

Long Range Transportation Plan

Corrective Action: The Financial Plan



**Ulster County Transportation Council
Policy Committee
April 25, 2023**

LRTP CORRECTIVE ACTION

- **Corrective Action (1) issued April 7, 2022**
- Long Range Transportation Plan OCTC & UCTC (1) ... UCTC's LRTP financial plan does not include system-level estimates of costs as required by 23 CFR 450.324(f)(11). ... UCTC must update their LRTP Financial Plan to fulfill the requirements of the aforementioned regulations...and submit the changes to FHWA and FTA prior to amending their LRTP.

STEPS TOWARD COMPLIANCE

Prepare a technical memoranda outlining UCTC's approach

- December 2022: Submitted to FHWA/FTA/NYS DOT staff for review and discussion
- February 2023: Reached consensus regarding approach
- March 2023: Developed revised draft Section 8 Financial Plan
- March 28: UCTC Technical Committee review
- April 25: UCTC Policy Committee approval

SECTION 8: THE FINANCIAL PLAN

- **23 CFR § 450.324**
- Development and content of the metropolitan transportation plan.
 - (11) A *financial plan* that demonstrates how the adopted transportation plan can be implemented.
 - Shall contain *system-level estimates of costs and revenue sources that are reasonably expected to be available to adequately operate and maintain* the Federal-aid highways (as defined by 23 U.S.C. 101(a)(5)) and public transportation

Section 8: The Financial Plan

VIII. THE FINANCIAL PLAN

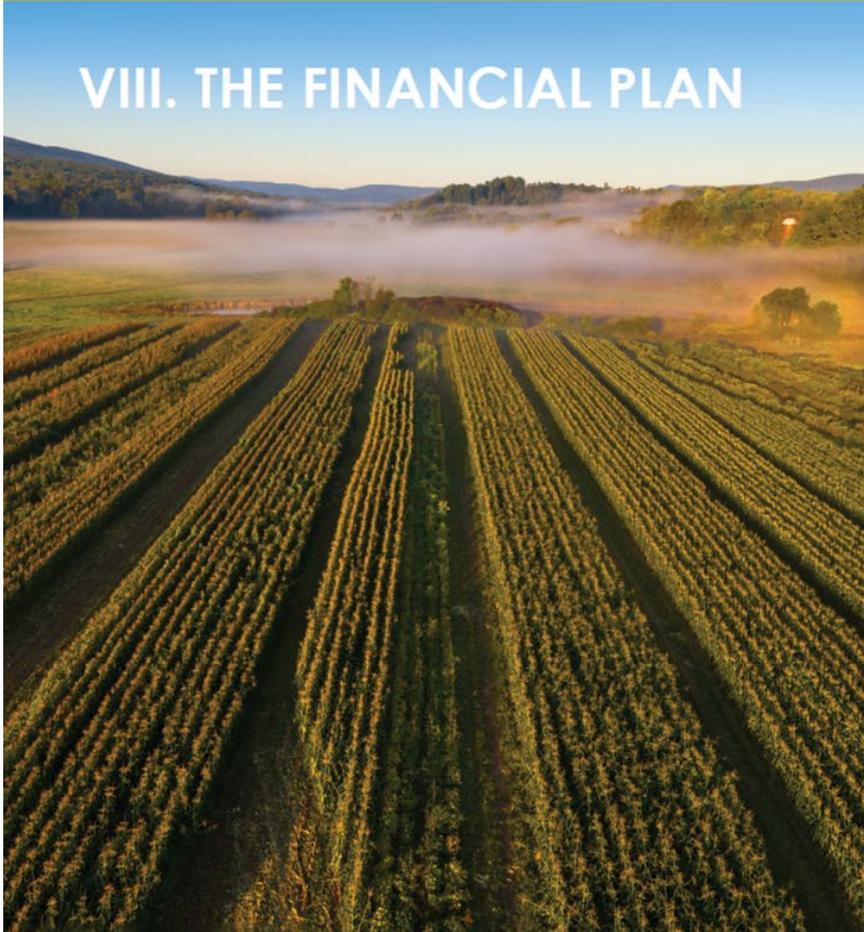


Photo by: Gerald Berliner

The Financial Plan is a critical element of the UCTC Long Range Transportation Plan. Federal law has required since 1991 that an LRTP must include a Financial Plan whose purpose is to ensure that there are adequate resources for implementation. This ensures that the project included in the LRTP have a reasonable chance of being funded and prevents the LRTP from becoming a wish list of projects beyond likely available funding.

Federal law requires that the Financial Plan meet the following criteria:

- ▶ Be developed cooperatively by the MPO, the State, and the transit operator(s);
- ▶ Demonstrates how the adopted LRTP can be implemented;
- ▶ Enumerates the resources that are reasonably expected to be made available over the life of the LRTP, including both public and private sources;
- ▶ May recommend additional financing strategies to fill identified funding gaps;
- ▶ May include "illustrative projects" that would be included in the LRTP if additional resources became available; and
- ▶ Demonstrates the financial capacity to maintain and operate the transportation facilities included in the LRTP.

Further, all project and program cost estimates must be adjusted to year of expenditure dollars, using agreed upon cost inflation factors. This adjustment further contributes to the LRTP being realistic.

All of these steps lead to the creation of a fiscally constrained Plan that does not count on resources that are not reasonably expected to be available.

The UCTC LRTP has met all of these conditions through the following actions:

REVENUE FORECASTS (TABLE 8.1)

Forecasts are provided by fund source for all current programs of the FHWA and FTA; New York State highway, bridge, and transit programs; and major local capital improvement programs. The initial forecasts for FHWA programs and for New York State Dedicated Highway and Bridge Fund are based on the adopted 2020-2024 UCTC Transportation Improvement Program and confirmed by NYSDOT. NYSDOT provided the forecasts for the Consolidated Local Street and Highway Improvement Program (CHIPS). Ulster County, in the role of transit operator, provided the forecasts for federal, state, and local transit programs.

Revised Financial Plan

1. Update Revenue Projections
2. Develop System-Level Cost Estimates by Mode to Horizon Year of 2045
 - Highways
 - Pavements + safety, operations, resiliency & freight
 - Bridges
 - Transit
 - Non-motorized Transportation

Revenue Projections

All Figures in Millions of \$							
FHWA (Millions of \$)	BASELINE	2020-2024	2025-2029	2030-2034	2035-2039	2040-2044	
National Highway Performance Program (NHPP)	\$ 3,600	\$ 32,266	\$ 53,665	\$ 53,665	\$ 53,665	\$ 53,665	\$ 246,926
NYS DOT Multicounty STBG Flex Where & When Ulster Share	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000	\$ 50,000
Surface Transportation Block Grant Program (STBG FLEX) - includes STBGP RURAL, STBGP	\$ 1,000	\$ 5,000	\$ 5,000	\$ 5,000	\$ 5,000	\$ 5,000	\$ 25,000
STBGP Off-System Bridge (STBGP-OFF)	\$ 1,256	\$ 6,280	\$ 6,280	\$ 6,280	\$ 6,280	\$ 6,280	\$ 31,400
BridgeNY Local Bridge & Culvert Formula Program	\$ 8,560	\$ 8,560	\$ 17,120	\$ 17,120	\$ 8,560	\$ 17,120	\$ 68,480
STBGP Large Urban	\$ 0,300	\$ 1,500	\$ 1,500	\$ 1,500	\$ 1,500	\$ 1,500	\$ 7,500
Highway Safety Improvement Program (HSIP)	\$ 0,094	\$ 2,201	\$ 4,795	\$ 4,795	\$ 4,795	\$ 4,795	\$ 21,381
HSIP RAIL	\$ 0,500	\$ 2,500	\$ 2,500	\$ 2,500	\$ 2,500	\$ 2,500	\$ 12,500
Carbon Reduction	\$ 0,200	\$ 1,000	\$ 1,000	\$ 1,000	\$ 1,000	\$ 1,000	\$ 5,000
							\$ 468,187
FTA Programs (Millions of \$)							
Sec 5307/5340 Small Urban	\$ 1,040	\$ 5,198	\$ 5,198	\$ 5,198	\$ 5,198	\$ 5,198	\$ 25,991
Sec 5307 Urban/Mid-Hudson TMA	\$ 0,541	\$ 2,705	\$ 2,705	\$ 2,705	\$ 2,705	\$ 2,705	\$ 13,527
Section 5310	\$ 0,300	\$ 1,500	\$ 1,500	\$ 1,500	\$ 1,500	\$ 1,500	\$ 7,500
Section 5339 Kingston UA	\$ 0,344	\$ 1,721	\$ 1,721	\$ 1,721	\$ 1,721	\$ 1,721	\$ 8,607
Sec 5339 Mid-Hudson TMA	\$ 0,416	\$ 2,080	\$ 2,080	\$ 2,080	\$ 2,080	\$ 2,080	\$ 10,402
Sec 5311 Rural	\$ 0,350	\$ 1,750	\$ 1,750	\$ 1,750	\$ 1,750	\$ 1,750	\$ 8,750
Transit CCC	\$ 2,700	\$ 13,502	\$ 13,502	\$ 13,502	\$ 13,502	\$ 13,502	\$ 67,509
							\$ 142,286
State Funds (Millions of \$)							
NYS Dedicated HW and Bridge Trust Fund	\$ 2,220	\$ 11,100	\$ 11,100	\$ 11,100	\$ 11,100	\$ 11,100	\$ 55,500
State HW Aid to Ulster County (CHPS, POP, Harsh Winter, etc) (3,376/2)	\$ 1,713	\$ 8,565	\$ 8,565	\$ 8,565	\$ 8,565	\$ 8,565	\$ 42,825
State HW Aid to Municipalities (CHPS, POP, Harsh Winter, etc) (5,210/2)	\$ 2,605	\$ 13,025	\$ 13,025	\$ 13,025	\$ 13,025	\$ 13,025	\$ 65,125
							\$ 163,450
Transit State Operating Assistance	\$ 1,746	\$ 8,730	\$ 8,730	\$ 8,730	\$ 8,730	\$ 8,730	\$ 43,650
Modernization and Enhancement Program	\$ 0,434	\$ 2,168	\$ 2,168	\$ 2,168	\$ 2,168	\$ 2,168	\$ 10,842
Accelerated Capital Transit Program	\$ 0,143	\$ 0,714	\$ 0,714	\$ 0,714	\$ 0,714	\$ 0,714	\$ 3,570
							\$ 58,061
Local Funds							
Local Bridge&HW Maintenance Estimate	\$ 6,000	\$ 30,000	\$ 30,000	\$ 30,000	\$ 30,000	\$ 30,000	\$ 150,000
County Bridge Funds (contractual and other)	\$ 7,018	\$ 35,090	\$ 35,090	\$ 35,090	\$ 35,090	\$ 35,090	\$ 175,450
							\$ 325,450
Annual County Transit Payments	\$ 5,000	\$ 25,000	\$ 25,000	\$ 25,000	\$ 25,000	\$ 25,000	\$ 125,000
							\$ 125,000
Other Supplemental or Competitive Funds							
TAP/Rec Trails	\$ 2,480	\$ 12,400	\$ 12,400	\$ 12,400	\$ 12,400	\$ 12,400	\$ 62,000
New FA HW Funding	\$ 5,400	\$ 5,400	\$ 5,400	\$ 5,400	\$ 5,400	\$ 5,400	\$ 27,000
NYSDEC Climate Smart	\$ 3,000	\$ 3,000	\$ 3,000	\$ 3,000	\$ 3,000	\$ 3,000	\$ 15,000
NYSERDA	\$ 3,000	\$ 3,000	\$ 3,000	\$ 3,000	\$ 3,000	\$ 3,000	\$ 15,000
Private Funds	\$ 0,100	\$ 0,500	\$ 0,500	\$ 0,500	\$ 0,500	\$ 0,500	\$ 2,500
Other local Bridge	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 39,400
							\$ 160,900
New FA Transit Funding	\$ 5,000	\$ 5,000	\$ 5,000	\$ 5,000	\$ 5,000	\$ 5,000	\$ 25,000
TMA Unallocated	\$ 6,240	\$ 6,240	\$ 6,240	\$ 6,240	\$ 6,240	\$ 6,240	\$ 31,200
CARES	\$ 4,200	\$ 4,200	\$ -	\$ -	\$ -	\$ -	\$ 4,200
UCAT Cap Res	\$ 13,000	\$ 13,000	\$ -	\$ -	\$ -	\$ -	\$ 13,000
							\$ 73,400
							\$ 1,516,734

- Utilizes actual allocations from ~2020
- Revenues held flat through 2045
- Includes rough estimates for other 'likely' revenue sources
- ~\$1.5 B estimated through horizon year

FHWA Revenue

All Figures in Millions of \$

FHWA (Millions of \$)	BASELINE	2020-2024	2025-2029	2030-2034	2035-2039	2040-2044	
National Highway Performance Program (NHPP)	\$ 3.600	\$ 32.266	\$ 53.665	\$ 53.665	\$ 53.665	\$ 53.665	\$ 246.926
NYS DOT Multicounty STBG Flex Where & When Ulster Share	\$ 10.000	\$ 10.000	\$ 10.000	\$ 10.000	\$ 10.000	\$ 10.000	\$ 50.000
Surface Transportation Block Grant Program (STBGP FLEX) - includes STBGP RURAL, STBGP	\$ 1.000	\$ 5.000	\$ 5.000	\$ 5.000	\$ 5.000	\$ 5.000	\$ 25.000
STBGP Off-System Bridge (STBGP-OFF)	\$ 1.256	\$ 6.280	\$ 6.280	\$ 6.280	\$ 6.280	\$ 6.280	\$ 31.400
BridgeNY Local Bridge & Culvert Formula Program	\$ 8.560	\$ 8.560	\$ 17.120	\$ 17.120	\$ 8.560	\$ 17.120	\$ 68.480
STBGP Large Urban	\$ 0.300	\$ 1.500	\$ 1.500	\$ 1.500	\$ 1.500	\$ 1.500	\$ 7.500
Highway Safety Improvement Program (HSIP)	\$ 0.094	\$ 2.201	\$ 4.795	\$ 4.795	\$ 4.795	\$ 4.795	\$ 21.381
HSIP RAIL	\$ 0.500	\$ 2.500	\$ 2.500	\$ 2.500	\$ 2.500	\$ 2.500	\$ 12.500
Carbon Reduction	\$ 0.200	\$ 1.000	\$ 1.000	\$ 1.000	\$ 1.000	\$ 1.000	\$ 5.000

- Includes “core” funds, UCTC and NYSDOT funds, and other annual program funds
- Figures drawn from the 2020 and 2023 Transportation Improvement Programs or other official allocations

FTA Revenue

FTA Programs (Millions of \$)							
Sec 5307/5340 Small Urban	\$ 1.040	\$ 5.198	\$ 5.198	\$ 5.198	\$ 5.198	\$ 5.198	\$ 25.991
Sec 5307 Urban/Mid-Hudson TMA	\$ 0.541	\$ 2.705	\$ 2.705	\$ 2.705	\$ 2.705	\$ 2.705	\$ 13.527
Section 5310	\$ 0.300	\$ 1.500	\$ 1.500	\$ 1.500	\$ 1.500	\$ 1.500	\$ 7.500
Section 5339 Kingston UA	\$ 0.344	\$ 1.721	\$ 1.721	\$ 1.721	\$ 1.721	\$ 1.721	\$ 8.607
Sec 5339 Mid-Hudson TMA	\$ 0.416	\$ 2.080	\$ 2.080	\$ 2.080	\$ 2.080	\$ 2.080	\$ 10.402
Sec 5311 Rural	\$ 0.350	\$ 1.750	\$ 1.750	\$ 1.750	\$ 1.750	\$ 1.750	\$ 8.750
Transit CCC	\$ 2.700	\$ 13.502	\$ 13.502	\$ 13.502	\$ 13.502	\$ 13.502	\$ 67.509
							\$ 142.286

- Includes all annual appropriations as approved by UCTC using 2020 as the baseline year

State Revenue

State Funds (Millions of \$)							
NYS Dedicated HW and Bridge Trust Fund	\$ 2.220	\$ 11.100	\$ 11.100	\$ 11.100	\$ 11.100	\$ 11.100	\$ 55.500
State HW Aid to Ulster County (CHIPS, POP, Harsh Winter, etc) (3.376/2)	\$ 1.713	\$ 8.565	\$ 8.565	\$ 8.565	\$ 8.565	\$ 8.565	\$ 42.825
State HW Aid to Municipalities (CHIPS, POP, Harsh Winter, etc) (5.210/2)	\$ 2.605	\$ 13.025	\$ 13.025	\$ 13.025	\$ 13.025	\$ 13.025	\$ 65.125
							\$ 163.450
Transit State Operating Assistance	\$ 1.746	\$ 8.730	\$ 8.730	\$ 8.730	\$ 8.730	\$ 8.730	\$ 43.650
Modernization and Enhancement Program	\$ 0.434	\$ 2.168	\$ 2.168	\$ 2.168	\$ 2.168	\$ 2.168	\$ 10.842
Accelerated Capital Transit Program	\$ 0.143	\$ 0.714	\$ 0.714	\$ 0.714	\$ 0.714	\$ 0.714	\$ 3.570
							\$ 58.061

- NYS Dedicated Funds: calculation based on required matches of NYSDOT investments
- State HW Aid to Municipalities: 2023 NYS Approved Budget
 - Assumes 50% available for the federal aid highway system and bridges
- Transit funds: as provided by NYSDOT & UCAT

Local Funds

Local Funds							
Local Bridge&HW Maintenance Estimate	\$ 6.000	\$ 30.000	\$ 30.000	\$ 30.000	\$ 30.000	\$ 30.000	\$ 150.000
County Bridge Funds (contractual and other)	\$ 7.018	\$ 35.090	\$ 35.090	\$ 35.090	\$ 35.090	\$ 35.090	\$ 175.450
							\$ 325.450
Annual County Transit Payments	\$ 5.000	\$ 25.000	\$ 25.000	\$ 25.000	\$ 25.000	\$ 25.000	\$ 125.000

- Developed an estimate based on a sample of municipal highway department budgets
 - Urban and rural departments; used a proportion of annual budget
- County bridge funds: 2023 approved Ulster County Budget
- Annual County Transit Payments: 2023 approved Ulster County Budget; local funds in addition to fed. aid

Other Funds

Other Supplemental or Competitive Funds							
TAP/Rec Trails	\$ 2.480	\$ 12.400	\$ 12.400	\$ 12.400	\$ 12.400	\$ 12.400	\$ 62.000
New FA HW Funding	\$ 5.400	\$ 5.400	\$ 5.400	\$ 5.400	\$ 5.400	\$ 5.400	\$ 27.000
NYSDEC Climate Smart	\$ 3.000	\$ 3.000	\$ 3.000	\$ 3.000	\$ 3.000	\$ 3.000	\$ 15.000
NYSERDA	\$ 3.000	\$ 3.000	\$ 3.000	\$ 3.000	\$ 3.000	\$ 3.000	\$ 15.000
Private Funds	\$ 0.100	\$ 0.500	\$ 0.500	\$ 0.500	\$ 0.500	\$ 0.500	\$ 2.500
Other local Bridge	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 39.400
							\$ 160.900
New FA Transit Funding	\$ 5.000	\$ 5.000	\$ 5.000	\$ 5.000	\$ 5.000	\$ 5.000	\$ 25.000
TMA Unallocated	\$ 6.240	\$ 6.240	\$ 6.240	\$ 6.240	\$ 6.240	\$ 6.240	\$ 31.200
CARES	\$ 4.200	\$ 4.200	\$ -	\$ -	\$ -	\$ -	\$ 4.200
UCAT Cap Res	\$ 13.000	\$ 13.000	\$ -	\$ -	\$ -	\$ -	\$ 13.000
							\$ 73.400
							\$ 1,516.734

- Includes funds 'likely' to be available through competitive solicitation
- Also includes potential new fund sources, but in blocks at relatively low levels
- One time funds – COVID/CARES, existing capital reserve, etc.

System-Level Cost Estimates

Costs by Mode to Horizon Year of 2045

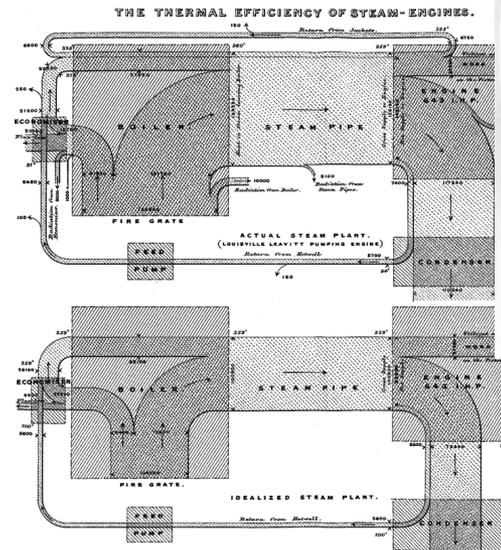
- Highways
 - Pavements + safety, operations, resiliency & freight
- Bridges
- Transit
- Non-motorized Transportation

System-Level Cost Estimates

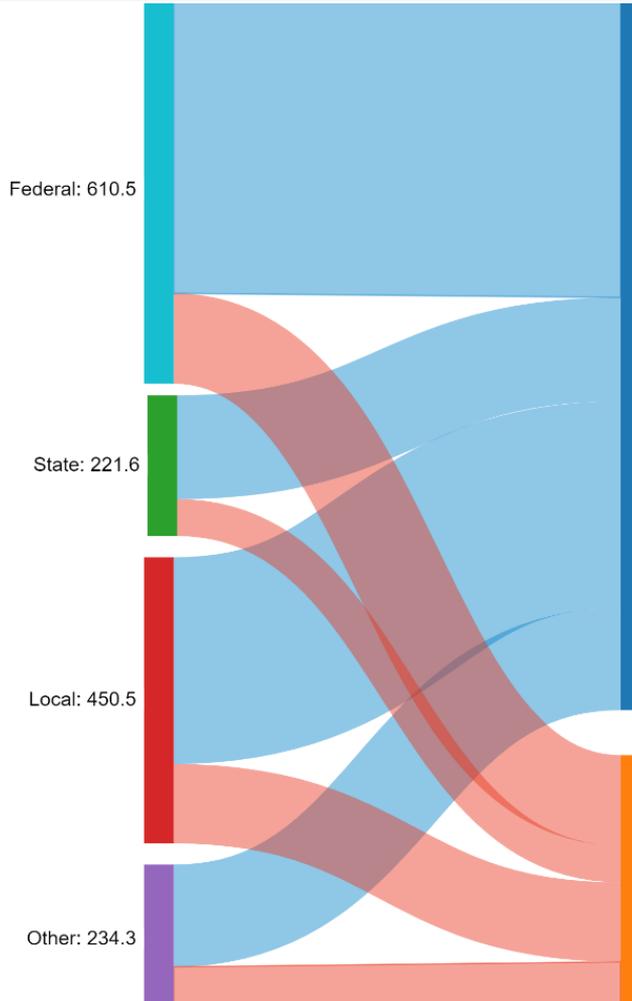
- **Federal Aid (FA) Highway Resurfacing**
 - State FA Pavements
 - County FA Pavements
 - Local FA Pavements
- **Safety**
 - Safety Emphasis Areas
 - Rail Safety
- **Bridge Replacement**
 - National Highway System bridges
 - Non-State-Owned FA bridges
 - Off-system bridges
- **Public Transit**
 - Transit Operations
 - Transit Capital
 - Transit Facilities
 - Transit Enhanced Mobility
 - Transit Commuter Carrier
- **Nonmotorized Transportation**
 - Trails
 - Sidewalks
 - Complete Streets
- **Other Investment Areas**
 - Freight Mobility
 - Transportation Resiliency
 - System Management & Operations

Sankey Diagram

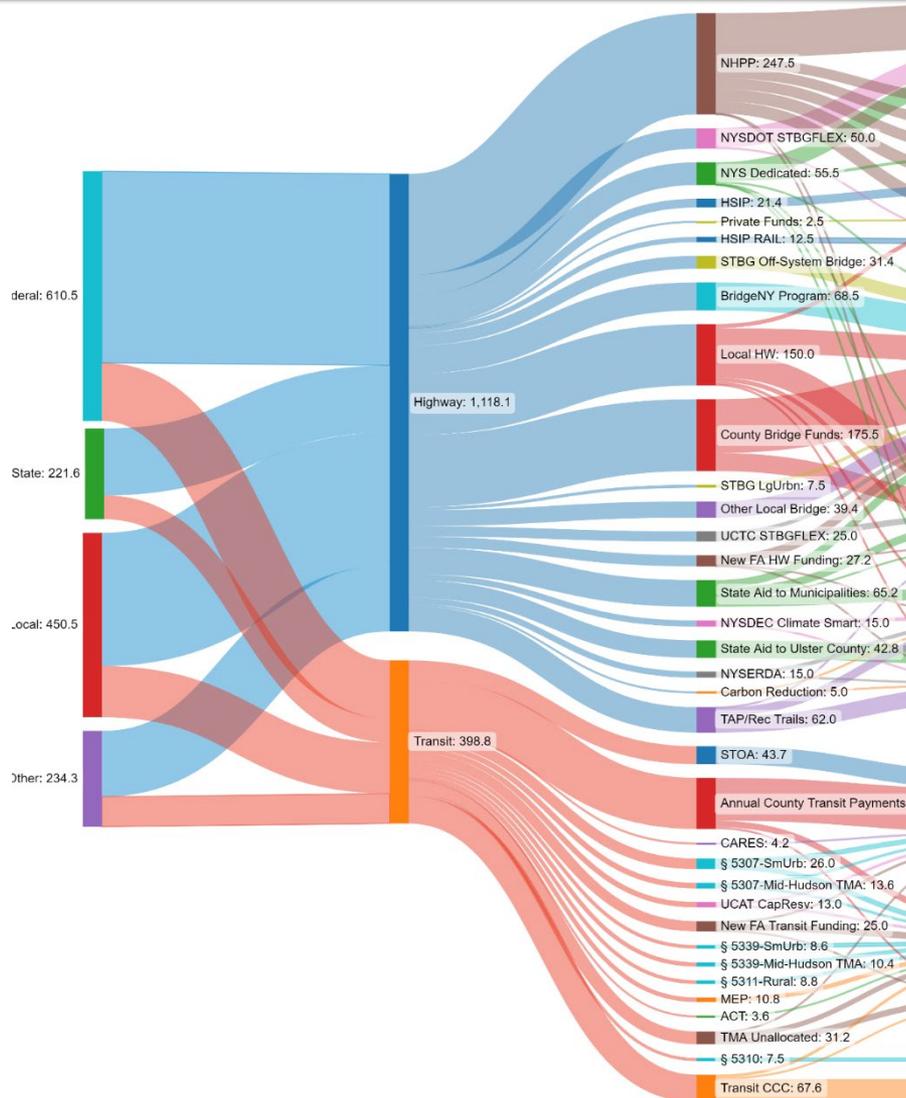
- Capt. Matthew Henry Phineas Riall Sankey (b. 1853 – d. 1925) British Core of Royal Engineers
- Developed to calculate energy efficiency of steam locomotives
- Essentially a flow chart



Revenue Source



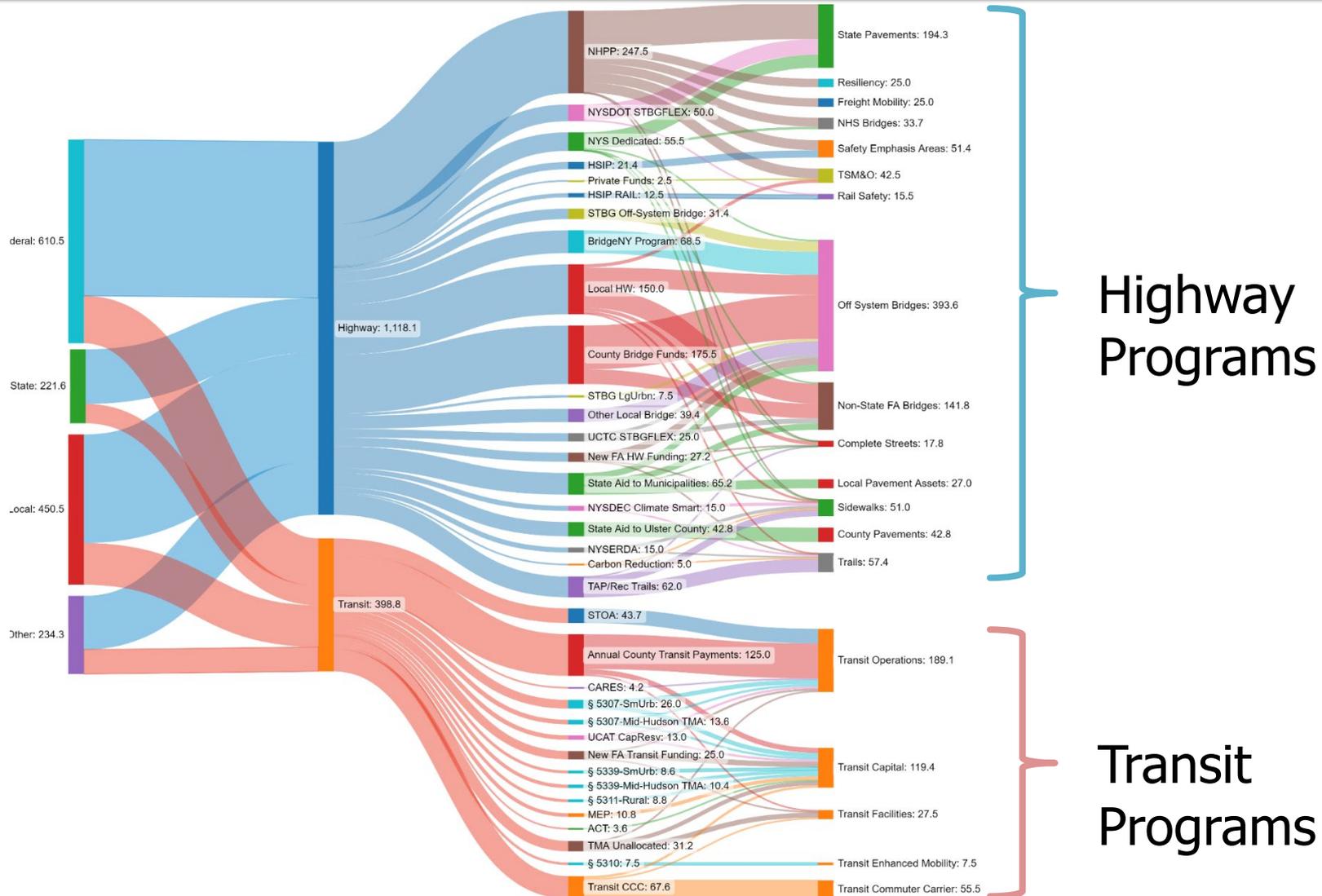
Funding Program

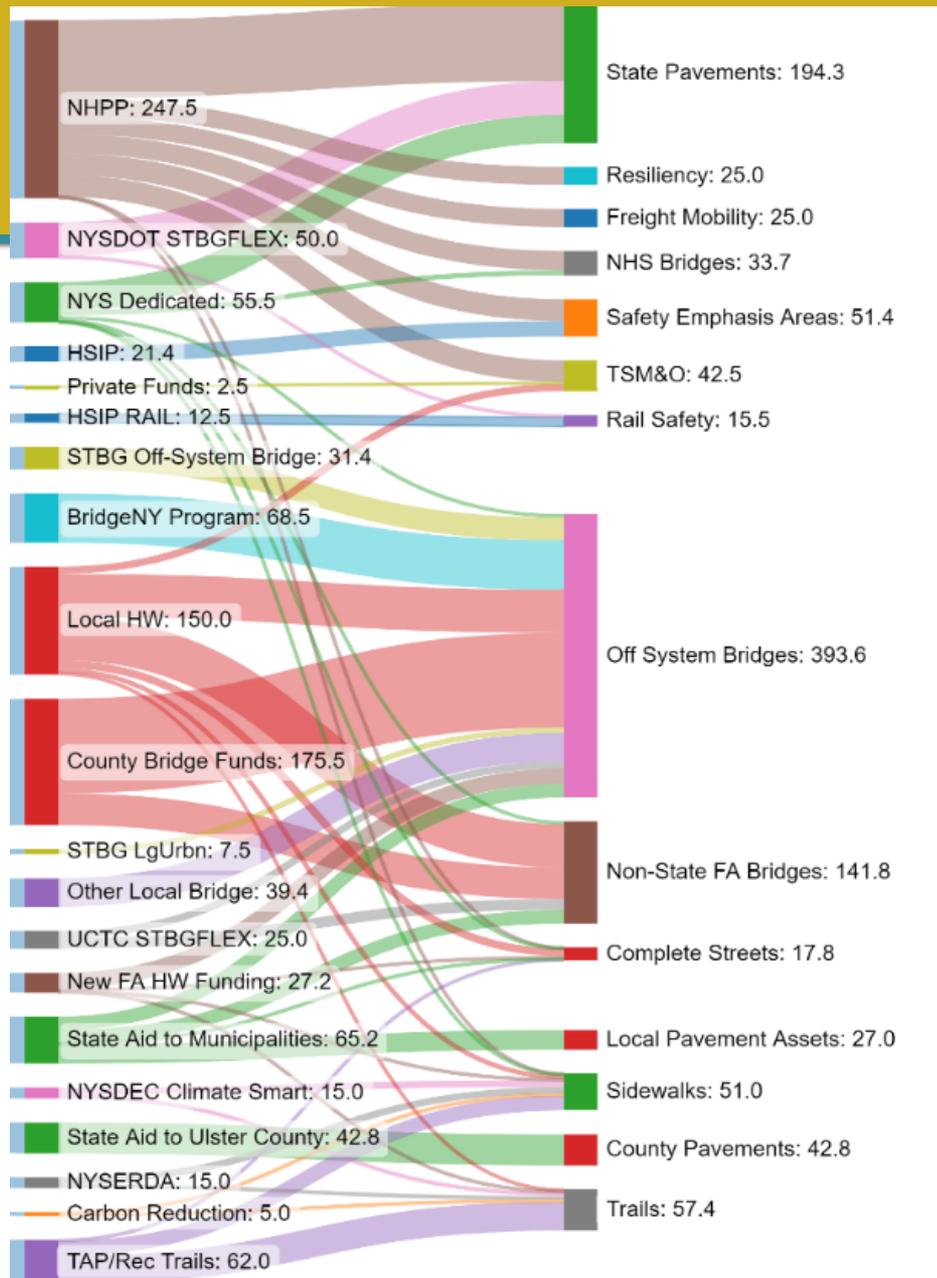


Highway Programs

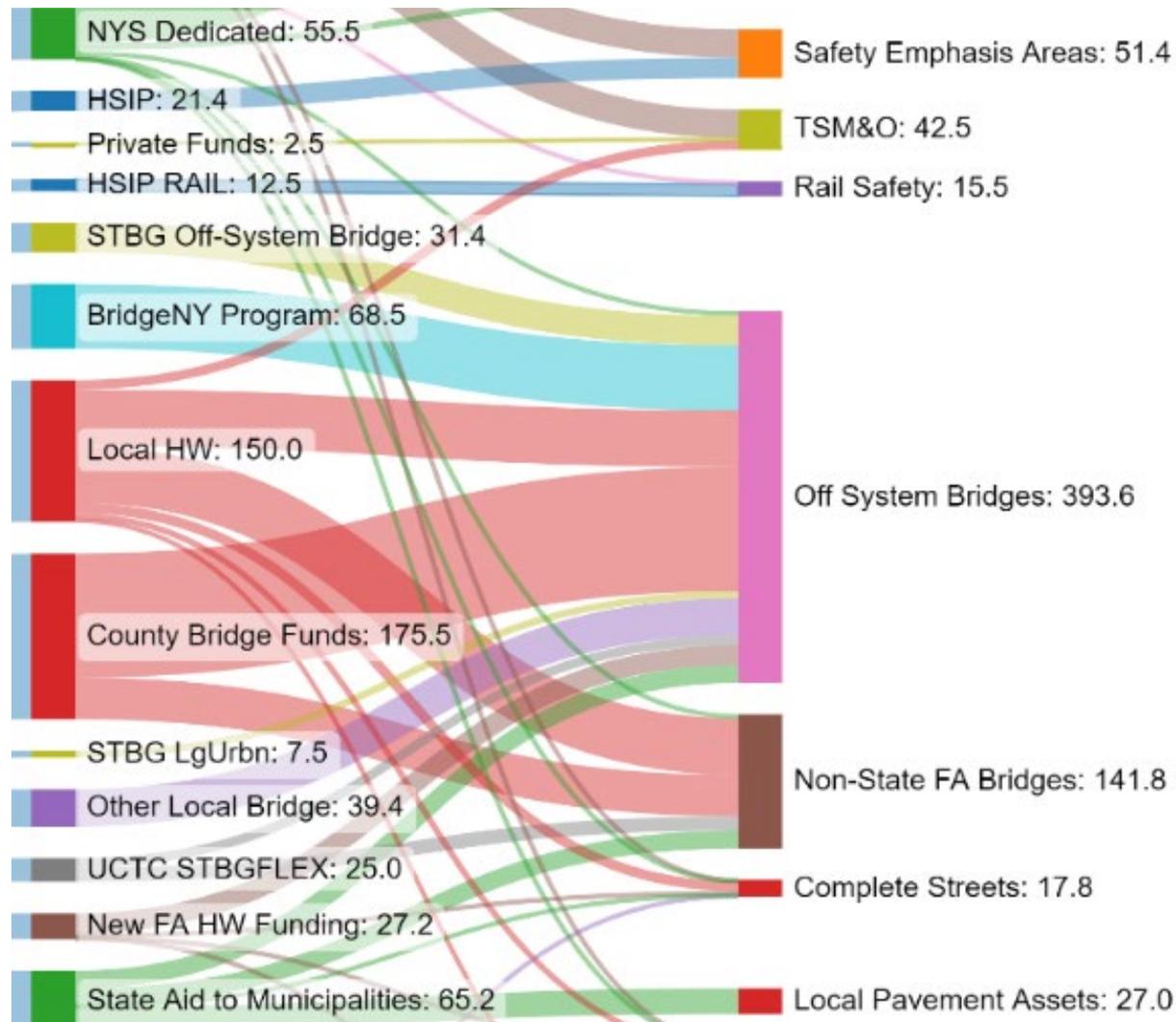
Transit Programs

Investment Targets

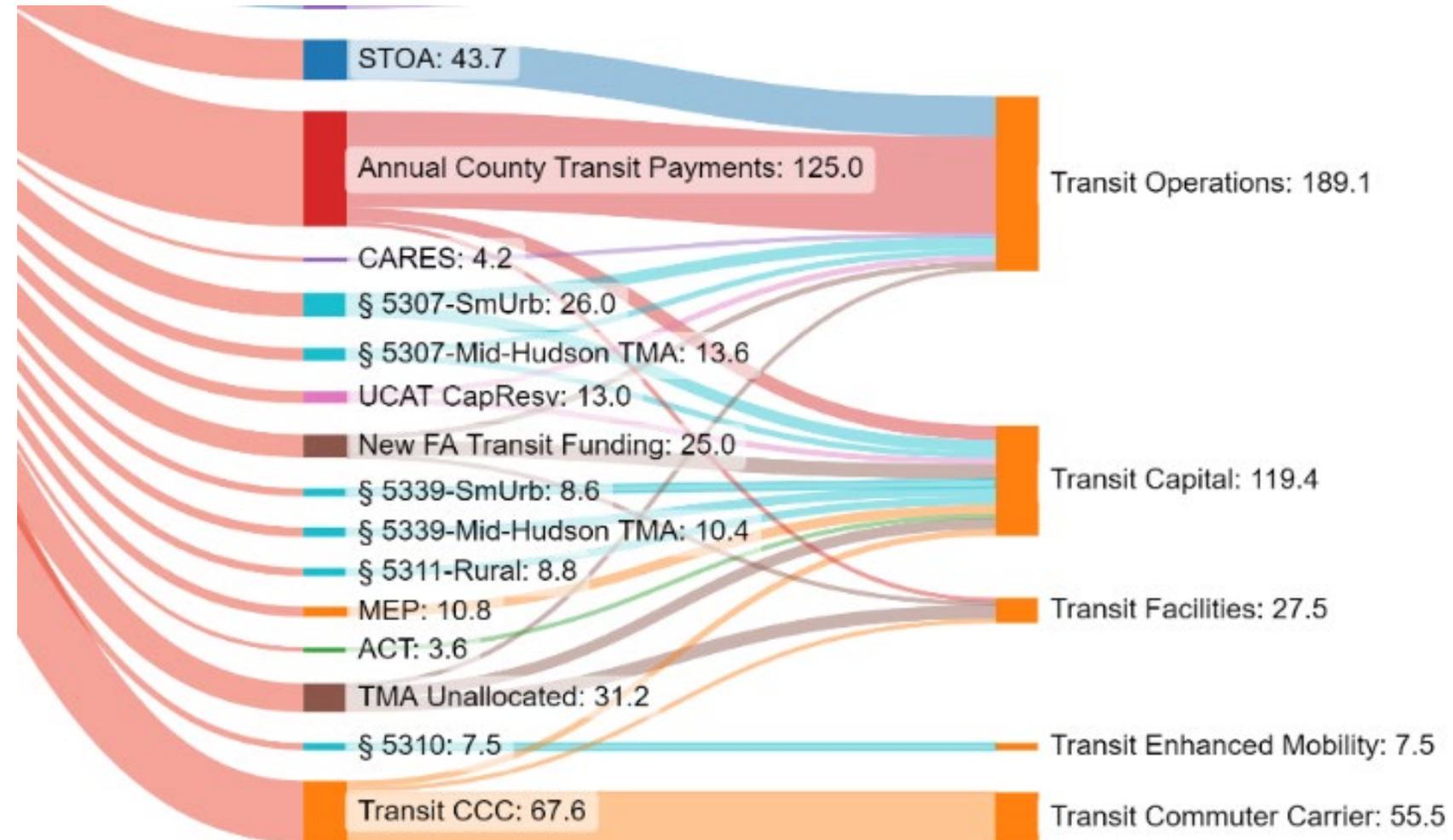




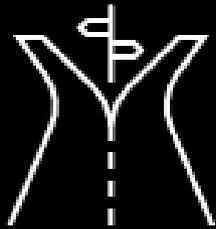
Bridges



Transit



Cost Calculation Methods



Investment Target: Federal Aid Highway Resurfacing

Cost Calculation Method: Assumes all federal aid pavements with a rating of “poor” or “fair” will require resurfacing. Cost estimate for 1 inch mill and pave provided by NYSDOT in 2022 at \$200,000 per linear mi. based on recent Hudson Valley projects. a Year-over-year annual inflation factor of 1.029% added to cost calculation.

Total Investment Cost: \$264 million

Cost Calculation Methods



Investment Target: Bridge Replacement

Cost Calculation Method: "Any bridge rated as 'poor' in the baseline year (2020) will need to be replaced by the horizon year." Bridges assessed for ownership based on three categories: National Highway System (NHS), Other On-System, and Off System. Deck area for any bridge meeting the replacement assumption calculated and applied to a fixed replacement cost. Replacement cost based on average 2019 NYSDOT letting cost/square foot.

Total Investment Cost: \$568.6 million

Cost Calculation Methods



Investment Target: Public Transit

Cost Calculation Method: Annual costs to maintain the transit system were derived from the Approved 2023 Ulster County Budget and projected retroactively from 2020 through the horizon year. Federal and state aid covers roughly 60% of those costs with the remaining 40% covered by county taxpayers. This ratio is held constant through the 25 year planning horizon with a year-over-year annual inflation factor of 1.029% to estimate a total cost of maintaining the system through 2045. Facility costs are included as one-time expansion costs to build a new storage facility based on the 2020 UCTC study plus additional facility maintenance costs. Costs to support the commuter carrier and transit enhanced mobility are also included.

Total Investment Cost: \$398.764 million

Cost Calculation Methods

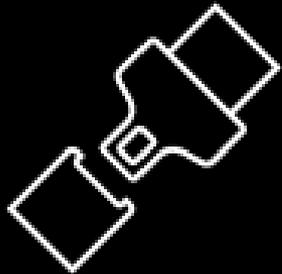


Investment Target: Nonmotorized Transportation

Assumes full build-out of the existing network of rail trails and connecting nonmotorized paths shown on page 92 plus ongoing maintenance costs. Also assumes local investments in sidewalk systems and complete streets improvements.

Total Cost: \$126.127 million

Cost Calculation Methods



Investment Target: Safety

Cost Calculation Method: revenue based investments. 100% of available safety funds are allocated to the system across the two categories below

Total Investment Cost: \$67 million

Cost Calculation Methods



- Includes freight, resiliency, and transportation system operation and maintenance
 - Paint, landscaping, guiderail, culverts, geotech, ADA compliance, etc

Conclusions

- Section 8 as revised meets requirements of 23 CFR 450.324(f)(11)
 - FHWA, FTA & NYSDOT Concurrence
- Cost calculations and distribution of revenues provides an excellent foundation for further refinement in the 2050 plan
 - Due September 30, 2024

Questions or Comments

Brian Slack, Principal Transportation Planner
bsla@co.ulster.ny.us • (845) 334-5590

