



600 E Front Street, Suite 104, PO Box 506
Traverse City MI 49685-0506
(231) 929-5000 • 1-800-692-7774 • FAX (231) 929-5012
traversetransportation.org



The mission of the Traverse Transportation Coordinating Initiative (TTCI) is to provide coordinated leadership and direction for the development and conduct of the continuing, cooperative & comprehensive transportation planning process for the Traverse City urban area.

TTCI Technical Committee Agenda
Thursday October 19, 1:30pm
East Bay Township Hall
1965 N. Three Mile Road

- 1) Roll Call
- 2) Approval of Agenda/Meeting Minutes
- 3) Old Business
 - a) Business locator data review
 - b) Access Management Assessment
- 4) FY 2018 Work Programs
 - a) MDOT
 - i) Title VI plan
 - ii) Multi-modal infrastructure and facility inventory
 - iii) Continue evaluation of SE/EJ characteristics
 - b) TTCI
 - i) Master Street Plan
- 5) Member Comments/Discussion of future agenda items
 - a) Future meeting locations
- 6) Adjourn



600 E Front Street, Suite 104, PO Box 506
Traverse City MI 49685-0506
(231) 929-5000 • 1-800-692-7774 • FAX (231) 929-5012
traversetransportation.org



A program of

**Networks
Northwest**

Talent / Business / Community

The mission of the Traverse Transportation Coordinating Initiative (TTCI) is to provide coordinated leadership and direction for the development and conduct of the continuing, cooperative & comprehensive transportation planning process for the Traverse City urban area.

TTCI Technical Committee Meeting Minutes

Thursday August 17, 1:30pm

Acme Township Hall

6042 Acme Road., Williamsburg, MI

- 1) Roll Call
 - See attached attendance sheet
- 2) Approval of Agenda/Meeting Minutes
 - Motion: Shawn Winter; Support: Rick Brown
- 3) Old Business
 - a) Regional Model data review (MDOT) update (R. Maffeo)
 - Continue to provide updated employment/development data by TAZ
- 4) New Business
 - a) FY 2018 proposed MDOT Work Program (R. Maffeo)
 - Traffic count operation scheduled for Fall, 2017 on trunkline and primary roads
 - Include reviewing "ouputs" for the regional model
 - b) FY 2017 Access Management Assessment
 - As assessment of existing conditions and example of regional implementation. Purpose of the document is to be used as a tool for congestion mitigation increasing east/west mobility and regional cooperation
 - Staff will present DRAFT to Board for review/comment. Anticipate final product for November Board meeting.
 - c) Future meeting locations
 - East Bay Twp hall, 10/19 – 1:30pm
- 5) Member Comments/Discussion of future agenda items
 - a) Potential 2018 topics
 - Refer to Grand Vision Transportation section
 - Infill development opportunities
 - Economics and transportation
 - Development patterns and effects on transportation system
 - Regional TIP programming based on need + location
 - Commuting patterns, land use coordination
- 6) Adjourn
 - Motion by Rick Brown to adjourn at 3:00pm; Support: Shawn Winter

TTCI Tech needs

<u>Name</u>	<u>Agency</u>
John Sych	GT Planning
Patty O'Donnell	MDOT North Region
Jim Caruthers	City of TC
ERIK PRADONIK	GARFIELD TWP
Rick Brown	East Bay Twp
Shawn Winter	ACME
JIM JOHANSON	OTCRC

***Traverse Transportation Coordinating
Initiative (TTCI)***



FY 2018

Unified Work Program

Michigan Department of Transportation

Networks Northwest/Northwest Michigan Council of Governments

P.O. Box 506

Traverse City, MI 49685

Phone: (231)929-5075

TABLE OF CONTENTS

	PAGE
DISCLAIMER _____	1
INTRODUCTION _____	1
TRANSPORTATION ISSUES FACING THE TRAVERSE CITY METROPOLITAN AREA _____	2
PROGRAM STAFFING AND FUNDING _____	2
DETAILS OF WORK ITEMS _____	2
Work Item 1.0 Administration/Organization/Coordination_____	2
Work Item 2.0 Unified Work Program (UWP)_____	4
Work Item 3.0 Monitor FY 2017-2020 Transportation Improvement Program (TIP) _____	5
Work Item 4.0 Title VI Plan_____	6
Work Item 5.0 Review and approve forecast year socio economic data/system deficiency____	7
TTCI FY 2018 Budget Summary _____	8

DISCLAIMER

This document is designed to assist staff and committee members of the Traverse Transportation Coordinating initiative (TTCI) as they transition to an anticipated Metropolitan Planning Organization (MPO) designation in 2020. The contents of this report do not necessarily reflect the official views or policy of the U.S. Department of Transportation Rules and Guidelines of the Metropolitan Planning Program, Section 104(f) of Title 23, U.S. Code. The document should be viewed as a practical “hands on exercise” in preparation of their anticipated MPO designation in 2020.

INTRODUCTION

Transportation affects everyone and thus a safe, accessible, affordable and reliable transportation system is vital to everyone. In 2015, the Fixing America’s Surface Transportation Act (FAST Act) was signed into law, it provides the resources for the continuation and improvement of current programs with new initiatives to meet future transportation challenges. These challenges are addressed through efficient, flexible, performance-based transportation plans and programs. These challenges are evident within the urbanized area of Traverse City.

Though not a designated MPO, it is anticipated that the current Traverse City urban area will meet the minimum MPO population and threshold requirements after the 2020 US Census. As a part of the Fiscal year 2018 transition work plan, MDOT will continue to provide MPO training to Networks Northwest, the TTCI governing Board and Technical Committee members, and MDOT-North Region and the Traverse City Transportation Service Center staff. This training is designed to familiarize staff and committee members with the products produced by an MPO and their roles and responsibilities as part of the planning process.

The transportation planning UWP describes work and coordination efforts to be performed by TTCI for the Traverse City urban area, and is a critical document to utilize in preparation for the Traverse City urban area becoming a MPO after the 2020 US Census. The 2018 UWP describes the transportation planning tasks scheduled for the period beginning on October 1 2017 to September 30, 2018. These planning activities are supported by federal State Planning and Research (SPR) funds, administered through the Michigan Department of Transportation (MDOT).

The UWP covers transportation planning activities within the TTCI area which includes the following: Acme Township, Charter Township of East Bay, Charter Township of Elmwood, Charter Township of Garfield, the City of Traverse City, and the Bay Area Transit Authority.

FAST Act planning regulations require the development of an annual UWP that identifies transportation issues and problems facing the urban area. Also included in the UWP is information relevant to MDOT’s funding of TTCI by requiring this organization to complete tasks relevant to those required by Title 23. Section 104(f). Invoices and Progress reports reflecting these work tasks will be submitted to MDOT on a quarterly basis.

TRANSPORTATION ISSUES FACING THE TRAVERSE CITY METROPOLITAN AREA

See Vision 2035 (Long Range Planning Practical Exercise) Completed in 2014

PROGRAM STAFFING AND FUNDING

Staffing of TTCI will be the responsibility of Networks Northwest or a 3rd party and the TTCI governing board. Funding for this fiscal year's UWP is provided through federal SPR dollars administered by MDOT, and by local agency membership dues. The dues will be collected from each agency based on criteria developed and approved by the TTCI board in May of 2016.

WORK ITEMS

Work Item 1.0 Administration/Organization/Coordination

Purpose and Methodology:

There are many organizational and administrative tasks required by TTCI in order to meet standards set forth by FHWA for a small MPO. Traverse City does not currently meet the minimum requirements for a small MPO, though it is projected that this status will be acquired after the 2020 US Census. Accordingly, the TTCI board coordinates policy and decision making between local agencies in the Traverse City urbanized area. The development and adoption of various committee structures, policies, and documents are intended to guide TTCI in its daily work activities. In addition, TTCI will continue to update information and activities to the general public via the World Wide Web and media releases.

Public participation is a proactive process which guarantees timely notice, full access to key decisions, and an opportunity for early and continued involvement in the development of key documents such as the Public Participation Plan, Vision 2035 Document, Illustrative Transportation Improvement Program (TIP), and Unified Work Program (UWP). TTCI will reach out to the affected population and will work to engage them in discussion and input.

TTCI will also develop a list of agencies that it will reach out to for consultation purposes including other state departments such as the Department of Natural Resources (DNR), the Department of Environmental Quality (DEQ), the State Historic Preservation Office (SHPO), and tribal governments including the Grand Traverse Band of Ottawa and Chippewa Indians.

General Administration/Coordination of TTCI: This includes the preparation and distribution of TTCI Board and Technical Committees meeting agendas, minutes, resolutions and other relevant reports (for each meeting). In addition, TTCI will review transportation projects within the TTCI planning area, review federal and state legislation, and continue the development and preservation of professional contact with various governmental agencies. Another administrative activity is the performance of all duties associated with the financial administration of TTCI, including submission of progress reports, financial acceptance reports and monthly billings; as well as assistance to outside auditors in an annual financial and compliance audit by providing accurate and timely information. Another administrative activity is contact with various public interest groups to keep the public informed of transportation related issues.

TTCI will publish notices of its meetings in the local newspaper(s) and will distribute meeting announcements and media releases to all interested parties. All of the activities listed are reflective of what current MPOs utilize for general administration purposes within their organizational structure and provides a model in preparation of the Traverse City urban area becoming a small MPO in 2020.

Work Item 1.0 Deliverables for administering a small MPO:

1. Coordination of planning activities with State and Local Agencies.
2. Preparation of quarterly progress reports and invoices for payment to MDOT as per project authorization.
3. Preparation of final Acceptance Report on Work Program elements.
4. Maintain a record keeping system of all federal regulations (23 CFR), publications, reports, correspondence and documentation of meetings attended and public notices soliciting public involvement.
5. Website Maintenance and/or Newsletter files for public review. Preparation of meeting agendas, notices and minutes.

TTCI General Administration Funding	
Source	MDOT/SPR
Amount	\$7,000
Staff Time (hours)	TBD

Schedule to complete these Tasks: Quarterly beginning October 1, 2017 to September 30, 2018

Work Item 2.0 Unified Work Program (UWP)

Purpose and Methodology:

In order for TTCI to align with the federal fiscal year, the FY 2019 UWP will be developed and will include the MDOT directed work plan for the federal SPR funds within this fiscal year, prior to August 4, 2018.

A draft FY 2019 UWP will be submitted for approval to the TTCI Technical Committee, TTCI Board, and MDOT. This method is determined to best replicate how current MPOs submit and receive approval of their documentation. It also serves as a primary tool in developing more detailed UWPs in preparation of the Traverse City urban area becoming an MPO in 2020. This document will describe the transportation planning tasks scheduled for the period from October 1, 2018 to September 30, 2019. TTCI will review and revise the FY 2019 UWP based on comments from reviewing agencies, addressing any deficiencies to maintain certification of the planning process. TTCI will then complete the draft FY 2019 UWP to include costs, funding responsibilities, estimated staff requirements, and products of work efforts. The finalized FY 2019 UWP will be submitted to the TTCI Technical and Board for endorsement, and final approval. TTCI will conduct periodic review of the work program to ensure its timely completion.

Products:

1. Monitor final UWP for FY 2018 (amendments, billing reconciliation, etc.).
2. Draft Unified Work Program for FY 2019.
3. Adopt final UWP for FY 2019 (amendments, admin changes, billing reconciliation).

UWP Development Funding	
Source	MDOT/SPR
Amount	\$3,000
Staff Time (hours)	TBD

Schedule to complete this Task: Due at the beginning of the 4th Quarter FY 18.

Work Item 3.0 Illustrative FY 2018-2020 Transportation Improvement Program (TIP)

Purpose and Methodology:

TTCI will maintain and adjust as necessary the Illustrative FY 2018-2020 Transportation Improvement Program (TIP) in FY 2018 as well as develop and adopt a process for approving Illustrative TIP amendments, which will mimic a process used by current standing MPOs for developing, approving, and adopting TIPs. These measures will allow TTCI to familiarize itself with the TIP development and implementation process in anticipation of meeting the minimum requirements for the MPO designation in 2020. The Illustrative FY 2018-2020 TIP shall include all transportation projects, or identified phases of a project within the Traverse City urban area funded under local, state, federal, and Title 23 and Federal Transit Acts. The Illustrative TIP shall cover a period of four years and shall be financially constrained.

All transportation projects, or identified phases of a project, (including pedestrian facilities, bicycle transportation facilities, transportation alternatives program projects, para-transit plans and those projects that implement the plans, shall include descriptive material to identify the project or phase, estimated total cost, proposed source of federal and non-federal funds, identification of the recipient/sub-recipient, and state and local agencies responsible for carrying out the project.

As part of the consultation process, TTCI will inform eligible governmental implementing agencies of the TIP process, including time schedules and review processes. TTCI will request project lists from all implementing agencies, including MDOT, City of Traverse City, Grand Traverse County Road Commission, Leelanau County Road Commission, the local transit operator and non-motorized representative organizations within the planning area. TTCI will determine the project relationship to locally adopted plans as well as goals and objectives. It will maintain the Illustrative TIP as a priority list of projects including a financial plan.

The TTCI Illustrative TIP development process is as follows: TTCI will analyze all project submittals and provide recommendations to the TTCI Technical Committee for review and further recommendations to the Board. TTCI will prepare a draft Illustrative FY 2018-2020 TIP. It will then revise the draft Illustrative FY 2018-2020 TIP based on Technical Committee comments, as well as comments from Federal, state, and local agencies, addressing any deficiencies in order to maintain certification of the planning process, as part of MPO requirements. TTCI will finalize the project list and Illustrative FY 2018-2020 TIP including costs and funding responsibilities. The final Illustrative TIP will be submitted to the TTCI Technical Committee and Board for approval. This process is similar to what current MPOs identify, disseminate, distribute, and implement with their respective TIPs. This process will also allow TTCI to analyze, review, and organize itself in adherence to FHWA and FAST Act standards in preparation for Traverse City's MPO status in 2020 and developing an official TIP document.

Products:

1. Monitor TIP projects and manage changes.
2. Update Committees on the status of Obligated Projects.

TTCI FY 2017-2020 TIP Monitoring	
Source	MDOT/SPR
Amount	\$5,000
Staff Time (days)	TBD

Schedule to complete this task: Beginning of the 4th Quarter FY 18

Work Item 4.0 Prepare a Title VI Plan

Purpose and Methodology:

TTCI will develop a federally-mandated Title VI plan in FY 2018 that contains the regulations and procedures to assure that programs and activities of TTCI are conducted and administered fairly, without regard to race, color, national origin, sex, age, disability, or limited English proficiency. The goal of this document will be to assign roles, responsibilities, and procedures for ensuring compliance with Title VI of the Civil Rights Act of 1964 and related regulations and directives Update Committees on the status of Obligated Projects; establish procedures for identifying impacts in any program, service, or activity that may create illegal adverse discrimination on any person; set forth procedures for filing and processing complaints by persons who believe they have been subjected to illegal discrimination under Title VI in the TTCI's services, programs, or activities and ensure Limited English Proficiency processes and Environmental Justice principles are integrated into procedures and programs.

Products:

1. Ensure that all aspects of the planning process comply with Title VI and Environmental Justice.
2. Serve as a resource helping to ensure participation of a cross section of people including various and diverse social, economic and ethnic interest groups are represented in the planning process.
3. Process Title VI complaints received by TTCI.
4. Compile and collect, as needed, statistical data (race, color, religion, sex, and national origin) of participants in, and beneficiaries of TTCI plans and programs.
5. Conduct reviews of Title VI program areas as necessary to determine the effectiveness of the program at all levels.
6. Review internal policies and, where applicable, incorporate procedures to ensure compliance with Title VI.
7. Submit sub-recipient annual certification form to MDOT.

Attend training on Title VI, as made available	
TTCI	
FY 2018-2020 TIP Monitoring	
Source	MDOT/SPR
Amount	\$3,000
Staff Time (days)	TBD

Schedule to complete this task: Beginning of the 4th Quarter FY 18

Work Item 5.0 Data Collection, Travel Demand Model, Management and Analysis

Purpose and Methodology:

Data Base Collection, Coding, Analysis, Monitoring and Management: TTCI will continue to be responsible for coordinating, developing, and distributing a local traffic count program for the TTCI planning area, determining traffic data needs, conducting traffic counts, and collecting all recent traffic counts from local jurisdictions, MDOT, and others. The location and number of counts will be set up to fulfill Highway Performance Monitoring System (HPMS) efforts as well as maintain sufficient traffic counts for calibration of the travel demand model (housed and operated by MDOT).

Networks Northwest currently provides asset management services within the TTCI planning area and will continue to be responsible for them in FY 2018. TTCI will work closely with Networks Northwest in order to obtain and disseminate the condition of federal-aid eligible roads in the TTCI area.

Multi-Modal Infrastructure and Facilities: As part of the development of a long range plan, TTCI will perform an analysis of the existing transportation system needs. Part of this analysis would include an inventory of the existing transportation system including pavement and bridge conditions, transit and rail systems, airports, waterways/ports, non-motorized facilities, and commercial freight.

TTCI Travel Demand Model: TTCI will continue to participate with the MDOT Statewide and Urban Travel Analyses Section to develop and maintain the TTCI travel demand model. This involves collecting roadway data on sample segments for the Highway Performance Monitoring System (HPMS) in the Traverse City urban area as required and requested by MDOT/FHWA/others. TTCI will approve input data from MDOT for the travel demand model as necessary. This process is reflective of small MPO’s procedures in preparation for development of their Long Range Plans. A travel demand model prepared for the Traverse City urban area before the projected 2020 MPO designation will require an update to the model and provides for a better foundation for the anticipated designation, as opposed to constructing a new travel demand model after the anticipated designation has been assigned.

TTCI Board approved projects: In order to help foster, encourage, and procure regional cooperation the TTCI must be able to demonstrate to their constituents actual products regarding the complex transportation issues facing the region. Most notably, this includes studying all projects, real or

potential, that affect East/West travel in the Traverse City Urbanized Area, which includes the most heavily travelled corridor, US-31.

Products:

1. Inventory multi-modal infrastructure and facilities.
2. Continuation of compilation and evaluation of data regarding socio-economic/environmental justice characteristics within TTCI planning area.
3. Continue reviewing base year modeling input and output data and define deficiencies, including: the Model Network, Traffic Analysis Zone (TAZ) structure and placement, socioeconomic (SE) data, traffic count data, employment data, and other such information. Draft copies of this information will be provided to TTCI staff and committees by MDOT.
4. Review forecast year data and base year model runs.
5. Approval and distribution of other model components as deemed necessary by FHWA regulations, MDOT, and TTCI.
6. Build in-house capacity for traffic modeling through one-on-one training from MDOT personnel
7. Traffic count program.

TTCI Data Collection & Travel Demand Model Funding	
Source	MDOT/SPR
Amount	\$5,000
Staff Time (hours)	TBD

Schedule to complete this task: 4th Quarter FY 18

TTCI FY 2018 Budget Summary

Work Item	Estimated FY 2018 Cost
1.0 PPP and General Administration	\$7,000.00
2.0 FY 2018 UWP	\$3,000.00
3.0 Manage FY 2017-2020 TIP	\$5,000.00
4.0 Title VI Plan	\$3,000.00
5.0 Data Collection and TDM	\$5,000.00
TOTAL FY 2018 SPR Funding	\$23,000.00

Traverse Transportation Coordinating Initiative (TTCI) Access Management: An Assessment DRAFT



US-31



South Airport Rd.



DRAFT

TTCI Access Management Assessment

TABLE OF CONTENTS

Executive Summary.....	5
Existing Conditions.....	7
- Roadway Characteristics	
- Land Use/Zoning	
- Bayshore Corridor (M-72/US-31/M-22).....	8
o Acme Township.....	8
o East Bay Township.....	11
o Traverse City.....	14
o Elmwood Township.....	18
- South Airport Rd. (Garfield Township).....	21
Regional Implementation.....	24
Appendix.....	25
- Benefits of Access Management.....	25
- Consolidated Zoning Map.....	26
- Access Zone Map.....	27

DRAFT

THIS PAGE LEFT INTENTIONALLY BLANK

DRAFT

Executive Summary

The Traverse Transportation Coordinating Initiative (TTCI) is the coordinating body for representatives from communities and implementing agencies within the census designated Traverse City urbanized area to discuss future transportation projects, real and potential, under a Metropolitan planning organization (MPO) format. This includes studying various challenges associated with east/west travel throughout the region by assessing potential new connections and studying access/travel demand management issues along dense corridors such as the Bayshore Corridor (US-31/M-72/M-22) and South Airport Rd.

Due in part to the Traverse City area's steady permanent and seasonal population growth, and in order to seek an optimal balance of mobility, economic development and character, TTCI's Board of Directors have identified Access Management as an important issue that contributes to these challenges – especially that of East/West mobility throughout the region.

In 2016, the TTCI commissioned a statistically significant transportation mobility perception survey focused on perceived east/west mobility through the urbanized area. The results of the survey will assist the TTCI Board and other transportation entities in prioritizing corridors to study, analyze, and ultimately in the preparation of strategies and alternatives based on effectiveness, efficiency, funding, value, community desire and other agency goals. The research secured quantitative information from residents as stakeholders in this initiative, providing information to aid the Board in evaluating transportation improvement strategies. Among some of the findings include:

- A total of 413 surveys completed, proportionate to the Urbanized Area, for an approximate +/- 4.81% margin of error and a 95% confidence level for the area as a whole.
- The vast majority of respondents (95%) reported they are a Year-Round Resident, residing in the area 10 – 12 months out of the year.
- The single largest group of respondents (35%) indicated they most frequently travel along the Bayshore Corridor (M-72/US-31/M-22), while an equal number (22%) cited 8th Street and South Airport and 19% cited Hammond/Keystone/Beitner.

The TTCI Access Management assessment highlights two (2) of the region's most travelled east/west corridors - Bayshore Corridor (M-72/US-31/M-22) and South Airport Rd. The assessment includes an analysis of driveway spacing, crash locations and local zoning ordinances.

A formal Access Management planning process is recommended to address specific implementation and mitigation techniques that coincide with local and regional land use goals in these corridors.

THIS PAGE LEFT INTENTIONALLY BLANK

DRAFT

Existing Conditions

Roadway

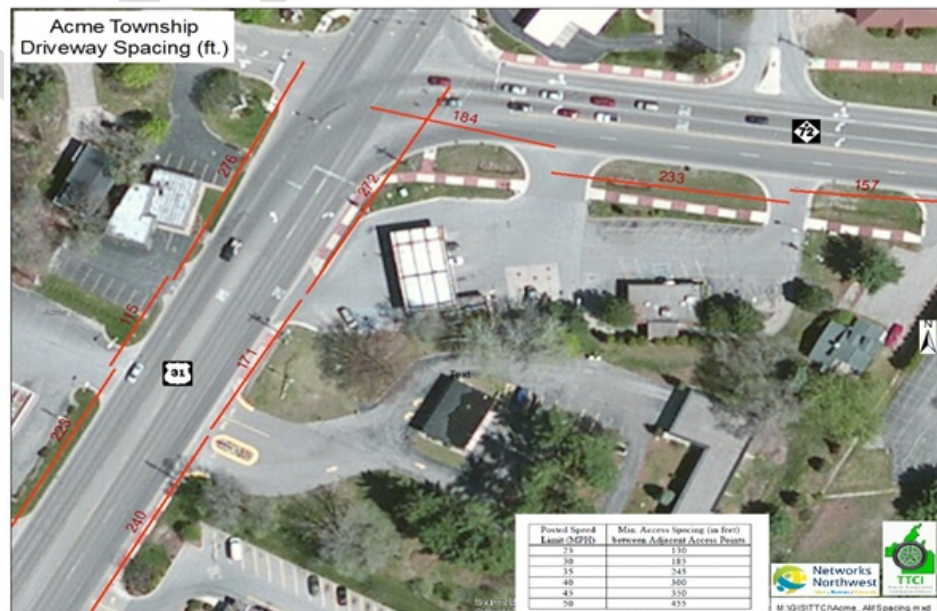
This section of the Access Management Assessment defines the existing conditions along the length of the Bayshore Corridor by municipality, including roadway characteristics, crash history from 2011-2016 and access conditions. Access conditions highlight the spacing between adjacent driveways and intersections and influence the amount of crashes in a corridor. This is because both driveway and street intersections create conflicts between vehicles on the roadway and vehicles entering or leaving the roadway. MDOT has adopted spacing guidelines (below) for state highways as have many county road commissions for roads under their jurisdiction. Some local units of government have adopted spacing standards for state trunklines and/or county roads as well as for local roads and streets not subject to state or county road guidelines. (*MDOT Access Management Guidebook*).

Posted Speed Limit (MPH)	Min. Access Spacing (in feet) between Adjacent Access Points
25	130
30	185
35	245
40	300
45	350
50	455

Below represents adjacent driveway spacing standards. Distance between driveways were measured in GIS using aerial photos as reference. The vast majority of driveways on the corridor in each municipality currently do not meet the recommended minimum access spacing between commercial driveways.

Meets MDOT minimum access spacing (ft.) between adjacent access points			Length of Corridor (mi)
M-72/US-31/M-22 (Bayshore Corridor)	Yes	No	
Acme	14%	86%	2.76
East Bay	19%	81%	2.62
Elmwood	38%	62%	1.26
Traverse City	39%	61%	3.74
South Airport Rd.			
Garfield Township	11%	89%	4.9

Example of how spacing was measured (Acme Twp.)



Density of driveways or number of driveways on both sides of the road is important because crash rates increase dramatically as the number of driveways per mile increase. The number of driveways allowed per lot is established by local government regulations, and/or at the discretion of state or county road authorities. Whenever possible, communities and road authorities should limit the number of driveways per lot. This can be done through restrictions within the zoning ordinance and by using other techniques like shared access, or frontage or rear access drives (*MDOT Access Management Guidebook*). Maps were created for each municipality which locates the potential for shared access or service drive implementation measures based on existing physical conditions only.

Land Use/Zoning

Traffic operations on any corridor are influenced by a variety of factors including land use. Each type of land use creates traffic that adds to the exiting though traffic along the highway. For example, a typical single family home may generates approximately ten vehicle trips per day, where a commercial use located on a similarly sized lot may generate as many as fifty or more trips in an hour (*MDOT Access Management Guidebook*). Existing and planned land uses and zoning along the corridor is critical in managing the overall level of service. See appendix for consolidated zoning map. Additionally, understanding current zoning ordinance language for each municipality will help identify common challenges and opportunities to improving access management corridor and region-wide.

Bayshore Corridor (M-72/US-31/M-22)

The section of State Trunkline traveling east/west through the Traverse City Urbanized area is commonly known as the *Bayshore Corridor* due to its physical proximity to the east and west arm of Grand Traverse Bay. The corridor is 11 miles in length and includes M-72 west of Lautner, US-31 from M-72 to M-22 and M-22 from M-72 to Cherry Bend Rd. According to MDOT, various segments of the corridor can experience up to 50,000 vehicles per day with posted speed limits ranging from 35 to 45mph on three, four and five lane segments of road. The Bay Area Transportation Authority (BATA) provides fixed schedule public transportation along the corridor through city and village loop connectors.

The Bayshore corridor provides service to major economic drivers of the region which includes densely spaced parcels primarily zoned for commercial/retail/office while other parcels consist of hotel/tourism businesses, regional institutions, recreation and residential use.

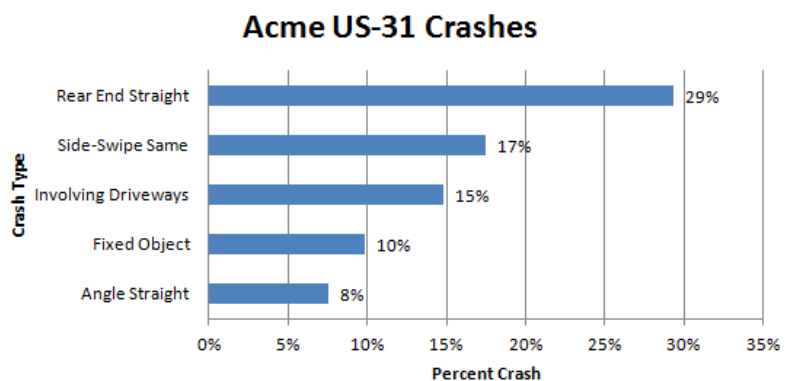
Acme Township

Roadway Characteristics

The eastern terminus of the Bayshore Corridor in the Census designated Traverse City Urbanized Area (TTCI region) begins just west of Lautner Rd. According to MDOT, daily traffic counts on the section of M-72 from Lautner to US-31 are just over 15,500, with a 55mph speed limit. Approximately 30,000 vehicles travel the section of the corridor between the M-72/US-31 intersection and Holiday Rd. daily. The speed limit is 45mph with 4-5 lanes of roadway throughout the township.

Crash History

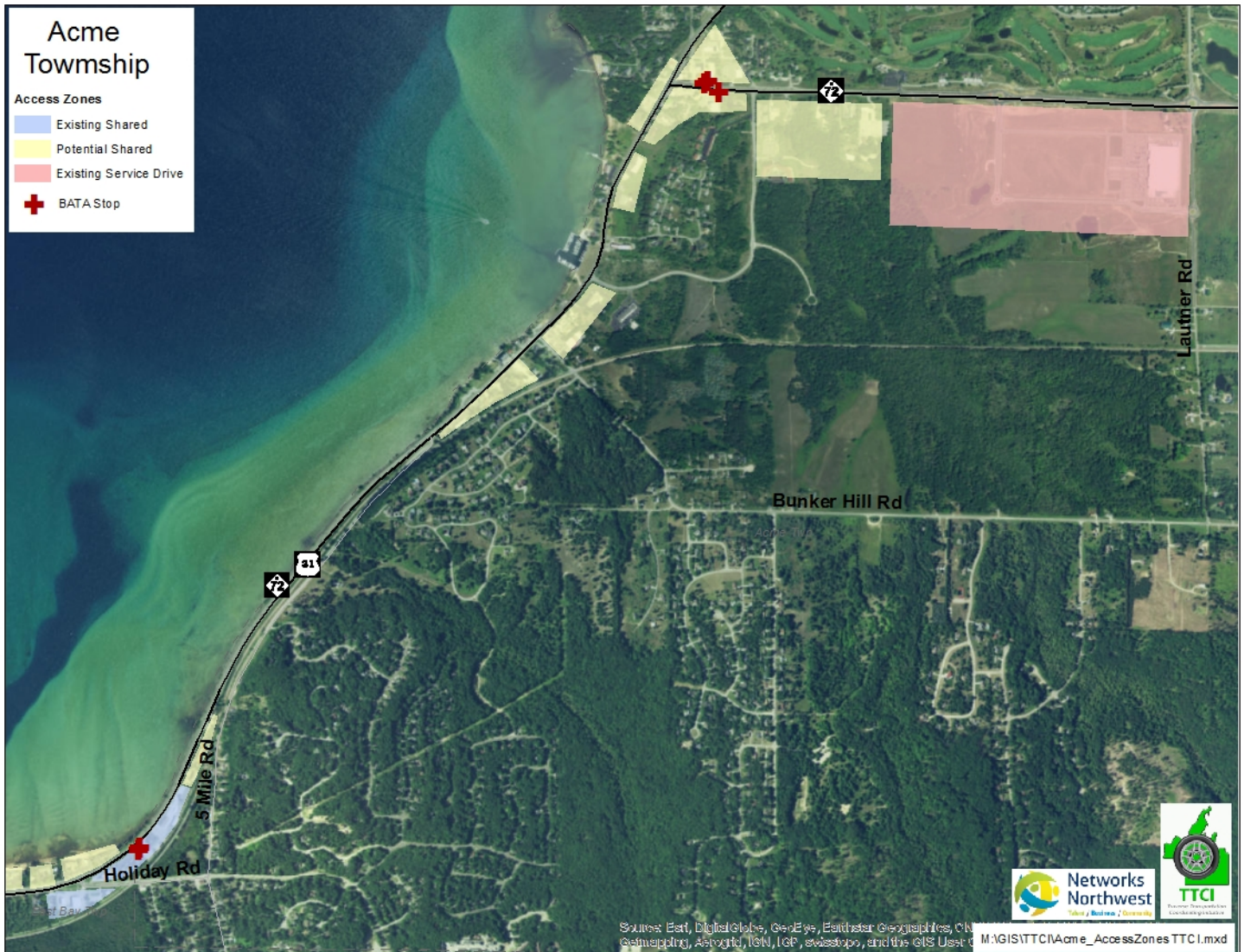
Crash data from *Roadsoft* was used to identify the traffic crash histories for the entire 2.6 mile section of the Bayshore Corridor in Acme Township. According to the the five year study period, there were approximately 300 crashes that occurred on the 2.76 mile stretch of Bayshore Corridor in Acme Township. The top five crash types are indicated in the graph below. Nearly 30% were rear end crashes while over 17% involved a side swipe action. Close to 15% of crashes directly involved movement in and out of driveways along the corridor.



Access Conditions

The distance between driveways were measured in GIS using aerial photos for the 2.76 mile study area for Acme Township. Referring to MDOT access spacing requirements, based on the posted speed of the corridor, approximately **86% of non-residential driveways** on the Bayshore Corridor do not meet the minimum recommended spacing requirements for adjacent driveways and/or intersections.

The western edge of Acme Township’s Bayshore corridor demonstrates existing shared access between adjacent properties and across municipal lines into East Bay Township. Closer to the US-31/M-72 intersection, there seems to be the potential for shared access with adjacent properties that are predominantly light commercial with ample parking. The recent land development west of Lautner Rd. already has service drive infrastructure in place to accommodate for future growth of the parcel.

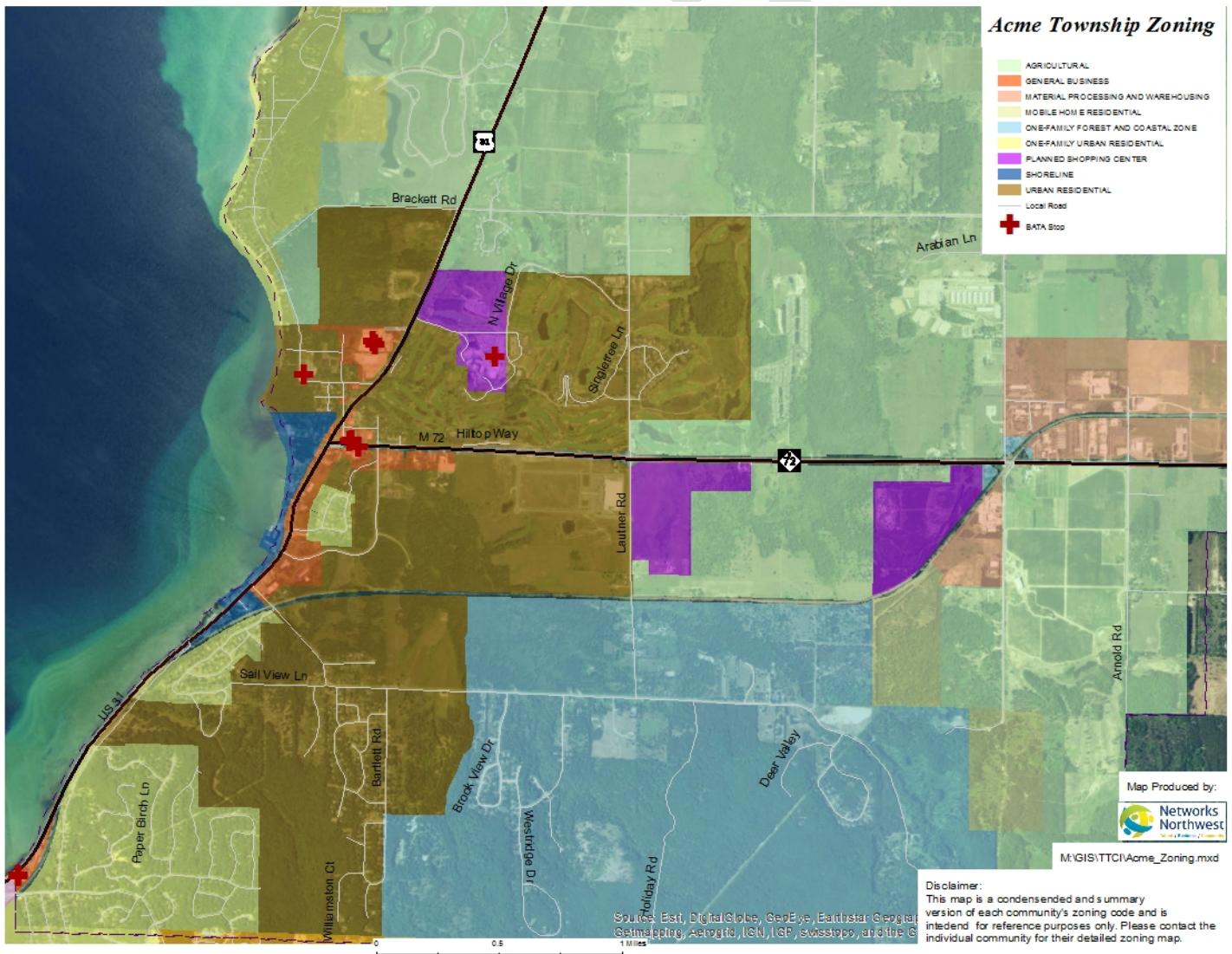


Land Use/Zoning

The eastern terminus of the Urbanized Area begins on M-72 west of Lautner Rd. and contains a regional shopping center that will also be a walkable, mixed-use, high density Town Center that includes residential units and is fully connected to public shoreline properties along the East Bay, the TART (Traverse Area Recreation and Transportation) trail system, and the Grand Traverse Resort and Spa. In order to achieve the seamless connection between public and private properties envisioned throughout the Town Center, a Form Based Code is proposed for the area surrounding the US-31/M-72 intersection.

The land adjacent to the intersection of M-72/US-31 is mostly developed with commercial/retail use and may experience high traffic volumes throughout the day. Moving westward, the corridor is a mix between adjacent commercial/retail use and then a large swath of undevelopable land from 5 mile Rd. to just east of Holiday Rd.

BATA services the M-72 park and ride located on the northeast corner of the M-72/US-31 intersection as well as Tom's, Bertha Vos School and the Grand Traverse Resort and Spa north of M-72.



Current Zoning Language – Access Management

7.2.8 SERVICE Drives

All land in a parcel having a single tax code number, as of the date of this amendment, fronting on highways U.S. 31 or M-72 shall be entitled to one driveway or road access per parcel from said highway. Parcels when subsequently subdivided shall provide access by subdivision roads, other private or public roads or by service drives. Notwithstanding the requirements of the Acme Township Subdivision Control Ordinance No. 80-1, the standards for service drives shall be as follows:

- a. Width: A minimum of 24 ft. with construction to Grand Traverse County Road Commission standards for base and thickness of asphalt.
- b. A minimum of fifteen ft. snow storage/landscaping area must be reserved along both sides of the service drive with the edge of the service drive located a minimum of fifteen ft. from the major thoroughfare right-of-way.
- c. All driveway radii shall be concrete curbs.
- d. The entrance to the service drive from a public road other than the major thoroughfare shall be at least 150 ft. from the centerline of the major thoroughfare to provide for adequate stacking and maneuvering.
- e. The service drive shall be a private road maintained by adjoining property owners or users who shall enter into a formal agreement together for the joint maintenance of the service drive.
- f. Landscaping along the service drive shall be determined by the Town Board. Installation and maintenance of landscaping shall be the responsibility of the developer or a property owners association.
- g. The Township Board shall review and approve all service drives to insure safe and adequate continuity of the service drive between contiguous parcels.

East Bay Township

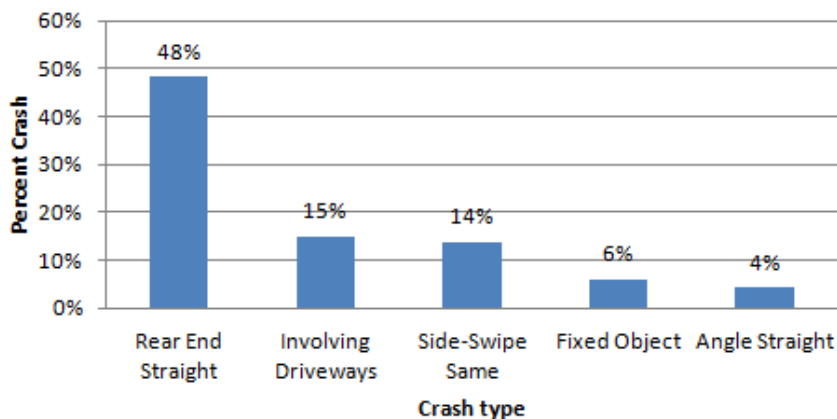
Roadway Characteristics

This section of the Bayshore Corridor extends from approximately 750 ft. east of Holiday road westward to Airport Access Rd. According to MDOT, daily traffic counts range from over 19,000 to 34,000, with a 45mph speed limit and a 5 lane highway that includes a center turn lane throughout the corridor.

Crash History

Crash data from *Roadsoft* was used to identify the traffic crash histories for the 5.47 mile section of the Bayshore Corridor in the City of Traverse City. According to the five year study period, there were approximately 445 crashes that occurred on the stretch of road. The top five crash types are indicated in the graph below. Nearly half of all crashes were rear end crashes, while 15% directly involved moving in and out of driveways.

East Bay US-31 crashes



Access Conditions

The distance between driveways were measured in GIS using aerial photos for the 2.62 mile study area for East Bay Township. Referring to MDOT access spacing requirements, based on the posted speed of the corridor, approximately **81% of non-residential driveways** on the Bayshore Corridor do not meet the minimum recommended spacing requirements for adjacent driveways and/or intersections.

A large swath of adjacent properties from east of the State Park to the Township limits exhibit existing shared access. The vast majority of the northern side of the corridor is comprised of seasonal resort use. It appears that there's only one example of shared access for adjacent properties on the north side of the corridor. The southern side of the corridor exhibits multiple examples of existing shared access with adjacent properties that are mostly restaurant and commercial use from the eastern limit of the township to just before the State park.



Land Use/Zoning

Most of the land directly adjacent to the Bayshore Corridor is urbanized and zoned commercial/office/retail/resort with a large prevalence of seasonal resort businesses on the north side of the corridor and restaurants/family dining on the south side. Traverse City State park is situated half-way through the corridor and is routinely booked to capacity during the summer season. The western portion of the corridor contains mostly low density single family residential.

BATA provides service throughout this segment of the corridor with stops at the State Park, Economy Inn, 3 Mile Rd. and the Woodcreek business area.



Current Zoning Language – Access Management
SECTION 224 ACCESS CONTROL MEASURES

These provisions for traffic control shall be applicable for land uses, buildings and structures fronting on the following roads: all hereinafter referred to as major thoroughfares;

1. MAJOR THOROUGHFARES INCLUDED WITHIN THIS SECTION:

- a. Three Mile Road; from Munson Avenue/US-31 North, south to Cherry Ridge Drive.
- b. Hammond Road; between Townline Road and two thousand (2,000) feet east of the Four Mile Road and Hammond Road intersection.
- c. South Airport Road.
- d. Parsons Road.

2. DEFINITION for SERVICE DRIVES: A service drive shall be a front or rear interconnection between parcels, and may include the maneuvering lane within a parking lot. A service drive is not a private road. All existing and future parcels, if required to proceed through Section 820; the Site Plan Review process or the issuance of required permits, shall contain a service drive, unless the applicant can demonstrate that the access plan is not feasible from a public safety, engineering, traffic flow, or natural features respect. If the Planning Commission makes a determination that a service drive for a future parcel is not feasible, the applicant shall be entitled to a driveway onto the major thoroughfare.

City of Traverse City

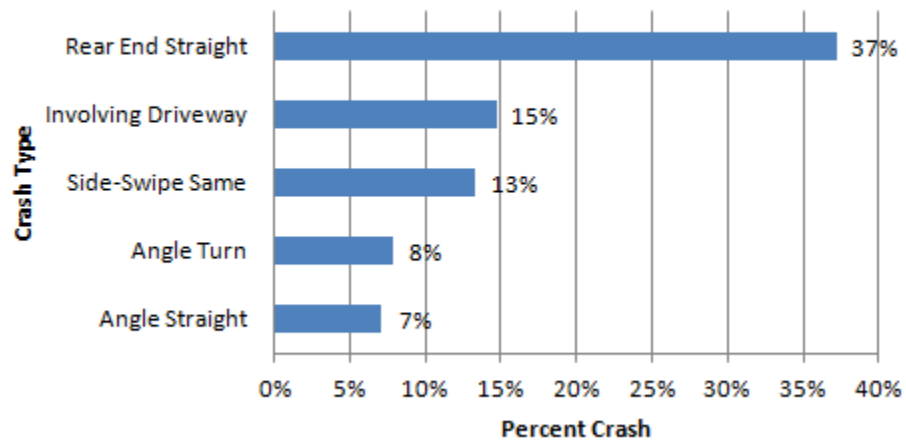
Roadway Characteristics

This section of the Bayshore Corridor extends from Airport Access Rd to M-72. According to MDOT, daily traffic counts range from 22,500 to approximately 48,000, with a 35mph speed limit and a 4 lane highway that transitions into a 4 lane boulevard west of Railroad Ave.

Crash History

Crash data from *Roadsoft* was used to identify the traffic crash histories for the 3.74 mile section of the Bayshore Corridor in the City. According to the five year study period, there were approximately 661 crashes that occurred on this section of the corridor. The top five crash types are indicated in the graph below. The vast majority of all crashes were rear end crashes, while 15% directly involved moving in and out of driveways. Approximately 20% of all crashes on this section of the corridor resulted in an injury.

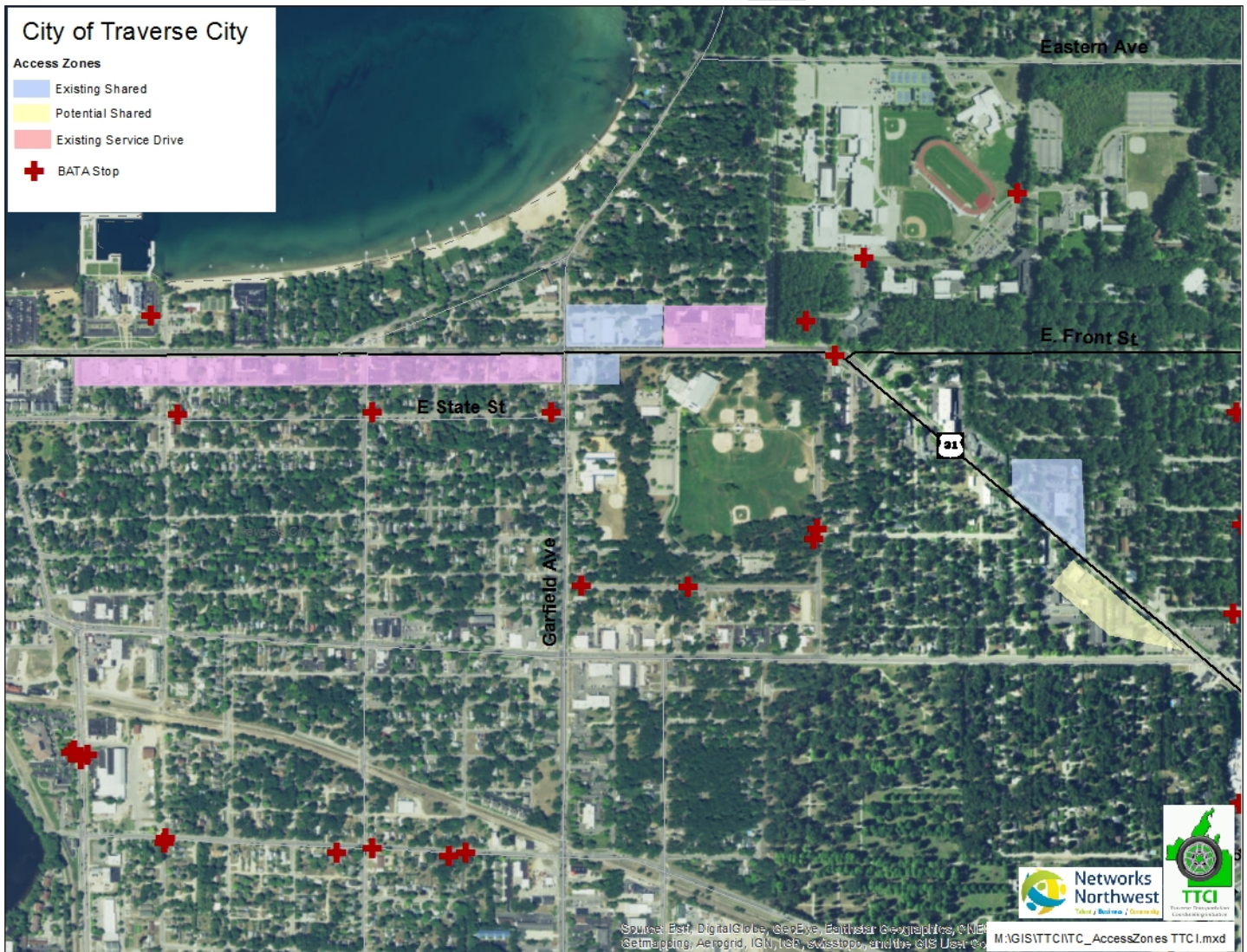
Traverse City US-31



Access Conditions

The distance between driveways were measured in GIS using aerial photos for the 3.74 mile study area for the City of Traverse City. Referring to MDOT access spacing requirements, based on the posted speed of the corridor, approximately **61% of non-residential driveways** on the Bayshore Corridor do not meet the minimum recommended spacing requirements for adjacent driveways and/or intersections.

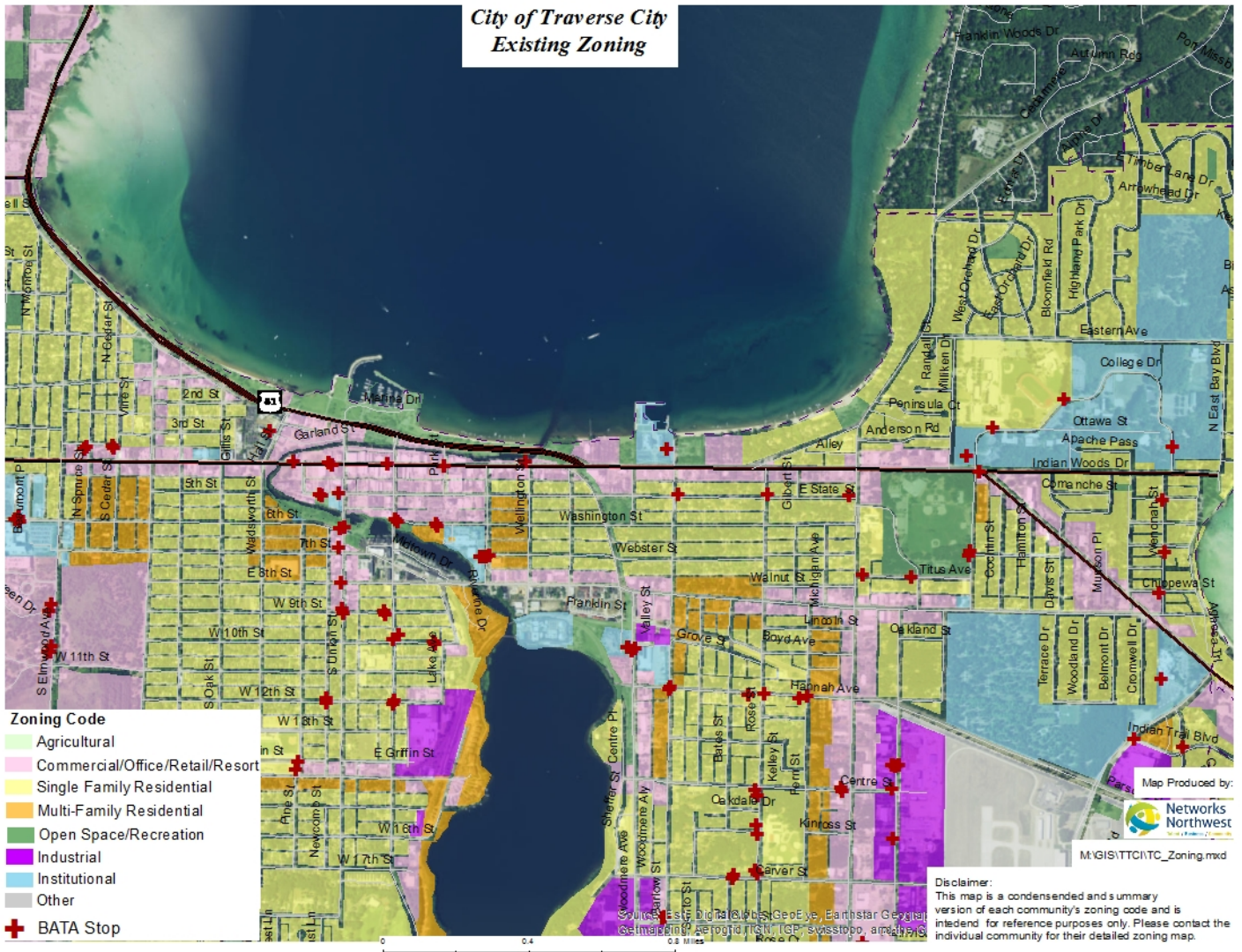
Most of the access conditions in the City were assessed between 8th street and Hope St. The corridor transitions into a 4 lane divided boulevard with limited access and by in large meet MDOT's access spacing requirements. The segment of the corridor between Garfield Ave. and Hope St. indicates a service drive already exists, however technically it is an alley maintained by the City which grants access to adjacent businesses. The section of corridor between Davis St. and Eighth St. contains adjacent properties that are mostly hotels with ample parking spaces and may already possess the infrastructure to support and advance cross access connections.



Land Use/Zoning

This section of the Bayshore Corridor is densely developed and lined mostly with zoned commercial/office/retail/resort businesses. Additionally, the corridor provides service to major regional institutions and recreation areas such as Munson Healthcare facility, Northwest Michigan College and Maritime training, Grand Traverse Civic Centre and Clinch park marina and beach.

BATA provides service throughout this segment of the corridor including NMC, Haggerty center, Civic Center and the Senior Center. There are also multiple residential neighborhood stops directly adjacent to the corridor.



Current Zoning Language – Access Management

According to the City’s zoning ordinance, the minimum standard for driveway spacing allows for a significantly reduced distance to adjacent driveways and intersections when compared to the MDOT standard.

CHAPTER 1374 , Circulation and Parking - 1374.04 DRIVEWAYS AND ACCESS REQUIREMENTS.

(a) Intent. It is the intent of this section to regulate the number, location and spacing of driveway entrances to public streets from private property and to encourage the joint use of driveways and alternative access ways wherever possible so as to minimize the frequency of traffic conflict points, increase safety and protect the traffic carrying capacity of arterial and collector streets.

(b) Restrictions. After the effective date of this Zoning Code:

(1) No new driveways are permitted on a new primary arterial or new collector street.

CIRCULATION AND PARKING 203 2015-B Replacement

(2) No new driveways are permitted from streets in the C-4 District, except to service parking areas on properties that do not have access to an alley provided the standards in Section 1346.01 are met.

If a driveway enters a street classified as:	And the intersecting street is classified as:	Minimum spacing for driveways entering a lane approaching the intersection (feet):	Minimum spacing for driveways entering a lane leaving the intersection (feet):
Access	Access, collector or arterial	15	15
Collector	Access, collector or arterial	50	50
Arterial	Access	50	50
Arterial	Collector	50	50
Arterial	Arterial	50	50

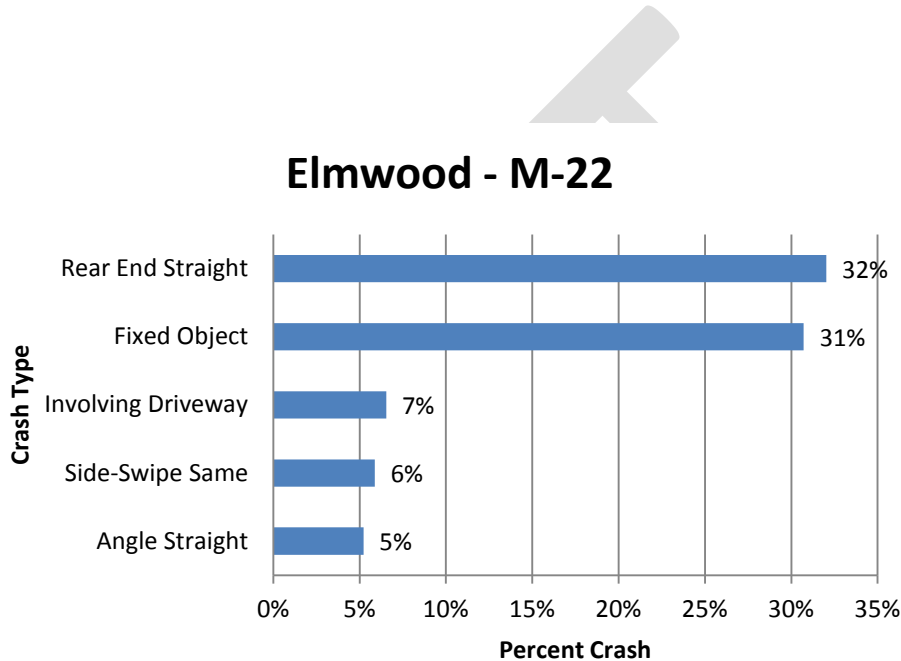
Elmwood Township

Roadway Characteristics

This western terminus of the Bayshore Corridor extends from M-72 to Cherry Bend Rd. in Elmwood Township, Leelanau County. According to MDOT, daily traffic counts are in the 20,500 range on a 40mph speed limit and a 2 lane highway with center turn lane.

Crash History

Crash data from *Roadsoft* was used to identify the traffic crash histories for the 1.26 mile section of the Bayshore Corridor. According to the five year study period, there were approximately 153 crashes that occurred on this section of the corridor. The top five crash types are indicated in the graph below. The majority of all crashes were rear end and fixed object crashes, at 32% and 31% respectively. Nearly a quarter of all crashes on this section of the Bayshore corridor resulted in an injury.



Access Conditions

The distance between driveways were measured in GIS using aerial photos for the 1.26 mile study area for Elmwood Twp. Referring to MDOT access spacing requirements, based on the posted speed of the corridor, approximately **62% of non-residential driveways** do not meet the minimum recommended spacing requirements for adjacent driveways and/or intersections.

Most of the access conditions in the Township were assessed between M-72 and Grandview Rd. North of Grandview to Cherry Bend Rd. consists mostly of residential driveways. Adjacent properties on either side of the corridor between M-72 and Carter Rd. demonstrate the potential for shared access. Physical land exists to potentially construct a service drive behind the block of adjacent properties from near Rannie St. to Brewery Creek Ln. Adjacent properties from Brewery Creek Ln to Grandview demonstrate both existing shared access and a service drive.

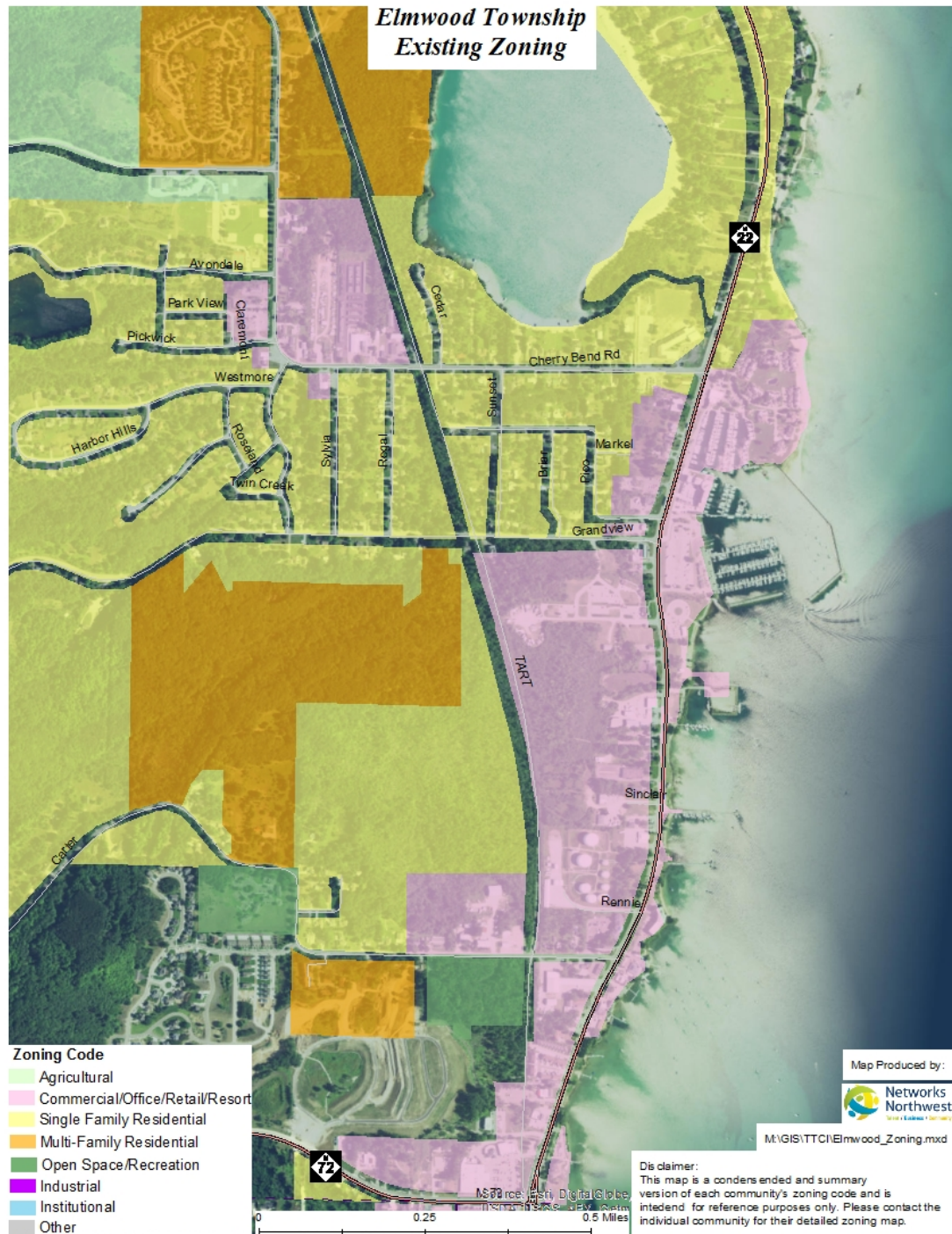


Land Use/Zoning

M-22 Elmwood Township is the primary north-south road which provides service to the commercial and light industrial business district of Greilickville from the city of Traverse City border north to Cherry Bend Road. Numerous subdivisions are located on the west side of M-22 along this stretch of road, specifically single family residential developments along the southern edge of Cherry Bend Road.

Additionally, M-22 in Elmwood Township is the primary gateway or funnel through which the overwhelming majority of motor vehicles enters and exits Leelanau County and provides service to agricultural and recreation tourism, as well as employment commuting to and throughout the County.

BATA currently has one stop located at Cherry Bend Rd at Leelanau Studios and is part of Rout 10 – Suttons Bay/Northport Village Loop.



Current Zoning Language – Access Management

SECTION 3.19 NORTH-SOUTH TRANSPORTATION LINK CORRIDOR REGULATIONS, SECTION 3.19.1 INTENT

To establish regulations on the property fronting on the route of the North-South Transportation Link as shown on the Elmwood Township Master Plan and as established by the Leelanau County Road Commission to provide a safe flow of traffic on such route, and to ensure that the capacity of the proposed road is maintained, and to reduce the number of driveways entering directly onto the proposed road to an acceptable level.

SECTION 3.19.4 LOT FRONTAGE

Lots created by other than a subdivision established under the Subdivision Control Act of 1967 shall have a frontage width along the right-of-way of the Transportation Link of not less than 400 feet and with not more than one driveway per lot. Lots platted under the Lot Division Act of 1997 or Condominium Subdivision, as regulated by this Ordinance, shall have lots restricted to interior roads and shall have a lot width as established for the Zoning District in which located.

Subdivisions shall have not more than one access per subdivision except a second access may be allowed if it is not closer than nine hundred-ninety (990) feet to the first.

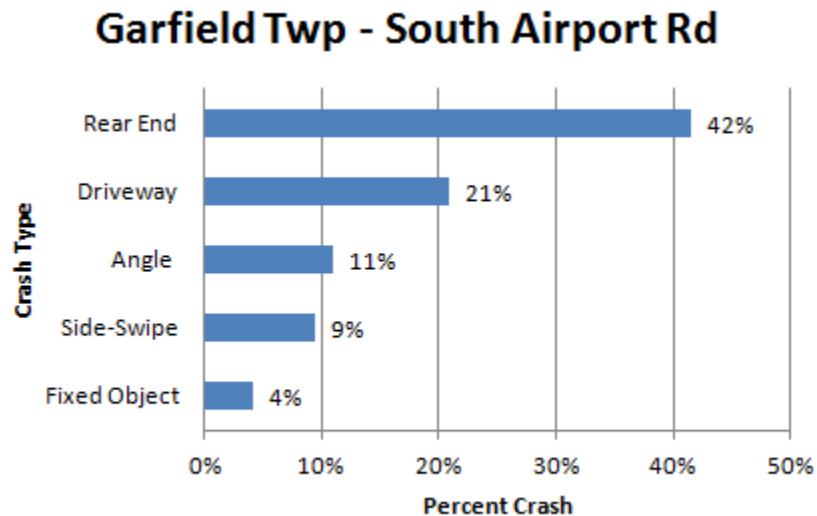
Garfield Township

Roadway Characteristics

South Airport Rd. is approximately 4.9 miles long and stretches across the urbanized area's southern/central region. For the purposes of this assessment, the corridor begins at 3 Mile Rd. and ends at Division St (US-31). According to the Grand Traverse road Commission, daily traffic counts range from 10,500 to approximately 13,500, with a 45mph speed limit and multiple lane transitions including 2 lane, 2 lane with center turn lane, 4 lane divided highway and 4 lane with center turn lane.

Crash History

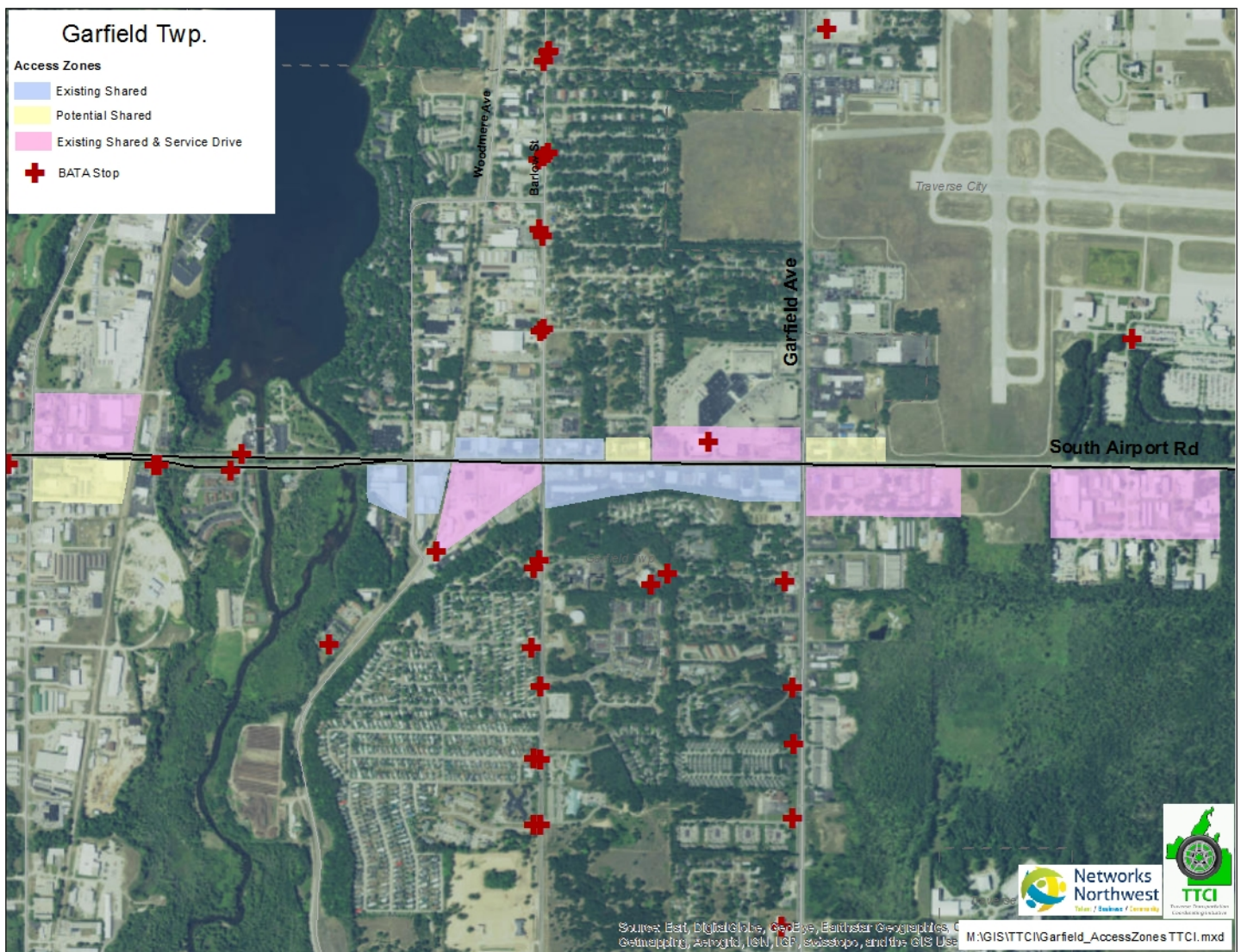
Crash data from *Roadsoft* was used to identify the traffic crash histories for the 4.9 mile section of South Airport Rd. During the five year study period, there were approximately 508 crashes that occurred on this section of the corridor. The top five crash types are indicated in the graph below. The vast majority of all crashes were rear end crashes, while 21% directly involved moving in and out of driveways.



Access Conditions

The distance between driveways were measured in GIS using aerial photos for the 4.9 mile study area for Garfield Twp. Referring to MDOT access spacing requirements, based on the posted speed of the corridor, approximately **89% of non-residential driveways** on South Airport Rd. do not meet the minimum recommended spacing requirements for adjacent driveways and/or intersections.

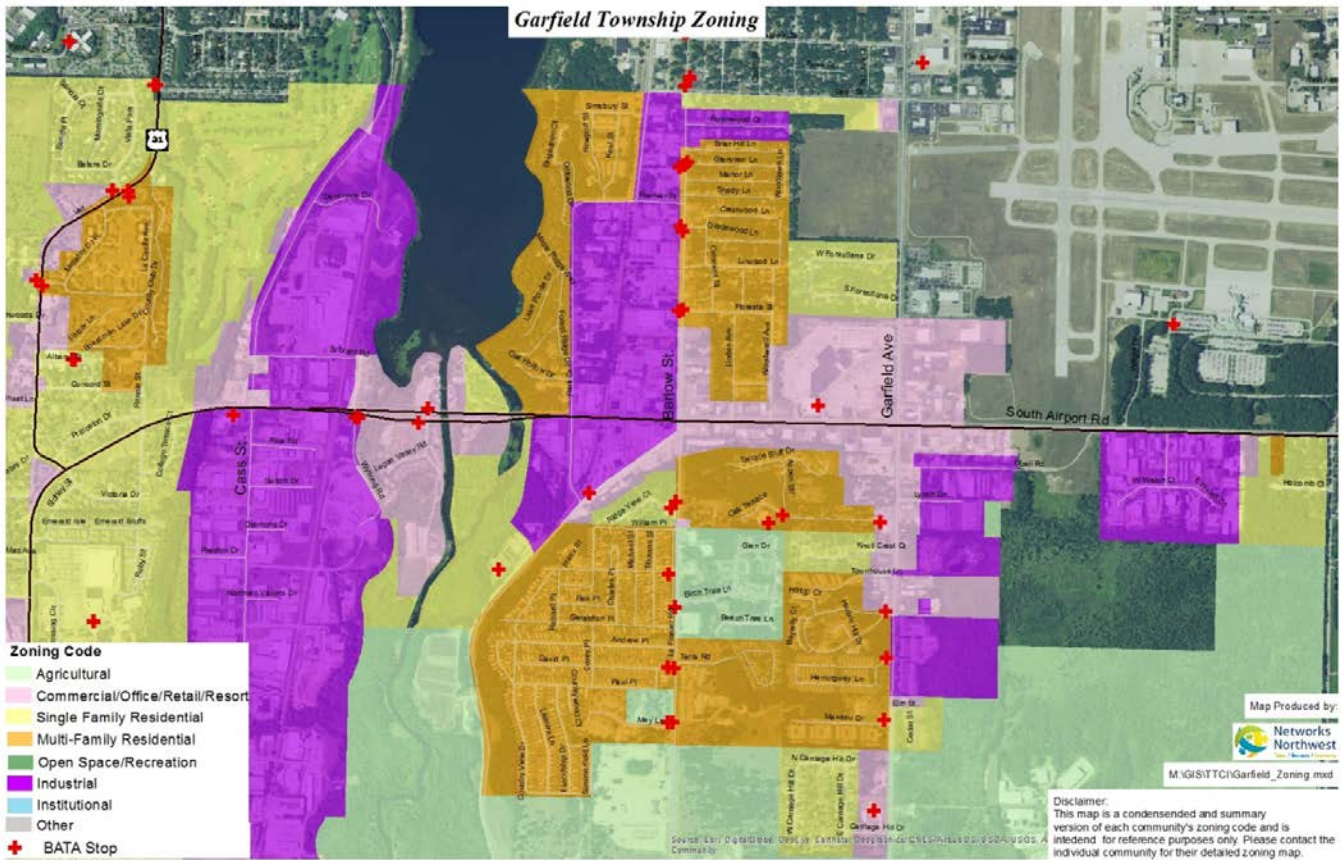
Most of the access conditions in the Township were assessed between Airport Access Rd. and Cass Rd. West of Cass Rd. the corridor transitions into a 4 lane highway with center turn lane and limited access, which by in large meet MDOT's access spacing requirements. The section between Garfield Ave. and Barlow St. indicates existing shared access for approximately 1 mile on the south side of the corridor. There are multiple examples in the assessed segment of South Airport Rd. of adjacent properties that contain a service drive and exhibit shared access as indicated in purple.



Land Use/Zoning

South Airport Rd. is urbanized and densely developed with mostly zoned commercial/retail and industrial businesses including two regional malls, big box stores and manufacturing businesses. Additionally, the corridor provides service to Cherry Capital Airport, a major regional airport. South Airport Rd. also services as a critical corridor for east/west commuting mobility with traffic congestion peaking during rush hour on a weekday.

BATA provides service to multiple major commercial/retail centers including but not limited to Cherryland Center and Logan's Landing; office/medical facilities and residential neighborhoods directly adjacent to the corridor.



Current Zoning Language – Access Management

The Zoning Ordinance does not include overarching access management regulations but there are some provisions within other regulatory sections. Much of the existing development along major arterials is built in a strip pattern with multiple access points. According to the Township’s Thoroughfare Plan, “The creation of new lots fronting directly on such roads (major arterials) is considered inappropriate and unacceptable.”

SECTION 321 C-H (HIGHWAY COMMERCIAL) - D. SITE DEVELOPMENT REQUIREMENTS

(2) External Access

All site plan proposals submitted under the requirements of the Highway Commercial District shall provide for the proper handling of traffic on the highway, frontage road, or street giving access to the district. No access by motor vehicles other than stated herein shall be permitted to a minor or residential street. All points of entrance or exit for motor vehicles shall be no closer than fifty (50) feet from the intersection of the right-of-way lines of two streets. When a Highway Commercial District is located adjoining or within one-half (½) mile of an existing or proposed state or interstate limited access highway interchange, the Planning Commission shall determine that an acceptable traffic safety relationship exists between the owner’s or lessee’s site plan and the design of the state or interstate facility. The proposed site development within the Highway Commercial District shall not be so located and designed so that unsafe traffic congestion results on the interchange facilities of the limited access highway.

(4) Service Roads

In order to achieve a well-planned center, the Planning Commission may require access to the business facilities from an interior service road at least twenty-four (24) feet wide which shall be established in order to provide the major means of access to the planned commercial area. The site plan layout shall be such that access to commercial center parking lots shall be from the interior road and not from the major thoroughfare. In those instances where the Planning Commission finds that an extensive number of ingress or egress points may occur with relation to major thoroughfares, they may require roads twenty-four (24) feet width paralleling said thoroughfare and, in addition, may require the development of parking so that contiguous lots on abutting properties will allow traffic circulation from one property to another without re-entering the public thoroughfare.

Regional Implementation

The Bayshore corridor and South Airport Rd are the two most travelled east/west routes through the urbanized area and have a significant effect on the regional economy. Due to the extent that both corridors are essentially built to capacity, and the limitation due to geography in the region, there is little to no opportunity to “build out” of congestion. However, access management tools exist to help mitigate these congestion issues and require coordination and timely communication between communities within the TTCI and MDOT for the Bayshore corridor and Grand Traverse Road Commission for South Airport Rd.

Regulatory tools, such as access management standards, overlay districts and design standards are typically derived from a local growth policy or state transportation management policy. Initiatives for access management policies can also be included into long-range transportation plans or written as recommendations for thoroughfare plans and community master plans. The following are examples of best practices to further address access management issues on a regional scale.

Best Practices for Regional Implementation

Model Overlay Zone

Create a model overlay zoning district that can be placed over the existing zoning regulations for all parcels with frontage along the Plan corridors or those within a defined distance of the centerline. An overlay zoning district provides special requirements that apply to property in addition to those of the underlying district regulations along portions of a public roadway.

- Amend the local zoning ordinances across the municipalities in both corridors to acknowledge special standards and review procedures
 - Allow the model ordinance to provide the authority to modify standards on a case-by-case basis by incorporating site plan review
- Require traffic impact studies to be performed for larger developments that have the potential to generate significant volumes of traffic to evaluate the impact that a proposed development/redevelopment will have on the road system and identify mitigation to offset the impact.
- Identify changes to existing access points to improve safety and efficiency of the roadway corridors. These may include closure or consolidation of existing access points to improve spacing.
- Replacement of individual direct access points with access through rear service drives, cross access between parking areas, or shared driveway. See individual community “Access Zones” maps.
- Establish access standards to help maintain safety and efficiency while still providing reasonable access to adjacent land uses, and applied to both retrofit existing sites and to new developments.
 - Consideration of access issues as municipalities review development proposals, through improved coordination with MDOT, and through adoption of access management standards into the communities’ zoning ordinances.

General Recommendations

- Coordinate land use planning decisions by establishing procedures for interaction between MDOT, Grand Traverse Road Commission and local officials to successfully integrate access management into local level planning.
- Have commissions, elected bodies, and members of the zoning boards of appeals aware of the benefits of access management and their role in its implementation.
- Review/establish access approval procedure for site plans, special land uses, subdivisions, etc.

Appendix

Benefits of Access Management

Access Management is a set of proven techniques that can help reduce traffic congestion, preserve the flow of traffic, improve traffic safety, prevent crashes, preserve existing highway capacity and preserve investment in highways by managing the location, design, and type of access to property.

Access management extends the function of a roadway while still assuring safe reasonable access to adjacent land uses. Poor access management is most obvious along major arterials that are lined with many narrow lots with driveways located close together. These often have relatively high traffic volumes and higher crash rates. Neither the land development nor the traffic problems on these roadways occurred overnight. But over time, the traffic problems grow and create a need for very expensive remedial improvements, that may only mitigate, rather than solve, the growth problems. Access management can not only help where remediation is the only option, but is most effective in preventing future problems where intensive land development is planned along arterial roads.

Access management focuses on the number, location and design of driveways as they relate to the following elements within the road right-of-way: travel lanes, medians, by-pass lanes, dedicated turn lanes and signal operations. On the land use side of the road right-of-way, driveway location considerations can include: internal site design and circulation, shared driveways, connected parking areas, frontage and/or rear access roads, building setback, and sign design and placement. Special consideration must also be given to meeting the needs of pedestrians, bicyclists, the handicapped and bus riders as well.

Successful access management requires cooperation between property owners, local land use authorities, and local, county and state transportation agencies in order to provide safe access to private property and protect the public's investment in roads.

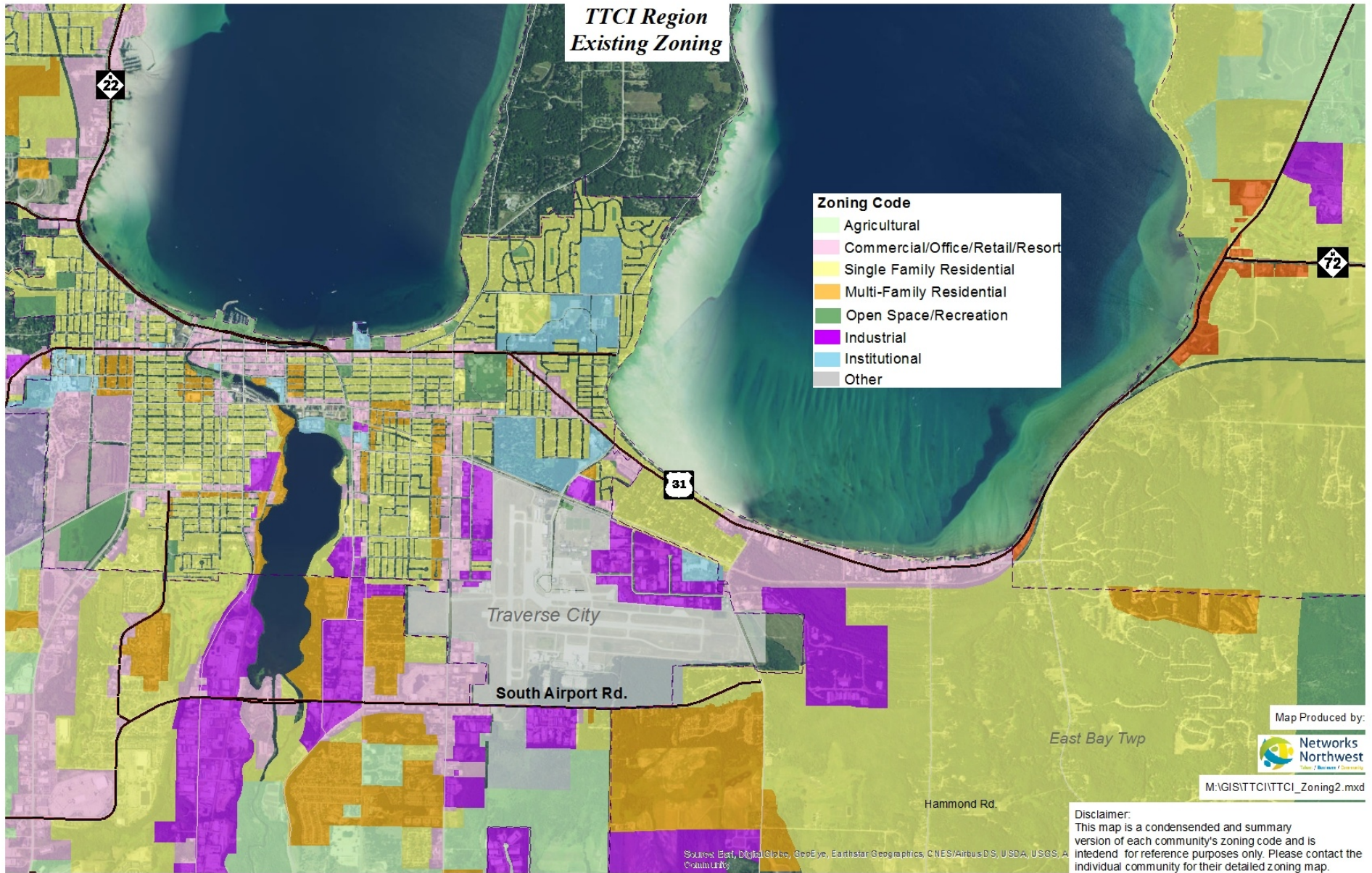
A planning process that links access management principles with land use and corridor planning is the best way to look at the big picture and ensure appropriate relationships between present and future needs. Access management is implemented through review of development proposals under local zoning and subdivision regulations, as well as during the driveway permit process administered by local, county or state road authorities. It is also implemented through improvements to roadway design and specific capital improvement projects on targeted corridors with adopted access management or corridor improvement plans.

Access management can provide several benefits to motorists, pedestrians, bicyclists, and land uses along corridors including:

- Access point control
- Access/connection type
- Enhanced overall mobility and reduced congestion
- Expanded travel mode choices
- Corridor planning for land use and transportation
- Preservation of the integrity of the corridor

(MDOT Access Management Guidebook).

Consolidated Zoning Map



Access Zone map

