

ACTION TRANSMITTAL No. 2019-31

DATE: July 3, 2019

TO: Transportation Advisory Board

FROM: Technical Advisory Committee

SUBJECT: Scope Change Request for Hennepin County's CSAH 81 Bridge Replacement Project

REQUESTED ACTION: Hennepin County requests a scope change for its CSAH 81 bridge replacement project (SP # 027-681-038) to replace a third bridge and move the bicycle and pedestrian access.

RECOMMENDED ACTION: That the Transportation Advisory Board approve Hennepin County's request to change the scope of its CSAH 81 bridge replacement project (SP # 027-681-038) to replace a third bridge and move the bicycle and pedestrian access.

BACKGROUND AND PURPOSE OF ACTION: Hennepin County was awarded \$7,000,000 in Surface Transportation Block Grant funds for the 2021 fiscal year in the Bridges category as part of the 2016 Regional Solicitation. The project's primary purpose is to replace the northbound and southbound bridges of County State-Aid Highway (CSAH) 81 (W. Broadway Avenue) over Victory Memorial Parkway / Theodore Wirth Parkway / Oakdale Avenue / Lowry Avenue on the border of Minneapolis and Robbinsdale. The project also includes non-motorized paths.

The County is requesting a scope change that would reflect the following changes:

- Reconfiguration of the Victory Memorial Parkway / Theodore Wirth Parkway / Oakdale Avenue / Lowry Avenue intersection. The proposed reconfiguration, shown in Exhibit 3, was the impetus for the request and reduces crossing distances. This requires movement of the placement of the bridges.
- Replacement of a third bridge structure, the on ramp from Lowry Avenue to northbound CSAH 81.
- Relocation of trail connections. The original scope included trail access along the bridges. The proposed change eliminates that access and focuses on improved throughput at the below intersection. Note that the original scope included widening of the original bridges from 35.5 feet to 48.3 feet to accommodate the trails. While those trails are no longer planned, the bridges will still be constructed to the wider width.

The original cost estimate, including local match, was \$15,650,000. It is currently in the draft 2020-2023 TIP at this same figure. The proposed update would bring the cost to \$17,900,000.

RELATIONSHIP TO REGIONAL POLICY: Projects that receive funding through the Regional Solicitation process are subject to the Scope Change Policy. The purpose of this policy is to ensure that the project is designed and constructed according to the plans and intent described in the original application. The scope change policy allows project sponsors to adjust their projects as needed while still providing substantially the same benefits described in their original project applications.

A TIP amendment accommodates this request. The amendment reflects the additional bridge replacement, additional cost, and advance construction in 2020.

STAFF ANALYSIS:

Approval/Denial of the Scope Change: Two projects were funded in the Bridge category. This project was the highest-scoring project in the category by 189 points and outscored the highest unfunded category by 276 points. Therefore, the project would have been funded if originally proposed this way.

The recently updated Scope Change Policy does not call for staff to try to re-create a precise score, but to provide general analysis of the impact to scoring measures (except for cost-effectiveness). Table 1 shows the likely impact on each scoring measure.

Table 1: Scoring Analysis

#	Measure	Original Score	Update Project*	Notes
1A	Average distance to nearest parallel roadways	115	0	
1B	Connection to total jobs and manufacture jobs	8	0	
1C	Current daily heavy commercial traffic	18	0	
1D	Freight elements	15	0	
2A	Current Daily person throughput	92	0	
2B	Forecast 2040 ADT	30	0	
3A	Socio/Economic	27	0	
3B	Housing Performance Score	63	0	
4A	Bridge sufficiency rating	300	0	
4B	Load-Posting	100	0	
5	Multimodal	85	+	More direct/comfortable access
6	Risk Assessment	73	0	
SUBTOTAL		926	0	
7	Cost Effectiveness	17	N/A	
TOTAL		943	0/+	
* 0 = no change + = small improvement, ++ = moderate improvement, +++ = large improvement - = small diminishment, -- = moderate diminishment, --- = large diminishment				

Funding: The full policy is included in this action item. \$1.35 million is being removed for the trails on the northbound and southbound bridge structures and the bicycle/pedestrian paths are being re-oriented to serve the same area and therefore recommends no reduction.

COMMITTEE COMMENTS AND ACTION: At its June 20, 2019, meeting, the TAC Funding & Programming Committee voted unanimously to recommend approval of Hennepin County’s request to change the scope of its CSAH 81 bridge replacement project to replace a third bridge and move the bicycle and pedestrian access.

At its July 3, 2019, meeting, the Technical Advisory Committee voted unanimously to recommend approval of Hennepin County’s request to change the scope of its CSAH 81 bridge replacement project to replace a third bridge and move the bicycle and pedestrian access.

ROUTING

TO	ACTION REQUESTED	COMPLETION DATE
TAC Funding & Programming Committee	Review & Recommend	6-20-2019
Technical Advisory Committee	Review & Recommend	7-3-2019
Transportation Advisory Board	Review & Approve	

HENNEPIN COUNTY

MINNESOTA

May 15, 2019

Mr. Paul Oehme
Chair, TAC Funding and Programming Committee
Metropolitan Council
230 East 5th Street
St. Paul, MN 55101

Re: Scope Change Request
S.P. 027-681-038
CSAH 81 Bridge Replacement Project
Cities of Minneapolis and Robbinsdale, Hennepin County Minnesota

Dear Mr. Oehme:

Hennepin County respectfully requests that the Metropolitan Council TAC Funding and Programming Committee consider the attached Scope Change Request for the above referenced project at its June 20 meeting. This request includes project scope modifications to include replacement of an adjacent bridge, reconstruction of the intersection below the bridges, and modified trail connections. Additionally, in response to accelerated deterioration, we plan to advance bridge reconstruction to begin in the year 2020.

Hennepin County applied for federal funding through the 2016 Regional Solicitation and was selected to receive \$7 Million in federal funds to replace two bridges (27007 and 27008) that carry CSAH 81 (West Broadway Avenue) over the intersection of Victory Memorial Parkway/Theodore Wirth Parkway, CSAH 153 (Lowry Avenue), Oakdale Avenue and the historic Grand Rounds trail system. The existing bridge foundations are closely tied to the intersection below the bridge. Various bridge replacement options were considered including replacing the structures in-kind, limiting impacts to the intersection below or reconfiguring the layout of both the bridges and intersection below.

Hennepin County has been working with partnering agencies and the surrounding community to develop a preferred option. Through this collaborative effort it was determined that the preferred option is to reconfigure the layout of the West Broadway Avenue bridges (27007 and 27008) and the Theodore Wirth Parkway/Lowry Avenue intersection. An adjacent bridge (27006) which carries traffic from westbound Lowry Avenue to northbound West Broadway Avenue is also in need of replacement at the same time. We request this bridge be included in the project with the other West Broadway Avenue bridges. These changes provide the opportunity to enhance the existing trail and sidewalk connections.

Hennepin County Transportation Project Delivery
Public Works Facility, 1600 Prairie Drive, Medina, MN 55340
612-596-0356 | hennepin.us



Project partners including FHWA, MnDOT, City of Minneapolis, City of Robbinsdale and the Minneapolis Park Board have been involved in developing the revised project scope. The enclosed information provides details on our request. If you have any questions or require any additional information, please contact me at 612-596-0356 or carla.stueve@hennepin.us.

Sincerely,



Carla Stueve, P.E., P.T.O.E
Hennepin County
County Highway Engineer

SCOPE CHANGE REQUEST
CSAH 81 over CSAH 153/Theodore Wirth Parkway/Victory Memorial Drive/Oakdale Ave
Bridge Replacement and Intersection Improvements Project
S.P. 027-681-038
City of Minneapolis and City of Robbinsdale, Hennepin County, Minnesota

Location Map

The project is located on the border of the cities of Robbinsdale and Minneapolis in Hennepin County. Maps showing the general project area and location of the three CSAH 81 (West Broadway Avenue) bridges is provided in Exhibits 1A and 1B.

Project Scope

The original project scope in the approved 2020-2023 STIP includes replacing two bridges (27007 and 27008) which serve northbound and southbound West Broadway Avenue. The scope change request includes the addition of a third bridge (27006), intersection reconfiguration below the structures and new trail connections. No additional federal funds are being requested. The expanded project scope will be funded using county funds.

Revised Project Description

During the project development for the replacement of the West Broadway Avenue bridges it was determined that project partners and the surrounding community preferred reconfiguration of the intersection below the structures as part of the bridge project. Since the existing bridge foundations are tied to the intersection below, a new intersection and bridge design were developed together. Reconfiguration of both the bridges and intersection presented an opportunity to also provide additional trail and sidewalk improvements.

Proposed scope change project description:

The proposed project includes the following components: three new bridges that will replace structures: 27006, 27007 and 27008, including the necessary approach work of approximately 0.5 lane miles of roadway; the Victory Memorial Parkway/Theodore Wirth Parkway/Oakdale Avenue/Lowry Avenue intersection; and improved trail crossings on the bridge replacing structure 27006 and for the intersection below the bridges.

Key project elements include:

Replacement of bridges 27007 and 27008

Bridges 27007 and 27008 carry northbound and southbound West Broadway Avenue traffic. Both bridges carry approximately 10,000 vehicles per day and serve regional traffic. Bridge 27007 is restricted from heavy vehicles and both bridges are structurally deficient.



The expanded scope includes the following new elements:

Victory Memorial Parkway/Theodore Wirth Parkway/Oakdale Avenue/Lowry Avenue intersection

The intersection is located on the border of Robbinsdale and Minneapolis and is adjacent to the historic Grand Rounds trail system. The intersection is also a key connection for North Memorial Hospital that is located immediately west of the intersection. Improvements include reconfiguring lanes to accommodate traffic while reducing crossing distances to improve safety for bicycle and pedestrian traffic.

Bridge 27006 replacement

Bridge 27006 provides an on ramp from Lowry Avenue to northbound West Broadway Avenue which is a key interchange movement. The structurally deficient bridge is weight restricted. Bridges 27006 and 27008 share a foundation and need to be replaced at the same time.

Relocation of trail connections

Two new trail connections are proposed on West Broadway Avenue. With the intersection reconfiguration and inclusion of bridge 27006, Hennepin County along with partnering agencies and the community evaluated the need for new trail connections through this area. A protected on-road bike trail is proposed for the connection between Lowry Avenue and West Broadway Avenue that will connect to the Crystal Lake trail system. Intersection improvements will also provide shortened crossing distances and upgraded trail accommodations.

Work to be Completed

Preliminary plans for the revised project are underway and layouts have been submitted to MnDOT. Additionally, preliminary construction limits and cost estimates have been developed for the revised scope. With approval of the scope change request, Hennepin County will complete the project in the schedule outlined in **Table 1**.

Table 1. Project Schedule

Milestones	Completion Date
Roadway layout development	Apr-2019
Preliminary bridge development	Apr-2019
30% road and bridge submittal	May-2019
60% Road and Bridge submittal	Aug-2019
95% Road and Bridge submittal	Jan-2020
Plans finalized	Mar-2020
Permits acquired	Oct-2020
Bidding	Apr-2020
Begin construction	Jul-2020
Complete construction	Jul-2022

Revised Cost Estimate

Project funding and preliminary construction costs (revised scope) are provided in **Table 2**.

Table 2. Updated Project Construction Cost Estimate and Funding Revisions Request

	Total	FHWA	Local
Original Scope	\$ 15,650,000	\$ 7,000,000	\$ 8,650,000
Expanded Scope	\$ 2,250,000	\$ -	\$ 2,250,000
Total Project	\$ 17,900,000	\$ 7,000,000	\$ 10,900,000

Funding for Scope Change Request

Funding for the scope change request is provided in Tables 3-5 which includes the elements of the project that will be removed and new elements.

Table 3. Original Application

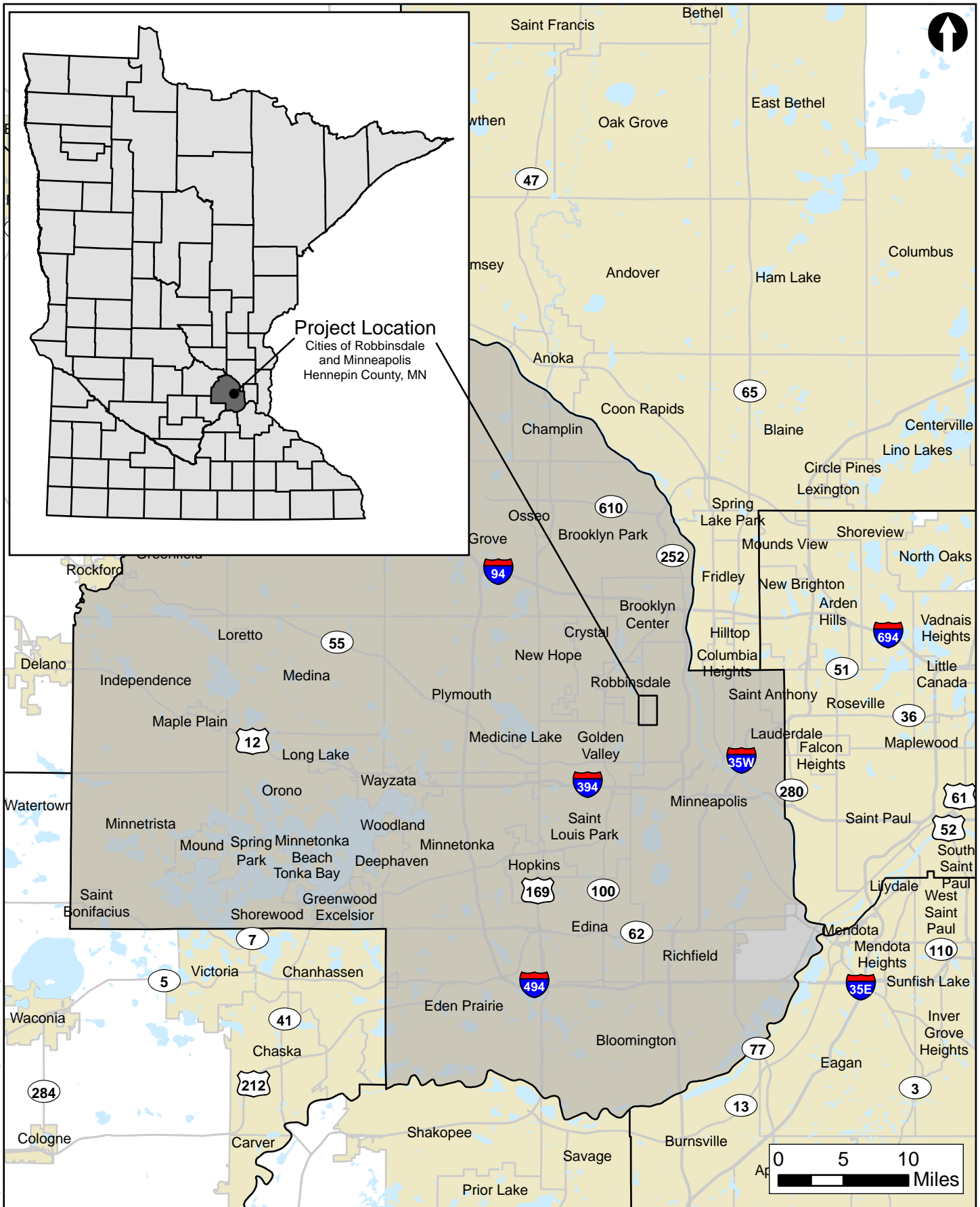
Regional Solicitation Year	2016
Application Funding Category	Bridge rehabilitation/ replacement
HSIP Solicitation?	No
Application Total Project Cost	\$15,650,000
Federal Award	\$7,000,000
Application Federal Percentage of Total Project Cost	45%

Table 4. Project Elements Being Removed

	Original Application Cost
Trail on bridge replacing 27007	\$675,000
Trail on bridge replacing 27008	\$675,000

Table 5. New Project Elements

	Cost (Based on Year in Original Application)
Bridge replacing structure 27006	\$1,750,000
Theodore Wirth Parkway/Victory Memorial Parkway/Oakdale Avenue/Lowry Avenue intersection	\$500,000
Trail on bridge replacing 27006	\$675,000
Trail improvements below structures	\$675,000



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Project Location

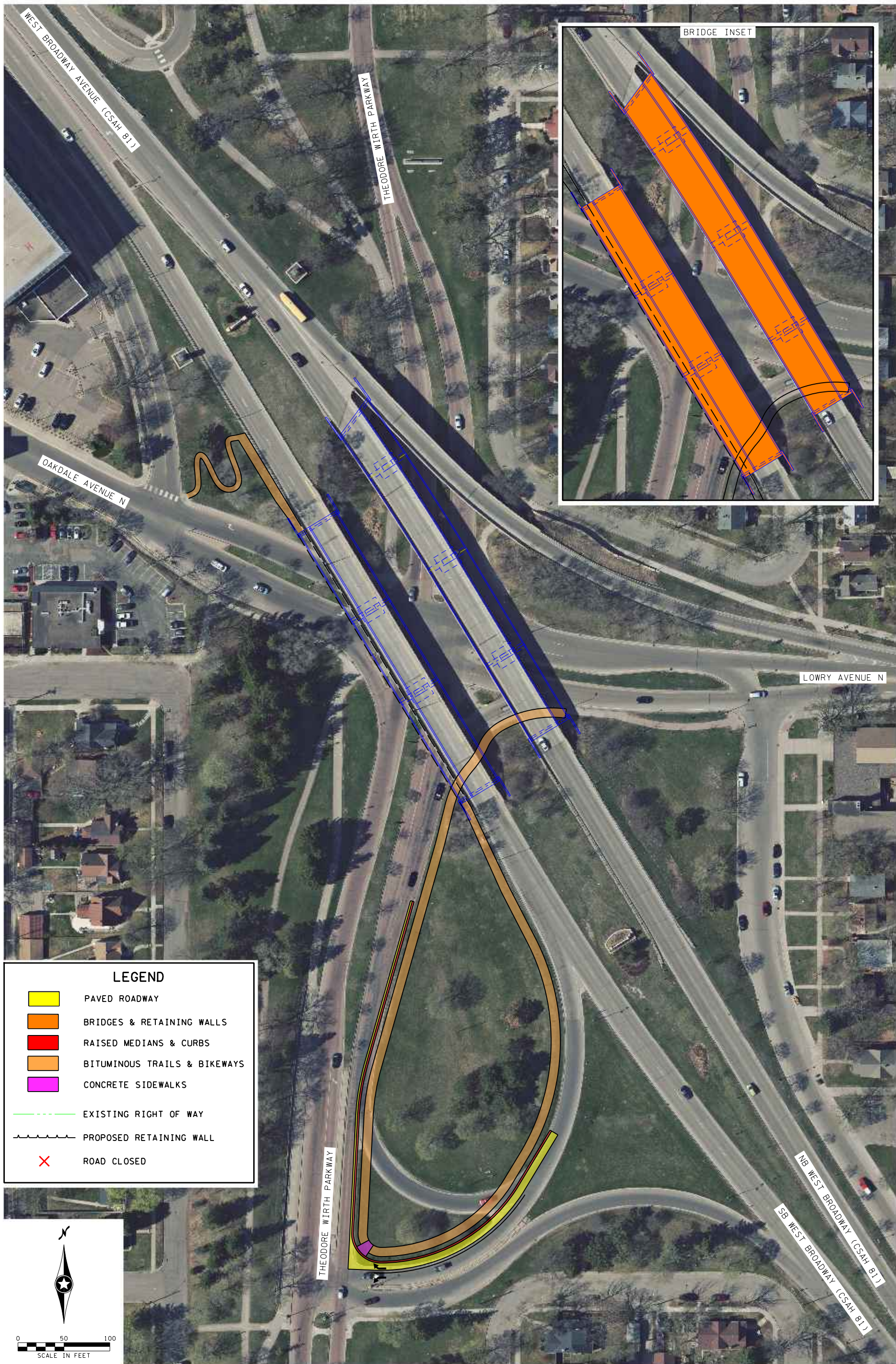
West Broadway Avenue Bridges Reconstruction
 Hennepin County, MN
 SPO27681-088



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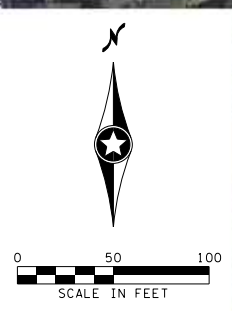
Project Location

West Broadway Avenue Bridges Reconstruction
 Hennepin County, MN
 SP 027-681-038



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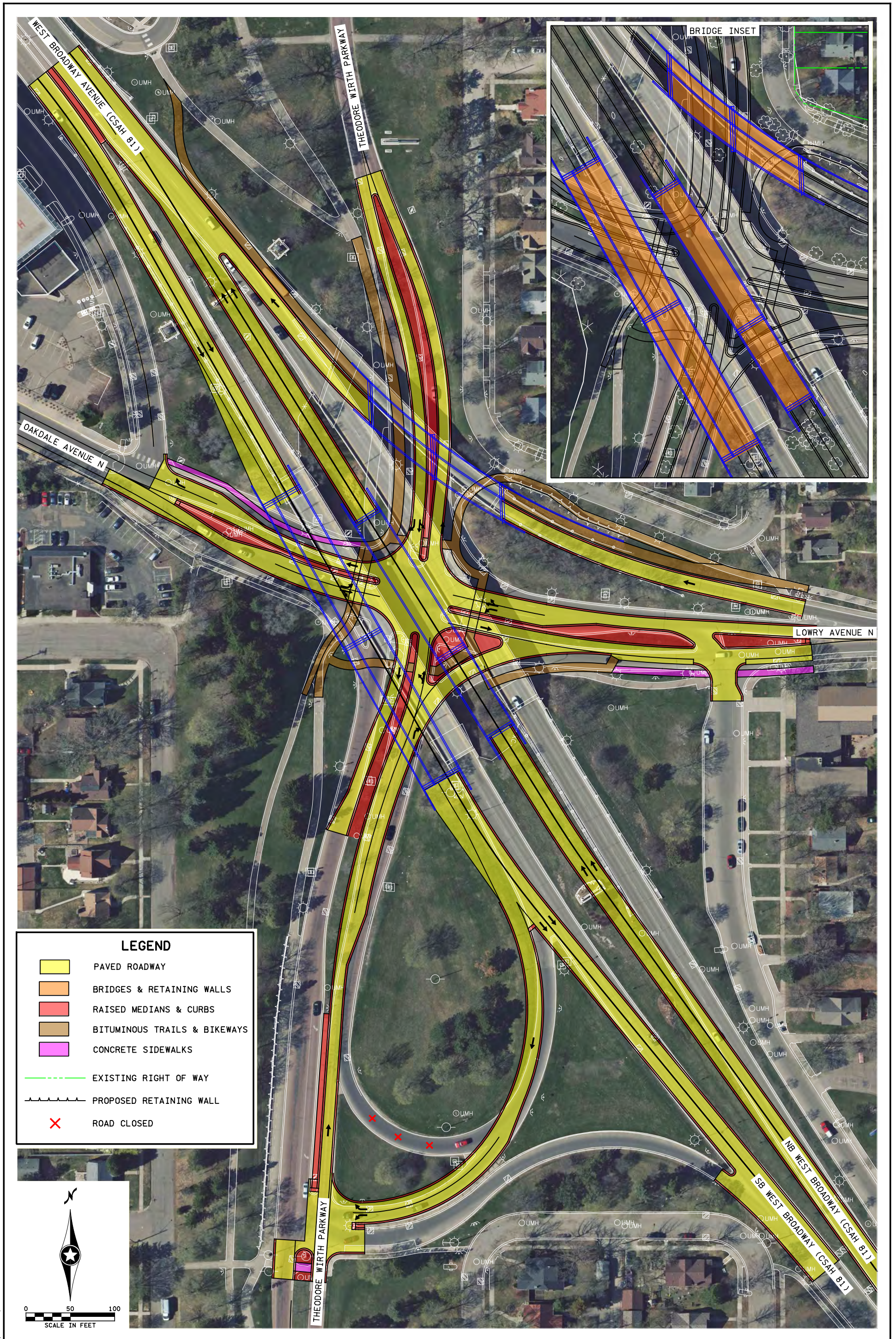
LEGEND	
	PAVED ROADWAY
	BRIDGES & RETAINING WALLS
	RAISED MEDIANS & CURBS
	BITUMINOUS TRAILS & BIKEWAYS
	CONCRETE SIDEWALKS
	EXISTING RIGHT OF WAY
	PROPOSED RETAINING WALL
	ROAD CLOSED



ORIGINAL APPLICATION
 West Broadway Ave. Bridges Reconstruction
 Hennepin County

Exhibit 2

Job #
5/23/2019



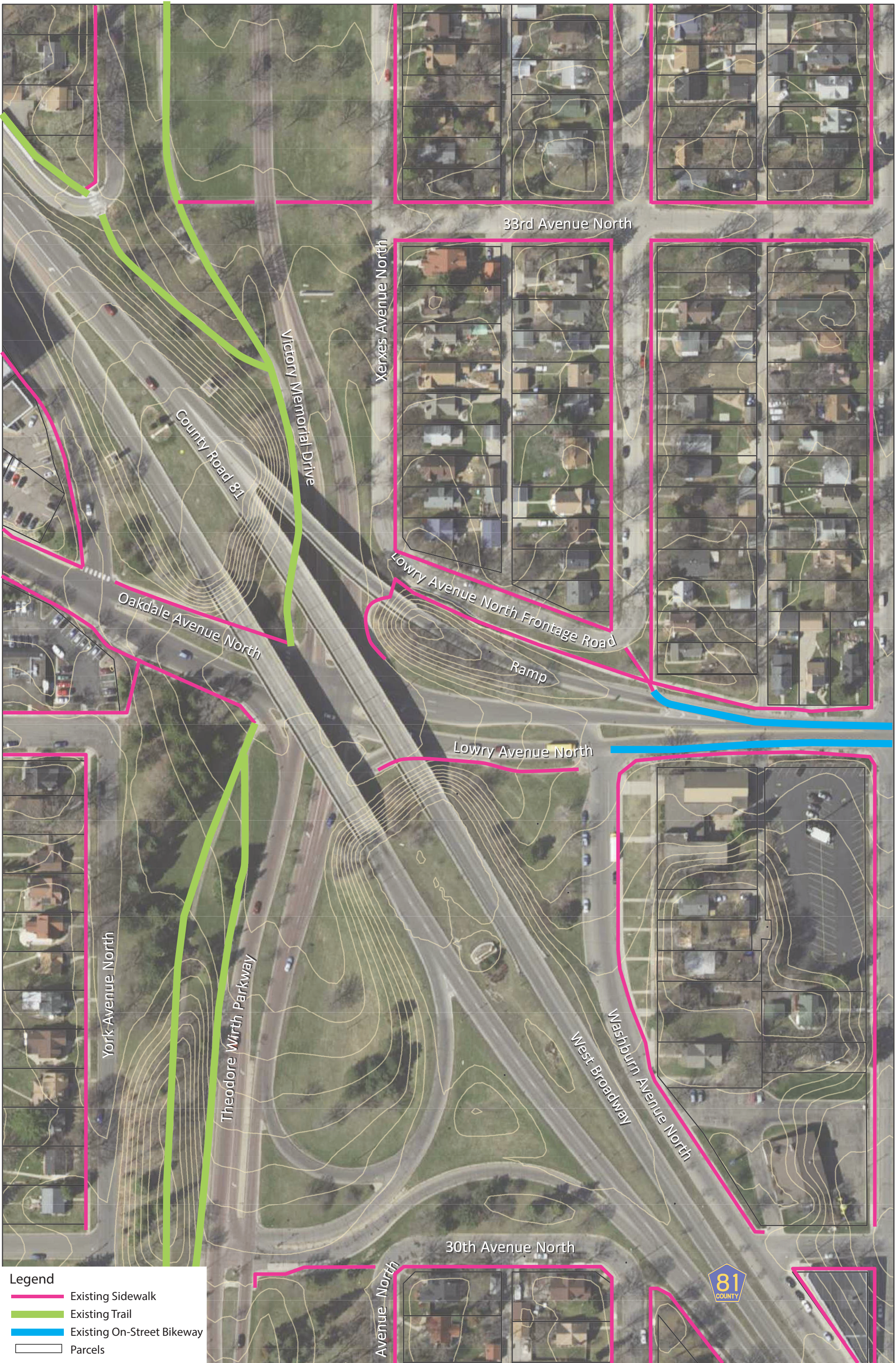
SDGNS



FULL RECONSTRUCT

West Broadway Ave. Bridges Reconstruction
Hennepin County

Job #
4/25/2019



- Legend**
- Existing Sidewalk
 - Existing Trail
 - Existing On-Street Bikeway
 - Parcels

EXISTING PEDESTRIAN AND BICYCLE FACILITIES