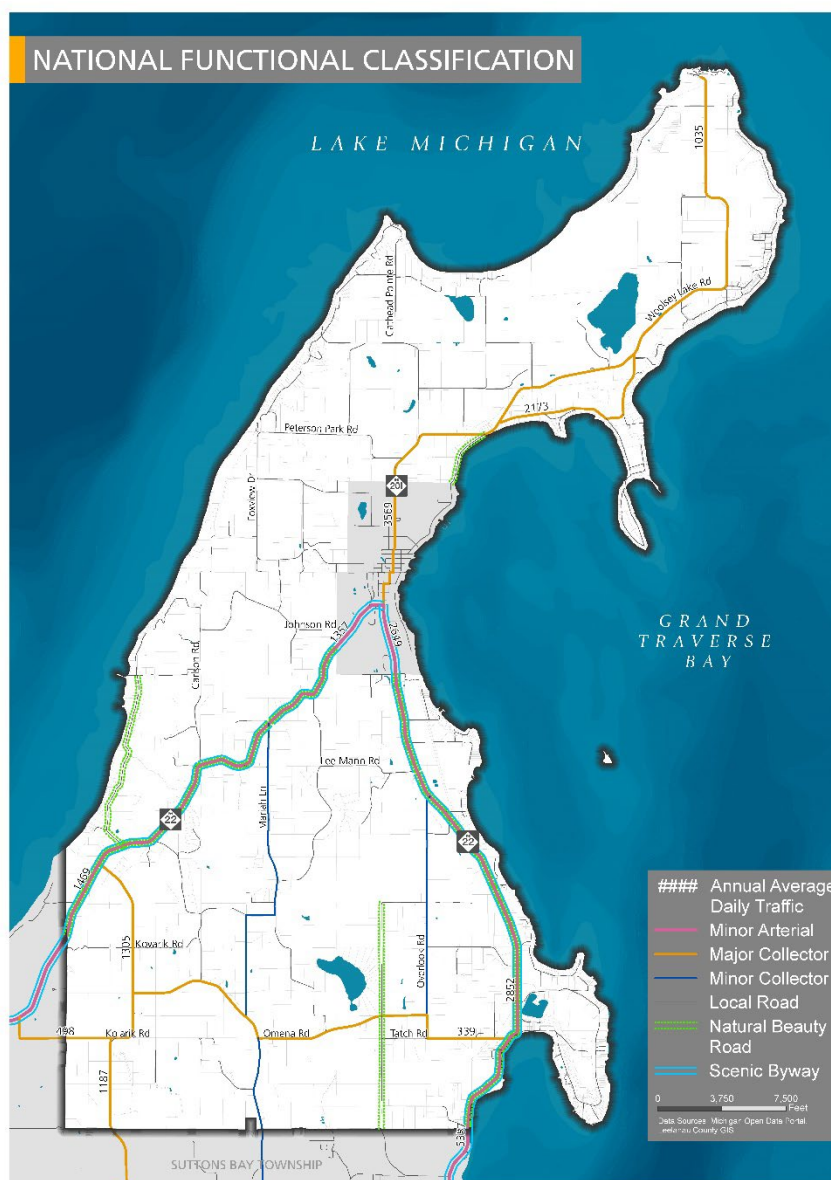


## Transportation

Transportation networks are the backbone for everyday life. Roads, sidewalks, and non-motorized infrastructure allow residents to move between home, work, social spaces, and everyday destinations. Connections with larger transportation systems (highways, rail, and air travel) facilitate the movement of goods and products. The interconnectedness of modern economies is built on the transportation networks.

### Classification and Traffic

There are 137 miles of roadway in Leelanau Township, including two State Highways.<sup>1</sup> Each road is classified under the National Functional Classification System (NFC). The NFC system is used to determine a roads eligibility for federal assistance in addition to outlining the road hierarchy. The highest classified road is M-22 (minor arterial). M-22 is one of the highest profile roadways in Michigan because of its scenic beauty. M-22 follows the Lake Michigan shore from US-31 near Manistee to Traverse City. The highway is the primary route for those traveling between the Township and the employment and regional center of Traverse City and as a result is classified as minor arterial. Minor arterial status indicates that the road is eligible for federal assistance.<sup>2</sup> Southeast of Northport M-22 has an annual average daily traffic (AADT) of 2,649 vehicles and 1,357 vehicles



<sup>1</sup> Michigan Open Data Portal, All Roads (v17a), <https://gis-michigan.opendata.arcgis.com/datasets/all-roads-v17a/explore?location=44.564300%2C-86.307700%2C7.34>

<sup>2</sup> Federal Aid Eligibility: Using NFC, Michigan Department of Transportation, [https://www.michigan.gov/mdot/0,4616,7-151-11151\\_11155-25881--,00.html](https://www.michigan.gov/mdot/0,4616,7-151-11151_11155-25881--,00.html)

southwest of Northport. At the southern Township boundary M-22 has an AADT count of 5,357, the highest in the Township. Because of the seasonal nature of the Community, AADT is likely underrepresenting the summer traffic and overrepresenting the winter traffic.

The second highest road classification in the Township are the major collector roads, which includes M-201, Woolsey Lake Rd, and Omena Rd. Major collector roads are the routes that funnel traffic to minor arterials. The second busiest road in the Township, M-201, has an AADT count of 3,569. Major collector roads are also eligible for federal assistance.

Minor collector roads are the third highest classification present in the Township and includes Martin Ln and Overlook Rd. Minor collector roads often funnel to major collectors or minor arterials but do not experience high volumes of traffic. Minor collector roads have limited eligibility for federal assistance.

### Condition and Maintenance

The Transportation Asset Management Council (TAMC) is responsible for monitoring the conditions of Michigan's transportation infrastructure, including roads and bridges. The Pavement Surface Evaluation and Rating (PASER) system is how TAMC monitors the conditions of Michigan's roads. Since 2018, relatively few of Leelanau Township's roads have been evaluated. However, of the evaluated roads, the majority are in good condition. Omena Rd and Jellinek Rd were the two roads that were evaluated as in poor condition. Road improvements and maintenance, of non-State roads, is the responsibility of the Leelanau County, which collects a millage to do so. To keep the roads in good condition the Township should work with the County Road Commission to monitor road conditions and improve roads when necessary.

Table XX: PASER Ratings

Rating	Total Miles	Percent of Roads Assessed
Good	15.9	54.1%
Fair	6.3	21.4%
Poor	7.2	24.5%

Source: Transportation Asset Management Council

### Pure Michigan Byway and Natural Beauty Roads

Pure Michigan Byways are State designate routes that have scenic, natural, recreational, historic, or cultural importance to the State. M-22 is a Pure Michigan Byway and received designation due to its scenic value.<sup>3</sup> Designation as a Pure Michigan Byway raises the profile of the route through State marketing and preservation. While not as high profile as a Pure Michigan Byway, Natural Beauty Roads are roads that received county designation for their natural and scenic beauty. Designation of "Natural Beauty Status" is contingent on a resident petition and meeting a specified criterion, such as length and function of the road. To preserve the natural beauty of the designated roadways a zoning overlay should be established to regulate screening and setbacks along the roads.

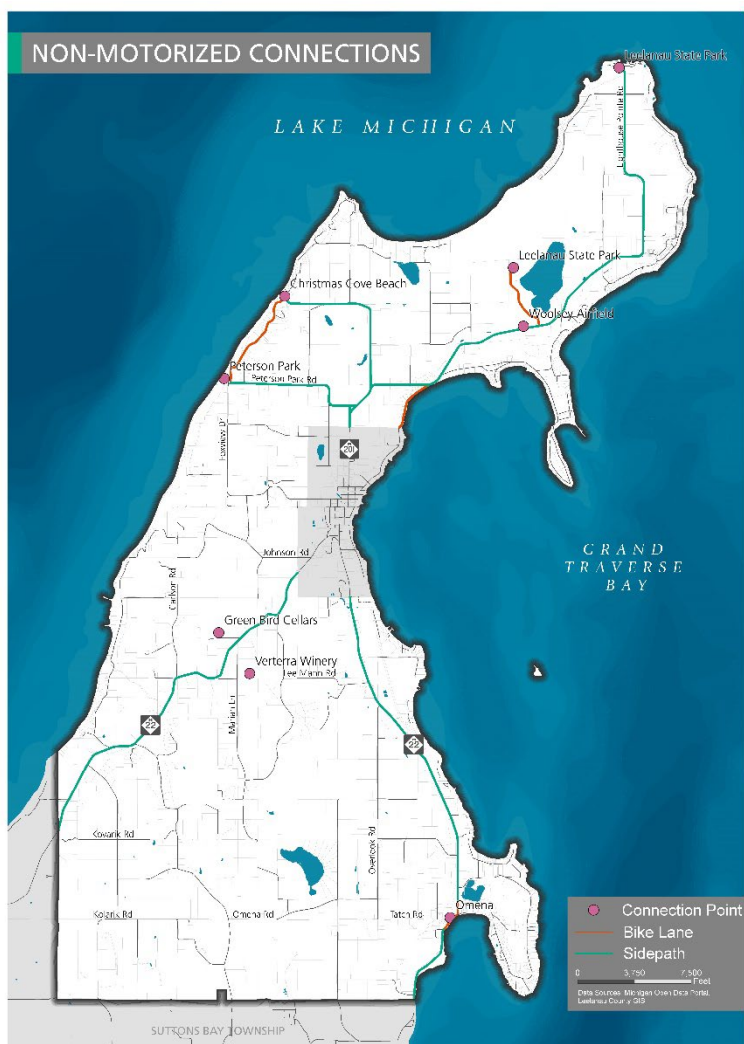
<sup>3</sup> Pure Michigan Byways and Tour Routes Driving Guide, Pure Michigan, [https://www.michigan.gov/documents/mdot/MI\\_BYWAYS\\_BOOK\\_558227\\_7.pdf](https://www.michigan.gov/documents/mdot/MI_BYWAYS_BOOK_558227_7.pdf)

## Non-Motorized Transportation

While the car dominates the transportation landscape, non-motorized travel has always been the most accessible and universal transportation mode. The Sleeping Bear Heritage Trail and the Leelanau Trail are two popular non-motorized paths in Leelanau County that are used by locals and visitors alike.

Currently, there is a lack of dedicated non-motorized infrastructure in Leelanau Township, cyclists share the road with motorists and pedestrians walk on paved or gravel shoulders. The winding roads of the Township and high speed limits can make it dangerous for cyclists and pedestrians to travel on many roads. In the past 10 years there have been 41 crashes between a motorist and a cyclist/pedestrian in Leelanau County.<sup>4</sup> Additionally, expanding non-motorized access and infrastructure in the Township would reduce the number of cars on the road improving traffic congestion especially in the park summer months.

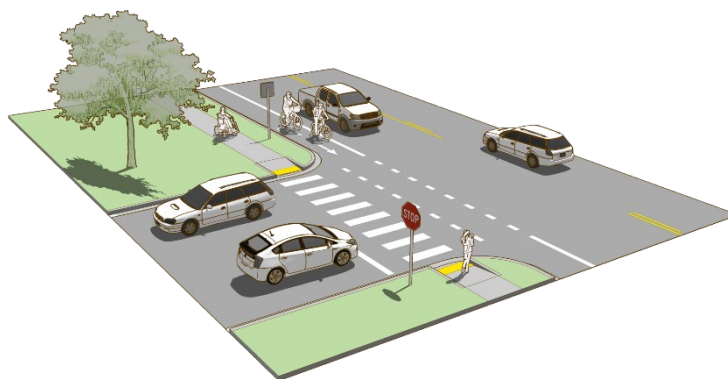
The map titled “Non-Motorized Connections” outlines a preliminary plan for developing non-motorized infrastructure across Leelanau Township. An emphasis was placed on connecting popular recreational facilities and businesses that experience a large volume of seasonal visitors, such as wineries. While the “Non-Motorized Connections” map illustrates a preliminary non-motorized network, developing non-motorized infrastructure is a lengthy and intensive process. A citizen advisory group should be formed to further explore non-motorized infrastructure development in Leelanau Township, with the “Non-Motorized Connections” map as an initial starting point.



<sup>4</sup> Michigan Crash Facts, Michigan Office of Highway Safety Planning, <https://www.michigantrafficcrashfacts.org/>

### Bike Lanes

Bike lanes designate space for bicycles by marking the pavement or shoulder. Bike lanes are directly adjacent to traffic and follow the directional flow of the adjacent lane. Bike lanes are most appropriate in higher density areas or where there is limited shoulder or right of way space to dedicate more separated non-motorized infrastructure. As part of the non-motorized

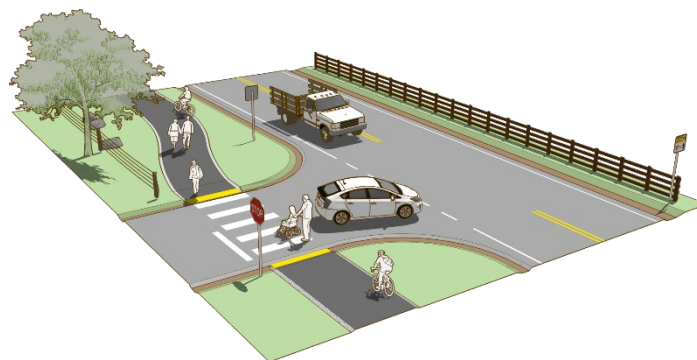


Bike lane, Source: Small Town and Rural Design Guide

connections plan, bike lanes are recommended in Omena, along North Shore Dr. from the Village boundary to Woolsey Lake Rd, between Peterson Park and Christmas Cove Beach, and from Woolsey Lake Rd to the Leelanau State Park trail head adjacent to Mud Lake.

### Sidepaths

Sidepaths are shared use pathways located adjacent to roadways. Sidepaths are one of the safest forms of non-motorized infrastructure because of the physical distance between the traffic and path users. Sidepaths also reduce conflicts between path users and traffic, reducing concerns from motorists about cyclists congesting the roadway. However, sidepaths are also one of the most resource



Sidepath, Source: Small Town and Rural Design Guide

intensive forms of non-motorized infrastructure, requiring lots of land (through purchase or easements) and funding to construct. Sidepaths were recommended in areas of the Township where heavy non-motorized activity would create conflicts between motorists and cyclists/pedestrians or where there was ample adjacent land.

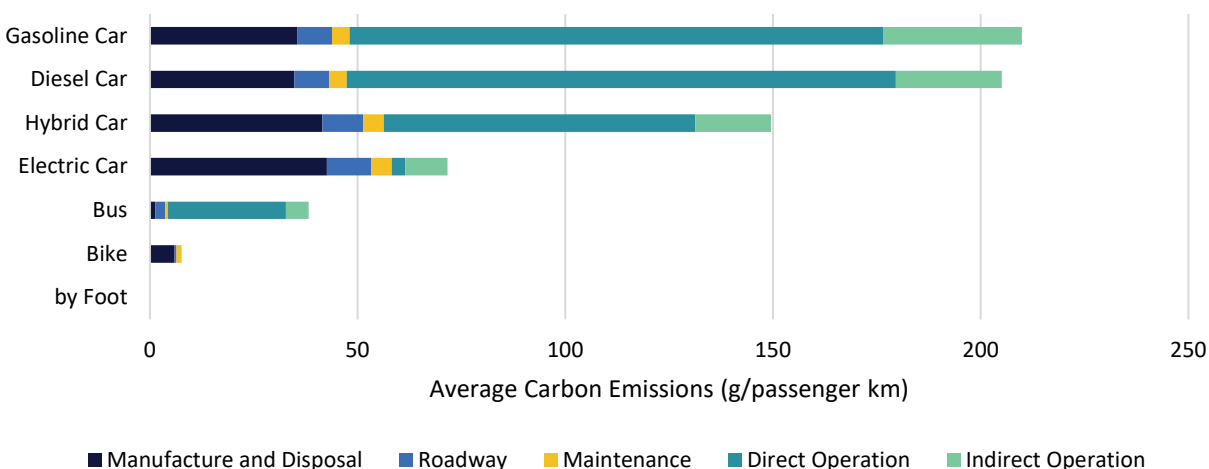
### Public Transportation

Public Transportation in Leelanau Township is provided by the Bay Area Transportation Authority (BATA). BATA is centered in Traverse City but runs bus routes that extend into the rural areas of both Leelanau and Grand Traverse County. BATA operates two fixed bus routes in Leelanau Township, the Leelanau Loop and the 10 Route. The Leelanau Loop operates three times a day on weekdays and connects Suttons Bay, Peshawbestown, Omena, Northport, Leland, and Lake Leelanau. Unlike the Leelanau Loop, Route 10 operates 7 days a week, the earliest departure time from Northport is 6:40am and the latest return time is 6:35pm, which can make it challenging for those who rely on public transportation to commute and work non-traditional hours. The 10 Route terminates in the north at the Township Offices on Nagonaba St and terminates in the south at the

Hall Street Transfer Station in Traverse City. From the Hall Street Transfer Station transit riders can access any of BATA's bus routes.<sup>5</sup> In addition to fixed route service, BATA provides paratransit (dial-a-ride) services for those who cannot access a fixed route. Reservations for paratransit service need to be made in advance through BATA's dispatch service.

### Average Carbon Emissions by Transportation Type

Transportation emissions are more comprehensive than the emissions generated when a vehicle is on the road. There are five main ways transportation modes generate emissions: manufacturing and disposal, roadway, maintenance, direct operation, and indirect operation. Manufacturing and disposal emissions are generated during the construction and disposal of a vehicle, roadway emissions are generated by the construction, maintenance, and disposal of the roadways, maintenance emissions are generated by general maintenance tasks (replacing tires), direct operation emissions are those coming from the exhaust, and indirect are the emissions generated by supporting the function of travel (energy extraction, delivery of energy source).



### Actions

- Coordinate with the Leelanau County Road Commission to monitor the condition of roads and improve when necessary
- Establish a scenic road overlay zone to preserve the natural beauty of the Pure Michigan Byway and Natural Beauty roads
- Form a citizens advisory group for further investigation of non-motorized trail development in Leelanau Township

<sup>5</sup> Village Loops Routes 10 – 16 & Leelanau Loop, Bay Area Transportation Authority (BATA), <https://www.bata.net/maps-schedules/village-loops.html>