

Looking west from the Spectrum Loop bridge toward the USAFA. Work is in various stages on four bridges, DI, DJ, QJ & DK. Bridges DI & DJ are on northbound I-25 and accommodate the fly under from southbound I-25 to eastbound Powers (DJ) and from westbound Powers to southbound I-25 (DI). Bridge QJ accommodates the off ramp from southbound I-25 to eastbound Powers, which goes over westbound Powers to southbound I-25. Bridge DK handles westbound Powers to northbound I-25 and goes under the northbound I-25 off ramp to North Gate Boulevard. Dwire Earthmoving and Excavating out of Colorado Springs has moved approximately 900,000 – cubic yards of material for the Interchange. The bridges are being constructed by Lobato Construction out of Thornton, Colorado.



The girders for bridges DI & DJ are precast/prestressed concrete, 110-feet long & 54-inches deep. The girders are made by EnCon at their plant in Denver. The Girders for DI were placed on May 5th. Girders for DJ were placed May 14th.



Two cranes work simultaneously to lift the girders into place.



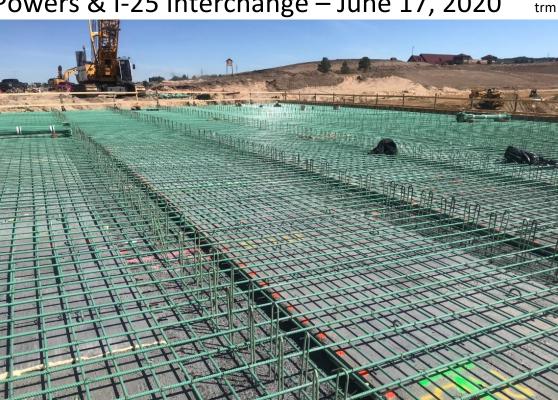
The girders are placed on an elastomeric bearing pads, which will evenly distribute the weight.



The girders are secured before the next girder is set. Steel diaphragms will be installed midspan to lock the girders together. The ends will be encased in concrete.



After the girders are set, precast deck panels are placed on Styrofoam. The thickness of the Styrofoam varies to take into account the camber of the beams and the final grade of the road.



The reinforcing steel is placed. The steel is epoxy coated for corrosion protection.



June 12th, the deck is poured using a concrete pumper. Concrete trucks deposit concrete in the back of the pumper.



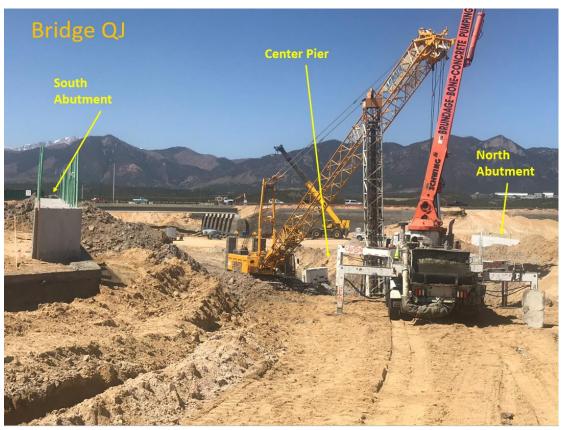
Concrete pump truck.



The concrete is pumped in front of the Bidwell Concrete Paver, then consolidated by vibrators.



The deck is kept at a uniform depth by the roller and auger, which continually pass over the deck and move the concrete forward.



Bridge QJ is a two-span bridge skewed at 45-degree. Each span is 95-feet long. Bridge QJ accommodates the off ramp from southbound I-25 to eastbound Powers, which goes over westbound Powers to southbound I-25.



54-inch caissons for the center pier were completed on May 11th. The caisson is drilled approximately 30-feet into bedrock. A metal cage is inserted into the hole and filled with concrete.



Picture of the metal cage, which has been placed in the 54-inch diameter hole and subsequently filled with concrete.

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Dwire continues to move material, approximately 900,000 cubic yards. Topsoil is placed on the slope as it is finished (the darker material).

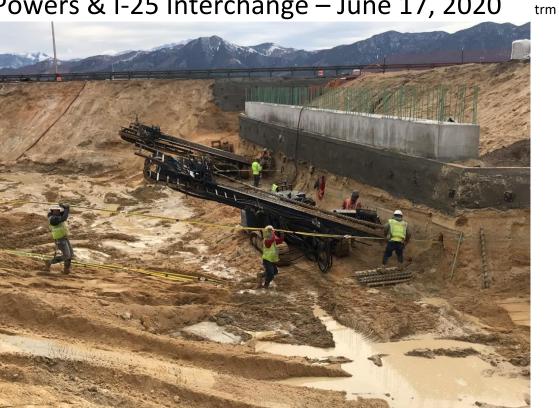




One of Dwire's 24-cubic yard trucks hauling excavated material to the future retail site in Polaris Pointe.



Bridge DK is a 1-span bridge, 28-feet wide, 120-feet long and 54-inches deep with a skew of 45-degrees. Bridge DK carries traffic from westbound Powers to northbound I-25 and goes under the northbound I-25 off ramp to North Gate Boulevard. Piling for the two abutments were driven approximately 45-feet into the ground. In addition, micropiles (vertical) along with soil nails (horizontal) are being installed with wire mesh, which is covered in shotcrete to form the vertical wall seen to the right of the piling.



4-inch diameter holes are drilled into the embankment. Soil nails (epoxy coated bars and hollow yellow tube) approximately 30-feet long are placed in each hole. Grout is then pumped into the hollow tube encasing the epoxy coated bar.



A steel wire mat is attached to the bars, which is then sprayed with shotcrete. This work is being done by HTM Construction out of Lakewood, Colorado.

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The pilings are cut off and the concrete abutments are poured around the piles. The soil nail walls will hold up the embankment, which will provide the vertical clearance needed for traffic.



New box culverts are being installed at DO & AL for the on/off ramps from and to North Gate Boulevard.



Box Culvert DO was poured on June 12th. The new off ramp from Powers & from I-25 will cross the box culvert delivering traffic to North Gate Boulevard.



Work has started on box culvert AL, which is west of the Interstate. Rock is first installed to stabilize the subgrade. The bottom of the box is being formed.



In addition to bridge and dirt work, multiple storm sewer lines are being installed the length of the project by Redline Construction & Wildcat Construction. Redline Construction is installing the "A" line, which outfalls into a Water Quality pond also being constructed by Redline Construction.



Wildcat is installing a manhole on the "I" line. This storm sewer line outfalls into Monument Branch and extends to Voyager Parkway.



Redline construction has brought in a second crew to install the "B" line, which runs down the median of I-25.



Wildcat is installing the "C" line, which will drain storm water from the Bass Pro Pond to Smith Creek.