



## Gun Lake Tribe – Environmental Department Request for Engineering Bids

Location of site: Jijak Property  
2558 20<sup>th</sup> Street Hopkins, MI 49328

Date due: April 16, 2021 by 5:00pm

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269-397-1780  
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### Introduction:

The Gun Lake Tribe (Tribe) is seeking bids for engineering and construction documents for stormwater improvements at the Tribe's Jijak property. This request is split into two separate areas, additional details provided below. Additional information including site maps and preliminary plans are available upon request and signature of a nondisclosure agreement. The selected contractor will be responsible for final engineering and construction documents for a future construction bid process. All engineering bid responses must include a brief workplan, timeline and detailed budget. Please email all bids to [alex.wieten@glt-nsn.gov](mailto:alex.wieten@glt-nsn.gov) and [shawn.mckenney@glt-nsn.gov](mailto:shawn.mckenney@glt-nsn.gov) by 5:00 pm April 16, 2021. All questions can be directed via email to Alex Wieten and Shawn McKenney or by phone at 269-397-1780. Site visits can be available upon request on the afternoon of April 9, 2021. A contractor will be selected by 4/23/21.

### Area 1:

Area 1 engineering and construction documents shall include the installation and tie-in of an underdrain and/or permeable pavement system between a large parking lot and the cafeteria (BMP-4 in the image below). Currently, runoff from large rain events saturates the lawn around the cafeteria due to the parking lot slope. The engineer shall determine if the runoff can be rerouted to a swale located near the parking lot with creation of a rain garden within the swale (preferred), or if the swale cannot handle the additional runoff, engineering plans to most efficiently tie the drainage into the existing alternate stormwater infrastructure. The engineer will be responsible for taking into account all existing utilities that may be impacted by any construction activities. Existing swale outlet location must be verified by the selected engineering company.

**Area 2:**

Area 2 engineering and construction documents shall consist of a series of bio-diffusers at the main outlet pipe of the current stormwater system (BMP-1 in the image below). The engineer shall design this system to allow the maximum infiltration with the minimal impact to the surrounding land. The system shall include an overflow mechanism to accommodate large storm events. The majority of the stormwater from the developed portion of the property flows to this single outflow which has severely scoured streambanks. The engineer shall consider all upstream flow and minimize impacts downstream, in the outlet area which leads to Ingerson Lake. Additionally, the engineer shall design best management practices for installation downstream of the bio-diffusers in the outlet channel including a series of check dams and other erosion control measures to restore and protect the streambank.



<b>KIESER ASSOCIATES</b> ENVIRONMENTAL SCIENCE & ENGINEERING	538 E. MICHIGAN AVE., SUITE 300 KALAMAZOO, MI 49007 ph: (269) 344-7177 fax: (269) 344-3463	<b>GUN LAKE TRIBE - JIJAK CAMP</b> STORM WATER MANAGEMENT SYSTEM ASSESSMENT	<b>STORM WATER SYSTEM</b> BMPs
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