

November 18, 2025

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

**RE: Children's Park Pedestrian Bridge Replacement  
Village of Lake Orion  
Proposal for Professional Services**

Dear Mr. McClary:

Nowak & Fraus Engineers (NFE) appreciates the opportunity to submit our proposal for Professional Civil Engineering and surveying services for the Village of Lake Orion. According to your email, you have requested our services to prepare construction drawings, bid documents and provide construction engineering to replace the pedestrian bridge crossing the Paint Creek in Children's Park. Please find detailed below a breakdown of our anticipated scope of services and associated fees.

**Understanding of the Project:**

The bridge at Children's Park has been recommended for replacement according to documentation from the Village's previous engineering consultant, HRC, in reports and letters dated February 1, 2019, November 18, 2020 and March 17, 2021. The recommendation for replacement is for the utilization of a new structure.

In order to limit disturbance to the Paint Creek banks, and ease the permit process, the Children's Park bridge replacement must be supported on new foundations located behind the existing concrete abutments, which apparently date to the late 1800's and cannot be reused. Because the existing abutments at Children's Park are partially buried, we relied upon the length of the existing steel fascia beam as an indication of the length that must be spanned by a replacement. We concur with HRC's 2019 letter that states a span length of 50' is likely necessary at this crossing point.

In 2023, the Village approved the reuse and refinement of the design concept for the Meeks Park bridge at the Children's Park bridge site, and the steel which was purchased for Meeks, but not yet fully fabricated, was altered in length for use to span the wider Children's Park crossing point. The two W12x72 steel beams were fabricated, delivered, and have been stored by the Village DPW. Proper siting of the new footings and grading to meet ADA requirements will be required as part of the construction plans to be prepared for tying in the new bridge deck to the walkways. The existing timber approach sections purchased from

Independence Township could either be used as bridge decking or held in reserve for future use in the event that a thinner cross section replacement bridge section is necessary.

EGLE permitting will be required for work within the 100-year floodplain and for inland lakes and streams.

### **Engineering Services:**

- **Topographic Survey:** Topographic survey for the purposes of preparing construction plans and permit drawings is required. The area of survey is approximately 0.33 acres, and at least three (3) stream cross sections will be surveyed, including at the existing bridge and abutments.
- **Construction and Bidding Documents:** NFE will prepare the drawings for construction of the pedestrian bridge, associated bridge abutments, and approaches. It is anticipated that piles will be required for the support of the bridge foundation. NFE will utilize a reputable sub-consultant to acquire geotechnical information and structural design for bridge and abutments / piling. All work to be completed will be compliant with the Americans with Disabilities Act (ADA). It is anticipated that the project will be competitively bid, and it is not anticipated that grant funding will be used. NFE will evaluate the bids received and make a recommendation to the Village Council for award of the construction contract.
- **EGLE Permitting:** Application to EGLE for a Part 301/303 and Part 31 permit will be completed with the necessary sketches.
- **Construction Engineering:** NFE will provide construction staking for the placement of the abutments and sidewalk / approach revisions and will provide construction inspection services to ensure that the project is constructed to Village of Lake Orion standards. NFE will process pay estimates and make recommendations for payment to Village Council.

### **FEES FOR SERVICES:**

#### **1. Topographic Survey**

***Lump Sum Fee: \$4,600***

#### **2. Construction and Bidding Documents**

***Lump Sum Fee: \$15,500***

#### **3. Geotechnical Investigation and Structural Design Services (FK Proposal attached)**

***Lump Sum Fee: \$9,750***

#### **4. EGLE Permitting**

***Lump Sum Fee: \$3,900***

## 5. Construction Engineering

**Construction Staking: Lump Sum Fee: \$1,850**  
**Construction Administration: Lump Sum Fee: \$9,600**  
**Construction Inspection: Time and Materials Fee based on Lake Orion Hourly Rate Schedule**

### Scope Clarifications and Exclusions:

Additional Services: Any other services requested by the Village will be quoted separately or billed on an hourly basis according to our Village of Lake Orion hourly rate schedule.

Opinions of Probable Cost: Opinions of probable cost provided represent NFE's best judgment as design professionals familiar with the construction industry; however, NFE has no control over the cost of labor, materials, equipment or services provided by others. Therefore, NFE cannot guarantee that proposals, bids or actual construction costs will not vary from the opinions of probable cost prepared by our firm.

### Acceptance and Authorization to Proceed:

Provided this proposal meets with your approval, please sign, date and return a copy of this Work Authorization to our office. Receipt of your signed Work Authorization will serve as our authorization to proceed.

The above Proposal is valid if accepted within 30 days of its receipt.

Thank you for choosing Nowak & Fraus Engineers to provide Engineering and Surveying services to the Village of Lake Orion.

Sincerely,

**Nowak & Fraus Engineers**

Carol P Thurber, PE, CFM  
Principal

Dated: 11/18/2025

**Accepted and Approved By:**

\_\_\_\_\_  
(Signature)  
Darwin McClary, Village Manager

\_\_\_\_\_  
(Date)

Enclosure: Village of Lake Orion Discounted Rate Schedule

Cc: Wesley Sanchez, DPW Director

**Village of Lake Orion**  
2021 DISCOUNTED FEE SCHEDULE



Personnel	Hourly Rate
Corporate Principal	\$ 150.00
Senior Associate	\$ 135.00
Associate	\$ 125.00
ALTA Survey Manager	\$ 130.00
Land Surveyor/Field Coordinator	\$ 120.00
Plat Manager	\$ 120.00
CAD Manager	\$ 120.00
Senior Project Manager	\$ 125.00
Project Manager	\$ 115.00
Registered Landscape Architect	\$ 96.00
Project Engineer	\$ 110.00
Engineer III	\$ 105.00
Engineer II	\$ 95.00
Engineer I	\$ 85.00
Engineering Technician III	\$ 95.00
Engineering Technician II	\$ 85.00
Engineering Technician I	\$ 80.00
Senior Testing/Inspection Engineer	\$ 82.00
Testing/Inspection Engineer	\$ 75.00
Engineering Assistant	\$ 65.00
Survey Crew – 3 Person	\$ 175.00
Survey Crew – 2 Person	\$ 145.00
Survey Crew – 1 Person	\$ 110.00
Land Survey Technician	\$ 95.00

Survey Crew size will be determined on a per project basis.

**Reimbursable Expenses:**

Round trip vehicle mileage from the NFE offices will be charged \$0.56 per mile, when identified in the Work Authorization as a reimbursable expense.

The following expenses, when incurred in direct connection with the project, will be charged at the rates indicated (includes handling):

Courier services and project related purchases	Cost + 15%
Prints	\$2.00 Each
Oversize Prints	\$3.00 Each
Mylars & Vellums	\$20.00 Each
Express Deliveries	\$25.00 Each
Electronic Data Transfer - CD	\$100.00 Each
Electronic Data Transfer - Email	Hourly
Subconsultants	Fee + 10%
Traffic Counter	\$50.00/Day



30425 Stephenson Hwy  
Madison Heights, MI 48071

Wendy E. Spence, P.E.  
Nowak & Fraus Engineers  
Senior Project Manager  
48680 Van Dyke Suite 200  
Shelby Twp, Michigan 48317

August 12, 2025

RE: Geotechnical Investigation Proposal  
**Children's Park Pedestrian Bridge**  
Lake Orion, Michigan

Dear Ms. Spence,

In response to your July 21, 2025, Request for Proposal (RFP), FK Engineering (FKE) is pleased to present this proposal to perform Geotechnical Engineering investigation and design services related to the proposed Children's Park Pedestrian Bridge in Lake Orion, Michigan. Details regarding our proposal are presented including background information, scope of services, schedule, and associated professional fees.

## PROJECT BACKGROUND

Nowak & Fraus Engineers (NFE) is working with the Village of Lake Orion on a proposed pedestrian bridge at Children's Park located at 201 S Broadway St. in Lake Orion, Michigan.

NFE provided the following to aid in preparation of this proposal:

- Utica Steel Shop drawings dated 05/19/2023 (Image 2)
- Aerial of Children's Park (Image 3)
- Photos of the existing pedestrian bridge

Utica Steel has lengthened the main support beams (originally designed for Meeks bridge) from 36 feet to 50 feet (two W12x72 beams) and prepared shop drawings for the Children's Park bridge. We understand that NFE performed structural calculations to assess viability of the lengthened beams if one or more of the existing mid-span concrete "masses" or supports that were once used for supports for weir gates from the mill from the 1880's (currently supports for the existing Children's Park bridge) see Image 1.



Image 1 – Existing bridge mid-span supports

NFE is requesting a geotechnical engineering proposal from FKE to help in the design aspects of the new pedestrian bridge. The requested FKE services are to include: :

- Geotechnical investigation and footing design, each side of bridge
- Structural design and/or confirmation – revised beam length per Utica Steel shop drawings
- Decking recommendation The decking will be a beam design and include designed connections for fastening the deck to the beam
- Mid-point support verification

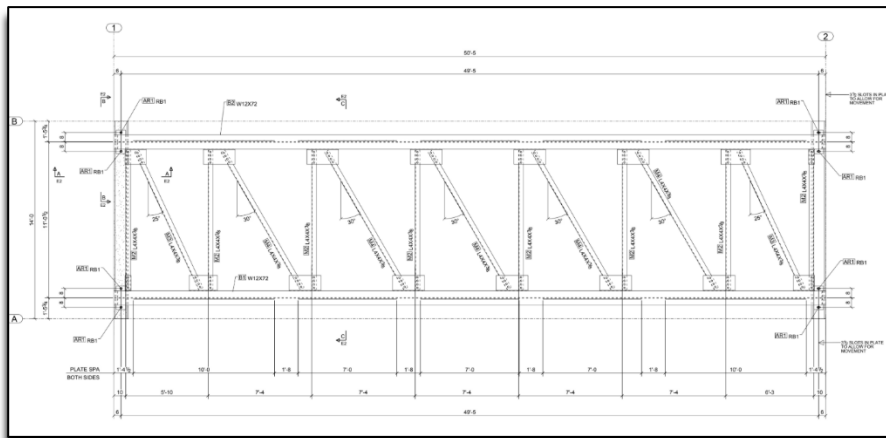


Image 2 - Steel framing plan provided by NFE from Utica Steel Shop drawings



Image 3 - Site aerial of Children's Park in Lake Orion, provided by NFE

The following section presents our proposed Scope of Services to meet the request, including schedule and associated professional fees.

## SCOPE OF SERVICES

To meet the goal of the project as discussed herein, the requested scope items are discussed in the following sections.

### Geotechnical Investigation

In general, we will perform the test boring as follows:

- We have assumed that no permits will be necessary to perform our fieldwork. Should they become necessary, they will be obtained by others.
- Prior to the start of drilling operations, we will coordinate site access with NFE personnel and contact Miss Dig at least three business days prior to drilling to clear known utilities at the proposed test boring locations.

We plan to perform one 30-foot-deep test boring as it appears that there is truck-mount vehicle access available at the northeast side of the existing bridge. On the south side, we will perform one hand auger boring as deep as practical (typically limited to about 5 feet) and also perform a dynamic cone penetrometer (DCP) test as deep as conditions allow (typically up to about 10 feet).

We will have a full-time staff professional or experienced engineering technician facilitate the fieldwork and log soil samples immediately upon sample retrieval. In general, our on-site test boring inspectors will log the boring, review, and classify samples, take groundwater level readings, and record other relevant information in the field. Soil will be classified in accordance with FKE's Soil Classification System.

Test boring drilling samples will be recovered using Standard Penetration Testing (SPT) methods where we obtain split spoon samples at 2.5 feet on center to 10 feet, and at 5-foot intervals thereafter.

Upon completion of drilling, the boring will be backfilled with soil cuttings until level with prevailing grade. Excess spoils will be left onsite as neatly as practical. No site restoration beyond boring backfilling will be performed as part of this scope.

The boring will be logged, and results prepared in the form of Logs of Test Boring. A boring location plan will be prepared in CADD format.

- We will perform geotechnical laboratory testing on select split spoon samples. Laboratory testing will likely consist of particle size distribution (sieve and/or hydrometer), and/or moisture content if granular soils are encountered and moisture-density, dry-density, and unconfined compressive strength tests for cohesive soil samples.

We will complete a Geotechnical Investigation Report for the proposed pedestrian bridge replacement summarizing findings and investigation procedures including geotechnical engineering evaluations and recommendations. The report will include the test boring logs and a location plan.

Geotechnical evaluations and recommendations will include groundwater conditions and control, engineered fill, site preparation, and allowable foundation bearing capacity.

### **Design & Engineering Evaluation Services**

- We will review the provided information to gather understanding of the existing site conditions and constraints.
- We will perform design calculations for the proposed pedestrian bridge abutments using data from our Geotechnical Investigation. We will then prepare CAD design drawings for the abutments to be submitted to NFE for review and comments before finalizing.
- We will perform an secondary confirmation of the Utica Steel Shop drawings, decking recommendations, mid-point support, and other relevant information to be considered for the geotechnical design aspects of the project.
- We will perform design calculations to support the proposed pedestrian bridge deck panels. These calculations will also include connections for the deck to the new support beam (s).

We will then prepare CAD design drawings for the abutments to be submitted to NFE for review and comments before finalizing.

- All design drawings will be stamped by a Professional Engineer licensed in the State of Michigan.

**SCHEDULE**

FKE is prepared to schedule this investigation immediately following the notice to proceed. We expect the fieldwork to take 1 day to complete. We will then facilitate the design and evaluations as presented herein. Final deliverables should be prepared within 3 weeks following completion of fieldwork.

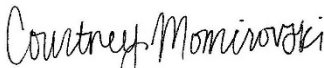
**PROFESSIONAL FEES**

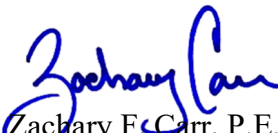
We propose to perform the services as presented in this proposal for a **LUMP SUM FEE of \$9,750. This includes drilling costs, reporting, and design drawing preparation as discussed herein.**

We appreciate this opportunity to submit our proposal for your consideration. Any additional services will be based on our attached Standard Fee and Rate Schedule or other negotiated amount. Our services will be in accordance with the attached FKE General Terms and Conditions. Should you have any questions regarding this proposal, please call.

Sincerely,

FK Engineering Associates, Inc.

  
 Courtney Momirovski  
 Assistant Project Engineer

  
 Zachary F. Carr, P.E.  
 Vice President

**ACCEPTED BY NOWAK & FRAUS:**

**BY:** \_\_\_\_\_

**SIGNATURE:** \_\_\_\_\_

**TITLE:** \_\_\_\_\_

**DATE:** \_\_\_\_\_