COLORADO
Department of Transportation
Division of Transportation Development
Multimodal Planning Branch
4201 E. Arkansas Ave., Room 262
Denver, CO 80222-3400

DATE: August 21, 2014
TO: Transportation Commission
FROM: Debra Perkins-Smith, Director, Division of Transportation Development (DTD)
SUBJECT: Oil & Gas Transportation Impacts Study Progress Update

Purpose
Inform the Transportation Commission about the Oil & Gas Transportation Impacts Study, which began in late June, 2014. The purpose of this study is to identify the impacts from oil & gas extraction activities on the state highway system and examine potential methods to address those impacts.

Action
No action requested; informational only.

Background
CDOT completed a research study in 2010 entitled "Energy Development and the Transportation System" that looked at the trip generation characteristics for development of several energy sources, including oil & gas. Colorado's oil & gas industry is continually evolving, and there have been considerable changes in drilling techniques and geographic focus since the 2010 study was completed. This current study will address those changes. Although the number of annual well permits issued is lower than the the peak in 2008, drilling activity in Colorado has intensified in more populous areas and remains a source of considerable media and policy discussion throughout the state (see Attachment A). Virtually all active drilling and exploration companies in Colorado employ extended lateral horizontal drilling and fracking techniques, which generate considerably different truck activity than traditional vertical drilling.

The study will address the changing conditions of the industry, refine the analysis techniques of the previous study, investigate the costs required to mitigate the impacts of the oil & gas industry on the state highway system, research the legislative and regulatory actions that are being taken by other states to recover the costs of the industry's impacts to roadways, and understand the potential for application of similar actions in Colorado. The 2010 study identified Key Energy Corridors which were defined as state highways that have experienced significant increases in oil & gas related truck traffic. These corridors will be reviewed and updated as part of the current study effort. The research study is currently in month three of a 15-month schedule.

Key Benefits
The information from this study can be used to support policy discussions.

Next Steps
The consultants will identify key energy corridors; quantify energy activity in several state regions; and update trip generation models and road impact models. This information will be discussed with the Commission at future workshops.

Attachments
Attachment A - Current Producing Wells and Well Permits Map (as of July 2014)

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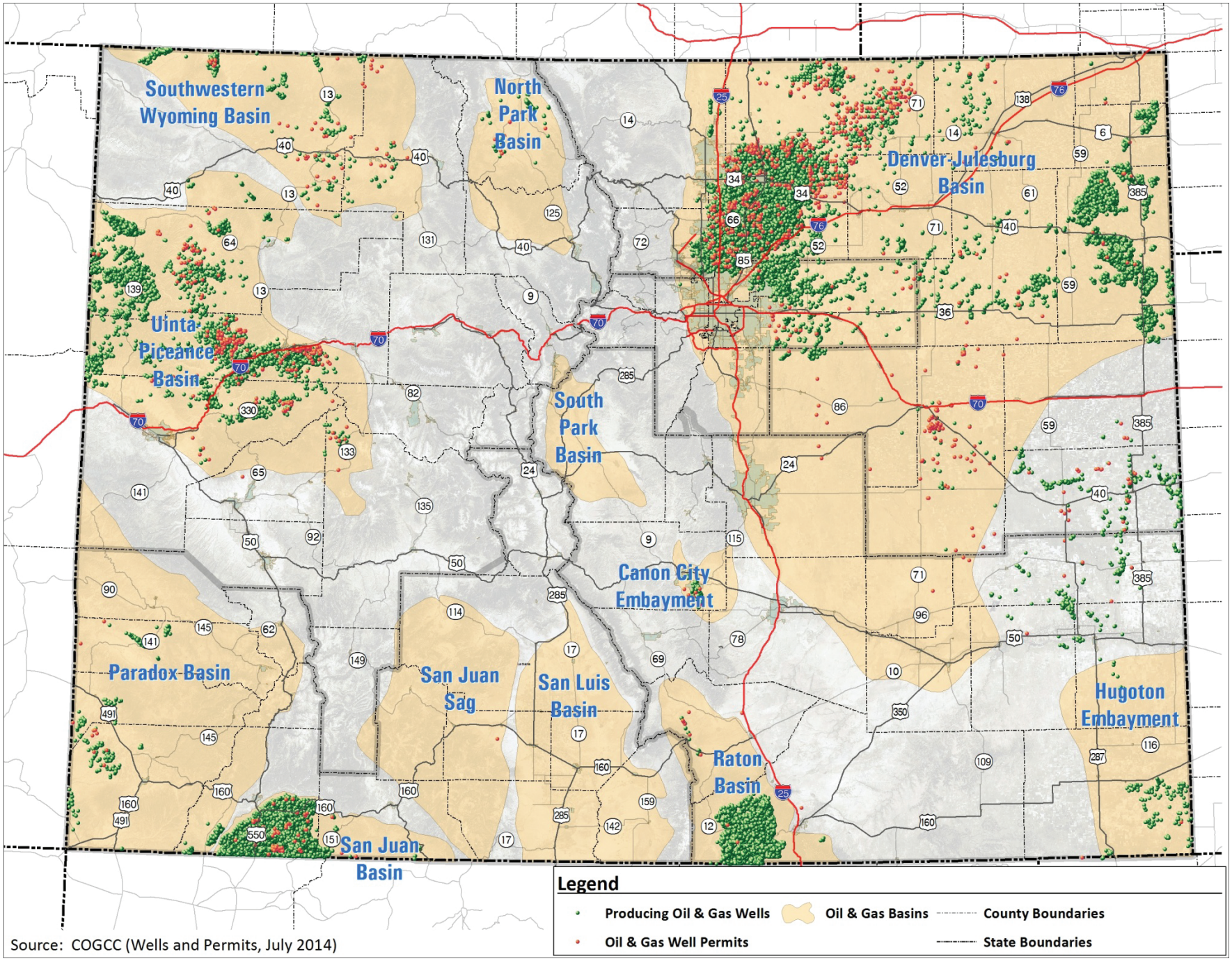


Source: COGCC (Wells and Permits, July 2014)

COLORADO
Department of Transportation
Office of the Chief Engineer

4201 East Arkansas Avenue, Room 262
Denver, CO 80222

MEMORANDUM

TO: Transportation Commission
FROM: Anthony R. DeVito, P.E. Region 1 Transportation Director
DATE: August 8, 2014
SUBJECT: C-470 Tolled Express Lanes Project Update

Purpose
In advance of the August 19th HPTE hosted Town hall, staff wanted to provide the Transportation Commission an update of the C-470 Tolled Express Lanes Project.

Action
N/A Informational Only

Background
The project received $100 million in RAMP funds and the project status is considered "red" while the Region, OMPD and HPTE work toward assembling a financing package for the project.

Details
The project will construct two westbound tolled express lanes from I-25 to Colorado Boulevard, one westbound tolled express lane from Colorado Boulevard to Wadsworth Boulevard, and one eastbound tolled express lane from just west of the Platte River bridges to I-25. At the I-25/C-470 interchange, direct connection ramps will be constructed from southbound I-25 to the westbound C-470 tolled express lanes. The project will maintain the existing general purpose lanes and add auxiliary lanes where warranted by traffic demand. For more detailed information see attached Interim Schematic Lane Diagram.

Project Estimate: $230M with the following funding sources:

- $100M RAMP
- $2M FASTER
- $103M TIFIA/PABs supported by toll revenues
- $10M from Douglas County
- Possible $15M TIGER VI grant

A Level 2 Traffic & Revenue study is currently being finalized showing that future toll collection revenues appear sufficient to repay the $103 million of bond debt. A Level 3 Traffic & Revenue Study will be initiated later this month with final results anticipated spring 2015. Additionally, Ernst & Young conducted a preliminary Value for Money Analysis earlier this month indicating a Public Private Partnership is not likely. The Project Team is recommending a design-build project delivery mechanism based on the results of the completed C-470 project delivery selection matrix and anticipates construction to start March 2016.

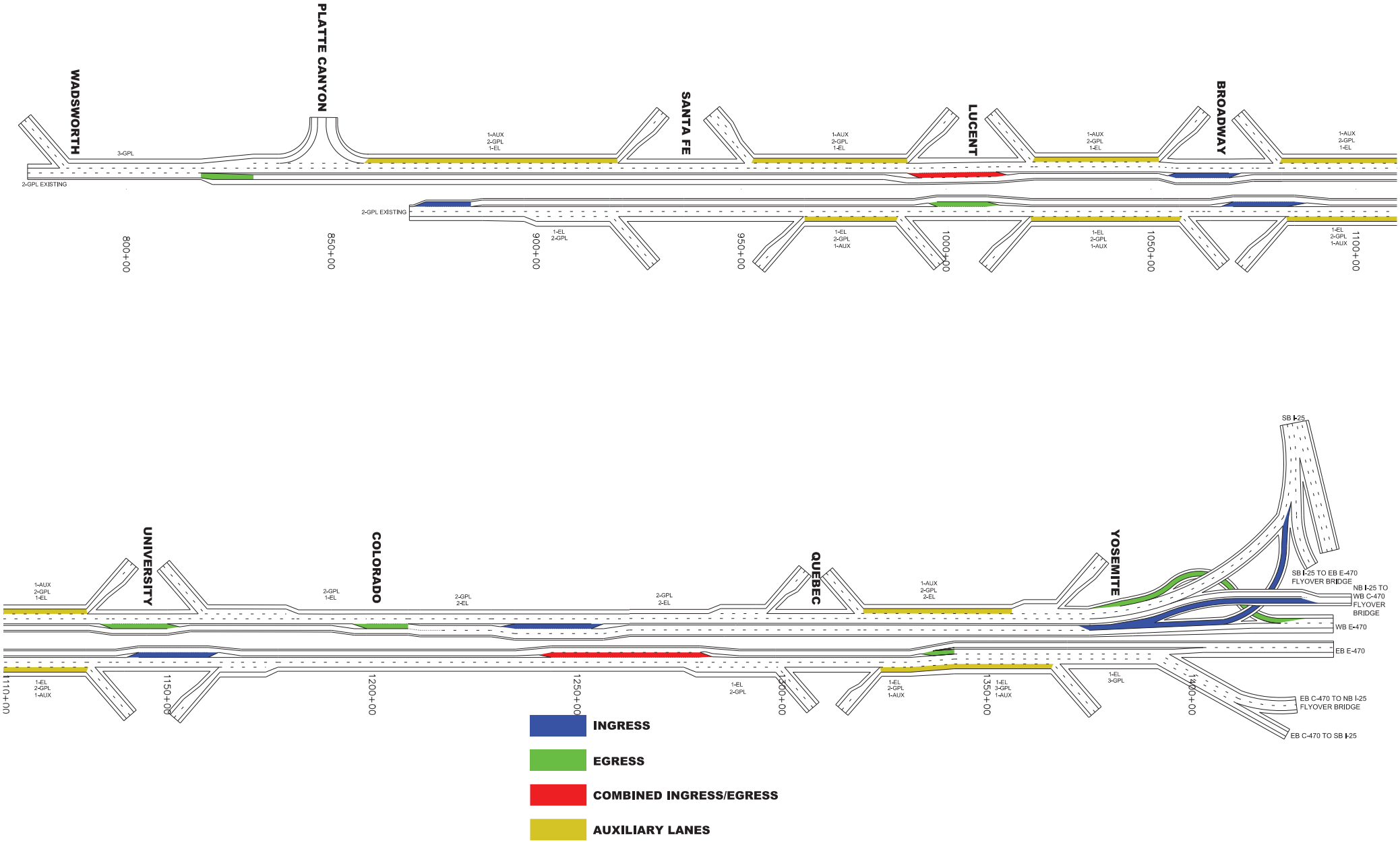
A revised Environmental Assessment is underway for the project, with a decision document expected June 2015. In addition to August 19th HPTE Town Hall, the project will be hosting three telephone town halls and four open houses to provide a project update to the public in mid-September. See attached schedule for additional project information.

Next Steps

- At the September Commission workshop, staff expects to provide the Commission results from the final Value for Money analysis and a recommendation regarding P3/ Public Financing.
- Upon receipt of the Value for Money report, staff also expects to submit a TIFIA Letter of Interest in September.
- Move project status from "red" to "green" with Commission approval as early as December based on preliminary results from the Level 3 Traffic & Revenue Study. Preliminary results from Level 3 are necessary to confirm the amount of bond debt projected to be supported by toll revenues. The Level 3 data will solidify the project budget, scope and schedule.

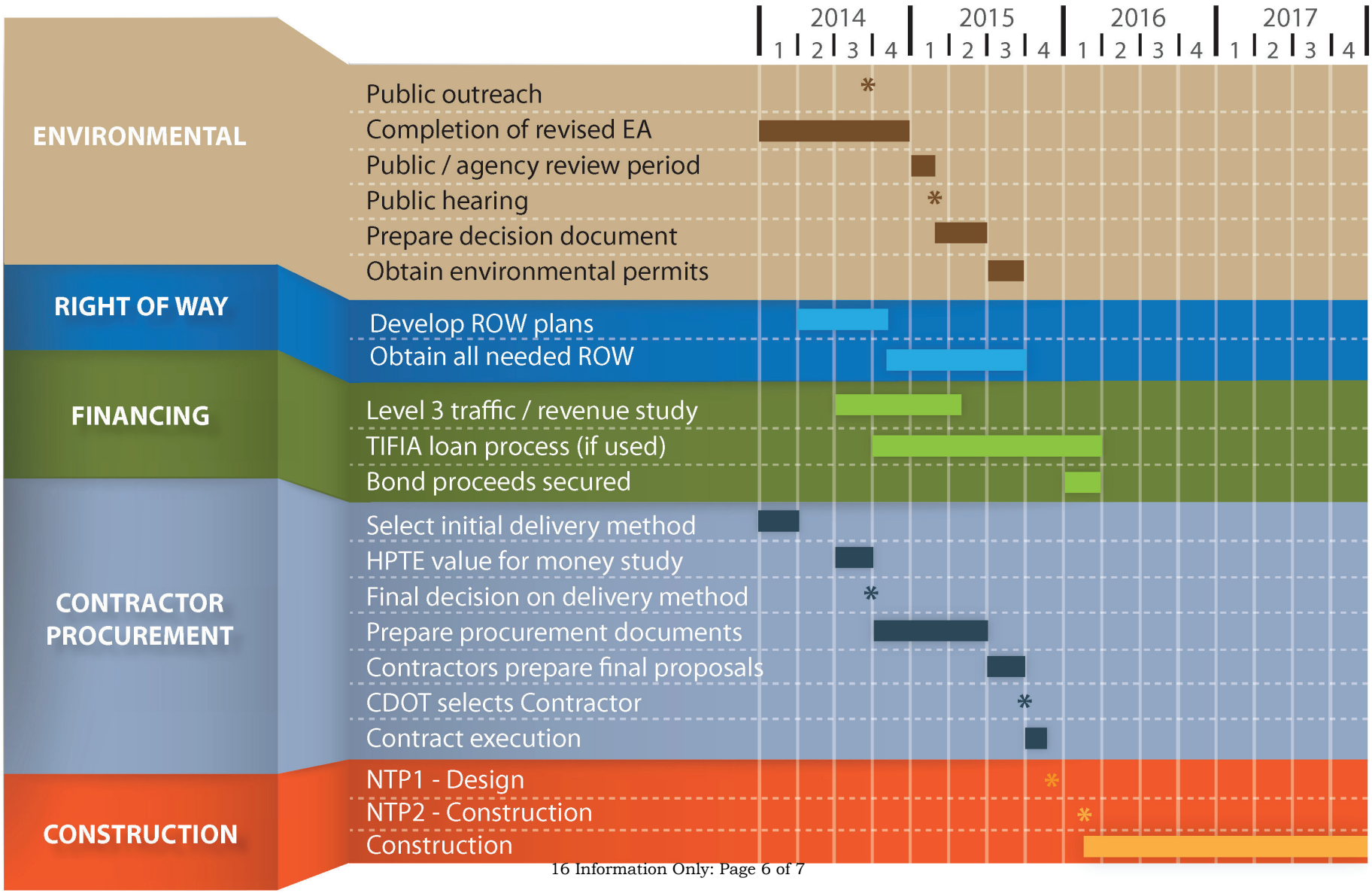
Attachments
Interim Schematic Lane Diagram
Schedule

INTERIM SCHEMATIC



COLORADO
Department of Transportation

C-470 Tolled Express Lanes – Segment 1
DRAFT Project Schedule – June 2, 2014



COLORADO
Transportation Commission

4201 East Arkansas Avenue, Room 270
Denver, CO 80222-3406

DATE: August 21, 2014
TO: Transportation Commission
FROM: Director, Division of Transportation Systems Management & Operations (TSM&O)
SUBJECT: TSM&O Current State of Ramp Metering

Purpose
To inform the Transportation Commision on the current state of ramp metering in Colorado.

Action
This is information for the Comission on the progress of TSM&O focus areas. A detailed workshop for the Commission on the strategic vision, direction, and initiatives of TSM&O will be requested for September.

Background
The Division of Transportation Systems Management & Operations is responsible for a statewide program designed to reduce congestion and improve the safety, security, mobility, and efficient utilization of Colorado's existing highway system. The Division is formed on the belief and commitment that CDOT can do more to operate Colorado's existing surface transportation system so that it performs better to meet customer expectations through activities other than building new capacity. The Division's top-two priority corridors are I-25 (84th to Evans) and I-70 (Vail to C-470).

Details
One of the best strategies in reducing traffic congestion is ramp metering. Ramp metering helps reduce delay, improve volume throughput, enhances merging safety, and maintains a stable traffic flow on the freeway system. The more on-ramps are metered in a freeway system, the more effective they are in reducing congestion by controlling volume during peak periods. Expanding ramp metering in congested corridors and filling gaps in our existing metering system is a major initiative of TSM&O over the next three years.

In FY14, a thorough assessment of all freeway on-ramps in Region 1 was conducted and ramp meter timing plans were updated to reflect current traffic conditions. Currently, out of 352 on-ramps to freeways in Region 1, 27% have ramp meters. Some locations are planned for metering with current and future projects; others have safety concerns, a lack of storage for metering, or require civil improvements to enable metering. Some on-ramps connect from other freeways. CDOT has not yet implemented freeway-to-freeway metering, a strategy that is challenging to implement safely and without severely impacting the connecting freeway. However, freeway-to-freeway metering has been implemented in states such as Minnesota and California and TSM&O is evaluating candidate locations for implementation in Region 1.

TSM&O is also developing projects to add over 32 new ramp meter locations on congested corridors in Region 1 by the end of FY16, the first 10 locations to be completed by January 2015. This will increase our percentage of metered on-ramps in Region 1 from 27% to 37%, including 25 meters added to I-25 from Castle Pines to 144th. The cost of these projects is estimated at $5.2 million, with $965,000 currently funded through RAMP Operations. TSM&O is also developing guidance for engineers in all Regions to assist them with accurately assessing the feasibility of metering on-ramps on congested freeways Statewide. Funding for the remaining projects has not been finalized. Staff will evaluate the eligibility of unfunded projects to use FHWA Highway Safety Improvement Plan (HSIP) and FASTER Safety Mitigation funds, as well as consider ITS Capital Investment and Congestion Relief funds.

Key Benefits
TSM&O provides cost effective solutions that can serve as alternatives to adding roadway capacity with superior returns on investment, substantially lower implementation costs, and long lasting and consistent benefits, even after a major capacity project. No single TSM&O strategy is a "silver bullet", but layering multiple strategies and projects together creates synergistic benefits that are unmatched in their benefit/cost ratios. Ramp metering is a basic TSM&O strategy that has a benefit/cost ratio of 15:1 in its improvements of mobility and safety.