

RESPONSE TO COMMENTS

AREA 1 PHASE 1 DETAILED DEVELOPMENT PLAN BALTIMORE WORKS SITE, BALTIMORE, MARYLAND AUGUST 2013; REVISED NOVEMBER 2013

Responses to supplemental comments issued by the Maryland Department of the Environment (MDE) on December 2, 2013, relative to the Area 1 Phase 1 Detailed Development Plan for the Baltimore Works Site, Baltimore, Maryland, dated August 2013, Revised November 2013, are presented herein. Each comment is presented verbatim in italics with a direct response to the comment immediately below. The responses have been incorporated into the revised Area 1 Phase 1 Detailed Development Plan (DDP) as denoted herein.

MDE/SOLID WASTE PROGRAM COMMENTS AND RELATED RESPONSES

Except as noted below, all responses provided on 11/27/13 are accepted. Numerical references below refer to the Solid Waste Program's comments emailed on 11/26/2013.

- 1. MDE item 3.D.ii. – The response concerning the testing of the geomembrane is not satisfactory. MDE had requested that a minimum testing frequency for the various geomembrane and geotextile materials be provided. The response indicates that acceptance of the materials will be based on testing done by the manufacturer, and a QA/QC plan will be developed by the contractor (presumably the installation contractor). However, it does not provide guidance as to the proposed frequency of confirmatory tests that must be conducted.*

Response:

Additional testing of LLDPE Geomembrane is required per Drawing DDP F1.03 Quality Control Testing, Note 14.

- 2. MDE item E.iv. – the response did not indicate the area where the groundwater will be 3.5' below pile cap subgrade. Please submit a map depicting this occurrence.*

Response:

The three large shear wall pile caps are the deepest excavation and are within the tower. The pile cap excavations are bounded by column lines 7 at the north, C at the east, 3 at the south, and B at the west as shown on Drawing DDP F1.41.

3. MDE item E.v. – the response provided did not answer the question, which was:

“v. Section 5.3.1 – new question raised by new text provided in this section and on Drawing F1.32 – the MMC is now at elevation ~8+’, and would be lowered to ~5’ to allow the new 30” stormdrain to be placed above it. The drawing appears to indicate that the proposed change would require the top of the hydraulic barrier to be lowered as well – will the proposed change adversely impact performance of the barrier and the HMS in general?”

Response:

The bottom of the MMC will be lowered to Elev. +5±. Generally, storm event high water rises to Elev. +3. The Elev. +5 barrier provides ample freeboard against the typical high water level. The sheet pile barrier is embedded into the Dock St. concrete platform. This contact closure will provide a physical barrier to protect against occasional high water and storm events. For these reasons, the lowered barrier will not adversely impact barrier performance and will not increase the water volume collected by the HMS system. Clarification has been added to the narrative Section 5.3.1.

4. MDE item F.a. – the response did not answer the question. The comment originally provided in our last email, and your response, are:

“b. EE 4 – i. Page 2 – Please identify who is responsible to replace any backfill into trench areas where the soil bentonite material has settled due to pile driving or other effects.

Response:

Responsibilities are outlined on Drawing DDP F1.01. Backfill is the responsibility of the General Contractor.”

Although your response indicates that sheet F1.01 has been amended to indicate that replacement of settled bentonite in the slurry wall would be the responsibility of the General Contractor, in fact it does not appear that that change was made, and the plan sheet provided only indicates that the General Contractor is responsible for hiring the pile driving contract (see note C.1. on sheet F1.01). No reference is made to the repair of the slurry wall, although the repair and maintenance of other elements of the head maintenance system are referenced.

Response:

Drawing DDP F1.01 Responsibilities Note 1 (General Contractor) Paragraph A designates earthwork as the responsibility of the General Contractor. Drawing DDP F1.02 Note 3F (Sheet Pile Installation) describes the material requirements.

5. MDE item F.b. – the response did not answer the question, which was:

“b. “MDE comment 7.b.ii. re EE4, Page 3., SWELLSEAL performance in areas with chromate – the 1990 CMIPP, Section 2, Figure 2-3, show groundwater contamination by chromium at concentrations >1,000 ppm. Would such concentrations adversely impact performance of the SWELLSEAL, or pipepiles for that matter?”

Your response appears to address concentrations of approximately 40 PPM Cr⁺⁶. As noted above, there are known occurrences of groundwater at much higher Cr⁺⁶ concentrations in the area where the sheet pile is to be installed, and which are anticipated to be encountered for prolonged periods, not intermittently as the EE4 memo appears to presume. Although the information relayed from the manufacturer appears to address the anticipated pH conditions, we are concerned that Swellseal may have underestimated the chromium concentrations to which their material would be exposed for prolonged periods. Given that the performance of the material when exposed to chromium was rated as only “fair” by the manufacturer, we need to insure that the selected sealant will not degrade under the anticipated conditions. Please provide additional information and documentation including an affirmative statement from the manufacturer, concerning the anticipated survivability of the Swellseal under these conditions.

Response:

Prior to use, the Engineer will perform testing of DeNeef- SWELLSEAL for swelling potential in accordance with Drawing DDP F1.02 Sealed Sheet Pile Interlocks Note 1B. Drawing DDP F1.02 Sealed Sheet Pile Interlocks Note 1B:

“Swellseal will be tested for expansion in fresh water, harbor water and site groundwater by the Engineer. Assist the Engineer with preparation of test samples. Handle all contaminated materials in accordance with the MHMP. Test performance will be submitted for review and approval prior to production.”

6. MDE item G.a. – since the close of comment period for the NPDES permit is 01/08/2014, and the permit cannot be issued prior to that date, the proposed date for construction start of 01/06/2014 cannot be met. Please specify when you anticipate that construction would actually start.

Response:

The schedule submitted in Appendix D of the DDP assumes construction start on 1/6/14. It is understood that the NPDES permit will not be obtained until at least 1/8/14, therefore intrusive construction activities will not commence until the Developer obtains ALL required permits. Any updates to the schedule following mobilization will be addressed at weekly progress meetings with agency representatives.

7. *MDE item G.b. – the requested documents were not provided.*

Response:

The previously referenced documents are business confidential. Once the property is conveyed, a Declaration of Easements, Covenants and Restrictions will be recorded in the Land Records of Baltimore City. Honeywell must be provided access to the environmental remedial system components, in perpetuity, as required in Article VIII.3. of the amended Consent Decree.

8. *MDE item G.d. – the response did not answer the question relating to the Dock Street construction.*

Response:

The Developer will complete the evaluation possible design alternatives for the Dock Street platform by February 1, 2014. Alternatives under review may simplify the current design while providing the same structural benefits. The Developer understands that should an alternative design or modification be decided upon for the Dock Street platform, the alternative design or modification must be submitted to MDE for review and approval. Construction using an alternative design or modification will not begin until MDE approval is provided.

9. *MDE item G.e. – Baltimore City restricts excessive noise levels to hours between 9 AM and 7PM. The developer proposes to conduct pile-driving operations starting at 7 AM; please verify that the noise produced would not exceed City requirements, or amend the plan.*

Response:

The anticipated maximum daily work hour duration of 14 hours is based on start and stop times of 6:00 a.m. and 8:00 p.m., respectively. The contractor will comply with City Code Title 9, Sections 9-206 and 9-207, restricting excessive noise levels between 9:00 p.m. and 7:00 a.m. Other non-noise producing activities, such as liner repair and other hand work, may be performed outside this time frame.