

## Response to Comments 1342 Congress Street - Proposed Neighborhood Center

**To:** Jean Fraser, Planner; City of Portland  
**FROM:** Greg Halsey, Tighe & Bond, Inc.  
**CC:** Steve Brinn, Jewish Community Alliance of Southern Maine  
**DATE:** May 8, 2015

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The comments below were prepared by Woodard & Curran and provided to Tighe & Bond by Jean Fraser, Planner, City of Portland on May 1, 2015. Tighe & Bond's responses are in **bold**.

**A. Reviewer: David Senus, P.E. Woodard & Curran  
Date: May 1, 2015**

### COMMENTS

- 1) *The project will disturb more than one acre of area and will therefore require filing a notice of intent to comply with the Maine Construction General Permit with the MaineDEP.*

**Agreed.**

- 2) *The application is preliminary. As such, additional documents will be submitted for the final application, including letters from utilities confirming capacity to serve the proposed development and a Construction Management Plan. Woodard & Curran will perform a review of the Final Application upon receipt of those documents.*

**Agreed.**

- 3) *In accordance with Section 5 of the City of Portland Technical Manual, a Level III development project is required to submit a stormwater management plan pursuant to the regulations of MaineDEP Chapter 500 Stormwater Management Rules, including conformance with the Basic, General, and Flooding Standards. We offer the following comments:*

- a) *Basic Standards: Plans, notes, and details have been provided to address erosion and sediment control requirements, inspection and maintenance requirements, and good housekeeping practices in general accordance with Appendix A, B, & C of MaineDEP Chapter 500.*

**Agreed.**

- b) *General Standards: The project will result in a net increase in impervious area of approximately 12,500 square feet. As such, the project is required to include stormwater management features for water quality control. The Applicant is proposing an underdrained soil filter to meet the General Standards. The following comments should be addressed:*

- i) *The Applicant has requested a waiver from the requirement for pre-*

*treatment of runoff directed to filter BMPs due to topographic and geometric constraints of the site. Pre-treatment is particularly important for filter systems to ensure that sediment does not clog the filter and impede its function. It appears that there is ample space on the southern portion of the site to provide the MaineDEP recommended forebay area. We recommend that the applicant include a sediment forebay at the inlet point to the filter.*

**A sediment forebay has been provided at the inlet to the Underdrained Soil Filter. A waiver from the pretreatment requirements is no longer requested. See Sheet C-3 Grading, Drainage, and Erosion Control Plan included with this response.**

- ii) The Applicant should provide calculations demonstrating that an area equivalent to 95% of the new impervious area will be treated by the Underdrained Soil Filter system in accordance with the General Standards.*

**A total area equivalent to 115% of the new impervious area will be treated by the Underdrained Soil Filter. Treatment volume calculations are provided in the revised Drainage Study included with this response.**

- iii) Per Chapter 7.1 of Volume III of the MaineDEP Stormwater BMP Manual, the Applicant should provide appropriate sizing calculations, including treatment volumes, filter area, and peak water quality storage depths, for the proposed Underdrained Soil Filter system.*

**The requested calculations are provided in the revised Drainage Study submitted with this response. Treatment volumes and water quality depths for the 2-year, 10-year, and 25-year storm are detailed in the HydroCAD calculations included in the Drainage Study.**

- c) Flooding Standard: The project will result in net increase in impervious area of approximately 12,500 square feet. As such, the project is required to include stormwater management features to control the rate of stormwater runoff from the site. The Applicant has provided HydroCAD Reports to demonstrate compliance with the Flooding Standard. The following comments should be addressed:*

- i) Without site-specific soil infiltration testing data, the HydroCAD model cannot include the discarding of flow by means of infiltration within the soil filter area.*

**The drainage design and calculations have been revised to eliminate exfiltration within the soil filter. See revised drainage calculations provided with this response.**

- ii) Future submittals should include details for the outlet control structures associated with the soil filter and the StormTech Chamber system, including orifices and weirs.*

**Details of the outlet control structures for the soil filter and**

**StormTech Chambers have been provided. See Sheets C-7/C-9, Details Sheets, provided with this response.**

- iii) *Future submittals should identify key elevations for the StormTech Chamber detail matching to the elevations utilized in the HydroCAD model.*

**Key elevations for the StormTech Chamber have been provided on Sheet C-9. Revised HydroCAD calculations with corresponding elevations have been included in the revised Drainage Study.**

- iv) *The Pre-Development Watershed Plan (WS-1) indicates that runoff from the existing building roof is part of catchments WS-1 and WS-2; however, runoff from some of these roof areas is collected in downspouts that enter into the ground and which do not appear to flow to PA-1 and PA-2. The Applicant should determine the discharge location for the building's roof downspouts and re-evaluate the catchment areas and stormwater model based on their findings.*

**The deep snow cover and lack evidence on the existing condition plan at the time of the preliminary submission required assumptions to be made regarding the roof drainage pattern as shown on the Pre-development Watershed Plan. The Applicant is actively working with the Owner to determine the outlet location of the roof drains. At this time the Pre-Development Watershed Plan (WS-1) remains unchanged. The proposed stormwater management system has been designed conservatively to account for this issue, which is evidenced by the StormTech detention system that has been designed to detain the entire roof runoff volume and discharge it at a lower peak runoff rate than pre-development conditions. The Applicant will revise the Pre-Development Watershed Plan (WS-1) and drainage design with the Final Site Plan submission to account for updated roof drainage information if needed. This may result in a reduction in the StormTech Chamber detention system size.**

- v) *The Applicant has proposed to discharge the majority of the site's drainage to a new outfall located at the southwest edge of the site, adjacent to an existing drainage ditch that flows across a residential property located south of the site. Although the pre/post stormwater analysis is intended to show that the flow at this study point will not increase in the 2, 10 and 25 year storm event conditions, there will be a new outfall with a concentrated discharge at this location. We recommend that the Applicant work with the adjacent property owner to determine if there are existing concerns over drainage in this area, and based on input from that property owner, determine if improvements can or should be made to the drainage ditch as part of this project.*

**As shown in the Drainage Study, the post-development peak runoff rates in the 2-year, 10-year, and 25-year storm events at PA-1 are lower than the pre-development conditions. The Applicant will work with the adjacent property owner to determine if there are any existing concerns over drainage in this area and**

**determine if improvements are necessary.**

- 4) *Sheet C-2b depicts snow storage along the east edge of the rear parking lot, adjacent to several residential properties. The grading plan (C-3) indicates that runoff from this area would potentially flow onto these properties. The Applicant should limit snow storage in this area and should revisit the proposed grading to ensure that runoff from the project property is not directed onto these abutting residential lots.*

**The proposed grading in this area has been revised to provide a shallow swale that will convey runoff from snow melt or rain to the rear of the site and away from abutting properties, which is consistent with the existing drainage pattern in this area.**

- 5) *The Long Term Operations & Maintenance Plan for stormwater management systems should include a reference to Chapter 32 of the City of Portland Code of Ordinances related to annual reporting requirements.*

**The Long Term Operations & Maintenance Plan, included in the Drainage Study, has been revised to reference Chapter 32 of the City of Portland Code of Ordinances regarding annual reporting requirements.**

- 6) *The proposed Underdrained Soil Filter Bed detail refers to a Rain Garden Planting Plan for proposed plantings; however, it does not appear that this plan has been provided at this time.*

**The Landscape Plan, Sheet L-1, included with the Preliminary Site Plan Submission acknowledges plantings are needed in this area, but provided no specifics on plant species or layout. The Landscape Plan, Sheet L-1, will be updated to include an appropriate planting plan for the Underdrained Soil Filter with the Final Site Plan Submission.**

- 7) *The proposed Vertical Granite Curb, Concrete Sidewalk, and Utility Trench details should be revised to comply with the City of Portland Technical Manual for work within the City Right-of-Way.*

**Additional details for Vertical Granite Curb and a Typical Utility Trench have been provided for work within the City ROW. The concrete sidewalk detail has been revised to comply with City of Portland Technical Manual. See Sheet C-6/C-8, Details Sheet.**