

# **HUDSON LOGISTICS CENTER**

SP #12-22 & CU #07-22

October 12, 2022

**SITE:** Map 234/Lots 005, 034 & 035; Map 239/Lot 001; aka Green Meadow Golf Club

**ZONING:** General-1 (G-1)

**PURPOSE OF PROPOSALS:**

*From the Site Plan Application:* Proposed redevelopment of Property for a warehouse and distribution facility, representing a reduction of the scope of the approved Hudson Logistics Center originally approved by Site Plan Decision (SP #04-20) issued on May 5, 2021 for redevelopment of three (3) buildings having a footprint collectively consisting of 2,614,984 s.f., to a single building having a footprint of approximately 1,393,822 s.f. for warehouse, distribution, and associated uses and structures on a single 375.37-acre lot, along with access driveways, parking, stormwater/drainage, and other utility infrastructure, along with lighting, landscaping and other improvements shown on the plans.

*From the Conditional Use Permit Application:* Proposed redevelopment of property into the Hudson Logistics Center which includes a reduction in project scope originally approved, in part, by a Wetland Conditional Use Permit Decision (#02-20), by the Planning Board in April 21, 2021, for redevelopment of a single building having a building footprint of approximately 1,393,822 s.f. for warehouse, distribution and associated uses and structures, where a redevelopment of three (3) buildings having a footprint collectively consisting of 2,614,984 s.f. were formerly approved, on a single 375,37 acre lot, along with access driveways, parking, stormwater/drainage, and other utility infrastructure, along with lighting, landscaping and other improvements shown on the plans.

**PLAN UNDER REVIEW:**

Hudson Logistics Center, Site Plan & Wetlands Conditional Use Applications; dated September 9, 2022; consisting of 164 sheets including cover, and notes on Sheet CS003; prepared by: Langan Engineering & Environmental Services, Inc., 888 Boylston St., Boston, MA 02116, with surveying by: Hayner/Swanson, Inc., 3 Congress St., Nashua, NH 03062, and wetlands & natural resources by: Gove Environmental Services, 8 Continental Drive Bldg. 2, Unit H, Exeter, NH 03833; prepared for Applicant, Hillwood Enterprises, L.P. 5050 W. Tilghman St., Suite 435, Allentown, PA 18104 and Owner, Greenmeadow Golf Club, Inc., 55 Marsh Rd., Hudson, NH 03051.

**ADDITIONAL SITE PLAN SUBMITTALS UNDER REVIEW:**

1. Hudson Logistics Center – Site Plan Narrative, prepared by Smolak & Vaughan, LLP & Donahue, Tucker & Ciandella, PLLC, dated September 12, 2022.
2. Traffic Impact Study for Hudson Logistics Center, prepared by Langan Engineering, dated September, 2022, and Executive Summaries.

3. Stormwater Management Report, prepared by Langan Engineering, dated September 2022, and Executive Summaries.
4. Geotechnical Engineering Study for Hudson Logistics Center, prepared by Langan Engineering, dated September 9, 2022, and Executive Summaries.
5. Air Quality Impacts Report, prepared by Epsilon Associates, Inc., dated September 7, 2022.
6. Sound Level Assessment Report, prepared by Epsilon Associates, Inc., dated September 7, 2022.
7. Real Estate Appraisal Services Report, Proposed Hudson Logistics Center, dated September 7, 2022, prepared by Wesley G. Reeks, MAI.
8. Letter from John D. Krebs, dated September 7, 2022.
9. Fiscal Impact Analysis –Hudson Logistics Center, prepared by RKG Associates, Inc., dated September 9, 2022.
10. Waiver Requests, prepared by Langan Engineering.

Additional Conditional Use Permit Application Submittals Under Review:

11. Revised Hudson Logistics Center, Application for Amended Conditional Use Permit, prepared by prepared by Smolak & Vaughan, LLP & Donahue, Tucker & Ciandella, PLLC, dated September 12, 2022
12. Wetland Natural Resources Report for Revised Hudson Logistics Center Project, prepared by Gove Environmental Services, Inc., dated September 9, 2022.
13. Wildlife Habitat Evaluation: 2022 Update, prepared by Lucas Environmental, LLC, dated September 9, 2022.

*\*PDF copies of application materials can be found here:*

<https://www.hudsonnh.gov/planning/page/hudson-logistics-center-2022>

Waivers Requested

Basis of waiver requests are provided by the Applicant and briefly summarized below:

1. §276-13 – Underground Utilities: Applicant requesting overhead electrical line for a distance of 820-feet extending from an existing line to existing property at 267 Lowell Road.
2. §275-8(C)(4) – Parking Space Dimensions: Applicant requests to allow parking spaces dimensions to be 9-feet by 18-feet instead of 10-feet by 20-feet.
3. §275-8.C(2) – Number of Parking Spaces: Applicant requests to reduce the number of required parking spaces from 3,705 to 1,585.
4. §193-10.G – Number of Driveways: Applicant requesting two driveways to serve the site.
5. §193-10.F – Driveway Width: Applicant requests a driveway width exceeding 50-feet.

6. §200-3 – Excavation for Site Plans: Applicant requests waiver from a potential clerical error. The regulation in question exempts projects requiring site plan approval from excavation permits, however it contains an outdated reference.

**APPLICATION TRACKING:**

- September 12, 2022: Application received.
- September 14, 2022: Application determined as have potential for regional impact pursuant to RSA 36:56.
- October 12, 2022: Application acceptance and hearing scheduled.

**ATTACHMENTS**

- A. Town Department Review Comments as of 10/8/22
- B. Peer Review, Land Use Regulations, prepared by Fuss & O’Neill, dated September 28, 2022.
- C. Peer Review, Traffic Study, prepared by Fuss & O’Neill, dated September 28, 2022.
- D. Peer Review, Sound Study, prepared by HMMH, dated September 29, 2022.

**COMMENTS:**

Background

The Site Plan & Conditional Use Permit applications SP #12-22 and CU #07-22 propose to redevelop the property known as the Greenmeadow Golf Course (approx. 375 acres) as a warehouse and distribution facility. The proposed facility comprises one primary building, with a footprint of approximately 1.4 million square-feet and a gross floor area (GFA) of over 2.2 million square feet when including mezzanine area. Also proposed are three (3) accessory buildings: a guard shack at 1,114 s.f.; a maintenance building at 7,247 s.f.; and a transportation building at 3,538 s.f.

The proposed use, Warehouse or Distribution Facility (Category E.8) is a permitted use on the proposed development site. The proposal conforms to all dimensional standards including the recently adopted §334-14.B which requires buildings between 38-feet and 50-feet to be a minimum of 400-feet from residential zones and additionally at a rate of 10-feet for every 100,000 square feet of building footprint. Under this ordinance, the proposed building footprint would be required to be setback 540-feet from a residential zone. The application shows the proposed building 1,300-feet from the nearest residential property.

The Applicant describes the differences between this proposal and the previous Hudson Logistics Center in the Project Narrative.

Please note that review of this application is on-going by both peer review and town departments.

Regional Impact

In accordance with RSA 36:56, upon receipt of the application the Planning Board determined that if approved, the development has potential for regional impact. This action affords the potentially affected communities (those bordering Hudson) and the regional planning commission the status of abutters for the purpose of providing notice and giving testimony.

These entities have been notified, and staff has communicated with the representatives of each. No comments have been received at this time.

#### Town Department Review

See **Attachment A** for full text of comments received from Town Departments so far. More comments from Town departments may follow as review continues.

- Assessing: Note on interpretation of tax revenue, and the discrepancy between additional revenue versus a new source of revenue.
- Engineering: Comments and requirements related to traffic controls, sewer design and water design. Comments relate to concerns of Public Works as well.
- Fire: Outlay of requirements related to fire and safety protection, and equipment necessitated by the development.
- Zoning: Building height compliance should be confirmed. Potential zoning issues identified relate to the sign ordinance.

The site plan application also requires a conditional use permit for impacts to the wetlands conservation overlay district (§334, Article IX). As such, it is subject to review and recommendation by the Conservation Commission.

#### Peer Review

Peer review documents received so far are included as **Attachments B-D**, including site/civil, traffic and sound. Pending peer reviews include the air quality impact, the fiscal impacts, sewer design and the water modeling.

#### State Department Review

This proposal is subject to the review and permitting by New Hampshire Departments of Transportation (NHDOT) and Environmental Services (NHDES). The Applicant still proposes the off-site traffic improvements associated with the previous proposal which are still waiting for final approval from NHDOT. The NHDES has approved the Alteration of Terrain permit for the offsite improvements, but permits required on-site are under review.

#### Site Walk

In addition to the operational and technical items under review, consideration of other effects of the proposed development could be facilitated by a site walk. The new proposal shows a larger area of open space in the southeast (plan lower-right). At the moment, emergency access via Steel Road appears to be the proposed use. This might be an opportunity for conservation and/or recreation. Also, the screening along the southern property line shared with abutters on Fairway Drive has shifted north. A mixture of meadow seed, tree plantings and existing vegetation is proposed between an earthen berm (with sound wall) and the abutting property line. Third, the proposed trailer storage area on the north end (plan left) is a large paved area without any landscaping. While this may be considered trailer storage as opposed to a parking lot, some landscaping or segmentation of this storage area as well as enhanced landscaping around its exterior may benefit environmental impacts as well as visual impacts for those entering Hudson from the west.

**RECOMMENDATION:**

Plan “acceptance” means the Applicant has submitted a complete application sufficient to begin the review process. Acceptance does not mean the application is approved, but that the application includes the documents required by the Administrative Requirements and the Site Plan Requirements needed to undertake review. This action is not a judgement on the merits of the application. During review, the Board might determine that more information is required to reach a decision.

Staff recommends that the Planning Board determine whether or not the application is sufficient to begin review and vote to take or not take jurisdiction by accepting the application. If the Board accepts the application, a site walk should be considered, and if possible, with the Conservation Commission. It is then recommended to be continued to a future date to allow for further review.

**DRAFT MOTIONS:**

**ACCEPT the site plan & conditional use permit applications:**

I move to (accept/not accept) site plan application SP #12-22 and conditional use permit application CU #07-22, Hudson Logistics Center for Map 234/Lots 005, 034 & 035; Map 239/Lot 001.

Motion by: \_\_\_\_\_ Second: \_\_\_\_\_ Carried/Failed: \_\_\_\_\_

**SITE WALK:**

I move to schedule a site walk for SP #12-22 and conditional use permit application CU #07-22, Hudson Logistics Center for Map 234/Lots 005, 034 & 035; Map 239/Lot 001, to date certain, \_\_\_\_\_.

Motion by: \_\_\_\_\_ Second: \_\_\_\_\_ Carried/Failed: \_\_\_\_\_

**CONTINUE the site plan & conditional use permit applications:**

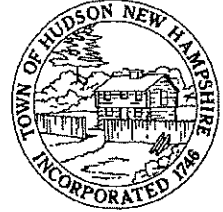
I move to (accept/not accept) site plan application SP #12-22 and conditional use permit application CU #07-22, Hudson Logistics Center for Map 234/Lots 005, 034 & 035; Map 239/Lot 001, to date certain, \_\_\_\_\_.

Motion by: \_\_\_\_\_ Second: \_\_\_\_\_ Carried/Failed: \_\_\_\_\_



# TOWN OF HUDSON

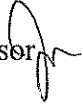
Office of the Assessor



Jim Michaud  
Chief Assessor, CAE  
email: [jmichaud@hudsonnh.gov](mailto:jmichaud@hudsonnh.gov)

[www.hudsonnh.gov](http://www.hudsonnh.gov)

12 School Street · Hudson, New Hampshire 03051 · Tel: 603-886-6009 · Fax: 603-598-6481

TO: Brian Groth, AICP, Town Planner                      DATE: September 20, 2022  
FROM: Jim Michaud, Chief Assessor   
RE: Site Plan Application Amendment – Hudson Logistics Center

Brian, I offer the following comments, to date, on the application and associated documents.

**1. Reference to September 12, 2022 memorandum from Hillwood’s legal counsel**

**MEMORANDUM**

To: Hudson Planning Board (Timothy Malley, Chair)  
Brian Groth, Town Planner  
From: John T. Smolak, Esq. Smolak & Vaughan, LLP &  
Justin L. Pasay, Esq., Donahue, Tucker & Ciandella, PLLC  
Re: Hudson Logistics Center –Site Plan Narrative  
Date: September 12, 2022

**Page 36 -**

93. Although not recognized as a site plan criterion, the Technical Memorandum, dated September 9, 2022, to Brian Kutz, Hillwood Enterprises, LP, prepared by RKG Associates, Inc. (the “RKG Study”), very conservatively projects the generation of approximately \$4.08 million in new gross tax revenue generated annually upon full buildout.<sup>34</sup>

**Assessing Department note** - It is important to note that this is not NOT additional property tax revenue. This is a new geographic source of that revenue, but, unless the municipal budget increases, this would not be additional property tax revenue. It is property tax revenue associated with the reallocation of the tax base, an increase in the tax base, to reflect the RKG estimated stabilized value of \$199,223,285 (almost \$200 million in RKG estimated assessed value for the proposed Amended project).

The best way to explain this fact of budgeting and tax base in New Hampshire, is the million dollar example;

Town A has a budget of \$1 million; and a total tax base of \$1 million; the tax rate is \$1 (\$1,000,000 / \$1,000,000); a \$1 tax rate raises \$1 million dollars.

The following year, Town A has a large expansion of its tax base associated with a new taxable building coming on line, and let's assume the budget remained the same from the prior year;

Town A has a budget of \$1 million; and a NEW total tax base of \$2 million; the tax rate is \$.50 (50 cents) ; ( $\$1,000,000 / \$2,000,000 = \$0.50$ ); in this example a \$0.50 tax rate raises \$1 million, same as the prior year.

How much NEW property tax revenue has come into the Town in the above example; NONE – NO additional property tax revenue, the same \$1 million to be raised has been raised, its just the rate that gets adjusted, by simple division.

At an estimated tax base of close to \$5 billion for the 2022 property tax year, the \$200 million in RKG's estimate of tax base increase, represents only a 4% increase in tax base, about 4-5 cents on an estimated tax rate.

**Dubowik, Brooke**

---

**From:** Dhima, Elvis  
**Sent:** Monday, September 19, 2022 4:25 PM  
**To:** Dubowik, Brooke; Groth, Brian  
**Subject:** RE: Department Sign-Off Hudson Logistics Amended Plan SP#12-22 & CU#07-22

B/B

Below are my comments

1. Applicant shall coordinate all offsite improvement located within the Town Right of Way with the Engineering and Public Works Departments.
2. Applicant shall coordinate all traffic control adjustments outside of Hudson jurisdiction, with NHDOT.
3. Applicant shall coordinate all traffic control adjustments with Town of Hudson Engineering and Public Works Department, if Hudson and NHDOT have a traffic maintenance agreement in place.
4. Applicant shall accommodate all necessary traffic control upgrades, included in the traffic study zone, to the satisfaction of Hudson Engineering and Public Works Department, if Hudson and NHDOT have a traffic maintenance agreement is in place.
5. Applicant shall have a complete water domestic and fire protection design and model, prior to final approval
6. Applicant shall have a complete sewer collection system design, prior to final approval
7. Applicant shall have a complete traffic offsite improvements design, prior to final approval
8. Applicant shall comply with the Hudson Engineering construction specifications and standards.

E

***Elvis Dhima, P.E.***  
***Town Engineer***

12 School Street  
Hudson, NH 03051  
Phone: (603) 886-6008  
Mobile: (603) 318-8286



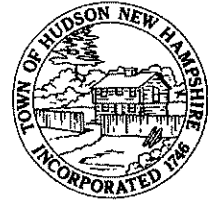




# TOWN OF HUDSON

FIRE DEPARTMENT

INSPECTIONAL SERVICES DIVISION



---

12 SCHOOL STREET, HUDSON, NEW HAMPSHIRE 03051

Emergency 911  
Business 603-886-6005  
Fax 603-594-1142

Scott Tice  
Chief of Department

September 29, 2022

To: Brian Groth  
Town Planner

From: Scott Tice  
Fire Chief

RE: Hudson Logistic Center

The following is a list of site plan concerns for this project. The following items are similar to the approved site plan with modification to reduce to one building. This review was completed utilizing plans submitted by Langan Engineering dated September 09, 2022.

1. Please provide the markings for fire access in accordance with NFPA 1.
2. The project shall have all proposed roadways named and formal addressing approved by the Hudson Fire Department prior to the issuance of building permit.
3. The project shall have temporary signage approved by the Hudson Fire Department noting the addressing and associated access points during construction.
4. The common driveway shall have a permanent sign approved by the Hudson Fire Department noting the address of the building that is accessed from the driveway. The sign shall be approved and installed before issuance of any building permits.
5. The Fire Hudson Department will require three copies of the fire hydrant layout for the full site. The hydrant plans shall be signed by the property engineer, Town of Hudson Engineer and the Fire Chief. Water supply for fire protection shall be made available prior to the issuance of building permits. Additionally we would ask the developer to review the Wall Mart Blvd area. It appears that hydrants were not installed on the new section of the access road. This item will need to be addressed.

**The following life safety and fire protection concerns provided are for informational purposes to the applicant and Planning Board for this project. Final determination on these issues occur after further review of the project.**

- A. The proposed building will require an approved sprinkler system. The Hudson Fire Department upon receipt of the building plans shall conduct this review. This requirement is in accordance with the International Building Code (IBC) and Hudson Town Code (HTC), current revision, Chapter 210, Article VI. Any fire protection system shall be monitored by an approved fire alarm system.
- B. The fire alarm system shall be connected to the Hudson Fire Departments municipal fire alarm system or a substantially equivalent system in accordance with the Hudson Town Code, Chapter 210. A site plan detailing the aerial or underground layout to the municipal fire alarm connection shall be provided before the utilities are completed for this project.
- C. Any required fire alarm system component shall remain accessible at all times.
- D. Due to the size of the building the Hudson Fire Department will require an emergency communication system review by our radio system vendor. The vendor shall review the need for signal amplification for first responder communication signals to be received and transmitted from inside the building; additionally, a review of transmission from the site to the Town of Hudson radio system. As outlined in the Building and Fire Code, the AHJ shall determine the acceptable level of coverage for the site. Any improvements identified shall be at the cost of the developer.
- E. A blasting permit will be required for any blasting on site in accordance with the Hudson Town Code, Chapter 202.
- F. Will there be inside or outside storage above the exempt amounts of hazardous materials, liquids or chemicals presenting a physical or health hazard as listed in the International Building Code, Section 307, 414 or 415? All Tier II reporting requirements shall be followed each year.
- G. All storage either inside or outside of hazardous materials, liquids or chemicals presenting a physical or health hazard as listed in NFPA 1, Section 20.15.2.2 shall be in accordance with the applicable portions of the following:

- NFPA 13, Standard for the installation of Sprinkler Systems
- NFPA 30, Flammable and Combustible Liquids Code
- NFPA 30B, Code for the Manufacture and Storage of Aerosol Products
- NFPA 230, Standard for the Fire Protection of Storage
- NFPA 430, Code for the Storage of Liquids and Solid Oxidizers
- NFPA 432, Code for the Storage of Organic Peroxide Formulations
- NFPA 434, Code for the Storage of Pesticides

**Additional Items for Considerations**

Openly, this project will be the largest commercial construction project to impact the Town of Hudson in recent times. The Hudson Fire Department has reviewed this project with an open mind utilizing a risk management approach to reviewing impact both short term and long term. We worked through the following process.

1. Identify concerns/problems
2. Develop a list of potential ways to improve safety
3. What are the opportunities to address the concerns
4. What are the benefits

Consideration needs to be given to the following;

- A. Prior to construction starting on this project, the Hudson Fire Department will look to engage site developers to discuss construction practice and programs. The intent is to identify training and equipment short comings of the Hudson Fire Department. With this gap analysis complete, any additional first responder training and equipment needs shall be the cost of the developer.
- B. During the building construction portion of this project, the Hudson Fire Department believes it will have the need to directly assign a member of the Inspectional Services staff specifically for this project. The developer shall provide a trailer with associated utilities and HVAC support for an onsite work space for members of the Town of Hudson Inspectional Services and Land Use Divisions. Additionally, the impact of having to assign a full time inspector to the site for the duration of this construction project shall be at the cost of the developer. This has been highlighted in the fiscal impact for the project.
- C. There is an associated risk with the amount of equipment on the roof of the building. This equipment will lead to the roof being a common response area for the Hudson Fire Department. In an effort to safety and efficiently work in this area, we will need to review the need of a tower truck for the Hudson Fire Department fleet. This need is created by the sheer size of the building as a facility of this size is not currently part of our risk assessment.

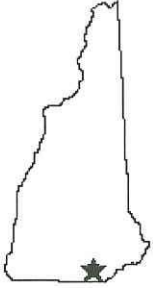
With this said these items shall be reviewed when the full building permit process takes place. As each of the items is specific to the construction of the facility.

These are all of the Hudson Fire Department's concerns as of this time. If you have any further questions, please call me directly and thank you for your cooperation.

Sincerely,



Scott Tice, Fire Chief



# TOWN OF HUDSON

## Land Use Division



12 School Street • Hudson, New Hampshire 03051 • Tel: 603-886-6008 • Fax: 603-594-1142

### Site Plan Review #12-22 Zoning Review/Comments

September 20, 2022

Re: Map 239 Lot 001  
Address: Lowell & Steele Road  
Zoning district: G-1/B  
Proposed 1,393,822 sqft warehouse/distribution facility

- 1) The Zoning Ordinance §334-14A states that the maximum building height shall be 50 feet and §334-14 states height is measured from the average elevation of finished grade within 5 feet of the structure to the highest point of the roof.  
Please confirm such requirement is met.
- 2) Dwg CS101: Site Plan I. There is a monument sign shown by Lowell Rd. This is lacking details: Is this proposed as §334-65 Industrial park signs/business park? There is no size or height details etc.
- 3) Dwg CS109: Site Plan IX. There is a monument sign shown by Lowell Rd. This is lacking details: Is this proposed as §334-65 Industrial park signs/business park? There is no size or height details etc.
- 4) Dwg CS109: Site Plan IX. There is a "proposed mercury systems sign" shown on Map 234/Lot 001 which refers to mercury systems located on Map 234/Lot 035, and is off premise advertising (reference §334-60B). This sign is located within the side yard setback (reference §334-60D). This is lacking size or height details etc

Sincerely,

Bruce Buttrick

Zoning Administrator/Code Enforcement Officer

(603) 816-1275

[bbuttrick@hudsonnh.gov](mailto:bbuttrick@hudsonnh.gov)

cc: Public Folder  
B. Groth - Town Planner  
file



September 28, 2022

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

Re: Town of Hudson Planning Board Review  
Hudson Logistics Center Amended Site Plan, Lowell Road  
Tax Map 234, Lot 5, 34 & 35 and Map 239, Lot 1; Acct. #1350-544  
Fuss & O'Neill Reference No. 20030249.2200

Dear Mr. Groth:

Fuss & O'Neill (F&O) has reviewed the first submission of the materials related to the above-referenced project which were received starting on September 12, 2022. Authorization to proceed with our review was received on September 14, 2022. 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 1.5 million square foot logistics/distribution center with a new access road. Proposed improvements to the site also include the construction of driveways, parking areas, drainage improvements, landscaping, lighting, and other associated site improvements. The proposed site will be serviced by 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 the main access way to the front of the proposed building.
- c. HR 275-8.C.(2) and Zoning Ordinance (ZO) 334-15.A. The applicant has provided parking calculations in the plan set showing that 3,705 parking spaces are required. The applicant has noted that there are 1,585 proposed parking spaces and has requested a waiver for the reduction in spaces proposed. We note that the total number of parking spaces shown on the plans appears to be 1,573. The count shown for each of the

50 Commercial Street  
Manchester, NH  
03101  
t 603.668.8223  
800.286.2469  
[www.fando.com](http://www.fando.com)  
  
California  
Connecticut  
Maine  
Massachusetts  
New Hampshire  
Rhode Island  
Vermont



Mr. Brian Groth  
September 28, 2022  
Page 2 of 9

- southwestern rows of spaces on sheet CS118 is incorrect (18 actual spaces vs. 20 noted).
- d. HR 275-8.C.(4) The applicant has proposed parking spaces that are 9 feet by 18 feet. This will require approval by the Planning Board and the applicant has noted that a waiver is required on the plan set.
  - e. HR 275-8.C.(4). The length of the parking spaces is noted as 18 feet (typical) but they actually measure 20 feet long on the plans.
  - f. HR 275-8.C.(6). The applicant has provided loading space calculations on the plan set showing that 224 loading spaces are required and has proposed 1,034 loading spaces.
  - g. HR 275-8.C.(8). The subject lot abuts a residential zone to the south. The applicant has provided screening with the installation of a landscape berm. We note that the proposed berm will be up to 25 feet tall before the addition of 8-10' tall tree plantings and a 10-foot-tall fence.
  - h. HR 275-8.C.(11). The applicant has proposed 37 handicapped accessible parking spaces for the project, which well exceeds the minimum number of spaces required based on the overall total of spaces proposed.
  - i. 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.
  - j. HR 275-9.D. The applicant has provided a Fiscal Impact Study for the proposed project. Review comments related to this study will be provided under separate cover.
  - k. HR 275-9.I. The applicant has provided an Air Quality Impact Study for the proposed project. Review comments related to this study will be provided under separate cover.
  - l. Hudson Engineering Technical Guidelines & Typical Details (HETGTD) 565.1. The applicant has included General Note #33 on Sheet CS003 regarding the requirements for off-site fill materials if imported for this project.
  - m. 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 for passenger car drive aisles and parking stalls. Hudson details require 12 inches of crushed gravel for driveways.

## 2. Administrative Review Codes (HR 276)

- a. HR 276-7. B. Waiver request forms were not included as part of the package received for review. Several waiver requests were noted on sheet CS002 of the plan set.
- b. HR 276-11.1.B.(5). The applicant has not provided the required statement adjacent to the approval block on all sheets of the plan set.
- c. HR 276-11.1.B.(13). The applicant has not included details for any proposed business signage and should revise their sign note to provide the required note on the plan set, "All signs are subject to approval by the Hudson PLANNING BOARD prior to installation thereof."
- d. HR 276-11.1.B.(20). The applicant has not provided the size or height of the existing buildings on the plan set.
- e. HR 276-11.1.B.(21). The applicant has not provided copies of any proposed easements.
- f. HR 276-11.1.B.(23). The applicant has not noted any pertinent highway projects on the plan set.



Mr. Brian Groth  
September 28, 2022  
Page 3 of 9

### 3. Driveway Review Codes (HR 275-8.B.(34)/Chapter 193)

- a. HR 193.10.E. The applicant has not shown sight distances for the proposed driveways on the plan set. We note that both driveways are proposed to be continuations of access ways that already exist and are connected to Lowell Road via signalized intersections.
- b. HR 193.10.F. The applicant has noted that a waiver is being requested from this Regulation to allow certain portions of the Green Meadow Drive site access road to be greater than 50 feet in width.
- c. HR 193.10.G. The applicant has proposed two driveways for Map 233 Lot 1. The proposed site would connect into Wal-Mart Boulevard as well as the existing Mercury driveway. The applicant has noted that a waiver is being requested from this Regulation.
- d. The applicant has proposed retaining walls adjacent to the driveway. The applicant has provided a typical detail for the walls for reference only, but individual designs were not provided. 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.

### 4. Traffic

- a. HR 275-9.B. Fuss & O'Neill, Inc. has reviewed the Traffic Impact Study prepared by Langan Engineering & Environmental Services, Inc. dated September 2022. Our review comments are being provided under a separate letter dated September 28, 2022.

### 5. Utility Design/Conflicts

- a. 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 existing sewer mains to handle the flows that will be generated by the proposed project.
- b. Several proposed sewer runs have less than the required 6' of cover in paved areas, per Env-Wq 704.04(b). These include:
  - i. Dwg. CU107: SMH-1
  - ii. Dwg. CU118: SMH-6, 11, and 12The applicant should review the elevations for these sewer sections and adjust as needed.
- c. Along the west side of the proposed building, a 6-inch sewer serves a "Back-in Trailer Maintenance Building" (Dwg CU118) and a "Transportation Building" (Dwg CU 114). The sewer diameter is shown as 6-inch with several segments specified with 0.60% slope. Env-Wq 704.(a) requires a 6-inch sewer to have a minimum 0.01 feet per foot slope. (i.e. 1.00% slope).
- d. Plan sheets CU108, CU121, CU122, and CU123 are missing from both the paper and electronic copies of the plan set. If no Utility work is proposed for these sheets the Sheet Legend should note that (similar to the LL series drawings).
- e. The Sheet Legend for plan sheets CU107 through CU120 have the drawings mis-labelled as CS drawings.
- f. The proposed force main from the primary Sanitary Lift Station on Dwg. CU114 is labeled as 3-inch PVC. Env-Wq 704.07 requires a 4-inch or larger diameter force main. We have noted that two smaller E-One grinder pump stations are also specified at the facility.



Mr. Brian Groth  
September 28, 2022  
Page 4 of 9

- g. HETGTD 720.5 & 720.9.7. 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 (pump station/force main system calculations) was provided for the review of these private pump stations.
- h. The applicant has proposed several gravity sewer pipe runs (sewer out of east side pump house; sewer from pull through inspection area) that are 4-inch diameter instead of the 6-inch diameter required by the Town.
- i. The applicant should clarify the proposed routing of the force main that connects to the gravity flow out of the east side pump house and how it will connect to the sewer system on the west side of the main building.
- j. HR 275-9.E. The applicant has not shown inverts into sewer manholes from various sewer force mains within the plan set.
- k. The applicant has not provided a detail for the oil-water separators in the plans. Also, the applicant should provide additional detail about proposed sewer flows from the Pump House, Truck Inspection, and Guard House structures and the need for these separators.
- l. HETGTD 720.8.5. The applicant should confirm that floor drains, roof drains, sump pumps or any other non-sanitary sewerage drain will not be connected to any of the proposed sewer service connections.
- m. No sewer gravity or force main profiles were included in the plan set.
- n. HR 275-9.E and HETGTD 720.8. Connection to Existing Sewer behind Sam's Club (Walmart Blvd.) on Dwg. CU101:
  - i. Two short gravity sewer segments are proposed between the force-main discharge SMH – 12A and the existing SAM-7 SMH, but no pipe diameter or material is specified.
  - ii. Existing inverts in SAM-7 should be shown.
  - iii. Work in SAM-7 should specify re-bricking the invert to direct the new facility flows towards the downstream direction.
- o. HR 275-9.E and HETGTD 720.8. The applicant has proposed a minimum slope of one inch per foot for the invert in sewer manhole 12A. Based on invert grades the actual slope will be greater than four inches per foot. The applicant should confirm that this slope and the expected system pressure will not cause velocity issues with the adjacent SMH 13A drop manhole.
- p. We understand that another firm is providing peer review of the proposed domestic water and fire protection systems for the proposed project. Fuss & O'Neill offers the following comments based on our review of other site elements and their interaction with the water system.
  - i. There are multiple locations where the proposed fire water line crosses the proposed drain line on the west side of the main building. The applicant may want to consider relocating the fire water line closer to the building to avoid these crossings.
  - ii. For the water service main along the access road, the applicant should confirm that it is intended to be installed below the proposed drain lines to provide adequate cover and to avoid conflicts between these utilities (a water main profile was not included in the plans).
  - iii. At the 24" drain line between OCS-2 and FES-2 the applicant has proposed to install a tee on the water main with valves on both sides of the drain. We would





Mr. Brian Groth  
September 28, 2022  
Page 5 of 9

- recommend moving the full tee and valve arrangement to the south side of the drain line.
- iv. The applicant has not included any details for the Pump House in the plans.
  - v. 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.
  - vi. A  $\frac{3}{4}$ -inch water service is proposed to feed a yard hydrant adjacent to the sewer pump station on Dwg. CU113 and 114. A note requiring a backflow preventor should be added to ensure integrity of the domestic water supply.
- q. HR 276-13. The applicant has noted that a waiver from the Regulation is being requested to allow a portion of the site power to be provided via overhead lines.

#### **6. Drainage Design/Stormwater Management (HR 275-9.A./Chapter 290)**

- a. HR 290-5.A.4. The applicant should provide the GRV excel spreadsheet calculation to the Stormwater Management Report. We note all other BMP worksheets are provided.
- b. HR 290-5.A.9. We note there is critical design information lacking from the Infiltration Feasibility Report with respect to infiltration rates and potential soil amendments. The project is proposing field testing verification after approval for this information. We also note that General Notes #40 states this requirement. The applicant should keep the State and Town informed of all Geotechnical findings for test pit information periodically, as this information is dynamically interconnected and may alter many of the downstream drainage calculations on such a large-scale project.
- c. HR 290-5.A.9. We request the applicant add the location of all outstanding test pits to the plan set. The contractor will need to know approximate locations and number of test pits to perform.
- d. HR 290-5.A.10. Due to the proximity of wetlands and other buffer zones to the proposed locations for installation of erosion control practices, the applicant should review the need for relief from this requirement by the Planning Board.
- e. HR 290-5.A.12. Due to the complexity of the project, the applicant should provide a more detailed Inspection and Maintenance checklist, listing individual BMP practice. This ensures each basin/practice achieves appropriate inspection and maintenance and functions as designed.
- f. HR 290-6.A.7. The applicant should illustrate the location of all Construction Entrances upon all phased Erosion and Sediment Control Plans as these will be utilized in all phases for construction vehicle entrancing and exiting.
- g. HR 290-6.A.8. We note the requirement for the applicant to coordinate a pre-construction meeting with the Town Engineer. This should be stated on the plans.
- h. HR 290-7.A.5. Comparing the pre- and post-development areas, there is an increase in A soils of  $97 \pm$  acres, a decrease of B soils of  $95 \pm$  acres, an increase in C soils of  $1 \pm$  acre, and a decrease in D soils of  $3 \pm$  acres. The applicant should provide additional information as to the reasoning behind the significant soil reclassification within the stormwater calculations.
- i. HR 290-7.A.7. The applicant should also add the Eastern Box Turtle photos to the NHF&G note on the Sheet Index Plan or the Master Legend and Notes Plan Sheet. This



Mr. Brian Groth  
September 28, 2022  
Page 6 of 9

- will ensure the contractor is fully aware of the occurrence of the species, and it is not lost in the 167-page plan set of information.
- j. HR 290-7.A.7. The applicant should add all coordination with the Local River Advisory Committee to the Stormwater Report.
  - k. HR 290-7.A.7. The applicant should provide additional information on the proposed cut and fill volumes of the project. Is the site balanced, or is there a net import/export of materials? Please provide information on the volume of cut and fill proposed and also how this converts to daily/weekly construction traffic/trips/trucks. If cut/fill volumes are not balanced this could potentially result in impacts and deterioration of Town (and State) roadways by the transport of significant amounts of material.
  - l. HR 290-7.A.7. It would be beneficial for the applicant to provide a color-coded cut and fill volume plan and report with a maximum of 5 foot increments. This simple visual tool will allow the Planning Board, Town Agents, and general public to grasp the amount of earthwork disturbance proposed for the project.
  - m. HR 290-7.A.7. The applicant has included blasting information in the notes on sheet CS003 and noted that blasting shall be performed in accordance with Hudson Regulation 202 and applicable State requirements. The applicant and Contractor shall coordinate with the Hudson Fire Department for permitting, scheduling, etc., prior to any blasting being performed.
  - n. HR 290-7.A.8. We note that although the Stormwater Management Report is signed by both Tim and Jon. A PE stamp with date should be provided on the Stormwater Management Report.
  - o. HR 290-7.B.13. The applicant should have the Site-Specific Soils Report stamped by the soil scientist.
  - p. HR 290-7.B.13. The applicant should add the Site-Specific Soils lines and info to the Plan Set and also have the Soil Scientist stamp same plan.
  - q. HR 290-7.B.13. We note that Appendix G-J are missing from the Paper version of the Stormwater Report but are included in the PDF version. The applicant should ensure all paper copies have a complete copy of the entire report and appendix.
  - r. HR 290-7.B.14. The applicant should have the Wetland Scientist stamp the Existing Conditions Plans.
  - s. HR 290-7.B.14. The applicant should have the Wetland Scientist stamp the Soil Erosion & Sediment Control Plans, as these plans illustrate wetland impacts.
  - t. HR 290-7.B.16. The applicant has noted that a Green Snow Pro applicator will be utilized for snow management. The applicant should review with NHDES AoT for this possible requirement. This requirement should be added to the Inspection and Maintenance manual.
  - u. HR 290-7.B.16. The applicant should provide more information on the Yeti Snow Removal system that is labeled upon the site plan.
  - v. HR 290-8.B.4. & 5. We note the requirement of the applicant to coordinate the need for a Bond or Escrow with the Town Engineer and add a note to the plan set.
  - w. HR 290-8.B.5. Due to the sheer size of the proposed project, the applicant should review with the Town if a formal agreement with legal description and signatures is required.
  - x. HR 290-10.A. The applicant should keep the Town informed of all communication with NHDES in relation to the required Alteration of Terrain, Shoreland, and Wetlands Permits to ensure NHDES comments do not alter drainage design/calculations.



Mr. Brian Groth  
September 28, 2022  
Page 7 of 9

- y. HR 290-10.A. We note that additional items will be required for the NHDES AoT Permit which could potentially affect the stormwater calculations and/or construction of the site. The applicant should provide additional detail related to the following items:
  - i. The applicant should review typical NHDES screening layers as well as the NHDES PFAS sampling maps. We note the close proximity of the site to the Hampshire Chemical Corp directly across the Merrimack River, which has four test locations that illustrate the site contains elevated levels of PFAS, considered higher than health based levels.
  - ii. We note the phasing of the site will be required to meet or request a waiver from the 5-acre disturbed area limit from NHDES Env-1505.03.
  - iii. We note the phasing of the site will be required to meet or request a waiver from the 1-acre winter disturbed area limit from NHDES Env-1505.06(b)(1).
- z. HETGTD Section 920.2., 920.4.1. through 920.4.5. The applicant should illustrate all critical areas, stump disposal areas, refueling areas, cut/fill areas, etc. upon the Erosion and Sediment Control Plans.
- aa. HETGTD Section 920.3.4. We note there are storm drains that do not meet the minimum slope of 2.0%. The applicant should review these slopes with the Town Engineer.
- ab. HETGTD Section 920.7.B.15. Grading and Drainage Detail Plan sheets CG505 and CG506:
  - i. The applicant should correct the 6" diameter orifice leader, as it is labeled as an outlet pipe on Outlet Control Structure A1-2.
  - ii. The applicant should provide a height of the varying width rectangular orifice of Outlet Control Structure Details A1-3, A11-2, B1-2, B1-3, and B6-2.
  - iii. The applicant should correct the leader arrow location of the 128.0' invert, currently it points to the top of pipe instead of the inert on Outlet Control Structure detail B6-2.
  - iv. The applicant should provide the number of cored orifices in the summary below all Outlet Structure Details. For example (3) 8" orifice.
- ac. HETGTD Section 920.7.B.15. General Note #40 on CS003 references a "Proposed Infiltration Test Location Plan". The applicant should provide additional information as to where this plan is located; is this a plan set plan, is this plan part of the stormwater report, or update the plan reference and title to the appropriate plan.
- ad. The applicant has noted that snow shall be removed from trucks prior to leaving the project site in accordance with Jessica's Law (General Note 35 sheet CS003) but has not shown a means or location (pull through inspection area?) for this snow removal. The applicant should clarify how and where this snow removal will take place and include any potential impacts to site drainage infrastructure as applicable.
- ae. The applicant will be required to comply with all provisions of the Town of Hudson's MS4 permit, including but not limited to annual reporting requirements, construction site stormwater runoff control, and record keeping requirements.
- af. Please note that this review was carried out in accordance with applicable regulations and standards in place in New Hampshire at this time. Note that conditions at the site, including average weather conditions, patterns and trends, and design storm characteristics, may change in the future. In addition, future changes in federal, state, or local laws, rules or regulations, or in generally accepted scientific or industry information concerning environmental, atmospheric and geotechnical conditions and developments may affect the information and conclusions set forth in this review. In no way shall Fuss & O'Neill be



Mr. Brian Groth  
September 28, 2022  
Page 8 of 9

liable for any of these changed conditions that may impact the review, regardless of the source of or reason for such changed conditions. Other than as described herein, no other investigation or analysis has been requested by the Client or performed by Fuss & O'Neill in preparing this review.

#### **7. Zoning (ZO 334)**

- a. Zoning Ordinance (ZO) 334-14. The applicant has proposed a building height of 47 feet and has provided the extended setback from the residential area based on the square footage of the proposed building.
- 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 the wetlands on-site and has stated that a NHDES Dredge and Fill permit is required. 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 new driveway areas. A Special Exception will need to be granted by the Zoning Board of Adjustment to allow these uses.
- e. 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.
- f. 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.

#### **8. Erosion Control/Wetland Impacts**

- a. ETGTD 565.1.1. The applicant should note on the plans the requirement for testing any imported fill over 10 cubic yards.
- b. The Town of Hudson should reserve the right to require any additional erosion control measures as needed.

#### **9. 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). The applicant has provided landscaping calculations showing that the sites meet the number of trees and shrubs required.
- b. 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 nighttime hours; etc.). The Traffic Impact Study notes that the facility will operate 24/7. The applicant should clarify if all proposed lighting will operate during all nighttime hours, or if some will operate via timers, photocells, etc., and what those hours of operation will be.
- c. HR 276-11.1.B.(14). The applicant has proposed light pole installations that have a fixture



Mr. Brian Groth  
September 28, 2022  
Page 9 of 9

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, fence, and associated plantings.

- d. HR 276-11.1.B.(14). The applicant is proposing several light poles along the entrance driveway that are at least graphically shown to be within the pavement at the edge of the road.

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

- a. HR 275-9.G. The applicant has listed 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.

**11. Other**

- a. The applicant has noted that a waiver is being requested from Chapter 200-3 to exempt the project from the entirety of Chapter 200 (Excavation of Soil).
- b. The applicant should add the missing parking space lines on Drawing CS117.

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  
Langan Engineering & Environmental Services, Inc. – [jplante@Langan.com](mailto:jplante@Langan.com)



September 28, 2022

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

Re: Town of Hudson Planning Board Review – Traffic Study Review  
Hudson Logistics Center Amended Site Plan, Lowell Road  
Tax Map 234, Lot 5, 34 & 35 and Map 239, Lot 1; Acct. #1350-544  
Fuss & O'Neill Reference No. 20030249.2200

Dear Mr. Groth:

Fuss & O'Neill, Inc. has reviewed the Traffic Impact Study prepared by Langan Engineering & Environmental Services, Inc., dated September 2022, for the redevelopment of the Green Meadows Golf Course site in Hudson, New Hampshire (Tax Map 239, Lot 1). The project proposes to redevelop the existing land to include the construction of a 1.4 million square foot high-cube fulfillment center warehouse building and other associated site improvements. Access and egress to the site will be provided via a proposed driveway connecting to the existing Mercury Systems parking lot at the intersection of Lowell Road and Rena Avenue. Additionally, Wal-Mart Boulevard will be extended to provide another access point to the site. The site's existing driveway connecting to Steele Road will be abandoned.

The Town of Hudson recently approved a 2.6 million square foot development of a very similar use on this site. That site plan has been amended, with the new proposal being the 1.4 million square foot high-cube fulfillment center warehouse described above. The Langan report analyzes the traffic impacts associated with the newly proposed warehouse center and compares them to the previously approved development.

Please note that initial site plan, stormwater, and other project related review comments are being provided under a separate letter. Also, the traffic study for the previously approved site plan was peer reviewed by another firm and reviewed by the NHDOT. Those review documents are available on the Town of Hudson's Planning Board website and were used for reference during this review.

**4. Traffic**

The procedures that the Langan report uses for calculating the proposed site's trip generation is reasonable and uses appropriate ITE trip generation data and information from the tenant for the scenario provided. We agree that the analysis provides a conservative estimate of the trips

50 Commercial Street  
Manchester, NH  
03101  
t 603.668.8223  
800.286.2469  
[www.fando.com](http://www.fando.com)

California  
Connecticut  
Maine  
Massachusetts  
New Hampshire  
Rhode Island  
Vermont



Mr. Brian Groth  
September 28, 2022  
Page 2 of 3

generated by the proposed warehouse during roadway peak hours and the site's impacts on the surrounding roadway network. Additionally, in general, the proposed site generates fewer trips and has less of an impact on the project study area than the previously approved warehouse use. The Langan study provides improvements to the key study intersections which will, for the most part, be sufficient in mitigating impacts of the proposed site.

In review of the Langan study, we have a few suggestions and questions:

- a. No descriptions of existing pedestrian amenities were provided in the report.
- b. The River Road/Lowell Road/Dracut Road & Steele Road Intersection 2019 Existing Conditions PM Synchro report provided in Appendix C does not appear to match the data shown in Tables 5 and 7 of the report.
- c. The report correctly identifies adjacent approved and pending projects when determining No-Build conditions. These adjacent projects are identified as Flagstone Crossing (225 Lowell Road) and a Distribution Warehouse on Friar's Drive. Trips generated for a previously approved Cumberland Farms were included in the No-Build instead of those generated by the Flagstone Crossing development, which we agree is appropriate and more conservative. However, Figure 4B which displays trip distribution for these developments notes at the bottom that the volumes displayed are based on the Cumberland Farms traffic impact study but does not mention the Friar's Drive warehouse development. We suggest either confirming that the trips generated by the Friar's Drive project have been included in the No-Build calculations, or to include them if they have not already been.
- d. The provided Synchro reports show that there is unused time (shown as gray on the Splits and Phases diagram) for phases of several intersections under most conditions. If there is a reason for this, it should be provided. If this is unintended, the timings should be revised to give these phases the appropriate green time. This should not have an impact on the Synchro analysis results.
- e. The Lowell Road at Fox Hollow Drive/Nottingham Square Driveway and Lowell Road at Pelham Road intersections were evaluated with an exclusive pedestrian phase under No-Build and Build conditions, but not under existing conditions. If there is a reason for this, it should be stated. This likely accounts for the increase in queue lengths between existing and No-Build/Build conditions displayed in the synchro report summary tables for these intersections. No pedestrian count data was provided in the report or its appendix. If pedestrian count data was collected at these intersections, it should be included in the report and the Synchro files updated to reflect the volume observed. Currently in the scenario's pedestrian phase that is included the default setting of 5 calls an hour is used. If it is determined that this setting is appropriate, it should be used in all scenarios.
- f. Similarly, the Lowell Road at Wason Road/Flagstone Drive existing intersection appears to have an exclusive pedestrian phase but was not modeled with one in any of the Synchro files under any of the analyzed conditions.



Mr. Brian Groth  
September 28, 2022  
Page 3 of 3

- g. According to the NHDOT Synchro Inputs Checklist, the preferred output of Synchro reports for signalized intersections is HCM 2000. The Langan study does not provide reports in this format, but instead provides them in the Synchro 10 (Lanes, Volumes, Timings) format. This format is acceptable with documented justification, but it does not appear that any justification has been provided.
- h. The cover of the Traffic Impact Study notes the site address as 43 Lowell Road, while the narrative within the study notes the address as 43 Steele Road.

Overall, the procedures that the Langan report uses are reasonable for the scenario provided. The proposed mitigation for Build conditions seems adequate for having the study area intersections operate at around the same level as No-Build conditions, if not better. Where there are potential queuing concerns for some of the major movements at the intersections under Build conditions, these queuing concerns would exist under No-Build conditions and have mostly been addressed with the proposed mitigation. Seeing as how the study takes a conservative approach in its application of trips generated by the proposed warehouse, smaller impacts than those analyzed in the report are likely.

Additionally, the impacts and trips generated are less significant than those that were previously approved for the original Hudson Logistics Center site plan project. Ultimately, we concur with Langan's overall conclusion that, with the construction of the proposed improvements and roadway improvements that are part of adjacent projects, the impacts the proposed 1.4 million square foot high-cube fulfillment center warehouse should have on the surrounding roadway network will be sufficiently mitigated and, in some cases, will improve intersection operations when compared to existing or No-Build conditions. If the timings from this report are to be used for the design of the intersection improvement, this report needs to be updated to take account of the comments provided above.

Please feel free to call if you have any questions.

Very truly yours,

A handwritten signature in blue ink, appearing to read 'Steve Reichert'.

Steven W. Reichert, P.E.

SWR:

cc: Town of Hudson Engineering Division – File  
Langan Engineering & Environmental Services, Inc. – [jplante@Langan.com](mailto:jplante@Langan.com)





9/29/2022

Steven Reichert, P.E.  
Fuss & O'Neill, Inc.  
The Gateway Building  
50 Commercial Street, Unit 25  
Manchester, NH 03101

Transmitted via email to: [SReichert@fando.com](mailto:SReichert@fando.com)

Subject: Peer Review of the Sound Study for the Amended Site Plan for the Hudson Logistics Center in Hudson, New Hampshire

Reference: HMMH Project Number 311730.001

Dear Mr. Reichert,

Harris Miller Miller & Hanson Inc. (HMMH) was retained by Fuss & O'Neill, Inc. (F&O) to review and provide our professional opinion on a report prepared by Epsilon Associates, Inc. (Epsilon) for the Amended Site Plan for the proposed Hudson Logistics Center. This review was undertaken on behalf of the Planning Board of the Town of Hudson, New Hampshire. As part of this undertaking, I reviewed the following documents:

- "Sound Level Assessment Report - Hudson Logistics Center Project, Town of Hudson, Hillsborough County, NH," prepared by Epsilon Associates, Inc., September 7, 2022, i.e. the "Report"
- The Code of the Town of Hudson, NH, Part II: General Legislation, Chapter 249 Noise (accessed at <https://ecode360.com/14323851>), i.e. the "Noise Ordinance"
- "Hudson Logistics Center Site Plan & Wetlands Conditional Use Applications, Lowell Road" prepared by Langan Engineering and Environmental Services, Inc., et al, issued on September 9, 2022 for a Site Plan Application Submission, i.e. the "Plans"

Based on my review of the above referenced documents, I offer the following preliminary comments and requests for further clarifications on the Report.

1. Section 4.1 of the Report summarizes the Town of Hudson's Noise Ordinance, which are contained in §249 of the Town of Hudson Code. In the second paragraph of Section 4.1, Epsilon states that nighttime is the period from 6:00 p.m. to 7:00 a.m. The Town defines nighttime in §249-2 of the Noise Ordinance as "the hours between 6:00 p.m. (six post meridian) and 7:00 a.m. (seven ante meridian) of the following day on weekdays, **together with all hours on Sunday, Saturday and legally observed holidays**" (emphasis added).
2. In Section 4.1 of the Report, Epsilon notes that Noise Limit 9 of the Noise Ordinance well-maintained equipment shall be used during construction. It should be noted that the Noise Ordinance also prohibits unmuffled exhaust or intake systems on mobile or stationary equipment. The contractor should be made aware of these requirements for the construction equipment.

3. In Section 4.2 of the Report, a reference is made to §275-6E of the Hudson Site Plan Review Ordinance. Based on my review of the Town's ordinance, as it appears on eCode360,<sup>1</sup> the appropriate reference would appear to be §275-6H.
4. Table 6-1 of the Report provides a summary of the measured ambient sounds levels for each of the measurement locations for daytime and nighttime periods. Epsilon should confirm that the measured sound levels for daytime and nighttime are consistent with the definitions contained in the Noise Ordinance. Section 6.0 also should include a brief narrative that describes the measured sound levels in Table 6-1, including a description of the "ANS L<sub>90</sub>".
5. The caption of Table 7-1 indicates the levels reported therein are the modeled sound power levels for sources of on-site noise. However, the octave band levels shown in the table are represented as *sound pressure* levels. Is this a typo? If the octave band levels are *sound pressure* levels, a reference distance from each source should be provided.
6. It appears that the broadband A-weighted sound power level for the proposed roof top units (RTUs) in Table 7-1 is 86 dBA (re: 1 pW). Please confirm the reference sound power for the sources, since it is not indicated in the report.
7. The proposed 1.4 million square-foot building will have 64 RTUs. Does the broadband level in Table 7-1 represent a tenant specification for the sound power level of the RTUs? What are the capacities of the RTUs for this proposed project? The sound study prepared by Ostergaard Acoustical Associates<sup>2</sup> for the previously approved project indicated that 36 out of 57 RTUs on the proposed Building A, which was approximately 1.1 million square feet, would have capacities of 25 tons, with corresponding sound power levels of 93 dBA (re: 1 pW).
8. Does the proposed 1.4 million square-foot building have a parapet along the edge of the roof?
9. The modeling methodology presented in Section 7.3 is consistent with industry standards for the prediction of community noise levels from such facilities.
10. Table 8-1 of the report provides computed sound level results for on-site trucks and RTUs. Given that the Town's definition of nighttime includes all hours on Sundays and Saturdays, it is noted that the continuous daytime L<sub>eq</sub> at each receptor is also projected to be less than the applicable nighttime limit in the Noise Ordinance.
11. Table 8-4 indicates compliance with Noise Limit 4 of the Town's Noise Ordinance. Considering the Towns' definition of nighttime includes all hours on Sundays and Saturdays, would operation of the facility remain in compliance

---

<sup>1</sup> <https://ecode360.com/14357761>

<sup>2</sup> Ostergaard Acoustical Consultants, "Site Sound Evaluation and Control, Proposed Hudson Logistics Center, Hudson, NH," Revision 2, December 1, 2020.

with Noise Limit 4 between the hours of 7 a.m. and 6 p.m. on Sundays and Saturdays?

12. Consistent with Epsilon's recommendation in Section 9.0, I would recommend the Town consider a condition that on-site terminal tractors be equipped with broadband or ambient-sensitive backup alarms.
13. The Site Plans and Report indicate an earthen berm and sound fences will be included as part of the proposed project. These features should be included as shown and referenced to ensure compliance with the Town's Noise Ordinance.
14. Based on a comparison of the amended Site Plan and the Site Plan for the previously approved project,<sup>3</sup> it appears that the proposed 1.4 million square-foot building for the current project will be located further from the community to the south than either Building B or Building C from the previously approved project.

Please note that these preliminary comments are offered for consideration by the Town and reflect a review of the information provided within the Report and Site Plans.

Please let me know if you have any questions.

Sincerely yours,  
**Harris Miller Miller & Hanson Inc.**



Christopher Bajdek, INCE  
Principal Consultant

cc:  
enclosures:

---

<sup>3</sup> "Hudson Logistics Center Site, Site Plan & Wetlands Conditional Use Applications," prepared by Langan Engineering and Environmental Services, Inc., signed by the Owner on December 1, 2020.