



TO: Mayor Tom Ross
Members of the City Council

FROM: Lance Meyer, P.E., City Engineer

DATE: March 4, 2024

SUBJECT: 16TH STREET SW RECONSTRUCTION PROJECT PHASING (4780)

I. RECOMMENDED ACTION

1. Recommend council split the 16th St SW Reconstruction project into two phases

II. DEPARTMENT CONTACT PERSONS

Lance Meyer, City Engineer	701-857-4100
Stephen Joersz, Traffic Engineer	701-857-4100

III. DESCRIPTION

A. Background

Portions of 16th St SW are in poor condition and are in need of reconstruction. The project has been programmed with the NDDOT for a federal cost share in 2025.

Public input was held in November 2023 with informative feedback from the public.

During the preliminary design, a number of challenges and differing conditions came into play which has significantly increased the project cost. Some of the major items include:

- A significantly larger detention pond than what was assumed. The larger pond is needed to reduce flooding depth at the 16th St underpass
- Larger storm sewer conveyance system than was assumed to capture additional runoff
- Property acquisitions for the detention pond and single family homes for the roundabout(s) are significantly more than the assumed easement acquisitions
- Underground water and sewer were in worse conditions than expected and must be replaced
- Original estimate was created in 2020 and inflated by 3% each year. Construction prices for some materials have increased nearly 200% (example: aggregate base \$23/ton vs \$65/ton)

Due to these factors, the city no longer has enough federal funds available to keep the project at a reasonable city cost share.

B. Proposed Project

Staff is proposing to break the project up into two segments:

- Phase I – 14th Avenue SW to Burdick Expressway: Construction in 2025
- Phase II – Burdick Expressway to 2nd Avenue SW: Construction in 2028

By dividing the project in half and accumulating additional federal funds, the City's cost share can return to more reasonable expectations.

Staff and our consultant will present the draft environmental document, public input summary, and potential options at the March 18th council meeting. The decision to split the project needs to come before final project options are selected.

C. Consultant Selection

Apex Engineering Group was selected using a qualifications based selection.

IV. IMPACT:

A. Strategic Impact:

16th Street SW is a minor arterial in our transportation network and must be kept in good condition to support the traveling public.

B. Service/Delivery Impact:

It is likely that portions of 16th Street will need to be closed during the reconstruction. Detour routes will need to be set up during those times.

C. Fiscal Impact:

The fiscal impact assumes council will split the project in half. Federal funds are an 80/20 federal local match up to the federal cap. The city funds all engineering, right of way, and water/sewer expenses with 100% city funding sources. NDDOT does not allow federal funds to be used for city water/sewer utilities. All project costs are using 5% inflation and all totals include a 5% contingency.

Project Costs

2025 – 16th St Reconstruction: Burdick Expressway to 14th Avenue SW

Cost Breakdown:

Federal Participating Road Costs:	\$ 7,859,000
Federal Participating Drainage Costs:	\$ 4,348,000
City Costs (Engineering, Right of Way, Water/Sewer)	<u>\$ 2,445,500</u>
Total Cost	\$14,652,500

Revenue Share:

Federal Capped Construction Funds	\$ 7,790,256
City Funds	<u>\$ 6,862,244</u>
Total	\$14,652,500

2028 – 16th St Reconstruction: Burdick Expressway to 2nd Avenue SW

Cost Breakdown:

Federal Participating Road Costs:	\$ 5,602,000
Federal Participating Drainage Costs:	\$ 1,590,000
City Costs (Engineering, Right of Way, Water/Sewer)	<u>\$ 4,465,400</u>
Total	\$11,657,400

Revenue Share:

Federal Cost Share	\$ 5,376,400
City Funds	<u>\$ 6,281,000</u>
Total	\$11,657,400

Project Funding

Funding for these projects will come from several funding sources which include: federal funds, Hub City Oil and Gas, water and sewer reserves.

V. CITY COUNCIL ASPIRATIONS

This project accomplishes the aspirations of Dynamic and Flourishing; Excellent and Connected.

VI. ALTERNATIVES

Alternative 1: Council could choose to keep the entire project in the 2025 construction year. In that case, only \$7,790,256 in federal funds would be available. All other project costs would have to be funded by the City.

Alternative 2: Council could choose to delay one of the phases or all of the phases. This would likely move both projects past 2028 for construction.

VII. TIME CONSTRAINTS

Staff has to inform the NDDOT on March 5th which direction council has chosen, so they can start their programming process.

VIII. LIST OF ATTACHMENTS

A. N/A