

MOUNTAIN-PLAINS CONSORTIUM

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FORT TOTTEN WALKABILITY
ASSESSMENT AND
RECOMMENDATION REVIEW



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Fort Totten Walkability Assessment and Recommendation Review

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ABSTRACT

A community is considered walkable if it is easy and safe for pedestrians to walk for recreation and exercise and to destinations such as schools, stores, parks, and post offices. A walkable community encourages the safe use of existing infrastructure while expanding transportation options for users with varied ranges of mobility. The goal of this assessment is to bring all stakeholders together to identify the problems facing the Fort Totten community when it comes to walking in the area. The review documents the current recommended follow-up steps undertaken by the Spirit Lake Nation's (SLN) Transportation Department or its consulting firm(s) and will be useful to inform next steps such as identifying funding opportunities and future research needs.

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1. INTRODUCTION

A community is considered walkable if it is easy and safe for pedestrians to walk for recreation and exercise and to reach destinations such as schools, stores, parks, and post offices. A walkable community encourages the safe use of existing infrastructure while expanding transportation options for users with varied ranges of mobility. This report documents a walkability assessment of the Spirit Lake Nation (SLN) as completed by Upper Great Plains Transportation Institute (UGPTI). The goal of this assessment is to bring all stakeholders together to identify the problems facing the Fort Totten community when it comes to walking in the area.

2. SITE SELECTION

At the request of the SLN, UGPTI's Advanced Traffic Analysis Center (ATAC) assessed an approximately three-mile-long loop of sidewalks and crosswalks in Fort Totten. The loop includes access to the high school, health services center, and several tribal offices. Figure 2.1 shows a map of the loop. Dotted lines indicate locations without a sidewalk/crosswalk.

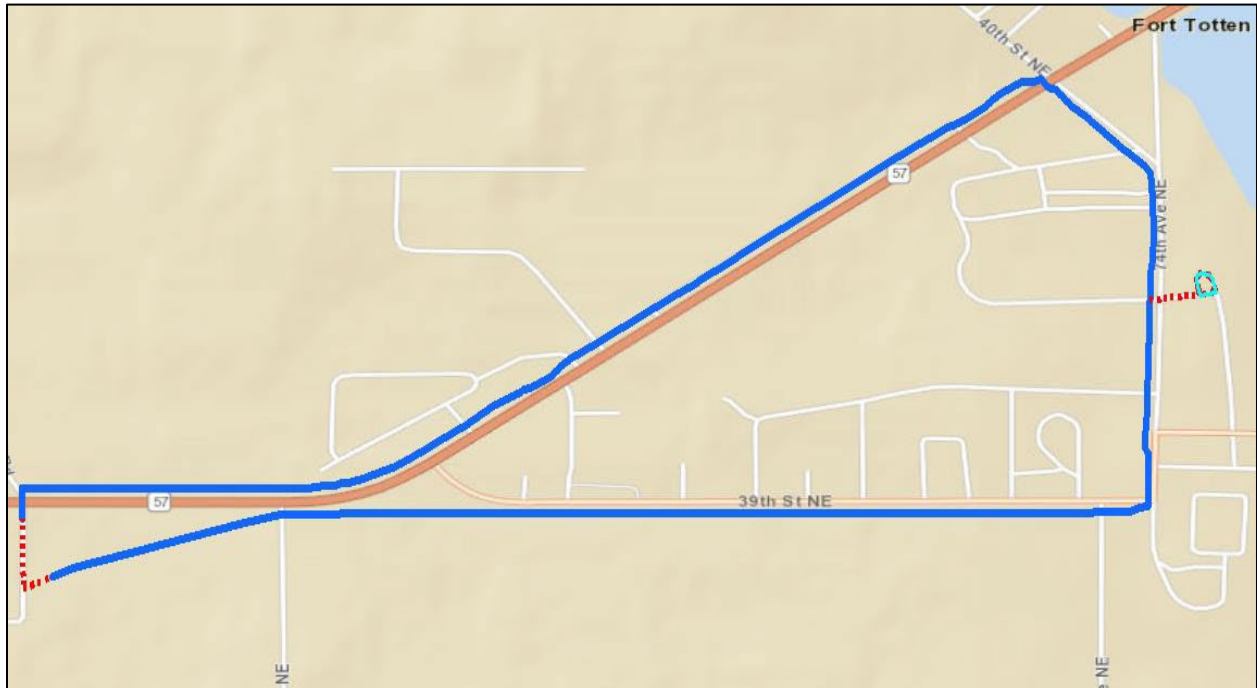


Figure 2.1 Assessment route map

3. ASSESSMENT TOOL

ATAC staff used the walkability checklist from www.pedbikeinfo.org as an assessment tool. A brief training prior to the site visit/assessment included background information regarding the checklist and detailed information regarding the rating scale used in the assessment. The checklist includes the following questions:

1. Did you have room to walk?
2. Was it easy to cross streets?
3. Did drivers behave well?
4. Was it easy to follow safety rules?
5. Was your walk pleasant?

Each of these questions includes a rating from 1 to 6 categorized as below:

1. Awful
2. Many Problems
3. Some Problems
4. Good
5. Very Good
6. Excellent

The corresponding total ratings add up to a range of 5-30 as classified below:

1. 26 – 30 Celebrate! You have a great neighborhood for walking.
2. 21 – 25 Celebrate a little. Your neighborhood is pretty good.
3. 16 – 20 Okay, but it needs work.
4. 11 – 15 It needs a lot of work. You deserve better than that.
5. 5 – 10 It's a disaster for walking!

4. SITE VISIT/ASSESSMENT

ATAC staff completed the training, site visit, and assessment on November 26, 2019. The assessment began at the Spirit Lake Tribal Planning office and continued around the three-mile loop. The checklists were completed following the assessment. Participants also provided written comments. The comments covered issues including those identified during the assessment and those observed at other times of the year.

5. OBSERVATIONS

The assessment team observed several people walking on the sidewalk, apparently on their regular lunchtime strolls. Several SLN officials and community members participated in the training as well as the assessment and provided valuable comments. The loop presents a convenient opportunity for users to complete a 5K walk/run.

The team observed an overgrowth of trees and shrubs along the sidewalks. The overgrowth encroached upon the walkable areas of the sidewalk as seen in Figure 5.1. Note that the assessment was completed during the fall. During spring, summer, and early fall, the overhanging branches can be expected to drop further and encroach on the sidewalk even more. This overgrowth is not only a sidewalk-constricting nuisance but a hazard with the potential of injuring sidewalk users, especially during low-light hours of the day.

At several locations, as seen in Figure 5.2, the sidewalk had deteriorated, leading to the substantial loss of the wearing course and allowing the subgrade to surface. In these locations, the sidewalk had the appearance of a gravel path. Such conditions, especially during wet weather, are not conducive to walking or running. The issue is particularly precarious for those using wheelchairs and strollers.



Figure 5.1 Overhanging trees along ND57



Figure 5.2 Discontinuity in sidewalk

At some locations, as seen in Figure 5.3, ramps connecting the sidewalk to the crosswalk were missing. They appear to have never been constructed.



Figure 5.3 Missing ramp near Four Winds High School



Figure 5.4 Slippery sidewalk conditions

At several locations, as seen in Figure 5.4, the sidewalk was icy. At multiple locations, signs were missing, graffiti-covered, or otherwise vandalized as seen in Figures 5.5 and 5.6.



Figure 5.5 Damaged bike route sign



Figure 5.6 Sign post missing sign

The team observed unleashed pet dogs near the apparent owner's house as seen in Figure 5.7. This creates an uninviting walking environment that is further exacerbated by a lack of lighting at night or during low-light hours.



Figure 5.7 Unleashed pet dog



Figure 5.8 Puddle of water on damaged sidewalk

Some places had water puddles on the sidewalk. The area under water in Figure 5.8 appears to have been damaged/cracked. Also, note the missing sign on the post to the right. At other locations, most of the walking surface had weathered and weeds were growing where the sidewalk used to be, as shown in Figure 5.9.



Figure 5.9 Weathered sidewalk and weeds



Figure 5.10 A location missing landing for the pedestrian push button

At some locations, landings next to the pedestrian push buttons were missing, as seen in Figures 5.10 and 5.11. At such locations, it can be very difficult to reach the push button, especially for children and other vulnerable members of the community. The landings appear to have never been built.



Figure 5.11 Another location with missing landing for pedestrian push button



Figure 5.12 Discontinuous sidewalk

At several locations, as seen in Figure 5.12, the team found the sidewalk to be discontinuous, especially across driveways. Another discontinuity location was where the sidewalk led into a parking lot; the difference between the parking lot and the sidewalk was not discernible.



Figure 5.13 Different top layers used for sidewalk

In some locations, different top layers (asphalt and concrete) were observed on the sidewalk. A mix of materials, as seen in Figure 5.13, may present challenges for repair and maintenance.

6. ASSESSMENT RESULTS

On average, participants rated their walk and the infrastructure at about 15 as seen in Figures 6.1, 6.2, and 6.3 below. The assessment results also show that most participants agreed that the infrastructure needed a lot of work.

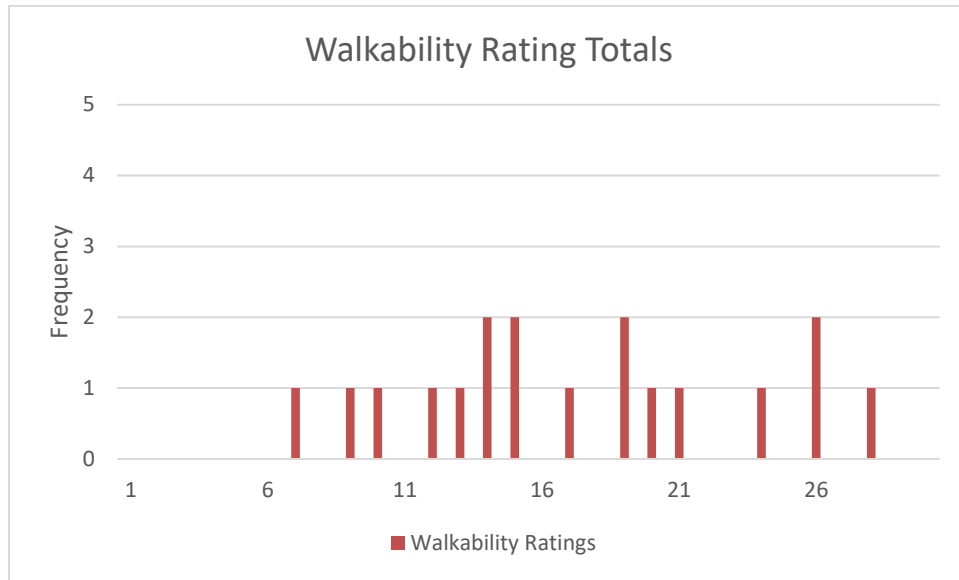


Figure 6.1 Walkability ratings totals chart

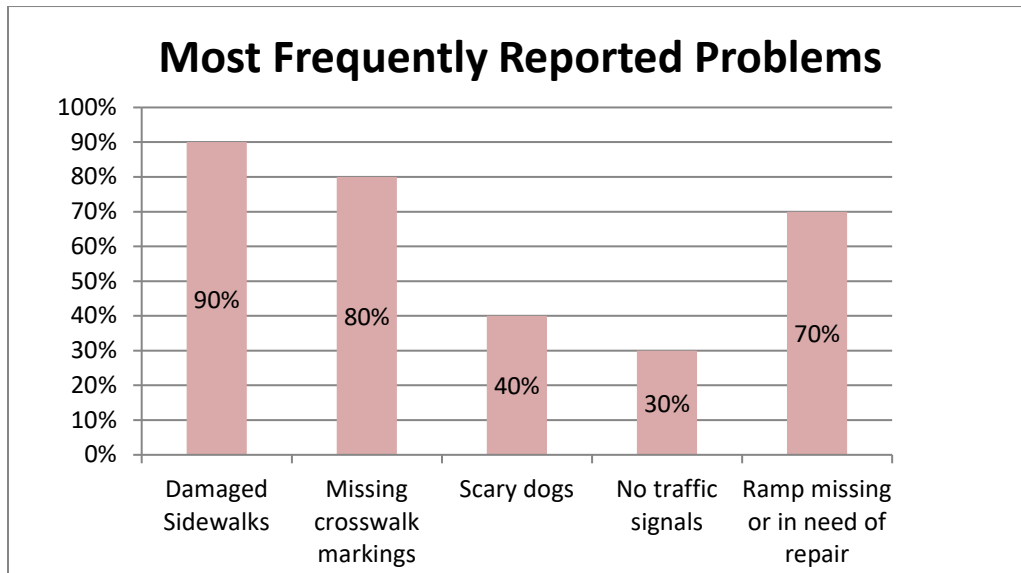


Figure 6.2 Most frequently reported problems chart

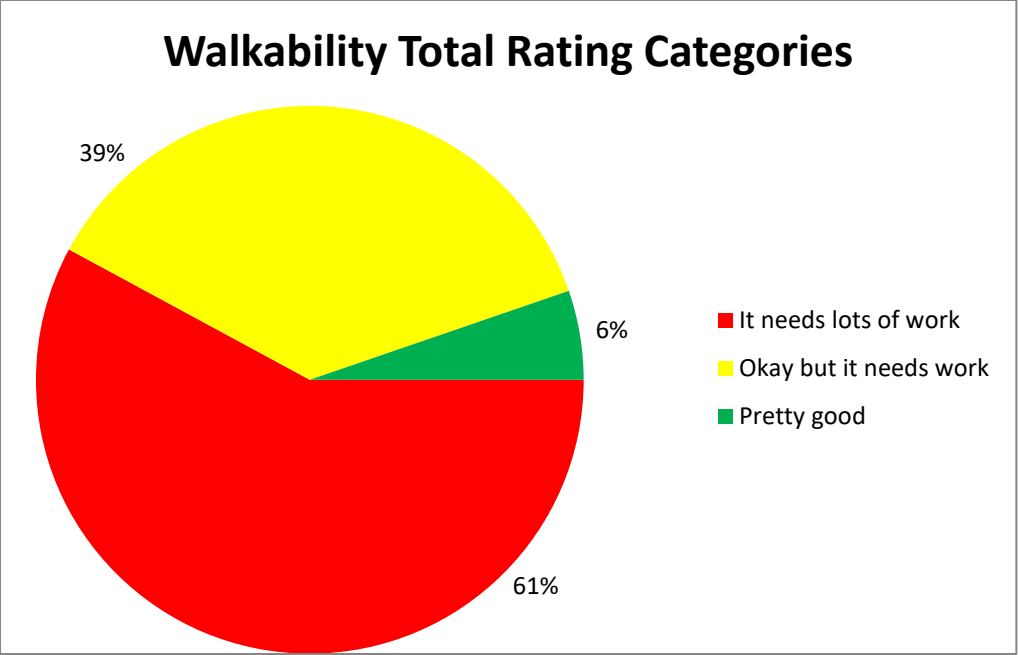


Figure 6.3 Walkability total ratings categories chart

7. RECOMMENDATIONS

Based on the observations, assessment results, and participant comments, ATAC has the following recommendations.

7.1 Rebuild

Sections of the sidewalks in poor condition should be rebuilt to current standards. In doing so, there should be no discontinuities across driveways or along parking lots. It would likely be beneficial to complete several smaller related work items at the same time, including:

- Installation of missing ramps
- Pavement marking updates
- Missing sign installation
- Damaged sign replacement

7.2 Lighting

Lighting along the sidewalks should be reviewed, especially at locations where the sidewalk is offset by a large distance from the roadway. Additional lighting is necessary to make the sidewalk safe for users.

7.3 Needs Assessment

A needs assessment should be completed to determine if a traffic signal is warranted along any of the locations. The needs assessment should include items such as potential alternatives and countermeasures to ensure that all field equipment and installations are up to current standards and guidelines.

7.4 Maintenance

A review of maintenance practices should be completed. In addition to using plows, brushing snow away from the walking surface should be considered. De-icing and traction improvement strategies should be instituted to maintain sidewalks and shared-use paths in safe walking conditions. Other considerations include regular maintenance of nearby trees/shrubbery and weed control. Trash receptacles could be installed at regular intervals along the entire path to encourage users to keep the area clear of any garbage.

7.5 Pet Ordinance

A local ordinance should be considered to assure that pets, which many assessment participants considered potentially harmful (e.g., unleashed pets), are kept away from the walking area at all times unless leashed.

8. RECOMMENDATION REVIEW

In 2024, the SLN and Upper Great Plains Transportation Institute initiated a review of the recommendations made in the Fort Totten Walkability Assessment completed by the Advanced Traffic Analysis Center in April 2020. The intent of this review is to document the current status of any recommended follow-up steps undertaken by the SLN’s Transportation Department or their consulting firm(s). This review will be used to inform next steps such as identifying funding opportunities and future research needs. Table 8.1 provides review of ATAC’s recommendations per potential issue as identified during the prior study. In addition to the current status of the recommendation and its corresponding implication(s), this review also includes comments by agency/consulting staff.

Table 8.1 Recommendation review for Fort Totten Walkability Assessment

Issue(s)	Recommendation	Status	Agency/Consulting Staff Comments ¹	Implication(s)
Discontinuous or otherwise weathered sidewalk, missing ramps, inadequate water drainage, missing landings for pedestrian push buttons,	Rebuild	In Progress	Currently, SLN and KLJ have been working on a construction project plan, which could be ready for a bid opening in March of 2023. The project consists of sidewalk construction and improvements on the north side of ND #57 and will serve a school for children living in that area. The current estimated cost of the project is \$700,000. This estimate will be revised with more current prices and will likely increase by 20% to 30%. The project is a direct result of the study they had on file, and funding from the NDDOT was also recommended by the RTSSC team, which may have helped with approvals of the HSIP dollars or other grants. Also, SLN stated they support an NDDOT plan to provide a pedestrian walkway from Fort Totten to Devils Lake. They have also submitted a	Proactive actions by Spirit Lake Nation in trying to better understand and research the existing conditions, with help from KLJ consultant and UGPTI researchers, have helped identify solutions. Once the reconstruction projects are completed, the citizens and visitors may enjoy the use of adequately designed and well-maintained pedestrian facilities not only within Fort Totten but all the way to Devils Lake.

¹ Corresponding staff: Clarence Greene, Paul Bjornson

Issue(s)	Recommendation	Status	Agency/Consulting Staff Comments ¹	Implication(s)
Inadequate lighting	Lighting	Not Started	<p>grant application to NDDOT for a grade widening project in the Tokyo, ND, area for safety reasons. Hopes are to build it in 2025.</p> <p>Likely to be partially undertaken in 2025. No current plans to light the walkway.</p> <p>NDDOT has ND Highway 57 identified as a safety corridor and plans to upgrade the pedestrian lighting to RRFBs.</p> <p>The project will upgrade the crossings to ADA compliance, with landings in reach of the current pushbuttons.</p> <p>The plan is to enhance the pavement markings as well.</p>	<p>The (yet to be built/rebuilt) pedestrian facilities, if left unlit during low ambient lighting hours of the day, present an unwelcoming environment, which may at least discourage the use of said facilities; on the other hand, they may also pose as unsafe surroundings. More opportunities for funding in this regard must be pursued, especially in cooperation with NDDOT.</p> <p>The planned safety corridor, based on available resources, must be studied before and after for aspects such as traffic and pedestrian safety.</p>
Unknown status of needs for traffic control	Needs Assessment	Not Started	Possibility of NDDOT doing counts during safety corridor project to be used for warrant analysis.	Potentially unknown needs within a transportation network may lead to deteriorated traffic operations leading to reduced traffic safety. Impatient drivers may cause traffic safety concerns and crashes potentially involving pedestrians. Higher levels of coordination between agencies with jurisdiction in the area may help formulate a plan for the assessment's required data

Issue(s)	Recommendation	Status	Agency/Consulting Staff Comments ¹	Implication(s)
Overhanging trees, slippery conditions, and damaged/missing signs.	Maintenance	In Progress	<p>Snow removal is currently being done with a skid steer loader and a power broom on the sidewalks. This unit is owned by the fire department.</p> <p>Planned project will address tree trimming and replace signs.</p>	<p>collection. Existing infrastructure such as cameras may be utilized to facilitate the data collection.</p> <p>Continued coordination between the transportation and fire departments is of utmost importance in this case so that the users may continue to enjoy safe walking conditions.</p>
Unleashed pet dog(s)	Pet Ordinance	Completed & Ongoing	A leash ordinance is in effect for stray dog control and no big mean dogs are allowed since a fatality of a person not long ago. Dogs were actively rounded up and brought to an animal shelter this past summer.	With the said actions, the danger posed by unleashed and potentially dangerous pet dogs is minimized. This needs to be continued into the future.

9. NEXT STEPS

The following next steps are identified:

1. Continue coordination between agencies with jurisdictions within the region.
2. Continue getting assistance from consultants as and when needed.
3. Continue researching with assistance from university transportation center(s).
4. Continue coordination with Fire Department on shared resources.
 - a. Look into getting Transportation Department owned equipment if the need arises.
5. Keep the unleashed pet ordinance in place.
6. Take steps to address overhanging trees and damaged/missing signs, especially those not currently planned to be replaced on a regular basis in case of vandalism incidents.
7. Collect traffic counts, especially at locations where needs are currently unknown.
 - a. Look into using existing infrastructure for traffic data collection if possible.