



SAUGATUCK TOWNSHIP

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SAUGATUCK TOWNSHIP ROAD PLAN

The Saugatuck Township Road Plan forecasts local road projects, fund balances, revenues and expenses associated with Township restricted revenues of Road Fund 204. This restricted Fund provides for all “local” road projects and repairs as determined in priority by the Township Board and supported by engineering analysis and “Paser Ratings” provided by the Allegan County Road Commission. The Township’s Road Plan accounts for all major planned expenses of the Road Fund that are associated with large expenses and reconstruction projects intended to upkeep Township “local” roads. While these local roads are maintained by the County Road Commission, they are *not* regularly resurfaced by the Road Commission or funded by the County’s Primary Road Millage or the Michigan Transportation Fund.

All Township Road Fund revenues are derived from 2 separate voter approved millages (each about 1.0 mill) that are restricted for local projects like resurfacing asphalt mats, crack sealant emulsions, roadside mowing, traffic/safety signs, dust treatments, roadside drainage systems that may include large size culverts over 36 inches, engineering and administration. Township Road millages are currently on a 5 year renewal cycle, and levied during the Winter Tax Period upon all Township’s ad-valorem (Real & Personal) taxable value of about \$306,229,803. It accounts for roughly \$535,000 in annual taxpayer investment in local roads that are normally exempt from Allegan County road resurfacing funds.

Delinquent tax revenues are not remitted from the County Treasurer to the Township until late April, therefore road project expenses that are billed from the County Road Commission upon completion of services may precede the full collection of revenues for certain projects. This difference in timing between tax collection and late/unexpected expenses are planned for in the Road Plan with balance carryovers. These amounts are held in reserve to guarantee timely payment of contracted services, offset debt interest and insulate risks of borrowing from the Township’s General Operating Fund for “inevitable” emergency projects such as washouts of large culverts, guard rails, and/or drainage systems that carry high expenses.

The Saugatuck Township Road Plan is made available online at www.saugatucktownship.org and on file at the Saugatuck Township Hall. Please contact the Hall anytime for questions or comments regarding Township road projects or the Saugatuck Township Road Plan.



ALLEGAN COUNTY ROAD COMMISSION

October 24, 2018

RE: LATEST PASER RATINGS ON LOCAL ROADS

To whom it may concern,

The Allegan County Road Commission rated all local paved roads in Allegan County in 2018. I've included a map showing the latest ratings using the PASER System. The enclosed sheet gives an explanation of the rating system and general ideas for treatments. Roads rated a 7 are good candidates for a crack seal to extend the life of the pavement. Road rated 5 or 6 are candidates for chip seals to extend the life of the pavement. Road rated 4 or below are candidates for resurfacing because they have begun structurally failing. Please let me know if you want specific evaluations for treatment recommendations.

Please let me know following your December township meeting what you plan to pave/resurface in 2019. Please also consider what projects you would like to resurface in 2020. This gives us time to inspect cross culverts, obtain necessary permits, and replace them ahead of paving. Many of the steel culverts around our county are at the end of their life expectancy and now is an opportune time to replace them with concrete culverts. Townships are responsible for the cost to replace culverts that are 36" diameter or greater so anticipate additional costs for culverts. I am planning on a bid letting in March of 2019 for our local and primary paving package.

We would also like to know the roads you plan to chip seal and/or crack seal immediately following your December meeting. This will allow us to get bid packages out early in the year to help with bid prices and getting the work completed while the weather is better during the summer.

A reminder that the Allegan County Road Commission will be matching \$20,000 per township for the 2019 calendar year for preventative maintenance and capital improvement projects. Crack seal, chip seal, HMA surfacing, and culvert replacements are all eligible activities. Below are estimated prices based on current bid prices to assist you with planning:

<u>Activity</u>	<u>Estimated Cost</u>
Crack Seal	\$6,500 /mi
Chip Seal (22' wide)	\$24,000 /mi
Chip Seal w/ Fog Coat (22' wide)	\$26,500 /mi
HMA Overlay	\$130,000 /mi (Gravel Shoulders)
“ “	\$155,000 /mi (Paved Shoulders)
New HMA (After Reconstruction)	\$190,000 /mi (Gravel Shoulders)
“ “	\$230,000 /mi (Paved Shoulders)
Culvert Replacement	Varies - ACRC will provide estimate per location



ALLEGAN COUNTY ROAD COMMISSION

October 24, 2018
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Please let me know if you have any questions.

Sincerely,

Jason Edwards
County Highway Engineer
rcjason@alleganroads.org

CONSTRUCTION PERIOD			
2018	PROJECTED EXPENSE	PROJECTED FUND BALANCE	PROJECTED CASH BALANCE
<u>Projected Revenues</u>			
Adjusted Carryover Balance remaining after 2017 Project Invoices	672,292		1,012,600
2017 Tax Collection Estimate = 80% between December 1st to December 31st	340,308		
2017 Tax Collection Estimate = 20% between December 31st to May 1st "Delinquent Tax Reimbursement"	<u>231,346</u>		
Total	1,243,946	1,243,946	
<u>Projected Expenditures</u>			
Resurface 126th Avenue from 60th Street to 63rd Street with paved shoulders for 1.4 miles	-148,599		
Replacement of Large Culvert 126th Avenue with 54" pre-cast concrete style	-21,544		
Resurface Pepper Brooke subdivision streets for 0.516 mile; resurface Collins Wooded Acres streets for 0.4 mile	-228,152		
Reconstruct Pepper Brooke cul-de-sacs (2); Reconstruct Collins Wooded Acres turnaround	-35,069		
Fog & Chip Seal 65th Street from Clearbrook Drive to dead end (Goshorn Lake) for 0.69 mile	-21,450		
Fog & Chip Seal 64th Street from Riverside Rd. to M-89 for 2.98 miles	-82,500		
Fog & Chip Seal 127th Avenue from 66th Street to 60th Street for 3 miles	-82,500		
Fog & Chip Seal 126th Avenue from Blue Star Hwy to I-196 for 0.36 mile	-9,625		
Roadside Mowing of Local and Primary Road Right of Way	-2,500		
Dust control 2.88 miles of gravel roads with 2 treatments of 38% Calcium Chloride	<u>-2,750</u>		
Pre-"Delinquent Tax Reimbursement" EXPENSES	-634,689		-634,689
Pre-"Deqlinquent Tax Reimbursement" CASH BALANCE			377,911
Appropriation Transfer In - General Fund	<u>-34,000</u>		
Total	-668,689	<u>-668,689</u>	
Balance after all 2018 Project Invoices are received and full collection of taxes		575,257	

CONSTRUCTION PERIOD			
2019	PROJECTED EXPENSE	PROJECTED FUND BALANCE	PROJECTED CASH BALANCE
<u>Projected Revenues</u>			
Carryover Balance remaining after 2018 Project Invoices	575,257		575,257
2018 Tax Collection Estimate = 80% between December 1st to December 31st	428,000		
2018 Tax Collection Estimate = 20% between December 31st to May 1st "Delinquent Tax Reimbursement"	107,000		
Total	1,110,257	1,110,257	
<u>Projected Expenditures</u>			
Resurface 63rd Street from Old Allegan Road to 136th Avenue with paved shoulders for 1.6 miles	-248,000		
Resurface Ototeman Way and Wakama Way with paved shoulders and cul-de-sacs (2) for a total of 0.30 mile	-86,500		
Resurface Riverside Drive (south of pond) from Holland Street to dead end for 0.15 mile	-23,250		
Resurface Lorrimar Lane with paved shoulders and cul-de-sac for 0.37 mile	-77,350		
Fog & Chip Seal Gleason Road from Old Allegan Road to 134th Avenue for 0.63 mile	-16,695		
Crack Seal Gleason Road from Old Allegan Road to 134th Avenue for 0.63 mile	-4,095		
Fog & Chip Seal 134th Avenue from 63rd Street to I-196 with cul-de-sac for 0.41 mile	-11,275		
Crack Seal 134th Avenue from 63rd Street to I-196 with cul-de-sac for 0.41	-2,255		
Fog & Chip Seal 62nd Street south of Old Allegan Road and 131st Avenue and Silver Acres Drive for a total of 1.56	-41,340		
Crack Seal 62nd Street south of Old Allegan Road and 131st Avenue and Silver Acres Drive for a total of 1.56 miles	-10,140		
Roadside Mowing of Local and Primary Road Right of Way	-3,000		
Dust control 2.88 miles of gravel roads with 2 treatments of 38% Calcium Chloride	-2,750		
Pre-"Delinquent Tax Reimbursement" EXPENSES	-526,650		-526,650
Pre-"Deqlinquent Tax Reimbursement" CASH BALANCE			
Appropriation Transfer In - General Fund	-34,000		
Total	-560,650	-560,650	
Balance after all 2019 Project Invoices are received and full collection of taxes		549,607	48,607

CONSTRUCTION PERIOD			
2020	PROJECTED EXPENSE	PROJECTED FUND BALANCE	PROJECTED CASH BALANCE
<u>Projected Revenues</u>			
Carryover Balance remaining after 2019 Project Invoices	549,607		549,607
2019 Tax Collection Estimate = 80% between December 1st to December 31st	428,000		
2019 Tax Collection Estimate = 20% between December 31st to May 1st "Delinquent Tax Reimbursement"	107,000		
Total	1,084,607	1,084,607	
<u>Projected Expenditures</u>			
Riverside Drive (north of pond) and Dugout Road west of 66th Street with cul-de-sacs (2) for 0.39 mil	-129,700		
Resurface 126th Avenue from Blue Star Hwy. to I-196 with paved shoulders and cul-de-sac for 0.33 mile	-71,150		
Resurface 128th Avenue from 64th Street to 66th Street with paved shoulders for 1.0 mile	-155,000		
Resurface 64th Street from Riverside Road to 127th Avenue with paved shoulders for 1.50 miles	-232,500		
Fog & Chip Seal 126th Avenue from Blue Star Hwy to 63rd Street for 2.5 miles	-66,250		
Crack Seal 126th Avenue from Blue Star Hwy to 63rd Street for 2.5 miles	-16,250		
Roadside Mowing of Local and Primary Road Right of Way	-3,000		
Dust control 2.88 miles of gravel roads with 2 treatments of 38% Calcium Chloride	-2,750		
Pre-"Delinquent Tax Reimbursement" EXPENSES	-546,900		-546,900
Pre-"Deqlinquent Tax Reimbursement" CASH BALANCE			2,707
Appropriation Transfer In - General Fund	-34,000		
Total	-580,900	-580,900	
Balance after all 2020 Project Invoices are received and full collection of taxes		503,707	

CONSTRUCTION PERIOD			
2021	PROJECTED EXPENSE	PROJECTED FUND BALANCE	PROJECTED CASH BALANCE
<u>Projected Revenues</u>			
Carryover Balance remaining after 2020 Project Invoices	503,707		503,707
2020 Tax Collection Estimate = 80% between December 1st to December 31st	428,000		
2020 Tax Collection Estimate = 20% between December 31st to May 1st "Delinquent Tax Reimbursement"	107,000		
Total	1,038,707	1,038,707	
<u>Projected Expenditures</u>			
Resurface 64th Street from Riverside Road from 127th Avenue to M-89 with paved shoulders for 1.50 miles	-232,500		
Resurface Palmetto Court and Destin Court and Maple Gate Drive for 0.403 mile	-102,465		
Resurface Whiteside Lane and Keppel Lane and Sambroek Lane for 0.342 miles	-93,010		
Roadside Mowing of Local and Primary Road Right of Way	-3,000		
Dust control 2.88 miles of gravel roads with 2 treatments of 38% Calcium Chloride	-2,750		
Pre-"Delinquent Tax Reimbursement" EXPENSES	-433,725		-433,725
Pre-"Deqlinquent Tax Reimbursement" CASH BALANCE			69,982
Appropriation Transfer In - General Fund	-34,000		
Total	-467,725	-467,725	
Balance after all 2021 Project Invoices are received and full collection of taxes		570,982	

Asphalt PASER

Modified for Michigan TAMC Data Collection

◆ Denotes Priority Distress

	Asphalt 10	Asphalt 9	Asphalt 8
Good	<p>New construction No defects Less than 1 year old Only a "10" for 1 year <u>Recent base improvement</u> <i>No action required</i></p>	<p>Like new condition No defects More than 1 year old <u>Recent overlay with or without a crush and shape</u> <i>No action required</i></p>	<p>◆ Occasional transverse crack >40' apart ◆ Crack width tight (hairline) or sealed Few if any longitudinal cracks on joints <u>Recent seal coat or slurry seal (*see below)</u> <i>Little or no maintenance required</i></p>
Fair	<p>Asphalt 7 ◆ Trans. cracks 10'-40' apart ◆ Cracks open < ¼" Little or no crack erosion Little or no raveling Few if any patches in good condition <u>First signs of wear</u> <i>Suggested Action</i> <i>Maintain with crack seal</i></p>	<p>Asphalt 6 ◆ Trans. cracks less than 10' apart ◆ Initial block cracking (6'-10' Blocks) ◆ Cracks open ¼" – ½" Blocks are large and stable Slight to moderate polishing or flushing No patches or few in good condition Slight raveling <u>Sound structural condition</u> <i>Suggested Action</i> <i>Maintain with sealcoat</i></p>	<p>Asphalt 5 ◆ Secondary cracks (crack raveling) ◆ Moderate block cracking (1' – 5' blocks) ◆ First sign of longitudinal cracks at edge ◆ Cracks open >½" Patching/wedging in good condition Moderate raveling Extensive to severe flushing & polishing <u>Sound structural condition</u> <i>Suggested Action</i> <i>Maintain with sealcoat or thin overlay</i></p>
Poor	<p>Asphalt 4 ◆ Longitudinal cracking in the wheel paths ◆ Rutting ½" - 1" deep ◆ Severe block cracking: <1' blocks Severe surface raveling Multiple longitudinal & transverse cracks with slight crack erosion Patching in fair condition <u>First signs of structural weakening</u> <i>Suggested Action</i> <i>Structural overlay >2"</i></p>	<p>Asphalt 3 ◆ < 25% alligator cracking (first signs) ◆ Moderate rutting 1" - 2" deep ◆ Severe block cracking (Alligator) Longitudinal & transverse cracks showing extensive crack erosion Occasional potholes Patches in fair/poor condition <i>Suggested Action</i> <i>Structural overlay >2"</i> <i>Patching & repair prior to a major overlay</i> <i>Milling would extend overlay life</i></p>	<p>Asphalt 2 ◆ > 25% alligator cracking ◆ Severe rutting or distortion >2" Closely spaced cracks with erosion Frequent potholes Extensive patches in poor condition <i>Suggested Action</i> <i>Reconstruction with base repair</i> <i>Crush and shape possible</i></p>
			<p>Asphalt 1 Loss of surface integrity Extensive surface distress <i>Suggested Action</i> <i>Reconstruction with base repair</i></p>

ALLEGAN COUNTY ROAD COMMISSION

2008 LOCAL & PRIMARY ROAD SYSTEM POLICY

LOCAL MAINTENANCE

On the Local and Primary Road System, the Road Commission assumes the cost of the following Maintenance items:

1. Blading or scraping gravel roads
2. Blading shoulders on blacktop roads
3. Filling washouts
4. Patching soft spots or low areas on gravel roads - 50 yards of gravel or less
5. Patching holes and cracks in blacktop roads
6. Mowing weeds and brush one time per year (*)
7. Removing dead or dying trees
8. Cleaning culverts and catch basins
9. Maintaining traffic signs and street name signs
10. Repairing guard rail & guard posts
11. Painting centerlines
12. Plowing snow
13. Placing sand & salt for ice control
14. Tree trimming and removal
15. Maintaining bridges
16. Replacing deteriorated road culverts up to 30 inches in diameter
17. Replace deteriorated driveway culverts as needed.

The funds to perform the above listed work come from the Michigan Transportation Fund. (Motor Fuel Tax & Registration Fees).

- (*) Townships may perform or contract for the mowing of their roadsides and the road commission will reimburse the township up to the rate of \$32.40 per centerline mile on local and primary roads one time per year. Any contractor who mows on county roads must obtain a permit from the Allegan County Road Commission. The Road Commission will also competitively bid and contract for mowing within all townships, unless the township chooses to do their own, and include a second mowing if the township agrees to pay the bid price. All mowing performed must meet county road commission specifications for county participation. If the road commission is mowing a township with its own forces, and the township requests a second mowing, the township will be invoiced at the rate of the current contract cost per centerline mile.

LOCAL SPECIAL MAINTENANCE

The following items of maintenance work which are specifically requested by townships on a Work Order form, are paid for by the township according to the following schedule:

1. Gravel Resurfacing -
By Contract - Unit price per yard as bid, plus the county distributive (overhead) cost on the contract cost.
2. Blacktop Resealing -
By Contract - Whatever the total contract and material costs are, plus the county distributive (overhead) cost on the contract cost.

3. Dustlayer Application -

By Contract - Actual cost as billed to the Road Commission by the contractor. No charge to the township for preparing roads for dustlayer. Costs for contract applications may be obtained by townships, but must be billed through the Road Commission.

4. Brush and Tree Trimming - Beyond Normal Maintenance

By Contract or Machine - Actual cost as billed to the Road Commission by the contractor for work specifically requested by townships.

LOCAL ROAD CONSTRUCTION

The Board of Road Commissioners has established the following policies in regard to Local Road Construction.

The following listed items will be done at no cost to the townships:

1. The Road Commission will establish the right-of-way for all local roads scheduled for reconstruction.
2. The Road Commission will furnish, install and maintain all required traffic control signs and street name signs on all local roads including newly reconstructed ones.
3. The Road Commission will perform the work necessary to prepare a local road project for construction by Road Commission forces or for competitive bidding by contractors. Such work includes: (1) Right-of-way establishment (2) Design (3) Plans and Specifications (4) Advertisement for Bids and bidding documents.
4. The Road Commission will acquire and pay for any additional right-of-way or easements.

The following listed charges will be paid by the townships for Local Road Construction work:

1. Machine-laid, Hot Asphalt Surfacing or Resurfacing -

By Contract - Actual cost as billed to the Road Commission for final quantities placed plus charges for staking and inspection by Road Commission and any necessary preparation and restoration work not included in the contract, based on labor** and equipment costs, and distributive (overhead) charge.

By Road Commission Forces - This type of work is not done by County Forces

2. Complete Reconstruction of a Section of Road -

By Contract - Actual cost of the work as billed to the Road Commission for final quantities completed by the contractor plus the actual charge for construction staking and inspection not to exceed 10% of the contract cost, based on labor** and equipment costs, and distributive (overhead) charge.

By Road Commission Forces - Actual cost of all county labor and county equipment including materials furnished by the road commission. Charges for materials delivered to the project, rented equipment and sub-contractors will be added to the project bill.

3. Guard Rail Installation or Complete Replacement - as required by the road work or current standards, will be an expense paid for by the township, as part of the project cost of a road construction project.

4. Culvert Replacement -

By definition a culvert has a span (width of stream) of 20 feet or less.

If a culvert is to be replaced as part of a road reconstruction project, the full cost of the culvert replacement will be part of the total road project cost.

If a culvert is to be replaced as an individual separate or emergency project, the township will be billed for the total cost of the work, whether by contract or by road commission labor** and equipment costs. Culverts under 36 inches in diameter will be replaced by the road commission at their expense. Culverts 36 inches and larger would be paid for by the township, either by bid contract or at road commission costs.

5. Bridge Replacement -

All of the remaining inadequate bridges with spans of 20 feet or more have been placed on the State's Critical Bridge Replacement List. This list is a priority list that is revised annually. If and when any of these bridges should become eligible for replacement, 80% of the cost of such replacement would come from Federal funds, and 15% would come from State funds. The remaining 5% would come from Road Commission funds. Townships would be expected to participate in the cost of extensive or unusual approach road construction, when they exceed the limits of federal and state funding.

The cost of bridge replacement, if the replacement is to be done other than through the State Critical Bridge program, the Road Commission will still pay 5% of the construction costs with the township funding any remaining local cost, or as negotiated

6. Undeveloped Roads or Seasonal Roads

Construction costs on undeveloped roads which are currently being certified would be negotiated between the Road Commission and the effected township, with the Road Commission targeting to pay 25% of the cost to build to standards, if funds are available that year.

** Actual cost of all county labor and county equipment will include a charge for fringe benefits on county labor and a charge for distributive (overhead) cost on the total of county labor, equipment, and materials, furnished by the county, rented equipment, and sub-contractors. The fringe benefit and distributive (overhead) will be recalculated each year based upon the year-end audit. The calculated rates from the previous year will be applied to the correct year.

PRIMARY HEAVY MAINTENANCE

1) Primary Road Construction

When a County Primary Road is constructed for pavement, or when a currently paved County Primary Road is completely reconstructed for repaving, the township shall contribute \$50,000 per mile and the Road Commission shall obtain funds for all other costs.

2) Primary Road Renovation

When an existing paved Primary Road is resurfaced and major renovation work is required, such as extensive building of shoulder widths, ditch relocation, tree removals and spot grade improvements, but most of the original surface is only resurfaced, the township shall contribute \$35,000 per mile towards these renovation costs.

3) Primary Road Shoulder Paving

When the shoulders of a County Primary Road is being resurfaced, and the shoulders are to be paved for the first time, the township shall pay the cost of the top two inches of asphalt, based on the bid unit cost of the asphalt to be used. Future road resurfacing shall include the cost of the shoulders as part of the project.