

May 29, 2026

Darwin McClary  
Village Manager  
Village of Lake Orion  
21 E. Church St.  
Lake Orion, MI 48362

**RE: Lake Orion Seawalls**

Dear Mr. McClary:

Over the past year, NFE has assisted the Village in the resolution of three seawall sites. All three of the sites are or partially are on village-owned property (right of way) Two of the sites are failing sea walls and one is a previously failed sea wall which was replaced without EGLE permit and encountered a violation from EGLE for the un-permitted construction. Below is a background and status of the three sites, and a plan of action going forward.

**N110 Bridge Street:**

- The Village received a violation notice from EGLE in February 2025. NFE created a remediation plan that was approved by EGLE in May 2025. Construction of the remediation must be completed, and the Village must apply for an After the Fact (ATF) permit from EGLE.
- The estimated construction cost is \$23,600 for only the placement of approximately 60 cy of natural stone rip rap at the base of the sea wall, plus completion of the ATF permit application. Other best management practices indicated to be installed have already been installed and implemented.

**O816 Oak Lane**

- The wall has failed due to extreme storms. The seawall is located at bottom of slope of the road and is adjacent to the construction of remediated LO-10 pump station. An EGLE permit was issued in June 2025 (WRP045420) for the removal and replacement of the wall.
- The installation involves new seawall (48 lf) being placed in front of the old seawall, cut off old seawall, placing of tiebacks and installation of natural stone rip rap and restoration. Access to site is challenging, which drives the costs up.
- Need to prepare bidding documents. The permit drawings can be used with some modifications indicating the current construction.
- The estimated construction cost is \$62,300.
- A proposal for engineering services is provided under separate cover.

**O816 Flint Street seawall**

- The existing seawall is failing, with dangerous holes on the landward side of the wall. A Pre-application meeting was held with EGLE in spring 2025. The best practice for this

seawall is the complete removal and restoration of the natural shoreline. The work includes installation of coir logs, natural plantings and rip rap.

- The estimated construction cost is approximately \$64,700 for the removal of the wall and installation of new measures.
- We recommend installing signage regarding accessible area. With existing steps, the site is not accessible to those with disabilities.
- No permitting / design has taken place for this site, and a proposal is provided for engineering services under separate cover.

We have provided our proposals for the completion of the resolution of these seawalls under separate cover for your consideration.

If you have any questions or comments, please call.

Sincerely,

Nowak & Fraus Engineers

A handwritten signature in blue ink, appearing to read 'Carol P. Thurber', is written over a light blue horizontal line.

Carol P. Thurber, PE, CFM  
Principal

Enclosure: Cost Estimates

CC: Wesley Sanchez, DPW Director

# Nowak and Fraus Engineers



ENGINEERS  
48680 Van Dyke, Suite 200, Shelby Township, Michigan  
(586) 739-0939

RE Engineer's Preliminary Estimate of Cost  
PROJECT Lake Orion Seawalls

Date: 5/29/2026

No.	Description	Quantity	Unit	UnitCost	Total Cost
<b><u>CONSTRUCTION COSTS</u></b>					
	BRIDGE STREET			\$23,575.00	
	OAK LANE			\$62,330.00	
	FLINT STREET			\$64,687.50	
					<b>TOTAL = <u><u>\$150,592.50</u></u></b>
<b><u>SOFT COSTS</u></b>					
	BRIDGE STREET			\$8,804.00	
	OAK LANE			\$12,400.00	
	FLINT STREET			\$20,502.00	
					<b>Subtotal Soft Costs \$41,706.00</b>
					<b>PROJECT TOTAL <u><u>\$192,298.50</u></u></b>

THE ABOVE IS AN ENGINEER'S OPINION OF PROBABLE CONSTRUCTION COSTS FOR THE SITE, AND NO GUARANTEE IS MADE TO THE ACCURACY OR COMPLETENESS THEREOF. WE CANNOT MAKE A GUARANTEE THAT THE FINAL CONSTRUCTION COSTS WILL NOT VARY FROM THE NUMBERS PRESENTED SINCE ACTUAL CONSTRUCTION COSTS WILL BE DETERMINED BY CONTRACTOR BIDDING.

# Nowak and Fraus Engineers



48680 Van Dyke, Suite 200, Shelby Township, Michigan  
(586) 739-0939

RE            Engineer's Preliminary Estimate of Cost  
PROJECT    Bridge Street Seawall

Date:        5/29/2026

No.	Description	Quantity	Unit	Unit Cost	Total Cost	
<b>ADMINISTRATION</b>						
1	Mobilization	1	LS	\$1,500.00	\$1,500.00	\$1,500.00
<b>EARTH / SOIL EROSION / CLEANUP</b>						
1	Natural Stone Rip Rap (6-18")	60	CY	\$275.00	\$16,500.00	
2	Erosion Control	1	LS	\$0.00	\$0.00	
3	Restoration	1	LS	\$2,500.00	\$2,500.00	\$19,000.00
					<b>SUBTOTAL =</b>	<b><u>\$20,500.00</u></b>
Contingencies (15%)						\$3,075.00
					<b>CONSTRUCTION TOTAL =</b>	<b>\$23,575.00</b>
<b>SOFT COSTS</b>						
	Engineering - After the Fact Permit	1	LS	\$2,400.00	\$2,400.00	
	Construction Services (estimate)	1	LS	\$6,200.00	\$6,200.00	
	EGLE Permit Fee	1	LS	\$204.00	\$204.00	
					<b>SUBTOTAL SOFT COSTS =</b>	<b><u>\$8,804.00</u></b>
					<b>PROJECT TOTAL =</b>	<b><u><u>\$32,379.00</u></u></b>

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# Nowak and Fraus Engineers



48680 Van Dyke, Suite 200, Shelby Township, Michigan  
(586) 739-0939

RE            Engineer's Preliminary Estimate of Cost  
PROJECT    Oak Lane Seawall

Date:        5/29/2026

No.	Description	Quantity	Unit	Unit Cost	Total Cost	
<b>ADMINISTRATION</b>						
1	Mobilization	1	LS	\$2,500.00	<u>\$2,500.00</u>	\$2,500.00
<b>DEMOLITION</b>						
2	Cut Seawall to 1' Below Grade (after installation of new wall)	1	LS	\$2,500.00	<u>\$2,500.00</u>	\$2,500.00
<b>GRADING / PAVING / IMPROVEMENTS</b>						
3	Seawall Installation w/ tie backs	48	LF	\$650.00	\$31,200.00	
4	Natural Stone Rip Rap (6-18")	26	CY	\$300.00	\$7,800.00	
5	Drainage Improvements	1	LS	\$1,600.00	<u>\$1,600.00</u>	\$40,600.00
<b>EARTH / SOIL EROSION / CLEANUP</b>						
6	Landscape - Dogwood Bushes	4	EA	\$400.00	\$1,600.00	
7	Erosion Control	1	LS	\$1,500.00	\$1,500.00	
8	Restoration	1	LS	\$4,900.00	\$4,900.00	
9	Irrigation Repair	1	LS	\$600.00	<u>\$600.00</u>	\$8,600.00
					<b>SUBTOTAL =</b>	<b><u>\$54,200.00</u></b>
Contingencies (15%)						\$8,130.00
					<b>CONSTRUCTION TOTAL =</b>	<b><u>\$62,330.00</u></b>
<b>SOFT COSTS</b>						
	Engineering - Bid Documents (estimated)	1	LS	\$6,200.00	\$6,200.00	
	Construction Services (estimate)	1	LS	\$6,200.00	\$6,200.00	
					<b>SUBTOTAL SOFT COSTS =</b>	<b><u>\$12,400.00</u></b>
					<b>PROJECT TOTAL =</b>	<b><u>\$74,730.00</u></b>

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# Nowak and Fraus Engineers



48680 Van Dyke, Suite 200, Shelby Township, Michigan  
(586) 739-0939

RE            Engineer's Preliminary Estimate of Cost  
PROJECT    Flint Street Seawall Removal

Date:        5/29/2026

No.	Description	Quantity	Unit	Unit Cost	Total Cost	
<b>ADMINISTRATION</b>						
1	Mobilization	1	LS	\$2,500.00	\$2,500.00	
						\$2,500.00
<b>DEMOLITION</b>						
2	Remove Seawall / Dispose offsite	1	LS	\$8,000.00	\$8,000.00	
3	Remove / Salvage / Replace Benches, Trash Receptacle	1	LS	\$550.00	\$550.00	
4	Remove / Salvage / Concrete Barrier	1	LS	\$4,500.00	\$4,500.00	
						\$13,050.00
<b>GRADING / PAVING / IMPROVEMENTS</b>						
5	Boulder Retaining Wall	2	EA	\$1,500.00	\$3,000.00	
6	Coir Logs	180	LF	\$35.00	\$6,300.00	
7	Natural Stone Rip Rap (6-18")	30	CY	\$300.00	\$9,000.00	
8	Geotextile Fabric	100	SY	\$8.50	\$850.00	
9	Mass Grading	1	LS	\$6,800.00	\$6,800.00	
10	Fill	30	CY	\$65.00	\$1,950.00	
						\$27,900.00
<b>EARTH / SOIL EROSION / CLEANUP</b>						
11	Landscape - Dogwood Bushes	4	EA	\$400.00	\$1,600.00	
12	Natural Plantings	1	LS	\$4,500.00	\$4,500.00	
13	Erosion Control	1	LS	\$1,500.00	\$1,500.00	
14	Restoration	1	LS	\$5,200.00	\$5,200.00	
						\$12,800.00
						<b>SUBTOTAL =</b>
						<b>\$56,250.00</b>
	Contingencies (15%)					\$8,437.50
						<b>TOTAL CONSTRUCTION =</b>
						<b>\$64,687.50</b>
<b>SOFT COSTS</b>						
	Engineering - Bid Documents (estimate)	1	LS	\$14,300.00	\$14,300.00	
	Construction Services (estimate)	1	LS	\$6,100.00	\$6,100.00	
	EGLE Permitting	1	LS	\$102.00	\$102.00	
						<b>SUBTOTAL SOFT COSTS =</b>
						<b>\$20,502.00</b>
						<b>PROJECT TOTAL =</b>
						<b>\$85,189.50</b>

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