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Colorado Department of Transportation

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Please forward/share this email with others who may have an interest in the I-25/Cimarron Interchange project.

Project Schedule

- Phase 0 Construction (offline): complete
- Phase 1 Construction (mainline work) begins: completes Fall 2016
- Phase 2 Constructions begins: Late Fall 2016
- Fully Operational: Fall 2017

Stay Connected

Website:

<u>Colorado Info Project</u> Email:

dot i25Cimarron@state.co.us

Hotline: (719) 302-6781 To receive project updates and construction notices, send an email to:

dot i25Cimarron@state.co.us

Girder Testing: Strength and Long Life

View in Browser: http://conta.cc/2cmxKUp



"There aren't many bridges in Colorado like the new I-25 Bridge at the Cimarron Street/US 24 exit," said Mark Bilby, a structural engineer with WSP Parsons Brinckerhoff, Inc. "It's a highly efficient bridge for the size of girder being used. This bridge consists of three girder segments of varying lengths, that when spliced together with post tensioned cables, creates an efficient two-span bridge with roughly a 200-foot primary span and a 170-foot secondary span. The prestressing and post-tensioning processes maximizes the length of the bridge span and eliminates the need for another pier, which would otherwise need to be constructed in the middle of Cimarron Street.

Don Garcia, CDOT Deputy Project Manager from Wilson & Company, Inc. continued, "Girders are pre-cast in Commerce City where the pre-stress process occurs. Seven-wire strands of steel are placed into the bottom of each girder before the concrete is poured. The strands are then pulled like a rubber band until they

Quick Links

Project Website
CDOT Website

Sign Up to Receive E-newsletters / eAlerts

To receive future I-25/Cimarron project e-newsletters and construction notices, send an email to dot i25Cimarron@state.co.us.

Company Highlight

Family-Owned Koscove Metal Serves Colorado Springs for 100 Years

Just ask Joe Koscove what it takes to be in business 100 years and he points to the company's guiding principal: Honest business equals better business. Joe is the owner of Koscove Metal, a recycling company located at 431 W. Colorado Avenue in Colorado Springs. Koscove Metal is located in the heart of the I-25/Cimarron project reconstruction area. "We believe in treating people with respect, delivering good customer service and paying competitive prices for all copper, brass, aluminums and other metal materials," he said. That philosophy of respect contributes to the relationships Joe has built with CDOT and Kraemer North America LLC, contractor on the I-25/Cimarron Interchange Project. He continued, "Yes, the project has impacted our business, but I also see many improvements." With 11 employees, this familyowned business has stood the test of time. Visit them at www.koscovemetal.com, like them on Facebook/koscovemetal and

reach the required length. After the concrete is poured, the pre-stressed strands are cut, releasing compressive force into the concrete girder. The process results in a much stronger structural component. The girders are then allowed to 'cure' for 30-60 days before being shipped to the I-25 Bridge job site," he said.

Bilby described what happens once the girders arrive each night. "Two cranes with capacities of 300-500 tons, lift and place five to seven girders each day onto abutments and temporary support towers. Once all the



girders are placed, post tensioning cables are run through voided ducts placed in each girder for the full length of the bridge. The girders are compressed in place by pulling on the post tensioning strands, creating large compressive forces into each of the girders. This enables the girders to span the necessary lengths without constructing additional piers to support the bridge. Once the strands are pulled, the temporary shoring towers are removed. The post-tensioning process pulls everything together and allows for the longer bridge spans," said Bilby.

Aerial Photo - Aug. 11, 2016



<u>CLICK HERE</u> to view more photos. Progress: aerial view of the project shows the old I-25/Cimarron southbound loop off-ramp has been replaced and the girders of the new I-25 Bridge over Cimarron Street has been set in place.

follow them on Twitter @KoscoveMetal.

Prioritized Project Goals

Project goals were established and approved by the Executive Oversight Committee. The goals provide direction to the project team and to the design-build contractor team.

Project Goals

- 1. Maximize overall safety, capacity and operation of the interchange and the surrounding transportation network within the Project budget;
- 2. Complete Project construction to be fully operational before winter 2017;
- 3. Minimize impacts and inconvenience to the community, motorists, businesses, downtown and the public during construction; and
- 4. Achieve an aesthetically pleasing design compatible with current and future amenities and enhancements in and around the interchange.

Progress To Date

- Realigned southbound I-25 on-ramp at Cimarron Street/US 24
- Permanently closed/removed southbound I-25 loop exit ramp to Cimarron Street/US 24
- Opened new southbound I-25 exit ramp to Cimarron Street/US 24
- Temporary concrete plant operational
- Majority of southbound I-25 embankment work complete
- Various utility relocations

I-25 Cimarron Interchange Project Benefits from Global Positioning Systems (GPS) Grading Technology



The term "Global Positioning System (GPS)" is now a household name for the handheld or dashboard devices that navigate our vehicles to a desired destination with turn-by-turn directions. GPS systems are also hard at work on the I-25/Cimarron Interchange Project. When mounted on grading equipment, such as a motor grader, the operator can follow elevations from their cab and know their exact location on the project, both vertically and horizontally, without the need of extensive survey stakes. GPS devices can handle a wide range of temperatures and rough working conditions.

Mike Ingram, Project Contractor/Manager from Kraemer elaborates on the process. "The old conventional survey methods required a two or three man survey crew to set up an instrument, check in on a known point (a benchmark or control point) and establish line and grade for the roadway," he said. "This crew would lay out the roadway and drive



stakes or hubs on intervals adequate for the equipment operator to follow, usually on a 25 foot grid. This took time to do and when hubs were lost, the crew would need to re-establish them again with an extensive set

- Drainage work installed 60-inch storm sewer line under I-25
- Extended and completed Bear Creek Concrete Box Culvert
- Began Fountain Creek improvements
- Completed Phase 1 foundation work for the new I-25 bridge (piers, abutments, etc.) and set girders
- Demolition of the south half of the Cimarron over Fountain Creek bridge
- Phase 1 girder set and deck pour for the US 24 bridge over Fountain Creek
- Implemented southbound I-25 lane split to allow for reconstruction of the southbound lanes and to prepare for the final alignment of I-25
- Phase 2 girder set for the US 24 bridge over Fountain Creek
- Set girders for the Cimarron bridge

up," Ingram explained.

A GPS system can cost \$100,000 or more, depending on the extent and quality of the equipment, so it is a significant investment. Ingram continued, "However, with a GPS system, there are limited needs for hubs and the operator can follow line and grade on a display within the cab," he said. "This substantially increases productivity in not having to wait for re-staking."

GPS grading technology, improved productivity and accurate results contribute to an efficient interchange project serving the I-25/Cimarron traveling public for decades to come!

Members of Women's Transportation Seminar Learn About I-25/Cimarron Interchange Project



Thirty members of the Women's Transportation Seminar (WTS) Colorado visited the I-25/Cimarron Interchange project Friday, August 26 for a first-hand project overview. A presentation by Kramer Project Manager, Kassie Watson, provided an opportunity for the group, largely representing transportation industry engineering, design and contractor firms, to ask technical questions about the construction and the Design-Build process before taking a project tour.

The \$113 million project includes seven new bridges, relocation of the Midland Trail and improvements to the Fountain Creek channel.



Founded in 1977, WTS is an international organization dedicated to building the future of transportation through the global advancement of women. The WTS Colorado chapter has hundreds of members committed to excellence within the transportation sector. The

What the Project Involves

Planned improvements include reconstructing I-25 between Colorado Avenue (to the north) and the Nevada Avenue/Tejon Street interchange (to the south), and include a continuous northbound travel lane between the south Nevada Avenue/ Tejon Street interchange and the Cimarron interchange. Project boundaries on Cimarron are between 8th Street to the west and the Cimarron bridge over Fountain Creek to the east. Once construction is complete in 2017, the project will provide:

> Improved interstate and interchange operations and safety;

- Improved highway alignment and improved ramps, acceleration/deceleration lanes for increased vehicle storage and safety;
- New I-25 bridge structures:
- New connection between 8th Street and Cimarron Street:
- Improved trail connectivity and aesthetic treatments.
- Reconstruction of approximately 2,100 feet of Upper Fountain Creek, enhancing stream habitat.

Project Partners

- Colorado Department of Transportation
- Federal Highway Administration
- · City of Colorado Springs
- El Paso County
- The Community

Progress Photos



Southbound I-25 Bridge - Panels Set

chapter is dedicated to inspiring and empowering professionals with the latest information and innovations.

Project Team Spotlight

Colorado Native Enjoys Variety of Work

Eric Norwood has lived in Colorado his entire life. He grew up in Littleton, Colorado, and received his degree in Civil Engineering at CU-Boulder. He has worked on both the contractor and the owner side on large design-build projects along the Front Range.



Eric Norwood Construction Manager

As construction manager on the I-25/Cimarron Interchange project he oversees and manages the CDOT construction team including project inspectors and material testers. He makes certain that the optimal number of people are on hand, and that the right expertise and resources are at the correct location to observe/test all of the work. If an issue arises in the field, he supports the team with a solution that conforms with the project plans and specifications. He also has a hand in review/approval of project MHT processes (Method of Handling Traffic) and public information/communication efforts.

According to Eric his biggest challenges are unforeseen events such as weather, traffic incidents, safety, unforeseen site conditions, etc. He enjoys the wide variety of construction methods/concepts being used on a single project (different types of bridges, walls, etc.), this gives the team the opportunity to be creative and innovative in developing solutions to problems. He also enjoys working with the CDOT and Contractor team that have been assembled for this project.

Fall Work Completes Phase 1

More details available in weekly eAlerts. Go to www.cotrip.org, click on the bright green telephone. Scroll down to the "Projects" list for I-25/Cimarron Interchange.

The project is now at the 50 percent completion mark. Phase 1 work continues through fall 2016 and includes



I-25 Southbound Bridge Ramp



US 24 Bridge Over Upper Fountain Creek - West Lanes



Upper Fountain Creek Work



US 24 - New Pavement

I-25 southbound on and off-ramps, completion of the US 24 bridge over upper Fountain Creek, construction of Cimarron Bridge over Fountain Creek, construction of the I-25 southbound lanes and the switch of all lanes on to the I-25 southbound new pavement and bridge. Phase 2 work will begin in October with a switch of southbound traffic onto the new I-25 pavement and bridge structure.

Various overnight lane restrictions and traffic realignments on I-25 and Cimarron Street/US 24 will continue to allow for removals, restriping and paving activities; shifting traffic and continued bridge construction. Construction schedules are subject to change based on weather/unforeseen circumstances.

Upcoming work

Late September:

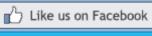
- Various overnight lane restrictions on US 24 to complete Phase 1 bridge construction on four structures.
- Overnight lane restrictions on I-25 (Bijou Street to Nevada Avenue/Tejon Street) to complete embankment and paving.

October:

- Southbound I-25 traffic shifts onto the new pavement and over the new I-25 bridge.
- Removal of the southbound split lanes between Cimarron Street/US 24 and Nevada Avenue/Tejon Street.
- Possible lane closures and I-25 northbound onramp closure from Cimarron for Fast Track paving operations between Cimarron Street/US 24 and Bijou Street.
- Northbound I-25 traffic shift to the west onto new pavement and over the new I-25 bridge.

You Can Also Expect:

- Speed reduction to 55 mph on I-25 between Colorado Avenue and south Nevada/Tejon Street and 30 mph speed reduction on US 24 between 8th Street and I-25
- Narrowed lanes and reduced shoulders
- Three lanes maintained northbound and southbound I-25 during the day



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Additional Project Information

For more information about the project, visit the <u>CDOT</u> <u>website project page</u>. To receive future I-25/Cimarron project e-newsletters and construction notices, send an email to <u>dot i25Cimarron@state.co.us</u>.

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