




AGENDA SECTION	CONSENT
MEETING DATE	NOVEMBER 9, 2020

**CITY OF COLUMBIA HEIGHTS - COUNCIL LETTER**

ITEM:	ADOPT RESOLUTION 2020-93 ACCEPTING THE FEASIBILITY REPORT FOR ZONES 4B AND 5 STREET REHABILITATION AND ORDERING THE PUBLIC IMPROVEMENT HEARING, CITY PROJECT NO. 2002		
DEPARTMENT: Public Works		CITY MANAGER'S APPROVAL:	
BY/DATE: Kevin Hansen / November 4, 2020		BY/DATE:  11/6/20	
CITY STRATEGY: #7: Strong Infrastructure/Public Services Additional Strategy?			
SHORT TERM GOAL (IF APPLICABLE): N/A Additional Goal?			

**BACKGROUND:** Staff has developed preliminary plans and prepared the Feasibility Report for Zones 4B and 5 of the Annual Street Rehabilitation Program. Zone 4 is bounded by University Avenue on the west, Central Avenue on the east, 53<sup>rd</sup> Avenue on the north, and 48<sup>th</sup> Avenue/Hilltop south. Zone 5 is bounded by University Avenue on the west, Hilltop/Central Avenue on the east, 48<sup>th</sup> Avenue/Hilltop on the north, and 44<sup>th</sup> Avenue on the south.

**ANALYSIS /CONCLUSIONS:**

Attached is the Feasibility Report that details the scope of work for Street Rehabilitation in Zones 4B and 5. Particular issues are summarized below:

**1. Rehabilitation Strategies**

Three treatment strategies are utilized in the street rehabilitation program: mill and overlay, partial reconstruction, and full reconstruction. In Zone 4B, partial reconstruction and mill and overlay is proposed for the streets identified on the attached area map. In Zone 5, mill and overlay is proposed for the streets identified on the attached area map.

A fourth strategy, seal coating, is addressed under separate engineering reports when seal coating work is proposed. Staff utilizes three methods in evaluating the condition of the street and determining appropriate treatment:

1. Present physical structure (cross-section): Each street within Zones 4 and 5 has been excavated down to the sub-base material and the individual street segment cross-sections are catalogued.
2. Non-destructive strength determination and condition rating: Braun Intertec, a geo-technical engineering consultant, conducted tests on all streets at 50-foot intervals with a dropping weight deflection test. From this, the strength of the road segment is determined. Braun Intertec also develops their own pavement conditions index.
3. Overall Condition Index (OCI): Staff also reviews each street segment by measuring the type and quantity of each type of cracking in the pavement. This information, along with other factors, such as drainage and physical structure is used to determine an "overall condition index". An OCI of 70 or greater suggests seal coat is the appropriate treatment. An OCI between 69 and 55 reflects that the bituminous pavement is showing signs of significant deterioration and a mill and overlay is required to strengthen the pavement. An OCI of less than 55 suggests the best course of action is to reconstruct the

street, typically because both the pavement and the base under the pavement are failing. The need for full or partial reconstruction depends on the condition of the curb and gutter. The results are then used to determine the appropriate treatment to maximize the life of the street.

## 2. Utilities Replacement

Utilities have been reviewed in Zones 4B and 5. Staff utilized structure inspections, televising, history of water main breaks, age of water main and services, leakage testing (independent testing), and previous engineering reports in determining utility recommendations.

Only minor water main, sanitary sewer, and storm sewer utility work is proposed.

## 3. Assessment Methodology

Street Rehabilitation in Phase 1, Zones 1, 2 and 3 all followed the **previous assessment policies** for each area. Under the 1999 Alley Construction Program and in subsequent zones, a “unit” assessment methodology was employed rather than using a “front foot” rate basis. The area of Columbia Heights west of Central Avenue is essentially a block type development pattern with streets and avenues. The **existing assessment policy** for this area would involve “street” assessments and “avenue” assessments. The “street” frontage (typical front of property or where driveway access is) would pay a particular rate for the full frontage for that type of treatment (mill and overlay or full reconstruction, for example) used on that street. That same parcel would pay a reduced rate for the avenue for the full frontage.

## 4. Scope of Work

The cost sharing policy provides a 70/30 cost share for partial reconstruction, and 85/15 for mill and overlay.

## 5. Financing: Street Rehabilitation Zones 4B and 5

The estimated construction costs are as follows:

Partial street reconstruction (FDR):	\$1,233,275.
Mill & Overlay construction:	\$ 943,425.
Utilities:	\$ **

Project funding is proposed as follows:

Assessments:	\$1,666,620.
Infrastructure Fund:	\$ 510,080.
Sanitary Sewer Fund:	\$ **
Water Construction Fund:	\$ **
Storm Sewer Fund:	\$ **

The costs and associated funding for utility work (\*\*) will be further developed during the final design.

## 6. Past Assessments:

The following properties had assessments for construction in 2009, with a term of 10 years (2010-2019).

- Owners on 6<sup>th</sup> Street and 7<sup>th</sup> Street had an assessment for partial street reconstruction on 51<sup>st</sup> Avenue.
- Owners on Madison Street had an assessment for partial street reconstruction on 50<sup>th</sup> Avenue.
- Owners on Madison Street had an assessment for partial street reconstruction on 48<sup>th</sup> Avenue.

The following properties had assessments for construction in 2010, with a term of 10 years (2011-2020).

- Owners on Washington Street had an assessment for mill and overlay on 45<sup>th</sup> Avenue.

**7. Concurrent Projects**

Proposed Municipal State Aid Street mill and overlay on 44<sup>th</sup> Avenue. Seal Coat in Zone 3B. Water main construction on Buchanan Street and Johnson Street from 37<sup>th</sup> Avenue to 39<sup>th</sup> Avenue, and on 39<sup>th</sup> Avenue from Buchanan Street to Johnson Street.

**8. Utility Issues**

Water hydrants and gate valves that have reached their service life will be replaced. Additional mid-block gate valves may be added. For the sanitary and storm sewer systems, staff is proposing structure replacement/repair where existing structures are substandard/deteriorated.

**9. Meeting Dates**

Staff has established the following meeting dates:

Resident Informational:	TBD*
Public Hearing:	Monday, December 7, 2020

\*In the past, property owners in proposed Street Rehabilitation areas have been invited to attend an informational meeting. This year, staff will send a letter to property owners with project information and staff contacts. Staff will answer property owners' questions by telephone, e-mail, and one-on-one meetings (observing social distancing guidelines).

**RECOMMENDED MOTION(S):** Move to waive the reading of Resolution 2020-93, there being ample copies available to the public.

Move to adopt Resolution 2020-93, being a resolution accepting the Feasibility Report for 2021 Street Rehabilitation Improvements - Zones 4B and 5, City Project No. 2002, and ordering the Public Improvement Hearing beginning at 6:15 p.m. on December 7, 2020.

Attachments: Resolution 2020-93  
Feasibility Report  
Map

## RESOLUTION NO. 2020-93

A resolution of the City Council for the City of Columbia Heights, Minnesota,

WHEREAS, the City Council is proposing to rehabilitate select local streets in Zones 4B and 5 that have not been rehabilitated under the street program, and

WHEREAS, pursuant to Resolution No. 2020-70, a report has been prepared by the City Engineer with reference to the Program, and the following street(s):

Zone 4B is bounded by University Avenue on the west, Central Avenue on the east, 53<sup>rd</sup> Avenue on the north, and 48<sup>th</sup> Avenue/Hilltop on the south.

Zone 5 is bounded by University Avenue on the west, Central Avenue/Hilltop on the east, 48<sup>th</sup> Avenue/Hilltop on the north, and 44<sup>th</sup> Avenue on the south, and

**WHEREAS**, the report provides information regarding whether the proposed project is feasible, necessary and cost-effective, and

Said report is hereby received by the City Council of Columbia Heights on November 9, 2020.

Now, therefore, in accordance with the foregoing, and all ordinances and regulations of the City of Columbia Heights, the City Council of the City of Columbia Heights makes the following:

### FINDINGS OF FACT

1. The Council will consider the improvement of such streets in accordance with the report and the assessment of abutting or benefited property for all or a portion of the cost of the improvement pursuant to Minnesota Statutes, Chapter 429 at an estimated total cost of the improvement of \$2,896,700.
2. A public hearing shall be held on such proposed improvement on the 7<sup>th</sup> day of December, 2020, in the City Council Chambers at 590 40<sup>th</sup> Avenue N.E. at 6:15 P.M. and the City Clerk shall give mailed and published notice of such hearing and improvement as required by law.

### ORDER OF COUNCIL

Passed this 9<sup>th</sup> day of November, 2020

Offered by:

Seconded by:

Roll Call:

\_\_\_\_\_  
Donna K. Schmitt, Mayor

Attest:

\_\_\_\_\_  
Nicole Tingley, City Clerk/Council Secretary



# *City of Columbia Heights*

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**FEASIBILITY REPORT  
FOR  
2021 STREET REHABILITATION IMPROVEMENTS:  
ZONES 4B AND 5  
  
CITY PROJECT 2002**

**OCTOBER, 2020**

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**ENGINEERING DEPARTMENT**  
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# STREET REHABILITATION IMPROVEMENTS

## COLUMBIA HEIGHTS, MINNESOTA

### ZONES 4B AND 5

### PROJECT NUMBER 2002

LOCATION: ZONE 4 – AREA BOUNDED BY  
UNIVERSITY AVENUE TO CENTRAL AVENUE  
48<sup>TH</sup> AVENUE TO 53<sup>RD</sup> AVENUE

ZONE 5 – AREA BOUNDED BY  
UNIVERSITY AVENUE TO CENTRAL AVENUE  
44<sup>TH</sup> AVENUE TO 48<sup>TH</sup> AVENUE

This feasibility study includes an analysis of proposed street rehabilitation within Zones 4B and 5.

IMPROVEMENTS: Partial Street Reconstruction (Full Depth Reclamation: FDR) –  
Random curb and gutter and sidewalk replacement as required, including pedestrian ramp construction, reclamation and stockpiling of bituminous surface and underlying aggregate base, subgrade excavation, grading and placement of reclaimed material, and new 4" bituminous surfacing.

Mill and Overlay -  
Random curb and gutter and sidewalk replacement as required, including pedestrian ramp construction, milling pavement surface, and new 1" to 2" bituminous overlay.

Utility Construction –  
No major water main, sanitary sewer replacement, or storm sewer is proposed. Manhole and catch basin structure rehabilitation/repair is anticipated.

INITIATION: City Council in accordance with the Street Rehabilitation Policy.

OWNERS The location of each street is described below and shown on the attached map.  
BENEFITTING: The total number of assessed parcels is 488.

OWNERS	<u>Partial Reconstruction (FDR)</u>	
ABUTTING	1. 4 <sup>th</sup> Street NE, 48 <sup>th</sup> Avenue to 53 <sup>rd</sup> Avenue	(118)
OR IMPACTED:	2. 5 <sup>th</sup> Street NE, 48 <sup>th</sup> Avenue to 49 <sup>th</sup> Avenue	( 22)
	3. 5 <sup>th</sup> Street NE, 51 <sup>st</sup> Avenue to 53 <sup>rd</sup> Avenue	( 31)
	4. 6 <sup>th</sup> Street NE, 48 <sup>th</sup> Avenue to 50 <sup>th</sup> Avenue	( 49)
	5. 6 <sup>th</sup> Street NE, 51 <sup>st</sup> Avenue to 52 <sup>nd</sup> Avenue	( 12)

#### Mill and Overlay

1.	6 <sup>th</sup> Street NE, 47 <sup>th</sup> Avenue to 48 <sup>th</sup> Avenue	( 21)
2.	7 <sup>th</sup> Street NE, 48 <sup>th</sup> Avenue to 52 <sup>nd</sup> Avenue	( 75)
3.	Washington Street NE, 44 <sup>th</sup> Avenue to 46 <sup>th</sup> Avenue	( 48)
4.	Washington Street NE, 48 <sup>th</sup> Avenue to 51 <sup>st</sup> Avenue	( 51)
5.	Madison Street NE, 48 <sup>th</sup> Avenue to 51 <sup>st</sup> Avenue	( 61)

ISSUES: The following is a study of the key project issues.

#### Partial Street Reconstruction (FDR)

The proposed construction would consist of reclaiming and stockpiling the bituminous pavement and underlying granular base across the entire street surface, grading, replacing the reclaimed material, and paving a new bituminous mat. Existing concrete curb and gutter would be preserved except for sections with poor drainage or are considered to be a hazard to the snowplows. Sidewalk would be replaced as needed to comply with ADA pedestrian ramps and to replace sections considered hazardous under the City's policy.

#### Mill and Overlay

The proposed construction would consist of milling off 1" to 2" of bituminous pavement and paving a new 1" to 2" thick bituminous mat. Depending on the bituminous thickness and cross slope of the pavement, the milling would be a combination of a 7'-8' strip along the curb and gutter or across the entire pavement surface. Existing concrete curb and gutter would be preserved except for sections with poor drainage or are considered to be a hazard to the snowplows. Sidewalk would be replaced as needed to comply with ADA pedestrian ramps and to replace sections considered hazardous under the City's policy.

#### Utilities

No major water main, sanitary sewer or storm sewer replacement is proposed.

Water hydrants and gate valves that have reached their service life will be replaced. Additional mid-block gate valves may be added. For the sanitary and storm sewer systems, staff is proposing structure replacement/repair where existing structures are substandard/deteriorated.

Roadway construction will include minor modifications to existing water main,

sanitary and storm sewer utility surface structures in order to meet proposed finish grades.

Past Assessments:

The following properties had assessments for construction in 2009.

The assessments had a term of 10 years, beginning in 2010.

- For one-half block north and south of 51<sup>st</sup> Avenue, owners on 6<sup>th</sup> Street and 7<sup>th</sup> Street had an assessment for partial street reconstruction on 51<sup>st</sup> Avenue.
- For one-half block north and south of 50<sup>th</sup> Avenue, owners on Madison Street had an assessment for partial street reconstruction on 50<sup>th</sup> Avenue.
- For one-half block north of 48<sup>th</sup> Avenue, owners on Madison Street had an assessment for partial street reconstruction on 48<sup>th</sup> Avenue.

The following properties had assessments for construction in 2010.

The assessments had a term of 10 years, beginning in 2011.

- For one-half block north and south of 45<sup>th</sup> Avenue, owners on Washington Street, had an assessment for mill and overlay on 45<sup>th</sup> Avenue.

**FEASIBILITY:** The proposed improvement project is necessary to provide consistency with the street rehabilitation policy, cost-effective with the inclusion of partial city funding, and technically feasible as prescribed in the construction recommendations found elsewhere in this report. The project and project elements should be implemented as proposed in this study. The improvements, once completed, will provide a benefit to the properties served.

**SCHEDULE:** Construction is scheduled to begin in the spring of 2021 with substantial completion occurring in late summer.

Council receives Feasibility Report and orders Public Improvement Hearing	Nov 9, 2020
Public Informational meeting prior to Public Improvement Hearing	TBD
Public Improvement Hearing and Council orders Public Improvement Project	Dec 7, 2020
Council Approves Plans and Specifications, Authorizes Advertisement for Bids	Jan 25, 2021
Bid Opening	Feb 25, 2021
Council Awards Contract	Mar 8, 2021
Begin Construction	May, 2021
Construction Completed	Aug, 2021

**FINANCING:** Financing would be a combination of assessments to benefitted properties, infrastructure fund including Municipal State Aid funds (population apportionment), utility and general funds.



The estimated construction costs for each option are as follows:

<u>Type of Construction</u>	<u>Construction Cost</u>	<u>Proposed Assessments</u>	<u>Infrastructure/ MSAS Fund</u>
Partial Reconstruction (FDR)	\$1,233,275	\$863,290	\$369,985
Mill and Overlay	\$943,425	\$803,330	\$140,095

Engineering and Administration      \$197,880.

The assessments reflect a flat fee of 10% of the construction cost included in the amount to assess for a portion of the Engineering and Administration costs.

Percentages proposed to be assessed for street rehabilitation are consistent with the policy followed under each of the prior street rehabilitation zones.

Utility work performed as part of the project will be paid for from the appropriate utility fund.

**ASSESSMENT:**

Assessments will be in accordance with the City's Street Rehabilitation Ordinance and past practice. Assessments can be based on a per foot basis or a parcel basis. Following the other Zones assessment *policies*, assessments would be on a Street and Avenue parcel basis. A Street assessment would be at the developed rate for the particular rehab strategy while Avenue assessments would be at approximately  $\frac{1}{3}$  of the street rate extending  $\frac{1}{2}$  block in either direction of the Avenue. This assumes that all parcels benefit equally for the strategy in front of their property or abutting it, in the case of the Avenue.

**2021 IMPROVEMENT PROGRAM  
COLUMBIA HEIGHTS, MINNESOTA**

**ESTIMATED ASSESSMENTS - PROJECT NUMBER 2002**

**ZONES 4B AND 5 STREET REHABILITATION PROGRAM  
(Sections 26 and 35, T30N, R24W)**

**I. PARTIAL RECONSTRUCTION (FDR)**

Estimated Cost:	\$1,233,275.
Assessable Construction Cost:	\$ 863,290.

Estimated Assessed Cost per Parcel

C, I, MF Street:	\$ 4,860.00
C, I, MF Avenue:	\$ 1,620.00

Estimated Assessed Cost per Parcel

Residential Street:	\$ 3,402.00
Residential Avenue:	\$ 1,134.00

**II. MILL AND OVERLAY**

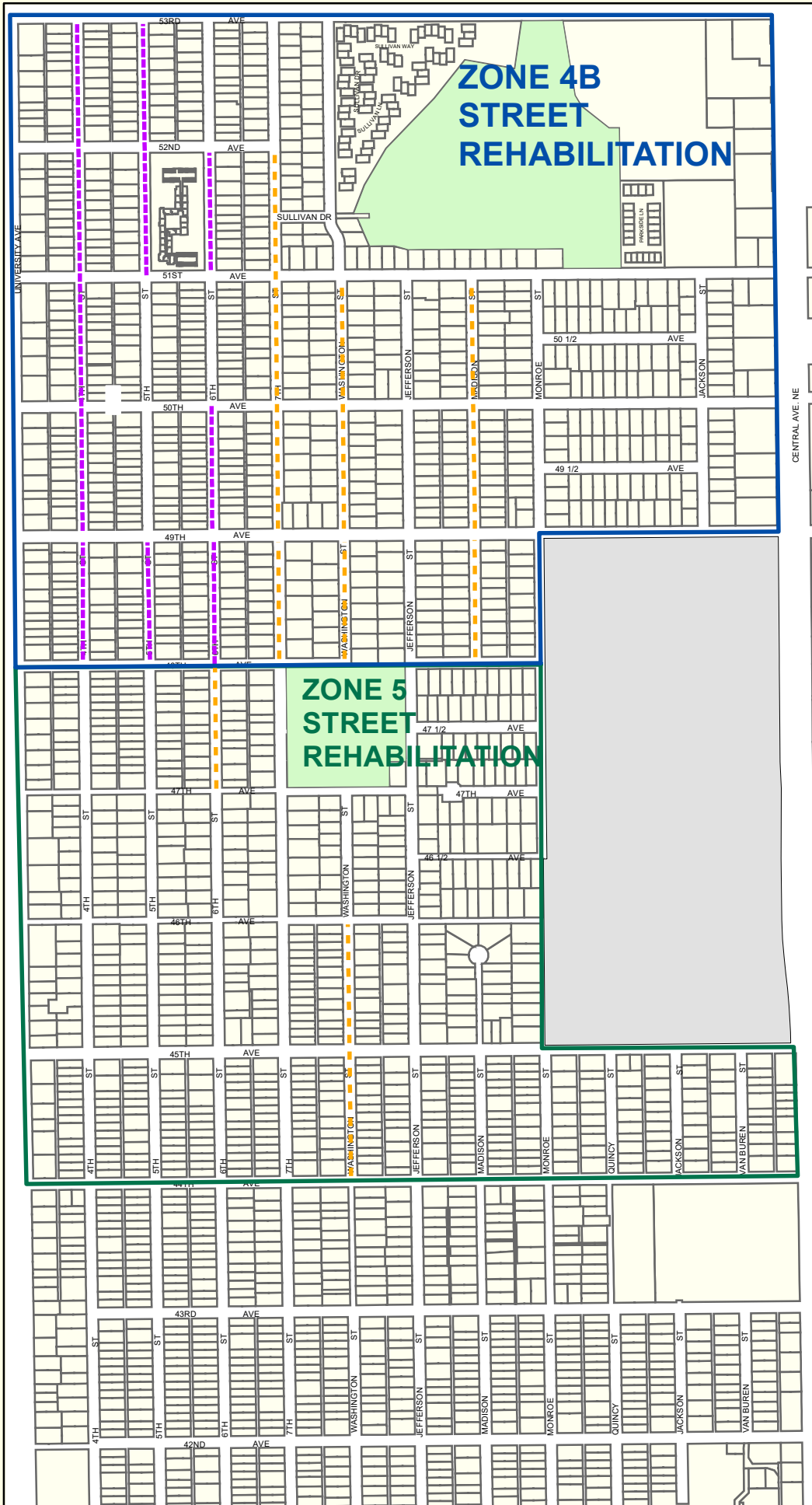
Estimated Cost:	\$ 943,425.
Assessable Construction Cost:	\$ 803,330.

Estimated Assessed Cost per Parcel

C, I, MF Street:	\$ 3,750.00
C, I, MF Avenue:	\$ 1,250.00

Estimated Assessed Cost per Parcel

Residential Street:	\$ 3,187.50
Residential Avenue:	\$ 1,062.50



City of  
Columbia Heights

## 2021 Street Rehabilitation Construction

Zone 4B  
and Zone 5

### LEGEND

Street Rehabilitation

— Mill and Overlay

— Full Depth Reclamation



CITY OF COLUMBIA HEIGHTS  
GIS / ENGINEERING DEPT

Map Date: October 2020  
Map Author: K Young