

Welcome to the Sylvester Road Bridge #1052A Open House Bridge Replacement



King County contact:

community.relations@kingcounty.gov

206-205-8788

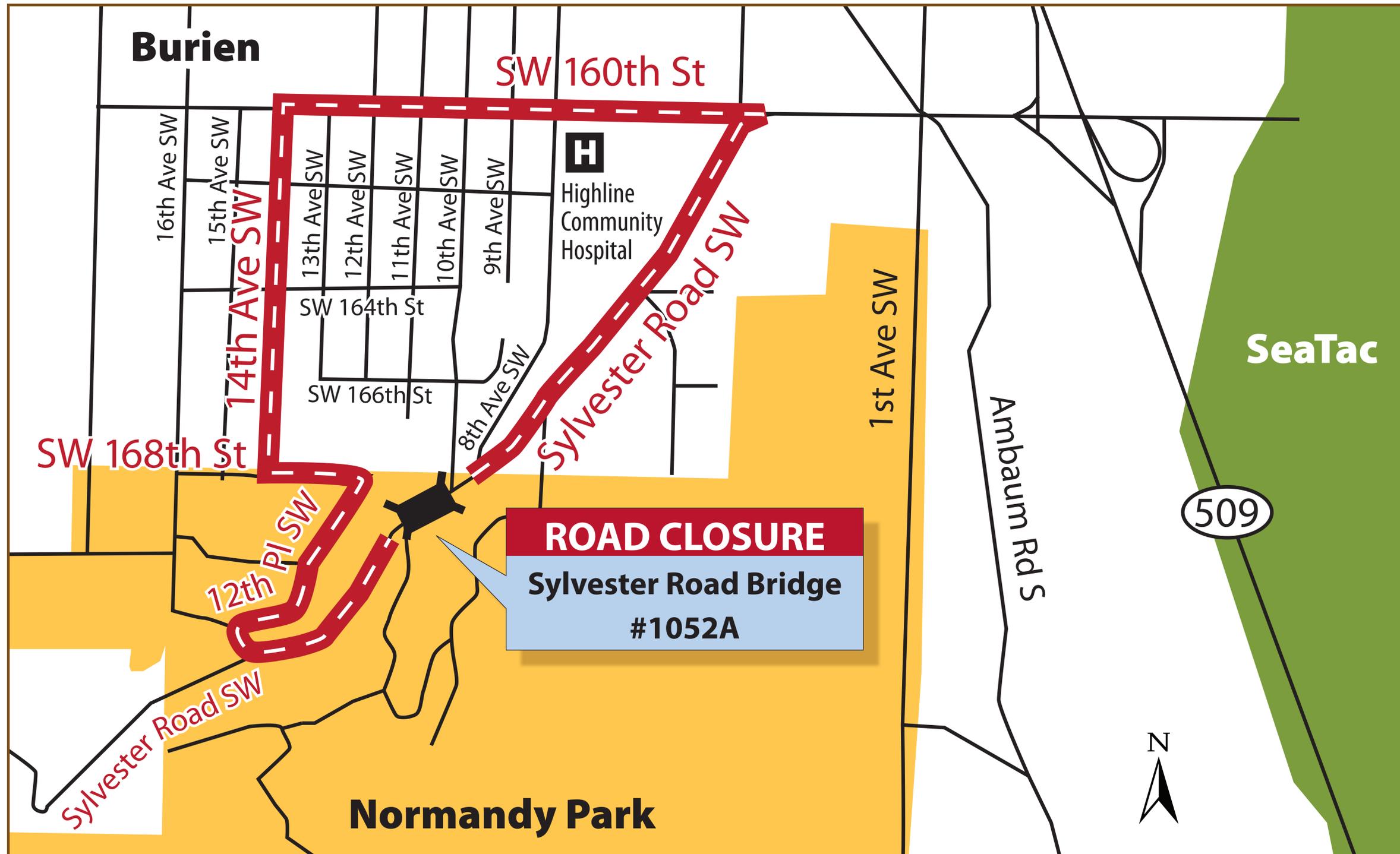
City of Normandy Park contact:

Public Works Department: 206-248-8269

www.ci.normandy-park.wa.us

SYLVESTER ROAD BRIDGE #1052A

Vicinity/Detour map



 Detour route (route length = 2.5 miles)

SYLVESTER ROAD BRIDGE #1052A

Why replace the bridge? Existing conditons

Built in 1931



Narrow roadway (looking north).



Load limited and seismically vulnerable (looking south).



Horizontal cracks in curb along rail.



Spalling on east face of column.



Concrete columns, girders and floor beams. Tall slender columns are seismically vulnerable.



Spall and cracking with exposed rebar on a girder.



Typical cracks through all cantilever floor beams.



Concrete cantilever floor beams with leaching cracks.



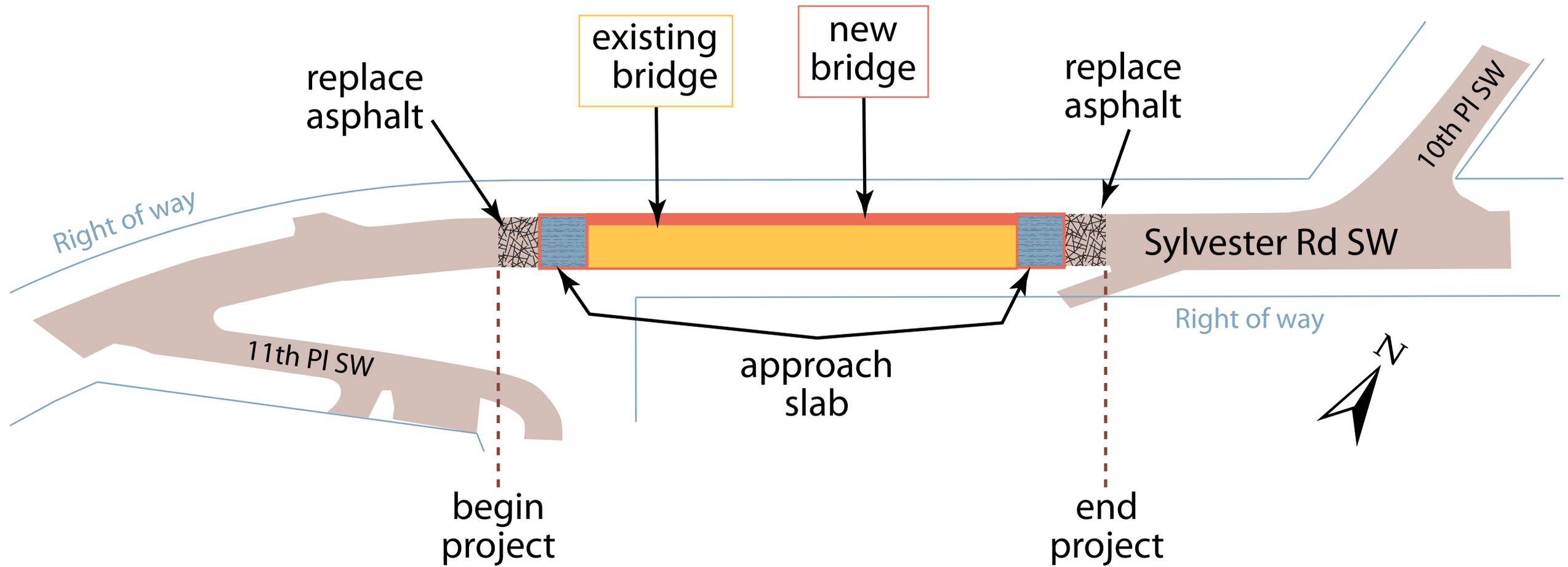
Deck soffit between floor beams showing map cracking.



Girder cracking near joint.

SYLVESTER ROAD BRIDGE #1052A

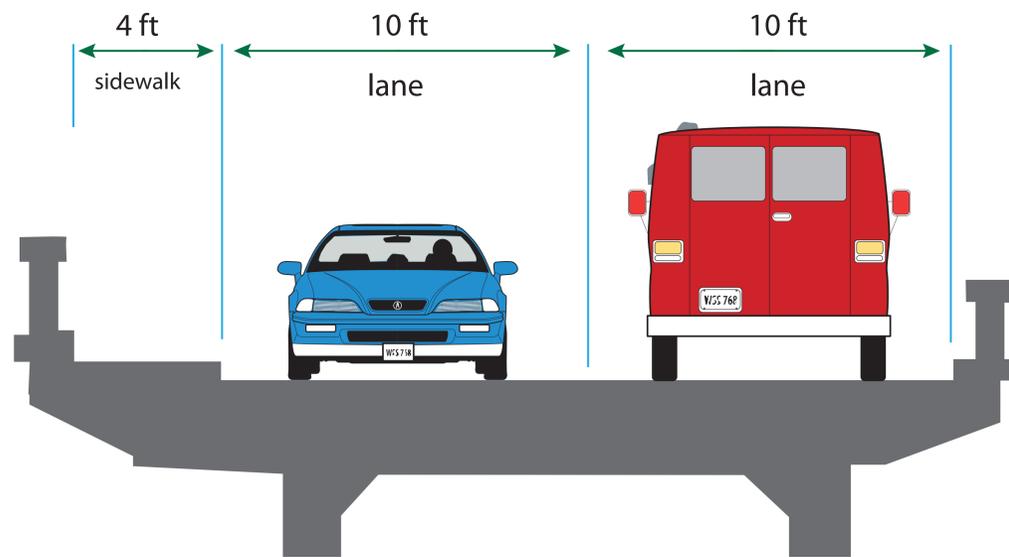
Project plan



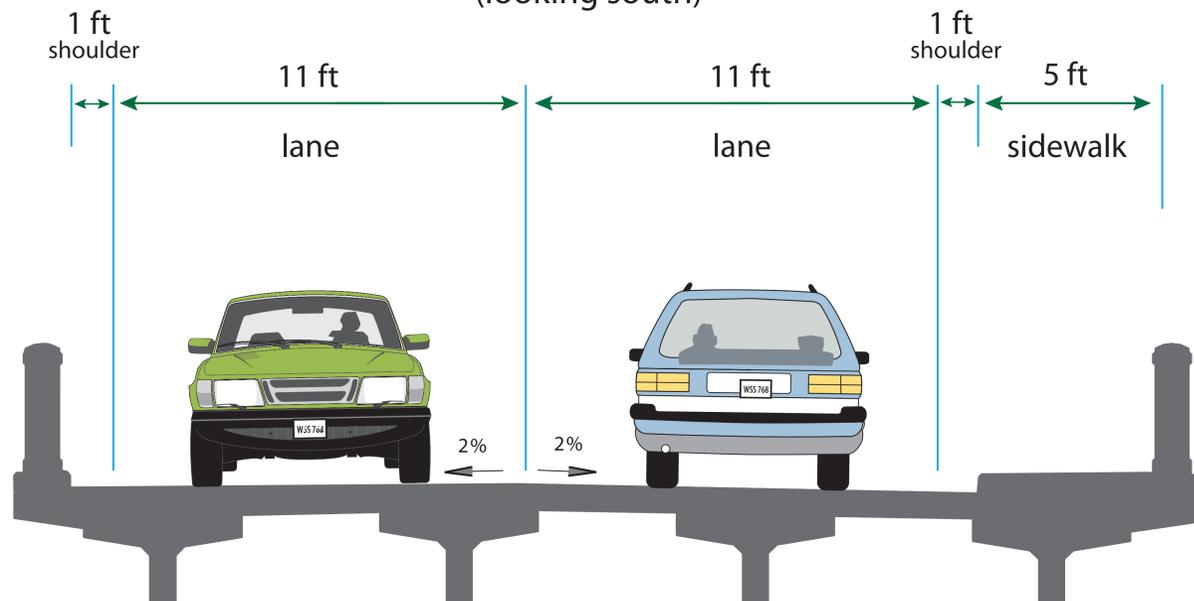
SYLVESTER ROAD BRIDGE #1052A

Project improvements

Existing bridge
(looking south)



New bridge
(looking south)



Elements	Existing bridge	New bridge
Curb-to-curb width	20.0 feet	24.0 feet
Bridge span	220 feet	220 feet
Number of spans	Five	One
Lane width	10 feet	11 feet (safer lane width)
Sidewalk	4 feet	5 feet
Crown	0-2%	2%
Shoulder width on the bridge	0 feet	1 feet
Design load	15 tons (HS-15)	45 tons (HL-93) current standard
Posted load limit	15 tons	None
Approach slab	None	25 feet long
Traffic rails on bridge	Concrete-substandard capacity	Concrete-standard
Seismic safety	Vulnerable	Standard

SYLVESTER ROAD BRIDGE #1052A

Schedule milestones and budget

Tasks	Milestone
Phase 1 technical memo	May 2010
70% Design	October 2010
95% Design	December 2010
Project advertisement	February 2011
Construction	May 2011- December 2011

Project budget	
Design	\$0.4 million
Construction	\$2.9 million



Existing bridge, looking north.



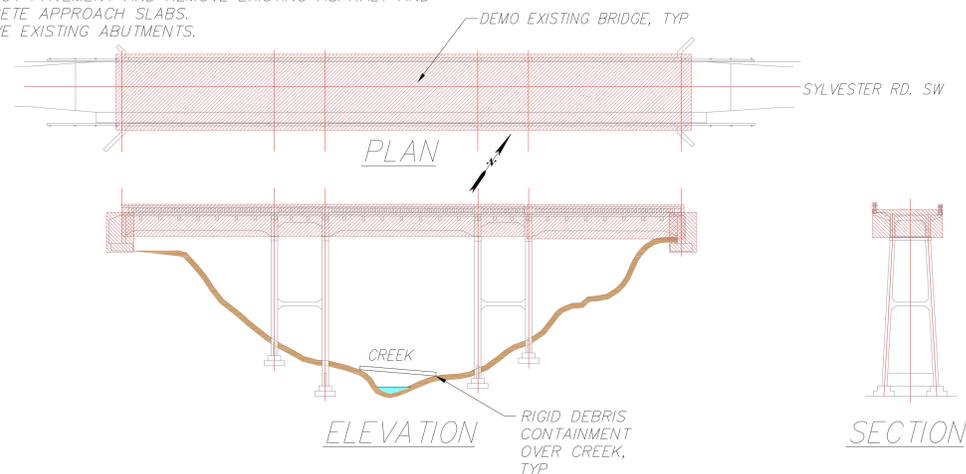
Conceptual image of new bridge, looking north.

SYLVESTER ROAD BRIDGE #1052A

Construction sequence

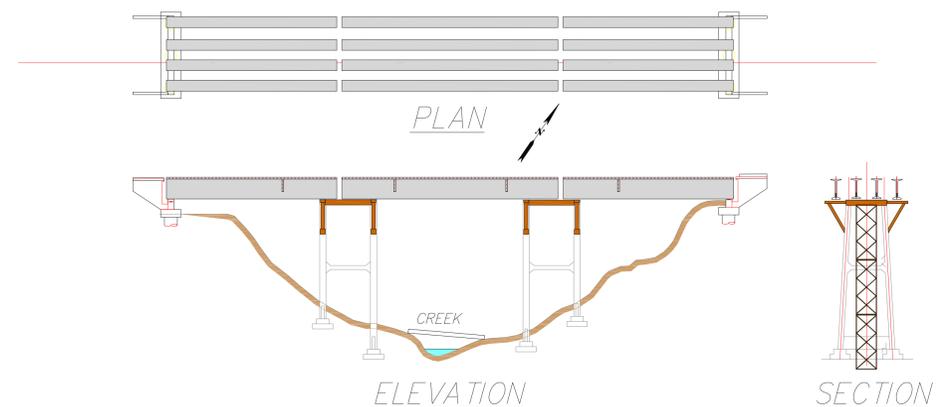
STAGE 1 CONSTRUCTION:

1. INSTALL TESC MEASURES, DEBRIS CONTAINMENT/COLLECTION, SET UP DETOUR, AND CLOSE ROAD.
2. REMOVE BRIDGE RAIL & WATERLINE.
3. SAW CUT DECK AND REMOVE BRIDGE GIRDERS.
4. SAW CUT PAVEMENT AND REMOVE EXISTING ASPHALT AND CONCRETE APPROACH SLABS.
5. REMOVE EXISTING ABUTMENTS.



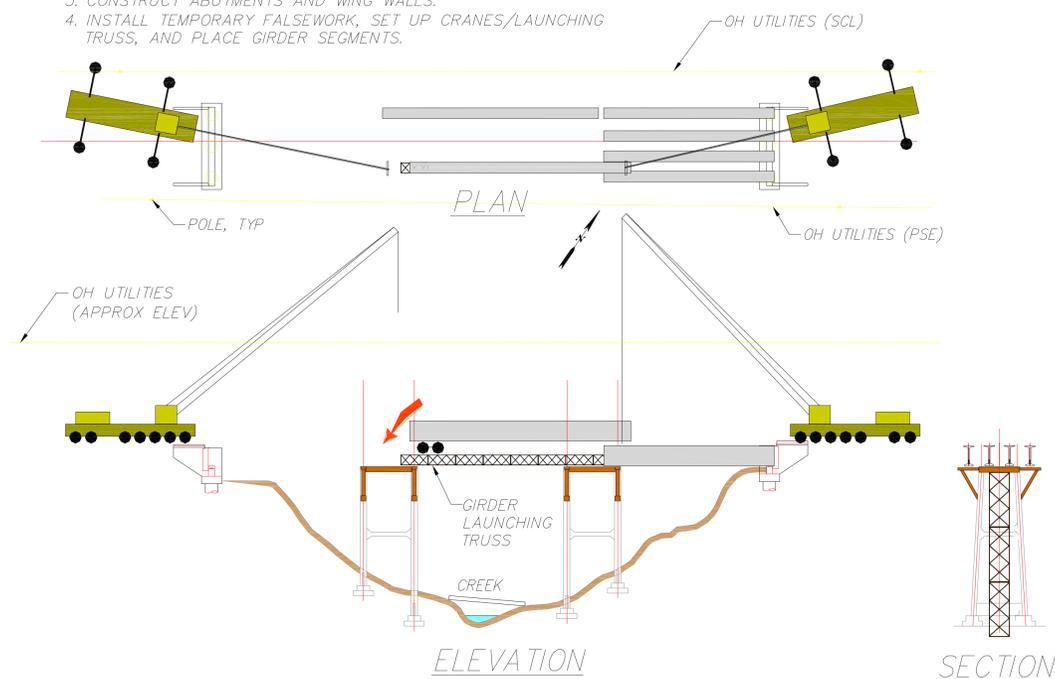
STAGE 3 CONSTRUCTION:

1. CAST ALL INTERMEDIATE DIAPHRAGMS.
2. CAST BRIDGE DECK AND CURE PER SPECIFICATION.
3. CAST CLOSURE POUR BETWEEN ENDS OF GIRDERS (MINIMUM 7 DAYS AFTER DECK POUR).
4. AFTER SPLICE AND DECK HAVE REACHED SPECIFIED STRENGTH, POST-TENSION GIRDER TENDONS FROM BOTH ENDS AND GROUT TENDONS.
5. CAST END DIAPHRAGMS.



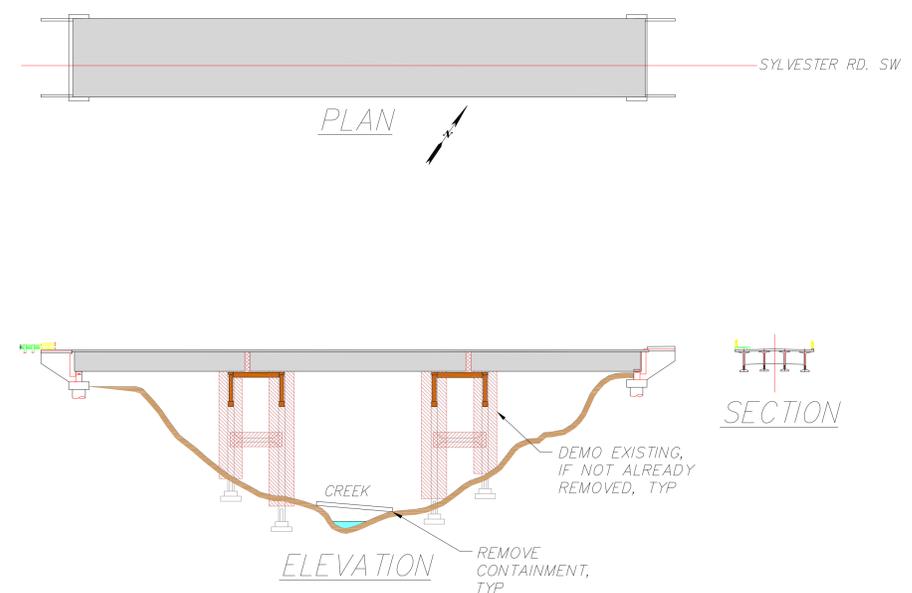
STAGE 2 CONSTRUCTION:

1. EXCAVATE FOR NEW ABUTMENTS.
2. CONSTRUCT DRILLED SHAFTS.
3. CONSTRUCT ABUTMENTS AND WING WALLS.
4. INSTALL TEMPORARY FALSEWORK, SET UP CRANES/LAUNCHING TRUSS, AND PLACE GIRDER SEGMENTS.



STAGE 4 CONSTRUCTION:

1. DEMOLISH EXISTING BENTS, IF REMAINING, AND REMOVE TEMPORARY FALSEWORK.
2. COMPLETE STORM DRAINAGE FEATURES AND SLOPE RESTORATION PLANTINGS.
3. CAST CONCRETE CURBS, RAILS, & SIDEWALK.
4. CAST APPROACH SLABS AND INSTALL RAIL TRANSITIONS.
5. PAVE ROAD TRANSITIONS TO EXISTING.
6. FINISH PAINT STRIPE.
7. REMOVE TESC, DEBRIS CONTAINMENT, ROAD DETOUR, AND OPEN BRIDGE TO TRAFFIC.

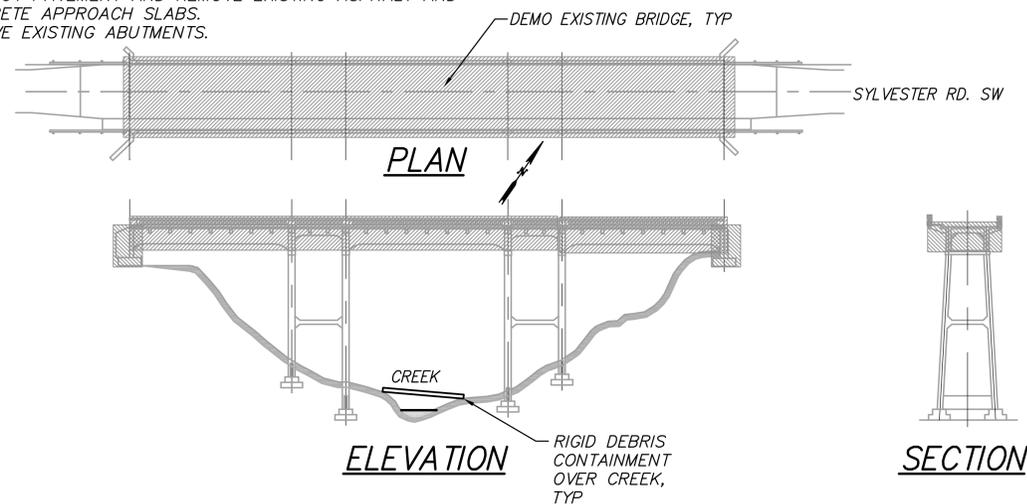


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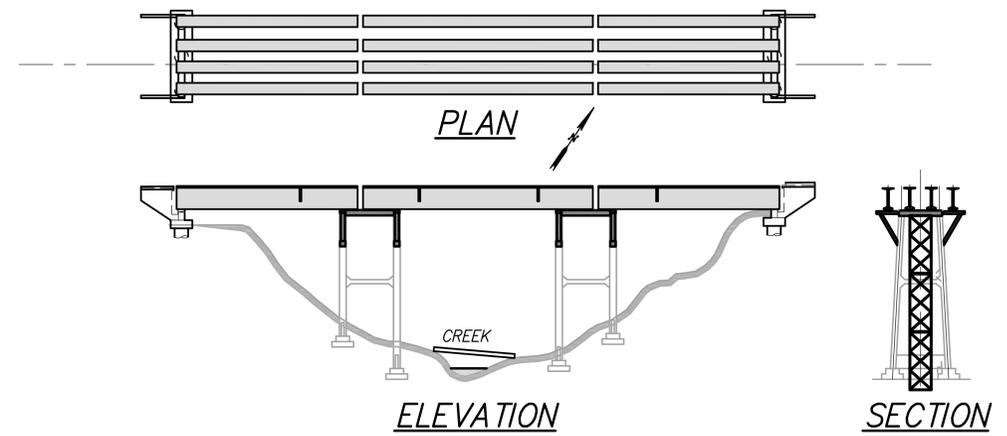
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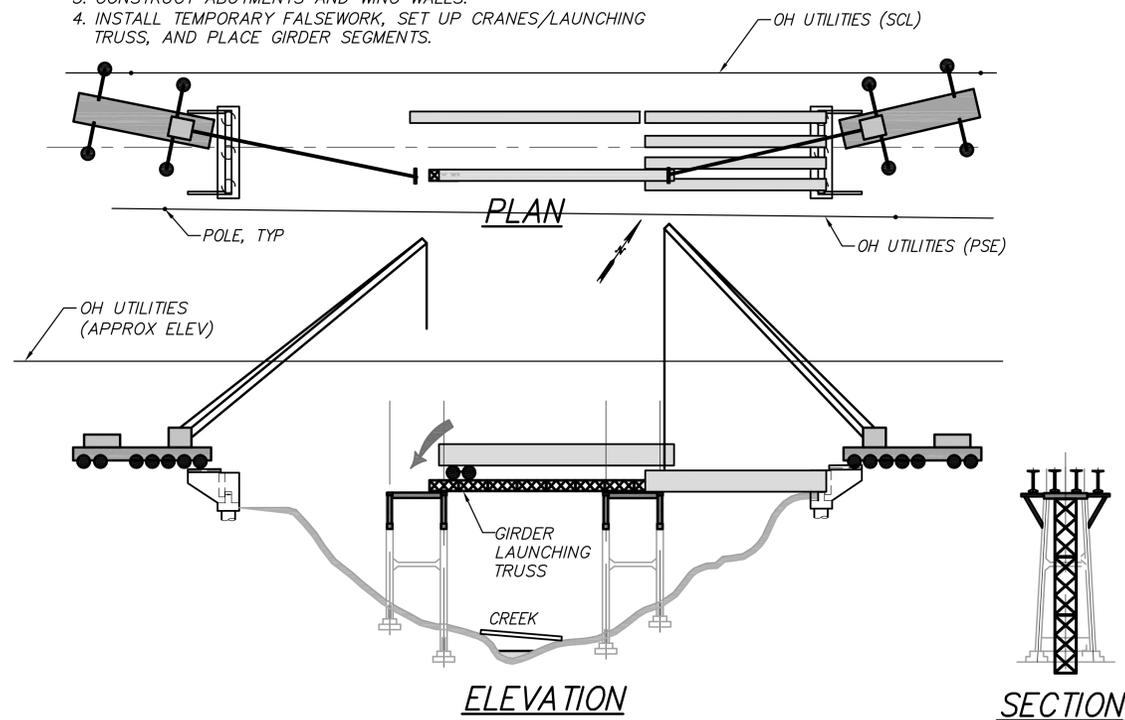
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