

NONRESIDENTIAL SITE PLAN APPLICATION

City of Rochester, New Hampshire

[office use only. Check # _____ Amount \$ _____ Date paid _____]

Date: August 7, 2019 Is a conditional use needed? Yes: X No: _____ Unclear: _____
(If so, we encourage you to submit an application as soon as possible.)

Property information

Tax map #: 222; Lot #(s): 16; Zoning district: General Industrial

Property address/location: 109 Chestnut Hill Road

Name of project (if applicable): Nantucket Beadboard

Size of site: 13.32 acres; overlay zoning district(s)? Conservation Overlay

Property owner

Name (include name of individual): Thomas R. Miller

Mailing address: 109 Chestnut Hill Road, Rochester NH 03867-5122

Telephone #: 603 330-1070 Email: tom@beadboard.com

Applicant/developer (if different from property owner)

Name (include name of individual): same as property owner

Mailing address: _____

Telephone #: _____ Email: _____

Engineer/designer

Name (include name of individual): Norway Plains Associates, Inc; c/o Scott Lawler, PE

Mailing address: PO Box 249; Rochester, NH 03866-0249

Telephone #: 603 335-3948 Fax #: 603 332-0098

Email address: slawler@norwayplains.com Professional license #: PE 10026

Proposed activity (check all that apply)

New building(s): X Site development (other structures, parking, utilities, etc.): X

Addition(s) onto existing building(s): _____ Demolition: _____ Change of use: _____


Comments

Please feel free to add any comments, additional information, or requests for waivers here:
A waiver request is being sought to require the number of parking spaces based on the number of employees on maximum shift rather than the overall square footage of the buildings


Submission of application

This application must be signed by the property owner, applicant/developer (if different from property owner), and/or the agent.

I(we) hereby submit this Site Plan application to the City of Rochester Planning Board pursuant to the City of Rochester Site Plan Regulations and attest that to the best of my knowledge all of the information on this application form and in the accompanying application materials and documentation is true and accurate. As applicant/developer (if different from property owner)/as agent, I attest that I am duly authorized to act in this capacity.

Signature of property owner: 
Date: 8/7/19

Signature of applicant/developer: _____
Date: _____

Signature of agent: 
Date: August 7, 2019

Authorization to enter subject property

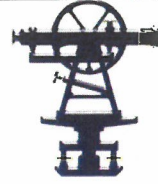
I hereby authorize members of the Rochester Planning Board, Zoning Board of Adjustment, Conservation Commission, Planning Department, and other pertinent City departments, boards and agencies to enter my property for the purpose of evaluating this application including performing any appropriate inspections during the application phase, review phase, post-approval phase, construction phase, and occupancy phase. This authorization applies specifically to those particular individuals legitimately involved in evaluating, reviewing, or inspecting this specific application/project. It is understood that these individuals must use all reasonable care, courtesy, and diligence when entering the property.

Signature of property owner: 
Date: 8/7/19

NORWAY PLAINS ASSOCIATES, INC.

LAND SURVEYORS • SEPTIC SYSTEM DESIGNERS • CIVIL ENGINEERS

P.O. Box 249
Continental Blvd. (03867)
Rochester, NH 03866-0249
Fax (603)332-0098
Phone (603) 335-3948 / (800) 479-3948
slawler@norwayplains.com



P. O. Box 268
31 Mooney St.
Alton, NH 03809
www.norwayplains.com
Phone & Fax (603) 875-3948
rtetreault@norwayplains.com

August 13, 2019

Seth Creighton, Chief Planner
Planning Department
City of Rochester
33 Wakefield Street
Rochester, NH 03867

Re: Non- Residential Site Plan Application; Nantucket Beadboard, 109 Chestnut Hill Road, Map 222, Lot 16.

Dear Mr. Creighton:

On behalf of Thomas Miller and Nantucket Beadboard, we hereby submit new plans and nonresidential site plan application for a proposed phased industrial expansion their facility at 109 Chestnut Hill Road. Nantucket Beadboard manufactures architectural beadboard for wholesale all over the country and has recently expanded their distribution into 14 new states. Nantucket Beadboard is proposing a 10,000 square foot manufacturing and material storage building initially and then constructing an additional 10,000 square feet within three years after completion of the first half.

These plans and application have been revised to locate the building 100 feet from shared boundary line with the residential properties. This was necessary, since the Planning Board denied a Conditional Use Permit to allow for an industrial use to be closer than 100 feet when 75 feet was requested.

The 13.32-acre property is owned by Thomas Miller and located within the Industrial (GI) zoning district. The facility has undergone several expansions over the past twenty years with the latest building construction in 2006. In 2016, the company received approval from the Rochester Planning Board for a Conditional Use to allow for the construction of an access road through the Conservation Overlay District to useable land in preparation for future expansion.

The parcel is located on the north side of Chestnut Hill Road with the Spaulding Turnpike to the west and north and residential properties to the east. The front third of the property is the existing facility, which consist of three main buildings and associated parking and unloading zones. The middle third of the lot is a large wetland complex with the aforementioned access road crossing it in the location of a historical farm road. The last third, about 7.25 acres, is wooded that gentle slope southerly and westerly towards the wetlands complex. Jurisdictional wetlands were delineated by B.H. Keith Associates last summer and was consistent with the delineation that was performed in 2005.

Nantucket Beadboard is proposing to construct the first 50' x 200' (10,000 square feet) industrial building. This building will become the new shipping department for the business. This will result in some construction of shipping packing for the finished beadboard as they are prepared to be sent to the suppliers. Construction of the shipping bottoms and crates will require the use of some saws, pneumatic nail guns and other standard wood construction power tools. The dust collectors and air compressors will be inside the building to reduce the noise to the extent possible. This building will also be used to store materials for the shipping process as well as product

for a new line of Re-Wood®. There will be about 4 to 6 employees that will be working within this building. This first section of the building will also contain a small office, utility room and bathrooms that will service the initial construction as well as the future addition.

The primary function of the second building phase will be manufacturing a new product of engineered beadboard. The manufacturing of this new project requires a long building to house the machines and process line. Similar to the Phase 1 portion, the building will have limited number of employees and all dust collection and machinery will be housed inside the building. Please see the attached use list provided by Nantucket Beadboard which outlines the proposed uses and functions, equipment and employees associated with the proposed building and future building.

The steel framed and metal sided building will be same green color as the existing building constructed in 2006. The building will generally operate the same hours of operation as the main facility; Monday through Thursday from the hours of 7 am to 5 pm with limited hours on Friday.

Access to the building will be through the existing site off Chestnut Hill Road across the causeway to the northside. In addition to the paved areas for the large trucks and equipment, paved parking area will accommodate 12 vehicles at which one of the spaces are designated as accessible. Since the proposed 20,000 square foot building would require 22 parking spaces and the entire facility would require a total of 70 parking spaces, a waiver is being requested to allow for 38 total spaces. This is currently 13 employees that would be on site during the maximum shift, with no increase number proposed at this time.

The business expects a couple of deliveries of raw materials to the proposed building and a couple trips leaving the site over the course of the 4-day week. The trucks will be loaded or off loaded, usually taking 20 to 30 minutes with the use of electric forklifts. Afterwards, the raw material or finish product is shuttled between the proposed building and the manufacturing process in the existing buildings with the forklifts or small tow vehicle and small utility trailer. In the rare occasion that a delivery truck arrives while the business is closed, they will park in the front half of the existing facility as they currently do.

The stormwater from the impervious surfaces will be directed towards treatment swales and infiltration basins. The basins have been designed for both phases as well as for potential additional buildings and associated pavement that might be constructed in the future. The new driveway will be curbed to direct stormwater towards the existing facility and the current stormwater detention basin. This basin is large enough to account for the addition stormwater runoff once additional orifices are created in the existing outlet stand pipe. Prior to discharging into the infiltration basins, the stormwater will be directed into treatment swales. The infiltration basins were designed to provide the groundwater recharge to offset the impervious coverage for the project. Therefore, a vast amount of the stormwater will be infiltrated back into the ground. Emergency stone lined spillways will be installed on the berm of both basins. The result of the proposed project and stormwater management system will nearly balance the pre-development and post-development flow rates and volumes. That being said, there is a slight increase in the volume of stormwater leaving the site during all storm events of less than 0.06 acre-feet. The slight increase in volumes are insignificant given the large wetlands complex which it is discharging into. A waiver was previously granted by the Planning Board at the June meeting, for similar increase to the stormwater runoff.

A conditional Use Permit application was also granted by the Planning Board at the June meeting to allow for some minor grading within the City of Rochester Conservation Overlay District. The proposed grading within the outer 25 feet of the COD and associated with the construction of the proposed stormwater management systems did not change from the previous submittal. With the implementation of Best Management Practices, BMPs, protection of the wetlands will be maintained throughout construction.

The site will continue to be serviced by City water and sewer systems via new connections to the municipal utilities. A water connection is being proposed to an existing 12" water main that runs along the westerly boundary

line. A water meter valve pit will be installed with a main meter, redundant check valves and backflow preventors along with a smaller bypass line. Due to the minimum sanitary waste generated by the new building, a small low-pressure force main will send effluent from the proposed building to the existing sewer service near Chestnut Hill Road. The site will have underground utility conduits and natural gas run in from the existing facility. The applicant is proposing wall mounted lighting fixtures to limit the lighting to around the building. Further reducing the lighting, the fixtures on the northern end of the building will be placed on a timer and will be motion activated. There will be fixed security cameras placed around the site.

Placement of this building along this property line will further reduce the overall impacts to the residential properties, as it will provide a visual and audible buffer from the future buildings and the majority of the vehicle traffic. To further enhance this buffer, the applicant is proposing a 6-foot high cedar stockade fence which will sit upon a 2-foot high earthen berm effectively making it about 8 feet above the natural grade. There will also be about 70 feet of natural vegetation that will remain between the development and the residential properties.

We realize that the Planning Board suggested having some addition buffering from the residential properties in the form of new evergreen trees. However, based on the recommendations from Woodburn Company, we have not included any in our design. As noted in the attached letter, planting trees would not be an effective means of screening due to the lack of direct sunlight necessary to maintain a dense vegetative screen. In order to provide sufficient sunlight, existing vegetation would need to be removed which would be counterproductive to the reason for the plantings.

Snow storage will be located on the end and westerly side of the main parking / unloading area and at the end of the small parking lot in front of the building. The gravel access to the northern egress door is wide enough to accommodate the facility's snow blower.

The existing facility has recently completed a transition to a full water base paint and gluing operations. As such, the only hazardous materials on site are consistent with normal residential uses, such as gas for the snow blowers and lawn mowers, etc. These are stored in the existing fire proof locker in the main building.

With the phased project as designed, the development will trigger the need for an Alteration of Terrain Permit from the NH Department of Environmental Services. The application is being submitted concurrently with the City Planning Board applications.

We look forward to discussing this project with staff and the Planning Board. Thank you for your consideration
Sincerely,

NORWAY PLAINS ASSOCIATES, INC.



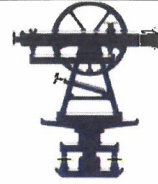
By:
Scott A. Lawler, PE, Project Engineer

cc: Thomas Miller – Nantucket Beadboard

NORWAY PLAINS ASSOCIATES, INC.

LAND SURVEYORS • SEPTIC SYSTEM DESIGNERS • CIVIL ENGINEERS

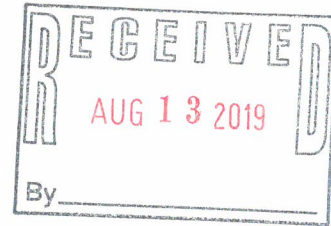
P.O. Box 249
Continental Blvd. (03867)
Rochester, NH 03866-0249
Fax (603)332-0098
Phone (603) 335-3948 / (800) 479-3948
slawler@norwayplains.com



P. O. Box 268
31 Mooney St.
Alton, NH 03809
www.norwayplains.com
Phone & Fax (603) 875-3948
rtetreault@norwayplains.com

August 12, 2019

Seth Creighton, Chief Planner
Planning Department
City of Rochester
33 Wakefield Street
Rochester, NH 03867



Re: Waiver Request: Section 10(A); Number of Parking Spaces, Nantucket Beadboard, 109 Chestnut Hill Road; Rochester, NH, Tax Map 222, Lot 16.

Dear Seth:

On behalf of Thomas Miller and Nantucket Beadboard, Norway Plains Associates respectfully requests waivers to the following Site Plan Regulation:

Waiver Request Section 10 (A):

Section 10(A) of the Rochester Site Plan Review Regulations requires that the minimum number of designated off street parking shall be provided on each site based upon the type of use, as shown in the Table of Parking Requirements. For Industrial use, the requirement is 1 space per 1000 square feet of gross floor area plus 3 spaces per 1,000 gross square feet for area designated for offices or retail sales.

Under the Site Review Regulations, the existing and proposed industrial use, the total number of parking spaces based on the total gross floor area of the industrial use and the office use is 70:

<u>40,125 sf existing Industrial + 19,400 sf proposed Industrial</u>	Plus	<u>3,000 sf existing office + 600 sf. proposed office</u>
1 space per 1,000 sf Industrial Use		3 spaces per 1,000 sf Office

There are a total of 26 existing and 12 proposed parking spaces delineated on the site plans for a total of 38 spaces.

Much of the proposed 10,000 square foot Phase 1 building will be utilized for the relocated shipping department and some storage of raw materials for the facility, there will be very limited parking needs at this time. The second phase addition will be used for a new produce line that requires a long building for the equipment without a lot of employees. Furthermore, given the lack of any previous parking issues at the facility for the employees and visitors, there is no anticipation to be any in the future. Therefore, we respectively request a waiver to allow the lessor amount of required parking set forth within the Rochester Site Review Regulations.

Thank you for your consideration.

Sincerely,

NORWAY PLAINS ASSOCIATES, INC.

By: _____
Scott A. Lawler, P.E., Project Engineer

Nantucket Beadboard proposed use for buildings Phase 1 and Phase 2

Primary use Phase 1

- 2-3 existing employees
- Move shipping department from existing building #2
- Duties include:
 - Construct standard bottoms for Beadboard picked up by distributors
 - Construct bottoms that will be shipped via common carrier
 - Construct bottoms that will be shipped via export containers
 - Cut all packaging materials for crates
 - Cut blanks for our strip product milled in main building
 - Unload and store packaging material purchased from Brocks
 - Unload flatbed trucks and store my longer length material
 - Unload flatbed trucks in main parking lot and store in existing building #2
 - Transport finished units from paint department to finish crating for shipment
 - Transport final crated units back to building #2 to loading dock for shipment
 - Transport scrap material to building #1 for disposal
 - Transport trash to dumpster located between buildings 1 & 2

Secondary use for Phase 1:

- 2-3 existing employees
- Material storage for new product line Re-Wood®

Equipment used in Phase 1:

- 20' Raimann beam saw
- Indoor dust collector with bags
- 25 HP Air compressor with drier and storage tank
- Pneumatic nail guns and hand tools
- Chop box (mitre saw)

New equipment

- Hot melt glue line for laminating new product line
- No VOC's no solvents
- The same equipment used for manufacturing engineered flooring

Primary use for Phase 2 Building

- 2-3 existing employees
- Majority of the processes to the manufacture of Re-Wood®
- I have developed the product over the last 10 years, and it is a space consuming product
- It is very similar to engineered flooring with the exception that we milled it with our Bead profiles
- It is a 5-component product with long process lines
- Storage of all raw materials

Processes include:

- Cut thin wood faces (solid wood) with existing Wintersteiger framing saw
- Cut core stock with existing Wintersteiger framing saw
- Transport core and wood faces back to building #1 for calibration
- Glue components together with the hot melt line from phase 1-A
- Transport laminated blanks back to building #1 for profiling
- Transport back to a new sanding line
- Indoor dust collector with bags
- New water-based UV coating line for finishing (no VOC's, no solvents)
- UV is cured with ultraviolet light
- Transported to shipping department for final packaging



August 8, 2019

Scott Lawler
Norway Plains Associates, Inc.
PO Box 249
Rochester, NH 03866-0249

Re: Nantucket Beadboard – 109 Chestnut Hill Road, Rochester, NH
Abutter screening recommendation

Dear Scott:

I have reviewed your design plans (dated 07/12/19) for a proposed two-phase building located at Nantucket Beadboard. Additionally, on Tuesday, August 6th, I walked the site of the proposed building with the owner, Tom Miller.

You have asked for my recommendations as to how to most effectively screen the proposed building from the abutting residential development. My standpoint is that fencing is the most effective means of buffering the proposed building, as you have shown on your plans. More specifically, I would recommend the fencing be cedar, and allowed to weather naturally. This material will blend and recede into the woodland, screening the building effectively. Additionally, cedar fencing is a good choice as it will aid in dampening any noise emanating from the proposed building. As cedar fencing is a denser material than vinyl fencing, it will more effective in reducing noise.

Planting is not an effective means of screening, in this instance. Given that the lot is densely wooded, combined with the placement of potential screen plantings (on the North-facing edge of the canopy opening, and behind the building) they will receive very little direct sunlight. Direct sunlight is necessary to maintain a dense vegetative screen. If a screen planting was installed in this location, it would struggle to maintain needles/leaves on the plants, and decline continuously in its screening effectiveness. Planting is not a sustainable screening approach on this site.

Sincerely,

Victoria Martel

Landscape Designer, for Woodburn & Company

103 KENT PLACE
NEWMARKET, NH 03857
603.659.5949
woodburnandcompany.com





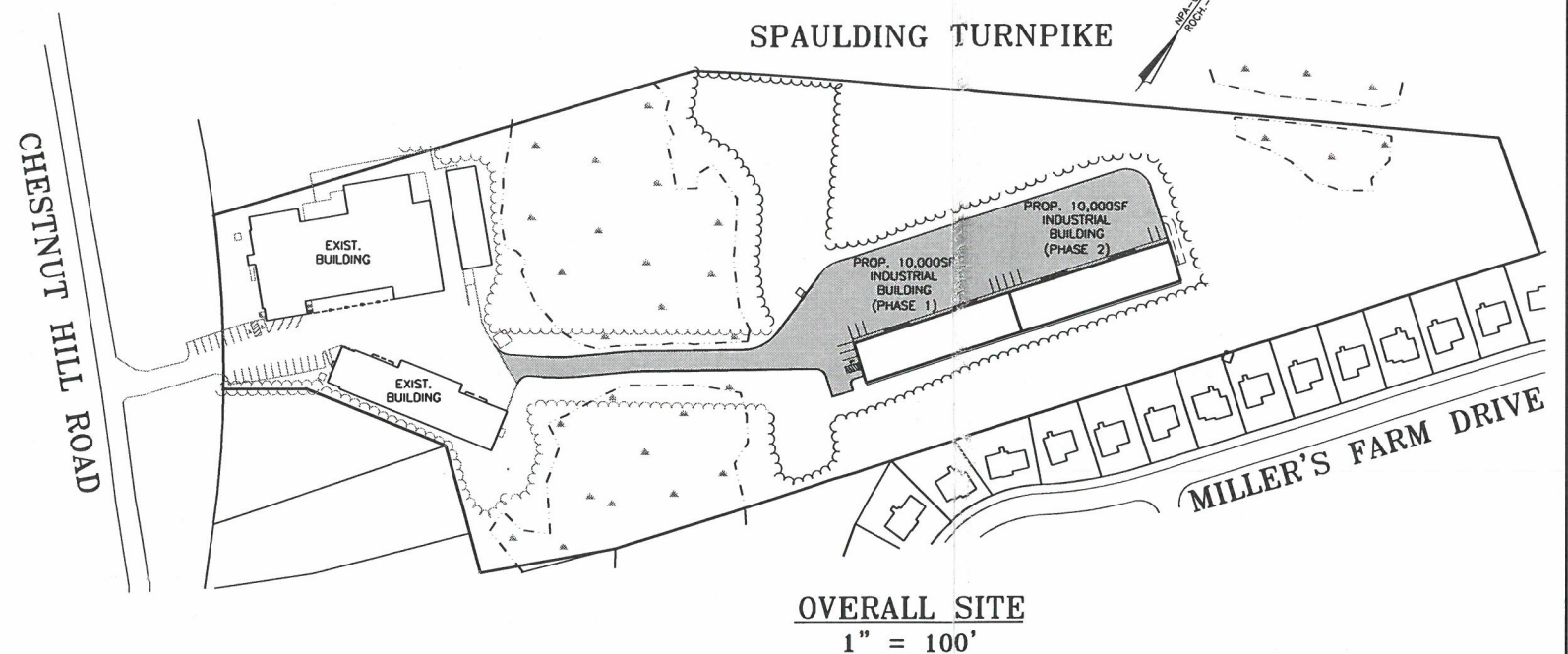
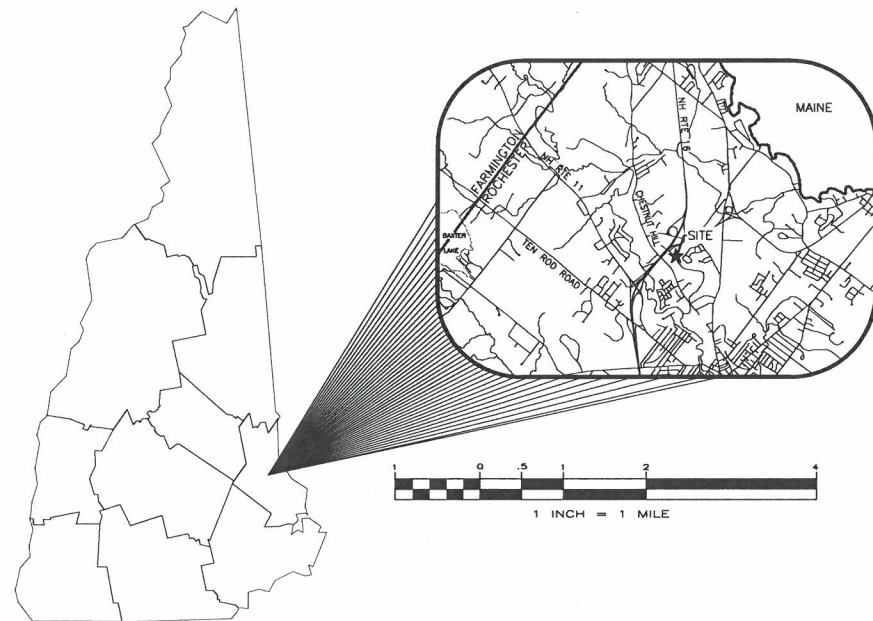
PROPOSED INDUSTRIAL EXPANSION

109 CHESTNUT HILL ROAD

PREPARED FOR

NANTUCKET BEADBOARD

AUGUST 2019



CIVIL ENGINEERS
 NORWAY PLAINS ASSOCIATES, INC.
 2 CONTINENTAL BOULEVARD
 ROCHESTER, NEW HAMPSHIRE 03867
 (603) 335-3948

APPLICANT
 NANTUCKET BEADBOARD
 THOMAS R. MILLER
 109 CHESTNUT HILL ROAD
 ROCHESTER, NH 03867-5122

OWNER OF RECORD
 TAX MAP 222, LOT 16
 OWNER OF RECORD:
 THOMAS R. MILLER
 109 CHESTNUT HILL ROAD
 ROCHESTER, NH 03867-5122
 SCR D BOOK 2200, PAGE 0002

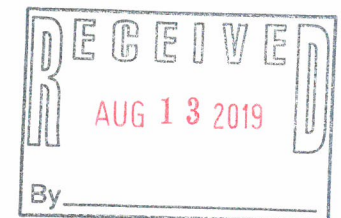
STATE AND FEDERAL PERMITS:
 STATE OF NEW HAMPSHIRE PERMIT NUMBERS:
 NHDES ALTERATION OF TERRAIN: REQUIRED
 NHDES WETLANDS PERMIT: NOT REQUIRED
 NHDES DAM PERMIT: NOT REQUIRED
 NHDES SUBDIVISION PERMIT: NOT REQUIRED
 NHDES SUBSURFACE SYSTEMS PERMIT: NOT REQUIRED
 NHDES WASTEWATER PERMIT: NOT REQUIRED
 NHDOT DRIVEWAY/ENTRANCE PERMIT: NOT REQUIRED

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES):
 NPDES PERMITS ARE ONLY REQUIRED FOR PROJECTS MEETING THE DISTURBED AREA CRITERIA BELOW AND HAVING A POINT SOURCE STORMWATER DISCHARGE FROM THE SITE TO AN ADJACENT WETLAND OR WATER BODY (I.E. CULVERT, SWALE, ETC. OUTLETING TO A WETLAND, CREEK, STREAM OR RIVER).

NPDES PERMIT: REQUIRED
 NPDES PERMITS CONSIST OF A NOTICE OF INTENT (NOI) FILED WITH THE ENVIRONMENTAL PROTECTION AGENCY AT LEAST 14 DAYS PRIOR TO CONSTRUCTION COMMENCING AND A STORMWATER POLLUTION PREVENTION PLAN (SWPPP) BEING PREPARED, KEPT ON SITE AND FOLLOWED BY THE CONTRACTOR.
 FOR STATUS OF THIS PERMIT, CONTACT THE PROJECT GENERAL CONTRACTOR.

FINAL APPROVAL BY
 ROCHESTER PLANNING BOARD

CERTIFIED BY: _____ DATE: _____



SHEET INDEX		
SHEET	COVER	1" = 60'
E-1	EXISTING FEATURES	1" = 60'
C-1	OVERALL SITE PLAN	1" = 40'
C-2	SITE LAYOUT PLAN	1" = 40'
C-3	GRADING AND DRAINAGE PLAN	1" = 40'
C-4	EROSION AND SEDIMENTATION CONTROL PLAN	1" = 40'
C-5	UTILITY PLAN	AS SHOWN
C-6	CONSTRUCTION DETAILS	AS SHOWN
C-7	DRAINAGE DETAILS	AS SHOWN
C-8	TEMPORARY EROSION AND SEDIMENTATION CONTROL DETAILS	AS SHOWN
C-9	PERMANENT EROSION AND SEDIMENTATION CONTROL DETAILS	AS SHOWN
C-10	UTILITY DETAILS	AS SHOWN
C-11	SEWER DETAILS	AS SHOWN
L-1	LIGHTING PLAN AND DETAILS	1" = 40'
T-1	FIRETRUCK TURNING PLAN	1" = 40'

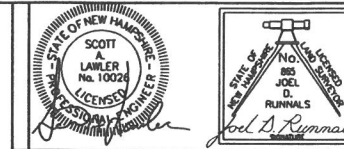
CAREFULLY REVIEW ALL SHEETS OF THIS PACKAGE TO INSURE PROPER CONSTRUCTION. SPECIFIC SITE CONDITIONS SHOULD BE EXPLORED PRIOR TO CONSTRUCTION. CONTACT BOTH THE DESIGN ENGINEER AND THE PROJECT OWNER FOR ANY AVAILABLE GEOTECHNICAL OR HYDROGEOLOGICAL INFORMATION AVAILABLE BUT NOT CONTAINED WITHIN THE PLAN SET. IF THERE ARE ANY QUESTIONS WITH THE DESIGN PRESENTED IN THIS PLAN SET PLEASE CONTACT THE ENGINEERING STAFF AT NORWAY PLAINS ASSOCIATES, INC. (603)-335-3948.

FILE NO. 154
 PLAN NO. C-2965
 DWG. NO. 18020\SP-5
 F.B. NO.

LAND SURVEYORS



CIVIL ENGINEERS



06/21/19 - ADD 20" WATER MAIN.

- LEGEND**
- PROPERTY LINE
 - LIMITS OF JURISDICTIONAL WETLANDS
 - EXISTING TREE LINE
 - EXISTING CONTOUR LINE
 - EXISTING DRAIN LINE
 - EXISTING OVERHEAD WIRES
 - EXISTING WATER LINE
 - EXISTING SEWER LINE

TEST PIT LOG
PERFORM BY ASHLEY F. ROWE,
NH SEPTIC DESIGNER #1857 ON MAY 16TH, 2019

- TEST PIT #1**
0' - 10'
10' - 50'
50'
- 10YR3/2 LOAM TOPSOIL, COMMON ROOTS.
10YR6/3 CLEAN FINE SAND, GRANULAR, LOOSE, DAMP. REDOX CONCENTRATIONS STREAKING AT 20".
REDOX CONCENTRATIONS INTENSIFY AND WATER ENTERS THE HOLE RAPIDLY AT 39".
END OF HOLE.
NO REFUSAL, ESHWT AT 20".
OBSERVED WATER AT 39".
PERC. OF 1" IN 6 AT 15".
- TEST PIT #2**
0' - 7'
7' - 34'
34'
- 10YR2/2 LOAM TOPSOIL, COMMON ROOTS.
10YR6/3 CLEAN FINE SAND, GRANULAR, LOOSE, DAMP. REDOX CONCENTRATIONS STREAKING AT 22".
REDOX CONCENTRATIONS INTENSIFY AND WATER ENTERS THE HOLE RAPIDLY AT 32".
END OF HOLE.
NO REFUSAL, ESHWT AT 22".
OBSERVED WATER AT 32".
PERC. OF 1" IN 6 AT 15".
- TEST PIT #3**
0' - 7'
7' - 39'
39'
- 10YR3/2 LOAM TOPSOIL, COMMON ROOTS.
10YR4/4 CLEAN FINE SAND, GRANULAR, LOOSE, DAMP. REDOX CONCENTRATIONS STREAKING AT 18".
WATER ENTERS THE HOLE RAPIDLY AT 36".
END OF HOLE.
NO REFUSAL, ESHWT AT 18".
OBSERVED WATER AT 36".
PERC. OF 1" IN 6 AT 15".
- TEST PIT #4**
0' - 11'
11' - 60'
60'
- 10YR2/2 LOAM TOPSOIL, COMMON ROOTS.
10YR6/4 CLEAN FINE SAND, GRANULAR, LOOSE, DAMP. REDOX CONCENTRATIONS STREAKING AT 28".
WATER ENTERS THE HOLE RAPIDLY AT 56".
END OF HOLE.
NO REFUSAL, ESHWT AT 28".
OBSERVED WATER AT 56".
PERC. OF 1" IN 6 AT 20".
- TEST PIT #5**
0' - 10'
10' - 58'
58'
- 10YR3/2 LOAM TOPSOIL, COMMON ROOTS.
10YR4/4 CLEAN FINE SAND, GRANULAR, LOOSE, DAMP. HEAVY REDOX CONCENTRATIONS STREAKING AT 27".
WATER ENTERS THE HOLE AT 55".
END OF HOLE.
NO REFUSAL, ESHWT AT 27".
OBSERVED WATER AT 55".

- TEST PIT #6**
0' - 9'
9' - 33'
33' - 52'
52'
- 10YR2/2 LOAM TOPSOIL, COMMON ROOTS.
2.5R4/6 CLEAN FINE SAND, GRANULAR, LOOSE, DAMP.
10YR6/4 CLEAN FINE SAND, GRANULAR, LOOSE, DAMP. REDOX CONCENTRATIONS STREAKING AT 35".
WATER ENTERS THE HOLE RAPIDLY AT 50".
END OF HOLE.
NO REFUSAL, ESHWT AT 35".
OBSERVED WATER AT 50".
PERC. OF 1" IN 6 AT 24".
- TEST PIT #7**
0' - 10'
10' - 27'
27' - 56'
56'
- 10YR2/2 LOAM TOPSOIL, COMMON ROOTS.
10YR4/4 CLEAN FINE SAND, GRANULAR, LOOSE, DAMP.
10YR7/3 CLEAN FINE SAND, GRANULAR, LOOSE, DAMP. REDOX CONCENTRATIONS STREAKING AT 34".
WATER ENTERS THE HOLE AT 53".
END OF HOLE.
NO REFUSAL, ESHWT AT 34".
OBSERVED WATER AT 53".
PERC. OF 1" IN 6 AT 24".
- TEST PIT #8**
0' - 9'
9' - 56'
56'
- 10YR2/2 LOAM TOPSOIL, COMMON ROOTS.
2.5R4/4 CLEAN FINE SAND, GRANULAR, LOOSE, DAMP. REDOX CONCENTRATIONS STREAKING AT 14".
WATER ENTERING THE HOLE AT 53".
END OF HOLE.
NO REFUSAL, ESHWT AT 14".
OBSERVED WATER AT 53".
PERC. OF 1" IN 6 AT 11".
- TEST PIT #9**
0' - 10'
10' - 50'
50'
- 10YR2/2 LOAM TOPSOIL, COMMON ROOTS.
10YR4/4 CLEAN FINE SAND, GRANULAR, LOOSE, DAMP. REDOX CONCENTRATIONS STREAKING AT 30".
WATER ENTERING THE HOLE AT 46".
END OF HOLE.
NO REFUSAL, ESHWT AT 30".
OBSERVED WATER AT 46".
PERC. OF 1" IN 6 AT 24".

WETLAND NOTES

STATE AND FEDERAL JURISDICTIONAL WETLANDS WERE DELINEATED BY N.H. CERTIFIED WETLAND SCIENTIST, BARRY H. KEITH, ON JULY 25, 2018 AND MAPPED BY NORWAY PLAINS ASSOCIATES, INC. USING TOTAL STATION SURVEY METHODS AND IN ACCORDANCE WITH THE FOLLOWING GUIDANCE DOCUMENTS:

1. N.H. CODE OF ADMINISTRATIVE RULES (ENR-WT 301.01) WITH THE TECHNIQUES OUTLINED IN THE 1987 "U.S. ARMY CORPS OF ENGINEERS WETLAND DELINEATION MANUAL, TECHNICAL REPORT Y-87-1."

2. U.S. ARMY CORPS OF ENGINEERS. 2009. "REGIONAL SUPPLEMENT TO THE CORPS OF ENGINEERS WETLAND DELINEATION MANUAL: NORTHEASTERN AND NORTHWESTERN REGION. U.S. ARMY CORPS OF ENGINEERS RESEARCH AND DEVELOPMENT CENTER, ENVIRONMENTAL LABORATORY ERDC/EL TR-09-19."

3. U.S. ARMY CORPS OF ENGINEERS. 2012. "NATIONAL LIST OF PLANT SPECIES THAT OCCUR IN WETLANDS: NORTHEAST REGION, U.S. ARMY CORPS OF ENGINEERS RESEARCH AND DEVELOPMENT CENTER, ENVIRONMENTAL LABORATORY."

4. N.H. CODE OF ADMINISTRATIVE RULES (ENR-WT 301.02) WITH THE U.S. FISH AND WILDLIFE SERVICE MANUAL FWS/OBS-78/31 ENTITLED "CLASSIFICATION OF WETLANDS AND DEEPWATER HABITATS OF THE UNITED STATES. COWARD ET AL. 1979."

5. NEW ENGLAND HYDRIC SOILS TECHNICAL COMMITTEE. 2004. 3RD ED., "FIELD INDICATORS FOR IDENTIFYING HYDRIC SOILS IN NEW ENGLAND." NEW ENGLAND INTERSTATE WATER POLLUTION CONTROL COMMISSION, LOWELL, MA.

6. U.S. DEPARTMENT OF AGRICULTURE, NATURAL RESOURCE CONSERVATION SERVICE. 2010. "FIELD INDICATORS OF HYDRIC SOILS IN THE UNITED STATES, VERSION 7.0." L.M. VASILAS, G.W. HURT, AND C.V. NOBLE (EDS.). USDA, NRCS, IN COOPERATION WITH THE NATIONAL TECHNICAL COMMITTEE FOR HYDRIC SOILS.

- WETLAND LEGEND**
- PSS/F01E: PALUSTRINE SCRUB-SHRUB/BROAD-LEAVED DECIDUOUS FORESTED, SEASONALLY FLOODED/SATURATED
- PF01E: PALUSTRINE BROAD-LEAVED DECIDUOUS FORESTED, SEASONALLY FLOODED/SATURATED
- PSS/F05b: PALUSTRINE, SCRUB-SHRUB/DEAD FORESTED, BEAVER

TAX MAP	LOT	OWNER
222	17	PATRICIA A. HOCTER
222	18	DONALD JR. & GAIL MARTIN
222	19	DONALD JR. & GAIL MARTIN
222	20	ROBERT W. FAULKNER
215A	12	OPEN SPACE COMMON OWNERSHIP
215A	12-28	MICHAEL VINCENT
215A	12-29	HEATHER C. & SCOTT ANDREW C. BOLLINGER
215A	12-30	CHRISTOPHER A. & LUCIA PITMAN
215A	12-31	MICHAEL V. LIBBY
215A	12-32	LOWRY E. & NADYA A. POWERS
215	12-33	ROBERT L. JR. & PEGGY ADAMS
215A	12-34	THOMAS J. & SUSAN W. HOPPER
215A	12-35	JAMIE & AMEE DUBE
215A	12-36	DANIEL A. GIBSON
215A	12-37	JOAN S. COOK & EDWARD SUTHER BAXTER
215A	12-38	DONALD OVEL
215A	12-39	JASON A. & JENNIFER L. KARDON
215A	12-40	DAVID P. & PEGI S. MERRIMAN
215A	12-41	KEITH & CHRISTINE R. MCINNES
216	81	LOUISE J. BROWN
216	81-1	STATE OF NEW HAMPSHIRE
221	181	C/O BUREAU OF TURNPIKES
221	180	VERNON P. BOISVERT & LINDA A. LOVE
221	179	DENISE M. & RICHARD R. MORIN
221	178	JODIE A. MCGOWEN & ALLEN R. HARTSHORN
221	177	LINDA SMITH
		KEVIN P. CHENEY

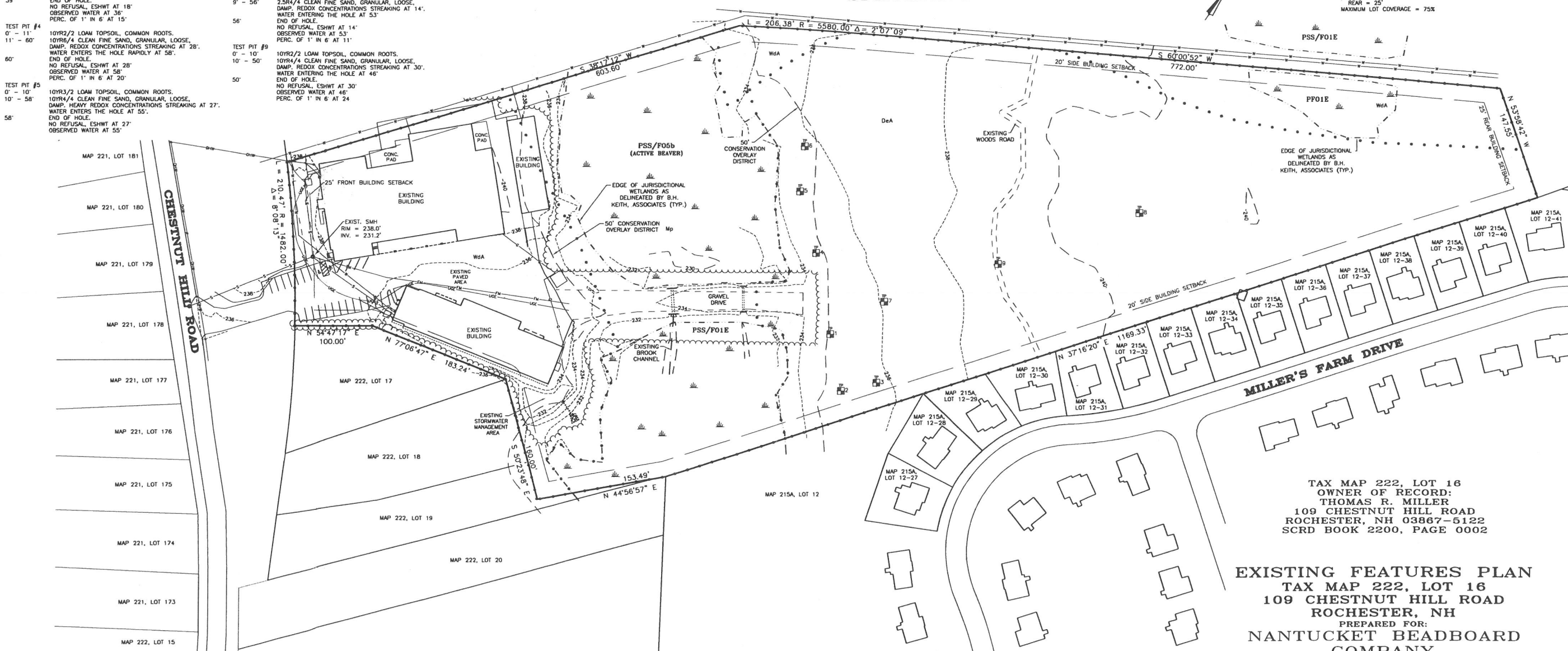
MAILING ADDRESS

6 BERRY ROAD, BARRINGTON, NH 03825
99 A CHESTNUT HILL ROAD, ROCHESTER, NH 03867-5122
99 A CHESTNUT HILL ROAD, ROCHESTER, NH 03867-5122
97 CHESTNUT HILL ROAD, ROCHESTER, NH 03867
NA
63 MILLERS FARM DRIVE, ROCHESTER, NH 03868
61 MILLER FARM DRIVE, ROCHESTER, NH 03868
59 MILLER FARM DRIVE, ROCHESTER, NH 03868
57 MILLER FARM DRIVE, ROCHESTER, NH 03868
53 MILLER FARM DRIVE, ROCHESTER, NH 03868
51 MILLER FARM DRIVE, ROCHESTER, NH 03868
49 MILLER FARM DRIVE, ROCHESTER, NH 03868
47 MILLER FARM DRIVE, ROCHESTER, NH 03868
43 MILLER FARM DRIVE, ROCHESTER, NH 03868
41 MILLER FARM DRIVE, ROCHESTER, NH 03868
39 MILLER FARM DRIVE, ROCHESTER, NH 03868
37 MILLER FARM DRIVE, ROCHESTER, NH 03868
35 MILLER FARM DRIVE, ROCHESTER, NH 03868
33 MILLER FARM DRIVE, ROCHESTER, NH 03868
121 CHESTNUT HILL ROAD, ROCHESTER, NH 03867-5123
PO BOX 2950, CONCORD, NH 03302-2950

112 CHESTNUT HILL ROAD, ROCHESTER, NH 03867-5121
110 CHESTNUT HILL ROAD, ROCHESTER, NH 03867-5121
108 CHESTNUT HILL ROAD, ROCHESTER, NH 03867-5121
106 CHESTNUT HILL ROAD, ROCHESTER, NH 03867-5121
112 HALLEY ROAD, LOWELL, MA 01854-2216

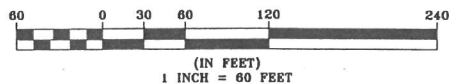
- GENERAL SITE PLAN NOTES**
- THE PURPOSE OF THIS PLAN IS TO DEPICT THE EXISTING FEATURES ON THE LOT.
 - TOTAL PARCEL AREA: 580,200 SQUARE FEET OR 13.32 ACRES.
 - THIS PARCEL IS LOCATED IN THE GENERAL INDUSTRIAL ZONE.
 - THESE PLANS SHOW ONLY THOSE FEATURES THAT WERE VISUALLY APPARENT IN FEBRUARY OF 2019.
 - ORIENTATION: HORIZONTAL AND VERTICAL DATUMS - CITY OF ROCHESTER GIS BASED ON NAD83/2011.
 - PARCEL IS NOT LOCATED WITHIN ZONE A (100YR FLOOD) AS SHOWN ON FEDERAL EMERGENCY MANAGEMENT AGENCY MAP, COMMUNITY #33017C02120 DATED MAY 17, 2005.
 - SOIL TYPES ARE PER NATURAL RESOURCES CONSERVATION SERVICE (NRCS) REPORT:
• D6a - DEERFIELD LOAMY SAND, 0-3 % SLOPES
• W6a - WINDSOR LOAMY SAND, 0-3 % SLOPES
• M6 - FREETOWN AND SWANSEA MUCKY PEATS, 0-2 % SLOPES
ON SITE WETLANDS DELINEATED BY BARRY H. KEITH ON JULY 25, 2018.
 - DIMENSIONAL REGULATIONS PER ZONING ORDINANCE:
GENERAL INDUSTRIAL ZONE:
MINIMUM LOT AREA = 20,000 SF (WITH WATER AND WATER)
MINIMUM LOT FRONTAGE = 100 FEET
MINIMUM YARD SETBACKS:
FRONT = 25'
SIDE = 20'
REAR = 25'
MAXIMUM LOT COVERAGE = 75%

SPAULDING TURNPIKE



TAX MAP 222, LOT 16
OWNER OF RECORD:
THOMAS R. MILLER
109 CHESTNUT HILL ROAD
ROCHESTER, NH 03867-5122
SCRD BOOK 2200, PAGE 0002

EXISTING FEATURES PLAN
TAX MAP 222, LOT 16
109 CHESTNUT HILL ROAD
ROCHESTER, NH
PREPARED FOR:
NANTUCKET BEADBOARD
COMPANY
AUGUST 2019
GRAPHIC SCALE



FINAL APPROVAL BY
ROCHESTER PLANNING BOARD

CERTIFIED BY: _____ DATE: _____

REFERENCE PLANS:

- "PLAN OF LAND - ROCHESTER, N.H. - FOR PARKER HANNIFIN FOUNDATION" DATED DEC. 17, 1984 BY JOHN W. DUGON ASSOCIATES, INC.
- "LOT LINE REVISION - CHESTNUT HILL ROAD - ROCHESTER, N.H. FOR ROBERT JR. & GAIL MARTIN AND RUTH TAYLOR" DATED AUGUST 2002 BY NORWAY PLAINS ASSOCIATES, INC. RECORDED AT S.C.R.D. PLAN NUMBER 69-8.
- "OVERALL AMENDED SUBDIVISION PLAN, NORWAY PLAINS ROAD, ROCHESTER, N.H. FOR NP REALTY ASSOCIATES, LLC" DATED JULY 2013, BY NORWAY PLAINS ASSOCIATES, INC. SCRD PLAN 106-45
- "AS-BUILT SITE PLAN, CHESTNUT HILL ROAD, ROCHESTER, N.H. FOR NANTUCKET BEADBOARD COMPANY," DATED: SEPTEMBER 2007 BY NORWAY PLAINS ASSOCIATES, INC.

CAREFULLY REVIEW ALL SHEETS OF THIS PACKAGE TO INSURE PROPER CONSTRUCTION. SPECIFIC SITE CONDITIONS SHOULD BE EXPLORED PRIOR TO CONSTRUCTION. CONTACT BOTH THE DESIGN ENGINEER AND THE PROJECT OWNER FOR ANY AVAILABLE GEOTECHNICAL OR HYDROGEOLOGICAL INFORMATION AVAILABLE BUT NOT CONTAINED WITHIN THE PLAN SET. IF THERE ARE ANY QUESTIONS WITH THE DESIGN PRESENTED IN THIS PLAN SET PLEASE CONTACT THE ENGINEERING STAFF AT NORWAY PLAINS ASSOCIATES, INC. (603)-335-3948.

FILE NO. 154
PLAN NO. C-2965
DWG. NO. 18020/SP-5
F.B. NO.

31 Mooney Street, Alton, N.H. 603-875-3948

NORWAY PLAINS ASSOCIATES, INC.

2 Continental Blvd., Rochester, N.H. 603-335-3948

E-1

LAND SURVEYORS

LEGEND

- PROPERTY LINE
- JURISDICTIONAL WETLANDS
- EXISTING TREE LINE
- EXISTING OVERHEAD WIRES
- EXISTING HYDRANT
- EXISTING WATER GATE OR SHUT-OFF VALVE
- EXISTING UTILITY POLE
- EXISTING SEWER MAN HOLE
- EXISTING CATCH BASIN
- EXISTING LIGHT POLES
- PROPOSED BUILDING
- PROPOSED PAVEMENT
- PROPOSED PAVEMENT WITH CURBING
- PROPOSED TREE LINE
- PROPOSED PAVEMENT
- PROPOSED CONCRETE

GENERAL SITE PLAN NOTES

- THE PURPOSE OF THIS PLAN IS TO DEPICT THE EXISTING FEATURES ON THE LOT.
- TOTAL PARCEL AREA: 580,200 SQUARE FEET OR 13.32 ACRES.
- THIS PARCEL IS LOCATED IN THE GENERAL INDUSTRIAL ZONE.
- THESE PLANS SHOW ONLY THOSE FEATURES THAT WERE VISUALLY APPARENT IN FEBRUARY OF 2019.
- ORIENTATION: HORIZONTAL AND VERTICAL DATUMS - CITY OF ROCHESTER GIS BASED ON NVD1928.
- PARCEL IS NOT LOCATED WITHIN ZONE A (100YR FLOOD) AS SHOWN ON FEDERAL EMERGENCY MANAGEMENT AGENCY MAP, COMMUNITY #33017C02120 DATED MAY 17, 2005.
- SOIL TYPES ARE PER NATURAL RESOURCES CONSERVATION SERVICE (NRCS) REPORT.
 - D6a - DEERFIELD LOAMY SAND, 0-3 % SLOPES
 - W6a - WINDSOR LOAMY SAND, 0-3 % SLOPES
 - Mp - FREETOWN AND SWANSEA MUCKY PEATS, 0-2 % SLOPES
- ON SITE WETLANDS DELINEATED BY BARRY H. KEITH ON JULY 25, 2018.
- DIMENSIONAL REGULATIONS PER ZONING ORDINANCE:
 - GENERAL INDUSTRIAL ZONE:
 - MINIMUM LOT AREA = 20,000 SF (WITH WATER AND WATER)
 - MINIMUM LOT FRONTAGE = 100 FEET
 - MINIMUM YARD SETBACKS:
 - FRONT = 25'
 - SIDE = 20'
 - REAR = 25'
 - MAXIMUM LOT COVERAGE = 75%
- FOR MORE INFORMATION ABOUT THIS SITE PLAN, CONTACT THE CITY OF ROCHESTER PLANNING DEPARTMENT, 33 WAKEFIELD ST., ROCHESTER, NH 03607. (603) 335-1338.
- PARKING REQUIREMENTS (SITE PLAN REGULATIONS; SECTION 10 (A)):
 - INDUSTRIAL USE:
 - 1 SPACE PER 1,000 SQUARE FEET PLUS 3 SPACES PER 1,000 GROSS SQUARE FEET OF OFFICES OR RETAIL SALES
 - REQUIRED SPACES:
 - 59,525 SF/1,000 SF + 3,600 SF * 3 SPACES/1,000 = 70 SPACES
 - TOTAL EXISTING SPACES = 26 SPACES
 - TOTAL PROVIDED SPACES = 38 SPACES
 - WAIVER REQUESTED TO ALLOW FOR 38 SPACES WHERE 70 WOULD BE REQUIRED
 - ACCESSIBLE PARKING (SITE PLAN REGULATIONS SECTION 10(D)(2)):
 - THE SPACES ARE PART OF THE TOTAL ABOVE.
 - ACCESSIBLE PARKING SPACES REQUIRED = 26 TO 50 = 2 SPACES
 - ACCESSIBLE PARKING SPACES PROVIDED = 3 SPACES
- THIS DEVELOPMENT MUST BE IN COMPLIANCE WITH ALL APPLICABLE LAW - INCLUDING ALL PERTINENT PROVISIONS OF THE CITY OF ROCHESTER SITE PLAN REGULATIONS - UNLESS OTHERWISE WAIVED.
- THE APPLICANT SHALL OBTAIN A STORMWATER MANAGEMENT PERMIT FROM THE PUBLIC WORKS DEPARTMENT (UNLESS DETERMINED TO BE UNNECESSARY BY THE CITY ENGINEER) AND FOLLOW THE REQUIREMENTS OF THE CITY ORDINANCE CHAPTER 50. THE PERMITTEE SHALL PREPARE A WRITTEN PLAN FOR MANAGING STORMWATER THAT ENTERS THE CONSTRUCTION SITE AND SHALL PRESENT IT TO THE INSPECTION ENGINEER AT THE PRE-CONSTRUCTION MEETING. THE PERMITTEE SHALL FOLLOW BEST MANAGEMENT PRACTICES TO PREVENT EROSION IN AREAS WHERE SOIL HAS BEEN DISTURBED.

GENERAL SITE PLAN NOTES (CONTINUED)

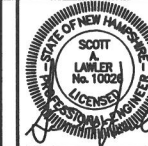
- ACCESS INTO THE SITE FOR FIRE APPARATUS MUST BE MAINTAINED AT ALL TIMES DURING THE CONSTRUCTION PROCESS. THIS IS THE SOLE RESPONSIBILITY OF THE APPLICANT/DEVELOPER TO MAINTAIN THIS ACCESS. PLEASE CONTACT THE FIRE DEPARTMENT AT 330-7182 WITH ANY QUESTIONS ABOUT ACCESS REQUIREMENTS.
- SNOW SHALL NOT BE PILED IN SUCH A MANNER AS TO BLOCK THE VISIBILITY OF THE VEHICLES ON CHESTNUT HILL ROAD AND ALL EXCESS SNOW SHALL BE REMOVED FROM THE SITE.
- ALL OUTSIDE CONSTRUCTION ACTIVITY RELATED TO THE DEVELOPMENT OF THIS SITE IS RESTRICTED TO THE HOURS OF 7:00 A.M. TO 6:00 P.M. MONDAY THROUGH FRIDAY AND 8:00 A.M. TO 6:00 P.M. SATURDAY.
- ALL UTILITIES MUST BE UNDERGROUND, INCLUDING UTILITIES EXTENDED ONTO THE SITE FROM EXISTING POLES NEAR THE SITE. HOWEVER, IF THE ONLY POLE NEARBY IS ACROSS THE STREET, ONE ADDITIONAL POLE MAY BE PLACED ON/NEAR THE PROPERTY TO ALLOW FOR OVERHEAD EXTENSION OF WIRES ACROSS THE STREET. UTILITIES EXTENDING FROM ANY SUCH NEW POLE MUST BE UNDERGROUND. THE APPLICANT MAY WORK WITH THE CITY STAFF AS APPROPRIATE TO ADDRESS THIS REQUIREMENT.
- ALL ELEMENTS SHOWN ON THE APPROVED SITE PLAN MUST BE PROPERLY COMPLETED PRIOR TO ISSUANCE OF A CERTIFICATE OF OCCUPANCY, UNLESS APPROPRIATE SURETY IS PLACED WITH THE PLANNING DEPARTMENT.
- NOTE THAT THIS APPROVAL IS FOR THE SITE PLAN ONLY. LIFE SAFETY CODE AND BUILDING CODE REVIEW WILL BE REQUIRED AS PART OF THE BUILDING PERMIT PROCESS WHEN THE CONSTRUCTION PLANS ARE SUBMITTED. VARIOUS REQUIREMENTS REGARDING THE BUILDING DESIGN POSSIBLY INCLUDING A SPRINKLER SYSTEM - MAY BE SPECIFIED AT THAT TIME.
- THE SEWER IMPACT CONTRIBUTION MUST BE PAID IN FULL, TO THE CODE ENFORCEMENT DEPARTMENT, PRIOR TO THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY. THE SEWER IMPACT IS A ONE TIME PAYMENT OF \$2.00 PER GALLON FOR AVERAGE DAILY FLOW.
- THIS PROJECT PROPOSED TO DISTURB OVER ONE ACRE OF EXISTING GROUND COVER AND MEETS OTHER SPECIFIC REQUIREMENTS RELATED TO PERMIT CRITERIA FOR EPA NPDES COMPLIANCE. THE CONTRACTOR IS RESPONSIBLE FOR DEVELOPMENT AND IMPLEMENTATION OF A STORM WATER POLLUTION PREVENTION PLAN (SWPPP). SUBMISSION OF A NOTICE OF INTENT (NOI) TO EPA, INSPECTIONS AND MAINTENANCE OF SEDIMENT CONTROL MEASURES, DOCUMENTATION OF MAINTENANCE ACTIVITIES, AND SUBMISSION OF A NOTICE OF TERMINATION (NOT) TO EPA. THE CONTRACTOR IS ALSO RESPONSIBLE TO COMPLY WITH ANY OR ALL OTHER ASPECTS OF THE CURRENT FEDERAL, STATE AND LOCAL STORM WATER OR NPDES REGULATIONS OR REQUIREMENTS.
- THE STONEWALL SHALL NOT BE DISTURBED DURING CONSTRUCTION. IF DISTURBANCE OCCURS, THE STONEWALL MUST BE RECONSTRUCTED.
- ALL BUILDINGS SHALL HAVE UNIT NUMBERS VISIBLE AND IN ACCORDANCE WITH E911 REQUIREMENTS.
- THE INTENT IS TO START CONSTRUCTION OF PHASE 2 BUILDING ADDITION, ASSOCIATED PARKING AND LOADING AREA WITHIN THREE YEARS OF CERTIFICATE OF OCCUPANCY OF PHASE 1 BUILDING.



CIVIL ENGINEERS

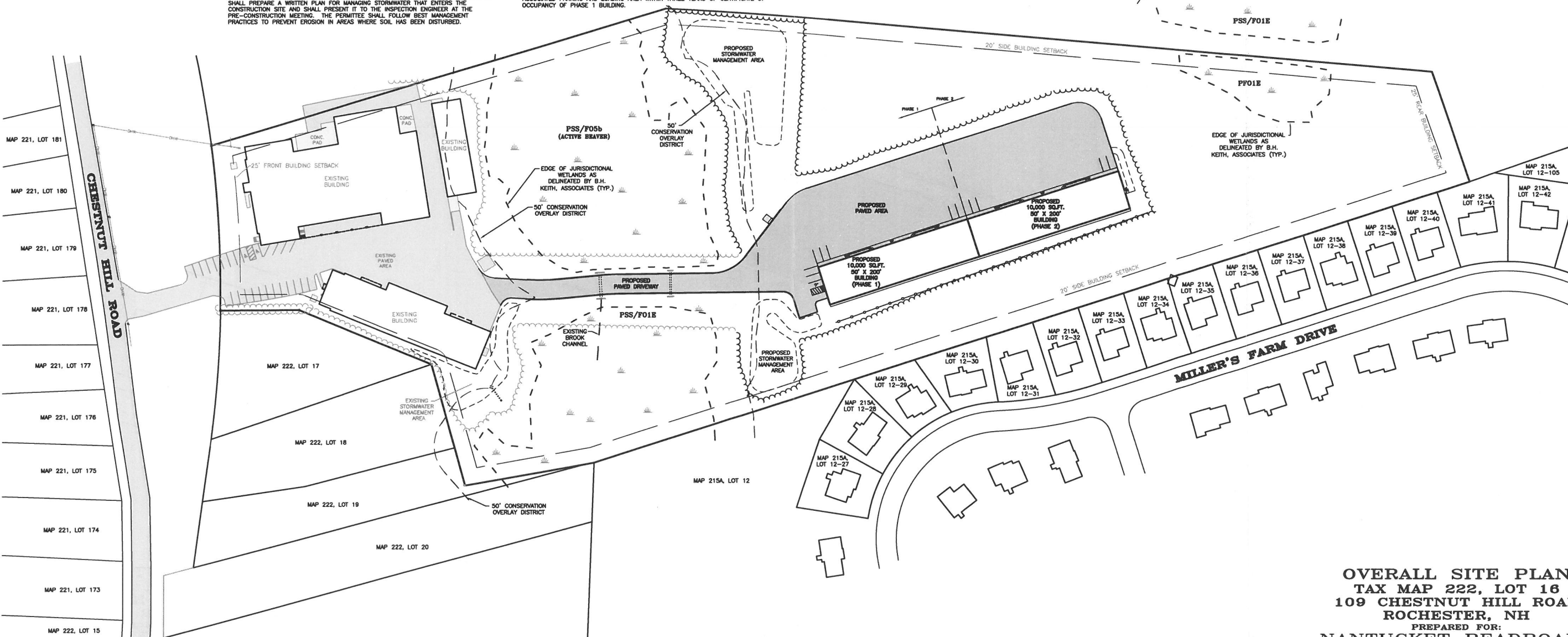
SITE REVIEW APPROVAL

WHETHER OR NOT OTHERWISE EXPRESSLY RECITED ON THIS SITE REVIEW PLAN, THE SITE REVIEW APPROVAL GRANTED IS CONDITIONED ON FAITHFUL AND DILIGENT ADHERENCE BY THE OWNER/DEVELOPER TO ALL WRITTEN AND VERBAL REPRESENTATIONS MADE REGARDING SUCH MATTERS AS USE, NUMBER OF EMPLOYEES, DRAINAGE, CONSTRUCTION, ETC. AS WELL AS ALL OTHER TERMS, CONDITIONS, PROVISIONS, REQUIREMENTS AND SPECIFICATIONS OF THE SITE PLAN REVIEW REGULATIONS OF THE CITY OF ROCHESTER, N.H., AS AMENDED, IN EFFECT ON THE DATE OF APPROVAL. ANY VARIATION FROM THE PROPOSAL AS APPROVED MAY ALSO REQUIRE THE SUBMISSION AND APPROVAL OF A NEW SITE REVIEW APPLICATION.



06/24/19 - ADD NOTE 22 AND 23
06/24/19 - SHIFT DEVELOPMENT 75 FEET FROM PROPERTY LINE
07/12/19 - SHIFT DEVELOPMENT 100 FEET FROM PROPERTY LINE
08/07/19 - ADD PHASE 2 BUILDING AND ASSOCIATED IMPROVEMENTS

SPAULDING TURNPIKE



REFERENCE PLANS:

- "PLAN OF LAND - ROCHESTER, N.H. - FOR PARKER HANNIFIN FOUNDATION" DATED DEC. 17, 1984 BY JOHN W. DURGIN ASSOCIATES, INC.
- "LOT LINE REVISION - CHESTNUT HILL ROAD - ROCHESTER, N.H. FOR ROBERT JR. & GAIL MARTIN AND RUTH TAYLOR" DATED AUGUST 2002 BY NORWAY PLAINS ASSOCIATES, INC. RECORDED AT S.C.R.D. PLAN NUMBER 66-8
- "OVERALL AMENDED SUBDIVISION PLAN, NORWAY PLAINS ROAD, ROCHESTER, N.H. FOR NP REALTY ASSOCIATES, LLC" DATED JULY 2013, BY NORWAY PLAINS ASSOCIATES, INC. SORD PLAN 106-45
- "AS-BUILT SITE PLAN, CHESTNUT HILL ROAD, ROCHESTER, N.H. FOR NANTUCKET BEADBOARD COMPANY." DATED: SEPTEMBER 2007 BY NORWAY PLAINS ASSOCIATES, INC.

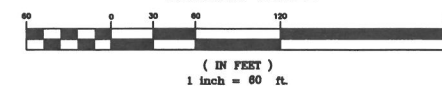
FILE NO. 154
PLAN NO. C-2965
DWG. NO. 18020\SP-5
F.B. NO.

CAREFULLY REVIEW ALL SHEETS OF THIS PACKAGE TO INSURE PROPER CONSTRUCTION. SPECIFIC SITE CONDITIONS SHOULD BE EXPLORED PRIOR TO CONSTRUCTION. CONTACT BOTH THE DESIGN ENGINEER AND THE PROJECT OWNER FOR ANY AVAILABLE GEOTECHNICAL OR HYDROGEOLOGICAL INFORMATION AVAILABLE BUT NOT CONTAINED WITHIN THE PLAN SET. IF THERE ARE ANY QUESTIONS WITH THE DESIGN PRESENTED IN THIS PLAN SET PLEASE CONTACT THE ENGINEERING STAFF AT NORWAY PLAINS ASSOCIATES, INC. (603)-335-3948.

FINAL APPROVAL BY
ROCHESTER PLANNING BOARD

CERTIFIED BY: _____ DATE: _____

OVERALL SITE PLAN
TAX MAP 222, LOT 16
109 CHESTNUT HILL ROAD
ROCHESTER, NH
PREPARED FOR:
NANTUCKET BEADBOARD
MARCH 2018
GRAPHIC SCALE



LAND SURVEYORS



CIVIL ENGINEERS



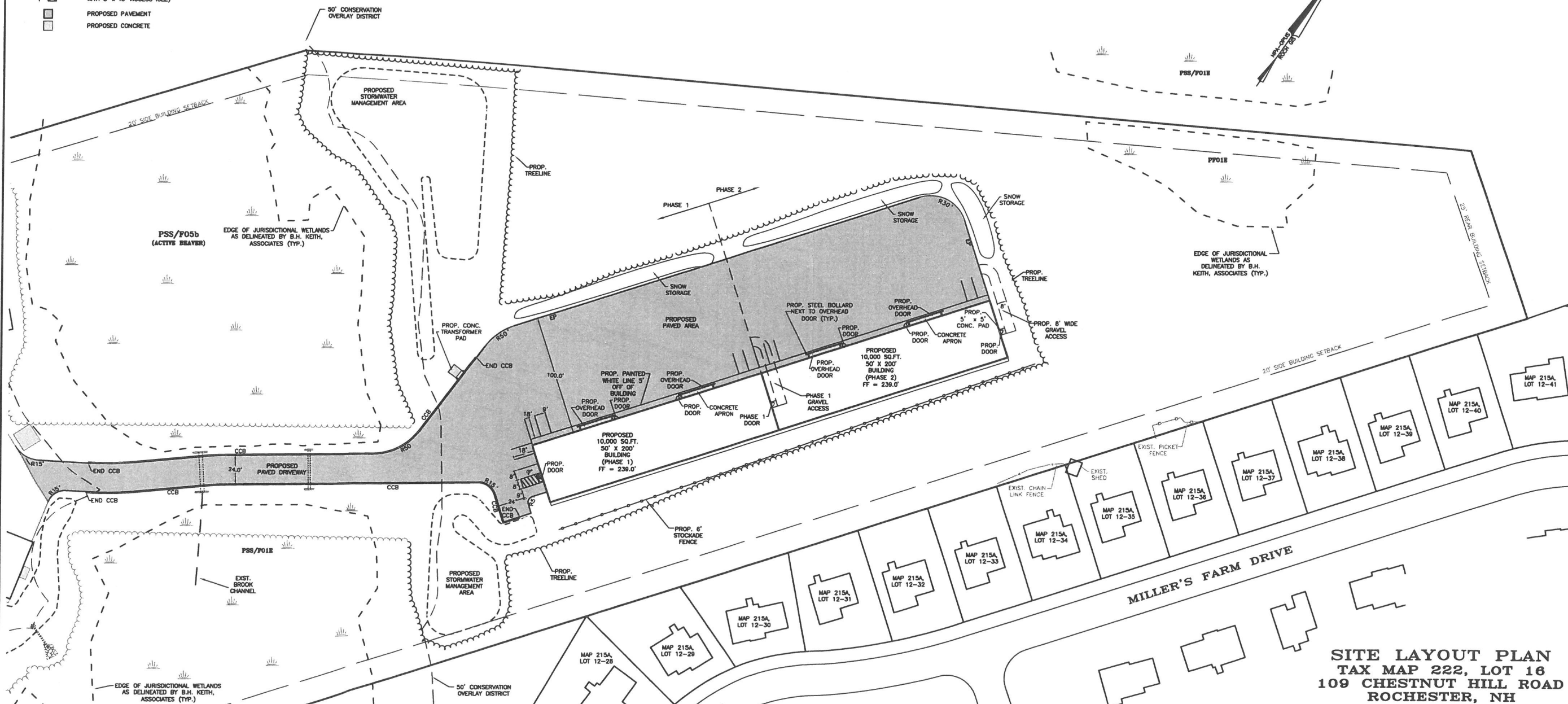
06/24/19 - SHIFT DEVELOPMENT 75 FEET FROM PROPERTY LINE
07/12/19 - SHIFT DEVELOPMENT 100 FEET FROM PROPERTY LINE, REMOVE DUMPSTER
08/07/19 - ADD PHASE 2 BUILDING AND ASSOCIATED IMPROVEMENTS

CAREFULLY REVIEW ALL SHEETS OF THIS PACKAGE TO INSURE PROPER CONSTRUCTION. SPECIFIC SITE CONDITIONS SHOULD BE EXPLORED PRIOR TO CONSTRUCTION. CONTACT BOTH THE DESIGN ENGINEER AND THE PROJECT OWNER FOR ANY AVAILABLE GEOTECHNICAL OR HYDROGEOLOGICAL INFORMATION AVAILABLE BUT NOT CONTAINED WITHIN THE PLAN SET. IF THERE ARE ANY QUESTIONS WITH THE DESIGN PRESENTED IN THIS PLAN SET PLEASE CONTACT THE ENGINEERING STAFF AT NORWAY PLAINS ASSOCIATES, INC. (603)-335-3948.



LEGEND

- PROPERTY LINE
- JURISDICTIONAL WETLANDS
- EXISTING TREE LINE
- EXISTING OVERHEAD WIRES
- EXISTING HYDRANT
- EXISTING WATER GATE OR SHUT-OFF VALVE
- EXISTING UTILITY POLE
- EXISTING SEWER MAN HOLE
- PROPOSED BUILDING
- PROPOSED PAVEMENT
- PROPOSED PAVEMENT WITH CURBING
- PROPOSED TREE LINE
- PROPOSED WOODEN STOCKADE FENCE
- CCB CAPE CODE BERM
- R20' PAVEMENT RADIUS (20')
- PROPOSED STANDARD PARKING SPACES (9' x 18')
- PROPOSED ACCESSIBLE PARKING SPACES (8' x 18') WITH 8' x 18' ACCESS ISLE
- PROPOSED PAVEMENT
- PROPOSED CONCRETE



FILE NO. 154
PLAN NO. C-2965
DWC. NO. 18020\SP-5
F.B. NO.

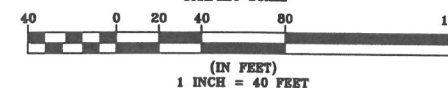
31 Mooney Street, Alton, N.H. 603-875-3948

NORWAY PLAINS ASSOCIATES, INC.

SITE LAYOUT PLAN
TAX MAP 222, LOT 16
109 CHESTNUT HILL ROAD
ROCHESTER, NH
PREPARED FOR:
NANTUCKET BEADBOARD

FINAL APPROVAL BY
ROCHESTER PLANNING BOARD

CERTIFIED BY: _____ DATE: _____



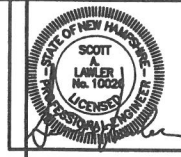
2 Continental Blvd., Rochester, N.H. 603-335-3948

C-2

LAND SURVEYORS



CIVIL ENGINEERS

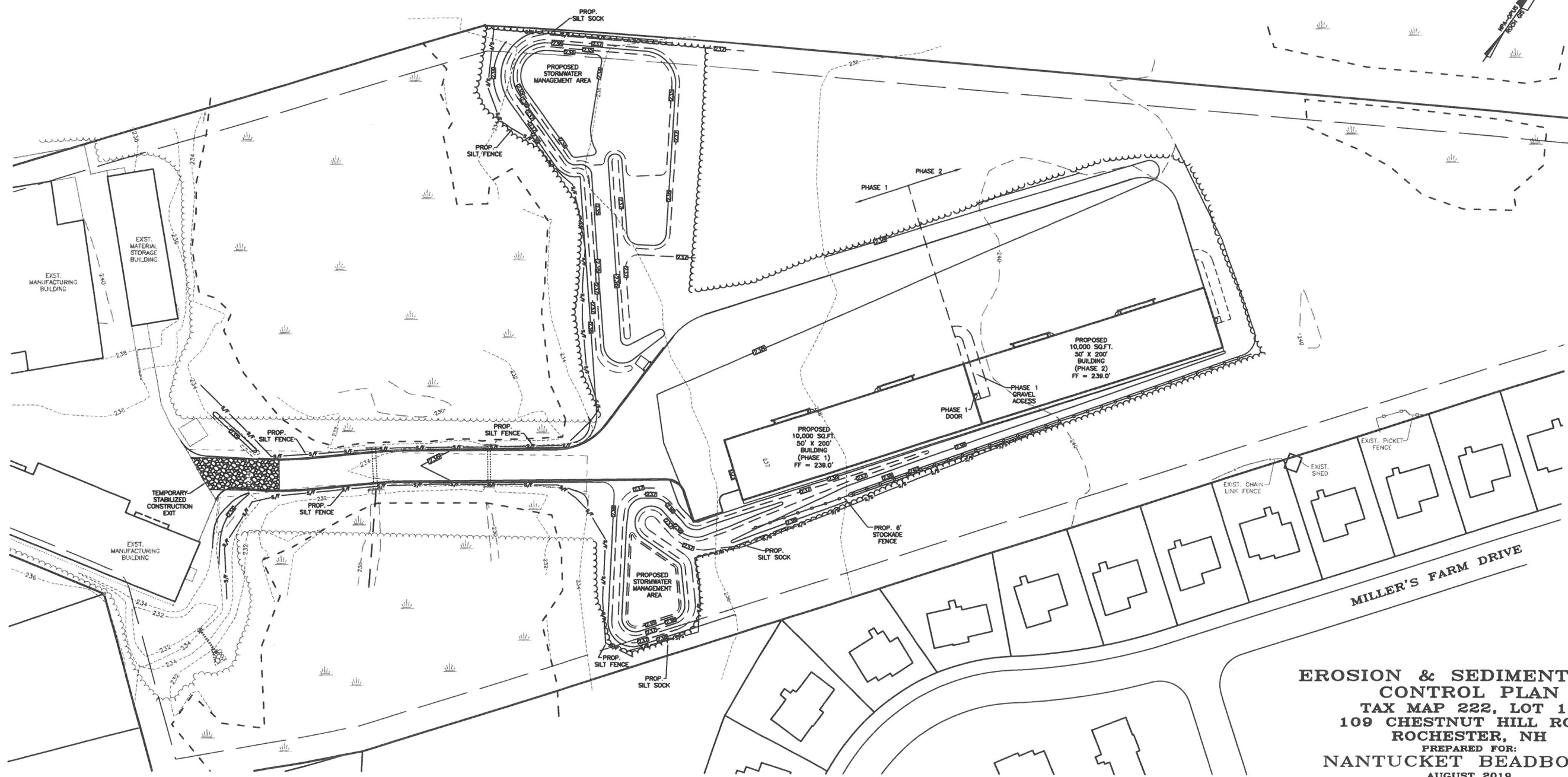


06/24/19 - SHIFT DEVELOPMENT 75 FEET FROM PROPERTY LINE
07/12/19 - SHIFT DEVELOPMENT 100 FEET FROM PROPERTY LINE
08/07/19 - ADD PHASE 2 BUILDING AND ASSOCIATED IMPROVEMENTS

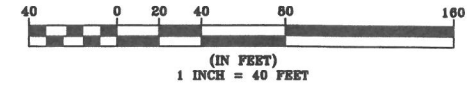


CAREFULLY REVIEW ALL SHEETS OF THIS PACKAGE TO INSURE PROPER CONSTRUCTION. SPECIFIC SITE CONDITIONS SHOULD BE EXPLORED PRIOR TO CONSTRUCTION. CONTACT BOTH THE DESIGN ENGINEER AND THE PROJECT OWNER FOR ANY AVAILABLE GEOTECHNICAL OR HYDROGEOLOGICAL INFORMATION AVAILABLE BUT NOT CONTAINED WITHIN THE PLAN SET. IF THERE ARE ANY QUESTIONS WITH THE DESIGN PRESENTED IN THIS PLAN SET PLEASE CONTACT THE ENGINEERING STAFF AT NORWAY PLAINS ASSOCIATES, INC. (603)-335-3948.

- LEGEND**
- PROPERTY LINE
 - JURISDICTIONAL WETLANDS
 - EXISTING TREE LINE
 - EXISTING DRAIN LINE
 - PROPOSED TREE LINE
 - PROPOSED SILT SOCK
 - PROPOSED SILT FENCE



**EROSION & SEDIMENTATION
CONTROL PLAN**
TAX MAP 222, LOT 16
109 CHESTNUT HILL ROAD
ROCHESTER, NH
PREPARED FOR:
NANTUCKET BEADBOARD
AUGUST 2019
GRAPHIC SCALE



FILE NO. 154
PLAN NO. C-2965
DWG. NO. 18020/SP-5
F.B. NO.

31 Mooney Street, Alton, N.H. 603-875-3948

NORWAY PLAINS ASSOCIATES, INC.

2 Continental Blvd., Rochester, N.H. 603-335-3948

C-4

LAND SURVEYORS



CIVIL ENGINEERS

LEGEND

—	PROPERTY LINE	—PW—	PROPOSED WATER SERVICE
- - -	JURISDICTIONAL WETLANDS	—PS—	PROPOSED SEWER LINE
—OW—	EXISTING OVERHEAD WIRES	—PFM—	PROPOSED SEWER FORCE MAIN PIPE HOPE SDR 11
—W—	EXISTING WATER MAIN	—PUG—	PROPOSED UNDERGROUND ELECTRIC WIRES
—S—	EXISTING GRAVITY SEWER MAIN	—PG—	PROPOSED NATURAL GAS LINE
—FM—	EXISTING SEWER FORCE MAIN	—	PROPOSED HYDRANT
—UG—	EXISTING UNDERGROUND ELECTRIC WIRES	—	PROPOSED WATER VALVE
—UGU—	EXISTING UNDERGROUND UTILITY WIRES	—	PROPOSED WATER SHUT-OFF VALVE
—G—	EXISTING GAS PIPE	—	PROPOSED SEWER MANHOLE
—	EXISTING DRAIN LINE	—	PROPOSED BUILDING LIGHT FIXTURES
—	EXISTING WATER GATE OR SHUT-OFF VALVE		
—	EXISTING UTILITY POLE		
—	EXISTING SEWER MANHOLE		

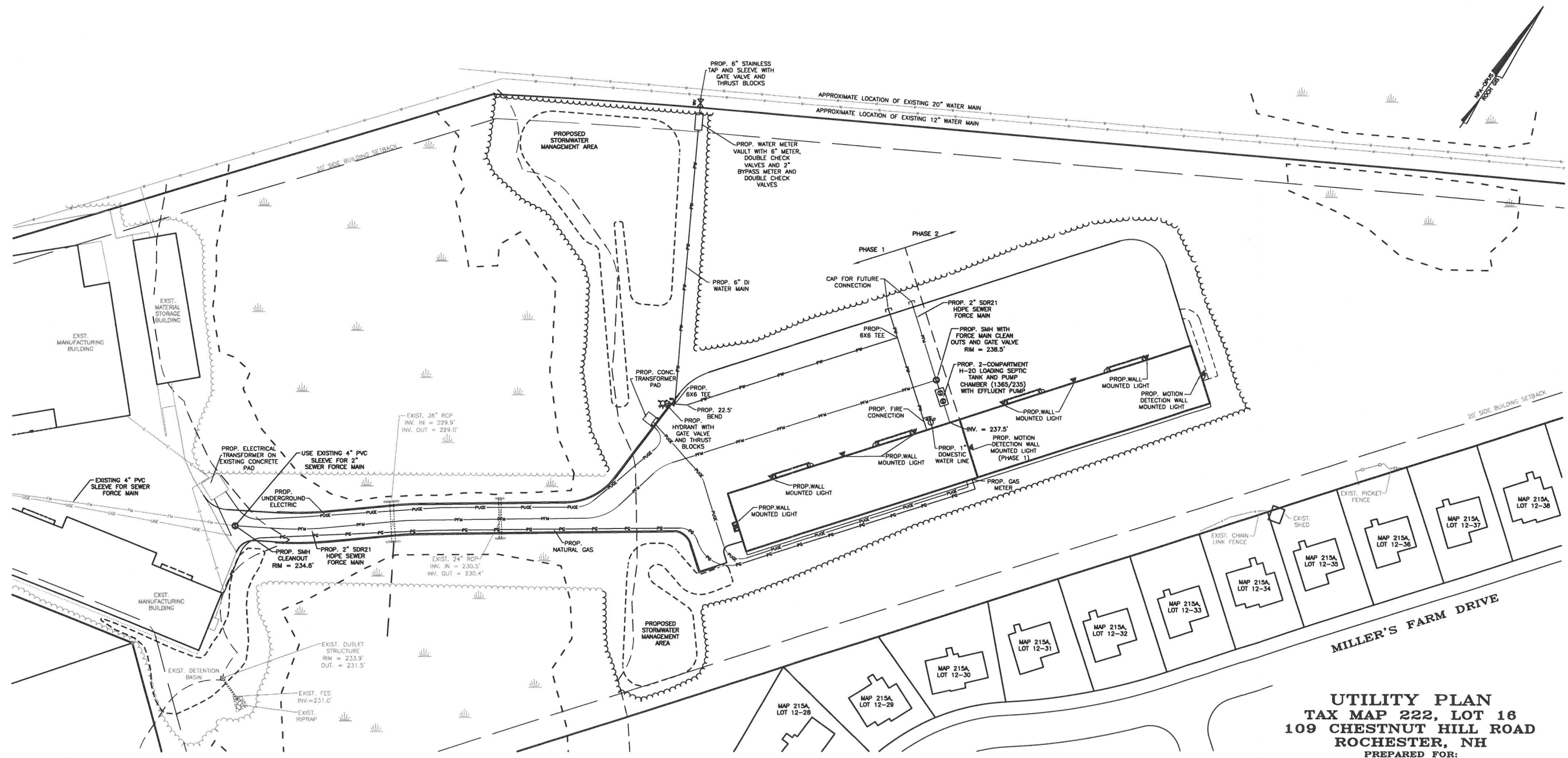
CAREFULLY REVIEW ALL SHEETS OF THIS PACKAGE TO INSURE PROPER CONSTRUCTION. SPECIFIC SITE CONDITIONS SHOULD BE EXPLORED PRIOR TO CONSTRUCTION. CONTACT BOTH THE DESIGN ENGINEER AND THE PROJECT OWNER FOR ANY AVAILABLE GEOTECHNICAL OR HYDROGEOLOGICAL INFORMATION AVAILABLE BUT NOT CONTAINED WITHIN THE PLAN SET. IF THERE ARE ANY QUESTIONS WITH THE DESIGN PRESENTED IN THIS PLAN SET PLEASE CONTACT THE ENGINEERING STAFF AT NORWAY PLAINS ASSOCIATES, INC. (603)-335-3948.

NOTES:

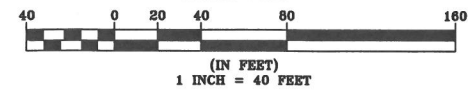
- CONSTRUCTION WILL CONFORM TO THE FOLLOWING UTILITIES STANDARDS AND SPECIFICATION:
 - SANITARY SEWER DISPOSAL - CITY OF ROCHESTER
 - ELECTRIC DISTRIBUTION - EVERSOURCE
 - TELEPHONE - FAIRPOINT
 - CABLE - CONSOLIDATED COMMUNICATIONS
 - WATER - CITY OF ROCHESTER
- ALL PROPOSED ON-SITE UTILITIES SHALL BE INSTALLED UNDERGROUND.



06/21/19 - ADD 20" WATER MAIN.
06/24/19 - SHIFT DEVELOPMENT 75 FEET FROM PROPERTY LINE.
07/12/19 - SHIFT DEVELOPMENT 100 FEET FROM PROPERTY LINE.
08/07/19 - ADD PHASE 2 BUILDING AND ASSOCIATED PAVEMENT; REVISE UTILITY LOCATIONS.



UTILITY PLAN
TAX MAP 222, LOT 16
109 CHESTNUT HILL ROAD
ROCHESTER, NH
PREPARED FOR:
NANTUCKET BEADBOARD
AUGUST 2019
GRAPHIC SCALE



FILE NO. 154
PLAN NO. C-2965
DWG. NO. 18020/SP-5
F.B. NO.

31 Mooney Street, Alton, N.H. 603-875-3948

NORWAY PLAINS ASSOCIATES, INC.

2 Continental Blvd., Rochester, N.H. 603-335-3948

C-5

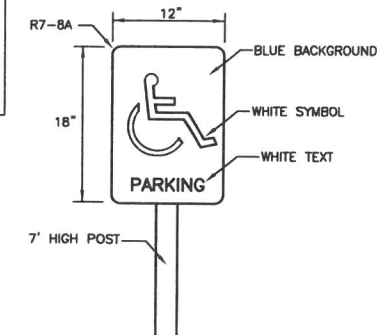


CAREFULLY REVIEW ALL SHEETS OF THIS PACKAGE TO INSURE PROPER CONSTRUCTION. SPECIFIC SITE CONDITIONS SHOULD BE EXPLORED PRIOR TO CONSTRUCTION. CONTACT BOTH THE DESIGN ENGINEER AND THE PROJECT OWNER FOR ANY AVAILABLE GEOTECHNICAL OR HYDROGEOLOGICAL INFORMATION AVAILABLE BUT NOT CONTAINED WITHIN THE PLAN SET. IF THERE ARE ANY QUESTIONS WITH THE DESIGN PRESENTED IN THIS PLAN SET PLEASE CONTACT THE ENGINEERING STAFF AT NORWAY PLAINS ASSOCIATES, INC. (603)-335-3948.

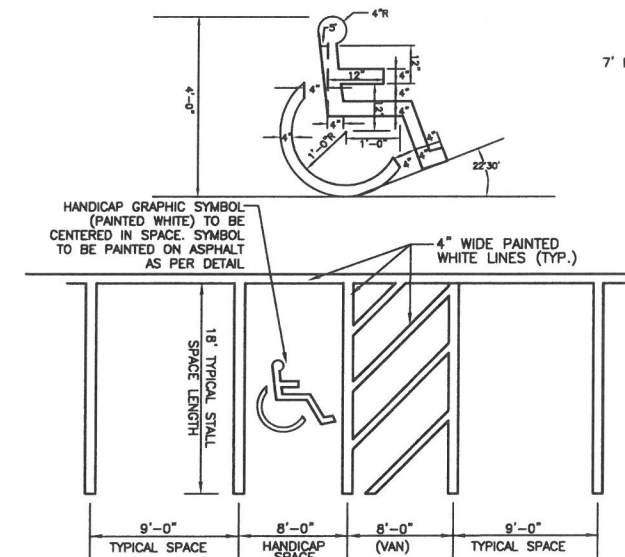


07/12/19 - REMOVE DUMPSTER PAD AND FENCE ENCLOSURE DETAIL

ITEM NO.	SIGN SIZE		TEXT	NO. SIGNS REQ'D
	HEIGHT	WIDTH		
R7-8a	18"	12"		1



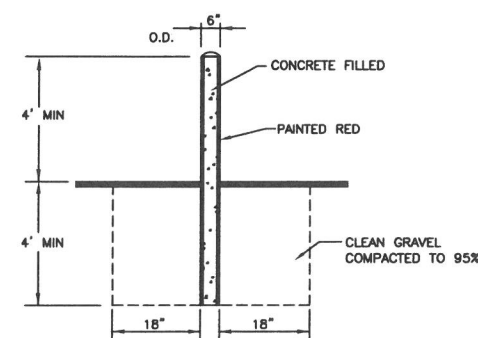
SIGN DETAIL
NOT TO SCALE



STALL STRIPING DETAIL
NOT TO SCALE

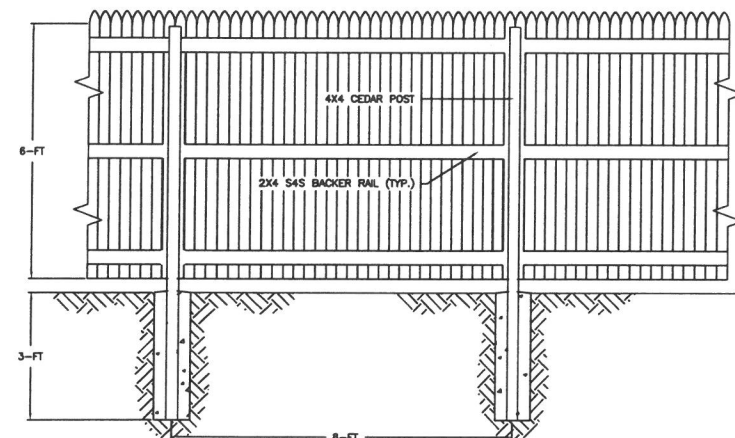
CONSTRUCTION SEQUENCE

- CUT ALL TREES AND REMOVE ALL STUMPS.
- CONSTRUCT SILT FENCE AND INSTALL SILT SOCKS AS SHOWN. MAINTAIN THE FENCE AND SILT SOCKS AS CONSTRUCTION PROGRESSES AND UNTIL ALL DISTURBED AREAS ARE STABLE.
- CONSTRUCT THE TREATMENT SWALE AND INFILTRATION BASINS AS SHOWN ON THE PLAN. LOAM, SEED, AND MULCH IMMEDIATELY AFTER CONSTRUCTION.
- THE TREATMENT SWALE AND INFILTRATION BASINS MUST BE STABILIZED BEFORE DIRECTING RUNOFF TO THEM. EROSION CONTROL BLANKETS (CUREX EXCELSIOR BY AMERICAN EXCELSIOR COMPANY, OR EQUAL) SHALL BE USED WHERE SOO IS NOT PLACED AND VEGETATION IS NOT ESTABLISHED.
- REMOVE THE LOAM AND VEGETATION FROM THE BUILDING, PARKING LOT AND BACKSLOPE AREAS. THE LOAM WILL NEED TO BE STORED FOR USE LATER IN STABILIZING THE SWALES AND SIDESLOPES. THE LOAM PILE SHALL BE SEED FOR TEMPORARY PROTECTION SHOULD IT REMAIN INACTIVE FOR MORE THAN 30 DAYS.
- CUT THE PARKING LOT, BACKSLOPE AREAS, AND BUILDING AREAS TO SUB-GRADE.
- ALL CUT AND FILL SLOPES SHALL BE SEED AND MULCHED OR COVERED WITH AN EROSION CONTROL BLANKET IMMEDIATELY AFTER THEIR CONSTRUCTION.
- CONSTRUCT THE CLOSED DRAINAGE SYSTEM AS SHOWN ON THE PLAN.
- INSTALL ALL UNDERGROUND UTILITIES AS DEPICTED ON THE UTILITY PLAN.
- INSTALL THE GRAVEL BASE IN ALL AREAS TO BE PAVED.
- INSTALL ALL NEW PAVEMENT.
- ALL DISTURBED AREAS EXCLUDING BUILDINGS AND PARKING SHALL BE STABILIZED AS SOON AS POSSIBLE, BUT IN NO CASE SHALL BE LEFT UNSTABILIZED FOR MORE THAN 30 DAYS. BUILDINGS, PARKING LOTS, AND DRIVEWAYS SHALL BE CONSTRUCTED AS PRACTICABLE, BUT IN NO CASE SHALL BE LEFT UNPROTECTED OVER THE WINTER MONTHS.
- REMOVE TEMPORARY EROSION CONTROL (SILT FENCES AND SILT SOCKS) TO ELIMINATE FLOW IMPEDIMENTS ONCE SEEDING IS FIRMLY ESTABLISHED.



STEEL BOLLARD DETAIL
NOT TO SCALE

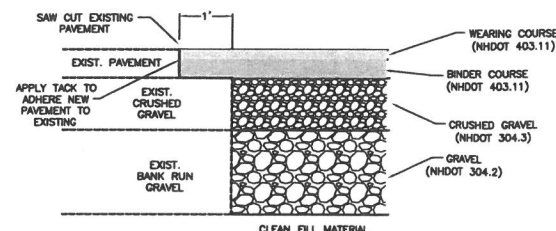
CONSTRUCTION DETAILS
TAX MAP 222, LOT 16
109 CHESTNUT HILL ROAD
ROCHESTER, NH
PREPARED FOR:
NANTUCKET BEADBOARD
AUGUST 2019



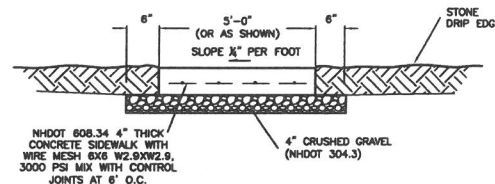
FENCE SPECIFICATIONS

- FENCE POSTS SHALL BE 4"x4" CEDAR.
- STOCKADE PANELS SHALL BE 6'-FT X 8'-FT #1 NORTHERN WHITE CEDAR.
-PICKETS SHALL BE 1"x3"x8'-FT NORTHERN WHITE CEDAR.
- BACKER RAILS SHALL BE 2"x4"x8'-FT S4S SQUARE END.
- GOOD SIDE OF FENCE FACING OUT.

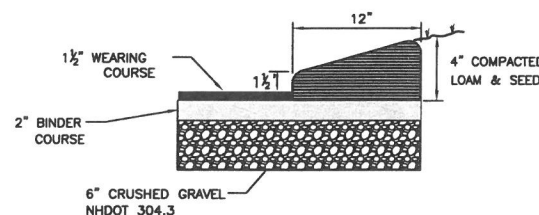
TYPICAL WOODEN STOCKADE DETAIL
SCALE: 1/2"=1'



TYPICAL PAVEMENT MATCHING DETAIL
NOT TO SCALE



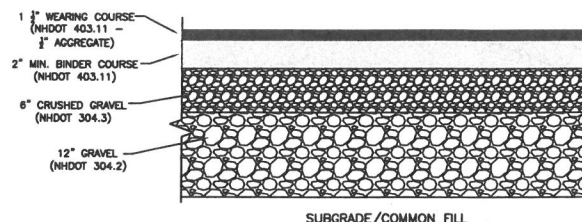
CONCRETE SIDEWALK DETAIL
NOT TO SCALE



BITUMINOUS CAPE COD BERM DETAIL
NOT TO SCALE

NOTES:

- BITUMINOUS CAPE COD BERM SHALL BE INSTALLED ON TOP OF BINDER COURSE.



PARKING LOT CROSS-SECTIONS
NOT TO SCALE

PAVEMENT NOTES:

- PLACE COMMON FILL IN 12 INCH LIFTS. COMPACT COMMON FILL TO 95% MAXIMUM PROCTOR DENSITY.
- PLACE GRAVEL IN MAXIMUM 8 INCH LIFTS. COMPACT TO 95% MAXIMUM PROCTOR DENSITY.
- PLACE CRUSHED GRAVEL IN MAXIMUM 8 INCH LIFTS. COMPACT TO 95% MAXIMUM PROCTOR DENSITY.
- PAVEMENT MUST BE INSTALLED IN TWO COURSES, A BINDER COURSE AND A WEARING COURSE.

FILE NO. 154
PLAN NO. C-2965
DWG. NO. 18020\SP-5
F.B. NO.

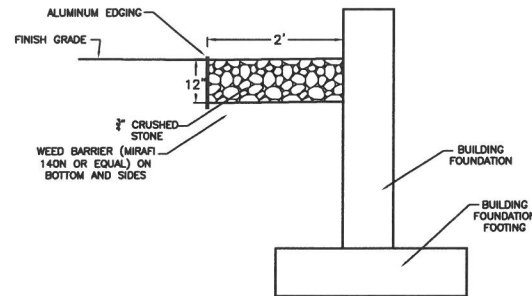
31 Mooney Street, Alton, N.H. 603-875-3948



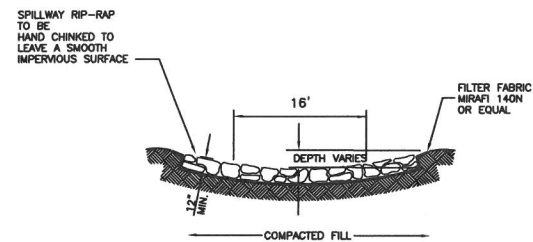
CAREFULLY REVIEW ALL SHEETS OF THIS PACKAGE TO INSURE PROPER CONSTRUCTION. SPECIFIC SITE CONDITIONS SHOULD BE EXPLORED PRIOR TO CONSTRUCTION. CONTACT BOTH THE DESIGN ENGINEER AND THE PROJECT OWNER FOR ANY AVAILABLE GEOTECHNICAL OR HYDROGEOLOGICAL INFORMATION AVAILABLE BUT NOT CONTAINED WITHIN THE PLAN SET. IF THERE ARE ANY QUESTIONS WITH THE DESIGN PRESENTED IN THIS PLAN SET PLEASE CONTACT THE ENGINEERING STAFF AT NORWAY PLAINS ASSOCIATES, INC. (603)-335-3948.



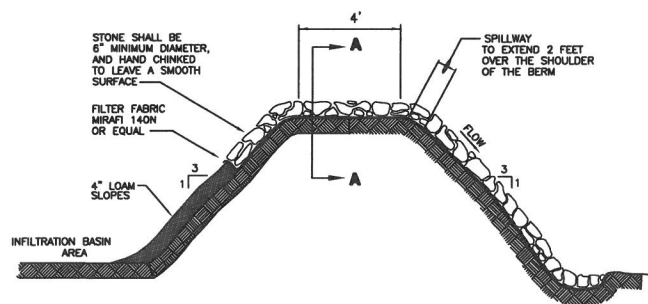
06/21/19 - REVISE OUTLET STRUCTURE NOTES
06/24/19 - ADD CROSS-SECTIONS OF BOTH INFILTRATION BASINS
08/07/19 - ADD DITCH TURNOUT DETAIL



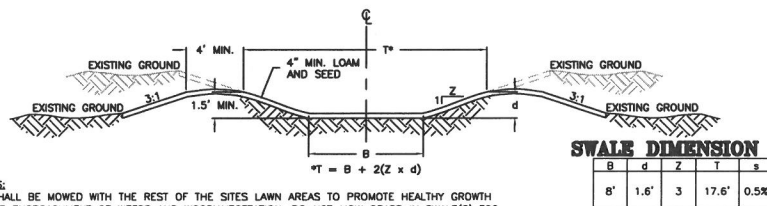
DRIP EDGE DETAIL
NOT TO SCALE



SECTION "A"

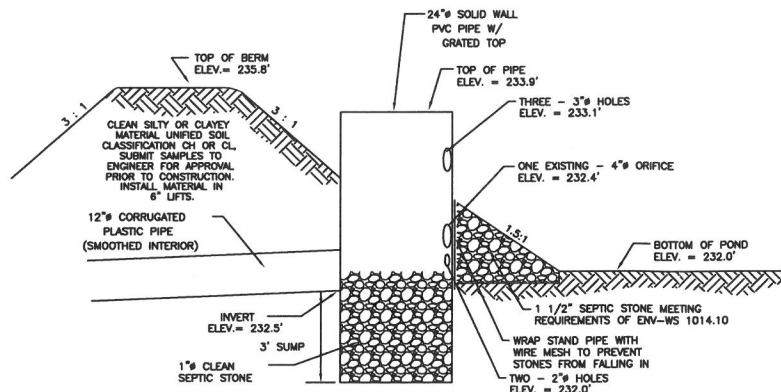


SPILLWAY DETAIL



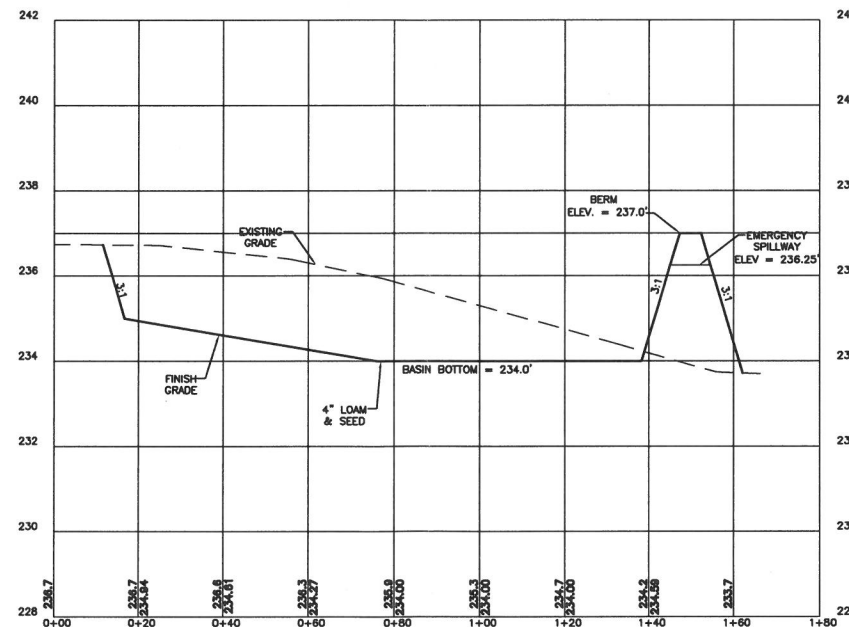
MAINTENANCE NOTES:
1. THE SWALE(S) SHALL BE MOWED WITH THE REST OF THE SITE'S LAWN AREAS TO PROMOTE HEALTHY GROWTH AND PREVENT THE ENCROACHMENT OF WEEDS AND WOODY VEGETATION. DO NOT MOW GRASS IN SWALE(S) TOO SHORT. THIS WILL REDUCE THE SWALES FILTERING ABILITY.
2. THE SWALE(S) SHOULD BE FERTILIZED ON AN AS NECESSARY BASIS, TO KEEP THE GRASS HEALTHY. OVER FERTILIZATION COULD RESULT IN THE SWALE(S) BECOMING A SOURCE OF POLLUTION TO THE SURROUNDING WETLAND AREAS.
3. THE SWALE(S) SHOULD BE INSPECTED PERIODICALLY AND AFTER EVERY MAJOR STORM. RILLS AND DAMAGED AREAS SHOULD BE PROMPTLY REPAIRED AND RE-VEGETATED AS NECESSARY TO PREVENT FURTHER DETERIORATION.

VEGETATED TREATMENT SWALE DETAIL
NOT TO SCALE

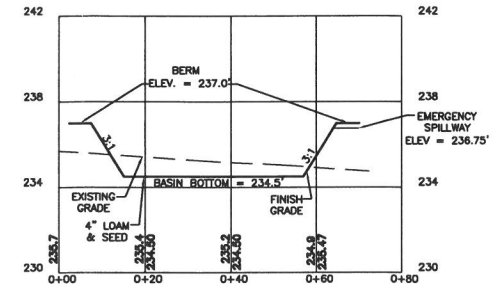


DETENTION POND OUTLET CONTROL STRUCTURE
NOT TO SCALE

NOTES:
1. EXISTING OUTLET STRUCTURE TO BE MODIFIED.
2. TWO NEW 2" ORIFICES SHALL BE DRILLED AT ELEVATION 232.0'.
3. THREE NEW 3" ORIFICES SHALL BE DRILLED AT ELEVATION 233.1'.



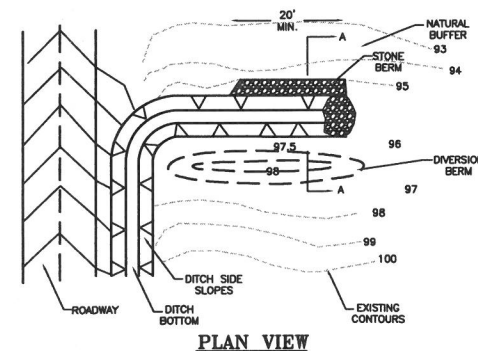
INFILTRATION BASIN 2 CROSS SECTION B-B
1" = 20' (HORIZ.) & 1" = 2' (VERT.)



INFILTRATION BASIN 1 CROSS SECTION A-A
1" = 20' (HORIZ.) & 1" = 2' (VERT.)

INFILTRATION BASIN:

- SPECIFICATIONS:**
- DO NOT DISCHARGE SEDIMENT-LADEN WATERS FROM CONSTRUCTION ACTIVITIES (RUNOFF, WATER FROM EXCAVATIONS) TO THE INFILTRATION BASIN.
 - DO NOT TRAFFIC EXPOSED SOIL SURFACE WITH CONSTRUCTION EQUIPMENT. IF FEASIBLE, PERFORM EXCAVATIONS WITH EQUIPMENT POSITIONED OUTSIDE THE LIMITS OF THE INFILTRATION BASIN.
 - AFTER THE BASIN IS EXCAVATED TO THE FINAL DESIGN ELEVATION, THE FLOOR SHALL BE DEEPLY TILLED WITH A ROTARY TILLER OR DISC HARROW TO RESTORE INFILTRATION RATES, FOLLOWED BY A PASS WITH A LEVELING DRAG.
 - VEGETATION SHALL BE ESTABLISHED IMMEDIATELY AFTER FINAL GRADING IS COMPLETED.
 - CONSTRUCT THE INFILTRATION BASIN TO THE GRADES DEPICTED ON THE PLAN AND CROSS-SECTION.
 - LOAM AND SEED ONLY THE SLOPES OF THE INFILTRATION BASIN AS PRESCRIBED IN THE "PERMANENT VEGETATION" NOTES FOUND ON SHEET C-8. SEED MIXTURE = A.
 - DO NOT PLACE INFILTRATION SYSTEMS INTO SERVICE UNTIL THE CONTRIBUTING AREAS HAVE BEEN FULLY STABILIZED.
- MAINTENANCE REQUIREMENTS:**
- INSPECT PRETREATMENT MEASURES (I.E. SEDIMENT FOREBAY(S), HOODED CATCH BASINS, ETC.) AT LEAST TWICE A YEAR AND AFTER EVERY STORM GREATER THAN 2.5 INCHES OF RAIN OVER A 24-HOUR PERIOD.
 - INSPECT INFILTRATION SURFACE BI-ANNUALLY, ONCE IN THE SPRING PRIOR TO MAY 15 AND ONCE IN THE FALL PRIOR TO OCTOBER 15.
 - INSPECT INFILTRATION SURFACE AFTER ANY RAINFALL EVENT OF 2.5-INCHES OR GREATER IN A 24-HOUR PERIOD.
 - REMOVE AND DISPOSE OF ACCUMULATED SEDIMENT BASED ON INSPECTION. REPAIR AREA OF REMOVAL AS NECESSARY TO RESTORE INFILTRATION CAPACITY.
 - PERFORM MAINTENANCE AND REHABILITATION BASED ON INSPECTIONS.
 - REMOVE DEBRIS (IF ANY) FROM INFILTRATION BASIN INLET BASED ON INSPECTION.
 - CONDUCT PERIODIC MOWING OF THE INFILTRATION BASIN SLOPES AND EMBANKMENTS (MINIMUM TWICE A YEAR) TO ELIMINATE WOODY GROWTH FROM THE EMBANKMENTS AND BOTTOM. MOWING THE INFILTRATION BASIN EMBANKMENTS WHEN MOWING THE REST OF THE SITE IS RECOMMENDED.
 - IF THE INFILTRATION SYSTEM DOES NOT DRAIN WITHIN 72-HOURS FOLLOWING A RAINFALL EVENT, THEN A QUALIFIED PROFESSIONAL (I.E. PROFESSIONAL ENGINEER, CERTIFIED SOILS SCIENTIST, ETC.) SHALL ASSESS THE CONDITION OF THE FACILITY TO DETERMINE MEASURES REQUIRED TO RESTORE INFILTRATION FUNCTION, INCLUDING BUT NOT LIMITED TO REMOVAL OF ACCUMULATED SEDIMENTS OR RECONSTRUCTION OF THE INFILTRATION SURFACE.



SECTION AA

DITCH TURN-OUT DETAIL
NOT TO SCALE

DRAINAGE DETAILS
TAX MAP 222, LOT 16
109 CHESTNUT HILL ROAD
ROCHESTER, NH
PREPARED FOR:
NANTUCKET BEADBOARD
AUGUST 2019

FILE NO. 154
PLAN NO. C-2965
DWC. NO. 18020\SP-5
F.B. NO.

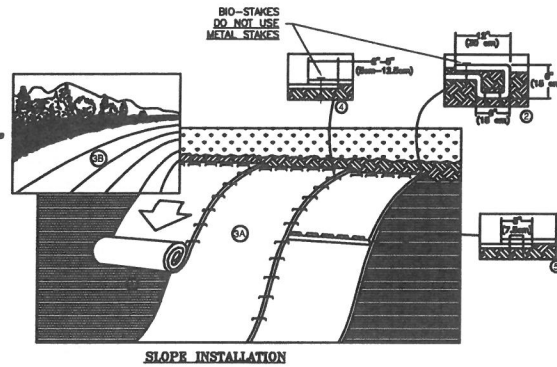


CAREFULLY REVIEW ALL SHEETS OF THIS PACKAGE TO INSURE PROPER CONSTRUCTION. SPECIFIC SITE CONDITIONS SHOULD BE EXPLORED PRIOR TO CONSTRUCTION. CONTACT BOTH THE DESIGN ENGINEER AND THE PROJECT OWNER FOR ANY AVAILABLE GEOTECHNICAL OR HYDROGEOLOGICAL INFORMATION AVAILABLE BUT NOT CONTAINED WITHIN THE PLAN SET. IF THERE ARE ANY QUESTIONS WITH THE DESIGN PRESENTED IN THIS PLAN SET PLEASE CONTACT THE ENGINEERING STAFF AT NORWAY PLAINS ASSOCIATES, INC. (603)-335-3948.

TEMPORARY VEGETATION:

- SPECIFICATIONS:**
1. INSTALL NEEDED EROSION AND SEDIMENT CONTROL MEASURES SUCH AS SILTATION BARRIERS, DIVERSIONS, AND SEDIMENT TRAPS.
 2. GRADE AS NEEDED FOR THE ACCESS OF EQUIPMENT FOR SEEDBED PREPARATION, SEEDING, MULCH APPLICATION, AND MULCH ANCHORING.
 3. RUNOFF SHALL BE DIVERTED FROM THE SEEDBED AREA.
 4. ON SLOPES 4:1 OR STEEPER, THE TRENCH PREPARATION SHALL INCLUDE CREATING HORIZONTAL GROOVES PERPENDICULAR TO THE DIRECTION OF THE SLOPE TO CATCH SEED AND REDUCE RUNOFF.
- SEEDBED PREPARATION:**
1. STONES AND TRASH SHALL BE REMOVED SO AS NOT TO INTERFERE WITH THE SEEDING AREA.
 2. WHERE THE SOIL HAS BEEN COMPACTED BY CONSTRUCTION OPERATIONS, LOOSEN SOIL TO A DEPTH OF 2 INCHES BEFORE APPLYING FERTILIZER, LIME AND SEED.
 3. IF APPLICABLE, FERTILIZER AND ORGANIC SOIL AMENDMENTS SHALL BE APPLIED DURING THE GROWING SEASON.
 4. APPLY LIMESTONE AND FERTILIZER ACCORDING TO SOIL TEST RECOMMENDATIONS. FERTILIZER SHALL BE RESTRICTED TO LIME, WOOD ASH OR LOW PHOSPHATE AND SLOW RELEASE NITROGEN VARIETIES, UNLESS A SOIL TEST WARRANTS OTHERWISE. IF SOIL TESTING IS NOT FEASIBLE ON SMALL OR VARIABLE SITES, OR WHERE TILING IS CRITICAL, FERTILIZER AND LIMESTONE MAY BE APPLIED AT THE FOLLOWING RATES:
- LIMESTONE APPLICATION RATE = 3 TONS/ACRE (138 LB./1,000-SF)
 *EQUVALENT TO 50% CALCIUM PLUS MAGNESIUM OXIDE
- FERTILIZER APPLICATION RATE = 870 LB./ACRE (20 LB./1,000-SF)
 *LOW PHOSPHATE FERTILIZER (6-0-4) OR EQUIVALENT
- SEEDING:**
1. APPLY SEED UNIFORMLY BY HAND, CYCLONE SEEDER, DRILL, CULTPACKER TYPE SEEDER OR HYDRO SEEDER (SLURRY INCLUDING SEED AND FERTILIZER). NORMAL SEEDING DEPTH IS FROM 1/4 TO 1/2 INCH. HYDROSEEDING THAT INCLUDES MULCH MAY BE LEFT ON SOIL SURFACE. SEEDING RATES MUST BE INCREASED BY 10% WHEN HYDROSEEDING.
 2. TEMPORARY SEEDING SHALL TYPICALLY OCCUR PRIOR TO SEPTEMBER 15.
 3. AREAS SEEDING BETWEEN MAY 15 AND AUGUST 15 SHALL BE COVERED WITH HAY OR STRAW MULCH, ACCORDING TO THE "TEMPORARY AND PERMANENT MULCHING" PRACTICE DESCRIBED IN THE NHSSM, VOL. 3.
 4. VEGETATED GROWTH COVERING AT LEAST 85% OF THE DISTURBED AREA SHALL BE ACHIEVED PRIOR TO OCTOBER 15. IF THIS CONDITION IS NOT ACHIEVED, IMPLEMENT OTHER TEMPORARY STABILIZATION MEASURES FOR OVER WINTER PROTECTION.
- MAINTENANCE REQUIREMENTS:**
1. TEMPORARY SEEDING SHALL BE INSPECTED WEEKLY AFTER ANY RAINFALL EXCEEDING 1/2 INCH IN 24 HOURS ON ACTIVE CONSTRUCTION SITES. TEMPORARY SEEDING SHALL BE INSPECTED JUST PRIOR TO SEPTEMBER 15, TO ASCERTAIN WHETHER ADDITIONAL SEEDING IS REQUIRED TO PROVIDE STABILIZATION OVER THE WINTER PERIOD.
 2. BASED ON INSPECTION, AREAS SHALL BE RESEEDING TO ACHIEVE FULL STABILIZATION OF EXPOSED SOILS. IF IT IS TOO LATE IN THE PLANTING SEASON TO APPLY ADDITIONAL SEED, THEN OTHER TEMPORARY STABILIZATION MEASURES SHALL BE IMPLEMENTED.
 3. IF ANY EVIDENCE OF EROSION OR SEDIMENTATION IS APPARENT, REPAIRS SHALL BE MADE AND AREAS SHALL BE RESEEDING, WITH OTHER TEMPORARY MEASURES (I.E. MULCH, ETC.) USED TO PROVIDE EROSION PROTECTION DURING THE PERIOD OF VEGETATION ESTABLISHMENT.

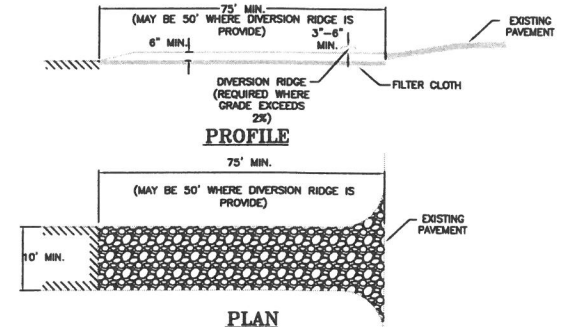
NORTH AMERICAN GREEN
 EROSION CONTROL PRODUCTS
 Groundwater SOLUTIONS
 14000 HIGHWAY 41 NORTH
 EVANVILLE, IN 47720
 800-772-2040
 www.nagreen.com



- MAINTENANCE REQUIREMENTS:**
1. ALL BLANKET AND MATS SHALL BE INSPECTED WEEKLY DURING THE CONSTRUCTION PERIOD, AND AFTER ANY RAINFALL EVENT EXCEEDING 1/2 INCH IN A 24-HOUR PERIOD.
 2. ANY FAILURE SHALL BE REPAIRED IMMEDIATELY. IF WASHOUT OF THE SLOPE, DISPLACEMENT OF THE MAT, OR DAMAGE TO THE MAT OCCURS, THE AFFECTED SLOPE SHALL BE REPAIRED AND RESEEDING, AND THE AFFECTED AREA OF MAT SHALL BE RE-INSTALLED.
- CONSTRUCTION SPECIFICATIONS:**
1. MANUFACTURER'S INSTALLATION INSTRUCTIONS:
 - A. PREPARE SOIL BEFORE INSTALLING ROLLED EROSION CONTROL PRODUCTS (RECP's), INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED. NOTE: WHEN USING CELL-O-SEED DO NOT SEED PREPARED AREA. CELL-O-SEED MUST BE INSTALLED WITH PAPER SIDE DOWN.
 - B. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE RECP's IN A 6" (15 CM) DEEP X 6" (15 CM) WIDE TRENCH WITH APPROXIMATELY 12" (30cm) OF RECP's EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE RECP's WITH A ROW OF BIO-STAKES APPROXIMATELY 12" (30 CM) APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" (30 CM) PORTION OF RECP's BACK OVER SEED AND COMPACTED SOIL. SECURE RECP's OVER COMPACTED SOIL WITH A ROW OF BIO-STAKES SPACED APPROXIMATELY 12" (30 CM) APART ACROSS THE WIDTH OF THE RECP's.
 - C. ROLL THE RECP's (A) DOWN OR (B) HORIZONTALLY ACROSS THE SLOPE. RECP's WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL RECP's MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING BIO-STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE. WHEN USING THE DOT SYSTEM, BIO-STAKES SHALL BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN. THE EDGES OF PARALLEL RECP's MUST BE STAPLED WITH APPROXIMATELY 2" - 5" (5 CM - 12.5 CM) OVERLAP DEPENDING ON RECP's TYPE.
 - D. CONSECUTIVE RECP's SPUNCHED DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE) WITH AN APPROXIMATE 3" (7.5 CM) OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" (30 CM) APART ACROSS ENTIRE RECP's WIDTH. NOTE: IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" (15 CM) MAY BE NECESSARY TO PROPERLY SECURE THE RECP's.
 2. SITE PREPARATION:
 - A. PROPER SITE PREPARATION IS ESSENTIAL TO ENSURE COMPLETE CONTACT OF THE PROTECTION MATTING WITH THE SOIL.
 - B. GRADE AND SHAPE AREA IF INSTALLATION.
 - C. REMOVE ALL ROCKS, CLODS, TRASH, VEGETATIVE OR OTHER OBSTRUCTIONS SO THAT THE INSTALLED BLANKETS WILL HAVE DIRECT CONTACT WITH THE SOIL.
 - D. PREPARE SEEDBED BY LOOSENING 2-3 INCHES OF TOPSOIL ABOVE FINAL GRADE.
 - E. INCORPORATE AMENDMENTS, SUCH AS LIME AND FERTILIZER, INTO SOIL ACCORDING TO SOIL TEST AND THE SEEDING PLAN.
 3. SEEDING:
 - A. SEED AREA BEFORE BLANKET INSTALLATION FOR EROSION CONTROL AND REVEGETATION. SEEDING AFTER MAT INSTALLATION IS OFTEN SPECIFIED FOR TURF REINFORCEMENT APPLICATIONS. WHEN SEEDING PRIOR TO BLANKET INSTALLATION, ALL CHECK SLOTS AND OTHER AREAS DISTURBED DURING INSTALLATION MUST BE RESEEDING.
 - B. WHEN SOIL FILLING IS SPECIFIED, SEED THE MATTING AND THE ENTIRE DISTURBED AREA AFTER INSTALLATION AND PRIOR TO FILLING THE MAT WITH SOIL.

TEMPORARY EROSION CONTROL BLANKET DETAIL

NOT TO SCALE

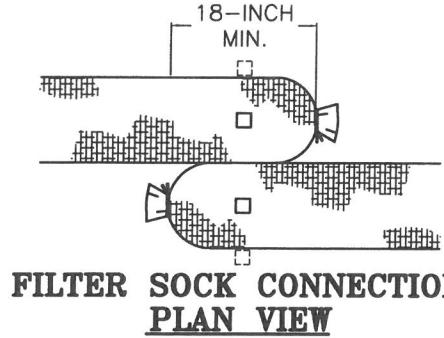


TEMPORARY CONSTRUCTION EXIT

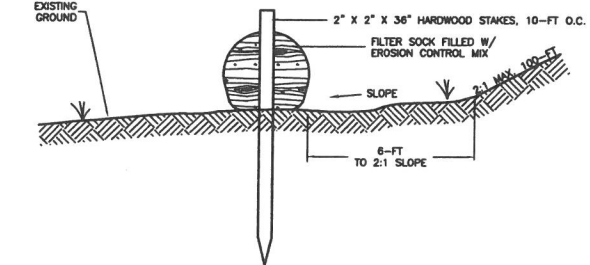
NOT TO SCALE

- MAINTENANCE REQUIREMENTS:**
1. WHEN THE CONTROL PAD BECOMES INEFFECTIVE, THE STONE SHALL BE REMOVED ALONG WITH THE COLLECTED SOIL MATERIAL, REGRADED ON SITE, AND STABILIZED. THE ENTRANCE SHALL THEN BE RECONSTRUCTED.
 2. THE CONTRACTOR SHALL SWEEP THE PAVEMENT AT EXITS WHENEVER SOIL MATERIALS ARE TRACKED ONTO THE ADJACENT PAVEMENT OR TRAVELED WAY.
 3. WHEN WHEEL WASHING IS REQUIRED, IT SHALL BE CONDUCTED ON AN AREA STABILIZED WITH AGGREGATE, WHICH DRAINS INTO AN APPROVED SEDIMENT-TRAPPING DEVICE. ALL SEDIMENT SHALL BE PREVENTED FROM ENTERING STORM DRAINS, DITCHES, OR WATERWAYS.
- CONSTRUCTION SPECIFICATIONS:**
1. THE MINIMUM STONE USED SHALL BE 3-INCH CRUSHED STONE.
 2. THE MINIMUM LENGTH OF THE PAD SHALL BE 75 FEET, EXCEPT THAT THE MINIMUM LENGTH MAY BE REDUCED TO 50 FEET IF A 3-INCH TO 6-INCH BERM IS INSTALLED AT THE ENTRANCE OF THE PROJECT SITE.
 3. THE PAD SHALL BE THE FULL WIDTH OF CONSTRUCTION ACCESS ROAD OR 10 FEET, WHICHEVER IS GREATER.
 4. THE PAD SHALL SLOPE AWAY FROM THE EXISTING ROADWAY.
 5. THE PAD SHALL BE AT LEAST 6 INCHES THICK.
 6. THE GEOTEXTILE FILTER FABRIC SHALL BE PLACED BETWEEN THE STONE PAD AND THE EARTH SURFACE BELOW THE PAD.
 7. THE PAD SHALL BE MAINTAINED OR REPLACED WHEN MUD AND SOIL PARTICLES CLOG THE Voids IN THE STONE SUCH THAT MUD AND SOIL PARTICLES ARE TRACKED OFF-SITE.
 8. NATURAL DRAINAGE THAT CROSSES THE LOCATION OF THE STONE PAD SHALL BE INTERCEPTED AND PIPED BENEATH THE PAD, AS NECESSARY, WITH SUITABLE OUTLET PROTECTION.

TEMPORARY EROSION & SEDIMENTATION CONTROL DETAILS
 TAX MAP 222, LOT 16
 109 CHESTNUT HILL ROAD
 ROCHESTER, NH
 PREPARED FOR:
NANTUCKET BEADBOARD
 AUGUST 2019



FILTER SOCK CROSS-SECTION



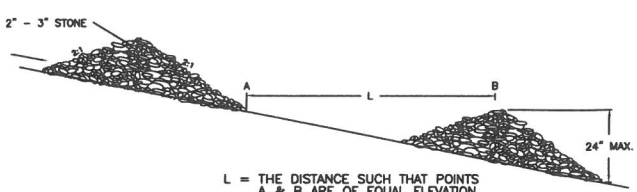
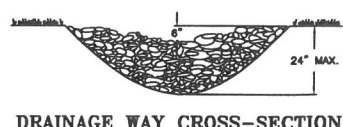
- CONTINUOUS CONTAINED BERM (FILTER SOCK ALTERNATIVE):**
1. AN ALTERNATIVE PRODUCT, THE CONTINUOUS CONTAINED BERM (OR "FILTER SOCK") CAN BE AN EFFECTIVE SEDIMENT BARRIER AS IT ADDS CONTAINMENT AND STABILITY TO A BERM OF EROSION CONTROL MIX.
 2. IN THE EVENT THAT USE OF CONTINUOUS CONTAINED BERM IS DESIRED, THE PRODUCT SELECTED SHOULD BE REVIEWED AND APPROVED BY THE DESIGN ENGINEER.
 3. INSTALLATION OF CONTINUOUS CONTAINED BERMS SHALL BE PERFORMED IN ACCORDANCE WITH THE SPECIFICATIONS OF THE MANUFACTURER.

- MAINTENANCE REQUIREMENTS:**
1. FILTER SOCK MAINTENANCE SHALL FOLLOW THE SAME SCHEDULE AS EROSION CONTROL MIX BERMS.
- CONSTRUCTION SPECIFICATIONS:**
1. COMPOSITION OF THE EROSION CONTROL MIX SHALL EITHER BE THE SAME AS EROSION CONTROL MIX BERM MATERIAL OR AS SPECIFIED BY THE FILTER SOCK MANUFACTURER.
 2. THE BARRIER MUST BE PLACED ALONG A RELATIVELY LEVEL CONTOUR.
 3. IT MAY BE NECESSARY TO CUT TALL GRASSES AND WOODY VEGETATION TO AVOID CREATING VOIDS AND BRIDGES IN THE BARRIER THAT WOULD EMULATE FINES TO WASH UNDER THE BARRIER THROUGH THE GRASS BLADES OR PLANT STEMS.
 4. FILTER SOCK DIAMETER (HEIGHT) SHALL BE PER THE MANUFACTURER RECOMMENDATION FOR THE AREA OF INSTALLATION.

CONTINUOUS CONTAINED BERM "FILTER SOCK" DETAIL

NOT TO SCALE

SLOPE (V/H)	LENGTH (FT)
0.020	75
0.030	50
0.040	37
0.050	30
0.060	19
0.100	15
0.120	13
0.150	10



SILTATION CONTROL FENCE DETAIL

NOT TO SCALE

TEMPORARY VEGETATION SEEDING RECOMMENDATIONS

SPECIES	PER ACRE BUSHELS (BU) OR POUNDS (LBS.)	PER 1,000-SF	REMARKS
WINTER RYE	2.5 BU OR 112 LBS.	2.5 LBS.	BEST FOR FALL SEEDING. SEED FROM AUGUST 15 TO SEPTEMBER 15 FOR BEST COVER. SEED TO A DEPTH OF 1 INCH.
OATS	2.5 BU OR 80 LBS.	2.0 LBS.	BEST FOR SPRING SEEDING. SEED NO LATER THAN MAY 15 FOR SUMMER PROTECTION. SEED TO A DEPTH OF 1 INCH.
ANNUAL RYE GRASS	40 LBS.	1.0 LB.	GROWS QUICKLY, BUT IS OF SHORT DURATION. USE WHERE APPEARANCES ARE IMPORTANT. SEED EARLY SPRING AND/OR BETWEEN AUGUST 15 AND SEPTEMBER 15. COVER THE SEED WITH NO MORE THAN 0.25 INCH OF SOIL.
PERENNIAL RYE GRASS	30 LBS.	0.7 LBS.	BEST FOR FALL SEEDING. SEED FROM AUGUST 15 TO SEPTEMBER 15 FOR BEST COVER. SEED TO A DEPTH OF 1 INCH.

SOURCES:

1. NEW HAMPSHIRE STORMWATER MANAGEMENT MANUAL, VOLUME 3, TABLE 4-1.
2. MINNICK, E.L. AND H.T. MARSHALL, (AUGUST 1992)

STONE CHECK DAM INSTALLATION DETAIL

NOT TO SCALE

FILE NO. 154
 PLAN NO. C-2965
 DWG. NO. 18020/SP-5
 F.B. NO.



PERMANENT VEGETATION:

SPECIFICATIONS:

SITE PREPARATION:

1. INSTALL NEEDED EROSION AND SEDIMENT CONTROL MEASURES SUCH AS SILTATION BARRIERS, DIVERSIONS, AND SEDIMENT TRAPS.
2. GRADE AS NEEDED FOR THE ACCESS OF EQUIPMENT FOR SEEDBED PREPARATION, SEEDING, MULCH APPLICATION, AND MULCH ANCHORING.
3. RUNOFF SHALL BE DIVERTED FROM THE SEEDBED AREA.
4. ON SLOPES 4:1 OR STEEPER, THE FINAL PREPARATION SHALL INCLUDE CREATING HORIZONTAL GROOVES PERPENDICULAR TO THE DIRECTION OF THE SLOPE TO CATCH SEED AND REDUCE RUNOFF.

SEEDBED PREPARATION:

1. WORK LIME AND FERTILIZER INTO THE SOIL AS NEARLY AS PRACTICAL TO A DEPTH OF 4 INCHES WITH A DISC, SPRING TOOTH HARROW OR OTHER SUITABLE EQUIPMENT. THE FINAL HARROWING OPERATION SHALL BE ON THE GENERAL CONTOUR. CONTINUE TILLAGE UNTIL A REASONABLY UNIFORM, FINE SEEDBED IS PREPARED. ALL BUT CLAY AND SILT SOILS SHALL BE ROLLED TO FIRM THE SEEDBED WHEREVER FEASIBLE.
2. REMOVE FROM THE SURFACE ALL STONES 2 INCHES OR LARGER IN ANY DIMENSION. REMOVE ALL OTHER DEBRIS, SUCH AS WIRE, CABLE, TREE ROOTS, CONCRETE CLODS, LUMPS, TRASH OR OTHER UNSUITABLE MATERIAL.
3. INSPECT SEEDBED JUST BEFORE SEEDING. IF TRAFFIC HAS LEFT THE SOIL COMPACTED; THE AREA MUST BE TILLED AND FIRMED AS ABOVE.
4. WHERE THE SOIL HAS BEEN COMPACTED BY CONSTRUCTION OPERATIONS, LOOSEN SOIL TO A DEPTH OF 2 INCHES BEFORE APPLYING FERTILIZER, LIME AND SEED.
5. IF APPLICABLE, FERTILIZER AND ORGANIC SOIL AMENDMENTS SHALL BE APPLIED DURING THE GROWING SEASON.
6. APPLY LIMESTONE AND FERTILIZER ACCORDING TO SOIL TEST RECOMMENDATIONS. FERTILIZER SHALL BE RESTRICTED TO LIME, WOOD ASH OR LOW PHOSPHATE AND SLOW RELEASE NITROGEN VARIETIES, UNLESS A SOIL TEST WARRANTS OTHERWISE. IF SOIL TESTING IS NOT FEASIBLE ON SMALL OR VARIABLE SITES, OR WHERE TIMING IS CRITICAL, FERTILIZER AND LIMESTONE MAY BE APPLIED AT THE FOLLOWING RATES:

LIMESTONE APPLICATION RATE = 3 TONS/ACRE (138 LB./1,000-SF)
*EQUIVALENT TO 50% CALCIUM PLUS MAGNESIUM OXIDE

FERTILIZER APPLICATION RATE = 870 LB./ACRE (20 LB./1,000-SF)
*LOW PHOSPHATE FERTILIZER (8-0-4) OR EQUIVALENT

SEEDING:

1. INOCULATE ALL LEGUME SEED WITH THE CORRECT TYPE OF INOCULANT.
2. APPLY SEED UNIFORMLY BY HAND, CYCLONE SEEDER, DRILL, CULTIPACKER TYPE SEEDER OR HYDROSEEDER (SLURRY INCLUDING SEED AND FERTILIZER). NORMAL SEEDING DEPTH IS FROM 1/4 TO 1/2 INCH. HYDROSEEDING THAT INCLUDES MULCH MAY BE LEFT ON SOIL SURFACE.
3. WHERE FEASIBLE EXCEPT WHERE EITHER CULTIPACKER TYPE SEEDER OR HYDROSEEDER IS USED, THE SEEDBED SHALL BE FIRMED FOLLOWING SEEDING OPERATIONS WITH A ROLLER, OR LIGHT DRAG.
4. SPRING SEEDING USUALLY GIVES THE BEST RESULTS FOR ALL SEED MIXES OR WITH LEGUMES. PERMANENT SEEDING SHALL BE COMPLETED 45 DAYS PRIOR TO FIRST KILLING FROST. WHEN CROWN VETCH IS SEEDING IN LATE SUMMER AT LEAST 35% OF THE SEED SHALL BE HARD SEED (UNSCARRIED). IF SEEDING CANNOT BE DONE WITHIN THE SPECIFIED SEEDING DATES, MULCH ACCORDING TO THE "TEMPORARY AND PERMANENT MULCHING" PRACTICE DESCRIBED IN THE NHSSM, VOL. 3, AND DELAY SEEDING UNTIL THE NEXT RECOMMENDED SEEDING PERIOD.
5. AREAS SEEDING BETWEEN MAY 15 AND AUGUST 15 SHALL BE COVERED WITH HAY OR STRAW MULCH, ACCORDING TO THE "TEMPORARY AND PERMANENT MULCHING" PRACTICE DESCRIBED IN THE NHSSM, VOL. 3.
6. VEGETATED GROWTH COVERING AT LEAST 85% OF THE DISTURBED AREA SHALL BE ACHIEVED PRIOR TO OCTOBER 15. IF THIS CONDITION IS NOT ACHIEVED, IMPLEMENT OTHER TEMPORARY STABILIZATION MEASURES FOR OVER WINTER PROTECTION.

HYDROSEEDING:

1. WHEN HYDROSEEDING (HYDRAULIC APPLICATION), PREPARE THE SEEDBED AS SPECIFIED ABOVE OR BY HAND RAKING TO LOOSEN AND SMOOTH THE SOIL AND REMOVE SURFACE STONES LARGER THAN 2 INCHES IN DIAMETER.
2. SLOPES MUST BE NO STEEPER THAN 2:1 (2 FEET HORIZONTALLY BY 1 FOOT VERTICALLY).
3. LIME AND FERTILIZER MAY BE APPLIED SIMULTANEOUSLY WITH THE SEED. THE USE OF FIBER MULCH ON CRITICAL AREAS IS NOT RECOMMENDED (UNLESS IT IS USED TO HOLD STRAW OR HAY). BETTER PROTECTION IS GAINED BY USING STRAW MULCH AND HOLDING IT WITH ADHESIVE MATERIALS OR 500 POUNDS PER ACRE OF WOOD FIBER MULCH.
4. SEEDING RATES MUST BE INCREASED BY 10% WHEN HYDROSEEDING.

MAINTENANCE REQUIREMENTS:

1. PERMANENT SEEDING AREAS SHALL BE INSPECTED AT LEAST MONTHLY DURING THE COURSE OF CONSTRUCTION. INSPECTION, MAINTENANCE AND CORRECTIVE ACTIONS SHALL CONTINUE UNTIL THE OWNER ASSUMES PERMANENT OPERATION OF THE SITE.
2. SEEDING AREAS SHALL BE MOWED AS REQUIRED TO MAINTAIN A HEALTHY STAND OF VEGETATION. MOWING HEIGHT AND FREQUENCY DEPEND OF TYPE OF GRASS COVER.
3. BASED ON INSPECTION, AREAS SHALL BE RESEEDING TO ACHIEVE FULL STABILIZATION OF EXPOSED SOILS.
4. AT A MINIMUM 85% OF THE SOIL SURFACE SHALL BE COVERED BY VEGETATION.
5. IF ANY EVIDENCE OF EROSION OR SEDIMENTATION IS APPARENT, REPAIRS SHALL BE MADE AND AREAS SHALL BE RESEEDING, WITH OTHER TEMPORARY MEASURES (E. MULCH, ETC.) USED TO PROVIDE EROSION PROTECTION DURING THE PERIOD OF VEGETATION ESTABLISHMENT.

PERMANENT VEGETATION SEEDING RECOMMENDATIONS

USE	MIXTURE	SPECIES	LBS./ACRE	LBS./1,000-SF
STEEP CUTS AND FILLS, BORROW AND DISPOSAL AREAS	A	TALL FESCUE	20	0.45
		CREeping RED FESCUE	20	0.45
		REDTOP	2	0.05
		TOTAL	42	0.95
WATERWAYS, EMERGENCY SPILLWAYS, AND OTHER CHANNELS WITH FLOWING WATER	A	TALL FESCUE	20	0.45
		CREeping RED FESCUE	20	0.45
		REDTOP	2	0.05
		TOTAL	42	0.95
LIGHTLY USED PARKING LOTS, ODD AREAS, UNUSED LANDS, AND LOW INTENSITY RECREATION SITES	A	TALL FESCUE	20	0.45
		CREeping RED FESCUE	20	0.45
		REDTOP	2	0.05
		TOTAL	42	0.95
PLAY AREAS AND ATHLETIC FIELDS (TOPSOIL ESSENTIAL FOR GOOD TURF)	F	CREeping RED FESCUE	50	1.15
		KENTUCKY BLUEGRASS	50	1.15
		TOTAL	100	2.30

- SOURCES:**
1. NEW HAMPSHIRE STORMWATER MANAGEMENT MANUAL, VOLUME 3, TABLES 4-2 AND 4-3
 2. MINNICK, E.L. AND H.T. MARSHALL, (AUGUST 1992)

DUST CONTROL PRACTICES:

1. APPLY DUST CONTROL MEASURES AS NECESSARY TO MAINTAIN CONTROL OF DUST ON SITE.
2. WATER APPLICATION.
 - A) MOISTEN EXPOSED SOIL SURFACES PERIODICALLY WITH ADEQUATE WATER TO CONTROL DUST.
 - B) AVOID EXCESSIVE APPLICATION OF WATER THAT WOULD RESULT IN MOBILIZING SEDIMENT AND SUBSEQUENT DEPOSITION IN NATURAL WATERBODIES.
3. STONE APPLICATION.
 - A) COVER SURFACE WITH CRUSHED OR COARSE GRAVEL.
 - B) IN AREAS NEAR WATERWAYS USE ONLY CHEMICALLY STABILIZED OR WASHED AGGREGATE.
4. REFER TO "NEW HAMPSHIRE STORMWATER MANAGEMENT MANUAL, VOLUME 3 CONSTRUCTION PHASE EROSION AND SEDIMENT CONTROLS, DECEMBER 2008" FOR OTHER ALLOWABLE DUST CONTROL PRACTICES (E. COMMERCIAL TACKIFIERS OR CHEMICAL TREATMENTS SUCH AS CALCIUM CHLORIDE, ETC.)

STOCKPILE PRACTICES:

1. LOCATE STOCKPILES A MINIMUM OF 50-FT. AWAY FROM CONCENTRATED FLOWS OF STORMWATER, DRAINAGE COURSES OR INLETS.
2. PROTECT ALL STOCKPILES FROM STORMWATER RUN-ON USING TEMPORARY PERIMETER MEASURES SUCH AS DIVERSIONS, BERMS, SANDBAGS OR OTHER APPROVED PRACTICES.
3. STOCKPILES SHALL BE SURROUNDED BY SEDIMENT BARRIERS AS DESCRIBED ON THE PLANS AND IN NHSSM VOL. 3, TO PREVENT MIGRATION OF MATERIAL BEYOND THE IMMEDIATE CONFINES OF THE STOCKPILE.
4. IMPLEMENT WIND EROSION CONTROL PRACTICES AS APPROPRIATE ON ALL STOCKPILED MATERIAL.
5. PLACE BAGGED MATERIALS ON PALLETS OR UNDERCOVER.

PROTECTION OF INACTIVE STOCKPILES:

6. INACTIVE SOIL STOCKPILES SHALL BE COVERED WITH ANCHORED TARPS OR PROTECTED WITH SOIL STABILIZATION MEASURES (TEMPORARY SEED AND MULCH OR OTHER TEMPORARY STABILIZATION PRACTICE) AND TEMPORARY PERIMETER SEDIMENT BARRIERS (E. SILT FENCE, ETC.) AT ALL TIMES.
7. INACTIVE STOCKPILES OF CONCRETE RUBBLE, ASPHALT CONCRETE RUBBLE, AGGREGATE MATERIALS, AND SIMILAR MATERIALS SHALL BE PROTECTED WITH TEMPORARY SEDIMENT PERIMETER BARRIERS (E. SILT FENCE, ETC.) AT ALL TIMES. IF THE MATERIALS ARE A SOURCE OF DUST, THEY SHALL ALSO BE COVERED.

PROTECTION OF ACTIVE STOCKPILES:

8. ALL STOCKPILES SHALL BE SURROUNDED WITH TEMPORARY LINEAR SEDIMENT BARRIERS (E. SILT FENCE, ETC.) PRIOR TO THE ONSET OF PRECIPITATION. PERIMETER BARRIERS SHALL BE MAINTAINED AT ALL TIMES, AND ADJUSTED AS NEEDED TO ACCOMMODATE THE DELIVERY AND REMOVAL OF MATERIAL FROM THE STOCKPILE. THE INTEGRITY OF THE BARRIER SHALL BE INSPECTED AT THE END OF EACH WORKING DAY.
9. WHEN A STORM IS PREDICTED, STOCKPILES SHALL BE PROTECTED WITH AN ANCHORED PROTECTIVE COVERING.

GENERAL CONSTRUCTION PHASING:

1. **STABILIZATION:**
 - A) A SITE IS DEEMED STABILIZED WHEN IT IS IN A CONDITION IN WHICH THE SOIL ON SITE WILL NOT EXPERIENCE ACCELERATED OR UNNATURAL EROSION UNDER THE CONDITIONS OF A 10-YEAR STORM EVENT, SUCH AS BUT NOT LIMITED TO:
 - a) A MINIMUM OF 85% VEGETATIVE COVER HAS BEEN ESTABLISHED;
 - b) A MINIMUM OF 3-INCHES OF NON-EROSIVE MATERIAL, SUCH AS STONE OR A CERTIFIED COMPOST BLANKET HAS BEEN INSTALLED; OR;
 - c) EROSION CONTROL BLANKETS HAVE BEEN INSTALLED.
 - B) AREAS TO BE PAVED.
 - C) BASE COURSE GRAVELS HAVE BEEN INSTALLED.
2. **TEMPORARY STABILIZATION:**
 - A) ALL AREAS OF EXPOSED OR DISTURBED SOIL SHALL BE TEMPORARILY STABILIZED AS SOON AS PRACTICABLE BUT NO LATER THAN 45 DAYS FROM THE TIME OF INITIAL DISTURBANCE, UNLESS A SHORTER TIME IS SPECIFIED BY LOCAL AUTHORITIES. THE CONSTRUCTION SEQUENCE APPROVED AS PART OF THE ISSUED PERMIT OR AN INDEPENDENT MONITOR.
 - B) MAXIMUM AREA OF DISTURBANCE:
 - 1. THE SMALLEST PRACTICAL AREA SHALL BE DISTURBED DURING CONSTRUCTION, NO MORE THAN 5 ACRES SHALL BE DISTURBED (NOT STABILIZED) AT ANY TIME.
 - 2. ONLY DISTURB, CLEAR, OR GRADE AREAS NECESSARY FOR CONSTRUCTION.
 - 3. A) FLAG OR OTHERWISE DELINEATE AREAS NOT TO BE DISTURBED.
 - 4. B) EXCLUDE VEHICLES AND CONSTRUCTION EQUIPMENT FROM THESE AREAS TO PRESERVE NATURAL VEGETATION.
 - C) ALL GRADED OR DISTURBED AREAS INCLUDING SLOPES SHALL BE PROTECTED DURING CLEARING AND CONSTRUCTION IN ACCORDANCE WITH THE APPROVED GRADING AND DRAINAGE PLAN DEPICTED ON SHEET C-3.
 - D) ALL EROSION AND SEDIMENT CONTROL PRACTICES AND MEASURES SHALL BE CONSTRUCTED, APPLIED AND MAINTAINED IN ACCORDANCE WITH THE APPROVED EROSION AND SEDIMENT CONTROL PLAN DEPICTED ON SHEET C-4.
 - E) TOPSOIL REQUIRED FOR THE ESTABLISHMENT OF VEGETATION SHALL BE STOCKPILED IN THE AMOUNT NECESSARY TO COMPLETE FINISHED GRADING AND BE PROTECTED FROM EROSION.
 - F) STOCKPILES, BORROW AREAS AND SPOILS SHALL BE STABILIZED AS DESCRIBED UNDER "SOIL STOCKPILE PRACTICES".
 - G) SLOPES SHALL NOT BE CREATED SO CLOSE TO PROPERTY LINES AS TO ENDANGER ADJOINING PROPERTIES WITHOUT ADEQUATE PROTECTION AGAINST SEDIMENTATION, EROSION, SLIPPAGE, SETTLEMENT, SUBSIDENCE OR OTHER RELATED DAMAGE.
 - H) AREAS TO BE FILLED SHALL BE CLEARED, GRUBBED AND STRIPPED OF TOPSOIL TO REMOVE TREES, VEGETATION, ROOTS AND/OR OTHER OBJECTIONABLE MATERIALS.
 - I) AREAS SHALL BE SCARIFIED TO A MINIMUM DEPTH OF 3-INCHES PRIOR TO PLACEMENT OF TOPSOIL. TOPSOIL SHALL BE PLACED WITHOUT SIGNIFICANT COMPACTION TO PROVIDE A LOOSE BEDDING FOR PLACEMENT OF SEED.
 - J) ALL FILLS SHALL BE COMPACTED IN ACCORDANCE WITH PROJECT SPECIFICATIONS TO REDUCE EROSION, SLIPPAGE, SETTLEMENT, SUBSIDENCE OR OTHER RELATED PROBLEMS. FILL INTENDED TO SUPPORT BUILDINGS, STRUCTURES, SITE UTILITIES, CONDUITS AND OTHER FACILITIES, SHALL BE COMPACTED IN ACCORDANCE WITH LOCAL REQUIREMENTS OR CODES.
 - K) IN GENERAL, FILLS SHALL BE COMPACTED IN LAYERS RANGING FROM 6 TO 24 INCHES IN THICKNESS. THE CONTRACTOR SHALL REVIEW THE PROJECT GEOTECHNICAL REPORT AND/OR THE "PROJECT SPECIFIC PHASING NOTES" FOR SPECIFIC GUIDANCE.
 - L) ANY AND ALL FILL MATERIAL SHALL BE FREE OF BRUSH, RUBBISH, ROCKS (LARGER THAN 3/4" THE DEPTH OF THE LIFT BEING INSTALLED), LOGS, STUMPS, BUILDING DEBRIS, FROZEN MATERIAL AND OTHER OBJECTIONABLE MATERIALS THAT WOULD INTERFERE WITH OR PREVENT CONSTRUCTION OF SATISFACTORY LIFTS.
 - M) FROZEN MATERIAL OR SOFT, MUCKY OR HIGHLY COMPRESSIBLE (E. CLAY, SILT) MATERIALS ARE SUSCEPTIBLE TO ACCELERATED SETTLEMENT AND POTENTIAL ACCELERATED EROSION. WORK IN AREAS OF THESE MATERIALS SHALL BE PERFORMED UNDER THE DIRECTION OF A PROFESSIONAL ENGINEER.
 - N) THE OUTER FACE OF THE FILL SLOPE SHALL BE ALLOWED TO STAY LOOSE, NOT ROLLED OR COMPACTED, OR BLADE SMOOTHED. A BULLDOZER MAY RUN UP AND DOWN THE FILL SLOPE SO THE DOZER TREADS (GLEAT TRACKS) CREATE GROOVES PERPENDICULAR TO THE SLOPE. IF THE SOIL IS NOT TOO MOIST, EXCESSIVE COMPACTION WILL NOT OCCUR. SEE "SURFACE ROUGHENING" IN THE NHSSM, VOL. 3.
 - O) ROUGHEN THE SURFACE OF ALL SLOPES DURING THE CONSTRUCTION OPERATION TO RETAIN WATER, INCREASE INFILTRATION AND FACILITATE VEGETATION ESTABLISHMENT.
 - P) USE SLOPE BREAKS, SUCH AS DIVERSIONS, BENCHES, OR CONTOUR FURROWS AS APPROPRIATE TO REDUCE THE LENGTH OF CUT-FILL SLOPES TO LIMIT SHEET AND RILL EROSION AND PREVENT GULLY EROSION. ALL BENCHES SHALL BE KEPT FREE OF SEDIMENT DURING ALL PHASES OF CONSTRUCTION.
 - Q) SEEPS OR SPRINGS ENCOUNTERED DURING CONSTRUCTION SHALL BE EVALUATED BY A PROFESSIONAL ENGINEER (PREFERABLY THE DESIGN ENGINEER) TO DETERMINE IF THE PROPOSED DESIGN SHALL BE REVISED TO PROPERLY MANAGE THE CONDITION.
 - R) STABILIZE ALL GRADED AREAS (AS ABOVE) WITH VEGETATION, CRUSHED STONE, COMPOST BLANKET, OR OTHER GROUND COVER AS SOON AS GRADING IS COMPLETE OR IF WORK IS INTERRUPTED FOR 21 WORKING DAYS OR MORE. USE MULCH OR OTHER APPROVED METHODS TO STABILIZE AREAS TEMPORARILY WHERE FINAL GRADING MUST BE DELAYED.
 - S) ALL GRADED AREAS SHALL BE PERMANENTLY STABILIZED IMMEDIATELY FOLLOWING FINISHED GRADING.
 - T) THE PROJECT SHALL BE CONSTRUCTED TO MEET ALL REQUIREMENTS AND INTENT OF RSA 430:53 AND CHAPTER ARC 3800 RELATIVE TO INVASIVE SPECIES.

ABOVE NOTES EXCERPTED, ADAPTED AND REFERENCED FROM "NEW HAMPSHIRE STORMWATER MANAGEMENT MANUAL, VOLUME 3 CONSTRUCTION PHASE EROSION AND SEDIMENT CONTROLS, DECEMBER 2008" (NHSSM, VOL. 3)

PROJECT SPECIFIC CONSTRUCTION PHASING:

1. REFER TO THE "GENERAL CONSTRUCTION PHASING" NOTES PRIOR TO COMMENCING CONSTRUCTION IN ACCORDANCE WITH THE FOLLOWING PHASING. THE "GENERAL CONSTRUCTION PHASING" NOTES APPLY TO THE OVERALL CONSTRUCTION AND SHALL BE ADHERED TO.
 2. INSTALL ALL TEMPORARY SEDIMENT CONTROL BARRIERS (E. SILT FENCE, EROSION CONTROL MIX BERM, STONE CHECK DAMS, ETC.) AROUND THE OUTER PERIMETER OF THE CONSTRUCTION SITE AS DEPICTED ON SHEET C-4 PRIOR TO EARTH MOVING OPERATIONS.
 3. INSTALL GRASS SNOG FENCE AROUND THE PERIMETER OF THE INFILTRATION BASINS AND THE FENCE SHALL REMAIN IN PLACE UNTIL CONSTRUCTION OF THE BASIN HAS STARTED.
 4. CLEAR, GRUB AND STUMP THE SITE. STUMPS, BRUSH AND OTHER ORGANIC WASTE SHALL BE DISPOSED OF OFF-SITE IN ACCORDANCE WITH STATE AND LOCAL REGULATIONS.
 5. INSTALL A TEMPORARY CONSTRUCTION EXIT AT THE LOCATION OF THE PROPOSED DRIVEWAY CONNECTION TO THE EXISTING PARKING LOT. MAINTAIN AS DIRECTED BY THE TEMPORARY CONSTRUCTION EXIT DETAIL.
 6. STOCKPILE STRIPPED TOPSOIL AND CUT MATERIAL TO BE REUSED ON SITE. IN AN APPROPRIATE LOCATION IN ACCORDANCE WITH THE "SOIL STOCKPILES PRACTICES", MAINTAIN THE STOCKPILES AS DIRECTED IN THE "SOIL STOCKPILE PRACTICES".
 7. PERFORM THE NECESSARY CUTS AND FILLS TO CONSTRUCT THE INFILTRATION BASINS AS DEPICTED ON SHEET C-3 AND IN ACCORDANCE WITH THE INFILTRATION BASIN DETAILS SHOWN ON SHEET C-7.
 8. CONSTRUCT THE INFILTRATION BASINS AND SEDIMENT FOREBAY. LOAM SEED AND ALL GRAVEL BASE AND SLOPES OF THE BASIN AS DIRECTED IN THE INFILTRATION BASIN DETAILS.
 9. ALL DITCHES/SWALES AND BASINS SHALL BE STABILIZED PRIOR TO DIRECTING RUNOFF TO THE INFILTRATION BASINS.
 10. PERFORM THE NECESSARY CUTS AND FILLS TO SUBGRADE IN THE BUILDING AND PARKING LOT AREAS.
 - A) INSTALL REQUIRED FILLS IN MAXIMUM 8-INCH LIFTS AND COMPACT EACH LIFT TO 95% MAXIMUM PROCTOR DENSITY.
 - B) AS SUBGRADE IS ACHIEVED INSTALL REMAINING SEDIMENT CONTROL BARRIERS WITHIN THE SITE (E. ADDITIONAL SILT FENCE, CHECK DAMS AND SEDIMENT CONTROLS AND CATCH BASINS, ETC.).
 11. INSTALL ALL UTILITIES PER THE CORRESPONDING DETAILS AND AS SHOWN ON SHEET C-5.
 12. ALL CUT AND FILL SLOPES AND LAWN AREAS NOT TO BE PAVED SHALL BE LOAMED AND SEEDING FOR PERMANENT VEGETATION AND STABILIZATION AS DESCRIBED UNDER THE "PERMANENT VEGETATION PRACTICES" WITHIN 3 DAYS OF ACHIEVING FINAL GRADE.
 13. INSTALL ALL GRAVEL BASE AND CRUSHED GRAVEL MATERIALS FOR THE PARKING AREA AS SPECIFIED IN THE CORRESPONDING DETAILS.
 14. THE PARKING AREAS SHALL BE STABILIZED (CONSTRUCTED TO GRAVEL BASE COURSE) WITHIN 3 DAYS OF ACHIEVING FINISHED SUBGRADE ELEVATIONS.
 15. INSTALL PAVEMENT SURFACES AS SOON AS POSSIBLE AFTER THE INSTALLATION OF THE GRAVEL BASE AND CRUSHED GRAVEL, IN ORDER TO LIMIT THE SOIL EROSION AND POLLUTION OF THE GRAVEL MATERIALS WITH ORGANIC MATERIALS. IN NO CASE SHALL AREAS TO BE PAVED BE LEFT UNPROTECTED THROUGHOUT THE WINTER MONTHS.
 16. ALL DISTURBED AREAS SHALL BE STABILIZED AS SOON AS POSSIBLE. IN NO CASE SHALL ANY DISTURBED AREA BE LEFT UN-STABILIZED FOR LONGER THAN 21 DAYS. IF NECESSARY TEMPORARY STABILIZATION MEASURES AS DISCUSSED IN THE "GENERAL CONSTRUCTION PHASING NOTES" AND NHSSM, VOL. 3 SHOULD BE EMPLOYED.
- MAINTENANCE AND INSPECTION:**
1. DURING CONSTRUCTION ALL TEMPORARY AND PERMANENT SEDIMENT, EROSION CONTROL, AND STORMWATER MANAGEMENT PRACTICES SHOULD BE INSPECTED WEEKLY, AFTER EVERY 1/2 INCH OF RAINFALL, AND ANNUALLY.
 2. EXCESS SEDIMENT SHOULD BE REMOVED FROM TEMPORARY SEDIMENT, EROSION CONTROL, AND STORMWATER MANAGEMENT PRACTICES WHEN IT REACHES PRESCRIBED THRESHOLDS DISCUSSED IN THE DETAILS FOR EACH PRACTICE.
 3. ALL DAMAGED TEMPORARY AND PERMANENT SEDIMENT, EROSION CONTROL, AND STORMWATER MANAGEMENT PRACTICES SHOULD BE REPAIRED OR REPLACED IMMEDIATELY UPON NOTICE.
 4. SEDIMENT SHALL BE DISPOSED OF PROPERLY EITHER ON SITE OR OFF SITE.
- PROJECT COMPLETION AND STABILIZATION:**
1. UPON PROJECT COMPLETION, ONCE THE SITE IS DEEMED STABILIZED (VEGETATION IS GERMINATED), THE TEMPORARY SEDIMENT CONTROL BARRIERS AND EROSION CONTROL PRACTICES SHALL BE REMOVED. ANY DISTURBANCE CREATED DURING REMOVAL SHALL BE REPAIRED IN AN APPROPRIATE MANNER.
 2. ACCUMULATED SEDIMENT SHALL BE REMOVED FROM THE INFILTRATION BASINS.

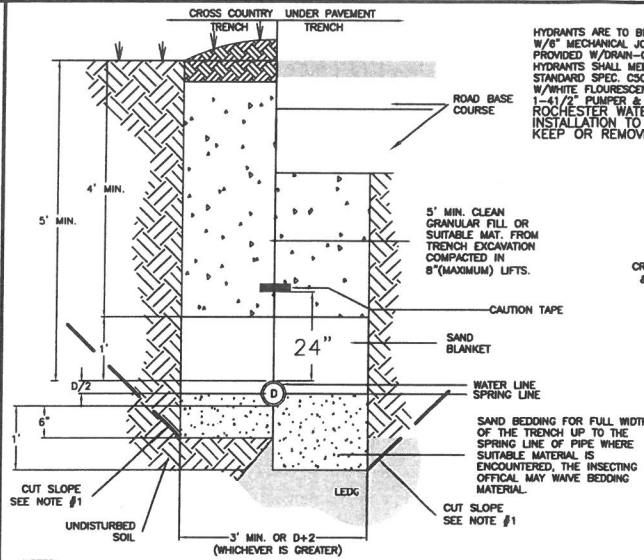
PERMANENT EROSION & SEDIMENTATION CONTROL DETAILS

TAX MAP 222, LOT 18
109 CHESTNUT HILL ROAD
ROCHESTER, NH

PREPARED FOR:
NANTUCKET BEADBOARD

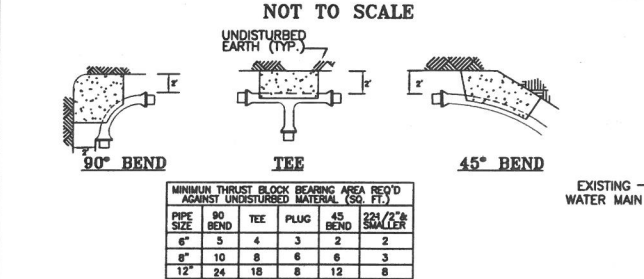
AUGUST 2019

LAND SURVEYORS



NOTES:
1. PIPES MAY BE INSTALLED BY EXCAVATING AN OPEN TRENCH WITH SIDE SLOPES OF 1:1 MAXIMUM TO A DEPTH OF 4'-FT.
2. PIPE MATERIALS SHALL BE AS SPECIFIED ON THE DESIGN PLAN.
3. SAND BLANKET MAY BE OMITTED FOR REINFORCED CONCRETE PIPE.

WATER PIPE TRENCH INSTALLATION DETAIL



NOTE: SIZE OF THRUST BLOCKS MAY BE INCREASED BY THE ENGINEER TO MEET SOIL CONDITIONS FOUND DURING CONSTRUCTION.

WATER MAIN THRUST BLOCK DETAILS

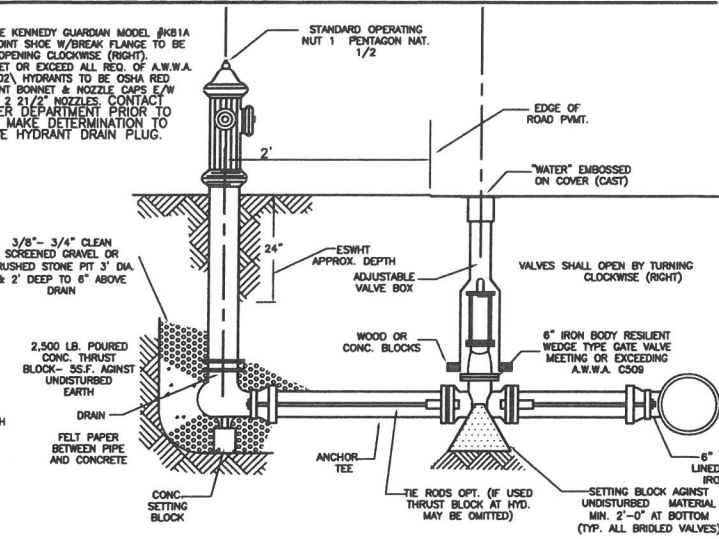
DUCTILE IRON MECHANICAL RETAINED LENGTH (FEET)																				
PIPE DIAMETER (INCHES)	BENDS																DEAD END			
	11 1/4"				22 1/2"				45°				90°							
	50 psi	100 psi	150 psi	200 psi	50 psi	100 psi	150 psi	200 psi	50 psi	100 psi	150 psi	200 psi	50 psi	100 psi	150 psi	200 psi	50 psi	100 psi	150 psi	200 psi
2"	0	0	1	1	0	1	1	1	1	1	2	3	2	4	5	7	4	8	12	17
6"	0	0	1	1	1	1	2	2	1	2	3	4	3	5	8	10	6	12	18	23
8"	0	1	1	1	1	1	2	3	1	3	4	6	3	7	10	13	8	15	23	31
10"	0	1	1	2	1	2	2	3	2	3	5	7	4	8	12	16	9	19	28	37
12"	0	1	1	2	1	2	3	4	2	4	6	8	5	9	14	19	11	22	33	44
	TEE*								REDUCER											
	SAME SIZE				ONE SIZE SMALLER				ONE SIZE SMALLER				TWO SIZE SMALLER							
	50 psi	100 psi	150 psi	200 psi	50 psi	100 psi	150 psi	200 psi	50 psi	100 psi	150 psi	200 psi	50 psi	100 psi	150 psi	200 psi				
2"	1	1	1	1	1	1	1	1	1	3	4	5	—	—	—	—				
6"	1	1	1	4	1	1	1	1	3	6	9	12	4	8	12	16				
8"	1	1	3	11	1	1	1	1	3	6	10	13	6	11	17	22				
10"	1	1	8	17	1	1	1	6	3	6	10	13	6	11	17	23				
12"	1	2	13	24	1	1	4	13	5	11	16	22	6	12	18	23				

* BASED ON A MINIMUM ATTACHED PIPE ALONG RUN (Lr) = 5 FEET

MECHANICAL RESTRAINED LENGTH SCHEDULE

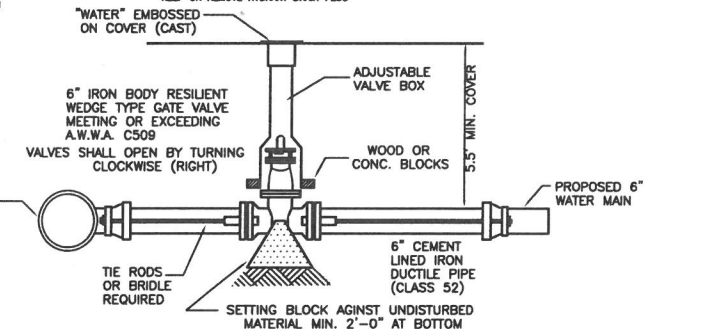
NOTES:
1. PIPE IS BURIED TO A DEPTH OF 6 FEET WITH A MINIMUM OF 4 INCHES OF COMPACTED GRANULAR MATERIAL UNDER THE PIPE TO THE SPRING LINE OF THE PIPE.
2. THE EXISTING SOIL IS POORLY GRADED GRAVEL AND GRAVEL SAND MIXTURE WITH LITTLE TO NO FINES.
3. ALL CALCULATIONS ARE BASED ON A FACTOR OF SAFETY OF 1.5 TO 1.
4. ALL CALCULATIONS ARE BASED ON THE "RESTRAINED LENGTH CALCULATION PROGRAM" BY EBMA IRON, INC., RELEASE 3.1.

FILE NO. 154
PLAN NO. C-2965
DWG. NO. 18020/SP-5
F.B. NO.



TYPICAL HYDRANT SECTION

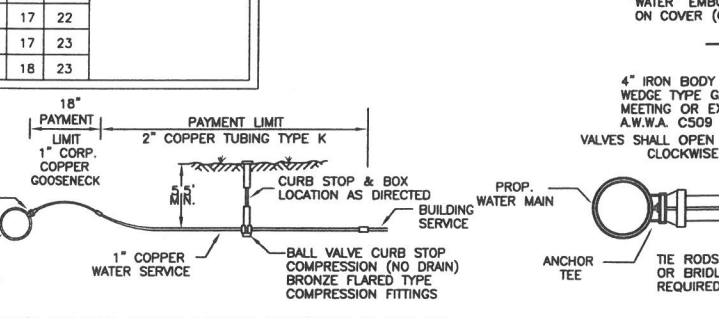
NOT TO SCALE



WATER MAIN CONNECTION

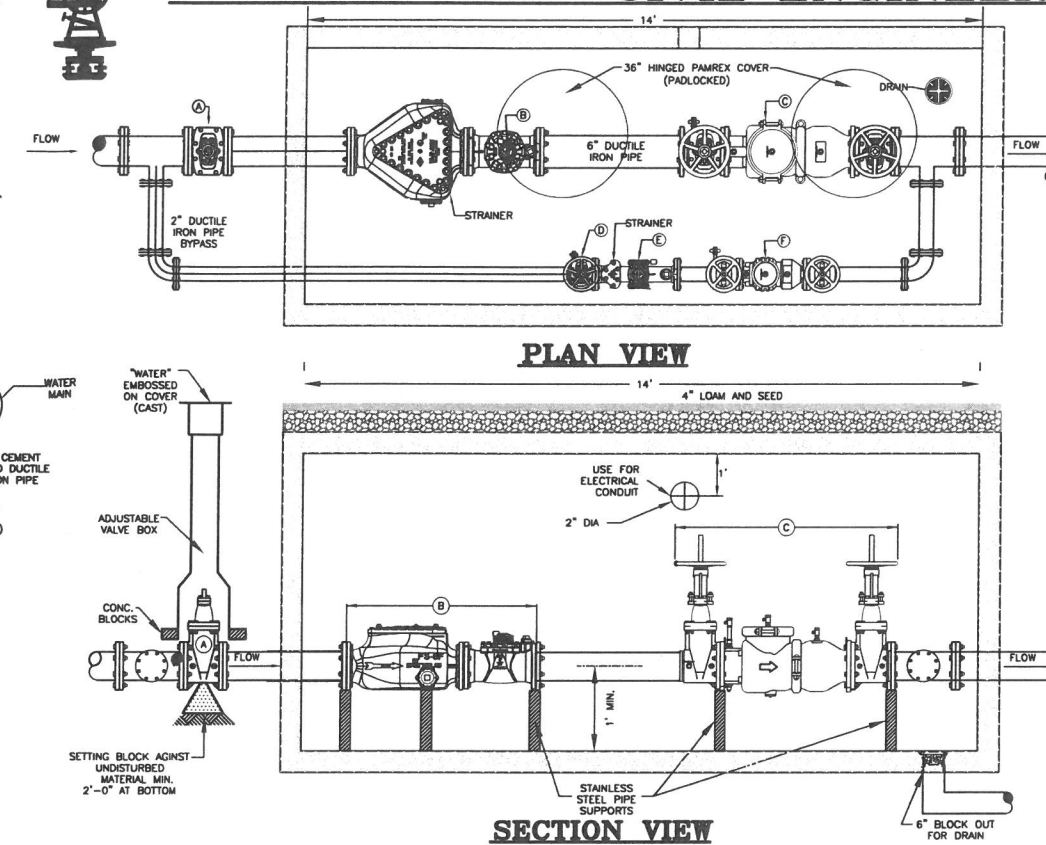
NOT TO SCALE

- GENERAL UTILITY NOTES
- CONTRACTOR SHALL NOTIFY DIG-SAFE (1-888 344-7233) 72 HOURS PRIOR TO THE START OF CONSTRUCTION.
 - ALL EXISTING UTILITY LOCATIONS ARE APPROXIMATE AS SHOWN. THE CONTRACTOR SHALL VERIFY THEIR LOCATIONS AND ELEVATIONS.
 - THESE PLAN SHOWS ONLY THOSE FEATURES THAT WERE VISUALLY APPARENT ON THE DATE OF THE SURVEY. THE ABSENCE OF SUBSURFACE STRUCTURES, UTILITIES, ETC. FROM THIS PLAN, BUT IN EXISTENCE IS NOT INTENDED OR IMPLIED.
 - ANY UTILITY POLES THAT NEED TO BE RELOCATED SHALL BE COORDINATED WITH EVERSOURCE OR VERIZON, WHOM EVER HAS CONTROL OVER THEM.
 - PROPOSED UTILITIES ARE TO BE UNDERGROUND. COORDINATE LOCATION OF UNDERGROUND UTILITIES AND TRANSFORMER PADS WITH PSNH AND OTHER PERTINENT UTILITY COMPANIES.
 - WATER AND SEWER LINES SHALL BE INSTALLED A MINIMUM OF 10'-FT APART HORIZONTALLY.
 - WHERE SEWER AND WATER LINES MUST CROSS, SEWER PIPE JOINTS SHALL BE LOCATED A MINIMUM 9'-FT HORIZONTALLY FROM THE WATER LINE AND A VERTICAL SEPARATION OF 18-INCHES SHALL BE MAINTAINED.
 - SEWER PIPE JOINTS SHALL BE TESTED WITH ZERO LEAKAGE AT 25 POUNDS PER SQUARE INCH FOR GRAVITY SEWER AND AT 1-1/2 TIMES WORKING PRESSURE FOR ALL FORCE MAINS.
 - WATERLINE CONSTRUCTION:
A) ALL PROPOSED WATER LINE MATERIAL USED SHALL MEET ROCHESTER WATER DEPARTMENT AND ROCHESTER ENGINEERING DEPARTMENT SPECIFICATIONS. WATER LINES SHALL BE A.W.W.A C 151, CLASS 52, CEMENT LINED, DUCTILE IRON PIPE.
B) PROPOSED WATER GATE VALVES SHALL BE MANUFACTURED BY KENNEDY OF AMERICAN FLOW CONTROL, RESILIENT SEAT TYPE.
C) ALL WATER LINES SHALL BE BURIED A MINIMUM OF 5'.
D) IF 5' OF COVER IS NOT AVAILABLE WATER LINE SHALL BE INSULATED AS SHOWN IN THE "SHALLOW COVER TRENCH DETAIL" FOR INSULATED WATER PIPE.
E) ALL WATER FITTINGS SHALL BE CLASS 52.
F) PROPOSED WATER GATE VALVE SHALL OPEN CLOCKWISE (RIGHT).
 - WORK TO CONNECT INTO THE WATER OR SEWER MAINS REQUIRES A PERMIT FROM THE ROCHESTER PUBLIC WORKS DEPARTMENT. CONTRACTORS ARE TO BE PRE-QUALIFIED.



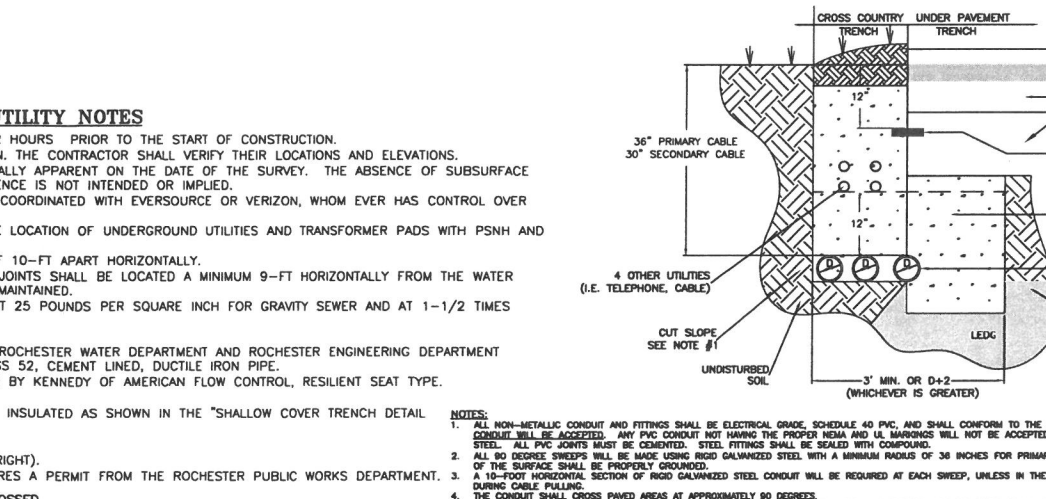
TYPICAL DOMESTIC SERVICE CONNECTION

NOT TO SCALE



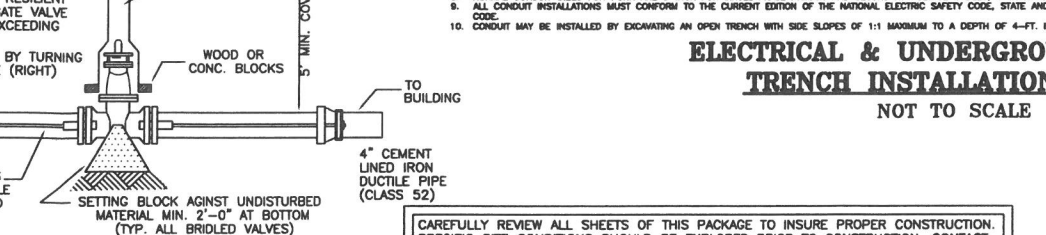
WATER METER VAULT DETAIL

NOT TO SCALE



ELECTRICAL & UNDERGROUND UTILITY TRENCH INSTALLATION DETAIL

NOT TO SCALE



TYPICAL FIRE SERVICE CONNECTION

NOT TO SCALE

CAREFULLY REVIEW ALL SHEETS OF THIS PACKAGE TO INSURE PROPER CONSTRUCTION. SPECIFIC SITE CONDITIONS SHOULD BE EXPLORED PRIOR TO CONSTRUCTION. CONTACT BOTH THE DESIGN ENGINEER AND THE PROJECT OWNER FOR ANY AVAILABLE GEOTECHNICAL OR HYDROGEOLOGICAL INFORMATION AVAILABLE BUT NOT CONTAINED WITHIN THE PLAN SET. IF THERE ARE ANY QUESTIONS WITH THE DESIGN PRESENTED IN THIS PLAN SET PLEASE CONTACT THE ENGINEERING STAFF AT NORWAY PLAINS ASSOCIATES, INC. (603)-335-3948.

CIVIL ENGINEERS



REVISION:
06/21/19 - REVISE HYDRANT AND WATER METER VAULT DETAILS AND NOTES.

MAIN ITEM:
A. 6" GATE VALVE WITH SQUARE NUT - OPEN RIGHT
B. 6" FLOW METER - SENSUS OMNI FIRELINE F2.
C. 6" BACKFLOW TO BE TESTABLE DOUBLE CHECK VALVE ASSEMBLY WITH CENTER-SHAFT OR TOP HINGE CHECK (ZURN WILKINS MODEL 350AST)

BYPASS ITEM:
D. 2" GATE VALVE
E. 2" FLOW METER - A SENSUS OMNI T2.
F. 2" BACKFLOW TO BE TESTABLE DOUBLE CHECK VALVE ASSEMBLY WITH CENTER-SHAFT OR TOP HINGE CHECK (ZURN WILKINS MODEL 350AST)

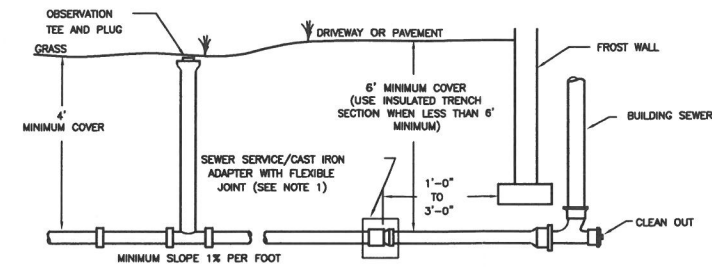
NOTES:
1. VAULT COVERS TO BE STAMPED "WATER" AND MATCH EXISTING CITY INFRASTRUCTURE STANDARDS.
2. ALL VALVES SHALL OPEN BY TURNING CLOCKWISE (RIGHT).
3. TANK MANUFACTURE SHALL PROVIDE BUOYANCY CALCULATIONS, AND IF NECESSARY, PROVIDE BUOYANCY COUNTERMEASURE TO ENSURE THE VAULT DOES NOT BECOME BUOYANT.

BYPASS USAGE:
1. OWNER SHALL CALL 603-330-7128 TO COORDINATE LOW FLOW CONDITION WITH FIRE DEPARTMENT AND PUBLIC WORKS DEPARTMENT.

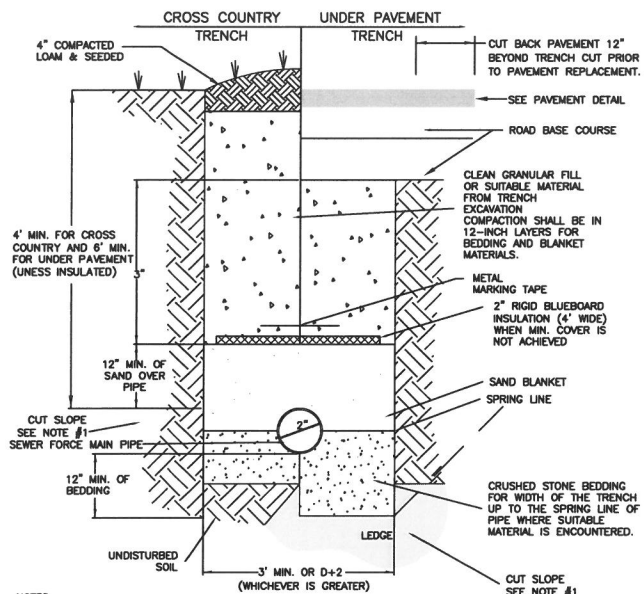
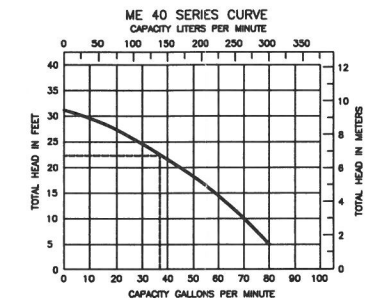
UTILITY DETAILS
TAX MAP 222, LOT 16
109 CHESTNUT HILL ROAD
ROCHESTER, NH
PREPARED FOR:
NANTUCKET BEADBOARD
AUGUST 2019



REVISION:
08/21/19 - REVISE SEPTIC TANK & PUMP DETAIL AND NOTES.

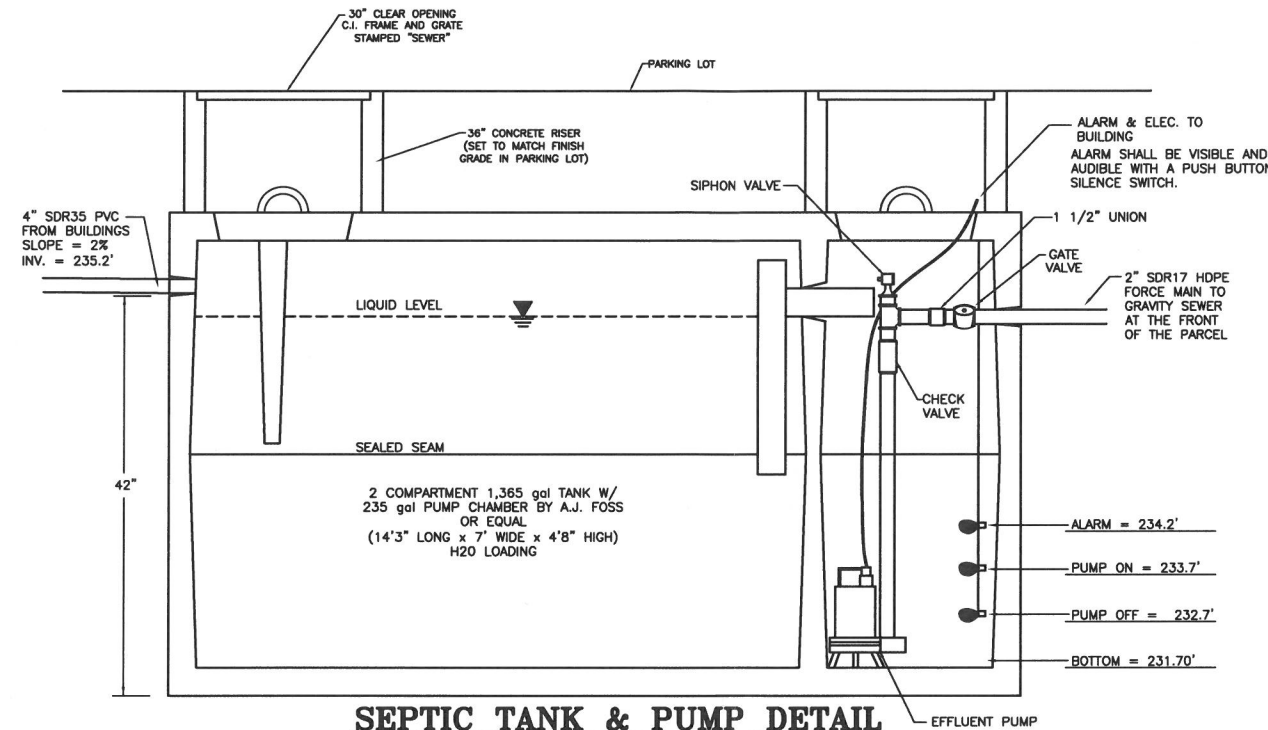


TYPICAL BUILDING SEWER SERVICE DETAIL
NOT TO SCALE



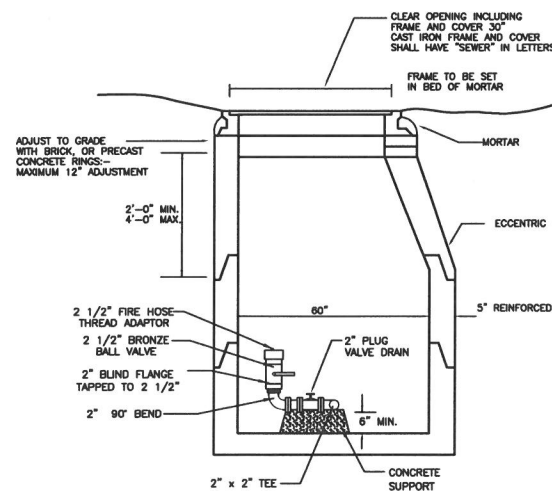
- NOTES:
1. PIPES MAY BE INSTALLED BY EXCAVATING AN OPEN TRENCH WITH SIDE SLOPES OF 1:1 MAXIMUM TO A DEPTH OF 4'-FT. INSTALLATIONS DEEPER THAN 4'-FT REQUIRE THE USE OF A TRENCH BOX.
 2. PIPE MATERIALS SHALL BE AS SPECIFIED ON THE DESIGN PLAN.
 3. SAND BLANKET MAY BE OMITTED FOR REINFORCED CONCRETE PIPE.
 4. WHERE SHEETING IS PLACED ALONGSIDE THE PIPE AND EXTENDS BELOW MID-DIAMETER, THE SHEETING SHALL BE CUT OFF AND LEFT IN PLACE TO AN ELEVATION NOT LESS THAN ONE FOOT ABOVE THE TOP OF THE PIPE AND AT LEAST 3 FEET BELOW FINISHED GRADE.
 5. THE PIPE SAND BLANKET MATERIAL SHALL BE GRADED SAND FREE FROM ORGANIC MATERIALS, GRADED SUCH THAT 100 PERCENT PASSES A 1/2-INCH SIEVE AND A MAXIMUM OF 15 PERCENT PASSES A #200 SIEVE.
 6. TRENCH BACKFILL MATERIAL IN ROADWAY LOCATIONS SHALL BE NATURAL MATERIALS EXCAVATED FROM THE TRENCH DURING CONSTRUCTION, EXCLUDING:
- (1) DEBRIS;
 - (2) PIECES OF PAVEMENT;
 - (3) ORGANIC MATTER;
 - (4) TOP SOIL;
 - (5) WET OR SOFT MUCK;
 - (6) PEAT OR CLAY;
 - (7) EXCAVATED LEDGE MATERIAL;
 - (8) ROCKS OVER 6 INCHES IN THE LARGEST DIMENSION; AND
 - (9) ANY MATERIAL NOT APPROVED BY THE ENGINEER.
7. CONTRACTOR SHALL CONSIDER USING SPACERS WHEN INSERTING THE HOPE FORCE MAIN WITHIN THE 4" PVC SLEEVE UNDER THE PARKING LOT.

FORCE MAIN SEWER PIPE TRENCH INSTALLATION DETAIL
NOT TO SCALE

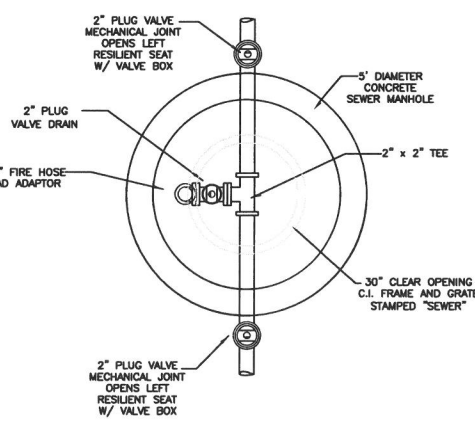


SEPTIC TANK & PUMP DETAIL
NOT TO SCALE

- NOTES:
1. INSTALL 2" PVC VENT FROM THE PUMP CHAMBER TO THE BUILDING.
 2. INSTALL THE GATE VALVE ON A 45 DEGREE FROM VERTICAL.
 3. ALL PUMPING SYSTEMS ELECTRICAL COMPONENTS SHALL COMPLY WITH NEC AND NFPA REQUIREMENTS AND MEET ALL CITY OF ROCHESTER REQUIREMENTS.
 4. PUMP SHALL BE SIZED TO PROVIDE A MINIMUM VELOCITY WITHIN ALL OF THE FORCE MAIN PIPES OF 2 FEET PER SECOND.
 5. CONCRETE TANK MANUFACTURE SHALL PROVIDE BUOYANCY CALCULATIONS AND IF NECESSARY, THE TANK SHALL BE OUTFITTED WITH BUOYANCY COUNTERMEASURES.

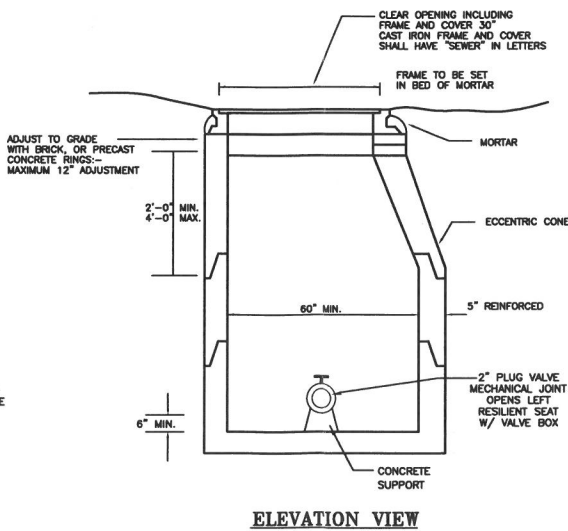


ELEVATION VIEW

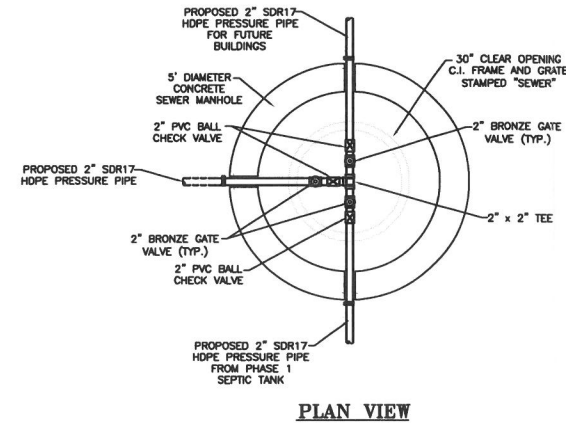


PLAN VIEW

CLEANOUT MANHOLE DETAIL
NOT TO SCALE



ELEVATION VIEW



PLAN VIEW

FORCE MAIN JUNCTION MANHOLE DETAIL
NOT TO SCALE

- NOTES:
1. THE FLUSHING AND CONNECTION MANHOLE CONSTRUCTION SHALL MEET ALL DESIGN REQUIREMENTS OF A SANITARY MANHOLES.
 2. HORIZONTAL JOINTS BETWEEN SECTIONS OF PRECAST CONCRETE BARREL SHALL BE OF AN OVERLAPPING TYPE, SEALED FOR WATER-TIGHTNESS USING A DOUBLE ROW OF AN ELASTOMERIC OR MASTIC-LIKE SEALANT.
 3. PIPE TO MANHOLE JOINTS SHALL BE AS FOLLOWS:
- (1) ELASTOMERIC, RUBBER SLEEVE WITH WATERTIGHT JOINTS AT THE MANHOLE OPENING AND PIPE SURFACES;
 - (2) CAST INTO THE WALL OR SECURED WITH STAINLESS STEEL CLAMPS;
 - (3) ELASTOMERIC SEALING RING CAST IN THE MANHOLE OPENING WITH SEAL FORMED ON THE SURFACE OF THE PIPE BY COMPRESSION OF THE RING; AND
 - (4) NON-SHRINK GROUTED JOINTS WHERE WATERTIGHT BONDING TO THE MANHOLE AND PIPE CAN BE OBTAINED.
5. ALL PRECAST SECTIONS AND BASES SHALL BE COATED ON THE EXTERIOR WITH A BITUMINOUS DAMP-PROOFING COATING.
 6. PRECAST BASES SHALL BE PLACED ON A 6-INCH LAYER OF COMPACTED BEDDING MATERIAL THAT CONFORMS TO THE ASTM C33/C33M NO. 67 STONE STANDARD IN EFFECT WHEN THE STONE IS PROCESSED BY THE MANUFACTURER, AVAILABLE AS NOTED IN APPENDIX D. THE EXCAVATION SHALL BE DEWATERED WHILE PLACING BEDDING MATERIAL AND SETTING THE BASE OR POURING CONCRETE.
 7. CONCRETE FOR MANHOLES AND CONCRETE GRADE RINGS SHALL CONFORM TO THE REQUIREMENT FOR CLASS AA CONCRETE IN THE NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATIONS STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.
 8. REINFORCING FOR CONCRETE MANHOLES AND CONCRETE GRADE RINGS SHALL BE STEEL OR STRUCTURAL FIBERS THAT CONFORM TO THE NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATIONS STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.
 9. PRECAST CONCRETE BARREL SECTIONS, CONES, AND BASES SHALL BE CERTIFIED BY THEIR MANUFACTURER(S) AS CONFORMING TO THE ASTM C478 STANDARD IN EFFECT AT THE TIME THE BARREL SECTIONS, CONES, AND BASES ARE MANUFACTURED.
 10. FOR THE POWER SOURCE FOR THE ALARM SYSTEM SHALL BE THE MAIN LINE POWER WITH A BACKUP BATTERY SYSTEM, WHICH SHALL BE CONNECTED AUTOMATICALLY SHOULD MAIN POWER FAILURE.
 11. A CONNECTION FOR A PORTABLE GENERATOR HOOK-UP SHALL BE PROVIDED FOR EACH PUMP SYSTEM.

SEWER DETAILS
TAX MAP 222, LOT 16
109 CHESTNUT HILL ROAD
ROCHESTER, NH
PREPARED FOR:
NANTUCKET BEADBOARD
AUGUST 2019

FILE NO. 154
PLAN NO. C-2965
DWG. NO. 18020/SP-5
F.B. NO.

31 Mooney Street, Alton, N.H. 603-875-3948

LAND SURVEYORS



CIVIL ENGINEERS

LEGEND

- PROPERTY LINE
- JURISDICTIONAL WETLANDS
- EXISTING OVERHEAD WIRES
- EXISTING LIGHT POLES
- PROPOSED BUILDING
- PROPOSED PAVEMENT
- PROPOSED PAVEMENT WITH CURBING
- PROPOSED BUILDING LIGHT FIXTURES
- PROPOSED LIGHT FOOTCANDLE
- PROPOSED LIGHT ISOLUMINATION LINES

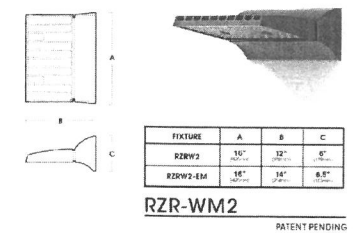
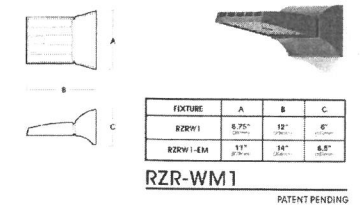
Luminaire Schedule				
Symbol	Qty	Label	Arrangement	Description
W3	1	W3	SINGLE	RZR-WM1-III-20PLED-350mA-NW-HS/ WALL MTD 12' AFG
W4	1	W4	SINGLE	RZR-WM1-IV-FT-20PLED-525mA-NW-HS/ WALL MTD 12' AFG
WM4	6	WM4	SINGLE	RZR-WM2-IV-FT-40PLED-525mA-NW-HS / WALL MTD 12' AFG

NOTE: THE WALL MOUNTED LIGHT ON THE NORTH END OF THE BUILDING SHALL BE ON TIMER AND MOTION SENSOR DURING NON WORK HOURS.

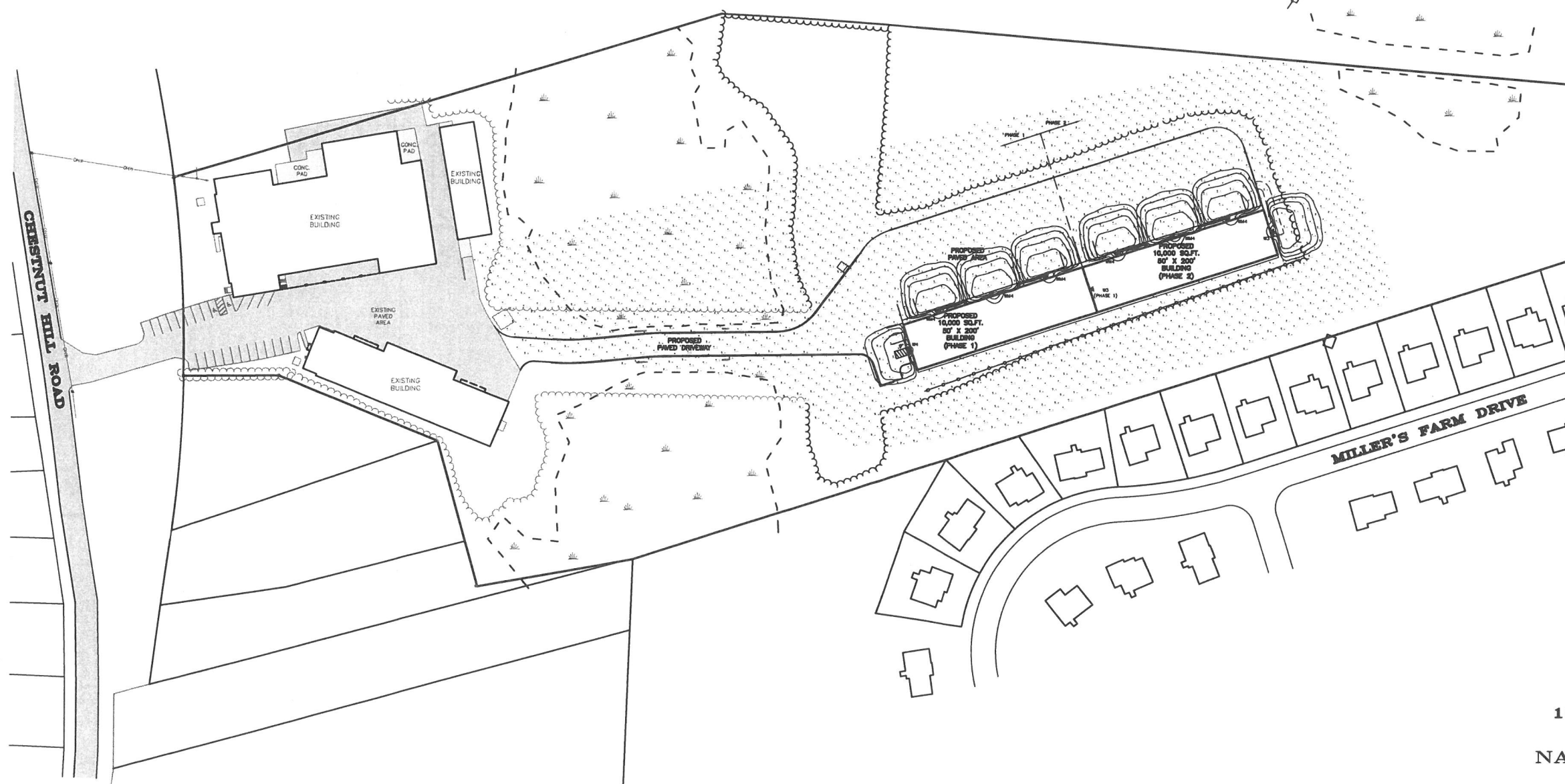
CAREFULLY REVIEW ALL SHEETS OF THIS PACKAGE TO INSURE PROPER CONSTRUCTION. SPECIFIC SITE CONDITIONS SHOULD BE EXPLORED PRIOR TO CONSTRUCTION. CONTACT BOTH THE DESIGN ENGINEER AND THE PROJECT OWNER FOR ANY AVAILABLE GEOTECHNICAL OR HYDROGEOLOGICAL INFORMATION AVAILABLE BUT NOT CONTAINED WITH IN THE PLAN SET. IF THERE ARE ANY QUESTIONS WITH THE DESIGN PRESENTED IN THIS PLAN SET PLEASE CONTACT THE ENGINEERING STAFF AT NORWAY PLAINS ASSOCIATES, INC. (603)-335-3948.



06/24/19 - SHIFT DEVELOPMENT 25 FEET FROM PROPERTY LINE
08/07/19 - ADD PHASE 2 BUILDING AND ASSOCIATED LIGHT FIXTURES



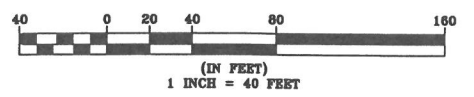
SPAULDING TURNPIKE



LIGHTING PLAN
TAX MAP 222, LOT 16
109 CHESTNUT HILL ROAD
ROCHESTER, NH
PREPARED FOR:
NANTUCKET BEADBOARD

AUGUST 2019

GRAPHIC SCALE



FILE NO. 154
PLAN NO. C-2965
DWG. NO. 18020\SP-3
P.B. NO.

31 Mooney Street, Alton, N.H. 603-875-3948

NORWAY PLAINS ASSOCIATES, INC.

2 Continental Blvd., Rochester, N.H. 603-335-3948

L-1

LAND SURVEYORS



CIVIL ENGINEERS

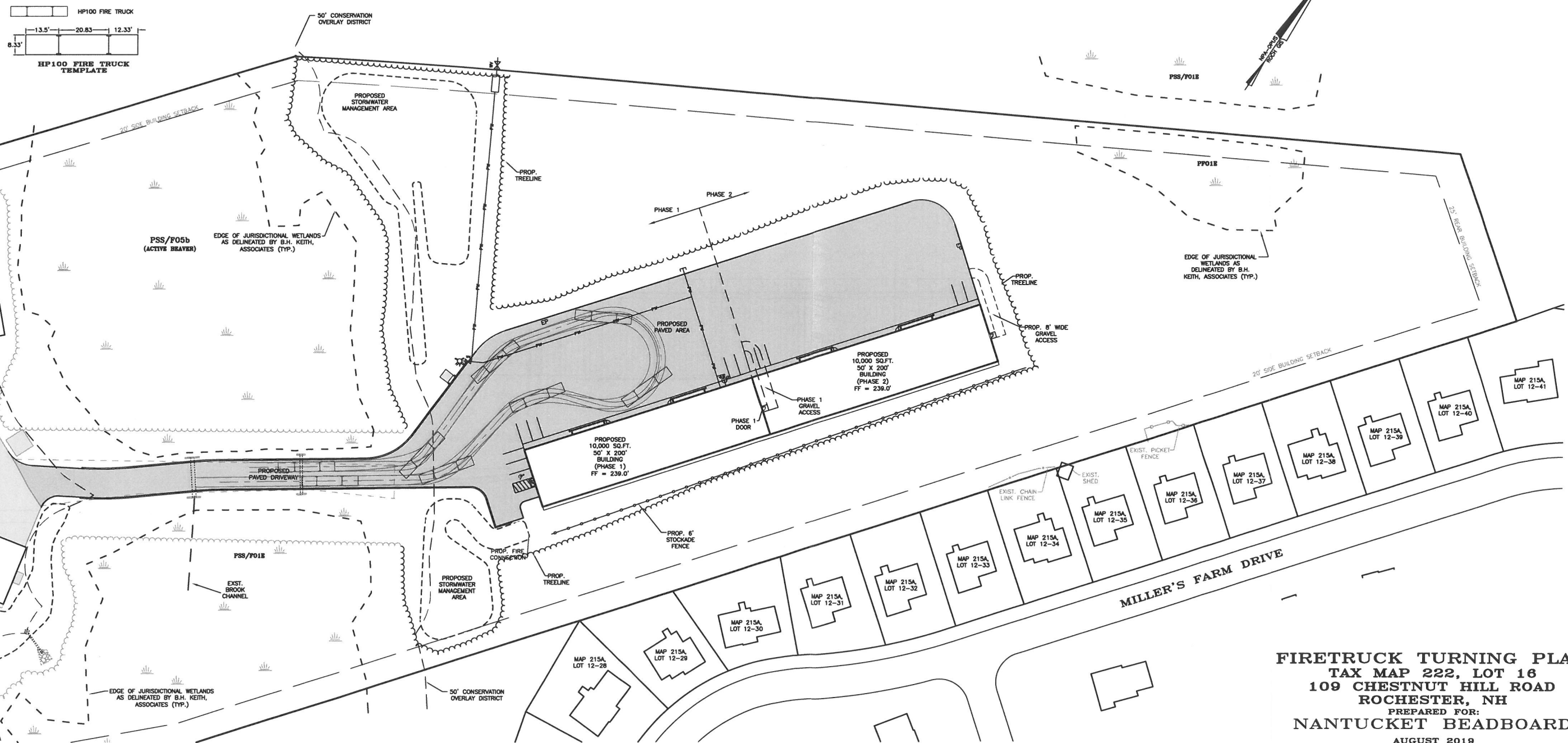


LEGEND

- PROPERTY LINE
- - - JURISDICTIONAL WETLANDS
- EXISTING TREE LINE
- EXISTING OVERHEAD WIRES
- EXISTING HYDRANT
- EXISTING WATER GATE OR SHUT-OFF VALVE
- EXISTING UTILITY POLE
- EXISTING SEWER MAN HOLE
- PROPOSED BUILDING
- PROPOSED PAVEMENT
- PROPOSED PAVEMENT WITH CURBING
- PROPOSED TREE LINE
- PROPOSED WOODEN STOCKADE FENCE
- PROPOSED WATER SERVICE
- PROPOSED HYDRANT
- PROPOSED WATER VALVE
- PROPOSED WATER SHUT-OFF VALVE
- PROPOSED TRUCK WHEEL PATH



CAREFULLY REVIEW ALL SHEETS OF THIS PACKAGE TO INSURE PROPER CONSTRUCTION. SPECIFIC SITE CONDITIONS SHOULD BE EXPLORED PRIOR TO CONSTRUCTION. CONTACT BOTH THE DESIGN ENGINEER AND THE PROJECT OWNER FOR ANY AVAILABLE GEOTECHNICAL OR HYDROGEOLOGICAL INFORMATION AVAILABLE BUT NOT CONTAINED WITHIN THE PLAN SET. IF THERE ARE ANY QUESTIONS WITH THE DESIGN PRESENTED IN THIS PLAN SET PLEASE CONTACT THE ENGINEERING STAFF AT NORWAY PLAINS ASSOCIATES, INC. (603)-335-3948.



FILE NO. 154
PLAN NO. C-2965
DWC. NO. 18020/SP-5
F.B. NO.

31 Mooney Street, Alton, N.H. 603-875-3948

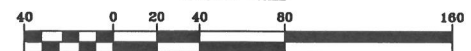
NORWAY PLAINS ASSOCIATES, INC.

FINAL APPROVAL BY
ROCHESTER PLANNING BOARD

CERTIFIED BY: _____ DATE: _____

FIRETRUCK TURNING PLAN
TAX MAP 222, LOT 16
109 CHESTNUT HILL ROAD
ROCHESTER, NH
PREPARED FOR:
NANTUCKET BEADBOARD

AUGUST 2019
GRAPHIC SCALE



(IN FEET)
1 INCH = 40 FEET

2 Continental Blvd., Rochester, N.H. 603-335-3948

T-1

Client:
Budel Construction
23 Meaderboro Road
Rochester, NH

Manufacturing and Storage Building
Nantucket Beadboard Company
Chestnut Hill Road
Rochester, NH

For Approval
7-15-19

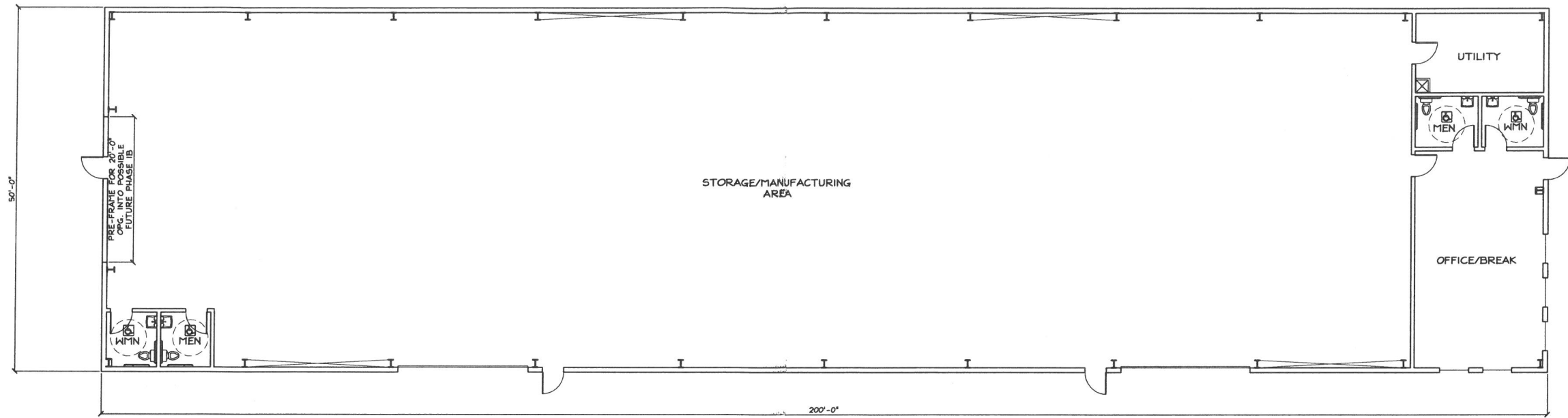
Date: -
Scale: As Noted
Design By: RB
Approved By: -

Revisions

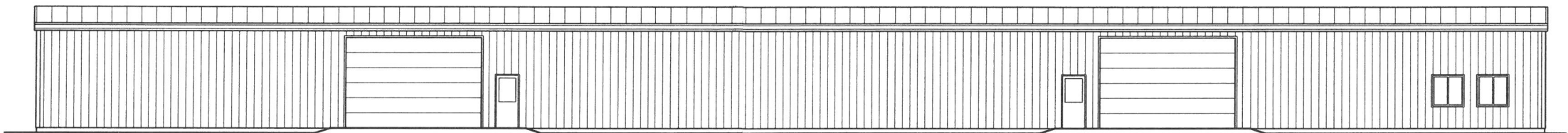
Floor Plan

A1.0

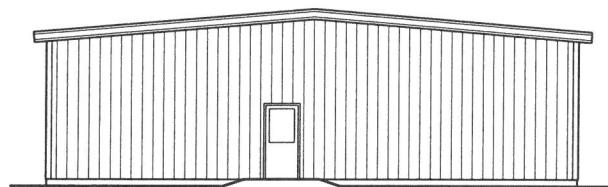
Project No. 190605



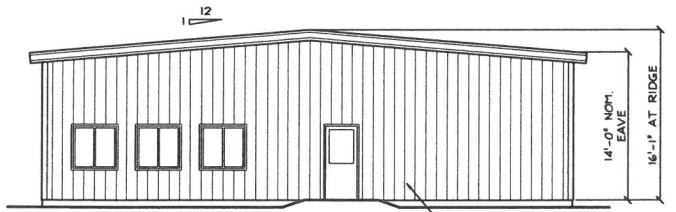
1 FLOOR PLAN - PHASE IA
Scale: 1/8" = 1'



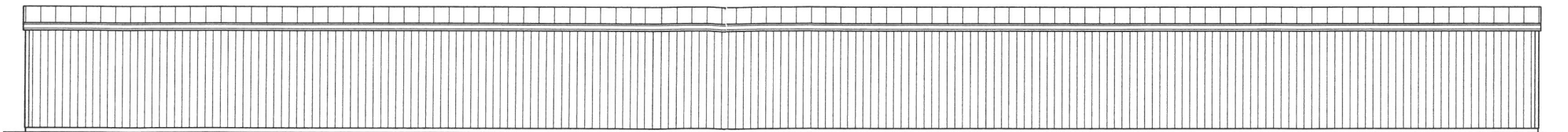
2 FRONT ELEVATION
Scale: 1/8" = 1'



3 LEFT SIDE ELEVATION
Scale: 1/8" = 1'



4 RIGHT SIDE ELEVATION
Scale: 1/8" = 1'



5 BACK ELEVATION
Scale: 1/8" = 1'