



# City of Grand Forks Staff Report

**APPROVED & ACCEPTED**  
by City Council  
12/05/2016  
*Candice Stjern*  
Candice Stjern  
Acting City Auditor

**Committee of the Whole – November 28, 2016**  
**City Council – December 5, 2016**

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**Agenda Item:** Federal Transportation Funding Request – Urban Roads Program

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**Submitted by:** Engineering Department, David J. Kuharenko, PE (Principal Civil Engineer)

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**Staff Recommended Action:** **Approve the 2018-2021 Urban Roads Program project funding request and direct staff to submit the approved project to the Grand Forks – East Grand Forks Metropolitan Planning Organization for submission to the North Dakota Department of Transportation**

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**Committee Recommended Action:**

Refer to City Council with the recommendation to approve.

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**Council Action:**

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## **BACKGROUND:**

The North Dakota Department of Transportation (NDDOT) has solicited projects to be considered for Federal funding under the Urban Roads Program. To be considered for Federal funding, a project must be vetted and approved by City Council and forwarded onto the Grand Forks/East Grand Forks Metropolitan Planning Organization (MPO) for consideration by December 7, 2016.

After considering possible projects for funding under this program staff recommends submitting the following project:

- N Columbia Rd (Overpass to University Ave) (2021) \$6,300,000

The Urban Roads Program allocates approximately \$2.3 million± annually to the City to be used on classified roadway projects. This is a program which allowed for 80% federal share in eligible items including construction and construction engineering. If the application is approved, the project will be added to the City's Transportation Improvement Plan.

City staff has considered and evaluated a number of street segments for possible funding under this program. In evaluating potential projects, the projects listed in the MPO's Long Range Transportation Plan were considered. Numerous projects were considered not viable for this funding program for various reasons and are detailed in the attached document entitled "List of Considered Projects But Not Selected". The project considered most viable for funding under this program is identified and described below.

N Columbia Rd (Overpass to University Ave): This street is reaching a point in which a reconstruction project should be considered. In comparing a reconstruction project versus a rehabilitation project, several aspects need to be considered including, the cost of the project, the anticipated life of the new or rehabilitated pavement, maintenance costs, as well as future rehabilitation and reconstruction costs. A reconstruction project will be more expensive; however, the service life of a new pavement is also significantly longer compared to the expected life extension of a pavement rehabilitation. The 2013 NDDOT vehicle counts for the segment between University Ave to the Columbia Rd Overpass ranged from 16,365 to 18,230. The MPO is anticipating that by 2040 traffic in this area will increase to 21,940 to 24,660 vehicles per day. The north leg of the intersection of N Columbia Rd & University Ave has a rather abrupt jog near the intersection. During a reconstruction project it may be possible to straighten this out a bit to provide a smoother transition for the traveling public. A preliminary engineers estimate was produced for the cost of a reconstruction project from the Columbia Rd overpass to University Ave, with a 2021 construction cost estimate of \$4,756,000, or approximately \$3,963/LF and a total project cost of \$6,300,000.

Considering a number of factors including the focus of Fixing America's Surface Transportation (FAST) on streets located on the National Highway System (NHS), maintaining a "State of Good Repair" on NHS streets, the project listings in the MPO's "State of Good Repair", existing and anticipated traffic volumes, staff is recommending applying for reconstruction of N Columbia Rd from the Columbia Rd Overpass to University Ave for construction in 2021. City staff has reviewed the proposed project with the MPO Executive Director who is in agreement with submitting the project for funding.

In coordinating with the Regional Road Program, next year staff will likely recommend a traffic signal maintenance project to coincide with the Regional Road Program for 2022. Though approval for this project is not being asked for at this time, staff wished to provide some insight as to a likely project for consideration under the Urban Roads Program for next year. This project is proposed to provide maintenance activities for the aging traffic signals systems throughout the city not on the regional road network. Based on relative age of the traffic signals it is anticipated that two will need major rehabilitation, five will need an intermediate level of rehabilitation, and three will need minor rehabilitation, of these signals it is anticipated that three will have the poles and mast arms removed, sandblasted, inspected, repainted, and reinstalled. This is similar to what was done on a number of traffic signals in the downtown area in 2012. This project is anticipated to have a 2022 construction cost of \$1,715,000 and a total project cost of \$1,965,000.

Projects previously approved for federal funding under the Urban Roads Program in fiscal years 2017 to 2020 and included in the Final State Transportation Improvement Program (STIP) are as follows:

- 2017 - Traffic Signal at S Washington & 44<sup>th</sup> Ave S
- 2017 - S Columbia Road (40<sup>th</sup> to 47<sup>th</sup> Ave S) Reconstruction
- 2018 - N 42<sup>nd</sup> Street (University Ave to Gateway Dr) Reconstruction
- 2020 - University Ave (N Columbia Rd to N 3<sup>rd</sup> St) Mill & Overlay

### **ANALYSIS AND FINDINGS OF FACT:**

- The project presented by staff is believed to meet the program requirements.
- Council approval is required prior to submittal to the MPO by December 7, 2016. Thereafter it will go before the MPO Technical Advisory Committee meeting on December 14, and MPO Executive Board meeting on December 21, and then be forwarded to the NDDOT.
- On the basis of the attached project listing, the anticipated City cost for projects funded under the Urban Roads Program is approximately \$7.4m between 2017 and 2022.
- City costs for projects to be funded by the Urban Roads Programs will be from the Street/Infrastructure Fund 4815.

### **SUPPORT MATERIALS:**

- 2017-2022 Urban Roads Program Federal Funding Project List with Cost Estimates (1 page)
- Project Location Map (1 page)
- List of Considered Projects But Not Selected (4 pages)
- MPO Letter of October 2016 Requesting URP Projects for Fiscal Year 2021 (2 pages)

URBAN ROAD PROGRAM REQUESTS  
CITY PROJECT SUMMARY 2017-2022  
GRAND FORKS NORTH DAKOTA  
SUBMITTED IN 2016

DATE: 11/15/2016

Allen Grasser  
701.746.2640

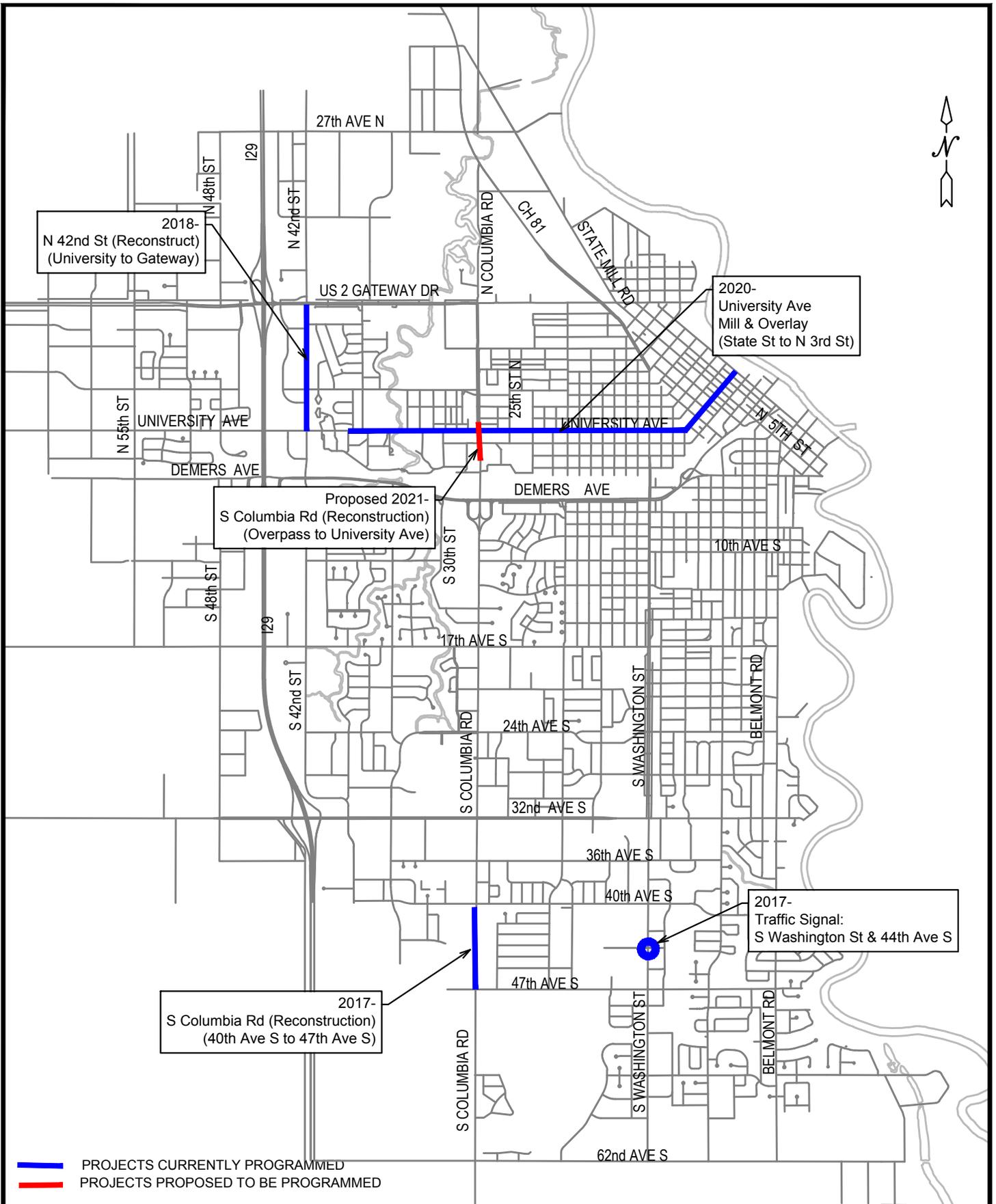
FISCAL YEAR	CATEGORY	NHS	FUNCTIONAL CLASSIFICATION	INVESTMENT STRATEGY	TYPE OF WORK	PROJECT LOCATION	TOTAL FEDERAL, STATE AND CITY MATCH	FEDERAL SHARE	STATE SHARE	CITY MATCH	CITY OTHER		TOTAL CITY COST	TOTAL PROJECT COST
										R/W	MISC			
2017	URP	NO	Minor Arterial	N/R	Traffic Signal	Traffic Signal S Washington St & 44th Ave S	\$880,000	\$640,000	\$0	\$240,000	\$0	\$80,000	\$320,000	\$960,000
2017	URP	YES	Principal Arterial	N/R	Reconstruct	S Columbia Rd(Reconstruction) 40th Ave S to 47th Ave S	\$4,900,000	\$3,920,000	\$0	\$980,000	\$75,000	\$225,000	\$1,280,000	\$5,200,000
2018	URP	NO	Minor Arterial	N/R	Reconstruct	N 42nd St (Reconstruction) University Ave to Gateway Dr	\$6,105,000	\$4,880,000	\$0	\$1,225,000	\$10,000	\$1,090,000	\$2,325,000	\$7,205,000
2019						No 2019 Urban Projects	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2020	URP	NO	Minor Arterial	PM	Mill & Overlay	University Ave (Mill & Overlay) (State St to N 3rd St)	\$3,073,000	\$2,459,000	\$0	\$614,000	\$0	\$388,000	\$1,002,000	\$3,461,000
2021	URP-1	YES	Principal Arterial	N/R	Reconstruct	<b>N Columbia Rd (Reconstruction) (Overpass to University Ave)</b>	<b>\$5,470,000</b>	<b>\$4,376,000</b>	<b>\$0</b>	<b>\$1,094,000</b>	<b>\$0</b>	<b>\$830,000</b>	<b>\$1,924,000</b>	<b>\$6,300,000</b>
2022*			Principal Arterial/ Minor Arterial/ Collector	PM	Signals	<b>Traffic Signal Maintenance Multiple Intersections</b>	<b>\$1,715,000</b>	<b>\$1,372,000</b>	<b>\$0</b>	<b>\$343,000</b>	<b>\$0</b>	<b>\$250,000</b>	<b>\$593,000</b>	<b>\$1,965,000</b>
						2017-2021 Totals	\$20,428,000	\$16,275,000	\$0	\$4,153,000	\$85,000	\$2,613,000	\$6,851,000	\$23,126,000
						2017-2022 Totals	\$22,143,000	\$17,647,000	\$0	\$4,496,000	\$85,000	\$2,863,000	\$7,444,000	\$25,091,000

Investment Strategy: (N/R) New/Reconstruction, (PM) Preventative Maintenance

Project shown in 2019 are for reference only. No project programmed in 2019

Estimated construction costs have been inflated to the year of construction

\*Traffic signal maintenance project is not being requested for programming at this time, but is shown as a likely project for 2022



## List of Considered Projects But Not Selected

In December of 2013 the MPO release the 2040 Long Range Transportation Plan. This plan identified that anticipated Federal funding will need to be targeted towards “State of Good Repair projects” as per MAP-21 priorities. This plan also identifies a number of “State of Good Repair” projects for consideration for Federal funding. Since then, MAP-21 has been replaced with Fixing America’s Surface Transportation (FAST), which maintains the “state of good repair” goal from MAP-21, and also adds in performance measures and targets for a number of categories including safety and pavement condition. Another change from FAST is that this program also refines the focus more to the National Highway System. The safety measures will be determined on a statewide level and potentially also on an MPO level. The details of this performance measure are still being determined. The pavement performance measures are also still in development and appear to be focused on the National Highway System (NHS).

In Grand Forks the streets located on the NHS include:

- US Highway 2 (Gateway Dr)
- Demers Ave (I-29 south bound ramps to the Red River)
- 32<sup>nd</sup> Ave S (I-29 south bound ramps to S Washington St)
- I-29
- Columbia Rd (US2/Gateway Dr to 47<sup>th</sup> Ave S)
- S Washington St (US2/Gateway Dr to 62<sup>nd</sup> Ave S)

Of these streets only Columbia Rd (US2/Gateway Dr to 47<sup>th</sup> Ave S) and S Washington St (32<sup>nd</sup> Ave S to 62<sup>nd</sup> Ave S) are classified as Urban. The remaining streets are either considered Interstate, Primary Regional, or Secondary Regional and fall under either the Interstate or Regional Road Programs.

The 2040 LRTP was consulted for potential projects, and listed projects were reviewed based on the project limits, project scope, current pavement condition, and if the segment is on the NHS. The street segments listed in the LRTP Grand Forks “State of Good Repair” (SOGR) Project List not yet completed or programmed are listed above and include the following information: location, project type, year listing in the LRTP, and 2013 Year of Expenditure (YOE) costs.

### LRTP – State of Good Repair Projects

Street (To - From)	Project Type	LRTP Year	Cost in 2013
S 20th St (21st Ave S - 22nd Ave S)	Minor Rehab	2017	\$8,000
S 20th St (Burntwood Ct-Dellwood Ct)	Minor Rehab	2017	\$13,000
S 20th St (32nd Ave S - 36th Ave S)	Minor Rehab	2017	\$25,000
Kittson Ave (5th St - 4th St)	Minor Rehab	2018	\$9,000
5th Ave S (6th St – 3rd St)	Minor Rehab	2018	\$25,000
S Washington St (47th Ave S - 62nd Ave S)	Minor Rehab	2018	\$125,000
32nd Ave S (Washington St-Belmont Rd)	Minor Rehab	2019	\$88,000
S 20th St (7th Ave S-8th Ave S)	Major Rehab	2020	\$35,000
Columbia Rd (32nd Ave S-47th Ave S)	Minor Rehab	2020	\$125,000
Stanford Rd (13th Ave N-11th Ave N)	Minor Rehab	2021	\$13,000
32nd Ave S (S 55th St-S48th St)	Minor Rehab	2021	\$63,000
Demers Ave (55th St-W Columbia Onramp)*	Minor Rehab	2021	\$38,000
47th Ave S (Washington St-Belmont Rd)	Minor Rehab	2021	\$88,000
Columbia Rd (24th Ave S-32nd Ave S)	Minor Rehab	2022	\$38,000
Belmont Rd (32nd Ave S-47th Ave S)	Major Rehab	2022	\$500,000

\*Based on available information, the termini should be the west I-29 ramp.

In reviewing the projects remaining on the Short Range listing it was noted that the majority of these projects were very short segments and are likely significantly underestimated in project costs. Maintenance projects extend the life of the pavement and are cost effective, however, when considering a project for Federal funding, maximizing the length helps offset the increased administrative costs associated with a Federal aid project. In looking at this list, the only projects of noticeable length which were continuous and over \$100,000 were:

- S Washington St (47<sup>th</sup> Ave S – 62<sup>nd</sup> Ave S)
- Columbia Rd (32<sup>nd</sup> Ave S-47<sup>th</sup> Ave S)
- Columbia Rd (24<sup>th</sup> Ave S-32<sup>nd</sup> Ave S)
- 32<sup>nd</sup> Ave S (Washington St-Belmont Rd)
- 47<sup>th</sup> Ave S (Washington St- Belmont Rd)
- Belmont Rd (32<sup>nd</sup> Ave S-47<sup>th</sup> Ave S)

In looking at these projects closer staff noted made the following observations:

S Washington St (47<sup>th</sup> Ave S-62<sup>nd</sup> Ave S): S Washington was reconstructed from a 2 lane rural section to a five lane urban section from 47<sup>th</sup> Ave S to the South End Drainway in 2015. In the current CIP, reconstruction and expansion of S Washington St from the South End Drainway to 55<sup>th</sup> Ave S is anticipated for 2019. It is anticipated that S Washington St will continue to be reconstructed as the City continues to develop. With the recent changed to the Federal aid program, projects like this one which add additional lanes of traffic, are considered an expansion project and not a “State of Good Repair” project, and would be difficult to obtain Federal funding. This recent project and the 2019 planned project, also cut the length of the project listed in the LRTP in half.

S Columbia Rd (24<sup>th</sup> Ave S-47<sup>th</sup> Ave S): The segment from 40<sup>th</sup> Ave S to 47<sup>th</sup> Ave S is scheduled to be reconstructed in 2017 and the segment from 36<sup>th</sup> Ave S to 40<sup>th</sup> Ave S was reconstructed in 2015. The remaining portions of S Columbia Rd were reconstructed in 2007 and 2003. A recent field inspection of S Columbia Rd from 24<sup>th</sup> Ave S to 36<sup>th</sup> Ave S, resulted in the notation of a handful of panels which could be replaced, and a relatively short distance of cracks to be sealed. With the relative young age of the pavements and the good condition of the pavement, it is anticipated that the costs associated with the construction of this project would likely not be fiscally viable for a federal aid project.

32<sup>nd</sup> Ave S (Washington St to Belmont Rd) – Belmont Rd (32<sup>nd</sup> Ave S-47<sup>th</sup> Ave S) – 47<sup>th</sup> Ave S (S Washington St to Belmont Rd): The combination of these three segments results in approximately 2.5 miles of rehabilitation. These length of these segments and the continuous nature of them is beneficial for environmental documentation, design and construction. In looking at these segments in more detail, 32<sup>nd</sup> Ave S was constructed in multiple phases between 1967 and 1972, Belmont Rd was constructed in 1984, and 47<sup>th</sup> Ave S was constructed in 2006. A recent field inspection was completed on these streets. 32<sup>nd</sup> Ave S has a significant amount of deterioration and would likely result in replacement of over half of the pavement. With this amount of rehabilitation required it would not be cost effective when compared to a reconstruct. The LRTP indicated that this segment was a minor rehabilitation, and the pavement is far beyond this stage. Belmont Rd has enough deterioration, and is still in good enough condition to be considered for a rehabilitation project. This segment in the LRTP SOGR list was shown as a major rehabilitation project. This is consistent with what was observed in the field. 47<sup>th</sup> Ave S is in good condition with very few panels needing replacement or cracks needing to be sealed. Given the relatively young age of the pavement it is in good condition, and will likely remain in similar condition in 2022. This segment would not make a good rehabilitation candidate. With the streets not being viable rehabilitation candidates, it leaves approximately 1 mile for consideration. This segment of Belmont Rd is classified as a minor arterial and the 2015 NDDOT vehicle count had between 2,763 to 3,665 vehicles per day. Considering the reduction in project length, the low traffic volume, and that this segment is not on the NHS, there is likely a higher priority project which can be selected which can provide a stronger impact to the community. Given the condition of the pavement this would likely be a strong candidate for a local concrete panel replacement special assessment project.

With the lack of high priority projects available in the Short Range time band, the Mid-Range (2023-2030) time band was consulted. In considering the focus on the NHS, only projects on the NHS were considered. The projects listed in the SOGR Mid-Range time band on the NHS:

**LRTP – SOGR Projects on the NHS in the Mid-Range Time Band**

Street (To - From)	Project Type	LRTP Year of Construction	Cost in Year of Construction
Columbia Rd Overpass	Rehabilitation	2023	\$3,715,000
S Washington St (32nd Ave S-47th Ave S)	Major Rehab	2027	\$500,000
S Columbia Rd (14th Ave S-24th Ave S)	Major Rehab	2028	\$200,000
N Columbia Rd (Gateway Dr-2nd Ave S)	Major Rehab	2029	\$400,000

In looking at these projects closer staff noted made the following observations:

Columbia Rd Overpass: Rehabilitation of the Columbia Rd overpass is listed in the City's six year CIP and is anticipated for 2025. Previous there was an issue where the finger joints between the bridge structure and bridge abutment were vertically separated. A Needs Assessment Report was generated by a consultant in 2011 with a list of short and long range recommendations. Repairs to the overpass were made in 2012 and 2014. Prior to applying for Federal funding staff recommends that an updated Needs Assessment Report be completed to determine any changes from the previous report and also provide a more up to date cost estimate to be used in the application.

S Washington St (32<sup>nd</sup> Ave S-47<sup>th</sup> Ave S): This would consist of rehabilitation of approximately 1 mile of street. This portion of S Washington was constructed in two phases in 1998 and 1999. Based on the NDDOT 2015 vehicle counts, this segment of S Washington sees between 6,790-11,273 vehicles per day. This project is scheduled in the LRTP for the year 2027 as a major rehabilitation project. A recent field inspection of S Washington St from 32<sup>nd</sup> Ave S to 47<sup>th</sup> Ave S, resulted in the notation of a handful of panels which could be replaced, and a relatively short distance of cracks to be sealed. Considering the age of the pavement and the good condition, it is anticipated that the costs associated with the construction of this project would likely not be fiscally viable for a federal aid project.

S Columbia Rd (14<sup>th</sup> Ave S-24<sup>th</sup> Ave S): This would consist of rehabilitation of approximately  $\frac{3}{4}$  mile of street. S Columbia Rd from 14<sup>th</sup> Ave S to 17<sup>th</sup> Ave S was constructed in 1975, and is scheduled for a concrete panel replacement and grinding in 2017. S Columbia Rd from 17<sup>th</sup> Ave S to 22<sup>nd</sup> Ave S was constructed in 1977 and had a concrete panel replacement and grinding project completed in 2012. S Columbia Rd from 22<sup>nd</sup> Ave S to 24<sup>th</sup> Ave S was constructed in 2007. With the recent construction, maintenance and planned upcoming maintenance for this street, another maintenance project being scheduled so soon would likely not be fiscally viable for a federal aid project.



October 13, 2016

Al Grasser, GF City Engineer  
City of Grand Forks  
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Grand Forks, ND 58206

#### URBAN PROGRAM SOLICITATION FOR 2017-2020

The Grand Forks-East Grand Forks Metropolitan Planning Organization (MPO) is soliciting for projects to the fiscal years (FY) 2017-2020 Transportation Improvement Program (TIP). The TIP is a four year financially constrained priority list of projects within the MPO planning area funded with federal, state and local dollars. This solicitation letter is for the Urban Roads Local Program projects for the construction years 2017 to 2020. A separate letter will be sent to solicit for other federal aid programs.

The enclosed shows projects in the current draft TIP of 2017 through 2020. Understand that FY2017, 2018 and 2019 are already contained with a TIP and therefore are fiscally constrained. The funding for your Urban Road Program is limited by the total sum for a given year. Modifications, changes, project additions and/or deletions within any of these years cannot exceed the sum of Urban Roads Program funds for that year. Please verify that you are working towards bidding the projects scheduled for 2017 and re-submit updated project requests for 2018, 2019 and 2020, if any changes have occurred in these projects but understanding fiscal constraint. **A potential exists to augment these already programmed projects with additional federal funds. Please identify early in this process if you have some particular projects and a possible increase participation of federal funds so the processing of this request can be more smoothly advanced.**

Estimates of federal revenue available each year of the next TIP is difficult to predict; the lack of a long term bill and uncertainty of what the new act may entail creates questions of how federal aid will be delivered. Nonetheless, we still need to prepare a new TIP. The MPO finalized Long Range Transportation Plan is clear that the emphasis is on projects that maintain roadways in a “state of good repair”. Projects not focused on this run the risk of being declared non-consistent with the MPO’s Long Range Transportation Plan.

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Al Grasser  
Oct 13, 2016

The MPO understands that this is still an evolving process for soliciting TIP projects. We stand ready to assist you in preparing the required information. In order for the MPO to review the projects for consistency with transportation plans and MPO priority, the information requested in the attached forms should be submitted directly to the MPO. We encourage you to complete how you believe the scoring sheet should be completed; **with each yes, please provide a narrative of how the project accomplishes that yes.** If the project does not accomplish a yes, we further encourage you to evaluate how the project could accomplish a yes and modify the project accordingly.

In addition, any “regionally significant” project, regardless of funding source, needs to be submitted to the MPO for inclusion into its TIP. Please refer to the TIP Process Manual for the definition of these types of projects.

The deadline for submittal to the MPO is noon **December 7th**. The MPO staff will review the projects for consistency with the Transportation Plan and project eligibility for the requested funding program. The MPO staff will then score each project. The information will be presented to TAC. The TAC will review the information and forward a recommendation to the MPO Executive Board. Following the review and acceptance of the projects by the MPO, the project information will then be forwarded to NDDOT. Then, the MPO and the NDDOT will cooperatively work out drafting the TIP/STIP.

Thank you in advance for your attention to this. We trust that further improvements to the TIP process will continue to ensure that the best projects for our metropolitan area are being funded. Do not hesitate to contact me if you have any questions.

Sincerely,

Earl Haugen  
Executive Director

Enc.

Cc: District Engineer  
NDDOT Local Gov't Division