

Complete Bridge Survey

Aldine Street Bridge

ST. PAUL Smart Trips

in collaboration with: Union Park District Council, Hamline Midway Coalition, and Greenway Transportation Planning

Background

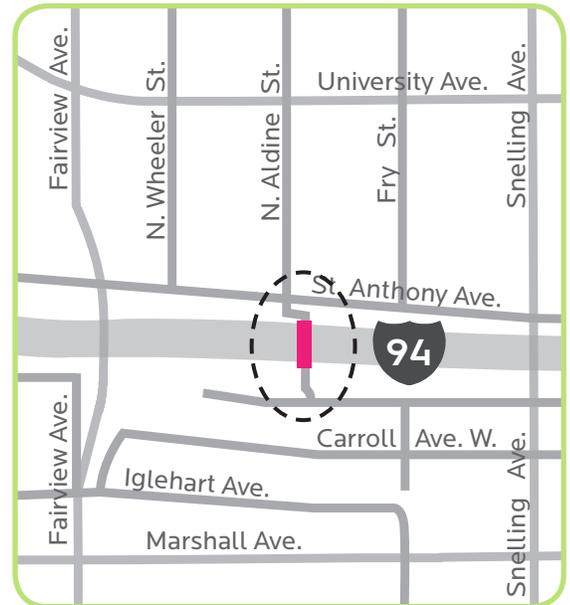
St. Paul Smart Trips developed a Complete Bridges Survey tool in collaboration with Greenway Transportation Planning and community representatives from the Union Park District Council and Hamline Midway Coalition. The goal of the survey was to help the community establish a vision for how bridges can best serve all users—cars, bicycles, pedestrians and those with limited mobility. The group conducted a small-scale survey to test the applicability of the survey tool.

The **Aldine Street bridge** was one of two bridges selected to pilot this survey tool. It is a bicycle/pedestrian bridge running over I-94, connecting the Hamline Midway and Merriam Park East neighborhoods. The footbridge was constructed in 1996 and has recently been identified for potential replacement following the reconstruction of the adjacent Griggs Street footbridge in 2009. Bicycle and pedestrian counts done in 2009 showed that the bridge handled approximately 30 non-motorized movements during the hours of 4 to 6 p.m.

Timing and Implementation

Survey data was collected over a period of two months starting with an on-site survey in July of 2009. Questionnaires were distributed to pedestrians and cyclists one morning during the commute period (7 to 9 a.m.) as they crossed the bridge. Participants had the option to return the survey at a later date by US Mail or at the on-site drop box. During this pilot survey, very few questionnaires were completed on site.

Because the bridge evaluation team had limited staff resources, the survey was



Aldine Street bike/ped bridge located over I-94 in St. Paul

supplemented by posting signage at one end of the bridge for one week, with instructions for users to complete a survey and return it to Smart Trips in the envelope provided.

The survey was also made available online for a two-month period and promoted through direct email, district council electronic newsletters and posted links on the district council website, council member's website and the Smart Trips website.



ST. PAUL Smart Trips

55 EAST 5TH ST.
SUITE 202
ST. PAUL, MN 55101
smart-trips.org

651-224-8555

GREENWAY

Greenway Transportation Planning
1338 Keston Street, St. Paul, MN 55108
www.greenway-consulting.com

Survey Results

A total of 18 completed questionnaires about the Aldine Street bridge were collected. This included 10 on-site and 8 online responses. The respondent profiles indicated:

- 8 walk across the bridge at least weekly
- 14 cycle across the bridge at least weekly

Subjects rated the importance and level of satisfaction with various bridge features on a scale of 1 to 5, with 5 indicating very important or excellent. The importance questions provide insight for prioritizing design features for bridges. The level of satisfaction question gives feedback on the current state of the bridge that can be used to prioritize required improvements as opportunities arise.

The bridge rating is tabulated below and illustrated in the graph that follows.

Audit Data

TABLE 1	ATTRIBUTE	FEATURE RATING	
		IMPORTANCE	SATISFACTION
CONVENIENCE	Directness of route	4.2	3.8
	Link to other routes/destinations	4.2	3.5
	Signage/Way-finding	3.2	2.5
ACCESSIBILITY	Ease of crossing roads	4.6	3.5
	Mobility-impaired provision	2.9	2.6
SAFETY	Personal Safety	4.5	3.6
	Separation from other traffic	4.3	4.5
	Speed of other traffic	4.4	3.9
	Winter maintenance	4.2	2.5
COMFORT	Shade/weather protection	2.1	2.7
	Noise barriers	2.0	2.2
	Street lighting	3.8	2.6
	Width of sidewalk	3.8	3.5
	Presence and width of bike lane	3.9	3.9
	Condition of sidewalk surface	3.9	3.4
ATTRACTIVENESS	Condition of road/bike lane surface	4.2	3.6
	Landscaping	3.2	3.1
	Public Art	3.1	2.4
OVERALL BRIDGE SCORE			3.2

Note: Importance scale: 1=Totally unimportant, 2=Unimportant, 3=Somewhat important, 4=Important, 5=Very important
Satisfaction scale: 1=Awful, 2=Problems, 3=Good, 4=Very good, 5=Excellent



ST. PAUL Smart Trips

55 EAST 5TH ST.
SUITE 202
ST. PAUL, MN 55101
smart-trips.org

651-224-8555

Priority Features

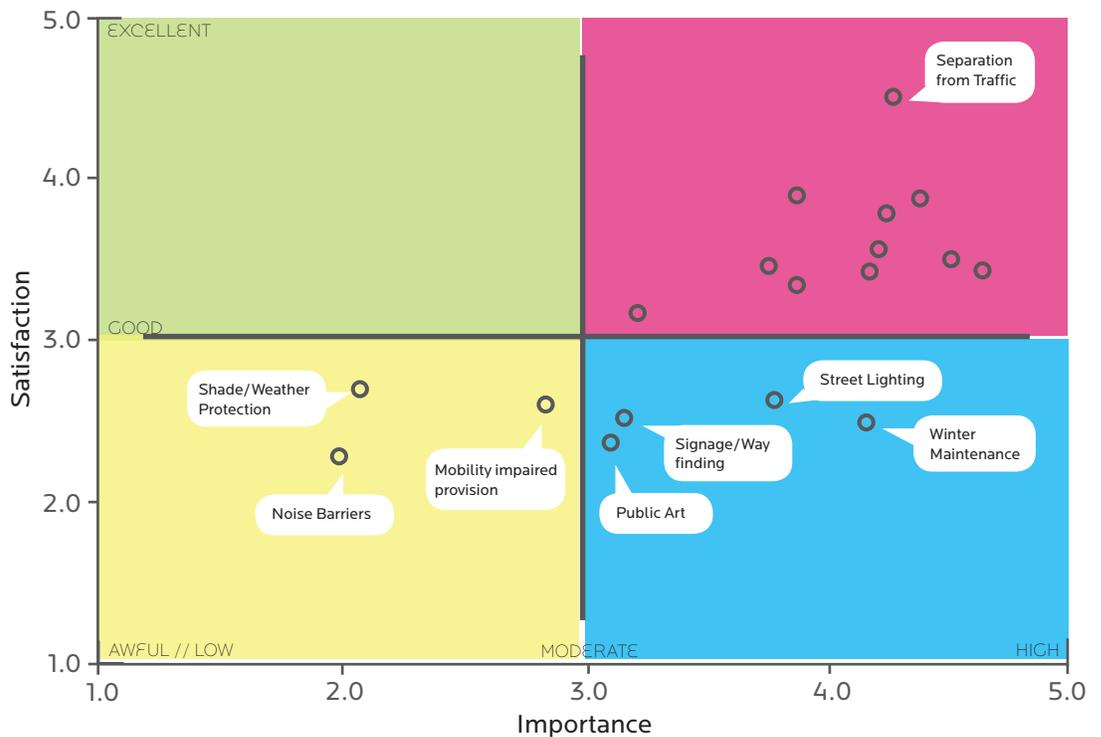
Survey respondents indicated that they value and are very satisfied with Aldine as a pedestrian- and cycle-only footbridge as indicated with the majority of satisfaction ratings above 3 (Good). The features they are least satisfied with and rate as important include:

- Winter maintenance
- Street lighting
- Signage and way-finding
- Public art

These features of the existing bridge need to be addressed to improve user experience. It is notable that none of these treatments require any significant physical modification to the existing bridge. Respondents also indicated a low level of satisfaction with the shade/ weather protection and noise levels, although these were not ranked of high importance.

The overall rating for the bridge, considering all features to be of equal significance, is 3.2, which indicates an overall 'Good' level of satisfaction with the current bridge environment. The survey results, however, indicate that this can be easily improved because key deficiencies can be addressed without significant alteration to the existing bridge.

Bridge Rating



ST. PAUL Smart Trips

55 EAST 5TH ST.
SUITE 202
ST. PAUL, MN 55101
smart-trips.org

651-224-8555

Next Steps

The pilot survey demonstrated the effectiveness of the Complete Bridges Survey instrument in gathering user feedback. It was able to identify critical issues affecting bridge walkers and cyclists. This information provided a clear indication of the required bridge improvements and current level of user satisfaction.

While the pilot survey was successful in testing the questionnaire, the limited number of responses did not allow for a full demonstration of the possible levels of analysis, such as by type of user and level of bridge use, demographics and origin-destination information. The survey instrument would therefore benefit from a more robust testing associated with an anticipated bridge improvement project.

Nevertheless, the pilot survey demonstrated the potential for the Complete Bridge Survey to assist communities in developing their vision of how bridges can best serve all users. We look forward to the continued development and application of this tool and our involvement in ensuring Complete Bridges throughout St. Paul. As a result of this effort, the Complete Bridge Survey has been shared with the St. Paul Public Works Department for their discussions with The Minnesota Department of Transportation regarding future bridge projects.

Find the link to download the Complete Bridges Survey Tool at www.smart-trips.org/about

The Complete Bridges survey is the first step in creating a community vision of how bridges can best serve all users—cars, bicycles, pedestrians and those with limited-mobility.

Thanks to the
Union Park District Council
Hamline Midway Coalition and
Greenway Transportation Planning
for their participation and assistance.



GREENWAY



ST. PAUL Smart Trips

55 EAST 5TH ST.
SUITE 202
ST. PAUL, MN 55101
smart-trips.org

651-224-8555