AGENCY OF TRANSPORTATION **OFFICE MEMORANDUM**

To: Chris Bump, District 4 Project Manager

CEE

From: Callie Ewald, PE, Senior Geotechnical Engineer

Date: July 24th, 2025

Subject: Bridgewater ER P23-1(424) Probe Summary

As requested, we have performed a subsurface investigation on US Route 4 in the vicinity of mile marker 4.50 in the town of Bridgewater, VT. It is our understanding that the project consists of a pipe (PID 31205) replacement extending under Route 4 and into the Ottauquechee River. Contained herein are the results of the field investigation carried out.

The field investigation was conducted on June 30th, 2025. Two probes were advanced to determine the presence of bedrock within the excavation envelope identified by the District for replacement of the pipe. Probe locations were laid out on May 13th on either side of US 4 near the location of the proposed pipe alignment. A summary of the location of each probe can be found in Table 1. Locations were collected using the Geotechnical Section's handheld TrimbleTDC600 and Trimble Da2 receiver with submeter accuracy. The values for the Northings and Eastings are based on the Vermont State Plane Grid Coordinate System NAD 83. The locations should be considered accurate only to the degree implied by the method used to determine them.

Table 1 Probe Locations and Notes

Probe ID	Northing (ft)	Easting (ft)	Notes
B-101 EB Shoulder	400268.3	1594459.5	0.6' Asphalt No bedrock encountered to 14 ft
B-102 WB Shoulder	400288.2	1594425.0	0.4' Asphalt No bedrock encountered to 14 ft

The probes were advanced using the Agency's Diedrich D-25 drill rig. No Sampling was performed during the drilling. Both holes were terminated 14 feet below the ground surface without encountering bedrock. The drillers noted drill rig chatter from 11 to 13 feet in both holes, indicating dense material and/or the presence of larger grain sizes such as cobbles.

If you have any questions, or you would like to discuss this memo, please contact me at (802) 595-4589, or via email at callie.ewald@vermont.gov.

cc: Michael Blakslee, District 4 Technician