



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

Agenda Item: Federal Transportation Funding Request – Highway Safety Improvement Program

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

Staff Recommended Action: **Approve the 2018-2021 Highway Safety Improvement Program project funding request and direct staff to submit the approved list in rank order to the Grand Forks – East Grand Forks Metropolitan Planning Organization for submission to the North Dakota Department of Transportation**

Committee Recommended Action:

Refer to City Council with the recommendation to approve. Request if possible to move the funding for the project to 2020.

Council Action:

BACKGROUND:

During the November 21, 2016 City Council meeting, a resident asked what the anticipated reduction in crashes would be for the intersections on 32nd Ave S. From what information staff has been able to obtain, the reduction of crashes from realigning left turn lanes varies significantly from state to state and city to city. There are numerous different factors that can apply from how far negatively offset the left turn lanes are to how far they are adjusted. In one research project performed by the Nebraska Department of Roads indicated that “The results of the citywide [Combined Group] C-G analysis indicate that there was a reduction in total accidents of 21% and 56% for the Cities of Lincoln and Omaha respectively.” A copy of this study can be found at the following website:

<http://www.roads.nebraska.gov/media/5709/final-report-p554.pdf>

The North Dakota Department of Transportation (NDDOT) is soliciting projects to be funded by their Highway Safety Improvement Program (HSIP). This program provides Federal grant funding from the Federal Highway Administration (FHWA) and administered through the NDDOT. To be considered for Federal funding these projects 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 recommendation, in rank order, includes:

1. 32nd Ave S Corridor Improvements – Phase 1 \$4,427,000
2. 32nd Ave S Corridor Improvements – Phase 2 \$2,945,000

The HSIP has approximately \$12 million for the statewide solicitation and historically there has not been enough funding available for every application. This is a 90% reimbursement for construction and construction engineering program. For projects located on the State Regional system the funding split would be 90% Federal/5% State/5% Local. If the application is approved, the project will be added to the City's Transportation Improvement Plan. Projects will compete against each other and projects submitted by other entities throughout the state. Projects that are eligible for funding under this program are intersections listed on the annual NDDOT High Crash Report, and also includes low cost systemic improvements identified in the Local Road Safety Program (LRSP). Up to 50% of available HSIP funds will be allocated to projects that were identified by the LRSP. The proposed projects on 32nd Ave S include numerous intersections identified on the annual high crash report and the NDDOT is encouraging the City to submit these projects for HSIP funding.

Projects previously approved for Federal funding under this program include:

- 2014 – Countdown Pedestrian Heads
- 2017 – S Columbia Rd & 17th Ave S Right Turn Lanes
- 2017 – Countdown Pedestrian Heads
- 2018 – School Sign Replacement
- 2019 – Red Light Confirmation Indicators on Gateway Dr

The NDDOT compiles an annual list of the intersections in the urban and rural areas of North Dakota having the highest number and severity of crashes. These lists include the top 50 highest rated urban and the top 50 highest rated rural intersections in the state using data from the previous three years.

Intersection	High Crash Intersection Report Rank		
	2016 (2013-2015)	2015 (2012-2014)	2014 (2011-2013)
32nd Ave S & S 34th St	#13	#16	#10
32nd Ave S & S 31st St	#39	#39	#32
32nd Ave S & S Columbia Rd	#47	#39	#33
32nd Ave S & S 20th St	*	#13	#17
Washington St & Demers Ave	#14	#2	#2
Washington St & 17th Ave S	#18	#44	*
S Columbia Rd & 13th Ave S	*	#47	*
S Columbia Rd & 17th Ave S	#21	#33	#47
Demers Ave & 42nd Ave S	#36	#28	*

*Intersections not ranked in the top 50 urban intersections that year

On multiple occasions in the past, the City has applied for HSIP funding to address safety issues in the 32nd Ave S corridor. These intersections have regularly appeared in the annual reports and make up a noticeable portion of the intersections in these reports (3 of 7 in 2016, and 4 of 9 in 2015, and 4 of 6 in 2014). In May of 2016 a Road Safety Review (RSR) of the 32nd Ave S (Business US 81) was conducted with staff from the Federal Highway Administration (FHWA), NDDOT, MPO and the City. A report from this RSR was produced by the NDDOT in August 2016. Within this report were a number of short term recommendations which included: realignment and length modifications of the left turn lanes for east bound and westbound traffic, replacement of traffic signal cabinets, replacing traffic signal poles and mast arms as needed, and installing flashing yellow arrow left turn signal heads. The City has been encouraged by the NDDOT to apply for projects to address 32nd Ave S on a corridor wide basis. Based on the RSR, City staff has produced a two phased approach for addressing the short term recommendations listed in the RSR. A two phased approach is proposed assuming all work could not be funded by this program in a single year. We anticipate that this funding program will fund projects in 2021, however to get more years of life from the proposed project and to address safety concerns, staff will request funding be made available at an earlier date.

The first phase will address 32nd Ave S at the intersections of S 34th St, S 31st St and S Columbia Rd. These intersections are the three that are currently listed in the 2016 High Crash Report along this corridor. The proposed improvements would include: realignment of the left turn lanes for eastbound/westbound traffic so left turning traffic is head to head instead of negatively offset.

The second phase will address 32nd Ave S at the intersections of I-29 south bound ramps, I-29 north bound ramps, S 38th St, S 24th St and S 20th St. The intersection of 32nd Ave S and S 20th St is proposed to have the eastbound and westbound left turn lanes realigned so they are head to head instead of negatively offset. The intersection of 32nd Ave S and S 38th St is also proposed to have the eastbound and westbound left turn lanes realigned so they are head to head instead of negatively offset, but also lengthened so that left turning vehicles do not stack up in the through lanes. The intersection of 32nd Ave S and the I-29 north bound off ramp is proposed to have a video detection camera installed and programming to “flush” traffic on the off ramp to prevent traffic from backing up onto I-29. This phase also plans for removing the existing five section protected/permissive left turn signal heads and replacing them with four section flashing yellow arrow heads for eastbound and westbound traffic throughout the corridor. With the completion of this phase in conjunction with already programmed HSIP projects, all of the short term recommendations in the RSR will be addressed for the 32nd Ave S corridor.

It should also be noted that with the release of the NDDOT Final 2017-2020 State Transportation Improvement Plan (STIP) released on November 7, 2016, that there have been some reductions in Federal and State funding allocations to previously programmed safety projects. Those changes are shown on the attached HSIP requests sheet and amount to a Federal and State funding reduction of \$143,665. City staff is currently in contact with NDDOT staff to determine the cause of these changes, and what the City’s options are.

ANALYSIS AND FINDINGS OF FACT:

- The list 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.
- HSIP Federal Funds may be eligible for preliminary engineering, construction engineering, and construction costs.
- It is anticipated that the cost sharing will be 90% Federal/5% State/5% City with the City share being funded from the Street/Infrastructure Fund 4815.
- It is assumed that if awarded the HSIP projects will be turned over to NDDOT for preliminary engineering and construction engineering.
- A Road Safety Review of the 32nd Ave S corridor was conducted in May of 2016 with staff from FHWA, NDDOT, MPO, and the City. A report was produced by the NDDOT in August of 2016.

SUPPORT MATERIALS:

- 2017-2021 HSIP Federal Funding Project List with Cost Estimates (1 page)
- Project Location Map (1 page)
- MPO Letter of October 2016 Requesting HSIP Projects for Fiscal Years 2018-2021

HSIP REQUESTS
CITY PROJECT SUMMARY 2017-2021
GRAND FORKS NORTH DAKOTA
SUBMITTED IN 2016

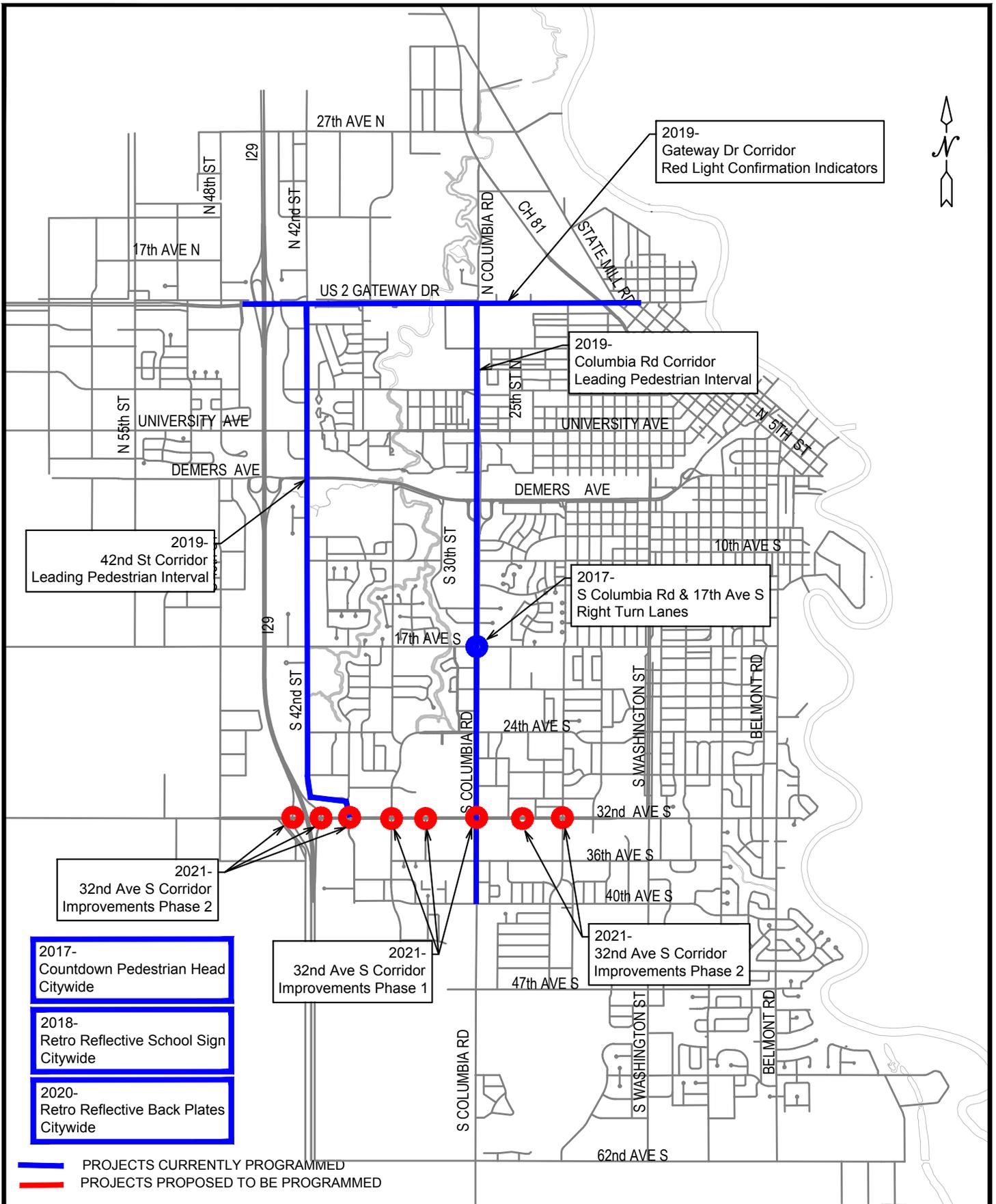
DATE: 11/22/2016

Allen Grasser
701.746.2640

FISCAL YEAR	CATEGORY	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	HSIP	Pedestrian Heads	Various Intersections	\$129,000	\$116,100	\$6,450	\$6,450	\$0	\$0	\$6,450	\$129,000
2017	HSIP	Right Turn Lanes	S Columbia Rd and 17th Ave S	\$596,600	\$536,940	\$0	\$59,660	\$0	\$0	\$59,660	\$596,600
2018	HSIP	Signing	Grand Forks School Sign Replacement	\$45,000	\$40,500	\$0	\$4,500	\$0	\$0	\$4,500	\$45,000
2019	HSIP	Signal Improvements	Red Light Confirmation Indicators on US 2	\$126,000	\$113,400	\$6,300	\$6,300			\$6,300	\$126,000
			Advanced Pedestrian Walk on the 42nd St and Columbia Corridors and Retroreflective Backplates at numerous traffic signals	\$21,300	\$19,170	\$1,955	\$175	\$0	\$0	\$175	\$21,300
2019	HSIP	Signal Improvements	Advanced Pedestrian Walk on the 42nd St and Columbia Corridors and Retroreflective Backplates at numerous traffic signals	\$152,000	\$136,800		\$15,200			\$15,200	\$152,000
				\$101,900	\$91,710	\$0	\$10,190	\$0	\$0	\$10,190	\$101,900
2021	HSIP-1	Left Turn Lane Realignment	32nd Ave S Corridor Improvements Phase 1	\$4,427,000	\$3,984,300	\$221,350	\$221,350	\$0	\$0	\$221,350	\$4,427,000
2021	HSIP-2	Left Turn Lane Realignment	32nd Ave S Corridor Improvements Phase 2	\$2,945,000	\$2,650,500	\$147,250	\$147,250	\$0	\$0	\$147,250	\$2,945,000
2017-2021 Totals				\$8,265,800	\$7,439,220	\$377,005	\$449,575	\$0	\$0	\$449,575	\$8,265,800

Note: Strikethrough text indicates funding levels previously requested and replacement text indicates new funding adjusted by NDDOT in the 2017-2020 STIP.

Newly requested projects are shown in bold text in 2021, however, these projects will be requested to be funded in an earlier year(s) to get more years of use before the roadway is reconstructed



CITY OF
GRAND FORKS
 ENGINEERING
 DEPARTMENT

Highway Safety Improvement Program Requests
 City Project Summary 2018-2021
 Grand Forks North Dakota
 Submitted in 2016

DATE
 11/15/2016

SCALE
 NTS

CITY PROJECT
 7578

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October 13, 2016

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HSIP PROGRAM SOLICITATION FOR 2018-2021

The Grand Forks-East Grand Forks Metropolitan Planning Organization (MPO) is soliciting for projects to the fiscal years (FY) 2018-2021 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 Highway Safety Improvement Program (HSIP), projects for the construction years 2018 to 2021. Separate letters will be sent to solicit for other federal aid programs.

Estimates of federal revenue available each year of the next TIP is difficult to predict. Nonetheless, we still need to prepare a new TIP. The recently created Local Road Safety Program (LRSP) identifies many projects that have been prioritized as furthering the safety emphasis areas identified; 50% of the funding available is targeted towards these projects from the LRSP. Also, NDDOT has presented to the City and MPO recommendations for a safety improvement to 32nd Ave S and encouraged a project.

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. The deadline for submittal to the MPO is **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 NDDOT will cooperatively develop 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: NDDOT Local Gov't Division