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June 17, 2021

Cohasset Planning Board
41 Highland Avenue
Cohasset, MA 02025

Subject: 808 Chief Justice Cushing Highway – Site Plan Review

Dear Planning Board Members:

This is to advise that we have reviewed the following documents prepared by Morse Engineering Company, Inc. in support of the application for Site Plan Review for a new commercial building at the subject location:

- Proposed Commercial Site Plan (6 sheets), dated May 19, 2021
- Category 3 Stormwater Permit Application Package, dated May 19, 2021

The purpose of our review has been to evaluate conformance with Cohasset Zoning By-Laws (ZBL), Stormwater Management Bylaw (SMB) and good engineering practice.

Background

The proposed project site is a 25,102 square foot (s.f.) parcel located at 808 Chief Justice Cushing Highway, which is on the southeast side of the intersection with Brewster Road. It is located in the Highway Business Zoning District. The site currently contains a commercial/retail building with associated paved driveway/parking lot in front, off Chief Justice Cushing Highway and a gravel drive off Brewster Road which wraps around the rear of the building. The remainder of the parcel is mostly grass with some mature trees.

The proposal calls for demolition of the existing building and construction of a new commercial building which would have about 1,930 s.f. of office space in the front with four contractor (tradesmen) bays totaling 4,580 s.f. to the rear. Access would be provided by two driveways, a one-way in driveway from Chief Justice Cushing Highway and a two-way driveway onto Brewster Road. The parking lot would contain sixteen parking spaces, four 60° angle parking spaces in front of the building, including one handicap space, three parallel spaces off the front left corner of the building and nine nose-in (90°) parking spaces along the Brewster Road property line. The ZBL require twenty parking spaces and the plans indicate that the other four required spaces are located in the contractor bays/garages.

The parking lot is proposed to be porous pavement except for the two entrance drives which would be standard asphalt pavement. Runoff from the building roof is proposed to be directed onto the porous pavement. There is also a crushed stone overflow trench proposed along the down-gradient edge of the porous pavement. An on-site septic system is proposed and water

service for domestic use and fire protection would be provided by connections to the distribution system in Brewster Road. Gas service would be provided by connection to the existing gas main in Brewster Road and underground electric/telephone/CATV utilities would be routed from an existing utility pole on Brewster Road.

Comments

1. The footprint of the proposed building should be listed on the plan. The percent coverage is listed to be 23.7% in the Zoning Requirements Table. However, the parking calculations indicate that the office space would be 1,930 s.f. and the contractor bays would be 4,580 s.f., which, if it is all one story, would make the building 6,510 s.f. or about 26% coverage. The ZBL only allows up to 25% coverage.
2. ZBL §300-7.3.C(1) specifies that “no portion of any entrance or exit driveway to the area shall be closer than 150 feet to the centerline of a street intersecting the street servicing the entrance or driveway.” The driveway off Chief Justice Cushing Highway is about 90 feet from the centerline of Brewster Road and the driveway off Brewster Road is about 115 feet from the centerline of Chief Justice Cushing Highway. We note that the driveway off Brewster Road is in the same location as the existing gravel driveway and the driveway off Chief Justice Cushing Highway is further away from Brewster Road than the existing paved driveway.
3. ZBL §300-12.6.C requires two permanent survey monuments to be located on the subject property and shown on the plan. No permanent survey monuments are shown on the subject property.
4. We note that essentially the entire site will be filled to raise the grade of the site in order to provide the required minimum two feet of separation from the bottom of the porous pavement to seasonal high groundwater. A mass balance analysis should be provided so that the Board knows the amount of fill and truck trips that will be required to bring the site to proposed grade.
5. We note that the porous pavement wraps around the rear of the building to within ten feet of the proposed septic leaching system, which complies with Title 5 setback requirements. However, MassDEP Stormwater Standards require a fifty foot setback between an infiltration BMP (porous pavement) and a septic leaching facility. Some of the porous pavement in front of the building would also be within fifty feet of the septic leaching facility.
6. The MassDEP Stormwater Standards also require that porous pavement be set back from slab foundations a minimum of ten feet and cellars a minimum of twenty feet. Some of the porous pavement is adjacent to the building slab foundation (contractor bays). It is not clear if there will be a cellar under the office portion of the building.
7. Areas for snow storage should be shown on the Site Plan.

8. The proposed slope near the intersection of Brewster Road and Chief Justice Cushing Highway is 2:1 (horizontal to vertical). Erosion control blankets may be required to protect the slope until it is stabilized with vegetation.
9. The inspection checklist in the Post Construction Phase Operation & Maintenance Plan (O&M) should specify quarterly inspections of the crushed stone overflow trenches to be consistent with the narrative in the O&M.
10. There is a note on Sheet 3 of the plan that specifies all proposed lighting to be dark-sky compliant and shielded to prevent light spillover onto adjacent properties. The Board should determine whether this is sufficient or whether a lighting design/photometric plan should be submitted.

We believe that the proposed erosion controls shown on the plan will adequately protect the site from sediment transport off site. The calculations indicate that the post development rate and volume of runoff will not exceed existing conditions. However, if the extents of the porous pavement are revised based on setback requirements, then we would need to review revised drainage calculations to verify that the project will comply with the Stormwater Management Bylaw.

Please give us a call should you have any question.

Very truly yours,

AMORY ENGINEERS, P.C.

By:



Patrick G. Brennan, P.E.



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