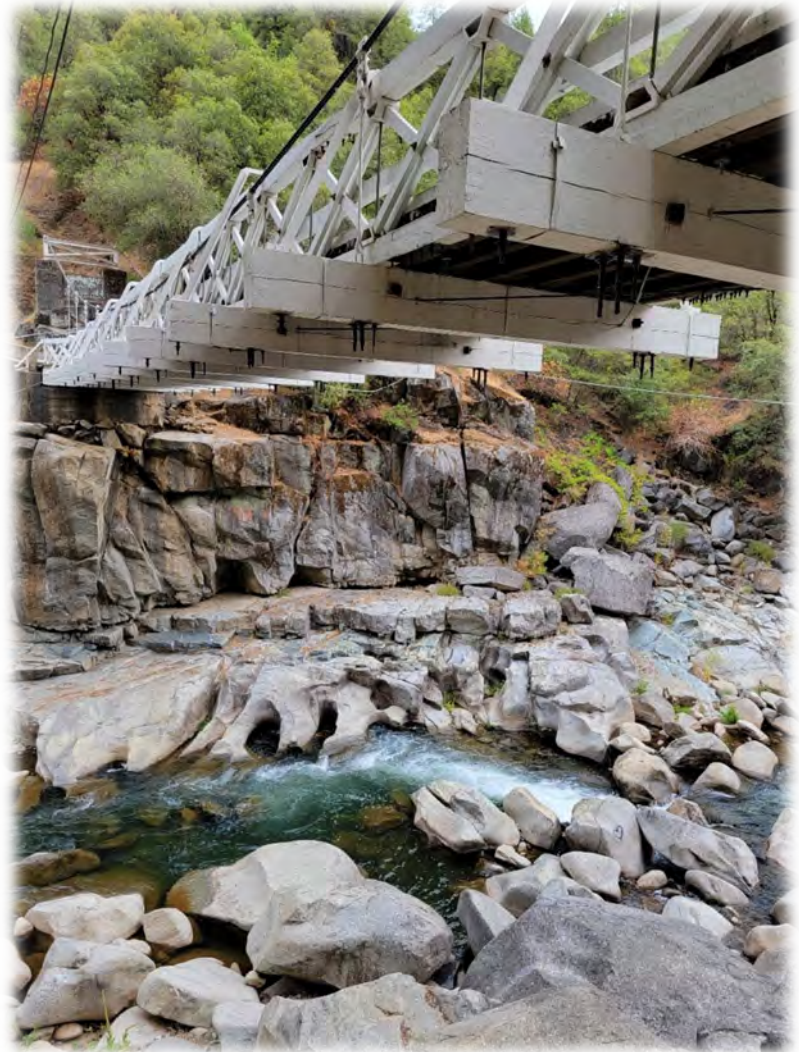
Project Features

- Pier Walls & Foundations
 - Soil Nail & Soldier Pile Walls
- Shotcrete Rock Texturing



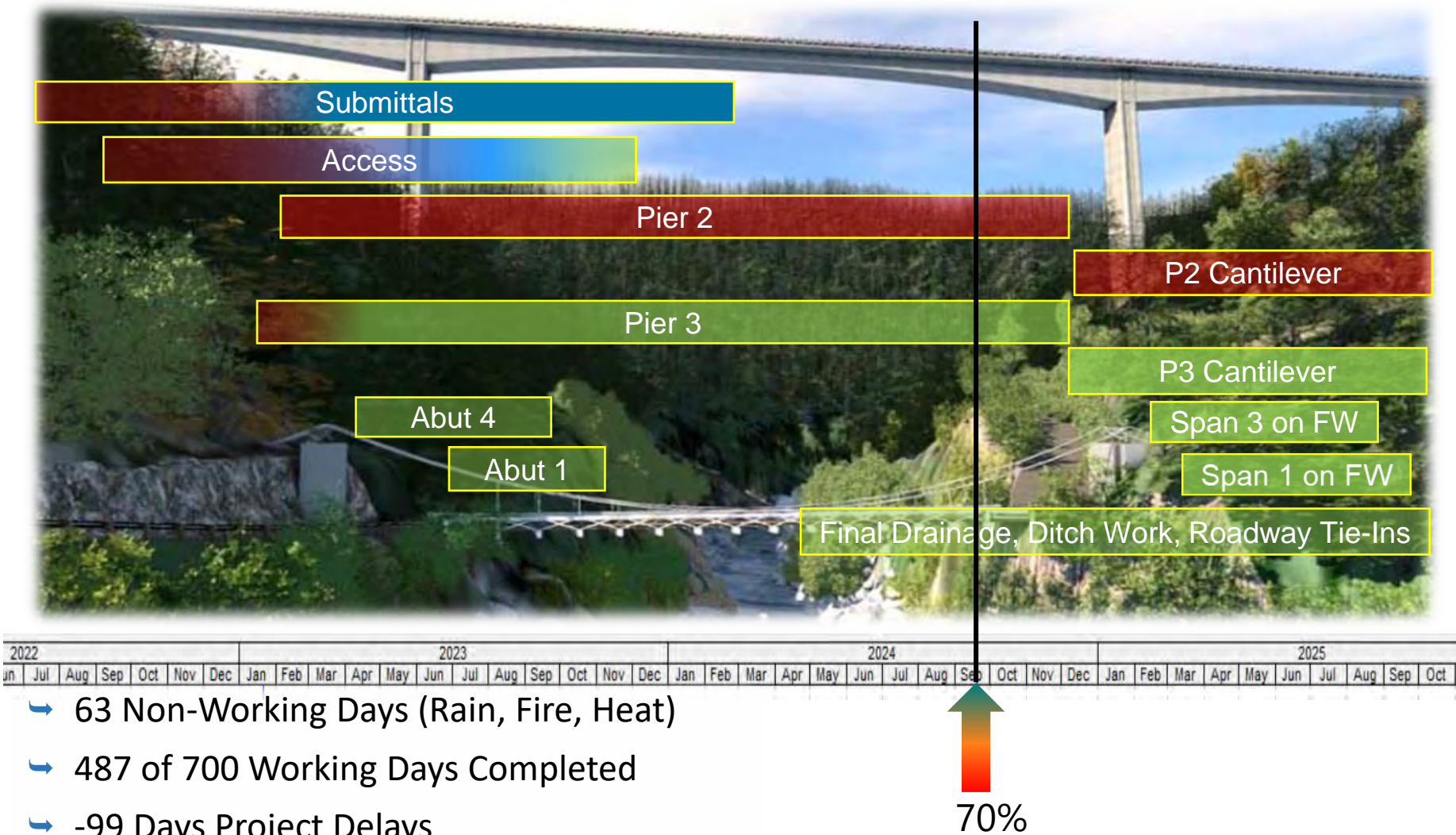
Project Features

- ➔ Existing Mosquito Road Bridge Remains In Place
- ➔ Converted to Bicycle & Pedestrian Bridge (Other Project)
- ➔ Gated Access to Existing Bridge





Construction Contract Award & Milestone Completion



- ➔ 63 Non-Working Days (Rain, Fire, Heat)
- ➔ 487 of 700 Working Days Completed
- ➔ -99 Days Project Delays

70%



Construction Start & Milestone Completions



- ➔ Notice to Proceed – July 18, 2022
- ➔ Stage 0 North Realignment Completed & Road Opened – August 9, 2022
- ➔ Abutment 1 Foundation & Stem Completed – August 2023
- ➔ Abutment 4, Retaining Wall 4, Backfill Completed – September 2023
- ➔ Piers 2 & 3 Structural Retaining Walls Completed – September 2023
- ➔ Abutment 1 Retaining Walls Completed – October 2023
- ➔ Pier 2 Access Completed October 2023
- ➔ Pier 2 & 3 Foundation CIDH Piles Completed – January 2024
- ➔ Pier 2 & 3 1,100 CY Pile Caps Foundation Concrete Completed – April 2024
- ➔ Pier 3 Column Lift 6 out of 8 Completed – September 16, 2024
- ➔ Pier 2 Column Lift 6 out of 8 Completed – September 23, 2024
- ➔ Drainage Systems and Erosion Control in Progress



Bridge Construction Sequence Video





Work Completion South Side

September 23, 2023 – September 23, 2024

- Abutment 1 Retaining Walls
 - Access Construction
 - Drainage System Installation Progress
- Pier 2 Ground Anchor / Soil Nail / Soldier Pile Retaining Walls
 - Pier 2 CIDH Piles & Pile Cap Foundation
 - Pier 2 Column Progress

Abutment 1 & DS3 / South Fill Progress

- ➔ Abutment 1 Construction Completed August 31, 2023
- ➔ Abutment 1 Retaining Walls Completed October 12, 2023
- ➔ South Fill (Partial), Structure Backfill, and Erosion Control Completed by November 27, 2023



South Pier2 Access Progress

- South Trestle & Temp Soil Nail Wall Completed September 29, 2023
- South Trestle 275T Kobelco Crane Mobilized October 2, 2023



South Pier2 Access Completed

→ South Trestle Access Road Paving Completed October 7, 2023



Project Wide Erosion Control Installations

- ➔ Erosion Control Best Management Practices (BMPs) Installed by November 27, 2023



Pier2 – South Layout, Progress, and Erosion Control BMPs - November 22, 2023



Pier2 (South) Foundation Progress

→ Ground Anchor / Soil Nail Walls Completed September 25, 2023



Pier2 (South) Foundation Progress

- ➔ Cast in Drilled Hole (CIDH) Pile Construction Started October 3, 2023
 - ➔ 35 CIDH Piles per each Pier Foundation – 36" Diameter x Approx. 60' Deep



Pier2 (South) Foundation Progress



→ CIDH Pile Cages Pre-Assembled at Trestle on October 19, 2023



Pier2 (South) Foundation Progress

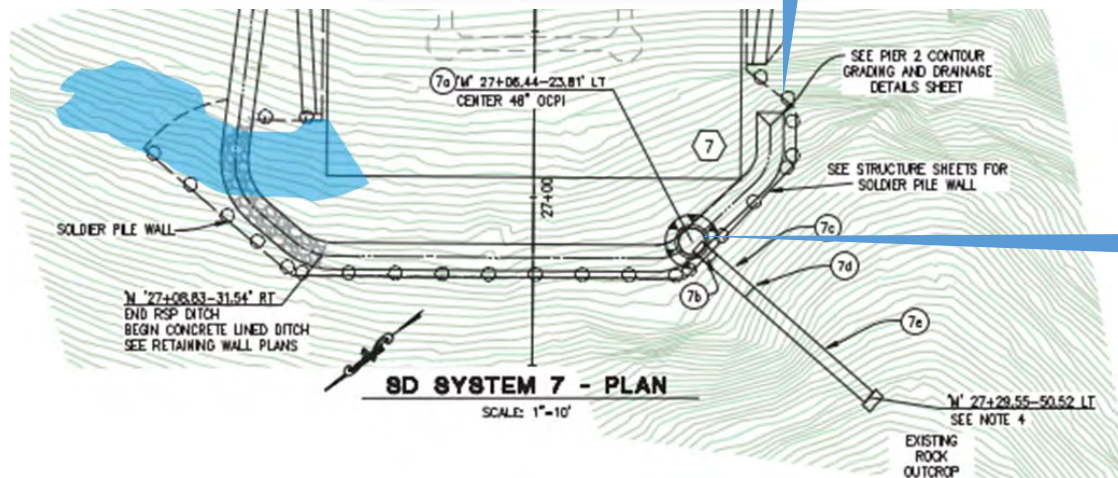
- ➔ CIDH Pile Construction, Soldier Pile Construction Progress December 20, 2023
- ➔ Began Installation of Drainage System (DS) #7



Pier2 Drainage System (DS) #7 Installation 12/29/23



Soldier Pile Wall



DS#7 Inlet

Pier2 CIDH Pile Installation Progress January 27, 2024



Pier2 (South) Foundation Progress

- ➔ Soldier Pile Construction Completed February 27, 2024
- ➔ CIDH Pile Construction Completed February 29, 2024



Pier2 (South) Foundation Progress

- ➔ Footing Rat Slab Completed March 08, 2024
- ➔ Footing Bottom Slab Rebar Placement Began March 14, 2024



Pier2 (South) Foundation Progress



- ➔ Temporary Vertical Support Tower (VST) Placed March 20, 2024
- ➔ Column and Footing Top Mat Rebar Placement March 27, 2024



Pier2 (South) Foundation Completed April 5, 2024

- 1,100 Cubic Yard Concrete Placement Completed
- Trip to Green Traffic Control on Highway 50 to Reduce Traffic Impacts Between Public Traffic and Approximately 10 Trucks/Hour from Folsom



Pier2 (South) Column Progress

→ Pier 2 Column Lift 1 (of 8) Completed May 3, 2024



Pier2 (South) Column Progress

➔ Pier 2 Column Lift 3 (of 8) Interior Forms Placed and Start Column Rebar June 10, 2024



Pier2 (South) Column Progress

➔ Pier 2 Column Lift 3 (of 8) Concrete Placed July 8, 2024



Pier2 (South) Column Progress

➔ Pier 2 Column Lift 4 (of 8) Rebar Placement July 23, 2024



Pier2 (South) Column Progress

➔ Pier 2 Column Lift 5 (of 8) Rebar Placement August 15, 2024



Pier2 (South) Column Progress

- ➔ Pier 2 Soldier Pile Wall Structure Backfill September 13, 2024
Through September 23, 2024



Pier2 (South) Column Progress

➔ Pier 2 Column Lift 6 (of 8) Rebar Placed September 13, 2024 & Concrete on September 23, 2024





Work Completion North Side

September 23, 2023 – September 23, 2024

- Pier 3 Ground Anchor / Soil Nail / Soldier Pile Retaining Walls
 - Pier 3 CIDH Piles & Pile Cap Foundation
 - Pier 3 Column Progress
- 10-Week Closure Work for DS#4 & DS#8

Pier3 (North) Foundation Progress

- Ground Anchor / Soil Nail Walls Completed September 21, 2023
- Foundation CIDH Pile Installation Began October 2, 2023



Pier3 – North Layout, Progress, and Erosion Control BMPs – November 22, 2024



Pier3 (North) Foundation Progress

➔ Foundation CIDH Pile Installation Progress on December 20, 2024



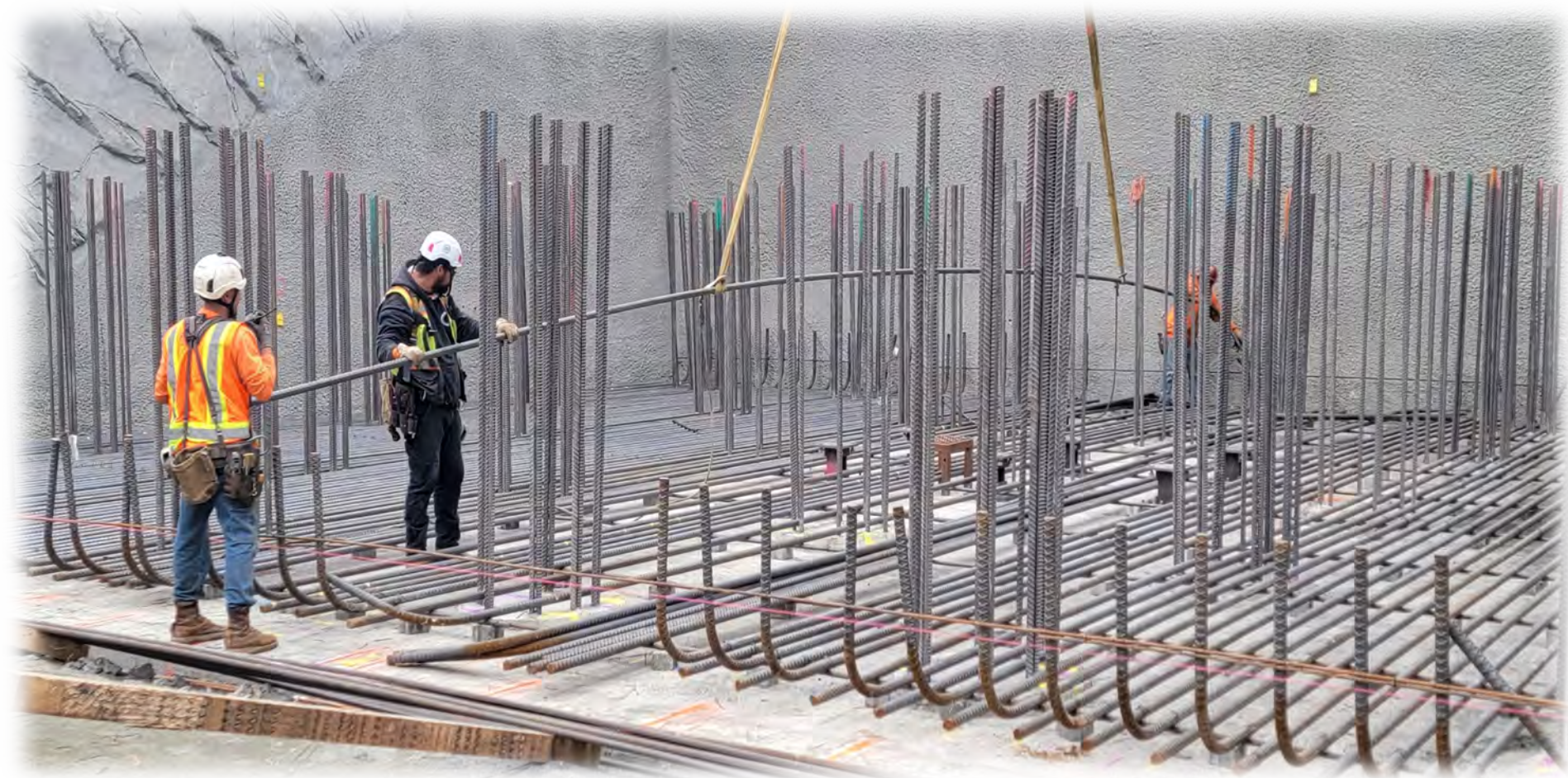
Pier3 (North) Foundation Progress

- ➔ Foundation CIDH Pile Installation Completed on January 24, 2024
- ➔ Began Installation of Temporary Vertical Support Tower (VST) Footing on January 31, 2024



Pier3 (North) Foundation Progress

➔ Began Bottom Matt Installation Foundation Rebar on February 14, 2024



Pier3 (North) Foundation Progress

- ➔ Finished Bottom Matt Installation Foundation Rebar on February 16, 2024
- ➔ Completed Installation of VST on February 16, 24



Pier3 (North) Foundation Progress

- ➔ Began Lifts 1 & 2 Column Rebar on April 1, 2024
- ➔ Completed Foundation Rebar and Formwork on April 4, 2024





Pier3 (North) Foundation Completed April 13, 2024

- ➔ 1,100 Cubic Yards of Foundation Concrete Supplied by Finnon Batch Plant
- ➔ Pier 2 and Pier 3 Foundation Concrete Placement were the Largest on Project



Pier3 (North) Foundation Completed April 13, 2021



→ 1,100 Cubic Yard Concrete Placement Operation



Pier3 (North) Column Progress

- ➔ Finish Column Lift 1 (of 8) Rebar Placement on April 17, 2024
- ➔ Begin Placement of Lift 1 Forms on April 24, 2024



Pier3 (North) Column Progress

➔ Place 160 Cubic Yards of Column Lift 1 (of 8) Concrete on May 10, 2024



Pier3 (North) Column Progress

➔ Column Lift 3 (of 8) Interior Forms Placed on June 13, 2024



Pier3 (North) Column Progress

➔ Column Lift 4 (of 8) “Flag Pole” Guying Installed on July 20, 2024



10-Week Closure Work May 25, 2024 to August 3, 2024

- ➔ DS #4 Installation Progress Across Mosquito Road
- ➔ DS #8 Installation & Rock Ditch Installation Progress
- ➔ Crane Maintenance Laydown Boom on Mosquito Road
- ➔ Old Mosquito Road Bridge Annual Maintenance
- ➔ Time-lapse Camera Installation





North Project Shutdown for Crozier Fire Evacuation August 7, 2024



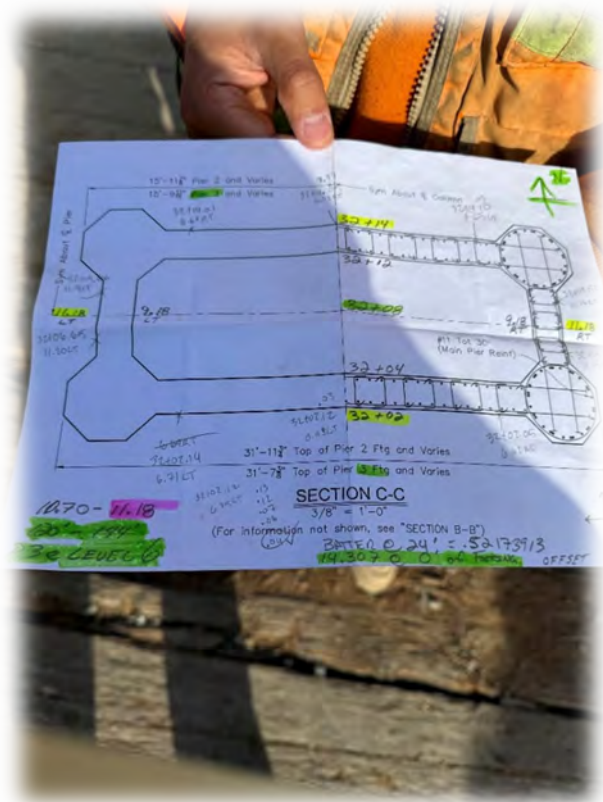
Pier3 (North) Column Progress

➔ Column Lift 5 (of 8) Concrete Placed on August 24, 2024



Pier3 (North) Column Progress

- ➔ Final Survey Check of Column Form Alignment on September 16, 2024
- ➔ Place 160 Cubic Yards of Column Lift 6 (of 8) Concrete on September 16, 2024



Pier3 (North) Column Progress



→ Begin Lift 7 (of 8) VST Support Platform Placement on September 23, 2024





South Project Limits July 20, 2022

- ➔ South Ravine Tree Removals in Progress
- ➔ Begin Access Road Grading





South Project Limits July 12, 2023

- ➔ South Ravine Fill approximately 85% complete
- ➔ Abutment 1 / RW1 and structure backfill in progress
- ➔ Pier 2 Retaining Walls completed on 9/25/23



South Project Limits September 20, 2024

- ➔ Pier 2 CIDH Piles installation completed on 1/31/24
- ➔ Pier 2 Footing Pile Cap 1,100 CY concrete placed on 4/6/24
- ➔ Pier 2 Column Lift 6 (out of 8) completed on 9/23/24





North Project Limits July 20, 2022

- ➔ North Tree Removals in Progress
- ➔ Begin Stage 0 North Bypass Road & Grading at BLM Staging Area





North Project Limits September 5, 2023

- ➔ Rock slope armoring, concrete ditches, DS5, and metal guardrail complete 7/31/23
- ➔ Abutment 4 / RW 4, backfill, and road base complete 9/19/23
- ➔ Pier 3 Retaining Walls complete 9/22/23



North Project Limits September 20, 2024



- ➔ Pier 3 CIDH Piles installation completed on 1/27/24
- ➔ Pier 3 Footing Pile Cap 1,100 CY concrete placed on 4/13/24
- ➔ Rock lined ditches, concrete ditches, DS4 & DS8, progress completion 8/3/24
- ➔ Pier 3 Column Lift 6 (out of 8) completed on 9/16/24






Upcoming Operations & Schedule

September 23, 2024 – September 23, 2025

- Complete Columns Lifts 7 and 8
 - Construct Pier Tables
 - Construct Segments
 - End Span Falsework

Anticipated Project Schedule



- 
- A wide-angle rendering of the Mosquito Road Bridge, a long concrete viaduct with multiple piers, spanning a deep, forested valley. The surrounding hills are covered in dense green vegetation, and the sky is clear and blue.
- ➔ Complete Pier 2 & 3 Columns – November 2024
 - ➔ Complete Project Erosion Control Measures for Winter – November 2024
 - ➔ Complete Pier 2 & 3 Pier Tables – March 2025
 - ➔ Complete End Span Superstructures – By August 2025
 - ➔ Complete Superstructure Segments – September 2025
 - ➔ Complete Superstructure Closure Joints – November 2025
 - ➔ Begin Bridge Deck Poly Overlay & Bridge Barriers – December 2025
 - ➔ Complete Approach Roadways, Drainage Systems & Misc. Civil Work – Spring 2026

*Schedule subject to change based on site conditions, etc.

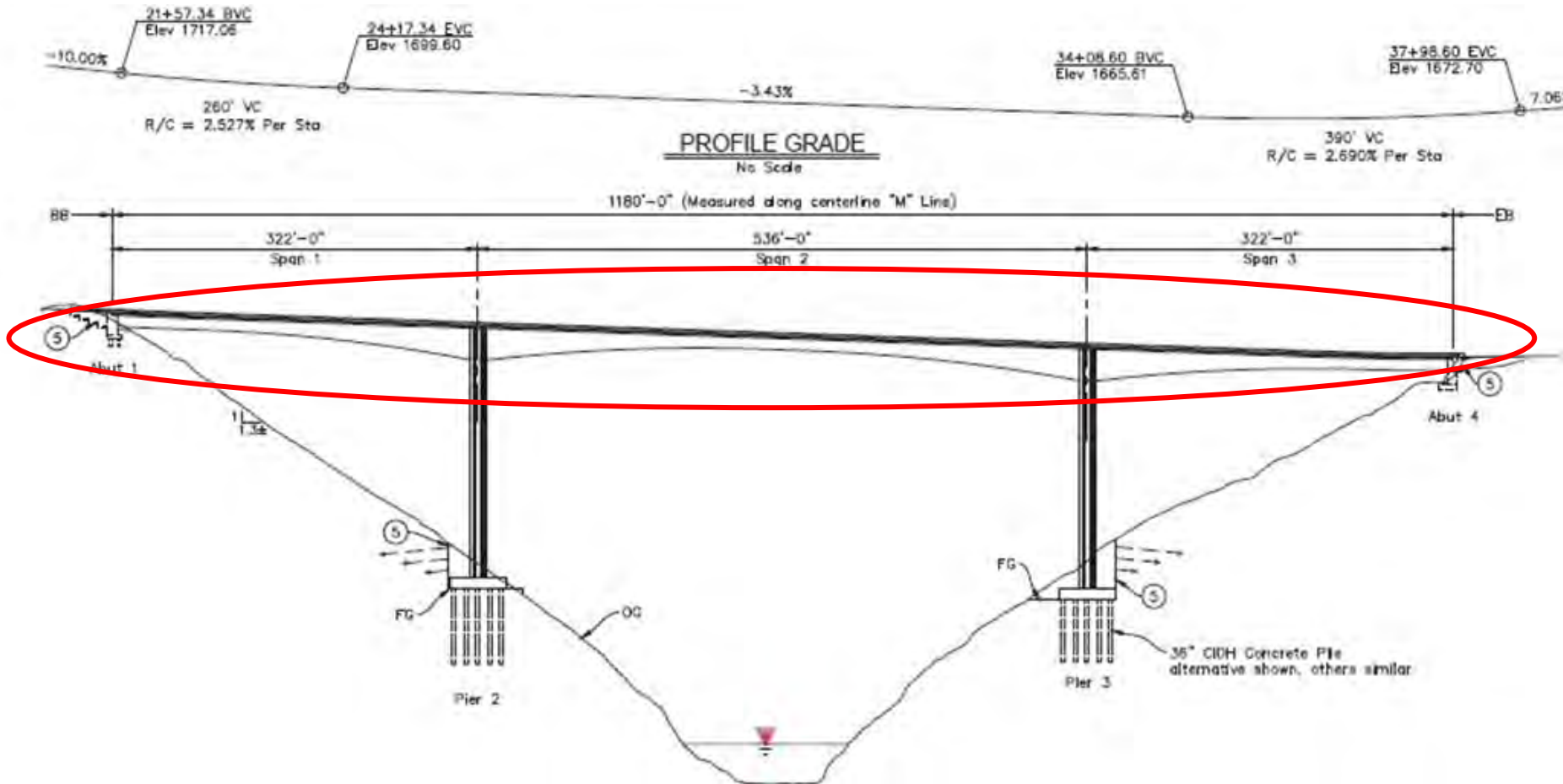
*Refer to County Project website for details:

<https://www.eldoradocounty.ca.gov/Land-Use/County-Projects/Bridge-Projects/Mosquito-Road-Bridge-Project/Mosquito-Road-Bridge-Project-Construction>



Next Phases of Work – Bridge Super Structure

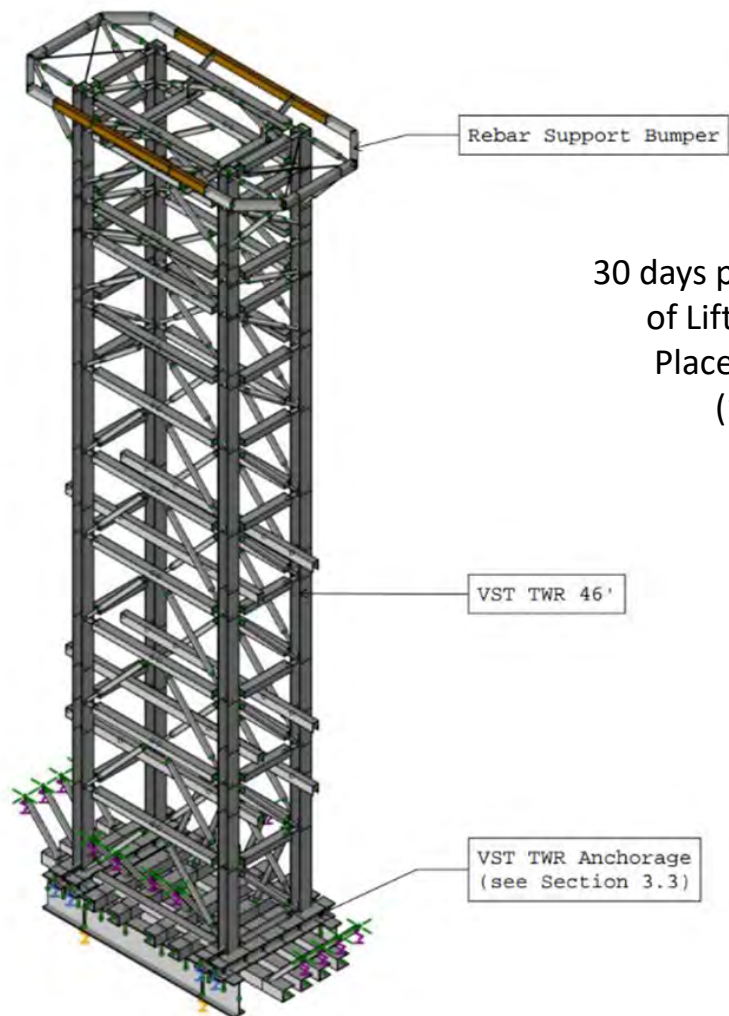
➔ Anticipated Completion by September 2025



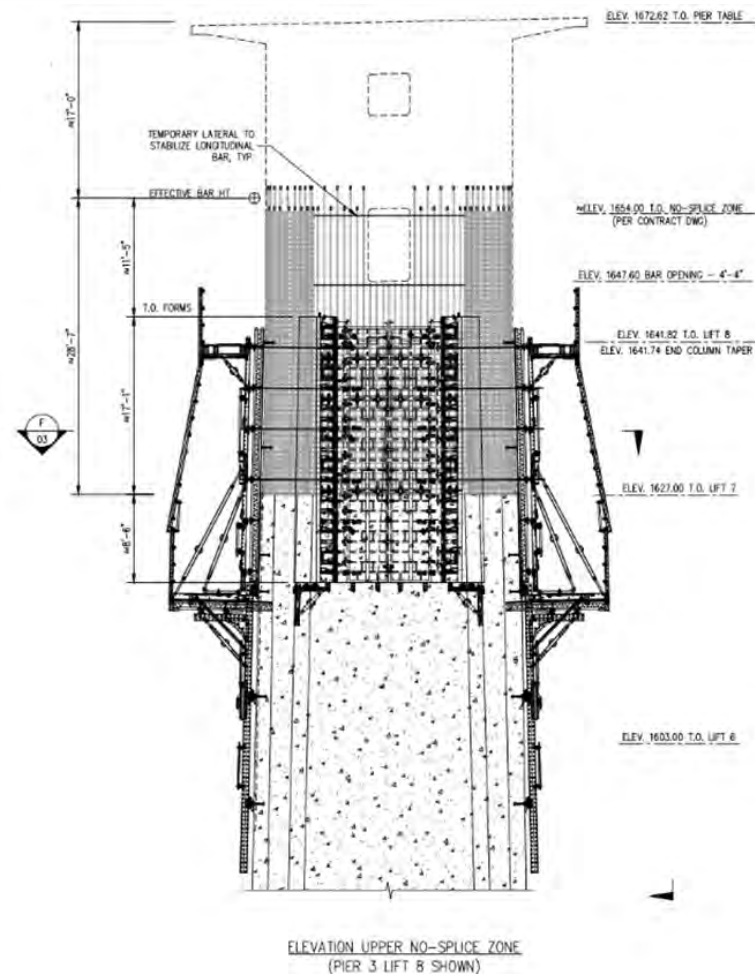


Next Phases of Work – Column Lifts 7 & 8

→ Anticipated Completion by November 2024

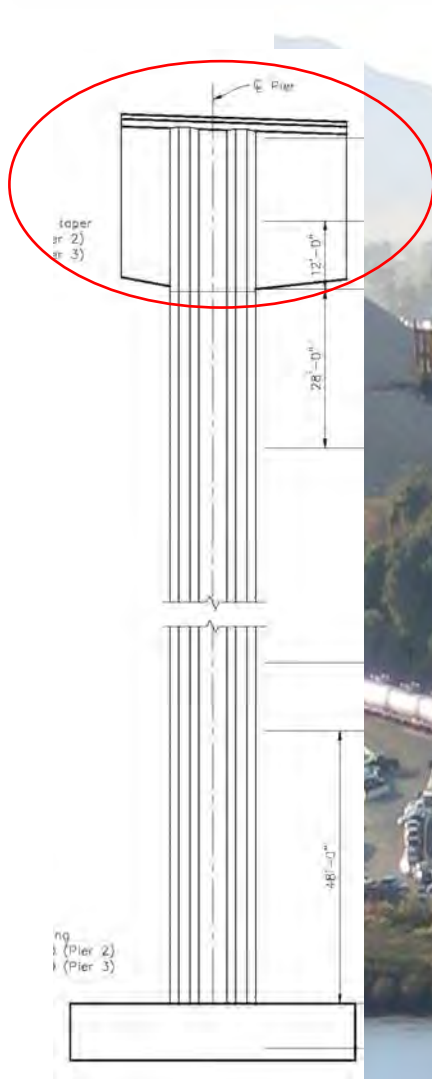


30 days planned from start
of Lift 7 to Concrete
Placement of Lift 8
(15wd/lift)



Next Phases of Work – Pier Table Construction

➔ Anticipated Start by Late October 2024 (Scheduled for 4-Months)





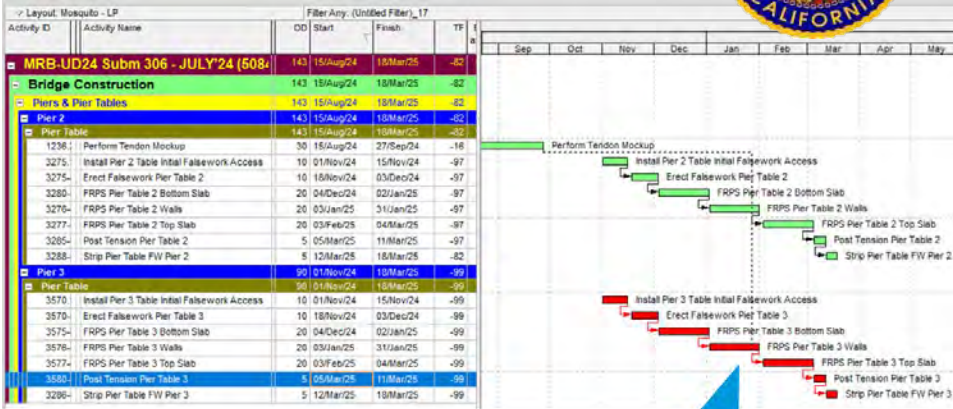
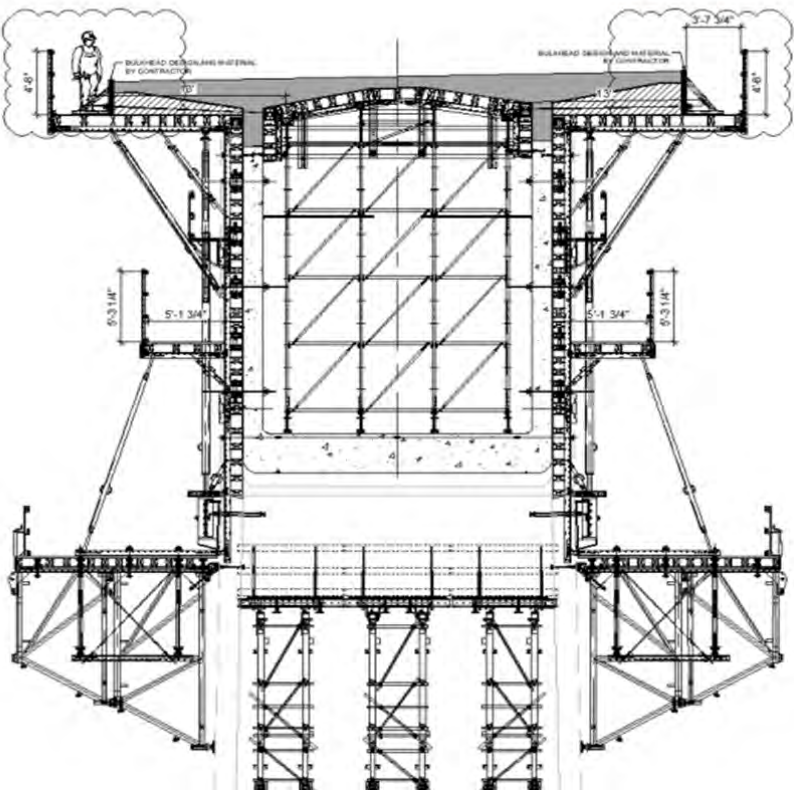
Next Phases of Work – Pier Table Construction

Anticipated Completion by March 2025

PERI Formwork Systems, Inc.
600 W Cermak Road, Suite 212
Chicago, IL 60616, USA Phone: 312-878-7769



3.2 Section

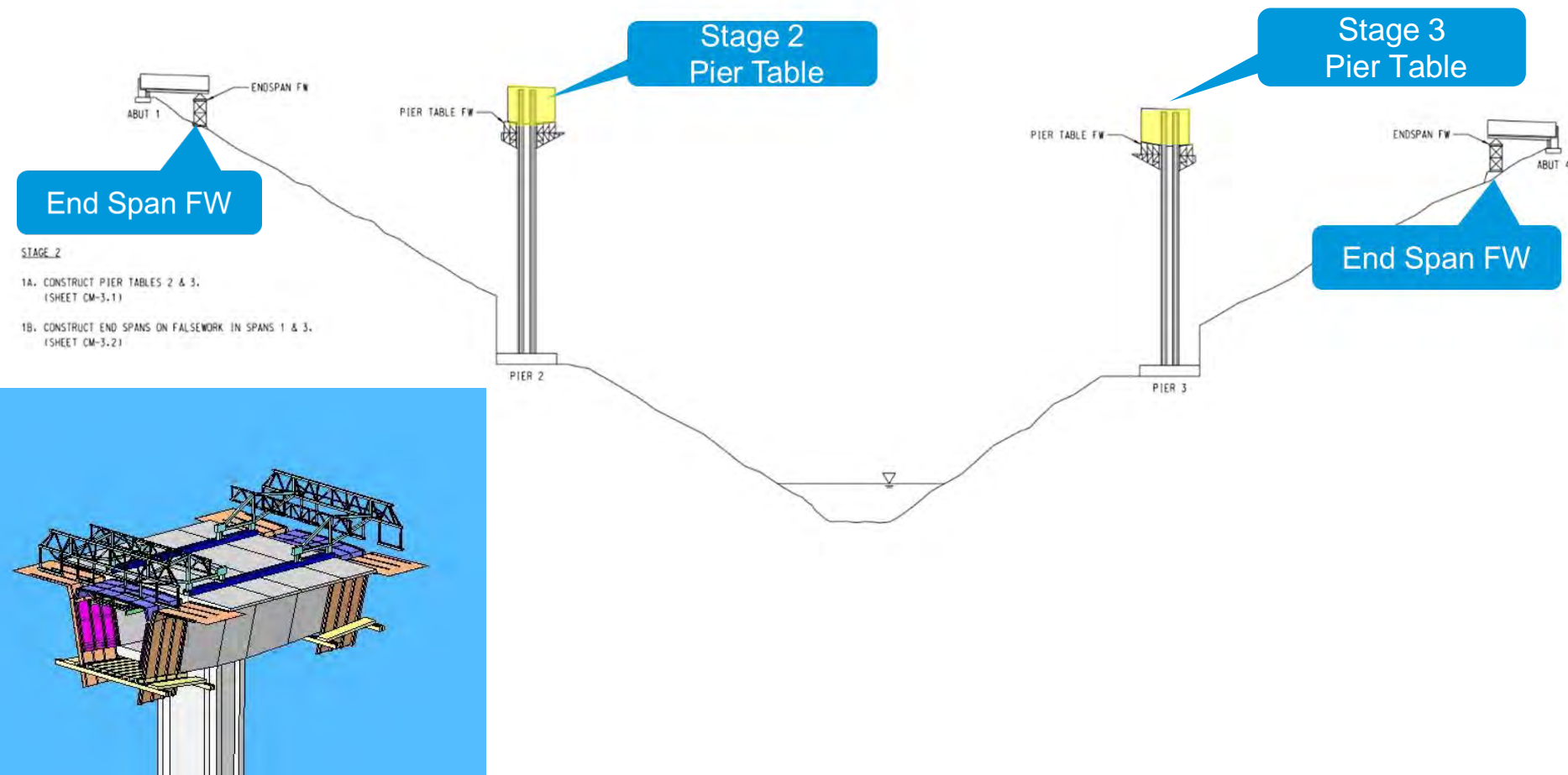


Pier table Construction complete within 4.5 Months



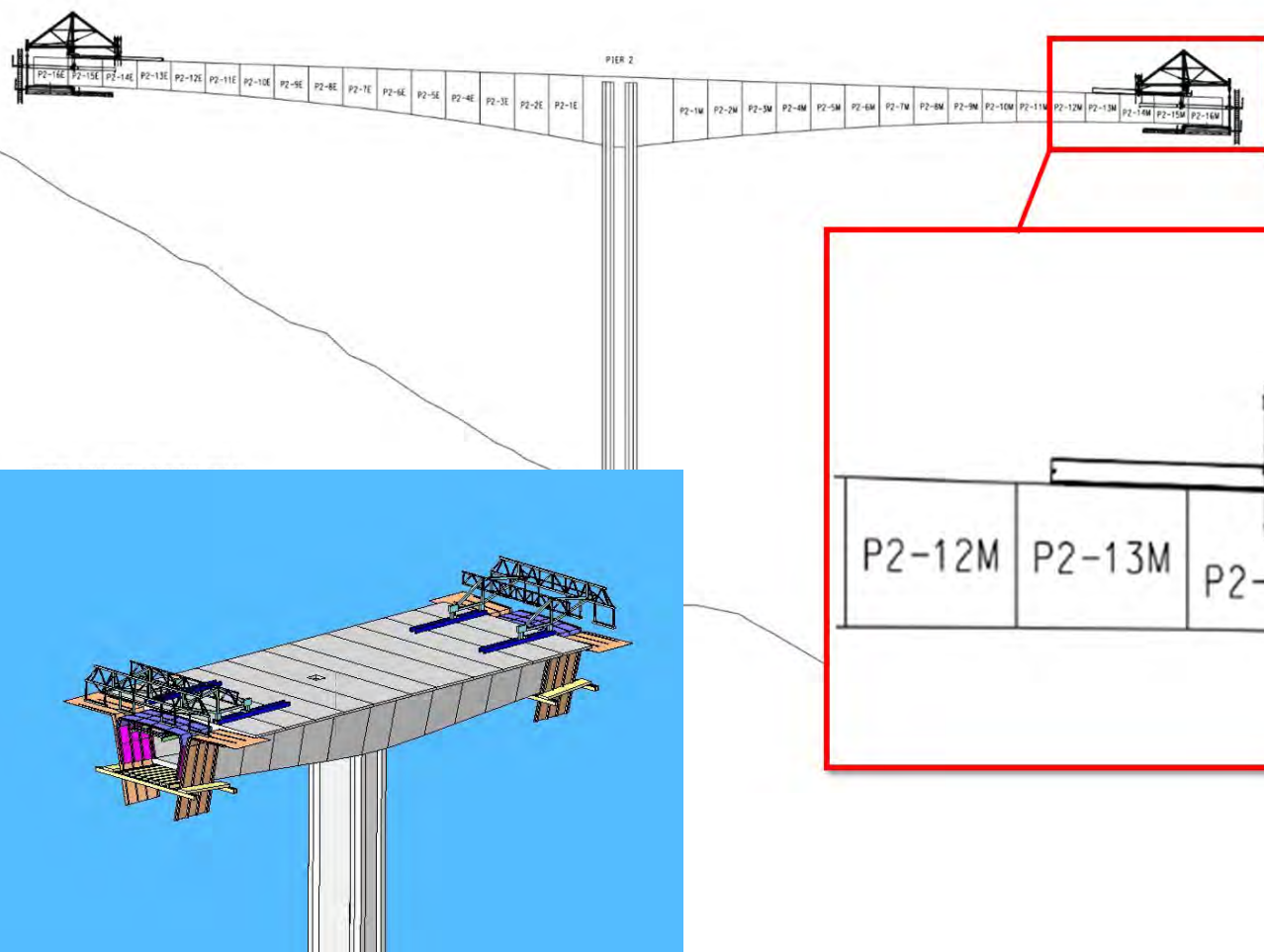
Next Phases of Work – Bridge Super Structure Pier Tables

- ➔ Construct Pier Tables to Start Segment Construction - Anticipate Completion of Segments by September 2025

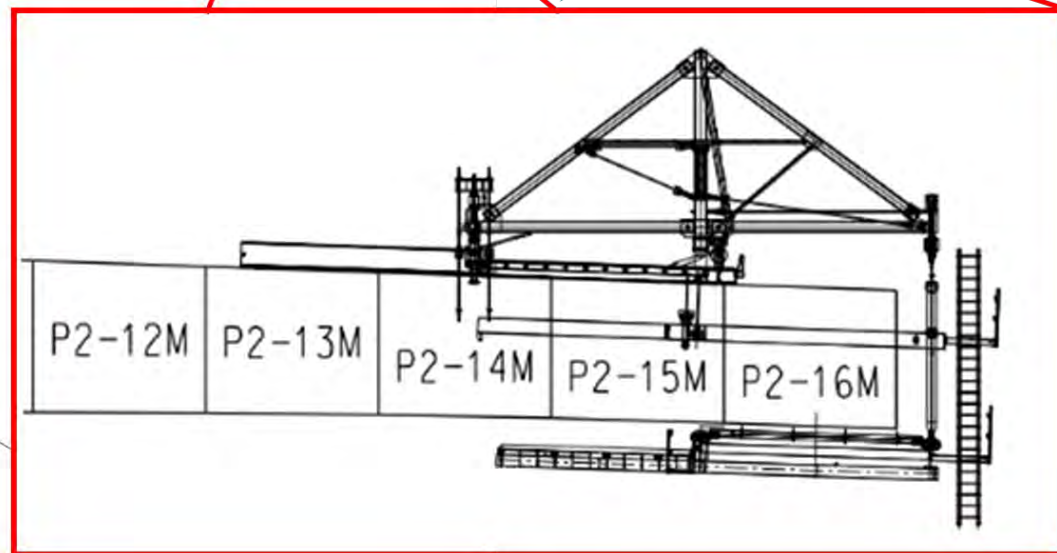


Next Phases of Work – Bridge Super Structure Segments

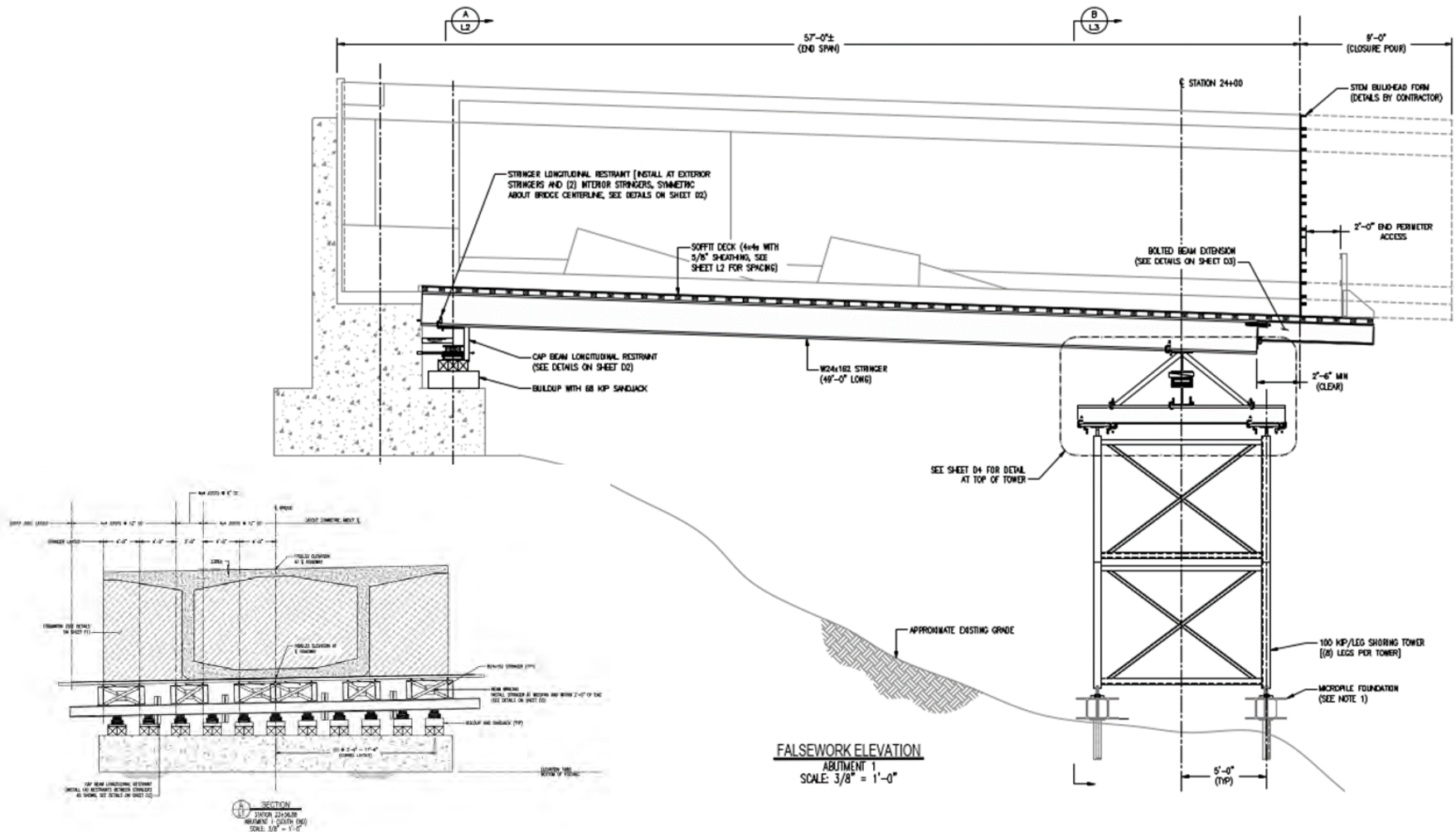
→ Construct Segments Anticipate Completion by September 2025



Traveler Configuration
6-day cycle per segment

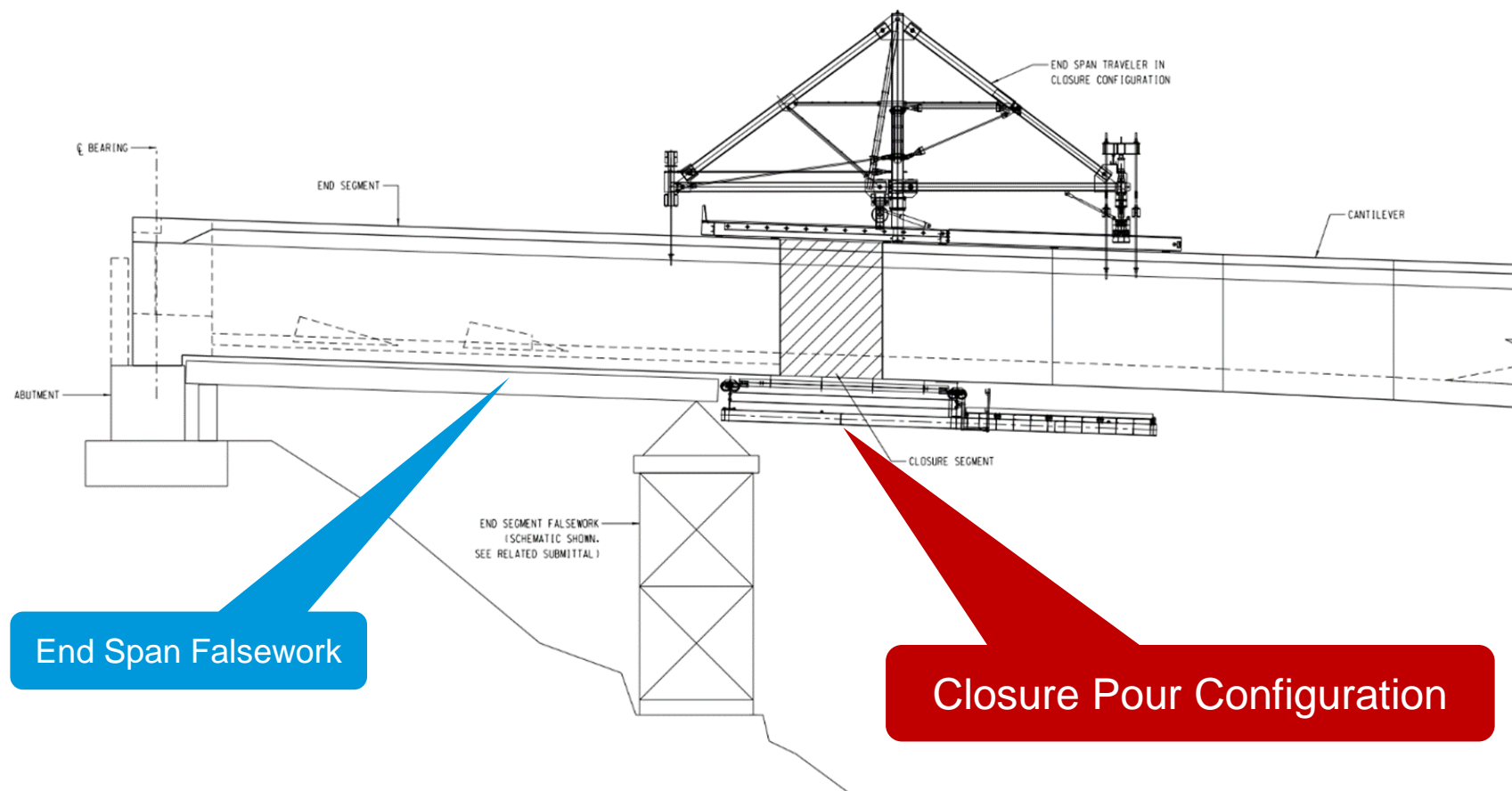


➡ End Span Falsework Completion by Summer of 2025



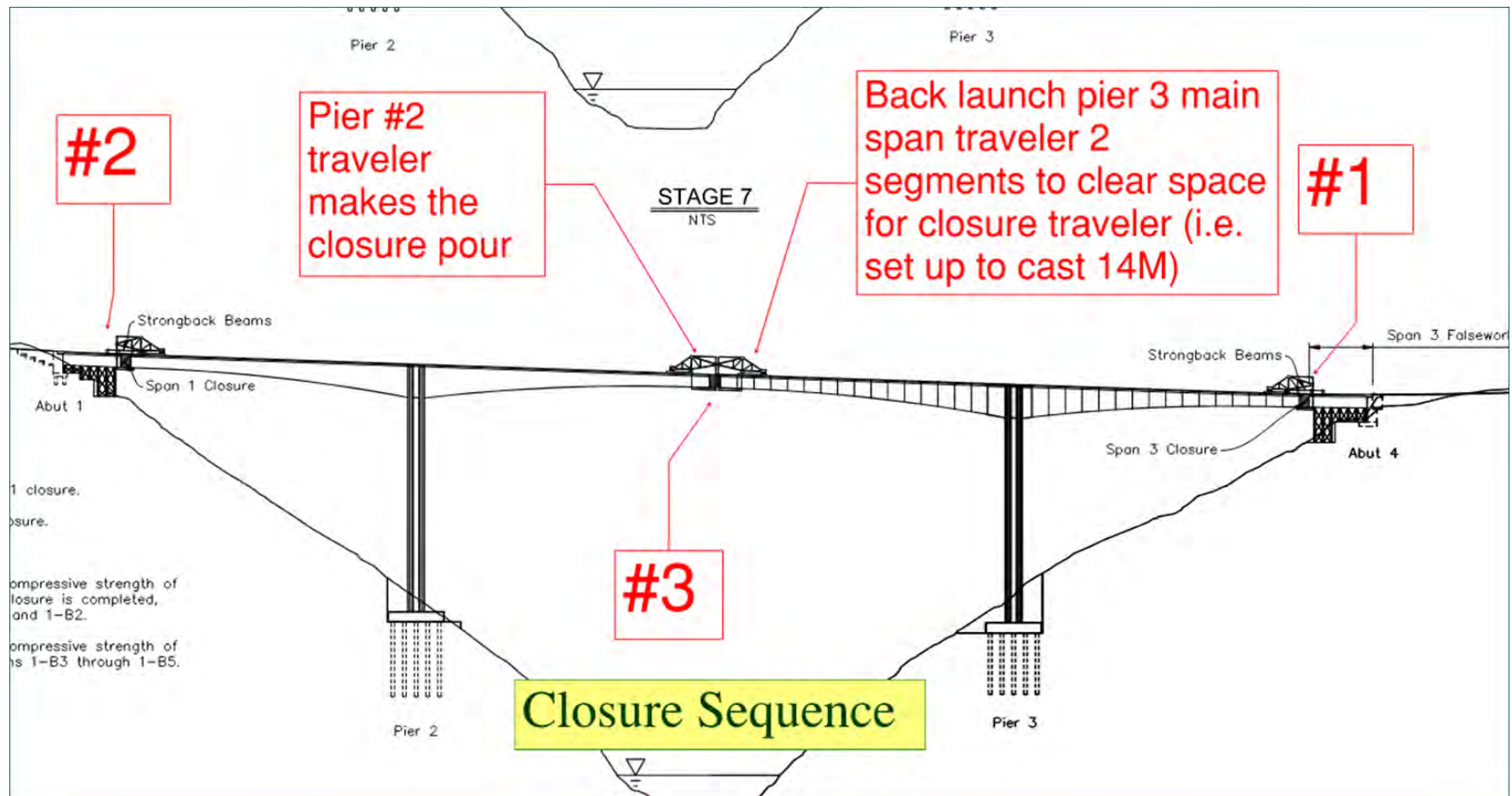
Next Phases of Work – Bridge Super Structure Closure Pours

- ➔ Construct Closure Pours Between Segments and Cast on Falsework - Anticipate Completion by November 2025



Next Phases of Work – Bridge Super Structure Closure Pours

- Three Total Closure Pours – One at Each End Span and One at Mid-Span





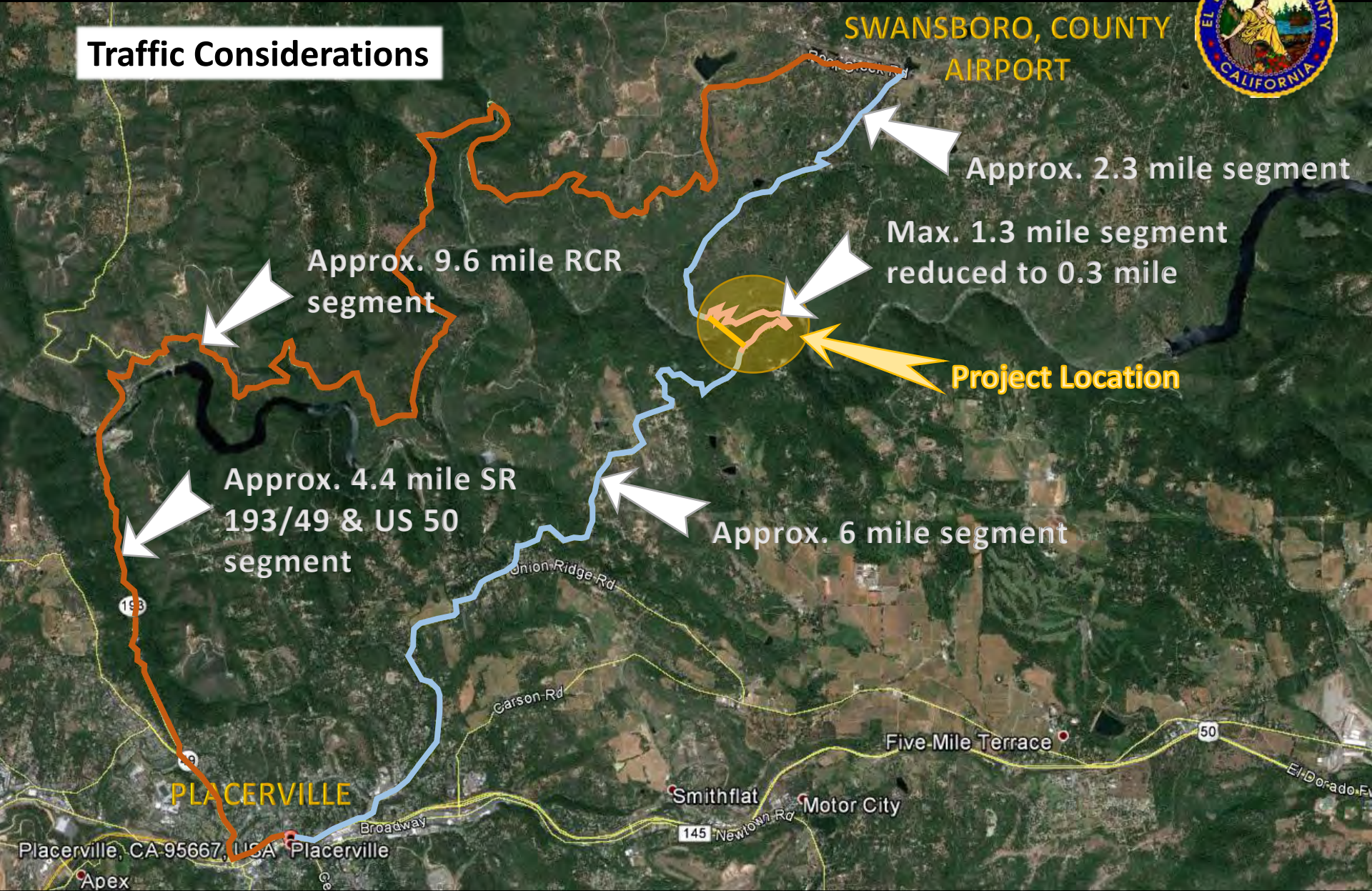
Traffic Considerations

- ➔ Late May 2025 to Early August 2025 10-Week Closure while schools are out of session
- ➔ Large Rebar/Materials Loads & Concrete Truck Deliveries Daily - Weekly continue through 2025
- ➔ Intermittent Reversing Control & Flagging
- ➔ Coordination Efforts
 - ➔ PCMS Boards & Advanced Warning Signs
 - ➔ Public Notices & Updates
 - ➔ Project Website Quarterly Updates
 - ➔ Mosquito Fire Facebook
- ➔ Reduce Speeds, Watch for Signs, Yield for Pilot Vehicles, and Stop for Flaggers





Traffic Considerations



Public Outreach



➔ Refer to EDCGOV Project Website & Mosquito Fire Facebook for Updates:

<https://www.eldoradocounty.ca.gov/Land-Use/County-Projects/Bridge-Projects/Mosquito-Road-Bridge-Project/Mosquito-Road-Bridge-Project-Construction>

A screenshot of the El Dorado County Department of Transportation website. The header includes the El Dorado County logo, a search bar, and navigation links: Home, I Want To, Government, Doing Business, Living, Visiting, Emergency Services, Connect With Us, Phone Directory, Strategic Plan, and Transparent EDC. Below the header is a "Department of Transportation Menu" section. The main content area is titled "Department of Transportation" and "Mosquito Bridge Project". It includes a welcome message, a description of the project as a Highway Bridge Program (HBP) project eligible for federal funding, and a photo of the bridge under construction. To the right, there is a "Comments or Questions?" section with contact information: Online Form (Comment Form), Email (mosquitobridge@edcgov.us), Phone (530) 621-5900, Fax (530) 626-0387, and Mail (El Dorado County Transportation Division, Attn: Bridge Project Coordinator, 2850 Fairlane Court, Placerville, CA 95667). At the bottom, there is a "What's New" section with links to recent updates: Mosquito Bridge Project Update Public Meeting on April 21, 2022 (posted 03-18-22), Mosquito Bridge Conversion Project Overview & Grant Opportunity Presentation to the Parks and Recreation Commission (posted 09-17-21), Mosquito Road Bridge Presentation to the Board of Supervisors to Award RFP 20-961-081 (posted 08-16-21), Mosquito Road Bridge Project's High Cost Agreement Approved by Board of Supervisors (posted 05-04-21), and Updated Project Schedule* (posted August 16, 2021).



20 Minute Q&A



[Mosquito Road Bridge Project-Construction - El Dorado County \(ca.gov\)](https://www.ca.gov/mosquito-road-bridge-project-construction)