



Notice that the meeting of the Village of Bingham Farms **Roads Project Advisory Committee** will be held in Village Council Chambers at 24255 Thirteen Mile Road, Suite 190, Bingham Farms, Michigan, 48025, on Wednesday, May 8, 2024, beginning at 6:30 p.m.

AGENDA

- I. Call to Order – roll call**
- II. Approval of Agenda – M**
- III. Approval of 4-24-24 meeting minutes - M**
- IV. Public comments for items not on published agenda**
- V. Old Business**
 - a. Option 1
 - b. Option 2
 - c. Option 3
 - d. Option 4
- VI. New Business**
 - a. Option 5 presentation
 - b. Option 5A presentation
- Member comments**
- VII. Adjourn – M**

M = Motion

IN ACCORDANCE WITH PUBLIC ACT 267 (OPEN MEETINGS ACT)

The Village of Bingham Farms will provide necessary, reasonable auxiliary aids and services to individuals with disabilities requiring such services. All requests must be made to the Village Manager at least five business days before meeting. Contact the office in writing or by phone: 24255 Thirteen Mile, Suite 190, Bingham Farms MI 48025, 248-644-0044.



Meeting minutes of the Village of Bingham Farms **Roads Project Advisory Committee** held in Village Council Chambers at 24255 Thirteen Mile Road, Suite 190, Bingham Farms, Mi., on Wednesday, April 10, 2024, beginning at 6:30 p.m.

I. Call to Order: Marten called the roll at 6:30 p.m.

Committee members present: William Gollnitz, Antonia Grinnan, Kurt Jones, Eric McAlexander, D.E. Hagaman.

Absent: James Birley, Maissan Almaskati.

Staff present: Administrative assistant Yevgeniy Malkin.

Others present: Joe Hlavaty, Lois Hlavaty, Trustee Kathy Mechigian, Kathy Hagaman, Jeff DuComb, Larry Freedman.

II. Approval of Agenda: Motion by Jones to approve the agenda, second by Hagaman. Approved 5-0.

III. Approval of 4-10-24 Minutes: Motion by Grinnan, second by Hagaman, to approve minutes as presented. Approved 5-0.

IV. Public Comments not on published agenda: Larry Freedman stated that he is strongly against the Special Assessment District proposal for road project funding.

V. Presentations:

- a. **Grinnan Memo:** Grinnan presented her memo that describes the current breakdown of the village's public and private road residents and some of the approaches the village can use to offer the private road residents more village services.
- b. **SAD Proposal:** Jones and McAlexander presented their proposal for funding road projects using Special Assessment Districts.

VI. Member Comments: Chairman Gollnitz wants to see if all the proposals can be finalized and ready to be combined into a packet for Council by the May 8 meeting.

VII. Adjourn: Motion to adjourn at 8:07 pm by Hagaman, second by McAlexander. Approved 5-0.

OPTION 1. – STATUS QUO

While the Village Council's motion which created the Road Advisory Committee directed the committee to bring the Council proposals for the financing for Village Road reconstruction, this first proposal assumes that the Village not reconstruct its roads for the next 5 years and reassess the situation at that time. It is offered due to some residents expressing the feeling that the roads are not in that bad a condition at present and their reluctance to increase taxes to improve them.

Assumptions

The analysis begins with the latest preliminary cost projections given to us by HRC. It assumes the costs will increase 4% a year as projected by HRC. It starts with the figure of current funds available to reconstruct the roads provided by our Treasurer. It also assumes that the Village will continue to put aside \$150,000 a year into the funds available for road reconstruction. It also assumes an increase in the amount of funds available based upon the past 5 years Act 51 funds received by the Village over the amount of expenses the Village has incurred over the past 5 years (for snow removal, fixing pot holes, etc.) of approximately \$50,000 a year. See attached Chart 1.

Results

The results show the estimated shortfall in funds available to do a Select Rehab of the roads after Fiscal Year 2027-28 will increase by \$725,455.61. The estimated shortfall in funds for doing the Longer-Term Rehab will increase by \$1,716,478. See attached Chart 2.

While these estimates include a projected 4% increase in the costs for repairing the roads per year, (projected increase in cost of asphalt, salaries for construction workers, etc.) they do not include any increased costs due to the further deterioration of the roads during the next 5 years. As a reminder, the Paser ratings for the vast majority of the Village's roads are currently 3's and 4's. These ratings would be expected to worsen if the Village continues its Status Quo plan for the next 5 years. Moreover, all of the work done by HRC to date, would in 5 years be obsolete and would have to be redone at a significant additional cost to the Village.

OPTION 2- ROAD MAINTENANCE OPTION

One of the options HRC mentioned as possible for the Village Roads is to institute a road maintenance program. HRC indicated this program would cost approximately \$150,000 a year. During an April meeting between HRC and representatives of the Village, HRC indicated this estimate was based upon imputing figures into a State of Michigan program to come up with the estimate. No further analysis as to what this program would look like for Bingham Farms has been done at this time. At the April meeting, HRC also indicated that a road maintenance program achieves the best results when done on roads that are in fairly good condition when the program starts. The only roads in Bingham Farms that are currently in good enough shape to get the maximum benefit from such a program are Brooks Lane, Coachlight and Old Stage. While the other roads in their current condition could benefit somewhat from a road maintenance program, there would be less “bang for the buck’ if they were included in such a program before being redone.

Assumptions

The analysis begins with the latest preliminary cost projections given to us by HRC. It assumes the costs will increase 4% a year, as projected by HRC. It assumes the current amount available as estimated by the Village Treasurer. It assumes the Village will continue to put aside \$150,000 from its budget, but unlike option 1, assumes that these funds go towards the road maintenance program. It also assumes an increase in the amount of funds available to reconstruct the roads based upon the past 5 years Act 51 funds received by the Village over the amount of expenses the Village has incurred over the past 5 years (for snow removal, SALT, fixing potholes, etc.). of approximately \$50,000 a year. See attached chart 1. Finally, this option assumes (as does option 3) significant cost savings from HRC’s original estimate by turning Timber Trail into a path and obtaining a grant to fund the cost of doing so.

Results

The results show the estimated shortfall in funds available to do a Selective Rehab of the Roads after Fiscal Year 2027-28 will increase by \$1,224,067. See chart 3. This figure is higher than the figure for Option 1 due to the fact that the \$150,000 being saved each year for the roads from the current budget will be spent on road maintenance rather than saved for road reconstruction as in Option 1. However, given that HRC indicates that currently only 3 of the Villages roads would benefit fully from a long- term maintenance program at this time, it is possible that not all of the budgeted \$150,000 a year will be used for road maintenance. Any amounts not used could be added to the funds available to reconstruct the roads and thus reduce the funding shortfall. Unlike Option 1, this option would slow the deterioration of the roads included in the rehab plan.

VILLAGE OF BINGHAM FARMS ROAD EXPENSE BY FISCAL YEAR

<u>FISCAL YEAR</u>	<u>FY17/18</u>	<u>FY18/19</u>	<u>FY19/20</u>	<u>FY20 /21</u>	<u>FY21/22</u>	<u>FY22/23</u>	<u>AVG.</u>
<u>MAJOR ROADS</u>	\$ 28,854.00	\$ 24,730.00	\$ 52,307.00	\$ 63,406.00	\$ 38,261.00	\$ 35,758.00	\$ 40,552.67
<u>LOCAL ROADS</u>	\$ 25,702.00	\$ 45,315.00	\$ 10,708.00	\$ 43,151.00	\$ 21,862.00	\$ 51,128.00	\$ 32,977.67
<u>TOTAL</u>	\$ 54,556.00	\$ 70,045.00	\$ 63,015.00	\$ 106,557.00	\$ 60,123.00	\$ 86,886.00	\$ 73,530.33

VILLAGE OF BINGHAM FARMS ACT 51 REVENUE VS. EXPENSE BY FISCAL YEAR

<u>MAJOR ROADS REV</u>	\$ 72,490.00	\$ 72,234.00	\$ 77,054.00	\$ 80,622.00	\$ 86,101.00	\$ 96,635.00	\$ 80,856.00
<u>MAJOR ROADS EXP</u>	\$ 28,854.00	\$ 24,730.00	\$ 52,307.00	\$ 63,406.00	\$ 38,261.00	\$ 35,758.00	\$ 40,552.67
<u>LOCAL ROADS REV</u>	\$ 36,542.00	\$ 49,395.00	\$ 39,231.00	\$ 40,435.00	\$ 43,884.00	\$ 50,446.00	\$ 43,322.17
<u>LOCAL ROADS EXP</u>	\$ 25,702.00	\$ 45,315.00	\$ 10,708.00	\$ 43,151.00	\$ 21,862.00	\$ 51,128.00	\$ 32,977.67
<u>TOTAL REV</u>	\$ 109,032.00	\$ 121,629.00	\$ 116,285.00	\$ 121,057.00	\$ 129,985.00	\$ 147,081.00	\$ 124,178.17
<u>TOTAL EXP</u>	\$ 54,556.00	\$ 70,045.00	\$ 63,015.00	\$ 106,557.00	\$ 60,123.00	\$ 86,886.00	\$ 73,530.33
<u>TOTAL REV - TOTAL EXP</u>	\$ 54,476.00	\$ 51,584.00	\$ 53,270.00	\$ 14,500.00	\$ 69,862.00	\$ 60,195.00	\$ 50,647.83

NOTES: ACT 51 Revenue figures include interest income

VILLAGE OF BINGHAM FARMS ROAD COST VS.FUNDING ESTIMATES - STATUS QUO OPTION

FISCAL YEAR	FY23/24	FY24/25	FY25/26	FY26/27	FY27/28***
COSTS - SELECTIVE REHAB*	\$ 8,996,000.00	\$ 9,355,840.00	\$ 9,730,073.60	\$ 10,119,276.54	\$ 10,524,047.61
FUNDING AVAILABLE **	\$ 2,759,980.00	\$ 2,960,628.00	\$ 3,161,276.00	\$ 3,361,924.00	\$ 3,562,572.00
COSTS SELECTIVE REHAB LESS FUNDING AVAILABLE SHORTFALL INCREASE IF WE WAIT	\$ 6,236,020.00	\$ 6,395,212.00	\$ 6,568,797.60	\$ 6,757,352.54	\$ 6,961,475.61 \$ 725,455.61
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COSTS - LONGER TERM REHAB*	\$ 14,830,400.00	\$ 15,423,616.00	\$ 16,040,560.64	\$ 16,682,183.07	\$ 17,349,470.39
FUNDING AVAILABLE **	\$ 2,759,980.00	\$ 2,960,628.00	\$ 3,161,276.00	\$ 3,361,924.00	\$ 3,562,572.00
COSTS LONGER TERM REHAB LESS FUNDING AVAILABLE SHORTFALL INCREASE IF WE WAIT	\$ 12,070,420.00	\$ 12,462,988.00	\$ 12,879,284.64	\$ 13,320,259.07	\$ 13,786,898.39 \$ 1,716,478.39

NOTES / ASSUMPTIONS:

*Cost assumes increase per FY of:

4%

** Funding available assumes the current amount of \$2,759,980 + Average (FY17/18 - FY22/23) total revenue - total expense + \$150K each year that is added to the General Assigned Road Fund should there be a surplus @ the end of the each FY close

*** Need to consider HRC costs if the Village were to do nothing for the next number of years I.E. HRC revised cost figures / core samples / attend and review data at Village Meetings

VILLAGE OF BINGHAM FARMS ROAD COST VS.FUNDING ESTIMATES - ROAD MAINTENANCE OPTION

FISCAL YEAR	FY23/24	FY24/25	FY25/26	FY26/27	FY27/28***
COSTS - SELECTIVE REHAB*	\$ 8,399,100.00	\$ 8,735,064.00	\$ 9,084,466.56	\$ 9,447,845.22	\$ 9,825,759.03
FUNDING AVAILABLE **	\$ 2,759,980.00	\$ 2,810,628.00	\$ 2,861,276.00	\$ 2,911,924.00	\$ 2,962,572.00
COSTS SELECTIVE REHAB LESS FUNDING AVAILABLE	\$ 5,639,120.00	\$ 5,924,436.00	\$ 6,223,190.56	\$ 6,535,921.22	\$ 6,863,187.03
SHORTFALL INCREASE IF WE WAIT					\$ 1,224,067.03
COSTS - LONGER TERM REHAB*	\$ 13,910,900.00	\$ 14,467,336.00	\$ 15,046,029.44	\$ 15,647,870.62	\$ 16,273,785.44
FUNDING AVAILABLE **	\$ 2,759,980.00	\$ 2,810,628.00	\$ 2,861,276.00	\$ 2,911,924.00	\$ 2,962,572.00
COSTS LONGER TERM REHAB LESS FUNDING AVAILABLE	\$ 11,150,920.00	\$ 11,656,708.00	\$ 12,184,753.44	\$ 12,735,946.62	\$ 13,311,213.44
SHORTFALL INCREASE IF WE WAIT					\$ 2,160,293.44

NOTES / ASSUMPTIONS:

*Cost assumes increase per FY of:

4% Costs also decreased by \$596,900 & \$919,500 due to Timber Trail converted into a path

** Funding available assumes the current amount of \$2,759,980 + Average (FY17/18 - FY22/23) total revenue - total expense - \$150K road maintenance option + \$150K each year that is added to the General Assigned Road Fund should there be a surplus @ the end of the each FY close

*** Need to consider HRC costs if the Village were to do nothing for the next number of years I.E. HRC revised road cost figures / HRC expenses for field work services (updated core sample / passer ratings) attend and review @ Village Meetings

Proposal 3: Revised Alternative to HRC Selective Short and Long-Term Rehabilitation

Outline:

Hubble, Roth and Clark's (HRC) latest proposal are a mix of selective short and long-term rehabilitations. They have emphasized the total will depend on the village's goal for their public roads (PASER ratings). The Road Advisory Committee is currently evaluating different options.

The selective rehabilitation presented by HRC is primarily resurfacing/capping with some drainage improvements for most of the roads in the village. Four roads (Bristol Lane and its courts) have been designated as "Longer-Term Rehabilitation", i.e. complete asphalt removal and replacement with major drainage upgrades. The cost of this longer-term rehabilitation (\$4.37MM) is 48% of the HRC total recommendation of \$9.00MM. This equates to twice the cost of resurfacing as calculated from Bingham Road (\$320/lineal ft of road) vs Bristol Lane (\$644/lineal ft of road) for complete asphalt replacement.

Both Bingham Road and Bristol Lane were initially paved in 1984 and resurfaced in 2003 and 2005 respectively. Both roads had an effective lifespan of approximately 20 years between rehabilitations (without regular preventive maintenance). If we complete the longer-term rehabilitation of Bristol Lane (and its' courts), will it last 40 years? (as expected, when spending twice as much). The answer, however, is HRC could not guarantee this outcome per our February 14th meeting. Even if this long-term proposal lasted 30 years, the Village would need two cycles of rehabilitation to recover the initial investment (or approximately 60 years).

Proposal:

A revised proposal, based on village history, would be to resurface Bristol Lane (and respective courts) with drainage upgrades (as proposed for Bingham Road). If we adopt Bingham Road as the surrogate, the cost for resurfacing and drainage improvements are:

Bristol Lane:	\$1,098,075 (at 4000 ft. 100ft has been rehabilitated with a newer turnaround)
Bristol Court:	\$407,326
Britner Court:	\$176,464
Sager Court:	\$223,070
Total:	\$1,904,934

This represents a savings of approximately \$2.4MM. With the HRC recommendation of yearly preventative maintenance based on Michigan Department of Transportation guidance, we can extend this life of the roads beyond 20 years.

Additional savings can come from eliminating selective rehabilitation of Brooks Lane (PASER rating 8) for a savings of \$113,100. Conversion of Timber Trail (2,215 ft) to a walking path or trail with removable bollards at either end. Savings of \$434,200 assuming matching grant application is successful as proposed by Ken Marten on March 13th, 2024.

This puts the total selective rehabilitation cost at \$5,987,122.

Proposal 3: Revised Alternative to HRC Selective Short and Long-Term Rehabilitation

Lastly, the construction contingency fee of 25% is likely a conservative overestimation as stated by HRC during the February 14th and April 1st meetings. HRC maintained the target would be closer to 10% after engineering and quotes are complete. Additionally, some minor engineering savings can be accomplished by eliminating discretionary line items. This represents a potential cost avoidance of \$802,754.

With this further opportunity, the total cost estimate would be **\$5,184,368 (see table 1)**.

Importantly, these cost estimates would be revised after HRC is contacted to write a scope of work (SOW) document and then go out to several contractors for competitive bidding.

Workplan:

With the reduction in cost of the project and the addition of revenue through a millage increase/grants/philanthropic donations, the roads could be rehabilitated with the following assumptions (all calculations in 2024 dollars):

1. Starting point of \$2,759,980 road fund as stated by Kurt Jones on March 13th, 2024.
2. 1 or 2 mill increase for road improvement (over fixed time frame)
3. Act 51 yearly surplus averaging \$60,000
4. Short term loan from Michigan's State Infrastructure Bank (SIB). The current interest rate is 3.25%. SIB will provide loans up to \$2,000,000.
 - o 8-year SIB loan of \$1,500,000 with a 1 Mill increase (table 2)
 - o Or 3-year SIB loan of \$650,000 with a 2 Mill increase (table 3)
5. These amounts could be reduced with philanthropic donations or further grants.

Note: SIB loans a maximum of \$2,000,000 per application/area with negotiated term and 3.25% annual interest rate. Must be sponsored by county.

<https://www.michigan.gov/mdot/programs/grant-programs/sib>

A proposed schedule by year could be:

1. **2025:** Road improvements \$1,191,708
 - a. Bristol Ct., Britner Ct., Sager Ct., Bingham Ln
2. **2026:** Road improvements \$1,152,172
 - a. Bristol Lane, Hickory Hollow
3. **2027:** Road improvements \$1,608,311
 - a. Bingham Road, Timber Trail
4. **2028:** Road improvements \$1,232,177
 - a. Shagwood, Old Orchard, Coachlight, Old Stage, Fromm Ct.

This proposed schedule is contingent on kicking off HRC engineering work in May 2024. Timeline for HRC work:

- May-Oct: HRC engineering study on Bristol Ct., Britner Ct., Sager Ct., Bingham Lane.
- November: Construct statement of work (SOW) for bidding.
- December: Bid contractors for 2025 work.
- January: Award contracts.

Proposal 3: Revised Alternative to HRC Selective Short and Long-Term Rehabilitation

Table 2: 1 Mill Increase in Property Taxes for 11 years (\$2.15MM taxpayer contribution)

Year	Millage Rev	General Fund	Act 51	SIB Loan+Int	GF Interest	Expenditure (not incl maint)
2024	\$ -	\$ 2,759,980				
2025	\$ 195,371	\$ 1,823,643	\$ 60,000			\$ 1,191,708
2026	\$ 195,371	\$ 926,842	\$ 60,000			\$ 1,152,172
2027	\$ 195,371	\$ 1,073,902	\$ 60,000	\$ 1,500,000		\$ 1,608,311
2028	\$ 195,371	\$ 48,346	\$ 60,000	\$ (48,750)		\$ 1,232,177
2029	\$ 195,371	\$ 255,934	\$ 60,000	\$ (48,750)	\$ 967	
2030	\$ 195,371	\$ 467,673	\$ 60,000	\$ (48,750)	\$ 5,119	
2031	\$ 195,371	\$ 683,648	\$ 60,000	\$ (48,750)	\$ 9,353	
2032	\$ 195,371	\$ 903,942	\$ 60,000	\$ (48,750)	\$ 13,673	
2033	\$ 195,371	\$ 1,128,642	\$ 60,000	\$ (48,750)	\$ 18,079	
2034	\$ 195,371	\$ 1,357,835	\$ 60,000	\$ (48,750)	\$ 22,573	
2035	\$ 195,371	\$ 91,613	\$ 60,000	\$ (1,548,750)	\$ 27,157	

Note 1: General Fund interest rate 2.0%

Note 2: 3.25% interest in SIB loan

Table 3: 2 Mill Increase in Property Taxes for 6 years (\$2.3MM taxpayer contribution)

Year	Millage Rev	General Fund	Act 51	SIB Loan+Int	Expenditure (not incl maint)
2024	\$ -	\$ 2,759,980			
2025	\$ 390,742	\$ 2,019,014	\$ 60,000		\$ 1,191,708
2026	\$ 390,742	\$ 1,317,584	\$ 60,000		\$ 1,152,172
2027	\$ 390,742	\$ 810,015	\$ 60,000	\$ 650,000	\$ 1,608,311
2028	\$ 390,742	\$ 7,455	\$ 60,000	\$ (21,125)	\$ 1,232,177
2029	\$ 390,742	\$ 437,072	\$ 60,000	\$ (21,125)	
2030	\$ 390,742	\$ 216,689	\$ 60,000	\$ (671,125)	

Note 1: Does not consider interest on Road General Fund

Note 2: 3.25% interest in SIB loan

Proposal 4: HRC Selective Short and Long-Term Rehabilitation with Revised Contingency

Outline:

Hubble, Roth and Clark's (HRC) latest proposal are a mix of selective short and long-term rehabilitations. They have emphasized the total will depend on the village's goal for their public roads (PASER ratings). The Road Advisory Committee is currently evaluating different options.

The selective rehabilitation presented by HRC is primarily resurfacing/capping with some drainage improvements for most of the roads in the village. Four roads (Bristol Lane and its courts) have been designated as "Longer-Term Rehabilitation", i.e. complete asphalt removal and replacement with major drainage upgrades. The cost of this longer-term rehabilitation (\$4.37MM) is 48% of the HRC total recommendation of \$9.00MM. This equates to twice the cost of resurfacing as calculated from Bingham Road (\$320/lineal ft of road) vs Bristol Lane (\$644/lineal ft of road) for complete asphalt replacement.

Proposal:

Accept HRC proposal for short and long term rehabilitation with a revised contingency. HRC has stated the contingency is more likely 10% vs 25% (at February 14th meeting with the Road Advisory Team and an April 1st meeting with Ken Marten, Kurt Jones, Eric McAlexander and Jim Birley).

This represents a savings of approximately \$1.17MM. With the HRC recommendation of yearly preventative maintenance based on Michigan Department of Transportation guidance, we can extend this life of the roads beyond 20 years.

Additional savings can come from eliminating selective rehabilitation of Brooks Lane (PASER rating 8) for a savings of \$99,550. Conversion of Timber Trail (2,215 ft) to a walking path or trail with removable bollards at either end. Assuming matching grant application is successful as proposed by Ken Marten on March 13th, 2024.

This puts the total rehabilitation cost at \$7,460,650 (see Table 1).

Importantly, these cost estimates would be revised after HRC is contacted to write a scope of work (SOW) document and then go out to several contractors for competitive bidding.

Workplan:

With the reduction in cost of the project and the addition of revenue through a millage increase/grants/philanthropic donations, the roads could be rehabilitated with the following assumptions (all calculations in 2024 dollars):

1. Starting point of \$2,759,980 road fund as stated by Kurt Jones on March 13th, 2024.
2. 2.1 Millage increase for road improvement over 13 years (\$4.9MM)
3. Act 51 yearly surplus averaging \$60,000
4. \$3.9MM 10 year bond issued in near term to fund roads. To be paid back with millage revenue. See Table 2.

Proposal 4: HRC Selective Short and Long-Term Rehabilitation with Revised Contingency

A proposed schedule by year could be:

1. **2025:** Road improvements \$2,026,063
 - a. Bristol Ct., Britner Ct., Sager Ct., Bingham Ln
2. **2026:** Road improvements \$2,528,350
 - a. Bristol Lane, Hickory Hollow
3. **2027:** Road improvements \$1,654,025
 - a. Bingham Road, Timber Trail
4. **2028:** Road improvements \$1,252,213
 - a. Shagwood, Old Orchard, Coachlight, Old Stage, Fromm Ct.

This proposed schedule is contingent on kicking off HRC engineering work in May 2024. Timeline for HRC work:

- May-Oct: HRC engineering study on Bristol Ct., Britner Ct., Sager Ct., Bingham Lane.
- November: Construct statement of work (SOW) for bidding.
- December: Bid contractors for 2025 work.
- January: Award contracts.

With the addition of a yearly preventive maintenance plan based on MDOT guidelines, the Village of Bingham Farms could maintain PASER ratings in the 5-8 range for an extended period (potentially 20+ years). This preventive maintenance plan could consist of two-yearly inspections (late spring after frost and early fall for winter preparation) by an engineering firm to identify areas for improvement such as, crack sealing, capping, culvert blockage/repair, drainage issues, and/or erosion.

Conclusion:

Based on the history of paved roads in the Village of Bingham Farms, the most cost-effective solution for rehabilitation is a selective mix of resurfacing, capping, drainage/erosion improvements, and spot repair of sub-grade. The preventive maintenance plan is estimated at \$150,000/year per MDOT guidelines (which has in principle, been accepted by the village council).

With the addition of semi-annual inspections and repairs, our village roads rehabilitation cycle can be extended beyond 20 years.

Lastly, to execute this plan, HRC must be kicked off on engineering by May 2024 to complete their study, statement of work (for 2025 proposed work) and bidding to avoid increased costs.

Proposal 4: HRC Selective Short and Long-Term Rehabilitation with Revised Contingency

Table 1: Revised Cost Estimates for Road Rehabilitation

Road	Original	Revised Base	Contingency	Engineering	Revised Proposal
			10%	25%	
Bingham Lane	\$ 569,400	\$ 364,400	\$ 36,440	\$ 100,210	\$ 501,050
Bingham Road	\$ 1,694,800	\$ 1,084,600	\$ 108,460	\$ 298,265	\$ 1,491,325
Bristol Lane	\$ 2,640,600	\$ 1,690,000	\$ 169,000	\$ 464,750	\$ 2,323,750
Bristol Ct	\$ 889,800	\$ 569,400	\$ 56,940	\$ 156,585	\$ 782,925
Britner Ct	\$ 424,800	\$ 271,800	\$ 27,180	\$ 74,745	\$ 373,725
Brooks Ln	\$ 113,100	\$ 72,400	\$ 7,240	\$ 19,910	
Coachlight Ln	\$ 163,600	\$ 104,700	\$ 10,470	\$ 28,793	\$ 143,963
Fromm Ct	\$ 252,300	\$ 161,400	\$ 16,140	\$ 44,385	\$ 221,925
Hickory Hollow	\$ 224,800	\$ 148,800	\$ 14,880	\$ 40,920	\$ 204,600
Old Orchard Trail	\$ 384,900	\$ 246,300	\$ 24,630	\$ 67,733	\$ 338,663
Old Stage Road	\$ 218,100	\$ 139,600	\$ 13,960	\$ 38,390	\$ 191,950
Sager Ct	\$ 418,600	\$ 267,900	\$ 26,790	\$ 73,673	\$ 368,363
Shagwood Dr	\$ 404,300	\$ 258,700	\$ 25,870	\$ 71,143	\$ 355,713
Timber Trail	\$ 596,900	\$ 208,200	\$ 20,820	\$ 57,255	\$ 143,138
Total	\$ 8,996,000				\$ 7,441,088
					Average / Year
					\$ 1,860,272

Note 1

Note 1: Half of the required funding is displayed. The second half will come from a grant.

Table 2: 2.1 Mill Increase in Property Taxes for 12 years (\$4.9MM total)

Year	Millage Rev	General Fund	Act 51	Interest	Principle	Remain Principle	Expenditure (not incl maint)
2024	\$ -	\$ 2,759,980					
2025	\$ 410,279	\$ 1,204,197	\$ 60,000				\$ 2,026,063
2026	\$ 410,279	\$ 2,939,266	\$ 60,000	\$ 106,860		\$ 3,900,000	\$ 2,528,350
2027	\$ 410,279	\$ 1,306,141	\$ 60,000	\$ 136,500	\$ 332,441	\$ 3,567,559	\$ 1,634,463
2028	\$ 410,279	\$ 55,266	\$ 60,000	\$ 124,865	\$ 344,077	\$ 3,223,482	\$ 1,252,213
2029	\$ 410,279	\$ 56,604	\$ 60,000	\$ 112,822	\$ 356,119	\$ 2,867,362	
2030	\$ 410,279	\$ 57,942	\$ 60,000	\$ 100,358	\$ 368,584	\$ 2,498,779	
2031	\$ 410,279	\$ 59,280	\$ 60,000	\$ 87,457	\$ 381,484	\$ 2,117,295	
2032	\$ 410,279	\$ 60,617	\$ 60,000	\$ 74,105	\$ 394,836	\$ 1,722,459	
2033	\$ 410,279	\$ 61,955	\$ 60,000	\$ 60,286	\$ 408,655	\$ 1,313,803	
2034	\$ 410,279	\$ 63,293	\$ 60,000	\$ 45,983	\$ 422,958	\$ 890,845	
2035	\$ 410,279	\$ 64,631	\$ 60,000	\$ 31,180	\$ 437,762	\$ 453,083	
2036	\$ 410,279	\$ 65,968	\$ 60,000	\$ 15,858	\$ 453,083	\$ (0)	

Note 1: Does not consider interest on General Fund

Note 2: 3.50% interest on bond

Note 3: Interest in 2026 is cost of bond issuance

Bingham Farms Road Committee Option 5

Proposal for a Bingham Farms Roads Project Using an Approach that Includes a Special Assessment

The Village desires its roads to have an overall average PASER rating of 5 - 6.

There are 26,985 feet of public roads in Bingham Farms or 5.11 miles. Most of these have PASER ratings of 3 to 4.

There are approximately 493 residences in Bingham Farms of which approximately 253 (51.3%) are on private roads. The private road residents pay for all road maintenance with no funding from the Village.

Old Stage Road and Coachlight Road are the only concrete roads in the Village. Old Stage Road (concrete with PASER rating of 4 – 6) and Coachlight Road (concrete with PASER rating of 5) can both be brought up to a 5 or 6 PASER without a lot of expense. Also, Brooks Lane does not need much attention as it already has a PASER rating of 8. These three roads are not considered in this analysis.

Bingham Road is the only road considered as a major road. This is important because a portion of the Act 51 funds are restricted for use only on major roads. In the 2023 budget, the balance in the major road fund is \$842,068 and can **only** be used for work on Bingham Road.

The current balance in the Village fund that can be allocated to the roads is \$2,759,980. If we subtract the major road fund of \$842,068, the total currently available for all other Village local roads is \$1,917,912.

Additionally, Timber Trail is designated to become a “path”. Suitable for walking and bike riding but not for motorized vehicles other than emergency vehicles. Assuming a grant and a lower cost option for a path, the cost for Timber Trails is \$140,847.

Assumptions used in this option.

- The value of a 1 millage increase today is \$195,371 per year.
- Taxable value of properties will increase at 2.5% per year.
- The general fund will generate interest income of 2% per year.
- Act 51 money of \$60,000 per year is split between the major road fund (Bingham Road) at \$35,000 per year and the local road fund at \$25,000 per year.
- Three Special Assessment Districts (SAD) will be established. (Detail below).
- Each lot in a SAD will be assessed \$500 per year for 10 years.
- Road construction costs are the same as used in the Roads Committee Option 3.
- Road construction costs will increase at 4% per year.
- Additional funding will come from an SIB loan of \$1.5 million at an interest rate of 3.25% beginning in 2027.

Special Assessment District 1:

SAD 1 will be established in 2025 and will include all lots on Bristol Lane, Sager Ct, Bristol Ct, and Britner Ct. Road construction will take place in 2025. There are 67 lots in SAD 1. Construction costs will be \$1,649,519. There is enough money in the general fund to pay for this work without additional funding.

Special Assessment District 2:

SAD 2 will be established in 2027 and will include all lots on Bingham Lane, Old Orchard Trail, Hickory Hollow, Shagwood and Fromm Ct. Construction will take place in 2027. There are 85 lots in SAD 2. Construction costs will be \$1,726,231. Additional funding will be required for this work. Funding will come from an SIB loan of \$1.5 million at 3.25%

Special Assessment District 3:

SAD 3 will be established in 2028 and will include all lots on Bingham Road and Timber Trail (there is only 1 lot on Timber Trail). Construction costs will be \$1,809,131. There are 37 lots in SAD 3. Funding from the major road fund can now be used. No further outside funding will be required.

The table below shows the detail of each of the SADs and cost of construction at current estimates.

Road Name	SAD	Road Surface	Short Term/PM	Cost per Foot	Last Resurfacing	PASER Rating	Year for Rehabilitation
Sager Ct	SAD 1	Asphalt	\$ 193,160	\$ 278	2005	3	2025
Britner Ct	SAD 1	Asphalt	\$ 152,803	\$ 230	2005	3	2025
Bristol Ct	SAD 1	Asphalt	\$ 352,711	\$ 230	2005	3	2025
Bristol Lane	SAD 1	Asphalt	\$ 950,845	\$ 238	2005	3 and 4	2025
			\$ 1,649,519				
Bingham Lane	SAD 2	Asphalt	\$ 493,033	\$ 132	2008	4	2027
Old Orchard Trail	SAD 2	Asphalt	\$ 333,244	\$ 131	2009	3	2027
Hickory Hollow	SAD 2	Asphalt	\$ 201,326	\$ 229	2005	3	2027
Shagwood	SAD 2	Asphalt	\$ 350,021	\$ 197	2009	3	2027
Fromm Ct	SAD 2	Asphalt	\$ 218,374	\$ 161	2010	4	2027
			\$ 1,595,998				
Bingham Road	SAD 3	Asphalt	\$ 1,467,464	\$ 278	2003	4	2028
Timber Trail	SAD 3	Asphalt	\$ 140,847	\$ 64	NEVER	1	2028
			\$ 1,608,311				

The table below is the financial model using the above assumptions.

Year	Millage Revenue at 1 mill increase and Taxable Value Increase of 2.5% per year	General Fund with Annual Interest Rate of 2.0%	Act 51	Per Lot Assessment	Total Assessment Per Year	SIB Loan + 3.25% Int	Expenditure (not incl. maint)
2024		\$ 1,917,912		\$ -	\$ -	\$ -	\$ -
2025	\$ 195,371	\$ 522,264	\$ 25,000	\$ 500	\$ 33,500	\$ -	\$ 1,649,519
2026	\$ 200,255	\$ 796,640	\$ 25,000	\$ 500	\$ 33,500	\$ -	\$ -
2027	\$ 205,262	\$ 894,204	\$ 25,000	\$ 500	\$ 76,000	\$ 1,500,000	\$ 1,726,231
2028	\$ 210,393	\$ 404,082	\$ 60,000	\$ 500	\$ 94,500	\$ (48,750)	\$ 1,809,131
2029	\$ 215,653	\$ 739,994	\$ 60,000	\$ 500	\$ 94,500	\$ (48,750)	\$ -
2030	\$ 221,044	\$ 1,088,124	\$ 60,000	\$ 500	\$ 94,500	\$ (48,750)	\$ -
2031	\$ 226,570	\$ 1,448,854	\$ 60,000	\$ 500	\$ 94,500	\$ (48,750)	\$ -
2032	\$ 232,235	\$ 292,575	\$ 60,000	\$ 500	\$ 94,500	\$ (1,548,750)	\$ -
2033	\$ -	\$ 456,017	\$ 60,000	\$ 500	\$ 94,500	\$ -	\$ -
2034	\$ -	\$ 622,727	\$ 60,000	\$ 500	\$ 94,500	\$ -	\$ -
2035	\$ -	\$ 758,602	\$ 60,000	\$ 500	\$ 61,000	\$ -	\$ -
2036	\$ -	\$ 897,194	\$ 60,000	\$ 500	\$ 61,000	\$ -	\$ -
2037	\$ -	\$ 995,207	\$ 60,000	\$ 500	\$ 18,500	\$ -	\$ -

Observations:

- All Bingham Farms residents and commercial property owners will incur a 1 millage increase in the taxable value of their properties for 8 years beginning in 2025 and ending when the loan is repaid in 2032.
- The SIB loan of \$1.5 million will be taken in 2027 and will be fully paid back in 2032.
- Assessments continue for 10 years beginning the year the SAD is created and ending 10 years later.
- The 3 SAD's will collect \$945,000 over a 13-year period from 2025 – 2037. These assessments will be paid by the residents in the SADs who will receive the direct benefit of road construction. There are approximately 189 residences in the SADs and almost 500 residences in all of Bingham Farms plus commercial property owners.
- At the end of all construction, the payback of the loan, and the end of the assessment period in 2037, there will be \$995,207 in the general fund giving the Village Council some options:
 - Use the fund to support another future road or infrastructure project.
 - Use a millage increase of less than 1.
 - Reduce the assessment period.
 - Or any combination of the above.

We believe this to be fair approach to improving the roads in Bingham Farms while considering that more than 50% of the Bingham Farms residents live on private roads.

Bingham Farms Road Committee Option 5A

Proposal for a Bingham Farms Roads Project Using an Approach that Includes a Special Assessment

The Village desires its roads to have an overall average PASER rating of 5 - 6.

There are 26,985 feet of public roads in Bingham Farms or 5.11 miles. Most of these have PASER ratings of 3 to 4.

There are approximately 493 residences in Bingham Farms of which approximately 253 (51.3%) are on private roads. The private road residents pay for all road maintenance with no funding from the Village.

Old Stage Road and Coachlight Road are the only concrete roads in the Village. Old Stage Road (concrete with PASER rating of 4 – 6) and Coachlight Road (concrete with PASER rating of 5) can both be bought up to a 5 or 6 PASER without a lot of expense. Also, Brooks Lane does not need much attention as it already has a PASER rating of 8. These three roads are not considered in this analysis.

Bingham Road is the only road considered as a major road. This is important because a portion of the Act 51 funds are restricted for use only on major roads. In the 2023 budget, the balance in the major road fund is \$842,068 and can **only** be used for work on Bingham Road.

The current balance in the Village fund that can be allocated to the roads is \$2,759,980. If we subtract the major road fund of \$842,068, the total currently available for all other Village local roads is \$1,917,912.

Additionally, Timber Trail is designated to become a “path”. Suitable for walking and bike riding but not for motorized vehicles other than emergency vehicles. Assuming a grant and a lower cost option for a path, the cost for Timber Trails is \$140,847.

Assumptions used in this option.

- Increase millage by 1.8. The value of a 1.8 millage increase today is \$351,668 per year.
- Taxable value of properties will increase at 2.5% per year.
- The general fund will generate interest income of 2% per year.
- Act 51 money of \$60,000 per year is split between the major road fund (Bingham Road) at \$35,000 per year and the local road fund at \$25,000 per year.
- Three Special Assessment Districts (SAD) will be established. (Detail below).
- Each lot in a SAD will be assessed \$750 per year for 10 years.
- Road construction costs are the same as used in the Roads Committee Option 4. Specifically, this uses the original HRC estimates for Bristol Lane, Bristol Ct, Sager Ct., and Britner Ct.
- Road construction costs will increase at 4% per year.
- Additional funding will come from a \$3.9 million 10-year bond at 3.5% interest in 2025.

Special Assessment District 1:

SAD 1 will be established in 2025 and will include all lots on Bristol Lane, Sager Ct, Bristol Ct, and Britner Ct. Road construction will take place in 2025. There are 67 lots in SAD 1. Construction costs will be \$3,848,763. There is not enough money in the general fund to pay for this work without additional funding. A \$3.9 million 10-year bond at 3.5% interest will be issued

Special Assessment District 2:

SAD 2 will be established in 2027 and will include all lots on Bingham Lane, Old Orchard Trail, Hickory Hollow, Shagwood and Fromm Ct. Construction will take place in 2027. There are 85 lots in SAD 2. Construction costs will be \$1,726,231.

Special Assessment District 3:

SAD 3 will be established in 2028 and will include all lots on Bingham Road and Timber Trail (there is only 1 lot on Timber Trail). Construction costs will be \$1,809,131. There are 37 lots in SAD 3. Funding from the major road fund can now be used.

The table below shows the detail of each of the SADs and cost of construction at current estimates.

Road Name	SAD	Road Surface	Short Term/PM	Cost per Foot	Last Resurfacing	PASER Rating	Year for Rehabilitation
Sager Ct	SAD 1	Asphalt	\$ 368,363	\$ 530	2005	3	2025
Britner Ct	SAD 1	Asphalt	\$ 373,725	\$ 562	2005	3	2025
Bristol Ct	SAD 1	Asphalt	\$ 782,925	\$ 510	2005	3	2025
Bristol Lane	SAD 1	Asphalt	\$ 2,323,750	\$ 581	2005	3 and 4	2025
			\$ 3,848,763				
Bingham Lane	SAD 2	Asphalt	\$ 493,033	\$ 132	2008	4	2027
Old Orchard Trail	SAD 2	Asphalt	\$ 333,244	\$ 131	2009	3	2027
Hickory Hollow	SAD 2	Asphalt	\$ 201,326	\$ 229	2005	3	2027
Shagwood	SAD 2	Asphalt	\$ 350,021	\$ 197	2009	3	2027
Fromm Ct	SAD 2	Asphalt	\$ 218,374	\$ 161	2010	4	2027
			\$ 1,595,998				
Bingham Road	SAD 3	Asphalt	\$ 1,467,464	\$ 278	2003	4	2028
Timber Trail	SAD 3	Asphalt	\$ 140,847	\$ 64	NEVER	1	2028
			\$ 1,608,311				

The table below is the financial model using the above assumptions.

Year	Millage Revenue at 1.8 mill increase and Taxable Value Increase of 2.5% per year	General Fund with Annual Interest Rate of 2.0%	Act 51	Per Lot Assessment	Total Assessment Per Year	\$3,900,000 10 year Bond at 3.5% Interest	Interest	Principal	Remaining Principal	Expenditure (not incl. maint)
2024		\$ 2,759,980		\$ -	\$ -	\$ -				\$ -
2025	\$ 351,668	\$ 3,229,601	\$ 60,000	\$ 750	\$ 50,250	\$ 3,900,000	\$ 106,860	\$ -	\$ 3,900,000	\$ 3,848,763
2026	\$ 360,460	\$ 3,635,086	\$ 60,000	\$ 750	\$ 50,250		\$ 136,500	\$ -	\$ 3,900,000	\$ -
2027	\$ 369,471	\$ 2,362,143	\$ 60,000	\$ 750	\$ 114,000		\$ 136,500	\$ -	\$ 3,900,000	\$ 1,726,231
2028	\$ 378,708	\$ 1,016,910	\$ 60,000	\$ 750	\$ 141,750		\$ 136,500	\$ -	\$ 3,900,000	\$ 1,809,131
2029	\$ 388,176	\$ 1,499,742	\$ 60,000	\$ 750	\$ 141,750		\$ 136,500	\$ -	\$ 3,900,000	\$ -
2030	\$ 397,880	\$ 2,002,129	\$ 60,000	\$ 750	\$ 141,750		\$ 136,500	\$ -	\$ 3,900,000	\$ -
2031	\$ 407,827	\$ 2,524,711	\$ 60,000	\$ 750	\$ 141,750		\$ 136,500	\$ -	\$ 3,900,000	\$ -
2032	\$ 418,023	\$ 3,068,143	\$ 60,000	\$ 750	\$ 141,750		\$ 136,500	\$ -	\$ 3,900,000	\$ -
2033	\$ 428,473	\$ 3,633,104	\$ 60,000	\$ 750	\$ 141,750		\$ 136,500	\$ -	\$ 3,900,000	\$ -
2034	\$ -	\$ 3,772,321	\$ 60,000	\$ 750	\$ 141,750		\$ 136,500	\$ -	\$ 3,900,000	\$ -
2035	\$ -	\$ (114,933)	\$ 60,000	\$ 750	\$ 91,500		\$ 136,500	\$ 3,900,000	\$ -	\$ -
2036	\$ -	\$ 37,298	\$ 60,000	\$ 750	\$ 91,500		\$ -	\$ -	\$ -	\$ -
2037	\$ -	\$ 127,549	\$ 60,000	\$ 750	\$ 27,750		\$ -	\$ -	\$ -	\$ -

Observations:

- All Bingham Farms residents and commercial property owners will incur a 1.8 millage increase in the taxable value of their properties for 9 years beginning in 2025 and ending in 2033.
- The bond of \$3.9 million will be issued in 2025 and will be fully paid back in 2035.
- Assessments continue for 10 years beginning the year the SAD is created and ending 10 years later.
- The 3 SAD's will collect \$1,417,500 over a 13-year period from 2025 – 2037. These assessments will be paid by the residents in the SADs who will receive the direct benefit of road construction. There are approximately 189 residences in the SADs and almost 500 residences in all of Bingham Farms plus commercial property owners.
- At the end of all construction, the payback of the bond, and the end of the assessment period in 2037, there will be \$127,549 in the general fund.
 - Note that using a 1.8 millage increase, the general fund will have a negative balance of (\$114,933) in 2035 when the bond is paid off.

We believe this to be fair approach to improving the roads in Bingham Farms while considering that more than 50% of the Bingham Farms residents live on private roads.