



Legislation Text

File #: Res. 2020-077, **Version:** 1

City Council Meeting Date: September 1, 2020

To: Mayor and City Council
City Administrator

From: Sean Simonson, Engineering Manager
David E. Bennett, PE - Public Works Director/City Engineer

Subject:

Consider Accepting Feasibility Report and Call for Improvement Hearing - 2021 Reclamation and Overlay Project (STRT2021-A46).

Action Requested:

The Northfield City Council approves the attached Resolution accepting the feasibility report and calling for the improvement hearing for the 2021 Reclamation and Overlay Project (STRT2021-A46).

Summary Report:

The feasibility report has been completed and finds that the 2021 Reclamation and Overlay Project is necessary, feasible and cost effective. See attachments for the project process (Attachment 3) and location map (Attachment 4). A link to the Feasibility Report is below:

<https://www.ci.northfield.mn.us/1350/2021-Reclamation-and-Overlay-Project>

(See Attachment 2 for clickable link)

The next step in moving this project forward is for the City Council to receive the feasibility report and call for a public hearing on the improvements.

On April 7, 2020 the City Council passed Council Resolution 2020-042 which ordered the preparation of a feasibility report for this project. The proposed scope of the Reclamation and Overlay Project includes the following streets:

1. Mayflower Drive from Parmeadow Drive to Turnberry Lane (Reclamation)
2. Parmeadow Drive from Mayflower Drive to Heywood Road (Reclamation)
3. Creek Lane from Mayflower Drive to Heywood Road (Reclamation)
4. Turnberry Lane from Mayflower Drive to Heywood Road (Reclamation)
5. Mayflower Hill Service Road (Reclamation)
6. Baneberry Court (Reclamation)
7. Mayflower Court (Reclamation)
8. Primrose Court (Reclamation)
9. Turnberry Court (Reclamation)
10. Goldenrod Court (Reclamation)

11. Goldenrod Circle (Reclamation)
12. Clover Court (Reclamation)
13. Crocus Court (Reclamation)
14. TH 3 east Frontage Road from Woodley Street to Jefferson Parkway (Mill and Overlay)
15. Jefferson Parkway from TH 3 to west dead end (Mill and Overlay)
16. Babcock Lane from TH 3 west frontage road to Babcock Park. (Mill and Overlay)
17. Bollenbacher Drive from Jefferson Parkway to west Frontage Road (Mill and Overlay)
18. Bollenbacher Court (Mill and Overlay)
19. West Frontage Road from Bollenbacher Drive to Riverview Drive (Mill and Overlay)
20. East Cannon River Trail (ECRT) Honeylocust connection (Trail Connection)

There has been one neighborhood meeting which was held virtually on August 26, 2020. The purpose of this meeting was to inform the affected property owners of the improvements being considered and gather input and comments from the impacted residents. Along with the neighborhood meeting, Staff also sent out self-addressed stamped envelopes with a survey for additional data collection regarding the project (Attachment 5).

Existing Conditions

The existing streets proposed in this project are shown in Appendix B of the Feasibility Report. These areas are broken down into three specific project areas. The Mayflower Hill Area, the TH 3 Frontage Road Area and the ECRT connection off Honey Locust.

The Mayflower Hill area is located in the eastern most portion of Northfield, with main roads and cul-de-sacs. These areas are in an established residential area of the City and, as a result, has older, and in most cases, severely distressed street pavement along with numerous mature trees. Sidewalks are located predominately on one side of each non-cul-de-sac street.

The TH 3 Frontage Road Area is located in the southwest portion of Northfield, centered on the TH 3 corridor from Woodley Street to Riverview Drive. This area is predominantly a Commercial/Industrial area that also has areas of distressed street pavement. Sidewalks are located along portions of the project corridor.

The ECRT connection is located on the southwest portion of Northfield, near the City of Northfield and City of Dundas corporation limits adjacent to the dead end of Honeylocust Drive. The area consists of undeveloped Commercial/Industrial lots which include wetland and lowland areas near the Cannon River.

Mayflower Hill Area

The proposed streets for this project area are generally in neighborhood residential areas and have midlife to newer infrastructure, and mature trees. All streets within the project area are classified as local roadways and experience relatively low volumes of traffic. Along with public utilities in the project area, there are also private utilities, including both overhead and underground power, gas and communications.

A. Streets

The streets within the project area are all bituminous surfaced with concrete curb and gutter. Pavement widths vary from 24' - 36' along through street segments, all measured from curb face to curb face. The streets are aged and exhibit wear and distress to different degrees. The pavement is generally in fair to very poor condition, and exhibit transverse and longitudinal cracking, alligator cracking, potholes and rutting.

B. Pedestrian & Bicycle Facilities

The project area has existing sidewalk on one side of the street on the entire segments of Mayflower Drive, Turnberry Lane, Parmeadow Drive, and on Creek Lane from Heywood Road to Parmeadow Drive. There is also a connecting trail from Spring Creek Road to Mayflower Drive. There are currently no on-street bicycle facilities on this portion of the project. The existing sidewalk is in good to fair condition overall with cracking, settling, and heaving in some areas.

C. Storm Sewer

The current pipe network consists of Reinforced Concrete Pipe (RCP) with sizes ranging from 12” to 36” in diameter, and is found to be in fair condition.

D. Sanitary Sewer

The current pipe network consists of Polyvinyl Chloride (PVC), all 8” in diameter. From the information that has been gathered, the sewers in the project corridor are determined to be in an overall good condition.

E. Watermain

The current pipe network consists of Ductile Iron Pipe (DIP) with sizes ranging from 6” - 12”, and is in good operational condition and has sufficient capacity and redundancy for the service area.

TH 3 Frontage Road Area

The TH 3 Frontage Road Area consists of the eastern frontage road on TH 3 from Woodley Street to Jefferson Parkway, the western frontage road from Woodley Street to Riverview Drive. In addition, Babcock Lane from the west frontage road to Babcock Park, Bollenbacher Drive, and Bollenbacher Court. The TH 3 Frontage Road Area is located in primarily a Commercial/Industrial area, which has a higher Annual Average Daily Traffic (AADT) than your typical local street located in a residential area. As-builts indicate these sections of streets were originally constructed in the late 1970’s, with the exception of Bollenbacher Drive and Bollenbacher Court which were built in the late 1990’s.

A. Streets

The streets within the project area are bituminous surfaced with a mix of urban design including concrete curb and gutter, and a portion of rural design, including gravel shoulders and ditch sections. Pavement widths vary from 24’ - 44’ along through street segments, all measured from curb face to curb face or bituminous edge to bituminous edge.

The streets are aged and exhibit wear and distress to different degrees. The pavement is generally in fair condition, and exhibit transverse and longitudinal cracking, alligator cracking, potholes and rutting. Some street segments have settlements, which allow water to pond, infiltrate and weaken the subgrade.

The existing concrete curb and gutter is in good to fair condition throughout the project area.

B. Pedestrian & Bicycle Facilities

The project area has sidewalks located on at least one side of each street segment with the exception of the West Frontage Road from Bollenbacher Drive to Riverview Drive. There are currently no on-street bicycle facilities on this portion of the project. The existing sidewalk is in good to fair condition overall with cracking, settling, and heaving in some areas.

C. Storm Sewer

The condition of the existing storm sewer system was determined from as-built information, inspections, storm sewer televising reports, and discussions with City Staff. There are no known storm drainage issues in the proposed project area and all piping is deemed to be in adequate condition. The current pipe network consists of Reinforced Concrete Pipe (RCP) and Corrugated Metal Pipe (CMP) with sizes ranging from 12” to 36” in diameter, and is deemed to be in adequate condition.

D. Sanitary Sewer

The current pipe network consists of Polyvinyl Chloride (PVC), Vitrified Clay Pipe (VCP) and Reinforced Concrete Pipe (RCP) ranging in sizes from 8” - 15”. From the information that has been gathered, the sewers in the project corridor are determined to be in an overall good to fair condition. One section of pipe on the East Frontage Road was identified as a candidate of a Cured In-Place Pipe (CIPP) lining. Utility Staff has indicated that they will include this section of pipe in a larger upcoming CIPP lining project.

E. Watermain

The current pipe network consists of Ductile Iron Pipe (DIP) and Cast-Iron Pipe (CIP) with sizes ranging from 6” - 16”, and is in good operational condition and has sufficient capacity and redundancy for the service area.

ECRT Connection

The existing properties proposed for the East Cannon River Trail (ECRT) connection consists of undeveloped Commercial/Industrial parcels, one of which is privately owned, one that is owned by the State of Minnesota, and the additional parcel owned by the City of Northfield, all of which are adjacent to Honeylocust Drive. All parcels have portions which lie within the floodway and flood fringe, both of which allow the installation of trails per the City of Northfield Floodplain Ordinance, each with certain stipulations.

Proposed Improvements

Mayflower Hill Area

A. Streets

The proposed improvement recommended is a Full Depth Modified Pavement Reclamation (FDMPR) to rehabilitate the existing street system in the Mayflower Hill Area. A FDMPR consists of grinding the full depth of asphalt as well as a majority of the existing undelaying aggregate base. This material is then removed to allow an additional sub-cut to be performed on the existing road subgrade to allow the installation of a 1’ select granular road base section, along with a subbase drain tile along the curb lines.

In addition to the FDMPR, curb and gutter spot repairs, and sidewalk spot repairs will also be performed.

Tree removal/replacement will also occur. Removals will follow the guidelines of the City's Emerald Ash Borer Management Plan, which calls for Ash trees to be removed that are under 13" in diameter, and all other Ash trees under 19" that are not deemed in great or excellent shape. The goal in past projects has been to replace any trees removed with new 2" to 2-1/2" trees on at least a two for one basis if proper spacing allows.

B. Pedestrian & Bicycle Facilities

Staff has cross referenced The City of Northfield adopted the Pedestrian, Bike, and Trail System Plan adopted in 2019. That report does not identify any new pedestrian or bicycle facilities to be installed along the Mayflower Hill Area project corridor. Staff has however included the rehabilitation of a bike trail that connects Mayflower Hill and Spring Creek Road as part of the improvement project.

In addition to the proposed work mentioned above, spot replacements to the existing concrete sidewalks will be completed in conjunction with the upgrades to each of the existing pedestrian ramps to meet current ADA standards on all walks included in the project area.

C. Storm Sewer

Limited rehabilitation work is proposed for the storm sewer system at this time. Along with a few structure replacements that were identified through the feasibility process, all storm sewer castings will be adjusted to provide a smooth/drivable street surface in conjunction with the street resurfacing project.

D. Sanitary Sewer

Limited rehabilitation work will be required for the sanitary sewer system at this time as well. All sanitary sewer castings will be adjusted to provide a smooth/drivable street surface in conjunction with the street resurfacing project.

E. Watermain

The City of Northfield has reviewed the condition of the existing watermain system located within the boundaries of the project and have determined that it is in satisfactory condition. As such, limited rehabilitation work is required for the watermain system at this time.

TH 3 Frontage Road Area

A. Streets

The proposed improvement recommended is a 2-inch mill and overlay for all streets in the TH 3 Frontage Road Area, with the exception of Babcock Lane, which is recommended to utilize a FDMPR, and the West Frontage Road from Jefferson Parkway, which is slated for a full depth Mill and Overlay. In addition to the mill and overlay, some isolated areas indicated the need for deeper repairs and potential subgrade corrections may be required where severe distresses are present.

Additionally, spot concrete curb and gutter will be replaced if it is severely damaged or settled/heaved and not allowing proper drainage.

B. Pedestrian Facilities

Staff has cross referenced The City of Northfield adopted the Pedestrian, Bike, and Trail System Plan adopted in 2019 for this feasibility report. That report does not identify any new pedestrian or bicycle facilities to be installed along the TH 3 Frontage Road Area project corridor. However, City Council directed Staff to explore additional connections to the ECRT along this portion of the project corridor. Staff is proposing a trail connection at Babcock Park, and the Rodeo Grounds as part of the improvement project. Appendix “E” of the feasibility report shows these proposed locations.

In addition to the trail connections, it is proposed to add a sidewalk on the north/west sides of Jefferson Parkway/Bollenbacher Drive from TH 3 to Bollenbacher Court to complete an identified sidewalk gap that exists along the project corridor. Additionally, the dead-end sidewalk on the east side of Bollenbacher Drive will be extended south to the TH 3 West Frontage Road. These proposed improvements are depicted in Appendix “E” of the feasibility report.

Furthermore, Staff has included the existing trail along the Rodeo grounds, adjacent to TH 3, which was identified in the 2021-2025 Trail CIP for improvement, to be reconstructed as part of this Capital Improvement Project (Appendix E Figure - 2).

Finally, spot replacements to the existing concrete sidewalks will be completed in conjunction with the upgrades to each of the existing pedestrian ramps to meet current ADA standards.

C. Storm Sewer

Limited rehabilitation work is proposed for the storm sewer system at this time. All storm sewer castings will be adjusted to provide a smooth/drivable street surface in conjunction with the street resurfacing project.

A. Sanitary Sewer

During field inspections of the sanitary system on the TH 3 Frontage Road Area, City Staff did identify an area of sanitary sewer in need of maintenance, however Staff has indicated that this portion of line, which will be a candidate for a sewer lining, will be added to a larger lining project scheduled for the near future. Work proposed at this time will include structure adjustments to provide a smooth/drivable surface in conjunction with the street resurfacing project.

B. Watermain

The City of Northfield has reviewed the condition of the existing watermain system located within the boundaries of the project and have determined that it is in satisfactory condition. As such, limited rehabilitation work is required for the watermain system at this time.

ECRT Connection

City Council directed Staff at the April 7, 2020 City Council meeting to explore an ECRT connection near Honeylocust Drive. Due to the complexity of the design for a trail connection in this area, Staff contracted with

Bolton and Menk to assist with this portion of the Feasibility Report.

Staff and the Consultant have identified two alternatives as part of the Feasibility Report. Both alignments are similar in shape and size, and construction costs are very similar, except for the box culvert included in Alignment 2. The ECRT Feasibility Report is located within Appendix “A” of the Feasibility Report.

Alternative Options:

The City Council could delay this project; however, the street pavements in the area will require repair work in order to keep this area in a marginal condition for traffic.

Financial Impacts:

This project will be funded through a variety of sources including bonding, assessments, and enterprise funds - Storm Fund, Sanitary Fund, and Water Fund. The trail connection to the East Cannon River Trail off Honey Locust is proposed for funding through the use of tax abatement.

Attachment 6 includes the Estimated Project Costs and Estimated Project Funding for all project alternatives.

Tentative Timelines:

See the attached project process (Attachment 3) which details the timeline for the 2021 Reclamation and Overlay Project. This process has been developed and refined over the course of the several years. It accounts for all the required actions by City Council to insure that Minnesota Statute Chapter 429 procedures are followed so that assessments for local improvements may be levied to abutting benefiting properties.