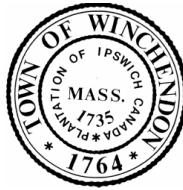


**109 Front Street  
Winchendon, MA 01475**



**DATE: August 13, 2024**

**MEMORANDUM**

**MEMO TO FILE**

**FROM: Patrick Wood, Town Engineer  
SUBJECT: July 2024 Mabardy Landfill Site Observation**

On July 2, 2024 the Department of Public Works (DPW) visited the former Mabardy Landfill to monitor the grading activities of the Landfill Closure Project. The site visit was performed during normal operational hours.

The monitoring was previously performed by Tighe and Bond until October of 2023. Refer to Tighe and Bond site reports for previous investigations and overview of the project.

**Permit History**

The Massachusetts Department of Environmental Protection (MassDEP) permitted the acceptance of up to 415,000 cubic yards of COMM 97-001 material as defined by MassDEP Policy. A Minor Modification of Existing Landfill was approved by MassDEP May 5, 2023 which increased the permitted maximum volume to 480,000 cubic yards.

In October 2022, test pits were performed delineating the extents of the landfill further than originally anticipated and a request for a major permit modification in May of 2023 was submitted to MassDEP. On October 20, 2023 the major permit modification was authorized allowing the facility to accept up to 755,000 cubic yards (1,434,500 tons). The modification also increased the daily load limit of 64 loads per day to 75 loads per day.

In accordance with Condition 13 of the Landfill Closure Agreement between the Town and the Operator, the Site was reviewed for compliance with the following documents:

- Corrective Action Design permit approval issued on September 23, 2020 and Corrective Action Design Plans prepared by Langdon Environmental, LLC, dated June 2019 and revised October 2019.
- Initial Operations Plan, by Langdon Environmental, LLC, dated January 2021, revised to include temporary rip rap settling area.
- The Operator has received approval from MassDEP to expand operations and authorized the acceptance of an additional 65,000 cubic yards of material, bringing the total permitted volume to 1,434,500 cubic yards.

**Landfill Operations**

General landfill operations appeared to comply with the Corrective Action Design. While on site, material was placed and spread by bulldozer in the general area within the limits designated for initial placement. The area of activity is shown below. While on site, operators were placing, grading and shaping material to bring the fill to grade.

Vegetation has been growing along the hydorseeded slopes of the perimeter. Previous areas of erosion have been partially stabilized with vegetation and appear to be maintained. There are some exceptions, such as the gully that is present at the south-west portion of the site, see photo 1. These are areas of

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erosion due to the sandy swales that have formed during rainfall events. Maintenance and monitoring will need to be continued in these areas to ensure there is minimal undermining and soil migration.

### **Stormwater and Erosion**

Stormwater conveyances were constructed per the Initial Operations Plan as revised to include a temporary rip rap settling area. This plan was submitted to MassDEP under a Major Permit Modification (BWP SQ 11). The temporary stormwater basin, catch basin, and swale have been removed. While on site, the rough grading for the northern stormwater basin appeared to be completed, with the exception of established vegetation. No elevations or surveys have been submitted to our office to confirm elevations or as built conditions.

The new silt fencing and hay bales which were installed in March 2024 along the front of the previous erosion controls, continue to be in good shape with minimal sediment accumulated. See photos below.

### **Recommended Site Erosion Control Measures**

Continue to monitor the fines that migrate down to the new erosion controls and excavate them as needed. Sediment shall be removed when they reach half the depth of the hay bales. Please note, that inspections of some of the erosion controls are difficult due to high vegetation.

Cut/mow established vegetation as necessary to maintain vegetation stabilization and allow for visible inspection of the slopes. Any slopes greater than 2H:1V and unable to establish adequate vegetation should receive a 10oz non-woven geotextile filter fabric and 8" layer of riprap.

Monitor gullies that form in the slope. Continue to fill them in materials to remove the gullies, as possible as additional rain will continue to deepen the gullies.

Boulders that were located on the slopes of the land fill are no longer visible due to the high vegetation. Caution should be used if mowing or maintaining the vegetation along the slopes. Continue to monitor for any more boulders that may roll down the shoulder.

Continue maintenance of the construction entrance and dress up the angular stone as necessary to avoid tracking sediment into the road.

### **Material Accepted**

DPW has reviewed the attached Net Daily Summary Report received for the month of July. The summary was taken from the monthly reporting report developed by Civil & Environmental Consultant, Inc., dated August 7, 2024.

The summary details the total tonnage and number of loads of material received by the facility. As indicated in the attached Table 1, a total of 20,775.16 tons of material was received in July, which results in 333,403.80 tons remaining of the total 1,434,500 tons permitted. Based on a utilization factor of 1.9 tons per cubic yard of soil, the total volume received in July was 10,934.29 cubic yards, which results in 175,475.91 cubic yards remaining. This represents about 23% of the total permitted volume remaining based on the updated BWP SW 11AC permit.

The DEP permit limits the number of loads received to 75 per day without special Town permission. There were no days in July in which the number of loads received was greater than 75.

Enclosed are photographs summarizing the items observed during the site visit, and Table 1, which notes the monthly summary of material accepted.

**Table 1 – Monthly Summary Report**

<b>JOB NO</b>	<b>SHEET 2 OF 2</b>		
<b>CLIENT SUBJECT</b>	<u>Winchendon DPW</u> DATE <u>8/13/2024</u> Mabardy Landfill Monthly Material Summary		

**Table 1 ~ Cumulative Material Received**

<b>Month-Year</b>	<b>Material Received (tons)</b>	<b>Material Received (cubic yards)</b>
Before Oct-23	910,435.65	479,176.66
Nov - 23	33,456.05	17,608.00
Dec - 23	24,513.38	12,902.00
Jan - 24	25,948.06	13,656.87
Feb - 24	15,114.98	7,955.25
March-24	18,467.90	9,719.95
April-24	15,899.46	8,368.14
May-24	15,717.15	8,272.18
June-24	20,768.41	10,930.74
July -24	20,775.16	10,934.29
<b>Total</b>	<b>1,101,096.20</b>	<b>579,524.09</b>
<b>Permit Limit</b>	<b>1,434,500.00</b>	<b>755,000.00</b>
<b>Remaining</b>	<b>333,403.80</b>	<b>175,475.91</b>



Figure 1

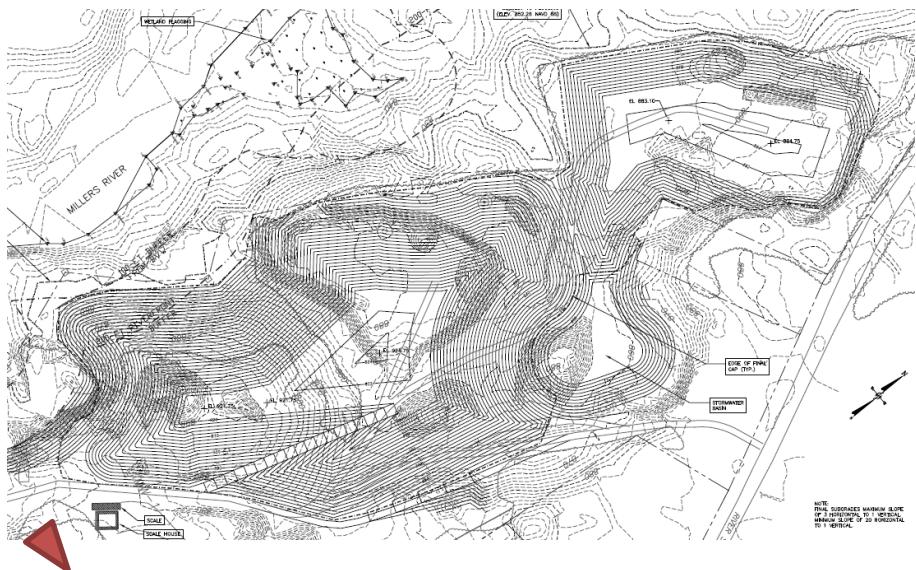




Figure 2

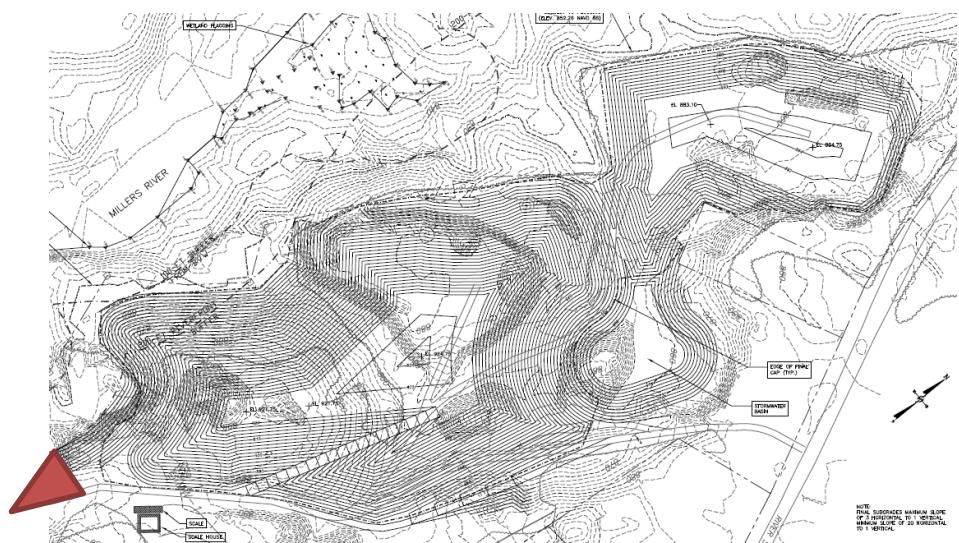




Figure 3

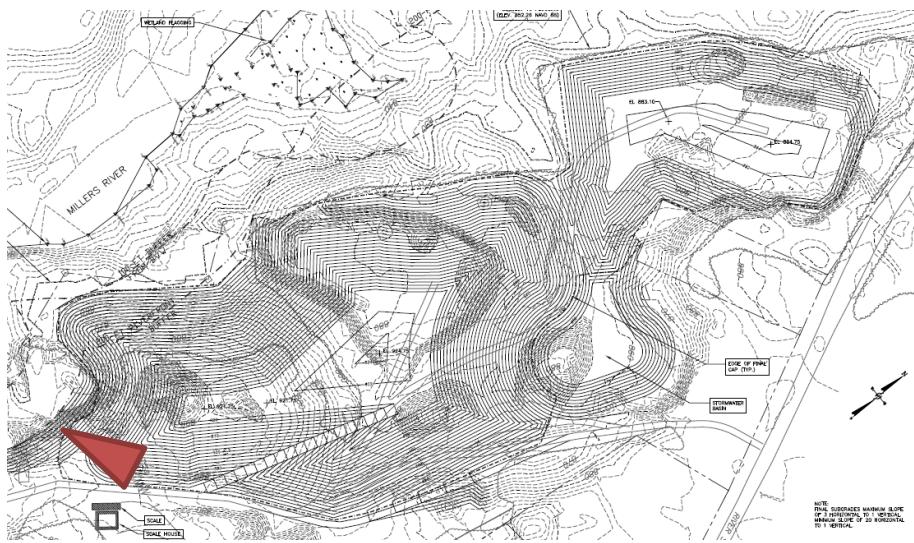




Figure 4

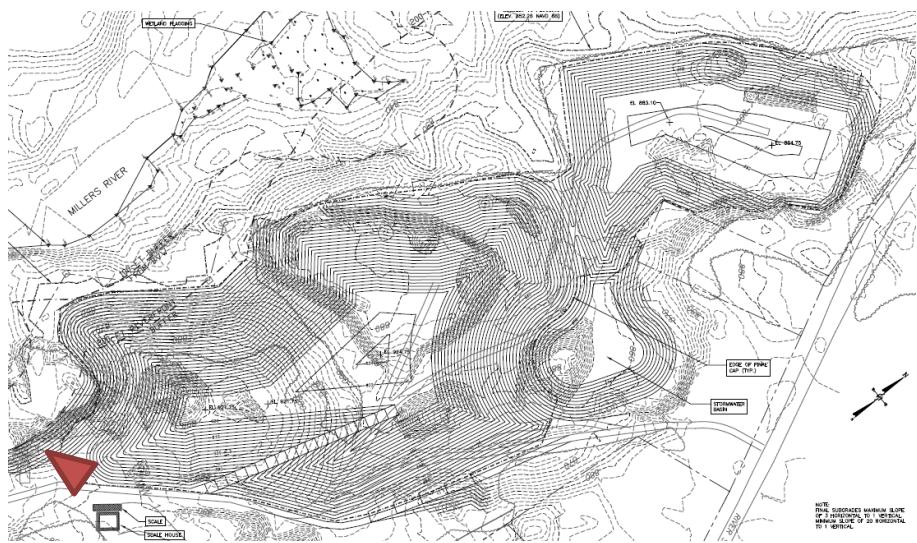




Figure 5

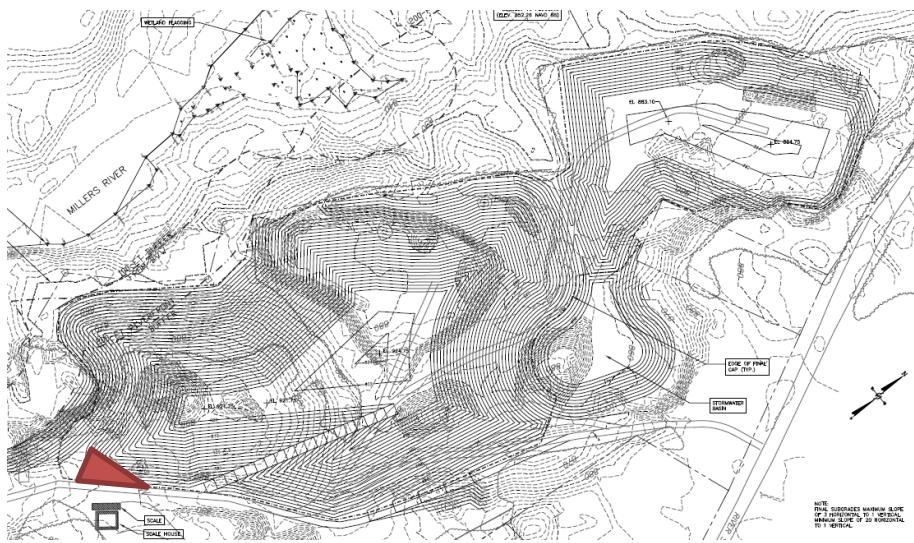




Figure 6

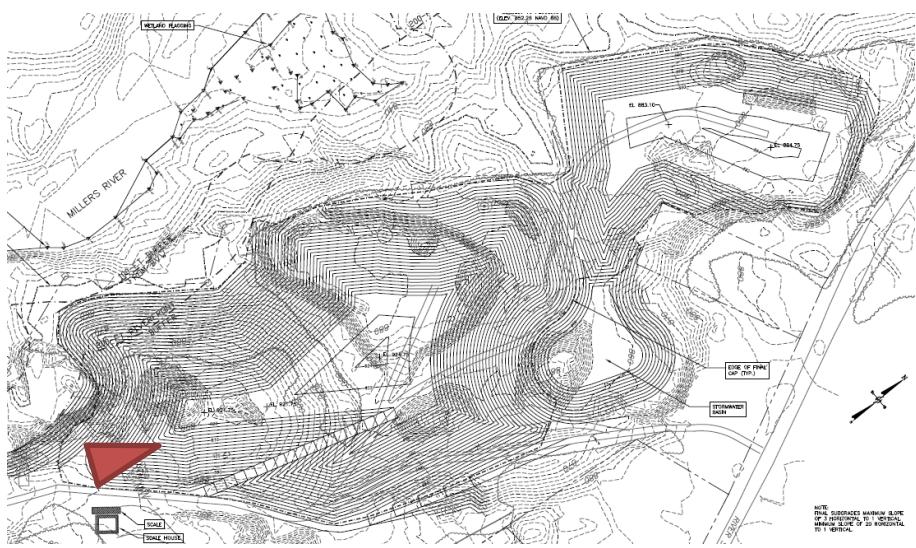




Figure 7

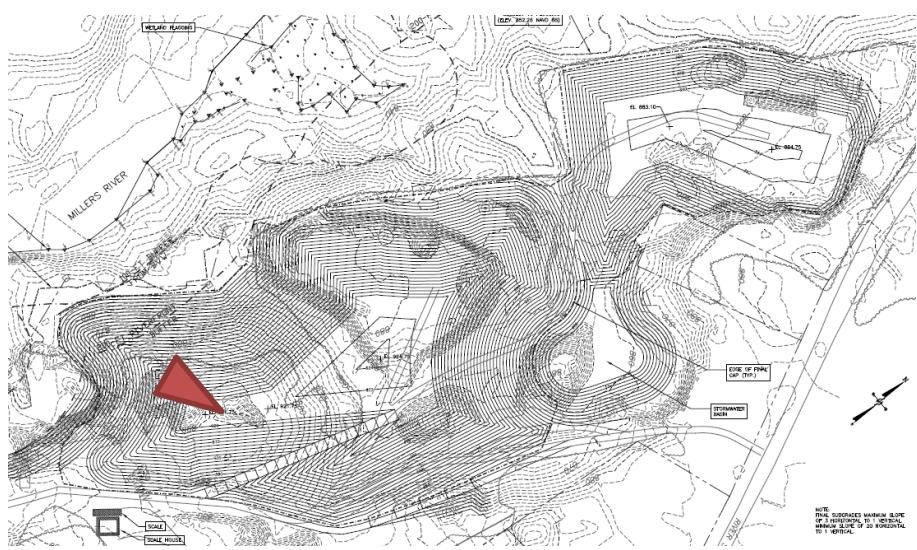




Figure 8

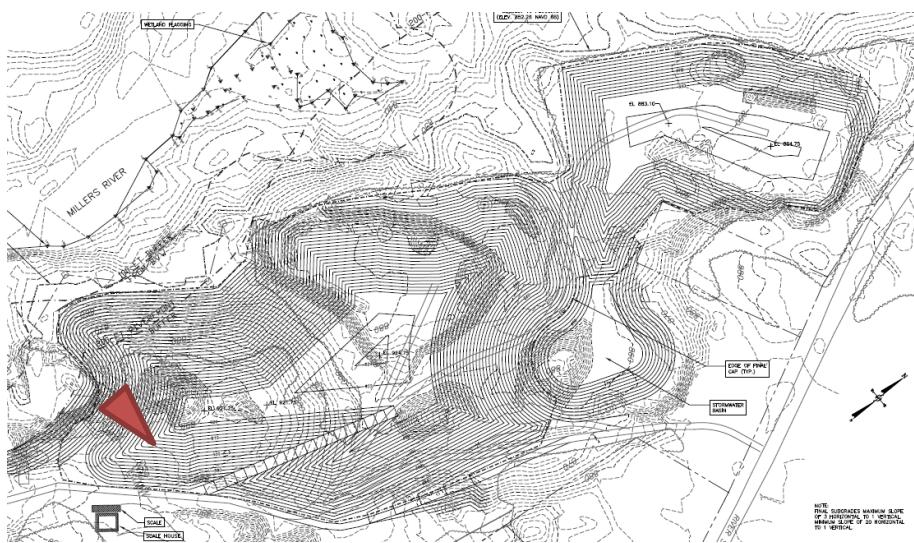




Figure 9

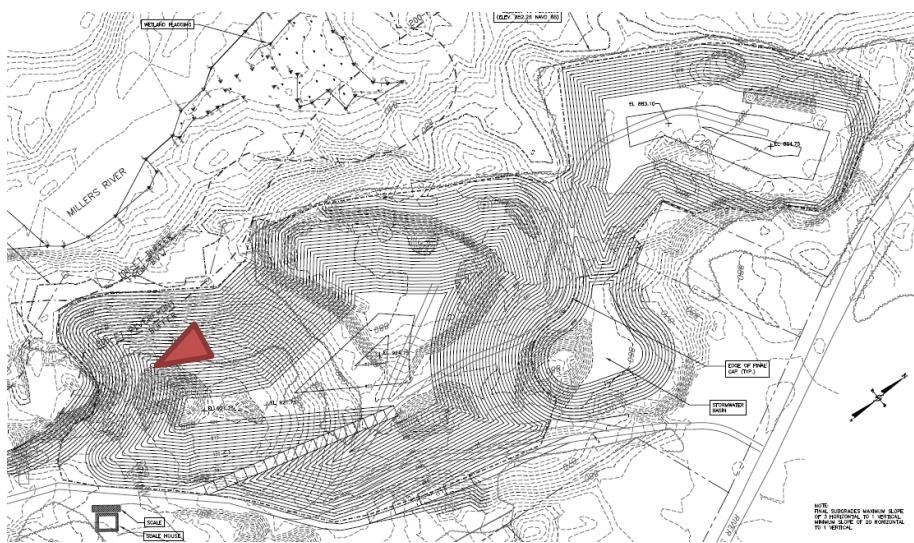




Figure 10

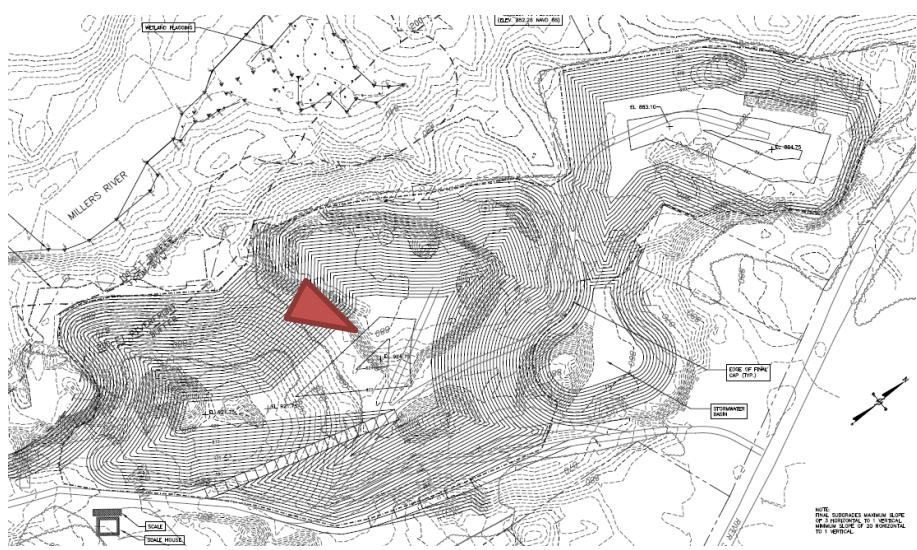




Figure 11





Figure 12





Figure 13

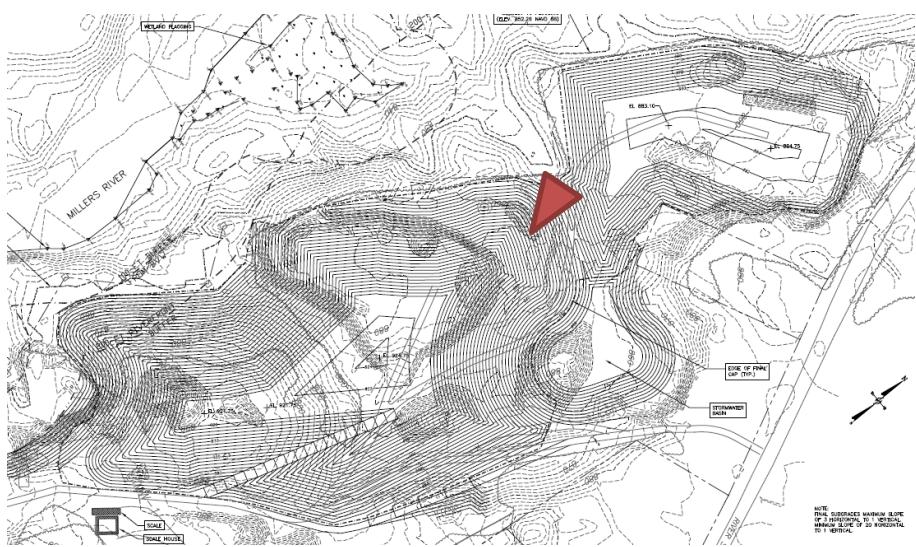




Figure 14

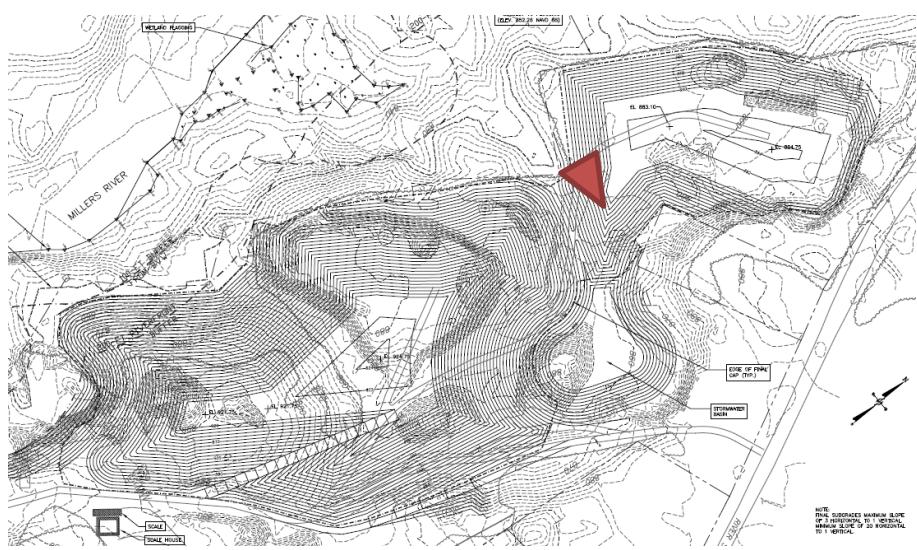




Figure 15

