



MEMORANDUM

TO: TRANSPORTATION COMMISSION (TC)  
 FROM: JEFF SUDMEIER, CHIEF FINANCIAL OFFICER  
 DATE: AUGUST 15, 2019  
 SUBJECT: SECOND BUDGET SUPPLEMENT - FY 2019-2020

Region 1

\$2,226,753 - Tunnel Construction Program - EJMT 480V MOTOR CONTROL CENTERS - Request additional funding to award the project to the winning bidder. The aggregate project adjustments to date equates to a 26% increase over the original budget. Per Policy Directive 703.0 aggregate adjustments above 15% of the original budget and in excess of \$500,000 requires Transportation Commission approval.

**EJMT 480V MOTOR CONTROL CENTERS**  
*Budget Components by Phase, Funding Program, Fiscal Year*

Phase of Work	Funding Program	Original Budget	Funding Request				Revised Budget	Expended To-Date
			Previous Adjustments	Current Request	Total Adjustments	Total Adjustment Percent		
Design	<i>Tunnel Construction Program</i>	\$644,936	\$10,000	\$0	\$10,000		\$654,936	\$0
	<b>Total Design</b>	<b>\$644,936</b>	<b>\$10,000</b>	<b>\$0</b>	<b>\$10,000</b>	<b>2%</b>	<b>\$654,936</b>	<b>\$0</b>
Construction	<i>Tunnel Construction Program</i>	\$7,843,016	\$0	\$2,226,753	\$2,226,753		\$10,069,769	\$0
	<b>Total Construction</b>	<b>\$7,843,016</b>	<b>\$0</b>	<b>\$2,226,753</b>	<b>\$2,226,753</b>	<b>28%</b>	<b>\$10,069,769</b>	<b>\$0</b>
<b>Total Project</b>		<b>\$8,487,952</b>	<b>\$10,000</b>	<b>\$2,226,753</b>	<b>\$2,236,753</b>	<b>26%</b>	<b>\$10,724,705</b>	<b>\$0</b>

*Please see the attached Region 1 EJMT Project Award memo for more information.*

\$8,000,000 - National Highway Freight Program - I-25 South GAP Project - The total value of this project is \$350M and is currently under construction. The requested funding will be used to widen a section of the project an additional 12 feet in order to accommodate a southbound truck-climbing lane while maintaining the full 12 foot outside shoulder. The truck climbing lane will be 3.6 miles long creating a benefit to trucks and passenger vehicles on the climb up and over Monument Hill. The initial design included a 1.5 mile truck climbing lane near the Greenland exit. This created an issue by forcing trucks to merge with traffic while climbing at slow speeds. The additional funding will resolve this issue by creating one contiguous truck-climbing lane for southbound I-25 removing the need for trucks to merge at slow speeds. The funds will also be used to make minor adjustments to the Larkspur chain-up station including extending the acceleration and deceleration lanes onto I-25. Per PD 703, a request of this amount requires review and approval by the Transportation Commission.

*Please see the attached Region 1 I-25 South GAP Project memo for more information.*



**Region 3**

\$1,500,000 - Transportation Commission Contingency Reserve Fund - On July 11, 2019 I-70 at experienced a rock fall event in Debeque Canyon at mile marker 45.8. Emergency contracting was initiated to install rock fencing to a larger area of the canyon. Initial funding was done through the region 3 maintenance program and the region requests reimbursement for these unplanned costs. Per Policy Directive 703.0 any use of the Contingency Reserve Fund requires TC approval.

Please see the attached Region 3 I-70 MM45.8 Funding Request memo for more information.

**Attachments:**

- a. Region 1 EJMT Project Award Memo
- b. Region 1 I-25 South GAP Project Memo
- c. Region 3 I-70 MM45.8 Memo

**Transportation Commission Contingency Reserve Fund Reconciliation  
Second Supplement FY 2020 Budget**

Transaction Date	Transaction Description	Amount	Balance	Reference Document
June-19	Ending Balance 12S19		<b>\$18,209,819</b>	
July-19	Balance 1S20		<b>\$11,808,394</b>	
	Return unused ER/flood permanent repair Region 4	\$ 1,701,287		Various
	Return unused ER/rock fall and beetle killed trees Region 3	\$ 262,449		Various
	Region 3 Rockfall Debeque Canyon	\$ (1,500,000)		Pending
August-19	Pending Balance 2S20		<b>\$12,272,130</b>	

**Transportation Commission Program Reserve Fund Reconciliation  
Second Supplement FY 2020 Budget**

Transaction Date	Transaction Description	Amount	Balance	Reference Document
June-19	Ending Balance 12S19		<b>\$75,156,855</b>	
July-19	Balance 1S20		<b>\$84,029,527</b>	
	Travel Survey	\$ (1,000,000)		1000265012
	Defeasance of the Certificates of Participation	\$ (1,900,000)		Pending
August-19	Pending Balance 2S20		<b>\$81,129,527</b>	

**Transportation Commission Maintenance Reserve Reconciliation  
Second Supplement FY 2020 Budget**

Transaction Date	Transaction Description	Amount	Balance	Reference Document
June-19	Carry forward from FY 2019		\$0	
	FY20 Budget Allocation	\$10,000,000		1000262118
July-19	Balance 1S20		<b>\$10,000,000</b>	
	FY20 Additional Budget Allocation	\$2,000,000		Pending
August-19	Balance 2S20		<b>\$12,000,000</b>	



**Transportation Commission Contingency Reserve Fund**  
**Emergency and Permanent Repairs-Nonparticipating costs and state match**

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**September 11, 2013 Flood Related Monthly Activity**

Reg	State		Mileposts	Project Description	County	Total Budget
	Highway					TCCRF
4	N/A	0.000	- 0.000	Various locations	N/A	\$ 317,389
4	007A	10.750	- 19.250	PR SH-7 Flood, Estes Park to Jct.SH-72	Boulder	\$ 109,766
4	055A	0.000	- 1.500	PR Flood Repair SH 55, SH 59, SH 385	Logan	\$ 92,162
4	036B	7.700	- 8.000	PR US 36 Phase 3 MP 7.7-8	Larimer	\$ 940,257
4	034A	77.000	- 80.000	PR US 34 Big Thompson Canyon Phase 1	Larimer	\$ 241,713
4	034A	75.200	- 76.700	US 34 Big Thompson Canyon Moodie/Drake	Larimer	\$ 129,074
4				Total		\$ 1,701,287

**Spring 2015 Flood Related Monthly Activity**

Reg	State		Mileposts	Project Description	County	Total Budget
	Highway					TCCRF
				Total		\$ -

**Grand Total TCCRF Activity for Emergency Relief Since Last Reporting**      **\$ 1,701,287**



FY 2019-2020 Contingency Reserve Fund Balance Projection		
July TC Contingency Balance (Emergencies)	\$11,808,394	
<i>Pending Requests:</i>		
Region 4 return of unused ER funds	\$1,701,287	
Region 3 return of unused ER funds	\$262,449	
Region 3 Rockfall Debeque Canyon	(\$1,500,000)	
Pending August TC Contingency Reserve Balance	\$12,272,130	
<i>Projected Outflow:</i>		
	Low Estimate	High Estimate
State Match for Emergency Relief/Permanent Recovery	(\$2,000,000)	(\$5,000,000)
State Match for Spring 2015 Floods	\$0	(\$2,500,000)
<i>Projected Inflow:</i>		
	Low Estimate	High Estimate
None	\$0	\$0
Projected FY 2019-2020 YE Contingency Balance	\$10,272,130	\$4,772,130
<i>TCCRF Surplus (Deficit) to Reach \$30M Balance July 1, 2020</i>	<i>(\$19,727,870)</i>	<i>(\$25,227,870)</i>

FY 2019-2020 Program Reserve Fund Balance Projection		
July TC Program Reserve Balance	\$84,029,527	
<i>Pending Requests:</i>		
Decennial Statewide Travel Survey	(\$1,000,000)	
Defeasance of the Certificates of Participation	(\$1,900,000)	
Pending August TC Program Reserve Fund Balance	\$81,129,527	
<i>Projected Outflow:</i>		
	Low Estimate	High Estimate
Allocation of Additional STBG Funds	\$0	(\$37,344,000)
<i>Projected Inflow:</i>		
	High Estimate	Low Estimate
Reimbursement for Demolition of CDOT Headquarters	\$2,000,000	\$0
Projected FY 2019-2020 YE Program Reserve Balance	\$83,129,527	\$43,785,527

FY 2019-2020 Outstanding Potential Grant Commitments		
<i>Projected Outflow:</i>		
	Low Estimate	High Estimate
USDOT Competitive Highway Bridge Program* - Pending	\$0	(\$15,000,000)
Colorado V2X Project Internet of Roads (BUILD)* - Awarded	\$0	(\$3,000,000)
I-25 North Segments 5 and 6 (BUILD)* - Awarded	\$0	(\$20,000,000)
US 50 Little Blue Canyon (FLAP)* - Awarded	\$0	(\$12,000,000)
*Commitment associated with pending or previously awarded federal grant. May be funded with anticipated SB 1, SB 267 funding or other state General Funds. □		
Projected FY 2019-2020 Outstanding Potential Grant Commitment Total	\$0	(\$50,000,000)





**Date: August 7th, 2019**

**From: Neal Retzer PE, EJMT Resident Engineer**

**To: Transportation Commission**

**Subject: Description of Project 21223, EJMT 480 V Motor Control Centers**

The 480 Volt Motor Control Center project does a multitude of improvements for the North Tunnel (Eisenhower) ventilation system. The project will replace the old “drives” for the current motors which operate on only 2 speeds and replace them with more modern technology that operates more like a dial with infinite speeds. This replacement of old equipment and upgrade in technology will bring the north tunnel ventilation into the current decade by improving several areas such as:

1. **Cost Savings** - Xcel energy charges EJMT for a spike in power or extra “In rush current” every time we start a 600hp motor either for testing, emergencies or routine maintenance. This can cost as much as \$20K every time a motor is turned on to “Hi”. The Variable Frequency Drives (VFD's) being installed have an intelligence programmed into them to bring the fan speeds up without exceeding the in rush current spike levels. Based on historical data the cost savings for this upgrade will be between \$100K and \$200K per year in energy costs.
2. **Meeting Current Fire Code Standards**- Currently, the tunnels do not meet modern NFPA 502 standards in the timeliness of bringing our ventilation up to full power in an emergency. Only one fan can be manually brought up at a time and user error in this process can cause a complete power failure by bringing too many fans up to speed too soon. The technology takes user error out and reduces the time for fans to reach top speed from approximately 10 minutes to just over 3 minutes.
3. **Technological Advances and Automation**- The new controls associated with VFD's allow fan speeds to vary with pollutant levels in the tunnel and removes guesswork on optimal fan speeds to remove air pollutants in the tunnels.
4. **Better Maintenance Program**- By eliminating the \$20K costs every time EJMT starts a 600 hp fan we can eliminate the stigma that testing/maintenance of these fans costs too much to do and increase our maintenance and testing program for more reliability in the future.

These fans and the ventilation of EJMT is extremely important on a daily basis as well as in emergencies. The car fire on January 28<sup>th</sup>, 2019 required 4/6, 600 hp fans to ventilate the smoke out of the tunnel so emergency responders could get in the tunnel and at the very least see what they were doing as well as put the fire out.

Additional funding for this project is needed for several reasons. This is the second time it was advertised so a third time likely will not get more interest since we actually solicited industrial power contractors to bid on it instead of just hoping they would like the first time. We got 2 bids this time and only one the first time. Sturgeon bid on it twice. I think the discrepancy with the engineers estimate and the bids is due to several factors:

1. We are **finding** that contractors are just too busy to even bother. Of the 5 we reached out to, 2 said they wouldn't even bother looking at it.
2. We are always at a disadvantage with our location
3. Not placing blame on our **Engineering** Estimates unit but this project is extremely hard for them to price because we never do this work in CDOT. What makes it even harder is that this is retrofitting old motors and fans so there is quite a bit of risk and variables to consider as well. Some drive suppliers do not even think our specifications are attainable.

Thank You for your Consideration,

A handwritten signature in black ink, appearing to read 'Neal Retzer', written in a cursive style.

Neal Retzer



# COLORADO

## Department of Transportation

Division of Transportation Development  
Information Management Branch  
2829 West Howard Place  
Denver, CO 80204

To: Transportation Commission

From: Rebecca White, Director, Division of Transportation Development  
Tim Kirby, Manager, Multimodal Planning Branch

RE: Request for budget supplement to support National Highway Freight Program funding for I-25 South Gap Project

Date: August 15, 2019

### Purpose

The Division of Transportation Development requests \$8,000,000 from the National Highway Freight Program (NHFP) to fund a critical element of the I-25 South Gap Project.

### Action Requested

Approval of the requested funds.

### Background

The National Highway Freight Program is a formula freight program established by the FAST Act in 2015. It provides dedicated federal funding for states to improve freight operations and safety. The NHFP provides approximately \$15 million (federal) annually to Colorado.

Policy Directive (PD) 703.0 (last revised by the Transportation Commission (TC) in 2014) sets the policy for the Transportation Commission's review and approval of the annual budget and project budgets. PD-703 states that the TC will focus on substantive budget matters (i.e. budget matters that involve material change or significant risk) but also has an approval role when funding is requested for projects not on an approved list or model.

The I-25 South Gap Project improves an 18-mile stretch of Interstate 25 from south of Castle Rock to Monument. This is the only four-lane section of I-25, connecting Colorado's two largest cities, Denver and Colorado Springs. Over the years, congestion, crashes and delays have grown due to population growth and more people using the road. This \$350M project is currently under construction. The requested \$8M in NHFP funding will include widening a section of the project an additional 12 feet in order to accommodate a southbound truck climbing lane while maintaining the full 12 foot outside shoulder. The funds will also make minor improvements to the southbound truck climbing lane. The resulting improvement will create a single contiguous truck climbing lane for southbound I-25 from MP 162.2 to 167 (i.e., from just past the Greenland exit extending to the existing exit lane into the Port of Entry).

Two NHFP applications were submitted with one extending the climbing lane to the County Line Road (aka: East Palmer Divide) interchange due to the restricted I-25 width available under the existing bridge. The other application further extended the climbing lane over Monument Hill tying into the Port-of-Entry and replacing the County Line Road bridge. The combined request of \$8M provides a 3.6 mile truck climbing lane that offers strong benefits to trucks and passenger vehicles on the climb up and over



Monument Hill, along with making minor improvements to the southbound Larkspur chain up station including extending the acceleration/deceleration lanes onto I-25.

In August 2018 staff briefed the TC on the proposed project selection process for NHFP funding, which included project selection consultation and advisement from the Freight Advisory Council (FAC) and the Statewide Transportation Advisory Committee (STAC). The TC formally approved this process in September 2018. While funding for the I-25 South Gap climbing lane went through that process, staff also recognizes that it has been several months since the TC was briefed on this program and that the TC now has several new members. Therefore, staff is bringing this budget request to TC for formal approval as a budget supplement. In September, DTD will provide a full workshop to Commission that reviews the NHFP project solicitation, review and decision process. DTD also anticipates moving forward with several NHFP projects in September, particularly those related to freight safety and winter chain-up stations.







**MEMORANDUM**

**DATE:** July 31, 2019

**TO:** Transportation Commission

**CC:** Jeffrey Sudmeier, CDOT Chief Financial Officer, Josh Laipply Chief Engineer,

**FROM:** Mike Goolsby, Region 3 Director

**SUBJECT:** Budget Supplement Request Region 3 Section 2(R32MS-010)

Purpose

On July 11<sup>th</sup>, 2019, A rock fall event occurred in Debeque Canyon on I70 at Mile post 45.8. Due to the nature of the event and on-going issues in this area it was determined that Emergency contracting and an Emergency project be set up to install rock fencing in this area.

Action

In order for this project to be set up and to procure additional fencing to protect a larger area, Region 3 Section 2 funded project #23277 from the Maintenance operating budget. This decision was made due to the continued rock fall activity. Region 3 requests a supplement of \$1,500,000.00 back into R32MS-010 to restore the regular Maintenance budget.

Background

This area of I70 in Debeque Canyon has small frequent activity. The current series of events have been aided by a landowner introducing irrigation water above the roadway which has caused additional erosion in areas. CDOT's Attorney General has worked with the land owner and their lawyer to get the irrigation turned off. It is the recommendation of CDOT's Geotechnical unit that permanent fencing be installed in this area to ensure current and future rock fall activity is contained behind the fence. The traveling public has little to no sight distance in this area to avoid rocks if they end up on the roadway.

