



MEMORANDUM

DATE: September 27, 2019

TO: Anne Capra
Conservation Administrator / Planner

CC: Conservation Commission

FROM: John P. Shevlin, P.E.

RE: Notice of Intent Submission Peer Review- 36 Bridge Street
Prepared for: Luis Builders, Inc.
Prepared by: The Berkshire Design Group
Pare Project No. 19154.00

Pare Corporation (Pare) has completed our review of the Notice of Intent Submission prepared by the Berkshire Design Group for the proposed three-story apartment building and retail space to be located at 36 Bridge Street in South Hadley. As part of our review, Pare received the following documents:

- Notice of Intent dated July 24, 2019
- Stormwater Management Report dated July 22, 2019
- Plans including:
 - Existing Site Plan – dated June 22, 2010
 - Existing Site Plan (Exhibit A- Existing Degraded Areas) dated June 22, 2010
 - Proposed Building Location Plan-36 Bridge Street dated September 11, 2017
 - Existing Site Plan (Exhibit B) – 100-year floodplain dated June 22, 2010
 - Plan Sheet F1(Exhibit C) – Floodplain Compensatory Storage Diagrams dated July 24, 2019
 - Plan Sheet L1 - Restoration and Drainage Plan dated July 24, 2019
 - Response to DEP Comments dated August 26, 2019

Pare offers the following pertaining to this submission.

1. In accordance with the South Hadley Stormwater Management Bylaw Chapter 200 Article V- Stormwater Management and Erosion and Sediment Control Plan Section 200-16, the stormwater management plan should include:
 - a. Plans need to be stamped by a registered professional engineer. None of the stamps provided are stamped.
 - b. The Proposed Building Plan provided, which appears superceded with Plan Sheet L1, has the Owner of Record information identified which includes the company name (Luis Builders) and address. Is Luis Builders Inc. the property owner? A telephone number for the legal owner needs to be included.
 - c. Locus map is shown in Stormwater Report. This should be added into the plan set.

- d. The existing zoning and land use at the site should be identified.
 - e. More detailed information for the proposed land use should be identified on the plan. A description of the building should be added to the plans. Size, floors, uses, etc.
 - f. No easements are shown on the existing and proposed plans. Note states that easement for telephone service cannot be located. Please confirm this to be true. If no easement exists one should be provided.
 - g. No existing or proposed utilities are shown on the plans.
 - h. Limit of disturbance demarcation should be added to plans.
 - i. The NOI identifies riverfront data information. The total area expected to be disturbed by excavation, grading or other construction activities is not identified and should be estimated and provided.
 - j. Verify that the wetlands associated with the brook have been flagged. Show the delineated wetlands on the plans. Also, verify no other wetlands are in vicinity of the site.
 - k. Please confirm if habitats mapped by the Massachusetts Natural Heritage and Endangered Species Program as endangered or of special concern, estimated habitats of rare wildlife and certified vernal pools and priority habitats of rare species within 500 feet of any construction activity exist.
 - l. Two test pits have been performed, one in the vicinity of the proposed gravel diaphragm and one in the location of the proposed rain garden. Location of test pits have been identified on logs in Stormwater Management Report. Location of test pits should be added to plans. Seasonal high groundwater elevations have been included in Stormwater Management Report.
 - m. Are plantings proposed in the proposed rain garden? Typically rain gardens include dense native vegetation to help with the treatment of stormwater. It is recommended that the soil media be increased to 30 inches to achieve removal of nitrogen. Also, the plans call for conservation seed mix be installed in the rain garden. The Operation and Maintenance Plan identifies that mulch is to be installed in the rain garden. Please clarify.
 - n. No information has been provided on plans specifying materials to be used and construction specifications,
 - o. Only erosion controls identified on plans are the temporary straw wattle erosion control barrier to be installed west of the rain garden. Additional erosion control is necessary adjacent to the brook.
 - p. An Operation and Maintenance Plan has been included in the Stormwater Management Report. This should be included on plans. Revise the reference to the "Northampton Department of Public Works".
 - q. Identify material stockpiling areas.
 - r. Identify on plans the trees that are to be maintained.
2. According to Restoration and Drainage Plan (Sheet L1) and the Floodplain Compensatory Storage Diagrams, the proposed 1' contours are matching the existing conditions. Areas for proposed floodplain storage has been identified. Proposed grades should be shown for determining storage volume and for ensuring an unrestricted hydraulic connection to the same waterway.

3. The Post-Construction (Long-Term Operation & Maintenance Plan) needs to include an estimated operations and maintenance budget.
4. An Illicit Discharge Compliance Statement and Plan will need to be provided. The Stormwater Management Report states that the owner will submit a statement prior to discharge of any stormwater to post-construction BMP's.
5. The calculations provided within the report including the stormwater hydrology calculations, groundwater recharge and water quality calculations are acceptable. The stormwater management design appears to be performed in accordance with the State's Stormwater Handbook. Based on the calculations, the water quantity to the Buttery Brook will result in zero to .13 cfs reduction in runoff for the 2-, 10- and 100-year storms. Also, with the proposed rain garden and the stone filter strip pretreatment, the water quality will be enhanced and the total suspended solids removal will be provided to 90%. The overall design of the rain garden should be reviewed regarding plantings to be installed within to help treat the stormwater before it is infiltrated.
6. Pare is of the opinion that the project can be reviewed as a redevelopment as we feel that the standards of 10.58(4) and (5) are met, namely:
 - The proposed work will result in an improvement over existing conditions of the capacity of the riverfront area and will protect the interests identified in M.G.L. c. 131 Section 40.
 - Stormwater management is being provided according to standards established by the State.
 - Proposed work, the parking lot, is being located further from the river by approximately 6 feet and degraded areas within the first 100' are being removed.
 - The area of the proposed work will exceed 10% of the degraded area and is more than 10% of the riverfront area but with the restoration proposed per 10.58 (5) (f) it is acceptable. The restoration will include the removal of all debris, but retaining any trees or other mature vegetation; grading to a topography which reduces runoff and increases infiltration; coverage by topsoil at a depth consistent with natural conditions at the site; and conservation seed mix, followed by installation of native plantings.

In summary, there are items that need to be addressed to make this submission in conformance with the South Hadley Stormwater Bylaw. We are available to review these comments at the next scheduled Commission meeting. In the meantime if you have any questions please feel free to contact me.



MEMORANDUM

DATE: October 2, 2019

TO: Anne Capra
Conservation Administrator / Planner

CC: Conservation Commission

FROM: John P. Shevlin, P.E.

RE: Notice of Intent Submission Peer Review– 36 Bridge Street
Prepared for: Luis Builders, Inc.
Prepared by: The Berkshire Design Group
Pare Project No. 19161.00

As a follow-up to our September 27, 2019 review memo and per your request on October 1, 2019 requesting further clarification on the MassDEP Stormwater Policy Standards, we are providing a list of each standard and supporting documentation for each.

Standard No. 1: No new stormwater (e.g.) outfalls may discharge untreated stormwater directly to or cause erosion in wetlands or waters in Commonwealth.

Met. The proposed project includes a gravel diaphragm and rain garden which will capture all flows from the impervious surfaces and provide water quality treatment prior to discharge to the approximate eighty (80) foot, fairly level vegetated buffer. The discharge should not cause scour or erosion to any wetlands or waters.

Standard No. 2: Stormwater management systems shall be designed so that post-development peak discharge rates do not exceed pre-development peak discharge rates.

Met. The proposed design provides some attenuation of discharge rates such that the post-development peak discharge rates are equal or less than the pre-development rates.

Standard No. 3; Loss of annual recharge to groundwater shall be eliminated or minimized through the use of infiltration measures including environmentally sensitive site design, low impact development techniques, stormwater best practices, and good operation and maintenance. At a minimum, the annual recharge from the post-development site shall approximate the annual recharge from pre-development conditions based on soil type.

Recharge volumes through the proposed raingarden have been provided by the applicants engineer. Based on calculations the recharge volume exceeds the required volume.

Standard 4: Stormwater management systems shall be designed to remove 80% of the annual post-construction load of Total Suspended Solids (TSS). The Standard is met when:

- a. Suitable practices for source control and pollution prevention are identified in a long-term pollution prevention plan, and thereafter are implemented and maintained;*
- b. Structural stormwater best management practices are sized to capture the required water quality volume determined in accordance with the Massachusetts Stormwater Handbook; and*
- c. Pretreatment is provided in accordance with the Massachusetts Stormwater Handbook.*

Met: The entire impervious area is being captured in the rain garden that is designed in accordance with the Stormwater Handbook to remove 90% TSS however, typically rain gardens include dense native vegetation to help with the treatment of stormwater. It is recommended that the soil media be increased to 30 inches to achieve removal of nitrogen. Also, the plans call for conservation seed mix be installed in the rain garden. The Operation and Maintenance Plan identifies that mulch is to be installed in the rain garden. Please clarify.

An Operation and Maintenance Plan during construction and post construction for the Stormwater Management System has been included in the Stormwater Management Report. Revise the reference to the "Northampton Department of Public Works". Pretreatment being provided is in accordance with the Massachusetts Stormwater Handbook.

Standard 5: For land uses with higher pollutant loads, source control and pollution prevention shall be implemented in accordance with the Massachusetts Stormwater Handbook to eliminate or reduce the discharge of stormwater runoff from such land uses with the higher potential pollutant loads cannot be completely protected from exposure to rain, snow, snow melt, and stormwater runoff, the proponent shall use the specific structural stormwater BMP's determined by the Department to be suitable for such uses as provided in the Massachusetts Stormwater Handbook. Stormwater discharges from land uses with higher potential pollutant loads shall also comply with the requirements of the Massachusetts Clean Waters Act, M.G.L. c. 21, Sections 26-53 and the regulations promulgated thereunder at 314 CMR 3.0, 314 CMR 4.00 and 314 CMR 5.00.

Not applicable: This project does not have the potential to generate runoff with moderate to higher concentrations of oil and grease (e.g. a parking lot with >1000 vehicle trips per day).

Standard 6: Stormwater discharges within the Zone II or Interim Wellhead Protection Area of a public water supply, and stormwater discharges near or to any other critical area, require the use of the specific source control and pollution prevention measures and the specific structural stormwater best management practices determined by the Department to be suitable for managing discharges to such areas, as provided in the Massachusetts Stormwater Handbook.

Not applicable: Discharges will not occur within a Zone II, Interim Wellhead Protection Area or near any identified critical areas identified in the handbooks and filter or equivalent.

Standard 7: A redevelopment project is required to meet the following Stormwater Management Standards only to the maximum extent practicable: Standards 2 & 3 and the pretreatment and structural best management practice requirements of Standard 4, 5 and 6. A redevelopment project

shall also comply with all other requirements of the Stormwater Management Standards and improve existing conditions.

Met: Standards 2, 3 and 4 have been met. Standard 5 and 6 are not applicable. Recharge and treatment is being provided for the entire proposed impervious area.

Standard 8: A plan to control construction-related impacts including erosion, sedimentation and other pollutant sources during construction and land disturbance activities (construction period erosion, sedimentation, and pollution prevention plan) shall be developed and implemented.

Not met: Erosion control provided on plans is limited. Additional erosion controls should be included adjacent to Buttery Brook. An Operation & Maintenance Plan has been provided to address erosion issues during construction.

Standard 9: A long-term Operation and Maintenance Plan shall be developed and implemented to ensure stormwater management systems function as designed.

Not Met: As part of the Operations and Maintenance Plan, post-construction maintenance has been included identifying the Inspection & Maintenance Schedule for the Stone Apron/Gravel Diaphragm and the Rain Garden. A statement should be added to describe how future property owners will be notified of the presence of the stormwater management system and the requirement for proper operation and maintenance. Also, an estimated operation and maintenance budget should be provided.

Standard 10: All illicit discharges to the stormwater management are prohibited.

Not met: Measures to prevent illicit discharges have not been included in a Pollution Prevention Plan.

The applicant has not submitted a No Illicit Discharge Compliance Statement within their submittal. It has been stated that the owner is to submit a statement prior to the discharge of any stormwater to post-construction BMP's. This is in conformance with *Volume 3: Documenting Compliance with the Massachusetts Stormwater Management Standards*.

We are available to review these comments at the next scheduled Commission meeting. In the meantime, if you have any questions please feel free to contact me.