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Project No. M2473.01.001

Kevin Dana
Project Manager
Oregon Department of Environmental Quality
700 NE Multnomah Street, Suite 600
Portland, OR 97232
Sent via email: kevin.dana@deq.oregon.gov

Re: Response to Oregon Department of Environmental Quality (DEQ) Comments on Draft Engineering Design Report, Shortstack Belmont, 2721-2731 SE Belmont Street, Portland, Oregon, ESCI Site ID#5731

Dear Kevin Dana:

Maul Foster & Alongi, Inc. (MFA) prepared this letter on behalf of Shortstack Developer, LLC (Shortstack) to respond to the Oregon Department of Environmental Quality (DEQ) comments on the *Draft Engineering Design Report* (EDR) for the Shortstack Belmont site located at 2721-2731 SE Belmont Street, Portland, Oregon, dated February 27, 2023. DEQ comments and relevant EDR sections are reiterated below in italics, and MFA's response is included following each comment.

DEQ COMMENT RE: DESIGN DRAWINGS AND EDR NARRATIVE TEXT

Please number the detail drawings (on the last three pages of the plan sheets) and reference those numbers in the narrative text (rather than just referencing Sheet C3.0, for example). Second, please provide product-specific information on the various liners/membranes once these products have been selected.

> **MFA Response**: We have numbered the Design Drawing details on sheets C3.0-C3.3 and referenced them in the text and Design Drawings accordingly. We have added product-specific information to the narrative text and included product specification sheets in Appendix B.

DEQ COMMENT RE: DESIGN DRAWINGS

C0.0. Please add a note that all work should be completed in accordance with the procedures identified in the CMMP.

> **MFA Response**: We have modified sheet C0.0 to address the comment above.

C1.1. Please add all symbols that are relevant to the system, including area over vapor barrier liner installation, vapor mitigation piping and vapor monitoring line piping.

MFA Response: We have modified sheet C1.1 to address the comment above.

C2.0:

- *Please add specific detail references for pertinent details, i.e., piping cross-sections, penetration completions.*
- *Please show the special coverage of the vapor barrier liner.*
- *Please show the roof detail elements, such as vent intakes, etc. relative to the vent riser locations and add a reference to the vent riser details. The Risk Evaluation Work Plan indicates the riser will be exceeding the roof height by greater than 6-feet. Are guy-wires needed for support for the exposed portion of the riser-pipe?*
- *Label vent riser stacks and vapor monitoring ports with individual IDs.*
- *Label Buildings, mechanical room, garage, bike storage area.*
- *Please show the approximate location of the condensate sumps.*

MFA Response:

- We have added detailed references to sheets C2.0 and C2.2 as appropriate.
- We have added special coverage of the vapor barrier liner.
- We have added sheet C2.2 to show roof detail elements. In order to be in compliance with relevant building codes, the risers now extend 5 feet above the roof instead of 6 feet. The vent risers will be high density polyethylene. We are consulting with the civil engineer to confirm the stability of the vent risers and the need for adding support elements.
- We have labeled vent risers and monitoring ports with individual IDs.
- We have added sheet C2.1 to illustrate the floor plans. A garage is not included in the proposed redevelopment.
- Condensate will be collected at the lowest point of the vapor collection system and will be routed to the site sanitary sewer system with an in-line P-trap system as shown on Detail 3 of sheet C3.2. These collection points will be coordinated with the architect and incorporated into submission of our 100% Design Drawings.

C3.1. The vent riser detail shows an allowable discharge distance of 4' (minimum) to the property boundary, which is different than the notes, which state the termination of the system shall be a minimum of 10' from any residential opening – the minimum distance from the property line should be 10'.

MFA Response: We have modified the callout on Detail 1 of sheet C3.2 to indicate a minimum of 10 feet from the property line.

C3.0. The warning sign should indicate, in addition to the Engineer, that DEQ must be notified of any penetration or alternations of the vapor barrier liner and repairs are subject to DEQ's review for approval.

MFA Response: We have modified Detail 5 on sheet C3.0 to incorporate the above comment.

C3.2:

- *The purpose of the Vapor Collection Valve is not clear. Please provide a reference in the text for the purpose of this system element and where it will be installed. Is it possible to prevent passive ventilation using this valve?*
- *For the monitoring port and monitoring probe, where will the vapor samples be collected within the water meter box? If the box is accessible (not secure), then, at a minimum, a locking ball valve should be specified. Also, this indicates a venting lid, and sealed bottom for the box, which may result in water accumulation within the box, will this be a problem?*

MFA Response: We agree the vapor collection valve is not necessary. We have removed this detail from the Design Drawings. We have added a label to Detail 1 on sheet C3.3 to indicate a locking ball valve should be used for the monitoring ports for sample port connection. To address the concern of accumulation of water in the water meter box, we have added a conduit at the bottom of the box that will discharge to an adjacent drainage pocket that will consist of open graded drain backfill.

Sincerely,

Maul Foster & Alongi, Inc.

Krysta Krippaehne-Stein
Staff Engineer

Cem Gokcora, PE
Senior Engineer

cc: Heidi Nelson, Environmental Engineer, DEQ
Jennifer Levy, Principal, Cascade Environmental Solutions
Anna Mackay, Principal, Siter City
Jessy Ledesma, Principal, HomeWork Development

LIMITATIONS

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