

CONSTRUCTION OBSERVATION REPORT

Date: July 29, 2021	Time On Site: 1:45 PM	Time Off Site: 4:30 PM
Project: Middlebury River Flood Resiliency Project (15032.00002)		
Observed By: Brian Cote		
Weather: Rain, $\pm 70^{\circ}\text{F}$, flows above normal		

Equipment / Operator

- CAT 336EL Excavator – Markowski Excavation, Inc.
- CAT 325CL Excavator – Markowski Excavation, Inc.
- CAT D350E Off-Road Haul Unit – Markowski Excavation, Inc.
- CAT 259D Skid Steer – Markowski Excavation, Inc.
- On-Road Dump Trucks – Markowski Excavation, Inc.
- Coring Operation – Catamount Concrete Cutting (

Personnel

- Tyler Truman (Site Superintendent / Operator) – Markowski Excavation, Inc.
- Dana Truman (Operator) – Markowski Excavation, Inc.
- Excavator Operator – Markowski Excavation, Inc.
- Patrick & Assistant – Catamount Concrete Cutting

Construction Activity

- Removing sediment from the gravel bars and flood chutes on the opposite side of the river from the Ossie Road Berm work site on the Murray Parcel.
- Coring through the Grist Mill Road floodwall.

Design/Construction Notes

- The ford water crossing to access the gravel bar and flood chutes is working well, contractor has shaped to minimize buildup of water upstream.
- Off-road haul unit easily able to cross river, traveling a short distance to offload excavated sediment on top of the fill area at the Murray parcel, where it is then loaded into on-road dump trucks and hauled to the Brandon recycling facility. Minor discharges were observed when the haul unit crossed.
- Upon arrival, approximately $\frac{3}{4}$ of the gravel bar (Gravel Bar A, B, and C) had been excavated down to water level, and the flood chutes (Chute 1A and 1B) opened.
- Contractor had completed sediment removed from the gravel bar before leaving the site. Since the ford crossing is no longer needed, asked the contractor to remove material placed to shape the crossing so that water levels upstream can return to normal.
- Discussed next steps for armoring the Ossie Road berm with the Contractor. Isolation berm being used to keep main flow away from the work area. River gravel & cobble used to create isolation berm will be removed to restore the river.
- Armoring to resume on Friday July 30th and continue into the week of August 2nd.
- Some large boulders / cobble recovered from gravel bar during excavation that have been stockpiled to be used for armoring.

- Reminded the Contractor that angular rock shall be used to armor the berm primarily, with sporadic use of river cobble / boulders that are tightly embedded into the finished slope armoring.
- Reminded the Contractor that the flow must remain in the main channel of the river during and after work is complete.
- Coring of the floodwall is moving slower than anticipated. By the end of day on Thursday July 29th, the first hole had advanced a little over 7 feet, however not completely through the wall.
- The concrete in the floodwall contains river cobble that was used in the mix, when the coring bit hits a cobble, coring can slow significantly.
- The first few holes at the downstream end of the wall are lower, where the wall may be thicker also.
- Coring operation to continue on Friday July 30th.
- Spoke with George and Nancy Marcus, they are concerned about the noise levels once the installation of the sheeting begins. Explained that the sheeting will be installed using a combination of trench excavation and vibration hammer mounted to an excavator. They are considering leaving while sheeting is being installed. Their understanding is that the sheeting install was to begin on August 16th, however that may be delayed due to the coring taking longer. ***It will be important to receive regular scheduling updates moving forward.***
- Access road along floodwall properly built and pushing river south. Edge armored with large existing stone near wall and access road topped with gravel. No turbidity in river.
- Berm downstream of existing floodwall has been largely removed. Flood contingency plan is to pull up road material or import large boulders to reform berm if large flood is predicted.
- Spill kits are staged at both the Ossie Road Berm and Grist Mill Road Floodwall work sites.

Compliance Notes

- Project limit tape properly installed.
- Traffic control signs properly posted.
- Minimal turbidity in river observed while on site.
- No tracking onto roadway surface observed while on site.

Schedule

- Armoring at the Ossie Road berm near the Murray Parcel to continue during the week of August 2nd.
- Floodwall coring for anchors to continue on Friday July 30th and into the week of August 2nd.
- Installation of ground anchors at the existing floodwall tentatively scheduled for the week of August 9th, depending on completion of floodwall coring.
- Installation of sheet piling at the existing floodwall tentatively scheduled for the week of August 16th, depending on completion of floodwall coring and ground anchor installation.

Photographs



Figure 1: Sediment removal underway at gravel bar on the opposite side of river from Ossie Road berm, temporary isolation berm to keep flow from berm armoring work area visible in center of photo.



Figure 2: Haul unit crossing (reversing) at ford, discharge at crossing limited to fines washing off of tires that quickly dissipates before reaching end of work area.



Figure 3: Flow has largely cleared within a minute after haul unit crossing.



Figure 4: Excavated sediment being loaded into on-road dump trucks at the Murray parcel fill area.



Figure 5: Coring operation underway at the Grist Mill Road floodwall.