

C-470 Reverse Trade Fair June 19, 2015





# **Agenda**

- 1. C-470 Design-Build Goals
- 2. Scope Overview
- 3. Design-Build Procurement Schedule Update
- 4. Finance Details
- 5. Facility Access
- 6. Areas of Innovation
- 7. DBE & OJT Goals





# C-470 Design-Build Goals

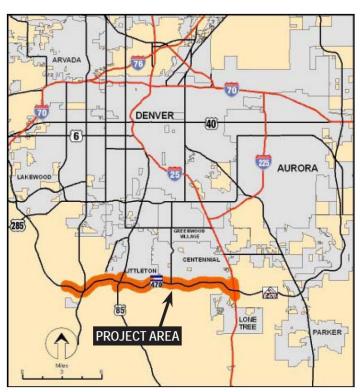
#### **C-470 Prioritized Goals**

- 1. Optimize traffic operations on C-470 within the project budget.
  - Once operational, optimize trip reliability in the tolled express lanes by maintaining a 45 mph minimum operating speed.
  - Preserve the existing general purpose lanes by providing improvements that enable them to operate at levels better than the no-action condition.
- 2. Optimize scope of improvements within the project budget.
- 3. Optimize Operating and Life-Cycle Maintenance costs.
- 4. Minimize impacts to the traveling public during project construction and future construction.
- 5. Achieve the following project milestones:
  - Expenditure of \$100M RAMP funding by December 31, 2017
  - Work cooperatively with the E-470 Public Highway Authority on the planning, installation, and testing of tolling infrastructure, culminating in the Tolling Final Acceptance Test starting on the date listed in the contract.





# **Scope Overview**



C-470 Corridor Project Area



The current construction estimate is \$185-\$225M.

#### Construction of:

- One tolled express lane in each direction on C-470 between I-25 and Wadsworth, and auxiliary lanes in required locations
- Safety and operational improvements between
   I-25 and Quebec
- Improvements to ramps including directconnect ramps at I-25 and C-470
- Water-quality features and noise barriers
- ITS elements and tolling equipment

#### Reconstruction of:

- Bridges over the South Platte River
- Existing pavement, and realignment of substandard curves

#### Analysis of:

 Compatibility with potential future managed lanes on I-25 to C-470



## **Typical Sections**



Existing C-470
2 General Purpose Lanes in each direction





#### **One Tolled Express Lane (Interim)**

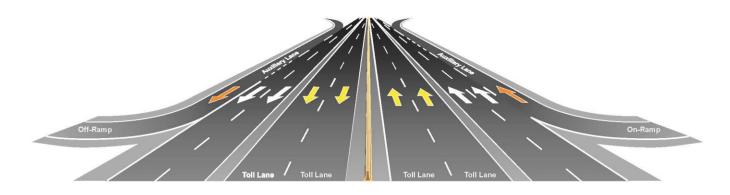


Proposed C-470 Interim - 1 Tolled Express Lane in each direction plus 2 General Purpose Lanes in each direction with Auxiliary Lanes (select locations)





#### **Two Tolled Express Lane (Ultimate)**



Proposed C-470 Ultimate - 2 Tolled Express Lanes in each direction plus 2 General Purpose Lanes in each direction with Auxiliary Lanes (select locations)





# Interim Ramp Project Procurement Schedule

Key Milestones	Date
Solicitation of Letters of Interests for DB Services	Complete
Issue Request for Qualifications	Complete
Submit TIFIA Letter of Interest	Complete
Notify Short-listed Teams	Complete - Beat Schedule
Issue Draft Request for Proposals	August 2015
EA Decision Document	November 2015
Issue Final Request for Proposals	November 2015
Select Design-Build Team	March 2016
Start Construction	Summer 2016









### **Finance Details**

#### Values in \$M

Sources	
Tax-Exempt CIBs	86,000
TIFIA	108,000
CDOT - RAMP	100,000
FASTER + Local (Douglas County)	12,000
O&M Loan Proceeds	2,000
TOTAL	\$308,000

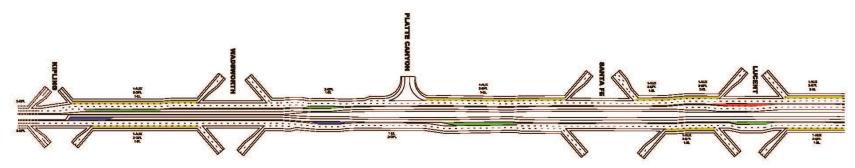
Uses	
Design & Construction	269,000
Transaction Costs <sup>1</sup>	4,000
Interest During Construction	10,000
Project Reserves²	25,000
TOTAL	\$308,000

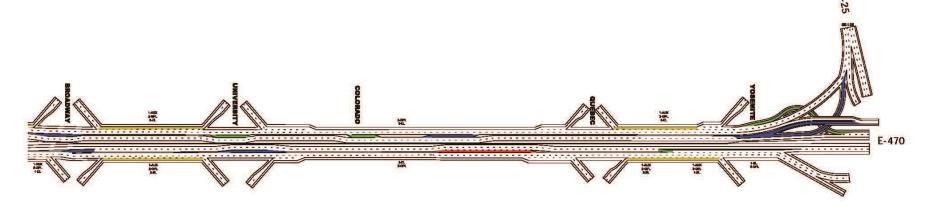
<sup>&</sup>lt;sup>1</sup> Includes debt issuance and related costs.

<sup>&</sup>lt;sup>2</sup> Includes debt service, O&M, lifecycle, and ramp-up reserves, plus a pre-funded account for O&M expenditures.



## **Access to the Facility**





Ingress

From these locations vehicles may enter the tolled express lanes from the general purpose lanes

Egress

From these locations vehicles may exit the tolled express lanes to the general purpose lanes

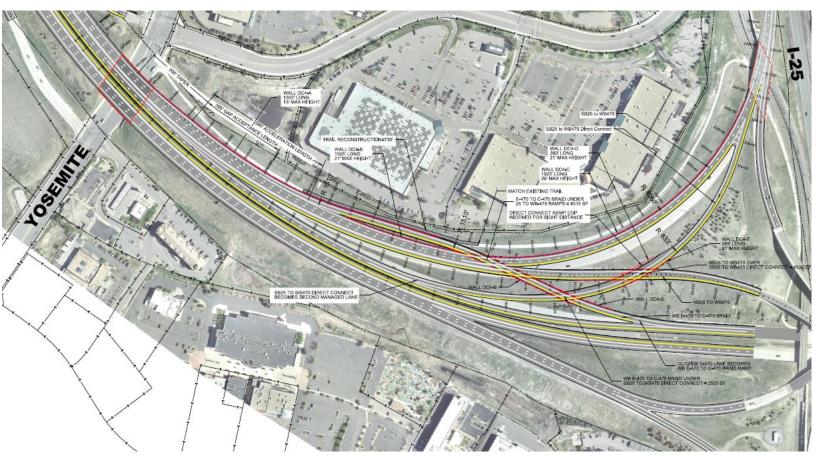
Combined Ingress / Egress From these locations vehicles may enter or exit the tolled express lanes to/from the general purpose lanes

**Auxiliary Lanes** 

Additional lanes that are continuous from one interchange on-ramp to the next interchange off-ramp



#### **Areas of Innovation**







# **Areas of Innovation - Cont.**



EXPRESS C LINES 470



# **Areas of Innovation - Cont.**

Process to Determine: Additional Requested Element (ARE) Feasibility, and Feasible ARE Prioritization

C-470 Express Lanes Project

**Example**: Express Tolled Lane (ETL) capacity expansion - Extending the proposed eastbound ETL from just west of the Platte River Bridge to Wadsworth. [To illustrate this example, consider assumed values for additional net toll proceeds from a projected increase in toll revenue as measured against the additional infrastructure costs associated with extending the facility]:

Value of ETL expansion = \*NPV additional toll revenue - ARE construction cost

Value of ETL expansion = \*\$20,000,000 - \$13,000,000 = \$7,000,000





## **DBE and OJT Goals**



#### DBE goals:

- Design elements 10%
- Construction elements 12%

## OJT goal:

 20,000 hours (this is for skilled crafts only)





#### **Questions?**

For additional information:

http://www.coloradodot.info/projects/c470ExpressLanes

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