

Kalkaska County Road Commission

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Kalkaska, MI 49646
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The Kalkaska County Road Commission is an Equal Opportunity Provider and Employer



Financial assistance provided by the State High Water Infrastructure Grant Program, authorized under Section 1006 of Public Act 87 of 2021

February 26, 2024

REQUEST FOR BIDS – Provide two Pre-fabricated Timber Bridges to the project site for installation by others and in accordance with the attached specifications and project plans.

Sealed bids will be received until **9:00 a.m. May 8, 2024**, at which time they will be publicly opened and read. Bids shall be received at the office of the Kalkaska County Road Commission, 1049 Island Lake Road, Kalkaska, MI 49646. Bids will be tabulated and a recommendation will be made to the Board of Road Commissioners.

The Kalkaska County Road Commission requests bids for the following:

Underhill Road over the Rapid River.

Bids must be submitted on Kalkaska County Road Commission’s Contractor Bid Form.

The contractor will coordinate the work with the Kalkaska County Road Commission. Project shall be completed by **August 12, 2024** unless otherwise agreed to by the contractor and the Road Commission. Traffic control will be provided by the contractor, performed in accordance with the current Michigan Manual of Uniform Traffic Control Devices and shall be included in the unit prices on the bid forms. Mobilization will be included in the unit price for each pay item and will not be a separate pay item.

Bid price shall include mixing, hauling, placing and compacting the mix in accordance with the current MDOT Standard Specifications for Construction and the Kalkaska County Road Commission Special Provision for Acceptances of HMA Mixture. Bid price shall also include all pay items listed on the “Contractor Bid Form”.

The Kalkaska County Road Commission reserves the right to adjust quantities, to accept or reject any or all bids, to waive any irregularity or defect in a bid, or to accept the bid, which, in the opinion of the Road Commission is in the best interest of the county.

The successful bidder shall enter into a contract with and provided by the Road Commission. Label bid **“Underhill Road over Rapid River Bridge Supplier Bid”** plainly on the outside of a sealed envelope.

John S. Rogers Manager

Progress Clause

The Owner anticipates that construction can begin no earlier than April 10, 2024.

In no case shall any work be commenced prior to receipt of formal notice of award by the Owner.

The Contractor shall prepare and submit a complete, detailed, and signed MDOT Form 1130, Progress Schedule, according to 12SP-101A.

The Progress Schedule shall include, at minimum, the controlling work items for the completion of the project, as well as the planned dates or work days that these work items will be controlling operations. All contract dates including open to traffic, project completion, interim completion and any other controlling dates in the contract, must be included in the progress schedule.

If the bidding Proposal specifies other controlling dates, these shall also be included in the Progress Schedule.

The Project shall be completed in its entirety including final site restoration and clean-up

On or before August 12, 2024

After award and prior to the start of work, the Contractor must attend a preconstruction meeting with the Engineer. The Engineer will determine the day, time and place for the preconstruction meeting. The meeting will be conducted after project award and may be rescheduled if there are delays in the award of the project. The named subcontractor(s) for Designated and/or Specialty Items, as shown in the Proposal, should attend the preconstruction meeting if such items materially affect the work schedule.

Liquidated Damages shall be assessed in accordance with Section 108.10 of the 2020 Standard Specifications.

TIMBER STRUCTURE, MODIFIED

a. Description. This work consists of design, fabrication, preservative treatment, and delivery per the standard specifications except as modified herein. The bridge must have the span, width, and skew angle as shown on the plans. Deviation from dimensions shown on the plans must be approved by the Engineer.

The design and fabrication of the timber bridge must be done by one of the following timber bridge suppliers, or approved equal:

1. Wheeler Lumber, LLC
2. Pinnacle Lumber and Plywood
3. Sentinel Structures

The fabricator must be regularly engaged in the design and fabrication of structural timber and lumber elements, and must furnish independent records or certification of competency upon request of the Engineer.

b. Design. Design the timber bridge in accordance with the current bridge design specifications.

Pile capacity, number and layout of piles, and estimated pile penetrations are shown on the plans.

Deck width must be comprised of multiple panels in accordance with the following criteria:

1. Unless otherwise specified, all dead loads, superimposed dead loads, and live load must be as specified according to the current State of Michigan HL-93-Modified bridge standards.
2. The bridge railing will be designed to a PL-1 Loading.
2. Dead load must include a sloped HMA wearing surface applied over the top of the deck panels as shown on the plans.
3. Live load must be positioned on the structure to produce the maximum load effects. The design must also accommodate the Michigan 2-Unit 77-ton truck.
4. Bridge element deflections must be in accordance with the *AASHTO LRFD Bridge Design Specification*.
5. Individual element dimensions must be determined by the manufacturer.

Timber railing must be designed as part of the deck panel system, and must meet PL-1 loading requirements. Connect rail components to the superstructure only; no connection of the rail components to substructure units are permitted.

c. Shop Drawings and Bridge Plans. Submit an electronic file copy and one paper copy of the proposed working drawings and detailed design calculations for all bridge elements to the Engineer for review not less than 10 working days before beginning fabrication, in accordance with subsection 104.02 of the Standard Specifications for Construction. Ensure all documents submitted for review and approval are developed, and sealed by a Professional Engineer licensed in the State of Michigan. Include details of all pile cap, deck panel, transverse spreader beam, backing planks, railing posts, connection and joint elements for approval. Include

all element physical dimensions, methods of manufacture, and recommended installation procedures. Do not begin fabrication before receiving written approval of the working drawings and design calculations. Working drawings must include all details, dimensions, and quantities necessary to fabricate and erect the entire bridge, and must include, but not necessarily be limited to the following items:

1. Title sheet containing project location, specifications and construction notes;
2. MDOT Control section, Job number, and Structure ID on all sheets;
3. General Plan of Structure showing plan, elevation and deck cross section views;
4. Structural timber and lumber material grades, species designation, and other material grades;
5. Lap joint details including number and spacing of drive spikes;
6. Abutment plan, elevation and section views;
7. Pile cap plan, elevation and section views;
8. Spreader beam plan and section views; and
9. Rail post section and details.

d. Load Rating. As part of the design, perform load ratings on the timber bridge in accordance with the *AASHTO Manual of Bridge Evaluation*, the *Structure Inventory and Appraisal Guide*, and the *Michigan Bridge Analysis Guide*. The following ratings must be calculated:

1. The Inventory Rating, NBI item 66.
2. The Federal Operating Rating, NBI item 64.
3. The Michigan Operating Rating, MDOT item 64M.
4. The Michigan Overload Class, MDOT item 193

Perform the load ratings using the as-design configuration of the bridge, and assuming the HMA wearing surface has been placed. Submit an electronic file copy and one paper copy of the Load Rating Assumption Sheets, analysis program or calculation input and output, and a completed Bridge Analysis Summary form to the Engineer for review not less than 10 working days before beginning fabrication, in accordance with subsection 104.02 of the Standard Specifications for Construction. Ensure all documents submitted for review and approval are developed, and sealed by a Professional Engineer licensed in the State of Michigan.

Upon construction completion, adjust the load rating analysis as necessary to include the as-built conditions of the bridge, and submit to the Engineer as described above.

e. Materials. Use only materials meeting the requirements of sections 709 and 912 of the Standard Specifications for Construction.

Inspect all timber prior to treatment. Material will be accepted after treatment on the basis of its condition prior to treatment, on the basis of the treatment procedure substantiated by plant records, on the condition of the material after treatment, and on the treatment absorption and penetration based on visual inspection. Verify treatment penetration and retention.

Provide access to the Department for quality assurance inspection. Notify the Engineer a minimum of 2 weeks prior to start of fabrication. This inspection is not considered a substitute for the manufacturer’s quality control requirements as stated herein.

As far as practicable, perform all planing, cutting, trimming, drilling, boring, chamfering, mortising, surfacing and framing prior to treatment. Coat cut surfaces according to *AWPA M4 Standards* if cutting and drilling must be done after treatment process. Pressure treat all superstructure, railing and substructure components with Copper Naphthenate to a minimum retention of 0.075 pounds per cubic foot (pcf) as copper (Cu) metal.

f. Construction. Assemble all deck panels in accordance with the *AASHTO Standard Specifications for Bridge Construction*, and section 709 of the Standard Specifications for Construction. Use 3/8 inch diameter ring shank dowels. Drive all dowels simultaneously and with equal force using a press the full length of the deck panel, ensuring all heads are flush with the surface of the timber plank. Do not use multiple impact tools to set dowels.

Frame and place the treated timber elements per subsection 709.03 of the Standard Specifications for Construction. Secure shop-lapped joint with drive spikes. Connect transverse spreader beams to multiple deck panels and secure through panels with bolts and locking hardware.

The fabricator is responsible for assisting the Contractor with erection of the structure.

g. Measurement and Payment. The completed work, as described, will be measured as a lump sum and paid for at the contract price using the following pay item:

Pay Item	Unit
Structure, Timber, Modified	Lump Sum

Structure, Timber, Modified includes submittal and approval of engineering drawings and calculations, fabrication, preservative treatment, treatment penetration and retention quality assurance testing, and delivery.

Schedule of Items (Itemized Bid Sheet)

Letting Date: Wednesday, May 8, 2024 9:00 AM

Contract ID: 23.120
Location: Underhill Road Crossing
Description:

Project Number: 23.120	Project Engineer: Rebecca Rivard, P.E.
Estimate Number: 2	Date Created: 2/26/2024
Project Type: Miscellaneous	Fed/State #:
Location: Underhill Road Crossing	Fed Item:
	Control Section:

Description:

Instructions to Bidders: IMPORTANT NOTICE:
If the proposal establishes a maximum price for any of the following work items, and if you bid a price higher than that maximum price, your bid will be considered to have quoted the maximum price and your bid total will be adjusted to reflect that maximum price.

If the proposal provides a specified price for any of the following work items, and if you bid a price higher or lower than that specified price, your bid will be adjusted to reflect that specified price.

If your bid is the lowest accepted bid, and if you refuse to accept the award of the contract due to the change in what you quoted as a maximum or specified price, you will forfeit your proposal guaranty.

Pay Item	Description	Quantity	Units	Unit Price		Bid Amount	
				Dollars	Cts	Dollars	Cts
7097051	_ Structure, Timber, Modified	2	LSUM				
Total Bid:							

Contractor: _____

 (Signature) (Date)