CITY OF NOVI
Administrative ePacket
March 14, 2024

Public Safety (Police/Fire)

Public Safety Year-to-Date Statistics

Infrastructure (Roads/Water/Sewer)

Road Bond Recommendation - Herczeg

Economic Development (City Revenue/Job Growth)

Citizen-Focused Government (Shared Services/Customer Services)

Natural Areas & Features and Community Character (Community that Preserves)

Sakura East Proposed Pond Amenity - Bell

Fiscally Responsible Government (Maintain)

Parks, Recreation & Cultural Services (Enhance Services)

Capital Improvement Program

City Council Only or Confidential

Novi Public Safety

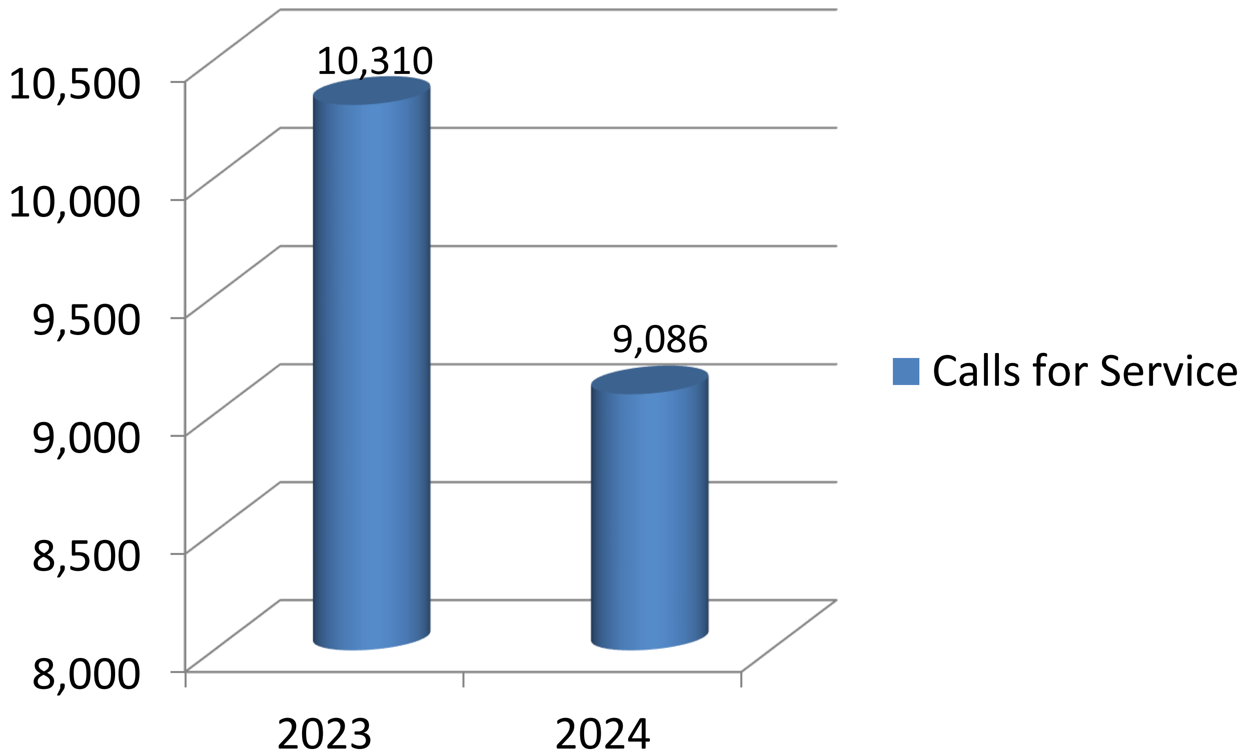
Police and Fire Departments 2024 v. 2023 Year-to-Date Statistics
January - February

March 2024

Part A Crime

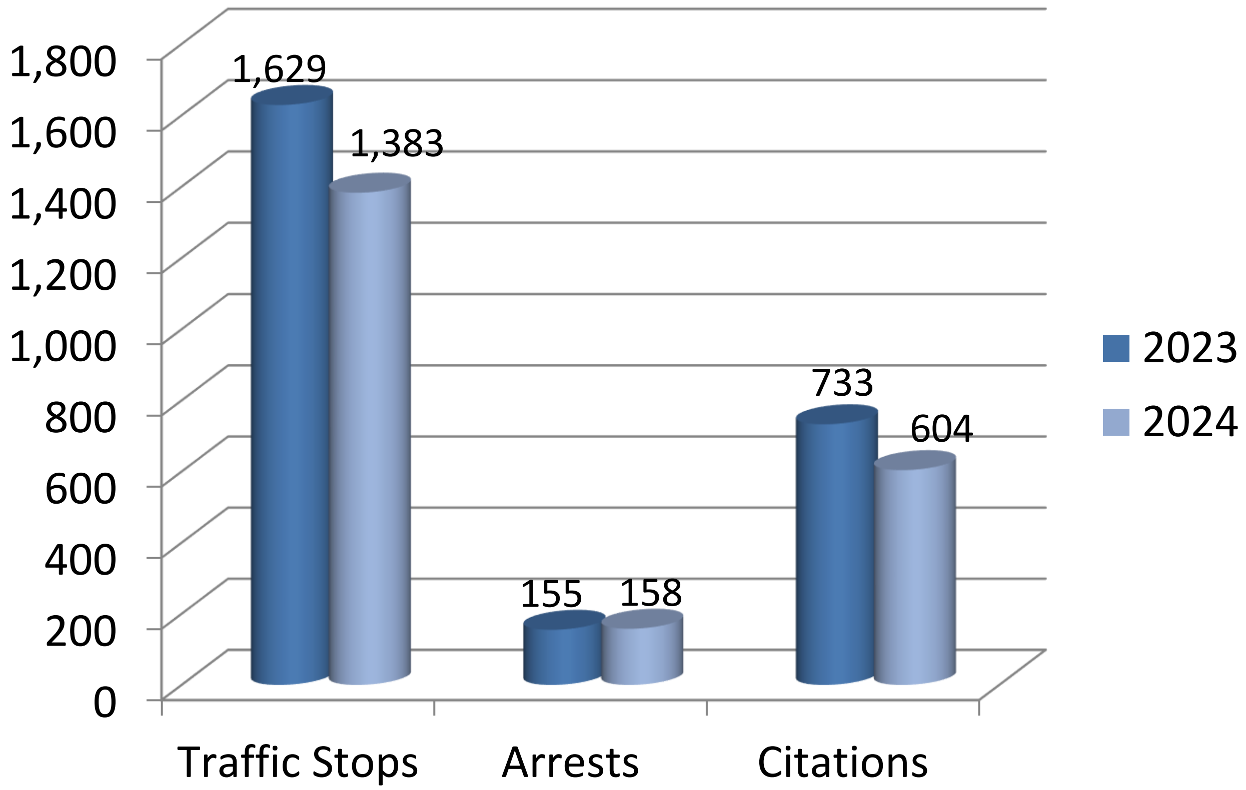
Description	2024	2023	% Change	Arrests/ EXC	% Cleared	24 YTD	23 YTD	% Change
Murder	0	0	No Change	0	No Change	0	0	No Change
Negligent Homicide	0	0	No Change	0	No Change	0	0	No Change
Kidnapping/Abduction (Parental)	0	0	No Change	0	No Change	0	0	No Change
Crim. Sexual Conduct	1	2	-50.00%	0	0.00%	2	2	0.00%
Robbery	0	0	No Change	0	No Change	1	0	N/C
Assault (Aggravated)	3	2	50.00%	2	66.67%	4	4	0.00%
Assault (Non-Aggravated)	15	24	-37.50%	14	93.33%	25	45	-44.44%
Threats/Stalking	3	1	200.00%	2	66.67%	6	5	20.00%
Arson	0	0	No Change	0	No Change	0	0	No Change
Extortion	0	0	No Change	0	No Change	0	0	No Change
Burglary	5	1	400.00%	1	20.00%	7	3	133.33%
Larceny	21	31	-32.26%	1	4.76%	40	48	-16.67%
Motor Vehicle Theft	5	5	0.00%	0	0.00%	13	12	8.33%
Forgery/Counterfeiting	4	1	300.00%	0	0.00%	4	1	300.00%
Fraud	7	11	-36.36%	1	14.29%	15	19	-21.05%
Retail Fraud	21	16	31.25%	12	57.14%	36	41	-12.20%
Embezzlement	1	2	-50.00%	0	0.00%	2	2	0.00%
R&C Stolen Property	0	0	No Change	0	No Change	0	0	No Change
Vandalism	4	7	-42.86%	1	25.00%	9	13	-30.77%
Narcotics	5	1	400.00%	5	100.00%	6	1	500.00%
Obscenity	0	0	No Change	0	No Change	0	0	No Change
Prostitution & Vice	0	0	No Change	0	No Change	0	0	No Change
Weapons	0	1	-100.00%	0	No Change	1	2	-50.00%
Animal Cruelty	0	0	No Change	0	No Change	0	0	No Change
Total Part A Incidents	95	105	-9.52%	39	41.05%	171	198	-13.64%

Police Total Calls for Service*

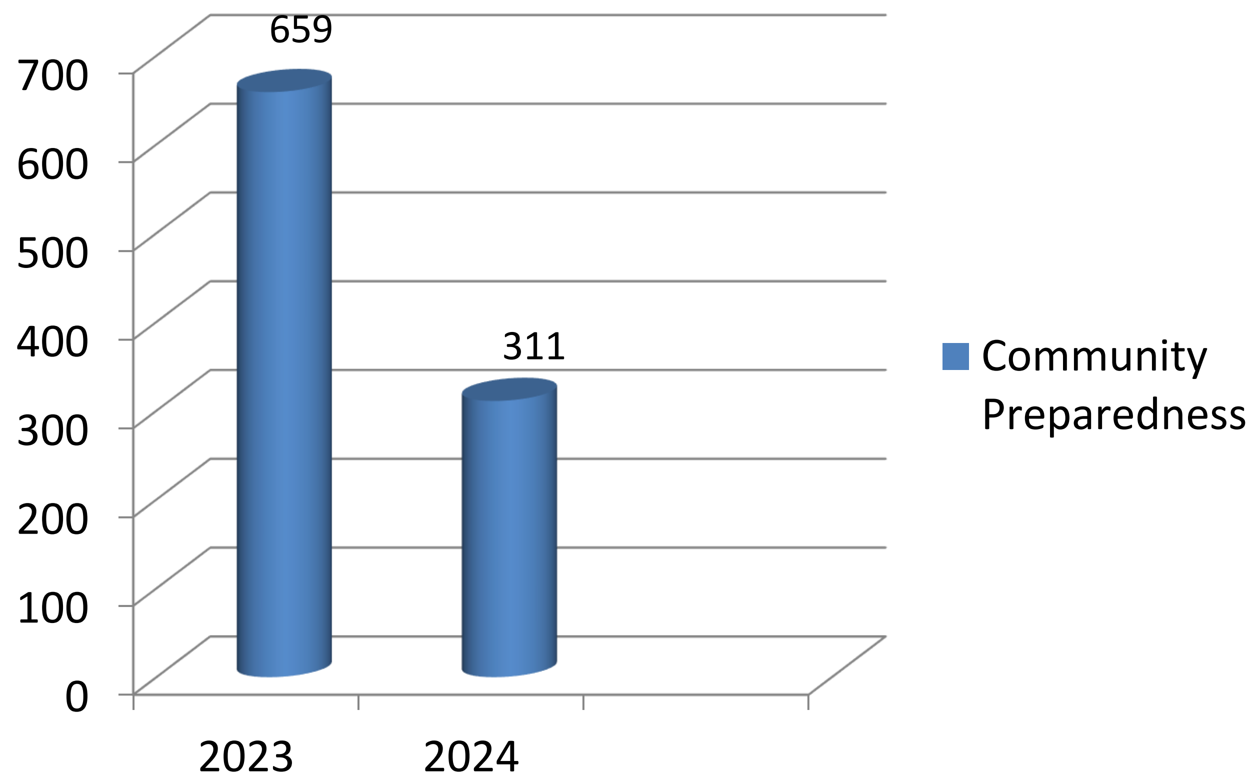


*includes all traffic stops, self initiated activity, routine and priority calls for service, etc.

Officer Productivity

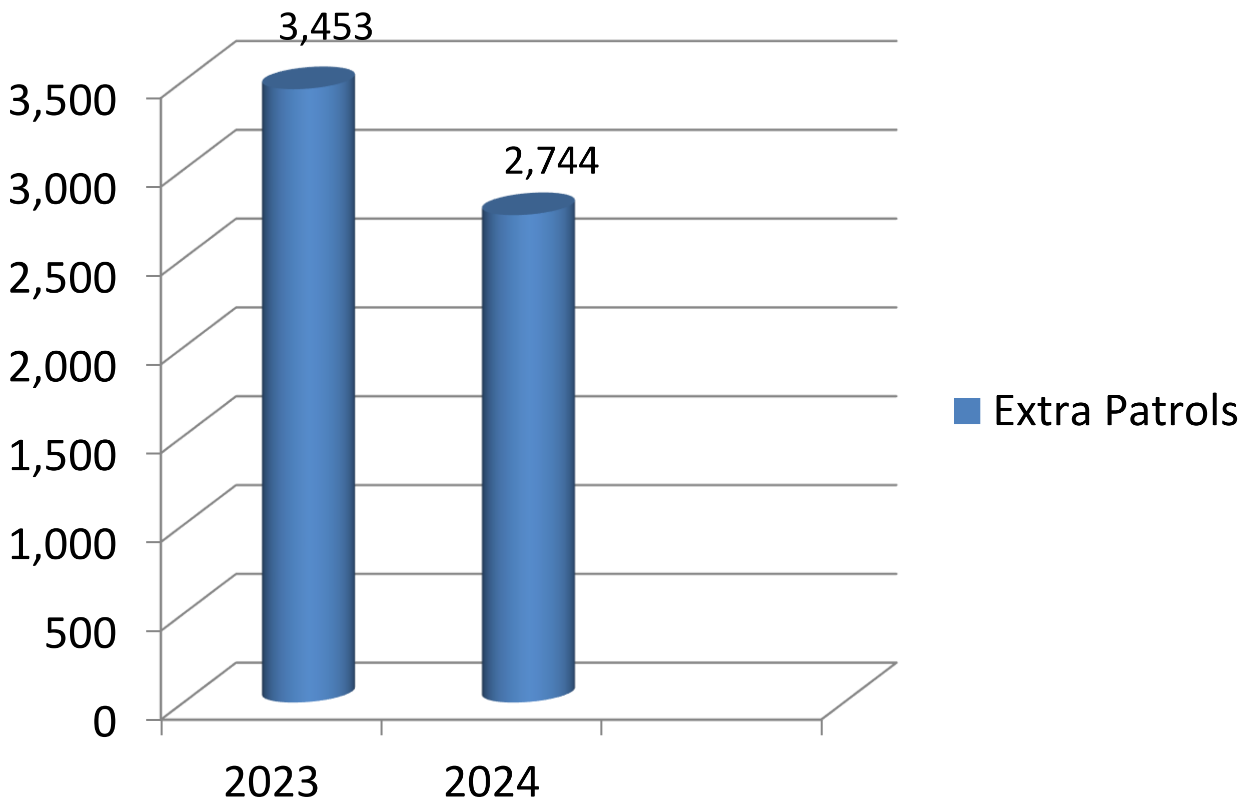


Community Preparedness Numbers* – Self Initiated



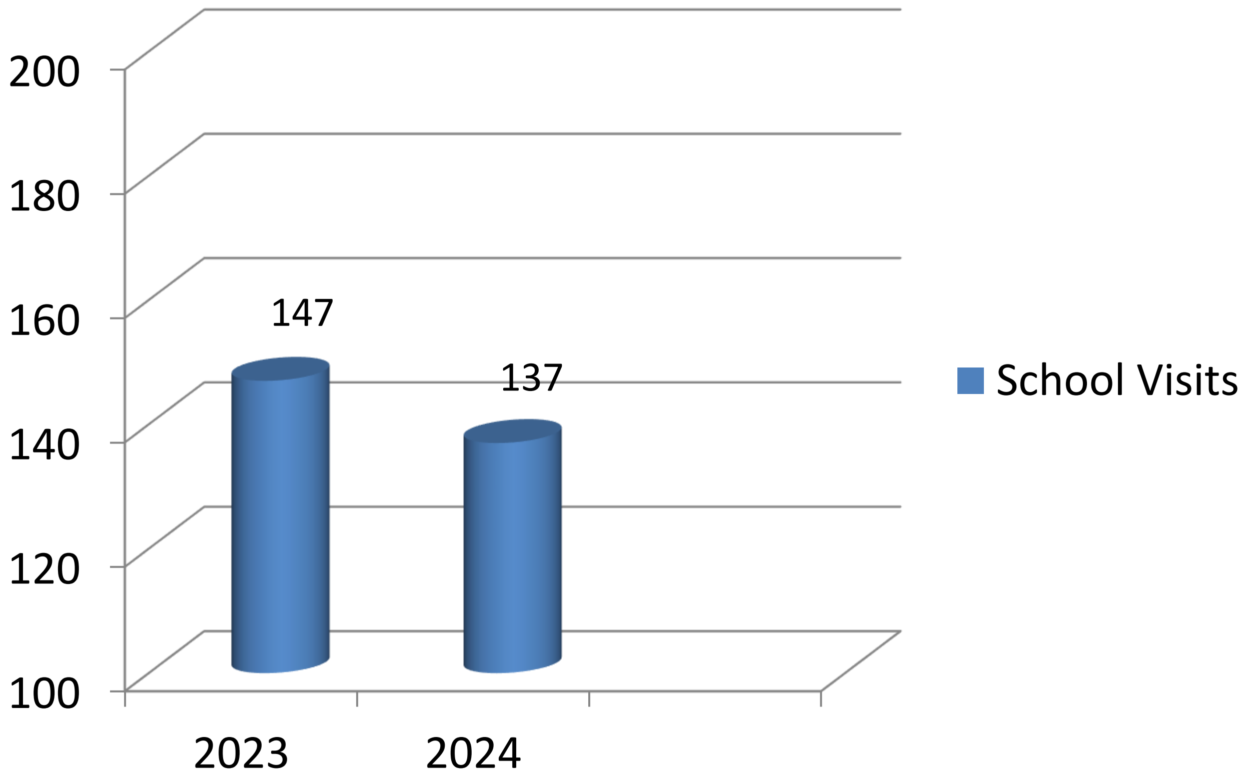
*Extra patrols at critical infrastructure (ie. ITC Transmission, US Energy Distribution, Ascension Providence Park Hospital, Water Treatment Facility, etc.) within the city.

Extra Patrol Numbers* – Self Initiated



*Officers providing additional patrols at various locations above and beyond routine patrol.

School Visit Numbers* – Self Initiated



*Additional patrols at area schools where officers typically walk inside.

Fire Priority Calls for Service
February 2024 v. 2023

INCIDENT ACTIVITY REPORT				
Summary Comparison YTD				
Priority Calls for Service				
Incident Type	2024	2023	Difference	% Change
Fires)	12	14	-2	-14%
EMS (Medicals, Rescues & PIAs)	919	907	12	1%
Hazardous Condition (Haz-Mat, Wires)	21	54	-33	-61%
Service Call (Pub.Assist, Unauth.Burn)	24	21	3	14%
Good Intent (Haz not found, CNX call)	33	26	7	27%
ılls	53	55	-2	-4%
Other (Inspections, Pub-Ed, Pub-Relations, Car Seats,	0	0	0	0%
TOTAL	1062	1077	-15	-1%

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Fire All Calls for Service
February 2024 v. 2023

INCIDENT ACTIVITY REPORT				
Summary Comparison Year End				
All Calls for Service				
Incident Type	2024	2023	Difference	% Change
Fire (All Fires)	13	16	-3	-19%
EMS (Medicals, Rescues & PIAs)	992	954	38	4%
Hazardous Condition (Haz-Mat, Wires)	37	77	-40	-52%
Service Call (Pub.Assist, Unauth.Burn)	174	136	38	28%
Good Intent (Haz not found, CNX call)	46	44	2	5%
False Calls	119	110	9	8%
Power Outage Invst.(Severe weather)	0	0	0	0%
Other (Inspections, Pub-Ed, Pub-Relations, Car Seats,	61	75	-14	-19%
TOTAL	1442	1412	30	2%

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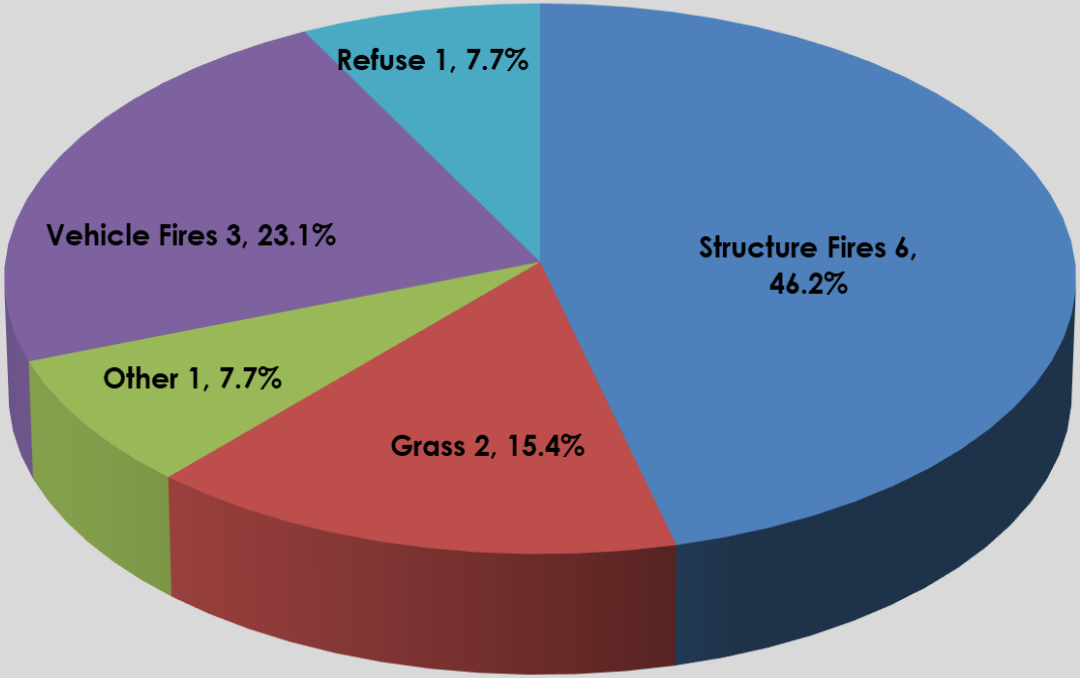
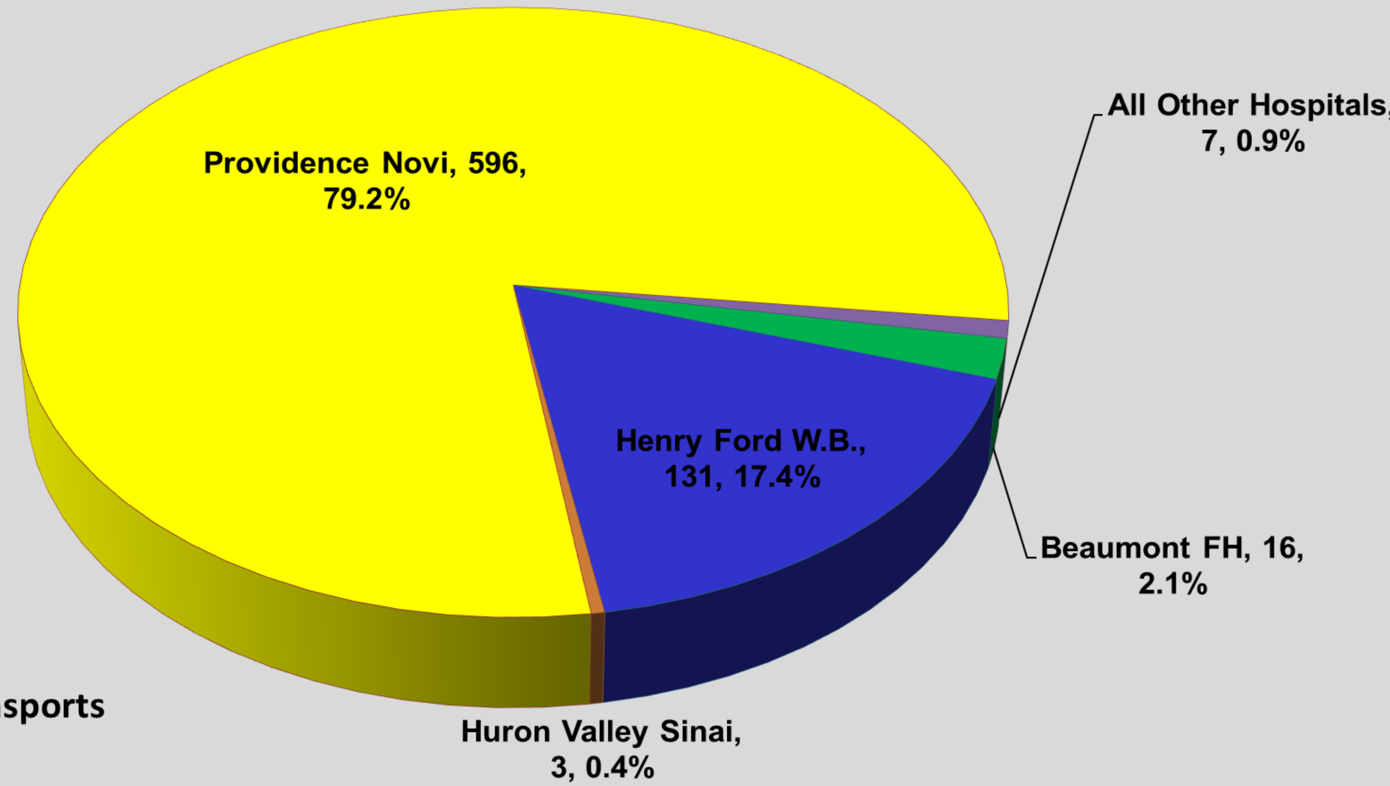
2024 YTD FIRES



TOTAL 13

Hospital Transports 2024



Total Transports 753

FIRE OPERATIONS AVERAGE RESPONSE TIMES
PRIORITY RESPONSES ONLY

TEAM / STATION	February 2024	Total Calls	2024 YTD	Total Calls	2023 YTD	Total Calls
TEAM 'A':						
STATION 1	4:15	87	4:25	204	4:51	215
STATION 2	4:42	86	4:43	183	4:54	164
STATION 3	5:07	28	4:51	65	5:06	59
STATION 4	5:10	20	5:10	55	4:50	89
TEAM 'A' AVERAGE:	4:48	221	4:47	507	4:55	527
TEAM 'B':						
STATION 1	4:48	89	5:11	198	4:56	195
STATION 2	5:39	85	5:50	180	5:27	181
STATION 3	5:14	44	5:54	90	5:42	84
STATION 4	6:37	31	6:19	59	6:18	72
TEAM 'B' AVERAGE:	5:34	249	5:48	527	5:35	532
TEAM. AVERAGE	5:11	470	5:17	1034	5:15	1059

MEMORANDUM

CITY OF NOVI
cityofnovi.org

TO: VICTOR CARDENAS, CITY MANAGER

FROM: JEFFREY HERCZEG, DIRECTOR OF PUBLIC WORKS
CARL JOHNSON, FINANCE DIRECTOR/TREASURER

SUBJECT: ROAD BOND RECOMMENDATION

DATE: MARCH 14, 2024

Mayor and Council –

Following up on the conversations and presentation during the Early Input Budget session as it pertains to bonding for Road Construction activities.
- Victor

On January 6, 2024, the City Council held an Early Input Budget Session to provide staff input on their goals and objectives for the **Budget, Capital Improvement Program (CIP)**, and several ***Transformative Projects.*** During the meeting the idea of a ***road bond*** to complete major road projects was discussed (attached) and supported by the City Council. The following memo provides an update and recommendation to execute the bond process.

The Early Input Session memo *Major Road Projects Update and Funding* (dated December 13, 2023) details the three major road projects recommended for a road bond.

- **12 Mile Road (Beck Road to Novi Road) 4 Lane Boulevard**
  - Road Commission for Oakland County (RCOC) project
  - City share ~$3.5M (~$10.5M advance construct funding required in FY 2026, ~$7M payback by FY 2028)
  - The City has already committed contractually to do this project but due to significant cost increases since the initial approval, the street funds do not have sufficient funds to advance fund the County's $7M and would need to use other funds cash for this loan without bond proceeds.

- **Beck Road (11 Mile to Grand River) 5 Lane Section**
  - ~$4.7M in federal funding must be obligated by September 2025
  - ~$10M total project costs

- **Crescent Boulevard connection to Lee BeGole Drive/ 11 Mile RAB or Grand River**
  - ~$7M connection to 11 Mile Road or ~$10M connection to Grand River (updated estimates attached)
  - Enhances Ring-Road concept; movement of traffic around one of the busiest intersections (Grand River & Novi)
  - Facilitates site development for either resale or future Public Safety facility needs

These projects have a total estimated cost of **~$22 - $25M**. Issuing a bond makes sense to meet the timelines of the 12 Mile Road project and Beck Road segment (which have federal obligation windows). The addition of the Crescent connection aligns with future considerations and allows construction to start now, which means the project will cost less (today's dollars). Staff anticipate that the Crescent connection (just to 11 Mile Road) will require a minimum of two years to initiate given current design, permitting, and lead times. Having the all the funding available also allows flexibility in bidding to achieve economies of scale.

Furthermore, executing projects of this magnitude within the next five years without additional funding would have a ripple effect on existing CIP road projects, some of which are tied to obligated federal funds. Per the *Road Report Refresh* memo (dated February 29, 2024), road funding is already stretched and falling short in relation to network conditions. Road funding is not going as far as in 2012 when the road millage was originally passed, which has been further exasperated by the last few years of inflation.

For example, the Beck Road (11 Mile to Grand River) segment is currently in year one (2024-25) of the proposed Budget for $3.5M (plus the $4.7M federal funding). When staff assigned the projects in the queue nine months ago, the estimate was still reasonable. Since then, other projects, including 13 Mile Road (Meadowbrook to M5, assumed from GLWA), 9 Mile Road (Meadowbrook to Haggerty), and Meadowbrook Road (10 Mile Road to 11 Mile Road), are all projected to bid out over budget. Additionally, the RCOC 12 Mile project has more city cost share for right-of-way, design, and construction than originally budgeted. The Beck Road segment will likely not be constructed until 2025-26; therefore, the **$3.5M in 2024-25 can be used to offset project overages if bond dollars become available**. All existing projects in the CIP can remain in their fiscal year (or obligation year) by redirecting the dollars assigned to Beck Road and using bond funds.

Therefore, staff presents **<u>revised</u> Road Bonding Options** from the *Major Road Projects Update and Funding* memo (the debt service estimates can vary depending on actual interest rates at the time of issuance and are assumed to be 3.5% as the worst-case scenario for the estimate below)**:**

1. Issue the **$25M** in bonds and **do not** use the **$6.908M** in grant repayments (from RCOC 12 Mile Road Project) to repay the debt, which would result in an estimated annual debt service payment of **$2.17M** and be part of the annual roads budgets moving forward.

2. Issue the **$23M** in bonds and **do not** use the **$6.908M** in grant repayments (from RCOC 12 Mile Road Project) to repay the debt, which would result in an estimated annual debt service payment of **$2M** and be part of the annual roads budgets moving forward. The reduction of $2 million would be a result of the mayor and city council suspending the 10% fund balance minimum requirement for the street funds, reducing the debt service by approximately $170k annually or $3.4M over the life of the bonds.

The bond funds will be directed at the sum of the three bullet point projects above:
~$5M Beck (11-GR) + ~$10M 12 Mile (Beck to Novi) + ~$10M Crescent Connection = ~$25M

The **~$7M** repayments from the RCOC (see schedule in Dec. 13 memo) would come in FY 2027 and 2028. Those funds could be used to address existing local road projects, the Neighborhood Roads Program, or the condition of Beck Road south of 11 Mile Road (given widening is abandoned) as discussed in the March 7, 2024, administrative memo *Beck Road CIP Recommendations*:

- *The projected costs for widening projects on the 9 Mile to 10 Mile and 10 Mile to 11 Mile segments currently in the CIP are ~$10M and ~$13M, respectively**. Based on current unit prices project for rehabilitation projects (Wixom Road ~$5M for two miles), the two miles of Beck Road would be in the ~$5-6M range (today's dollars),** which could be additionally offset with FAC funds (around 50/50 based on similar projects) if successfully obtained. In a "best case scenario," the rehab projects would cost the City ~$3M*

While the bond solves some immediate funding needs, it does create a 20-year debt service of $2M. If the expectation is a consistent increase in overall network ranking, the roads are already ~$2 - $3M underfunded (Road Report Refresh). Further consideration by the City Council should be given to increasing the road millage to offset the new debt service and address the current road funding shortfall.

Staff can provide additional information on request.

MEMORANDUM

cityofnovi.org

TO: VICTOR CARDENAS, CITY MANAGER

FROM: JEFFREY HERCZEG, DIRECTOR OF PUBLIC WORKS

SUBJECT: MAJOR ROAD PROJECTS UPDATE AND FUNDING

DATE: DECEMBER 13, 2023

Staff has identified three major road projects in the Capital Improvement Plan (CIP) which require funding beyond the current capacity in the road's funds. The identified projects are **Beck Road** (12 Mile to 8 Mile Road), **Road Commission for Oakland County (RCOC)12 Mile Road** (Beck to west of Novi Road), and the proposed connection of **Crescent Boulevard and Lee BeGole Drive** (northeast ring road Crescent to 11 Mile Road). All projects are expansion and traffic improvements to significant corridors. Additional information and history on all the projects are attached for reference. The status of the three projects are as follows:

RCOC 12 Mile Road (4 Lane Boulevard)

- Federally project in cooperation with RCOC
- Project limits originally were Beck Road to Dixon Road, estimated at ~$15M
- New project limits are from Beck Road to just west of Novi Road estimated at ~$35M
- Currently $1.2M is budgeted in 2025 for design and right-of-way acquisition (50/50 split with RCOC)
- City responsible for 10% of construction costs ($3.5M), with advanced construction in FY2026 required to secure federal funding of $10.5M (federal payback of $7.5M spilt between in FY 2027-28 below)

CON Estimate	$35,000,000			
Funds Identified	2026	2027	2028	Total
Federal "C"	$4,694,000	$4,694,000	$4,694,000	$14,082,000
State "C"	$9,863,660	$3,228,000	$1,200,000	$14,291,660
Local	$3,639,415	$1,980,500	$1,473,500	$7,093,415
Total	$18,197,075	$9,902,500	$7,367,500	$35,467,075
JobNet / TIP	2026	2027	2028	Total
Federal "C"	$4,694,000	Convert Above	Convert Above	$4,694,000
State "C"	$9,863,660	Convert Above	Convert Above	$9,863,660
Local	$20,909,415	$0	$0	$20,909,415
Total	$35,467,075	$0	$0	$35,467,075
City Front Costs	$10,454,708			
City Reimbursement		-$3,961,000	-$2,947,000	
City NET Costs				$3,546,708

Beck Road (4 Lane Boulevard)

- Environmental Assessment (EA) is wrapping up in 2024, final step is a public hearing
- $4.7M (for segment from Grand River to 11 Mile Road) Federal Funding Congressional Directed Spending to be obligated by August 2025 (segment estimated cost $9M)
- Continue to work with City of Wixom to peruse additional federal funding for the entire corridor
- Estimated cost for other 3 segments (11 Mile to 8 Mile) ~$30M
- Total cost Novi Beck Road Corridor Grand River to 8 Mile Road ~$40M

Crescent Boulevard to Lee BeGole Drive /11 Mile Road Roundabout (RAB)

- Currently budgeted in 2028 estimated $5M
- Recent acquisition of property across from the Department of Public Works makes road construction possible
- Aligns with potential Public Safety Complex planning process
- Increases value of property for resale if the City decides not to move the Public Safety Facility to said location

To fund and construct these projects staff recommends bonding the approximate ~$20M (~$5M for Beck (Grand River to 11 Mile, $10.5M for 12 Mile, and $5M for Crescent/Lee BeGole). The City will receive $7.5M back in federal reimbursement on the 12 Mile Road project as mentioned above but it will be repaid over a two year period.

The proposed bonding for these projects **does not** include going to the voters and asking for a millage to pay them, the debt service would be paid directly by the Municipal Street Fund and would only need council approval to proceed. City has several options for the bonds (20-year amortization) which include the following:

- Issue the $20M in bonds and use the $6.908M in grant repayments just to repay the debt which would result on an estimated annual debt service payment of $1.390M which would be part of the annual budgets moving forward.
- Issue the $20M in bonds and **do not** use the $6.908M in grant repayments to repay the debt which would result on an estimated annual debt service payment of $1.735M which would be part of the annual budgets moving forward. The grant repayments would be used to fund additional local street repairs as identified by the Road Committee final report or other council initiatives (see below).
- Issue $18M in bonds and use the $6.908M in grant repayments just to repay the debt which would result on an estimated annual debt service payment of $1.216M which would be part of the annual budgets moving forward. The reduction of $2M would involve the City Council temporarily suspending the fund balance minimum requirement in the street funds for two years and using those funds for the advance funding of 12 Mile. Using the fund balance would save the road funds more than $3.74M over the duration of the bonds.
- Issue the $18M in bonds and **do not** use the $6.908M in grant repayments to repay the debt which would result on an estimated annual debt service payment of $1.562M which would be part of the annual budgets moving forward. The grant repayments would be used to fund additional local street repairs as identified by the Road Committee final report or other council initiatives (see below). The reduction of $2M would involve the City Council temporarily suspending the fund balance

minimum requirement in the street funds for two years and using those funds for the advance funding of 12 Mile. Using the fund balance would save the road funds more than $3.74M over the duration of the bonds.

This essentially frees dollars in the CIP to complete other projects competing for funding year after year. In 2020 The Roads Committee reported out a gap of $2-$3M in the road funds results in moving and deferring existing projects. Further complicated by local projects with federal funding which need to be obligated in specific fiscal years below:

Project	Year	Limits	Federal Share	Novi Share
Wixom Road	2023	790' S of Grand River Ave to Ten Mile	$1,475,280	$ 323,506
Meadowbrook	2024	10 Mile Rd to 11 Mile Rd	$ 931,161	$ 232,790
9 Mile Road	2024	Meadowbrook to Haggerty	$ 573,379	$ 143,345
13 Mile Rd	2025	M-5 to Haggerty Rd	$ 523,745	$ 130,936
West Park Dr	2025	12 Mile Rd to West Rd	$ 576,978	$ 144,244
West Park Dr	2025	West Rd to Pontiac Trail	$1,198,688	$ 299,672
		Total	**$6,851,062**	**$2,528,803**

A bond of this magnitude would provide flexibility and allow execution of the larger projects timely enough to align funding sources which can ultimately be directed by the City Council's preferred priorities.

The remaining segments on the Beck project (11 Mile Road to 8 Mile Road) are estimated at ~$30M and assuming no additional federal dollars, they would have to be addressed separately and will likely need to be funded by a voter-approved millage as the estimated annual debt service is $2.603M or .56 mills. However, there is a lack of support for expansion from communities south of 8 Mile, so any expansion project south of 10 Mile (staff does recommend completing expansion to 10 Mile based on its current traffic volumes) would need further consideration.

City of Novi
Beck Rd
Boulevard from 11 Mile Rd to Providence S. Dr, 5 Lane Road from Providence S. Dr to Grand River
Preliminary Estimate of Cost - Signal at 11 Mile
5/10/2022

Item No.	Item Description	Unit	Quantity	Unit Price	Total Cost
1	Mobilization (10%)	LS	1	526,345.00	$ 526,345.00
2	Pre-Construction Audio-Visual	LS	1	$ 7,500.00	$ 7,500.00
3	Erosion Control, Silt Fence	Ft	6980	$ 3.00	$ 20,940.00
4	Erosion Control, Inlet Protection, Fabric Drop	Ea	46	$ 120.00	$ 5,520.00
5	Erosion Control, Check Dam, Stone	Ft	200	$ 40.00	$ 8,000.00
6	HMA Surface, Rem	Syd	21190	$ 4.00	$ 84,760.00
7	Pavt, Rem	Syd	654	$ 12.00	$ 7,848.00
8	Curb and Gutter, Rem	Ft	3441	$ 13.00	$ 44,733.00
9	Excavation, Earth	Cyd	2169	$ 15.00	$ 32,535.00
10	Subgrade, Undercut, Type Special 1x3	Cyd	2000	$ 60.00	$ 120,000.00
11	Roadway Grading	Sta	34.9	$ 26,000.00	$ 907,400.00
12	Sidewalk, Rem	Syd	736	$ 15.00	$ 11,040.00
13	Phragmites Plant Material Handling and Disposal	Cyd	144	$ 35.00	$ 5,040.00
14	Tree, Rem, 19 inch to 36 inch	Ea	5	$ 1,500.00	$ 7,500.00
15	Tree, Rem, 6 inch to 18 inch	Ea	20	$ 300.00	$ 6,000.00
16	Clearing	Acre	0.3	$ 18,300.00	$ 5,490.00
17	Aggregate Base, 21AA Limestone, 12 inch (roadway)	Syd	27919	$ 17.00	$ 474,623.00
18	Aggregate Base, 21AA Limestone, 4 inch (sidewalk)	Syd	2432	$ 8.00	$ 19,456.00
19	Geogrid, Triaxial	Syd	27919	$ 5.00	$ 139,595.00
20	Underdrain, Subgrade, Open Graded, 6 inch	Ft	7678	$ 16.00	$ 122,848.00
21	Conc Pavt w/ Integral Curb, Nonreinf, 9 inch, High Performance	Syd	26231	$ 70.00	$ 1,836,170.00
22	Driveway, Nonreinf Conc, 8 inch	Syd	1061	$ 55.00	$ 58,355.00
23	Sidewalk Ramp, Conc, 6 inch	Sft	895	$ 8.00	$ 7,160.00
24	Sidewalk, Conc, 4 inch	Sft	17970	$ 6.00	$ 107,820.00
25	Detectable Warning Surface	Ft	40	$ 45.00	$ 1,800.00
26	Dr Structure, 48 inch	Ea	46	$ 2,750.00	$ 126,500.00
27	Dr Structure Cover, Type K	Ea	46	$ 850.00	$ 39,100.00
28	Sewer, Cl A, 12 inch, Tr Det B	Ft	4872	$ 75.00	$ 365,400.00
29	Culv, Cl A, 48 inch	Ft	104	$ 600.00	$ 62,400.00
30	Culv End Sect, Conc, 48 inch	Ea	2	$ 3,000.00	$ 6,000.00
31	Culv End Sect, Footing	Ea	2	$ 400.00	$ 800.00
32	Dr Structure, Rem	Ea	7	$ 400.00	$ 2,800.00
33	Sewer, Rem, Less than 24 inch	Ft	441	$ 18.00	$ 7,938.00
34	Video Taping Sewer and Culv Pipe	Ft	4976	$ 2.00	$ 9,952.00
35	Culv, Rem, Less than 24 inch	Ea	7	$ 600.00	$ 4,200.00
36	Culv, Rem, 24 inch to 48 inch	Ea	1	$ 2,000.00	$ 2,000.00
37	DPS Structure Adjust, Case 1	Ea	19	$ 500.00	$ 9,500.00
38	DPS Structure Adjust, Case 2	Ea	18	$ 500.00	$ 9,000.00
39	Hydrant, Relocate, Case 1	Ea	4	$ 3,000.00	$ 12,000.00
40	Slope Restoration, Type A	Syd	13057	$ 4.00	$ 52,228.00
41	Pushbutton, Rem	Ea	9	$ 80.00	$ 720.00
42	Pedestal Fdn, Rem	Ea	4	$ 300.00	$ 1,200.00
43	Pedestal, Rem	Ea	4	$ 100.00	$ 400.00
44	Wood Pole, Rem	Ea	2	$ 350.00	$ 700.00
45	TS, Bracket Arm Mtd, Rem	Ea	4	$ 110.00	$ 440.00
46	Span Wire, Rem	Ea	2	$ 250.00	$ 500.00
47	TS, Span Wire Mtd, Rem	Ea	5	$ 110.00	$ 550.00
48	TS, Pedestrian, Bracket Arm Mtd, Rem	Ea	6	$ 100.00	$ 600.00
49	TS, Pedestrian, Bracket Arm Mtd, Salv	Ea	4	$ 100.00	$ 400.00
50	Guy, Rem	Ea	1	$ 150.00	$ 150.00
51	HH, Rem	Ea	4	$ 350.00	$ 1,400.00
52	Pedestal, Alum, RCOC	Ea	8	$ 900.00	$ 7,200.00
53	Pedestal, Alum	Ea	2	$ 900.00	$ 1,800.00
54	Pedestal, Fdn	Ea	10	$ 1,000.00	$ 10,000.00
55	Pushbutton and Sign	Ea	10	$ 550.00	$ 5,500.00
56	St Name Sign, Two Way, LED, 8', RCOC	Ea	4	$ 3,750.00	$ 15,000.00
57	St Name Sign, Two Way, 8', Salvage	Ea	2	$ 500.00	$ 1,000.00
58	St Name Sign, Bracket, 10' RCOC	Ea	4	$ 2,000.00	$ 8,000.00
59	St Name Sign, Bracket, 10'	Ea	2	$ 2,000.00	$ 4,000.00
60	Controller Fdn, Base Mount	Ea	1	$ 2,500.00	$ 2,500.00
61	Traffic Loop, Preformed, RCOC	Ea	15	$ 2,000.00	$ 30,000.00
62	Traffic Loop, Preformed	Ea	14	$ 2,000.00	$ 28,000.00
63	TS, One Way Mast Arm Mtd, FYA (LED)	Ea	19	$ 1,750.00	$ 33,250.00

64	TS, Pedestrian, One Way Pedestal Mtd (LED) Countdown	Ea	8	$ 975.00	$ 7,800.00
65	Mast Arm Pole, Cat III	Ea	6	$ 12,000.00	$ 72,000.00
66	Mast Arm, 35-foot, Cat III	Ea	1	$ 14,000.00	$ 14,000.00
67	Mast Arm, 40 foot, Cat III	Ea	2	$ 15,000.00	$ 30,000.00
68	Mast Arm, 50 foot, Cat III	Ea	3	$ 16,000.00	$ 48,000.00
69	Mast Arm Pole Fdn, RCOC	Ft	80	$ 550.00	$ 44,000.00
70	Mast Arm Pole Fdn	Ft	40	$ 550.00	$ 22,000.00
71	Casing	Ft	120	$ 250.00	$ 30,000.00
72	HH, Round	Ea	7	$ 1,300.00	$ 9,100.00
73	Conduit, DB, 1, 1 1/4 inch	Ft	923	$ 18.00	$ 16,614.00
74	Conduit, DB, 1, 3 inch	Ft	330	$ 20.00	$ 6,600.00
75	Conduit, DB, 3, 3 inch	Ft	615	$ 35.00	$ 21,525.00
76	Mast Arm, Rem	Ea	2	$ 500.00	$ 1,000.00
77	Mast Arm Fdn, Rem	Ea	2	$ 750.00	$ 1,500.00
78	Signal Head Realignment	Ea	3	$ 300.00	$ 900.00
79	TS, Bag	Ea	1	$ 150.00	$ 150.00
80	Gate Well, 60 inch dia	Ea	4	$ 3,250.00	$ 13,000.00
81	Permanent Pavement Markings	LS	1	$ 8,000.00	$ 8,000.00
82	Permanent Signing	LS	1	$ 12,000.00	$ 12,000.00
83	Misc Items	LS	1	$ 526,345.00	$ 526,345.00
84	Maintaining Traffic	LS	1	$ 100,000.00	$ 100,000.00
85	Traffic Regulator Control	LS	1	$ 26,279.75	$ 26,279.75
86	Minor Traffic Devices	LS	1	$ 105,119.00	$ 105,119.00
	Base Bid Construction Cost				**$ 6,547,538.75**
	Design Engineering + Grant Program Administration	6.75%			$ 441,958.87
	Geotechnical	2%			$ 130,950.78
	Design Contingency	10%			$ 44,195.89
					$ 617,105.53
	Construction Engineering	4.75%			$ 311,008.09
	ROW Acquisition				$ 722,965.69
	Noise Study				$ 55,000.00
	Lighting (Design and Install by DTE)				$ 197,110.00
	Materials Testing	2%			$ 130,950.78
	Crew Days	$ 700	150		$ 105,000.00
	Construction Contingency	10%			$ 654,753.88
					$ 2,176,788.43
	TOTAL COST				**$ 9,341,432.71**

Estimate Assumptions:

Full survey has not been completed, so storm sewer elements are just an estimation of what is required.

Hydraulic survey will need to be performed for storm sewer design if outletting to Lyon Drain

City of Novi
Beck Rd
Boulevard from 11 Mile Rd to Providence S. Dr, 5 Lane Road from Providence S. Dr to Grand River
Preliminary Estimate of Cost - Roundabout at 11 Mile
5/10/2022

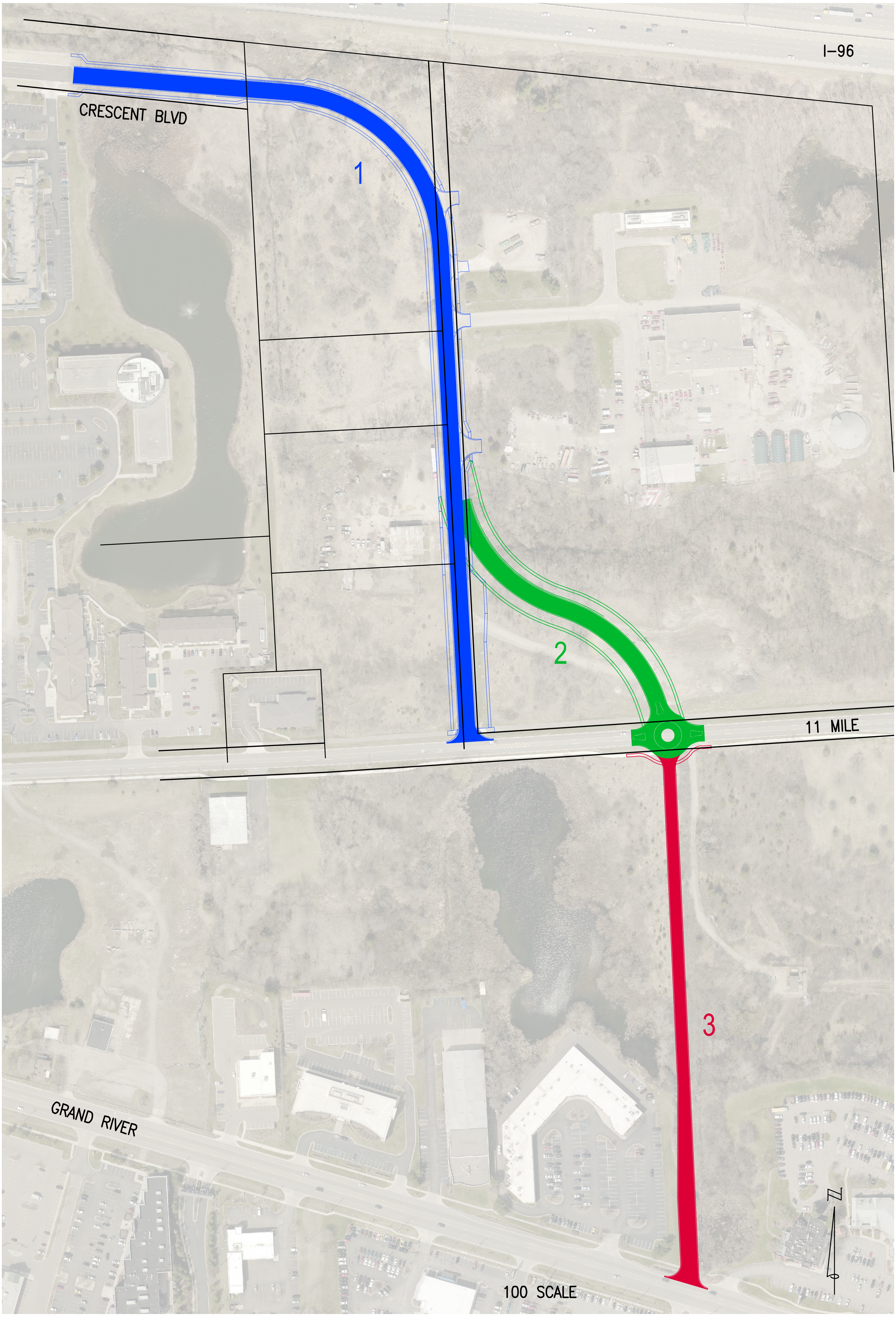
Item No.	Item Description	Unit	Quantity	Unit Price	Total Cost
1	Mobilization (10%)	LS	1	529,559.40	$ 529,559.40
2	Pre-Construction Audio-Visual	LS	1	$ 7,500.00	$ 7,500.00
3	Erosion Control, Silt Fence	Ft	7640	$ 3.00	$ 22,920.00
4	Erosion Control, Inlet Protection, Fabric Drop	Ea	44	$ 120.00	$ 5,280.00
5	Erosion Control, Check Dam, Stone	Ft	200	$ 40.00	$ 8,000.00
6	HMA Surface, Rem	Syd	24249	$ 4.00	$ 96,996.00
7	Pavt, Rem	Syd	745	$ 12.00	$ 8,940.00
8	Curb and Gutter, Rem	Ft	4323	$ 13.00	$ 56,199.00
9	Excavation, Earth	Cyd	2169	$ 15.00	$ 32,535.00
10	Subgrade, Undercut, Type Special 1x3	Cyd	2000	$ 60.00	$ 120,000.00
11	Roadway Grading	Sta	38.2	$ 26,000.00	$ 993,200.00
12	Sidewalk, Rem	Syd	854	$ 15.00	$ 12,810.00
13	Phragmites Plant Material Handling and Disposal	Cyd	144	$ 35.00	$ 5,040.00
14	Tree, Rem, 19 inch to 36 inch	Ea	5	$ 1,500.00	$ 7,500.00
15	Tree, Rem, 6 inch to 18 inch	Ea	20	$ 300.00	$ 6,000.00
16	Clearing	Acre	0.3	$ 18,300.00	$ 5,490.00
17	Aggregate Base, 21AA Limestone, 12 inch (roadway)	Syd	29544	$ 17.00	$ 502,248.00
18	Aggregate Base, 21AA Limestone, 4 inch (sidewalk)	Syd	2896	$ 8.00	$ 23,168.00
19	Geogrid, Triaxial	Syd	29544	$ 5.00	$ 147,720.00
20	Underdrain, Subgrade, Open Graded, 6 inch	Ft	8404	$ 16.00	$ 134,464.00
21	Conc Pavt w/ Integral Curb, Nonreinf, 9 inch, High Performance	Syd	27538	$ 70.00	$ 1,927,660.00
22	Driveway, Nonreinf Conc, 8 inch	Syd	1251	$ 55.00	$ 68,805.00
23	Sidewalk Ramp, Conc, 6 inch	Sft	1920	$ 8.00	$ 15,360.00
24	Sidewalk, Conc, 4 inch	Sft	21824	$ 6.00	$ 130,944.00
25	Detectable Warning Surface	Ft	128	$ 45.00	$ 5,760.00
26	Dr Structure, 48 inch	Ft	56	$ 2,750.00	$ 154,000.00
27	Dr Structure Cover, Type K	Ea	56	$ 850.00	$ 47,600.00
28	Sewer, Cl A, 12 inch, Tr Det B	Ft	5416	$ 75.00	$ 406,200.00
29	Culv, Cl A, 48 inch	Ft	104	$ 600.00	$ 62,400.00
30	Culv End Sect, Conc, 48 inch	Ea	2	$ 3,000.00	$ 6,000.00
31	Culv End Sect, Footing	Ea	2	$ 400.00	$ 800.00
32	Dr Structure, Rem	Ea	7	$ 400.00	$ 2,800.00
33	Sewer, Rem, Less than 24 inch	Ft	441	$ 18.00	$ 7,938.00
34	Video Taping Sewer and Culv Pipe	Ft	5520	$ 2.00	$ 11,040.00
35	Culv, Rem, Less than 24 inch	Ea	7	$ 600.00	$ 4,200.00
36	Culv, Rem, 24 inch to 48 inch	Ea	1	$ 2,000.00	$ 2,000.00
37	DPS Structure Adjust, Case 1	Ea	19	$ 500.00	$ 9,500.00
38	DPS Structure Adjust, Case 2	Ea	18	$ 500.00	$ 9,000.00
39	Hydrant, Relocate, Case 1	Ea	4	$ 3,000.00	$ 12,000.00
40	Slope Restoration, Type A	Syd	15537	$ 4.00	$ 62,148.00
41	Pushbutton, Rem	Ea	9	$ 80.00	$ 720.00
42	Pedestal Fdn, Rem	Ea	4	$ 300.00	$ 1,200.00
43	Pedestal, Rem	Ea	4	$ 100.00	$ 400.00
44	Wood Pole, Rem	Ea	2	$ 350.00	$ 700.00
45	TS, Bracket Arm Mtd, Rem	Ea	4	$ 110.00	$ 440.00
46	Span Wire, Rem	Ea	2	$ 250.00	$ 500.00
47	TS, Span Wire Mtd, Rem	Ea	5	$ 110.00	$ 550.00
48	TS, Pedestrian, Bracket Arm Mtd, Rem	Ea	6	$ 100.00	$ 600.00
49	TS, Pedestrian, Bracket Arm Mtd, Salv	Ea	4	$ 100.00	$ 400.00
50	Guy, Rem	Ea	1	$ 150.00	$ 150.00
51	HH, Rem	Ea	4	$ 350.00	$ 1,400.00
52	Pedestal, Alum	Ea	3	$ 900.00	$ 2,700.00
53	Pedestal, Fdn	Ea	3	$ 1,000.00	$ 3,000.00
54	Pushbutton and Sign	Ea	3	$ 550.00	$ 1,650.00
55	St Name Sign, Two Way, 8', Salvage	Ea	2	$ 500.00	$ 1,000.00
56	St Name Sign, Bracket, 10'	Ea	2	$ 2,000.00	$ 4,000.00
57	Traffic Loop, Preformed	Ea	14	$ 2,000.00	$ 28,000.00
58	TS, One Way Mast Arm Mtd, FYA (LED)	Ea	6	$ 1,750.00	$ 10,500.00
59	Mast Arm Pole, Cat III	Ea	2	$ 12,000.00	$ 24,000.00
60	Mast Arm, 40 foot, Cat III	Ea	1	$ 11,000.00	$ 11,000.00
61	Mast Arm, 50 foot, Cat III	Ea	1	$ 13,000.00	$ 13,000.00
62	Mast Arm Pole Fdn	Ft	40	$ 500.00	$ 20,000.00
63	Casing	Ft	40	$ 250.00	$ 10,000.00

64	HH, Round	Ea	2	$ 1,300.00	$ 2,600.00
65	Conduit, DB, 1, 1 1/4 inch	Ft	308	$ 18.00	$ 5,544.00
66	Conduit, DB, 1, 3 inch	Ft	110	$ 20.00	$ 2,200.00
67	Conduit, DB, 3, 3 inch	Ft	205	$ 35.00	$ 7,175.00
68	Gate Well, 60 inch dia	Ea	4	$ 3,250.00	$ 13,000.00
69	Permanent Pavement Markings	LS	1	$ 10,000.00	$ 10,000.00
70	Permanent Signing	LS	1	$ 14,000.00	$ 14,000.00
71	Misc Items	LS	1	$ 532,509.40	$ 532,509.40
72	Maintaining Traffic	LS	1	$ 100,000.00	$ 100,000.00
73	Traffic Regulator Control	LS	1	$ 26,625.47	$ 26,625.47
74	Minor Traffic Devices	LS	1	$ 106,501.88	$ 106,501.88
	Base Bid Construction Cost				**$ 6,627,790.15**
	Design Engineering + Grant Program Administration	6.75%			$ 447,375.84
	Geotechnical	2%			$ 132,555.80
	Design Contingency	10%			$ 44,737.58
					$ 624,669.22
	Construction Engineering	4.75%			$ 314,820.03
	ROW Acquisition				$ 746,237.44
	Lighting (Design and Install by DTE)				$ 197,110.00
	Noise Study				$ 55,000.00
	Materials Testing	2%			$ 132,555.80
	Crew Days	$ 700	150		$ 105,000.00
	Construction Contingency	10%			$ 662,779.02
					$ 2,213,502.29
	TOTAL COST				**$ 9,465,961.66**

Estimate Assumptions:

Full survey has not been completed, so storm sewer elements are just an estimation of what is required.
Hydraulic survey will need to be performed for storm sewer design if outletting to Lyon Drain
Traffic surveys will need to be copmleted for roundabout design

DRAWING PATH: P:\0126_0165\0163190010_Lee_BeGole_Drive\Drawings\Civil\Xref\Schematic_SCHEMATIC.dwg Dec 22, 2023 - 4:37pm



SHEET	DATE	PROJ NUMBER	ENG	PROJ MGR	CADD	COUNTY	CITY/VILLAGE/TOWNSHIP	SCALE	HORIZ DATUM	VERT DATUM
1 OF 1	06/06/19	###########	###	###	###	#######	############	H: 1"=100' V: N/A	######	#########

LEE BEGOLE DRIVE
CRESCENT BOULEVARD EXTENSION

EXHIBIT

REVISIONS:
#
#
#
#
#
#

OHM
ARCHITECTS ENGINEERS PLANNERS
OHM-ADVISORS.COM

OHM Advisors

CITY OF NOVI
Lee BeGole Drive / Crescent Boulevard Extension
Probable Estimate of Cost
12/22/2023

Item No.	Item Description	Unit		Unit Price ($)	Item Cost ($)
1	STRAIGHT CONNECTION	LSUM	1.00	$ 4,250,000.00	$ 4,250,000.00
	Construction Subtotal				$ 4,250,000.00
	Inspection (Crew Days)	CD	120.00	$800.00	$96,000.00
	Contract Administration*	% Fee	4.75%		$201,875.00
	Materials Testing	% Fee	2.00%		$85,000.00
	Contingency	%	10%		
	Construction Total				**$ 5,096,163.00**
	Design Engineering*	% Fee	6.25%		$265,625.00
	Geotechnical Investigation	% Fee	1.00%		$42,500.00
	R.O.W. Acquisition	LS	1.00		$0.00
	Permitting	LS	1.00	$ 2,000.00	$2,000.00
	Hydraulic Analysis & Wetland Mitigation	LS	1.00	$ 15,000.00	$15,000.00
	Traffic Modeling & Alignment Study	LS	1.00		$0.00
	Contingency	%	10%		
	Engineering Total				**$357,637.50**
	Total Estimated Cost				**$ 5,453,800.50**

Estimate Assumptions:
Does not include any sanitary sewer. Does not include work outside of right-of-way for any planned developments.

* Per 'Attachment A' of the 2022-2027 Engineering Fee Table

OHM Advisors

CITY OF NOVI
Lee BeGole Drive / Crescent Boulevard Extension
Probable Estimate of Cost
12/22/2023

Item No.	Item Description	Unit		Unit Price ($)	Item Cost ($)
1	STRAIGHT CONNECTION	LSUM	1.00	$ 4,250,000.00	$ 4,250,000.00
2	TO 11 MILE WITH ROUNDABOUT	LSUM	1.00	$ 1,750,000.00	$ 1,750,000.00
	Construction Subtotal				$ 6,000,000.00
	Inspection (Crew Days)	CD	160.00	$800.00	$128,000.00
	Contract Administration*	% Fee	4.75%		$285,000.00
	Materials Testing	% Fee	2.00%		$120,000.00
	Contingency	%	10%		
	Construction Total				**$ 7,186,300.00**
	Design Engineering*	% Fee	6.25%		$375,000.00
	Geotechnical Investigation	% Fee	1.00%		$60,000.00
	R.O.W. Acquisition	LS	1.00	$ 15,000.00	$15,000.00
	Permitting	LS	1.00	$ 2,000.00	$2,000.00
	Hydraulic Analysis & Wetland Mitigation	LS	1.00	$ 30,000.00	$30,000.00
	Traffic Modeling & Alignment Study	LS	1.00	$ 7,500.00	$7,500.00
	Contingency	%	10%		
	Engineering Total				**$538,450.00**
	Total Estimated Cost				**$ 7,724,750.00**

Estimate Assumptions:
Does not include any sanitary sewer. Does not include work outside of right-of-way for any planned developments.

* Per 'Attachment A' of the 2022-2027 Engineering Fee Table

OHM Advisors

CITY OF NOVI
Lee BeGole Drive / Crescent Boulevard Extension
Probable Estimate of Cost
12/22/2023

Item No.	Item Description	Unit		Unit Price ($)	Item Cost ($)
1	STRAIGHT CONNECTION	LSUM	1.00	$ 4,250,000.00	$ 4,250,000.00
2	TO 11 MILE WITH ROUNDABOUT	LSUM	1.00	$ 1,750,000.00	$ 1,750,000.00
3	TO GRAND RIVER (2 LANES)	LSUM	1.00	$ 1,750,000.00	$ 1,750,000.00
	Construction Subtotal				$ 7,750,000.00
	Inspection (Crew Days)	CD	200.00	$800.00	$160,000.00
	Contract Administration*	% Fee	4.75%		$368,125.00
	Materials Testing	% Fee	2.00%		$155,000.00
	Contingency	%	10%		
	Construction Total				**$ 9,276,438.00**
	Design Engineering*	% Fee	6.25%		$484,375.00
	Geotechnical Investigation	% Fee	1.00%		$77,500.00
	R.O.W. Acquisition	LS	1.00	$ 15,000.00	$15,000.00
	Permitting	LS	1.00	$ 2,000.00	$2,000.00
	Hydraulic Analysis & Wetland Mitigation	LS	1.00	$ 30,000.00	$30,000.00
	Traffic Modeling & Alignment Study	LS	1.00	$ 15,000.00	$15,000.00
	Contingency	%	10%		
	Engineering Total				**$686,262.50**
	Total Estimated Cost				**$ 9,962,700.50**

Estimate Assumptions:
Does not include any sanitary sewer. Does not include work outside of right-of-way for any planned developments.

* Per 'Attachment A' of the 2022-2027 Engineering Fee Table

MEMORANDUM

TO:	VICTOR CARDENAS, CITY MANAGER
THRU:	BARBARA MCBETH, *AICP*, CITY PLANNER
FROM:	LINDSAY BELL, *AICP,* SENIOR PLANNER
SUBJECT:	JZ23-41 SAKURA EAST – POND AMENITY
DATE:	MARCH 14, 2024

The City Council provided feedback on a proposed Planned Rezoning Overlay project, Sakura East, at its February 5, 2024, meeting, packet provided here. The petitioner is requesting a Zoning Map Amendment for approximately 3.5 acres of property on the south side of Eleven Mile Road, west of Meadowbrook Road (Section 23). The applicant is proposing to rezone property from Light Industrial (I-1) to Town Center One (TC-1) using the City's Planned Rezoning Overlay (PRO) option in order to build 47 townhome units.

In the comments from the City Council members, it was suggested that the applicant consider providing an amenity or parklet on the City-owned parcel to the west to complement the wetland area on the property. The applicant has drawn up a design concept for the amenity with two different location options and would like to find out whether it is in-line with what the City Council members were suggesting and if there is a preferred location.

The Concept plan shows a short, crushed granite pathway from the existing sidewalk on Eleven Mile Road roughly opposite Lee BeGole Drive, labeled Site "A". The path leads to the wetland overlook with benches and accent boulders, with a stone retaining wall and a guardrail to keep visitors from encroaching into the wetland. A detail sheet with precedent images and bench options is included in the packet, along with a sheet on the use of Geosynthetics for trails in wet areas. Site "B" is shown on the east side of the City's property, closer to the proposed Sakura East site, but there are no details for the Site "B" amenities. Presumably something similar could be provided in the Site B location.

Please feel free to send any feedback on this matter to Lindsay Bell, lbell@cityofnovi.org.

Amenity Location Options

Site "A"

Site "B"

Concept Plan – Site "A"

Precedent Images

Guardrail Detail

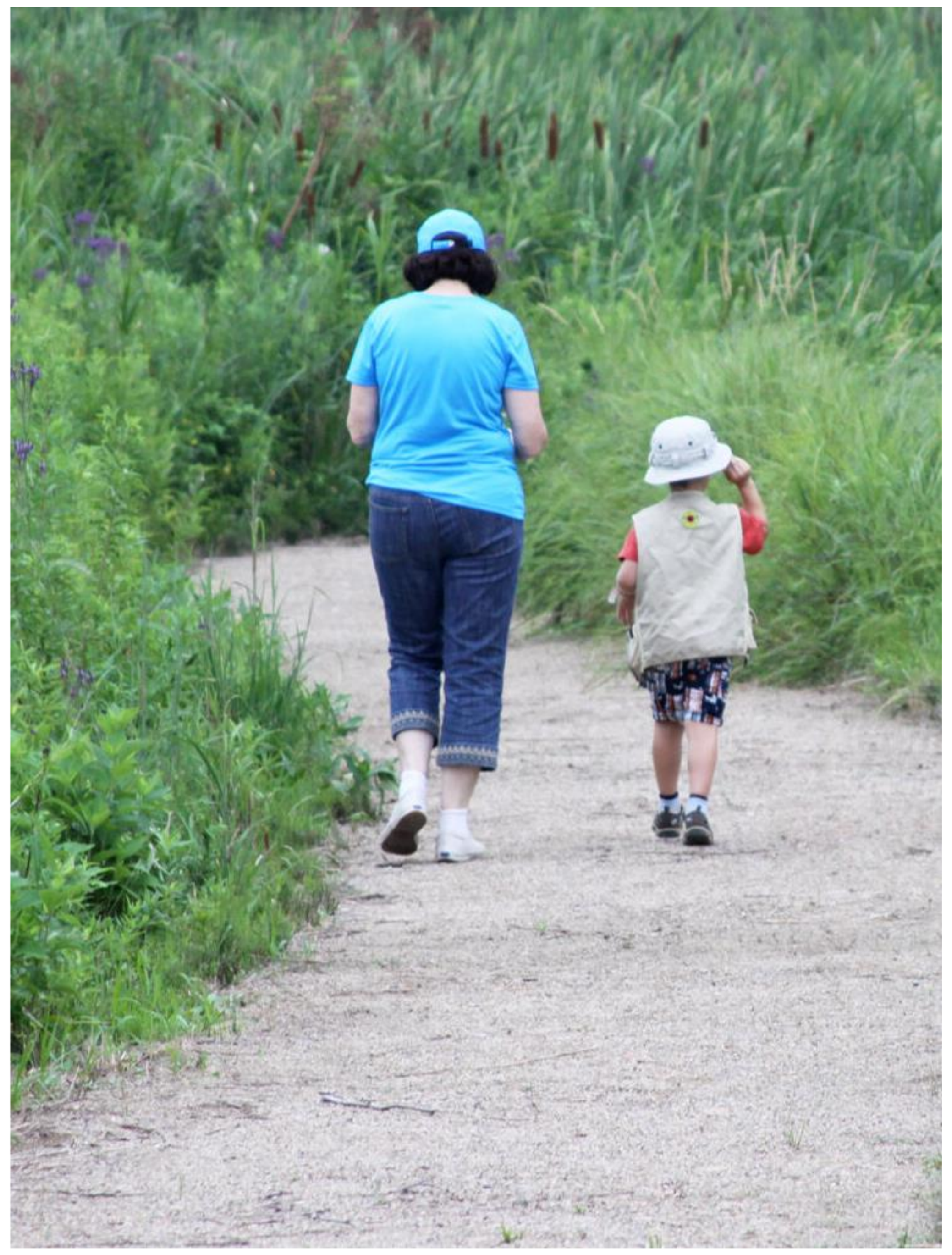
Nature Viewing Area

Accent Boulder

Bench Ideas

Trail & Overlook Material

Crushed Granite or Limestone Fines



Geosynthetics for Trails in Wet Areas: 2008 Edition

By Steve Monlux, USFS R1 Engineering

Guidelines for use of Geosynthetic materials in trail construction.

Geosynthetics are synthetic materials (usually made from synthetic polymers) used with soil or rock in many types of construction. Their use has grown significantly in road construction for the past 40 years, and in trail construction for the past 15 years.

Highlights:

- Geosynthetic materials can help prevent trails from failing in wet areas.
- The many types of geosynthetic materials perform three major functions: separation, reinforcement, and drainage.
- This report provides information on the different types of geosynthetic materials, explains basic geosynthetic design concepts, and provides detailed product specifications and procurement sources.