NDSU | UPPER GREAT PLAINS TRANSPORTATION INSTITUTE
ADVANCED TRAFFIC ANALYSIS CENTER

New Town Walkability Assessment - 2026

Final Report

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INTRODUCTION

Native American Tribes in the United States face transportation safety challenges extending beyond those experienced by the general population. Often these challenges are compounded by geographic isolation, inadequate infrastructure, and the rural landscape characteristics of many Tribal communities. The Fort Berthold Reservation, located in west-central North Dakota, exemplifies many of these conditions. The reservation is home to the Mandan, Hidatsa, and Arikara Nation (MHA Nation), also known as the Three Affiliated Tribes.

Like many Tribal jurisdictions, the MHA Nation does not currently have a comprehensive pedestrian and bicyclist safety program. To support the development and implementation of such a program, the following resources developed by the Upper Great Plains Transportation Institute (UGPTI) provide a standardized framework for evaluating pedestrian safety conditions and establishing effective safety initiatives:

1. Native American Pedestrian Safety Program Guidelines and Assessment
2. Guideline Advisory Manual for Native American Pedestrian Safety Program Assessments
3. Process Manual for Tribal Pedestrian Safety Assessments

The methodology presented in these documents provides a systematic approach for conducting pedestrian safety assessments, identifying infrastructure deficiencies, evaluating operational and policy-related issues, engaging community stakeholders, and developing data-driven recommendations to improve pedestrian safety within tribal communities.

A community is considered walkable when its transportation network enables pedestrians and other vulnerable road users to travel safely, comfortably, and efficiently to and from key destinations, including residential areas, workplaces, schools, healthcare facilities, commercial centers, parks, and community amenities, while complying with applicable traffic regulations. A walkable environment accommodates users of all ages and abilities, including individuals with mobility limitations, through accessible, connected, and well-maintained pedestrian infrastructure.

This report documents the walkability assessment conducted in New Town, North Dakota, in 2026 by the Upper Great Plains Transportation Institute (UGPTI). The primary objectives of the assessment are to evaluate existing pedestrian infrastructure and operational conditions, identify safety concerns and accessibility barriers, engage local stakeholders in the assessment process, and develop recommendations that support evidence-based improvements to pedestrian safety, accessibility, and overall community walkability.

SITE SELECTION

Collaborating with UGPTI staff and leveraging their existing transportation planning expertise and infrastructure, MHA Nation requested a comprehensive walkability assessment connecting the MHA Interpretive Center and the 4 Bears Casino & Lodge Resort area in New Town, North Dakota. The assessment corridor is approximately 1.8 miles in length, following the Highway 23/Frontage Road corridor between these major community destinations. In addition to serving visitors to the interpretive center and resort, the corridor provides access to several important tribal and community facilities,

including Evadne Gillette Children & Family Services Building, the MHA Tribal Administration Office, the Three Affiliated Tribes Tribal Administration Building, the Three Affiliated Tribes Museum, Four Bears Park, and the MHA Times/KMHA Radio offices. These destinations generate regular pedestrian activity from tribal members, employees, residents, and visitors, making the corridor one of the most significant civic, cultural, governmental, and tourism connections within the community.

The walkability assessment evaluated pedestrian connectivity, sidewalk availability and condition, roadway crossings, ADA accessibility, lighting, traffic volumes and speeds, wayfinding, transit accessibility, and overall pedestrian safety along the corridor. Given the concentration of governmental, cultural, recreational, social service, media, lodging, and tourism destinations along this corridor, the study identified barriers to pedestrian travel and developed recommendations for infrastructure improvements that enhance safety, accessibility, and connectivity. The assessment would support safer travel between key community destinations while encouraging active transportation, improving access to essential services, and strengthening connections between cultural, governmental, recreational, and economic assets in New Town. Figure 1 shows a map of the corridor.

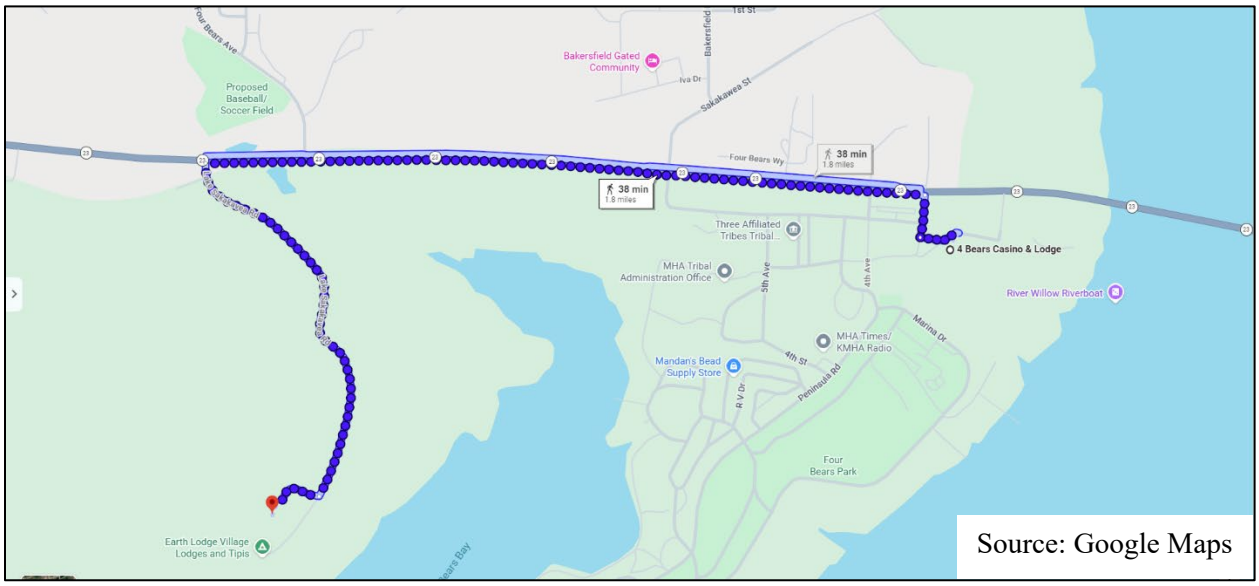


Figure 1. Assessment route map

ASSESSMENT TOOL

ATAC staff used the Walkability Checklist from www.nhtsa.gov 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 main questions:

1. Did you have space to walk safely?
2. Was it safe to cross streets?
3. Did drivers drive safely?
4. Was it easy to follow safety rules?
5. Did your walk feel safe?

Each of these questions includes a rating from 1 to 7 categorized as below:

1. Awful
2. Many issues
3. Some issues
4. Good
5. Very Good
6. Excellent
7. Perfect

The corresponding total ratings add up to a range of 5-35 as classified below:

1. 28 – 32 (sic) Celebrate! You have a safe neighborhood for walking.
2. 22 – 27 Kudos. Your neighborhood is pretty safe.
3. 16 – 21 It's okay, but it needs work to improve safety.
4. 11 – 15 It's unsafe and needs a lot of work. You deserve better than that.
5. 5 – 10 It's completely unsafe for walking!

SITE VISIT/ASSESSMENT

UGPTI staff completed the walkability assessment training, site visit, and field evaluation on July 14, 2026. The assessment began at the MHA Interpretive Center, where participants received an overview of the assessment process and reviewed the proposed pedestrian corridor connecting the Interpretive Center with the 4 Bears Casino & Lodge area and other nearby community destinations. Attendance demonstrated strong community interest in the project, with nearly three dozen participants taking part in the assessment activities. Representatives were present from the Three Affiliated Tribes Chairman's Office, Three Affiliated Tribes Law Enforcement Services, Three Affiliated Tribes Fitness and Recreation Program, Fort Berthold Diabetes Program, Indian Health Service (IHS), IHS Community Health Representative (CHR) Program, Four Bears Segment, MHA Native Connections, MHA Department of Transportation, and Three Affiliated Tribes Data Section, Three Affiliated Tribes Natural Resources Department, along with members of the general public. The broad representation, as seen in Figure 2, ensured that a diverse range of perspectives regarding health, safety, transportation, community services, and accessibility were incorporated into the assessment process.



Figure 2. Diverse group of participants that showed up for the walkability assessment

Following the orientation, the group initiated the field assessment beginning at the Interpretive Center and evaluated existing pedestrian conditions along the identified corridor. Participants examined the availability and condition of pedestrian facilities, roadway crossing opportunities, accessibility features, traffic operations, signage, lighting, and overall pedestrian comfort. Early in the assessment, the group encountered the significant challenge of crossing North Dakota Highway 23 at an unmarked location. Participants expressed concern that they did not feel safe crossing the roadway due to the combination of relatively high traffic volumes during that time of the day, vehicle speeds, and the presence of substantial truck traffic traveling through the corridor. The absence of a marked crossing, pedestrian warning devices, or other crossing enhancements contributed to a strong perception of risk and highlighted a major barrier to walking between destinations either on opposite sides of the highway or along the side of the corridor where no pedestrian facilities were present.

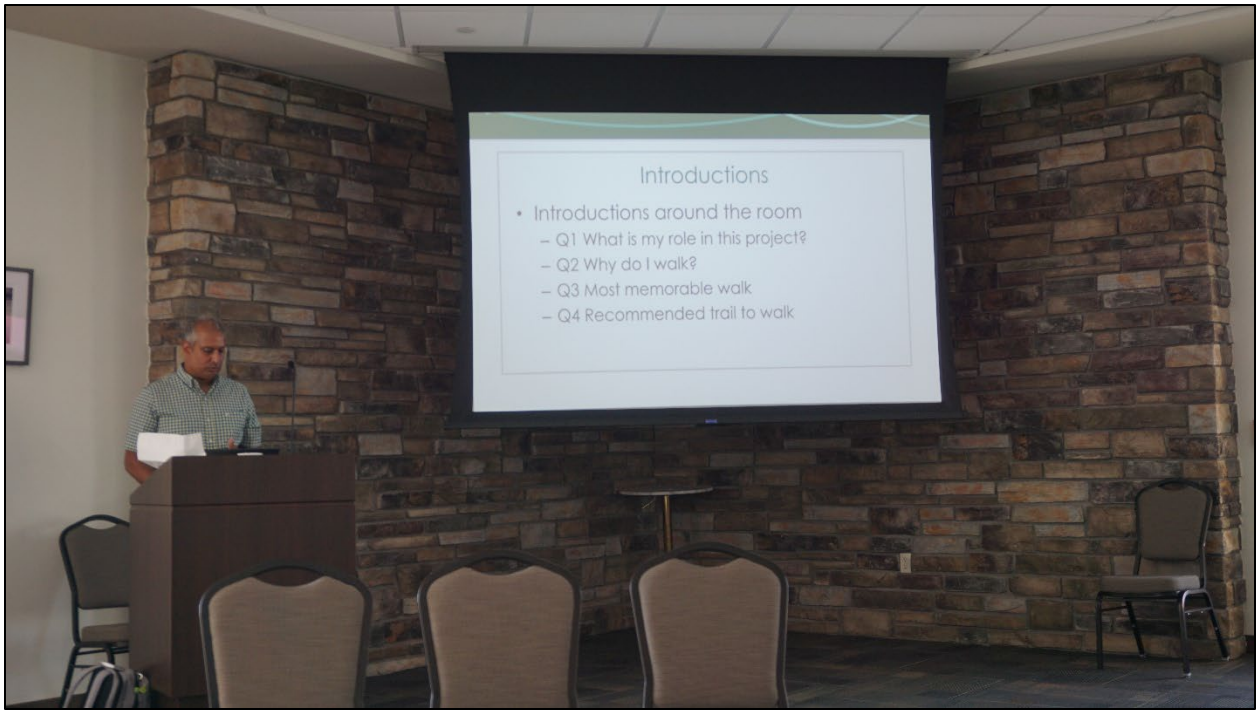


Figure 3. UGPTI staff providing overview of the assessment process

As a result of these safety concerns, the participants collectively decided not to attempt the crossing and instead returned to the Interpretive Center. The experience itself provided valuable insight into the pedestrian environment, demonstrating how perceived and actual safety concerns can discourage walking, even for relatively short distances. Discussions among participants emphasized the need for safe, convenient, and accessible crossing opportunities along North Dakota Highway 23, particularly given the number of community facilities located within the assessment area and the potential for residents, employees, visitors, youth, and older adults to travel between them on foot.

Later in the day, UGPTI staff conducted a complementary field review at the eastern end of the identified corridor near 4 Bears Casino & Lodge. Staff documented roadway characteristics, pedestrian infrastructure, connectivity between destinations, and opportunities for future improvements. This portion of the assessment considered pedestrian access to multiple nearby destinations, including Four Bears Park, the Three Affiliated Tribes Museum, the MHA Tribal Administration Office, the Three Affiliated Tribes Tribal Administration Building, MHA Times/KMHA Radio, and other community facilities that contribute to daily pedestrian activity in the area. Observations from both ends of the corridor provided a more comprehensive understanding of the approximately 1.8-mile route and the challenges and opportunities associated with creating a safer and more connected walking environment.

Following completion of the field evaluation, UGPTI staff finalized the walkability assessment checklists and documented observations recorded during the site visit. Participants also provided oral comments regarding pedestrian safety concerns, accessibility barriers, desired infrastructure improvements, and locations where additional pedestrian accommodations would improve connectivity. These comments complemented the formal checklist results and provided valuable local knowledge regarding travel patterns, safety concerns, and community priorities. Together, the field observations, checklist results, and

participant feedback will help inform recommendations aimed at improving pedestrian safety, accessibility, and connectivity among the cultural, governmental, recreational, health, and tourism destinations that define this important corridor in New Town.



Figure 4. Participants working through the walkability checklist

OBSERVATIONS

As the group began the field assessment, participants immediately encountered a significant challenge related to the absence of dedicated pedestrian facilities or marked shoulder along the start of the selected path. The lack of dedicated pedestrian infrastructure created uncertainty about where people should walk and resulted in participants dispersing across the roadway environment rather than following a clearly designated route. With no designated sidewalk or clearly defined pedestrian pathway available, individuals naturally began walking along different parts of the paved area as can be seen in Figure 5.

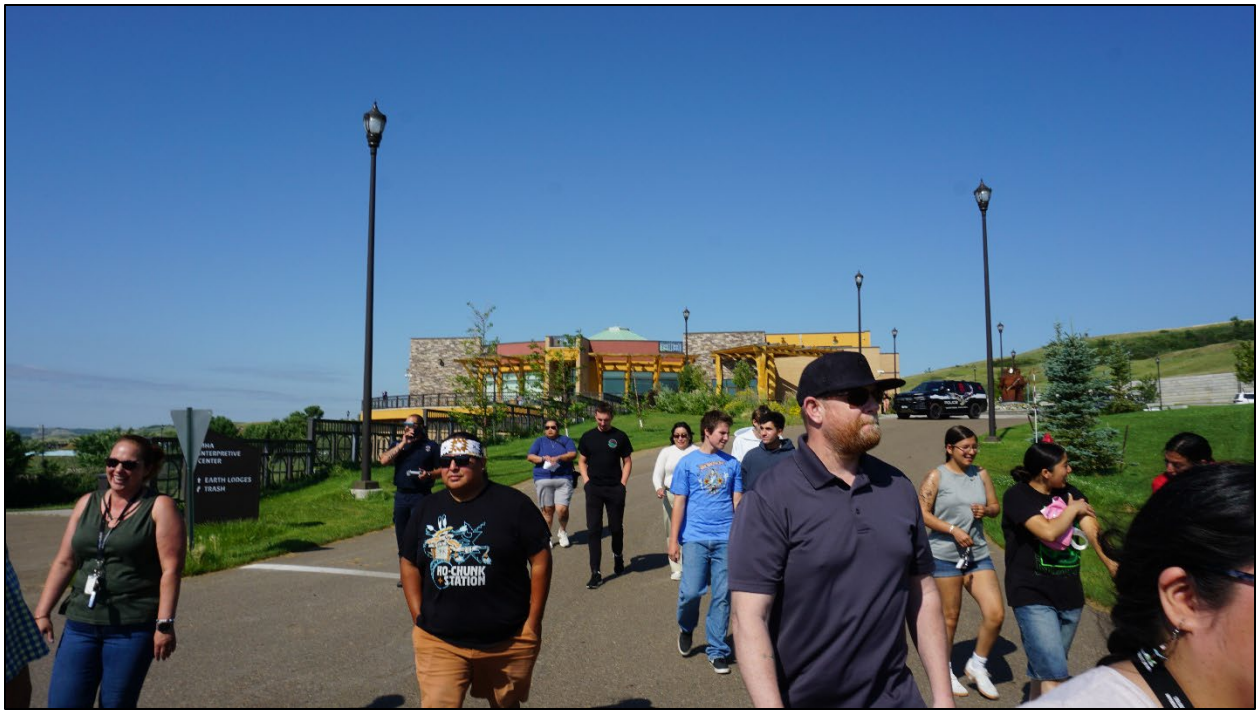


Figure 5. Participants starting the walk to assess walkability

Vehicles sharing the road began driving through adjacent parking lot spaces to maintain safety as can be seen in Figure 6. Also, tire marks in the shape of donuts were observed in the area.



Figure 6. Vehicles driving through parking lot spaces to avoid conflict and maintain safety

Given the large number of participants, including nearly three dozen representatives from tribal programs, public health organizations, transportation agencies, and community members, maintaining a safe and organized walking environment became a high priority. To reduce the risk of conflicts with motor vehicles, UGPTI staff instructed participants to remain together in a single file formation and walk facing oncoming traffic, consistent with recommended pedestrian safety practices where sidewalks are not available. The participants complied with the instructions and as seen in Figures 7 and 8, the vehicles traveling in the same direction were then able to maintain their designated space within the paved section of the roadway while maintaining traffic safety. This experience provided a firsthand demonstration of the challenges pedestrians face when traveling through the corridor especially when not everyone is aware of the somewhat counterintuitive recommendation to walk against traffic.



Figure 7. Participants walking against traffic in a relatively single-file formation



Figure 8. Safe vehicle-pedestrian interactions and courteous driver behavior observed during the assessment

Multiple dead snakes were observed on the road during the assessment. One of them is pictured in Figure 9 below.



Figure 9. One of the dead snakes observed during the assessment

The pedestrian safety situation was then compounded by traffic conditions along North Dakota Highway 23, including the presence of commercial vehicles and truck traffic as can be seen in Figures 10-12. Participants noted that the roadway environment did not provide a comfortable or inviting space for pedestrians, particularly for children, older adults, individuals with mobility limitations, or visitors unfamiliar with the area. The need to actively manage the group's movements illustrated how the absence of sidewalks and pedestrian accommodations can create both real and perceived safety concerns and discourage walking between community destinations.



Figure 10. Heavy tractor trailer traffic with industrial sized loads on North Dakota Highway 23 east of 3rd Ave.



Figure 11. Truck traffic, light-truck and trailer combination, and passenger vehicles traveling through the intersection of North Dakota Hwy 23 and 3rd Ave.



Figure 12. Tractor and semi-trailer combinations including 7-axle single trailer units on North Dakota Highway 23 west of 3rd Ave.

The observations made during this portion of the assessment reinforced one of the corridor's primary infrastructure needs: the development of a continuous, accessible pedestrian network connecting the MHA Interpretive Center, tribal offices, social service facilities, cultural destinations, Four Bears Park, and the 4 Bears Casino & Lodge area. Participants repeatedly noted that a dedicated sidewalk or shared-use path would improve safety, provide a more comfortable walking experience, and create stronger connections among the many governmental, cultural, recreational, health, and tourism destinations located along the approximately 2-mile corridor.

ASSESSMENT RESULTS

A total of 26 walkability assessment checklists were completed during the site visit. The results provide valuable insight into how community members perceive the pedestrian environment along the approximately 1.8-mile corridor connecting the MHA Interpretive Center with the 4 Bears Casino & Lodge area and other important community destinations. Participants represented a broad cross-section of the community, including transportation, public safety, public health, tribal government, and community stakeholders, providing a diverse range of perspectives on existing walking conditions.

Based on the compiled checklist responses, participants assigned an overall walkability score averaging approximately 13 points, as shown in Figure 13. This rating indicates that participants generally viewed the corridor as having substantial opportunities for improvement. Observations made during the field assessment support this conclusion, as participants encountered several challenges, including the absence of sidewalks in key locations, limited crossing opportunities, heavy truck traffic, and a lack of separation between pedestrians and vehicles. Throughout the assessment, the group frequently discussed how these

conditions could discourage walking and reduce pedestrian comfort, particularly for children, older adults, and individuals with mobility limitations.

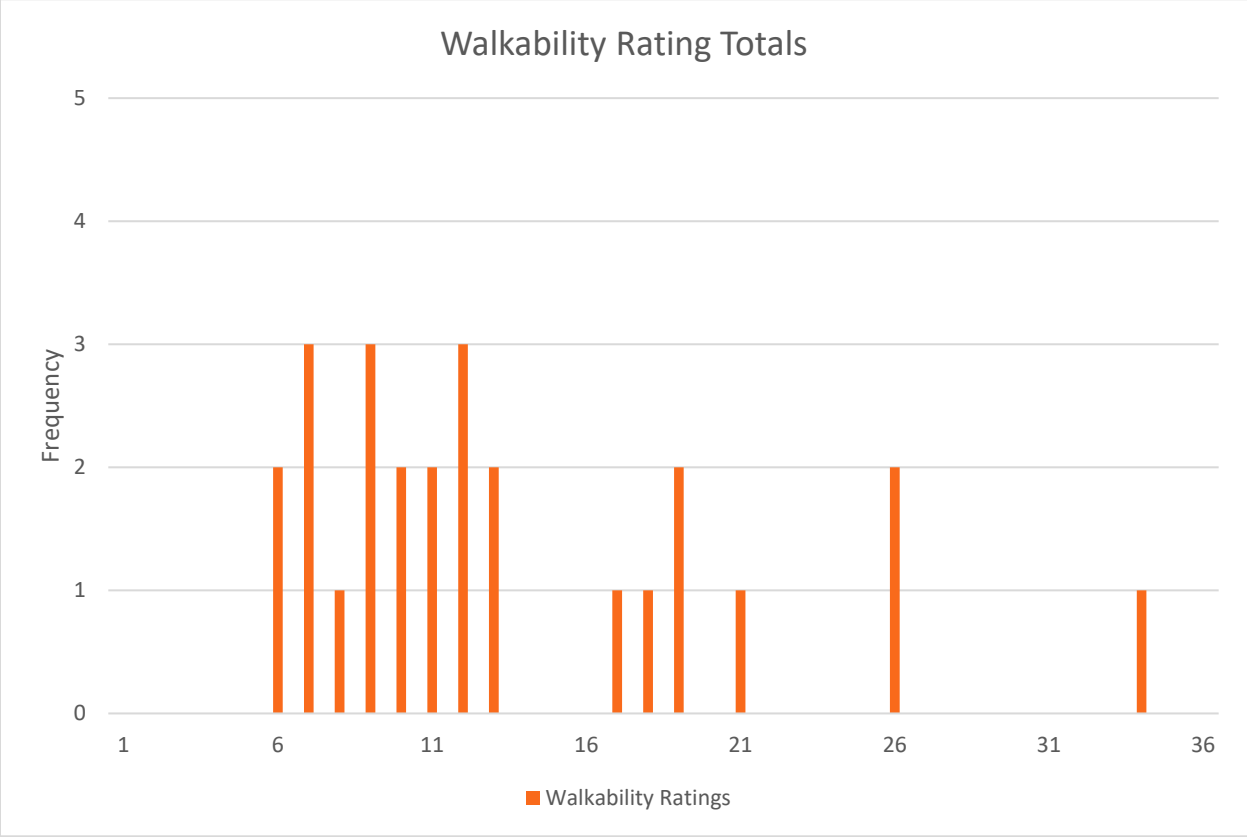


Figure 13. Walkability ratings totals chart

The assessment results identified several recurring issues affecting the walking experience. As shown in Figure 14, the two most frequently reported problems were:

1. The walking route does not have enough shade.
2. The walking route lacks public seating or shelter options to protect pedestrians from weather conditions.

These findings are particularly significant given the region's climate. During summer months, pedestrians may be exposed to prolonged periods of direct sunlight and elevated temperatures, while strong winds, rain, and winter weather can create additional challenges throughout the year. The lack of shade trees, covered waiting areas, benches, and other pedestrian amenities reduces both the comfort and attractiveness of walking between destinations. Participants noted that these deficiencies may be especially burdensome for older adults, individuals with health concerns, families with young children, and those traveling longer distances on foot.

Beyond the issues of shade and shelter, participant comments and field observations highlighted a broader lack of pedestrian-supporting infrastructure throughout much of the corridor. Several portions of the route lacked dedicated sidewalks or clearly defined pedestrian facilities, requiring walkers to travel along roadway shoulders or adjacent to traffic. During the assessment itself, participants had to be directed to

walk against traffic and remain grouped together because no designated pedestrian pathway was available. This real-world experience reinforced concerns regarding safety, accessibility, and overall walkability.

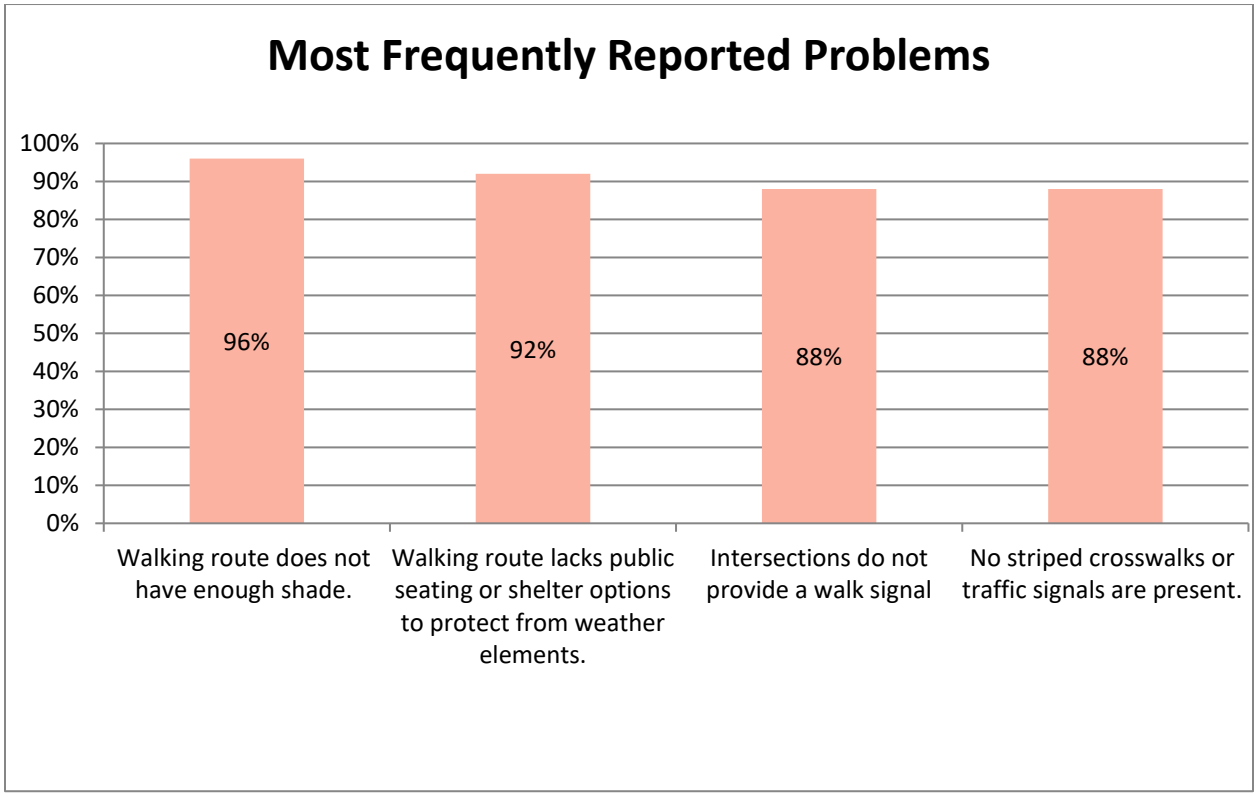


Figure 14. Most frequently reported problems

The assessment results further demonstrate a strong consensus among participants that the corridor's pedestrian infrastructure requires improvement. As illustrated in Figure 15, the majority of respondents indicated that the current walking environment falls within categories suggesting that improvements, upgrades, or additional pedestrian facilities are needed. Participants consistently expressed support for enhancements such as continuous sidewalks or shared-use paths, safer roadway crossing locations, improved pedestrian signage, additional lighting, traffic calming measures, shade trees, benches, and weather-protection features.

Taken together, the checklist results, participant comments, and field observations point to a common conclusion: while the corridor serves numerous important destinations, including tribal government offices, social services, health-related programs, cultural facilities, recreational areas, and tourism destinations, the existing pedestrian environment does not adequately support safe, comfortable, and accessible walking. The findings suggest that investments in pedestrian infrastructure could significantly improve connectivity between these destinations, enhance safety, encourage physical activity, and support the community's long-term transportation and public health goals.



Figure 15. Walkability total ratings categories chart

RECOMMENDATIONS

Based on the field observations, assessment findings, and participant feedback collected during this study, the UGPTI offers the following recommendations to improve pedestrian safety, accessibility, comfort, and overall user experience within the study area.

BUILD CONNECTIONS

There are existing transportation improvements and pedestrian-related investments being undertaken by the North Dakota Department of Transportation (NDDOT) in areas east of this location. To maximize the effectiveness of these improvements, additional connections should be developed to create a more continuous and accessible pedestrian network. Particular attention should be given to providing safe and convenient crossing opportunities across the roadway, reducing barriers for pedestrians.

In addition, a sidewalk should be constructed along the south side of the street to address existing pedestrian demand. As seen in figure 16, evidence of a worn path visible at the site indicates that pedestrians are already using this corridor despite the lack of formal infrastructure. Formalizing this route through the construction of a sidewalk would improve safety, accessibility, and year-round usability while helping to clearly define pedestrian space.



Figure 16. Picture showing a path worn on the south side of ND Highway 23 looking west.

PROVIDE SHADE

Shade should be incorporated along walking routes to improve user comfort, particularly during warmer months and periods of prolonged sun exposure. The provision of shade can encourage walking, support active transportation, and improve the overall appeal of the corridor.

Potential strategies include planting street trees, installing landscaping features, or constructing shade structures. Tree planting should be considered a long-term investment that can provide environmental benefits while enhancing pedestrian comfort and aesthetics.

PROVIDE SHELTER

Shelter opportunities should be provided at appropriate intervals along the route to protect users from weather conditions such as rain, snow, wind, and excessive heat. Shelters can make walking facilities more usable throughout the year and may be particularly beneficial for children, older adults, and individuals with mobility limitations.

The location of shelters should be strategically selected based on expected pedestrian activity, resting needs, key destinations, and available space. Durable, low-maintenance shelter designs should be considered to ensure long-term functionality.

PROVIDE OPPORTUNITIES TO SIT/RELAX

Rest areas with seating should be incorporated throughout the corridor, especially near the tops of hills or other locations where users may benefit from a brief rest. Providing places to sit can improve accessibility for people of all ages and abilities and make walking a more attractive transportation and recreational option.

In addition to serving a practical function, seating areas can be located to take advantage of scenic views and community assets, creating opportunities for users to pause, socialize, and enjoy the surrounding environment.

CONSIDER ADDING WATER FOUNTAINS

Public water fountains or bottle-refilling stations should be considered at key locations along the corridor. Access to drinking water can improve user comfort and support healthy active transportation habits, particularly during warm weather.

The need for such amenities may become increasingly important if the corridor is expected to serve school-age children or experience higher levels of pedestrian activity in the future. Bottle-refilling stations may also support sustainability goals by reducing reliance on single-use plastic bottles

DATA COLLECTION

Pedestrian and other non-motorized user counts should be conducted to better understand current travel patterns and infrastructure needs within the study area. Collecting baseline data will support future planning efforts, help prioritize investments, and provide measurable indicators of corridor use over time.

Data collection efforts should consider counting pedestrians, bicyclists, and other active transportation users during a variety of times and seasons to capture a representative picture of demand.

NEEDS ASSESSMENT

As traffic volumes and development activity increase in the area, a formal needs assessment should be completed to evaluate future intersection control requirements. Particular attention should be given to intersections along North Dakota Highway 23 that connect destinations with high pedestrian demand.

The assessment should consider pedestrian activity levels, vehicle traffic volumes, safety performance, and operational characteristics to determine whether additional traffic control measures, including signalization, may be warranted. Conducting a proactive assessment can help ensure that infrastructure keeps pace with future growth and changing travel patterns.

MAINTENANCE

A review of existing maintenance practices should be conducted to determine whether additional resources or scheduling adjustments are necessary to maintain a clean, safe, and welcoming pedestrian environment. Participants noted concerns regarding litter and the timely removal of dead animals and other debris from the corridor.

Regular inspection and maintenance activities can improve user perception of safety, enhance community appearance, and help ensure that walking facilities remain accessible and functional throughout the year. Establishing clear maintenance responsibilities and response procedures may further improve corridor conditions.

FUNDING SOURCES & CONTINUED COLLABORATION

Securing sustainable funding and maintaining strong partnerships will be critical to advancing the recommendations identified through this assessment. A variety of transportation safety and community

development funding opportunities should be explored to support future planning, design, construction, and educational initiatives.

Safety-focused funding programs, including the Highway Safety Improvement Program (HSIP), National Highway Traffic Safety Administration (NHTSA) grants, and other federal, state, Tribal, and local funding opportunities, should be considered when pursuing pedestrian and active transportation improvements. These programs can help support infrastructure enhancements, safety countermeasures, data collection efforts, educational campaigns, and community outreach activities. Pedestrian Safety Champions within the community should actively monitor emerging funding opportunities and align potential projects with Safe System Objectives to improve competitiveness for grant awards.

Continued collaboration among transportation agencies, educational institutions, public health organizations, law enforcement, emergency response agencies, community groups, and local governments is strongly encouraged. Partnerships can help leverage resources, share expertise, improve coordination, and build community support for transportation safety initiatives. Educational institutions, in particular, can play an important role in supporting research, conducting evaluations, engaging youth, and promoting safe transportation behaviors.

Participation in regional, state, and local transportation safety forums should be made a priority. Conferences, workshops, and professional meetings provide valuable opportunities for information exchange and to learn about emerging best practices, funding opportunities, innovative technologies, and successful use cases and proven case studies from other similar communities regionwide. Examples include the North Dakota Transportation Conference, American Traffic Safety Services Association (ATSSA) Northland How-To Conference, North Dakota Traffic Operations Roundtable meetings, Safe Kids Coalition activities, Vision Zero events, and other transportation and public health gatherings. Regular participation in these events can not only strengthen existing but also create new professional networks and help ensure that local projects benefit from the latest knowledge and resources available in the transportation safety field.

In addition to professional collaboration, agencies should continue engaging community members, schools, businesses, healthcare providers, and other stakeholders throughout the planning and implementation process. Ongoing stakeholder involvement helps ensure that projects reflect local needs, improve public awareness, and foster a shared commitment to creating a safer and more accessible transportation system for all users.

By combining strategic funding pursuits with strong interagency and community partnerships, stakeholders can enhance the long-term success, sustainability, and impact of transportation safety investments within the study area.

REFERENCES

Walkability Checklist. (n.d.). Retrieved April 23, 2026, from https://www.nhtsa.gov/sites/nhtsa.gov/files/2025-10/pedestrian-walkability-checklist-en-2025-16719-v1-tag.pdf