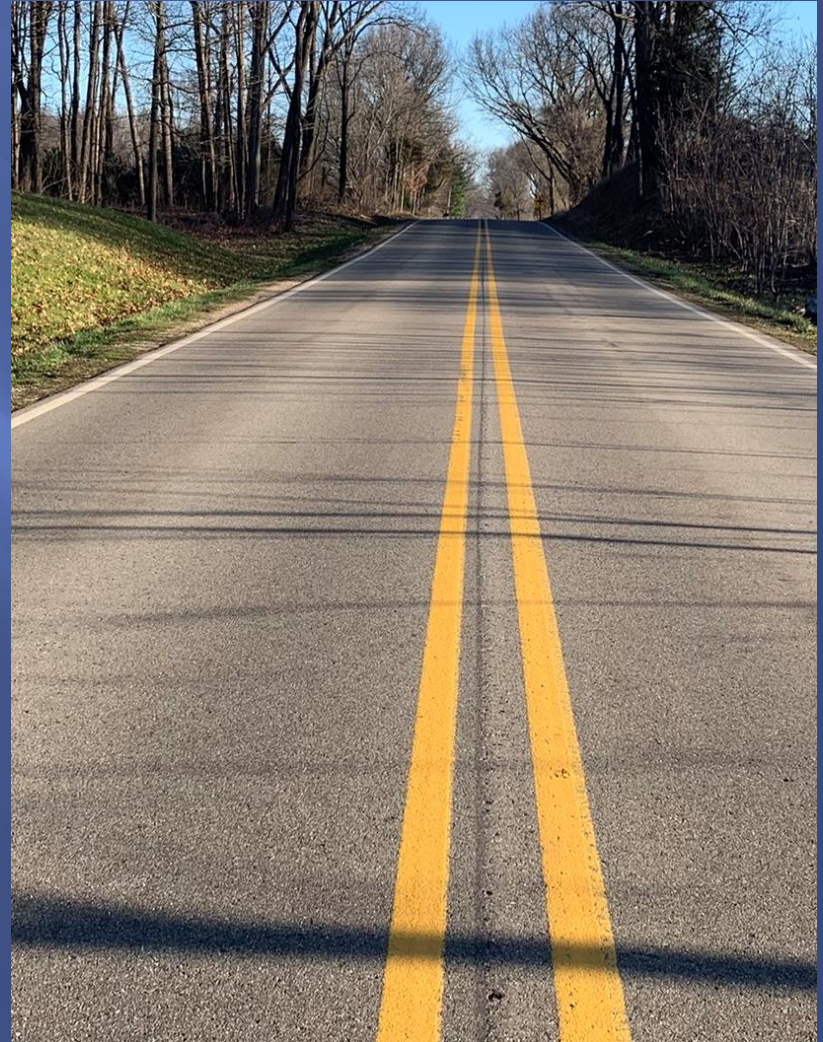


# Roads and Infrastructure in Napoleon Township





# Vision for the Future...





# Roads and Streets are an Important Community Space...





# An Overview

1. **Historical Perspectives on  
County Road Agency  
Funding in Michigan**
2. Current Situation
3. The Plan for Moving  
Forward





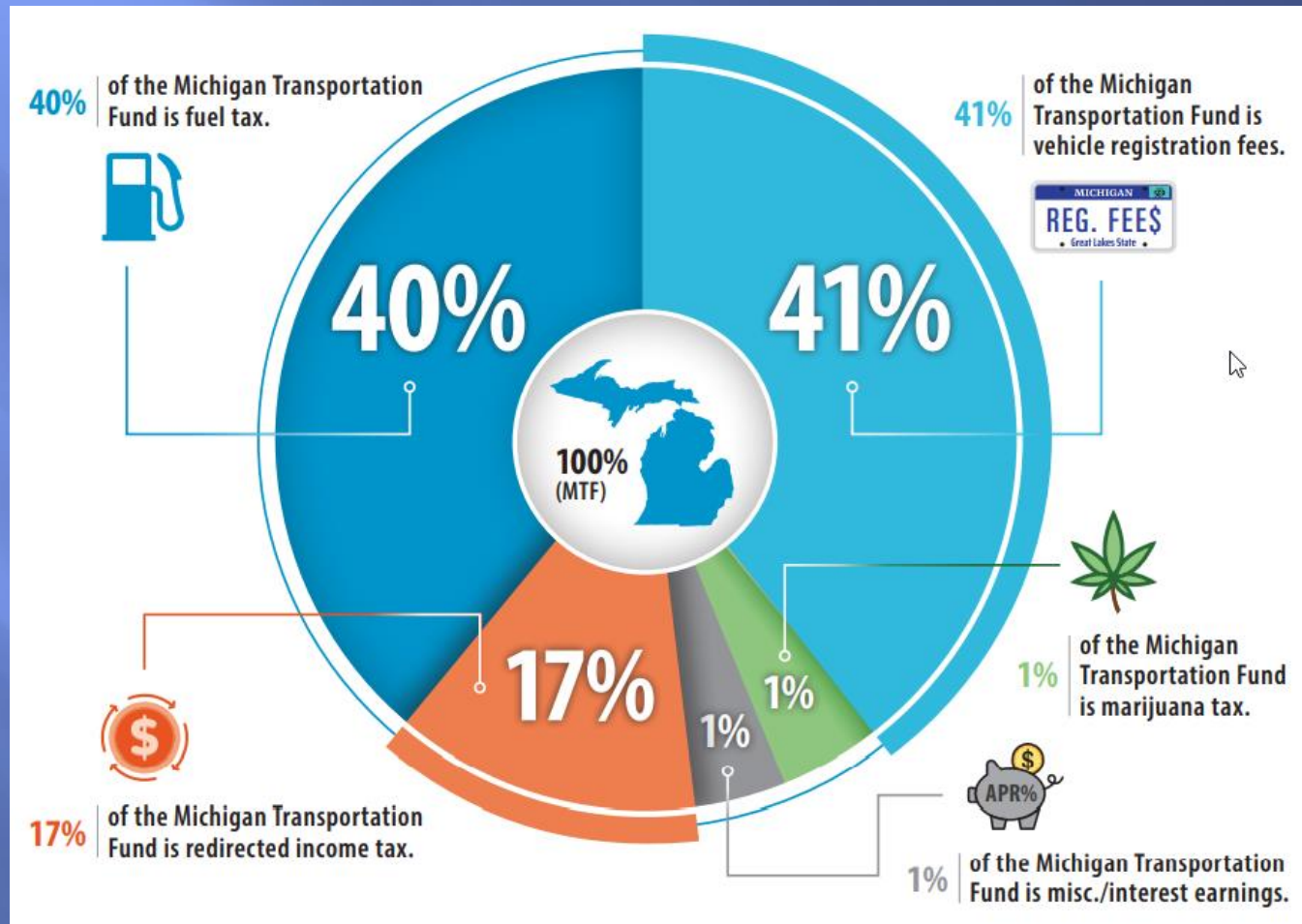
# The Problem...Funding!

- ▣ Revenue sources were down since 2003
  - Gas taxes did not increase from 1997 to 2015.
  - Grants are increasingly competitive
- ▣ Construction inflation & higher material fuel prices & the “Triple Whammy” Effect:
  1. Operating costs UP
  2. Construction material costs UP
  3. Revenues DOWN
- ▣ Net effects:
  - Defer improvements & maintenance
  - Make cuts in projects
  - Increased pressure on local governments for revenues
  - People are unhappy!





# State of Michigan Road Funding





# Where does the money you pay at the pump go?

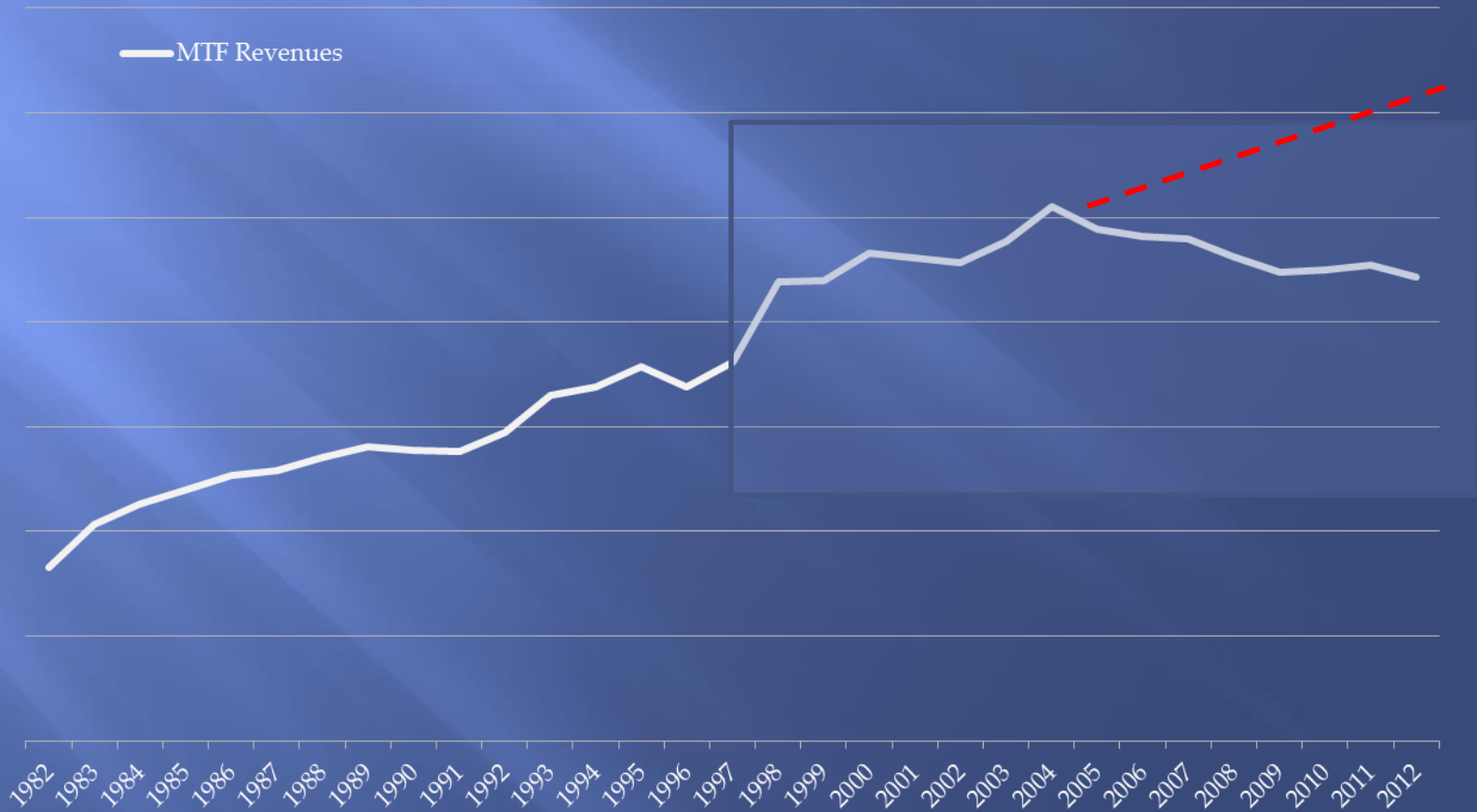
- 2015 Road Funding Legislation
  - Gas tax increased to 26.3¢ in 2016 and to 28.3¢ in 2023
    - Gas & diesel parity
    - Was 19¢ for 20 years!
  - Registration fees up 20%
- Fuel Efficiency?
- Electric Vehicles?
- Typical Michigan car owner driving an average of 15,000 miles a year, total state and federal road-users fee's are \$413 a year.





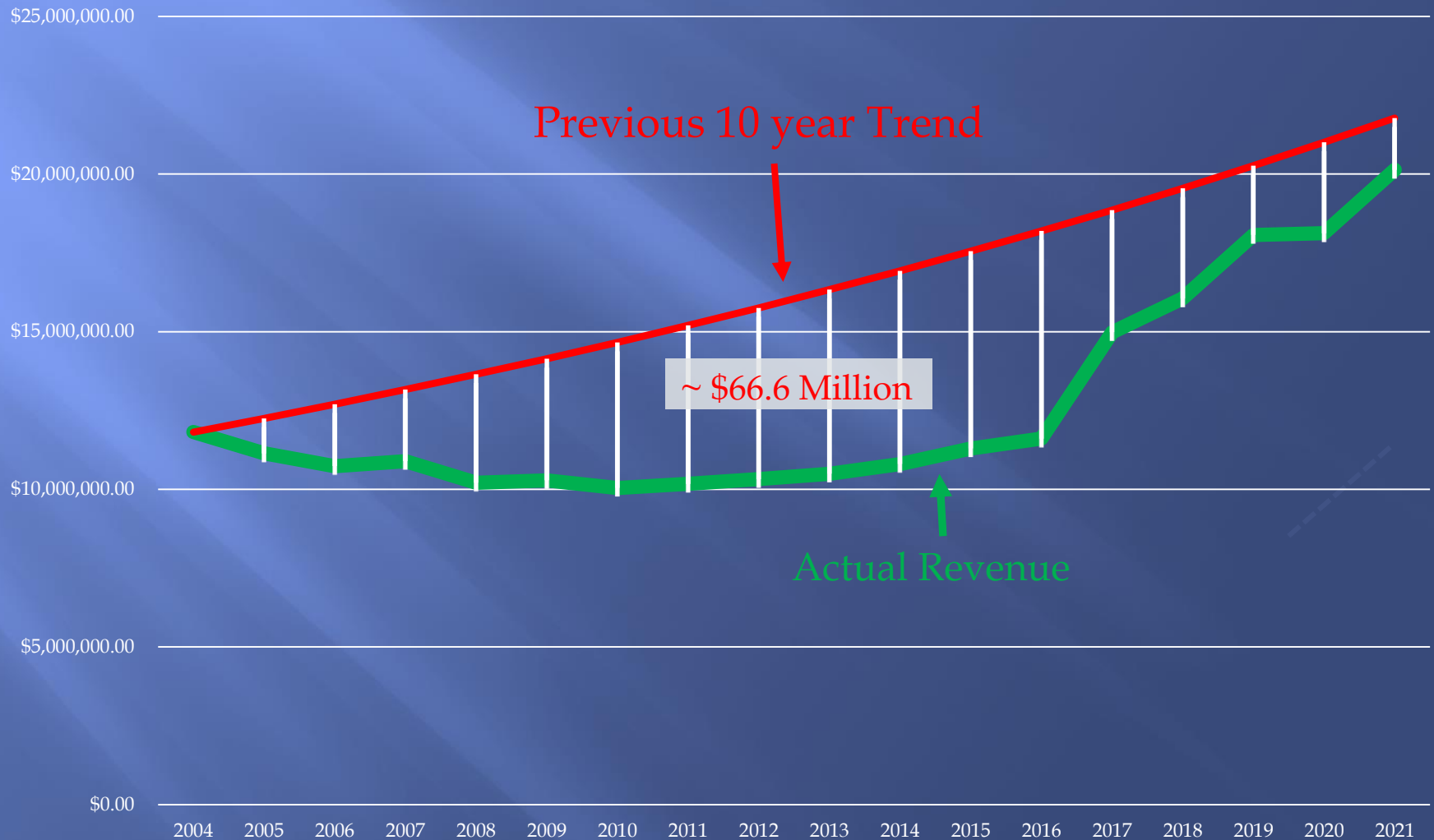
# MTF Revenue Trend

## 30-year History of MTF Revenues



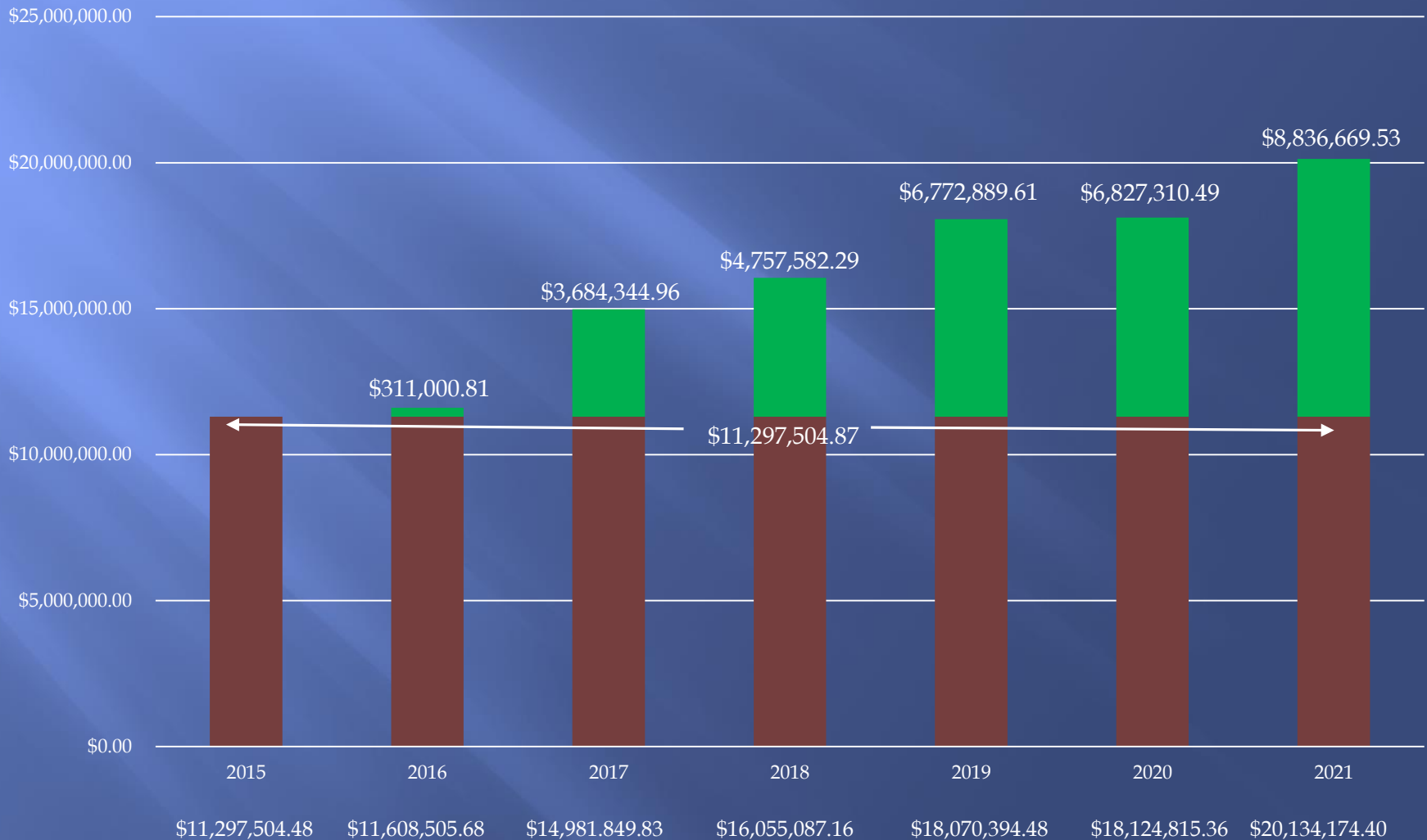


# MTF Revenue Shortfall





# Road Funding: 7-Year Michigan Transportation Fund Revenue (MTF) for Jackson County





# The Cost of Building Roads has more than DOUBLED in just 20 years!





# 2020 Revenue Sources

- Michigan Transportation Fund (MTF)

- Grants

- Federal & State Sources
- Local Sources

- Intergovernmental Agreements

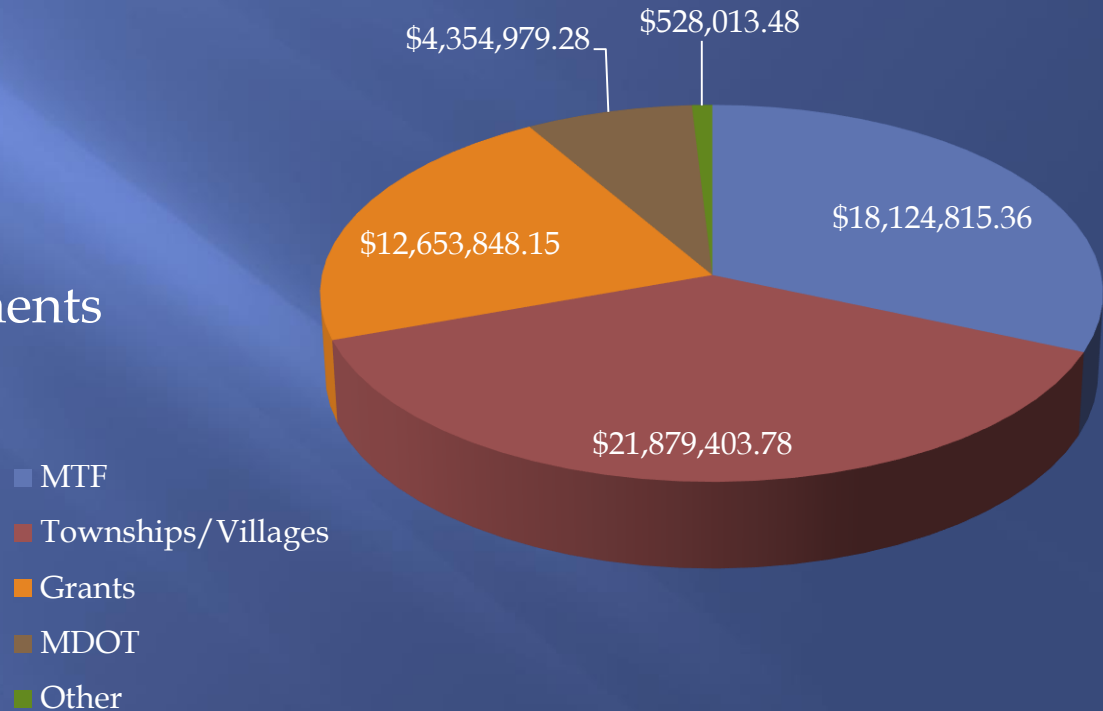
- Townships
- MDOT

- Other

- Permit fees
- Farmland leases

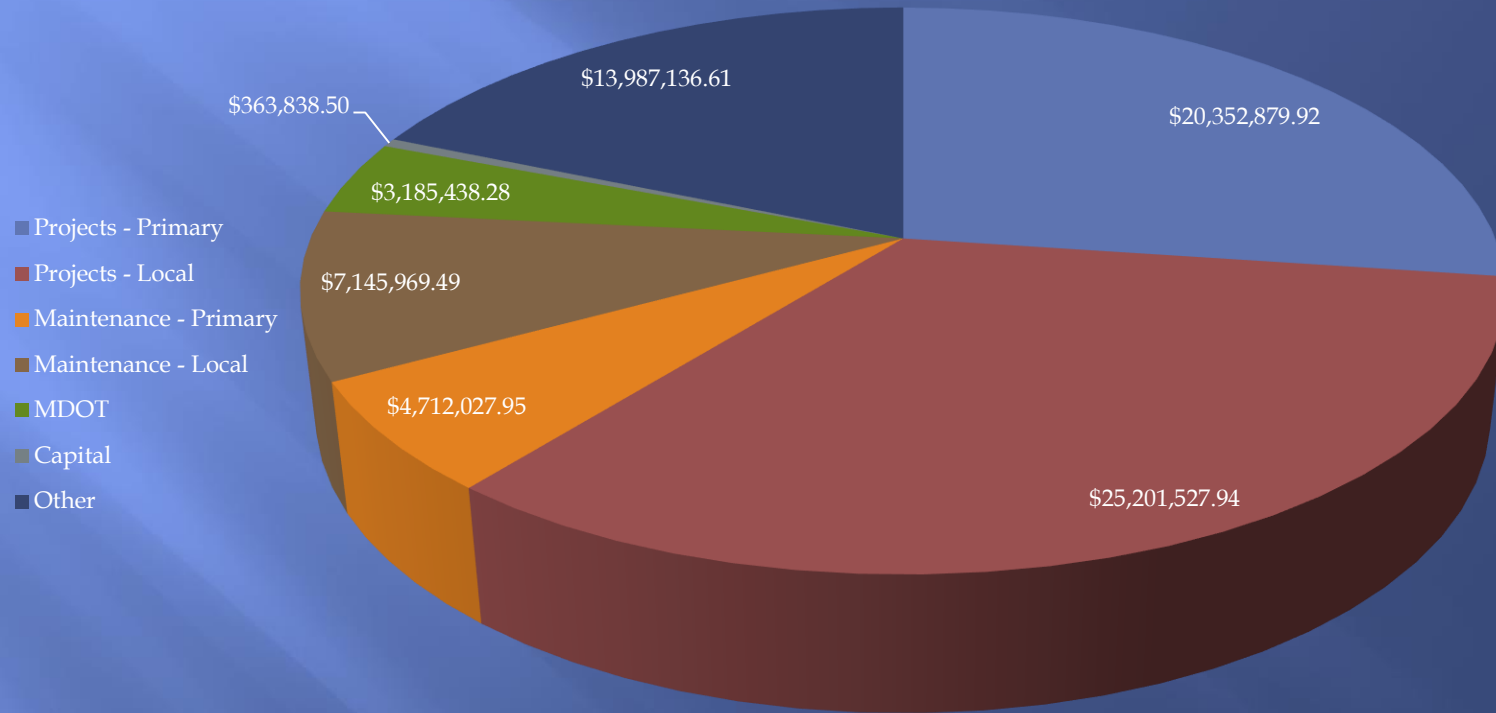
- Key:

- Road agencies have no authority to raise significant revenues





# 2020 JCDOT Expenditures





# Michigan Transportation Fund: Important things to know...

- Any MTF dollars used for local road construction must be matched dollar for dollar from “other sources”

its own name and the agreement may provide for joint participation in the costs.

(15) Money distributed from the Michigan transportation fund may be expended for construction purposes on county local roads only to the extent matched by money from other sources. However, Michigan transportation funds may be expended for the construction of bridges on the county local roads in an amount not to exceed 75% of the cost of the construction of local road bridges.

- Many counties do not provide *any* match for local road improvements:
- Most other counties cap their annual contribution



# Policy No. 8590 Local Road Improvement Funding Program

## ■ Township match of 70%

- Road Construction (paving gravel roads)
- Resurfacing (re-paving bituminous roads)
- Heavy Maintenance (wedging and chipping bituminous roads)
- Seal Coating

## ■ Township match of 50%

- Re-gravelling
- Bridge Replacement
- Culvert Replacement - Culvert projects under the road equal to forty-eight inches (48") or more in diameter.



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# What is JCDOT doing now?

- ▣ JCDOT is doing its best to continue maintenance with the funds available
- ▣ JCDOT applies for all grants available
- ▣ Roads continue to deteriorate
- ▣ The cost of repairing the roads is increasing year after year, at a rate higher than general inflation





# Grants....

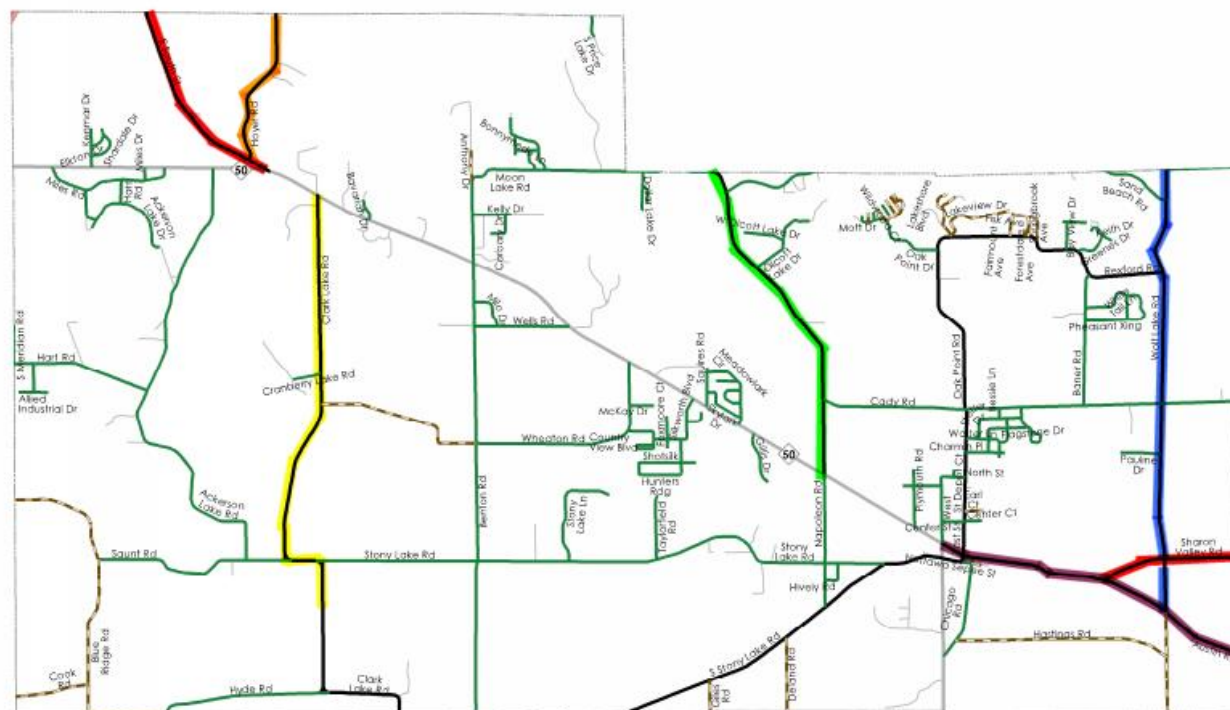
- ▣ Safety Grants
- ▣ Local Bridge Grants
- ▣ TAP Grants
- ▣ Economic Development Grants
- ▣ Federal BUILD/RAISE Grants
- ▣ Special Appropriations Funds

HOWEVER, local roads are generally not eligible for grants, except for bridges and limited safety funds





### Primary Road Projects 2016 - 2024



 2024  
 2023  
 2022  
 2019  
 2017  
 2016

**Road Type**

- Freeway
- Route
- Primary
- Local Paved
- Local Gravel
- Private Drive

Source: Jackson County Department of Transportation





# Current Conditions...



Clark Lake Rd



Napoleon Rd



Hoyer Rd



# Current Road Conditions...



Sand Beach Rd



Charmin Pl



Stoney Lake Rd







# Napoleon Township Road Network



## Napoleon Township

### Primary Roads:

21.8 miles

### Local Roads:

Hard Surface:

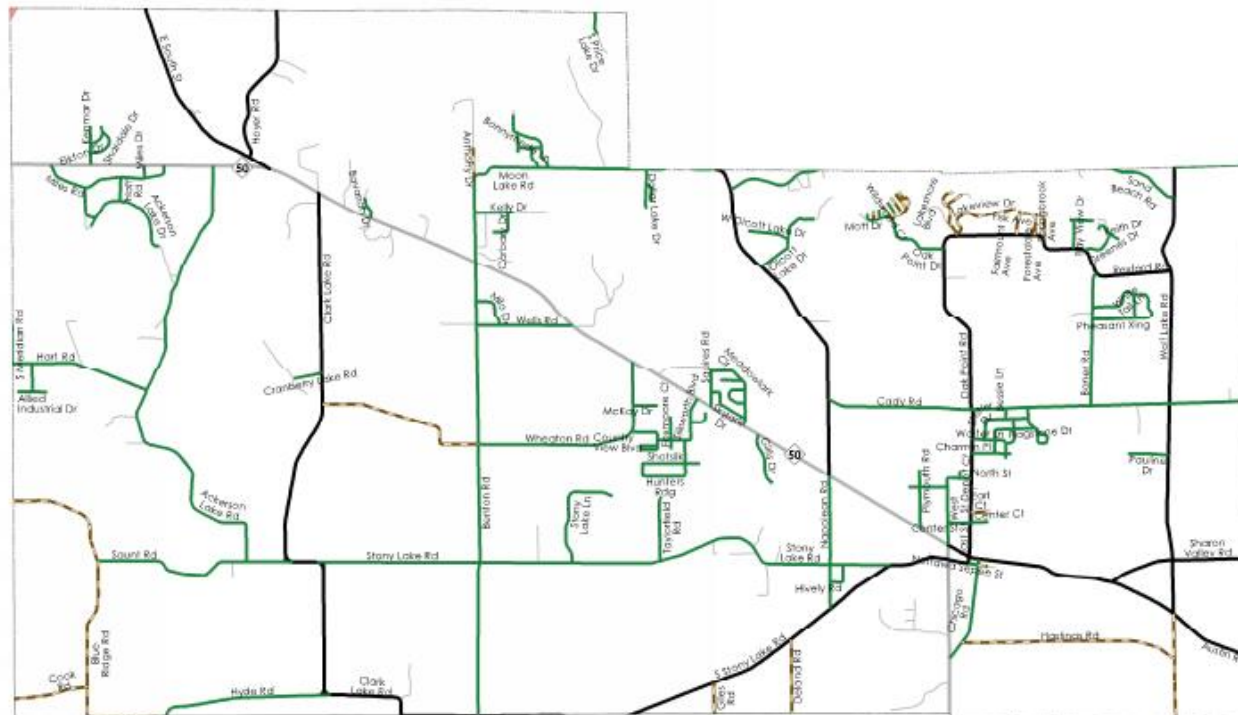
42.2 miles

Gravel Surface:

9.4 miles

Total Miles:

51.6 miles



### Road Type

- Freeway
- Route
- Primary
- Local Paved
- Local Gravel
- Private Drive

**DISCLAIMER:** Maps are drawn as accurately as possible. They are intended to be a visual aid for road construction and related projects. They are subject to change based on new information and do not take the place of a formal contract.

Source: Jackson County Department of Transportation





# Road Construction 101: Overview - PASER System

GOOD



PASER 10, 9, 8, 7

Routine:

Crack Fill

Minor Patching

FAIR



PASER 6, 5

Preventive:

Chip Seal

HMA Wedging

Concrete Joint Repair

POOR



PASER 4, 3, 2, 1

Rehab/Reconstruct:

Resurface

Pulverize/HMA Paving

Replace Concrete Slab

Reconstruct

*PASER – Pavement Surface Evaluation & Rating System*



# Napoleon Township PASER



## Napoleon Township

### Primary Roads

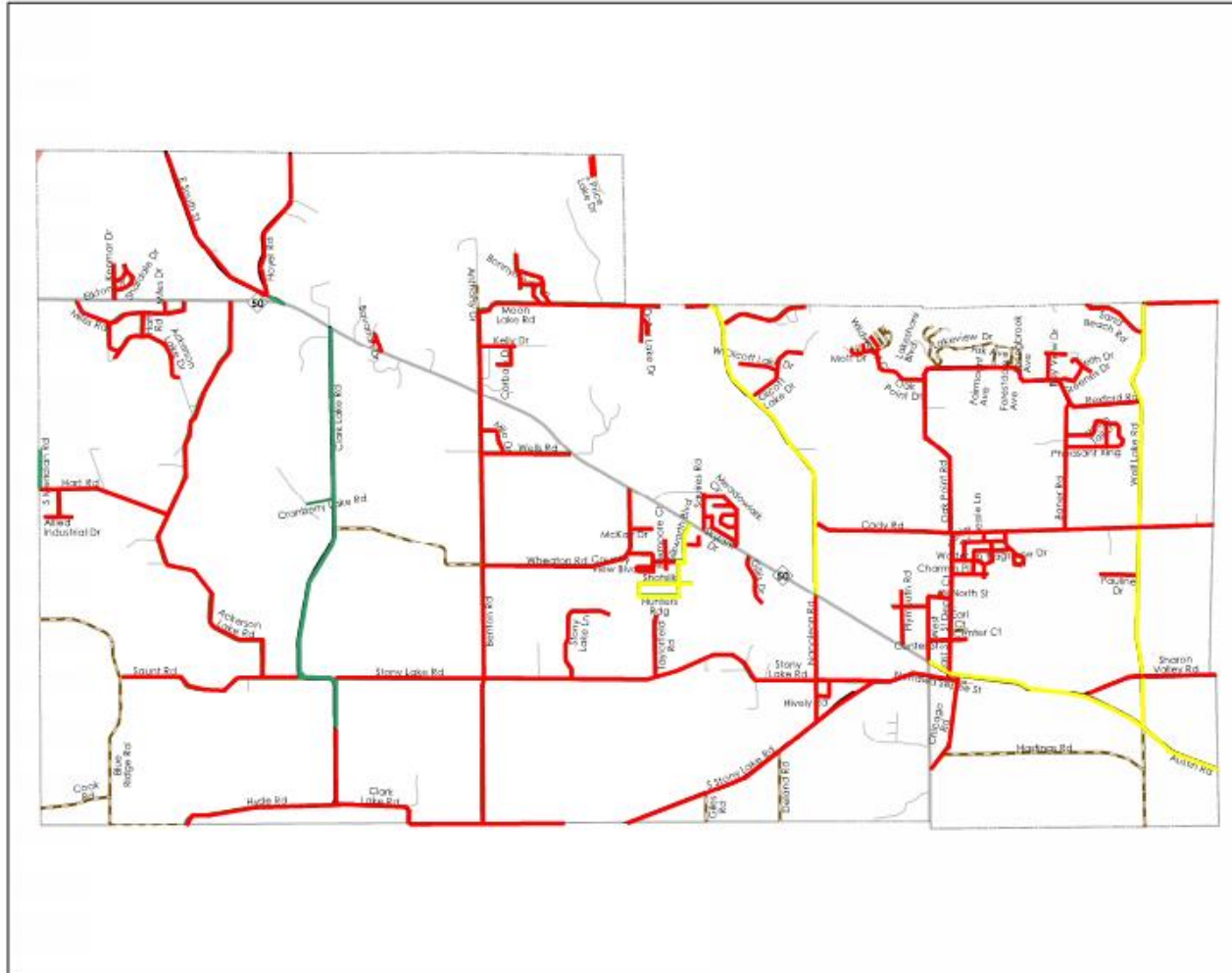
- 3.1 miles
- 7.2 miles
- 11.5 miles

### Local Roads

- .25 miles
- 1.4 miles
- 40.5 miles

### Road Type

- Freeway
- Route
- Primary
- Local Paved
- Local Gravel
- Private Drive



**DISCLAIMER:** Maps are drawn as accurately as possible. They are intended to be a visual aid for road construction and related projects. They are subject to change based on new information and do not take the place of a formal contract.

Source: Jackson County Department of Transportation





# Treatment Cost Per Mile - 2021

▣ Chip Seal	\$26,000 - \$35,000
▣ Wedge & Chip Seal	\$110,000 - \$125,000
▣ 1.5 Inch overlay	\$125,000 - \$150,000
▣ 2 Inch Overlay	\$160,000 - \$200,000
▣ 3 Inch Overlay	\$230,000 - \$280,000
▣ Recycle	\$380,000 - \$460,000



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# Road Miles

## Washtenaw

1653 miles of roads

- ▣ Primary Roads
  - 594 Miles
    - ▣ 515 miles hard surfaced
    - ▣ 79 miles gravel surfaced
- ▣ Local Roads
  - 1059 Miles
    - ▣ 370 miles hard surfaced
    - ▣ 689 miles gravel surfaced
- ▣ Totals
  - 885 hard surfaced
  - 768 gravel surfaced

## Jackson

1608 miles of road

- ▣ Primary Roads
  - 547 Miles
    - ▣ 547 miles hard surfaced
- ▣ Local Roads
  - 1061 Miles
    - ▣ 822 miles hard surfaced
    - ▣ 239 miles gravel surfaced
- ▣ Totals
  - 1369 hard surfaced
  - 239 gravel surfaced



# Funding Source 2022 estimate

## Washtenaw

- ▣ Michigan Transportation Funds
  - ~\$34,005,147.77
- ▣ County Millage
  - ~\$4,000,000
- ▣ Townships
  - ~\$7,000,000

## Jackson

- ▣ Michigan Transportation Funds
  - ~\$20,551,960.46
- ▣ County Millage
  - None
- ▣ Townships
  - ~\$2,400,000

\* No bond-funded income in 2022



# Wayne vs Jackson Road Mileage

## Wayne

- ▣ Primary Roads
  - 740 miles
    - ▣ 722 miles paved
    - ▣ 18 miles gravel
- ▣ Local Roads
  - 842 miles
    - ▣ 541 miles paved
    - ▣ 301 miles gravel
- ▣ Totals
  - 1,582 miles
    - ▣ 1,263 miles paved
    - ▣ 319 miles gravel

## Jackson

- ▣ Primary Roads
  - 547 miles
    - ▣ 547 miles paved
    - ▣ No gravel primary roads
- ▣ Local Roads
  - 1,061 miles
    - ▣ 822 miles paved
    - ▣ 239 miles gravel
- ▣ Totals
  - 1,608 miles
    - ▣ 1,369 miles paved
    - ▣ 239 miles gravel



# Wayne vs Jackson 2021 Funding Sources

## Wayne

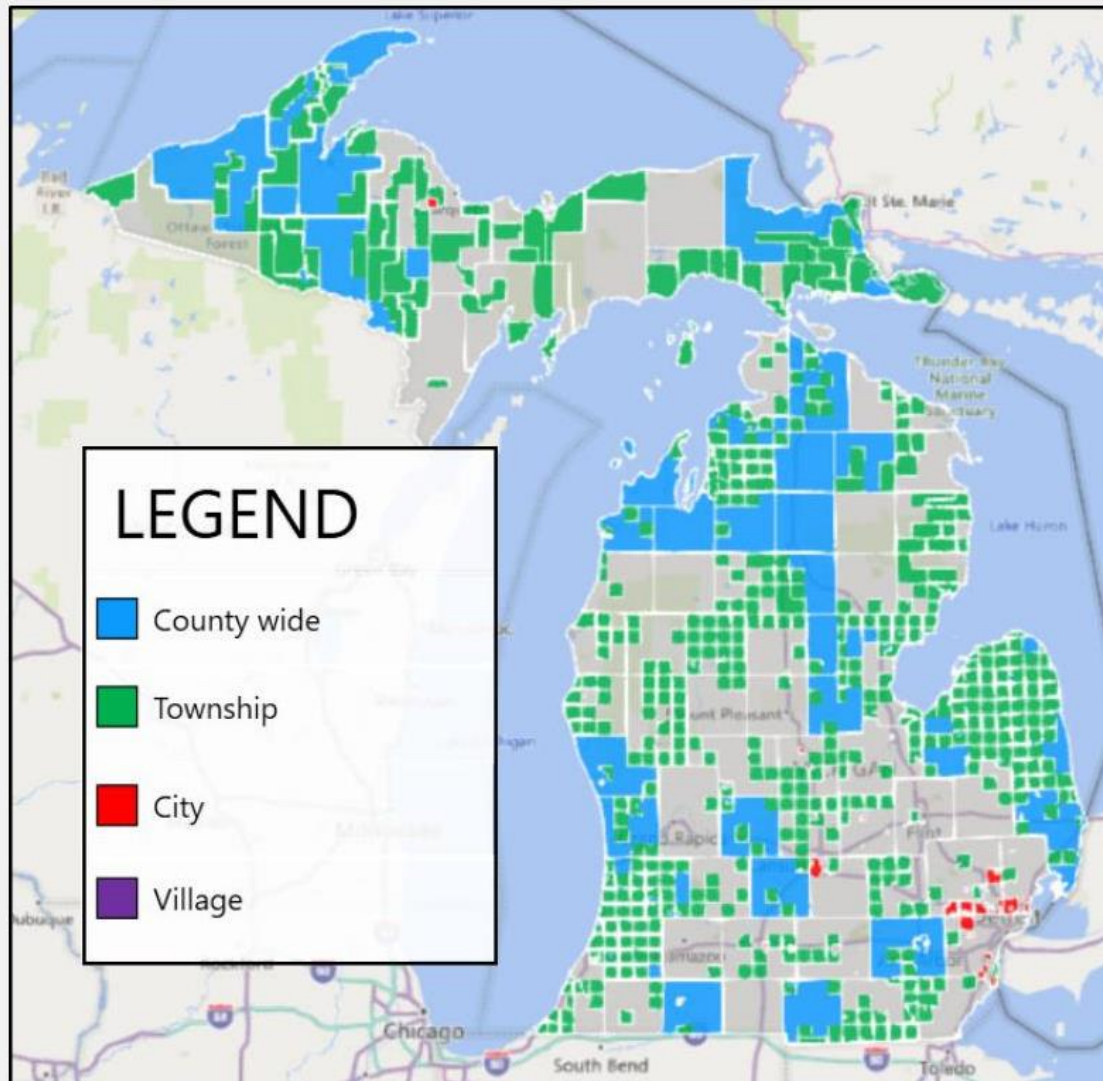
- ▣ Michigan Transportation Fund
  - \$106,238,025.74
  
- ▣ Local Funding
  - Townships - \$47,333.97
  - Other - \$439,842.64
  - County Millage - None

## Jackson

- ▣ Michigan Transportation Fund
  - \$20,134,174.40
  
- ▣ Local Funding
  - Townships - \$556,841.11
  - Other - \$769,227.29
  - County Millage - None



# Local Tax Millages



- ▣ County
  - 30 of 83 (36%)
- ▣ Township
  - 580 of 1240 (46%)
- ▣ City/Villages
  - 150 of 533 (28%)

\*Information from County Road Association



# Options available to you for a Comprehensive Local Road Improvement Program

1. Special Assessment District (SAD) – Specific locations
2. Township-wide millage or SAD and “pay as you go”  
Concord Township
3. Township-wide millage and bond proposal  
Blackman Charter Township  
Spring Arbor Township  
Summit Township
4. Township-wide SAD and Bond Proposal



# Option #1: Special Assessment District (SAD) – Specific locations

## Pros:

- Residents can work with the township to request specific roads
- This allows the residents a financial means to begin rehabilitation of local road network
  - They can pay back over a certain timeframe
  - Works great in neighborhoods

## Cons:

- Does not address local arterial roads



# Option #2:

## Township-Wide Millage or SAD

### “Pay as you go”

#### Pros:

- You do not have to borrow money to fix roads
- This allows the Township a financial means to begin rehabilitation of local road network

#### Cons:

- 1 mil generates approximately \$283,000 per year
  - This is approximately 1 - 4 miles of roadway to be rehabilitated per year
- This takes time



# Option #3:

## Township Wide Millage With Bond Proposal

### Pros:

- All roads in Napoleon Twp are rehabilitated within 6 years of bond sale.
- Takes advantage of the Low Bond Rates
- Takes advantage of lower construction cost
- Millage rates range from 3.65 to 3.77

### Cons:

This is a 15-20 year millage



**NAPOLEON TOWNSHIP  
COUNTY OF JACKSON, STATE OF MICHIGAN  
GENERAL OBLIGATION UNLIMITED TAX BONDS, SERIES 2024**

**SUMMARY OF BONDING ALTERNATIVES PRESENTED**

Table No.	Bond Amount	Bond Term	Estimated Interest Rate <sup>1</sup>	Estimated Interest Cost	Ballot Information	
					1st Year Levy	Avg. Mills
A1	\$18,100,000	19.75 yrs	4.25%	\$9,920,988	3.77	3.73
A2	\$16,200,000	16.75 yrs	4.10%	\$7,020,430	3.82	3.78
A3	\$14,100,000	14.75 yrs	4.00%	\$5,144,000	3.69	3.65





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734-994-9710 fax  
www.pfm.com

**NAPOLEON TOWNSHIP  
COUNTY OF JACKSON, STATE OF MICHIGAN  
GENERAL OBLIGATION UNLIMITED TAX BONDS, SERIES 2024**

**ESTIMATED IMPACT OF BONDING ALTERNATIVE ON INDIVIDUAL TAXPAYERS**

Table No.	1st Yr. Debt Millage	Estimated Market Value of Home										
		\$60,000	\$80,000	\$100,000	\$150,000	\$200,000	\$250,000	\$300,000	\$350,000	\$400,000	\$450,000	\$500,000
		Taxable Value of Home										
		\$30,000	\$40,000	\$50,000	\$75,000	\$100,000	\$125,000	\$150,000	\$175,000	\$200,000	\$225,000	\$250,000
A1	3.77	\$113	\$151	\$189	\$283	\$377	\$471	\$566	\$660	\$754	\$848	\$943
A2	3.82	\$115	\$153	\$191	\$287	\$382	\$478	\$573	\$669	\$764	\$860	\$955
A3	3.69	\$111	\$148	\$185	\$277	\$369	\$461	\$554	\$646	\$738	\$830	\$923

NOTE: The above figures denote the ESTIMATED amount the individual taxpayer's tax bill will increase. If a taxpayer qualifies for the State Homestead Property Tax Credit or itemizes deductions on their federal income tax return, the "Net Tax Impact" will be less than shown above.



# Option #4:

## Township Wide SAD With Bond Proposal

### Pros:

- All roads in Napoleon Twp are rehabilitated within 6 years of Bond sale.
- Takes advantage of the **Low** Bond Rates
- Takes advantage of lower construction cost

### Cons:

- This is a 15-20 year millage



# Interesting Facts

- ▣ Road network breakdown (10<sup>th</sup> largest road network)
  - MDOT 8%
  - Counties 74%
    - ▣ 3<sup>rd</sup> Largest county road network (out of 41 states with county roads)
  - City/Villages 18%
- ▣ MDOT receives 75% of federal Funding
  - The balance is divided between 83 Counties and 533 City/Villages
- ▣ Cannabis Tax
  - Sales = ~\$1.7 Billion
    - ▣ \$49 Million deposited in MTF
      - Jackson received ~\$329,390
- ▣ Miles of Road
  - Primary – 547 (21.6 – 3.9%)
  - Local – 830 paved & 231 gravel (30.6 – 3.7% 25.9 – 11.2)
  - Bridges 64
  - MDOT contract – 561





Thank  
you!

2019 National Award-Winner:  
**Rosehill Road**