

PRELIMINARY ENGINEERING REPORT

# PEDESTRIAN ROUTE STUDY

Nay Tah Waush, Minnesota

December 2021  
Revised December 2021



Prepared  
For the

**White Earth Department of Transportation  
White Earth, Minnesota**

By

**WIDSETH**  
Consulting Engineers, Crookston, Minnesota

# PEDESTRIAN ROUTE STUDY CERTIFICATION

PROJECT: Pedestrian Route Study  
Nay Tah Waush, MN

WIDSETH PROJECT NO: 2021-11500

OWNER: White Earth Department of Transportation  
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I hereby certify that these plans and specifications were prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the State of Minnesota



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Lee D. Cariveau, P.E.

44230

Reg. No.

December 20, 2021

Date

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## **SECTION 1 – SUMMARY**

### **1.1. AUTHORITY**

The Information submitted herewith is in response to a request by the White Earth Department of Transportation (WEDOT), that Widseth Smith Nolting and Associates, Consulting Engineers (Widseth), complete an engineering study towards determining potential improvements to pedestrian facilities within the Village of Nay Tah Waush, White Earth Tribal Nation, Mahnomen County, Minnesota.

### **1.2. CONCLUSIONS**

1. Improvements described within this Pedestrian Study (Report) are in the best interests of the Village of Nay Tah Waush (Village) and its citizens. When completed these improvements will provide for a safe route for pedestrian travel, as well as strengthen the future health, and well-being of the citizens of Nay Tah Waush.
2. Safe pedestrian travel routes are needed.
3. The recommendations identified in this report are constructible and feasible.

### **1.3. RECOMMENDATIONS**

1. Utilize this report and previously completed reports to guide the Village with construction as well as solicitation of construction funding for the recommended improvements.
2. Details of the public safety improvements recommended in this Report are provided in Section 5 (Pg. 16). The following is a summary of the Recommended project improvements:

a. Enhance, Replace, & Add Traffic Control Devices	d. Add 10-ft wide Bituminous (Asphalt) Trails
b. Narrow Church Street and Shore Avenue to allow for a sidewalk behind the curb	e. Add (Street) Lighting
c. Add 6-ft wide Concrete Sidewalks	f. Add Traffic Signing
	g. Add Pavement Markings (Crosswalks)
3. Complete and submit application(s) for funding.
4. Prepare plans and specifications and proceed to construction.

### **1.4. SUMMARY**

To allow staff to properly address existing issues as well as future needs, WEDOT determined to proceed with a pedestrian Study to further explore previously completed studies and plans. The following items summarize pedestrian safety needs of the Village of Nay Tah Waush and planning considerations for the Village/WEDOT to consider as they look to provide pedestrian facilities throughout the Village of Nay Tah Waush over the next 20 years (the Planning Period).

## **SECTION 2 – INTRODUCTION**

### **2.1. LOCATION**

The project is located within the White Earth Tribal Nation (WETN), Village of Nay Tah Waush, Mahnomen County, Minnesota in the Southwest and South East Quarters of Section 20 of Township 144 North Range 39 West, Fifth Principal Meridian. As well as Section 21 and Section 28 of Township 144 North Range 39 West, Fifth Principal Meridian. The main intersection is located at approximately Lat. 47°15'59" N and Long. 95°37'35" W. Project Planning area is the corporate limits for the Village of Nay Tah Waush. The area is classified as rural.

The Village of Nay Tah Waush is situated on Mahnomen County State Aid Highway (CSAH) 4 and is approximately 20 miles southeast of the City of Mahnomen. The Village is also approximately 4 miles south of MN 200. The 2018 estimated population is 504 with a population of 578 as determined by the 2010 census. (2020 information unavailable at the time of the report). The Village lies within Minnesota Congressional District #07. USGS elevation of Nay Tah Waush is 1,516 feet above mean sea level. See Appendix 1 for project location.

The Nay Tah Waush community is primarily residential single-family housing, with few multi-unit housing structures and businesses. The Nay Tah Waush Community Charter School (NCCS) is the largest local employer. The area is classified as rural with agriculture, construction, and tourism as the predominant industries.

Topography of the city can be described as gently rolling. Drainage from the Village and project site(s) proceeds in a southwesterly direction towards North Twin Lake. North Twin Lake drains to Twin creek which in turn drains to the Wild Rice River. The Wild Rice River ultimately reaches the Red River of the North in Hendrum, Minnesota.

### **2.2. GENERAL**

The Village of Nay Tah Waush has approximately 9 lane miles of local streets and 12 lane miles of County roadways located with the study area. (See Appendix D for Maps of the five study areas within the Village of Nay Tah Waush). There are no State or Federal Highways in the study area. Pedestrian facilities are few. There is only sidewalk located directly in front of a few entities including NCCS, a church, sports complex, Head Start, and the Post office. There are no sidewalks in the residential neighborhoods.



**Figure 1 – Nay Tah Waush, Minnesota**

## **2.6. DETAILED PROJECT NEED / EXISTING CONDITIONS**

### **2.6.1. NAY TAH WAUSH COMMUNITY**

Overall, the community of Nay Tah Waush is lacking sidewalks, paved trails, bike lanes, and other routes of travel that pedestrians and bicyclists would utilize. There is one sidewalk located at the school as well as minor sidewalks at the Church, Head Start, Post Office, etc. none of these sidewalks provide connectivity beyond bringing the user to a vehicle to continue their trip.

Pedestrians tend to cut across private property to go from point A to point B. This type of usage has created an unofficial trail network. By providing an “official” route in the public road right of way, property ownership rights are respected, safety is increased, and crime potential is reduced. Erosion would also be reduced, and vegetation protected.

The previous SRTS report identified 6 intersections which require more detailed review. This report aims to look at those intersections and other project locations in greater detail. The 6 intersections were:

- CSAH 4 and North Twin Lake Road
- CSAH 4 and Church ST.
- CSAH 4 and Center St.
- Twin Lake Road and New Circle Drive
- Tower Road and Tower ST E
- Tower Road and Tower Street Loop

### **2.6.2. SAFETY**

Pedestrian and student safety is the number one need from the community. Safety will be increased by providing appropriate pedestrian travel routes, pedestrian facilities, and increased lighting. Note: Multiple field reviews and multiple reports have indicated the presence of roaming dogs. The issue of roaming dogs and the safety impacts to pedestrians/bicyclists is beyond the scope of this report.

### **2.6.3. CSAH 4 / CHURCH STREET**

The CSAH 4 / Church Street intersection was identified in the SRTS report as one of six high priority pedestrian crossing locations. With approximately 25 single family homes or duplexes located directly east of the school and CSAH 4, there are a considerable number of pedestrians/students that need to cross CSAH 4 to get to/from school and other key components of the Village. The existing intersection of Church St and CSAH 4 is on a slight incline with south bound traffic speeds posted at 20 mph in the school zone. North bound traffic has a posted limit of 30 mph. During the time Widseth completed a field review of the intersection (September 7-17, 2021), observation of traffic speeds did not appear excessive. However, during the SRTS community comment period, one of the bigger complaints from the community was excessive speed.

During peak traffic times cars tend to “bunch up” and pedestrian’s crossing Church St. or entering/exiting vehicles tend to become harder for drivers to see. Prohibiting parked cars in front of the school will allow vehicles to move more freely and will also allow for pedestrians to be more visible to vehicles.

### **2.6.4. LIGHTING**

Beyond providing for a safe travel way for the pedestrian and bicyclist end user, providing a well-lit pathway is of equal importance. For purposes of this study, lighting was reviewed in the areas of proposed pedestrian improvements. The existing lighting along and adjacent to the in-place trail network was found to be spaced too far apart, positioned at locations not coinciding with the preferred trail, and providing illumination levels below design guidance.



## 2.9. COMMUNITY ENGAGEMENT

At the beginning of the planning process other local units of government and interested parties were identified and informed WEDOT was conducting a Pedestrian Study. These parties have met and identified goals, preferred outcomes, as well as other related opportunities and community action items (i.e. “Walk to School Day”).



Figure 3 – Sample Community Engagement – Open House

Discussions held previously:

- SRTS - Parent Survey – September 2019
- SRTS – Student Survey – September 2019
- SRTS – Stakeholder Meeting – 9/21/21
- PES – Stakeholder Meeting – 10/14/21

## 2.10. PLANNING AREA

Nay Tah Waush village limits, which are the same as the Study Limits.

## 2.11. ANNEXATION

Annexation is not currently planned.

## 2.12. REASONABLE GROWTH / DECLINE

The population of the village has remained relatively constant with minor fluctuation during the data review period. The population peaked in 2005, and 2017 with 851 persons but also dropping to a low of 825 in 2011. The data is unclear on why the large change between 1980 and 2000. Beyond the fact the population survey area may not be consistent (Village of Nay Tah Waush versus Twin Lakes Township). The population has however remained fairly constant since 2000. Over the planning period (years 2022-2042) the population is projected to remain stable or continue to decrease very slowly (0.25% - 1%). The consideration of a slow population decline had only a minor impact on the type and scope of improvements recommended in this report. The proposed improvements do not depend on future population growth to fund operation and maintenance activities.

## **SECTION 3 - ENVIRONMENTAL CONSIDERATIONS**

### **3.1. INTRODUCTION**

Environmental impacts must be considered when selecting the proposed alternatives. All alternatives considered will have varying levels of positive and negative impacts on the environment. The goal is to select an alternative that has minimal / manageable environmental impacts while also remaining cost effective.

### **3.2. PRIMARY BENEFICIARIES**

The primary beneficiaries of the project will be the residents of and visitors to the Village of Nay Tah Waush.

### **3.3. AREA DESCRIPTION**

The Village of Nay Tah Waush is located on the eastern side of Mahnomen County in Northwestern Minnesota. Review of available FEMA floodplain maps indicate the area is subject to minimal flooding and is not in a designated floodplain. No prime forest land, farmland or range land will be affected by the project.

The Nay Tah Waush area has a continental climate characterized by wide variations in temperature, light to moderate precipitation, plentiful sunshine, and nearly continuous air movement. Weather patterns consisting of cold dry air from the polar regions and warm moist air from tropical regions often move quickly into the area, resulting in extreme temperature variations. In the winter, movement of polar air into the region often results in bitter cold temperatures. Temperatures drop to 0 degrees Fahrenheit or below on an average of 60 days per year.

### **3.4. ENVIRONMENTAL IMPACTS**

Environmental effects for the project are temporary in nature. The temporary impacts are primarily construction-related, including equipment noise, increased construction equipment traffic, dust, and erosion and sediment control. Temporary drainage impacts may occur from material stockpiles. Surface features will be protected to minimize erosion potential.

Wildlife habitats located within or adjacent to the project boundary are primarily associated with wetland vegetation and residential neighborhoods. Woodland in the vicinity also serves as habitat for white-tailed deer, ruffed grouse, various songbirds, owls, hawks, rabbits, skunks, squirrels, and other small mammals. No significant adverse impacts on existing wildlife are anticipated.

### **3.5. RECREATION**

Recreation opportunities for the project can be described as walking, biking, hiking as well as wildlife viewing.

### **3.6. HISTORICAL & ARCHEOLOGICAL PROPERTIES**

No impacts to Historical or Archeological properties are anticipated. The project is adjacent to at least two cemeteries, but no work is anticipated within their property.

### **3.7. NOISE**

Noise pollution will be temporary in nature resulting with noise generated by equipment during construction. Construction activity will not be allowed at night and the contractor will be required to utilize manufacturer recommend mufflers and maintain the equipment in good working order.

### **3.14. SOIL CONDITIONS**

See Appendix B for a general outline of the Soil Survey of the Village of Nay Tah Waush.

### **3.15. LAND USE**

Disturbed ground surfaces, including vegetated surfaces, will be restored either to turf grass, preconstruction surface condition, concrete, or asphalt pavement. Trees and shrubs will be removed only as necessary. Existing water resources will be protected with Best Management Practices (BMP's) - silt fence, rock rip rap, erosion blanket prior to, during and after the project.

### **3.16. TOPGRAPHY**

The topography of the Village and adjacent rural area can be described as gently rolling. Drainage from the Village (and project sites) goes to North Twin Lake.

### **3.17. SUBSURFACE CONDITIONS**

No sinkholes, shallow limestone formations or karst conditions are known to exist. There are no known geological faults or failures in or around the Nay Tah Waush area. The existing clay soil generally has a low to moderate permeability.

### **3.18. SURFACE WATER**

North Twin Lake is adjacent to the project site. The MNDNR lists the lake as being impaired for AQC. Local wildlife and fish species are dependent on the lake.

### **3.19. FLOOD PLAIN**

FEMA Flood insurance maps (FIRM) were reviewed to determine if the project area was within the delineated 100-year floodplain. No areas of the project are located in the floodplain. See Appendix B for more information.

### **3.20. TOXIC SUBSTANCES**

Toxic, hazardous, or radioactive substances will not be produced by the project construction or by pedestrians or bicyclists using the sidewalks, bike paths, and trails.

### **3.21. OTHER FEDERAL ACTIONS**

There are currently no other known federal programs or actions related to this project.

### **3.22. ADVERSE IMPACTS WHICH CANNOT BE AVOIDED, AND STEPS TO MINIMIZE IMPACTS**

Adverse impacts are anticipated to be very minor and are primarily related to temporary construction impacts. Long-term impacts include loss of grass turf with the installation of the sidewalks / bike paths. These impacts can be minimized by ensuring that project specifications require good construction practices such as preventing erosion from exposed soil surfaces, meeting existing State and Federal Storm Water Permit requirements, controlling dust, noise, and air pollution during construction related activities. An EPA storm water permit will be applied for by the contractor during the award stage of the project.

### 3.25. ENVIRONMENTAL IMPACTS

Review of the environmental information indicates that all Alternates would have a permanent impact on the environment.

**Table 2 - Environmental Impact Summary**

Environmental Resource	Potential Impact	Mitigation
Land Use		
General Land Use	None anticipated	N/A
Important Farmland	None anticipated	N/A
Formally Classified Land	None anticipated	N/A
Floodplains	None anticipated	N/A
Wetlands	Wetlands adjacent to the project have the potential to receive construction stormwater runoff if BMP's fail or are not in place.	Stormwater erosion and sediment control devices will be implemented as required by the MPCA NPDES Stormwater Permit
Historic Properties	None anticipated	N/A
Biological Resources	Ground surface disturbance	Stormwater erosion and sediment control devices will be implemented as required. Ground surface will be restored to preconstruction condition in a timely manner as required by the NPDES Construction Permit
	Vegetation and Tree removal	Vegetation and Trees will be removed only as required.
Water Quality	Some surface waters may receive construction stormwater runoff from the proposed project	Stormwater erosion and sediment control devices will be implemented as required by the EPA NPDES Construction Stormwater Permit
Coastal Resources	N/A	N/A
Socio-Economic / Environmental Justice	None anticipated	N/A
Miscellaneous Issues		
Air Quality	Construction activities may produce dust	Contractor will be required to provide dust control
Transportation	Minor traffic disturbance may occur during construction	Contractor will be required to maintain traffic throughout construction
Noise	Construction activities will produce noise	Limitations will be placed on construction work hours

## DATA COLLECTION

Documents published (See references at the end of this report) were studied to understand existing and proposed geometric, operational, and safety characteristics of the various areas within the Village of Nay Tah Waush. This data was reviewed along with separate field reviews to observe pedestrian and bicycle traffic during the first few weeks of school (September 2021). The observations are incorporated as part of this report.

### 4.6. PEDESTRIAN WALKING AUDITS

In the Fall 2019, the SRTS planning groups completed a walking audit and pedestrian/bicycle tally. The results are shown below in Table 1. In September of 2021 Widseth completed a similar walking audit and pedestrian/bicycle tally. The two surveys show very similar results. Items reviewed during the audits included driver and pedestrian behaviors, safety conditions, and tally of persons walking or Biking at the CSAH 4/Church Street Intersection. Appendix D contains the tally sheets from the 2021 review. Video of the 2021 review is also available.

During the 2021 survey Widseth inquired to NCCS staff if COVID-19 had any effect on students walking/biking to school and if any of the activities started in 2019 were derailed due to distant learning. Per NCCS staff interviewed, Staff did not believe COVID-19 influenced the walking/biking numbers and that factors towards (lack of) walking /biking pre and post COVID-19 had not changed.

Table 3 - Nay Tah Waush Walking / Biking Survey - 9/17/19 – 9/20/19

Day	Time	Weather	Number surveyed	% of Students Walking	% of Students Biking
Tuesday 9/17/2019	AM	Overcast	118	4.1%	0.0%
Tuesday 9/17/2019	PM	Sunny	120	4.9%	0.0%
Wednesday 9/18/2019	AM	Sunny	119	4.9%	0.0%
Wednesday 9/18/2019	PM	Sunny	120	4.9%	0.0%
Thursday 9/19/2019	AM	Sunny	119	4.1%	0.0%
Thursday 9/19/2019	PM	Sunny	119	4.1%	0.0%

Table 4 - Nay Tah Waush Walking / Biking Survey - 9/9/21 – 9/24/21

Day	Time	Weather	# of Persons Walking	# of Persons Biking
Thursday 9/9/2021	AM	Sunny, Clear	5	2
Tuesday 9/9/2021	PM	Sunny, Clear	8	6
Friday 9/10/2021	AM	Sunny, Clear	11	3
Friday 9/24/2021	PM	Sunny, Clear	7	0

## SECTION 5 – RECOMMENDED IMPROVEMENTS

### 5.1. GENERAL

Based on the collected data, review of alternatives and site reviews the following items are recommended at the various locations. These alternatives have been developed from prior studies, community input and currently accepted engineering design practices. Each option has benefits and consequences that should be considered but in general, the recommended improvements include additional sidewalks and trails and crosswalk enhancements that will improve mobility and safety. Below are the recommended improvements and the locations identified in each proposed project Phase. Project phasing maps and other location items are in the appendix.

Items are not listed in any preference.

<u>Item</u>	<u>Recommended Location</u>
Rectangular Rapid Flashing Beacons	Church Street / CSAH 4 Center Street / CSAH 4 North Twin Lake Road / 260 <sup>th</sup> St / Circle Drive / CSAH 4
Road Diet*	Church Street - Village Avenue to Shore Avenue Shore Avenue - 260 <sup>th</sup> St. to Church Street
New Sidewalk	New Circle Drive – CSAH 4 to Tower St Tower St E to Tower St N CSAH 4 – New Circle Drive to Center Street
New Bikepath	Tower St N to Sports Complex
Lighting	Multiple areas throughout the Village
Traffic Signing / Striping	Multiple areas throughout the Village

\* “Road Diet” is term for reducing the width of the vehicular travel surface or travel way via paint, tape, barricades, traffic/construction cones or other visual method without physically constructing a separate travel way for the Pedestrian or Bicyclist.

### 5.2. CHURCH STREET / CSAH 4

The intersection of CSAH 4 and Church Street has several geometric items which discourage pedestrians from crossing the intersection. The recommended improvements increase and promote public safety at the intersection include:

- Implementing Crossing Guards – Crossing Guards are recommended for the “High Traffic” months of September, October, April, and May. The crossing guards could be either older students or teachers. The guards would be present for at least ½ hour before school and ½ hour after school.
- To aid with the Crossing Guards, Additional signing is warranted. From a driver’s perspective it is unclear what the speed limit is and if / when you are in a school zone. The recommended speed limit is 30 mph with signing stating 20 mph (R2-1) when children are present (S4-2P) or time sign (S4-1P). Going north on CSAH 4 Speed reduction sign S4-5 is recommended.
- Beyond speed limit signs, signing also includes replacing the existing signs with new S1-1 Signs with S4-3P or W16-7p plaques at the intersection. These signs should have LED lights around the outer edge with a push button activation and solar power unit. Static signs such as W11-2 or S1-1 located further back from the intersection should also be added or replaced to increase reflectivity.





Figure 9 – Lack of Parking

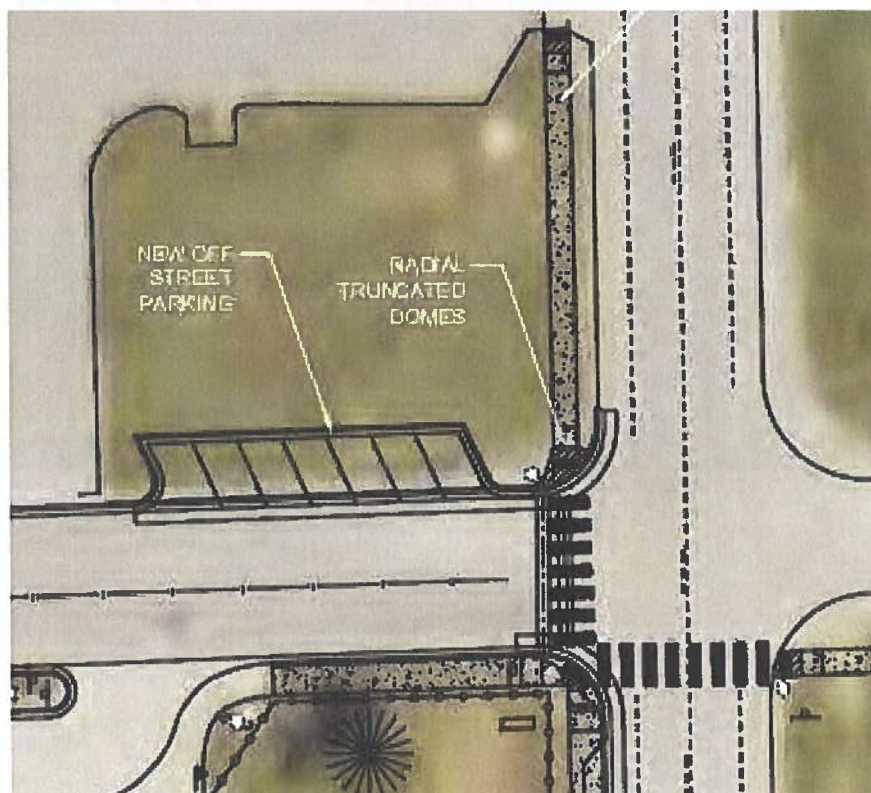


Figure 10 – Potential Off-Street Parking

### 5.3.2. ADVANCED WARNING LIGHTS

- Lighted High reflective signage at crosswalks.

Recommended at:

- a) Church Street / CSAH 4
- b) Center Street / CSAH 4
- c) North Twin Lake Road / 260<sup>th</sup> St / Circle Drive / CSAH 4

Pros

- This is an effective way to register the attention of the drivers and let them know there is a crosswalk at this location.
- Flashing system is demand actuated
- Power source is solar, so no grid tied power source is required
- Advanced Warning lights already exist at Pinehurst / Between the two lakes, so users are familiar with them.
- Many different styles to choose from.

Cons

- The effectiveness of this signage wanes with time. Not everyone will pay attention to the signage and may begin to disregard.
- Estimated Cost: \$2,500 to \$3,500 per pole
- Can be subject to vandalism



Figure 12 – S1-1 with W16-7P Plaque



Figure 13 – Advanced Warning Light South of Nay Tah Waush



#### 5.4.2. ROAD DIETS – REDUCTION OF TRAVEL SURFACE WIDTH

Generally, streets can be grouped into two categories: Rural Road type and Urban Road type. Rural road types typically are narrower (i.e. 28 ft wide), not have curb, are higher than the surrounding terrain, and have ditches on either side of the roadway surface. Urban road type is wider (i.e. 41 ft) with curb, drainage inlets, with the street generally lower than surrounding terrain. Road Diets can occur on both types of roadways if there is excess width or traffic patterns indicate a road diet can be completed without compromising safety. As Road Diets consist of painting the roadway to provide a travel route for pedestrians or bicyclists in areas previously reserved for vehicular traffic or parking, they can be some of the most cost-effective ways to provide pedestrian routes of travel. Road diets can also consist of “Share the road” type paths as well. Road diets are used in areas where the driving surface maybe excessively wide.

Although not marked with pavement paint, CSAH 4 underwent a “road diet” and users are to “Share the Road”



Figure 15 – CSAH 4 – Current Configuration – South of Center Street

CSAH 4 from Church Street to North Twin Lake Road / 260<sup>th</sup> St is a candidate for a road diet. However due to the proximity to the school, head start, head start playground, church, and residential housing, 6 and 8-foot-wide concrete sidewalks are recommended in this area instead of a road diet. There is an added benefit with installing sidewalks that during times of high automobile parking (i.e. Funerals) the roadway maintains adequate width for thru traffic while providing for minimal pedestrian conflict.

##### Pros

- By narrowing the driving lane, it helps to keep the traffic closer to the posted speed limit because the driver perceives they don't have as much room, so they drive at lower speeds.

##### Cons

- Bicyclists are still adjacent to the driving lane and, at times of heavy vehicle traffic, it can still be a risk for bicyclists.
- Road Diets can (and do) reduce on-street parking
- Estimated Cost: \$3.50/SQ.FT. for pavement messages and \$2.00/LIN.FT. for striping

## 5.5. NEIGHBORHOOD SIDEWALKS AND BIKEPATHS

Sidewalks (and Bike paths) provide a crucial link in the transportation network as they provide pedestrians the connection between buildings, parks, schools, etc. and driving surfaces. Sidewalks are typically located in residential neighborhoods, business districts, or other areas of high pedestrian usage. Within the Village of Nay Tah Waush however there are very few sidewalks. For purposes of this report five geographic areas have been identified as prime locations to which sidewalks and trails should be added. Maps of the areas and cost estimates to construct them can be found in the Appendix. Additionally, all areas are paired with enhanced lighting improvements as well.

Typically, when discussing sidewalks for purposes of this report we are discussing 6-foot-wide (4" thick) concrete paths located behind the curb in residential areas or business districts. The sidewalk on CSAH 4 from Head Start to the Catholic Church and again in the vicinity of the skate park is recommended at 8-feet-wide to accommodate additional pedestrians. Sidewalks at intersections with public roads require pedestrian curb ramps with "Truncated domes". Truncated domes are designed to help vision impaired pedestrians to be able to detect where the pathway ends, and the street starts. The "design speed" for a sidewalk is 2.5 mph. Concrete is 6" thick in the ADA areas.

Bike paths are 10-foot-wide (4" thick) bituminous pavement. Bike paths are designed for a bike to be able to travel at 20-mph on the path. The route from Tower St. North to the Sports Complex is identified as a Bikepath and asphalt pavement. Any (6' wide) sidewalk can be upgraded to a (10' wide) Bikepath if desired.

Lighting is provided at all the proposed areas.

### Pros

- Walkways would help separate pedestrians and vehicles, allowing people to get from origin to destination safely.
- Provides neighborhood connectivity
- Gives the mobility challenged a safe route of travel

### Cons

- Costly to install with snow removal and maintenance required.
- City snow removal policy should be developed and adopted that identifies who is responsible for snow removal.
- Usage by ATV's would damage the sidewalk/Bikepath and reduce the life span of the pavement.
- Estimated Cost: \$9.00/SQ.FT. for Concrete Sidewalk, \$3.50/SQ.FT. for Bituminous Trail

### Areas Recommended

#### New Sidewalk

New Circle Drive – CSAH 4 to Tower St  
Tower St E to Tower St N  
CSAH 4 – New Circle Drive to Center Street

#### New Bikepath

Tower St N to Sports Complex

## 5.6. REGIONAL BIKEPATH(S)

Mahnomen CSAH 4 provides regional access to the community and Pinehurst Resort. Linking Nay Tah Waush and Pinehurst via an off-road Bikepath or multi-use trail would decrease the amount of pedestrian and bicycle traffic on the roadway. Additionally, an off-road, separated, lighted trail west of CSAH 4 along North Twin Lake is also desired by area residents. As CSAH 4 south out of Nay Tah Waush towards Pinehurst Resort is already signed “Share the Road” this area was not reviewed as part of this plan. However, the route along North Twin Lake is reviewed as Area E in the Appendix with cost estimates provided.



Figure 20 – North Twin Lakes Road / 260<sup>th</sup> St. – Looking East



Figure 21 – North Twin Lake Boat Ramp and Park

## **SECTION 6 – OTHER**

### **6.1. PERMIT REQUIREMENTS**

It is anticipated the following permits may be required for the proposed project:

- EPA Construction Stormwater Permit
- Mahnomen County R-O-W Permit

### **6.2. MISCELLANEOUS**

When deciding which (recommended) improvement to complete first, selection should consider both monetary and nonmonetary factors. Nonmonetary factors include environmental impacts, historic properties, farmland, etc. Typically, the most cost-effective alternate should be selected unless factors make it not feasible.

Non-monetary factors which factored into several of the recommendations included the seven most common primary factors contributing to fatal and serious injury crashes. Those factors are:

- Unbelted Occupants
- Impaired User
- Inattentive driver
- Speed
- Older Driver
- Young Driver
- Invalid License

The Reader is directed to the Appendix D to review detailed maps and cost estimates for the various recommended improvements. The Village has been divided up into 5 areas for which improvements are recommended. Not all areas of the Village are covered. Additionally, some areas discussed in other plans are not covered under this report as they have been previously covered.

### **6.3. DOGS**

Several previous reports listed loose or wild dogs as a prohibitive item towards walking to school. The field reviews and walking Audits conducted in 2021 viewed multiple dogs running loose. These dogs were located near the school as well as in other areas. It was considered beyond the scope of this report to address solutions towards unmonitored dogs and as such was not addressed.

### **6.4. TRAFFIC VOLUME - CSAH 4**

The current traffic volume for CSAH 4 is 950 ADT (2016). Traffic volume for other areas are unavailable.

### **6.5. INCOME**

Nay Tah Waush's median household income is \$28,625 which is 64% of Mahnomen County's MHI (\$44,688) and 38% of the State of Minnesota (\$74,593). The percentage of people living below the poverty level is 48.3%.

### **6.6. SAFE ROUTES TO SCHOOL (SRTS) STEERING COMMITTEE**

The following persons are members of the Nay Tah Waush SRTS Steering Committee from which many of the ideas, concerns, and solutions are attributed to.

Michael Bowman, WEDOT	Lori Lang, NCCS
Jon Large, Mahnomen County	Heather Heisler, White Earth
Naomi Carlson, HRDC	Ben Weidemann, White Earth
Kimberly Myers, SHIP / NCCS	Terri Anderson, NCCS
Jane Butzer, MNDOT D4	Kayla Coleman, NCCS
Terri Darco, White Earth Boys and Girls Club	Mike Loroque, White Earth Police
Mary Safgren, MNDOT D4	Bryan McCoy, HRDC

## **SECTION 8 - CONCLUSIONS AND RECOMMENDATIONS**

### **8.1. CONCLUSIONS**

Improvements described within this Pedestrian Study Report are in the best interests of the citizens of the Village of Nay Tah Waush. Completion of these recommendations will strengthen the current and future health, safety, and well-being of the village citizens.

Changes to the roadway and walking environment are essential to making walking and biking within the Village of Nay Tah Waush safe and comfortable. This plan does not represent a comprehensive list of every project that could improve walking and biking but does identify key areas and provides recommendations for enhancements of those key areas.

All recommendations and alternates are feasible from a construction standpoint. Further

- Existing pedestrian/bicycle walkways and trails are insufficient for current and projected needs.
- Corridors require enhancements to improve pedestrian safety.
- Additional sidewalks and crosswalks are needed at almost every intersection within the Village.
- Current pedestrian facilities and trails do not meet current ADA standards.

### **8.2. RECOMMENDATIONS**

Widseth hereby recommends to the White Earth Department of Transportation:

- Complete and submit applications for funding. The anticipated funder(s) for these projects are the Minnesota Department of Transportation and the United States Department of Transportation with supplemental funding from a variety of other sources.
- Once funding is secure it is our recommendation the improvements at the Church Street / CSAH 4 intersection be completed first and then the other areas completed as funding allows.
- Summary of the Recommended project improvements:
  - a. Enhance, Replace, & Add Traffic Control Devices
  - b. Narrow Church Street and Shore Avenue to allow for a sidewalk behind the curb
  - c. Add 6-ft wide Concrete Sidewalks
  - d. Add 10-ft wide Bituminous (Asphalt) Trails
  - e. Add (Street) Lighting
  - f. Add Traffic Signing
  - g. Add Pavement Markings (Crosswalks)

## APPENDICES

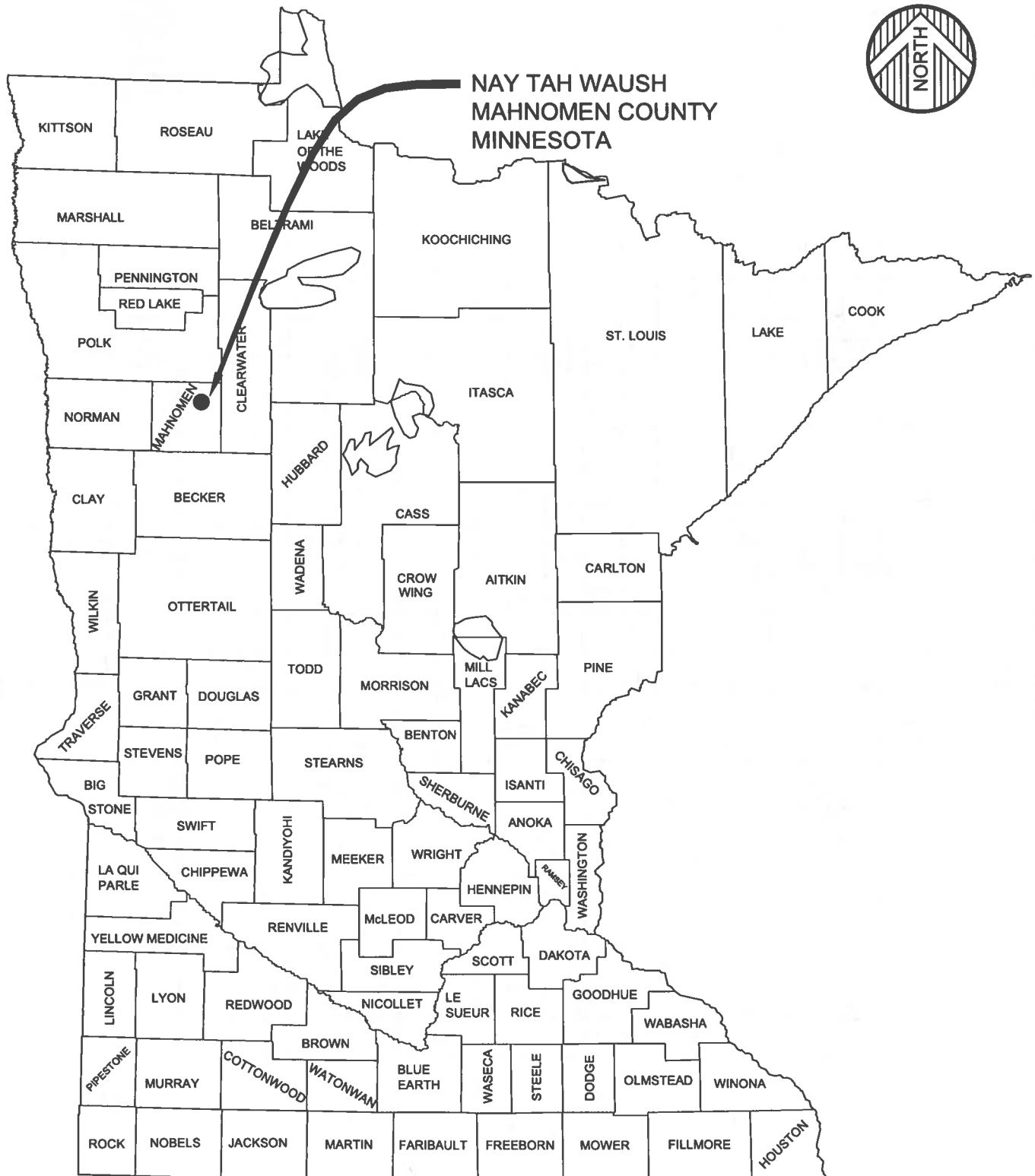
## **Appendix A**

**State of Minnesota – Village of Nay Tah Waush – Location Map**

**Mahnomen County – Map**

**White Earth Tribal Nation - Map**

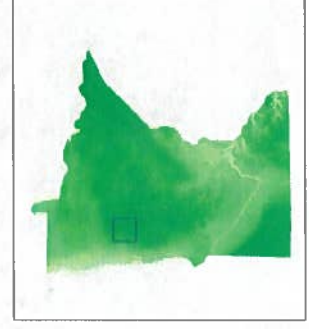
**Village of Nay Tah Waush**



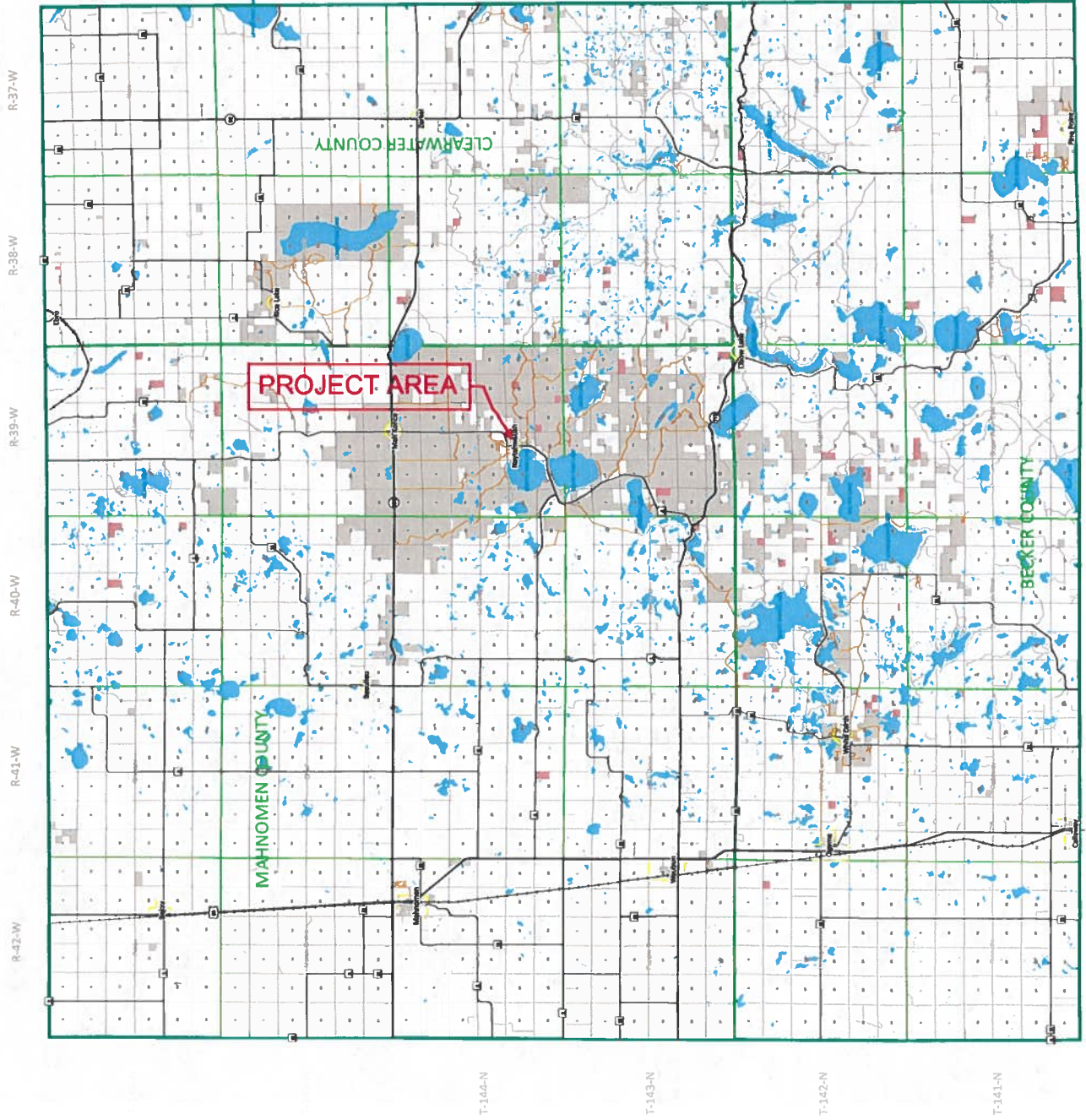


# White Earth Reservation

## Base Map



Map of Minnesota  
 State of Minnesota  
 Department of Natural Resources  
 Division of Parks and Recreation  
 2010



## **Appendix B**

**ADT Counts**

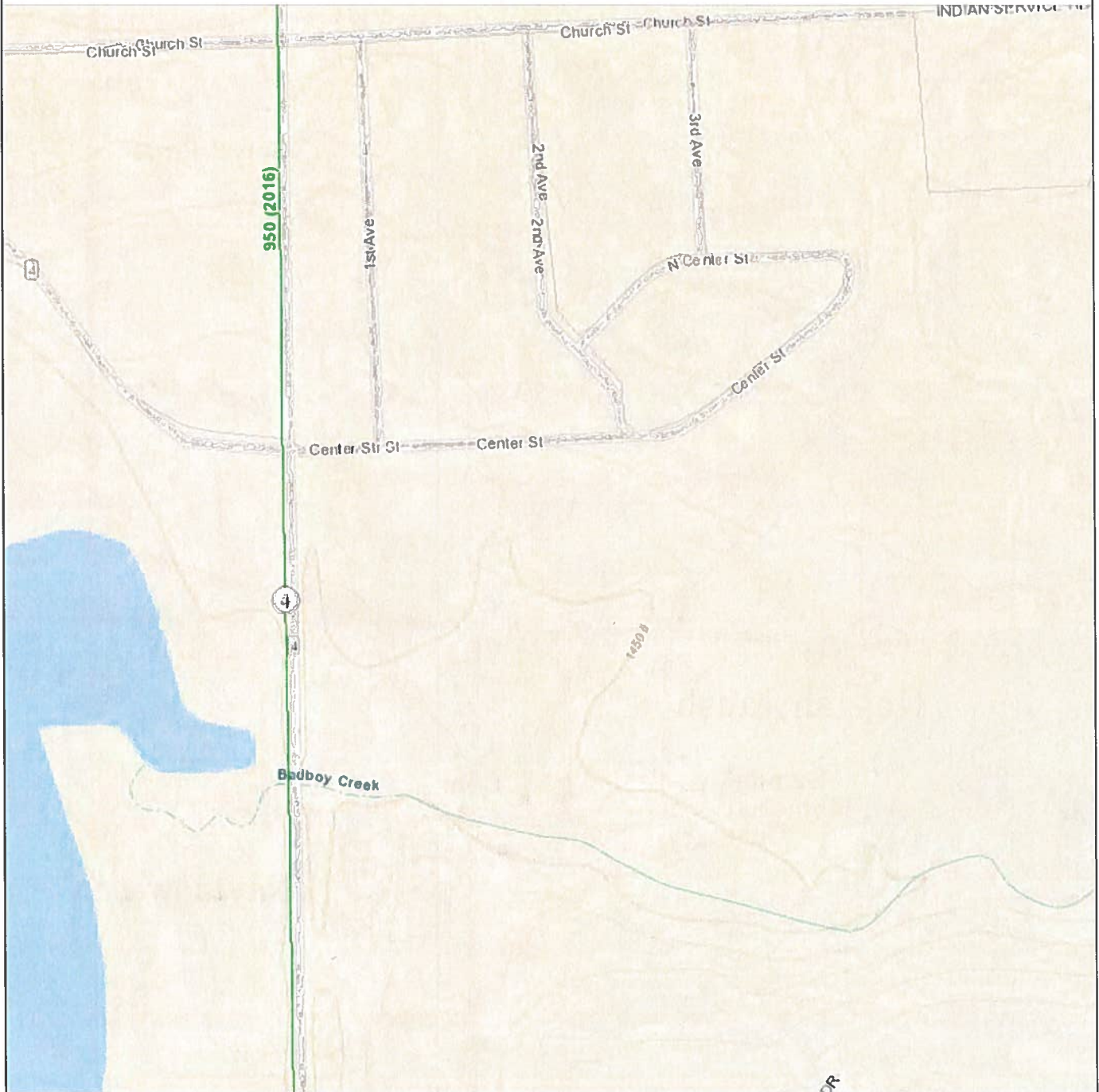
**Village of Nay Tah Waush – USGS Quad Map**

**NWI – Wetlands Inventory Map**

**NRCS – Soil Map**

**COE – FIRM Map 1**

**COE – FIRM Map 2**



## NAY TAH WAUSH ADT COUNTS

**WIDSETH**  
ARCHITECTS • ENGINEERS • SCIENTISTS • SURVEYORS

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DAILY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

DATE	REV	REVISION DESCRIPTION	BY

DATE: NOVEMBER 2021  
SCALE: AS SHOWN  
DRAWN BY: L.S.C.  
CHECKED BY: L.S.C.  
JOB NUMBER: 2021-11500

PEDESTRIAN AND LIGHTING IMPROVEMENTS  
WHITE EARTH DEPARTMENT OF TRANSPORTATION  
NAYTAHWAUSH, MINNESOTA  
ADT COUNT

SHEET NO.  
**1**  
SHEET 1 OF 1





U.S. Fish and Wildlife Service

## National Wetlands Inventory

## Nah Tay Waush









































































November 15, 2021

### Wetlands

- |  |                                |  |                                   |  |          |
|--|--------------------------------|--|-----------------------------------|--|----------|
|  | Estuarine and Marine Deepwater |  | Freshwater Emergent Wetland       |  | Lake     |
|  | Estuarine and Marine Wetland   |  | Freshwater Forested/Shrub Wetland |  | Other    |
|  | Freshwater Pond                |  | Freshwater Pond                   |  | Riverine |

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

## MAP LEGEND

	Area of Interest (AOI)		Area of Interest (AOI)
	Soils		Area of Interest (AOI)
	Soil Map Unit Polygons		Area of Interest (AOI)
	Soil Map Unit Lines		Area of Interest (AOI)
	Soil Map Unit Points		Area of Interest (AOI)
	Special Point Features		Area of Interest (AOI)
	Blowout		Area of Interest (AOI)
	Borrow Pit		Area of Interest (AOI)
	Clay Spot		Area of Interest (AOI)
	Closed Depression		Area of Interest (AOI)
	Gravel Pit		Area of Interest (AOI)
	Gravelly Spot		Area of Interest (AOI)
	Landfill		Area of Interest (AOI)
	Lava Flow		Area of Interest (AOI)
	Marsh or swamp		Area of Interest (AOI)
	Mine or Quarry		Area of Interest (AOI)
	Miscellaneous Water		Area of Interest (AOI)
	Perennial Water		Area of Interest (AOI)
	Rock Outcrop		Area of Interest (AOI)
	Saline Spot		Area of Interest (AOI)
	Sandy Spot		Area of Interest (AOI)
	Severely Eroded Spot		Area of Interest (AOI)
	Sinkhole		Area of Interest (AOI)
	Slide or Slip		Area of Interest (AOI)
	Sodic Spot		Area of Interest (AOI)
	Water Features		Area of Interest (AOI)
	Streams and Canals		Area of Interest (AOI)
	Transportation		Area of Interest (AOI)
	Rails		Area of Interest (AOI)
	Interstate Highways		Area of Interest (AOI)
	US Routes		Area of Interest (AOI)
	Major Roads		Area of Interest (AOI)
	Local Roads		Area of Interest (AOI)
	Background		Area of Interest (AOI)
	Aerial Photography		Area of Interest (AOI)

## MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service

Web Soil Survey URL: <http://websoilsurvey.sc.egov.usda.gov>

Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Mahnomon County, Minnesota

Survey Area Data: Version 20, Sep 10, 2021

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jun 12, 2014—Nov 3, 2016

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.





## Appendix C

Estimate of Construction  
Median Household Income

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# Engineer's Estimate of Cost Sidewalk and Lighting Improvements Work Area A

**WIDSETH**  
AND ASSOCIATES, INC.

12/20/21

WIDSETH PROJECT # 2021-11500

ITEM NO.	ITEM DESCRIPTION	UNIT	UNIT PRICE	ESTIMATED QUANTITY	TOTAL AMOUNT
1	MOBILIZATION	LUMP SUM	\$30,000.00	0.20	\$6,000.00
2	CLEARING	TREE	\$450.00	10	\$4,500.00
3	GRUBBING	TREE	\$450.00	10	\$4,500.00
4	REMOVE CURB AND GUTTER	LIN. FT.	\$8.00	60	\$480.00
5	REMOVE BITUMINOUS PAVEMENT	SQ. YD.	\$4.00	620	\$2,480.00
6	SAWING CONCRETE PAVEMENT (FULL DEPTH)	LIN. FT.	\$6.00	8	\$48.00
7	SAWING BITUMINOUS PAVEMENT (FULL DEPTH)	LIN. FT.	\$10.00	965	\$9,650.00
8	SALVGE SIGN	EACH	\$100.00	5	\$500.00
9	COMMON EXCAVATION (P)	CU. YD.	\$35.00	390	\$13,650.00
10	AGGREGATE BASE (CV), CLASS 5	CU. YD.	\$32.00	390	\$12,480.00
11	CULVERT	LIN. FT.	\$100.00	100	\$10,000.00
12	TYPE SP 9.5 WEARING COURSE MIX (B)	TON	\$150.00	117	\$17,550.00
13	4" CONCRETE WALK	SQ. FT.	\$9.00	13485	\$121,365.00
14	6" CONCRETE WALK	SQ. FT.	\$12.00	1640	\$19,680.00
15	6" CONCRETE DRIVEWAY PAVEMENT	SQ. YD.	\$125.00	100	\$12,500.00
16	CONCRETE CURB AND GUTTER, DESIGN B618	LIN. FT.	\$48.00	990	\$47,520.00
17	TRUNCATED DOMES	SQ. FT.	\$80.00	133	\$10,640.00
18	TRAFFIC CONTROL	LUMP SUM	\$10,000.00	0.20	\$2,000.00
19	INSTALL SIGN TYPE C	EACH	\$300.00		\$0.00
20	INSTALL SALVAGED SIGN	EACH	\$250.00	5	\$1,250.00
21	PEDESTRIAN CROSSWALK FLASHER SYSTEM	EACH	\$10,000.00	2	\$20,000.00
22	RADAR SPEED CHECK SYSTEM	EACH	\$4,000.00	1	\$4,000.00
23	EROSION CONTROL SUPERVISOR	LUMP SUM	\$1,500.00	0.20	\$300.00
24	TOPSOIL BORROW	CU. YD.	\$100.00	95	\$9,500.00
25	FERTILIZER, TYPE 24-12-24	POUND	\$10.00	122.50	\$1,225.00
26	SEEDING	ACRE	\$20,000.00	0.35	\$7,000.00
27	SEED MIXTURE 25-151	POUND	\$20.00	42.00	\$840.00
28	HYDRAULIC MATRIX, TYPE MULCH	POUND	\$3.50	875.00	\$3,062.50
29	4" SOLID LINE WHITE - PAINT	LIN FT	\$1.00	150	\$150.00
30	4" SOLID LINE BLUE - PAINT	LIN FT	\$1.00		\$0.00
31	4" SOLID LINE YELLOW - PAINT	LIN FT	\$1.00		\$0.00
32	PAINTED CURB - BLUE	LIN FT	\$0.50		\$0.00
33	PAVEMENT MESSAGE MULTI-COMPONENT	SQ FT	\$7.50		\$0.00
34	CROSSWALK MARKING MULTI-COMPONENT	SQ FT	\$7.50	640	\$4,800.00
35	LIGHTING UNIT TYPE - 30FT	EACH	\$1,900.00		\$0.00
36	LIGHTING UNIT TYPE - 40FT	EACH	\$2,200.00	21	\$46,200.00
37	FOUNDATION UNIT TYPE	EACH	\$1,500.00	21	\$31,500.00
38	2" NON-METALLIC CONDUIT - PVC	LIN FT	\$4.75	2806	\$13,328.50
39	ELECTRICAL TRENCHING / BORING	LIN FT	\$4.25	2806	\$11,925.50
40	UNDERGROUND WIRE 1/C 4 AWG	LIN FT	\$1.00	9018	\$9,018.00
41	ELECTRICAL SERVICE FEED	EACH	\$3,400.00	2	\$6,800.00

Engr Est Work Area A Total =

\$466,442.50



# Engineer's Estimate of Cost Sidewalk and Lighting Improvements Work Area B

**WIDSETH**  
ARCHITECTS & ENGINEERS

12/20/21

WIDSETH PROJECT # 2021-11500

ITEM NO.	ITEM DESCRIPTION	UNIT	UNIT PRICE	ESTIMATED QUANTITY	TOTAL AMOUNT
1	MOBILIZATION	LUMP SUM	\$30,000.00	0.20	\$6,000.00
2	CLEARING	TREE	\$450.00		\$0.00
3	GRUBBING	TREE	\$450.00		\$0.00
4	REMOVE CURB AND GUTTER	LIN. FT.	\$8.00	2625	\$21,000.00
5	REMOVE BITUMINOUS PAVEMENT	SQ. YD.	\$4.00	2450	\$9,800.00
6	SAWING CONCRETE PAVEMENT (FULL DEPTH)	LIN. FT.	\$6.00	50	\$300.00
7	SAWING BITUMINOUS PAVEMENT (FULL DEPTH)	LIN. FT.	\$10.00	2620	\$26,200.00
8	SALVGE SIGN	EACH	\$100.00	1	\$100.00
9	COMMON EXCAVATION (P)	CU. YD.	\$35.00	38	\$1,330.00
10	AGGREGATE BASE (CV), CLASS 5	CU. YD.	\$32.00	38	\$1,216.00
11	CULVERT	LIN. FT.	\$100.00		\$0.00
12	TYPE SP 9.5 WEARING COURSE MIX (B)	TON	\$150.00	347	\$52,050.00
13	4" CONCRETE WALK	SQ. FT.	\$9.00	12741	\$114,669.00
14	6" CONCRETE WALK	SQ. FT.	\$12.00	2890	\$34,680.00
15	6" CONCRETE DRIVEWAY PAVEMENT	SQ. YD.	\$125.00		\$0.00
16	CONCRETE CURB AND GUTTER, DESIGN B618	LIN. FT.	\$48.00	2600	\$124,800.00
17	TRUNCATED DOMES	SQ. FT.	\$80.00	156	\$12,480.00
18	TRAFFIC CONTROL	LUMP SUM	\$10,000.00	0.20	\$2,000.00
19	INSTALL SIGN TYPE C	EACH	\$300.00	2	\$600.00
20	INSTALL SALVAGED SIGN	EACH	\$250.00	1	\$250.00
21	PEDESTRIAN CROSSWALK FLASHER SYSTEM	EACH	\$10,000.00		\$0.00
22	RADAR SPEED CHECK SYSTEM	EACH	\$4,000.00		\$0.00
23	EROSION CONTROL SUPERVISOR	LUMP SUM	\$1,500.00	0.20	\$300.00
24	TOPSOIL BORROW	CU. YD.	\$100.00	35	\$3,500.00
25	FERTILIZER, TYPE 24-12-24	POUND	\$10.00	42.00	\$420.00
26	SEEDING	ACRE	\$20,000.00	0.12	\$2,400.00
27	SEED MIXTURE 25-151	POUND	\$20.00	14.40	\$288.00
28	HYDRAULIC MATRIX, TYPE MULCH	POUND	\$3.50	300.00	\$1,050.00
29	4" SOLID LINE WHITE - PAINT	LIN FT	\$1.00		\$0.00
30	4" SOLID LINE BLUE - PAINT	LIN FT	\$1.00		\$0.00
31	4" SOLID LINE YELLOW - PAINT	LIN FT	\$1.00		\$0.00
32	PAINTED CURB - BLUE	LIN FT	\$0.50		\$0.00
33	PAVEMENT MESSAGE MULTI-COMPONENT	SQ FT	\$7.50		\$0.00
34	CROSSWALK MARKING MULTI-COMPONENT	SQ FT	\$7.50	120	\$900.00
35	LIGHTING UNIT TYPE - 30FT	EACH	\$1,900.00	14	\$26,600.00
36	LIGHTING UNIT TYPE - 40FT	EACH	\$2,200.00	9	\$19,800.00
37	FOUNDATION UNIT TYPE	EACH	\$1,500.00	23	\$34,500.00
38	2" NON-METALLIC CONDUIT - PVC	LIN FT	\$4.75	4172	\$19,817.00
39	ELECTRICAL TRENCHING / BORING	LIN FT	\$4.25	4172	\$17,731.00
40	UNDERGROUND WIRE 1/C 4 AWG	LIN FT	\$1.00	13176	\$13,176.00
41	ELECTRICAL SERVICE FEED	EACH	\$3,400.00	3	\$10,200.00

Engr Est Work Area B Total =	<b>\$558,157.00</b>
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# Engineer's Estimate of Cost Sidewalk and Lighting Improvements Work Area D

**WIDSETH**  
ARCHITECTS + ENGINEERS

12/06/21

WIDSETH PROJECT # 2021-11500

ITEM NO.	ITEM DESCRIPTION	UNIT	UNIT PRICE	ESTIMATED QUANTITY	TOTAL AMOUNT
1	MOBILIZATION	LUMP SUM	\$30,000.00	0.20	\$6,000.00
2	CLEARING	TREE	\$450.00		\$0.00
3	GRUBBING	TREE	\$450.00		\$0.00
4	REMOVE CURB AND GUTTER	LIN. FT.	\$8.00	120	\$960.00
5	REMOVE BITUMINOUS PAVEMENT	SQ. YD.	\$4.00	45	\$180.00
6	SAWING CONCRETE PAVEMENT (FULL DEPTH)	LIN. FT.	\$6.00	32	\$192.00
7	SAWING BITUMINOUS PAVEMENT (FULL DEPTH)	LIN. FT.	\$10.00	170	\$1,700.00
8	SALVGE SIGN	EACH	\$100.00		\$0.00
9	COMMON EXCAVATION (P)	CU. YD.	\$35.00	580	\$20,300.00
10	AGGREGATE BASE (CV), CLASS 5	CU. YD.	\$32.00	580	\$18,560.00
11	CULVERT	LIN. FT.	\$100.00		\$0.00
12	TYPE SP 9.5 WEARING COURSE MIX (B)	TON	\$150.00	16	\$2,400.00
13	4" CONCRETE WALK	SQ. FT.	\$9.00	26060	\$234,540.00
14	6" CONCRETE WALK	SQ. FT.	\$12.00	4442	\$53,304.00
15	6" CONCRETE DRIVEWAY PAVEMENT	SQ. YD.	\$125.00	40	\$5,000.00
16	CONCRETE CURB AND GUTTER, DESIGN B618	LIN. FT.	\$48.00	120	\$5,760.00
17	TRUNCATED DOMES	SQ. FT.	\$80.00	253	\$20,240.00
18	TRAFFIC CONTROL	LUMP SUM	\$10,000.00	0.20	\$2,000.00
19	INSTALL SIGN TYPE C	EACH	\$300.00		\$0.00
20	INSTALL SALVAGED SIGN	EACH	\$250.00		\$0.00
21	PEDESTRIAN CROSSWALK FLASHER SYSTEM	EACH	\$10,000.00		\$0.00
22	RADAR SPEED CHECK SYSTEM	EACH	\$4,000.00		\$0.00
23	EROSION CONTROL SUPERVISOR	LUMP SUM	\$1,500.00	0.20	\$300.00
24	TOPSOIL BORROW	CU. YD.	\$100.00	220	\$22,000.00
25	FERTILIZER, TYPE 24-12-24	POUND	\$10.00	283.50	\$2,835.00
26	SEEDING	ACRE	\$20,000.00	0.81	\$16,200.00
27	SEED MIXTURE 25-151	POUND	\$20.00	97.20	\$1,944.00
28	HYDRAULIC MATRIX, TYPE MULCH	POUND	\$3.50	2025.00	\$7,087.50
29	4" SOLID LINE WHITE - PAINT	LIN FT	\$1.00	80	\$80.00
30	4" SOLID LINE BLUE - PAINT	LIN FT	\$1.00		\$0.00
31	4" SOLID LINE YELLOW - PAINT	LIN FT	\$1.00		\$0.00
32	PAINTED CURB - BLUE	LIN FT	\$0.50		\$0.00
33	PAVEMENT MESSAGE MULTI-COMPONENT	SQ FT	\$7.50		\$0.00
34	CROSSWALK MARKING MULTI-COMPONENT	SQ FT	\$7.50	500	\$3,750.00
35	LIGHTING UNIT TYPE - 30FT	EACH	\$1,900.00	20	\$38,000.00
36	LIGHTING UNIT TYPE - 40FT	EACH	\$2,200.00		\$0.00
37	FOUNDATION UNIT TYPE	EACH	\$1,500.00	20	\$30,000.00
38	2" NON-METALLIC CONDUIT - PVC	LIN FT	\$4.75	2861	\$13,589.75
39	ELECTRICAL TRENCHING / BORING	LIN FT	\$4.25	2861	\$12,159.25
40	UNDERGROUND WIRE 1/C 4 AWG	LIN FT	\$1.00	9138	\$9,138.00
41	ELECTRICAL SERVICE FEED	EACH	\$3,400.00	2	\$6,800.00

Engr Est Work Area D Total =	\$535,019.50
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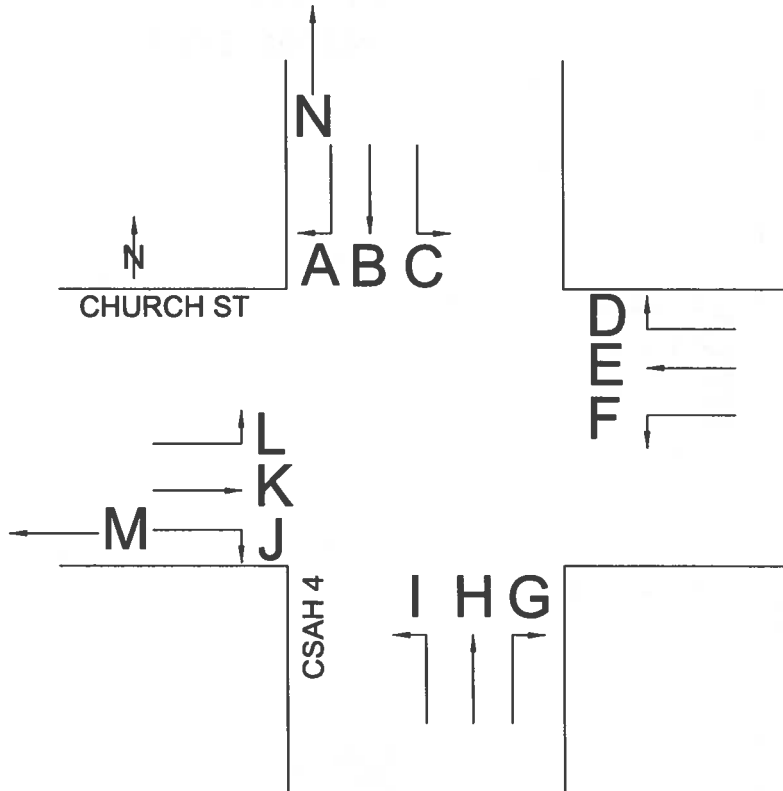
## Median Household Income and Population Estimates US Census Bureau / ACS

<u>LOCATION</u>	<u>MHI AMOUNT (2019)</u>	<u>POPULATION (2019)</u>
USA	\$ 65,712	331,449,281
Minnesota	\$ 74,593	5,706,494
Polk County	\$ 59,343	31,521
Clearwater County	\$ 50,386	8,821
Mahnomen County	\$ 44,688	5,411
<b><i>Nay Tah Waush</i></b>	<b>\$ 28,625</b>	<b>504</b>
Bagley	\$ 38,846	1,285
Mahnomen	\$ 38,021	1,240
White Earth Tribal Nation	\$ 45,377	9,726

## Appendix D

Ped Movements 9-9-21 745 am  
Ped Movements 9-9-21 245 pm  
Ped Movements 9-10-21 735 am  
Ped Movements 9-24-21 230 pm  
Pedestrian – Bicycle Accidents  
Typical Sections  
Overall Work Scope  
Site Plan Area A  
Site Plan Area B  
Site Plan Area C  
Site Plan Area D  
Site Plan Area E

SUNNY, CLEAR  
THURSDAY 9/09/24  
60° CALM  
7:45 AM - 8:45 AM



	A	W	B
A	11	2	2
B	21	-	-
C	1	-	-
D	2	-	-
E	3	1	-
F	-	-	-
G	-	-	-
H	21	-	-
I	6	-	-
J	8	-	-
K	1	-	-
L	13	-	-
M	-	2	-
N	-	-	-

A = AUTOMOBILES  
W = PEDESTRIANS  
B = BICYCLISTS

The diagram shows a building layout with the following room labels and airflow directions:

- Top-Left Quadrant (Rooms A, B, C, N):**
  - Room N: Airflow arrow pointing up (outdoor).
  - Room A: Airflow arrows pointing down from rooms B and C.
  - Room B: Airflow arrow pointing down into room A.
  - Room C: Airflow arrow pointing down into room A.
- Top-Right Quadrant (Rooms D, E, F):**
  - Room D: Airflow arrow pointing up (outdoor).
  - Room E: Airflow arrow pointing up (outdoor).
  - Room F: Airflow arrow pointing up (outdoor).
- Bottom-Left Quadrant (Rooms J, K, L, M):**
  - Room J: Airflow arrow pointing down (outdoor).
  - Room K: Airflow arrow pointing down (outdoor).
  - Room L: Airflow arrow pointing down (outdoor).
  - Room M: Airflow arrow pointing left (outdoor).
- Bottom-Right Quadrant (Rooms G, H, I):**
  - Room G: Airflow arrow pointing down (outdoor).
  - Room H: Airflow arrow pointing down (outdoor).
  - Room I: Airflow arrow pointing down (outdoor).

Streets are labeled: **CHURCH ST** (horizontal) and **CSAH 4** (vertical).

	A	W	B
A	7	-	-
B	16	-	-
C	3	-	-
D	9	-	-
E	7	8	-
F	-	-	-
G	-	-	-
H	20	-	-
I	10	-	-
J	7	-	2
K	2	1	-
L	8	-	-
M	-	2	1
N	-	-	-

**WIDSETH**  
ARCHITECTS • ENGINEERS • SCIENTISTS • SURVEYORS

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA

LIC D. CARMEAU DATE: LIC NO. 41234

DATE	REV#	REVISIONS DESCRIPTION

DATE:	NOVEMBER 2021
SCALE:	AS SHOWN
DRAWN BY:	R.J.P.
CHECKED BY:	L.D.C.

2021-11500

NAHTAYWAUSH PEDESTRIAN STUDY  
WHITE EARTH TRIBAL NATION  
NAHTAYWAUSH, MINNESOTA

PED MOVEMENTS 7:35AM 9-10-21

SHEET NO.

1

1 of 1

## Lee Cariveau

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**From:** Jeremy Cossette <Jeremy.Cossette@whiteearth-nsn.gov>  
**Sent:** Tuesday, December 14, 2021 7:46 AM  
**To:** Lee Cariveau  
**Subject:** RE: Pedestrian - Bicycle Accidents - Naytahwaush  
**Categories:** Filed by Newforma

Lee,

Thanks for reaching out to me. However, I went through our data and found that there has been zero pedestrian/bicycle crashes on this roadway.

If you need anything else please let me know.

Thanks,



Jeremy E. Cossette #803  
Administrative/Investigative Lieutenant  
White Earth Tribal Police Department  
Office # (218) 983-3285 Ext. 5702  
Cell # (218) 849-8831  
[jeremy.cossette@whiteearth-nsn.gov](mailto:jeremy.cossette@whiteearth-nsn.gov)

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**From:** Lee Cariveau <Lee.Cariveau@widseth.com>  
**Sent:** Monday, December 13, 2021 9:32 AM  
**To:** Jeremy Cossette <Jeremy.Cossette@whiteearth-nsn.gov>  
**Subject:** Pedestrian - Bicycle Accidents - Naytahwaush

CAUTION: This email originated from outside your organization. Exercise caution when opening attachments or clicking links, especially from unknown senders.

Jeremy,

My name is Lee Cariveau. I am an engineer with Widseth in Crookston, Mn. And I am working with WEDOT on a pedestrian study and grant requests for pedestrian improvements within the Village of Naytahwaush. A couple weeks ago I contacted Mahnomen County and they did not have any reported Pedestrian/bicyclist – Vehicle accidents on CSAH

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**From:** Tammy Benson <[tammy.benson@co.mahnomen.mn.us](mailto:tammy.benson@co.mahnomen.mn.us)>

**Sent:** Thursday, December 9, 2021 10:34 AM

**To:** Lee Cariveau <[Lee.Cariveau@widseth.com](mailto:Lee.Cariveau@widseth.com)>

**Subject:** Statistics

A search of our data base resulted no vehicle vs. pedestrian accidents involving Center Street, Church Street and 260<sup>th</sup> (North Twin) in the Village of Naytahwaush.

You may also want to check with White Earth Dispatch as the search I conducted only involved our agency.

Have a good day!

**Tammy Benson**  
**Administrative Assistant**  
**Mahnomen County Sheriff's Office**  
**P.O. Box 440**  
**Mahnomen, MN 56557**

**Phone: 218-935-2255**

**Fax: 218-935-5946**



MOVEMENTS	OF TRANSPORTATION
COUNTY	SCHOOL
HIGHWAY	ADDITIONAL
BRIDGE	BY
CONCRETE	LIMIT
JOB NUMBER	2021-11500

DATE	NAME	REMARKS DESCRIPTION	BY

DATE: 11/01/2000 10:40:00 AM











Google Earth

**Legend**  
 Proposed 40 ft LED Light Pole

**Proposed Street Lighting - Group A**  
 White Earth Tribe - City of Naytahwaush  
 Safe Route to School

NOT FOR CONSTRUCTION

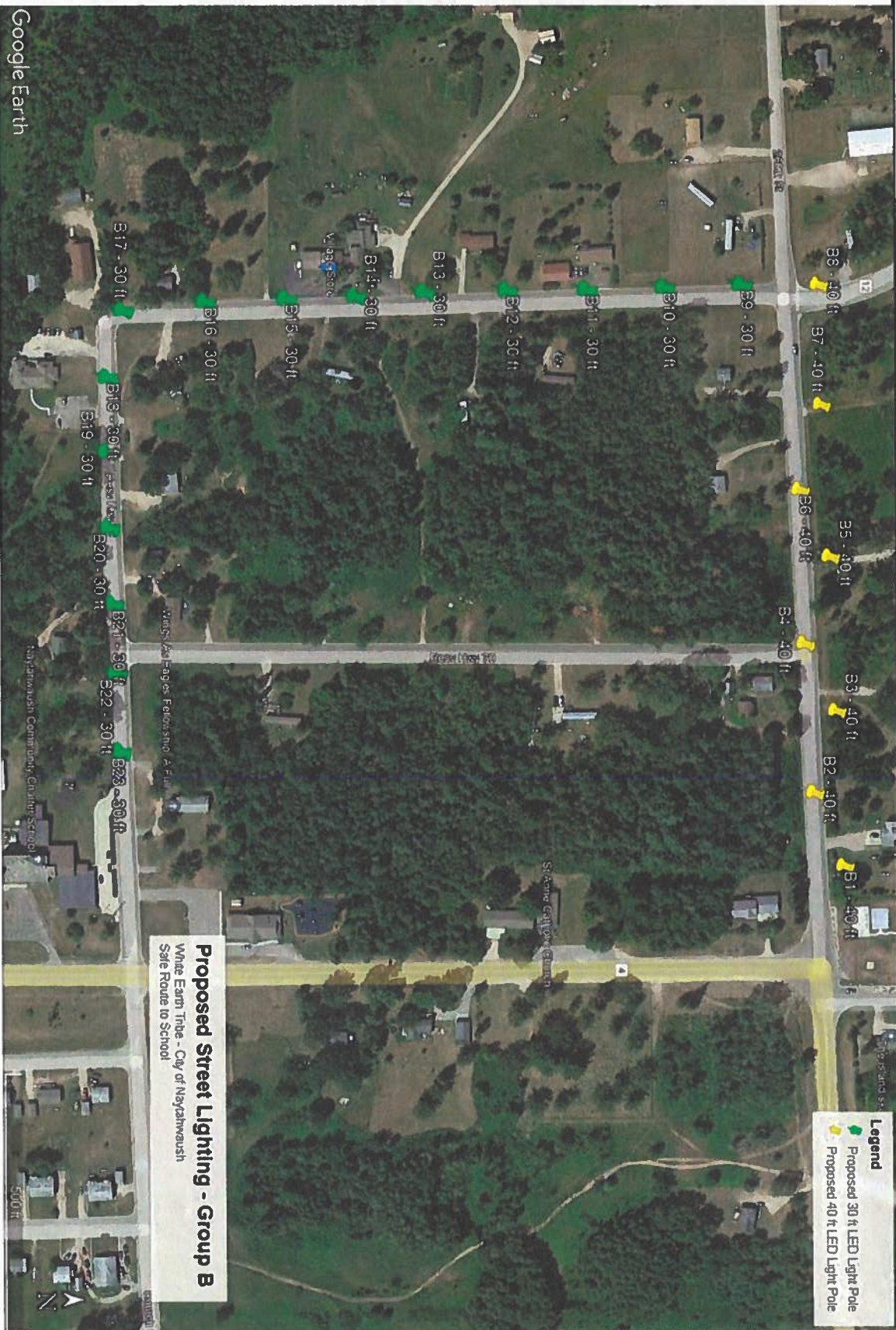
<b>PEDESTRIAN LIGHTING IMPROVEMENTS</b> WHITE EARTH DEPARTMENT OF TRANSPORTATION NAYTAHWAUSH, MINNESOTA STREET LIGHTS - GROUP A		DATE: 2021-11-15 SCALE: AS SHOWN DRAWN BY: [blank] CHECKED BY: [blank] DESIGNED BY: [blank]	REVISION DESCRIPTION NO. 1 DATE: 2021-11-15 DESCRIPTION: [blank]	PREPARED BY: [blank] CHECKED BY: [blank] DESIGNED BY: [blank] DATE: 2021-11-15	<b>WIDSETH</b> ARCHITECTS • ENGINEERS • SCIENTISTS • SURVEYORS
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NOT FOR CONSTRUCTION

PEDESTRIAN LIGHTING IMPROVEMENTS  
WHITE EARTH DEPARTMENT OF TRANSPORTATION  
NAYTAHWAUSH, MINNESOTA  
STREET LIGHTS - GROUP B

DATE: NOV 2021  
SCALE: AS SHOWN  
DESIGNED BY: JLC  
CHECKED BY: JLC  
PROJECT#: 2021-11000

DATE	DESCRIPTION

WIDSETH ARCHITECTS • ENGINEERS • SCIENTISTS • SURVEYORS

**WIDSETH**  
ARCHITECTS • ENGINEERS • SCIENTISTS • SURVEYORS





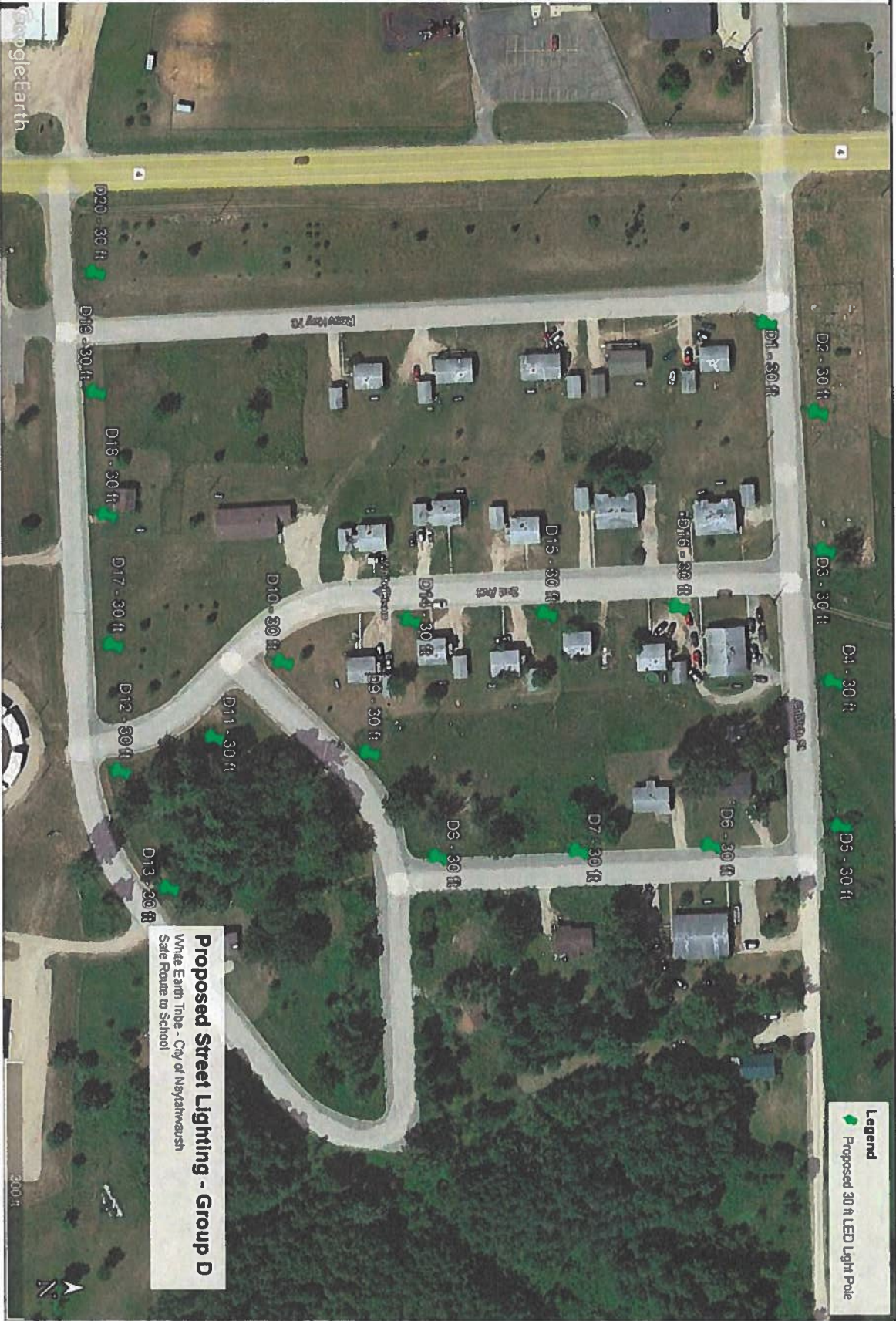




**Proposed Street Lighting - Group C**  
 White Earth Tribe - City of Nayatawaush  
 Safe Route to School

NOT FOR CONSTRUCTION





**Legend**  
 Proposed 30 ft LED Light Pole

**Proposed Street Lighting - Group D**  
 White Earth Tribe - City of Naytahwaush  
 State Route to School

**NOT FOR CONSTRUCTION**

<b>PEDESTRIAN LIGHTING IMPROVEMENTS</b> WHITE EARTH DEPARTMENT OF TRANSPORTATION NAYTAHWAUSH, MINNESOTA STREET LIGHTS - GROUP D	DATE: NOV 2021	DATE: NEW	REVISION DESCRIPTION	WIDSETH ARCHITECTS • ENGINEERS • SCIENTISTS • SURVEYORS
	DRAWN BY: [blank]			
	CHECKED BY: LDC			
	PROJECT NUMBER: 2021-11500			