



FUSS & O'NEILL

June 25, 2020

Mr. Brian Groth
Town Planner
Town of Hudson
12 School Street
Hudson, NH 03051

Re: Town of Hudson Planning Board Review
Hudson Logistics Center, Lowell Road
Tax Map 239, Lot 1; Acct. #1350-949
Reference No. 03-0249.1930

Dear Mr. Groth:

Fuss & O'Neill (F&O) has reviewed the first submission of the materials received on May 19, 2020, related to the above-referenced project. Authorization to proceed was received on June 8, 2020. A list of items reviewed is enclosed. The scope of our review is based on the Site Plan Review Codes, Stormwater Codes, Driveway Review Codes, Sewer Use Ordinance 77, Zoning Regulations, and criteria outlined in the CLD Consulting Engineers Proposal approved September 16, 2003, revised September 20, 2004, June 4, 2007, September 3, 2008, and October 2015.

We have included a copy of Fuss & O'Neill's evaluation of the checklist for your reference. We note that several items could not be verified by Fuss & O'Neill and require action by the Town.

The project appears to consist of the redevelopment of a golf course into a 3 lot logistics/distribution center with a new public street. Proposed improvements to the site also include the construction of a driveway, parking areas, drainage improvements, landscaping, and other associated site improvements. The proposed buildings will be serviced by a Municipal water and sewer.

The following items are noted:

1. Site Plan Review Codes (HR 275)

- a. Hudson Regulation (HR) 275-6.I. The scope of this review does not include the adequacy of any fire protection provisions for the proposed buildings. Fuss & O'Neill defers to the Hudson Fire Department for review of proposed fire protection for this facility.
- b. HR 275-6.C. The applicant has proposed a sidewalk along Green Meadow Drive to the end of the cul-de-sac, but has not shown any connections to this sidewalk from the three building sites. The applicant should indicate how they intend to provide safe pedestrian access to these sites.
- c. HR 275-8.C.(2) and Zoning Ordinance (ZO) 334-15.A. The applicant should provide parking calculations on the plan set showing that the proposed spaces meet the use proposed per the Regulations. The applicant has stated that the required spaces are as required by the planning board but no specific calculations were provided for review.

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- d. HR 275-8.C.(4) The applicant has proposed parking spaces that measure 9 feet by 18 feet. This will require approval by the Planning Board.
 - e. HR 275-8.C.(8). The subject lot abuts a residential zone to the south. The applicant has provided screening with the installation of an evergreen landscape berm. We note that the proposed berm will be up to 25 feet tall before the addition of 8-10' tall tree plantings.
 - f. HR 275-9.C. The applicant has provided a noise study for the proposed project. Review comments related to this study will be provided under separate cover.
 - g. HR 275-9.D. It is our understanding that the applicant has provided a fiscal impact study which is being reviewed by others.
 - h. HR 275-9.I. Fuss & O'Neill is not aware of an environmental impact study being provided by the applicant.
 - i. Hudson Engineering Technical Guidelines & Typical Details (HETGTD) 565.1. The applicant is reminded of the requirements for off-site fill materials if any will be imported for this project.
 - j. HETGTD Detail R-6. The applicant has proposed a saw cut pavement section detail in the Site Plans that doesn't agree with the Hudson Pavement End Match detail.
 - k. HETGTD Detail R-8. The applicant has proposed an asphalt pavement section in the Site Plans which includes 8 inches of processed aggregate base course. Hudson details require 12 inches of crushed gravel for driveways.
 - l. The applicant has not provided a detail for ADA curb ramps in sidewalks. The detail should include curb ramps for both 6" and 12" curbing.
2. Administrative Review Codes (HR 276)
- a. HR 276-7. B. Waiver request forms were not received as part of the package received for review.
 - b. HR 276-11.1.A. and 276-11.1.B.(7). A separate abutters list was not provided with the review package but was included on the cover of the Site plan set. A list of abutters is not included with the Subdivision plans.
 - c. HR 276-11.1.B.(2). Multiple sheets in the Site plan set are in scales larger than the scale of one inch equals 50 feet as required by the Regulation.
 - d. HR 276-11.1.B.(4).(b). The applicant has not provided the approval block on all sheets of the site plan as required, and not located it in the lower left corner of some sheets as required.
 - e. HR 276-11.1.B.(6) and 289-27.B.(2). The owner's signature is not shown on either plan set.
 - f. HR 276-11.1.B.(9). Boundary dimensions and bearing are not shown on any sheets within in the Site Plan.
 - g. HR 276-11.1.B.(13). The applicant has not included details for any proposed business signage or provided the required note on the plan set stating that, "All signs are subject to approval by the Hudson PLANNING BOARD prior to installation thereof."
 - h. HR 276-11.1.B.(17). We were unable to locate any benchmarks within the Site plan. We note that they were provided on the Subdivision plan.

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- i. HR 276-11.1.B.(21). The applicant has not provided copies of any proposed easements.
 - j. HR 276-11.1.B.(23). The applicant has not noted any pertinent highway projects on the plan set.
 - k. HR 276-15. The applicant has included a DigSafe logo on the Topographical Subdivision plan sheet 11 of 17 in the Subdivision and Site plan sets that appears to have formatting issues. The applicant should review and correct.
3. Subdivision Review Codes (HR 289)
- a. HR 289-4 and HR 289-28.A. The applicant has included a legend for the installation of stone bounds and iron pins on the plans. The applicant should also provide a detail for stone bounds to be installed.
 - b. HR 289-18.B.(1). The applicant has proposed a Right-of-Way width of 66 feet for Green Meadow Drive which exceeds the 50 foot minimum width required by the Regulation. The proposed pavement widths for the roadway and cul-de-sac are 36 feet, which exceeds the 24 foot widths required by the Regulation. Section 5.15.7 of the Hudson Engineering Technical Guidelines & Typical Details (HETGTD) requires a pavement width of at least 36 feet for major, collector, and commercial streets where the Planning Board determines that the nature and/or intensity of the proposed use would require a wider pavement. The applicant should review these proposed pavement widths with the Town to determine if a waiver to the Subdivision Regulation is required
 - c. HR 289-18.B.(2). The applicant has noted a waiver has been requested for the cul-de-sac roadway length on the plan set. The regulation calls for a maximum length of 1,000 feet and the applicant has proposed a roadway of over 2,000 feet long.
 - d. HR 289-18.B.(5). The applicant has not shown a proposed dead end informational sign to be provided at the beginning of the cul-de-sac roadway.
 - e. HR 289-18.C.(2). The applicant has proposed multiple vertical sag curves within the proposed roadway that are less than the minimum K value of 40.
 - f. HR 289-18.O. The applicant has not shown on the plans nor provided details for a street name sign for Green Meadow Drive at the Lowell Road intersection.
 - g. HR 289-26.B.(3). The applicant has shown several existing easements on the plan set. Copies of these easements were not included in the review package.
 - h. HR 289-27.B.(6). The applicant's surveyor has not signed the Certification statement on sheet #1 of the Subdivision plans nor stamped any of the plans. The applicant should also should correct the typographical/format error for the surveyors Certification on that sheet.
 - i. HR 289-28.C. & G. The applicant's roadway typical cross section does not match that of Subdivision Regulation Attachment 3. The applicant has proposed 5 feet between the sidewalk and roadway whereas the detail requires 7 feet. We note that the applicant has also proposed a 5 foot sidewalk instead of the 4 feet recommended.
 - j. HR 289-28.C. The applicant has proposed a pavement cross section with four inches of bituminous pavement. The applicant should confirm that this is adequate for the anticipated truck traffic that will be travelling on Green Meadow Drive.

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- k. The applicant should correct several typographical errors on the Subdivision plan set: lot 'lint' on sheet #1; Proposed Land 'Transfers' on sheet #10;
 - l. The applicant should correct the Map reference to the Mercury property in Note #6 on Master Plan – Green Meadow Drive sheet #1 (Map 234 not 834).
 - m. The applicant should provide a pavement end match/saw cut detail for the pavement connection of Green Meadow Road to Lowell Road.
 - n. The Subdivision plans note that a portion of Steele Road is to be "Discontinued, Released, or Relocated". The applicant should provide further clarification of this action and define the limits of this section of the Steele Road Right-of-way.
4. Driveway Review Codes (HR 275-8.B. (34)/Chapter 193)
- a. HR 193.10.D. The applicant has proposed a driveway layout for the first new driveway at Map 234 Lot 35 (Mercury) where WB-67 trucks cannot access without travelling off of the proposed paved surface. The applicant should review the need for a wider driveway entrance at this location with the tenant of that building to allow adequate truck access.
 - b. HR 193.10.E. The applicant has not shown sight distances for the proposed driveways on the plan set.
 - c. HR 193.10.G. The applicant has proposed two driveways for Map 234 Lot 35 while only one is allowed per the Regulation. We also note that Map 233 Lot 1 would have two driveways because it would also be tied into Wal-Mart Boulevard as well as the proposed Green Meadow Drive.
 - d. The applicant has not shown proposed driveways or curb cuts for the site driveways at the cul-de-sac on the Subdivision plans. As currently designed two of the site driveways will conflict with the proposed sidewalk. The applicant should coordinate the Subdivision plans with the Site plans for driveway locations and any impacted features.
 - e. The applicant has proposed retaining walls adjacent to the driveways and the proposed roadway. The applicant has provided a typical detail for the walls but individual designs were not provided. We note that some of these walls are nearly 10 feet tall, and while they are outside of the proposed Town Right-of-way, they pose a risk to the proposed Town roadway if they were to fail. The applicant should provide detailed designs for each proposed wall, stamped by an Engineer licensed in the State of New Hampshire, for Town review prior to construction.
5. Traffic
- a. HR 275-9.B. Fuss & O'Neill understands that the Traffic Impact Study for this project is being reviewed by another party.
6. Utility Design/Conflicts
- a. HR 275-9.E, 276-13, and 289-27.B.(4). The applicant has not provided a sewer design for Green Meadow Drive. We note the Site plan shows proposed sewer lines from the 3 sites coming to the cul-de-sac but there does not appear to be any sewer designed which this sewer main would connect to on Green Meadow Drive..

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- b. HR 275-9.E. The applicant has not shown inverts into sewer manholes from various sewer force mains throughout the plan set.
- c. HR 275-9.E. The applicant should review the proposed sewer design with the Town of Hudson Sewer Department to ensure that enough capacity exists in the Lowell Road sewer main or other existing sewer mains to handle the flow that will be generated by the proposed project.
- d. HR 275-9.E and HETGTD 720.8. The applicant has proposed inlets into sewer manholes that exceed the two foot maximum invert separation. The applicant should provide details for a chimney or internal drop for these manholes, and indicate on the drawings where they are required.
- e. HR 275-9.E. The applicant should provide a sewer manhole detail that indicates an H20 load rated manhole frame and cover is required.
- f. HR 276-13.D. The applicant has proposed several transformer locations which do not have year round screening.
- g. The applicant should coordinate the utility locations between the Site and Subdivision plans. It appears that the water and gas lines shown on the Subdivision plan do not extend far enough around the cul-de-sac to meet the service locations of lot C.
- h. HETGTD 720.5. The applicant has shown pump stations on the proposed site plan and provided a typical detail on the plan set. We note that no design information was provided for the review of these private pump stations and therefore a detailed review of them was not done.
- i. The Site Demolition Plan of the subdivision plan set illustrates to abandon gas and water per Town Regulations. The applicant should coordinate with the Town id these lines need to be capped.
- j. HETGTD Detail S-4. We note that the Sewer Trench detail on the plan set does not match the Town's Typical Detail.
- k. The applicant has shown connecting to and capping an existing water main in the existing driveway to Mercury Systems (Map 234 Lot 35). This water main is shown on the plans as 'Approx. 8" Water Main' but then other notes instructing the Contractor to connect to this line note it is an existing 12" water main. The applicant should confirm the size of the existing water main (8" or 12") and revise the notes and/or design as necessary.
- l. The applicant should coordinate with the Town of Hudson Water Utility and Hudson Fire Department to ensure that capacity exists in the Lowell Street water main to meet the water service needs of the proposed development, including both domestic and fire protection needs.
- m. The applicant has shown proposed light pole foundations directly conflicting with the proposed water main along Green Meadow Drive.
- n. The applicant has not proposed any fire hydrants connected to the new water main along Green Meadow Drive. The applicant should coordinate required hydrant locations and spacing with the Hudson Fire Department.
- o. The applicant has proposed several fire hydrants to be located within paved areas adjacent to warehouse buildings where it appears trucks could back into them. These hydrants are shown to be protected by bollards, but the applicant should review these locations with the Hudson Fire Department to confirm that these are acceptable.

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- p. On Subdivision plan sheet #17 (Detail Sheet – Water), the applicant has noted that the Contractor shall coordinate all water interruptions with Pennichuck Water Works and affected property owners. This note should reference the Hudson Water Utility, and additional information should be provided regarding limitations on water service disruptions to abutters, and provisions for maintaining service to Mercury System (fire protection system, domestic water usage) including temporary water connections as needed.
- q. The applicant has not provided any details for the proposed water storage tanks.

7. Drainage Design/Stormwater Management (HR 275-9.A./Chapter 290)

The review of the drainage design and stormwater report was provided under a separate letter from Fuss & O'Neill dated June 19, 2020. We also have the following additional drainage related comments:

- aj. HR 290-5.A.5. The southern property site line abuts numerous properties along Fairway Drive. We note that these lots appear to receive runoff from a larger subcatchment area due to the grading of the proposed landscape screening berm. The applicant should evaluate to ensure runoff at every abutting property line does not exceed pre-development rates as required by NHDES AoT Regulations.
- ak. HR 290-5.K.(22). The applicant has not shown proposed snow storage areas on the plans.

8. Zoning (ZO 334)

- a. Zoning Ordinance (ZO) 334-14.A. The applicant should provide more detailed building height calculations. The ordinance states that the maximum building height shall be 50 feet and be measured from the average elevation of finished grade within 5 feet of the structure to the highest point of the roof. Roof elevations have not been provided, and we note that several building grades extend 51'-6" from the finish floor elevation (FFE) to the top of parapet grade (TOP). A large portion of the site grading within 5 feet of the buildings includes finished grade elevations for truck loading docks which are up to 5 feet below the FFE. We are unable to determine if the Ordinance has been met without roof grades being shown on the architectural plans.
- b. ZO 334-17 & 334-21. The applicant has noted that the subject parcel is located within the General-One zoning district and a small undeveloped portion in the Business (B) zoning districts. The proposed use is permitted by the Ordinance.
- c. ZO 334-33. The applicant has shown impacts to 114,179 sf of wetlands and has stated that a NHDES Dredge and Fill permit application has been submitted. A copy of this permit once approved should be provided to the Town for their records.
- d. ZO 334-35.B and 334-35.C. The applicant had proposed impacts to the wetlands for the construction of a new road, drainage, driveways and parking areas. A Special Exception will need to be granted by the Zoning Board of Adjustment to allow these uses..
- e. ZO 334-38.A. The applicant has noted in their NHDES Wetlands application that mitigation would be discussed with the Town, plus a payment of \$701,142.17 will be made to Aquatic Resource Management.

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- f. ZO 334-60. The applicant has not provided any size or detail information for any signs other than handicapped parking and traffic signs within the subject lot. The applicant did note in the Subdivision plans that signs are subject to the requirements of the Hudson Zoning Ordinance as determined during the sign permit application process.
- g. ZO 334-84 and HR 218-4.E. The applicant has shown all flood hazard areas on the plans. Proposed base building grades appear to be above the Merrimack River's 100 year flood elevation.

9. Erosion Control/Wetland Impacts

- a. HR 290-4.A.(3). The applicant appears to be proposing construction fencing and a compost filter tube (FT) along the south side of the earthen berm as a means of erosion control (see sheet CE304), but only FT is shown, not the symbol for the filter tube along the length of the berm. The applicant should update the plan to show the limits of the intended erosion and sedimentation control measures at this location.
- b. ETGTD 565.1.1. The applicant has not indicated the proposed method of stump disposal on the Site plans. Subdivision plans note that stumps will be disposed of off-site in a legal manner.
- c. ETGTD 565.1.1. The applicant should note on the plans the requirement for testing any imported fill over 10 cubic yards.
- d. The Town of Hudson should reserve the right to require any additional erosion control measures as needed.

10. Landscaping (HR 275.8.C.(7) & 276-11.1.B.(20)) and Lighting (HR 276-11.1.B.(14))

- a. HR 275-8.C.(7)(c) & (d). The applicant has provided landscaping calculations showing that the sites meet the number of trees and shrubs required. We noted that the proposed trees and shrubs are not listed per lot but for the entire site. It appears that some lots may not meet the individual requirement because the landscaping is spread between the 3 lots. The applicant should provide proposed landscaping numbers for each individual lot to be sure they each individually meet the regulation.
- b. The applicant should provide the proposed spacing for the tree plantings to be installed on the landscape berm at the south side of the site.
- c. HR 276-11.1.B.(14). The applicant has not provided information detailing the proposed hours of operation for the site lighting (i.e. what are the proposed hours of operation for the facility; will the lights operate only during those prescribed hours; will they operate during all night time hours; etc.).
- d. HR 276-11.1.B.(14). The applicant has proposed light pole installations that have a fixture mounting height of 40 feet. Due to their height, some of these lights may be visible to abutting properties. The applicant should review the proposed lighting along the south side of the site to ensure that lights are not visibly higher than the proposed landscape berm and associated plantings.
- e. The applicant has proposed lighting within the right-of-way of the proposed Green Meadow Drive. The applicant and Town should confirm who will be responsible to operate and maintain this lighting.

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11. State and Local Permits (HR 275-9.G.)

- a. HR 275-9.G. Due to the large nature of the project and the multiple permit requirements, we recommend that the applicant list all the required permits and their status on the plan set. The applicant should forward all relevant permit documentation to the Town for their records.
- b. HR 275-9.G. The applicant has noted that a NPDES permit and preparation of a SWPPP will be required for this project.
- c. HR 275-9.G. The applicant did not provide copies of any applicable Town, State or Federal approvals or permits in the review package.
- d. Additional local permitting may be required.

12. Other

- a. ETGTD Detail R-12. The applicant should provide a curb and sidewalk tip down detail on the subdivision plan for all driveway locations.
- b. The applicant should coordinate the Site and Subdivision plans. We recommend that the Driveway locations be shown on the Subdivision plan to better show utility, sidewalk and guardrail locations.
- c. The applicant has not included any provisions for dumpsters on the plans. The applicant should verify that dumpsters are not needed for the proposed use.
- d. The guard rail details vary between the Subdivision plan (page 14 of 22) and the Site plan (Sheet CS504). We recommend the applicant revise the Subdivision plan set to be sure the anchor meets NHDOT guardrail standards.

Please feel free to call if you have any questions.

Very truly yours,



Steven W. Reichert, P.E.

SWR:

Enclosure

cc: Town of Hudson Engineering Division – File
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