



# COLORADO

## Department of Transportation

Office of the Chief Engineer

4201 East Arkansas Avenue, Room 262  
Denver, CO 80222

**DATE:** JUNE 16, 2016  
**TO:** TRANSPORTATION COMMISSION  
**FROM:** JOSH LAIPPLY, CHIEF ENGINEER  
MARIA SOBOTA, CHIEF FINANCIAL OFFICER  
JANE FISHER, OFFICE OF PROGRAM MANAGEMENT DIRECTOR  
**SUBJECT:** PROGRAM MANAGEMENT WORKSHOP

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### Purpose

The Program Management Workshop provides the Transportation Commission with an update on the integration of cash management and program management, asset management, and RAMP. The asset management program is the largest part of the program that we actively manage. Last month's Transportation Commission presentation identified that additional asset management information is desired to help the Transportation Commission make informed policy decisions.

### Action

- 1) Review updated asset management information to confirm it meets the commission's needs.
- 2) Please see Budget Supplement for TC action required related to one RAMP Partnership project. As with past RAMP project approval requests, background information is provided in the PMO Workshop materials.

### Background

#### *Integration of Cash Management and Program Management:*

A primary performance objective related to the integration of Cash Management and Program Management is a reduction of the cash balance. Total program spending has a significant impact on CDOT's cash balance. The attached Cash Balance Memorandum includes a bar chart projecting the impact of total program spending through December 2016 on individual cash fund balances and federal cash equivalents. The attached memorandum also provides additional background regarding the principles of cash management in response to questions from last month's TC presentation. As has been indicated previously, PMO will continue to monitor and report on both fiscal and calendar year 2016 expenditures through June 2016 after which reporting will be limited to the calendar year.

#### *Asset Management:*

In 2014 and 2015, asset managers and executive management approved various asset management treatment lists. This information included what are commonly referred to as "treatments" for various asset categories (buildings, bridges, culverts, geohazards, intelligent transportation systems (ITS), paving (also known as surface treatments), tunnels, traffic, and walls). The resultant treatment lists for each asset category were distributed to the regions and in most cases bundled to become projects. It is very common for an individual project to be comprised of more than one treatment from an asset

category (e.g. multiple culverts, and also for a project to include items from multiple asset categories (paving/surface treatment, culverts, bridges, etc.). The resultant projects comprise the Approved Asset Management Program of Projects.

As discussed at last month’s TC meeting, many projects take 18 months to 2 years to complete and in order to ensure annual STIP spending targets are achieved, the regions are given the flexibility to advance future year projects that are ready for construction. Also discussed, it is very common for an individual project to receive funds from multiple fiscal years as well as multiple funding sources.

**RAMP:**

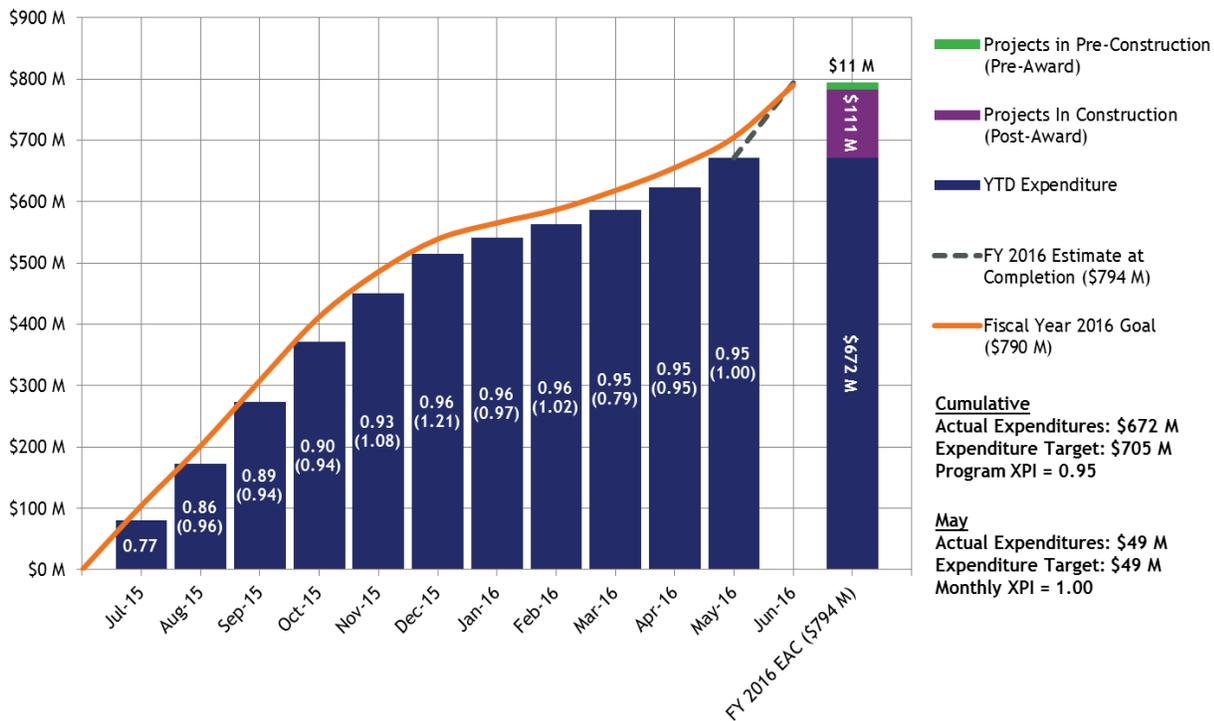
The RAMP program was initiated in November 2012 as a means to reduce the cash balance. Shortly thereafter the TC approved a project list and has since approved the budgeting of groups of projects and individual projects. Given the majority of the RAMP projects are either now in construction or progressing with design, PMO workshop updates are now limited to background associated with requested TC actions.

**Details**

*Integration of Cash Management and Program Management:*

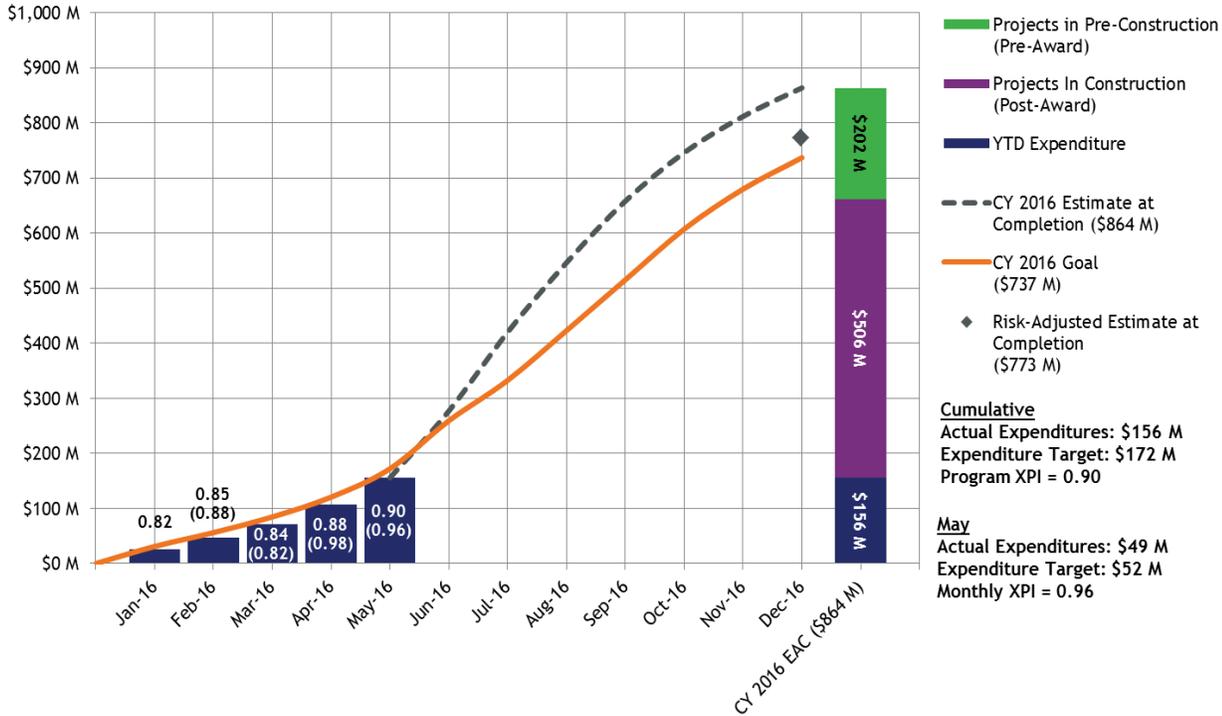
PMO is tracking program delivery at the statewide level using the expenditure performance index (XPI) to evaluate actual construction expenditure performance as compared to planned. In Figure 1 below, the cumulative Fiscal Year 2016 XPI remains at 0.95. May’s actual expenditures were on target (monthly XPI = 1.0). Review of data from the past six years suggests ~12.8% of total fiscal year expenditures occur in June which correlates with an FY16 total expenditure about \$20 million dollars less than the current \$790 million dollar target. A number of actions have been initiated in an attempt to address the potential gap.

Figure 1 - FY 2016 Capital Program Construction Expenditure



In Figure 2 below, the cumulative Calendar Year 2016 XPI is 0.90 which is an improvement since April. May's actual expenditures were very close to the expenditure target (monthly XPI = 0.96) and forecasted expenditures are currently tracking above the CY16 goal of \$737 million dollars.

Figure 2 - CY 2016 Capital Program Construction Expenditure



**Asset Management:**

There were a number of questions regarding the asset management information presented at last month's TC meeting. In response to those questions, the master list of engineering projects similar to what is currently available on CDOT's external website has been updated and can be accessed using the link below. The list includes a summary of all projects since the inception of the asset management program in 2014. It includes a general description of each project by region, applicable program codes detailing the funding sources, list year, planning level estimate, budgeted to date, expenditures to date and current phase (planning, preconstruction, shelf, construction, or complete). Please note that projects are indicated with either a planning level estimate or budgeted to date amount depending on project phase. Following incorporation of any final comments, the revised version will be added to the CDOT website and updated quarterly moving forward.

[Link to Master Project List until it is migrated to the CDOT external website.](#)

**RAMP:**

Table 1 details RAMP Partnership and Operations projects (CDOT Administered only) that have not yet been awarded. As detailed in the Budget Supplement, TC approval of the US 385 Intersection at Yuma

County Road 33.6 project is requested. If approved, this will reduce the remaining RAMP Contingency to \$1,619,839. However, it is important to note that the contingency fund will be replenished as projects are completed and project savings are realized. (See attached RAMP Budget Request Memorandum for more details about the Region 4 project)

Table 1 - RAMP Program Controls (remaining unawarded CDOT administered projects only)

Project Name	Project Budget	RAMP Request	Local Contribution	Other CDOT Funds	Status
US 24 Enhancement Project in Buena Vista (bundled)	\$2,497,090	\$1,997,090	\$500,000	\$0	Recently Awarded
Adaptive Traffic Signals System in Longmont	\$5,500,000	\$4,670,000	\$770,000	\$60,000	Ad in June
SH 74 South of El Rancho Safety Shoulders	\$57,947	\$57,947	\$0	\$0	Ad in June
Crossroads Bridge Replacement @ I-25	\$37,000,000	\$35,000,000	\$2,000,000	\$0	Ad in July
US 385 Intersection at Yuma CR 33.6	\$611,000 + \$125,000	\$360,000 + \$125,000	\$254,000	\$0	Ad in July
New Traffic Signal Controllers in Denver Metro	\$1,060,000	\$1,060,000	\$0	\$0	Ad in August
Maintenance Decision Support System (MDSS)	\$250,000	\$250,000	\$0	\$0	Operations Procurement
HPTE P3 Development Fund ‡	\$40,000,000	\$15,400,000 <sup>‡</sup>	\$0	\$0	Requires Staff Development

‡ This total represents the remaining RAMP Development funding still available. HPTE staff has prepared a HPTE Development Fund Policy and Evaluation Criteria guidance document which the Executive Committee is in the process of reviewing.

Attachments

1. Attachment A - Cash Balance Memorandum
2. Attachment B - Foundations of Cash Management
3. RAMP Budget Request Memorandum





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## Department of Transportation

Division of Accounting and Finance

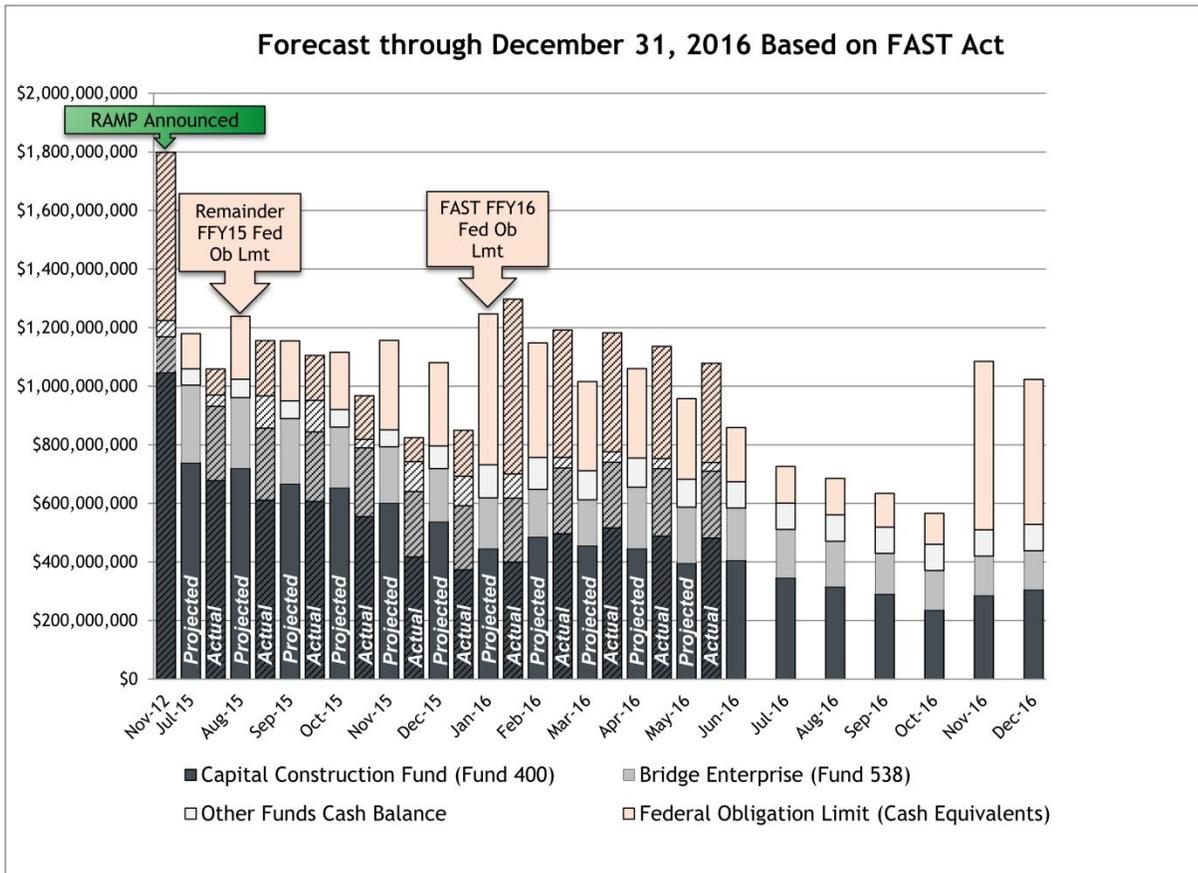
4201 East Arkansas Avenue, Room 262  
Denver, CO 80222-3400

**DATE:** June 16, 2016  
**TO:** Transportation Commission  
**FROM:** Maria Sobota, Chief Financial Officer  
 Josh Laipply, Chief Engineer  
 Jane Fisher, Office of Program Management Director  
**SUBJECT:** Attachment A - Cash Balance Memorandum

### Details of Cash Balance Charts

A primary performance objective related to the integration of Cash Management and Program Management is a reduction of the cash balance. Total program spending has a significant impact on CDOT's cash balance. Table 1 below is the cash balance forecast bar chart through December 2016 that takes into consideration the impacts of the FAST Act on the cash balance and factors in the construction program expenditure projections provided by the Program Management Office. A refresher in Cash Management principles and guidance is also included with this month's workshop. (Please refer to Attachment B)

Table 1 - Cash & Federal Obligation Target Balance



## Capital Construction Fund (Fund 400)

The cash balance in the chart is split out by fund with the Capital Construction Fund (Fund 400) being the most relevant as the majority of CDOT's primary operational activity is recorded in the fund. Fund 400 revenue receipts include State transfers from the Highway User Tax Fund (HUTF) transfers and Federal FHWA reimbursements. The majority of CDOT's spending is also recorded in Fund 400, including highway construction, maintenance operations, payroll, and consultant charges.

The projected Fund 400 cash balance at May 31, 2016, was \$395 million. The actual Fund 400 cash balance at May 31, 2016, was \$481 million - a difference of \$86 million. The increase in the cash balance resulted from CDOT actively billing FHWA to convert federal obligation limitation to cash.

The federal obligation limitation, which is CDOT's authorization to bill FHWA for reimbursement of expenditures, is an important driver of cash balance increases and decreases. In general, CDOT begins to spend down the Fund 400 cash balance when the federal obligation has been exhausted. This is because as long as CDOT has federal obligation available, it will receive reimbursement for approximately 80 percent of any qualifying expenditure.

With the passage of the Fixing America's Surface Transportation (FAST) Act, CDOT received its full federal obligation limitation of \$496 million for the year on January 11, 2016. Out of the \$496 million in federal obligation received, CDOT has consumed approximately \$378 million, leaving a remaining balance of \$118 for the rest of the year. Once the obligation limitation is exhausted, the Capital Construction Fund (Fund 400) cash balance will be spent down until the next fiscal year's new obligation limitation is received in late Fall 2016.

As of the end of May, CDOT was holding approximately \$232 million of expenditures in anticipation of billing FHWA ("accrued-unbilled"). CDOT expects to bill FHWA for the remaining obligation limitation by early summer 2016. The projected ending balance for federal cash equivalents at May 31, 2016, was \$275 million. The actual ending balance for federal cash equivalents at May 31, 2016, was approximately \$339 million - a difference of \$64 million.

While the passage of the FAST Act reduces uncertainty regarding federal obligation receipts in 2016, it will continue to be important for CDOT to closely monitor the cash balance as the Cash Management initiative progresses. In June, the Transportation Commission will be asked to adopt a cash balance threshold policy that CDOT staff will use to manage an increased capital construction program while effectively managing expenditure timing and related risks that impact the cash balance.



### Bridge Enterprise Fund (Fund 538) Cash Balance

The projected Bridge Enterprise Fund (Fund 538) cash balance at May 31, 2016, was approximately \$192 million. The actual Fund 538 cash balance at May 31, 2016, was approximately \$229 million - a difference of \$37 million. The cash balance projections for Fund 538 for April 2016 through December 2016 were updated to reflect additional information received related to the the timing of spending on projects such as Grande Avenue, ILEX, and Central 70 projects. The majority of the Fund 538 cash balance is needed to commit to Central 70 milestone payments during construction to limit CBE's long term debt obligation.

### Other CDOT Funds

Included in Other Funds are cash balances related to Aeronautics, HPTE, and the State Infrastructure Bank, among other smaller funds. Other Funds generally do not fluctuate significantly from month to month.





Cash flow financing is a technique of budgeting for projects in the year of expenditure rather than requiring a project to accumulate budget over time until it is fully funded before it can begin. This represents a fundamental shift for CDOT in its budgeting process with a short-term impact of enabling the department to accelerate certain “expenditure-ready” projects while other obligated projects move toward a point where they require cash.

When CDOT and its planning partners build the Statewide Transportation Improvement Program (STIP), they program the state funds that will be spent, and federal funds that will be reimbursed, on projects into the years in which those projects are scheduled to be constructed. Under CDOT’s prior practice, the STIP was used as a budget: programmed expenditures were constrained by revenues in each year of the first four years of the STIP. To balance the STIP in each year, CDOT had to program some of the projects that could be constructed in the first or second year of the STIP into the third or fourth year, delaying their construction until sufficient funds were available.

While the STIP was properly balanced as a plan, it became unbalanced in execution. As some of the projects planned for construction in the first year were delayed, the state funds that were programmed to them accumulated as unspent cash, and the federal funds that were programmed to them were not obligated. These funds remained unspent, even as other projects that had been programmed into the third or fourth year of the STIP were held back from starting in the first year due to insufficient funds.

Cash management works by using the funds that are programmed to projects that have been delayed by design and clearance issues from construction in the first year of the STIP to bring forward other projects from the latter years of the STIP and fund them for construction in the first year. This means that the STIP remains in balance over the total of its first four years but appears to be over-committed in the first two years and under-committed in the third and fourth year. While this practice has always been permitted under FHWA rules, it was not allowed by CDOT’s use of the STIP as a budget.

CDOT’s utilization of “Expenditure-Base Budgeting” allows construction projects to be fully budgeted with funding within our four year STIP window of planning. While we’re able to fully budget a construction project today we will only incrementally encumber cash on larger, multi-fiscal year projects as needed in each state fiscal year.



**MEMORANDUM**

**DATE: JUNE 16, 2016**  
**TO: TRANSPORTATION COMMISSION**  
**CC: JOSH LAIPPLY, CHIEF ENGINEER; MARIA SOBOTA, CHIEF FINANCIAL OFFICER**  
**JANE FISHER, PMO DIRECTOR**  
**FROM: JOHNNY OLSON, REGION 4 TRANSPORTATION DIRECTOR**  
**SUBJECT: RAMP PROJECT #4-51 (20204 / 21389), US 385 INTERSECTION AT YUMA CR 33.6**

Purpose

The US 385 Intersection at Yuma CR 33.6 RAMP Partnership (RAMP #4-51) project is requesting an additional \$125,000 in RAMP Contingency funding for a total estimated project cost of \$ 739,000. The shortfall is due to overall construction price increases and an additional 2 inch overlay component for the project.

Action

Per PD703, staff is requesting TC approval to budget an additional \$125,000 in RAMP Contingency funding via the June TC budget supplement to advertise the project.

Background

The original RAMP application dated June 28<sup>th</sup>, 2013 estimated construction costs of \$611,000, including RAMP funds and Yuma County in-kind match. The current Detailed Cost Estimate is \$739,000.

RAMP Application Breakdown:

<b>Original 2013 Budget:</b>	\$611,000
<b>Revised 2016 Estimate:</b>	\$739,000

Available Funds:

CDOT/RAMP	\$ 360,000
YUMA COUNTY	\$ 254,000 local in-kind
<b>TOTAL Remaining \$:</b>	<b>\$ 614,000</b>
Revised Budget	\$ 739,000
<b>Funding Shortfall:</b>	<b>&lt;\$125,000&gt;</b>

Details

This project provides safety improvements on US 385 south of the Town of Wray at the intersection of Yuma County Road 33.6. The existing roadway will be widened to accommodate a southbound left turn lane and a northbound right turn lane. The



original scope included the relocation of Y-W Electric power lines. Region staff have provided a design that requires all embankment and widening work to occur on the east of US 385. This eliminates the need to relocate the overhead electric lines and avoids potential Right-of-Way conflicts. Further change in the scope is not feasible without compromising CDOT design standards.

Yuma County will provide labor, materials, and equipment for the embankment construction. The estimated value of services performed is \$254,000.

This project was not included on the Region 4 Surface Treatment Plan adopted by the Transportation Commission for the next 4 years. Region 4 Materials has provided asphalt resurfacing recommendations that include a two inch overlay over the existing roadway as a new project component due to issues experienced with the previous two intersections. The overlay will maintain roadway integrity for the long term performance of the roadway. The additional cost of the overlay, in conjunction with the inflation of construction costs since the time of the application, are the primary contributors of the budget shortfall.

A meeting was held with the Eastern TPR on Monday, May 9<sup>th</sup> to discuss using RPP funds for cost overruns. The TPR agreed if no other funding is available they would support using these funds.

#### Recommendation

The RAMP Sponsor Coalition has approved the region staff's request of \$125,000 in RAMP Contingency Funds. Per PD703, staff is seeking TC approval to budget the additional funds needed to cover the anticipated funding deficit so that the project can be advertised this construction season.

#### Key Benefits

Approving the funds for this request will allow for the project to continue on schedule and be completed by the fall of this year.

