Funding Local Road Improvements in Washtenaw County

Spring 2023

Questions? Contact Us!

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Introduction

Each year, the Washtenaw County Board of County Road Commissioners (the WCRC Board) and township boards partner to provide local road improvements to the residents of Washtenaw County. While road funding is limited, these parties work hard to spend this precious limited funding efficiently and effectively. The following packet was assembled for both seasoned officials who are very familiar with the process and for officials new to their positions to help them better under the intricacies of local road funding.

Saline Township Summary

The following is a summary of the roads, bridges and culverts located in Saline Township and the 2023 allocation made by the WCRC Board for local roads in Saline Township.

Primary Roads

- 12.21 miles of paved primary roads
- 11.65 miles unpaved primary roads
- 1 bridge (more than 20' span)
- 9 culverts, greater than 5' in diameter

Local Roads

- 1.97 miles of local paved roads
- 27.96 miles of local unpaved roads
- 3 bridges (more than 20' span)
- 10 culverts on local collector roads, greater than 5' in diameter

2023 Local Road Matching Program Allocation

Notification of the intent to use matching funds is due to WCRC by **Friday, May 19, 2023.** See Appendix B for the full program conditions.

Township	Allocation
Saline	$33,407

Local Road Needs

Township	Paved Local Road Needs	Unpaved Local Road Needs	Total Local Road Needs	Average 10-year Annual Expenditure Needed
Saline	$109,632	$2,790,400	$2,900,032	$290,003

Local Road Bridges/Culverts of Concern

The chart below shows local road bridges or culverts in the township that are in poor or failed condition. WCRC regularly inspects these structures. Additional load restrictions, up to road closure, may be put in place as the condition deteriorates.

The WCRC Board remains committed to partnering with townships to invest in culverts and bridges located on local roads. See page 6 for more information.

Township	Road Name	Type	Condition Rating (1- failed, 10 – good)	Approx Span (inches)	Approx Length (feet)	Legal Posting
Saline	Grass Rd	Bridge	4	29.9		
Saline	Mohart Rd	Bridge	4	21		
Saline	Hack Rd	Bridge	3	26.9		
Saline	Arkona Rd	Culvert	4	72	95	
Saline	Macon Rd	Culvert	4	60	54	Load Rating 35T/55T/65T
Saline	Feldkamp Rd	Culvert	3	144	46	Load Rating 10T

Historic Township Road Contributions 2019 – 2022

This chart includes all contributions made by the township to WCRC including local road investments, non-motorized improvements, bond payments, primary road investments by a township, etc. See Appendix E for a map of these investments.

Township	2019	2020	2021	2022	4 -Year Annual Average
Saline	$ 149,038	$ 557,529	$ 145,983	$ 219,427	$ 267,994

Contact Information

District Foreman	Director of Operations	WCRC's Customer Service
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Funding for Local Roads

Overview

Roads in Michigan have been chronically underfunded for decades. There are numerous reasons behind this fact but no matter the cause, Michiganders see the results – many, many miles of poor roads.

This is especially true for local roads, which connect people from the primary road system to their homes and businesses. Local roads can be further divided into local collector roads and subdivision roads. Local collector roads are those that connect residential and business areas to the primary road system. Local subdivision roads mostly service residents or businesses within subdivisions and business parks.

Washtenaw County has more than 1,060 centerline miles of local roads. See Appendix A for a chart breaking down mileage by township.

Primary and local designations are determined by MDOT. These designations are critical since they play an important role in how much WCRC receives from the Michigan Transportation Fund (MTF)[1]. In 2021, WCRC received $2,772 for each mile of rural primary road and $3,047 for each mile of rural local road. In the urban areas, the amount increases to reflect additional traffic and lanes. The urban primary roads receive $18,630 per mile and urban local roads receive $5,690 per mile.

In addition to this part of the formula, WCRC receives funds from vehicle registration fees collected through the Secretary of State. Vehicle registration fees are distributed to county road agencies based the number of vehicles registered in each county.

[1] Michigan Transportation Fund (MTF) is WCRC's primary source of funding. It is made up of revenue from state fuel tax and vehicle registration fees which are allocated through a formula to MDOT, county road agencies and cities/villages. WCRC is expecting to receive $35,000,000 from MTF in 2023.

Local Road Matching Program

Unfortunately, the MTF allocated for local roads barely covers WCRC's costs for routine maintenance such as snow plowing, pothole patching and grading. In addition, under current state law, any improvements to a local road (for example resurfacing) must have at least 50% of its funding come from a source other than the road commission, often the township.

In 2021, Congress passed a massive federal infrastructure funding package. While this funding is very much appreciated, it will likely not go to any local roads in Washtenaw County since most local roads are ineligible for federal funding of any kind.

Knowing that local road funding is a challenge, the WCRC Board has historically transferred funds from the Primary Road Fund to the Local Road Fund, even though this transfer limits maintenance activity on the primary road system. These monies are used to fund WCRC's Local Road Matching Program.

WCRC's Local Road Matching Program is made up of two programs.

1. Local Road Matching Program
2. Regulated Local Road Culverts and Bridges Matching Program

The full conditions of the Local Road Matching Program can be found in Appendix B.

Local Road Matching

This year, the WCRC Board approved a total of $1.5 million for the Local Road Matching Program. These funds are allocated to each township based on the distribution formula used by MDOT to distribute local road funds to the 83 counties of Michigan.

The WCRC Board also elected to absorb the cost of dust control materials on local roads as part of its annual budget. This decision was made to encourage townships to allocate these additional funds to local road projects. In 2022, Saline Township spent $22,328 in dust control materials on local roads.

Regulated Local Road Culvert and Bridges Matching

In addition, the WCRC Board remains committed to covering 50% of the cost to replace local road culverts and bridges that require permits from the Michigan Department of Environment, Great Lakes, and Energy (EGLE) and/or the Washtenaw County Water Resources Commissioner's Office.

These types of structures are usually larger and more expensive to fix or replace. This funding source is in addition to the Local Road Matching Program and is applied on a case-by-case basis in partnership with interested townships.

See Appendix C for a listing of each township's matching fund allocation. See Appendix D for a listing of each township's contribution from 2019 – 2022. See Appendix E for a map showing Saline Township's investment over the past 5 years.

Planning Your Investments

Roads and the roadway, like any other public infrastructure, require a lot of investment. Unfortunately, in Michigan, the needs far outweigh the funds available in any given year. So, how do WCRC and townships in Washtenaw County decide the best way to invest limited funds?

WCRC utilizes the principals of asset management when planning investments. According to Michigan's Transportation Asset Management Council, asset management is the "Ongoing process of maintaining, preserving, upgrading and operating physical assets cost-effectively, based on a continuous physical inventory and condition assessment and investment to achieve established performance goals."

While this may be a daunting definition, the overall concept is simple and similar to vehicle maintenance – you want to make the right fix at the right time in the right place. Most of us change the oil, rotate tires, replace batteries and make other small repairs to keep our vehicles in good shape. We know if we do nothing that we will be replacing that vehicle sooner than if we keep up good maintenance practices. We also know that it makes little sense to make minor repairs to a vehicle that no longer runs. Staying on top of low-cost maintenance items is more cost-effective in the long run.

The WCRC Board adopted a Transportation Asset Management Plan 2021-2023 for the primary road system in 2021 and updated the project list in December 2022. Visit wcroads.org to read the full report.

Inventory and Condition Assessment

For asset management to be effective, an agency must first understand what assets are under its jurisdiction and the current conditions of these assets. This is done through an inventory or physical inspection of each asset. The inventory and condition assessment process is different for paved road and unpaved roads.

Paved Roads

For paved roads, WCRC uses the Pavement Surface Evaluation and Rating (PASER) system. The PASER system rates paved roadways on a scale of 1 to 10. Roads are then designated into three groups: Good (10-8 rating), Fair (7-5 rating) and Poor (4-1 rating). All paved roads in Washtenaw County are evaluated every two years.

The latest PASER for the roads in Saline Township are shown in the following map.

Saline Township

Primary & Local Paved Roads

PASER RATINGS

PASER stands for Pavement Surface Evaluation and Rating. The PASER rating ranges from 1- failed conditions, to 10 - brand new pavement. A pavement will only be a 10 the first year of its life, the second year it will automatically become a 9. Any condition of 8 or greater is considered to be a good condition; 7, 6 or 5 are fair; 4 or lower is poor.

- PASER based on current ratings and project improvements
- Private and Gravel roads not rated.

THE RIGHT FIX AT THE RIGHT TIME

The WCRC determines the best fix to optimize service life for each of our projects. Good pavement management involves less expensive treatments earlier in the life of the pavement in order to take full advantage of infrastructural investments.

Road Classification

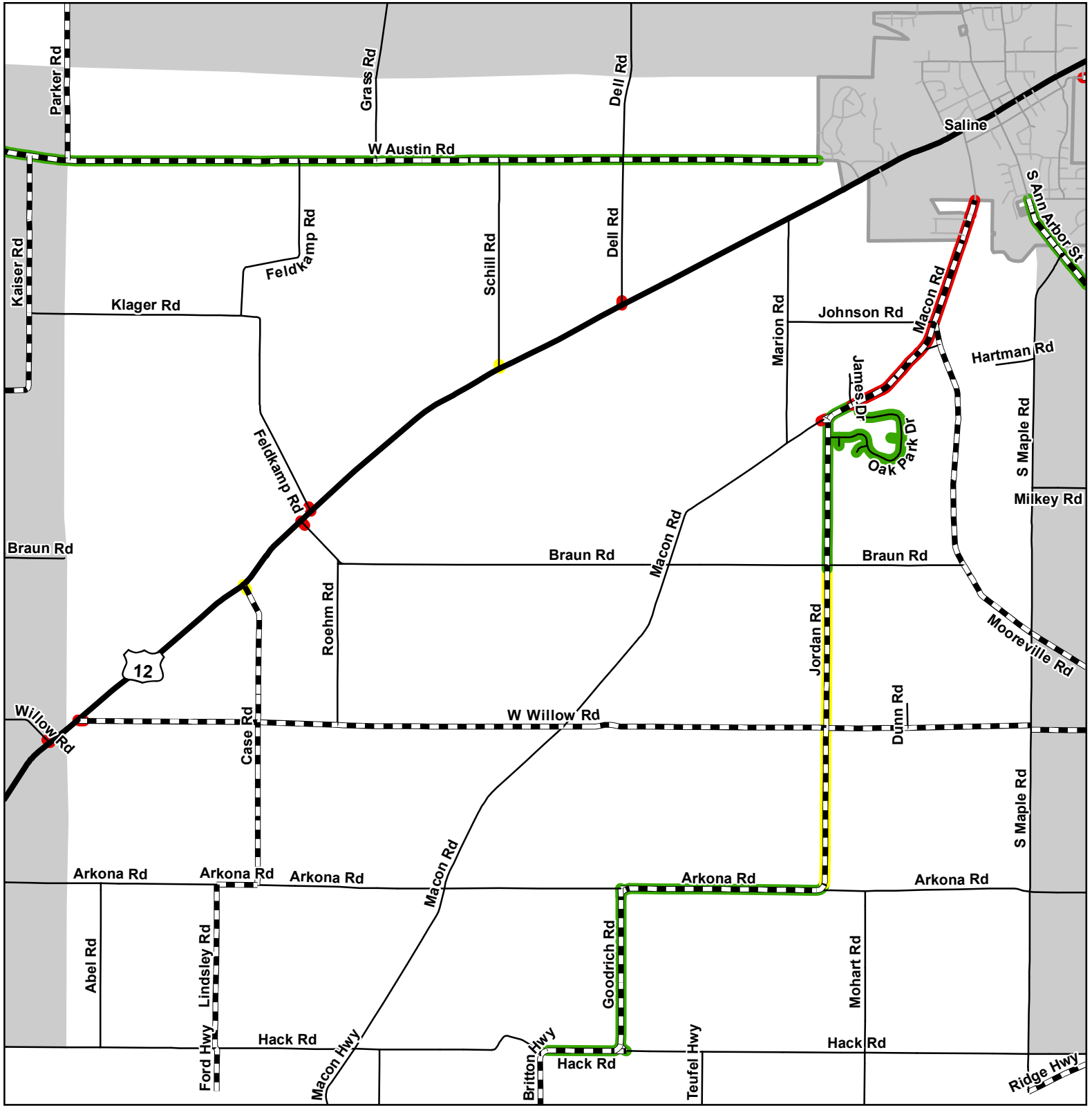
- State Trunkline
- County Primary
- County Local
- City
- City/Village Boundary

Road Ratings

- Good (10, 9, 8)
- Fair (7, 6, 5)
- Poor (4, 3, 2, 1)

0 0.5 1 Miles

N



Unpaved Roads

Michigan has thousands of miles of unpaved roads, including more than 700 miles in Washtenaw County. There is not an official condition rating scale for unpaved roads since surface conditions depend so much on the weather. In Washtenaw County, unpaved roads are surfaced with limestone or gravel.

While subjective, each district foreman is highly familiar with the roads in his area and can provide an informal condition rating for each of them based upon the type of material present, drainage facilities and last date of improvements.

Bridges and Culverts

Bridges are structures that span 20’ or more. There are 125 bridges on Washtenaw County roads. By law, WCRC inspects bridges at least every two years. Bridges are rated Good, Fair or Poor.

Culverts are structures less than 20’ span and vary in description, from a corrugated metal pipe (CMP) to an old-fashioned short-span bridge. There are not any state requirements to inspect culverts but in 2014 WCRC implemented an inspection program for culverts.

These inspections help WCRC staff and townships identify problems and plan for replacement costs, minimizing surprises. Inspections have also resulted in weight restrictions or culvert closures on primary and local roads for the safety of the traveling public.

WCRC bears all the cost to replace failed structures on primary roads but must partner with the respective township on local roads. To help, the WCRC Board committed to covering 50% of the cost to replace certain culverts on local roads (see page 5 for more information).

See Appendix F for a map showing the latest culvert condition ratings on local collector roads in Saline Township.

Mix of Fixes

Paved Roads

PASER can and should be used to make investment decisions on the paved road system. Before any decisions can be made, it is important to understand the various treatments available for paved road maintenance depending on the road condition. The trick is applying the right fix at the right time on the right road. See Appendix G for a flyer summarizing these road treatments.

Pavement Condition (PASER)	Possible Treatment	Estimated Cost per Mile for Two-Lane Road	Estimated Life Expectancy	Who can conduct the work?
Good (10-8 rating)	Crack sealing	$12,000	Can last up to 3 years	WCRC crews
	Seal coat (chip seal, fog seal)	$38,000	Can extend the life of a road by 3-5 years	WCRC crews
Fair (7-5 rating)	Seal coat (chip seal, fog seal)	$38,000	Can extend the life of a road by 3-5 years	WCRC crews
	Mill and resurface	$180,000	Can extend the life of a road for 5-7+ years (with proper maintenance)	Contractor with WCRC inspection
Poor (4-1 rating)	Pulverize and resurface	$350,000	Can extend the life of a road for 10-15+ years (with proper maintenance)	Contractor with WCRC inspection
	Reconstruct	$1,000,000+	Can last up to 15 to 20 years (with proper maintenance)	Contractor with WCRC inspection

On the primary road system, WCRC's strategy is to focus most of the investment on keeping roads already in good condition good and bringing roads up from fair to good. In addition, WCRC strives to fix a few miles of poor roads each year, depending on funding.

> *Example:* Primary Road X was rated a 5 in the last round of PASER. This year, WCRC elects to mill and resurface it for $180,000 per mile bringing it up to a 10 rating. Next year, WCRC plans to apply a seal coat to it (both chip seal and fog seal) for $38,000 per mile. WCRC will need to seal coat it again in approximately 5 years to keep it in good condition.

On the local road system, the strategy depends on the funding partner, usually the township. WCRC staff are happy to work with each township to develop the best strategy for the local paved road system and the township's budget.

Unpaved Roads

Similar to paved roads, there is a range of treatment options for unpaved roads and it is important to apply the right fix at the right time.

As a part of WCRC's routine maintenance, every unpaved road in Washtenaw County will be graded a couple times per year and WCRC crews will do limestone/gravel patching as needed.

Just like paved roads, unpaved roads require more than just routine maintenance including ongoing drainage improvements to keep water from standing on the roadway which leads to deterioration of the road. Unpaved roads also require resurfacing which will be gravel or limestone depending upon the type of road.

Any work beyond routine maintenance on local roads comes at the direction and is funded by the township. Funds from the Local Road Matching Program described on page 5 can be used for any of the following treatments.

Possible Treatment	Estimated Cost	Recommended Frequency	Who can conduct the work?
Drainage improvements (ditching, berming, tree trimming)	Varies significantly by project		WCRC crews
Resurfacing (with either limestone or gravel)	Typically, $100k per mile	Should be done every 8 – 10 years	WCRC crews
Paving an unpaved road[2]	$1.5 million+ per mile		Contractor with WCRC inspection

Bridges and Culverts

There are fewer options available on bridges and culverts to help extend the life of the structure. WCRC will often invest money to rehabilitate or preserve a bridge deck or substructure. Some culverts can be lined to help extend their life. Most often, investments in culverts, especially those on local roads, are for a full replacement after the condition has deteriorated significantly.

[2] It should be noted, especially when considering whether to pave local unpaved roads, many residents have expressed strong feelings against paving the road they live on, while other residents and drivers expect the road to be paved.

Project Selection

As shown in the charts above, there are more options for investing in the local road system than the funding available. To help prioritize where to invest each year, WCRC staff work with township officials to create an annual proposed local road improvement program with project estimates. These discussions typically start in late-fall and carry on throughout the winter. Final project agreements are created in mid to late spring. The full conditions of the Local Road Matching Program can be found in Appendix B.

See Appendix H for a summary of needs on local paved and unpaved roads, by township.

Funding Options for Townships

Townships are not legally required to contribute to the maintenance, construction or reconstruction of county roads. However, Act 51 does restrict how much state funding a road commission can spend on local county road construction. In addition, road commissions do not have taxing authority, so their funding sources are limited.

WCRC is limited to no more than 50% of the local road project's total cost. The other 50% of a project's cost must come from a "local source" – which usually takes the form of a township contribution. In addition, WCRC has a limited budget, just like most organizations, so the amount WCRC contributes to local road projects is capped at the amounts set forth in the Local Road Matching Program.

Washtenaw County is not alone in its challenges securing much needed local road funding. Looking beyond county lines, we see townships throughout Michigan turning to other taxing mechanisms to generate the revenue necessary to repair and maintain local roads.

Whereas WCRC does not have any legal taxing authority, townships have three options to help raise revenue to fund road improvements: a millage through Act 51, a township-wide millage or a special assessment district.

Act 51 Millage

Act 51 of 1951 outlines two options for townships to raise revenue for the maintenance and improvement of local roads.

1. Township boards can levy a property tax of no more than three mills in any year, without a vote of the people, for the maintenance or improvement of county roads within the township.
2. With voter approval, township boards may levy a property tax of no more than 6 mills in any year for the maintenance or improvement of county roads within the township.

Township-Wide Millage

Section 6 of Article IX of the Constitution of Michigan of 1963 authorizes townships to levy millages with a majority vote of the people.

In 2021, Ypsilanti Charter Township used this option to place Proposition C on the ballot to fund recreation, bike paths, sidewalks, roads, parks and general operating purposes. The measure passed with 76% of the vote.

See Appendix I for taxable values with various millage scenarios, by township.

Special Assessment Districts

Public Act 188 of 1954 allows townships to pay for road improvements through a special assessment district (SAD). A SAD is an area where the majority of property owners agree to allow a government agency to levy a property tax in exchange for a specific service such as road improvements. Act 188 outlines the process for levying a SAD.

In 2013, Scio Township's Board approved a township-wide SAD which raises approximately $500,000 annually for ten years and funded improvements on local roads in the township. Several other townships in Michigan have taken this approach for township-wide improvements.

In Washtenaw County, Dexter, York, Lodi and Scio Townships have also approved neighborhood SAD projects, which are generally initiated by neighbors in a specific subdivision requesting road improvements within their neighborhood.

Appendix A: Public Road Miles Chart, By Township

Townships	Primary Paved	Primary Unpaved	Primary Bridges	Primary Culverts	Local Paved	Local Unpaved	Local Bridges	Local Culverts
Ann Arbor	22.56	0.00	2	8	5.68	13.99	4	7
Augusta	28.98	2.49	6	20	9.24	48.33	13	22
Bridgewater	12.24	9.16	1	7	0.00	40.23	3	6
Dexter	25.85	3.75	3	3	13.14	25.99	0	2
Freedom	11.92	4.47	0	2	1.68	46.27	0	5
Lima	18.94	5.75	3	6	5.45	40.45	13	7
Lodi	18.85	2.53	0	8	13.36	42.35	5	19
Lyndon	14.42	3.62	0	0	0.58	37.35	1	1
Manchester	10.80	8.81	1	1	1.20	46.41	1	7
Northfield	25.81	4.64	1	8	11.45	47.33	2	8
Pittsfield	42.80	0.00	0	11	81.82	14.73	0	8
Salem	34.25	0.94	0	12	7.5	33.6	2	17
Saline	12.21	11.65	1	9	1.97	27.96	3	10
Scio	48.98	0.00	12	9	28.30	30.96	8	10
Sharon	10.18	11.00	2	1	0.25	34.69	3	2
Superior	32.90	0.00	6	14	32.33	29.13	1	12
Sylvan	16.5	0.44	1	7	15.00	26.5	3	7
Webster	22.81	4.70	2	4	1.27	41.82	1	11
York	41.96	3.89	6	20	28.44	27.17	4	16
Ypsilanti	60.21	0.00	8	9	135.36	9.93	2	9
Totals	**514.74**	**77.84**	**55**	**159**	**393.87**	**665.31**	**69**	**186**

Appendix B: Local Road Matching Program Conditions

Township Assistance
In order to allow local road improvements to proceed in a timely manner, townships are asked to assist WCRC staff in acquiring necessary tree removal and grading permits, holding public meetings and coordinating any necessary property owner contacts.

Project Overruns
WCRC staff will provide an estimated cost for each individual project to be included within the agreement between the township and WCRC. If, prior to beginning an individual project, it is determined that the original cost estimate will not cover project costs, WCRC will notify the township to determine if the township desires to proceed with the project with a reduced scope of work or an additional funding commitment.

Budgets are closely monitored on each project and every effort is made to avoid overruns. Any unexpected project cost overrun shall be taken from any unexpended funds remaining in that township's total township agreement. If the overrun exceeds the total township agreement, WCRC may bill the township up to an additional 10% of the total agreement amount with the township. At the township's option, such overruns can be taken from the following years' matching funds.

Billing Procedures
The following billing methods apply only to those projects considered to be construction and heavy maintenance. Dust control will be billed at cost-to-date at time of billing. Standard fringe and overhead rates will be applied as defined by PA 51 of 1951, as amended.

- First Billing: The first 50% of the total matching program for construction and heavy maintenance projects will be due 30 days from receipt of the first invoice mid-summer.
- Final Billing: A final billing will be due in December or 30 days from receipt of final invoice.

Any credits due to townships will be returned at the time of final billing or credited to the following year, as determined by the township.

Primary Road Matching
Any township board may, at its option, request that a part or all of its allocated matching WCRC funds, along with an equal amount of township funds, be used on a primary road project within the township boundaries.

Reallocation of Funds
Any township that has not notified WCRC of its intent to use matching funds on or before Friday, May 19, 2023, will forfeit the allocated matching money. WCRC will determine the amount of unused matching funds and reallocate these funds to primary road maintenance.

Local Matching Fund Carryover

If a township determines that it desires to carry over the funds allocated for a given year into the following year, the township must provide written notification to WCRC that it is requesting this carryover and identify an eligible project for which the funds will be held.

The carryover fund will be preserved by WCRC for one year. Beyond this point, the funds will be reallocated to primary road maintenance. The carryover option allows the township to accumulate the funds that are allocated with the previous year allocation; in other words, the carryover funds cannot exceed the previous year's allocation.

Appendix C: 2023 Local Road Matching Funds, By Township

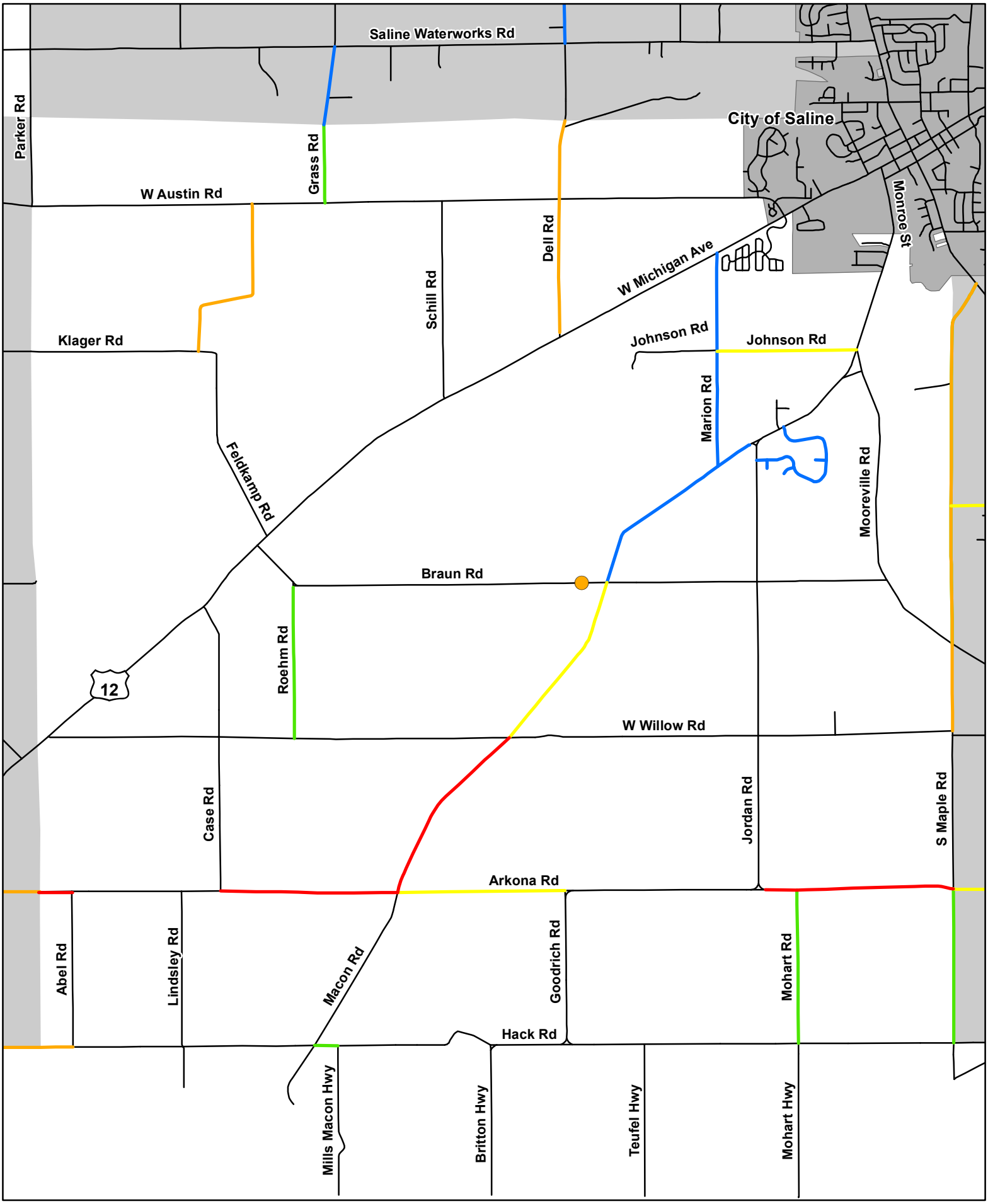
Township	2023 Local Matching Program	2022 Local Matching Program
Ann Arbor	$29,449	$29,478
Augusta	71,262	71,346
Bridgewater	41,158	41,217
Dexter	53,312	53,369
Freedom	47,520	47,590
Lima	52,610	52,678
Lodi	67,827	67,909
Lyndon	41,741	41,797
Manchester	50,464	50,534
Northfield	76,110	76,197
Pittsfield	190,163	190,306
Salem	55,910	55,971
Saline	33,407	33,451
Scio	99,940	100,027
Sharon	36,819	36,871
Superior	94,914	95,005
Sylvan	46,719	46,780
Webster	56,637	56,701
York	74,707	74,789
Ypsilanti	279,331	277,983
Totals	**$1,500,000**	**$1,100,000**

Appendix D: Township Contribution Summary, 2019 – 2022

This chart includes all contributions made by a township to WCRC including local road investments, non-motorized improvements, bond payments, primary road investments by a **township, etc.**

Township	2019	2020	2021	2022	4-Year Average
Ann Arbor	$232,862	$240,137	$601,919	$115,034	$297,488
Augusta	145,470	277,080	174,157	330,775	231,871
Bridgewater	64,606	16,831	59,417	63,105	50,990
Dexter	150,361	96,797	75,393	723,922	261,618
Freedom	39,090	44,743	70,463	144,034	74,582
Lima	171,533	206,634	199,727	211,230	197,281
Lodi	196,082	117,308	511,702	629,674	363,691
Lyndon	32,872	17,424	76,395	72,297	49,747
Manchester	38,747	31,502	67,212	136,612	68,518
Northfield	91,657	74,283	106,071	231,864	125,969
Pittsfield	2,601,981	994,362	1,798,975	886,052	1,570,342
Salem	3,283,602	1,740,718	235,209	86,211	1,336,435
Saline	149,038	557,529	145,983	219,427	267,994
Scio	20,383	501,479	230,744	350,224	275,708
Sharon	98,669	54,138	109,206	248,572	127,647
Superior	168,491	65,626	450,374	186,050	217,635
Sylvan	26,115	114,611	96,908	106,823	86,114
Webster	198,297	38,428	487,377	412,905	284,252
York	205,542	375,053	843,327	1,008,932	608,213
Ypsilanti	1,147,958	809,371	978,513	968,850	976,173
Totals	**$9,063,358**	**$6,374,053**	**$7,319,072**	**$7,132,591**	**$7,472,268**

Appendix E: Township Local Road Investment Map



WASHTENAW COUNTY ROAD COMMISSION

2018
2019
2020
2021
2022

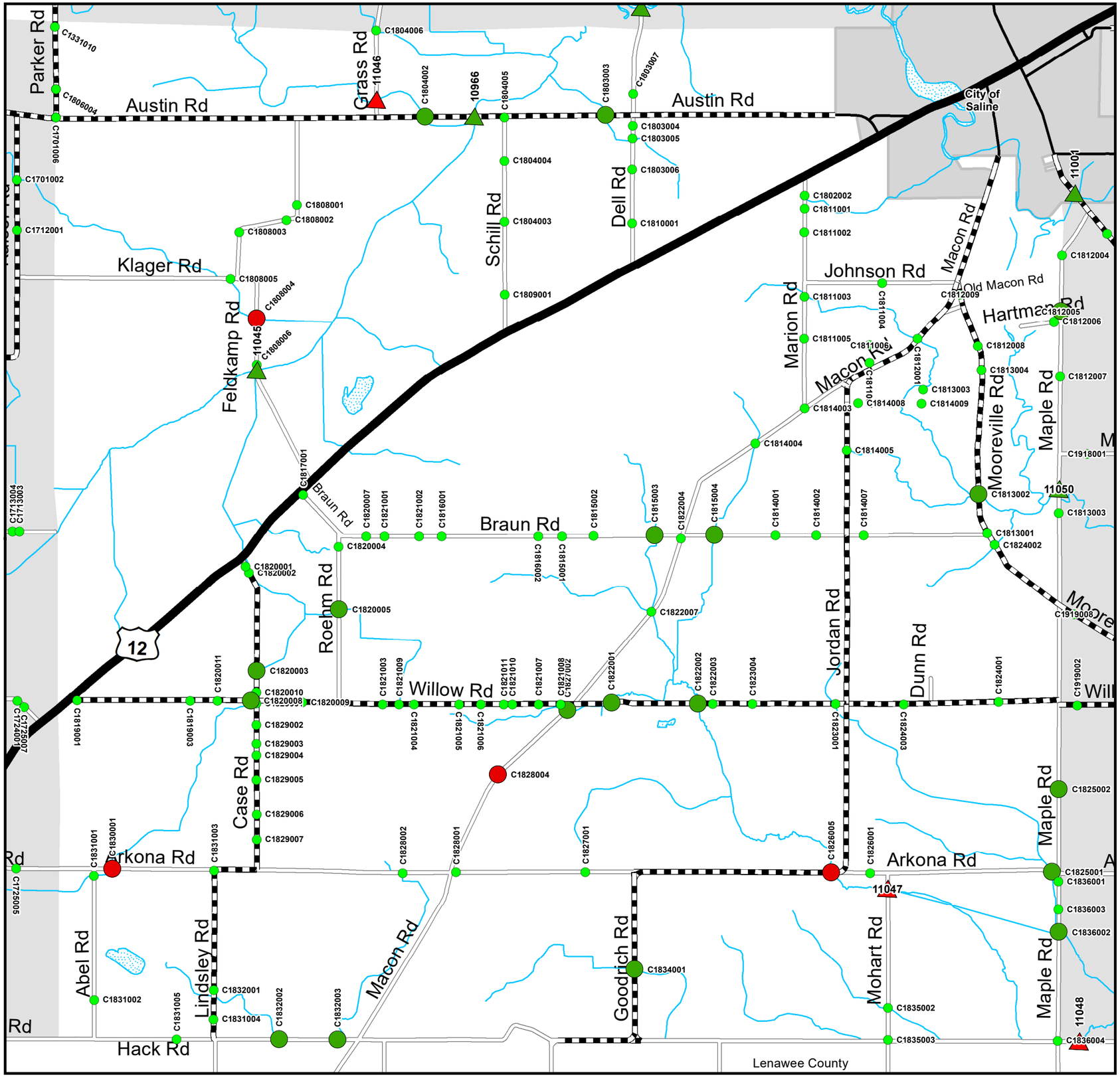
Saline Township

Locally Funded
Road Improvement Projects
2018 - 2022

0 0.5 1 Miles

N

Appendix F: Saline Township Bridges and Culverts



WASHTENAW COUNTY ROAD COMMISSION

SALINE TOWNSHIP

LEGEND

- State Trunkline
- County Primary
- County Local
- Township Boundary
- Lake/River
- Culvert Locations
  - Span Size
    - Less than 5 feet
    - Greater than 5 feet
    - Poor Condition Rating
- Bridge Locations
  - 25 Feet and Greater
  - Poor Condition Rating

N
W E
S

0 0.5 1 Miles

Appendix G: Life of a Road Flyer

The Life of a Road

Preserving our investments with preventative maintenance

Road work is an expensive endeavor. The Washtenaw County Road Commission (WCRC) works very hard apply the principles of asset management with the available preventative maintenance tools to maintain the more than 1,600 miles of road under WCRC's jurisdiction. Check out the graphic below to get an idea of when each tool is the best option, depending on the road condition and budget constraints.

Crack Seal

Estimated Cost*: $12,000 per mile

Impact: Can last up to 3 years

What: Fills cracks (less than 3/4" wide) with asphalt sealant. Seals pavement from water and debris.

When: The best time to crack seal is when cracks start to develop and are still relatively small.

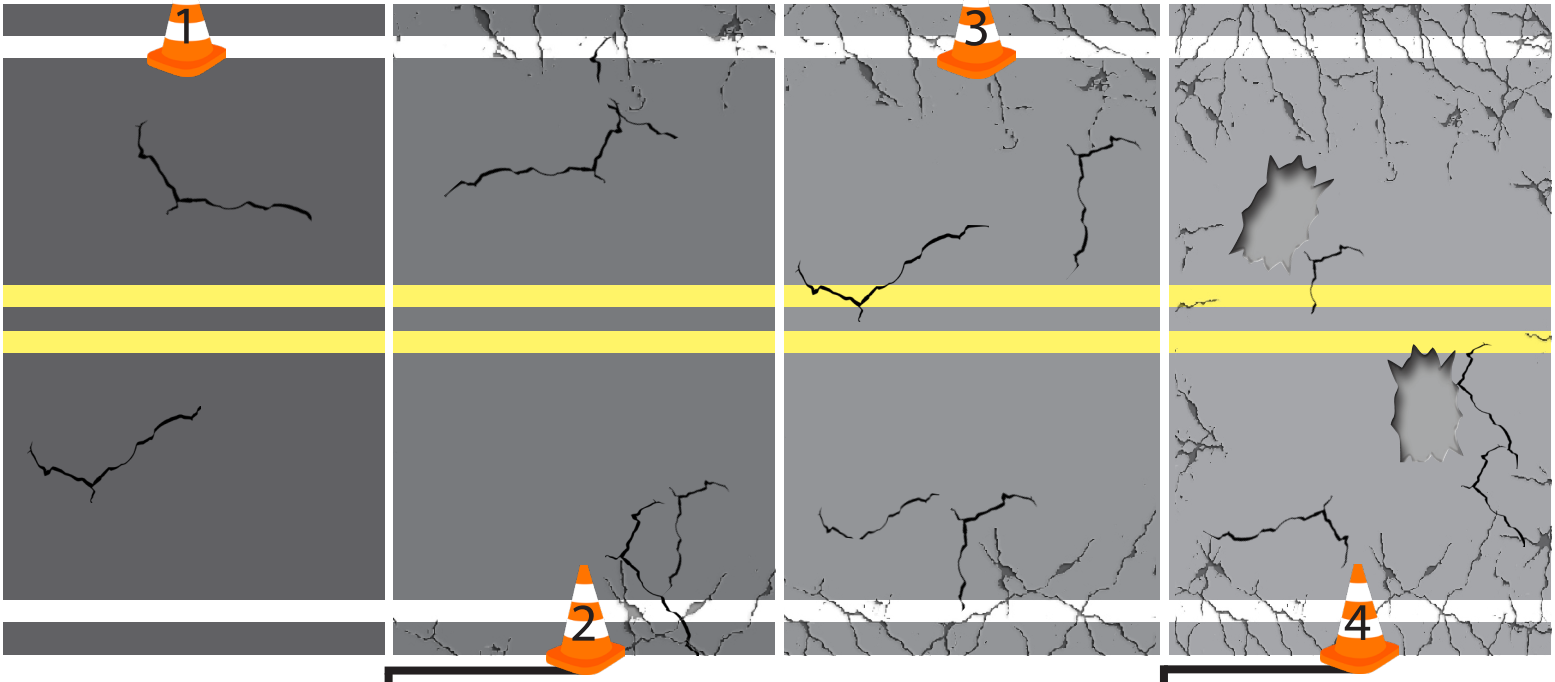
Mill and Resurface

Estimated Cost*: $180,000 per mile

Impact: Can extend the road life by 5 to 7+ years

What: Up to 2" of existing asphalt is removed and the road is resurfaced with a new layer of asphalt.

When: The best time to mill and resurface is when the top layer of pavement has started to deteriorate with visible cracking and shoulder issues.



Seal Coat (Chip Seal and Fog Seal)

Estimated Cost*: $38,000 per mile

Impact: Can extend the road life by 3 to 5 years

What: Thin layer of liquid asphalt that seals pavement from water, sunshine and debris.

When: The best time for seal coat is when the road is still in good or fair condition with slight cracking starting to show. WCRC is working to seal coat new pavement within a year or two after it has been placed to extend the pavement life.

Pulverize and Resurface

Estimated Cost*: $350,000 per mile

Impact: Can extend the road life by 10 to 15+ years

What: A pulverizer, capable of breaking up 6 to 10" of existing asphalt and aggregate base, recycles and compacts the pulverized asphalt to create a new road base, and then covers it with two layers of new asphalt.

When: This is one of the last options due to cost. It is used when the road is in very poor condition with large potholes and heavy cracking.

*Estimated costs are based on 2021 prices for two-lane roads

Questions? Contact WCRC

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Appendix H: Summary of Local Road Needs, By Township

Township	Total Needs for Local Paved Roads	Total Needs for Local Unpaved Roads	Total Needs for Local Roads	Average 10-year Annual Expenditure Needed for Local Roads
Ann Arbor	$1,511,194	$1,331,800	$2,842,994	$284,299
Augusta	$1,767,006	$4,796,600	$6,563,606	$656,361
Bridgewater	$191,450	$4,055,000	$4,246,450	$424,645
Dexter	$2,889,030	$2,559,800	$5,448,830	$544,883
Freedom	$57,316	$4,627,000	$4,684,316	$468,432
Lima	$1,042,874	$4,045,000	$5,087,874	$508,787
Lodi	$2,032,592	$4,223,000	$6,255,592	$625,559
Lyndon	$79,800	$3,693,200	$3,773,000	$377,300
Manchester	$120,592	$4,623,400	$4,743,992	$474,399
Northfield	$2,689,202	$4,725,800	$7,415,002	$741,500
Pittsfield	$14,501,478	$1,428,200	$15,929,678	$1,592,968
Salem	$1,213,538	$3,343,000	$4,556,538	$455,654
Saline	$109,632	$2,790,400	$2,900,032	$290,003
Scio	$4,631,082	$2,942,400	$7,573,482	$757,348
Sharon	$3,610	$3,469,000	$3,472,610	$347,261
Superior	$6,051,934	$2,903,600	$8,955,534	$895,553
Sylvan	$4,152,604	$2,621,800	$6,774,404	$677,440
Webster	$401,084	$4,138,800	$4,539,884	$453,988
York	$6,110,834	$2,682,800	$8,793,634	$879,363
Ypsilanti	$27,565,972	$983,600	$28,549,572	$2,854,957
TOTALS	**$77,122,824**	**$65,984,200**	**$143,107,024**	**$14,310,702**

Appendix I: Taxable Valuation Data, By Township

Township	2022 Taxable Value	Millage Amount			
		0.50	1.00	2.00	3.00
Ann Arbor	$568,959,393	$284,480	$568,959	$1,137,919	$1,706,878
Augusta	$286,954,994	$143,477	$286,955	$573,910	$860,865
Bridgewater	$108,030,786	$54,015	$108,031	$216,062	$324,092
Dexter	$463,687,846	$231,844	$463,688	$927,376	$1,391,064
Freedom	$239,769,407	$119,885	$239,769	$479,539	$719,308
Lima	$278,262,411	$139,131	$278,262	$556,525	$834,787
Lodi	$510,052,781	$255,026	$510,053	$1,020,106	$1,530,158
Lyndon	$189,774,545	$94,887	$189,775	$379,549	$569,324
Manchester	$156,371,094	$78,186	$156,371	$312,742	$469,113
Northfield	$417,666,619	$208,833	$417,667	$835,333	$1,253,000
Pittsfield	$2,372,207,474	$1,186,104	$2,372,207	$4,744,415	$7,116,622
Salem	$444,007,002	$222,004	$444,007	$888,014	$1,332,021
Saline	$124,771,494	$62,386	$124,771	$249,543	$374,314
Scio	$1,547,529,656	$773,765	$1,547,530	$3,095,059	$4,642,589
Sharon	$112,949,800	$56,475	$112,950	$225,900	$338,849
Superior	$788,436,142	$394,218	$788,436	$1,576,872	$2,365,308
Sylvan	$242,195,859	$121,098	$242,196	$484,392	$726,588
Webster	$503,236,476	$251,618	$503,236	$1,006,473	$1,509,709
York	$525,088,235	$262,544	$525,088	$1,050,176	$1,575,265
Ypsilanti	$1,593,905,682	$796,953	$1,593,906	$3,187,811	$4,781,717
Totals	**$11,473,857,696**	**$5,736,929**	**$11,473,858**	**$22,947,715**	**$34,421,573**