

Chapter 6:

Financial Analysis

6.1 REQUIREMENT FOR A FINANCIAL PLAN

The Fixing America's Surface Transportation (FAST) Act requires that the LRTP include a financial plan, including future revenue projections and future project costs. The legislation requires that the LRTP be "fiscally-constrained," meaning that it must include a financial plan that "demonstrates how the adopted transportation plan can be implemented" and "indicates resources from public and private sources that are reasonably expected to be made available to carry out the plan." (23 U.S.C., Sec. 134 (i)(2)(E)(i)) In other words, the plan must show how the region will pay for any projects included in the anticipated future scenario, with revenues that are reasonably expected to be available. Thus, the LRTP is grounded in financial reality and is not simply a "wish list" of projects for the region.

The LRTP may include a list of "illustrative projects" representing additional investment priorities that would be considered if additional financial resources become available in the future.

6.2 FUTURE COSTS AND REVENUES

6.2.1 COST PROJECTIONS FOR ANTICIPATED FUTURE PROJECTS

As described in Chapter 5, the SMTC member agencies provided lists of future projects that they would like to complete to address known capacity or accessibility concerns, in addition to the priority projects identified at the beginning of the LRTP process (completion of the I-81 Viaduct Project, enhanced transit system, and regional trail network). These projects were included in the 2050 Anticipated Future scenario model. Member agencies also provided lists of desired maintenance projects, many of which would not impact the regional travel demand model. The financial analysis considers whether the

Federal legislation dictates that the LRTP must show how the region will pay for any projects included in the anticipated future scenario, with revenues that are reasonably expected to be available.

What is a capital project?

A 'capital project' is a major construction project or acquisition. It includes all transportation modes: facilities for pedestrians and cyclists, purchasing buses and maintaining, improving and constructing roads and bridges. 'Capital expenses' are the costs associated with capital projects.

Within this plan, “maintenance” includes capital projects that are “replacements in-kind,” such as bus replacements, transit facilities maintenance, paving or reconstructing roads, or rehabilitating or replacing bridges with no increase in the capacity of the current system.

region can reasonably expect to fund these projects over the next 30 years. However, inclusion in this financial plan does not guarantee that a project will be funded; each project must still compete for federal funding through the SMTC’s TIP process. Projects selected for inclusion on the TIP will be evaluated based on the updated LRTP goals, objectives, and performances measures, and weighed against the other projects proposed for that particular TIP update.

Centro provided details of their capital plan through Federal Fiscal Year (FFY) 2050 (updated September 2019), in year-of-expenditure (YOE) dollars, and SMTC staff summarized the data into preventive maintenance, rolling stock (i.e. bus replacements), equipment, and other capital project needs (for example, bus shelters, farebox system replacements, and fueling facility maintenance), as shown in Table 6.1.

Highway projects were grouped into three categories: non-maintenance, major maintenance, and minor maintenance. In this

How are capital projects selected and funded?

The SMTC prepares the Transportation Improvement Program (TIP), which is a multi-year listing of all capital projects within the MPA that have been selected for receipt of transportation dollars from the Federal Highway Administration and the Federal Transit Administration.

All SMTC member agencies are involved in some fashion in the selection process. In many cases, municipal planners and engineers generate lists of potential improvements based on studies, analysis, and public input. Projects are evaluated by the SMTC Capital Projects Committee, which consists of SMTC staff and representatives from city, county, and state agencies. The evaluation considers the relationship of the suggested capital project to LRTP transportation system performance goals, objectives, and performance measures. After projects are evaluated, an initial listing of recommended projects is released for public comment and then moved forward to the

SMTC Planning and Policy Committees for approval. The TIP and the selection process are described in more detail on the SMTC’s website and in the TIP Guidebook, which can be found on the site (<https://smtcmpo.org/about-us/planning-process/tip/>).

Typically, more than three-quarters of all federal transportation funding in our area goes to maintenance of existing infrastructure. Over \$428 million is programmed in the current 2020-2024 TIP (as of June 2020), with more than 75 percent of that total for maintenance activities (highway and transit). This includes activities that preserve or maintain our existing infrastructure or replace infrastructure ‘in-kind’ (i.e. replace with the same structure, without an increase in the capacity of the system). Examples include paving roads, reconstructing roads (without adding lanes), painting bridges, replacing or rehabilitating bridges (without adding travel lanes), or replacing buses.

Table 6.1: Anticipated future transit projects and costs

All costs are in millions of year-of-expenditure (YOE) dollars

Project	Short-term	Mid-term	Long-term	Total
	FFY 2020-2024	FFY 2025-2034	FFY 2035-2050	
Preventive Maintenance	39.09	93.72	221.45	354.26
Rolling stock (bus replacements)	48.99	69.16	163.09	281.24
Equipment	0.23	1.86	2.81	4.90
Other capital project needs	0.55	13.46	31.86	45.87
Total	88.86	178.20	419.21	686.27

Note: FFY 2020 runs from Oct. 1, 2019 through Sept. 30, 2020, etc.

context “maintenance” includes capital projects that are “replacements in-kind,” such paving or reconstructing roads, or rehabilitating or replacing bridges with no increase in the capacity of the current system. Major maintenance projects are those with an expected construction cost over \$3 million. Non-maintenance and major maintenance projects for the short- and mid-term timeframes are listed individually in Tables 6.2 and 6.3. Minor maintenance projects have been grouped together in categories by project type, also shown in Tables 6.2 and 6.3. All short-term costs are consistent with the current 2020-2024 TIP. Costs for mid-term non-maintenance and major maintenance projects were developed in consultation with the appropriate member agency. Mid-term minor maintenance cost projections were developed based on the total cost of short-term minor maintenance projects, inflated by 2 percent per five-year time block. Both the City and the County currently spend a portion of their own budgets on preventive and corrective maintenance of Federal-aid eligible (FAE) roads within their jurisdiction and this is expected to continue in the future; therefore, City and County projects on FAE roads are included in these tables.

The member agencies did not identify specific highway projects for the long-term timeframe (2035-2050). Recognizing that maintenance needs will continue to increase substantially beyond 2035, it was projected that 90 percent of long-term revenue would fund future maintenance projects, with the remaining ten percent expected to be used to address future safety or capacity issues, continue to build our pedestrian and bicycle networks, and expand transportation systems management and operations (TSMO). This is shown in Table 6.4.

Table 6.2: Anticipated future short-term (2020-2024) highway projects and costs

Project	Category	Agency	Total cost (mil- lions YOE \$)
Non-maintenance			62.113
Onondaga Lake Parkway safety improvements, Old Liverpool Rd. to I-81 ramp	Safety	NYSDOT	9.916
Freeway incident management technology enhancements along Interstates 81 and 481, and 695	TSMO	NYSDOT	5.600
Reconstruct Rt 11 at Rt 49 intersection	Capacity	NYSDOT	5.510
NY 31 at Thompson Rd & South Bay Rd intersection improvements	Capacity	NYSDOT	4.515
Upgrade and replace signal hardware	TSMO	NYSDOT	3.010
Safety appurtenance program (SAFETAP)	Safety	NYSDOT	2.029
Highway emergency local patrol (HELP)	TSMO	NYSDOT	1.560
Bridge improvements I-690 over John Glenn Blvd	Safety	NYSDOT	0.809
Rt 11 ADA sidewalk & pedestrian safety project, Stevens Dr to Factory St	Bike/ped	NYSDOT	0.766
I-481 at Kirkville Rd ramp realignment	Safety	NYSDOT	0.550
Railroad grade crossing improvements, CSX railroad, Old Liverpool Rd	Safety	NYSDOT	0.500
Railroad grade crossing improvements, CSX railroad, Vine St	Safety	NYSDOT	0.395
Onondaga Lake canalways trail – Salina extension project	Bike/ped	OCDOT	10.775
Caughdenoy Rd/NYS Rt 31 improvements	Capacity	OCDOT	4.120
Pedestrian signal safety project – 10 priority locations	Safety	OCDOT	0.693
N, S, E, W corridors interconnect expansion	TSMO	Syracuse	6.769
Intersection improvements, PSAP #2	Safety	Syracuse	1.837
Intersection pedestrian improvements	Safety	Syracuse	1.304
Creekwalk Improvements, bridge and walk maintenance	Bike/ped	Syracuse	1.185
Lodi Street Connector	Bike/ped	Syracuse	0.270
Major maintenance			183.725
Rt 635 bridge replacements, over I-690 and CSX railroad	Bridge	NYSDOT	17.500
Airport Rd bridges over I-81 minor rehabilitation	Bridge	NYSDOT	12.001
I-81 maintenance, Rt 31 south of Rt 49	Highway	NYSDOT	9.350
Bridge rehab, I-81 ramps to Hiawatha and CR 137	Bridge	NYSDOT	9.256
Paving, Rts 635 and 298, Town of DeWitt	Highway	NYSDOT	8.335
TMC/ITC operations and maintenance	TSMO	NYSDOT	7.388
Rt 20 MBC, Rt 175 TO Rt 80	Highway	NYSDOT	7.261
MBC Rts 5 AND 92, Rt 5 to Village of Manlius	Highway	NYSDOT	6.677
MBC, Rt 20, Cayuga Co. line to Rt 175	Highway	NYSDOT	6.631
Reconstruct Rt 20, I-81 bridge to Lafayette Rd	Highway	NYSDOT	6.357
MBC, I-81, Syracuse city line to Mattydale	Highway	NYSDOT	6.302
MBC, Rt 481, I-81 to Oswego Co. line	Highway	NYSDOT	6.213

Table 6.2, continued: Anticipated future short-term (2020-2024) highway projects and costs

Project	Category	Agency	Total cost (millions YOE \$)
Sentinel Heights Rd over I-81	Bridge	NYSDOT	5.734
Hiawatha Blvd over I-81 rehab	Bridge	NYSDOT	5.696
Rt 481 MBC, Onondaga Co. to Fulton city line	Highway	NYSDOT	4.400
MBC, Rts 92 & 173, Rt 257 to Academy St & Flume St to Clinton St	Highway	NYSDOT	4.335
I-81 over Rt 11 rehab	Bridge	NYSDOT	4.194
Taft Rd over I-81 element specific bridge repairs	Bridge	NYSDOT	4.104
Rt 5 MBC, Thompson Rd to Rt 92	Highway	NYSDOT	4.049
VPP/CIPR Rt 80, Rt 20 to Vesper	Highway	NYSDOT	4.000
Rt 5 MBC, Terry Rd to Myrtle St	Highway	NYSDOT	3.920
Rt 298 over Barge Canal rehab	Bridge	NYSDOT	3.647
Old Liverpool Rd paving, Electronics Pkwy to Buckley Rd	Highway	OCDOT	7.858
Old Rt 5/ Warners Rd paving	Highway	OCDOT	3.938
W. Genesee St road improvement project, city line to S Salina St	Highway	Syracuse	7.859
E Brighton Ave paving, Thurber to city line	Highway	Syracuse	7.428
E Colvin St paving, Comstock to city line	Highway	Syracuse	5.148
Downtown mill & pave, various streets	Highway	Syracuse	4.144
Minor maintenance			126.620
NYSDOT bridge maintenance	Bridge	NYSDOT	29.245
NYSDOT highway maintenance	Highway	NYSDOT	24.361
OCDOT highway maintenance	Highway	OCDOT	36.974
OCDOT bridge maintenance	Bridge	OCDOT	7.374
OCDOT TSMO maintenance	TSMO	OCDOT	0.456
Syracuse highway maintenance	Highway	Syracuse	18.981
Syracuse bridge maintenance	Bridge	Syracuse	3.679
Syracuse TSMO maintenance	TSMO	Syracuse	1.648
Other municipal highway maintenance	Highway	Other	3.135
Other municipal bridge maintenance	Bridge	Other	0.767
SHORT-TERM TOTAL ALL PROJECTS			372.458

Note: TSMO stands for “Transportation Systems Management and Operations.” The FHWA defines TSMO as “a set of strategies that focus on operational improvements that can maintain and even restore the performance of the existing transportation system before extra capacity is needed.” TSMO may include activities such as signal coordination, incident management, and traveler information systems, for example. (<https://ops.fhwa.dot.gov/tsmo/index.htm>)

Table 6.3: Anticipated future mid-term (2025-2034) highway projects and costs

Project	Category	Agency	Total cost (mil- lions YOE \$)
Non-maintenance			212.686
I-81 interchange at Route 31	Interchange im- provements	NYSDOT	40.000
Construct new Region 3 Traffic Management Center	TSMO	NYSDOT	28.000
Reconstruct Hastings rest area and truck inspection station (I-81 SB)	TSMO	NYSDOT	15.000
New Hastings rest area (I-81 NB)	TSMO	NYSDOT	15.000
Route 31 intersection turn lanes, Morgan Rd to Route 11	Safety	NYSDOT	11.120
Route 175, Cedarvale Rd to NE Townline Rd reconstruction & safety improvements	Safety	NYSDOT	7.000
Intersection improvements, NY5 and NY257	TSMO	NYSDOT	5.000
Highway Emergency Local Patrol (HELP), Onondaga County interstates	TSMO	NYSDOT	3.214
Route 481 NB off-ramp at Circle Drive	Safety	NYSDOT	2.000
Buckley Rd shared turn lane and Buckley/Bear intersection upgrades	Safety	OCDOT	13.041
Soule Road widening	Capacity	OCDOT	12.355
South Bay Rd center turn lane, Bear Rd to Rt 31	Safety	OCDOT	6.672
7th North Street/Buckley Rd intersection upgrades	Safety	OCDOT	6.178
Henry Clay Blvd center turn lane, Wetzel Rd to Rt 31	Capacity	OCDOT	6.116
Morgan Road widening, Wetzel Rd to Rt 31	Capacity	OCDOT	5.560
Kirkville Rd widening, I-481 to Fremont Rd	Capacity	OCDOT	5.560
Commerce Blvd and Vine St intersection improvements and Vine St widening (center turn lane), Thruway to Henry Clay Blvd	Safety	OCDOT	2.224
Pedestrian signal safety project – 10 locations	Bike/ped	OCDOT	0.707
Onondaga Creekwalk Phase III	Bike/ped	Syracuse	13.728
James Street 3 lane cross section from State to Grant/Shotwell	Road diets/lane reductions	Syracuse	4.118
Syracuse Bike Plan build-out	Bike/ped	Syracuse	3.000
Conversion of downtown streets to 2-way	Road diets/lane reductions	Syracuse	2.746
Intersection pedestrian improvements	Safety	Syracuse	2.687
Roundabout at James/Shotwell/Grant	Capacity	Syracuse	1.373
Water Street closure, South Crouse Ave to Beech St	Road diets/lane reductions	Syracuse	0.288
Major maintenance			259.331
Bear St bridge over Onondaga Creek/Canal terminal reconstruction	Bridge	NYSDOT	35.000
I-481 over NY5	Bridge	NYSDOT	30.000
Ramp to I-690 WB over 690 and 930T over CR 80 bridge rehab	Bridge	NYSDOT	18.415
Rt 370 reconstruction, Liverpool N Village Line to Cypress St	Highway	NYSDOT	17.555
Joint TMC operation	Highway	NYSDOT	16.701

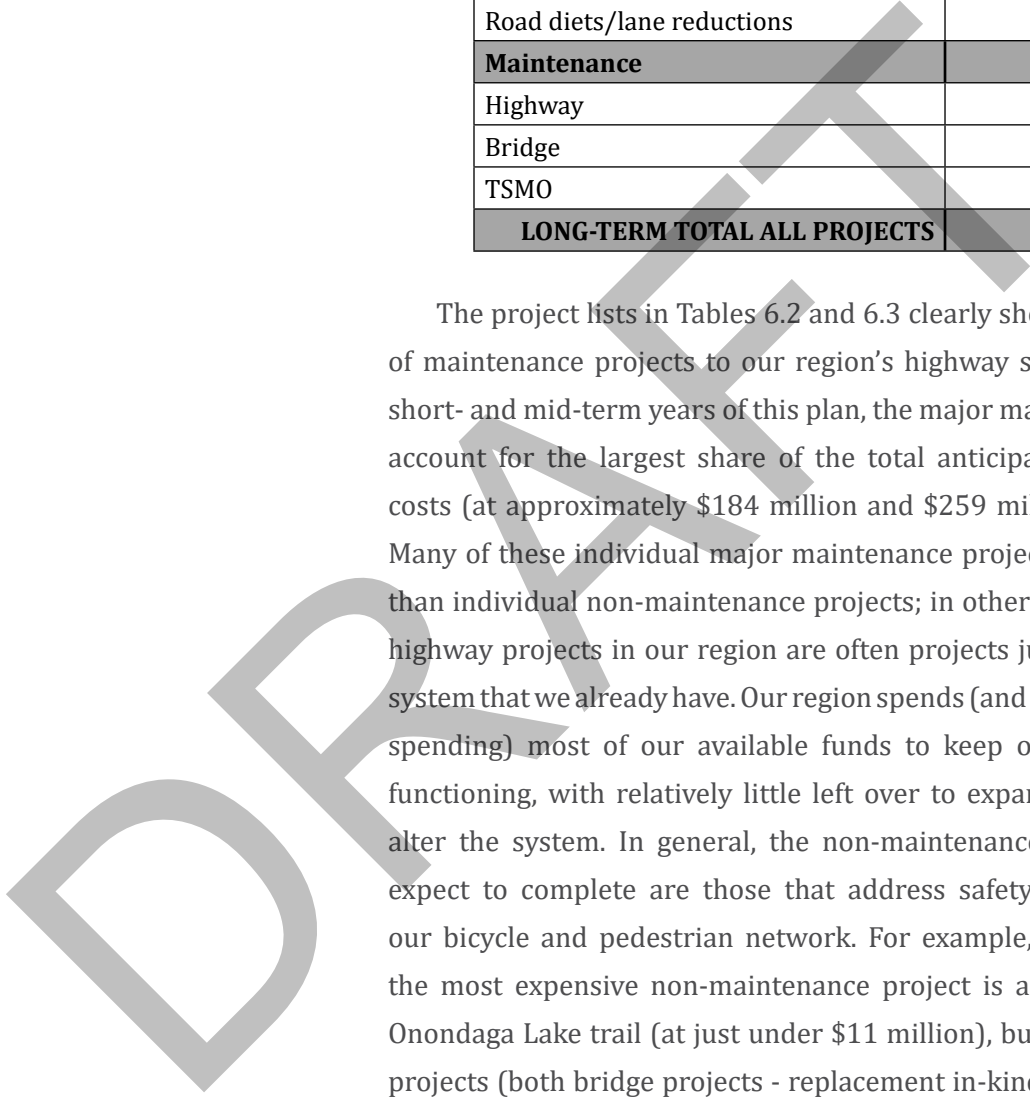
Table 6.3, continued: Anticipated future mid-term (2025-2034) highway projects and costs

Project	Category	Agency	Total cost (millions YOE \$)
NY 481 over Mud Creek	Bridge	NYSDOT	12.000
I-481 over I-90	Bridge	NYSDOT	12.000
I-81 over Church St	Bridge	NYSDOT	12.000
South Bay Rd over I-81	Bridge	NYSDOT	12.000
Rt 5 Bypass, Old Rt 5 to West Genesee St	Highway	NYSDOT	11.591
Rt 370, Heid's Corners to Cypress St & Rt 931G, Cypress St to Tulip St	Highway	NYSDOT	10.313
Paving, Route 48, Lysander/Baldwinsville, Brown Street to Evans Chevy	Highway	NYSDOT	9.000
Paving, Rt 264, Village of Phoenix	Highway	NYSDOT	9.000
Paving, Rt 290, Village of East Syracuse	Highway	NYSDOT	9.000
Paving, 7 th North St, Electronics Parkway to railroad bridge	Highway	OCDOT	4.495
Paving, John Glenn Blvd EB, I-690 to Buckley Rd	Highway	OCDOT	4.208
Paving, Onondaga Blvd, City boundary to Fay Rd	Highway	OCDOT	3.970
Paving, Rt 57 & Soule Rd	Highway	OCDOT	3.922
Jamesville Rd Paving Project, North St to Quintard Rd	Highway	OCDOT	3.657
South Salina St Repaving Project, East Florence Ave to City Line	Highway	Syracuse	8.801
Avery Ave Repaving Project, Grand Ave to West Genesee St	Highway	Syracuse	5.242
Paving, Midland Ave, W Brighton to Ballantyne	Highway	Syracuse	3.461
Reconstruct Genesee Street, Village of Camillus	Highway	V. Camillus	7.000
Minor maintenance			260.888
NYSDOT bridge maintenance	Highway	NYSDOT	60.256
NYSDOT highway maintenance	Bridge	NYSDOT	50.193
OCDOT highway maintenance	Highway	OCDOT	76.181
OCDOT bridge maintenance	Bridge	OCDOT	15.193
OCDOT TSMO maintenance	TSMO	OCDOT	0.940
Syracuse highway maintenance	Highway	Syracuse	39.108
Syracuse bridge maintenance	Bridge	Syracuse	7.580
Syracuse TSMO maintenance	TSMO	Syracuse	3.396
Other municipal highway maintenance	Highway	Other	6.459
Other municipal bridge maintenance	Bridge	Other	1.580
MID-TERM TOTAL ALL PROJECTS			732.905

Table 6.4: Anticipated future long-term (2035-2050) highway project costs by category

Category	Total cost (millions YOE \$)
Non-maintenance	147.402
TSMO expansion	45.890
Capacity	21.459
Interchange improvements	27.722
Safety	35.291
Bike/ped	12.083
Road diets/lane reductions	4.957
Maintenance	1,326.618
Highway	764.673
Bridge	550.890
TSMO	11.055
LONG-TERM TOTAL ALL PROJECTS	1,474.020

The project lists in Tables 6.2 and 6.3 clearly show the significance of maintenance projects to our region’s highway system. In both the short- and mid-term years of this plan, the major maintenance projects account for the largest share of the total anticipated future project costs (at approximately \$184 million and \$259 million, respectively). Many of these individual major maintenance projects are more costly than individual non-maintenance projects; in other words, the biggest highway projects in our region are often projects just to maintain the system that we already have. Our region spends (and expects to continue spending) most of our available funds to keep our current system functioning, with relatively little left over to expand or substantially alter the system. In general, the non-maintenance projects that we expect to complete are those that address safety issues or expand our bicycle and pedestrian network. For example, in the short-term the most expensive non-maintenance project is an extension of the Onondaga Lake trail (at just under \$11 million), but two maintenance projects (both bridge projects - replacement in-kind or rehabilitation) are expected to be more costly. Capacity projects included in the mid-term projects list are related to recent and anticipated economic development projects with significant job growth (see Section 3.2.4). These projects have the potential to impact traffic volumes and travel patterns, which may warrant future capacity increases. These changes will be observed closely in the next few years.



Anticipated project costs through 2050 total over \$3.26 billion. As shown in Figure 6.1, highway and bridge maintenance project costs alone make up 66 percent of the anticipated future project costs. Transit projects - all considered maintenance - make up another 22 percent of the total project costs. The remaining 12 percent of total anticipated project costs are expected to be for non-maintenance projects.

6.2.2 REVENUE PROJECTION

Revenues were projected for the short-, mid-, and long-term timeframes for both transit and highway funding sources, as shown in Table 6.5. Transit revenue estimates were based on data provided by Centro from their capital plan. Centro operations are primarily funded

FIGURE 6.1: ANTICIPATED FUTURE PROJECT COSTS BY CATEGORY

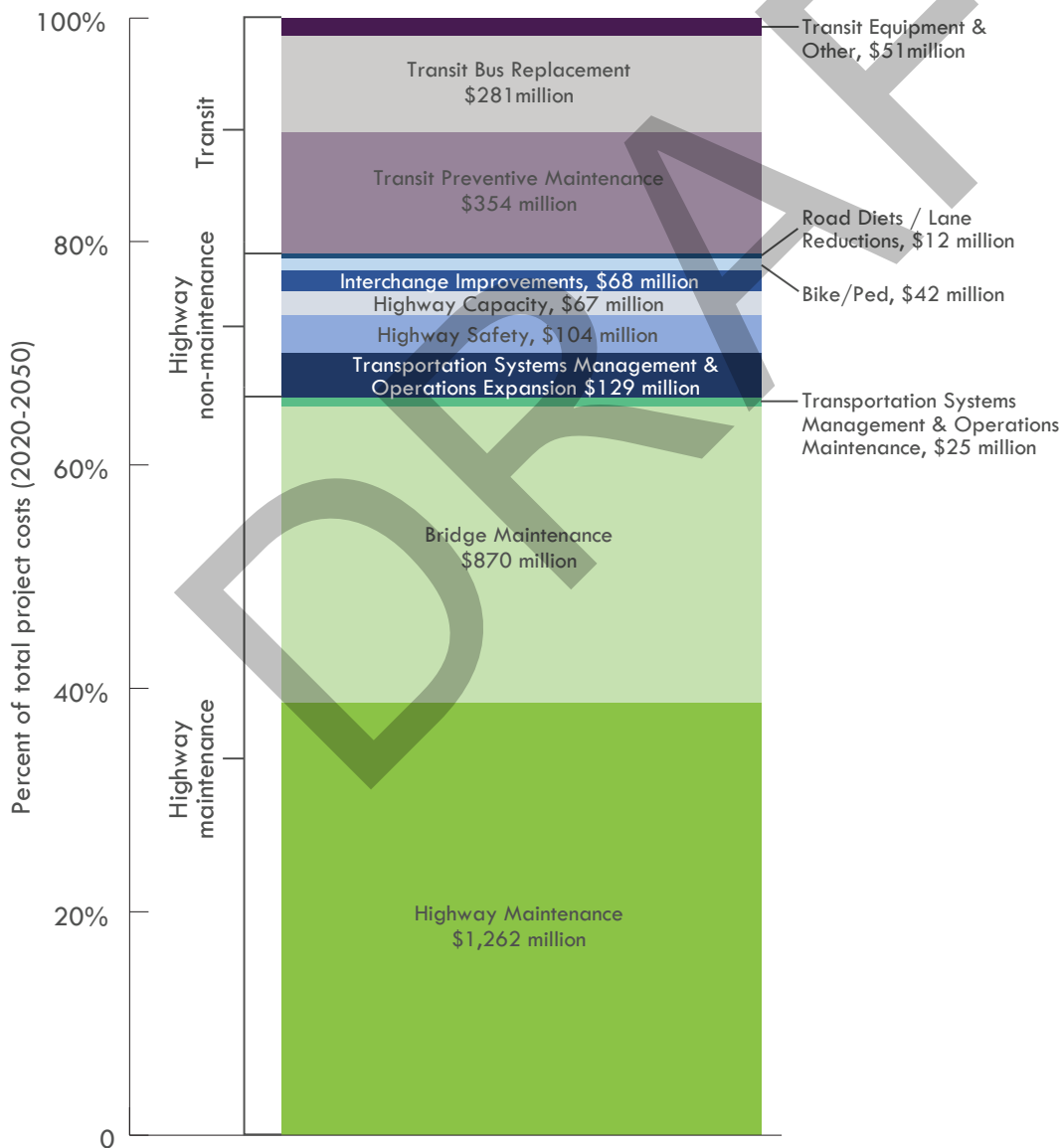


Table 6.5: Anticipated revenues for transit capital projects and projects on Federal Aid Eligible highways

All revenues are in millions of dollars

Revenue Source		Short-term	Mid-term	Long-term	Total	
		FFY 2020-2024	FFY 2025-2034	FFY 2035-2050		
Transit						
Federal Aid	Sections 5307 + 5339	37.68	103.16	228.42	369.26	
	Competitive 5339	0	3.60	0	39.60	
	Subtotal	37.68	106.76	228.42	460.77	
Local match to Federal Aid		9.42	26.69	57.11	93.22	
Federal Aid + match		47.10	133.45	285.53	466.08	
State dedicated funds (SDF)		37.73	48.75	139.75	226.23	
TRANSIT TOTAL, Fed Aid + match + SDF		84.83	182.20	425.28	692.31	
Highway		Suballo-	Additional			
		cation				
Federal Aid	Core programs	229.77	20.00	513.25	1,065.01	1,827.98
	HSIP	8.59	8.92	19.18	39.81	76.50
	NHPP	164.12	10.98	366.60	760.71	1,302.40
	STBG-Flex	29.19	0	65.20	135.29	229.67
	STBG-Off System Bridge	2.39	0	5.33	11.06	18.77
	STBG-Urban	25.49	0.06	56.94	118.15	200.65
	TAP	1.45	2.00	8.00	12.72	24.16
	HPP	0	0.57	NA	NA	0.57
	CMAQ	0	1.61	3.32	5.24	10.17
	NHFP	19.00	0	NA	NA	19.00
	Subtotal	250.22	24.14	524.56	1,082.96	1,881.87
Local match to Federal Aid		57.10	107.43	221.79	386.32	
Federal Aid + match		331.46	631.99	1,304.75	2,268.20	
Other sources	State dedicated funds (SDF)	10.02	20.04	30.06	60.12	
	CHIPS (FAE roads only)	16.49	32.99	52.78	102.25	
	Other County and City funds on FAE roads	28.81	57.62	86.44	172.87	
	Subtotal	55.32	110.65	169.27	335.24	
HIGHWAY TOTAL, Fed Aid + match + Other sources		386.79	742.63	1,474.02	2,603.44	
Summary						
Total Federal Aid (transit + highway)		312.04	631.32	1,311.38	2,254.73	
Total match		66.52	134.12	278.89	479.54	
Total other sources		93.05	159.40	309.02	561.47	
GRAND TOTAL AVAILABLE REVENUE		471.61	924.83	1,899.29	3,295.74	

Table 6.5 notes:

- 20% local match assumed for FTA fund sources; average of 17% local match assumed for FHWA fund sources, consistent with average from current TIP.
- FTA Section 5307 and 5339 expected revenues were provided by Centro. Centro assumed a 2.5% per year increase in funding.

by Statewide Mass Transportation Operation Assistance (STOA), provided by NYSDOT, and local sources (including farebox revenues). These are established revenue sources that are expected to continue to be used for operations in the future. Revenues for highway projects in the short-term are consistent with the current 2020-2024 TIP (as of October 2019), with an average 17 percent local match. Federal Aid for highway projects was projected for all current programs based on a 2 percent per year increase in the total allocation, as agreed upon by NYSDOT in consideration of previous authorizations and the future uncertainty in the Federal program. Since other fund sources are also used for projects on the Federal Aid system, these sources are also included in the revenue estimates shown in Table 6.5. These include State dedicated funds, Consolidated Local Street and Highway Improvement Program (CHIPs) funds, and municipal funds. (Note that only CHIPs and municipal funds spent by Onondaga County and the City of Syracuse were included because there are so few miles of Federal aid-eligible roads owned/maintained by towns and villages.)

The SMTC anticipates a total of nearly \$3.3 billion in revenue to be available for transit and highway capital projects in our planning area through the year 2050. These projections are based on the assumption of very modest increases in fund allocations over time (see the table notes for details). About 68 percent of the expected revenue is Federal

Table 6.5 notes, continued:

- Centro indicated that they expect to apply for \$3.6M in Competitive 5339 funds within the mid-term years of this plan.
- State dedicated funds (transit) in short-term are consistent with current TIP. Centro provided information on the amount of SDF they expect to receive for use in Onondaga County in the mid- and long-term years of the plan.
- "Additional" highway funds in the short-term timeframe are for programs that have had (or are expected to have) statewide solicitations.
- Highway Federal Aid total (core programs) for mid- and long-term were projected to increase at 2% per year starting from the five-year average total annual allocation in the current 2020-2024 TIP. The five-year average was calculated based on all Federal fund sources, including "additional" funds. Total Federal Aid was then assumed to be distributed among the core programs proportionally to the distribution in the current TIP.
- TAP and CMAQ funds were assumed to increase by 2% per five-year time block in the mid- and long-term from the current allocation. "Additional" TAP was assumed at \$1 million every two years, based on recent solicitations.
- HPP is a fund source from prior authorization acts, so no future funds are anticipated.
- State dedicated funds (highway) figure for short-term was provided by NYSDOT in June 2019 per their program update, for projects with letting dates in FFY 2020-2024. Conservatively assumed that this funding rate would remain constant for mid- and long-term years of this plan.
- The OCDOT indicated that approximately 27% of their annual paving work is on FAE roads. SMTC staff review of City of Syracuse paving work indicated that approximately 65% of their road reconstruction budget in 2018 and 2019 was spent on FAE roads. These percentages were applied to the CHIPs funding and other County and City funds (based on the respective Capital Improvement Plans and/or Department of Public Works budget) and assumed to remain steady (annually) throughout all timeframes in this plan.

Aid, with the remaining revenue about evenly split between local match funds and other sources (State dedicated, municipal funds, etc.). No new financing strategies or funding sources (such as private contributions) are included as their availability is not currently considered likely. However, if this situation changes, future L RTPs may include additional resources currently not available to member agencies.

These revenue projections were primarily developed prior to the COVID-19 pandemic and subsequent impacts to the U.S. economy. At this point, staff and member agencies are unable to predict what impact this crisis may have on the availability of Federal Aid in future years. The SMTC will monitor this situation, along with the anticipated reauthorization of the federal highway program (due to the FAST Act's expiration on September 30, 2020).

6.3 FISCAL CONSTRAINT

Table 6.6 compares the anticipated future project costs to the anticipated available revenue from all sources identified in the previous section, and demonstrates how the SMTC will achieve fiscal

Table 6.6: Fiscal constraint

All figures in millions of year-of-expenditure (YOE) dollars.

	Short-term	Mid-term	Long-term	Total
	FFY 2020-2024	FFY 2025-2034	FFY 2035-2050	
Transit				
Federal aid + match (FTA)	47.10	133.45	285.53	466.08
Federal aid + match (FHWA)	4.03	0.00	0.00	4.03
State dedicated funds	37.73	48.75	139.75	226.23
Total capital project costs	88.86	178.20	419.21	686.27
Balance	0.00	4.00	6.06	10.07
Highways				
Federal aid + match (FHWA)	327.43	631.99	1,304.75	2,264.17
State funding (inc. SDF)	10.02	20.04	30.06	60.12
CHIPs, local funds	45.30	90.61	139.21	275.21
Total capital project costs	372.46	732.91	1,474.02	2,579.38
Balance	10.30	9.73	0.00	20.02
All projects				
Total revenue	471.61	924.83	1,899.29	3,295.74
Total capital project costs	461.32	911.10	1,893.23	3,265.66
Overall balance	10.30	13.73	6.06	30.08

constraint over the life of this plan. In the short-term years of the plan (2020-2024), transit project costs exceed FTA and SDF revenues by \$4.03 million. However, the current 2020-2024 TIP includes \$4.03 million in FHWA funds that are programmed to transit projects, and this is reflected in Table 6.6. Fiscal constraint is demonstrated in all timeframes of this plan, with an overall balance of about \$30 million (less than 1 percent of total anticipated revenues) and no deficits in any timeframe for highway or transit projects.

6.4 PUBLIC FEEDBACK ON FINANCIAL PLAN

During the development of the original 2050 LRTP in 2015, the SAC and SMTC staff developed a list of projects to consider if additional funding became available. This list of projects was presented at the April 2015 public meetings (see Appendix C), and meeting attendees were asked to indicate which projects, if any, should be prioritized if transportation funding increases in the future. Bicycle and pedestrian projects (including “complete streets,” completion of the Erie Canalway Trail, and on-road bicycle infrastructure) as well as “increased maintenance work to bring pavement and bridges to good condition” received the most support from the public meeting attendees. Expanding the regional trail network was already identified early on in the LRTP process as a regional priority, and a number of bicycle and pedestrian-related projects were included in the draft plan. The substantial unmet need for increased maintenance projects was also discussed throughout the original 2050 plan.

For the 2020 update to this LRTP, the SMTC utilized an online financial simulation tool called “Balancing Act” to share the draft financial plan with the public and collect feedback. The simulation allowed users to see the estimated mid- and long-term revenues and project costs by category, and to adjust these.

The Federal Aid + Local Match categories (highways and transit) were not adjustable, since, locally, we have no influence over this Federal Aid. The remaining revenue categories could be increased or decreased by \$1 million increments. All project cost categories could be adjusted in 1 percent increments to indicate a preference for more or less spending in that category. Two yes/no “scenario” questions were

SMTC shared the draft financial plan with the public and collected feedback using an online simulation tool in May/June 2020.

Additional funding will need to be secured for the I-81 Viaduct Project and for the implementation of a BRT system.

also included, with a lump sum cost for each if the user chose to add that project: \$3 million to expanding bicycle facilities in the City of Syracuse as shown in the City's Bicycle Plan, and \$40 million to implement the BRT system recommended in SMTC's SMART 1 Study and other transit enhancements along Erie Boulevard. Users could adjust the revenues and costs, but were required to submit a balanced budget. Comments could also be added in each category.

The simulation was available online from May 21, 2020, through June 19, 2020 and was advertised through the *2050 LRTP Update Newsletter*, email, and on SMTC's Facebook page. The simulation garnered over 190 page views, and 12 submissions. Of the 12 submissions received, only one included revenue adjustments (small increases in State Dedicated Funds and Competitive Federal Funds). All but one of the submissions included adjustments to the project costs. Highway capacity was the most common spending category to be reduced in the submissions, with eight respondents suggesting an average of \$27 million in reduced spending in this category (and no respondents suggesting an increase in this category). TSMO expansion spending was reduced in seven submissions, at an average decrease of \$13 million. The bicycle and pedestrian enhancements spending category was increased by the most respondents, with seven submissions suggesting an average \$7 million increase in spending. Ten out of the 12 respondents chose to include the City's Bicycle Plan completion project, and nine respondents added the BRT/transit enhancement project. As a result of this feedback, the City's Bicycle Plan project was added to the mid-term projects list (as reflected in Table 6.3). For a detailed summary of the submitted responses and comments, see Appendix H.

6.5 ADDITIONAL (ILLUSTRATIVE) PROJECTS

The SMTC acknowledges that non-traditional, competitive funding will be necessary to complete two significant projects: the I-81 Viaduct Project and an enhanced transit system. Both of these projects would require substantial additional funding and are included for illustrative purposes as important projects that would be added to the LRTP if additional resources could be identified. The NYSDOT's April 2019 Preliminary Draft Design Report/Draft Environmental Impact

Statement for the I-81 Viaduct Project indicates estimated total project costs of \$1.9 billion for the Community Grid Alternative and \$2.2 billion for the Viaduct Alternative. Consider that the total cost of all highway projects included in this plan - the 2050 Anticipated Future projects plus maintenance at current levels - is estimated at \$2.58 billion and that total revenue from FHWA sources (including match) is anticipated to be \$2.27 billion through 2050. The I-81 Viaduct Project alone could consume our region's entire allocation of traditional federal highway funds. Clearly, an additional fund source or financing mechanism must be identified to complete the I-81 work.

The BRT system identified by the Syracuse Metropolitan Area Regional Transit (SMART) Study, Phase 1, was included as an option in the financial plan simulation tool. The anticipated capital cost to implement both BRT corridors (Eastwood - OCC and SU - Destiny USA) is about \$34 million (plus an additional \$8 million annually for operations and maintenance). The potential exists to build the BRT system in phases or increments, utilizing some of the capital funds shown in the overall balance in Table 6.6. However, a consistent, reliable source of operating funds must still be identified in order to make this project successful and sustainable.

Two additional transit projects were also discussed in this planning process: a reduction of off-peak headways throughout the Centro system and implementation of an express route on I-81 north of Syracuse with park-n-ride facilities along the highway. The reduction of off-peak headways would result in increased operating costs only; since this financial analysis is focused on capital costs, this additional service was not included. Operating funds present a continual challenge for Centro each year. An express I-81 route with park-n-ride facilities was examined in the Syracuse Transit Systems Analysis (STSA), and the total capital and operating cost was estimated to be \$40 million over 20 years - far more than the available transit funds shown in Table 6.6 for the entire plan.

The need for additional highway maintenance projects was supported by the SAC members and the public input. The maintenance costs included in Tables 6.3 and 6.4 are based on what the SMTC has

An additional \$2 billion would be necessary to bring most of our roads and bridges into good condition over the next 10 years.

programmed in the most recent TIP, projected out over the life of this plan, and, therefore, assume that maintenance activities will continue at their current rate. But we know that the condition of our roads, bridges, and transit system has been declining faster than we can fix them (even though about 75 percent of the funds in our recent capital programs have been spent on pavement and bridge projects) and that additional money will be needed to stop further decline and bring the majority of the system into good condition. SMTC staff worked with our member agencies to estimate the funding that would be necessary to bring a substantial portion of our system into good condition by 2030. This figure was estimated to be on the order of \$2 billion for additional maintenance activities. This is a substantial investment in our transportation system above and beyond the funding that we currently anticipate for the foreseeable future. In recognition of the substantial financial needs associated with illustrative projects and increased maintenance, the SMTC will include an examination of innovative financing techniques, particularly those that may be most appropriate to a region the size of Central New York, in our next UPWP update.

DRAFT

Projects that are not included in this plan

Some projects that are discussed in our community have been examined in the past. Previous planning studies recommended that these projects not move forward, generally because the costs substantially outweighed the benefits or the project did not support the objectives of the LRTP. These projects include the following.

Completion of I-481 west of Syracuse (the “Western Bypass”). The NYSDOT’s I-81 Corridor Study (July 2013) indicated that the Western Bypass “would require extensive investment and have significant impacts to surrounding western communities without meeting the corridor needs. It would be generally located within built urban environments with significant impacts on property, community, economic and environmental resources and was therefore eliminated from further consideration as a stand-alone strategy.” An extension of I-481 to NYS Route 695 was considered as a possible mitigation measure associated with the boulevard strategy, but even this was found to have significant costs with minimal benefit and “the western bypass was ultimately eliminated from further consideration.”

New I-81 interchange between Route 31 and Brewerton. The SMTC’s Clay-Cicero Route 31 Transportation Study (2010) evaluated options for a new I-81 interchange north of Route 31 and concluded that “additional interchanges should only be considered if a regionally significant development occurs within the study area.” Not only would this require substantial fiscal resources, but interchange spacing requirements (given proximity to existing interchanges) and environmental constraints would pose serious challenges. The study states that “more detailed analysis would be required to clearly demonstrate the need for a new interchange and show that less resource-intensive mitigation measures, such as upgrading existing roads and employing travel demand management techniques, are not

adequate to provide safe and efficient access.” At this time, additional analysis of this interchange is not warranted.

Extension of the Baldwinsville Bypass (Route 631) to Route 48. The construction of Route 631 was split into two phases due to the availability of funds when the project was initially approved in 1998. Phase 1 was constructed between Route 31 and Route 370 in 2000/2001 at a cost of around \$3 million. The second phase would have included a new bridge over the Seneca River, making the cost significantly higher than the first phase (on the order of \$15 million in 1998). The project was also found to have relatively limited capacity benefits. Due to these factors, Phase 2 has not successfully competed for the limited capital funds available in our region over the past 15 years, and we do not expect this situation to change in the future as the maintenance needs throughout the transportation system continue to grow.

Extension or relocation of Route 290 in DeWitt and Manlius. This concept was discussed at length in the SMTC’s original 2020 LRTP (published in 1995). According to the 2020 LRTP, the idea of relocating Route 5 from the vicinity of the I-481/I-690 interchange to the vicinity of Manlius Center was considered as far back as 1971, and the relocation of Route 290 was included in the 1994-99 TIP as an “unfunded project.” The 2020 LRTP states that “the purpose of the proposed facility was to increase highway capacity between Syracuse and the eastern suburbs in the towns of DeWitt, Manlius, and Sullivan.” The 2020 LRTP included an analysis of the Route 290 project in terms of its effectiveness at meeting the plan objectives, and found that the project would have only a minimal positive impact on the most congested areas in the eastern suburbs and the cost would be substantial. The 2020 LRTP concluded that “this project is ineffective at meeting 2020 Plan objectives.”

DRAFT

This page intentionally blank.