I-25 Corridor at a Glance: Denver to Wyoming

Interstate 25 plays a significant role in the quality of life and economic vitality of a growing northern Colorado. In 2011, CDOT completed an extensive Environmental Impact Study (EIS) that identified the needed improvements to provide modern and effective multi-modal transportation solutions. The ‘ultimate configuration’ improvements was estimated to cost $2.18 billion in 2009 dollars. With limited existing funding sources, the build out was estimated to take until 2075.

CDOT has an aggressive strategy to reduce the costs and shorten the time frame. A phased implementation approach that is responsive and flexible as funding becomes available is being used. CDOT is exploring funding from additional sources and investigating innovative project delivery methods to help lower the project’s cost and accelerate delivery.

**Ultimate Configuration**
- Three general-purpose lanes and one Express Lane in each direction— US 36 to SH 14
- Reconstructed interchanges, bridges and pavement
- Express bus service from Fort Collins to Denver Union Station
- Commuter bus service from Greeley to Denver Union Station
- Incorporation of intelligent transportation systems
- New carpool and transit facilities
- Commuter rail service connecting Fort Collins to RTD FasTracks at SH 7
- Widen median for safety and rural character

**Progress to date; Working Toward the Ultimate Configuration**

The improvements completed include:
- Express lanes in each direction from US 36 to SH 128 (120th Avenue), completed in July 2016
- Express lanes in each direction from 120th to E-470, construction began in Fall 2016
- Carpool lots in Evans and Fort Lupton completed in 2015
- Express bus service (Bustang) from Fort Collins to Denver Union Station began July 2015
- Ultimate Configuration preliminary engineering
- Wetlands mitigation

The improvements in process include:
- Replacement and realignment of the bridges at Crossroads Boulevard
- Final design for SH 7 and I-25 interchange
- Vine Drive Bridge replacement over I-25
- Project development for Express Lanes between SH 402 and SH 14
<table>
<thead>
<tr>
<th>Segments</th>
<th>In progress or completed</th>
<th>Cost of in progress or completed (2016$)</th>
<th>Funding Needed for Express Lanes (Rural Template)</th>
<th>Additional Needs for Ultimate Configuration</th>
<th>Funding needed for Ultimate (2016$)</th>
<th>Total Funding Needed</th>
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<tbody>
<tr>
<td><strong>Segment 8</strong></td>
<td>Preliminary engineering</td>
<td>$9,300,000</td>
<td>$0</td>
<td>SH 14 and Prospect Road interchange</td>
<td>$95,500,000</td>
<td>$95,500,000</td>
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<td>SH 392 to SH 14</td>
<td>1 express lane in each direction (SH 402 to SH 14 partial rural template)</td>
<td>$237,000,000</td>
<td>$249,000,000 (Segment 8)</td>
<td>General purpose lanes (rural template)</td>
<td>$100,000,000</td>
<td>$349,000,000</td>
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<tr>
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<td>Crossroads bridge replacement</td>
<td>$32,000,000</td>
<td>$49,800,000 (Segment 7)</td>
<td>General purpose lanes (rural template)</td>
<td>$20,900,000</td>
<td>$70,700,000</td>
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<td>Preliminary engineering</td>
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<td>US 34 &amp; Centerra Parkway interchange</td>
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<td><strong>Segment 7</strong></td>
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<tr>
<td>SH 402 to SH 392</td>
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<td><strong>Segment 6</strong></td>
<td>20% preliminary design ultimate</td>
<td>$4,600,000</td>
<td>$280,000,000</td>
<td>General purpose lanes (rural template)</td>
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<td>SH 402 to SH 56</td>
<td>design configuration</td>
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<td><strong>Segment 5</strong></td>
<td>20% preliminary design ultimate</td>
<td>$8,900,000</td>
<td>$370,000,000</td>
<td>General purpose lanes (rural template)</td>
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<td>SH 56 to SH 66</td>
<td>design configuration</td>
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<td><strong>Segment 4</strong></td>
<td>Additional general purpose lanes added</td>
<td>$0</td>
<td>$86,100,000</td>
<td>I-25 &amp; SH 7 Interchange</td>
<td>$54,400,000</td>
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<td>SH 7 to SH 66</td>
<td>prior to EIS</td>
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<td><strong>Segment 3</strong></td>
<td>SH 128 to E-470</td>
<td>$97,000,000</td>
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<td>SH 128 to E-470 Shoulder widening</td>
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<td>SH 128 to SH 7</td>
<td>1 express lane each direction</td>
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<td>E-470 to SH 7</td>
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<td></td>
<td>1 express lane each direction</td>
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<tr>
<td><strong>Segment 2</strong></td>
<td>1 express lane each direction, noise</td>
<td>$72,000,000</td>
<td>$0</td>
<td>Bridge at 88th, full design template</td>
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<td>US 36 to SH 128</td>
<td>walls (reduced template)</td>
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<td><strong>Segment 1</strong></td>
<td>Initiate Bustang service</td>
<td>$2,900,000</td>
<td>$0</td>
<td>Expand bus service</td>
<td>$138,000,000</td>
<td>$138,000,000</td>
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<td>Union Station to US 36</td>
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<tr>
<td><strong>Bus and Rail</strong></td>
<td>Build carpool lots in Ft. Lupton and</td>
<td>$5,400,000</td>
<td>$0</td>
<td>Preserve rail ROW</td>
<td>$169,800,000</td>
<td>$169,800,000</td>
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<tr>
<td></td>
<td>Evans</td>
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<tr>
<td></td>
<td>Construct commuter rail</td>
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<td></td>
<td></td>
<td>$1,037,100,000</td>
<td>$1,037,100,000</td>
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<td><strong>TOTAL</strong></td>
<td></td>
<td>$476,600,000</td>
<td>$1,090,800,000</td>
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<td>$2,063,400,000</td>
<td>$3,154,200,000</td>
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</table>
Project Schedule

Letter of Interest: Sept 22, 2016
Request for Qualifications: Nov 07, 2016
Statement of Qualifications Due: Dec 19, 2016
Short List 3 to 4 Teams: Jan 27, 2017
Draft Request for Proposal: Jan 27, 2017
Record of Decision: March 2017
Final Request for Proposal: March 17, 2017
Submit Request for Proposal: ~June 30, 2017
Selection: ~Aug 03, 2017
Notice to Proceed 1: Oct 2017
Notice to Proceed 2: Dec 2017

On Schedule

On Going Activities

- Finalizing Base Configuration
- Determining Additional Requested Elements (ARE’s)
- Writing Technical Requirements
- Coordination with Local Stakeholders
- Finalizing ROD and Re-evaluation to ROD 1&4
- ROW Acquisition
- Utility and RR coordination
- Finalizing IGA’s
CDOT Design Build vs Traditional Design Bid Build.
The follow lists the basic considerations and potential benefits for selecting the Design Build procurement method and how it compares to traditional Design-Bid-Build procurement.

Design-Bid-Build process vs Design Build process

**Design-Bid-Build – Low Bid Wins**
D-B-B has been the most utilized project delivery method and continues to be the method most used by CDOT. The linear nature of the planning, preconstruction, and construction phases is well known and practiced. Typically, the lowest bidder wins the project and then construction occurs under CDOT oversight. Using this delivery method, CDOT allocates the majority of the responsibility for risk to itself.

**Design-Build – Best Value Wins**
In Design-Build, the owner procures a Design-Build team (a paired contractor and design consultant) with a best-value procurement process. Best value is based on the project goals which could include maximizing scope, project schedule, project approach, technical merit and price. The selected Design-Build team takes over the preliminary design from the owner and develops the final design for the project. When construction packages are ready, the contractor builds the packages until the project is complete. It allows for innovation in design, construction techniques, construction phasing, sequencing, risk management, traffic management, Public Information, and cooperative communication.

**Benefits include:**

1. **Delivery Schedule** - Design-Build can expedite the overall delivery schedule of the project, particularly for large, complex projects. Considerations include NEPA, right of way acquisition and utility relocation.
2. **Complexity and Innovation** - Design-Build incorporates Design-Builder input into the preliminary design process through best value selection. Through confidential one-on-one meetings between the owner and contractor, the contractor is allowed to propose alternate technical concepts that specifically revise the Technical Requirements of the project. This results in a cost-oriented approach to providing complex and innovative designs.
3. **Level of Design** - In Design-Build, the project design is advanced to the level necessary to precisely define contract requirements and properly allocate risk (Typically 30 percent or less)
4. **Project Cost** - Designer-Builder collaboration and Alternative Technical Concepts (ATCs) can provide a very cost-efficient response to project goals.
5. **Project Risk Assessment** - Design-Build provides an opportunity to properly allocate risks to the parties best able to manage them. The Design-Builder is responsible for the budget, schedule, and quality control.
6. **Level of Oversight and Control** - In construction, oversight and control are most often provided through auditing the Quality Assurance program that is provided by the Design-Builder.
7. **Competition and Contractor Experience** - Design-Build allows for a balance of price and non-price factors, such as past experience, in the selection process.
2035 Solution
Add Express Lane – Union Station to Fort Collins

- Total Cost
  - $1.319 B (2016$)
- Committed and/or Expended to Date
  - $477 M (2016$
- Balance to Fund E470 to SH14
  - $843 M (2016$
  - $1.35 B  year of expenditure (2030-2040)

Each year project advances $25M in savings

2075 Solution
EIS Ultimate Configuration

- Additional General Purpose Lane & Interchange Construction
  - $1.05 M (2016$
- Bus and Rail
  - $1.35 B (2016$
- Total Ultimate Cost
  - $2.395 B (2016$
- Year of Expenditure
  - $6.190 B (2040-2055)
### Cost Estimate Review Comparisons

<table>
<thead>
<tr>
<th></th>
<th>Total Base Project Cost (CY$) in millions</th>
<th>Total Project Cost (YOE) 70% Probability in millions</th>
</tr>
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<tbody>
<tr>
<td>2010 CER</td>
<td>$2,178.5 (2009$)</td>
<td>$9,474.9</td>
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<tr>
<td>November 2016 CER</td>
<td>$4,025.8 (2016$)</td>
<td>$8,273.7</td>
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</tbody>
</table>

**BENEFITS OF ADVANCING FUNDS**

Base Cost has increased by $1.8B  
Year of Expenditure as Decreased by $1.2B