Application

13861 - 2020 Roadway Modernization

13970 - CSAH 5 (Franklin Ave) Reconstruction Project

Regional Solicitation - Roadways Including Multimodal Elements

Status:	Submitted
Submitted Date:	05/11/2020 5:58 PM

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What Grant Programs are you most interested in?	Regional Solicitation - Roadways Including Multimodal Elements			

Organization Information

Name:	HENNEPIN COUNTY

Jurisdictional Agency (if different):

Organization Type: County Government

Organization Website:

Address: DPT OF PUBLIC WORKS

1600 PRAIRIE DR

*	MEDINA	Minnesota	55340
	City	State/Province	Postal Code/Zip

County: Hennepin

Phone:* 763-745-7600 Ext.

Fax:

PeopleSoft Vendor Number 0000028004A9

Project Information

Project Name CSAH 5 (Franklin Ave) Reconstruction Project

Primary County where the Project is Located Hennepin

Cities or Townships where the Project is Located: Minneapolis

Jurisdictional Agency (If Different than the Applicant):

Brief Project Description (Include location, road name/functional class, type of improvement, etc.)

The proposed project includes the reconstruction of the CSAH 5 (Franklin Ave) corridor from approximately 0.05 miles west of Blaisdell Ave to approximately 0.03 miles west of Chicago Ave, excluding the I-35W Bridge, within the City of Minneapolis. CSAH 5 (Franklin Ave) is currently classified as an A-Minor Arterial roadway that functions as a reliever. Attachment 2 provides an illustration of the project location.

The project objectives are to improve the accessibility, comfort, and safety for people biking, driving, walking, and using transit along the corridor. Photos depicting the roadway's current condition are included Attachment 3.

In early 2020, Hennepin County completed the Franklin Ave Corridor Study (hennepin.us/franklincorridor) that evaluated both short and long term options for the corridor. Planning efforts included extensive public outreach to collect input from stakeholders to guide recommendations within the study. Typical sections and concepts were developed as part of the study and will guide project design and implementation activities. These materials are included in Attachments 4 and 5, respectively.

The project will include, but is not limited to, the following elements. The specific locations and types of improvements will be determined as part of the design process based on additional community input, data analysis, and environmental review.

- Roadway improvements; such as the replacement of the deteriorated pavement, pavement substructure, curb and gutter, storm sewer

structures.

- Safety improvements; such as the upgrading of traffic signal systems to include dedicated left-turn phasing, the conversion of the existing four-lane undivided configuration to a three-lane (contingent on the community engagement and design processes), along with the installation of curb extensions and/or raised medians that will both reduce the crossing distance for people walking, but also manage the speeds for people driving.

- Pedestrian improvements; such as ADA compliant ramps and sidewalks (free of obstructions), Accessible Pedestrian Signals (APS), high visibility crosswalk markings, curb extensions, raised medians, and countdown timers.

- Bicycle improvements; such as the introduction of dedicated accommodations for people biking (contingent on the design process). In addition, the anticipated conversion of the existing four-lane undivided configuration to a three-lane will improve the biking experience for people crossing and riding along the corridor.

- Streetscaping improvements; such as the introduction of a boulevard space, lighting, and street furniture. Additionally, staff will evaluate the potential for burying overhead utilities as part of the design process.

(Limit 2,800 characters; approximately 400 words)

TRANSPORTATION IMPROVEMENT PROGRAM (TIP) DESCRIPTION - will be used in TIP if the project is selected for funding. See MnDOT's TIP description guidance.

CSAH 5 (Franklin Ave) from 0.05 miles west of Blaisdell Ave to 0.03 miles west of Chicago Ave, excluding the I-35W Bridge, in Minneapolis.

Project Length (Miles) 0.76

to the nearest one-tenth of a mile

Project Funding

Are you applying for competitive funds from another source(s) to implement this project? No

If yes, please identify the source(s)

Federal Amount $7,000,000.00

Match Amount $6,782,000.00

Minimum of 20% of project total

Project Total $13,782,000.00

For transit projects, the total cost for the application is total cost minus fare revenues.

Match Percentage 49.21%

Minimum of 20%
Compute the match percentage by dividing the match amount by the project total

Source of Match Funds Hennepin County

A minimum of 20% of the total project cost must come from non-federal sources; additional match funds over the 20% minimum can come from other federal sources

Preferred Program Year

Select one: 2024

Select 2022 or 2023 for TDM projects only. For all other applications, select 2024 or 2025.

Additional Program Years:

Select all years that are feasible if funding in an earlier year becomes available.

Project Information-Roadways

County, City, or Lead Agency Hennepin County

Functional Class of Road A-Minor Reliever

Road System CSAH

TH, CSAH, MSAS, CO. RD., TWP. RD., CITY STREET

Road/Route No. 5

i.e., 53 for CSAH 53

Name of Road Franklin Ave

Example; 1st ST., MAIN AVE

Zip Code where Majority of Work is Being Performed 55404

(Approximate) Begin Construction Date 05/06/2024

(Approximate) End Construction Date 11/21/2025

TERMINI:(Termini listed must be within 0.3 miles of any work)

From: (Intersection or Address)	Blaisdell Ave
To: (Intersection or Address)	Chicago Ave
DO NOT INCLUDE LEGAL DESCRIPTION	
Or At	
Miles of Sidewalk (nearest 0.1 miles)	0.9
Miles of Trail (nearest 0.1 miles)	0.9
Miles of Trail on the Regional Bicycle Transportation Network (nearest 0.1 miles)	0.9
Primary Types of Work	Grading, agg base, bit base & surface, storm water, bikeway (if feasible), sidewalk, ADA, signals, streetscaping, lighting, and curb/gutter.
Examples: GRADE, AGG BASE, BIT BASE, BIT SURF, SIDEWALK, CURB AND GUTTER,STORM SEWER, SIGNALS, LIGHTING, GUARDRAIL, BIKE PATH, PED RAMPS, BRIDGE, PARK AND RIDE, ETC.	

BRIDGE/CULVERT PROJECTS (IF APPLICABLE)

Old Bridge/Culvert No.:	
New Bridge/Culvert No.:	
Structure is Over/Under (Bridge or culvert name):	

Requirements - All Projects

All Projects

1.The project must be consistent with the goals and policies in these adopted regional plans: Thrive MSP 2040 (2014), the 2040 Transportation Policy Plan (2018), the 2040 Regional Parks Policy Plan (2018), and the 2040 Water Resources Policy Plan (2015).

Check the box to indicate that the project meets this requirement. Yes

2.The project must be consistent with the 2040 Transportation Policy Plan. Reference the 2040 Transportation Plan goals, objectives, and strategies that relate to the project.

Briefly list the goals, objectives, strategies, and associated pages:

A) Transportation System Stewardship (P 2.2-2.4)

This project is needed to reconstruct existing assets as maintenance activities (such as overlays and crack seals) are no longer cost effective in extending the useful life of the roadway. Also, it is anticipated that dedicated facilities will be provided for people biking, driving, and walking in an effort to promote choices in transportation.

B) Safety/Security (P 2.5-2.9)

This project presents an opportunity to make improvements at four intersections (Nicollet Ave, 3rd Ave, 5th Ave, and Portland Ave) that rank in the Top 100 intersections countywide in terms of existing crash frequency. Traffic calming strategies, such as raised medians, curb extensions, and streetscaping will be critical to reducing the frequency of crashes, especially those involving people walking and biking.

C) Access to Destinations (P 2.10-2.25)

A high number of commercial destinations exist along the project corridor. The introduction of compact intersection designs will minimize crossing distances for people walking and aid in managing vehicle speeds for people driving. A number of obstructions (such as utility poles, fire hydrants, and signal poles) are currently located within the existing sidewalk. The relocation of these elements will be key to better serving people with limited mobility.

D) Competitive Economy (P 2.26-2.29)

This route is classified as a Tier 2 route as part of

the Metropolitan Council's Regional Truck Highway Corridor Study and is essential to the regional economy as over 150,000 employees, 4,000 related to manufacturing and distribution, are located within 1 mile of this project. The project's proximity to the Downtown Central Business District and I-35W generates significant freight traffic along Franklin Ave.

E) Healthy and Equitable Communities (P 2.30-2.34)

Extensive community engagement will occur during the design process, expanding on efforts completed as part of the Franklin Ave Corridor Study. These conversations will be key to minimizing impacts during construction activities that will likely occur over multiple years. Additionally, the existing corridor primarily consists of pavement and concrete sidewalk, offering little to no green infrastructure. This project presents an opportunity to redistribute space and introduce storm water mitigation strategies to properly manage water.

F) Leveraging Transportation Investments to Guide Land Use (P 2.35-2.41)

Improvements for people biking, walking, and using transit will attract residents to the area surrounding Franklin Ave, especially those who do not own vehicles. Additionally, the introduction of a boulevard space will provide the necessary space for plantings, lighting, and street furniture to encourage spending time in the corridor.

Limit 2,800 characters, approximately 400 words

3.The project or the transportation problem/need that the project addresses must be in a local planning or programming document. Reference the name of the appropriate comprehensive plan, regional/statewide plan, capital improvement program, corridor study document [studies on trunk highway must be approved by the Minnesota Department of Transportation and the Metropolitan Council], or other official plan or program of the applicant agency [includes Safe Routes to School Plans] that the project is included in and/or a transportation problem/need that the project addresses.

List the applicable documents and pages:

CSAH 5 (Franklin Ave) Corridor Study (Attachment 6)

Website: hennepin.us/franklincorridor

Limit 2,800 characters, approximately 400 words

4.The project must exclude costs for studies, preliminary engineering, design, or construction engineering. Right-of-way costs are only eligible as part of transit stations/stops, transit terminals, park-and-ride facilities, or pool-and-ride lots. Noise barriers, drainage projects, fences, landscaping, etc., are not eligible for funding as a standalone project, but can be included as part of the larger submitted project, which is otherwise eligible.

Check the box to indicate that the project meets this requirement. Yes

5.Applicants that are not State Aid cities or counties in the seven-county metro area with populations over 5,000 must contact the MnDOT Metro State Aid Office prior to submitting their application to determine if a public agency sponsor is required.

Check the box to indicate that the project meets this requirement. Yes

6.Applicants must not submit an application for the same project elements in more than one funding application category.

Check the box to indicate that the project meets this requirement. Yes

7.The requested funding amount must be more than or equal to the minimum award and less than or equal to the maximum award. The cost of preparing a project for funding authorization can be substantial. For that reason, minimum federal amounts apply. Other federal funds may be combined with the requested funds for projects exceeding the maximum award, but the source(s) must be identified in the application. Funding amounts by application category are listed below.
Strategic Capacity (Roadway Expansion): *$1,000,000 to $10,000,000*
Roadway Reconstruction/Modernization: *$1,000,000 to $7,000,000*
Traffic Management Technologies (Roadway System Management): *$250,000 to $3,500,000*
Spot Mobility and Safety: *$1,000,000 to $3,500,000*
Bridges Rehabilitation/Replacement: *$1,000,000 to $7,000,000*

Check the box to indicate that the project meets this requirement. Yes

8.The project must comply with the Americans with Disabilities Act (ADA).

Check the box to indicate that the project meets this requirement. Yes

9.In order for a selected project to be included in the Transportation Improvement Program (TIP) and approved by USDOT, the public agency sponsor must either have a current Americans with Disabilities Act (ADA) self-evaluation or transition plan that covers the public right of way/transportation, as required under Title II of the ADA. The plan must be completed by the local agency before the Regional Solicitation application deadline. For the 2022 Regional Solicitation funding cycle, this requirement may include that the plan is updated within the past five years.

The applicant is a public agency that employs 50 or more people and has a completed ADA transition plan that covers the public right of way/transportation. Yes

Date plan completed: 08/31/2015

Link to plan: hennepin.us/-/media/hennepinus/residents/transportation/documents/ada-sidewalk-transition-plan.pdf

The applicant is a public agency that employs fewer than 50 people and has a completed ADA self-evaluation that covers the public right of way/transportation.

Date self-evaluation completed:

Link to plan:

Upload plan or self-evaluation if there is no link

Upload as PDF

10.The project must be accessible and open to the general public.

Check the box to indicate that the project meets this requirement. Yes

11.The owner/operator of the facility must operate and maintain the project year-round for the useful life of the improvement, per FHWA direction established 8/27/2008 and updated 6/27/2017.

Check the box to indicate that the project meets this requirement. Yes

12.The project must represent a permanent improvement with independent utility. The term independent utility means the project provides benefits described in the application by itself and does not depend on any construction elements of the project being funded from other sources outside the regional solicitation, excluding the required non-federal match. Projects that include traffic management or transit operating funds as part of a construction project are exempt from this policy.

Check the box to indicate that the project meets this requirement. Yes

13.The project must not be a temporary construction project. A temporary construction project is defined as work that must be replaced within five years and is ineligible for funding. The project must also not be staged construction where the project will be replaced as part of future stages. Staged construction is eligible for funding as long as future stages build on, rather than replace, previous work.

Check the box to indicate that the project meets this requirement. Yes

14.The project applicant must send written notification regarding the proposed project to all affected state and local units of government prior to submitting the application.

Check the box to indicate that the project meets this requirement. Yes

Roadways Including Multimodal Elements

1.All roadway and bridge projects must be identified as a principal arterial (non-freeway facilities only) or A-minor arterial as shown on the latest TAB approved roadway functional classification map.

Check the box to indicate that the project meets this requirement. Yes

Roadway Expansion and Reconstruction/Modernization and Spot Mobility projects only:

2.The project must be designed to meet 10-ton load limit standards.

Check the box to indicate that the project meets this requirement. Yes

Bridge Rehabilitation/Replacement and Strategic Capacity projects only:

3.Projects requiring a grade-separated crossing of a principal arterial freeway must be limited to the federal share of those project costs identified as local (non-MnDOT) cost responsibility using MnDOTs Cost Participation for Cooperative Construction Projects and Maintenance Responsibilities manual. In the case of a federally funded trunk highway project, the policy guidelines should be read as if the funded trunk highway route is under local jurisdiction.

Check the box to indicate that the project meets this requirement.

4.The bridge must carry vehicular traffic. Bridges can carry traffic from multiple modes. However, bridges that are exclusively for bicycle or pedestrian traffic must apply under one of the Bicycle and Pedestrian Facilities application categories. Rail-only bridges are ineligible for funding.

Check the box to indicate that the project meets this requirement.

Bridge Rehabilitation/Replacement projects only:

5.The length of the bridge must equal or exceed 20 feet.

Check the box to indicate that the project meets this requirement.

6. The bridge must have a National Bridge Inventory Rating of 6 or less for rehabilitation projects and 4 or less for replacement projects.

Check the box to indicate that the project meets this requirement.

Roadway Expansion, Reconstruction/Modernization, and Bridge Rehabilitation/Replacement projects only:

7. All roadway projects that involve the construction of a new/expanded interchange or new interchange ramps must have approval by the Metropolitan Council/MnDOT Interchange Planning Review Committee prior to application submittal. Please contact Michael Corbett at MnDOT (Michael.J.Corbett@state.mn.us or 651-234-7793) to determine whether your project needs to go through this process as described in Appendix F of the 2040 Transportation Policy Plan.

Check the box to indicate that the project meets this requirement. Yes

Requirements - Roadways Including Multimodal Elements

Specific Roadway Elements

CONSTRUCTION PROJECT ELEMENTS/COST ESTIMATES	Cost
Mobilization (approx. 5% of total cost)	$544,000.00
Removals (approx. 5% of total cost)	$286,000.00
Roadway (grading, borrow, etc.)	$578,000.00
Roadway (aggregates and paving)	$1,293,000.00
Subgrade Correction (muck)	$0.00
Storm Sewer	$947,000.00
Ponds	$0.00
Concrete Items (curb & gutter, sidewalks, median barriers)	$300,000.00
Traffic Control	$544,000.00
Striping	$68,000.00
Signing	$41,000.00
Lighting	$360,000.00
Turf - Erosion & Landscaping	$473,000.00
Bridge	$0.00
Retaining Walls	$288,000.00
Noise Wall (not calculated in cost effectiveness measure)	$0.00
Traffic Signals	$2,580,000.00
Wetland Mitigation	$0.00
Other Natural and Cultural Resource Protection	$0.00
RR Crossing	$0.00
Roadway Contingencies	$2,544,000.00

Other Roadway Elements	$180,000.00
Totals	**$11,026,000.00**

Specific Bicycle and Pedestrian Elements

CONSTRUCTION PROJECT ELEMENTS/COST ESTIMATES	Cost
Path/Trail Construction	$255,000.00
Sidewalk Construction	$518,000.00
On-Street Bicycle Facility Construction	$0.00
Right-of-Way	$0.00
Pedestrian Curb Ramps (ADA)	$305,000.00
Crossing Aids (e.g., Audible Pedestrian Signals, HAWK)	$209,000.00
Pedestrian-scale Lighting	$360,000.00
Streetscaping	$473,000.00
Wayfinding	$0.00
Bicycle and Pedestrian Contingencies	$636,000.00
Other Bicycle and Pedestrian Elements	$0.00
Totals	**$2,756,000.00**

Specific Transit and TDM Elements

CONSTRUCTION PROJECT ELEMENTS/COST ESTIMATES	Cost
Fixed Guideway Elements	$0.00
Stations, Stops, and Terminals	$0.00
Support Facilities	$0.00
Transit Systems (e.g. communications, signals, controls, fare collection, etc.)	$0.00
Vehicles	$0.00
Contingencies	$0.00
Right-of-Way	$0.00
Other Transit and TDM Elements	$0.00
Totals	**$0.00**

Transit Operating Costs

Number of Platform hours	0
Cost Per Platform hour (full loaded Cost)	$0.00
Subtotal	$0.00
Other Costs - Administration, Overhead,etc.	$0.00

Totals

Total Cost	$13,782,000.00
Construction Cost Total	$13,782,000.00
Transit Operating Cost Total	$0.00

Measure B: Project Location Relative to Jobs, Manufacturing, and Education

Existing Employment within 1 Mile:	155651
Existing Manufacturing/Distribution-Related Employment within 1 Mile:	4008
Existing Post-Secondary Students within 1 Mile:	11739
Upload Map	1583681974919_2020 RS Map 02 - CSAH 5 (Franklin Ave) Reconstruction Project - Regional Economy.pdf

Please upload attachment in PDF form.

Measure C: Current Heavy Commercial Traffic

RESPONSE: Select one for your project, based on the Regional Truck Corridor Study:

Along Tier 1:	
Miles:	0
(to the nearest 0.1 miles)	
Along Tier 2:	Yes
Miles:	0.6
(to the nearest 0.1 miles)	
Along Tier 3:	
Miles:	0
(to the nearest 0.1 miles)	
The project provides a direct and immediate connection (i.e., intersects) with either a Tier 1, Tier 2, or Tier 3 corridor:	
None of the tiers:	

Measure A: Current Daily Person Throughput

Location	East of 3rd Ave
Current AADT Volume	14900
Existing Transit Routes on the Project	2, 5, 9, 11, 17, 18, 39, 133, 135, 146, 156, 460, 464, 465, 467, 470, 472, 475, 476, 477, 478, 479, 491, 492, 535, 552, 553, 554, 558, 578, 579, 597

For New Roadways only, list transit routes that will likely be diverted to the new proposed roadway (if applicable).

Upload Transit Connections Map	1583754882882_2020 RS Map 04 - CSAH 5 (Franklin Ave) Reconstruction Project - Transit Connections.pdf

Please upload attachment in PDF form.

Response: Current Daily Person Throughput

Average Annual Daily Transit Ridership	0
Current Daily Person Throughput	19370.0

Measure B: 2040 Forecast ADT

Use Metropolitan Council model to determine forecast (2040) ADT volume	No
If checked, METC Staff will provide Forecast (2040) ADT volume	
OR	
Identify the approved county or city travel demand model to determine forecast (2040) ADT volume	Hennepin County conducted a comprehensive travel demand forecasting analysis based on the Metropolitan Council's regional activity-based model. Forecast traffic volumes were based on a combination of socio-economic and land use assumptions. It should be noted that the future transportation network was assumed to include projects identified in the regional Transportation Improvement Program and the county's Capital Improvement Program. Attachment 8 illustrates the forecast traffic volumes.
Forecast (2040) ADT volume	16900

Measure A: Connection to disadvantaged populations and projects benefits, impacts, and mitigation

*1.**Sub-measure**: Equity Population Engagement: A successful project is one that is the result of active engagement of low-income populations, people of color, persons with disabilities, youth and the elderly. Engagement should occur prior to and during a projects development, with the intent to provide direct benefits to, or solve, an expressed transportation issue, while also limiting and mitigating any negative impacts. Describe and map the location of any low-income populations, people of color, disabled populations, youth or the elderly within a ½ mile of the proposed project. Describe how these specific populations were engaged and provided outreach to, whether through community planning efforts, project needs identification, or during the project development process. Describe what engagement methods and tools were used and how the input is reflected in the projects purpose and need and design. Elements of quality engagement include: outreach and engagement to specific communities and populations that are likely to be directly impacted by the project; techniques to reach out to populations traditionally not involved in community engagement related to transportation projects; feedback from these populations identifying potential positive and negative elements of the proposed project through engagement, study recommendations, or plans that provide feedback from populations that may be impacted by the proposed project. If relevant, describe how NEPA or Title VI regulations will guide engagement activities.*

Response:

The Franklin Ave Corridor Study (hennepin.us/franklincorridor) reviewed opportunities to reallocate space along the corridor to better accommodate users; relying on community engagement to understand issues and identify opportunities. As illustrated in the Socio-Economic Conditions map, the communities surrounding Franklin Ave include areas of concentrated poverty, with a relatively high percentage consisting of people of color. These populations rely in greater proportion on walking, biking, and transit for daily travel; therefore, the study sought opportunities to apply design best practices to create a corridor with an expanded focus on multimodal travel, while still accommodating vehicle and freight travel. Furthermore, special consideration was given to the needs of the seeing impaired community, as Vision Loss Resources and Blind Inc. are two nearby facilities that provide training and services for people with visual impairments.

Community engagement efforts (described in Attachment 9) were specifically targeted for the following stakeholder groups: Hope Community, Our Streets, Native American Community Development Institute, Franklin Library, Norway House, Plymouth Congregational Church, Blind Inc, and the Native American Community - MUID Public Safety Committee. These stakeholders demonstrate an extensive knowledge of accessibility, mobility, and safety issues in the area. Two open houses were held at Plymouth Congregational Church, and an online wikimap was made available for community members who were unable to attend the open houses so they could comment on study materials. Staff also participated in the 2019 Franklin Open Streets event and the Franklin Library Transportation Fair. In addition to these public events, staff convened a Corridor

Advisory Group (CAG) that included stakeholders and representatives from businesses, institutions and organizations. Staff met with each of the four neighborhood organizations and with city and county Bicycle/Pedestrian Advisory Committees to provide updates on study progress and collect feedback on preliminary findings.

Based on insights from these engagement, the following themes emerged: pedestrian crossing safety concerns, curb ramp and sidewalk deficiency, vehicle weaving and speeding, a desire for dedicated bicycle facilities, and support for modifying the existing roadway configuration to better accommodate user activity. These themes informed concept development; noting that a reconstruction project provides the optimal opportunity to reallocate space within the corridor. It is anticipated that a number of countermeasures (such as raised medians, curb extensions, and crossing beacons) will be considered to improve accessibility, safety, and mobility for people walking along the corridor.

(Limit 2,800 characters; approximately 400 words)

*2.**Sub-measure**: Equity Population Benefits and Impacts: A successful project is one that has been designed to provide direct benefits to low-income populations, people of color, persons with disabilities, youth and the elderly. All projects must mitigate potential negative benefits as required under federal law. Projects that are designed to provide benefits go beyond the mitigation requirement to proactively provide transportation benefits and solve transportation issues experienced by Equity populations.*
a.Describe the projects benefits to low-income populations, people of color, children, people with disabilities, and the elderly. Benefits could relate to pedestrian and bicycle safety improvements; public health benefits; direct access improvements for residents or improved access to destinations such as jobs, school, health care or other; travel time improvements; gap closures; new transportation services or modal options, leveraging of other beneficial projects and investments; and/or community connection and cohesion improvements. Note that this is not an exhaustive list.

Response:

The CSAH 5 (Franklin Ave) Reconstruction Project will benefit low-income populations, people of color, children, people with disabilities, and the elderly. A detailed description of how this project will benefit disadvantaged populations is included below. Attachment 10 identifies specific destinations within 0.5 miles of the project area that likely attract each population group.

Low-income populations, including people of color, will benefit from an improved pedestrian realm as it leads to a more comfortable and safer walking experience. The introduction of design strategies that promote complete streets (such as raised medians, curb extensions, and crossing beacons) will make walking equally attractive as driving along the corridor. This is especially important, as a relatively high percentage of zero car households exists within the surrounding area (more than 30 percent recorded as part of the ACS).

Children and the elderly will both benefit from the improved pedestrian realm and intersection safety improvements. These are two vulnerable groups who require more time to cross an intersection. Proven safety countermeasures (such as raised medians, curb extensions, enhanced pavement markings, and lighting) will improve the safety and comfort of people crossing.

People with disabilities, including a large population with visual impairments and limited mobility, will benefit from the improved pedestrian realm. The county's self evaluation of sidewalk facilities (hennepin.maps.arcgis.com/apps/StoryMapBasic/index.html?appid=aee6010fe8e64e23b757dd8d69ef81fe) identifies a number of obstructions and defects that exist along Franklin Ave. These

conditions present barriers to these populations as they experience difficulty when trying to travel along or across Franklin Ave. This project presents an opportunity to create a consistent experience for these populations by implementing ADA design best practices. Project elements such as curb extensions, APS, and high-visibility pavement markings will increase awareness and predictability for all people crossing intersections.

Many of the vulnerable users near Franklin Ave rely on service providers that exist along or near the corridor. Creating an ADA accessibility sidewalk (free of obstructions) is critical to ensuring access to these services by means of biking, walking, or taking transit. Consideration will be given for a creating a dedicated bicycle facility to make biking a more attractive transportation mode along Franklin Ave. In addition, the project team will include representation from Metro Transit to seek out opportunities to improve transit services (such as boarding/disembarking procedures and signal preferences) along Franklin Ave (specifically as it relates to Route 2).

(Limit 2,800 characters; approximately 400 words)

b. Describe any negative impacts to low-income populations, people of color, children, people with disabilities, and the elderly created by the project, along with measures that will be taken to mitigate them. Negative impacts that are not adequately mitigated can result in a reduction in points.
Below is a list of negative impacts. Note that this is not an exhaustive list.
Increased difficulty in street crossing caused by increased roadway width, increased traffic speed, wider turning radii, or other elements that negatively impact pedestrian access.
Increased noise.
Decreased pedestrian access through sidewalk removal / narrowing, placement of barriers along the walking path, increase in auto-oriented curb cuts, etc.
Project elements that are detrimental to location-based air quality by increasing stop/start activity at intersections, creating vehicle idling areas, directing an increased number of vehicles to a particular point, etc.
Increased speed and/or cut-through traffic.
Removed or diminished safe bicycle access.
Inclusion of some other barrier to access to jobs and other destinations.
Displacement of residents and businesses.
Mitigation of temporary construction/implementation impacts such as dust; noise; reduced access for travelers and to businesses; disruption of utilities; and eliminated street crossings.
Other

Response:

No permanent negative impacts to low-income populations, people of color, children, people with disabilities, and the elderly are anticipated by the project. The project will create a multimodal corridor while still accommodating the needs of people driving, including freight operations. The enhanced multimodal functionality of Franklin Ave will improve mobility, access and safety for all of the vulnerable population groups referenced earlier; regardless of the mode of travel they are using. Additionally, the project team will seek out opportunities to introduce boulevard space in an effort to reduce impervious surfaces, providing a significant betterment to the environment.

Some temporary negative impacts are anticipated during the construction phase of the project. These could include limited mobility and access to residences and businesses caused by temporary closure of the street or sidewalk space as part of construction activities. All potential construction impacts will be mitigated by requiring the contractor to follow the special provisions developed for the project.

Negative impacts to accessibility

Impacts to existing sidewalk facilities are anticipated during construction activities. The project contractor will be required to follow the temporary traffic control plans which will provide for temporary accommodations and/ or detours for people walking and biking. Access to housing, local retail and service providers is critical, therefore, staff will work with businesses to minimize negative impacts during construction.

Negative impacts to mobility

All modes will be provided with proper signage and pavement markings to ensure clear and safe detour routes. Detailed maps will be available to community residents and businesses identifying the timing and location of detour routes.

Negative impacts to transit

Some transit routes may need to be detoured during construction. Staff will coordinate with Metro Transit to publish consistent messaging, notifying transit customers of any changes.

Negative impacts to the environment

Storm water impacts during construction will be mitigated through treatments such as silt fencing and inlet protection as required by the project's Storm Water Pollution Prevention Plan.

(Limit 2,800 characters; approximately 400 words)

Select one:

*3.**Sub-measure: Bonus Points** Those projects that score at least 80% of the maximum total points available through sub-measures 1 and 2 will be awarded bonus points based on the geographic location of the project. These points will be assigned as follows, based on the highest-scoring geography the project contacts:*
a.25 points to projects within an Area of Concentrated Poverty with 50% or more people of color
b.20 points to projects within an Area of Concentrated Poverty
c.15 points to projects within census tracts with the percent of population in poverty or population of color above the regional average percent
d.10 points for all other areas

Project is located in an Area of Concentrated Poverty where 50% or more of residents are people of color (ACP50):	Yes
Project located in Area of Concentrated Poverty:	
Projects census tracts are above the regional average for population in poverty or population of color:	
Project located in a census tract that is below the regional average for population in poverty or populations of color or includes children, people with disabilities, or the elderly:	

(up to 40% of maximum score)

Upload the "Socio-Economic Conditions" map used for this measure. The second map created for sub measure A1 can be uploaded on the Other Attachments Form, or can be combined with the "Socio-Economic Conditions" map into a single PDF and uploaded here.

Upload Map

1587127990153_2020 RS Map 03 - CSAH 5 (Franklin Ave) Reconstruction Project - Socio Economic Conditions.pdf

Measure B: Part 1: Housing Performance Score

City	Segment Length (For stand-alone projects, enter population from Regional Economy map) within each City/Township	Segment Length/Total Project Length	Score	Housing Score Multiplied by Segment percent
Minneapolis	0.86	1.0	100.0	100.0

Total Project Length

Total Project Length 0.86

Project length entered on the Project Information - General form.

Housing Performance Score

Total Project Length (Miles) or Population 0.86

Total Housing Score 100.0

Affordable Housing Scoring

Part 2: Affordable Housing Access

Reference Access to Affordable Housing Guidance located under Regional Solicitation Resources for information on how to respond to this measure and create the map.
If text box is not showing, click Edit or "Add" in top right of page.

Attachment 11 identifies specific affordable housing sites within a 1/2 mile of the project location. Due to the high number of affordable housing opportunities within close proximity project, the detailed description of each affordable housing location (including number of bedrooms, affordability limit based on area median income (AMI), etc.) is listed in Attachment 11.

Response:

This project will reallocate space in the corridor to improve accommodations for people biking and walking. The proposed sidewalk facilities will likely be complemented with boulevard space (to provide separation from the roadway), lighting (to promote user comfort), and proven countermeasures such as raised medians, curb extensions, and/or crossing beacons (to promote safety along and across the corridor). Whenever feasible, intersections will offer a consistent experience for people crossing (in terms of APS placement, pedestrian ramp design, and sidewalk alignment) to best serve people with limited mobility. Additionally, it is anticipated that a dedicated facility for people biking (contingent on the design process) will be introduced to reduce conflicts among each modal group. Staff will carefully evaluate the preferred bikeway facility type to balance mobility and access along the corridor. These project elements will promote choices in transportation and improve the user experience for first/last mile connections to existing transit stops.

(Limit 2,100 characters; approximately 300 words)

Upload map:

1588359498883_Attachment 11 - Affordable Housing Access Map and Detail Summary.pdf

Measure A: Year of Roadway Construction

Year of Original Roadway Construction or Most Recent Reconstruction	Segment Length	Calculation	Calculation 2

1966	0.35	688.1	905.395
1962	0.14	274.68	361.421
1966	0.27	530.82	698.447
	1	**1494**	**1965**

Total Project Length

Total Project Length (as entered in "Project Information" form) 0.76

Average Construction Year

Weighted Year 1965

Total Segment Length (Miles)

Total Segment Length 0.76

Measure B: Geometric, Structural, or Infrastructure Improvements

Improved roadway to better accommodate freight movements: Yes

Franklin Ave is identified as a Tier 2 route as part of Met Council's Regional Truck Highway Corridor Study. Staff referenced a StreetLight analysis to estimate 2,350 commercial vehicles along Franklin Ave daily (Attachment 12).

Response:

Dedicated left-turn lanes and phasing will benefit freight traffic at signalized intersections to improve their level of service. In addition, commercial vehicles will benefit along the corridor through the conversion of the 4-lane environment to a 3-lane to reduce conflict points among users. Additionally, driveway aprons will be designed to better accommodate freight deliveries, which occurs frequently given the number of commercial businesses along the corridor.

(Limit 700 characters; approximately 100 words)

Improved clear zones or sight lines: Yes

Although roadways near Franklin Ave generally follow a grid system, two intersections (Blaisdell Ave and 1st Ave) include skewed approaches as they approach Franklin Ave. Strategic application of curb extensions and high-visibility pavement markings will assist users in navigating these unique intersections.

Response:

The redistribution of space will offer benefits as it relates to sight lines. Conversion of the existing 4-lane configuration to a 3-lane will eliminate the potential for dual-threat related crashes. Furthermore, the introduction of a boulevard space (with appropriate plantings) will likely require curb narrowing, providing additional sight distance at intersections.

(Limit 700 characters; approximately 100 words)

Improved roadway geometrics:

Yes

The roadway width along Franklin Ave is 48' and includes 4 vehicle lanes. No vertical design elements exist between the curbs, relying solely on pavement markings and signs to guide users. Also, off-peak parking is permitted and experiences varying use.

Response:

The user experience will be improved through design strategies. Sidewalks will be ADA compliant. Boulevards will provide greater separation and buffer people walking from vehicles and provide space for snow storage. Dedicated bicycle facilities (pending design review) will relieve the sidewalk and roadway of bicycle use. Curb extensions, raised medians, and plantings will offer visual cues to manage speeds and encourage high yielding rates.

(Limit 700 characters; approximately 100 words)

Access management enhancements:

Yes

Staff will seek input from stakeholders to identify locations with high crossing activity for further evaluation for various design elements. These locations will be top candidates for curb extensions and raised medians that will minimize exposure for people walking and allow for exceptional facilities for people with limited mobility. In addition, these design elements will better manage the turning activity of people driving.

Response:

The anticipated conversion of the 4-lane environment to a 3-lane will better facilitate turning movements and eliminate the potential for dual-threat crashes. Furthermore, ITS elements will be introduced to provide reliable and efficient signal operations.

(Limit 700 characters; approximately 100 words)

Vertical/horizontal alignment improvements:

Yes

A number of local streets include skewed approaches along Franklin Ave; specifically, at Blaisdell Ave and 1st Ave. The use of curb extensions, raised medians, and high-visibility pavement markings will serve as visual cues to assist in intersection navigation.

Response:

The existing vertical alignment along Franklin Ave is relatively flat, therefore, sight distance is generally adequate. However, the introduction of curb extensions and raised medians will minimize crossing distances, reducing stopping sight distances needed by people driving to react to people crossing.

This project may adjust the vertical alignment in an effort to better manage storm water to minimize flood risk for the area.

(Limit 700 characters; approximately 100 words)

Improved stormwater mitigation:

Yes

No areas along Franklin Ave were considered a high risk for flooding as identified by MetCouncil's Localized Flood Map Screening Tool. However, some intersections experience minimal ponding during intense weather events.

Response:

Staff will collaborate with the city, park board, and the Mississippi Watershed Management Organization to implement best management practices (BMPs) to withstand weather events and improve water quality. It is anticipated that the proposed impervious surface conditions (pavement and sidewalks) will be less than the existing condition. Diverse streetscaping elements (appropriate for Minnesota climates) will be selected to increase their likelihood of thriving.

(Limit 700 characters; approximately 100 words)

Signals/lighting upgrades:

Yes

This project will replace and/or upgrade signals to the latest technologies, such as: dedicated left-turn phasing, signal communications, and ITS components. These improvements will allow for flexible signal operations to accommodate time of day needs. Additionally, ITS components will be essential for users to properly identify one-way streets to minimize improper behaviors.

Response:

The existing lighting is inconsistent and includes different types of lights. The specific type and location of new lighting will be consistent with the City's Street Lighting Plan (Attachment 13). Pedestrian scale lighting will maximize the visibility of people walking and crossing.

(Limit 700 characters; approximately 100 words)

Other Improvements

Yes

Response:

A full reconstruction is needed to allow for proper placement and orientation of pedestrian ramps, APS, crosswalk markings, and countdown timers. Sidewalks and driveway aprons will be modified to better manage slopes and transitions. In addition, the placement of signs, signal poles, and overhead utilities will not interfere with maintenance activities (specifically snow and ice control operations) to ensure accessibility throughout the entire year. These design elements will offer a consistent experience for people walking, especially those with limited mobility, which is key for the area that Franklin Ave serves.

(Limit 700 characters; approximately 100 words)

Measure A: Congestion Reduction/Air Quality

Total Peak Hour Delay Per Vehicle Without The Project (Seconds/ Vehicle)	Total Peak Hour Delay Per Vehicle With The Project (Seconds/ Vehicle)	Total Peak Hour Delay Per Vehicle Reduced by Project (Seconds/ Vehicle)	Volume without the Project (Vehicles per hour)	Volume with the Project (Vehicles Per Hour):	Total Peak Hour Delay Reduced by the Project:	Total Peak Hour Delay Reduced by the Project:	EXPLANATION of methodology used to calculate railroad crossing delay, if applicable.	Synchro or HCM Reports
96.0	54.0	42.0	2495	2496	104790.0	104832.0	Not applicable	158767301 1571_CSA H 005 - CP 1726 - Franklin Ave & 5th Ave.pdf
						104832		

Vehicle Delay Reduced

Total Peak Hour Delay Reduced	104790.0
Total Peak Hour Delay Reduced	0

Measure B:Roadway projects that do not include new roadway segments or railroad grade-separation elements

Total (CO, NOX, and VOC) Peak Hour Emissions without the Project (Kilograms):	Total (CO, NOX, and VOC) Peak Hour Emissions with the Project (Kilograms):	Total (CO, NOX, and VOC) Peak Hour Emissions Reduced by the Project (Kilograms):
6.33	4.32	2.01
6	**4**	**2**

Total

Total Emissions Reduced:	2.01
Upload Synchro Report	1586438746645_CSAH 005 - CP 1726 - Franklin Ave & 5th Ave.pdf

Please upload attachment in PDF form. (Save Form, then click 'Edit' in top right to upload file.)

Measure B: Roadway projects that are constructing new roadway segments, but do not include railroad grade-separation elements (for Roadway Expansion applications only):

Total (CO, NOX, and VOC) Peak Hour Emissions without the Project (Kilograms):	Total (CO, NOX, and VOC) Peak Hour Emissions with the Project (Kilograms):	Total (CO, NOX, and VOC) Peak Hour Emissions Reduced by the Project (Kilograms):
0	**0**	**0**

Total Parallel Roadway

Emissions Reduced on Parallel Roadways	0
Upload Synchro Report	

Please upload attachment in PDF form. (Save Form, then click 'Edit' in top right to upload file.)

New Roadway Portion:

Cruise speed in miles per hour with the project:	0
Vehicle miles traveled with the project:	0
Total delay in hours with the project:	0
Total stops in vehicles per hour with the project:	0
Fuel consumption in gallons:	0
Total (CO, NOX, and VOC) Peak Hour Emissions Reduced or Produced on New Roadway (Kilograms):	0

EXPLANATION of methodology and assumptions used:(Limit 1,400 characters; approximately 200 words)	
Total (CO, NOX, and VOC) Peak Hour Emissions Reduced by the Project (Kilograms):	0.0

Measure B:Roadway projects that include railroad grade-separation elements

Cruise speed in miles per hour without the project:	0
Vehicle miles traveled without the project:	0
Total delay in hours without the project:	0
Total stops in vehicles per hour without the project:	0
Cruise speed in miles per hour with the project:	0
Vehicle miles traveled with the project:	0
Total delay in hours with the project:	0
Total stops in vehicles per hour with the project:	0
Fuel consumption in gallons (F1)	0
Fuel consumption in gallons (F2)	0
Fuel consumption in gallons (F3)	0
Total (CO, NOX, and VOC) Peak Hour Emissions Reduced by the Project (Kilograms):	0
EXPLANATION of methodology and assumptions used:(Limit 1,400 characters; approximately 200 words)	

Measure A: Roadway Projects that do not Include Railroad Grade-Separation Elements

Crash Modification Factor Used:

(Limit 700 Characters; approximately 100 words)

Attachment 14 lists reported crashes (2016-2018) along the project, and Attachment 15 lists CMFs applied in the B/C Analysis.

XX - Countermeasure: Crashes Targeted (CMF ID, % Reduction)

1) LT lanes at signalized intersections: LT (271, 47%)

2) Additional primary signal head on CSAHs: RA (1485, 46%)

3) Convert to 3-lane: All (2841, 49%)

4) FYA prot/perm LT phasing: LT crashes on CSAH 5 (4177, 19.4%)

5) Countdown timers: PED (5272, 70%)

6) Convert perm LT phasing to FYA prot/perm LT phasing: LT crashes on CSAH 5 (7684, 40.2%)

7) Improve intersection lighting: Nighttime PED (FHWA Desktop Reference, 42%)

8) Convert to 3-lane: PED (FHWA Safe Transportation for Every Pedestrian, 29%)

The Benefit/Cost Analysis evaluated the project corridor in twelve separate sections (comprised of major intersections and segments) to target crash themes. Up to two (of the eight selected) CMFs were applied to each crash based on the reported crash type, along with the anticipated benefit provided by each safety countermeasure. A maximum of four CMFs were applied to each individual intersection or segment since the project corridor experiences diverse crash types among people biking, driving, and walking.

Rationale for Crash Modification Selected:

The expected service life for each improvement was 20 years as entered into the Benefit/Cost Worksheets. If a a service life was not stated within the guidelines of the 2020 Highway Safety Improvement Program Criteria, then staff identified an expected service life value based on information provided in the 2015 MnDOT Traffic Engineering Manual.

The overall average crash reduction expected from the project is 26% (based on a 74% crashes modification factor). Approximately 26% (19) of the total number of reported crashes from the years 2016 to 2018 will be reduced annually through the implementation of various safety countermeasures as part of this project.

(Limit 1400 Characters; approximately 200 words)

Project Benefit ($) from B/C Ratio	$34,188,410.00
Total Fatal (K) Crashes:	0
Total Serious Injury (A) Crashes:	4
Total Non-Motorized Fatal and Serious Injury Crashes:	2
Total Crashes:	220
Total Fatal (K) Crashes Reduced by Project:	0
Total Serious Injury (A) Crashes Reduced by Project:	3
Total Non-Motorized Fatal and Serious Injury Crashes Reduced by Project:	2

Total Crashes Reduced by Project:	58
Worksheet Attachment	1587933740343_CSAH 5 (Franklin Ave) Reconstruction Project - BC Analysis Worksheets.pdf

Please upload attachment in PDF form.

Roadway projects that include railroad grade-separation elements:

Current AADT volume:	0
Average daily trains:	0
Crash Risk Exposure eliminated:	0

Measure A: Multimodal Elements and Existing Connections

Improving safety for people walking and biking is an important feature in this project. Specific safety strategies will respond to issues identified in prior studies and the county's crash system (which includes a screening of intersections/segments countywide), the 2017 Minneapolis Pedestrian Crash Study, and the 2018 Minneapolis Vision Zero Crash Study. It is anticipated that the following FHWA proven safety countermeasures will be evaluated: a 4-to-3 conversion, raised medians, improved lighting, high-visibility pavement markings, curb extensions, and dedicated left-turn lanes. Additionally, the implementation of leading pedestrian intervals and signal preference for transit operations will be considered as part of the design process.

Response:

As part of the outreach efforts, staff learned that people walking along Franklin Ave frequently experience difficulty and discomfort when attempting to cross the road. Raised medians will allow for two-stage crossings at unsignalized intersections, eliminating the potential for dual-threat related crashes. Curb extensions (especially along minor street approaches) will be introduced to shorten the crossing distance and provide better visibility for people driving. A review of the recent crash history suggests that a relatively high percentage of crashes was experienced at intersections involve turning vehicles. For instance, approximately 50% of pedestrian crashes reported at the Nicollet Ave intersection involve left-turning vehicles. The introduction of enhanced lighting, high-visibility pavement markings, and flexible left-turn signal operations will target this crash type.

The project will implement a sidewalk environment that is wider and set back from the roadway via a boulevard space. These sidewalk enhancements

not only make walking along the corridor more comfortable, but also minimize poor decision-making. Additionally, people in wheelchairs (and other assisted walking devices) often utilize the roadway to travel the corridor due to current obstructions within the sidewalk space and general ADA non-compliance. This condition is undesirable as these users are exposing themselves to potentially hazardous situations.

The county's 2040 Bicycle Transportation Plan and the Draft Minneapolis Transportation Action Plan All Ages and Abilities Network recommend dedicated bicycle facilities along Franklin Avenue. The inclusion of bicycle facilities will reduce the number of people riding in the sidewalk, ensuring that people walking will have full control of this space.

Furthermore, the introduction of a 3-lane roadway configuration will assist in managing vehicle speeds. This is especially important as the likelihood of a pedestrian crash resulting in severe injury is directly proportionate to vehicle speeds.

(Limit 2,800 characters; approximately 400 words)

Measure A: Multimodal Elements and Existing Connections

Response:

This project will aim to provide benefits for people walking, biking, driving, and using transit. Two key improvements anticipated include enhancements to the pedestrian realm (which currently consists of substandard sidewalk and curb ramps) and the introduction of dedicated bicycle facilities. These key improvements, along with others, will provide critical connections within the surrounding area (as illustrated in Attachment 16).

Pedestrian realm upgrades will improve the comfort, safety, and mobility of people walking. This is important as nearby residents rely on walking and transit for transportation; with pedestrian volumes reflecting this demand (750 to 1,800 daily - Minneapolis). The existing sidewalk contains many deficiencies including poles, signs, and other impediments that limit mobility. As identified in the county's 2015 ADA Transition Plan, a majority of the curb ramps and connecting sidewalk segments are not ADA compliant. It is anticipated that sidewalk space will be widened and a boulevard space will be introduced. These conditions will promote a comfortable walking experience and provide space for street trees, lights, poles and utilities (which formerly encroached the sidewalk space). All curb ramps and intersections will be made ADA compliant with APS. Traffic calming strategies (such as curb extensions, raised medians, and/or crossing beacons) will be introduced to improve safety and manage the speeds of people driving.

The project limits (approximately Blaisdell Ave to Chicago Ave) are identified within the RBTN (Tier 1 Alignment), the 2040 Hennepin County Bicycle Transportation Plan (future bicycle route) and the Draft Minneapolis Transportation Action Plan (future bicycle route). It is anticipated that the

project will introduce a dedicated bicycle facility; relying on the design process to select the preferred facility type (i.e. on-road versus off-road). For people biking, 4-lane undivided roadways cause a high level of traffic stress. Even with these conditions, a relatively high number of people still elect to ride along Franklin Ave (320 to 790 daily - Minneapolis). This data suggests a demand for bicycle travel on the corridor, therefore, the inclusion of dedicated bicycle facilities will make Franklin Ave a viable bicycle travel option for existing and potential bicyclists.

At this time, transit service is not anticipated to be negatively impacted by this project. Bus Route 2, a high frequency route, currently provides transit services along Franklin Ave. In 2019, Metro Transit evaluated and adjusted various stop locations to improve travel times and the customer experience. Additionally, the D-Line Bus Rapid Transit is under development and will extend along Chicago Ave, adjacent to the project area.

(Limit 2,800 characters; approximately 400 words)

Transit Projects Not Requiring Construction

If the applicant is completing a transit application that is operations only, check the box and do not complete the remainder of the form. These projects will receive full points for the Risk Assessment.
Park-and-Ride and other transit construction projects require completion of the Risk Assessment below.

Check Here if Your Transit Project Does Not Require Construction

Measure A: Risk Assessment - Construction Projects

1)Layout (25 Percent of Points)

Layout should include proposed geometrics and existing and proposed right-of-way boundaries.

Layout approved by the applicant and all impacted jurisdictions (i.e., cities/counties that the project goes through or agencies that maintain the roadway(s)). A PDF of the layout must be attached along with letters from each jurisdiction to receive points.

100%

Attach Layout

Please upload attachment in PDF form.

Layout completed but not approved by all jurisdictions. A PDF of the layout must be attached to receive points. Yes

50%

Attach Layout 1587404725138_CSAH 005 (Franklin Ave) Reconstruction Project - Potential Layout Options2.pdf

Please upload attachment in PDF form.

Layout has not been started

0%

Anticipated date or date of completion 05/20/2022

2)Review of Section 106 Historic Resources (15 Percent of Points)

No known historic properties eligible for or listed in the National Register of Historic Places are located in the project area, and project is not located on an identified historic bridge

100%

There are historical/archeological properties present but determination of no historic properties affected is anticipated.

100%

Historic/archeological property impacted; determination of no adverse effect anticipated

80%

Historic/archeological property impacted; determination of adverse effect anticipated Yes

40%

Unsure if there are any historic/archaeological properties in the project area.

0%

Project is located on an identified historic bridge

3)Right-of-Way (25 Percent of Points)

Right-of-way, permanent or temporary easements either not required or all have been acquired

100%

Right-of-way, permanent or temporary easements required, plat, legal descriptions, or official map complete

50%

Right-of-way, permanent or temporary easements required, parcels identified Yes

25%

Right-of-way, permanent or temporary easements required, parcels not all identified

0%

Anticipated date or date of acquisition	12/22/2023

4)Railroad Involvement (15 Percent of Points)

No railroad involvement on project or railroad Right-of-Way agreement is executed (include signature page, if applicable)	Yes

100%

Signature Page

Please upload attachment in PDF form.

Railroad Right-of-Way Agreement required; negotiations have begun

50%

Railroad Right-of-Way Agreement required; negotiations have not begun.

0%

Anticipated date or date of executed Agreement

5) Public Involvement (20 percent of points)

Projects that have been through a public process with residents and other interested public entities are more likely than others to be successful. The project applicant must indicate that events and/or targeted outreach (e.g., surveys and other web-based input) were held to help identify the transportation problem, how the potential solution was selected instead of other options, and the public involvement completed to date on the project. List Dates of most recent meetings and outreach specific to this project:

Meeting with general public:	03/05/2020
Meeting with partner agencies:	03/05/2020
Targeted online/mail outreach:	02/13/2020
Number of respondents:	260
Meetings specific to this project with the general public and partner agencies have been used to help identify the project need.	Yes

100%

Targeted outreach to this project with the general public and partner agencies have been used to help identify the project need.

75%

At least one meeting specific to this project with the general public has been used to help identify the project need.

50%

At least one meeting specific to this project with key partner agencies has been used to help identify the project need.

50%

No meeting or outreach specific to this project was conducted, but the project was identified through meetings and/or outreach related to a larger planning effort.

25%

No outreach has led to the selection of this project.

0%

Response (Limit 2,800 characters; approximately 400 words):

Public engagement for the CSAH 5 (Franklin Ave) Reconstruction Project was executed via in-person meetings that included a total 21 stakeholder meetings and 4 outreach events (two public meetings and two open streets). In addition, over 200 comments were received from the public as part of an online interactive map survey. A summary of the public engagement process is available at hennepin.us/franklincorridor.

Key issues identified during the public engagement process are listed below:

- Lack of safe crossings along the corridor

- Curb ramps and sidewalks are generally in poor condition

- Lack of dedicated bicycle facilities

- Lack of adequate signage for on-street parking restrictions

- Weaving and speeding behavior by people driving commonly observed

Potential solutions offered during the public engagement process are listed below:

- Shorten the crossing distances via curb extensions and/or raised medians

- Upgrade curb ramps and sidewalks

- Introduce dedicated facilities for people biking

- Convert the existing four-lane roadway to a three-lane roadway

- Prohibit on-street parking in many areas along the corridor

Information gathered during the public engagement process for the Franklin Ave Corridor Study was used to develop the anticipated typical section(s) and layout(s). As this project advances to preliminary and final design, further engagement will take place to collect feedback on project materials as they are updated.

Measure A: Cost Effectiveness

Total Project Cost (entered in Project Cost Form):	$13,782,000.00
Enter Amount of the Noise Walls:	$0.00
Total Project Cost subtract the amount of the noise walls:	$13,782,000.00
Enter amount of any outside, competitive funding:	$0.00
Attach documentation of award:	
Points Awarded in Previous Criteria	
Cost Effectiveness	$0.00

Other Attachments

File Name	Description	File Size
Attachment 00 - List of Attachments.pdf	Attachment 00 - List of Attachments	56 KB
Attachment 01 - Project Narrative.pdf	Attachment 01 - Project Narrative	1.3 MB
Attachment 02 - Project Location Map.pdf	Attachment 02 - Project Location Map	402 KB
Attachment 03 - Existing Roadway Condition Photos.pdf	Attachment 03 - Existing Roadway Condition Photos	360 KB
Attachment 04 - Potential Typical Sections.pdf	Attachment 04 - Potential Typical Sections	95 KB
Attachment 05 - Potential Layouts.pdf	Attachment 05 - Potential Layouts	1.6 MB
Attachment 06 - Franklin Ave Corridor Study.pdf	Attachment 06 - Franklin Ave Corridor Study	41 KB
Attachment 07 - MnDOT 50 Series Map.pdf	Attachment 07 - MnDOT 50 Series Map	1.5 MB
Attachment 08 - Hennepin County 2040 TSP - Forecasted Traffic Volumes.pdf	Attachment 08 - Hennepin County 2040 TSP - Forecasted Traffic Volumes	1.4 MB
Attachment 09 - Community Engagement Summary.pdf	Attachment 09 - Community Engagement Summary	3.1 MB
Attachment 10 - Socio Economic Equity Map.pdf	Attachment 10 - Socio Economic Equity Map	626 KB
Attachment 11 - Affordable Housing Access Map and Detail Summary.pdf	Attachment 11 - Affordable Housing Access Map and Detail Summary	578 KB
Attachment 12 - StreetLight HCAADT Estimate.pdf	Attachment 12 - StreetLight HCAADT Estimate	69 KB
Attachment 13 - Minneapolis Street Lighting Plan.pdf	Attachment 13 - Minneapolis Street Lighting Plan	546 KB
Attachment 14 - Crash Map and Detail Listing.pdf	Attachment 14 - Crash Map and Detail Listing	468 KB
Attachment 15 - Crash Modification Factors.pdf	Attachment 15 - Crash Modification Factors	1.3 MB
Attachment 16 - Multimodal Connections Map.pdf	Attachment 16 - Multimodal Connections Map	645 KB
Attachment 17 - City of Minneapolis Support Letter - PLACEHOLDER.pdf	Attachment 17 - City of Minneapolis Support Letter - PLACEHOLDER	54 KB
Attachment 18 - MnDOT Support Letter - PLACEHOLDER.pdf	Attachment 18 - MnDOT Support Letter - PLACEHOLDER	54 KB

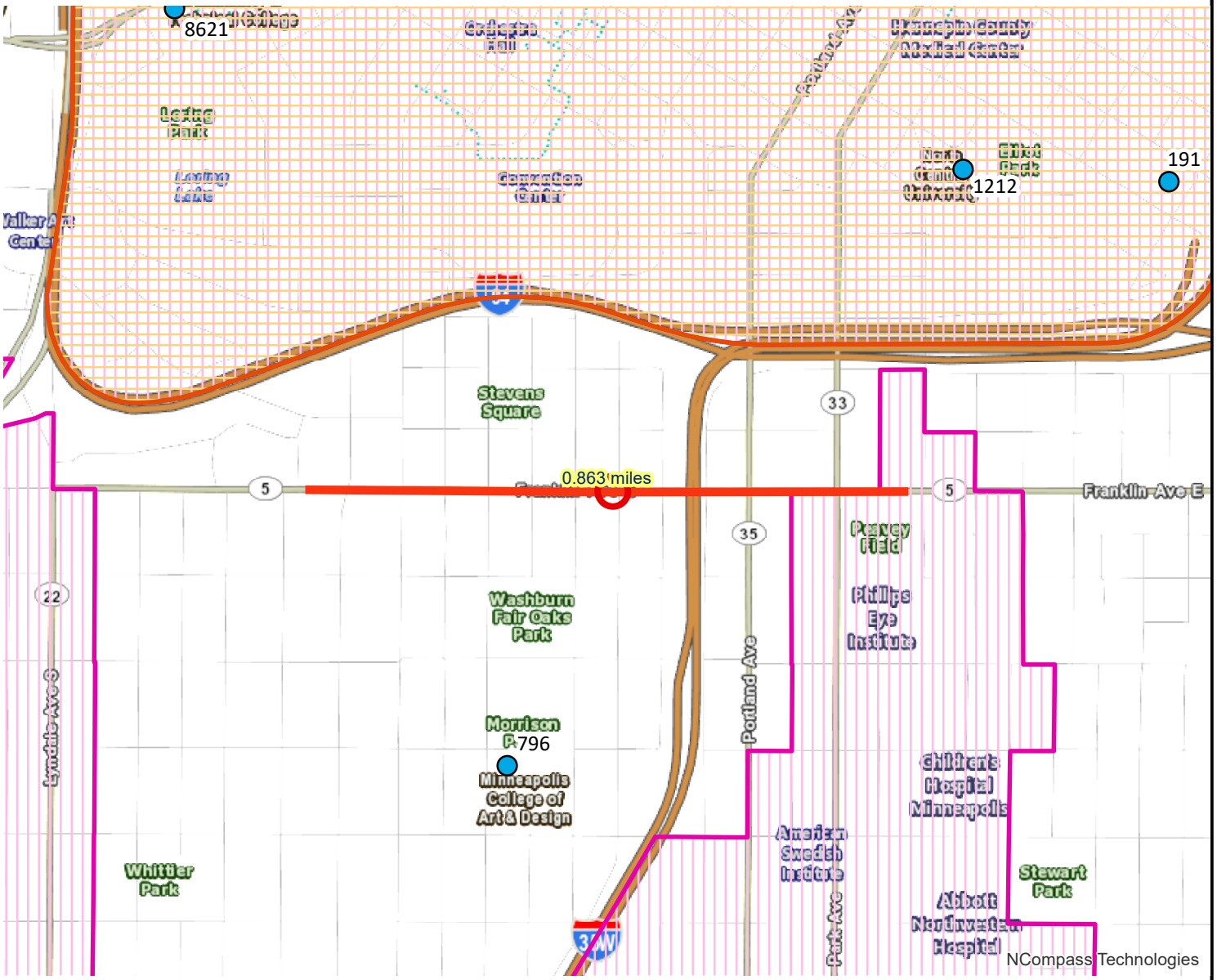
Regional Economy

Roadway Reconstruction/Modernization Project: CSAH 5 (Franklin Ave) Reconstruction Project | Map ID: 158368150

Results

WITHIN ONE MI of project:
Postsecondary Students: 11739

Totals by City:
Minneapolis
Population: 73794
Employment: 155651
Mfg and Dist Employment: 4008



Project Points
Project
Postsecondary Education Centers
Manfacturing/Distribution Centers
Job Concentration Centers

0 0.125 0.25 0.5 0.75 1 Miles

Created: 3/8/2020
LandscapeRSA5

For complete disclaimer of accuracy, please visit
http://giswebsite.metc.state.mn.us/gissitenew/notice.aspx

METROPOLITAN COUNCIL

Transit Connections

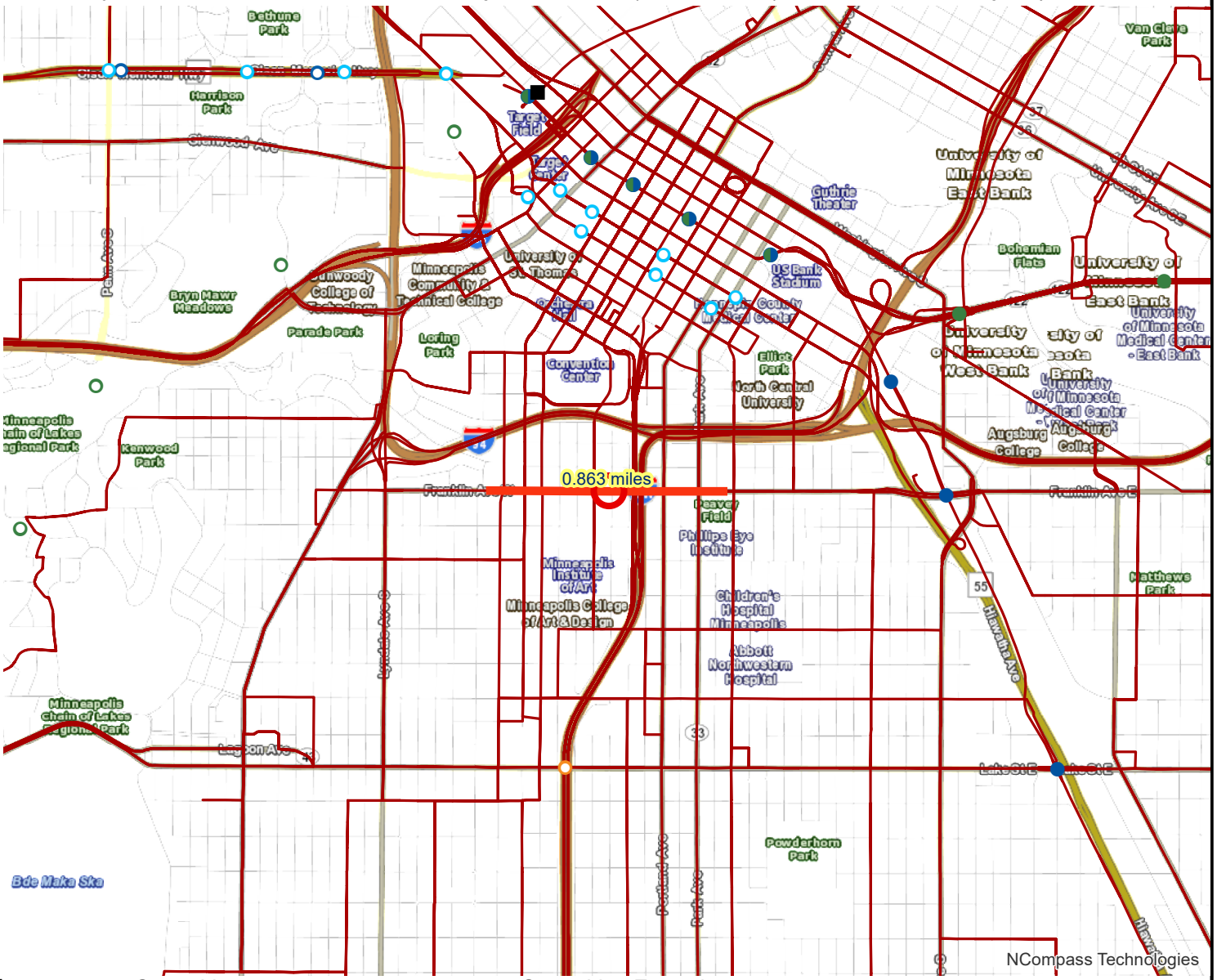
Roadway Reconstruction/Modernization Project: CSAH 5 (Franklin Ave) Reconstruction Project | Map ID: 15836150

Results

Transit with a Direct Connection to project:
11 133 135 146 156 17 18 2 39 460 464
465 467 470 472 475 476 477 478 479 491 492
5 535 552 553 554 558 578 579 597 9
*Chicago/Emerson-Fremont
*Nicollet-Central
*Orange Line
*Nicollet Ave

**indicates Planned Alignments*

Transit Market areas: 1



Project Points
Project
Project Area

Transitway Stations
Northstar Line
Blue/Green Line
Blue Line
Green Line
Green Line Extension

Planned Transitway Stations
Blue Line Extension
C Line
Orange Line

Transit Routes

0 0.35 0.7 1.4 2.1 2.8 Miles

Created: 3/8/2020
LandscapeRSA3

METROPOLITAN COUNCIL

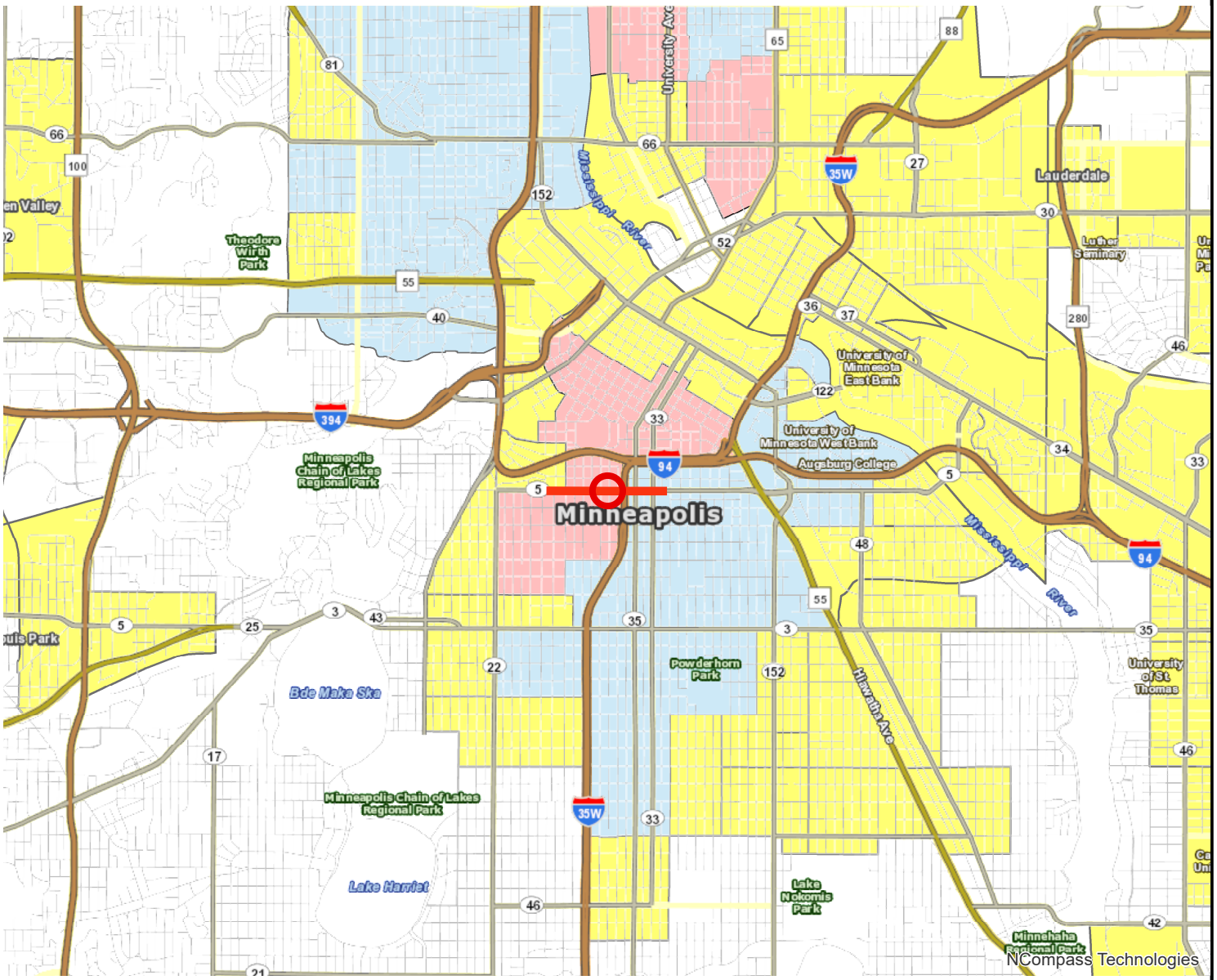
Socio-Economic Conditions

Roadway Reconstruction/Modernization Project: CSAH 5 (Franklin Ave) Reconstruction Project | Map ID: 1583681504852

Results

Project located **IN**
Area of Concentrated Poverty with 50% or more of residents are people of color (ACP50):
(0 to 30 Points)

Tracts within half-mile:
5901 5902 6800
7801 104400 105201
105204 105400 105500
105600 105700 106000
106700 106900 107000
125800 126000



Points
Lines
Area of Concentrated Povertry > 50% residents of color
Area of Concentrated Poverty
Above reg'l avg conc of race/poverty

0 0.5 1 2 3 4 Miles

Created: 3/8/2020
LandscapeRSA2

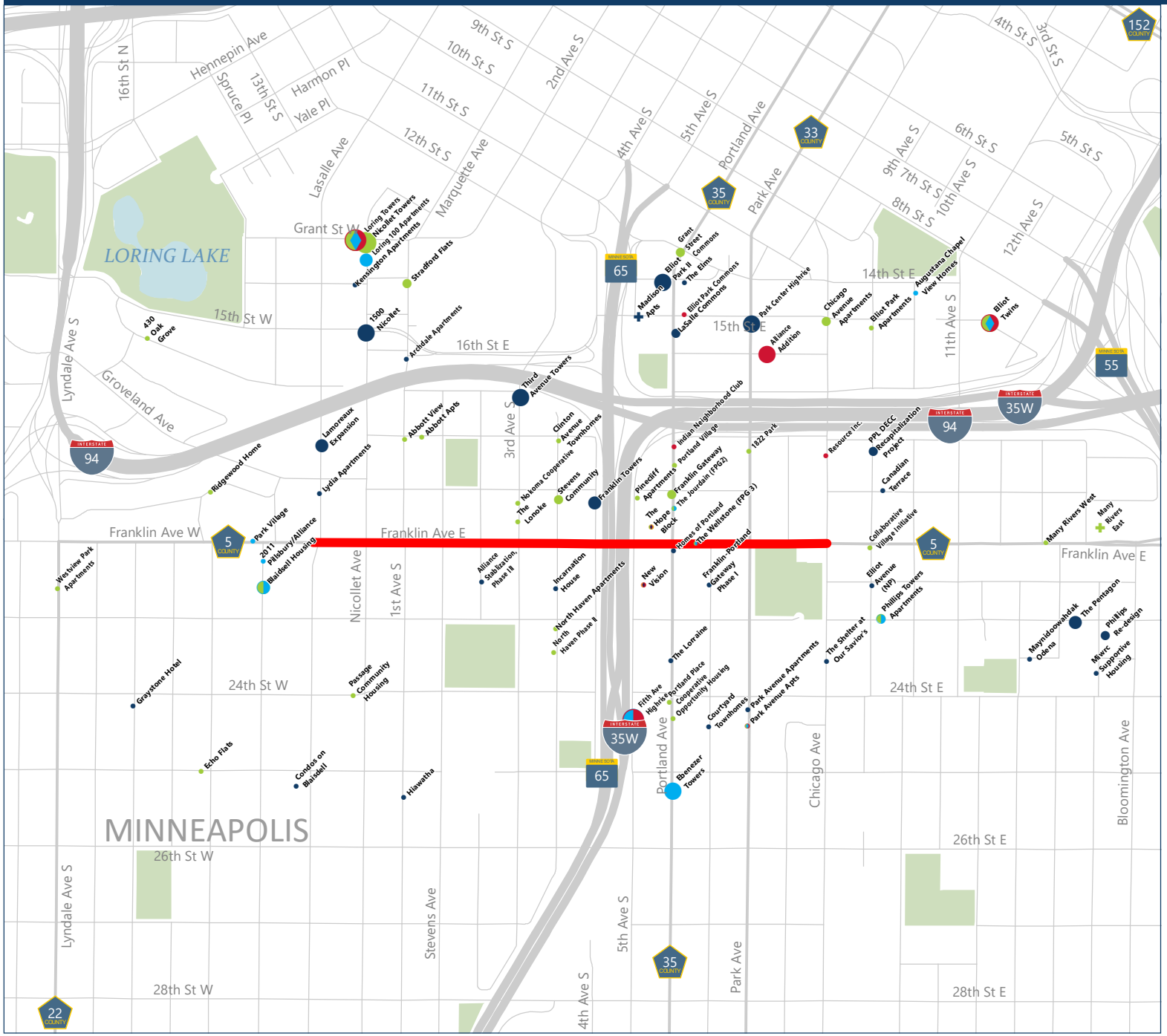
For complete disclaimer of accuracy, please visit
http://giswebsite.metc.state.mn.us/gissite/notice.aspx

METROPOLITAN COUNCIL

CSAH 5 (Franklin Avenue) Reconstruction Project

Attachment 11 | Affordable Housing Access Map and Detail Summary

HENNEPIN COUNTY
MINNESOTA



Key

- Project Location

Groups Served

- People with Disabilities
- Elderly
- Family
- Homeless
- Single People
- Multiple Groups
- No Information

Affordable Units

- 0 - 50
- 51 - 100
- 101 - 150
- 151 - 200
- 201 - 1500

Construction Status

- Complete
- Planned

0 0.15 0.3 Miles

Disclaimer: This map (i) is furnished "AS IS" with no representation as to completeness or accuracy; (ii) is furnished with no warranty of any kind; and (iii) is not suitable for legal, engineering or surveying purposes. Hennepin County shall not be liable for any damage, injury or loss resulting from this map.

Published date: 4/29/2020

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CSAH 5 (Franklin Ave) Reconstruction Project

Attachment 11: Affordable Housing Access Map and Detail Summary

A detailed description of how this project will improve access to affordable housing locations is included below, including number of bedrooms, affordability limit based on area median income (AMI), etc. Attachment 11 identifies specific affordable housing sites within a 1/2 mile of the project location.

Total number of affordable sites within project area: 75

Number of existing sites: 74
Number of sites under construction: 0
Number of planned sites identified: 1

Location 1: 1500 Nicollet
Affordable Units: 183
Bedrooms per unit: 0-3
50% AMI: 37
60% AMI: 146

Location 2: 1822 Park
Affordable Units: 18
Bedrooms per unit: 1
30% AMI: 6
50% AMI: 12

Location 3: 2011 Pillsbury/Alliance
Affordable Units: 27
Bedrooms per unit: 0
30% AMI: 27

Location 4: 430 Oak Grove
Affordable Units: 1
Bedrooms per unit: 1
60% AMI: 1

Location 5: Abbott Apts
Affordable Units: 25
Bedrooms per unit: 0-1
50% AMI: 25

Location 6: Abbott View
Affordable Units: 20
Bedrooms per unit: 1-2
30% AMI: 20
Section 8

Location 7: Alliance Addition
Affordable Units: 184
Bedrooms per unit: 0-2
30% AMI: 148
50% AMI: 36
LIHTC

Location 8: Alliance Stabilization, Phase III
Affordable Units: 12
Bedrooms per unit: NA
60% AMI: 12

Location 9: Archdale Apartments
Affordable Units: 30
Bedrooms per unit: 1
60% AMI: 30
LIHTC

Location 10: Augustana Chapel View Homes
Affordable Units: 33
Bedrooms per unit: 0-1
50% AMI: 33

Location 11: Blaisdell Housing
Affordable Units: 150
Bedrooms per unit: 0-2
60% AMI: 150
Section 8

Location 12: Canadian Terrace
Affordable Units: 19
Bedrooms per unit: 1-3
30% AMI: 19

Location 13: Chicago Avenue Apartments
Affordable Units: 60
Bedrooms per unit: 1-3
30% AMI: 60
Section 8

Location 14: Clinton Avenue Townhomes
Affordable Units: 8
Bedrooms per unit: 2-4
30% AMI: 8
Section 8

Location 15: Collaborative Village Initiative
Affordable Units: 18
Bedrooms per unit: 1-3
30% AMI: 16
50% AMI: 2
LIHTC

Location 16: Courtyard Townhomes (Phillips Park Initiative)
Affordable Units: 12
Bedrooms per unit: 3
30% AMI: 12

Location 17: Ebenezer Towers
Affordable Units: 192
Bedrooms per unit: 0-2
60% AMI: 192
LIHTC

Location 18: Echo Flats
Affordable Units: 20
Bedrooms per unit: 2-4
50% AMI: 16
60% AMI: 4
LIHTC

Location 19: Elliot Ave
Affordable Units: 15
Bedrooms per unit: NA
60% AMI: 15

Location 20: Elliot Park Apartments
Affordable Units: 30
Bedrooms per unit: 2-3
30% AMI: 30
Section 8

Location 21: Elliot Park Commons
Affordable Units: 25
Bedrooms per unit: 1-2
30% AMI: 25

Location 22: Elliot Park II (Slater Square)
Affordable Units: 162
Bedrooms per unit: 0-2
50% AMI: 97
60% AMI: 41
LIHTC

Location 23: Elliot Twins
Affordable Units: 174
Bedrooms per unit: 1
30% AMI: 174
Public Housing

Location 24: Fifth Avenue Highrises
Affordable Units: 253
Bedrooms per unit: 1
30% AMI: 253
Public Housing

Location 25: Franklin Gateway
Affordable Units: 77
Bedrooms per unit: 0-3
30% AMI: 19
50% AMI: 58
LIHTC

Location 26: Franklin Towers
Affordable Units: 110
Bedrooms per unit: 1-2
30% AMI: 110
Public Housing

Location 27: Franklin-Portland Gateway Phase I
Affordable Units: 36
Bedrooms per unit: 1-3
30% AMI: 23
50% AMI: 17
LIHTC

Location 28: Grant Street Commons
Affordable Units: 59
Bedrooms per unit: 0-2
50% AMI: 17
80% AMI: 42
Section 8

Location 29: Graystone Hotel
Affordable Units: 22
Bedrooms per unit: NA
80% AMI: 22

Location 30: Hiawatha - 2533 1st Ave
Affordable Units: 42
Bedrooms per unit: 1
30% AMI: 42
Public Housing

Location 31: Homes of Portland
Affordable Units: 2
Bedrooms per unit: NA
60% AMI: 2

Location 32: Incarnation House
Affordable Units: 15
Bedrooms per unit: 1-2
30% AMI: 15

Location 33: Indian Neighborhood Club
Affordable Units: 14
Bedrooms per unit: NA
30% AMI: 13
80% AMI: 1

Location 34: Kensington Apartments
Affordable Units: 34
Bedrooms per unit: 0-1
60% AMI: 34
LIHTC

Location 35: Lamoreaux Expansion
Affordable Units: 116
Bedrooms per unit: 0-1
30% AMI: 59
50% AMI: 57
LIHTC

Location 36: LaSalle Commons
Affordable Units: 64
Bedrooms per unit: 0-2
60% AMI: 64
LIHTC

Location 37: Loring 100 Apartments
Affordable Units: 107
Bedrooms per unit: 1
30% AMI: 107
LIHTC
Section 8

Location 38: Loring Towers
Affordable Units: 230
Bedrooms per unit: 0-1
60% AMI: 230
LIHTC
Section 8

Location 39: Park Avenue Apartments
Affordable Units: 10
Bedrooms per unit: 2-3
30% AMI: 10
Public Housing

Location 40: Park Avenue Apts
Affordable Units: 38
Bedrooms per unit: 1-4
50% AMI: 34
60% AMI: 4
LIHTC

Location 41: Lydia Apartments
Affordable Units: 40
Bedrooms per unit: 0
30% AMI: 40
LIHTC

Location 42: Madison Apartments
Affordable Units: 51
Bedrooms per unit: 2-4
60% AMI: 51
LIHTC
Section 8

Location 43: Maynidoowahdak Odena
Affordable Units: 15
Bedrooms per unit: 0-4
50% AMI: 15

Location 44: Miwrc Supportive Housing
Affordable Units: 14
Bedrooms per unit: NA
60% AMI: 14

Location 45: New Vision LLC
Affordable Units: 20
Bedrooms per unit: 0
30% AMI: 10
50% AMI: 10

Location 46: Nicollet Towers
Affordable Units: 306
Bedrooms per unit: 1-3
60% AMI: 306
LIHTC
Section 8

Location 47: Nokoma Cooperative
Affordable Units: 19
Bedrooms per unit: 1
60% AMI: 1

Location 48: North Haven Apartments
Affordable Units: 4
Bedrooms per unit: 3-4
30% AMI: 3
50% AMI: 1

Location 49: North Haven Phase II
Affordable Units: 5
Bedrooms per unit: 1-3
50% AMI: 5

Location 50: Opportunity Housing Project Aka: Lamoreaux Expansion
Affordable Units: NA
Bedrooms per unit: NA
Section 8

Location 51: Park Center Highrise
Affordable Units: 182
Bedrooms per unit: 1
30% AMI: 182
LIHTC

Location 52: Park Village
Affordable Units: 6
Bedrooms per unit: 1
60% AMI: 6

Location 53: Passages Community Housing
Affordable Units: 17
Bedrooms per unit: 1-3
30% AMI: 17

Location 54: Phillips Re-design
Affordable Units: 89
Bedrooms per unit: 0-4
60% AMI: 89
LIHTC

Location 55: Phillips Towers Apartments
Affordable Units: 88
Bedrooms per unit: 1
30% AMI: 88
Section 8

Location 56: Pinecliff Apartments
Affordable Units: 30
Bedrooms per unit: 1-2
30% AMI: 7
50% AMI: 23

Location 57: Portland Place Cooperative
Affordable Units: 17
Bedrooms per unit: 1-4
30% AMI: 22
50% AMI: 4
LIHTC

Location 58: Portland Village
Affordable Units: 26
Bedrooms per unit: 2-4
30% AMI: 22
50% AMI: 4
LHITC

Location 59: PPL DECC Recapitalization Project
Affordable Units: 51
Bedrooms per unit: NA
50% AMI: 51
LIHTC

Location 60: Resource Inc.
Affordable Units: 3
Bedrooms per unit: 1-2
30% AMI: 3

Location 61: Ridgewood Home
Affordable Units: 12
Bedrooms per unit: 0
50% AMI: 2
60% AMI: 10

Location 62: Stevens Community
Affordable Units: 59
Bedrooms per unit: 1-2
30% AMI: 59
Section 8

Location 63: Stradford Flats
Affordable Units: 62
Bedrooms per unit: 0-2
30% AMI: 4
60% AMI: 58
LIHTC

Location 64: The Elms
Affordable Units: 32
Bedrooms per unit: NA
60% AMI: 32

Location 65: The Jourdain- Franklin-Portland Gateway (Phase II)
Affordable Units: 24
Bedrooms per unit: 1-3
50% AMI: 24
LIHTC

Location 66: The Lonoke
Affordable Units: 19
Bedrooms per unit: 1
30% AMI: 10
50% AMI: 9
LIHTC

Location 67: The Lorraine
Affordable Units: 16
Bedrooms per unit: NA
50% AMI: 16
Public Housing

Location 68: The Pentagon
Affordable Units: 129
Bedrooms per unit: 1-2
30% AMI: 129
Public Housing

Location 69: The Shelter at Our Savior's
Affordable Units: 6
Bedrooms per unit: NA
60% AMI: 6

Location 70: The Wellstone at Franklin Portland Gateway Phase III
Affordable Units: 37
Bedrooms per unit: 1-3
50% AMI: 37
LIHTC

Location 71: Third Avenue Towers Affordable Units: 198
Bedrooms per unit: 1
30% AMI: 198
Public Housing

Location 72: Westview Park Apartments
Affordable Units: 9
Bedrooms per unit: NA
50% AMI: 9

Location 73: Dundry Hope Block Stabilization Phase II
Affordable Units: 30
Bedrooms per unit: 0-4
30% AMI: 25
50% AMI: 5

Location 74: Many Rivers West
Affordable Units: 28
Bedrooms per unit: 1-3
30% AMI: 3
50% AMI: 9
60% AMI: 8
80% AMI: 8
LIHTC

Location 75: Many Rivers East (planned)
Affordable Units: 53
Bedrooms per unit: 0-3
50% AMI: 30
60% AMI: 10
80% AMI: 13
Section 8

Existing Conditions (PM Peak)

CSAH 5 (Franklin Ave) Reconstruction Project

347: 5th Av S & Franklin Av

Direction	All
Future Volume (vph)	2495
Total Delay / Veh (s/v)	96
CO Emissions (kg)	4.44
NOx Emissions (kg)	0.86
VOC Emissions (kg)	1.03

Proposed Conditions (PM Peak)

CSAH 5 (Franklin Ave) Reconstruction Project

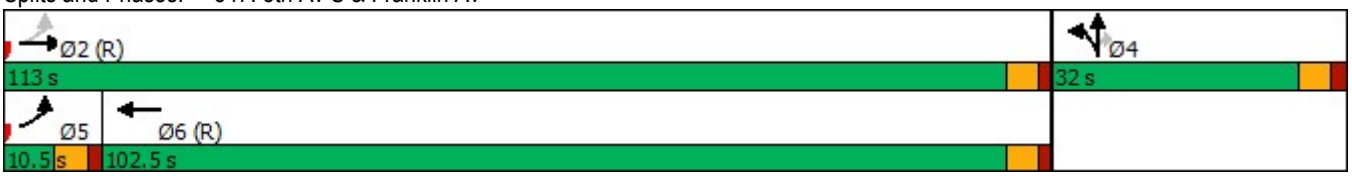
347: 5th Av S & Franklin Av

Direction	All
Future Volume (vph)	2496
Total Delay / Veh (s/v)	54
CO Emissions (kg)	3.03
NOx Emissions (kg)	0.59
VOC Emissions (kg)	0.70

Lane Group	EBL	EBT	WBT	NBT	NBR
Lane Configurations					
Traffic Volume (vph)	455	643	880	315	14
Future Volume (vph)	455	643	880	315	14
Turn Type	pm+pt	NA	NA	NA	Perm
Protected Phases	5	2	6	4	
Permitted Phases	2				4
Detector Phase	2 5	2	6	4	4
Switch Phase					
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0
Minimum Split (s)	10.5	76.0	51.0	25.5	25.5
Total Split (s)	10.5	113.0	102.5	32.0	32.0
Total Split (%)	7.2%	77.9%	70.7%	22.1%	22.1%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.5	1.5	1.5	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.5	5.5
Lead/Lag	Lead		Lag		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	C-Max	C-Max	None	None
Act Effct Green (s)	108.0	108.0	97.5	26.5	26.5
Actuated g/C Ratio	0.74	0.74	0.67	0.18	0.18
v/c Ratio	1.60	0.27	0.49	1.31	0.06
Control Delay	300.3	6.2	12.2	205.8	0.4
Queue Delay	0.0	1.8	10.6	0.0	0.0
Total Delay	300.3	8.0	22.8	205.8	0.4
LOS	F	A	C	F	A
Approach Delay		134.6	22.8	197.0	
Approach LOS		F	C	F	

Intersection Summary	
Cycle Length: 145	
Actuated Cycle Length: 145	
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBT, Start of 1st Green	
Natural Cycle: 145	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.60	
Intersection Signal Delay: 100.9	Intersection LOS: F
Intersection Capacity Utilization 102.7%	ICU Level of Service G
Analysis Period (min) 15	

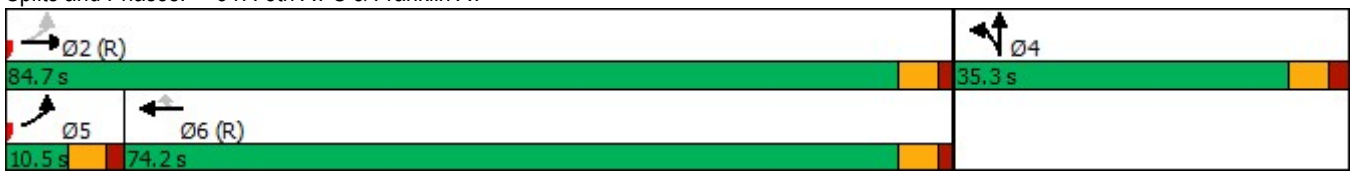
Splits and Phases: 347: 5th Av S & Franklin Av



Lane Group	EBL	EBT	WBT	WBR	NBT
Lane Configurations					
Traffic Volume (vph)	455	643	880	137	315
Future Volume (vph)	455	643	880	137	315
Turn Type	pm+pt	NA	NA	Perm	NA
Protected Phases	5	2	6		4
Permitted Phases	2			6	
Detector Phase	2 5	2	6	6	4
Switch Phase					
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0
Minimum Split (s)	10.5	82.0	57.0	57.0	25.5
Total Split (s)	10.5	84.7	74.2	74.2	35.3
Total Split (%)	8.8%	70.6%	61.8%	61.8%	29.4%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.5	1.5	1.5	1.5	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.5
Lead/Lag	Lead		Lag	Lag	
Lead-Lag Optimize?	Yes		Yes	Yes	
Recall Mode	None	C-Max	C-Max	C-Max	None
Act Effct Green (s)	79.7	79.7	69.2	69.2	29.8
Actuated g/C Ratio	0.66	0.66	0.58	0.58	0.25
v/c Ratio	1.02	0.61	0.52	0.19	1.03
Control Delay	58.7	14.2	16.6	6.4	94.2
Queue Delay	21.6	42.5	11.1	0.0	0.0
Total Delay	80.4	56.7	27.7	6.4	94.2
LOS	F	E	C	A	F
Approach Delay		67.4	24.7		94.2
Approach LOS		E	C		F

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBT, Start of 1st Green	
Natural Cycle: 120	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.03	
Intersection Signal Delay: 54.6	Intersection LOS: D
Intersection Capacity Utilization 100.0%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 347: 5th Av S & Franklin Av



Existing Conditions (PM Peak)

CSAH 5 (Franklin Ave) Reconstruction Project

347: 5th Av S & Franklin Av

Direction	All
Future Volume (vph)	2495
Total Delay / Veh (s/v)	96
CO Emissions (kg)	4.44
NOx Emissions (kg)	0.86
VOC Emissions (kg)	1.03

Proposed Conditions (PM Peak)

CSAH 5 (Franklin Ave) Reconstruction Project

347: 5th Av S & Franklin Av

Direction	All
Future Volume (vph)	2496
Total Delay / Veh (s/v)	54
CO Emissions (kg)	3.03
NOx Emissions (kg)	0.59
VOC Emissions (kg)	0.70

Lane Group	EBL	EBT	WBT	NBT	NBR
Lane Configurations					
Traffic Volume (vph)	350	555	456	152	12
Future Volume (vph)	350	555	456	152	12
Turn Type	pm+pt	NA	NA	NA	Perm
Protected Phases	5	2	6	4	
Permitted Phases	2				4
Detector Phase	2 5	2	6	4	4
Switch Phase					
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0
Minimum Split (s)	10.5	82.0	57.0	25.5	25.5
Total Split (s)	10.5	84.4	73.9	25.6	25.6
Total Split (%)	9.5%	76.7%	67.2%	23.3%	23.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.5	1.5	1.5	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.5	5.5
Lead/Lag	Lead		Lag		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	C-Max	C-Max	None	None
Act Effct Green (s)	81.0	81.0	68.9	18.5	18.5
Actuated g/C Ratio	0.74	0.74	0.63	0.17	0.17
v/c Ratio	0.98	0.25	0.38	0.83	0.05
Control Delay	52.9	3.0	8.8	66.5	0.3
Queue Delay	0.0	0.2	0.5	0.0	0.0
Total Delay	52.9	3.1	9.4	66.5	0.3
LOS	D	A	A	E	A
Approach Delay		24.1	9.4	62.6	
Approach LOS		C	A	E	

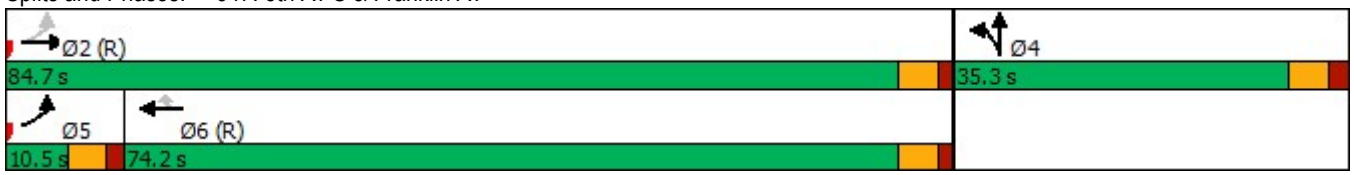
Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 5 (5%), Referenced to phase 2:EBTL and 6:WBT, Start of 1st Green	
Natural Cycle: 110	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.98	
Intersection Signal Delay: 23.6	Intersection LOS: C
Intersection Capacity Utilization 93.3%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 347: 5th Av S & Franklin Av

Lane Group	EBL	EBT	WBT	WBR	NBT
Lane Configurations					
Traffic Volume (vph)	455	643	880	137	315
Future Volume (vph)	455	643	880	137	315
Turn Type	pm+pt	NA	NA	Perm	NA
Protected Phases	5	2	6		4
Permitted Phases	2			6	
Detector Phase	2 5	2	6	6	4
Switch Phase					
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0
Minimum Split (s)	10.5	82.0	57.0	57.0	25.5
Total Split (s)	10.5	84.7	74.2	74.2	35.3
Total Split (%)	8.8%	70.6%	61.8%	61.8%	29.4%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.5	1.5	1.5	1.5	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.5
Lead/Lag	Lead		Lag	Lag	
Lead-Lag Optimize?	Yes		Yes	Yes	
Recall Mode	None	C-Max	C-Max	C-Max	None
Act Effct Green (s)	79.7	79.7	69.2	69.2	29.8
Actuated g/C Ratio	0.66	0.66	0.58	0.58	0.25
v/c Ratio	1.02	0.61	0.52	0.19	1.03
Control Delay	58.7	14.2	16.6	6.4	94.2
Queue Delay	21.6	42.5	11.1	0.0	0.0
Total Delay	80.4	56.7	27.7	6.4	94.2
LOS	F	E	C	A	F
Approach Delay		67.4	24.7		94.2
Approach LOS		E	C		F

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBT, Start of 1st Green	
Natural Cycle: 120	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.03	
Intersection Signal Delay: 54.6	Intersection LOS: D
Intersection Capacity Utilization 100.0%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 347: 5th Av S & Franklin Av



Traffic Safety Benefit-Cost Calculation

Highway Safety Improvement Program (HSIP) Reactive Project

DEPARTMENT OF TRANSPORTATION

A. Roadway Description

Route	CSAH 5	**District**	Metro	**County**	Hennepin County
Begin RP	11.87	**End RP**	11.93	**Miles**	0.06
Location	At Blaisdell Ave				

B. Project Description

Proposed Work	CSAH 5: Install LT lanes, implement FYA LT phasing, & install addtl primary signal head Interserction: Upgrade intersection lighting to LEDs		
Project Cost*	$13,782,000	**Installation Year**	2024
Project Service Life	20 years	**Traffic Growth Factor**	0.5%

** exclude Right of Way from Project Cost*

C. Crash Modification Factor

	Fatal (K) Crashes	**Reference**	CMF 0271: Install LT lanes on major approaches (42% reduction)
	Serious Injury (A) Crashes		CMF 4177: Implement FYA LT phasing (19.6% reduction)
	Moderate Injury (B) Crashes	**Crash Type**	CMF 0271: LT, RE, & SS crashes involving EB/WB vehicles
0.47	**Possible Injury (C) Crashes**		CMF 4177: LT crashes involving EB/WB vehicles
	Property Damage Only Crashes		www.CMFclearinghouse.org

D. Crash Modification Factor (optional second CMF)

	Fatal (K) Crashes	**Reference**	CMF 1485: Install addtl primary signal head on CSAH 5 (46% reduction)
	Serious Injury (A) Crashes		FHWA Desktop Reference: Improve lighting (42% reduction)
0.54	**Moderate Injury (B) Crashes**	**Crash Type**	CMF 1485: RA crashes involving EB/WB vehicles
0.58	**Possible Injury (C) Crashes**		FHWA Desktop Reference: PED & BIKE nighttime crashes
0.54	**Property Damage Only Crashes**		www.CMFclearinghouse.org

E. Crash Data

Begin Date	1/1/2016	**End Date**	12/31/2018	3 years
Data Source	MnCMAT Version 2.0			

Crash Severity	**CMF 0271: LT, RE, & SS involving EB/WB veh CMF 4177: LT crashes involving EB/WB veh**	**CMF 1485: RA crashes involving EB/WB veh FHWA DR: PED & BIKE nighttime crashes**
K crashes		
A crashes		
B crashes		1
C crashes	3	1
PDO crashes		3

F. Benefit-Cost Calculation

$2,096,117	**Benefit (present value)**	**B/C Ratio = 0.16**
$13,782,000	**Cost**	

Proposed project expected to reduce 2 crashes annually, 0 of which involving fatality or serious injury.

F. Analysis Assumptions

Crash Severity	Crash Cost
K crashes	$1,360,000
A crashes	$680,000
B crashes	$210,000
C crashes	$110,000
PDO crashes	$12,000

Link: mndot.gov/planning/program/appendix_a.html

Real Discount Rate	1.2%
Traffic Growth Rate	0.5%
Project Service Life	20 years

G. Annual Benefit

Crash Severity	Crash Reduction	Annual Reduction	Annual Benefit
K crashes	0.00	0.00	$0
A crashes	0.00	0.00	$0
B crashes	0.46	0.15	$32,200
C crashes	2.02	0.67	$74,140
PDO crashes	1.38	0.46	$5,520
			$111,860

H. Amortized Benefit

Year	Crash Benefits	Present Value
2024	$111,860	$111,860
2025	$112,419	$111,086
2026	$112,981	$110,318
2027	$113,546	$109,555
2028	$114,114	$108,797
2029	$114,685	$108,044
2030	$115,258	$107,297
2031	$115,834	$106,555
2032	$116,413	$105,818
2033	$116,996	$105,086
2034	$117,581	$104,359
2035	$118,168	$103,637
2036	$118,759	$102,920
2037	$119,353	$102,208
2038	$119,950	$101,502
2039	$120,550	$100,799
2040	$121,152	$100,102
2041	$121,758	$99,410
2042	$122,367	$98,722
2043	$122,979	$98,039
0	$0	$0
0	$0	$0
0	$0	$0
0	$0	$0
0	$0	$0
0	$0	$0
0	$0	$0
0	$0	$0
0	$0	$0
0	$0	$0
0	$0	$0

Total = $2,096,117

Traffic Safety Benefit-Cost Calculation

Highway Safety Improvement Program (HSIP) Reactive Project

DEPARTMENT OF TRANSPORTATION

A. Roadway Description

Route	CSAH 5	**District**	Metro	**County**	Hennepin County
Begin RP	11.96	**End RP**	12.02	**Miles**	0.06
Location	At Nicollet Ave				

B. Project Description

Proposed Work	CSAH 5: install LT lanes (via a 4 to 3 lane conversion) & implement FYA LT phasing Interserction: Upgrade intersection lighting to LEDs		
Project Cost*	$13,782,000	**Installation Year**	2024
Project Service Life	20 years	**Traffic Growth Factor**	0.5%

** exclude Right of Way from Project Cost*

C. Crash Modification Factor

	Fatal (K) Crashes	**Reference**	CMF 0271: Install LT lanes on major approaches (42% reduction)
	Serious Injury (A) Crashes		CMF 7684: Implement FYA LT phasing (40.2% reduction)
0.50	**Moderate Injury (B) Crashes**	**Crash Type**	CMF 0271: LT, RE, & SS crashes involving EB/WB vehicles
0.50	**Possible Injury (C) Crashes**		CMF 7684: LT crashes involving EB/WB vehicles
0.44	**Property Damage Only Crashes**		www.CMFclearinghouse.org

D. Crash Modification Factor (optional second CMF)

	Fatal (K) Crashes	**Reference**	FHWA Desktop Reference: Improve lighting (42% reduction)
	Serious Injury (A) Crashes		FHWA STEP: Convert 4-lane roadway to 3-lane (29% reduction)
0.58	**Moderate Injury (B) Crashes**	**Crash Type**	FHWA Desktop Reference: PED & BIKE nighttime crashes
0.45	**Possible Injury (C) Crashes**		FHWA STEP: PED crashes along east/west approaches
0.58	**Property Damage Only Crashes**		www.CMFclearinghouse.org

E. Crash Data

Begin Date	1/1/2016	**End Date**	12/31/2018	3 years
Data Source	MnCMAT Version 2.0			

Crash Severity	**CMF 0271: LT, RE, & SS involving EB/WB veh CMF 7684: LT involving EB/WB veh**	**FHWA DR: PED & BIKE nighttime crashes FHWA STEP: PED crashes along E/W app**
K crashes		
A crashes		
B crashes	3	2
C crashes	3	5
PDO crashes	5	1

F. Benefit-Cost Calculation

$6,232,632	**Benefit (present value)**	**B/C Ratio = 0.46**
$13,782,000	**Cost**	

Proposed project expected to reduce 4 crashes annually, 0 of which involving fatality or serious injury.

F. Analysis Assumptions

Crash Severity	Crash Cost
K crashes	$1,360,000
A crashes	$680,000
B crashes	$210,000
C crashes	$110,000
PDO crashes	$12,000

Link: mndot.gov/planning/program/appendix_a.html

Real Discount Rate	1.2%
Traffic Growth Rate	0.5%
Project Service Life	20 years

G. Annual Benefit

Crash Severity	Crash Reduction	Annual Reduction	Annual Benefit
K crashes	0.00	0.00	$0
A crashes	0.00	0.00	$0
B crashes	2.33	0.78	$163,380
C crashes	4.26	1.42	$156,347
PDO crashes	3.22	1.07	$12,880
			$332,607

H. Amortized Benefit

Year	Crash Benefits	Present Value
2024	$332,607	$332,607
2025	$334,270	$330,306
2026	$335,941	$328,021
2027	$337,621	$325,752
2028	$339,309	$323,499
2029	$341,005	$321,262
2030	$342,710	$319,039
2031	$344,424	$316,833
2032	$346,146	$314,641
2033	$347,877	$312,465
2034	$349,616	$310,303
2035	$351,364	$308,157
2036	$353,121	$306,025
2037	$354,887	$303,909
2038	$356,661	$301,807
2039	$358,444	$299,719
2040	$360,237	$297,646
2041	$362,038	$295,587
2042	$363,848	$293,542
2043	$365,667	$291,512
0	$0	$0
0	$0	$0
0	$0	$0
0	$0	$0
0	$0	$0
0	$0	$0
0	$0	$0
0	$0	$0
0	$0	$0
0	$0	$0
0	$0	$0

Total = $6,232,632

Traffic Safety Benefit-Cost Calculation

Highway Safety Improvement Program (HSIP) Reactive Project

DEPARTMENT OF TRANSPORTATION

A. Roadway Description

Route	CSAH 5	**District**	Metro	**County**	Hennepin County
Begin RP	12.02	**End RP**	12.08	**Miles**	0.06
Location	At 1st Ave				

B. Project Description

Proposed Work	CSAH 5: install LT lanes, implement FYA LT phasing, & install additional primary signal head		
Project Cost*	$13,782,000	**Installation Year**	2024
Project Service Life	20 years	**Traffic Growth Factor**	0.5%

** exclude Right of Way from Project Cost*

C. Crash Modification Factor

	Fatal (K) Crashes	**Reference**	CMF 0271: Install LT lanes on major approaches (42% reduction)
	Serious Injury (A) Crashes		CMF 7684: Implement FYA LT phasing (40.2% reduction)
0.35	**Moderate Injury (B) Crashes**	**Crash Type**	CMF 0271: LT, RE, & SS crashes involving EB/WB vehicles
0.46	**Possible Injury (C) Crashes**		CMF 7684: LT crashes involving EB/WB vehicles
0.46	**Property Damage Only Crashes**		www.CMFclearinghouse.org

D. Crash Modification Factor (optional second CMF)

	Fatal (K) Crashes	**Reference**	CMF 1485: Install addtl primary signal head on CSAH 5 (46% reduction)
	Serious Injury (A) Crashes		
0.54	**Moderate Injury (B) Crashes**	**Crash Type**	CMF 1485: RA crashes involving EB/WB vehicles
0.54	**Possible Injury (C) Crashes**		
	Property Damage Only Crashes		www.CMFclearinghouse.org

E. Crash Data

Begin Date	1/1/2016	**End Date**	12/31/2018	3 years
Data Source	MnCMAT Version 2.0			

Crash Severity	CMF 0271: LT, RE, & SS involving EB/WB veh CMF 7684: LT involving EB/WB veh	CMF 1485: RA crashes involving EB/WB veh
K crashes		
A crashes		
B crashes	1	1
C crashes	2	1
PDO crashes	4	

F. Benefit-Cost Calculation

$2,674,931	**Benefit (present value)**	**B/C Ratio = 0.20**
$13,782,000	**Cost**	

Proposed project expected to reduce 2 crashes annually, 0 of which involving fatality or serious injury.

F. Analysis Assumptions

Crash Severity	Crash Cost
K crashes	$1,360,000
A crashes	$680,000
B crashes	$210,000
C crashes	$110,000
PDO crashes	$12,000

Link: mndot.gov/planning/program/appendix_a.html

Real Discount Rate 1.2%

Traffic Growth Rate 0.5%

Project Service Life 20 years

G. Annual Benefit

Crash Severity	Crash Reduction	Annual Reduction	Annual Benefit
K crashes	0.00	0.00	$0
A crashes	0.00	0.00	$0
B crashes	1.11	0.37	$77,910
C crashes	1.53	0.51	$56,247
PDO crashes	2.15	0.72	$8,592
			$142,749

H. Amortized Benefit

Year	Crash Benefits	Present Value
2024	$142,749	$142,749
2025	$143,462	$141,761
2026	$144,180	$140,781
2027	$144,901	$139,807
2028	$145,625	$138,840
2029	$146,353	$137,880
2030	$147,085	$136,926
2031	$147,820	$135,979
2032	$148,560	$135,038
2033	$149,302	$134,104
2034	$150,049	$133,176
2035	$150,799	$132,255
2036	$151,553	$131,340
2037	$152,311	$130,432
2038	$153,072	$129,530
2039	$153,838	$128,634
2040	$154,607	$127,744
2041	$155,380	$126,860
2042	$156,157	$125,983
2043	$156,938	$125,112
0	$0	$0
0	$0	$0
0	$0	$0
0	$0	$0
0	$0	$0
0	$0	$0
0	$0	$0
0	$0	$0
0	$0	$0
0	$0	$0
0	$0	$0

Total = $2,674,931

Traffic Safety Benefit-Cost Calculation

Highway Safety Improvement Program (HSIP) Reactive Project

DEPARTMENT OF TRANSPORTATION

A. Roadway Description

Route	CSAH 5	**District**	Metro	**County**	Hennepin County
Begin RP	12.08	**End RP**	12.21	**Miles**	0.13
Location	From 1st Ave to 3rd Ave				

B. Project Description

Proposed Work	CSAH 5: Convert 4-lane roadway to 3-lane roadway		
Project Cost*	$13,782,000	**Installation Year**	2024
Project Service Life	20 years	**Traffic Growth Factor**	0.5%

** exclude Right of Way from Project Cost*

C. Crash Modification Factor

	Fatal (K) Crashes	**Reference**	CMF 2841: Convert from 4-lane to 3-lane (47% reduction)
	Serious Injury (A) Crashes		
0.53	**Moderate Injury (B) Crashes**	**Crash Type**	CMF 2841: OR, SS, RE, LT, RA, & HO crashes involv EB/WB veh
0.53	**Possible Injury (C) Crashes**		
0.53	**Property Damage Only Crashes**		www.CMFclearinghouse.org

D. Crash Modification Factor (optional second CMF)

	Fatal (K) Crashes	**Reference**	
	Serious Injury (A) Crashes		
	Moderate Injury (B) Crashes	**Crash Type**	
	Possible Injury (C) Crashes		
	Property Damage Only Crashes		www.CMFclearinghouse.org

E. Crash Data

Begin Date	1/1/2016	**End Date**	12/31/2018	3 years
Data Source	MnCMAT Version 2.0			

Crash Severity	**CMF 2841: OR, SS, RE, LT, RA, & HO crashes involv EB/WB veh**	
K crashes		
A crashes		
B crashes	1	
C crashes	4	
PDO crashes	11	

F. Benefit-Cost Calculation

$2,295,747	**Benefit (present value)**	**B/C Ratio = 0.17**
$13,782,000	**Cost**	

Proposed project expected to reduce 3 crashes annually, 0 of which involving fatality or serious injury.

F. Analysis Assumptions

Crash Severity	Crash Cost
K crashes	$1,360,000
A crashes	$680,000
B crashes	$210,000
C crashes	$110,000
PDO crashes	$12,000

Link: mndot.gov/planning/program/appendix_a.html

Real Discount Rate	1.2%
Traffic Growth Rate	0.5%
Project Service Life	20 years

G. Annual Benefit

Crash Severity	Crash Reduction	Annual Reduction	Annual Benefit
K crashes	0.00	0.00	$0
A crashes	0.00	0.00	$0
B crashes	0.47	0.16	$32,900
C crashes	1.88	0.63	$68,933
PDO crashes	5.17	1.72	$20,680
			$122,513

H. Amortized Benefit

Year	Crash Benefits	Present Value
2024	$122,513	$122,513
2025	$123,126	$121,666
2026	$123,742	$120,824
2027	$124,360	$119,989
2028	$124,982	$119,159
2029	$125,607	$118,334
2030	$126,235	$117,516
2031	$126,866	$116,703
2032	$127,500	$115,896
2033	$128,138	$115,094
2034	$128,779	$114,298
2035	$129,423	$113,507
2036	$130,070	$112,722
2037	$130,720	$111,943
2038	$131,374	$111,168
2039	$132,031	$110,399
2040	$132,691	$109,636
2041	$133,354	$108,877
2042	$134,021	$108,124
2043	$134,691	$107,376
0	$0	$0
0	$0	$0
0	$0	$0
0	$0	$0
0	$0	$0
0	$0	$0
0	$0	$0
0	$0	$0
0	$0	$0
0	$0	$0
0	$0	$0

Total = $2,295,747

Traffic Safety Benefit-Cost Calculation

Highway Safety Improvement Program (HSIP) Reactive Project

DEPARTMENT OF TRANSPORTATION

A. Roadway Description

Route	CSAH 5	**District**	Metro	**County**	Hennepin County
Begin RP	12.21	**End RP**	12.27	**Miles**	0.06
Location	At 3rd Ave				

B. Project Description

Proposed Work	CSAH 5: install LT lanes (via a 4 to 3 lane conversion) & implement FYA LT phasing Intersection: Install Pedestrian Countdown Timers		
Project Cost*	$13,782,000	**Installation Year**	2024
Project Service Life	20 years	**Traffic Growth Factor**	0.5%

** exclude Right of Way from Project Cost*

C. Crash Modification Factor

	Fatal (K) Crashes	**Reference**	CMF 0271: Install LT lanes on major approaches (42% reduction)
	Serious Injury (A) Crashes		CMF 7684: Implement FYA LT phasing (40.2% reduction)
	Moderate Injury (B) Crashes	**Crash Type**	CMF 0271: LT, RE, & SS crashes involving EB/WB vehicles
0.50	**Possible Injury (C) Crashes**		CMF 7684: LT crashes involving EB/WB vehicles
0.43	**Property Damage Only Crashes**		www.CMFclearinghouse.org

D. Crash Modification Factor (optional second CMF)

	Fatal (K) Crashes	**Reference**	CMF 5272: Install pedestrian countdown timers (70% reduction)
0.21	**Serious Injury (A) Crashes**		FHWA STEP: Convert 4-lane roadway to 3-lane (29% reduction)
0.71	**Moderate Injury (B) Crashes**	**Crash Type**	CMF 5272: PED crashes
	Possible Injury (C) Crashes		FHWA STEP: PED crashes along east/west approaches
	Property Damage Only Crashes		www.CMFclearinghouse.org

E. Crash Data

Begin Date	1/1/2016	**End Date**	12/31/2018	3 years
Data Source	MnCMAT Version 2.0			

Crash Severity	**CMF 0271: LT, RE, & SS involving EB/WB veh CMF 7684: LT involving EB/WB veh**	**CMF 5272: PED crashes FHWA STEP: PED crashes along E/W app**
K crashes		
A crashes		1
B crashes		1
C crashes	3	
PDO crashes	11	

F. Benefit-Cost Calculation

$5,217,967	**Benefit (present value)**
$13,782,000	**Cost**

B/C Ratio = 0.38

Proposed project expected to reduce 3 crashes annually, 1 of which involving fatality or serious injury.

F. Analysis Assumptions

Crash Severity	Crash Cost
K crashes	$1,360,000
A crashes	$680,000
B crashes	$210,000
C crashes	$110,000
PDO crashes	$12,000

Link: mndot.gov/planning/program/appendix_a.html

Real Discount Rate 1.2%

Traffic Growth Rate 0.5%

Project Service Life 20 years

G. Annual Benefit

Crash Severity	Crash Reduction	Annual Reduction	Annual Benefit
K crashes	0.00	0.00	$0
A crashes	0.79	0.26	$178,387
B crashes	0.29	0.10	$20,300
C crashes	1.49	0.50	$54,780
PDO crashes	6.25	2.08	$24,992
			$278,459

H. Amortized Benefit

Year	Crash Benefits	Present Value
2024	$278,459	$278,459
2025	$279,851	$276,533
2026	$281,250	$274,620
2027	$282,656	$272,720
2028	$284,070	$270,834
2029	$285,490	$268,960
2030	$286,918	$267,100
2031	$288,352	$265,253
2032	$289,794	$263,418
2033	$291,243	$261,596
2034	$292,699	$259,786
2035	$294,163	$257,989
2036	$295,633	$256,205
2037	$297,112	$254,433
2038	$298,597	$252,673
2039	$300,090	$250,925
2040	$301,591	$249,189
2041	$303,099	$247,466
2042	$304,614	$245,754
2043	$306,137	$244,054
0	$0	$0
0	$0	$0
0	$0	$0
0	$0	$0
0	$0	$0
0	$0	$0
0	$0	$0
0	$0	$0
0	$0	$0
0	$0	$0
0	$0	$0

Total = $5,217,967

Traffic Safety Benefit-Cost Calculation

Highway Safety Improvement Program (HSIP) Reactive Project

DEPARTMENT OF TRANSPORTATION

A. Roadway Description

Route	CSAH 5	**District**	Metro	**County**	Hennepin County
Begin RP	12.27	**End RP**	12.33	**Miles**	0.06
Location	At Clinton Ave				

B. Project Description

Proposed Work	CSAH 5: install LT lanes (via a 4 to 3 lane conversion) & implement FYA LT phasing Intersection: Install pedestrian countdown timers & upgrade intersection lighting to LEDs		
Project Cost*	$13,782,000	**Installation Year**	2024
Project Service Life	20 years	**Traffic Growth Factor**	0.5%

** exclude Right of Way from Project Cost*

C. Crash Modification Factor

	Fatal (K) Crashes	**Reference**	CMF 0271: Install LT lanes on major approaches (42% reduction)
	Serious Injury (A) Crashes		CMF 7684: Implement FYA LT phasing (40.2% reduction)
0.35	**Moderate Injury (B) Crashes**	**Crash Type**	CMF 0271: LT, RE, & SS crashes involving EB/WB vehicles
	Possible Injury (C) Crashes		CMF 7684: LT crashes involving EB/WB vehicles
0.51	**Property Damage Only Crashes**		www.CMFclearinghouse.org

D. Crash Modification Factor (optional second CMF)

	Fatal (K) Crashes	**Reference**	CMF 5272: Install pedestrian countdown timers (70% reduction)
0.17	**Serious Injury (A) Crashes**		FHWA Desktop Reference: Improve lighting (42% reduction)
	Moderate Injury (B) Crashes	**Crash Type**	CMF 5272: PED crashes
0.30	**Possible Injury (C) Crashes**		FHWA Desktop Reference: PED & BIKE nighttime crashes
	Property Damage Only Crashes		www.CMFclearinghouse.org

E. Crash Data

Begin Date 1/1/2016 **End Date** 12/31/2018 3 years

Data Source MnCMAT Version 2.0

Crash Severity	CMF 0271: LT, RE, & SS involving EB/WB veh CMF 7684: LT involving EB/WB veh	CMF 5272: PED crashes FHWA DR: PED & BIKE nighttime crashes
K crashes		
A crashes		1
B crashes	1	
C crashes		1
PDO crashes	7	

F. Benefit-Cost Calculation

$5,101,424	**Benefit (present value)**	**B/C Ratio = 0.38**
$13,782,000	**Cost**	

Proposed project expected to reduce 2 crashes annually, 1 of which involving fatality or serious injury.

F. Analysis Assumptions

Crash Severity	Crash Cost
K crashes	$1,360,000
A crashes	$680,000
B crashes	$210,000
C crashes	$110,000
PDO crashes	$12,000

Link: mndot.gov/planning/program/appendix_a.html

Real Discount Rate 1.2%

Traffic Growth Rate 0.5%

Project Service Life 20 years

G. Annual Benefit

Crash Severity	Crash Reduction	Annual Reduction	Annual Benefit
K crashes	0.00	0.00	$0
A crashes	0.83	0.28	$187,227
B crashes	0.65	0.22	$45,710
C crashes	0.70	0.23	$25,667
PDO crashes	3.41	1.14	$13,636
			$272,239

H. Amortized Benefit

Year	Crash Benefits	Present Value
2024	$272,239	$272,239
2025	$273,601	$270,356
2026	$274,969	$268,486
2027	$276,343	$266,629
2028	$277,725	$264,785
2029	$279,114	$262,953
2030	$280,509	$261,134
2031	$281,912	$259,328
2032	$283,321	$257,534
2033	$284,738	$255,753
2034	$286,162	$253,984
2035	$287,592	$252,227
2036	$289,030	$250,483
2037	$290,476	$248,750
2038	$291,928	$247,029
2039	$293,388	$245,321
2040	$294,855	$243,624
2041	$296,329	$241,939
2042	$297,810	$240,265
2043	$299,300	$238,603
0	$0	$0
0	$0	$0
0	$0	$0
0	$0	$0
0	$0	$0
0	$0	$0
0	$0	$0
0	$0	$0
0	$0	$0
0	$0	$0
0	$0	$0

Total = $5,101,424

Traffic Safety Benefit-Cost Calculation

Highway Safety Improvement Program (HSIP) Reactive Project

DEPARTMENT OF TRANSPORTATION

A. Roadway Description

Route	CSAH 5	**District**	Metro	**County**	Hennepin County
Begin RP	12.33	**End RP**	12.39	**Miles**	0.06
Location	At 4th Ave				

B. Project Description

Proposed Work	No CMFs proposed - Intersection rebuilt in 2018 as part of the I-35W Project		
Project Cost*	$13,782,000	**Installation Year**	2024
Project Service Life	20 years	**Traffic Growth Factor**	0.5%

** exclude Right of Way from Project Cost*

C. Crash Modification Factor

	Fatal (K) Crashes	**Reference**	No CMFs proposed
	Serious Injury (A) Crashes		
	Moderate Injury (B) Crashes	**Crash Type**	
	Possible Injury (C) Crashes		
	Property Damage Only Crashes		www.CMFclearinghouse.org

D. Crash Modification Factor (optional second CMF)

	Fatal (K) Crashes	**Reference**	No CMFs proposed
	Serious Injury (A) Crashes		
	Moderate Injury (B) Crashes	**Crash Type**	
	Possible Injury (C) Crashes		
	Property Damage Only Crashes		www.CMFclearinghouse.org

E. Crash Data

Begin Date	1/1/2016	**End Date**	12/31/2018	3 years
Data Source	MnCMAT Version 2.0			

Crash Severity	**No CMFs proposed**	**No CMFs proposed**
K crashes		
A crashes		
B crashes		
C crashes		
PDO crashes		

F. Benefit-Cost Calculation

$0	**Benefit (present value)**	**B/C Ratio = 0.00**
$13,782,000	**Cost**	

Proposed project expected to reduce 0 crashes annually, 0 of which involving fatality or serious injury.

F. Analysis Assumptions

Crash Severity	Crash Cost
K crashes	$1,360,000
A crashes	$680,000
B crashes	$210,000
C crashes	$110,000
PDO crashes	$12,000

Link: mndot.gov/planning/program/appendix_a.html

Real Discount Rate	1.2%
Traffic Growth Rate	0.5%
Project Service Life	20 years

G. Annual Benefit

Crash Severity	Crash Reduction	Annual Reduction	Annual Benefit
K crashes	0.00	0.00	$0
A crashes	0.00	0.00	$0
B crashes	0.00	0.00	$0
C crashes	0.00	0.00	$0
PDO crashes	0.00	0.00	$0
			$0

H. Amortized Benefit

Year	Crash Benefits	Present Value
2024	$0	$0
2025	$0	$0
2026	$0	$0
2027	$0	$0
2028	$0	$0
2029	$0	$0
2030	$0	$0
2031	$0	$0
2032	$0	$0
2033	$0	$0
2034	$0	$0
2035	$0	$0
2036	$0	$0
2037	$0	$0
2038	$0	$0
2039	$0	$0
2040	$0	$0
2041	$0	$0
2042	$0	$0
2043	$0	$0
0	$0	$0
0	$0	$0
0	$0	$0
0	$0	$0
0	$0	$0
0	$0	$0
0	$0	$0
0	$0	$0
0	$0	$0
0	$0	$0

Total = $0

Traffic Safety Benefit-Cost Calculation

Highway Safety Improvement Program (HSIP) Reactive Project

DEPARTMENT OF TRANSPORTATION

A. Roadway Description

Route	CSAH 5	**District**	Metro	**County**	Hennepin County
Begin RP	12.39	**End RP**	12.45	**Miles**	0.06
Location	At 5th Ave				

B. Project Description

Proposed Work	No CMFs proposed - Intersection rebuilt in 2018 as part of the I-35W Project		
Project Cost*	$13,782,000	**Installation Year**	2024
Project Service Life	20 years	**Traffic Growth Factor**	0.5%

** exclude Right of Way from Project Cost*

C. Crash Modification Factor

	Fatal (K) Crashes	**Reference**	No CMFs proposed
	Serious Injury (A) Crashes		
	Moderate Injury (B) Crashes	**Crash Type**	
	Possible Injury (C) Crashes		
	Property Damage Only Crashes		www.CMFclearinghouse.org

D. Crash Modification Factor (optional second CMF)

	Fatal (K) Crashes	**Reference**	No CMFs proposed
	Serious Injury (A) Crashes		
	Moderate Injury (B) Crashes	**Crash Type**	
	Possible Injury (C) Crashes		
	Property Damage Only Crashes		www.CMFclearinghouse.org

E. Crash Data

Begin Date	1/1/2016	**End Date**	12/31/2018	3 years
Data Source	MnCMAT Version 2.0			

Crash Severity	**No CMFs proposed**	**No CMFs proposed**
K crashes		
A crashes		
B crashes		
C crashes		
PDO crashes		

F. Benefit-Cost Calculation

$0	**Benefit (present value)**	**B/C Ratio = 0.00**
$13,782,000	**Cost**	

Proposed project expected to reduce 0 crashes annually, 0 of which involving fatality or serious injury.

F. Analysis Assumptions

Crash Severity	Crash Cost
K crashes	$1,360,000
A crashes	$680,000
B crashes	$210,000
C crashes	$110,000
PDO crashes	$12,000

Link: mndot.gov/planning/program/appendix_a.html

Real Discount Rate	1.2%
Traffic Growth Rate	0.5%
Project Service Life	20 years

G. Annual Benefit

Crash Severity	Crash Reduction	Annual Reduction	Annual Benefit
K crashes	0.00	0.00	$0
A crashes	0.00	0.00	$0
B crashes	0.00	0.00	$0
C crashes	0.00	0.00	$0
PDO crashes	0.00	0.00	$0
			$0

H. Amortized Benefit

Year	Crash Benefits	Present Value
2024	$0	$0
2025	$0	$0
2026	$0	$0
2027	$0	$0
2028	$0	$0
2029	$0	$0
2030	$0	$0
2031	$0	$0
2032	$0	$0
2033	$0	$0
2034	$0	$0
2035	$0	$0
2036	$0	$0
2037	$0	$0
2038	$0	$0
2039	$0	$0
2040	$0	$0
2041	$0	$0
2042	$0	$0
2043	$0	$0
0	$0	$0
0	$0	$0
0	$0	$0
0	$0	$0
0	$0	$0
0	$0	$0
0	$0	$0
0	$0	$0
0	$0	$0
0	$0	$0

Total = $0

Traffic Safety Benefit-Cost Calculation

Highway Safety Improvement Program (HSIP) Reactive Project

DEPARTMENT OF TRANSPORTATION

A. Roadway Description

Route	CSAH 5	**District**	Metro	**County**	Hennepin County
Begin RP	12.45	**End RP**	12.51	**Miles**	0.06
Location	At CSAH 35 (Portland Ave)				

B. Project Description

Proposed Work	CSAH 5: Install LT lanes & implement FYA LT phasing Interserction: Install additional primary signal head		
Project Cost*	$13,782,000	**Installation Year**	2024
Project Service Life	20 years	**Traffic Growth Factor**	0.5%

** exclude Right of Way from Project Cost*

C. Crash Modification Factor

	Fatal (K) Crashes	**Reference**	CMF 0271: Install LT lanes on major approaches (42% reduction)
0.58	**Serious Injury (A) Crashes**		CMF 7684: Implement FYA LT phasing (40.2% reduction)
0.58	**Moderate Injury (B) Crashes**	**Crash Type**	CMF 0271: LT, RE, & SS crashes involving EB/WB vehicles
0.43	**Possible Injury (C) Crashes**		CMF 7684: LT crashes involving EB/WB vehicles
0.55	**Property Damage Only Crashes**		www.CMFclearinghouse.org

D. Crash Modification Factor (optional second CMF)

	Fatal (K) Crashes	**Reference**	CMF 1485: Install addtl primary signal head on apps (46% reduction)
0.54	**Serious Injury (A) Crashes**		
0.54	**Moderate Injury (B) Crashes**	**Crash Type**	CMF 1485: RA crashes
0.54	**Possible Injury (C) Crashes**		
0.54	**Property Damage Only Crashes**		www.CMFclearinghouse.org

E. Crash Data

Begin Date	1/1/2016	**End Date**	12/31/2018	3 years
Data Source	MnCMAT Version 2.0			

Crash Severity	**CMF 0271: LT, RE, & SS involving EB/WB veh CMF 7684: LT crashes involving EB/WB veh**	**CMF 1485: RA crashes**
K crashes		
A crashes	1	1
B crashes	1	1
C crashes	3	2
PDO crashes	8	2

F. Benefit-Cost Calculation

$7,035,238	**Benefit (present value)**	**B/C Ratio = 0.52**
$13,782,000	**Cost**	

Proposed project expected to reduce 3 crashes annually, 1 of which involving fatality or serious injury.

F. Analysis Assumptions

Crash Severity	Crash Cost
K crashes	$1,360,000
A crashes	$680,000
B crashes	$210,000
C crashes	$110,000
PDO crashes	$12,000

Link: mndot.gov/planning/program/appendix_a.html

Real Discount Rate	1.2%
Traffic Growth Rate	0.5%
Project Service Life	20 years

G. Annual Benefit

Crash Severity	Crash Reduction	Annual Reduction	Annual Benefit
K crashes	0.00	0.00	$0
A crashes	0.88	0.29	$199,467
B crashes	0.88	0.29	$61,600
C crashes	2.63	0.88	$96,323
PDO crashes	4.51	1.50	$18,048
			$375,438

H. Amortized Benefit

Year	Crash Benefits	Present Value
2024	$375,438	$375,438
2025	$377,315	$372,841
2026	$379,202	$370,262
2027	$381,098	$367,701
2028	$383,003	$365,158
2029	$384,918	$362,632
2030	$386,843	$360,124
2031	$388,777	$357,633
2032	$390,721	$355,159
2033	$392,675	$352,702
2034	$394,638	$350,263
2035	$396,611	$347,840
2036	$398,594	$345,434
2037	$400,587	$343,044
2038	$402,590	$340,672
2039	$404,603	$338,315
2040	$406,626	$335,975
2041	$408,659	$333,651
2042	$410,702	$331,343
2043	$412,756	$329,051
0	$0	$0
0	$0	$0
0	$0	$0
0	$0	$0
0	$0	$0
0	$0	$0
0	$0	$0
0	$0	$0
0	$0	$0
0	$0	$0
0	$0	$0

Total = $7,035,238

Traffic Safety Benefit-Cost Calculation

Highway Safety Improvement Program (HSIP) Reactive Project

DEPARTMENT OF TRANSPORTATION

A. Roadway Description

Route	CSAH 5	**District**	Metro	**County**	Hennepin County
Begin RP	12.51	**End RP**	12.58	**Miles**	0.07
Location	From CSAH 35 (Portland Ave) to CSAH 33 (Park Ave)				

B. Project Description

Proposed Work	CSAH 5: Convert 4-lane roadway to 3-lane roadway		
Project Cost*	$13,782,000	**Installation Year**	2024
Project Service Life	20 years	**Traffic Growth Factor**	0.5%

** exclude Right of Way from Project Cost*

C. Crash Modification Factor

	Fatal (K) Crashes	**Reference**	CMF 2841: Convert from 4-lane to 3-lane (47% reduction)
	Serious Injury (A) Crashes		
0.53	**Moderate Injury (B) Crashes**	**Crash Type**	CMF 2841: OR, SS, RE, LT, RA, & HO crashes involv EB/WB veh
	Possible Injury (C) Crashes		
0.53	**Property Damage Only Crashes**		www.CMFclearinghouse.org

D. Crash Modification Factor (optional second CMF)

	Fatal (K) Crashes	**Reference**	
	Serious Injury (A) Crashes		
	Moderate Injury (B) Crashes	**Crash Type**	
	Possible Injury (C) Crashes		
	Property Damage Only Crashes		www.CMFclearinghouse.org

E. Crash Data

Begin Date	1/1/2016	**End Date**	12/31/2018	3 years
Data Source	MnCMAT Version 2.0			

Crash Severity	**CMF 2841: OR, SS, RE, LT, RA, & HO crashes involv EB/WB veh**	
K crashes		
A crashes		
B crashes	1	
C crashes		
PDO crashes	1	

F. Benefit-Cost Calculation

$651,734	**Benefit (present value)**	**B/C Ratio = 0.05**
$13,782,000	**Cost**	

Proposed project expected to reduce 1 crashes annually, 0 of which involving fatality or serious injury.

F. Analysis Assumptions

Crash Severity	Crash Cost
K crashes	$1,360,000
A crashes	$680,000
B crashes	$210,000
C crashes	$110,000
PDO crashes	$12,000

Link: mndot.gov/planning/program/appendix_a.html

Real Discount Rate	1.2%
Traffic Growth Rate	0.5%
Project Service Life	20 years

G. Annual Benefit

Crash Severity	Crash Reduction	Annual Reduction	Annual Benefit
K crashes	0.00	0.00	$0
A crashes	0.00	0.00	$0
B crashes	0.47	0.16	$32,900
C crashes	0.00	0.00	$0
PDO crashes	0.47	0.16	$1,880
			$34,780

H. Amortized Benefit

Year	Crash Benefits	Present Value
2024	$34,780	$34,780
2025	$34,954	$34,539
2026	$35,129	$34,301
2027	$35,304	$34,063
2028	$35,481	$33,828
2029	$35,658	$33,594
2030	$35,837	$33,361
2031	$36,016	$33,131
2032	$36,196	$32,901
2033	$36,377	$32,674
2034	$36,559	$32,448
2035	$36,741	$32,223
2036	$36,925	$32,000
2037	$37,110	$31,779
2038	$37,295	$31,559
2039	$37,482	$31,341
2040	$37,669	$31,124
2041	$37,858	$30,909
2042	$38,047	$30,695
2043	$38,237	$30,483
0	$0	$0
0	$0	$0
0	$0	$0
0	$0	$0
0	$0	$0
0	$0	$0
0	$0	$0
0	$0	$0
0	$0	$0
0	$0	$0
0	$0	$0

Total = $651,734

Traffic Safety Benefit-Cost Calculation

Highway Safety Improvement Program (HSIP) Reactive Project

DEPARTMENT OF TRANSPORTATION

A. Roadway Description

Route	CSAH 5	**District**	Metro	**County**	Hennepin County
Begin RP	12.58	**End RP**	12.64	**Miles**	0.06
Location	At CSAH 33 (Park Ave)				

B. Project Description

Proposed Work	CSAH 5: Install LT lanes & implement FYA LT phasing Interserction: Install additional primary signal head		
Project Cost*	$13,782,000	**Installation Year**	2024
Project Service Life	20 years	**Traffic Growth Factor**	0.5%

** exclude Right of Way from Project Cost*

C. Crash Modification Factor

	Fatal (K) Crashes	**Reference**	CMF 0271: Install LT lanes on major approaches (42% reduction)
	Serious Injury (A) Crashes		CMF 7684: Implement FYA LT phasing (40.2% reduction)
	Moderate Injury (B) Crashes	**Crash Type**	CMF 0271: LT, RE, & SS crashes involving EB/WB vehicles
0.58	**Possible Injury (C) Crashes**		CMF 7684: LT crashes involving EB/WB vehicles
0.46	**Property Damage Only Crashes**		www.CMFclearinghouse.org

D. Crash Modification Factor (optional second CMF)

	Fatal (K) Crashes	**Reference**	CMF 1485: Install addtl primary signal head on apps (46% reduction)
	Serious Injury (A) Crashes		
0.54	**Moderate Injury (B) Crashes**	**Crash Type**	CMF 1485: RA crashes
0.54	**Possible Injury (C) Crashes**		
0.54	**Property Damage Only Crashes**		www.CMFclearinghouse.org

E. Crash Data

Begin Date	1/1/2016	**End Date**	12/31/2018	3 years
Data Source	MnCMAT Version 2.0			

Crash Severity	**CMF 0271: LT, RE, & SS involving EB/WB veh CMF 7684: LT crashes involving EB/WB veh**	**CMF 1485: RA crashes**
K crashes		
A crashes		
B crashes		2
C crashes	1	3
PDO crashes	4	5

F. Benefit-Cost Calculation

$2,776,933	**Benefit (present value)**	**B/C Ratio = 0.21**
$13,782,000	**Cost**	

Proposed project expected to reduce 3 crashes annually, 0 of which involving fatality or serious injury.

F. Analysis Assumptions

Crash Severity	Crash Cost
K crashes	$1,360,000
A crashes	$680,000
B crashes	$210,000
C crashes	$110,000
PDO crashes	$12,000

Link: mndot.gov/planning/program/appendix_a.html

Real Discount Rate 1.2%

Traffic Growth Rate 0.5%

Project Service Life 20 years

G. Annual Benefit

Crash Severity	Crash Reduction	Annual Reduction	Annual Benefit
K crashes	0.00	0.00	$0
A crashes	0.00	0.00	$0
B crashes	0.92	0.31	$64,400
C crashes	1.80	0.60	$66,000
PDO crashes	4.45	1.48	$17,792
			$148,192

H. Amortized Benefit

Year	Crash Benefits	Present Value
2024	$148,192	$148,192
2025	$148,933	$147,167
2026	$149,678	$146,149
2027	$150,426	$145,138
2028	$151,178	$144,134
2029	$151,934	$143,137
2030	$152,694	$142,147
2031	$153,457	$141,164
2032	$154,224	$140,187
2033	$154,996	$139,218
2034	$155,771	$138,255
2035	$156,549	$137,299
2036	$157,332	$136,349
2037	$158,119	$135,406
2038	$158,909	$134,469
2039	$159,704	$133,539
2040	$160,502	$132,615
2041	$161,305	$131,698
2042	$162,112	$130,787
2043	$162,922	$129,882
0	$0	$0
0	$0	$0
0	$0	$0
0	$0	$0
0	$0	$0
0	$0	$0
0	$0	$0
0	$0	$0
0	$0	$0
0	$0	$0
0	$0	$0

Total = $2,776,933

Traffic Safety Benefit-Cost Calculation

Highway Safety Improvement Program (HSIP) Reactive Project

DEPARTMENT OF TRANSPORTATION

A. Roadway Description

Route	CSAH 5	**District**	Metro	**County**	Hennepin County
Begin RP	12.64	**End RP**	12.71	**Miles**	0.07
Location	From CSAH 33 (Park Ave) to Chicago Ave				

B. Project Description

Proposed Work	CSAH 5: Convert 4-lane roadway to 3-lane roadway		
Project Cost*	$13,782,000	**Installation Year**	2024
Project Service Life	20 years	**Traffic Growth Factor**	0.5%

** exclude Right of Way from Project Cost*

C. Crash Modification Factor

	Fatal (K) Crashes	**Reference**	CMF 2841: Convert from 4-lane to 3-lane (47% reduction)
	Serious Injury (A) Crashes		
	Moderate Injury (B) Crashes	**Crash Type**	CMF 2841: OR, SS, RE, LT, RA, & HO crashes involv EB/WB veh
	Possible Injury (C) Crashes		
0.53	**Property Damage Only Crashes**		www.CMFclearinghouse.org

D. Crash Modification Factor (optional second CMF)

	Fatal (K) Crashes	**Reference**	
	Serious Injury (A) Crashes		
	Moderate Injury (B) Crashes	**Crash Type**	
	Possible Injury (C) Crashes		
	Property Damage Only Crashes		www.CMFclearinghouse.org

E. Crash Data

Begin Date	1/1/2016	**End Date**	12/31/2018	3 years
Data Source	MnCMAT Version 2.0			

Crash Severity	**CMF 2841: OR, SS, RE, LT, RA, & HO crashes involv EB/WB veh**	
K crashes		
A crashes		
B crashes		
C crashes		
PDO crashes	3	

F. Benefit-Cost Calculation

$105,687	**Benefit (present value)**
$13,782,000	**Cost**

B/C Ratio = 0.01

Proposed project expected to reduce 1 crashes annually, 0 of which involving fatality or serious injury.

F. Analysis Assumptions

Crash Severity	Crash Cost
K crashes	$1,360,000
A crashes	$680,000
B crashes	$210,000
C crashes	$110,000
PDO crashes	$12,000

Link: mndot.gov/planning/program/appendix_a.html

Real Discount Rate	1.2%
Traffic Growth Rate	0.5%
Project Service Life	20 years

G. Annual Benefit

Crash Severity	Crash Reduction	Annual Reduction	Annual Benefit
K crashes	0.00	0.00	$0
A crashes	0.00	0.00	$0
B crashes	0.00	0.00	$0
C crashes	0.00	0.00	$0
PDO crashes	1.41	0.47	$5,640
			$5,640

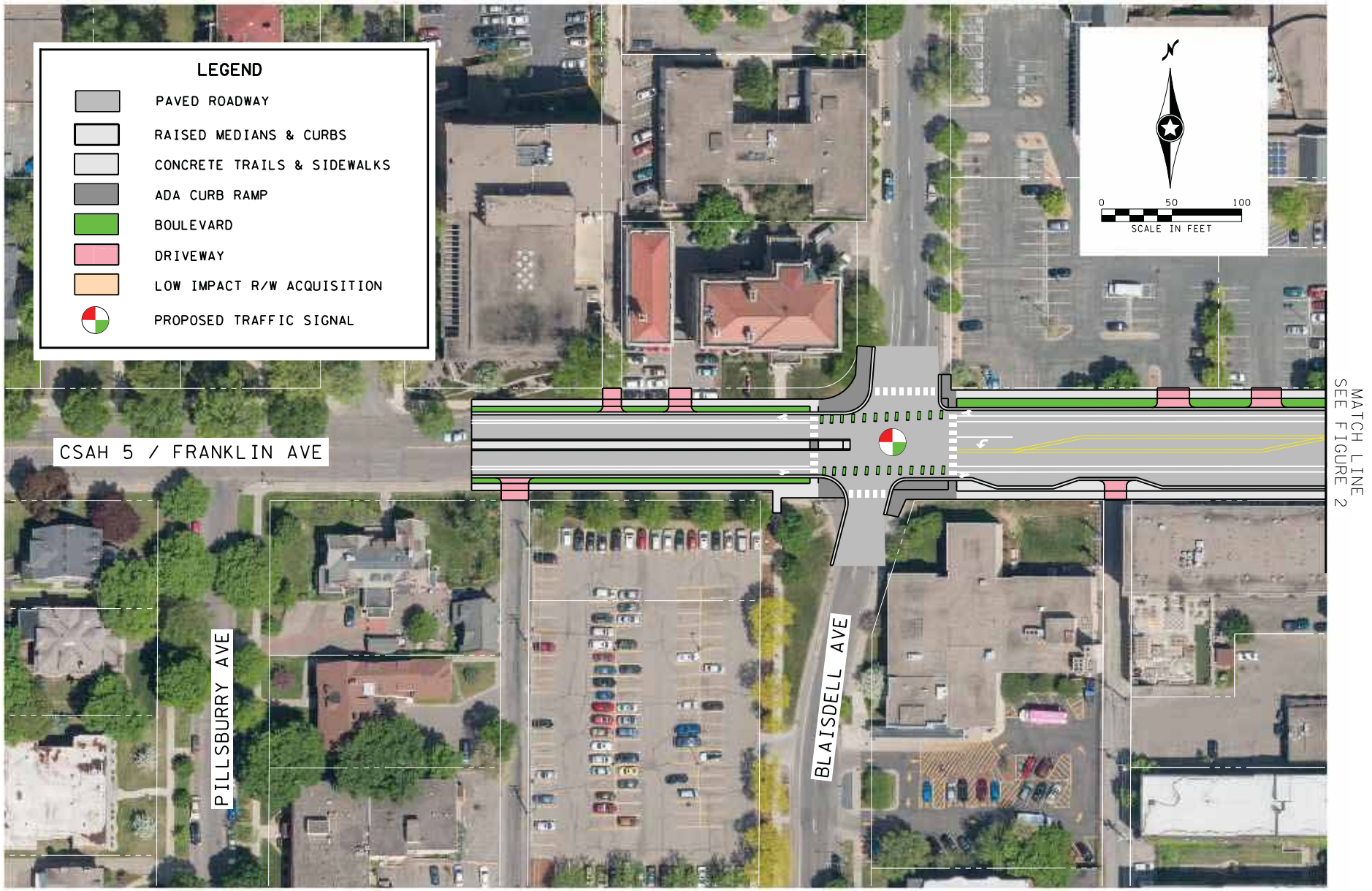
H. Amortized Benefit

Year	Crash Benefits	Present Value
2024	$5,640	$5,640
2025	$5,668	$5,601
2026	$5,697	$5,562
2027	$5,725	$5,524
2028	$5,754	$5,486
2029	$5,782	$5,448
2030	$5,811	$5,410
2031	$5,840	$5,373
2032	$5,870	$5,335
2033	$5,899	$5,298
2034	$5,928	$5,262
2035	$5,958	$5,225
2036	$5,988	$5,189
2037	$6,018	$5,153
2038	$6,048	$5,118
2039	$6,078	$5,082
2040	$6,109	$5,047
2041	$6,139	$5,012
2042	$6,170	$4,978
2043	$6,201	$4,943
0	$0	$0
0	$0	$0
0	$0	$0
0	$0	$0
0	$0	$0
0	$0	$0
0	$0	$0
0	$0	$0
0	$0	$0
0	$0	$0
0	$0	$0

Total = $105,687

CSAH 5 (Franklin Ave) Reconstruction Project

Potential Layout Option #1



Job #13344
4/3/2020
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Hennepin County Improvements

CSAH 5 (Franklin Ave) from Blaisdell Ave to Chicago Ave
Minneapolis, MN

Figure 1

CSAH 5 (Franklin Ave) Reconstruction Project

Potential Layout Option #1

Job #13344
4/3/2020
H:\Projects\13000\13344\Design\Graphics\Concept Graphics\Franklin Ave on street bike lane\13344_gr02_2_Franklin Ave.dgn

Hennepin County Improvements

CSAH 5 (Franklin Ave) from Blaisdell Ave to Chicago Ave
Minneapolis, MN

Figure 2

CSAH 5 (Franklin Ave) Reconstruction Project

Potential Layout Option #1

Job #13344
4/3/2020
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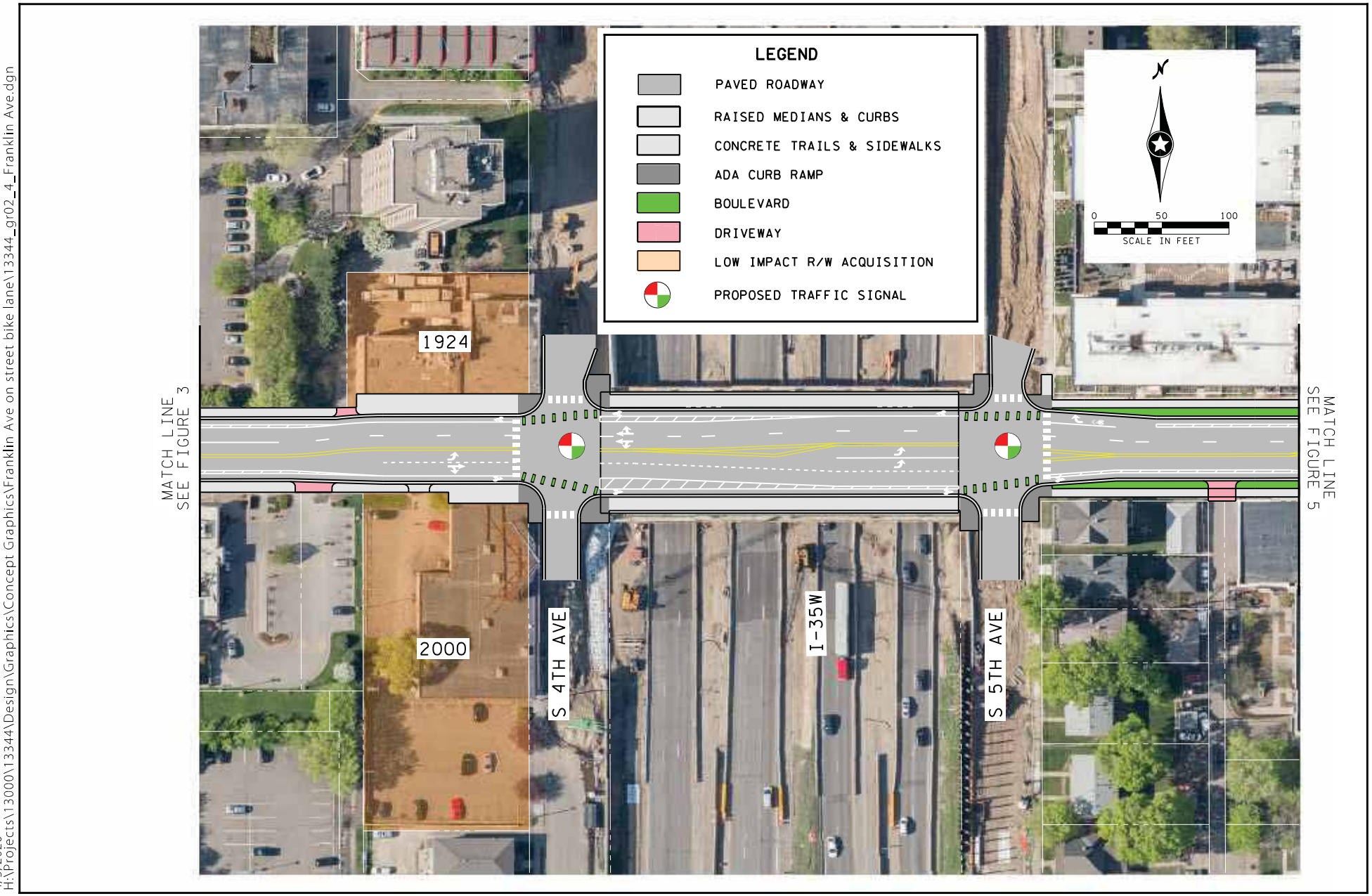
Hennepin County Improvements

CSAH 5 (Franklin Ave) from Blaisdell Ave to Chicago Ave
Minneapolis, MN

Figure 3

CSAH 5 (Franklin Ave) Reconstruction Project

Potential Layout Option #1



Job #13344
4/3/2020
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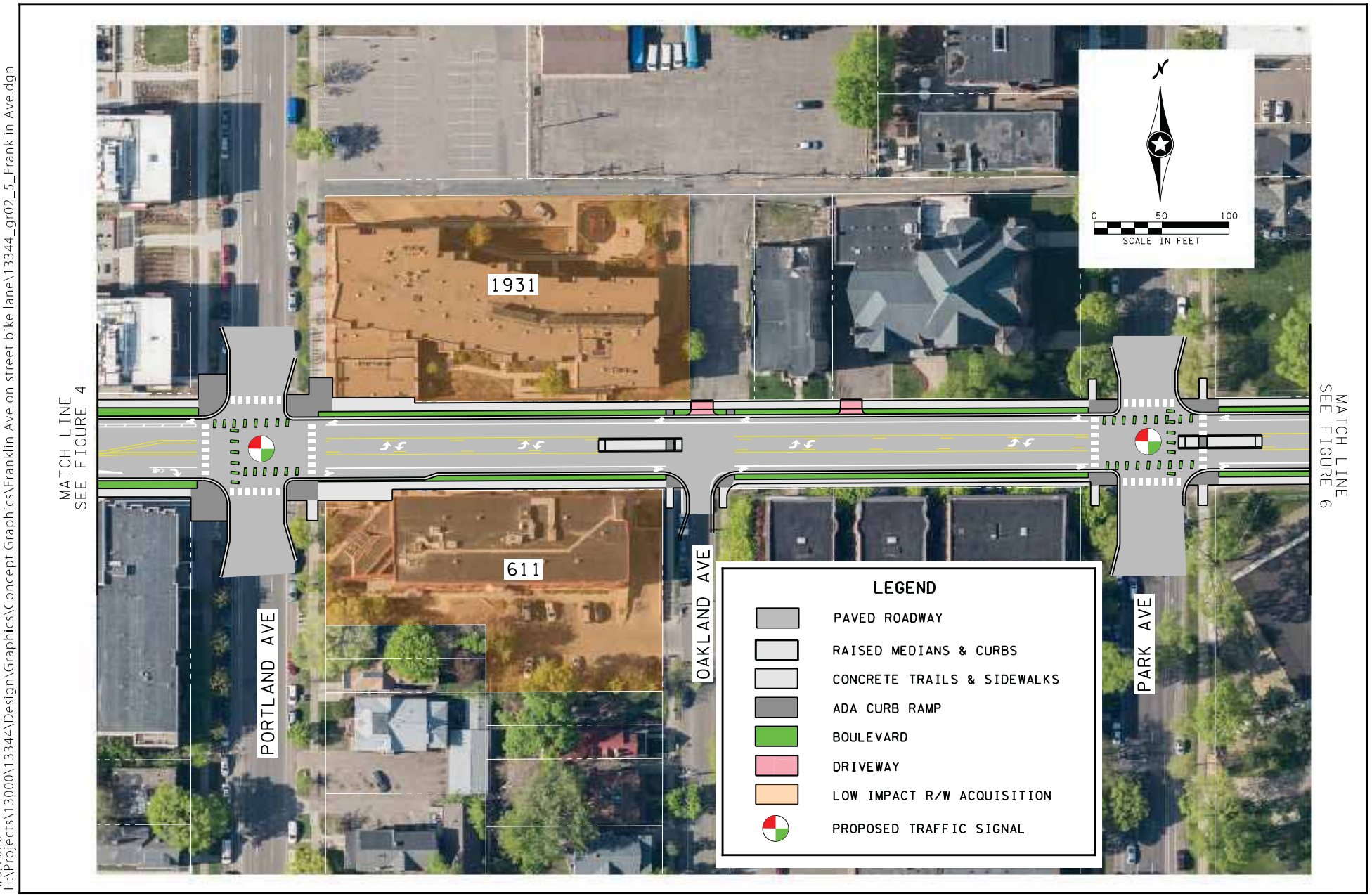
Hennepin County Improvements

CSAH 5 (Franklin Ave) from Blaisdell Ave to Chicago Ave
Minneapolis, MN

Figure 4

CSAH 5 (Franklin Ave) Reconstruction Project

Potential Layout Option #1



Job #13344
4/3/2020
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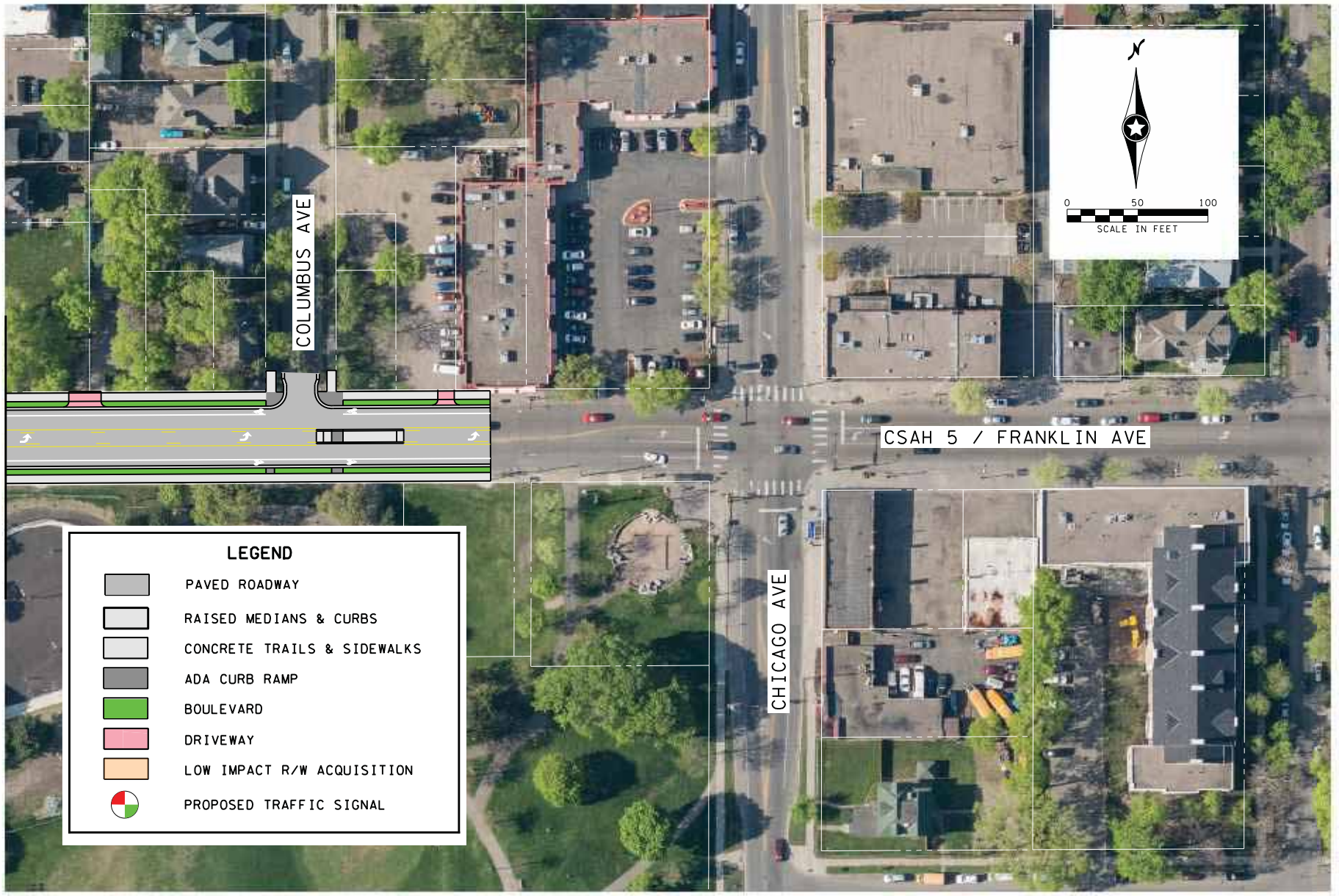
Hennepin County Improvements

CSAH 5 (Franklin Ave) from Blaisdell Ave to Chicago Ave
Minneapolis, MN

Figure 5

CSAH 5 (Franklin Ave) Reconstruction Project

Potential Layout Option #1



Job #13344
4/3/2020
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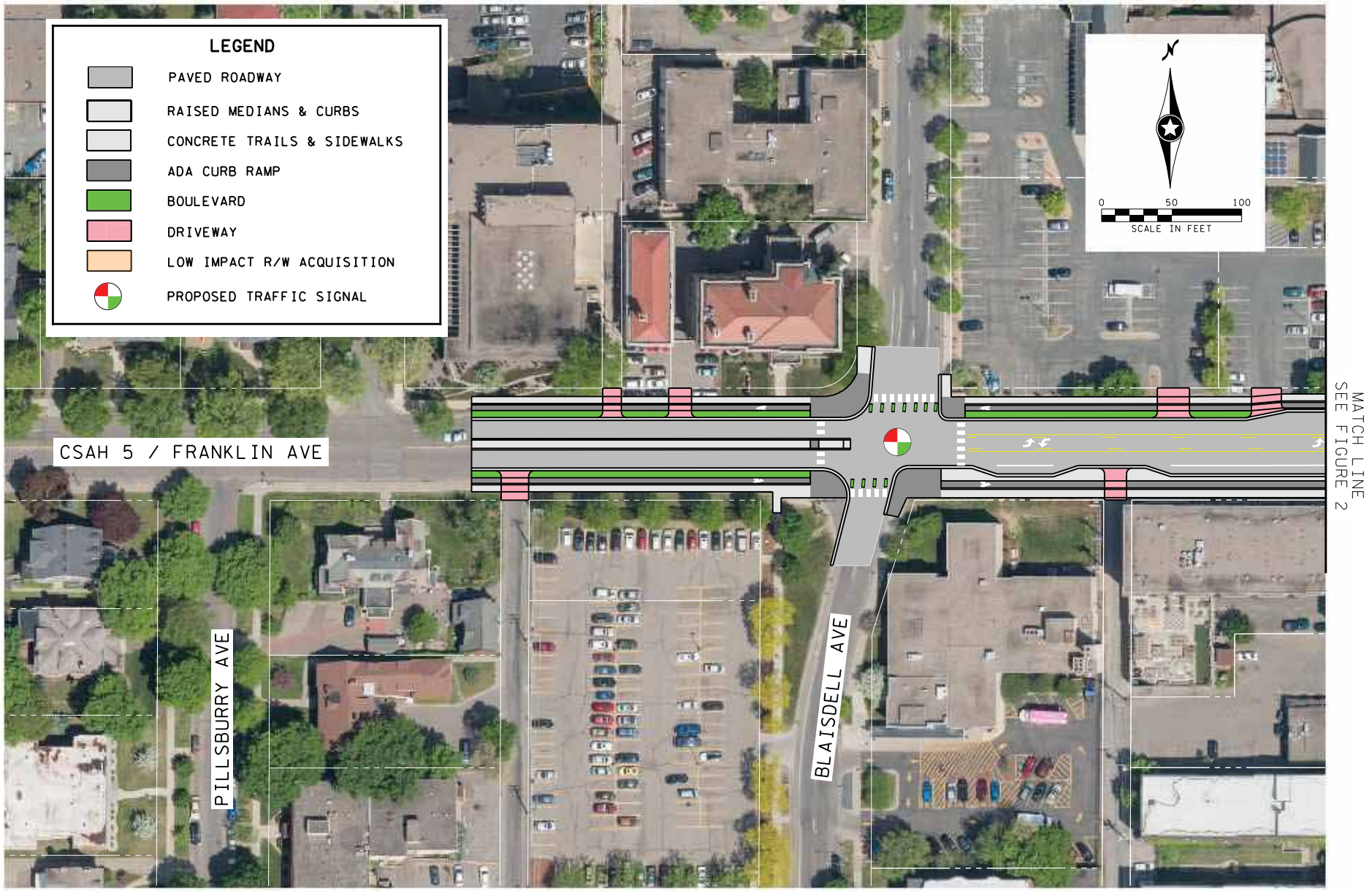
Hennepin County Improvements

CSAH 5 (Franklin Ave) from Blaisdell Ave to Chicago Ave
Minneapolis, MN

Figure 6

CSAH 5 (Franklin Ave) Reconstruction Project

Potential Layout Option #2



Job #13344
4/3/2020
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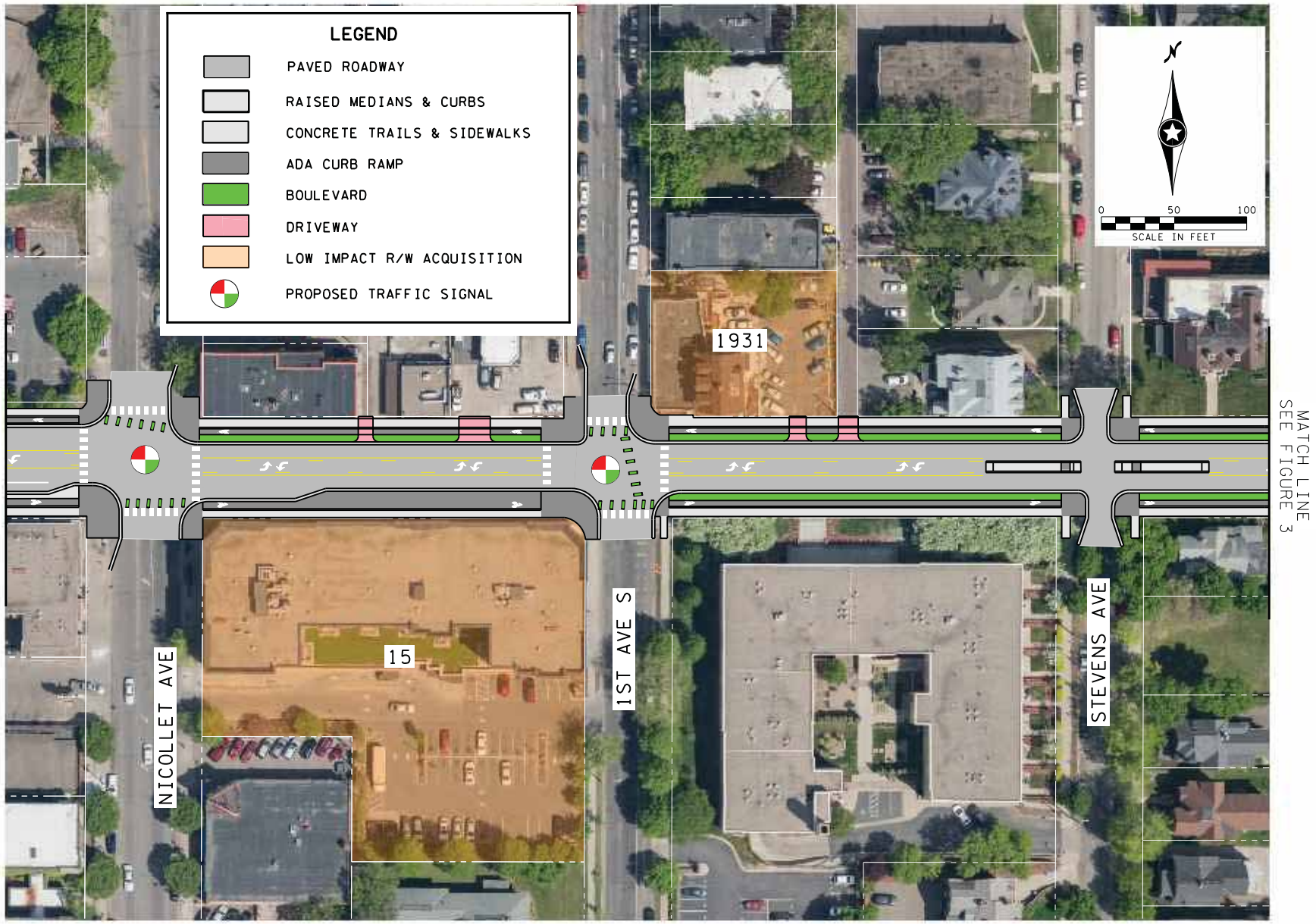
Hennepin County Improvements

CSAH 5 (Franklin Ave) from Blaisdell Ave to Chicago Ave
Minneapolis, MN

Figure 1

CSAH 5 (Franklin Ave) Reconstruction Project

Potential Layout Option #2



Job #13344
4/3/2020
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Hennepin County Improvements

CSAH 5 (Franklin Ave) from Blaisdell Ave to Chicago Ave
Minneapolis, MN

Figure 2

CSAH 5 (Franklin Ave) Reconstruction Project

Potential Layout Option #2

Job #13344
4/3/2020
H:\Projects\13000\13344\Design\Graphics\Concept Graphics\Franklin Ave separate bike lane\13344_gr02_3_Franklin Ave.dgn

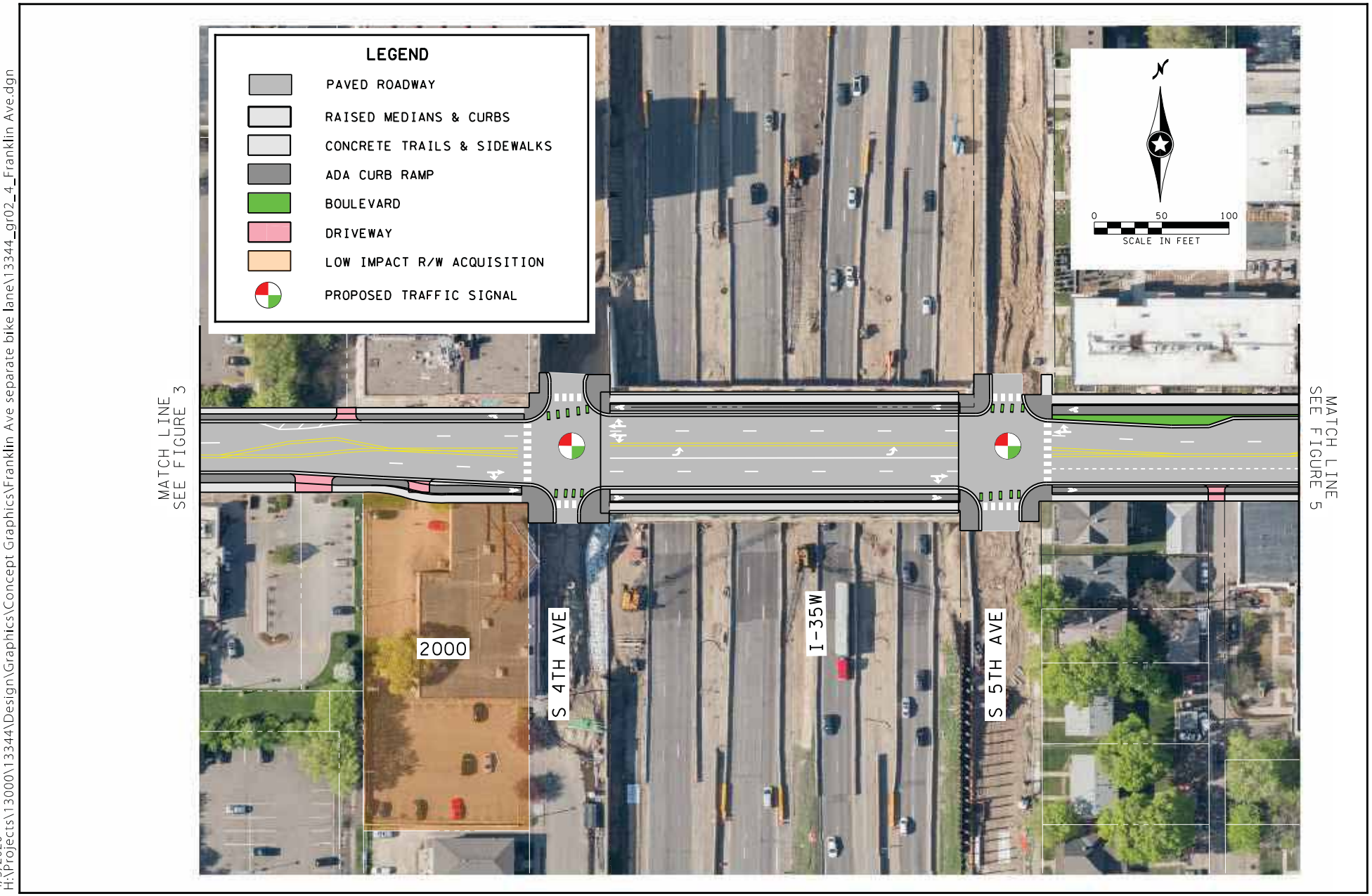
Hennepin County Improvements

CSAH 5 (Franklin Ave) from Blaisdell Ave to Chicago Ave
Minneapolis, MN

Figure 3

CSAH 5 (Franklin Ave) Reconstruction Project

Potential Layout Option #2



Job #13344
4/3/2020
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Hennepin County Improvements

CSAH 5 (Franklin Ave) from Blaisdell Ave to Chicago Ave
Minneapolis, MN

Figure 4

CSAH 5 (Franklin Ave) Reconstruction Project

Potential Layout Option #2

Job #13344
4/3/2020
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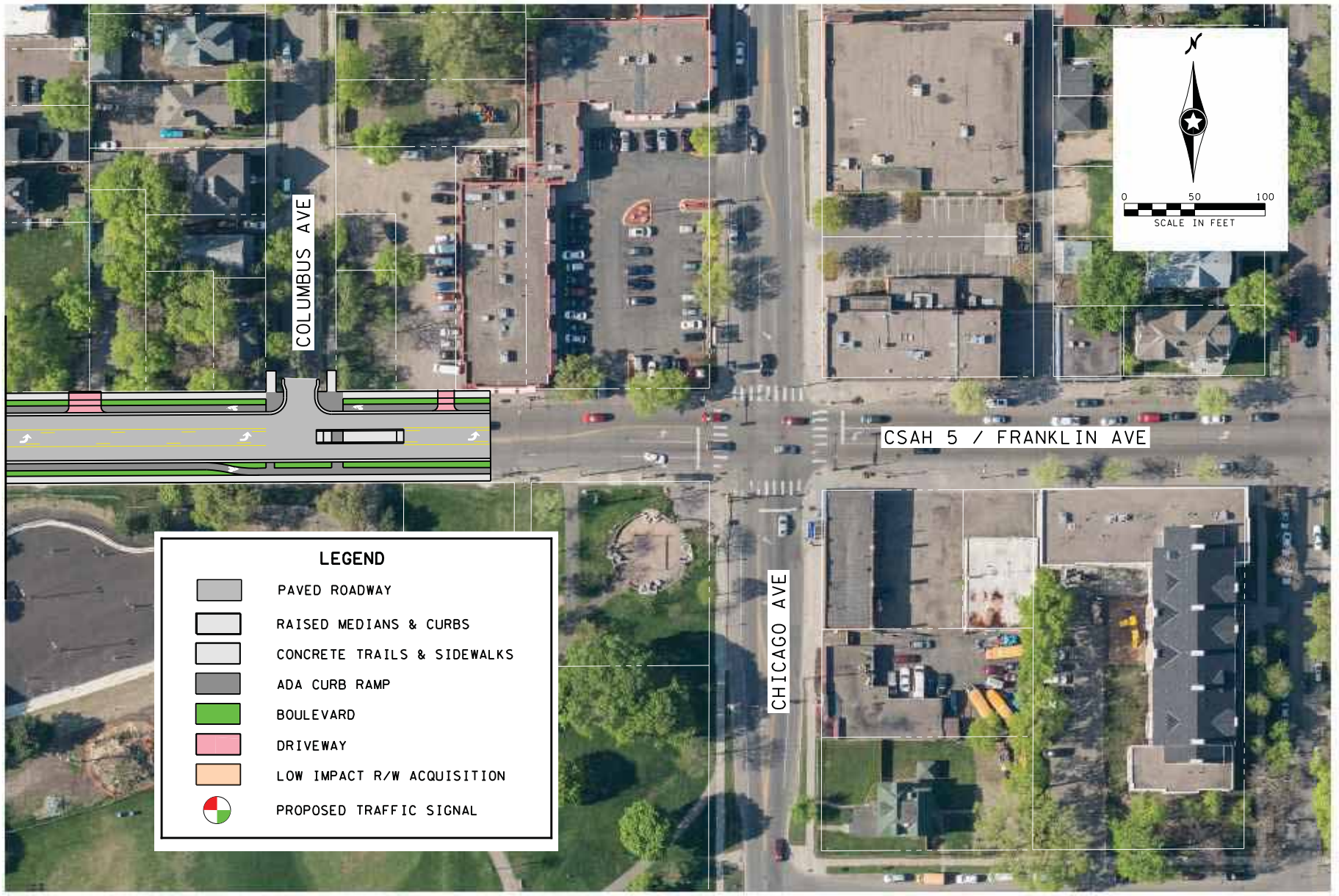
Hennepin County Improvements

CSAH 5 (Franklin Ave) from Blaisdell Ave to Chicago Ave
Minneapolis, MN

Figure 5

CSAH 5 (Franklin Ave) Reconstruction Project

Potential Layout Option #2



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4/3/2020
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Hennepin County Improvements

CSAH 5 (Franklin Ave) from Pillsbury Ave S to Chicago Ave
Minneapolis, MN

Figure 6

CSAH 5 (Franklin Ave) Reconstruction Project

List of Attachments

1. Project Narrative
2. Project Location Map
3. Existing Roadway Condition Photos
4. Potential Typical Sections
5. Potential Layouts
6. Franklin Ave Corridor Study
7. MnDOT 50-Series Map
8. Hennepin County Transportation Systems Plan – 2040 Forecast Traffic Volumes
9. Community Engagement Summary
10. Socio-Economic Equity Map
11. Affordable Housing Access Map and Detail Summary
12. StreetLight HCAADT Report
13. Minneapolis Street Lighting Plan
14. Crash Map and Detail Listing
15. Crash Modification Factors
16. Multimodal Connections Map
17. City of Minneapolis Support Letter – PLACEHOLDER
18. MnDOT Support Letter - PLACEHOLDER

CSAH 5 (Franklin Ave) Reconstruction Project

Attachment 01 | Project Narrative

HENNEPIN COUNTY
MINNESOTA

Project Name
CSAH 5 (Franklin Ave) Reconstruction Project

City(ies)
Minneapolis N/A N/A

Commisioner Districts
3 4 N/A

Capital Project Number
2172600

Project Category
Reconstruction

Scoping Manager
Jordan Kocak

Scoping Form Revision Dates
4/20/2020

Project Summary

Reconstruct Franklin Avenue (CSAH 5) from Blaisdell Avenue to Chicago Avenue in the City of Minneapolis.

Roadway History

The existing roadway (last reconstructed in the 1960s) is nearing the end of its useful life and warrants replacement. Routine maintenance activities (such as overlays and crackseals) are no longer cost effective in preserving assets. The current roadway environment consists of a 4-lane undivided configuration with no turn lanes provided for people driving. This design has resulted in a relatively high number of crashes, specifically left-turn and rear-end related. No dedicated accommodations for people biking are currently provided along this segment of Franklin Avenue (CSAH 5). Although sidewalks are provided along both sides of the roadway, they do not provide a positive user experience for people walking. Not only are sidewalks located immediately adjacent to the roadway, but they also include a number of obstructions (such as utility poles, fire hydrants, and signal poles) within the walking path. Additionally, many pedestrian ramps do not meet current ADA design standards. These conditions pose as challenges for people walking, especially for those with limited mobility.

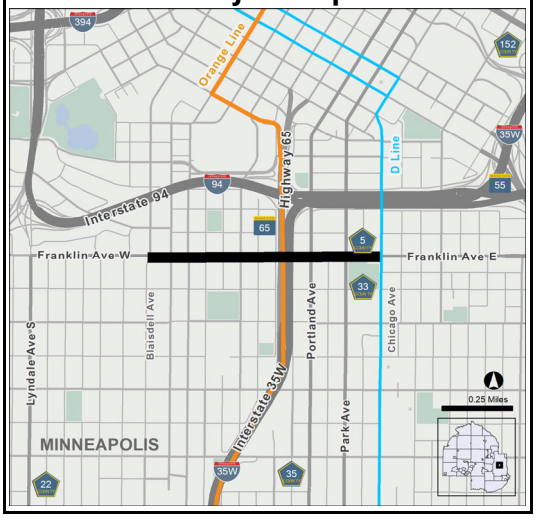
Project Description and Benefits

The proposed project will include new pavement, curb, storm water utilities, sidewalk, ADA accommodations, and traffic signals. Further investigation will take place as part of the design process to determine the feasibility of dedicated accommodations for people biking as part of this project. Additionally, it is anticipated that proven traffic calming strategies (such as raised medians, curb extensions, and streetscaping) will be introduced to improve the crossing experience and manage vehicle speeds.

Project Risks & Uncertainities

- The proposed project will need to minimize impacts to the I-35W Bridge as this MnDOT asset (built in 2018) is relatively new.

Project Map



Anticpated Project Timeline

Scoping:	Q2 2019 - Q4 2020
Design:	2021 - 2023
R/W Acquisition:	2022 - 2023
Bid Advertisement:	Q1 2024
Construction:	Q2 2024 - Q4 2025

Project Delivery Responsibilities

Preliminary Design:	Consultant
Final Design:	Consultant
Construction Services:	Consultant

Project Budget -		Project Level
Construction:	$	10,600,000
Cost Estimate Year:		2020
Construction Year:		2024
Annual Inflation Rate:		3.0%
Inflated Construction:	$	11,930,000
Design Services:	$	1,790,000
R/W Acquisition:	$	-
Other (Utility Burial):	$	-
Construction Services:	$	1,190,000
Contingency:	$	3,180,000
Total Project Budget:	**$**	**18,090,000**

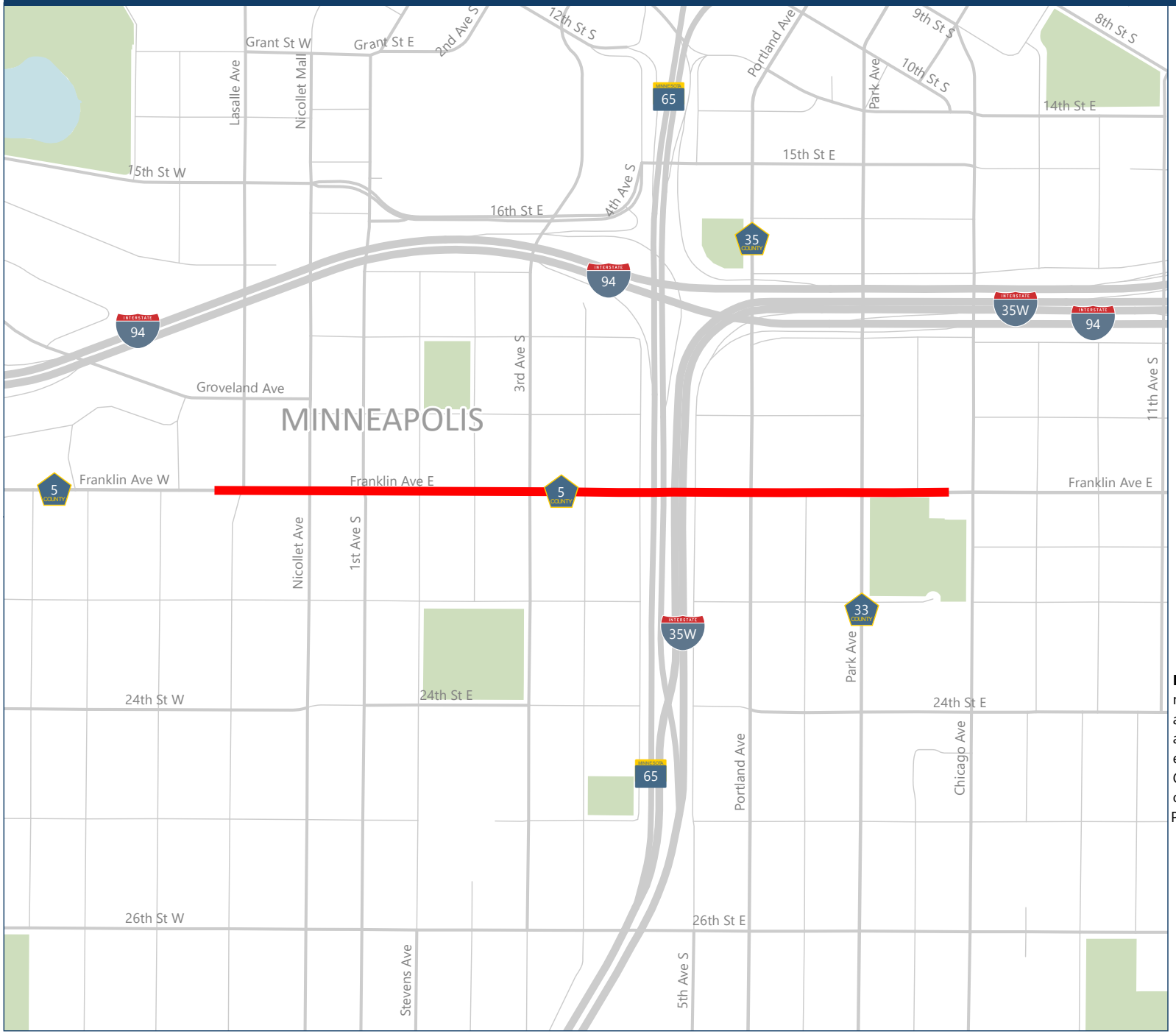
Funding Notes

- Eligible for federal funding through the Metropolitan Council's Regional Solicitation given the functional classification of CSAH 5 (A-Minor Arterial)
- Eligible for federal funding through the MHFP given its designation as a Tier 2 Regional Truck Corridor Route

CSAH 5 (Franklin Ave) Reconstruction Project

Attachment 02 | Project Location Map

HENNEPIN COUNTY
MINNESOTA



Key

Project Location

0 0.125 0.25 Miles

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Published date: 3/27/2020

N

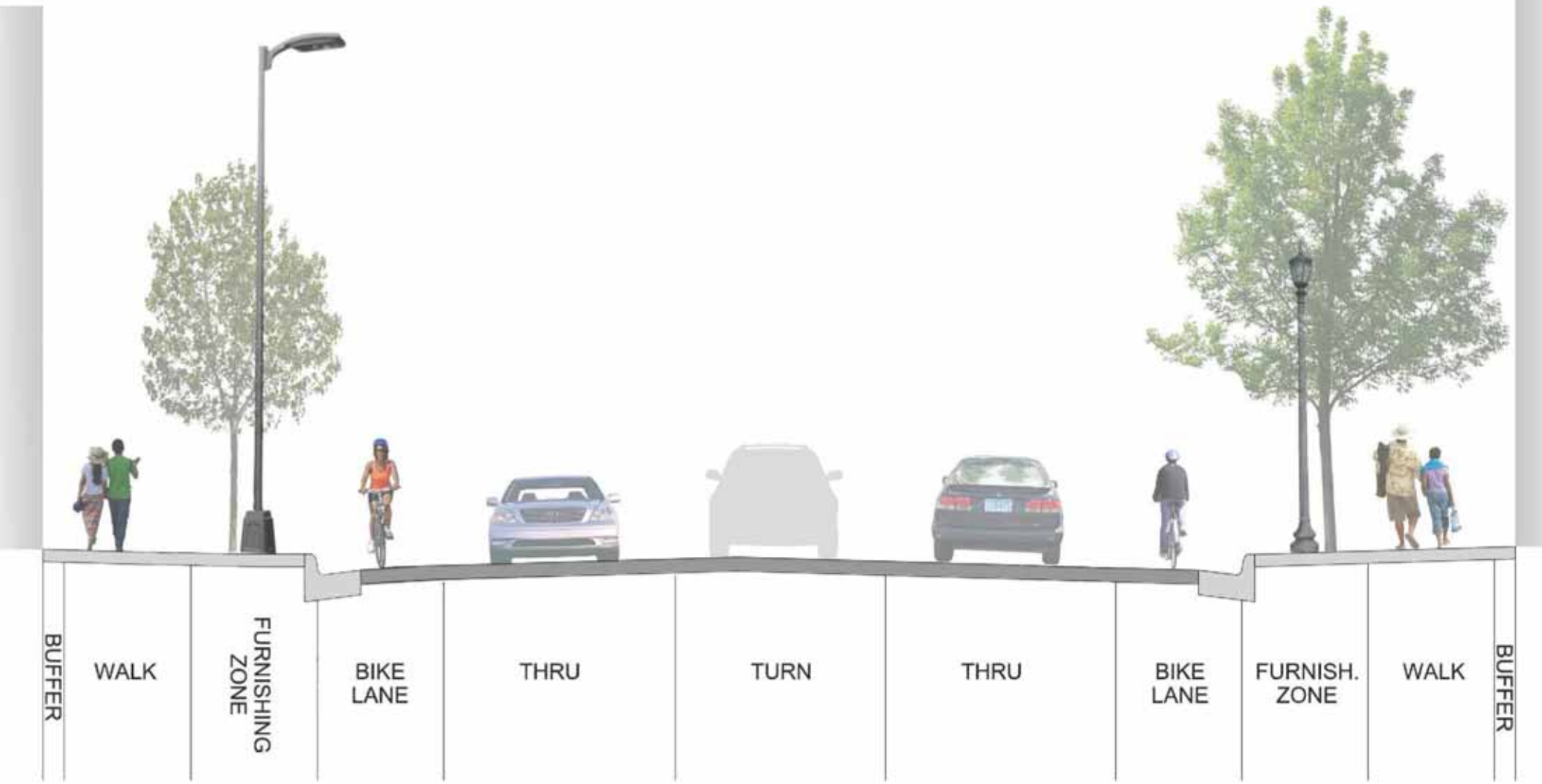
Hennepin

CSAH 5 (Franklin Ave) Reconstruction Project

Attachment 03 | Existing Roadway Condition Photos

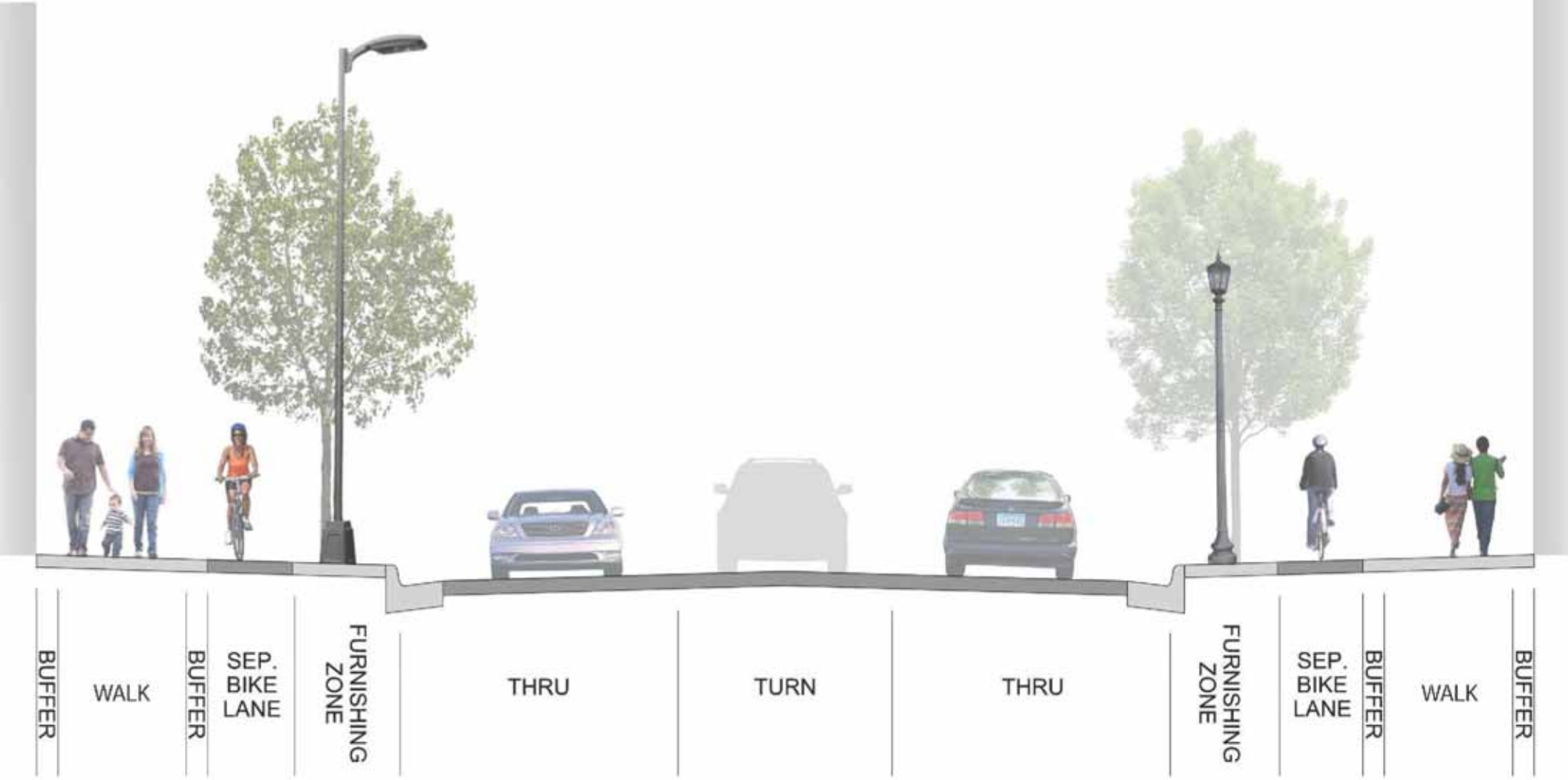
CSAH 5 (Franklin Ave) Reconstruction Project

Attachment 04 | Potential Typical Sections



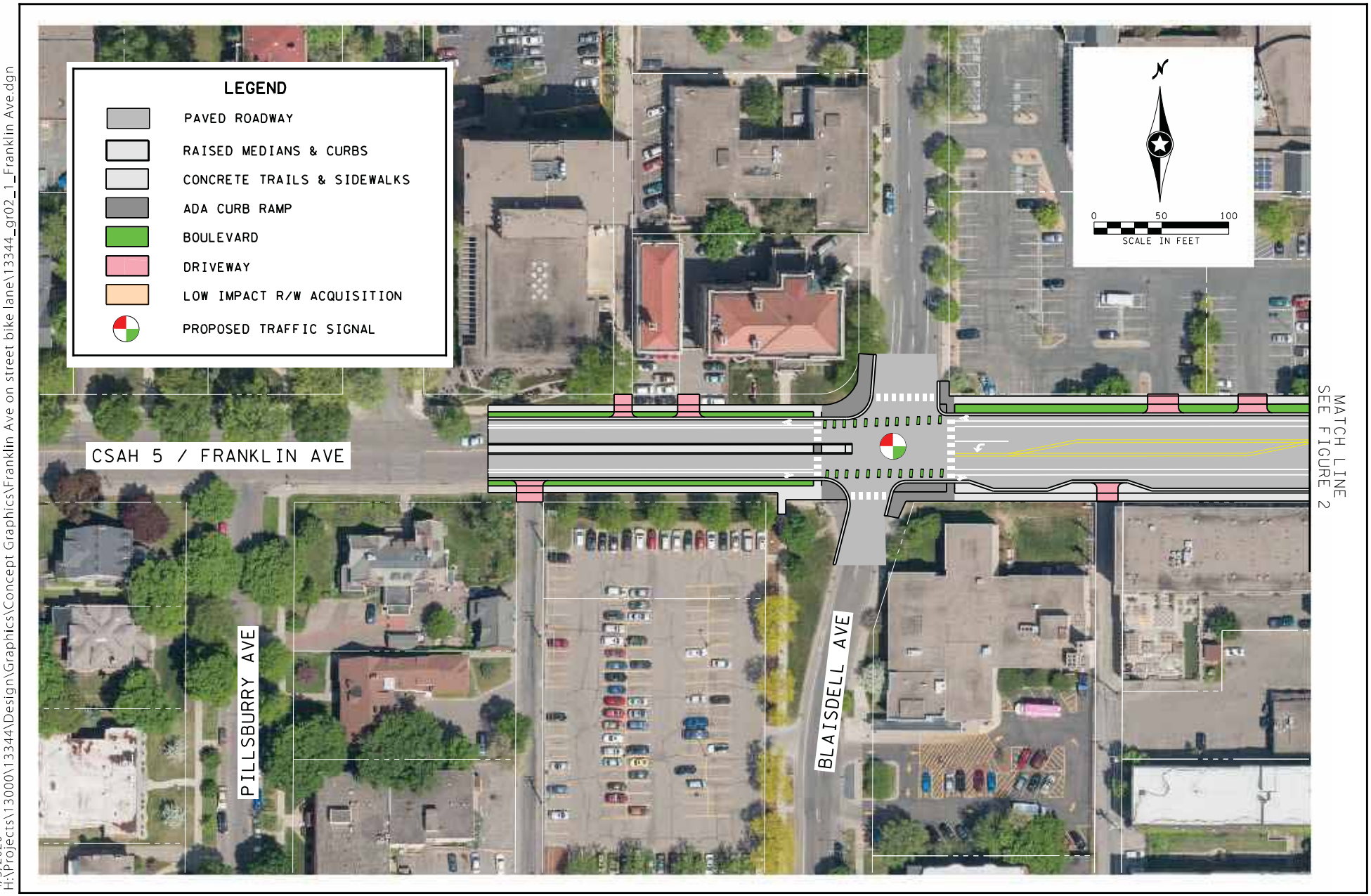
CSAH 5 (Franklin Ave) Reconstruction Project

Attachment 04 | Potential Typical Sections



CSAH 5 (Franklin Ave) Reconstruction Project

Attachment 05 | Potential Layouts



Job #13344
4/3/2020
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Hennepin County Improvements

CSAH 5 (Franklin Ave) from Blaisdell Ave to Chicago Ave
Minneapolis, MN

Figure 1

CSAH 5 (Franklin Ave) Reconstruction Project

Attachment 05 | Potential Layouts

Job #13344
4/3/2020
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Hennepin County Improvements

CSAH 5 (Franklin Ave) from Blaisdell Ave to Chicago Ave
Minneapolis, MN

Figure 2

CSAH 5 (Franklin Ave) Reconstruction Project

Attachment 05 | Potential Layouts

Job #13344
4/3/2020
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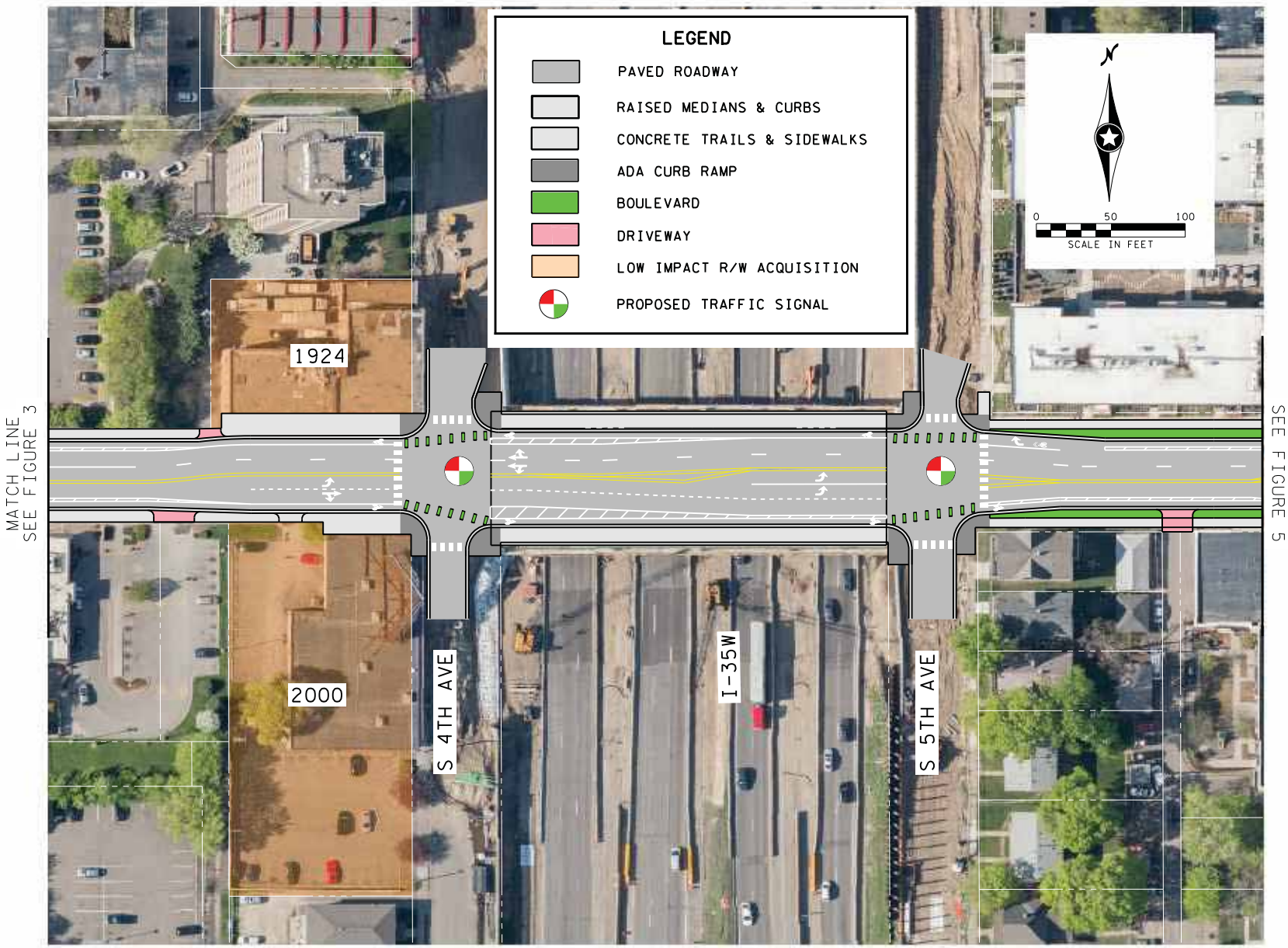
Hennepin County Improvements

CSAH 5 (Franklin Ave) from Blaisdell Ave to Chicago Ave
Minneapolis, MN

Figure 3

CSAH 5 (Franklin Ave) Reconstruction Project

Attachment 05 | Potential Layouts



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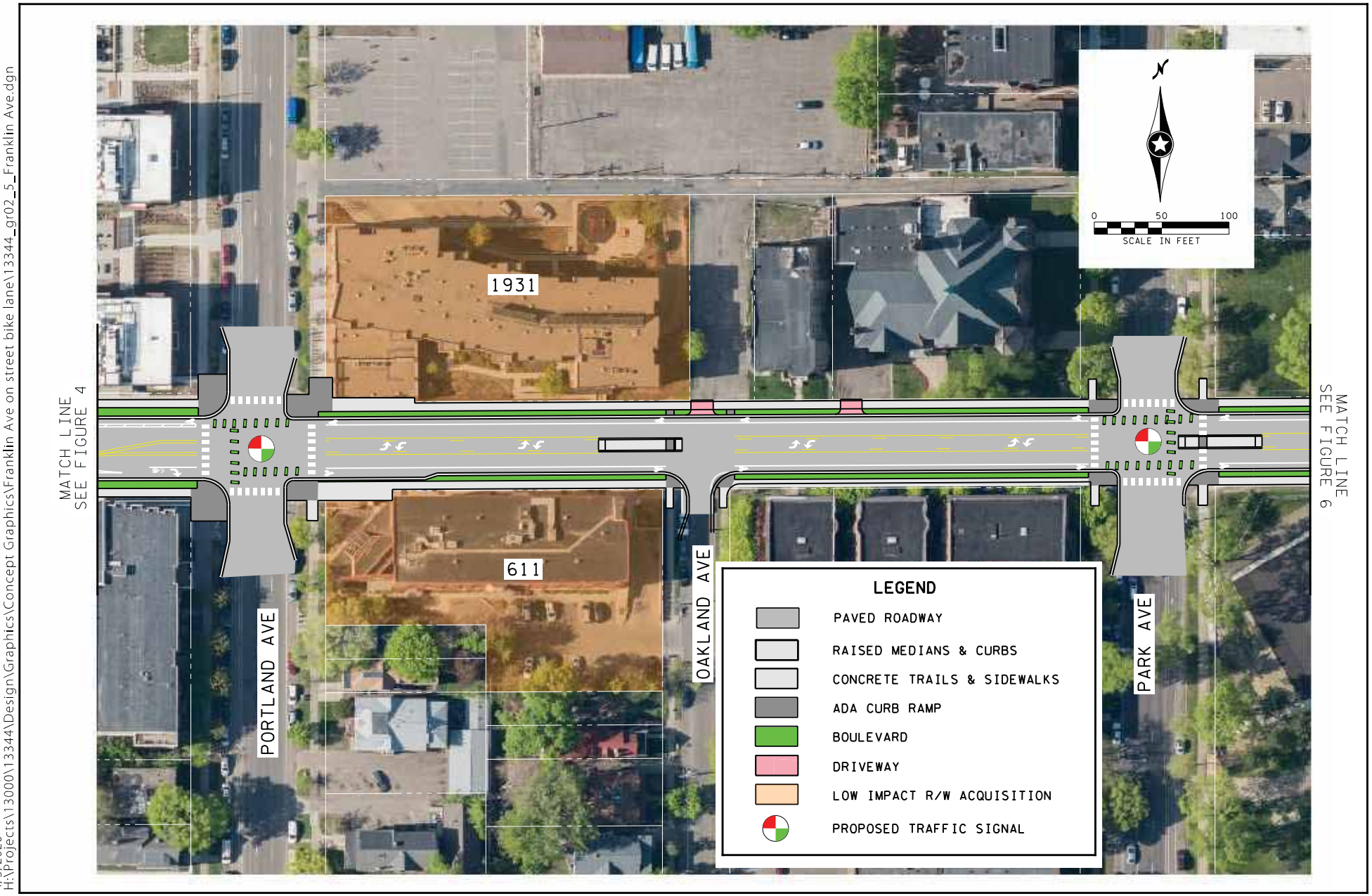
Hennepin County Improvements

CSAH 5 (Franklin Ave) from Blaisdell Ave to Chicago Ave
Minneapolis, MN

Figure 4

CSAH 5 (Franklin Ave) Reconstruction Project

Attachment 05 | Potential Layouts



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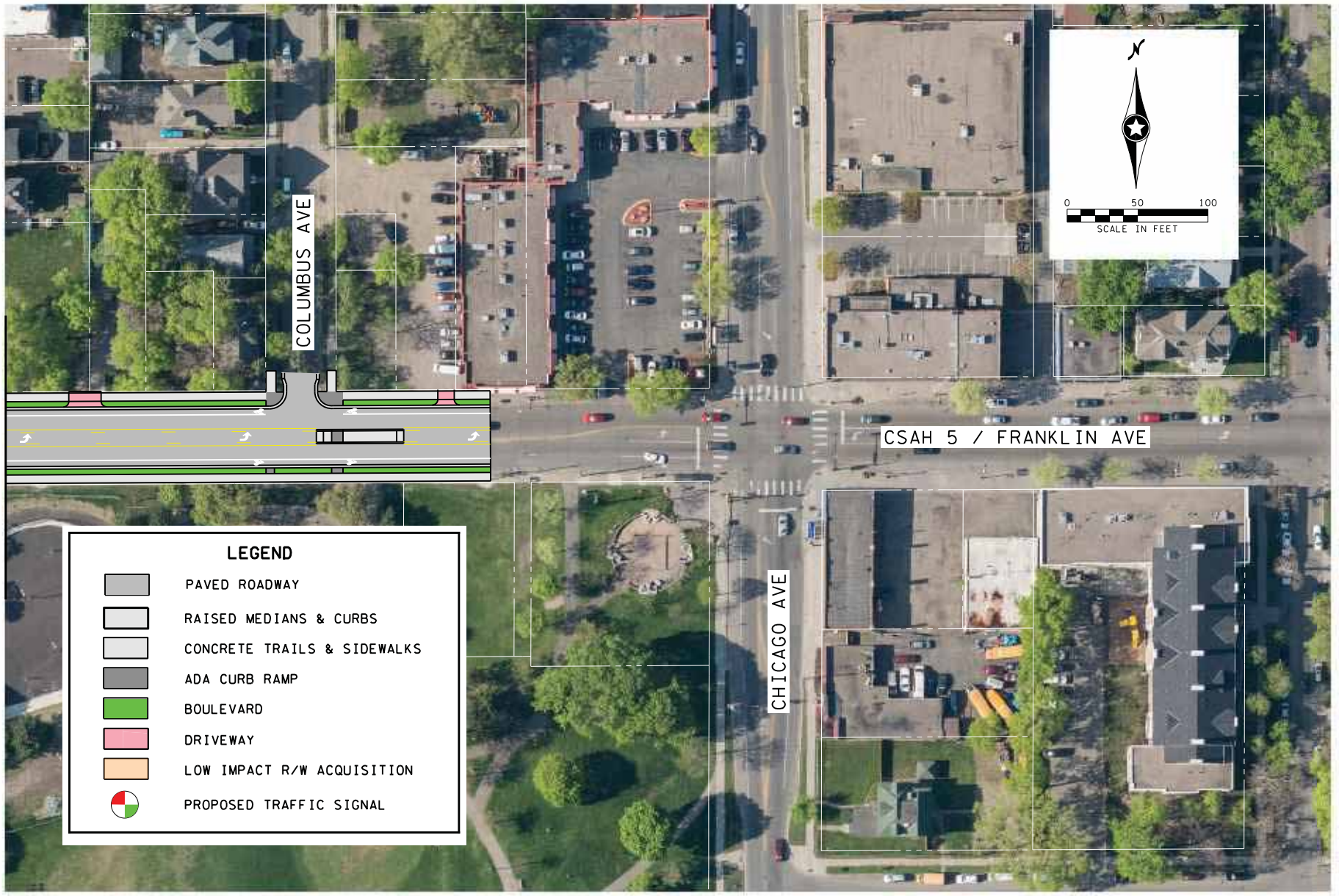
Hennepin County Improvements

CSAH 5 (Franklin Ave) from Blaisdell Ave to Chicago Ave
Minneapolis, MN

Figure 5

CSAH 5 (Franklin Ave) Reconstruction Project

Attachment 05 | Potential Layouts



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4/3/2020
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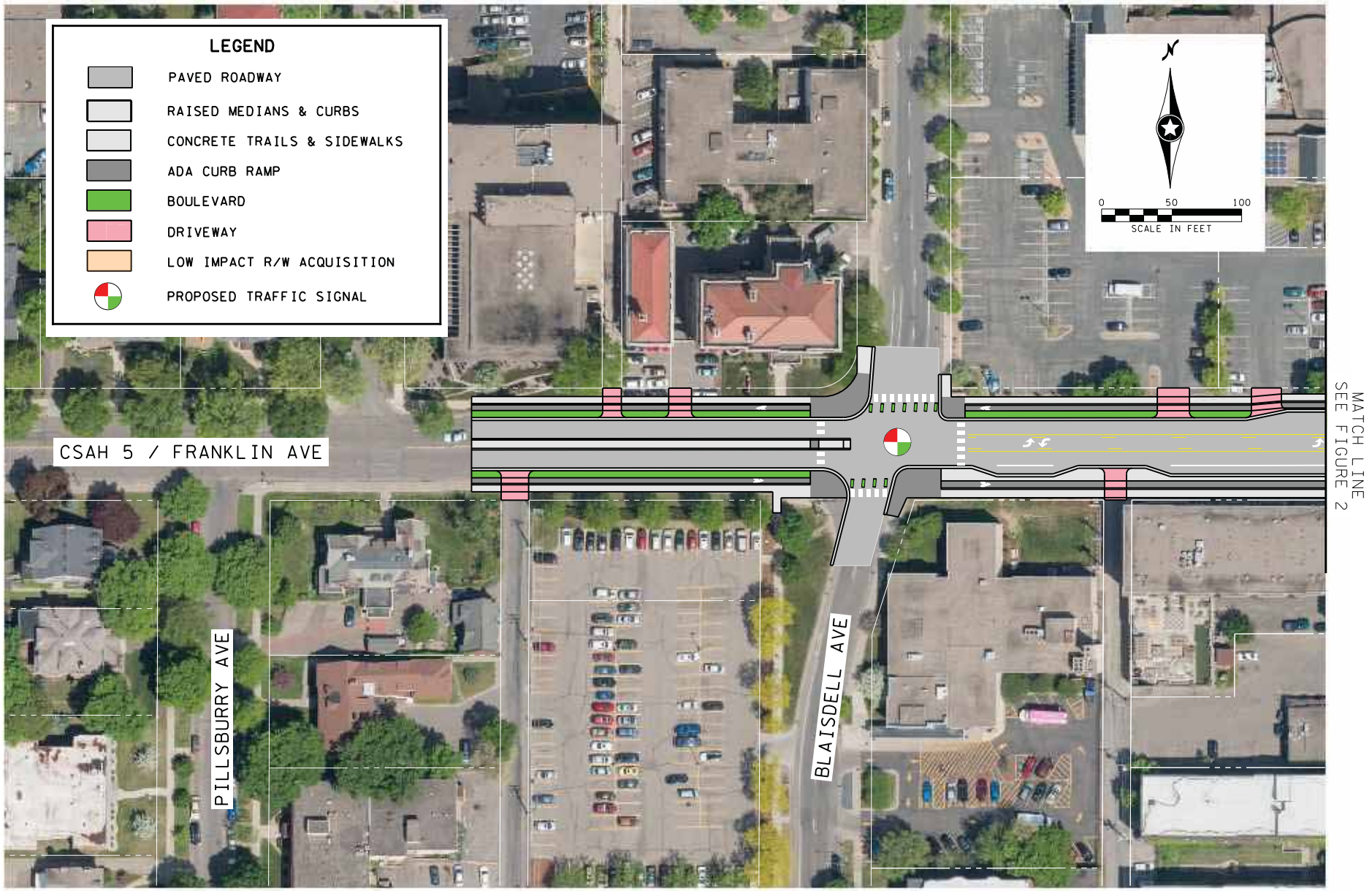
Hennepin County Improvements

CSAH 5 (Franklin Ave) from Blaisdell Ave to Chicago Ave
Minneapolis, MN

Figure 6

CSAH 5 (Franklin Ave) Reconstruction Project

Attachment 05 | Potential Layouts



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4/3/2020
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Hennepin County Improvements

CSAH 5 (Franklin Ave) from Blaisdell Ave to Chicago Ave
Minneapolis, MN

Figure 1

CSAH 5 (Franklin Ave) Reconstruction Project

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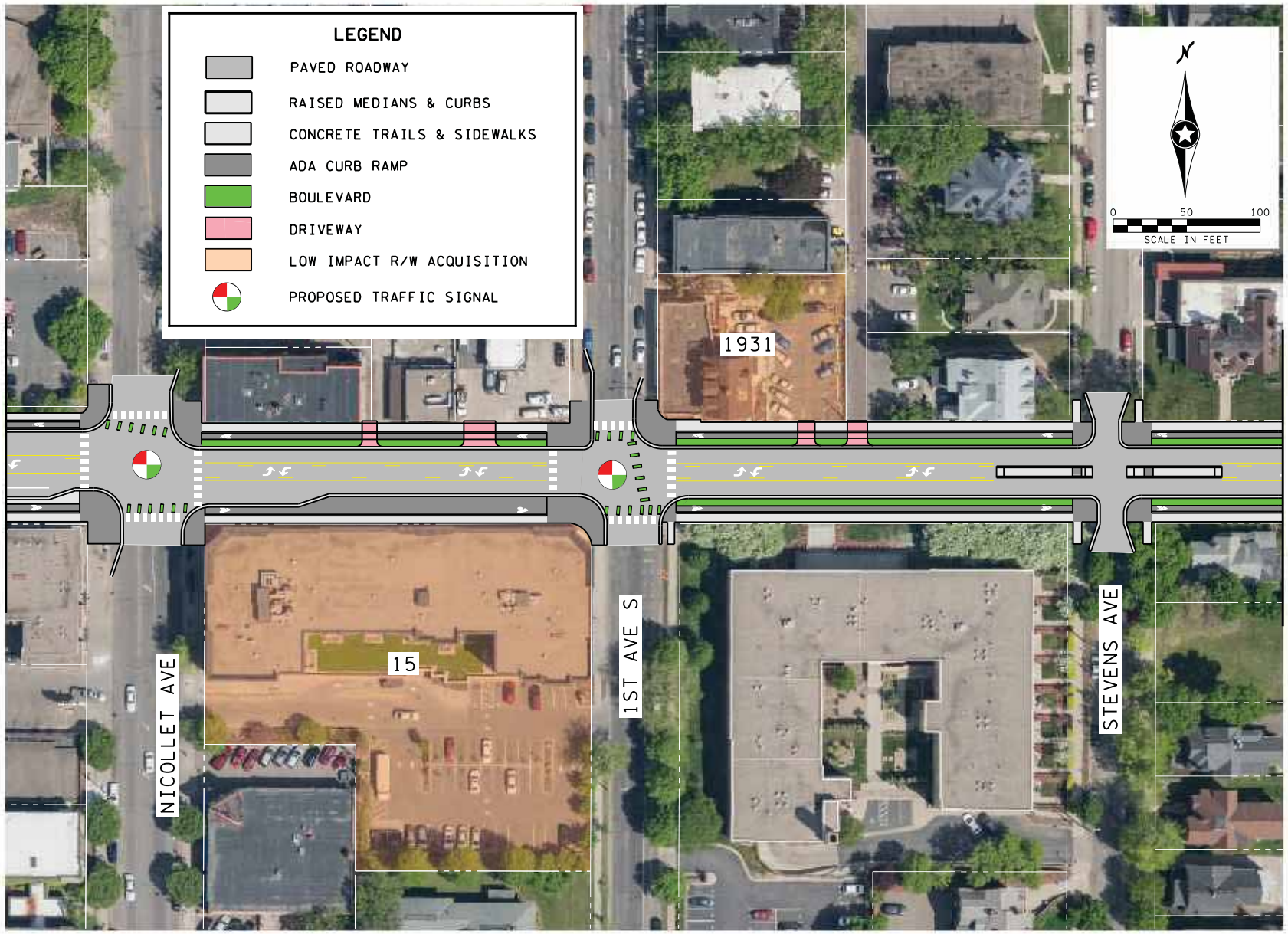

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Hennepin County Improvements

CSAH 5 (Franklin Ave) from Blaisdell Ave to Chicago Ave
Minneapolis, MN

Figure 2

CSAH 5 (Franklin Ave) Reconstruction Project

Attachment 05 | Potential Layouts

Job #13344
4/3/2020
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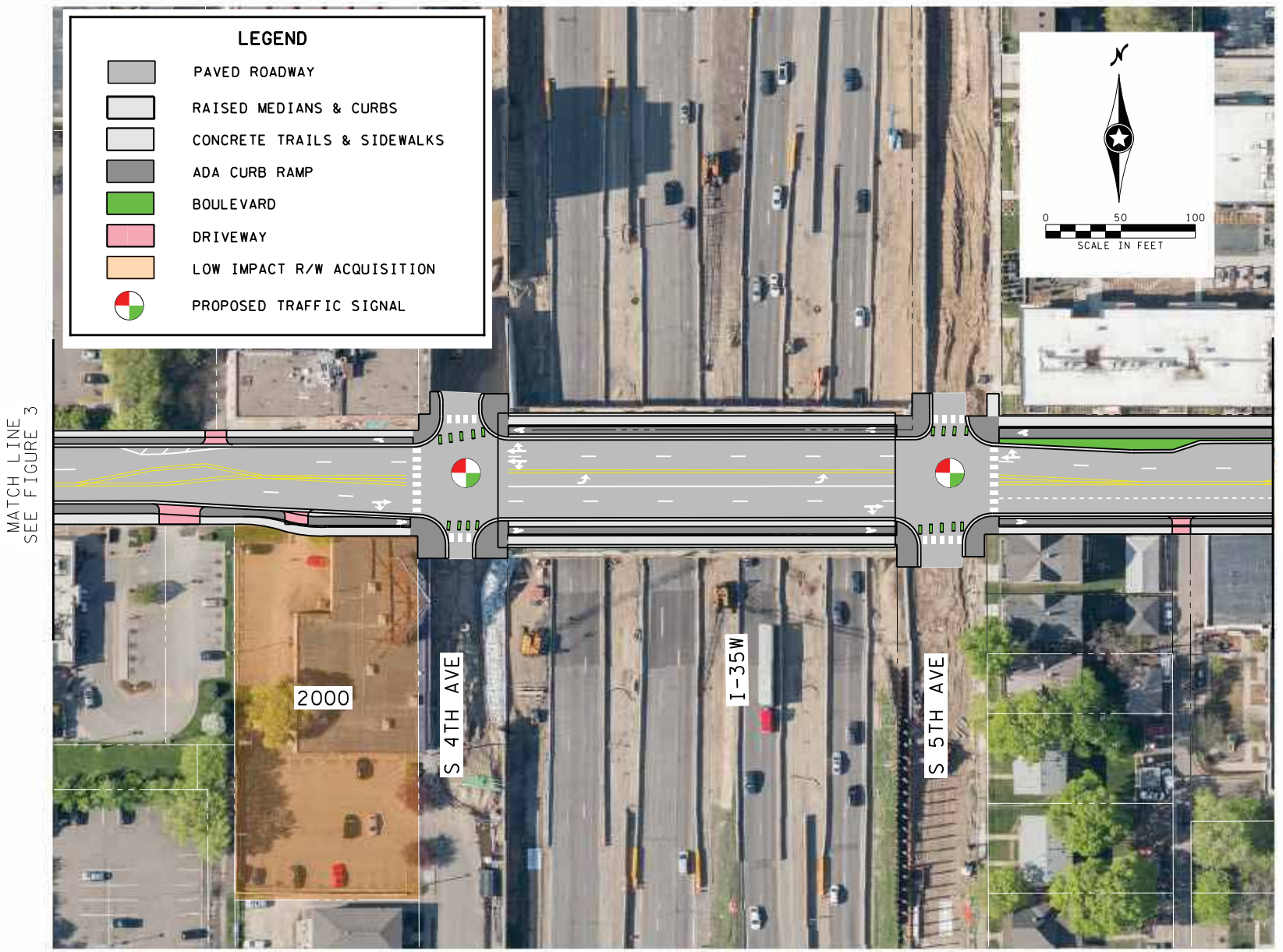
Hennepin County Improvements

CSAH 5 (Franklin Ave) from Blaisdell Ave to Chicago Ave
Minneapolis, MN

Figure 3

CSAH 5 (Franklin Ave) Reconstruction Project

Attachment 05 | Potential Layouts



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Hennepin County Improvements

CSAH 5 (Franklin Ave) from Blaisdell Ave to Chicago Ave
Minneapolis, MN

Figure 4

CSAH 5 (Franklin Ave) Reconstruction Project

Attachment 05 | Potential Layouts

Job #13344
4/3/2020
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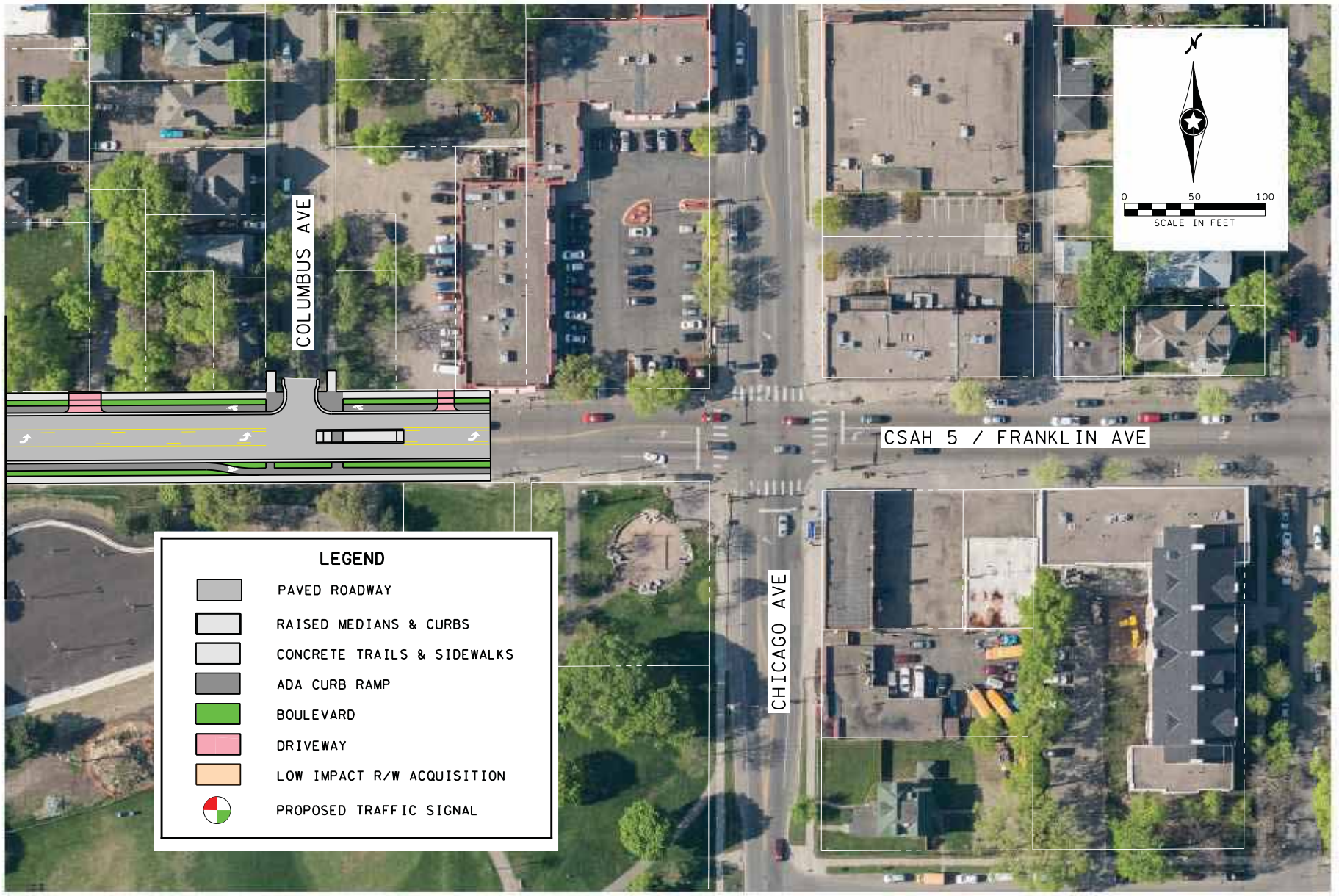
Hennepin County Improvements

CSAH 5 (Franklin Ave) from Blaisdell Ave to Chicago Ave
Minneapolis, MN

Figure 5

CSAH 5 (Franklin Ave) Reconstruction Project

Attachment 05 | Potential Layouts



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Hennepin County Improvements

CSAH 5 (Franklin Ave) from Pillsbury Ave S to Chicago Ave
Minneapolis, MN

Figure 6

Franklin Avenue corridor study

County Road 5 in Minneapolis

Hennepin County, in coordination with the City of Minneapolis, is conducting a feasibility study to evaluate ways to improve safety, accessibility and comfort for all road users along Franklin Avenue (County Road 5) from Lyndale (County Road 22) to Bloomington avenues.

The study will identify both short and long term options for corridor improvements.

Project goals

In its current form, this segment of Franklin Avenue includes a four-lane, undivided roadway (meaning there is no median in most areas) with off-peak parking at certain locations and no bike facilities.

There are opportunities to improve transportation for all people using Franklin Avenue:

- Provide a designated space for all people walking, biking, using transit and driving
- Minimize traffic delay for people using transit and driving
- Provide safer pedestrian crossings at intersections
- Allow for better community connections along the corridor
- Support local businesses and institutions with improved access
- Enhance the visual character with lighting, trees and furnishings

Share your thoughts

Public input is a key component of this study. There will be multiple opportunities for people who live, work and travel through the corridor to provide feedback on their needs and concerns for Franklin Avenue. The study is scheduled to begin in July 2019 and will conclude in March 2020.

Hennepin County

Jordan Kocak
Project manager
jordan.kocak@hennepin.us
612-543-3377

City of Minneapolis

Katie White
Project manager
katie.white@
minneapolismn.gov
612-673-3746

Website

www.hennepin.us/
franklincorridor

November 2019

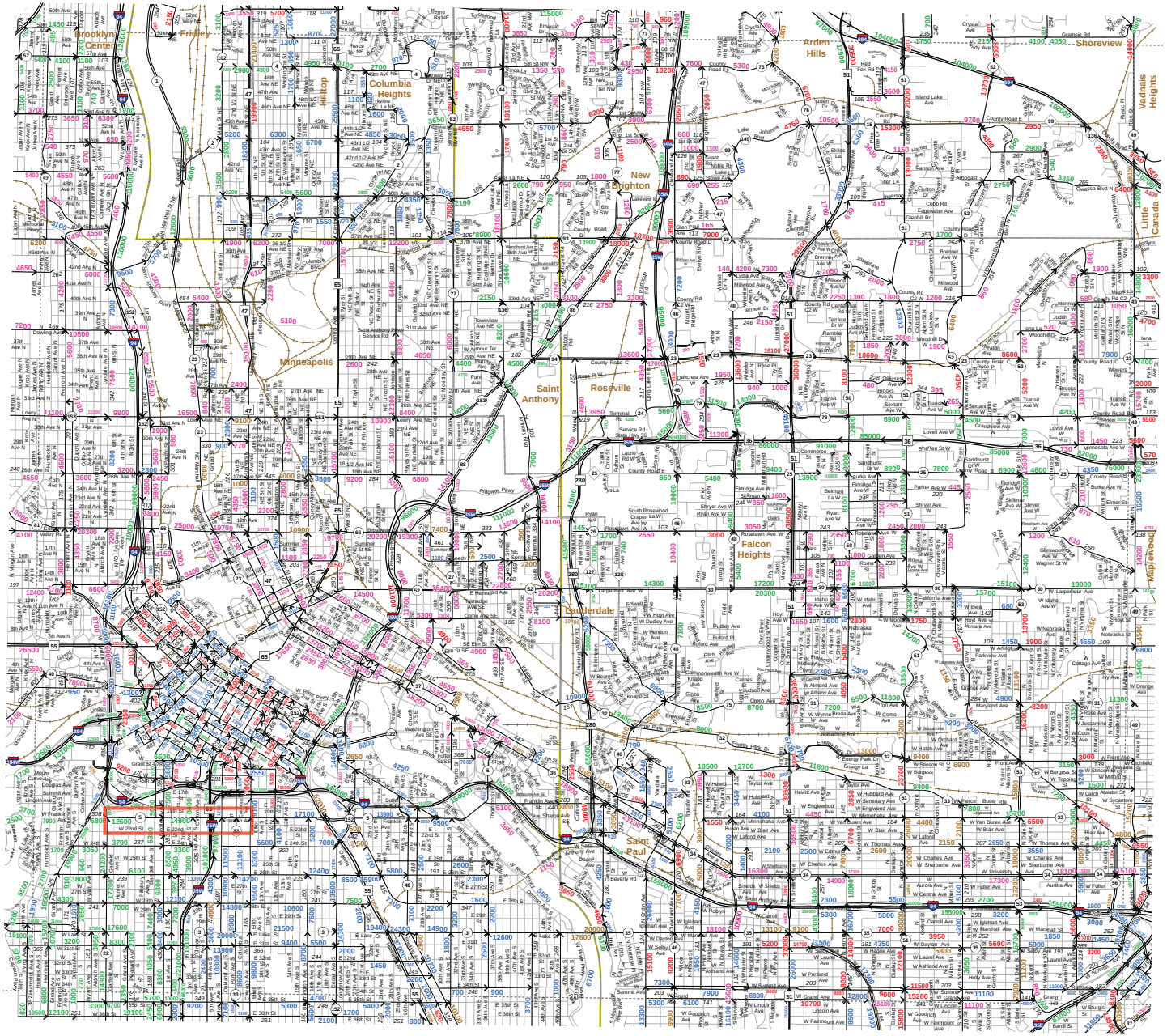
Minneapolis
City of Lakes

Hennepin

CSAH 5 (Franklin Ave) Reconstruction Project

Attachment 07 | MnDOT 50-Series Map

2015 Publication Traffic Volumes Metro Street Series - 3E



0 0.25 0.5 0.75 1 Mi.

Numerals Indicate Average Annual Daily Traffic (AADT) Volumes on Designated Roads

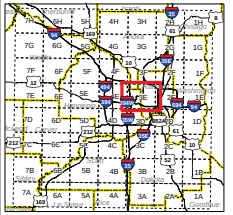
Traffic Volumes are Subject to Variability and Construction Effects
For More Info Visit:
http://www.dot.state.mn.us/traffic/data/coll-methods.html#cp

Minnesota Department of Transportation
Office of Transportation Data and Analysis
Traffic Volume Program
http://www.dot.state.mn.us/traffic/data/index.html

MAP LEGEND

AADT Year
- 2015 2014
- 2013 2012
- 2011 and older

- Interstate 94
- US Highway 169
- MN Highway 55
- CSAH 55
- MSAS 101
- County Road 55
- Other Roads
- Railroads
- Street Series Grid
- Cities
- COUNTIES
- Lakes
- Rivers
- Perennial Streams
- Ditches
- National Forests
- National Parks
- Tribal Gov'ts
- State Forests
- State Parks



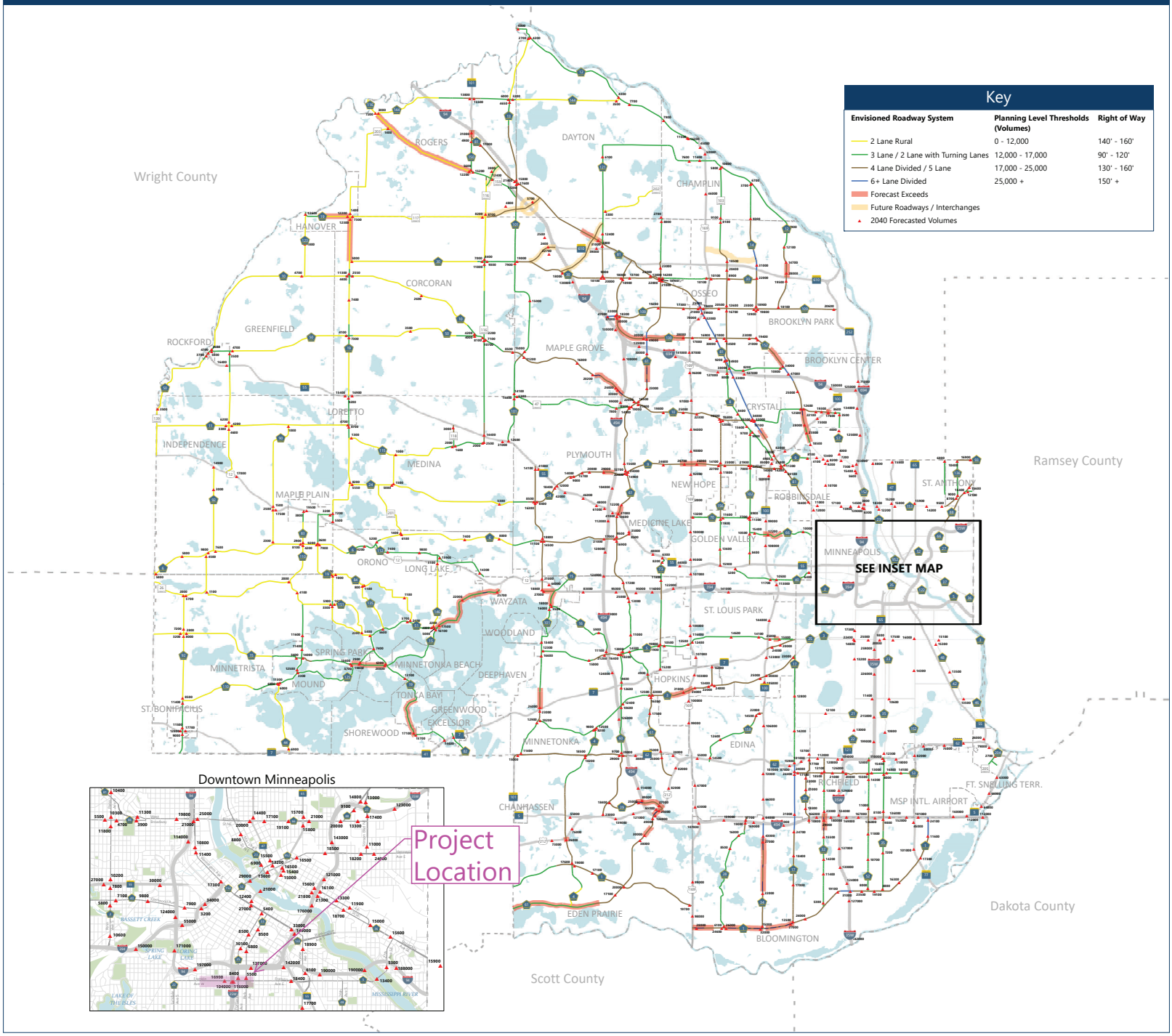
Map Source:
Minnesota Department of Transportation
Office of Transportation Data and Analysis
Traffic Volume Program
2015 AADT Product
http://www.dot.state.mn.us/traffic/data/data-products.html

To view this data using an online interactive map please visit: http://www.dot.state.mn.us/traffic/data/tma.html

Hennepin County 2040 Transportation Systems Plan

Attachment 08 | 2040 Forecast Traffic Volumes

HENNEPIN COUNTY
MINNESOTA



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Publication date: 2/3/2020

Data sources: SRF Consulting, Hennepin County Transportation Planning

N 0 5 10 Miles

Franklin Avenue corridor study

Community engagement summary

Hennepin County, in coordination with the City of Minneapolis, is conducting a feasibility study to evaluate ways to improve safety, accessibility and comfort for all road users along Franklin Avenue (County Road 5) between Lyndale (County Road 22) and Bloomington avenues. Information was gathered between July 2019 and March 2020.

21 stakeholder meetings

3 outreach events

260+ survey responses

What we heard from you

- Lack of safe crossings across the corridor
- Curb ramps and sidewalks are in poor condition
- Desire for dedicated bicycle facilities
- Support for reducing number of travel lanes from four to three
- On-street parking locations are not clear
- Weaving and speeding by people driving creates uncertainty for all users

Possible solutions being considered

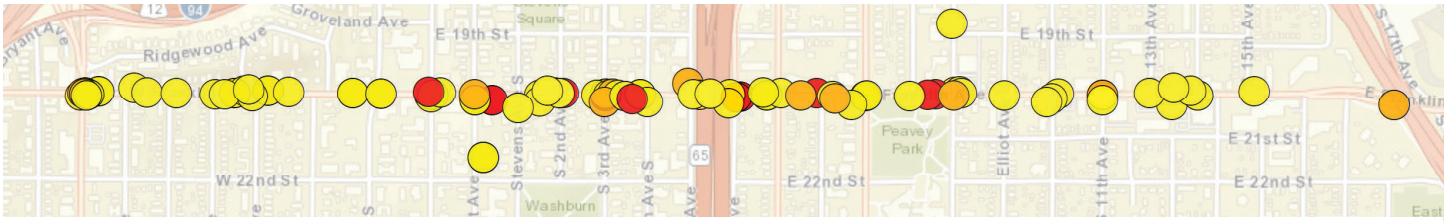
- Shorten crossing distances through curb extensions and median refuges
- Improve sidewalks and curb ramps (if reconstruction opportunity is available)
- Add dedicated bicycle facilities (e.g. buffered bike lanes, cycle track, etc.)
- Reduce the number of travel lanes to two travel lanes and a center left turn lane (where possible)
- Remove on-street parking along the majority of the corridor
- Create more consistency through lane realignment, spaces for people biking and other improvements

CSAH 5 (Franklin Ave) Reconstruction Project
Attachment 09 | Community Engagement Summary

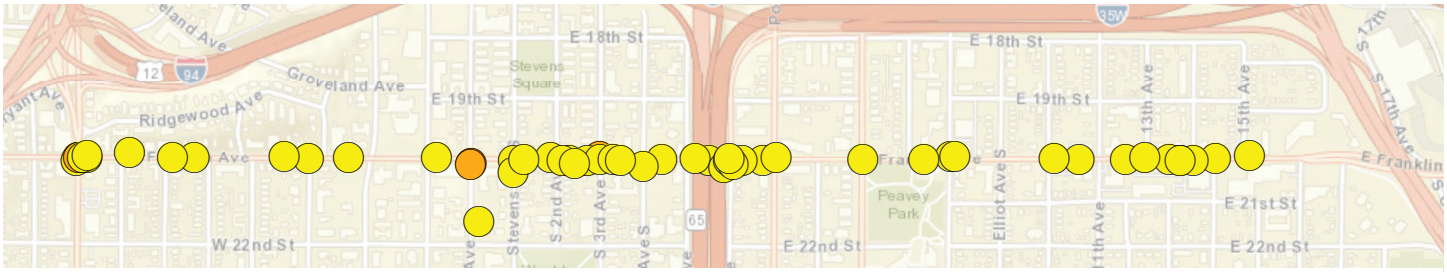
Interactive map survey results

The dots below represent the comments we received from our interactive map survey.

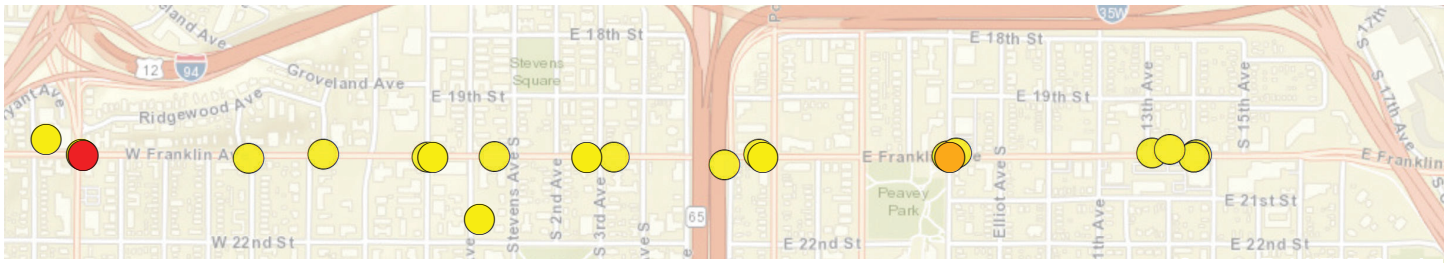
People walking



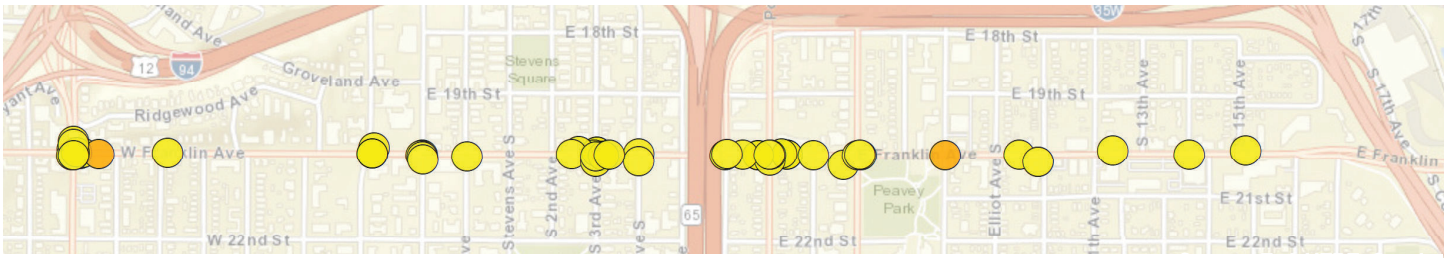
People biking



People using transit



People driving



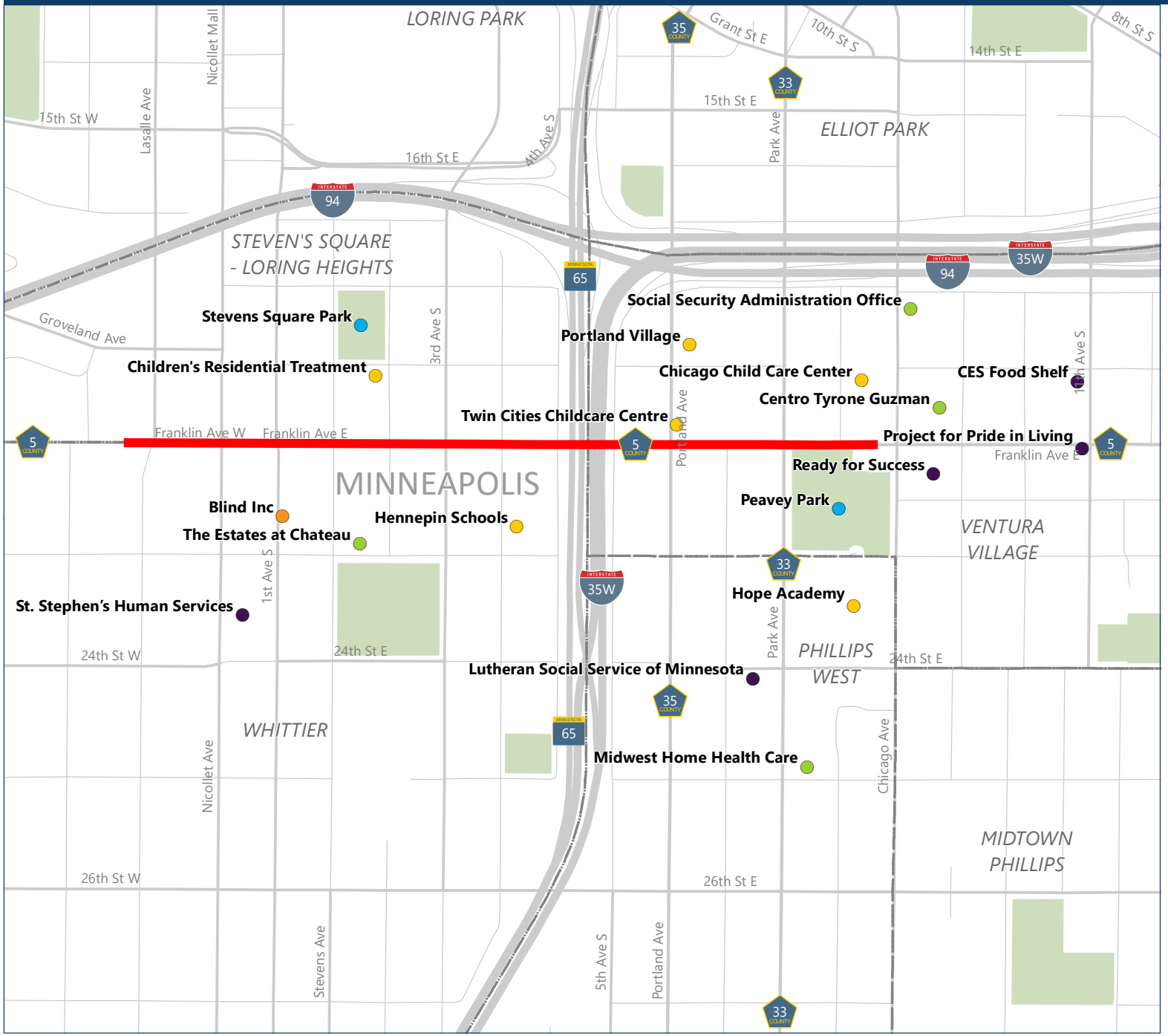
Legend

- Concern
- Elevated concern
- Accessibility issue

CSAH 5 (Franklin Ave) Reconstruction Project

Attachment 10 | Socio-Economic Equity Map

HENNEPIN COUNTY
MINNESOTA



Key

- Project Location

Socio-Economic Equity Category

- Community Resource
- Disability
- Elderly
- Low-Income
- Youth

0 0.125 0.25 Miles

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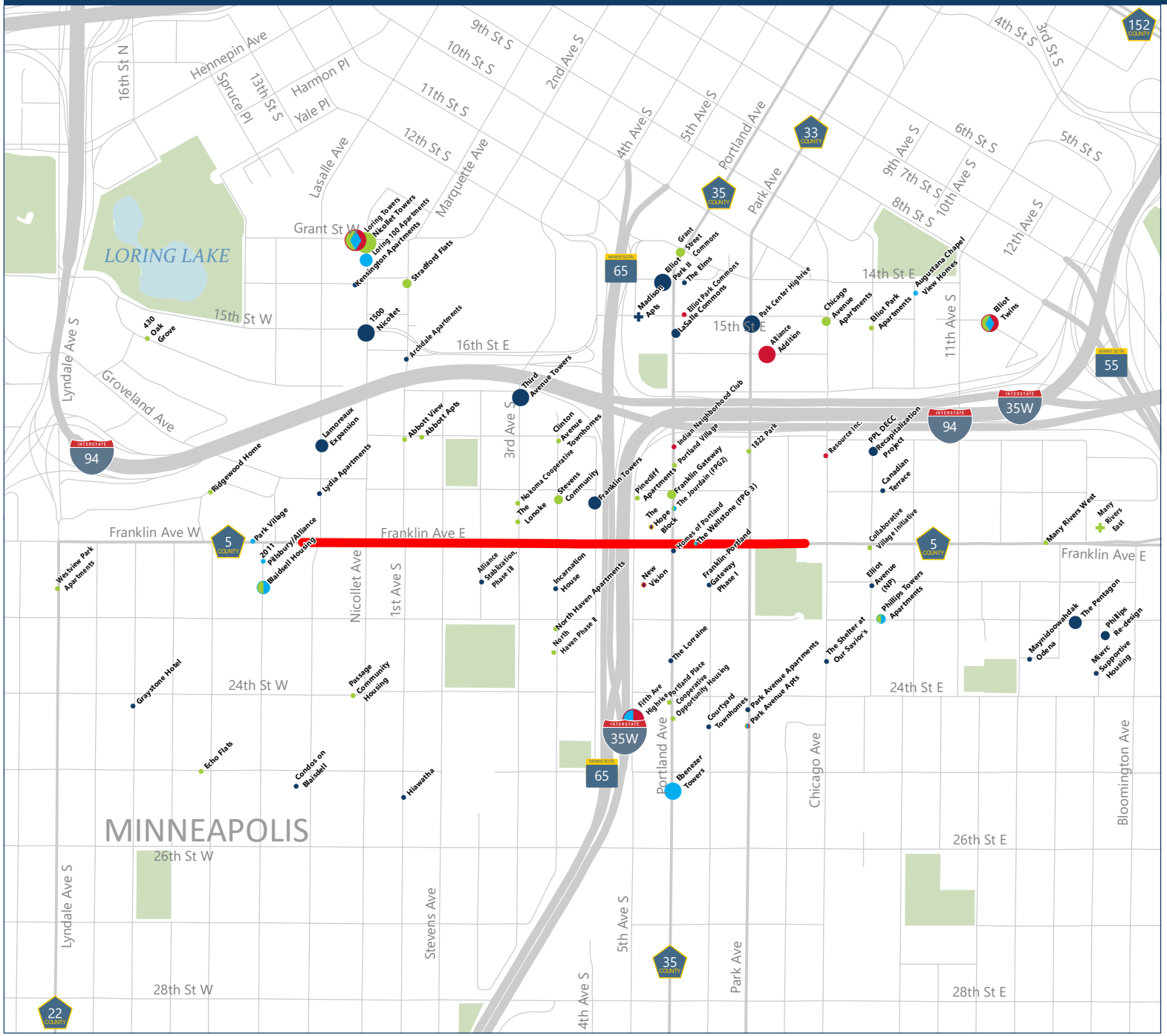
Published date: 4/15/2020

N

CSAH 5 (Franklin Ave) Reconstruction Project

Attachment 11 | Affordable Housing Access Map and Detail Summary

HENNEPIN COUNTY
MINNESOTA



Key

- Project Location

Groups Served

- People with Disabilities
- Elderly
- Family
- Homeless
- Single People
- Multiple Groups
- No Information

Affordable Units

- 0 - 50
- 51 - 100
- 101 - 150
- 151 - 200
- 201 - 1500

Construction Status

- Complete
- Planned

0 0.15 0.3 Miles

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Published date: 4/29/2020

N

CSAH 5 (Franklin Ave) Reconstruction Project

Attachment 11: Affordable Housing Access Map and Detail Summary

A detailed description of how this project will improve access to affordable housing locations is included below, including number of bedrooms, affordability limit based on area median income (AMI), etc. Attachment 11 identifies specific affordable housing sites within a 1/2 mile of the project location.

Total number of affordable sites within project area: 75

Number of existing sites: 74
Number of sites under construction: 0
Number of planned sites identified: 1

Location 1: 1500 Nicollet
Affordable Units: 183
Bedrooms per unit: 0-3
50% AMI: 37
60% AMI: 146

Location 2: 1822 Park
Affordable Units: 18
Bedrooms per unit: 1
30% AMI: 6
50% AMI: 12

Location 3: 2011 Pillsbury/Alliance
Affordable Units: 27
Bedrooms per unit: 0
30% AMI: 27

Location 4: 430 Oak Grove
Affordable Units: 1
Bedrooms per unit: 1
60% AMI: 1

Location 5: Abbott Apts
Affordable Units: 25
Bedrooms per unit: 0-1
50% AMI: 25

Location 6: Abbott View
Affordable Units: 20
Bedrooms per unit: 1-2
30% AMI: 20
Section 8

Location 7: Alliance Addition
Affordable Units: 184
Bedrooms per unit: 0-2
30% AMI: 148
50% AMI: 36
LIHTC

Location 8: Alliance Stabilization, Phase III
Affordable Units: 12
Bedrooms per unit: NA
60% AMI: 12

Location 9: Archdale Apartments
Affordable Units: 30
Bedrooms per unit: 1
60% AMI: 30
LIHTC

Location 10: Augustana Chapel View Homes
Affordable Units: 33
Bedrooms per unit: 0-1
50% AMI: 33

Location 11: Blaisdell Housing
Affordable Units: 150
Bedrooms per unit: 0-2
60% AMI: 150
Section 8

Location 12: Canadian Terrace
Affordable Units: 19
Bedrooms per unit: 1-3
30% AMI: 19

Location 13: Chicago Avenue Apartments
Affordable Units: 60
Bedrooms per unit: 1-3
30% AMI: 60
Section 8

Location 14: Clinton Avenue Townhomes
Affordable Units: 8
Bedrooms per unit: 2-4
30% AMI: 8
Section 8

Location 15: Collaborative Village Initiative
Affordable Units: 18
Bedrooms per unit: 1-3
30% AMI: 16
50% AMI: 2
LIHTC

Location 16: Courtyard Townhomes (Phillips Park Initiative)
Affordable Units: 12
Bedrooms per unit: 3
30% AMI: 12

Location 17: Ebenezer Towers
Affordable Units: 192
Bedrooms per unit: 0-2
60% AMI: 192
LIHTC

Location 18: Echo Flats
Affordable Units: 20
Bedrooms per unit: 2-4
50% AMI: 16
60% AMI: 4
LIHTC

Location 19: Elliot Ave
Affordable Units: 15
Bedrooms per unit: NA
60% AMI: 15

Location 20: Elliot Park Apartments
Affordable Units: 30
Bedrooms per unit: 2-3
30% AMI: 30
Section 8

Location 21: Elliot Park Commons
Affordable Units: 25
Bedrooms per unit: 1-2
30% AMI: 25

Location 22: Elliot Park II (Slater Square)
Affordable Units: 162
Bedrooms per unit: 0-2
50% AMI: 97
60% AMI: 41
LIHTC

Location 23: Elliot Twins
Affordable Units: 174
Bedrooms per unit: 1
30% AMI: 174
Public Housing

Location 24: Fifth Avenue Highrises
Affordable Units: 253
Bedrooms per unit: 1
30% AMI: 253
Public Housing

Location 25: Franklin Gateway
Affordable Units: 77
Bedrooms per unit: 0-3
30% AMI: 19
50% AMI: 58
LIHTC

Location 26: Franklin Towers
Affordable Units: 110
Bedrooms per unit: 1-2
30% AMI: 110
Public Housing

Location 27: Franklin-Portland Gateway Phase I
Affordable Units: 36
Bedrooms per unit: 1-3
30% AMI: 23
50% AMI: 17
LIHTC

Location 28: Grant Street Commons
Affordable Units: 59
Bedrooms per unit: 0-2
50% AMI: 17
80% AMI: 42
Section 8

Location 29: Graystone Hotel
Affordable Units: 22
Bedrooms per unit: NA
80% AMI: 22

Location 30: Hiawatha - 2533 1st Ave
Affordable Units: 42
Bedrooms per unit: 1
30% AMI: 42
Public Housing

Location 31: Homes of Portland
Affordable Units: 2
Bedrooms per unit: NA
60% AMI: 2

Location 32: Incarnation House
Affordable Units: 15
Bedrooms per unit: 1-2
30% AMI: 15

Location 33: Indian Neighborhood Club
Affordable Units: 14
Bedrooms per unit: NA
30% AMI: 13
80% AMI: 1

Location 34: Kensington Apartments
Affordable Units: 34
Bedrooms per unit: 0-1
60% AMI: 34
LIHTC

Location 35: Lamoreaux Expansion
Affordable Units: 116
Bedrooms per unit: 0-1
30% AMI: 59
50% AMI: 57
LIHTC

Location 36: LaSalle Commons
Affordable Units: 64
Bedrooms per unit: 0-2
60% AMI: 64
LIHTC

Location 37: Loring 100 Apartments
Affordable Units: 107
Bedrooms per unit: 1
30% AMI: 107
LIHTC
Section 8

Location 38: Loring Towers
Affordable Units: 230
Bedrooms per unit: 0-1
60% AMI: 230
LIHTC
Section 8

Location 39: Park Avenue Apartments
Affordable Units: 10
Bedrooms per unit: 2-3
30% AMI: 10
Public Housing

Location 40: Park Avenue Apts
Affordable Units: 38
Bedrooms per unit: 1-4
50% AMI: 34
60% AMI: 4
LIHTC

Location 41: Lydia Apartments
Affordable Units: 40
Bedrooms per unit: 0
30% AMI: 40
LIHTC

Location 42: Madison Apartments
Affordable Units: 51
Bedrooms per unit: 2-4
60% AMI: 51
LIHTC
Section 8

Location 43: Maynidoowahdak Odena
Affordable Units: 15
Bedrooms per unit: 0-4
50% AMI: 15

Location 44: Miwrc Supportive Housing
Affordable Units: 14
Bedrooms per unit: NA
60% AMI: 14

Location 45: New Vision LLC
Affordable Units: 20
Bedrooms per unit: 0
30% AMI: 10
50% AMI: 10

Location 46: Nicollet Towers
Affordable Units: 306
Bedrooms per unit: 1-3
60% AMI: 306
LIHTC
Section 8

Location 47: Nokoma Cooperative
Affordable Units: 19
Bedrooms per unit: 1
60% AMI: 1

Location 48: North Haven Apartments
Affordable Units: 4
Bedrooms per unit: 3-4
30% AMI: 3
50% AMI: 1

Location 49: North Haven Phase II
Affordable Units: 5
Bedrooms per unit: 1-3
50% AMI: 5

Location 50: Opportunity Housing Project Aka: Lamoreaux Expansion
Affordable Units: NA
Bedrooms per unit: NA
Section 8

Location 51: Park Center Highrise
Affordable Units: 182
Bedrooms per unit: 1
30% AMI: 182
LIHTC

Location 52: Park Village
Affordable Units: 6
Bedrooms per unit: 1
60% AMI: 6

Location 53: Passages Community Housing
Affordable Units: 17
Bedrooms per unit: 1-3
30% AMI: 17

Location 54: Phillips Re-design
Affordable Units: 89
Bedrooms per unit: 0-4
60% AMI: 89
LIHTC

Location 55: Phillips Towers Apartments
Affordable Units: 88
Bedrooms per unit: 1
30% AMI: 88
Section 8

Location 56: Pinecliff Apartments
Affordable Units: 30
Bedrooms per unit: 1-2
30% AMI: 7
50% AMI: 23

Location 57: Portland Place Cooperative
Affordable Units: 17
Bedrooms per unit: 1-4
30% AMI: 22
50% AMI: 4
LIHTC

Location 58: Portland Village
Affordable Units: 26
Bedrooms per unit: 2-4
30% AMI: 22
50% AMI: 4
LHITC

Location 59: PPL DECC Recapitalization Project
Affordable Units: 51
Bedrooms per unit: NA
50% AMI: 51
LIHTC

Location 60: Resource Inc.
Affordable Units: 3
Bedrooms per unit: 1-2
30% AMI: 3

Location 61: Ridgewood Home
Affordable Units: 12
Bedrooms per unit: 0
50% AMI: 2
60% AMI: 10

Location 62: Stevens Community
Affordable Units: 59
Bedrooms per unit: 1-2
30% AMI: 59
Section 8

Location 63: Stradford Flats
Affordable Units: 62
Bedrooms per unit: 0-2
30% AMI: 4
60% AMI: 58
LIHTC

Location 64: The Elms
Affordable Units: 32
Bedrooms per unit: NA
60% AMI: 32

Location 65: The Jourdain- Franklin-Portland Gateway (Phase II)
Affordable Units: 24
Bedrooms per unit: 1-3
50% AMI: 24
LIHTC

Location 66: The Lonoke
Affordable Units: 19
Bedrooms per unit: 1
30% AMI: 10
50% AMI: 9
LIHTC

Location 67: The Lorraine
Affordable Units: 16
Bedrooms per unit: NA
50% AMI: 16
Public Housing

Location 68: The Pentagon
Affordable Units: 129
Bedrooms per unit: 1-2
30% AMI: 129
Public Housing

Location 69: The Shelter at Our Savior's
Affordable Units: 6
Bedrooms per unit: NA
60% AMI: 6

Location 70: The Wellstone at Franklin Portland Gateway Phase III
Affordable Units: 37
Bedrooms per unit: 1-3
50% AMI: 37
LIHTC

Location 71: Third Avenue Towers Affordable Units: 198
Bedrooms per unit: 1
30% AMI: 198
Public Housing

Location 72: Westview Park Apartments
Affordable Units: 9
Bedrooms per unit: NA
50% AMI: 9

Location 73: Dundry Hope Block Stabilization Phase II
Affordable Units: 30
Bedrooms per unit: 0-4
30% AMI: 25
50% AMI: 5

Location 74: Many Rivers West
Affordable Units: 28
Bedrooms per unit: 1-3
30% AMI: 3
50% AMI: 9
60% AMI: 8
80% AMI: 8
LIHTC

Location 75: Many Rivers East (planned)
Affordable Units: 53
Bedrooms per unit: 0-3
50% AMI: 30
60% AMI: 10
80% AMI: 13
Section 8

CSAH 5 (Franklin Ave) Reconstruction Project

Attachment 12 | StreetLight HCAADT Estimate

Table 1: HCAADT Estimates

Type of Travel	Zone Name	Average Daily Zone Traffic (StL Index)	HCAADT to Index Ratio	**Estimated** HCAADT
Commercial	CSAH 5 & W of I-35W	12085	0.1948	2350
Commercial	CSAH 9 & TH 169 Bridge	7766	0.1948	1500
Commercial	CSAH 152 & S of Plymouth Ave	5668	0.1948	1100
Commercial	CSAH 153 & W of TH 47	6647	0.1948	1300

Example calculation: 12085*0.1948 = 2354

Table 2: Reference Sites Countywide

Type of Travel	Zone Name	Average Daily Zone Traffic (StL Index)	HCAADT	HCAADT to Index Ratio
Commercial	H008	4381	1050	0.2397
Commercial	H061	2966	700	0.2360
Commercial	H070	4362	870	0.1994
Commercial	H263	6122	1250	0.2042
Commercial	H267	14545	2850	0.1959
Commercial	H268	7033	1800	0.2559
Commercial	H275	9115	1200	0.1317
Commercial	H286	4932	590	0.1196
Commercial	H293	3632	1650	0.4543
Commercial	H390	6381	840	0.1316
Commercial	H427	9914	1850	0.1866
Commercial	H440	2780	830	0.2986
Commercial	H442	4060	840	0.2069
Commercial	H522	10852	1400	0.1290
Commercial	H527	8089	1050	0.1298
Commercial	H639	8521	1100	0.1291
Commercial	H706	15969	2150	0.1346
Commercial	H712	11034	1600	0.1450
Commercial	H718	25554	3400	0.1331
Commercial	H719	18112	3600	0.1988
Commercial	H732	5101	730	0.1431
Commercial	H741	28006	4700	0.1678
Commercial	H803	8825	2550	0.2890
Commercial	H829	3394	760	0.2239
Commercial	H847	5223	1200	0.2298
Commercial	H875	4416	670	0.1517

Average ratio 0.1948

CSAH 5 (Franklin Ave) Reconstruction Project

Attachment 13 | Minneapolis Street Lighting Plan

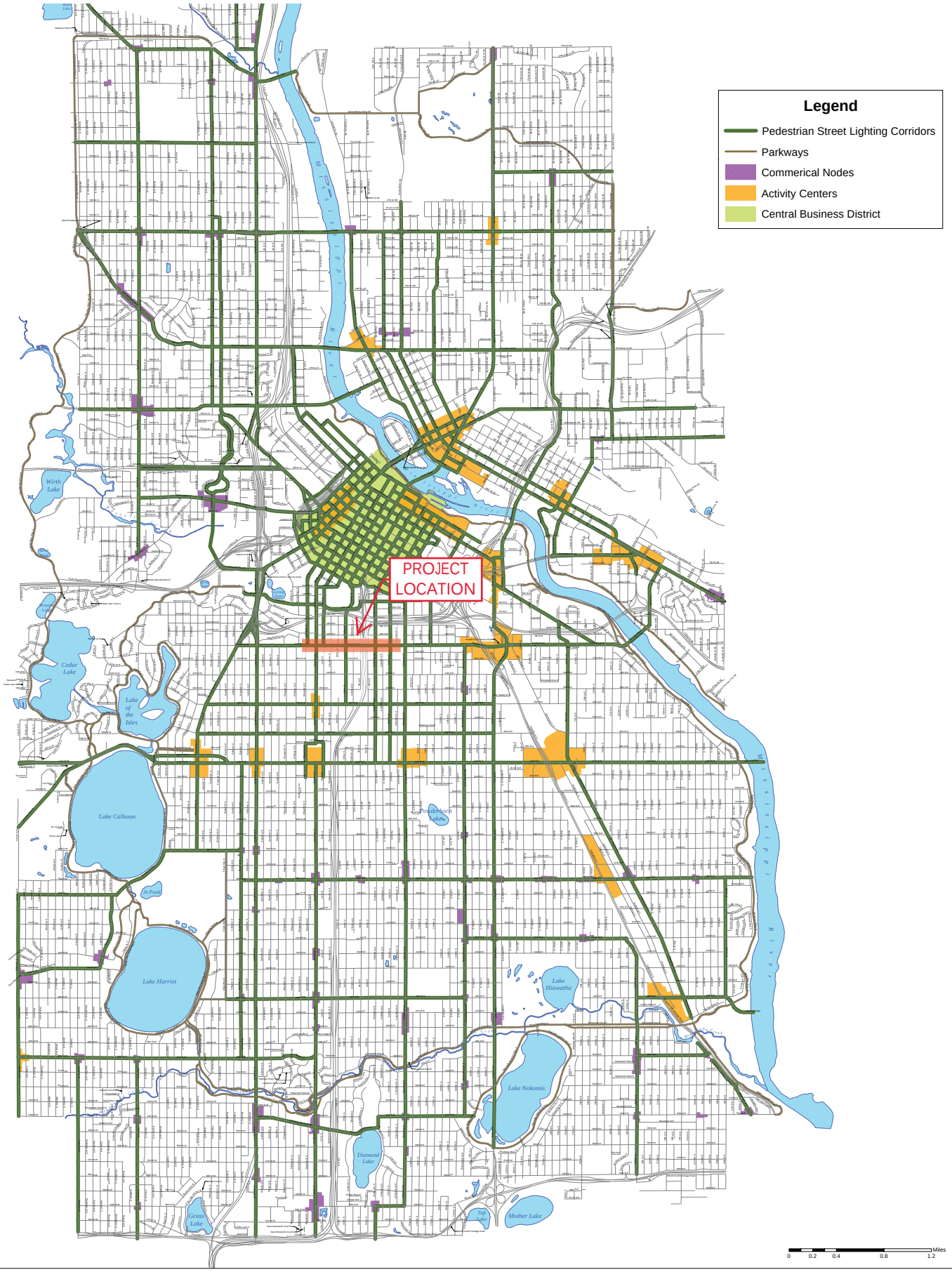

Figure 2: Minneapolis Street Lighting Plan

4/3/2015

CSAH 5 (Franklin Ave) Reconstruction Project

Attachment 14 | Crash Map and Detail Listing

HENNEPIN COUNTY
MINNESOTA

Key

- Major Intersection
- Crash Segment
- Project Location

Disclaimer: This map (i) is furnished "AS IS" with no representation as to completeness or accuracy; (ii) is furnished with no warranty of any kind; and (iii) is not suitable for legal, engineering or surveying purposes. Hennepin County shall not be liable for any damage, injury or loss resulting from this map.

Published date: 4/16/2020

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Hennepin

CSAH 5 (Franklin Ave) Reconstruction Project

Attachment 14 | Crash Map and Detail Listing

Intersection A I At Blaisdell Ave

Incident ID	Roadway	Month	Included	Day	Year	Hour	Sev	Num of Ks	Number of Veh	Basic Type	Contributing Factor	Latitude	Longitude
507478	W FRANKLIN AVE	10	Yes	7	2017	10	5	0	2	10	1	44.96278377	-93.2796941
317413	W FRANKLIN AVE	1	Yes	6	2016	9	5	0	2	7	4	44.96269638	-93.2796702
346823	W FRANKLIN AVE	5	Yes	5	2016	8	3	0	1	2	63	44.96266881	-93.2794688
510391	W FRANKLIN AVE	10	Yes	21	2017	10	5	0	2	10	2	44.96273634	-93.2794356
365897	LA SALLE AVE S	7	Yes	23	2016	2	5	0	2	10	65	44.96273612	-93.2793685
672469	LA SALLE AVE S	12	Yes	29	2018	9	5	0	1	4		44.96279539	-93.2793252
625960	BLAISDELL AVE S	8	Yes	6	2018	8	4	0	2	10	2	44.96262904	-93.2796565
320766	BLAISDELL AVE S	1	Yes	16	2016	11	3	0	2	9	1	44.96265847	-93.2795895
401379	BLAISDELL AVE S	12	Yes	8	2016	5	4	0	2	10	1	44.9626961	-93.2796176
655472	BLAISDELL AVE S	10	Yes	29	2018	9	4	0	0	1		44.96269464	-93.2796166

Subtotal: 10

Intersection B I At Nicollet Ave

Incident ID	Roadway	Month	Included	Day	Year	Hour	Sev	Num of Ks	Number of Veh	Basic Type	Contributing Factor	Latitude	Longitude
621138	W FRANKLIN AVE	7	Yes	16	2018	7	4	0	2	7	1	44.96275434	-93.2782559
415373	W FRANKLIN AVE	1	Yes	15	2017	11	5	0	2	10	1	44.96268853	-93.2780431
388506	W FRANKLIN AVE	10	Yes	22	2016	1	3	0	1	1	1	44.96273254	-93.2780215
474282	W FRANKLIN AVE	7	No	3	2017	3	5	0	2	7	99	44.96267546	-93.2780296
582403	W FRANKLIN AVE	3	Yes	9	2018	9	5	0	2	7	1	44.9626902	-93.2780196
629266	W FRANKLIN AVE	8	Yes	21	2018	2	3	0	2	90	10	44.96272251	-93.2780164
431302	W FRANKLIN AVE	3	Yes	24	2017	7	4	0	1	1	2	44.96273451	-93.2780007
660724	W FRANKLIN AVE	11	Yes	16	2018	5	4	0	1	1	70	44.96273549	-93.2780154
499938	W FRANKLIN AVE	9	Yes	8	2017	8	3	0	2	8	99	44.96272725	-93.2779661
538245	W FRANKLIN AVE	1	Yes	18	2018	2	5	0	1	4		44.96273679	-93.2779595
322081	W FRANKLIN AVE	1	Yes	21	2016	8	3	0	2	9	2	44.9627101	-93.2779526
370649	W FRANKLIN AVE	8	Yes	10	2016	9	4	0	0	1		44.96272966	-93.2779527
406371	W FRANKLIN AVE	12	Yes	19	2016	6	5	0	2	8	1	44.96271967	-93.2779447
403165	E FRANKLIN AVE	12	Yes	13	2016	8	4	0	2	8	2	44.96272257	-93.2779326
650430	E FRANKLIN AVE	10	Yes	8	2018	9	4	0	2	10	99	44.96273011	-93.2779185
652163	E FRANKLIN AVE	10	Yes	15	2018	5	5	0	0	90	90	44.96272263	-93.2779057
514664	E FRANKLIN AVE	11	Yes	4	2017	10	4	0	0	1		44.96276277	-93.2778757
651426	E FRANKLIN AVE	10	Yes	12	2018	12	5	0	2	9	2	44.96267129	-93.2778538
379543	E FRANKLIN AVE	9	No	16	2016	10	5	0	2	90	1	44.96266107	-93.2777578
595709	NICOLLET AVE S	5	No	7	2018	7	4	0	0	1	99	44.96268531	-93.2778955
412081	E FRANKLIN AVE	1	Yes	6	2017	4	3	0	1	4	99	44.96271962	-93.2776776
529421	E FRANKLIN AVE	12	Yes	28	2017	11	5	0	1	4		44.96273865	-93.2776877
530811	NICOLLET AVE S	12	Yes	31	2017	13	4	0	3	7	1	44.96260823	-93.2779387
594341	NICOLLET AVE S	4	Yes	30	2018	17	5	0	1	4		44.96260107	-93.2779454
391427	NICOLLET AVE S	11	No	2	2016	17	5	0	1	4	99	44.96257058	-93.2777507
474916	NICOLLET AVE S	7	Yes	6	2017	2	4	0	1	1	99	44.96264733	-93.2778416
593123	NICOLLET AVE S	4	Yes	24	2018	7	5	0	2	9	1	44.96267889	-93.2779914
619915	NICOLLET AVE S	7	Yes	10	2018	4	4	0	2	7	1	44.96268523	-93.2779835
402889	NICOLLET AVE S	12	Yes	12	2016	3	5	0	2	7	99	44.96269476	-93.2779291
623078	NICOLLET AVE S	7	Yes	17	2018	3	5	0	2	5	1	44.96271296	-93.2779257
653063	NICOLLET AVE S	10	No	19	2018	3	5	0	0	2	99	44.96271406	-93.277939
521090	NICOLLET AVE S	12	Yes	1	2017	6	5	0	2	10	1	44.96271894	-93.2779359
359131	NICOLLET AVE S	6	Yes	24	2016	11	3	0	1	2	1	44.96273758	-93.2779494
510593	NICOLLET AVE S	10	Yes	22	2017	11	5	0	3	7	90	44.96274001	-93.2779326
629884	NICOLLET AVE S	8	Yes	24	2018	6	5	0	1	4		44.96273044	-93.2779326
324818	NICOLLET AVE S	1	Yes	31	2016	4	5	0	1	1	1	44.96279591	-93.2779261
497632	NICOLLET AVE S	8	Yes	29	2017	8	4	0	0	1		44.96281711	-93.2780571
631898	NICOLLET AVE S	9	Yes	1	2018	5	3	0	0	2		44.96282603	-93.2778977

Subtotal: 33

CSAH 5 (Franklin Ave) Reconstruction Project

Attachment 14 | Crash Map and Detail Listing

Intersection C I At 1st Ave S

Incident ID	Roadway	Month	Included	Day	Year	Hour	Sev	Num of Ks	Number of Veh	Basic Type	Contributing Factor	Latitude	Longitude
538739	E FRANKLIN AVE	1	Yes	20	2018	6	5	0	1	4	99	44.96270783	-93.2768193
448880	E FRANKLIN AVE	5	Yes	1	2017	10	5	0	2	7	99	44.96273134	-93.276594
583727	E FRANKLIN AVE	3	Yes	15	2018	7	4	0	2	7	1	44.96272303	-93.2765862
346238	E FRANKLIN AVE	5	Yes	2	2016	4	5	0	2	5	1	44.96272849	-93.2765538
352210	E FRANKLIN AVE	5	Yes	27	2016	3	4	0	3	7	99	44.96272834	-93.276537
496851	E FRANKLIN AVE	8	Yes	26	2017	12	4	0	1	2	2	44.96270219	-93.2765167
373939	1ST AVE S	8	Yes	24	2016	13	5	0	1	4		44.96260232	-93.2764491
533268	1ST AVE S	1	Yes	6	2018	12	5	0	2	7	99	44.96263137	-93.2765667
386768	1ST AVE S	10	Yes	15	2016	1	4	0	4	10	63	44.96266961	-93.2765132
472604	1ST AVE S	6	Yes	26	2017	8	3	0	2	10	1	44.96268072	-93.27653
353314	1ST AVE S	6	Yes	1	2016	6	5	0	2	5	1	44.96268813	-93.2765757
432017	1ST AVE S	3	Yes	28	2017	4	5	0	2	9	99	44.96269615	-93.2765502
587366	1ST AVE S	4	Yes	2	2018	10	5	0	1	3	99	44.96269782	-93.2765872
620522	1ST AVE S	7	Yes	13	2018	8	5	0	2	10	67	44.96270522	-93.2765637
633117	1ST AVE S	9	Yes	7	2018	9	4	0	2	9	1	44.96272709	-93.2765605
454125	1ST AVE S	5	Yes	22	2017	4	3	0	2	10	1	44.96275999	-93.2765673
449755	-- NOT ON ROADW	5	Yes	4	2017	19	5	0	1	3	1	44.96255799	-93.2765196

Subtotal: 17

Segment D I From 150' East of 1st Ave S to 150' West of 3rd Ave S

Incident ID	Roadway	Month	Included	Day	Year	Hour	Sev	Num of Ks	Number of Veh	Basic Type	Contributing Factor	Latitude	Longitude
636768	E FRANKLIN AVE	9	Yes	22	2018	5	0	0	0	90		44.96272878	-93.2755807
324847	E FRANKLIN AVE	1	Yes	31	2016	5	5	0	2	5	70	44.96269735	-93.2753492
318574	E FRANKLIN AVE	1	Yes	10	2016	9	5	0	2	10	2	44.9627165	-93.275309
648630	E FRANKLIN AVE	10	Yes	1	2018	10	5	0	1	4	99	44.9627331	-93.2750575
363411	E FRANKLIN AVE	7	Yes	13	2016	12	5	0	1	4	68	44.96273546	-93.2745711
507383	E FRANKLIN AVE	10	Yes	9	2017	12	5	0	1	4	74	44.96271034	-93.2744435
648546	E FRANKLIN AVE	9	Yes	30	2018	7	4	0	2	6	1	44.96268443	-93.2742563
583911	E FRANKLIN AVE	3	Yes	16	2018	7	5	0	2	10	1	44.96275334	-93.2740713
657284	E FRANKLIN AVE	11	Yes	6	2018	8	5	0	2	5		44.96272778	-93.2733063
417140	E FRANKLIN AVE	1	Yes	20	2017	2	5	0	1	4	90	44.96274276	-93.2731789
334025	E FRANKLIN AVE	3	Yes	7	2016	11	5	0	2	7	1	44.96272182	-93.2730948
401852	E FRANKLIN AVE	12	Yes	10	2016	11	4	0	2	7	99	44.96272475	-93.2730781
391150	3RD AVE S	11	Yes	1	2016	8	4	0	2	7	1	44.96271605	-93.2730512
345373	STEVENS AVE S	4	Yes	28	2016	18	5	0	2	7	1	44.96239715	-93.2752681
342637	STEVENS AVE S	4	Yes	13	2016	8	0	0	0	90		44.9625365	-93.2752612
350699	STEVENS AVE S	5	Yes	22	2016	12	3	0	2	10	65	44.96267494	-93.2753336
417542	STEVENS AVE S	1	Yes	21	2017	3	4	0	2	7	1	44.962729	-93.2752756
521753	STEVENS AVE S	12	Yes	4	2017	10	5	0	1	4	99	44.96274655	-93.2752843
422112	STEVENS AVE S	2	Yes	10	2017	8	5	0	3	7	62	44.96279558	-93.2753228
320163	STEVENS AVE S	1	Yes	14	2016	12	4	0	2	9	1	44.96292606	-93.2753234
666730	2ND AVE S	12	Yes	8	2018	7	5	0	2	7	1	44.96271775	-93.2740128
630198	STEVENS AVE S	8	Yes	25	2018	11	5	0	2	5	1	44.96288921	-93.2753032

Subtotal: 22

CSAH 5 (Franklin Ave) Reconstruction Project

Attachment 14 | Crash Map and Detail Listing

Intersection E I At 3rd Ave S

Incident ID	Roadway	Month	Included	Day	Year	Hour	Sev	Num of Ks	Number of Veh	Basic Type	Contributing Factor	Latitude	Longitude
515988	E FRANKLIN AVE	11	No	10	2017	6	5	0	0	90	99	44.96265842	-93.2729268
502049	E FRANKLIN AVE	9	Yes	18	2017	1	0	0	0	90		44.96269666	-93.2728733
401585	E FRANKLIN AVE	12	Yes	9	2016	12	4	0	2	7	4	44.96272295	-93.2728366
473231	E FRANKLIN AVE	6	No	28	2017	3	5	0	1	4		44.96270819	-93.2728298
391162	E FRANKLIN AVE	11	Yes	1	2016	6	4	0	2	8	1	44.96272145	-93.2728064
628719	E FRANKLIN AVE	8	Yes	17	2018	11	5	0	2	7	99	44.9627069	-93.2727945
650716	E FRANKLIN AVE	10	Yes	9	2018	7	5	0	2	8	2	44.96273623	-93.2727595
663687	E FRANKLIN AVE	11	Yes	28	2018	10	4	0	2	7	99	44.96271673	-93.2727661
320843	E FRANKLIN AVE	1	Yes	16	2016	5	5	0	2	8	1	44.96266555	-93.2727188
351794	E FRANKLIN AVE	5	Yes	26	2016	7	5	0	2	90	2	44.96279477	-93.2726826
631027	3RD AVE S	8	Yes	29	2018	6	5	0	2	10	2	44.96260243	-93.2727555
354802	3RD AVE S	6	Yes	7	2016	1	5	0	2	5	1	44.96262789	-93.2727489
625578	3RD AVE S	8	Yes	4	2018	10	5	0	1	4		44.9626483	-93.2727221
375998	3RD AVE S	8	Yes	30	2016	4	5	0	1	4		44.96267772	-93.2728263
398839	3RD AVE S	11	Yes	29	2016	5	2	0	1	1	2	44.96267371	-93.2728296
625252	3RD AVE S	8	Yes	1	2018	6	5	0	2	10	1	44.96268522	-93.2728364
344953	3RD AVE S	4	Yes	27	2016	9	5	0	2	7	2	44.962723	-93.2728164
354130	3RD AVE S	6	Yes	4	2016	11	5	0	2	7	1	44.96272537	-93.2728198
449868	3RD AVE S	5	Yes	5	2017	7	5	0	2	10	1	44.96272658	-93.2728136
430913	3RD AVE S	3	Yes	22	2017	8	5	0	1	3	99	44.9627404	-93.2728299
661574	3RD AVE S	11	Yes	19	2018	8	5	0	1	4	1	44.96274143	-93.2728077
363713	3RD AVE S	7	Yes	14	2016	7	3	0	2	10	63	44.96274443	-93.2728165
624744	3RD AVE S	8	No	1	2018	8	5	0	2	5	1	44.96275205	-93.2727797
412212	3RD AVE S	1	Yes	7	2017	13	5	0	2	8	10	44.96276809	-93.2728804
604241	3RD AVE S	6	Yes	14	2018	11	5	0	1	4		44.96276088	-93.2727311
372792	3RD AVE S	8	Yes	19	2016	7	5	0	2	7		44.96277379	-93.27281
348608	3RD AVE S	5	Yes	10	2016	4	5	0	2	6	2	44.96278988	-93.2727362
419212	3RD AVE S	1	Yes	29	2017	16	5	0	2	10	2	44.96279022	-93.272914
595034	3RD AVE S	5	Yes	1	2018	2	3	0	1	1	99	44.96279088	-93.2728134
402147	3RD AVE S	12	Yes	11	2016	3	5	0	2	7	99	44.96282794	-93.2727935

Subtotal: 27

Intersection F I At Clinton Ave S

Incident ID	Roadway	Month	Included	Day	Year	Hour	Sev	Num of Ks	Number of Veh	Basic Type	Contributing Factor	Latitude	Longitude
322363	E FRANKLIN AVE	1	Yes	21	2016	11	5	0	2	5	71	44.96273212	-93.2717731
458741	E FRANKLIN AVE	6	Yes	10	2017	3	5	0	1	4		44.96270927	-93.2716895
624392	E FRANKLIN AVE	7	Yes	30	2018	4	5	0	1	4		44.96270582	-93.2715289
340350	E FRANKLIN AVE	4	Yes	5	2016	8	5	0	1	4		44.96271868	-93.271496
601519	E FRANKLIN AVE	6	Yes	2	2018	12	5	0	2	10	10	44.96270593	-93.2714811
392070	E FRANKLIN AVE	11	Yes	4	2016	9	2	0	1	1	1	44.96272791	-93.2712531
595277	E FRANKLIN AVE	5	No	4	2018	7	5	0	1	4	1	44.96271604	-93.2712363
386599	E FRANKLIN AVE	10	Yes	14	2016	3	5	0	2	90	10	44.96271586	-93.2711323
659769	E FRANKLIN AVE	11	Yes	13	2018	12	5	0	1	4	70	44.96273651	-93.2711047
585814	CLINTON AVE S	3	Yes	27	2018	9	5	0	2	6	1	44.9626025	-93.2715712
455849	CLINTON AVE S	5	Yes	30	2017	7	5	0	1	4		44.96266169	-93.2714962
325056	CLINTON AVE S	2	Yes	1	2016	1	4	0	1	1	1	44.96269701	-93.2715112
446070	CLINTON AVE S	4	Yes	18	2017	8	5	0	2	9	2	44.9626987	-93.271518
474463	CLINTON AVE S	7	Yes	4	2017	4	3	0	2	8	1	44.96268759	-93.2715012
415451	CLINTON AVE S	1	Yes	15	2017	4	5	0	2	8	2	44.96271002	-93.2714954
429448	CLINTON AVE S	3	Yes	14	2017	11	0	0	0	90		44.96270353	-93.2714912
417812	CLINTON AVE S	1	Yes	23	2017	1	5	0	2	7	1	44.96276917	-93.2714311
330905	CLINTON AVE S	2	Yes	21	2016	18	5	0	1	4	68	44.96289937	-93.2715122

Subtotal: 17

CSAH 5 (Franklin Ave) Reconstruction Project

Attachment 14 | Crash Map and Detail Listing

Intersection G I At 4th Ave S

Incident ID	Roadway	Month	Included	Day	Year	Hour	Sev	Num of Ks	Number of Veh	Basic Type	Contributing Factor	Latitude	Longitude
339597	NB MNTH 65 AT FR/	3	No	31	2016	4	5	0	2	7	1	44.96266404	-93.2699164
316753	MNTH 65	1	No	4	2016	6	5	0	2	7	1	44.96268297	-93.2699701
345328	NB MNTH 65 AT FR/	4	No	20	2016	6	5	0	2	7	1	44.9626831	-93.2699165
563593	MNTH 65	2	No	4	2018	5	5	0	1	3	70	44.96268297	-93.2699701
472137	E FRANKLIN AVE	6	Yes	23	2017	4	5	0	3	7	70	44.96271351	-93.2706942
401448	E FRANKLIN AVE	12	Yes	8	2016	7	5	0	3	90	1	44.96270437	-93.2706357
357539	E FRANKLIN AVE	6	Yes	18	2016	3	5	0	2	90	2	44.96276531	-93.2703642
360040	E FRANKLIN AVE	6	Yes	28	2016	3	5	0	2	7	4	44.96272013	-93.2703372
636363	E FRANKLIN AVE	9	Yes	20	2018	9	5	0	1	3	99	44.96270035	-93.2703203
492302	E FRANKLIN AVE	8	Yes	7	2017	3	3	0	2	2	99	44.96270039	-93.2702002
386620	E FRANKLIN AVE	10	Yes	14	2016	2	4	0	3	90	10	44.96270876	-93.2701057
455108	4TH AVE S	5	No	26	2017	17	5	0	0	90		44.96246832	-93.2702505
475849	4TH AVE S	7	No	10	2017	13	5	0	1	4	90	44.96247211	-93.2703092
397874	4TH AVE S	11	No	25	2016	1	0	0	0	90		44.96263608	-93.2703066
360041	4TH AVE S	6	Yes	28	2016	3	5	0	2	9	1	44.96270294	-93.2702331
413549	4TH AVE S	1	Yes	10	2017	9	5	0	2	7	99	44.96271486	-93.2702265
317456	4TH AVE S	1	Yes	6	2016	11	5	0	2	10	10	44.96272862	-93.2702365
413999	4TH AVE S	1	Yes	11	2017	3	5	0	2	10	1	44.96274528	-93.2702474

Subtotal: 11

Intersection H I At 5th Ave S

Incident ID	Roadway	Month	Included	Day	Year	Hour	Sev	Num of Ks	Number of Veh	Basic Type	Contributing Factor	Latitude	Longitude
359277	35	6	No	24	2016	18	5	0	3	7	1	44.96253256	-93.2691106
340462	NB ISTH 35W @ FR/	3	No	24	2016	14	3	0	2	7	1	44.96255174	-93.269057
344340	35	4	No	14	2016	13	4	0	2	7	1	44.96258979	-93.269084
341360	35	4	No	5	2016	20	5	0	2	7	1	44.96262796	-93.2690574
377168	35	9	No	7	2016	5	5	0	1	4	1	44.96266601	-93.2690844
432335	ISTH 35W @ FRANK	3	No	30	2017	8	5	0	2	7	1	44.96266575	-93.2691917
376568	35	9	No	2	2016	8	5	0	3	7	1	44.96270399	-93.2691382
340485	E FRANKLIN AVE	4	Yes	6	2016	1	5	0	1	4		44.9627138	-93.2690254
341448	E FRANKLIN AVE	4	Yes	10	2016	4	5	0	2	10	2	44.9627096	-93.2689449
374697	E FRANKLIN AVE	8	Yes	27	2016	12	5	0	1	4		44.96270597	-93.2689482
391809	E FRANKLIN AVE	11	Yes	4	2016	12	5	0	2	10	74	44.96271434	-93.2689349
457104	E FRANKLIN AVE	6	Yes	4	2017	7	5	0	2	6	1	44.96270615	-93.2689165
492619	E FRANKLIN AVE	8	Yes	8	2017	5	5	0	1	4	1	44.96270749	-93.2689152
657140	E FRANKLIN AVE	10	Yes	26	2018	8	5	0	2	10	63	44.96271198	-93.2689248
453994	E FRANKLIN AVE	5	Yes	21	2017	8	5	0	2	5	1	44.96267955	-93.2688844
651518	E FRANKLIN AVE	10	Yes	12	2018	7	5	0	1	4		44.96271237	-93.2688861
345329	FRANKLIN AVE E AT	4	Yes	20	2016	7	4	0	2	10	70	44.96270462	-93.2688699
349857	E FRANKLIN AVE	5	Yes	18	2016	7	5	0	2	7	4	44.96271763	-93.2688711
445272	E FRANKLIN AVE	4	Yes	14	2017	7	5	0	1	4		44.96274907	-93.2688511
625322	E FRANKLIN AVE	8	Yes	3	2018	5	5	0	2	90	99	44.96274232	-93.2688478
653035	E FRANKLIN AVE	10	Yes	19	2018	3	5	0	2	5	90	44.96272333	-93.2688208
354430	E FRANKLIN AVE	6	Yes	6	2016	7	4	0	2	10	1	44.96276109	-93.2688076
355046	E FRANKLIN AVE	6	Yes	8	2016	10	5	0	2	10	99	44.96272298	-93.2688074
433354	E FRANKLIN AVE	4	Yes	4	2017	10	5	0	1	3		44.96275477	-93.2687774
331125	E FRANKLIN AVE	2	Yes	22	2016	3	4	0	1	4	1	44.96271384	-93.2687469
493139	E FRANKLIN AVE	8	Yes	10	2017	18	5	0	2	7	1	44.96278884	-93.2686741
318362	E FRANKLIN AVE	1	Yes	9	2016	13	5	0	1	4		44.96278967	-93.2685862
424683	E FRANKLIN AVE	2	Yes	22	2017	7	5	0	1	3	69	44.96269141	-93.268559
489176	5TH AVE S	7	Yes	24	2017	3	5	0	2	10	99	44.96271326	-93.2689215
493409	5TH AVE S	8	Yes	11	2017	6	5	0	2	5	10	44.96271155	-93.2689232
361706	5TH AVE S	7	Yes	5	2016	3	3	0	2	10	99	44.96272626	-93.2689282

Subtotal: 24

CSAH 5 (Franklin Ave) Reconstruction Project

Attachment 14 | Crash Map and Detail Listing

Intersection I l At CSAH 35 (Portland Ave)

Incident ID	Roadway	Month	Included	Day	Year	Hour	Sev	Num of Ks	Number of Veh	Basic Type	Contributing Factor	Latitude	Longitude
424274	E FRANKLIN AVE	2	Yes	20	2017	7	5	0	1	4	1	44.96269838	-93.2682476
385400	E FRANKLIN AVE	10	Yes	9	2016	3	4	0	1	1	1	44.96270673	-93.2678177
392452	E FRANKLIN AVE	11	Yes	6	2016	4	4	0	2	9	1	44.96274568	-93.2677608
372977	E FRANKLIN AVE	8	Yes	20	2016	3	5	0	2	5	1	44.96269411	-93.2677337
342627	E FRANKLIN AVE	4	Yes	16	2016	1	4	0	2	10	1	44.96270668	-93.2677137
632096	E FRANKLIN AVE	9	Yes	3	2018	4	5	0	2	7	70	44.96270651	-93.2677069
328853	E FRANKLIN AVE	2	Yes	13	2016	8	3	0	2	7	1	44.96269655	-93.2676733
625925	E FRANKLIN AVE	8	Yes	6	2018	5	3	0	1	2	1	44.96270512	-93.2676767
655092	E FRANKLIN AVE	10	Yes	27	2018	10	5	0	2	7	1	44.96270657	-93.2676835
606948	E FRANKLIN AVE	6	Yes	26	2018	3	5	0	2	90	99	44.96270327	-93.2676566
340806	PORTLAND AVE S	4	Yes	8	2016	0	5	0	1	4		44.96245894	-93.2676488
662441	PORTLAND AVE S	11	Yes	23	2018	16	5	0	2	90	99	44.96244725	-93.2677594
363910	PORTLAND AVE S	7	Yes	14	2016	23	4	0	1	4	1	44.96258841	-93.2677234
354619	PORTLAND AVE S	6	Yes	6	2016	7	2	0	2	10	70	44.96267814	-93.2677001
347093	PORTLAND AVE S	5	Yes	6	2016	9	5	0	2	7	4	44.96271128	-93.2677036
458280	PORTLAND AVE S	6	Yes	8	2017	8	4	0	1	1	99	44.96272395	-93.2676976
670096	PORTLAND AVE S	12	Yes	21	2018	12	5	0	2	9	1	44.96268274	-93.2676867
411853	PORTLAND AVE S	1	Yes	6	2017	6	4	0	2	9	99	44.96273745	-93.2677172
487763	PORTLAND AVE S	7	Yes	18	2017	4	5	0	1	4		44.96274939	-93.2677038
394785	PORTLAND AVE S	11	Yes	15	2016	14	4	0	3	7	99	44.9628612	-93.2677412
587828	PORTLAND AVE S	4	Yes	2	2018	22	0	0	0	90		44.96288172	-93.267644
607977	PORTLAND AVE S	6	Yes	30	2018	23	5	0	2	5	99	44.96295789	-93.2677228
331765	-- NOT ON ROADW	2	Yes	25	2016	1	0	0	0	90		44.96267693	-93.2679147
660503	E FRANKLIN AVE	11	Yes	15	2018	8	5	0	1	4		44.96271409	-93.2665026
333155	E FRANKLIN AVE	3	Yes	3	2016	12	2	0	2	7		44.96270884	-93.2671433
364680	E FRANKLIN AVE	7	Yes	18	2016	3	5	0	2	5	90	44.96273023	-93.2672374
344462	E FRANKLIN AVE	4	Yes	24	2016	7	5	0	2	7	4	44.96274532	-93.2674085

Subtotal: 27

Segment J l From 150' East of CSAH 35 (Portland Ave) to 150' West of CSAH 33 (Park Ave)

Incident ID	Roadway	Month	Included	Day	Year	Hour	Sev	Num of Ks	Number of Veh	Basic Type	Contributing Factor	Latitude	Longitude
418468	E FRANKLIN AVE	1	Yes	26	2017	3	5	0	1	4	99	44.9627052	-93.2667374
540391	E FRANKLIN AVE	1	No	14	2018	10	0	0	0	90		44.9627126	-93.2664623
627423	E FRANKLIN AVE	8	Yes	13	2018	12	3	0	2	9	2	44.96272617	-93.2664288
473006	OAKLAND AVE S	6	Yes	27	2017	5	5	0	1	4		44.96268911	-93.2664418

Subtotal: 3

CSAH 5 (Franklin Ave) Reconstruction Project

Attachment 14 | Crash Map and Detail Listing

Intersection K I At CSAH 33 (Park Ave)

Incident ID	Roadway	Month	Included	Day	Year	Hour	Sev	Num of Ks	Number of Veh	Basic Type	Contributing Factor	Latitude	Longitude
397691	E FRANKLIN AVE	11	Yes	24	2016	5	5	0	2	10	68	44.96270523	-93.2651908
342056	E FRANKLIN AVE	4	Yes	13	2016	5	5	0	2	10	99	44.96267907	-93.2651739
364436	E FRANKLIN AVE	7	Yes	17	2016	4	4	0	3	6	63	44.96269691	-93.2651741
379468	E FRANKLIN AVE	9	Yes	15	2016	9	5	0	2	10	10	44.96272275	-93.2651429
366217	E FRANKLIN AVE	7	Yes	24	2016	10	5	0	2	90	1	44.96270655	-93.2651371
420541	E FRANKLIN AVE	2	Yes	3	2017	2	5	0	1	4	1	44.96271106	-93.2651193
587411	E FRANKLIN AVE	4	Yes	2	2018	11	5	0	1	4		44.96270651	-93.2651166
609588	E FRANKLIN AVE	7	Yes	9	2018	9	5	0	2	7		44.96271263	-93.2650801
630901	E FRANKLIN AVE	8	Yes	28	2018	3	3	0	1	2	99	44.96271624	-93.2650869
325801	E FRANKLIN AVE	2	Yes	3	2016	9	0	0	0	90		44.96267642	-93.2650296
449066	E FRANKLIN AVE	5	Yes	1	2017	11	5	0	1	4		44.96269213	-93.2650062
650297	E FRANKLIN AVE	10	Yes	8	2018	12	5	0	1	2	1	44.96271996	-93.265003
368947	PARK AVE S	8	Yes	4	2016	1	4	0	1	4		44.96265409	-93.2651604
333575	PARK AVE S	3	Yes	5	2016	8	4	0	3	90	63	44.96266597	-93.2650966
398858	PARK AVE S	11	Yes	29	2016	7	5	0	2	10	63	44.96268704	-93.2651471
510492	PARK AVE S	10	Yes	21	2017	7	5	0	2	5	1	44.96269112	-93.2651124
338611	PARK AVE S	3	Yes	27	2016	10	5	0	2	10	1	44.96270181	-93.2651237
360377	PARK AVE S	6	Yes	29	2016	3	3	0	1	4		44.96270538	-93.2651271
390612	PARK AVE S	10	Yes	31	2016	3	5	0	2	7	99	44.96271729	-93.2651271
427750	PARK AVE S	3	Yes	8	2017	5	4	0	1	1	1	44.96271105	-93.2651237
662605	PARK AVE S	11	Yes	24	2018	12	4	0	2	10	63	44.96272444	-93.2651238
417856	PARK AVE S	1	Yes	24	2017	8	5	0	2	10	1	44.96274125	-93.2651507
495957	PARK AVE S	8	Yes	22	2017	8	4	0	3	7	70	44.96274223	-93.2651541
429159	PARK AVE S	3	Yes	14	2017	8	5	0	2	10	1	44.96275492	-93.2651474
657186	PARK AVE S	11	Yes	6	2018	8	5	0	2	8	99	44.96278645	-93.2650905
621897	E FRANKLIN AVE	7	Yes	19	2018	10	5	0	1	4		44.96274987	-93.265456

Subtotal: 26

Segment L I From 150' East of CSAH 33 (Park Ave) to 150' West of Chicago Ave

Incident ID	Roadway	Month	Included	Day	Year	Hour	Sev	Num of Ks	Number of Veh	Basic Type	Contributing Factor	Latitude	Longitude
597457	E FRANKLIN AVE	5	No	15	2018	5	5	0	0	90		44.96273495	-93.2636712
457416	E FRANKLIN AVE	6	No	5	2017	8	5	0	1	4	70	44.96271212	-93.2632434
502167	E FRANKLIN AVE	9	Yes	15	2017	9	5	0	2	90	90	44.96270517	-93.2631611
635527	E FRANKLIN AVE	9	Yes	17	2018	2	5	0	1	4	1	44.9627061	-93.2631014
504417	E FRANKLIN AVE	9	No	27	2017	3	0	0	0	90		44.9628402	-93.2629571
457587	COLUMBUS AVE S	6	Yes	6	2017	10	5	0	2	7	99	44.96274641	-93.2638658

Subtotal: 3

Project Total: 220

CSAH 5 (Franklin Ave) Reconstruction Project

Attachment 15 | Crash Modification Factors

CMF ID: 271

PROVIDE A LEFT-TURN LANE ON BOTH MAJOR-ROAD APPROACHES

DESCRIPTION:

PRIOR CONDITION: *NO PRIOR CONDITION(S)*

CATEGORY: INTERSECTION GEOMETRY

STUDY: *SAFETY EFFECTIVENESS OF INTERSECTION LEFT- AND RIGHT-TURN LANES*, HARWOOD ET AL., 2002

Star Quality Rating:	

Crash Modification Factor (CMF)	
Value:	0.58
Adjusted Standard Error:	0.04
Unadjusted Standard Error:	0.03

Crash Reduction Factor (CRF)	
Value:	42 *(This value indicates a **decrease** in crashes)*
Adjusted Standard Error:	4
Unadjusted Standard Error:	3

Applicability	
Crash Type:	All
Crash Severity:	All
Roadway Types:	Not Specified
Number of Lanes:	
Road Division Type:	
Speed Limit:	
Area Type:	Urban
Traffic Volume:	
olume:	
of Day:	
If countermeasure is intersection-based	

CMF ID: 1485

INSTALL ADDITIONAL SIGNAL HEAD (TO HAVE ONE OVER EACH APPROACH LANE)

DESCRIPTION:

PRIOR CONDITION: *NO PRIOR CONDITION(S)*

CATEGORY: INTERSECTION TRAFFIC CONTROL

STUDY: *MAKING INTERSECTIONS SAFER: A TOOLBOX OF ENGINEERING COUNTERMEASURES TO REDUCE RED-LIGHT RUNNING*, MCGEE ET AL., 2002

Star Quality Rating:	[VIEW SCORE DETAILS]

Crash Modification Factor (CMF)	
Value:	0.54
Adjusted Standard Error:	
Unadjusted Standard Error:	0.098

Crash Reduction Factor (CRF)	
Value:	46 *(This value indicates a **decrease** in crashes)*
Adjusted Standard Error:	
Unadjusted Standard Error:	9.8

Applicability	
Crash Type:	Angle
Crash Severity:	All
Roadway Types:	Not specified
Number of Lanes:	
Road Division Type:	
Speed Limit:	
Area Type:	Urban
Traffic Volume:	
lume:	
f Day:	All
If countermeasure is intersection-based	

CMF ID: 2841

CONVERTING FOUR-LANE ROADWAYS TO THREE-LANE ROADWAYS WITH CENTER TURN LANE (ROAD DIET)

DESCRIPTION: CONVERSION OF ROAD SEGMENTS FROM A FOUR-LANE TO A THREE-LANE CROSS-SECTION WITH TWO-WAY LEFT-TURN

PRIOR CONDITION: FOUR-LANE UNDIVIDED ROADWAY

CATEGORY: ROADWAY

STUDY: *COMPARISON OF EMPIRICAL BAYES AND FULL BAYES APPROACHES FOR BEFORE-AFTER ROAD* AUD ET. AL, 2010

Star Quality Rating:	[VIEW SCORE DETAILS]

LANES (ALSO KNOWN AS ROAD DIETS).

Crash Modification Factor (CMF)	
Value:	0.53
Adjusted Standard Error:	
Unadjusted Standard Error:	0.02

SAFETY EVALUATIONS, PERS

Crash Reduction Factor (CRF)	
Value:	47 *(This value indicates a **decrease** in crashes)*
Adjusted Standard Error:	
Unadjusted Standard Error:	2

Applicability	
Crash Type:	All
Crash Severity:	All
Roadway Types:	Not Specified
Number of Lanes:	4
Road Division Type:	Undivided
Speed Limit:	
Area Type:	Suburban
Traffic Volume:	
lume:	
f Day:	All
If countermeasure is intersection-based	

CMF ID: 4177

CHANGING LEFT TURN PHASING FROM PROTECTED-PERMISSIVE TO FLASHING YELLOW ARROW (FYA)

DESCRIPTION: CMFS ARE CALCULATED THE INTERSECTION LEVEL AND NOT THE TREATED APPROACH(ES) LEVEL.

PRIOR CONDITION: ALL TREATED APPROACHES HAD PROTECTED-PERMISSIVE LEFT TURN

CATEGORY: INTERSECTION TRAFFIC CONTROL

STUDY: *EVALUATION OF SAFETY STRATEGIES AT SIGNALIZED INTERSECTIONS*, SRINIVASAN, ET AL., 2011

IMAGE: *VIEW THE COUNTERMEASURE IMAGE.*

Star Quality Rating:	[VIEW SCORE DETAILS]

Crash Modification Factor (CMF)	
Value:	0.806
Adjusted Standard Error:	
Unadjusted Standard Error:	0.146

Crash Reduction Factor (CRF)	
Value:	19.4 *(This value indicates a **decrease** in crashes)*
Adjusted Standard Error:	
Unadjusted Standard Error:	14.6

Applicability	
Crash Type:	Left turn
Crash Severity:	All
Roadway Types:	Not Specified
Number of Lanes:	
Road Division Type:	
Speed Limit:	
Area Type:	Urban
lume:	
lume:	
Time of Day:	Not specified

CMF ID: 5272

INSTALL PEDESTRIAN COUNTDOWN TIMER

DESCRIPTION: INSTALL PEDESTRIAN COUNTDOWN TIMER

PRIOR CONDITION: UNKNOWN

CATEGORY: INTERSECTION TRAFFIC CONTROL

STUDY: *EVALUATING PEDESTRIAN SAFETY IMPROVEMENTS*, VAN HOUTEN ET AL., 2012

Star Quality Rating:	[VIEW SCORE DETAILS]

Crash Modification Factor (CMF)	
Value:	0.3
Adjusted Standard Error:	
Unadjusted Standard Error:	

Crash Reduction Factor (CRF)	
Value:	70 *(This value indicates a **decrease** in crashes)*
Adjusted Standard Error:	
Unadjusted Standard Error:	

Applicability	
Crash Type:	Vehicle/pedestrian
Crash Severity:	All
Roadway Types:	Not specified
Number of Lanes:	
Road Division Type:	
Speed Limit:	
Area Type:	Not specified
Traffic Volume:	
lume:	
f Day:	
If countermeasure is intersection-based	

CMF ID: 7684

CHANGE FROM PERMISSIVE ONLY TO FLASHING YELLOW ARROW PROTECTED/PERMISSIVE LEFT TURN

DESCRIPTION: CHANGE FROM PERMISSIVE ONLY TO FYA - PROTECTED/PERMISSIVE LEFT TURN

PRIOR CONDITION: PERMISSIVE PHASING

CATEGORY: INTERSECTION TRAFFIC CONTROL

STUDY: *SAFETY EFFECTIVENESS OF FLASHING YELLOW ARROW: EVALUATION OF 222 SIGNALIZED INTERSECTIONS IN NORTH CAROLINA*, SIMPSON AND TROY, 2015

Star Quality Rating:	[VIEW SCORE DETAILS]

Crash Modification Factor (CMF)	
Value:	0.598
Adjusted Standard Error:	
Unadjusted Standard Error:	0.105

Crash Reduction Factor (CRF)	
Value:	40.2 *(This value indicates a **decrease** in crashes)*
Adjusted Standard Error:	
Unadjusted Standard Error:	10.5

Applicability	
Crash Type:	Left turn
Crash Severity:	All
Roadway Types:	Not specified
Number of Lanes:	
Road Division Type:	
Speed Limit:	35-55
Area Type:	Not specified
Traffic Volume:	
lume:	
f Day:	
If countermeasure is intersection-based	

Desktop Reference for Crash Reduction Factors — Intersection Crashes

Countermeasure(s)	Crash Type	Crash Severity	Area Type	Config	Control	Major Daily Traffic Volume (veh/day)	Minor Daily Traffic Volume (veh/day)	Ref	Obs	Effectiveness: Crash Reduction Factor / Function	Effectiveness: Std Error	Effectiveness: Range Low	Effectiveness: Range High	Study Type
Prohibit right-turn-on-red (cont'd)	All	All	Urban/ Suburban		Signal			62		100(1-(0.984)^n); n=number of signalized intersection appraoches where RTOR is prohibited				Expert Panel
	Right-angle	All			Signal			15		30				Cross-section
	Sideswipe	All			Signal			15		20				Cross-section
Prohibit turns	All turns	All	All					1		45		40	90	
Restrict parking near intersections (to off-street)	All	All						28		49		8	90	
	Ped	All						15		30				
Vary speed	All	All	Rural					6		100(1-EXP(0.019(V-55))); V=major-road speed limit (or design speed) (mph)				
	All	All	Urban					6		100(1-EXP(0.005(V-40))); V=major-road speed limit (or design speed) (mph)				
LIGHTING														
Improve lighting at intersection	Ped	Fatal						5		78	87			
	Ped	Injury						5		**42**	18			
Install lighting	All	All			Signal			51		30				
	All	Fatal/Injury			Signal			51		17				
	Night	All			Signal			51		50				
	All	All			No Signal			28		47				
	All	All						62		4				Meta Analysis/ Expert Panel
	All	Injury						62		6				Meta Analysis/ Expert Panel
	Night	All						62		21				Meta Analysis/ Expert Panel
	Night	Injury						62		29				Meta Analysis/ Expert Panel

CSAH 5 (Franklin Ave) Reconstruction Project

Attachment 15 | Crash Modification Factors

Safe Transportation for Every Pedestrian

Pedestrians accounted for **15%** of all roadway fatalities in the US in 2015.[1]

66% of pedestrian fatalities occurred at uncontrolled and non-intersection locations.[1]

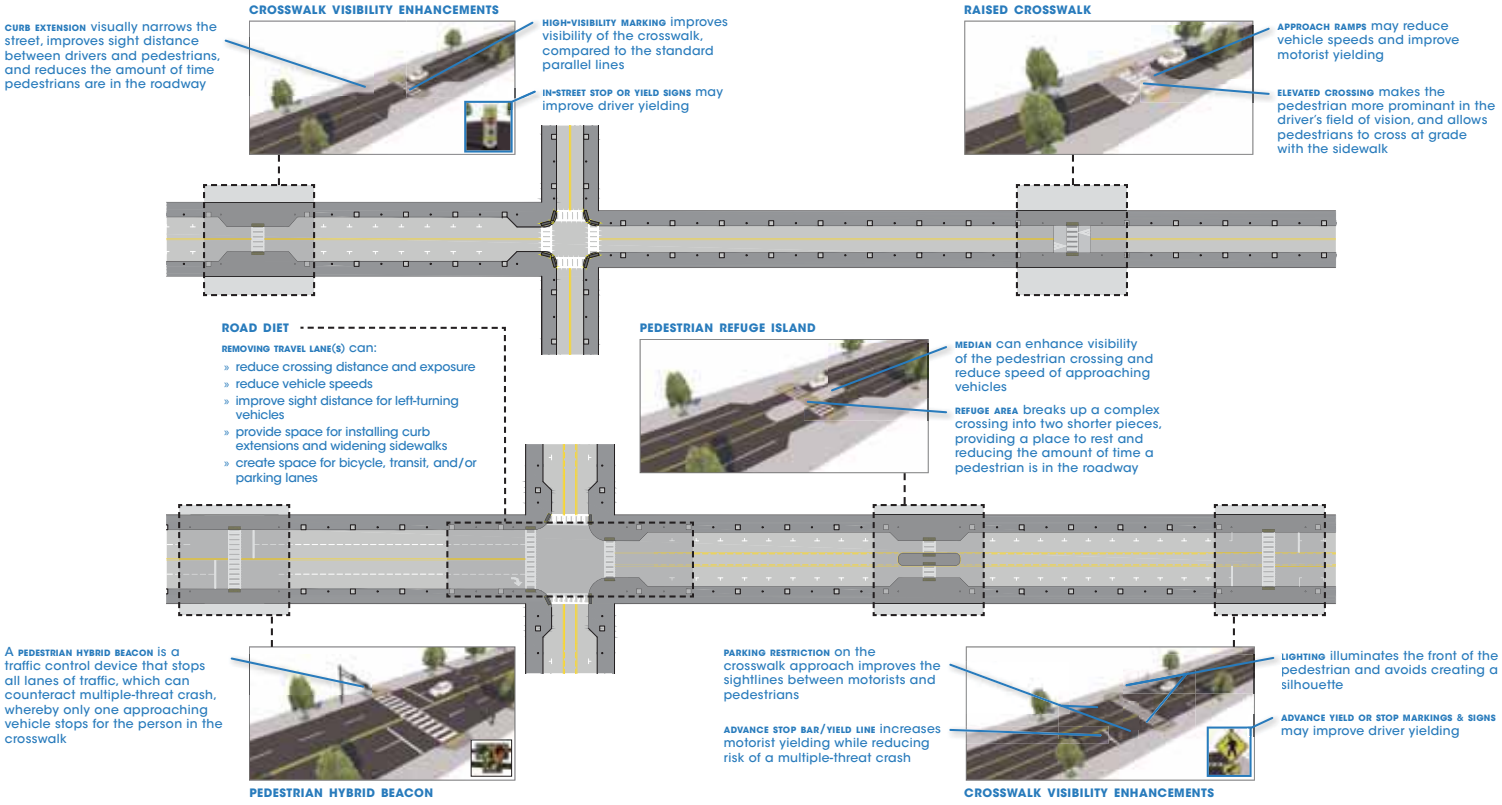
[1]NHSTA FARS, "2015 Motor Vehicle Crashes: Overview,"(2016). https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/812318

The Federal Highway Administration (FHWA) is working to reduce pedestrian fatalities and injuries at uncontrolled crossing locations through Safe Transportation for Every Pedestrian (STEP). STEP is part of the fourth round of Every Day Counts (EDC-4), and its extensive outreach and technical assistance activities are promoting cost-effective countermeasures with known safety benefits to State and local transportation agencies nationwide.

The STEP program focuses on crossing treatments designed to improve pedestrian safety at uncontrolled crossing locations. FHWA is promoting five countermeasures and their associated benefits through STEP.

Most of the STEP countermeasures have been evaluated for their effectiveness to reduce pedestrian crash rates. Where available, the Crash Reduction Factor (CRF) is reported for each countermeasure below, based on national transportation safety studies. The CRF is the expected percent reduction in the number of pedestrian crashes after implementing a countermeasure. Please consult PEDSAFE, the Pedestrian Safety Guide and Countermeasure Selection System (http://www.pedbikesafe.org), for more information about CRFs and guidance for application of these countermeasures to various roadway and safety conditions.

Phoenix, AZ. Credit: Mike Cynecki



Drawings not to scale

5 Proven Countermeasures

CROSSWALK VISIBILITY ENHANCEMENTS — CRF: *25–48%**

Crosswalk visibility enhancements are added features that increase the prominence of crosswalks and pedestrians to oncoming drivers, such as lighting, warning signage, or varied crosswalk markings. Common examples include using a ladder design for the crosswalk markings (instead of two parallel lines) and installing in-street warning signage.

RAISED CROSSWALK — CRF: *not available*

Raised crosswalks span the width of a roadway at a crossing point, often at mid-block crossings. These raised speed tables calm vehicular traffic and create a level crossing at sidewalk height for pedestrians.

PEDESTRIAN REFUGE ISLAND — CRF: *32%*

Pedestrian refuge islands are raised islands within a street, located at intersections or mid-block crossings. Pedestrian refuge islands break up a complex crossing into two shorter crossings and separate motor vehicle and pedestrian crossing movements.

PEDESTRIAN HYBRID BEACON (PHB) — CRF: *55%*

PHBs are pedestrian-activated warning devices designed for higher speed, multilane roadways. PHBs are typically installed at the side of the road or on mast arms over uncontrolled midblock pedestrian crossings. When activated, the device displays a sequence of flashing yellow, steady yellow, solid red (pedestrians get a walk symbol; drivers must stop), and flashing red (pedestrians finish crossing; drivers stop and proceed once the roadway is clear).

ROAD DIET — CRF: *29%*

Road Diets reconfigure existing roadways by reducing the number of vehicular travel lanes. This frees up space for pedestrian refuge islands, curb extensions, bicycle lanes, or other features that improve conditions for pedestrians. The most common type of Road Diet involves converting a four-lane, undivided roadway to two through lanes and a center two-way left-turn lane.

*Advanced Yield or Stop marking and signs have been found to reduce pedestrian crash risk by 25%. High-visibility crosswalk markings have been shown to reduce pedestrian crashes by up to 48%. Parking restrictions on crosswalk approaches are proven to reduce pedestrian crashes by 30%. The addition of overhead lighting is proven to reduce fatal injury crashes by 28%.

STEP Contacts

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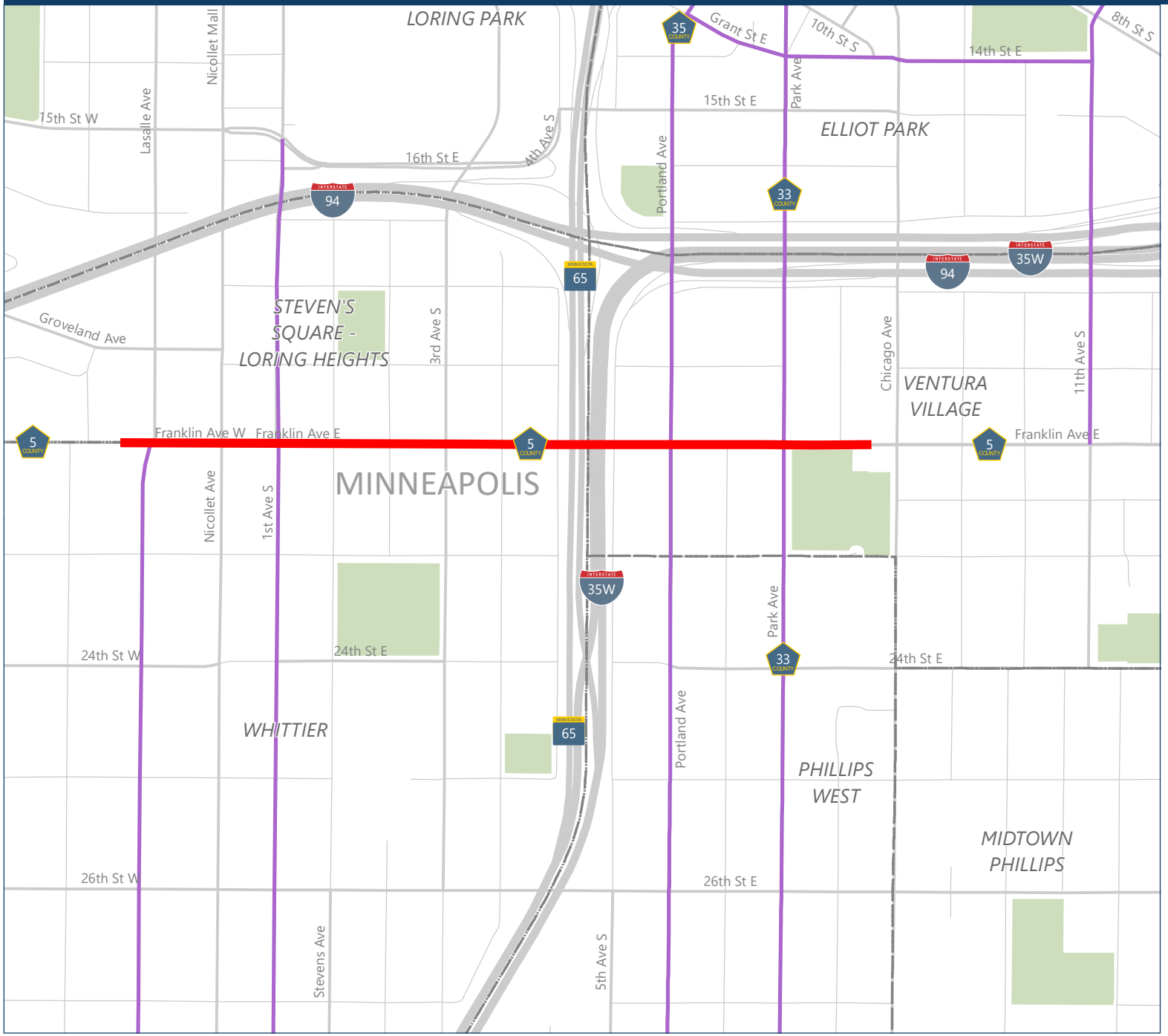
U.S. Department of Transportation
Federal Highway Administration

CSAH 5 (Franklin Ave) Reconstruction Project

Attachment 16 | Multimodal Connections Map

HENNEPIN COUNTY
MINNESOTA



Key

- Project Location

Multimodal Connections

- On-street bikeway
- Off-street bikeway

0 0.125 0.25 Miles

Disclaimer: This map (i) is furnished "AS IS" with no representation as to completeness or accuracy; (ii) is furnished with no warranty of any kind; and (iii) is not suitable for legal, engineering or surveying purposes. Hennepin County shall not be liable for any damage, injury or loss resulting from this map.

Published date: 4/15/2020

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Attachment 17 | City of Minneapolis Support Letter

PLACEHOLDER

CSAH 5 (Franklin Ave) Reconstruction Project

Attachment 18 | MnDOT Support Letter

PLACEHOLDER