

Inventory of Existing Transportation System

Chapter 7 offers details about the existing transportation system in the MACC Area. The MACC area transportation system encompasses all modes of transportation with:



**Over 335 Miles
of Federal-Aid
Roads**



**A General
Aviation Airport**



**Two Class A
Rail Lines**



**A Public Transportation
System**



**An Extensive
Non-Motorized
Network**



**A Commercial
Harbor**



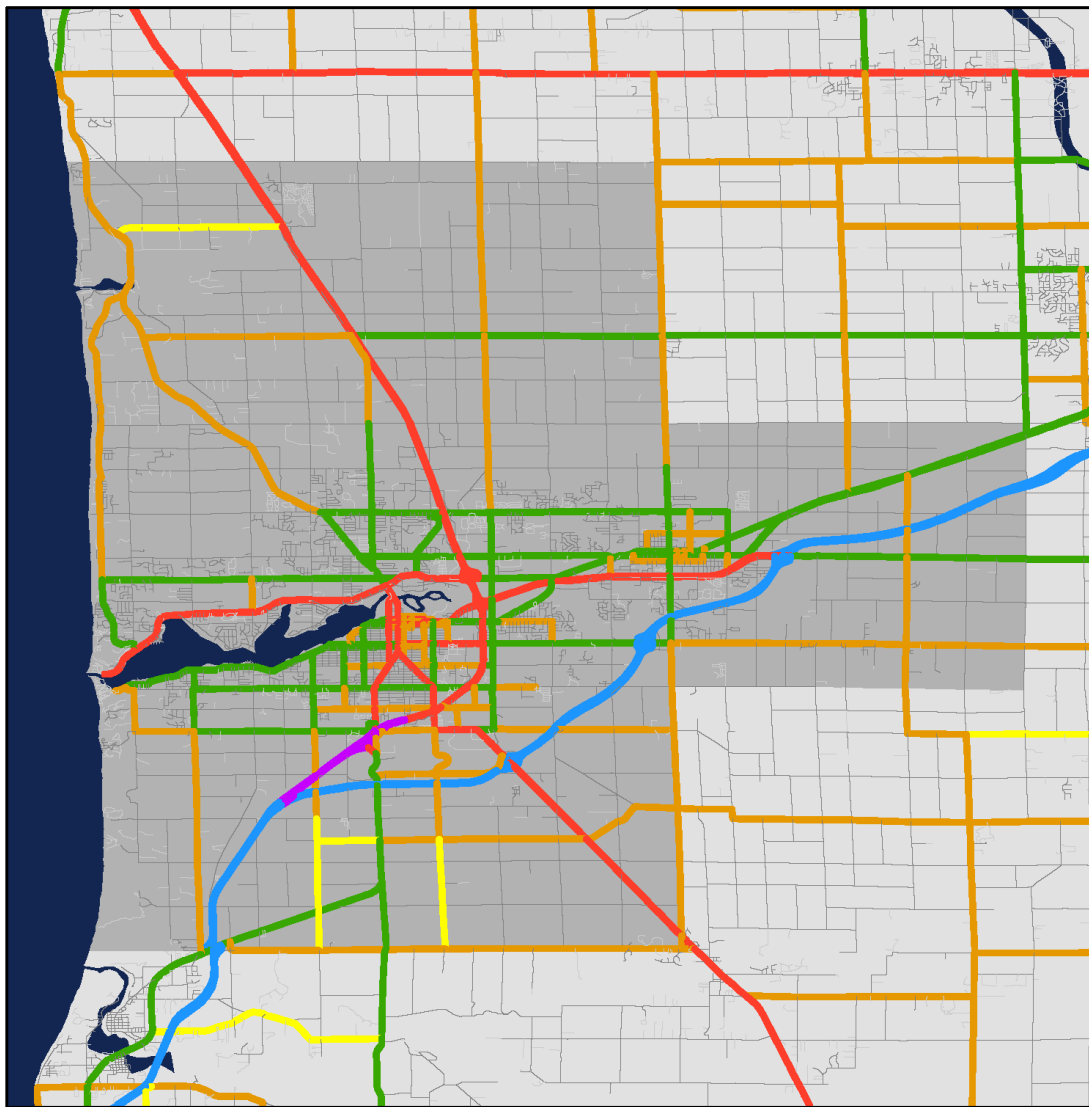
Existing Major Roadways

The Macatawa Area Coordinating Council primarily works with roads that are on the National Functional Classification (NFC) system, a federal grouping system for public roads, and are classified as the following:

- ▽ Rural and Urban Interstate Highways
- ▽ Rural and Urban Other Freeways
- ▽ Rural and Urban Other Principal Arterials
- ▽ Rural and Urban Minor Arterials
- ▽ Rural and Urban Major Collectors
- ▽ Rural and Urban Minor Collectors

Roads that are classified as local or not classified do not typically receive funding from the MACC. The existing major roadways in the MACC planning area are shown on the following page.

Existing Major Roadways in the MACC Planning Area



Legend

NFC

1: Interstates

2: Other Freeways

3: Other Principal Arterials

4: Minor Arterials

5: Major Collectors

6: Minor Collectors

7: Local

0: Uncoded



MACC Planning Area

Shore



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0 1.25 2.5 5 7.5 10 Miles

Figure 7: Existing major roadways in the MACC planning area by National Functional Classification (NFC)

Pavement Conditions

Road pavement ratings are another source of information used to determine the condition of the roadway, prioritize projects, and evaluate when a road is resurfaced or reconstructed. **Pavement Surface Evaluation and Rating (PASER)** is a visual survey of the condition of the surface of the road. It rates the condition of various types of pavement distress on a scale of 1-10. This system is used by most Michigan road agencies.

The MACC, in partnership with MDOT, the City of Holland, and County Road Commissions, annually rate our area's Federal-Aid roads. We are responsible to report the condition of 50% of our roads every year; therefore MACC rates Ottawa County one year and Allegan County the next. Submitted ratings help identify and prioritize future road resurfacing projects.

The MACC takes the ratings of 1-10 and divides them up into three categories. Roads with a rating of 8-10 are considered to be in good condition, 5-7 in fair condition, and 1-4 in poor condition. Both Allegan and Ottawa Counties were rated in 2018, while only Ottawa was rated in 2019. The most recent ratings for the MACC portion of each county are displayed below:

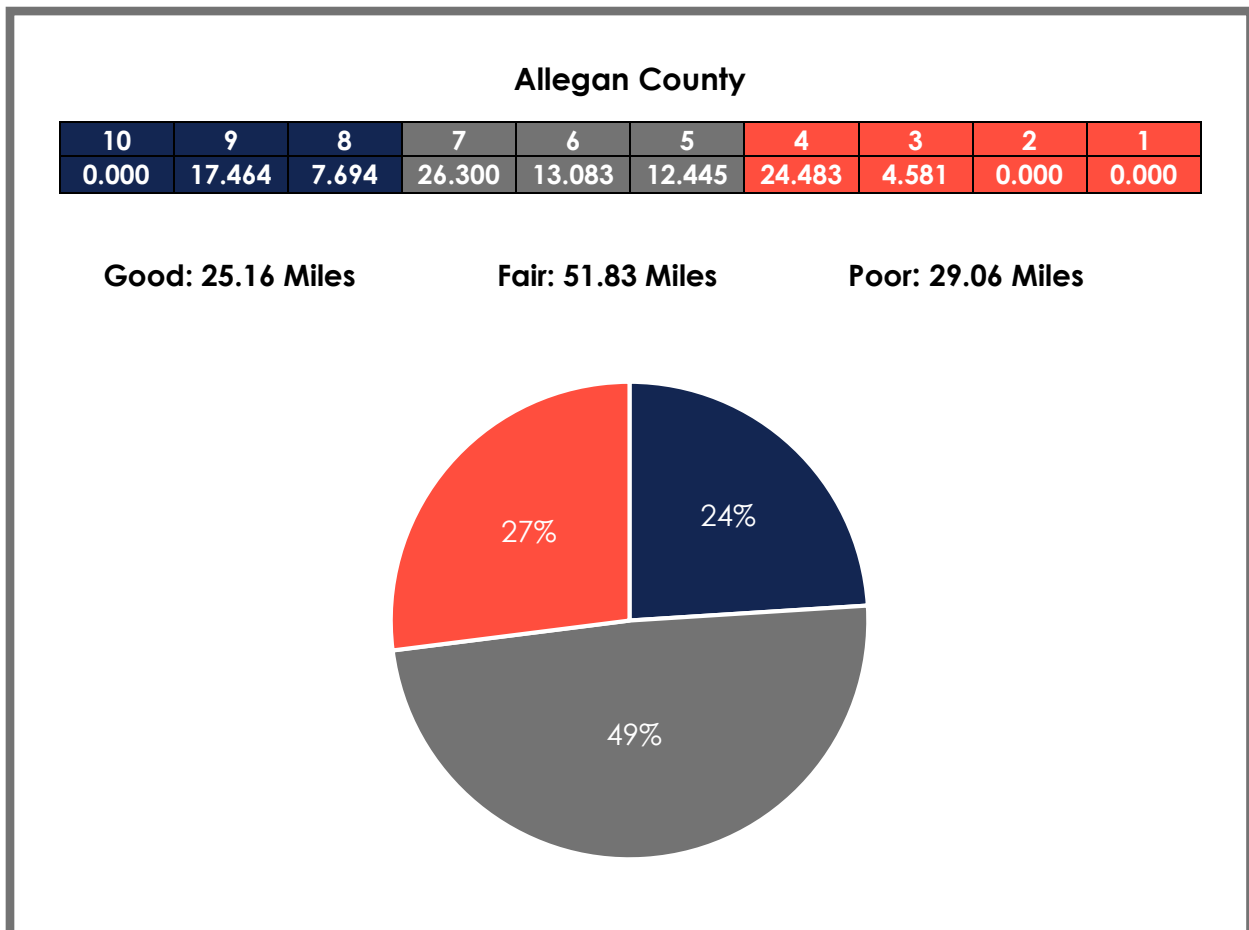


Figure 8: Allegan County 2018 Federal-Aid road conditions

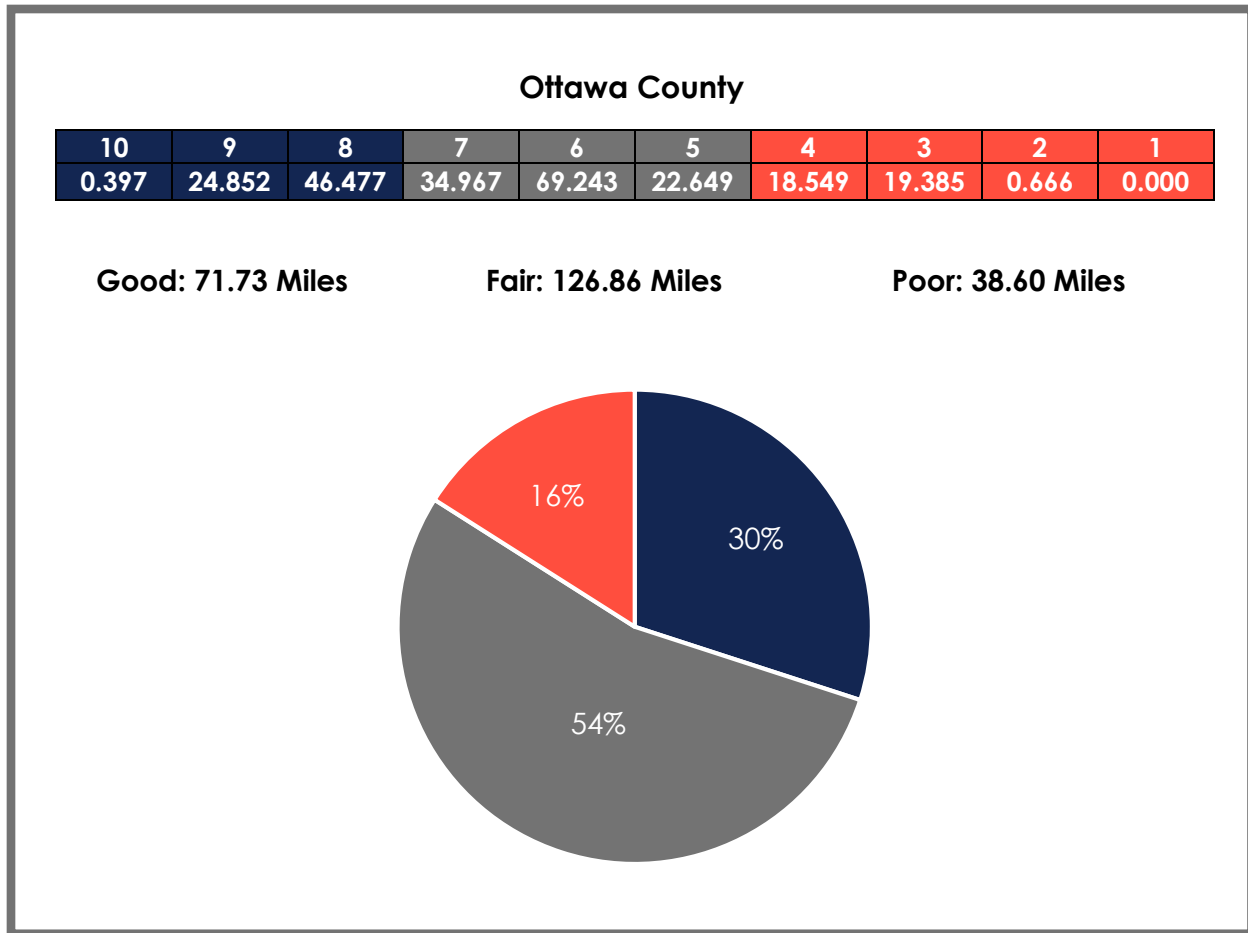


Figure 9: Ottawa County 2019 Federal-Aid road conditions

Additional PASER information such as ratings by township or city and data from previous years can be found on the MACC website.

Bridge Conditions

As with the PASER ratings for road pavements, a similar scale is used to determine the condition of the bridge, prioritize projects, and evaluate when a bridge is to be improved or reconstructed. Bridge conditions are based on bi-annual inspections of state, county, city, and village owned bridges. 2018 ratings for MACC area bridges were reviewed using the Michigan Transportation Asset Management Councils interactive dashboard. None of the bridges were rated as structurally deficient. 39% of bridges in the MACC area are in good condition and 61% are in fair condition. There are no bridges in poor condition in the MACC area. Statewide, 38% of bridges are in good condition, 51% are in fair condition, and 11% are in poor condition.

Freight

National Freight Movement

National surface transportation legislation, *Moving Ahead for Progress in the 21st Century Act (MAP-21)*, requires the designation of a national freight network, reporting of freight transportation conditions and performance measures, as well as a national strategic plan for freight movement. Below are maps of the United States national highway freight network as well as annual freight volumes (tonnage of freight moved by various modes of transportation: highway, rail, and through waterways). These maps were created by the U.S. Department of Transportation.



Figure 11: The United States national highway freight network

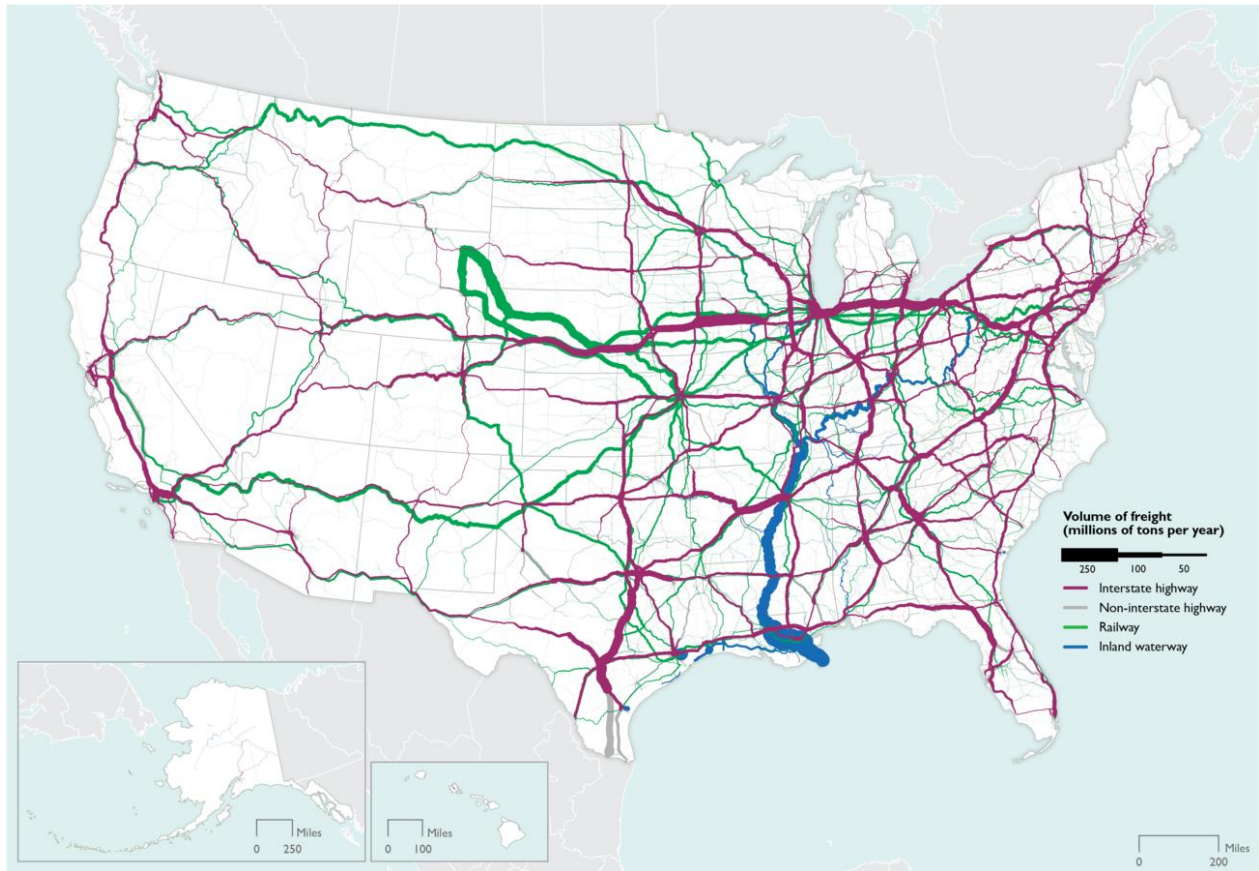
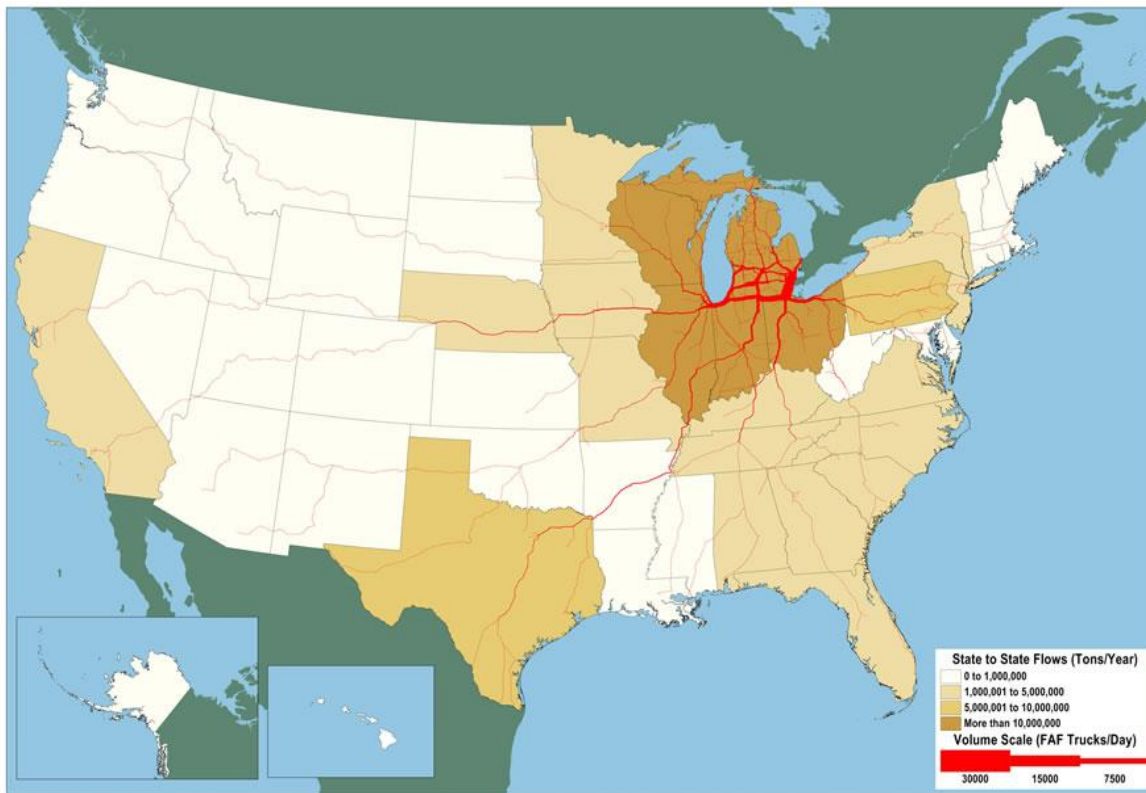


Figure 12: United States freight flows by highway, railroad, and waterway (2017)

At the national level, the Freight Analysis Framework (FAF) identifies domestic and international freight. This FAF data focuses on the primary freight network and critical rural freight corridors. The following maps demonstrate how freight is moved by truck on highway segments throughout the United States. While the FAF data does not include pavement condition, routing information, or local freight routes, the data does illustrate how major freight flows to, from, and within Michigan.

Major Flows by Truck To, From, and Within Michigan: 2012



Note: Major flows include domestic and international freight moving by truck on highway segments with more than twenty five FAF trucks per day and between places typically more than fifty miles apart.

Source: U.S. Department of Transportation, Federal Highway Administration, Office of Freight Management and Operations, Freight Analysis Framework, version 4.3, 2017.

Figure 13: Major flows by truck to, from, and within Michigan

Michigan Freight Movement

In Michigan, freight is moved primarily by trucking and rail. The Michigan Department of Transportation's current *State Freight Plan* published in 2017 offers statistics on each transportation mode used to transport freight. The document noted that trucking accounted for 65 percent of tonnage moved, while rail handled 21 percent, water handled 14 percent, and aviation carried less than 1 percent. The value of all freight movements throughout Michigan in 2014 was worth nearly \$862 billion, with trucks handling 73 percent of the goods moved by value, rail handling 23 percent, airborne handling 3 percent, and waterborne modes handling 1 percent. The figures on the following pages represent the top five commodities moved by truck, rail, and water in Michigan.

Commodities Moved By Truck

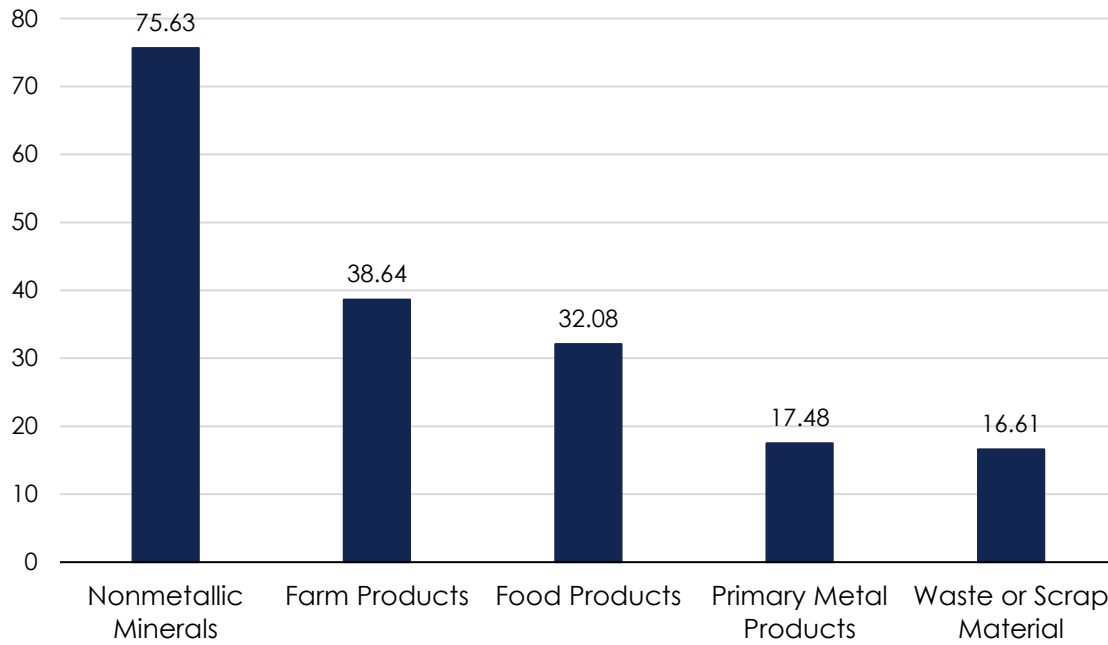


Figure 14: Top commodities moved by truck in Michigan (in millions of tons, 2014)

Commodities Moved By Rail

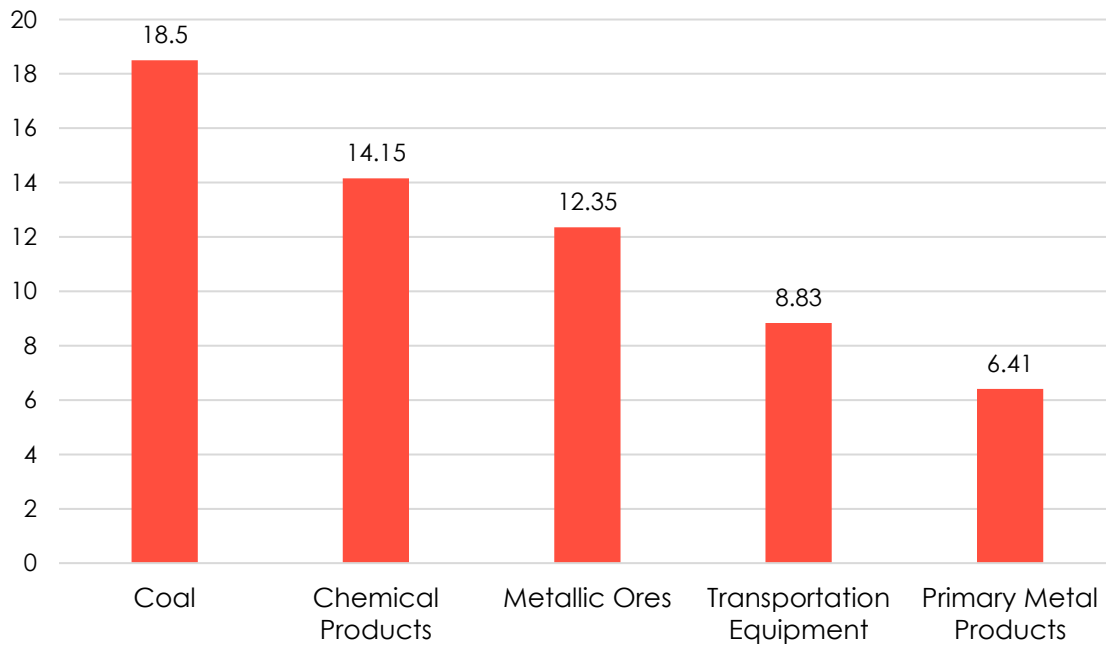


Figure 15: Top commodities moved by rail in Michigan (in millions of tons, 2014)

Commodities Moved by Water

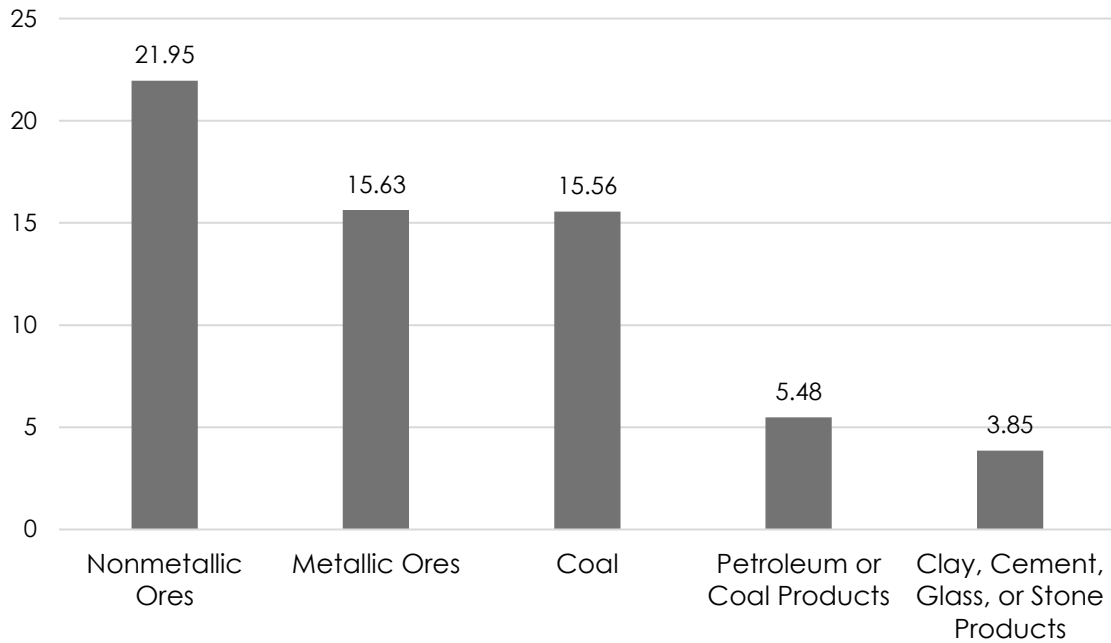


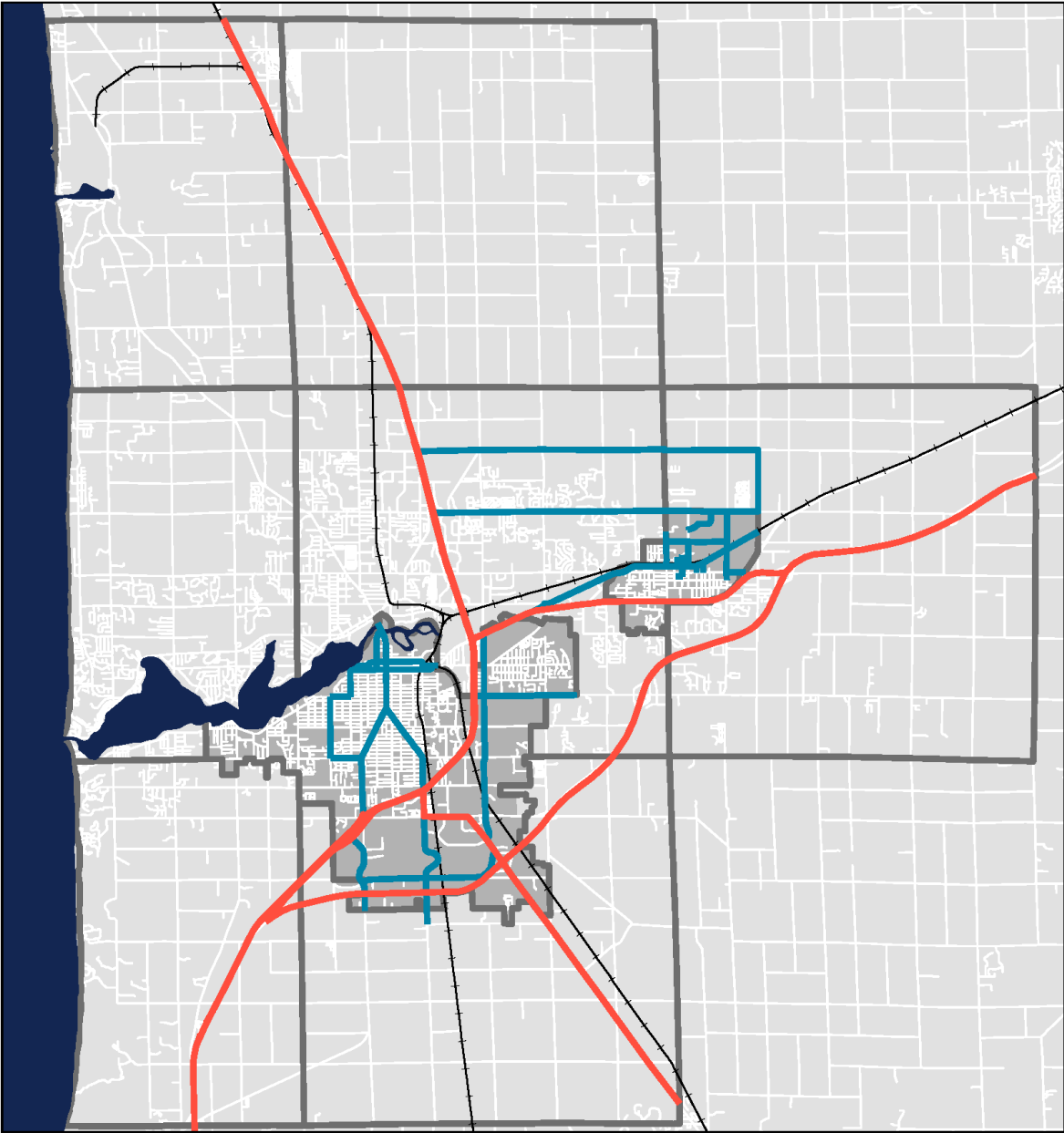
Figure 16: Top commodities at Michigan ports (in millions of tons, 2014)

Local Freight Movement

Within the Cities of Holland and Zeeland truck freight routes have been designated to provide access to local manufacturing facilities and distribute goods to larger employers and institutions. The efficient movement of freight is important for the local economy and directly impacts the manufacturing industry, retail businesses, and larger employers such as Holland Hospital and Hope College in the City of Holland, and Spectrum Health Zeeland Community Hospital in Zeeland.

Both local and national truck freight routes are displayed on the map on the following page. The railroad displayed on the map is a CSX line that provides rail freight in the MACC area. Additionally, the area is home to Holland Harbor, a deep draft commercial harbor located on the east shore of Lake Michigan containing over 6.5 miles of maintained channel. Based on the 2019 Holland Harbor, MI Fact Sheet produced by the U.S. Army Corps of Engineers, in 2017, 374,000 tons of material were shipped and received. \$68.6 million in business revenue is generated annually. Commodities received at the harbor include limestone, scrap metals, sand, and gravel.

MACC Area Freight Routes



Legend

- Major Freight Routes
- Local Freight Routes
- Railroad
- City

MA
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Figure 17: National and local freight routes in the MACC planning area



Public Transportation

There are a number of transit operators in the MACC area. Many of these operators have only a few vehicles and transport a select group of persons. Such operators include local cab companies, nursing/retirement homes, senior citizen centers, and social service agencies. These providers generally provide trips to scheduled events, school, or employment.

Public Transit

The Macatawa Area Express (MAX) provides public transit in the MACC area. MAX serves the Cities of Holland and Zeeland as well as Holland Township. Beginning as the City of Holland's "Dial-A-Ride" program in the 1970s, MAX began offering three fixed routes in 2000. The City of Holland and Holland Township formed a transit authority in 2006. The voters in those local jurisdictions approved a millage, proposed by the transit authority, to support the MAX in November 2006. On July 1, 2007, the transit authority assumed ownership and control of MAX and daily operations (providing drivers, dispatching, and telephone operators) are managed in-house by MAX staff (as of 2010). As Table 2 indicates, MAX now provides both a demand response (curb to curb) and fixed-route service (currently operating with nine regular routes and two twilight routes).

Table 2: Macatawa Area Express Service Summary

Service Type	
Demand Response (Reserve-A-Max)	Only ADA cardholders, people 70 years or older, and those whose origins and/or destinations that are farther than ½ mile from a bus stop are eligible to reserve rides. Reservations must be made by 4:00 p.m. the day prior to travel. A Night Owl service is available Monday – Saturday from 7 p.m. to 12 midnight. Reservations are also required by 4 p.m. at least one day in advance
Fixed Route (Catch-A-MAX)	Nine regular routes and two twilight routes serve the Holland City core area, southern Holland Township, and the City of Zeeland. Fixed route buses depart from the Padnos Transportation at the top of the hour every hour.

Service Area	47.5 square miles serving the Cities of Holland and Zeeland as well as Holland Township and Zeeland Community Hospital. As of 2019, Reserve-A-Max also serves Park township.
Ridership (2018)	430,239 trips
Hours of Operation	<p>Demand Response Monday – Friday: 6:00 a.m. - midnight Saturday: 8:00 a.m. – midnight</p> <p>Fixed Route Monday-Friday: 6:00 a.m.-7:00 p.m. Saturday: 8:00 a.m.-7:00 p.m.</p> <p>Twilight Route Monday – Saturday: 7:00 p.m. – 10:00 a.m.</p>
Fleet	31 Vehicles in the fleet (30 buses, 1 trolley)
Fares	<p>Fixed Route (\$1.00 Adults 18-64), (\$.50 Children 5-17), (Free for Seniors 65+, Children under 5 with a parent, ADA, or Medicare cardholders)</p> <p>Demand Response (\$5.00 Adults 18-69, or Medicare cardholders), (\$2.00 Children 5-17, Seniors 70+, or ADA), (Free for children under 5 with parent)</p>

The map on the following page highlights the MAX Transit fixed-route system.

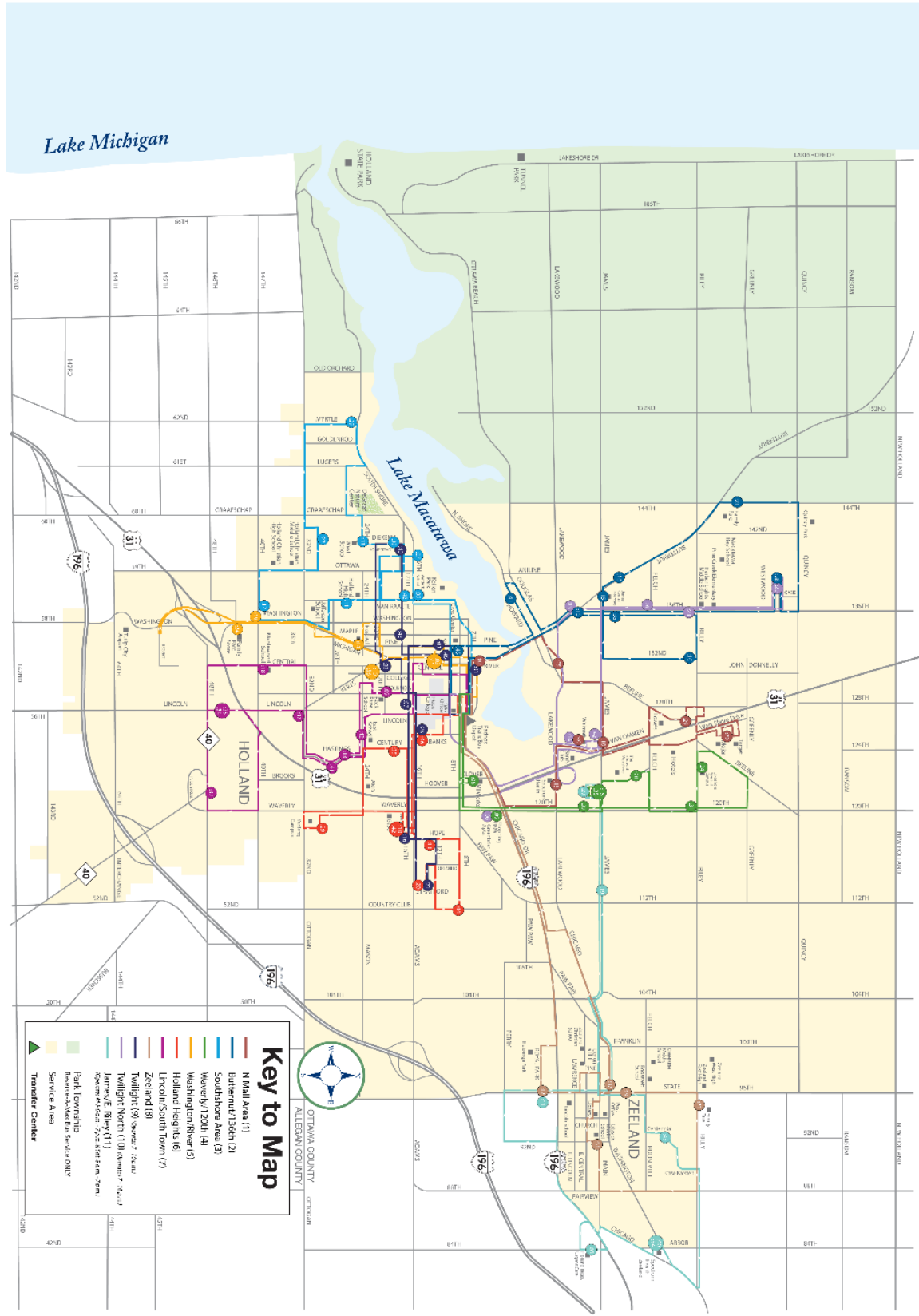


Figure 18: The MAX Transit fixed route system

Intercity Bus Service

Indian Trails, working with Greyhound Express, provides passenger bus service to the MACC area stopping at the Louis Padnos Transportation Center. At the current time, four buses stop daily at the Center providing service to Grand Rapids and South Haven with morning, afternoon and evening departures. Allegan County Transportation also provides up to four daily paratransit buses with door-to-door service from the City of Allegan area to the City of Holland.

Passenger Rail Service

The MACC area is served by AMTRAK's Pere Marquette line that runs between Chicago and Grand Rapids with a stop in the City of Holland at the Louis Padnos Transportation Center. At the current time, one round-trip is made each day. The Holland Station, located at the Louis Padnos Transportation Center, is currently the third busiest along the corridor. For additional information about the Pere Marquette rail stations, visit Amtrak.com/Michigan. This intermodal terminal serves Amtrak passengers riding the Pere Marquette rail line between Grand Rapids and Chicago, and also serves public transportation riders of the Macatawa Area Express Transportation Authority (MAX) system. The station also serves Indian Trails bus passengers.

In the spring of 1995, AMTRAK announced that, due to budget cuts, service on the Pere Marquette would be cut to four days per week. In response to this situation, a number of local governments, public transit agencies, chambers of commerce, metropolitan planning organizations, the Michigan Department of Transportation (MDOT), Amtrak, interested citizens, and civic groups formed a West Michigan passenger train collaborative called Westrain. Daily train service was restored in the fall of 1995. With financial assistance from MDOT as well as Westrain members, the Westrain Collaborative promotes the Pere Marquette and seeks to enhance the service while addressing service deficiencies. The MACC is an active participant in Westrain.



Non-Motorized Facilities

What travel options exist for someone who would like to use bicycle and pedestrian facilities in the region? Located along the coast of Lake Michigan, the Macatawa area has an extensive network of shared-use paths, traditional sidewalks, trails, and bike lanes. This non-motorized network is used by those who live and work within the region, as well as visitors. The network accommodates a variety of needs, including fitness and recreation, commuting to work or school, and long-distance travel.



Shared Use Paths

With over 195 miles of shared-use paths providing pedestrian and bicycle access, separated from the roadway, a person wishing to travel along this non-motorized network can travel from Saugatuck to Holland, and continue north – adjacent to the River Avenue Bridge, or east toward Zeeland – over the Adams Street Bridge. Both structures provide separate non-motorized access for pedestrians and bicyclists. Lakeshore Drive provides shared use path access along Lake Michigan, to Port Sheldon Township, and north to Grand Haven. Traveling through Laketown, Park, Port Sheldon, Holland, and Zeeland Townships, a person can choose multiple routes, as these communities have invested in an interconnected system of shared-use paths.

On-Street Bicycle Lanes

Within the cities of Holland and Zeeland striped bike lanes have been incorporated into recent road resurfacing projects. In the City of Holland, 40th Street provided pedestrian crossing islands and on-street bike lanes as part of a federally funded project to resurface the roadway. The City of Zeeland also striped bike lanes as part of the Washington Avenue resurfacing project, from Fairview to Arbor Lane.

The following tables summarize the mileage of non-motorized facilities in the MACC planning area broken down by unit of government and type.

Table 3: Existing Non-Motorized Network Mileage

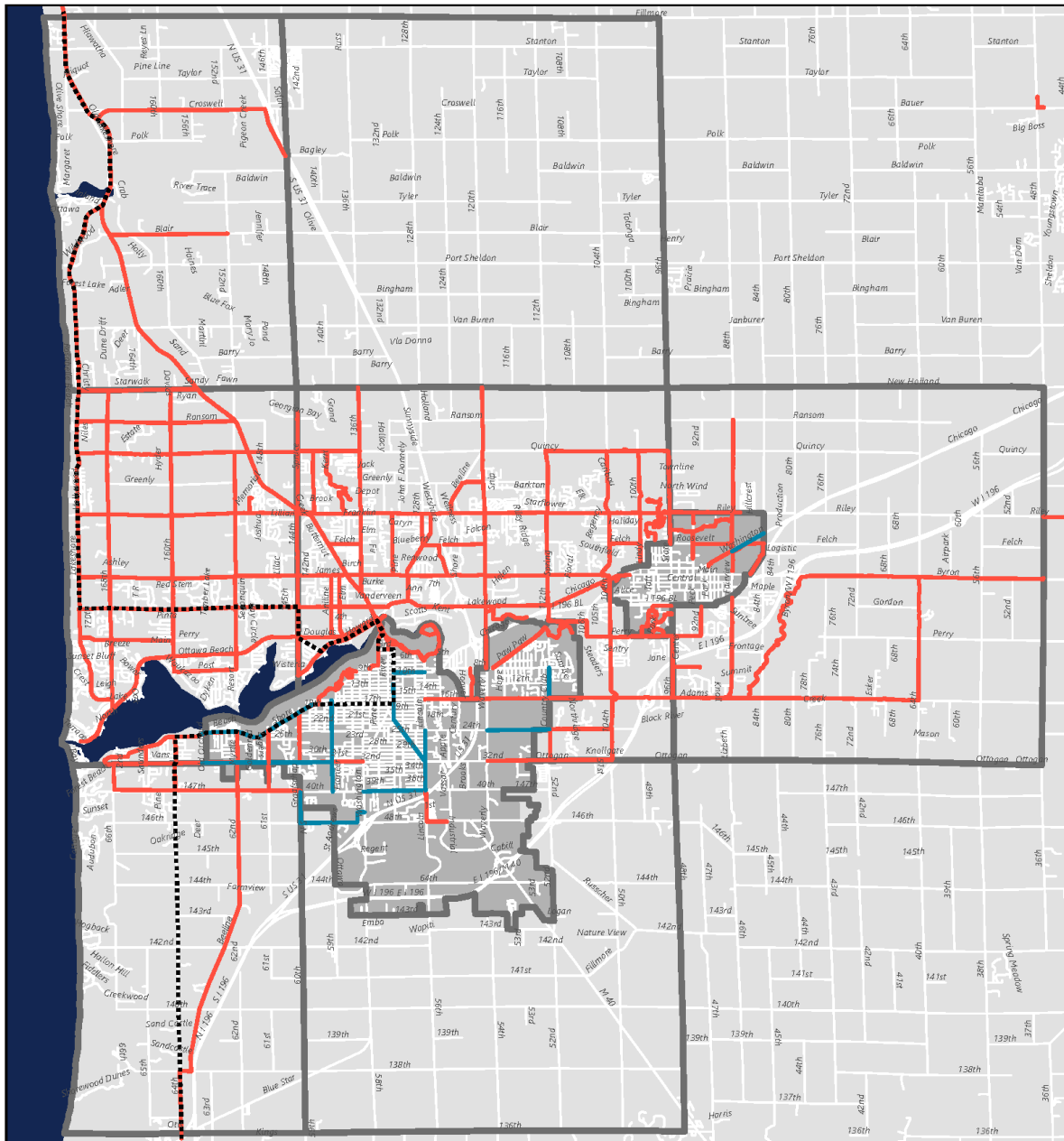
Unit of Government	Shared Use Paths	On-Street Bike Lanes
City of Holland	11.9	12.6
City of Zeeland	13.7	0.6
Holland Township	69.4	-
Fillmore Township	-	-
Laketown Township	11.0	-
Olive Township	-	-
Park Township	54.2	-
Port Sheldon Township	15.5	-
Zeeland Township	20.7	-
Total	196.4 Miles	13.2 Miles

Table 4: Proposed Non-Motorized Network Mileage

Unit of Government	Shared Use Paths	On-Street Bike Lanes
City of Holland	0.50	3.4
City of Zeeland	-	-
Holland Township	8.9	-
Fillmore Township	-	-
Laketown Township	5.2	3.1
Olive Township	-	-
Park Township	0.5	-
Port Sheldon Township	22.0	-
Zeeland Township	2.5	-
Total	43.9	6.5

The map on the following page highlights the existing non-motorized facilities located in the MACC planning area.

Non-Motorized Network: Existing



Legend

----- US Bicycle Route 35

City

Type

— On Street Bike Lane

— Shared Use Path



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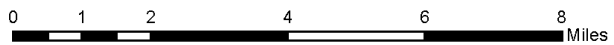


Figure 19: The existing non-motorized system in the MACC area by facility type



Air Service

There are three airports in the MACC area. A general description and some basic operating characteristics for each of them are noted below.

West Michigan Regional Airport (Formerly named Tulip City Airport)

West Michigan Regional Airport is a general aviation airport owned and managed by the West Michigan Airport Authority. Formed in 2008, the WMAA is made up of representatives from three local municipalities: City of Holland, Park Township and City of Zeeland. Residents of these municipalities voted to approve the support of the airport and the creation of an authority.

The airport has a paved runway of 6,000' in length and can accommodate 40,000 takeoffs and landings. In 2018 there was an average of 96 aircraft operations per day. Of those 96 operations:

- ▽ 47% were transient general aviation
- ▽ 47% were local general aviation
- ▽ 6% were air taxi
- ▽ 1% were military

Park Township Airport

Park Township airport is located on land owned by Park Township and leased to a private entity that is responsible for the maintenance and operation of the airport. Financing comes from hangar leases and fuel sales. Park Township airport has one paved runway that is approximately 3,000 feet and a crosswind, grass runway that is approximately 2,250 feet. There are no commercial operations at this airport. In 2014 there was an average of 86 aircraft operations per week. Of those 86 operations:

- ▽ 50% were transient general aviation
- ▽ 50% were local general aviation

Ottawa Executive Airport - Zeeland Township

The Ottawa Executive Airport is a private airport in eastern Zeeland Township. This facility services private, small engine aircraft and has a paved runway of approximately 3800 feet. In 2018 there was an average of 34 aircraft operations per day. Of those 34 operations:

- ▽ 59% were local general aviation
- ▽ 41% were transient general aviation