

Grand Forks - East Grand Forks Metropolitan Planning Organization

Agenda

TECHNICAL ADVISORY COMMITTEE MEETING WEDNESDAY, FEBRUARY 14TH, 2018 – 1:30 P.M. EAST GRAND FORKS CITY HALL TRAINING ROOM

MEMBERS

Kadrmass/Lang _____	Laesch/Konickson__	West _____
Ellis _____	Johnson/Hanson _____	Magnuson _____
Bail/Emery _____	Kuharenko/Williams/Yavarow _____	Sanders _____
Gengler/Erickson _____	Bergman/Rood _____	Christianson _____
Riesinger/Audette _____		

1. CALL TO ORDER
2. CALL OF ROLL
3. DETERMINATION OF A QUORUM
4. MATTER OF APPROVAL OF THE JANUARY 10TH, 2018 MINUTES OF THE TECHNICAL ADVISORY COMMITTEE
5. MATTER OF DRAFT RFQ FOR EAST GRAND FORKS RIGHT-OF-WAY ADA TRANSITION PLAN KOUBA
6. MATTER OF AMENDMENT TO THE 2018-2021 MINNESOTA SIDE T.I.P. HAUGEN
 - a. Public Hearing
 - b. Committee Action
7. MATTER OF FHWA/MN GUIDANCE ON INCORPORATING PERFORMANCE MEASURES INTO T.I.P..... HAUGEN
8. MATTER OF 2019-2022 NORTH DAKOTA SIDE T.I.P. CANDIDATE PROJECTS KIMLEY/HORN
 - a. Urban Grant
 - b. Urban Local
 - c. Urban Regional

TECHNICAL ADVISORY COMMITTEE MEETING
WEDNESDAY, FEBRUARY 14TH, 2018 – 1:30 P.M.
PAGE 2

- 9. MATTER OF 2045 STREET/HIGHWAY ELEMENT UPDATE HAUGEN
 - a. Goals/Objectives
 - b. Safety Targets
 - c. Future Bridge Scenarios

- 10. MATTER OF FUTURE NON-MOTORIZED BRIDGE BETWEEN
DOWNTOWNS HAUGEN

- 11. OTHER BUSINESS
 - a. 2018 Annual Work Program Project Update
 - b. Special Technical Advisory Committee Meeting

- 12. ADJOURNMENT

ANY INDIVIDUAL REQUIRING A SPECIAL ACCOMMODATION TO ALLOW ACCESS OR PARTICIPATION AT THIS MEETING IS ASKED TO NOTIFY EARL HAUGEN, MPO EXECUTIVE DIRECTOR AT (701) 746-2660 OF HIS/HER NEEDS FIVE (5) DAYS PRIOR TO THE MEETING. ALSO, MATERIALS CAN BE PROVIDED IN ALTERNATIVE FORMATS: LARGE PRINT, BRAILLE, CASSETTE TAPE, OR ON COMPUTER DISK FOR PEOPLE WITH DISABILITIES OR WITH LIMITED ENGLISH PROFICIENCY (LEP) BY CONTACTING THE MPO EXECUTIVE DIRECTOR (701) 746-2667 FIVE (5) DAYS PRIOR TO THE MEETING.

**PROCEEDINGS OF THE
TECHNICAL ADVISORY COMMITTEE
Wednesday, January 10th, 2018
East Grand Forks City Hall Training Conference Room**

CALL TO ORDER

Earl Haugen, Chairman, called the January 10th, 2018, meeting of the MPO Technical Advisory Committee to order at 1:34 p.m.

CALL OF ROLL

On a Call of Roll the following members were present: Michael Johnson, NDDOT-Bismarck (Via Conference Call); Jane Williams, Grand Forks Engineering; Brad Gengler, Grand Forks Planning; Richard Audette, Airport Authority; Dustin Lang, NDDOT-Local District; Brad Bail, East Grand Forks Consulting Engineer; Paul Konickson, MnDOT-Bemidji; Nick West, Grand Forks County Engineer; and Ali Rood, Cities Area Transit.

Absent were: Nels Christianson, Darren Laesch, Steve Emery, Lane Magnuson, Nancy Ellis, Ryan Riesinger, David Kuharenko, Mike Yavarow, Stacey Hanson, and Rich Sanders.

Staff present: Earl Haugen, GF/EGF MPO Executive Director; Jairo Viafara, GF/EGF MPO Senior Planner; Teri Kouba, GF/EGF MPO Senior Planner; and Peggy McNelis, GF/EGF Office Manager.

Guests present: Bobbi Retzlaf, MnDOT-St. Paul (Via Conference Call); Stephanie Erickson, Grand Forks Planning; and Jesse Kadrmas, NDDOT-Local District.

DETERMINATION OF A QUORUM

Haugen declared a quorum was present.

MATTER OF APPROVAL OF THE DECEMBER 13TH, 2017, MINUTES OF THE TECHNICAL ADVISORY COMMITTEE

MOVED BY LANG, SECONDED BY BAIL, TO APPROVE THE DECEMBER 13TH, 2017, MINUTES OF THE TECHNICAL ADVISORY COMMITTEE, AS SUBMITTED.

MOTION CARRIED UNANIMOUSLY.

Rood reported present.

MATTER OF 2019-2022 T.I.P. CANDIDATE PROJECTS FOR THE MINNESOTA SIDE

Haugen reported that, as noted in the staff report, we did not receive any new projects from MnDOT or Polk County.

Haugen commented that every fourth year East Grand Forks is in line for the City's Sub Target funding, so 2022, which is the last year of this T.I.P. cycle, is the fourth year so East Grand Forks is resubmitting the project they originally had for 2018, and that is the Roundabout at Rhinehart and Bygland Road.

Haugen stated that included in the packet is the 2018 information that was submitted. He explained that they were working with MnDOT on getting what the year of expenditure calculations would or should be so this slide displays that updated information. He pointed out that it now identifies 2022 as the fiscal year and it does have project numbers. He said that the rest of the information is the same as it was before.

Haugen commented that there is an updated financial project cost shown, although the total project cost is very close to what the 2018 cost was as all of the individual components have changed enough to reach a similar 2018 cost/2022 cost.

Haugen stated that the only other newer information is that they have been working on refining the concept, and what this slide is showing is the most recent concept; with the major difference between the one in the packet and this concept is a wider radius, which does necessitate some expansion back to the intersections, so basically the footprint has increased.

Erickson asked why they went with this wider design. Haugen responded that he believes the main factor in going with the larger design to accommodate the larger designed vehicles, larger tractor trailers.

Haugen said that other than this, the standard report just reiterated that MnDOT has a 2021 project out at the U.S. #2/U.S. Business #2 intersection; so with one candidate project that was already programmed once, and that is now being reprogrammed, staff is recommending that it is consistent with our Long Range Transportation Plan and is a top priority for the Sub-Target funding.

MOVED BY WILLIAMS, SECONDED BY ERICKSON, TO APPROVE FORWARDING A RECOMMENDATION TO THE MPO EXECUTIVE POLICY BOARD THAT THEY APPROVE THE FY2019-2022 T.I.P. CANDIDATE PROJECT FOR THE MINNESOTA SIDE, AS BEING CONSISTENT WITH THE MPO LONG RANGE TRANSPORTATION PLAN, AND TO GIVE IT PRIORITY RANKING.

Voting Aye: Williams, Konickson, Gengler, Lang, West, Johnson, Audette, Bail, and Rood.

Voting Nay: None.

Abstain: None.

Absent: Ellis, Riesinger, Christianson, Laesch, Emery, Hanson, Kuharenko, Bergman, Yavarow, Magnuson, and Sanders.

MATTER OF AMENDMENT #2 TO THE ANNUAL UNIFIED WORK PROGRAM

Haugen reported that as we discussed last year, because of some grant constraints the NDDOT used 2014 monies to pay a lot of our 2017 operational costs so we have those 2017 monies available for us to program work activities with. He added that, also as we discussed last month, with the additional river crossing request that the Board approved, some of those monies would go to that project, and we have since received a request from East Grand Forks to assist them with an ADA Right-of-Way Transition Plan.

Haugen commented that this is a requirement under ADA law, and has been a requirement since 1991 or 1992 he believes; however not until MnDOT and Minnesota FHWA placed a strong emphasis on getting this done, and if it isn't they have indicated that they would freeze federal transportation funds to a community that doesn't have an active ADA Transition Plan in place, so East Grand Forks is requesting the MPO to do that activity with them. He said that this has gone through their City Council and a formal request was submitted. He added that they also indicated a willingness to provide the 20% match.

Haugen stated that this request has been added under the Special Studies category, and it will look at all the facilities within the right-of-way including curb ramps, sidewalks, bus stops, possibly parking lots that the City owns. He added that a scope of work will need to be done, which you will see next month, that will define all of the facilities we will be looking at.

Haugen referred to the packet, and pointed out the funding sources and the amounts budgeted. He said that you will notice that with the previous years, 2017 federal funds, we have roughly \$300,000 so far with this amendment, but we will only be budgeting 20% of those funds in activities.

Haugen commented that the East Grand Forks specific item is at \$50,000. He explained that what they are using as a basis for these estimates, and what we will use as an initial scope-of-work draft is from the City of Moorhead, who had FM-COG do similar work for them, so we are basing this off of what their cost was; and they had SRF under contract to do it, so we came up with \$50,000, and set aside \$35,000 for consultant assistance, up to \$35,000.

Haugen summarized that this is proposing to amend our Unified Work Program to fulfill the East Grand Forks request to assist them prepare and update their ADA Right-of-Way Transition Plan.

MOVED BY WILLIAMS, SECONDED BY ROOD, TO APPROVE FORWARDING A RECOMMENDATION TO THE MPO EXECUTIVE POLICY BOARD THAT THEY APPROVE AMENDMENT #2 TO THE 2018 UNIFIED PLANNING WORK PROGRAM TO ASSIST THE CITY OF EAST GRAND FORKS IN PREPARING AN ADA RIGHT-OF-WAY TRANSITION PLAN, SUBJECT TO PARTNER AGENCY REVIEW.

Voting Aye: Williams, Konickson, Gengler, Lang, West, Johnson, Audette, Bail, and Rood.
Voting Nay: None.
Abstain: None.

PROCEEDINGS OF THE
TECHNICAL ADVISORY COMMITTEE
Wednesday, January 10th, 2018

Absent: Ellis, Riesinger, Christianson, Laesch, Emery, Hanson, Kuharenko, Bergman, Yavarow, Magnuson, and Sanders.

MATTER OF DRAFT RFP FOR 2018 AERIAL PHOTOS

Kouba reported that this is an item that the MPO tends to do every three years. She stated that the last time we did it was in 2015, so there are some people that are very excited about getting updated photos.

Kouba stated that this will be done at the same level it was done in 2015, all the specs are pretty much the same, we are just looking at an update, although there was some discussion about getting LiDAR as well, but there wasn't enough interest shown so it is not included in the RFP.

MOVED BY GENGLER, SECONDED BY LANG, TO APPROVE FORWARDING A RECOMMENDATION TO THE MPO EXECUTIVE POLICY BOARD THAT THEY APPROVE THE RFP FOR AERIAL IMAGERY, AS SUBMITTED.

Lang asked if this will include the entire MPO study area. Kouba responded it would. Haugen referred to a slide illustrating the current aerial photo, and asked if they would be replicating this exactly. Kouba responded that there are a couple of little areas that are expanded out a bit to match up with some of the other things we have like the TAZs and such, but other than that it will be pretty much the same.

Johnson stated that, just to offer up a comment after reading the staff report, they have been broadening their allowance for the use of LiDAR on these aerial photo projects as long as it is something that is collected while they are also collecting aerial flight; if it is something that they are doing at the same time they have been allowing it to happen so if that is something that you do want to pursue further you can definitely look into it. He said that in the past they weren't as receptive to LiDAR, but they are not looking at allowing it in terms of collecting the static LiDAR topographic data with the aerial flights.

Haugen asked if Ms. Kouba had gotten any further into the cost of LiDAR. Kouba responded that she didn't. Haugen asked if anyone had a sense of the cost. He added that what he heard Mr. Johnson say is that our consolidated planning funds can be used for LiDAR. Johnson responded that that is correct.

Haugen commented that it is his understanding that someone has recent LiDAR available. Kouba said that there was LiDAR done of the Red River Valley a few years ago that is available on the U.S.G.S. site. Bail added that actually part of the study got into Red River basin and you can get all the LiDAR data from that, and the State of Minnesota flies the entire State with LiDAR and there is data available for that that is out there too, but how close you want it or how tight you want it is the question. He said that LiDAR is an amazing thing, you can actually see the leaves and branches on trees.

**PROCEEDINGS OF THE
TECHNICAL ADVISORY COMMITTEE
Wednesday, January 10th, 2018**

Erickson asked what LiDAR is, is it just a crisper image, is that the difference. Bail responded that it actually reflects survey data, and they did the whole entire Red River Valley, every four inches, and it is amazing what you can get out of it. Johnson commented that what they have allowed in the past is the collection of data to potentially develop a one-foot contour outlook.

Haugen said that what he is hearing is that LiDAR is already available, that is fairly recent. Bail commented that the data is getting older, and if you don't fly it like everything else, obviously it changes over time as new things are developed, so some of the stuff in the Red River Valley was done about eight or nine years ago.

Haugen asked that Ms. Kouba expand on who was showing interest in LiDAR. Kouba responded that East Grand Forks Water and Light was possibly interested in cost sharing something of that nature, but they left it open. Haugen asked if she was able to ask any other agency if they were at all interested. Kouba responded that she did ask Grand Forks City Engineering if they were interested, but they weren't at the time.

Haugen commented that we have an opportunity with some unallocated, or unbudgeted federal planning dollars, so he thinks we are kind of time crunched to ensure that we get the flights flown before the trees leaf out, but he doesn't think we want to delay the RFP for a month, so if there is interest in LiDAR, or if we are hearing that LiDAR is already available, perhaps we just go with the original recommendation for this go-around and not pursue LiDAR, but keep it in the back of our minds for the next three year cycle.

West stated that the RFP could request that it be an option, at a separate price, and considered at the time when proposals receive as an add-on. Williams agreed that she thinks it would be a good idea to have an alternate in the bid item, to include it to see what it is going to cost.

Haugen said he has one technical question for Mr. Johnson; with us not showing it in our budget, asking for that option, is that a concern. Johnson responded that it isn't ideal; if you ended up wanting to include it before you could move forward with that portion of it you would have to do another work program amendment, so if that would cause any delays, that would be something to keep in mind.

After further discussion the consensus was to not pursue doing LiDAR this go-around, and to look into the possibility of doing it in three years.

Voting Aye: Williams, Konickson, Gengler, Lang, West, Johnson, Audette, Bail, and Rood.

Voting Nay: None.

Abstain: None.

Absent: Ellis, Riesinger, Christianson, Laesch, Emery, Hanson, Kuharenko, Bergman, Yavarow, Magnuson, and Sanders.

MATTER OF 2045 STREET/HIGHWAY ELEMENT UPDATE

Haugen reported that he thinks we all thought that we would have five additional river crossings to have traffic analyses done, travel demand forecasting done; at the Technical Advisory

**PROCEEDINGS OF THE
TECHNICAL ADVISORY COMMITTEE
Wednesday, January 10th, 2018**

Committee Meeting that was the recommendation forwarded to the MPO Executive Policy Board, but at that meeting, after some discussion, the motion approved dropped 17th Avenue from the amended Scope of Work, so now the graphic shows that we are now just getting information for four additional river crossings.

Haugen commented that that was the motion, and that is the scope-of-work that was executed with both Kimely-Horn and A.T.A.C. He added that under Robert Rules of Order this motion can be visited at the next meeting of the MPO Board, so we will find out what happens next Wednesday. He explained that if the Board wants to add 17th Avenue back into the Scope-of-Work we would need to do another amendment and another contract scope, so it may or may not come back, but that is where we are at at this time.

Lang asked when it would be able to be presented. Haugen responded that it should be presented to the Technical Advisory Committee next month. He added that it should be distributed in two weeks for review.

Haugen referred to a slide and explained that it contains a section of the draft December 20th, MPO Executive Policy Board Meeting minutes whereby Commissioner Malm gave us some information on some supposed direction the Grand Forks County Engineer was given in regard to the Merrifield Bridge. He said that he hopes everyone had the opportunity to read these draft minutes; and he knows that in listening to the tape, and talking with Mr. West, there seems to be a disconnect in what actually took place versus what was provided to the MPO Board.

West explained that about a month ago he attended the first Grand Forks County Commission meeting in December and said that if we took two mills and saved them for twelve to fifteen years we would have enough money to pay for our half of a bridge across the Red River, just think about it; that is literally all it was, because if we would have done that back in 2007 when the County Commission approved a resolution to support a bridge, we would be there now, doing environmental studies, and moving ahead with a bridge. He said that this is all that occurred, just some general discussion, so he isn't sure how Mr. Malm's comments came about, but maybe there is something going on that he doesn't know about, but to his knowledge he was not given directive to do anything with this.

Haugen commented that he thinks the key thing here is if you took three mills and put it aside for eight years would there be enough money. West responded that it would be close, however he never ran the scenarios. He added that he did take our half of the bridge, which was recently updated in the I-29 Study, and applied a simple inflation rate, then took two mills to cover the cost. He explained that where two mills came from was that State law says that County Commissioners can levy two mills for road and bridge funds at their discretion; up to ten mills at their discretion for road and bridge funds, and we have historically been hovering around eight mills for quite a while, so that means there are two mills that the County Commissioners could levy without having to go to the people for a vote; and just pocket it away for a number of years then we can say, look here is the money; and then he applied two different scenarios of mill levy value increases, that's where the twelve to fifteen years came into the equation, when revenue got ahead of cost. He added that he isn't aware if Polk County is on board with anything, and to his knowledge there wasn't a motion made at that meeting directing him to do anything.

**PROCEEDINGS OF THE
TECHNICAL ADVISORY COMMITTEE
Wednesday, January 10th, 2018**

Haugen said that there is some confusion, but there also seems to be some willingness to consider a county mill levy increase in the future.

West commented that his point wasn't specifically targeting Merrifield, although that was his thought, but it could be anywhere as long as the County Commissioners thought it was worthwhile to spend the county budget on it.

Lang stated that you wouldn't do this without getting Polk County on board first, correct. West responded that that would make the most sense of course, because if it is outside City limits then he wouldn't imagine the City would spend any money on it, therefore it would be up to the County to pay for it.

Bail said that if even if there wasn't a plan they could put aside for two mills, for the time being, and eventually down the road work with whoever they have to get it done too, so they would just be putting money away. Lang stated that we would want our funds to match up at the same time, you wouldn't want to say you can pay for half a bridge in twelve years when Minnesota can't, because you could be doing something else with those monies in the time being.

Haugen commented that you could either assess the two mills and have the bank account build until you have the necessary funds, or you could assess the two mills, bond it out and you pay the bond on an annual basis and start construction sooner than later.

Williams asked if the S.T.I.P. identifies any tentative date for a bridge. She said that she knows it is in our Long Range Transportation Plan, but is there any discussion at the State level as to when that might come back. Haugen responded that the S.T.I.P. is only out to 2021, and the current T.I.P./S.T.I.P. do not have any discussion about additional river crossings between Grand Forks and East Grand Forks. West stated that he doesn't know if it ever would, would it. Haugen responded that it would. West said, though, that it isn't a State Road, and there aren't federal dollars involved. Haugen responded that you would still need to have federal approval as it is regionally significant, so yes it would.

Johnson commented that the tie-in that might come is the permitting process you would need across the river will probably require some sort of federal nexus, and that will, even if you are using 100% local funds, that will tie it all back in to some sort of federal nexus that might require it to be in the T.I.P./S.T.I.P. in order for it to get a permit approved.

Haugen reported that the next item is Draft Goals/Objectives/Standards. He said that these were distributed out last month, asking for your comments by next week.

Haugen commented that since that meeting, we have been discussing, at various times, about autonomous vehicles and how they might be impacting the future of our transportation system. He added that if you read last month's minutes we state that it is too much of a wild guess, but there are some things that we are going to be doing to consider advances in autonomous vehicles and also connected vehicles; vehicle to vehicle and vehicle to infrastructure.

**PROCEEDINGS OF THE
TECHNICAL ADVISORY COMMITTEE
Wednesday, January 10th, 2018**

Haugen stated that in 2019 we are going to be updating our ITS Regional Architecture, and at that time we will have to build a framework for the software capabilities of communicating back and forth so we added this language into Goal #6, where our current stuff that relates primarily to ITS Architecture exists. He referred to a slide showing these goals and objectives and went over them briefly, explaining that the reason we aren't keeping this right under the architecture as a standard is because a lot of this advances outside of the architecture itself, so we are trying to keep in mind what autonomous vehicles and connected vehicles can provide.

Williams asked if Mr. Haugen could send the document out again that he wants comments on to ensure she has the correct one. Haugen responded he would do that. He added that the only comments that have been received so far are from MnDOT.

Haugen reported that, lastly, they were going to try to take some time to talk about the programming side of target setting, but due to scheduling issues we are not able to do it at this time, but he is still hopeful that prior to our decision in February that we can schedule a special meeting to have that discussion take place. He said that they are also continuing to work with both States on PM2 and PM3 measures which are due in May at the State level.

Haugen said that you should be getting, from the constant contact e-mails, a reminder to do the financial tool that is currently on-line. He pulled up the webpage: theforksstreets2045.org, and asked that everyone please go to the site and participate in the activity. He added that they currently have around 50 responses to this on-line tool, so if you wouldn't mind sharing it, that would be helpful as well.

OTHER BUSINESS

- a. 2017 Annual Work Program Project Update

Haugen reported that the monthly work program progress report was included for your review.

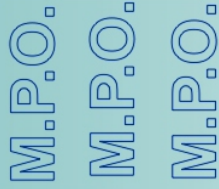
ADJOURNMENT

***MOVED BY WILLIAMS, SECONDED BY LANG, TO ADJOURN THE JANUARY 10TH,
2018, TECHNICAL ADVISORY COMMITTEE MEETING AT 2:10 P.M.***

MOTION CARRIED UNANIMOUSLY

Respectfully submitted by,

Peggy McNelis,
Office Manager



Grand Forks - East Grand Forks Metropolitan Planning Organization

MPO Staff Report **Technical Advisory Committee: February 14, 2018** **MPO Executive Board: February 21, 2018**

RECOMMENDED ACTION: Approval of the Request for Quotes for the East Grand Forks ADA Transition Plan.

Matter of the RFQ for East Grand Forks ADA Transition Plan.

Background:

The Americans with Disabilities Act (ADA) became Federal Law on January 26, 1992. The Act comprises five titles prohibiting discrimination against disabled persons within the United States. Title II of the ADA requires state and local governments to make programs, services, and activities accessible to persons with disabilities. It also established physical access requirements for public facilities, including pedestrian and transit oriented facilities.

Although the ADA required transitions plans to be developed to inform everyone how the full access was going to be done, very few agencies have prepared nor maintain these required transition plans. FHWA-MN and MnDOT placed renewed emphasis on progress towards ADA compliance, particularly within the public right of way. In order for the agencies requesting federal transportation funds to be programmed in the TIP, a ADA transition plan must be done.

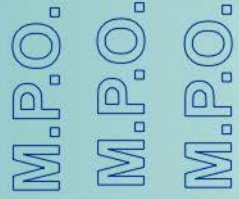
The City and the MPO has put together a RFQ to have a firm do the necessary work to prepare a Transition Plan for the City. Although typically, the MPO utilizes the qualification based selection process, due to the low budget and based upon recent results and in compliance with NDDOT guidance, the MPO will seek quotes from pre-qualified consultants. Therefore, costs will be one of the selection criteria. The plan will take nine months for the final plan to be completed and a consultant budget of \$35,000.

Findings and Analysis:

- UPWP identifies the completion of the East Grand Forks Transition Plan.

Support Materials:

- Draft RFQ



Grand Forks - East Grand Forks Metropolitan Planning Organization

Grand Forks – East Grand Forks Metropolitan Planning Organization

Request for Quotes for Transportation Planning Services

East Grand Forks ADA Transition Plan

March 2018

**REQUEST FOR QUOTES
FOR
TRANSPORTATION PLANNING SERVICES**

The Grand Forks – East Grand Forks Metropolitan Planning Organization (MPO) requests quotes from qualified consultants for the following project:

East Grand Forks ADA Transition Plan

Criteria will be used to analyze technical submittals from responding consultants. Upon completion of technical ranking, the MPO will enter into contract negotiations with the top ranked firm. The MPO reserves the right to reject any or all submittals. This project has a budget of \$35,000 dollars.

All quotes received by **March 23, 2018** at Noon at the MPO Office will be given equal consideration. Minority, women-owned, and disadvantaged business enterprises are encouraged to participate. Quotes should be shipped to ensure timely delivery to:

Teri Kouba
Senior Planner
Grand Forks – East Grand Forks MPO
600 DeMers Ave.
East Grand Forks, Minnesota 56721
teri.kouba@theforksmpo.org
Phone: 218/399/3372 (M-W-F) or 701/746/2656 (T-Th)

Once submitted, the quotes become the property of MPO.

I. Requirements

A. *Selection Committee*

The technical quotes will be reviewed by the Selection Committee, which may include staff from local municipalities and multi-jurisdictional bodies as follows:

- ADA Title II Coordinator
- City Administrator
- Public Works
- MPO Staff

Once the written quotes are received, the Selection Committee will meet to rank the quotes. Firms may be asked to expand upon particular points in their written quotes and should be prepared to do so.

B. *Disadvantaged Business Enterprise*

In the performance of this agreement, the contractor shall cooperate with MPO in meeting its goals with regard to the maximum utilization of disadvantaged business enterprises, and will use its best efforts to ensure that such business enterprises shall have the maximum practical opportunities to compete for subcontract work under this agreement.

1. Policy

It is the policy of the Department of Transportation that disadvantaged business enterprises as defined in 49 CFR Part 23, shall have the maximum opportunity to participate in the performance of contracts financed in whole or in part with federal funds under this Agreement. Consequently, the DBE requirements of 49 CFR Part 23 applies to this Agreement.

2. DBE Obligation

The MPO and contractor agree to ensure that disadvantaged business enterprises as defined in 49 CFR Part 23 have the maximum opportunity to participate in the performance of contracts and subcontracts financed in whole or in part with federal funds provided under or pursuant to this Agreement. In this regard, the contractor shall take all necessary and reasonable steps in accordance with 49 CFR Part 23 to ensure that disadvantaged business enterprises have the maximum opportunity to compete for and perform contracts. The contractor shall not discriminate on the basis of race, creed, color, national origin, age, or sex in the award and performance of DOT-assisted contracts.

C. *Equal Employment Opportunity*

In connection with this proposal and any subsequent contract, the consultant shall not discriminate against any employee or applicant for employment because of race, color, creed, religion, national origin, disability, sex, or status regarding public assistance. The consultant will take action to ensure that its employees are fairly treated during employment without regard to their race, color, creed, religion, national origin, disability, sex, or status regarding public assistance. Such actions shall include, but not be limited to the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising, layoff or termination; rate of pay or other forms of compensation; and selection for training, including internship and/or apprenticeship. The consultant further agrees to insert a similar provision in all subcontracts, except subcontract for standard commercial supplies or raw materials. The consultant will furnish all necessary information and reports and will permit access to its books, records, and accounts by the MPO and/or its representatives including state and federal agencies, for purposes of investigation to ascertain compliance with non-discrimination provisions or any resultant contract.

D. *Ownership, Publication, Reproduction, and Use of Materials*

All work products of the contractor which result from this contract are the exclusive property of MPO, local

partners, and its federal/state grantor agencies. No material produced in whole or part under this agreement shall, during the life of this agreement, be subject to copyright in the United States or in any other country. Permission and approval must be obtained from the MPO before any report, handbook, cassettes, manual, interim data, or results are published. Draft copies of all deliverables must be prepared by the consultant and reviewed and approved by the MPO before publication. The consultant, subject to the approval by the MPO, shall have the authority to publish, disclose, distribute, and otherwise use in whole and part, any reports, data, or other materials prepared under this agreement.

E Records, Access, and Audits

The consultant shall maintain complete and accurate records with respect to allowable costs incurred and manpower expended under this contract. All such records shall be maintained on a generally accepted accounting basis and shall be clearly identified and readily accessible. The consultant shall provide free access to the representatives of MPO, the US Department of Transportation, and the Comptroller General of the United States at all proper times to such data and records, and their right to inspect and audit all data and records of the Consultant relating to his performance under the contract; and to make transcripts there from as necessary to allow inspection of all work data, documents, proceedings, and activities related to this contract for a period of three (3) years from the date of the final payment under this contract.

F Conflicts of Interest

No official or employee of the MPO, state, or any other governmental instrumentality who is authorized in his official capacity to negotiate, accept, or approve, or to take part in negotiating, accepting, or approving any contract or subcontract in connection with a project shall have, directly or indirectly, any financial or other personal interest in any such contract or subcontract. No engineer, attorney, appraiser, inspector, or other person performing services for the MPO, state, or a governmental instrumentality in connection with a project shall have, directly or indirectly, a financial or other personal interest other than his employment or retention by the MPO, state, or other governmental instrumentality, in any contract or subcontract in connection with such project. No officer or employee of such person retained by the MPO, state, or other governmental instrumentality shall have, directly or indirectly, any financial or other personal interest in a project unless such interest is openly disclosed upon the public records of the MPO, the NDDOT, the MnDOT, or such other governmental instrumentality, and such officer, employee, or person has not participated in such acquisition for and in behalf of the state.

G. Eligibility of Proposer, Non-procurement, Debarment and Suspension Certification; and Restriction on Lobbying

The consultant is advised that his or her signature on this contract certifies that the company/agency will comply with all provisions of this agreement, as well as applicable federal and state laws, regulations, and procedures. Moreover the consultant affirms its compliance with the federal Debarment and Suspension Certification and the Federal Restrictions on Lobbying.

H Subcontracting

The contractor may, with prior approval from the MPO, subcontract as necessary to accomplish the contract objectives. Subcontracts shall contain all applicable provisions of this agreement, and copies of the subcontract must be filed with the MPO.

I Assignments

The contractor shall not assign or transfer the contractor's interest in this agreement without the express written consent of the MPO.

J Procurement - Property Management

The Contractor shall adhere to 2 CFR 200 when procuring services, supplies, or equipment, which are incorporated into this agreement by reference and are available from NDDOT.

K Termination

The right is reserved by either party to terminate this agreement with or without cause at any time if the recipient does not comply with the provisions of this agreement or its attachments.

If the MPO terminates this agreement, it reserves the right to take such action as it deems necessary and appropriate to protect the interests of the MPO, and its state/federal grantor agencies. Such action may include refusing to make any additional reimbursements of funds and requiring the return of all or part of any funds that have already been disbursed.

L Amendments

The terms of this agreement shall not be waived, altered, modified, supplemented, or amended in any manner whatsoever, except by written instrument signed by the parties.

M Civil Rights

The contractor will comply with all the requirements imposed by Title VI of the Civil Rights Act of 1964 (78 STAT. 252), the regulation of the Federal Department of Transportation, 49 CFT, Part 21, and Executive Order 11246.

The contractor shall not discriminate against any employee or applicant for employment because of race, religion, color, sex, age, handicap, or national origin. The contractor shall take affirmative action to ensure that applicants are employed and that employees are treated during their employment without regard to their race, religion, color, sex, age, handicap, or national origin. Such actions shall include but not be limited to the following: employment, upgrading, demotion or transfer, recruitment or advertising, layoff or termination, rates of pay, or other forms of compensation, and selection for training, including apprenticeship. Furthermore, the contractor agrees to insert a similar provision in all subcontracts, except subcontracts for standard commercial supplies or raw materials.

N Civil Rights - Noncompliance

If the contractor fails to comply with the federal or state civil rights requirements of this contract, sanctions may be imposed by the FHWA or the NDDOT as may be appropriate, including, but not limited to:

1. Withholding of payments to the contractor under the contract until the contractor complies, or
2. Cancellation, termination, or suspension of the contract, in whole or in part.

O Energy Efficiency

The contractor shall comply with the standards and policies relating to energy efficiency which are contained in the North Dakota Energy Conservation Plan issues in compliance with the Energy Policy & Conservation Act, Public Law 94-163, and Executive Order 11912.

P Handicapped

The contractor shall ensure that no qualified handicapped individual, as defined in 29 USE 706(7) and 49 CFR Part 27 shall, solely by reason of this handicap, be excluded from participation in, be denied the benefits of, or otherwise be subjected to discrimination under any program or activity that receives or benefits from the assistance under this agreement.

Q EPA Clean Act and Clean Water Acts

The contractor shall comply with the Clean Air Act, 42 U.S.C. 1857; the Clean Water Act, 33 U.S.C. 1251; EPA regulations under 40 CFR Part 15, which prohibits the use of nonexempt federal contracts, grants, or loans of facilities included on the EPA List of Violating Facilities, and Executive Order 11738.

R Successors in Interest

The provisions of this agreement shall be binding upon and shall ensure to the benefit of the parties hereby, and their respective successors and assigns.

S Waivers

The failure of the MPO or its local state/federal grantors to enforce any provisions of this contract shall not constitute a waiver by the MPO or its state/federal grantors of that or any other provision.

T Notice

All notices, certificates, or other communications shall be sufficiently given when delivered or mailed, postage prepaid, to the parties at their respective places of business as set forth below or at a place designated hereafter in writing by the parties.

U Hold Harmless

The contractor shall save and hold harmless the MPO, its officer, agents, employees, and member units of government, and the State of North Dakota and Minnesota and the NDDOT and MnDOT, its officers, agents, employees, and members from all claims, suits, or actions of whatsoever nature resulting from or arising out of the activities of the contractor or its subcontractors, agents, or employees under this agreement. It is hereby understood and agreed that any and all employees of the contractor and all other persons employed by the contractor in the performance of any of the services required or provided for under this agreement shall not be considered employees of the MPO, its member units of government, the NDDOT, or the MnDOT and that any and all claims that may arise under the Worker’s Compensation Act on behalf of said employees while so engaged and any and all claims by any third parties as a consequence of any act or omission on the part of said contractor’s employees while so engaged in any of the services to be rendered under this agreement by the contractor shall in no way be the obligation or responsibility of the MPO or its member units of government.

V Compliance with Federal Regulations

The contractor is advised that his or her signature on this contract certifies that its firm will comply with all provisions of this agreement as well as applicable federal and state laws, regulation, and procedures. Moreover, the contractor affirms its compliance with the federal Debarment and Suspension Certification and the federal Restrictions on Lobbying.

II. PRELIMINARY PROJECT SCHEDULE

A. Consultant Selection

Request Quotes from Pre- Qualified Firms	February 28, 2018
Receive Quotes	March 23, 2018
Selection Committee Activity:	
Review Quotes	March 28, 2018
Select Finalist	March 28, 2018
Contract Negotiations Completed	March 29, 2018
MPO Policy Board Approval of Consultant Selection and Contract	April 18, 2018

B. Project Development

Notice to Proceed	April 25, 2018
First full Draft Report Submittal	October 25, 2018
Final Report Submittal	January 25, 2019

III EVALUATION CRITERIA & PROCESS

The MPO in close coordination with members of the Selection Committee will evaluate the quotes based on, but not

limited to, the following criteria and their weights:

A. Nature of the project (20 points)

1. Does the firm show an understanding of the scope of work?

B. Proximity of consultant to project (10 points)

C. Past Performance (20 points)

1. Does the firm routinely deliver desired products in a timely manner?
2. Does the consultant routinely demonstrate initiative, efficient use of time and resources, and reliability in completing their projects?

D. Capability of consultant to produce the required services (25 points)

1. What are the technical and professional skills of each team member?
2. What will be the assigned role each member will play?

E. Ability to meet budget requirements (25 points)

1. Can the team members devote the time and resources necessary to successfully complete this project?

Each quote will be evaluated on the above criteria by the Selection Committee. The Committee will determine which firm would best provide the services requested. The qualifying firm chosen by the Selection Committee will enter into a contract and fee negotiation based on the cost proposal.

The MPO is an Equal Opportunity Employer.

IV TERMS AND CONDITIONS

- A. The MPO reserves the right to reject any or all quotes, or to award the contract to the next most qualified firm if the successful firm does not execute a contract within forty-five (45) days after the award of the proposal.
- B. The MPO reserves the right to request clarification of information submitted and to request additional information of one or more applicants.
- C. Any quote may be withdrawn up until the date and time set for the opening of the quotes. Any quotes not so withdrawn shall constitute an irrevocable offer, for a period of 90 days, to provide to the MPO the services set forth in the attached specifications, or until one or more of the quotes have been approved by the MPO Policy Board.
- D. If, through any cause, the firm shall fail to fulfill in timely and proper manner the obligations agreed to, the MPO shall have the right to terminate its contract by specifying the date of termination in a written notice to the firm at least ninety (90) working days before the termination date. In this event, the firm shall be entitled to just and equitable compensation for any satisfactory work completed.
- E. Any agreement or contract resulting from the acceptance of a proposal shall be on forms either supplied by or approved by the MPO and shall contain, as a minimum, applicable provisions of the Request for Qualifications. The MPO reserves the right to reject any agreement that does not conform to the Request for Qualification and any MPO requirements for agreements and contracts.
- F. The firm shall not assign any interest in the contract and shall not transfer any interest in the same without prior written consent of the MPO.

V. QUOTE FORMAT AND CONTENT

Quotes shall include the following sections at a minimum:

1. Summary of Proposed Technical Process/Planning Process
2. Description of Similar Projects
3. Project Staff Information including breakdown of estimated staff hours by each staff class per task
4. References
5. DBE/MBE Participation
6. Cost Quotes

VI. Cost Quotes/Negotiations

1. Cost Quotes

Submit a cost quote for the project work activities. Cost quotes will be separated from technical proposal. Cost Quotes shall be based on hourly “not to exceed” amount. Cost quotes must be prepared using the format provided in Appendix B. Attached to the Cost Quote the Certification of Indirect Rate Form also provided in Appendix B.

2. Contract Negotiations

The MPO will negotiate a price for the project after the Selection Committee completes its final ranking of the consultants. Negotiation will begin with the most qualified consultant. If the MPO is unable to negotiate a fair and reasonable contract for services with the highest ranking firm, negotiations will be formally terminated, and will begin with the next most qualified firm. This process will continue until a satisfactory contract has been negotiated.

The MPO reserves the right to reject any, or all, submittals.

VII. BACKGROUND AND SCOPE OF WORK

Purpose

The Americans with Disabilities Act (ADA) became Federal Law on January 26, 1992. The Act comprises five titles prohibiting discrimination against disabled persons within the United States. Title II of the ADA requires state and local governments to make programs, services, and activities accessible to persons with disabilities. It also established physical access requirements for public facilities, including pedestrian and transit oriented facilities. In order for the City of East Grand Forks (the City) to comply with the changes in the Act and guidance from the State of Minnesota, the City must manage efficiently the removal of barriers. The City will also need to identify and prioritize activities to remove these barriers.

The City under Title II of the ADA is required to conduct a Self-Evaluation of the public Right of Way (ROW) and to formulate and carry out a transition plan (§35.105). The Self-Evaluation plan requested will be limited to assuring that the City meets mandated needs of providing access to pedestrian and transit modes of travel. This project consists of identifying intersections, pedestrian crossings, and on-street transit facilities within the City that do not meet current ADA access guidelines and developing a plan to bring these areas into compliance. The scope of this project will center on updates to the public ROW. Non-ROW issues will be done internally.

The Self-Evaluation of the public ROW will be a comprehensive assessment of policies, procedures, and transportation elements to identify and correct barriers that limit otherwise qualified persons with disabilities from accessing and using pedestrian facilities,

The City is seeking qualified professional firms and individuals experienced in the evaluation and development of program and accessibility plans to submit a Request for Quotes to provide consulting services to produce the City’s ADA Self-Evaluation of the public ROW and Transition Plan for pedestrian access routes and public ROW. Additional actions may be included as the Consultant deems appropriate based on their experience. All actions related to this project must conform to standards and specifications of the Americans with Disabilities Act.

Project Tasks

Outlined below is the scope of work that will guide development of this project. The MPO and City has included the following scope of work to provide Consultants insight into the project intent, context, coordination, responsibilities, and other elements to help facilitate project development.

At minimum, the consultant shall be expected to establish detailed analysis, recommendations and/or deliverables for the following tasks:

Task 0- Project Management

This task involves activities required to manage the project including staff, equipment, and documentation. It also includes the preparation of progress reports, documenting travel and expense receipts, and preparing and submitting invoices. It is imperative to consider the public and keep it informed of the planning activities and outcomes using strategies that include the use of the internet and social media. Maintaining a project website or providing information to the MPO and the City for posting on its website will be required. This task also includes monthly progress meeting with the Client, the preparation of meeting agendas, and taking and reporting meeting minutes.

Task 1- Policy Review

The Consultant will assist City and MPO staff in identifying all necessary documents and materials to conduct a self-evaluation and audit process. Review and evaluation of City policies, programs, facilities, public right-of-ways, and activities to identify issues which may be discriminatory to people with disabilities. Policy documents will include those City policy documents that affect the public. The Consultant shall make recommendations for policy changes or for enacting new policies.

The Consultant shall review and evaluate current City policies, programs and practices in order to identify issues, which may be discriminatory to people with disabilities and their ability to use pedestrian and transit facilities within the City. The review will include City policy documents that affect the public. The review should also evaluate the current level of program accessibility, including eligibility requirements, participation requirements, facilities used, staffing, transportation, communication, grievance procedures and emergency procedures.

Task 3- Self-Evaluation of the public ROW and Transition Plan

The Consultant shall develop the comprehensive ADA Self-Evaluation of the public ROW and Transition Plan based upon the results of the barrier assessments, policy review, and City and MPO staff guidance. The Transition Plan shall include all requisite information to comply with Title II of the ADA for such a plan, including, but not limited to the following:

- Methodology for the Self-Evaluation of existing barriers to accessibility;
- Summary of the findings of the Self-Evaluation of facilities, policies, programs, and practices;
- Summary of the ADA Transition Plans from MnDOT and Polk County;
- Identify barriers and provide recommendations of mediation measures to correct deficiencies and the prioritization of barrier remediation;
- Cost estimates of remediation measures;
- Implementation schedule that includes short-, mid-, and long-term efforts for remediation;
- Procedures for periodically reviewing and updating the Transition Plan.

All activities will be vetted through the Project Review Committee and the public.

Task 4- Management System

Establish an actively managed tracking system database to update barrier removals as they are performed by City staff and to provide a medium for monitoring and updating the progress. The Consultant will provide training, as needed, to City and MPO staff in the use, maintenance, and update of the proposed management system.

All database files shall be the property of the MPO and electronic files shall be submitted in a non-proprietary format.

Task 5- Public Involvement

The Consultant shall propose and lead a process for interested persons, including individuals with disabilities or organizations representing individuals with disabilities, to participate in the Self-Evaluation of the public ROW and

development of the transition plan. The process may involve surveys, workshops, or other such methods as proposed by the Consultant. The consultant must involve individuals with disabilities in the evaluation of sites, as required by Title II.

Additional efforts in this area will include a City Council presentation regarding the importance of ADA, the results of the Self-Evaluation, presenting the Access Audit reports and any recommendations offered by the evaluation.

Task 6- Time Frame

The City seeks to have the results of this study completed within nine (9) months after the issuance of the Notice to Proceed. If the Consultant deems this unreasonable based on prior experience, a suitable completion date shall be clearly identified and an explanation given as to why the preferred date would be unrealistic.

A. Consultant Responsibilities

1. Policy changes and new policy recommendations.
2. Sidewalk and curb ramp survey and report.
3. Establishment of Management System for sidewalks and curb ramps.
4. Self-Evaluation of the public ROW and Transition Plan

B. Project Deliverables

- Sidewalk and Curb Ramp Survey report
- Policy review and recommendations
- Management system
- Self-Evaluation of the public ROW and Transition Plan
 - The final product will show recommendations of the Transition Plan.

1. A first full draft report by noon, October 25, 2017 (10 full draft copies)
2. An approved final report January 25, 2017 (25 full copies)

One electronic copy of the approved final reports will be delivered to the Grand Forks-East Grand Forks MPO in PDF format. The electronic copies should be complete and in order such that additional copies of either document could be printed on-demand. In addition, electronic copies of any pertinent working papers and software either during the project or at its conclusion will be delivered to the MPO.

C. Estimated Project Budget

The MPO has budgeted \$35,000 to compensate the selected consultant to complete the scope of work as identified.

D. Other Requirements

The consultant will update the Project Manager on an on-going basis, along with a written monthly progress report which will clearly reflect progress, timeliness, and budget expenditures. The monthly progress report will be required with the submission of each invoice.

VIII. INFORMATION AVAILABLE FOR CONSULTANT

A. General Information

The following resource data / information is available for the project:

2015 Aerial Photography

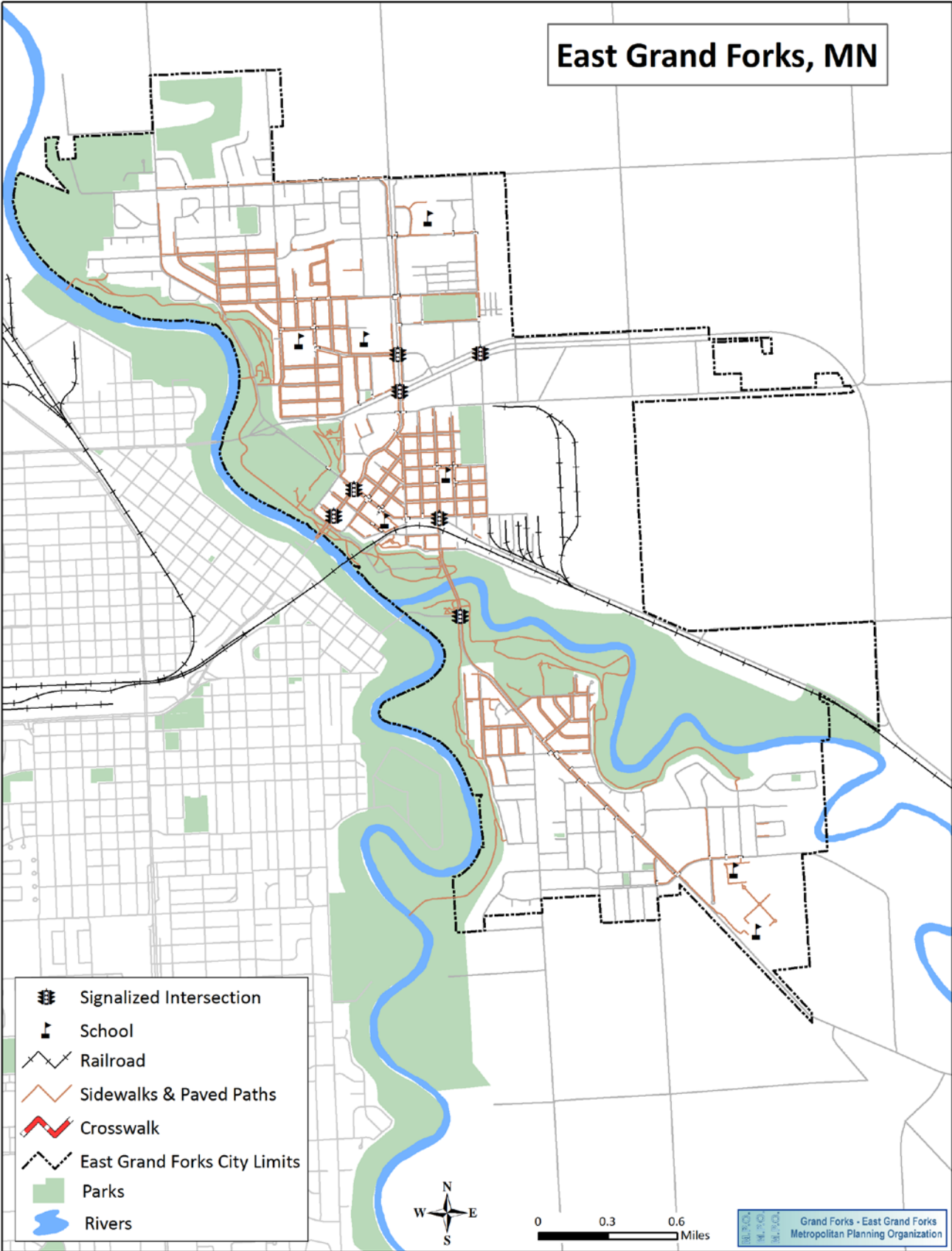
Grand Forks/East Grand Forks Long Range Transportation 2040 Plan

Digital Zoning and Land Use Maps

Various City Shapefiles

IX. MAP OF PROJECT AREA – next page

East Grand Forks, MN



APPENDIX A
ATTACHMENTS 1 & 2

DEBARMENT OR SUSPENSION CERTIFICATION

The Participant, _____ (name of firm) certifies to the best of its knowledge and belief, that it and its principals:

1. Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency;
2. Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State, or Local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;
3. Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State, or Local) with commission of any of the offenses enumerated in paragraph two (2) of this certification; and
4. Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State, or Local) terminated for cause of default.

THE PARTICIPANT, CERTIFIES OR AFFIRMS THE TRUTHFULNESS AND ACCURACY OF THE CONTENTS OF THE STATEMENTS SUBMITTED ON OR WITH THIS CERTIFICATION AND UNDERSTANDS THAT THE PROVISIONS OF 31 U.S.C. 3801 ET SEQ. ARE APPLICABLE THERETO.

(Signature of Authorized Official)

Date

(Title of Authorized Official)

CERTIFICATION
OF
RESTRICTION ON LOBBYING

I _____, hereby certify
on behalf of

(Name and title of grantee official)

_____ that:

(Name of grantee)

- (1) No federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
- (2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying" in accordance with its instructions.
- (3) The undersigned shall require that the language of this certification be included in the award documents for all sub-awards at all tiers (including sub-contracts, sub-grants, and contracts under grants, loans, and cooperative agreements) and that all sub-recipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance is placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, US Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

Executed this _____ day of _____, _____

By _____
(Signature of Authorized Official)

(Title of authorized official)

APPENDIX B COST QUOTE FORM

**(Include completed cost form in a separate Page labeled
“COST FORM - Vendor Name”
and submit with technical proposal as part of overall response.)**

COST QUOTE FORM

The cost estimated should be based on a not to exceed cost as negotiated in discussion with the most qualified contractor.
Changes in the final contract amount and contract extensions are not anticipated.

**REQUIRED BUDGET FORMAT
Please Use Audited DOT Rates Only
East Grand Forks ADA Transition Plan**

1. Direct Labor	Hours	X	Rate	=	Total
Name, Title, Function	0.00	X	0.00	=	0.00
		X			
		X			
		X			
2. Overhead					
3. General & Administrative Overhead					
4. Subcontractor Costs					
5. Materials and Supplies Costs					
6. Travel Costs					
7. Fixed Fee					
8. Miscellaneous Costs					
Total Cost					

Certification of Final Indirect Costs

Firm Name: _____

Proposed Indirect Cost Rate: _____

Date of Proposal Preparation (mm/dd/yyyy): _____

Fiscal Period Covered (mm/dd/yyyy to mm/dd/yyyy): _____

The undersigned, certify that I have reviewed the proposal to establish final indirect cost rates for the fiscal period as specified above and to the best of my knowledge and belief:

1. All costs included in this proposal to establish final indirect cost rates are allowable in accordance with the cost principles of the Federal Acquisition Regulations (FAR) of title 48, Code of Federal Regulations (CFR), part 31.
2. This proposal does not include any costs which are expressly unallowable under the cost principles of the FAR of 48 CFR 31.

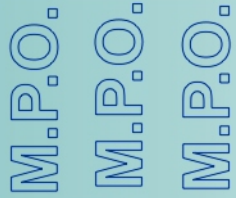
All known material transactions or events that have occurred affecting the firm's ownership, organization and indirect cost rates have been disclosed.

Signature: _____

Name of Certifying Official (**Print**): _____

Title _____

Date of Certification (mm/dd/yyyy): _____



Grand Forks - East Grand Forks Metropolitan Planning Organization

MPO Staff Report **Technical Advisory Committee: February 14, 2018** **MPO Executive Board: February 21, 2018**

RECOMMENDED ACTION: Recommend the approval of FY2018 MN Side TIP amendment to the MPO Executive Board.

Matter of the Public Hearing on FY2018 MN Side TIP Amendment.

Background: After the MPO adopts a four year TIP, amendments may need to be process when a project cost estimate changes significantly or the scope of the project changes or federal programs have announced funding awards.

The City of East Grand Forks is requesting to amend the project scope for the reconstruction of Rhinehart to affect less length of street reconstruction, resulting in a reduction in cost. The change is due to the possibly larger impact the FY2022 roundabout may have on Rhinehart; hence, the City does not want to construct new in 2018 and then possibly remove it in 2022 for the roundabout. With the cost change, the City seeks to use these funds to make ADA compliance items along 17th Ave N. between River Road and Central Avenue. The total dollars are not affected; therefore, the fiscal constraint is not compromised.

The attached proposed project amendment shows the new modified project. Also attached is the public hearing notice (being held at the TAC meeting) that was published concerning this proposed amendment.

Findings and Analysis:

- Project modifications have been identified.
- The proposed project is consistent with the MPO Long Range Transportation Plan.
- A Public Hearing is scheduled for February 14th at the TAC meeting; written comments are being accepted until 11:00 am, February 14th.
- These amended project does not impact funds in the TIP so fiscal constraint is maintained.

Support Materials:

- Copy of Public Hearing Notice.
- Copy of Amendment



Grand Forks - East Grand Forks Metropolitan Planning Organization

PUBLIC HEARING

The Grand Forks – East Grand Forks Metropolitan Planning Organization (MPO) will hold a public hearing on proposed amendment to the MPO’s 2018-2021 Minnesota side Transportation Improvement Program (TIP). The TIP lists all transportation improvement projects needing federal action programmed to be completed between the years 2018 to 2021. The TIP also incorporates the local transit operator’s Program of Projects (POP). The hearing will be held in Training Room of East Grand Forks City Hall, 600 DeMers Ave, East Grand Forks MN. The hearing will begin at 1:30 PM on February 14, 2018. The public is encouraged to attend.

A copy of the proposed amendment is available for review and comment weekdays between 8:00 a.m. and 5:00 p.m. at the MPO Offices in Grand Forks City Hall and East Grand Forks City Hall. Comments on the proposed amendment can be submitted to either MPO office until 11:00 AM on February 13th.

For further information, contact Mr. Earl Haugen at 701/746/2660. The GF-EGFMPO will make every reasonable accommodation to provide an accessible meeting facility for all persons. Appropriate provisions for the hearing and visually challenged or persons with limited English Proficiency (LEP) will be made if the meeting conductors are notified 5 days prior to the meeting date, if possible. To request language interpretation, an auxiliary aid or service (i.e., sign language interpreter, accessible parking, or materials in alternative format) contact Earl Haugen of GF-EGFMPO at 701-746-2660. TTY users may use Relay North Dakota 711 or 1-800-366-6888. Materials can be provided in alternative formats: large print, Braille, cassette tape, or on computer disk for people with disabilities or with LEP by Earl Haugen of GF-EGFMPO at 701-746-2660. TTY users may use Relay North Dakota 711 or 1-800-366-6888.

(Please publish ASAP)

(Please submit bill to MPO 746-2660)

Request for Council Action

Date: January 4, 2018

To: East Grand Forks City Council, Mayor Steve Gander, President Mark Olstad, Council Vice President Chad Grassel, Council Members: Clarence Vetter, Henry Tweten, Marc Demers, Tim Riopelle and Mike Pokrzywinski.

Cc: File

From: Steve Emery, P.E.

RE: Rhinehart Drive Construction
2018 Assessment Job No. 2
Street and Pedestrian Improvements

Background:

As part of the City's Federal project for this year the current plan is to do a complete reconstruction of Rhinehart Drive from 6th St SE to Bygland Road. However, as we have continued to work with Alliant Engineering on some preliminary design for a future roundabout at Bygland Rd and Rhinehart Drive, there is a good potential for a fair amount of reconstruction / realignment of Rhinehart Drive. (See Attached drawing). With the potential for reconstruction work on Rhinehart Drive we are recommending for your consideration, that in lieu of a complete reconstruction project at this time that we just complete a Mill and Overlay. The estimated price reduction for just construction is estimated at approximately \$266,000.00. A change in scope of work would require us to complete an amendment to the Project Memorandum that was approved by MNDOT in 2017. Also, with the change in scope of work on Rhinehart Drive and wanting to maximize the use of the \$860,000 in Federal grant dollar (80/20) we need to have approximately \$1,100,000 in construction costs. Therefore, we are recommending adding a project area. The project area would be along 17th St NW from Highway 220 to River Road NW. The project would consist of bringing the handicap ramps along the corridor into compliance with current ADA Standards which would tie together well with the ADA Transition plan which the City and MPO are currently looking to develop. The project may also include filling in some gaps in the sidewalk system along the corridor.

In summary the project options would be as such:

- 1.) Multi – Use Trail Highway 2:** This project would consist of construction of an 8' multi-use trail in the Median between Highway 220 and the frontage road from 20th St NW to Highway 2.
- 2.) Greenway Boulevard Reconstruction & Sidewalk Improvements:** This project would consist of reconstruction of the center median along Greenway Boulevard in select locations to improve access to and from 12th Ave SE and 13th Ave SE. The project would also include construction of a sidewalk from Bygland Road to Rhinehart Drive along the south side of Greenway Boulevard.

- 3.) **Bygland Road and 13th St SE:** This project would include pedestrian safety Improvements at this intersection.
- 4.) **Rhinehart Drive Reconstruction:** This project would consist of a Mill and Overlay on the Bituminous Pavement section adjacent to the Minnesota or Point Bridge.
- 5.) **1st Ave SE Mill and Overlay:** This project would consist of a Mill and Overlay on the Bituminous Pavement section adjacent to the Minnesota or Point Bridge.
- 6.) **17th St NW:** This project would consist of bringing the handicap ramps along 17th St NW into compliance with current ADA Standards. The project may also include filling in some gaps in the sidewalk system along the corridor.

The following is the estimated project costs for the above options:

PROPOSED BUDGET	Construction Cost	Engineering, Admin & Legal
Option 1:	\$336,776.00	\$76,540.00
Option 2:	\$296,087.00	\$67,292.00
Option 3:	\$225,000.00	\$56,250.00
Option 4:	\$83,038.00	\$18,872.00
Option 5:	\$25,000.00	\$6,250.00
Option 6	\$215,777.00	\$55,045.00
Subtotal	\$1,181,678.00	\$280,249.00

PROPOSED FUNDING

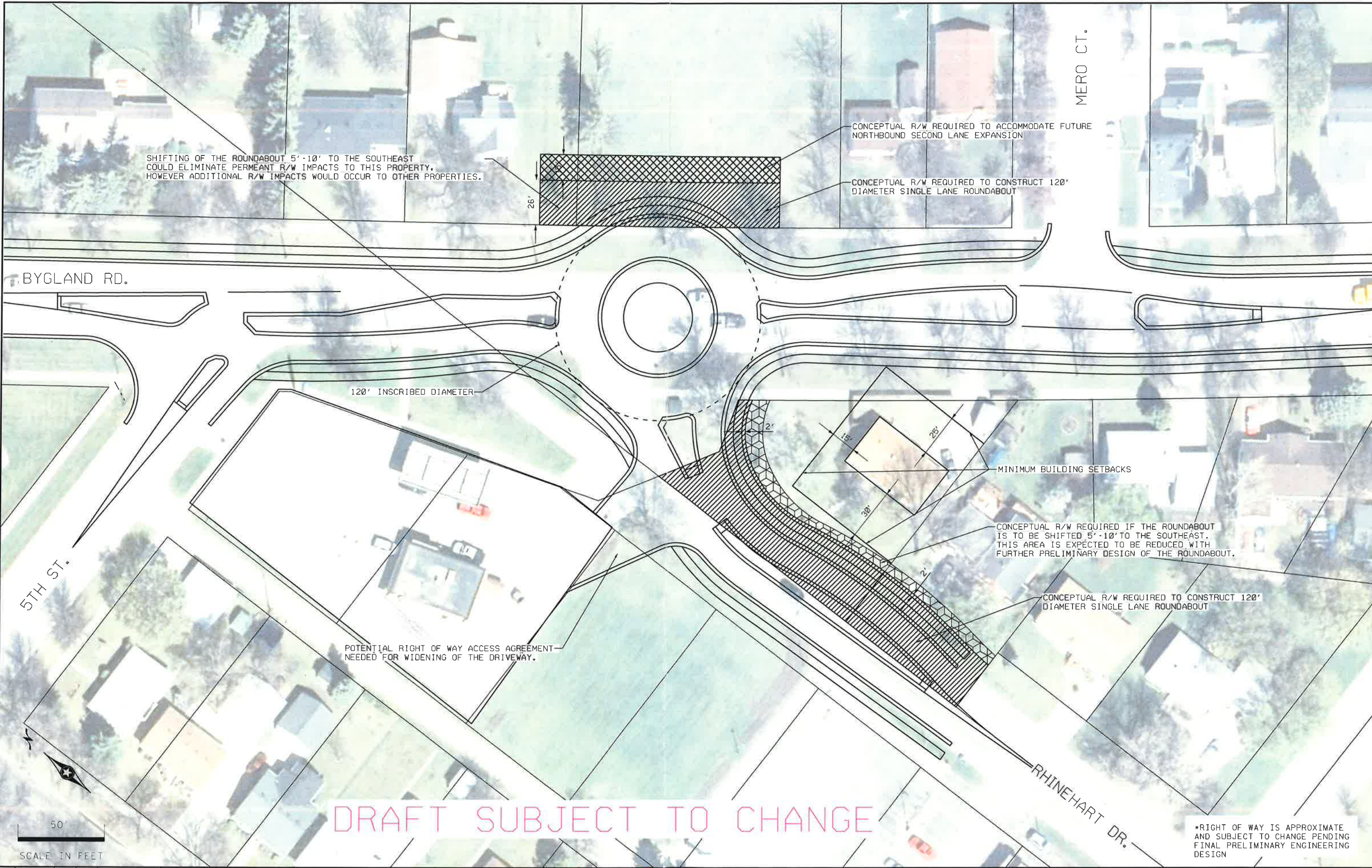
Federal Subtarget	\$860,000.00	(80% Federal / 20% Local)
TRLF Bonds	\$68,020.00	
City / State Aid Funds	\$533,907.00	
Total	\$1,461,927.00	

Recommendation:

Authorize WSN to proceed with change in scope of work on Rhinehart Drive and Amend the Project Memorandum (PM). Authorize WSN to include in amended PM the additional project area on 17th St NW.

Enclosures:

Rhinehart Drive Roundabout Drawing.
17th St NW Project Area Map



MERO CT.

SHIFTING OF THE ROUNDABOUT 5'-10' TO THE SOUTHEAST
COULD ELIMINATE PERMEANT R/W IMPACTS TO THIS PROPERTY.
HOWEVER ADDITIONAL R/W IMPACTS WOULD OCCUR TO OTHER PROPERTIES.

CONCEPTUAL R/W REQUIRED TO ACCOMMODATE FUTURE
NORTHBOUND SECOND LANE EXPANSION

CONCEPTUAL R/W REQUIRED TO CONSTRUCT 120'
DIAMETER SINGLE LANE ROUNDABOUT

26'

BYGLAND RD.

120' INSCRIBED DIAMETER

MINIMUM BUILDING SETBACKS

CONCEPTUAL R/W REQUIRED IF THE ROUNDABOUT
IS TO BE SHIFTED 5'-10' TO THE SOUTHEAST.
THIS AREA IS EXPECTED TO BE REDUCED WITH
FURTHER PRELIMINARY DESIGN OF THE ROUNDABOUT.

CONCEPTUAL R/W REQUIRED TO CONSTRUCT 120'
DIAMETER SINGLE LANE ROUNDABOUT

POTENTIAL RIGHT OF WAY ACCESS AGREEMENT
NEEDED FOR WIDENING OF THE DRIVEWAY.

5TH ST.

RHINEHART DR.

DRAFT SUBJECT TO CHANGE

*RIGHT OF WAY IS APPROXIMATE
AND SUBJECT TO CHANGE PENDING
FINAL PRELIMINARY ENGINEERING
DESIGN



9:11:16 AM 12/12/2017 \\proj\cts\2016\160036\DESIGN\A\format\lives\NST\October_2017\ROW_Acquisition_Exhibit.dwg

NO.	DATE	DWN	CKD	REVISIONS



I HEREBY CERTIFY THAT THIS SHEET WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

PRINT NAME: **DRAFT DRAFT**
SIGNATURE: **COPY COPY**
DATE: _____ LICENSE # **52**

SHEET NO. _____ OF _____ SHEETS



0 125 250

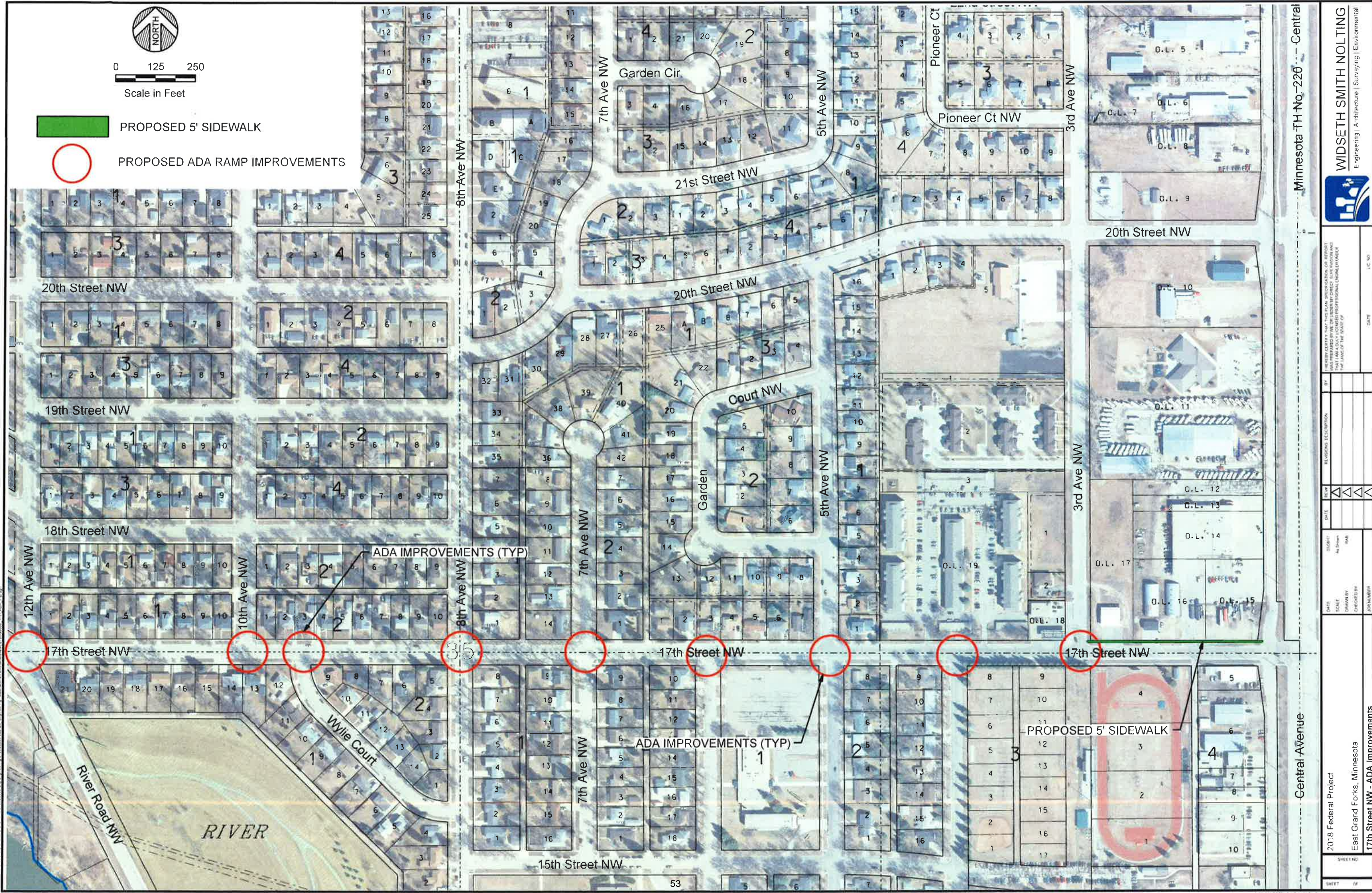
Scale in Feet



PROPOSED 5' SIDEWALK



PROPOSED ADA RAMP IMPROVEMENTS



15/2018
2018 Federal Project
East Grand Forks, Minnesota
17th Street NW - ADA Improvements

Minnesota TH No. 220 - Central

WIDSETH SMITH NOLTING
Engineering | Architecture | Surveying | Environmental



MINNESOTA STATE BOARD OF PROFESSIONAL ENGINEERS
I HAVE REVIEWED THIS PLAN, SPECIFICATIONS, OR REPORT
AND I AM A QUALIFIED LICENSED PROFESSIONAL ENGINEER
IN THE STATE OF MINNESOTA.
DATE: _____

NO.	REVISION DESCRIPTION	DATE	BY

DATE	SCALE	DRAWN BY	CHECKED BY	JOB NUMBER

SHEET NO.	OF

Central Avenue

2018 Federal Project
East Grand Forks, Minnesota
17th Street NW - ADA Improvements

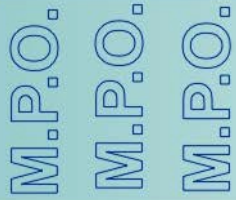
SHEET NO.	OF

GRAND FORKS - EAST GRAND FORKS METROPOLITAN PLANNING ORGANIZATION

TRANSPORTATION IMPROVEMENT PROGRAM

FISCAL YEARS 2018-2021

URBAN AREA	PROJECT LOCATION	FACILITY	PROJECT DESCRIPTION	ESTIMATED COST (THOUSANDS)					STAGING	ANNUAL ELEMENT	FUTURE EXPENDITURES			
	RESPONSIBLE AGENCY	CLASSIFICATION		AND SOURCE OF FUNDING						2018	2019	2020	2021	
	PROJECT TYPE	FUNDING STATUS		TOTAL	FEDERAL	STATE	OTHER	LOCAL	Operations	Capital	P.E.	R.O.W.	CONSTR.	TOTAL
PROJECT NUMBER				FUNDING SOURCE					TOTAL					
East Grand Forks #7	East Grand Forks	Rhinehart Dr	reconstruct the segment of Rhinehart Drive between Bygland Dr and 6th St SE. Includes a sidewalk. Amended to reduce the length and cost	REMARKS: Other is Municipal State Aid										
	East Grand Forks	Collector		Amended February 2018					Operations					
	Reconstruction	Discretionary		Project # 119-129-002 covers several projects as individually listed	TOTAL	FEDERAL	STATE	OTHER	LOCAL	P.E.	19.00			
				102.00	66.50		35.50		R.O.W.					
								CONSTR.	83.00					
								TOTAL	102.00					
East Grand Forks #8	East Grand Forks	Bygland Dr.	construct/install pedestrian safety improvement at the intersection with 13th St SE. Project # 119-129-002 covers several projects as individually listed	REMARKS: Other is Municipal State Aid										
	East Grand Forks	Minor Arterial							Operations					
	Safety	Discretionary		TOTAL	FEDERAL	STATE	OTHER	LOCAL	P.E.	57.00				
				282.00	180.00		102.00		R.O.W.					
								CONSTR.	225.00					
								TOTAL	282.00					
East Grand Forks #9	East Grand Forks	Greenway Bvl	install sidewalk/safe route to school along Greenway Bvl and modify the median to allow more vehicular access Project # 119-129-002 covers several projects as individually listed	REMARKS: Other is Municipal State Aid										
	East Grand Forks	Collector							Operations					
	Construction	Discretionary		TOTAL	FEDERAL	STATE	OTHER	LOCAL	P.E.	64.00				
				364.00	237.00		127.00		R.O.W.					
								CONSTR.	300.00					
								TOTAL	364.00					



Grand Forks - East Grand Forks Metropolitan Planning Organization

MPO Staff Report **Technical Advisory Committee: February 14, 2018** **MPO Executive Board: February 21, 2018**

RECOMMENDED ACTION: Information on Incorporating Performance Measures into the Transportation Improvement Program.

Matter of Information on Incorporating Performance Measures into TIP.

Background: MAP-21 created the requirement of performance based planning and programming. The recent FAST continued the same. The rule making documents were finalized implementing this performance based approach. The first focus on SAFETY. With decisions on Safety targets being done by the end of February, any action on the TIP taken after May, 2018, must incorporate these safety measures.

FHWA-MN has provided guidance on the framework of how the TIP could incorporate the performance measures. The attached presentation and draft guidance document spells out the recommendations. Both the FHWA-MN and MnDOT are requesting MPOs amend their TIP to incorporate the performance measures; this amendment should take place even if no other changes is being made, i.e., changes to the listing of projects.

Since the MPO adopted a Minnesota side only TIP, the requested action applies to us. Normally, we would take guidance from the North Dakota side but in this instance we have a TIP that is separate for each state. If we are able to adopt a combined TIP, (our normal preference), then we would be guided by ND side.

Findings and Analysis:

- Any action on our TIP after May, 2018, must incorporate the Safety performance measures.
- Guidance is to have this incorporation done so that it does not potentially delay future amendments.

Support Materials:

- Presentation
- FHWA-MN draft guidance



Highway 61
North Shore of Lake Superior

FHWA Minnesota Division

The TIP & Performance Measures

FHWA MN Guidance

MPO Director's Meeting 2/6/18



Background

- Map-21 (2012) Established PBPP and performance measures.
- Continued in FAST Act (2015)
- Required Performance Measure discussion in TIP (and STIP).
- Sparse FHWA HQ guidance.





Regulatory Basis

FHWA Minnesota Division

23 CFR 450.326(d): *The TIP shall include, to the maximum extent practicable, a description of the **anticipated effect** of the TIP toward achieving the performance targets identified in the metropolitan transportation plan, linking **investment priorities** to those performance targets.*



Qualifiers

- Ultimate framework up to MPO – this is guidance.
- However, need to see *anticipated effect* and *investment priorities* discussion.
- Discussion should consider costs, data, technology, logistics of achievement.
- Qualitative narrative with supporting data



Discussion Introduction

FHWA Minnesota Division

- **Broad Discussion of Performance Measures**
 - List Performance Measures & Targets
 - How MPO approaching overall – set own or support MnDOT?
 - Context - MPO's ability to influence
 - Other areas deemed pertinent
- **MPO Plans**
 - How do applicable MPO plans support achievement of the targets?
 - MTP, UPWP, etc.





Anticipated Effect

FHWA Minnesota Division

- **What is the anticipated effect of the TIP toward meeting targets?**
 - MPO specific – greater discussion
 - MnDOT support – less discussion, but focus on MPA
- **Areas of concern?**
 - Staffing levels, data gaps, local priorities, etc.





MPO Investment Priorities

FHWA Minnesota Division

- MPO prioritization strategies
 - Has it changed for TPM?
 - Why will it work?
 - What could be improved?
- Is there currently enough revenue to meet the targets?
- What is the MPO doing beyond federal funds?

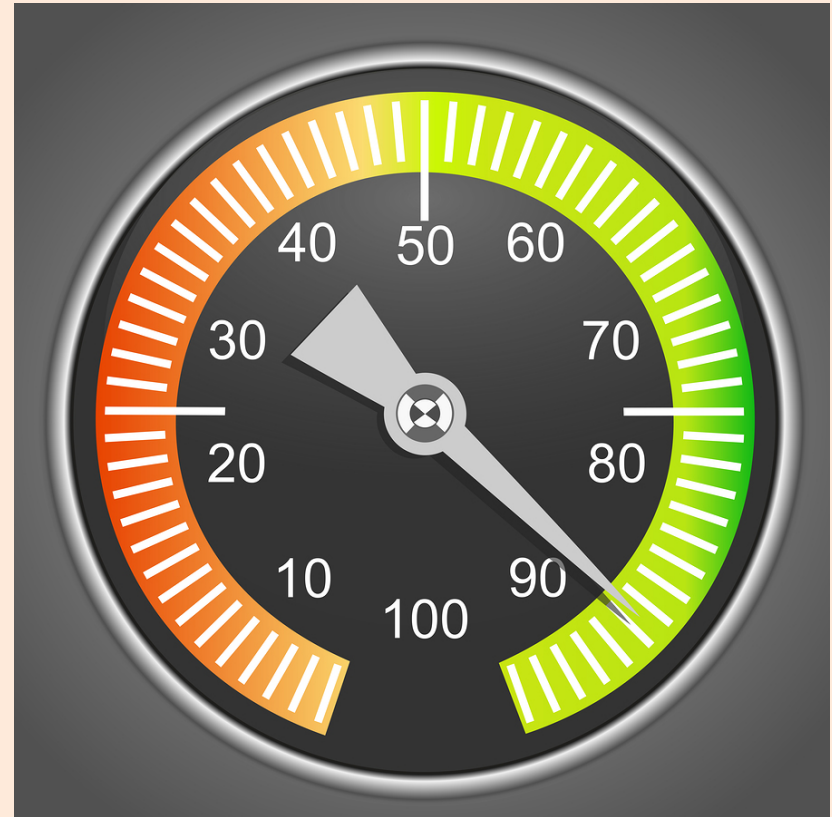




Discussion Conclusion

FHWA Minnesota Division

- Major Takeaways
 - What's working?
 - What needs reexamination?
- Direction Forward
- Later TIPs – How was Needle Moved?





MPO Feedback

FHWA Minnesota Division

- Please email to Andrew & Bobbi by February 23rd.





FHWA Minnesota Division



Thank You

Andrew Emanuele

Community Planner – MN Division

andrew.emanuele@dot.gov



FHWA - Minnesota Division
380 Jackson Street, Suite 500
St. Paul, MN 55201

Date: February 5th, 2018
To: Minnesota MPOs
From: Andrew Emanuele, Community Planner
Re: Incorporation of Performance Measures into the TIP

Regulatory Basis

23 CFR 450.326(d): *The TIP shall include, to the maximum extent practicable, a description of the anticipated effect of the TIP toward achieving the performance targets identified in the metropolitan transportation plan, linking investment priorities to those performance targets.*

Background

MAP-21, signed into law in 2012, established performance-based planning and identified the federal performance measures for safety, pavement, bridge, reliability, freight, CMAQ, and transit asset management and safety. The requirements continued through the FAST Act, signed into law in 2015. These provisions are collectively transforming the federal surface transportation program to be focused on the achievement of performance outcomes.

As noted above in 23 CFR 450.326(d), the performance measures are required to be discussed in the TIP. Beyond the regulation itself, there has been no official guidance from FHWA or FTA Headquarters on how to address this requirement. Accordingly, this memorandum is intended to provide a framework for Minnesota MPOs to discuss performance measures in the annual, federally-required TIP.

Qualifiers

- The discussion framework and level of beyond the regulatory requirement itself is ultimately decided by the MPO.
- The discussion should consider costs, data, existing technology, and the logistics of accomplishing the requirement. Given this, many MPOs nationally have settled on a qualitative discussion rather than an explicitly quantitative analysis (although data elements should be included).

TIP Performance Measures Discussion – FHWA MN Suggested Format

1. Introduction

- a. The introductory paragraph(s) should include a broad discussion of the performance measures – how the MPO is approaching them overall, the MPO’s maturity level and ability to address them, staff devoted to the measures, and other areas deemed pertinent.
- b. Include a brief discussion of how applicable MPO plans support achievement of the targets.

2. Anticipated Effect

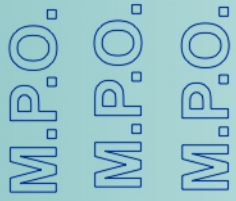
- a. What is the anticipated effect of the TIP with respect to performance target categories? How will this year’s TIP help the MPO, MnDOT and transit provider achieve, or make progress toward achieving, the performance targets?
 - i. For targets the MPOs set themselves, greater discussion is needed.
 - ii. For targets the MPOs will be supporting MnDOT, less discussion is needed, but this discussion should focus on efforts in their MPA.
- b. Note any areas of concern, either within or beyond the MPO’s control, that could hinder target achievement. This could include staffing levels, data gaps, MPO influence, local priorities, or otherwise.

3. MPO Investment Priorities

- a. Has the MPO adopted a strategy to meet the performance targets? Is it working? How has that strategy shifted (or not shifted) over time?
- b. Is there currently enough revenue to meet the performance targets? If not, will investment priorities need to be reevaluated?
- c. What, if anything, is the MPO doing beyond federal funds to support the targets?

4. Conclusion

- a. Are there any major takeaways the MPO has gathered working with the performance measures?
- b. What is the MPO’s intended direction forward? What is working overall, and what may need reexamination?
- c. Note - after several TIPs, the discussion should shift to how the projects programmed in previous TIPs “moved the needle”. Earlier TIPs will focus less on this due to data lag.



Grand Forks - East Grand Forks Metropolitan Planning Organization

MPO Staff Report

MPO Technical Advisory Committee: February 14, 2018

MPO Executive Board: February 21, 2018

RECOMMENDED ACTION: Make a Recommendation on the Urban Grant, Regional and Urban Program Candidate Projects for the FY2019-2022 TIP as Being Consistent with the Long Range Transportation Plan and Give Priority Ranking

Matter of List of Urban Grant, Regional and Urban Program Candidate Projects for 2019-2022 TIP.

Background: The MPO and NDDOT formally solicited candidate projects for the 2019-22 TIP/STIP. The solicitation is two months behind normal schedule; the major delay due to the finalization of the Urban Grants Program. We have informally advised our local agencies that a solicitation would be forthcoming and to begin preparing project paperwork. In order for the MPO to give both the local agencies as much time as possible yet still allow MPO staff to “vet” the candidate projects, the project submittal deadline to the MPO was February 6th.

These candidate projects are being processed with many unknown outcomes of FAST. It is very possible that significant changes may occur to these projects as more information and decisions are made through implementation of FAST. In short, any action of these projects is subject to change. Particularly with FAST emphasis on “State of Good Repair” and on National Highway System (NHS) Routes, the impacts of at least these two areas may cause changes. This Report will identify the candidate projects as either being on the NHS and/or as “State of Good Repair”

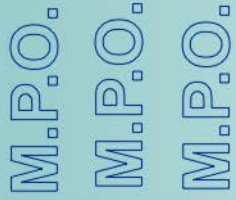
A separate report for each of the three programs is attached.

Findings and Analysis:

- The MPO must annually prepare a Transportation Improvement Program
- TIP eligible projects with the MPO Area must be submitted to the MPO for its consideration
- The projects submitted are being considered as being consistent with the Long Range Transportation Plan with the understanding that as FAST is implemented this determination is subject to change.
- The projects should be given high priority ranking.

Support Materials:

- Individual reports on each of the three programs.



Grand Forks - East Grand Forks Metropolitan Planning Organization

MPO Staff Report **Technical Advisory Committee: February 14, 2018** **MPO Executive Board: February 21, 2018**

RECOMMENDED ACTION: Urban Grand Program

Background: Since this is a new program, the current Metropolitan Transportation Plan does not greatly address possible projects that have been scoped to be fiscally constrained. Therefore, the question of consistency is too hard to make a specific judgement. However, the MTP has goals/objectives/standards that call for system preservation (State of Good Repair) and providing for a safe multi-modal transportation system that enhances the economic vitality. Projects that address all of these provisions would be considered consistent and the Urban Grant Program seeks projects that address all of these.

From the solicitation, two candidate projects were submitted. Both are joint applications by University of North Dakota and the City of Grand Forks. Both focus on the University Avenue segment between N. Columbia Road and Stanford Road as it passes through the “campus core” of UND. Specific information can be found on the attached powerpoint presentation.

While both seek funds to implement part of the Columbia to Coulee concept, each is separate to implement a particular focus component of the concept. Phase I seeks \$1M with \$740,000 in federal funds. Phase II seeks another \$1M with \$800,000 in federal funds.

In emails to the applicant, MPO staff have identified some areas where clarity could be provided. Primarily they are:

1. Can either phase be granted funding without jeopardizing the other phase
2. Actual project limits since it has been written as Columbia to Sanford Road, Columbia to coulee and maps showing Columbia to Yale.
3. Clarity on impacts to existing Cities Area Transit operations. The applications states to replace 3 existing shelters and install 3 new shelters yet only one location is identified and CAT seems to not have much awareness of this.

Findings and Analysis: NONE

Support Materials: Powerpoint

Urban Grant Program

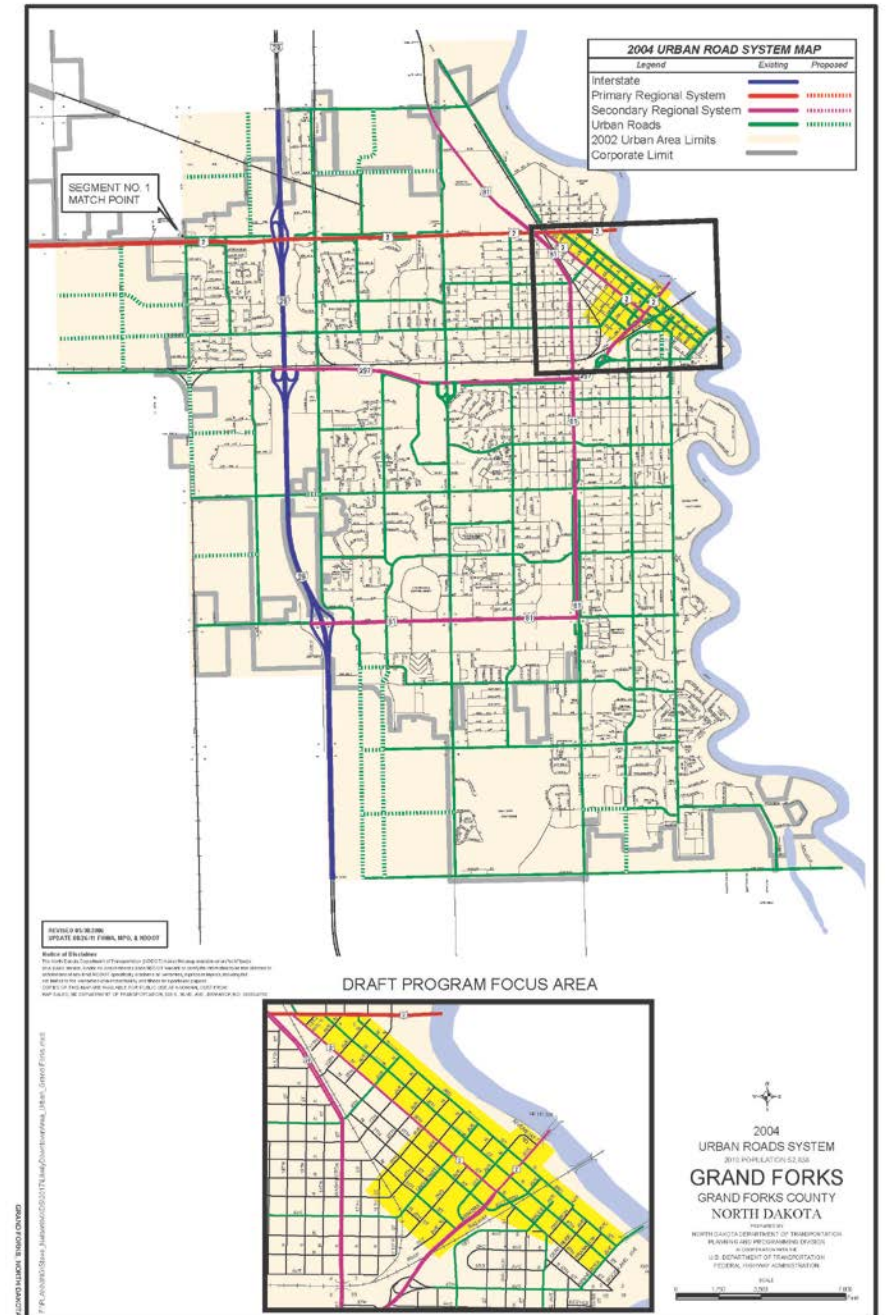
- Main Street Initiative: The objectives of the program are as follows:
 - Preserve existing transportation assets
 - Ensure safety of all users of the transportation system
 - Improve multi-modal transportation options such as walking, bicycling, and public transportation
 - Enhance the economic vitality of the area by providing transportation assets that support:
 - revitalization efforts;
 - development of vacant or underutilized parcels within existing urban areas; and/or
 - redevelopment of established portions of communities
 - Support economically sustainable growth, lessening the need for outward expansion of community transportation infrastructure and associated services

Focus Area has been identified as shown to the right.

Projects outside this focus area can be submitted for Consideration – such as the two applications.

Up to \$7M maybe available
each year for 2019 and 2020

Expected to become an annual solicitation beginning
Next year for 2021.



UND and City Joint Application

- Columbia to Stanford Road
- Tying into UND's Columbia to Coulee and City's mill and overlay project
- UND providing all local match
- Being applied as two applications
 - Phase I for 2019
 - Phase II for 2020

UND and City Joint Application

- Phase 1

Address existing median on University Ave by reconstructing it to provide better access control, reduce number and focus on certain pedestrian crosswalks, and to beautify the look of the median environment.

Cost Estimate

Itemized Project Cost Estimate (For roadway projects this might include things like preliminary engineering, right-of-way, utilities, construction, construction engineering, bridges, and miscellaneous. For other types of projects include relevant items. Rows can be added as to the following table as necessary).

Item	Total	Federal	State	Local
Contract Bond	\$6,700	\$5,360		\$1,340
Remove Concrete Pavement-existing median or pavement 12' wide, does NOT incld C&G	\$30,000	\$24,000		\$6,000
Remove concrete Pavement-at new crosswalks	\$7,250	\$5,800		\$1,450
Common Excavation Type B	\$15,000	\$12,000		\$3,000
Aggregate Base Course CI 5	\$25,200	\$20,160		\$5,040
Concrete Pavement Repair – Full Depth Doweled	\$12,500	\$10,000		\$2,500
Mobilization	\$35,000	\$28,000		\$7,000
Flagging	\$31,500	\$25,200		\$6,300
Traffic Control Signs	\$1,800	\$1,440		\$360
Type III Barricade	\$2,375	\$1,900		\$475
Delineator Drums	\$2,240	\$1,792		\$448
Geosynthetic Material Type R1	\$8,550	\$6,840		\$1,710
Curb & Gutter Type 1	\$48,000	\$38,400		\$9,600
Pigmented Imprinted Concrete – median	\$156,000	\$124,800		\$31,200
Pigmented Imprinted Concrete – crosswalks	\$37,700	\$30,160		\$7,540
Concrete Median Nose Paving	\$18,000	\$14,400		\$3,600
Median Dividers – precast walls on frost proof foundations; mixed with decorative fencing	\$400,000	\$320,000		\$80,000
Design Engineering (~10%)	\$84,092.50	\$0		\$84,092.50
Construction Engineering (~10%)	\$84,092.50	\$67,274.00		\$16,818.50
Totals	\$1,006,000	\$737,526	\$0	\$268,474

What is the source of the local funds?
The University of North Dakota

UND and City Joint Application

- Phase II

Address lighting through installing new conduit, installing ornamental pedestrian light poles and fixtures, replacing 3 bus shelters with new architectural designed shelters, trash receptacles recycle bins and benches

Memorial Union area being the one identified bus shelter location with the other two be determined.

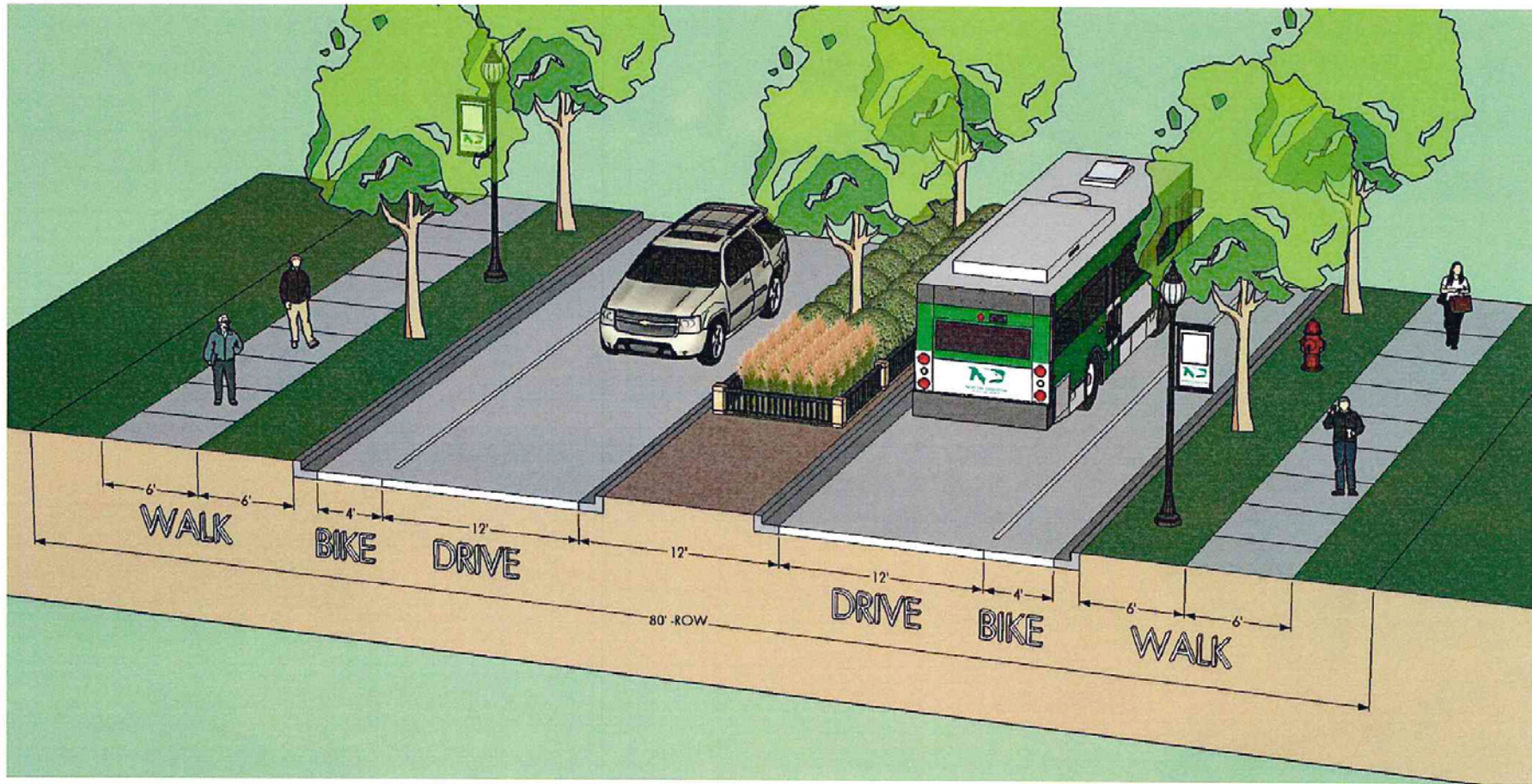
Cost Estimate

Itemized Project Cost Estimate (For roadway projects this might include things like preliminary engineering, right-of-way, utilities, construction, construction engineering, bridges, and miscellaneous. For other types of projects include relevant items. Rows can be added as to the following table as necessary).

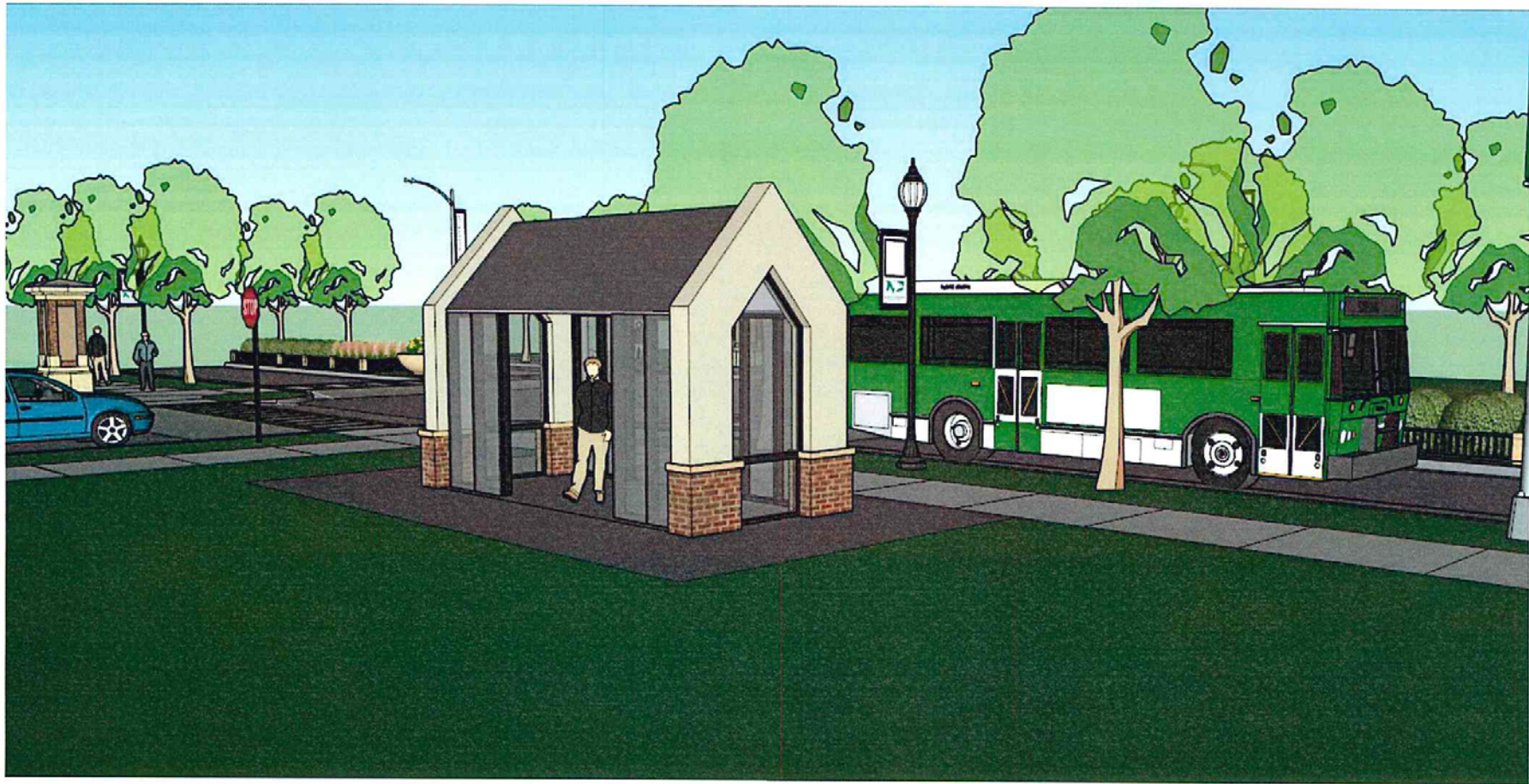
Item	Total	Federal	State	Local
Contract Bond	\$7,300	\$5,840		\$1,460
Topsoil - Imported	\$2,700	\$2,160		\$540
Hydraulic Mulch	\$900	\$720		\$180
Mobilization	\$35,000	\$28,000		\$7,000
Flagging	\$21,000	\$16,800		\$4,200
Traffic Control Signs	\$800	\$640		\$160
Type III Barricade	\$475	\$380		\$95
Delineator Drums	\$560	\$448		\$112
Concrete Foundations - matches with Ornamental (Pedestrian Lights)	\$37,400	\$29,920		\$7,480
Cable Trench (Type 1)	\$25,500	\$20,400		\$5,100
2 inch ridged conduit	\$5,400	\$4,320		\$1,080
Underground conductor (No 4 RHW/USE cu)	\$21,470	\$17,176		\$4,294
Underground Conductor (No 6 THW Grd)	\$7,695	\$6,156		\$1,539
Feedpoint Type IV	\$20,000	\$16,000		\$4,000
Pedestrian crossing signals	\$165,000	\$132,000		\$33,000
Ornamental (Pedestrian) Light Standards - 16' aluminum poles, 16" dia decorative base, 150' spacing each side of University Ave	\$102,000	\$81,600		\$20,400
Ornamental (Pedestrian) Light Fixture - LED luminaires, 150' spacing each side of University Ave 75' stagger	\$68,000	\$54,400		\$13,600
Bus Stops - site constructed of full custom pre-fab, no heating, includes decorative aprons and \$8,000 site furnishing allowance	\$204,000	\$163,200		\$40,800
Temporary planters - molded custom intersection name embossed	\$57,600	\$46,080		\$11,520
Street sign poles - aluminum decorative with cross arms no lights EMS 2 at each crossing	\$52,000	\$41,600		\$10,400
Benches custom	\$38,400	\$30,720		\$7,680
Trash receptacles - custom style to match benches, paired with recycle bins	\$17,600	\$14,080		\$3,520
Recycle bins - custom style to match benches paired with trash receptacles	\$17,600	\$14,080		\$3,520
Design Engineering (~10%)	\$91,300.00	\$0		\$91,300.00
Construction Engineering (~10%)	\$91,300.00	\$73,040.00		\$18,260.00
Totals	\$1,091,000	\$799,760	\$0	\$291,240

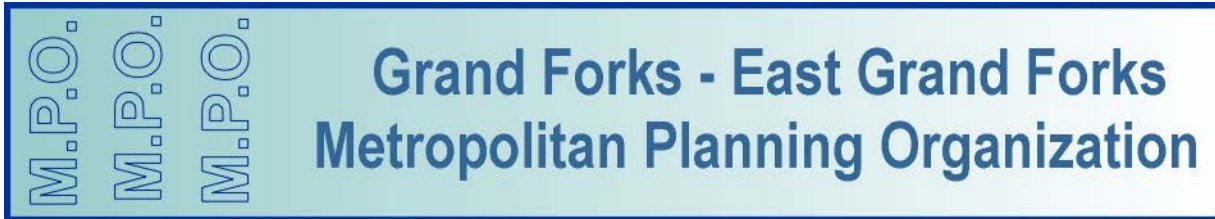


COULEE TO COLUMBIA RENDERING
UND COULEE TO COLUMBIA MASTER PLAN



TYPICAL RIGHT OF WAY SECTION
UND COULEE TO COLUMBIA MASTER PLAN





MPO Staff Report
Technical Advisory Committee: February 14, 2018
MPO Executive Board: February 21, 2018

RECOMMENDED ACTION: Urban Roads Program

Background: As you should recall, the 2018-2021 TIP did not program any projects for this Program for the 2021 year. The current solicitation covers both 2021 and 2022. Candidate projects for 2021 were solicited and vetted through the MPO process last year.

However, the previous 2021 projects have been preliminarily programmed in the initial draft 2019-2022 TIP/STIP. See attached program of projects from NDDOT for 2019-2022 with 2021 showing of the N. Columbia Road reconstruction candidate project.

NORTH DAKOTA DEPARTMENT OF TRANSPORTATION URBAN PROGRAM GRAND FORKS/EAST GRAND FORKS MPO - December 2017							
Fiscal Year	Program	Location	Type of Work	Total Cost	Federal Share	State Share	Local Share
2019	Regional	DeMers & 30th St/Columbia Ramp	Signal, Turn Lanes	\$600,000	\$480,000	\$60,000	\$60,000
2019	Regional	DeMers Ave (Red River to 5th St)	Reconstruction	\$3,290,000	\$2,480,000	\$310,000	\$500,000
2019	Regional	DeMers Ave (5th St to 6th St)	Reconstruction	\$1,000,000	\$800,000	\$100,000	\$100,000
2019	Regional	5th St (US 2 to DeMers Ave)	Mill & Overlay	\$1,110,000	\$888,000	\$111,000	\$111,000
2019	Regional	US 2 & 55th St	Signal, Turn Lanes	\$600,000	\$480,000	\$120,000	\$0
2019	Regional	N Washington St (S of 8th Av N-0.4 Mi N of US 2)	CPR, Grinding, DBR	\$1,423,000	\$1,058,400 Reg; \$80,000 Rural	\$142,300	\$142,300
2019	Urban Roads	University Av (State-N 3rd St)	Mill & Overlay	\$3,461,000	\$2,459,000	\$0	\$1,002,000
2021	Urban Roads	N Columbia (Overpass-University Av)	Reconstruction	\$6,244,000	\$4,376,000	\$0	\$1,868,000
2022	Regional	N Washington St (5th Av S-1st Ave N)*	Reconstruction & Structure	\$17,600,000	\$7,040,000 Reg; \$7,040,000 State Fed	\$1,760,000	\$1,760,000

*Note: It is anticipated to dual fund this project. Approximately 1/2 of the federal funds for the structure will be funded outside of the Urban Program. Cost split is an estimate at this time.

The project is the reconstruction of N. Columbia Road from the northend of the overpass structure through the University Avenue intersection. The total cost estimate is \$6.24M with federal participation of \$4.4M. Attached is a new worksheet application and drawing showing project.

For 2022, the City is requesting federal funding to rehabilitate the traffic signals with specific work dependent of the specific conditions of each signal at each intersection. This work is being proposed in conjunction with a similar request on the Regional Roads Program to update existing traffic signals. The candidate project would touch 23 signal locations at an estimated cost of \$3.1M with a federal participation of \$2.85M.

As shown in the City’s answers to the MPO scoring criteria, the project is not consistent with our Metropolitan Transportation Plan. The work would be considered “state of good repair” projects. Yet, this project was not scoped in the listing of fiscally constrain recommended

projects in the MTP. This type of project was not identified as a project to consider when the MTP was prepared and adopted.

As we are in the midst of updating our MTP, this type of project should be considered. At the same time this type of work is considered, careful thought should be to include any possible advances to traffic signal connectivity into the scope and estimate. As technology advances, there are expectations that traffic signals communicate directly with vehicles.

Findings and Analysis: NONE

Support Materials: Applications



Allen R. Grasser, PE
City Engineer

City of Grand Forks

255 North Fourth Street • P.O. Box 5200 • Grand Forks, ND 58206-5200

(701) 746-2640
Fax: (701) 787-3744

February 6, 2018

Mr. Earl Haugen
Grand Forks/East Grand Forks MPO
255 N 4th St
Grand Forks, ND 58206

RE: Urban Road Program Applications

Dear Mr. Haugen:

Attached please find the City of Grand Forks' Urban Roads Program Applications for proposed construction year 2021 and 2022. Please forward this application to NDDOT. If you have any questions or comments, please contact David Kuharenko at 701-746-2649.

Sincerely,

Allen R. Grasser, P.E.
City Engineer

ARG/djk

Cc: Mark Walker
David Kuharenko

PROJECT SCOPING WORKSHEET

DATE: January 17, 2018

PRIORITY# 2021- URP

City: Grand Forks

Street: N Columbia Rd (Columbia Rd Overpass to University Ave)

County: Grand Forks

Length: ~1,300 ft

Proposed Improvement: **Reconstruction of N Columbia Rd from the Columbia Rd Overpass to approximately 300' north of University Ave. This project will likely also include realignment of Columbia Rd on the north side of University Ave to ease the jog in the alignment. The traffic signals are anticipated to either be rehabilitated or replaced, street lights are anticipated to be replaced. The storm sewer underneath this segment of Columbia Rd is anticipated to be replaced and sized to meet current design standards. The pedestrian underpass will need to be evaluated to determine if it is still warranted, and if rehabilitation is needed.**

Cost Estimates Breakdown (in \$1,000)							
Alternate	PE	R/W	Utility	Constr.	Bridges	Misc.	Total
				\$4,756		\$1,488	\$6,244

Present Road: Surface Width? 54'-76' back of curb-back of curb Surface Type? Concrete

On Street Parking Allowed? No Present: (No) One Side Both Sides Angle Parallel
 Proposed: (No) One Side Both Sides Angle Parallel

Proposed Improvements		
ADT Present: 13,760 - 18,230	Yr: 2013	Travel Way Width : 24' x 2
ADT Design: 24,660	Design year: 2040	No. of Lanes: 4 Lane
Design Speed: 25mph		Roadway Width: 54'-76'
Maximum Curve: TBD	Min. R/W Width:	
Maximum Grade: 2%		

Right of Way

Will Additional ROW or easement be acquired? No ROW acquisition by: N/A
Has any ROW easements been acquired since 7-1-72: No ROW Condemnation by: N/A
Est. No. of occupied family dwelling to be displaced? None
Est. No. business to be displaced? None

Impacts

Will there be any additional Impacts (Cultural and Environmental Resources): No
Will there be any taking of any right-of-way from any public parkland (4F) or schools (6F): No
Airports: No Public Hearings:
Environmental Classification (Cat-Ex, EA, EIS): Documented Cat-Ex
Transportation Enhancements: None
Intermodal: Modify existing bike path crossings
Pedestrian Needs: Realign and modify existing ADA curb ramps

Railroads Crossings

RR Name	No. Xings	No. Tracks and Type of Crossing	Daily Train Movements	Train Speed	Present Protection	Proposed Protection
-	-	-	-	-	-	-

Purpose and Need Statement:

1. N Columbia Rd was originally constructed in 1983. According to record drawings, the cross section is currently 8" of concrete on 12" of lime treated subgrade. Maintenance has included annual crack sealing and asphalt patching of potholes.
2. There are a total of four through lanes for north and south bound traffic. There are right and left turn lanes at major intersections. Through lanes are approximately 12' wide, and right and left turn lanes are approximately 12'.
3. There are numerous shattered slabs throughout the proposed length of the project as well as cracking faulting, and asphalt patching. In a recent pavement condition study the Pavement Condition Index (PCI) in this segment ranged from 37-69, with an average of 52. The International Roughness Index (IRI) ranged from 380-657, with an average of 527. A recent field inspection of the project location indicated that if a concrete panel replacement project were to be done in 2017, approximately 40% of the panels would be marked for replacement in addition to grinding the pavement to improve the ride quality.
4. There currently exists a jog in the alignment of N Columbia Rd on the north side of University Ave. This is particularly noticeable for southbound traffic.
5. There are existing driveways and access points which will need to be considered when realigning N Columbia Rd.

6. There are existing sidewalks and shared use paths adjacent to the proposed project. This project would include updating ADA ramps to compliance. In addition, the existing pedestrian underpass will need further inspection to determine additional work for rehabilitation or if it should be removed.
7. The existing storm sewer was originally installed in either 1955 or 1980 and appears to be undersized based on current standards. It will likely need to be replaced during the project.
8. The existing water lines which cross N Columbia Rd were installed in 1993 and 2000. No replacement or maintenance is anticipated. The existing sanitary sewer consists of a force main which was installed in 1960. From what information is available this pipe is in satisfactory condition and there is no known maintenance or replacement needs for this force main.
9. There are street lights on both sides of the road, and in the existing median. These street lights are believed to be 40' tall steel poles with davit arms and 250W High Pressure Sodium fixtures, which are believed to be American Electric Lighting No. 115_25S_R3_DG or an equivalent thereof.
10. Within the Proposed project there are two traffic signals located at the intersections of 2nd Ave N & N Columbia Rd and University Ave & N Columbia Rd. Both of these signals are believed to have been originally constructed in 1983. Neither of these intersections appear on the 2016 High Crash Report from NDDOT. No additional turn lanes appear to be needed at this time.

Remarks:

City Engineer: Allen N. Green

Date: 1/17/18

Note: Please attach a map showing location and extent of the project.

**Preliminary Engineer's Estimate
Pavement Reconstruction on N Columbia Rd (Overpass to University)**

Updated: 12/1/2016

9" Concrete on 18" Salvage Base with Fabric

SPEC	CODE	ITEM	UNIT	UNIT PRICE	QUANTITY	ITEM COST
103	100	CONTRACT BOND	L SUM	\$ 27,600.00	1	\$ 27,600.00
702	100	MOBILIZATION	L SUM	\$ 276,000.00	1	\$ 276,000.00
704		TRAFFIC CONTROL	LSUM	\$ 138,000.00	1	\$ 138,000.00
		EROSION CONTROL	LSUM	\$ 56,000.00	1	\$ 56,000.00
202	114	REMOVAL OF CONCRETE PAVEMENT	SY	\$ 8.00	9,040	\$ 72,320.00
202	130	REMOVAL OF CURB & GUTTER	LF	\$ 5.00	3,025	\$ 15,125.00
202		REMOVAL OF PIPES ALL TYPES AND SIZES	LF	\$ 20.00	1,540	\$ 30,800.00
202		REMOVAL OF MANHOLES	EA	\$ 400.00	3	\$ 1,200.00
202		REMOVAL OF INLETS	EA	\$ 300.00	10	\$ 3,000.00
202		REMOVAL OF FOUNDATIONS - ALL SIZES	EA	\$ 1,000.00	8	\$ 8,000.00
203		TOPSOIL	CY	\$ 10.00	170	\$ 1,700.00
203		TOPSOIL IMPORTED	CY	\$ 20.00	60	\$ 1,200.00
203		COMMON EXCAVATION	CY	\$ 10.00	9,220	\$ 92,200.00
251	300	SEEDING CLASS III	ACRE	\$ 2,500.00	0.56	\$ 1,400.00
253	201	HYDRAULIC MULCH	ACRE	\$ 6,000.00	0.56	\$ 3,360.00
302	101	SALVAGE BASE COURSE	CY	\$ 45.00	4,600	\$ 207,000.00
550		9IN NON-REINF CONCRETE PAVEMENT CL AE	SY	\$ 85.00	8,136	\$ 691,560.00
550		9IN REINF CONCRETE PAVEMENT CL AE	SY	\$ 100.00	904	\$ 90,400.00
708		GEOSYNTHETIC MATERIAL TYPE R1	SY	\$ 2.00	10,885	\$ 21,770.00
714		PIPE CONC REINF 12IN CL III	LF	\$ 70.00	505	\$ 35,350.00
714		PIPE CONC REINF 18IN CL III	LF	\$ 80.00	165	\$ 13,200.00
714		PIPE CONC REINF 24IN CL III	LF	\$ 90.00	870	\$ 78,300.00
714		UNDERDRAIN PIPE PVC PERFORATED 4IN	LF	\$ 10.00	400	\$ 4,000.00
722		MANHOLE 60IN	LF	\$ 400.00	30	\$ 12,000.00
722		INLET-TYPE 1	EA	\$ 4,000.00	10	\$ 40,000.00
722		ADJUST GATE VALVE BOX	EA	\$ 500.00	5	\$ 2,500.00
722	6240	ADJUST UTILITY APPURTENANCE	EA	\$ 750.00	4	\$ 3,000.00
748	140	CURB & GUTTER-TYPE I	LF	\$ 30.00	3,025	\$ 90,750.00
750	100	SIDEWALK CONCRETE 4IN	SY	\$ 65.00	200	\$ 13,000.00
750	105	SIDEWALK CONCRETE BIKEWAY	SY	\$ 60.00	140	\$ 8,400.00
750	200	CONCRETE MEDIAN PAVING	SY	\$ 70.00	200	\$ 14,000.00
750	210	CONCRETE MEDIAN NOSE PAVING	SY	\$ 150.00	4	\$ 600.00
750		DRIVEWAY CONCRETE	SY	\$ 80.00	50	\$ 4,000.00
750	2115	DETECTABLE WARNING PANELS	SF	\$ 40.00	200	\$ 8,000.00
754		SIGNING	LSUM	\$ 25,000.00	1	\$ 25,000.00
762	118	STRIPING	LSUM	\$ 80,000.00	1	\$ 80,000.00
		UNDERPASS WORK	LSUM	\$ 100,000.00	1	\$ 100,000.00
770		2IN RIDGID CONDUIT	LF	\$ 10.00	5,000	\$ 50,000.00
770		UNDERGROUND CONDUCTOR NO4 TYPE RHW	LF	\$ 1.50	600	\$ 900.00
770		UNDERGROUND CONDUCTOR NO6 TYPE RHW	LF	\$ 1.00	1,400	\$ 1,400.00
770		FEEDPOINT TYPE IV PAD MOUNTED	EA	\$ 10,000.00	2	\$ 20,000.00
770		LTD STD 6FT MA 40FT MT HT BREAKAWAY	EA	\$ 3,000.00	18	\$ 54,000.00
770		LED LUMINAIRE	EA	\$ 1,000.00	22	\$ 22,000.00
770		REMOVE LIGHT STANDARDS	EA	\$ 1,000.00	18	\$ 18,000.00
772		TEMPORARY TRAFFIC SIGNALS	EA	\$ 60,000.00	2	\$ 120,000.00
772		REVISE TRAFFIC SIGNAL SYSTEM-SITE 1	EA	\$ 300,000.00	1	\$ 300,000.00
772		REVISE TRAFFIC SIGNAL SYSTEM-SITE 2	EA	\$ 300,000.00	1	\$ 300,000.00
772	9200	IT SYSTEM	L SUM	\$ 100,000.00	1	\$ 100,000.00

Subtotal \$ 3,257,035.00

2021 Subtotal (Inflated at 4%/year) \$ 3,962,700.00

20% Contingency \$ 793,300.00

Estimated Construction Costs \$ 4,756,000.00

15% Preliminary Engineering \$ 714,000.00

15% Construction Engineering \$ 714,000.00

Testing \$ 60,000.00

Estimated Project Costs \$ 6,244,000.00

1300 = Length of Utility
\$ 3,658 = Cost per foot

Federal Share

80% Construction Costs \$ 3,804,800.00

80% Construction Engineering \$ 571,200.00

\$ 4,376,000.00

City Share

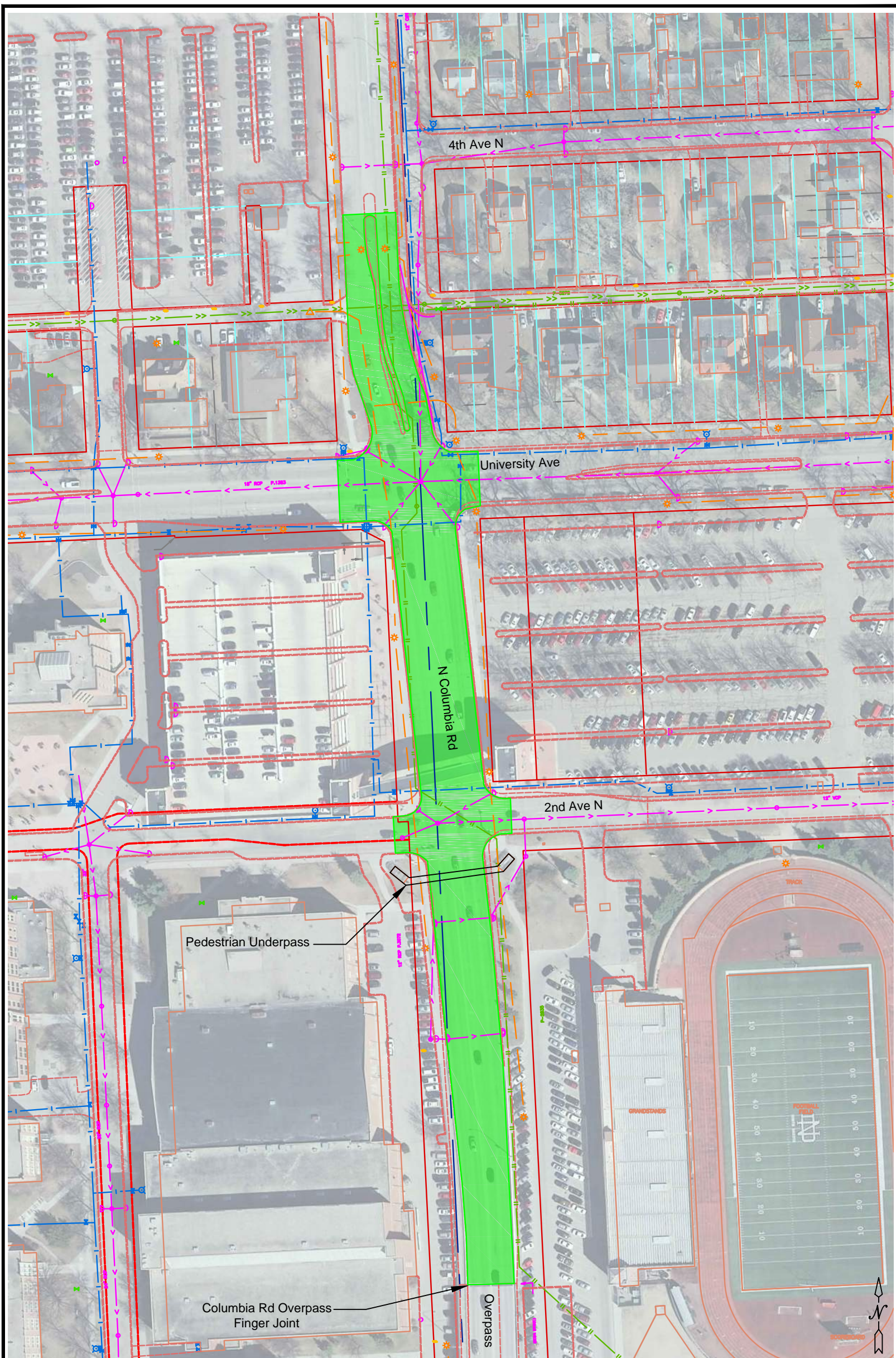
20% Construction Costs \$ 951,200.00

100% Preliminary Engineering \$ 714,000.00

20% Construction Engineering \$ 142,800.00

100% Testing \$ 60,000.00

\$ 1,868,000.00



Pedestrian Underpass

Columbia Rd Overpass
Finger Joint

Overpass



CITY OF
GRAND FORKS
ENGINEERING
DEPARTMENT

N Columbia Rd Reconstruction
(Overpass to University Ave)

DATE
12/1/2016

CITY PROJECT
7578

SCALE
NTS

PAGE
1 of 1

Setup Scoring Categories & Factors

Go Back

Score System Max. Score

Adjust Scoring Categories (Use TAB key to navigate.)

Category	Description	Weights	Points
<input type="checkbox"/> 1	Economic Vitality Support the economic vitality through enhancing the economic competitiveness of the metropolitan area by giving people access to	<input type="text" value="10"/> %	<input type="text" value="10"/> pts <input type="button" value="Delete"/>
<input type="checkbox"/> 2	Security Increase security of the transportation system for motorized and nonmotorized uses.	<input type="text" value="5"/> %	<input type="text" value="5"/> pts <input type="button" value="Delete"/>
<input type="checkbox"/> 3	Accessibility and Mobility Increase the accessibility and mobility options to people and freight by providing more transportation choices.	<input type="text" value="15"/> %	<input type="text" value="15"/> pts <input type="button" value="Delete"/>
<input type="checkbox"/> 4	Environmental/Energy/QOL Protect and enhance the environment, promote energy conservation, and improve quality of life by valuing the unique	<input type="text" value="10"/> %	<input type="text" value="10"/> pts <input type="button" value="Delete"/>
<input type="checkbox"/> 5	Integration and Connectivity Enhance the integration and connectivity of the transportation system, across and between modes for people and freight, and	<input type="text" value="15"/> %	<input type="text" value="15"/> pts <input type="button" value="Delete"/>
<input type="checkbox"/> 6	Efficient System Management Promote efficient system management and operation by increasing collaboration among federal, state, local government to better	<input type="text" value="5"/> %	<input type="text" value="5"/> pts <input type="button" value="Delete"/>
<input type="checkbox"/> 7	System Preservation Emphasize the preservation of the existing transportation system by first targeting federal funds towards existing infrastructure to spur	<input type="text" value="15"/> %	<input type="text" value="15"/> pts <input type="button" value="Delete"/>
<input type="checkbox"/> 8	Safety Increase safety of the transportation system for motorized and nonmotorized uses.	<input type="text" value="15"/> %	<input type="text" value="15"/> pts <input type="button" value="Delete"/>
<input type="checkbox"/> 9	Local/Regional Factors Factors of local or regional importance	<input type="text" value="10"/> %	<input type="text" value="10"/> pts <input type="button" value="Delete"/>
TOTAL		<input type="text" value="100"/> %	<input type="text" value="100"/> pts

Add New Category

TIP SCORING SHEETS

TELUS ASSISTED SCORING MPO SCORING SHEET FOR EACH PROJECT

0=No 1=Yes

Project Number

Project Name

Category 1 Economic Vitality

<i>Support the economic vitality through enhancing the economic competitiveness of the metropolitan area by giving people access to jobs, education services as well as giving</i>		Assign score 0 or 1
A	Consistent with local, regional or state economic development plans	0
B	Work located on identified truck route or identified in Freight Study	0
C	Provides new access to jobs and opportunities	1
D	Improves connection to terminal (air, multimodal) on the last mile or two access	0
E	Located on arterial street	1

Category 2 Security

<i>Increase security of the transportation system for motorized and nonmotorized uses.</i>		Assign score 0 or 1
A	Installs equipment that improves the security of the transportation infrastructure	1
B	Consistent with regional emergency/security/hazardous materials movement.	0
C	Coordinates/improves Bridge Closure Management Plan	0
D	Coordinate/improves special events management plans	0

Category 3 Accessibility and Mobility

<i>Increase the accessibility and mobility options to people and freight by providing more transportation choices.</i>		Assign score 0 or 1
A	Provides acceptable LOS for facility as recommended in LRTP	0
B	Implements local access control regulations	0
C	Enhances accessibility and mobility for all modes	1
D	Address existing LOS deficiency not resolved by another planned project	0
E	Enhances the range of freight service options available to local businesses	0

Category 4 Environmental/Energy/QOL

<i>Protect and enhance the environment, promote energy conservation, and improve quality of life by valuing the unique qualities of all communities - whether urban, suburban, or rural.</i>		Assign score 0 or 1
A	Demonstrates core context sensitive solutions principles	0
B	Addresses EJ analysis process	1
C	Decreases fuel consumption which will reduce greenhouse gas	1
D	Avoids or minimize impacts to wetlands/natural habitats/cultural/historic resource	1
E	Incorporates innovative stormwater management techniques	1
F	Promotes nonmotorized travel	1

TIP SCORING SHEETS

TELUS ASSISTED SCORING MPO SCORING SHEET FOR EACH PROJECT

0=No
1=Yes

Project Number

Project Name

N Columbia Rd (Overpass to University Ave) 2021

Category 5 Integration and Connectivity

<i>Enhance the integration and connectivity of the transportation system, across and between modes for people and freight, and housing, particularly affordable housing located close to</i>		Assign score 0 or 1
A	Reduces excessive travel delays	0
B	Improves direct travel trips between regional major generators	0
C	Address last segment/link of corridor	0
D	Improves the integration/connectivity of whole transportation system	0

Category 6 Efficient System Management

<i>Promote efficient system management and operation by increasing collaboration among federal, state, local government to better target investments and improve accountability..</i>		Assign score 0 or 1
A	Incorporates elements from ITS Strategic Plan	0
B	Improving operations without adding through capacity	1
C	Enhances interoperability among modal equipment/technologies	0
D	Contributes to better collecting traffic data	0

Category 7 System Preservation

<i>Emphasize the preservation of the existing transportation system by first targeting federal funds towards existing infrastructure to spur revitalization, promote urban landscapes and</i>		Assign score 0 or 1
A	Utilize pavement management system results	1
B	Emphasizes system rehabilitation rather than expansion	1
C	Incorporates technologies new to the MPO area	0
D	Maximizes existing capacity	0
E	Contributes to better system maintenance	1

Category 8 Safety

<i>Increase safety of the transportation system for motorized and nonmotorized uses.</i>		Assign score 0 or 1
A	Address locations identified as high crash locations in LRTP or corridor studies	0
B	Enhances safe route to school route	0
C	Consistent with Strategic Highway Safety Plan	0
D	Improves points of conflict	0
E	Enhances the public safety of nonmotorized users	0

TIP SCORING SHEETS

TELUS ASSISTED SCORING MPO SCORING SHEET FOR EACH PROJECT

0=No 1=Yes

**Project
Number**

**Project
Name**

N Columbia Rd (Overpass to University Ave) 2021

Category 9 Local/Regional Factors	
--	--

<i>Factors of local or regional importance</i>		Assign score 0 or 1
A	Conformance with regional or state plan	1
B	Demonstrates analysis of project risk in implementation	1
C	Provides benefit for multiple transportation agencies	1
D	Advances smart growth objectives	0

PROJECT SCOPING WORKSHEET

DATE: 1/17/2017

PRIORITY: URB request for construction in 2022

City: Grand Forks

Street: Signalized intersections on Non- Regional Roads

County: Grand Forks

Length:

Proposed Improvement: Traffic Signal Rehabilitation on the non-Regional Road System.

<i>Cost Estimates Breakdown (in \$1,000)</i>							
Alternate	PE	R/W	Utility	Constr.	Bridges	Misc.	Total
				2,850		250	3,100

Present Road: Surface Width? (one direction) Varies

Surface Type? Varies

On Street Parking Allowed?

Present: No

Proposed: No

Proposed Improvements		
ADT Present:	Yr:	Travel Way Width :
ADT Design:	Design year:	No. of Lanes:
Design Speed:		Roadway Width:
Maximum Curve:		Min. R/W Width:
Maximum Grade:		
Right of Way		
Will Additional ROW or easement be acquired? No	ROW acquisition by:	
Has any ROW easements been acquired since 7-1-72:	ROW Condemnation by:	
Est. No. of occupied family dwelling to be displaced? None		
Est. No. business to be displaced? None		
Impacts		
Will there be any additional Impacts (Cultural and Environmental Resources): No		
Will there be any taking of any right-of-way from any public parkland (4F) or schools (6F):		
Airports: No	Public Hearings:	
Environmental Classification (Cat-Ex, EA, EIS): Categorical Exclusion by Definition		
Transportation Enhancements:		
Intermodal: Updating outdated GPS Opticom system (Transit has signal priority) as needed		
Pedestrian Needs: updating signals to APS pedestrian pushbuttons and signal heads as needed		

Railroads Crossings						
RR Name	No. Xings	No. Tracks and Type of Crossing	Daily Train Movements	Train Speed	Present Protection	Proposed Protection
BNSF Glasston 062501A	1	1 Concrete	2	0-25MPH	Gates, Flashing Lights, Signs	Same

Purpose and Need Statement For Regional Projects

By 2022 there are anticipated to be 23 signalized intersections on the non-regional system in the City of Grand Forks. Of these, over 40% of the signalized intersections will be over 20 years old by 2022, and over 20% will be at least 35 years old by this time. This project is intended to rehabilitate the aging traffic signals on the non-regional system as needed on a signal by signal basis. This can include replacement of aged conduit and cable, upgrading pedestrian push buttons, replacement of outdated video detection and emergency detection equipment, replacing outdated controller cabinets and associated hardware, replacing aging fiber optic cable, signal heads and installation of new back plates with retroreflective borders. In the older signal systems this can also include rehabilitating the signal poles and mast arms by, sandblasting them free of paint, primer, scale, rust, etc to a clean bare metal surface and applying a fresh coat of epoxy primer and paint. The rehabilitation of these signals will prolong the life of these signals systems, and reduce the downtime and maintenance of signals caused by deteriorating connections, and aging equipment.

1. The street sections at each of these intersections vary considerably in cross section, age and maintenance.
2. The driving lanes and turning lanes vary at each intersection. The proposed project does not include changing these widths.
3. The condition of the street pavements at each of these intersections varies. The purpose of the proposed project does not include any rehabilitation or reconstruction work for the pavement at the proposed intersections.
4. The existing geometrics at each intersection varies. The proposed project does not include modifying any intersection geometrics.
5. The proposed project does not include any geometric or intersection modifications, therefore there should not be any access points of special concern.
6. The existing sidewalks and/or shared use paths located at the intersections vary. The proposed project scope does not include any modifications to sidewalks or shared use paths.
7. The condition of the existing storm sewer at each intersection vary. No storm sewer work is anticipated with this project

8. The condition of the existing water lines and sanitary sewer lines vary at each intersection. No sanitary sewer or water line work is anticipated with this project.
9. Existing street lights mounted on the traffic signals vary in size, length of mast arm, and luminaire. Each location will be evaluated for rehabilitation work during the project development phase.
10. See the attached sheet for location, age and anticipated level of maintenance for each traffic signal. Turn lanes are outside of the scope of this proposed project.

Remarks:

City Engineer: Allen R. Gross

Date: 1/17/18

Intersection	NHS/Non-NHS	Yr of Orig Const or Major Rehab	Intermediate or Minimal Rehabilitation		Age in 2022	NHS System					Non-NHS System						
			Rev Yr	Rev Scope		Maj Rehab	Int Rehab	Min Rehab	Sandblast	No Work	Maj Rehab	Int Rehab	Min Rehab	Sandblast	No Work		
N 42nd St @ 6th Ave N	Non-NHS	2018			4												X
S Washington @ 44th Ave S	NHS	2017			5												
Columbia Rd @ 47th Ave S	NHS	2017			5												
Columbia Rd @ 13th Ave S	NHS	2016			6												
Columbia Rd @ 36th Ave S	NHS	2015			7												
Columbia Rd @ 40th Ave S	NHS	2015			7												
S 42nd St @ 11th Ave S	Non-NHS	2014			8												X
S Washington @ 40th Ave S	NHS	2014			8												
S Columbia Rd @ 11th Ave S	NHS	2013	2016	Flashing Yellow Heads	9												
S 5th St @ Kittson Ave	Non-NHS	2012			10												X
S Washington @ 47th Ave S	NHS	2009			13												
Columbia Rd @ 24th Ave S	NHS	2008	2014	New Foundations	14												
Columbia Rd @ 28th Ave S	NHS	2003			19												
N 42nd St @ University Ave	Non-NHS	2001			21												
S 42nd St @ 17th Ave S	NHS	2001			21		X										
17th Ave S @ S 34th St	Non-NHS	2000			22												
S 20th St @ 24th Ave S	Non-NHS	2000			22												
Columbia Rd @ 6th Ave N	NHS	1995			27	X											
Columbia Rd @ 2nd Ave N	NHS	1984			38	X											
Columbia Rd @ University Ave	NHS	1984			38	X											
Columbia Rd @ 17th Ave S	NHS	1979	1992	5 section heads	43	X											
17th Ave S @ S 20th St	Non-NHS	Pre1979			43+												X
4th Ave S @ Cherry St	Non-NHS	Pre1979			43+												X
Lt Turn phase = Left Turn Phase Cabinet = Controller Cabinet Ped H&B = Pedestrian Signal Heads and Push Buttons Ped Heads = Pedestrian Signal Heads Vid Det = Video Detection Cameras and equipment Em Det = Emergency Vehicle Detection equipment Det Loops = Detection Loops * = May be included in requested HSIP Projects	Maj Rehab Int Rehab Min Rehab Sandblast No Work	<u>General Scope of Work</u>					Primary Regional					Secondary Regional					
		Replacement of Cabinet, Cable/Conduit, Vid Det, Em Det, Ped Push B Quantity					Maj Rehab	Int Rehab	Min Rehab	Sandblast	No Work	Maj Rehab	Int Rehab	Min Rehab	Sandblast	No Work	
		Replacement of Cabinet Equipment, Vid Det, Em Det, Ped Push Butto Cost/Unit					4	1	3	4	7	2	3	0	2	3	
		Replacement of Signal Heads and Backplates, other minor work as ne Total Cost					\$250,000	\$165,000	\$30,000	\$100,000	\$0	\$250,000	\$165,000	\$30,000	\$100,000	\$0	
		Sandblasting and painting of poles and mast arms (signals >25 years old)					\$1,000,000	\$165,000	\$90,000	\$400,000	\$0	\$500,000	\$495,000	\$0	\$200,000	\$0	
No work is anticipated to take place at this signal				NHS Total \$1,655,000					Non-NHS Total \$1,195,000								
									Construction Total \$2,850,000								
									Engineering \$250,000								
									Project Total \$3,100,000								

Setup Scoring Categories & Factors

Go Back

Score System Max. Score

Adjust Scoring Categories (Use TAB key to navigate.)

Category	Description	Weights	Points
<input type="checkbox"/> 1	Economic Vitality Support the economic vitality through enhancing the economic competitiveness of the metropolitan area by giving people access to	<input type="text" value="10"/> %	<input type="text" value="10"/> pts <input type="button" value="Delete"/>
<input type="checkbox"/> 2	Security Increase security of the transportation system for motorized and nonmotorized uses.	<input type="text" value="5"/> %	<input type="text" value="5"/> pts <input type="button" value="Delete"/>
<input type="checkbox"/> 3	Accessibility and Mobility Increase the accessibility and mobility options to people and freight by providing more transportation choices.	<input type="text" value="15"/> %	<input type="text" value="15"/> pts <input type="button" value="Delete"/>
<input type="checkbox"/> 4	Environmental/Energy/QOL Protect and enhance the environment, promote energy conservation, and improve quality of life by valuing the unique	<input type="text" value="10"/> %	<input type="text" value="10"/> pts <input type="button" value="Delete"/>
<input type="checkbox"/> 5	Integration and Connectivity Enhance the integration and connectivity of the transportation system, across and between modes for people and freight, and	<input type="text" value="15"/> %	<input type="text" value="15"/> pts <input type="button" value="Delete"/>
<input type="checkbox"/> 6	Efficient System Management Promote efficient system management and operation by increasing collaboration among federal, state, local government to better	<input type="text" value="5"/> %	<input type="text" value="5"/> pts <input type="button" value="Delete"/>
<input type="checkbox"/> 7	System Preservation Emphasize the preservation of the existing transportation system by first targeting federal funds towards existing infrastructure to spur	<input type="text" value="15"/> %	<input type="text" value="15"/> pts <input type="button" value="Delete"/>
<input type="checkbox"/> 8	Safety Increase safety of the transportation system for motorized and nonmotorized uses.	<input type="text" value="15"/> %	<input type="text" value="15"/> pts <input type="button" value="Delete"/>
<input type="checkbox"/> 9	Local/Regional Factors Factors of local or regional importance	<input type="text" value="10"/> %	<input type="text" value="10"/> pts <input type="button" value="Delete"/>
TOTAL		<input type="text" value="100"/> %	<input type="text" value="100"/> pts

Add New Category

TIP SCORING SHEETS

TELUS ASSISTED SCORING MPO SCORING SHEET FOR EACH PROJECT

0=No
1=Yes

Project Number

Project Name

Traffic Signal Rehabilitation Non-Regional Road System - 2022

Category 1 Economic Vitality

<i>Support the economic vitality through enhancing the economic competitiveness of the metropolitan area by giving people access to jobs, education services as well as giving</i>		Assign score 0 or 1
A	Consistent with local, regional or state economic development plans	0
B	Work located on identified truck route or identified in Freight Study	1
C	Provides new access to jobs and opportunities	0
D	Improves connection to terminal (air, multimodal) on the last mile or two access	0
E	Located on arterial street	1

Category 2 Security

<i>Increase security of the transportation system for motorized and nonmotorized uses.</i>		Assign score 0 or 1
A	Installs equipment that improves the security of the transportation infrastructure	1
B	Consistent with regional emergency/security/hazardous materials movement.	0
C	Coordinates/improves Bridge Closure Management Plan	0
D	Coordinate/improves special events management plans	0

Category 3 Accessibility and Mobility

<i>Increase the accessibility and mobility options to people and freight by providing more transportation choices.</i>		Assign score 0 or 1
A	Provides acceptable LOS for facility as recommended in LRTP	0
B	Implements local access control regulations	0
C	Enhances accessibility and mobility for all modes	1
D	Address existing LOS deficiency not resolved by another planned project	0
E	Enhances the range of freight service options available to local businesses	0

Category 4 Environmental/Energy/QOL

<i>Protect and enhance the environment, promote energy conservation, and improve quality of life by valuing the unique qualities of all communities - whether urban, suburban, or rural.</i>		Assign score 0 or 1
A	Demonstrates core context sensitive solutions principles	0
B	Addresses EJ analysis process	1
C	Decreases fuel consumption which will reduce greenhouse gas	0
D	Avoids or minimize impacts to wetlands/natural habitats/cultural/historic resource	1
E	Incorporates innovative stormwater management techniques	0
F	Promotes nonmotorized travel	0

TIP SCORING SHEETS

TELUS ASSISTED SCORING MPO SCORING SHEET FOR EACH PROJECT

0=No 1=Yes

Project Number

Project Name

Traffic Signal Rehabilitation Non-Regional Road System - 2022

Category 5 Integration and Connectivity
--

<i>Enhance the integration and connectivity of the transportation system, across and between modes for people and freight, and housing, particularly affordable housing located close to</i>	Assign score 0 or 1
A Reduces excessive travel delays	0
B Improves direct travel trips between regional major generators	0
C Address last segment/link of corridor	0
D Improves the integration/connectivity of whole transportation system	1

Category 6 Efficient System Management

<i>Promote efficient system management and operation by increasing collaboration among federal, state, local government to better target investments and improve accountability..</i>	Assign score 0 or 1
A Incorporates elements from ITS Strategic Plan	0
B Improving operations without adding through capacity	1
C Enhances interoperability among modal equipment/technologies	0
D Contributes to better collecting traffic data	0

Category 7 System Preservation

<i>Emphasize the preservation of the existing transportation system by first targeting federal funds towards existing infrastructure to spur revitalization, promote urban landscapes and</i>	Assign score 0 or 1
A Utilize pavement management system results	0
B Emphasizes system rehabilitation rather than expansion	1
C Incorporates technologies new to the MPO area	0
D Maximizes existing capacity	0
E Contributes to better system maintenance	1

Category 8 Safety

<i>Increase safety of the transportation system for motorized and nonmotorized uses.</i>	Assign score 0 or 1
A Address locations identified as high crash locations in LRTP or corridor studies o	0
B Enhances safe route to school route	0
C Consistent with Strategic Highway Safety Plan	0
D Improves points of conflict	0
E Enhances the public safety of nonmotorized users	0

TIP SCORING SHEETS

TELUS ASSISTED SCORING MPO SCORING SHEET FOR EACH PROJECT

0=No 1=Yes

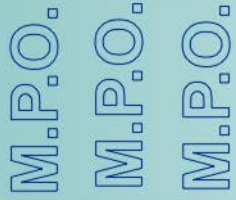
Project Number

Project Name

Traffic Signal Rehabilitation Non-Regional Road System - 2022

Category 9 Local/Regional Factors
--

<i>Factors of local or regional importance</i>		Assign score 0 or 1
A Conformance with regional or state plan	0	
B Demonstrates analysis of project risk in implementation	1	
C Provides benefit for multiple transportation agencies	1	
D Advances smart growth objectives	0	



Grand Forks - East Grand Forks Metropolitan Planning Organization

MPO Staff Report Technical Advisory Committee: February 14, 2018 MPO Executive Board: February 21, 2018

RECOMMENDED ACTION: Regional Roads Program

SUMMARY: Consistency with 2040 Metropolitan Transportation Plan

Candidate Project	Application Answer	MPO Staff comment
S. Washington Underpass Reconstruction	Yes	Concur
S. Washington Underpass Study	No	?
47 th Ave Interchange NEPA	No	Concur
47 th Ave Interchange	No	Concur
Regional Signal Updates	No	Concur
Washington St.Mill/Overlay	Yes	Non-concur
N. Washington St 3 segments programed for 2019 so what is this request?		

Background: As you should recall, the 2018-2021 TIP did not program any projects for this Program for the 2021 year. The current solicitation covers both 2021 and 2022. Candidate projects for 2021 were solicited and vetted through the MPO process last year.

Washington St Underpass

However, the previous 2021 projects have been preliminarily programmed in the initial draft 2019-2022 TIP/STIP. See below the program of projects from NDDOT for 2019-2022 with 2022 showing of the N. Washington St underpass reconstruction candidate project.

NORTH DAKOTA DEPARTMENT OF TRANSPORTATION URBAN PROGRAM GRAND FORKS/EAST GRAND FORKS MPO - December 2017							
Fiscal Year	Program	Location	Type of Work	Total Cost	Federal Share	State Share	Local Share
2019	Regional	DeMers & 30th St/Columbia Ramp	Signal, Turn Lanes	\$600,000	\$480,000	\$60,000	\$60,000
2019	Regional	DeMers Ave (Red River to 5th St)	Reconstruction	\$3,290,000	\$2,480,000	\$310,000	\$500,000
2019	Regional	DeMers Ave (5th St to 6th St)	Reconstruction	\$1,000,000	\$800,000	\$100,000	\$100,000
2019	Regional	5th St (US 2 to DeMers Ave)	Mill & Overlay	\$1,110,000	\$888,000	\$111,000	\$111,000
2019	Regional	US 2 & 55th St	Signal, Turn Lanes	\$600,000	\$480,000	\$120,000	\$0
2019	Regional	N Washington St (S of 8th Av N-0.4 Mi N of US 2)	CPR, Grinding, DBR	\$1,423,000	\$1,058,400 Reg; \$80,000 Rural	\$142,300	\$142,300
2019	Urban Roads	University Av (State-N 3rd St)	Mill & Overlay	\$3,461,000	\$2,459,000	\$0	\$1,002,000
2021	Urban Roads	N Columbia (Overpass-University Av)	Reconstruction	\$6,244,000	\$4,376,000	\$0	\$1,868,000
2022	Regional	N Washington St (5th Av S-1st Ave N)*	Reconstruction & Structure	\$17,600,000	\$7,040,000 Reg; \$7,040,000 State Fed	\$1,760,000	\$1,760,000

*Note: It is anticipated to dual fund this project. Approximately 1/2 of the federal funds for the structure will be funded outside of the Urban Program. Cost split is an estimate at this time.

NDDOT has tentatively programmed it for 2023 in order to finance it from additional (approximately 50%) outside sources. The total cost estimate is \$17.6M with federal participation of \$14M. The project was initially scoped in 2012 from a corridor study. The Study recommendations became the basis for the project scope and cost as adopted into the MTP. This Study was used as justification for the reconstruction scope.

Although the total reconstruction is tentatively programmed, the City and NDDOT GF District have submitted a candidate project for 2018 to evaluate the integrity of the structure, develop an estimate of timeline to do work (should it be done by 2023 or can it be delayed), and to provide updated estimate of costs. The candidate project is estimated cost of \$100,000 with a federal participation of \$80,000. The west half of the underpass has an irreversible nor repairable chemical reaction taking place within its concrete. With this reaction taking place, the Study states that it will only accelerate causing faster deterioration.

As shown in the City's answers to the MPO scoring criteria, the candidate project is not consistent with our Metropolitan Transportation Plan. The dollar amount is relatively small and not all that impactful to the fiscal constraint of the MTP. The 2012 Study, which covered much more of Washington St corridor, cost the MPO \$150,000 in consultant fees.

As we are in the midst of updating our MTP, delaying a project of this magnitude would have a ripple effect on the fiscal ability to finance other currently recommended improvements let alone any new improvements not currently within the fiscal constraint. Not having an answer in sync with the finalization of our 2045 MTP update will add difficulty in preparing a fiscally constrained plan. It would likely result, if the decision is to delay the reconstruction, in forcing a revisit of the MTP very soon after it is adopted.

Segments of N. Washington St – There are three segments with the first being between 8th Ave N and Gateway Dr, the second being between Gateway Dr and where the four lanes past Home of Economy, and the third being the segment on top of the English Diversion.

As shown above, a project is programmed for 2019 for these three segments. The cost estimate is almost identical. The candidate project information provides no other information as to whether the currently programmed project is being suggested to be delayed or if this is a different project covering the same segments a couple of years later.

I29 Interchange at 47th Ave S

NEPA Document – for 2020, a candidate project has been submitted to complete the necessary NEPA document for a possible interchange of I29 at 47th Ave S. The estimated costs is \$2M with the federal participation of \$800,000 due to the City proposing to pay \$1M towards the

costs. As shown in the applications answer to the MPO scoring criteria, the candidate project is not consistent with the MTP.

The candidate project includes many pages from the I29 Corridor Study. While that Study did indeed conclude that over the long term, an interchange at 47th Ave S is likely needed, the Study also concluded that the findings were subject to the 2045 MTP update that included consideration of fiscal constraint. The current 2045 travel demand forecasts for 32nd Ave S do not show as immediate of a need to construct this new interchange for traffic congestion relief. The need, timing, and cost estimate of the 47th Ave Interchange will be a critical outcome of the 2045 MTP update.

47th Ave Interchange - Assuming a NEPA document concluded with a project to construct an interchange, a candidate project was submitted for consideration of 2023 funding. Although the TIP is seeking to program up to FY2022, NDDOT requests that candidate projects for Regional Program be identified for the first year outside the TIP/STIP. The estimated cost is \$36.1 M with a federal participation of \$28.9M.

As evidenced by the candidate project answers to the MPO scoring criteria, the project is not consistent with the MPO MTP. As stated above in regards to the NEPA request, the current 2045 update will consider the projects timing and impact on the fiscal constraint of the anticipated revenues.

Regional Traffic Signal Update

For 2022, a candidate project is requesting federal funding to rehabilitate the traffic signals with specific work dependent of the specific conditions of each signal at each intersection. This work is being proposed in conjunction with a similar request on the Urban Roads Program to update existing traffic signals. The candidate project would touch 42 signal locations at an estimated cost of \$6.2M with a federal participation of \$5M. One year ago, the was the submitted project for the “plus one” year of the TIP/STIP, so the MPO did not take formal action upon the request.

As shown in the answers to the MPO scoring criteria, the project is not consistent with our Metropolitan Transportation Plan. The work would be considered “state of good repair” projects. Yet, this project was not scoped in the listing of fiscally constrain recommended projects in the MTP. This type of project was not identified as a project to consider when the MTP was prepared and adopted.

As we are in the midst of updating our MTP, this type of project should be considered. At the sametime this type of work is considered, careful thought should be to include any possible advances to traffic signal connectivity into the scope and estimate. As technology advances, there are expectations that traffic signals communicate directly with vehicles.

Washington St Segments 2020

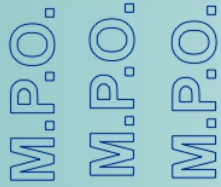
In the solicitation of projects for the 2017-2020 projects, the Regional Program “plus one” (2021) candidate projects was to do a mill and overlay of N. Washington between the underpass and 8th Ave N. This project included some additional recommendation impacting intersection of 2nd Ave N, University Ave, and 8th Ave N. that were all included as recommendations in the Washington Study referenced above in association with the Washington Underpass. The estimated costs was \$1.86M with a federal participation of \$1.5M. As this was the “plus one”, the MPO did not take formal action upon the request.

A candidate project has been submitted for consideration for FY2020. This project does include the same segment of N. Washington that was previously submitted. However, it also includes the request to mill and overlay the segment of S. Washington between Hammerling and DeMers Avenue. The total project cost is estimated at \$1.3M with a federal participation of \$1M.

The scope, as evidence with adding significant more length yet less cost, is different than the “plus one” project. The “plus one” would have been considered as consistent with the MTP as it included the consistent components to address more issues than just pavement for vehicles. For the segment between Hammerling and DeMers, the MTP has a total reconstruction scoped for this segment of S. Washington St. The identified Study made this recommendation and was included as a recommended project in the fiscally constrained MTP. The full reconstruction was intentionally identified to address a number of safety, multi-modal, and ADA compliant issues that exists on this segment of S. Washington St. Doing a mill and overlay would just shift the full reconstruction to a later time, causing additional impact to the fiscally constraint recommended projects.

Findings and Analysis: NONE

Support Materials: Applications



Grand Forks - East Grand Forks Metropolitan Planning Organization

MPO Staff Report Technical Advisory Committee: February 14, 2018 MPO Executive Board: February 21, 2018

RECOMMENDED ACTION: Update on the Street/Highway Element of 2045 Metropolitan Transportation Plan.

Matter of Update on 2045 Street/Highway Element.

Background: The UPWP identifies that the major undertaking of the MPO for the next two years is to update the Street/Highway Element of our Metropolitan Transportation Plan to the horizon year of 2045. This monthly update will report on three items:

1. Summary Public Meeting and Online Financial Planning Activity
2. Draft Goals/Objectives/Standards
3. Draft Safety Performance Measures Draft
4. Added River Crossing Scope of Work Amendment

Public Meeting 2 and Online financial Activity:

The attendance at the second open house was minimal. The few that came in person provided valuable feedback. One of the input we were specifically seeking was obtaining a general sense of where the public would place emphasis on spending funds. An online activity was announced (also held at the open house) through our website and a push from our Constant Contact via email. 70 responses were recorded from the online activity. Attached is a summary of the input we received.

Draft Goals/Objectives/Standards:

The feedback/input we received have been incorporated into the document. The attached draft indicates the modifications that have been made. We are seeking an endorsement of this draft to submit to public for further feedback.

SAFETY Targets:

Programming side of these specific targets has been difficult to identify. The MPO has until the end of February to inform each State what targets it has adopted. The attached document identifies the option available.

Added River Crossings:

The MPO Board requested a scope of work amendment to have a traffic change analysis done to allow some level of comparison of how each individual new river crossing would be forecasted to impact traffic patterns. The stated focus is to serve local traffic. The Board desired results for

new crossing at 4 locations (24th, 32nd, 47th and Merrifield). The attached document provides an analysis of the traffic impact each individual bridge location would have on the network.

It is hoped that with this level of information, some locations can be identified to pursue further analysis while some are dropped for the purpose of serving local traffic.

Findings and Analysis:

- This activity is identified in UPWP.
- The regular 5 year update cycle ends December 2018
- This update is required to be FAST compliant
- This update will need to incorporate require performance measures and targets.
- The consulting team of Kimley-Horn and WSB are under contract and working.
- One of the first activities is to analyze the existing conditions.

Support Materials:

- Public Input meeting summary
- Draft Goals/Objective/Standards
- Safety Target Options
- Future Red River Bridge traffic analysis



Public Meeting #2 Summary

Time and Location

Thursday, December 14, 2017
5:00-7:00 p.m.

East Grand Forks City Hall
600 Demers Ave
East Grand Forks, MN 56721

Purpose of Meeting

The purpose of the second round of public engagement was to discuss the existing plus future transportation network and the transportation issues that have been identified so far. Additionally, the meeting was meant to explore the concept of a financially constrained transportation plan; this discussion was aided by an interactive financial planning activity, which collected input on attendees' public investment preferences. Finally, more detailed information on goals, objectives, and performance measures for the Street and Highway Plan Update were presented.

Materials

Display boards were available that provided information on the LRTP and Street and Highway Plan Update, the draft universe of alternatives, existing traffic volumes, forecast traffic volumes, planned land use, issues identified through the last public meeting and interactive mapping activity, the 2045 LRTP vision statement and draft goals, performance-based planning, financial plans, and the project schedule.

For the financial planning activity, each attendee was given ten stickers and a worksheet. Participants were asked to place the stickers, representing public funds, on their worksheets to indicate their investment priorities. An online version of this activity was also available on the project website.

Participants

Seven attendees signed in on the meeting sign-in sheets. Of these seven, five completed the NDDOT Title VI Public Participation Survey. The results of this survey are summarized below.

- Sex
 - Number of respondents: 5
 - Male: 5 (100%)
- Disability
 - Number of respondents: 5
 - Yes: 1 (20%)
 - No: 4 (80%)
- Age
 - Number of respondents: 5

- 34 and younger: 1 (20%)
- 35-54: 3 (60%)
- 55 and older: 1 (20%)
- Race
 - Number of respondents: 5
 - White: 5 (100%)
- Language most frequently spoken in your home
 - Number of respondents: 5
 - English: 5 (100%)
- Do you receive public assistance?
 - Number of respondents: 5
 - No: 4 (80%)
 - Yes: 1 (20%)
- Indicate how you heard about the event (note that some respondents checked more than one box)
 - Number of respondents: 5
 - Internet: 2 (40%)
 - Newspaper: 1 (20%)
 - Other: 2 (40%)

Input Received

Comment Forms

Three written comments were received. One comment asked that all railroad tracks south of Gateway Drive, Grand Forks, be removed, and that new tracks be laid north of Grand Forks and East Grand Forks. Another comment expressed that a new bridge and street improvements should be a first priority for public funding. A third comment expressed the desire for more bicycle and pedestrian infrastructure. This comment explained that east and west flowing bike traffic is very difficult and dangerous, and asked that bike facilities on University Avenue be improved.

Financial Planning Activity

The financial planning activity was conducted both in-person and online. When the activity closed on January 15, 2018, input from 69 different interactions had been collected.

For the in-person activity, each attendee was given ten stickers and a worksheet showing public investment categories. Respondents were asked to place stickers, each representing ten dollars, on their worksheets to indicate their public investment priorities. With the online activity, each investment category had a slider that participants could adjust to indicate their investment priorities by setting the slider at a value between \$0 and \$100 in \$10 increments. Input from the in-person and online interactions has been compiled in the following summary.



Responses

In the financial planning activity, participants were instructed to allocate \$100 of funding across six public investment categories. There were 69 total in-person and online participant interactions. The final funds distribution is summarized below:

Table 1: Distribution of Funds by Public Investment Category

	Funding Received	Percent of Total Funding
Maintain and rebuild existing infrastructure	\$2,080	30%
Safety improvements	\$620	9%
Improve traffic signals and technology	\$550	8%
New freeway interchanges	\$1,100	16%
New river crossings	\$1,970	29%
Add additional lanes or new roads	\$530	8%
<i>Total</i>	<i>\$6,850</i>	<i>100%</i>

The number of allocations for each investment category, for each funding level, is displayed in Figures 1 through 6 below. The preferences expressed through this exercise will be analyzed to inform the financial plan.

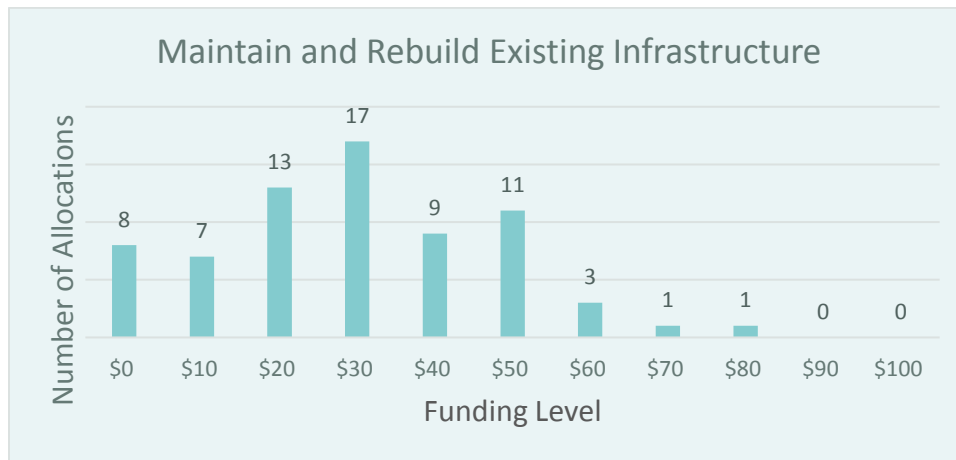


Figure 1: Number of Allocations for “Maintain and Rebuild Existing Infrastructure”



Figure 2: Number of Allocations for “Safety Improvements”

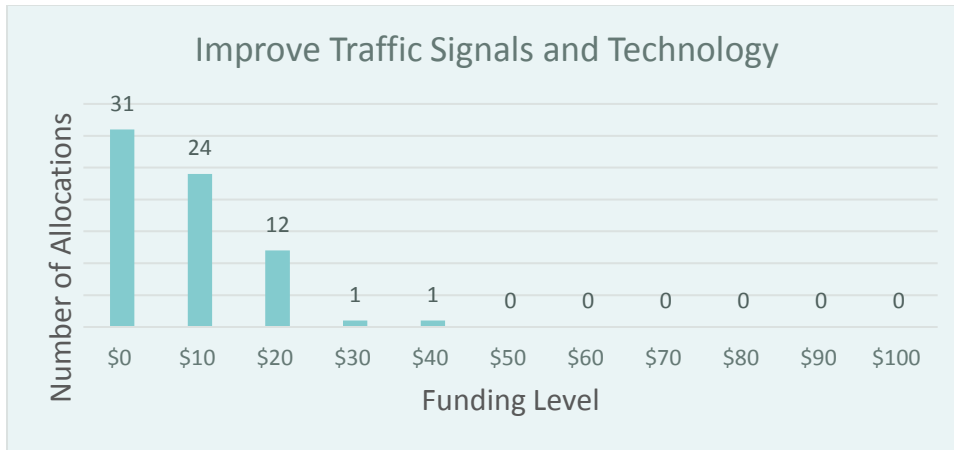


Figure 3: Number of Allocations for “Improve Traffic Signals and Technology”

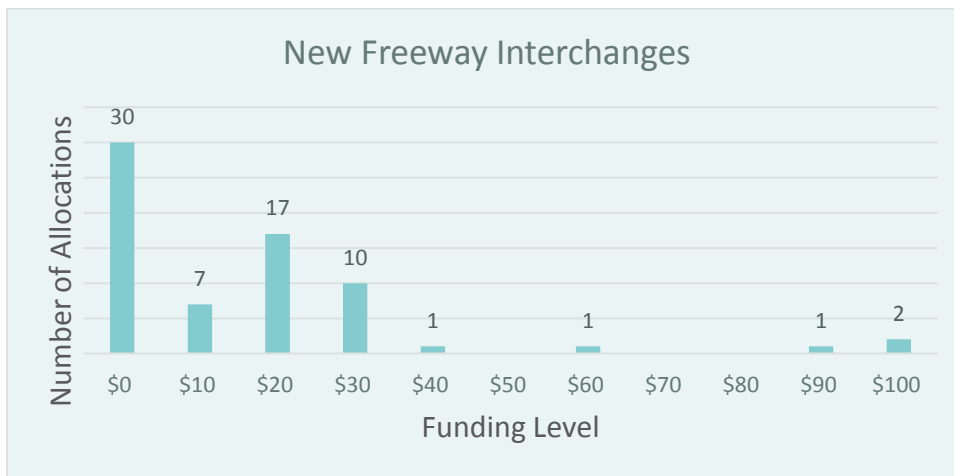


Figure 4: Number of Allocations for “New Freeway Interchanges”



Figure 5: Number of Allocations for “New River Crossings”

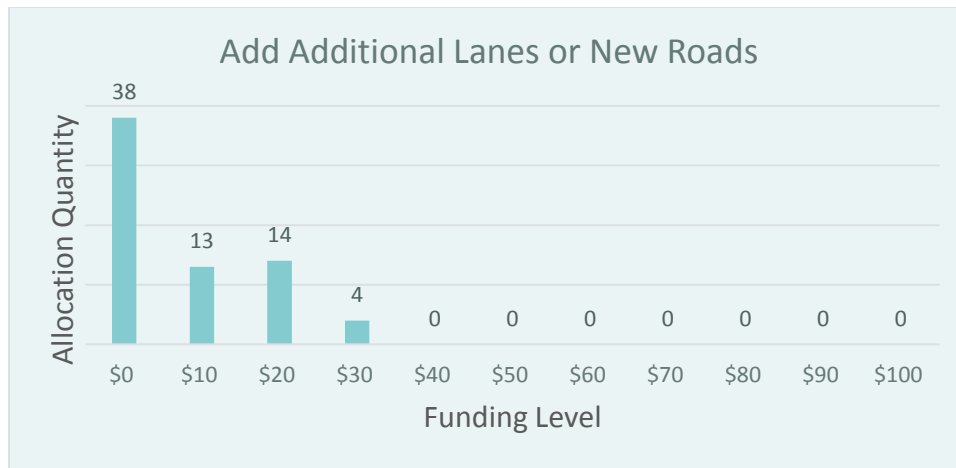


Figure 6: Number of Allocations for “Add Additional Lanes or New Roads”

Next Steps

Public Meeting #3 is anticipated to occur in April 2018. This public meeting will present a range of alternatives to address identified transportation issues and a preliminary evaluation of how these alternatives compare to each other and address identified goals, objectives, and performance measures. Tradeoffs between the various implementation packages will be discussed.

Grand Forks-East Grand Forks MPO
STREET/HIGHWAY PLAN UPDATE

COMMENT CARD

Please share your thoughts below or on the project website at
<https://www.theforksstreets2045.org/contact>

OPTIONAL

NAME M.D. Rene PHONE 701 270 2364

ADDRESS 2750 5th 40th St NE APT 319

Grand Forks, ND 58201

COMMENT #1 Remove All RR Tracks South
of Gate Way Drive ~~at~~ Grand Forks ND.
Run New Tracks N of GF B&E.

Grand Forks-East Grand Forks MPO STREET/HIGHWAY PLAN UPDATE



COMMENT CARD

Please share your thoughts below or on the project website at
<https://www.theforksstreets2045.org/contact>

OPTIONAL

NAME _____

PHONE _____

ADDRESS _____

EMAIL _____

COMMENT

A New bridge and street improvement
should be #1 on the list

Grand Forks-East Grand Forks MPO
STREET/HIGHWAY PLAN UPDATE



COMMENT CARD

Please share your thoughts below or on the project website at
<https://www.theforksstreets2045.org/contact>

OPTIONAL

NAME Eric Castle PHONE 218-280-9050
ADDRESS 504 N. COLUMBIA RD, 6F EMAIL ericcastle@gmail.com

COMMENT

I would like more bike + pedestrian infrastructure. East + West Flaming bike traffic is very difficult + dangerous. ~~Enhanced~~ Enhance the bike lane on University; currently it is ~~deca~~ faded and not respected by cars. Solid painted lane markers would be very nice and greatly increase the safety + usability of this bike lane



2045 Street/Highway Plan Update: Recommended Goals, Objectives, and Standards

January 30, 2018

DRAFT FOR REVIEW AND COMMENT



Goal 1: Economic Vitality

Goal statement: Support the economic vitality through enhancing the economic competitiveness of the metropolitan area by giving people access to jobs, and education services as well as giving business access to markets.

Table 1: Updated Objectives and Standards for Goal 1 Economic Vitality

Objective	Standards
<p>1. Coordinate land use and transportation planning, programming, and investments between agencies.</p>	<ul style="list-style-type: none"> ▪ Strengthen and connect existing communities by focusing street and highway system expansion in areas that are contiguous to currently developed areas. ▪ Recognize and identify investments that support the types and locations of future development identified in the Grand Forks and East Grand Forks Land Use Plans. ▪ Coordinate with local governments on the placement of regionally significant developments (e.g., ones that have a major impact on existing networks) and consider both motorized and non-motorized modes of transportation. ▪ Identify prime corridors for industrial uses that are adjacent to major freight operations and truck routes, have facilities for efficient freight and goods movement, and route truck traffic away from incompatible land uses. (note to reviewers: moved from Goal 5, second objective, standard 2)
<p>2. Enhance the area's economic competitiveness through the movement of goods and services.</p>	<ul style="list-style-type: none"> ▪ Provide street and highway access that is appropriate for the street and highway facility type and land-use environment. ▪ Protect the operational capacity of interstate and state highways through the GF/EGF MPO area and support the growth of regional intermodal freight capacity.
<p>3. Support efficient local and regional street and highway connections for freight and rail movement.</p>	<ul style="list-style-type: none"> ▪ Participate in state and national freight planning efforts. ▪ Build and maintain relationships with area businesses to increase the understanding of their freight needs. ▪ Improve connections to freight terminals (e.g., air and multimodal), especially the last 1-2 miles of access. ▪ Strategically locate freight rail improvements in areas that currently do not have freight rail access. Investments will support critical rail-street/highway connections for key regional centers and businesses to move goods and services. ▪ Support an integrated network of streets, roads, and highways that provide direct routes for freight and rail.
<p>4. Consider economic development planning efforts in the transportation planning and programming processes.</p>	<ul style="list-style-type: none"> ▪ Invite economic development officials to collaborate in the transportation system alternatives analysis process and provide documentation of the alternatives screening process to local economic development officials for review. ▪ Recognize and respond to economic changes at the local, regional, state and national level that influence the metro area's transportation system.



Goal 2: Security

Goal statement: Increase security of the transportation system for motorized and non-motorized uses.

Table 2: Updated Objectives and Standards for Goal 2 Security

Objective	Standards
1. Identify and maintain security of critical street and highway system assets.	<ul style="list-style-type: none"> ▪ Support improvement projects that do not compromise the security of identified critical street and highway assets. ▪ Evaluate and manage the security of the transportation network, especially in critical areas. ▪ <i>During security threats or events, coordinate traffic operations consistent with the Grand Forks-East Grand Forks Bridge Closure Management Plan.</i> (note to reviewers: added to address security aspect of the Bridge Closure Management Plan, which is currently the focus of the second objective)
2. Support state and regional emergency, evacuation, and security plans.	<ul style="list-style-type: none"> ▪ <i>Incorporate state and regional emergency, evacuation, and security plans into transportation plans, project development, and project selection processes.</i> (note to reviewers: added to address security aspect of incident response, which is currently the focus of the fourth objective) ▪ Develop an implementation plan that responds to various disaster events that might occur within the region including evacuation routes and contingency planning. ▪ <i>Coordinate efforts with local emergency/security/hazardous materials groups.</i> (note to reviewers: moved from Goal 8, last objective, last standard)



Goal 3: Accessibility and Mobility

Goal statement: Increase the accessibility and mobility options for people and freight by providing more transportation choices.

Table 3: Updated Objectives and Standards for Goal 3 Accessibility and Mobility

Objective	Standards
1. Mitigate excessive travel delays.	<ul style="list-style-type: none"> ▪ Evaluate all new roadway construction and roadway reconstruction for viability of fiber installation to support future interconnection of traffic signals. ▪ Fund and implement a congestion management process that identifies congestion management strategies to expand roadway capacity prior to adding more lanes on streets and highways. ▪ Identify, map, report, and regularly update corridor congestion levels in the MPO area using volume, capacity, level of service, and amount of delay. ▪ Consider and implement as appropriate innovative intersection improvements, such as roundabouts, that do not stop cross traffic.
2. Maintain an acceptable level of service for all streets and intersections during peak hours.	<ul style="list-style-type: none"> ▪ Strive to deliver level of service C or better at intersections, including during peak travel periods (with the understanding that local and state agencies accept a lower level of service D threshold for determining deficiencies at intersections). ▪ Define corridor-specific level of service criteria for corridors within the metro area, including acceptable levels of congestion, and the meaning of congestion in the context of the region.



Goal 4: Environment/Energy/Quality of Life

Goal statement: Protect and enhance the environment, promote energy conservation, and improve quality of life by valuing the unique qualities of all communities – whether urban, suburban, or rural.

Table 4: Updated Objectives and Standards for Goal 4 Environment/Energy/Quality of Life

Objective	Standards
<p>1. Avoid, minimize, and/or mitigate adverse social, environmental, and economic impacts resulting from existing or new transportation facilities.</p>	<ul style="list-style-type: none"> ▪ Initiate corridor preservation and right-of-way acquisition procedures to strengthen communities and avoid or minimize significant social, environmental, and economic impacts. ▪ Incorporate elements of the Environmental Justice (EJ), Title IV and Limited English Proficiency (LEP) plans into the GF/EGF transportation planning process. ▪ Prioritize transportation improvements that reduce transportation impacts on the existing environment through context sensitive solutions. ▪ Protect, enhance, and mitigate impacts on social, natural, and economic resources when planning, constructing, operating, and maintaining transportation systems. This will include identification of priority resources through available maps, plans, and inventories, and integrating environmentally sustainable practices into street and highway design, construction, and operations. (note to reviewers: combined and clarified the two existing standards; maintaining add per MnDOT)
<p>2. Maintain and improve quality of life along streets and highways.</p>	<ul style="list-style-type: none"> ▪ Work with land use authorities to develop and implement context sensitive projects that incorporate placemaking and “complete streets” principles on new and existing roadways in the GF/EGF MPO area. Tactics may include traffic calming. ▪ Identify and avoid, minimize, and mitigate the impact that transportation and development projects have on historical sites and areas of cultural or historical significance. ▪ Plan and implement a transportation system that considers the needs of all potential users, including children, senior citizens, and persons with disabilities, and that promotes active lifestyles and cohesive communities. A special emphasis should be placed on promoting the environmental and health benefits of alternatives to single-occupancy vehicle travel. (note to reviewers: new standard)
<p>3. Maintain and improve regional air quality.</p>	<ul style="list-style-type: none"> ▪ Provide and promote alternatives to single occupancy vehicle travel through the implementation of traffic demand management strategies, such as carpooling, vanpooling, telecommuting, walking, bicycling, and travel by public transit. ▪ Evaluate air quality monitoring on a regular basis and incorporate mitigation strategies in all transportation and land use plans. ▪ Conduct a regional Greenhouse Gas (GHG) Inventory. ▪ Recognize the role of transportation choices in reducing emissions and support state and regional goals for reducing greenhouse gas and air pollutant emissions. (note to reviewers: new standard)



Goal 5: Integration and Connectivity

Goal statement: Enhance the integration and connectivity of the transportation system, across and between modes for people and freight, and housing, particularly affordable housing located close to transit.

Table 5: Updated Objectives and Standards for Goal 5 Integration and Connectivity

Objective	Standards
1. Effectively coordinate transportation and land use by promoting the sustainability and livability principles, goals, and objectives from local land use plans.	<ul style="list-style-type: none"> ▪ Identify priority corridors and nodes for infill development, densification, or transit-oriented development. ▪ Increase the use of multi-modal transportation by providing additional transit service and reducing bicycle/pedestrian network gaps. ▪ Promote transportation improvements that support access to employment centers, especially those that provide a mix of employment opportunities (e.g. jobs and income levels). ▪ Promote higher land use densities. (note to reviewers: moved from Goal 3, Objective 1)
2. Provide a balanced mix of local, collector, and arterial streets to help meet local and regional travel needs.	<ul style="list-style-type: none"> ▪ Map and update street and highway functional classification based on consistency with adjacent land uses, street/highway design, road authority jurisdiction, and use. (note to reviewers: added to address functional classification, which is currently the focus of the second objective) ▪ Map and invest in the Minnesota Critical Urban Freight and NDDOT Strategic Freight corridors. (note to reviewers: added to address new information and freight system mapping, which is currently the focus of the second objective, standard 1) ▪ Maintain and update street and highway functional classification consistent with FHWA guidelines for mileage by classification, and to reflect the regional definitions established as part of the planning process. ▪ Regularly update and implement access management guidelines for the region's street and highway system.



Goal 6: Efficient System Management

Goal statement: Promote efficient system management and operation by increasing collaboration among federal, state, local government to better target investments and improve accountability.

Table 6: Updated Objectives and Standards for Goal 6 Efficient System Management

Objective	Standards
<p>1. Implement best practice programming and innovative financing alternatives.</p>	<ul style="list-style-type: none"> ▪ Include inflation in project cost estimates and report project costs for the forecast year(s) of expenditure. (note to reviewers: moved from current fourth objective, standard 3) ▪ Identify, track, and pursue alternate funding sources and financing tools to fund local transportation projects, maintenance, and operations. Innovative funding alternatives may include public/private partnerships. (note to reviewers: combined text from current objective, the two standards below, and the current fourth objective, standard 1) ▪ For projects significantly benefitting private entities, develop and implement a cost sharing model to help fund street or highway projects. ▪ Assess developers for the costs of street and highway improvements associated with new developments, where appropriate.
<p>2. Involve all local partners in the transportation planning process.</p>	<ul style="list-style-type: none"> ▪ Collaborate with economic development, transit providers, housing providers, workforce, and other agencies whose clients impact the transportation network to deliver projects that benefit people, businesses, and freight. ▪ Participate in and involve nontraditional partners in the transportation planning process. ▪ Execute agreements necessary (e.g., MOUs, cost sharing, service contracts, etc.) to facilitate regional traffic management strategies. ▪ Incorporate environmental stewardship considerations and environmental agency coordination into the planning and implementation of transportation improvements. ▪ Collaborate with local and state agencies in setting performance measures and targets for urban and rural areas.
<p>3. Cooperate across jurisdictional boundaries to create an integrated transportation network.</p>	<ul style="list-style-type: none"> ▪ Establish multijurisdictional protocols for special events (e.g., events and parades). ▪ Encourage region-wide coordination among traffic, emergency, and maintenance agencies (e.g., police, fire, DOTs, and public works). ▪ Continue to develop and maintain a regional travel demand forecast model for use in forecasting future corridor levels of service. ▪ Encourage member jurisdictions should continue to continue participation participate in the GF/EGF MPO's transportation planning activities. (note to reviewers: rephrased to start with a verb like other standards per B. Retzlaff)
<p>4. Maintain and update the regional ITS architecture.</p>	<ul style="list-style-type: none"> ▪ Implement, where applicable, Active Transportation Demand Management techniques using existing and/or new ITS infrastructure. ▪ Develop and implement coordinated signal timing plans between jurisdictions and along new corridors. ▪ Invest in ITS infrastructure that can record travel times, traffic volumes, turning movements, and other various data points.



Objective	Standards
	<ul style="list-style-type: none"> ▪ Implement, where appropriate, monitoring systems as part of transportation facilities, such as bridges that monitor fatigue, tampering, or failure.
<p>5. Consider advances in autonomous vehicle and connected vehicle technology in the transportation planning and programming processes.</p>	<ul style="list-style-type: none"> ▪ Participate in national and state autonomous vehicle and connected vehicle planning efforts ▪ Support implementation in autonomous vehicle and connected vehicle technology that collectively provides increased transportation options for people and freight ▪ Recognize and address autonomous vehicle and connected vehicle changes at the local, regional, state, and national level that influence the metro area's transportation system <i>(note to reviewers: new objective and standards added per MPO)</i>



Goal 7: System Preservation

Goal statement: Emphasize the preservation of the existing transportation system by first targeting federal funds towards existing infrastructure to spur revitalization, promote urban landscapes and protect rural landscapes.

Table 7: Updated Objectives and Standards for Goal 7 System Preservation

Objective	Standards
<p>1. Identify sufficient funding for the program of projects included in GF/EGF MPO transportation plans.</p>	<ul style="list-style-type: none"> ▪ Inform project finance planning and fiscal constraints by identifying all available funding amounts and their sources. ▪ Identify funding that can be used for operations, maintenance, and facility construction. ▪ Assign more likely construction, operation, and maintenance funding to near-term projects. (note to reviewers: moved from current second objective, and combined with current second objective, standard 1st bullet) ▪ Document funding used for “State of Good Repair” projects and document whether a “State of Good Repair” for the federal transportation system can be currently maintained. ▪ Provide technical assistance to local jurisdictions in applying for state and federal funding programs. (note to reviewers: moved from current second objective, standard 2nd bullet)
<p>2. Cost-effectively preserve, maintain, and improve the existing street and highway system.</p>	<ul style="list-style-type: none"> ▪ Maintain pavement, signal systems, signage, striping and other features of the transportation system to a level that permits safe and multimodal traffic operations. (note to reviewers: moved and refined standard from current fourth objective and standard, 3rd bullet) ▪ Continue pavement management programs that include monitoring, reporting, and integrating reporting across jurisdictions. (note to reviewers: combined current standard, 6th bullet below, and current fourth objective and standard, 2nd bullet) ▪ Continue implementing appropriate preventative maintenance, rehabilitation, or reconstruction projects. Partners will identify projects based on pavement needs documented in an objective and measurable prioritization matrix, and will include elements that improve travel efficiency as identified through the congestion management process. (note to reviewers: combined text from current objective and standard, 7th and 8th bullets below, and current fourth objective and standards, 1st and 4th bullets) ▪ Develop a life-cycle cost analysis of pavement type done for projects with cost estimates over \$2,500,000. (note to reviewers: \$2.5 million needs to be updated based on Asset Management plans) ▪ Identify and implement, where appropriate, new pavement technologies. ▪ ▪ When developing the transportation improvement program (TIP), prioritize improvement of the existing transportation network over construction of new infrastructure.



Goal 8: Safety

Goal statement: Increase safety of the transportation system for motorized and non-motorized uses.

Note to reviewers: Objectives 1 through 20 are from draft 2040 street/highway plan amendment.

Table 8: Updated Objectives and Standards for Goal 8 Safety

Objective	Standards
<p>1. Keep vehicles from encroaching on the roadside in rural areas</p>	<ul style="list-style-type: none"> ▪ Continue to install shoulder rumble strips, edge lines, “profile marking” edge line rumble strips, modified shoulder rumble strips, 6-inch edge lines, or embedded wet-reflective pavement markings on section with narrow or no paved shoulders ▪ Continue to install enhanced shoulders, lighting, delineation (for example, Chevrons), or pavement markings for sharp horizontal curves in rural areas ▪ Continue to install improved highway geometry for horizontal curves ▪ Increase skid-resistance pavement surfaces ▪ Continue to install shoulder treatments <ul style="list-style-type: none"> • Eliminate shoulder drop-offs from paved road to unpaved shoulder • Shoulder edge • Widen and/or pave shoulders
<p>2. Minimize the likelihood of crashing into an object or overturning if the vehicle travels off the shoulder in rural areas</p>	<ul style="list-style-type: none"> ▪ Continue to install safer slopes and ditches to prevent rollovers ▪ Remove/relocate objects in hazardous locations
<p>3. Reduce the likelihood of a head-on vehicle collision in rural areas</p>	<ul style="list-style-type: none"> ▪ Continue to install centerline rumble strips and 6-inch center lines for two-lane rural roads ▪ Continue operation of alternating passing lanes or four-lane sections at key locations ▪ Continue to install cable median barrier for narrow-width medians and multilane roads ▪ Continue operation of buffer space between opposite travel directions ▪ Continue to install directional medians



Objective	Standards
<p>4. Reduce frequency and severity of intersection conflicts through traffic control and operational improvements in urban areas</p>	<ul style="list-style-type: none"> ▪ <i>Continue operation of multiphase signal operation</i> ▪ <i>Optimize clearance intervals</i> ▪ <i>Restrict or eliminate turning maneuvers (including right turns on red)</i> ▪ <i>Continue operation of signal coordination along a corridor or route</i> ▪ <i>Continue operation of emergency vehicle preemption</i> ▪ <i>Continue to install countdown timers, advanced walk phase, and other low-cost pedestrian/bicycle facility improvements</i> ▪ <i>Remove unwarranted signals</i> ▪ <i>Continue to supplement conventional red-light running enforcement with traffic signal confirmation lights and other technology enhancements that support enforcement efforts</i>
<p>5. Reduce the severity of the crash</p>	<ul style="list-style-type: none"> ▪ <i>Continue to improve design and applications of barrier and systems to maintain flow of traffic</i>
<p>6. Improve efficiency and effectiveness of aggressive driving/speed enforcement efforts</p>	<ul style="list-style-type: none"> ▪ <i>Strengthen speed detection and public perceived risk of being stopped and ticketed through sustained, well-publicized, highly visible speed enforcement campaigns</i> ▪ <i>Conduct highly visible, publicized and saturated enforcement campaigns at locations with higher incidence of aggressive driving/speed related crashes</i> ▪ <i>Enact/support legislation to strengthen penalties such as increased fines for right-of-way and speed violations</i> ▪ <i>Strengthen the adjudication of speeding citations to enhance the deterrent effect of fines</i> ▪ <i>Address the perception of widespread speeding by heavy vehicles by first conducting a statewide assessment of commercial vehicle speeds. In response to the assessment results, examine enforcement, safety education, and outreach safety strategies for priority regions or corridors identified as needing improvement</i>
<p>7. Review crash data</p>	<ul style="list-style-type: none"> ▪ <i>Continue to analyze data to clearly define aggressive driving and identify factors contributing to aggressive driving</i>
<p>8. Set and communicate appropriate speed limits</p>	<ul style="list-style-type: none"> ▪ <i>Continue to implement active speed warning signs, including dynamic message boards at rural to urban transitions, school zones, and work zones</i> ▪ <i>Continue operation of in-pavement measures to communicate the need to reduce speeds</i>
<p>9. Ensure that roadway design and traffic control elements support appropriate and safe speeds</p>	<ul style="list-style-type: none"> ▪ <i>Effect safe speed transitions through design elements and on approaches to lower speed areas</i>
<p>10. Improve sight distance at signalized and unsignalized intersections</p>	<ul style="list-style-type: none"> ▪ <i>Continue to clear sight triangles</i> ▪ <i>Redesign intersection approaches</i> ▪ <i>Change horizontal and/or vertical alignment of approaches to provide more sight distance</i> ▪ <i>Eliminate parking that restricts sight distance</i>



Objective	Standards
<p>11. Improve driver awareness of intersections and signal control</p>	<ul style="list-style-type: none"> ▪ <i>Continue to improve visibility of intersections by providing enhanced signing, delineating, overhead indications, 12-inch lenses, background shields, or pavement markings/messages</i> ▪ <i>Continue to call attention to intersections by installing rumble strips on intersection approaches</i> ▪ <i>Continue to improve visibility of intersections by providing appropriate street lighting</i> ▪ <i>Continue to install larger regulatory and warning signs at intersections, including the use of dynamic warning signs at appropriate intersections</i> ▪ <i>Continue to provide dashed markings (extended left edge lines) for major road continuity across the median opening at divided highway intersections</i>
<p>12. Improve management of access near signalized and unsignalized intersections</p>	<ul style="list-style-type: none"> ▪ <i>Continue to restrict or eliminate parking on intersection approaches</i> ▪ <i>Expand driveway closure/relocations</i> ▪ <i>Provide longer left-turn lanes at intersections</i> ▪ <i>Expand driveway turn restrictions</i> ▪ <i>Continue to install left-turn lanes at intersections</i> ▪ <i>Continue to offset left-turn lanes at intersections</i> ▪ <i>Continue to install bypass lanes on shoulders at T-intersections</i> ▪ <i>Continue to provide acceleration lanes at divided highway intersections</i> ▪ <i>Continue to install right-turn lanes at intersections</i> ▪ <i>Continue to offset right-turn lanes at intersections</i> ▪ <i>Expand to provide right-turn acceleration lanes at intersections</i> ▪ <i>Expand channelized or closed median openings to restrict or eliminate turning maneuvers</i> ▪ <i>Close or relocate “high-risk” intersections</i> ▪ <i>Continue to convert four-legged intersections to two T-intersections</i> ▪ <i>Realign intersection approaches to reduce or eliminate intersection skew</i> ▪ <i>Continue to improve pedestrian and bicycle facilities to reduce conflict between motorists and nonmotorized travelers</i> ▪ <i>Convert 2-lane intersection to 3-lane intersection</i>
<p>13. Choose appropriate intersection traffic control to minimize crash frequency and severity</p>	<ul style="list-style-type: none"> ▪ <i>Continue to construct roundabouts at appropriate locations</i> <ul style="list-style-type: none"> • <i>Currently occurring at intersections in Grand Forks: 23th St & 40th Ave S, 34th St & 24th Ave</i> • <i>*only standard found in safety plans</i>
<p>14. Improve the roadway and driving environment to better accommodate drivers’ needs</p>	<ul style="list-style-type: none"> ▪ <i>Expand the use of advanced guide signs and street name signs</i> ▪ <i>Continue to increase sign and letter heights of roadway signs</i> ▪ <i>Provide more all-red clearance intervals at signalized intersections</i> ▪ <i>Provide more protected left-turn signal phases at high-volume intersections</i> ▪ <i>Continue to improve lighting at intersections, horizontal curves, and railroad grade crossings</i> ▪ <i>Continue to improve roadway delineation</i> ▪ <i>Continue to reduce intersection skew angle</i>



Objective	Standards
<p>15. Improve Sight Distance and/or Visibility Between Motor Vehicles and Pedestrians/Bicyclists</p>	<ul style="list-style-type: none"> ▪ <i>Continue to provide crosswalk enhancements</i> ▪ <i>Continue to implement lighting/crosswalk illumination measures</i> ▪ <i>Continue to eliminate screening by physical objects</i> ▪ <i>Expand signals to alert motorists that pedestrians/bicyclists are crossing</i> ▪ <i>Continue to improve reflectivity/visibility of pedestrians/bicyclists</i>
<p>16. Reduce Vehicle Speed</p>	<ul style="list-style-type: none"> ▪ <i>Continue to implement road narrowing measures</i> ▪ <i>Continue to install traffic calming—road sections</i> ▪ <i>Continue to install traffic calming—intersections</i> ▪ <i>Continue to provide school route improvements</i>
<p>17. Improve Motorist Safety Awareness and Behavior</p>	<ul style="list-style-type: none"> ▪ <i>Continue to provide education, outreach, and training</i> ▪ <i>Continue to implement enforcement campaigns</i>
<p>18. Reduce Effect of Hazards</p>	<ul style="list-style-type: none"> ▪ <i>Fix or remove surface irregularities</i> ▪ <i>Provide routine maintenance of bicycle facilities</i>
<p>19. Implement a multimodal transportation system that is balanced and integrated with all transportation modes to ensure safe and efficient movement of people and goods</p>	<ul style="list-style-type: none"> ▪ <i>Minimize congestion on roadways and at intersections</i> ▪ <i>Maintain roadway and other Level of Service standards consistent with regional, county, and municipal comprehensive plans</i> ▪ <i>Provide a balanced system with viable multi-modal options that are consistent with local comprehensive plans</i> ▪ <i>Provide infrastructure that supports transportation (transit riders, pedestrians, bicyclists and other alternative transportation modes)</i> ▪ <i>Improve intermodal connectivity and access to intermodal facilities (e.g., airports, transit centers, Interstate bus system, rail, etc.) and activity centers</i> ▪ <i>Provide more sidewalks and bikeways</i> ▪ <i>Improve public transit services so they are efficient, frequent, reliable, convenient, safe, easy to use and understand, and promotes other intermodal uses</i>
<p>20. Increase the safety and security of the transportation system for motorized and non-motorized users</p>	<ul style="list-style-type: none"> ▪ <i>Provide for safer travel by all transportation modes, including pedestrian, bicycling, transit, and automobile</i> ▪ <i>Encourage measures that reduce congestion</i> ▪ <i>Encourage strategies that improve emergency response to accident</i>



Objective	Standards
<p>21. Reduce the number, severity, and rate of crashes compared to previous years by type of vehicle and transportation facility.</p>	<ul style="list-style-type: none"> ▪ Identify and maintain a database and map of frequent or severe crash locations by transportation facility within the MPO area (intersections, road segment, bicycle/pedestrian facility, and bicycle/pedestrian – vehicle conflict point). The database will include number, type, and severity of crashes. ▪ Identify and implement, where possible, intersection treatments that reduce crashes ▪ Support policies that prohibit/penalize distracted driving. ▪ Identify funding available to improve the safety of the roadway system. ▪ Coordinate with local, county, and state agencies to develop education, public health, engineering, and enforcement strategies targeted at crash reduction. ▪ <i>Support the region’s vision of moving toward zero traffic fatalities and serious injuries, which includes supporting educational and enforcement programs to increase awareness of regional safety issues, shared responsibility, and safe behavior. (note to reviewers: new standard)</i>



Goal 9: Resiliency and Reliability

Goal statement: Improve resiliency and reliability of the transportation system and reduce or mitigate stormwater impacts of surface transportation.

Note to reviewers: Modeled after content in Goal 2 (Security), current second and fourth objectives and standards.

Table 9: Objectives and Standards for Goal 9 Resiliency

Objective	Standards
<p>1. Reduce street and highway system vulnerability to snow and storm water</p>	<ul style="list-style-type: none"> ▪ Maintain passable streets and highways under all reasonable weather conditions. ▪ Strategically design and maintain the street and highway system to operate under all reasonable weather conditions. ▪ Assess and mitigate any possible impacts new roadway construction may have on high water events, including proximity to waterways, construction in wetlands or floodways, storm drainage, etc.
<p>2. Support the region's resilience and travel reliability through efficient detour and evacuation routes</p>	<ul style="list-style-type: none"> ▪ During river flood events, reroute traffic consistent with the Bridge Closure Management Plan, or revised to respond to significant, observed delays or changes. ▪ Be trained in and use established alternate routes and intelligent transportation systems (ITS) to maintain street and highway operations during incidents and temporary street or highway blockages. ▪ Provide auxiliary power sources to operate traffic signals when mainline power is interrupted.



Goal 10: Tourism

Goal statement: Enhance travel and tourism.

Note to reviewers: New content.

Table 10: Objectives and Standards for Goal 10 Tourism

Objective	Standards
<p>1. Maintain convenient and intuitive street and highway access to major activity centers</p>	<ul style="list-style-type: none"> ▪ <u>Develop and use event traffic management plans for major activity centers such as the Alerus Center, Ralph Engelstad Arena, and Greater Grand Forks Greenway including the Red River State Recreation Campground.</u> ▪ <u>Identify, coordinate, and communicate traffic plans for simultaneous events.</u>

Safety Targets Annual

- Must Adopt Minimum of 5 Targets; Can adopt maximum of 10 Targets; Or a Number Inbetween
 - 5 targets would mean just for MPO Area.
 - 10 Targets would mean just both statewide area.
 - Can choose to adopt combinations of some targets at MPO area and others at Statewide level.
- Next Slides present the Statewide Adopted Targets for each State and the draft target for just the MPO Area.

Number of traffic fatalities

Safety Target Analysis

	North Dakota	Minnesota	GF-EGF MPO
GF-EGF Performance	2007 -- 2 2008 -- 2 2009 -- 1 2010 -- 4 2011 -- 1 2012 -- 1 2013 -- 2 2014 -- 3 2015 -- 0 5-year rolling average: 2011-2015 -- 1.4	2007 -- 0 2008 -- 1 2009 -- 0 2010 -- 0 2011 -- 0 2012 -- 1 2013 -- 1 2014 -- 0 2015 -- 0 5-year rolling average: 2011-2015 -- 0.4	5-year rolling average: 2007-2011 -- 2.2 2008-2012 -- 2.2 2009-2013 -- 2.2 2010-2014 -- 2.6 2011-2015 -- 1.8 <i>Analysis: Between 2007 and 2015:</i> <ul style="list-style-type: none"> • <i>Number ranges from 0 to 4</i> • <i>5-year rolling average ranges from 1.8 to 2.6</i> • <i>Declining trend (-.04 per year)</i> <u>DRAFT TARGET:</u> <ul style="list-style-type: none"> • <u>3 or fewer traffic fatalities by 2018</u> • <u>No change in trend</u>
State Targets	138 traffic fatalities or fewer statewide 0.5% decline	375 traffic fatalities or fewer statewide 3% decline	

Traffic fatality rate per 100 million VMT

Safety Target Analysis

	North Dakota	Minnesota	GF-EGF MPO
GF-EGF Performance	<p>Data not available</p> <p><i><u>Methodology notes:</u></i></p> <ul style="list-style-type: none"> <i>Did not have VMT for Grand Forks separate from East Grand Forks</i> <i>All rate calculations using 2015 VMT for urbanized GF-EGF MPO area</i> 	Data not available	<p>5-year rolling average:</p> <p>2007-2011 -- 0.673/mvmt</p> <p>2008-2012 -- 0.673/mvmt</p> <p>2009-2013 -- 0.673/mvmt</p> <p>2010-2014 -- 0.795/mvmt</p> <p>2011-2015 -- 0.550/mvmt</p> <p><i>Analysis: Between 2007 and 2015:</i></p> <ul style="list-style-type: none"> <i>5-year rolling average ranges from 0.550/mvmt to 0.795/mvmt</i> <i>Declining trend (-0.0122 per year)</i> <p><u>DRAFT TARGET:</u></p> <ul style="list-style-type: none"> <u>0.673/mvmt or lower by 2018</u> <u>No change in trend</u>
State Targets	<p>1.336/mvmt</p> <p>0.5% decline</p>	<p>0.62/mvmt</p> <p>No change in trend</p>	

Number of crash-related serious injuries

Safety Target Analysis

	North Dakota	Minnesota	GF-EGF MPO
GF-EGF Performance	2007 -- 19 2008 -- 13 2009 -- 5 2010 -- 16 2011 -- 15 2012 -- 23 2013 -- 17 2014 -- 15 2015 -- 17 5-year rolling average: 2011-2015 -- 17.4	2007 -- 1 2008 -- 0 2009 -- 3 2010 -- 2 2011 -- 1 2012 -- 1 2013 -- 1 2014 -- 4 2015 -- 3 5-year rolling average: 2011-2015 -- 2.0	5-year rolling average: 2007-2011 -- 15.0 2008-2012 -- 15.8 2009-2013 -- 16.8 2010-2014 -- 19.0 2011-2015 -- 19.4 <i>Analysis: Between 2007 and 2015:</i> <ul style="list-style-type: none"> • <i>Number ranges from 8 to 24</i> • <i>5-year rolling average ranges from 15.0 to 19.4</i> • <i>Rising trend (+ 1.2 per year)</i> <u>DRAFT TARGET:</u> <ul style="list-style-type: none"> • <u>18 or fewer serious injuries by 2018</u> • <u>Decline in trend</u>
State Targets	516 serious injuries or fewer statewide No change in trend	1,935 serious injuries or fewer statewide Decline in trend	

Serious injury rate per 100 million VMT

Safety Target Analysis

	North Dakota	Minnesota	GF-EGF MPO
GF-EGF Performance	<p>Data not available</p> <p><i><u>Methodology notes:</u></i></p> <ul style="list-style-type: none"> <i>Did not have VMT for Grand Forks separate from East Grand Forks</i> <i>All rate calculations using 2015 VMT for urbanized GF-EGF MPO area</i> 	Data not available	<p>5-year rolling average:</p> <p>2007-2011 -- 4.587</p> <p>2008-2012 -- 4.832</p> <p>2009-2013 -- 5.138</p> <p>2010-2014 -- 5.810</p> <p>2011-2015 -- 5.933</p> <p><i>Analysis: Between 2007 and 2015:</i></p> <ul style="list-style-type: none"> <i>5-year rolling average ranges from 4.587/mvmt to 5.933/mvmt</i> <i>Rising trend (+0.367 per year)</i> <p><u>DRAFT TARGET:</u></p> <ul style="list-style-type: none"> <u>5.933/mvmt or lower by 2018</u> <u>Decline in trend</u>
State Targets	5.088/mvmt	3.15/mvmt	

Number of non-motorized fatalities and non-motorized serious injuries

Safety Target Analysis

	North Dakota	Minnesota	GF-EGF MPO
GF-EGF Performance	2007 -- 2 2008 -- 3 2009 -- 1 2010 -- 3 2011 -- 5 2012 -- 0 2013 -- 4 2014 -- 5 2015 -- 2 5-year rolling average: 2011-2015 -- 3.2	2007 -- 0 2008 -- 0 2009 -- 0 2010 -- 0 2011 -- 0 2012 -- 0 2013 -- 0 2014 -- 0 2015 -- 0 5-year rolling average: 2011-2015 -- None	5-year rolling average: 2007-2011 -- 2.8 2008-2012 -- 2.4 2009-2013 -- 2.6 2010-2014 -- 3.4 2011-2015 -- 3.2 <i>Analysis: Between 2007 and 2015:</i> <ul style="list-style-type: none"> • <i>Number ranges from 0 to 5</i> • <i>5-year rolling average ranges from 2.4 to 3.4</i> • <i>Rising trend (+0.18 per year)</i> <u>DRAFT TARGET:</u> <ul style="list-style-type: none"> • <u>3 or fewer non-motorized fatal and serious injury crashes by 2018</u> • <u>Decline in trend</u>
State Targets	34 fatalities and serious injuries or fewer statewide No change in trend	348 fatalities and serious injuries or fewer statewide 5% decline	

Safety Targets Long-Term

- Towards Zero Deaths



DRAFT MEMORANDUM

To: Earl Haugen, Executive Director Grand Forks – East Grand Forks MPO
From: Brandon Bourdon, P.E. (ND, MN), Kimley-Horn and Associates
Date: February 9, 2018
Re: Grand Forks-East Grand Forks MPO 2045 Street/Highway Plan Update
River Crossing Alternatives Analysis

A variety of additional potential Red River crossing locations have been included in prior Grand Forks – East Grand Forks long range transportation plans. These additional river crossings have been discussed, documented, and analyzed at varying degrees since at the late 1960s. Since the 2004 long range transportation plan update, the locations for any new river crossings have included both the 32nd Avenue and Merrifield Road river crossings. The Merrifield Road crossing has been a “bypass” option that would provide regional benefit by reducing trips, particularly truck trips, through the urbanized area.

There has been renewed interest in adding an additional river crossing(s) recently. Since the Grand Forks – East Grand Forks Metropolitan Planning Organization (MPO) is in the process of updating the region's transportation plan, a high-level transportation focused planning analysis has been completed to assess some transportation benefits of several potential river crossings. This analysis focuses on the transportation planning impacts of the following potential river crossing locations:

- 24th Avenue
- 32nd Avenue
- 47th Avenue
- Merrifield Road

Advanced Traffic Analysis Center (ATAC) has been completing travel demand modeling as part of the 2045 Street/Highway Plan Update. ATAC used the regions travel demand model for this analysis to develop 2045 daily traffic forecasts. Kimley-Horn and WSB used these forecasts to analyze regional traffic pattern changes, link level volume to capacity (V/C) ratios, and local intersection level of service (LOS) for each of the four potential new river crossings scenarios. Each river crossing was analyzed at a regional and local level to allow for a comparison of transportation impacts. The purpose of this memorandum is to summarize the findings of this analysis.

Existing and No Build Traffic Conditions

Existing and No Build traffic conditions were analyzed on both a link and intersection LOS basis. The link level analysis focused on several key corridors within the urbanized area of the MPO. The corridors analyzed are:

- Gateway Drive (US 2) from Columbia Road to Central Avenue
- DeMers Avenue from Columbia Road to 4th Street (Business US 2)
- 4th Avenue / Minnesota Avenue / 1st Street from DeMers Avenue to 3rd Avenue
- 24th Avenue from Washington Street to Belmont Road
- 32nd Avenue from Columbia Road to Belmont Road
- 47th Avenue from Washington Street to Belmont Road
- Bygland Road / 3rd Avenue / 2nd Avenue from Rhinehart Drive to Business US 2
- Belmont Road from 4th Avenue to 17th Avenue
- Washington Street from DeMers Avenue to 55th Avenue
- 4th Street / Business US 2 from DeMers Avenue to 170th Street



In addition to the corridors, six intersections were analyzed at an overall intersection LOS basis. The analyzed intersections include the following:

- DeMers Avenue and 5th Street
- DeMers Avenue and Washington Street
- Washington Street and 17th Avenue
- Washington Street and 32nd Avenue
- 1st Street and 3rd Avenue
- 4th Avenue and Belmont Road

Existing traffic patterns were first analyzed at a link level. To complete the link level analysis, ADT volumes (average daily traffic) and V/C ratios under Existing conditions were provided by ATAC. The V/C ratios were then compared to planning level LOS ratings based on typical facility V/C ratios. LOS ratings were then assigned to the links that were reviewed as part of this analysis.

Overall, the urbanized area is operating acceptably under Existing conditions although several links operate LOS C and D. **Figure 1**, below, shows the link level LOS under Existing conditions. **Table 1** below describes the V/C thresholds for each of the LOS criteria.

Table 1: Link Level of Service Thresholds

Level of Service	Link Level Volume to Capacity LOS Threshold
A	0.0 to 0.6
B	>0.6 to 0.7
C	>0.7 to 0.8
D	>0.8 to 0.85
D-	>0.85 to 0.9
E	>0.9 to 1.0
F	>1.0

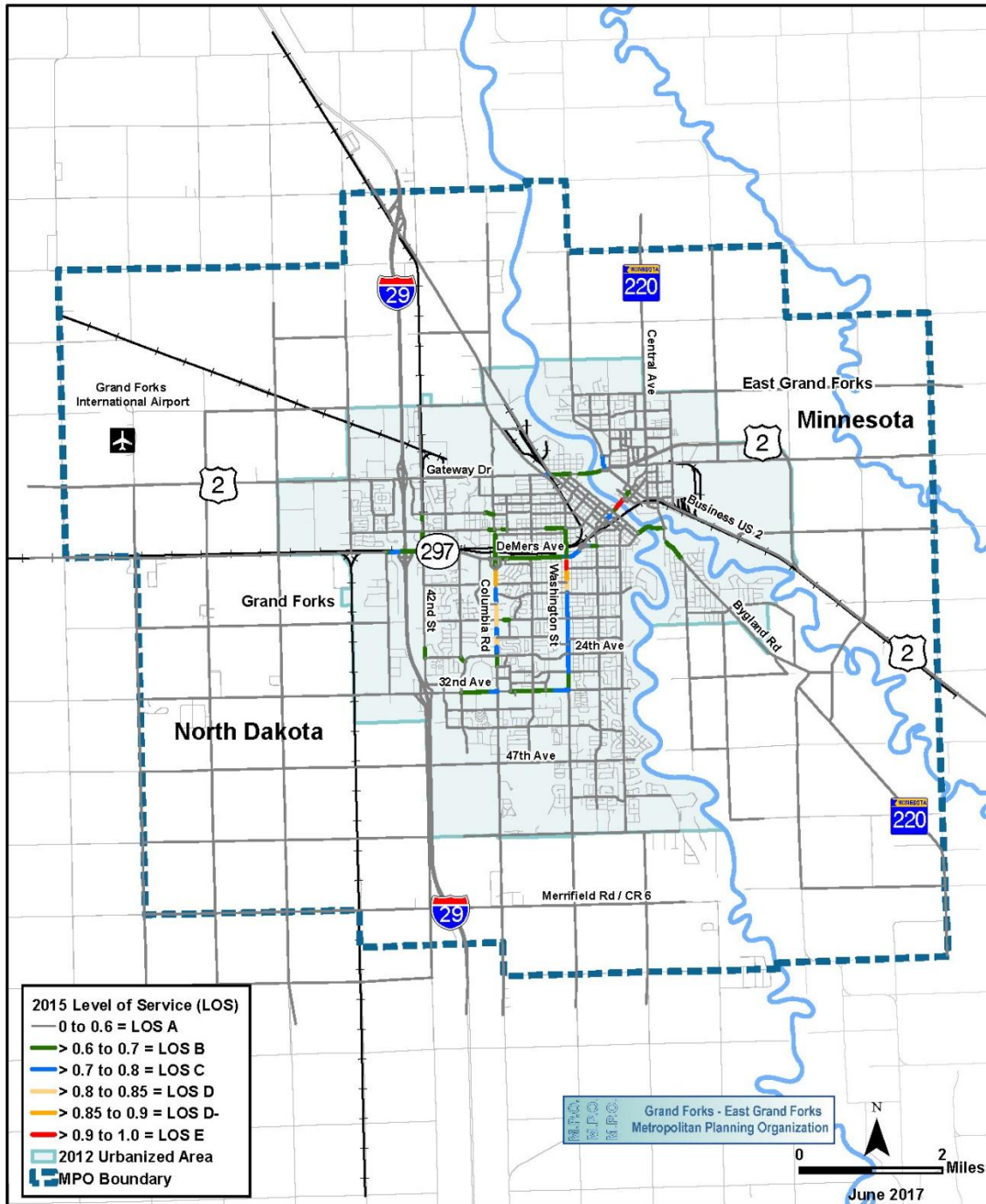


Figure 1: Existing Conditions Link Level LOS Summary



Although analyzing link V/C ratios and LOS are beneficial, another way to analyze traffic is to focus on intersection operations. An intersection capacity analysis can identify operational concerns that may not be apparent by completing a link LOS analysis. To complete the intersection analysis existing turning movement counts, collected in 2017, were used to model intersection operations and review intersection LOS. This analysis was completed during the PM peak hour at the study intersections for Existing, 2045 No Action, and the four potential bridge crossing alternatives under 2045 conditions. Synchro version 9 was used to complete this analysis.

The LOS grades shown below, which are provided in the Transportation Research Board's Highway Capacity Manual (HCM), quantify and categorize the driver's discomfort, frustration, fuel consumption, and travel times experienced as a result of intersection control and the resulting traffic queuing. A detailed description of each LOS rating can be found in **Table 2**.

Table 2: Level of Service Grading Descriptions

Level of Service	Description
A	Minimal control delay; traffic operates at primarily free-flow conditions; unimpeded movement within traffic stream.
B	Minor control delay at signalized intersections; traffic operates at an unimpeded level with slightly restricted movement within traffic stream.
C	Moderate control delay; movement within traffic stream more restricted than at LOS B; the formation of queues contributes to lower average travel speeds.
D	Considerable control delay that may be substantially increased by small increases in flow; average travel speeds continue to decrease.
E	High control delay; average travel speed no more than 33 percent of free flow speed.
F	Extremely high control delay; extensive queuing and high volumes create exceedingly restricted traffic flow.

The range of control delay for each rating (as detailed in the HCM) is shown in **Table 3**. Signalized intersections are expected to carry a larger volume of vehicles and stopping is required during red time, so higher delays are generally tolerated more by drivers for each corresponding LOS ratings. In general, LOS D or better for overall intersection LOS is the accepted standard for existing and future intersection operations.

Table 3: Level of Service Grading Descriptions

Level of Service	Average Control Delay (s/veh) at:	
	Unsignalized Intersections	Signalized Intersections
A	0 – 10	0 – 10
B	> 10 – 15	> 10 – 20
C	> 15 – 25	> 20 – 35
D	> 25 – 35	> 35 – 55
E	> 35 – 50	> 55 – 80
F	> 50	> 80

For unsignalized intersections, LOS is reported for the worst approach and overall intersection. Similar to the link level analysis, the overall intersection LOS does not show any issues at the analyzed intersections under Existing conditions. **Table 4** below summarizes the Existing PM peak intersection operations.



Table 4: Existing Intersection LOS Summary

Analyzed Intersection/ LOS	DeMers Ave at 5 th Street	DeMers Ave at Washington St.	Washington St. at 17 th Ave	Washington St. at 32 nd Ave	1 st St. at 3 rd Ave	4 th Ave at Belmont Rd.
Existing PM Peak LOS	B	D	C	C	A	B

No Build conditions were analyzed in the same manner as existing conditions except using 2045 No Build ADTs and V/Cs provided by ATAC. Under this scenario, no additional bridge crossings were assumed by 2045. **Figure 2** on the next page shows the link level LOS under 2045 No Build conditions. This analysis shows that several key corridors are operating undesirably (LOS worse than D). All three river crossings in addition to segments of Washington Street and 32nd Avenue are anticipated to operate at LOS E or F.

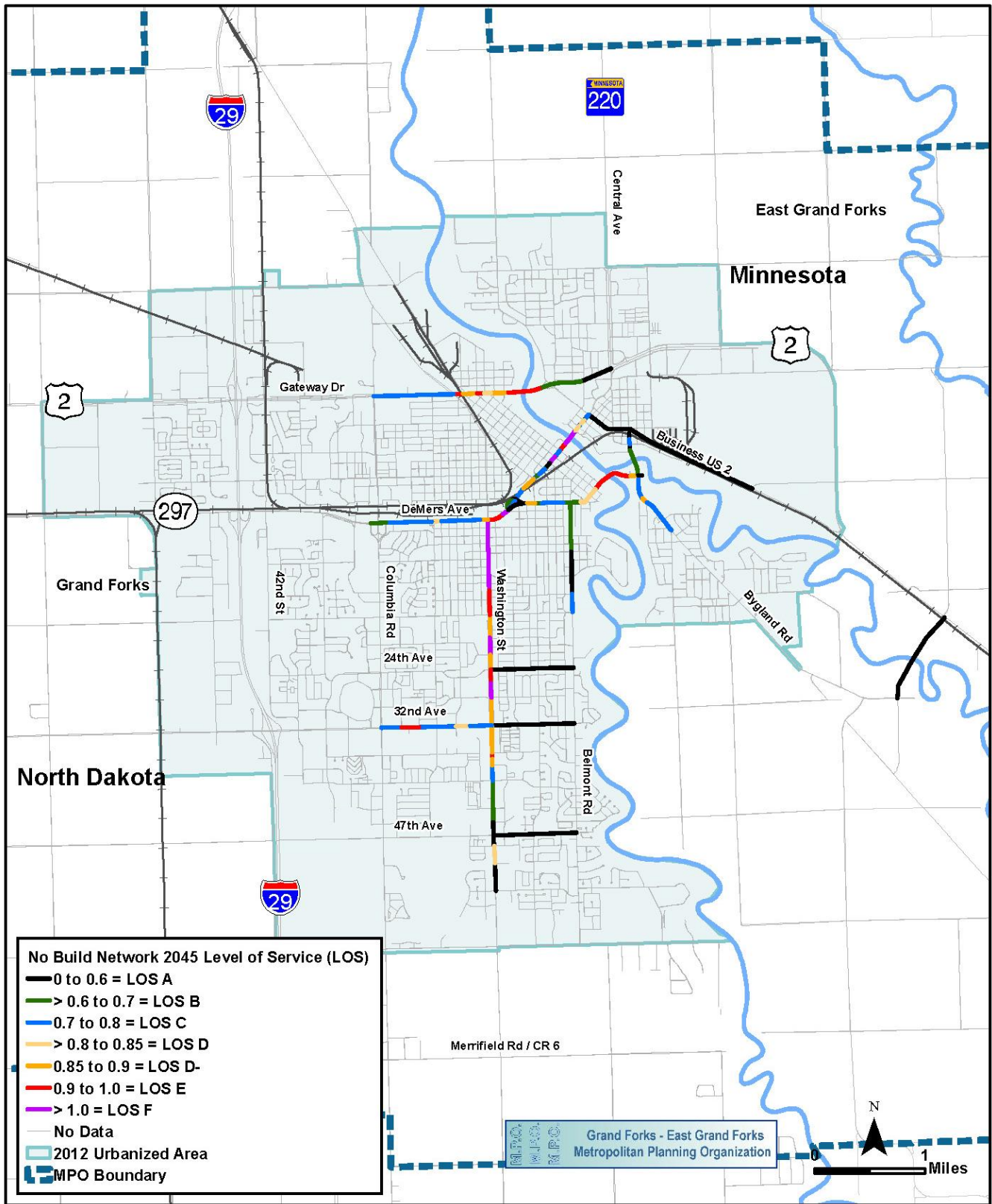


Figure 2: 2045 No Build Conditions Link Level LOS Summary



In addition to the link level analysis, an intersection analysis was also completed. To develop volumes for the 2045 No Build scenario, link ADTs under Existing and 2045 No Build conditions were compared on all intersection approaches. Then a growth factor for each approach was developed based on that comparison. The growth factor was used to adjust the existing turning movement counts to create future turning movement volumes at each intersection.

The intersection LOS analysis shows a similar trend as the link level LOS. The intersections of DeMers Avenue and Washington Street, Washington Street and 32nd Avenue, and 4th Avenue and Belmont Road show undesirable operations under 2045 No Build conditions. **Table 5** below is a continuation of **Table 4**, it summarizes the intersection LOS under both Existing and 2045 No Build conditions.

Table 5: Existing and 2045 No Build Intersection LOS Summary

Analyzed Intersection/ LOS	DeMers Ave at 5 th Street	DeMers Ave at Washington St.	Washington St. at 17 th Ave	Washington St. at 32 nd Ave	1 st St. at 3 rd Ave	4 th Ave at Belmont Rd.
Existing PM Peak LOS	B	D	C	C	A	B
2045 No Build PM Peak LOS	B	E	D	E	B	F

The operational challenges at the two Washington Street intersections are also evident when looking at **Figure 2**, many areas where links are anticipated to operate at LOS E or F occur around these two intersections. The poor operations at 4th Avenue at Belmont Road are attributed to the existing intersection control. The 2045 No Build volumes exceed the capacity of an all-way stop. The intersection of 4th Avenue at Belmont Road was recently a signal, but it was removed after a vehicular crash rendered it inoperable. The all-way stop is acceptable under Existing traffic levels. Under 2045 No Build conditions, if a signal was reinstalled, the intersection would operate at an acceptable LOS. **Figure 3** on the next page shows intersection LOS values from **Table 5** on a map.

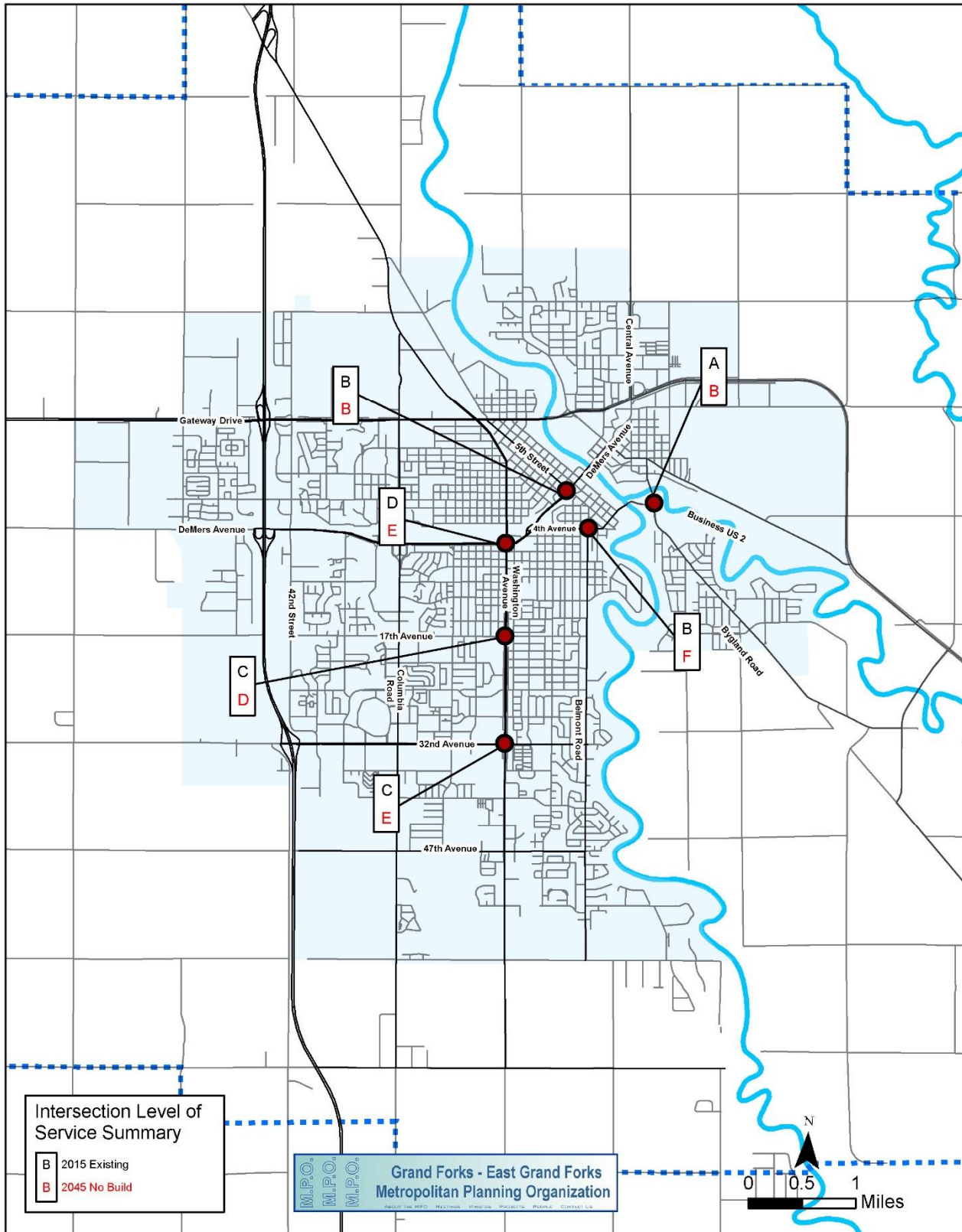


Figure 3: Existing and 2045 No Build Intersection LOS Summary



River Crossing Analysis

Based on input from area political leaders and agency staff in the region, the following four potential new river crossing locations were analyzed: 24th Avenue, 32nd Avenue, 47th Avenue and Merrifield Road. Each river crossing was analyzed at a local level (intersection and link LOS) and regional level (global metrics such as urban vehicle miles traveled) under 2045 conditions to determine transportation related impacts of each potential crossing on the transportation network. A summary matrix of each river crossing is included at the end of this memo that provides an overall comparison.

Local Impacts

Figures 4 through 11 on the following pages show the corridor ADTs and link level LOS for each of the potential river crossing alternatives. Here are a few observations noted:

- The Point Bridge link LOS operates better under the 24th Avenue and 32nd Avenue river crossing alternatives.
- Gateway Drive operates better under the 24th Avenue, 32nd Avenue, and 47th Avenue river crossings.
- DeMers Avenue experienced similar operations under each of the alternatives analyzed.
- Washington Street operated with the fewest LOS F segments under the 32nd Avenue and 47th Avenue river crossing alternatives.
- Belmont Road operations were better under all the river crossing alternatives when compared to the No Action scenario.

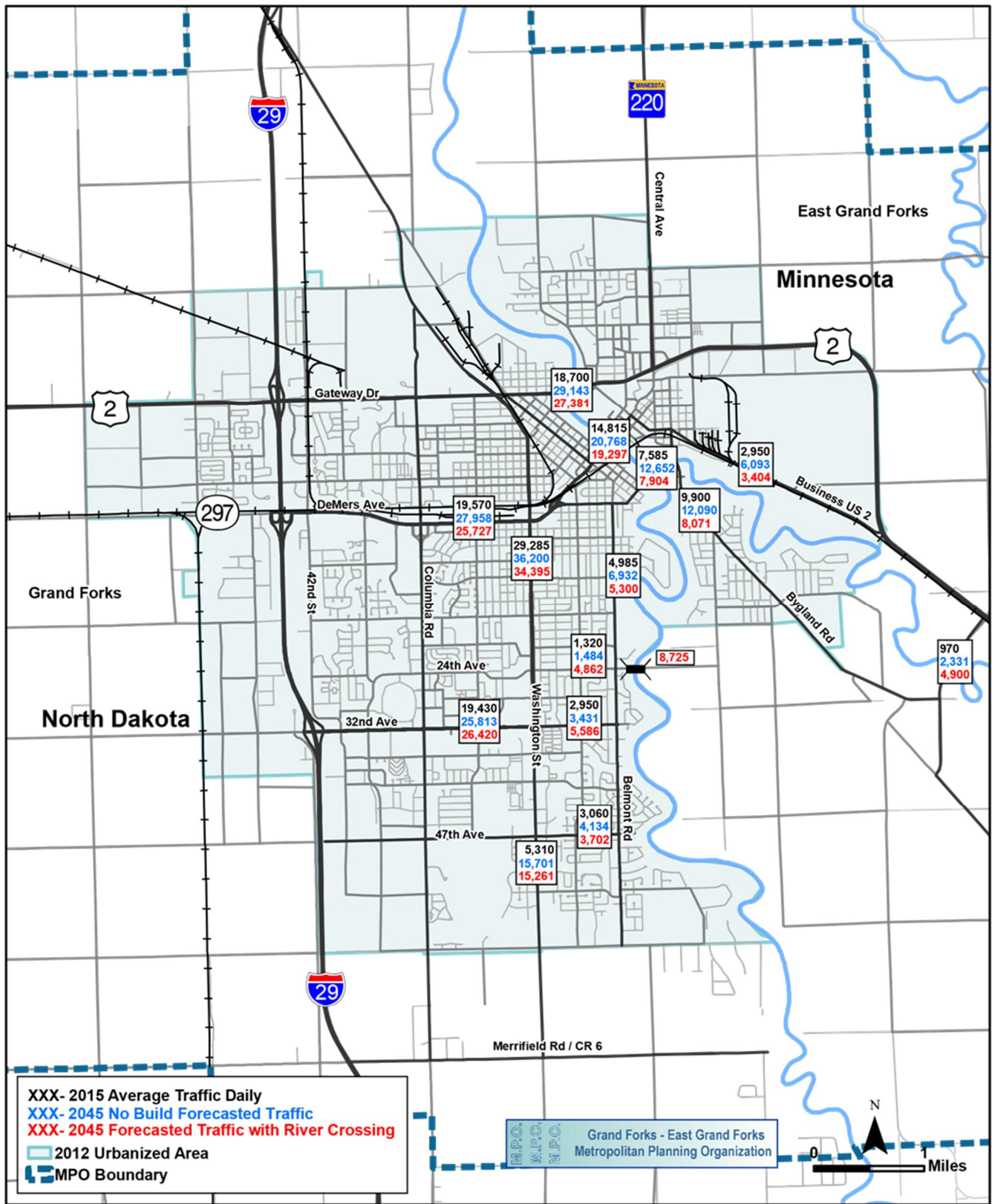


Figure 4: ADT Summary for the Proposed 24th Avenue River Crossing

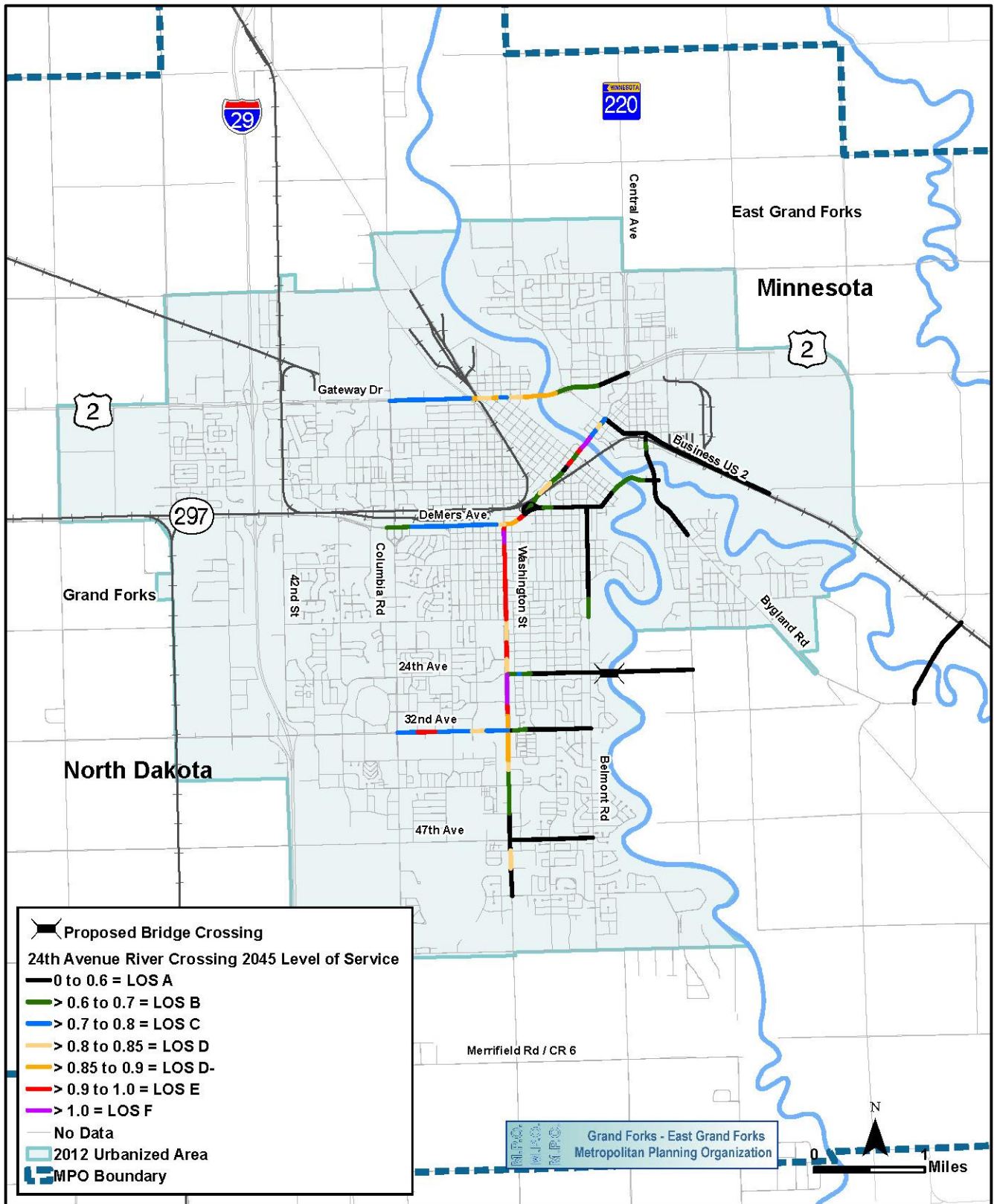


Figure 5: Link Level of Service Summary for the Proposed 24th Avenue River Crossing

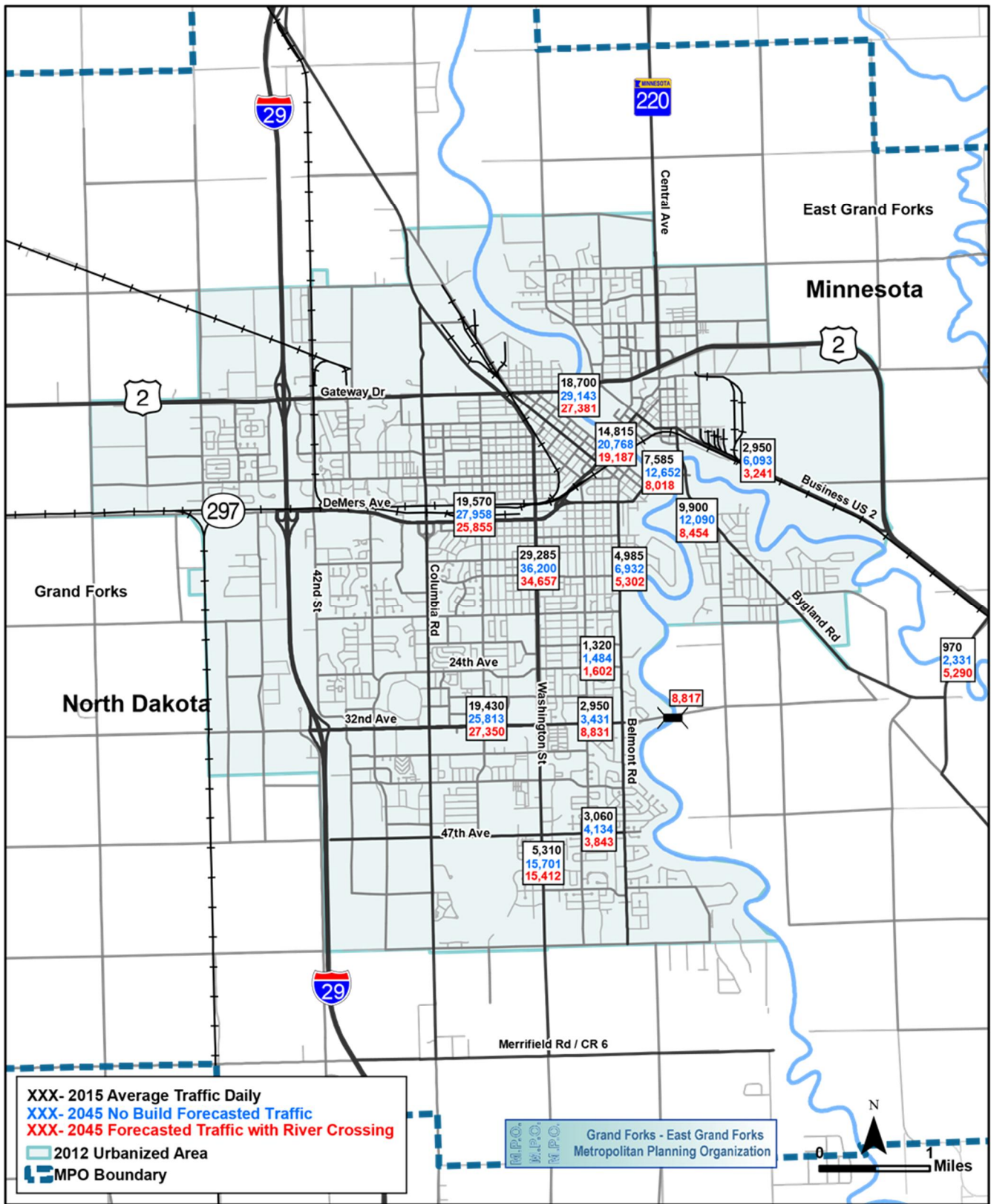


Figure 6: ADT Summary for the Proposed 32nd Avenue River Crossing

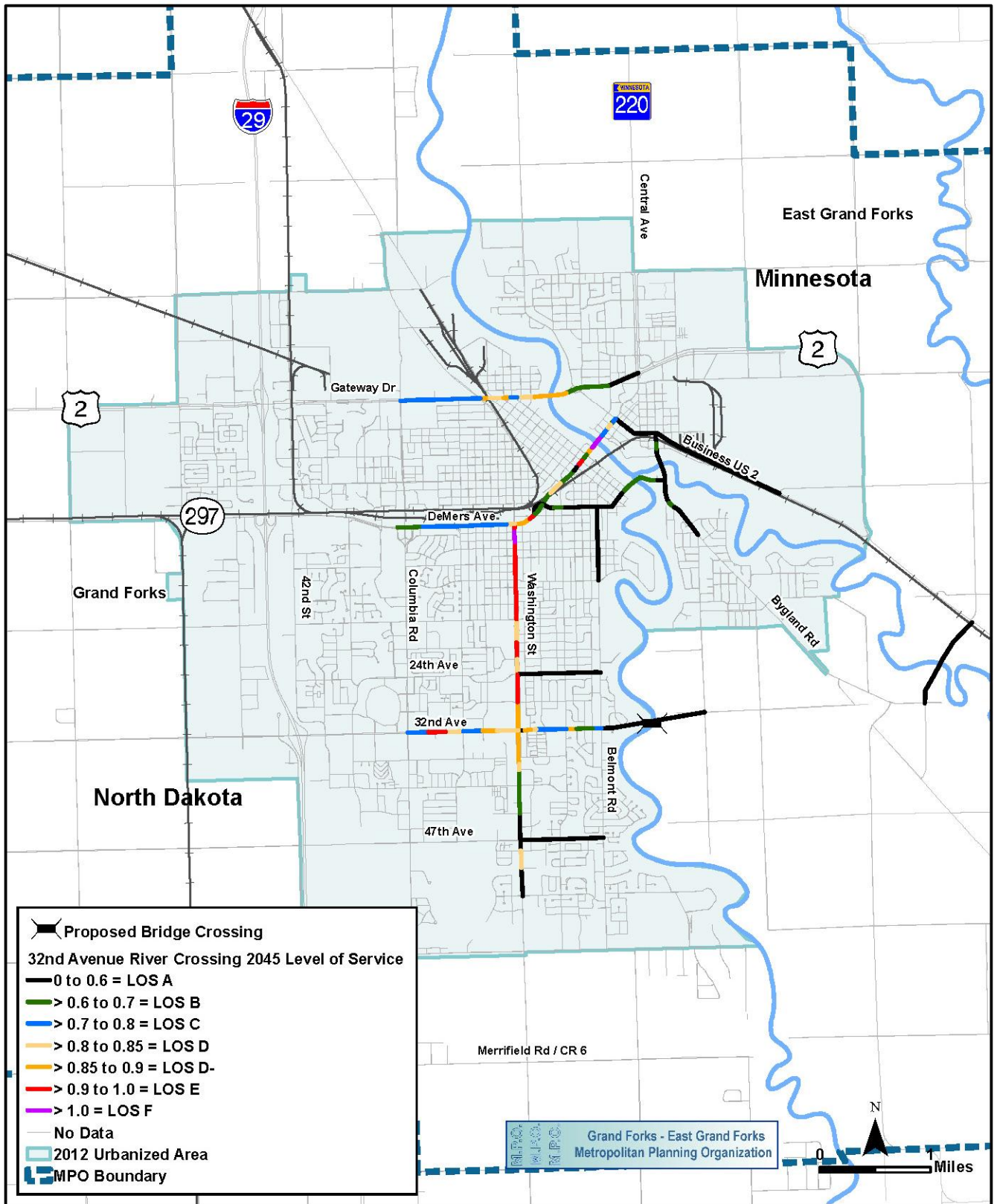


Figure 7: Link Level of Service Summary for the Proposed 32nd Avenue River Crossing

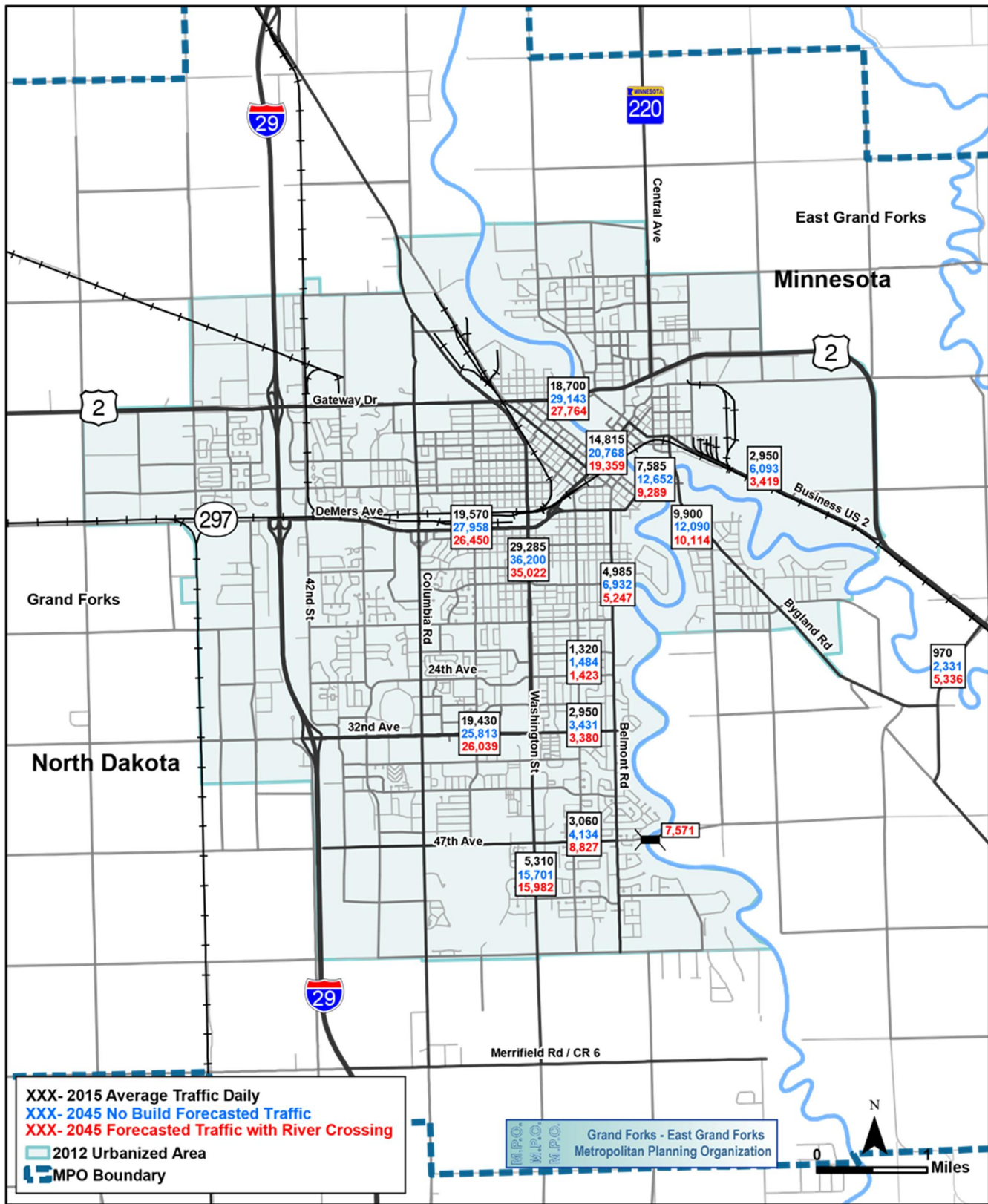


Figure 8: ADT Summary for the Proposed 47th Avenue River Crossing

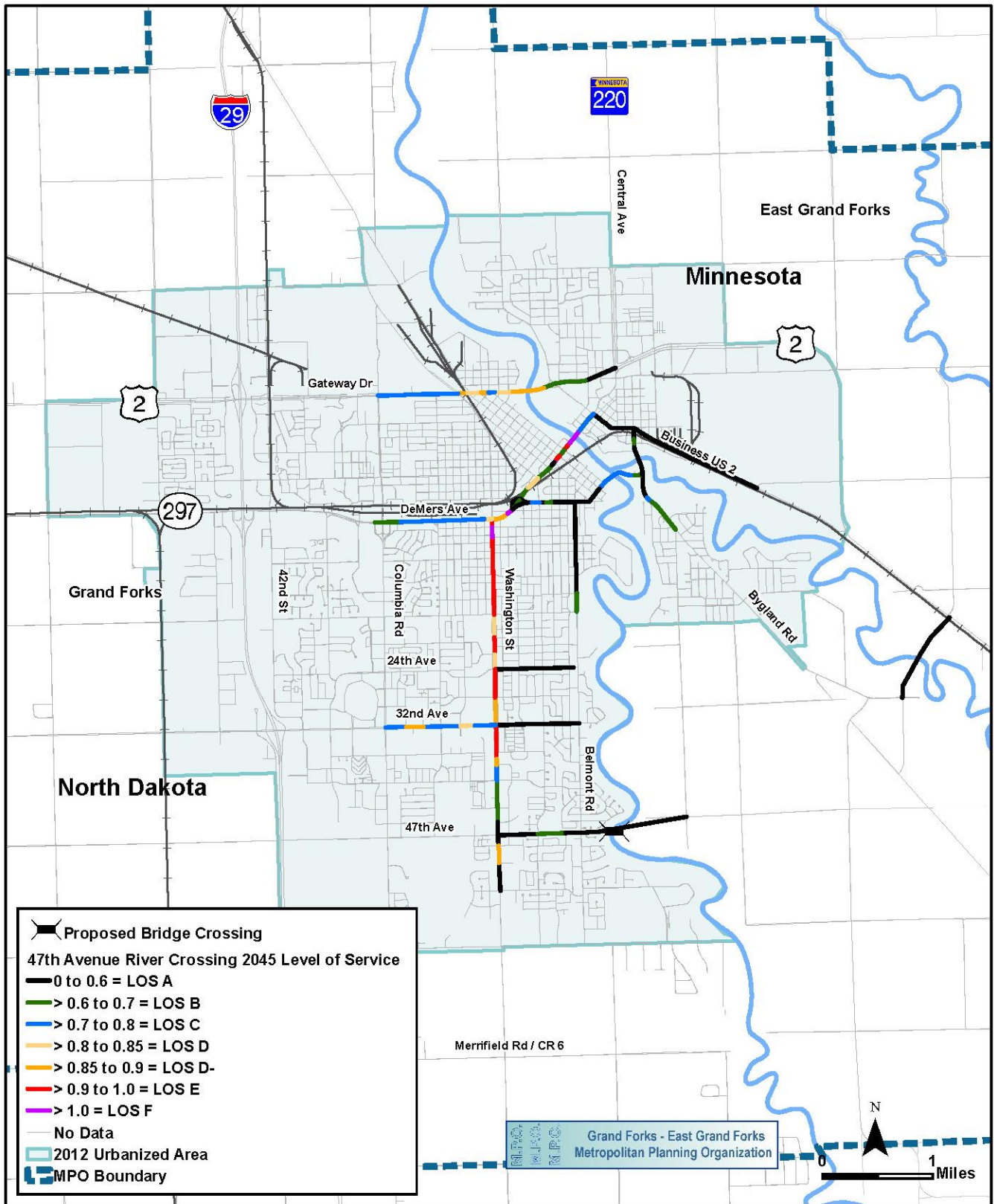


Figure 9: Link Level of Service Summary for the Proposed 47th Avenue River Crossing

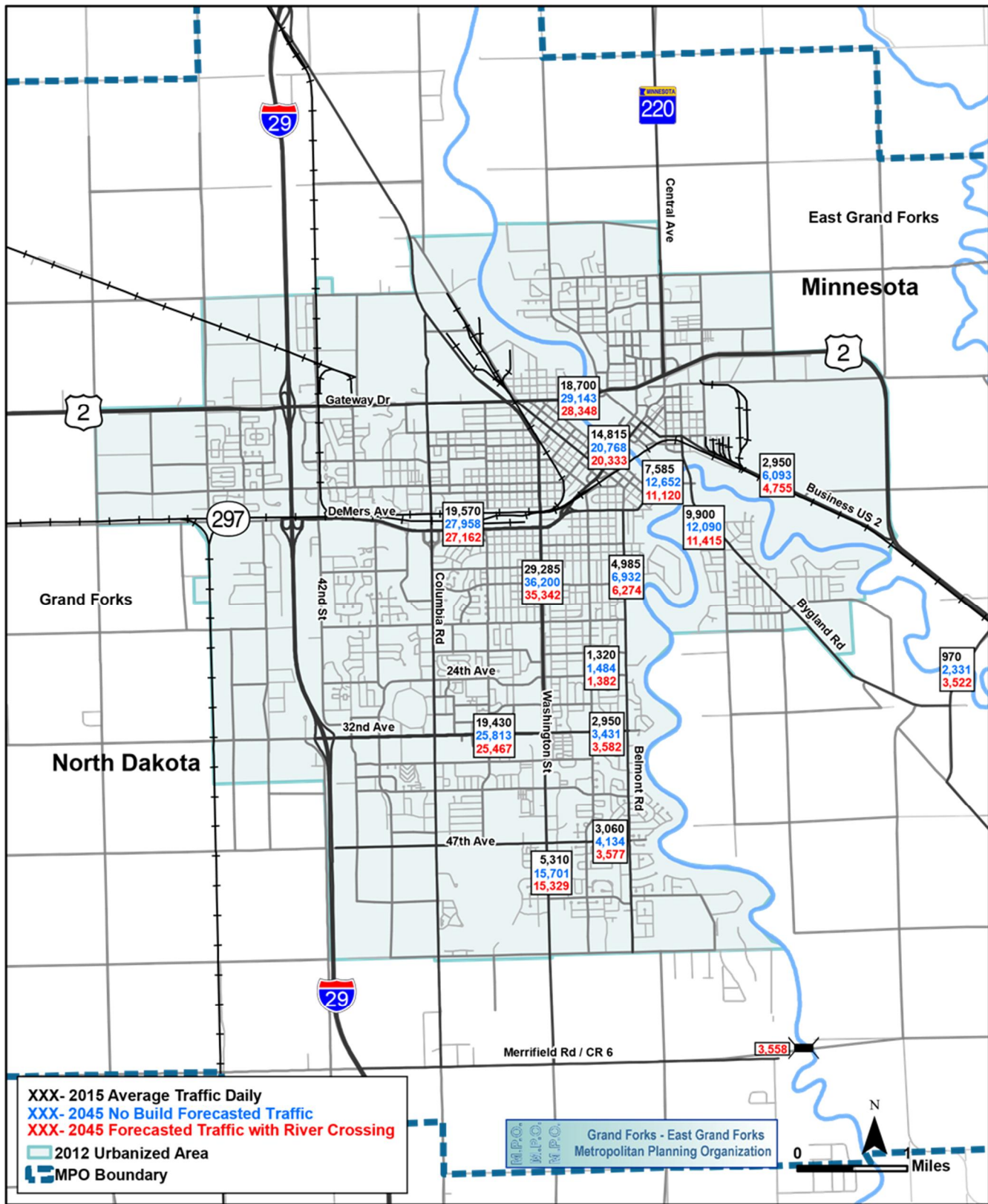


Figure 10: ADT Summary for the Proposed Merrifield Road River Crossing

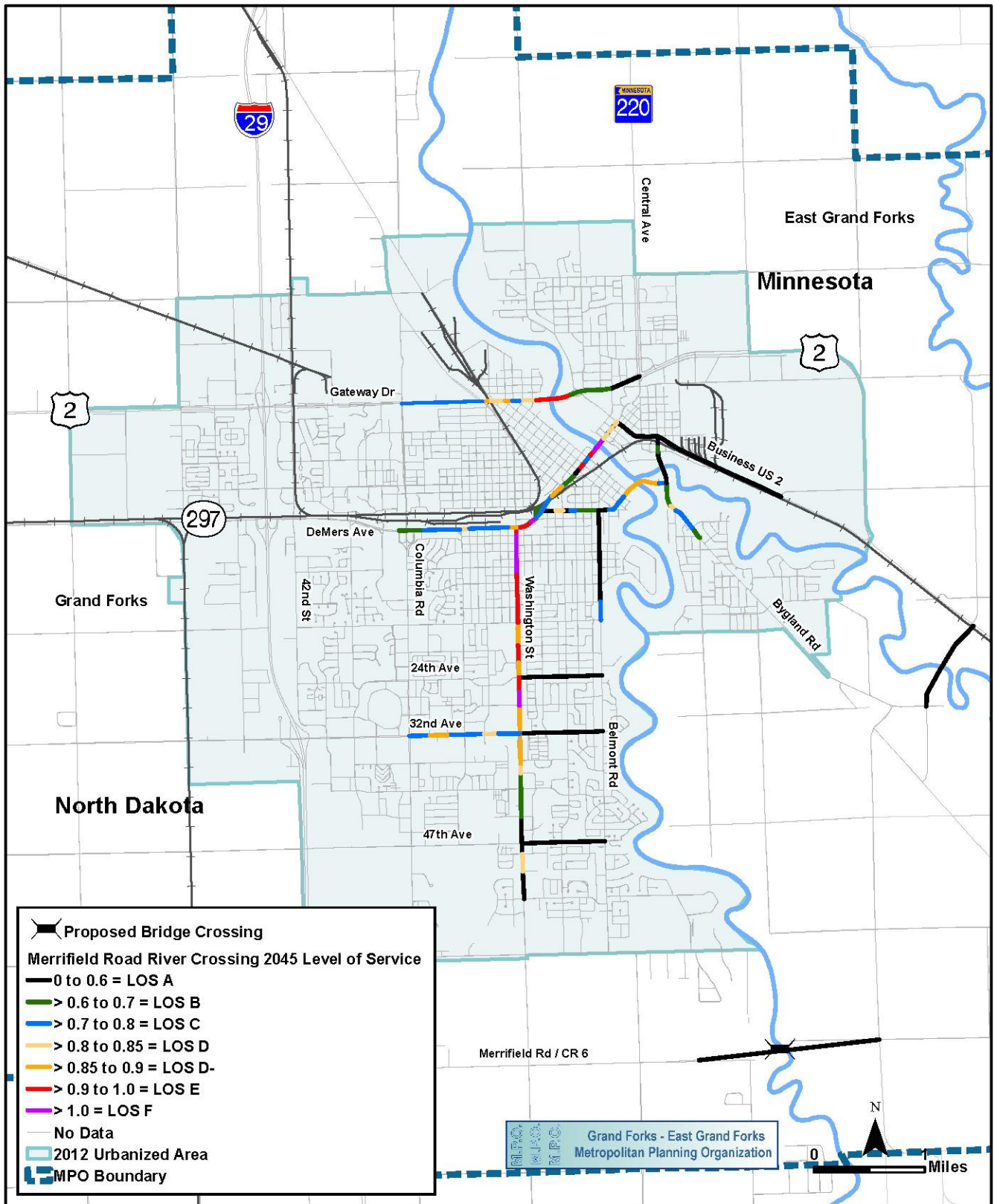


Figure 11: Link Level of Service Summary for the Proposed Merrifield Road River Crossing



The second part of the river crossing analysis looked at the same six intersections analyzed under the Existing and No Build scenarios. Turning movement counts for each intersection and each river crossing scenario were created using the same methodology as for the No Build scenario. **Table 6** is a continuation of **Tables 4** and **5**.

Table 6: Intersection LOS Summary

Analyzed Intersection/ LOS	DeMers Ave at 5 th Street	DeMers Ave at Washington St.	Washington St. at 17 th Ave	Washington St. at 32 nd Ave	1 st St. at 3 rd Ave	4 th Ave at Belmont Rd.
Existing PM Peak LOS	B	D	C	C	A	B
2045 No Build PM Peak LOS	B	E	D	E	B	F
24 th Avenue Crossing PM Peak LOS	B	E	D	F	A	C
32 nd Avenue Crossing PM Peak LOS	B	E	D	F	A	C
47 th Avenue Crossing PM Peak LOS	B	E	D	E	A	C
Merrifield Road Crossing PM Peak LOS	B	E	D	E	A	F

For the intersection analysis, there are some differences between the river crossing alternatives. The major difference between the scenarios occurs at the intersections of Washington Street and 32nd Avenue and 4th Avenue and Belmont Road. The 24th Avenue and 32nd Avenue crossings pull traffic from the north and shift it south. This increases the traffic volumes on Washington Street on the southern end causing poor operations. The operations at the intersection of 4th Avenue at Belmont Road vary greatly depending on the amount of traffic on the east/west approaches. This is a stop-controlled intersection and under the 24th Avenue, 32nd Avenue, and 47th Avenue crossing scenarios, significant E/W ADT is shifted from the intersection decreasing the overall LOS at the intersection to an acceptable level. Under the Merrifield Road crossing scenario, little traffic is pulled from the E/W movements, therefore a positive impact at this intersection is not realized as experienced under the other river crossing scenarios. This intersection could be signalized, as it was recently, to serve the increased traffic demand at a satisfactory level of service. **Figure 12** on the following page summarizes the overall intersection LOS for each of the analyzed river crossings including Existing and No Build conditions.

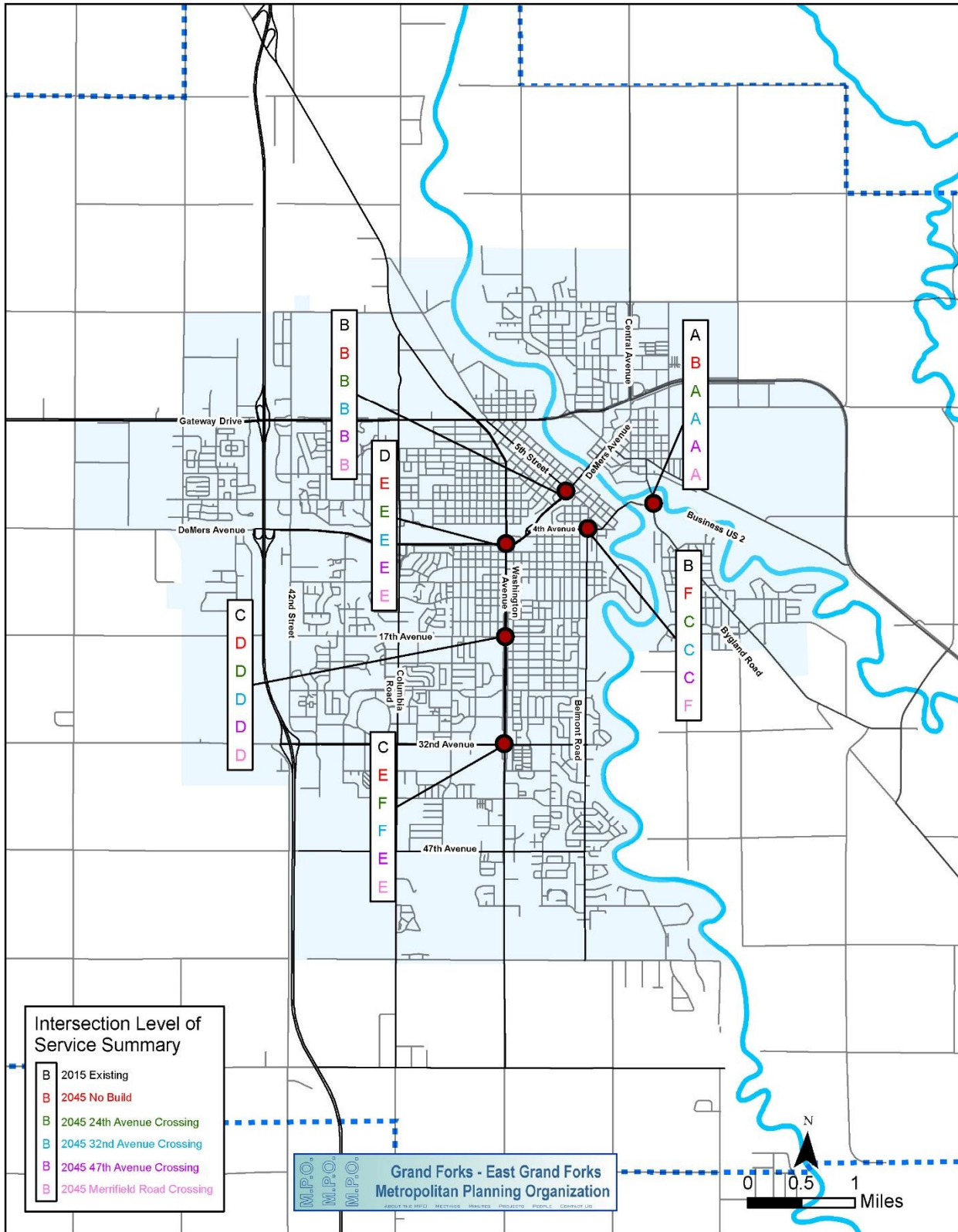


Figure 12: Intersection LOS Summary



Regional Impacts

One goal of a new river crossing is to alleviate the anticipated congestion on the existing crossings by providing users an alternate route. **Table 7** summarizes the ADTs by scenario for each of the existing and proposed river crossings. Many of the river crossing scenarios have similar results from a traffic volume perspective, although there is generally a decrease in the river crossing volume served by the proposed river crossing as it moves further to the south. There are also some notable decreases in traffic volumes on the Minnesota Avenue / 1st Street SE crossing under the 24th Avenue, 32nd Avenue and 47th Avenue scenarios.

Table 7: Forecast River Crossing ADTs Summary

River Crossing Location	Existing	2045 No Build	2045 with 24th Crossing	2045 with 32nd Crossing	2045 with 47th Crossing	2045 with Merrifield Crossing
US 2	18,700	29,100	27,400	27,400	27,800	28,300
Demers Avenue	14,800	20,800	19,300	19,200	19,400	20,300
Minnesota Avenue / 1st Street	7,600	12,700	7,900	8,000	9,300	11,100
24th Avenue	--	--	8,700	--	--	--
32nd Avenue	--	--	--	8,800	--	--
47th Avenue	--	--	--	--	7,600	--
Merrifield Road	--	--	--	--	--	3,600
Total ADT	41,100	62,600	63,300	63,400	64,100	63,300

Table 8 summarizes the net difference between each scenario at the Red River crossings as compared to No Build.

Table 8: Net ADT Change by Red River Crossing as Compared to No Build ADT

River Crossing Location	2045 with 24th Crossing	2045 with 32nd Crossing	2045 with 47th crossing	2045 with Merrifield crossing
US 2	-1,700	-1,700	-1,300	-800
Demers Avenue	-1,500	-1,600	-1,400	-500
Minnesota Avenue / 1st Street	-4,800	-4,700	-3,400	-1,600
24th Avenue	8,700	--	--	--
32nd Avenue	--	8,800	--	--
47th Avenue	--	--	7,600	--
Merrifield Road	--	--	--	3,600
Net ADT Difference	700	800	1,500	700



Table 9 below summarizes the link LOS at each river crossing for each scenario.

Table 9: River Crossing Link LOS by Scenario

River Crossing Location	2045 No Build	2045 with 24th Crossing	2045 with 32nd Crossing	2045 with 47th Crossing	2045 with Merrifield Crossing
US 2	E	D	D	D	E
Demers Avenue	F	F	F	F	F
Minnesota Avenue / 1st Street	E	B	B	C	D
24th Avenue	--	A	--	--	--
32nd Avenue	--	--	A	--	--
47th Avenue	--	--	--	A	--
Merrifield Road	--	--	--	--	A

Table 10 summarizes the ADT link volumes on Bygland Road and TH 220 for each of the scenarios analyzed.

Table 10: Forecast ADTs on Bygland Road and TH 220 Summary

River Crossing Location	Existing	2045 No Build	2045 with 24th Crossing	2045 with 32nd Crossing	2045 with 47th Crossing	2045 with Merrifield Crossing
TH 220 River Crossing	970	2,330	4,900	5,290	5,340	3,520
Bygland Road N. of Rhinehart Dr.	9,900	12,090	8,070	8,450	10,110	11,420

Table 11 summarizes the net difference between each scenario as compared to No Build on Bygland Road and TH 220.

Table 11: Net ADT Change on Bygland Road and TH 220 as Compared to No Build ADT

River Crossing Location	2045 with 24th Crossing	2045 with 32nd Crossing	2045 with 47th Crossing	2045 with Merrifield Crossing
TH 220 River Crossing	+2,570	+2,960	+3,010	+1,190
Bygland Road N. of Rhinehart Dr.	-4,020	-3,600	-1,980	-680

Based on **Tables 7** through **9**, there is no one river crossing location that will solve all the issues shown under the No Build scenario. The improvement of the link LOS on Minnesota Avenue / 1st Avenue and Gateway Drive (US 2) for the 24th Avenue, 32nd Avenue and 47th Avenue proposed river crossings is notable.

Reviewing two of the primary roadways that would provide access between East Grand Forks to the proposed Red River crossing, TH 220 over the Red Lake River and Bygland Road north of Rhinehart Drive, also provides insight as to the impacts on local and regional traffic for each of the alternatives analyzed. **Tables 10** and **11** shows that daily traffic on Bygland Road N. of Rhinehart Drive will decrease more if the proposed 24th Avenue or 32nd Avenue river crossings are constructed. Conversely the TH 220 daily traffic would be highest if the 32nd Avenue or 47th Avenue river crossings were constructed. This relationship indicates that the northern crossing alternatives serve more local trips and the southern crossings server more regional trips, although all crossings with have each trip type.

The travel demand model generates several measures of effectiveness on a network basis that allows for a comparison between the various river crossing scenarios including total vehicle miles traveled (VMT) and total vehicle hours traveled (VHT). Comparing the values of these measures for each scenario provides a better understanding of which alternatives reduces travel time and travel distance. Reducing the values of these measures



is desirable because additional VHT is typically due to delay, additional travel time required to avoid areas of delay, or additional travel time because a more direct route is not available. For this analysis, adding a river crossing could serve some travelers more directly and allow for reduced delay and distance traveled on their trip. Conversely, some drivers may travel slightly out of their way to avoid delay that is typically experienced on an existing crossing and that could increase VMT and decrease VHT. Delay adds stress to drivers, additional costs for businesses, increased fuel consumption, and higher vehicle emissions. The benefits of lower VMT are similar to VHT although VHT can be tied more directly to driver impacts and costs where VMT is more directly associated to impacts on emissions and fuel consumption.

Tables 12 and 13, on the following pages, summarizes the urban VMT and VHT totals for each river crossing scenario by roadway classification and the differences in VMT as compared to the 2045 No Build scenario for all alternatives. **Table 14** summarizes the differences in VHT as compared to the 2045 No Build scenario for all alternatives. Below are a few observations that can be made after reviewing these network measures:

- The 24th Avenue river crossing slightly increases "local VMT" at +199 and provides the greatest reduction in "regional VMT" at -23,734. The 24th Avenue crossing reduces VHT the most of any alternative with a decrease of 1,001.
- The 32th Avenue river crossing has the second greatest total VMT reduction at -23,400 and greatest "local VMT" reduction at -1,321. 32nd Avenue reduced VHT the second most of any alternative at -831.
- The 47th Avenue river crossing has the lowest VMT reduction with -13,393 and largest "local VMT" increase at +717. The 47th Avenue crossing is the only alternative that increases VHT at +147.
- The Merrifield Road river crossing "local VMT" is reduced the most at -4,226 and decreases VHT by -679 although "regional VMT" is decreased the least at -13,491.



Table 12: Urban VMT and VHT Total per River Crossing

Facility Type	2045 No Build Network	24th Avenue River Crossing	32nd Avenue River Crossing	47th Avenue River Crossing	Merrifield Road River Crossing
Freeways and Ramps	101,186	97,575	97,132	98,524	100,016
Major Arterials	530,889	510,766	511,543	519,441	518,568
Minor Arterials	237,590	236,949	237,572	237,338	234,983
Collectors	139,010	141,328	138,905	140,997	138,876
Local Streets/Rural	46,109	44,631	44,911	45,091	44,624
Urban VMT Totals	1,054,784	1,031,249	1,030,063	1,041,391	1,037,067
Total VHT	59,702	58,701	58,871	59,876	59,023

Table 13: Urban VMT Difference from 2045 No Build

Facility Type	2045 No Build	24th Avenue River Crossing	32nd Avenue River Crossing	47th Avenue River Crossing	Merrifield Road River Crossing	
Freeways and Ramps	101,186	-3,611	-4,054	-2,662	-1,170	
Major Arterials	530,889	-20,123	-19,346	-11,448	-12,321	
Minor Arterials	237,590	-641	-18	-252	-2,607	
Collectors	139,010	2,318	-105	1,987	-134	
Local Streets/Rural	46,109	-1,478	-1,198	-1,018	-1,485	
Total VMT Reduction Compared to 2045 No Build	1,054,784	-23,535	-24,721	-13,393	-17,717	Total VMT Reduction
Freeways, Ramps, Major Arterials VMT Compared to 2045 No Build	632,075	-23,734	-23,400	-14,110	-13,491	"Regional VMT"
Minor Arterials, Collectors, Local VMT Compared to 2045 No Build	422,709	199	-1,321	717	-4,226	"Local VMT"



Table 14: VMT Difference from 2045 No Build

Facility Type	2045 No Build Network	24th Avenue River Crossing	32nd Avenue River Crossing	47th Avenue River Crossing	Merrifield Road River Crossing
Total VHT Reduction Compared to 2045 No Build	59,702	-1,001	-831	174	-679

Conclusions

A regional and local level analysis was completed for four potential river crossing locations. The analysis included a link LOS analysis, intersection LOS analysis, and comparison of river crossing volumes and network wide VMT and VHT under Existing (2017), No Build (2045), and the four potential river crossing scenarios (2045). All intersection LOS analysis was completed for PM peak conditions.

Under Existing conditions, there are minimal issues within the analysis area. Although under 2045 No Build conditions all three river crossings in addition to segments of Washington Street and 32nd Avenue are anticipated to operate at LOS E or F. The intersections of DeMers Avenue and Washington Street, Washington Street and 32nd Avenue, and 4th Avenue and Belmont Road also show undesirable operations under 2045 No Build conditions (LOS E or F).

A review of the link LOS analysis for the four river crossing alternatives yielded the following observations:

- The Point Bridge link LOS operates better under the 24th Avenue and 32nd Avenue river crossing alternatives.
- Gateway Drive operates better under the 24th Avenue, 32nd Avenue, and 47th Avenue river crossings.
- DeMers Avenue experienced similar operations under each of the alternatives analyzed.
- Washington Street operated with the fewest LOS F segments under the 32nd Avenue and 47th Avenue river crossing alternatives.
- Belmont Road operations were better under all the river crossing alternatives when compared to the No Action scenario.

The signalized intersection LOS analysis for the river crossing alternatives showed the most significant differences between the alternatives at the intersections of Washington Street and 32nd Avenue and 4th Avenue and Belmont Road. The 24th Avenue and 32nd Avenue crossings pull traffic from the north and shift it south. This increases the traffic volumes on Washington Street on the southern end causing poor operations. The operations at the intersection of 4th Avenue at Belmont Road vary greatly depending on the amount of traffic on the east/west approaches. This is a stop-controlled intersection and under the 24th Avenue, 32nd Avenue, and 47th Avenue crossing scenarios, significant E/W ADT is shifted from the intersection decreasing the overall LOS at the intersection to an acceptable level. Under the Merrifield Road crossing scenario, little traffic is pulled from the E/W movements, therefore a positive impact at this intersection is not realized as experienced under the other river crossing scenarios. This intersection could be signalized, as it was recently, to serve the increased traffic demand at a satisfactory level of service.

A review of the link LOS and ADTs on the actual river crossing shows:

- There are notable decreases in traffic volumes on the Minnesota Avenue / 1st Street SE crossing under the 24th Avenue, 32nd Avenue and 47th Avenue scenarios.
- There are improvements in the link LOS on Minnesota Avenue / 1st Avenue and Gateway Drive (US 2) for the 24th Avenue, 32nd Avenue and 47th Avenue proposed river crossings.



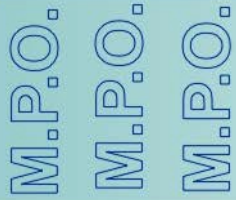
A review of the daily traffic on Bygland Road N. of Rhinehart Drive and the TH 220 Red Lake River crossing indicates that the northern crossing alternatives serve more local trips and the southern crossings serve more regional trips, although all crossings will have each trip type.

A review of the network wide performance measures of VMT and VHT shows the following:

- The 24th Avenue river crossing slightly increases "local VMT" at +199 and provides the greatest reduction in "regional VMT" at -23,734. The 24th Avenue crossing reduces VHT the most of any alternative with a decrease of 1,001.
- The 32th Avenue river crossing has the second greatest total VMT reduction at -23,400 and greatest "local VMT" reduction at -1,321. 32nd Avenue reduced VHT the second most of any alternative at -831.
- The 47th Avenue river crossing has the lowest VMT reduction with -13,393 and largest "local VMT" increase at +717. The 47th Avenue crossing is the only alternative that increases VHT at +147.
- The Merrifield Road river crossing "local VMT" is reduced the most at -4,226 and decreases VHT by -679 although "regional VMT" is decreased the least at -13,491.



Appendix



Grand Forks - East Grand Forks Metropolitan Planning Organization

MPO Staff Report **Technical Advisory Committee: February 14, 2018** **MPO Executive Board: February 21, 2018**

RECOMMENDED ACTION: Information on Future Non-Motorized Bridge in Downtown Area

Matter of Information on Future Non-Motorized Bridge in Downtown Area.

Background: With the discussion about how the Kennedy Bridge rehabilitation project would accommodate non-motorized traffic, some discussion was towards seeking another non-motorized bridge in the area between the Sorlie and Kennedy Bridges. This new future bridge would be similar as the north end and south end bike/pedestrian bridges serving the Greenway trail. The Kennedy Bridge will have an accommodation for non-motorized traffic instead of a separate bridge for non-motorized traffic.

In an exchange of letters, the MPO requested and the two State DOTs agreed to continue planning for a future non-motorized bridge between the Sorlie and Kennedy. As this was discussed, it was noted that the MPO studied such a possibility back when the flood protection system was being finalized. The MPO study included all possible non-motorized bridges as part of the flood protection (4 were studied) with two being actually constructed. The fourth bridge was a non-motorized bridge across the Red Lake River between the Murry Bridge and the confluence.

Attached are pertinent pages from the Study specifically addressing this “downtown” location. The concept was to focus on the general location of the old railroad bridge center pier with the possibility of utilizing the old pier. There are several other adopted planning documents recommending a new non-motorized bridge between the downtown.

The question is whether there is an interest in revisiting the study results and update them to reflect current information. Should there be other locations between the Sorlie and Kennedy that should be in place of the one or in addition to the one? There has been some discussion with NDDOT as to the MPO can use its CPG funding to replicate the Study, i.e., has rules/regulation changes place more restrictions on the MPO funding.

Findings and Analysis:

- Stated desire to have another non-motorized bridge
- Previous Study contains information based upon flood protection assumptions.
- Can the MPO replicate and update the study information

Support Materials:

- Pages from Study

Non-Motorized Traffic Bridge Facilities Study

Prepared for:
Grand Forks/East Grand Forks
Metropolitan Planning Organization

October 2001

I hereby certify that his plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.

Gary W. Morien

Date: _____

License No. 25552

The preparation of this (report, map, document, etc.) was partially financed by FHWA/FTA Planning funds through the North Dakota Department of Transportation and Minnesota Department of Transportation. The opinion, findings, and conclusions expressed in this publication are those of the authors and not necessarily those of the NDDOT, MnDOT, or the FHWA/FTA.

Downtown Bridge

- **General Area Analysis**

For the downtown bridge site, the only possible bridge location was the site of the old Northern Pacific Railroad bridge as shown in Fig 10. The site analysis concentrated on using different elevations while incorporating the old center pier of the railroad bridge.

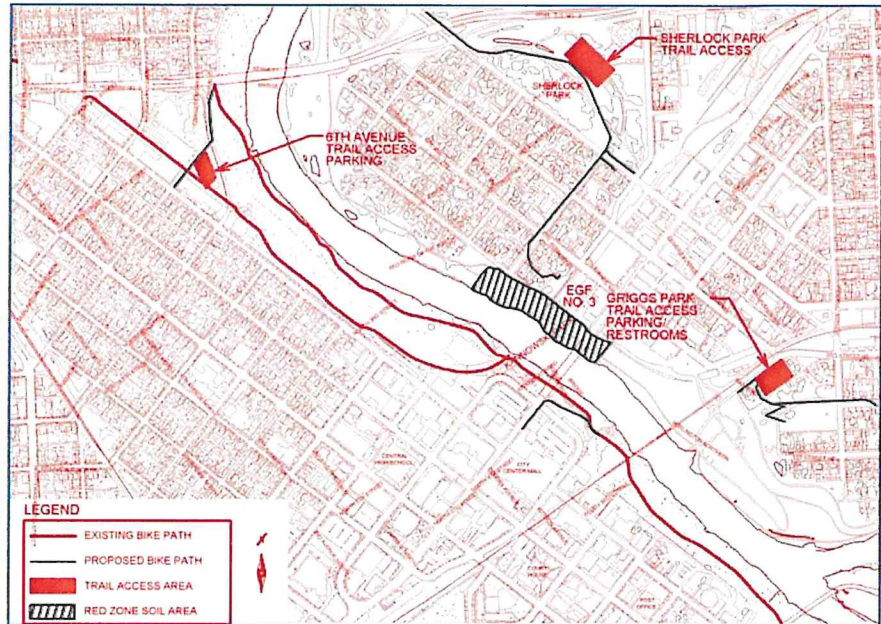


Figure 10 – Downtown Bridge Study Area

Elevation Criteria

High-, mid- and low-level bridges were considered for this area. The Corps has indicated that any bridge here cannot raise the flood profile by more than 0.1 ft. A bridge using the center pier is unlikely to be approved by regulating agencies.

Geotechnical Criteria

As noted in Index Table No. 2, Appendix B of the *US Army Corps of Engineers, General Reevaluation Report*, site number EGF No. 3 is classified as RED based on visual inspection and soil borings. This is in the approximate location of the proposed Downtown Bridge as shown in Figure 10.

Other issues

Putting a high bridge here is complicated by the use of an “invisible flood wall” on the East Grand Forks side of the river. This would require the East Grand Forks end of the bridge to be about 10 feet in the air. Using the Sorlie Bridge for pedestrian traffic could also impact decisions on a new bridge in this area.

• Location Analysis

The proposed downtown non-motorized bridge will link both Grand Forks and East Grand Forks downtown areas as shown in Fig. 11. It will be located at the old railroad bridge site just northwest and downstream of the Sorlie Memorial Bridge. The bridge elevation will be the main concern, since the Corps is unlikely to approve a crossing using the old NRR pier at the existing pier elevation.

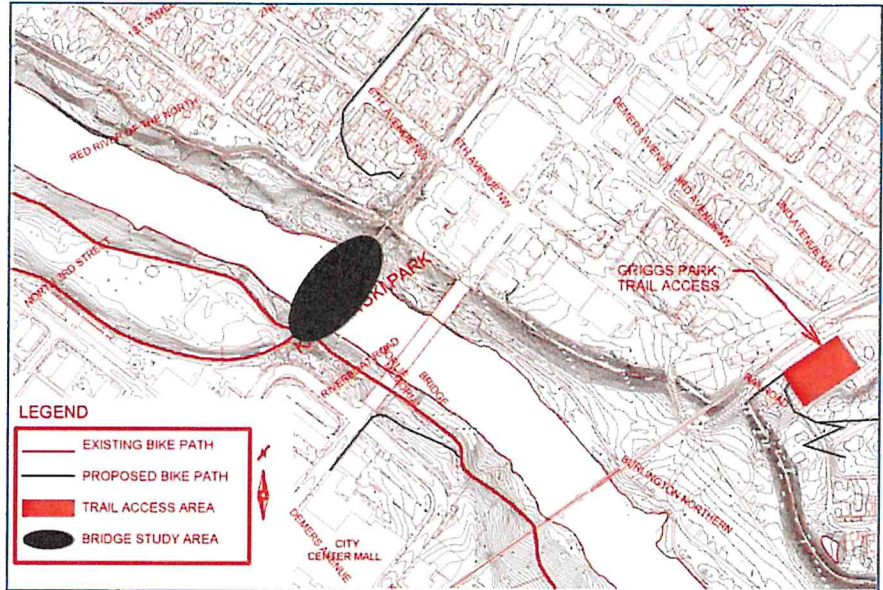


Figure 11 – Downtown Bridge Location

Relation to Other Crossings

Even though the Sorlie Memorial Bridge is immediately adjacent to the proposed non-motorized bridge and has sidewalks on both sides, it is not a desirable route for non-motorized traffic use.

The sidewalks on the Sorlie Memorial Bridge are only six feet wide. This width will accommodate one-way traffic, but is not wide enough for two-way bicycle/pedestrian traffic. Therefore, if non-motorized users were directed to this bridge, either the northbound or southbound traffic would have to cross the two lanes of vehicle traffic on Demers Avenue at both ends of the bridge. Other issues the possible use of the Sorlie Memorial Bridge for non-motorized traffic include the lack of a bicycle “rub rail” on the truss members, a sub-standard outside rail and impacted scenic views from the bridge.

Opportunity for Scenic Views

A bridge lower than the Sorlie Bridge and the remaining NRR center pier will provide a more dramatic view of the Sorlie Bridge and the upstream landscape.

Proximity to Existing Development

There are several parks with facilities, the relocated library, five schools, and the Riverwalk Center Mall all within a half-mile radius of this

location. In addition, many businesses are near the crossing, making high use of this bridge very likely.

Relation to Future Development

With a set location, this criterion does not relate to elevation options.

Location of Trail Facilities

With a set location, this criterion does not relate to elevation options.

Trail System Support

With a set location, this criterion does not relate to elevation options.

Other Issues

A lower-elevation bridge would link the existing trails within the levee and provide easy access for trail users. An elevation below the Sorlie Memorial Bridge and the downtown businesses will result in less noticeable background noise, but a high-elevation bridge would provide easier access to businesses and nearby destination locations. In addition, a high bridge would allow larger boat traffic to pass through the area and provide continual service during low-level floods.

In either case, it is important to provide safe and efficient travel between the trails within the levee and the downtown areas. Either elevation would provide a safe crossing for this potential high-use area.

Location Recommendation Matrix

Factor	High Bridge	Low Bridge
Relation to Other Crossings	1.5	1.5
Opportunity for Scenic Views	2	1
Proximity to Existing Development	1.5	1.5
Relation to Future Development	1.5	1.5
Location of Trail Facilities	1.5	1.5
Trail System Support	1.5	1.5
Other Issues	1	2
Total	10.5	10.5

The location of this bridge is determined. Elevation decisions need to be made on the criteria discussed above, along with flood profile impacts.

815.0 and 825.0 — each higher than the base Corps' planned "Low Level" bridge placed at elevation 810.0.

The South Bridge is located near the 5th Ave. Trial Access Parking Lot. The Corps' hydraulic reference is station 183.6. The flow volume using the Corps "Project Conditions" under the 210-year flood event is 102,000 cubic feet per second.

The *baseline* model included a bridge 350 feet long and a profile thickness of 3 feet. The upper limits or top of the deck were located at elevation 810.0, and the lower limits placed at elevation 807.0. Analysis showed the water surface elevation was 837.25.

The first option included a bridge 500 feet long and a profile thickness of 4 feet. The upper limits or top of the deck were located at elevation 815.0, and the lower limits placed at elevation 811.0. Analysis showed the water surface elevation was at 837.22.

The second option included a bridge 700 feet long and a profile thickness of 4 feet. The upper limits or top of the deck were located at elevation 825.0, and the lower limits placed at elevation 821.0. Analysis showed the water surface elevation was at 837.22.

The analysis, looking at water surface profiles, indicate the other bridge options had no comparable difference to the *baseline* model. Therefore, a bridge placed in this area, with a deck elevation between elevation 810 and 825, should have no adverse impacts on the overall flood protection plans.

Red River - Downtown Bridge Study Area

For the Downtown Study Area, only one location was considered. This location is the site of the recently removed Northern Pacific Railroad Bridge, 350 feet north of the Sorlie Memorial Bridge. Studies done by the Corps showed the impact of the old Northern Pacific Bridge was significant and, in fact, raised the flood elevation almost 0.6 feet. The Corps cost/benefit analysis showed that removing the historic railroad bridge significantly minimized levee construction along the project. Therefore, the decision to remove the bridge and lower levee heights was made. Part of the decision process included saving the historic center stone pier.

To provide a baseline for comparison, the waterway was first analyzed without a bridge using "Project Conditions" but including the historic center stone pier. The second analysis included a bridge constructed next to the center pier, at an 810.0 deck elevation. The third and fourth analysis considered lowering the center pier and constructing bridge decks to elevations 820.0 and 830.0, respectively; however, lowering the center stone pier may not be an acceptable alternative from a historical perspective. With the full pier in place, the increase in water surface elevations is insignificant. The table below indicates how the water surface elevations for these model options compared to the base model.

Model	Water Surface Elevation Increase over "Base Model"
Base model	N/A
Option 1 (810 deck ,full center pier)	0.05 - feet
Option 2 (820 deck, center pier lowered)	0.19 - feet
Option 3 (830 deck, center pier lowered)	0.29 - feet

Bonestroo has initiated some discussions with the Corps concerning the raise in water surface elevations. Since Phase 1 and 2 construction plans are currently underway, an increase in the flood profile could have major implications. The question still remains: Is some level of tolerance acceptable provided design conditions don't change and there is no significant increase risk of overtopping planned levees? Based on preliminary discussions with the Corps, it appears a "low level" bridge may be acceptable, but a bridge constructed above elevation 820.0 may not be. Discussions regarding an acceptable level of impact will be ongoing after the completion of this study.

Red River - North Bridge Study Area (Location A)

For the North Bridge Study Area (Location A), the Corps-proposed bridge was modeled first to provide a baseline for comparison. Two other options were then analyzed with bridges placed at elevations 815.0 and 825.0 — each higher than the base Corps-planned "Low Level" bridge placed at elevation 810.0.

The North Bridge is located at Riverside Park, approximately 1,500 feet upriver from the Riverside Dam. The Corps' hydraulic reference is station 146.7. The flow volume using the Corps' "Project Conditions" under the 210-year flood event is 136,900 cubic feet per second.

The *baseline* model included a bridge 350 feet long and a profile thickness of 3 feet. The upper limits or top of the deck were located at elevation 810.0, and the lower limits placed at elevation 807.0. Analysis results show the water surface elevation was at 833.01.

The first option analyzed included a bridge 500 feet long and a profile thickness of 4 feet. The upper limits or top of the deck were located at elevation 815.0, and the lower limits placed at elevation 811.0. Analysis results show the water surface elevation was at 832.97.

The second option analyzed included a bridge 700 feet long and a profile thickness of 4 feet. The upper limits or top of the deck were located at elevation 825.0, and the lower limits placed at elevation 821.0. Analysis showed the water surface elevation was at 832.96.

Therefore, like the South Study Area, a bridge placed in this area, with a deck elevation between elevation 810 and 825, should have no adverse impacts on the overall flood protection plans.

• Downtown Bridge Study Area

Geometrics

The elevation of the downtown bridge as shown in Fig. 26 located at the 820 elevation lends well to connection to existing and proposed trails in the area. The landing area on the Grand Forks side and the connecting trail fits well with plans for the "Community Green". On the east Grand Forks side trail geometrics should include curves within radius design standards and easily join existing trails. Current estimate calculates the bridge length at approximately 550 feet.

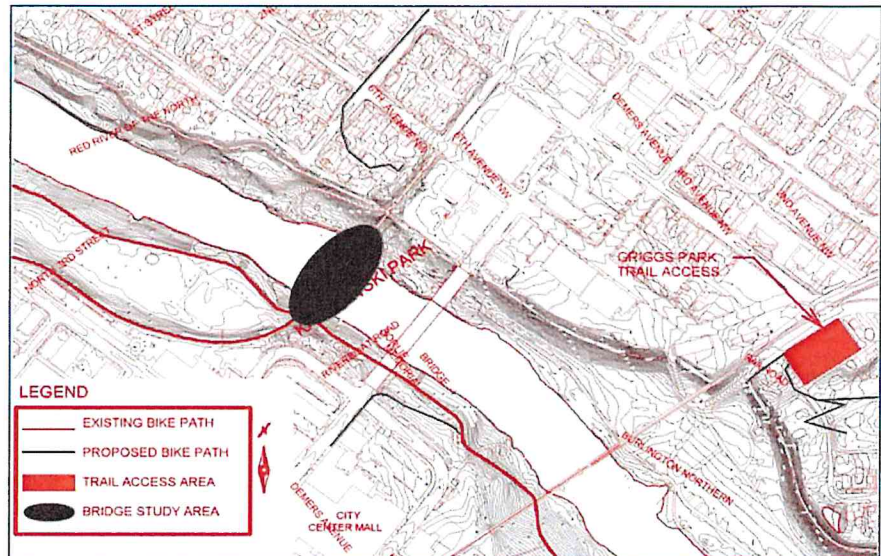


Figure 23 – Downtown Bridge Recommended Site

The elevation of the downtown bridge located at the 840 elevation does not lend well to connection to existing and proposed trails in the area. The landing areas on each side of the bridge would be at or above the proposed levee tops creating difficult trail connections. Distance from the bridge to the "Community Green" and other popular use areas would appear to be relatively inconvenient. Current estimate calculates the bridge length at approximately 1000 feet.

Hydraulic Study

The hydraulic model revealed that a bridge placed in this area, with a deck elevation above elevation 810 will likely have adverse impacts on the overall flood protection plans.

**Bridge Design Summary –
Option with Deck Elevation at 820.0**

Red River Downtown Bridge Location - Deck Elevation 820.0																	
Deck Elevation	Average deck elevation = 820.0 At abutments = 820.0 At centerline channel = 820.0																
Bridge Length	550-feet out to out																
Span Arrangement	110 ft. -110 ft. -110 ft. -110 ft. (5 spans)																
Clear Deck Width	10-feet																
Overall Deck Width	12-feet																
Superstructure	Bridge cross section Alternative 2 63" Prestressed Concrete or 45" Steel Girders/Concrete Deck Total structure depth approx. 54" to 72"																
Abutments	Concrete parapet type abutment walls, concrete footings, parallel wingwalls.																
Piers	Four total pier structures. Two rectangular shaped, solid concrete wall piers, and concrete footings within the defined riverbanks. Two solid encased pile bent type piers outside the riverbank area.																
Foundation	All substructure founded on cast-in- place concrete piles. (Subject to final geotechnical recommendations)																
Costs	<p><i>Professional:</i></p> <table> <tr> <td>Site Survey</td> <td style="text-align: right;">\$4,000</td> </tr> <tr> <td>Soil Borings & Report</td> <td style="text-align: right;">\$10,000</td> </tr> <tr> <td>Bridge Design</td> <td style="text-align: right;">\$60,000</td> </tr> <tr> <td>Contract Administration</td> <td style="text-align: right;">\$60,000</td> </tr> <tr> <td>Total Professional</td> <td style="text-align: right;">\$134,000</td> </tr> </table> <p><i>Construction:</i></p> <table> <tr> <td>Basic Bridge Construction</td> <td style="text-align: right;">\$660,000</td> </tr> <tr> <td>Aesthetic Treatments</td> <td style="text-align: right;">\$70,000</td> </tr> <tr> <td>Total Construction</td> <td style="text-align: right;">\$730,000</td> </tr> </table>	Site Survey	\$4,000	Soil Borings & Report	\$10,000	Bridge Design	\$60,000	Contract Administration	\$60,000	Total Professional	\$134,000	Basic Bridge Construction	\$660,000	Aesthetic Treatments	\$70,000	Total Construction	\$730,000
Site Survey	\$4,000																
Soil Borings & Report	\$10,000																
Bridge Design	\$60,000																
Contract Administration	\$60,000																
Total Professional	\$134,000																
Basic Bridge Construction	\$660,000																
Aesthetic Treatments	\$70,000																
Total Construction	\$730,000																
Construction Time	3 months																

**Bridge Design Summary –
Option with Deck Elevation at 840.0**

Red River Downtown Bridge Location - Deck Elevation 840.0																	
Deck Elevation	Average deck elevation = 840.0 At abutments = 840.0 At centerline channel = 840.0																
Bridge Length	990-feet out to out																
Span Arrangement	110 ft. -110 ft. -110 ft. -110 ft. -110 ft. 110 ft. -110 ft. -110 ft. -110 ft. (9 spans)																
Clear Deck Width	10-feet																
Overall Deck Width	12-feet																
Superstructure	Bridge cross section Alternative 2 63" Prestressed Concrete or 45" Steel Girders/Concrete Deck Total structure depth approx. 54" to 72"																
Abutments	Concrete parapet type abutment walls, concrete footings, parallel wingwalls.																
Piers	Eight total pier structures. Two rectangular shaped, solid concrete wall piers, and concrete footings within the defined riverbanks. Six solid encased pile bent type piers outside the riverbank area.																
Foundation	All substructure founded on cast-in- place concrete piles. (Subject to final geotechnical recommendations)																
Costs	<p><i>Professional:</i></p> <table> <tr> <td>Site Survey</td> <td style="text-align: right;">\$6,000</td> </tr> <tr> <td>Soil Borings & Report</td> <td style="text-align: right;">\$20,000</td> </tr> <tr> <td>Bridge Design</td> <td style="text-align: right;">\$80,000</td> </tr> <tr> <td><u>Contract Administration</u></td> <td style="text-align: right;"><u>\$80,000</u></td> </tr> <tr> <td>Total Professional</td> <td style="text-align: right;">\$186,000</td> </tr> </table> <p><i>Construction:</i></p> <table> <tr> <td>Basic Bridge Construction</td> <td style="text-align: right;">\$1,188,000</td> </tr> <tr> <td><u>Aesthetic Treatments</u></td> <td style="text-align: right;"><u>\$120,000</u></td> </tr> <tr> <td>Total Construction</td> <td style="text-align: right;">\$1,308,000</td> </tr> </table>	Site Survey	\$6,000	Soil Borings & Report	\$20,000	Bridge Design	\$80,000	<u>Contract Administration</u>	<u>\$80,000</u>	Total Professional	\$186,000	Basic Bridge Construction	\$1,188,000	<u>Aesthetic Treatments</u>	<u>\$120,000</u>	Total Construction	\$1,308,000
Site Survey	\$6,000																
Soil Borings & Report	\$20,000																
Bridge Design	\$80,000																
<u>Contract Administration</u>	<u>\$80,000</u>																
Total Professional	\$186,000																
Basic Bridge Construction	\$1,188,000																
<u>Aesthetic Treatments</u>	<u>\$120,000</u>																
Total Construction	\$1,308,000																
Construction Time	3 months																

TABLE OF CONTENTS- UPDATE JANUARY, 2018

CODE	AREA	TASK	TASK	%	FISCAL YEAR	COMPLETION DATE
	Introduction					
300	PLANNING AND IMPLEMENTATION	ACTIVITIES				
	2045 Street & Highway Plan	Finalized Goals, Objectives & Standards. Incorporated Safety Standards performance measures supporting Plan. Consultant provided results of 4-scenarios related to proposed site locations for construction of urban/regional bridges.	1	40%	2016	
300	Plan Update (Travel Demand Model)	Based model is complete.	1			
300	Bicycle and Pedestrian Planning Element (Update)	Prepared schedule & work activities to guide update of Bikeway Map, 2018. Scope of work includes goals and objectives and recommended changes by stakeholders.	2-3-4-5	30%	Jan. 2018	March, 2018
300	Corridor PLANNING					
300	Traffic Count Program	Resume data collection setup for the rest of the intersections.	Ongoing	70%		
	Corridor Preservation	Ongoing	Ongoing			
	Near South Neighborhood	Submitted Draft Report. Expecting stakeholders comments.		95%		
300.5	SPECIAL STUDIES					
	MAP-21/FAST (2015)	Ongoing				
300.6	PLAN MONITORING, REVIEW AND EVALUATION	ACTIVITIES				
300.7	GEOGRAPHIC INFORMATION SYSTEMS (GIS) DEVELOPMENT					
	Geographic Information Systems (GIS) Development	Ongoing-in-House				