CITY OF NOVI CITY COUNCIL
MAY 18, 2020

SUBJECT: Adoption of a resolution requesting the Michigan Department of Transportation (MDOT) include the existing bridge on 9 Mile Road over Thornton Creek in the State Local Bridge Program List for Replacement. If MDOT selects this bridge, the City of Novi will accept 100% of the design engineering costs and 5% of the total construction cost.

SUBMITTING DEPARTMENT: Department of Public Works, Engineering Division

BACKGROUND INFORMATION: The City of Novi has retained OHM Advisors to complete the 2018 Annual Bridge Inspection of Twelve City-owned and maintained bridges. OHM re-inspected the bridge on 9 Mile Road over Thornton Creek in 2020 since previously it was rated in poor condition. Based on the recent inspection, OHM has recommended the bridge on 9 Mile Road over Thornton Creek likely needs removal and replacement in the next 5-7 years.

This bridge qualifies as a candidate for the Michigan Department of Transportation (MDOT) Local Bridge Program for replacement. MDOT is currently accepting applications for the (FY 2023) Local Bridge Program. OHM would submit an application to MDOT to include this bridge in the Local Bridge Program. If the bridge is selected, the City would only be responsible for 5% of the construction costs. This project is currently estimated at $1,285,000. The City would be responsible for 100% of the associated design engineering fees in the amount of $83,525 (6.5% of $1,285,000). The estimated construction cost the City would be responsible for is $64,250 (5% of $1,285,000).

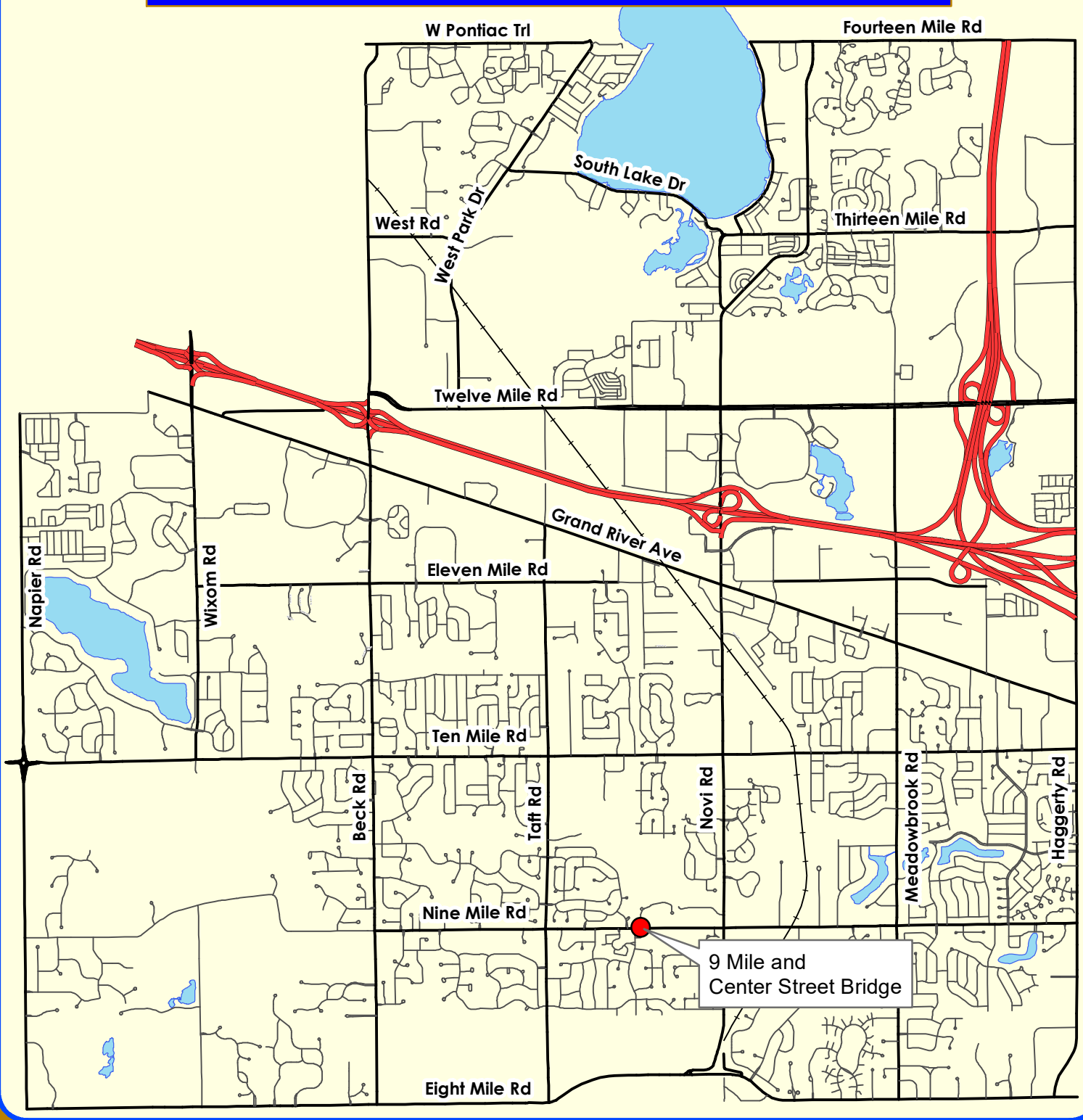
As part of the application process, the applicant is required to provide a current resolution, signed and dated, from the governing board supporting the project. The adoption of the proposed resolution would demonstrate to MDOT that City Council supports the replacement of the bridge and will do all that is reasonably necessary in order to accomplish this effort. Any application not containing a signed resolution will be considered incomplete and will be rejected.

The City Attorney has reviewed the resolution and sees no legal impediment (Beth Saarela, May 6, 2020).

RECOMMENDED ACTION: Adoption of Resolution requesting the Michigan Department of Transportation (MDOT) include the existing bridge on 9 Mile Road over Thornton Creek in the State Local Bridge Program List for Replacement. If MDOT selects this bridge, the City of Novi will accept 100% of the design engineering costs and 5% of the total construction cost.

Candidate for MDOT Bridge Program Funding

Location Map



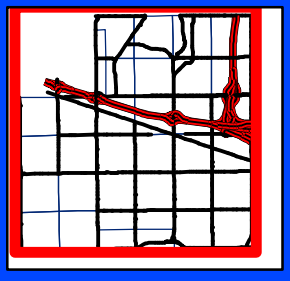
Map Author: Joseph Akers
Date: April 1, 2019
Project: 9 Mile Bridge over Thornton Creek
Version: 1

Amended By:
Date:
Department:

MAP INTERPRETATION NOTICE

Map information depicted is not intended to replace or substitute for any official or primary source. This map was intended to meet National Map Accuracy Standards and use the most recent, accurate sources available to the people of the City of Novi. Boundary measurements and area calculations are approximate and should not be construed as survey measurements performed by a licensed Michigan Surveyor as defined in Michigan Public Act 132 of 1970 as amended. Please contact the City GIS Manager to confirm source and accuracy information related to this map.

● Proposed Bridge Candidate



City of Novi
Engineering Division
Department of Public Works
26300 Lee BeGole Drive
Novi, MI 48375
cityofnovi.org

Feet
0 850 1,700 3,400 5,100

1 inch = 4,235 feet

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ROSATI | SCHULTZ
JOPPICH | AMTSBUECHLER

May 6, 2020

Ben Croy, City Engineer
City of Novi
Department of Public Works
Field Services Complex
26300 Lee BeGole Drive
Novi, MI 48375

Re: MDOT Local Bridge Program – Nine Mile Over Thornton Creek

Dear Mr. Croy:

You have indicated that the City will be resubmitting its application for participation in MDOT's 2020 Local Bridge Program using the same Resolution as approved for the 2019 submittal. We previously reviewed and approve use of the proposed Resolution Requesting that the Michigan Department of Transportation Include the Bridge on 9 Mile Road Over Thornton Creek in the State Local Bridge Program List for Preventative Maintenance.

The Resolution is provided for the limited purpose of acknowledging that the City agrees pay 5% of the bridge replacement cost and 100% of the design and construction engineering cost in the event that a grant is awarded by MDOT.

Based on the limited purpose of the Resolution, we see no legal impediment to City Council approving the enclosed version of the Resolution.

If you have any questions regarding the above, please do not hesitate to contact me.

Very truly yours,

ROSATI SCHULTZ JOPPICH
& AMTSBUECHLER PC

Elizabeth Kudla Saarela

Enclosure
C: Cortney Hanson, Clerk (w/Enclosure)
Jeffrey Herczeg, Director of Public Works (w/Enclosure)
Thomas R. Schultz, Esquire (w/Enclosure)

MICHIGAN DEPARTMENT OF TRANSPORTATION

STR 14274 — CULVERT SAFETY INSPECTION REPORT

Facility	Latitude / Longitude	MDOT Structure ID	Structure Condition
9 MILE ROAD	42.4519 / -83.4841	634489000010C02	Poor Condition(4)
Feature	**Length / Width / Spans**	**Owner**	
THORNTON CREEK	26.6 / 0 / 2	City: NOVI(4890)	
Location	**Built / Recon. / Paint / Ovly.**	**TSC**	**Operational Status**
0.5 MI W OF NOVI RD	1970 / / /	Oakland(23)	A Open, no restriction(A)
Region / County	**Material / Design**	**Last NBI Inspection**	**Scour Evaluation**
Metro(7) / Oakland(63)	3 Steel / 19 Culvert	12/18/2019 / XKIG	8 Stable Above Footing

CULVERT INSPECTION — XKIG

Inspector Name	Agency / Company Name	Insp. Freq.	Insp. Date
Adam Rychwalski	Orchard, Hiltz & McCliment Inc	12	12/18/2019

GENERAL NOTES

Adjacent CMP arch pipe approximately 280' long each at heavy skew to 9 Mile road. Heavy corrosion and deterioration in first 40-70 feet of each pipe from inlet. Pipe shape change from CMP arch to CMP ellipse leaving exposed joint. Several blind taps with heavy corrosion at taps. Rust and scaling along the waterline for full length with the exception of the last 30 feet or so which appears to be new pipe. Large area of deflected pipe in east pipe at approximately 166' in from inlet. detailed inspection is difficult without robotics due to low rise of pipe. Deflection in north pipe approximately 25 feet from inlet and in south pipe approximately 24 feet from inlet.

Reason for Delayed Insp.	Comments
3 Scheduling	Scheduling issues delayed inspection

NBI INSPECTION

	01/01	11/18	12/19	
1. Culvert Rating (SIA-62)		4	4	(12/19) (11/18) (01/01)
2. Channel (SIA-61)		6	6	Upstream and downstream ends are aligned with channel. there is a 45 degree kink in the pipe approximately 30' from outlet. upstream end has rock ladder controlling stream profile. (12/19) Upstream and downstream ends are aligned with channel. there is a 45 degree kink in the pipe approximately 30' from outlet. upstream end has rock ladder controlling stream profile. (11/18) (01/01)
3. Scour		7	7	armoring at both ends. no scour noted. full invert on pipe throughout. (12/19) armoring at both ends. no scour noted. (11/18) (01/01)

AASHTO ELEMENTS — (English Units)

Element Number	Element Name	Total Quantity	Unit	Good CS1	Fair CS2	Poor CS3	Severe CS4
Culvert							
240	Steel Culvert	560	ft	60	350	140	10
				11%	62%	25%	2%

Adjacent CMP arch pipe approximately 280' long each at heavy skew to 9 Mile road. Heavy corrosion and deterioration in first 40-70 feet of each pipe from inlet. Pipe shape change from CMP arch to CMP ellipse leaving exposed joint subject to attacking water from normal flow. Several blind taps with heavy corrosion at taps. Rust and scaling along the waterline for full length with the exception of the last 30 feet or so which appears to be new pipe. Large area of deflected pipe in east pipe at approximately 166' in from inlet. detailed inspection is difficult without robotics due to low rise of pipe. Robotic inspection is still difficult due to small riprap that has washed into pipe. Deflection in north pipe approximately 25 feet from inlet and in south pipe approximately 24 feet from inlet.

Element Number	Element Name	Total Quantity	Unit	Good CS1	Fair CS2	Poor CS3	Severe CS4
Scour Countermeasure							
830	Plain Riprap	400	sq.ft	400	0	0	0
				100%	0%	0%	0%

new riprap at outlet in good condition. New riprap and slope paving at inlet in good condition.

837	Other Scour Protect	20	ft	20	0	0	0
				100%	0%	0%	0%

Slope paving at upstream end has been replaced.

STR 14274 CULVERT SAFETY INSPECTION REPORT

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9 MILE ROAD	42.4519 / -83.4841	634489000010C02	Poor Condition(4)
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Metro(7) / Oakland(63)	3 Steel / 19 Culvert	12/18/2019 / XKIG	8 Stable Above Footing

MISCELLANEOUS

Guard Rail

Item	Rating
36A. Bridge Railings	N
36B. Transitions	N
36C. Approach Guardrail	N
36D. Approach Guardrail Ends	N

Other Items

Item	Rating
71. Water Adequacy	6
72. Approach Alignment	4
Special Insp. Equipment	9
Underwater Insp. Method	1

RECOMMENDATIONS & ACTION ITEMS

Recommendation Type	Priority	Description
Culvert Repl.	H	Replace culvert due to poor condition, pipe damage, pipe alignment.

MICHIGAN DEPARTMENT OF TRANSPORTATION

STR 14274 — STRUCTURE INVENTORY AND APPRAISAL

Facility	Latitude / Longitude	MDOT Structure ID	Structure Condition
9 MILE ROAD	42.4519 / -83.4841	634489000010C02	Poor Condition(4)
Feature	**Length / Width / Spans**	**Owner**	
THORNTON CREEK	26.6 / 0 / 2	City: NOVI(4890)	
Location	**Built / Recon. / Paint / Ovly.**	**TSC**	**Operational Status**
0.5 MI W OF NOVI RD	1970 / / /	Oakland(23)	A Open, no restriction(A)
Region / County	**Material / Design**	**Last NBI Inspection**	**Scour Evaluation**
Metro(7) / Oakland(63)	3 Steel / 19 Culvert	12/18/2019 / XKIG	8 Stable Above Footing

Bridge History, Type, Materials

27 - Year Built	1970	
106 - Year Reconstructed		
202 - Year Painted		
203 - Year Overlay		
43 - Main Span Bridge Type	3	19
44 - Appr Span Bridge Type		
77 - Steel Type		
78 - Paint Type		
79 - Rail Type	0	
80 - Post Type		
107 - Deck Type	N	
108A - Wearing Surface	6	
108B - Membrane	N	
108C - Deck Protection	0	

Structure Dimensions

34 - Skew	64
35 - Struct Flared	N
45 - Num Main Spans	2
46 - Num Apprs Spans	0
48 - Max Span Length	12.2
49 - Structure Length	26.6
50A - Width Left Curb/SW	0
50B - Width Right Curb/SW	0
33 - Median	0
51 - Width Curb to Curb	0
52 - Width Out to Out	0
112 - NBIS Length	Y

Inspection Data

90 - Inspection Date	12/18/2019	
91 - Inspection Freq	12	
92A - Frac Crit Req/Freq	N	
93A - Frac Crit Insp Date		
92B - Und Water Req/Freq	N	
93B - Und Water Insp Date		
92C - Oth Spec Insp Req/Freq	N	
93C - Oth Spec Insp Date		
92D - Fatigue Req/Freq	N	
93D - Fatigue Insp Date		
176A - Und Water Insp Method	1	
58 - Deck Rating	N	
58A/B - Deck Surface/Bottom		
59 - Superstructure Rating	N	
59A - Paint Rating		
60 - Substructure Rating	N	
61 - Channel Rating	6	
62 - Culvert Rating	4	

Navigation Data

38 - Navigation Control	
39 - Vertical Clearance	0
40 - Horizontal Clearance	0
111 - Pier Protection	
116 - Lift Brdg Vert Clear	0

Route Carried By Structure(ON Record)

5A - Record Type	1	
5B - Route Signing	5	
5C - Level of Service	1	
5D - Route Number	00000	
5E - Direction Suffix	0	
10L - Best 3m Unclr-Lt	0	0
10R - Best 3m Unclr-Rt	0	0
PR Number		
Control Section		
11 - Mile Point	0	
12 - Base Highway Network	0	
13 - LRS Route-Subroute	0000006336 03	
19 - Detour Length	4	
20 - Toll Facility	3	
26 - Functional Class	16	
28A - Lanes On	2	
29 - ADT	8260	
30 - Year of ADT	2014	
32 - Appr Roadway Width	24	
32A/B - Ap Pvt Type/Width	4	24
42A - Service Type On	1	
47L - Left Horizontal Clear	0.0	
47R - Right Horizontal Clear	24.0	
53 - Min Vert Clr Ov Deck	99	99
100 - STRAHNET	0	
102 - Traffic Direct	2	
109 - Truck %	0	
110 - Truck Network	0	
114 - Future ADT	9500	
115 - Year Future ADT	2034	
Freeway	0	

Structure Appraisal

36A - Bridge Railing	N
36B - Rail Transition	N
36C - Approach Rail	N
36D - Rail Termination	N
67 - Structure Evaluation	4
68 - Deck Geometry	N
69 - Underclearance	N
71 - Waterway Adequacy	6
72 - Approach Alignment	4
103 - Temporary Structure	
113 - Scour Criticality	8

Miscellaneous

37 - Historical Significance	5
98A - Border Bridge State	
98B - Border Bridge %	0
101 - Parallel Structure	N
EPA ID	
Stay in Place Forms	
143 - Pin & Hanger Code	0
148 - No. of Pin & Hangers	0

Route Under Structure (UNDER Record)

5A - Record Type		
5B - Route Signing		
5C - Level of Service		
5D - Route Number		
5E - Direction Suffix		
10L - Best 3m Unclr-Lt		
10R - Best 3m Unclr-Rt		
PR Number		
Control Section		
11 - Mile Point		
12 - Base Highway Network		
13 - LRS Route-Subroute		
19 - Detour Length		
20 - Toll Facility		
26 - Functional Class		
28B - Lanes Under		
29 - ADT		
30 - Year of ADT		
42B - Service Type Under	5	
47L - Left Horizontal Clear		
47R - Right Horizontal Clear		
54A - Left Feature		
54B - Left Underclearance	99	99
54C - Right Feature		
54D - Right Clearance	99	99
Under Clearance Year	0	
55A - Reference Feature	N	
55B - Right Horiz Clearance	0	
56 - Left Horiz Clearance	0	
100 - STRAHNET		
102 - Traffic Direct		
109 - Truck %		
110 - Truck Network		
114 - Future ADT		
115 - Year Future ADT		
Freeway		

Proposed Improvements

75 - Type of Work		
76 - Length of Improvement		
94 - Bridge Cost		
95 - Roadway Cost		
96 - Total Cost		
97 - Year of Cost Estimate		

Load Rating and Posting

31 - Design Load	0		
41 - Open, Posted, Closed	A		
63 - Fed Oper Rtg Method	6		
64F - Fed Oper Rtg Load	2.03		
64MA - Mich Oper Rtg Method	6		
64MB - Mich Oper Rtg	3.61		
64MC - Mich Oper Truck	19		
65 - Inv Rtg Method	6		
66 - Inventory Load	1.22		
70 - Posting	5		
141 - Posted Loading			
193 - Overload Class	A		N

STR 14274	WORK RECOMMENDATIONS		
Facility	**Latitude / Longitude**	**MDOT Structure ID**	**Structure Condition**
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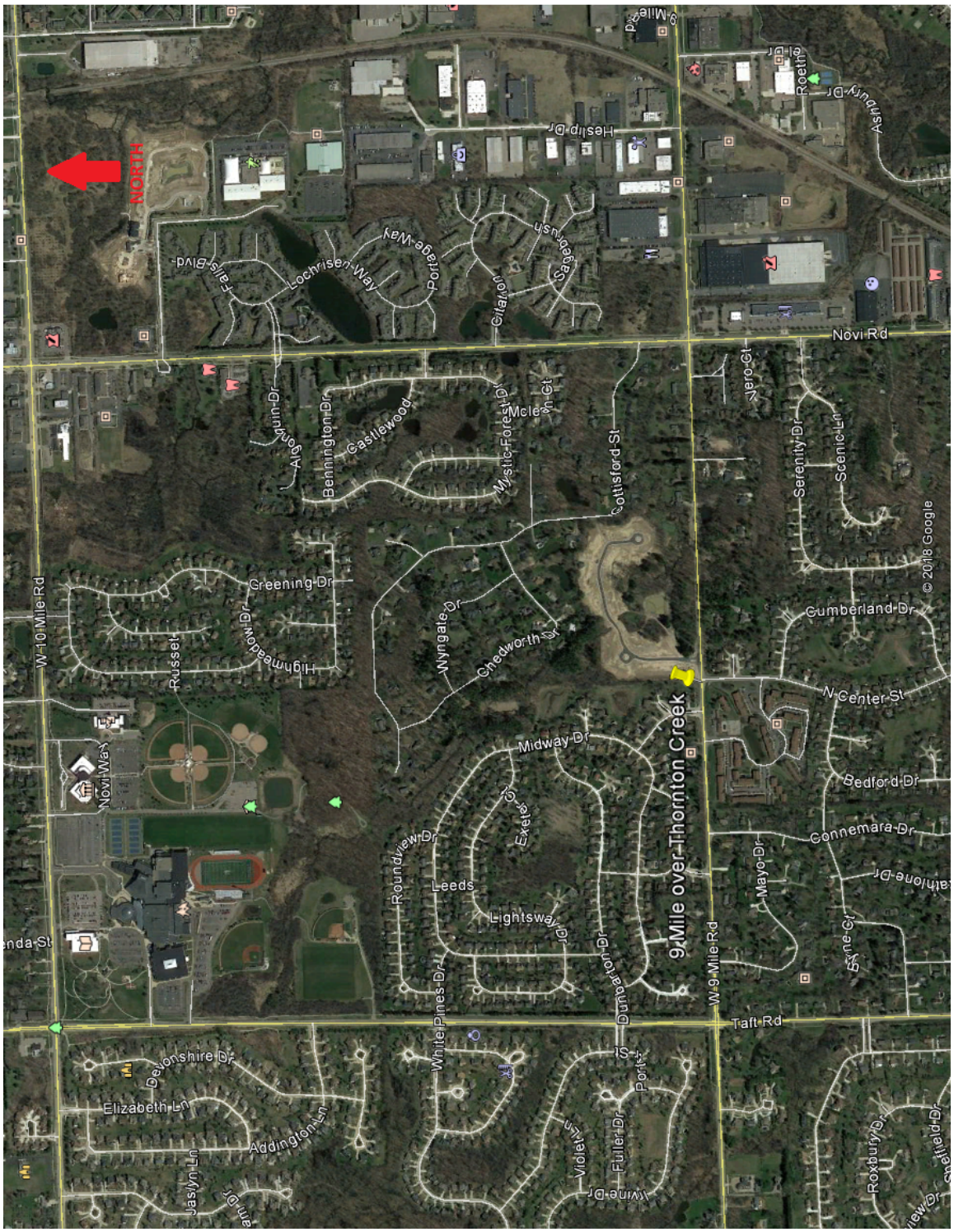
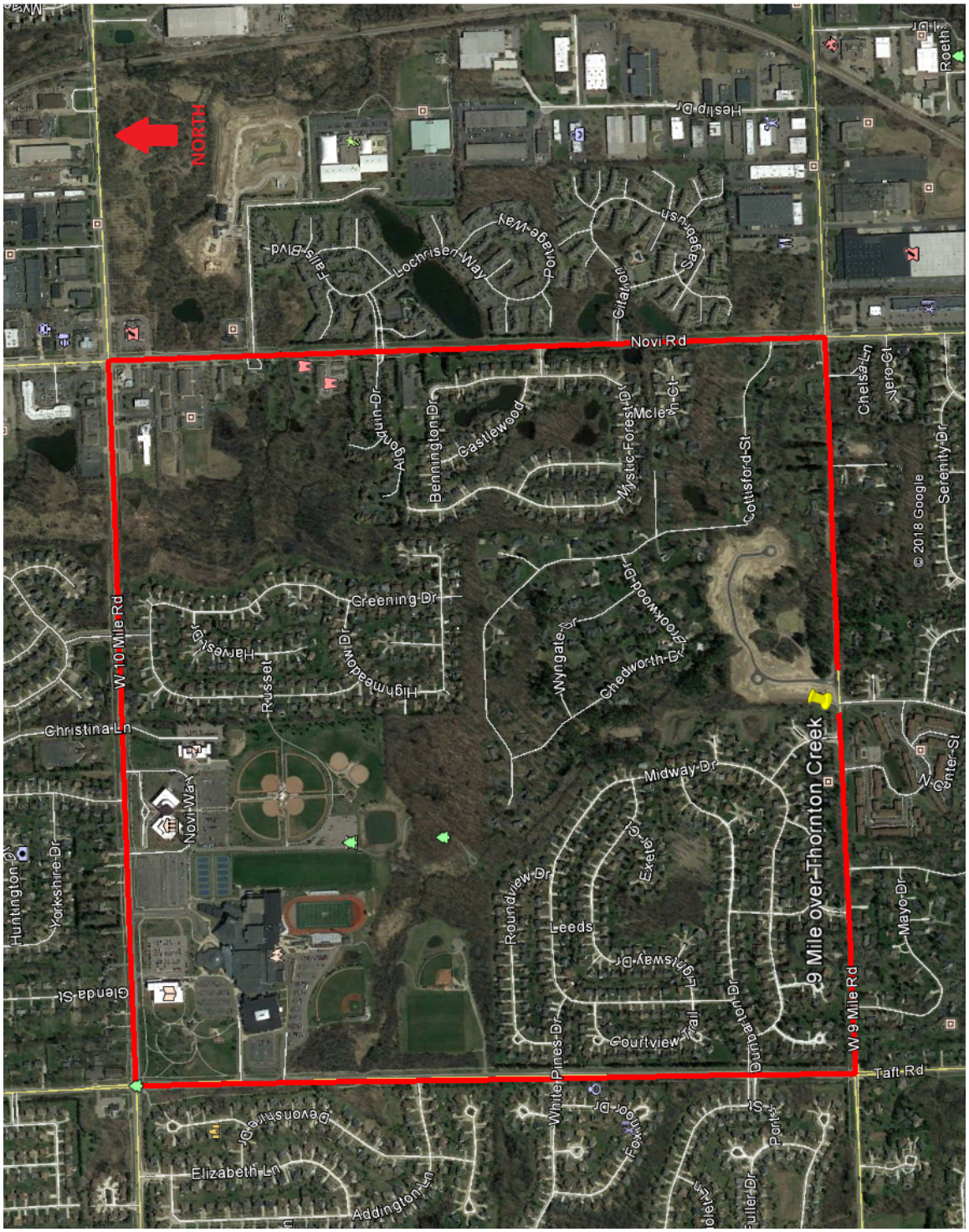
WORK RECOMMENDATIONS XKIG

2a. Situation Map



2b. Detour Map



9 Mile Rd to Novi Rd
To 10 Mile Rd
To Taft Rd
To 9 Mile Rd

Detour Length: 3.97 Miles

3. Photographs

South end

North pipe damage

North pipe damage

North pipe damage

South pipe out of round

Patch and surface condition at kink in neighborhood entrance

4. Application Requirements for 9 Mile Road over Thornton Creek

A. Local Agency Contact Person

Ben Croy, PE
City Engineer
City of Novi
26300 Lee BeGole Drive
Novi, MI 48375

B. The purpose of this application is for the replacement of the bridge for 9 Mile Road over Thornton Creek.

C. Economic Importance of the Structure

This structure is located approximately 2.8 miles west and 1 mile north of the interchange of I-275 and 8 Mile Road. 9 Mile Road is an east west road in Novi, servicing various neighborhoods, commercial and light industrial businesses, and schools in the area. The structure sees approximately 8,300 vehicles a day according to SEMCOG traffic counts.

9 Mile Road is used by the Novi School District for busing to its elementary, middle, and high schools. Novi High School is approximately 1 mile north of the structure and Thornton Creek Elementary is approximately 1 mile east of the structure on 9 mile road. Fire and police stations also use it to reach the homes and businesses in the area for emergencies.

Many light industrial businesses are located adjacent to the CSX railroad 1 mile east of the structure on 9 Mile Road. A commercial area is also located 0.5 miles east of the structure at the intersection of 9 Mile and Novi Roads.

The current structure is a twin barrel 64 inch wide by 42 inch tall corrugated metal pipe arch culvert. The two barrels are separated by 1 foot. The structure is at a severe skew of 64 degrees underneath 9 Mile Road. It also has a kink on the north side due to an extension being placed to re-route the culvert for a new subdivision entrance. The condition of the structure is poor and has approximately one foot of cover over the culvert. The two barrels have considerable damage resulting in the pipes being pushed inwards with large areas of rust due to minimal amount of cover. Additional areas are out of round and have been bent. There is significant rust at the waterline in areas. The bankfull width of the Thornton Creek is also wider than the existing structure which can result in erosion around the structure and overtopping.

Due to the poor condition, existing damage and bankfull width, it is recommended that it be removed and replaced. To increase the cover over the culverts to extend their life additional roadwork should be completed to raise the road.

D. If there is a current detour, what does it affect?

Currently the bridge is open to traffic and there is no detour.

E. If the structure were to be closed, what would the detour affect?

If the structure were to be closed, the commercial and light industrial areas on 9 Mile Road would be impacted due to traffic having to be detoured. The commercial area would lose business because of the additional travel time it would take to reach their location. The light industrial companies would have costs associated with longer delivery routes. Both of these impacts could result in economic harm to the area due to lost jobs. Local residents would also have to change their commuting routes. The increased route for all traffic will add to pollution, fuel costs, and lost productive time in traffic. Emergency services would also take longer to reach the neighborhoods as they would have to detour around the bridge. As every second matters in an emergency, this could lead to public safety concerns. School buses would have to change their routes to be less efficient, costing the school district money. As schools are already struggling with funding, this would further stress the school's budgets.

F. The structure is not currently closed.

G. Maintenance of the Structure

No known work has been done to the structure.

5. Estimated Rehabilitation Costs

Structure Replacement		
A.	Road Construction	$ 307,000.00
B.	Structure Construction	$ 978,000.00
	Total (A & B)	$ 1,285,000.00

For a breakdown of Construction costs, see Appendix A.

6. Priority List

1. **9 Mile Road**

7. Resolution

The resolution is attached in Appendix B.

8. Previous Applications

It is understood that all previous applications have been discarded and that this application will be used to select funding.

APPENDIX A

2020

LAP - BRIDGE COST ESTIMATE WORKSHEET

- CPM, REHAB, REPLACE -

REV. 2/1/2020

DATE: 3/30/2020

OWNER: NOVI | FISCAL YEAR: 2023 | ENGINEER: AJR

REGION: Metro | LENGTH: 26.6 | Out to Out WIDTH: 0.0 | Curb to Curb WIDTH: 24.0

TSC: Oakland | PR: 633603 | MP: 5.699 | STRUCTURE ID: 14274 | BRIDGE ID: N/A

LOCATION: 9 MILE ROAD over THORNTON CREEK

PRIMARY WORK ACTIVITY: Culvert Replacement | DECK AREA: N/A SFT | STR. TYPE: Steel

OTHER WORK: Approach work | CLEAR ROADWAY: 638 SFT | Culvert

WORK ACTIVITY	Michigan Bridge Design Manual	QUANTITY	UNIT	UNIT COST	TOTAL
NEW BRIDGE	(increase deck area based on design standards and hydraulic requirements)				
Single or Multiple Spans, Grade Separation	(add demo, approach, MOT)		SFT	$220.00 /SFT	
Single Span, Over Water Length < 100ft	(add demo, approach, MOT)		SFT	$350.00 /SFT	
Multiple Spans, Over Water Length > 100ft	(add demo, approach, MOT)		SFT	$220.00 /SFT	
Precast Culvert Length < 40ft	(add demo, approach, MOT)	280.0	FT	$2,000.00 /FT	$560,000
Precast Culvert Length < 40ft	(add demo, approach, MOT)	1,700.0	CYD	$50.00 /CYD	$85,000
NEW SUPERSTRUCTURE					
New Superstructure, Grade Separation	(incl. remove exist deck/super; add MOT & approach)		SFT	$170.00 /SFT	
New Superstructure, Over Water	(incl. remove exist deck/super; add MOT & approach)		SFT	$200.00 /SFT	
WIDENING					
Structure Widening, _____ ft	(incl. deck/super/sub widening, add approach transition)		SFT	$270.00 /SFT	
NEW DECK					
New Bridge Deck & Barrier	(incl. remove exist deck/railing, add approach, MOT)		SFT	$75.00 /SFT	
DEMOLITION					
Entire Structure, Grade Separation			SFT	$33.00 /SFT	
Entire Structure, Over Water			SFT	$46.00 /SFT	
Other (Culvert Removal		1.0	LSUM	$20,000.00 LSUM	$20,000
DECK REPAIR / TREATMENTS					
Bridge Railing Replacement	(incl. removal and replacement)		FT	$400.00 /FT	
Concrete Brush Block / Curb Patch	(incl. hand chipping and formwork)		FT	$24.00 /FT	
Concrete Barrier Patch	(incl. hand chipping and formwork)		SFT	$45.00 /SFT	
Concrete Deck Patch	(incl. hand chipping)		SFT	$30.00 /SFT	
Deep Overlay	(incl. joint repl & hydro)		SFT	$33.00 /SFT	
Epoxy Overlay	(incl. warranty)		SYD	$30.00 /SYD	
Expansion Joint Gland Replacement	(remove and replace elastomeric gland)		FT	$85.00 /FT	
Expansion Joint Replacement	(incl. removal)		FT	$600.00 /FT	
Full Depth Patch			SFT	$76.00 /SFT	
Healer / Sealer	(penetrates cracks in bridge deck)		SYD	$15.00 /SYD	
HMA Overlay with WP membrane			SYD	$53.00 /SYD	
Overlay Removal	(Epoxy: $8/syd | Latex: $16/syd | HMA: $7/syd)		SYD	$16.00 /SYD	
Reseal Bridge Joints			FT	$16.00 /FT	
Shallow Overlay	(incl. joint repl & hydro)		SFT	$22.00 /SFT	
SUPERSTRUCTURE REPAIR					
Bearing Realignment / Replacement	(incl. temporary supports)		EA	$5,000.00 EA	
Heat Straightening	(incl. clean and coat)		EA	$50,000.00 EA	
Pack Rust Repair	(greater than 3/8" separation)		FT	$500.00 /FT	
Paint - Complete	(incl. clean & coat)		SFT	$20.00 /SFT	
Paint - Partial / Spot / Zone	(incl. clean & coat - $20k minimum)		SFT	$40.00 /SFT	
PCI Beam End Blockout	(incl. temporary supports)		EA	$7,200.00 EA	
Pin & Hanger Replacement	(incl. temporary supports)		EA	$8,000.00 EA	
Structural Steel Repair	(based on 6ft length; for stiffeners use $1,200 ea)		EA	$3,000.00 EA	
SUBSTRUCTURE REPAIR					
Substructure Patching	(measured x 2) replace if repair area > 30%		CFT	$300.00 /CFT	
Substructure Replacement	(incl. temporary supports, excavation)		CFT	$180.00 /CFT	
Substructure Horizontal Surface Sealer			SYD	$40.00 /SYD	
Temporary Supports	(add $1,200 for ea steel beam - stiffeners)		EA	$2,500.00 EA	
MISCELLANEOUS					
Articulating Concrete Block System (ACB)			SYD	$150.00 /SYD	
Concrete Surface Coating			SYD	$28.00 /SYD	
Culvert Cleanout			FT	$30.00 /FT	
Epoxy Crack Injection	(structural crack repair)		FT	$50.00 /FT	
Metal Mesh Panels	(48" width, max 6'-6" length)		SFT	$20.00 /SFT	
Pressure Relief Joint	(use when approach concrete roadway exceeds 1,000ft)		FT	$100.00 /FT	
Riprap	(assume 10ft distance around perimeter of substructure)		SYD	$175.00 /SYD	
Silane Treatment	(penetrating sealer for concrete surfaces)		SFT	$4.50 /SFT	
Slope Protection Repairs			SYD	$100.00 /SYD	
Other	(Scour Counter Measures)	1.0	LSUM	$15,000.00 LSUM	$15,000
				STRUCTURE CONSTRUCTION BUDGET	$680,000
ROAD WORK					
Approach Pavement, 12" RC	(incl. removal; add curb, gutter, guardrail) 20' ea. end		SYD	$175.00 /SYD	
Approach Curb & Gutter	(incl. removal) 20' ea. quadrant		FT	$56.00 /FT	
Guardrail Anchorage to Bridge	(each quadrant)		EA	$1,600.00 /EA	
Guardrail	(incl. removal) < 200ft beyond reference line		FT	$28.00 /FT	
Guardrail Terminal	(each quadrant)		EA	$2,300.00 /EA	
Roadway Approach Work	(beyond approach pavement)		LSUM	LSUM	
HMA		770.0	TON	$90.00 /TON	$69,300
Pavement Removal		2,800.0	SYD	$10.00 /SYD	$28,000
Remove and Replace Curb and Gutter		1,200.0	FT	$30.00 /FT	$36,000
Utilities		1.0	LSUM	$30,000.00 LSUM	$30,000
TRAFFIC CONTROL	*Unit Cost to be determined by Region or TSC Traffic & Safety*				
Part Width Construction			LSUM	LSUM	
Crossovers			EA	$300,000.00 /EA	
Temporary Traffic Signals			set	$25,000.00 /set	
RR Flagging			LSUM	LSUM	
Detour		1.0	LSUM	$50,000.00 LSUM	$50,000
				RELATED ROAD/TRAFFIC CONSTRUCTION BUDGET	$213,300
CONTINGENCY	(10% - 20%) (use higher contingency for small projects)	20	%	$893,000.00	$179,000
MOBILIZATION	(estimate at 10%)	10	%	$1,072,000.00	$107,000
INFLATION	(assume 3% per year, beginning in 2021)	9	%	$1,179,000.00	$106,000
				(Does not include PE or CE) **TOTAL CONSTRUCTION BUDGET**	**$1,285,000**

CITY OF NOVI

COUNTY OF OAKLAND, MICHIGAN

RESOLUTION REQUESTING THAT THE MICHIGAN DEPARTMENT OF TRANSPORTATION INCLUDE THE BRIDGE ON 9 MILE ROAD OVER THORNTON CREEK IN THE STATE LOCAL BRIDGE PROGRAM LIST FOR REPLACEMENT

Minutes of a Meeting of the City Council of the City of Novi, County of Oakland, Michigan, held in the City Hall of said City on May 18, 2020, at 7 o'clock P.M. Prevailing Eastern Time.

PRESENT: Councilmembers_____

ABSENT: Councilmembers_____

The following preamble and Resolution were offered by Councilmember _____and supported by Councilmember _____.

WHEREAS; OHM Advisors, Consulting Engineers for the City of Novi, completed the 2018 annual inspection of twelve bridges in the City; and

WHEREAS; OHM Advisors, inspected the bridge on 9 Mile Road over Thornton Creek again in 2019; and

WHEREAS; based on the 2019 inspection, OHM Advisors prepared a 2019 Bridge Inspection Report for the bridge on 9 Mile Road over Thornton Creek; and

WHEREAS; the 2019 Bridge Inspection Report concludes that the bridge on 9 Mile Road over Thornton Creek is in need of replacement; and

WHEREAS; based on the findings and recommendations of OHM Advisors, the DPW Director recommends that City Council authorize OHM Advisors to submit the LAP Bridge Applications to the Michigan Department of Transportation for the bridge on 9 Mile Road over Thornton Creek on the Local Bridge Program for Replacement funding; and

WHEREAS; the City of Novi's cost participation amount would be 5% of the total cost and 100% of the design and construction engineering cost; and

WHEREAS; the Mayor and City Clerk are authorized to execute said resolution.

NOW THEREFORE, IT IS THEREFORE RESOLVED that the City of Novi is actively seeking financial participation to replace the bridge on 9 Mile Road over Thornton Creek and authorizes OHM Advisors to submit the LAP Bridge application to the Michigan Department of Transportation to include this bridge on the State Local Bridge Program List for Replacement, to make application for financial assistance from the State of Michigan and Federal Government and to do those things reasonably necessary or required in order to accomplish the replacement of this bridge.

AYES:

NAYS:

RESOLUTION DECLARED ADOPTED.

_____
Cortney Hanson, City Clerk

CERTIFICATION

I hereby certify that the foregoing is a true and complete copy of a resolution adopted by the City Council of the City of Novi, County of Oakland, and State of Michigan, at a regular meeting held this _____ day of _____, 2020, and that public notice of said meeting was given pursuant to and in full compliance with Act No. 267, Public Acts of Michigan, 1976, and that the minutes of said meeting have been kept and made available to the public as required by said Act.

_____
Cortney Hanson, City Clerk
City of Novi