

NORWAY PLAINS ASSOCIATES, INC.

LAND SURVEYORS • SEPTIC SYSTEM DESIGNERS • CIVIL ENGINEERS

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rtetreault@norwayplains.com

June 8, 2020

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

Re: Non- Residential Site Plan Application; Prep Partners Group, LLC.; Innovation Drive, Map 255, Lot 21.

Dear Mr. Creighton:

On behalf of Prep Partners Group, LLC, the City of Rochester and Rourke General Contractors, we hereby submit plans and nonresidential site plan application for a proposed warehouse and distribution facility located off Innovation Drive. The parcel, Tax Map 255, Lot 21 is 29.85 acres and is currently owned by the City of Rochester. The parcel is slated to be sold to the applicant in the middle of June, once the final subdivision plan is recorded and transfer of the deed from the City of Rochester to Prep Partners Group, LLC.

The parcel is located within the Granite State Business Park (GSBP) and in the Industrial (GI) zoning district. The parcel was recently part of a three-lot subdivision which was approved by the Rochester Planning Board at the May 20th meeting. The lot will be accessed by a private driveway / road off Innovation Drive to be constructed opposite from Airport Drive. Located southerly of the property is one of the other newly created lots, Marturia Presbyterian Church, and Profile Apartments. To the east, are residential lots with the NH Northcoast Railroad to the north. West of the parcel is land owned by the Pease Development Authority (PDA) and the other lot recently created by the City. Access to this final lot, Tax Map 255, Lot 21-2, would also be off the private driveway / road.

The subject lot contains an old house and garage, which will be removed as part of the project. With the exception of small field behind the house, the rest of the lot is wooded. The land sloped generally from southwest to northeast, with a large wetlands complex at the toe of the parcel along the NH Northcoast Railroad. Jurisdictional wetlands were originally delineated by B.H. Keith Associates in 2013 and reevaluated in the fall of 2019. The site-specific soils were evaluated on the vacant lot by Stoney Ridge Environmental in March 2020.

Prep Partners Group, LLC is proposing to construct a 300' by 500' (150,000 square feet) building on the parcel. This building will have two units, with one being approximately one third (45,000 sq. ft.) the size of the main facility. The larger unit will be occupied by Prep Partners Group, LLC as a warehousing and distribution facility. The smaller unit will be rented / leased to a future company of a similar use. Between the two units, there will be about 5,000 square feet of office space. There will be two upper level mezzanines which will provide some additional storage, either over the office space or within the larger unit's warehouse space. The proposed building will be steel framed and metal sided addition with a gradual slopped roof.

Prep Partners Group, LLC will be operating a "Pick, Pack, and Distribute" warehouse and distribution facility. Essentially, they receive and store product from their customers, and then fill shipment orders as needed. They are proposing to start with operating on two shifts, 7am to 3pm and from 3pm to 11pm. Eventually moving to three shifts as their business grows. They are planning employing 10 full time and 10 part-time for each shift at start-up,

and ramping up to approximately 30 full time and 50 part-time employees in about 2 to 3 years. Once the third shift starts, they anticipate about half of the number of employees as the other two shifts. They are currently marketing the smaller unit to similar type of users operating with proportional number of employees.

As mentioned above, access to the facility will be from a new private driveway / road to be constructed off Innovation Drive. This new entrance will create a fourth leg to the existing three-way intersection with Airport Drive. It is anticipated that Innovation will continue to maintain the thru traffic and the proposed driveway and Airport Drive traffic will be required to stop and yield to Innovation Drive vehicles. A 30' wide driveway with a 5' sidewalk will be constructed, similar to the existing cross section of Innovation Drive. This 450 foot long private driveway / road will also provide access to a future development on the adjacent building lot at the corner of Innovation Drive and the new access way.

Once at the entrance to the subject property, there will be a 30 wide access driveway that will circle the proposed building providing access to three loading dock locations, one at grade entrance and to two parking areas. According to the Rochester Site Review Regulations, the total number of required parking spaces for the proposed building would be 217. Currently, 133 spaces are proposed, with an area designated for another 30 more if parking demand arise. Of which, 6 spaces have been designated as accessible parking spaces with accessible aisles in accordance with the ADA guidelines. As such, a waiver is being requested to allow for 166 total spaces.

The business expects about 10 to 15 tractor trailers entering and existing the facility a day at the beginning of the project. At full occupancy, this number may increase to 20 to 30 trucks depending on the season and the future use within the smaller unit. A trip generation impact analysis is currently being prepared by Stephen G. Pernaw & Company, Inc. which will outline the anticipated traffic that will be generated by the proposed development.

The stormwater from the new impervious surfaces will be collected via closed drainage system consisting of catch basins and drainage pipes. The majority of the new driveway / road drainage will flow northerly toward the intersection at Innovation Drive. This runoff will be directed towards a proposed bio-retention basin to be constructed on the east side of Innovation Drive within the City Right-of-Way. The rest of the stormwater runoff from the pavement, loading docks and roof will be directed towards gravel wetlands basin and infiltration basin located in the northeasterly corner of the property. The gravel wetland basin will provide pretreatment, via a sediment forebay, and treatment within the stone layer below the wetland soils. The gravel wetlands basin will also attenuate the peak flow rates for the different storm events and release it at a controlled rate of discharge into the infiltration basin. This infiltration basin will allow for the increase in the overall volume of the stormwater generated by the development to infiltrate back into the groundwater. A smaller infiltration basin will be constructed in the southeasterly corner of the property to reduce the stormwater leaving the property in this location. The stormwater runoff entering this basin is mostly comprised by the side slopes of the proposed access loop and parking lots and will not contain any runoff from paved surfaces. In all, the post development stormwater management system will attenuate the peak runoff rates and total volume such that they are equal or less than the corresponding Pre-development runoff conditions.

Even with a long retaining wall along the northern and eastern access drive loops, there will still be some grading within the Conservation Overall district. Furthermore, a small area of about 2,350 square feet of wetlands will need to be filled to provide access fully around the development. As such, a Conditional Use Permit application is herewith attached to request minor site grading in the outer 25 feet of the CO district and for the direct impacts of jurisdictional wetlands.

The proposed facility will be serviced by City water and sewer. A new water main will be constructed up the driveway / roadway with fire hydrants and future lot services for the vacant adjoining lot. The building will be designed with fire sprinklers through out the building. Bathrooms will be placed near the proposed office at the front entrance. Domestic sanitary waste will be directed toward a proposed pump station to be constructed in the northwest corner near the other vacant lot. This pump station will be designed with grinder pumps to send waste water through a 4-inch force main towards the driveway intersection and then up Innovation Drive toward

Rochester Hill. Near the entrance to NCS Global driveway, a new gravity sewer line will be installed under Innovation Drive to receive the wastewater from the force main.

Snow storage will be located on the perimeter of the access roadway and there will be a dumpster / compactor placed at the rear loading dock area. The site will have both pole mounted and building mounted lights to ensure proper lighting through the night. Overhead utility wires will be extended up the new roadway / driveway to a new pole. At which, the utilities will be run underground to the building. A backup generator will provide emergency power to the building and the sewer pump station. Natural gas will also be extended up the new entrance to the proposed building.

The proposed project will require several State and Federal permits. From the State of New Hampshire Department of Environmental Services (NHDES), an Alteration of Terrain Permit is required based on the overall earth disturbance from the development. With direct impacts to the jurisdictional wetlands for the access road, a Wetlands Impact Permit will be necessary. Additionally, a new Wastewater Discharge Permit will be needed from NHDES Wastewater Engineering Bureau for approval of the gravity and force main construction and for review of the proposed pump station.

From a federal permit aspect, approval from the Federal Aviation Administration (FAA) for the permeant building will be necessary to ensure it meets their requirements for obstruction. A temporary permit from FAA is likely for any crane activity associated with the construction of the building. Since there will be a point source discharge of stormwater and the project impacting more than an acre of land, a Construction General Permit from the EPA as part of the National Discharge Pollution Elimination Systems (NDPES). The latter permit will be sought by the general contractor and site contractor within 14-days of the start of construction.

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: Prep Partners Group, LLC
Rourke General Contractors
City of Rochester

Describe proposed activity/use: Construction of a 150,000 sf warehouse and distribution building. The building will be accessed by a 30-ft private driveway. There will be two main parking areas and a loop travel way for truck to circulate around the building.

Describe existing conditions/use (vacant land?): The site is undeveloped and mostly wooded

Utility information

City water? yes ☒ no ☐; How far is City water from the site? _____

City sewer? yes ☒ no ☐; How far is City sewer from the site? _____

If City water, what are the estimated total daily needs? 3,000 gallons per day

If City water, is it proposed for anything other than domestic purposes? yes ☒ no ☐

If City sewer, do you plan to discharge anything other than domestic waste? yes ☐ no ☒

Where will stormwater be discharged? Infiltration Basin and Gravel wetlands - on site

Building information

Type of building(s): Steel Framed

Building height: 53 Finished floor elevation: 485.00

Other information

parking spaces: existing: 0 total proposed: 133; Are there pertinent covenants? No

Number of cubic yards of earth being removed from the site N/A

Number of existing employees: 0; number of proposed employees total: 300

Check any that are proposed: variance ☐; special exception ☐; conditional use ☒

Wetlands: Is any fill proposed? ☒; area to be filled: 2,350; buffer impact? ☒

Proposed <u>post-development</u> disposition of site (should total 100%)		
	Square footage	% overall site
Building footprint(s) – give for each building	150,000	12
Parking and vehicle circulation	140,742	11
Planted/landscaped areas (excluding drainage)	281,398	22
Natural/undisturbed areas (excluding wetlands)	496,109	38
Wetlands	154,746	12
Other – drainage structures, outside storage, etc.	73,763	6

Comments

Please feel free to add any comments, additional information, or requests for waivers here:

Waiver request to allow for a reduction in parking will be sought.

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: Blaine Cox
DocuSigned by:
B4F9B7BC7D0C4EB...

Date: 6/8/2020

Signature of applicant/developer: Z. M. Robinson

Date: 6/4/20

Signature of agent: [Signature]

Date: 6/4/20

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: Blaine Cox
DocuSigned by:
B4F9B7BC7D0C4EB...

Date: 6/8/2020

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June 9, 2020

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, Prep Partners Group, LLC, Innovation Drive; Rochester, NH, Tax Map 255 Lot 21.

Dear Seth:

On behalf of Prep Partners Group, LLC, 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 217:

<u>191,250 sf proposed Warehouse</u>	Plus	<u>5,000 sf existing office</u>
1 space per 1,000 sf Industrial Use		3 spaces per 1,000 sf Office

There is a total of 133 proposed with an additional 30 future parking spaces delineated on the site plans for a total of 163 spaces.

Although a very large building, much of it is designated as storage. Based on the anticipated number of employees, 133 parking spaces will accommodate the parking needs. An additional 30 parking spaces have been set aside to be constructed on the eastern end of the building if more parking is necessary.

Therefore, we respectfully request a waiver to allow for less than amount of required parking set forth within the Rochester Site Review Regulations.

Thank you for your consideration.

Sincerely,

NORWAY PLAINS ASSOCIATES, INC.

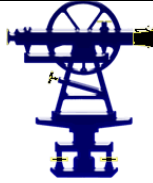
By: _____
Scott A. Lawler, P.E., Project Engineer

Cc: Prep Partners Group, LLC

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June 9, 2020

Rochester Conservation Commission
Department of Planning and Development
Second Floor, City Hall
31 Wakefield Street
Rochester, NH 03867-1917

Re: Conditional Use Application - Proposed Non-residential Site Plan – Innovation Drive - Tax Map 255, Lot 21.

Dear Members,

On behalf of the Prep Partners Group LLC, the City of Rochester and Rourke General Contractors, Norway Plains Associates, Inc. is pleased to submit plans and Conditional Use application for a proposed warehouse and distribution facility located off Innovation Drive. The parcel, Tax Map 255, Lot 21 is 29.85 acres and is currently owned by the City of Rochester. The parcel is slated to be sold to the applicant in the middle of June, once the final subdivision plan is recorded and transfer of the deed from the City of Rochester to Prep Partners Group, LLC. This Conditional Use application is being submitted in conjunction with a proposed Non-residential Site Plan application to the Rochester Planning Board.

The parcel is located within the Granite State Business Park (GSBP) and in the Industrial (GI) zoning district. The parcel was recently part of a three-lot subdivision which was approved by the Rochester Planning Board at the May 20th meeting. The lot will be accessed by a private driveway / road off Innovation Drive to be constructed opposite from Airport Drive. Located southerly of the property is one of the other newly created lots, Marturia Presbyterian Church, and Profile Apartments. To the east, are residential lots with the NH Northcoast Railroad to the north. West of the parcel is land owned by the Pease Development Authority (PDA) and the other lot recently created by the City. Access to this final lot, Tax Map 255, Lot 21-2, would also be off the private driveway / road.

The subject lot contains an old house and garage, which will be removed as part of the project. With the exception of small field behind the house, the rest of the lot is wooded. The land sloped generally from southwest to northeast, with a large wetlands complex at the toe of the parcel along the NH Northcoast Railroad. Jurisdictional wetlands were originally delineated by B.H. Keith Associates in 2013 and reevaluated in the fall of 2019. The site-specific soils were evaluated on the vacant lot by Stoney Ridge Environmental in March 2020.

Prep Partners Group, LLC is proposing to construct a 300' by 500' (150,000 square feet) building on the parcel. This building will have two units, with one being approximately one third (45,000 sq. ft.) the size of the main facility. The larger unit will be occupied by Prep Partners Group, LLC as a warehousing and distribution facility. The smaller unit will be rented / leased to a future company of a similar use. Between the two units, there will be about 5,000 square feet of office space. There will be two upper level mezzanines which will provide some additional storage, either over the office space or within the larger unit's warehouse space.

As mentioned above, access to the facility will be from a new private driveway / road to be constructed off Innovation Drive. This new entrance will create a fourth leg to the existing three-way intersection with Airport Drive. It is anticipated that Innovation will continue to maintain the thru traffic and the proposed driveway and Airport Drive traffic will be required to stop and yield to Innovation Drive vehicles. A 30' wide driveway with a 5' sidewalk will be constructed, similar to the existing cross section of Innovation Drive. This 450 foot long

private driveway / road will also provide access to a future development on the adjacent building lot at the corner of Innovation Drive and the new access way.

The project will require approval of several State permits, NHDES Wetlands and NHDES Wastewater Engineering Bureaus and a new permit from NHDES Alteration of Terrain Bureau. The total amount of impacts to the wetlands is 2,350 square feet. The impact is located on the southwesterly corner of the loop access roadway and is necessary to provide a safe travel way around the building.

As a result of the proposed roadway and site development, a stormwater management system was designed to capture, treat, attenuate and discharge the stormwater runoff towards the property lines. The stormwater from the new impervious surfaces will be collected via closed drainage system consisting of catch basins and drainage pipes. The majority of the new driveway / road drainage will flow northerly toward the intersection at Innovation Drive. This runoff will be directed towards a proposed bio-retention basin to be constructed on the east side of Innovation Drive within the City Right-of -Way. The rest of the stormwater runoff from the pavement, loading docks and roof will be directed towards gravel wetlands basin and infiltration basin located in the northeasterly corner of the property. The gravel wetland basin will provide pretreatment, via a sediment forebay, and treatment within the stone layer below the wetland soils. The gravel wetlands basin will also attenuate the peak flow rates for the different storm events and release it at a controlled rate of discharge into the infiltration basin. This infiltration basin will allow for the increase in the overall volume of the stormwater generated by the development to infiltrate back into the groundwater. A smaller infiltration basin will be constructed in the southeasterly corner of the property to reduce the stormwater leaving the property in this location. The stormwater runoff entering this basin is mostly comprised by the side slopes of the proposed access loop and parking lots and will not contain any runoff from paved surfaces. In all, the post development stormwater management system will attenuate the peak runoff rates and total volume such that they are equal or less than the corresponding Pre-development runoff conditions.

Minor grading for the proposed development is proposed within the outer 25 feet of the Conservation Overlay district, totaling approximately 15,000 square feet. This area is spread over multiple locations around the perimeter of the project. Although this amount seems high, given the size of the proposed development, the existing topography and the need to provide stormwater management, the overall amount is reasonable. With the use of a retaining wall along the northern and eastern edges of the development, there is no impact in the inter 25 feet of the CO with the exception of the requested wetlands impact.

Should the Commission need additional information or have any questions, please feel free to contact our office. Otherwise we look forward to discussing this project with staff and the Conservation Commission. Thank you for your consideration

Sincerely,

NORWAY PLAINS ASSOCIATES, INC.



By:

Scott A. Lawler, PE, Project Engineer

cc: Prep Partner Group, LLC

Application for Conditional Use
Conditional Uses and Buffer Reductions
Section 42.19 - Conservation Overlay District
City of Rochester, NH

Date: 6/3/2020

Property information

Tax map #: 255; Lot #(s): 21; Zoning district: General Industrial

Property address/location: Innovation Drive

Name of project (if applicable): Warehouse & Distribution Facility

Property owner

Name (include name of individual): City of Rochester

Mailing address: 31 Wakefield Street, Rochester, NH 03867

Telephone #: 603-335-1338 Fax

Applicant/developer (if different from property owner)

Name (include name of individual): Prep Partners Group, LLC

Mailing address: 38 Raynor Drive, Hingham, MA 02043

Telephone #: 603-986-2979 Fax #:

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 #:

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

Proposed Project

Please describe the proposed project: Construction of a 150,000 sf warehouse and distribution building. The
building will be accessed by a 30-ft private driveway. There will be two main parking areas and a loop travel way for trucks to
to circulate around the building.

Please describe the existing conditions: The site is undeveloped and mostly wooded

(continued Conditional Use application Tax Map: 255 Lot: 21)

Please fill in **one of the next two sections – for either Conditional Uses or Buffer Reductions**

Conditional Uses

For Conditional Uses only, justify the proposal in terms of each of the criteria below (in accordance with subsection 42.19 (i) (1) (A)). All four criteria must be satisfied.

(i) The proposed construction is essential to the productive use of land not in the COD.

The proposed development has resulted in the need for a stormwater treatment and ground water recharge areas to adhere to the City of Rochester Chapter 218

Some of the proposed grading of these stormwater management areas and a wetlands crossing required for the truck travel way will be with in the CO

District. Without crossing the wetland or minor impacts to the outer 25-feet of the buffer would hinder productive use of the land.

(ii) Design and construction methods will be such as to minimize impact upon the wetlands and will include restoration of the site consistent with the permitted use.

The wetland impact will not have an adverse affect on the adjacent wetlands. This will be accomplished by the installation of erosion

control and sedimentation prevention. Silt fence and silt sock will be placed following the guidelines found in the NHDES NH

Stormwater Manual Volume 3.

(iii) There is no feasible alternative route on land controlled by the applicant that does not cross the CO District nor has less detrimental impact on the wetlands. Nothing in this Section shall limit the applicant from exploring alternatives with abutting property owners.

The main travelway has been designed to minimize the impacts to the wetlands on site. A full review of all alternatives has been

complete and determined this design will minimize all impacts while preserving functionality of the travel way. Placement of the

stormwater management areas near the CO is necessary given the existing topography of the property

(iv) Economic advantage is not the sole reason for the proposed location of work.

The project requires crossing the wetlands and impacts in the CO in order to best utilize the property to its fullest. The proposed

building will not require a reduction of the CO. Only minor impacts are associated with the travel way around the building. Only

minor impacts are associated with the grading around the stormwater treatment and management systems.

(Buffer Reductions on next page)

(continued Conditional Use application Tax Map: 255 Lot: 21)

Buffer Reductions

For Buffer Reductions only, justify the proposal in terms of each of the criteria below (in accordance with subsection 42.19 (i) (2) (B)). All four criteria must be satisfied.

(i) The structure for which the exception is sought cannot feasibly, after consideration of all reasonable alternatives, be constructed on a portion or portions of the lot, which lie outside the CO district, **or** the application of the CO district eliminates greater than 50% of the buildable area located on the parcel **or** in the judgment of the Planning Board, the proposed site layout would result in a significantly higher quality design.

(ii) The proposed structure and use must be consistent with the purpose and intent of Section 42.19 and provisions must be made to ensure that drainage from the structure will not adversely impact any wetlands.

(iii) There shall be no impervious areas for parking within the reduced buffer for which the Conditional Use Approval is sought.

(iv) The maximum building coverage is limited to 50% of the outer half of the buffer zone, as shown in the diagram below.

(v) Best management practices must be demonstrated to the satisfaction of the Planning Board.

Submission of application

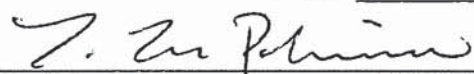
This application must be signed by the property owner, applicant/developer (if different from property owner), and/or the agent.

I/we hereby submit this Conditional Use application to the City of Rochester Conservation Commission and Planning Board pursuant to the City of Rochester Zoning Ordinance 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:  B4F9B7BC7D0C4EB...

6/8/2020

Date: _____

Signature of applicant/developer: 

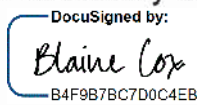
Date: 6/4/20

Signature of agent: 

Date: 6/4/20

Authorization to enter subject property

I hereby authorize members of the Rochester Conservation Commission and Planning Board, and other pertinent City departments, boards and agencies to enter my property for the purpose of evaluating this application including performing any appropriate inspections. 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. (It is not necessary to sign this provision if a Planning Board application has been submitted.)

Signature of property owner:  B4F9B7BC7D0C4EB...

6/8/2020

Date: _____

Conservation Commission Recommendation:

[office use only]

Name of project

Case #

Recommendation:

- ☐ Approval
- ☐ Approval with conditions
- ☐ Denial

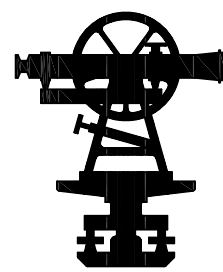
Comments/recommended conditions:

Conservation Commission

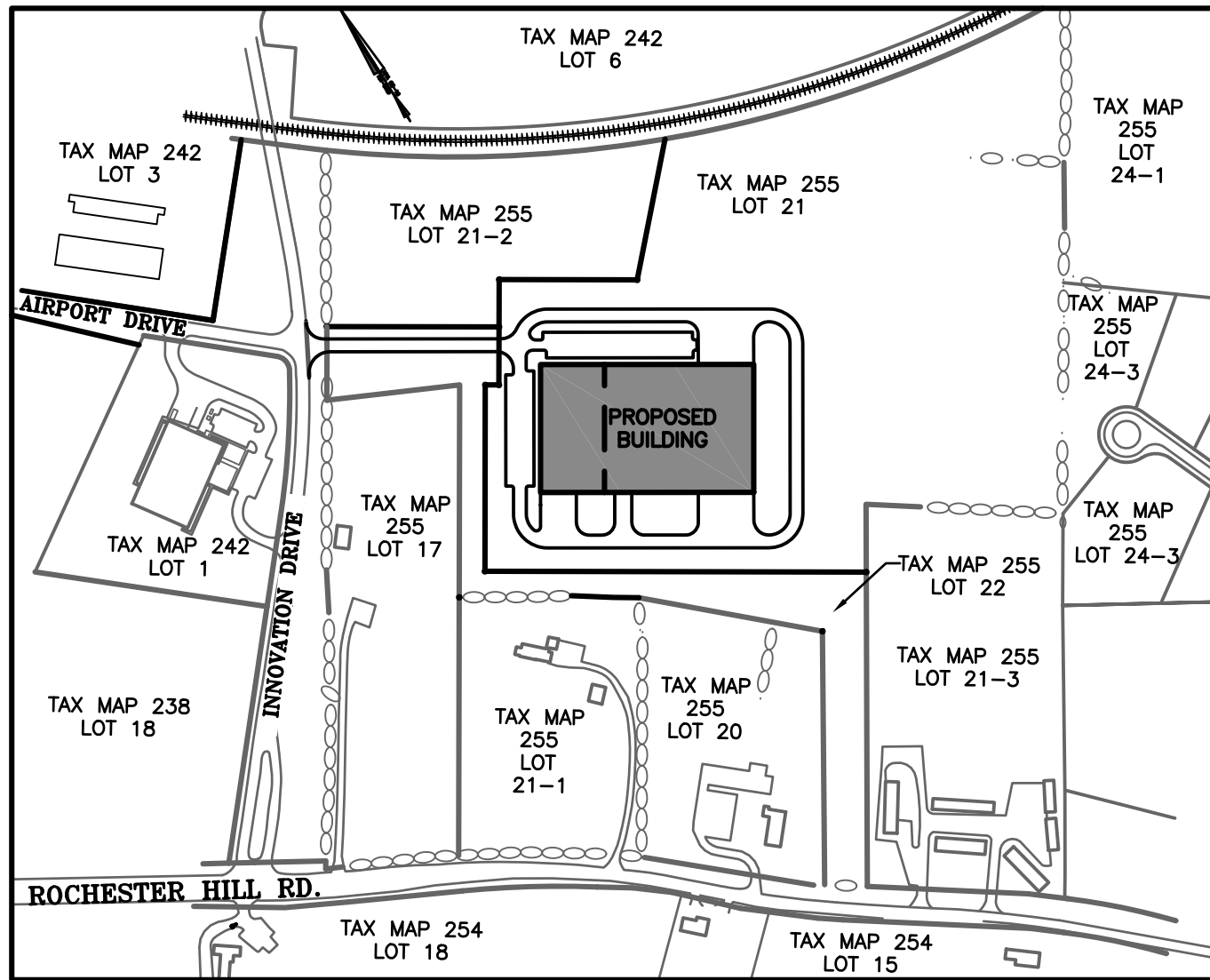
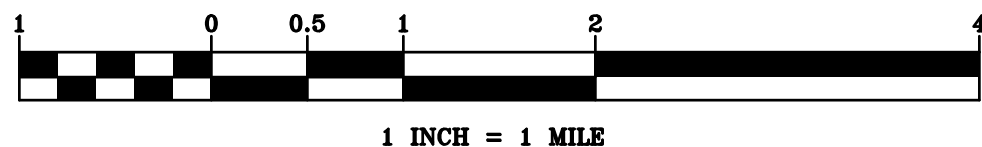
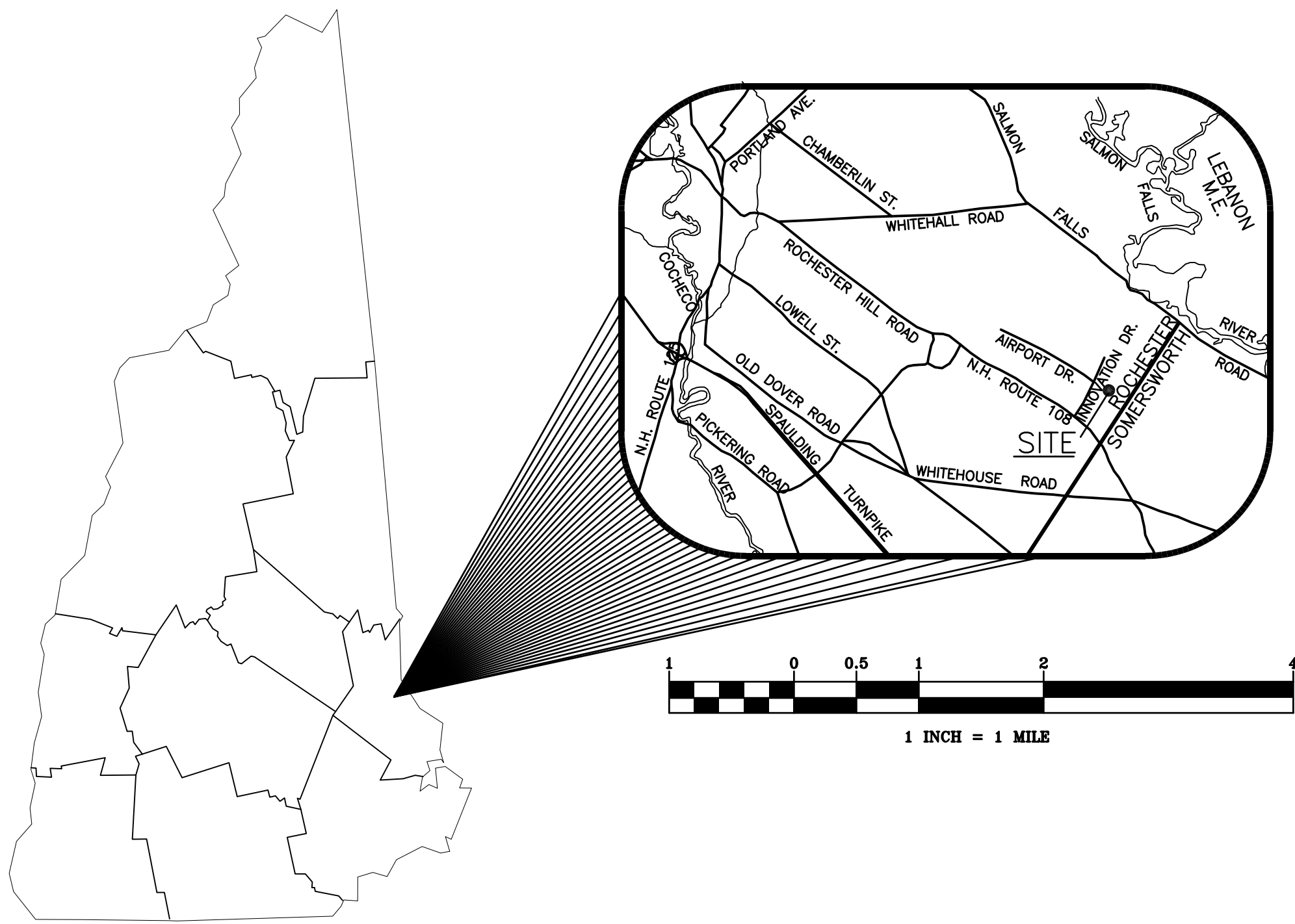
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Planning Department

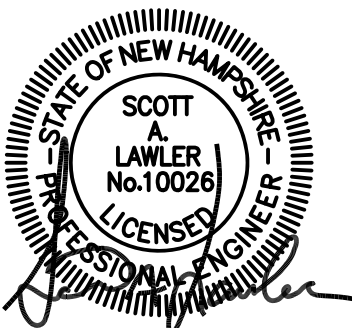
date



WAREHOUSE & DISTRIBUTION FACILITY
INNOVATION DRIVE
PREPARED FOR
PREP PARTNERS GROUP, LLC.
MAY 2020



OVERALL SITE
1" = 400'



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

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.

OWNER OF RECORD
TAX MAP 255, LOT 21
OWNER OF RECORD:
CITY OF ROCHESTER
31 WAKEFIELD STREET
ROCHESTER, NH 03867
SCRD BOOK XXX, PAGE XXX
APPLICANT
PREP PARTNERS GROUP, LLC.
38 RAYNOR DRIVE
HINHAM, MA 02043
(603) 986-2979

STATE AND FEDERAL PERMITS:
STATE OF NEW HAMPSHIRE PERMIT NUMBERS:
NHDES ALTERATION OF TERRAIN: REQUIRED
NHDES WETLANDS PERMIT: REQUIRED
NHDES DAM PERMIT: NOT REQUIRED
NHDES SUBDIVISION PERMIT: NOT REQUIRED
NHDES SUBSURFACE SYSTEMS PERMIT: NOT REQUIRED
NHDES WASTEWATER PERMIT: 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 E-1	COVER	1" = 100'
SHEET C-1	EXISTING FEATURES	1" = 100'
SHEET C-2	OVERALL SITE PLAN	1" = 100'
SHEET C-3	SITE LAYOUT PLAN	1" = 40'
SHEET C-4	GRADING AND DRAINAGE PLAN	1" = 60'
SHEET C-5	GRADING AND DRAINAGE PLAN	1" = 30'
SHEET C-6	GRADING AND DRAINAGE PLAN	1" = 30'
SHEET C-7	EROSION AND SEDIMENTATION CONTROL PLAN	1" = 30'
SHEET C-8	UTILITY PLAN	1" = 40'
SHEET C-9	DRIVEWAY AND TRAVEL WAY TYPICAL SECTIONS	AS SHOWN
SHEET C-10	PARKING AND SIDEWALK DETAILS	AS SHOWN
SHEET C-11	CONCRETE TRUCK PORT DETAILS	AS SHOWN
SHEET C-12	DRAINAGE DETAILS	AS SHOWN
SHEET C-13	UTILITY DETAILS	AS SHOWN
SHEET C-14	GRAVEL WETLANDS CROSS SECTION	AS SHOWN
SHEET C-15	GRAVEL WETLANDS DETAILS	AS SHOWN
SHEET C-16	INFILTRATION BASIN 1 DETAILS	AS SHOWN
SHEET C-17	INFILTRATION BASIN 2 DETAILS AND BIORETENTION BASIN DETAILS	AS SHOWN
SHEET C-18	TEMPORARY EROSION AND SEDIMENTATION CONTROL DETAILS	AS SHOWN
SHEET C-19	PERMANENT EROSION AND SEDIMENTATION CONTROL DETAILS	AS SHOWN
SHEET C-20	RETAINING WALL DETAILS	AS SHOWN
SHEET C-21	GUARDRAIL DETAILS	AS SHOWN
SHEET C-22	SEWER FORCE MAIN PLAN & PROFILE	AS SHOWN
SHEET C-23	PUMP STATION DETAILS	AS SHOWN
SHEET C-24	SEWER DETAILS	AS SHOWN
SHEET C-25	TEST PIT LOG AND INFILTRATION TEST RESULTS	AS SHOWN
SHEET L-1	LIGHTING PLAN AND DETAILS	AS SHOWN
SHEET A-5	BUILDING ELEVATIONS	1"=20'

FILE NO. 104
PLAN NO. C-3012
DWC. NO. 19289 SP-1
F.B. NO.

STATE OF HAMPSHIRE
 No. 729
 RANDOLPH E. TETREAULT
 LAND SURVEYOR
 SIGNATURE

STATE OF NEW HAMPSHIRE
BARRY
H.
KEITH
No. 087
CERTIFIED W. AND SCIENTIST

WETLAND LEGEND

PSS/F01E	-	PALUSTRINE BROAD-LEAVED DECIDUOUS SCRUB -SHRUB/FORESTED, SEASONALLY FLOODED/SATURATED
PEM1ED	-	PALUSTRINE PERSISTENT EMERGENT, SEASONALLY FLOODED/SATURATED, DITCHED
R3UB1H	-	RIVERINE UPPER PERENNIAL, UNCONSOLIDATED BOTTOM, COBBLE-GRAVEL, PERMANENTLY FLOODED
R3UB2H	-	RIVERINE UPPER PERENNIAL, UNCONSOLIDATED BOTTOM, SAND, PERMANENTLY FLOODED
R4UBJ	-	RIVERINE INTERMITTENT, UNCONSOLIDATED BOTTOM, INTERMITTENTLY FLOODED
PF01E	-	PALUSTRINE BROAD-LEAVED DECIDUOUS FORESTED, SEASONALLY FLOODED/SATURATED
PSS/EM1E	-	PALUSTRINE BROAD-LEAVED DECIDUOUS SCRUB -SHRUB/PERSISTENT EMERGENT, SEASONALLY FLOODED/SATURATED
PSS1/F04E	-	PALUSTRINE BROAD-LEAVED DECIDUOUS SCRUB-SHRUB/NEEDLE-LEAVED EVERGREEN FORESTED, SEASONALLY FLOODED/SATURATED

E-1

NORWAY PLAINS ASSOCIATES, INC.

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

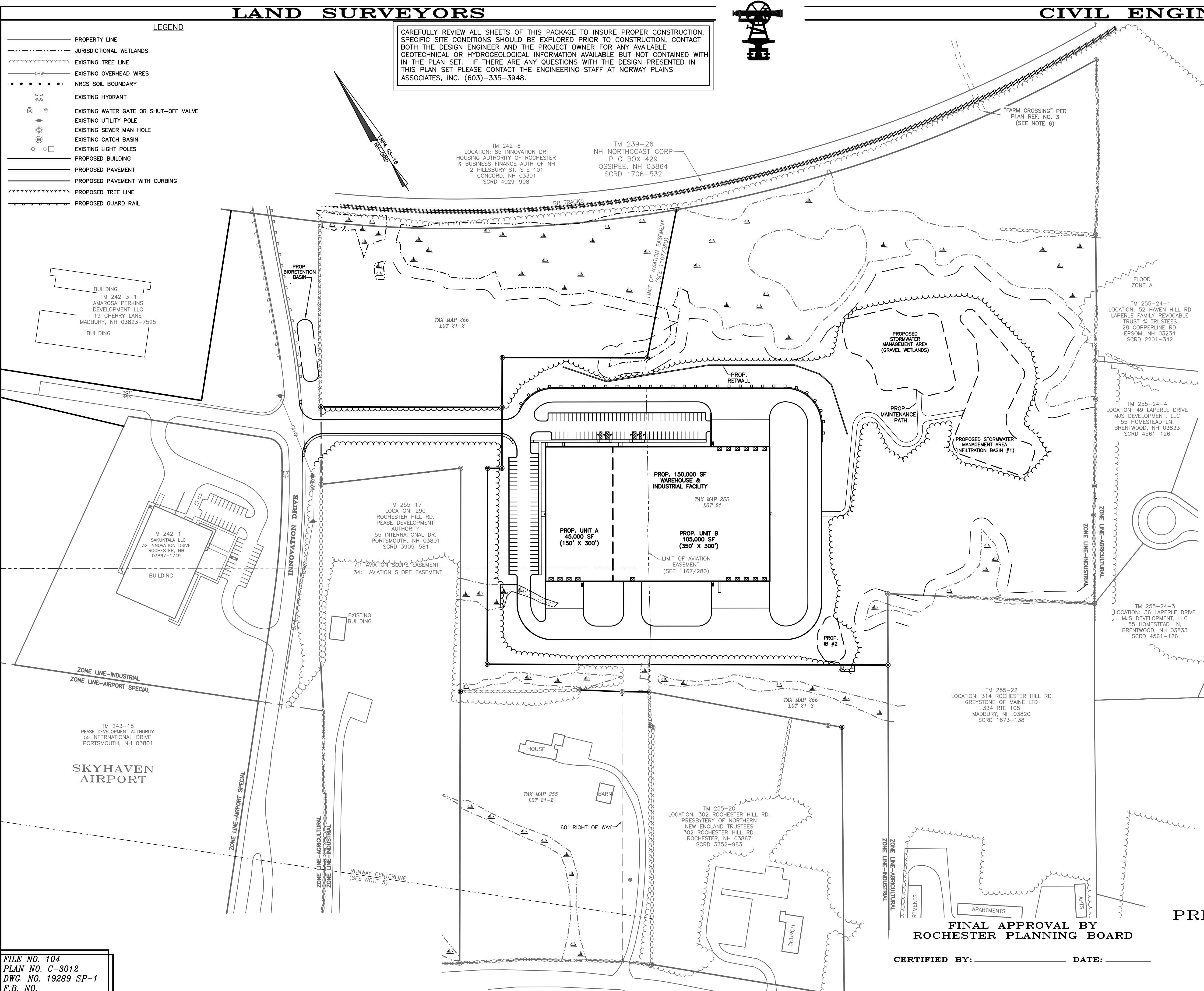
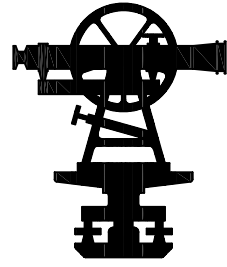
FILE NO. 104
PLAN NO. C-3012-EF
DWG. NO. 19289 SP-1
F.B. NO.

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

LEGEND

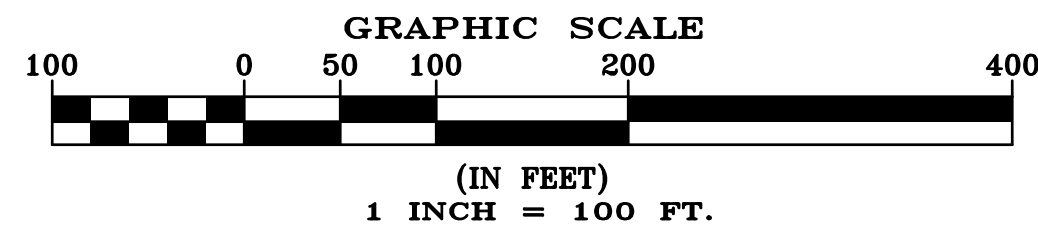
- PROPERTY LINE
- JURISDICTIONAL WETLANDS
- EXISTING TREE LINE
- EXISTING OVERHEAD WIRES
- NRCS SOIL BOUNDARY
- EXISTING HYDRANT
- EXISTING WATER GATE OR SHUT-OFF VALVE
- EXISTING UTILITY POLE
- EXISTING SEWER MAN HOLE
- EXISTING CATCH BASIN
- EXISTING LIGHT POLES
- PROPOSED BUILDING
- PROPOSED PAVEMENT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

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.

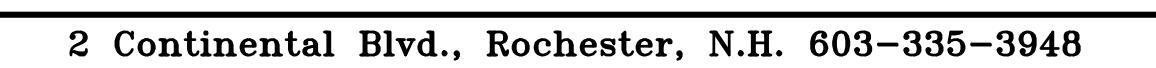


- GENERAL SITE PLAN NOTES
1. THIS PARCELS ARE LOCATED IN THE GENERAL INDUSTRIAL DISTRICT ZONE (G1).
 2. TOTAL PARCEL AREA: 29.85 ACRES OR 1,300,295 SQ.FT.
 3. THE PURPOSE OF THIS PLAN IS TO DEPICT A PROPOSED COMMERCIAL BUILDING.
 4. ALL EXISTING UTILITIES LOCATIONS ARE APPROXIMATE AS SHOWN. THE CONTRACTOR SHALL VERIFY THEIR EXACT LOCATION PRIOR TO ANY WORK BEING PERFORMED.
 5. THESE PLANS SHOW ONLY THOSE FEATURES THAT WERE VISUALLY PER REFERENCE PLAN 1.
 6. DIMENSIONAL REGULATIONS PER ZONING ORDINANCE:
- GENERAL INDUSTRIAL DISTRICT ZONE (G1):
- MINIMUM LOT AREA WITH WATER AND SEWER = 20,000 SQ.FT.
 - MINIMUM LOT FRONTAGE = 100 FT.
 - MINIMUM YARD SETBACKS:
- "NO INDUSTRIAL BUILDING OR OPERATION SHALL BE SITUATED CLOSER THAN 100 FEET TO THE BOUNDARY LINE OF ANY ADJACENT RESIDENTIAL PROPERTY." SECTION 275-7.2.B.
- FRONT = 25 FT.
 - SIDE = 20 FT.
 - REAR = 25 FT.
 - MAXIMUM LOT COVERAGE = 75%
 - MAXIMUM BUILDING HEIGHT = 55 FT.
 - ORIENTATION: HORIZONTAL DATUM = NAD83
 - VERTICAL DATUM = NAVD88
7. A SMALL PORTION OF PARCEL 225-21 IS LOCATED WITHIN ZONE A (100YR FLOOD) AS SHOWN ON FEDERAL EMERGENCY MANAGEMENT AGENCY MAP 330760218D MAY 17, 2005 PANEL 218 OF 405. NO PROPOSED CONSTRUCTION WILL TAKE PLACE WITHIN THE 100YR FLOOD ZONE.
 8. THIS SITE-SPECIFIC SOIL MAP WAS COMPLETED BY CYNTHIA M. BALOUS, NEW HAMPSHIRE CERTIFIED SOIL SCIENTIST #82 OF STONEY RIDGE ENVIRONMENTAL LLC. FIELD WORK WAS COMPLETED ON JANUARY 31, 2020 AND FEBRUARY 5, 2020. THE SOILS TYPE ARE AS FOLLOWS.
- | SYMBOL | MAP UNIT |
|----------|------------|
| 115A/VPD | SCARBORO |
| 115B/VPD | SCARBORO |
| 546A/VPD | WALPOLE |
| 546B/VPD | WALPOLE |
| 29A | WOODBRIDGE |
| 29B | WOODBRIDGE |
| 29C | WOODBRIDGE |
| 68D | PAXTON |
| 68E | PAXTON |
| 313B | DEERFIELD |
10. JURISDICTIONAL WETLANDS WERE DELINEATED BY BARRY H. KEITH, C.W.S., IN SEPTEMBER 2019. FOR MORE INFORMATION ABOUT THIS SITE PLAN, CONTACT THE CITY OF ROCHESTER PLANNING DEPARTMENT, 33 WAKEFIELD ST., ROCHESTER, NH 03867. (603) 335-1338.
 12. PARKING REQUIREMENTS (SITE PLAN REGULATIONS; ARTICLE III SECTION 10 (A)):
- INDUSTRIAL USE:
- 1 SPACE PER 1,000 GROSS SQUARE FEET PLUS
 - 3 SPACES PER 1,000 GROSS SQUARE FEET OF OFFICES OR RETAIL SALES:
- | 191,250 SF GFA X 1 SPACE / 1,000 SF GFA | = | 192 SPACES |
|---|---|------------|
| 5,000 SF OFFICE SPACE X 3 SPACES / 1,000 SF | = | 15 SPACES |
| TOTAL REQUIRED SPACES | = | 217 SPACES |
| TOTAL PROVIDED SPACES | = | 133 SPACES |
| TOTAL FUTURE SPACE | = | 30 SPACE |
- ACCESSIBLE PARKING (SITE PLAN REGULATIONS; ARTICLE III SECTION 10 (D) (2)):
- THE SPACES ARE PART OF THE TOTAL ABOVE
- ACCESSIBLE PARKING SPACES [TOTAL # OF SPACES 151 TO 200] = 6 SPACES
- TOTAL PROVIDED SPACES = 6 SPACES
13. 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.
 14. 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.
 15. 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.
 16. SNOW SHALL NOT BE PILED IN SUCH A MANNER AS TO BLOCK THE VISIBILITY OF THE VEHICLES ON INNOVATION DRIVE AND ALL EXCESS SNOW SHALL BE REMOVED FROM THE SITE.
 17. 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.
 18. ALL UTILITIES MUST BE UNDERGROUND, INCLUDING UTILITIES EXTENDED ONTO THE SITE FROM EXISTING POLES NEARBY. 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.
 19. THE CODE ENFORCEMENT OFFICER ADMINISTERS THE CITY OF ROCHESTER SIGN ORDINANCE. SIGNAGE SUBMITTED AS PART OF THIS SITE PLAN PACKAGE IS STILL SUBJECT TO HIS REVIEW TO ENSURE COMPLIANCE WITH THAT ORDINANCE AND OTHER APPLICABLE CODES, INDEPENDENT FROM THIS SITE PLAN REVIEW. IN ADDITION, IF ANY SIGNIFICANT CHANGE OR EXPANSION IS PROPOSED TO THE DESIGN OF THE APPROVED FREESTANDING SIGN OR TO THE OVERALL ADVERTISING SIGNAGE FOR THE SITE (NOT INCLUDING ACCESSORY SIGNAGE, SUCH AS HANDICAP PARKING SIGNS), THE PROPOSED SIGN DESIGNS MUST BE PRESENTED TO THE PLANNING BOARD FOR REVIEW PRIOR TO ISSUANCE OF THOSE SIGN PERMITS. A SIGN PERMIT MUST BE OBTAINED PRIOR TO INSTALLATION OF ANY SIGNS ON SITE.
 20. ALL ELEMENTS SHOWN ON THE APPROVED SITE PLAN MUST BE PROPERLY COMPLETED PRIOR TO ISSUANCE OF CERTIFICATE OF OCCUPANCY, UNLESS APPROPRIATE SURETY IS PLACED WITH THE PLANNING DEPARTMENT.
 21. 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.
 22. 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.
 23. 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.

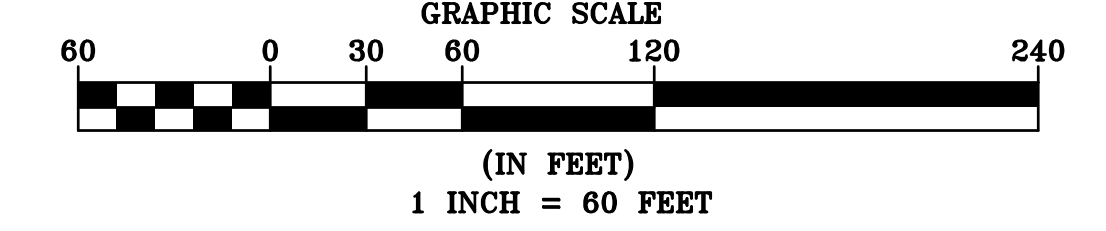
OVERALL SITE PLAN
TAX MAP 255, LOT 21
INNOVATION DRIVE
CITY OF ROCHESTER NH
PREPARED FOR:
PREP PARTNERS GROUP, LLC.
MAY 2020



FILE NO. 104
PLAN NO. C-3012
DWG. NO. 19289 SP-1
F.B. NO.

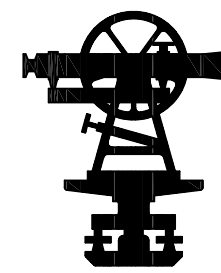


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C-3

LAND SURVEYORS



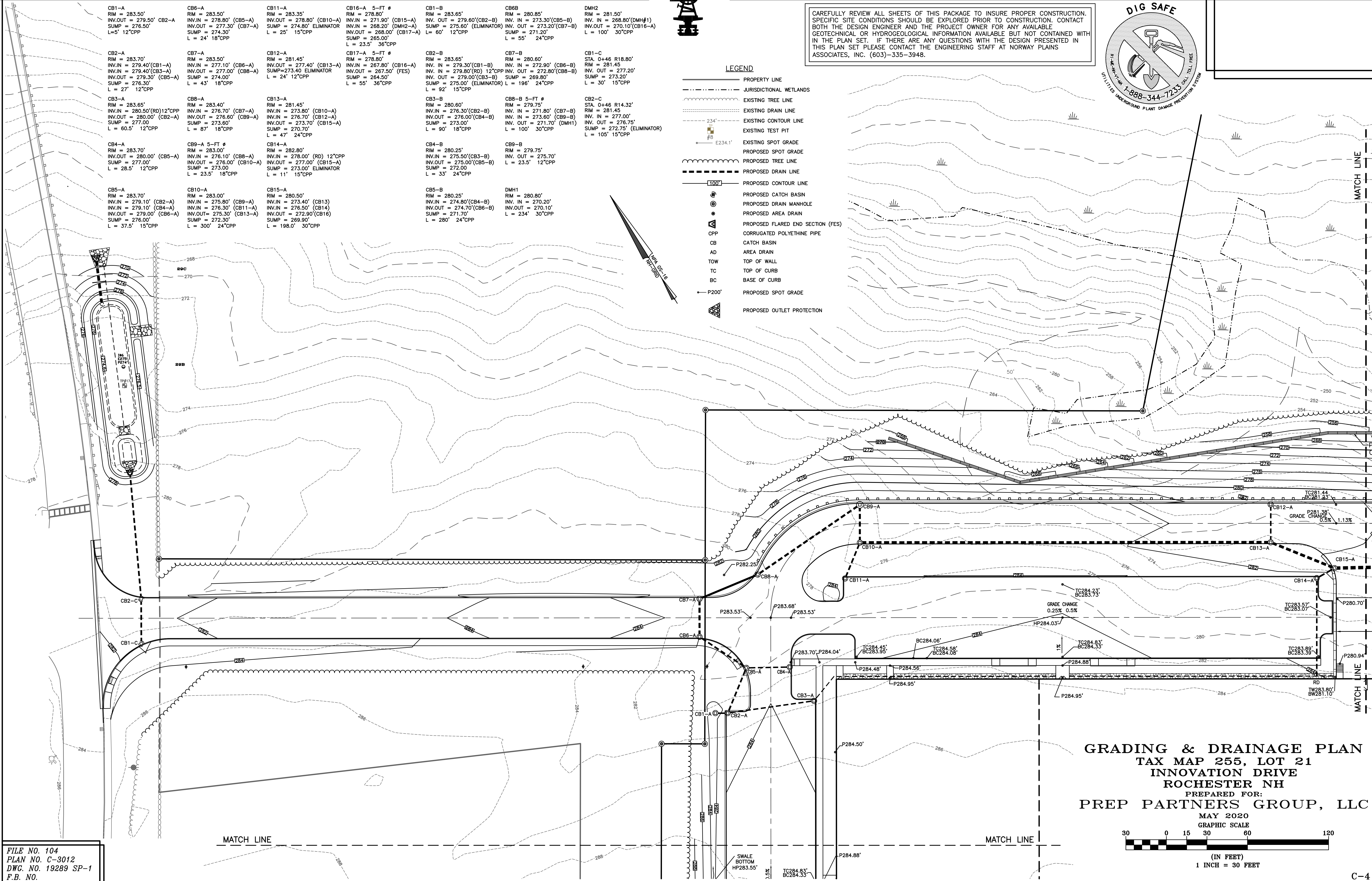
CIVIL ENGINEERS



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LEGEND

- PROPERTY LINE
- JURISDICTIONAL WETLANDS
- EXISTING TREE LINE
- EXISTING DRAIN LINE
- EXISTING CONTOUR LINE
- EXISTING TEST PIT
- EXISTING SPOT GRADE
- PROPOSED SPOT GRADE
- PROPOSED TREE LINE
- PROPOSED DRAIN LINE
- PROPOSED CONTOUR LINE
- PROPOSED CATCH BASIN
- PROPOSED DRAIN MANHOLE
- PROPOSED AREA DRAIN
- PROPOSED FLARED END SECTION (FES)
- CORRUGATED POLYETHYLENE PIPE
- CATCH BASIN
- AREA DRAIN
- TOP OF WALL
- TOP OF CURB
- BASE OF CURB
- P200'
- PROPOSED SPOT GRADE
- PROPOSED OUTLET PROTECTION

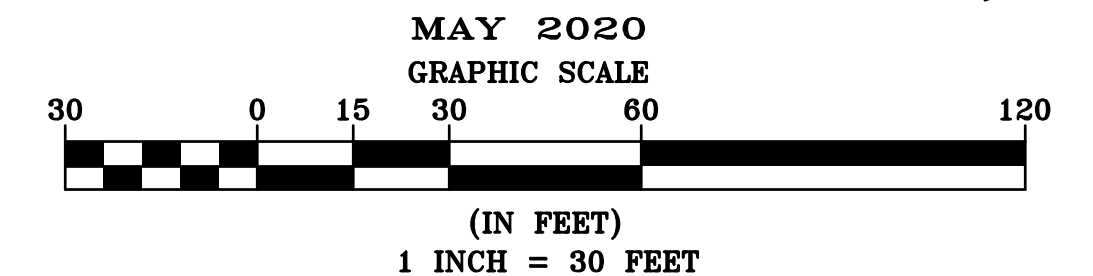


FILE NO. 104
PLAN NO. C-3012
DWG. NO. 19289 SP-1
F.B. NO.

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

NORWAY PLAINS ASSOCIATES, INC.

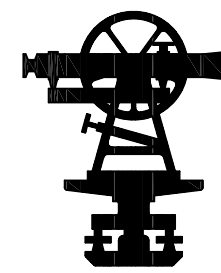
GRADING & DRAINAGE PLAN
TAX MAP 255, LOT 21
INNOVATION DRIVE
ROCHESTER NH
PREPARED FOR:
PREP PARTNERS GROUP, LLC



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

C-4

LAND SURVEYORS

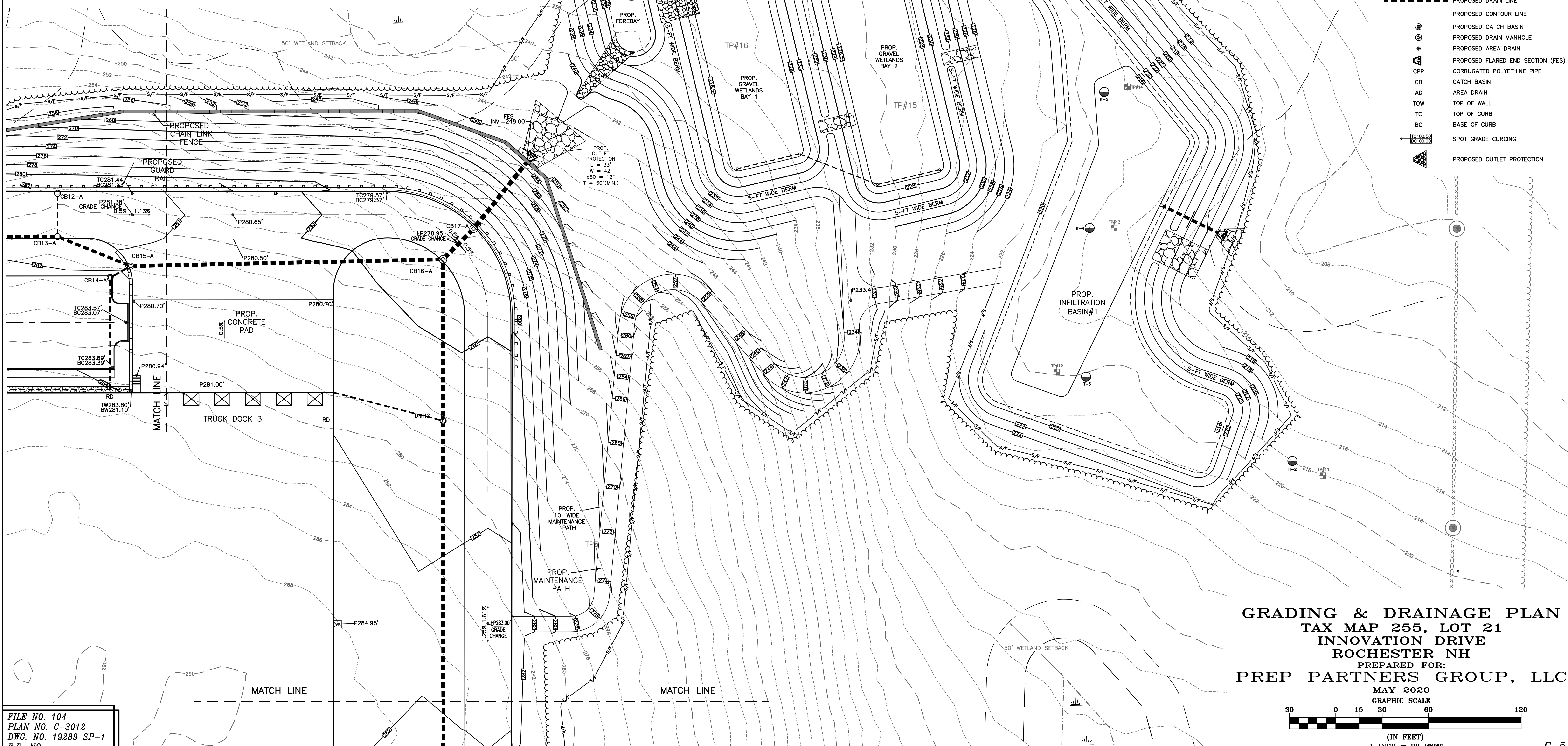


CIVIL ENGINEERS



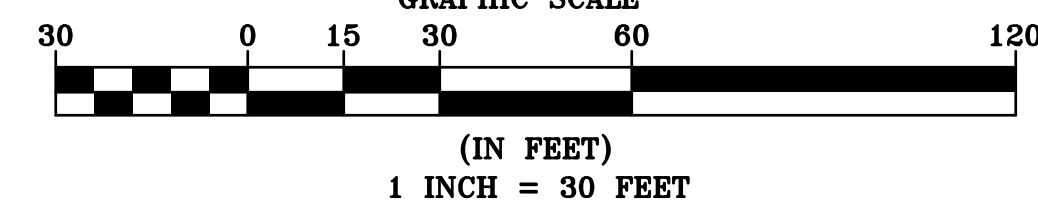
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CB1-A RIM = 283.50' INV. OUT = 279.50' (CB2-A) SUMP = 276.50' L = 5' 12"CPP	CB6-A RIM = 283.50' INV. IN = 278.80' (CB5-A) INV. OUT = 277.30' (CB7-A) SUMP = 274.30' L = 24' 18"CPP	CB11-A RIM = 283.35' INV. OUT = 278.80' (CB10-A) SUMP = 274.80' ELIMINATOR L = 25' 15"CPP	CB16-A 5-FT Ø RIM = 278.80' INV. IN = 271.90' (CB15-A) INV. IN = 268.20' (DMH2-A) INV. OUT = 268.00' (CB17-A) SUMP = 265.00' L = 23.5' 36"CPP	CB1-B RIM = 283.65' INV. OUT = 279.60' (CB2-B) SUMP = 275.60' (ELIMINATOR) L = 60' 12"CPP	CB6B RIM = 280.85' INV. IN = 273.30' (CB5-B) INV. OUT = 273.20' (CB7-B) SUMP = 271.20' L = 55' 24"CPP	DMH2 RIM = 281.50' INV. IN = 268.80' (DMH#1) INV. OUT = 270.10' (CB16-A) L = 100' 30"CPP
CB2-A RIM = 283.70' INV. IN = 279.40' (CB1-A) INV. IN = 279.40' (CB3-A) INV. OUT = 279.30' (CB5-A) SUMP = 276.30' L = 27' 12"CPP	CB7-A RIM = 283.50' INV. IN = 277.10' (CB6-A) INV. IN = 277.10' (CB8-A) SUMP = 273.90' L = 43' 18"CPP	CB12-A RIM = 281.45' INV. OUT = 277.40' (CB13-A) SUMP=273.40' ELIMINATOR L = 24' 12"CPP	CB17-A 5-FT Ø RIM = 278.80' INV. IN = 267.80' (CB16-A) INV. OUT = 267.50' (FES) SUMP = 265.00' L = 55' 36"CPP	CB2-B RIM = 283.65' INV. IN = 279.30' (CB1-B) INV. IN = 279.80' (RD) 12"CPP INV. OUT = 279.00' (CB3-B) SUMP = 275.00' (ELIMINATOR) L = 92' 15"CPP	CB7-B RIM = 280.60' INV. IN = 272.90' (CB6-B) INV. IN = 273.60' (CB9-B) SUMP = 269.80' L = 196' 24"CPP	CB1-C STA. 0+46 R18.80' RIM = 281.45' INV. OUT = 277.20' SUMP = 273.20' L = 30' 15"CPP
CB3-A RIM = 283.65' INV. IN = 280.50' (RD) 12"CPP INV. OUT = 280.00' (CB2-A) SUMP = 277.00' L = 60.5' 12"CPP	CB8-A RIM = 283.40' INV. IN = 276.70' (CB7-A) INV. IN = 276.70' (CB8-A) SUMP = 273.90' L = 87' 18"CPP	CB13-A RIM = 281.45' INV. IN = 273.80' (CB10-A) INV. IN = 273.70' (CB12-A) SUMP = 270.70' L = 47' 24"CPP	CB14-A RIM = 282.80' INV. IN = 278.00' (RD) 12"CPP INV. OUT = 273.00' (CB15-A) SUMP = 273.00' ELIMINATOR L = 11' 15"CPP	CB3-B RIM = 280.60' INV. IN = 276.30' (CB2-B) INV. OUT = 276.00' (CB4-B) SUMP = 273.00' (DMH1) L = 90' 18"CPP	CB8-B 5-FT Ø RIM = 279.75' INV. IN = 271.80' (CB7-B) INV. IN = 273.60' (CB9-B) SUMP = 271.70' (DMH1) L = 100' 30"CPP	CB2-C STA. 0+46 R14.32' RIM = 281.45' INV. IN = 277.00' SUMP = 272.75' (ELIMINATOR) L = 105' 15"CPP
CB4-A RIM = 283.70' INV. OUT = 280.00' (CB5-A) SUMP = 277.00' L = 28.5' 12"CPP	CB9-A 5-FT Ø RIM = 283.00' INV. IN = 276.10' (CB8-A) INV. IN = 275.30' (CB10-A) SUMP = 273.00' L = 23.5' 18"CPP	CB14-A RIM = 282.80' INV. IN = 278.00' (RD) 12"CPP INV. OUT = 273.00' (CB15-A) SUMP = 273.00' ELIMINATOR L = 11' 15"CPP	CB4-B RIM = 280.25' INV. IN = 275.50' (CB3-B) INV. OUT = 275.00' (CB5-B) SUMP = 272.00' L = 33' 24"CPP	CB9-B RIM = 279.75' INV. IN = 275.70' L = 23.5' 12"CPP	DMH1 RIM = 280.80' INV. IN = 270.20' INV. OUT = 270.10' L = 234' 30"CPP	
CB5-A RIM = 283.70' INV. IN = 279.10' (CB2-A) INV. IN = 279.10' (CB4-A) INV. OUT = 279.00' (CB6-A) SUMP = 276.00' L = 37.5' 15"CPP	CB10-A RIM = 283.00' INV. IN = 275.80' (CB9-A) INV. IN = 275.30' (CB11-A) SUMP = 272.30' L = 300' 24"CPP	CB15-A RIM = 280.50' INV. IN = 273.40' (CB13) INV. IN = 276.50' (CB14) INV. OUT = 272.80' (CB16) SUMP = 269.90' L = 198.0' 30"CPP	CB5-B RIM = 280.25' INV. IN = 274.80' (CB4-B) INV. OUT = 274.70' (CB5-B) SUMP = 271.70' L = 280' 24"CPP			



- LEGEND**
- PROPERTY LINE
 - JURISDICTIONAL WETLANDS
 - EXISTING TREE LINE
 - EXISTING DRAIN LINE
 - EXISTING CONTOUR LINE
 - EXISTING TEST PIT
 - EXISTING SPOT GRADE
 - PROPOSED SPOT GRADE
 - PROPOSED TREE LINE
 - PROPOSED DRAIN LINE
 - PROPOSED CONTOUR LINE
 - PROPOSED CATCH BASIN
 - PROPOSED DRAIN MANHOLE
 - PROPOSED AREA DRAIN
 - PROPOSED FLARED END SECTION (FES)
 - CORRUGATED POLYETHYLENE PIPE
 - CATCH BASIN
 - AREA DRAIN
 - TOP OF WALL
 - TOP OF CURB
 - BASE OF CURB
 - SPOT GRADE CURVING
 - PROPOSED OUTLET PROTECTION

GRADING & DRAINAGE PLAN
TAX MAP 255, LOT 21
INNOVATION DRIVE
ROCHESTER NH
 PREPARED FOR:
PREP PARTNERS GROUP, LLC
 MAY 2020



FILE NO. 104
 PLAN NO. C-3012
 DWG. NO. 19289 SP-1
 F.B. NO.

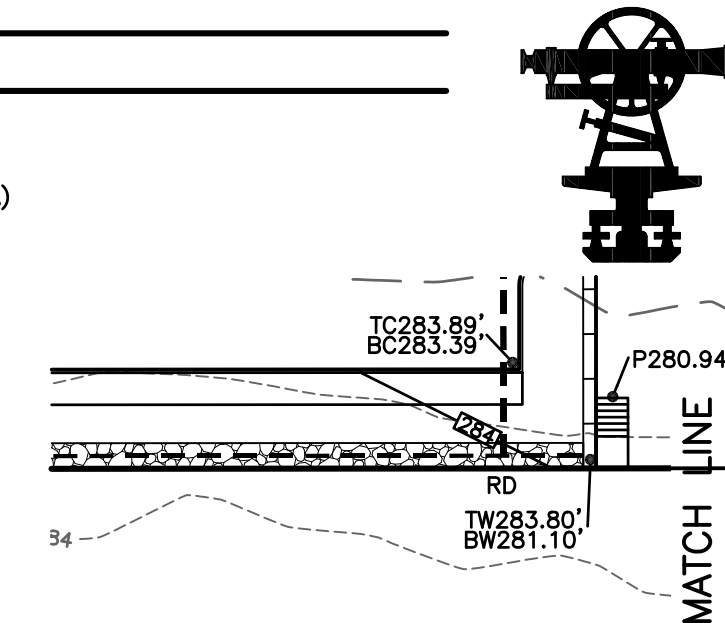
31 Mooney Street, Alton, N.H. 603-875-3948

NORWAY PLAINS ASSOCIATES, INC.

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

LAND SURVEYORS

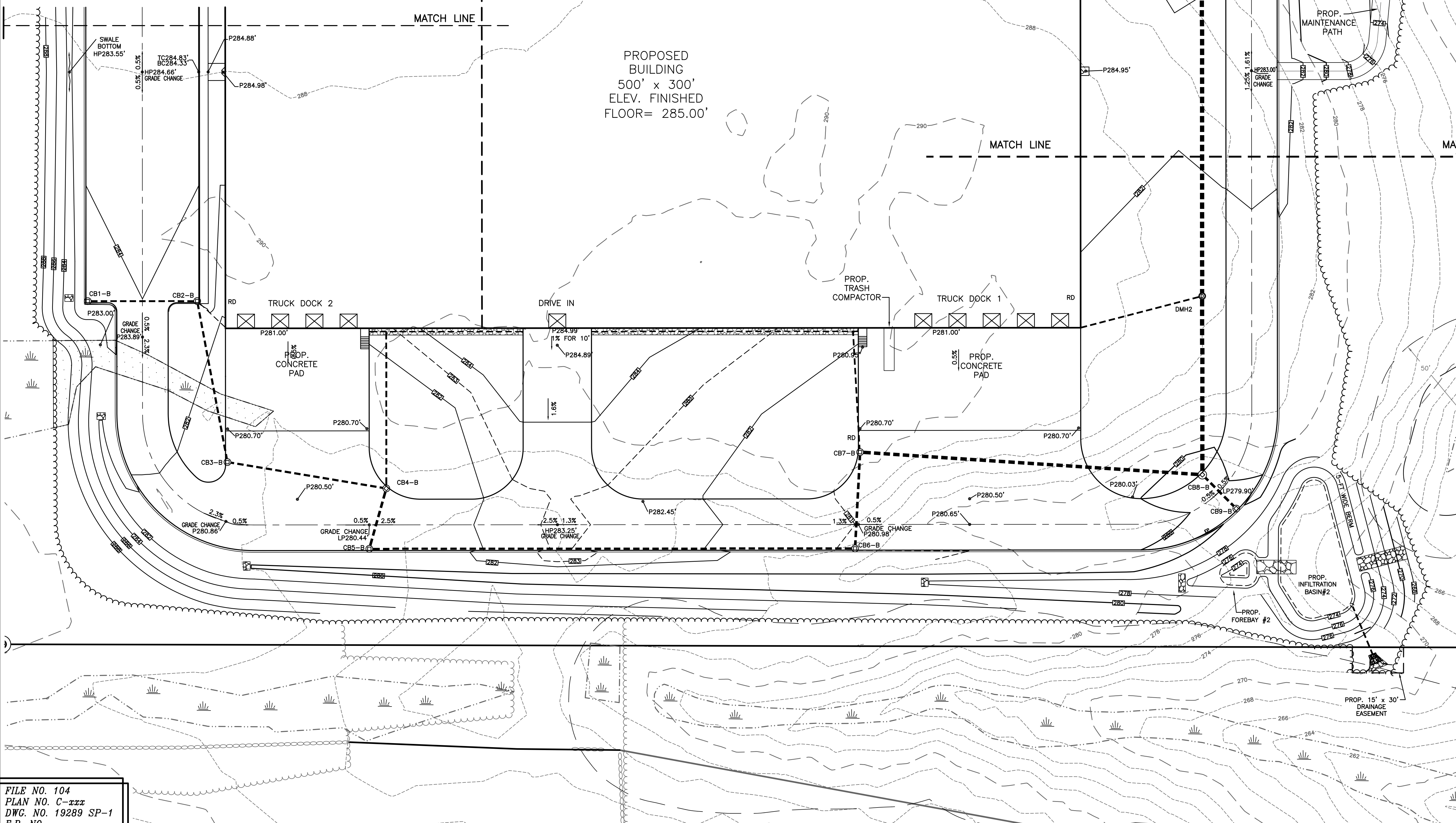
CB1-A RIM = 283.50' INV. OUT = 279.50' (CB2-A) SUMP = 276.50' L = 5' 12"CPP	CB6-A RIM = 283.50' INV. IN = 278.80' (CB5-A) INV. OUT = 277.30' (CB7-A) SUMP = 274.30' L = 24' 18"CPP	CB11-A RIM = 283.35' INV. OUT = 278.80' (CB10-A) SUMP = 274.80' ELIMINATOR L = 25' 15"CPP	CB16-A 5-FT Ø RIM = 278.80' INV. IN = 271.90' (CB15-A) INV. OUT = 268.20' (DMH2-A) SUMP = 268.00' (CB17-A) SUMP = 265.00' L = 23.5' 36"CPP	CB1-B RIM = 283.65' INV. OUT = 279.60' (CB2-B) SUMP = 275.60' (ELIMINATOR) L = 60' 12"CPP	CB6B RIM = 280.85' INV. IN = 273.30' (CB5-B) INV. OUT = 273.20' (CB7-B) SUMP = 271.20' L = 55' 24"CPP	DMH2 RIM = 281.50' STA. 0+46 R18.80' INV. IN = 268.80' (DMH#1) INV. OUT = 270.10' (CB16-A) L = 100' 30"CPP
CB2-A RIM = 283.70' INV. IN = 279.40' (CB1-A) INV. OUT = 279.40' (CB3-A) SUMP = 276.30' L = 27' 12"CPP	CB7-A RIM = 283.50' INV. IN = 277.10' (CB6-A) INV. OUT = 277.00' (CB8-A) SUMP = 274.00' L = 43' 18"CPP	CB12-A RIM = 281.45' INV. OUT = 277.40' (CB13-A) SUMP = 273.40' ELIMINATOR L = 24' 12"CPP	CB17-A 5-FT Ø RIM = 278.80' INV. IN = 267.80' (CB16-A) INV. OUT = 264.50' (FES) SUMP = 264.50' L = 55' 36"CPP	CB2-B RIM = 283.65' INV. IN = 279.30' (CB1-B) INV. OUT = 279.80' (RD) 12"CPP SUMP = 275.00' (ELIMINATOR) L = 92' 15"CPP	CB7-B RIM = 280.60' INV. IN = 272.90' (CB6-B) INV. OUT = 272.80' (CB8-B) SUMP = 269.80' L = 100' 30"CPP	CB1-C STA. 0+46 R14.32' RIM = 281.45' INV. IN = 277.20' INV. OUT = 276.75' SUMP = 272.75' (ELIMINATOR) L = 105' 15"CPP
CB3-A RIM = 283.65' INV. IN = 280.50' (RD) 12"CPP INV. OUT = 280.00' (CB2-A) SUMP = 277.00' L = 60.5' 12"CPP	CB8-A RIM = 283.40' INV. IN = 276.70' (CB7-A) INV. OUT = 276.60' (CB9-A) SUMP = 273.60' L = 87' 18"CPP	CB13-A RIM = 281.45' INV. IN = 273.80' (CB10-A) INV. OUT = 273.70' (CB12-A) SUMP = 270.70' L = 47' 24"CPP	CB14-A RIM = 280.80' INV. IN = 278.00' (RD) 12"CPP INV. OUT = 273.00' (CB15-A) SUMP = 273.00' ELIMINATOR L = 11' 15"CPP	CB3-B RIM = 280.60' INV. IN = 276.30' (CB2-B) INV. OUT = 276.00' (CB4-B) SUMP = 273.00' L = 90' 18"CPP	CB8-B 5-FT Ø RIM = 279.75' INV. IN = 271.80' (CB7-B) INV. OUT = 271.70' (CB9-B) L = 100' 30"CPP	
CB4-A RIM = 283.70' INV. OUT = 280.00' (CB5-A) SUMP = 277.00' L = 28.5' 12"CPP	CB9-A 5-FT Ø RIM = 283.00' INV. IN = 276.10' (CB8-A) INV. OUT = 273.00' (CB10-A) SUMP = 273.00' L = 23.5' 18"CPP	CB14-B RIM = 280.25' INV. IN = 275.50' (CB3-B) INV. OUT = 275.00' (CB5-B) SUMP = 272.00' L = 33' 24"CPP	CB5-B RIM = 280.25' INV. IN = 274.80' (CB4-B) INV. OUT = 274.70' (CB6-B) SUMP = 271.70' L = 280' 24"CPP	CB4-B RIM = 280.25' INV. IN = 275.50' (CB3-B) INV. OUT = 275.00' (CB5-B) SUMP = 272.00' L = 33' 24"CPP	CB9-B RIM = 279.75' INV. OUT = 275.70' L = 23.5' 12"CPP	DMH1 RIM = 280.80' INV. IN = 270.20' INV. OUT = 270.10' L = 234' 30"CPP
CB5-A RIM = 283.70' INV. IN = 279.10' (CB2-A) INV. OUT = 279.10' (CB4-A) SUMP = 276.00' L = 37.5' 15"CPP	CB10-A RIM = 283.00' INV. IN = 275.80' (CB9-A) INV. OUT = 275.30' (CB11-A) SUMP = 272.30' L = 300' 24"CPP	CB15-A RIM = 280.50' INV. IN = 273.40' (CB13) INV. OUT = 276.50' (CB14) SUMP = 269.90' L = 198.0' 30"CPP				



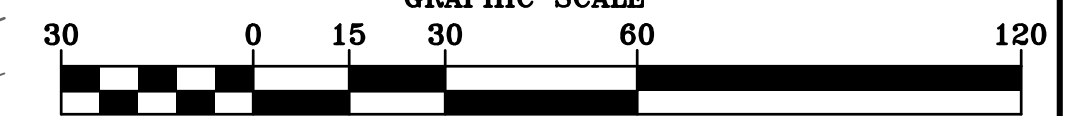
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- LEGEND**
- PROPERTY LINE
 - JURISDICTIONAL WETLANDS
 - EXISTING TREE LINE
 - EXISTING DRAIN LINE
 - EXISTING CONTOUR LINE
 - EXISTING TEST PIT
 - EXISTING SPOT GRADE
 - PROPOSED SPOT GRADE
 - PROPOSED TREE LINE
 - PROPOSED DRAIN LINE
 - PROPOSED CONTOUR LINE
 - PROPOSED CATCH BASIN
 - PROPOSED DRAIN MANHOLE
 - PROPOSED AREA DRAIN
 - PROPOSED FLARED END SECTION (FES)
 - CORRUGATED POLYETHYLENE PIPE
 - CATCH BASIN
 - AREA DRAIN
 - TOW
 - TOP OF WALL
 - TC
 - TOP OF CURB
 - BC
 - BASE OF CURB
 - SPOT GRADE CURCING
 - PROPOSED OUTLET PROTECTION



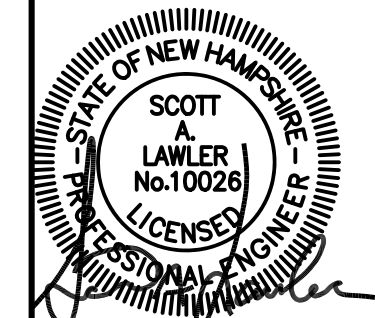
GRADING & DRAINAGE PLAN
TAX MAP 255, LOT 21
INNOVATION DRIVE
ROCHESTER NH
PREPARED FOR:
PREP PARTNERS GROUP, LLC
MAY 2020
GRAPHIC SCALE



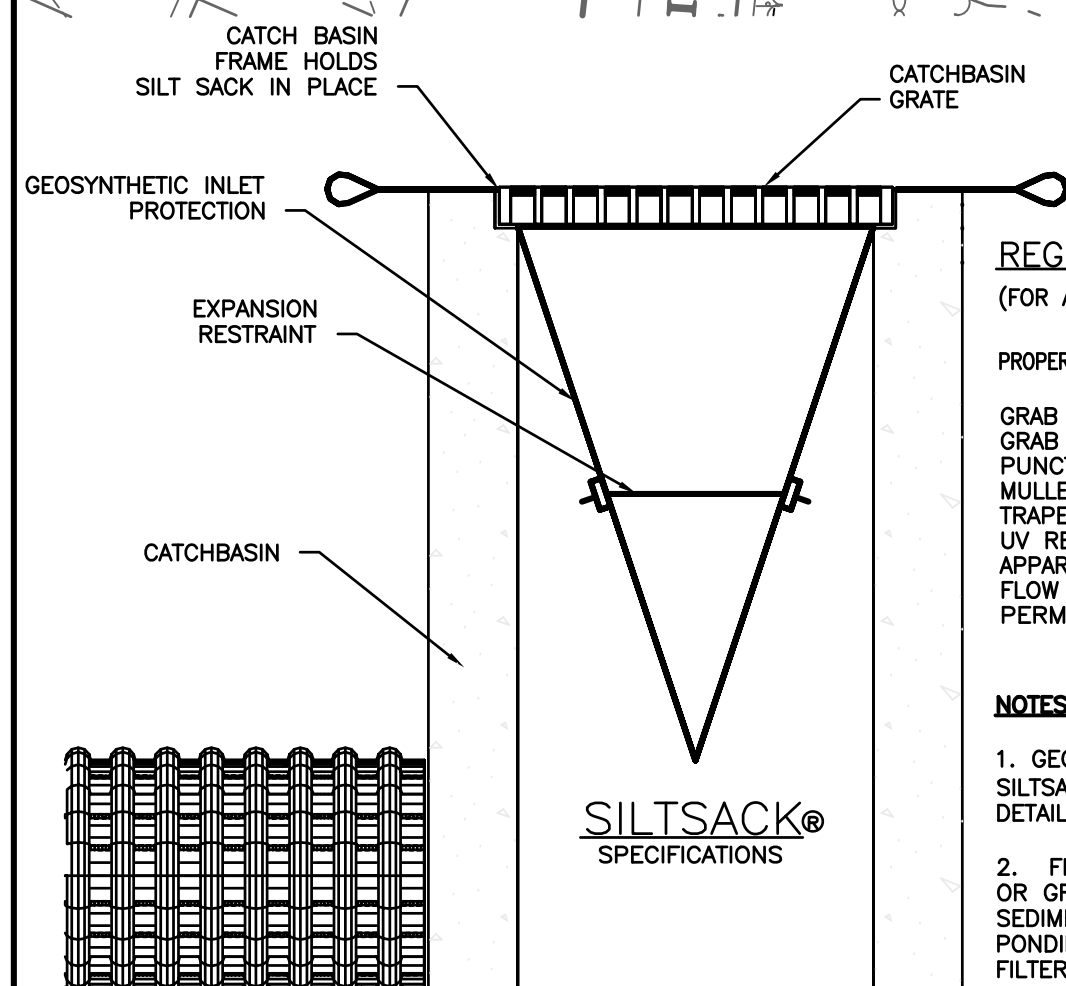
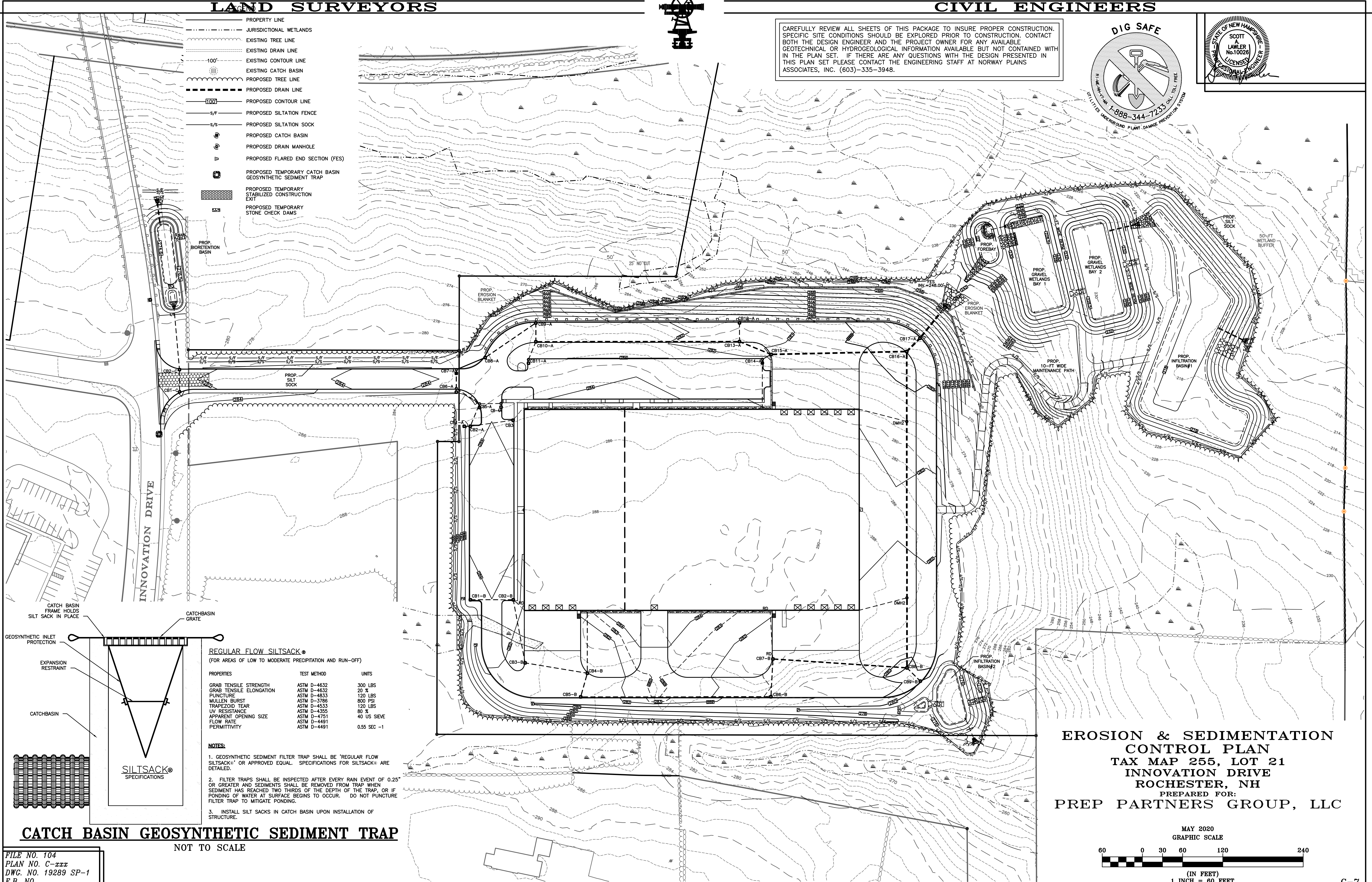
(IN FEET)
1 INCH = 30 FEET

FILE NO. 104
PLAN NO. C-xxx
DWC. NO. 19289 SP-1
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.



- PROPERTY LINE
- JURISDICTIONAL WETLANDS
- EXISTING TREE LINE
- EXISTING DRAIN LINE
- EXISTING CONTOUR LINE
- EXISTING CATCH BASIN
- PROPOSED TREE LINE
- PROPOSED DRAIN LINE
- PROPOSED CONTOUR LINE
- PROPOSED SILTATION FENCE
- PROPOSED SILTATION SOCK
- PROPOSED CATCH BASIN
- PROPOSED DRAIN MANHOLE
- PROPOSED FLARED END SECTION (FES)
- PROPOSED TEMPORARY CATCH BASIN
- GEOSYNTHETIC SEDIMENT TRAP
- PROPOSED TEMPORARY STABILIZED CONSTRUCTION EXIT
- PROPOSED TEMPORARY STONE CHECK DAMS



REGULAR FLOW SILTSACK®
(FOR AREAS OF LOW TO MODERATE PRECIPITATION AND RUN-OFF)

PROPERTIES	TEST METHOD	UNITS
GRAB TENSILE STRENGTH	ASTM D-4632	300 LBS
GRAB TENSILE ELONGATION	ASTM D-4632	20 %
PUNCTURE	ASTM D-4833	120 LBS
MULLEN BURST	ASTM D-3786	800 PSI
TRAPEZOID TEAR	ASTM D-4833	120 LBS
UV RESISTANCE	ASTM D-4355	80 %
APPARENT OPENING SIZE	ASTM D-4751	40 US SIEVE
FLOW RATE	ASTM D-4491	
PERMITTIVITY	ASTM D-4491	0.55 SEC -1

NOTES:

1. GEOSYNTHETIC SEDIMENT FILTER TRAP SHALL BE "REGULAR FLOW SILTSACK®" OR APPROVED EQUAL. SPECIFICATIONS FOR SILTSACK® ARE DETAILED.
2. FILTER TRAPS SHALL BE INSPECTED AFTER EVERY RAIN EVENT OF 0.25" OR GREATER AND SEDIMENTS SHALL BE REMOVED FROM TRAP WHEN SEDIMENT HAS REACHED TWO THIRDS OF THE DEPTH OF THE TRAP, OR IF PONDING OF WATER AT SURFACE BEGINS TO OCCUR. DO NOT PUNCTURE FILTER TRAP TO MITIGATE PONDING.
3. INSTALL SILT SACKS IN CATCH BASIN UPON INSTALLATION OF STRUCTURE.

CATCH BASIN GEOSYNTHETIC SEDIMENT TRAP

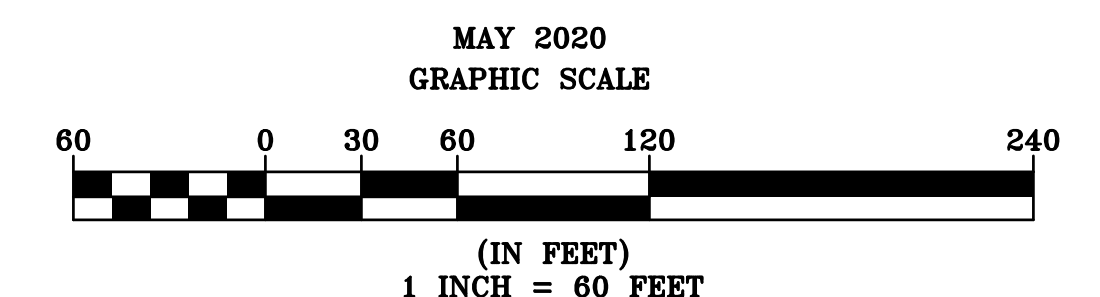
NOT TO SCALE

FILE NO. 104
PLAN NO. C-xxx
DWG. NO. 19289 SP-1
F.B. NO.

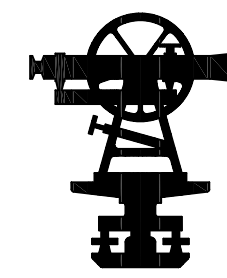
31 Mooney Street, Alton, N.H. 603-875-3948

NORWAY PLAINS ASSOCIATES, INC.

**EROSION & SEDIMENTATION
CONTROL PLAN
TAX MAP 255, LOT 21
INNOVATION DRIVE
ROCHESTER, NH
PREPARED FOR:
PREP PARTNERS GROUP, LLC**



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

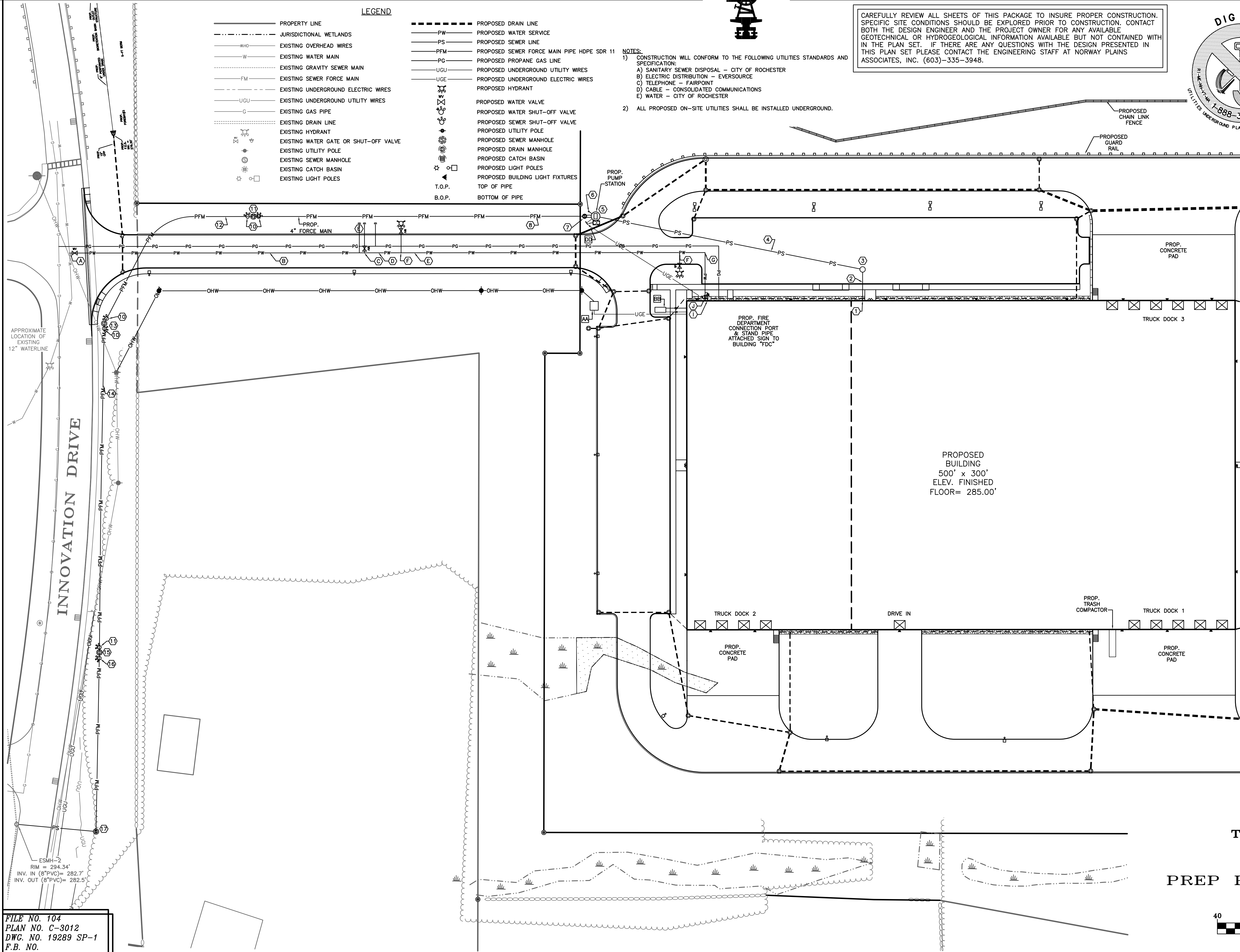


LEGEND

—	PROPERTY LINE	---	PROPOSED DRAIN LINE
- - - - -	JURISDICTIONAL WETLANDS	PW	PROPOSED WATER SERVICE
- - - - -	EXISTING OVERHEAD WIRES	PS	PROPOSED SEWER LINE
—	EXISTING WATER MAIN	PFM	PROPOSED SEWER FORCE MAIN PIPE HDPE SDR 11
- - - - -	EXISTING GRAVITY SEWER MAIN	PG	PROPOSED PROPANE GAS LINE
—	EXISTING SEWER FORCE MAIN	UGU	PROPOSED UNDERGROUND UTILITY WIRES
- - - - -	EXISTING UNDERGROUND ELECTRIC WIRES	—	PROPOSED UNDERGROUND ELECTRIC WIRES
—	EXISTING GAS PIPE	—	PROPOSED HYDRANT
- - - - -	EXISTING UNDERGROUND UTILITY WIRES	—	PROPOSED WATER VALVE
—	EXISTING DRAIN LINE	—	PROPOSED WATER SHUT-OFF VALVE
—	EXISTING HYDRANT	—	PROPOSED SEWER SHUT-OFF VALVE
—	EXISTING WATER GATE OR SHUT-OFF VALVE	—	PROPOSED UTILITY POLE
—	EXISTING UTILITY POLE	—	PROPOSED DRAIN MANHOLE
—	EXISTING SEWER MANHOLE	—	PROPOSED SEWER MANHOLE
—	EXISTING CATCH BASIN	—	PROPOSED CATCH BASIN
—	EXISTING LIGHT POLES	—	PROPOSED LIGHT POLES
		—	PROPOSED BUILDING LIGHT FIXTURES
		T.O.P.	TOP OF PIPE
		B.O.P.	BOTTOM OF PIPE

- 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.

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PROPOSED SEWER SYSTEM

- PROP 4" SDR 35 PVC INV. = 278.00'
- PROP. SDR35 PVC 4" SEWER PIPE L = 26'
- PROP. SMH#1 RIM = 284.18' INV. IN = 277.72' INV. OUT = 277.67'
- PROP. SDR35 PVC 4" SEWER PIPE L = 242'
- PROP. SEWER PUMP STATION COVER = 283.25' INV. IN = 274.50' INV. OUT = 272.50'
- PROP. 4" SDR35 PUMP STATION VENT PROP. VALVE PIT RIM = 283.25' IN & OUT = 272.50' DRAIN BACK = 271.50'
- PROP. 4" SDR11 HDPE FORCE MAIN L = 300'
- 4" PLUG VALVE MECHANICAL JOINT OPENS LEFT RESILIENT SEAT W/ VALVE BOX
- PROP. SEWER CLEAN OUT MANHOLE #2 RIM = 279.70' INV. = 274.00'
- PROP. 4" SDR11 HDPE FORCE MAIN L = 189.0'
- PROP. SEWER CLEAN OUT MANHOLE #3 RIM = 290.70' INV. = 285.50'
- PROP. 4" SDR11 HDPE FORCE MAIN L = 300.0'
- PROP. SEWER CLEAN OUT MANHOLE #4 RIM = 290.70' INV. = 285.50'
- PROP. 4" SDR11 HDPE FORCE MAIN L = 163.5'
- PROP. SEWER MANHOLE #5 RIM = 296.50' INV. IN = 291.50' INV. OUT = 283.00' (TO EXISTING SMH-2)
- PROP. 8" SDR35 L = 68'

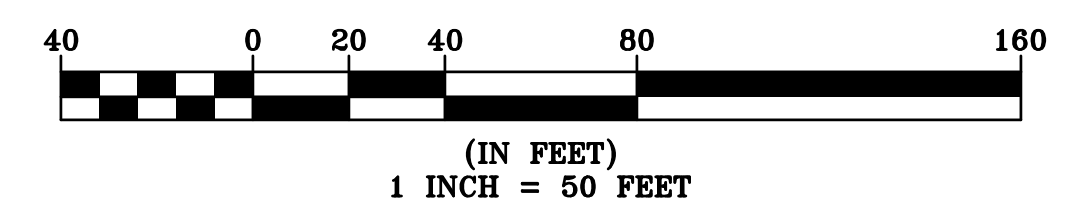
PROPOSED WATER SYSTEM

- PROP. 12" x 8" TAPPING SLEEVE WITH GATE VALVE
- PROP. 8" D.I. CLASS 52 WATER MAIN
- PROP. 8" x 6" TEE WITH THRUST BLOCK OR MECHANICAL JOINT RESTRAINT
- PROP. 8" x 6" REDUCER WITH THRUST BLOCK OR MECHANICAL JOINT RESTRAINT
- PROP. 6" D.I. CLASS 52 WATER MAIN
- PROP. 6" x 6" TEE WITH THRUST BLOCK OR MECHANICAL JOINT RESTRAINT
- PROP. 6" 90° BEND WITH THRUST BLOCK OR MECHANICAL JOINT RESTRAINT
- PROP. 6"x4" REDUCER
- PROP. 2" SERVICE CONNECTION AND SHUT-OFF VALVE
- PROP. 4" GATE VALVE WITH THRUST BLOCK OR MECHANICAL JOINT RESTRAINT

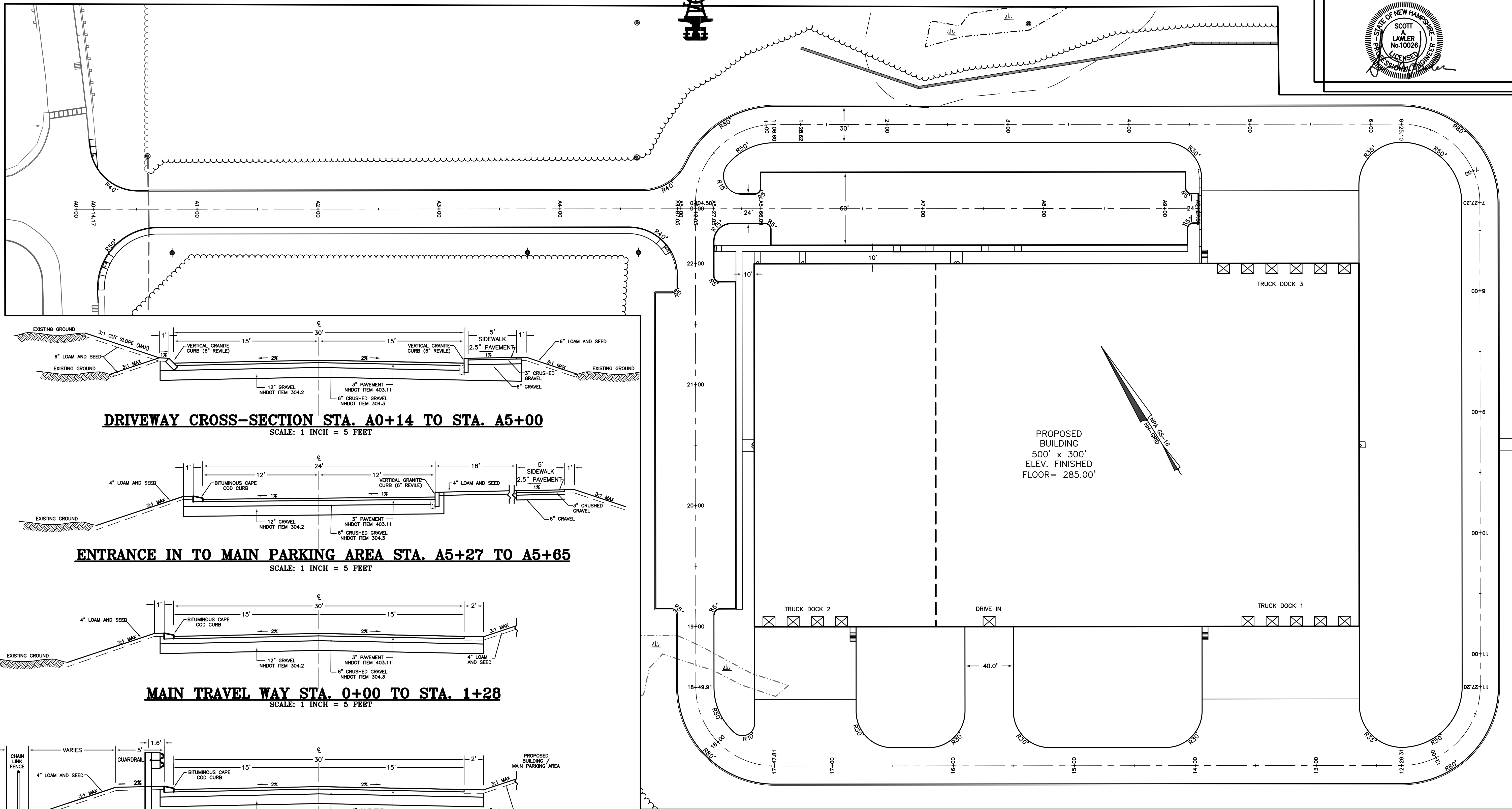
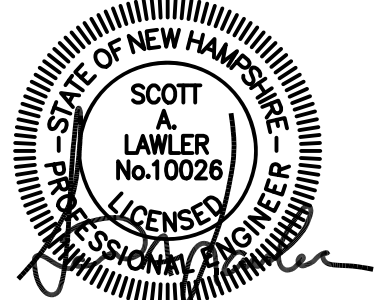
PROPOSED ELECTRICAL SYSTEM

- PROP CONCRETE TRANSFORMER PAD (SIZE AND EXACT LOCATION TO BE DETERMINED BY EVERSOURCE)
- NATURAL GAS 100HW BACK UP GENERATOR ON A CONCRETE PAD (SEE ELECTRICAL SITE PLANS FOR DIMENSIONS AND SPECIFICATIONS)
- PUMP CONTROL PANEL AND PEDISTAL (MIN. 5' FROM PUMP STATION)
- ELECTRICAL METER & PEDISTAL (SEE ELECTRICAL SITE PLANS FOR DIMENSIONS AND SPECIFICATIONS)

UTILITY PLAN
TAX MAP 255, LOT 21
INNOVATION DRIVE
ROCHESTER, NH
PREPARED FOR:
PREP PARTNERS GROUP, LLC.
MAY 2020



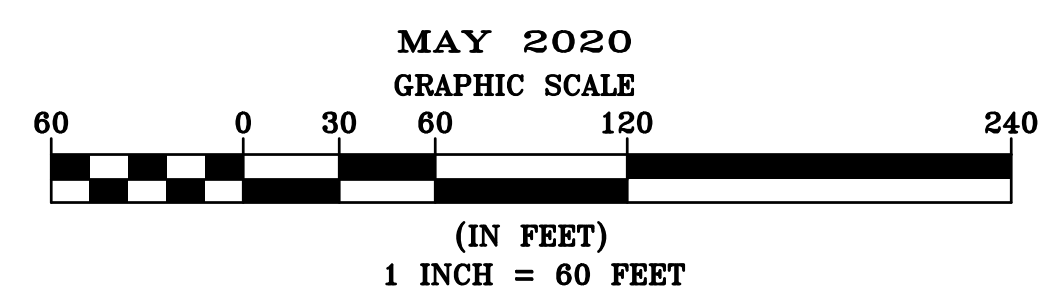
FILE NO. 104
PLAN NO. C-3012
DWG. NO. 19289 SP-1
F.B. NO.



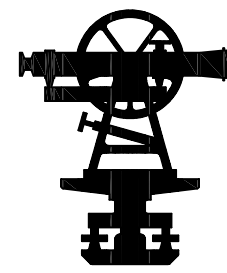
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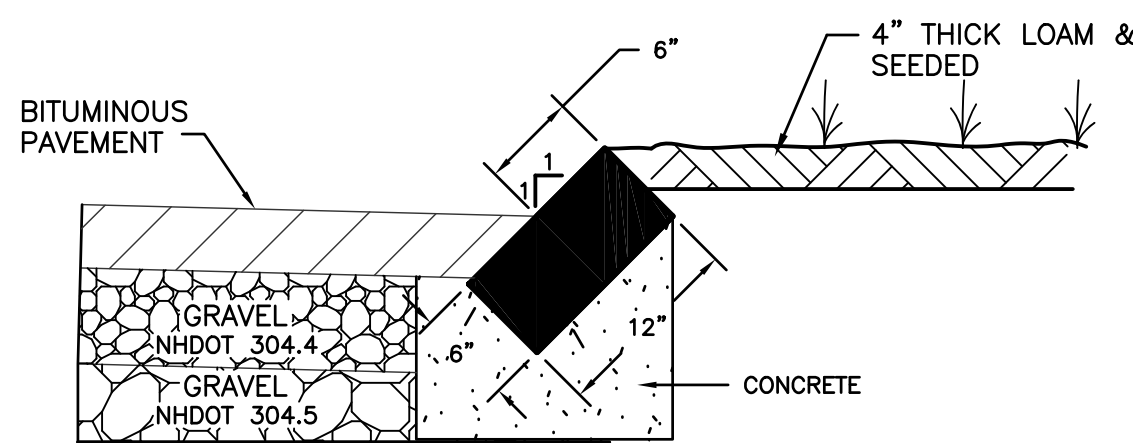
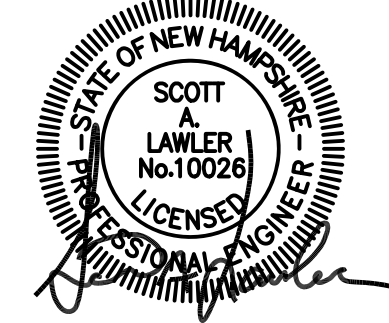
DRIVEWAY DETAIL SECTION
AND TRAVEL WAY SECTION
TAX MAP 255, LOT 21
INNOVATION DRIVE
ROCHESTER NH
PREPARED FOR:
PREP PARTNERS GROUP, LLC



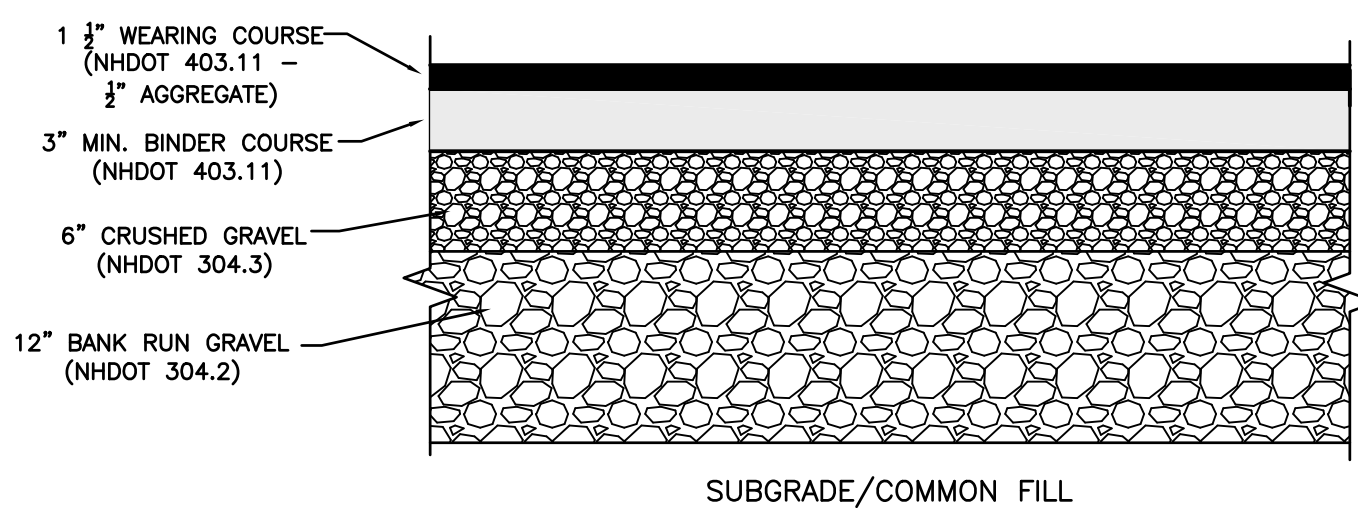
FILE NO. 104
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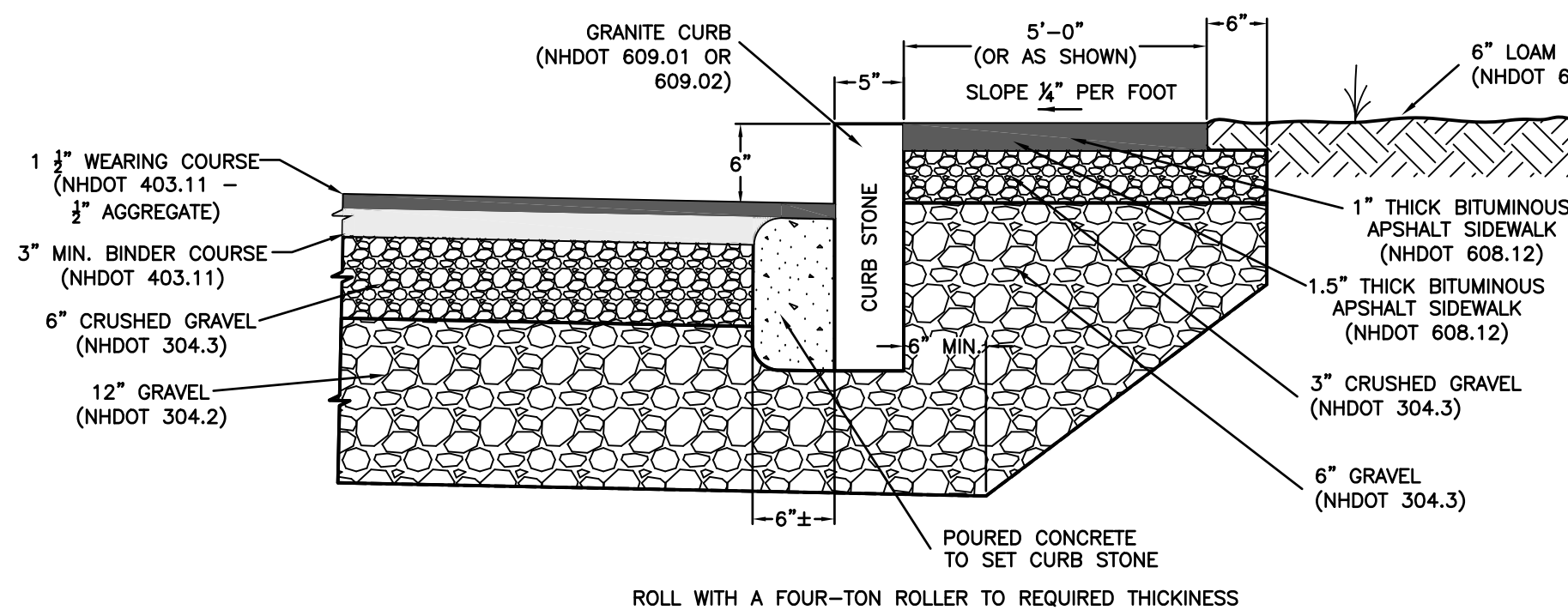


GRANITE SLOPE CURB DETAIL
NOT TO SCALE

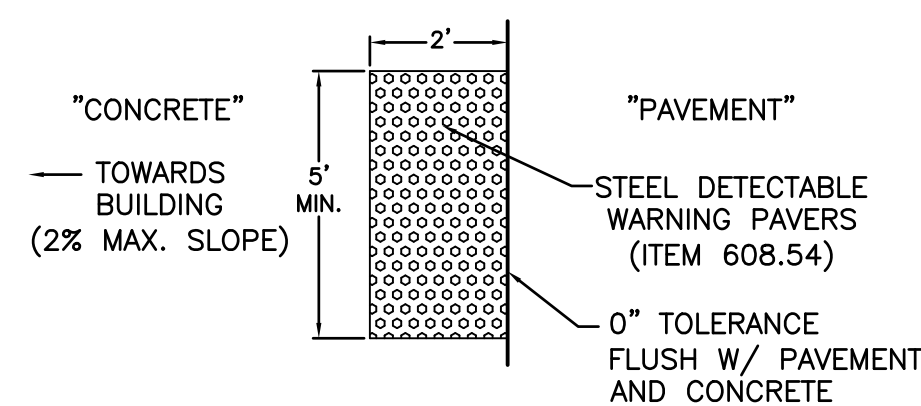


PARKING LOT CROSS-SECTIONS
NOT TO SCALE

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

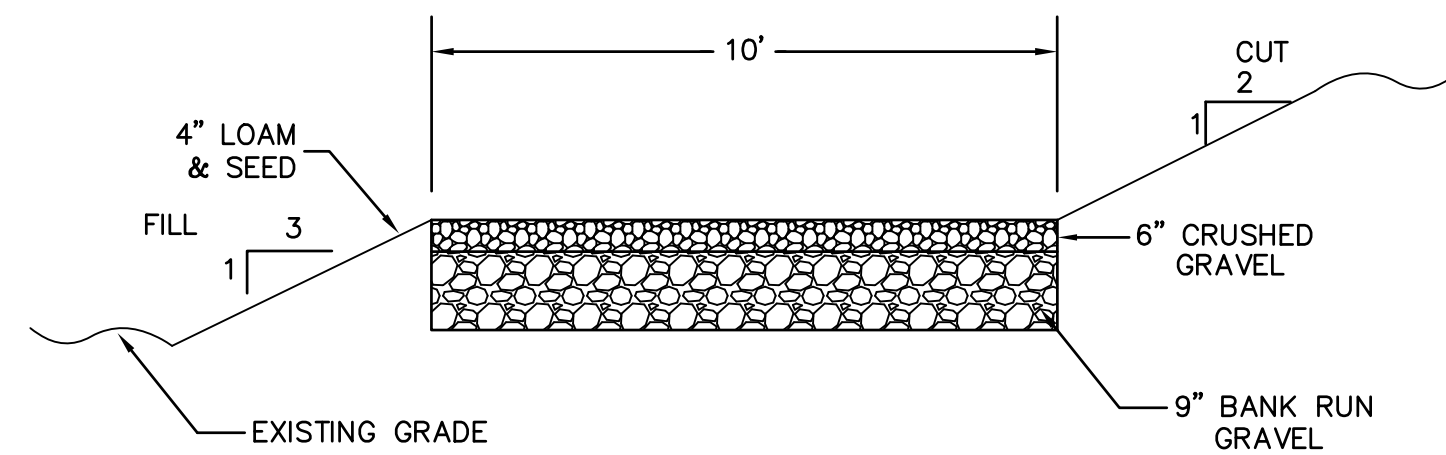


PAVED SIDEWALK WITH GRANITE CURB DETAIL
NOT TO SCALE

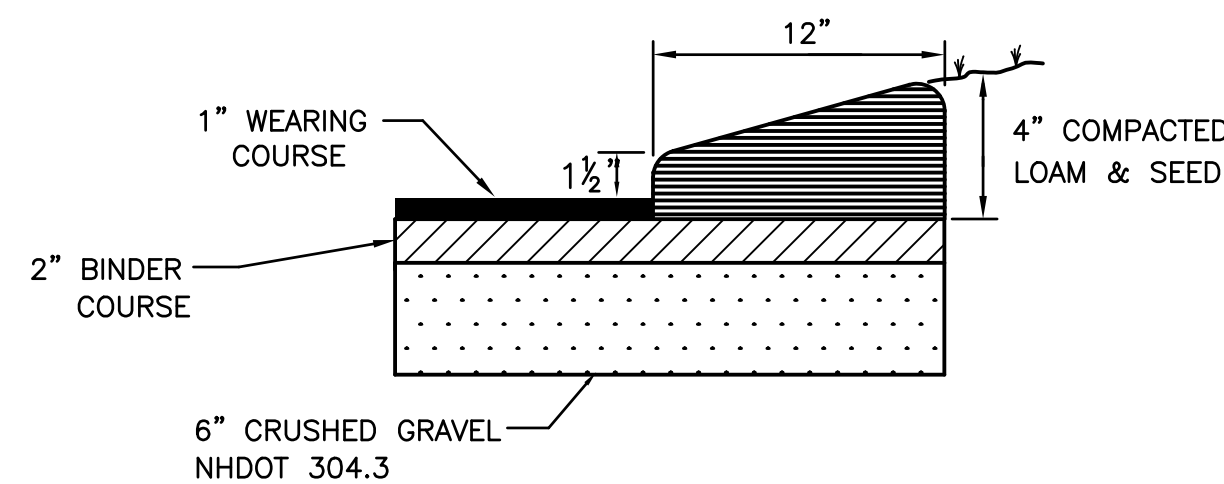


DETECTABLE WARNING PAVER DETAIL
NOT TO SCALE

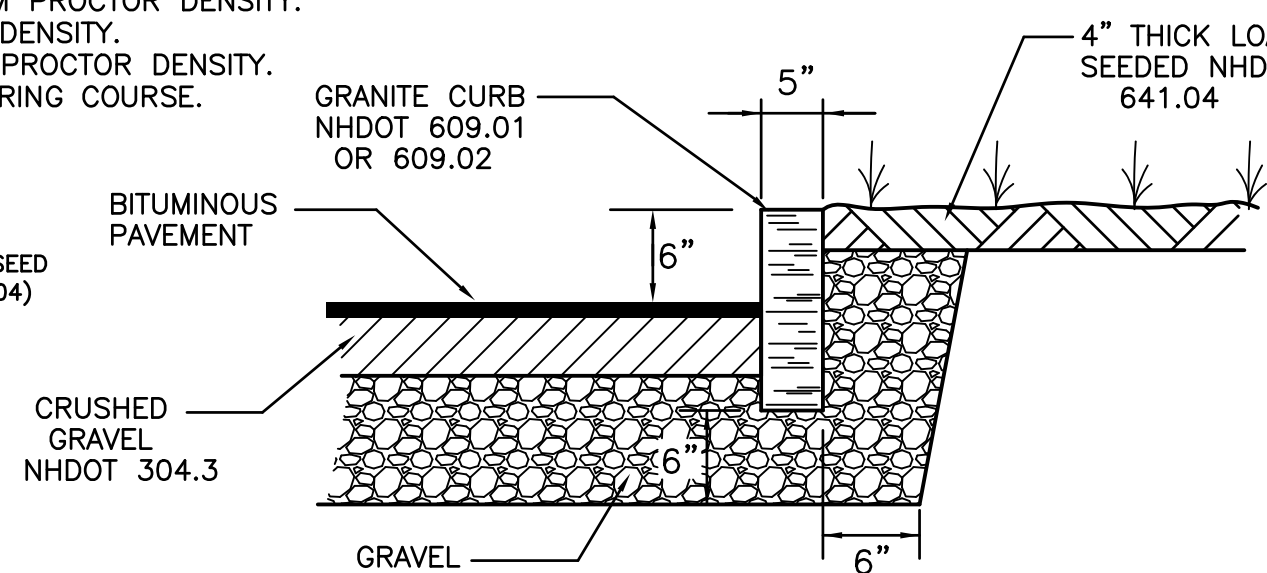
- DETECTABLE WARNING PAVER NOTES:**
1. THE MAXIMUM CROSS OF CONCRETE WALKWAY SLOPE IS 2%. THE SLOPE OF THE LANDING SHALL NOT EXCEED 2% IN ANY DIRECTION.
 2. TRANSITIONS SHALL BE FLUSH AND FREE OF ABRUPT CHANGES.
 3. DETECTABLE WARNING PAVERS (ITEM 608.54) SHALL BE USED ON CONCRETE RAMPS AS SHOWN. EACH TACTICAL WARNING STRIP PANEL SHALL A TRUNCATED DOMED SURFACE AT LEAST 2'-0" IN WIDTH, MEASURED FROM THE BACK OF THE CURB TIP DOWN, AND 5'-0" IN LENGTH MEASURED PERPENDICULAR TO THE DIRECTION OF PEDESTRIAN TRAVEL.
 4. ALL DETECTABLE WARNING PAVERS SHALL BE CAST IN PLACE ARMOR-TILE TACTILE SYSTEM, YELLOW IN COLOR, OR APPROVED EQUAL.



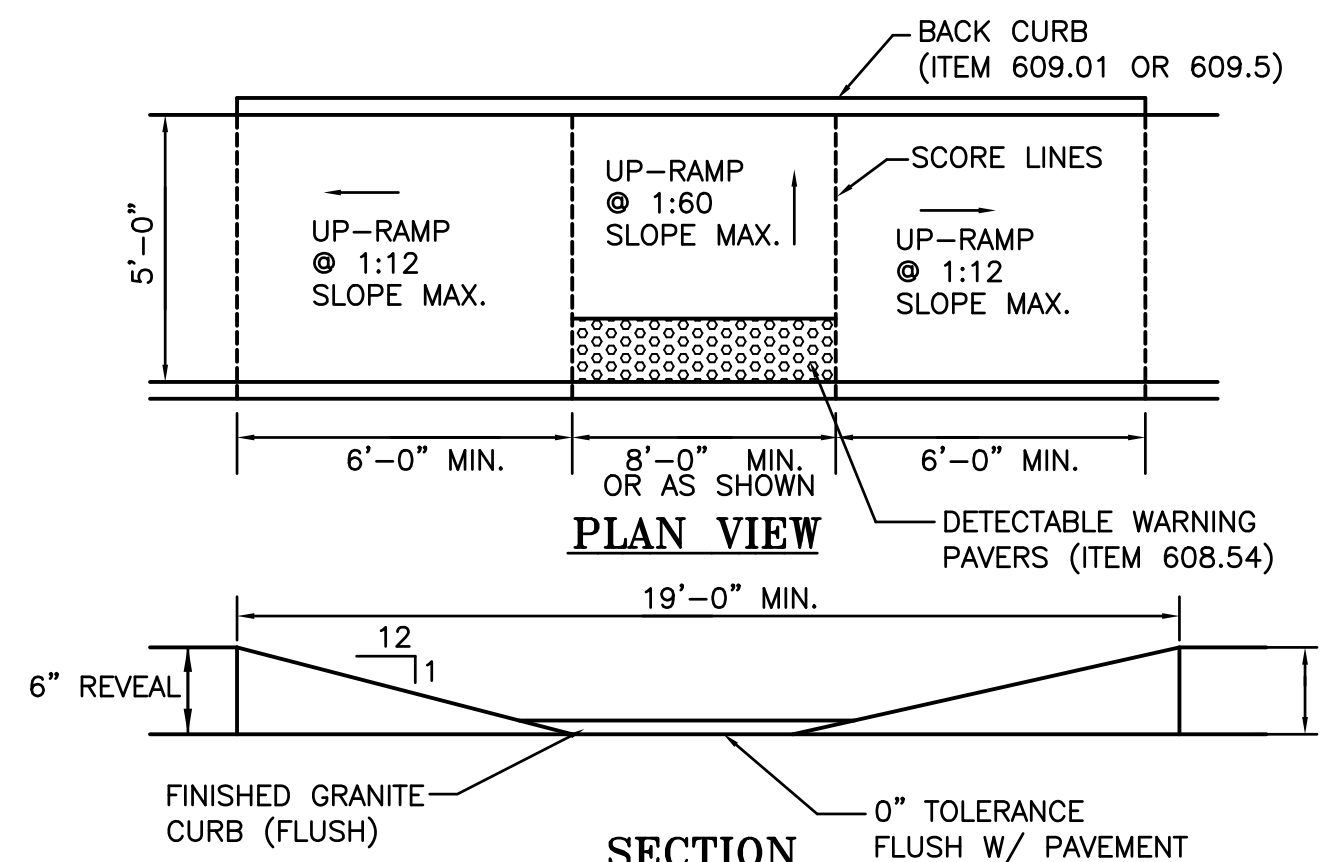
MAINTENANCE PATH CROSS-SECTION
NOT TO SCALE



BITUMINOUS CAPE COD BERM DETAIL
NOT TO SCALE

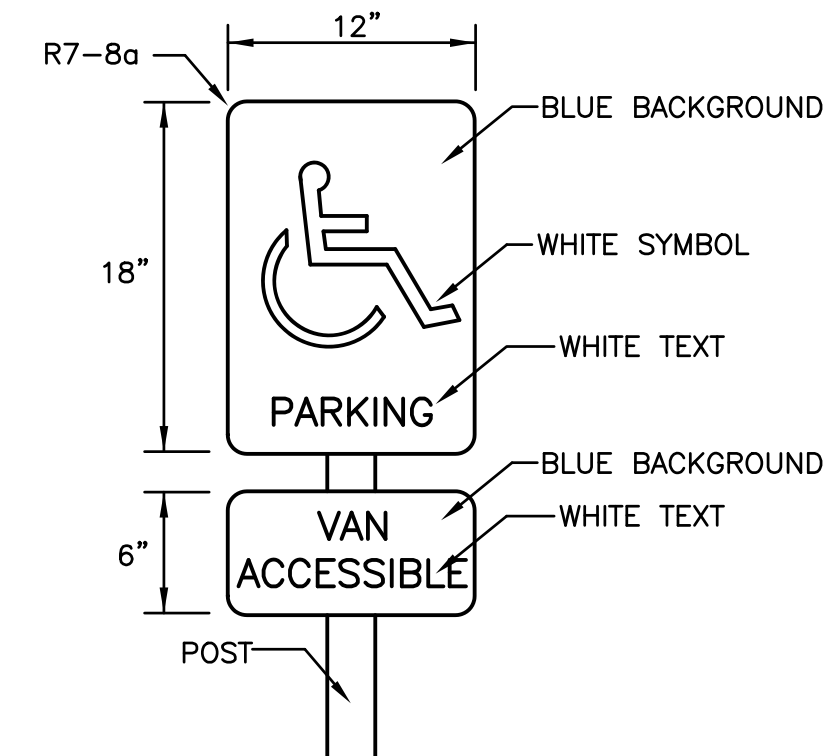


GRANITE VERTICAL CURB DETAIL
NOT TO SCALE

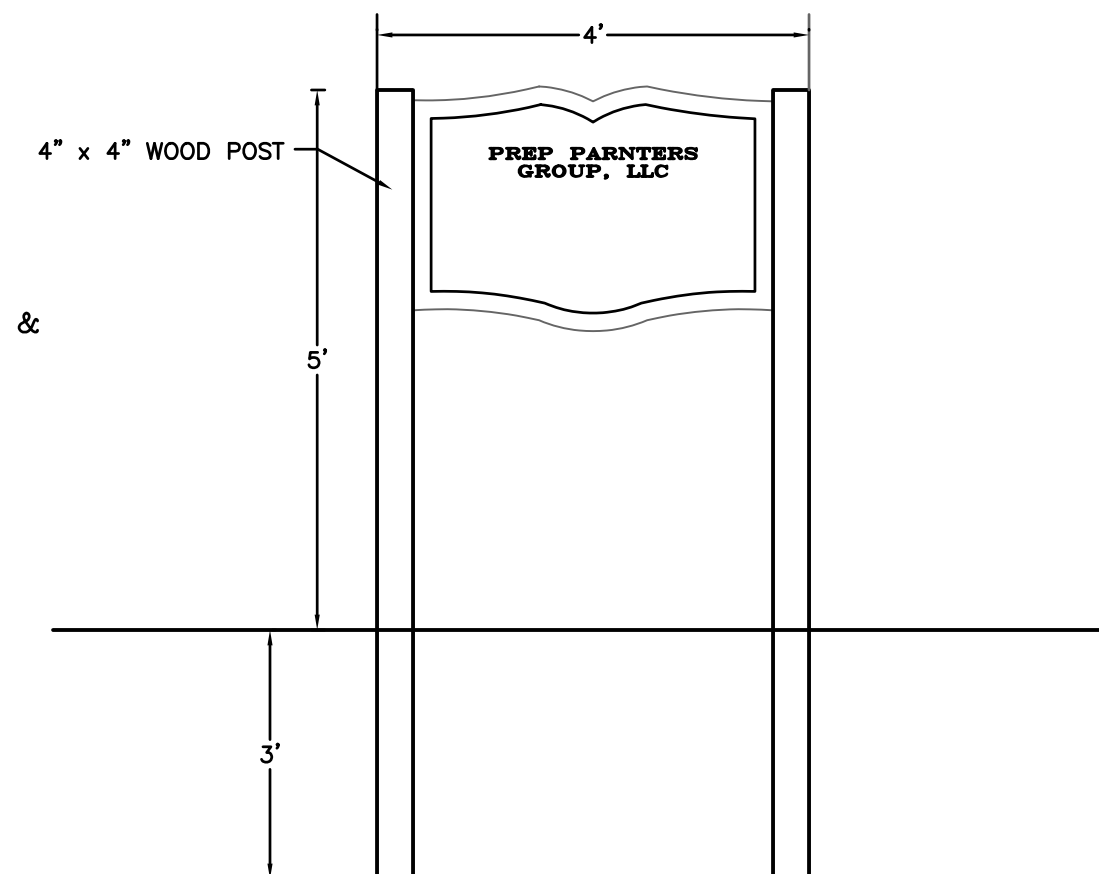


HANDICAP RAMP DETAIL "A"
NOT TO SCALE

- GENERAL SIDEWALK NOTES:**
1. THE MAXIMUM RUNNING SLOPE OF ANY SIDEWALK CURB IS 12:1. THE MAXIMUM CROSS SLOPE IS 2%. THE SLOPE OF THE LANDING SHALL NOT EXCEED 2% IN ANY DIRECTION.
 2. TRANSITIONS SHALL BE FLUSH AND FREE OF ABRUPT CHANGES.
 3. DETECTABLE WARNING PAVERS (ITEM 608.54) SHALL BE USED ON CONCRETE RAMPS AS SHOWN. EACH TACTICAL WARNING STRIP PANEL SHALL A TRUNCATED DOMED SURFACE AT LEAST 2'-0" IN WIDTH, MEASURED FROM THE BACK OF THE CURB TIP DOWN, AND 5'-0" IN LENGTH MEASURED PERPENDICULAR TO THE DIRECTION OF PEDESTRIAN TRAVEL.



SIGN DETAIL
NOT TO SCALE

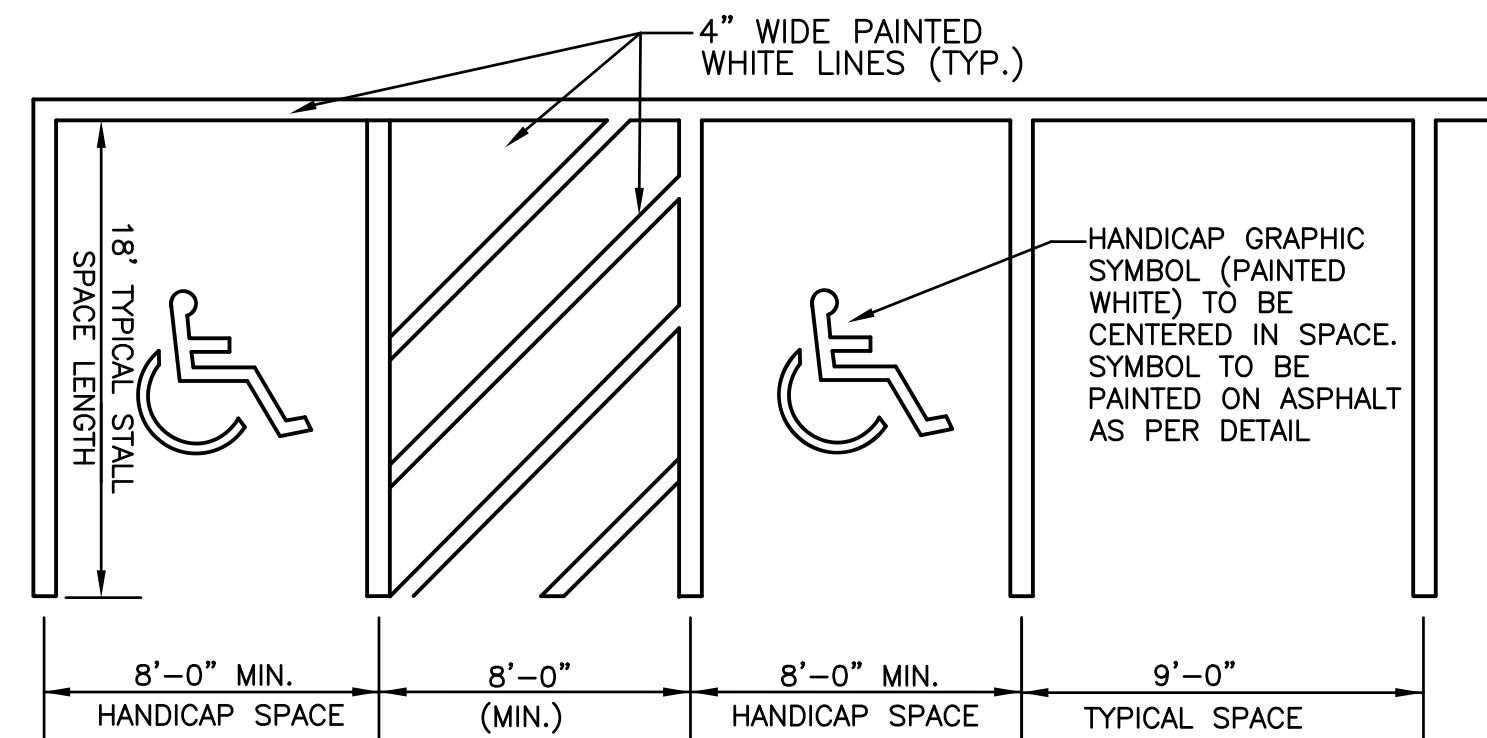
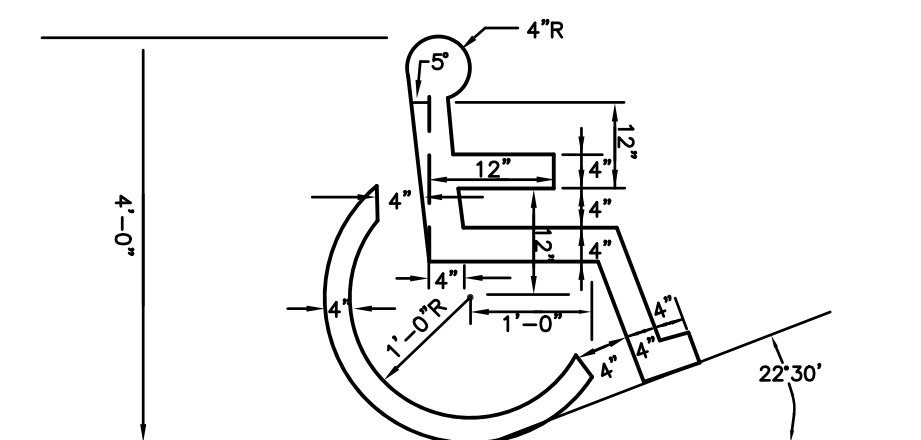


FACILITY SIGN DETAIL
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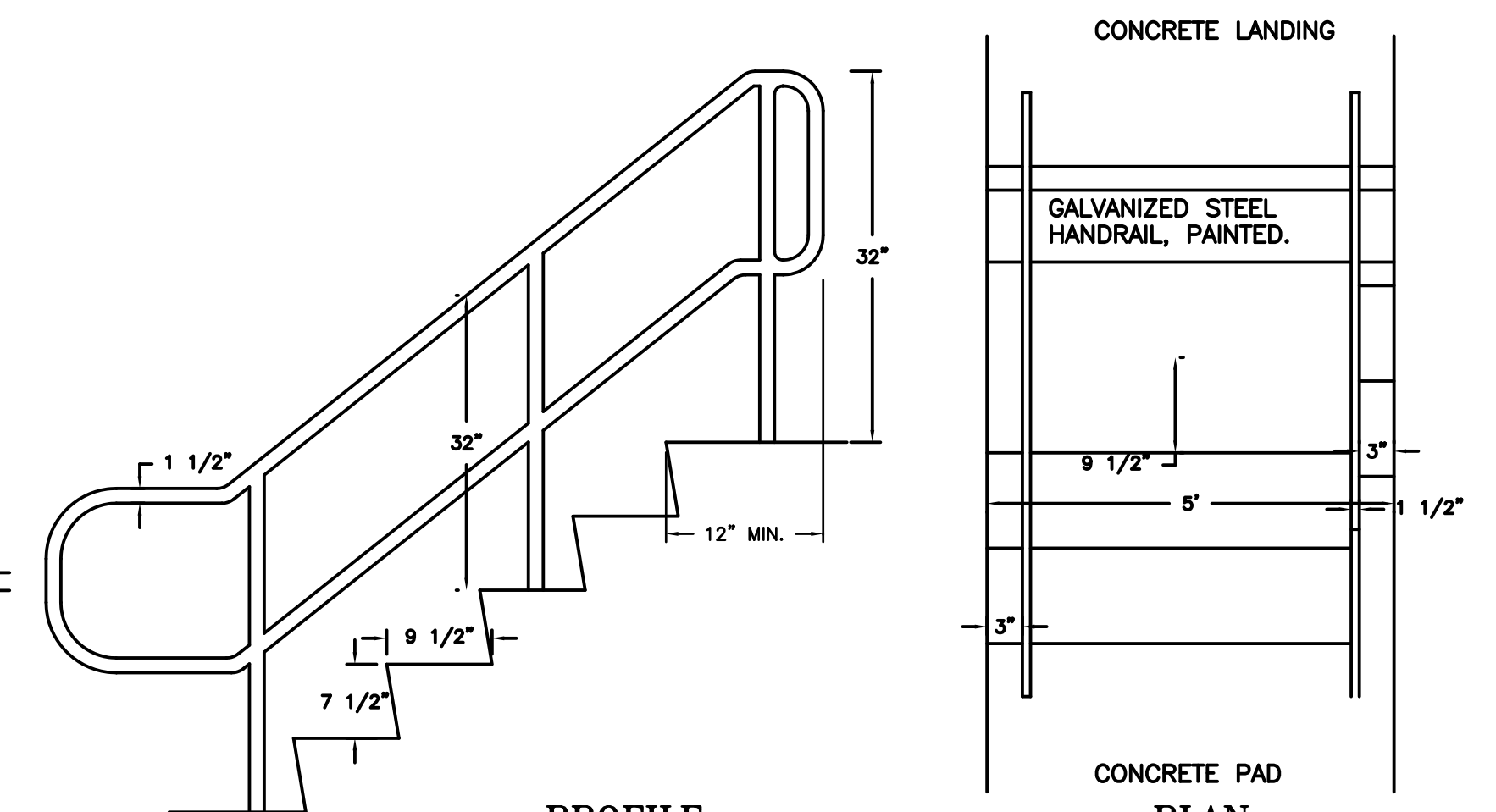
- NOTES:**
1. ALL SIGNS SHALL BE PER "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES", LATEST EDITION.

SIGN SCHEDULE
NOT TO SCALE

ITEM NO.	SIGN SIZE		TEXT	NO. SIGNS REQ'D
	HEIGHT	WIDTH		
R1-1	30"	30"	STOP	1
R7-8 R7-8a	18"	12"	RESERVED PARKING	5
R7-8P	6"	18"	VAN ACCESSIBLE	2
R7-1	18"	12"	NO PARKING FIRE LANE	2
NHE-9455	7"	10"	FDC	1
W14-2	30"	30"	NO OUTLET	1
W2-1	30"	30"	+	1
W11A-2	30"	30"	WALK	2



STALL STRIPING DETAIL
NOT TO SCALE



PROFILE RAIL & STAIR DETAIL
NOT TO SCALE

PARKING AND SIDEWALK DETAILS
TAX MAP 255, LOT 21
INNOVATION DRIVE
ROCHESTER, NH
PREPARED FOR:
PREP PARTNERS GROUP, LLC.
MAY 2020

FILE NO. 104
PLAN NO. C-3012
DWG. NO. 19289
F.B. NO.

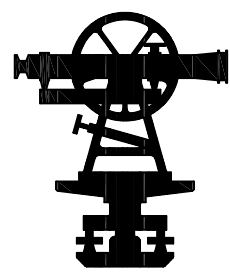
31 Mooney Street, Alton, N.H. 603-875-3948

NORWAY PLAINS

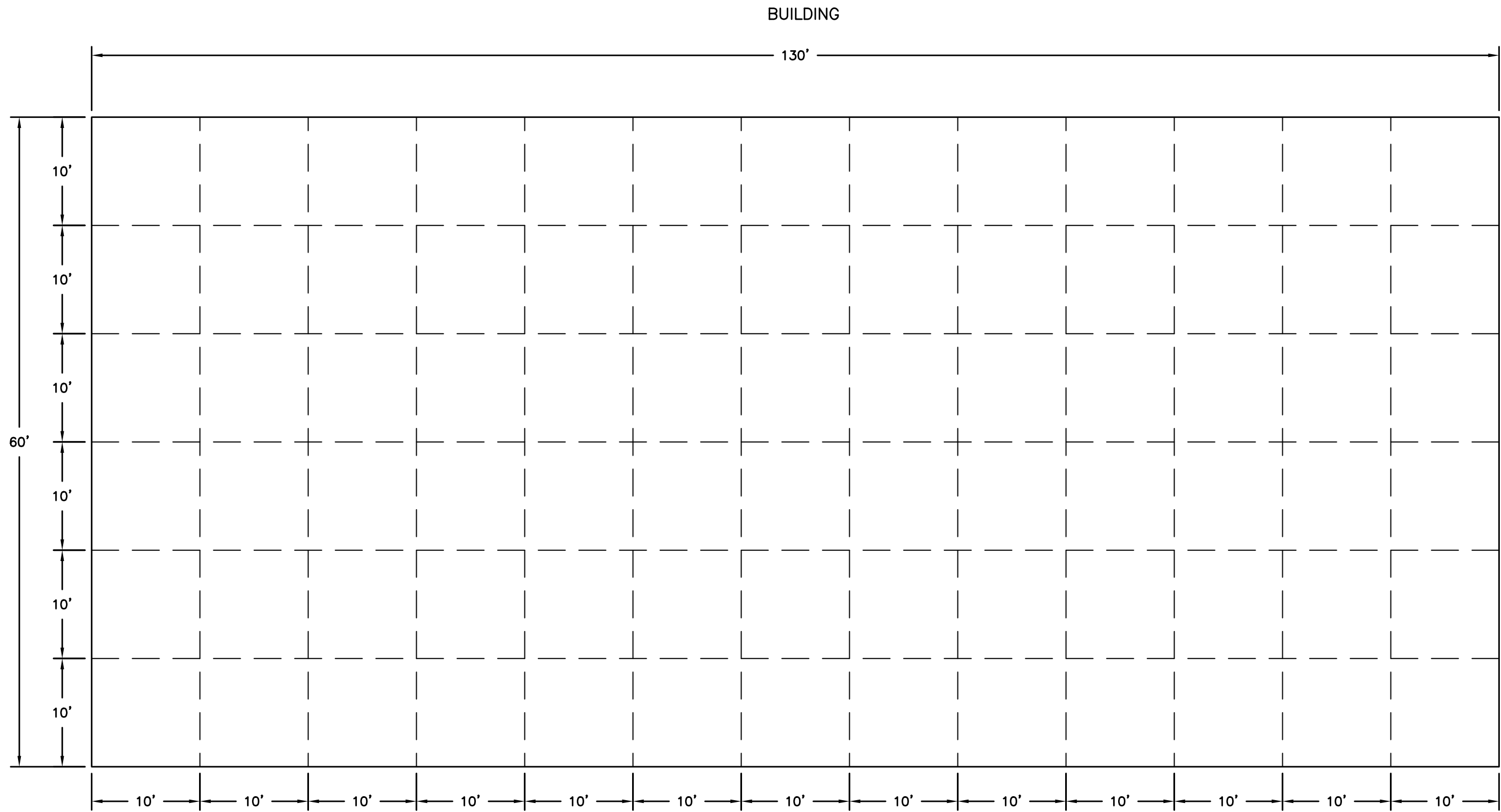
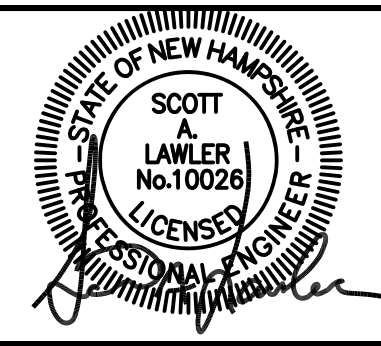
ASSOCIATES, INC.

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

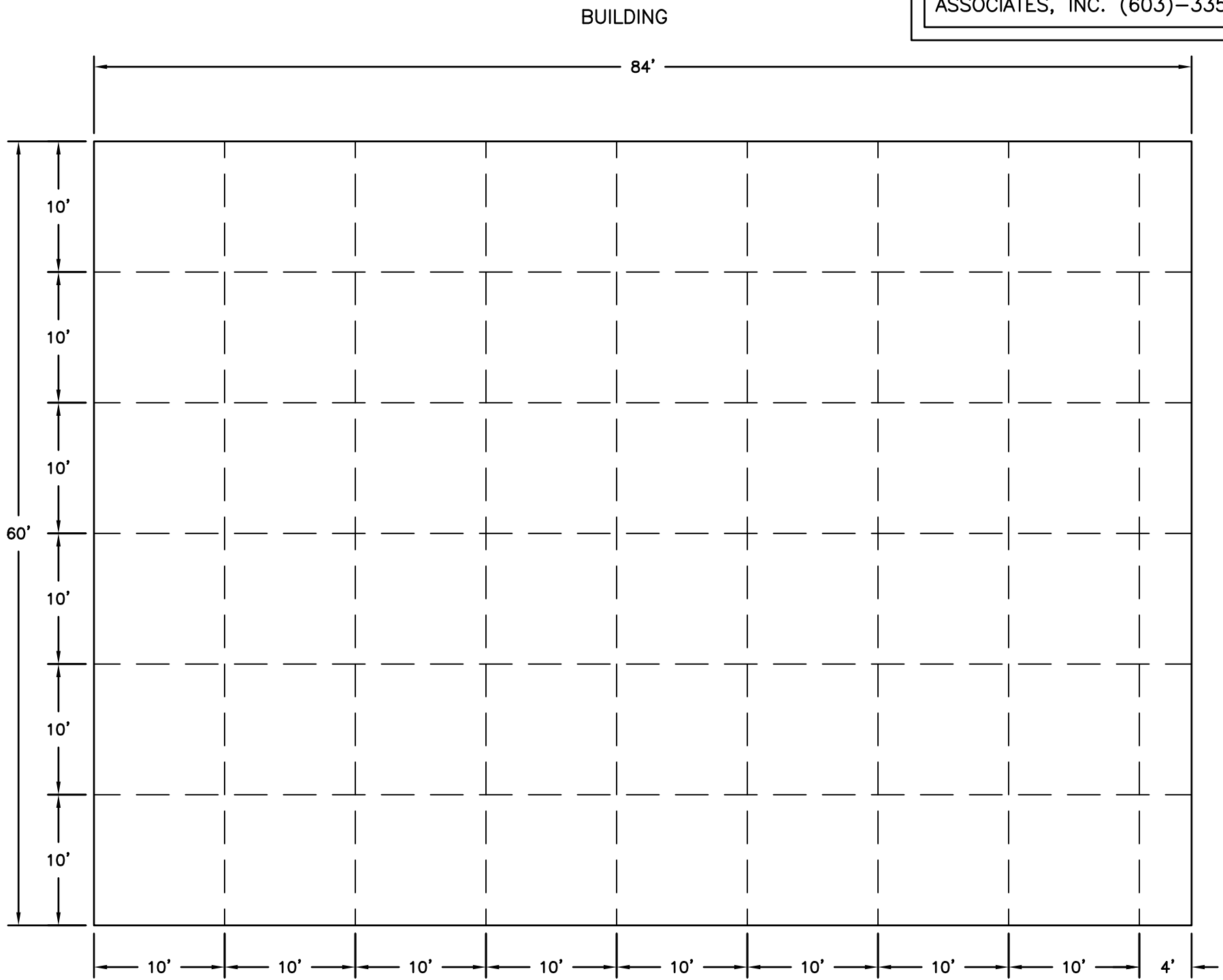
C-10



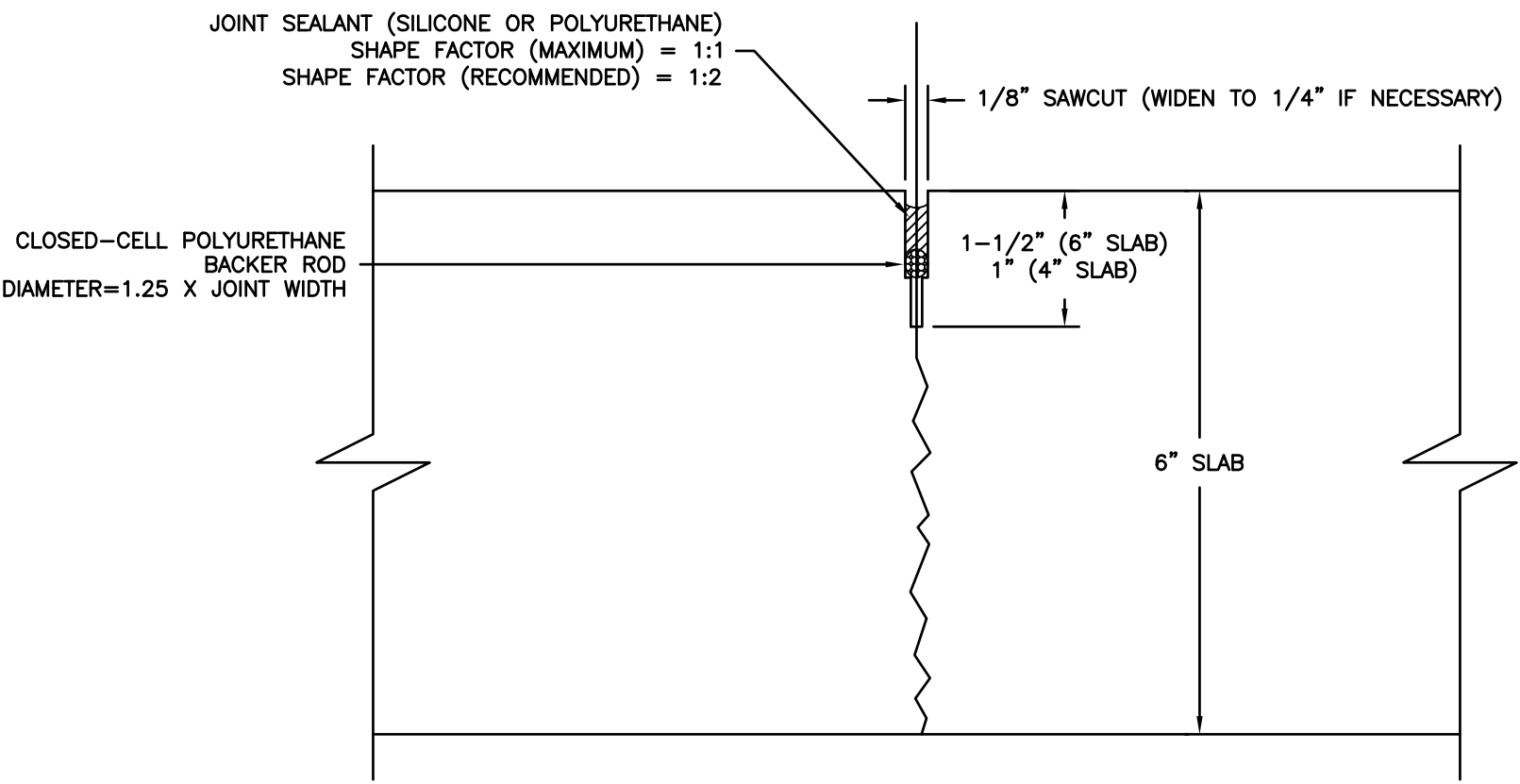
CAREFULLY REVIEW ALL SHEETS OF THIS PACKAGE TO INSURE PROPER CONSTRUCTION. SPECIFIC SITE CONDITIONS SHOULD BE EXPLORED PRIOR TO CONSTRUCTION. CONTACT BOTH THE DESIGN ENGINEER AND THE PROJECT OWNER FOR ANY AVAILABLE GEOTECHNICAL OR HYDROGEOLOGICAL INFORMATION AVAILABLE BUT NOT CONTAINED WITH IN THE PLAN 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.



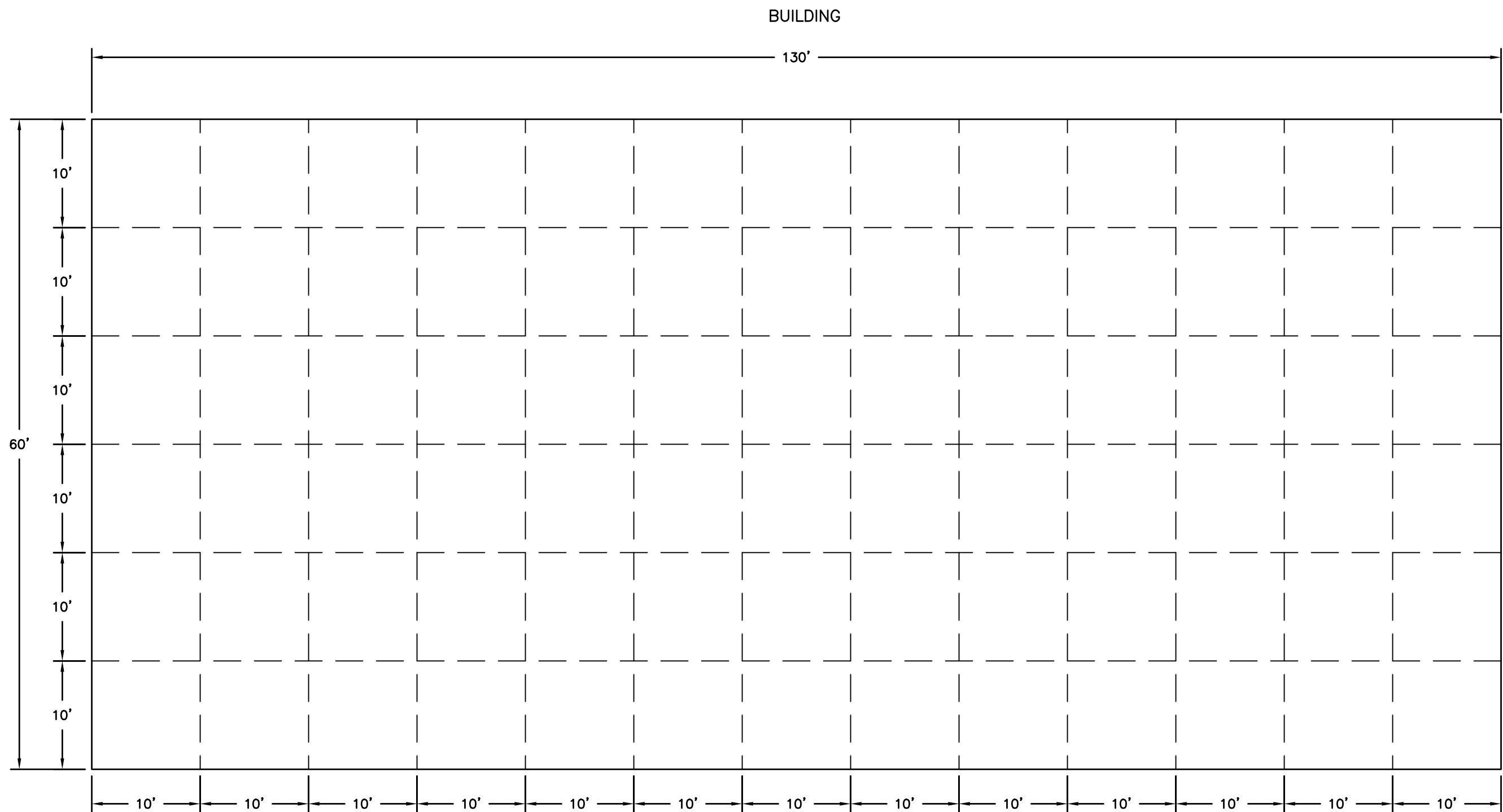
**60'X130' PAD
LOADING DOCK 1**
SCALE: 1"=10'



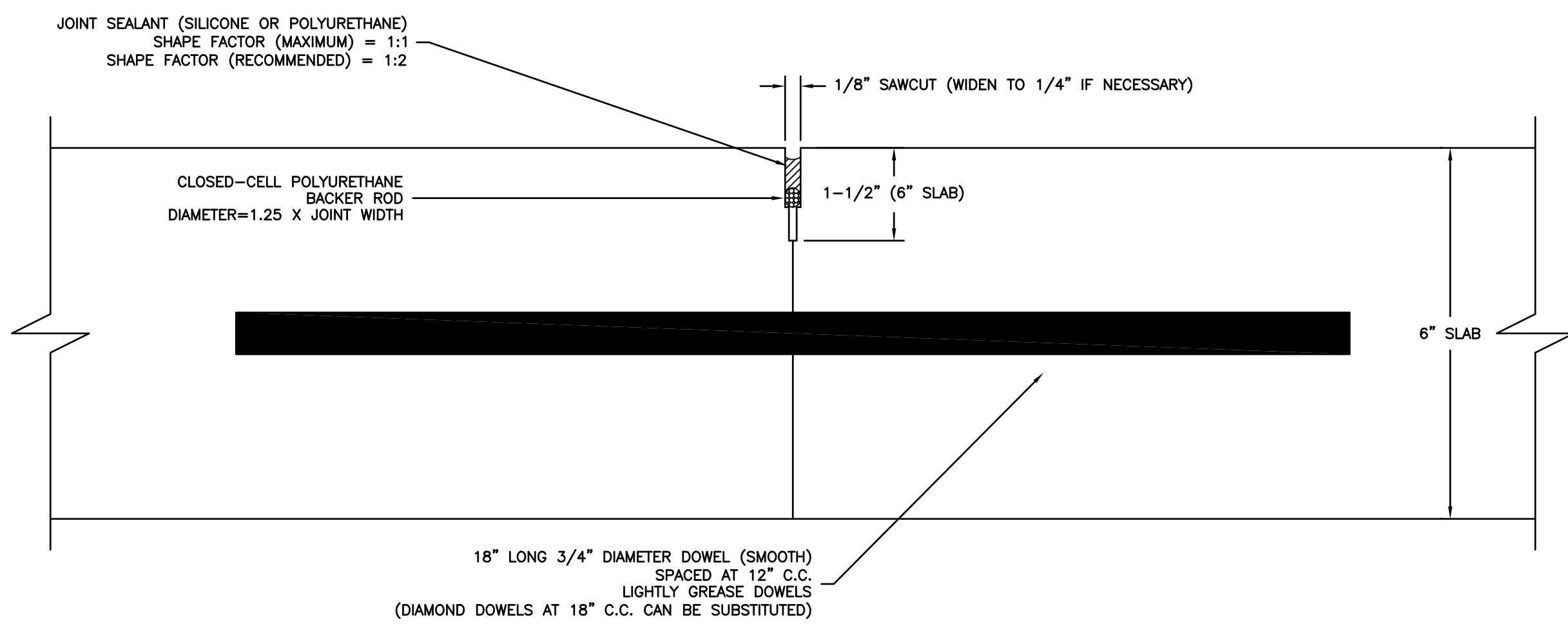
**60'X130' PAD
LOADING DOCK 1**
SCALE: 1"=10'



**(SAWCUT)
CONTRACTION JOINT DETAIL**
SCALE: 1"=2"



**60'X130' PAD
LOADING DOCK 1**
SCALE: 1"=10'



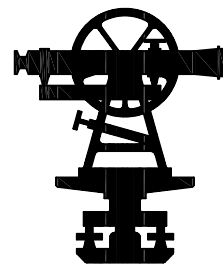
CONSTRUCTION JOINT DETAIL
SCALE: 1"=2"

- JOINT NOTES:**
- JOINT SEALANT:** JOINT SEALANT USED TO SEAL THE CONTRACTION JOINTS SHALL BE INTENDED FOR USE AS A CONCRETE PAVEMENT SEALER AS DESCRIBED BY THE MANUFACTURERS SPECIFICATIONS. SEALANT SHALL BE INSTALLED WITH POLYURETHANE BACKER RODS. EITHER SILICONE OR POLYURETHANE JOINT SEALER IS ACCEPTABLE. APPROVED SEALANTS ARE AS FOLLOWS:
SILICONE:
SIKASIL 728 NS
SIKASIL 728 SL
SONOLASTIC SL 1
SONOLASTIC SL 2
POLYURETHANE:
SIKAFLEX 15 LN SL GRADE
SIKAFLEX 1C SL
SIKAFLEX 2 C NS TG
SONOLASTIC NP 2
 - BACKER RODS:** BACKER RODS SHALL BE CLOSED-CELL POLYURETHANE WITH A MINIMUM DIAMETER OF 1.25 X THE CONTRACTION JOINT WIDTH.
 - CONTRACTION JOINTS:** CONTRACTION JOINTS SHALL BE SAWCUT INTO THE SLAB TO A DEPTH OF 1-1/2" MINIMUM (6" SLAB) OR 1" MINIMUM (4" SLAB), WITH A WIDTH OF 1/8". SAWCUTS TO BE WIDENED TO 1/4" IF NECESSARY TO ACCOMMODATE SEALANT AND BACKER ROD.
 - CONSTRUCTION JOINT:** CONSTRUCTION JOINT TO BE CONSTRUCTED AS SHOWN ON THE TRUCK STOPPING PAD AT GUARD HOUSE DETAIL AND CONSTRUCTION JOINT DETAIL ABOVE.
 - DOWELS:** DOWELS SHALL BE SMOOTH, CORROSION RESISTANT STEEL (EITHER EPOXY COATED OR STAINLESS STEEL). DOWELS SHALL BE LIGHTLY GREASED OVER THEIR ENTIRE LENGTH.

**CONCRETE TRUCK PORT DETAILS
TAX MAP 255, LOT 21
INNOVATION DRIVE
ROCHESTER, NH
PREPARED FOR:
PREP PARTNERS GROUP, LLC
MAY 2020**

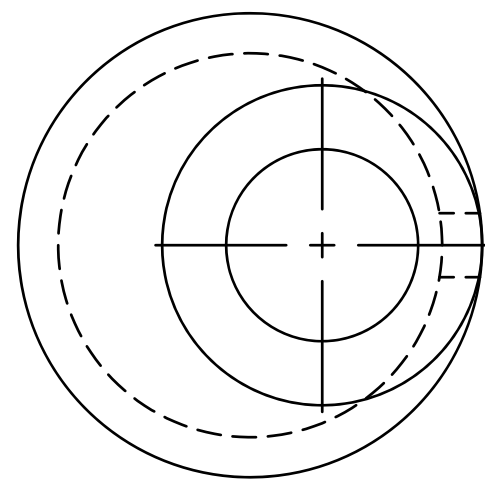
FILE NO. 104
PLAN NO. C-xxx
DWG. NO. 19289 SP-1
F.B. NO.

LAND SURVEYORS



CIVIL ENGINEERS

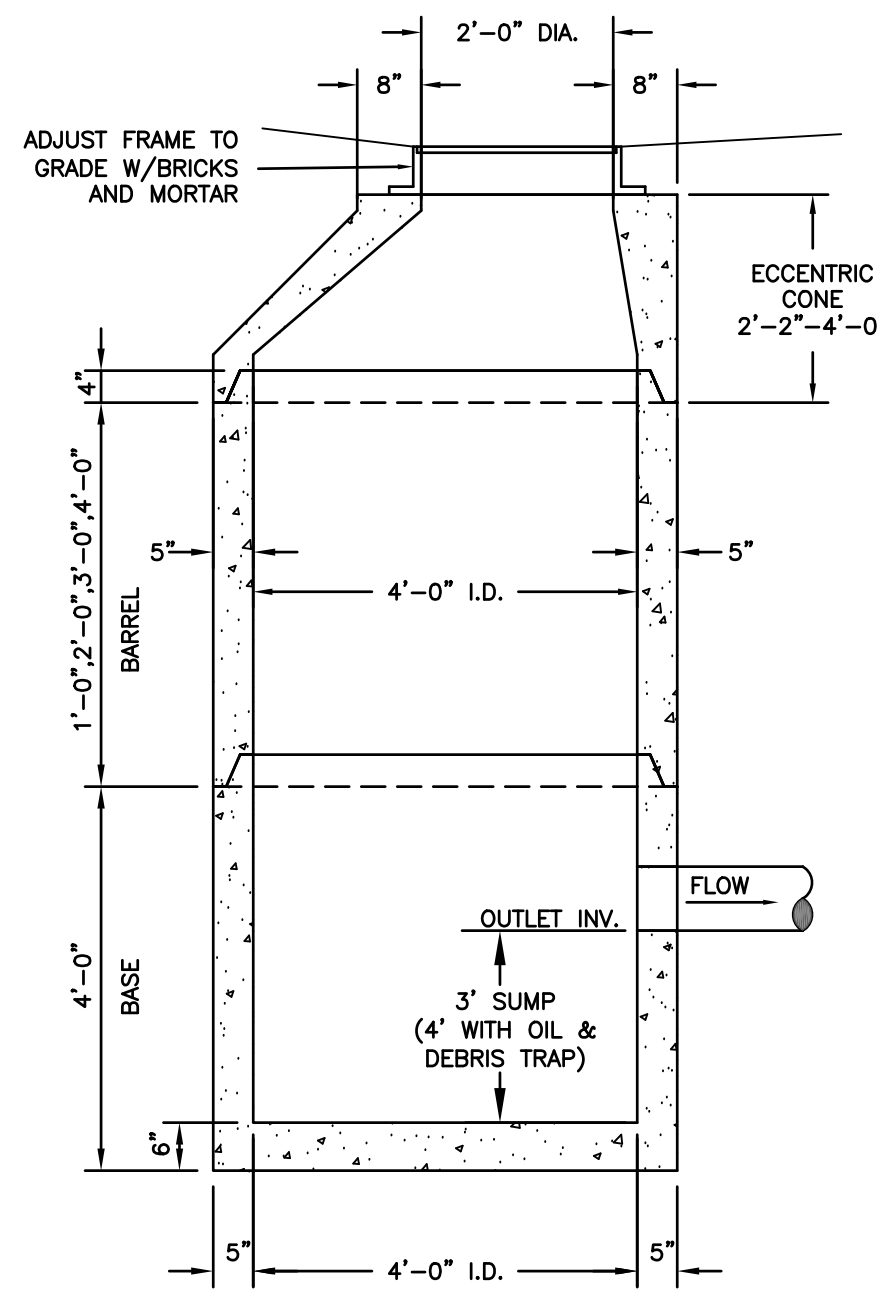
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PLAN VIEW

DRAIN LINE DIAMETER	SUM OF DRAIN LINE DIAMETER	CATCH BASIN DIAMETER
15" TO 18"	LESS THAN 54"	4'
21" TO 27"	LESS THAN 72"	5'
30" TO 33"	LESS THAN 90"	6'
36" & LARGER	GREATER THAN 90"	REFER TO THE STANDARD

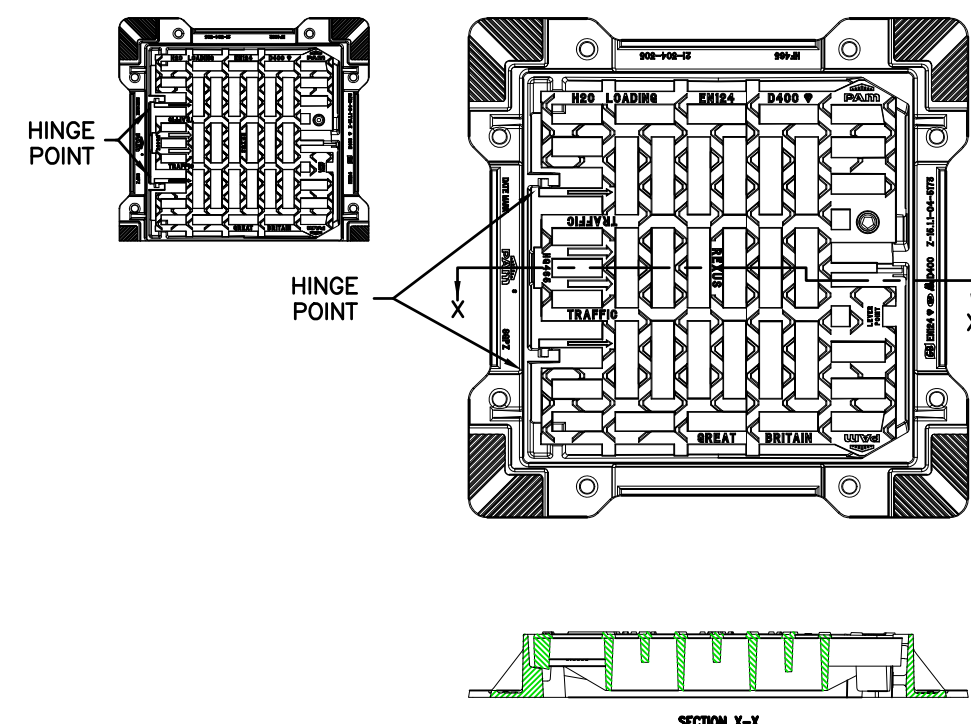
- NOTES:
1. CONCRETE: 4,000 PSI AFTER 28 DAYS.
 2. REINFORCING: SHALL BE PROVIDED FOR H-20 LOADING.
 3. SHIPLAP JOINTS SEALED WITH 1 STRIP OF BUTYL RUBBER SEALANT.
 4. PIPE OPENINGS CAST IN AS REQUIRED.
 5. RISER HEIGHT VARIES 1', 2', 3' OR 4' TO REACH DESIRED DEPTH.
 6. PIPE CONNECTIONS SHALL BE MORTARED.
 7. PRECAST SECTIONS SHALL CONFORM TO ASTM C-478.
 8. SEE SLAB TOP DETAIL FOR STRUCTURES REQUIRING SLAB TOPS, I.E. DOUBLE GRATE AND FRAME STRUCTURES.



SECTION VIEW

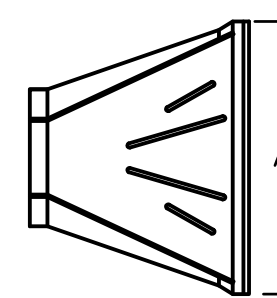
PRE-CAST REINFORCED CATCH BASIN

NOT TO SCALE

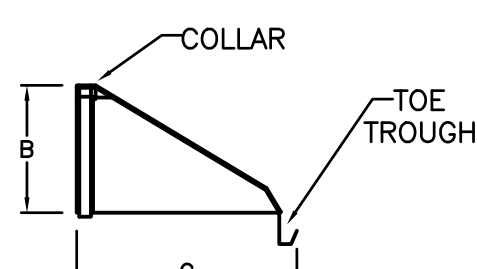


24" REXUS DI CB F & GRATE 62114 CB3R

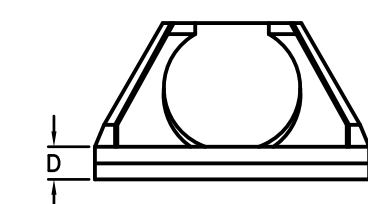
NOT TO SCALE



TOP VIEW



SIDE VIEW

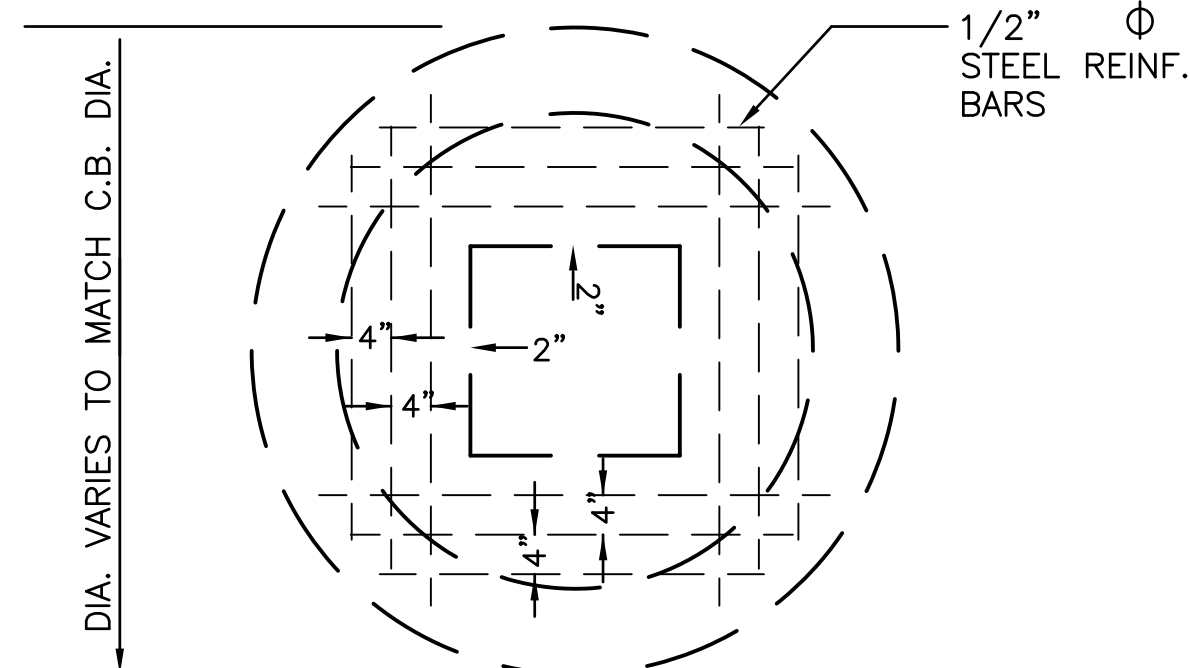


FRONT VIEW

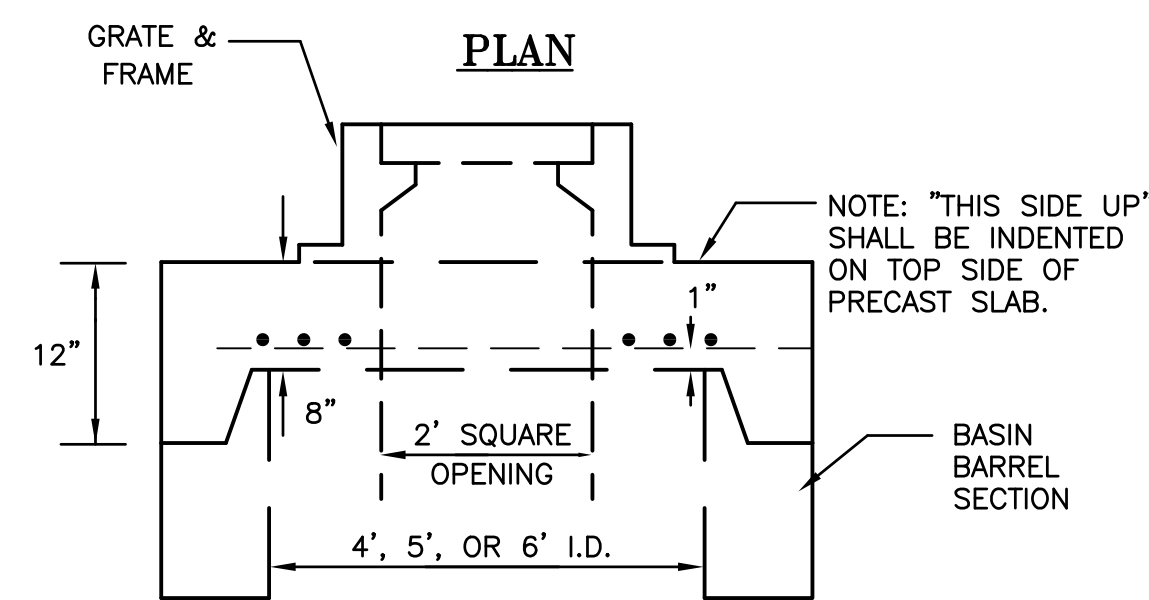
FLAIED END SECTION DETAIL

NOT TO SCALE

FILE NO. 104
PLAN NO. C-xxx
DWC. NO. 19289 SP-1
F.B. NO.



PLAN

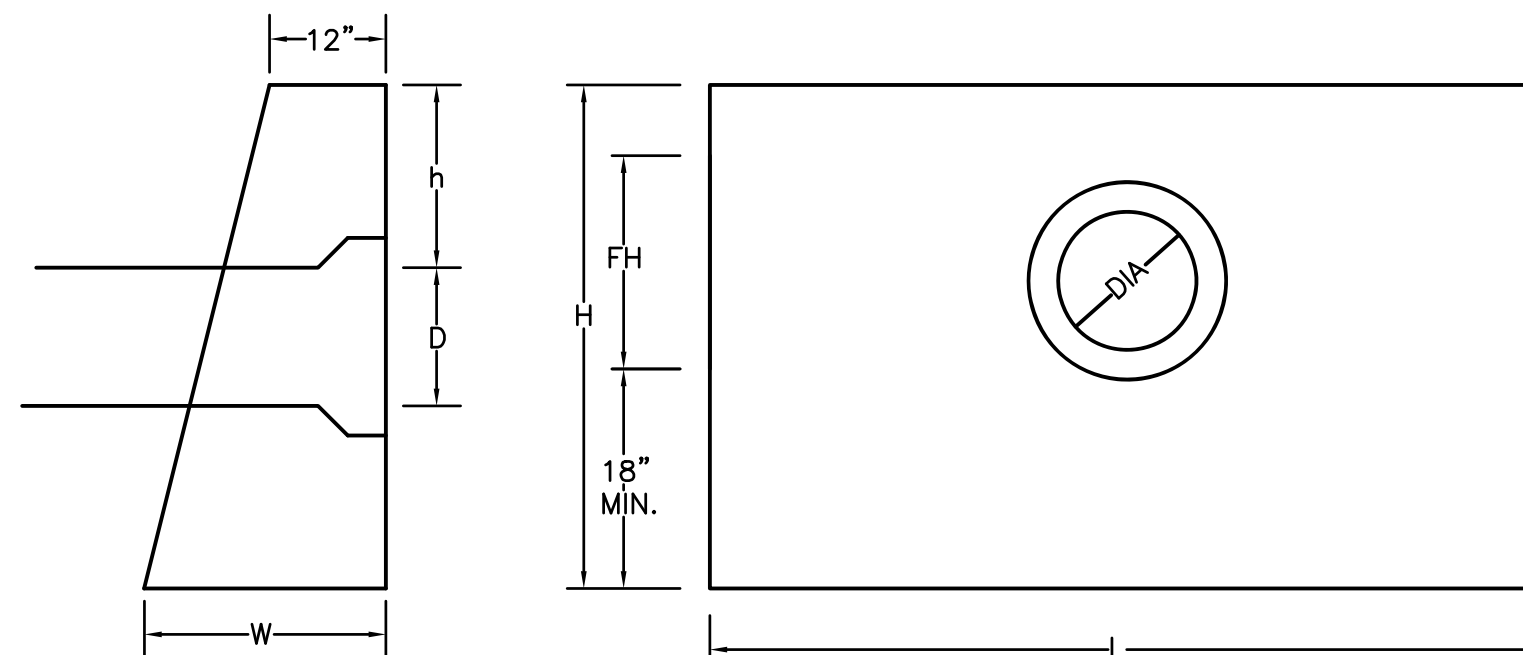


ELEVATION

- NOTE:
1. SLAB TO BE PLACED IN LIEU OF TAPERED SECTION WHERE PIPE WOULD OTHERWISE ENTER INTO TAPERED SECTION OF THE STRUCTURE AND WHERE PERMITTED.
 2. SLAB TOP MAY BE CASTED WITH MINIMUM OR NO INTERLOCKING CHANNEL. HOWEVER, THE CONTRACTOR MUST ENSURE THE SLAB TOP IS FIRMLY ATTACHED TO THE STRUCTURE.

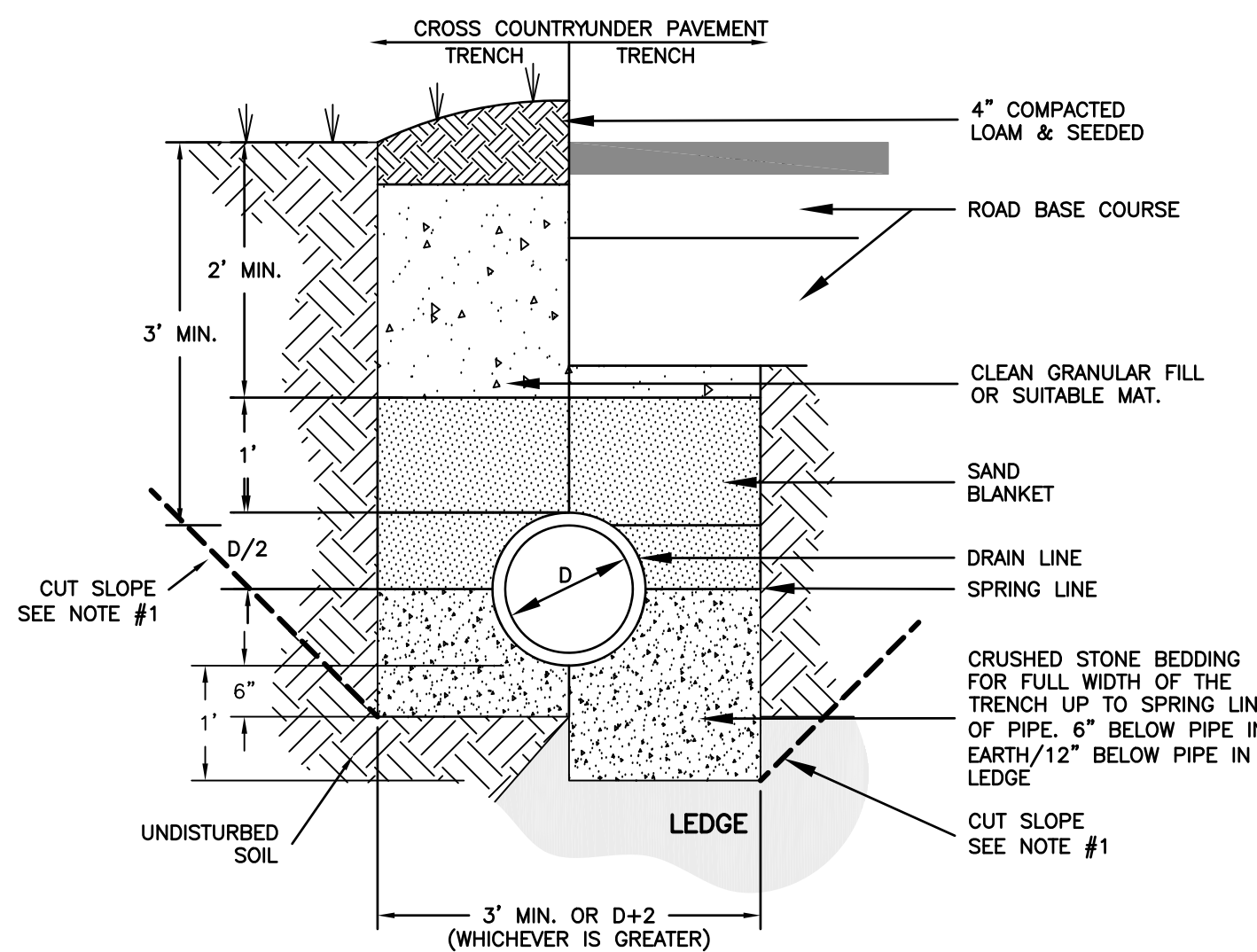
REINFORCED CONCRETE SLAB COVER

NOT TO SCALE



DIA. D	HEADWALL LENGHT L	HEADWALL HIGHT H	FILL HIGHT FH	PIPE COVER h	HEADWALL BTM HIGHT W
12"	4'3"	3'9"	1'1"	1'3"	2'
15"	6'	4'3"	1'7"	1'6"	2'1"
18"	7'	4'6"	1'10"	1'6"	2'2"
24"	9'	5'	2'4"	1'6"	2'3"
30"	11'	5'6"	2'10"	1'6"	2'5"
36"	13'	6'	3'4"	1'6"	2'6"
42"	15'9"	6'9"	4'1"	1'9"	2'9"
48"	17'9"	7'3"	4'7"	1'9"	2'10"

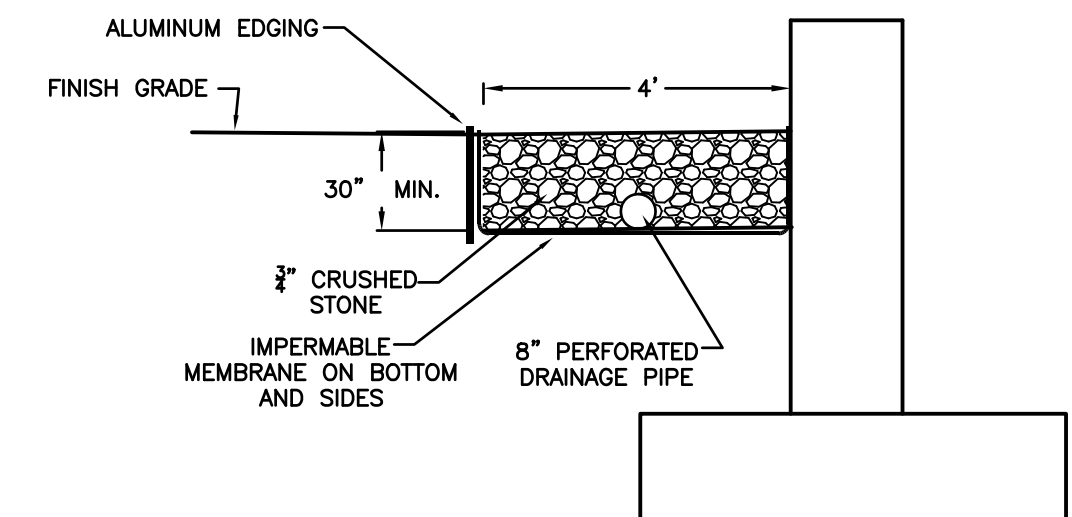
PRE-CAST HEADWALL



- 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.

DRAINAGE PIPE TRENCH INSTALLATION DETAIL

NOT TO SCALE



DRIP EGDE DETAIL

NOT TO SCALE

DRAINAGE DETAILS
TAX MAP 255, LOT 21
INNOVATION DRIVE
ROCHESTER, NH

PREPARED FOR:
PREP PARTNERS GROUP, LLC

MAY 2020

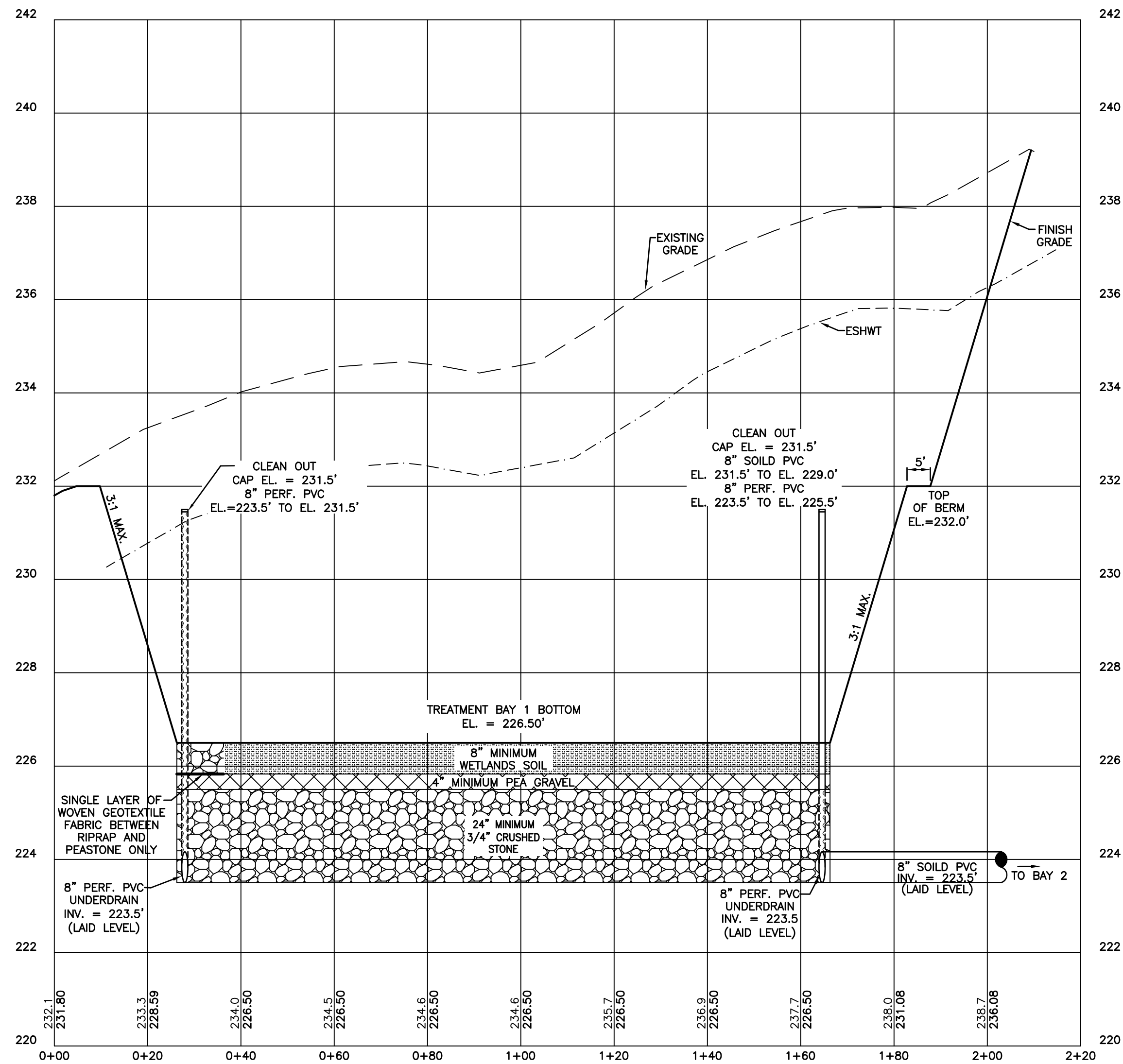
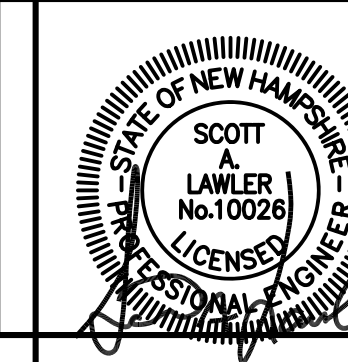
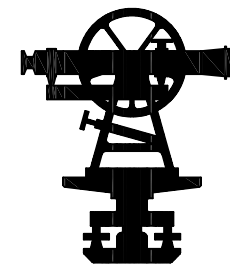
2 Continental Blvd., Rochester, N.H. 603-335-3948

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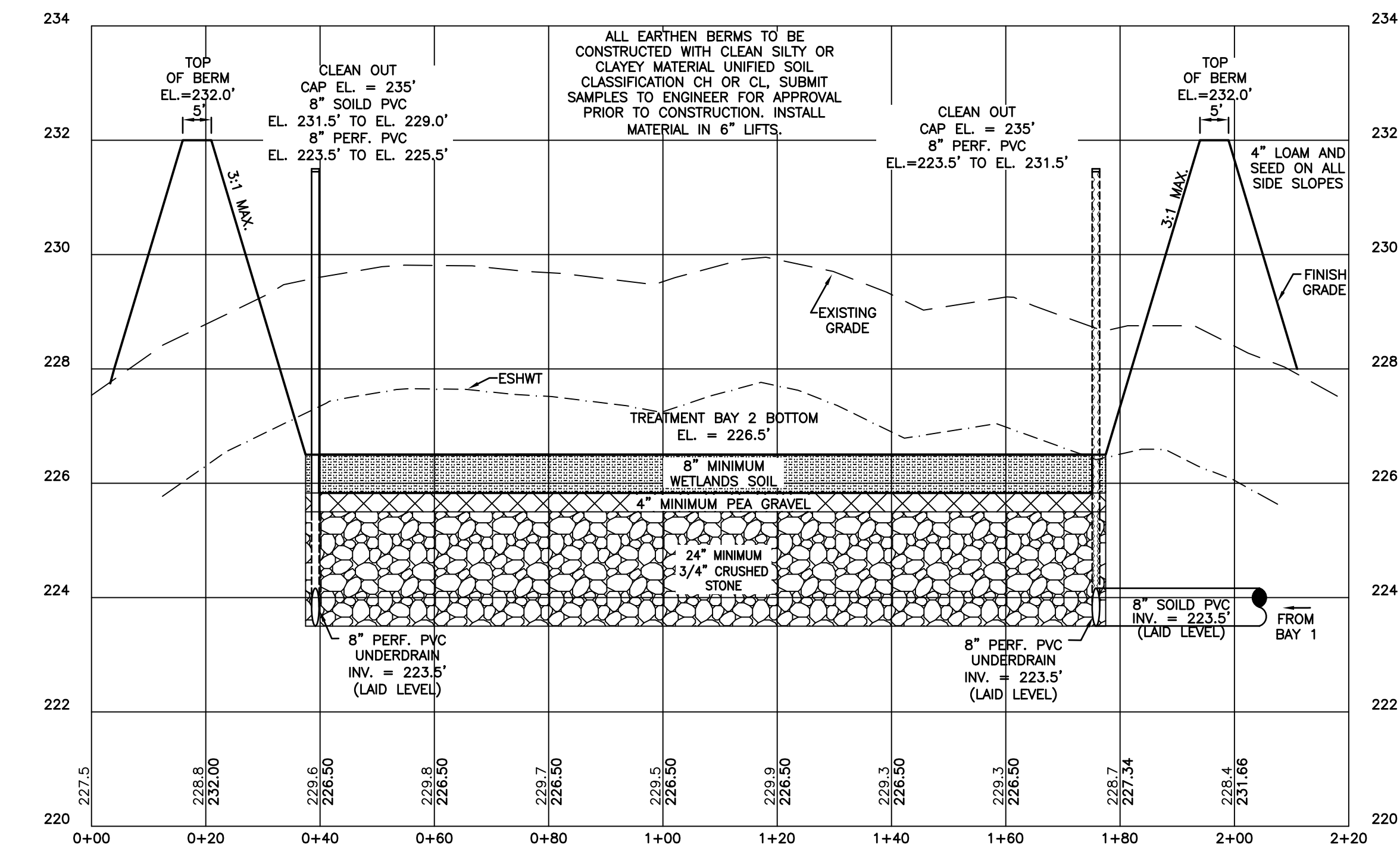
NORWAY PLAINS ASSOCIATES, INC.

STATE OF NEW HAMPSHIRE - PROFESSIONAL ENGINEER -

SCOTT
A.
LAWLER
No. 10026
LICENSED



GRAVEL WETLANDS BASIN TREATMENT BAY 1 CROSS SECTION
1" = 20' (HORZ.) & 1" = 2' (VERT.)

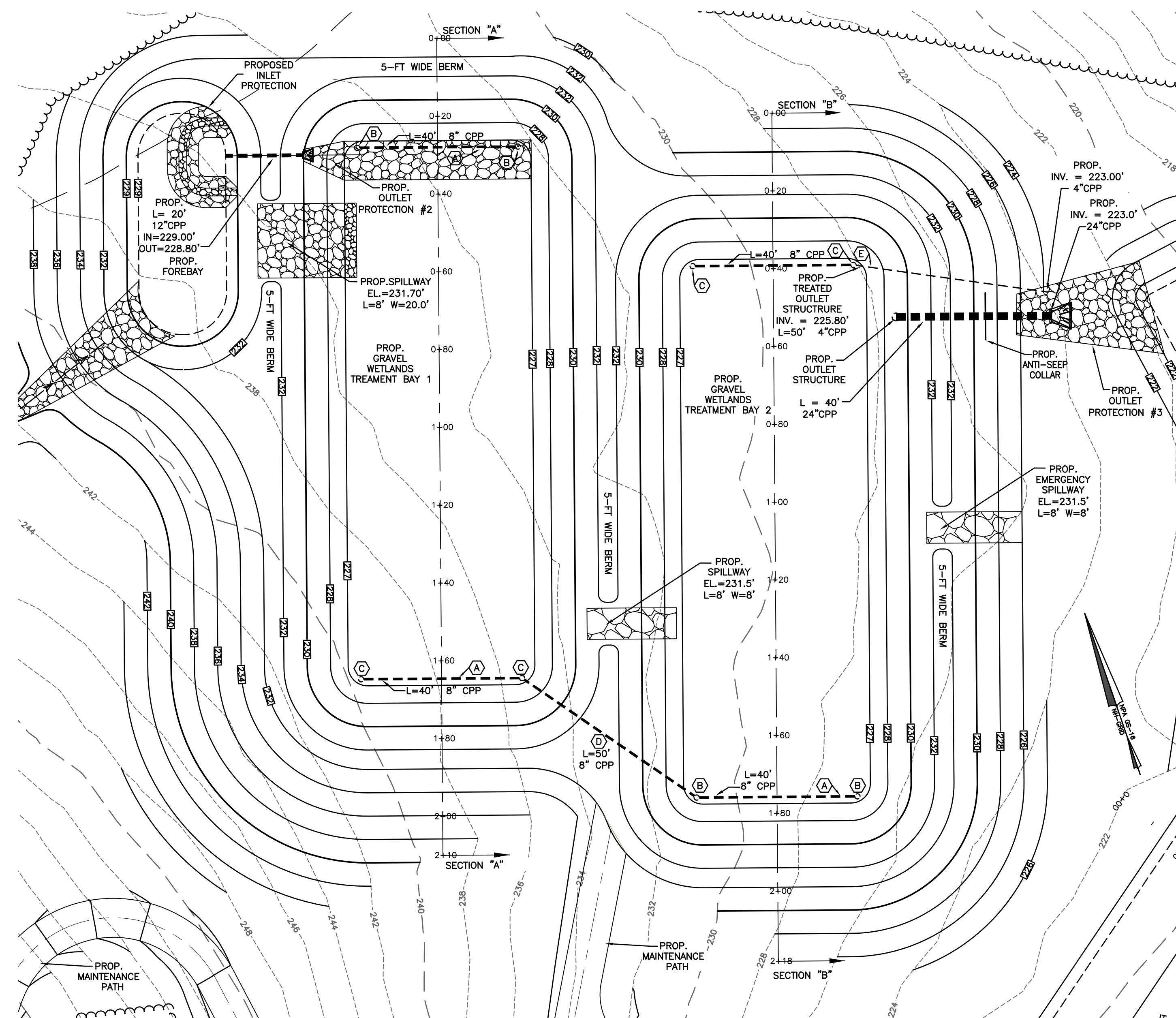


GRAVEL WETLANDS BASIN TREATMENT BAY 2 CROSS SECTION
1" = 20' (HORZ.) & 1" = 2' (VERT.)

FILE NO. 104
PLAN NO. C-xxx
DWG. NO. 19289 SP-1
F.B. NO.

TEST PIT #15 ELEVATION = 229.5'
0-6" 10YR 3/3 SANDY LOAM
6-26" 10YR 5/6 SANDY LOAM, GRANULAR, FRIABLE
26-48" 2.5Y 5/3 LOAMY SAND, FIRM WITH REDOX
ESHWT @ 26" ELEVATION = 227.3'

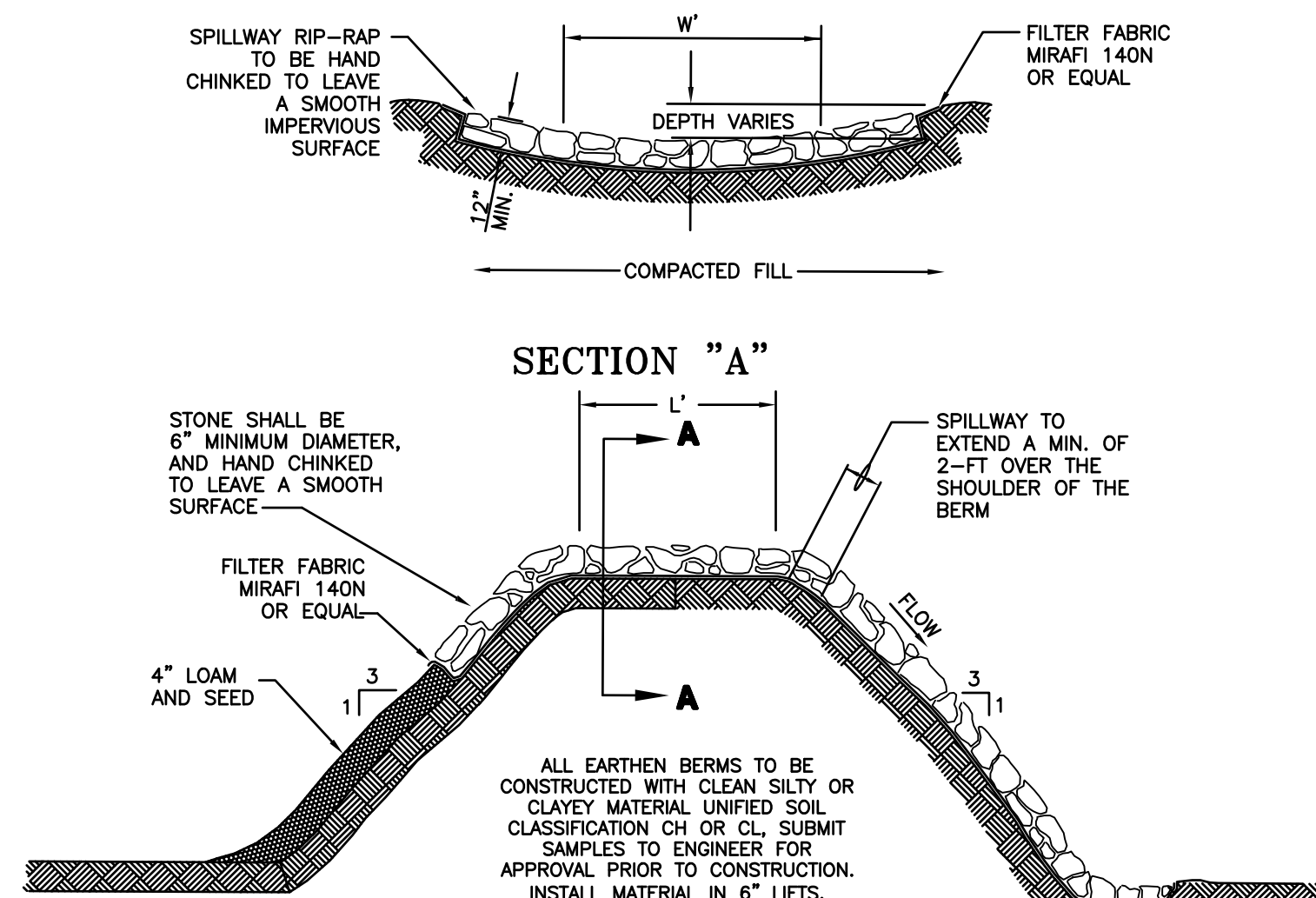
TEST PIT #16 ELEVATION = 234.5'
0-7" 10YR 3/3 SANDY LOAM
7-26" 10YR 5/6 SANDY LOAM, GRANULAR, FRIABLE
26-32" 2.5Y 4/4 LOAMY SAND, FIRM WITH FINE ROOTS
32-72" 2.5Y4/2 LOAMY SAND, MASSIVE, FIRM
OBSERVED WATER @ 5'
ESHWT @ 26" (PAN LAYER) ELEVATION = 232.3'



GRAVEL WETLANDS BASIN PLAN VIEW
1" = 20'

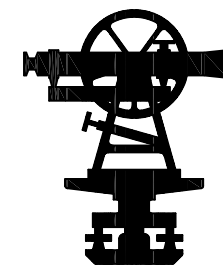
PROPOSED GRAVEL WETLAND BASIN DRAINAGE STRUCTURES

- (A) PROP. 8" PERF. PVC UNDER DRAIN INV. = 223.5' (LAID LEVEL)
- (B) CLEAN OUT CAP EL. = 231.5' 8" PERF. PVC EL. 231.5' TO EL. 223.5' (LAID LEVEL)
- (C) CLEAN OUT CAP EL. = 231.5' 8" SOLID PVC EL. 231.5' TO EL. 225.5' (LAID LEVEL)
- (D) PROP. 8" SOLID PVC INV. = 223.5' (LAID LEVEL)
- (E) PROP. OUTLET FILTERED WATER 4" PVC INV. = 225.80'

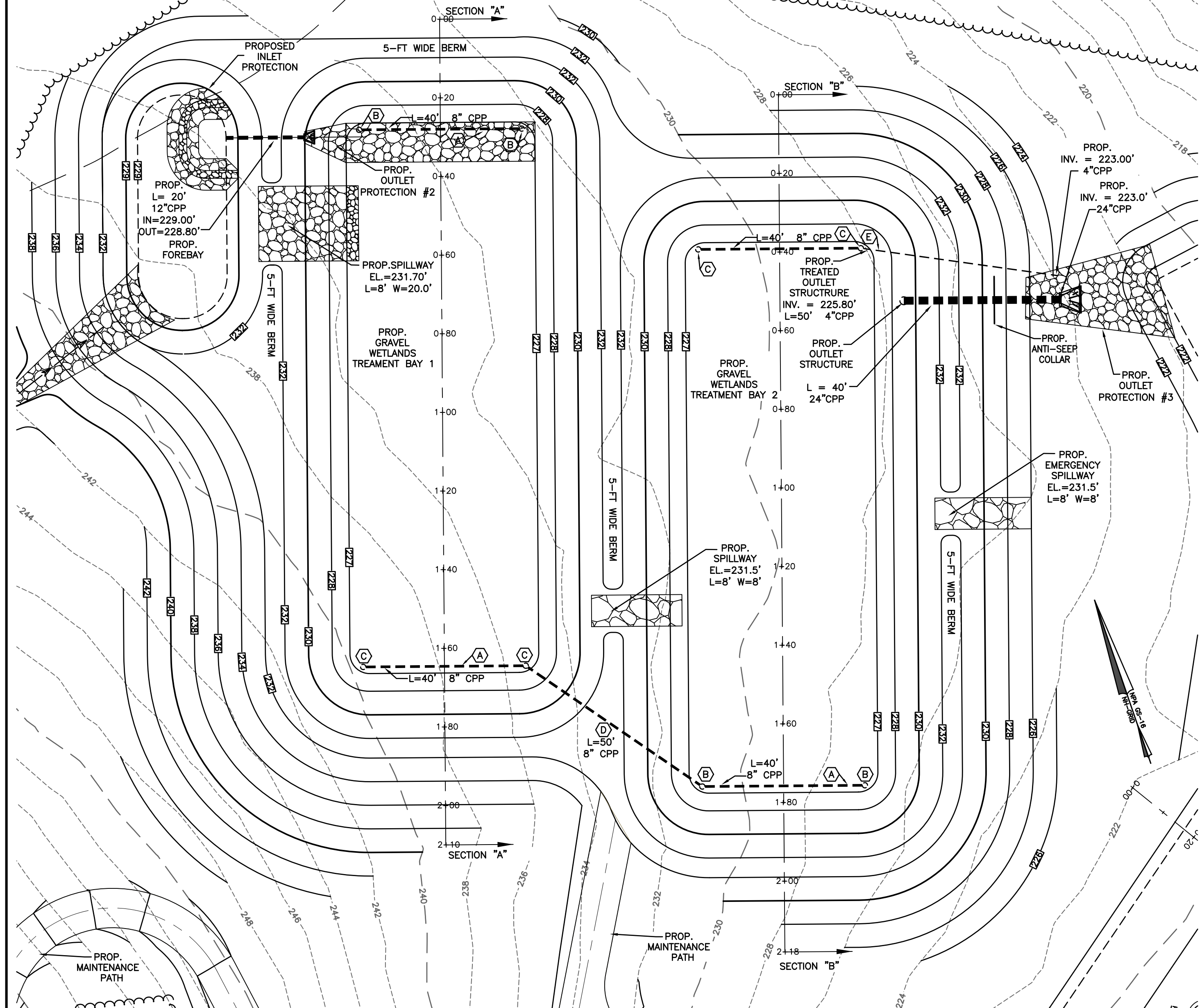
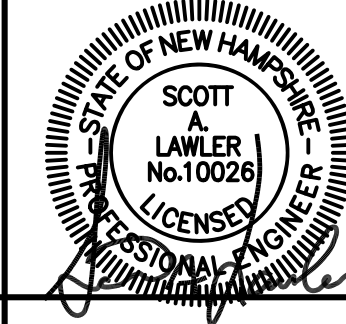


SPILLWAY DETAIL
NOT TO SCALE

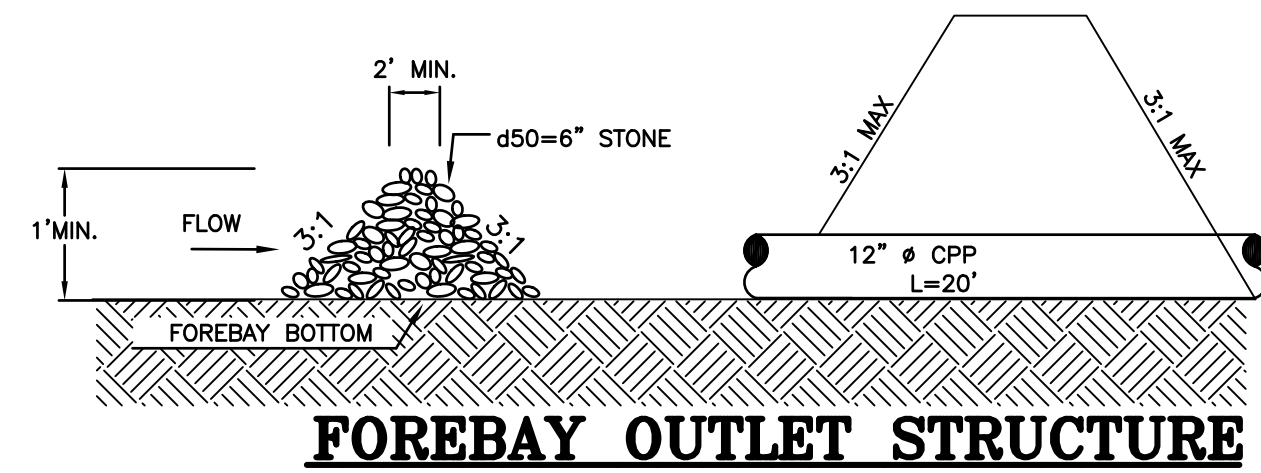
GRAVEL WETLAND PLAN & CROSS SECTIONS
TAX MAP 255 LOT 21
INNOVATION DRIVE
ROCHESTER, NH
PREPARED FOR:
PREP PARTNERS GROUP, LLC.
MAY 2020



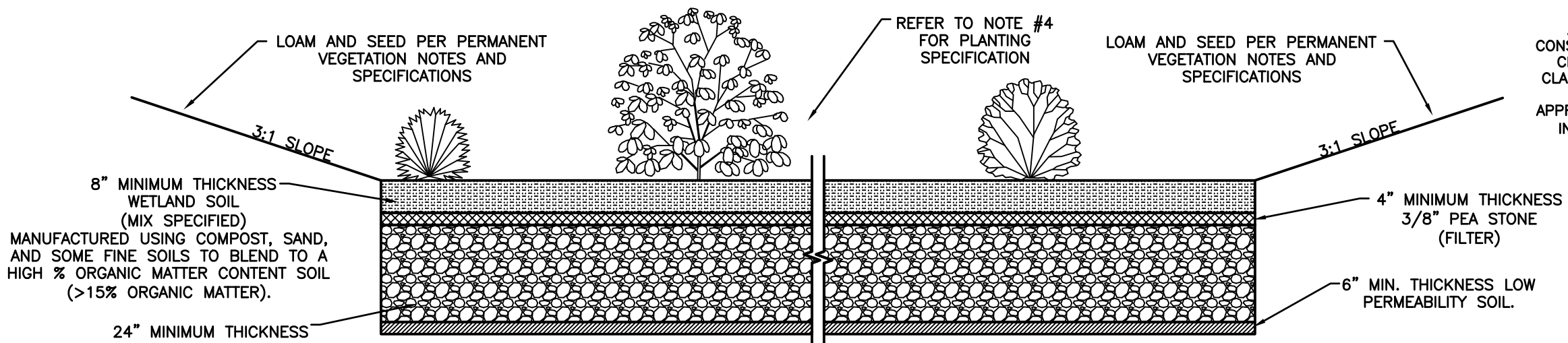
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GRAVEL WETLANDS BASIN PLAN VIEW
1" = 20'



FOREBAY OUTLET STRUCTURE



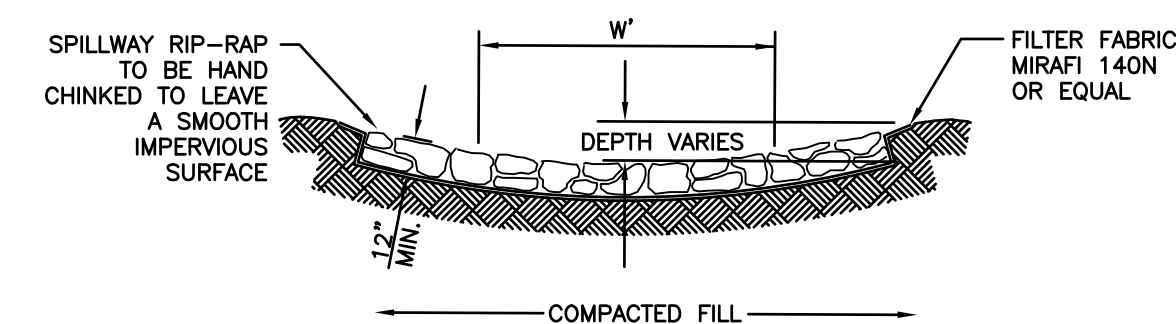
GRAVEL WETLAND MATERIALS CROSS-SECTION
NOT TO SCALE

ALL EARTHEN BERMS TO BE CONSTRUCTED WITH CLEAN SILTY OR CLAYEY MATERIAL UNIFIED SOIL CLASSIFICATION CH OR CL. SUBMIT SAMPLES TO ENGINEER FOR APPROVAL PRIOR TO CONSTRUCTION. INSTALL MATERIAL IN 6" LIFTS.

LOW PERMEABILITY MATERIAL GRADATION:	
SIEVE SIZE:	PERCENT PASSING:
#4	95-100
#10	60-90
#20	40-60
#40	25-45

GRAVEL WETLANDS OUTLET STRUCTURE DETAIL
NOT TO SCALE

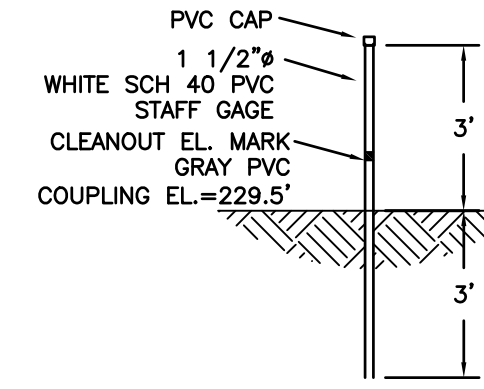
GRAVEL WETLANDS TREATED WATER OUTLET STRUCTURE DETAIL
SCALE: NOT TO SCALE



SPILLWAY DETAIL
NOT TO SCALE

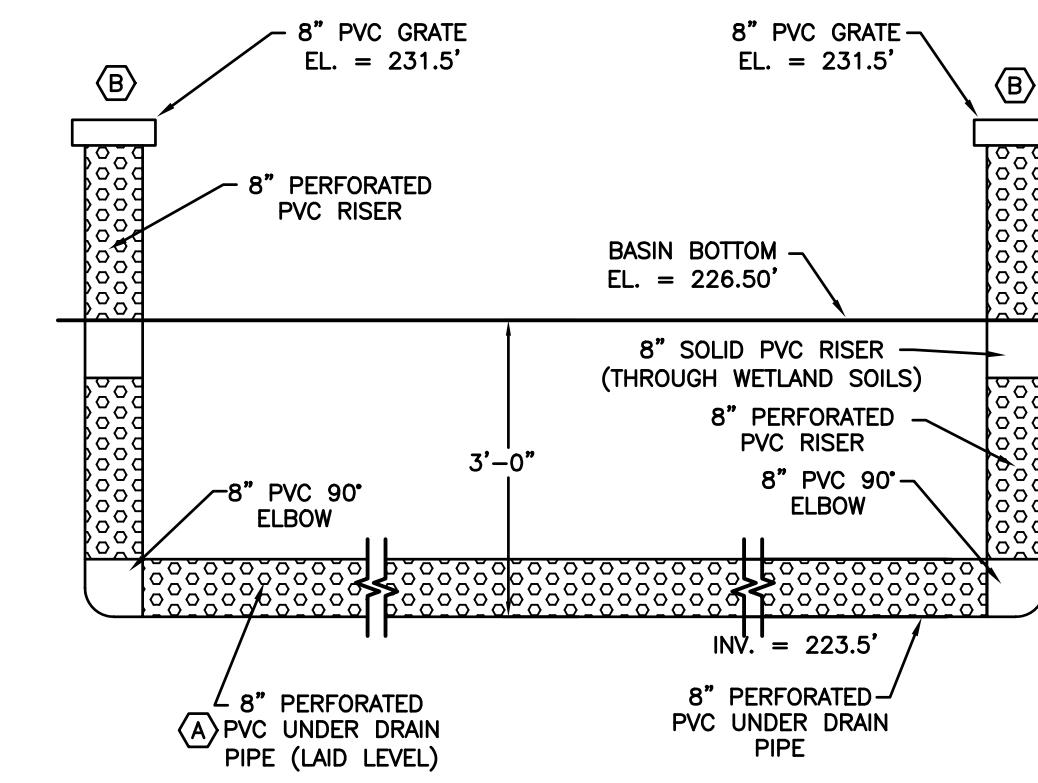
PROPOSED GRAVEL WETLAND BASIN DRAINAGE STRUCTURES

- (A) PROP. 8" PERF. PVC UNDER DRAIN INV. = 223.5' (LAID LEVEL)
- (B) CLEAN OUT CAP EL. = 231.5' 8" PERF. PVC EL. 231.5' TO EL. 223.5'
- (C) CLEAN OUT CAP EL. = 231.5' 8" PERF. PVC EL. 231.5' TO EL. 223.5'
- (D) PROP. 8" SOLID PVC INV. = 223.5' (LAID LEVEL)
- (E) PROP. OUTLET FILTERED WATER 4" PVC INV. = 225.80'



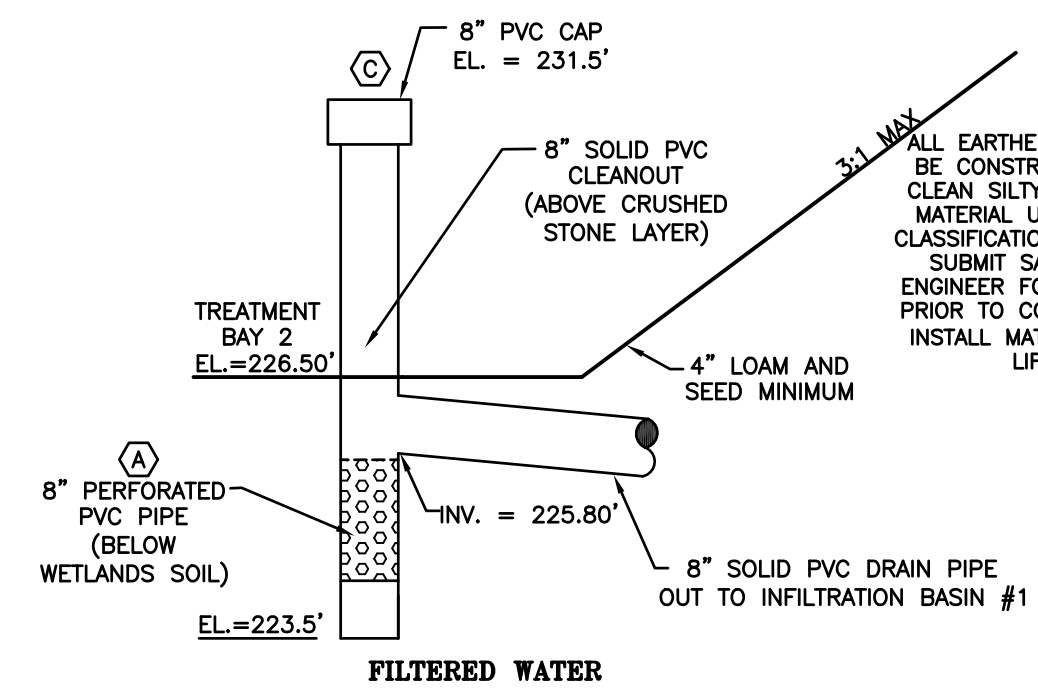
SEDIMENT FOREBAY GAUGE DETAIL
NOT TO SCALE

- NOTES:
- STAFF GAGE TO BE SCHEDULE 40 WHITE PVC DRIVEN OR PLACED IN GROUND A MINIMUM 3'-FT.
 - CLEANOUT MARK ON STAFF TO BE GRAY PVC COUPLING SET 6-INCHES FROM BOTTOM OF BASIN.



GRAVEL WETLANDS INLET STRUCTURE DETAIL
SCALE: NOT TO SCALE

- NOTES:
- 8" PERFORATED PIPE SHALL BE SUPPLIED WITH 4 ROWS OF 1" TO 2" DIAMETER HOLES EVERY 3 INCHES.
 - PERFORATED PIPES SHALL BE PERFORATED IN ACCORDANCE TO ASTM F-758.



SEDIMENT FOREBAY:

- SPECIFICATIONS:
- CONSTRUCT THE SEDIMENT FOREBAY TO THE GRADES DEPICTED ON THE PLAN AND CROSS-SECTION.
 - LOAM AND SEED THE SLOPES AND BOTTOM OF THE SEDIMENT FOREBAY AS PRESCRIBED IN THE "PERMANENT VEGETATION" NOTES FOUND ON SHEET C-11.
- SEED MIXTURE = A
- MAINTENANCE REQUIREMENTS:
- INSPECT SEDIMENT FOREBAY BI-ANNUALLY. ONCE IN THE SPRING PRIOR TO MAY 15 AND ONCE IN THE FALL PRIOR TO OCTOBER 15.
 - CONDUCT PERIODIC MOWING OF THE SEDIMENT FOREBAY SLOPES AND EMBANKMENTS (MINIMUM TWICE A YEAR) TO ELIMINATE WOODY GROWTH FROM THE EMBANKMENTS AND BOTTOM. MOWING THE SEDIMENT FOREBAY EMBANKMENTS WHEN MOWING THE REST OF THE SITE IS RECOMMENDED.
 - REMOVE DEBRIS FROM THE OUTLET STRUCTURE OF THE SEDIMENT FOREBAY (I.E. STONE CHECK DAM) AT LEAST ONCE ANNUALLY.
 - REMOVE AND DISPOSE OF ACCUMULATED SEDIMENT BASED ON INSPECTION. WHEN SEDIMENT HAS REACHED THE RED MARK ON THE SEDIMENT STAFF GAGE INSTALLED IN THE FOREBAY, REMOVE SEDIMENT AND DISPOSE OF IT OFF-SITE IN ACCORDANCE WITH STATE AND LOCAL REGULATIONS. ELEVATION OF RED CLEANOUT MARK ON STAFF GAGE = 232.5'

GRAVEL WETLAND:

- SPECIFICATIONS:
- CONSTRUCT THE GRAVEL WETLAND TO THE GRADES DEPICTED ON THE PLAN AND CROSS-SECTION. OVER EXCAVATE THE 3/4-INCH STONE MEDIA BED AS DEPICTED TO ACCOMMODATE THE 24-INCHES OF STONE AND 3-INCHES OF 3/8" PEA GRAVEL AS SHOWN IN THE CROSS-SECTION.
 - RESTALL THE WETLAND SOIL IN AN 8-INCH LAYER COMPRISED EXISTING ON-SITE WETLAND SOIL THAT HAS BEEN STOCKPILED FOR RE-USE OR MEETING THE SPECIFICATION BELOW OF:
- WETLAND SOILS MIX:
- COMPOST = 25%
 - LOAM = 25%
 - PEAT MOSS = 25%
 - COARSE SAND (SEPTIC) = 25%
- SEED THE BOTTOM OF THE GRAVEL WETLAND BASIN AS PRESCRIBED NOTES FOUND ON SHEET L-1. SEED MIXTURE = A.
 - LOAM AND SEED ONLY THE SLOPES OF THE GRAVEL WETLAND AS PRESCRIBED NOTES FOUND ON SHEET L-1. SEED MIXTURE = B.
 - PLANT THE BOTTOM OF THE GRAVEL WETLAND AS PRESCRIBED ON SHEET L-1.

RECOMMENDED SEEDING RATES:
SUPPLEMENTAL LLB/6,000 SQ. FT. OR STRAIGHT LLB/3,000 SQ.FT.

- MAINTENANCE REQUIREMENTS:
- INSPECT PRETREATMENT MEASURES (I.E. SEDIMENT FOREBAY(S), HOODED CATCH BASINS, ETC.) BI-ANNUALLY. ONCE IN THE SPRING PRIOR TO MAY 15 AND ONCE IN THE FALL PRIOR TO OCTOBER 15.
 - INSPECT GRAVEL WETLAND SURFACE BI-ANNUALLY. ONCE IN THE SPRING PRIOR TO MAY 15 AND ONCE IN THE FALL PRIOR TO OCTOBER 15.
 - INSPECT GRAVEL WETLAND AFTER ANY RAINFALL EVENT OF 2.5-INCHES IN A 24-HOUR PERIOD OR GREATER.
 - REMOVE AND DISPOSE OF ACCUMULATED SEDIMENT BASED ON INSPECTION. REPAIR AREA OF REMOVAL AS NECESSARY.
 - 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.
 - REMOVE PLANT MATERIAL THAT DIES BACK IN THE FALL FROM THE GRAVEL WETLAND SURFACE (I.E. GRASSES, REEDS, ETC.) ONLY REMOVE THE ABOVE GROUND GROWTH THAT HAS DIED BACK. LEAVE THE ROOT MASS INTACT.
 - IF THE GRAVEL WETLAND DOES NOT DRAIN WITHIN 72-HOURS FOLLOWING A RAINFALL EVENT, THEN A QUALIFIED PROFESSIONAL (I.E. PROFESSIONAL ENGINEER, CERTIFIED WETLAND OR SOILS SCIENTIST OR LANDSCAPE ARCHITECT, ETC.) SHOULD ASSESS THE CONDITION OF THE FACILITY TO DETERMINE MEASURES REQUIRED TO RESTORE FUNCTION, INCLUDING BUT NOT LIMITED TO REMOVAL OF ACCUMULATED SEDIMENTS OR RECONSTRUCTION OF THE STONE BED AND PIPE MANIFOLD.

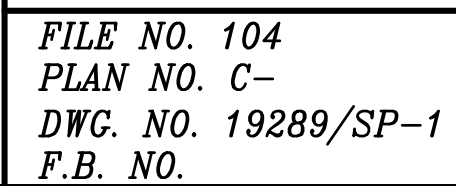
GRAVEL WETLAND BASIN DETAILS
TAX MAP 255
LOT 21
INNOVATION DRIVE
ROCHESTER, NH

PREPARED FOR:
PREP PARTNERS GROUP, LLC
MAY 2020

FILE NO. 104
PLAN NO. C-xxx
DWG. NO. 19289 SP-1
F.B. NO.

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

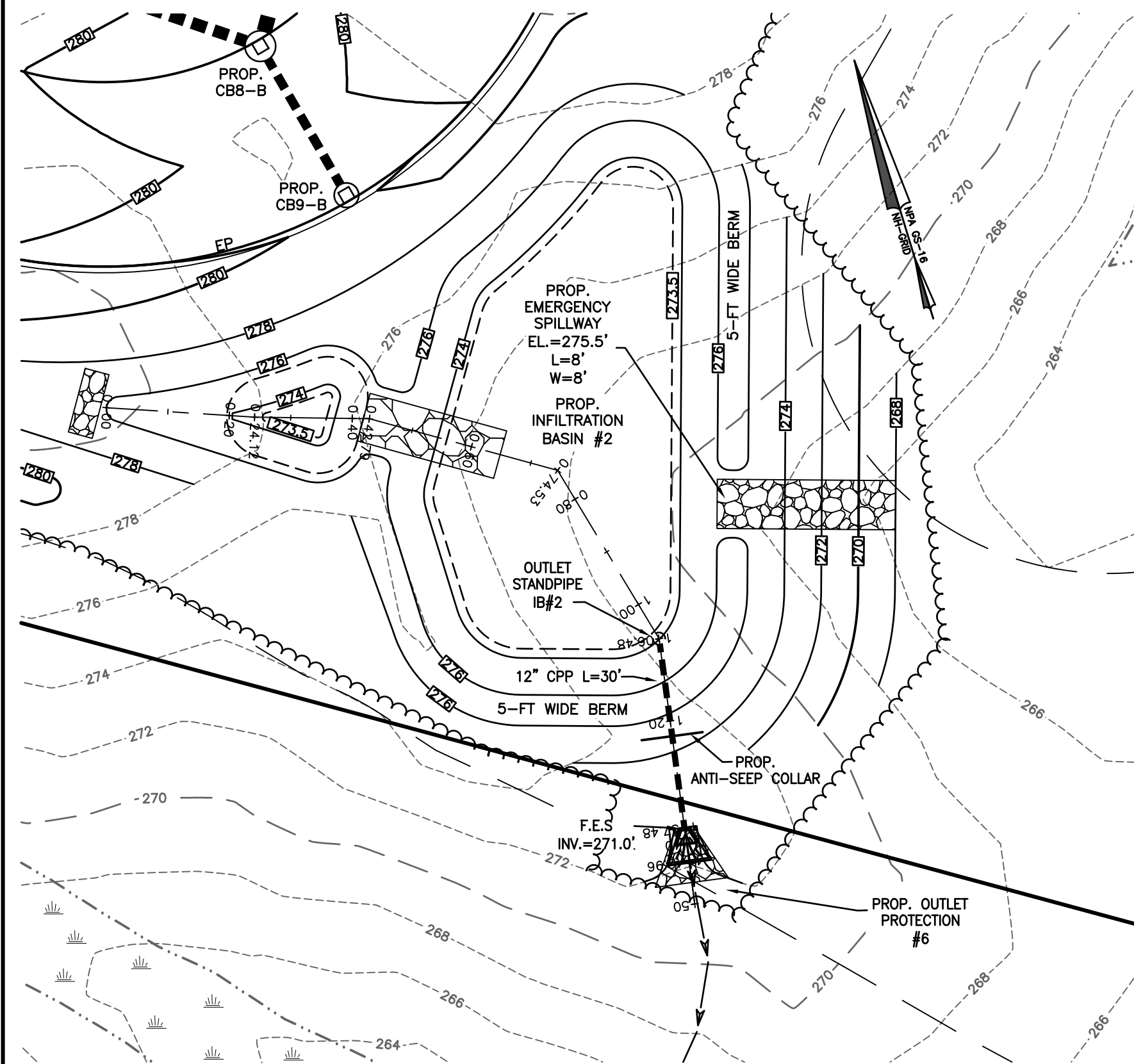
2 Continental Blvd., Rochester, N.H. 603-335-3948



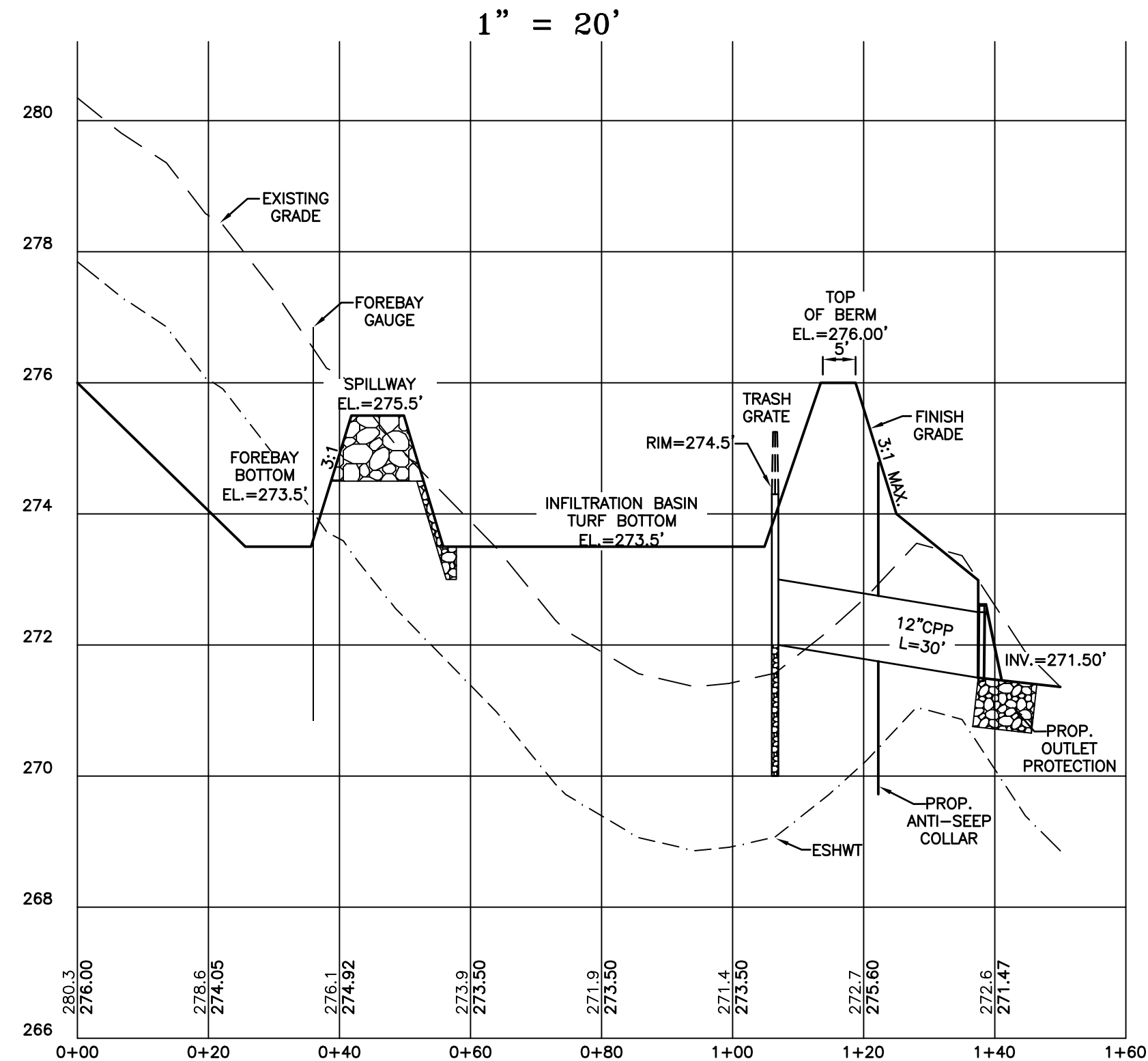
31 Mooney Street, Alton, N.H. 603-875-3948



C-16



INFILTRATION BASIN #2 PLAN VIEW



INFILTRATION BASIN #2 CROSS SECTION

1" = 20' (HORZ.) & 1" = 2' (VERT.)

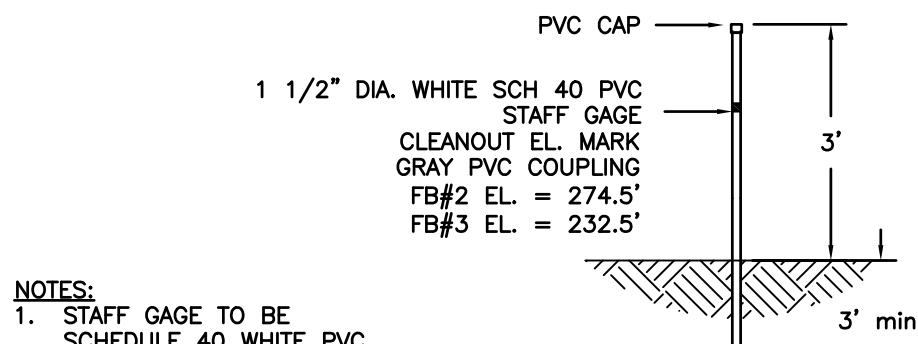
CAREFULLY REVIEW ALL SHEETS OF THIS PACKAGE TO INSURE PROPER CONSTRUCTION. SPECIFIC SITE CONDITIONS SHOULD BE EXPLORED PRIOR TO CONSTRUCTION. CONTACT BOTH THE DESIGN ENGINEER AND THE PROJECT OWNER FOR ANY AVAILABLE GEOTECHNICAL OR HYDROGEOLOGICAL INFORMATION AVAILABLE, BUT NOT CONTAINED WITHIN THE PLAN 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. 104
PLAN NO. C-
DWC. NO. 19289/SP-1
F.B. NO.

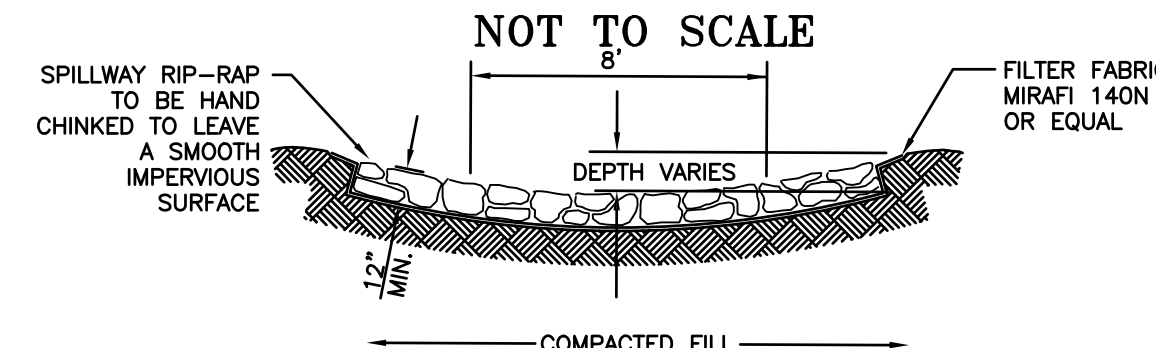
31 Mooney Street, Alton, N.H. 603-875-3948

- SPECIFICATIONS:**
- CONSTRUCT THE SEDIMENT FOREBAY TO THE GRADES DEPICTED ON THE PLAN AND CROSS-SECTION.
 - LOAM AND SEED THE SLOPES AND BOTTOM OF THE SEDIMENT FOREBAY AS PRESCRIBED IN THE "PERMANENT VEGETATION" NOTES FOUND ON SHEET C-19.
- SEED MIXTURE = A**
- MAINTENANCE REQUIREMENTS:**
- INSPECT SEDIMENT FOREBAY BI-ANNUALLY, ONCE IN THE SPRING PRIOR TO MAY 15 AND ONCE IN THE FALL PRIOR TO OCTOBER 15.
 - CONDUCT PERIODIC MOWING OF THE SEDIMENT FOREBAY SLOPES AND EMBANKMENTS (MINIMUM TWICE A YEAR) TO ELIMINATE WOODY GROWTH FROM THE EMBANKMENTS AND BOTTOM. MOWING THE SEDIMENT FOREBAY EMBANKMENTS WHEN MOWING THE REST OF THE SITE IS RECOMMENDED.
 - REMOVE DEBRIS FROM THE OUTLET STRUCTURE OF THE SEDIMENT FOREBAY (I.E. STONE CHECK DAM) AT LEAST ONCE ANNUALLY.
 - REMOVE AND DISPOSE OF ACCUMULATED SEDIMENT BASED ON INSPECTION. WHEN SEDIMENT HAS REACHED THE RED MARK ON THE SEDIMENT STAFF GAGE INSTALLED IN THE FOREBAY, REMOVE SEDIMENT AND DISPOSE OF IT OFF-SITE IN ACCORDANCE WITH STATE AND LOCAL REGULATIONS.
- ELEVATION OF RED CLEANOUT MARK ON STAFF GAUGE FOREBAY #2 = 274.5'
ELEVATION OF RED CLEANOUT MARK ON STAFF GAUGE FOREBAY #3 = 232.5'

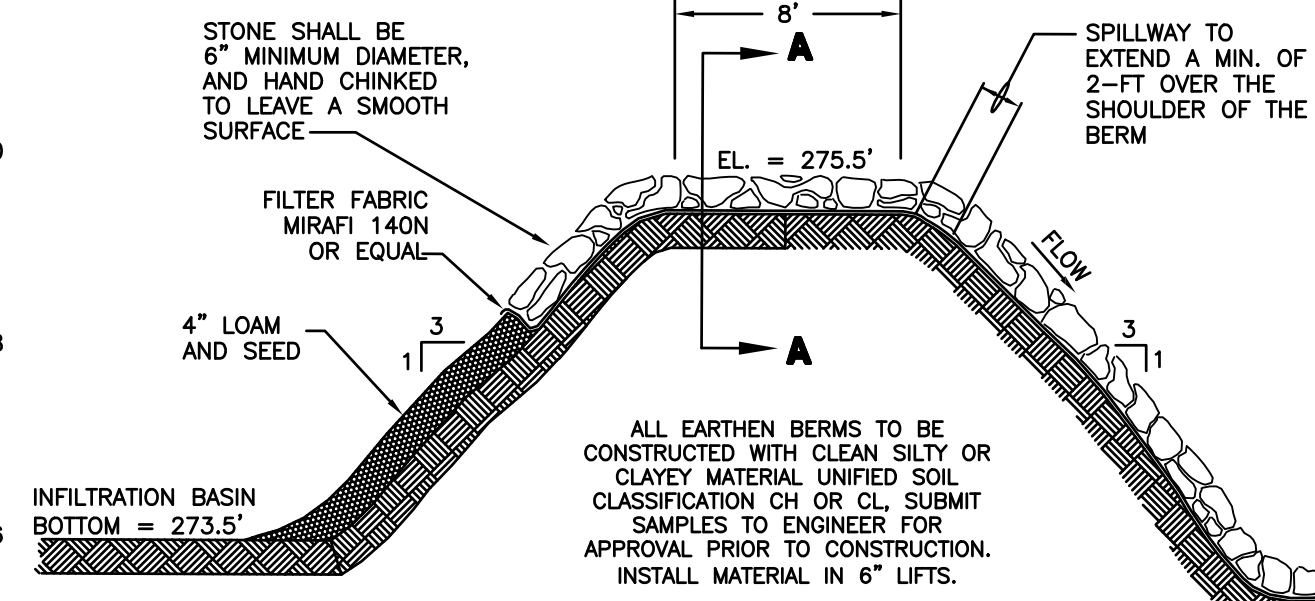
SEDIMENT FOREBAY



SEDIMENT FOREBAY GAUGE DETAIL

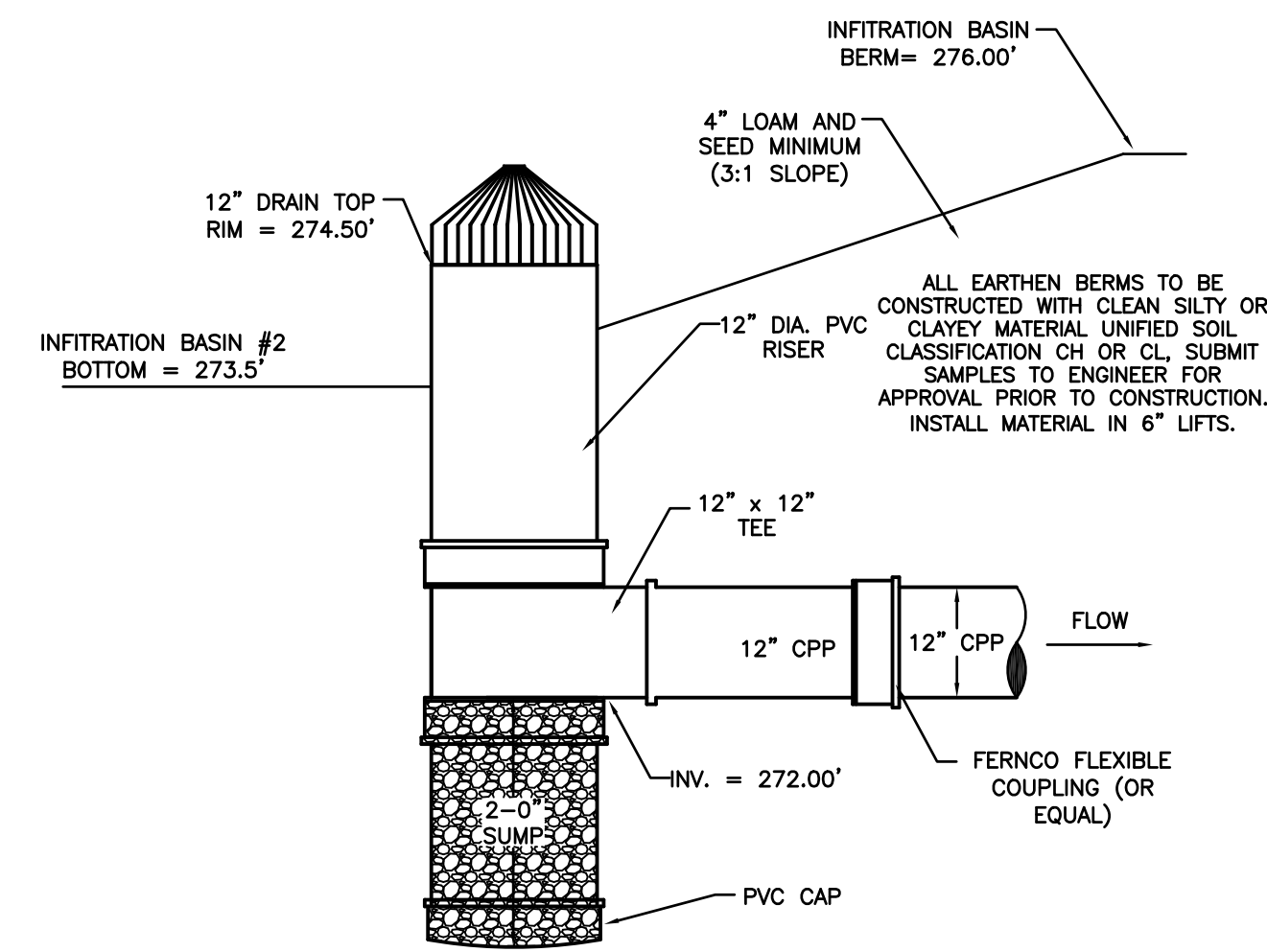


SECTION "A"



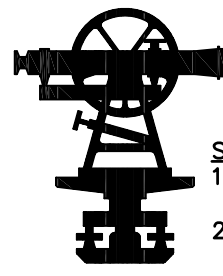
INFILTRATION BASIN #2 EMERGENCY SPILLWAY DETAIL

NOT TO SCALE



INFILTRATION BASIN #2 OUTLET STANDPIPE DETAIL

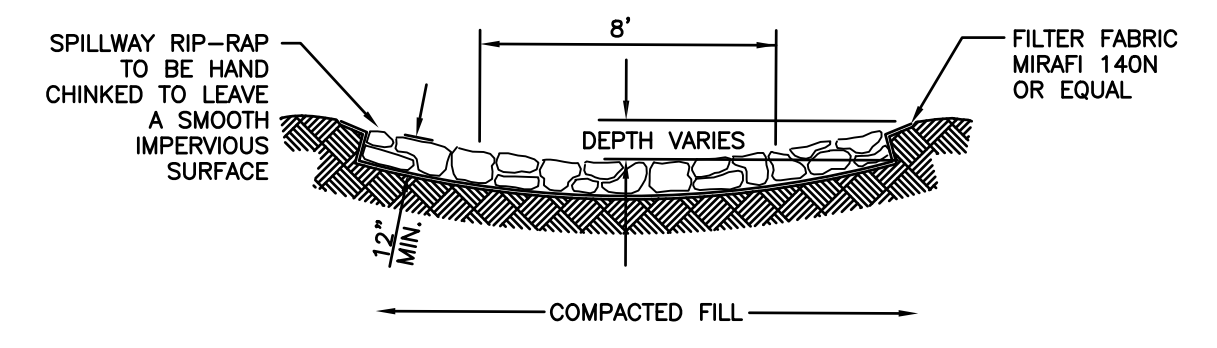
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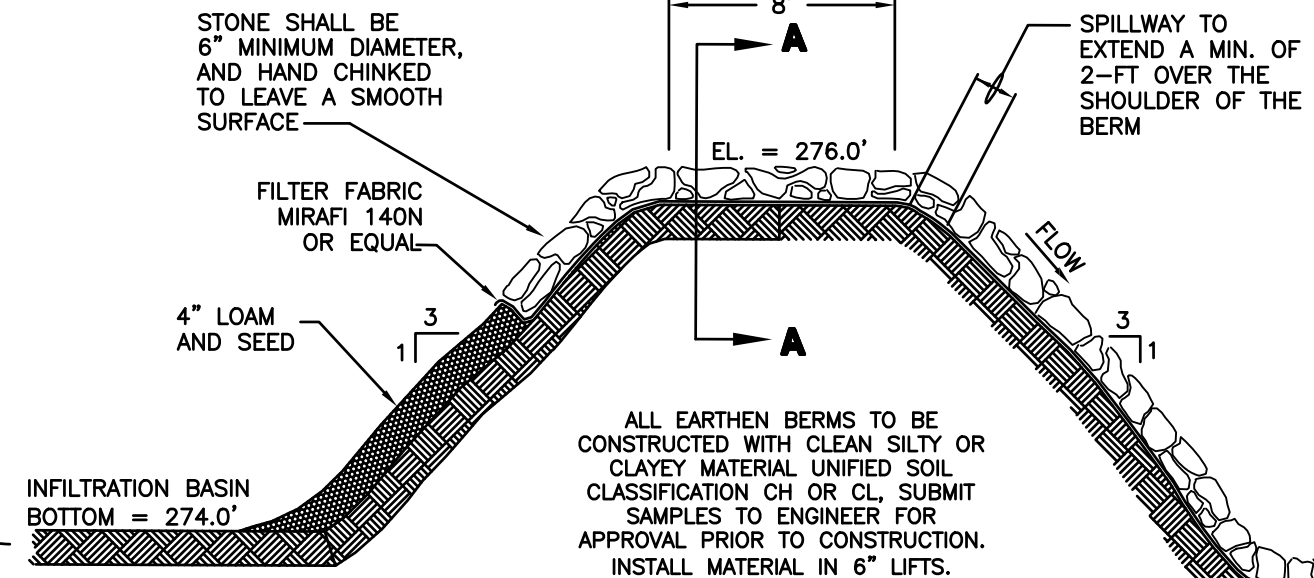
- SPECIFICATIONS:**
- DO NOT DISCHARGE SEDIMENT-LADEN WATERS FROM CONSTRUCTION ACTIVITIES (RUNOFF, WATER FROM EXCAVATIONS) TO THE INFILTRATION BASIN.
 - DO NOT TRAFFIC EXPOSED SOIL SURFACE WITH CONSTRUCTION EQUIPMENT, IF FEASIBLE. PERFORM EXCAVATIONS WITH EQUIPMENT POSITIONED OUTSIDE THE LIMITS OF THE 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-19. 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.

INFILTRATION BASIN

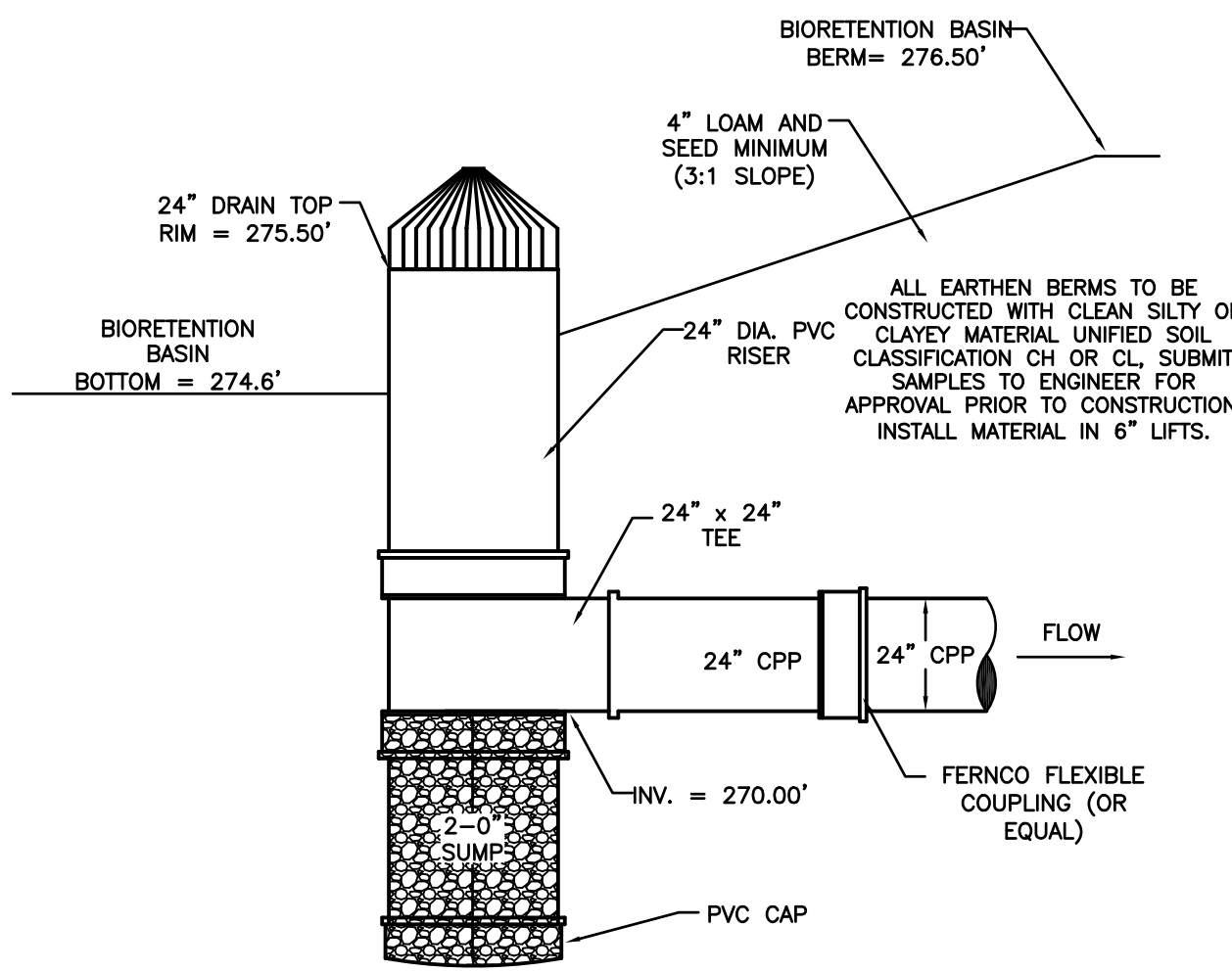


SECTION "A"



BIORETENTION BASIN EMERGENCY SPILLWAY DETAIL

NOT TO SCALE

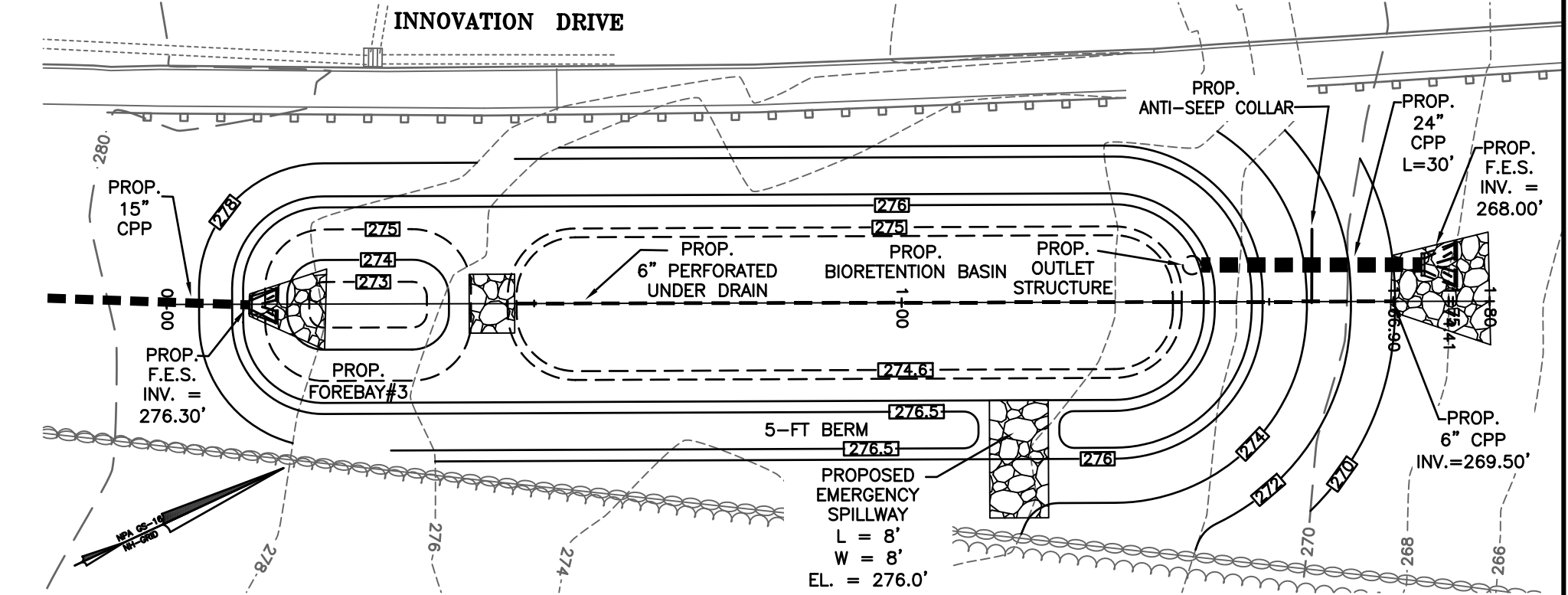


INFILTRATION BASIN #3 OUTLET STANDPIPE DETAIL

NOT TO SCALE

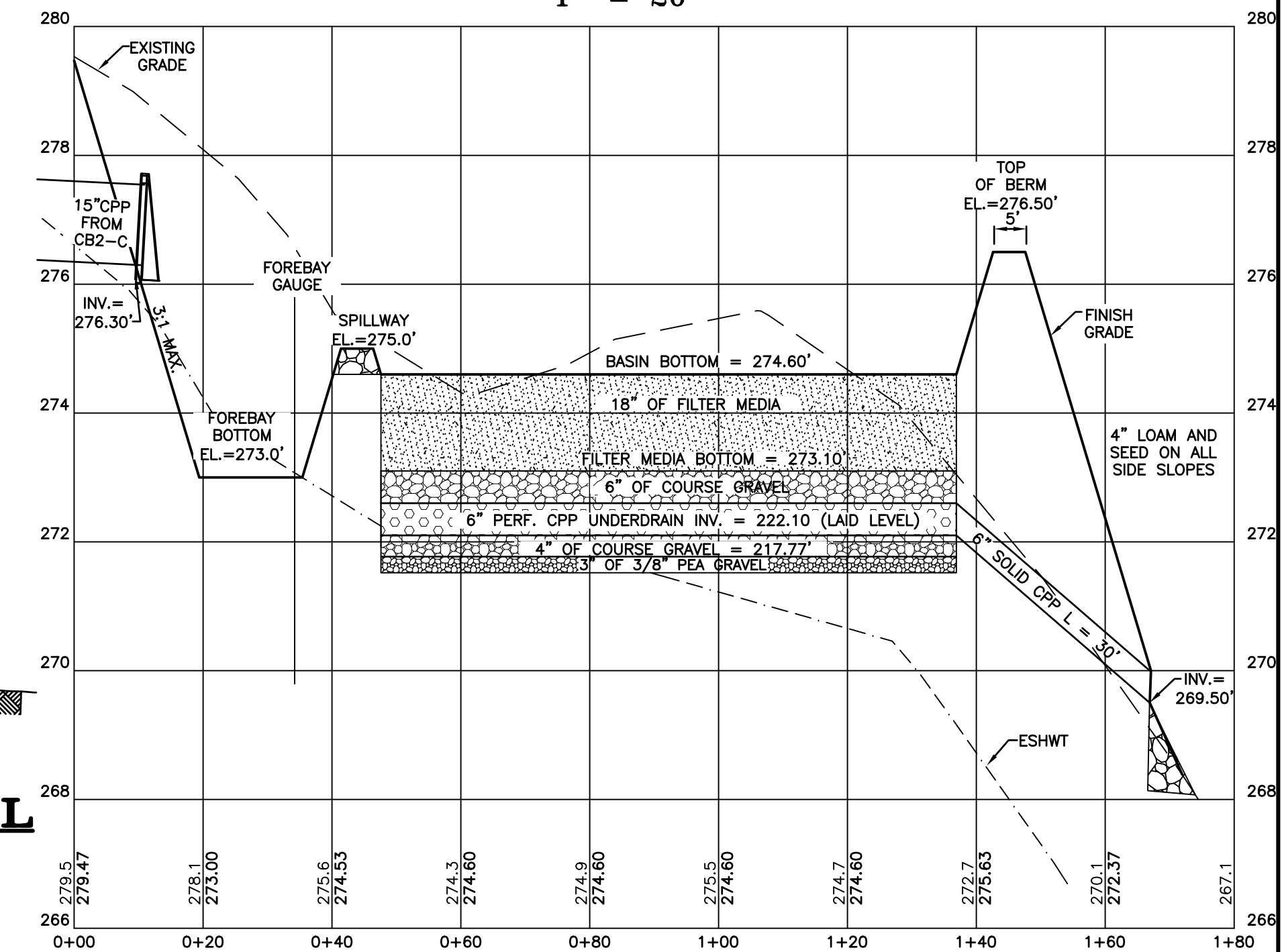
BIORETENTION BASIN

- BIORETENTION BASIN CONSTRUCTION AND MAINTENANCE NOTES:**
- DO NOT PLACE BIORETENTION SYSTEMS INTO SERVICE UNTIL THE PLANTS HAS BEEN PLANTED AND THE ADJACENT AREAS ARE FULLY ESTABLISHED.
 - SYSTEMS SHOULD BE INSPECTED AT LEAST TWICE ANNUALLY, AND FOLLOWING ANY RAINFALL EVENTS EXCEEDING 2.5 INCHES IN A 24-HOUR PERIOD, WITH MAINTENANCE OR REHABILITATION AS WARRANTED BY SUCH INSPECTION.
 - TRASH AND DEBRIS SHOULD BE REMOVED AT EACH INSPECTION.
 - AT LEAST ANNUALLY, SYSTEM SHOULD BE INSPECTED FOR DRAWDOWN TIME. IF THE RAIN GARDEN DOES NOT DRAIN WITHIN 72 HOURS FOLLOWING A RAINFALL EVENT, THEN A QUALIFIED PROFESSIONAL SHOULD ASSESS THE CONDITIONS OF THE GARDEN TO DETERMINE MEASURES REQUIRED TO RESTORE FILTRATION FUNCTION, INCLUDING BUT NOT LIMITED TO REMOVAL OF ACCUMULATED SEDIMENTS OR RECONSTRUCTION OF THE FILTER MEDIA.
 - VEGETATION SHOULD BE INSPECTED AT LEAST ANNUALLY, AND MAINTAINED IN HEALTHY CONDITION, INCLUDING PRUNING, REMOVAL AND REPLACEMENT OF DEAD OR DISEASED VEGETATION, AND REMOVAL OF INVASIVE SPECIES.



BIORETENTION BASIN PLAN VIEW

1" = 20'



BIORETENTION BASIN CROSS SECTION

1" = 20' (HORZ.) & 1" = 2' (VERT.)

BIO BASIN PLANTINGS		BIORETENTION FILTER MEDIA	
SUGGESTED PLANTINGS (SHADY RAIN GARDEN)		GRADATION OF MATERIAL	
PLANTS WITHIN THE WETTER CENTER OF THE GARDEN:		COMPONENT MATERIAL	PERCENT OF MIXTURE BY VOLUME
WOODY SHRUBS:		FILTER MEDIA OPTION A	SIEVE NO.
VERNAL WITCH HAZEL: 6-10'H x 6-10"W		ASTM C-33 CONCRETE SAND	50 TO 55
NATIVE RHODODENDRON: 1-3'H x 1-3"W		LOAMY SAND TOPSOIL, WITH FINES AS INDICATED	20 TO 30
LABRADOR TEA: 1-3'H x 1-3"W		MODERATELY FINE SHREDDY BARK OR WOOD FIBERS MULCH, WITH FINES AS INDICATED	20 TO 30
WINTERBERRY: 6-8'H x 6-8"W		MODERATELY FINE SHREDDY BARK OR WOOD FIBERS MULCH, WITH FINES AS INDICATED	20 TO 30
PERENNIALS:		FILTER MEDIA OPTION B	SIEVE NO.
ROYAL FERN: 2-5'H x 2-5"W		MODERATELY FINE SHREDDY BARK OR WOOD FIBERS MULCH, WITH FINES AS INDICATED	20 TO 30
NATIVE COLOMBINE: 1-2'H x 1-2"W		MODERATELY FINE SHREDDY BARK OR WOOD FIBERS MULCH, WITH FINES AS INDICATED	20 TO 30
SENSITIVE FERN: 2'H x 18"W		MODERATELY FINE SHREDDY BARK OR WOOD FIBERS MULCH, WITH FINES AS INDICATED	20 TO 30
CARDINAL FLOWERS: 2-4'H x 1'W		MODERATELY FINE SHREDDY BARK OR WOOD FIBERS MULCH, WITH FINES AS INDICATED	20 TO 30
PLANTS WITHIN THE DRYER OUTER EDGE OF THE GARDEN:		MODERATELY FINE SHREDDY BARK OR WOOD FIBERS MULCH, WITH FINES AS INDICATED	20 TO 30
SWEETERN: 2-4'H x 2-4"W		MODERATELY FINE SHREDDY BARK OR WOOD FIBERS MULCH, WITH FINES AS INDICATED	20 TO 30
BEARBERRY: 6-12' x 1-2"W		MODERATELY FINE SHREDDY BARK OR WOOD FIBERS MULCH, WITH FINES AS INDICATED	20 TO 30
PERENNIALS:		MODERATELY FINE SHREDDY BARK OR WOOD FIBERS MULCH, WITH FINES AS INDICATED	20 TO 30
WILD GERANIUM: 1-2'H x 2'W		MODERATELY FINE SHREDDY BARK OR WOOD FIBERS MULCH, WITH FINES AS INDICATED	20 TO 30

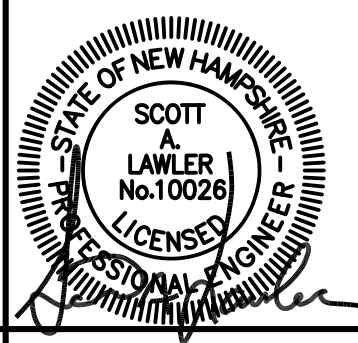
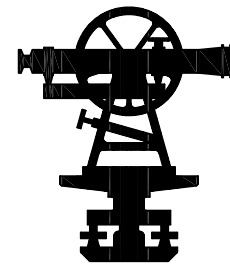
INFILTRATION BASIN #2 & BIORETENTION BASIN DETAILS
TAX MAP 255 LOT 21
INNOVATION DRIVE
ROCHESTER, NH

PREPARED FOR:
PREP PARTNERS GROUP, LLC.

MAY 2020

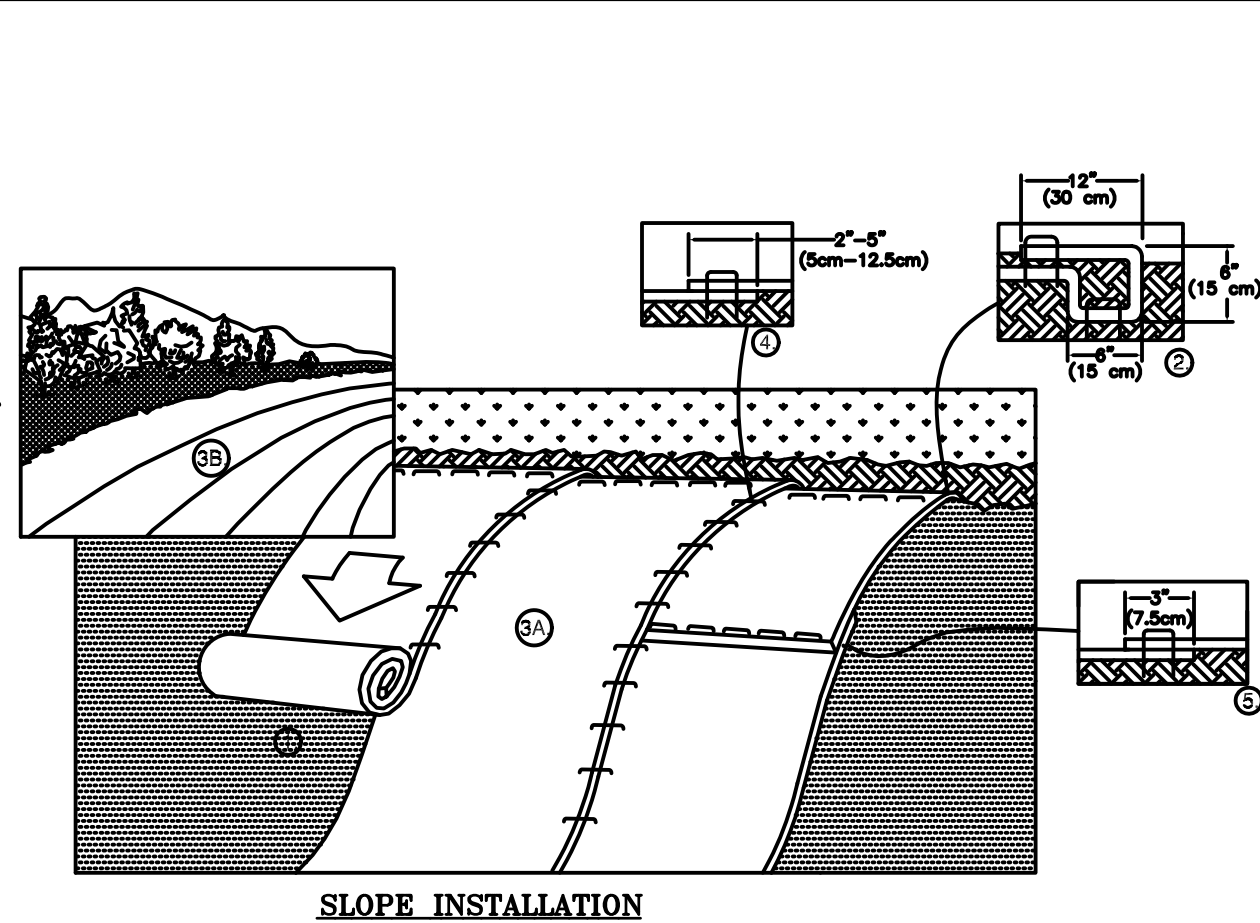
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14840 HIGHWAY 41 NORTH
EVANSVILLE, IN 47725
800-772-2040
www.nagreen.com



SLOPE INSTALLATION

- 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 RESEED, AND THE AFFECTED AREA OF MAT SHALL BE RE-INSTALLED.

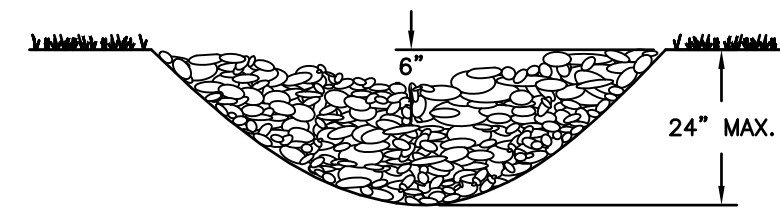
CONSTRUCTION SPECIFICATIONS:

1. MANUFACTURE'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 STAPLES/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 STAPLES/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 STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE. WHEN USING THE DOT SYSTEM, STAPLES/STAKES SHALL BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN.
 - D. THE EDGES OF PARALLEL RECP's MUST BE STAPLED WITH APPROXIMATELY 2" - 5" (5 CM - 12.5 CM) OVERLAP DEPENDING ON RECP's TYPE.
 - E. CONSECUTIVE RECP's SPLICED 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. 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 RESEED.
 - B. WHEN SOIL FILLING IS SPECIFIED, SEED THE MATTING AND THE ENTIRE DISTURBED AREA AFTER INSTALLATION AND PRIOR TO FILLING THE MAT WITH SOIL.

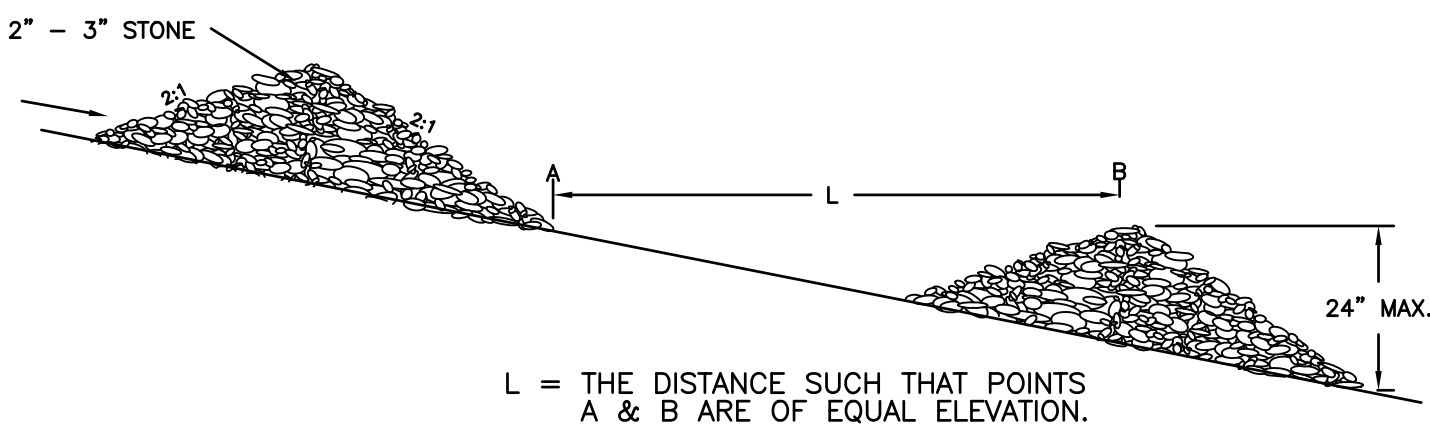
TEMPORARY EROSION CONTROL BLANKET DETAIL

NOT TO SCALE

SPACING BETWEEN CHECK DAMS	
SLOPE (FT/FT)	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



DRAINAGE WAY CROSS-SECTION



SPACING BETWEEN STONE CHECK DAMS

CONSTRUCTION SPECIFICATIONS:

1. STRUCTURES SHALL BE INSTALLED ACCORDING TO THE DIMENSIONS SHOWN ON THE PLANS AT THE APPROPRIATE SPACING.
2. CONSTRUCTION OPERATIONS SHALL BE CARRIED OUT IN SUCH A MANNER SO THAT EROSION, AIR AND WATER POLLUTION WILL BE MINIMIZED.
3. STRUCTURES SHALL BE REMOVED FROM THE CHANNEL WHEN THEIR USEFUL LIFE HAS BEEN COMPLETED.

MAINTENANCE NOTES:

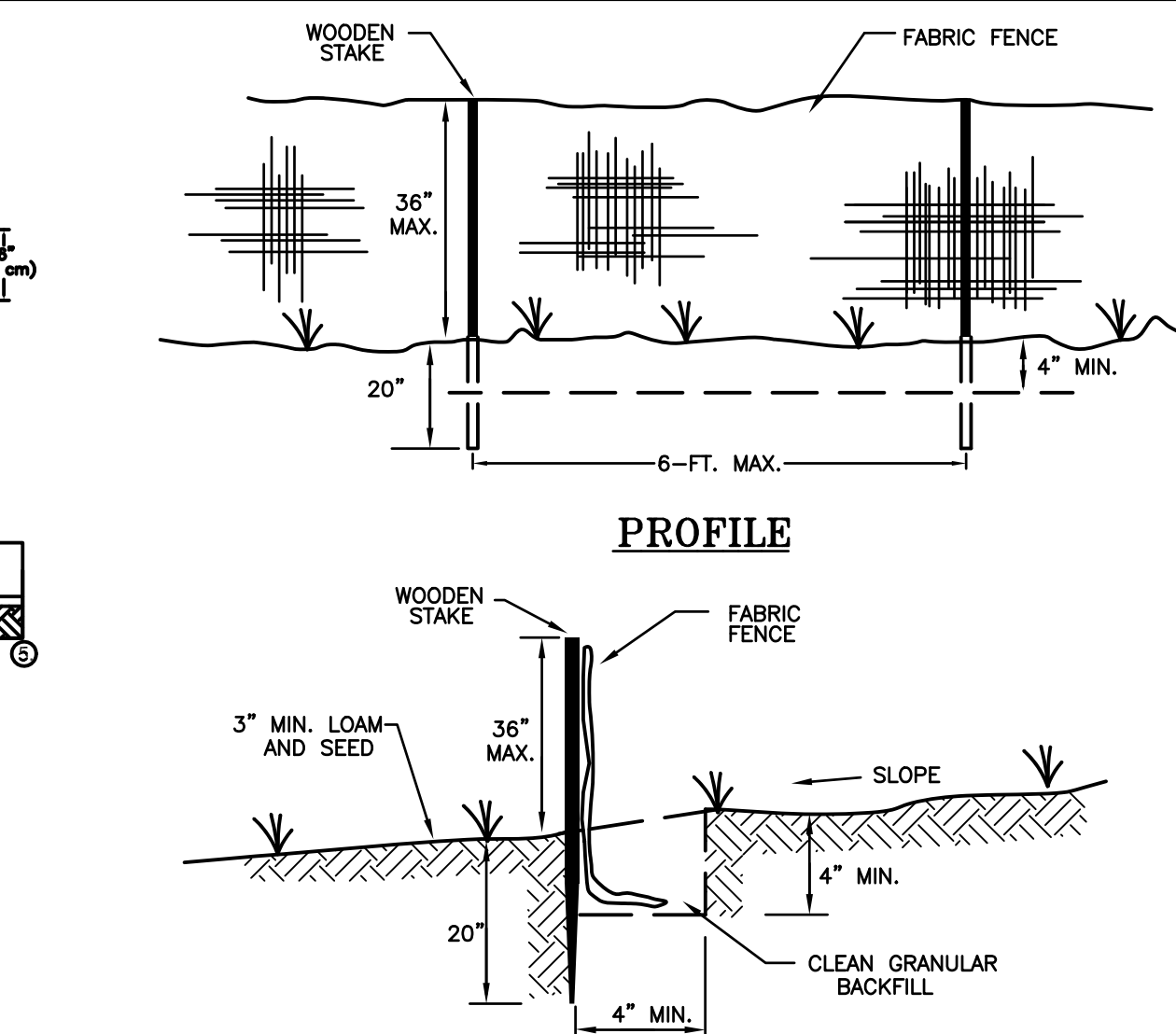
1. TEMPORARY GRADE STABILIZATION STRUCTURES SHALL BE INSPECTED AFTER EACH STORM AND DAILY DURING PROLONGED STORM EVENTS. ANY DAMAGE TO THE STRUCTURES SHALL BE REPAIRED IMMEDIATELY.
2. PARTICULAR ATTENTION SHALL BE GIVEN TO END RUN AND EROSION AT THE DOWNSTREAM TOE OF THE STRUCTURE.
3. WHEN REMOVING THE STRUCTURES, THE DISTURBED AREAS SHALL BE BROUGHT UP TO EXISTING CHANNEL GRADE AND THE AREAS PREPARED, SEED, AND MULCHED.
4. SEDIMENT SHALL BE REMOVED FROM BEHIND THE STRUCTURES WHEN IT REACHES 1/2 THE ORIGINAL HEIGHT OF THE STRUCTURE.

STONE CHECK DAM INSTALLATION DETAIL

NOT TO SCALE

FILE NO. 104
PLAN NO. C-xxx
DWG. NO. 19289 SP-1
F.B. NO.

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



PROFILE

CROSS-SECTION

MAINTENANCE REQUIREMENTS:

1. FENCES SHALL BE INSPECTED AND MAINTAINED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALLS.
2. SEDIMENT DEPOSITION SHALL BE REMOVED, AT A MINIMUM, WHEN DEPOSITION ACCUMULATES TO ONE-HALF THE HEIGHT OF THE FENCE, AND MOVED TO AN APPROPRIATE LOCATION SO THE SEDIMENT IS NOT READILY TRANSPORTED BACK TOWARD THE SILT FENCE.
3. SILT FENCES SHALL BE REPAIRED IMMEDIATELY IF THERE ARE ANY SIGNS OF EROSION OR SEDIMENTATION BELOW THEM. IF THERE ARE SIGNS OF UNDERCUTTING AT THE CENTER OR THE EDGES OF THE BARRIER, OR IMPOUNDING OF LARGE VOLUMES OF WATER BEHIND THEM, SEDIMENT BARRIERS SHALL BE REPLACED WITH A TEMPORARY CHECK DAM.
4. SHALL THE FABRIC ON A SILT FENCE DECOMPOSE OR BECOME INEFFECTIVE PRIOR TO THE END OF THE EXPECTED USABLE LIFE AND THE BARRIER STILL IS NECESSARY; THE FABRIC SHALL BE REPLACED PROMPTLY.
5. ANY SEDIMENT DEPOSITS REMAINING AFTER THE SILT FENCE IS NO LONGER REQUIRED SHALL BE DRESSED TO CONFORM TO THE EXISTING GRADE PREPARED AND SEED.
6. IF THERE IS EVIDENCE OF END FLOW ON PROPERLY INSTALLED BARRIERS, EXTEND BARRIERS UPHILL OR CONSIDER REPLACING THEM WITH OTHER MEASURES SUCH AS TEMPORARY DIVERSIONS AND SEDIMENT TRAPS.
7. SILT FENCES HAVE A USEFUL LIFE OF ONE SEASON. ON LONGER CONSTRUCTION PROJECTS, SILT FENCE SHALL BE REPAIRED PERIODICALLY AS REQUIRED TO MAINTAIN EFFECTIVENESS.

CONSTRUCTION SPECIFICATIONS:

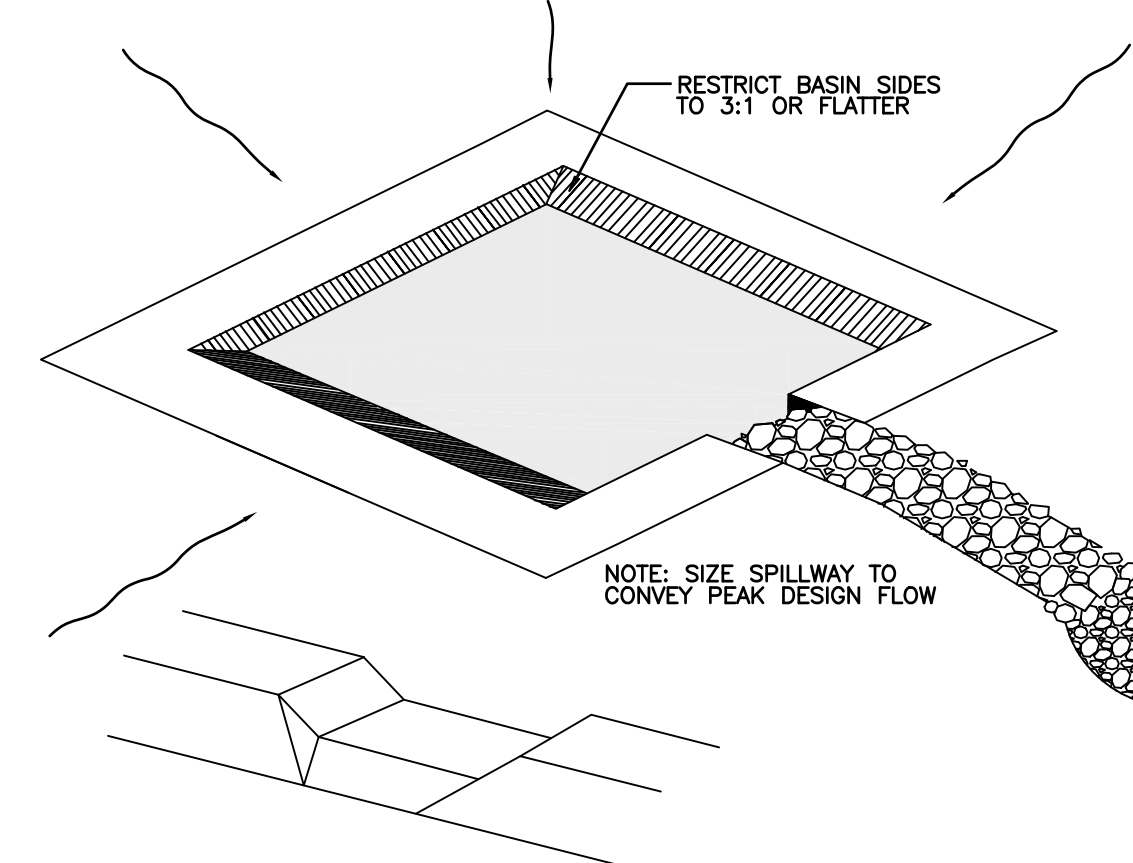
1. FENCES SHALL BE USED IN AREAS WHERE EROSION WILL OCCUR ONLY IN THE FORM OF SHEET EROSION AND THERE IS NO CONCENTRATION OF WATER IN A CHANNEL OR DRAINAGE WAY ABOVE THE FENCE. SEDIMENT BARRIERS SHALL BE INSTALLED PRIOR TO ANY SOIL DISTURBANCE OF THE CONTRIBUTING DRAINAGE AREA ABOVE THEM.
2. THE MAXIMUM CONTRIBUTING DRAINAGE AREA ABOVE THE FENCE SHALL BE LESS THAN 1 ACRE PER 100 LINEAR FEET OF FENCE.
3. THE MAXIMUM LENGTH OF SLOPE ABOVE THE FENCE SHALL BE 100 FEET.
4. THE MAXIMUM SLOPE ABOVE THE FENCE SHALL BE 2:1.
5. FENCES SHALL BE INSTALLED FOLLOWING THE CONTOUR OF THE LAND AS CLOSELY AS POSSIBLE, AND
 - A. THE ENDS OF THE FENCE SHALL BE FLARED UPSLOPE.
 - B. THE FABRIC SHALL BE EMBEDDED A MINIMUM OF 4 INCHES IN DEPTH AND INCHES IN WIDTH IN A TRENCH EXCAVATED INTO THE GROUND, OR IF SITE CONDITIONS INCLUDE FROZEN GROUND, LEDGE, OR THE PRESENCE OF HEAVY ROOTS, THE BASE OF THE FABRIC SHALL BE EMBEDDED WITH A MINIMUM THICKNESS OF 8 INCHES OF 3/4-INCH STONE.
 - C. THE SOIL SHALL BE COMPACTED OVER THE EMBEDDED FABRIC.
 - D. SUPPORT POSTS SHALL BE SIZED AND ANCHORED ACCORDING TO THE MANUFACTURER'S INSTRUCTIONS WITH MAXIMUM POST SPACING OF 6 FEET.
 - E. ADJOINING SECTIONS OF THE FENCE SHALL BE OVERLAPPED BY A MINIMUM OF 6 INCHES (24 INCHES IS PREFERRED), FOLDED AND STAPLED TO A SUPPORT POST. IF METAL POSTS ARE USED, FABRIC SHALL BE WIRE-TIED DIRECTLY TO THE POSTS WITH THREE DIAGONAL TIES.
6. SILT FENCING SHALL NOT BE STAPLED OR NAILED TO TREES.
7. THE FILTER FABRIC SHALL BE A PERVIOUS SHEET OF PROPYLENE, NYLON, POLYESTER OR ETHYLENE YARN AND SHALL BE CERTIFIED BY THE MANUFACTURER OR SUPPLIER.
8. THE FILTER FABRIC SHALL CONTAIN ULTRAVIOLET RAY INHIBITORS AND STABILIZERS TO PROVIDE A MINIMUM OF 6 MONTHS OF EXPECTED USABLE CONSTRUCTION LIFE AT A TEMPERATURE RANGE OF 0 DEGREES FAHRENHEIT TO 120 DEGREES FAHRENHEIT.
9. POSTS FOR SILT FENCES SHALL BE EITHER 1-INCH DIAMETER WOOD OR 1.33 POUNDS PER LINEAR FOOT STEEL WITH A MINIMUM LENGTH OF 8 FEET. STEEL SHALL HAVE PROJECTIONS FOR FASTENING WIRE TO THEM. POSTS SHALL BE PLACED ON THE DOWN SLOPE SIDE OF THE FABRIC.
10. THE HEIGHT OF A SILT FENCE SHALL NOT EXCEED 36 INCHES AS HIGHER FENCES MAY IMPOUND VOLUMES OF WATER SUFFICIENT TO CAUSE FAILURE OF THE STRUCTURE.
11. THE FILTER FABRIC SHALL BE PURCHASED IN A CONTINUOUS ROLL CUT TO THE LENGTH OF THE BARRIER TO AVOID THE USE OF JOINTS. WHEN JOINTS ARE NECESSARY, FILTER CLOTH SHALL BE SPLICED TOGETHER ONLY AT SUPPORT POST, WITH A MINIMUM 6-INCH OVERLAP AND SECURELY SEALED.
12. A MANUFACTURED SILT FENCE SYSTEM WITH INTEGRAL POSTS MAY BE USED.
13. POST SPACING SHALL NOT EXCEED 6 FEET.
14. A TRENCH SHALL BE EXCAVATED APPROXIMATELY 4 INCHES WIDE AND 4 INCHES DEEP ALONG THE LINE OF POSTS AND UP GRADIENT FROM THE BARRIER.
15. THE STANDARD STRENGTH OF FILTER FABRIC SHALL BE STAPLED OR WIRE TO THE POST, AND 8 INCHES OF THE FABRIC SHALL BE EXTENDED INTO THE TRENCH. THE FABRIC SHALL NOT EXTEND MORE THAN 36 INCHES ABOVE THE ORIGINAL GROUND SURFACE.
16. THE TRENCH SHALL BE BACKFILLED AND THE SOIL COMPACTED OVER THE FILTER FABRIC.
17. SILT FENCE MAY BE INSTALLED BY "SLICING" USING MECHANICAL EQUIPMENT SPECIFICALLY DESIGNED FOR THIS PROCEDURE. THE SLICING METHOD USES AN IMPLEMENT TOWED BEHIND A TRACTOR TO "FLOW" OR SLICE THE SILT FENCE MATERIAL INTO THE SOIL. THE SLICING METHOD MINIMALLY DISRUPTS THE SOIL UPWARD AND SLIGHTLY DISPLACES THE SOIL, MAINTAINING THE SOIL'S PROFILE AND CREATING AN OPTIMAL CONDITION FOR SUBSEQUENT MECHANICAL COMPACTION.
18. SILT FENCES SHALL BE INSTALLED WITH "SMILES" OR "J-HOOKS" TO REDUCE THE DRAINAGE AREA THAT ANY SEGMENT WILL IMPOUND.
19. THE ENDS OF THE FENCE SHALL BE TURNED UPHILL.
20. SILT FENCES PLACED AT THE TOE OF A SLOPE SHALL BE SET AT LEAST 6 FEET FROM THE TOE M ALLOW SPACE FOR SHALLOW PONDING AND TO ALLOW FOR MAINTENANCE ACCESS WITHOUT DISTURBING THE SLOPE.
21. SILT FENCES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFUL PURPOSE, BUT NOT BEFORE THE UPSLOPE AREAS HAVE BEEN PERMANENTLY STABILIZED.

SILTATION CONTROL FENCE DETAIL

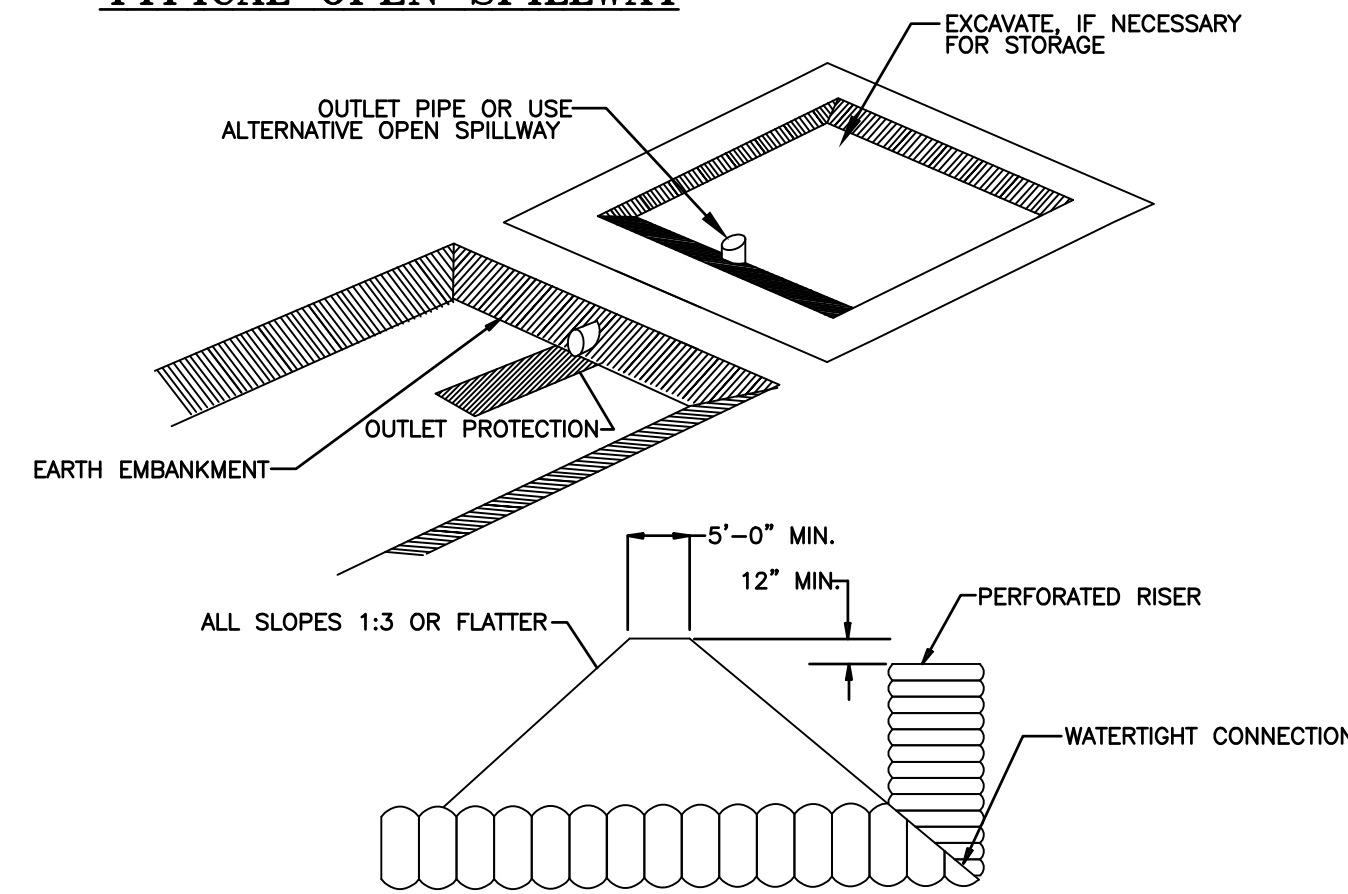
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TEMPORARY VEGETATION SEEDING RECOMMENDATIONS

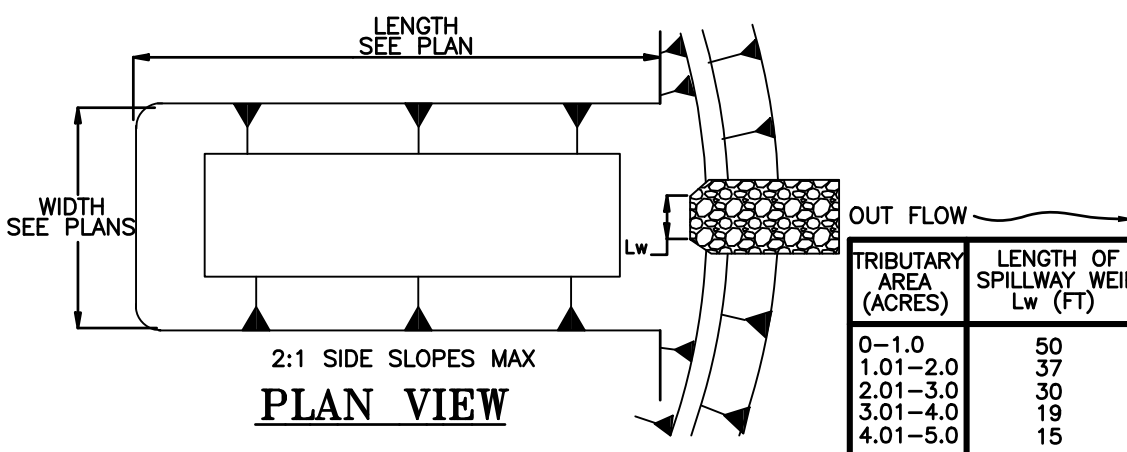
SPECIES	PER ACRE BUSHELS (BU) OR POUNDS (LBS.)	PER 1,000-SF	REMARKS
WINTER RYE	2.5 BU OR 112 LBS.	2.5 LBS.	BEST FOR FALL SEEDING. SEED FROM AUGUST 15 TO SEPTEMBER 15 FOR BEST COVER. SEED TO A DEPTH OF 1 INCH.
OATS	2.5 BU OR 80 LBS.	2.0 LBS.	BEST FOR SPRING SEEDING. SEED NO LATER THAN MAY 15 FOR SUMMER 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)			



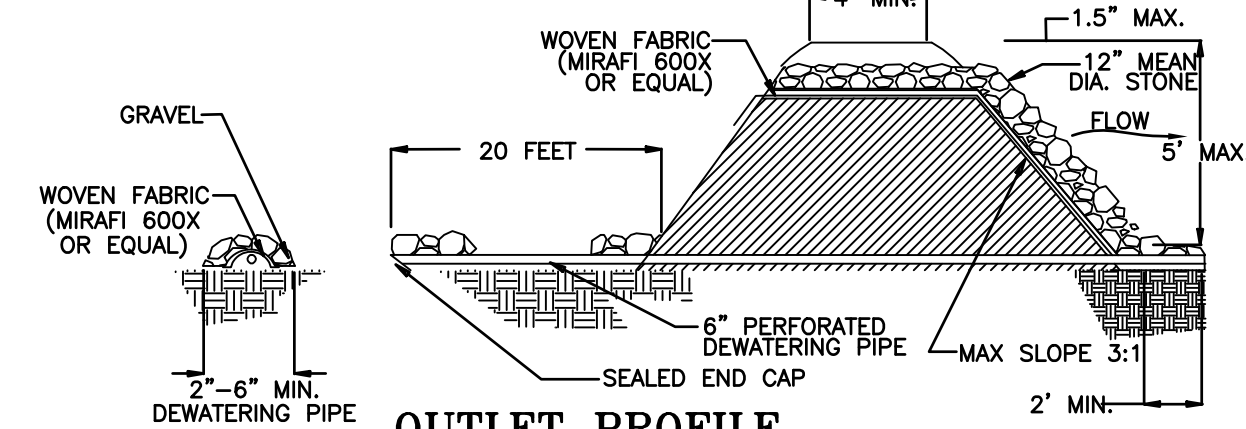
TYPICAL OPEN SPILLWAY



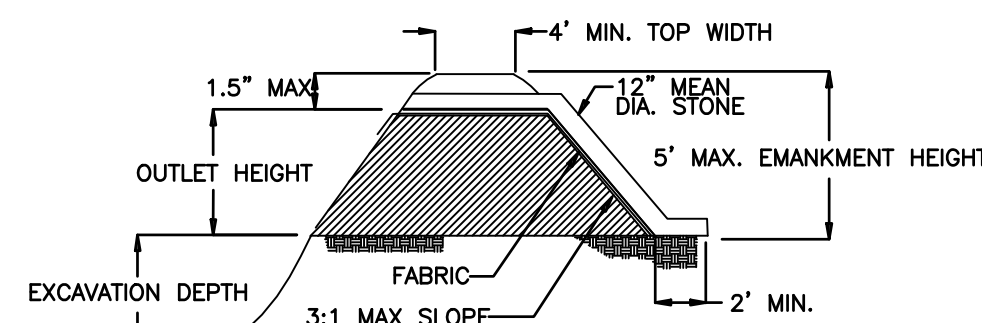
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PLAN VIEW



OUTLET PROFILE



ALTERNATE OUTLET PROFILE

SEDIMENT TRAP

TEMPORARY VEGETATION:

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. 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 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 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

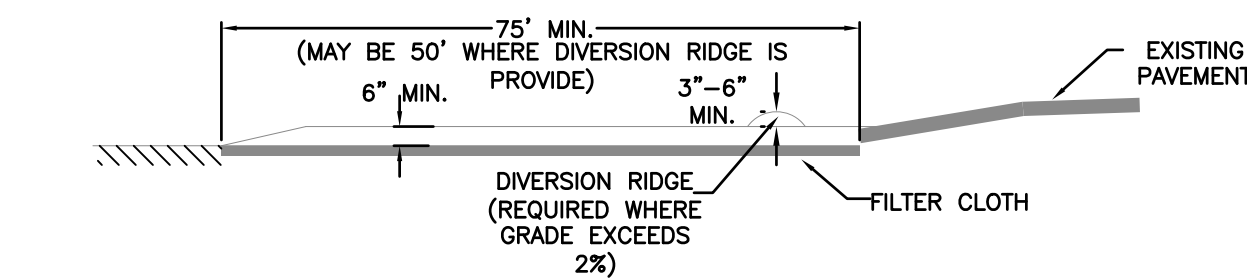
FERTILIZER APPLICATION RATE = 870 LB./ACRE (20 LB./1,000-SF)*
*LOW PHOSPHATE FERTILIZER (6-0-4) OR EQUIVALENT

SEEDING:

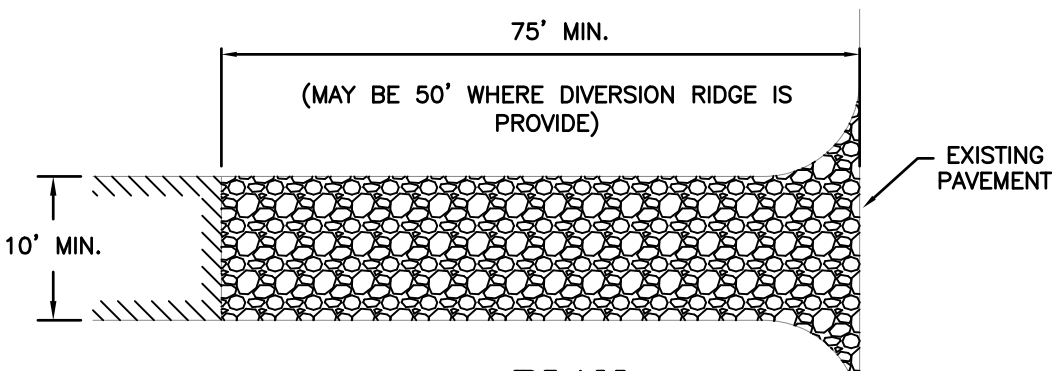
1. APPLY SEED UNIFORMLY BY HAND, CYCLONE SEEDER, DRILL CULTPACKER TYPE SEEDER OR HYDRO SEEDER (SLURRY INCLUDING SEED AND FERTILIZER). NORMAL SEEDING DEPTH IS FROM 1/4 TO 1/2 INCH. HYDROSEEDING THAT INCLUDES MULCH MAY BE LEFT ON SOIL SURFACE. SEEDING RATES MUST BE INCREASED BY 10% WHEN HYDROSEEDING.
2. TEMPORARY SEED 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 RESEED 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 RESEED, WITH OTHER TEMPORARY MEASURES (I.E. MULCH, ETC.) USED TO PROVIDE EROSION PROTECTION DURING THE PERIOD OF VEGETATION ESTABLISHMENT.



PROFILE



PLAN

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 ADVANCED 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.

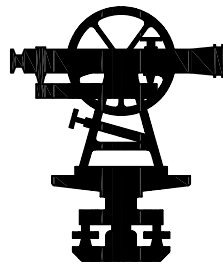
CONSTRUCTION SPECIFICATIONS:

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 OR WHEN THE STONE 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 AND SEDIMENTATION CONTROL

TAX MAP 255, LOT NEW
INNOVATION DRIVE
ROCHESTER, NH

PREP PARTNERS GROUP, LLC.
MAY 2020



RIP-RAP GRADATION

d₅₀ = 3"

% OF WEIGHT SMALLER THAN THE GIVEN SIZE	SIZE OF STONE (INCHES)	
100	5	TO 6
85	4	TO 5
50	3	TO 4
15	1	TO 2

d₅₀ = 4"

% OF WEIGHT SMALLER THAN THE GIVEN SIZE	SIZE OF STONE (INCHES)	
100	6	TO 8
85	5	TO 7
50	4	TO 6
15	1	TO 2

d₅₀ = 6"

% OF WEIGHT SMALLER THAN THE GIVEN SIZE	SIZE OF STONE (INCHES)	
100	9	TO 12
85	7.8	TO 10.8
50	6	TO 9
15	1.8	TO 3

d₅₀ = 9"

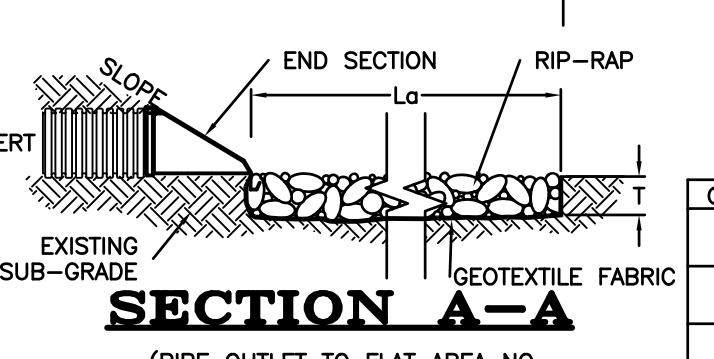
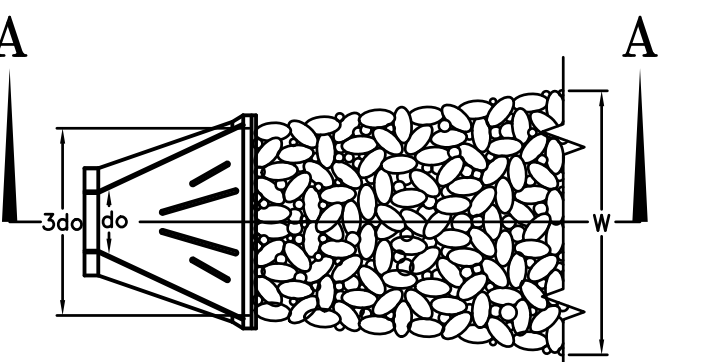
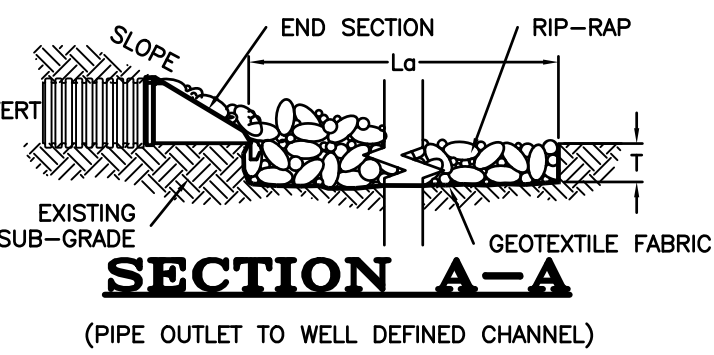
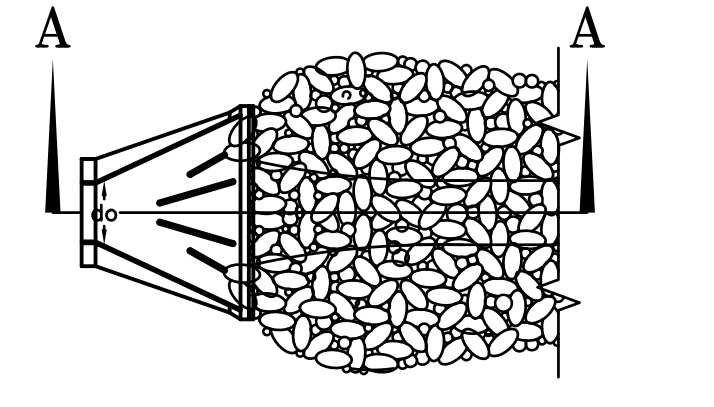
% OF WEIGHT SMALLER THAN THE GIVEN SIZE	SIZE OF STONE (INCHES)	
100	13.5	TO 18
85	11.7	TO 16.2
50	9	TO 13.5
15	2.7	TO 4.5

d₅₀ = 12"

% OF WEIGHT SMALLER THAN THE GIVEN SIZE	SIZE OF STONE (INCHES)	
100	18	TO 24
85	15.6	TO 21.6
50	12	TO 18
15	3.6	TO 6

APRON DIMENSION TABLE

OUTLET PROT. #	PIPE OUTLET	W _o	W	L _o	T	d ₅₀
1	FROM CB17-A	9'	42"	33'	30"	12"
2	FROM FB#1 TO GW 12" CPP	3'	12"	22'	12"	9"
3	FROM FB#1 TO GW 24" CPP	6'	28"	19'	15"	6"
4	FROM FB#1 OUTLET STRUCTURE 12" CPP	6'	20"	14'	9"	3"
5	FROM FB#2 OUTLET STRUCTURE 24" CPP	3'	13'	10'	9"	3"
6	FROM CB2-C TO FB#3	4'	4'	12'	12"	6"
7	FROM FB#3 OUTLET STRUCTURE 24" CPP	6'	3'	15'	9"	3"



NOTES:

1. ALL PIPE CULVERTS SHALL HAVE END SECTIONS OR HEADWALLS. END SECTION MATERIAL AND MANUFACTURER SHALL MATCH THAT OF THE PIPE CULVERT.
2. THE LARGEST RIP-RAP SIZE DETERMINED DURING HYDROLOGIC ANALYSIS HAS BEEN USED FOR ALL OUTLETS FOR ECONOMY AND SIMPLICITY.
3. APRON LENGTHS, WIDTHS AND THICKNESSES HAVE BEEN ROUNDED UP TO WHOLE NUMBERS FOR EASE OF CONSTRUCTION.

CONSTRUCTION SPECIFICATIONS:

1. PREPARE THE SUB-GRADE FOR THE FILTER MATERIAL, GEOTEXTILE FABRIC, AND RIP-RAP TO THE GRADES SHOWN ON THE PLANS.
2. MINIMUM 6" SAND/GRAVEL BEDDING OR GEOTEXTILE FABRIC REQUIRED UNDER ALL ROCK RIP-RAP.
3. THE ROCK OR GRAVEL USED FOR FILTER OR RIP-RAP SHALL CONFORM TO THE SPECIFIED GRADATION.
4. GEOTEXTILE FABRICS SHALL BE PROTECTED FROM PUNCTURE OR TEARING DURING THE PLACEMENT OF ROCK RIP-RAP. DAMAGED AREAS IN THE FABRIC SHALL BE REPAIRED BY PLACING A PIECE OF FABRIC OVER THE DAMAGED AREA OR BY COMPLETE REPLACEMENT OF THE FABRIC. ALL OVERLAPS REQUIRED FOR REPAIRS OR JOINING TWO (2) PIECES OF FABRIC SHALL BE A MINIMUM OF 12 INCHES.
5. STONE FOR THE RIP-RAP MAY BE PLACED BY EQUIPMENT AND SHALL BE CONSTRUCTED TO THE FULL LAYER THICKNESS IN ONE OPERATION AND IN SUCH A MANNER AS TO PREVENT SEGREGATION OF THE STONE SIZES.
6. RIP-RAP SIZE CHOSEN FOR THE WORST CASE OF ALL OUTLETS. ALL RIP-RAP USED FOR PIPE OUTLET PROTECTION WILL HAVE THE SAME GRADATION AND THICKNESS.

MAINTENANCE NOTES:

1. OUTLETS SHALL BE INSPECTED AND CLEANED ANNUALLY AND AFTER ANY MAJOR STORM EVENT. ANY EROSION OR DAMAGE TO THE RIP-RAP SHALL BE REPAIRED IMMEDIATELY.
2. THE CHANNEL IMMEDIATELY DOWNSTREAM FROM THE OUTLET SHOULD BE CHECKED TO SEE THAT NO EROSION IS OCCURRING.
3. THE DOWNSTREAM CHANNEL SHOULD BE KEPT CLEAR OF OBSTRUCTIONS SUCH AS FALLEN TREES, DEBRIS, AND SEDIMENT THAT COULD CHANGE FLOW PATTERNS AND/OR TAILWATER DEPTHS ON THE PIPES. REPAIRS MUST BE CARRIED OUT IMMEDIATELY TO AVOID ADDITIONAL DAMAGE TO THE OUTLET PROTECTION APRON.

PIPE OUTLET PROTECTION DETAIL

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 (I.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 NHSM 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 (I.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 (I.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 (I.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.

FILE NO. 104
PLAN NO. C-xxx
DWG. NO. 19289 SP-1
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 CLOUDS, 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 (6-0-4) 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 (UNSCARIFIED). IF SEEDING CANNOT BE DONE WITHIN THE SPECIFIED SEEDING DATES, MULCH ACCORDING TO THE "TEMPORARY AND PERMANENT MULCHING" PRACTICE DESCRIBED IN THE NHSM, VOL. 3, AND DELAY SEEDING UNTIL THE NEXT RECOMMENDED SEEDING PERIOD.
5. AREAS SEEDED 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 NHSM, 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. 500 POUNDS PER ACRE OF 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 RESEEDED TO ACHIEVE FULL VEGETATION 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 MUST BE MADE AND AREAS SHALL BE RESEEDED, WITH OTHER TEMPORARY MEASURES (I.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)

ENVIRONMENTAL MONITOR

THE PERMITEE SHALL EMPLOY THE SERVICES OF AN ENVIRONMENTAL MONITOR (EM) FOR THE PURPOSES OF PROVIDING INDEPENDENT PROFESSIONAL ENVIRONMENTAL INSPECTION OF THE PROJECT. THE PERMITEE SHALL RECEIVE PRIOR APPROVAL OF THE EM BY THE DEPARTMENT. THE ENVIRONMENTAL MONITOR SHALL INSPECT THE PROJECT AT A MINIMUM FREQUENCY OF ONCE PER WEEK AND FOLLOWING RAINFALL EVENTS OF 0.5-INCH OR GREATER IN A 24-HOUR PERIOD. THE INSPECTIONS SHALL BE FOR THE PURPOSES OF DETERMINING COMPLIANCE WITH THE PERMIT. THE MONITOR SHALL SUBMIT A WRITTEN REPORT, STAMPED BY A QUALIFIED ENGINEER OR CERTIFIED PROFESSIONAL IN EROSION AND SEDIMENT CONTROL TO THE DEPARTMENT WITHIN 24 HOURS OF THE INSPECTIONS. THE REPORTS SHALL DESCRIBE, AT A MINIMUM, WHETHER THE PROJECT IS BEING CONSTRUCTED IN ACCORDANCE WITH THE APPROVED SEQUENCE, SHALL IDENTIFY ANY DEVIATION FROM THE CONDITIONS OF THIS PERMIT AND THE APPROVED PLANS, AND IDENTIFY ANY OTHER NOTED DEFICIENCIES. REPORTS SHOULD BE SUBMITTED TO XXXX.XXXX@DES.NH.GOV.

GENERAL CONSTRUCTION PHASING:

1. **STABILIZATION:**

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:

AREA AREAS THAT WILL NOT BE PAVED:

 - a) A MINIMUM OF 85% VEGETATIVE COVER HAS BEEN ESTABLISHED;
 - b) A MINIMUM OF 3-INCHES OF NON-ERODIBLE MATERIAL SUCH AS STONE OR A CERTIFIED COMPOST BLANKET HAS BEEN INSTALLED; OR,
 - c) EROSION CONTROL BLANKETS HAVE BEEN INSTALLED.

AREA AREAS TO BE PAVED:

 - a) BASE COURSE GRAVELS HAVE BEEN INSTALLED.
2. **TEMPORARY STABILIZATION:**

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.
3. **PERMANENT STABILIZATION:**

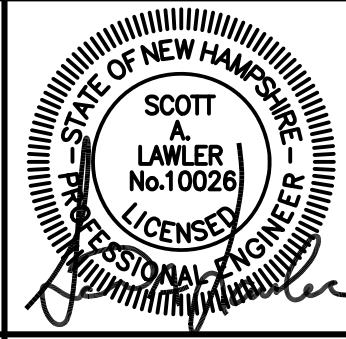
ALL AREAS OF EXPOSED OR DISTURBED SOIL SHALL BE PERMANENTLY STABILIZED AS SOON AS PRACTICABLE BUT NO LATER THAN 3 DAYS FOLLOWING FINAL GRADING.
4. **MAXIMUM AREA OF DISTURBANCE:**

THE SMALLEST PRACTICAL AREA SHALL BE DISTURBED DURING CONSTRUCTION, NO MORE THAN 5 ACRES SHALL BE DISTURBED (NOT STABILIZED) AT ANY TIME.
5. **NO DISTURB, CLEAR, OR GRADE AREAS NECESSARY FOR CONSTRUCTION.**
 - a) FLAG OR OTHERWISE DELINEATE AREAS NOT TO BE DISTURBED.
 - b) EXCLUDE VEHICLES AND CONSTRUCTION EQUIPMENT FROM THESE AREAS TO PRESERVE NATURAL VEGETATION.
6. **ALL GRADED OR DISTURBED AREAS INCLUDING SLOPES SHALL BE PROTECTED DURING CONSTRUCTION.** THE CONTRACTOR SHALL REVIEW THE PROJECT GRADING AND DRAINAGE PLAN DEPICTED ON SHEET C-3.
7. **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-3.**
8. **TOPSOIL REQUIRED FOR THE ESTABLISHMENT OF VEGETATION SHALL BE STOCKPILED IN THE AMOUNT NECESSARY TO COMPLETE FINISHED GRADING AND BE PROTECTED FROM EROSION, SLIPPAGE, SETTLEMENT, SUBSIDENCE OR OTHER RELATED PROBLEMS.** FILL INTENDED TO SUPPORT BUILDINGS, STRUCTURES, SITE UTILITIES, CONDUNITS AND OTHER FACILITIES, SHALL BE COMPACTED IN ACCORDANCE WITH LOCAL REQUIREMENTS OR CODES.
14. **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.
15. **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 FILLS.**
16. **FROZEN MATERIAL OR SOFT, MUCKY OR HIGHLY COMPRESSIBLE (I.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.
17. **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 (CLAY TRACKS) CREATE GROOVES PERPENDICULAR TO THE SLOPE. IF THE SOIL IS NOT TOO MOIST, EXCESSIVE COMPACTION WILL NOT OCCUR. SEE "SURFACE ROUGHENING" IN THE NHSM, VOL.3.
18. **ROUGHEN THE SURFACE OF ALL SLOPES DURING THE CONSTRUCTION OPERATION TO RETAIN WATER, INCREASE INFILTRATION AND FACILITATE VEGETATION ESTABLISHMENT.**
19. **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.
20. **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.**
21. **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.**
22. **ALL GRADED AREAS SHALL BE PERMANENTLY STABILIZED IMMEDIATELY FOLLOWING FINISHED GRADING.**
23. **THE PROJECT SHALL BE CONSTRUCTED TO MEET ALL REQUIREMENTS AND INTENT OF RSA 430:53 AND CHAPTER ARG 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" (NHSM, 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 (I.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 ORANGE SNOW FENCE AROUND THE PERIMETER OF THE INFILTRATION BASINS AND THE FENCE SHALL REMAIN IN PLACE UNTIL CONSTRUCTION OF THE BASINS HAS STARTED.
 4. CLEAR, GRUB AND STRIP THE SITE. STUMPS, BRUSH AND OTHER ORGANIC WASTE SHALL BE DISPOSED OF OFF-SITE IN ACCORDANCE WITH STATE AND LOCAL REGULATIONS.
 5. INSTALL TEMPORARY CONSTRUCTION EXIT AT THE LOCATION OF THE PROPOSED DRIVEWAY CONNECTION TO INNOVATION DRIVE. 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 GRAVEL WETLANDS BASIN AS DEPICTED ON SHEET C-14 AND IN ACCORDANCE WITH THE GRAVEL WETLAND BASIN DETAILS SHOWN ON SHEET C-15.
 8. PERFORM THE NECESSARY CUTS AND FILLS TO CONSTRUCT THE INFILTRATION BASIN AS DEPICTED ON SHEET C-16 AND IN ACCORDANCE WITH THE INFILTRATION BASIN#2 AND BIORETENTION BASIN DETAILS SHOWN ON SHEET C-16.
 9. CONSTRUCT THE GRAVEL WETLANDS BASIN, SEDIMENT FOREBAY AND OUTLET PROTECTION. LOAM SEED AND MULCH THE SIDE SLOPES OF THE BASIN AS DIRECTED IN THE INFILTRATION BASIN DETAILS.
 10. ANTI-DITCHES/SWALES/AND BASINS SHALL BE STABILIZED PRIOR TO DIRECTING RUNOFF TO THEM.
 11. PERFORM THE NECESSARY CUTS AND FILLS TO SUBGRADE IN THE BUILDING, TRAVEL WAY AND PARKING LOT AREAS.
 - a) INSTALL AND STRIP MAXIMUM 8-INCH LIFTS AND COMPACT EACH LIFT TO 95% MAXIMUM PROCTOR DENSITY.
 12. AS SUBGRADE IS ACHIEVED INSTALL REMAINING SEDIMENT CONTROL BARRIERS WITHIN THE SITE (I.E. ADDITIONAL SILT FENCE, CHECK DAMS AND SEDIMENT CONTROL BARRIERS).
 13. INSTALL ALL UTILITIES AND CLOSED DRAINAGE SYSTEM COMPONENTS (I.E. PIPE CULVERTS, CATCH BASINS AND REMAINING WATER MAIN) PER THE CORRESPONDING DETAILS AND AS SHOWN ON SHEET C-3 AND C-12, AS EACH STRUCTURE IS COMPLETED INSTALL THE CORRESPONDING SEDIMENT CONTROL MEASURE.
 14. CONSTRUCT THE INFILTRATION BASINS AND OUTLET PROTECTION. LOAM SEED AND MULCH THE SIDE SLOPES OF THE BASIN AS DIRECTED IN THE INFILTRATION BASIN DETAILS AND TEMPORARY SEDIMENT CONTROL BARRIER DEPICTED ON SHEET C-7.
 15. ALL CUT AND FILL SLOPES AND LAWN AREAS NOT TO BE PAVED SHALL BE LOADED AND SEED FOR PERMANENT VEGETATION AND STABILIZATION AS DESCRIBED UNDER THE "PERMANENT VEGETATION PRACTICES" WITHIN 3 DAYS OF ACHIEVING FINAL GRADE.
 16. INSTALL ALL GRAVEL BASE AND CRUSHED GRAVEL MATERIALS FOR THE PARKING AREA AS SPECIFIED IN THE CORRESPONDING DETAILS.
 17. THE PARKING AREAS SHALL BE STABILIZED (CONSTRUCTED TO GRAVEL BASE COURSE) WITHIN 3 DAYS OF ACHIEVING FINISHED SUBGRADE ELEVATIONS.
 18. 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. FILLS IN NO CASE SHALL AREAS TO BE PAVED BE LEFT UNPROTECTED THROUGHOUT THE WINTER MONTHS.
 19. 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 NHSM, 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 ALL ON SITE CATCH BASINS AND THE SEDIMENT FOREBAYS TO THE GRAVEL WETLANDS BASIN AND INFILTRATION BASIN#2 AND BIORETENTION BASIN.



WINTER STABILIZATION & CONSTRUCTION PRACTICES:

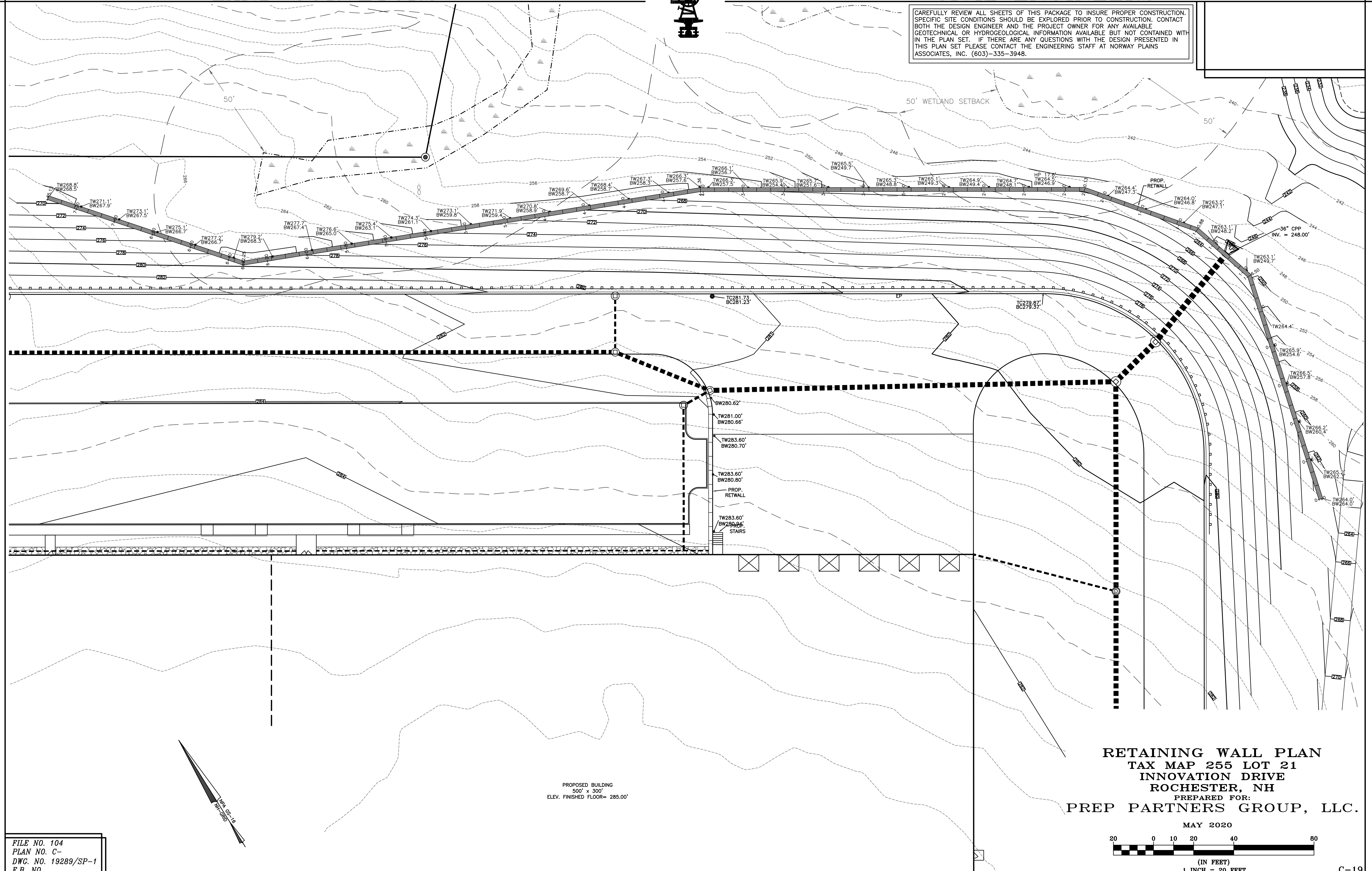
MAINTENANCE REQUIREMENTS:

1. MAINTENANCE MEASURES SHALL BE PERFORMED THROUGHOUT CONSTRUCTION, INCLUDING OVER THE WINTER PERIOD. AFTER EACH RAINFALL, SNOWSTORM, OR PERIOD OF THAWING AND RUNOFF, THE SITE CONTRACTOR SHALL CONDUCT INSPECTION OF ALL INSTALLED EROSION CONTROL PRACTICES AND PERFORM REPAIRS AS NEEDED TO INSURE THEIR CONTINUED FUNCTION.
2. FOR ANY AREA STABILIZED BY TEMPORARY OR PERMANENT SEEDING PRIOR TO THE ONSET OF THE WINTER SEASON, THE CONTRACTOR SHALL CONDUCT AN INSPECTION IN THE SPRING TO ASCERTAIN THE CONDITION OF THE VEGETATION AND REPAIR ANY DAMAGED AREAS OR BARE SPOTS AND RESEED AS REQUIRED TO ACHIEVE AN ESTABLISHED VEGETATIVE COVER (AT LEAST 85% OF AREA VEGETATED WITH HEALTHY, VIGOROUS GROWTH.)

SPECIFICATIONS:

- THE FOLLOWING STABILIZATION TECHNIQUES SHALL BE EMPLOYED DURING THE PERIOD FROM OCTOBER 15 THROUGH MAY 15.
1. THE AREA OF EXPOSED, UNSTABILIZED SOIL SHALL BE LIMITED TO 1-ACRE AND SHALL BE PROTECTED AGAINST EROSION BY THE METHODS DISCUSSED IN NHSM, VOL. 3 AND ELSEWHERE IN THIS PLAN SET, PRIOR TO ANY THAW OR SPRING MELT EVENT.
 2. STABILIZATION AS FOLLOWS SHALL BE COMPLETED WITHIN A DAY OF ESTABLISHING THE GRADE THAT IS FINAL OR THAT OTHERWISE WILL EXIST FOR MORE THAN 5 DAYS.
 - a. ALL PROPOSED VEGETATED AREAS HAVING A SLOPE OF LESS THAN 15% WHICH DO NOT EXHIBIT A MINIMUM 85% VEGETATIVE GROWTH BY OR AFTER THE ONSET OF THE WINTER SEASON SHALL BE SEEDED AND COVERED WITH 3 TO 4 TONS OF HAY OR STRAW MULCH PER ACRE SECURED WITH ANCHORED NETTING, OR 2 INCHES OF EROSION CONTROL MIX (REFER TO NHSM, VOL. 3 FOR SPECIFICATION).
 - b. ALL PROPOSED VEGETATED AREAS HAVING A SLOPE OF GREATER THAN 15% WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OR ARE DISTURBED AFTER OCTOBER 15 SHALL BE SEEDED AND COVERED WITH A MINIMUM OF 4 INCHES OF EROSION CONTROL MIX, UNLESS OTHERWISE SPECIFIED BY THE MANUFACTURER. NOTE THAT COMPOST BLANKETS SHALL NOT EXCEED 2 INCHES IN THICKNESS OR THEY MAY OVERHEAT.
 3. ALL STONE COVERED SLOPES MUST BE CONSTRUCTED AND STABILIZED BY OCTOBER 15.
 4. INSTALLATION OF ANCHORED HAY MULCH OR EROSION CONTROL MIX SHALL NOT OCCUR OVER SNOW OF GREATER THAN 1 INCH IN DEPTH.
 5. ALL MULCH APPLIED DURING WINTER SHALL BE ANCHORED (I.E. BY NETTING, TRACKING, WOOD CELLULOSE FIBER).
 6. MULCH APPLIED TO AREAS OF STOCKPILED SOIL MATERIALS SHALL BE MULCHED FOR OVER WINTER PROTECTION WITH HAY OR STRAW AT TWICE THE NORMAL RATE OR WITH A 4 INCH LAYER OF EROSION CONTROL MIX. MULCH SHALL BE REESTABLISHED PRIOR TO ANY RAIN OR SNOWFALL. NO SOIL STOCKPILE SHALL BE PLACED (EVEN COVERED WITH MULCH) WITHIN 100-FT OF ANY WETLAND OR OTHER WATER RESOURCE AREA.
 7. FROZEN MATERIAL (I.E. FROST LAYER REMOVED D

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.



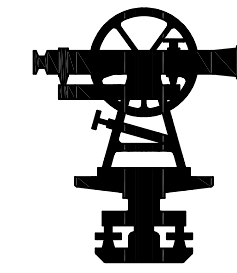
FILE NO. 104
PLAN NO. C-
DWG. NO. 19289/SP-1
F.B. NO.

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

NORWAY PLAINS ASSOCIATES, INC.

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

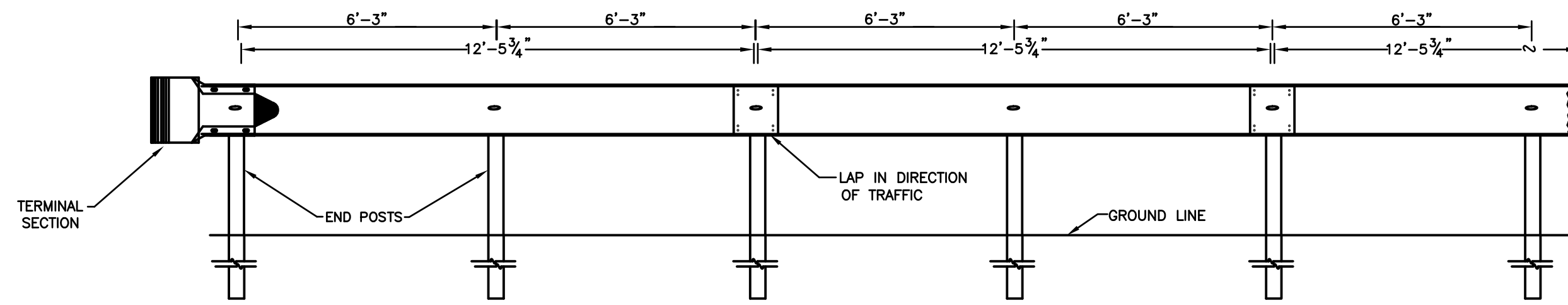
LAND SURVEYORS



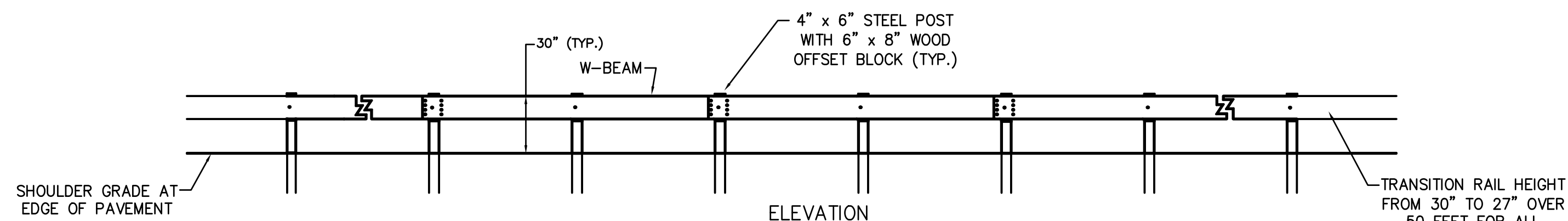
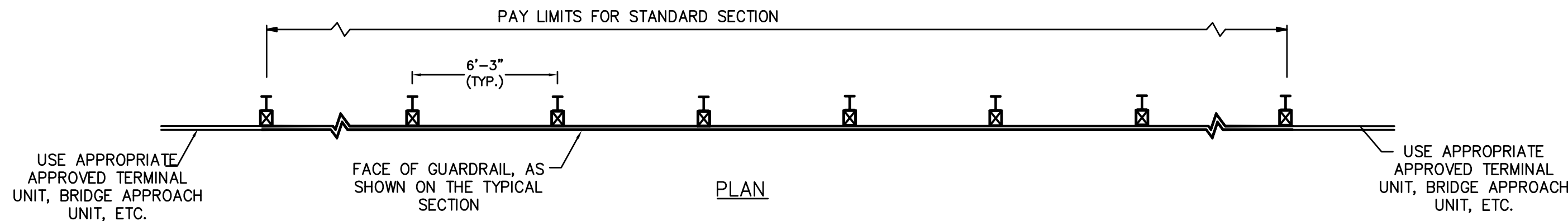
CIVIL ENGINEERS



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.

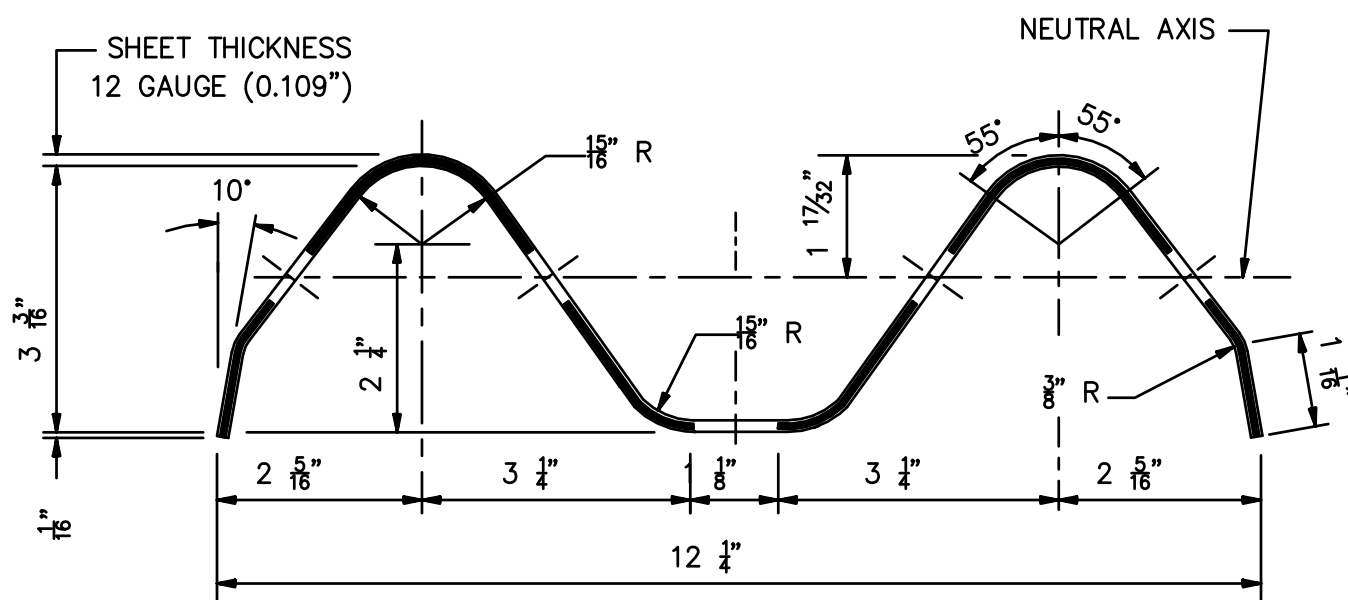


SAMPLE GUARDRAIL INSTALLATION LAYOUT

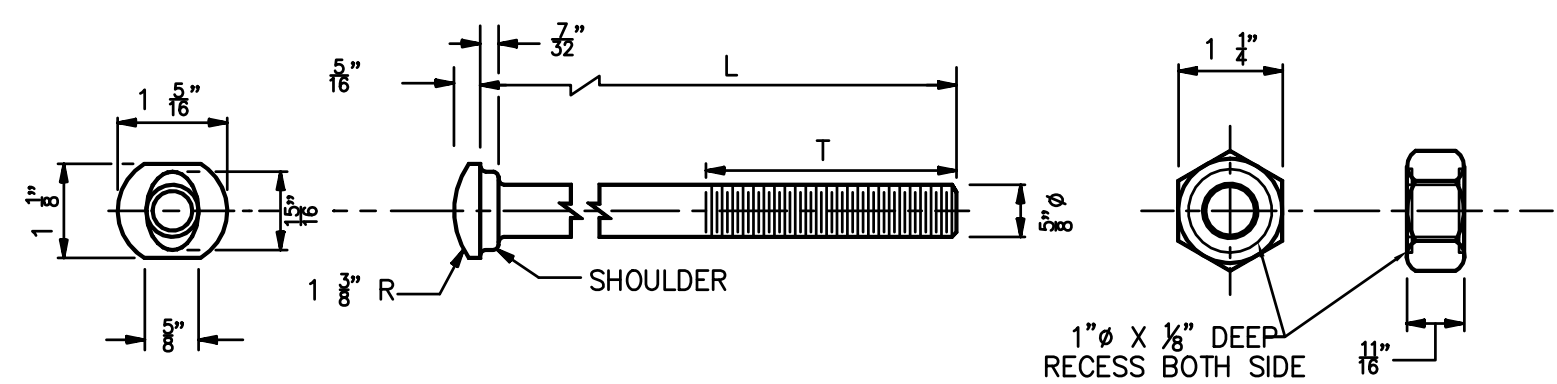


STANDARD SECTION

ITEM 606.120 - BEAM GUARDRAIL (STANDARD SECTION-STEEL POSTS)
PAID: LINEAR FOOT
USE: WHEREVER GUARDRAIL IS REQUIRED (NOTE: STEEL POSTS FOR PERMANENT INSTALLATIONS MAY ONLY BE USED IF SPECIFICALLY APPROVED BY THE CHIEF ENGINEER.)

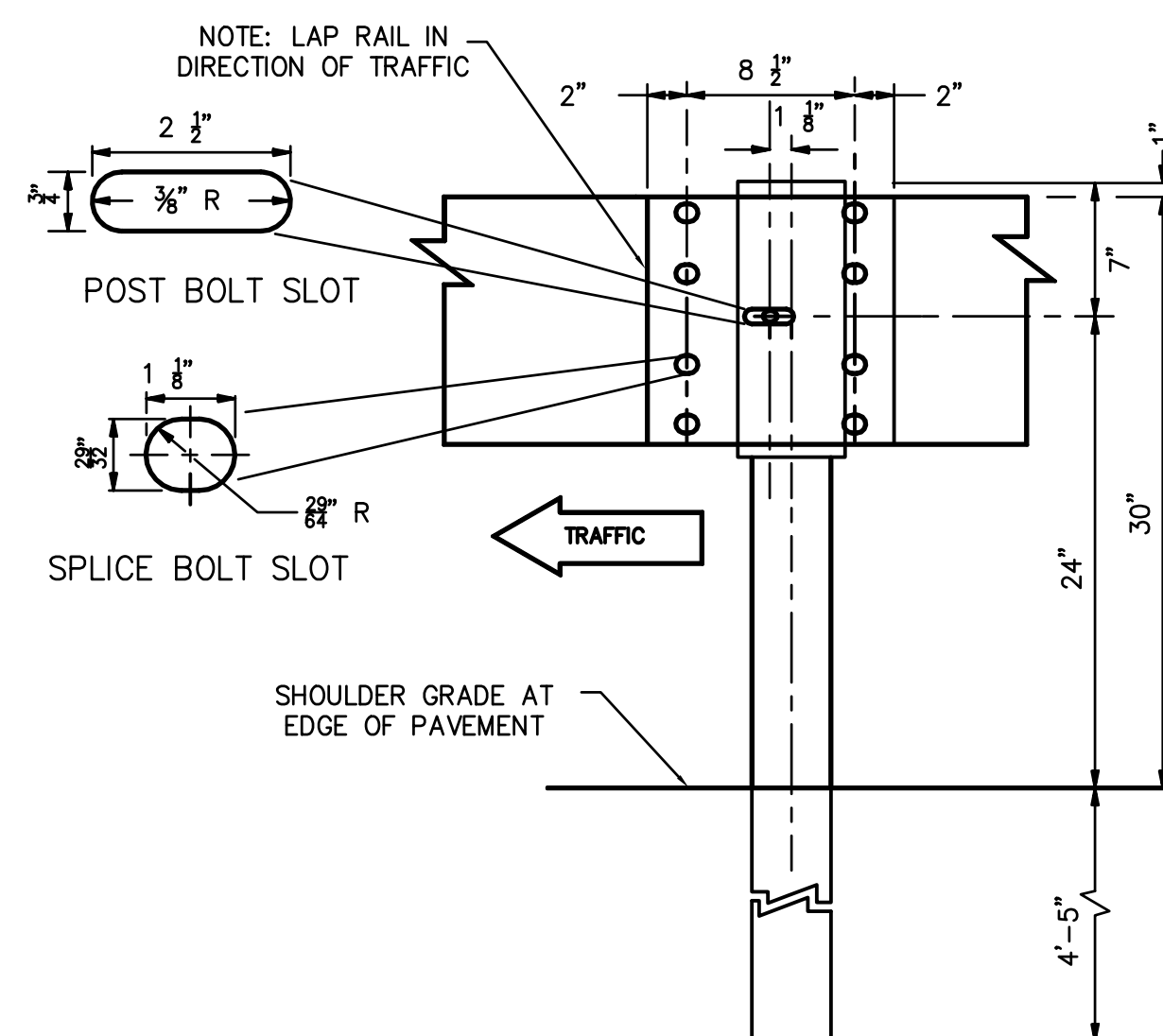


SECTION THRU RAIL ELEMENT
[RWM02a (12'-6") OR RWM22a (25'-0")]

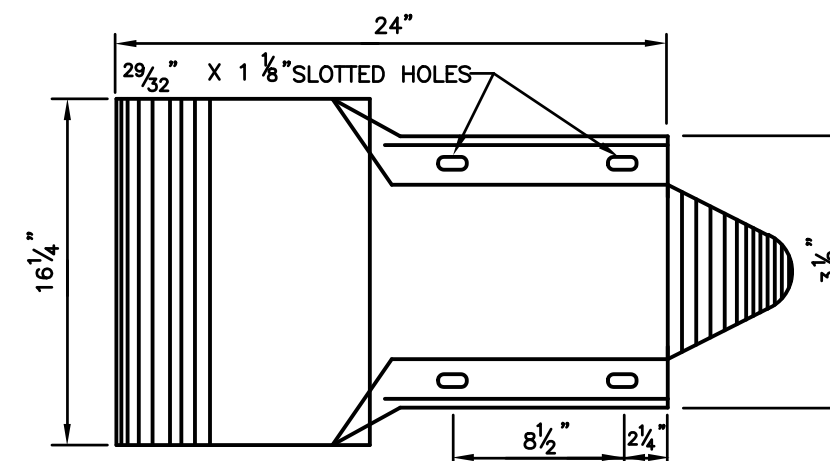


DESIGNATOR	L	T	INTENDED USE
FBB01	1 1/4"	FULL LENGTH THREAD	RAIL SPLICE BOLTS
FBB02	2"	1 3/4" MIN. THREAD LENGTH	POST BOLT (STEEL POSTS)
FBB03	10"	4" MIN. THREAD LENGTH	POST BOLT

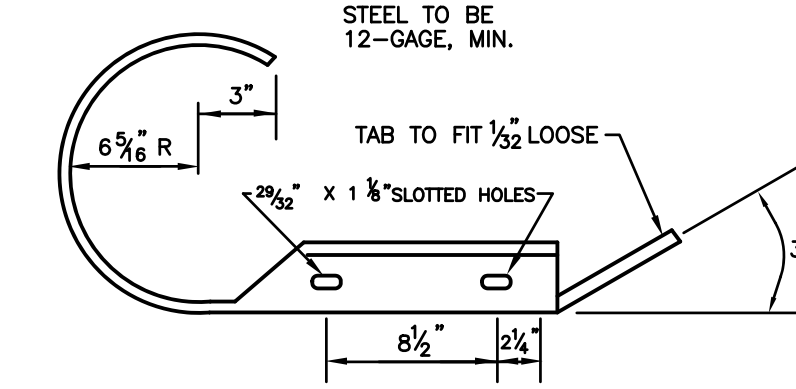
5/8" BUTTON HEAD BOLT AND RECESSED NUT



LINE POST ELEVATION
VIEW AT BEAM SPLICE

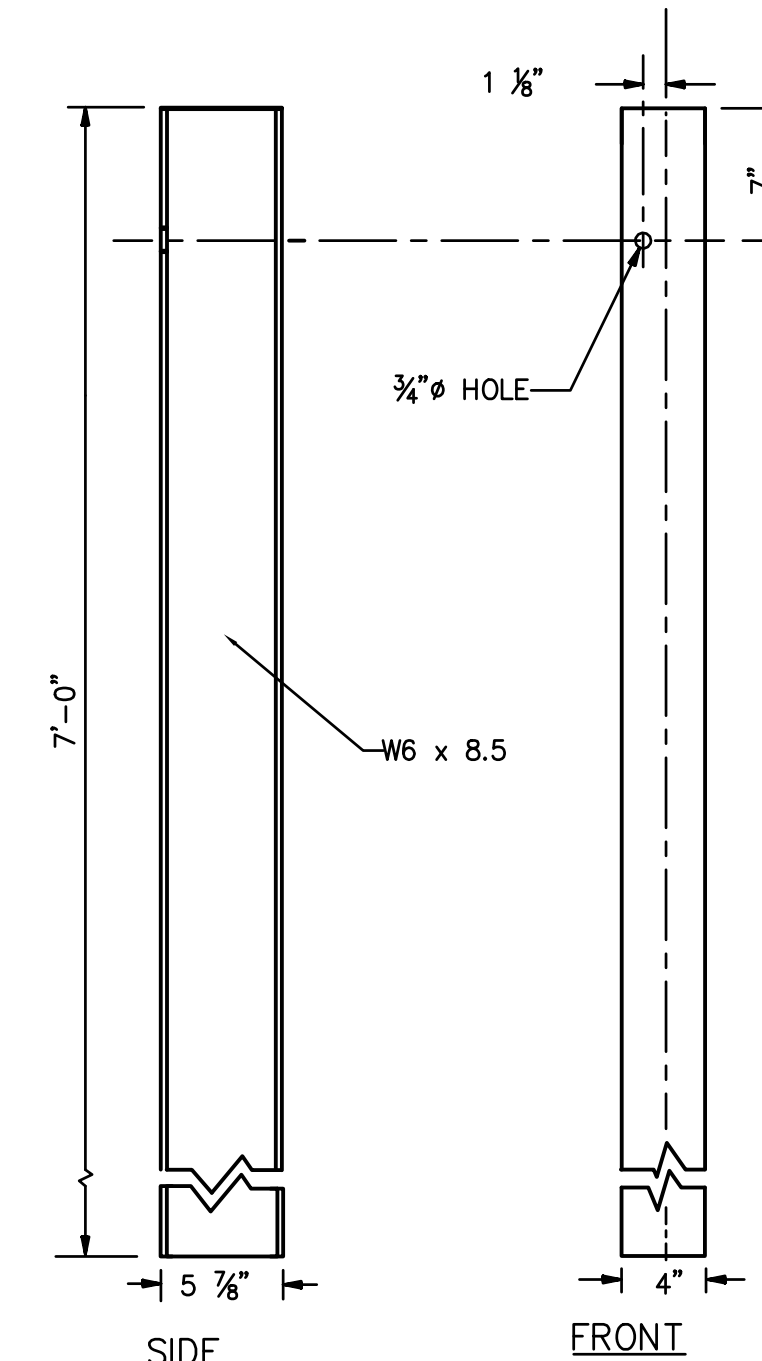


FRONT ELEVATION

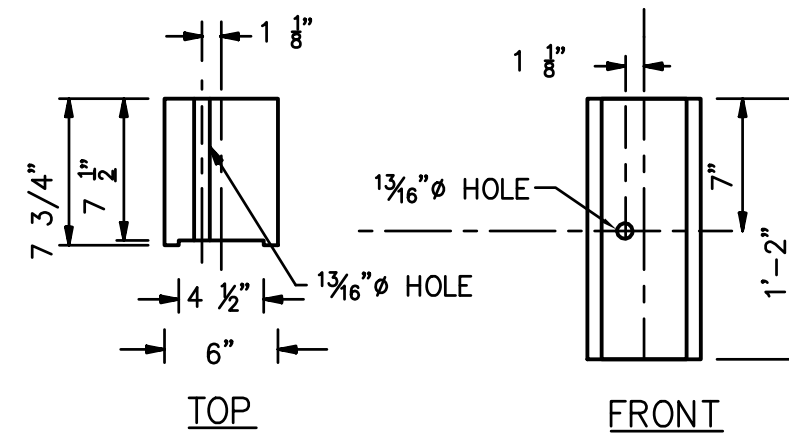


PLAN VIEW

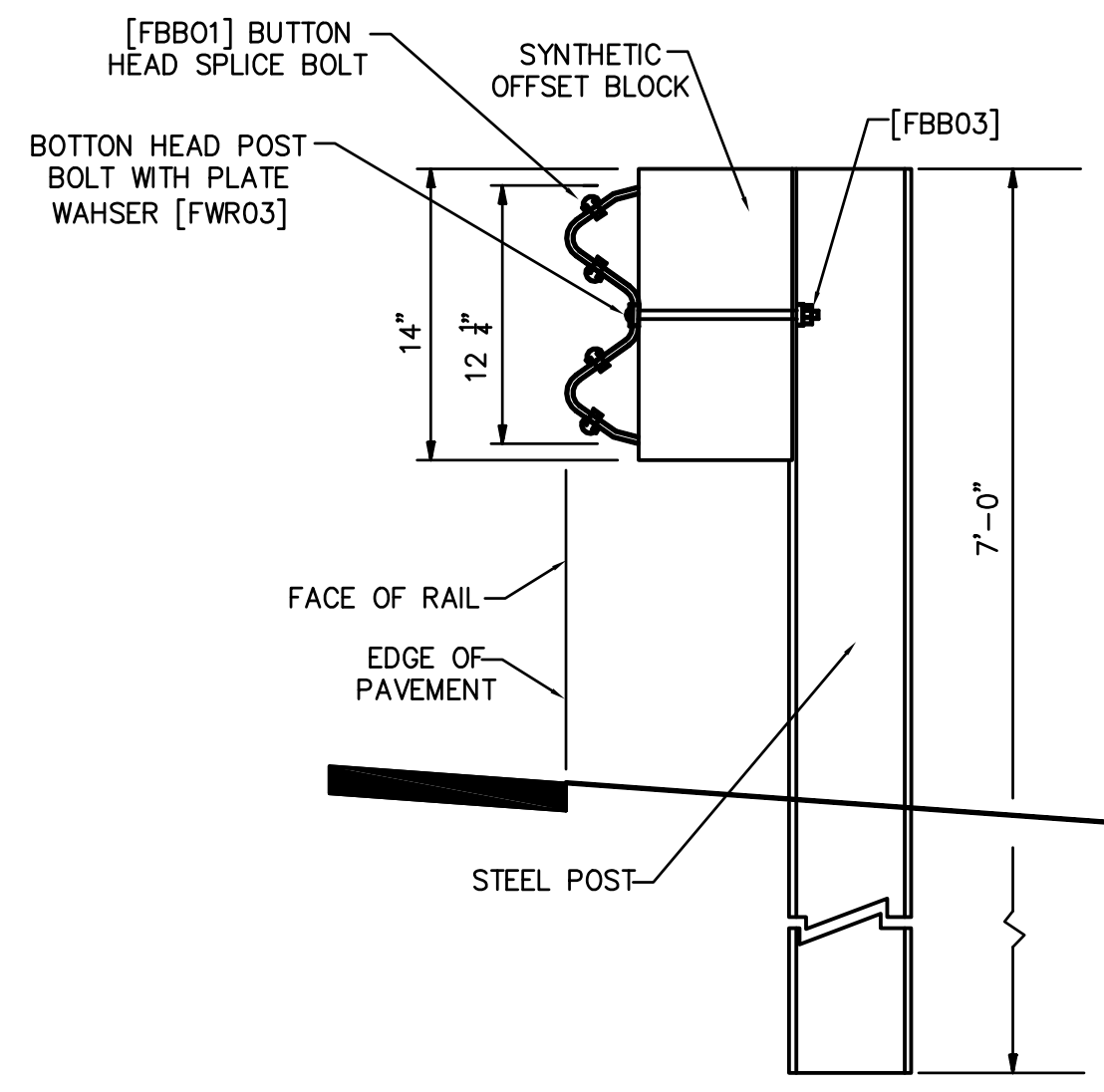
TERMINAL SECTION



STRUCTURAL SHAPE STEEL POST



SYNTHETIC OFFSET BLOCK



TYPICAL SIDE VIEW
(SHOWN WITH FASTENERS)

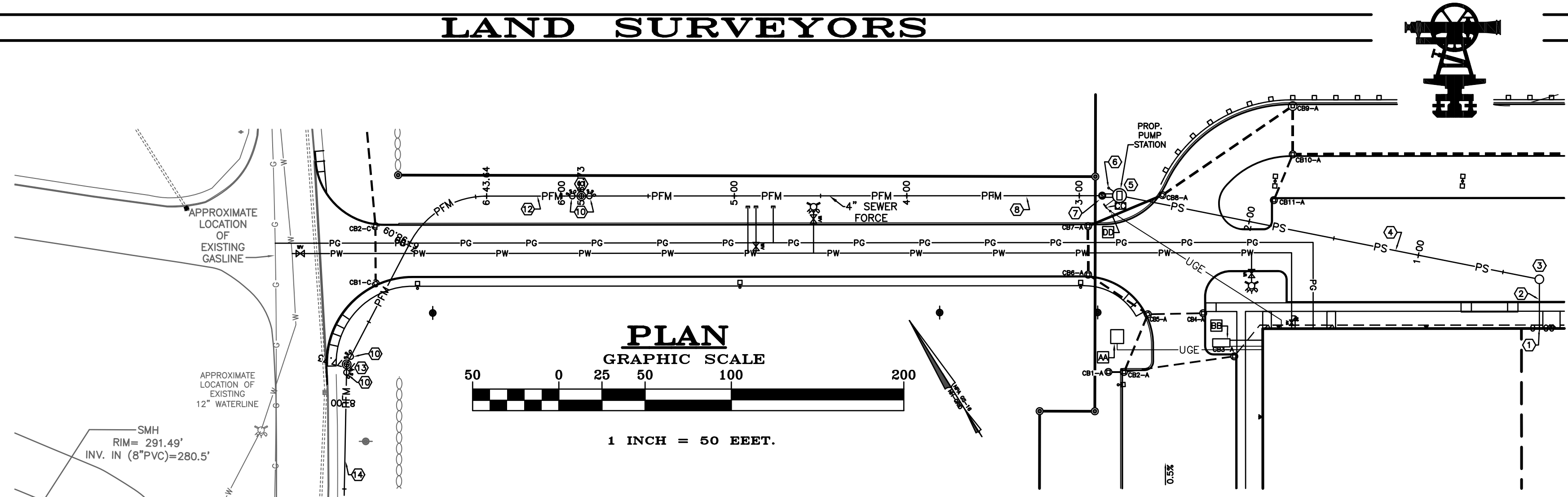
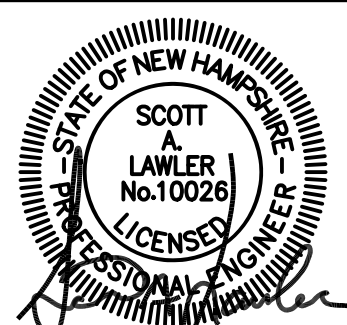
GENERAL NOTES

- LENGTH OF NEED IS THE TOTAL LENGTH OF A LONGITUDINAL BARRIER NEEDED TO SHIELD AN AREA OF CONCERN. TO DETERMINE THE LENGTH OF NEED, REFER TO THE "ROADSIDE - LATEST ADOPTED VERSION: DESIGN GUIDE".
- DESIGNATIONS PROVIDED IN BRACKETS [] REFERENCE "A GUIDE TO STANDARDIZED STANDARD ELEMENTS DETAILED IN LATEST ADOPTED VERSION, HIGHWAY BARRIER HARDWARE" AASHTO-AGC-ARTBA JOINT COOPERATIVE COMMITTEE.
- THE RECTANGULAR PLATE WASHER [FWR03] IS USED ONLY FOR 37'-6" OF STANDARD SECTION UPSTREAM OF A TERMINAL UNIT TYPE G-2 (SEE STANDARD NO. GR-10).
- USE 12'-6" LENGTH RAIL ELEMENT IN CURVES OF LESS THAN 300' RAIL RADIUS.
- WHEN GUARDRAIL IS INSTALLED BEHIND CURB, EITHER 6'-0" BEHIND SLOPE CURB ON A CURBED RAMP OR AT THE BACK OF SIDEWALK WITH BARRIER CURB, THE RAIL HEIGHT SHALL BE SET FROM THE GRADE AT THE FACE OF RAIL.
- POSTS SHORTER THAN THE 7'-0" INDICATED ON THE DETAIL, BUT NOT LESS THAN 6'-0", MAY ONLY BE USED WHEN:
 - THE SLOPE BEHIND THE GUARDRAIL IS NO STEEPER THAN 4:1
 - WHERE THE DISTANCE FROM THE BACK OF THE POST TO THE BREAK OF THE SLOPE IS A MINIMUM OF 2'-0"
 - AND THEN ONLY AS APPROVED OR SPECIFICALLY SHOWN ON THE PLANS.
- TO INSTALL THE 7'-0" POSTS IN ROCK FILL AREAS AND IN AREAS OF OTHER DIFFICULT SITE CONDITIONS, METHODS SUCH AS AUGURING, EXCAVATING, AND OTHER MORE UNUSUAL METHODS MAY BE REQUIRED FOR INSTALLING POSTS. THOSE CONDITIONS AND THE REQUIREMENT FOR UNUSUAL METHODS OF POST INSTALLATION ARE NOT CONSIDERED JUSTIFICATION FOR REDUCING THE EMBEDMENT DEPTH OF THE POSTS AND WILL NOT BE APPROVED AS SUCH.
- THE FHWA ADMINISTRATION HAS APPROVED THE USE OF OFFSET BLOCKS WITH DIMENSIONS THAT VARY MORE THAN WOULD BE CONSIDERED WITHIN THE NORMAL CONTEXT OF NOMINAL DIMENSIONS. IN ORDER TO PROPOSE THE USE OF ANY OFFSET BLOCKS THAT HAVE OTHER THAN THE NOMINAL DIMENSIONS SHOWN ON THE DETAILS, THE FOLLOWING CRITERION APPLIES:
 - THE OFFSET BLOCKS BE SHOWN TO BE APPROVED BY THE FHWA ADMINISTRATION AS MEETING THE TL-3 CRITERIA AS DESCRIBED IN THE NCHRP 350 TESTING.
 - THE FACE OF RAIL MUST REMAIN AT THE EDGE OF PAVEMENT OR AT THE INDICATED OFFSET, PER THE DESIGN PLANS, AND
 - THERE MUST NOT BE A DECREASE IN THE DISTANCE FROM THE BACK OF THE POST TO THE BREAK IN THE SLOPE AS SHOWN ON THE DESIGN PLANS. AN INCREASE IN THE DISTANCE FROM THE BACK OF THE POST TO THE BREAK IN THE SLOPE IS ACCEPTABLE.
 - ALL OTHER REQUIREMENTS OF THE PERTINENT SPECIFICATIONS AND DETAILS REMAIN IN FORCE.

REFERENCE NOTE

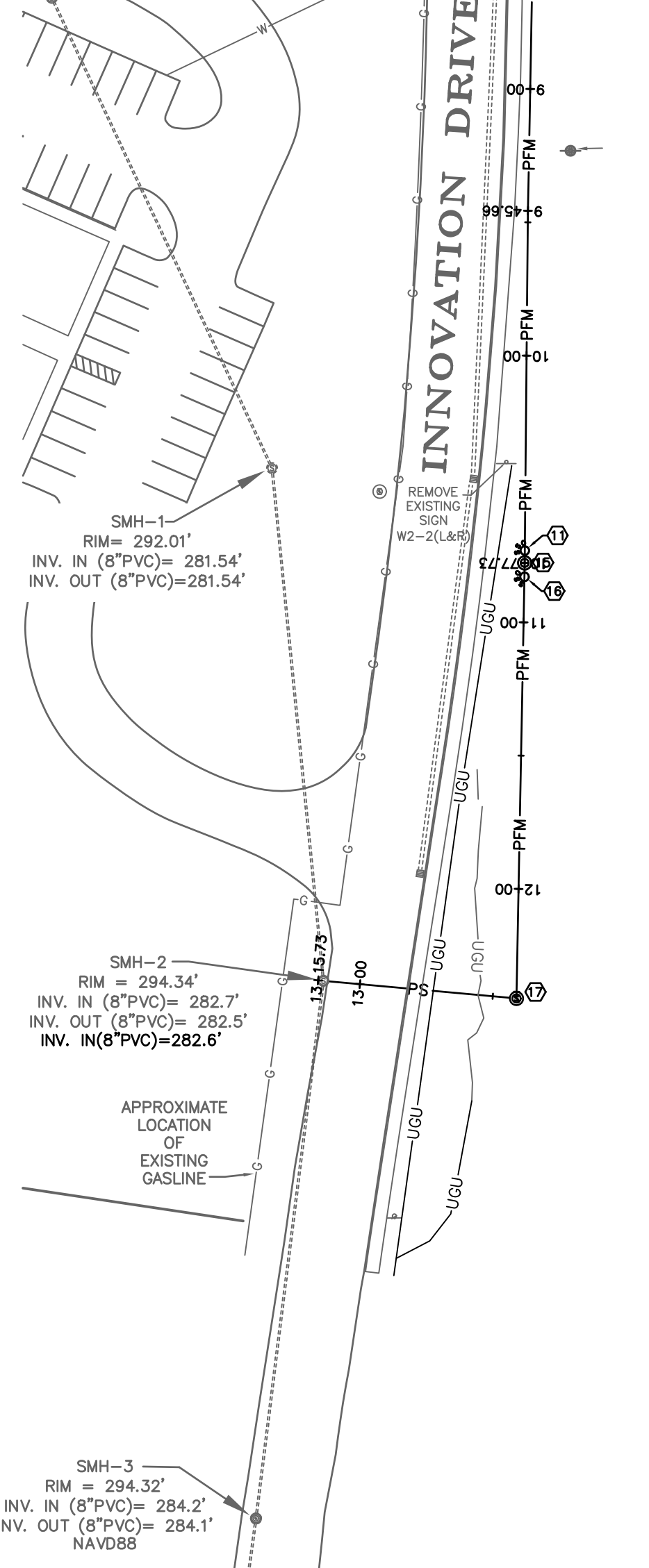
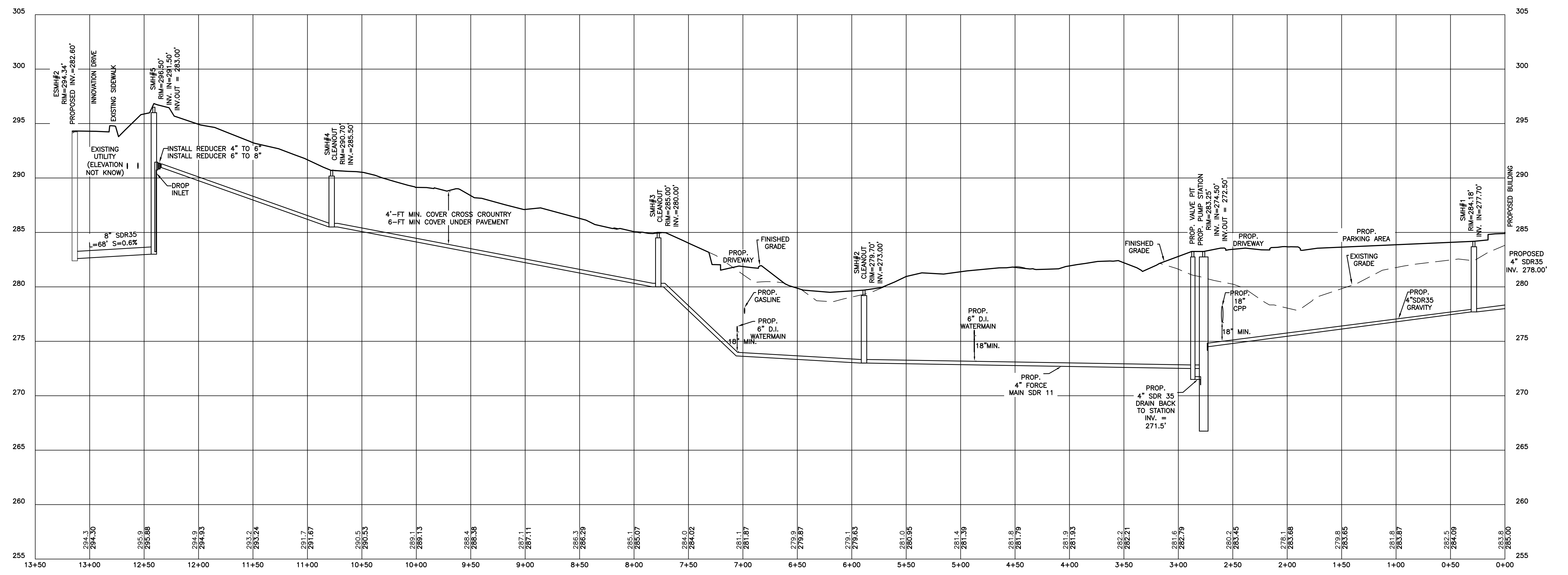
- DETAILS FOR GUARDRAIL SHOWN ON THIS PAGE EXCERPTED FROM AND SPECIFIED TO MATCH NHDOT STANDARD PLANS, STANDARD NO. GR-2 AND GR-10; BEAM GUARDRAIL STANDARD SECTION - STEEL POST & HARDWARE DETAILS.

GUARDRAIL DETAILS
TAX MAP 255, LOT 21
INNOVATION DRIVE
ROCHESTER, NH
PREPARED FOR:
PREP PARTNERS GROUP, LLC.
MAY 2020



- PROPOSED SEWER SYSTEM**
- ① - PROP 4" SDR 35 PVC
INV. = 278.00'
 - ② - PROP. SDR35 PVC
4" SEWER PIPE
L = 26'
 - ③ - PROP. SMH#1
RIM = 284.18'
INV. IN = 277.72'
INV. OUT = 277.67'
 - ④ - PROP. SDR35 PVC
4" SEWER PIPE
L = 242'
 - ⑤ - PROP. SEWER PUMP STATION
COVER = 283.25'
INV. IN = 274.50'
INV. OUT = 272.50'
 - ⑥ - PROP. 4" SDR35
PUMP STATION VENT
PROP. VALVE PIT
RIM = 283.25'
IN & OUT = 272.50'
DRAIN BACK = 271.50'
 - ⑦ - PROP.
4" SDR11 HDPE
FORCE MAIN
L = 300'
 - ⑧ - PROP.
4" SDR11 HDPE
FORCE MAIN
L = 300'
 - ⑨ - PROP.
4" SDR11 HDPE
FORCE MAIN
L = 300'
 - ⑩ - PROP. PLUG VALVE
MECHANICAL JOINT
OPENS LEFT
RESILIENT SEAT
W/ VALVE BOX

- ⑪ - PROP. SEWER CLEAN OUT
MANHOLE #2
RIM = 279.70'
INV. = 274.00'
- ⑫ - PROP.
4" SDR11 HDPE
FORCE MAIN
L = 189.0'
- ⑬ - PROP. SEWER CLEAN OUT
MANHOLE #3
RIM = 290.70'
INV. = 285.50'
- ⑭ - PROP.
4" SDR11 HDPE
FORCE MAIN
L = 300.0'
- ⑮ - PROP. SEWER CLEAN OUT
MANHOLE #4
RIM = 290.70'
INV. = 285.50'
- ⑯ - PROP.
4" SDR11 HDPE
FORCE MAIN
L = 163.5'
- ⑰ - PROP. SEWER MANHOLE
MANHOLE #5
RIM = 296.50'
INV. IN = 291.50'
INV. OUT = 283.00'
(TO EXISTING SMH-2)
- ⑱ - PROP.
8" SDR35
L = 68'



- LEGEND**
- PROPERTY LINE
 - - - JURISDICTIONAL WETLANDS
 - - - EXISTING TREE LINE
 - - - EXISTING STONEWALL
 - - - PROPOSED TREE LINE
 - - - PROPOSED DRAIN LINE
 - - - PROPOSED WATER SERVICE
 - - - PROPOSED SEWER LINE
 - - - PROPOSED SEWER FORCE MAIN PIPE HDPE SDR 11
 - - - PROPOSED PROPANE GAS LINE
 - - - PROPOSED UNDERGROUND UTILITY WIRES
 - - - PROPOSED UNDERGROUND ELECTRIC WIRES
 - - - PROPOSED HYDRANT
 - - - PROPOSED WATER VALVE
 - - - PROPOSED WATER SHUT-OFF VALVE
 - - - PROPOSED SEWER SHUT-OFF VALVE
 - - - PROPOSED UTILITY POLE
 - - - PROPOSED SEWER MANHOLE
 - - - PROPOSED DRAIN MANHOLE
 - - - PROPOSED CATCH BASIN

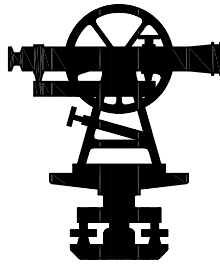
SEWER PROFILE
SCALE 1" = 50' (HORIZ.)
1" = 5' (VERT.)

- EXISTING CATCH BASINS**
- CB1
RIM=292.73'
INV. OUT=288.70' (15" CPP)
SUMP=285.73'
 - EX. CB2
RIM=290.45'
INV. IN = 284.66' (15" CPP)
INV. OUT=284.66' (15" CPP)
SUMP=281.35'
 - CB3
RIM = 283.48'
INV. IN = 277.58' (15" CPP)
INV. OUT = 277.48' (15" CPP)
SUMP = 274.58'
 - CB4
RIM = 279.23'
INV. IN = 268.03' (15" CPP) FROM BRIDGE
INV. IN = 272.41' (15" CPP) FROM CB1
INV. OUT = 267.58' (15" CPP) SWALE
 - CB5
RIM = 280.85'
INV. IN. = 274.63'
INV. OUT = 270.55' (15" CPP) SWALE
SUMP = 267.55'

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.

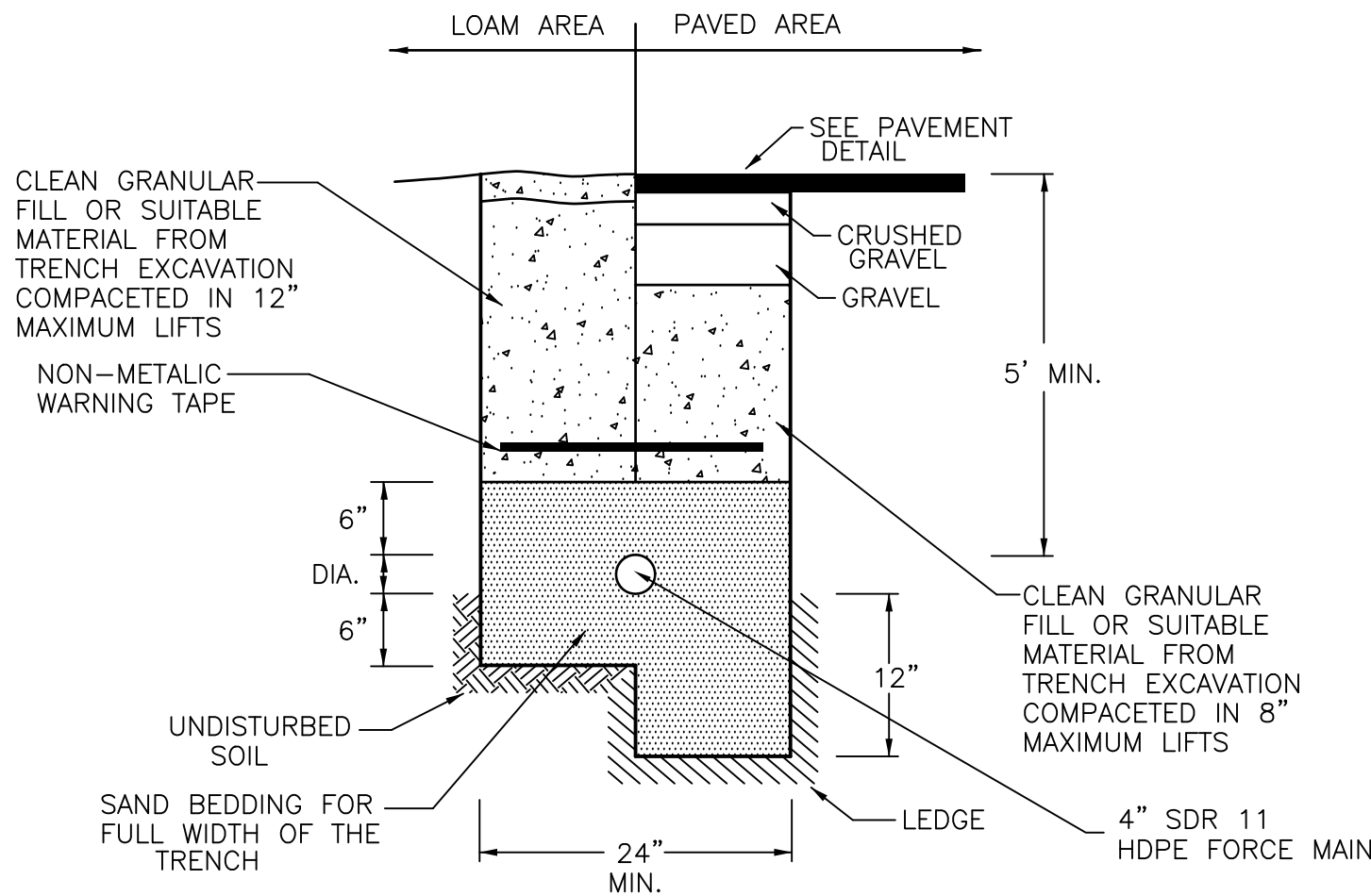
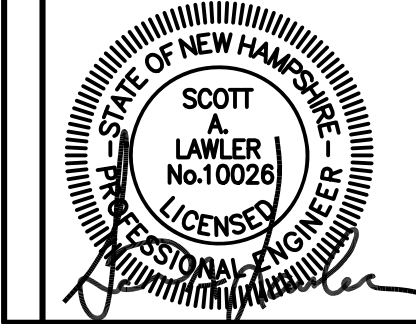
FILE NO. 104
PLAN NO. C-
DWG. NO. 19289/SP-1
F.B. NO.

SEWER MAIN PLAN & PROFILE
TAX MAP 255, LOT 21
INNOVATION DRIVE
ROCHESTER, NH
PREPARED FOR:
PREP PARTNERS GROUP, LLC.
MAY 2020



CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OF PUMP CHAMBER, PUMP, AND CONTROL PANEL TO NORWAY PLAINS, ASSOCIATES, INC. PRIOR TO ORDERING AND DELIVERY. ENGINEER APPROVAL REQUIRED PRIOR TO ORDERING.

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 REPRESENTED IN THIS PLAN SET PLEASE CONTACT THE ENGINEERING STAFF AT NORWAY PLAINS ASSOCIATES, INC. (603)-335-3948.



- NOTES:
- 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.
 - PIPE MATERIALS SHALL BE AS SPECIFIED ON THE DESIGN PLAN.
 - TRENCHES FOR SEWER PIPES WITH SLOPES OVER 0.08 FEET PER FOOT SHALL HAVE IMPERVIOUS TRENCH DAMS CONSTRUCTED EVERY 300 FEET TO PREVENT POTENTIAL DISTURBANCE TO PIPE BEDDING AND BLANKET MATERIALS.
 - 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.
 - 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.

TRENCH DETAIL FOR
SEWER FORCE MAIN
NOT TO SCALE

PUMP STATION DESIGN CALCULATIONS:

DAILY FLOW:

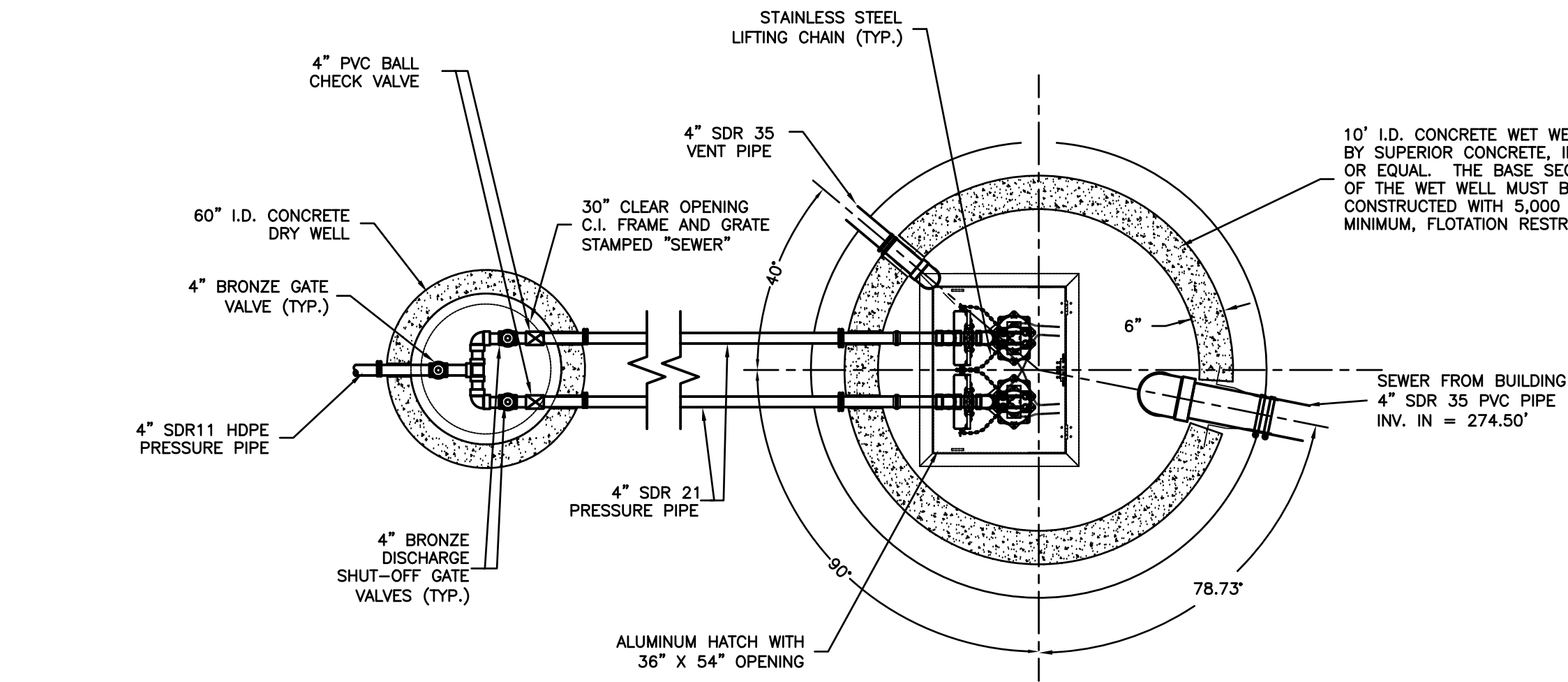
DAILY FLOW BASED ON 10 GALLONS PER DAY PER EMPLOYEE FOR WAREHOUSE USE: (Env-Wq. 1008.03 Table 1008-1) AND ASSUMES MAXIMUM OF 325 EMPLOYEES AT TAX MAP 255, LOT 21 AND 75 EMPLOYEES AT TAX MAP 255, LOT 21-2

400 EMPLOYEES x 10 GPD/EMPLOYEE = 4,000 GPD

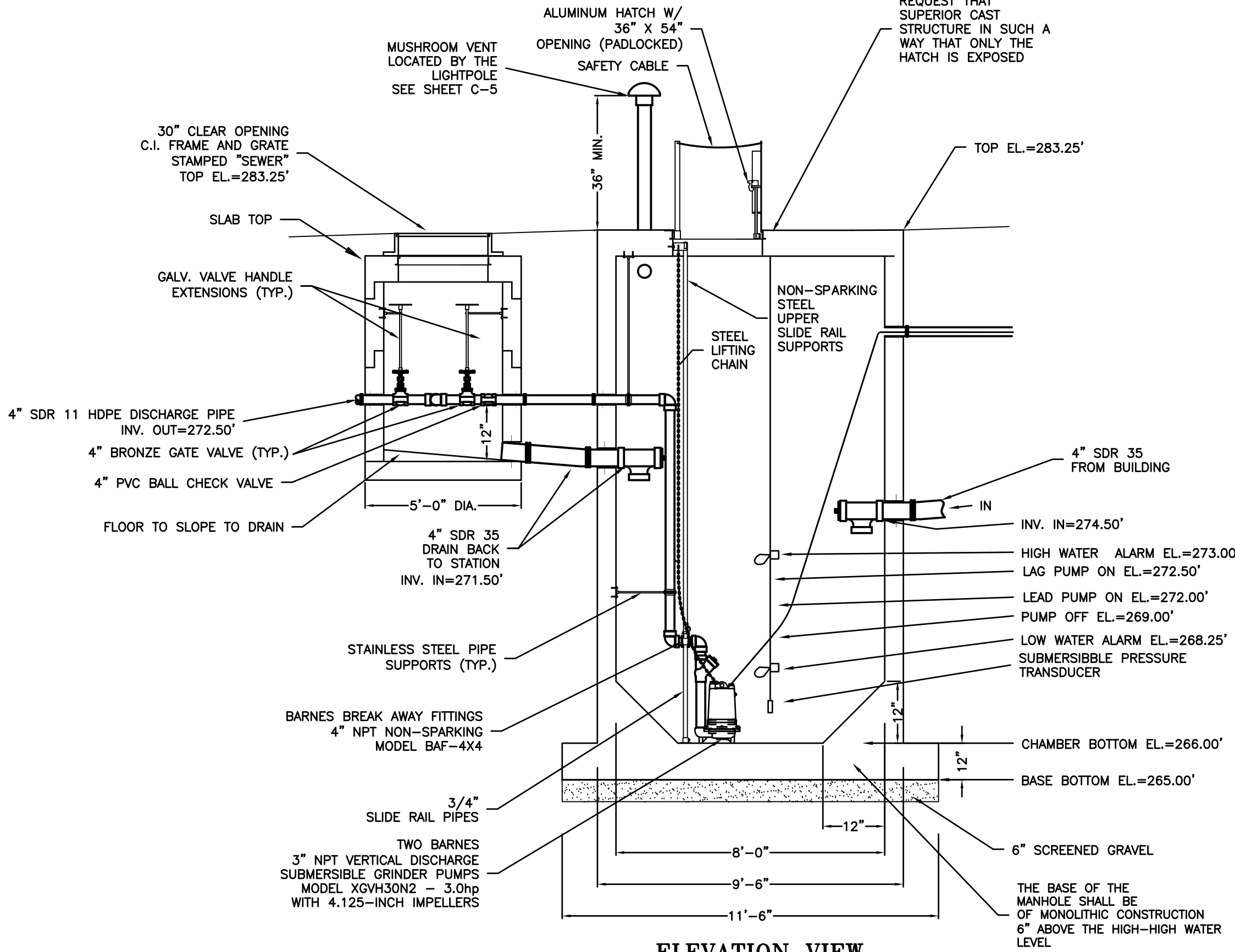
INFILTRATION: 300 GAL./INCH DIA/MILE/DAY
300 FEET OF 4" DIA. PVC SEWER COLLECTION

INFILTRATION OF GRAVITY LINES = 155 GPD

TOTAL DAILY DESIGN FLOW = 23,309 GPD



PLAN VIEW



ELEVATION VIEW

- PUMP STATION INSTALLATION NOTES:
- THE PUMP STATION IS BEING INSTALLED IN AN AREA WITH POTENTIAL SEASONAL HIGH WATER TABLE EFFECTS. THE CONCRETE CHAMBER SHALL HAVE AN INTEGRAL FOOTING RING THAT ADDS SOIL LOAD TO THE STRUCTURE TO FIGHT THE EFFECTS OF BUOYANCY.
 - DURING INITIAL CONSTRUCTION, DOWATERING WILL BE NECESSARY IN THE HOLE FOR THE PUMP STATION. ONCE BACKFILLED, THERE SHOULD BE NO THREAT OF FLOATATION.
 - THE PUMP STATION WET WELL SHALL BE CONSIDERED CLASS I, GROUP D, DIVISION 2 AND THE DRY WELL SHALL BE CONSIDERED CLASS I, GROUP D, UNCLASSIFIED PURSUANT TO THE 2012 NFPA TABLE 4.2 UNLESS OTHERWISE CLASSIFIED BY AUTHORITY HAVING JURISDICTION (AHJ).
 - ALL ELECTRICAL COMPONENTS SHALL MEET ALL REQUIREMENTS OF THE NATIONAL ELECTRICAL CODES.
 - SUBMERSIBLE PUMPS FOR SEWAGE PUMPING STATIONS SHALL CONFORM TO THE NEC REQUIREMENTS ADOPTED BY REFERENCE IN THE STATE BUILDING CODE PURSUANT TO RSA 155-A:1, IV, FOR INSTALLATION IN AREAS CLASSIFIED BY THE NEC AS CLASS I, DIVISION 1.
 - ELECTRICAL SYSTEMS AND COMPONENTS INCLUDING MOTORS, LIGHTS, CABLE, CONDUITS, SWITCH BOXES, AND CONTROL CIRCUITS SHALL BE PROTECTED FROM FLOODING IN ACCORDANCE WITH ENV-WQ 705.01.
 - ELECTRICAL SYSTEMS AND COMPONENTS INCLUDING MOTORS, LIGHTS, CABLE, CONDUITS, SWITCH BOXES, AND CONTROL CIRCUITS IN ENCLOSED OR PARTIALLY ENCLOSED SPACES WHERE FLAMMABLE MIXTURES OCCASIONALLY MAY BE PRESENT, INCLUDING RAW SEWAGE WET WELLS, SHALL BE CERTIFIED BY THEIR MANUFACTURER AS:
 - COMPLYING WITH THE NEC REQUIREMENTS ADOPTED BY REFERENCE IN THE STATE BUILDING CODE PURSUANT TO RSA 155-A:1, IV, FOR CLASS I, DIVISION LOCATIONS; OR
 - BEING RATED FOR CLASS I DIVISION 2 REQUIREMENTS WHERE MECHANICAL VENTILATION IS PROVIDED IN ACCORDANCE WITH THE NFPA AS ADOPTED BY REFERENCE IN THE STATE FIRE CODE IN SAF-C 6000.
 - ALL ELECTRICAL EQUIPMENT AND WORK SHALL COMPLY WITH THE REQUIREMENTS OF NEC AS ADOPTED BY REFERENCE IN THE STATE BUILDING CODE PURSUANT TO RSA 155-A:1, IV, AND NFPA AS ADOPTED BY REFERENCE IN THE STATE FIRE CODE IN SAF-C 6000 IN EFFECT AT THE TIME OF INSTALLATION.

PUMP STATION DETAIL

NOT TO SCALE

- NOTES:
- HORIZONTAL JOINTS BETWEEN SECTIONS OF PRECAST CONCRETE BARRELS SHALL BE OF AN OVERLAPPING TYPE, SEALED FOR WATER-TIGHTNESS USING A DOUBLE ROW OF AN ELASTOMERIC OR MASTIC-LIKE SEALANT.
 - PIPE TO MANHOLE JOINTS SHALL BE AS FOLLOWS:
 - ELASTOMERIC, RUBBER SLEEVE WITH WATERTIGHT JOINTS AT THE MANHOLE OPENING AND PIPE SURFACES;
 - CAST INTO THE WALL OR SECURED WITH STAINLESS STEEL CLAMPS;
 - ELASTOMERIC SEALING RING CAST IN THE MANHOLE OPENING WITH SEAL FORMED ON THE SURFACE OF THE PIPE BY COMPRESSION OF THE RING; AND
 - NON-SHRINK GROUTED JOINTS WHERE WATERTIGHT BONDING TO THE MANHOLE AND PIPE CAN BE OBTAINED.
 - ALL PRECAST SECTIONS AND BASES SHALL BE COATED ON THE EXTERIOR WITH A BITUMINOUS DAMP-PROOFING COATING.
 - 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.
 - CONCRETE FOR MANHOLES AND CONCRETE GRADE RINGS SHALL CONFORM TO THE REQUIREMENTS FOR CLASS AA CONCRETE IN THE NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION'S STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.
 - REINFORCING FOR CONCRETE MANHOLES AND CONCRETE GRADE RINGS SHALL BE STEEL OR STRUCTURAL FIBERS THAT CONFORM TO THE NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION'S STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.
 - 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.
 - WET WELLS SHALL BE TESTED PRIOR TO OPERATION USING EXFILTRATION TESTING METHOD ACI 350.1 METHOD HST-NM1 IN EFFECT AT THE TIME THE WET WELL IS INSTALLED, AVAILABLE AS NOTED IN APPENDIX D. ANY VISIBLE SIGNS OF LEAKAGE SHALL BE REPAIRED AND RETESTED PRIOR TO PLACING THE WET WELL IN SERVICE.
 - THE WET WELL FLOOR SHALL HAVE A MINIMUM SLOPE OF 1 TO 1 TO THE HOPPER BOTTOM.
 - ALARM SIGNAL SHALL BE ACHIEVED IN ANY ONE OF THE FOLLOWING:
 - HIGH WATER IN WET WELL
 - LOW WATER IN WET WELL
 - LOSS OF ONE OR MORE PHASES OF POWER SUPPLY OR SEVERE VOLTAGE DROP
 - LOSS OF THE ALARM TRANSMISSION CAPABILITY
 - STANDBY GENERATOR APPLICATION
 - PUMP MALFUNCTION
 - LEVEL SENSING MALFUNCTION OR FAILURE
 - TEMPERATURE OUTSIDE NORMAL OPERATING RANGES.
 - HIGH WATER AND LOW WATER ALARM TRIGGERS SHALL BE SEPARATE DEVICES, INDEPENDENT OF PUMP WET WELL LEVEL CONTROL SYSTEM.
 - FOR THE POWER SOURCE FOR THE ALARM SYSTEM SHALL BE THE MAIN LINE POWER WITH A BACK UP BATTERY SYSTEM, WHICH SHALL BE CONNECTED AUTOMATICALLY SHOULD MAIN POWER FAILURE.
 - BACK-UP POWER SUPPLY FROM ON-SITE GENERATOR.
 - INSTALL A FLOW METER THAT RECORDS CONTINUOUS FLOW AND HAS THE CAPABILITY TO TOTALIZED.
 - INSTALL A WARNING SIGN ON THE ACCESS DOOR STATING THE BELOW:
 - PUMP CONTROL ELEVATIONS WILL NEED TO BE ADJUSTED DEPENDING ON THE NUMBER OF BUILDINGS AND FLOW RATES, SUCH THAT A MINIMUM RUN TIME OF 10 MINUTES AT A RATE NO GREATER THAN 60 GPM IS MAINTAINED.

WARNING
THIS IS A CONFINED SPACE,
ENTER ONLY WITH
PROPER EQUIPMENT.
FOLLOWING OSHA CONFINED
SPACE ACCESS REGULATIONS.

- BACK UP GENERATOR NOTES:
- AN INDEPENDENT ENGINE-GENERATOR TYPE SOURCE OF ELECTRIC POWER SHALL BE PROVIDED FOR ELECTRICALLY-DRIVEN PUMPS. THIS SOURCE SHALL BE AUTOMATICALLY ACTIVATED BY FAILURE OF ANY PHASE OF POWER SUPPLY OR UPON ANY FLUCTUATION IN VOLTAGE, THE AMOUNT OR DURATION OF WHICH WOULD CAUSE DAMAGE TO THE MOTORS. INSTALLATIONS SHALL COMPLY WITH ALL APPLICABLE REQUIREMENTS OF THE NEC AND THE STATE FIRE CODE IN SAF-C 6000.
 - THE EMERGENCY POWER GENERATOR SHALL BE PERMANENTLY SECURED IN PLACE, WITH PROVISIONS FOR REMOVAL TO FACILITATE GENERATOR REPAIR OR REPLACEMENT.
 - PROVISIONS SHALL BE MADE FOR AUTOMATIC AND MANUAL START-UP AND CUT-IN. THE CONTROLS SHALL BE SUCH THAT UPON AUTOMATIC START-UP UNDER EMERGENCY CONDITIONS, SHUT-DOWN SHALL BE ACCOMPLISHED AUTOMATICALLY ON RESTORATION OF UTILITY POWER WITH CONTROLLED SHUT-DOWN OF UNIT. MANUAL SHUT DOWN SHALL ALSO BE PROVIDED. PROVISION SHALL BE MADE TO ALLOW PUMPS TO RUN DOWN BEFORE RE-ENERGIZING ON TRANSFER OF POWER.
 - THE EMERGENCY POWER GENERATOR SHALL BE SIZED TO SEQUENTIALLY START AND OPERATE ALL PUMPS NEEDED TO HANDLE DESIGN MAXIMUM WASTE FLOWS, PLUS LIGHTING, VENTILATION, CONTROLS, SCREENING, AND, IF APPLICABLE, GRINDING.
 - THE EMERGENCY POWER GENERATOR SHALL BE LOCATED ABOVE GRADE WITH VENTILATION OF EXHAUST GASES.
 - ALL EMERGENCY POWER GENERATION EQUIPMENT SHALL BE PROVIDED WITH INSTRUCTIONS FOR ROUTINE EXERCISING, LOAD TESTING, AND MAINTENANCE.
 - THE GENERATOR ENGINE CONTROLS SHALL BE EQUIPPED WITH AN AUTOMATIC EXERCISER WHICH CAN BE SET ON ANY SELECTED SCHEDULE TO START THE GENERATOR, RUN THE GENERATOR UNDER NO-LOAD OR LOAD CONDITIONS BY SELECTION, AND SHUT THE GENERATOR OFF WITHOUT ACTUATING THE ALARM SYSTEM.
 - SUBJECT TO (I), BELOW, THE OWNER SHALL PROVIDE EACH EMERGENCY GENERATOR WITH ENOUGH FUEL FOR THE GENERATOR TO RUN UNDER FULL LOAD OR PEAK STATION FLOW FOR AT LEAST 48 HOURS OR UNDER NORMAL OPERATING CONDITIONS FOR AT LEAST 96 HOURS, WHICHEVER REQUIRES THE GREATER AMOUNT OF FUEL.
 - FOR SEWAGE PUMPING STATIONS WITH DUPLEX PUMPS, A STANDBY ENGINE DRIVE SYSTEM WHICH AUTOMATICALLY STARTS ON POWER LOSS TO DRIVE ONE PUMP MAY BE FURNISHED AS AN ALTERNATIVE TO A PERMANENT GENERATOR.

PUMP STATION AND
FORCE MAIN DETAILS
TAX MAP 255, LOT 21
INNOVATION DRIVE
ROCHESTER, NH

PREPARED FOR:
PREP PARTNERS GROUP, LLC.

MAY 2020

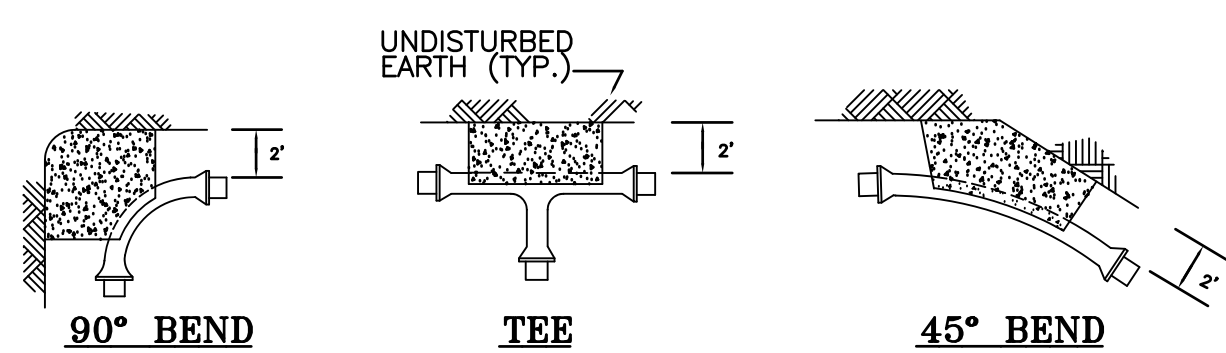
C-23

FILE NO. 104
PLAN NO. C-
DWG. NO. 19289/SP-1
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



MINIMUM THRUST BLOCK BEARING AREA REQ'D AGAINST UNDISTURBED MATERIAL (SQ. FT.)					
PIPE SIZE	90 BEND	TEE	PLUG	45 BEND	22 $\frac{1}{2}$ "/2" & SMALLER
3"	5	4	3	2	2

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

DIMENSIONS & CONSTRUCTION
DROP MANHOLE TO BE
SIMILAR TO TYPICAL MANHOLE
EXCEPT AS SHOWN.

PVC BELL
(REMOVE TO
CLEAN HORIZ. LINE)

CALDER STYLE
COUPLING

SS ANCHOR
REMOVABLE
BAND

90°PVC BEND
INTO SCALLOP
CUT BELL SECTION

CUT "U" SCALLOP
TO ACCEPT INCOMING
LINE

U-CUT 3/4
PIPE DEPTH

4" FORCE
MAIN

ELASTOMETRIC BOOT

DROP TO BE SAME
SIZE AS SEWER

90° ELBOW WITH
BELL REMOVED

SHELF

INVERT

MORTAR

SIZE GUIDE:

1	8" OR 10" DROP:	4'-0" DIA. M.
2	8" OR 10" DROP:	5'-0" DIA. M.
1	12" DROP:	5'-0" DIA. M.H.
1	15" DROP:	5'-0" DIA. M.H.

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 MATERIAL SHALL BE AS SPECIFIED ON THE DESIGN PLAN.
 3. HDPE PRESSURE MAIN PIPE SECTIONS SHALL BE JOINED BY THERMAL HEAT FUSION. CONNECTIONS OR TRANSITIONS TO NON-HDPE COMPONENTS SHALL BE MADE WITH FITTINGS APPROVED FOR HDPE CONNECTIONS. THE WELDING TECHNICIAN SHALL BE EXPERIENCED IN HDPE HEAT FUSION WELDING WITH MINIMUM OF 500 HOURS OF WELDING EXPERIENCE.
 4. SAND BLANKET MAY BE OMITTED FOR REINFORCED CONCRETE PIPE.
 5. 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 12 FEET BELOW FINISHED SURFACE.
 6. TRENCH SAND/FILL 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.
 7. THE SAND 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.

Technical drawing of a manhole assembly showing internal components and dimensions. The drawing is a cross-section view of a manhole structure. At the top, a horizontal line represents the ground level, with a label 'ADJUST TO GRADE WITH BRICK, OR PRECAST CONCRETE RINGS—MAXIMUM 12" ADJUSTMENT' and a vertical dimension line indicating a range from '2'-0" MIN.' to '4'-0" MAX.'. The manhole frame is shown as a thick horizontal line at the top, with a label 'FRAME TO BE SET IN BED OF MORTAR'. The interior of the manhole is lined with 'ECCENTRIC' rings. A '5" REINFORCED' concrete wall is shown on the right side. The bottom of the manhole is supported by a 'CONCRETE SUPPORT' which is a '4" x 4" TEE'. A '4" PLUG VALVE DRAIN' is located on the right side of the bottom. A '4" 90° BEND' is connected to the bottom of the manhole. A '4" BLIND FLANGE TAPPED TO 2 1/2"' is also shown. A '2 1/2" FIRE HOSE THREAD ADAPTOR' and a '2 1/2" BRONZE BALL VALVE' are connected to the top of the manhole. A horizontal dimension of '60"' is shown across the bottom of the manhole. A vertical dimension of '6" MIN.' is shown for the concrete support. A label 'CLEAR OPENING INCLUDING FRAME AND COVER TO BE 30" PARMEX DUCTILE IRON' points to the top opening of the manhole.

Labels and dimensions include:

- ADJUST TO GRADE WITH BRICK, OR PRECAST CONCRETE RINGS—MAXIMUM 12" ADJUSTMENT
- 2'-0" MIN. 4'-0" MAX.
- FRAME TO BE SET IN BED OF MORTAR
- MORTAR
- ECCENTRIC
- 5" REINFORCED
- 60"
- 4" PLUG VALVE DRAIN
- 6" MIN.
- CONCRETE SUPPORT
- 4" x 4" TEE
- 4" 90° BEND
- 4" BLIND FLANGE TAPPED TO 2 1/2"
- 2 1/2" BRONZE BALL VALVE
- 2 1/2" FIRE HOSE THREAD ADAPTOR
- CLEAR OPENING INCLUDING FRAME AND COVER TO BE 30" PARMEX DUCTILE IRON

PLAN VIEW

MORTAR USED IN MANHOLE CONSTRUCTION SHALL COMPLY WITH THE FOLLOWING:
MORTAR SHALL BE COMPOSED OF TYPE II PORTLAND CEMENT AND SAND WITH OR WITHOUT HYDRATED LIME
ADDITION.
PROPORTIONS IN MORTAR OF PARTS BY VOLUMES SHALL BE AS SHOWN BELOW;

HYDRATED LIME	SAND	TYPE II PORTLAND CEMENT
NONE	4.5 PARTS	1.5 PARTS
0.5 PARTS	4.5 PARTS	1 PART

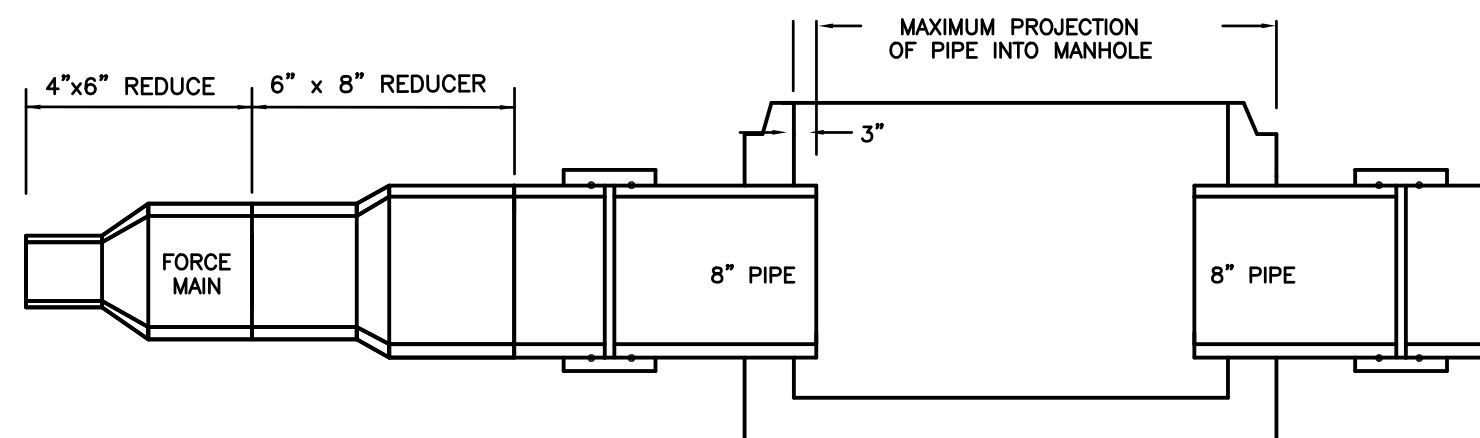
CEMENT SHALL BE TYPE II PORTLAND CEMENT THAT IS CERTIFIED BY ITS MANUFACTURER AS CONFORMING TO THE ASTM C150/C150M STANDARD IN EFFECT AT THE TIME THE CEMENT WAS MANUFACTURED.

HYDRATED LIME SHALL BE TYPE S THAT IS CERTIFIED BY ITS MANUFACTURER AS CONFORMING TO THE ASTM C207 STANDARD IN EFFECT AT THE TIME THE HYDRATED LIME WAS PROCESSED.

SAND SHALL CONSIST OF INERT NATURAL SAND THAT IS CERTIFIED BY ITS SUPPLIER AS CONFORMING TO THE ASTM C33 STANDARD IN EFFECT AT THE TIME THE SAND IS PROCESSED BY 'STANDARD SPECIFICATIONS FOR CONCRETE, FINE AGGREGATES'

FILE NO. 104
PLAN NO. C-
DWG. NO. 19289/SP-1
F.B. NO.

NOT TO SCALE

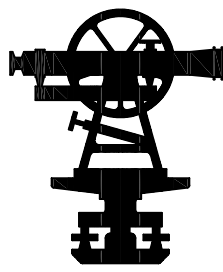


- NOTES:**
1. THE FLUSHING MANHOLE CONSTRUCTION SHALL MEET ALL DESIGN REQUIREMENTS OF A SANITARY MANHOLES. SEE NOTES THIS SHEET.
 2. HORIZONTAL JOINTS BETWEEN SECTIONS OF PRECAST CONCRETE BARREL SHALL BE OF AN OVERLAPPING TYPE, SEALED FOR WATER-TIGHTNESS USING A DOUBLE ROW OF ELASTOMERIC OR MASTIC-LIKE 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.
 4. ALL PUMP-PROOF JOINTS AND BASES SHALL BE PLACED ON THE EXTERIOR WITH A BITUMINOUS DRAINING.
 5. PRECAST BASES SHALL BE PLACED ON A 6-INCH LAYER OF COMPACT 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.
 6. 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.
 7. 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.
 8. 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.
 9. FOR THE POWER SOURCE FOR THE ALARM SYSTEM SHALL BE THE MAIN LINE POWER WITH A BACK UP BATTERY SYSTEM, WHICH SHALL BE CONNECTED AUTOMATICALLY SHOULD MAIN POWER FAILURE.
 10. A CONNECTION FOR A PORTABLE GENERATOR HOOR-UP SHALL BE PROVIDED FOR EACH HOUSE LOT.

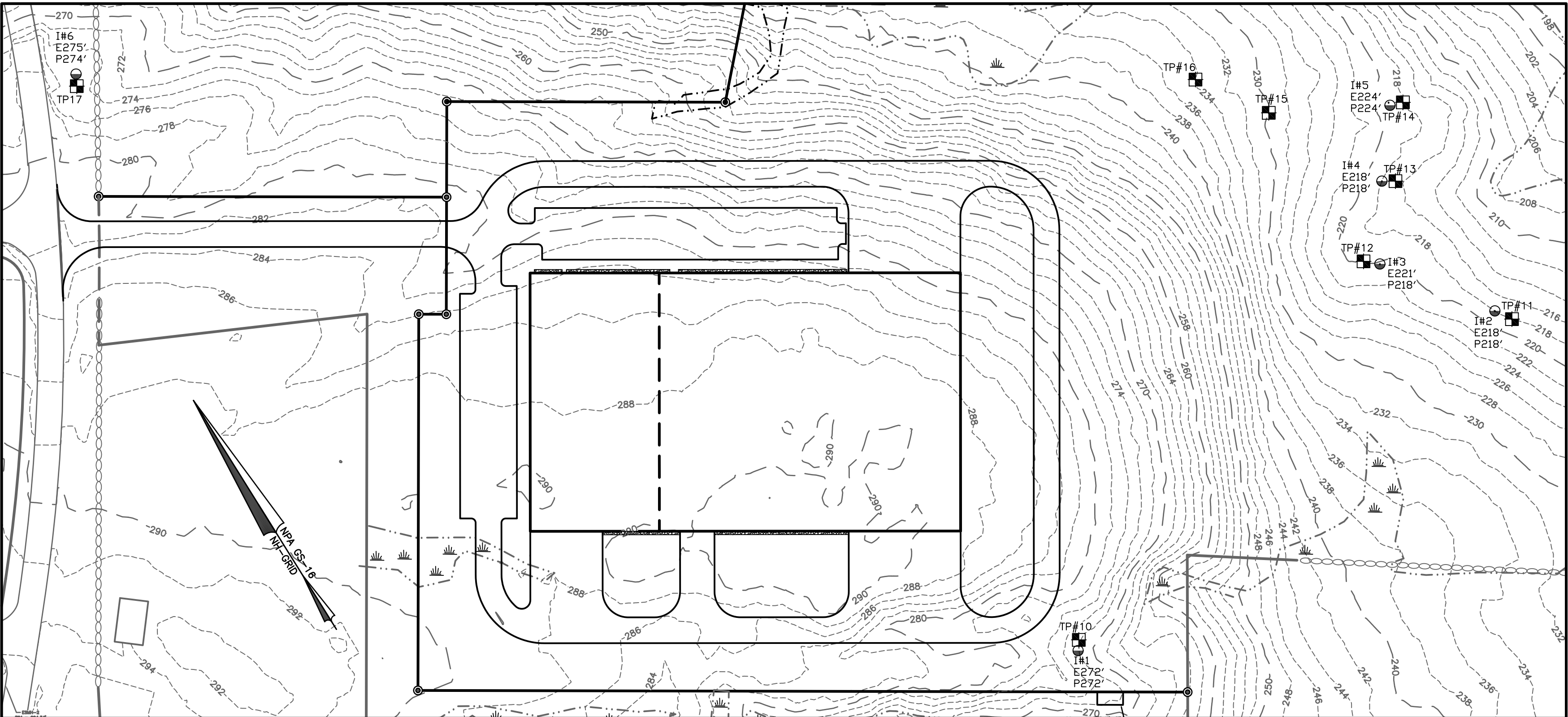
PREPARED FOR:
PREP PARTNERS GROUP, LLC.

MAY 2020

C-24



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SCALE 1" = 100'

INFILTRATION TEST

INFILTRATION BASIN	INFILTRATION TEST #	DEPTH	SOIL TYPE	MEASURED INFILTRATION RATE (IN/HR)				
				ROUND 1	ROUND 2	ROUND 3	ROUND 4	AVERAGE
2	IT-1 24		SAND	8.44	9.0	9.19	9.19	8.95
1	IT-2 30		SAND	6.75	6.9	7.06	7.38	7.02
1	IT-3 24		SAND	20.50	19.44	18.00	16.56	18.56
1	IT-4 30		LOAMY SAND	15.81	13.48	13.00	11.81	13.56
1	IT-5 30		LOAMY SAND	6.31	6.81	7.63	7.50	7.06
3	IT-6 20		SAND	0.125	0.0	0.0	0.0	0.03

TEST PIT

TEST PIT #10 ELEVATION = 272.0'
0-14" 10YR 3/3 FINE SANDY LOAM
14-26" 10YR 5/6 FINE SANDY LOAM, COMMON ROOTS
26-30" 10YR 5/4 SANDY LOAM, GRANULAR, FRIABLE
ESHWT@ 30" ELEVATION = 269.5'

TEST PIT # 11 ELEVATION = 218.0'
0-10" 10YR 3/3 FINE SANDY LOAM
10-28" 10YR 5/6 FINE SANDY LOAM, COMMON ROOTS, GRANULAR, FRIABLE
28-60" 2.5 Y 5/3 LOAMY SAND FIRM IN PLACE WITH REDOX CONCENTRATIONS
ESHWT@ 28" ELEVATION = 215.7'

TEST PIT #12 ELEVATION = 219.5'
0-10" 10YR 3/3 FINE SANDY LOAM,
10-28" 10YR 5/6 FINE SANDY LOAM, GRANULAR, FRIABLE
28-38" 10YR 5/3 FINE LOAMY SAND WITH REDOX CONCENTRATIONS
38-48" 10YR 5/3 COARSE SAND VERY FIRM IN PLACE
48-60" 10YR 5/2 FIRM LOAMY SAND WITH ROCKS AT BOTTOM OF HOLE
ESHWT@ 38" ELEVATION = 216.3'

TEST PIT # 13 ELEVATION = 216.0'
0-12" 10YR 3/3 FINE SANDY LOAM
12-26" 10YR 5/6 SANDY LOAM, GRANULAR, FRIABLE
26-34" 10YR 5/4 COARSE SAND FIRM IN PLACE
34-50" 2.5Y 5/4 LOAMY SAND VERY FINE
ESHWT @ 34" ELEVATION = 213.2'

TEST PIT # 14 ELEVATION = 217.0'
0-8" 10YR 3/3 SANDY LOAM
8-28" 10YR 5/6 SANDY LOAM, GRANULAR, FRIABLE
28-48" 2.5Y 5/3 LOAMY SAND, FIRM WITH REDOX
ESHWT @ 28" ELEVATION = 214.7'

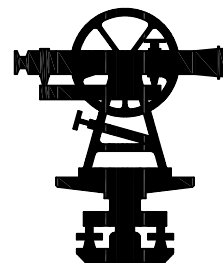
TEST PIT #15 ELEVATION = 229.5'
0-6" 10YR 3/3 SANDY LOAM
6-26" 10YR 5/6 SANDY LOAM, GRANULAR, FRIABLE
26-48" 2.5Y 5/3 LOAMY SAND, FIRM WITH REDOX
ESHWT @ 26" ELEVATION = 227.3'

TEST PIT # 16 ELEVATION = 234.5'
0-7" 10YR 3/3 SANDY LOAM
7-26" 10YR 5/6 SANDY LOAM, GRANULAR, FRIABLE
26-32" 2.5Y 4/4 LOAMY SAND, FIRM WITH FINE ROOTS
32-72" 2.5Y4/2 LOAMY SAND, MASSIVE, FIRM
OBSERVED WATER @ 5'
ESHWT @ 26" (PAN LAYER) ELEVATION = 232.3'

TEST PIT # 17 ELEVATION = 274.5'
0-8" 10YR 3/3 SANDY LOAM
8-29" 10YR 5/6 SANDY LOAM, GRANULAR, FRIABLE
29-52" 2.5Y 5/3 LOAMY SAND, FIRM WITH REDOX
ESHWT @ 29" ELEVATION = 272.1'

TEST PIT LOGS AND
INFILTRATION TEST RESULTS
TAX MAP 255, LOT 21
INNOVATION DRIVE
ROCHESTER, NH
PREPARED FOR:
PRE PARNETERS GROUP LLC.
MAY 2020

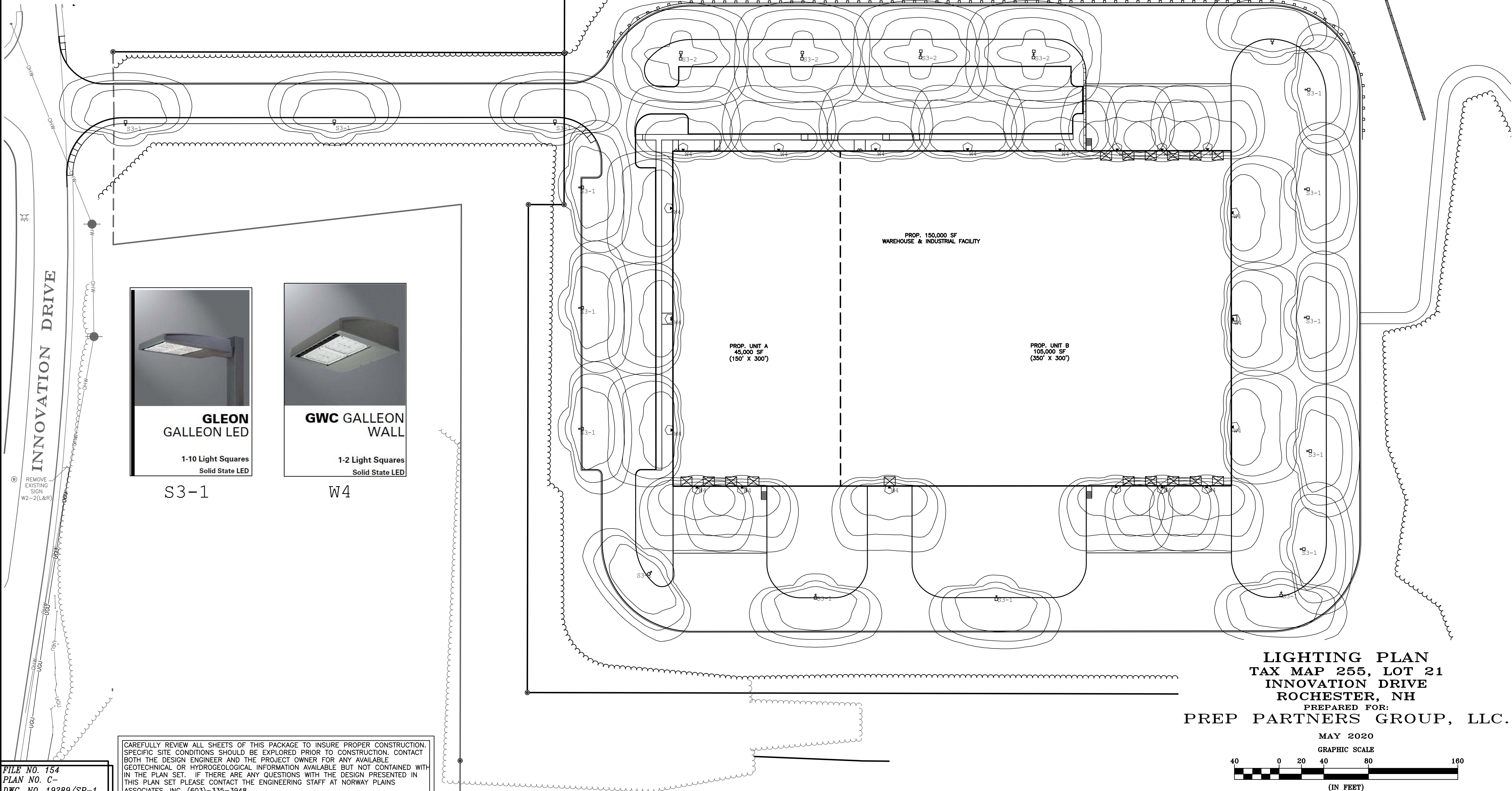
FILE NO. 104
PLAN NO. C-
DWC. NO. 19289/SP-1
F.B. NO.



LEGEND

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

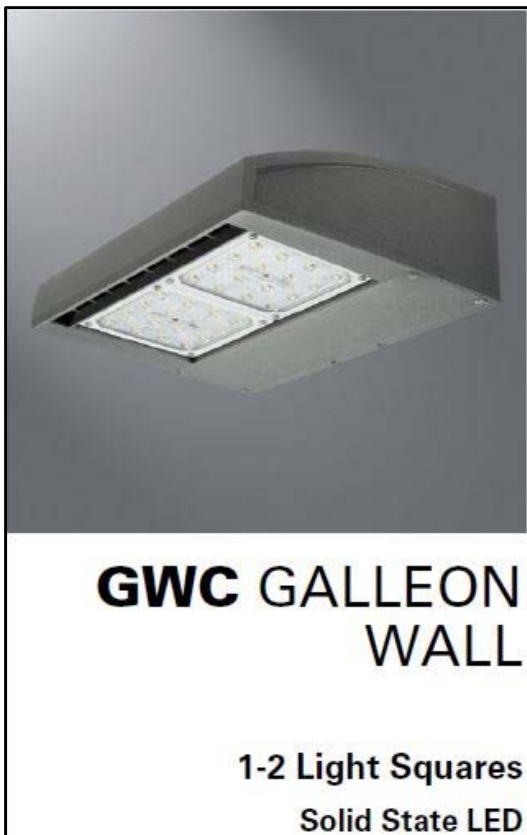
Luminaire Schedule				
Symbol	Label	Qty	Arrangement	Description
	S3-1	14	SINGLE	GLEON-AF-01-LED-E1-T3/ SSS4A20SPN1 (20' AFG)
	S3-2	4	BACK-BACK	GLEON-AF-01-LED-E1-T3/ SSS4A20SPN2 (20' AFG)
	W4	20	SINGLE	GWC-AF-01-LED-E1-SL4/ WALL MTD 20'



**GLEON
GALLEON LED**

1-10 Light Squares
Solid State LED

S3-1



**GWC GALLEON
WALL**

1-2 Light Squares
Solid State LED

W4

FILE NO. 154
PLAN NO. C-
DWC. NO. 19289/SP-1
F.B. NO.

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

NORWAY PLAINS ASSOCIATES. INC.

LIGHTING PLAN
TAX MAP 255, LOT 21
INNOVATION DRIVE
ROCHESTER, NH
PREPARED FOR:
PREP PARTNERS GROUP, LLC.

MAY 2020

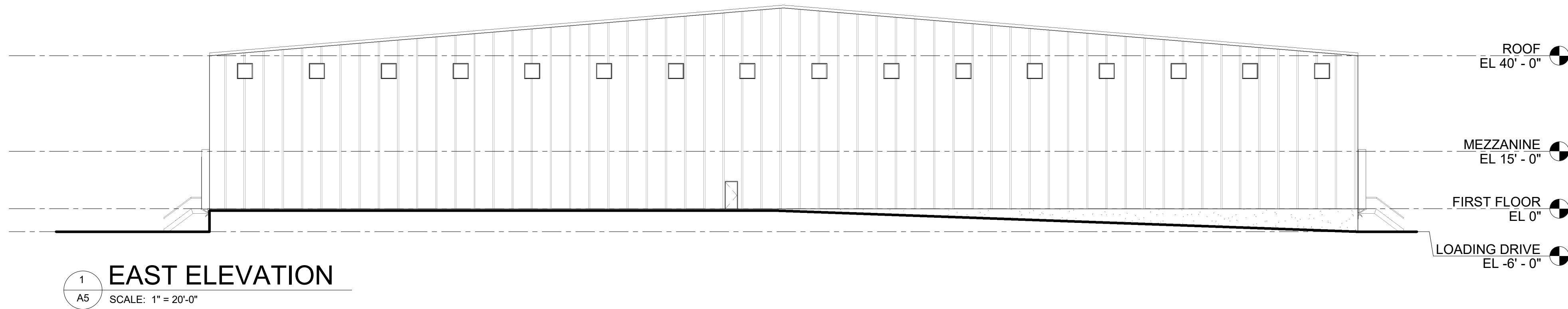
GRAPHIC SCALE



(IN FEET)
1 INCH = 40 FT.

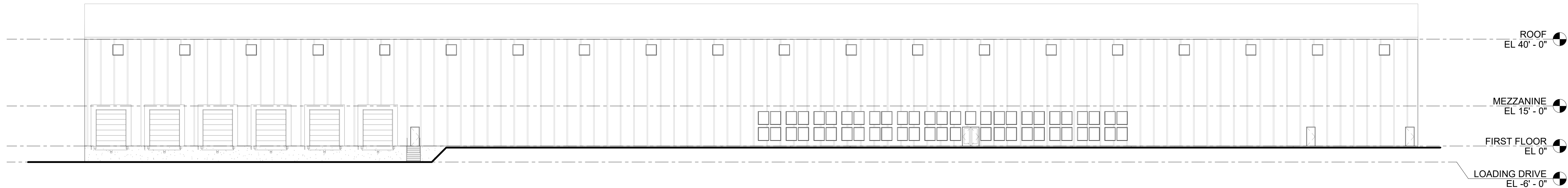
2 Continental Blvd., Rochester, N.H. 603-335-3948

6/8/2020 12:56:39 PM M:\Client Docs\Active\Rourke Builders-75 Innovation Way Rochester Arch Design\Plans & Specs\TEAM ENG PLANS - CONCEPT PHASE 75 Innovation Way Arch Set.rvt

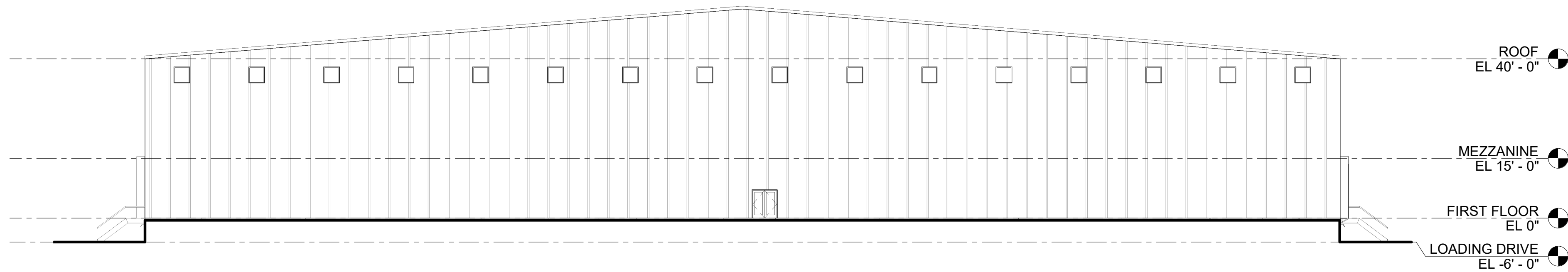


1 EAST ELEVATION
A5 SCALE: 1" = 20'-0"

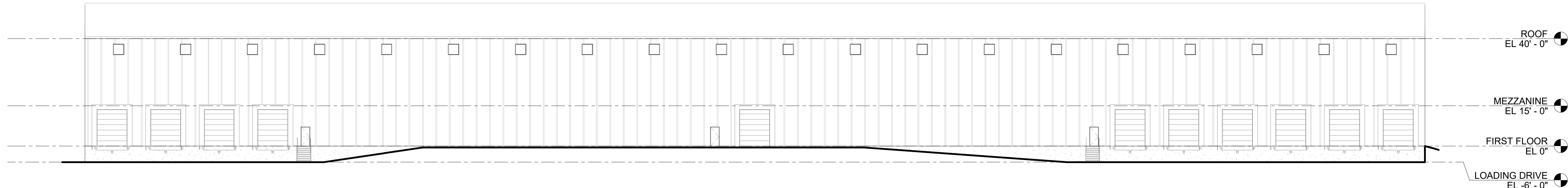
NOTE: TRANSOM
WINDOWS AT ROOF
LINE ARE TO BE
DETERMINED AND
MAY BE REMOVED.



2 NORTH ELEVATION
A5 SCALE: 1" = 20'-0"



3 WEST ELEVATION
A5 SCALE: 1" = 20'-0"



4 SOUTH ELEVATION
A5 SCALE: 1" = 20'-0"



TEAM ENGINEERING
82 Palomino Lane
Suite 503
Bedford, NH 03110-6448
Phone: (603) 497-3137
www.MyTeamEngineering.com

REVISION:	DATE:
Planning Board	06/08/2020

- ☐ DRAFT
- ☐ APPROVAL
- ☐ BID
- ☒ PERMIT
- ☐ CONSTRUCTION

STAMP:

NOT FOR
CONSTRUCTION

CLIENT:
Rourke Builders, LLC
20 Wickers Drive
Wolfeboro, NH 03894

75 INNOVATION WAY

PROPERTY: 75 Innovation Way
Rochester, NH

SHEET
TITLE: ELEVATIONS

A5

SHEET: 5 of 5
DWG: KA CHK: DM