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Date: May 1, 2013
To: Mecklenburg-Union MPO Technical Coordinating Committee
From: Bill Coxe on behalf of the TCC's I-77 Technical Team
Subject: Recommendation on Amendments to the 2035 LRTP and the 2012-18 TIP for the Purpose of Constructing Managed Lanes on I-77 from Charlotte to Mooresville

The NCDOT has requested that the Mecklenburg-Union Metropolitan Planning Organization modify its currently adopted 2035 Long Range Transportation Plan (LRTP) and its 2012-18 Transportation Improvement Program (TIP) to include a project to widen I-77 from Charlotte to Mooresville under a Public/Private Partnership (P3) process. The requested project, known as Scenario 5 in public documents, would create a total of two (2) managed lanes, in this case High Occupancy/Toll (HOT) lanes, between I-277 (Brookshire Freeway) and Catawba Avenue (Exit 28 in Cornelius) and one (1) HOT lane in each direction from Catawba Avenue to approximately Brawley School Road in Mooresville (Exit 35.) The project would provide a direct connection from the HOT lanes on I-77 to I-277. (Note: all scenarios assumed HOV 3+)

The technical team has engaged in a year long process of information development and review on the project and concludes that all things considered, **it is appropriate to find that constructing the proposed amendments constituting Scenario 5 and opening the project in the 2025 Horizon Year allow the MPO to maintain conformity with air quality goals and financial constraints and can be recommended by the TCC to the MUMPO for approval. The technical team recommends that one condition and several other statements be appended to the recommended approval.**

Extensive information relevant to the recommendation is included on the MUMPO website at <http://www.mumpo.org/i-77>. In particular, attention should be paid to:

- 1) The proposed amendments report.
- 2) The air quality conformity determination report.
- 3) The "project overview" document that provides summary information on the concept of the managed lanes proposal for this corridor.
- 4) The presentation from the April 11, 2013 public workshop which describes the project and its potential impact on travel speeds in the general purpose lanes by the year 2035.
- 5) The public comments that have been received on the amendments.
- 6) Background documents under the heading of "Managed Lanes/P3 Resources" that give detailed information on both the concept of managed lanes as well as the use of Public/Private Partnerships (P3) as a delivery and (in this case) operations and maintenance tool.

Two tests must be met for MUMPO to incorporate the proposed project into the LRTP & TIP. First, the MUMPO must find that the amendments allow it to continue to meet air quality goals. ***The conformity***

determination report referenced above concludes that the five examined scenarios, including the requested action, will allow the LRTP and TIP to continue to meet transportation conformity by producing predicted emissions levels that are within the approved pollutant emission levels for the region.

Second, when amended to include this project, the LRTP and TIP must be found to be fiscally constrained; i.e. there must be a reasonable expectation that sufficient revenues will be available to accomplish the programs within the estimated time frames. **Analysis by NCDOT and local staff indicate that if the public contribution to the project is capped at \$170 M, expected funds over the next seven years would cover the public share.** NCDOT staff in the Program Development Unit has worked with local staff to identify approximately \$170 million dollars in public funds between Divisions 10 and 12 that can be used to leverage a potpourri of federal loans and private funds that would be assembled by a private concessionaire to deliver the project. Because the two divisions currently draw from different Equity funding regions, the attached information acknowledges that distinction. The Division 10 share of the amount needed in public funds is slightly less than \$150 M.

The final and more difficult test is to determine if the requested transportation decision is in the best interest of the corridor and region. In examining this issue, it is appropriate to discuss what will and will not be accomplished by the investment, whether to wait and see if either the MPO's upcoming 2040 LRTP or the Governor's proposed Strategic Mobility Formula would alter outcomes, financial risks, and public input.

Project benefits

- Managed lanes provide long term sustainable and reliable travel times in those lanes, thus providing an option to avoid congestion in the general purpose lanes.
- Long term reliable travel options, including managed lanes and rapid transit, support economic development. Witness these investments in thriving economic centers.
- The project rewards multi-occupant vehicles and begins to introduce the success criteria of "persons moved" as a supplement to the traditional "vehicles moved."
- The financial structure imbeds maintenance, operational, and enforcement funding (managed lanes only).
- The P3 structure provides long term funding that does not impact NC debt capacity.
- The private sector assumes all funding (revenue) risk.

Project shortcomings

- Coordination with other elements of I-77 corridor is not identified.
- Interchange upgrade needs are not addressed.
- Capacity across causeways is insufficient for long term needs.
- Short term relief of congestion in the current general purpose lanes could be provided with the addition of a general purpose lane rather than a managed lane.
- Coordination with other managed lane corridors in the region and with the MPO is unclear.
- Public acceptance/understanding of the idea has not been adequately developed (the "first time" effect).

Should the MPO wait?

- The schedule for private concessionaire teams is to submit proposals in September. Delayed action by the MPO would introduce uncertainty into the private procurement process, possibly deterring bidders.
- The MPO's fiscally constrained project list for the 2040 LRTP update is anticipated to be finalized in September.
- The MPO's project evaluation criteria will elevate projects that have a high congestion relief element.

- The Governor's Strategic Mobility Formula schedule, project selection, and ranking criteria are unclear, and the Statewide tier decision matrix eliminates MPO opinion from rankings. There appears to be the intention to reward projects that provide additional funds from locally controlled or non-traditional sources. Current Mobility Fund projects (including current I-77 proposal) scheduled through June 2015 are supposedly protected.
- Delay in a vote by the MPO would require another air quality conformity determination under new emissions budgets and modeling software. Staff opinion is that the project would meet conformity under the new evaluation criteria.
- Essentially, it is a choice between the known and the unknown.

Financial considerations

- The current out of pocket public contribution to the project is capped at \$170M between Divisions 10 and 12.
- The project qualifies for Transportation Infrastructure Finance and Investment Act (TIFIA) loans due to the revenue stream from the tolling element of the managed lane operation.
- Private sector funding timeline (40-50 years) and up to 35 year repayment for TIFIA loans exceeds current State financing timelines (20 years) allowing lower up front public contribution.
- Imbedded operations and maintenance funding for managed lanes relieves pressure on traditional sources for those funds.
- Responsibility for repayment of debt is solely the burden of the private concessionaire.
- Public/Private Partnership (P3) delivery as proposed does not increase NC debt burden.

Public feedback

- Public response to the current project during the LRTP & TIP amendment discussion has been almost exclusively negative, including a petition with over 1200 signatures on a "Petition to stop toll roads on I-77."
- Iredell County Commission opposes HOT lanes and supports general purpose lanes.
- Support for the project has been couched in terms of "in recognition that this proposal is the only way to get any widening for I-77, we support it." (paraphrase of sentiment)
- MUMPO's website page devoted to I-77 (<http://www.mumpo.org/i-77>) contains the public comments received during the amendment process.
- Public opposition focuses almost entirely on the tolling element of the project. There is a thread of opposition to the private control of the project. The benefits of managing the transportation investment for long term value are not part of the current public debate.
- Public opinion research in this corridor conducted under the Fast Lanes Phase III study indicates a roughly even split of opinion between widening I-77 now under a HOT lanes construct versus waiting an indefinite amount of time in the hope of some other option.
- The public sentiment regarding managing new capacity lanes through tolling that was identified in the I-77 corridor does not differ significantly in either I-485 or US 74 corridors where similar managed lanes are proposed. Significant outreach is needed to help the public understand the financial and long term management issues involved.

Tech team recommendations for TCC action

- 1) Recommend that the MUMPO amend its 2035 Long Range Transportation Plan and 2012-18 Transportation Improvement Program to include a project shown in the amendment report and other public documents as "Scenario 5" to widen I-77 from Charlotte to Mooresville with HOT lanes under a public/private partnership with a condition that no more than \$170M in public dollars provide early years funding. No more than \$150M should come from funds that are otherwise eligible for expenditure in the MUMPO planning area.

- 2) Acknowledge that roughly \$110M is already programmed in the formerly released draft 2014-20 TIP on projects that will be now accomplished by the P3 project within the MUMPO stretch of I-77. Recommend that the MUMPO acknowledge the project shifts that are likely to occur in order to assemble the additional roughly \$40M, but that these will not be fully known until the re-release of the draft TIP in the fall of 2013.
- 3) Acknowledge that this approval only allows the current procurement process to move forward, it does not guarantee the successful conclusion of this process.
- 4) Recommend that the TCC develop, as soon as practical, a list of projects on I-77 for evaluation under the LRTP update process to include, but not be limited to, additional general purpose lanes north of Cornelius. Acknowledge that these projects are to be evaluated with all other submitted projects and will be ranked according to their respective merits.
- 5) Recommend that as soon as practical, the NCDOT, FHWA, the MPO and other stakeholders undertake a strategic study of mobility needs in the corridor between Charlotte and Statesville. The study should include I-77, NC 115, the Norfolk/Southern O line, and any other possible movement routes. This study should include analysis of the long term (to be defined but greater than 20 years) vision for all modes of travel in the corridor, elements necessary to deliver appropriate investments in the various modes, and management techniques necessary for long term functioning of the investments.
- 6) Recommend that NCDOT maintain its current high level of coordination with local staff and the TCC's I-77 tech team through all subsequent elements of the procurement process and the project's implementation.
- 7) Recommend that as soon as practical, the NCDOT convene with the MUMPO a study team to determine how to integrate the potential P3 managed lanes project into other proposed managed lanes projects in this area and to clarify the MPO role in the governance of these investments.
- 8) The NCDOT should identify a project manager to coordinate all activities associated with the proposed P3 managed lanes project.

This report is respectfully submitted on behalf of the TCC's I-77 Technical Team. This analysis is delivered with the highest level of gratitude for:

- 1) The efforts of that team to understand the ramifications of the proposal at hand and to influence them for a better project. In particular, the participation of the staff from our Iredell County partners should be acknowledged as a harbinger of the collaborative nature of the MPO;
- 2) the efforts of the NCDOT staff and their consultants to provide information and to improve the RFPs that are instructing the private concessionaires;
- 3) the efforts of consultants working with MUMPO staff and the team to craft informational materials that better communicate incredibly complicated issues; and most particularly
- 4) the efforts of the public that we serve to become informed and involved in this process.

Attachment



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Attachment 1, Financial Details

TCC I-77 Tech Team Recommendation on LRTP & TIP Amendments Related to I-77 North HOT Lanes Project

It is important to understand that the following details include several assumptions:

- 1) The public subsidy for the project is capped at a total of \$170,000,000 (\$170M).
- 2) The draft 2014-20 TIP which was previously released and then retracted will look similar when it is re-released this coming fall.
- 3) The projects which are identified as “slipping” in order to make up the additional needed funds are a best estimate at this time. Other projects may slip for other reasons allowing these projects to move forward, funding levels could change, or legislation could change everything.

Roughly \$170M of public funds is currently estimated as needed in the early years of the project to complete the financial package. Because Divisions 10 and 12 are currently in two different funding regions for the Equity Formula, the needed funds are divided between them. The following chart shows the breakdown between divisions as well as a summary of funds already programmed in the previously released draft 2014-2020 TIP.

I-77 HOT lane subsidy funding

	Division 10	Division 12	Total
Division’s share of subsidy	\$149.6 M	\$20.4 M	\$170 M
Funding already programmed in 2014-2020 timeframe	\$109.5 M	\$27.7 M	\$137.2 M
Cost or savings in TIP time period	\$40.1 M (cost)	\$7.3 M (savings)	\$32.8 M (cost)

Source: NCDOT Program Development Unit

The following charts identify the currently programmed projects in the I-77 North corridor that will be accomplished under the P3 project to widen I-77. These funds are therefore available for the needed \$170 M public contribution.

Division 10 Programmed I-77 North Projects

Project	Description	Available funding (2014-2020)
I-3311 E	Lane widening on I-77 from north of I-277/NC 16 (Brookshire Freeway) to north of I-85	\$14.6 M (FY 14, 15, 16)
I-4750	Additional lanes on I-77 in northern Mecklenburg and southern Iredell counties	\$15.2 M (Div 10) (FY 17, 20)
I-5317, I-5368, I-5370, I-5382	Pavement rehabilitation projects along the I-77 corridor in Mecklenburg County	\$13.3 M (FY 16, 18, 19)
I-5405	I-77 HOT lane project from north of I-277 (Brookshire Freeway) to I-485	\$42.1 M (FY 15)
Mobility funds	I-77 HOT lanes – 88 percent attributable to Division 10	\$24.3

\$109.5 M

Division 12 Programmed I-77 North Projects

Project	Description	Available funding (2014-2020)
I-4750 A	Additional lanes on I-77 in northern Mecklenburg and southern Iredell counties (55 percent in Div 12)	\$18.6 M (Div 12) (FY 17, 20)
I-4750 B	Additional lanes on I-77 in southern Iredell county (3 out of 9 miles)	\$5.8 M (FY 20)
Mobility funds	I-77 HOT lanes – 12 percent attributable to Division 12	\$3.3 M

\$27.7 M

Under this scenario, the remaining need for public funds from Division 10 (and thus affecting MUMPO) is \$40.1M.

A collection of projects has been identified that **could** be adjusted to achieve the \$40.1M in needs during the 7 year TIP period. The final impact will likely not be known until the fall of 2013 when the revised draft 2014-2020 TIP is scheduled for release. It should be noted that on April 30, 2013, legislation was introduced in the General Assembly to implement the Governor's Strategic Mobility Formula which could have significant impact to the development and release of the TIP.

Potential Division 10 project changes:

- Division bridge replacement program shifts
- Interstate repaving delays (I-77 South, I-85, I-485)
 - 4 projects delayed 1-2 years
 - 1 project delayed 2 years
 - 2 projects delayed 3 years
- W. Catawba Ave. construction delayed 1 year (r/w stays on schedule)
- Improvements @ I-277/I-77 interchange delayed 2 years
- John St/Old Monroe Rd construction delayed 1 year (r/w stays on schedule)
- Additional STP-DA funds assigned to MUMPO (15.6 M over 7 years) placed on existing funded projects rather than new projects