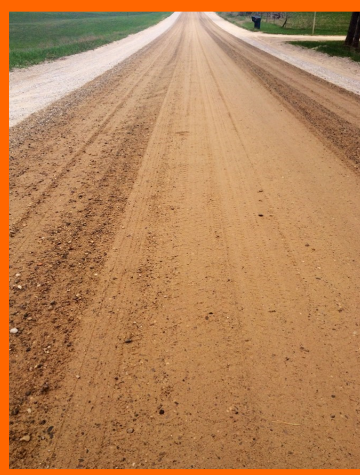


**Adopted  
November 2016**



# Transportation Plan

Paradise Township—Village of Kingsley  
2016



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Michigan Department of Transportation

North Country Trail Association

Traverse Area Recreation and Transportation Trails, Inc.

Kingsley Area Schools

## Table of Contents

### Introduction

Purpose	1
Community Description	1
Vision Statement	1
Goals & Objectives	2
Current Policies	3-4

### Existing Conditions

Motorized Transportation	5-7
Non-Motorized Transportation	7
Street and Corridor Character	7
Other Modes	7

### Implementation

Wayfinding	8
Access Management	8
Intersection Improvements	8
Road Connections	8
Road Improvements	8
Non-Motorized	8

### Appendix: Community Profile

Population Data	9
Housing & Employment Data	10
Commuting & Development Data	11

# INTRODUCTION

- Purpose
- Community Description
- Vision Statement
- Goals & Objectives
- Current Policies

## Purpose

The Paradise Township—Village of Kingsley Transportation Plan serves as a vision document that defines the long-term transportation system needs that will grow with our community into the future. The plan provides policy direction for how decisions regarding the implementation of the transportation system should occur and serves as a reference guide regarding transportation issues in the community. Finally, the plan provides priorities for implementing projects to meet deficiencies and works towards the ultimate transportation system the community is trying to achieve.

## Community Description

Paradise Township and the Village of Kingsley are located in southern Grand Traverse County, one of the top three fastest growing counties in Michigan. Kingsley and immediate area has gridded and curvilinear streets with higher density uses, including commercial services, governmental services, and educational services. Paradise Township is rural with low density development, including the hamlets of Mayfield and Summit City. Kingsley Area Schools is one of the major focal points of our community, receiving the National Blue Ribbon School of Excellence award by the Department of Education.

The top industries in Paradise Township and Kingsley are educational services and health care; manufacturing; and, retail trade. This is representative of how our roads are being used and signifies that our infrastructure is used at all times of the day. Most people live in single family detached homes in Paradise Township and Kingsley. A gradual increase in building is expected as other areas in the County are experiencing new growth. Compared to County and state levels, Kingsley and Paradise Township are youthful communities consisting of younger, larger households and family sizes. The median age in Paradise Township is 34.7 years and 34.5 years in Kingsley, noticeably less than the County median age of 41.1. One out of every five workers carpool to work — double the County average. 90 percent of residents work in Grand Traverse County and take between 26 and 29 minutes to travel to work.



## Vision Statement

The Village of Kingsley and Paradise Township will continually strive to maintain a multi-modal transportation system that supports the safety of our residents and visitors while maintaining and improving the quality of life, our environment and our future.

# Goals & Objectives

The following goals were used to create our commitment to documenting, drafting, adopting and implementing this intergovernmental plan:

## Goal 1: Improve mobility for all users and visitors

- A. Improve connectivity across multiple modes of transportation including vehicular, transit, bicycle, and pedestrian.
- B. Promote equity for all people independent of residency, age, race, ethnicity, economic status, and physical ability.
- C. Explore using innovation and technology when appropriate.
- D. Create and implement context-sensitive design standards.
- E. Audit our accessibility throughout the community.

## Goal 2: Enhance the quality of life for residents and visitors

- A. Improve the safety of all users of the transportation system.
- B. Maintain the cleanliness and good repair of the existing transportation infrastructure.
- C. Prioritize transportation projects that enable an active, healthy community.
- D. Use transportation infrastructure to help create a livable community by utilizing amenities and resources.
- E. Integrate environmentally sustainable concepts into transportation projects.
- F. New projects should respect the character and plans of the Village of Kingsley, neighborhoods, and adjacent communities, and Kingsley Area Schools.
- G. Implement traffic calming measures throughout varies locations in the community.

## Goal 3: Engage Kingsley Area Schools in planning and implementation efforts

- A. Work cooperatively with KAS on any and all future growth within the Township and Village.
- B. Become involved with KAS current and future needs by improving communication between all entities.

## Goal 4: Focus on implementation

- A. Fund and maintain the existing transportation system adequately.
- B. Select new projects that can be efficiently maintained and budgeted.
- C. Prioritize projects into multiple tiers by recognizing the limited funding currently available and preparing for possible additional sources.
- D. Encourage strong community engagement in the planning process and in the Community's future growth and development.

A **GOAL** is a desired end state or target that, if pursued over the long term, will contribute to the attainment of the community vision.

**OBJECTIVES** are more specific (and often measurable) desired short-term end, or benchmark, that in conjunction with other objectives can cause the achievement of the goal.

## GOALS

**Goal 1:** Improve mobility for all users and visitors

**Goal 2:** Enhance quality of life for residents and visitors

**Goal 3:** Engage Kingsley Area Schools in planning and implementation efforts

**Goal 4:** Focus on implementation

## Current Policies

The following policies are applied to the transportation network maintained in the community:

### Village Policies

The Village of Kingsley has Public and Private Road Ordinances.

### Township Policies

Paradise Township has standards and requirements for Private Roads and Access Management.

### Grand Traverse County Road Commission Policies

The Grand Traverse County Road Commission (GTCRC) has adopted policies for the standards and specifications to upgrade and maintain a safe and efficient road system.

On November 5, 2013, Grand Traverse County voters approved a 3 year, 1 mill addition to their property taxes for improving and repairing County roads. The additional funding has increased the ability of the GTCRC to repair and improve the county road system.

The Michigan Department of Transportation annually certifies all public roads within the State of Michigan. Certification maps are maintained by the GTCRC and are the basis for determining the amount of money received from the Michigan Transportation Fund. The GTCRC receives a higher level of reimbursement for primary roads than local roads. In Paradise Township, there are 25.36 miles of primary road and 56.82 miles of local road for a total of 82.18 miles of certified public roads.

Under P.A. 283 of 1919, county road commissions exist to maintain safe and efficient roads and bridges for the people of Michigan. Responsibilities include:

- Building and maintaining roads;
- Constructing bridges and culverts, and maintaining these features;
- Maintaining roads in winter, including snow removal and salting;
- Conducting preventative, roadside and road maintenance; and,
- Ensuring safe and steady traffic patterns.



# EXISTING CONDITIONS

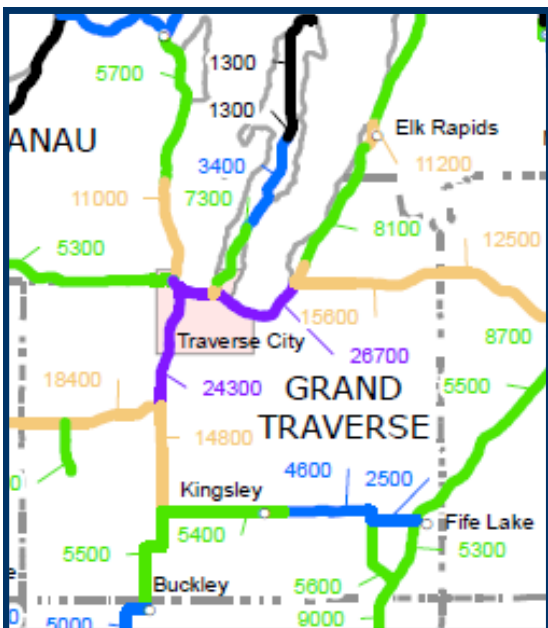
- **Motorized Transportation**
- **Non-Motorized Transportation**
- **Street & Corridor Character**
- **Other Modes**

## Motorized Transportation

### Road Network

There are two primary routes into Traverse City from Kingsley: Garfield Road (N. Brownson) and M-113 to M-37. These trunk lines are exclusively designed to move people and groups. Garfield Road is used by passenger and commercial traffic to access the east side of the Traverse City area to the north due to the limited crossings of the Boardman River which bisects the county.

The Village of Kingsley over the past decade has received grants for infrastructure improvements including water, sewer, sidewalks, street lights, and street paving. Paradise Township has used general fund monies to improve local roads to enhance access to M-113, the state trunk line. M-113 is critical to our area due to the volume of seasonal traffic it endures as a route to Traverse City for tourism.



### Average Daily Traffic (ADT)

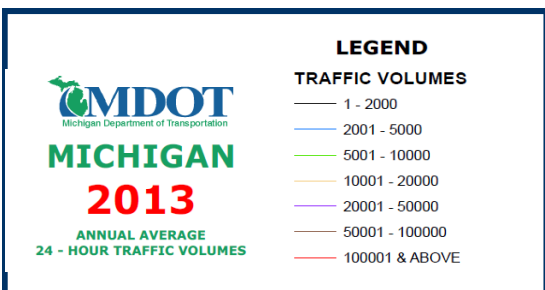
The 2013 MDOT Annual Average 24-Hour Traffic Volumes map at right indicates that traffic volumes on M-113 range from 4,600 to 5,400. US-131, a major north-south highway along western Michigan, connects the Traverse City area with southern destinations, including Cadillac, Big Rapids, Grand Rapids and Kalamazoo. M-113 and Garfield Road provide a well-used connection between the Traverse City area and US-131.

### Private Roads

Private roads are regulated by Paradise Township. Private roads require approval by the County Road Commission for access to County roads.

### Motorized Trails

State forest areas provide trails for off-road vehicles (ORVs), motorcycles, and snowmobiles.



## Asset Management

The Grand Traverse County Road Commission (GTCRC) is the jurisdictional authority over all public roads lying outside the incorporated cities and villages within Grand Traverse County, exclusive of any state trunk line highways. At the end of 2014, the GTCRC certified approximately 253 center-line miles of county primary roads and 763 center-line miles of county local roads. Approximately 309 certified center-lines miles are unsealed, i.e. gravel, road. This section provides documentation of the assets contained on the paved roads.

With its Asset Management Plan for Primary and Local Roads, the GTCRC can select the right treatment at the right time, plan within available funding limits and maximize the life of the roads. Taking care of the roads with properly timed preservation treatments are more effective and efficient than being in a reactive repair mode of maintenance or reconstruction.

Part of this effort goes into evaluating the current road surface conditions with the Pavement Surface Evaluation Rating (PASER) system. The PASER system is the preferred method for Michigan road agencies to rate their road pavements. PASER ratings for hot mix asphalt (HMA) or concrete surfaces are defined in the tables below and to the right. The table on the following page provides the PASER ratings for all federal aid roadways under GTCRC jurisdiction. Federal aid roads, 253.39 miles, make up 25% of the system.



M-113 in Kingsley.

### PASER Ratings on Federal Aid Eligible Road in miles and %

2014	Ratings											Total Mileage
	10	9	8	7	6	5	4	3	2	1	Not Rated	
Acme	0.041	0.000	3.070	0.000	1.408	1.587	1.181	2.891	0.000	0.000		10.180
Blair	1.348	0.000	4.720	5.269	1.560	0.000	0.000	2.622	0.000	0.000		15.520
East Bay	0.000	3.519	6.436	4.139	3.389	3.571	5.819	3.932	2.775	0.000		33.580
Fife Lake	0.000	1.110	2.565	0.272	0.910	0.724	0.000	1.393	0.696	0.000		7.670
Garfield	0.000	6.455	7.469	5.895	7.648	0.620	3.406	5.746	0.002	0.000		37.240
Grant	0.000	1.407	5.847	4.897	4.141	0.424	3.099	2.115	0.000	0.000		21.930
Green Lake	0.000	1.378	2.046	1.360	2.464	0.000	6.738	2.976	0.937	0.000		17.900
Long Lake	0.000	4.853	0.473	7.022	2.970	3.004	0.484	6.834	0.000	0.000		25.640
Mayfield	0.000	0.000	1.022	7.979	0.000	3.521	0.518	0.040	0.000	0.000		13.080
Paradise	0.000	0.000	2.743	5.521	2.321	8.167	4.397	0.197	2.014	0.000		25.360
Peninsula	0.000	0.000	0.000	3.013	0.657	0.213	8.398	3.169	0.000	0.000		15.450
Union	0.000	4.540	4.578	0.000	0.000	0.461	0.000	0.000	4.011	0.000		13.590
Whitewater	0.000	2.761	0.000	3.849	0.000	0.481	7.426	0.451	0.037	1.244		16.250
<b>2014 Totals</b>	<b>1.39</b>	<b>26.02</b>	<b>40.97</b>	<b>49.22</b>	<b>27.47</b>	<b>22.77</b>	<b>41.47</b>	<b>32.37</b>	<b>10.47</b>	<b>1.24</b>		<b>253.390</b>
<b>Percentage</b>	<b>0.55%</b>	<b>10.27%</b>	<b>16.17%</b>	<b>19.42%</b>	<b>10.84%</b>	<b>8.99%</b>	<b>16.37%</b>	<b>12.77%</b>	<b>4.13%</b>	<b>0.49%</b>		<b>100.00%</b>

Quality	Rating	Treatment (Asphalt)	Treatment (Concrete)
Excellent	9-10	No maintenance required	No maintenance required
Good	7-8	Crack sealing and minor patching	Routine maintenance
Fair	5-6	Preservation treatments (non-structural)	Surface repairs, partial-depth patching
Poor	3-4	Structural renewal (overlay)	Extensive slab or joint rehabilitation
Failed	1-2	Reconstruction	Reconstruction

## Transit

Bay Area Transportation Authority (BATA) provides more than half a million rides to residents and visitors in Leelanau and Grand Traverse counties and is funded by voter approved multi-year millage for operations. Major service and route improvements launched in 2013 are designed to establish a system that meets residents' daily transportation needs. Known historically for "dial-a-ride" services, BATA's new model integrates zone and fixed route services. The resulting efficiencies allow for a significant expansion of services.

## Non-Motorized Transportation

### Sidewalks

Sidewalks are provided for in the Village of Kingsley based on priority, connectivity, and the school system.

### Non-Motorized Trails

Efforts are being made to provide a non-motorized trail from the Village to Mayfield Pond Park in Paradise Township. A pathway plan was developed for the Village and the Township. There are other efforts to extend the North Country Trail and the TART Trail in Paradise Township.

### Bike Lanes

There are no formal bike lanes provided in the Village or the Township but several paved roads provide a widened shoulder.

## Street and Corridor Character

### Entryways

The Village of Kingsley has a landscaped entry sign at its east entryway. Other entryways for the Village and the Township are posted with a green gateway sign.

### Wayfinding

The DDA is planning to allocate funds for a wayfinding system in the Village. Directional signs are currently provided by MDOT and the Road Commission.

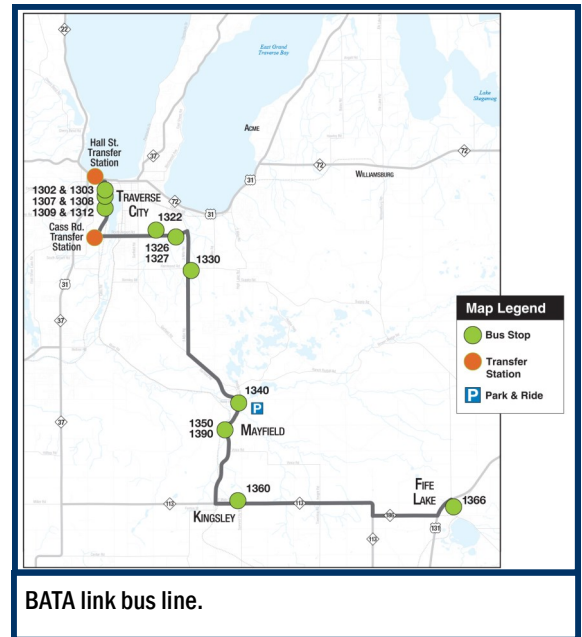
## Other Modes

### Air Transportation

The major airport in Grand Traverse County is the Cherry Capital Airport located in Traverse City.

### Rail Transportation

The Great Lakes Central Railroad is a Class II regional railroad which passes through the Village and the Township. The rail connects Traverse City and Petoskey in northern Michigan with Ann Arbor in southern Michigan. The railroad provides freight services with plans to provide passenger service in the future.



BATA link bus line.



East entryway to the Village of Kingsley on M-113.



Great Lakes Railroad crossing at M-113.

# IMPLEMENTATION

- **Wayfinding**
- **Access Management**
- **Intersection Improvements**
- **Road Connections**
- **Road Improvements**
- **Non-Motorized**

The following actions have been identified for plan implementation. Each action requires identifying specific steps, including who is assigned to do the task, what resources are needed, when actions are to occur, and how progress is reported.

## Wayfinding

- Develop and integrate new wayfinding system for the Village of Kingsley Downtown Development Authority and for Township assets (i.e, trails, parks)

## Access Management

- Establish access standards in Zoning Ordinance along M-113, Garfield Road, Clark Road, and Voice Road
- Review MDOT standards to make improvements and all streets and roads
- Require interconnectivity to industrial and residential roads

## Intersection Improvements

- Improve M-113 at N. Brownson & S. Brownson; and M-113 at Clark St.

## Road Connections

- Update private and public connections to existing County roads

## Road Improvements

- Implement shared use roads for ORVs, bicycles, and pedestrians
- Improve the sight distance of the hill, south of Kingsley school, on Kingsley Road
- Fix height and ditches to S. Brownson between Fenton and Spring St.
- Reconstruct Ash St. with sidewalks and storm sewer due to school parking

## Non-Motorized

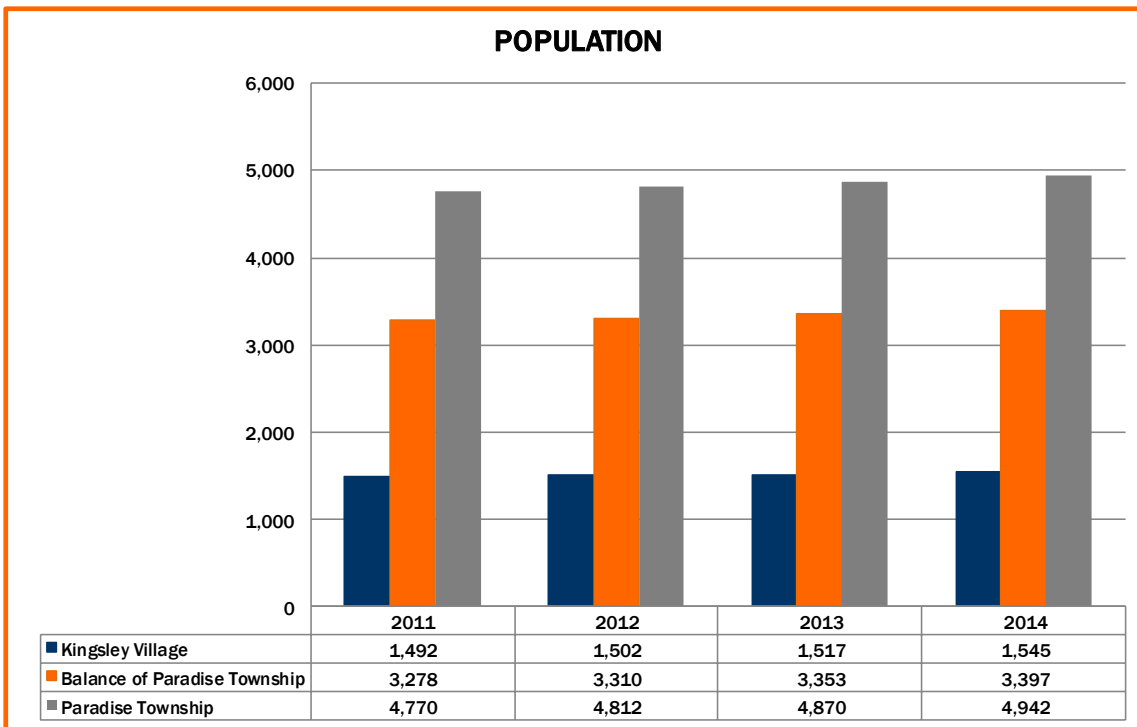
- Connect Mayfield Pond Park to Civic Center South
- Provide improvements around the Kingsley Area Schools
- Build a 5K—10K trail or path around the Village with mile-markers
- Create trail to connect northern subdivisions to high school
- Create trail to connect middle school to library through Wynkoops Swamp
- Prioritize non-motorized connectivity



Mayfield Pond Park in Paradise Township.

# APPENDIX: COMMUNITY PROFILE

## Population



### GROWING COMMUNITY

Both Paradise Township and the Village of Kingsley are growing communities.

Grand Traverse County is one of the top three fastest growing counties in Michigan.

## POPULATION

U.S. Census Bureau, Population Division

	Census 2010	Estimates				% Change 2010-2014
		2011	2012	2013	2014	
Paradise Township	4,713	4,770	4,812	4,870	4,942	4.9%
Kingsley Village	1,480	1,492	1,502	1,517	1,545	4.4%
Balance of Paradise Township	3,233	3,278	3,310	3,353	3,397	5.1%
<b>Surrounding Communities:</b>						
Blair Township	8,209	8,299	8,365	8,459	8,580	4.5%
East Bay Charter Township	10,663	10,843	10,974	11,139	11,253	5.5%
Fife Lake Township	2,791	2,807	2,815	2,824	2,829	1.4%
...Fife Lake Village	443	447	449	451	455	2.7%
...Balance of Fife Lake Township	2,348	2,360	2,366	2,373	2,374	1.1%
Garfield Charter Township	16,256	16,468	16,544	16,668	16,803	3.4%
Mayfield Township	1,550	1,570	1,586	1,607	1,626	4.9%
Traverse City	14,674	14,819	14,908	15,018	15,042	2.5%
Union Township	405	410	415	420	426	5.2%
Grand Traverse County	86,986	88,191	88,967	89,987	89,112	2.4%

### YOUTHFUL COMMUNITY

Median age in Paradise Township is 34.7 years and in Kingsley is 34.5 years, noticeably less than the County median age of 41.1.

# Housing & Employment

## HOUSING UNITS & HOUSEHOLDS

2009-2013 American Community Survey 5-Year Estimates

	Kingsley		Paradise Township (includes Kingsley)	
<b>HOUSING OCCUPANCY</b>				
Total housing units	631		1,715	
Occupied housing units	553	87.6%	1,597	93.1%
Vacant housing units	78	12.4%	118	6.9%
<b>UNITS IN STRUCTURE</b>				
1-unit, detached	413	65.5%	1,316	76.7%
1-unit, attached	0	0.0%	0	0.0%
2 units	0	0.0%	0	0.0%
3 or 4 units	25	4.0%	25	1.5%
5 to 9 units	0	0.0%	0	0.0%
10 to 19 units	4	0.6%	4	0.2%
20 or more units	0	0.0%	0	0.0%
Mobile home	189	30.0%	370	21.6%
<b>HOUSEHOLD SIZE</b>				
Total households	519	100.0	1,624	100.0
1-person household	111	21.4%	282	17.4%
2-person household	158	30.4%	544	33.5%
3-person household	82	15.8%	288	17.7%
4-person household	94	18.1%	283	17.4%
5-person household	49	9.4%	137	8.4%
6-person household	16	3.1%	62	3.8%
7-or-more-person household	9	1.7%	28	1.7%
Average household size	2.83		2.86	
Average family size	3.26		3.20	

## EMPLOYMENT

	Estimate	Percent
<b>EMPLOYMENT STATUS</b>		
Population 16 years and over	3,722	3,722
In labor force	2,800	75.2%
Civilian labor force	2,797	75.1%
Employed	2,435	65.4%
Unemployed	362	9.7%
Armed Forces	3	0.1%
Not in labor force	922	24.8%
<b>INDUSTRY</b>		
Civilian employed population 16 years and over	2,435	2,435
Agriculture, forestry, fishing, hunting, mining	77	3.2%
Construction	151	6.2%
Manufacturing	367	15.1%
Wholesale trade	71	2.9%
Retail trade	280	11.5%
Transportation, warehousing, utilities	147	6.0%
Information	22	0.9%
Finance, insurance, real estate, rental and leasing	41	1.7%
Professional, scientific, management, administrative	161	6.6%
Educational services, health care, social assistance	700	28.7%
Arts, entertainment, recreation, accommodation, food services	264	10.8%
Other services, except public administration	93	3.8%
Public administration	61	2.5%

## FAMILY HOMES

Most people live in single family detached homes in Paradise Township and Kingsley. Household and family sizes are larger than county and state levels.

## TOP THREE INDUSTRIES

1

Educational Services and Health Care

2

Manufacturing

3

Retail Trade

# Commuting & Development

## DOUBLE UP TO WORK

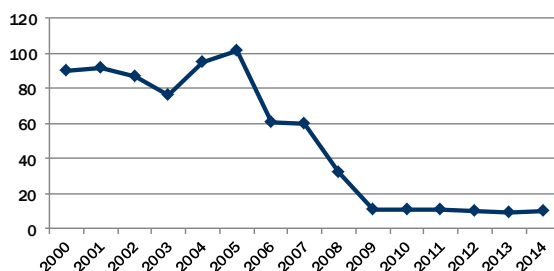
1 out of every 5 workers in Paradise Township and Kingsley carpool to work – double the County average.

## ANNUAL BUILDING PERMITS FOR NEW UNITS

Source: Grand Traverse County Construction Code Department

Year	Residential	Commercial	Total
2000	85	5	90
2001	90	2	92
2002	84	3	87
2003	68	8	76
2004	90	5	95
2005	91	11	102
2006	55	6	61
2007	55	5	60
2008	28	4	32
2009	10	1	11
2010	11	0	11
2011	10	1	11
2012	10	0	10
2013	9	0	9
2014	9	1	10

### ANNUAL BUILDING PERMITS FOR NEW UNITS



## COMMUTING CHARACTERISTICS

Source: 2009-2013 American Community Survey 5-Year Estimates

	Kingsley	Paradise Township (includes Kingsley)
Workers 16 years and over	740	2,414
<b>MEANS OF TRANSPORTATION TO WORK</b>		
Car, truck, or van	90.8%	94.2%
Drove alone	68.1%	77.3%
Carpooled	22.7%	17.0%
In 2-person carpool	20.7%	13.7%
In 3-person carpool	0.4%	2.2%
In 4-or-more person carpool	1.6%	1.0%
Workers per car, truck, or van	1.15	1.11
Public transportation (excluding taxicab)	1.6%	0.5%
Walked	3.5%	1.7%
Bicycle	0.3%	0.1%
Taxicab, motorcycle, or other means	1.8%	0.5%
Worked at home	2.0%	3.0%
<b>PLACE OF WORK</b>		
Worked in state of residence	99.3%	99.8%
Worked in county of residence	89.2%	90.6%
Worked outside county of residence	10.1%	9.2%
Worked outside state of residence	0.7%	0.2%
<b>TIME LEAVING HOME TO GO TO WORK</b>		
12:00 a.m. to 4:59 a.m.	10.5%	6.4%
5:00 a.m. to 5:29 a.m.	5.4%	5.3%
5:30 a.m. to 5:59 a.m.	10.1%	7.4%
6:00 a.m. to 6:29 a.m.	3.6%	4.8%
6:30 a.m. to 6:59 a.m.	8.7%	11.1%
7:00 a.m. to 7:29 a.m.	10.9%	11.7%
7:30 a.m. to 7:59 a.m.	18.5%	16.6%
8:00 a.m. to 8:29 a.m.	8.4%	8.1%
8:30 a.m. to 8:59 a.m.	5.1%	2.9%
9:00 a.m. to 11:59 p.m.	18.9%	25.7%
<b>TRAVEL TIME TO WORK</b>		
Less than 10 minutes	15.0%	9.1%
10 to 14 minutes	4.0%	8.7%
15 to 19 minutes	7.2%	7.4%
20 to 24 minutes	26.6%	18.0%
25 to 29 minutes	13.4%	19.3%
30 to 34 minutes	21.1%	23.9%
35 to 44 minutes	2.6%	5.7%
45 to 59 minutes	5.0%	2.3%
60 or more minutes	5.1%	5.7%
Mean travel time to work (minutes)	26.2	28.8
<b>VEHICLES AVAILABLE</b>		
No vehicle available	0.0%	0.0%
1 vehicle available	23.8%	12.8%
2 vehicles available	40.8%	36.4%
3 or more vehicles available	35.4%	50.7%

# Transportation Plan

Paradise Township—Village of Kingsley

2016