

MEMORANDUM



TO: Nell Donaldson, Planner
FROM: David Senus, P.E.
DATE: May 11, 2015
RE: 72 Bishop Street Efficiencies, Final Level III Site Plan Application

Woodard & Curran has reviewed the Final Level III Site Plan Application for the proposed efficiencies located at 72 Bishop Street in Portland, Maine. The project involves the construction of 30 housing units with 12 parking spaces and associated site improvements.

Documents Reviewed by Woodard & Curran

- Final Level III Site Plan Application and attachments, dated April 10, 2015, prepared by Mitchell & Associates, on behalf of Avesta 72 Bishop Street, LP.
- Plans, Sheets L1.0-L9.0, dated April 10, 2015, prepared by Mitchell & Associates & Ransom Engineering, on behalf of Avesta 72 Bishop Street, LP.
- Boundary & Topographic Survey, dated January 20, 2015, prepared by Owen Haskell, Inc., on behalf of Avesta Housing.
- Pre- and Post-Development Stormwater Plans, dated April 10, 2015, prepared by Ransom Engineering/Mitchell & Associates, on behalf of Avesta 72 Bishop Street, LP.

Comments

- 1) Per Section 13 of the City's Technical Manual, the Applicant is required to submit a Boundary Survey that has been stamped by a Maine Licensed Professional Surveyor; at this time, stamped copy of the Boundary & Topographic Survey has not been received for review.
- 2) The Applicant has requested a temporary waiver for several items required for a Final Level III Site Plan Application including a summary of existing and/or proposed easements, covenants, public or private rights-of-way, or other burdens on the site; a Construction Management Plan; and an exterior lighting plan. The Applicant has noted that a photometric plan will be provided before the public hearing, and that proposed electric and communication services may require an easement from the abutting masonic lodge, which they are currently pursuing and will provide upon receipt. These items will need to be provided for review prior to approval.
- 3) The Applicant should note that electrical / communications service to the project site will be required to be underground.
- 4) 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, during-construction inspection and maintenance requirements, and good housekeeping practices in general accordance with Appendix A, B, & C of MaineDEP Chapter 500.
 - b) General Standards: The project will result in a net increase in impervious area of approximately 17,382 square feet. As such, the project is required to include stormwater management features for stormwater quality control. The following comments should be addressed:
 - i) From the HydroCAD model, it appears that the Applicant has proposed to treat a sufficient amount of impervious area with a paver drain system and filter cartridges for roof runoff; however, the area proposed to receive treatment should be identified on a plan and tabulated/calculated to show compliance with the General Standards (95% of new impervious area treated, 80% of new developed area treated).



- ii) Documentation/calculations should be provided to demonstrate that the proposed porous pavers have been adequately designed per Chapter 7.7 of Volume III of the MaineDEP Stormwater BMP Manual to provide the necessary level of treatment.
 - iii) Details and pollutant removal data should be provided for the proposed filter cartridges and the plans should indicate whether the treatment unit will be located internal to the building; at this time, no provisions for the proposed filter cartridges have been included on the plans.
 - iv) It appears that some roof drainage is directed to a crushed stone drip strip; the Applicant should clarify if this is the proposed treatment method for a portion of the roof runoff.
- c) Flooding Standard: The project will result in a net increase in impervious area of approximately 17,382 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 a HydroCAD Report that indicates the peak rate of runoff from the proposed development will not exceed that from existing conditions; however, the following comments should be addressed:
- i) It is unclear from the plans how the stormwater management system will be interconnected; it does not appear that the equalizing pipe connecting the two R-Tank systems is shown, and the method of discharging from the outlet control structure is unclear. It is also unclear how the roof drainage crushed stone drip strip will connect to the R-Tank system. Proposed storm drain piping should be clearly labeled with size, material, slopes, and invert elevations and more detail should be provided on the interconnections between the various stormwater management systems on the site.
- 5) *Urban Impaired Stream Standard*: The project is located within the Capisic Brook Watershed, which is identified as an Urban Impaired Stream by the Maine DEP. Section 5 of the City of Portland Technical Manual requires that all development within the Capisic Brook watershed, except single and two family homes, comply with the Urban Impaired Stream Standard pursuant to MaineDEP Chapter 500 Rules. To meet the Urban Impaired Stream Standard, the Applicant must either pay an in-lieu compensation fee or mitigate project impacts by treating, reducing, or eliminating an off-site or on-site pre-development impervious stormwater source. The Applicant has noted that the project will adhere to the Urban Impaired Stream Standard for development; however, it is unclear how the Applicant is proposing to meet the Standard. The Applicant should provide calculations of the in-lieu fee compensation amount or identify mitigation measures in accordance with the Urban Impaired Stream Standard.
- 6) The Bishop Street Stormwater Management Narrative prepared by Ransom Consulting, Inc., dated April 10, 2015, refers to Appendices A and B, which include a Post-Construction Stormwater Management Plan and Stormwater BMP Inspection and Maintenance Requirements; however, it does not appear that these appendices have been received at this time. The Stormwater Management Plan should include a stormwater inspection and maintenance plan developed in accordance with and in reference to Manufacturer recommendations for the proposed filter cartridges, MaineDEP Stormwater BMP Manual Maintenance Criteria for Manmade Pervious Surfaces, manufacturer specific requirements for the R-Tanks, and Chapter 32 of the City of Portland Code of Ordinances.
- 7) The Applicant has proposed a porous paver strip along the proposed retaining wall, which exceeds five feet in height. A geotechnical report has been provided that specifies the parameters for the wall design engineer; however, at this time, the geotechnical report does not appear to include an evaluation of the impact of the porous pavement and associated R-Tank storage system on the wall design. The Applicant should clarify whether infiltration from the porous pavers adjacent to the proposed retaining wall and the adjacent, below grade stormwater storage has been evaluated/considered by the geotechnical engineer.
- 8) The R-Tank system does not appear to be lined with a watertight liner. The paver/tank/retaining wall section on L9 proposes a system that would likely not hold or retain water, instead, drainage may daylight through or below the wall system. Additional design detail is necessary to address drainage and water storage behind the retaining wall structure.



- 9) It appears that the Applicant is proposing to daylight the outlet of the Outlet Control Structure. Outlet protection measures should be provided at the discharge location. The Applicant should also clarify whether the proposed J-drain will daylight adjacent to the Outlet Control Structure, or if it is intended to connect to the Outlet Control Structure. The plans should be clarified in this area.
- 10) The Bituminous Sidewalk with Granite Curb – City of Portland detail on Sheet L5 should be modified to comply with the City of Portland Technical Manual.
- 11) The Applicant should provide details for proposed sidewalk ramps in accordance with the City of Portland Technical Manual for the Bishop Street Sidewalk Improvements.
- 12) The Applicant should provide the following details:
 - a) Detectable Warning Strip;
 - b) Catch Basin;
 - c) Storm Drain Trench; and
 - d) J-Drain.
- 13) The Applicant has proposed an NDS 12-inch Square Shallow Catchbasin with flat grate for use as a field inlet; the Applicant should consider utilizing beehive grates for proposed field inlets.
- 14) The Applicant has requested letters from utilities confirming capacity to serve the proposed development. The Portland Water District confirmed ability to serve the proposed development, but noted that approval of plans will be required prior to construction. A letter documenting approval of the proposed project from the Portland Water District and a letter confirming ability to serve sanitary sewer for the proposed development should be forwarded upon receipt.
- 15) The Applicant should provide a written summary of their assessment of state and federal wetland regulations relative to the proposed plan (types of wetlands present on the site, setback requirements, acceptable amount of wetland disturbance/fill).