

Date: October 21, 2009

To: Chair and Members of the Board of Directors

From: Steve Rudy, Director, Transportation Planning and Operations

Subject: **Project selection recommendations for FASTER Safety projects**

#### REQUESTED ACTION

Motion to approve the Colorado Department of Transportation (CDOT)-proposed projects using Funding Advancements for Surface Transportation and Economic Recovery (FASTER) safety funds for FY 2010, to authorize DRCOG staff to administratively modify the *2008-2013 Transportation Improvement Program* accordingly to include relevant projects, and to recommend that CDOT begin to work with DRCOG immediately to develop a project list and priorities for future fiscal year FASTER safety funds.

#### SUMMARY EXPLANATION

- The FASTER bill (SB09-108) was passed by the Colorado Legislature earlier this year. One provision of the bill identified revenues to be accrued through road safety surcharges.
- Funding has been identified for CDOT to program to safety projects in the following amounts for FY2010:
  - \$15.6 million to Region 1 (portion to projects in DRCOG region)
  - \$20.6 million to Region 4 (portion to projects in DRCOG region)
  - \$ 6.8 million for Region 6 (all to DRCOG region)
- The CDOT regions have prepared draft lists of projects recommended to be funded in FY2010 (attached). A memo discussing the broad considerations of the CDOT regions in the development of the proposed lists is also attached. Readiness and maximizing demonstrable safety improvements were two key components. Subsequent to the Transportation Advisory Committee (TAC) meeting, Region 1 provided staff with lists of the potential intersection/run-off-the-road improvements. Region 1's design/ROW projects have not yet been identified.
- TAC recommends the action requested. TAC added the recommendation that CDOT start work now with DRCOG to develop FASTER safety project lists for future years. This effort would begin by discussing big-picture perspectives, approaches, and potential categories, and culminate by identifying types of projects and/or specific projects. It would address FY2011 and 2012, as a minimum, and would be completed not later than the end of January. DRCOG staff has already slotted time at the October TAC meeting to kick-off this effort.
- The Regional Transportation Committee will provide a recommendation on this subject on October 20, 2009.

BACKUP INFORMATION

Attachments: FASTER Safety project proposal lists for FY2010 for CDOT Regions 1, 4, and 6.

- *Projects to be included in the TIP are shown with an A.*
- *Projects within the DRCOG region but not in the TIP area are shown with a B.*
- *Other projects on those lists are not in the DRCOG region.*

Memo from CDOT on selection methodology

ADDITIONAL INFORMATION

Should you have any questions, please contact Steve Rudy at [srudy@drcog.org](mailto:srudy@drcog.org) or at 303-480-6747.

**Draft FASTER Safety Proposal  
(FY10)**

Region	CATEGORY OR PROJECT	ESTIMATED AMOUNT	Early Ad Date*	Proposed Ad Date	FASTER SAFETY PROJECT CRITERIA			COMMENTS	COUNTY MPO/TPR	7th Pot Corridor Yes / No
					Crash Data**	Proactive Safety Improvements	Fix-It-First Improvements			
1	<b>Intersection Improvements **</b>	<b>\$1,000,000</b>			√	√				
	Part A, B Various Region wide Run Off Road and Intersection Upgrades (Locations TBD)	\$1,000,000	February-10	February-10				Construct guardrail, rumble strips, and other improvement to prevent run-off-the-road accidents, as well as signal and intersection improvements at various locations.	All	No
1	<b>ITS</b>	<b>\$1,350,000</b>			√	√				
	B I-70 West: Georgetown Hill Queue Detection	\$350,000	January-10	January-10				Install detection devices and a VMS to warn motorists of slow moving or stopped traffic.	Clear Creek / DRCOG	Yes
	I-70 West: EJMT to Silverthorne - Electronic Signing	\$1,000,000	December-09	December-09				Install detection devices, signs and weigh-in-motion equipment to manage truck speeds and the runaway truck ramp.	Summit / Intermountain	Yes
1	<b>Safety Rail Improvements</b>	<b>\$5,200,000</b>			√	√				
	I-70 West: EJMT to Silverthorne (Specific Projects TBD)	\$4,500,000	June-10	June-10				Safety improvements to include barrier repairs and replacement (Type 4 to 7 from MP 205 to 214) and possible landslide mitigation at MP 212.	Summit / Intermountain	Yes
	B I-70 West: EJMT to Bakerville - Median Barrier Improvements	\$700,000	January-10	January-10				Upgrading median barriers from Type 4 to Type 7 (MP 215 to 221).	Clear Creek / DRCOG	Yes
1	<b>Mobility</b>	<b>\$2,050,000</b>			√	√				
	B SH 119: Main Street-South	\$2,050,000	June-10	June-10				Continuation of the 4-lane section through Black Hawk. Work includes curve straightening for accident mitigation at MP 6.0, per the safety assessment recommendations.	Gilpin / DRCOG	No
1	<b>System Quality</b>	<b>\$4,500,000</b>			√	√				
	Part A US 285: Bailey to Richmond Hill Asphalt Overlay	\$4,500,000	March-10	March-10				The proposed project will grind away the delaminated top layer and include guardrail installation, improved lane transitions at the end of existing climbing lanes, and widened shoulders.	Park & Jefferson / Central Front Range/DRCOG	No
1	<b>Design &amp; ROW</b>	<b>\$1,500,000</b>			√	√				
	Part A, B FY 11 Region 1 FASTER Projects Pool	\$1,500,000	N/A	N/A				Pool to fund PE/Design and ROW for FY 11 projects.	All	No
<b>TOTAL REGION 1 ESTIMATED FUNDING</b>		<b>\$15,600,000</b>								

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					Crash Data**	Proactive Safety Improvements	Fix-It-First Improvements			
4	<b>Intersection Improvements</b>	<b>\$850,000</b>			√	√	√			
	<b>Signal Program Supplement</b>									
	Various Locations: New - SH 392 @ WCR 31 (Weld County) Refurbish - SH 93 @ SH 170 (Eldorado Springs); SH 56 @ 4th St (Berthoud)	\$850,000	March-10	March-10					Weld / NFR Boulder / DRCOG Larimer / NFR	No
4	<b>Safety Rail Improvements</b>	<b>\$1,950,000</b>			√	√	√			
	A I-76: Median Cable Rail	\$750,000	December-09	February-10				An additional 3 miles of cable rail, extending east from the current project; Adams - Weld County line East. Location has a narrow median and a history of cross-over and median accidents.	Weld / DRCOG	No
	US 34 and on US 85: Bridge Rail - Greeley Area	\$1,200,000	February-10	April-10				12 locations, including one where the overhead sign had to be removed due to structural failure. Cost includes \$86,000 for consultant final design.	Weld / NFR	No
4	<b>System Quality</b>	<b>\$16,000,000</b>			√	√	√			
	I-25: S of SH 392 North to Harmony Rd	\$9,000,000	January-10	April-10				Addresses remaining RSL=0 segment of I-25. Concrete is failing with potholes and blowouts resulting in an unsafe driving surface. Project will rubblize and repair.	Larimer / NFR	Yes
	I-76: Diamond Grinding - Pilot Project from Brush East	\$1,000,000	January-10	April-10				Concrete is structurally sound, but area is experiencing differential settling resulting in an extremely rough riding, unsafe driving surface. This will improve the safety and extend the useful life of the roadway.	Morgan / UFR	No
	US 36: Kansas Stateline West	\$5,000,000	December-09	February-10				Location is an RSL = 0, with potholes and blowouts on the surface resulting in unsafe driving conditions. Project was the number 1 priority at ETPR meeting on 8/17/09.	Yuma / ETPR	No
	SH 392 @ Greeley Ditch # 2	\$1,000,000	January-10	January-10				Project is in final stages of design to replace a failing CBC. Location currently has temporary type 4 barriers separating traffic from a 25 foot drop-off.	Weld / NFR	No
4	<b>Design / ROW</b>	<b>\$1,800,000</b>			√	√	√			
	A SH 52 @ WCR 11	\$430,000	March-11	July-11				Design and ROW funds, location meets warrants for signals and turn lanes. Project is a high priority for Region Four and Weld County.	Weld / DRCOG	No
	A SH 119 @ Jay Rd and SH 119 @ Niwot Rd	\$620,000	December-10	February-11				Design and ROW funds, improves safety and mobility for transit and bicycle use. Includes queue jump lanes, high priority for Boulder County.	Boulder / DRCOG	No
	US 385 and US 34 Design in ETPR	\$500,000						High Priority for ETPR area, design of Passing lanes and shoulders on two high priority ETPR Corridors.	Various / ETPR	No
	US 85 Various Intersections	\$250,000						High Priority for UFR, intersection improvements at select locations.	Weld / UFR	No
<b>TOTAL REGION 4 ESTIMATED FUNDING</b>		<b>\$20,600,000</b>								

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					Crash Data**	Proactive Safety Improvements	Fix-It-First Improvements			
<b>6</b>	<b>Safety Rail Improvements</b>	<b>\$2,000,000</b>	April-10	April-10	√	√		Jefferson / DRCOG	No	
	A SH 470, SH 8 to Wadsworth	\$2,000,000	April-10	April-10	√	√	HES qualified but not funded			
<b>6</b>	<b>Intersection Improvements</b>	<b>\$1,000,000</b>								
	<b>Signal Program Supplement</b>									
	A SH 177 @ Hampden	\$500,000	March-10	March-10			HES qualified but not funded	Denver & Jefferson / DRCOG	No	
	A SH 121 @ Coalmine	\$500,000	May-10	August-10			HES qualified but not funded			
<b>6</b>	<b>Bridge Replacements</b>	<b>\$3,800,000</b>								
	A 84th Avenue over I-25	\$3,800,000	June-10	August-10			Poor bridge #1 priority in Region for FY 10. This project is estimated to cost \$19 M. Balance of cost proposed for FASTER Bridge \$. SR = 41.3 -- very high ADT. Project elements include upgraded lighting, signalization, sidewalks and shoulders.	Adams / DRCOG	No	
<b>TOTAL REGION 6 ESTIMATED FUNDING</b>		<b>\$6,800,000</b>								

<b>TOTAL REGIONS 1, 4, AND 6 ESTIMATED FASTER FUNDING</b>	<b>\$43,000,000</b>
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Notes: Proactive Safety Improvements include shoulders, mobility or operational improvements  
 Fix-It-First Improvements include culvert replacement, resurfacing, or preventative maintenance  
 \* Early Ad Date if sufficient funding were to be available  
 \*\* Intersections, on average, account for 45% of all accidents in Colorado

**CDOT Region 1 – Run-off-the-Road Crash Prevention Project Candidate Locations for  
FASTER Safety Funding (FY 10)**

	Highway	Begin Mile Post	End Mile Post	County (MPO/TPR)	Type of Improvement Recommended			Cost Estimate
					Ground Signs (GS) & Rumble Strips (RS)	Safety Edge (SE) & Guardrail (GR)	Digital Speed Monitoring Device (DSMD) & Shoulder Widening (SHLDR)	
B	US 6	258.30	260.05	Clear Creek (DRCOG)	GS & RS	SE		\$37,480
A	US 6	264.80	266.42	Jefferson (DRCOG)	RS	SE & GR		\$18,010
	SH 9	73.49	78.24	Park (Central Front Range) & Summit (Intermountain)	GS	GR		\$3,970
	SH 9	109.03	110.03	Summit (Intermountain)	RS		DSMD	\$35,140
A	I-25	171.16	172.66	Douglas (DRCOG)	GS			\$3,280
A	SH 67	117.65	119.90	Douglas (DRCOG)	GS			\$1,090
A	SH 67	121.68	122.93	Douglas (DRCOG)		GR		\$44,520
A	SH 74	10.80	11.80	Jefferson (DRCOG)	GS & RS	GR	SHLDR	\$104,490
B	SH 119	2.75	4.50	Gilpin (DRCOG)	GS & RS	GR & SE	SHLDR	\$99,520
A	SH 74	5.00	6.00	Jefferson (DRCOG)		GR		\$30,000
<b>Total</b>								<b>\$377,500</b>
<b>CE Pool at 24%</b>								<b>\$90,600</b>
<b>Grand Total</b>								<b>\$468,100</b>
DRCOG Portion								\$338,390 (89.6%)
Central Front Range Portion								\$1,985 (.5%)
Intermountain Portion								\$37,125 (9.8%)

**CDOT Region 1 – Intersection Improvement Project Candidate Locations for FASTER Safety Funding (FY 10)**

	Highway	Cross Street (Mile Post)	County (MPO/TPR)	Type of Improvement Recommended			Cost Estimate
				Signal Poles and Mast Arms	Geometric	Signs	
A	SH 83 (Parker Road)	Indian Pipe	Douglas (DRCOG)		X	X	\$250,000
A	SH 86	Deerpath Road (MP 10.3)	Douglas (DRCOG)		X	X	\$230,000
				Total			\$480,000
				CE Pool			\$115,200
				<b>Grand Total</b>			<b>\$595,200</b>

Project to be included if cost savings allow

	US 6	Anemon Trail (MP 208-209)	Summit (Intermountain)		X		\$150,000
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From: CDOT

Date: September 18, 2009

## **How CDOT selected projects proposed for FASTER Safety funding:**

The FASTER bill provided limited guidance on the types of activities eligible for Safety funding. In selecting proposed projects, CDOT focused on projects that respond to existing safety concerns (as indicated by crash data), projects that would prevent future safety issues, projects of local entity importance, and projects that fix existing infrastructure with an identified safety component as a first priority. Quick delivery of projects funded, of course, was also a strong consideration.

CDOT discussed several options with DRCOG staff for how to select projects for funding.

- 1) Annually CDOT identifies projects to be funded statewide for funds it receives from the federal Hazard Elimination (HES) program. CDOT has a long list of HES eligible projects that could not be funded within available revenues. The projects considered include median cable rails, median barrier upgrades, lighting, ramp metering, and operational improvements at intersections including traffic signals. DRCOG staff indicated that signal upgrades and other intersection improvements were a high priority from their perspective.
- 2) ITS improvements, such as installing variable message signs to warn motorists of accidents and slow traffic ahead were considered as proactive safety measures.
- 3) Bridge and roadway repairs that have a safety component such as extremely poor pavement, need for additional shoulders, lighting needs, or sidewalks were also considered, consistent with the Department's priority to fix existing infrastructure first. In Region 6, FASTER Bridge funding in the near term is not enough to finish the region's top two bridge priorities for that source, along with the fact that there are identified safety components that would be corrected on those structures. Using the FASTER Safety funds to correct those safety components by supplementing Bridge funding was a strong consideration. In Region 1, failing pavement on a hazardous stretch of US 285 was a strong priority to address safety concerns due to significant potholing and lack of guardrails.
- 4) Design work for future year FASTER Safety projects was also suggested as a priority, ensuring ability to deliver future year FASTER projects quickly.

The proposed list of projects is a mixture of these types of improvements, reflecting the variety of projects that can reduce safety hazards.

All of CDOT Region 6's FASTER Safety funds will go toward projects in DRCOG; since Regions 1 and 4 are only partially located in the DRCOG area, the funding in those areas is shared among several Planning Regions. Those Regions reviewed their proposed project lists with DRCOG staff and the other area TPRs as appropriate to discuss geographic equity.