

FIELDSTONE

LAND CONSULTANTS, PLLC

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Surveying ♦ Engineering
Land Planning ♦ Septic Designs

March 27, 2023

Methuen Department of Economic and Community Development
Ms. Kathleen Colwell – Planning Division Director
41 Pleasant Street
Methuen, MA 01844



RE: 46 Old Ferry Road - Pie Hill Industrial Park
(Tax Map Lot 1010-79-17)
(Response Letter to City of Methuen Staff Review Dated May 23, 2022)

Dear Ms. Colwell,

Thank you for taking time to review the above referenced site plan submission. We have been working on revising the plans to address local comments received. This letter specifically addresses staff comments provided in your email dated March 17, 2023 as well as Engineering Division comments dated March 14, 2023, and The Engineering Corp. comments dated March 14, 2023. The original comments from the email and letters are shown below and our responses are shown in **red**.

Department of Public Works: Engineering Department

1. The existing water main in Old Ferry Road is 8" diameter. The service connection to the proposed building should not exceed this diameter.
The previously approved and currently proposed water service connection was designed with a 10" diameter per the water supply analysis, which outlines the current pressure of the existing hydrant and is adequate to support the required flow for the site.
2. The plan notes to remove and replace an existing hydrant on Old Ferry Road. The plan should be revised to depict a new hydrant assembly in this location.
The previously approved plans called for the existing hydrant on Old Ferry Road to be relocated. Per your comment, sheet UT-1 has been revised to call for a new hydrant assembly to be installed instead of relocating the existing hydrant.
3. The existing water main in Old Ferry Road is not located as depicted in the plan set. Consequently the proposed retaining wall will fall on top of the water main. This is not allowable: the wall or water main must be relocated.

Note #31 has been added to the Master Site Plan (MP-1) and note #16 added to the Utility Plans (UT-1 & UT-2) stating "If there is a conflict with proposed retaining walls and existing water main, the water main should be relayed a minimum of 4 feet from the proposed retaining wall as appropriate and as-built for final location". A call out Utility Plan North (UT-1) also calls for the verification of the water main, and relocation as needed.

4. The previously submitted water supply analysis must be revised and resubmitted to account for the proposed change in building elevations.

The previously submitted water supply analysis used an estimated finished floor elevation of 256.0 which exceeds the current proposed finished floor of 250.0. The expected water flow still be able to meet the 40 psi with 1202 GPM per the analysis.

5. The extents of the erosion control matting need to be adjusted to accommodate the change in elevation.

The extents of the erosion control matting has been adjusted to maintain cover over all slopes steeper than 3:1.

6. The location of the hydrant near CB-6 needs to be adjusted to be downstream of the building service connections.

The proposed hydrant at the top of the site has been proposed 12' further south, downstream of the service connections into the building.

7. Approval of the proposed changes should be provided from both National Grid and Maritimes & Northeast.

The only proposed change from the previously approved layout was providing greater cover over existing underground utilities. See attached letter from Enbridge.

8. It is not clear if the plans depict the actual footprint of the retaining walls currently under construction. If not, the site plans should be revised accordingly to determine if the changes in wall type will cause conflicts with any other features.

The retaining walls are the same as the previously approved walls and depict the actual footprint of the proposed retaining walls under construction. The retaining walls show the face of the retaining wall at the base & top of wall, and the backside of the retaining wall.

9. The on-site excavations for the foundation footings require the responsible party to acquire a trench permit from the City.

Note #30 on sheet MP-1 states that on-site excavation for the foundation footing will require a trench permit.

City Staff Comments

Fire Department

1. The Fire Department had concerns relating to the revised truck turning radius. Can you provide information as to what type of truck was used? It should be based upon the Fire Departments largest fire truck.

The turning template was based upon the largest anticipated vehicle traversing the site, a WB-62 tractor trailer. See attached exhibit plan showing the turning template for the Methuen Fire

Department's largest fire apparatus navigating the site. The vehicle is the "95' Aerialcat Rearmount Platform" per the plan by KME Kovatch.

Community Development

1. The city will need confirmation that National Grid has approved the septic system line crossing the gas easement.

The current proposed septic line crosses the gas easement at the same location and with slightly more cover over the gas line as the previously approved septic line. See attached letter from Enbridge.

The Engineering Corp. (TEC)

Site Plan Review

1. The master grading & drainage plan (pages 6 & 7) details a rise of grade between 3-4' around proposed warehouse building & the northern/southern parking areas (compared to the prior proposed grading plan). There is also a 4' raise in grade proposed for the building itself. The following issues are present as a result of this alteration:
 - a. The raise in grade north of the building is located underneath the "200 feet power line easement area". The proposed clearance below these powerlines should be approved by New England Power Company prior to being approved by the City.
The attached exhibit plan showing elevations of the utility lines has been submitted to Bob Lumberg of New England Power Company for approval of clearance on site. Approval will be shared once acquired.
 - b. Grading at the loading docks has been altered from a 2' elevation change (building face to catch basin) to a 3' elevation change. This results in the loading docks running slope being 2.5% compared to the previous 1% used.
The change in grade is intentional in order to maintain the same height of the proposed retaining wall. The 2.5% slope is still perfectly acceptable for loading/unloading of vehicles and will actually allow stormwater to drain with reduced chance of ponding.
 - c. Slopes across accessible parking spaces and pathways appear to be higher than the 2% maximum allowed under ADA guidelines. Recommend adding additional spot elevations in these areas to ensure they are constructed properly and compliant.
The handicap parking spaces are detailed with proposed spot grades at the corners showing the slope of 1% and 2%.
 - d. Spot elevation within drive lane adjacent to the accessible parking spaces near the northeast corner of the building needs to be updated from "244.9" to the current design elevation.
The proposed spot elevation has been revised to 248.7'.
2. The proposed LP tank pad and enclosure are detailed directly on top of proposed stormtech chamber system #1. The following issues are present as a result of the alteration:
 - a. No detail has been provided for this concrete pad and enclosure. The depth of concrete and

subbase material may directly conflict with the design requirements of the stormtech chambers.

The Stormtech chamber system has been revised and does not propose any chambers beneath the gas tanks. In order to maintain the same square footage and number of chambers as the previously approved chamber system, an additional split row has been added.

- b. The applicant should provide a stamped design from ADS (Stormtech Chamber provider) indicating approval of use of Stormtech chambers below the proposed concrete pad and enclosure as shown.

The Stormtech chamber system has been revised to not have any chambers beneath the gas tanks. The 30 chambers that were proposed beneath the pad have been proposed as an additional split row.

- c. Several sections of the stormtech chambers would be inaccessible following completion of construction of the concrete pad and enclosure. If maintenance/replacement of these chambers is ever required, it would be impossible to access them without directly disconnecting/moving the propane tanks on site.

The chamber layout has been revised to not propose any chambers below the gas tanks and an equal number of chambers as the previously approved design have been proposed in a new split row. This layout will allow all chambers to be accessible for maintenance or replacement.

3. Several bollards are detailed at the rear of the proposed warehouse building. These bollards are referenced to be 36" tall. No detail of these bollards has been provided on with the plan set. TEC suggests using bollards that are a minimum of 5' tall given the area is used for loading/unloading WB-67 vehicles, and the bollards are surrounding exterior heating units. Along with this, TEC suggests adding an additional bollard along the east side of both heating units.

A bollard detail has been included on sheet DT-1, detail #4. The bollards are called to be 5' and detail reflects this. An additional bollard has been proposed adjacent to each heating unit.

4. The proposed retaining walls along the southwest and southeast ends of the site are displayed using approximately the same previously approved footprint, but show an increase in elevation between approximately 2 to 4 feet. A vehicle turning diagram has been provided through these areas, and there appears to be sufficient space to maneuver the design vehicle through this narrow corridor.

These are true statements. The retaining wall is shown per the revised grading at the top of the site. The proposed layout will also allow for tractor trailers to navigate the site with sufficient space, similar to the previously approved layout.

Stormwater Management

1. TEC notes that the stormwater collection and treatment network remains largely unaltered from the currently permitted plans and offers no comment on the updated design with exception of the

Map 1010, Lot 79-17, 46 Old Ferry Rod – Pie Hill Industrial Park
(Response Letter to Engineering Review)

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previously mentioned conflict with the proposed liquid propane storage tanks.

Statement of fact, see response to previously mentioned conflict with gas tanks above.

We trust that this letter in conjunction with the revised plans address the comments and concerns regarding this site plan. If you have questions, please don't hesitate to call.

Sincerely,

Fieldstone Land Consultants, PLLC



Chuck L. Ritchie, EIT
Project Engineer

Hampshire

FIRE PROTECTION

CO., LLC

October 18, 2022

CMGC Building Corp.
360 Harvey Road
Manchester, NH. 03031

Attn: Mr. Frank Swanson

Re: 46 Old Ferry Road Flow test

Dear Frank,

This letter is to summarize the hydrant flow test conducted with the City of Methuen Water Department on the 12" underground water main located on 46 Old Ferry Road. The test was conducted on April 11, 2022, at 9:05AM.

The 5th hydrant located on Old Ferry, produced a pitot of 65 PSI with one 2 ½" butt flowing. This translates into a total flow of 1,202 GPM with a 0.8 hydrant outlet coefficient.

The static pressure of 99 PSI at the 3rd hydrant located at Old Ferry Road was reduced to a residual pressure of 85 PSI.

When adjusting the above flow test for elevation from the street to the building finished floor we need to incorporate the 104' in elevation difference. Street elevation is 152' the building finished floor is 256'.

The elevation corrected flow test yields 53PSI Static, 40 PSI Residual with 1,202 GPM flowing at the building finished floor.

Sincerely,
Hampshire Fire Protection Co., Inc.



Robert C. Stone
Sales Representative



The public water supply on Old Ferry Road can adequately provide a maximum fire flow of 2,000 gpm @ 20 psi. This determination is the limit of the FPE's review of the documentation.

8 No. Wentworth Ave.
Londonderry, NH 03053
(603) 432-8221

55 Harvey Road
Londonderry, NH 03053
(603) 432-8221

1 Commercial Drive
West Lebanon, NH 03784
(603) 448-5461

277 Old Homestead Highway
Swanzey, NH 03446
(603) 358-6736

4 Spring Hill Rd
Saco, ME 04072
(207) 571-9515

Hydrant Flow Test

Job Name: METHUEN WAREHOUSE

Address: 46 Old Ferry Rd

City/Town/State/Zip: Methuen, MA

Flow Test Information:

Location of Pressure Hydrant: TOP OF HILL IN THE WOODS #2 3rd HYD DOWN THE HILL

Location of Flow Hydrant: 5th HYD DOWN THE HILL BELOW CEMENT CO.

	#1	#2 #3
Static Pressure	78	98
Residual Pressure	57	85
Pitot (Flow) Pressure	65	65
Hydrant Coefficient	.80	.80
Flow in GPM	1202	1202

53
46

1
104 ELEV
TST TO SITE
-45#

Water Main Size:	
Elevation (Pressure Hydrant in relation to Building):	
Date of Water Flow Test:	4-11-22
Time of Water Flow Test:	9:05 AM
Test Conducted by:	HFP, WATER DEPT

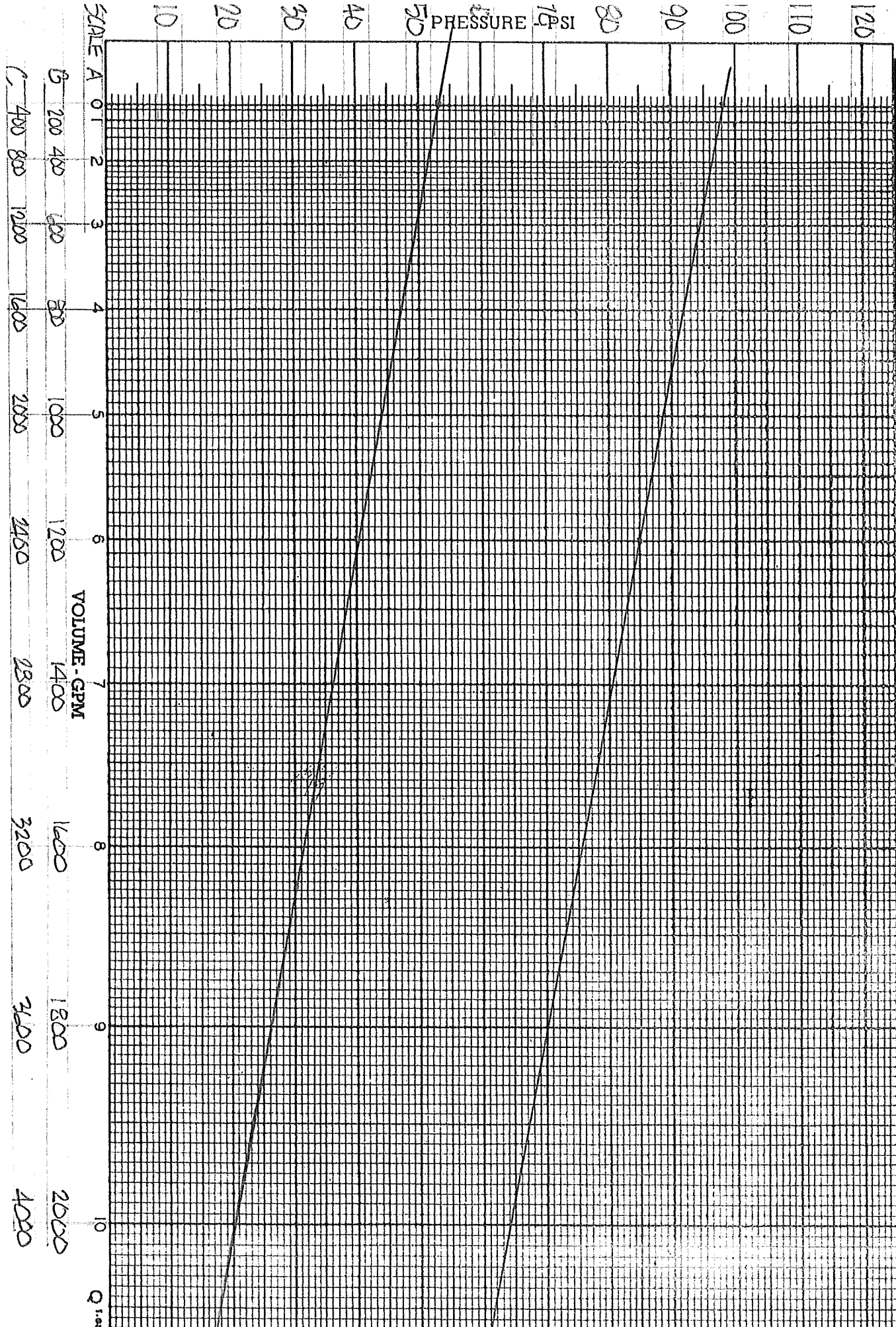
Additional Information: There is no reducing valve, There is a sectional (closed) valve in the woods. Have to come up from other side

GRAPH SHEET FOR HYDRAULIC CALCULATIONS - "AUTOMATIC" SPRINKLER CORPORATION OF AMERICA

Name-Address of Property

Drawn by

Date



SCALE A 0 1 2 3 4 5 6 7 8 9 10

B 200 400 600 800 1000 1200 1400 1600 1800 2000

C 400 800 1200 1600 2000 2400 2800 3200 3600 4000

Trusted Advisors for Changing Times

May 2, 2022

Via ELECTRONIC MAIL ONLY

Tim Wilkins
Patriot Holdings
4007 Dean Martin Drive
Las Vegas, NV 89103

RE: Pie Hill Warehousing

Dear Tim,

At your request, I have reviewed the easements that burden the Pie Hill Warehousing parcel located at 46 Old Ferry Road in Methuen, Massachusetts. For reference, these easements include:

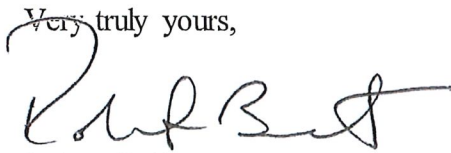
1. Easement from Alfio F. Navarria and Joseph D. Navarria to New England Power Company dated June 16, 1948, recorded at the Northern Essex Registry of Deeds at Book 713, page 54.
2. Easements created by Stipulation in the matter of Portland Natural Gas Transmission System and Maritimes & Northeast Pipeline, L.L.C. recorded at the Northern Essex Registry of Deeds at Book 5751, Page 1.
3. Right of Way Agreement from John Deloury to Portland Natural Gas Transmission System and Maritimes & Northeast Pipeline, L.L.C. dated July 19, 1999, recorded at the Northern Essex Registry of Deeds at Book 5502, Page 229.
4. Easement from John Deloury to Maritimes & Northeast Pipeline, L.L.C. dated July 19, 1999, recorded at the Northern Essex Registry of Deeds at Book 8324, Page 26.

Based on my review, I can affirm that none of the cited easements are exclusive, and therefore, none of them prohibit the crossings contemplated by the site design for Pie Hill

Warehousing on this parcel. The only limitation presented by such easements is the general obligation not to undertake activities that prevent or interfere with the easement holder's permitted use. A driveway or utility crossing would not generally be expected to interfere with the electric and gas line easements.

Please let me know if you have any questions.

Very truly yours,

A handwritten signature in black ink, appearing to read "Rob Best", written over the typed name.

Robert L. Best

RLB/



Enbridge
M&N Operating Company
547 Lincoln Street
Richmond, ME 04357

August 30, 2022

City of Methuen
City Hall, Searles Building
41 Pleasant St.
Methuen, MA 01844

RE: Improvements at 46 Old Ferry Road
Tax parcel: 1010-79-17

Dear City Representative,

We are writing in response to a request from Ben Jager, Project Manager with CMGC Building Corp, regarding the proposed construction at 46 Old Ferry Road.

The Maritimes & Northeast Pipeline (M&N) EX-1 line crosses the referenced parcel, and the M&N easement is proposed to be crossed by a driveway and utilities (specifically a 6" sewer line, water main, and underground electric). The easement agreement will not contractually prevent the contractor from crossing the easement with the driveway and utilities.

M&N requires detailed constructions plans and adherence to its *Requirements for Construction* policy. A complete review of the project prior to construction will confirm that the means and methods of constructing the driveway and installing the utilities are designed to cross the pipeline in a safe manner.

We will work with Mr. Jager and others to ensure a safe working environment around the pipeline.

Sincerely,

A handwritten signature in blue ink that reads 'Lara T. Bailey'.

Lara T. Bailey, SR/WA, R/W-NAC
Lands & Right of Way Advisor

cc: Travis Cole
Taylor Hilton
Dave Reed