

# 2019 Comprehensive Annual Report



Road  
Commission  
of Kalamazoo  
County



Road  
Commission  
of Kalamazoo  
County

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

Commissioners:

The one hundred tenth annual activities and financial report of the Board of County Road Commissioners of the County of Kalamazoo for the calendar year 2019 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

  
Deborah J. Buchholtz, Chair

  
David C. Pawloski, Vice Chair

  
Larry Stehouwer, Member

  
Thom Brennan, Member

  
Michael Boersma, Member

## 110 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 2019 ROAD COMMISSIONERS



**Michael Boersma / Deborah J. Buchholtz / David C. Pawloski / Larry Stehouwer / Thom Brennan**

### **Deborah J. Buchholtz – Chair**

Ms. Buchholtz, Chair, is a Cooper Township resident who was appointed to the road commission in January 2015. Having previously served as Chair of the Board in 2019 and as Vice Chair in 2017 and 2018, she first gained familiarity with the road commission through her five and a half terms on the Kalamazoo County Board from 2001-2011, serving as Chair and Vice Chair each for four years. She is a small business consultant and project management specialist whose prior work experience includes founder/owner of an employee benefits and healthcare consulting company, executive director of a large regional non-profit, business development at a Fortune 100 company, and various management roles within her family's businesses. Ms. Buchholtz is an active nature-lover who enjoys hiking, biking, and running. Her term expires 12/31/2020. Township liaison for Alamo, Oshtemo, and Richland townships.

### **David C. Pawloski – Vice Chair**

Mr. Pawloski, Vice Chair, is a resident of the City of Kalamazoo who was appointed to the road commission in March 2017. He is the 2019 Vice Chair of the Board and served as a Member of the Board in 2017 and 2018. David is the current Community Services Liaison for the United Way of the Battle Creek & Kalamazoo Region. He also currently serves on the Local Officers Compensation Committee for the City of Kalamazoo which sets the annual compensation for the Mayor, Vice Mayor and Commissioners. Mr. Pawloski also serves on various organization and non-profit boards. He has been a resident of Kalamazoo County since 1994. David and his wife Molly are the proud parents of their son, Joseph, who attends Kalamazoo Public Schools. His term expires 12/31/2022. Township liaison for Prairie Ronde, Schoolcraft, and Texas townships.

### **Larry Stehouwer – Member**

Mr. Stehouwer, Member, is a Cooper Township resident who was appointed to the road commission in March 2017. He previously worked as a professional civil engineer on public infrastructure and development projects, primarily for townships in Kalamazoo, Allegan and Ottawa counties. He retired in 2010 from the consulting engineering firm of Prein & Newhof. He volunteers at several nonprofits including the Friends of the Kalamazoo River Valley Trail, Kalamazoo Christian School Foundation, Appalachia Reach Out, Kalamazoo Deacons Conference, Calvary Community Church - Plainwell, Sea to Sea and has served on township appointed boards including Cooper Township's Planning Commission and Board of Review, and the Southwest Michigan Building Authority which services Cooper and Oshtemo townships. He serves on the Kalamazoo County Parks and Recreation Commission. He enjoys helping others, time with family, the outdoors, road trips, and bicycling. His term expires on 12/31/2022. Township liaison for Comstock, Pavilion, and Ross townships.

### **Thom Brennan – Member**

Mr. Brennan, Member, is a Texas Township resident who was appointed to the road commission in March of 2019. He retired from automotive manufacturing after 32 years as an executive manager for General Motors and American Axle and Manufacturing. He then worked for Parker Hannifin Corporation for an additional 10 years ultimately responsible for World Wide Supplier Quality and Development. During his working career Thom served on the Kalamazoo – St. Joseph County Workforce Development Board for 16 years with several appointments as chair and vice chair of the Executive Committee. He currently volunteers as the Kalamazoo Bicycle Club - Community Liaison, Bike Friendly Kalamazoo, and various other bicycling advocacy organizations. Thom has been a Kalamazoo County resident for 34 of the past 38 years. His term expires 12/31/2024. Township liaison for Brady, Climax, and Charleston townships.

### **Michael Boersma – Member**

Mr. Boersma, Member, is an Oshtemo Township resident who was appointed to the road commission in March, 2019. He is an attorney with the Law Office of Michael E. Boersma, PC. He has been a transportation advocate at the state and local levels for over 15 years. He serves on the board of the Kalamazoo Bicycle Club, a local charitable non-profit. He has lived in Kalamazoo County for over 30 years. His term expires December 31, 2024. Township liaison for Cooper, Kalamazoo, and Wakarusa townships.

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Richland Township  
Ross Township  
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Wakeshma Township

# CHAPTER 1

## Road Commission of Kalamazoo County Overview

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**Ravine Road—12th Street to US-131  
Alamo Township**

# Facts and Figures

For Calendar Year Ending December 31, 2019

## The Board

Deborah J. Buchholtz, Chair  
 David C. Pawloski, Vice Chair  
 Larry Stehouwer, Member  
 Thom Brennan, Member  
 Michael Boersma, Member

## County Bridge System

- Bridges 63
- Restricted Bridges 7
- \*Closed Bridges 0

## Signs and Signals

- Signs Posted 24,566
- Stop Signs 3,636
- Signalized Intersections 48
- Intersections with Flashing Beacon 41

## Project Summary 2019

- Miles of Primary Roads Paved 25
- Miles of Primary Roads Chip Sealed 83
- Miles of Local Roads Paved 29
- Miles of Local Roads Chip Sealed 73
- Miles of Local Roads Regraveled 6
- Reconditioned Bridges 0
- Reconstructed Bridges 1
- Projects Managed by RCKC 262

## Certified Miles

Township	Primary Miles	Local Miles
Alamo	31	38
Brady	29	47
Charleston	21	24
Climax	25	47
Comstock	43	75
Cooper	31	63
Kalamazoo	26	75
Oshtemo	42	78
Pavilion	27	48
Prairie Ronde	22	52
Richland	27	49
Ross	26	53
Schoolcraft	28	34
Texas	32	92
Wakeshma	25	48
City of Portage	11	0
<b>Total Primary Road Miles</b>	<b>446</b>	
<b>Total Local Road Miles</b>		<b>823</b>
<b>Total Miles</b>		<b>1,269</b>
<b>Total Gravel Local Road Miles</b>		<b>107</b>
<b>Total All-season Road Miles</b>		<b>303</b>



\*Bridge totals are based on information from the National Bridge Inventory. Bridges taken out of service that have more than 5 years with no progress toward scheduling replacement are deemed not of significant importance and removed from the bridge inventory.



# Road Commission of Kalamazoo County

December 2019

- 5 Road Commissioners
- 54 Employees Total (Includes 6 Vacant)
- 21 Administrative Employees - (Includes 3 Vacant)

• Salary	\$33,349	\$116,325
• Hourly Wage Rate Range:	\$16.04	\$55.93
• 33 Road Operations Employees – (Includes 3 Vacant )	• Hourly Wage Rate Range:	\$20.04 \$26.64

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

## Board of County Road Commissioners of the County of Kalamazoo



Joanna I. Johnson  
Managing Director

Vacant  
Communications Administrator

Ann Simmons  
Finance Director

Travis Bartholomew  
Operations Director

Debbie Hill  
Assistant Finance Director  
Human Resources

Selena Rider  
Administrative Assistant

Steve Olson  
Accountant

Katie Howell  
Accounting Clerk

William DeYoung  
General Superintendent

Will Engel  
Road Maintenance Superintendent

Road Maintenance Operators \*\*\*  
30 ( 2 Vacant)  
\*Apprentice

Rich Hassenzahl  
Road Maintenance Superintendent

Mechanics \*\*  
3 ( 1 Vacant)

Jim Page  
Road Maintenance Superintendent

Vacant  
Project Engineer

Ryan Minkus  
County Engineer

Rebekkah Ausbury  
Project Engineer

Mark Worden  
Project Superintendent

Brian Franklin  
Permit Agent

Jon Fitzsimmons  
Permit Agent

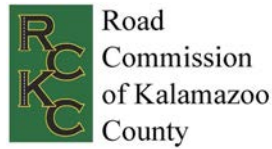
James Hoekstra  
Traffic & Project Engineer

Tara Hendricks  
Administrative Assistant - Operations

Vacant  
Project Engineer

\*\*\*Mechanics: Phillip Affhalter, Charles Musselman

\*\*\* Road Maintenance Operators: Todd Hill, Ricky McClish, Peter Snyder, Joseph Peck, James D. Brown, Melvin Guyton, Tarrance DeKlider, Donald Easley, Joseph Rix, Kevin Davis, Steven Kuilema, Robert Robinson, Tori Simpson, William Oxx, Rob Kern, Donald Hinga, Brian Stauffer, Dirk Stapert, Edward Klein, Frank Jamann, Paul Zerby, Nicholas Crandall, Zachary Taylor\*, Michael Shotwell, Travis Bond, Rusty McClain, Brian McGehee, David Tuinstra



*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](http://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 2019, RCKC maintained 1,269 miles of roads throughout the 576 square-mile county. The RCKC certified primary road system consists of 446 miles; the remaining 823 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 county 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. On November 13, 2018 the RCKC adopted a \$60 million, five-year Primary Road Capital Improvement Plan (CIP) for the period 2019 through 2023. 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, upgrading traffic signals, and non-motorized facilities.

For the local road system, RCKC establishes road improvement priorities which are developed in conjunction with township governments. Each township works with our team to develop a 5-year Local Road CIP supporting asset management for planning purposes and local road preservation. In 2019, 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 2019, RCKC allocated \$1,860,000 toward this partnership which is a record breaking commitment to the local road program. Projects included local road preservation-structural improvement, preventive maintenance and construction projects such as chip seal, hot mix asphalt (HMA) overlays and road reconstruction.

The financial commitment of townships 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, as amended, 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 was one special assessment district by a petition from landowners in 2019 for Eastern Heights Plat—Oatman Drive, Eagle Ridge Drive, Sturbridge Drive, Gullwynd Drive, Richland Township, which was approved March 5, 2019.



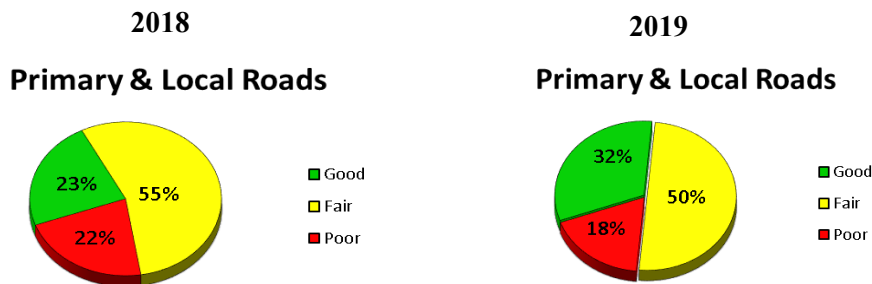
Texas Township in 2010, Alamo Township in 2014 and Ross Township in 2017 approved a special assessment district under the provisions of Act 188, Public Acts of 1954, as amended, by Township board resolution to assist in local road improvements. Comstock Township in 2016 and Charleston Township in 2018 for 2019, in accordance with Act 51, Public Acts of 1951 (Act 51), Section 20, as amended (MCL 247.670), authorized to appropriate general fund monies and to also levy a property tax not to exceed three mills in any year, and to pay the same into the county road fund of the county for the maintenance and/or improvement of county roads within the Township, pursuant to an agreement between the Township and the RCKC to assist in local road improvements. At this time, it is uncertain if the Comstock Township and Charleston Township levy will continue. Climax Township and Wakeshma Township are the only townships in Kalamazoo County with a dedicated road millage. Kalamazoo Township residents approved a \$9.75 million bond proposal in February 2015 to also assist in 3-year local road improvements (2017 was the 3rd year).

## ASSET MANAGEMENT

In 2018, three Public Acts (PA) were enacted related to asset management. PA 323, 324 and 325. These laws established two new councils: the Michigan Infrastructure Council (MIC) and the Water Asset management Council (WAMC). The Transportation Asset Management Council (TAMC), which has been in existence since 2002, scope was modified including requirements to address asset management plans for local agencies. Beginning in 2020, local road agencies responsible for 100 or more certified miles of road will be required to have an asset management plan. This includes the RCKC. The RCKC and its history in supporting the principles of asset management is well situated to meet these requirements in 2020.

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 2019, updated federal aid ratings were completed and local ratings were completed for Schoolcraft, Oshtemo, Charleston, Comstock and Richland Townships. The data collected used the Pavement Surface Evaluation and Rating (PASER) system, as is used in the federal aid data collection. As road improvements occur, the PASER rating is also updated. 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. The RCKC has completed asset management plans for both paved roads and bridges building on the asset management principles in place which can be found on our RCKC website “Road Data” page.

In 2019, our overall road network condition improved slightly **after approximately \$18 million of investments**. However, on-going investment in asset management on our roads is needed to maintain them in good condition.



The graphs above compare 2018 to 2019.

For additional local asset management information, please visit the RCKC website “Road Data” or the TAMC website Dashboards at [www.michigan.gov/tamc](http://www.michigan.gov/tamc) for additional information on asset management statewide federal aid system. It is important to share the RCKC manages over **\$144 million** of infrastructure assets.

**Please review our asset management graphs, in 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 PA 51 Financial Report to the Michigan Department of Transportation (MDOT) as required by PA 51. In 2019, we continued to take every possible step to increase our efficiency by overseeing 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, road innovations and modifications to our material usage.

PA 298 of 2012 allows the MDOT to request the local agency to engage an auditor to conduct a performance audit of whether it has expended funds in compliance by PA 51. If requested, this audit is completed in accordance with the Government Auditing Standards, issued by the Comptroller General of the United States. The RCKC engaged our auditors, even without the request of MDOT, to complete a PA 51 audit. **“For the road commission’s year ending December 31, 2019. The RCKC is in compliance with PA 51, as amended.”**

## 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 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. Motor fuel taxes are excise taxes—a per gallon tax not based on price. The tax on gasoline is cents per gallon whether the pump price is \$2.50 a gallon or \$4.00 per gallon. MTF continues to be challenged as costs continue to increase. MTF must also be preserved to match Federal dollars.

Those constitutional provisions are implemented through Michigan Statute – PA 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 PA 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

PA 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.

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. This was the first increase in State road funding in approximately 20 years. 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, which are not guaranteed, are anticipated to be transferred to the MTF, reaching \$600 million in 2021. Lastly, the fuel taxes will be indexed to inflation, using the Consumer Price Index (CPI), beginning January 1, 2022.

A summary of the revenue package which began in 2017 is below:

- 7.3 cent increase in State gas tax to 26.3 cents
  - \* Constitutionally dedicated to MTF
  - \* Note: Michigan also levies a sales tax at the pump, which most states do not; these taxes do not go into the MTF
- 20% increase in State registration fees for passenger vehicles and most commercial trucks

- 11.3 cent increase in diesel fuel bringing it equal to state gas tax of 26.3 cents per gallon
- New taxes on alternative fuels and registration surcharges on electric vehicles

In early 2019, cities, villages and county road agencies were informed of issues impacting the 2018 MTF distribution. The result was a return to the State of MTF distributions. The result of the over MTF allocation was a total reduction in MTF of \$833,250. The State attributed this error to a variety of variables including the conversion to a new computer system. MDOT has taken steps to better manage the process and procedures going forward. Unfortunately, this impacted our budget and infrastructure projects.

During our construction season in 2018 and 2019, the RCKC was also caught between the Michigan Infrastructure & Transportation Association (MITA) member companies and Operating Engineers 324 statewide work stoppage. This issue caused an active 2019 construction project to be delayed and not able to be completed. The project carried over for completion in 2020.

**Please review our revenue graphs in this report.**

## 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 Transportation Economic Development Fund (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

On December 4, 2015, President Obama signed the Fixing America’s Surface Transportation (FAST) Act which provides funding for transportation programs through 2020. The FAST Act funds surface transportation programs—including, but not limited to, Federal-aid highways—at over \$305 billion for fiscal years (FY) 2016 through 2020. Michigan expects to see a modest increase in federal transportation dollars over the next 5 years. The FAST Act 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, including 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.

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 also 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. The FHWA also provides funds from the Highway Safety Improvement Program (HSIP) and a portion of those funds are for the High Risk Rural Road (HRRR) program.

Federal summary of revenue paid at the pump:

- 18.4 cents gas 24.4 cents diesel
- 92% back to Michigan
- 75% back to MDOT
- 25% back to Cities, Villages and County Road Agencies

**Projects in 2019 utilizing STP funds include:**

- **KL Avenue from 11th Street to Drake Road, Oshtemo Township**

**Projects in 2019 utilizing Safety Improvement Program funds include:**

- **D Avenue from 17th Street to Riverview, Cooper Township**

**Projects in 2019 utilizing RTF funds include:**

- **D Avenue from Rolling Meadows Drive to Douglas, Cooper Township**

**TITLE VI NON-DISCRIMINATION PLAN**

On August 26, 2014 the RCKC adopted the Title VI Non-discrimination Plan. Training was held internally on October 25, 2019, and we will continue to serve all people of the county of Kalamazoo, including minority populations, low-income populations, the elderly, persons with disabilities, and those who traverse the State of Michigan. The RCKC recognizes its responsibility to provide fairness and equity in all of its programs, services, and activities, and that it must abide by and enforce federal and state civil rights legislation.

**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. The recent Michigan Revenue Package which began in 2017, did not allocate additional funding to the local bridge program.

These funds are available on a statewide competitive basis for which we apply annually. The funds can be used for bridge replacement, rehabilitation, and preventive maintenance projects. Bridges with high traffic volumes, that are structurally deficient, or do not function in a way that meets traffic needs are more likely to receive funding. In 2019, the RCKC did not receive any local bridge program funding revenue.

The TAMC annual report on deficient bridges is available on the TAMC website at [www.michigan.gov/tamc](http://www.michigan.gov/tamc).

In 2019, 4.8% of RCKC (3 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 SD if its load carrying capacity is significantly below current design standards or if a waterway below frequently overtops the bridge during floods. **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 and adopted a Non-motorized Facilities Policy. This policy provides the practical application in working with our partners in the approach to Complete Streets. 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. The RCKC typically serves as the grant applicant for non-motorized facilities when using public funding sources. In Act 51, of the funds allocated from MTF, not less than 1% of those funds shall be expanded for construction or improvement of non-motorized transportation and facilities. These non-motorized facilities included paving of road shoulders, and widening of lanes. Ten years of qualified expenditure for non-motorized improvements for the RCKC total \$6,897,193.23 with \$1,358,054.59 in 2019.

Non-motorized Facilities Applications/Agreements Approved in 2019 include:

Oshtemo Township  
Texas Township  
Kalamazoo River Valley Trail

## OTHER AREAS OF EXPERTISE

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.

## EXPENDITURES

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

During 2019, approximately 54 miles of roads were paved and to preserve the capital investment in our roads, 149 miles of roads were chip sealed. Over \$16 million dollars was spent on our primary road system and over \$14 million on our local road system for both construction and maintenance operations in 2019.

## RCKC Announced First Road Commission Apprenticeship in the State of Michigan

### Apprenticeship Program Began in 2018 and First Apprentice began in 2019

The RCKC was proud to announce the approval to move forward with the Municipal Maintenance Technician (Roadway Technician) Registered Apprenticeship Program. The program was approved by the Board of County Road Commissioners of the County of Kalamazoo at their April 3, 2018 Board Meeting and the Standards of Apprenticeship were signed at the Board of County Road Commissioners Board Meeting on July 24, 2018. This program is nationally registered with the US Department of Labor and is the first of its kind in the State of Michigan, as it relates to road commissions.

The RCKC worked collaboratively with the Teamsters Local 214, the US Department of Labor, Michigan Human Resources Development Inc. (M-HRDI) and Michigan Works (MIWORKS) Southwest to develop this registered apprenticeship as a way to support recruitment and retention in this unique industry, and assist in further developing the skill trades in the State of Michigan. We were proud to welcome our first apprentice in April 2019.



### Achievements in 2019

**In addition to the investment in our infrastructure through projects and maintenance, the RCKC team continued to focus on delivering the very best in public service in Kalamazoo County by other means listed below.**

#### Communication:

- Provided a change in our Township Joint meeting presentations as requested/customized and completed another survey to determine RCKC Strengths, Weaknesses, Opportunities and Threats (SWOT). The results were provided to the Board and considered for planning moving forward.
- Participated in public outreach including Kalamazoo Drain Office Education Booth at the Kalamazoo County Fair, Touch a Truck, Put the Brakes on Fatalities Day and held a 110 year open house.
- Helped organize a variety of educational workshops including Understanding Speed Limits, Asset Management, Stay Connected, Understanding Frost Laws (2x), and Utility & Plat Development.
- Had further website developments for ease of use and hot buttons on the main home screen for areas most used by the public.

## Communication Cont'd:

- Social media platforms continue to grow.
- We reviewed service requests and initiated a programming change moving into 2020.
- We added two new options in RCKC Connect for Transportation and Utility and Plat communication.
- We completed road tours with Road Commissioners and Townships.

## The Team:

- We welcomed 2 new Road Commissioners.
- We welcomed 12 new employees.
- We continued opportunities in a variety of staff training throughout the year - too numerous to mention.
- We began our first official Apprentice in April of 2019.
- Various staff continue in a variety of leadership positions in industry associations.
- We all worked toward completion of our organizational goals.
- Making progress in our workers' compensation modification rate in the right direction.
- Recruiting for our new Communications Administrator.

## MISC :

- Financial and Act 51 audit with no significant findings. Added notes to the monthly financials for greater understanding.
- We had special assessments and abandonments to process.
- Local road 5-year plans listed on our website for 9 of 15 townships.
- Southwest Michigan Bikeway signs placed in support of non-motorized efforts, and sign policy.
- We added or updated 11 policies in 2019.
- We continued collaborative efforts including the MDOT, Drain Commissioner, Villages, Cities and Road Agencies in the State.
- We were highlighted in CRA Crossroads magazine for a variety of topics.
- Managing Director Joanna I. Johnson completed a CRA video "Do you know what road you are on?"

## EDUCATIONAL OPPORTUNITIES

In 2019, the RCKC held educational sessions including;

### Utility and Plat Informational Meeting March 2019

### Setting Realistic Speed Limits for Local Officials July 2019



**415th Civil Affairs Battalion, Delta Company, U.S. Army Reserve based in Kalamazoo, MI** visited with us on March 1st for a training scenario for their new troops, and offer them a real-world opportunity to practice some of their communication skills and offer them an opportunity in the end to give a briefing to their commander. While on site we provided a tour of our facilities and provided examples of the services we provide and talked about obstacles we face especially with inclement weather.



**PUBLIC OUTREACH**

In 2019, the RCKC participated in the following events:

**Kalamazoo Christian Elementary School  
February 2019**

**Touch A Truck  
May 2019**



**Put the Brakes on Fatalities Day  
October 2019**



**PUBLIC OPEN HOUSE**  
**Celebrating 110 Years as Your Local Road Professionals**  
**October 2019**



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 and state. 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.**

**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*

**Cold Milling**—Removal of Pavement material from the surface of a pavement structure to correct grade and cross section variations and to provide a uniform textured surface in preparation for an HMA overlay.

**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 placed over an HMA surface.

*15-20 Year Service Life*

**HMA Paving**—the application of HMA (hot mix asphalt), a combination of aggregates, mineral fillers, RAP (recycled asphalt pavement, and asphalt binder placed on top of a gravel surface.

*15-20 Year Service Life*

**HMA Ultra-Thin Overlay**—a thin overlay of hot-mix asphalt typically a thin lift of  $\frac{3}{4}$  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 823.16 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*

**Onyx** –preventive maintenance treatment that seals the pavement surface preventing water infiltration and oxidation from the sun.

● GLOSSARY



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

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

**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 445.82 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.

*15-25 Year Service Life*

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

*10-15 Year Service Life*

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

*10-15 Year Service Life*

**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 HMA overlay application. The Underseal treatment provides an impervious membrane to stop the intrusion of moisture.

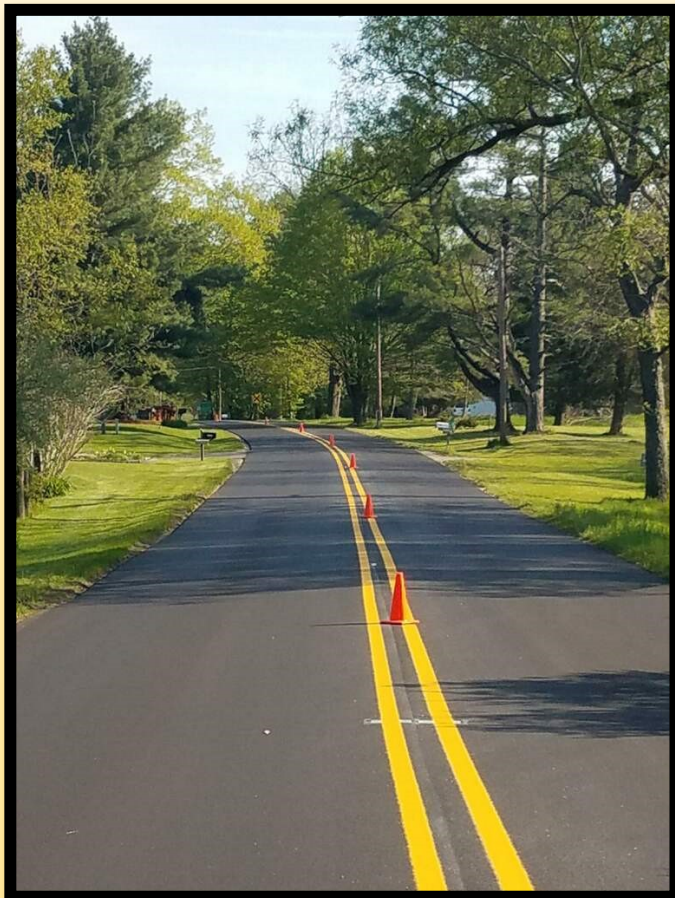


# CHAPTER 2

## Road Commission of Kalamazoo County Overview

### Road and Bridge Improvements

Primary Road Preservation Structural Improvements	Pages 16-19
Primary Structures Structural Improvements	Page 20
Primary Road Preventive Maintenance	Pages 21-27
Primary Structure Preventive Maintenance	Page 28
Local Road Preservation Preventive Maintenance and Structural Improvements	Pages 29-42



**Oakland Drive—U Avenue to City Limits  
Schoolcraft Township**

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

<b>PROJECT DESCRIPTION</b>	<b>TOTAL</b>
<b>ALAMO TOWNSHIP</b>	
<b>Ravine Road</b> – 12th Street to US-131 Project No. 210069 Pulverize, Mill, HMA Paving, and Intersection Improvements	729,417.77
<b>G Avenue – 2nd Street to 6th Street</b> , Project No. 210593 Widen Shoulder, Ditching	86,722.79
<b>BRADY TOWNSHIP</b>	
<b>V Avenue</b> – Sprinkle Road to 600' East of Sprinkle Road, Project No. 210587 Mill and HMA Overlay	20,818.34
<b>U Avenue</b> – 29th Street to 32nd Street, Project No. 210244 Design - Pulverize and HMA Paving	87,708.48
<b>X Avenue</b> – 31st Street to 32nd Street. Project No. 210005 Design - Pulverize and HMA Paving	59,670.87
<b>CHARLESTON TOWNSHIP</b>	
<b>36th Street</b> – PQ Avenue to MN Avenue, Project No. 219002 Reconstruction ( <i>Climax / Charleston Townships</i> ),	330,244.85
<b>CLIMAX TOWNSHIP</b>	
<b>36th Street</b> – PQ Avenue to MN Avenue, Project No. 219002 Reconstruction ( <i>Climax / Charleston Townships</i> )	1,612,371.92
<b>ON Avenue</b> – 42nd Street to Climax Village Limits, Project No 210588 Mill and HMA Overlay	67,358.13
<b>36th street</b> at O Avenue, Project No. 210073 Intersection Improvement	3,171.11
<b>COMSTOCK TOWNSHIP</b>	
<b>35th Street</b> – ML Avenue to M-96, Project No. 210589 Mill and HMA Overlay	330,593.98
<b>E Michigan Avenue</b> - Sprinkle Road to River Street, Project No. 210045 Emergency Repairs	310,704.64

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

**PROJECT DESCRIPTION** **TOTAL**

**COMSTOCK TOWNSHIP (Continued)**

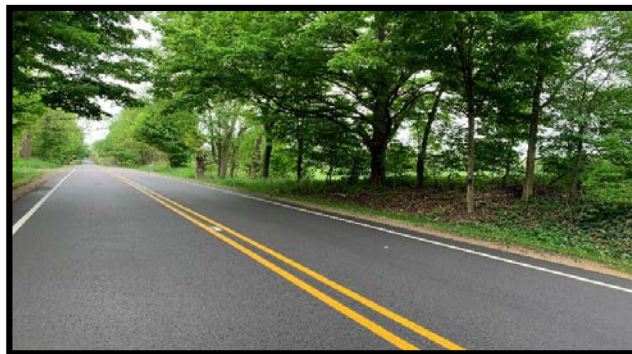
N Avenue - Sprinkle Road to 26th Street, Project No. 210321 HMA project	43.37
N Avenue - at Grand Trunk Railroad, Project No. 210499 Widening to 3 lanes	3,460.57
River Street – at Comstock Avenue and ML Avenue, Project No. 210424 Traffic Signal Upgrade	42,177.99

**COOPER TOWNSHIP**

D Avenue – 17th Street to Riverview Drive, Project No. 210075 Mill, HMA Overlay and Shoulders	1,048,033.77
D Avenue - Douglas Avenue to 17th Street - Project No. 210074 HMA Overlay	(31,860.05)
D Avenue – Rolling Meadows Drive to Douglas Avenue, Project No. 210494 Mill and HMA Overlay	462,993.06
Riverview Drive – G Avenue to Mt. Olivet Road, Project No. 210087 Mill, HMA Overlay and Drainage	2,100,953.31
G Avenue at Riverview Drive, Project No. 210035 Traffic Signal Design ( <i>Cooper Township / Parchment</i> )	66,361.51

**KALAMAZOO TOWNSHIP**

Nichols Road – M-43 to Ravine Road, Project No. 210040 Design - Mill, HMA Overlay	262.88
Drake Rd – at Grand Prairie, Project No. 210076 Construct Traffic Signal	18.31



**36th Street - PQ to MN Avenue,  
Charleston / Climax Townships**

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

<b>PROJECT DESCRIPTION</b>	<b>TOTAL</b>
<b>OSHTEMO TOWNSHIP</b>	
<b>12th Street</b> – 3350' S. of Parkview to ON Avenue, Project No. 210017 Mill and HMA Overlay ( <i>Oshtemo Township / Texas Township</i> )	136,144.41
<b>KL Avenue</b> – 11th Street to Drake Road, Project No. 210078 Widen to 3 Lanes / HMA Overlay	325,051.69
<b>Drake Road – KL Avenue to M-43</b> , Project No. 210495 Design - Mill and HMA Overlay	80,768.79
<b>Drake Road</b> – Parkview Avenue to M-43, Project No. 210162 Traffic Signal	80,143.41
<b>N Avenue</b> – 9th Street to 11th Street, Project No. 210011 Design - Reconstruction	88,337.89
<b>Ravine Road</b> – Drake Road to 12th Street, Project No. 210496 Design - Reconstruction, Mill and HMA Overlay	26,741.40
<b>9th Street</b> - at Quail Run and KL Avenue Signal Upgrade, Project No. 210089	10,416.77
<b>9th Street</b> – M43 to 870' North of M43, Project No. 210038 Mill and HMA Overlay	80,176.76
<b>Almena Drive</b> – at KL Avenue / 1st Street, Project No. 210090 Intersection Realignment - Federal Aid HRRR	23,733.42
<b>PAVILION TOWNSHIP</b>	
<b>S Avenue</b> – 34th Street to 36th Street, Project No. 210013 Widen Shoulder, Left turn Lane and Curve Flatten	70,700.09
<b>PRAIRIE RONDE TOWNSHIP</b>	
<b>8th Street</b> - 7225' south of S Avenue, Project No. 210159 Temporary Road Grade Life and HMA	248,622.46
<b>W Avenue</b> - 2nd Street to 4th Street, Project No. 210498 Design	68,560.49

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

<b>PROJECT DESCRIPTION</b>	<b>TOTAL</b>
<b>SCHOOLCRAFT TOWNSHIP</b>	
<b>W Avenue</b> – Portage Road to Vicksburg Village limits, Project No. 210591 Mill and HMA Overlay	200,183.11
<b>W Ave</b> - Schoolcraft Village, Project No. 380665 HMA Overlay	15,867.14
<b>TEXAS TOWNSHIP</b>	
<b>12 Street</b> – 3350' S. of Parkview to ON Avenue, Project No. 210017 Mill and HMA Overlay ( <i>Texas Township/Oshtemo Township / City of Portage</i> )	106,970.62
<b>8th Street</b> – Q Avenue to O Avenue, Project No. 210592 Mill, HMA Overlay and Culvert	470,544.05
<b>8th Street</b> – S Avenue to R Avenue, Project No. 210163 Left Turn Lanes, Mill and HMA Overlay	6,017.04
<b>Texas Drive</b> – 1000' E. of 8th Street to 12th Street, Project No. 210080 Mill and HMA Overlay	518,673.44
<b>Q Avenue</b> - at 10th Street, Project No. 210082 New Traffic Signal	20,880.95
<b>S Ave</b> - 6th Street to 2100' West of 8th Street, Project No. 210161 Temporary Lift	179,322.44
<b>WAKESHMA TOWNSHIP</b>	
<b>42nd Street</b> - Z Avenue to Y Avenue, Project No. 210064 Reconstruction / All Season	5,319.75
<b>OTHER</b>	
<b>Sprinkle Road</b> - Milham Avenue to N Avenue, Project No. 210003, Design Project - Mill, HMA Overlay and Culvert	103,985.23
<b>TOTAL PRIMARY STRUCTURAL IMPROVEMENTS</b>	<b>10,198,388.95</b>

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

<b>PROJECT DESCRIPTION</b>	<b>TOTAL</b>
<b>BRADY TOWNSHIP</b>	
U Avenue - Over the Portage River, Project No. 220062 Bridge Rehabilitation	23.93
<b>CLIMAX TOWNSHIP</b>	
36th Street – over Dorrance Creek, Project No. 220310 Bridge Replacement	19,963.94
<b>ROSS TOWNSHIP</b>	
C Avenue - over Augusta Creek, Project No. 220311 Design - Bridge Replacement	1,034,060.91
<hr/> <b>TOTAL PRIMARY BRIDGE</b>	<b>1,054,048.78</b>



**C Avenue over Augusta Creek, Ross Township**



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

<b>PROJECT DESCRIPTION</b>	<b>TOTAL</b>
<b>ALAMO TOWNSHIP</b>	
<b>2nd Street</b> – M-43 to AB Avenue Project No. 380018 Crack Fill, HMA Wedging, Chip Seal and Fog Seal ( <i>Oshtemo Township / Alamo Township</i> )	163,278.41
<b>6th Street</b> – F Avenue to D Avenue, Project No. 380072 Crack Fill	10,068.50
<b>D Avenue</b> – 6th Street to Ravine Road, Project No. 380666 HMA Wedging, Chip Seal and Fog Seal	49,792.18
<b>G Avenue</b> – 6th Street to 10th Street, Project No. 380667 HMA Wedging, Chip Seal and Fog Seal	61,838.89
<b>Ravine Road</b> – 12th Street to D Avenue, Project No. 380069 Crack Fill, Chip Seal and Fog Seal	86,883.18
<b>BRADY TOWNSHIP</b>	
<b>24th Street</b> – Z Avenue to Vicksburg southern limit, Project No. 380039 Crack Fill	4,405.13
<b>S. Sprinkle Road</b> – S Avenue to V Avenue, Project No. 380670 Chip Seal and Fog Seal	118,084.83
<b>U Avenue</b> – 34th Street to 36th Street, Project No. 380040 Crack Fill	2,615.55
<b>V Avenue / 24th Street</b> – Vicksburg Village Limit to 600' east of Sprinkle Road, Project No. 380060 Chip Seal and Fog Seal	15,838.18
<b>CHARLESTON TOWNSHIP</b>	
<b>44th Street</b> – Climax Village Limits to MN Avenue, Project No. 380041 Crack Fill	569.92
<b>MN Avenue</b> – 34th Street to Mercury Drive Project No. 380042 Crack Fill ( <i>Charleston / Comstock Township</i> )	9,901.65

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

<b>PROJECT DESCRIPTION</b>	<b>TOTAL</b>
<b>CLIMAX TOWNSHIP</b>	
<b>36th Street</b> – T Avenue to S Avenue, Project No. 380027 HMA Wedging, Chip Seal and Fog Seal	42,843.28
<b>42nd Street / 43rd Street</b> – W Avenue to R Avenue, Project No. 380599 Crack Fill, Chip Seal and Fog Seal ( <i>Climax Township / Wakeshma Township</i> )	68,081.59
<b>43rd Street</b> – Q Avenue to R Avenue, Project No. 380043 Crack Fill	2,354.00
<b>O Avenue</b> – 38th Street to 42nd Street, Project No. 380044 Crack Fill	4,955.78
<b>COMSTOCK TOWNSHIP</b>	
<b>Comstock Avenue</b> – Sprinkle Road to River Street, Project No. 380045 Crack Fill	2,230.10
<b>Cork Street</b> – Park Circle Drive to 26th Street, Project No. 380104 Chip Seal and Fog Seal	17,633.78
<b>E. Main Street</b> – Sprinkle Road to 33rd Street, Project No. 380001 Crack Fill, Chip Seal and Fog Seal	615.29
<b>E. Michigan Avenue</b> – N. Sprinkle Road to M-96, Project No. 380002 Crack Fill, Chip Seal and Fog Seal	615.29
<b>MN Avenue</b> – 34th Street to Mercury Drive, Project No. 380042 Crack Fill ( <i>Comstock / Charleston Township</i> )	2,322.61
<b>Park Circle Drive</b> – Sprinkle Road to Cork Street, Project No. 380003 Chip Seal and Fog Seal	50,410.80
<b>River Street</b> – ML Avenue to E. Michigan Avenue, Project No. 380004 Chip Seal and Fog Seal	57,961.11
<b>Sprinkle Road</b> – Cork Street to Lake Street, Project No. 380045 Chip Seal and Fog Seal	7,530.04
<b>Sprinkle Road</b> – 1000' south of H Avenue to M-43, Project No. 380047 Crack Fill	7,659.43

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

<b>PROJECT DESCRIPTION</b>	<b>TOTAL</b>
<b>COOPER TOWNSHIP</b>	
<b>D Avenue</b> – Douglas Avenue to 17th Street, Project No. 380005 Chip Seal and Fog Seal	22,544.01
<b>Douglas Avenue</b> – B Avenue to Kalamazoo City Limit, Project No. 380006 HMA Wedging, Chip Seal and Fog Seal	193,761.07
<b>G Avenue</b> – Riverview Drive to Sprinkle Road, Project No. 389005 Crack Fill ( <i>Cooper Township / Richland Township</i> )	4,070.35
<b>Mt Olivet Road</b> – G Avenue to Riverview Drive, Project No. 380048 Crack Fill	3,369.93
<b>N. Westnedge Avenue</b> – G Avenue to D Avenue, Project No. 380007 HMA Wedging, Chip Seal and Fog Seal	87,700.79
<b>Ravine Road</b> – 12th Street to Drake Road, Project No. 389004 Crack Fill ( <i>Cooper Township / Oshtemo Township</i> )	3,092.41
<b>KALAMAZOO TOWNSHIP</b>	
<b>Barney Road</b> – Nichols Road to Douglas Avenue, Project No. 380051 Crack Fill	4,707.99
<b>Drake Road</b> – Grand Prairie Avenue to Ravine Road, Project No. 380052 Crack Fill	2,064.91
<b>East Main Street</b> – Kalamazoo City Limits to Sprinkle Road, Project No. 380053 Crack Fill	12,711.58
<b>East Michigan Avenue</b> – Kalamazoo City Limits to Sprinkle Road, Project No. 380054 Crack Fill	4,377.61
<b>Lake Street</b> – Olmstead Road to S. Sprinkle Road, Project No. 380008 Chip Seal and Fog Seal	29,732.76
<b>Nazareth Road</b> – 1478' S. of East Main Street to M-43, Project No. 380009 Chip Seal and Fog Seal	51,594.00
<b>Mosel Avenue</b> – North Westendge to Riverview Drive, Project No. 380055 Crack Fill	4,939.27
<b>Nichols Road</b> – Ravine Road to M-43, Project No. 380056 Crack Fill	43,579.70

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

<b>PROJECT DESCRIPTION</b>	<b>TOTAL</b>
<b>KALAMAZOO TOWNSHIP (Continued)</b>	
<b>Solon Street</b> – M-43 to Kalamazoo City Limit, Project No. 380057 Crack Fill	1,238.95
<b>OSHTEMO TOWNSHIP</b>	
<b>2nd Street</b> – M-43 to AB Avenue, Project No. 380018 Crack Fill, HMA Wedging, Chip Seal and Fog Seal ( <i>Oshtemo Township / Alamo Township</i> )	69,976.87
<b>4th Street</b> – M-43 to Stadium Dr, Project No. 380013 Crack Fill, HMA Wedging, Chip Seal and Fog Seal	114,309.59
<b>6th Street</b> – M-43 to H Avenue, Project No. 380034 Chip Seal and Fog Seal	38,855.83
<b>9th Street</b> - Financial Parkway to KL Avenue, Project No 380075 Crack Fill	8,577.48
<b>10th Street</b> – H Avenue to G Avenue, Project No. 380011 HMA Wedging, Chip Seal and Fog Seal	43,028.90
<b>11th Street</b> – Stadium Drive to W. Michigan Avenue, Project No. 380012 Chip Seal and Fog Seal	10,817.08
<b>11th Street</b> – Parkview Avenue to Stadium Drive, Project No. 380058 Crack Fill	412.98
<b>Almena Drive</b> at KL Avenue/1st Street, Project No. 380014 Chip Seal and Fog Seal	13,868.16
<b>KL Avenue</b> – 4th Street to Drake Road, Project No. 380015 Crack Fill, HMA Wedging, Chip Seal and Fog Seal	191,452.12
<b>N Avenue</b> – 6th Street to 9th Street, Project No. 380016 Chip Seal and Fog Seal	51,966.92
<b>Ravine Road</b> – 12th Street to Drake Road, Project No. 389004 Crack Fill ( <i>Oshtemo Townhsip / Cooper Township</i> )	2,854.52
<b>Stadium Drive</b> – 6th Street to 8th Street, Project No. 380017 Chip Seal and Fog Seal	87,332.97
<b>VanKal Avenue</b> – Stadium Drive to Almena Drive, Project No. 380021 Crack Fill, HMA Wedging, Chip Seal and Fog Seal	88,647.99

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

<b>PROJECT DESCRIPTION</b>	<b>TOTAL</b>
<b>OSHTEMO TOWNSHIP (Continued)</b>	
<b>W. Michigan Avenue</b> – Stadium Drive to Drake Road, Project No. 380602 Chip Seal and Fog Seal	56,579.19
<b>PAVILION TOWNSHIP</b>	
<b>25th Street</b> – R Avenue to QR Avenue, Project No. 380022 Chip Seal and Fog Seal	26,371.00
<b>29th Street</b> – S Avenue to N Avenue, Project No. 380023 Chip Seal and Fog Seal	146,152.46
<b>Q Avenue - 29th Street to 31st Street</b> , Project No. 380073 HMA Wedging	7,255.48
<b>PRAIRIE RONDE TOWNSHIP</b>	
<b>8th Street</b> – W Avenue to U Avenue, Project No. 380059 Crack Fill	4,146.34
<b>W Avenue</b> – 4th Street to Schoolcraft Village Limit, Project No. 380024 Crack Fill, HMA Wedging, Chip Seal and Fog Seal	130,838.05
<b>RICHLAND TOWNSHIP</b>	
<b>32nd Street</b> – M-43 to North County Line, Project No. 380025 Crack Fill, Chip Seal and Fog Seal	18,648.76
<b>DE Avenue</b> – North Sprinkle Road to 26th Street, Project No. 380026 Crack Fill, Chip Seal and Fog Seal	19,452.12
<b>G Avenue</b> – Riverview Drive to Sprinkle Road, Project No 389005 Crack Fill ( <i>Richland Township / Cooper Township</i> )	1,215.82
<b>24th Street</b> – C Avenue to M-89, Project No. 380060 Crack Fill	12,392.21
<b>G Avenue</b> – M-43 to 32nd Street, Project No. 380061. Crack Fill	9,432.50
<b>West Gull Lake Drive</b> – M43 to CD Avenue, Project No. 380062 Crack Fill	5,769.36

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

<b>PROJECT DESCRIPTION</b>	<b>TOTAL</b>
<b>ROSS TOWNSHIP</b>	
<b>G Avenue</b> – 37th Street to 39th Street, Project No. 380063 Crack fill	2,230.10
<b>SCHOOLCRAFT TOWNSHIP</b>	
<b>W Avenue</b> – 1000' east of 16th Street to 2600' east of 16th Street, Project No. 380038 Chip Seal and Fog Seal	27,935.08
<b>Portage Road</b> – Y Avenue to VW Avenue, Project No. 380064 Crack Fill	4,955.78
<b>Shaver Road</b> – Portage City Limit to US-131, Project No. 380065 Crack Fill	3,882.03
<b>VW Avenue</b> – Schoolcraft Village to Vicksburg Village Limit, Project No. 380066 Crack Fill	8,011.85
<b>W Avenue</b> - Schoolcraft Village Limit to Portage Road, Project No. 380665 Scrap Tire Trial / Chip Seal anf Fog Seal	60,644.49
<b>XY Avenue</b> - US131 to Portage Road, Project No. 380067 Crack Fill	2,230.10
<b>TEXAS TOWNSHIP</b>	
<b>3rd Street</b> – P Avenue to OP Avenue, Project No. 380028 Crack Fill, HMA Wedging, Chip Seal and Fog Seal	24,268.21
<b>9th Street</b> – O Avenue to Financial Parkway, Project No. 380030 Crack Fill, HMA Wedging, Chip Seal and Fog Seal	64,447.32
<b>OP Avenue</b> – 3rd Street to 6th Street , Project No. 380019 Crack Fill, HMA Wedging, Chip Seal and Fog Seal	60,178.34
<b>O Avenue</b> – 8th Street to 9th Street, Project No. 380068 Crack Fill	12,020.53
<b>ON Avenue</b> – 11th Street to 12th Street, Project No. 380069 Crack Fill	1,189.38
<b>Q Avenue</b> - VanKal Street to 12th Street, Project No. 380076 Crack Fill	8,507.43

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

<b>PROJECT DESCRIPTION</b>	<b>TOTAL</b>
<b>TEXAS TOWNSHIP (Continued)</b>	
<b>S Avenue</b> – Van Kal Street to 2nd Street, Project No. 380070 Crack Fill	7,945.77
<b>WAKESHMA TOWNSHIP</b>	
<b>38th Street</b> – Z Avenue to W Avenue, Project No. 380035 Crack Fill, HMA Wedging, Chip Seal and Fog Seal	83,804.30
<b>42nd Street/43rd Street</b> – W Avenue to R Avenue Project No. 380036 Chip Seal and Fog Seal ( <i>Wakeshma Township / Climax Township</i> )	102,122.11
<b>42nd Street</b> – Z Avenue to Y Avenue, Project No. 380037 HMA Wedging, Chip Seal and Fog Seal	44,915.33
<b>W Avenue</b> - 42nd Street to East County Line, Project No. 380071 Crack Fill	3,707.21
<hr/> <b>TOTAL PRIMARY PREVENTIVE MAINTENANCE</b>	<hr/> <b>2,941,324.91</b>



**Park Circle Drive - Sprinkle Road to Cork Street  
Comstock Township**

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

<b>PROJECT DESCRIPTION</b>	<b>TOTAL</b>
<b>BRADY TOWNSHIP</b>	
29th Street - over Portage River, Project No. 220080 Bridge Preventive Maintenance	15,256.60
W Avenue - over Portage River, Project No. 220061 Bridge Preventive Maintenance	23.93
<b>CHARLESTON TOWNSHIP</b>	
E Michigan Avenue - over Kalamazoo River, Project No. 220060 Bridge Preventive Maintenance	39.62
<b>COMSTOCK TOWNSHIP</b>	
35th Street - over Kalamazoo River, Project No. 220001 Bridge Preventive Maintenance	9,495.56
<b>COOPER TOWNSHIP</b>	
D Avenue - over Kalamazoo River, Project No. 220063 Bridge Preventive Maintenance	23.93
<b>OSHTEMO TOWNSHIP</b>	
9th Street - over Amtrak, Project No. 220002 Bridge Preventive Maintenance	10,811.62
<b>ROSS TOWNSHIP</b>	
D Avenue - over Gull Lake Outlet, Project No. 220079 Bridge Preventive Maintenance	62.83
<b>SCHOOLCRAFT TOWNSHIP</b>	
Portage Road - over Groundneck Creek, Project No. 220003 Bridge Preventive Maintenance	8,831.82
<b>TOTAL PRIMARY STRUCTURE PREVENTIVE MAINTENANCE</b>	<b>44,545.91</b>



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

PROJECT DESCRIPTION	PREVENTIVE MAINTENANCE	STRUCTURAL IMPROVEMENT
<b>ALAMO TOWNSHIP ~ 37.88 Local Road Miles</b>		
<b>10th Street</b> – B Avenue to County Line, Project No. 680701 Crack Fill, HMA Wedging, Chip Seal and Fog Seal	42,717.34	
<b>DE Avenue</b> – 3,685' West of 6th Street to 6th Street, Project No. 510698 Pulverize, Gravel and HMA Paving		205,918.71
<b>E Avenue</b> – Ravine Road to 1,280' East of Ravine Road, Project No. 680704 Crack Fill, Chip Seal and Fog Seal	14,114.41	
<b>Owen Drive</b> – Ravine Road to B Avenue, Project No. 680703 Chip Seal and Fog Seal	63,528.93	
<b>Owen Drive</b> – Hart Drive to Ravine Road, Project No. 680705 Crack Fill, Chip Seal and Fog Seal	31,721.00	
<b>Hart Drive</b> – 6th Street to 9th Street, Project No. 680706 Crack Fill	4,080.26	
<b>ALAMO TOWNSHIP TOTALS</b>	<b>156,161.94</b>	<b>205,918.70</b>
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<b>BRADY TOWNSHIP ~ 46.63 Local Road Miles</b>		
<b>32nd Street</b> over Asher Drain, Project No. 510671 Culvert Replacement 13' span		24,608.90
<b>32nd Street</b> – U Avenue to T Avenue, Project No. 510738 Gravel, Pulverize, HMA Overlay-Base Course Only		100,932.01
<b>V Avenue</b> – 34th Street to 36th Street, Project No. 680728 HMA Wedging ,Crack Fill and Chip Seal	31,150.88	
<b>BRADY TOWNSHIP TOTALS</b>	<b>31,150.88</b>	<b>125,540.90</b>
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<b>CHARLESTON TOWNSHIP ~ 23.95 Local Road Miles</b>		
<b>38th Street</b> – M-96 to 5200' north of M-96, Project No. 510736 HMA Paving Top Course		116,911.66
<b>CHARLESTON TOWNSHIP TOTALS</b>	<b>0.00</b>	<b>116,911.66</b>

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

PROJECT DESCRIPTION	PREVENTIVE MAINTENANCE	STRUCTURAL IMPROVEMENT
<b>CLIMAX TOWNSHIP ~ 47.40 Local Road Miles</b>		
<b>39th Street</b> – T Avenue to S Avenue, Project No. 680009 HMA Wedging, Crack Fill and Chip Seal	44,495.07	
<b>QR Avenue</b> – Woodin Street to 38th Street, Project No. 680010 HMA Wedging, Crack Fill and Chip Seal	33,908.90	
<b>S Avenue</b> – 43rd Street to 47th Street, Project No. 680011 HMA Wedging, Crack Fill and Chip Seal	70,185.77	
<b>CLIMAX TOWNSHIP TOTALS</b>	<b>148,589.74</b>	<b>0.00</b>
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<b>COMSTOCK CHARTER TOWNSHIP ~ 74.50 Local Road Miles</b>		
<b>28th Street</b> – H Avenue to G Avenue, Project No. 680740 HMA Wedging, Crack Fill, Chip Seal and Fog Seal	39,184.70	
<b>30th Street</b> – East Main Street to H Avenue, Project No. 680741 Crack Fill, Chip Seal and Fog Seal	42,214.56	
<b>Brookview Street</b> – Procter Avenue to East Michigan Avenue, <b>Shirley Drive</b> – Procter Avenue to East Michigan Avenue, <b>Ermine Avenue</b> – Procter Avenue to East Michigan Avenue, <b>Procter Avenue</b> – Brookview Street to 265' east of Ermine Avenue, <b>Grange Avenue</b> – Shirley Drive to 265' east of Ermine Avenue, <b>Copeland Avenue</b> – Shirley Drive to Ermine Avenue (Brookside Park), Project No. 680743 Crack Fill, Chip Seal and Fog Seal	40,549.21	
<b>L Avenue – River Street to Stalwart Street</b> , Project No. 680737 HMA Wedging, Crack Fill, Chip Seal and Fog Seal	70,773.28	
<b>ML Avenue</b> – 35th Street to 36th Street, Project No. 510742 Gravel, Pulverize and HMA Paving		242,642.07
<b>H Avenue</b> – 26th Street to 33rd Street, Project No. 680735 Crack Fill, Chip Seal and Fog Seal	148,716.46	
<b>Market Street</b> – River Street to Stalwart Street, Project No. 680736 HMA Wedging, Crack Fill, Chip Seal and Fog Seal	42,880.28	
<b>Stalwart Street</b> – L Avenue to Market Street, Project No. 680737 HMA Wedging, Crack Fill, Chip Seal and Fog Seal	14,226.88	

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

PROJECT DESCRIPTION	PREVENTIVE MAINTENANCE	STRUCTURAL IMPROVEMENT
<b>COMSTOCK CHARTER TOWNSHIP (Continued)</b>		
<b>Lavender Circle</b> – Daylily Lane to Ivy Street, <b>Ivy Street</b> – Daylily Lane to Treetop Drive, <b>Coral Bells Circle</b> – Daylily Lane to Autumn Joy Street, <b>Autumn Joy Street</b> – Daylily Lane to Candytuft Lane, <b>Buttercup Street</b> – 213' south of Daylily Lane to Candytuft Lane, <b>Juneberry Street</b> – Daylily Lane to Sundrop Avenue, <b>Sundrop Avenue</b> – Buttercup Street to Juneberry Street, <b>Daylily Lane</b> – 33rd Street to Juneberry Street, <b>Candytuft Lane</b> – 895' west of Ivy Street to Buttercup Street (Rolling Meadows), Project No. 680013 Crack Fill	9,483.29	
<b>MN Avenue</b> – 29th Street to 31st Street, Project No. 680739 HMA Wedging, Crack Fill, Chip Seal and Fog Seal	39,980.15	
<b>MN Avenue</b> – 26th to 28th Street, Project No. 510625 2019 Add Fog Seal Center Seam		133.83
<b>Rex Avenue</b> – East Michigan to Charles Avenue, Pickard Street – East Michigan to Charles Avenue, Barker Avenue – Rex Avenue to Pickard Street, Charles Avenue – Rex Avenue to Pickard Street (Simmons Addition, Pickard Plat, Leenhouts Plat), Project No. 510741, Pulverize and HMA Paving		265,080.43
<b>COMSTOCK CHARTER TOWNSHIP TOTALS</b>	<b>448,008.81</b>	<b>507,856.33</b>



**XY Avenue - 6th Street to 8th Street, Prairie Ronde Township**

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

PROJECT DESCRIPTION	PREVENTIVE MAINTENANCE	STRUCTURAL IMPROVEMENT
<b>COOPER CHARTER TOWNSHIP ~ 63.83 Local Road Miles</b>		
<b>24th Street</b> – G Avenue to 6,624' north of G Avenue (Cooper / Richland Townships) Project No. 689001, HMA Wedging, Crack Fill, Chip Seal and Fog Seal	23,052.15	
<b>24th Street</b> – FG Avenue to 2,640' north of FG Avenue (Cooper / Richland Township) Project No. 519001, HMA, Mill and Overlay		41,428.35
<b>B Avenue – Riverview Drive to 24th Street</b> , Project No. 680714 HMA Wedging, Crack Fill, Chip Seal and Fog Seal	51,786.80	
<b>Lanfair Avenue</b> – Douglas Avenue to Woodlure Drive, <b>Woodlure Drive</b> – Douglas Avenue to Lanfair Avenue, <b>Lonsdale Road</b> – Woodlure Drive to Lanfair Avenue (Northcrest Plat) Project No. 680711, HMA Wedging, Crack Fill, Chip Seal and Fog Seal	19,061.44	
<b>Mountain Ridge Street</b> – Tahoe Avenue to Arctic Avenue (North Peak Plat), Project No. 510007, HMA, Mill and Overlay		21,731.40
<b>Riverview Drive - Sewer Project</b> Project No. 510004		761,953.75
<b>Rolling Hills Drive</b> – 1,584' west of Douglas Avenue to Douglas Avenue, Project No. 510691, HMA Reconstruct		78,291.99
<b>Solver Street</b> – Thayer Avenue to Polaris Street, Polaris Street – Solver Street to Hillsight Street, Project No. 680713, Crack Fill, Chip Seal and Fog Seal	9,901.55	
<b>Springbrook Drive</b> - 2,904' west of Riverview Drive to Riverview Drive, Project No. 680710, HMA Wedging, Crack Fill, Chip Seal and Fog Seal	24,291.71	
<b>Tahoe Avenue</b> – Mountain Ridge Street to North Peak Street, Project No. 510690 HMA, Mill and Overlay		29,465.24
<b>Wolverine Avenue</b> – Mt. Olivet Road to Mountain Ridge Street, <b>Arctic Avenue</b> – Mountain Ridge Street to North Peak Street, <b>Nordic Avenue</b> – Mountain Ridge Street to North Peak Street, <b>Tahoe Avenue</b> – Mountain Ridge Street to North Peak Street, <b>North Peak Street</b> – G Avenue to 180' north of Arctic Avenue (North Peak Street) Project No. 680707, HMA Wedging, Crack Fill, Chip Seal and Fog Seal	34,567.27	
<b>COOPER CHARTER TOWNSHIP TOTALS</b>	<b>162,660.93</b>	<b>932,870.74</b>

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

PROJECT DESCRIPTION	PREVENTIVE MAINTENANCE	STRUCTURAL IMPROVEMENT
<b>KALAMAZOO CHARTER TOWNSHIP</b> ~ 74.89 Local Road Miles		
<p><b>Borgess Drive</b> – Nazareth Road to TWP easterly line, <b>Edna Boulevard</b> – Mulhearn Avenue to Nazareth Road, <b>Mulhearn Avenue</b> – Baker Drive to Nazareth Road, <b>Miami Avenue</b> – Baker Drive to Nazareth Road, <b>Tampa Street</b> – Baker Drive to Nazareth Road (Dwillard &amp; Schram Plat) Project No. 680729, Crack Fill, Chip seal and Fog Seal</p>	27,842.55	
<p><b>Coy Avenue</b> – Washburn Avenue to Arthur Avenue, <b>Kenilworth Avenue</b> – TWP westerly line to Nazareth Road, <b>Ira Avenue</b> – Coy Avenue to East Main Street, <b>Lum Avenue</b> – Coy Avenue to East Main Street, <b>Cooper Avenue</b> – Dearborn Avenue to East Main Street, <b>Washburn Avenue</b> – Coy Avenue to East Main Street, <b>Gayle Avenue</b> – Coy Avenue to East Main Street (Eastwood Heights, Vosler's Addition, Sherwood Plat, Plat of Shield's Addition, Vosler's Annex, Washburn Plat and East Highland Park) Project No. 680730, Crack Fill, Chip seal and Fog Seal</p>	67,363.82	
<p><b>Huntington Avenue</b> – East Main Street to Francis Avenue, Project No. 510740, Mill and HMA Overlay</p>		50,634.77
<p><b>Junction Avenue</b> – Bixby Road to Elkerton Avenue, <b>Trimble Avenue</b> – Junction Avenue to M-43, <b>Henson Avenue</b> – 526' south of Junction Avenue to M-43, <b>Henson Avenue</b> – M-43 to 1,147' north of M-43, <b>Lakeview Avenue</b> – Henson Avenue to 232' east of Henson Avenue, <b>Colgrove Avenue</b> – 703' south of Junction Avenue to M-43 (Bixby Plat, Elkerton Addition, Assessor's Plat of Gull Heights) Project No. 680731, Crack Fill, Chip Seal and Fog Seal</p>	38,436.72	
<p><b>Rockwood Drive</b> – Winding Way to Meadowcroft Avenue, <b>Thornhill Avenue</b> – Stonegate Road to Nichols Road, <b>Meadowcroft Avenue</b> – Rockwood Drive to Nichols Road, <b>Runnymede Drive</b> – Rockwood Drive to Stonegate Road, <b>Northview Drive</b> – Rockwood Drive to Nichols Road, <b>Glengarry Avenue</b> – Stonegate Road to Nichols Road, <b>Beverton Street</b> – Glengarry Avenue to TWP northerly line, <b>Glengarry Avenue</b> – Beverton Street to Havenbrook Street, <b>Coventry Avenue</b> – Beverton Street to 208' east of Beverton Street, <b>Stonegate Road</b> – Northview Drive to Glengarry Avenue, <b>Havenbrook Street</b> – Glengarry Avenue to 185' north of Glengarry Avenue, <b>Stonegate Road</b> – 450' south of Thornhill Avenue to Northview Drive, <b>Laurelhill Street</b> – 310' south of Thornhill Avenue to Thornhill Avenue, <b>Winding Way</b> – 1,892' west of Rockwood Drive to 949' east of Rockwood Drive (Northview Subdivision) Project No. 680732, Crack Fill, Chip Seal and Fog Seal</p>	117,293.28	
<p><b>Seemore Avenue</b> – Humphrey Street to 750' north of Humphrey Street, Nassau Street – East Main Street to Gertrude Street, <b>Lakewood Drive</b> – M-43 to 264' north of M-43, <b>Heather Lane</b> – 213' south of M-43 to M-43 (Bixby, Long Meadow, Spring Meadow, King Realty, Jeffery Park) Project No. 680733 Crack Fill, Chip Seal and Fog Seal</p>	22,021.66	

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

PROJECT DESCRIPTION	PREVENTIVE MAINTENANCE	STRUCTURAL IMPROVEMENT
<b>KALAMAZOO CHARTER TOWNSHIP (Continued)</b>		
<b>Seminole Street</b> – Croyden Avenue to Grand Prairie Road, <b>Cherokee Street</b> – M-43 to Alamo Avenue, <b>Mohawk Street</b> – Olney Road to 440' north of Iroquois Trail, <b>Gorham Lane</b> – M-43 to Devonshire Avenue, <b>Turwill Lane</b> – M-43 to Ottawa Avenue, <b>Pontiac Avenue</b> – TWP westerly line to 660' east of Seminole Street, <b>Ottawa Avenue</b> – TWP westerly line to 660' east of Seminole Street, <b>Alamo Avenue</b> – Turwill Lane to Cherokee Street, <b>Iroquois Trail</b> – Turwill Lane to Nichols Road, <b>Huron Avenue</b> – Turwill Lane to Nichols Road, <b>Marlane Avenue</b> – Cherokee Street to Nichols Road, <b>Croyden Avenue</b> – TWP westerly line to Nichols Road, <b>Cranbrook Avenue</b> – Cherokee Street to Croyden Avenue, <b>Devonshire Avenue</b> – TWP westerly line to Nichols Road, <b>Canterbury Avenue</b> – TWP westerly line to Nichols Road, <b>Grace Road</b> – Gorham Lane to Nichols Road (Indian Village Subdivision) Project No. 680734, Crack Fill, Chip Seal and Fog Seal	201,329.94	
<b>KALAMAZOO CHARTER TOWNSHIP TOTALS</b>	<b>474,287.97</b>	<b>50,634.77</b>

**OSHTEMO CHARTER TOWNSHIP ~ 76.56 Local Road Miles**

<b>1st Street</b> – Almena Drive to M-43, Project No. 680778 HMA Wedging, Crack Fill, Chip Seal and Fog Seal	57,923.30	
<b>8th Street</b> – GH Avenue to G Avenue, GH Avenue – 8th Project No. 680782, HMA Wedging, Crack Fill, Chip Seal and Fog Seal	47,692.69	
<b>Chadds Ford Way</b> – 981' South of M-43 to M-43, Project No. 680779 HMA Wedging, Crack Fill, Chip Seal and Fog Seal	12,513.08	
<b>H Avenue</b> - 3rd Street to 6th Street, Project No. 510629 Fog Seal Center Seam		148.09
<b>H Avenue</b> – Van Kal Avenue to 2nd Street, Project No. 680780 HMA Wedging, Crack Fill, Chip Seal and Fog Seal	52,126.15	
<b>H Avenue – 2nd Street to 3rd Street</b> , Project No. 680781 HMA Wedging, Crack Fill, Chip Seal and Fog Seal	30,826.28	
<b>ML Avenue</b> – 4th Street to 6th Street, Project No. 680785 HMA Wedging, Crack Fill, Chip Seal and Fog Seal	44,879.67	
<b>ML Avenue</b> – 6th Street to 8th Street, Project No. 680786 Crack Fill, Chip Seal and Fog Seal	22,438.07	
<b>Plainview Street</b> – 958' South of Stadium Drive to Stadium Drive Project No. 680788, Crack Fill, Chip Seal and Fog Seal	11,173.24	

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

PROJECT DESCRIPTION	PREVENTIVE MAINTENANCE	STRUCTURAL IMPROVEMENT
<b>OSHTEMO CHARTER TOWNSHIP (Continued)</b>		
<b>Rosemary Lane</b> – Lisa Drive to 2nd Street, <b>Lisa Drive</b> – 164' West of Rosemary Lane to Rosemary Lane, <b>Josiane Drive</b> – 1,157' South of Rosemary Lane to Rosemary Lane, Project No. 680784, Crack Fill, Chip Seal and Fog Seal	18,535.41	
<b>Vienna Street</b> – Parkview Avenue to 787' North of Parkview Avenue Project No. 680787, Crack Fill, Chip Seal and Fog Seal	5,549.69	
<b>Wolf Drive</b> – Van Kal Avenue to G Avenue, Project No. 680783 HMA Wedging, Crack Fill, Chp Seal and Fog Seal	53,524.98	
<b>OSHTEMO CHARTER TOWNSHIP TOTALS</b>	<b>357,182.56</b>	<b>148.09</b>
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<b>PAVILION TOWNSHIP ~ 48.35 Local Road Miles</b>		
<b>25th Street</b> – Q Avenue to P Avenue, Project No. 680793 Crack Fill	4,129.82	
<b>31st Street</b> – O Avenue to N Avenue, Project No. 680794 HMA Wedging, Crack Fill and Chip Seal	22,212.32	
<b>33rd Street</b> – R Avenue to Q Avenue, Project No. 680795 HMA Weding and Crack Fill	5,965.98	
<b>East Long Lake Drive</b> - R Avenue to 25th Street, Project No. 560149, Special Assessment, HMA, Reconstruct, Remove ren Replace HMA Pavement		194,042.01
<b>R Avenue</b> over Portage River, Project No. 520587 Bridge Replacement		562,135.40
<b>R Avenue</b> over Adams Drain, Project No. 510674 HMA Wedging, Crack Fill and Chip Seal		389,386.93
<b>PAVILION TOWNSHIP TOTALS</b>	<b>32,308.12</b>	<b>1,145,564.34</b>

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

PROJECT DESCRIPTION	PREVENTIVE MAINTENANCE	STRUCTURAL IMPROVEMENT
<b>PRAIRIE RONDE TOWNSHIP ~ 52.11 Local Road Miles</b>		
<b>2nd Street</b> – U Avenue to TU Avenue, Project No. 680102 Crack Fill	1,238.95	
<b>10th Street</b> – U Avenue to 5280' North of U Avenue, Project No. 680002 Chip Seal	201.60	
<b>VW Avenue</b> – 8th Street to 12th Street, Project No. 680001 Crack Fill	9,952.87	
<b>VW Avenue</b> – 8th Street to 12th Street, Project No. 680101 Chip Seal	52,460.94	
<b>XY Avenue</b> – Van Kal Street to 1st Street, Project No. 680003 Crack Fill, HMA Wedging and Chip Seal	15,387.33	
<b>XY Avenue</b> – 1st Street to 2nd Street, Project No. 680004 Crack Fill and Chip Seal	11,924.23	
<b>XY Avenue</b> – 2nd Street to 3rd Street, Project No. 680005 Crack Fill, HMA Wedging and Chip Seal	28,990.62	
<b>XY Avenue</b> – 3rd Street to 4th Street, Project No. 680006 Crack Fill, HMA Wedging and Chip Seal	11,409.70	
<b>XY Avenue</b> – 4th Street to 6th Street, Project No. 680007 Crack Fill, HMA Wedging and Chip Seal	51,604.45	
<b>XY Avenue</b> – 6th Street to 8th Street, Project No. 680008 Crack Fill, HMA Wedging and Chip Seal	29,998.42	
<b>PRAIRIE RONDE TOWNSHIP TOTALS</b>	<b>213,169.11</b>	<b>0.00</b>
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<b>RICHLAND TOWNSHIP ~ 49.24 Local Road Miles</b>		
<b>24th Street</b> – G Avenue to 6,624' north of G Avenue (Cooper / Richland Townships) Project No. 689002, HMA Wedging, Crack Fill and Chip Seal	23,051.47	
<b>24th Street</b> – FG Avenue to 2,640' north of G Avenue (Cooper / Richland Townships) Project No. 680628, HMA Mill and Overlay	41,428.31	
<b>31st Street</b> – G Avenue to EF Avenue, Project No. 680722 HMA Wedging, Crack Fill and Chip Seal	63,549.59	
<b>34th Street</b> - M89 to D Avenue, Project No. 510620 Fog Seal Center Seam		148.09
<b>C Avenue</b> – 32nd Street to 35th Street, Project No. 680723 HMA Wedging, Crack Fill and Chip Seal	60,325.29	



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

PROJECT DESCRIPTION	PREVENTIVE MAINTENANCE	STRUCTURAL IMPROVEMENT
<b>RICHLAND TOWNSHIP (Continued)</b>		
<b>D Avenue</b> - M-89 to 34th Street, Project No. 510621 Fog Seal Center Seam		148.09
<b>DE Avenue</b> – Village of Richland east limit to 35th Street, Project No. 680724 HMA Wedging, Crack Fill and Chip Seal	23,872.26	
<b>DE Avenue</b> – 34th Street to 35th Street, Project No. 510739 HMA, Mill and Overlay		39,475.90
<b>EF Avenue</b> – M-43 to 32nd Street, Project No. 680725 HMA Wedging, Crack Fill and Chip Seal	37,930.42	
<b>24th Street</b> – FG Avenue to 2,640' north of FG Avenue (Cooper / Richland Twp), Project No. 519002, HMA, Mill and Overlay		41,428.31
<b>Oatman Drive</b> – 150' west of Eagleridge Drive to 442' east of Eagleridge Drive, <b>Eagleridge Drive</b> – Oatman Drive to Sturbridge Drive, <b>Sturbridge Drive</b> – 173' west of Eagleridge Drive to 27th Street, <b>Gullwynd Drive</b> – Sturbridge Drive to 135' Project No. 560142, Special Assessment, Reconstruct, Remove and Replace HMA Pavement		318,198.99
<b>RICHLAND TOWNSHIP TOTALS</b>	<b>250,157.34</b>	<b>399,399.38</b>
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<b>ROSS TOWNSHIP ~ 53.44 Local Road Miles</b>		
<b>39th Street</b> – G Avenue to FG Avenue, Project No. 680726 Crack Fill and Chip Seal	14,790.15	
<b>39th Street</b> - B Avenue to Baseline Road, Project No. 510005 Gravel, Pulverize and Grade		45,654.22
<b>42nd Street</b> – 4,000' north of M-89 to C Avenue, Project No. 510700 Gravel, Pulverize and HMA Paving		129,561.46



**45th Street - B Avenue to Baseline Road  
Ross Township**

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

PROJECT DESCRIPTION	PREVENTIVE MAINTENANCE	STRUCTURAL IMPROVEMENT
<b>ROSS TOWNSHIP (Continued)</b>		
<b>44th Street</b> – Augusta Drive to 528' north of Augusta Drive, <b>44th Street</b> – EF Avenue to 2,955' north of EF Avenue, Project No. 510716, Gravel, Pulverize and HMA Paving		175,618.76
<b>44th Street</b> – C Avenue to Baseline Road, <b>Baseline Road</b> – 44th Street to 1,920' east of 44th Street, Project No. 510717, Gravel, Pulverize and HMA Paving		713,402.90
<b>45th Street</b> – B Avenue to Baseline Road, Project No. 510718 Gravel, Pulverize and HMA Paving		223,539.39
<b>Baseline Road</b> – 39th Street to 42nd Street, Project No. 510719 Gravel, Pulverize and HMA Paving		395,385.26
<b>D Avenue</b> - 37th Street to 38th Street, Project No. 510649 Fog Seal Center Seam		148.09
<b>EF Avenue</b> – 42nd Street to 44th Street, Project No. 510720 Gravel, Pulverize and HMA Paving		289,433.72
<b>FG Avenue</b> – 39th Street to Village of Augusta Westerly Limits, Project No. 510721, Gravel, Pulverize and HMA Paving		240,698.14
<b>Foxboro Lane</b> – M-89 to 1,215' north of M89, Project No. 510722 Cold Milling and HMA Overlay		78,873.91
<b>Delmar Street</b> – 36th Street to 907' east of Merrimac Street, <b>Merrimac Street</b> – Littlefield Avenue to 764' north of Delmar Street, <b>Littlefield Avenue</b> – Merrimac Street to 643' east of Sherbrook Street, <b>Sherbrook Street</b> – CD Avenue to Littlefield Avenue (Gull Vista Plat), Project No. 510723, Cold Milling and HMA Overlay		106,011.26
<b>East Gull Lake Drive</b> - D Avenue to C Avenue, Project No. 510650 Fog Seal Center Seam		148.09
<b>McDonald Street</b> – 624' south of D Avenue to D Avenue, Project No. 510724 Cold Milling and HMA Overlay		18,761.05
<b>Pine Brook Drive</b> – 907' northwest of 48th Street to 48th Street, Project No. 510726 Cold Milling and HMA Overlay		48,584.78

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

PROJECT DESCRIPTION	PREVENTIVE MAINTENANCE	STRUCTURAL IMPROVEMENT
<b>ROSS TOWNSHIP (Continued)</b>		
<b>Sylvan Court</b> – 714' west of Burlington Drive to Burlington Drive, <b>Burlington Drive</b> – Corey to East Gull Lake Drive, <b>Norris Street</b> – Midlake Drive to Burlington Drive, <b>Midlake Drive</b> – Norris Street to Harger Street, <b>Midlake Drive</b> – 305' south of Burlington Drive to Burlington Drive, <b>Wendel Drive</b> – Midlake Drive to Norris Street, <b>Snyder Street</b> – Midlake Drive to Norris Street, <b>Paris Street</b> – Midlake Drive to Burlington Drive, <b>Makin Street</b> – Harger Street to Burlington Drive, <b>Harger Street</b> – Midlake Drive to Makin Street, <b>Hoffmaster Street</b> – Burlington Drive to Midland Drive, <b>Midland Drive</b> – Hoffmaster Street to C Avenue, <b>C Avenue</b> – Burlington Drive to East Gull Lake Drive, <b>Moon</b> – Burlington Drive to East Gull Lake Drive, <b>Corey</b> – Burlington Drive to East Gull Lake Drive, <b>Burlington (Willow Beach Rd)</b> – East Gull Lake Drive to 289' north of East Gull Lake Drive (Midland Park Plat and Half Moon, Gull Lake Park) Project No. 510725, Cold Milling and HMA Overlay		267,529.85
<b>South Sherman Lake Drive</b> – G Avenue to 4,752' north of G Avenue, Project No. 510727		214,659.28
<b>South Sherman Lake Drive</b> – G Avenue to 4,752' north of G Avenue, Project No. 510728, Drainage Improvements		4,271.33
<b>Trillium Drive</b> – 1,350' West of Fernwood Drive to Fernwood Drive, <b>Camomile Drive</b> – Fernwood Drive to 275' north of Fernwood Drive, <b>Fernwood Drive</b> – D Avenue to Trillium Drive, <b>Acnathus Drive</b> – Fernwood Drive to 275' East of Fernwood Drive (Trillium Plat) Project No. 510729, Cold Milling and HMA Overlay		264,157.57
<b>Yorkshire Drive</b> – 37th Street to 2,640' east of 37th Street, Project No. 510730 Cold Milling and HMA Overlay		58,776.19
<b>ROSS TOWNSHIP TOTALS</b>	<b>14,790.15</b>	<b>3,275,215.25</b>

**SCHOOLCRAFT TOWNSHIP ~ 34.23 Local Road Miles**

<b>14th Street</b> – VW Avenue to U Avenue, Project No. 680744 Chip Seal	33,674.80
<b>14th Street</b> – XY Avenue to Village Limits, Project No. 680745 Crack Fill, HMA Wedging and Chip Seal	26,545.76
<b>14th Street</b> – YZ Avenue to XY Avenue, Project No. 680746 HMA Wedging and Chip Seal	26,723.36
<b>16th Street</b> – W Avenue to VW Avenue, Project No. 680747 Chip Seal	13,983.64
<b>22nd Street</b> – Village Limits to U Avenue, Project No. 680748 Crack Fill, HMA Wedging and Chip Seal	18,511.29

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

PROJECT DESCRIPTION	PREVENTIVE MAINTENANCE	STRUCTURAL IMPROVEMENT
<b>SCHOOLCRAFT TOWNSHIP (Continued)</b>		
<b>Higley Circle East</b> – Sugar Island Drive to Sugar Island Drive, Project No. 510744 Drainage Improvements		34,896.68
<b>Oakland Drive</b> – U Avenue to City Limits, Project No. 510747 Mill and HMA Overlay		114,573.93
<b>X Avenue</b> – Portage Road to Barton Lake Drive West, Project No. 680791 Crack Fill, HMA Weding, Chip Seal and Fog Seal	15,316.43	
<b>YZ Avenue</b> – 15th Street to 16th Street, Project No. 680789 Crack Fill and Chip Seal	12,144.81	
<b>SCHOOLCRAFT TOWNSHIP TOTALS</b>	<b>146,900.09</b>	<b>149,470.61</b>
<hr/>		
<b>TEXAS CHARTER TOWNSHIP ~ 92.35 Local Road Miles</b>		
<b>Chadeau Avenue</b> – Norcross Street to 10th Street, <b>Norcross Street</b> – 308' South of Keith Court to Chadeau Avenue, <b>Keith Court</b> – Norcross Street to 400' East of Norcross Street, <b>Omega Street</b> – Chadeau Avenue to 169' North of Chadeau Project No. 680718, Chip Seal and Fog Seal	15,117.56	
<b>Colony Woods Drive</b> – Q Avenue to 952' east of Oak Hills Drive, <b>Oak Hill Drive</b> – Colony Woods Drive to Q Avenue Project No. 680716, Crack Fill, Chip Seal and Fog Seal	27,618.77	
<b>Crooked Lake Drive West</b> – Q Avenue to PQ Avenue, Project No. 510694 Mill and HMA Overlay		77,255.94
<b>Eagle Heights Drive</b> – PQ Avenue to 1,590' North of PQ Avenue, Project No. 680721, Chip Seal and Fog Seal	12,405.11	
<b>Eagle Terrace</b> – PQ Avenue to 707' North of PQ Avenue, Project No. 680720 Chip Seal and Fog Seal	7,138.18	
<b>Hidden Cove Place</b> – 3,009' West of 8th Street to 8th Street, Project No. 680719 Chip Seal and Fog Seal	21,304.38	

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

PROJECT DESCRIPTION	PREVENTIVE MAINTENANCE	STRUCTURAL IMPROVEMENT
<b>TEXAS CHARTER TOWNSHIP (Continued)</b>		
<b>North Eagle Lake Drive</b> - 600' West of East Eagle Lake Drive to East Eagle Lake D Project No. 510003, Temporary Road Construction(Crushed Aggregate Surface)		50,607.92
<b>O Avenue</b> - 4th to 6th Street, Project No. 510006 Flooding Repairs (as needed)		27,018.47
<b>Stoney Brook Road</b> – 10th Street to Breaburn Court, <b>Saddle Club Drive</b> – Dunwoody Court to 450' East of Shepherds Glen Road, <b>Doubletree Court</b> – 605' South of Saddle Club Drive to Saddle Club Drive, <b>Summerhill Court</b> – 588' South of Saddle Club Drive to Saddle Club Drive, <b>Deerpath Road</b> – Q Avenue to Saddle Club Drive, <b>Four Seasons Drive</b> – Saddle Club Drive to Bent Tree Road, <b>Shepherds Glen Road</b> – Saddle Club Drive to Shepherds Glen Court, <b>Shepherds Glen Court</b> – 276' North of Shepherds Glen Road to 686' East of Shepherds Glen Road, <b>Bent Tree Road</b> – Q Avenue to Shepherds Glen Road, <b>Huntwick Road</b> – Bent Tree Road to Shepherds Glen Road, <b>Burning Tree Road</b> – Stoney Brook Road to 867' South of Stoney Brook Road, <b>Hunters Ridge Drive</b> – Burning Tree Road to Heathrow Avenue, <b>Farmington Avenue</b> – Stoney Brook Road to Heathrow Avenue, <b>Heathrow Avenue</b> – Farmington Avenue to 12th Street, <b>Gatwick Court</b> – Heathrow Avenue to 855' North of Heathrow Avenue. <b>Orlv Court</b> – Heathrow Project No. 680717, Chip Seal and Fog Seal	159,982.70	
<b>Tillman Drive</b> – Riedell Drive to Stadium Drive, <b>Riedell Drive</b> – Coronet Drive to Farallon Drive, <b>Deerfield Trail</b> – 283' West of Coronet Drive to Riedell Drive, <b>Farallon Drive</b> – Callaway Drive to Riedell Drive, <b>Coronet Drive</b> – Callaway Drive to Riedell Drive, <b>Callaway Drive</b> – Coronet Drive to 1st Street, <b>Embassy Street</b> – O Avenue to Deerfield Trail, <b>Duval Circle</b> – 853' West of Embassy Street to Embassy Street, <b>Martell Court</b> – Embassy Street to 500' East of Embassy Street  Project No. 510699, Mill and HMA Overlay		403,818.32
<b>Treasure Island Drive</b> – Pepper Avenue to 400' West of Woods Drive and <b>Woods Drive</b> – Treasure Island Drive to 250' north of Treasure Island Drive Project No. 510002, Temporary Road Construction(Crushed Aggregate Surface)		55,941.63
<b>Whippoorwill Drive</b> – 686' West of Warbler Drive to 12th Street, <b>Whistler Drive</b> – Chickadee Drive to Whippoorwill Drive, <b>Chickadee Drive</b> – Warbler Drive to Phoebe Street, <b>Phoebe Street</b> – Swallow Avenue to Whippoorwill Drive, <b>Swan Drive</b> – Swallow Avenue to Chickadee Drive, <b>Plover Drive</b> – Swallow Avenue to Chickadee Drive Project No. 510693, Mill and HMA Overlay		189,106.02
<b>TEXAS CHARTER TOWNSHIP TOTALS</b>	<b>243,566.70</b>	<b>803,748.30</b>

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

PROJECT DESCRIPTION	PREVENTIVE MAINTENANCE	STRUCTURAL IMPROVEMENT
<b>WAKESHMA TOWNSHIP</b> ~ 47.52 Local Road Miles		
<b>36th Street</b> – WX Avenue to W Avenue , Project No. 510733 Gravel, Grade and Compact		24,378.77
<b>37th Street</b> – Y Avenue to WX Avenue , Project No. 510735 Gravel, Grade and Compact		37,719.61
<b>39th Street</b> – V Avenue to U Avenue (2 year project), Project No. 510737 Gravel, Pulverize and HMA Paving Base Course Only		208,490.25
<b>48th Street</b> – UV Avenue to T Avenue, Project No. 510732 Gravel, Grade and Compact		42,677.15
<b>X Avenue</b> – 42nd Street to 44th Street, Project No. 510731 Gravel, Pulverize, Grade and Compact		45,315.08
<b>WX Avenue</b> – 36th Street to 37th Street, Project No. 510734 Gravel, Grade and Compact		7,333.00
 <b>WAKESHMA TOWNSHIP TOTALS</b>	 <b>0.00</b>	 <b>365,913.86</b>
<hr/>		
<b>Total Local Road Preventive Maintenance</b>	<b>2,678,934.34</b>	
<b>Total Local Road Preservation Structural Improvements</b>		<b>8,079,192.93</b>



**38th Street - M-96 to 5,200' north of M-96, Charleston Township**

# CHAPTER 3

## Road Commission of Kalamazoo County Overview

### Financials

<b>Local Road Participation Funds</b>	<b>Page</b>	<b>44</b>
<b>Local Road Township Contributions</b>	<b>Page</b>	<b>45</b>
<b>Local Road Project Summary Expenditures</b>	<b>Page</b>	<b>46</b>
<b>Routine and Preventive Maintenance Expenditures</b>	<b>Page</b>	<b>47</b>
<b>Local Road Routine Maintenance Expenditures and Revenues</b>	<b>Page</b>	<b>48</b>
<b>Combined Balance Sheet</b>	<b>Page</b>	<b>49</b>
<b>Statement of Revenues and Expenditures</b>	<b>Page</b>	<b>50</b>
<b>Supplemental Information—Graphs</b>	<b>Pages</b>	<b>51-73</b>



**EF Avenue—42nd Street to 44th Street, Ross Township**

● **LOCAL ROAD PARTICIPATION FUNDS**

The Board of County Road Commissioners of the County of Kalamazoo determines, annually, the amount of funds allocated to the local road participation (PAR) fund program 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.

PAR 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.

*Carryover Funds: Remaining obligated, yet unspent funds for local road projects which may be carried over to the following year, per RCKC policy.*

*Reallocation: Re-distribution of initial allocation based on township's January 20th response for use of available PAR funds by township, per RCKC policy.*

<b>Township</b>	<b>2019 Initial Allocation</b>	<b>2018 Carryover Funds</b>	<b>Reallocation of PAR Funds</b>	<b>Total Township Allocation</b>
Alamo	\$64,275		\$0	\$64,275
Brady	\$81,842		\$0	\$81,842
Charleston	\$40,391		\$0	\$40,391
Climax	\$66,268		\$0	\$66,268
Comstock	\$214,511		\$0	\$214,511
Cooper	\$150,324	\$16,056	\$0	\$166,380
Kalamazoo	\$253,665		\$0	\$253,665
Oshtemo	\$233,555	\$68,013	\$0	\$301,568
Pavilion	\$104,355		\$0	\$104,355
Prairie Ronde	\$74,616	\$6,543	\$0	\$81,159
Richland	\$110,084	\$17,971	\$0	\$128,055
Ross	\$85,100		\$0	\$85,100
Schoolcraft	\$79,098	\$26,142	\$0	\$105,240
Texas	\$237,348		\$0	\$237,348
Wakeshma	\$64,568	\$49,878	\$0	\$114,446
<b>Total</b>	<b>\$1,860,000</b>	<b>\$184,603</b>	<b>\$0</b>	<b>\$2,044,603</b>



● LOCAL ROAD TOWNSHIP CONTRIBUTIONS

●

●

Township	Preservation Structural Improvement Contribution	Preventive Maintenance Contribution	Special Assessment Contribution	Total Township Contributions	Work for Others
Alamo	179,336	83,914	-	263,250	-
Brady	54,678	14,038	-	68,716	-
Charleston	70,112	-	-	70,112	-
Climax	-	71,988	-	71,988	-
Comstock	352,346	287,343	-	639,689	-
Cooper	156,405	77,290	-	233,695	655,771
Kalamazoo	23,930	221,135	-	245,065	-
Oshtemo	-	168,756	-	168,756	157,751
Pavilion	133,431	15,125	172,195	320,751	-
Prairie Ronde	-	120,647	-	120,647	-
Richland	38,235	108,044	150,377	296,656	-
Ross	2,852,324	14,036	-	2,866,360	-
Schoolcraft	84,947	81,097	-	166,044	-
Texas	523,381	217,409	-	740,790	-
Wakeshma	175,787	-	-	175,787	-
<b>Total</b>	<b>4,644,912</b>	<b>1,480,822</b>	<b>322,572</b>	<b>6,448,306</b>	<b>813,522</b>

**Notes:**

All categories represent the payments made by a township, and township revenues recorded by RCKC

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

<b>Township</b>	<b>Local Preventive</b>	<b>Local Preservation</b>	<b>Total Township Projects</b>
Alamo	156,155.30	205,909.94	362,065.24
Brady	31,149.56	125,535.56	156,685.12
Charleston	0.00	116,906.68	116,906.68
Climax	148,583.42	0.00	148,583.42
Comstock	449,146.87	507,834.70	956,981.57
Cooper	162,653.99	170,909.69	333,563.68
Kalamazoo	474,267.77	50,632.61	524,900.38
Oshtemo	357,167.34	148.09	357,315.43
Pavilion	32,306.74	951,481.80	983,788.54
Prairie Ronde	213,160.01	0.00	213,160.01
Richland	208,720.14	81,196.94	289,917.08
Ross	14,789.52	3,275,075.76	3,289,865.28
Schoolcraft	146,893.86	149,464.24	296,358.10
Texas	246,871.25	803,714.07	1,050,585.32
Wakeshma	0.00	365,898.29	365,898.29
<b>Total</b>	<b>2,641,865.77</b>	<b>6,804,708.37</b>	<b>9,446,574.14</b>

**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.



**KL Avenue - 4th Street and 8th Street,  
Oshtemo Township**

● **ROUTINE & PREVENTIVE MAINTENANCE EXPENDITURES**

● **For Calendar Year Ending December 31, 2019**

● Including Administrative and Equipment Allocations

	<b>2019 Cost</b>	<b>Average Cost Per Mile</b>	<b>2018 Cost</b>	<b>Average Cost Per Mile</b>	<b>Increase (Decrease) Per Mile</b>
<b>PRIMARY ROAD SYSTEM</b>	445.82 Miles		445.82 Miles		
Surface Maintenance	3,734,128.56	8,375.87	2,723,999.43	6,110.09	2,265.78
Roadside Maintenance	777,909.02	1,744.89	1,209,411.02	2,712.78	(967.89)
Traffic Control	941,318.67	2,111.43	917,128.01	2,057.17	54.26
Winter Maintenance	899,174.85	2,016.90	906,270.56	2,032.82	(15.92)
<b>Total</b>	<b>6,352,531.10</b>	<b>14,201.95</b>	<b>5,756,809.02</b>	<b>12,870.13</b>	<b>1,331.82</b>
<b>LOCAL ROAD SYSTEM</b>	823.16 Miles		821.88 Miles		
Surface Maintenance	4,385,381.25	5,327.50	3,383,714.05	4,117.04	1,210.46
Roadside Maintenance	1,841,845.86	2,237.53	1,430,046.32	1,739.97	497.56
Traffic Control	582,759.33	707.95	429,122.21	522.12	185.83
Winter Maintenance	1,028,116.81	1,248.99	791,621.10	963.18	285.81
<b>Total</b>	<b>7,838,103.25</b>	<b>9,552.72</b>	<b>6,034,503.68</b>	<b>7,354.58</b>	<b>2,198.14</b>



**P Avenue, Pavilion 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	250,810.89	0.00	250,810.89	210,613.23	(40,197.66)
Brady	308,746.36	0.00	308,746.36	273,570.71	(35,175.65)
Charleston	158,577.64	0.00	158,577.64	104,356.07	(54,221.57)
Climax	313,844.68	0.00	313,844.68	294,138.11	(19,706.57)
Comstock	493,279.08	0.00	493,279.08	424,619.30	(68,659.78)
Cooper	416,009.73	0.00	416,009.73	396,527.83	(19,481.90)
Kalamazoo	495,861.35	0.00	495,861.35	382,316.73	(113,544.62)
Oshtemo	513,275.09	0.00	513,275.09	522,841.97	9,566.88
Pavilion	319,936.18	0.00	319,936.18	229,888.12	(90,048.06)
Prairie Ronde	345,030.51	0.00	345,030.51	243,224.79	(101,805.72)
Richland	326,027.68	0.00	326,027.68	255,728.64	(70,299.04)
Ross	353,836.70	0.00	353,836.70	442,876.23	89,039.53
Schoolcraft	226,643.53	0.00	226,643.53	182,813.96	(43,829.57)
Texas	613,784.83	0.00	613,784.83	685,704.60	71,919.77
Wakeshma	314,639.22	0.00	314,639.22	546,904.67	232,265.45
<b>Total</b>	<b>5,450,303.47</b>	<b>0.00*</b>	<b>5,450,303.47</b>	<b>5,196,124.96</b>	<b>(254,178.51)</b>

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

The chart above represents, for 2019, 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 in each 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.

- **COMBINED BALANCE SHEET**
- **For Calendar Year 2019**
- 

**ASSETS**

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**General Operating Fund:**

Cash Account		4,506,288	
Interest Bearing Deposits		1,633,020	
Accounts Receivable:			
Michigan Transportation Fund	3,733,710		
Due on County road Agreements	1,461,060		
Due on Special Assessments	277,996		
Sundry Accounts Receivable	<u>357,873</u>	5,830,639	
Inventories:			
Equipment Material	197,293		
Road Material	<u>948,018</u>	1,145,311	
Advances - Township & Other		171,466	
Prepaid Expenses		150,717	
Deferred Expense - Federal and State		<u>102</u>	
Total General Operating Assets			13,437,543

**FIXED ASSET GROUP** 149,193,051

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**TOTAL ASSETS** **162,630,594**

**LIABILITIES AND FUND EQUITIES**

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Accounts Payable		2,047,879	
Accrued Liability		148,606	
Deferred Revenue - Special Assessment		277,996	
Due to State of Michigan		0	
Advances: Townships and Other		402,421	
Available Operating Equity:			
Primary Road - Reserved	9,264,613		
Local Road - Reserved	0		
County Road Commission	<u>1,296,028</u>	<u>10,560,641</u>	
Total General Operating Liabilities and Equity			13,437,543

**FIXED ASSET GROUP**

Plant and Equipment Equity		<u>149,193,051</u>
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**TOTAL LIABILITIES AND FUND EQUITIES** **162,630,594**

● **STATEMENT OF REVENUES AND EXPENDITURES**

● **For Calendar Year Ending December 31, 2019**

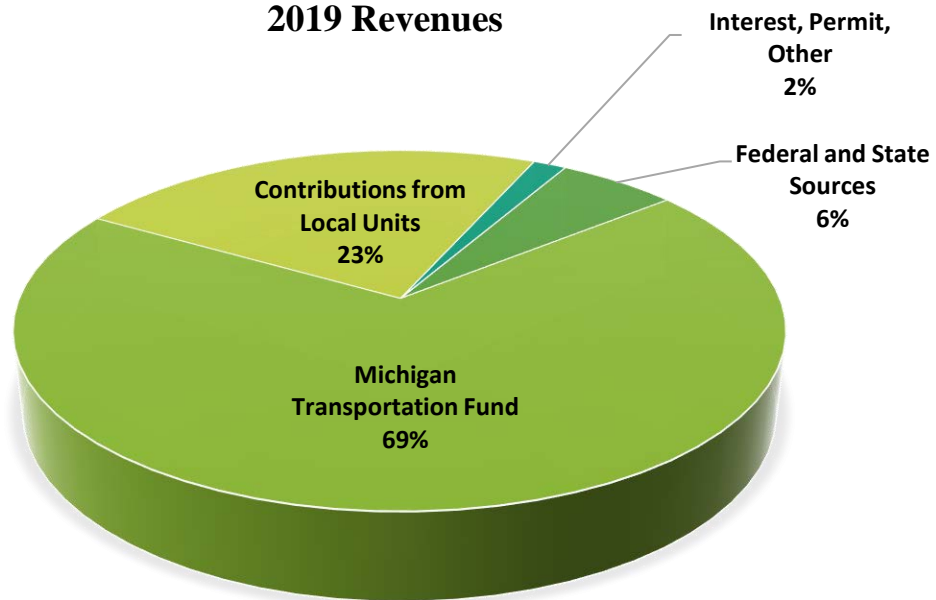


	Primary Road Fund	Local Road Fund	Road Commission Fund	Total
<b>REVENUE</b>				
Michigan Transportation Fund	17,130,286.99	5,447,174.54	0.00	22,577,461.53
Optional Transfer	(3,003,650.66)	3,003,650.66	0.00	0.00
Critical Bridge Fund	113.63	0.00	0.00	113.63
Snow Removal Fund	1,684.81	3,128.93	0.00	4,813.74
Other State Revenue	413,449.00	0.00	0.00	413,449.00
Economic Development Fund	40.26	0.00	0.00	40.26
Federal Revenue	997,676.81	0.00	0.00	997,676.81
County Raised Revenue	14,874.59	6,481,448.55	1,704,474.24	8,200,797.38
Gain on Disposal of Equipment	0.00	0.00	40,181.47	40,181.47
Contributions from Private Sources	0.00	0.00	0.00	0.00
Special Assessment Districts	0.00	57,692.74	0.00	57,692.74
Miscellaneous Revenue	130,402.92	1,101.22	260,882.47	392,386.61
<b>Total Revenue</b>	<b>15,684,878.35</b>	<b>14,994,196.64</b>	<b>2,005,538.18</b>	<b>32,684,613.17</b>
<b>EXPENDITURES</b>				
Construction/Capacity Improvement	0.00	0.00	0.00	0.00
Preservation - Structural Imp.	10,647,959.92	6,925,268.97	0.00	17,573,228.89
Routine and Preventive Maintenance	6,058,750.39	7,418,231.35	0.00	13,476,981.74
Other: Work for Others	0.00	0.00	1,751,321.03	1,751,321.03
Administration	687,177.43	589,974.30	0.00	1,277,151.73
Interest Expense	0.00	0.00	0.00	0.00
Equipment Account	37,127.02	60,722.02	9,726.79	107,575.83
	<b>17,431,014.76</b>	<b>14,994,196.64</b>	<b>1,761,047.82</b>	<b>34,186,259.22</b>
<b>Non-Operating Expenditures</b>				
* Net Capital Outlay	(500,480.55)	0.00	342,235.00	(158,245.55)
<b>Total Expenditures</b>	<b>16,930,534.21</b>	<b>14,994,196.64</b>	<b>2,103,282.82</b>	<b>34,028,013.67</b>
Increase (Decrease) in Available Operating Fund	(1,245,655.86)	0.00	(97,744.64)	(1,343,400.50)
<b>Total Allocated Expenditures</b>	<b>15,684,878.35</b>	<b>14,994,196.64</b>	<b>2,005,538.18</b>	<b>32,684,613.17</b>

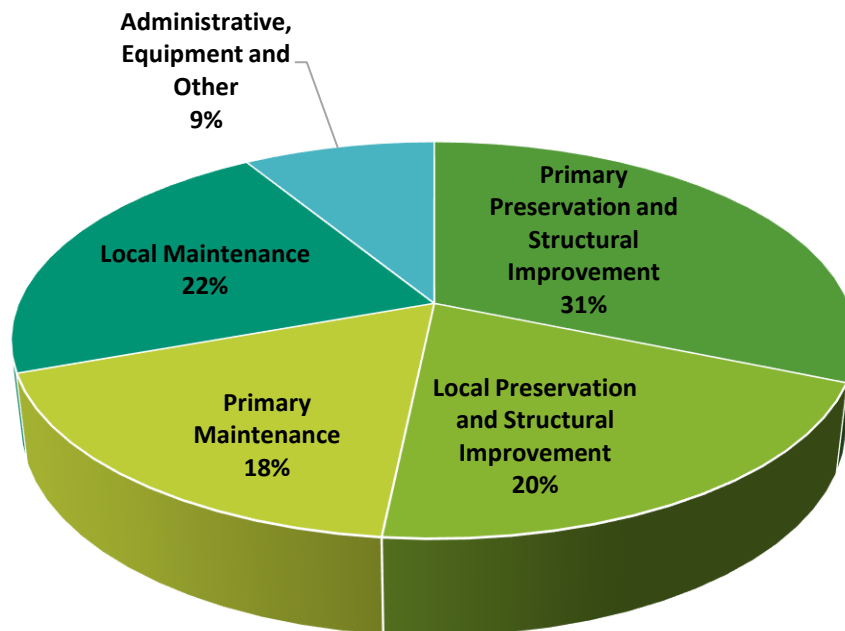
\*Net Capital Outlay - Expenditures less depreciation and depletion.

- Revenues and Expenditures
- 2019
- 

### 2019 Revenues

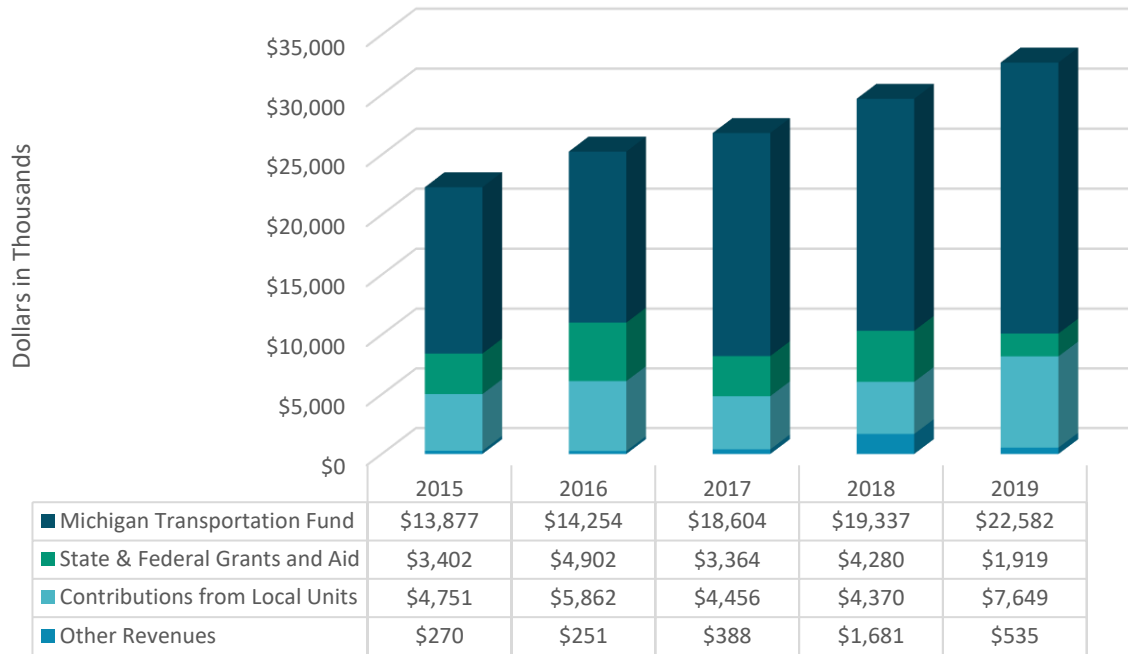


### 2019 Expenditures

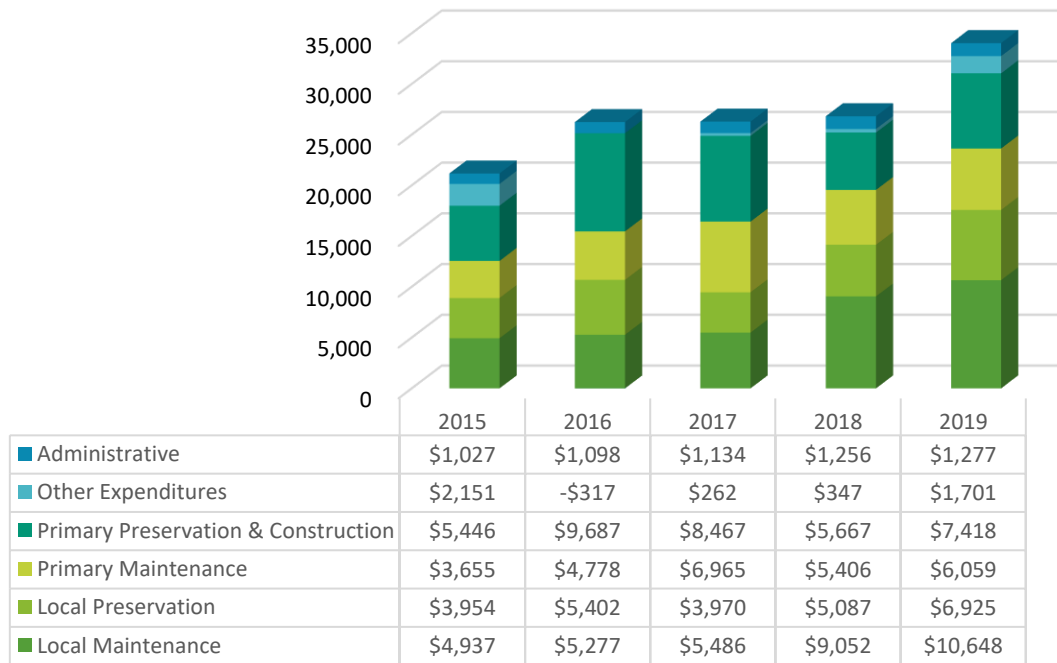


- Revenues and Expenditures History
- 2015 through 2019
- 

### Revenue History



### Expenditure History

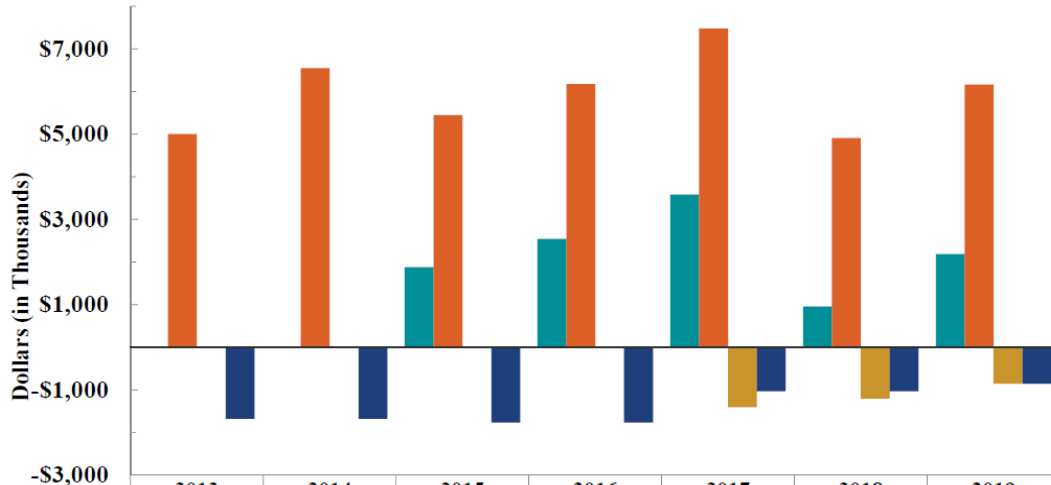




- **Overfunded Pension and Unfunded Other Post Employment Benefit (OPEB) Obligations**
- **2013 through 2019**
- 



**Road Commission of Kalamazoo County**  
 Overfunded Pension and Unfunded OPEB  
 For the Years Ended December 31, 2013 through 2019



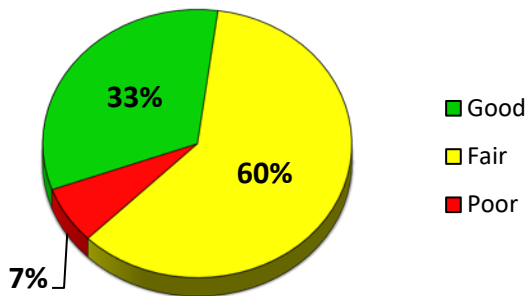
	2013	2014	2015	2016	2017	2018	2019
■ Pension, Reporting			\$1,876	\$2,543	\$3,584	\$952	\$2,185
■ Pension, Funding	\$5,002	\$6,551	\$5,449	\$6,175	\$7,480	\$4,906	\$6,163
■ OPEB, Reporting					(\$1,407)	(\$1,208)	(\$856)
■ OPEB, Funding	(\$1,677)	(\$1,677)	(\$1,770)	(\$1,770)	(\$1,036)	(\$1,036)	(\$856)

OPEB Funding valuations occur every other year. Pension and OPEB Reporting figures are included only in recent years because of changes in GAAP.

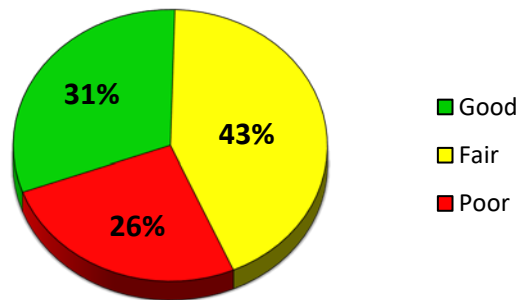
\*12/31/2018 is the most recent OPEB valuation report available.

● **Countywide Asset Management PASER Rating Summary**  
 ● **2019**  
 ●

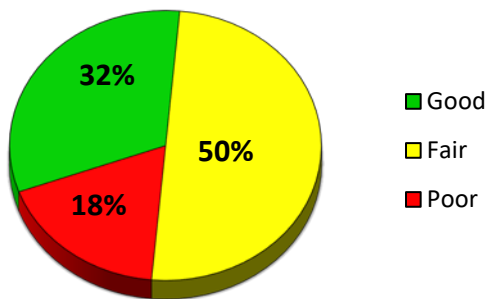
**Primary Roads**



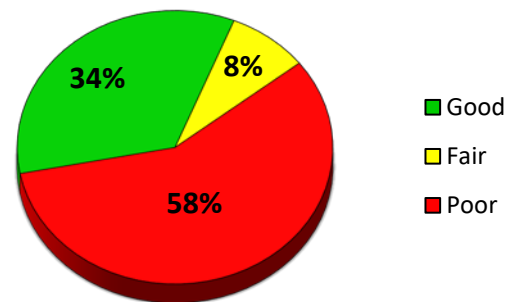
**Local Roads**



**Primary & Local Roads**



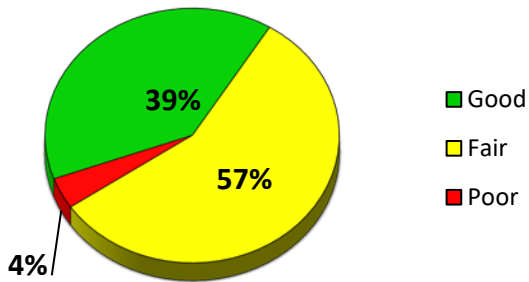
**Gravel Roads**



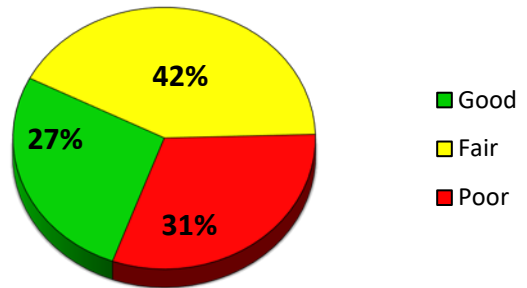
\*Good (PASER rating  $\geq 8$ ), Fair (PASER rating = 7, 6, 5) & Poor (PASER rating  $\leq 4$ )  
 Based on year end 2019 PASER data. Gravel roads rated using Inventory Based Rating (IBR).

● **Alamo Township Asset Management PASER Rating Summary**  
 ● **2019**  
 ●

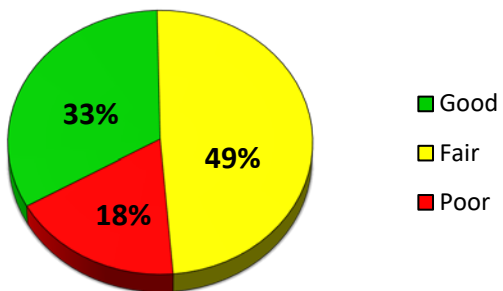
**Primary Roads**



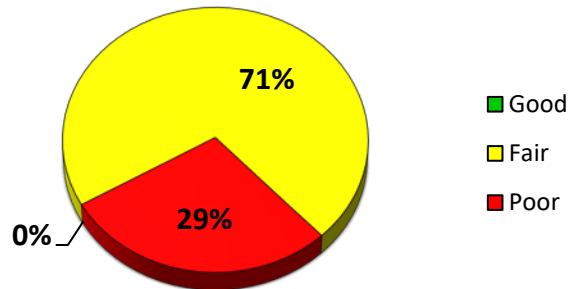
**Local Roads**



**Primary & Local Roads**



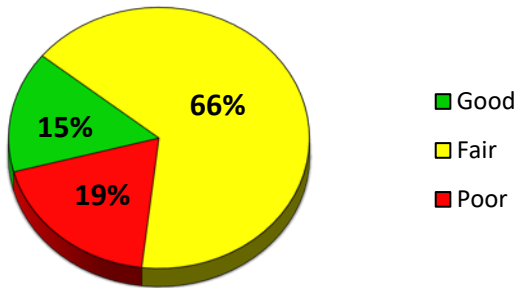
**Gravel Roads**



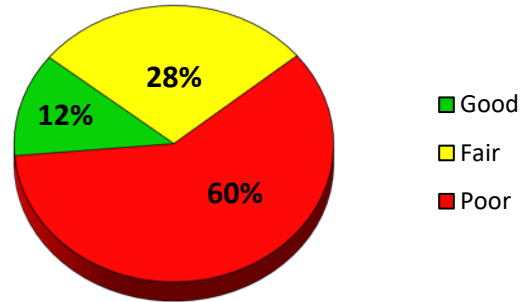
\*Good (PASER rating  $\geq 8$ ), Fair (PASER rating = 7, 6, 5) & Poor (PASER rating  $\leq 4$ )  
 Based on year end 2019 PASER data. Gravel roads rated using Inventory Based Rating (IBR).

- **Brady Township Asset Management PASER Rating Summary**
- **2019**
- 

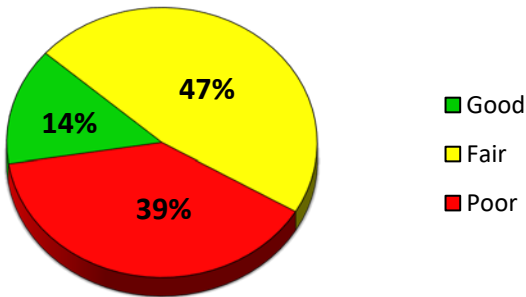
**Primary Roads**



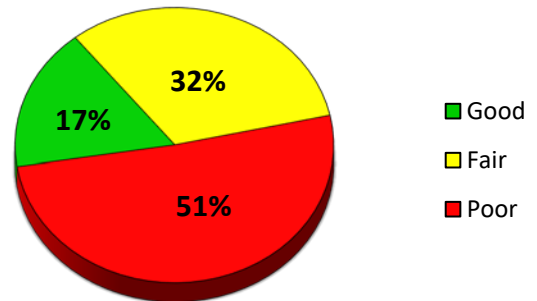
**Local Roads**



**Primary & Local Roads**



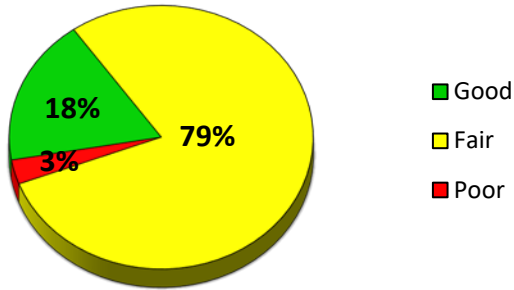
**Gravel Roads**



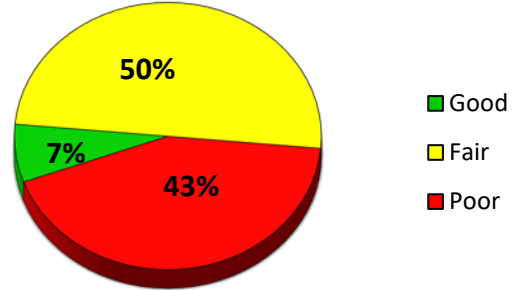
\*Good (PASER rating  $\geq 8$ ), Fair (PASER rating = 7, 6, 5) & Poor (PASER rating  $\leq 4$ )  
 Based on year end 2019 PASER data. Gravel roads rated using Inventory Based Rating (IBR).

- Charleston Township Asset Management PASER Rating Summary
- 2019
- 

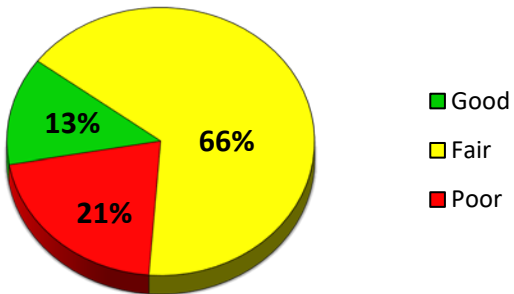
**Primary Roads**



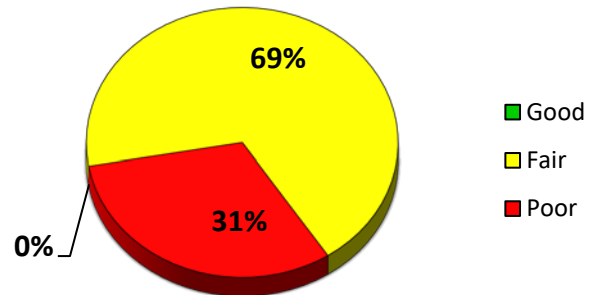
**Local Roads**



**Primary & Local Roads**



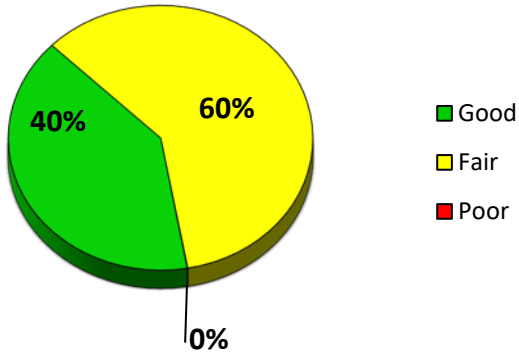
**Gravel Roads**



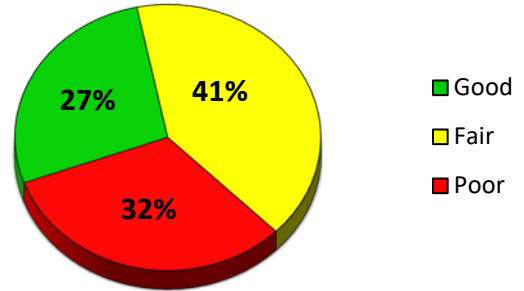
\*Good (PASER rating  $\geq 8$ ), Fair (PASER rating = 7, 6, 5) & Poor (PASER rating  $\leq 4$ )  
 Based on year end 2019 PASER data. Gravel roads rated using Inventory Based Rating (IBR).

- Climax Township Asset Management PASER Rating Summary
- 2019
- 

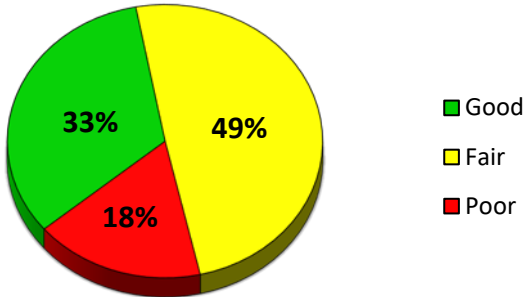
**Primary Roads**



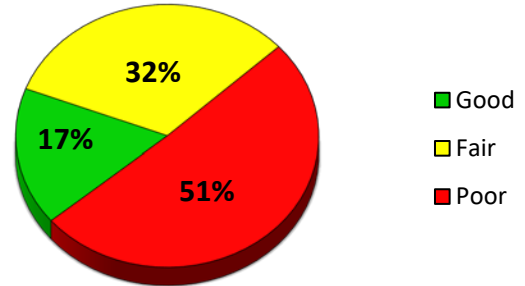
**Local Roads**



**Primary & Local Roads**



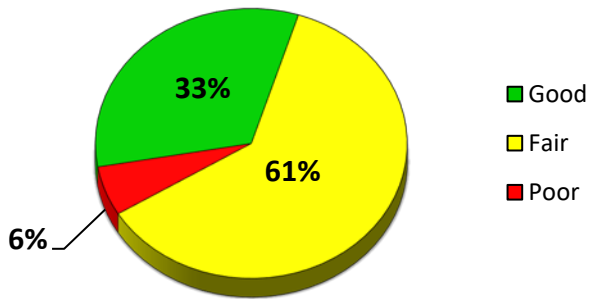
**Gravel Roads**



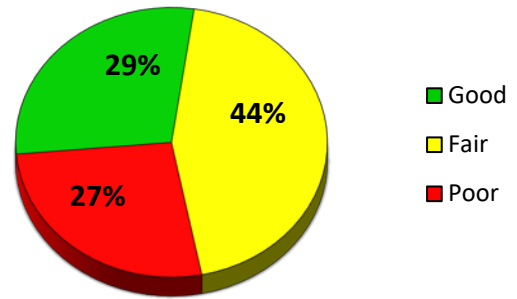
\*Good (PASER rating  $\geq 8$ ), Fair (PASER rating = 7, 6, 5) & Poor (PASER rating  $\leq 4$ )  
 Based on year end 2019 PASER data. Gravel roads rated using Inventory Based Rating (IBR).

● Comstock Township Asset Management PASER Rating Summary  
 ● 2019  
 ●

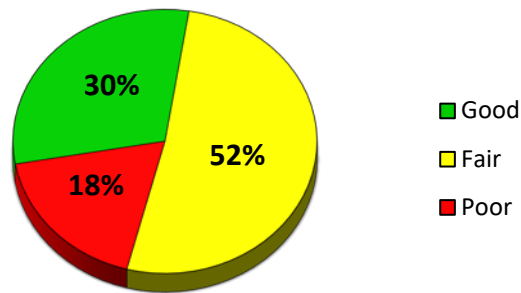
### Primary Roads



### Local Roads



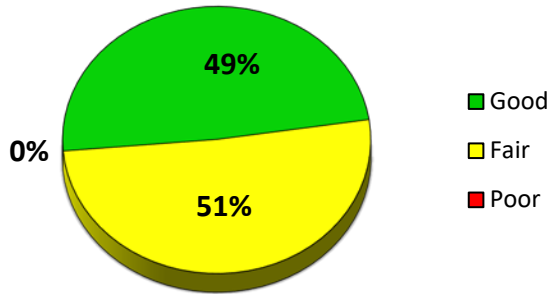
### Primary & Local Roads



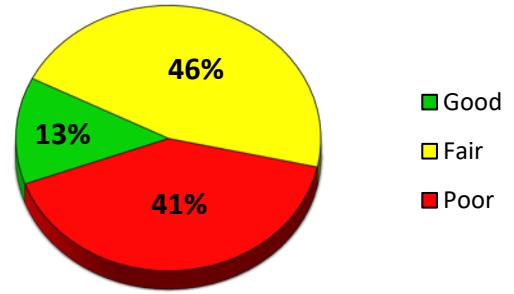
\*Good (PASER rating  $\geq 8$ ), Fair (PASER rating = 7, 6, 5) & Poor (PASER rating  $\leq 4$ )  
 Based on year end 2019 PASER data. Gravel roads rated using Inventory Based Rating (IBR).

● Cooper Township Asset Management PASER Rating Summary  
 ● 2019  
 ●

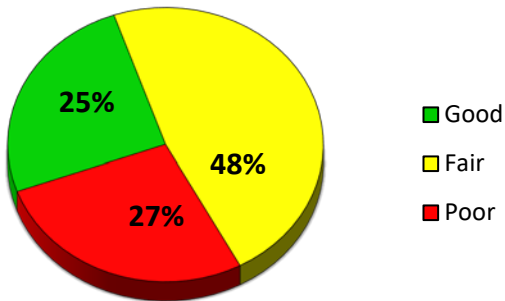
**Primary Roads**



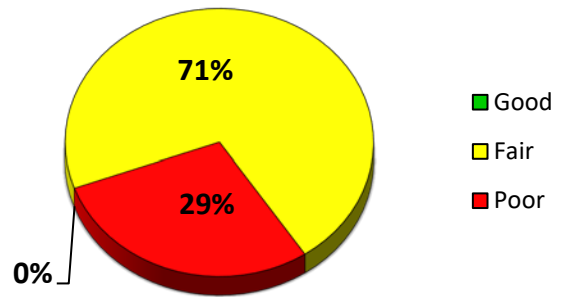
**Local Roads**



**Primary & Local Roads**



**Gravel Roads**

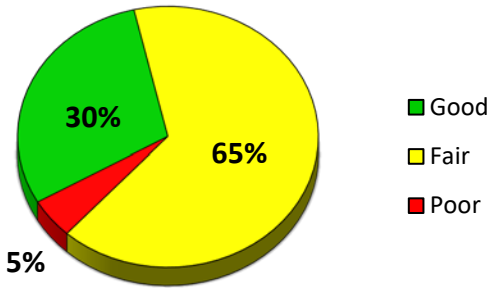


\*Good (PASER rating  $\geq 8$ ), Fair (PASER rating = 7, 6, 5) & Poor (PASER rating  $\leq 4$ )  
 Based on year end 2019 PASER data. Gravel roads rated using Inventory Based Rating (IBR).

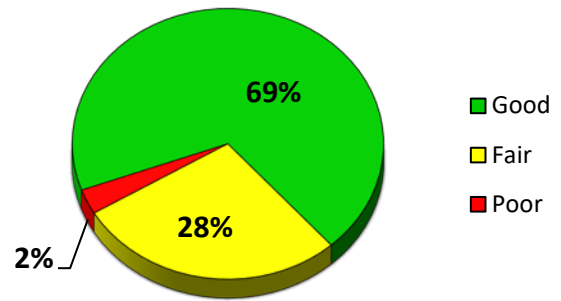


● **Kalamazoo Township Asset Management PASER Rating Summary**  
 ● **2019**  
 ●

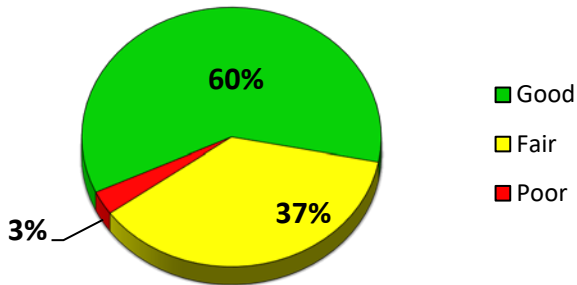
**Primary Roads**



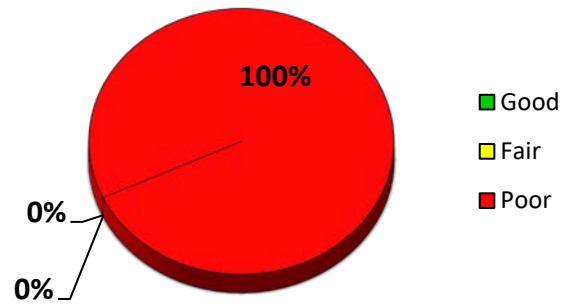
**Local Roads**



**Primary & Local Roads**



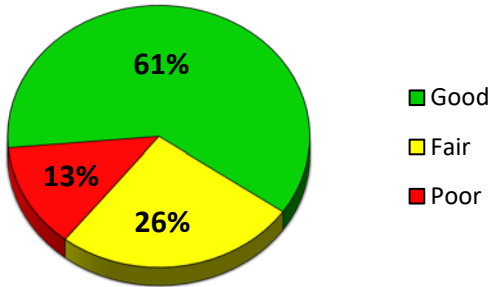
**Gravel Roads**



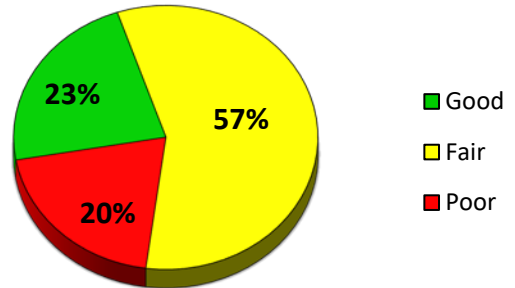
\*Good (PASER rating  $\geq 8$ ), Fair (PASER rating = 7, 6, 5) & Poor (PASER rating  $\leq 4$ )  
 Based on year end 2019 PASER data. Gravel roads rated using Inventory Based Rating (IBR).

● **Oshtemo Township Asset Management PASER Rating Summary**  
 ● **2019**  
 ●

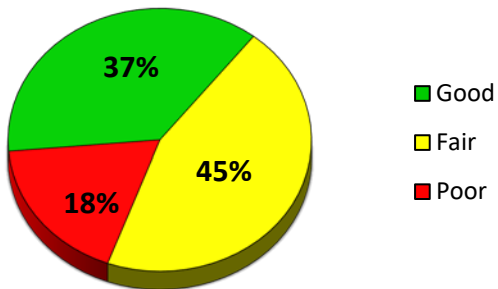
**Primary Roads**



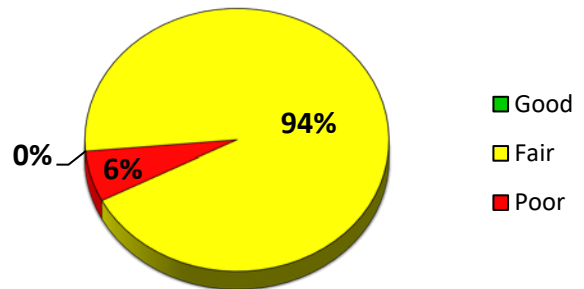
**Local Roads**



**Primary & Local Roads**



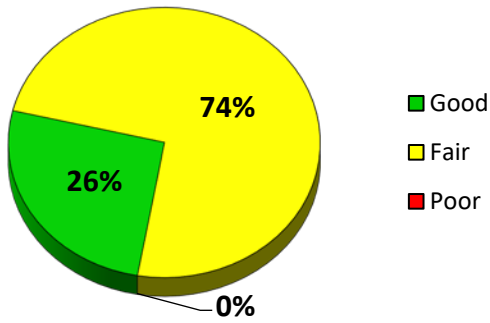
**Gravel Roads**



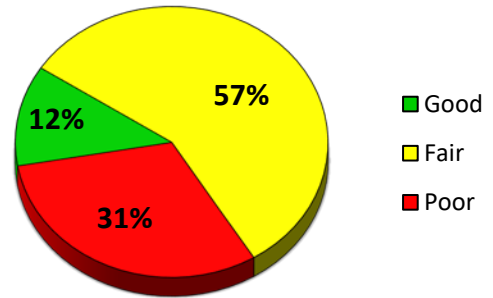
\*Good (PASER rating  $\geq 8$ ), Fair (PASER rating = 7, 6, 5) & Poor (PASER rating  $\leq 4$ )  
 Based on year end 2019 PASER data. Gravel roads rated using Inventory Based Rating (IBR).

- Pavilion Township Asset Management PASER Rating Summary
- 2019
- 

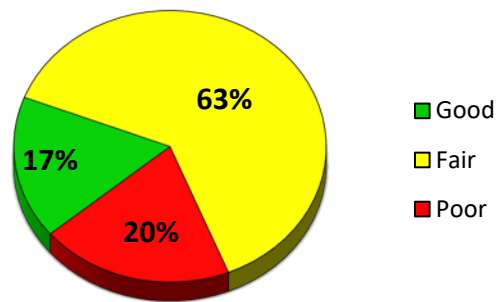
### Primary Roads



### Local Roads



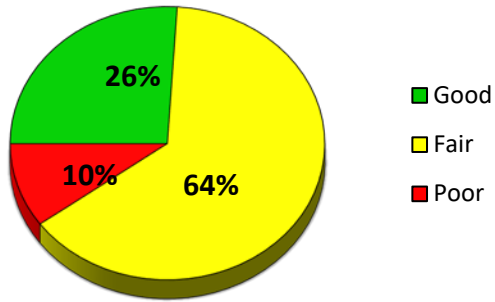
### Local & Primary Roads



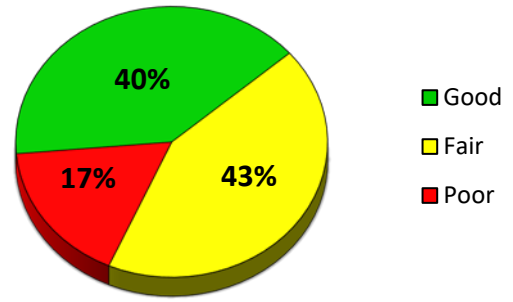
\*Good (PASER rating  $\geq 8$ ), Fair (PASER rating = 7, 6, 5) & Poor (PASER rating  $\leq 4$ )  
 Based on year end 2019 PASER data. Gravel roads rated using Inventory Based Rating (IBR).

- **Prairie Ronde Township Asset Management PASER Rating Summary**
- **2019**
- 

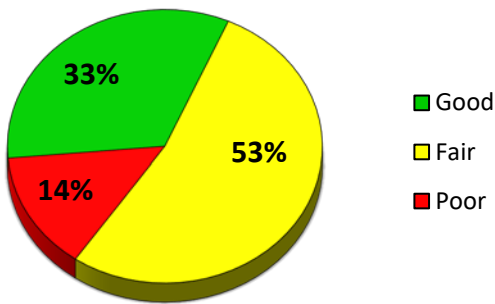
**Primary Roads**



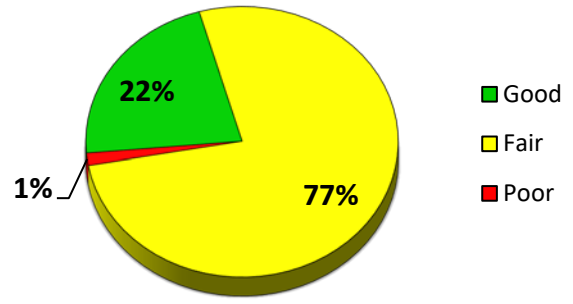
**Local Roads**



**Primary & Local Roads**



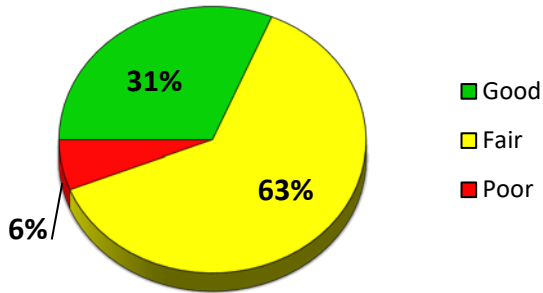
**Gravel Roads**



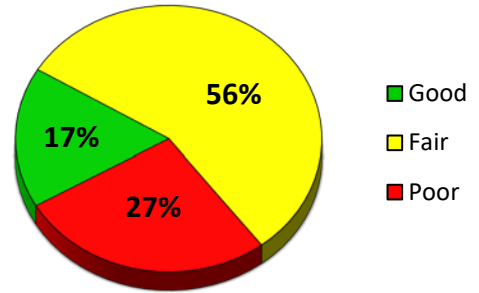
\*Good (PASER rating  $\geq 8$ ), Fair (PASER rating = 7, 6, 5) & Poor (PASER rating  $\leq 4$ )  
 Based on year end 2019 PASER data. Gravel roads rated using Inventory Based Rating (IBR).

● **Richland Township Asset Management PASER Rating Summary**  
 ● **2019**  
 ●

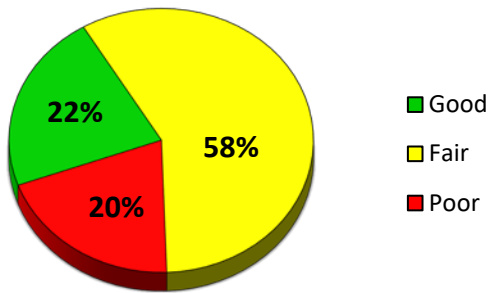
**Primary Roads**



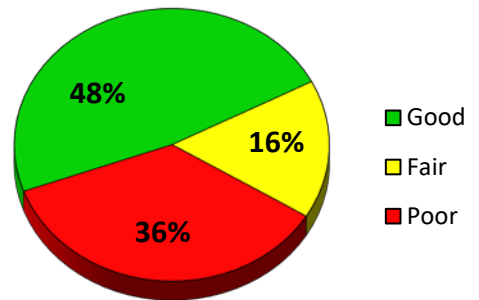
**Local Roads**



**Primary & Local Roads**



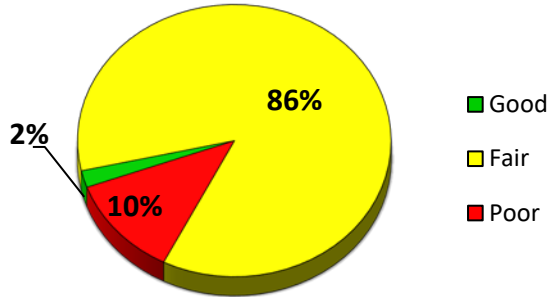
**Gravel Roads**



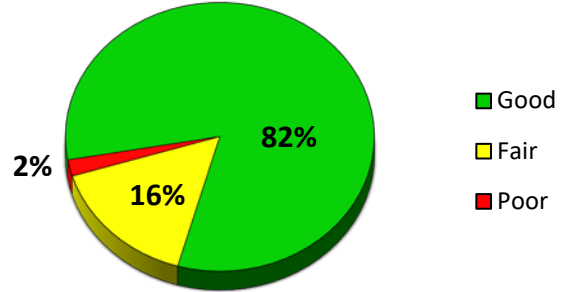
\*Good (PASER rating  $\geq 8$ ), Fair (PASER rating = 7, 6, 5) & Poor (PASER rating  $\leq 4$ )  
 Based on year end 2019 PASER data. Gravel roads rated using Inventory Based Rating (IBR).

● **Ross Township Asset Management PASER Rating Summary**  
 ● **2019**  
 ●

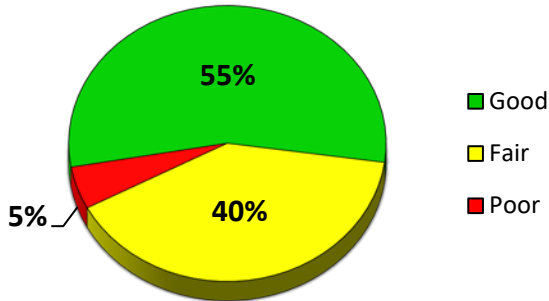
**Primary Roads**



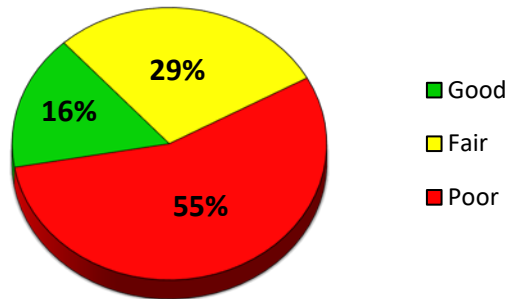
**Local Roads**



**Primary & Local Roads**



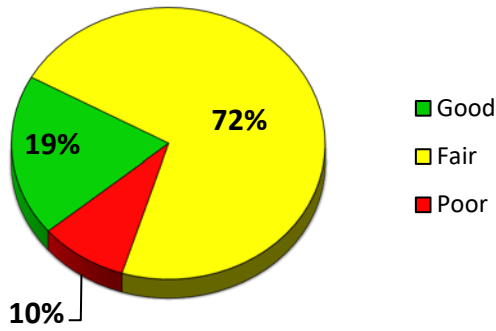
**Gravel Roads**



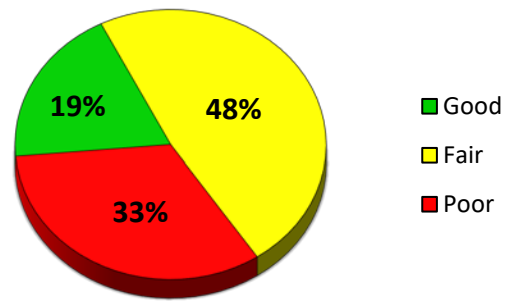
\*Good (PASER rating  $\geq 8$ ), Fair (PASER rating = 7, 6, 5) & Poor (PASER rating  $\leq 4$ )  
 Based on year end 2019 PASER data. Gravel roads rated using Inventory Based Rating (IBR).

- Schoolcraft Township Asset Management PASER Rating Summary
- 2019
- 

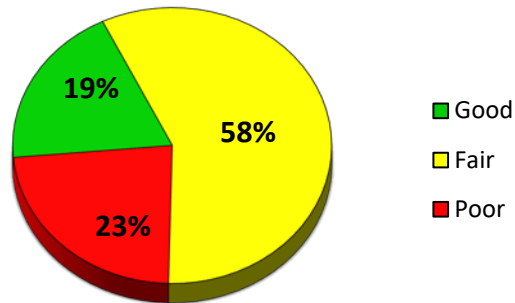
**Primary Roads**



**Local Roads**



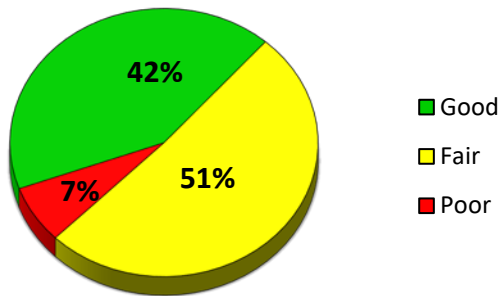
**Primary & Local Roads**



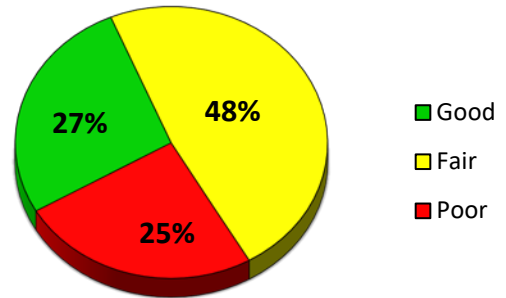
\*Good (PASER rating  $\geq 8$ ), Fair (PASER rating = 7, 6, 5) & Poor (PASER rating  $\leq 4$ )  
 Based on year end 2019 PASER data. Gravel roads rated using Inventory Based Rating (IBR).

- Texas Township Asset Management PASER Rating Summary
- 2019
- 

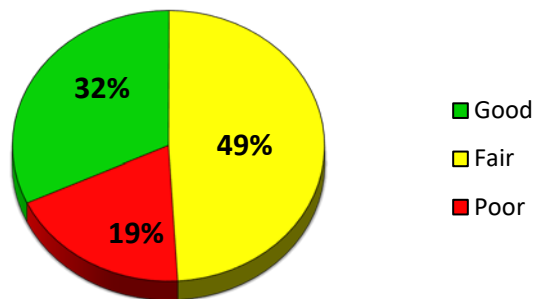
### Primary Roads



### Local Roads



### Primary & Local Roads

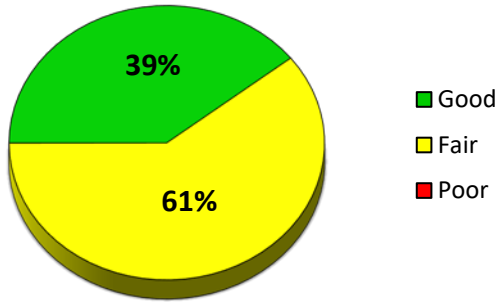


\*Good (PASER rating  $\geq 8$ ), Fair (PASER rating = 7, 6, 5) & Poor (PASER rating  $\leq 4$ )  
 Based on year end 2019 PASER data. Gravel roads rated using Inventory Based Rating (IBR).

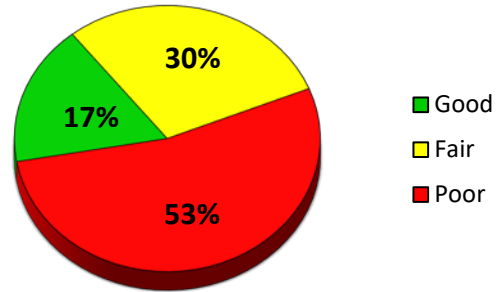


- **Wakeshma Township Asset Management PASER Rating Summary**
- **2019**
- 

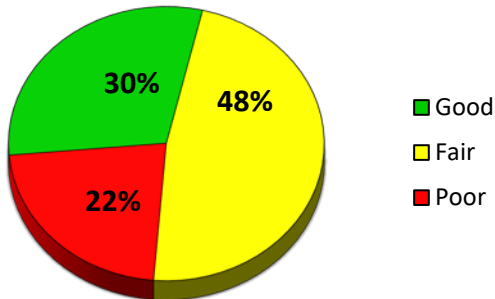
**Primary Roads**



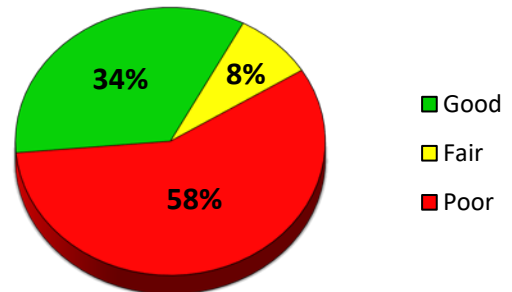
**Local Roads**



**Primary & Local Roads**



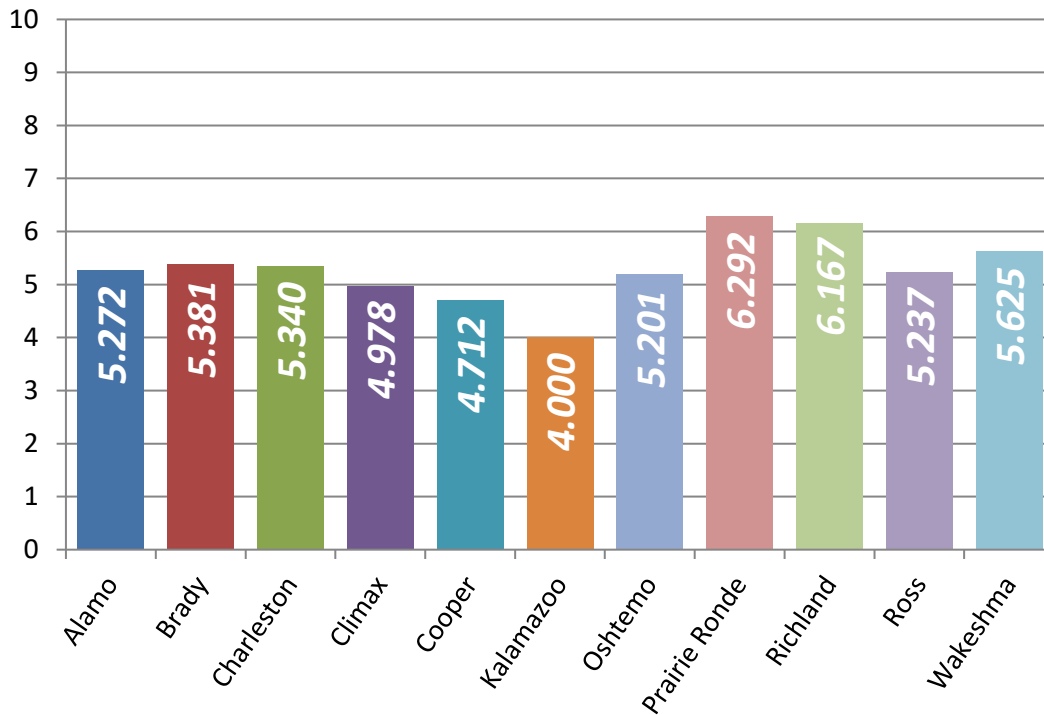
**Gravel Roads**



\*Good (PASER rating  $\geq 8$ ), Fair (PASER rating = 7, 6, 5) & Poor (PASER rating  $\leq 4$ )  
 Based on year end 2019 PASER data. Gravel roads rated using Inventory Based Rating (IBR).

- Gravel Road Ratings
- 2019 Inventory Based Rating System (IBR)
- 

**2019**  
**Local Gravel Road IBR by Township**  
**Summary by Township**



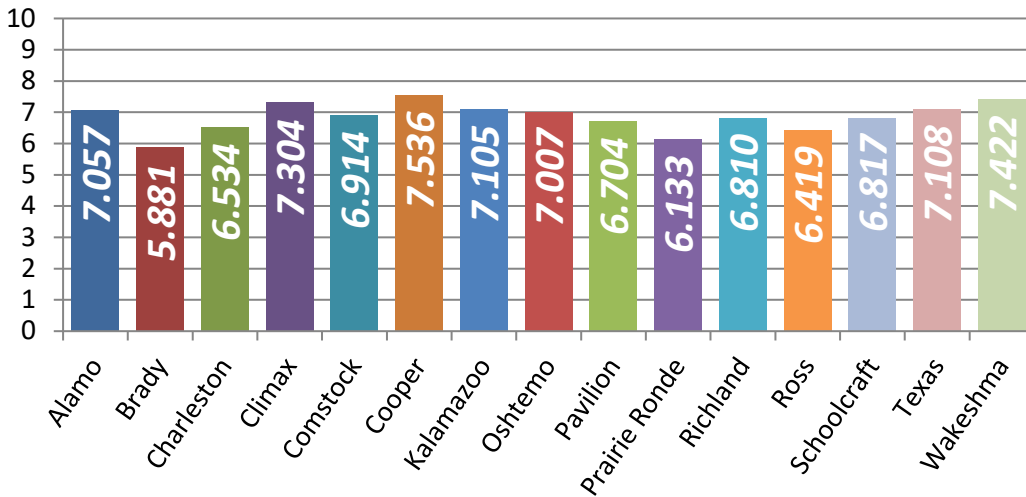
\*Good (rating ≥8), Fair (rating = 7, 6, 5) & Poor (rating ≤4)

Paved Roads rated using the Pavement Surface Evaluation and Rating (PASER).

Gravel Roads rated using Inventory Based Rating (IBR).

● **Primary Road Average PASER Rating Summary**  
 ● **2019**

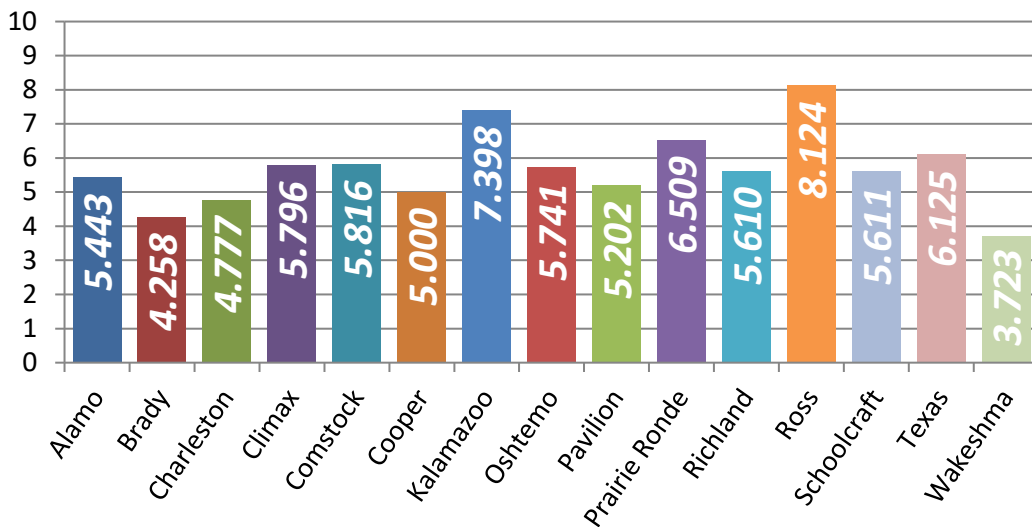
**2019**  
**Township Primary Road PASER Rating**  
**Summary by Township**



\*Good (PASER rating  $\geq 8$ ), Fair (PASER rating = 7, 6, 5) & Poor (PASER rating  $\leq 4$ )  
 PASER Data does not include gravel roads.

● **Local Road Average PASER Rating Summary**  
 ● **2019**

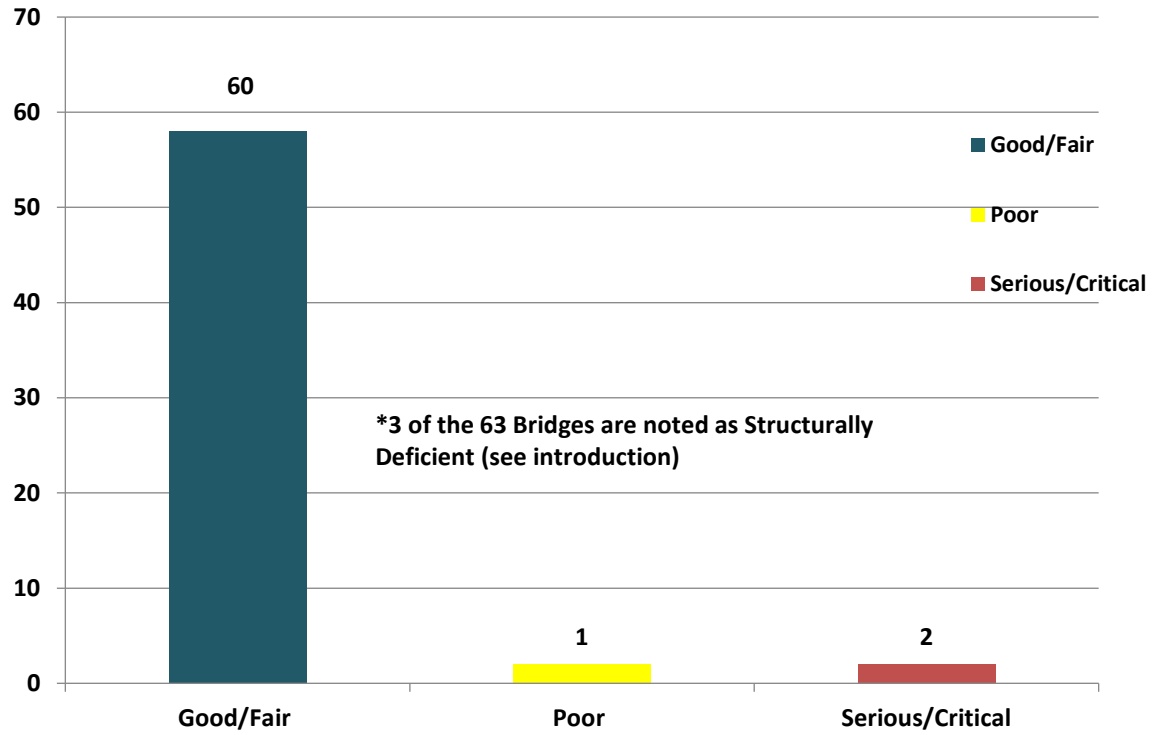
**2019**  
**Township Local Road PASER Rating**  
**Summary by Township**



\*Good (PASER rating  $\geq 8$ ), Fair (PASER rating = 7, 6, 5) & Poor (PASER rating  $\leq 4$ )  
 PASER Data does not include gravel roads.

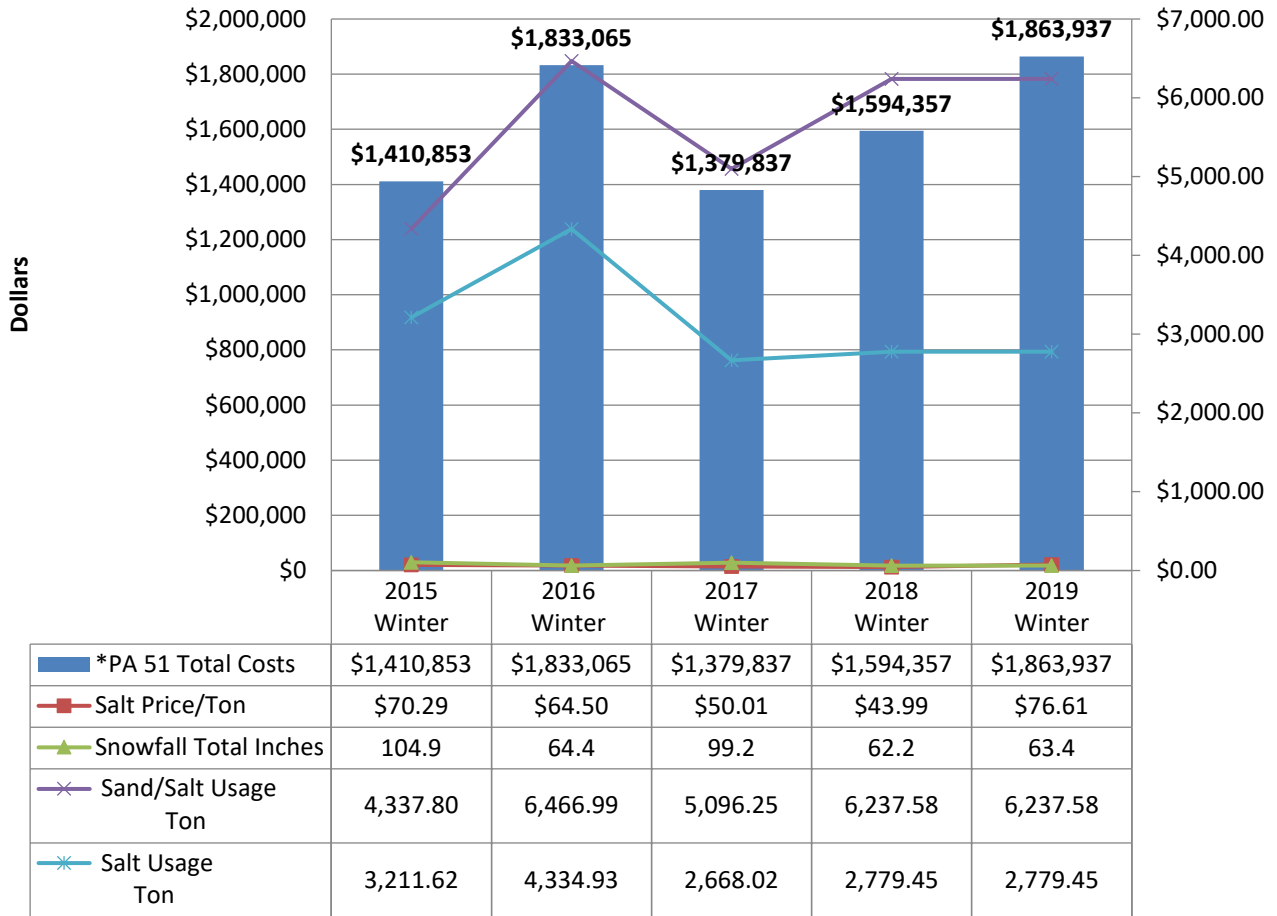
- Bridge Rating Summary
- 2019
- 

### Bridge Rating Summary\*



● **Winter Maintenance Expenditure and Snowfall Totals**  
 ● **2015 through 2019**  
 ●

### Expenditure and Snowfall Totals



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

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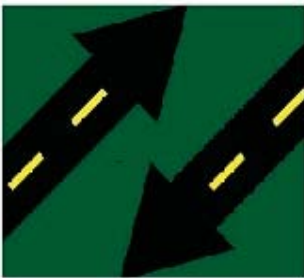


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