COLORADO
Department of Transportation
Division of Accounting and Finance

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MEMORANDUM

T0:	**TRANSPORTATION COMMISSION**
	HIGH PERFORMANCE TRANSPORTATION ENTERPRISE BOARD
FROM:	**MIKE CHEROUTES, DIRECTOR HIGH PERFORMANCE TRANSPORTATION ENTEPRISE**
	SCOTT RICHRATH, CHIEF FINANCIAL OFFICER
	PETER KOZINSKI, OFFICE OF MAJOR PROJECT DEVELOPMENT
CC:	**DON HUNT, CDOT EXECUTIVE DIRECTOR & DIRECTOR OF THE COLORADO BRIDGE ENTRPRISE**
DATE:	**NOVEMBER 20, 2014**
SUBJECT:	**UPDATE FOR I-70 EAST/VIADUCT REPLACEMENT PROJECT**

Purpose

To update the Transportation Commission (TC) on a variety of topics pertaining to current stakeholder outreach efforts, the existing financing scenarios and potential delivery models for the I-70 East/Viaduct Replacement Project. These updates are in light of substantial changes to initial revenue projections including Senate Bill 09-228, an impact study of the funding commitment for the Colorado Bridge Enterprise (CBE), as well as updated analysis of several delivery alternatives.

Action

Provide feedback to staff in its pursuit of funding alternatives and delivery models.

Background

The passage of FASTER legislation in 2009 established the CBE in order to accelerate the repair and reconstruction of deficient bridges further defined as structures that are "poor". Using this criterion, 128 bridges were originally determined to be eligible for the program and the viaduct was deemed one of the 30 worst bridges on the entire list. Despite the critical nature of the viaduct, it still remains one of last un-programmed bridges out of the original 128 and the last of the worst 30 bridges to be addressed. As the viaduct approaches the end of its economic life, on-going maintenance requirements are increasing and significant repairs have been made. This includes a recent $32 million dollar project to repair or remove expansion joints, the project was completed in Spring 2011 and was designed to extend the structure life by 10-15 years. Despite this recent repair work, the viaduct's physical condition remains a concern and the Department needs to determine a feasible long-term solution.

Current Details: Stakeholder Outreach Efforts

Public Involvement and Outreach

Given the location of the viaduct, the public has been engaged at a level that exceeds any project in the Department's history, including years of input from the diverse stakeholders in the neighborhood surrounding the I-70 corridor. Below is a summary of past and present outreach efforts:

- **2003:** The Environmental Impact Statement (EIS) study process begins; including the evaluation of dozens of reconstruction options
- **November 2008:** A Draft Environmental Impact Statement (DEIS) is made available for public comment
- **August 2014:** A Supplemental Draft Environmental Impact Statement (SDEIS) is released for public comment; addressesing changes since the 2008 DEIS and identifying The Partial Cover Lowered (PCL) alternative as the "preliminary identified preferred alternative". The Partial Cover Lowered (PCL) alternative is the first concept to receive community and political support since the start of study

Supplement Draft EIS comment period closed on Oct. 31, 2014 and received over 900 comments including over 250 comments from City and County of Denver. Staff is currently reviewing and sorting comments. Additionally, 400 attendees participated in a forum hosted by CDOT and HPTE in October to introduce I-70 East (and C-470) to the business community and connect prime contractor teams to small and disadvantaged businesses in Colorado.

Transportation Commission Engagement

Given critical nature of the I-70 East/Viaduct project to the Department, the Commission has also received many updates on the progress of the project in the last year. Below is a summary of workshops that have occurred over the past year:

- **December 2013:** Initial briefing from CBE and Macquarie Capital on procurement options analyzed in the Value for Money analysis
- **January 2014**: Presention by senior staff on cost estimates, various funding scenarios (e.g. CBE, FASTER Safety, SB 228), impacts to the CBE, and the possibility of preventative maintenance only approach
- **February 2014:** Presention by senior staff on several new funding scenarios per January request from TC and summarized risk transfer features and pros and cons of Public Private Partnership (P3) vs Design Build (DB)
- **April 2014:** Overview of potential project phases and associated costs. Presented anticipated sources of funding from CBE, DRCOG, and SB 228 and an update on outreach and communications efforts
- **June 2014:** Reviewed project need and presented scope and phasing options. Update on funding sources and an indicative payment timing. Further review of pros/cons of P3 vs. DB and results of HPTE's first round of transparency outreach
- **July 2014:** High Performance Transportation Enterprise (HPTE) and TC resolutions approved. TC resolution refers procurement of I-70 East to HPTE to further pursue P3 opportunities. HPTE Board recommends initial procurement steps be taken to engage industry in a possible Performance Based P3. Both resolutions call for further review and consideration of updated financial analysis and public input.

HPTE Transparency Outreach

Per Executive Order D 2014-010 and HPTE Transparency Policy (dated July 2014), HPTE recently conducted a second round of public outreach on I-70 East financing options. This followed "visioning stage" outreach held June and July of this year. This recent effort focused on providing the public an overview of the Request for Quote (RFQ) process and seeking input on what type of partner CDOT should seek for the I-70 East/Viaduct project. Outreach efforts included a telephone town hall, online survey, and public meeting. 3,300 people participated in the telephone town hall; although only a small number of questions were received. Attendance at the public meeting was around 20 people despite significant media and public announcements. Meeting participants asked thoughtful questions on items like tolling rates, contract length, and small business participation as well as how the private sector profits from a public private partnership (P3) arrangement. These meetings have not to date revealed a strong level of public concern with the possibility of seeking private investment in I-70 East. A third round of meetings is set to take place prior to the final Request for Proposal (RFP).

Current Details: Funding Update

While Department staff presented potential funding scenarios in February 2014, new revenue projections published by the Office of State Planning and Budget (OSPB) in September have made it critical that the Division of Accounting and Finance (DAF) provide updated funding information for consideration by the Commission. The key changes that are reflected in this month's presentation from the funding scenarios presented to the TC in February are as follows:

- Projected Senate Bill 09-228 (SB 228) General Fund (GF) Transfers to the Highway Users Trust Fund (HUTF) have been drastically reduced from the $1.07 billion over 5 years beginning in FY15-16, as forecasted in the December, 2013 memo to the TC from the Office of Policy & Government Relations. Due to larger than anticipated personal income growth in Colorado and the subsequent TABOR impacts to SB 228, OSPB now projects only a one time transfer of $102.6 million in FY15-16.
- DRCOG has committed $50 million dollars to be spread across a 5 year construction period beginning in FY17 and ending in FY21. This commitment must be finalized.
- In addition to changes in the projected revenue from SB-09-228, the total amount of financing agreed upon by CBE has been proposed to be set at a maximum of $850 million.

Of the new SB 09-228 revenue estimate, all of the $92.4 million would be made available for the I-70 project with the remaining 10 percent dedicated to transit projects. This represents a two-thirds reduction in SB 228 funding targeted for the I-70 East/Viaduct Replacement project. Important to note is that while the drastic reduction in anticipated revenues from SB 228 will not significantly impact the ability of the project to replace the viaduct (known as Section 2), it greatly impacts the overall non-viaduct portion of the I-70 East project scope. This would include the desired expansion of the project to I-270 or I-225.

In evaluating three core scenarios for funding the $850 million CBE commitment, CBE has determined that Milestone Payments during Construction with Availability Payments is the preferred method of financing. This option was reached following input and collaboration with CDOT senior staff, HPTE, Office of Major Project Development (OMPD) and CBE. See Attachment A for a full analysis of all core funding scenarios and impact of the $850 million dollar commitment on the Colorado Bridge Enterprise Program.

Recap of Anticipated or Available Funding as presented last February:

1. SB 09-228: $92.4 Million in FY15-16; 100% of non-Transit funding from 228
2. CBE: $850 million for the life of the project; maximum contribution
3. DRCOG: $50 million commitment
4. FASTER Safety Mitigation: $50 million if determined eligible and directed by TC

Table 1: Funding Scenarios Outlined in February 2014 TC Packet with Current Status

Initial Funding Scenario Presented to the TC in Feb 2014	Summary of Option	Current Level of Feasibility	Comment
Option #1	Viaduct-Only Alternative: Funded Exclusively by CBE	Not Preferred	Still on the table, but not the preferred option
Option #2	Macquarie Alternative: Add $270 million of SB 09-228 and extend to I-270	Not Feasible	No longer an option with the updated SB 09-228 revenue projections
Option #3A	FASTER Safety Alternative: CBE + 228 + FS	N/A	No longer relevant with DRCOG commitment
Option #3B	MPO Alternative: CBE + 228 + FS + DRCOG	High	Local Funding committed since February memo
Option #3C	Certainty-Based Timing: CBE + FS + DRCOG + 228 as 228 firms or is augmented	Highest	Option added by TC request last February

Current Details: Delivery Model Update (Key Benefits of Alternative Financing)

Given the existing funding uncertainty, HPTE and OMPD—working with consultants, Macquarie Capital (MacCAP)—continue to review the relative affordability and value of several delivery alternatives available: (1) CBE bond and TIFIA financed design build (DB); (2) CBE bond and TIFIA financed design build, coupled with a private contract for operation and maintenance (DBOM); and (3) design, build, finance, operate and maintain (DBFOM).

Next Steps

- Ongoing: Staff analysis of Macquarie Value for Money (VfM) analysis (Table 2 excerpted from VfM)
- November 19: Community Leaders Coordination Meeting
- Winter 2014-15: Request for Qualification

Attachment A: I-70 East Viaduct Replacement Project Financing Program Impact Analysis

Table 2: Examples of Construction Cost Savings in a Public Private Partnership (P3)

Project	Savings Relative to PSC	Savings Relative to Competitor	Comments
I-595, Florida (Road)	14.3% lower than PSC ($300m)	30% below next most competitive price	ATC's and risk transfer
A30, Quebec (Road + Bridge)	33% lower than PSC	~20% below competitor	Hybrid toll and availability
Denver Eagle P3, Colorado (Transit)	13% lower than PSC	~20% below competitor ($300m)	17 ATC's accepted
Southeast Stoney Trail, Alberta (Road)	NPV 63% below PSC	~40% below competitor	Innovation and market shift
Alberta Road Projects (Average of 5 Projects)	NPV 27% below PSC	-	2003 - 2012
Windsor Essex Parkway, Ontario (Road)	NPV 15% below PSC	~20% below competitor	
I-635 (LBJ Freeway), Texas (Road)	NPV 15% below PSC	~50% below competitor	
Port of Miami Tunnel, Florida (Road / Tunnel)	12.5% lower capital costs than PSC	~50% below competitor	Based on VfM analysis 2010
Goethels Bridge, New York (Road / Bridge)	13.7% lower than PSC	~7.2% below high bid	
Presidio Parkway, California (Road)	20% lower than PSC	-	Separate DBFOM and DB projects

COLORADO
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Statewide Bridge Enterprise

I-70 East Viaduct Replacement Project Financing Program Impact Analysis: Attachment A

I-70 Viaduct BE Financing History & Constraints

- Structure was identified as one of the original 128 “Poor” Bridges in the FASTER Legislation and was a driving factor in the passage of the FASTER Legislation.

- The Viaduct is approaching the end of its economic life evidenced by the $32M major repair project completed in 2011. This project was intended to gain an additional 10-15 years of structure life.

- Replacing the structure required a identifiable and sustainable project funding source. Preferred replacement alternatives include major corridor improvements.

- The Bridge Enterprise Board of Directors has proposed a contribution ceiling of $850M to the project.

I-70 Viaduct BE Financing History & Constraints(continued)

- The Bridge Enterprise has committed $97.8M of "Pay-Go" funds to-date to the project.
- The Bridge Enterprise Board of Directors has proposed that not more than 50% of any year revenues be allocated to the project.
- Consistent with the Bridge Enterprise 10 Year Bridge Program Plan, all financing models maintain a cash floor of $25M.

BE Financing Scenario Model 1

Milestone Payments During Construction Period with Availability Payments (Preferred Model)

- Financing model was determined to be feasible under current conditions, assumptions, and program requirements
- Financing model provides approximately $752M to the project in 2017 dollars
- Project team and Bridge Enterprise determined this financing model to be the most attractive
- Model allows for the most valuable funding for other BE projects in the near term

Under this financing model the Bridge Enterprise would provide $752M (NPV) in 2017 dollars to the project by providing availability payments for approximately 35 yrs.

The discount rate used for NPV calculations is 5%.

Under this financing model both Milestone Payments and Availability Payments are made by BE during the construction period.

BE Financing Scenario Model 2

Bond Remainder of $850M Commitment ($752M) in 2017

- Financing model was determined to **not** be feasible under current conditions, assumptions, and requirements[1]
- Financing model proved to be more interest rate sensitive than other models studied
- Financing model forced the BE Program into negative cash balances from FY23 until FY50
- Financing model may expose the Bridge Enterprise to Section 148 IRS arbitrage rules as well as other direct credit risk

$752M Net Bond Proceeds are what would be the difference between $850M total commitment and the $97.8M FY15 & FY16 contribution.

Bond assumptions used are:[2]

- 30yr Duration
- Avg. Coupon Rate of approximately 5.93% (max rate at 2.0x DSCR)

Total debt service paid over the 30yr duration for this model is approximately $1.81B

[1]Model conclusions could change substantially if staggered bond issuances are deemed to meet state fiscal rules or if forecasted interest rates change.
[2]Assumptions used provided by Stifel. CBE Rev Bonds Series 2016 (Max Rate @ 2x Coverage)

BE Financing Scenario Model 3

All Availability Payments

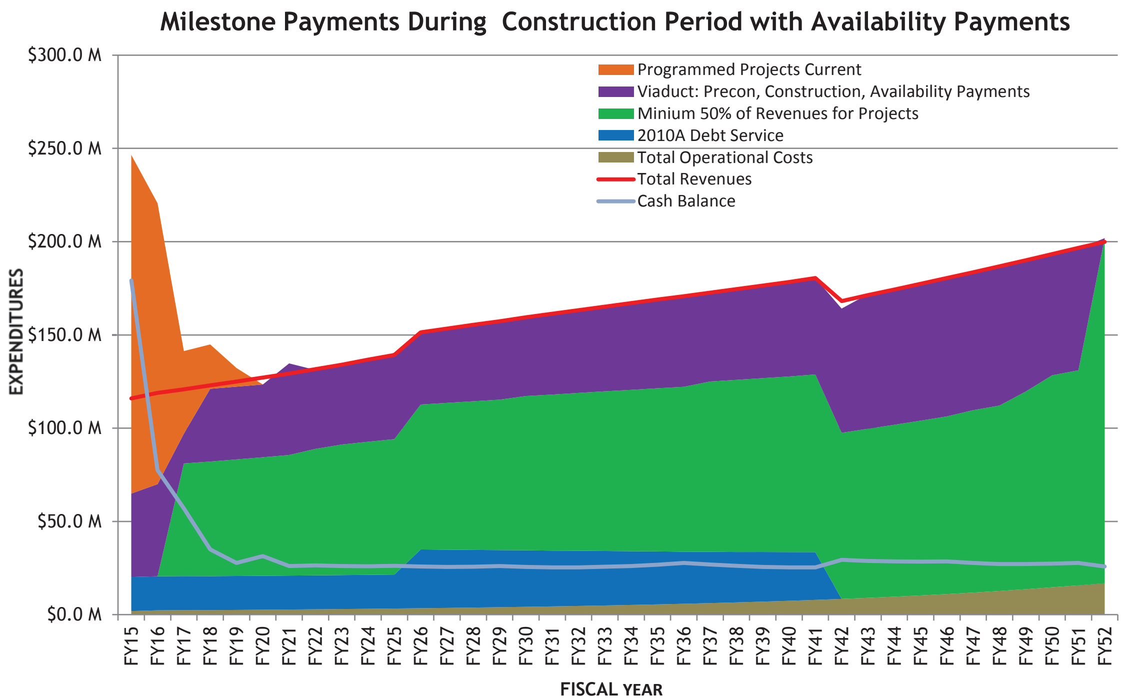
- Financing model was determined to be feasible under current conditions, assumptions, and program constraints
- Financing model provides $752M NPV to the project in 2017 dollars
- Financing model effectively replaces a bond issuance debt service payment with an availability payment without the direct credit risk
- Project team determined this model to be less attractive than a Milestone Payment with Availability Payment Model (Financing Model 1) for project affordability reasons

Under this financing model the Bridge Enterprise would provide $850M (NPV) (includes $97.8M committed in FY15 & FY16) in 2017 dollars to the project by providing availability payments for approximately 35 yrs.

The discount rate used for NPV calculations is 5%.

No milestone payments during the construction period are made in this financing model.

BE Financing Model 1 Expenditures by FY



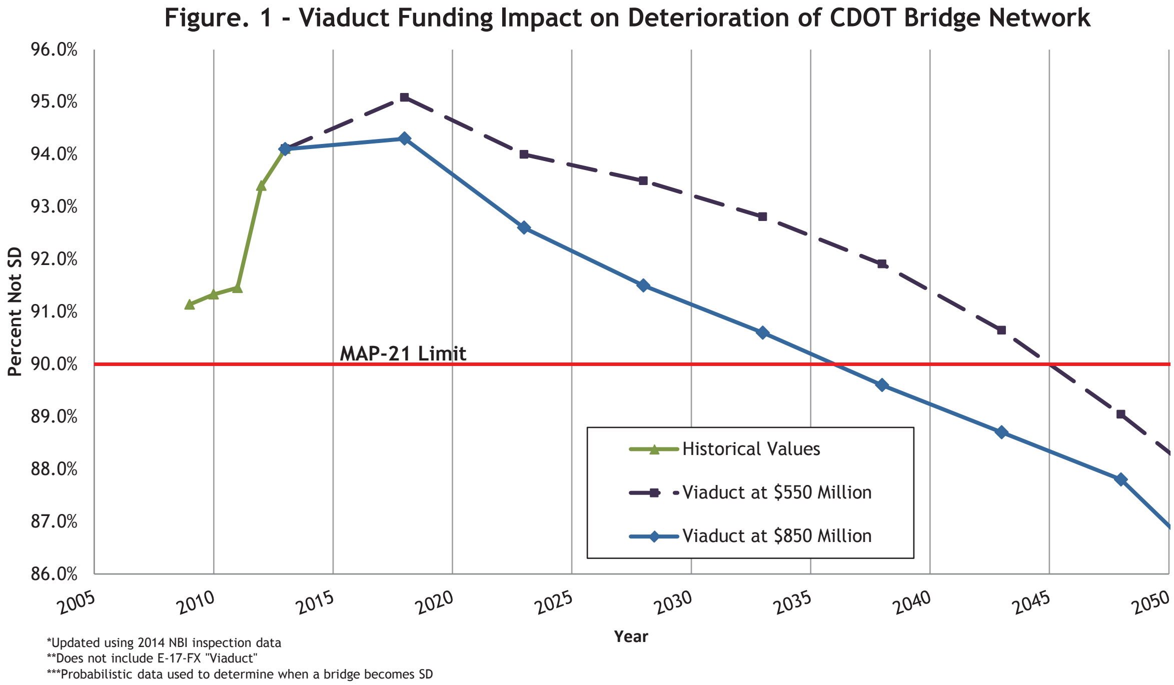
Program Considerations

- The I-70 Viaduct is 569,000 sf of deck area. 1.7% of the CDOT “on-system” deck area
- Of the original 128 “Poor” Bridges identified, the Viaduct will be the last of the 30 Worst Bridges to be addressed
- Replacing the Viaduct structure will remove the 5th highest structure from the current BE Prioritization Plan list (PP Score =32)
- With the $850M I-70 Viaduct commitment, opportunities for future debt issuances of any significant size by the Bridge Enterprise will be challenging since they will be underwritten at a program DSCR[1] below 2.0x and draw less favorable terms.
- The Bridge Enterprise’s ability to address future “Poor” structures will be effectively be reduced by half. Deterioration curve of Statewide SD Bridge Deck is shown in Fig.1.

[1] DSCR = Debt Service Coverage Ratio

Deterioration Curve

Figure 1. (below) is the updated deterioration curve of the CDOT bridge network assuming the $550M ("Do Nothing" alternative) and the BE $850M proposed commitment.



Conclusions

- Analysis was done on three core financing models with multiple variations to provide the I-70 Viaduct Replacement project with funding of $850M as previously proposed.
- The analysis was performed with the intention of determining the most viable, beneficial model to not only provide the project with the proposed commitment of funds, but to sustain Bridge Enterprise as the premier financing source for the replacement of Colorado's deficient bridges.
- The analysis has determined that each of the financing models have their specific advantages and drawbacks. Determining which financing model was most desirable included considerations on the most probable project procurement method (DB, DBOM, DBFOM), program cash flow forecasts, and net present value of funds.
- The analysis determined that one specific financing model was not able to achieve all goals for all programs. Due to limited resources, reaching a compromise was critical to providing a recommendation that was supported by all parties.