



March 11, 2025

Ms. Hunter Ridley
Division of Reclamation, Mining, and Safety
1313 Sherman Street, Room 215
Denver, CO 80203

RE: M1973007SG, TR-11 Adequacy Review #1 - Holcim Response

Ms. Ridley,

Holcim has completed our response to your Adequacy Review #1 for TR-11 at the Daniels Sand Pit 2 Facility. The responses to your questions are in order below. Please let us know if you have any questions. We look forward to the DRMS's review and approval of this Technical Revision.

1. **DRMS Comment:** The map provided on page 99, after Fig. 3 '7 Year Planned Build Out 2' map, is illegible. Please provide a replacement map for this figure.

Holcim Response:

The map on Page 99 has been adjusted for clarity, the pdf image quality was inadvertently reduced during the submission of the original file. The corrected map file is attached.

2. **DRMS Comment:** Have Factor of Safety analyses considered rapid drawn down stability calculations for the embankment? If so, please provide figures which illustrate this analysis. If not, please explain why rapid drawn down is not applicable to this project.

Holcim Response:

Rapid drawn down is not applicable to this project. The fines pond (reservoir pool) cannot be drawn down faster than pore water can drain from the soil voids. The pumped water is used for processing and the pumps are not capable of removing water quickly enough to necessitate this analysis or pose a rapid drawn down risk.

3. **DRMS Comment:** Has the dam raised study evaluated an embankment failure? If so, where, in what quantity, and to what elevation would an embankment failure expect to deposit water and or material? How would a failure impact Academy Blvd. specifically? Please discuss any plans on how the site might mitigate this risk or address it should the embankment fail.

Holcim Response:

An embankment failure analysis was not performed. Since, the supernatant will be removed from the impoundment by pumping as it accumulates, the solids content of the tailings will be above 50 percent at any given time. Therefore, in the unlikely event of a dam breach, the majority of the impoundment contents will be low-mobility slurry fines, which will likely be contained within the Holcim property. Additionally, the design incorporates 3 ft. of freeboard, which has been demonstrated to contain a severe storm event, this limiting the possibility of a dam breach.

4. **DRMS Comment:** In the initial permitting of this wash fines impoundment, possible effects on the Schlage Lock pump & treat system were investigated. This investigation included reporting on possible groundwater mounding impacts to the lock system. It was reported that although possible mounding from the impoundment would increase the rate of flow of contaminated water to the system, that this would not negatively impact the system itself. Please provide information to ensure that the increased capacity of the impoundment will not have negative impacts on the Schlage pump & treat system.

Holcim Response:

Considering the analysis provided in TR06 and the proposed changes to the impoundment, Holcim does not believe that the increased capacity of the impoundment will adversely affect Schlage's treatment system. The footprint of the storage area of the impoundment is not changing, we are only increasing the capacity in height. Holcim is not aware of any negative impacts caused on the treatment system since the current impoundment was installed and will coordinate with Schlage, if and as necessary, to ensure no negative impacts to the treatment system.

5. **DRMS Comment:** Page 2 of the Dam Raise Study states that the current height of the embankment is 22.5 feet. Page 1 states that the proposed change is a 22.5 foot raise to the embankment. Is the Division correct in interpreting this to mean that the proposed dam raise would create an embankment with a final height of 45 feet? Please also ensure that all figures included in the Dam Raise Study, specifically the cross sections on Figure 6 match this maximum embankment height.

Holcim Response:

Yes, the Division's interpretation is correct in that the proposed new final embankment height would be 45 ft. Please see the updated Figure 6, attached.

6. **DRMS Comment:** Clarify for the Division the sequence of Figures in Appendix A labeled as Fig. 1 - 3. Do these figures represent a construction sequence? Why is the extended embankment shown on Fig. 2 but not Fig. 3?

Holcim Response:

The Figures in Appendix A labeled as Fig. 1-3 do not represent a construction sequence. These figures only pertain to the enclosed hydrology study.

7. **DRMS Comment:** Currently, water within the wash fines pond impounds to the northeast and fines slurry is deposited into the pond through the western embankment. Will the location of impounding water shift with this embankment raise? If so, will the wash fines discharge point remain on the western embankment, or will this be permanently relocated?

Holcim Response:



The location of impounding water will not shift with this embankment raise and the wash fines discharge point will remain on the western embankment.

8. **DRMS Comment:** Where will water collected by the embankment's blanket drain / toe drain be discharged to onsite?

Holcim Response:

The water collected by the embankment's toe drain is anticipated to be minimal and will be collected in the adjacent low point of the site to the west and then evaporated off.

9. **DRMS Comment:** Will there be any additional height raises to the N, E, or S sides of the wash fines pond? Or will earthwork on these slopes be confined to minimal regrade to meet the required 3:1 slopes?

Holcim Response:

No, additional height raises will not occur to the N, E, or S sides of the wash fines pond. The embankment was designed to match/tie into the existing abutments. If necessary, minimal regrading will occur to meet the 3:1 slopes.

10. **DRMS Comment:** Please provide narrative to explain to the Division how the site can ensure that enough material of the classified soil composition assumed in the slope stability analysis and soil strength properties is available onsite to construct the embankment as designed and ensure a high enough FOS.

Holcim Response:

Holcim plans to utilize onsite material for the construction of the raised impoundment. In the southeast corner of the east mining cell, there is approximately 400,000 cubic yards of material that will meet the classified soil composition as identified in the design report specifications of Section 31 00 00. At the time of construction, Holcim will have qualified engineering personnel onsite to test review the embankment fill material as necessary.

Thank you,

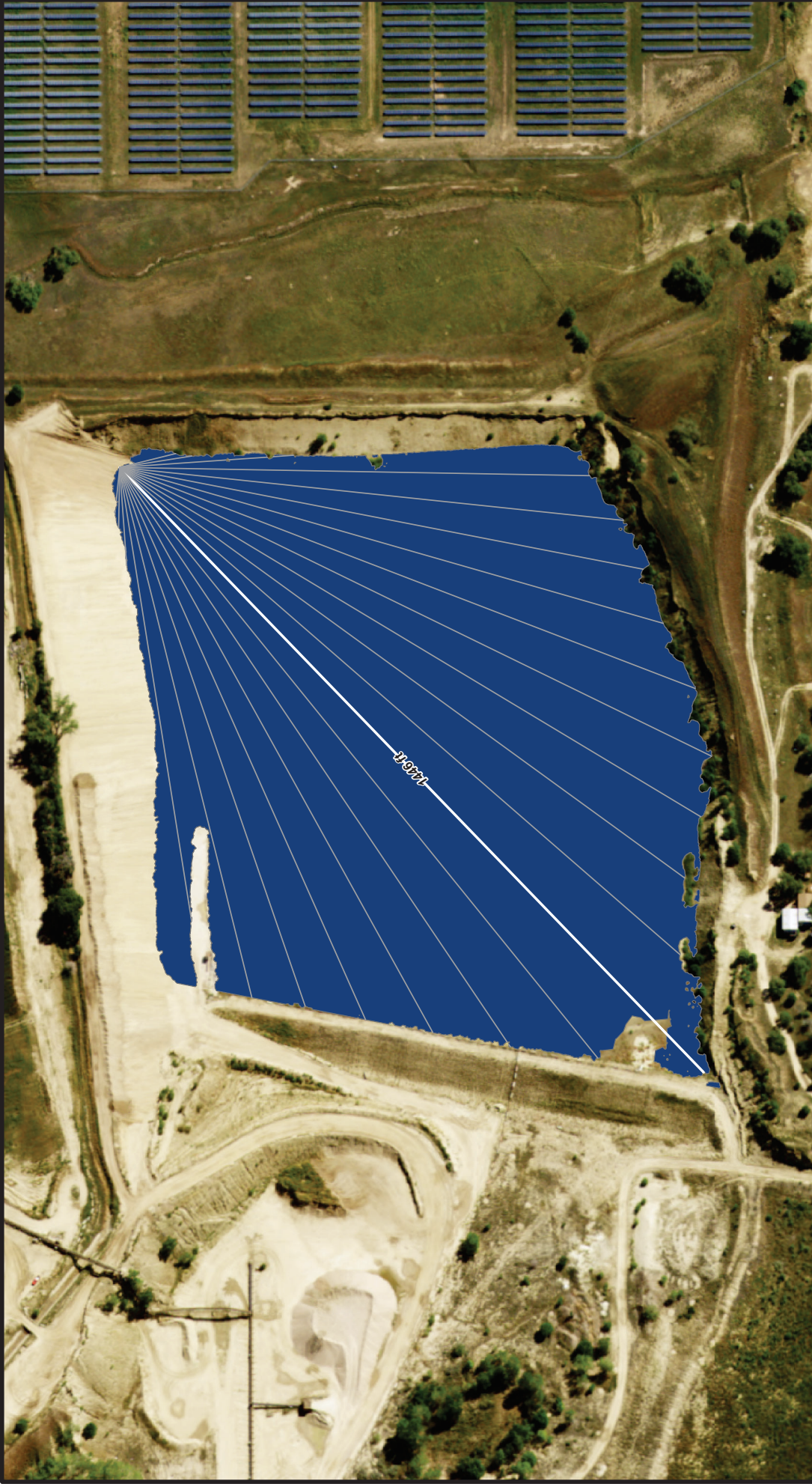
A handwritten signature in black ink, appearing to read 'Kurt Thurmann'.

Kurt Thurmann

720-329-8851

Environmental and Land Manager

Holcim-WCR, Inc.



LEGEND:

Longest Point-to-Point Centerline

Line Rotated from Centerline

 Potential High Water Pond - 3ft Freeboard Surface

NOTES:

NOTES:

1. Highwater 3ft freeboard surface derived from site topo. Data represents hypothetical model conditions. Site conditions may change over time, accuracy is not guaranteed. Map should not be used for measurement.

Report Name

Site Name
Project Location, City, State

Client Name

Client City, State



GEI
Consultants

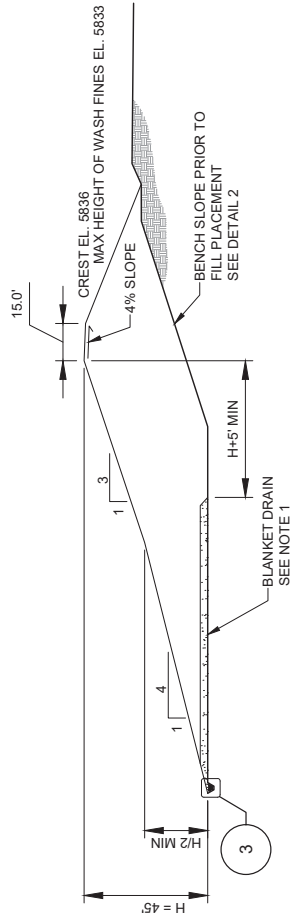
Project 2400434	June 2024
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MOELLANEWS\2024\2400-03

WAVE RUN OFF SCHEMATIC:
"SITE TOPO" HIGHWATER - 3FT
FREEBOARD CONDITIONS

Fig. 4

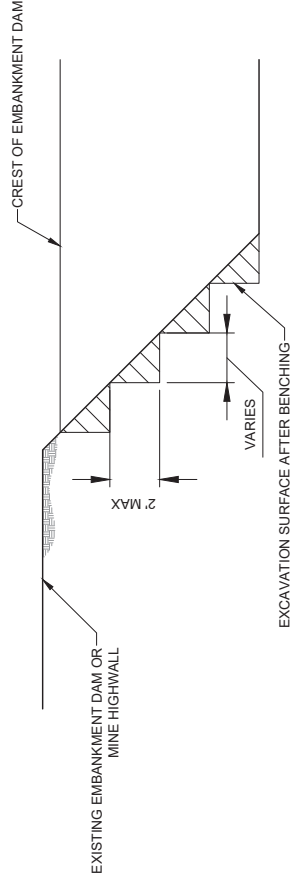
Path: C:\Users\jansen\OneDrive - GB Consultants, Inc\Documents\GIS_Work\MISCELLANEOUS\2024_2400-B-4 Daniels Sand Wash Times Pt.Ratio\2400B-4 Daniels Sand Wash Times Pt.Ratio.aprx
Fines Pt. Ratio.aprx



1 MAXIMUM SECTION A-A'

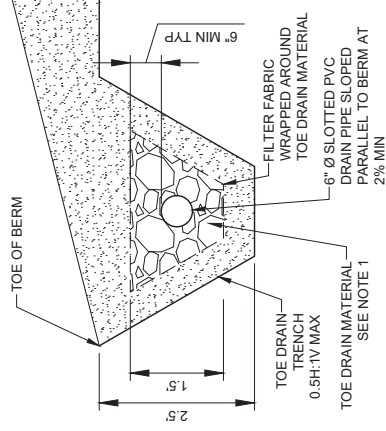
NO SCALE

- NOTES:**
1. SEE SPECIFICATION SECTION 31.00.00 EARTHWORK FOR BLANKET DRAIN AND TOE DRAIN GRAIN SIZE DISTRIBUTION REQUIREMENTS.
 2. CONSTRUCT BENCHES FOR NEW FILL PLACED AGAINST EXISTING SLOPES.
 3. BENCHES TO BE CUT AS CONSTRUCTION PROGRESSES. BENCHES SHALL NOT REMAIN UNSUPPORTED FOR MORE THAN 12 HOURS.
 4. PRIOR TO PLACEMENT OF FILL, ORIGINAL GROUND SURFACE SHALL BE SCARIFIED WITH A DISC OR SIMILAR EQUIPMENT AND MOISTURE CONTROLLED TO FACILITATE BONDING WITH NEW FILL.



2 BENCHING DETAIL TYPICAL

NO SCALE



3 TOE DRAIN DETAIL

NO SCALE

<p>Construction Drawings Daniels Sand Wash Fines Pond Embankment Dam Raise El Paso County, Colorado</p>	<p>GEI Consultants Project 2400434 Denver, Colorado</p>	<p>EMBANKMENT DAM SECTION AND DETAILS November 2024 Fig. 6</p>
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