



Downtown Concord streets contribute to maintaining a livable community.

Introduction

In accordance with federal requirements, a Financial Plan should demonstrate how the adopted Metropolitan Transportation Plan can be implemented, indicate resources from public and private sources that are reasonably expected to be made available to carry out the plan, and recommend additional financing strategies for needed projects and programs.

By requiring Financial Plans, the federal intent is for local and state officials to consider how funding can be generated in the future to construct the recommended projects. Evaluating financial resources is an integral part of the transportation planning process and often defines the choices available to the Transportation Advisory Committee (TAC) of the MPO. One of the most critical elements of any plan is to make sure that adequate funds are available to construct the

recommended projects. If adequate funds are not available, the project list should be reduced or new revenue sources identified.

Overview of Existing Financial Sources

This section presents the financial resources that are presently being used in the MPO planning area and the sustainability of those funds. Primarily, the CR MPO relies on federal and state revenues to fund their transportation needs. The majority of transportation revenue is linked to the gasoline taxes levied by the state and federal governments. Federal funds are collected and distributed to federal highway, railway, and transit programs. The State of North Carolina receives funds based upon eligible projects and funding formulas dictated by legislation.

The Highway Fund and Highway Trust Fund are the sources of funding for most of the programs

in the Urban Area. These funds can be used for constructing new highways, widening existing facilities, intermodal programs, and development of mass transit. Powell Bill funds are primarily used for the maintenance of the existing local road network and may also be used for sidewalk improvements. The NCDOT Maintenance or Secondary Roads Paving Program allocates funding to each NCDOT Division for the purpose of upgrading those secondary State-maintained roads determined deficient by NCDOT. The list of these roads is presented annually to the County Commissioner’s since most of the roads are outside of the municipalities.

Over the next ten years (based on the current State Transportation Improvement Program (STIP) the CR MPO can expect to receive approximately \$52 million annually from State and Federal sources. Beginning in 2026, this annual allocation will increase slightly to \$53 million annually due to the growth in population for Division 9 and 10 under the new funding formula. In addition, the MPO is projecting that the widening of I-85 (I-3802B) in southern Rowan County will be primarily financed by the statewide tier funds under the new formula. **Table 7-1** lists the total estimated State Formula revenue by horizon year for the Urban Area.

Powell Bill funds are monies returned to eligible cities and towns by NCDOT for maintaining, repairing, constructing, reconstructing, or

widening of municipal streets. Additionally, the funding can be used for the planning, construction, and maintenance of sidewalks and bikeways located within the rights-of-way of public street and highways. The amount of Powell Bill funds received is based upon two criteria: the number of miles of streets to be maintained and the municipality’s population. The source of the Powell Bill funds is the gasoline tax imposed by the State on users of the highway system. Municipalities within the Cabarrus-Rowan MPO are projected to receive approximately \$7 million annually over the next 25 years. This estimate is based on historical trend of the Powell Bill funds forecasted to the year 2045. **Table 7-2** lists the annual Powell Bill revenue based on current expenditures provided by NCDOT.

NCDOT also provides funding for maintaining and paving secondary roads to both Rowan and Cabarrus Counties. Each county must review a list of roads that are scheduled for improvements by NCDOT over the next year. These improvements do not include general widening/capacity improvements. The Cabarrus-Rowan MPO is projected to receive approximately \$37 million annually over the next 25 years. This estimate is based on historical trend of the NCDOT Maintenance Program forecasted to the year 2045. **Table 7-3** lists the annual Maintenance Revenues based on current expenditures provided by NCDOT.

Table 7-1 - Summary of CR MPO State Formula Funding by Horizon Years

County	Funding Type	Horizon Years 2017-2025	Horizon Years 2026-2035	Horizon Years 2036-2045
Cabarrus	Regional	\$121,234,057	\$122,657,239	\$122,657,239
	Division	\$52,565,790	\$53,182,867	\$53,775,248
Rowan	Regional	\$80,492,257	\$79,332,779	\$79,332,779
	Division	\$79,790,241	\$78,640,875	\$76,798,532

Table 7-2 - Summary of CR MPO State Powell Bill Funding by Horizon Years

County	2017 Allocation	Horizon Years 2018-2025	Horizon Years 2026-2035	Horizon Years 2036-2045
Cabarrus	\$4,185,459	\$35,428,212	\$49,467,358	\$55,026,986
Rowan	\$1,538,254	\$11,780,260	\$14,312,202	\$13,818,107

Table 7-3 - Summary of CR MPO State Maintenance Funding by Horizon Years

County	2017 Allocation	Horizon Years 2018-2025	Horizon Years 2026-2035	Horizon Years 2036-2045
Cabarrus	\$16,674,100	\$135,204,278	\$218,316,647	\$282,365,915
Rowan	\$11,881,566	\$98,527,529	\$145,081,368	\$174,233,904

Financial Projections and Calculations

The following section presents an assessment and analysis of available funds for the CR MPO Transportation Plan from current sources. NCDOT has provided funding projections for state and federal funds. The methodology includes:

- Forecast of Federal and State Strategic Investment Formula Funds
- Forecast of Maintenance Revenue
- Forecast of Powell Bill Revenue

The methodology for calculating the Strategic Investment Formula funds is listed below:

The Strategic Mobility Formula replaces the state’s outdated Equity Formula, which was implemented in 1989 and was not providing sufficient flexibility to meet North Carolina’s current needs. NCDOT’s previous 10-year plan included 260 projects and created 240,000 jobs. The new formula will fund at least 478 projects and create more than 292,000 jobs over the next 10 years.

The Strategic Mobility Formula takes a tiered approach to funding transportation improvements, with the statewide level receiving 40 percent of available funding (\$9.1 billion), the regional level receiving 30 percent of available funding (\$6.8 billion) and the division level also receiving 30 percent of available funding (\$6.8 billion) over the next 10 years. The new formula was fully implemented on July 1, 2015. Projects funded for construction before then will proceed as scheduled; projects slated after that time will be ranked and programmed according to the new formula.

For the MPO’s MTP, the revenue for the first horizon year 2025 is consistent with the 2018-2026 State TIP. Project schedules were adjusted to coincide with completion dates projected through the 2018-2026 STIP. As part of the previous STIP, NCDOT decided to fund the widening of I-85 (I-3803) in Cabarrus County with Trust Fund and GARVEE Bonds, which allows NCDOT to leverage more debt by borrowing against future federal revenues. The CR MPO was projecting an annual payout of about \$4.5 million annually over the next 20 years to retire the debt on this project through the TIP/Equity Formula funds in NCDOT Division 10. However, the STI eliminated the pay back on GARVEE funds, so this liability is no longer a factor in the MPO’s Financial Plan.

Moreover, the NCDOT has historically provided to the NC MPOs annual statewide projections for construction expenditures. (These projections included a very modest inflation factor over time, averaging less than 1 percent a year.) Each MPO would determine how to allocate these funds from the state level to the region, division, and county level. Beginning in the summer of 2015, all projects will be evaluated as part of a three tier system: statewide, regional and division. (As indicated for a 10 year increment, the MPO assumed \$6.8 billion statewide for regional tier projects and \$6.8 billion statewide for division tier projects.)

In order to allocate revenue between 2016 and 2045, the CR MPO assumed that the new formula would translate a fair share of funds from the state level to each county in the state based on population and equal share for the regional tier and division tier projects. (The CR MPO only has one legitimate highway project that would qualify for the portion of funds allocated to the

statewide tier.) The CR MPO used the average population for each county (based on projections from the Office of State Planning) for each of the horizon years (2025, 2035, and 2045) as a basis for determining the available funds by tier and county. The CR MPO calculated these funds for each of the counties within both NCDOT Divisions, so that a regional allocation could be obtained for the surrounding counties in neighboring MPOs. The CR MPO forecasted Maintenance and Powell Bill revenue by using historical data and the forecast function in Microsoft Excel. A 1 percent contingency factor was added to the NCDOT Maintenance Program for Non-Roadway Maintenance i.e. lighting, traffic signals, traffic cameras, etc. **Table 7-4** provides a summary of estimated State and Federal Revenues for the CR MPO.

Project Cost Estimates

Cost estimates for all projects identified on the Metropolitan Transportation Plan were developed by using a cost spreadsheet provided by the NCDOT, TIP Unit. The cost figures accounted for specific project-related items including:

- New roadways based on cross section (i.e., number of lanes, median, curb and gutter, shoulders, structures, etc.);
- Widening existing facilities;
- New bridges or grade separations;
- Bridge widenings;
- Preliminary engineering; and
- Inflation, overhead, administration, and contingency.

Table 7-4 - CR MPO Projected Transportation Revenue by Source

Horizon Period	Capital Revenue		Maintenance Revenue		Federal Suballocations				Total Funding
	State	Federal	State	Powell	CMAQ	STP-DA	TA	Local	
2016 to 2015	93,572,800	374,291,200	303,926,689	58,413,451	16,856,303	27,923,110	2,200,000	23,407,695	900,591,247
2026 to 2035	66,762,752	267,051,008	315,632,957	63,779,560	18,757,710	29,031,876	2,281,076	32,208,290	795,505,229
2036 to 2045	66,762,752	267,051,008	328,824,765	68,845,094	20,720,181	32,038,630	2,517,321	40,920,510	827,680,261
Total	227,098,304	908,393,217	948,384,410	191,038,104	56,334,194	88,993,397	6,998,397	96,536,495	2,523,776,737

Tables 7-5, 7-6, and 7-7 included all Transportation Plan projects by Horizon Year (2025, 2035, and 2045) and the project termini, length, existing cross-section, ultimate cross-section, and estimated total cost.

In addition, the MPO did not program the full allocation by horizon year in order to account for the decreased buying power over time. Therefore, spending was constrained (by horizon year) to balance against inflationary costs. The 2045 horizon year is particularly lean with only 7 projects complete and open for traffic during this time period. Moreover, a percentage of the project cost was dedicated to miscellaneous contract expenses and to contingency expenses. By contrast, the 2035 Horizon Year is bolstered by the financial commitments and cost estimates in the 2018-2026 State TIP.

Additional Funding Sources and Conclusion

This section outlines the current local funds used for capital road projects and road maintenance. A factor not included in the overall revenue projections is local revenue and transit subsidies. Several MPO member jurisdictions program transportation projects through their respective municipal budgets. The City of Concord has a 2 cent tax on real property to pay for transportation projects such as sidewalks and intersection improvements. This tax is projected to generate approximately \$4 million annually by the year 2045. The City of Concord and the City of Kannapolis have a \$5 vehicle license tax that is used to supplement expenses for the local Rider Transit System. This fee is projected to generate approximately \$780,000 annually for the 2 cities by 2045.

Table 7-5 - Transportation Plan Projects Horizon Years 2016 to 2025

Div #	Index #	Tier	TIP #	Facility	From	To	Dist.	TIP Dist.	Description	Exist. Lanes	Future Lanes	Functional Class	Reg. Sig.	Cost (Thou)
9	11	S	I-3802B	I-85 (I-3802B) includes I-3610 NC 152 Interchange and I-3804 OBF interchange	North of Lane Street	US Hwy 29/601 connector in Rowan Co.	6.1	13.6	Freeway/Expressway	4	8	Interstate	YES	\$69,500
9	12	S	I-2304	I-85 (I-2304)	North of Exit 81	Davidson Co. line	1.5	6.8	Freeway/Expressway	4	8	Interstate	YES	\$57,860
9	30	D	STP	Kimball Road Extension (U-5608)	N. Chapel Street	Bostian Rd	0.6	0.6	Connector to US 29 with sidewalks and bike lanes		2	Major Collector	NO	\$5,485
9	54	D	U-5820	Newsome Road	Bendix Dr	US 52	0.6	0.6	New Roadway		2	Major Collector	NO	\$2,965
9	32	D	U-5738	Julian Road	Jake Alexander Blvd	Summit Park Drive	1.3	1.3	Widen, median-divided, side-walks, bike lanes, bus turnouts	2	4	Local	NO	\$11,514
9	8	S	I-4718	I-85 (I-4718)**	Cabarrus Co. line	NC 152	5.0	5.0	Pavement Rehabilitation					\$662
9	58	S	I-5858	I-85	N. of Peach Orchard Rd	US 601	11.2	11.2	Pavement Rehabilitation					\$1,250
10	13	S	I-3803	I-85 (I-3803)	Speedway Blvd	NC 73	7.2	12.8	Freeway/Expressway	4	8	Interstate	YES	\$56,480
10	15	R	U-3440	NC 3 (U-3440)	Kannapolis Parkway	Loop Road	2.5	2.5	Widen to improve access to downtown Kannapolis	2	4	Minor Arterial	YES	\$28,900
10	17	D	U-4910	Derita Road (U-4910)	Poplar Tent Road	Aviation Blvd	1.5	2.6	Widen and improve with entrance to the Concord Airport	2	4	Major Collector	YES	\$8,005
10	17	D	STP	Derita Road (U-4910) (\$4.1 mil. local part)	Aviation Blvd	Concord Mills Blvd	1.1	2.6	Median-divided widened, side-walks, bike lanes	2	4	Major Collector	YES	\$9,400
10	11	S	I-3802A	I-85 (I-3802)	NC 73	North of Lane St Interchange	7.5	13.6	Freeway/Expressway	4	8	Interstate	YES	\$53,673
10	51	R	U-5761	Intersection -NC 3 & US 29/601					Intersection Improvement			Principal Arterial		\$930
10	52	D	U-5806	Intersection of Concord Mills Blvd (20% local match)					Construct 2-lane grade separated directional flyover			Minor Arterial	YES	\$11,900
10	59	D	U-6032	Odell School Road	Concord Mills Blvd	I-485	0.9	0.9	Median-divided widening	2	4	Major Collector	YES	\$13,400
10	46	R	R-5706B	NC 73	US 29	Poplar Tent Road	8.92	10.9	Median-divided widened with side-walks and bike lanes	2	4	Principal Arterial	YES	\$93,500
10	60	D	R-5778	Bill McGee Rd	Wallace Rd	Proposed Industrial Site	0.5	0.5	Improve Existing Road and Extend to Industrial Site		2	Local	NO	\$800
10	61	R	U-5956	Intersection US 29, Rock Hill Church Rd, Union Cemetery Rd					Realign Union Cemetery Rd to intersection US 29 at Rock Hill Church Rd			Principal Arterial	YES	\$4,500
10	36	D	U-3415A	Poplar Tent Road (U-3415)	Derita Rd	George Liles Pkwy	1.35	1.35	Median-divided widened with side-walks and bike lanes	2	4	Minor Arterial	NO	\$21,200
10	50	S	Y-4810K	Rogers Lake Road					Railroad Grade Separation			Major Collector		\$15,600
10	62	D	U-5522	Concord Traffic Management System					Concord Traffic Management System					\$1,100

Table 7-6 - Transportation Plan Projects Horizon Years 2026 to 2035

Div #	Index #	Tier	TIP #	Facility	From	To	Dist.	TIP Dist.	Description	Exist. Lanes	Future Lanes	Functional Class	Reg. Sig.	Cost (Thou)
9	33	R	U-5900	NC150	Airport Road	West of Grants Creek	3	3	Median-divided widened with side-walks and bike lanes	2	4	Minor Arterial	NO	\$57,889
9	34	D	U-5901	Airport Parkway Extension	Jake Alexander Blvd	US 29/Peach Orchard Road	4.38	4.38	Connector road on multi-lane right-of-way		2	Principal Arterial	YES	\$33,425
9	63	D	U-6062	Main Street (US 29A)	Jackson Park Rd/ Loop Rd	Kimball Rd	4.3	4.3	Improve roadway incorporating bike lanes and sidewalks	2	3	Minor Arterial	NO	\$5,960
9	64	D		Long Ferry Rd Grade Separation			1		Railroad Grade Separation	2		Minor Arterial		\$17,740
10	66	R	P-5723	22nd Street	Airport Road	US 29	0.5		22nd St Railroad Grade Separation		2	Local	NO	\$12,200
10	37	D	U-6029	Poplar Tent Road	NC 73	Derita Rd	4.2	4.2	Median-divided widened with side-walks and bike lanes	2	4	Minor Arterial	NO	\$52,800
10	39	R	U-5773A	NC 3	Dale Earnhardt Blvd.	NC 73	5.09	8	Median-divided widened with side-walks and bike lanes	2	4	Minor Arterial	NO	\$68,745
10	69	R	U-5773B	NC 3	NC 73	US 601	2.87	8	Median-divided widened with side-walks and bike lanes	2	4	Minor Arterial	NO	\$29,700

Table 7-7 - Transportation Plan Projects Horizon Years 2036 to 2045

Div #	Index #	Tier	TIP #	Facility	From	To	Dist.	TIP Dist.	Description	Exist. Lanes	Future Lanes	Functional Class	Reg. Sig.	Cost (Thou)
9	67	S	U-6075	US 52 Bypass	South of Granite Quarry	North of Granite Quarry	4.6	4.6	Median-divided widened with side-walks and bike lanes		4	Principal Arterial	YES	\$78,867
9	68	S	R-5860	US 52 Widening	Rockwell Bypass	Misenheimer Bypass	4.6	4.6	Connector road on multi-lane right-of-way	2	4	Principal Arterial	YES	\$42,314
9	70	S		US 52 Bypass	South of Rockwell	North of Rockwell	3.96		Improve roadway incorporating bike lanes and sidewalks	2	4	Principal Arterial	YES	\$68,668
10	71	D	U-3415A	Poplar Tent Road (U-3415)	George Liles Pkwy	US 29	3.08	3.08	Railroad Grade Separation	2	4	Minor Arterial	NO	\$40,800
10	41	R		US Highway 29	I-85	Church Street	0.36		22nd St Railroad Grade Separation	4	7	Principal Arterial	YES	\$9,600
10	45	R		US Highway 601	NC 3 (South Union St)	Flowes Store Rd	1.15		Median-divided widened with side-walks and bike lanes	2	4 Divided	Principal Arterial	YES	\$10,200
10	38	D	STP	George Liles Pkwy (R-2246)	NC 49	Roberta Rd	5.21	6.5	Median-divided widened with side-walks and bike lanes	2	4	Minor Arterial	NO	\$17,000

The City of Salisbury collects a \$5 vehicle license tax for their local transit system, which is projected to generate \$156,000 annually by 2045. The City of Salisbury and the City of Concord also receive grant funds for operating the 2 fixed route transit systems in the MPO: Rider and Salisbury Transit. In addition to these funds, the State and Federal government provide a large amount of subsidies required to maintain and operate urban transit

services. The operations grant alone is projected to produce over \$5 million annually by the year 2045. These funds are contingent upon annual grant allocations from the State and Federal governments and can fluctuate depending upon state and federal policy.

Table 7-8, 7-9, 7-10, 7-11, and 7-12 provide a summary of estimated Local and Federal Transit Revenues for the CR MPO.

Table 7-8 - Summary of City of Concord 2 Cent Revenue Funding by Horizon Years

	2017 Allocation	Horizon Years 2018-2025	Horizon Years 2026-2035	Horizon Years 2036-2045
Forecast	\$2,028,410	\$19,337,383	\$31,889,396	\$40,515,357
Inflated		\$19,487,315	\$32,208,290	\$40,920,510

Table 7-9 - Summary of City of Concord \$5 Vehicle License Tax Revenue Funding by Horizon Years

	2017 Allocation	Horizon Years 2018-2025	Horizon Years 2026-2035	Horizon Years 2036-2045
Forecast	\$392,114	\$3,281,417	\$4,486,713	\$4,956,122
# of Vehicles	78,423	79,207 to 84,921 per year	85,770 to 93,805 per year	94,743 to 103,619 per year

Table 7-10 - Summary of City of Salisbury \$5 Vehicle License Tax Revenue Funding by Horizon Years

	2017 Allocation	Horizon Years 2018-2025	Horizon Years 2026-2035	Horizon Years 2036-2045
Forecast	\$118,778	\$994,014	\$1,359,124	\$1,501,319
# of Vehicles	23,756	23,994 to 25,724 per year	25,982 to 28,416 per year	28,700 to 31,389 per year

Table 7-11 - Summary of City of Kannapolis \$5 Vehicle License Tax Revenue Funding by Horizon Years

	2017 Allocation	Horizon Years 2018-2025	Horizon Years 2026-2035	Horizon Years 2036-2045
Forecast	\$198,348	\$1,659,830	\$2,269,502	\$2,506,942
# of Vehicles	39,668	40,065 to 42,955 per year	43,385 to 47,449 per year	47,924 to 52,413 per year

Table 7-12 - Summary of Concord/Kannapolis and Salisbury Transit Local Revenues by Horizon Years

	2017 Allocation	Horizon Years 2018-2025	Horizon Years 2026-2035	Horizon Years 2036-2045
Cabarrus	\$1,862,420	\$18,562,726	\$32,361,828	\$42,537,850
Inflated	\$1,881,044	\$18,748,353	\$32,685,446	\$42,963,228
Salisbury	\$465,322	\$4,203,744	\$4,788,008	\$4,137,896
Inflated	\$469,975	\$4,245,781	\$4,835,888	\$4,179,275

Finally, private development can be a large contributor to the transportation system through exactions. Through diligent planning and earlier project identification, regulations, policies, and procedures could be developed to protect future thoroughfare corridors and require contributions from developers when the property is subdivided. These measures would reduce the cost of ROW and would require (in some cases) the developer to make improvements to the roadway that would result in a lower cost when the improvement is actually constructed.

To accomplish this goal, it will take a cooperative effort between local planning staff, NCDOT Division staff, and the development community. The MPO facilitated the development and completion of the Comprehensive Transportation Plan Highway map and Index as tools to assist in this endeavor. Often overlooked in MPO plans is the NCDOT Street and Driveway Access Permitting process which is the portal for establishing the need for a Traffic Impact Study (TIS). The TIS is the tool for determining the level of improvements required of the property

owner(s) and can be submitted with a site plan in order to satisfy requirements toward NCDOT granting access to the street system in the form of a permit.

The permitting process includes other items such as bonding, inspection/verification, or a plan of record. Over time these local and division tools will hopefully reduce the right-of-way costs and construct more affordable infrastructure for the area's streets and highways.

Appendix 7-1 includes an overview of the NCDOT Street and Driveway Access Permit Process



Federal funding dollars for highway construction