

## **MARCH 10, 2010 MEETING**

### **ITEM 5.a.**

## **CENTRE COUNTY LONG RANGE TRANSPORTATION PLAN (LRTP) 2040**

### **Draft Financial Analysis**

MPO staff has been working on the financial analysis for the new LRTP 2040, which will be integrated with the results of the technical project ranking to prepare a first draft project list.

At the meeting, staff will provide a presentation about key elements of the analysis, including but not limited to:

- Sources of funding
- Time periods
- Projection of funding levels
- Proposed line item amounts
- Examples of “Year of Expenditure (YOE)” impacts for project costs

Attached are:

- Fiscal table – highway/bridge
- Fiscal table – spike/earmark
- Fiscal table – transit
- Fiscal table – line items

**The Technical Committee should receive the presentation, and provide comments to staff and the Coordinating Committee about the financial analysis.**

Presented by: Mike Bloom, CCPCDO  
Trish Meek, CRPA  
Greg Kausch, CRPA

Action: Comments to staff and the Coordinating Committee about the LRTP financial analysis.

# DRAFT - Base Highway and Bridge Funding Estimates

3/4/2010

			<b>Estimated Funding Allocation for Long Range Transportation Plan</b>					
<b>Funding Source</b>	<b>Funding Allocation for 2007-2010 TIP</b>	<b>Funding Allocation for 2009-2012 TIP</b>	<b>Funding Allocation for 2011-2014 TIP</b>	<b>Funding for Projects in 2015-2018</b>	<b>Funding for Projects in 2019-2022</b>	<b>Funding for Projects in 2023-2030</b>	<b>Funding for Projects in 2031-2040</b>	<b>Total Funding 2011-2040</b>
Base Highway (Federal)	\$24,378,000	\$25,760,000	\$24,560,000	\$28,600,105	\$33,458,078	\$84,930,908	\$151,452,282	\$323,001,372
Base Highway (State)	\$8,422,000	\$8,669,000	\$4,286,000	\$4,220,000	\$4,220,000	\$8,440,000	\$10,550,000	\$31,716,000
Base Bridge (Federal)	\$8,917,000	\$9,333,000	\$10,651,000	\$12,374,536	\$14,476,457	\$36,747,437	\$65,529,539	\$139,778,969
Base Bridge (State)	\$4,356,000	\$4,642,000	\$3,150,000	\$3,124,000	\$3,124,000	\$6,248,000	\$7,810,000	\$23,456,000
Bridge Bond (State)	\$0	\$3,350,000	\$3,706,000	\$2,535,582	\$497,978	\$0	\$0	\$6,739,559
STX (Rail Crossing)	\$428,000	\$294,000	\$205,000	\$238,481	\$278,990	\$708,195	\$1,262,882	\$2,693,548
Transportation Enhancements	\$1,474,000	\$1,311,000	\$1,308,000	\$1,519,215	\$1,777,267	\$4,511,463	\$8,045,025	\$17,160,970
Act 44 - Highway	\$2,000,000	\$3,852,724	\$1,107,200	\$1,107,200	\$1,107,200	\$2,214,400	\$2,768,000	\$8,304,000
Act 44 - Bridge	\$1,430,000	\$11,725,382	\$4,428,800	\$4,428,800	\$4,428,800	\$8,857,600	\$11,072,000	\$33,216,000
Local/Other Funds	\$106,250	\$3,852,375	\$3,961,533	\$130,000	\$143,530	\$364,342	\$649,709	\$5,249,114
							<b>Total Base Funding</b>	<b>\$591,315,532</b>

## Notes and Assumptions:

1. A 1% annual increase in the base federal funding for highways, bridges, rail and transportation enhancements is assumed in 2011 and 2012.
2. A 4% annual increase in the base federal funding for highways, bridges, rail and transportation enhancements is assumed in years 2013-2040.
3. State highway and bridge funding is decreases years 2011-2013 and remains constant from years 2014 - 2040 based on revenue estimates and debt service on bonds.
4. The Act 44 Highway and Act 44 Bridge funding remains remains constant from years 2011-2040.
5. The Bridge bond funding decreases years 2011-2019.
6. The local funding allocation for 2011-2014 includes \$833,200 for the West Beaver Avenue/South Fraser Street Realignment, \$3,000,000 for the Waddle Road Interchange Bridge and \$128,333 in local mathcing funds for two local bridge projects. In year 2015 - 2018 estimated funding for two local bridges is included. A 4% increase in base local funding is projected for years 2015-2018.

			<i>Estimated Funding Allocation for Long Range Transportation Plan</i>					
Funding Source	Funding Allocation for 2007-2010 TIP	Funding Allocation for 2009-2012 TIP	Funding Allocation for 2011-2014	Funding for Projects in 2015-2018	Funding for Projects in 2019-2022	Funding for Projects in 2023-2030	Funding for Projects in 2031-2040	Total Funding 2011-2040
Spike Funds	\$67,000,000	\$2,970,000	?	\$1,000,000	\$1,000,000	\$2,000,000	\$2,500,000	\$6,500,000
SXF (Earmarked)	\$5,746,808	\$4,293,040	\$1,625,000	\$0	\$0	\$0	\$0	\$1,625,000
Appalachian (APD) Funds	\$60,000,000	\$51,300,000	\$51,300,000	\$0	\$0	\$0	\$0	\$0
Interstate Maintenance (IM) and Interstate Restoration (I4R)	\$9,894,091	\$0	\$0	TBD	TBD	TBD	TBD	\$0
							<b>Total Spike Funding</b>	<b>\$8,125,000</b>

**Notes and Assumptions:**

- "Spike" funding for 2011-2014 has not yet been determined.
- The SXF (earmarked) funding in 2011-2014 includes: a) \$475,000 for the West Beaver Avenue/South Fraser Street Realignment; b) \$750,000 for the Route 322 Corridor Safety Improvements and c) \$400,000 for the North Atherton Street Signal Coordination Project.
- A maximum of \$51,300,000 in Appalachian Highway Development Program (APD) funds is available for completion of the I-99/I-80 Section B18 High Speed Interchange project.
- Additional APD and/or spike funding would be needed to advance large, high cost projects.
- Additional spike funding would be needed to advance major pavement and bridge restoration or rehabilitation project on non-interstate expressways and principal arterial roadways (e.g. major rehabilitation of all bridges that are part of the Mount Nittany Expressway east of the Park Avenue Interchange).
- Major pavement and bridge restoration or rehabilitation projects on I-99 and I-80 would be addressed by PennDOT with Interstate Maintenance (IM) and Interstate Restoration (I4R) funding through the Interstate Maintenance Program.

			Estimated Funding Allocation for Long Range Transportation Plan					
Funding Source	Funding Allocation for 2007-2010 TIP	Funding Allocation for 2009-2012 TIP	Funding Allocation for 2011-2014 TIP	Funding for Projects in 2015-2018	Funding for Projects in 2019-2022	Funding for Projects in 2023-2030	Funding for Projects in 2031-2040	Total Funding 2011-2040
Federal 5307	\$8,616,000	\$9,643,000	\$10,454,900	\$10,335,075	\$11,483,860	\$26,939,035	\$42,730,304	\$101,943,175
Federal 5309	\$14,180,000	\$9,984,000	\$14,184,000	\$4,000,000	\$4,000,000	\$8,000,000	\$8,000,000	\$38,184,000
Federal 5310	\$294,320	\$240,000	\$540,000	\$366,000	\$407,000	\$954,000	\$1,513,000	\$3,780,000
Job Access/Reverse Commute (JARC)	\$0	\$1,298,400	\$1,361,000	\$518,000	\$576,000	\$1,350,000	\$2,142,000	\$5,947,000
New Freedom	\$0	\$0	\$0	\$185,000	\$206,000	\$482,000	\$765,000	\$1,638,000
Special Grants	\$0	\$2,212,000	\$0	\$0	\$0	\$0	\$0	\$0
<b>State Formula Capital Improvement</b>								
State Formula Capital Improvement	\$4,416,000	\$9,062,000	\$3,548,000	\$3,548,000	\$3,548,000	\$7,096,000	\$8,870,000	\$26,610,000
<b>State Discretionary Asset Improvement</b>								
State Discretionary Asset Improvement	\$0	\$4,000,000	\$3,680,000	\$1,000,000	\$1,000,000	\$2,000,000	\$2,000,000	\$9,680,000
<b>State Operating Assistance</b>								
State Operating Assistance	\$3,750,888	\$15,910,000	\$13,512,000	\$13,512,000	\$13,512,000	\$27,024,000	\$33,780,000	\$101,340,000
<b>Local Capital Share</b>								
Local Capital Share	\$2,262,633	\$2,470,000	\$250,000	\$250,000	\$250,000	\$500,000	\$625,000	\$1,875,000
Local Operating Share			\$1,996,000	\$2,426,000	\$2,949,000	\$7,942,000	\$15,455,000	\$30,768,000
							<b>Total Base Funding</b>	<b>\$321,765,175</b>

**Notes and Assumptions:**

- 1) Federal formula allocation funds (Section 5307) are assumed to grow at 2.67% annually, based on historical federal transit funding trends, and consistent with financial guidance received from PennDOT. Federal Section 5307 funds can be used for capital or operating projects.
- 2) Estimates of federal discretionary funds (Section 5309) are based on the amount expected to be requested by CATA and other project sponsors. Amounts received will vary depending on the level of funding requested by these sponsors. Actual cost of projects financed with federal discretionary funds will depend on the level of such funding provided by authorization and appropriations legislation.
- 3) Federal Section 5310 funding for paratransit vehicles is allocated on a competitive basis. For this analysis, funds are assumed to be allocated for the purchase of one vehicle for CATA or other project sponsors in each year of the plan. This is consistent with local historical trends.

<p>4) Job Access / Reverse Commute (JARC) funds are available, and are assumed to grow at 2.67% annually, based on historical federal transit funding trends, and consistent with financial guidance received from PennDOT.</p>
<p>5) No New Freedom funds have been allocated to candidate projects at the time of this analysis. Such funds are available, however, and are assumed to grow at 2.67% annually, based on historical federal transit funding trends, and consistent with financial guidance received from PennDOT.</p>
<p>6) On the 2009-12 TIP, CATA program funds from the American Recovery and Reinvestment Act (ARRA) of 2009 and the Federal Clean Fuels Grant Program (Section 5308). Although this practice is shown for prior TIPs, it is not a common practice; therefore, this analysis does not include future special grant funds.</p>
<p>7) Based on the lack of tolls implemented on Interstate 80 as part of Act 44, the "hold harmless" provision of state transit funding, and consistent with financial guidance received from PennDOT, the state formula capital improvement program does not increase over the life of the LRTP.</p>
<p>8) Estimates of state discretionary asset improvement program funds are based on the amount expected to be requested by CATA and other project sponsors. Amounts received will vary depending on the level of funding requested by these sponsors. Actual cost of projects financed with state discretionary asset improvement program funds will depend on the level of such funding provided by PennDOT.</p>
<p>9) Based on the lack of tolls implemented on Interstate 80 as part of Act 44, the "hold harmless" provision of state transit funding, and consistent with financial guidance received from PennDOT, the state operating assistance program does not increase over the life of the LRTP.</p>
<p>10) Because the scope and cost of capital projects vary from year to year, CATA's member municipalities have approved a set annual contribution to capital projects in an effort to smooth out this variability and simplify their individual budget processes. For this analysis, local capital contributions are assumed to remain constant until such time as these member municipalities approve a higher level of contribution.</p>
<p>11) CATA's budget assumes a 5% annual increase in local operating shares. Act 44 of 2007 specifies a firm level of local operating assistance as a condition of receiving state operating assistance.</p>

**DRAFT - Line Item Funding Allocations - Highway, Bridge and Pedestrian/Bicycle**

**3/04/2010**

			<i>Estimated Funding Allocation for Long Range Transportation Plan</i>					
<b>Line Item</b>	<b>Funding</b>	<b>Per Year Allocation</b>	<b>Funding Allocation for 2011-2014 TIP</b>	<b>Funding for Projects in 2015-2018</b>	<b>Funding for Projects in 2019-2022</b>	<b>Funding for Projects in 2023-2030</b>	<b>Funding for Projects in 2031-2040</b>	<b>Total Funding 2011-2040</b>
Pavement Restoration	Highway	<b>\$2,500,000</b>	\$0	\$10,000,000	\$10,000,000	\$20,000,000	\$25,000,000	\$65,000,000
Stormwater Drainage Facilities (curbed sections of State Roads)	Highway	<b>\$500,000</b>	\$0	\$2,000,000	\$2,000,000	\$4,000,000	\$5,000,000	\$13,000,000
Safety	Highway	<b>PennDOT formula</b>	\$97,608	\$3,042,846	\$3,559,700	\$9,036,040	\$16,113,438	\$31,849,632
Congestion Mitigation and Air Quality (CMAQ)	Highway	<b>PennDOT formula</b>	\$0	\$6,324,174	\$7,398,389	\$18,780,275	\$35,827,309	\$68,330,147
Rail Crossing	Highway	<b>PennDOT formula</b>	\$205,000	\$238,481	\$278,990	\$708,195	\$1,262,882	\$2,693,548
Transportation Enhancements	Highway	<b>PennDOT formula</b>	\$993,000	\$1,519,215	\$1,777,267	\$4,511,463	\$8,045,025	\$16,845,970
Interstate Maintenance	Highway	<b>PennDOT formula</b>	TBD	TBD	TBD	TBD	TBD	\$0
Preservation and Maintenance	Bridge	<b>\$375,000</b>	\$1,030,970	\$1,500,000	\$1,500,000	\$3,000,000	\$3,750,000	\$10,780,970
Box Culvert	Bridge	<b>\$300,000</b>	\$0	\$1,200,000	\$1,200,000	\$2,400,000	\$3,000,000	\$7,800,000
Local Bridge	Bridge	<b>\$250,000</b>	\$0	\$1,000,000	\$1,000,000	\$2,000,000	\$2,500,000	\$6,500,000
Local Bridge Retroactive Reimbursement	Bridge	<b>\$125,000</b>	\$375,000	\$500,000	\$500,000	\$1,000,000	\$1,250,000	\$3,625,000
State Bridge	Bridge	<b>Balance of funds</b>	\$0	\$0	\$0	\$0	\$0	\$0
							<b>Total Base Funding</b>	<b>\$226,425,266</b>

			Estimated Funding Allocation for Long Range Transportation Plan					
Line Item	Funding	Per Year Allocation	Funding Allocation for 2011-2014 TIP	Funding for Projects in 2015-2018	Funding for Projects in 2019-2022	Funding for Projects in 2023-2030	Funding for Projects in 2031-2040	Total Funding 2011-2040
Existing Vanpool Vehicle Replacement	Transit	\$49,833	\$520,000	\$150,000	\$150,000	\$300,000	\$375,000	\$1,495,000
Existing Bus Rehabilitation/Replacement	Transit	\$1,539,167	\$16,175,000	\$7,500,000	\$7,500,000	\$7,500,000	\$7,500,000	\$46,175,000
Office, Shop, Maintenance Equipment	Transit	\$101,167	\$435,000	\$400,000	\$400,000	\$800,000	\$1,000,000	\$3,035,000
Compressed Natural Gas (CNG) Fuel Tank Replacement	Transit	\$106,000	\$1,100,000	\$320,000	\$320,000	\$640,000	\$800,000	\$3,180,000
Service Vehicle Replacement	Transit	\$50,000	\$200,000	\$200,000	\$200,000	\$400,000	\$500,000	\$1,500,000
Major Bus/Building Parts	Transit	\$50,000	\$200,000	\$200,000	\$200,000	\$400,000	\$500,000	\$1,500,000
Intelligent Transportation Systems (ITS)/Advanced Public Transportation Systems (APTS) Deployment	Transit	\$220,833	\$1,750,000	\$750,000	\$750,000	\$1,500,000	\$1,875,000	\$6,625,000
Facility Improvements	Transit	\$128,333	\$600,000	\$500,000	\$500,000	\$1,000,000	\$1,250,000	\$3,850,000
Operating Assistance/ Intra-Service Area Service Expansion	Transit	\$5,228,933	\$28,868,000	\$29,000,000	\$31,000,000	\$33,000,000	\$35,000,000	\$156,868,000
							<b>Total Base Funding</b>	<b>\$224,228,000</b>

- Notes and Assumptions:**
- "Existing Vanpool Vehicle Replacement" refers to the purchase of new vans to replace ones in CATA's existing fleet at the end of their 5-year/100,000-mile estimated useful life. It does not include purchase of vans to expand the program. For this analysis, the line item generally includes \$37,500 per year for van replacement, or one van per year on average.
  - "Existing Bus Rehabilitation / Replacement" refers to the rehabilitation of buses or purchase of new bus to replace ones in transit providers' existing fleets at the end of their estimated useful life. This estimated useful life is 5-years/200,000-miles for paratransit vehicles, and 12-years/1,000,000-miles for transit buses. It does not include purchase of buses to expand the program. For this analysis, the line item generally includes \$1,500,000 per year for bus rehabilitation or replacement.
  - "Office, Shop, and Maintenance Equipment" includes administrative and computer equipment, and shop tools. For this analysis, the line item generally includes about \$100,000 per year.

## DRAFT - Line Item Funding Allocations - Transit

3/04/2010

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| <p>4. "CNG Fuel Tank Replacement" includes the parts and labor necessary to replace the fuel tanks mounted to the top of CATA's CNG-powered vehicles. These tanks must adhere to a rigorous 10-year replacement schedule as a result of the pressure they contain. For this analysis, the line item generally includes about \$80,000 per year.</p>                                                                                                                                                   |
| <p>5. "Service Vehicle Replacement" includes the purchase of vehicles used by staff and maintenance and operations personnel in non-revenue service. These are typically passenger sedans and small trucks. For this analysis, the line item generally includes about \$50,000 per year, or two vehicles per year on average.</p>                                                                                                                                                                     |
| <p>6. "Major Bus / Building Parts" includes items more significant than the "Office, Shop, and Maintenance Equipment" line item. For example, this line item may include a bus transmission, or a heating/air conditioning unit for one of CATA's buildings. It does not include major building construction projects. For this analysis, the line item generally includes about \$50,000 per year.</p>                                                                                               |
| <p>7. "Intelligent Transportation Systems (ITS) / Advanced Public Transportation Systems (APTS) Deployment" includes enhancements, component replacement, and additional technologies for CATA's existing APTS system. For this analysis, the line item generally includes about \$187,500 per year.</p>                                                                                                                                                                                              |
| <p>8. "Facility Improvements" includes bus stop signs, shelters, and amenities, as well as other relatively small improvements to CATA's buildings. It does not include major building construction projects. For this analysis, the line item generally includes about \$125,000 per year.</p>                                                                                                                                                                                                       |
| <p>9. "Operating Assistance / Intra-Service Area Service Expansion" includes subsidies for CATA's day-to-day operations, as well as service changes and additions to CATA's existing service area. As such, it consumes a relatively large proportion of total transit resources. This line item does not include significant expansions of service outside of the existing service area. For this analysis, the line item generally includes about \$5,250,000 per year, with regular increases.</p> |
| <p>10. For this analysis, all transit line items are estimated on the low end of anticipated actual expenditures so as not to leave a remaining fund balance at the end of each funding period.</p>                                                                                                                                                                                                                                                                                                   |