

Road Commission of Kalamazoo County

2015 Annual Report

106 Years of Service

1909—2015



Your Local Road
Professionals



Road
Commission
of Kalamazoo
County

3801 E Kilgore Road Kalamazoo, Michigan 49001
Telephone: (269) 381-3171 Fax: (269) 381-1760
<http://www.kalamazoocountyroads.com>

Honorable Board of County Commissioners
County of Kalamazoo
Administrative Building
201 West Kalamazoo Avenue
Kalamazoo, Michigan 49007

Commissioners:

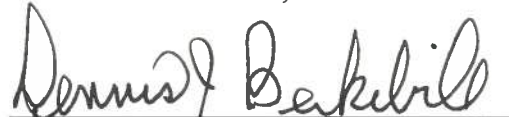
The one hundred sixth annual activities and financial report of the Board of County Road Commissioners of the County of Kalamazoo for the calendar year 2015 is herewith submitted in compliance with the provision of P.A. 283 of 1909, as amended.

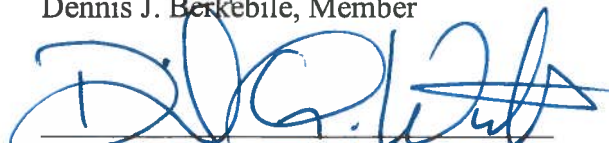
Respectfully submitted,

Board of County Road Commissioners
of the County of Kalamazoo


Daniel J. Moyle, Chairman


Kenneth R. Oscarson, Vice Chairman


Dennis J. Berkebile, Member


David Q. Worthams, Member


Deb Buchholtz, Member

106 YEARS OF SERVICE

The Road Commission of Kalamazoo County was formed by a vote of the people in 1909. Five county residents are appointed by the Kalamazoo County Board of Commissioners to serve staggered six-year terms as road commissioners. To better serve our County and local officials, each Road Commissioner has also been assigned as liaison to a township.

MEET THE 2015 ROAD COMMISSIONERS



David Q. Worthams Deb Buchholtz

Kenneth R. Oscarson Daniel J. Moyle Dennis J. Berkebile

Daniel J. Moyle –Chairman

Mr. Moyle is a Texas Township resident who was originally appointed to the road commission in November 2007. He is the 2016 Chairman of the Board and served as Chairman of the Board in 2013, 2014 and 2015 and Vice Chairman of the Board in 2012. Mr. Moyle has many years of experience managing a company that maintained and constructed highways, roads and airports. Mr. Moyle is retired from Globe Construction Company. He was reappointed in January 2013 and his term expires 12/31/2018. He currently serves on the Environmental Health Advisory Council. Township representation: Brady, Prairie Ronde, and Wakeshma townships.

Kenneth R. Oscarson – Vice Chairman

Mr. Oscarson is a Village of Vicksburg resident who was originally appointed to the road commission in November 2007. He served as Vice Chairman of The Board in 2010 and 2011. Mr. Oscarson has worked with county road commissions for over 36 years as a professional engineer and has been active in municipal consulting for villages and townships. He has experience as a Planning Commissioner and Zoning and Building boards of appeal. Mr. Oscarson was most recently employed by Fleis & Vandenbrink. He was reappointed in January 2011 and his term expires 12/31/2016. He has served on the Council of Governments and currently serves on the Kalamazoo Parks and Recreation Commission. Township representation: Charleston, Schoolcraft and Texas townships.

Dennis J. Berkebile – Member

Mr. Berkebile is a Texas Township resident who was appointed to the road commission in January 2005. He served as Chairman of the Board in 2005 and 2006 and Vice Chairman in 2007 and 2008. He has been involved in community activities throughout his career, both in Indiana and Michigan. Mr. Berkebile has been a member of the township's board, zoning board of appeal and planning commission. He currently serves on the Michigan Works, Salvation Army, and Goodwill Industries of Southwest Michigan boards, the Greater Kalamazoo Regional Chamber of Commerce Transportation and Policy councils, and is a part of the capital campaign for Habitat for Humanity. He has served on the Board of Directors of MRC Industries, Food Bank of South Central Michigan, Hospital Hospitality House, Youth for Christ, Portage Rotary and the Kalamazoo Area Transportation Study Policy Committee. Since 1996, Mr. Berkebile has been employed by Consumers Energy, for whom he currently serves as Area Manager. He was reappointed in January 2011 and his term expires 12/31/2016. Township representation: Comstock, Cooper and Ross townships.

David Q. Worthams – Member

Mr. Worthams is a Kalamazoo Township resident who was appointed to the road commission in January 2013. He formerly served as the Transportation Policy Advisor to former Michigan House Speakers Rick Johnson, Craig DeRoche and currently serves as the Policy Director for the Michigan Bankers Association (MBA). He is a Past President of the Kalamazoo Junior Chamber (Jaycees) and the Michigan Jaycees. He also has served on the Kalamazoo County Metropolitan Planning Commission since 2002, serving as their Chairman for the last 6 years. A lifelong resident of Kalamazoo County, his term expires 12/31/2018. He currently serves on the Council of Governments. Township representation: Alamo, Oshtemo and Richland townships.

Deb Buchholtz – Member

Ms. Buchholtz is a Cooper Township resident who was appointed to the road commission in January 2015. She is the founder and owner of Synergy Health Strategies, L.L.C., a company dedicated to improving the wellbeing and vitality of both individuals and organizations. She was elected to the Kalamazoo County Board of Commissioners from 2000 to 2011, serving as chair for 4 years and vice-chair for 4 years. Her previous work experience included Executive Director of Big Brothers Big Sisters, Vice President of Operations and Finance for her family's carbon commodities and global transportation business, Business Development Analyst at Pfizer, and various consulting projects. Deb will serve on the Kalamazoo County Board of Public Works representing the road commission. Her term expires 12/31/2020. Township representation: Climax, Kalamazoo and Pavilion townships.

Contents

Chapter 1 Pages 1 - 12

Road Commission of Kalamazoo County Overview

Facts and Figures
Organizational Chart
Introduction
Glossary

Chapter 2 Pages 13 - 36

Road Improvements

Alamo Township
Brady Township
Charleston Township
City of Portage
Climax Township
Comstock Township
Cooper Township
Kalamazoo Township
Oshtemo Township
Pavilion Township
Prairie Ronde Township
Richland Township
Ross Township
Schoolcraft Township
Texas Township
Wakeshma Township



Chapter 3 Pages 37 - 65

Financial Information

Local Road Participation Funds
Local Road Township Contributions
Local Road Project Summary Expenditures
Routine Maintenance Expenditures
Local Road Routine Maintenance Expenditures and Revenues
Combined Balance Sheet
Statement of Revenues and Expenditures
Supplemental Information—Graphs

CHAPTER 1

Road Commission of Kalamazoo County Overview

Facts
and Figures
Page 2

Organizational
Chart
Page 3

Introduction
Pages 4—10

Glossary
Pages 11—12



Put The Brakes on Fatalities Poster Art Contest 2015

Facts and Figures

For Calendar Year Ending December 31, 2015

The Board

Daniel J. Moyle, Chairman
Kenneth R. Oscarson, Vice Chairman
Dennis J. Berkebile, Member
David Q. Worthams, Member
Deb Buchholtz, Member

The Team

Joanna I. Johnson, Managing Director
• 43 Employees

County Bridge System

- Bridges 61
- Restricted Bridges 10
- *Closed Bridges 0

Signs and Signals

- Signs Posted 21,595
- Stop Signs 2,437
- Signalized Intersections 48
- Intersections with Flashing Lights 41

Project Summary 2015

- Miles of Primary Roads Paved 11
- Miles of Primary Roads Chip Sealed 43
- Miles of Local Roads Paved 33
- Miles of Local Roads Chip Sealed 70
- Miles of Local Roads Regraveled 3
- Reconditioned Bridges 2
- Projects Managed by RCKC 159

Certified Miles

Township	Primary Miles	Local Miles
Alamo	31	38
Brady	32	44
Charleston	22	23
Climax	26	46
Comstock	43	75
Cooper	31	63
Kalamazoo	26	75
Oshtemo	43	75
Pavilion	27	48
Prairie Ronde	22	52
Richland	27	49
Ross	26	53
Schoolcraft	25	37
Texas	32	92
Wakeshma	25	48
City of Portage	11	0
Total Primary Road Miles	449	
Total Local Road Miles		818
Total Gravel Road Miles		105
Total All-season Road Miles		293



B Avenue Westbound at 19th Street
Cooper Township



Road Commission of Kalamazoo County

December 2015

5 Road Commissioners

• 43 Employees Total (Includes 3 Vacant)

• 15 Administrative (1 Shared + 2 Vacant)

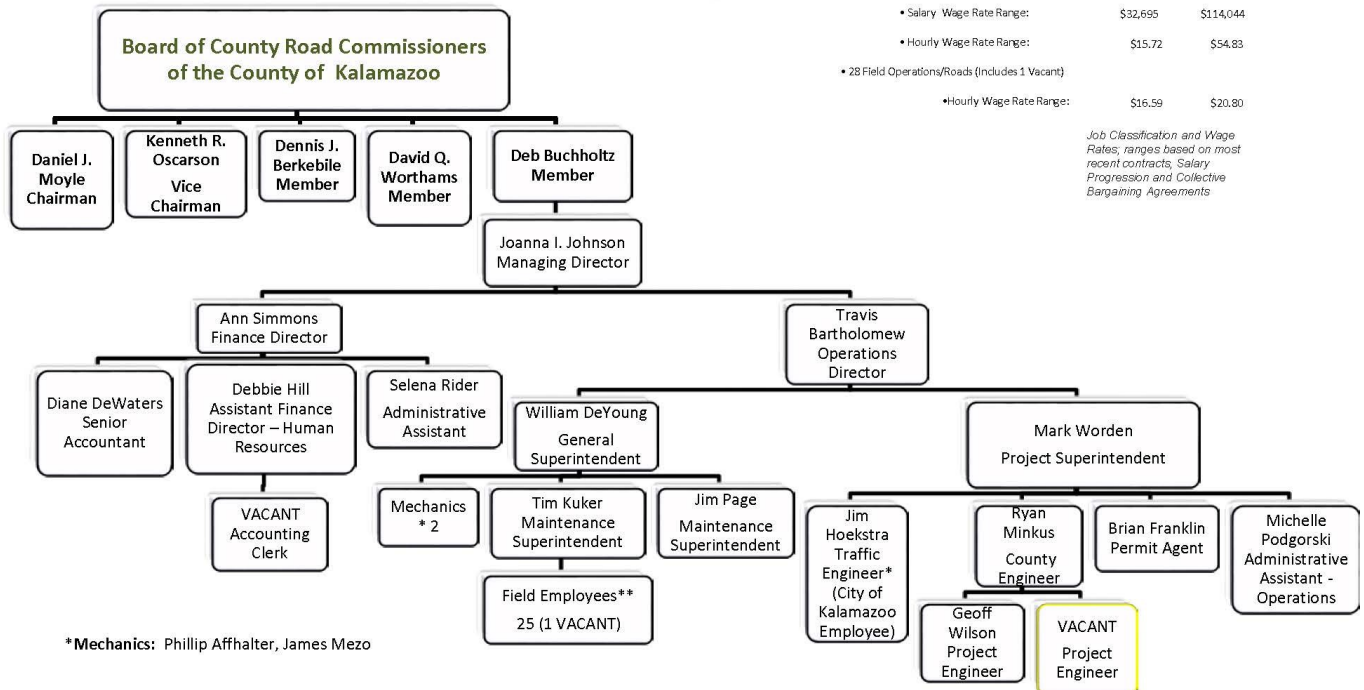
• Salary Wage Rate Range: \$32,695 \$114,044

• Hourly Wage Rate Range: \$15.72 \$54.83

• 28 Field Operations/Roads (Includes 1 Vacant)

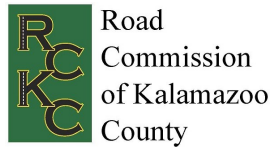
• Hourly Wage Rate Range: \$16.59 \$20.80

Job Classification and Wage Rates, ranges based on most recent contracts, Salary Progression and Collective Bargaining Agreements



*Mechanics: Phillip Affhalter, James Mezo

** Field Employees: Todd Hill, John Welborn, Randall Dugan, James Frederick, Ricky McClish, Peter Snyder, Joseph Peck, James Brown, Melvin Guyton, Jonathan Fitzsimmons, Tarrance DeKilder, Aaron Srackangast, David Blakley, Samuel Cloud, Donald Easley, Gary Nyberg, Jason Mikkellborg, Michael Morrison, Joseph Rix, Brian Chapman, Shelby Harris, Kevin Davis, Chadrick Selvidge, Stephen Wightman, Andrew Teadt



The goal of the Board of County Road Commissioners of the County of Kalamazoo is using our expertise, energy and funds to provide the safest and most convenient road system possible, and to contribute to economic development and high quality of life throughout the county.

INTRODUCTION

The Road Commission of Kalamazoo County (RCKC) has provided a brief overview of our funding, operations, and assets within this report. Additional financial and audit information, publications and resources can be found on our website at www.kalamazooountyroads.com.

This report provides a citizens guide to the efforts by RCKC in public service. These efforts are on-going and continuously developed to meet the needs of our changing reality, while improving our infrastructure. Our work is never complete and we will continue to be focused on continuous improvement, leadership and public service. Our goal is to be the BEST road commission in the State. This is only accomplished by our team of employees vested in the spirit of leadership and service. Thank you for allowing us the opportunity to serve you.

The RCKC is the jurisdictional authority over all public roads lying outside the incorporated cities and villages within Kalamazoo County, exclusive of any state trunkline highway. At the end of 2015, RCKC maintains 1,265.59 miles of roads throughout the 576 square-mile county. The RCKC certified primary road system consists of 448.35 miles; the remaining 817.24 miles comprise the local road system. Along with the road system, RCKC maintains bridges, traffic signs/signals, culverts, storm sewers, and roadsides throughout the county. The state's 83 road agencies are responsible for approximately 90,000 miles of county roads.

PROJECT SELECTION

The RCKC establishes road improvement priorities for the primary road system. Annually, our staff develops an improvement plan spanning five years that is based on engineering assessments and on-site reviews. This plan is reviewed and projects undertaken based on current and future road needs and anticipated funding.

November 18, 2014, the RCKC adopted a \$38.2 million, five-year Primary Road Capital Improvement Plan (CIP) for the period 2015 through 2019. The plan includes such preservation-structural improvement projects as resurfacing, reconstructing and widening roads, upgrading certain roads to all-season status, safety projects, bridge replacements, and upgrading traffic signals.

For the local road system, road improvement priorities are developed in conjunction with township governments. Each township works with our designated staff to develop a 5-year local road improvement plan supporting asset management for planning purposes and local road preservation. In 2015, staff continued to work with our townships to develop these plans. The RCKC maintains a local road participation fund program that provides funds for each township that must be matched on a dollar-for-dollar basis for local road improvement projects. In 2015, RCKC applied \$1,200,000 toward this match program. These projects include local road preservation-structural improvement, preventive maintenance and construction projects such as chip seal, hot mix asphalt (HMA) overlays and road reconstruction. There was a significant impact to the investments in the local road system, primarily due to local road projects in Kalamazoo Township.

The financial commitment of township boards and residents through the years has proven invaluable. These partnerships help provide better service to our joint constituencies and a long term collaborative effort. Also available for funding, under the provisions of Act 246, Public Acts of 1931 is the special assessment district option. The State statute provides an opportunity to fund local road improvement projects through the creation of a special assessment district. This can be initiated either by response to a township board resolution or by a petition of landowners. There were no special assessment districts in 2015.

Texas Township in 2010 and Alamo Township in 2014 approved a special assessment district under the provisions of Act 188, Public Acts of 1954 by township board resolution to assist in local road improvements. Climax Township is the only township in Kalamazoo County with a dedicated road millage, while Kalamazoo Township residents approved a \$9.75 million bond proposal in February 2015 to also assist in local road improvements.

ASSET MANAGEMENT

Infrastructure is a valuable asset in every community. It is important to maintain these assets as efficiently and cost effectively as possible. A transportation asset management program allows RCKC to plan and prioritize road improvements. Since 2004, federal aid eligible road asset management data has been collected in Kalamazoo County. In 2009, the RCKC began a process of collecting data on the non-federal aid system and to date all 15 townships have been completed. Updated data will be gathered on a 3-year township rotation for the non-federal aid system. In 2015, updated local ratings were completed for Texas, Ross, Brady, Alamo and Climax Townships. The data collected used the Pavement Surface Evaluation and Rating (PASER) system, as is used in the federal aid data collection. The method of collection using the Roadsoft Geographic Information Systems (GIS) laptop data collector and trained RCKC staff consisted of a survey of roads and each pavement was assigned a rating based on PASER criteria. PASER rating is based on a number system, 1 through 10 with 1 being the worst and 10 being the best. This data will assist in establishing a strategic plan for project selection and maintaining our infrastructure with the right fix at the right time for our primary and local road system.

In 2015, our road network in poor condition improved. However, on-going investment in our roads is needed to maintain them in good condition. For additional information on asset management statewide federal aid system, please visit the Michigan Transportation Asset Management Council (TAMC) website at www.michigan.gov/tamc or the RCKC website "Road Data" for asset management information.

Please review our asset management graphs, at the end of this report, that reflect data for RCKC's primary and local road system.

FINANCES

The RCKC is a special purpose government engaged in a single government program of road and bridge maintenance, preservation and construction for the county of Kalamazoo, Michigan. Our annual audited financial statements are included in the basic financial statements of Kalamazoo County, Michigan as a discretely presented component unit. Our Board of County Road Commissioners adopts an annual budget in accordance with the Uniform Budgeting Act (P.A. 621 of 1978). An independent audit is performed annually on RCKC financial statements, and we annually submit our Act 51 Financial Report to the Michigan Department of Transportation (MDOT) as required by Act 51, Public Acts of 1951 as amended (Act 51). In 2015, we continued to take every possible step to increase our efficiency by controlling expenditures, including overhead and administrative costs. Steps taken include staffing changes, benefit modifications, technology enhancements, equipment investments, on-going collaboration, modifications to our winter maintenance operations, and modifications to our material usage.

Please review our financial graphs, at the end of this report, that reflect data for our revenues, expenditures, pension/other postemployment benefits, historical information, and winter maintenance operations.

REVENUES

MICHIGAN TRANSPORTATION FUND

The Michigan Transportation Fund (MTF), the repository of motor fuel taxes and vehicle registration fees collected by the state, is the principal source of road commission funding. The collected funds are distributed to the Michigan Department of Transportation (MDOT), 533 cities and villages, and 83 county road agencies, using a formula based on variables that include the density of population, road mileage by classification and collected vehicle registration fees. Motor fuel and vehicle registration tax revenue is restricted for transportation purposes by Article IX, Section 9 of the 1963 Michigan Constitution.

Those constitutional provisions are implemented through Michigan Statute – Act 51. Revenue from motor fuel taxes and vehicle registration taxes is first credited to the MTF and then distributed to the following primary recipients in accordance with provisions of Act 51:

- Comprehensive Transportation Fund (CTF) for public transportation programs
- State Trunkline Fund (STF) for construction and preservation of the state trunkline system and administration of the MDOT
- 83 county road agencies for construction and preservation of the county road system and administration
- 533 cities and villages for construction and preservation of the city/village road system and administration

Act 51 also earmarks MTF revenue for certain targeted transportation funds and categorical programs including Transportation Economic Development Fund (TEDF), the rail grade crossing account and the Local Bridge Fund Program.

Our general allocation revenue from the MTF has been decreasing and relatively flat over the years. The decrease is attributable to several issues. Motor fuel taxes are excise taxes – a per gallon tax not based on price. The tax on gasoline is 19 cents per gallon whether the pump price is \$2.50 a gallon or \$4.00 per gallon. As people drive less and purchase more fuel efficient cars, the tax generates less revenue. State restricted MTF revenue peaked in FY 2003-2004. Baseline transportation revenue has been— FY 2012-2013 gross revenue and revenue distribution was same as FY 1999-2000. While the cost of materials and services continue to rise MTF is also used to match any federal aid projects.

On November 10, 2015 Governor Rick Snyder signed a package of legislative transportation funding bills (Michigan Revenue Package) designed to generate \$1.2 billion in new MTF revenues by 2021. Approximately half of this total will come from increases in fuel taxes (\$400 million) and vehicle registration fees (\$200 million) starting in 2017. Then, beginning in 2019, increasing amounts of general fund dollars, reaching \$600 million in 2021, will be transferred to the MTF to be further distributed to the various road agencies in the state. Lastly, the fuel taxes will be indexed to inflation, using the Consumer Price Index (CPI), beginning January 1, 2022.

STATE AND FEDERAL TRANSPORTATION FUNDS

The RCKC also works diligently to qualify for special sources of revenue for road improvement projects from other state and federal sources.

State sources include TEDF

- TEDF Category A funds are competitively available for road projects related to industry development and redevelopment opportunities
- TEDF Category D funds are available for use to upgrade roads to all-season standards and to develop a network of roads that are not weight restricted during seasonal weight restriction periods
- TEDF Category F funds are competitively available for use to upgrade roads to complete broken links in the all-season-road network in the urban area

FEDERAL SURFACE TRANSPORTATION PROGRAM FUNDS

The Moving Ahead of Progress in the 21st Century (MAP-21) was approved on July 6, 2012 for federal revenue sources. MAP-21 will fund the federal-aid highway program through Sept. 30, 2014 at current funding levels with a small inflationary adjustment. MAP-21 makes federal funds available to state departments of transportation through three U.S. Department of Transportation (DOT) agencies; the Federal Highway Administration (FHWA), the Federal Transit Administration (FTA) and the Federal Railroad Administration (FRA). Federal funding Surface Transportation Program (STP) is distributed to the RCKC through the Kalamazoo Area Transportation Study (KATS), the Metropolitan Planning Organization (MPO) for the Kalamazoo urbanized area. The Rural Task Force (RTF) Program provides STP-Rural federal dollars to rural areas.

On December 4, 2015, President Obama signed the Fixing America's Surface Transportation (FAST) Act which provides funding for transportation programs through 2020. This act includes \$70 billion in new funding to be transferred from the federal general fund into the Highway Trust Fund through 2020. Michigan expects to see an increase of approximately five percent in federal transportation dollars over the next 5 years.

Congestion Mitigation Air Quality (CMAQ) programs reduce vehicle pollutant emissions by improving the flow of traffic, or by providing transportation choices that reduce pollution. CMAQ funds are designated to the Kalamazoo region to support projects that will result in improved air quality.

Under the Federal Aid Highway Program, Michigan is eligible for Local Safety Program funds which are federal funds to be used for road improvements that provide countermeasures that improve and potentially reduce crashes.

Projects completed during 2015 utilizing STP funds:

- **D Avenue from Adobe Road to Rolling Meadow Drive (Rural)**

Projects completed during 2015 utilizing Safety Program funds:

- **U Avenue at 8th Street**
- **South Sprinkle Road from East Michigan Avenue to East Main Street**

LOCAL BRIDGE PROGRAM FUNDS

Under the Federal Aid Highway Program, Michigan is eligible to use federal funds to improve the condition of highway bridges through replacements, rehabilitation, and preservation activities.

Established by 2004 Public Act 384, an amendment to Act 51, provides financial assistance to local highway authorities for the preservation, improvement, reconstruction of existing bridges, or the construction of bridges to replace existing bridges in whole or part. Revenues are provided from an Act 51 earmark of ½ cent of the gasoline excise tax (approximately \$22 million), and a separate (approximately \$5 million) Act 51 earmark of MTF revenue. Through legislation in 2004, Michigan created a Local Bridge Fund to be administered by the Local Bridge Advisory Board and seven Regional Bridge Councils. Funding from the Local Bridge Fund is allocated to each region based on available funds and weighted ratios provided in the legislation.

These funds are available on a statewide competitive basis. Bridges eligible for these funds must be structurally deficient, functionally obsolete and in need of repair or do not function in a way that meets traffic needs.

The TAMC annual report on deficient bridges is available on the TAMC website at www.michigan.gov/tamc.

In 2015, 8.2% of RCKC (5 bridges) are rated as structurally deficient: Structurally Deficient (SD) status – A highway bridge is classified as structurally deficient if the deck, superstructure, substructure, or culvert is rated in “poor” condition (0 to 4 on the National Bridge Inventory (NBI) rating scale). A bridge can also be classified as structurally deficient if its load carrying capacity is significantly below current design standards or if a waterway below frequently overtops the bridge during floods.

Projects completed during 2015 utilizing Local Bridge Program Funds:

- **38th Street Bridge over Little Portage Creek**
- **42nd Street Bridge over Little Portage Creek**

Please review our Bridge Rating Summary graph in this report.

Non-motorized Facilities

The Board of County Road Commissioners are committed to working with local governments to develop safe and efficient non-motorized transportation routes throughout the communities within Kalamazoo County. The RCKC recognizes the value of non-motorized facilities, while simultaneously acknowledging the necessity of working within applicable funding requirements and fiscal limitations and competing needs of other public use considerations including utilities, engineering issues such as proper drainage, safety, right-of-way (ROW) dimensions maintenance issues, as well as the competing interests of users such as pedestrians, joggers, runners, strollers and bicyclists. All of these community and administrative interests should be valued appropriately in facilitating the development of a non-motorized facilities.

EXPENDITURES

RCKC engineering and maintenance operations are responsible for providing engineering and technical expertise for road commission projects, operations, preventive maintenance and improvement projects on the county road system. These efforts also include our traffic safety operations. RCKC operations are supported by our administrative team, equipment and capital outlay expenditures.

Routine maintenance activities, outside of construction projects, include surface patching, sign maintenance, roadside mowing, tree cutting/removal, culvert repair, guardrail maintenance, and winter maintenance.

During 2015, approximately 44 miles of roads were paved totaling over \$9 million dollars. To preserve the capital investment in our roads, more than 113 miles of roads were chip sealed totaling over \$3 million dollars. Over \$9 million dollars was spent on our primary road system and over \$8 million on our local road system for both construction and maintenance operations in 2015.

Safety improvement projects were also completed, including, shoulder widening, rumble strips, super elevation corrections and signage.

AWARDS, ACHIEVEMENTS, INNOVATIONS AND EDUCATIONAL OPPORTUNITIES

AWARD RECOGNITION

Mark Worden, Project Superintendent was awarded with the County Road Association (CRA) Program Manager of the Year on February 4, 2015 at the CRA Engineering Conference. The CRA Engineering Committee recognized, Mr. Worden for his instrumental efforts on a number of projects both on the primary road and local road system. In 2014 Mr. Worden oversaw:

- 112 individual projects
- 139.38 miles of projects
- Approximately \$6,893,678 million worth of improvements

The RCKC was also recognized by the CRA Best Practices “Impress Communications Award” for their “Put the Brakes on Fatalities Day” youth poster contest on February 19, 2015 at the CRA Annual Highway Conference. The award recognizes best practices in communication undertaken by a county road agency during calendar year 2014. The goal of the contest was to bring awareness to the dangers of driving distracted to school aged children (tomorrow’s future drivers) and by doing so bring awareness to their parents (today’s drivers). The intent was to heighten consciousness about what people can do to reduce traffic accidents and fatalities.

ACHIEVEMENTS

- Continued outreach through our township joint meeting presentations
- We had a successful financial audit report
- We were recognized by the American Public Works Association and Michigan Transportation Asset Management Council for our collaboration with Kalamazoo Township infrastructure improvements
- We were awarded two IMPRESS awards by the County Road Association (CRA) of Michigan. One for Excellence in Communications for the Texas Township Road Tour and one for Excellence in Operations for the D Avenue Chip Seal Trial Program
- The Michigan Chapter of the American Public Works Association awarded RCKC project of the Year in the Category less than \$1 million for the D Avenue west of 6th Street Chip Seal
- We worked with Texas Township on their Road Tour; reviewing projects completed since 2010
- We paved approximately miles of road
- We chip sealed approximately 113 miles of road
- We added one new bridge
- We reconstructed one new bridge
- We managed over 159 projects
- We continued our asset management data collection
- We successfully changed operations to comply with MISS DIG 174 legislation
- We continued numerous equipment and material demonstrations
- Completed various facilities improvements preserving our building assets
- Managing Director elected to the CRA Board of Directors
- We continued collaborative efforts with the Drain Commissioner, Villages of Vicksburg, Richland and Climax and we sent our team to the Van Buren and Kent County Road Commission to assist them in chip seal operations
- We reached out in public relation events including press releases, various presentations, City of Portage Big Truck Event, etc, and MLive chats

INNOVATION IN ROAD MAINTENANCE

CHIP SEAL

In June, Mr. Tom Wood, Research Project Specialist from the Minnesota Department of Transportation conducted chip seal classroom and field training for the RCKC team. Mr. Wood provided comprehensive understanding of chip seal best practices and offered the essential skills for selecting good pavement preservation treatment, designing and estimating projects and gaining awareness of good construction practices. The field training included an experiment on D Avenue from 6th Street to the Van Buren county line. The experiment included three different types of aggregate, two types of emulsion and fog seal application.



TEXAS UNDER SEAL EXPERIMENT

The RCKC completed a construction project with a unique feature of a bituminous underseal also known as “Texas Under Seal” on Portage Road from U Avenue for approximately 1.5 miles; this is a chip seal placed under a hot mix asphalt (HMA) over-lay. The chip seal acts as a stress relief membrane where studies have shown that the chip seal layer assists with limiting water infiltration in the base of the roadway while also reducing reflective cracking on the surface. This experiment can be seen in the picture—the tan layer is a natural stone aggregate chip seal and the black surface is the HMA overlay already applied over the chip seal. Another tool for a mix of fixes in preserving our roadways. Time will tell if the “Texas Under Seal” is a success in Kalamazoo, however we need to practice what we learned and monitor for results for the future.



EDUCATIONAL OPPORTUNITIES

In 2015, the RCKC held educational sessions including

Asset Management for Local Officials February 2015



Pothole Filler Demonstration held March 2015



Establishing Realistic Speed Limits September 2015



We hope this report provides a better understanding of the RCKC, our commitment to Kalamazoo County, the role we play in improving our infrastructure and how we contribute to economic development and high quality of life throughout the county. We are proud of our accomplishments and our operations. **Our TEAM continues to be dedicated to enhancing our road network and putting those limited transportation dollars to efficient use. Our Local Roads Matter!**

Your Local Road Professionals since 1909

● GLOSSARY



All-season Roads—roads that have a sub-base, base and surface of adequate thickness and composition to withstand year-round use of heavy vehicles without damage.

Asset Management – Asset Management is a systematic approach to selecting the best investment at the right time to maximize the life of the asset being measured.

Cape Seal—a combination surface treatment that preventative maintenance incorporates an application of micro seal over a newly constructed surface treatment of chip seal. Cape seals provide a dense, waterproof surface with improved skid resistance and ride quality.

6-8 Year Service Life

Chip Seal—a surface treatment in which the pavement is sprayed with asphalt emulsion and then immediately covered with aggregate and rolled. Chip seals are used primarily to seal the surface of a pavement.

5-7 Year Service Life

Crack Fill - the placement of bituminous material into nonworking or low movement cracks to reduce infiltration of water and incompressible materials into the crack. Filling typically involves less crack preparation than sealing and performance requirements may be lower for the filler materials. Filling is often considered a short-term treatment to help hold the pavement together between major maintenance operations or until a scheduled rehabilitation activity.

1-3 Year Service Life

Crack Seal—is the placement of a bituminous material into working cracks. Crack sealing requires thorough crack preparation and often requires the use of specialized high quality materials placed either into or above working cracks to prevent the intrusion of water and incompressible materials. Crack sealing is generally considered to be a longer-term treatment than crack filling.

1-2 Year Service Life

Double Seal—two applications of chip seal applied to a prepared gravel base. Another chip seal should be applied within 1-2 years.

8-10 Year Service Life

Epoxy Overlay—an application of polymer epoxy followed immediately with an application of aggregate to a concrete bridge deck. The overlay provides a long lasting seal to protect the deck from the effects of traffic and harsh weather conditions. Epoxy overlays are used to extend the life of a structure by sealing moderate to extensive deck cracking.

10-15 Year Service Life

Fog Seal—a light application of asphalt emulsion diluted with water and without addition of any aggregate applied to the surface of a bituminous pavement or recent chip seal. Fog seals are used to renew aged asphalt surfaces and seal minor cracks. When applied over a recent chip seal, the fog seal reduces dust and lock in aggregate.

1-3 Year Service Life

Hot Mix Asphalt (HMA) Overlay—the application of HMA (hot mix asphalt), a combination of aggregates, mineral fillers, RAP (recycled asphalt pavement), and asphalt binder. HMA is placed on top of gravel or aged HMA surfaces and rolled to compact in place.

15-20 Year Service Life

HMA Ultra-Thin Overlay—a thin overlay of hot-mix asphalt typically a thin lift of ¾ inch.

5-7 Year Service Life

HMA Wedge—a repair patch placed by a paving machine that varies in depth and length.

Infrared— heating and blending new blacktop with infrared heated existing blacktop to create a joint-free integral patch.

Local Roads—county roads not classified as primary roads in the county road system. RCKC has 817.24 miles of these roads, including those in plats.

Micro Seal—a mixture of polymer modified asphalt emulsion, mineral aggregate, mineral filler, water, and other additives, properly proportioned, applied to a paved surface. Also utilized to correct rutting on high volume roads.

6-8 Year Service Life

PASER —PASER stands for Pavement Surface Evaluation and Rating. The PASER system is a tool to rate the current surface condition of roads.

Preservation— structural improvement roadwork, including placing a hard surface on a gravel road, re-constructing an existing road or bridge, resurfacing a road with a HMA overlay or installing new culverts or catch basins.

● GLOSSARY



Preventive Maintenance—roadwork, including chip sealing, pavement crack seal, and wedging to preserve roads by retarding deterioration.

Primary Roads—major roads within the county road system in Kalamazoo County. Primary roads typically accommodate 85 percent of the county's road system traffic and include 448.35 miles of roadway.

Pulverizing/Pulverization – is a recycling process that grinds existing asphalt in place and blends it with the underlying materials to form a quality aggregate base. Typically a layer of gravel is placed on top of the asphalt surface before grinding.

Reconstruction—removing the existing road surface and replacing it with materials of a thickness that conforms to current standards for pavement design. Vertical and horizontal alignment drainage improvements are also factors of reconstruction.

Service Life Varies

Rehabilitation – placing additional surface material or doing other work to return a road, including its shoulders, to structural or functional adequacy.

Service Life Varies

Resurfacing—placing new bituminous pavement material HMA over existing pavement. Shoulder material is added to match the elevation of the new pavement.

Service Life Varies

RoadSoft - road data geographic information systems software used to compile and report on the condition assessments. RoadSoft was developed by Michigan Technological University for all road agencies in Michigan

Routine Maintenance—roadwork, including winter maintenance, pothole filling, roadside mowing, pavement marking, traffic signal maintenance, dust control, gravel road grading, guardrail repair, minor drainage corrections, etc.

Rubblizing— concrete pavement broken into an aggregate base and the rubblized roadbed is left in place and used as part of the new pavement structure.

Texas Underseal— an application of a chip seal, prior to a cold mill and HMA overlay application. The Underseal treatment provides an impervious membrane to stop the intrusion of moisture.



CHAPTER 2

Road Commission of Kalamazoo County Overview

Road and Bridge Improvements

Primary Road Preservation Structural Improvements

Pages 14—16

Primary Structures Structural Improvements

Page 17

Primary Road Preventive Maintenance

Pages 18—21

Primary Structure Preventive Maintenance

Page 22

Local Road Preservation Preventive Maintenance and Structural Improvements

Pages 23—36



Put The Brakes on Fatalities Poster Art Contest 2015

- **PRIMARY ROAD PRESERVATION**
- **STRUCTURAL IMPROVEMENTS**
- Including Administrative and Equipment Allocations

PROJECT DESCRIPTION	TOTAL
ALAMO TOWNSHIP	
D Avenue - at 2nd Street, Project No. 210315. Construction engineering and contractor payments by State for intersection safety improvement project.	23,275.56
Ravine Road - 12th Street to F Avenue, Project No. 210069. Design work for future project.	2,256.92
BRADY TOWNSHIP	
V Avenue - South Sprinkle Road to 29th Street, Project No. 210247. Final accounting by State for 2013 road reconstruction project.	552.98
CHARLESTON TOWNSHIP	
Mercury Drive - East Michigan Avenue to 900' north of East Michigan Avenue, Project No. 210021. HMA Overlay.	26,395.04
COMSTOCK TOWNSHIP	
35th Street - Galesburg City Limit to 1000' south of G Avenue, Project No. 210056. HMA overlay to all-season standards.	1,317,866.56
South Sprinkle Road - East Michigan Avenue to East Main Street, Project No. 210317. Construction engineering and contractor payments by State for road rehabilitation and safety project.	1,155,933.99
South Sprinkle Road - Cork Street to Comstock Avenue, Project No. 210298. Final accounting by State for 2014 reconstruction project.	82.27
N Avenue - 26th Street to 29th Street, Project No. 210311. Final accounting by State for 2014 reconstruction project.	13,113.86
N Avenue - 29th Street to 34th Street, Project No. 210313. Final accounting by State for 2014 reconstruction project.	11,998.08
COOPER TOWNSHIP	
D Avenue - Adobe Drive to Rolling Meadow Drive, Project No. 210054. HMA Overlay. Project includes addition of left turn lane and shoulder widening.	844,977.37
D Avenue - Riverview Drive to North Sprinkle Road, Project No. 210055. HMA overlay. Project includes road widening on D Avenue and drainage improvements.	666,336.09

- **PRIMARY ROAD PRESERVATION**
- **STRUCTURAL IMPROVEMENTS**
- Including Administrative and Equipment Allocations

PROJECT DESCRIPTION (Cooper Township Continued)	TOTAL
Riverview Avenue - 475' south of D Avenue to 150' south of D Avenue. Project No. 210033. Concrete curb, slope adjustment and HMA overlay from centerline to curbing.	30,079.38
KALAMAZOO TOWNSHIP	
East Main Street - East Michigan Avenue to North Sprinkle Road, Project No. 210059. Design work for future safety improvement project with City of Kalamazoo.	48,741.20
East Michigan Avenue - Kalamazoo east city limit to S. Sprinkle Road, Project No. 210306. Construction engineering and contractor payments by State for 2014 HMA overlay project.	130,026.23
OSHTEMO TOWNSHIP	
11th Street - Parkview Avenue to Crystal Lane, Project No. 210022. HMA wedging.	4,537.21
12th Street - .11 mile north of Parkview Avenue to Stadium Drive, Project No. 210316. Construction engineering and contractor payment by State for 2014 safety project.	15,694.72
Drake Road - Grand Prairie Road to Ravine Road, Project No. 210302. Construction engineering and contractor payment by State for 2014 reconstruction project.	160,546.20
9th Street - at N Avenue, Project No. 210310. Final accounting by State for 2014 traffic signal upgrade.	1,719.10
Stadium Drive - 4th Street to 6th Street, Project No. 210034. Design work for future safety project.	17,157.62
Stadium Drive - 9th Street to US-131, Project No. 210068. Design work for future reconstruction project.	290.71
PRAIRIE RONDE TOWNSHIP	
8th Street - at U Avenue, Project No. 210058. Construction engineering and contractor payments by State for intersection safety improvement project.	295,267.25

- **PRIMARY ROAD PRESERVATION**
- **STRUCTURAL IMPROVEMENTS**
- Including Administrative and Equipment Allocations

PROJECT DESCRIPTION

RICHLAND TOWNSHIP

28th Street - M-43 to F Avenue, Project No. 210066. 15,133.85
Design work for future project.

SCHOOLCRAFT TOWNSHIP

Portage Road - 150' south of VW Avenue to south Portage City limit, 774,749.90
Project No. 210022.
Experimental Texas bituminous underseal and HMA overlay.

VW Avenue - 18th street to Portage Road, Project No. 210139. 77.91
Final accounting by State for 2011 reconstruction project.

TEXAS TOWNSHIP

9th Street - I-94 to Meridian Avenue, Project No. 210065. 74,699.80
Design work and right-of-way for future project.

WAKESHMA TOWNSHIP

42nd Street - Y Avenue to W Avenue, Project No. 210063. 37,796.42
Design work for future project.

42nd Street - Z Avenue to Y Avenue, Project No. 210064. 6,999.85
Design work for future project.

TOTAL PRIMARY STRUCTURAL IMPROVEMENTS **5,676,306.07**



35th Street - Galesburg City Limit to 1000'south of G Avenue, ComstockTownship

- **PRIMARY STRUCTURES**
- **STRUCTURAL IMPROVEMENTS**
- Including Administrative and Equipment Allocations

PROJECT DESCRIPTION	TOTAL
BRADY TOWNSHIP	
U Avenue Bridge- west of 31st Street (over Kalamazoo River), Project No. 220424. Design engineering for future project.	26,841.03
COMSTOCK TOWNSHIP	
East Michigan Avenue Bridge - over Comstock Creek, Project No. 220307. Construction engineering and contractor payments by State for 2014 bridge reconstruction project.	49,013.39
PAVILION TOWNSHIP	
Q Avenue Bridge- over Portage River, Project No. 220309. Design engineering services for future project.	3,386.61
S Avenue Bridge- over Portage River, Project No. 220308. Design engineering services for future project.	1,669.66
<hr/> TOTAL PRIMARY BRIDGE	80,910.69

- **PRIMARY ROAD**
- **PREVENTIVE MAINTENANCE**
- Including Administrative and Equipment Allocations

PROJECT DESCRIPTION	TOTAL
ALAMO TOWNSHIP	
Ravine Road - D Avenue to C Avenue, Project No. 380239. Crack fill.	4,952.84
D Avenue - west county line to 6th Street, Project No. 380213. Chip seal.	106,484.32
BRADY TOWNSHIP	
24th St - Z Avenue to Vicksburg Village north limit, Project No. 380225. Crack fill.	9,905.67
29th St - W Avenue to U Avenue, Project No. 380228. Crack fill.	9,905.67
27th St - YZ Avenue to Y Avenue, Project No. 380227. Crack fill.	1,350.78
UV Avenue - 26th Street to 29th Street, Project No. 380168. Crack fill.	40,691.36
CHARLESTON TOWNSHIP	
38th St - PQ Avenue to MN Avenue, Project No. 380229. Crack fill.	6,942.97
ML Avenue - South Sprinkle Road to River Street, Project No. 380217. Chip seal.	17,094.06
Mercury Drive - MN Avenue to I-94, Project No. 380235. Crack fill.	5,403.09
MN Avenue - 34th Street to Mercury Drive, Project No. 380247. Crack fill.	12,859.36
CLIMAX TOWNSHIP	
36th Street - PQ Avenue to MN Avenue, Project No. 380176. Chip seal.	45,989.55
42nd Street - Q Avenue to R Avenue, Project No. 380177. Chip seal.	26,342.97
42nd/43rd Streets - TS Avenue to R Avenue, Project No. 380230. Crack fill.	1,305.75

- **PRIMARY ROAD**
- **PREVENTIVE MAINTENANCE**
- Including Administrative and Equipment Allocations

PROJECT DESCRIPTION (Climax Township continued)	TOTAL
O Avenue - 38th Street to 42nd Street, Project No. 380219. Chip seal.	39,573.52
ON Avenue - Climax Village east limit to 48th Street, Project No. 380236. Crack fill.	4,142.36
PQ Avenue - 36th Street to 38th Street, Project No. 380237. Crack fill.	990.57
R Avenue - 36th Street to east county line, Project No. 380169. HMA wedge and chip seal.	171,535.38
COMSTOCK TOWNSHIP	
Comstock Avenue - South Sprinkle Road to River Street, Project No. 380212. Chip seal.	31,544.51
COOPER TOWNSHIP	
Douglas Avenue - B Avenue to north county line, Project No. 380214. Chip seal.	29,173.94
KALAMAZOO TOWNSHIP	
Humphrey Street - Kalamazoo city limit to East Main Street, Project No. 380234. Crack fill.	1,350.78
Nazareth Road - M-43 to G Avenue, Project No. 380143. Chip seal.	35,367.83
Squires Drive - Drake Road to Ravine Road, Project No. 380223. Chip seal.	9,242.00
Barney Road - Nichols Road to Douglas Avenue, Project No. 380172. HMA wedge and chip seal.	37,328.14
East Main Street - Wallace Avenue to South Sprinkle Road, Project No. 380232. Crack fill.	8,104.64
OSHTIMO TOWNSHIP	
6th Street - N Avenue to Stadium Drive, Project No. 380210. Chip seal.	25,329.25
West Michigan Avenue - Venture Park to Drake Road, Project No. 380245. Crack fill.	4,502.58
Stadium Drive - Vankal Street to 4th Street, Project No. 380242. Crack fill.	8,104.64

- **PRIMARY ROAD**
- **PREVENTIVE MAINTENANCE**
- Including Administrative and Equipment Allocations

PROJECT DESCRIPTION	TOTAL
PAVILION TOWNSHIP	
South Sprinkle Road - Centre Avenue to Milham Road, Project No. 380241. Crack fill.	13,957.99
Q Avenue - 29th Street to 36th Street, Project No. 380222. Chip seal.	87,172.81
QR Avenue - 25th Street to 29th Street, Project No. 380170. HMA wedging.	35,068.07
R Avenue - 24th Street to East Long Lake Drive, Project No. 380238. Crack fill.	1,035.59
S Avenue - 29th Street to 36th Street, Project No. 380240. Crack fill.	15,759.02
PRAIRIE RONDE TOWNSHIP	
XY Avenue - 8th Street to US-131, Project No. 380246. Crack fill.	13,507.73
RICHLAND TOWNSHIP	
G Avenue - North Sprinkle Road to Gull Road, Project No. 380233. Crack fill.	5,853.35
24th Street - D Avenue to AB Avenue and AB Avenue - 24th St to M-89, Project No. 380226. Crack fill.	18,010.30
SCHOOLCRAFT TOWNSHIP	
12th Street -U Avenue to Q Avenue, Project No. 380224. Crack fill.	16,209.27
Portage Road - Y Avenue to VW Avenue, Project No. 380174. HMA wedge and chip seal.	62,132.53
VW Avenue - Portage Road to Vicksburg Village west limits, Project No. 380244. Crack fill.	3,602.06
TEXAS TOWNSHIP	
8th Street - R Avenue to Q Avenue, Project No. 380211. Chip seal.	34,467.57
8th Street - U Avenue to R Avenue, Project No. 380142. HMA wedge and chip seal.	78,797.99

- **PRIMARY ROAD**
- **PREVENTIVE MAINTENANCE**
- Including Administrative and Equipment Allocations

PROJECT DESCRIPTION (Texas Township continued)	TOTAL
O Avenue - 8th Street to 9th Street, Project No. 380220. Chip seal.	57,524.23
P Avenue - West county line to 3rd Street, Project No. 380175. HMA wedge and chip seal.	31,562.16
Texas Drive - 8th Street to 12th Street, Project No. 380243. Crack fill.	14,408.24
WAKESHMA TOWNSHIP	
YZ Avenue - 38th Street to 42nd Street, Project No. 380164. HMA wedge and chip seal.	41,133.48
42nd Street - Z Avenue to W Avenue, Project No. 380231. Crack fill.	16,509.44
TOTAL PRIMARY PREVENTIVE MAINTENANCE	1,242,230.36



P Avenue, West County Line to 3rd Street, Texas Township

- **PRIMARY STRUCTURE**
- **PREVENTIVE MAINTENANCE**
- Including Administrative and Equipment Allocations

PROJECT DESCRIPTION	TOTAL
BRADY TOWNSHIP	
W Avenue Bridge - west of 29th Street over Portage River, Project No. 220061. Design engineering for future project.	4,160.58
CHARLESTON TOWNSHIP	
East Michigan Avenue Bridge - over Kalamazoo River, Project No. 220060. Design engineering for future project.	11,422.30
COOPER TOWNSHIP	
D Avenue Bridge - Over Kalamazoo River, Project No. 220063. Design engineering for future project.	3,381.08
WAKESHMA TOWNSHIP	
38th Street Bridge - over Little Portage Creek, Project No. 220058. Construction engineering and contractor payments by State for epoxy overlay of bridge deck, concrete railing and HMA approaches.	165,365.91
42nd Street Bridge - over Little Portage Creek, Project No. 220059. Construction engineering and contractor payments by State for epoxy overlay of bridge deck, concrete railing and HMA approaches.	138,033.48
TOTAL PRIMARY STRUCTURE PREVENTIVE MAINTENANCE	322,363.35



38th Street Bridge, Wakeshma Township


- **LOCAL ROAD PRESERVATION**
- **PREVENTIVE MAINTENANCE AND STRUCTURAL IMPROVEMENTS**
- Including Administrative and Equipment Allocations

PROJECT DESCRIPTION	PREVENTIVE MAINTENANCE	STRUCTURAL IMPROVEMENT
ALAMO TOWNSHIP ~ 37.84 Local Road Miles		
3rd Street - G Avenue to F Avenue, Project No. 680246. Chip seal.	18,082.10	
Owen Drive - 6th Street to Hart Drive, Project No. 680247. HMA wedge and chip seal.	40,084.37	
Hart Drive - Owen Drive to 695' north of Owen Drive, Project No. 680248. HMA wedge and chip seal.	6,231.27	
B Avenue - 2nd Street to Ravine Road, Project No. 680249. Road pulverization, gravel surfacing and double chip seal.	234,345.43	
ALAMO TOWNSHIP TOTALS	298,743.17	0.00
<hr/>		
BRADY TOWNSHIP ~ 44.04 Local Road Miles		
V Avenue - 29th Street to 32nd Street, Project No. 680205. HMA wedge, crack fill and chip seal.	58,103.01	
XY Avenue - 30th Street to 31st Street, Project No. 510524. Recondition gravel surface.		20,088.38
Y Avenue - 1300' west of 29th Street to 31st Street, Project No. 510533. Recondition gravel surface.		33,261.66
BRADY TOWNSHIP TOTALS	58,103.01	53,350.04



XY Avenue, 30th Street to 31st Street, Brady Township

- **LOCAL ROAD PRESERVATION**
- **PREVENTIVE MAINTENANCE AND STRUCTURAL IMPROVEMENTS**
- Including Administrative and Equipment Allocations

PROJECT DESCRIPTION	PREVENTIVE MAINTENANCE	STRUCTURAL IMPROVEMENT
CHARLESTON TOWNSHIP ~ 22.65 Local Road Miles		
44th Street - MN Avenue to Michigan Avenue, Project No. 680236. Chip seal.	20,948.01	
HJ Avenue - 36th Street to 37th Street, Project No. 680245. HMA wedge, crack fill and chip seal.	17,849.20	
MN Avenue - Mercury Drive to 46th Street, Project No. 680235. HMA wedge, crack fill and chip seal.	18,826.12	
CHARLESTON TOWNSHIP TOTALS	57,623.33	0.00
CLIMAX TOWNSHIP ~ 46.40 Local Road Miles		
O Avenue - 36th Street to 38th Street, Project No. 680109. Chip seal (second application).	14,848.25	
P Avenue - 38th Street to 43rd Street, Project No. 680213. HMA wedge, crack fill and chip seal.	68,640.92	
P Avenue - 44th Street to 45th Street, Project No. 680212. HMA wedge, crack fill and chip seal.	33,260.37	
Q Avenue - 38th Street to 43rd Street, Project No. 680214. Crack fill and chip seal.	48,979.46	
CLIMAX TOWNSHIP TOTALS	165,729.00	0.00
COMSTOCK CHARTER TOWNSHIP ~ 74.79 Local Road Miles		
Shadowlane Avenue - Sarah Street to Kimberly Street, Sarah Street - 420' south of Shadow Lane Avenue to Miah Street, Miah Street - Sarah Street to Mildred Street, Mildred Street - Shadow Lane Avenue to Miah Street, Courtney Street - Shadow Lane Avenue to Blake Boulevard, Cynthia Street - Shadow Lane Avenue to Blake Boulevard , Project No. 510384. HMA overlay.		136,187.23
		
Westport Trails, Oshtemo Township		

- **LOCAL ROAD PRESERVATION**
- **PREVENTIVE MAINTENANCE AND STRUCTURAL IMPROVEMENTS**
- Including Administrative and Equipment Allocations

PROJECT DESCRIPTION (Comstock Charter Township Continued)	PREVENTIVE MAINTENANCE	STRUCTURAL IMPROVEMENT
Shadowlane Avenue - Kimberly Street to 35th Street, Woodlark Street - 430' south of Shadowlane Avenue to Blake Boulevard, Kimberly Street - Shadowlane Avenue to Blake Boulevard, Cynthia Street - Shadowlane Avenue to Blake Boulevard, Nichole Street - Beth Ann Avenue to Blake Boulevard, Beth Ann Avenue - Nichole Street to Ilene Street, Ilene Street - Beth Ann Avenue to Blake Boulevard, Blake Boulevard - Nichole Street to Courtney Street , Project No. 680199. Crack fill and chip seal.	39,314.55	
Market Street - South Sprinkle Road to River Street, Project No. 680200. Crack fill and chip seal.	19,758.60	
Blake Boulevard - 1270' west of 35th Street to 35th Street, Project No. 510385. HMA overlay.		26,377.67
Azo Court - 208' east of Azo Drive to Azo Drive, Project No. 510472. HMA overlay.		24,374.53
Kersten Court - M Avenue to 690' north of M Avenue, Project No. 680201. Crack fill and chip seal.	9,349.75	
Interstate Parkway - M Avenue to 678' north of M Avenue, Project No. 680202. Crack fill, HMA patching and chip seal.	7,427.07	
Gaywood Street - Woodfield Avenue to ML Avenue and Woodfield Avenue - 201' east of Gaywood Street to Gaywood Street, Project No. 680203. Crack fill and chip seal.	6,929.70	
Wynn Road - South Sprinkle Road to River Street, Project No. 680204. Crack fill and chip seal.	20,061.71	
COMSTOCK CHARTER TOWNSHIP TOTALS	102,841.38	186,939.43

COOPER CHARTER TOWNSHIP ~ 62.83 Local Road Miles

B Avenue - 19th street to 4020' east of 19th Street, Project No. 680207. HMA wedging and chip seal.	26,397.49
C Avenue - Riverview Drive to 24th Street, Project No. 680208. HMA wedge, crack fill and chip seal.	39,197.02

- **LOCAL ROAD PRESERVATION**
- **PREVENTIVE MAINTENANCE AND STRUCTURAL IMPROVEMENTS**
- Including Administrative and Equipment Allocations

PROJECT DESCRIPTION
(Cooper Township Continued)

	PREVENTIVE MAINTENANCE	STRUCTURAL IMPROVEMENT
E Avenue - 2250' west of Riverview Drive to Riverview Drive, Project No. 680209. Crack fill and chip seal.	14,398.77	
E Avenue - Douglas Avenue to North Westnedge Avenue, Project No. 680210. HMA wedge, crack fill and chip seal.	22,867.62	
F Avenue - 14th Street to Douglas Avenue, Project No. 680211. HMA wedge, crack fill and chip seal.	37,811.34	
F Avenue - Douglas Avenue to North Westnedge Avenue, Project No. 510387. HMA overlay.		55,769.62
Collingwood Avenue - G Avenue to 300' north of Rosedale Avenue, Project No. 510534. HMA overlay.		44,270.56
Old Douglas Avenue - F Avenue to Douglas Avenue, Project No. 680206. Chip seal.	4,424.33	
COOPER CHARTER TOWNSHIP TOTALS	145,096.57	100,040.18

KALAMAZOO CHARTER TOWNSHIP ~ 74.59 Local Road Miles

Bretton Drive - Atlee Avenue to Haskell Street, **Bretton Drive** - Haskell Street to 659' north of Haskell Street, **Atlee Avenue** - Bretton Drive to Manor Street, **Grace Road** - Nichols Road to Coolidge Avenue, **Coolidge Avenue** - M-43 to Haskell Street, **Alley #1** - Hillsdale Avenue to Pinehurst Boulevard, **Brownell Street** - 890' south of Alamo Avenue to Alamo Avenue, **Warren Place** - 1310' south of Alamo Avenue to Alamo Avenue, **Vale View Road** - Alamo Avenue to 435' north of Alamo Avenue, **Marywood Street** - Alamo Avenue to Rusridge Avenue, **Rusridge Avenue** - Melcrest Street to Marywood Street, **Melcrest Street** - Alamo Avenue to Rusridge Avenue, **Kaywood Drive** - Alamo Avenue to 50' north of Junedale Drive, **Junedale Drive** - 260' west of Kaywood Drive to Kaywood Drive, **Doncrest Drive** - 185' west of Kaywood Drive to Kaywood Drive,
Project No. 680194.
HMA wedge, crack fill and chip seal.



**B Avenue,
2nd Street to Ravine Road,
Oshtemo Township**

- **LOCAL ROAD PRESERVATION**
- **PREVENTIVE MAINTENANCE AND STRUCTURAL IMPROVEMENTS**
- Including Administrative and Equipment Allocations

PROJECT DESCRIPTION

(Kalamazoo Charter Township Continued)

**PREVENTIVE
MAINTENANCE**

**STRUCTURAL
IMPROVEMENT**

Fletcher Avenue - Sydelle Avenue to M-43, **Sydelle Avenue** - Fletcher Avenue to M-43, **Gilkison Avenue** - 923' south of M-43 to M-43, **Nelson Avenue** - 923' south of M-43 to M-43, **Arlington Street** - Academy Street to M-43, **Grove Street** - S Berkley Street to township line.
Project No. 680198.
HMA wedge, crack fill and chip seal.

37,585.62

Coy Avenue - Arthur Avenue to Dwillard Drive, **Dearborn Avenue** - Ira Avenue to Dwillard Drive, **Arthur Avenue** - Charles Avenue to E Main Street, **Gayle Avenue** - Charles Avenue to Coy Avenue, **Lum Avenue** - Charles Avenue to Coy Avenue, **Ira Avenue** - Charles Avenue to Coy Avenue, **Washburn Avenue** - Charles Avenue to Coy Avenue, **Cooper Avenue** - Charles Avenue to Dearborn Avenue, **Darling Street** - Schippers Lane to Charles Avenue, **Schippers Lane** - E Michigan Avenue to Darling Street, **The Dells Street** - Chicago Avenue to Charles Avenue, **Dell Avenue** - The Dells Street to 235' east of The Dells Street, **Oak Openings Street** - Township line to Chicago Avenue, **Chicago Avenue** - Schippers Lane to E. Main Street,
Project No. 680193.
HMA wedge, crack fill and chip seal.

111,048.23

Seemore Avenue - Humphrey Street to 750' north of Humphrey Street, **Nassau Street** - East Main Street to Gertrude Street, **Lakewood Drive** - M-43 to 264' north of M-43,
Project No. 510397.
HMA overlay.

72,150.83

Trimble Avenue - Junction Avenue to M-43, **Henson Avenue** - Junction Avenue to M-43, **Henson Avenue** - 425' south of Junction Avenue to Junction Avenue, **Colgrove Avenue** - Junction Avenue to M-43, **Colgrove Avenue** - 683' south of Junction Avenue to Junction Avenue, **Henson Avenue** - M-43 to Lakeview Avenue, **Lakeview Avenue** - Henson Avenue to 232' east of Henson Avenue, **Heather Lane** - 113' south of M-43 to M-43,
Project No. 510398.
HMA overlay.

160,062.36

Junction Avenue - Humphrey Street to Elkerton Avenue,
Project No. 510399.
HMA overlay.

89,079.36

- **LOCAL ROAD PRESERVATION**
- **PREVENTIVE MAINTENANCE AND STRUCTURAL IMPROVEMENTS**
- Including Administrative and Equipment Allocations

PROJECT DESCRIPTION

(Kalamazoo Charter Township Continued)

PREVENTIVE MAINTENANCE

STRUCTURAL IMPROVEMENT

<p>Borgess Drive - Nazareth Road to township line, Edna Boulevard - Mulhearn Avenue to Nazareth Road, Mulhearn Avenue - Baker Drive to Nazareth Road, Miami Avenue - Baker Drive to Nazareth Road, Tampa Street - Baker Drive to Nazareth Road, Project No. 510400. HMA overlay.</p>	240,802.58
<p>Coy Avenue - Washburn Avenue to Arthur Avenue, Charles Avenue - Township line to Arthur Avenue, Ira Avenue - Coy Avenue to East Main Street, Lum Avenue - Coy Avenue to East Main Street, Dayton Avenue - Charles Avenue to East Main Street, Cooper Avenue - Dearborn Avenue to East Main Street, Washburn Avenue - Dearborn Avenue to East Main Street, Project No. 510401. HMA overlay.</p>	236,479.01
<p>Kenilworth Avenue - Township line to Nazareth Road, Project No. 510402. HMA overlay.</p>	110,060.78
<p>Gayle Avenue - Coy Avenue to East Main Street, Project No. 510418. HMA overlay.</p>	32,333.18
<p>Pontiac Avenue - Township line to 660' west of Seminole Street, Ottawa Avenue - Township line to 660' west of Seminole Street, Iroquois Trail - Township line to Turwill Lane, Turwill Lane - Huron Avenue to Ottawa Avenue, Devonshire Avenue - Township line to Turwill Lane, Grace Road - Gorham Lane to Cherokee Street, Cranbrook Avenue - Cherokee Street to Croyden Avenue, Mohawk Street - Devonshire Avenue to Croyden Avenue, Cherokee Street - Olney Road to Marlane Avenue, Gorham Lane - Olney Road to Canterbury Avenue, Project No. 510419. HMA overlay.</p>	344,848.13



**Lake Drive, M-43 to 264' north of M-43
Kalamazoo Township**

- **LOCAL ROAD PRESERVATION**
- **PREVENTIVE MAINTENANCE AND STRUCTURAL IMPROVEMENTS**
- Including Administrative and Equipment Allocations

PROJECT DESCRIPTION

(Kalamazoo Charter Township Continued)

**PREVENTIVE
MAINTENANCE**

**STRUCTURAL
IMPROVEMENT**

<p>Seminole Street - Croyden Avenue to Grand Prairie Road, Cherokee Street - Marlane Avenue to Alamo Avenue, Mohawk Street - Huron Avenue to Iroquois Trail, Mohawk Street - Olney Road to Devonshire Avenue, Gorham Lane - Canterbury Avenue to Devonshire Avenue, Turwill Lane - Devonshire Avenue to Huron Avenue, Turwill Lane - Iroquois Trail to Ottawa Avenue, Alamo Avenue - Turwill Lane to Cherokee Street, Iroquois Trail - Turwill Lane to Nichols Road, Huron Avenue - Turwill Lane to Nichols Road, Marlane Avenue - Mohawk Street to Nichols Road, Croyden Avenue - Township line to Nichols Road, Devonshire Avenue - Turwill Lane to Nichols Road, Canterbury Avenue - Turwill Lane to Nichols Road, Grace Road - Cherokee Street to Nichols Road,</p> <p>Project No. 510422. HMA overlay.</p>		667,044.73
<p>Turwill Lane - M-43 to Devonshire Avenue, Gorham Lane - M-43 to Olney Road, Cherokee Street - M-43 to Olney Road,</p> <p>Project No. 510423. HMA overlay.</p>		130,057.82
<p>Rockwood Drive - Winding Way to Meadowcroft Avenue, Thornhill Avenue - Stonegate Road to Nichols Road, Meadowcroft Avenue - Rockwood Drive to Nichols Road, Runnymede Drive - Rockwood Drive to Stonegate Road, Northview Drive - Rockwood Drive to Nichols Road, Glengarry Avenue - Stonegate Road to Nichols Road, Beverton Street - Glengarry Avenue to township line, Glengarry Avenue - Beverton Street to Havenbrook Street, Thornhill Avenue - Stonegate Road to Nichols Road, Coventry Avenue - Beverton Street to 208' east of Beverton Street, Stonegate Road - Northview Drive to Glengarry Avenue,</p> <p>Project No. 510424. HMA overlay.</p>		280,823.11
<p>Winding Way - 1965' west of Rockwood Drive to 1020' southeast of Rockwood Drive, Thornhill Avenue - 850' east of Laurelhill Street to Stonegate Road, Laurelhill Street - 175' south of Thornhill Avenue to Thornhill Avenue, Stonegate Road - 310' south of Thornhill Avenue to Northview Drive,</p> <p>Project No. 510425. HMA overlay.</p>		291,009.27



Borgess Drive, Kalamazoo Township

- **LOCAL ROAD PRESERVATION**
- **PREVENTIVE MAINTENANCE AND STRUCTURAL IMPROVEMENTS**
- Including Administrative and Equipment Allocations

PROJECT DESCRIPTION

(Kalamazoo Charter Township Continued)

**PREVENTIVE
MAINTENANCE**

**STRUCTURAL
IMPROVEMENT**

Berkley Street - M-43 to Hillsdale Avenue, **Clarendon Street** - M-43 to West North Street, **Dartmouth Street** - M-43 to Hillsdale Avenue, **Jennison Avenue** - M-43 to Kenwood Street, **Wealthy Street** - M-43 to Kenwood Street, **Kenwood Street** - Wealthy Street to Pinehurst Boulevard, **Commonwealth Avenue/Commonwealth Place** - Campbell Avenue to Arlington Street, **West North Avenue** - Dartmouth Street to Berkley Street, Project No. 680182.
Chip seal (2nd application).

52,093.76

KALAMAZOO CHARTER TOWNSHIP TOTALS

251,922.01

2,654,751.16

OSHTEMO CHARTER TOWNSHIP ~ 74.58 Local Road Miles

West Point Drive - Cadet Lane to 10th Street, **Cadet Lane** - Westlins Avenue to Nantucket Lane, **Nantucket Lane** - Bunker Hill Drive to Cadet Lane, **Bunker Hill Drive** - Westlins Avenue to Nantucket Lane, **Valley Forge Drive** - Bunker Hill Drive to Cadet Lane, **Westlins Avenue** - 158' west of Bunker Hill Drive to Cadet Lane, **Old Post Road** - Westlins Avenue to 705' southeast of Westlins Avenue, **Litchfield Lane** - Thunder Bluff Road to 10th street, **Thudner Bluff Road** - Litchfield to Wingate Road, **Twilingate Lane** - Wingate Road to 10th Street, Project No. 680250.
Crack fill and chip seal.

82,386.00

Bramble Drive - H Avenue to Bay Field Drive, **Bay Field Drive** - Hollison Drive to Oak Harbor Street, **Hollison Drive** - Bay Field Drive to Oak Harbor Street, **Oak Harbor Street** - Bay Field Drive to 595' north of Trayburne Trail, **Trayburne Trail** - Linderhurst Lane to 587' east of Oak Harbor Street, **Linderhurst Lane** - 9th Street to Kelfrey Cove, **Kelfrey Cove** - Hollison Drive to Linderhurst Lane, Project No. 680251.
Crack fill, chip seal and fog seal.

65,758.20

Venture Court - Venture Park Road to 596' East of Venture Park Road, **Venture Park Road** - Quail Run Drive to Michigan Avenue, **Oshtemo Woods Lane** - Venture Park Road to Lamplighter Lane, Project No. 680252.
Crack fill and chip seal.

25,431.33

Mickey's Trail - 9th Street to Murphy's Trail, **Belle Street** - Lexy Lane to Mickey's Trail, **Mauri's Lane** - Lexy Lane to Mickey's Trail, **Lexy Lane** - 9th Street to Murphy's Trail, **Murphy's Trail** - Lexy Lane to Mickey's Trail, **Murphy's Circle** - 420' south of Lexy Lane to Lexy Lane, Project No. 680253.
Crack fill and chip seal.

8,254.72

- **LOCAL ROAD PRESERVATION**
- **PREVENTIVE MAINTENANCE AND STRUCTURAL IMPROVEMENTS**
- Including Administrative and Equipment Allocations

PROJECT DESCRIPTION

(Oshtemo Charter Township Continued)

	PREVENTIVE MAINTENANCE	STRUCTURAL IMPROVEMENT
Old Savannah Drive - H Avenue to Stone Mountain Drive, Stone Mountain Drive - Old Savannah Road to 531' north of Old Savannah Drive, Project No. 680254. Crack fill and chip seal.	16,843.72	
Partridge Lane - Quail Run Drive to Quail Run Drive, Tanager Lane - Quail Run Drive to Quail Run Drive, Pheasant Lane - Tanager Lane to Quail Run Drive, Project No. 680255. HMA wedge, crack fill and chip seal.	33,995.89	
Promenade - Northstar Avenue to H Avenue, Project No. 680259. Crack fill, experimental chip seal using trap rock and fog seal.	11,354.16	
Forest River Way - 1283' west of Ravine Road to Ravine Road. Project No. 680256. Crack fill and chip seal.	12,981.18	
Chime Street - Erie Street to Stadium Drive and Erie Street - Chime Street to 9th Street, Project No. 680257. Crack fill and chip seal.	12,651.66	
Buckham Wood Drive - 9th Street to Caddam Wood Avenue, Wood Hollow Avenue - Buckham Wood Drive to 213' east of Buckham Wood Drive, Caddam Wood Avenue - Laurel Wood Street to Buckham Wood Drive, Laurel Wood Street - Buckham Wood Drive to Caddam Wood Avenue, Beymoure Street - Caddam Wood Avenue to 162' north of Caddam Wood Avenue, Project No. 680258. Crack fill and chip seal.	24,131.44	
8th Street - Stadium Drive to KL Avenue, Project No. 680144. Chip seal (2nd application).	15,710.92	
Wendalyn Way - 4th Street west 1410', Project No. 680154. Chip seal (2nd application).	20,746.31	



Saybrook Drive, Oshtemo Township

- **LOCAL ROAD PRESERVATION**
- **PREVENTIVE MAINTENANCE AND STRUCTURAL IMPROVEMENTS**
- Including Administrative and Equipment Allocations

PROJECT DESCRIPTION (Oshtemo Charter Township Continued)	PREVENTIVE MAINTENANCE	STRUCTURAL IMPROVEMENT
Castleton Lane - Powderhorn Lane to Whitegate Lane, Lamplighter Lane - Powderhorn Lane to Whitegate Lane, Powderhorn Lane - Castleton Lane to Whitegate Lane and Whitegate Lane - West Michigan Avenue to Castleton Lane, Project No. 680155. Chip seal (2nd application).	18,491.04	
Signal Hill Drive - Torrington Road to Nightingale Avenue and Saybrook Drive - 701' west of Signal Hill Drive to 553' east of Signal Hill Drive, Project No. 680186. Chip seal (2nd application).	10,487.81	
OSHTEMO CHARTER TOWNSHIP TOTALS	359,224.38	0.00
<hr/>		
PAVILION TOWNSHIP ~ 48.35 Local Road Miles		
27th Street - T Avenue to S Avenue, Project No. 680260. HMA wedge, crack fill and chip seal	27,634.60	
R Avenue - 34th Street to 36th Street, Project No. 680261. Crack fill and chip seal.	21,744.79	
Q Avenue - West Pavilion township line to 25th Street, Project No. 680262. Crack fill and chip seal.	12,596.76	
25th Street - RS Avenue to R Avenue, Project No. 680276. Crack fill and chip seal.	12,585.52	
28th Street - S Avenue to QR Avenue, Project No. 680277. Crack fill and chip seal.	38,513.68	
31st Street - Q Avenue to Op Avenue, Project No. 510523. HMA overlay.		143,020.84
34th Street - S Avenue to Q Avenue, Project No. 680278. Crack fill and chip seal.	51,295.67	
34th Street - T Avenue to TS Avenue, Project No. 680263. Crack fill and chip seal.	11,333.91	
PAVILION TOWNSHIP TOTALS	175,704.93	143,020.84
<hr/>		
PRAIRIE RONDE TOWNSHIP ~ 52.11 Local Road Miles		
4th Street - XY Avenue to W Avenue, Project No. 510493. Crack fill and HMA wedge.		20,982.93

- **LOCAL ROAD PRESERVATION**
- **PREVENTIVE MAINTENANCE AND STRUCTURAL IMPROVEMENTS**
- Including Administrative and Equipment Allocations

PROJECT DESCRIPTION (Prairie Ronde Township Continued)	PREVENTIVE MAINTENANCE	STRUCTURAL IMPROVEMENT
5th Street - W Avenue to V Avenue, Project No. 680275. Crack fill and chip seal.	26,426.12	
11th Street - 1950' south of YZ Avenue to YZ Avenue, Project No. 680107. Crack fill and chip seal.	11,405.33	
11th Street - 1950' south of YZ Avenue to YZ Avenue, Project No. 510492. Regravel.		19,497.84
Branchton Street -205' west of Sunshine Avenue to Sunshine Avenue, Sunshine Avenue - Branchton Street to Indiana Valley Street, Indiana Valley Street - 390' south of Sunshine Avenue to 460' north of Deer Run Road, Deer Run Road -Branchton Street to Prairie Ronde Street, Farmstone Street -Sunshine Avenue to Deer Run Road, Grazeview Street -Sunshine Avenue to Deer Run Road, Project No. 680274. Crack fill.	26,715.28	
Paw Paw Lake Drive - 4th Street to 820' northeast of 4th Street, Project No. 680273. Crack fill and chip seal.	5,759.73	
WX Avenue - 6th Street to 8th Street, Project No. 510490 Regravel.		29,457.29
Township at Large , Project No. 510522. Spot regravel throughout township.		11,754.06
PRAIRIE RONDE TOWNSHIP TOTALS	70,306.46	81,692.12

RICHLAND TOWNSHIP ~ 49.24 Local Road Miles

28th Street - D Avenue to C Avenue, Project No. 680228. HMA wedge, crack fill and chip seal.	35,037.13	
30th Street - M-43 to DE Avenue, Project No. 680216. HMA wedge, crack fill and chip seal.	27,162.15	
C Avenue - 28th street to M-89, Project No. 510388. HMA overlay.		46,682.25
CD Avenue - 35th Street to West Gull Lake Drive, Project No. 680215. HMA overlay.	16,971.08	
RICHLAND TOWNSHIP TOTALS	79,170.36	46,682.25

- **LOCAL ROAD PRESERVATION**
- **PREVENTIVE MAINTENANCE AND STRUCTURAL IMPROVEMENTS**
- Including Administrative and Equipment Allocations

PROJECT DESCRIPTION	PREVENTIVE MAINTENANCE	STRUCTURAL IMPROVEMENT
ROSS TOWNSHIP ~ 53.44 Local Road Miles		
39th Street - East Gull Lake Drive to C Avenue and D Avenue - 38th Street to 39th Street, Project No. 680265. HMA wedge and chip seal.	52,687.20	
39th Street - FG Avenue to 3320' north of FG Avenue, Project No. 680264. HMA wedge and chip seal.	29,306.60	
44th Street - 420' south of Allister Mackenzie Avenue to M-89, Project No. 510395. Pulverize, gravel and HMA overlay.		136,315.80
CD Avenue - 46th Street to 48th Street, Project No. 680266. HMA wedge and chip seal.	33,095.29	
ROSS TOWNSHIP TOTALS	115,089.09	136,315.80
<hr/>		
SCHOOLCRAFT TOWNSHIP ~ 36.73 Local Road Miles		
22nd Street - Y Avenue to 200' South of XY Avenue, Project No. 680270. HMA wedge and chip seal.	23,213.11	
TU Avenue - 23rd Street to 2701' east of 23rd Street, Project No. 680269. Chip seal.	9,651.09	
X Avenue - 22nd Street to 24th Street, Project No. 680268. Chip seal.	12,847.16	
YZ Avenue - 2415' west of US-131 to 900' east of 15th Street, Project No. 680267. Chip seal.	28,622.87	
Z Avenue - 21st Street to 24th Street, Project No. 680271. HMA wedge and chip seal.	41,610.66	
SCHOOLCRAFT TOWNSHIP TOTALS	115,944.89	0.00

- **LOCAL ROAD PRESERVATION**
- **PREVENTIVE MAINTENANCE AND STRUCTURAL IMPROVEMENTS**
- Including Administrative and Equipment Allocations

PROJECT DESCRIPTION	PREVENTIVE MAINTENANCE	STRUCTURAL IMPROVEMENT
TEXAS CHARTER TOWNSHIP ~ 92.13 Local Road Miles		
1st Street - 105' south of Callaway Drive to Stadium Drive, Project No. 680229. HMA wedge, crack fill and chip seal.	28,585.37	
6th Street – Q Avenue to 742' north of Q Avenue, Project No. 680230. HMA wedge, crack fill and chip seal.	8,403.73	
10th Street – R Avenue to Q Avenue, Project No. 680234. Project No. 680234. Chip seal.	15,588.92	
10th Street - Q Avenue to 742' north of Q Avenue, Project No. 680231 Chip seal.	28,050.49	
10th Street - 5280' south of S Avenue to S Avenue, Project No. 680232. Chip seal.	16,791.39	
Blue Jay Drive - 10th Street to Bob White Avenue, Bob White Avenue - Morning Dove Lane to Warbler Drive, Swallow Avenue - 10th Street to Finch Drive, Blue Spruce Lane - 345' west of Old Stone Circle to 515' south of Green Pine Lane, Canary Lane - Swallow Avenue to Blue Jay Drive, Morning Dove Lane - Swallow Avenue to Blue Jay Drive, Old Stone Circle - 221' north of Blue Spruce Lane to Blue Spruce Lane, Old Oak Circle - 250' north of Blue Spruce Lane to Blue Spruce Lane, Finch Drive - Blue Spruce Lane to Bob White Avenue, Warbler Drive - Swallow Avenue to Project No. 510391. HMA overlay.		255,901.43
Eagle Lake Drive - OP Avenue to OP Avenue, Project No. 510390. HMA overlay.		60,417.78
Glen Harbor Drive - 1,055' west of Birchwood Drive to Birchwood Drive and Birchwood Drive -847' west of Glen Harbor Drive to Texas Drive, Project No. 510392. HMA overlay.		56,833.66
Leland Court - 260' north of Texas Heights Avenue to Texas Heights Avenue and Texas Heights Avenue - 70' west of Copper Harbor Street to 8th Street, Project No. 510393. HMA overlay.		49,684.59

- **LOCAL ROAD PRESERVATION**
- **PREVENTIVE MAINTENANCE AND STRUCTURAL IMPROVEMENTS**
- Including Administrative and Equipment Allocations

PROJECT DESCRIPTION (Texas Charter Township Continued)	PREVENTIVE MAINTENANCE	STRUCTURAL IMPROVEMENT
Farmington Avenue - 176' south of Orchard Hill Avenue to Stoneybrook Road, Foxcroft Drive - 165' east of Farmington Avenue to 12th Street, Hunters Ridge Drive - Hitching Post Road to Stoneybrook Road, Hitching Post Road - Hunters Ridge to Foxcroft, Orchard Hill Avenue - Farminton Avenue to Farmington Avenue, Project No. 510543. HMA overlay.		225,645.19
Standiford Street - Heathrow Avenue to Stapleton Drive, Stapleton Drive - Dorval Road to 12th Street, Dorval Road - 801' south of Stapleton Drive to Stapleton Drive, Project No. 510389. HMA overlay.		65,278.87
TEXAS CHARTER TOWNSHIP TOTALS	97,419.90	713,761.52
<hr/>		
WAKESHMA TOWNSHIP ~ 47.52 Local Road Miles		
U Avenue - 36th Street to 39th Street, Project No. 510396. Pulverize and Re gravel.		62,789.47
V Avenue - 39th street to 42nd Street, Project No. 680272. HMA wedge and chip seal.	54,714.62	
WAKESHMA TOWNSHIP TOTALS	54,714.62	62,789.47
<hr/>		
Total Local Road Preventive Maintenance	2,147,633.10	
Total Local Road Preservation Structural Improvements		4,179,342.81



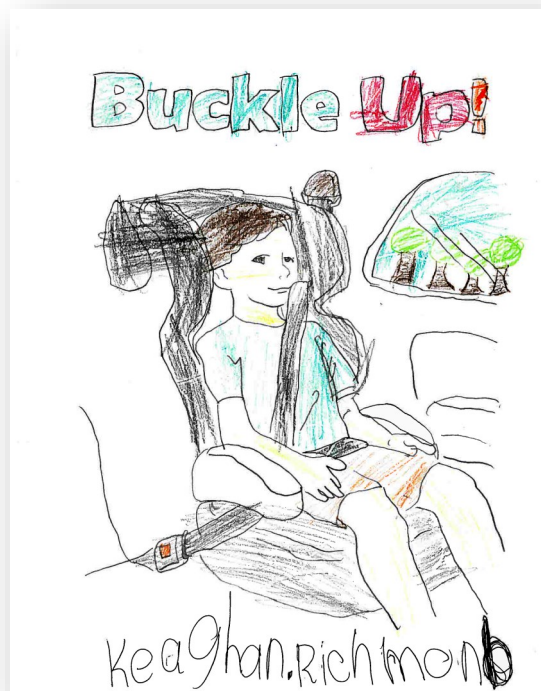
Glen Harbor Drive, Texas Township

CHAPTER 3

Road Commission of Kalamazoo County Overview

Financials

Local Road Participation Funds	Page 38
Local Road Township Contributions	Page 39
Local Road Project Summary Expenditures	Page 40
Routine Maintenance Expenditures	Page 41
Local Road Routine Maintenance Expenditures and Revenues	Page 42
Combined Balance Sheet	Page 43
Statement of Revenues and Expenditures	Pages 44—65
Supplemental Information—Graphs	



Put The Brakes on Fatalities Poster Art Contest

● LOCAL ROAD PARTICIPATION FUNDS
●
●

The Board of County Road Commissioners of the County of Kalamazoo determines, annually, the amount of local road participation funds that will be made available to each township. The distribution of the funds is based on township mileage and population and is determined on the same basis that local road fund money is distributed to the RCKC from the MTF.

Participation funds are made available to the townships for use on local road preservation-structural improvements, preventive maintenance, construction and special assessment projects. Townships, in order to receive local road participation funds, must match funds on a dollar-for-dollar basis.

Township	Allocation
Alamo	41,094.00
Brady	49,341.00
Charleston	24,510.00
Climax	41,647.00
Comstock	140,544.00
Cooper	97,542.00
Kalamazoo	165,055.00
Oshtemo	148,978.00
Pavilion	67,676.00
Prairie Ronde	47,780.00
Richland	71,412.00
Ross	54,589.00
Schoolcraft	54,107.00
Texas	154,345.00
Wakeshma	41,380.00
Total	1,200,000.00



Junction Avenue & Colgrove Street, Kalamazoo Township

● **LOCAL ROAD TOWNSHIP CONTRIBUTIONS**

Township	Preservation - Structural Imp. Contributions	Preventive Maintenance Contributions	Routine Maintenance Contributions	Special Assessment Contributions	Total Township Contributions
Alamo	231,055.01		1,755.00		232,810.01
Brady	27,438.23	27,552.97	7,977.84		62,969.04
Charleston		27,330.56	1,980.00		29,310.56
Climax		101,470.32	7,260.00		108,730.32
Comstock	88,555.05	48,422.55			136,977.60
Cooper	47,844.53	67,916.09			115,760.62
Kalamazoo	2,413,255.66	109,658.29	588.00		2,523,501.95
Oshtemo		138,928.38	924.00	5,005.74	144,858.12
Pavilion	135,622.78	98,983.82			234,606.60
Prairie Ronde	24,014.89	57,245.92	52,925.40		134,186.21
Richland	22,136.49	37,545.87	1,800.00		61,482.36
Ross	124,834.99	54,364.30	1,410.00		180,609.29
Schoolcraft		53,892.93			53,892.93
Texas	528,295.89	86,621.04			614,916.93
Wakeshma		25,945.36	4,080.00		30,025.36
Total	3,643,053.52	935,878.40	80,700.24	5,005.74	4,664,637.90

Preservation-Structural Improvement Contributions: Payments made by township for preservation-structural improvement projects

Preventive Maintenance Contributions: Payments made by township for preventive maintenance projects

Routine Maintenance Contributions: Payments made by township for dust control, and miscellaneous

Special Assessment Contributions: Payments made by township for special assessment projects

- **LOCAL ROAD PROJECT SUMMARY EXPENDITURES**
- **Preservation - Structural Improvements and Preventive Maintenance Expenditures**
- Including Administrative and Equipment Allocations

Township	Local Preventive Maintenance	Local Preservation Structural Improvements	Total Township Projects
Alamo	298,743.17		298,743.17
Brady	58,103.01	53,350.04	111,453.05
Charleston	57,623.33		57,623.33
Climax	165,729.00		165,729.00
Comstock	102,841.38	186,939.43	289,780.81
Cooper	145,096.57	100,040.18	245,136.75
Kalamazoo	251,922.01	2,654,751.16	2,906,673.17
Oshtemo	359,224.38		359,224.38
Pavilion	175,704.93	143,020.84	318,725.77
Prairie Ronde	70,306.46	81,692.12	151,998.58
Richland	79,170.36	46,682.25	125,852.61
Ross	115,089.09	136,315.80	251,404.89
Schoolcraft	115,944.89		115,944.89
Texas	97,419.90	713,761.52	811,181.42
Wakeshma	54,714.62	62,789.47	117,504.09
Total	2,147,633.10	4,179,342.81	6,326,975.91

Preservation-Structural Improvements: Roadwork, including placing a hard surface on the gravel road, reconstructing an existing road or bridge, resurfacing a road with HMA overlay or installing new culverts or catch basins.

Preventive Maintenance: Roadwork, including chip sealing, pavement crack seal, and HMA wedging to preserve roads by retarding surface deterioration.



31st Street, Q Avenue to OP Avenue, Pavilion Township

- **ROUTINE MAINTENANCE EXPENDITURES**
- **For Calendar Year Ending December 31, 2015**
- Including Administrative and Equipment Allocations

	2015 Cost	Average Cost Per Mile	2014 Cost	Average Cost Per Mile	Increase (Decrease) Per Mile
PRIMARY ROAD SYSTEM	448.35		449.28 Miles		
Surface Maintenance	2,102,946.16	4,690.41	541,149.60	1,204.48	3,485.93
Roadside Maintenance	390,247.95	870.41	462,969.01	1,030.47	(160.06)
Traffic Control	493,502.07	1,100.71	575,491.30	1,280.92	(180.21)
Winter Maintenance	853,857.55	1,904.44	1,105,555.85	2,460.73	(556.29)
Total	3,840,553.73	8,565.97	2,685,165.76	5,976.60	2,589.37
LOCAL ROAD SYSTEM	817.24 Miles		816.51		
Surface Maintenance	3,653,674.35	4,470.75	1,523,276.20	1,865.59	2,605.16
Roadside Maintenance	610,704.40	747.28	673,309.91	824.62	(77.34)
Traffic Control	285,714.30	349.61	232,577.83	284.85	64.76
Winter Maintenance	637,525.61	780.10	979,635.06	1,199.78	(419.68)
Total	5,187,618.66	6,347.73	3,408,799.00	4,174.84	2,172.89



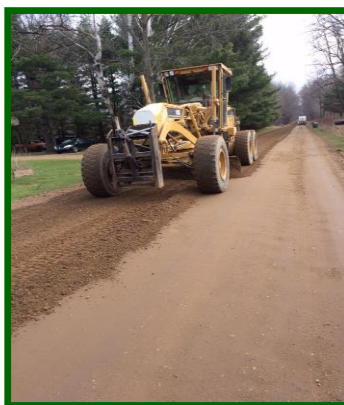
N Avenue, Comstock Township

- **LOCAL ROAD ROUTINE MAINTENANCE EXPENDITURES**
- **AND REVENUES**
- Including Administrative and Equipment Allocations

Township	Michigan Transportation Fund Revenues	Township Revenue for Maintenance	Total Revenue for Maintenance	Less Maintenance Expenditures	Difference By Township
Alamo	155,705.10	1,755.00	157,460.10	138,432.56	(19,027.54)
Brady	181,217.04	7,977.84	189,194.88	199,489.17	10,294.29
Charleston	93,200.86	1,980.00	95,180.86	44,248.63	(50,932.23)
Climax	190,928.04	7,260.00	198,188.04	181,274.35	(16,913.69)
Comstock	307,748.00	0.00	307,748.00	263,220.30	(44,527.70)
Cooper	258,534.67	0.00	258,534.67	179,728.99	(78,805.68)
Kalamazoo	306,925.05	588.00	307,513.05	537,456.00	229,942.95
Oshtemo	306,883.90	924.00	307,807.90	242,112.39	(65,695.51)
Pavilion	198,951.95	0.00	198,951.95	184,554.92	(14,397.03)
Prairie Ronde	214,423.71	52,925.40	267,349.11	184,409.49	(82,939.62)
Richland	202,614.15	1,800.00	204,414.15	145,827.94	(58,586.21)
Ross	219,896.43	1,410.00	221,306.43	259,543.70	38,237.27
Schoolcraft	151,137.65	0.00	151,137.65	75,924.22	(75,213.43)
Texas	379,099.14	0.00	379,099.14	217,467.34	(161,631.80)
Wakeshma	195,536.64	4,080.00	199,616.64	296,531.77	96,915.13
Total	3,362,802.33	80,700.24	3,443,502.57	3,150,221.77	(293,280.80)

Local road routine maintenance includes winter snow removal, roadside mowing, pavement marking, traffic signal maintenance, dust control, gravel road grading, pot-hole repair, etc.

The chart above represents, for 2015, the total revenue collected less the total expenditures to arrive at either a deficit or surplus, by township, for the local road routine maintenance activities. The MTF revenue received includes local mileage, local urban mileage, and a factor for population. RCKC receives MTF as a collective amount based on the county as a whole. This data is presented for illustrative purposes only, and reflects the expenditures by township outside of annual projects. As you can see, RCKC must annually apply primary road dollars to cover the deficit for local road routine maintenance expenditures. Please note, weather and other issues may result in activity expenditures varying across the county.



U Avenue - 39th Street to 42nd Street, Wakeshma Township

● **COMBINED BALANCE SHEET**
 ● **For Calendar Year 2015**
 ●

ASSETS

General Operating Fund:

Cash Account		4,596,484.90	
Interest Bearing Deposits		1,615,778.77	
Accounts Receivable:			
Michigan Transportation Fund	2,179,478.26		
Due on County road Agreements	2,024,241.57		
Due on Special Assessments	5,625.55		
Sundry Accounts Receivable	38,067.36	4,247,412.74	
Inventories:			
Equipment Material	92,489.91		
Road Material	862,367.94	954,857.85	
Advances - Township		86,108.56	
Prepaid Insurance		157,795.72	
Deferred Expense - STP, Safety, Critical Bridge		36,123.13	
Total General Operating Assets			11,694,561.67

FIXED ASSET GROUP 122,649,870.68

TOTAL ASSETS 134,344,432.35

LIABILITIES AND FUND EQUITIES

Accounts Payable		654,826.70	
Accrued Liability		56,781.97	
Deferred Revenue - Special Assessment		5,625.55	
Deferred Revenue - State		1,092,399.39	
Advances: Townships and Other		707,316.48	
Available Operating Equity:			
Primary Road - Reserved	7,450,857.06		
Local Road - Reserved	0.00		
County Road Commission	1,726,754.52	9,177,611.58	
Total General Operating Liabilities and Equity			11,694,561.67

FIXED ASSET GROUP

Plant and Equipment Equity 122,649,870.68

TOTAL LIABILITIES AND FUND EQUITIES 134,344,432.35

● **STATEMENT OF REVENUES AND EXPENDITURES**

● **For Calendar Year Ending December 31, 2015**

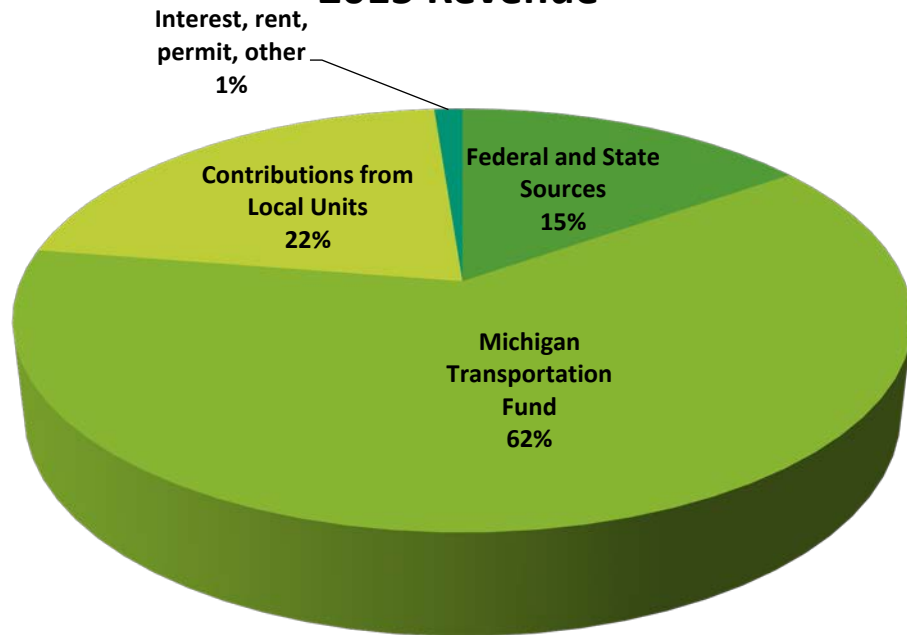


	Primary Road Fund	Local Road Fund	Road Commission Fund	Total
REVENUE				
Michigan Transportation Fund	10,512,795.22	3,360,364.59	0.00	13,873,159.81
Optional Transfer	(1,249,208.20)	1,249,208.20	0.00	0.00
Critical Bridge Fund	247,852.35	0.00	0.00	247,852.35
Snow Removal Fund	1,126.53	2,437.73	0.00	3,564.26
Other State Revenue	1,285,238.86	414,301.19	0.00	1,699,540.05
Economic Development Fund	24.49	0.00	0.00	24.49
Federal Revenue	1,372,383.66	0.00	82,508.12	1,454,891.78
County Raised Revenue	40,533.42	4,629,221.00	232,686.79	4,902,441.21
Gain on Disposal of Equipment	0.00	0.00	109,756.88	109,756.88
Contributions from Private Sources	0.00	0.00	0.00	0.00
Special Assessment Districts	0.00	5,005.74	0.00	5,005.74
Miscellaneous Revenue	2,782.12	0.00	623.45	3,405.57
Total Revenue	12,213,528.45	9,660,538.45	425,575.24	22,299,642.14
EXPENDITURES				
Construction/Capacity Improvement	0.00	0.00	0.00	0.00
Preservation - Structural Imp.	5,446,344.84	3,953,671.24	0.00	9,400,016.08
Routine and Preventive Maintenance	3,654,920.33	4,936,874.79	0.00	8,591,795.12
Other: Work for Others	0.00	0.00	188,855.72	188,855.72
Administration	519,487.64	507,460.09	0.00	1,026,947.73
Interest Expense	0.00	0.00	0.00	0.00
Equipment Account	165,502.10	262,532.33	6,241.08	434,275.51
	9,786,254.91	9,660,538.45	195,096.80	19,641,890.16
Non-Operating Expenditures				
* Net Capital Outlay	1,750,060.88	0.00	(221,824.83)	1,528,236.05
Total Expenditures	11,536,315.79	9,660,538.45	(26,728.03)	21,170,126.21
Increase (Decrease) in Available Operating Fund	677,212.66	0.00	452,303.27	1,129,515.93
Total Allocated Expenditures	12,213,528.45	9,660,538.45	425,575.24	22,299,642.14

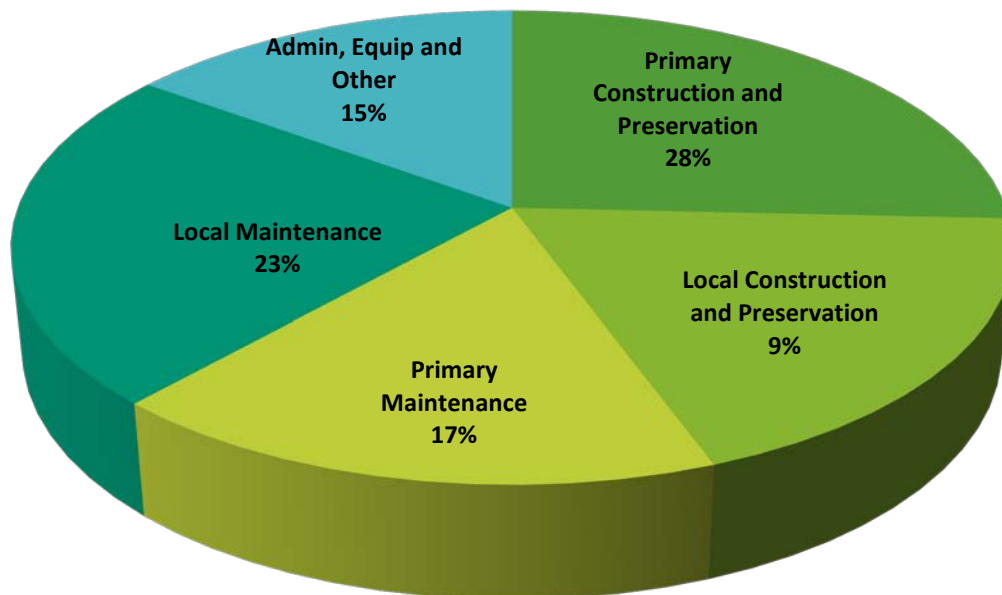
*Net Capital Outlay - Expenditures less depreciation and depletion.

- Revenues and Expenditures
- 2015
-

2015 Revenue

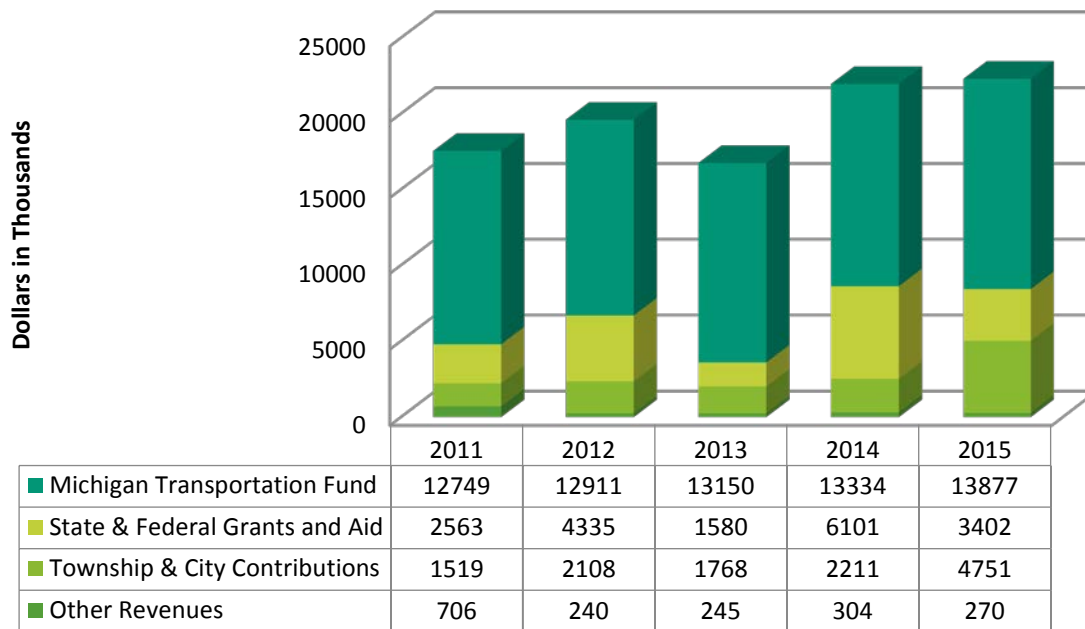


2015 Expenditure

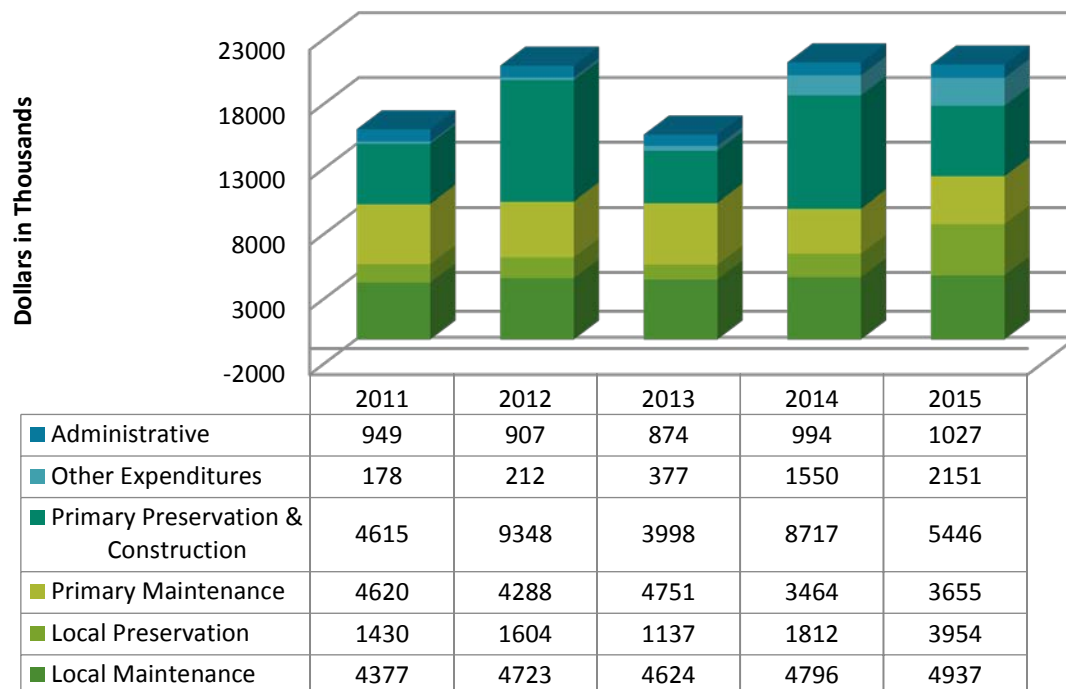


- Revenues and Expenditures History
- 2011 through 2015
-

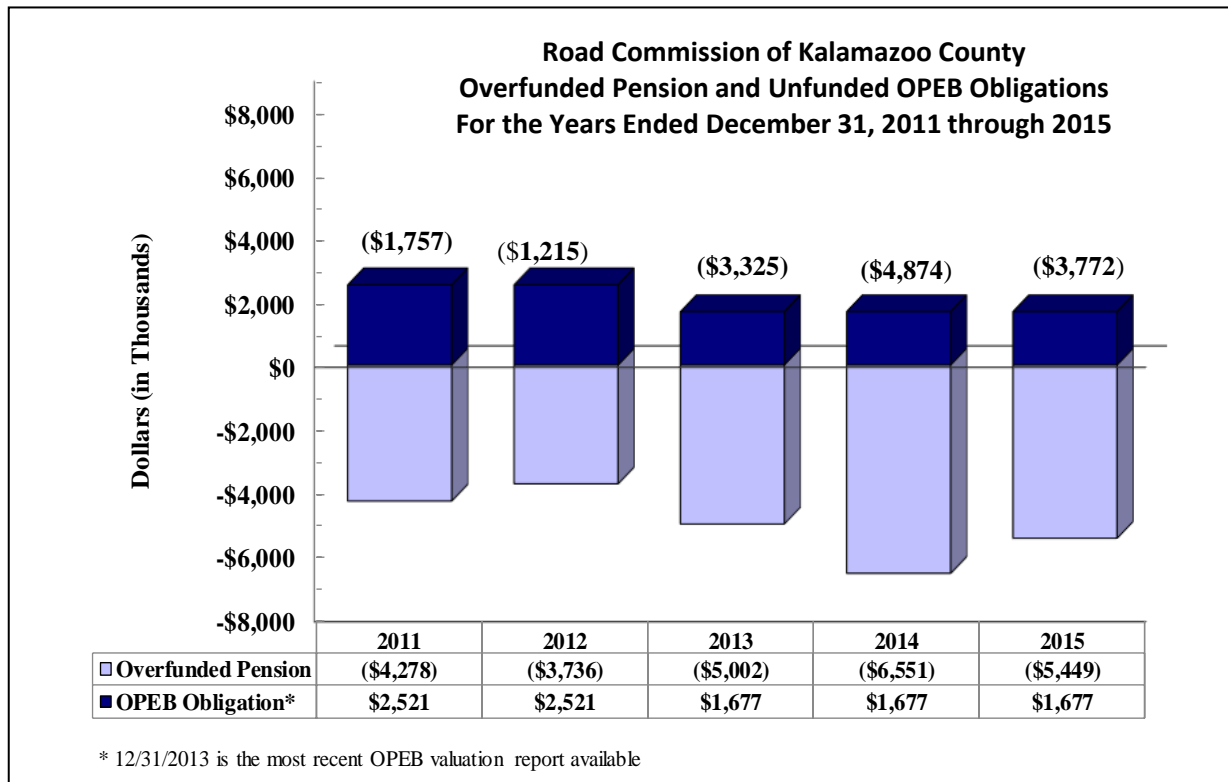
Revenue History



Expenditure History

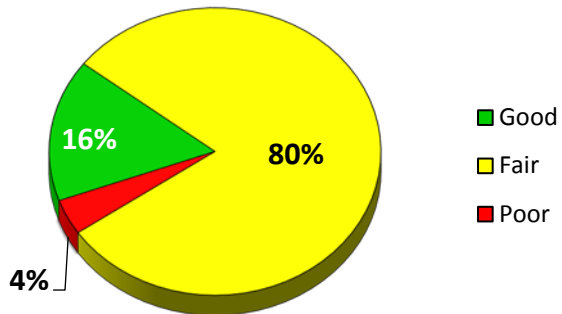


● **Overfunded Pension and Unfunded OPEB Obligations**
 ● **2011 through 2015**

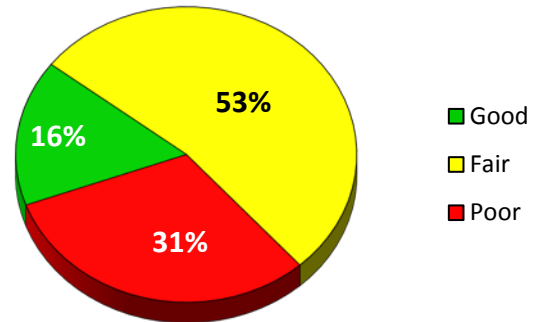


● **Countywide Asset Management PASER Rating Summary**
 ● **2015**
 ●

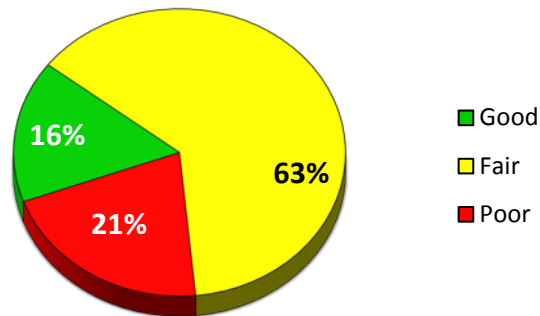
Primary Roads



Local Roads



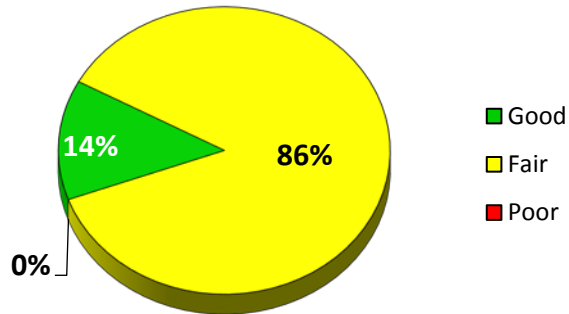
Primary & Local Roads



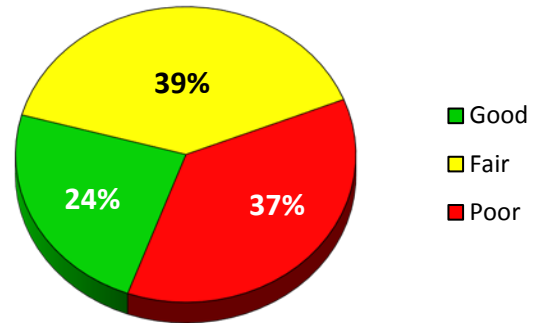
*Good (PASER rating ≥ 8), Fair (PASER rating = 7, 6, 5) & Poor (PASER rating ≤ 4)
 Based on year end 2014 PASER data (does not include gravel roads).

● **Alamo Township Asset Management PASER Rating Summary**
 ● **2015**
 ●

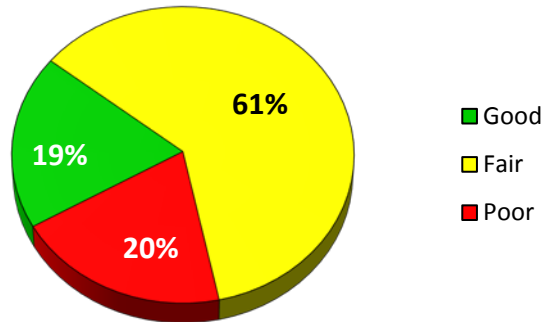
Primary Roads



Local Roads



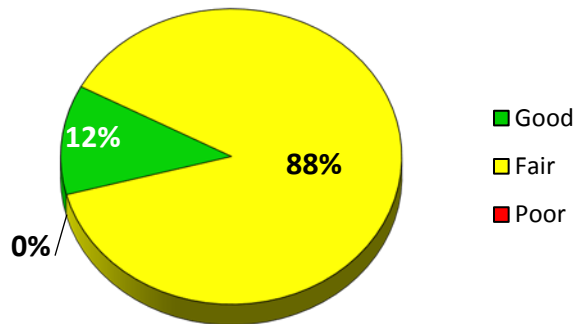
Local & Primary Roads



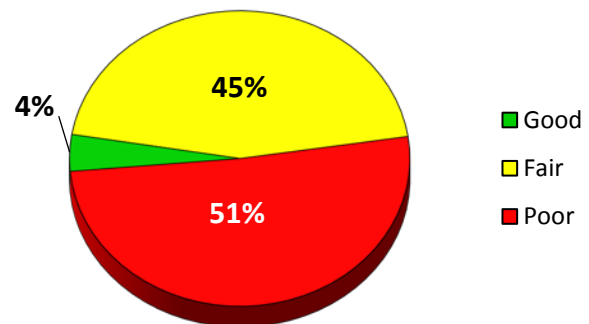
*Good (PASER rating ≥ 8), Fair (PASER rating = 7, 6, 5) & Poor (PASER rating ≤ 4)
 Based on year end 2014 PASER data (does not include gravel roads).

● **Brady Township Asset Management PASER Rating Summary**
 ● **2015**
 ●

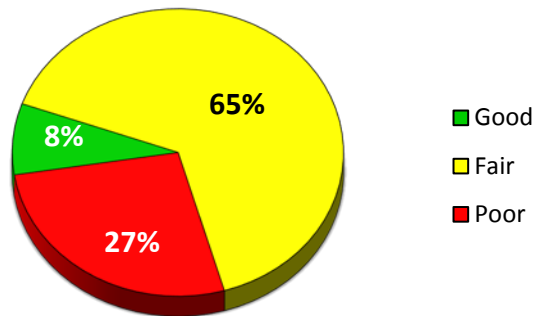
Primary Roads



Local Roads



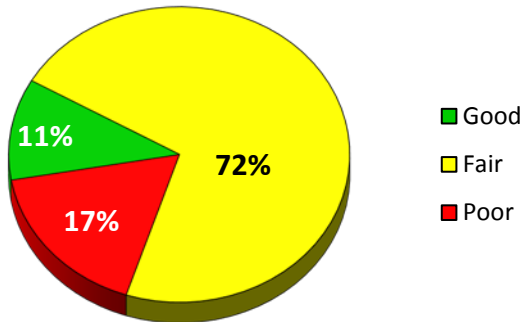
Local & Primary Roads



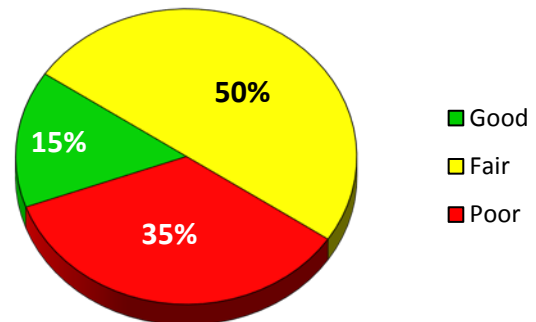
*Good (PASER rating ≥ 8), Fair (PASER rating = 7, 6, 5) & Poor (PASER rating ≤ 4)
 Based on year end 2014 PASER data (does not include gravel roads).

● **Charleston Township Asset Management PASER Rating Summary**
 ● **2015**
 ●

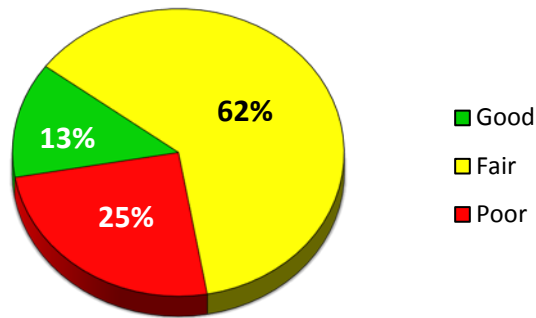
Primary Roads



Local Roads



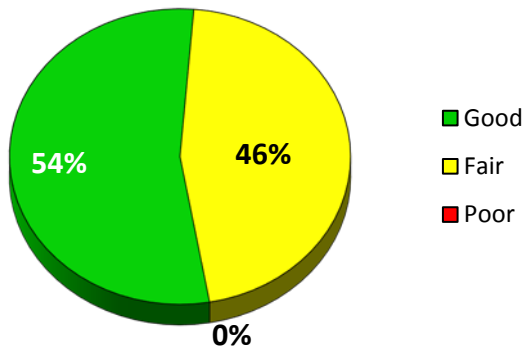
Primary & Local Roads



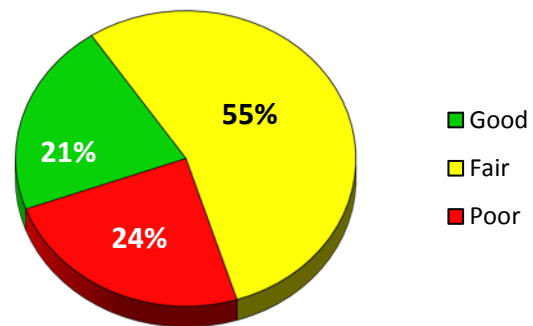
*Good (PASER rating ≥ 8), Fair (PASER rating = 7, 6, 5) & Poor (PASER rating ≤ 4)
 Based on year end 2014 PASER data (does not include gravel roads).

● Climax Township Asset Management PASER Rating Summary
 2015
 ●

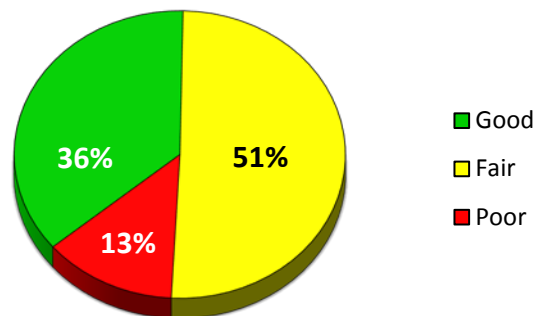
Primary Roads



Local Roads

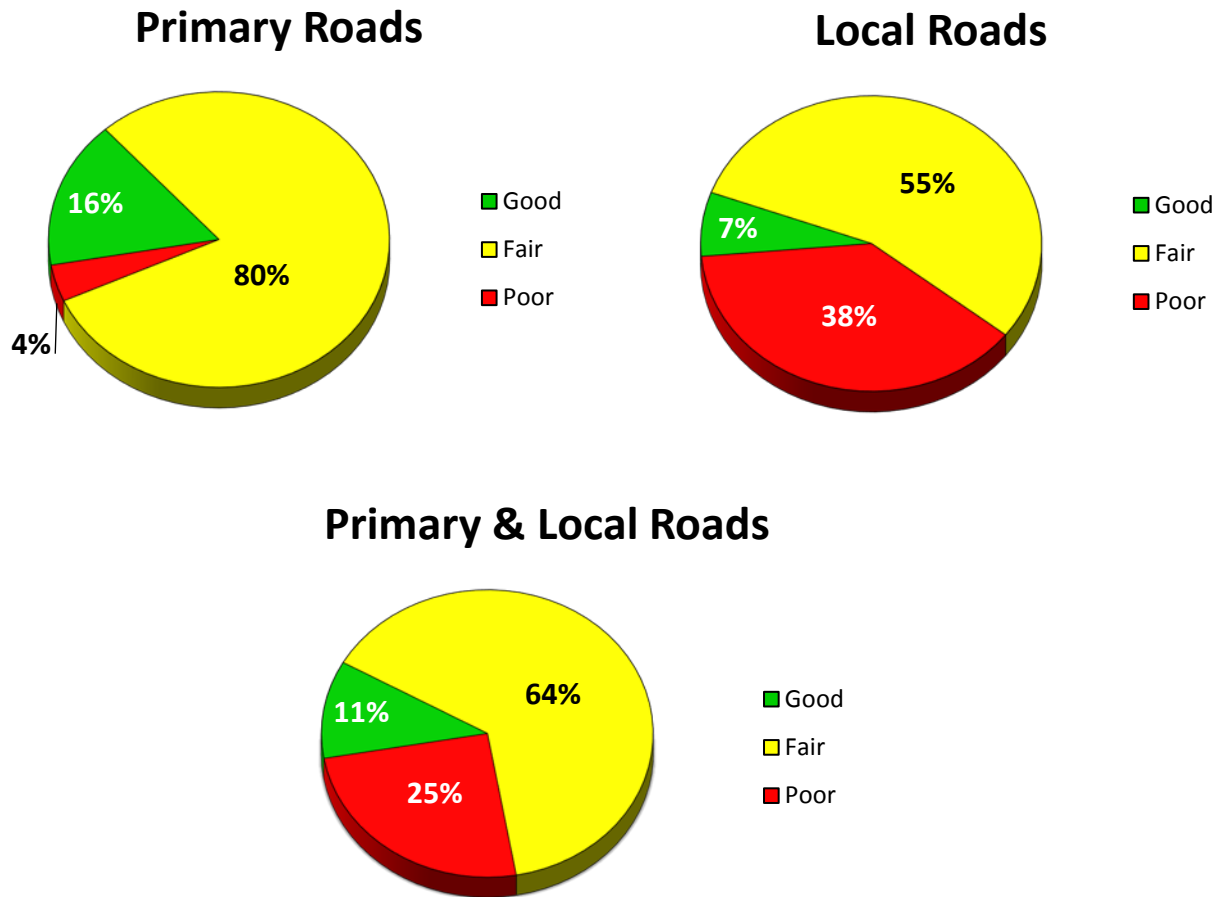


Primary & Local Roads



*Good (PASER rating ≥ 8), Fair (PASER rating = 7, 6, 5) & Poor (PASER rating ≤ 4)
 Based on year end 2014 PASER data (does not include gravel roads).

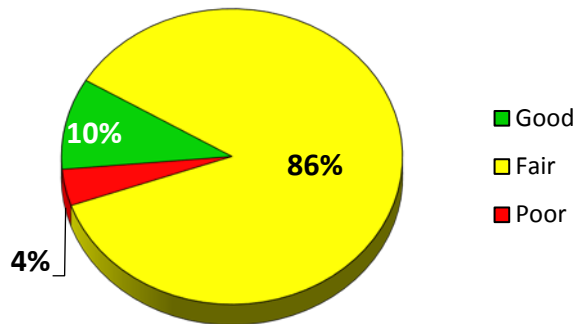
● **Comstock Township Asset Management PASER Rating Summary**
 ● **2015**
 ●



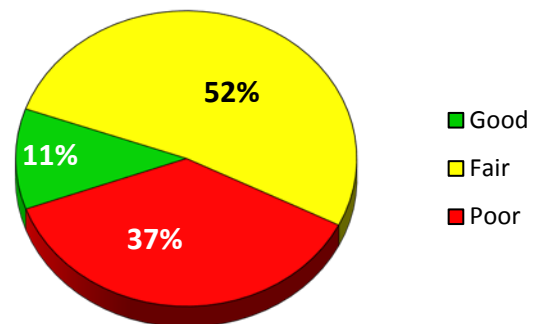
*Good (PASE rating ≥ 8), Fair (PASE rating = 7, 6, 5) & Poor (PASE rating ≤ 4)
 Based on year end 2014 PASE data (does not include gravel roads).

● Cooper Township Asset Management PASER Rating Summary
 2015
 ●

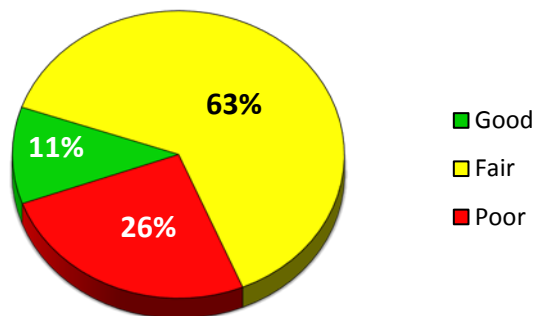
Primary Roads



Local Roads

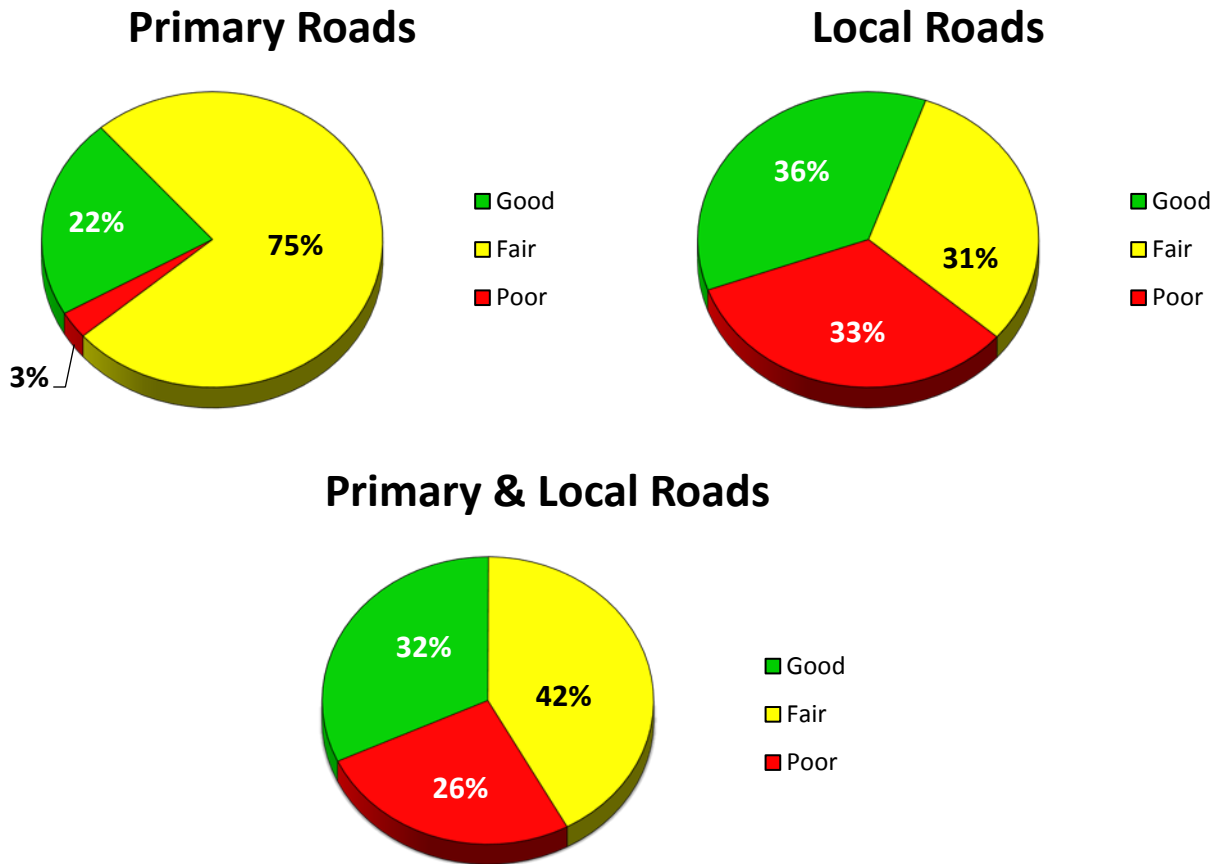


Primary & Local Roads



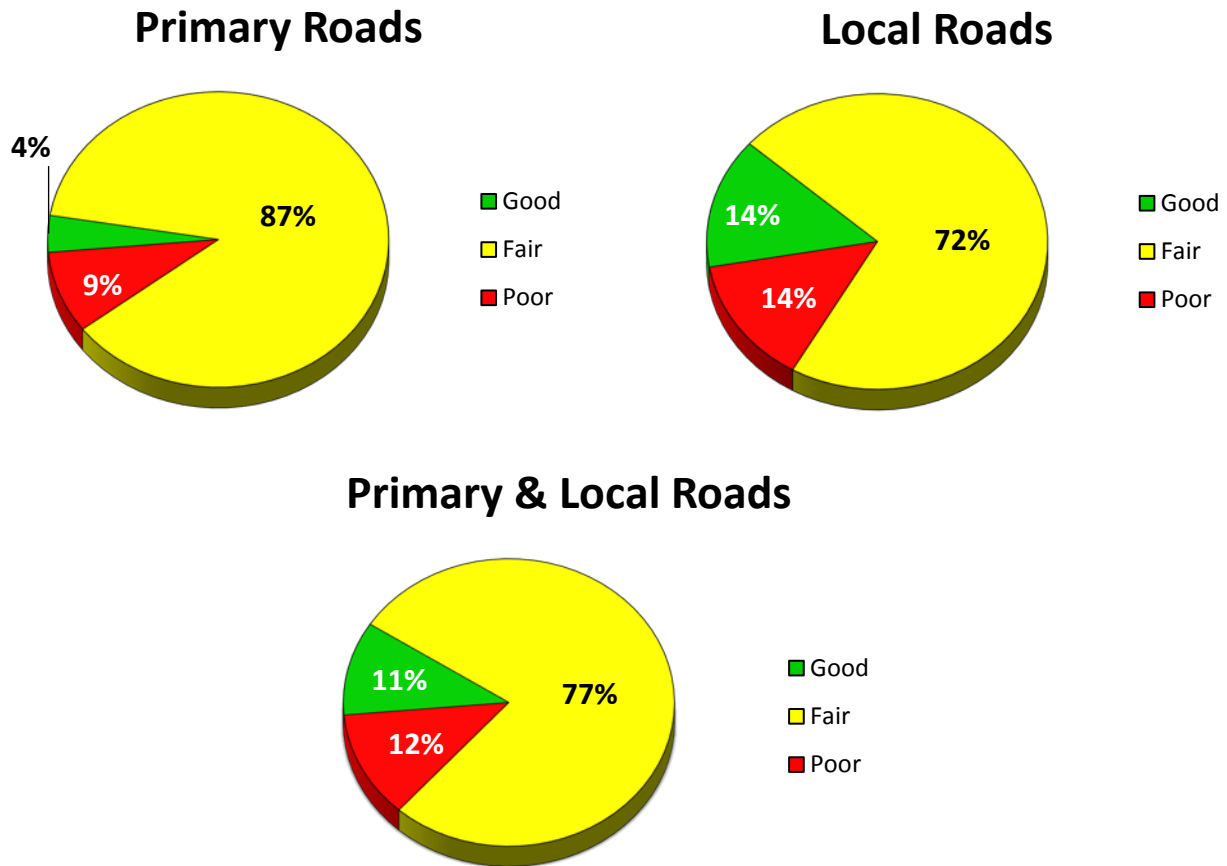
*Good (PASER rating ≥ 8), Fair (PASER rating = 7, 6, 5) & Poor (PASER rating ≤ 4)
 Based on year end 2014 PASER data (does not include gravel roads).

● **Kalamazoo Township Asset Management PASER Rating Summary**
 ● **2015**
 ●



*Good (PASER rating ≥ 8), Fair (PASER rating = 7, 6, 5) & Poor (PASER rating ≤ 4)
 Based on year end 2014 PASER data (does not include gravel roads).

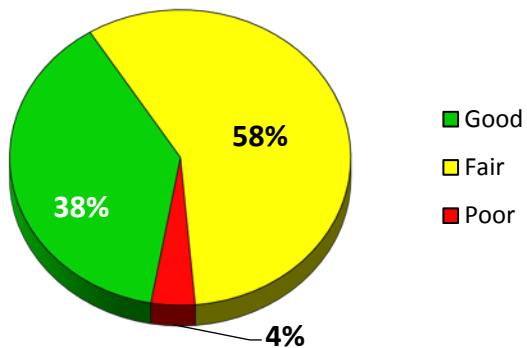
● **Oshtemo Township Asset Management PASER Rating Summary**
 ● **2015**
 ●



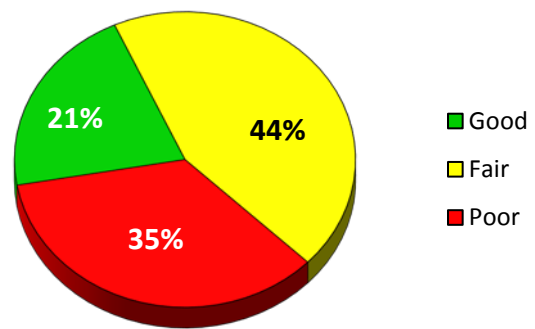
*Good (PASE rating ≥ 8), Fair (PASE rating = 7, 6, 5) & Poor (PASE rating ≤ 4)
 Based on year end 2014 PASE data (does not include gravel roads).

● Pavilion Township Asset Management PASER Rating Summary
 ● 2015
 ●

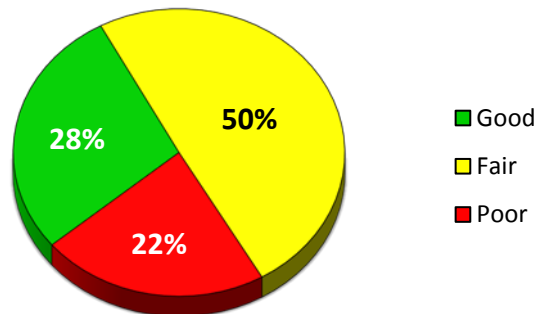
Primary Roads



Local Roads



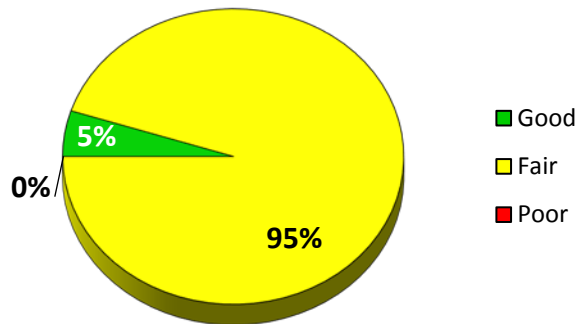
Primary & Local Roads



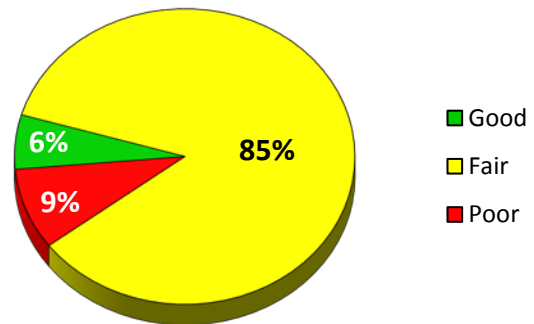
*Good (PASER rating ≥ 8), Fair (PASER rating = 7, 6, 5) & Poor (PASER rating ≤ 4)
 Based on year end 2014 PASER data (does not include gravel roads).

● **Prairie Ronde Township Asset Management PASER Rating Summary**
 ● **2015**
 ●

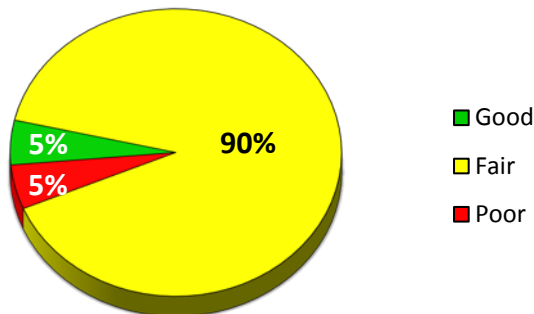
Primary Roads



Local Roads



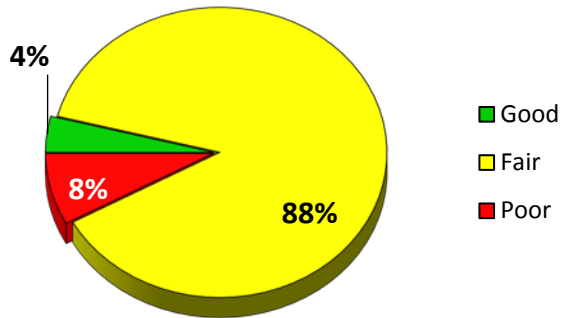
Primary & Local Roads



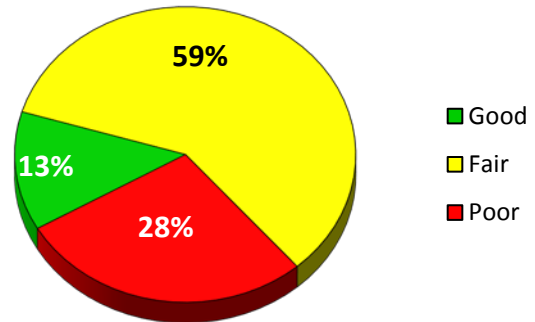
*Good (PASER rating ≥ 8), Fair (PASER rating = 7, 6, 5) & Poor (PASER rating ≤ 4)
 Based on year end 2014 PASER data (does not include gravel roads).

● **Richland Township Asset Management PASER Rating Summary**
 ● **2015**
 ●

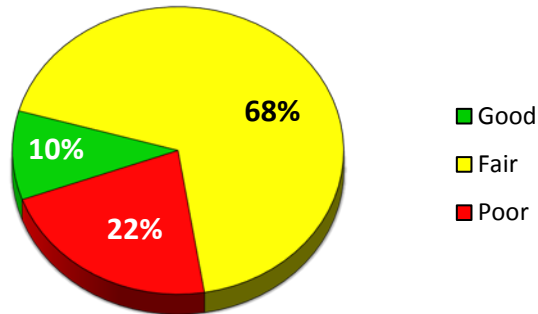
Primary Roads



Local Roads



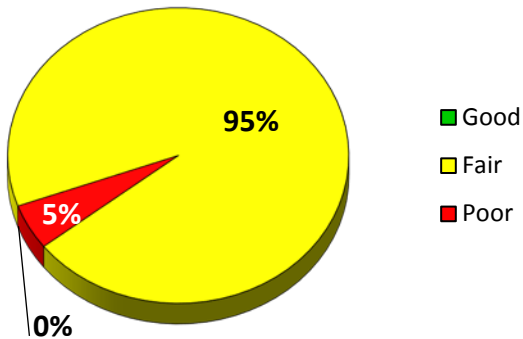
Primary & Local Roads



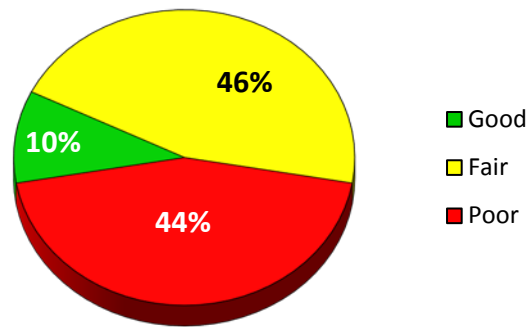
*Good (PASE rating ≥ 8), Fair (PASE rating = 7, 6, 5) & Poor (PASE rating ≤ 4)
 Based on year end 2014 PASE data (does not include gravel roads).

● **Ross Township Asset Management PASER Rating Summary**
 ● **2015**
 ●

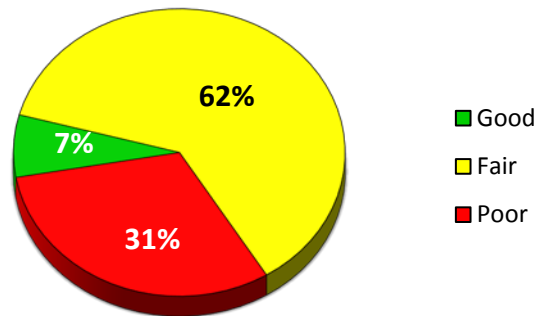
Primary Roads



Local Roads



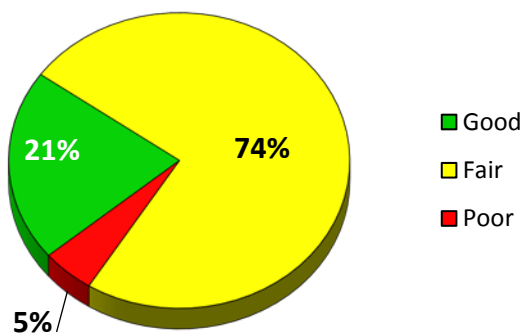
Primary & Local Roads



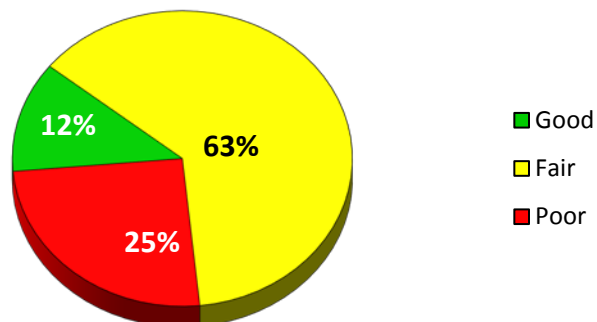
*Good (PASE rating ≥ 8), Fair (PASE rating = 7, 6, 5) & Poor (PASE rating ≤ 4)
 Based on year end 2014 PASE data (does not include gravel roads).

● **Schoolcraft Township Asset Management PASER Rating Summary**
 ● **2015**
 ●

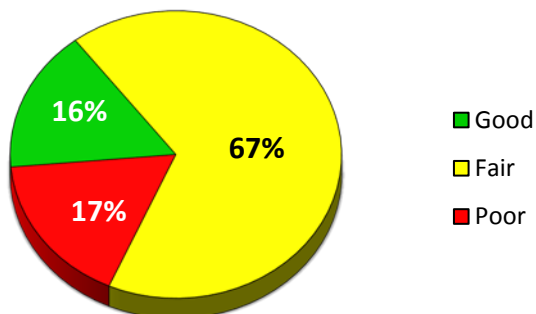
Primary Roads



Local Roads

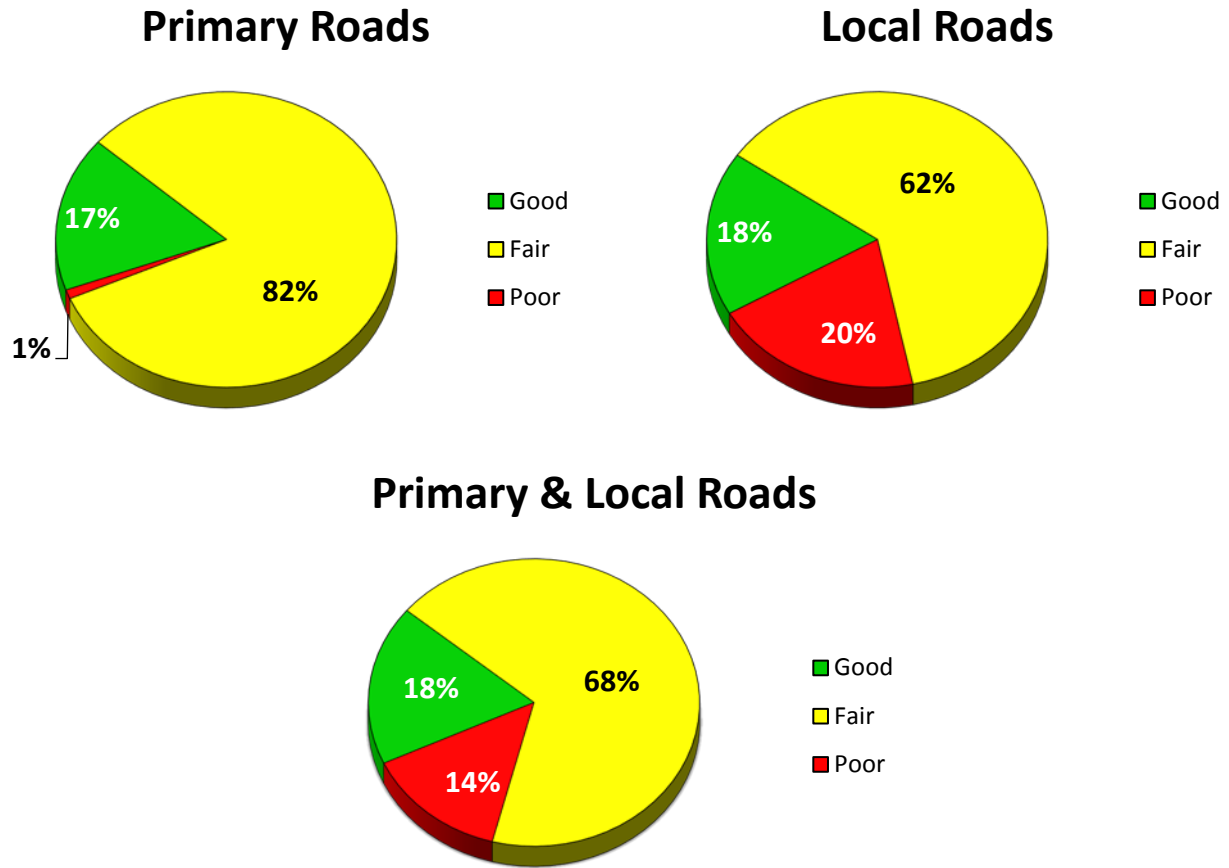


Primary & Local Roads



*Good (PASER rating ≥ 8), Fair (PASER rating = 7, 6, 5) & Poor (PASER rating ≤ 4)
 Based on year end 2014 PASER data (does not include gravel roads).

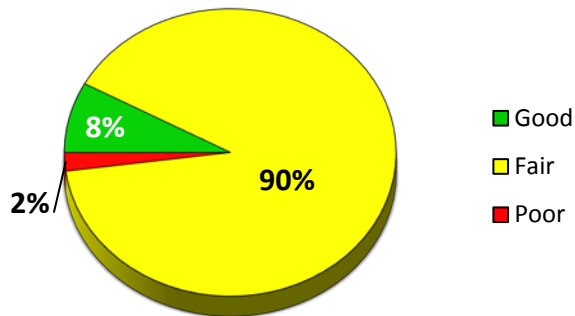
● Texas Township Asset Management PASER Rating Summary
 ● 2015
 ●



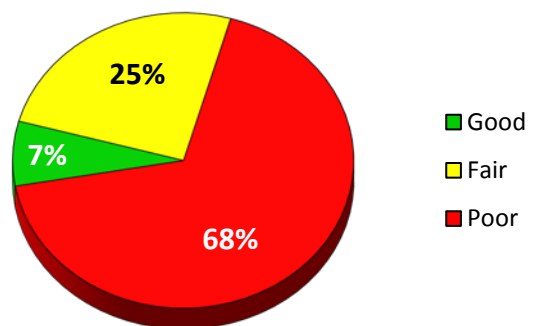
*Good (PASER rating ≥ 8), Fair (PASER rating = 7, 6, 5) & Poor (PASER rating ≤ 4)
 Based on year end 2014 PASER data (does not include gravel roads).

● **Wakeshma Township Asset Management PASER Rating Summary**
 ● **2015**
 ●

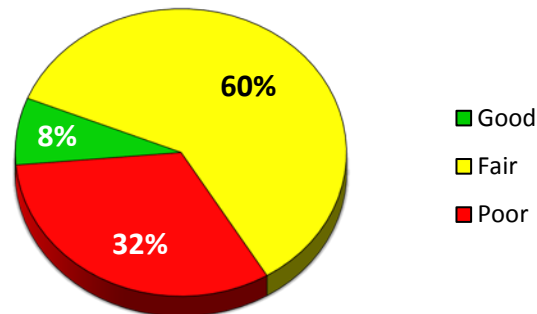
Primary Roads



Local Roads

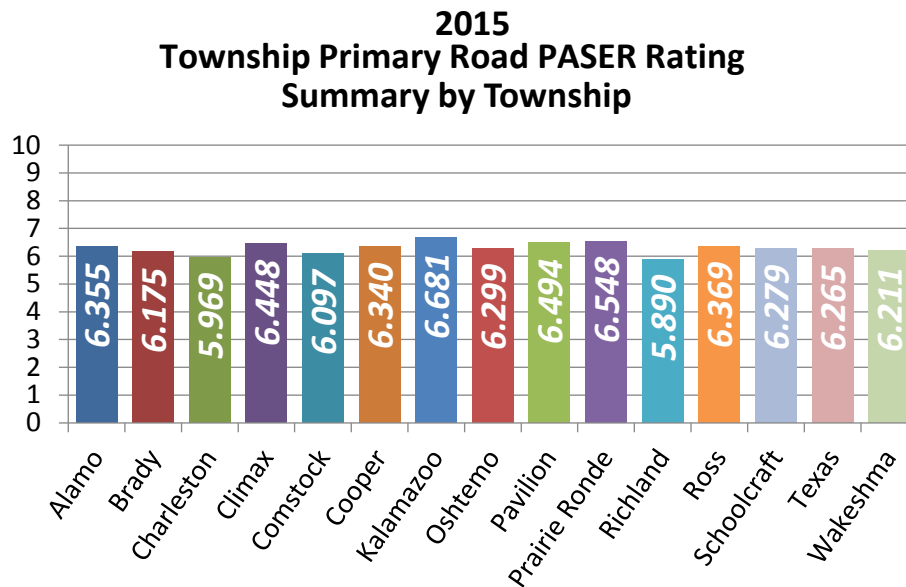


Primary & Local Roads



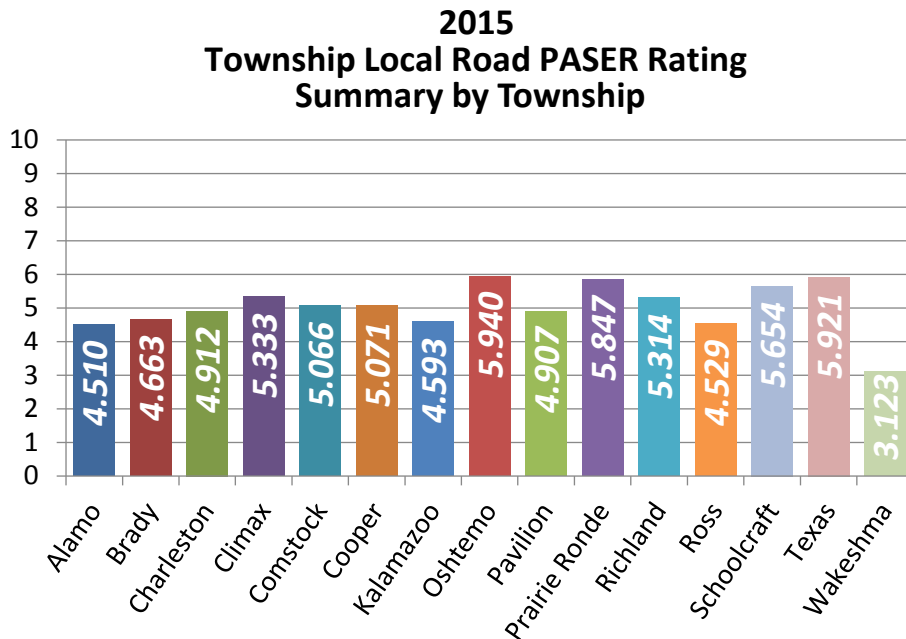
*Good (PASER rating ≥ 8), Fair (PASER rating = 7, 6, 5) & Poor (PASER rating ≤ 4)
 Based on year end 2014 PASER data (does not include gravel roads).

● **Primary Road Average PASER Rating Summary**
 ● **2015**



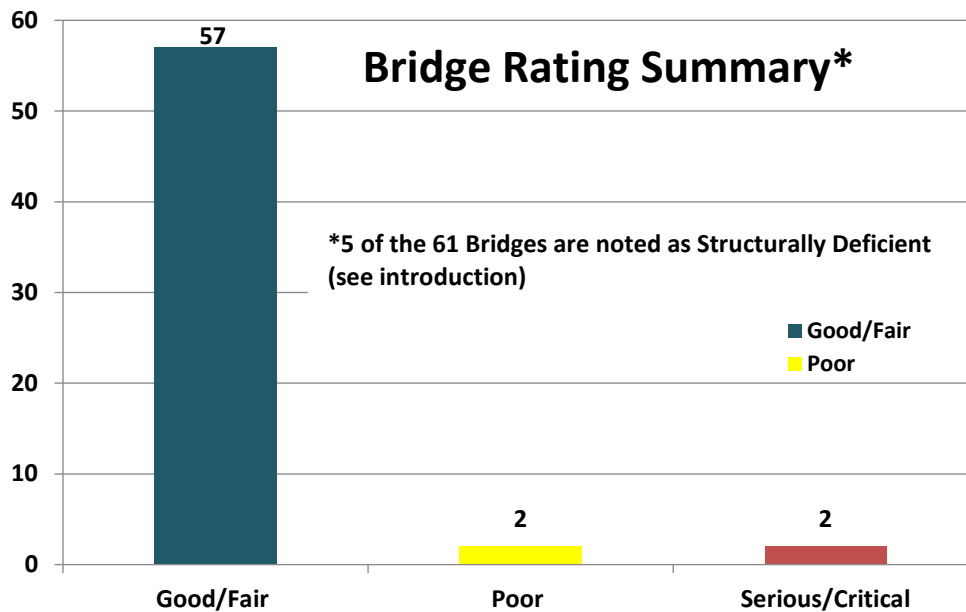
*Good (PASER rating ≥ 8), Fair (PASER rating = 7, 6, 5) & Poor (PASER rating ≤ 4)
 PASER Data does not include gravel roads.

● **Local Road Average PASER Rating Summary**
 ● **2015**

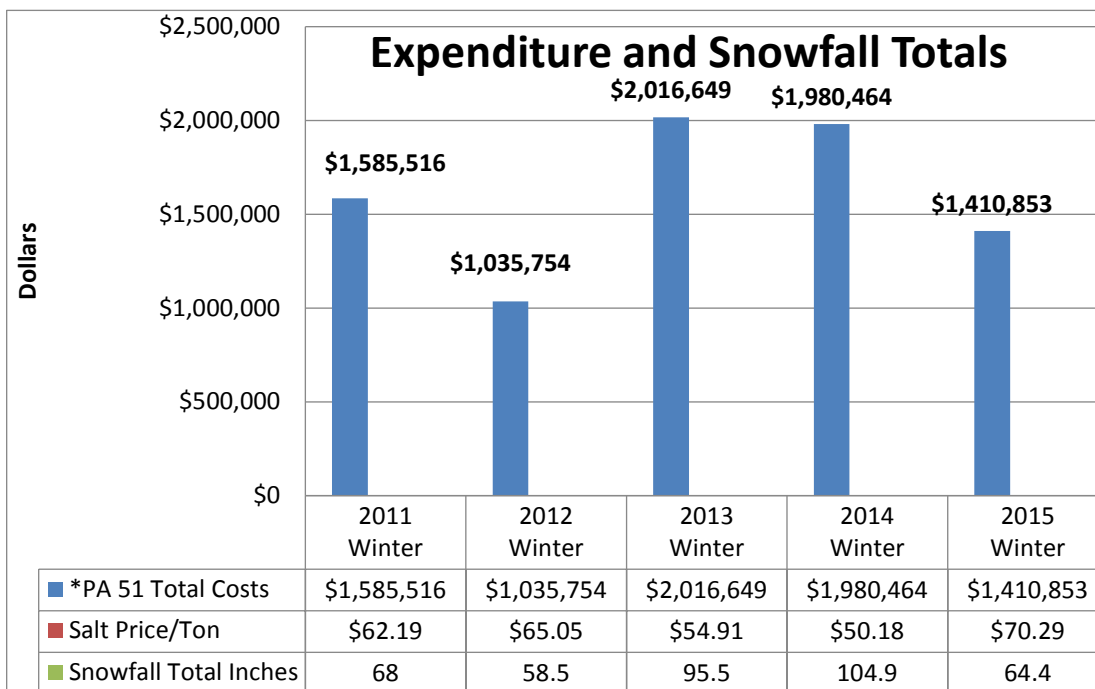


*Good (PASER rating ≥ 8), Fair (PASER rating = 7, 6, 5) & Poor (PASER rating ≤ 4)
 PASER Data does not include gravel roads.

● **Bridge Rating Summary**
 ● **2015**
 ●

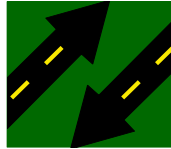


● **Winter Maintenance Expenditure and Snowfall Totals**
 ● **2011 through 2015**
 ●



* Total Cost Does Not Include Administrative and Equipment - See Routine Maintenance Expenditures.

COMMUNICATION TOOLS



RCKC CONNECT
RCKC ALERTS SIGN UP NOW



Road Commission
of Kalamazoo County

3801 E. Kilgore Road
Kalamazoo, MI 49001
(269) 381-3171
Fax (269) 381-1760
www.kalamazooountyroads.com