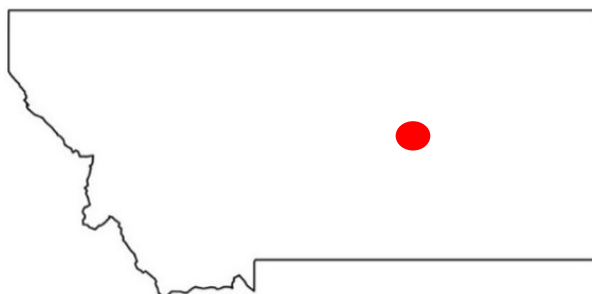
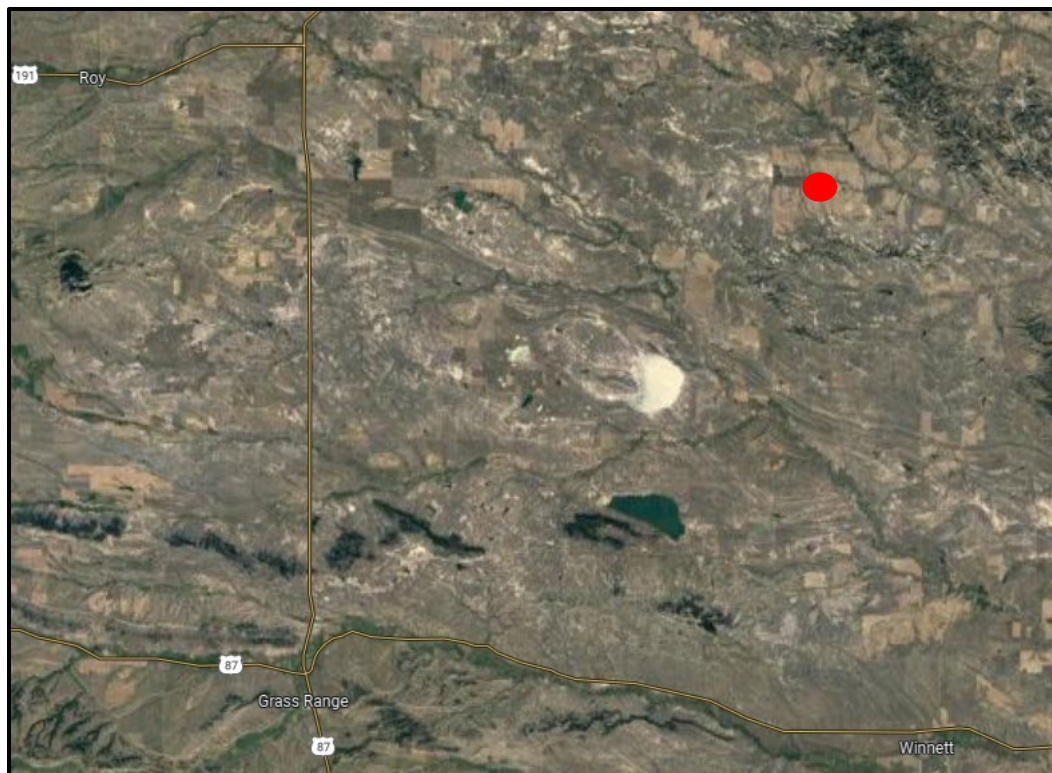


**Experimental Feature Workplan
 June 2022**

Experimental Feature:	Flexamat Vegetated Concrete Mat
Location:	Billings District, Petroleum County, Valentine Road
MDT Project Name:	Valentine Road Repair
MDT Project Number:	ER 35(21)[9745]
Experimental Project Number:	MT-20-03
Principle Investigator:	Chad DeAustin, Experimental Project Manager, (ExPM)
Technical Contact:	Dave Hedstrom, MDT Hydraulics Engineer

Project Map



Project Description & Outline

Flexamat is a mat made of concrete blocks tied together with a high strength geogrid used for stabilizing slopes, channels, low water crossings, inlet/outlet protection, and shorelines. The concrete blocks are 6.5" squares with a 2.25" height. The blocks have a 1.5" spacing that provides flexibility and allows for vegetation growth between the blocks. In a scenario that the product worked as intended, the Flexamat will significantly decrease erosion while still allowing some vegetation growth. Below is an image from the manufacturer's website.



Evaluation Procedures & Schedule

The measure of effectiveness (MOE) prevalent with this project will focus on:

- Construction practices (constructability, construction time, cost effectiveness, etc.),
- Document any visual distress of the Flexamat,
- Document any erosion.

In accordance with the Department's 'Experimental Project Procedures,' Research will monitor and report on performance for a minimum of five years annually. This includes delivery of a work plan, construction report, annual reports, and final project report.

2020: Installation/Construction Report
2021-2024: Annual Inspections/Evaluation Reports
2025: Final Evaluation Report/Project Conclusion

A web page will be dedicated to display all reporting from the project.

Preconstruction – Summer 2020

A 2010 storm event caused a dam upstream to fail and resulted in water flows higher than designed to flow through the culvert. This resulted in eventual failure of the culvert causing drainage issues and road washout.



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