

1. Planning Board Regular Zoom Meeting Agenda

Documents:

[20201008 NCPB AGENDA.PDF](#)

2. Planning Board Staff Reports And Plans

Documents:

[20201008 207 MANCHESTER STREET CUP STAFF REPORT.PDF](#)
[20201008 207 MANCHESTER STREET CUP PLAN.PDF](#)
[20201008 117 WEST GLENWOOD STREET LOT LINE RELOCATION STAFF REPORT.PDF](#)
[20201008 117 WEST GLENWOOD STREET LOT LINE RELOCATION PLAN.PDF](#)
[20201008 1 MORNINGSIDE DRIVE SUBDIVISION STAFF REPORT.PDF](#)
[20201008 1 MORNINGSIDE DRIVE SUBDIVISION PLAN.PDF](#)
[20201008 599 WEST HOLLIS STREET SUBDIVISION PLAN STAFF REPORT.PDF](#)
[20201008 599 WEST HOLLIS STREET SUBDIVISION PLAN.PDF](#)
[20201008 453 SOUTH MAIN STREET SUBDIVISION PLAN.PDF](#)
[20201008 453 SOUTH MAIN STREET SUBDIVISION STAFF REPORT.PDF](#)
[20201008 207 MANCHESTER STREET SITE PLAN STAFF REPORT.PDF](#)
[20201008 207 MANCHESTER STREET SITE PLAN.PDF](#)
[20201008 117 WEST HOBART STREET SITE PLAN STAFF REPORT.PDF](#)
[20201008 117 WEST HOBART STREET SITE PLAN.PDF](#)
[20201008 190 BROAD STREET SITE PLAN STAFF REPORT.PDF](#)
[20201008 190 BROAD STREET SITE PLAN.PDF](#)
[20201008 278 DANIEL WEBSTER HIGHWAY SITE PLAN STAFF REPORT.PDF](#)
[20201008 278 DANIEL WEBSTER HWY SITE PLAN.PDF](#)



City of Nashua
Planning Department
229 Main Street
Nashua, New Hampshire 03061-2019

Planning & Zoning 589-3090
Fax 589-3119
WEB www.nashuanh.gov

September 25, 2020

AGENDA

To: NCPB Members

From: Planning Staff

Re: Regular Meeting and Public Hearing, October 8, 2020

Notice is hereby given that a Public hearing of the City of Nashua Planning Board will meet on Thursday, October 8, 2020 at 7:00 PM via a Zoom Meeting. Real-time public comment can be addressed to the Board utilizing Zoom virtual meeting software for remote access. This application will allow users to view the meeting and ask questions to the Board via the chat function. The public is also encouraged to submit their comments via email planningdepartment@nashuanh.gov to the Department email or by mail (please make sure to include your name/address and comments) by 5pm on October 8, 2020 and read into the record at the appropriate time. Letters should be addressed to City of Nashua, Planning Department, P.O. Box 2019, Nashua, NH 03061. Plans can be viewed on online starting October 2, 2020 at www.nashuanh.gov in the Calendar or Agendas and Minutes.

To access Zoom: <https://us02web.zoom.us/j/84790844687?pwd=Ynd2d3htcjZMeEtnZFZpREthc1h2OT09>

Meeting number/access code: **847 9084 4687**– Password: **359526**

To join by phone: **1 (929) 436-2866** - Meeting number/access code: **847 9084 4687**

If for some reason you can't connect to Zoom, please contact us at **(603) 589-3115**.

- A. Call to Order
- B. Roll Call
- C. Approval of Minutes – September 24, 2020
- D. Communications
- E. Report of Chairman, Committee, & Liaison
- F. Executive Session

OLD BUSINESS – CONDITIONAL / SPECIAL USE PERMITS

None

OLD BUSINESS - SUBDIVISION PLANS

None

OLD BUSINESS – SITE PLANS

None

NEW BUSINESS – CONDITIONAL / SPECIAL USE PERMITS

1. City of Nashua (Owner) – Application and acceptance of proposed Conditional Use Permit for changes to Pennichuck Middle School. Property is located at 207 Manchester Street. Sheet 54 - Lot 32. Zoned “R18” Suburban Residence. Ward 3.

NEW BUSINESS – SUBDIVISION PLANS

2. Roscommon Investments, LLC and MAG RE Holdings-Nashua, LLC (Owners). - Application and acceptance of proposed lot line adjustment. Property is located at 117 West Glenwood Street and “L” West Hobart Street. Sheet 132 - Lots 84 & 31. Zoned “RA” Urban Residence. Ward 7. **Postponed from the September 24, 2020 meeting**
3. MG Holdings (Owner) - Proposed three lot subdivision. Application and acceptance of property is located at 1 Morningside Drive. Sheet 118 - Lot 129. Zoned “RA” Urban Residence. Ward 7. **(Postponed from the September 24, 2020 meeting)**
4. Crimson Properties, LLC (Owner) – Application and acceptance of proposed four lot subdivision. Property is located at 599 West Hollis Street. Sheet E - Lot 66. Zoned “R9” Suburban Residence. Ward 5.
5. Stellos Family Investment Properties, LLC (Owner) – Application and acceptance of proposed five lot subdivision and dedication of land. Property is located at 453 South Main Street. Sheet 112 - Lot 11. Zoned “RA” Urban Residence. Ward 7.

NEW BUSINESS – SITE PLANS

6. City of Nashua (Owner) – Application and acceptance of proposed site plan amendment to Pennichuck Middle School to construct additions, complete various renovations and upgrade the existing school layout. Site layout changes include a realigned perimeter access road, a new curb-cut from Manchester Street for a one-way drive for bus/emergency traffic, a new bus loop and additional parking. Property is located at 207 Manchester Street. Sheet 54 - Lot 32. Zoned “R18” Suburban Residence. Ward 3.
7. Roscommon Investments, LLC (Owner) - Application and acceptance of proposed site plan to construct a new 22,560 sf auto body shop with parking, vehicle storage, and associated site improvements. Property is located at 117 West Hobart Street, “L” Glenwood Street, and “L” West Hobart Street. Sheet 132, Lots 84 & 38. Sheet 128, Lots 31, 32, & 84. Zoned “HB” Highway Business and “RA” Urban Residence. Ward 7. **(Postponed from the September 24, 2020 meeting)**
8. Granite State Credit Union (Owner) - Application and acceptance of proposed amendment to NR2186 to show a proposed 2-story, 10,000 sf credit union with drive-through facilities and associated site improvements. Property is located at 190 Broad Street. Sheet E - Lot 744. Zoned “GB” General Business. Ward 1. **(Postponed from the September 24, 2020 meeting)**
9. 278 Daniel Webster Highway, LLC (Owner) – Application and acceptance of proposed site plan amendment to show the redevelopment of an existing retail building and associated site improvements. The property is located at 278 Daniel Webster Highway. Sheet A - Lot 133. Zoned “HB” Highway Business & “TOD” Transit Oriented Development. Ward 7.
10. Liberty Utilities (Owner) - Application and acceptance of proposed amendment to install an impermeable cap over former Gas Holders #1 & #2 to meet requirements of the NH Department of Environmental Services, regrade, repave and expand the site's existing parking lot and improve the stormwater management system. Property is located at 25 Van Buren & 38 Bridge Streets. Sheets 4 & 39 - Lots 11 & 26. Zoned “TOD” Transit Oriented Development and GI-General Industrial. Ward 7. **(Postponed until October 22, 2020 meeting)**

OTHER BUSINESS

1. Review of tentative agenda to determine proposals of regional impact.
2. Adoption of the "2021" Meeting and Deadlines Dates" for the Nashua City Planning Board.

DISCUSSION ITEM

1. Merritt Parkway

NONPUBLIC SESSION

The Planning Board will need to make a motion to enter into a Nonpublic Session under RSA 91-A:3, II (e) for consideration or negotiation of pending claims or litigation which has been threatened in writing or filed against the public body.

NEXT MEETING

October 22, 2020

ADJOURN

WORKSHOP

ACCOMMODATIONS FOR THE SENSORY IMPAIRED

**"SUITABLE ACCOMMODATIONS FOR THE SENSORY IMPAIRED
WILL BE PROVIDED UPON ADEQUATE ADVANCE NOTICE."**

CONDUCT AT PLANNING BOARD MEETING

When the meeting is called to order, the only talking allowed in the Auditorium will be remarks addressed to the Chairman. Except for the original presentation of the subject or application, each person speaking for or against shall be limited to five (5) minutes until all have been given an opportunity to be heard, at which time each person may be allowed additional time if deemed necessary by the Board or the Chairman. When you are recognized by the Chairman, proceed to the podium, using the microphone, state your name and address and then make your comments. Courtesy is shown when you reserve your comments for the proper time.

PLEASE BE COURTEOUS

By Order of the Chair

NASHUA CITY PLANNING BOARD
STAFF REPORT

TO: Nashua City Planning Board
FROM: Linda McGhee, Deputy Planning Manager
FOR: October 8, 2020
RE: **New Business #1 - Conditional Use Permit**

Owner: City of Nashua
Proposal: Conditional Use Permit to construct additions and upgrade the existing school layout
Location: 207 Manchester Street
Total Site Area: 21.33 acres
Existing Zoning: R18-Suburban Residence
Surrounding Uses: Residential

II. Background Information:

Pennichuck Middle School was constructed in the 1980s . To the north and east are wooded areas, Manchester Street to the west and the Henry Burque Highway to the south. The school has approximately 112 staff members and 639 students enrolled. The school uses 11 buses to transport approximately 435 students and another 228 students walk to and from school.

III. Project Description:

The proposal is for a conditional use permit for modifications to the school includes a number of building additions, interior renovations and upgrades to the existing site layout. The change to the school is only permitted conditionally in the R18 Zone. There are nine approval criteria for a conditional use permit found in NRO § 190-133(F). The applicant addresses the criteria in the attached letter.

City Staff reviewed the plans; there are no outstanding issues.

IV. Staff Recommendations and Findings:

The Planning Board should make a determination that the plan meets, or does not meet, the requirements outlined in the Site Plan NRO Section 190-133(F). The Board should review these prior to making a motion. If the Planning Board chooses to disapprove the plan, they should state specific reasons. If the Planning Board chooses to approve this plan, the staff recommends the following stipulation be made part of that approval:

None

NASHUA CITY PLANNING BOARD
STAFF REPORT

TO: Nashua City Planning Board
FROM: Linda McGhee, Deputy Planning Manager
FOR: September 10, 2020
RE: **New Business #3 - Subdivision**

I. Project Statistics:

Owner : Roscommon Investments, LLC and MAG RE Holdings-Nashua, LLC
Proposal: Lot line relocation plan and consolidation
Location: 117 West Glenwood Street and "L" West Hobart Street
Total Site Area: 3.761 acres (163,828 sf)
Existing Zoning: RA-Urban Residence
Surrounding Uses: Residential and commercial

II. Background Information:

Lot 84 ("L" West Hobart Street) is a vacant lot that is mostly wooded. On August 4, 2016 the planning board approved a site plan for a 163 space parking lot on Lot 31 (117 West Glenwood Street); the approval letter and staff report are attached.

III. Project Description:

The purpose of this plan is to show a proposed lot line adjustment and consolidation for Sheet 132, Lot 84 and Sheet 132 Lot 31. A proposed access easement will be created to benefit Roscommon Investments, LLC. Parcel "A" as shown on the plan will be consolidated with Sheet 132, Lot 84. Parcels "B" & "C" as shown on the plan will be consolidated with Sheet 132, Lot 31. A site plan has also been submitted as part of the project.

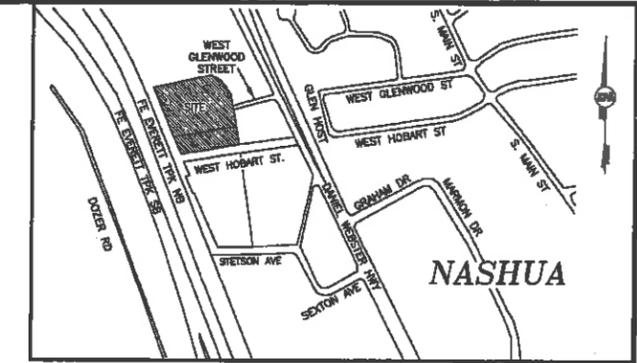
The applicant has requested a waiver from the requirement to show physical features on site and within 1,000 feet.

The plan was reviewed by City staff; comments are attached.

Staff Recommendations and Findings:

The Planning Board should make a determination that the plan meets, or does not meet the requirements outlined in the Subdivision NRO § 190-138(G). The Board should review these prior to making a motion. If the Planning Board chooses to disapprove the plan, specific reasons should be given. If the Planning Board chooses to approve this plan, staff recommends the following stipulation be made part of that approval:

1. The request for a waiver of § 190-282(B)(9), which requires an existing conditions plan, **is/is not** granted, finding that the waiver **will/will not** be contrary to the spirit and intent of the regulation.
2. Prior to the Chair signing the plan, all minor drafting corrections will be made.
3. Prior to the Chair signing the plan, all comments in an e-mail from Joe Mendola, Street Construction Engineer dated _____ shall be addressed to the satisfaction of the Engineering Department.
4. Prior to recording of the plan, all conditions from the Planning Board approval letter will be added to the final mylar and paper copies submitted to the City.
5. Prior to recording the plan, the electronic file of the plan shall be submitted to the City of Nashua.
6. Any easements will be submitted to Planning staff for review and recorded with the plan at the applicant's expense.
7. The site plan for 117 West Glenwood Street will need to be amended to show the change in lot size.



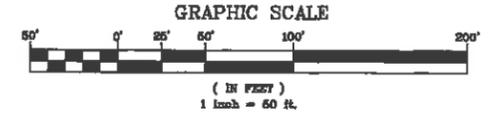
VICINITY PLAN
SCALE: 1" = 500' +/-

NOTES:

- THE PURPOSE OF THIS PLAN IS TO DEPICT PROPOSED LOT LINE ADJUSTMENTS AND CONSOLIDATIONS ON ASSESSOR'S MAP 128 LOT 84 AND MAP 132 LOT 31 SITUATED ON THE WESTERLY END OF WEST GLENWOOD STREET IN NASHUA, NEW HAMPSHIRE. FURTHER TO SHOW INFORMATION FOR A PROPOSED ACCESS EASEMENT FOR THE BENEFIT OF ROSCOMMON INVESTMENTS, LLC AND NO OTHER PURPOSE.
- LOT AREAS PRIOR TO ADJUSTMENTS: MAP 132 LOT 31: 112,105 SF, OR 2.573 ACRES. MAP 132 LOT 84: 35,395 SF, OR 0.812 ACRES.
- PARCEL "A" IS TO BE CONSOLIDATED WITH MAP 132 LOT 84. PARCELS "B" & "C" TO BE CONSOLIDATED WITH MAP 132 LOT 31.
- ZONING: URBAN RESIDENCE DISTRICT (R-A)
MINIMUM BUILDING SETBACKS:
- FRONT 25 FT
- SIDE 10 FT
- REAR 25 FT
HIGHWAY BUSINESS DISTRICT (HB)
- FRONT 20 FT
- SIDE 10 FT
- REAR 20 FT
- BOUNDARY AND TOPOGRAPHIC INFORMATION IS BASED ON A FIELD SURVEY PERFORMED BY THIS OFFICE IN DECEMBER OF 2017 AND JANUARY OF 2018 HAVING A MINIMUM ERROR OF CLOSURE OF NOT LESS THAN ONE PART IN TEN THOUSAND (1:10,000).
- HORIZONTAL DATUM IS NAD 83, VERTICAL DATUM IS NAVD83.
- EXAMINATION OF THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) FLOOD INSURANCE RATE MAPS (FIRM) FOR THE CITY OF NASHUA, NEW HAMPSHIRE, HILLSBOROUGH COUNTY, COMMUNITY PANEL NUMBER 330097 0522 PANEL NUMBER 652 OF 701, EFFECTIVE DATE, APRIL 15, 2011 INDICATES THAT NO PORTION OF THE SUBJECT PREMISES IS LOCATED WITHIN A DESIGNATED FLOOD HAZARD AREA.
- THE LOCATION OF ANY UNDERGROUND UTILITY INFORMATION SHOWN ON THIS PLAN IS APPROXIMATE. KEACH-NORDSTROM ASSOCIATES, INC. MAKES NO CLAIM TO THE ACCURACY OR COMPLETENESS OF UTILITIES SHOWN. PRIOR TO ANY EXCAVATION ON SITE THE CONTRACTOR SHALL CONTACT DIG SAFE AT 811.
- EASEMENTS, RIGHTS AND RESTRICTIONS SHOWN OR IDENTIFIED HEREON ARE THOSE FOUND DURING RESEARCH AT THE ROCKINGHAM COUNTY REGISTRY OF DEEDS. OTHER EASEMENTS, RIGHTS AND RESTRICTIONS MAY EXIST WHICH A TITLE EXAMINATION OF THE SUBJECT PREMISES MAY DETERMINE.
- BOUNDARY INFORMATION FOR MAP 132 LOT 31 IS BASED ON REFERENCE PLAN 1, THE BEARINGS SHOWN ON REFERENCE PLAN 1 HAVE BEEN TRANSLATED TO MATCH THE BEARING SYSTEM OF THE SURVEY WORK BY THIS OFFICE.
- SUBJECT TRACTS HAVE AVAILABLE MUNICIPAL SEWER SERVICE AND PENNICHUCK WATER WORKS WATER SERVICE.
- ANY FUTURE BUILDING CONSTRUCTION SHALL INCORPORATE FOUNDATION DRAINAGE SYSTEMS, EXCEPT WHERE AN INVESTIGATION ESTABLISHES THAT SPECIFIC BUILDING SITES ARE LOCATED WITHIN WELL DRAINED SOILS AND THAT SUCH SYSTEMS ARE NOT REQUIRED.
- A WAIVER IS REQUESTED FROM SECTION LUC 180-252(B)(9) SINCE AN EXISTING CONDITIONS PLAN IS DETAIL IN THE ACCOMPANYING SITE PLAN.

REFERENCE PLANS:

- EASEMENT PLAN, MAP 132 LOT 31, 117 WEST GLENWOOD STREET, NASHUA, NEW HAMPSHIRE. DATED: 30 SEPTEMBER 2016. SCALE: 1"=30'. PREPARED BY HAYNER/SWANSON INC. HCRD PLAN #33110.
- BOUNDARY PLAN - SIENKIEWICZ PROPERTY, WEST GLENWOOD STREET, NASHUA, NEW HAMPSHIRE. SCALE: 1"=50'. DATED: JANUARY 22, 2018. PREPARED BY THIS OFFICE. RECORDED AT THE HCRD AS PLAN #39872.



Lot Line Adjustment & Consolidation Plan

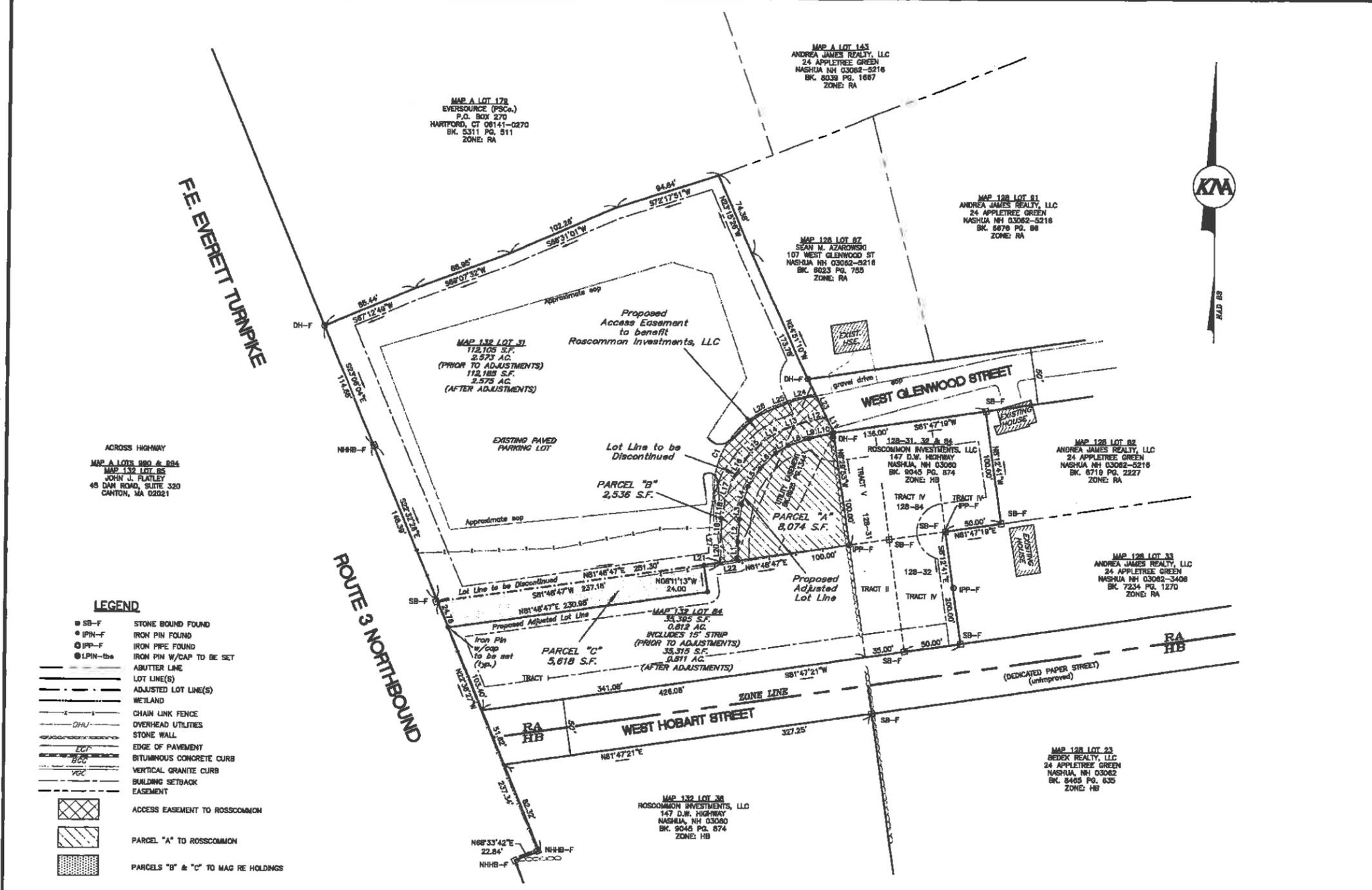
between the lands of
ROSCOMMON INVESTMENTS, LLC & MAG RE HOLDINGS-NASHUA, LLC
MAP 132 LOTS 31 & 84 and MAP 128 LOTS 31, 32 & 84
117 WEST GLENWOOD STREET
NASHUA, NEW HAMPSHIRE
HILLSBOROUGH COUNTY

OWNERS OF RECORD:
ROSCOMMON INVESTMENTS, LLC 147 D.W. HIGHWAY NASHUA, NH 03060 H.C.R.D. BK. 8045 PG. 874 (803) 868-5050
MAG RE HOLDINGS-NASHUA, LLC 777 WASHINGTON STREET NEWTON, MA 02460 H.C.R.D. BK. 8926 PG. 2664 (617) 928-5400

K/A KEACH-NORDSTROM ASSOCIATES, INC.
Civil Engineering Land Surveying Landscape Architecture
19 Commerce Park North, Suite 202, Bedford, NH 03110 Phone (603) 887-2561

REVISIONS			
No.	DATE	DESCRIPTION	BY
1	7/24/20	MINOR REVISIONS	PCM
2	9/23/20	MINOR REVISIONS	PCM

DATE: JUNE 15, 2020 SCALE: 1"=50'
PROJECT NO: 17-1011-1 SHEET 1 OF 1



LEGEND

- SB-F STONE BOUND FOUND
- IPIN-F IRON PIN FOUND
- IPP-F IRON PIPE FOUND
- LPIN-BSA IRON PIN W/CAP TO BE SET
- ABUTTER LINE
- LOT LINE(S)
- ADJUSTED LOT LINE(S)
- WETLAND
- CHAIN LINK FENCE
- OVERHEAD UTILITIES
- STONE WALL
- EDGE OF PAVEMENT
- BITUMINOUS CONCRETE CURB
- VERTICAL GRANITE CURB
- BUILDING SETBACK EASEMENT
- ACCESS EASEMENT TO ROSCOMMON
- PARCEL "A" TO ROSCOMMON
- PARCELS "B" & "C" TO MAG RE HOLDINGS

LINE TABLE

LINE	LENGTH	BEARING	LINE	LENGTH	BEARING
L1	18.19	N00°26'13"E	L12	18.78	S78°18'50"W
L2	20.41	N03°04'07"E	L13	22.00	S70°27'58"W
L3	12.79	N08°37'05"E	L14	16.03	S59°32'39"W
L4	17.21	N18°43'40"E	L15	22.84	S45°10'07"W
L5	18.81	N33°35'37"E	L16	22.28	S33°35'37"W
L6	19.42	N45°10'07"E	L17	20.49	S18°43'40"W
L7	12.70	N58°32'30"E	L18	14.84	S08°37'05"W
L8	19.81	N70°27'58"E	L19	21.49	S03°04'07"W
L9	20.94	N78°12'28"E	L20	16.54	S00°26'13"W
L10	1.43	N81°36'00"E	L21	2.28	S03°52'30"E
L11	15.48	N26°16'58"W	L22	15.00	N81°48'47"E
			L23	22.44	S26°17'03"E
			L24	19.04	N76°18'50"E
			L25	24.58	N70°27'58"E
			L26	19.87	S59°32'30"W
			L27	59.63	N05°12'29"W

CURVE	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING	DELTA ANGLE
C1	75.00	84.76	80.32	S27°10'02"W	64°44'55"

OWNER'S SIGNATURE BLOCK

ROSCOMMON INVESTMENTS, LLC DATE: 6/18/2020

MAG RE HOLDINGS-NASHUA, LLC DATE: 6/22/20

APPROVED - NASHUA CITY PLANNING BOARD

CHAIRMAN DATE

SECRETARY DATE

SURVEYOR'S CERTIFICATION:

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR THOSE UNDER MY DIRECT SUPERVISION. FURTHER, THAT THIS PLAN IS BASED ON AN ACTUAL FIELD SURVEY MADE ON THE GROUND BY THIS OFFICE DURING DECEMBER OF 2017 AND JANUARY OF 2018. SAID SURVEY HAS AN ERROR OF CLOSURE BETTER THAN ONE PART IN TEN THOUSAND (1:10,000).

Michael J. DeLong 9-24-2020
LICENSED LAND SURVEYOR DATE



UTILITY NOTE

THE UNDERGROUND UTILITIES DEPICTED HEREON HAVE BEEN DRAWN FROM FIELD SURVEY INFORMATION AND OR PLOTTED FROM EXISTING DRAWINGS. KEACH-NORDSTROM ASSOCIATES, INC. MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES DEPICTED COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. FURTHER, KEACH-NORDSTROM ASSOCIATES, INC. DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM THE INFORMATION AVAILABLE. KEACH-NORDSTROM ASSOCIATES, INC. HAS NOT PHYSICALLY LOCATED THE UNDERGROUND PORTIONS OF THE UTILITIES.

NASHUA CITY PLANNING BOARD
STAFF REPORT

TO: Nashua City Planning Board
FROM: Linda McGhee, Deputy Planning Manager
FOR: September 10, 2020
RE: **New Business #5 - Subdivision Plan**

I. Project Statistics:

Owners: MG Holdings
Proposal: Three lot subdivision
Location: 1 Morningside Drive
Total Site Area: 0.68 acres 29,714 sf
Existing Zoning: RA-Urban Residence
Surrounding Uses: Residential and Rivier University

II. Background Information:

According to city records, presently on the lot is a single family 2-story home with a basement. There is a pool and shed also on the property.

III. Project Description:

The purpose of this plan is to subdivide the parcel into three residential lots. The existing home will remain on Lot 129 and contain 12,276 sf. Lot 131 will contain 7,822 sf and have an address of 7 Morningside Drive. Lot 132 will contain 9,616 sf and have an address of 11 Morningside Drive. The minimum lot area in the RA zone is 7,500 sf and all lots meet the minimum requirements. The pool and shed will be removed. Underground utilities are being proposed.

Three waivers are being requested. The first waiver is from the requirement to show physical features on site and within 1,000 feet of the subdivision. The applicant has requested a waiver from the requirement to show existing waterlines on the plan.

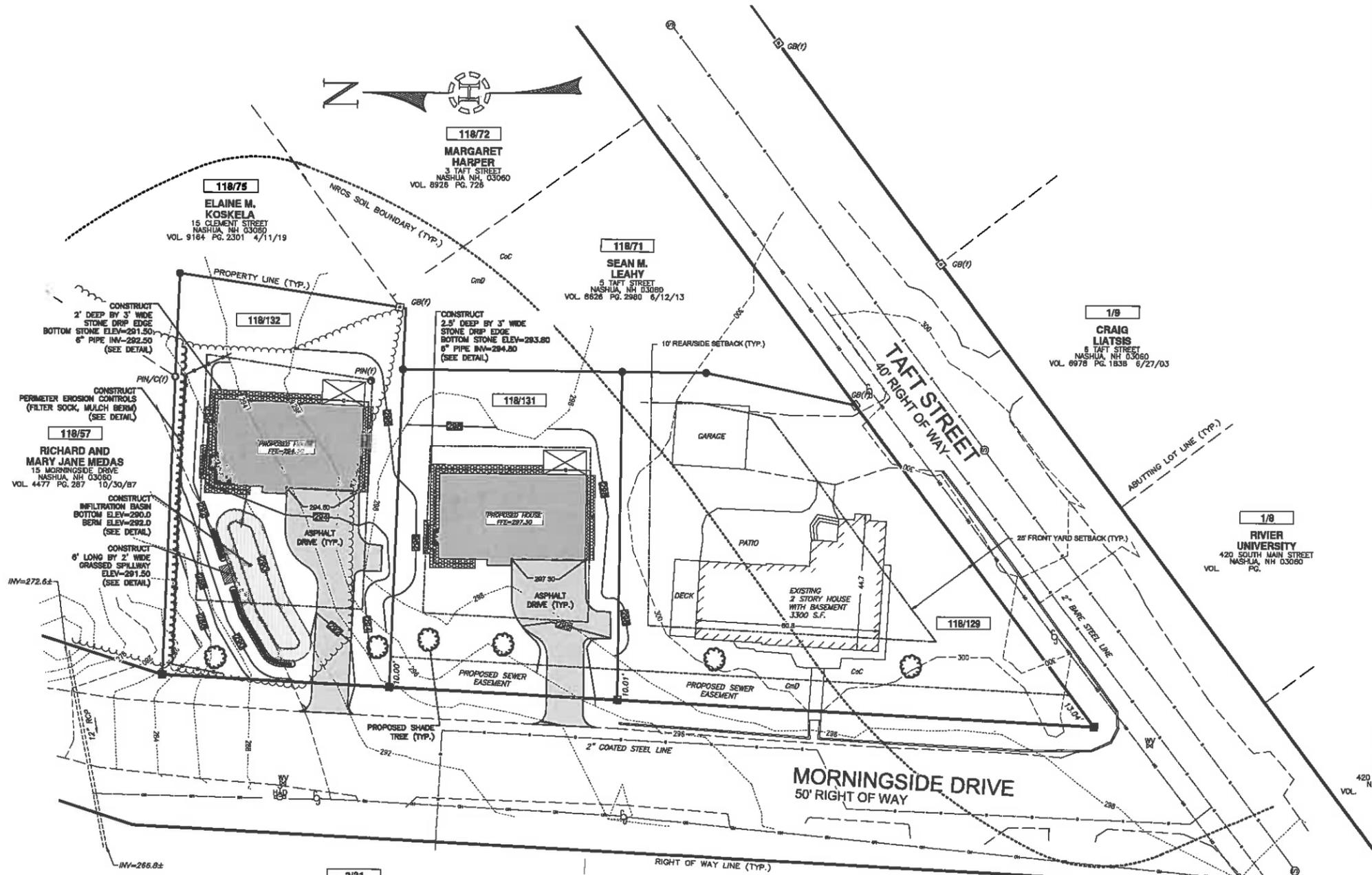
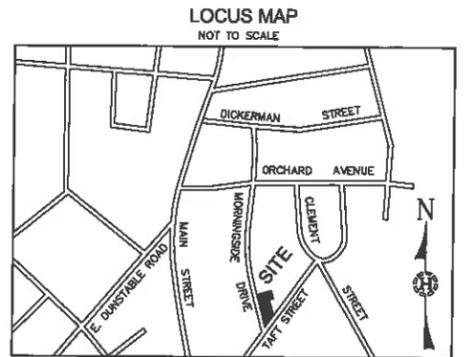
The final waiver is for sidewalks. While there is a significant need for sidewalks and pedestrian facilities throughout the City of Nashua, Morningside Drive and Taft Street are not on the sidewalk priority list and does meet the standards for granting a waiver. The site meets the criteria in § 190-212(D) and the owner would be eligible to make a contribution in lieu of sidewalk construction. The applicant has offered to make a contribution in the amount of \$13,576.50, which is based on \$50 per linear foot along the entire frontage of the lots on Morningside Drive, subtracting a driveway width of 36 feet (18 feet per lot for the driveway). If the frontage on Taft Street is included in the sidewalk calculation of \$50 per linear foot (131.90 feet – 18 feet for a driveway), an additional \$5,695.00 contribution (or a total of \$19,271.50 would be required.

City Staff reviewed the plans; comments are attached.

Staff Recommendations and Findings:

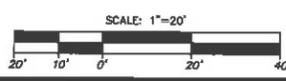
The Planning Board should make a determination that the plan meets, or does not meet the requirements outlined in the Subdivision NRO § 190-138(G). The Board should review these prior to making a motion. If the Planning Board chooses to disapprove the plan, specific reasons should be given. If the Planning Board chooses to approve this plan, staff recommends the following stipulation be made part of that approval:

1. The request for a waiver of § 190-282(B)(9), which requires physical features on site and within 1,000 feet, **is/is not** granted, finding that the waiver **will/will not** be contrary to the spirit and intent of the regulation.
2. The request for a waiver of § 190-282(B)(28), which waterlines to be shown for new subdivisions, **is/is not** granted, finding that the waiver **will/will not** be contrary to the spirit and intent of the regulation.
3. The request for a waiver § 190-212(A)(1), which requires that a sidewalk be located on at least one side of the street, **is/is not** granted, finding that the waiver **will/will not** be contrary to the spirit and intent of the regulation. The applicant has agreed to make a contribution in the amount of \$_____ in lieu of sidewalk construction pursuant to §190-212(D)(2), payment to be made prior to recording the plan.
4. Prior to the Chair signing the plan, all minor drafting corrections will be made.
5. Prior to recording the plan, all comments in an e-mail from Joe Mendola, Street Construction Engineer, dated August 31, 2020 shall be addressed to the satisfaction of the Engineering Department.
6. Prior to recording of the plan, all conditions from the Planning Board approval letter will be added to the cover page of the final mylar and paper copies submitted to the City.
7. Prior to recording of the plan, addresses shall be shown on the plan as assigned by the Fire Marshal.
8. Prior to recording the plan, a drainage report shall be submitted to Planning and Engineering staff for review.
9. Stormwater documents and utility easements will be submitted to Planning staff for review and recorded with the plan at the applicant's expense.
10. Prior to the issuance of a building permit, the plan electronic file of the subdivision plan shall be submitted to the City of Nashua.
11. Prior to any work, a pre-construction meeting shall be held and a financial guarantee shall be approved.



- LEGEND:**
- EXISTING PAVEMENT
 - LOT LINE
 - BUILDING SETBACK LINE
 - FENCE
 - CONCRETE
 - GRANITE CURB
 - TREE LINE
 - 2' CONTOUR INTERVAL
 - 10' CONTOUR INTERVAL
 - UNDERGROUND SEWER LINE
 - OVERHEAD ELECTRIC LINE
 - UNDERGROUND GAS LINE
 - UNDERGROUND WATER LINE
 - PROPOSED SHADE TREE
 - WATER VALVE
 - ELECTRIC UTILITY POLE
 - PIN/CAP TO BE SET
 - GRANITE BOUND TO BE SET
 - SEWER MANHOLE
 - HYDRANT

NRCS SOIL KEY:
 CmD - CARTON FINE SANDY LOAM, 15-25% SLOPES, VERY STONY
 CnC - CANTON-URBAN LAND COMPLEX, 3-15% SLOPES



REV.	DATE	DESCRIPTION	BY
B	7/31/20	REV. PER TOWN COMMENTS	DBH
A	7/13/20	REV. PER TOWN COMMENTS	DBH

CIVIL ENGINEERING SERVICES PROVIDED BY:

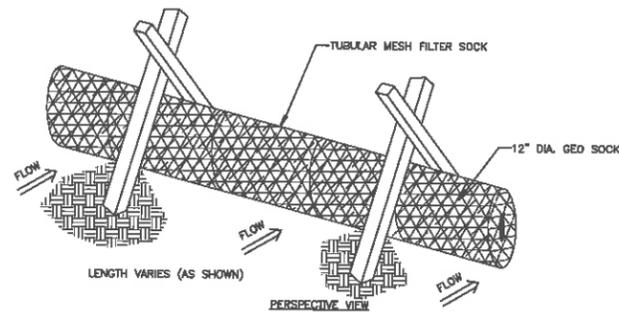
MERIDIAN
 LAND SERVICES, INC.
 ENGINEERING | SURVEYING | PERMITTING
 SOIL & WETLAND MAPPING | SEPTIC DESIGN
 31 OLD NASHUA ROAD, AMHERST, NH 03001 TEL: 603-473-1441
 MERIDIANLANDSERVICES.COM FAX: 603-473-1534



GRADING AND DRAINAGE PLAN
 PREPARED FOR:
MG HOLDINGS
 1 MORNING SIDE DRIVE
 TAX MAP 118 LOT 129
 NASHUA, NEW HAMPSHIRE

JUNE 18, 2020

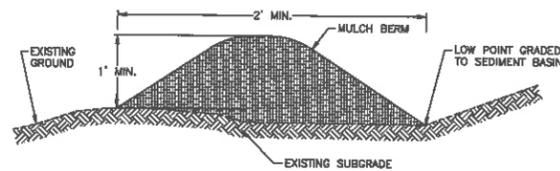
HIGGINSON
 LAND SERVICES
 LAND SURVEYING - SEPTIC SYSTEM DESIGNS - PERMITTING
 76 PATTERSON HILL ROAD HENNIKER, NH 03242
 TEL: 603-660-6412 | NOTE BOOK #18 | JOB #625



1. THE FILTER SOCK SHALL BE A MESH TUBE FILLED WITH COMPOSTED MATERIAL.
2. MINIMAL CLEARING MAY BE REQUIRED TO INSTALL FILTER SOCKS.
3. INSTALL FILTER SOCKS PRIOR TO ANY CLEARING OR GRUBBING.

FILTER SOCK (ALTERNATE)

MAR. 23, 2010
SCALE: NONE

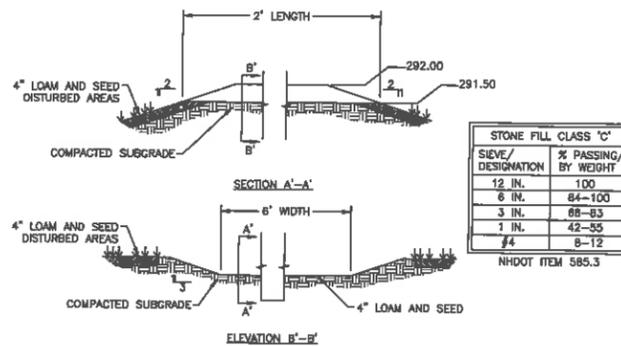


NOTES:

1. MULCH BERM MUST CONSIST PRIMARILY OF ORGANIC MATERIAL AND MAY INCLUDE THE FOLLOWING: SHREDDED BARK, STUMP GRINDINGS, COMPOSTED BARK OR ACCEPTABLE MANUFACTURED WOOD PRODUCTS.
2. WOOD AND BARK CHIPS, GROUND CONSTRUCTION DEBRIS OR REPOSESSED WOOD PRODUCTS ARE NOT ACCEPTABLE AS THE ORGANIC COMPONENT OF THE MIX.
3. EROSION CONTROL MIX SHOULD CONTAIN A WELL-GRADED MIXTURE OF PARTICLE SIZES AND MAY CONTAIN ROCKS LESS THAN 4" IN DIAMETER.
4. THE ORGANIC MATTER CONTENT SHOULD BE BETWEEN 25% AND 65% ON A DRY WEIGHT BASIS.
5. THE MIX SHOULD NOT CONTAIN SILTS, CLAYS OR SANDS.
6. REFER TO THE NEW HAMPSHIRE STORMWATER MANAGEMENT MANUAL, VOL. 3 SECTION 4.2 FOR COMPLETE DETAILS.

TYPICAL MULCH BERM - ALTERNATE

AUG. 29, 2019
SCALE: NONE

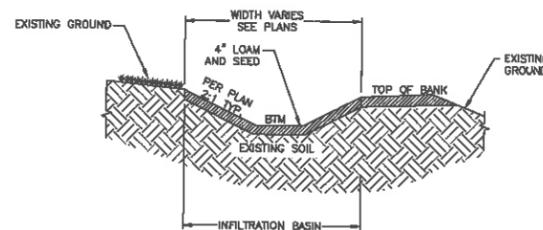


STONE FILL CLASS "C"	
SIEVE/DESIGNATION	% PASSING/BY WEIGHT
12 IN.	100
6 IN.	84-100
3 IN.	88-93
1 IN.	42-55
#4	8-12

NHDOT ITEM 585.3

INFILTRATION BASIN SPILLWAY

DEC. 11, 2013
SCALE: NONE

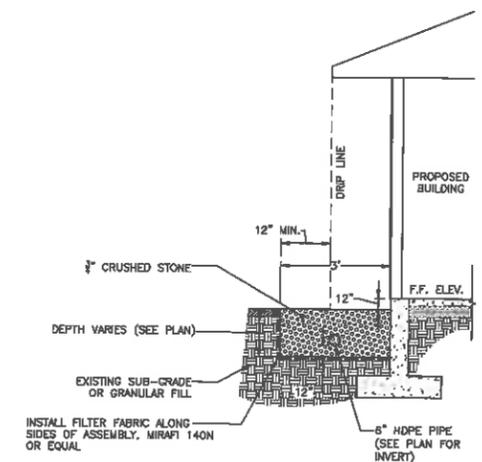


NOTES:

1. TO PREVENT DEGRADATION OF INFILTRATION FUNCTION:
 - A. DO NOT TRAFFIC EXPOSED SOIL SURFACE WITH CONSTRUCTION EQUIPMENT. IF FEASIBLE, PERFORM EXCAVATIONS WITH EQUIPMENT POSITIONED OUTSIDE THE LIMITS OF THE INFILTRATION COMPONENTS OF THE SYSTEM.
 - B. DO NOT DISCHARGE SEDIMENT-LADEN WATERS FROM CONSTRUCTION ACTIVITIES (RUNOFF, WATER FROM EXCAVATIONS) TO THE BIO-RETENTION AREA DURING ANY STAGE OF CONSTRUCTION.
2. DO NOT PLACE INFILTRATION BASINS INTO SERVICE UNTIL THE CONTRIBUTING AREA HAS BEEN COMPLETELY STABILIZED.
3. PREPARE THE BOTTOM OF THE INFILTRATION BASIN BED WITH 4" OF LOAM AND SEED.

INFILTRATION BASIN - TYPICAL CROSS-SECTION

NOV. 13, 2009
SCALE: NONE



ROOF DRIP LINE

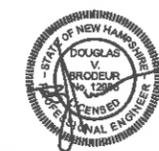
JULY 15, 2013
SCALE: NONE

REV.	DATE	DESCRIPTION	BY
B	7/31/20	REV. PER TOWN COMMENTS	DBH
A	7/13/20	REV. PER TOWN COMMENTS	DBH

CIVIL ENGINEERING SERVICES PROVIDED BY:



MERIDIAN
LAND SERVICES, INC.
ENGINEERING | SURVEYING | PERMITTING
SOIL & WETLAND MAPPING | SEPTIC DESIGN
31 OLD NASHUA ROAD, AMHERST, NH 03031 TEL: 603-673-1441
MERIDIANLANDSERVICES.COM FAX 603-673-1584



SITE DETAILS
PREPARED FOR:
MG HOLDINGS
1 MORNING SIDE DRIVE
TAX MAP 118 LOT 129
NASHUA, NEW HAMPSHIRE

JUNE 18, 2020

HIGGINSON
LAND SERVICES
LAND SURVEYING - SEPTIC SYSTEM DESIGNS - PERMITTING
76 PATTERSON HILL ROAD HENNIKER, NH 03242
TEL: 603-860-8412 | NOTE BOOK #18 | JOB #825

NASHUA CITY PLANNING BOARD
STAFF REPORT

TO: Nashua City Planning Board
FROM: Linda McGhee, Deputy Planning Manager
FOR: October 10, 2020
RE: **New Business # - Subdivision Plan**

I. Project Statistics:

Owner: Crimson Properties, LLC
Proposal: Four lot subdivision
Location: 599 West Hollis Street
Total Site Area: 1.028 acres (44,792 sf)
Existing Zoning: R9-Suburban Residence
Surrounding Uses: Residential and charter school

II. Background Information:

Currently the property is developed and contains a one-story dwelling, two sheds, a mobile home and a shared driveway. Access to the site is via two curb cuts onto West Hollis Street. The high point of the lot is in the northwest corner to a low point at the intersection of Wellesley Road and West Hollis Street off of the southeast corner for a total grade change of approximately 16 feet. The mobile home and two sheds will be demolished.

III. Project Description:

The purpose of this plan is to subdivide the parcel into four residential lots as follows;

Lot #	Address	Lot Size
Lot 66 (with existing house)	599 West Hollis Street	9,206 sf
Lot 2251	601 West Hollis Street	14,012 sf
Lot 2252	2 Wellesley Road	10,624 sf
Lot 2253	4 Wellesley Road	10,951 sf

All lots will meet the minimum zoning requirements. The applicant's engineer has provided a stormwater report. It is being proposed to install gutters, downspouts and leaching roof units (catch basins) adjacent to the three new houses plus the one existing house (see attached). Approximately 4,940 sf of new impervious area will be added as part of the proposed subdivision. There are no wetland or wetland buffer impacts and no new street lights are being proposed.

Two waivers are being requested. The applicant has requested a waiver from the requirement to provide underground utilities; overhead utilities are proposed.

The second waiver is for sidewalks. This is a corner lot and there is an existing sidewalk on the southerly side of West Hollis Street. While there is a significant need for sidewalks and pedestrian facilities throughout the City of Nashua, Wellesley Road is not on the sidewalk

priority list. The site meets the criteria in § 190-212(D) and the owner would be eligible to make a contribution in lieu of sidewalk construction; the applicant's engineer is offering to make a contribution of \$8,700 based on \$50 per linear foot along the entire frontage of Wellesley Road (210 linear feet) and subtracting a driveway width of 36 feet (18 feet per lot on Wellesley Road).

City Staff reviewed the plans; comments are attached.

Staff Recommendations and Findings:

The Planning Board should make a determination that the plan meets, or does not meet the requirements outlined in the Subdivision NRO § 190-138(G). The Board should review these prior to making a motion. If the Planning Board chooses to disapprove the plan, specific reasons should be given. If the Planning Board chooses to approve this plan, staff recommends the following stipulation be made part of that approval:

The request for a waiver of § 190-221(C), which requires underground utilities for new subdivisions, is/is not granted, finding that the waiver will/will not be contrary to the spirit and intent of the regulation.

The request for a waiver § 190-212(A)(1), which requires that a sidewalk be located on at least one side of the street, is/is not granted, finding that the waiver will/will not be contrary to the spirit and intent of the regulation. The applicant has agreed to make a contribution in the amount of \$_____ in lieu of sidewalk construction pursuant to §190-212(D)(2), payment to be made prior to recording the plan.

Prior to the chair signing the plan, all minor drafting corrections will be made.

Prior to recording of the plan, all conditions from the Planning Board approval letter will be added to the cover page of the final mylar and paper copies submitted to the City.

Stormwater documents and easements will be submitted to Planning staff for review and recorded with the plan at the applicant's expense.

Prior to any work and a pre-construction meeting, a financial guarantee shall be approved.

3 Congress Street, Nashua, NH 03063 (603) 883-2057
 131 Middlesex Turnpike, Burlington, MA 01803 (781) 203-1501
 www.hayner-swanson.com

Hayner/Swanson, Inc.



MAP E, LOT 66
 SUBDIVISION PLAN

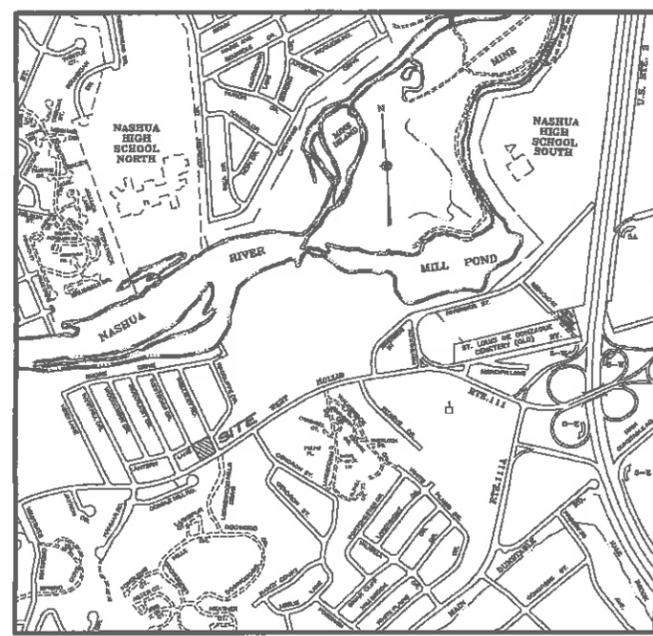
599 WEST HOLLIS STREET

NASHUA, NEW HAMPSHIRE

PREPARED FOR/RECORD OWNER

CRIMSON PROPERTIES, LLC

20 TRAFALGAR SQUARE, SUITE 101
 NASHUA, NEW HAMPSHIRE 03063
 (603) 234-4192



VICINITY PLAN

26 AUGUST 2020

No.	DATE	REVISION	BY
1	08/26/20	ADDRESS CITY STAFF COMMENTS	TEZ

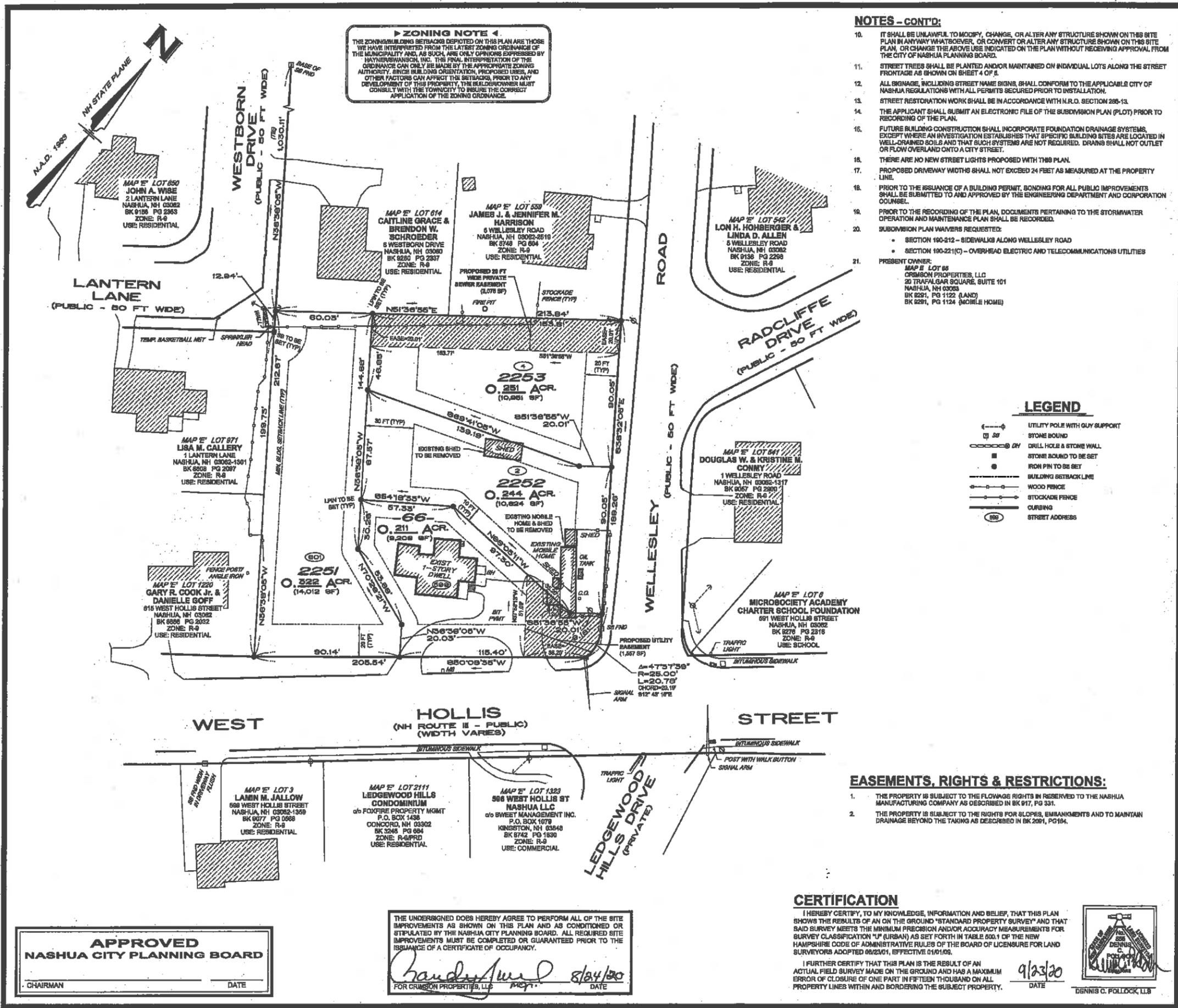
INDEX OF PLANS		
SHEET No.	TITLE	
1 OF 5	SUBDIVISION PLAN	1" = 30'
2 OF 5	TOPOGRAPHIC SUBDIVISION PLAN	1" = 30'
3 OF 5	LOT GRADING AND UTILITY PLAN	1" = 30'
4 OF 5	DETAIL SHEET - GENERAL SITE	
5 OF 5	DETAIL SHEET - SEWER	



HSI Hayner/Swanson, Inc.
 Civil Engineers/Land Surveyors

3 Congress Street, Nashua, NH 03062 (603) 883-2057
 131 Middlesex Turnpike, Burlington, MA 01803 (781) 203-1501
 www.hayner-swanson.com

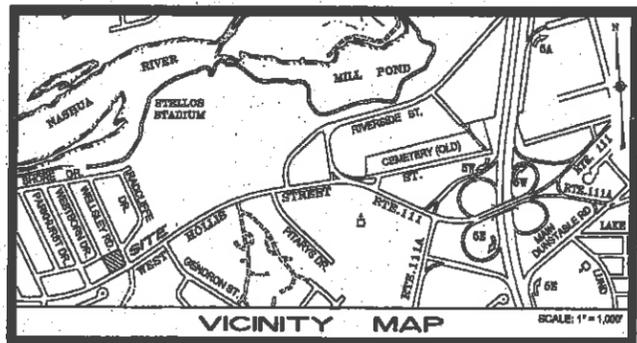




ZONING NOTE
 THE ZONING BUILDING SETBACKS DEPICTED ON THIS PLAN ARE THOSE WE HAVE INTERPRETED FROM THE LATEST ZONING ORDINANCE OF THE MUNICIPALITY AND, AS SUCH, ARE ONLY OPINIONS EXPRESSED BY HAYNERSWANSON, INC. THE FINAL INTERPRETATION OF THE ORDINANCE CAN ONLY BE MADE BY THE APPROPRIATE ZONING AUTHORITY. SINCE BUILDING ORIENTATION, PROPOSED USES, AND OTHER FACTORS CAN AFFECT THE SETBACKS, PRIOR TO ANY DEVELOPMENT OF THIS PROPERTY, THE BUILDING OWNER MUST CONSULT WITH THE TOWN/CITY TO INSURE THE CORRECT APPLICATION OF THE ZONING ORDINANCE.

- NOTES - CONT'D:**
- IT SHALL BE UNLAWFUL TO MODIFY, CHANGE, OR ALTER ANY STRUCTURE SHOWN ON THIS SITE PLAN IN ANYWAY WHATSOEVER, OR CONVERT OR ALTER ANY STRUCTURE SHOWN ON THIS SITE PLAN, OR CHANGE THE ABOVE USE INDICATED ON THE PLAN WITHOUT RECEIVING APPROVAL FROM THE CITY OF NASHUA PLANNING BOARD.
 - STREET TREES SHALL BE PLANTED AND/OR MAINTAINED ON INDIVIDUAL LOTS ALONG THE STREET FRONTAGE AS SHOWN ON SHEET 4 OF 8.
 - ALL SIGNAGE, INCLUDING STREET NAME SIGNS, SHALL CONFORM TO THE APPLICABLE CITY OF NASHUA REGULATIONS WITH ALL PERMITS SECURED PRIOR TO INSTALLATION.
 - STREET RESTORATION WORK SHALL BE IN ACCORDANCE WITH N.H.R.O. SECTION 288-13.
 - THE APPLICANT SHALL SUBMIT AN ELECTRONIC FILE OF THE SUBDIVISION PLAN (PLOT) PRIOR TO RECORDING OF THE PLAN.
 - FUTURE BUILDING CONSTRUCTION SHALL INCORPORATE FOUNDATION DRAINAGE SYSTEMS, EXCEPT WHERE AN INVESTIGATION ESTABLISHES THAT SPECIFIC BUILDING SITES ARE LOCATED IN WELL-DRAINED SOILS AND THAT SUCH SYSTEMS ARE NOT REQUIRED. DRAINS SHALL NOT OUTLET OR FLOW OVERLAND ONTO A CITY STREET.
 - THERE ARE NO NEW STREET LIGHTS PROPOSED WITH THIS PLAN.
 - PROPOSED DRIVEWAY WIDTHS SHALL NOT EXCEED 24 FEET AS MEASURED AT THE PROPERTY LINE.
 - PRIOR TO THE ISSUANCE OF A BUILDING PERMIT, BONDING FOR ALL PUBLIC IMPROVEMENTS SHALL BE SUBMITTED TO AND APPROVED BY THE ENGINEERING DEPARTMENT AND CORPORATION COUNSEL.
 - PRIOR TO THE RECORDING OF THE PLAN, DOCUMENTS PERTAINING TO THE STORMWATER OPERATION AND MAINTENANCE PLAN SHALL BE RECORDED.
 - SUBDIVISION PLAN WAIVERS REQUESTED:
 - SECTION 190-212 - SIDEWALKS ALONG WELLESLEY ROAD
 - SECTION 190-221(C) - OVERHEAD ELECTRIC AND TELECOMMUNICATIONS UTILITIES
 - PRESENT OWNER:
 MAP E LOT 88
 CRIMSON PROPERTIES, LLC
 20 TRAFALGAR SQUARE, SUITE 101
 NASHUA, NH 03083
 BK 8291, PG 1122 (LAND)
 BK 8291, PG 1124 (MOBILE HOME)

- LEGEND**
- UTILITY POLE WITH GUY SUPPORT
 - STONE BOUND
 - DRILL HOLE & STONE WALL
 - STONE BOUND TO BE SET
 - IRON PIN TO BE SET
 - BUILDING SETBACK LINE
 - WOOD FENCE
 - STOCKADE FENCE
 - CURBING
 - STREET ADDRESS



- PLAN REFERENCES:**
- SECTION 1, SUBDIVISION PLAN, LONGWOOD ESTATES, NASHUA, N.H., SURVEYED FOR NULAND CORPORATION, SCALE: 1" = 80', DATED: MAY 1985 AND PREPARED BY W. ROBERT NOLTE & ASSOCIATES, H.C.R.D. PLAN No. 3119.
 - SUBDIVISION PLAN, LONGWOOD ESTATES, SECTION 1, NASHUA, N.H., SURVEYED FOR NULAND CORPORATION, SCALE: 1" = 80', DATED: AUGUST 1986, REVISED JULY 1988 AND PREPARED BY W. ROBERT NOLTE & ASSOCIATES, H.C.R.D. PLAN No. 4789.
 - STATE OF NEW HAMPSHIRE, DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS, RIGHT OF WAY, PLANS OF PROPOSED FEDERAL AID PROJECT 9-28(16), N.H. PROJECT No. 9-289, HOLLIS ROAD, CITY OF NASHUA, COUNTY OF HILLSBORO, H.C.R.D. PLAN No. 9023.

- NOTES:**
- EXISTING LOT AREA: 1.028 AC (44,782 SF)
 - PRESENT ZONING: R-9; A-URBAN RESIDENCE

MINIMUM LOT REQUIREMENTS:	REQUIRED	LOT 88	LOT 2251	LOT 2252	LOT 2253
LOT SIZE	9,000 SF	9,208 SF	14,012 SF	10,824 SF	10,981 SF
FRONTAGE	75 FT	145.34 FT	103.08 FT	80.05 FT	80.05 FT
WIDTH	80 FT	145.34 FT	103.08 FT	80.05 FT	80.05 FT
DEPTH	80 FT	92.4 FT	211.6 FT	153.6 FT	153.6 FT

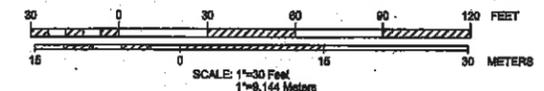
MINIMUM SETBACK REQUIREMENTS:

 - FRONT YARD: 30 FT
 - SIDE YARD: 10 FT
 - REAR YARD: 30 FT
 - MAX. BUILDING HEIGHT: 35 FT
 - MAX. STORIES: 2.5
 - OPEN SPACE (%): 50
 - MAX. FLOOR RATIO: 50 - LOT NUMBERS REFER TO THE CITY OF NASHUA ASSESSORS MAP 'E'.
 - PURPOSE OF PLAN: TO SUBDIVIDE LOT 88 INTO 4 NEW LOTS (NEW LOTS 88, 2251, 2252 & 2253)
 - SITE IS SERVICED BY MUNICIPAL SEWER, WATER BY PENNACUCK WATER WORKS, GAS, AND OVERHEAD ELECTRIC AND TELECOMMUNICATION UTILITIES.
 - MONUMENTS, WHERE REQUIRED, TO BE SET BY A LICENSED LAND SURVEYOR AS FOLLOWS:
 - (A) STONE BOUNDS: AT STREET INTERSECTIONS, POINTS OF CURVATURE AND TANGENCY OF PUBLIC STREET
 - (B) IRON PINS: AT LOT CORNERS
 - NO WETLANDS WERE OBSERVED ON THIS SITE.
 - THE PARCEL IS LOCATED IN AN AREA DESIGNATED AS 'ZONE X' AS DETERMINED FROM THE FLOOD INSURANCE RATE MAP (FIRM), HILLSBOROUGH COUNTY, CITY OF NASHUA, NEW HAMPSHIRE, COMMUNITY No. 330087, PREPARED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY, MAP NUMBER: 330110832D, DATED: SEPTEMBER 25, 2009.
 - THIS SUBDIVISION PACKAGE CONTAINS 8 SHEETS OF WHICH SHEET 1 SHALL BE RECORDED AT THE HILLSBOROUGH COUNTY REGISTRY OF DEEDS. THE REMAINING SHEETS WILL BE ON FILE AT THE CITY OF NASHUA PLANNING DEPARTMENT.

No.	DATE	ADDRESS CITY STAFF COMMENTS	REVISION	BY
1	08/23/20			TEZ

SUBDIVISION PLAN
 (MAP E, LOT 88)
599 WEST HOLLIS STREET
 NASHUA, NEW HAMPSHIRE

PREPARED FOR/RECORD OWNER:
CRIMSON PROPERTIES, LLC
 20 TRAFALGAR SQ., SUITE 101 NASHUA, NEW HAMPSHIRE 03083 (603) 234-4192



26 AUGUST 2020

HSI Hayner/Swanson, Inc.
 Civil Engineers/Land Surveyors
 3 Congress Street
 Nashua, NH 03082
 (603) 885-9237
 131 Middlesex Turnpike
 Burlington, MA 01803
 (781) 209-1500
 www.haynerswanson.com

APPROVED
 NASHUA CITY PLANNING BOARD

CHAIRMAN _____ DATE _____

THE UNDERSIGNED DOES HEREBY AGREE TO PERFORM ALL OF THE SITE IMPROVEMENTS AS SHOWN ON THIS PLAN AND AS CONDITIONED OR STIPULATED BY THE NASHUA CITY PLANNING BOARD. ALL REQUIRED SITE IMPROVEMENTS MUST BE COMPLETED OR GUARANTEED PRIOR TO THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY.

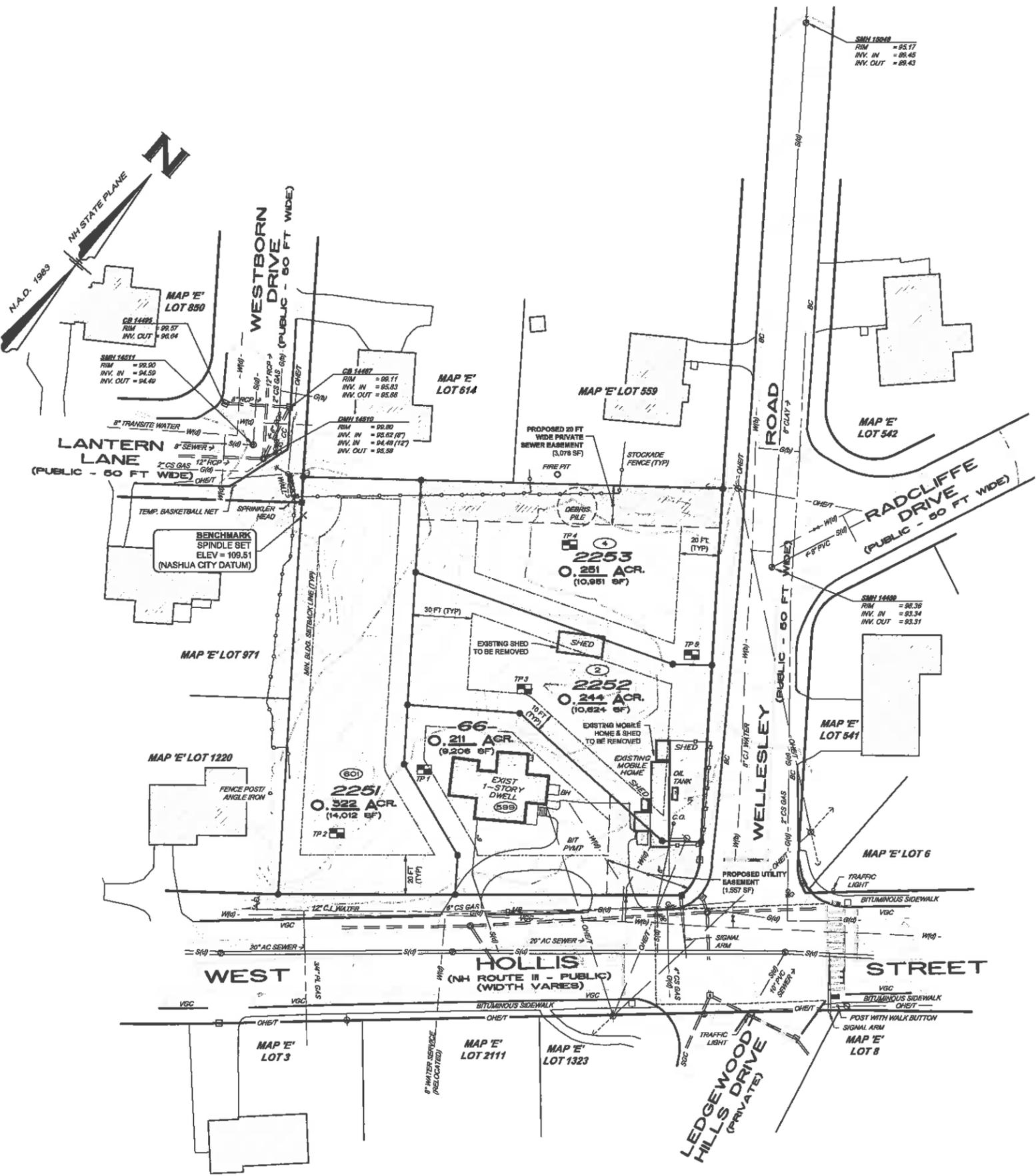
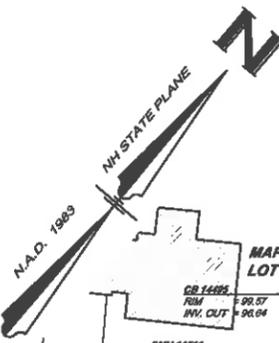
Candy Jurel 8/24/20
 FOR CRIMSON PROPERTIES, LLC DATE

CERTIFICATION

I HEREBY CERTIFY, TO MY KNOWLEDGE, INFORMATION AND BELIEF, THAT THIS PLAN SHOWS THE RESULTS OF AN ON-THE-GROUND "STANDARD PROPERTY SURVEY" AND THAT SAID SURVEY MEETS THE MINIMUM PRECISION AND/OR ACCURACY MEASUREMENTS FOR SURVEY CLASSIFICATION "UP (URBAN)" AS SET FORTH IN TABLE 500.1 OF THE NEW HAMPSHIRE CODE OF ADMINISTRATIVE RULES OF THE BOARD OF LICENSEES FOR LAND SURVEYORS ADOPTED 06/23/01, EFFECTIVE 01/01/03.

I FURTHER CERTIFY THAT THIS PLAN IS THE RESULT OF AN ACTUAL FIELD SURVEY MADE ON THE GROUND AND HAS A MAXIMUM ERROR OF CLOSURE OF ONE PART IN FIFTEEN THOUSAND ON ALL PROPERTY LINES WITHIN AND BORDERING THE SUBJECT PROPERTY.

9/23/20 DATE
 DENNIS C. FOLLOCK, LLC



LEGEND

- EXISTING GROUND CONTOUR
- EXISTING SPOT ELEVATION
- STORM DRAIN & CATCH BASIN
- STORM DRAIN & MANHOLE
- SANITARY SEWER & MANHOLE
- WATER MAIN & HYDRANT
- WATER MAIN & GATE VALVE
- GAS LINE & GATE VALVE
- UTILITY POLE WITH GUY SUPPORT
- STREET LIGHT
- OVERHEAD ELECTRIC & TELEPHONE
- SIGN
- TREE LINE
- TEMPORARY BENCHMARK
- BUILDING SETBACK LINE
- WOOD FENCE
- STOCKADE FENCE
- CURBING
- VERTICAL GRANITE CURBING
- SLOPE GRANITE CURBING
- PAVEMENT SAWCUT
- CONIFEROUS TREE
- DECIDUOUS TREE
- SHRUBS
- TP-3 TEST PIT LOCATION & IDENTIFIER

UTILITY QUALITY LEGEND

SUBSURFACE UTILITIES AS DEPICTED ON THIS PLAN ARE IDENTIFIED BY QUALITY LEVELS DEFINED BY CHANCE 30-42 7430E STANDARD GUIDELINE FOR COLLECTION AND DEPICTION OF EXISTING SUBSURFACE UTILITY DATA:

LEVEL A (A) PRECISE HORIZONTAL AND VERTICAL LOCATION OF UTILITIES OBTAINED BY ACTUAL EXPOSURE AND SUBSEQUENT MEASUREMENTS OF SUBSURFACE UTILITIES.

LEVEL B (B) INFORMATION OBTAINED THROUGH THE APPLICATION OF APPROPRIATE SURFACE GEOPHYSICAL METHODS TO DETERMINE THE EXISTENCE AND APPROXIMATE HORIZONTAL POSITION OF SUBSURFACE UTILITIES. (IE. DIGSAFE)

LEVEL C (C) INFORMATION OBTAINED BY SURVEYING AND PLOTTING VISIBLE ABOVE-GROUND UTILITY FEATURES AND BY USING PROFESSIONAL JUDGMENT IN CORRELATING THIS INFORMATION TO QUALITY LEVEL D INFORMATION.

LEVEL D (D) INFORMATION DERIVED FROM EXISTING RECORDS OR ORAL RECOLLECTIONS.

UTILITY NOTE

THE UNDERGROUND UTILITIES DEPICTED HEREON HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND PLOTTED FROM EXISTING DRAWINGS. THE SURVEYOR MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES DEPICTED COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM THE INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND PORTIONS OF THE UTILITIES.

DigSafe
MAINE, NH, VT
CONTACT DIG SAFE 72 HOURS PRIOR TO CONSTRUCTION
digsafe.com
DIAL 811 OR
1-888-DIG-SAFE
1-888-344-7233

SURVEY NOTES:

- THE EXISTING PLANIMETRICS AND TOPOGRAPHY, AS SHOWN ON THESE PLANS, IS BASED ON AN ACTUAL FIELD SURVEY MADE ON THE GROUND IN MARCH AND AUGUST 2020.
- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE ACCURACY OF THE EXISTING TOPOGRAPHY PRIOR TO EARTHWORK OPERATIONS. NO CLAIM FOR EXTRA WORK DUE TO TOPOGRAPHIC INACCURACY SHALL BE CONSIDERED AFTER EARTHWORK HAS COMMENCED.
- THE CONTRACTOR SHALL ONLY USE BENCHMARKS AS PROVIDED BY THE ENGINEER.
- SURVEY CONTROL INFORMATION:
HORIZONTAL DATUM: NAD83
HORIZONTAL PROJECTION: NH STATE PLANE
VERTICAL DATUM: NASHUA CITY DATUM
UNITS: US SURVEY FEET

CITY OF NASHUA

PLANNING DEPARTMENT
COMMUNITY DEVELOPMENT DIVISION
225 MAIN STREET
NASHUA, NH 03060
ATT: LINDA McGHEE
(603) 588-3110

ENGINEERING DEPARTMENT
NASHUA DEPT. OF PUBLIC WORKS / ENGINEERING
9 RIVERSIDE STREET
NASHUA, NH 03062
ATT: JOE MENDOLA
(603) 588-3124

FIRE DEPARTMENT
NASHUA FIRE DEPARTMENT
177 LAKE STREET
NASHUA, NH 03062
ATT: ADAM POULIOT
(603) 588-3480

UTILITY CONTACTS

WATER:
PENNICHUCK WATER WORKS
25 MANCHESTER STREET
MERRIMACK, NH 03054
ATT: JOHN BOISVERT, PE
(603) 913-2500

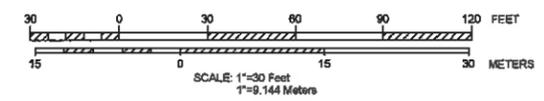
GAS:
LIBERTY UTILITIES
130 ELM STREET
MANCHESTER, NH 03103
ATT: ANDREW MORGAN
(603) 327-5357

TELEPHONE:
CONSOLIDATED COMMUNICATIONS
100 GAY STREET
MANCHESTER, NH 03103
ATT: JOY MENDONCA
(603) 645-2713

POWER:
EVERSOURCE
370 AMHERST STREET
NASHUA, NH 03060
ATT: MARC GAGNON
(603) 882-5994

TOPOGRAPHIC SUBDIVISION PLAN
(MAP E, LOT 68)
599 WEST HOLLIS STREET
NASHUA, NEW HAMPSHIRE

PREPARED FOR/RECORD OWNER:
CRIMSON PROPERTIES, LLC
20 TRAFALGAR SQ., SUITE 101 NASHUA, NEW HAMPSHIRE 03063 (603) 234-4192

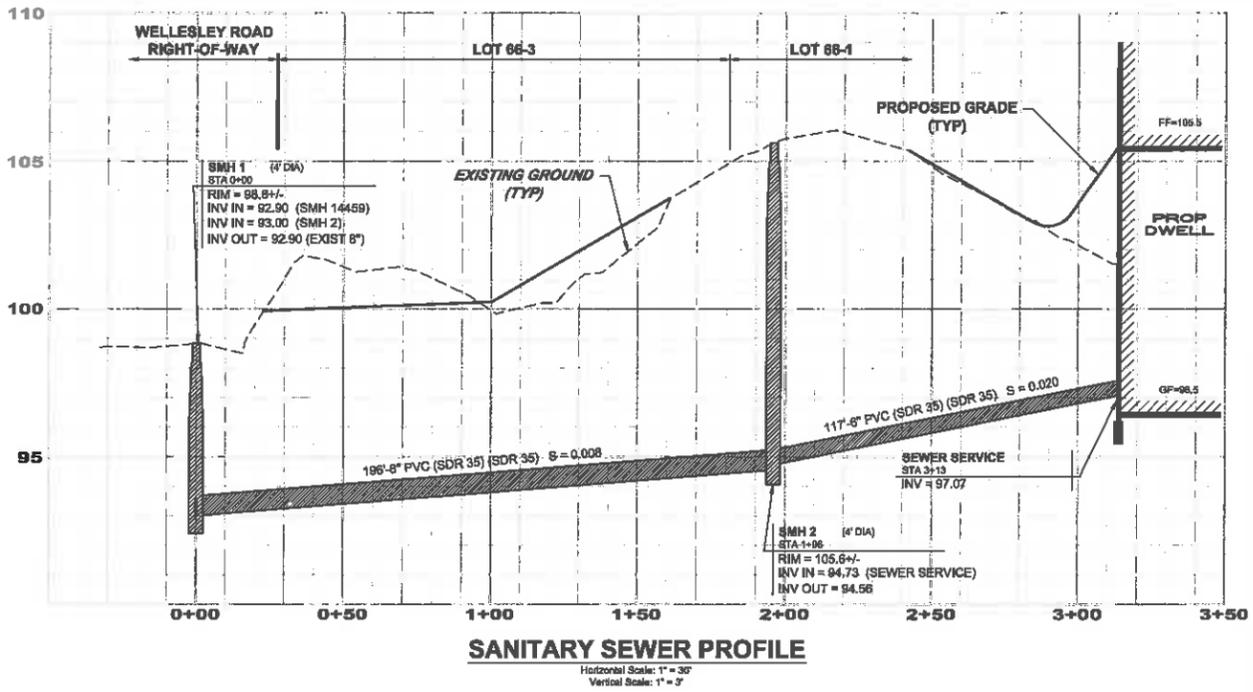
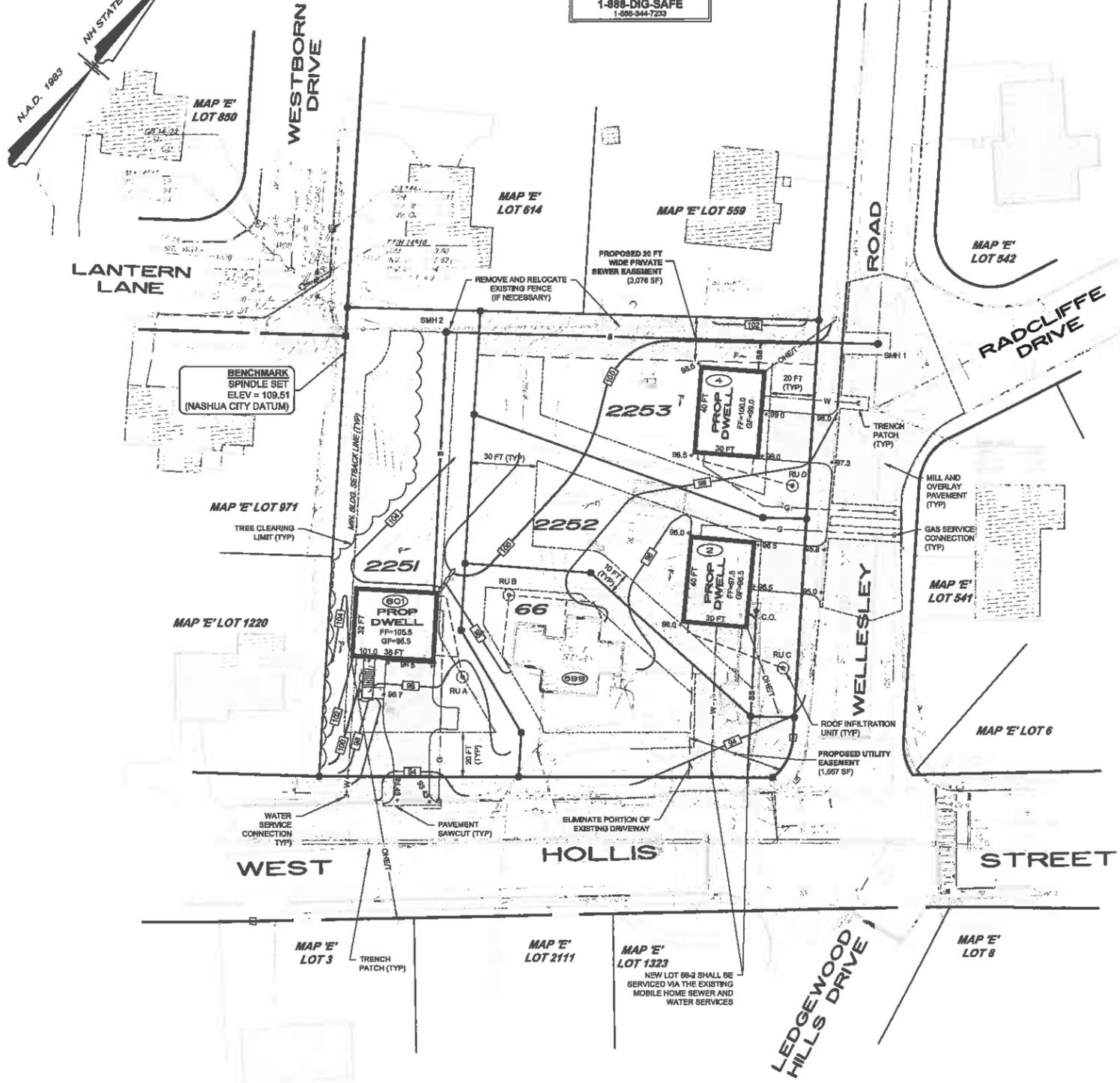


26 AUGUST 2020

HESI Hayner/Swanson, Inc.
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131 Middlesex Turnpike
Burlington, MA 01803
(781) 203-1501
www.haynerswanson.com

FIELD BOOK: 1242	DRAWING NAME: 5705F31	5705	2 OF 5
DRAWING LOC: 4:\2000\5705\DWG\57055LB		File Number	Sheet

NOTE
 THE PURPOSE OF THE LOT GRADING PLAN IS TO SHOW THE INTENDED LOCATION OF THE PROPOSED SINGLE-FAMILY HOUSES. THE DEVELOPER/BUILDER RESERVES THE RIGHT TO MAKE CHANGES TO THE SINGLE-FAMILY DETACHED INDIVIDUAL HOUSE SIZE, TYPE, LOCATION, GARAGE CONFIGURATION, ELEVATION, DRIVEWAY, RETAINING WALLS AND UTILITY LOCATIONS AS LONG AS THE OVERALL INTEGRITY OF THIS PLAN IS MAINTAINED.



CONSTRUCTION NOTES:

- ALL WORK SHALL CONFORM TO THE APPLICABLE REGULATIONS AND STANDARDS OF THE CITY OF NASHUA, AND SHALL BE BUILT IN A WORKMANLIKE MANNER IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS. THE STANDARD SPECIFICATIONS FOR ROAD CONSTRUCTION, BOARD OF PUBLIC WORKS, NASHUA, NEW HAMPSHIRE, AND THE STANDARD SPECIFICATIONS FOR SEWERS AND DRAINS, BOARD OF PUBLIC WORKS, NASHUA, NEW HAMPSHIRE AND THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, STATE OF NEW HAMPSHIRE, DEPARTMENT OF TRANSPORTATION, LATEST EDITION ARE HEREBY INCORPORATED BY REFERENCE.
- ROAD AND DRAINAGE CONSTRUCTION SHALL CONFORM TO THE TYPICAL SECTIONS AND DETAILS SHOWN ON THE PLANS, AND SHALL MEET THE REQUIREMENTS AND SPECIFICATIONS FOR ROAD CONSTRUCTION, BOARD OF PUBLIC WORKS, NASHUA, NEW HAMPSHIRE AND THE STANDARD SPECIFICATIONS FOR SEWERS AND DRAINS, BOARD OF PUBLIC WORKS, NASHUA, NEW HAMPSHIRE.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING AND DETERMINING THE LOCATION, SIZE AND ELEVATION OF ALL EXISTING UTILITIES, SHOWN OR NOT SHOWN ON THESE PLANS, PRIOR TO THE START OF ANY CONSTRUCTION. THE ENGINEER SHALL BE NOTIFIED IN WRITING OF ANY UTILITIES FOUND INTERFERING WITH THE PROPOSED CONSTRUCTION, AND APPROPRIATE REMEDIAL ACTION TAKEN BEFORE PROCEEDING WITH THE WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING "DIG SAFE" AT 1-888-344-7233 AT LEAST 72 HOURS BEFORE DIGGING.
- BLASTING, IF NEEDED, SHALL BE PERFORMED IN ACCORDANCE WITH THE CITY OF NASHUA FIRE DEPARTMENT REGULATIONS.
- ALL STUMPS SHALL BE DISPOSED OF OFF-SITE IN A LEGAL MANNER.
- ALL DISTURBED AREAS SHALL BE LOAMED AND SEEDING IMMEDIATELY UPON BEING CONSTRUCTED.
- PRIOR TO COMMENCEMENT OF MAJOR CONSTRUCTION ACTIVITIES, THE ENGINEER SHALL PROVIDE THE CONTRACTOR WITH LAYOUT PLANS AND COORDINATE VALUES FOR STRATEGIC ELEMENTS OF THE SITE.
- THE CONTRACTOR SHALL REFER TO THE ARCHITECTURAL PLANS FOR THE EXACT BUILDING DIMENSIONS AND DETAILS.

UTILITY NOTES:

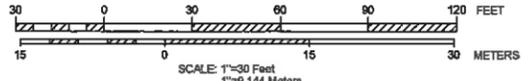
- ALL DRAINAGE PIPE SHALL BE ADS N-12 OR APPROVED EQUAL. MANUFACTURER'S INSTALLATION INSTRUCTIONS SHALL BE FOLLOWED.
- SANITARY SEWER AND STORM DRAIN SYSTEMS SHALL BE INSTALLED BY A NASHUA LICENSED DRAIN LAYER, PER NRO SECTION 18-82 THROUGH SECTION 18-89. ROOF DRAIN TIE-INS AND DRAIN LINES (IF ANY) SHALL BE INSPECTED PRIOR TO BACKFILLING AND PAVING.
- FOUNDATION DRAINS ARE NOT ALLOWED TO OUTLET OVERLAND ONTO ANY STREET.
- ALL WATER LINE, HYDRANT VALVES AND APPURTENANCES SHALL BE INSTALLED IN ACCORDANCE WITH THE TECHNICAL SPECIFICATIONS FOR THE INSTALLATION OF MATERIALS, MAIN PIPING, SERVICE CONNECTIONS IN THE PENNICKHUCK WATER WORKS FRANCHISED AREAS OF NASHUA AND MERRIMACK, NEW HAMPSHIRE, LATEST EDITION.
- ALL ELECTRIC RELATED WORK SHALL CONFORM TO EVERSOURCE STANDARDS.
- ALL TELECOMMUNICATIONS WORK SHALL CONFORM TO CONSOLIDATED COMMUNICATIONS STANDARDS.
- ALL NATURAL GAS RELATED WORK SHALL COMPLY WITH LIBERTY UTILITIES STANDARDS.
- PRIOR TO CONSTRUCTION THE EXISTING HOUSE AND MOBILE HOME SEWER SERVICES SHALL BE INSPECTED BY VIDEO. THE RESULTS SHALL BE PROVIDED TO THE ENGINEER AND CITY OF NASHUA ENGINEERING DEPARTMENT.



No.	DATE	ADDRESS CITY STAFF COMMENTS	REVISION	TEZ	BY
1	09/23/20				

LOT GRADING & UTILITY PLAN
 (MAP E, LOT 60)
599 WEST HOLLIS STREET
 NASHUA, NEW HAMPSHIRE

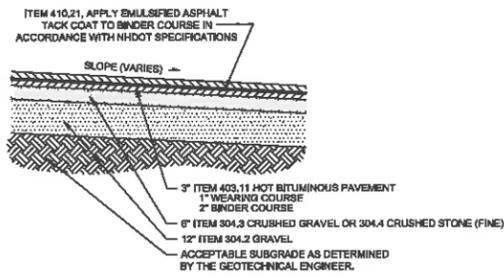
PREPARED FOR/RECORD OWNER:
CRIMSON PROPERTIES, LLC
 20 TRAFALGAR SQ., SUITE 101 NASHUA, NEW HAMPSHIRE 03083 (603) 234-4182



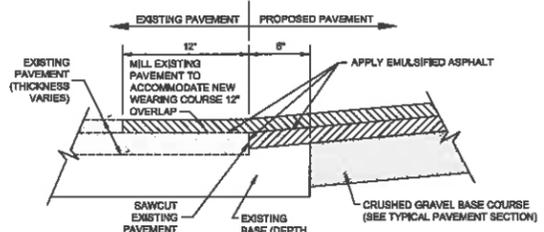
26 AUGUST 2020

HESI Hayner/Swanson, Inc.
 Civil Engineers/Land Surveyors
 3 Congress Street
 Nashua, NH 03062
 (603) 883-2097
 www.hayner-swanson.com

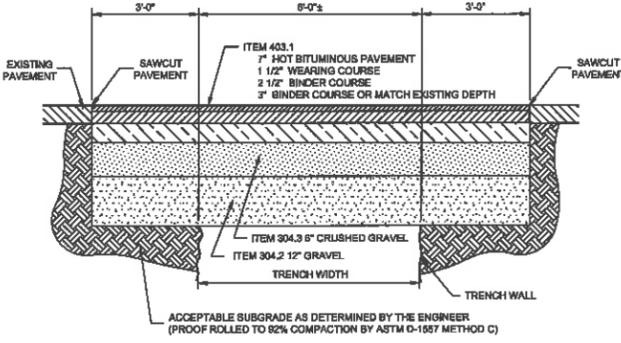
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TYPICAL PAVEMENT SECTION (DRIVEWAYS)
NOT TO SCALE



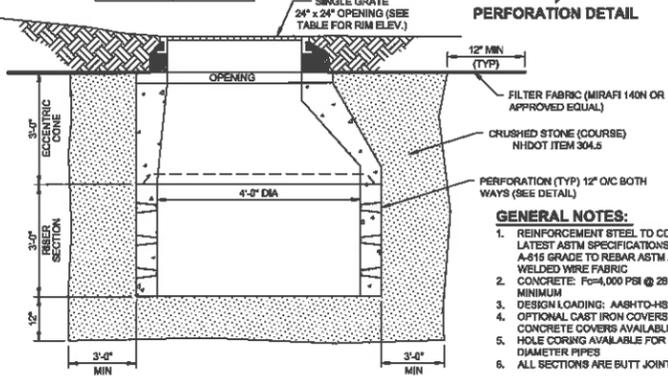
SAWCUT PAVEMENT DETAIL
NOT TO SCALE



NOTE:
THE BINDER COURSE SHALL BE PLACED IMMEDIATELY AFTER THE TRENCH CONSTRUCTION, AND ALLOWED TO STAND FOR A MINIMUM OF 90 DAYS. A LEVELING COURSE SHALL BE APPLIED OVER THE TRENCH AFTER 90 DAYS AND THE ENTIRE ROAD OVERLAYED TO THE LIMITS SHOWN ON THE PLANS.

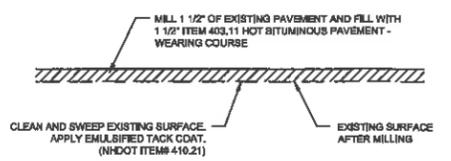
TRENCH PATCH DETAIL
NOT TO SCALE

LOCATION	RIM ELEV.
RU A	98.51
RU B	98.02
RU C	94.52
RU D	97.52

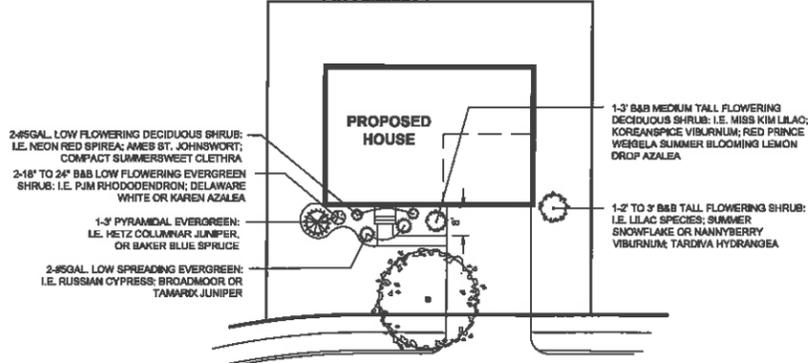


- GENERAL NOTES:**
1. REINFORCEMENT STEEL TO CONFORM TO LATEST ASTM SPECIFICATIONS: ASTM A-615 GRADE TO REBAR ASTM A-195 WELDED WIRE FABRIC
 2. CONCRETE: Fc=4,000 PSI @ 28 DAYS MINIMUM
 3. DESIGN LOADING: ASH-TO-H2O-44
 4. OPTIONAL CAST IRON COVERS OR CONCRETE COVERS AVAILABLE
 5. HOLE CORING AVAILABLE FOR LARGER DIAMETER PIPES
 6. ALL SECTIONS ARE BUTT JOINT

ROOF INFILTRATION UNIT DETAIL
NOT TO SCALE

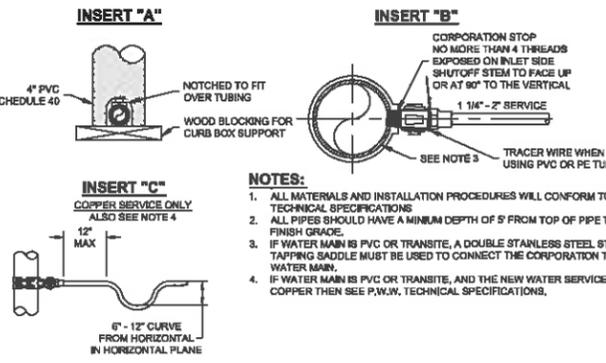
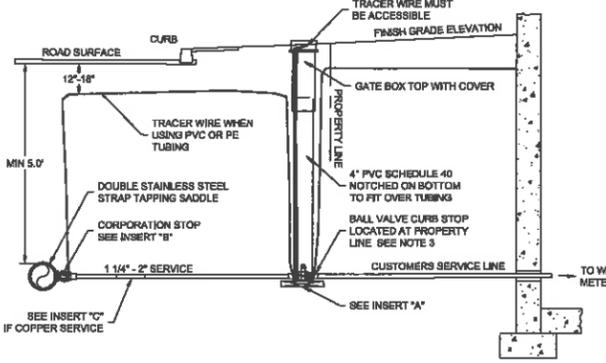


PAVEMENT MILL/OVERLAY DETAIL
NOT TO SCALE



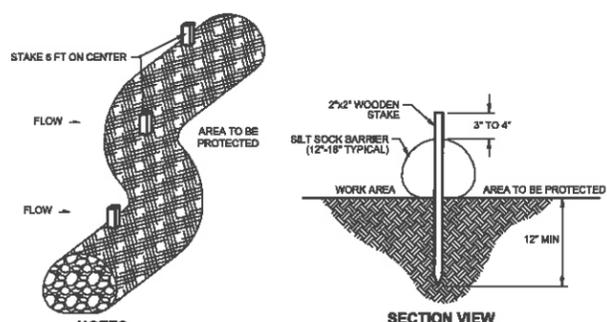
- NOTES:**
1. THE HOME BUILDER RESERVES THE RIGHT TO MODIFY THE TYPE, SIZE AND LOCATION OF THE FOUNDATION PLANT MATERIALS.
 2. STREET TREE LOCATIONS AS SHOWN ARE APPROXIMATE.
 3. STREET TREES ARE INTENDED TO MEET THE REQUIREMENTS OF THE NASHUA LAND USE CODE SECTION 190-185.

TYPICAL LOT LANDSCAPE DETAIL
NOT TO SCALE



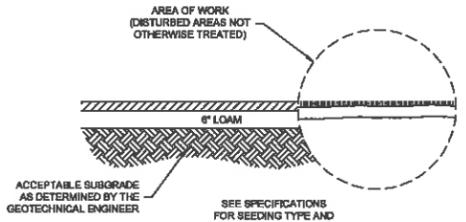
- NOTES:**
1. ALL MATERIALS AND INSTALLATION PROCEDURES WILL CONFORM TO P.W.W. TECHNICAL SPECIFICATIONS
 2. ALL PIPES SHOULD HAVE A MINIMUM DEPTH OF 5' FROM TOP OF PIPE TO FINISH GRADE.
 3. IF WATER MAIN IS PVC OR TRANSITE, A DOUBLE STAINLESS STEEL STRAP TAPPING SADDLE MUST BE USED TO CONNECT THE CORPORATION TO THE WATER MAIN.
 4. IF WATER MAIN IS PVC OR TRANSITE, AND THE NEW WATER SERVICE IS COPPER THEN SEE P.W.W. TECHNICAL SPECIFICATIONS.

TYPICAL 1 1/4\"/>

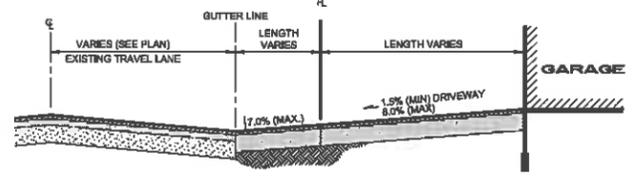


- NOTES:**
1. SILT SOCK BARRIER SHALL BE FILTEREXX SILT SOCK (OR APPROVED EQUAL) AND SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
 2. SILT SOCK BARRIER SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REPAIRS THAT ARE REQUIRED SHALL BE MADE IMMEDIATELY.
 3. IF THE SILT SOCK SHOULD DECOMPOSE OR BECOME INEFFECTIVE, THE BARRIER SHALL BE REPLACED PROMPTLY.
 4. SEDIMENT DEPOSITS SHOULD BE INSPECTED AFTER EVERY STORM EVENT. THE DEPOSITS SHOULD BE REMOVED WHEN THEY REACH APPROXIMATELY ONE-THIRD THE HEIGHT OF THE BARRIER.
 5. SEDIMENT DEPOSITS THAT ARE REMOVED OR LEFT IN PLACE AFTER THE BARRIER HAS BEEN REMOVED SHALL BE GRADED TO CONFORM WITH THE EXISTING TOPOGRAPHY AND VEGETATED.
 6. COMPOST TO BE REMOVED OR DISPOSED ON-SITE AS DETERMINED BY THE ENGINEER.

SILT SOCK DETAIL
NOT TO SCALE



LOAM AND SEED DETAIL
NOT TO SCALE



TYPICAL DRIVEWAY SECTION
NOT TO SCALE

EROSION CONTROL NOTES

1. ALL SOIL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IN ACCORDANCE WITH STANDARDS AND SPECIFICATIONS THEREOF IN NEW HAMPSHIRE DEPARTMENT OF ENVIRONMENTAL SERVICES STORMWATER MANUALS, VOLUME 1-3, LATEST EDITION.
 2. THE WORK AREA SHALL BE GRADED, SHAPED, AND OTHERWISE DRAINED IN SUCH A MANNER AS TO MINIMIZE SOIL EROSION, SILTATION OF DRAINAGE CHANNELS, DAMAGE TO EXISTING VEGETATION, AND DAMAGE TO PROPERTY OUTSIDE THE LIMITS OF THE WORK AREA. SILT FENCES, STRAW BALS AND/OR DETENTION BASINS WILL BE NECESSARY TO ACCOMPLISH THIS END.
 3. STRIPPED TOPSOIL SHALL BE STOCKPILED, WITHOUT COMPACTION, AND STABILIZED AGAINST EROSION IN ACCORDANCE WITH "TEMPORARY STABILIZATION OF DISTURBED AREAS", AS OUTLINED IN NOTE NO. 4.
 4. TEMPORARY STABILIZATION OF DISTURBED AREAS:
SEED BED PREPARATION: 10-10-10 FERTILIZATION TO BE SPREAD AT THE RATE OF 7 LBS PER 1,000 SF AND AGRICULTURAL LIMESTONE AT A RATE OF 60 LBS PER 1,000 SF AND INCORPORATED INTO THE SOIL. THE SOIL, FERTILIZER AND LIMESTONE SHALL BE TILLED TO PREPARE FOR SEEDING.
- A. SEED MIXTURE: USE ANY OF THE FOLLOWING:**
- | SPECIES | RATE PER 1,000 SF | DEPTH | SEEDING DATES |
|------------------|-------------------|-------|----------------|
| WINTER RYE | 2.5 LBS | 1" | 08/16 TO 08/19 |
| OATS | 2.5 LBS | 1" | 04/16 TO 10/15 |
| ANNUAL RYE GRASS | 1.0 LBS | 0.25" | 08/16 TO 08/19 |
- B. MULCHING: MULCH SHOULD BE USED ON HIGHLY ERODABLE AREAS, AND WHERE CONSERVATION OF MOISTURE WILL FACILITATE PLANT ESTABLISHMENT AS FOLLOWS:**
- | TYPE | RATE PER 1,000 SF | USE & COMMENTS |
|--------------------------|--------------------------------|--|
| STRAW | 70 TO 80 LBS | MAY BE USED WITH PLANTINGS, MUST BE ANCHORED TO BE USED ALONE |
| WOOD CHIPS OR BARK MULCH | 400 TO 500 LBS | USED WITH TREE AND SHRUB PLANTINGS |
| FIBROUS MATTING | AS RECOMMENDED BY MANUFACTURER | MUST BE BIODEGRADABLE. USE IN SLOPE AREAS AND AREAS DIFFICULT TO VEGETATE. |
| CRUSHED STONE | SPREAD TO GREATER THAN 1\"/> | |
5. PERMANENT STABILIZATION OF DISTURBED AREAS:
 - A. ALL ROADWAYS SHALL BE STABILIZED WITHIN 72 HOURS OF ACHIEVING FINISHED GRADE.
 - B. ALL CUT AND FILL SLOPES SHALL BE SEED/ERODABLE WITHIN 72 HOURS OF ACHIEVING FINISHED GRADE.
 6. AN AREA SHALL BE CONSIDERED STABILIZED IF ONE OF THE FOLLOWING HAS OCCURRED:
 - A. BASE COURSE GRAVELS HAVE BEEN INSTALLED IN AREAS TO BE PAVED.
 - B. A MINIMUM OF 85% VEGETATED GROWTH HAS BEEN ESTABLISHED.
 - C. A MINIMUM OF 3 INCHES OF NON-EROSIVE MATERIAL SUCH AS STONE OR RIPRAP HAS BEEN INSTALLED.
 - D. OR, EROSION CONTROL BLANKETS HAVE BEEN PROPERLY INSTALLED
 7. TOTAL AREA OF DISTURBED SOILS: 188,500 SF±.
 8. PERIMETER EROSION AND SEDIMENT CONTROLS (SILT SOCK OR APPROVED EQUAL) SHALL BE INSTALLED ALONG ALL LIMITS OF SITE DISTURBANCE, INCLUDING ALONG THE SITE'S FRONTAGE ON WEST HOLLIS STREET AND WELLESLEY ROAD.

SITE MAINTENANCE PLAN

THE FOLLOWING PROVIDES AN ITEMIZATION OF SPECIFIC SITE MAINTENANCE PRACTICES THAT WILL BE EMPLOYED ON THE SITE TO MINIMIZE POLLUTANT GENERATION AND TRANSPORT FROM THE SITE. THE SITE MAINTENANCE PROGRAM INCLUDES ROUTINE INSPECTIONS, PREVENTATIVE MAINTENANCE AND "GOOD HOUSEKEEPING" PRACTICES.

- ROUTINE INSPECTIONS**
1. INSPECT SITE ON A QUARTERLY BASIS OR AFTER A SIGNIFICANT RAIN EVENT.
- PREVENTATIVE MAINTENANCE**
1. CLEAN ROOF INFILTRATION UNITS TWICE PER YEAR IF NEEDED OR MORE FREQUENTLY AS DICTATED BY QUARTERLY INSPECTIONS.
 2. IMPLEMENT OTHER MAINTENANCE OR REPAIR ACTIVITIES AS DEEMED NECESSARY BASED UPON INSPECTIONS.
- GOOD HOUSEKEEPING PRACTICES**
1. SWEEP DRIVEWAYS REGULARLY TO MINIMIZE SEDIMENT ACCUMULATION. FREQUENCY WILL VARY SEASONALLY ACCORDING TO SEDIMENT ACCUMULATION ON PAVED SURFACES (E.G., MORE FREQUENT SWEEPING DURING THE WINTER AND SPRING).
 2. USE NO-SALT (NAC) ALTERNATIVES SUCH AS CLOSED FLOWING AND BANDING FOR DE-ICING ON THE DRIVEWAY.

No.	DATE	ADDRESS CITY STAFF COMMENTS	REVISION	BY
1	05/23/20	ADDRESS CITY STAFF COMMENTS		TEZ

DETAIL SHEET - GENERAL SITE
(MAP E, LOT 66)
599 WEST HOLLIS STREET
NASHUA, NEW HAMPSHIRE

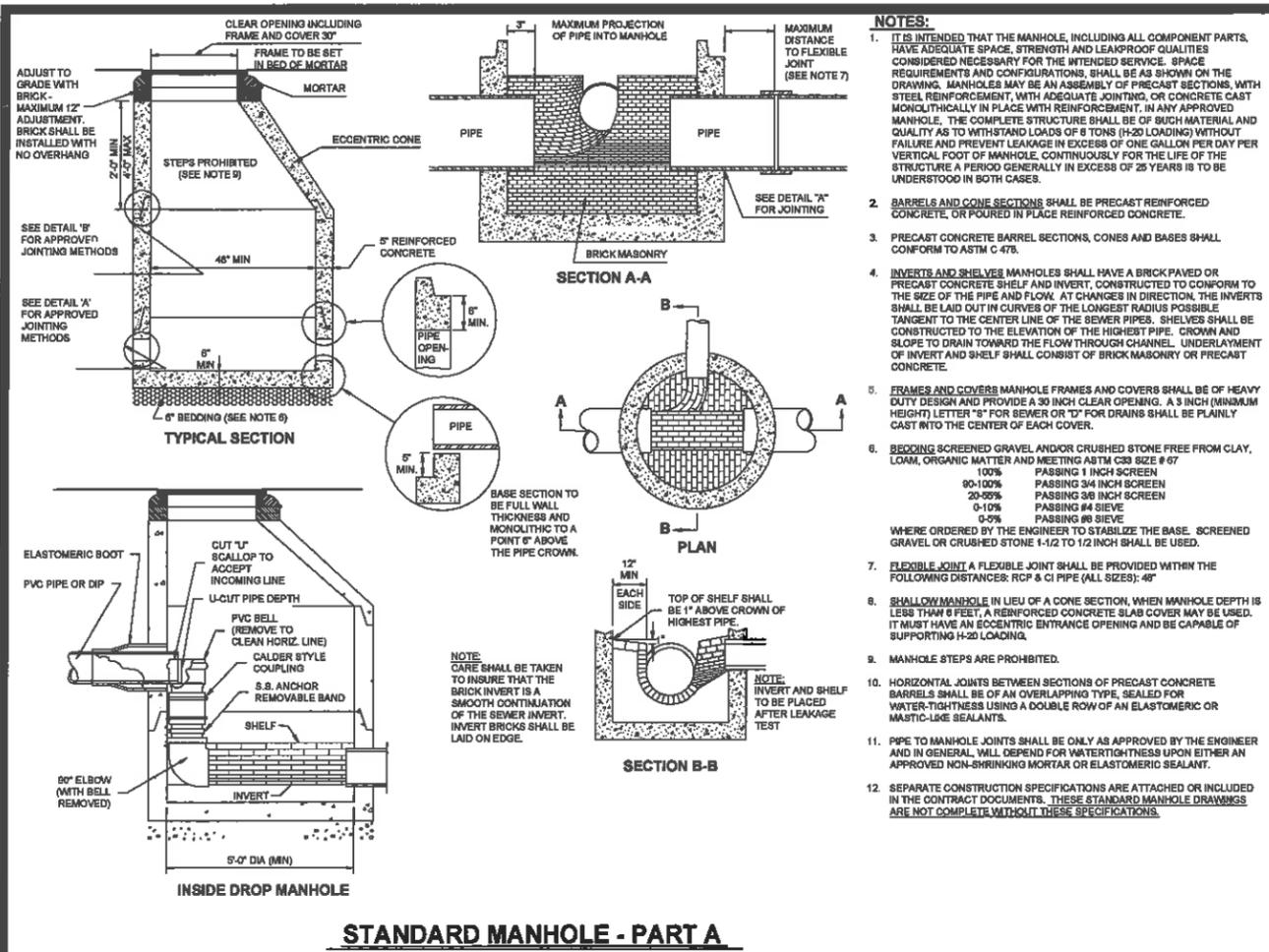
PREPARED FOR/RECORD OWNER:
CRIMSON PROPERTIES, LLC
20 TRAFALGAR SQ., SUITE 101 NASHUA, NEW HAMPSHIRE 03063 (603) 234-4192

SCALE AS SHOWN

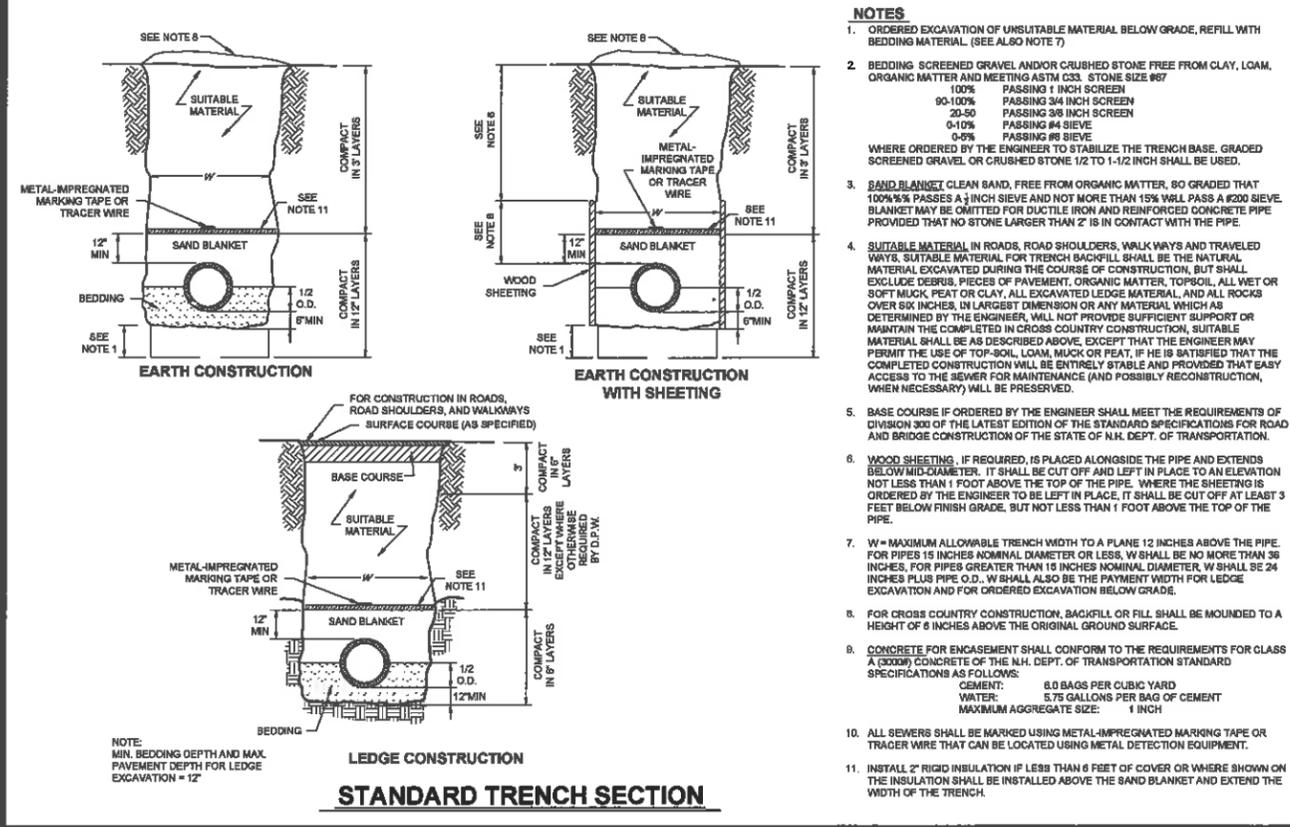
26 AUGUST 2020

HESI Hayner/Swanson, Inc.
Civil Engineer/Land Surveyor
3 Congress Street
Nashua, NH 03062
(603) 883-2037
131 Middlesex Turnpike
Burlington, MA 01803
(781) 203-1501
www.hayner-swanson.com

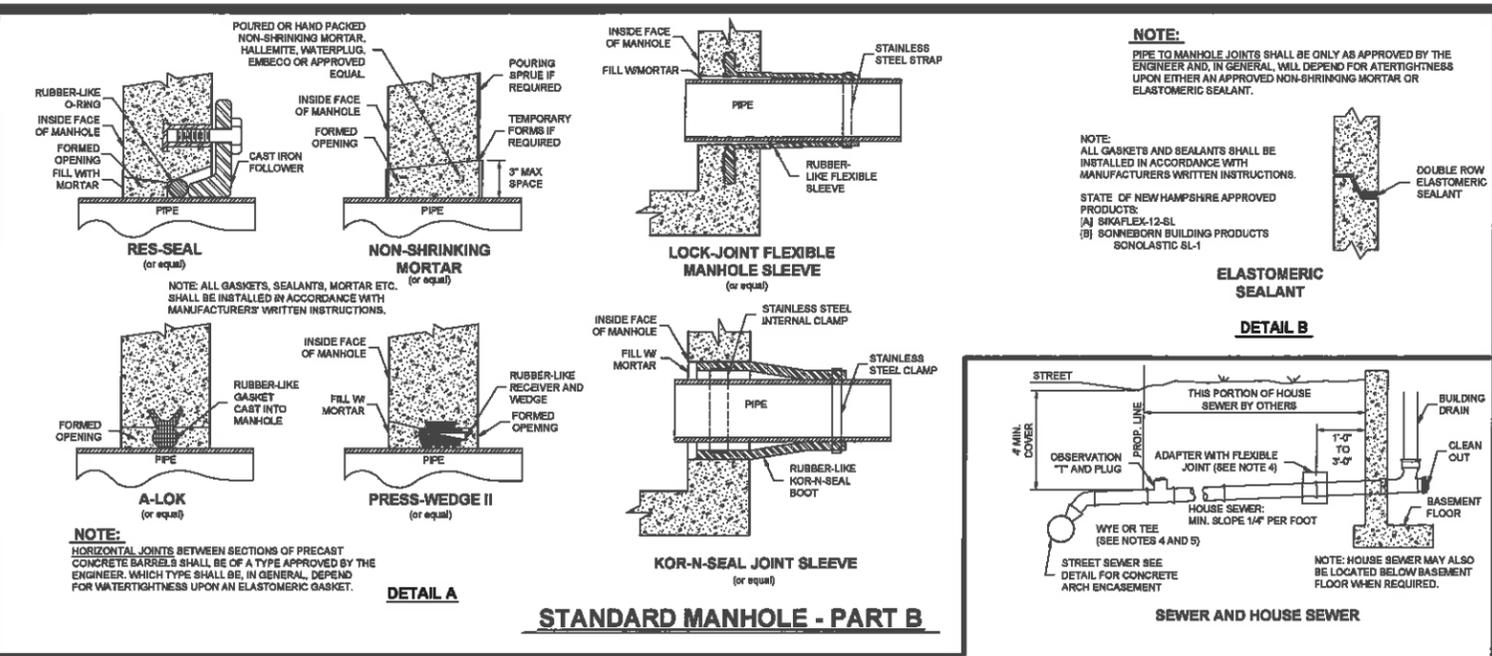




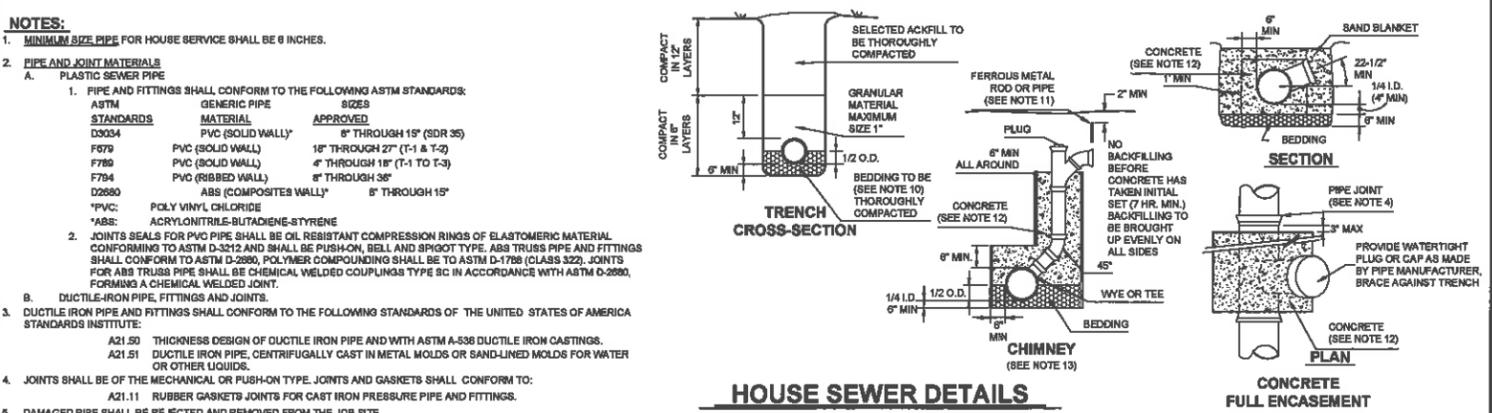
STANDARD MANHOLE - PART A



STANDARD TRENCH SECTION



STANDARD MANHOLE - PART B



HOUSE SEWER DETAILS

DETAIL SHEET - SEWER
(MAP E, LOT 66)
599 WEST HOLLIS STREET
NASHUA, NEW HAMPSHIRE

PREPARED FOR/RECORD OWNER:
CRIMSON PROPERTIES, LLC
20 TRAFALGAR SQ., SUITE 101 NASHUA, NEW HAMPSHIRE 03063 (603) 234-4192

NO SCALE

26 AUGUST 2020

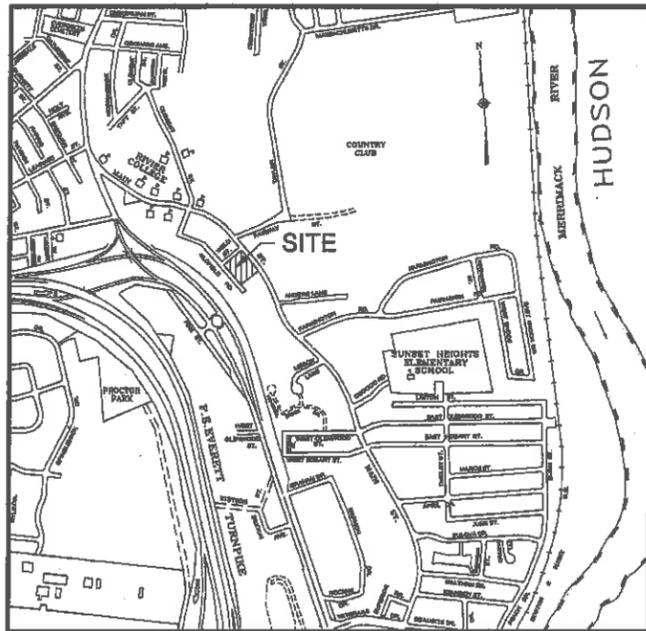
HESI Hayner/Swanson, Inc.
Civil Engineer/Land Surveyor
3 Congress Street
Nashua, NH 03062
(603) 883-2057
www.hayner-swanson.com

FIELD BOOK: 1242 DRAWING NAME: 570501E1 5705 5 OF 5
DRAWING LOC.: \30001\5705\DWG\570501E1 File Number Sheet

MAP 112, LOT 11
SUBDIVISION / STREET DEDICATION PLAN

453 SOUTH MAIN STREET

NASHUA, NEW HAMPSHIRE



VICINITY PLAN
 SCALE: 1" = 1,000'

PREPARED FOR/RECORD OWNER

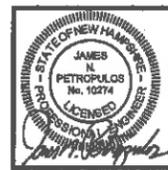
STELLOS FAMILY INVESTMENT PROPERTIES, L.L.C.

125 NORTHEASTERN BOULEVARD
 NASHUA, NEW HAMPSHIRE 03062
 (603) 882-3126

27 AUGUST 2020

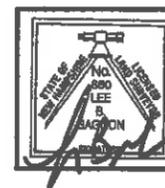
INDEX OF PLANS

SHEET No.	TITLE	
1 OF 5	SUBDIVISION / STREET DEDICATION PLAN	1" = 30'
2 OF 5	TOPOGRAPHIC SUBDIVISION PLAN	1" = 30'
3 OF 5	LOT GRADING PLAN	1" = 30'
4-5 OF 5	DETAIL SHEET - GENERAL SITE	



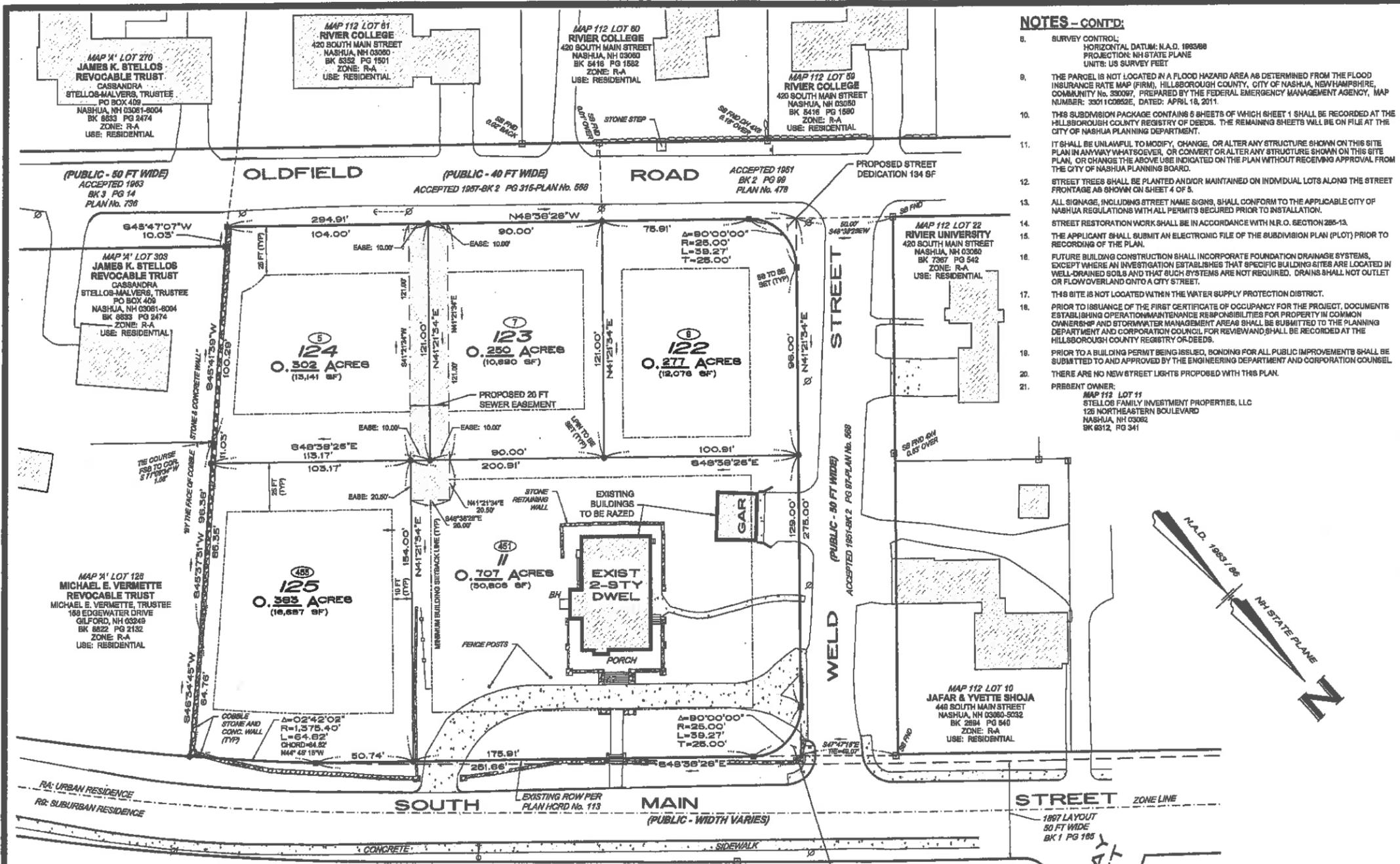
HSI Hayner/Swanson, Inc.

Civil Engineers/Land Surveyors
 3 Congress Street Nashua, NH 03062 (603) 883-2057
 131 Middlesex Turnpike Burlington, MA 01803 (781) 203-1501
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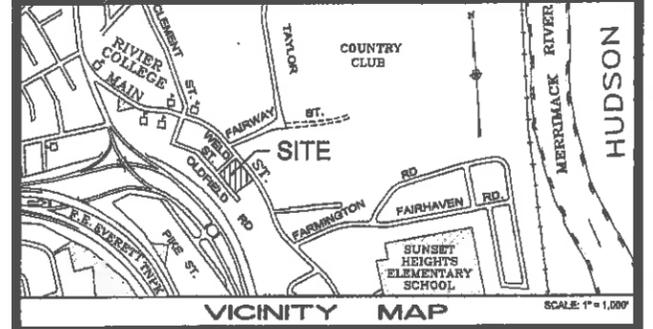


9/22/20





- NOTES - CONT'D.**
- SURVEY CONTROL:
HORIZONTAL DATUM: N.A.D. 1983/98
PROJECTION: NH STATE PLANE
UNITS: US SURVEY FEET
 - THE PARCEL IS NOT LOCATED IN A FLOOD HAZARD AREA AS DETERMINED FROM THE FLOOD INSURANCE RATE MAP (FIRM), HILLSBOROUGH COUNTY, CITY OF NASHUA, NEW HAMPSHIRE, COMMUNITY No. 330097, PREPARED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY, MAP NUMBER: 330110262E, DATED: APRIL 18, 2011.
 - THIS SUBDIVISION PACKAGE CONTAINS 6 SHEETS OF WHICH SHEET 1 SHALL BE RECORDED AT THE HILLSBOROUGH COUNTY REGISTRY OF DEEDS. THE REMAINING SHEETS WILL BE ON FILE AT THE CITY OF NASHUA PLANNING DEPARTMENT.
 - IT SHALL BE UNLAWFUL TO MODIFY, CHANGE, OR ALTER ANY STRUCTURE SHOWN ON THIS SITE PLAN IN ANYWAY WHATSOEVER, OR CONVERT OR ALTER ANY STRUCTURE SHOWN ON THIS SITE PLAN, OR CHANGE THE ABOVE USE INDICATED ON THE PLAN WITHOUT RECEIVING APPROVAL FROM THE CITY OF NASHUA PLANNING BOARD.
 - STREET TREES SHALL BE PLANTED AND/OR MAINTAINED ON INDIVIDUAL LOTS ALONG THE STREET FRONTAGE AS SHOWN ON SHEET 4 OF 5.
 - ALL SIGNAGE, INCLUDING STREET NAME SIGNS, SHALL CONFORM TO THE APPLICABLE CITY OF NASHUA REGULATIONS WITH ALL PERMITS SECURED PRIOR TO INSTALLATION.
 - STREET RESTORATION WORK SHALL BE IN ACCORDANCE WITH N.R.O. SECTION 285-13.
 - THE APPLICANT SHALL SUBMIT AN ELECTRONIC FILE OF THE SUBDIVISION PLAN (PLOT) PRIOR TO RECORDING OF THE PLAN.
 - FUTURE BUILDING CONSTRUCTION SHALL INCORPORATE FOUNDATION DRAINAGE SYSTEMS, EXCEPT WHERE AN INVESTIGATION ESTABLISHES THAT SPECIFIC BUILDING SITES ARE LOCATED IN WELL-DRAINED SOILS AND THAT SUCH SYSTEMS ARE NOT REQUIRED. DRAINS SHALL NOT OUTLET OR FLOW OVERLAND ONTO A CITY STREET.
 - THIS SITE IS NOT LOCATED WITHIN THE WATER SUPPLY PROTECTION DISTRICT.
 - PRIOR TO ISSUANCE OF THE FIRST CERTIFICATE OF OCCUPANCY FOR THE PROJECT, DOCUMENTS ESTABLISHING OPERATION/MAINTENANCE RESPONSIBILITIES FOR PROPERTY IN COMMON OWNERSHIP AND STORMWATER MANAGEMENT AREAS SHALL BE SUBMITTED TO THE PLANNING DEPARTMENT AND CORPORATION COUNCIL FOR REVIEW AND SHALL BE RECORDED AT THE HILLSBOROUGH COUNTY REGISTRY OF DEEDS.
 - PRIOR TO A BUILDING PERMIT BEING ISSUED, BONDING FOR ALL PUBLIC IMPROVEMENTS SHALL BE SUBMITTED TO AND APPROVED BY THE ENGINEERING DEPARTMENT AND CORPORATION COUNSEL.
 - THERE ARE NO NEW STREET LIGHTS PROPOSED WITH THIS PLAN.
 - PRESENT OWNER:
MAP 112 LOT 11
STELLOS FAMILY INVESTMENT PROPERTIES, LLC
125 NORTHEASTERN BOULEVARD
NASHUA, NH 03082
BK 8912, PG 341



- PLAN REFERENCES:**
- PLAN OF ADDITION TO NASHUA TERRACES, SCALE: 1" = 80', H.C.R.D. PLAN No. 113.
 - NASHUA, NH, SCALE: 1" = 50', DATED: FEBRUARY 1980, PREPARED BY: NED SPAULDING, H.C.R.D. PLAN No. NOT RECORDED.
 - BOUNDARY PLAN, RIVIER COLLEGE, SOUTH MAIN STREET, NASHUA, NEW HAMPSHIRE, PREPARED FOR/RECORD OWNER: RIVIER COLLEGE, DATED: 17 APRIL 1982, SCALE: 1" = 100' AND PREPARED BY: ALLAN H. SWANSON, H.C.R.D. PLAN No. 287.28.
 - FINAL SUBDIVISION PLAN, MAP A, LOTS 760 & 323, SOUTH MAIN STREET, NASHUA, NEW HAMPSHIRE, PREPARED FOR DONALD REID, DATED: MAY 21, 1967, SCALE: 1" = 87' AND PREPARED BY CUOCO & CORMIER, H.C.R.D. PLAN No. 20818.
 - LOT LINE RELOCATION PLAN, SHEET A, LOTS 785 & 126, SOUTH MAIN STREET, NASHUA, NEW HAMPSHIRE, PREPARED FOR: DONALD REID, DATED: OCTOBER 13, 1967, SCALE: 1" = 20' AND PREPARED BY CUOCO & CORMIER, INC., H.C.R.D. PLAN No. 21396.

- NOTES:**
- EXISTING SITE AREA: 1.525 AC (63,886 SF)
 - PRESENT ZONING: R-A; A-URBAN RESIDENCE
 - MINIMUM LOT REQUIREMENTS:

REQUIRED	LOT 11	LOT 12	LOT 123	LOT 124	LOT 125
LOT SIZE	7,800 SF	30,808 SF	12,076 SF	10,989 SF	13,141 SF
FRONTAGE	60 FT	344.16 FT	211.16 FT	90.00 FT	104.00 FT
WIDTH	75 FT	200 FT	100 FT	90 FT	106 FT
DEPTH	80 FT	164 FT	121 FT	121 FT	121 FT
 - MINIMUM SETBACK REQUIREMENTS:

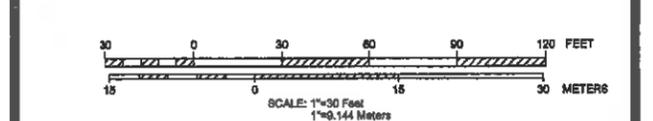
FRONT YARD	25 FT
SIDE YARD	10 FT
REAR YARD	25 FT
MAX. BUILDING HEIGHT	35 FT
MAX. STORIES	2.5
OPEN SPACE (%)	60
MAX. FLOOR RATIO	0.5
 - LOT NUMBERS REFER TO THE CITY OF NASHUA ASSESSORS MAPS 'A', 112 AND 116.
 - PURPOSE OF PLAN:
 - TO SUBDIVIDE OLD LOT 11 INTO FIVE (5) NEW RESIDENTIAL LOTS
 - TO DEDICATE 134 SF OF LOT 11 FOR WELD STREET RIGHT OF WAY
 - TO DEDICATE 134 SF OF LOT 122 FOR WELD STREET RIGHT OF WAY
 - SITE IS SERVICED BY MUNICIPAL SEWER, WATER BY PENNICK-LUCK WATER WORKS, UNDERGROUND GAS AND A COMBINATION OF UNDERGROUND AND OVERHEAD ELECTRIC AND TELECOMMUNICATION UTILITIES.
 - MONUMENTS, WHERE REQUIRED, TO BE SET BY A LICENSED LAND SURVEYOR AS FOLLOWS:
 - STONE BOUNDS: AT STREET INTERSECTIONS, POINTS OF CURVATURE AND TANGENCY OF PUBLIC STREET
 - IRON PINS: AT LOT CORNERS
 - THERE ARE NO WETLANDS ON THIS SITE.

No.	DATE	REVISION	BY

SUBDIVISION / STREET DEDICATION PLAN (MAP 112, LOT 11)

453 SOUTH MAIN STREET NASHUA, NEW HAMPSHIRE

PREPARED FOR/RECORD OWNER:
STELLOS FAMILY INVESTMENT PROPERTIES, LLC
125 NORTHEASTERN BOULEVARD NASHUA, NEW HAMPSHIRE 03082 (603) 882-3128



27 AUGUST 2020

HSLI Hayner/Swanson, Inc.
Civil Engineers/Land Surveyors
3 Congress Street, Nashua, NH 03063 (603) 883-2037
151 Middlesex Turnpike, Burlington, MA 01803 (781) 203-1508
www.haynerswanson.com

FIELD BOOK: 1247	DRAWING NAME: 5718SUB-P531	5718 SUB	1 OF 5
DRAWING LOC: J:\5000\5718 STELLOS\DWG\5718SUB			

ZONING NOTE 1
THE ZONING/BUILDING SETBACKS DEPICTED ON THIS PLAN ARE THOSE WE HAVE INTERPRETED FROM THE LATEST ZONING ORDINANCE OF THE MUNICIPALITY AND, AS SUCH, ARE ONLY OPINIONS EXPRESSED BY HAYNER/SWANSON, INC. THE FINAL INTERPRETATION OF THE ORDINANCE CAN ONLY BE MADE BY THE APPROPRIATE ZONING AUTHORITY. SINCE BUILDING ORIENTATION, PROPOSED USES, AND OTHER FACTORS CAN AFFECT THE SETBACKS, PRIOR TO ANY DEVELOPMENT OF THIS PROPERTY, THE BUILDER/OWNER MUST CONSULT WITH THE TOWN/CITY TO INSURE THE CORRECT APPLICATION OF THE ZONING ORDINANCE.

APPROVED NASHUA CITY PLANNING BOARD
CHAIRMAN _____ DATE _____

- LEGEND**
- UTILITY POLE WITH GUY SUPPORT
 - STREET LIGHT
 - SIGN
 - CONCRETE BOUND
 - STONE BOUND
 - IRON PIPE
 - DRILL HOLE & STORE WALL
 - STONE BOUND TO BE SET
 - IRON PIN TO BE SET
 - BUILDING SETBACK LINE
 - STOCKADE FENCE
 - CURBING
 - STREET ADDRESS
 - CONCRETE
 - COBBLE/STONE/CONCRETE WALL
 - EXISTING BUILDING (PER NASHUA GIS)

MAP 116 LOT 1
NASHUA DEVELOPMENT CO
60 HANBLETT & KERRIGAN
20 TRAFALGAR SQUARE, STE 505
NASHUA, NH 03063-1991
BK 2884 PG 540
ZONE: R-9
USE: COUNTRY CLUB

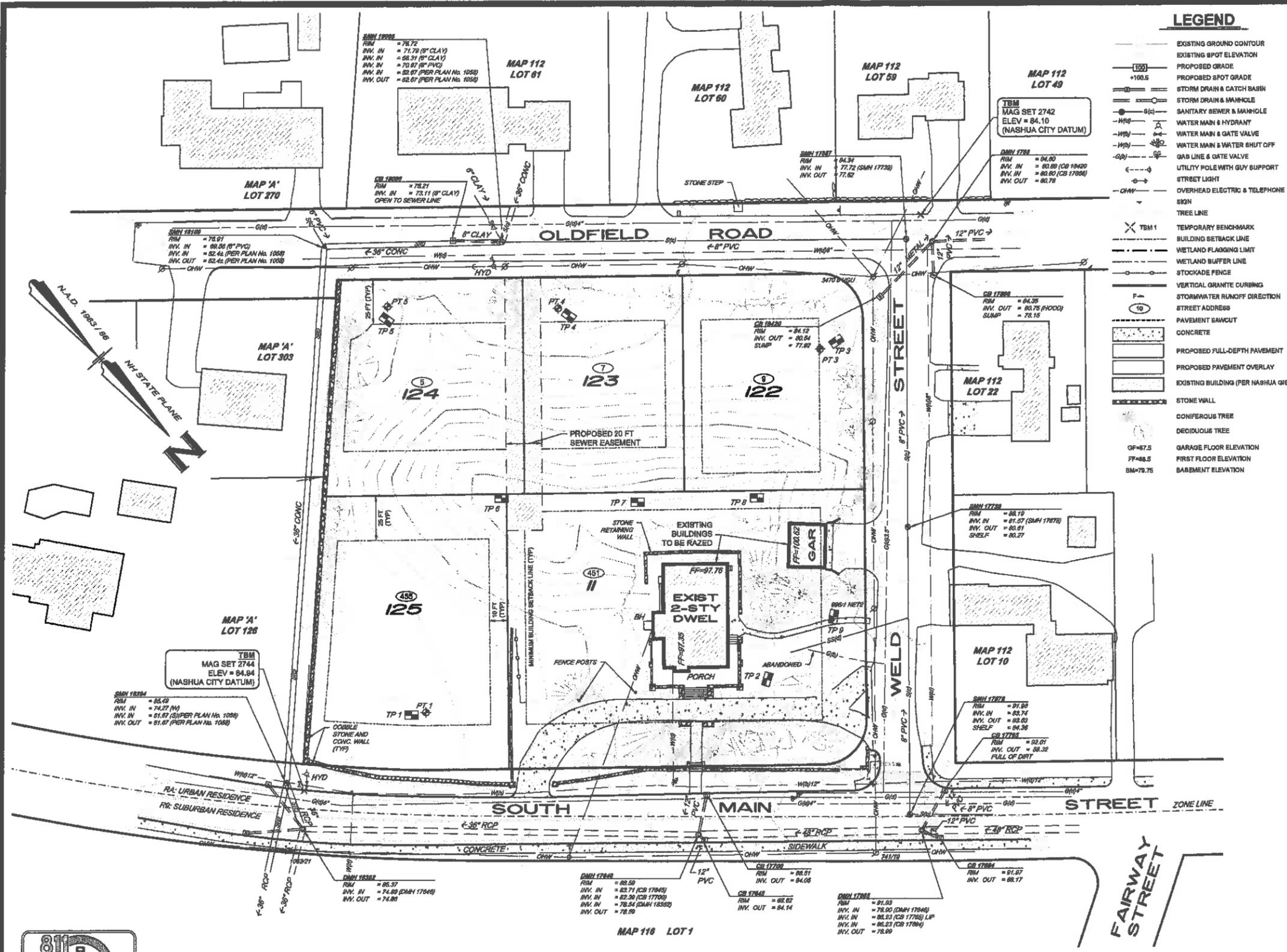
THE UNDERSIGNED DOES HEREBY AGREE TO PERFORM ALL OF THE SITE IMPROVEMENTS AS SHOWN ON THIS PLAN AND AS CONDITIONED OR STIPULATED BY THE NASHUA CITY PLANNING BOARD. ALL REQUIRED SITE IMPROVEMENTS MUST BE COMPLETED OR GUARANTEED PRIOR TO THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY.

Cassandra Malvera 09/21/2020
FOR STELLOS FAMILY INVESTMENT PROPERTIES, LLC. DATE

CERTIFICATION
I HEREBY CERTIFY, TO MY KNOWLEDGE, INFORMATION AND BELIEF, THAT THIS PLAN SHOWS THE RESULTS OF AN ON THE GROUND "STANDARD PROPERTY SURVEY" AND THAT SAID SURVEY MEETS THE MINIMUM PRECISION AND/OR ACCURACY MEASUREMENTS FOR SURVEY CLASSIFICATION "U" (URBAN) AS SET FORTH IN TABLE 500.4 OF THE NEW HAMPSHIRE CODE OF ADMINISTRATIVE RULES OF THE BOARD OF LICENSURE FOR LAND SURVEYORS ADOPTED 08/23/01, EFFECTIVE 01/01/08.

I FURTHER CERTIFY THAT THIS PLAN IS THE RESULT OF AN ACTUAL FIELD SURVEY MADE ON THE GROUND AND HAS A MAXIMUM ERROR OF CLOSURE OF ONE PART IN FIFTEEN THOUSAND ON ALL PROPERTY LINES WITHIN AND BORDERING THE SUBJECT PROPERTY.

9/25/20 DATE
LEE B. GAGNON, LLB



LEGEND

- EXISTING GROUND CONTOUR
- EXISTING SPOT ELEVATION
- PROPOSED GRADE
- PROPOSED SPOT GRADE
- STORM DRAIN & CATCH BASIN
- STORM DRAIN & MANHOLE
- SANITARY SEWER & MANHOLE
- WATER MAIN & HYDRANT
- WATER MAIN & GATE VALVE
- WATER MAIN & WATER SHUT OFF
- GAS LINE & GATE VALVE
- UTILITY POLE WITH GUY SUPPORT
- STREET LIGHT
- OVERHEAD ELECTRIC & TELEPHONE
- SIGN
- TREE LINE
- TEMPORARY BENCHMARK
- BUILDING SETBACK LINE
- WETLAND FLAGGING LIMIT
- WETLAND BUFFER LINE
- STOCKADE FENCE
- VERTICAL GRANITE CURBING
- STORMWATER RUNOFF DIRECTION
- STREET ADDRESS
- PAVEMENT SAWCUT
- CONCRETE
- PROPOSED FULL-DEPTH PAVEMENT
- PROPOSED PAVEMENT OVERLAY
- EXISTING BUILDING (PER NASHUA 618)
- STONE WALL
- CONIFEROUS TREE
- DECIDUOUS TREE
- GF=67.5 GARAGE FLOOR ELEVATION
- FF=68.5 FIRST FLOOR ELEVATION
- BM=79.75 BASEMENT ELEVATION

- SURVEY NOTES:**
- THE TOPOGRAPHY SHOWN IS BASED ON A FIELD SURVEY BY THIS OFFICE IN JULY AND AUGUST 2020.
 - SURVEY CONTROL:
HORIZONTAL DATUM: N.A.D. 1983/86
PROJECTION: NH STATE PLANE
VERTICAL DATUM: NASHUA CITY DATUM
UNITS: US SURVEY FEET
 - IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE ACCURACY OF THE EXISTING TOPOGRAPHY PRIOR TO EARTHWORK OPERATIONS. NO CLAIM FOR THE EXTRA WORK DUE TO TOPOGRAPHIC INACCURACY SHALL BE CONSIDERED AFTER EARTHWORK HAS COMMENCED.
 - THE CONTRACTOR SHALL ONLY USE BENCHMARKS AS PROVIDED BY THE ENGINEER.
 - TEST PIT LOCATIONS AS SHOWN ARE APPROXIMATE. TEST PITS WERE PERFORMED ON AUGUST 14, 2020 UNDER THE SUPERVISION OF HAYNER/SWANSON, INC.

UTILITY CONTACTS

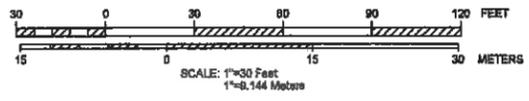
- WATER:**
PENNICLUCK WATER WORKS
25 MANCHESTER STREET
MERRIMACK, NH 03054
ATT: JOHN BOISVERT, PE
(603) 913-2300
- GAS:**
LIBERTY UTILITIES
11 NORTHEASTERN BLVD.
SALEM, NH 03079
ATT: ANDREW MORGAN
(603) 327-5357
- TELEPHONE:**
CONSOLIDATED COMMUNICATIONS
100 GAY STREET
MANCHESTER, NH 03103
ATT: ROBERTO DIAZ
(603) 296-5998
- POWER:**
EVERSOURCE
370 MANHET STREET
NASHUA, NH 03060
ATT: MARC GAGNIN
(603) 882-5864
- CITY OF NASHUA**
- PLANNING DEPARTMENT**
COMMUNITY DEVELOPMENT DIVISION
229 MAIN STREET
NASHUA, NH 03060
ATT: LINDA McGRHEE
(603) 588-3110
- ENGINEERING DEPARTMENT**
NASHUA DEPT. OF PUBLIC WORKS / ENGINEERING
9 RIVERSIDE STREET
NASHUA, NH 03062
ATT: JOE MENDOLA
(603) 589-3147
- FIRE DEPARTMENT**
NASHUA FIRE RESCUE
177 LAKE STREET
NASHUA, NH 03062
ATT: ADAM POULIOT, FIRE MARSHALL
(603) 588-3460



NO.	DATE	REVISION	BY

TOPOGRAPHIC SUBDIVISION PLAN
(MAP 112, LOT 11)
453 SOUTH MAIN STREET
NASHUA, NEW HAMPSHIRE

PREPARED FOR/RECORD OWNER:
STELLOS FAMILY INVESTMENT PROPERTIES, LLC
125 NORTHEASTERN BOULEVARD NASHUA, NEW HAMPSHIRE 03062 (603) 582-3128



27 AUGUST 2020



UTILITY QUALITY LEGEND

SUBSURFACE UTILITIES AS DEPICTED ON THIS PLAN ARE IDENTIFIED BY QUALITY LEVELS DEFINED BY CHANCE 38-02 "ASCE STANDARD GUIDELINE FOR COLLECTION AND DEPICTION OF EXISTING SUBSURFACE UTILITY DATA"

LEVEL A (a) PRECISE HORIZONTAL AND VERTICAL LOCATION OF UTILITIES OBTAINED BY ACTUAL EXPOSURE AND SUBSEQUENT MEASUREMENTS OF SUBSURFACE UTILITIES.

LEVEL B (b) INFORMATION OBTAINED THROUGH THE APPLICATION OF APPROPRIATE SURFACE GEOPHYSICAL METHODS TO DETERMINE THE EXISTENCE AND APPROXIMATE HORIZONTAL POSITION OF SUBSURFACE UTILITIES. (IE. DNG68F8)

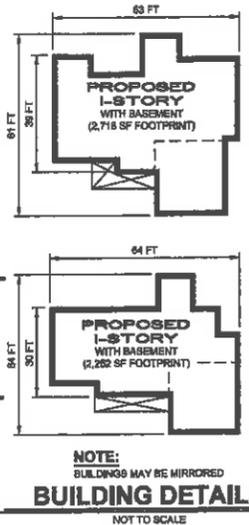
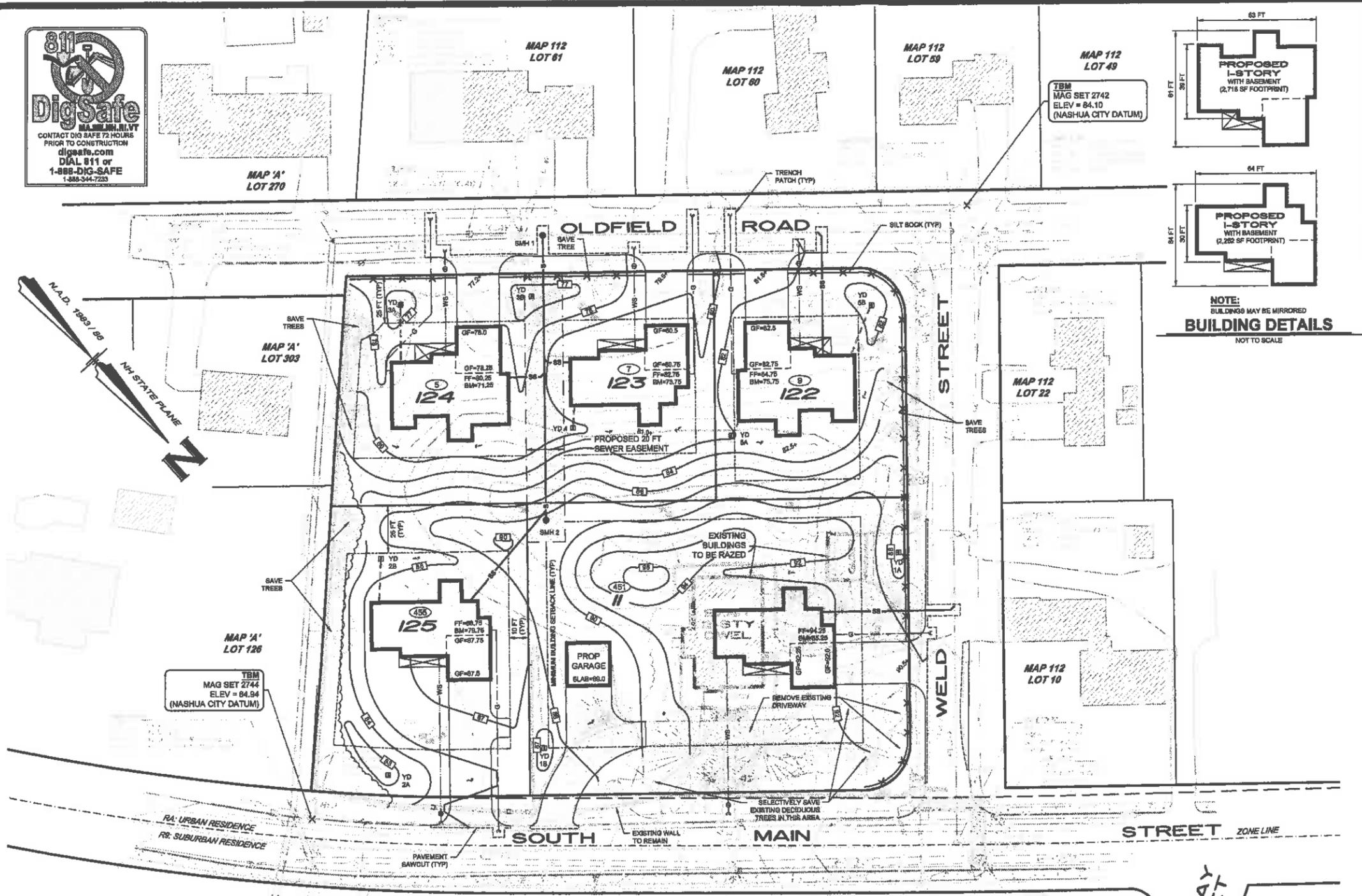
LEVEL C (c) INFORMATION OBTAINED BY SURVEYING AND PLOTTING VISIBLE ABOVE-GROUND UTILITY FEATURES AND BY USING PROFESSIONAL JUDGMENT IN CORRELATING THIS INFORMATION TO QUALITY LEVEL D INFORMATION.

LEVEL D (d) INFORMATION DERIVED FROM EXISTING RECORDS OR ORAL COLLECTIONS.

UTILITY NOTE

THE UNDERGROUND UTILITIES DEPICTED HEREON HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND PLOTTED FROM EXISTING DRAWINGS. THE SURVEYOR MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES DEPICTED COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM THE INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND PORTIONS OF THE UTILITIES.





CONSTRUCTION NOTES

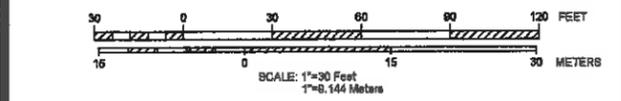
- ALL WORK SHALL CONFORM TO THE APPLICABLE REGULATIONS AND STANDARDS OF THE CITY OF NASHUA, AND SHALL BE BUILT IN A WORKMANLIKE MANNER IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS. THE STANDARD SPECIFICATIONS FOR ROAD CONSTRUCTION, BOARD OF PUBLIC WORKS, NASHUA, NEW HAMPSHIRE, AND THE STANDARD SPECIFICATIONS FOR SEWERS AND DRAINS, BOARD OF PUBLIC WORKS, NASHUA, NEW HAMPSHIRE AND THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, STATE OF NEW HAMPSHIRE, DEPARTMENT OF TRANSPORTATION, LATEST EDITION ARE HEREBY INCORPORATED BY REFERENCE.
- ROAD AND DRAINAGE CONSTRUCTION SHALL CONFORM TO THE TYPICAL SECTIONS AND DETAILS SHOWN ON THE PLANS, AND SHALL MEET THE REQUIREMENTS AND SPECIFICATIONS FOR ROAD CONSTRUCTION, BOARD OF PUBLIC WORKS, NASHUA, NEW HAMPSHIRE, AND THE STANDARD SPECIFICATIONS FOR SEWERS AND DRAINS, BOARD OF PUBLIC WORKS, NASHUA, NEW HAMPSHIRE.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING AND DETERMINING THE LOCATION, SIZE AND ELEVATION OF ALL EXISTING UTILITIES, SHOWN OR NOT SHOWN ON THESE PLANS, PRIOR TO THE START OF ANY CONSTRUCTION. THE ENGINEER SHALL BE NOTIFIED IN WRITING OF ANY UTILITIES FOUND INTERFERING WITH THE PROPOSED CONSTRUCTION, AND APPROPRIATE REMEDIAL ACTION TAKEN BEFORE PROCEEDING WITH THE WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING "DIG SAFE" AT 1-888-344-7233 AT LEAST 72 HOURS BEFORE DIGGING.
- PRIOR TO ANY WORK BEING STARTED, THE APPLICANT AND THEIR CONTRACTORS SHALL HOLD A PRE-CONSTRUCTION CONFERENCE WITH PLANNING STAFF TO REVIEW SCHEDULING, EROSION AND TRAFFIC CONTROL, AND TREE PROTECTION.
- BLASTING, IF NEEDED, SHALL BE PERFORMED IN ACCORDANCE WITH THE CITY OF NASHUA FIRE DEPARTMENT REGULATIONS.
- ALL STUMPS SHALL BE DISPOSED OF OFF-SITE IN A LEGAL MANNER.
- ALL DISTURBED AREAS SHALL BE LOAMED AND SEEDED IMMEDIATELY UPON BEING CONSTRUCTED.
- BASEMENTS MAY ENCOUNTER GROUNDWATER CONDITIONS THAT REQUIRE SUBSURFACE MITIGATION MEASURES. IT IS RECOMMENDED THAT SUBSURFACE CONDITIONS BE EVALUATED BY A GEOTECHNICAL ENGINEER, AND MITIGATION MEASURES BE IMPLEMENTED BY THE BUILDER ON A HOUSE BY HOUSE BASIS.
- A DRIVEWAY PLAN SHALL BE APPROVED BY THE ENGINEERING DEPARTMENT PRIOR TO THE ISSUANCE OF A BUILDING PERMIT.
- LOTS WILL BE SERVICED BY UNDERGROUND ELECTRIC AND COMMUNICATION UTILITIES. SERVICE CONNECTION LOCATIONS TO BE COORDINATED WITH UTILITY COMPANIES PRIOR TO CONSTRUCTION.

EROSION CONTROL NOTES:

- ALL CONTRACTORS AND SUBCONTRACTORS INVOLVED WITH STORMWATER POLLUTION CONTROL SHALL OBTAIN A COPY OF THE STORMWATER POLLUTION CONTROL PLAN (SPCP) AND NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM (NPDES) CONSTRUCTION GENERAL PERMIT (CGP) AND BECOME FAMILIAR WITH THEIR CONTENTS.
- THE CONTRACTOR SHALL IMPLEMENT BEST MANAGEMENT PRACTICES AS REQUIRED BY THE SPCP. ADDITIONAL BEST MANAGEMENT PRACTICES SHALL BE IMPLEMENTED AS DICTATED BY SITE CONDITIONS AT NO ADDITIONAL COST OF OWNER THROUGHOUT ALL PHASES OF CONSTRUCTION.
- BEST MANAGEMENT PRACTICES (BMP'S) AND CONTROLS SHALL CONFORM TO FEDERAL, STATE OR LOCAL REQUIREMENTS OR MANUAL OF PRACTICE, AS APPLICABLE. CONTRACTOR SHALL IMPLEMENT ADDITIONAL CONTROLS AS DIRECTED BY PERMITTING AGENCY OR OWNER.
- EARTH MATERIAL STOCKPILE AREAS AS SHOWN ARE APPROXIMATE AND SUBJECT TO CHANGE. STOCKPILE AREAS SHALL BE SURROUNDED BY SILT FENCE AND RE-SEEDED IF THEY ARE LEFT UNTOUCHED FOR MORE THAN TEN (10) DAYS.
- ALL MEASURES STATED ON THIS EROSION CONTROL PLAN, AND IN THE STORMWATER POLLUTION CONTROL PLAN, SHALL BE MAINTAINED IN FULLY FUNCTIONAL CONDITION UNTIL NO LONGER REQUIRED FOR A COMPLETE PHASE OF WORK OR FINAL STABILIZATION OF THE SITE. ALL EROSION CONTROL MEASURES SHALL BE CHECKED BY A QUALIFIED PERSON IN ACCORDANCE WITH THE CONTRACT DOCUMENTS OR THE APPLICABLE PERMIT, WHICHEVER IS MORE STRINGENT.
- SILT SOCKS SHALL BE REPAIRED TO THEIR ORIGINAL CONDITIONS IF DAMAGED.

LOT GRADING PLAN (MAP 112, LOT 11)
453 SOUTH MAIN STREET
NASHUA, NEW HAMPSHIRE

PREPARED FOR/RECORD OWNER:
STELLOS FAMILY INVESTMENT PROPERTIES, LLC
125 NORTHEASTERN BOULEVARD NASHUA, NEW HAMPSHIRE 03082 (603) 882-3128



27 AUGUST 2020

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FIELD BOOK: 1247	DRAWING NAME: 5718SUB-FG31	5718 SUB	3 OF 5
DRAWING LOC: J:\5000\5718 STELLOS\DWG\5718SUB		File Number	Sheet

SITE MAINTENANCE PLAN

THE FOLLOWING PROVIDES AN ITEMIZATION OF SPECIFIC SITE MAINTENANCE PRACTICES THAT WILL BE EMPLOYED ON THE SITE TO MINIMIZE POLLUTANT GENERATION AND TRANSPORT FROM THE SITE. THE SITE MAINTENANCE PROGRAM INCLUDES ROUTINE INSPECTIONS, PREVENTATIVE MAINTENANCE AND "GOOD HOUSEKEEPING" PRACTICES.

- ROUTINE INSPECTIONS**
- INSPECT SITE ON A QUARTERLY BASIS OR AFTER A SIGNIFICANT RAIN EVENT.
- PREVENTATIVE MAINTENANCE**
- CLEAN RECHARGE AREA AND YARD DRAINS TWICE PER YEAR IF NEEDED OR MORE FREQUENTLY AS DICTATED BY QUARTERLY INSPECTIONS.
 - IMPLEMENT OTHER MAINTENANCE OR REPAIR ACTIVITIES AS DEEMED NECESSARY BASED UPON INSPECTIONS.
- GOOD HOUSEKEEPING PRACTICES**
- SWEEP DRIVEWAY REGULARLY TO MINIMIZE SEDIMENT ACCUMULATION. FREQUENCY WILL VARY SEASONALLY ACCORDING TO SEDIMENT ACCUMULATION ON PAVED SURFACES (E.G., MORE FREQUENT SWEEPING DURING THE WINTER AND SPRING).
 - USE NO-SALT (N.O.) ALTERNATIVES SUCH AS CLOSE PLOWING AND SANDING FOR DE-ICING ON THE DRIVEWAY.

UTILITY QUALITY LEGEND 4

SUBSURFACE UTILITIES AS DEPICTED ON THIS PLAN ARE IDENTIFIED BY QUALITY LEVELS DEFINED BY CHANCE 38-02 "ASCE STANDARD GUIDELINE FOR COLLECTION AND DEPICTION OF EXISTING SUBSURFACE UTILITY DATA"

LEVEL A (a) PRECISE HORIZONTAL AND VERTICAL LOCATION OF UTILITIES OBTAINED BY ACTUAL EXPOSURE AND SUBSEQUENT MEASUREMENTS OF SUBSURFACE UTILITIES.

LEVEL B (b) INFORMATION OBTAINED THROUGH THE APPLICATION OF APPROPRIATE SURFACE GEOPHYSICAL METHODS TO DETERMINE THE EXISTENCE AND APPROXIMATE HORIZONTAL POSITION OF SUBSURFACE UTILITIES. (E. DIGSAFE)

LEVEL C (c) INFORMATION OBTAINED BY SURVEYING AND PLOTTING VISIBLE ABOVE-GROUND UTILITY FEATURES AND BY USING PROFESSIONAL JUDGEMENT IN CORRELATING THIS INFORMATION TO QUALITY LEVEL D INFORMATION.

LEVEL D (d) INFORMATION DERIVED FROM EXISTING RECORDS OR ORAL RECOLLECTIONS.

UTILITY NOTE 4

THE UNDERGROUND UTILITIES DEPICTED HEREON HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND PLOTTED FROM EXISTING DRAWINGS. THE SURVEYOR MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES DEPICTED COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM THE INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND PORTIONS OF THE UTILITIES.

NOTE

THE PURPOSE OF THE LOT GRADING PLAN IS TO SHOW THE INTENDED LOCATION OF THE PROPOSED SINGLE-FAMILY HOUSES. THE DEVELOPER/BUILDER RESERVES THE RIGHT TO MAKE CHANGES TO THE SINGLE-FAMILY DETACHED INDIVIDUAL HOUSE SIZE, TYPE, LOCATION, GARAGE CONFIGURATION, ELEVATION, DRIVEWAY, RETAINING WALLS AND UTILITY LOCATIONS AS LONG AS THE OVERALL INTEGRITY OF THIS PLAN IS MAINTAINED.



TEST PIT INFORMATION

TEST PIT #1 DATE: 8/14/20
 0-10' 10YR 3/3, DARK BROWN, FINE SANDY LOAM, WEAK FINE GRANULAR, VERY FRIABLE WITH MANY ROOTS
 10-18' 10YR 6/6, YELLOWISH BROWN, SANDY LOAM, 2% ROUNDED COBBLES, FINE GRANULAR, FRIABLE WITH COMMON ROOTS
 18-23' 10YR 6/4, YELLOWISH BROWN, GRAVELLY SANDY LOAM, 15% ROUNDED COBBLES, 5% GRAVEL, FINE GRANULAR, FRIABLE WITH FEW ROOTS
 23-28' 10YR 6/4, YELLOWISH BROWN, GRAVELLY SAND, 15% ROUNDED COBBLES, 5% GRAVEL, SINGLE GRAIN, LOOSE WITH FEW ROOTS
 28-30' 10YR 6/4, YELLOWISH BROWN, LOAMY SAND, FINE GRANULAR, FRIABLE WITH FEW ROOTS
 30-35' 10YR 6/4, YELLOWISH BROWN, LOAMY SAND, FINE GRANULAR, FRIABLE WITH FEW ROOTS
 35-40' 2.5Y 7/4, VERY PALE BROWN, GRAVELLY SANDY LOAM, 10% ROUNDED COBBLES, 10% GRAVEL, SINGLE GRAIN, LOOSE WITH FEW ROOTS TO 48"
 ESHWT: NONE OBSERVED OWT: NONE OBSERVED ROOTS: 90' LEDGE: NONE OBSERVED
 PERC TEST#1 DATE: 8/14/20
 PERCOLATION RATE: 1 MINUTE/ INCH AT 80" DEEP

TEST PIT #2 DATE: 8/14/20
 0-10' 10YR 3/3, DARK BROWN, FINE SANDY LOAM, WEAK FINE GRANULAR, VERY FRIABLE WITH MANY ROOTS
 10-27' 10YR 6/4, YELLOWISH BROWN, GRAVELLY LOAMY SAND, 10% ROUNDED COBBLES, 10% GRAVEL, FINE GRANULAR, FRIABLE WITH COMMON ROOTS
 26-48' 10YR 7/4, VERY PALE BROWN, GRAVELLY SANDY LOAM, 10% ROUNDED COBBLES, 10% GRAVEL, SINGLE GRAIN, LOOSE WITH FEW ROOTS TO 48"
 ESHWT: NONE OBSERVED OWT: NONE OBSERVED ROOTS: 48' LEDGE: 48'

TEST PIT #3 DATE: 8/14/20
 0-14' 10YR 3/3, DARK BROWN, FINE SANDY LOAM, WEAK FINE GRANULAR, VERY FRIABLE WITH MANY ROOTS
 14-24' 10YR 5/6, YELLOWISH BROWN, GRAVELLY LOAMY SAND, 10% ROUNDED COBBLES, 10% GRAVEL, 10% 12-18" ROCKS, GRANULAR, LOOSE WITH COMMON ROOTS
 24-28' 10YR 6/4, YELLOWISH BROWN, GRAVELLY LOAMY SAND, 20% ROUNDED COBBLES, 20% GRAVEL, 10% 12-18" ROCKS, SINGLE GRAIN, LOOSE WITH FEW ROOTS TO 48"
 28-34' 2.5Y 7/2, VERY PALE BROWN, GRAVELLY LOAMY SAND, 10% ROUNDED COBBLES, 10% GRAVEL, GRANULAR, FRIABLE WITH 7.5YR 5/6, STRONG BROWN COMMON, DISTINCT REDOXIMORPHIC FEATURES AT 78"
 ESHWT: 78' OWT: NONE OBSERVED ROOTS: 48' LEDGE: 64'

TEST PIT #4 DATE: 8/14/20
 PERCOLATION RATE: <1 MINUTE/ INCH AT 84" DEEP

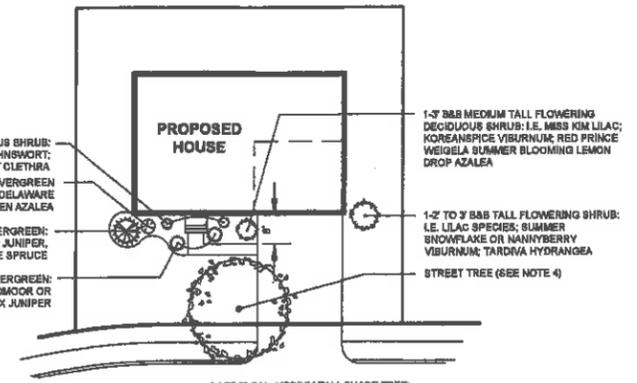
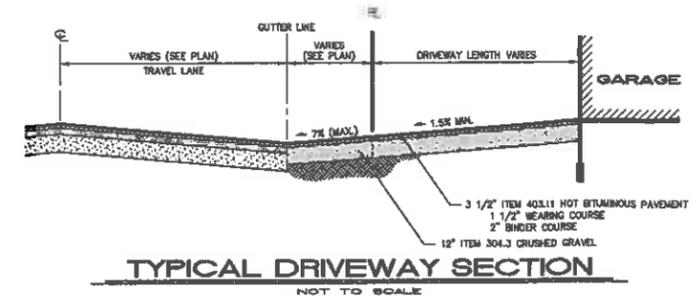
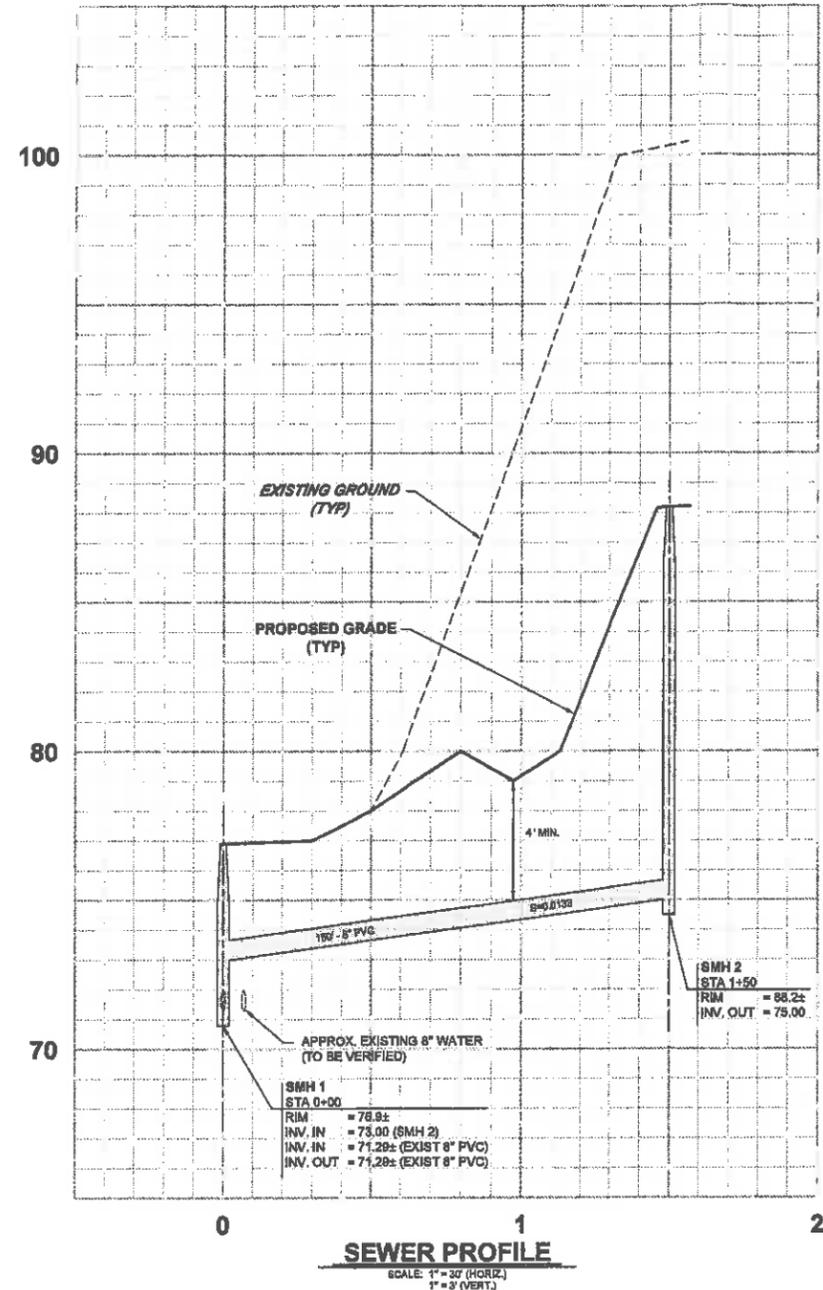
TEST PIT #5 DATE: 8/14/20
 0-4' 10YR 3/3, DARK BROWN, FINE SANDY LOAM, WEAK FINE GRANULAR, VERY FRIABLE WITH MANY ROOTS
 4-15' 10YR 5/6, YELLOWISH BROWN, SANDY LOAM, 2% ROUNDED COBBLES, FINE GRANULAR, FRIABLE WITH COMMON ROOTS
 15-12' 10YR 6/6, BROWNISH YELLOW, LOAMY SAND, SINGLE GRAIN, LOOSE WITH FEW ROOTS
 12-29' 2.5Y 7/4, VERY PALE BROWN, FINE SAND, SINGLE GRAIN, LOOSE WITH FEW ROOTS
 29-78' 2.5Y 7/3, VERY PALE BROWN, LOAMY SAND, GRANULAR, FRIABLE WITH FEW ROOTS TO 78" AND 7.5YR 5/6, STRONG BROWN, COMMON, DISTINCT REDOXIMORPHIC FEATURES AT 78"
 78-82' 2.5Y 7/2, VERY PALE BROWN, LOAMY SAND, GRANULAR, CEMENTED, FIRM WITH 7.5YR 5/6, STRONG BROWN, COMMON, DISTINCT REDOXIMORPHIC FEATURES THROUGHOUT
 82-90' 2.5Y 7/2, VERY PALE BROWN, LOAMY SAND, GRANULAR, FRIABLE WITH NO REDOXIMORPHIC FEATURES OBSERVED
 ESHWT: NONE OBSERVED OWT: NONE OBSERVED ROOTS: 78' LEDGE: NONE OBSERVED
 RESTRICTIVE CEMENTED LAYER 78-82"
 PERC TEST#4 DATE: 8/14/20
 PERCOLATION RATE: <1 MINUTE/ INCH AT 86" DEEP

TEST PIT #6 DATE: 8/14/20
 0-5' 10YR 3/3, DARK BROWN, FINE SANDY LOAM, WEAK FINE GRANULAR, VERY FRIABLE WITH MANY ROOTS
 5-15' 10YR 5/6, YELLOWISH BROWN, SANDY LOAM, FINE GRANULAR, FRIABLE WITH COMMON ROOTS
 15-44' 10YR 6/6, BROWNISH YELLOW, LOAMY SAND, SINGLE GRAIN, LOOSE WITH FEW ROOTS
 44-80' 2.5Y 7/4, VERY PALE BROWN, FINE SAND, 2% ROUNDED COBBLES, SINGLE GRAIN, LOOSE WITH FEW ROOTS TO 72"
 80-95' 2.5Y 7/3, VERY PALE BROWN, LOAMY SAND, GRANULAR, FRIABLE
 ESHWT: NONE OBSERVED OWT: NONE OBSERVED ROOTS: 72' LEDGE: NONE OBSERVED
 PERC TEST#6 DATE: 8/14/20
 PERCOLATION RATE: 1 MINUTE/ INCH AT 60" DEEP

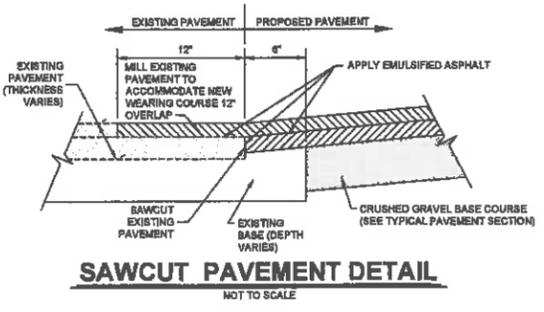
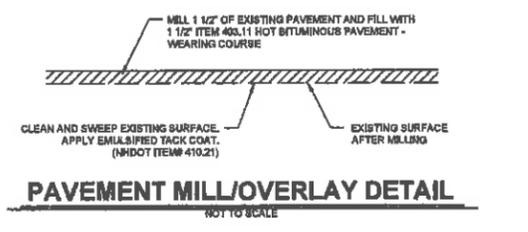
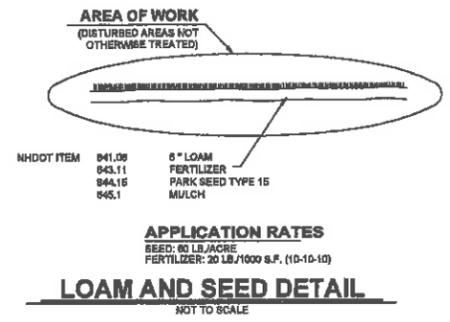
TEST PIT #7 DATE: 8/14/20
 0-5' 10YR 3/3, DARK BROWN, FINE SANDY LOAM, WEAK FINE GRANULAR, VERY FRIABLE WITH MANY ROOTS
 5-15' 10YR 5/6, YELLOWISH BROWN, SANDY LOAM, 5% ROUNDED COBBLES, FINE GRANULAR, FRIABLE WITH COMMON ROOTS
 15-30' 10YR 6/4, YELLOWISH BROWN, GRAVELLY SANDY LOAM, 15% ROUNDED COBBLES, 5% GRAVEL, 10% 12-18" ROCKS, FINE GRANULAR, FRIABLE WITH COMMON ROOTS
 30-42' 10YR 5/4, YELLOWISH BROWN, GRAVELLY SAND, 16% ROUNDED COBBLES, 10% GRAVEL, 10% 12-18" ROCKS SINGLE GRAIN, LOOSE WITH MANY ROOTS
 42-48' 2.5Y 7/3, VERY PALE BROWN, COARSE SAND, SINGLE GRAIN, LOOSE WITH FEW ROOTS
 48-95' 10YR 5/4, YELLOWISH BROWN, GRAVELLY COARSE SAND, 20% ROUNDED COBBLES, 20% GRAVEL, 10% 12-18" ROCKS, SINGLE GRAIN, LOOSE WITH FEW ROOTS TO 80"
 95-138' 2.5Y 7/3, VERY PALE BROWN, COARSE SAND, SINGLE GRAIN AND LOOSE LAYERS BETWEEN 30" TO 138" APPEAR TO BE THICK STRATIFIED LAYERS
 ESHWT: NONE OBSERVED OWT: NONE OBSERVED ROOTS: 90' LEDGE: NONE OBSERVED

TEST PIT #8 DATE: 8/14/20
 0-5' 10YR 3/3, DARK BROWN, FINE SANDY LOAM, WEAK FINE GRANULAR, VERY FRIABLE WITH MANY ROOTS
 5-15' 10YR 5/6, YELLOWISH BROWN, SANDY LOAM, 5% ROUNDED COBBLES, FINE GRANULAR, FRIABLE WITH COMMON ROOTS
 15-26' 10YR 5/4, YELLOWISH BROWN, GRAVELLY SAND, 10% ROUNDED COBBLES, 10% GRAVEL, 10% 12-18" ROCKS SINGLE GRAIN, LOOSE WITH FEW ROOTS TO 80"
 ESHWT: NONE OBSERVED OWT: NONE OBSERVED ROOTS: 80' LEDGE: NONE OBSERVED

TEST PIT #9 DATE: 8/14/20
 0-5' 10YR 3/3, DARK BROWN, FINE SANDY LOAM, WEAK FINE GRANULAR, VERY FRIABLE WITH MANY ROOTS
 5-54' 10YR 5/4, YELLOWISH BROWN, GRAVELLY COARSE SAND, 20% ROUNDED COBBLES, 20% GRAVEL, 5% 12-18" ROCKS SINGLE GRAIN, LOOSE WITH FEW ROOTS TO 78"
 ESHWT: NONE OBSERVED OWT: NONE OBSERVED ROOTS: 78' LEDGE: NONE OBSERVED
 PERC TEST#9 DATE: 8/14/20
 PERCOLATION RATE: <1 MINUTE/ INCH AT 60" DEEP



- NOTES:**
1. THE HOME BUILDER RESERVES THE RIGHT TO MODIFY THE TYPE, SIZE AND LOCATION OF THE FOUNDATION PLANT MATERIALS.
 2. STREET TREE LOCATIONS AS SHOWN ARE APPROXIMATE.
 3. STREET TREES ARE INTENDED TO MEET THE REQUIREMENTS OF THE NASHUA LAND USE CODE SECTION 190-115.
 4. EXISTING TREES TO REMAIN IN FRONT OF THE LOT SHALL COUNT AS A STREET TREE.



NO. DATE REVISION BY

DETAIL SHEET - GENERAL SITE
 (MAP 112, LOT 11)

453 SOUTH MAIN STREET
 NASHUA, NEW HAMPSHIRE

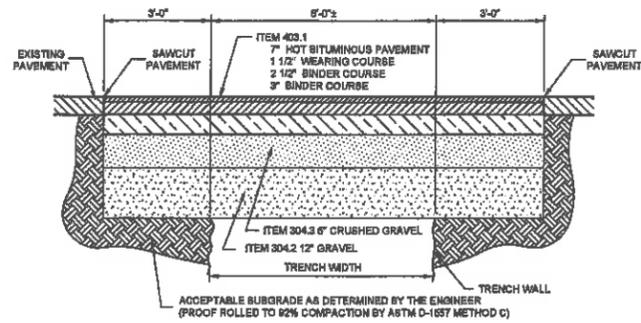
PREPARED FOR/RECORD OWNER:
STELLOS FAMILY INVESTMENT PROPERTIES, L.L.C.
 125 NORTHEASTERN BOULEVARD NASHUA, NEW HAMPSHIRE 03082 (603) 882-3128

SCALE AS SHOWN

27 AUGUST 2020

HSI Hayner/Swanson, Inc.
 Civil Engineers/Land Surveyors
 3 Congress Street
 Nashua, NH 03062
 (603) 883-2057
 131 Middlesex Turnpike
 Burlington, MA 01803
 (781) 203-1501
 www.haynerswanson.com

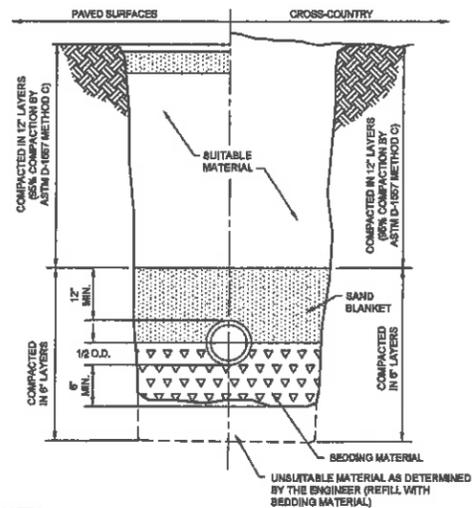
FIELD BOOK: 1247 DRAWING NAME: 5718SUB-021 5718 SUB 4 OF 5
 DRAWING LOC: J:\9000\5718 STELLOS\DWG\5718SUB



NOTE:
THE BINDER COURSE SHALL BE PLACED IMMEDIATELY AFTER THE TRENCH CONSTRUCTION, AND ALLOWED TO STAND FOR A MINIMUM OF 90 DAYS. A LEVELING COURSE SHALL BE APPLIED OVER THE TRENCH AFTER 90 DAYS AND THE ENTIRE ROAD OVERLAPPED TO THE LIMITS SHOWN ON THE PLANS.

TRENCH PATCH DETAIL

NOT TO SCALE



NOTES

1. THE SEWER TRENCH SECTION SHALL CONFORM TO THE NHDES STANDARD TRENCH SECTION AND TO THE ADDITIONAL REQUIREMENTS OF THIS TYPICAL SECTION.
2. IN GENERAL, DISTURBED CROSS-COUNTRY AREAS SHALL BE RESTORED TO THE SATISFACTION OF THE ENGINEER AND SHALL BE LOAMED AND BEDED IN ACCORDANCE WITH THE DETAIL, AND SHALL BE MAINTAINED UNTIL A VIABLE STAND OF GRASS HAS BEEN ESTABLISHED.
3. ROADWAYS, DRIVEWAYS, AND OTHER PAVED AREAS SHALL BE RECONSTRUCTED IN ACCORDANCE WITH THE PLANS.

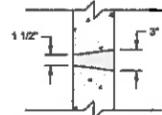
TYPICAL SEWER TRENCH SECTION

NOT TO SCALE

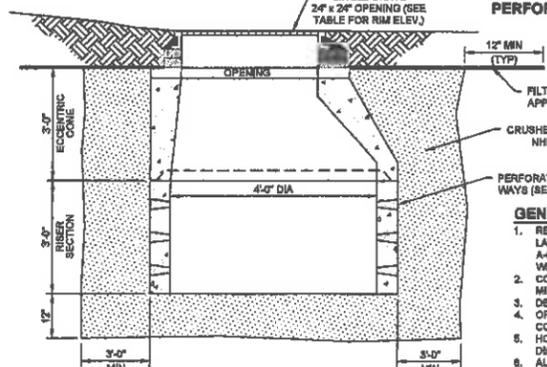
LOCATION	RIM ELEV	LOCATION	RIM ELEV
YD 1A	87.5 ±	YD 3B	76.7 ±
YD 1B	86.7 ±	YD 4	76.5 ±
YD 2A	82.7 ±	YD 5A	82.0 ±
YD 2B	85.5 ±	YD 5B	81.5 ±
YD 3A	78.5 ±		

NOTE:

1. LCB 3B SHALL BE SURROUNDED BY A MINIMUM OF 4- FEET OF STONE



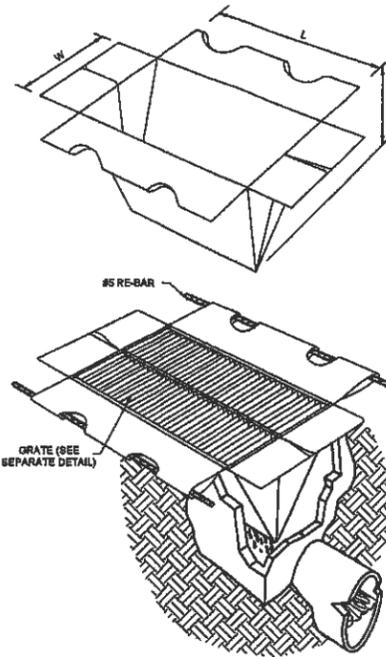
PERFORATION DETAIL



YARD DRAIN DETAIL

NOT TO SCALE

- GENERAL NOTES:**
1. REINFORCEMENT STEEL TO CONFORM TO: LATEST ASTM SPECIFICATIONS: ASTM A-615 GRADE TO REBAR ASTM A-105 WELDED WIRE FABRIC
 2. CONCRETE: Fc=4,000 PSI @ 28 DAYS MINIMUM
 3. DESIGN LOADING: AASHTO-HS20-44
 4. OPTIONAL CAST IRON COVERS OR CONCRETE COVERS AVAILABLE
 5. HOLE CORING AVAILABLE FOR LARGER DIAMETER PIPES
 6. ALL SECTIONS ARE BUTT JOINT



SILTSAK® DETAIL

NOT TO SCALE

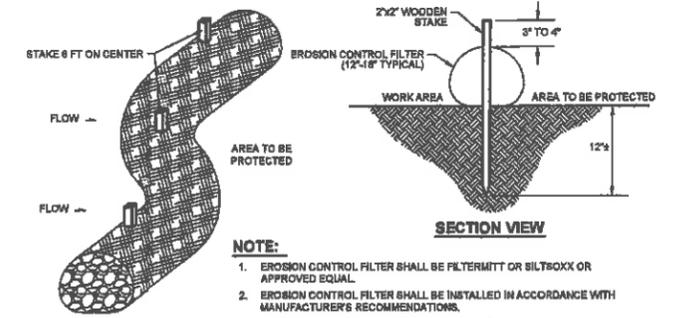
SILTSAK® NOTES:

- 1.0 THE SILTSACK SHALL BE MANUFACTURED FROM WOVEN POLYPROPYLENE AND SEWN BY A DOUBLE NEEDLE MACHINE, USING A HIGH STRENGTH NYLON THREAD.
- 2.0 THE SILTSACK BEAMS SHALL HAVE A CERTIFIED AVERAGE WIDE WIDTH STRENGTH PER ASTM D-4864 STANDARDS AS FOLLOWS:

BEAMS STYLE	TEST METHOD	TEST RESULT
REGULAR FLOW	ASTM D-4864	165.0 LBS/IN
HS-FLOW	ASTM D-4864	114.8 LBS/IN
- 3.0 THE SILTSACK WILL BE MANUFACTURED TO FIT THE OPENING OF THE CATCH BASIN OR DROP INLET. THE SILTSACK WILL HAVE THE FOLLOWING FEATURES: TWO DUMP STRAPS ATTACHED AT THE BOTTOM TO FACILITATE THE EMPTYING OF THE SILTSACK; THE SILTSACK SHALL HAVE LIFTING LOOPS AS AN INTEGRAL PART OF THE SYSTEM TO BE USED TO LIFT THE SILTSACK FROM THE BASIN; THE SILTSACK SHALL HAVE A RESTRAINT CORD APPROXIMATELY HALFWAY UP THE BACK TO KEEP THE SIDES AWAY FROM THE CATCH BASIN WALLS. THIS YELLOW CORD IS ALSO A VISIBLE MEANS OF INDICATING WHEN THE SACK SHOULD BE EMPTIED, CLEANED, AND PLACED BACK INTO THE BASIN.
- 4.0 THE GEOTEXTILE FABRIC SHALL BE WOVEN POLYPROPYLENE FABRIC WITH THE FOLLOWING PROPERTIES:

PROPERTY	TEST METHOD	TEST RESULT
GRAB TENSILE	ASTM D-4832	300 LBS
GRAB ELONGATION	ASTM D-4831	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	50%
APPARENT OPENING	ASTM D-4751	40 US SIEVE
FLOW RATE	ASTM D-4491	40 GAL/MIN/FT2
PERMITTIVITY	ASTM D-4491	0.55 SEC

OR SILTSACK HS-FLOW	TEST METHOD	TEST RESULT
GRAB TENSILE	ASTM D-4832	285 LBS
GRAB ELONGATION	ASTM D-4832	20%
PUNCTURE	ASTM D-4833	135 LBS
MULLEN BURST	ASTM D-3786	420 PSI
TRAPEZOID TEAR	ASTM D-4833	45 LBS
UV RESISTANCE	ASTM D-4355	90%
APPARENT OPENING	ASTM D-4751	20 US SIEVE
FLOW RATE	ASTM D-4491	200 GAL/MIN/FT2
PERMITTIVITY	ASTM D-4491	1.5 SEC



NOTE:

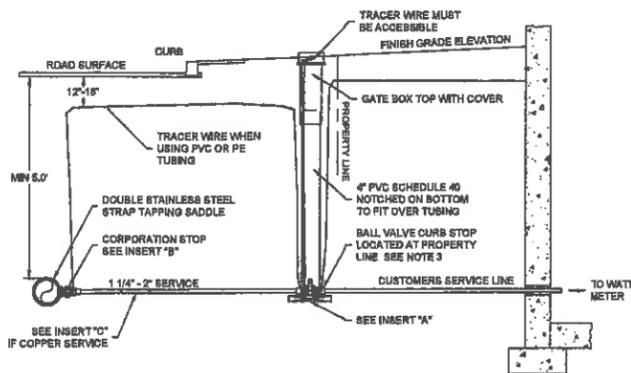
1. EROSION CONTROL FILTER SHALL BE FILTERMITT OR SILTSOXK OR APPROVED EQUAL.
2. EROSION CONTROL FILTER SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
3. COMPOST TO BE REMOVED OR DISPOSED ON-SITE AS DETERMINED BY THE ENGINEER.

MAINTENANCE

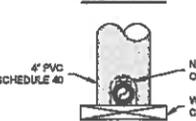
1. SILT SOCK BARRIER SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REPAIRS THAT ARE REQUIRED SHALL BE MADE IMMEDIATELY.
2. IF THE SILT SOCK SHOULD DECOMPOSE OR BECOME INEFFECTIVE DURING THE EXPECTED LIFE OF THE FENCE, THE BARRIER SHALL BE REPLACED PROMPTLY.
3. SEDIMENT DEPOSITS SHOULD BE INSPECTED AFTER EVERY STORM EVENT. THE DEPOSITS SHOULD BE REMOVED WHEN THEY REACH APPROXIMATELY ONE-THIRD THE HEIGHT OF THE BARRIER.
4. SEDIMENT DEPOSITS THAT ARE REMOVED OR LEFT IN PLACE AFTER THE BARRIER HAS BEEN REMOVED SHALL BE GRADED TO CONFORM WITH THE EXISTING TOPOGRAPHY AND VEGETATION.

SILT SOCK DETAIL

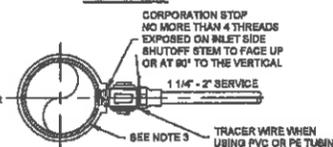
NOT TO SCALE



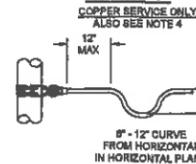
INSERT "A"



INSERT "B"



INSERT "C"



NOTES:

1. ALL MATERIALS AND INSTALLATION PROCEDURES WILL CONFORM TO P.W.M. TECHNICAL SPECIFICATIONS.
2. ALL PIPES SHOULD HAVE A MINIMUM DEPTH OF 5' FROM TOP OF PIPE TO FINISH GRADE.
3. IF WATER MAIN IS PVC OR TRANSITE, A DOUBLE STAINLESS STEEL STRAP TAPPING SADDLE MUST BE USED TO CONNECT THE CORPORATION TO THE WATER MAIN.
4. IF WATER MAIN IS PVC OR TRANSITE, AND THE NEW WATER SERVICE IS COPPER THEN SEE P.W.M. TECHNICAL SPECIFICATIONS.

TYPICAL 1 1/4\"/>

NOT TO SCALE



DETAIL SHEET - GENERAL SITE
(MAP 112, LOT 11)

453 SOUTH MAIN STREET
NASHUA, NEW HAMPSHIRE

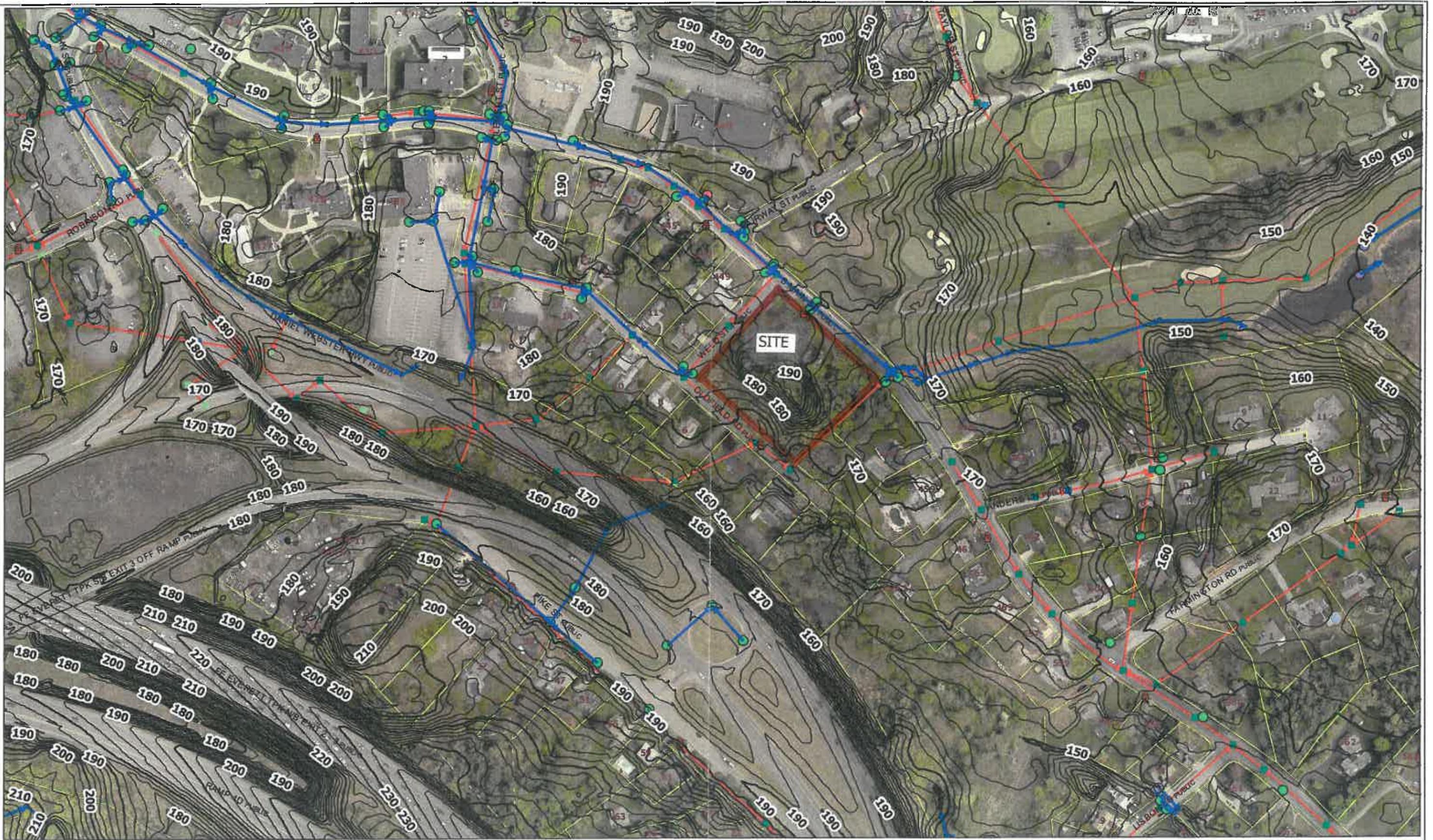
PREPARED FOR/RECORD OWNER:
STELLOS FAMILY INVESTMENT PROPERTIES, L.L.C.
125 NORTHEASTERN BOULEVARD NASHUA, NEW HAMPSHIRE 03062 (603) 552-3128

SCALE AS SHOWN

27 AUGUST 2020

HSI Hayner/Swanson, Inc.
Civil Engineers/Land Surveyors

3 Congress Street
Nashua, NH 03062
(603) 883-3037
131 Middlesex Turnpike
Sunnyvale, MA 01903
(781) 203-1501
www.hayner-swanson.com



453 South Main Street - 1,000 FT Vicinity Map



NASHUA CITY PLANNING BOARD
STAFF REPORT

TO: Nashua City Planning Board
FROM: Linda McGhee, Deputy Planning Manager
FOR: October 8, 2020
RE: **New Business #5 - Subdivision Plan**

I. Project Statistics:

Owner: Stellos Family Investment Properties, LLC
Proposal: Five lot subdivision
Location: 453 South Main Street
Total Site Area: 1.925 acres (83,868 sf)
Existing Zoning: RA-Urban Residence
Surrounding Uses: Residential and Rivier University

II. Background Information:

The existing parcel is located in the RA-Urban Residence Zone. Abutting the site is Oldfield Road to the west, Weld Street to the north, South Min Street to the west and existing single-family homes on the south. Surrounding properties include the Nashua Country Club and a number of the homes on Oldfield Road are owned by Rivier University.

III. Project Description:

The purpose of this plan is to subdivide the parcel into five residential lots as follows;

Lot #	Address	Lot Size
Lot 11	451 South Main Street	30,806 sf
Lot 125	455 South Main Street	16,687 sf
Lot 124	5 Oldfield Road	13,141 sf
Lot 123	7 Oldfield Road	10,089 sf
Lot 122	9 Oldfield Road	12,076 sf

The minimum lot size in the RA zone is 7,500 sf and all lots exceed the minimum zoning requirements. The existing house and garage will be razed as part of this project. In addition, two areas located at the intersection of the public roads will be dedicated for added right-of-way. The lots will be serviced by municipal sewer, Pennichuck Water, underground gas and utilities. Presently Lot 11 is showing more than one driveway. Driveway width at the front yard setback cannot exceed 24'. The applicant would need to seek relief from the Zoning Board of Adjustment if they plan to keep the driveways as shown.

The applicant's engineer has provided a stormwater report (see attached). Approximately 7,930 sf of new impervious area will be added as part of the proposed subdivision.

One waiver is being requested for sidewalks. This lot is surrounded by South Main Street, Weld Street and Oldfield Road. There is an existing sidewalk along South Main Street. While there is

a significant need for sidewalks and pedestrian facilities throughout the City of Nashua, Weld Street and Oldfield Road are not on the sidewalk priority list. The site meets the criteria in § 190-212(D) and the owner would be eligible to make a contribution in lieu of sidewalk construction; the applicant's engineer is offering to make a contribution of \$10,795.50, based on \$50 per linear foot along the entire frontage of Oldfield Road (215.91 linear feet) and subtracting a driveway width of 54 feet (18 feet per lot on Oldfield Road). No contribution is being offered for the frontage on Weld Street.

City Staff reviewed the plans; comments are attached.

Staff Recommendations and Findings:

The Planning Board should make a determination that the plan meets, or does not meet the requirements outlined in the Subdivision NRO § 190-138(G). The Board should review these prior to making a motion. If the Planning Board chooses to disapprove the plan, specific reasons should be given. If the Planning Board chooses to approve this plan, staff recommends the following stipulation be made part of that approval:

1. The request for a waiver § 190-212(A)(1), which requires that a sidewalk be located on at least one side of the street, is/is not granted, finding that the waiver will/will not be contrary to the spirit and intent of the regulation. The applicant has agreed to make a contribution in the amount of \$_____ in lieu of sidewalk construction pursuant to §190-212(D)(2), payment to be made prior to recording the plan.
2. Prior to the chair signing the plan, all minor drafting corrections will be made.
3. Prior to recording of the plan, all conditions from the Planning Board approval letter will be added to the cover page of the final mylar and paper copies submitted to the City.
4. Prior to recording the plan, all comments in an e-mail from Joe Mendola, Street Construction Engineer dated October 2, 2020 shall be addressed to the satisfaction of the Engineering Department.
5. Stormwater documents and easements will be submitted to Planning staff for review and recorded with the plan at the applicant's expense.
6. Prior to any work and a pre-construction meeting, a financial guarantee shall be approved.

NASHUA CITY PLANNING BOARD
STAFF REPORT

TO: Nashua City Planning Board
FROM: Linda McGhee, Deputy Planning Manager
FOR: October 8, 2020
RE: **New Business #6 - Site Plan**

I. Project Statistics:

Owner: City of Nashua
Proposal: Amendment to NR1405 to show modifications to the school including building additions and upgrade the existing school layout
Location: 207 Manchester Street
Total Site Area: 21.33 acres
Existing Zoning: R18-Suburban Residence
Surrounding Uses: Residential

II. Background Information:

Pennichuck Middle School was constructed in the 1980s. To the north and east are wooded areas, Manchester Street to the west and the Henry Burque Highway to the south. Most of the existing site is currently developed with the school facility, associated infrastructure and existing sports fields. The school has approximately 112 staff members and 639 students enrolled. The school uses 11 buses to transport approximately 435 students and another 228 students walk to and from school. This work is similar to improvements made to Sunset Heights Elementary School in 2003, Charlotte Avenue School in 2006, Birch Hill School in 2007, and Broad Street School in 2014. In May of this year the planning board approved similar changes to Fairgrounds Middle School

III. Project Description:

Proposed modifications to Pennichuck Middle School include a number of building additions, various interior renovations and upgrades to the existing site layout. Site layout changes include a realigned perimeter access road, a new curb cut from Manchester Street for a one-way drive for bus/emergency traffic, a new bus loop along the south side of the building, and additional parking provided to the north and east of the school. The total disturbance for this project will require an Alteration of Terrain permit.

Additional landscaped improvements are proposed around the perimeter of the school and within the reconfigured parking at the parent pick-up/drop off areas.

New storm sewer infrastructure will be installed throughout the site to direct and capture stormwater via pre-cast catch basins with grate inlets, high-density polyethylene (HDPE) storm drain pipes, subsurface infiltration systems and bio retention area. Total impervious cover of

the new developed site after the project is complete will be approximately 6.05 acres and includes an increase of approximately 0.78 acres of impervious area to the existing site.

Traffic Memorandum has been submitted as part of this application

Existing parking on site is 117 spaces with 4 ADA parking spaces; proposed will be 112 spaces with 12 ADA

The following waivers are being requested for this project:

- *Site plans are required to be reproduced on 22" x 34" format; the applicant is proposing 36" x 48"*
- *The maximum curb cut for one-way travel is 15'; the applicant is proposing 20'*
- *Parking aisles shall not contain more than 10 spaces in a row without a planted median and/or island*
- *Existing conditions on site and on abutting properties*
- *Parking spaces are required to be 9' x 20'; the applicant is proposing 9' x 18'*

City staff reviewed the plans; Engineering comments are pending.

Staff Recommendations and Findings:

1. The Planning Board should make a determination that the plan meets, or does not meet, the requirements outlined in the Site Plan NRO § 190-146(D). The Board should review these prior to making a motion. If the Planning Board chooses to disapprove the plan, specific reasons should be given. If the Planning Board chooses to approve this plan, staff recommends the following stipulations be made part of that approval:
2. The request for a waiver of § 190-279, which requires site plans to be reproduced on 22" x 34" format, **is/is not** granted, finding that the waiver **will/will not** be contrary to the spirit and intent of the regulation.
3. The request for a waiver of § 190-209 A(1), which requires curb cuts for one way traffic to be a maximum width of 15 feet **is/is not** granted, finding that the waiver **will/will not** be contrary to the spirit and intent of the regulation.
4. The request for a waiver of § 190-184 D (1) which requires parking aisles not contain more than 10 spaces in a row without a planted median and/or island, **is/is not** granted, finding that the waiver **will/will not** be contrary to the spirit and intent of the regulation.
5. The request for a waiver of § 190-279 EE, which requires showing existing conditions on and off site, **is/is not** granted, finding that the waiver **will/will not** be contrary to the spirit and intent of the regulation.

6. The request for a waiver of § 190-193(A), which requires parking spaces be at least 9' x 20', **is/is not granted**, finding that the waiver **will/will not** be contrary to the spirit and intent of the regulation.
7. Prior to the Chair signing the plan, minor drafting corrections and standard notes will be added to the plan.
8. Prior to the Chair signing the plan, all conditions from the Planning Board approval letter will be added to the cover page of the final mylar and paper copies submitted to the City.
9. Prior to the issuance of a building permit, the electronic copy of the plan will be submitted to the City of Nashua.
10. Prior to the issuance of a building permit, stormwater documents will be submitted to City staff for review and recorded.
11. Prior to the issuance of a building permit, all outstanding engineering comments shall be addressed to the satisfaction of the Engineering Department.
12. Prior to any site disturbance, the Alteration of Terrain Permit for the project shall be approved by NHDES.
13. Prior to any work and a pre-construction meeting, a financial guarantee shall be approved.
14. Prior to the issuance of a certificate of occupancy, all off-site and on-site improvements will be completed.

NASHUA SCHOOL DISTRICT PENNICHUCK MIDDLE SCHOOL ADDITIONS AND RENOVATIONS

NASHUA, NEW HAMPSHIRE



**ALTERATION OF TERRAIN
PERMIT REVIEW
SEPTEMBER 16, 2020**

PROJECT INFORMATION

NAME: PENNICHUCK MIDDLE SCHOOL
 ADDRESS: 207 MANCHESTER STREET
 NASHUA, NEW HAMPSHIRE 03064
 PARCEL ID: 54-52
 CONTACT: MR. SHAWN SMITH; DIRECTOR OF PLANT OPERATIONS
 38 RIVERSIDE STREET
 NASHUA, NEW HAMPSHIRE 03062
 (603) 968-1500
 SMITHSHA@NASHUA.EDU
 OWNER: CITY OF NASHUA; P.O. BOX 2019
 229 MAIN STREET
 NASHUA, NEW HAMPSHIRE 03061
 (603) 589-2700
 NASHUAMAYOR@NASHUANH.GOV

LIST OF DRAWINGS

- G00-1 COVER SHEET
- CIVIL DRAWINGS
- C20-1 SITE OVERVIEW PLAN
- C00-2 SITE NOTES
- C00-3 SITE EROSION CONTROL NOTES
- C10-1 EXISTING SITE CONDITIONS AND DEMOLITION PLAN
- C11-1 PRE-DEVELOPMENT DRAINAGE PLAN
- C12-1 POST-DEVELOPMENT DRAINAGE PLAN
- C30-1 SITE GRADING AND EROSION CONTROL PLAN
- C40-1 SITE UTILITY PLAN
- C50-1 SITE DETAILS
- C50-2 SITE DETAILS
- C60-1 STORMWATER DETAILS
- C60-2 STORMWATER DETAILS



HARRIMAN

AUBURN BOSTON PORTLAND PORTSMOUTH

NASHUA SCHOOL DISTRICT
PENNICHUCK MIDDLE
SCHOOL
ADDITIONS AND
RENOVATIONS

NASHUA, NEW HAMPSHIRE
 Harriman Project No. 20322
 Key Plan

**ALTERATION OF TERRAIN
PERMIT REVIEW
SEPTEMBER 16, 2020**

Rev	Date	Description

Drawing Scale	
PA/PE: SKF	© 2020 Harriman Associates
Drawn By: HAS/BAW	

COVER SHEET

G00-1



HARRIMAN

AUBURN BOSTON PORTLAND PORTSMOUTH

NASHUA SCHOOL DISTRICT PENNICHUCK MIDDLE SCHOOL ADDITIONS AND RENOVATIONS

NASHUA, NEW HAMPSHIRE Hartman Project No. 20322

Key Plan

ALTERATION OF TERRAIN PERMIT REVIEW SEPTEMBER 16, 2020

Rev Date Revision Description



Table with 2 columns: Drawing Codes, PA/PE: SKF, Drawn By: HAS/BAW, © 2020 Harriman Associates

SITE NOTES

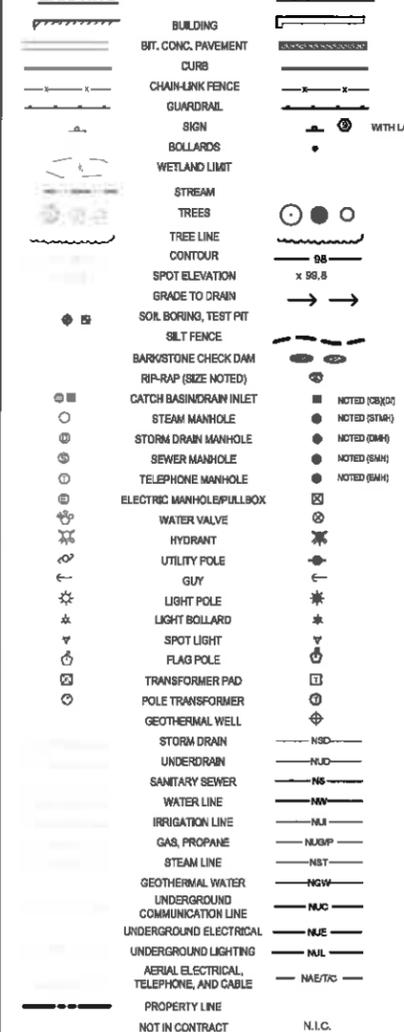
C00-2

- 1. CATCH BASIN GRATES SHALL BE SET SQUARE TO PAVEMENT EDGES. 2. THE ACCURACY AND COMPLETENESS OF SUBSURFACE INFORMATION IS NOT GUARANTEED. 3. PLACE 4' WIDE BY 2" THICK TRENCH POLYSTYRENE INSULATION OVER SEWER LINES...

C1 UTILITY NOTES SCALE: N.T.S.

- 1. RELOCATE EXISTING TBM INFORMATION ONTO NEW TBM OF CONTRACTOR'S CHOICE FOR CONSTRUCTION USE PRIOR TO REMOVAL OF EXISTING TBM. 2. IF EXISTING ASBESTOS CEMENT PIPE IS ENCOUNTERED, HANDLE AND DISPOSE OF ASBESTOS MATERIALS WITH CARE...

EXISTING PROPOSED



B2 GENERAL SITE NOTES SCALE: N.T.S.

GENERAL ABBREVIATIONS

Table with 3 columns: BIT., C.O., CONC., DL, ELEV., EXG., F.F.E., FT., GW, IN, INV., MAX., MIN., H.I.C., NCB, NFO, NGW, NLP, NS, NSD, NSFM, NSL, NUD, NUE, NUG, NUF, NUSC, NW, NWF, P.C., R, S, SQ, T, TBM, TYP, UNO, NEW SEWER, NEW STORM DRAIN, NEW SENIOR FORCE MAIN, NEW SPOT LIGHT, NEW UNDERDRAIN, NEW UNDERGROUND ELECTRICAL, NEW UNDERGROUND GAS, NEW UNDERGROUND FUEL, NEW UNDERGROUND SPARE CONDUIT, NEW WATER, NEW WALL FIXTURE, PRECAST, RAMP, STRUCTURAL PAD, SQUARE, TRANSITIONAL PAD, TEMPORARY BENCH MARK, TYPICAL, UNLESS NOTED OTHERWISE

PAINT STRIPING ABBREVIATIONS

Table with 2 columns: SWSL, SWDL, SYSL, SYDL, DYSL, SINGLE WHITE SOLID LINE, SINGLE WHITE DASHED LINE, SINGLE YELLOW SOLID LINE, SINGLE YELLOW DASHED LINE, DOUBLED YELLOW SOLID LINE

CURB ABBREVIATIONS

Table with 2 columns: RVGC, VGC, SGC, SCC, TCC, TRC, TC, CCBC, FCC, COC, RE-SET VERTICAL GRANITE CURB, NEW VERTICAL GRANITE CURB, NEW SLOPED GRANITE CURB, NEW GRANITE CURB FLUSH WITH PAVEMENT, NEW TAPERED GRANITE CURB ENDS (TIP DOWNS), NEW TRANSITIONAL CURB, NEW BITUMINOUS CURB, NEW CAPE COD BITUMINOUS CURB, NEW PRE-CAST CONCRETE CURB, NEW CAST-IN-PLACE CONCRETE CURB

A2 STANDARD SITE ABBREVIATIONS SCALE: N.T.S.

B3 GRADING NOTES SCALE: N.T.S.

- 1. PROVIDE 4" LOAM, SEED AND MULCH TO DISTURBED AREAS UNLESS OTHERWISE NOTED. 2. GRADE SURFACES TO DRAIN AWAY FROM BUILDING. 3. MAINTAIN TEMPORARY EROSION CONTROL MEASURES FOR THE FULL DURATION OF CONSTRUCTION. 4. PLACE TEMPORARY SOIL STABILIZATION WITHIN 30 DAYS OF INITIAL DISTURBANCE.

A3 SIGN LEGEND SCALE: N.T.S.

- 1. ZONE: SUBURBAN RESIDENCE (R18) MIN. LOT SIZE: 18,000 SQ. FT. MIN. LOT FRONTAGE: 100 FEET. 2. THIS PLAN IS THE RESULT OF AN ON-THE-GROUND TOPOGRAPHICAL SURVEY PERFORMED BY HAYNER AND SWANSON, INC., APRIL THRU JUNE, 2019. 3. HORIZONTAL DATUM INFORMATION SHOWN HEREON ARE BASED ON NAVD83(2011) PER GPS OBSERVATIONS PERFORMED BY HAYNER AND SWANSON, INC., APRIL THRU JUNE, 2019.

A4 SURVEYOR NOTES SCALE: N.T.S.

- 1. THE LANDSCAPE CONTRACTOR SHALL SUPPLY AND INSTALL ALL PLANTS IN SUFFICIENT QUANTITIES TO COMPLETE WORK AS SHOWN ON THE DRAWINGS. 2. THE LANDSCAPE CONTRACTOR IS ADVISED THAT BOTH ABOVE AND BELOW GROUND UTILITIES EXIST ON THE SITE. 3. PAVING, CURBING, UTILITIES, GRASS, ETC., DAMAGED AS A RESULT OF THE LANDSCAPE CONTRACTOR'S OPERATIONS SHALL BE REPAIRED OR REPLACED AT NO ADDITIONAL COST TO THE OWNER.

C2 LANDSCAPING NOTES SCALE: N.T.S.

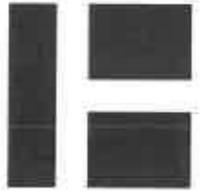
- PRIOR TO EXCAVATION, VERIFY THE UNDERGROUND UTILITIES, PIPES, STRUCTURES, AND FACILITIES. 1. PRE-MARK THE BOUNDARIES OF YOUR PLANNED EXCAVATION WITH WHITE PAINT, FLAGS OR STAKES. 2. CALL DIG SAFE. 3. IF BLASTING, NOTIFY DIG SAFE AT LEAST 24 BUSINESS HOURS IN ADVANCE.

B4 DIG SAFE NOTES SCALE: N.T.S.

PLAN REFERENCES:

- 1. CONSOLIDATION & SUBDIVISION PLAN, HENRI BURQUE HWY., NASHUA, NEW HAMPSHIRE, PREPARED FOR PENNICHUCK WATER CO. BY ALLAN H. SWANSON, INC. AND DATED 23 JUNE 1988. 2. EASEMENT PLAN (LOT 8, MAP 51) OLD HARRIS ROAD AND CONCORD STREET, NASHUA, NEW HAMPSHIRE, PREPARED FOR THE CITY OF NASHUA BY THIS OFFICE AND DATED 7 OCTOBER 2011.

A5 PLAN REFERENCES SCALE: N.T.S.



HARRIMAN

AUBURN BOSTON PORTLAND PORTSMOUTH

**NASHUA SCHOOL DISTRICT
PENNICHUCK MIDDLE
SCHOOL
ADDITIONS AND
RENOVATIONS**

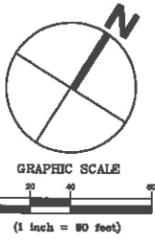
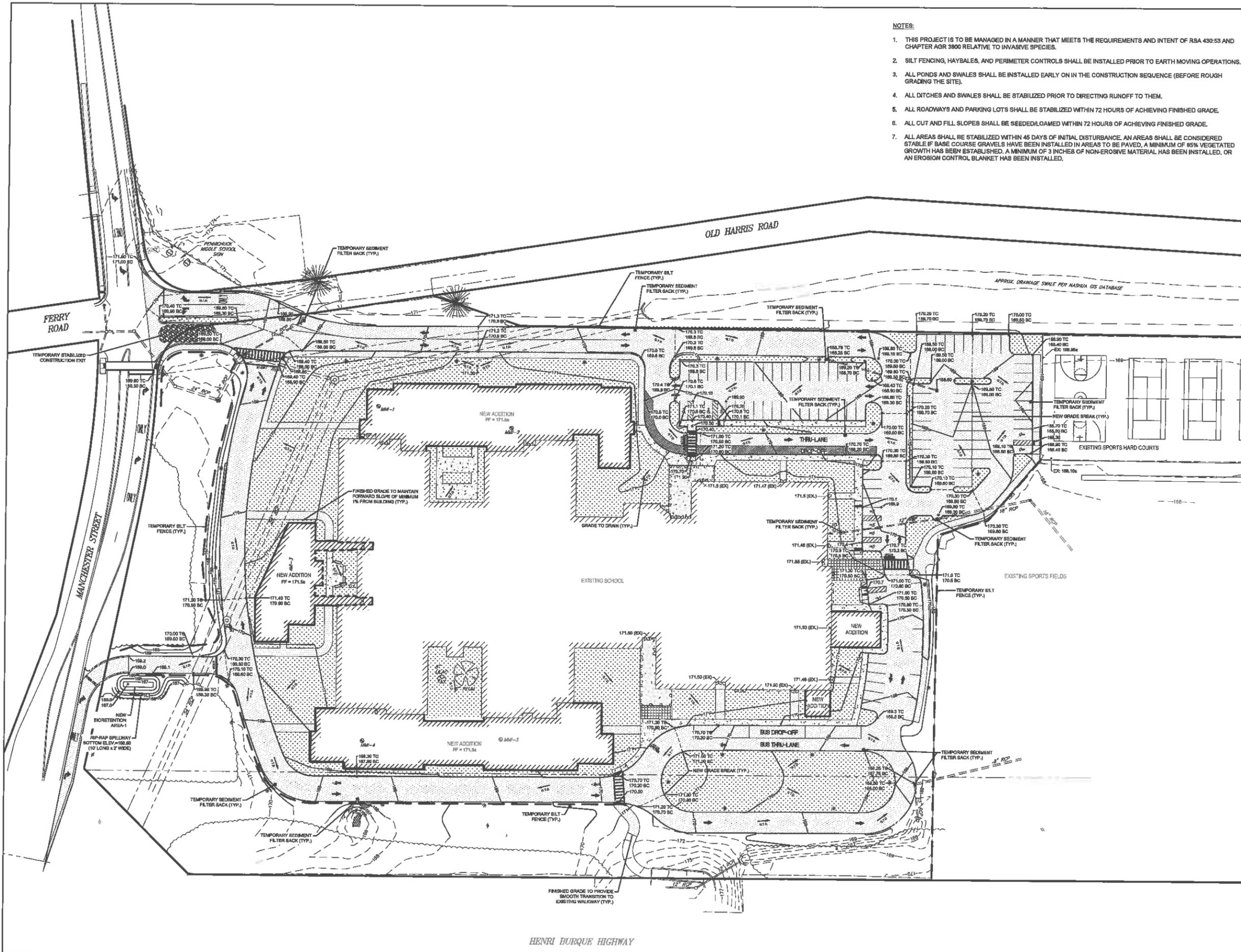
NASHUA, NEW HAMPSHIRE

Hamden Project No. 20322

Key Plan

NOTES:

1. THIS PROJECT IS TO BE MANAGED IN A MANNER THAT MEETS THE REQUIREMENTS AND INTENT OF RSA 430:53 AND CHAPTER AGR 3800 RELATIVE TO INVASIVE SPECIES.
2. SILT FENCING, HAYBALES, AND PERIMETER CONTROLS SHALL BE INSTALLED PRIOR TO EARTH MOVING OPERATIONS.
3. ALL PONDS AND SWALES SHALL BE INSTALLED EARLY ON IN THE CONSTRUCTION SEQUENCE (BEFORE ROUGH GRADING THE SITE).
4. ALL DITCHES AND SWALES SHALL BE STABILIZED PRIOR TO DIRECTING RUNOFF TO THEM.
5. ALL ROADWAYS AND PARKING LOTS SHALL BE STABILIZED WITHIN 72 HOURS OF ACHIEVING FINISHED GRADE.
6. ALL CUT AND FILL SLOPES SHALL BE SEEDED/LOAMED WITHIN 72 HOURS OF ACHIEVING FINISHED GRADE.
7. ALL AREAS SHALL BE STABILIZED WITHIN 45 DAYS OF INITIAL DISTURBANCE. AN AREAS SHALL BE CONSIDERED STABLE IF BASE COURSE GRAVELS HAVE BEEN INSTALLED IN AREAS TO BE PAVED, A MINIMUM OF 95% VEGETATED GROWTH HAS BEEN ESTABLISHED, A MINIMUM OF 3 INCHES OF NON-EROSIVE MATERIAL HAS BEEN INSTALLED, OR AN EROSION CONTROL BLANKET HAS BEEN INSTALLED.



**ALTERATION OF TERRAIN
PERMIT REVIEW
SEPTEMBER 16, 2020**

Rev	Date	Revision Description



Drawing Scale	
PA / PE: SKF	© 2020 Harriman Associates
Drawn By: HAS/BAW	

**SITE GRADING AND
EROSION CONTROL PLAN**

C30-1

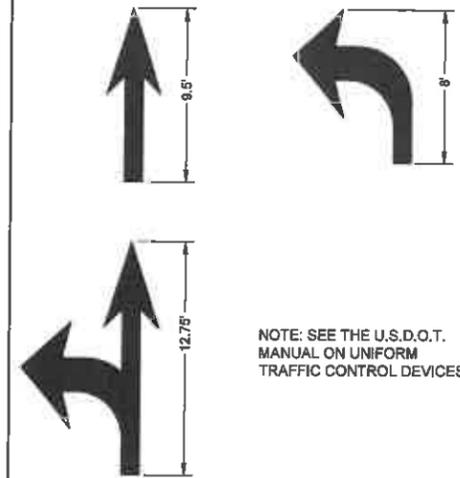


HARRIMAN

AUBURN BOSTON PORTLAND PORTSMOUTH

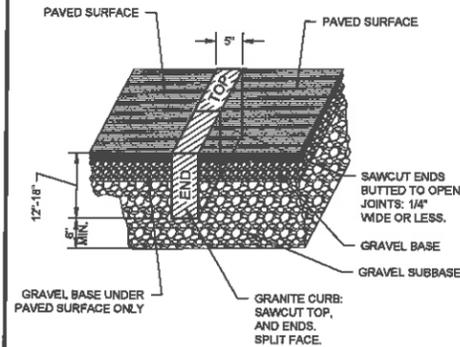
**NASHUA SCHOOL DISTRICT
PENNINGTON MIDDLE
SCHOOL
ADDITIONS AND
RENOVATIONS**

NASHUA, NEW HAMPSHIRE
Harriman Project No. 20322
Key Plan



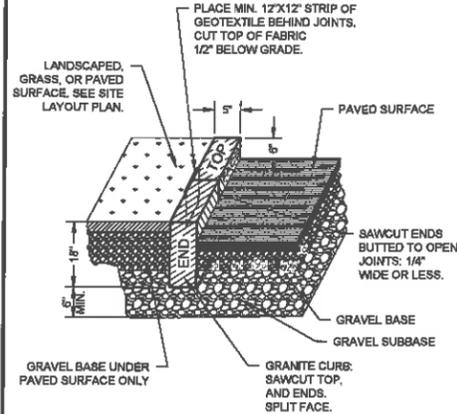
NOTE: SEE THE U.S.D.O.T. MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES

C5 ROADWAY DIRECTIONAL ARROWS
SCALE: N.T.S.



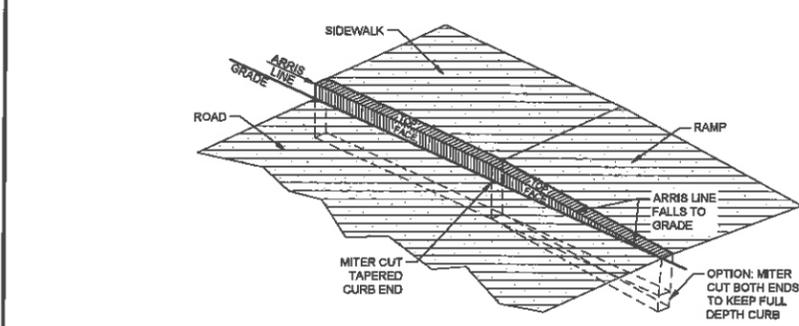
NOTE:
1. USE CURVED SECTIONS FOR CURB RADIUS OF 40' OR LESS.

C4 FLUSH GRANITE CURBING (FGC)
SCALE: N.T.S.



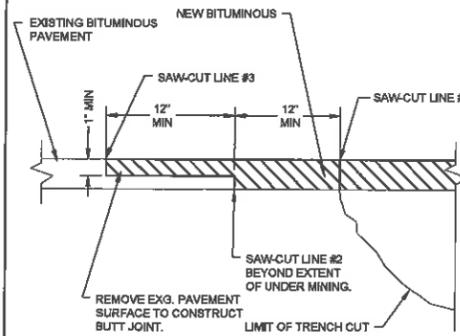
NOTE:
1. USE CURVED SECTIONS FOR CURB RADIUS OF 40' OR LESS.

C3 VERTICAL GRANITE CURBING (VGC)
SCALE: N.T.S.



VERTICAL TAPERED CURB END

C1 TAPERED CURB END DETAIL (TCE)
SCALE: N.T.S.



B5 PAVEMENT SAW-CUT JOINT
SCALE: N.T.S.

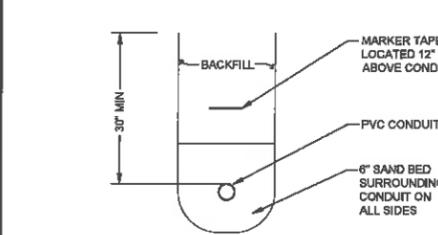
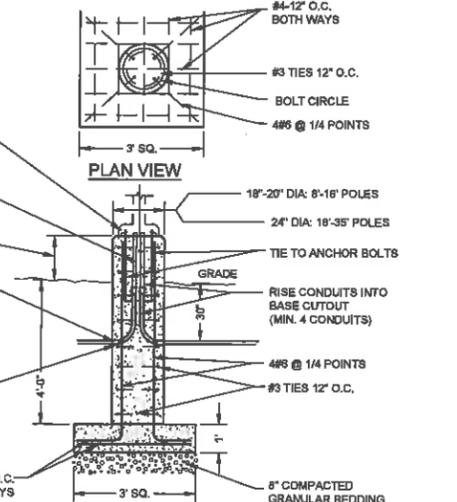
NOTES

- NUMBER AND SIZE OF REBARS INDICATED ARE MINIMUM. EXACT SPACING SHALL BE COORDINATED WITH MANUFACTURER'S SHOP DRAWINGS.
- DEPTH OF BASE INDICATED IS MINIMUM.
- BOLT CIRCLE AND OTHER EMBEDDED ITEMS TO BE COORDINATED WITH ELECTRICAL CONTRACTOR AND LIGHT POLE MANUFACTURER.

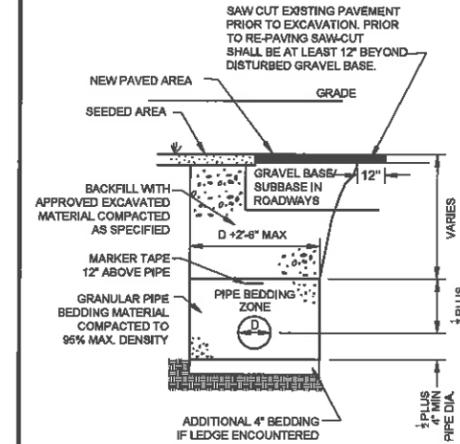
NOTES:

- CONDUITS AND WIRING SUPPLIED AND INSTALLED BY DIV. 26.
- NUMBER AND SIZE OF CONDUITS SHOWN ON ELECTRICAL PLANS

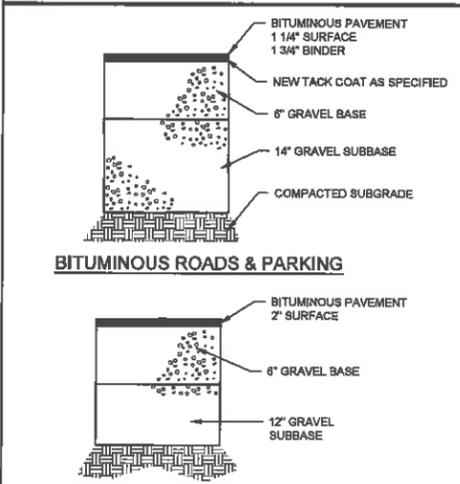
B3 PRECAST CONCRETE LIGHT POLE BASE
SCALE: N.T.S.



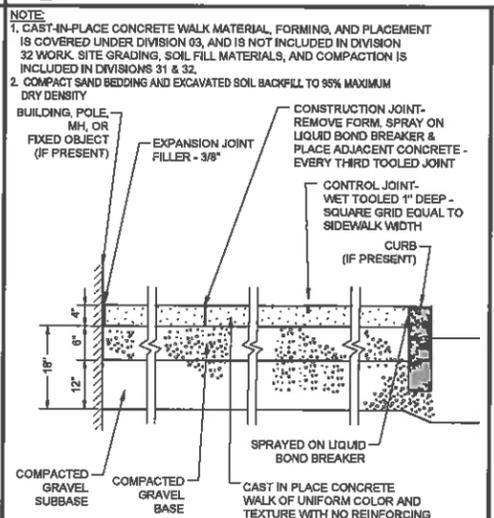
B2 UNDERGROUND LIGHTING CONDUIT
SCALE: N.T.S.



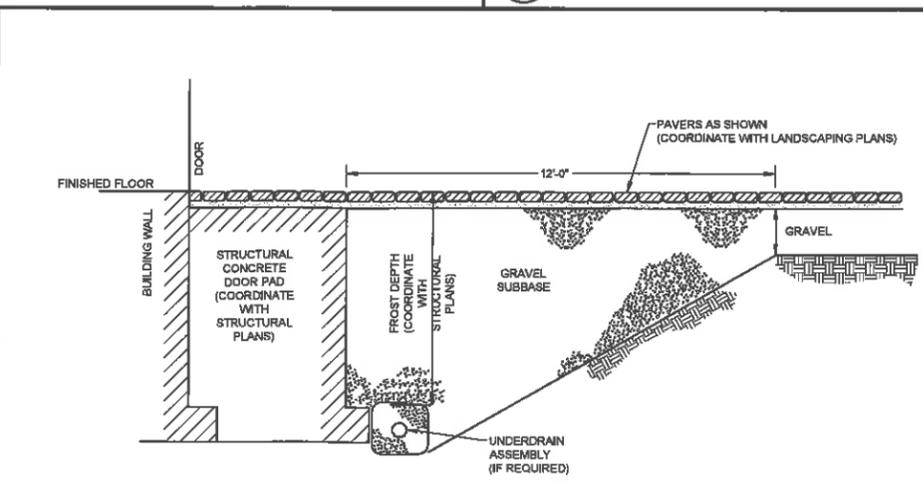
B1 PIPE TRENCH DETAIL
SCALE: N.T.S.



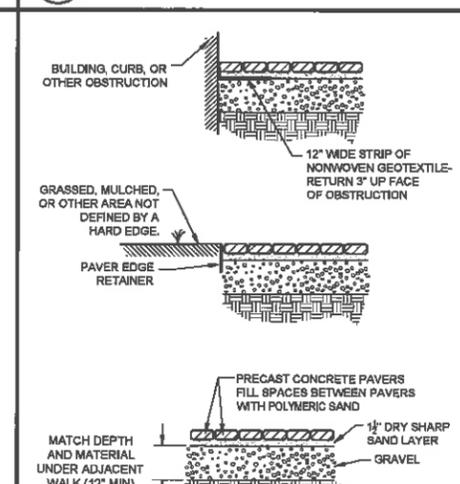
A5 BITUMINOUS PAVEMENT DETAIL
SCALE: N.T.S.



A4 C.I.P. CONCRETE SURFACING
SCALE: N.T.S.



A2 TYPICAL DOORWAY PAVER WALK SECTION
SCALE: N.T.S.



A1 P.C. CONCRETE PAVER WALKWAYS
SCALE: N.T.S.

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SEPTEMBER 16, 2020

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SITE DETAILS

C50-1



HARRIMAN

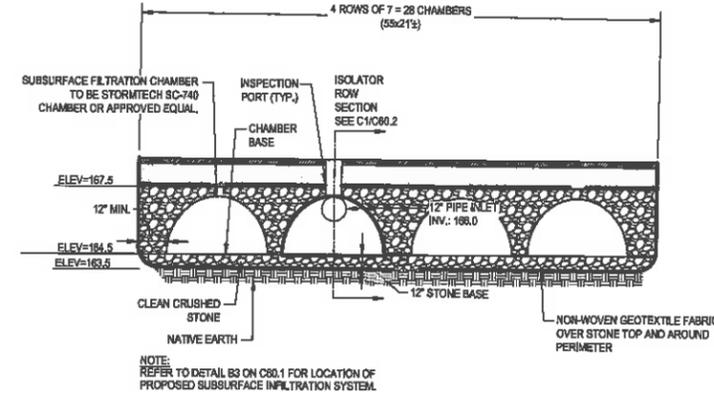
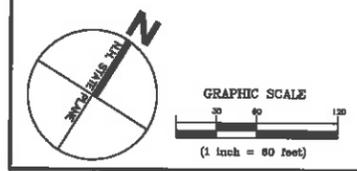
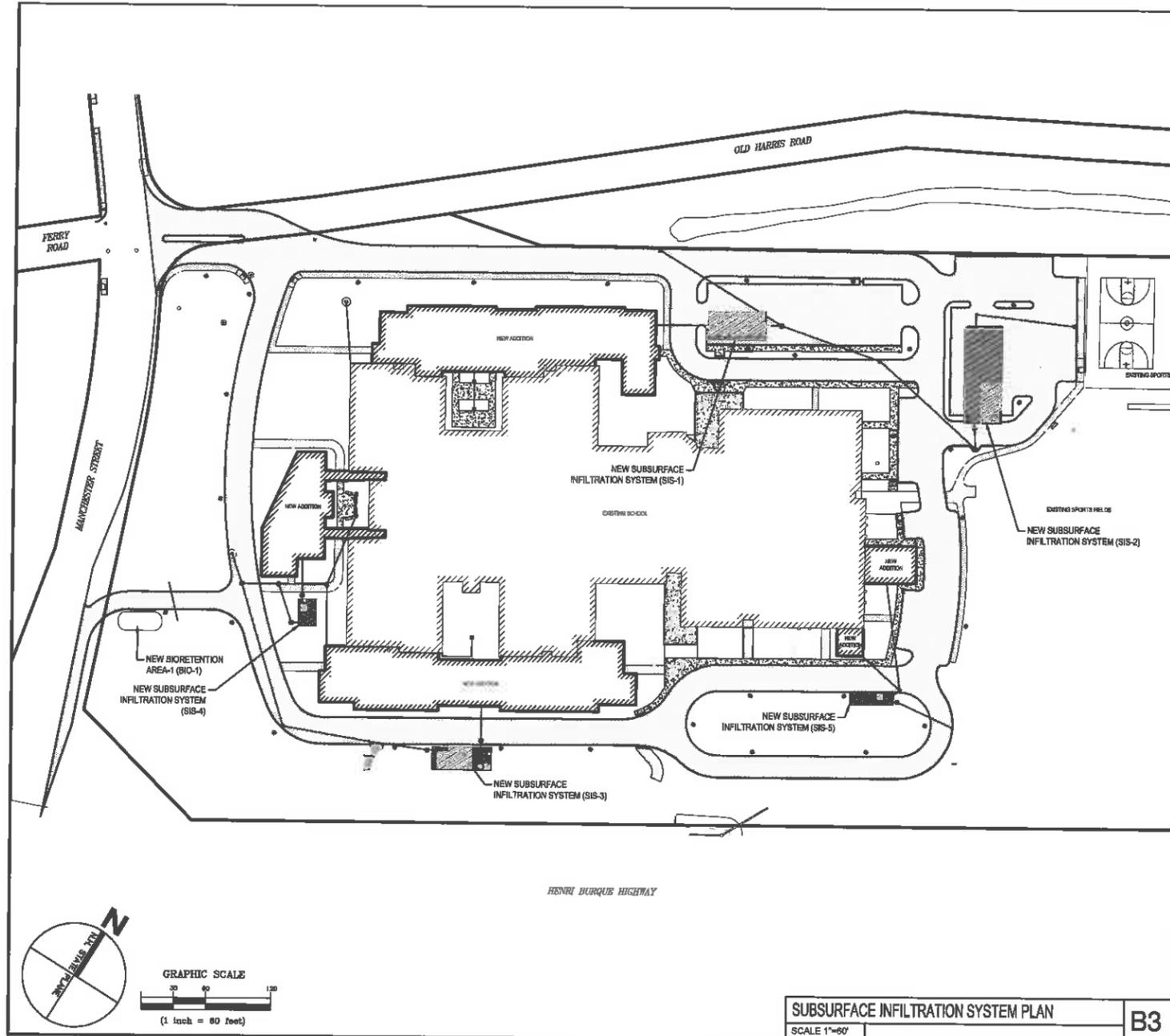
AUBURN BOSTON PORTLAND PORTSMOUTH

**NASHUA SCHOOL DISTRICT
PENNICHUCK MIDDLE
SCHOOL
ADDITIONS AND
RENOVATIONS**

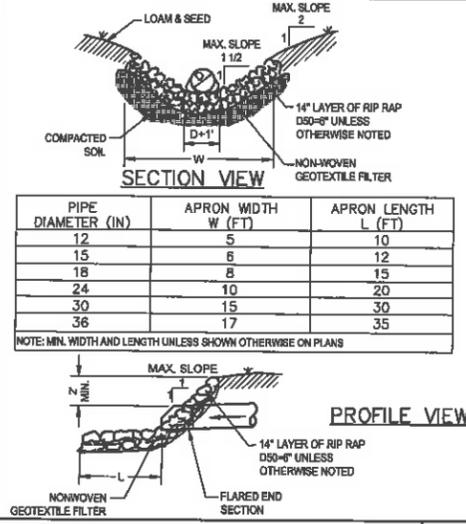
NASHUA, NEW HAMPSHIRE

Harriman Project No. 20322

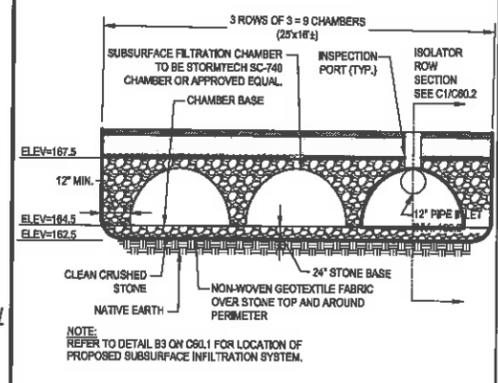
Key Plan



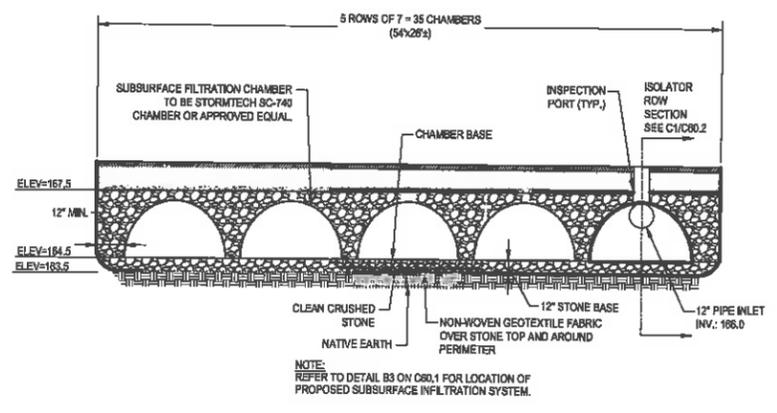
SUBSURFACE INFILTRATION SYSTEM (SIS-3) SECTION C1
NOT TO SCALE



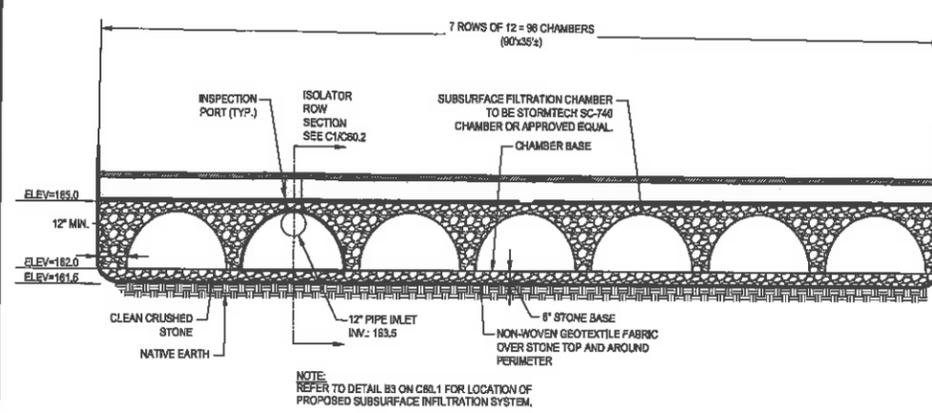
STORM DRAIN INLET/OUTLET RIP-RAP B2
NOT TO SCALE



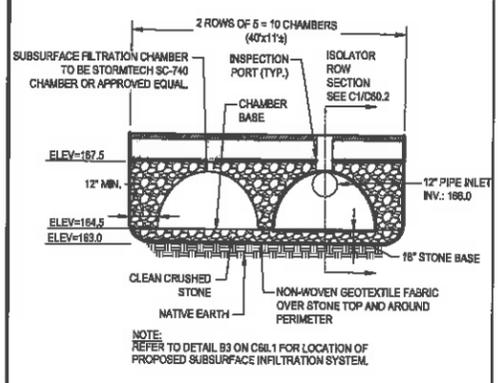
SUBSURFACE INFILTRATION SYSTEM (SIS-4) SECTION B1
NOT TO SCALE



SUBSURFACE INFILTRATION SYSTEM (SIS-1) SECTION A4
NOT TO SCALE



SUBSURFACE INFILTRATION SYSTEM (SIS-2) SECTION A2
NOT TO SCALE



SUBSURFACE INFILTRATION SYSTEM (SIS-5) SECTION A1
NOT TO SCALE

**ALTERATION OF TERRAIN
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SEPTEMBER 16, 2020**

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Drawing Index	

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STORMWATER DETAILS

C60-1

NASHUA CITY PLANNING BOARD
STAFF REPORT

TO: Nashua City Planning Board
FROM: Linda McGhee, Deputy Planning Manager
FOR: September 10, 2020
RE: **New Business #7 - Site Plan**

I. Project Statistics:

Owner: Roscommon Investments, LLC
Proposal: Site plan to show a new 24,020 sf auto body shop with associated site improvements
Location: 117 West Hobart St, "L" West Glenwood St, & "L" West Hobart St
Total Site Area: 220,696 sf
Existing Zoning: RA-Urban Residence & HB-Highway Business
Surrounding Uses: Commercial and residential

II. Background Information:

The property consists of five lots, approximately 5.01 acres. Currently the project area is cleared; however the site was historically comprised of woods and an existing house. The lots are bordered by the Everett Turnpike to the west, BJ's Wholesale to the south, Nashua Foreign Auto and two residential homes to the east and a car lot and more residential homes to the north.

III. Project Description:

The proposal is to construct a 22,560 sf (22,560 sf footprint and a 1,460 sf mezzanine) auto body shop with overflow auto storage from the Tulley dealership located further south on the Daniel Webster Highway. The project also proposes the reconstruction of a section of Sexton Road to provide adequate access to the site. Site work includes construction of a new building, parking lot and auto storage area, reconstruction of Sexton Road and stormwater management provisions. The proposed stormwater management system will include two proposed detention ponds, a proposed subsurface infiltration system, a treatment swale, and a series of catch basins and drainage pipes which will direct runoff into said pond.

A Traffic Impact Report (TIR) Threshold Worksheet was submitted for this project and indicates that a formal TIR Report is not required as the daily and peak hour trip estimates are below the TIR threshold values.

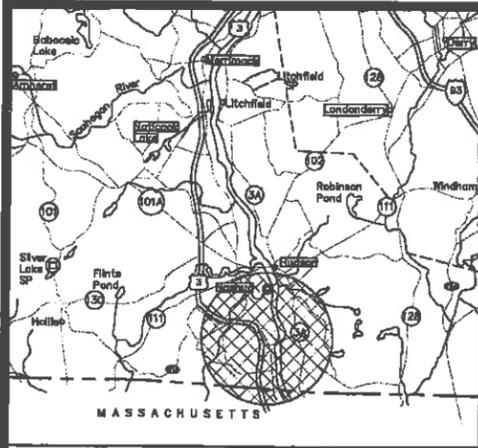
The site will be serviced by underground utilities, Pennichuck water, and city sewer. Hours of operation will be seven days a week, from 6 am to 8 pm. A landscape plan, lighting plan, and building elevations have been submitted as part of this application. One waiver is being requested from the requirement for landscaped islands for every 10 parking spaces in a row.

City Staff reviewed the plans; comments are attached.

Staff Recommendations and Findings:

The Planning Board should make a determination that the plan meets, or does not meet, the requirements outlined in the Site Plan NRO § 190-146(D). The Board should review these prior to making a motion. If the Planning Board chooses to disapprove the plan, specific reasons should be given. If the Planning Board chooses to approve this plan, staff recommends the following stipulations be made part of that approval:

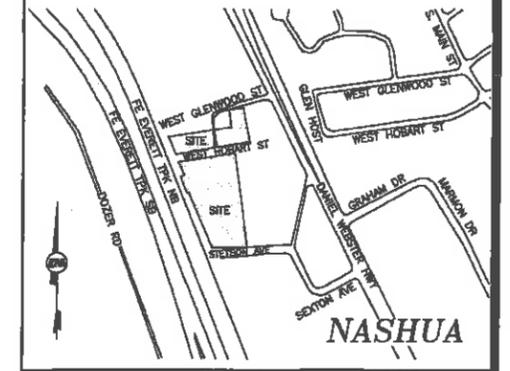
1. The request for a waiver of § 190-184 D (1) which requires parking aisles not contain more than 10 spaces in a row without a planted median and/or island, **is/is not** granted, finding that the waiver **will/will not** be contrary to the spirit and intent of the regulation.
2. Prior to the Chair signing the plan, minor drafting corrections will be made.
3. Prior to the Chair signing the plan, all conditions from the Planning Board approval letter will be added to the cover page of the final mylar and paper copies submitted to the City.
4. Prior to the Chair signing the plan, all comments in an e-mail from Joe Mendola, Street Construction Engineer, dated _____ shall be addressed to the satisfaction of the Engineering Department.
5. Prior to the issuance of a building permit, the lots will be merged.
6. Prior to the issuance of a building permit, all comments in an e-mail from Mark Rapaglia, Inspector/Investigator, dated July 7, 2020 shall be addressed to the satisfaction of the Fire Marshal's Office.
7. Prior to the issuance of a building permit, stormwater documents will be submitted to City staff for review and recorded at the applicant's expense.
8. Prior to the issuance of a building permit, the electronic file of the plan will be submitted to the City of Nashua.
9. Prior to any work on site, a pre-construction meeting shall be held and a financial guarantee shall be approved.
10. Prior to any site disturbance, the Alteration of Terrain Permit for the project shall be approved by NHDES.
11. Prior to the issuance of the Certificate of Occupancy, all off-site and on-site improvements will be completed.



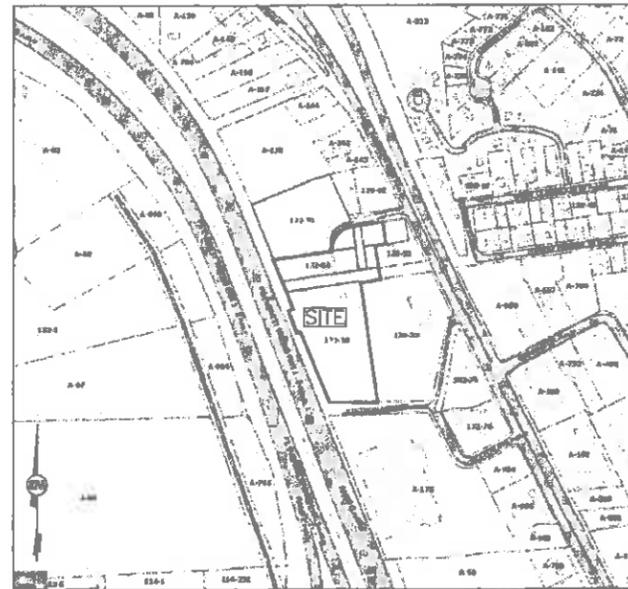
VICINITY PLAN
NOT TO SCALE

NON-RESIDENTIAL SITE PLAN AUTO BODY SHOP

MAP 128 LOTS 31, 32 & 84 MAP 132 LOTS 38 & 84 WEST GLENWOOD STREET NASHUA, NEW HAMPSHIRE



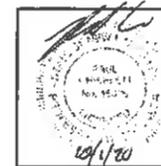
LOCATION PLAN
SCALE: 1" = 500' +/-



EXISTING FEATURES WITHIN 1,000-FT
NOT TO SCALE

OWNER/APPLICANT:
ROSCOMMON INVESTMENTS, LLC
147 DANIEL WEBSTER HIGHWAY
NASHUA, NH 03060
(603) 888-5050

PREPARED BY:
KEACH-NORDSTROM ASSOCIATES, INC.
10 COMMERCE PARK NORTH, SUITE 3B
BEDFORD, NEW HAMPSHIRE 03110
(603) 627-2881



KNA
KEACH-NORDSTROM ASSOCIATES, INC.
Civil Engineering Land Surveying Landscape Architecture
10 Commerce Park North, Suite 3B, Bedford, NH 03110 Phone (603) 627-2881

JUNE 22, 2020

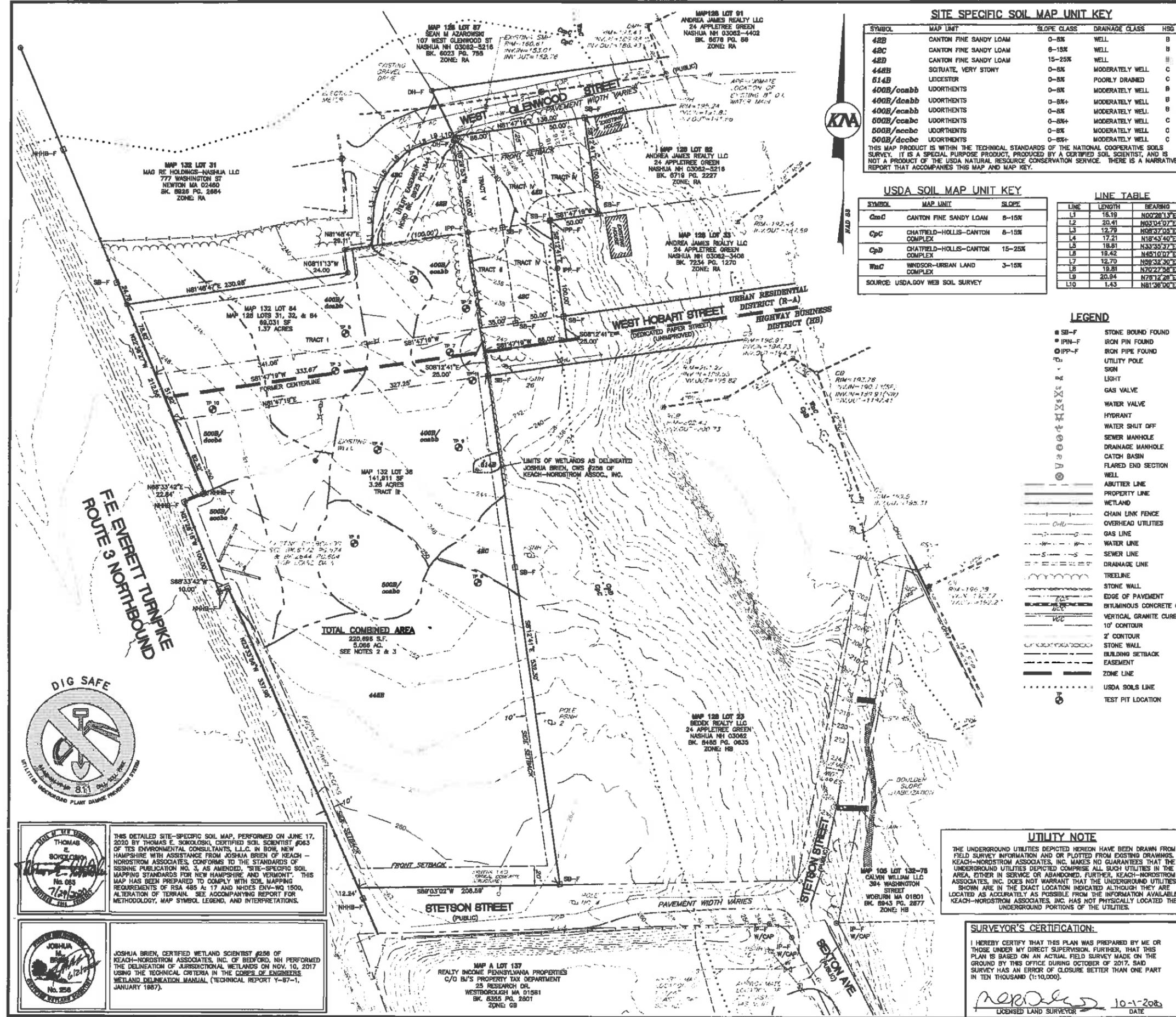
PROJECT NO. 17-1011-1

SHEET TITLE

SHEET No.

EXISTING CONDITIONS PLAN	1
REMOVALS PLAN	2
NON-RESIDENTIAL SITE PLAN	3
GRADING & DRAINAGE PLAN	4
UTILITY PLAN	5
EROSION CONTROL PLAN	6
LANDSCAPE PLAN	7
LIGHTING PLAN	8
ROADWAY PLAN & PROFILE	9
DRIVEWAY DRAINAGE PLAN & PROFILE	10
SIGHT DISTANCE PLAN & PROFILES	11 - 12
DRAINAGE PROFILES	13
SEWER PROFILE	14
CONSTRUCTION DETAILS	15 - 21
TEST PITS	22

ARCHITECTURAL PLANS
(BY BRUCE RONAYNE HAMILTON ARCHITECTS)



SITE SPECIFIC SOIL MAP UNIT KEY

SYMBOL	MAP UNIT	SLOPE CLASS	DRAINAGE CLASS	HSG
42B	CANTON FINE SANDY LOAM	0-8%	WELL	B
42C	CANTON FINE SANDY LOAM	8-15%	WELL	B
42D	CANTON FINE SANDY LOAM	15-25%	WELL	B
44B	SCITUATE, VERY STONY	0-8%	MODERATELY WELL	C
614B	LEICESTER	0-8%	POORLY DRAINED	C
400B/oaabb	UDORTHENTS	0-8%	MODERATELY WELL	B
400B/oaabb	UDORTHENTS	0-8%	MODERATELY WELL	B
400B/oaabb	UDORTHENTS	0-8%	MODERATELY WELL	B
400B/oaabb	UDORTHENTS	0-8%	MODERATELY WELL	B
400B/oaabb	UDORTHENTS	0-8%	MODERATELY WELL	B
400B/oaabb	UDORTHENTS	0-8%	MODERATELY WELL	B
400B/oaabb	UDORTHENTS	0-8%	MODERATELY WELL	B
400B/oaabb	UDORTHENTS	0-8%	MODERATELY WELL	B
400B/oaabb	UDORTHENTS	0-8%	MODERATELY WELL	B

THIS MAP PRODUCT IS WITHIN THE TECHNICAL STANDARDS OF THE NATIONAL COOPERATIVE SOILS SURVEY. IT IS A SPECIAL PURPOSE PRODUCT, PRODUCED BY A CERTIFIED SOIL SCIENTIST, AND IS NOT A PRODUCT OF THE USDA NATURAL RESOURCE CONSERVATION SERVICE. THERE IS A NARRATIVE REPORT THAT ACCOMPANIES THIS MAP AND MAP KEY.

USDA SOIL MAP UNIT KEY

SYMBOL	MAP UNIT	SLOPE
CmC	CANTON FINE SANDY LOAM	8-15%
CpC	CHATFIELD-HOLLIS-CANTON COMPLEX	8-15%
CpD	CHATFIELD-HOLLIS-CANTON COMPLEX	15-25%
WmC	WINDSOR-URBAN LAND COMPLEX	3-15%

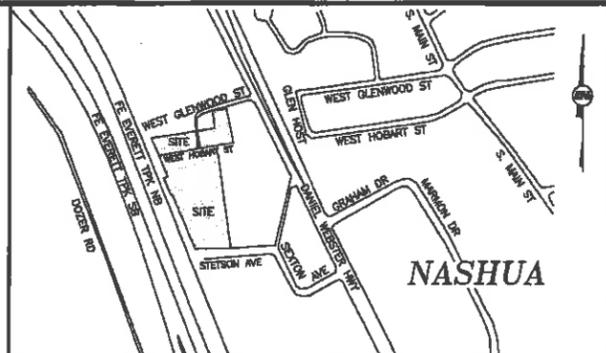
SOURCE: USDA.GOV WEB SOIL SURVEY

LINE TABLE

LINE	LENGTH	BEARING
L1	16.19	N002613°E
L2	20.41	N030497°E
L3	12.79	N083705°E
L4	17.21	N184540°E
L5	18.81	N333937°E
L6	18.42	N431027°E
L7	12.70	N583230°E
L8	19.81	N702730°E
L9	20.94	N781228°E
L10	1.43	N813800°E

LEGEND

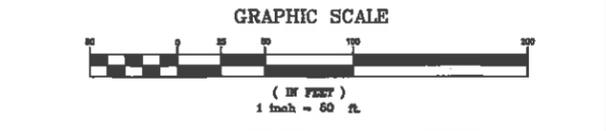
- SB-F STONE BOUND FOUND
- IPIN-F IRON PIN FOUND
- IRPP-F IRON PIPE FOUND
- UTILITY POLE
- SIGN
- GAS VALVE
- WATER VALVE
- HYDRANT
- WATER SHUT OFF
- SEWER MANHOLE
- DRAINAGE MANHOLE
- CATCH BASIN
- FLARED END SECTION
- WELL
- ABUTTER LINE
- PROPERTY LINE
- WETLAND
- CHAIN LINK FENCE
- OVERHEAD UTILITIES
- GAS LINE
- WATER LINE
- SEWER LINE
- DRAINAGE LINE
- TREELINE
- STONE WALL
- EDGE OF PAVEMENT
- BITUMINOUS CONCRETE CURB
- VERTICAL GRANITE CURB
- 1' CONTOUR
- 2' CONTOUR
- STONE WALL
- BUILDING SETBACK
- EASEMENT
- ZONE LINE
- USDA SOILS LINE
- TEST PIT LOCATION



VICINITY PLAN
SCALE: 1" = 500' +/-

- NOTES:**
- THE PURPOSE OF THIS PLAN IS TO DEPICT THE EXISTING CONDITIONS FOR HCRD BOOK 9045 PAGE 874, ASSESSOR'S MAP 128 LOTS 31, 32 & 84 AND MAP 132 LOTS 38 & 84 IN NASHUA, NEW HAMPSHIRE AND NO OTHER PURPOSE.
 - THIS PLAN PRESUMES THE APPROVAL OF THE LOT LINE ADJUSTMENT WITH MAG-RE HOLDINGS - NASHUA, LLC AND THE REVERSION OF THOSE PORTIONS OF WEST HOBART STREET THAT ADJUT THE ROSCOMMON INVESTMENTS, LLC PROPERTIES.
 - TOTAL SITE AREA = 220,896 SF, OR 5.066 ACRES (SEE NOTE 2).
 - TAX MAP 128 LOTS 31, 32 & 84 AND MAP 132 LOTS 38 & 84 INDICATE CITY OF NASHUA TAX ASSESSORS MAP AND LOT NUMBER.
 - OWNER OF RECORD
ROSCOMMON INVESTMENTS, LLC
147 DANIEL WEBSTER HIGHWAY
NASHUA, NEW HAMPSHIRE 03060
BK. 834 PG. 874
- PRESENT ZONING: URBAN RESIDENCE DISTRICT (R-A)**
MINIMUM BUILDING SETBACKS:
- FRONT 25 FT
- SIDE 10 FT
- REAR 25 FT
- HIGHWAY BUSINESS DISTRICT (HB)**
- FRONT 20 FT
- SIDE 10 FT
- REAR 20 FT
- BOUNDARY AND TOPOGRAPHIC INFORMATION IS BASED ON A FIELD SURVEY PERFORMED BY THIS OFFICE IN OCTOBER OF 2017.
 - HORIZONTAL DATUM IS NAD 83, NORTH ORIENTATION IS NAD 83, VERTICAL DATUM IS NGVD29.
 - EXAMINATION OF THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) FLOOD INSURANCE RATE MAPS (FIRM) FOR THE CITY OF NASHUA, NEW HAMPSHIRE, HILLSBOROUGH COUNTY, COMMUNITY PANEL NUMBER 330097, SHEET NUMBER 852 OF 701, EFFECTIVE DATE: APRIL 18, 2011 INDICATES THAT NO PORTION OF THE SUBJECT PREMISES IS LOCATED WITHIN A DESIGNATED FLOOD HAZARD AREA.
 - THE LOCATION OF ANY UNDERGROUND UTILITY INFORMATION SHOWN ON THIS PLAN IS APPROXIMATE. KEACH-NORDSTROM ASSOCIATES, INC. MAKES NO CLAIM TO THE ACCURACY OR COMPLETENESS OF UTILITIES SHOWN. PRIOR TO ANY EXCAVATION ON SITE THE CONTRACTOR SHALL CONTACT DIG SAFE AT 611.
 - EASEMENTS, RIGHTS AND RESTRICTIONS SHOWN OR IDENTIFIED HEREON ARE THOSE FOUND DURING RESEARCH AT THE ROCKINGHAM COUNTY REGISTRY OF DEEDS. OTHER EASEMENTS, RIGHTS AND RESTRICTIONS MAY EXIST WHICH A TITLE EXAMINATION OF THE SUBJECT PREMISES MAY DETERMINE.

- REFERENCE PLANS:**
- COUNTRY CLUB HEIGHTS ANNEX, NASHUA, N.H. OWNED BY A.H. CHAPMAN LAND COMPANY. BY: EN SHEFFIELD, SCALE 1"=100', HCRD PLAN #536.
 - FINAL BOUNDARY PLAN-LAND OF SENGWICK, WEST GLENWOOD STREET, NASHUA, N.H. PREPARED FOR: JOHN & MARILYN SENGWICK, BY: GLOD & CORRIE, INC. HCRD PLANS #28735 & 28813.
 - NHDOT PROJECT PLANS OF CENTRAL NEW HAMPSHIRE TURNPIKE PROJECT(S), 1000A, 10824-F & 10824-J, ON FILE WITH THE NHDOT, CONCORD, NEW HAMPSHIRE.
 - EASEMENT PLAN, MAP 132 LOT 31, 117 WEST GLENWOOD STREET, NASHUA, NEW HAMPSHIRE, DATED: 30 SEPTEMBER 2018, SCALE: 1"=30', PREPARED BY HAYNER/SWANSON INC. HCRD PLAN #39110.
 - PROPOSED VEHICLE STORAGE LOT, 117 WEST GLENWOOD STREET, NASHUA, NEW HAMPSHIRE, DATED 23 JUNE 2018, SCALE: 1"=30', PREPARED BY HAYNER/SWANSON INC. ON FILE WITH THE CITY OF NASHUA PLAN #NR220G.



EXISTING CONDITIONS PLAN
AUTO BODY SHOP
MAP 128 LOTS 31, 32 & 84
MAP 132 LOTS 38 & 84
WEST GLENWOOD STREET
NASHUA, NEW HAMPSHIRE
HILLSBOROUGH COUNTY

OWNER/APPLICANT:
ROSCOMMON INVESTMENTS, LLC
147 DANIEL WEBSTER HIGHWAY
NASHUA, NH 03060
(603) 888-5050

K/A KEACH-NORDSTROM ASSOCIATES, INC.
Civil Engineering Land Surveying Landscape Architecture
10 Commerce Park North, Suite 302, Bedford, NH 03110 Phone (603) 887-8881

REVISIONS

No.	DATE	DESCRIPTION	BY
1	7/29/20	AUTO STORAGE & MEZZANINE REVS	PCM
2	10/1/20	CITY ENGINEERING REVISIONS	PCM

DATE: JUNE 22, 2020 SCALE: 1"=50'
PROJECT NO: 17-1011-1 SHEET 1 OF 22

UTILITY NOTE

THE UNDERGROUND UTILITIES DEPICTED HEREON HAVE BEEN DRAWN FROM FIELD SURVEY INFORMATION AND OR PLOTTED FROM EXISTING DRAWINGS. KEACH-NORDSTROM ASSOCIATES, INC. MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES DEPICTED COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. FURTHER, KEACH-NORDSTROM ASSOCIATES, INC. DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM THE INFORMATION AVAILABLE. KEACH-NORDSTROM ASSOCIATES, INC. IS NOT PHYSICALLY LOCATED THE UNDERGROUND PORTIONS OF THE UTILITIES.

SURVEYOR'S CERTIFICATION:

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR THOSE UNDER MY DIRECT SUPERVISION. FURTHER, THAT THIS PLAN IS BASED ON AN ACTUAL FIELD SURVEY MADE ON THE GROUND BY THIS OFFICE DURING OCTOBER OF 2017. SAID SURVEY HAS AN ERROR OF CLOSURE BETTER THAN ONE PART IN TEN THOUSAND (1:10,000).

Michael R. Dahlberg 10-1-2020
LICENSED LAND SURVEYOR DATE

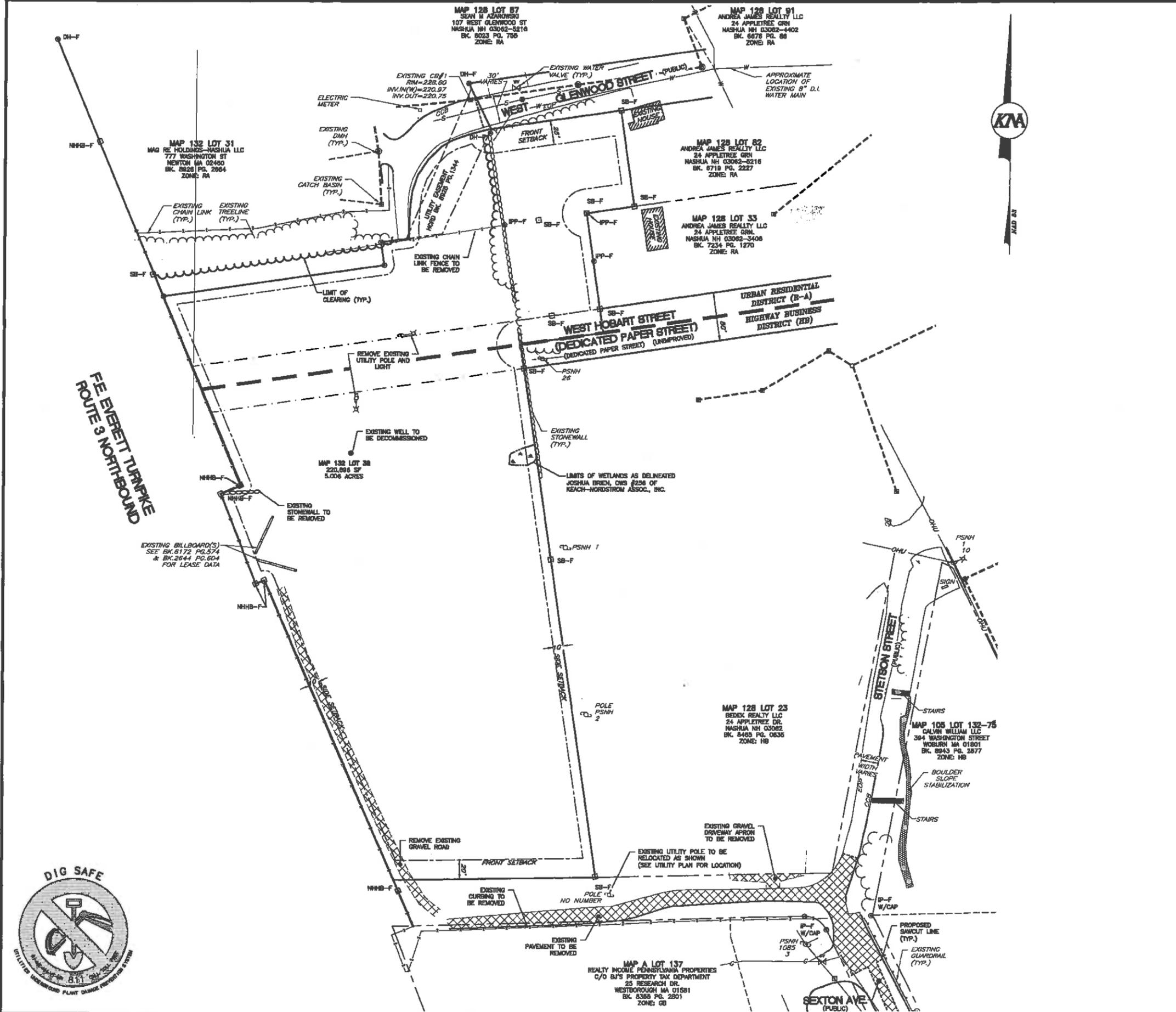


THIS DETAILED SITE-SPECIFIC SOIL MAP, PERFORMED ON JUNE 17, 2020 BY THOMAS E. SOKOLOWSKI, CERTIFIED SOIL SCIENTIST #0663 OF YES ENVIRONMENTAL CONSULTANTS, L.L.C. IN BOW, NEW HAMPSHIRE WITH ASSISTANCE FROM JOSHUA BRIEN OF KEACH-NORDSTROM ASSOCIATES, CONFORMS TO THE STANDARDS OF SESSION PUBLICATION NO. 3, AS AMENDED, "SITE-SPECIFIC SOIL MAPPING STANDARDS FOR NEW HAMPSHIRE AND VERMONT". THIS MAP HAS BEEN PREPARED TO COMPLY WITH SOIL MAPPING REQUIREMENTS OF RSA 489-A:17 AND NHDES ENV-WQ 1500, ALTERATION OF TERRAIN. SEE ACCOMPANYING REPORT FOR METHODOLOGY, MAP SYMBOL LEGEND, AND INTERPRETATIONS.



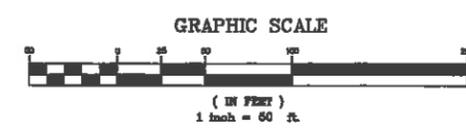
JOSHUA BRIEN, CERTIFIED WETLAND SCIENTIST #258 OF KEACH-NORDSTROM ASSOCIATES, INC. OF BEDFORD, NH PERFORMED THE DELINEATION OF JURISDICTIONAL WETLANDS ON NOV. 10, 2017 USING THE TECHNICAL CRITERIA IN THE COOPER'S ENGINEERING WETLAND DELINEATION MANUAL (TECHNICAL REPORT Y-87-1, JANUARY 1987).

MAP A LOT 137
REALLY INCOME PENNSYLVANIA PROPERTIES
C/O BI'S PROPERTY TAX DEPARTMENT
25 RESEARCH DR.
WESTBOROUGH MA 01581
BK. 8355 PG. 2901
ZONE: GB



- NOTES:**
1. ALL STUMPS, ROOTS, BRANCHES, BRUSH, WOODS, AND OTHER PERISHABLE MATERIAL RESULTING FROM THE CLEARING AND GRUBBING OPERATIONS SHALL BE DISPOSED OF BY AN APPROVED METHOD.
 2. STRIP, STOCKPILE, AND REUSE ON-SITE GRAVEL AND FILL AREAS WHERE APPROPRIATE IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE DESIGN ENGINEER.
 3. REMOVE ALL ASPHALT, CURBS, CONCRETE, VEGETATION, TREES, SHRUBS, LIGHT POLES, SIGNAGE, AND STRUCTURES WITHIN THE HATCHED AREA, UNLESS OTHERWISE NOTED.
 4. DEBRIS REMOVED FROM THE SITE SHALL BE DISPOSED OF IN ACCORDANCE WITH ALL LOCAL, STATE, AND FEDERAL REGULATIONS.
 5. ALL WORK PERFORMED ON BEHALF OF THIS PROJECT SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF NASHUA'S CONSTRUCTION STANDARDS AND DETAILS, LATEST EDITION.
 6. THE CONTRACTOR SHALL APPLY FOR AN EXCAVATION PERMIT FOR WORK WITHIN THE CITY RIGHT-OF-WAY OR ON CITY OWNED PROPERTY. CONTACT THE CITY OF NASHUA'S ENGINEERING SERVICES DIVISION PRIOR TO CONSTRUCTION TO APPLY FOR THE PERMIT.
 7. THE CONTRACTOR SHALL APPLY FOR A DRIVEWAY PERMIT TO REPAIR, WIDEN, RECONSTRUCT, OR CONSTRUCT A DRIVEWAY.
 8. THE CONTRACTOR SHALL REQUEST A PRECONSTRUCTION MEETING WITH ENGINEERING SERVICES TO DISCUSS SITE INSPECTIONS, SCHEDULES, SPECIAL CONDITIONS, ETC.
 9. SITE CONTRACTOR SHALL ESTABLISH TEMPORARY PERIMETER CONTROLS PRIOR TO THE START OF SITE EXCAVATION.
 10. CONTRACTOR SHALL WORK WITH LOCAL UTILITY PROVIDERS DURING SHUT DOWN AND REMOVAL EFFORTS.
 11. ALL ITEMS TO REMAIN SHALL BE PROTECTED BY THE CONTRACTOR.

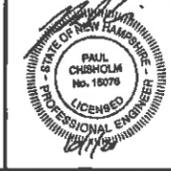
- LEGEND**
- SB-F STONE BOUND FOUND
 - IPW-F IRON PIPE FOUND
 - PP-F IRON PIPE FOUND
 - UTY UTILITY POLE
 - SGN SIGN
 - LGT LIGHT
 - GSV GAS VALVE
 - WTV WATER VALVE
 - HYD HYDRANT
 - WSO WATER SHUT OFF
 - SMM SEWER MANHOLE
 - DMH DRAINAGE MANHOLE
 - CBN CATCH BASIN
 - FES FLARED END SECTION
 - WEL WELL
 - ALB ABUTTER LINE
 - PRL PROPERTY LINE
 - WTL WETLAND
 - CLF CHAIN LINK FENCE
 - OHU OVERHEAD UTILITIES
 - GLN GAS LINE
 - WLN WATER LINE
 - SLN SEWER LINE
 - DRL DRAINAGE LINE
 - TRL TREETLINE
 - SWL STONE WALL
 - EOP EDGE OF PAVEMENT
 - BCC BITUMINOUS CONCRETE CURB
 - VGC VERTICAL GRANITE CURB
 - SWL STONE WALL
 - BLS BUILDING SETBACK
 - EAS EASEMENT
 - ZLN ZONE LINE
 - SCL SAWCUT LINE
 - REM REMOVALS



REMOVALS PLAN
AUTO BODY SHOP
 MAP 128 LOTS 31, 32 & 84
 MAP 132 LOTS 38 & 84
 WEST GLENWOOD STREET
 NASHUA, NEW HAMPSHIRE
 HILLSBOROUGH COUNTY

OWNER/APPLICANT:
 ROSCOMMON INVESTMENTS, LLC
 147 DANIEL WEBSTER HIGHWAY
 NASHUA, NH 03060
 (603) 888-5050

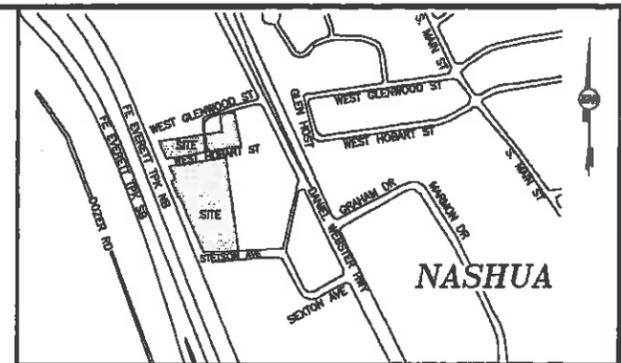
KMA
 KEACH-NORDSTROM ASSOCIATES, INC.
 Civil Engineering Land Surveying Landscape Architecture
 10 Commerce Park North, Suite 50, Bedford, NH 03110 Phone (603) 637-8881



REVISIONS			
No.	DATE	DESCRIPTION	BY
1	7/29/20	AUTO STORAGE & MEZZANINE REVS	PCM
2	10/1/20	CITY ENGINEERING REVISIONS	PCM

DATE: JUNE 22, 2020 SCALE: 1"=50'
 PROJECT NO: 17-1011-1 SHEET 2 OF 22





VICINITY PLAN
SCALE: 1" = 500' +/-

NOTES:

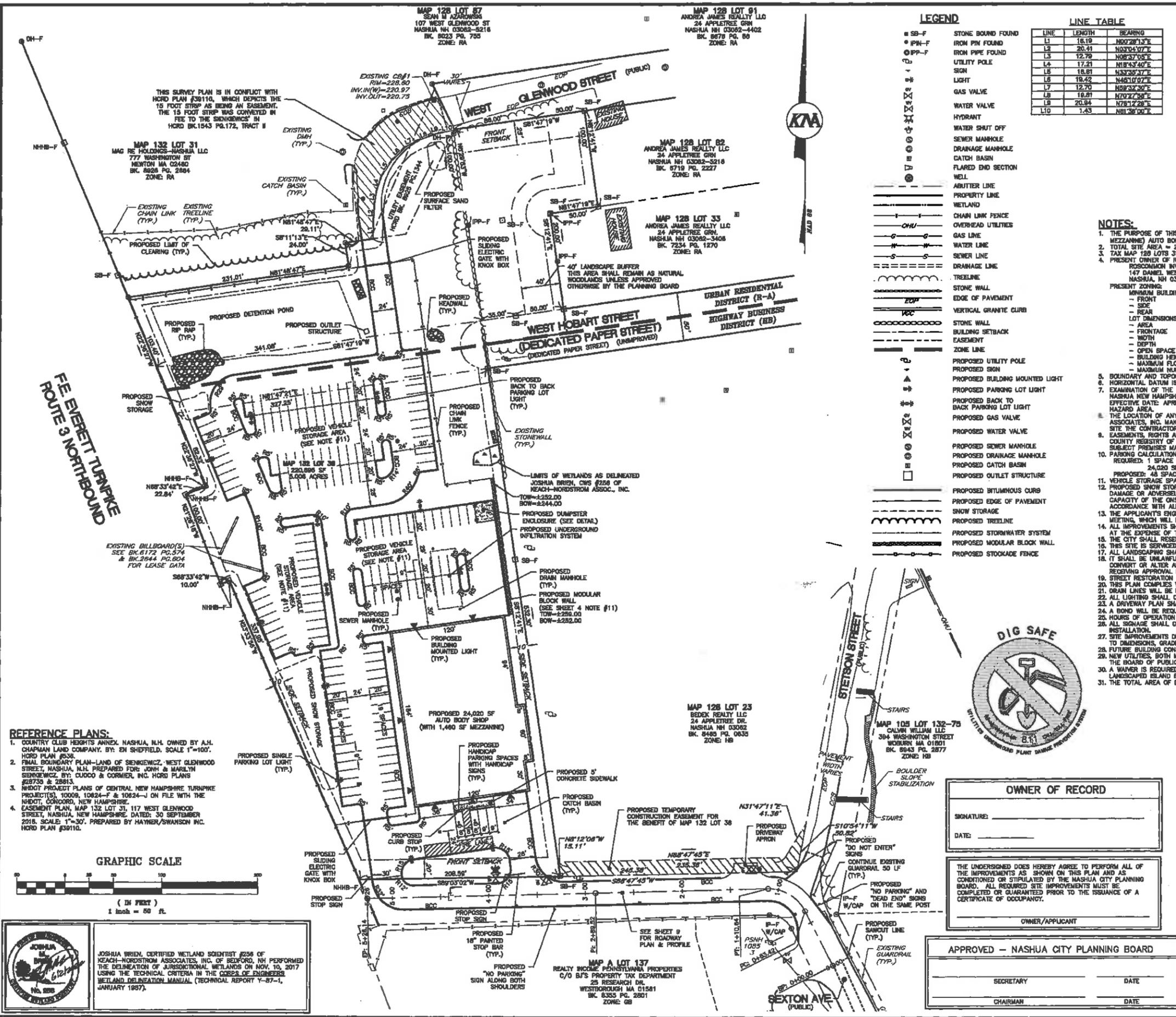
- THE PURPOSE OF THIS PLAN IS TO SHOW INFORMATION REGARDING A PROPOSED 24,020 SQUARE FOOT (22,560 FOOTPRINT + 1,460 MEZZANINE) AUTO BODY SHOP AND ACCOMPANYING PARKING LOT FOR AUTO STORAGE AND NO OTHER PURPOSE.
 - TOTAL SITE AREA = 210,842 SF, OR 4.84 ACRES.
 - TAX MAP 128 LOTS 31, 32 & 84 AND MAP 132 LOTS 38 & 84 INDICATE CITY OF NASHUA TAX ASSESSORS MAP AND LOT NUMBER.
 - PRESENT OWNER OF RECORD: ROSCOMMON INVESTMENTS, LLC 147 DANIEL WEBSTER HIGHWAY NASHUA, NH 03080
- PRESENT ZONING: URBAN RESIDENCE DISTRICT (R-A) HIGHWAY BUSINESS DISTRICT (HB)
- MINIMUM BUILDING SETBACKS:
- | | | |
|-------|-------|-------|
| FRONT | 25 FT | 20 FT |
| SIDE | 10 FT | 10 FT |
| REAR | 25 FT | 20 FT |
- LOT DIMENSIONS:
- | | | |
|--------------------------|-----------|-----------------|
| AREA | 20,000 SF | PROPOSED LOT 38 |
| FRONTAGE | 80 FT | 220,896 SF |
| WIDTH | 100 FT | 206,59 FT |
| DEPTH | 80 FT | 107,13 FT |
| OPEN SPACE | 20% | 81,36% |
| BUILDING HEIGHT | 60 FT | 21 FT |
| MAXIMUM FLOOR AREA RATIO | 0.75 | 0.75 |
| MAXIMUM NUMBER OF STORES | 5 STORES | 2 STORES |
- BOUNDARY AND TOPOGRAPHIC INFORMATION IS BASED ON A FIELD SURVEY PERFORMED BY THIS OFFICE IN OCTOBER OF 2017. HORIZONTAL DATUM IS NAD 83, NORTH ORIENTATION IS NAD 83, VERTICAL DATUM IS NGVD29.
 - EXAMINATION OF THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) FLOOD INSURANCE RATE MAPS (FIRM) FOR THE CITY OF NASHUA NEW HAMPSHIRE, HILLSBOROUGH COUNTY, COMMUNITY PANEL NUMBER 330097 0822E PANEL NUMBER 652 OF 701, EFFECTIVE DATE: APRIL 16, 2011 INDICATES THAT NO PORTION OF THE SUBJECT PREMISES IS LOCATED WITHIN A DESIGNATED FLOOD HAZARD AREA.
 - THE LOCATION OF ANY UNDERGROUND UTILITY INFORMATION SHOWN ON THIS PLAN IS APPROXIMATE. KEACH-NORDSTROM ASSOCIATES, INC. MAKES NO CLAIM TO THE ACCURACY OR COMPLETENESS OF UTILITIES SHOWN. PRIOR TO ANY EXCAVATION ON SITE THE CONTRACTOR SHALL CONTACT DIG SAFE AT 811.
 - EASEMENTS, RIGHTS AND RESTRICTIONS SHOWN OR IDENTIFIED HEREON ARE THOSE FOUND DURING RESEARCH AT THE HILLSBOROUGH COUNTY REGISTRY OF DEEDS. OTHER EASEMENTS, RIGHTS AND RESTRICTIONS MAY EXIST WHICH A TITLE EXAMINATION OF THE SUBJECT PREMISES MAY DETERMINE.
 - PARKING CALCULATIONS FOR VEHICLE REPAIR AND STORAGE REQUIRED: 1 SPACE PER 600 SF 24,020 SF / 600 SF = 40.03 = 40 SPACES PROPOSED: 48 SPACES PROPOSED INCLUDING TWO HANDICAP SPACES
 - VEHICLE STORAGE SPACES ARE SHOWN FOR REPRESENTATION PURPOSES ONLY AND DO NOT NEED TO BE STRIPED.
 - PROPOSED SNOW STORAGE AREAS ARE SHOWN AS APPROXIMATE. PLOWING SHALL BE DONE IN SUCH A FASHION AS TO NOT DAMAGE OR ADVERSELY IMPACT ANY LANDSCAPED FEATURES. SHOULD THE VOLUME OF ACCUMULATED SNOW EXCEED THE CAPACITY OF THE ON-SITE STORAGE AS SHOWN ON THIS PLAN, THE EXCESS SNOW SHALL BE DISPOSED OF OFF-SITE IN ACCORDANCE WITH ALL LOCAL, STATE, AND FEDERAL LAWS.
 - THE APPLICANT'S ENGINEER AND/OR CONTRACTOR SHALL CONTACT THE CITY OF NASHUA TO SCHEDULE A PRECONSTRUCTION MEETING, WHICH WILL BE HELD WITH STAFF PRIOR TO STARTING CONSTRUCTION.
 - ALL IMPROVEMENTS SHOWN ON THE SITE PLAN OF-RECORD, INCLUDING NOTES 1-31, SHALL BE COMPLETED IN THEIR ENTIRETY AND AT THE EXPENSE OF THE APPLICANT OR HIS ASSIGNS.
 - THIS SITE IS SERVED BY POTABLE WATER AND SEWER.
 - ALL LANDSCAPING SHALL BE AS SHOWN ON THE PLAN AND CONFORM TO THE APPLICABLE CITY OF NASHUA ZONING REGULATIONS.
 - IT SHALL BE UNLAWFUL TO MODIFY, CHANGE, OR ALTER ANY STRUCTURES SHOWN ON THIS PLAN IN ANY WAY WHATSOEVER, OR CONVERT OR ALTER ANY STRUCTURE SHOWN ON THIS SITE PLAN, OR CHANGE THE ABOVE USE INDICATED ON THE PLAN WITHOUT RECEIVING APPROVAL FROM THE CITY.
 - STREET RESTORATION TO BE IN ACCORDANCE WITH NRO 285-13.
 - THIS PLAN COMPLES WITH THE MINIMUM REQUIREMENTS SET FORTH IN THE NASHUA LAND USE CODE.
 - DRAIN LINES WILL BE INSPECTED PRIOR TO BACKFILLING AND PAVING.
 - ALL LIGHTING SHALL CONFORM TO THE NASHUA LAND USE CODE.
 - A DRIVEWAY PLAN SHALL BE APPROVED BY THE ENGINEERING DEPARTMENT PRIOR TO ISSUANCE OF A BUILDING PERMIT.
 - A BOND WILL BE REQUIRED FOR ALL WORK WITHIN THE CITY'S RIGHT OF WAY.
 - HOURS OF OPERATION FOR THE PROPOSED AUTO BODY SHOP WILL BE SEVEN DAYS A WEEK FROM 5 AM TO 5 PM.
 - ALL SIGNAGE SHALL CONFORM TO THE APPLICABLE CITY OF NASHUA ZONING REGULATIONS WITH ALL PERMITS SECURED PRIOR TO INSTALLATION.
 - SITE IMPROVEMENTS DEPICTED ON THE PLAN SHALL CONFORM TO TITLE 15 OF THE AMERICANS WITH DISABILITIES ACT WITH REGARD TO DIMENSIONS, GRADE, AND NUMBER OF SPACES.
 - FUTURE BUILDING CONSTRUCTION SHALL INCORPORATE FOUNDATION DRAINS.
 - NEW UTILITIES, BOTH MAIN AND SERVICE CONNECTIONS, SHALL BE PROVIDED UNDERGROUND AND INSTALLED IN ACCORDANCE WITH THE BOARD OF PUBLIC WORKS SPECIFICATIONS.
 - A WAIVER IS REQUIRED FROM SECTION 180-B(4)(1) TO ALLOW AN ALTERNATIVE LANDSCAPE PLAN IN LIEU OF PROVIDING A LANDSCAPED ISLAND EVERY TEN PARKING SPACES.
 - THE TOTAL AREA OF DISTURBANCE IS APPROXIMATELY 219,351 SQUARE FEET.

LEGEND

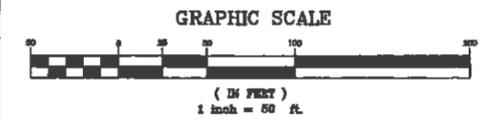
- SB-F STONE BOUND FOUND
- IPN-F IRON PIN FOUND
- UPP-F UTILITY POLE FOUND
- SIGN SIGN
- LIGHT LIGHT
- GAS VALVE GAS VALVE
- WATER VALVE WATER VALVE
- HYDRANT HYDRANT
- WATER SHUT OFF WATER SHUT OFF
- SEWER MANHOLE SEWER MANHOLE
- DRAINAGE MANHOLE DRAINAGE MANHOLE
- CATCH BASIN CATCH BASIN
- FLARED END SECTION FLARED END SECTION
- WELL WELL
- ABUTTER LINE ABUTTER LINE
- PROPERTY LINE PROPERTY LINE
- WETLAND WETLAND
- CHAIN LINK FENCE CHAIN LINK FENCE
- OVERHEAD UTILITIES OVERHEAD UTILITIES
- GAS LINE GAS LINE
- WATER LINE WATER LINE
- SEWER LINE SEWER LINE
- DRAINAGE LINE DRAINAGE LINE
- TREELINE TREELINE
- STONE WALL STONE WALL
- EDGE OF PAVEMENT EDGE OF PAVEMENT
- VERTICAL GRANITE CURB VERTICAL GRANITE CURB
- STONE WALL STONE WALL
- BUILDING SETBACK BUILDING SETBACK
- EASEMENT EASEMENT
- ZONE LINE ZONE LINE
- PROPOSED UTILITY POLE PROPOSED UTILITY POLE
- PROPOSED SIGN PROPOSED SIGN
- PROPOSED PARKING LOT LIGHT PROPOSED PARKING LOT LIGHT
- PROPOSED BACK TO BACK PARKING LOT LIGHT PROPOSED BACK TO BACK PARKING LOT LIGHT
- PROPOSED GAS VALVE PROPOSED GAS VALVE
- PROPOSED WATER VALVE PROPOSED WATER VALVE
- PROPOSED SEWER MANHOLE PROPOSED SEWER MANHOLE
- PROPOSED DRAINAGE MANHOLE PROPOSED DRAINAGE MANHOLE
- PROPOSED CATCH BASIN PROPOSED CATCH BASIN
- PROPOSED OUTLET STRUCTURE PROPOSED OUTLET STRUCTURE
- PROPOSED BITUMINOUS CURB PROPOSED BITUMINOUS CURB
- PROPOSED EDGE OF PAVEMENT PROPOSED EDGE OF PAVEMENT
- PROPOSED SNOW STORAGE PROPOSED SNOW STORAGE
- PROPOSED TREELINE PROPOSED TREELINE
- PROPOSED STORMWATER SYSTEM PROPOSED STORMWATER SYSTEM
- PROPOSED MODULAR BLOCK WALL PROPOSED MODULAR BLOCK WALL
- PROPOSED STOCKADE FENCE PROPOSED STOCKADE FENCE

LINE TABLE

LINE	LENGTH	BEARING
L1	16.19	N02°28'12"E
L2	20.41	N03°04'07"E
L3	12.79	N08°37'05"E
L4	17.21	N18°33'40"E
L5	16.81	N33°33'27"E
L6	19.42	N45°10'07"E
L7	12.70	N58°32'30"E
L8	18.87	N70°27'58"E
L9	20.84	N78°12'28"E
L10	1.43	N81°36'00"E



- REFERENCE PLANS:
- COUNTRY CLUB HEIGHTS ANNEX, NASHUA, N.H. OWNED BY A.H. CHAPMAN LAND COMPANY, BY: EN SHEPHERD, SCALE 1"=100', HORD PLAN #936.
 - FINAL BOUNDARY PLAN-LAND OF SIENKIEWICZ, WEST GLENWOOD STREET, NASHUA, N.H. PREPARED FOR JOHN & MARILYN SIENKIEWICZ, BY: CUDCO & CORMIER, INC. HORD PLANS #28733 & 28813.
 - WHDOT PROJECT PLANS OF CENTRAL NEW HAMPSHIRE TURNPIKE PROJECT(S), 10009, 10824-F & 10824-J ON FILE WITH THE WHDOT, CONCORD, NEW HAMPSHIRE.
 - EASEMENT PLAN, MAP 132 LOT 31, 117 WEST GLENWOOD STREET, NASHUA, NEW HAMPSHIRE, DATED: 30 SEPTEMBER 2015, SCALE: 1"=30'. PREPARED BY HAYNER/SWANSON INC. HORD PLAN #39110.



JOSHUA BRIEN, CERTIFIED WETLAND SCIENTIST #256 OF KEACH-NORDSTROM ASSOCIATES, INC. OF BEDFORD, NH PERFORMED THE DELINEATION OF JURISDICTIONAL WETLANDS ON NOV. 10, 2017 USING THE TECHNICAL CRITERIA IN THE CORDES OF ENGINEERS WETLAND DELINEATION MANUAL (TECHNICAL REPORT Y-87-1, JANUARY 1987).



OWNER OF RECORD

SIGNATURE: _____

DATE: _____

THE UNDERSIGNED DOES HEREBY AGREE TO PERFORM ALL OF THE IMPROVEMENTS AS SHOWN ON THIS PLAN AND AS CONDITIONED OR STIPULATED BY THE NASHUA CITY PLANNING BOARD. ALL REQUIRED SITE IMPROVEMENTS MUST BE COMPLETED OR GUARANTEED PRIOR TO THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY.

OWNER/APPLICANT

APPROVED - NASHUA CITY PLANNING BOARD

SECRETARY _____ DATE _____

CHAIRMAN _____ DATE _____

NON-RESIDENTIAL SITE PLAN
AUTO BODY SHOP
MAP 128 LOTS 31, 32 & 84
MAP 132 LOTS 38 & 84
WEST GLENWOOD STREET
NASHUA, NEW HAMPSHIRE
HILLSBOROUGH COUNTY

OWNER/APPLICANT:
ROSCOMMON INVESTMENTS, LLC
147 DANIEL WEBSTER HIGHWAY
NASHUA, NH 03080
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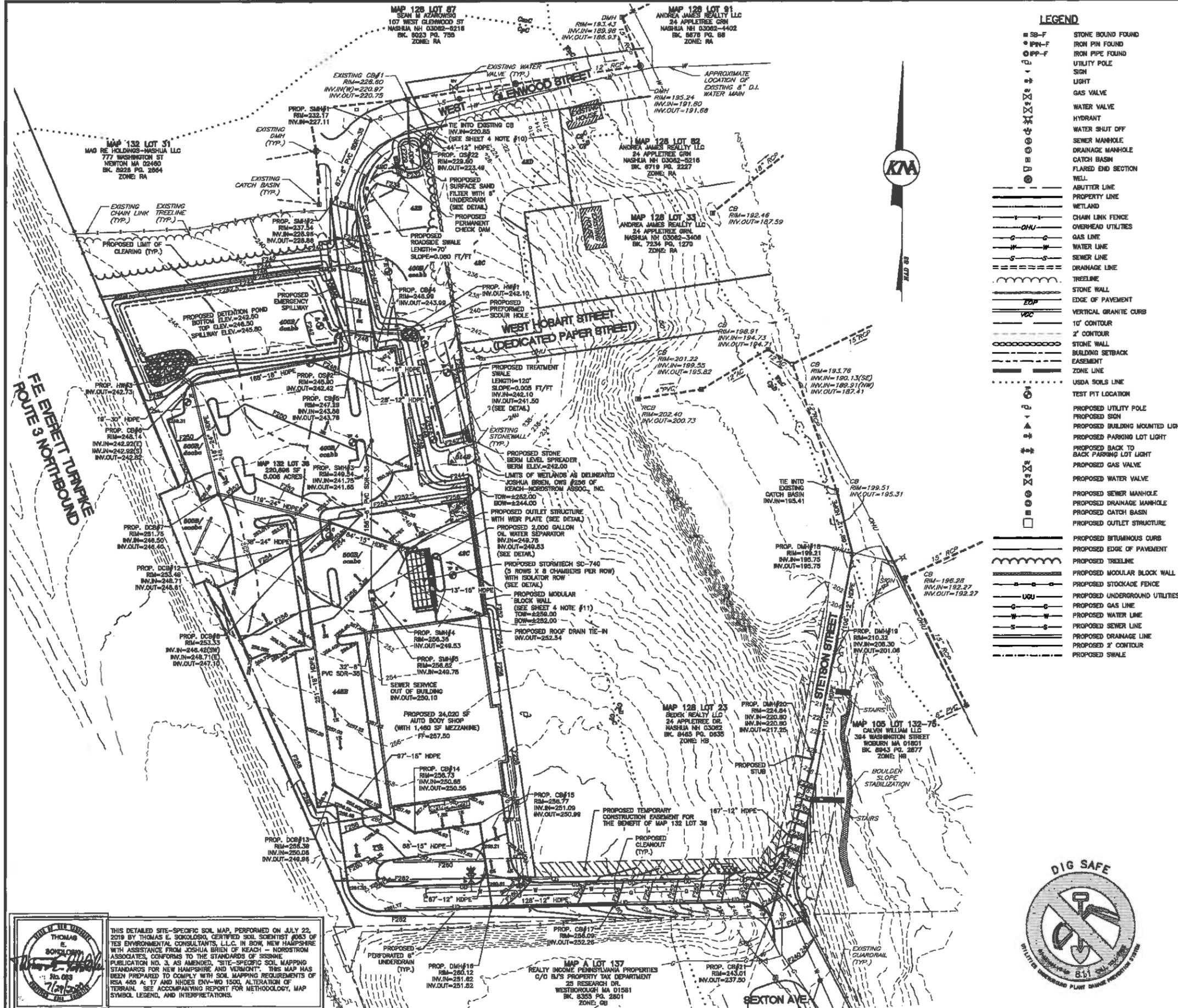
KEACH-NORDSTROM ASSOCIATES, INC.
Civil Engineering Land Surveying Landscape Architecture
10 Commerce Park North, Suite 3B, Bedford, NH 03110 Phone (603) 687-2881



REVISIONS

No.	DATE	DESCRIPTION	BY
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2	10/1/20	CITY ENGINEERING REVISIONS	PCM

DATE: JUNE 22, 2020 SCALE: 1"=50'
PROJECT NO: 17-1011-1 SHEET 3 OF 22



LEGEND

- SB-F STONE BOUND FOUND
- IPN-F IRON PIN FOUND
- IPF-F IRON PIPE FOUND
- UP-F UTILITY POLE FOUND
- SIGN SIGN
- LIGHT LIGHT
- GV GAS VALVE
- WV WATER VALVE
- HYDRANT HYDRANT
- WSD OFF WATER SHUT OFF
- SM SEWER MANHOLE
- DM DRAINAGE MANHOLE
- CB CATCH BASIN
- FES FLARED END SECTION
- WELL WELL
- AL BUTTER LINE
- PL PROPERTY LINE
- WETLAND WETLAND
- CL CHAIN LINK FENCE
- OHU OVERHEAD UTILITIES
- GL GAS LINE
- WL WATER LINE
- SL SEWER LINE
- DL DRAINAGE LINE
- TL TREELINE
- SW STONE WALL
- EDP EDGE OF PAVEMENT
- VCC VERTICAL GRANITE CURB
- 10' CONTOUR 10' CONTOUR
- 2' CONTOUR 2' CONTOUR
- SW STONE WALL
- BE BUILDING SETBACK EASEMENT
- UL ZONE LINE
- USL USDA SOILS LINE
- TP TEST PIT LOCATION
- PU PROPOSED UTILITY POLE
- PS PROPOSED SIGN
- PML PROPOSED BUILDING MOUNTED LIGHT
- PLP PROPOSED PARKING LOT LIGHT
- PBL PROPOSED BACK TO BACK PARKING LOT LIGHT
- PBG PROPOSED GAS VALVE
- PBV PROPOSED WATER VALVE
- PSM PROPOSED SEWER MANHOLE
- PDH PROPOSED DRAINAGE MANHOLE
- PBC PROPOSED CATCH BASIN
- POT PROPOSED OUTLET STRUCTURE
- PBCB PROPOSED BITUMINOUS CURB
- PEP PROPOSED EDGE OF PAVEMENT
- PTL PROPOSED TREELINE
- PMB PROPOSED MODULAR BLOCK WALL
- PSF PROPOSED STOCKADE FENCE
- UGU PROPOSED UNDERGROUND UTILITIES
- GL PROPOSED GAS LINE
- WL PROPOSED WATER LINE
- SL PROPOSED SEWER LINE
- DL PROPOSED DRAINAGE LINE
- 2' CONTOUR PROPOSED 2' CONTOUR
- SW PROPOSED SWALE

CONSTRUCTION NOTES:

- THE PURPOSE OF THIS PLAN IS TO SHOW THE PROPOSED GRADING AND DRAINAGE SYSTEMS FOR THIS SITE.
- ALL WORK SHALL CONFORM TO THE APPLICABLE REGULATIONS AND STANDARDS OF THE CITY OF NASHUA, AND SHALL BE BUILT IN A WORKMANLIKE MANNER IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS. ALL WORK PERFORMED IN THE NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION RIGHT-OF-WAY SHALL CONFORM TO THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, STATE OF NEW HAMPSHIRE, DEPARTMENT OF TRANSPORTATION, APPROVED AND ADOPTED 2018 ARE HEREBY INCORPORATED BY REFERENCE.
- CONSTRUCTION SHALL CONFORM TO THE TYPICAL SECTIONS AND DETAILS SHOWN ON THE PLANS, AND SHALL MEET THE REQUIREMENTS AND SPECIFICATIONS FOR ROAD CONSTRUCTION, PUBLIC WORKS DEPARTMENT, NASHUA, NEW HAMPSHIRE. ALL DRAINAGE PIPES SHOWN SHALL BE HDPE. CATCH BASINS SHALL BE TYPE B, AND HAVE 3\"/>

USDA SOIL MAP UNIT KEY

SYMBOL	MAP UNIT	SLOPE CLASS
CaC	CANTON FINE SANDY LOAM	0-15%
CpC	CHAFFIELD-HOLLIS-CANTON	0-15%
CpB	CHAFFIELD-HOLLIS-CANTON	15-25%
WaC	WINDSOR-URBAN LAND COMPLEX	3-15%

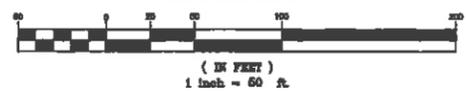
SOURCE: WEB SOIL SURVEY, WWW.WEBSOILSURVEY.SCGOV.USDA.GOV

SITE SPECIFIC SOIL MAP UNIT KEY

SYMBOL	MAP UNIT	SLOPE CLASS	DRAINAGE CLASS	HSG
48B	CANTON FINE SANDY LOAM	0-8%	WELL	B
48C	CANTON FINE SANDY LOAM	8-15%	WELL	B
48D	CANTON FINE SANDY LOAM	15-25%	WELL	B
448B	SITUATE, VERY STONY	0-8%	MODERATELY WELL	C
514B	LECHESTER	0-8%	POORLY DRAINED	C
400B/oaab	UDORTHERTS	0-8%	MODERATELY WELL	B
400B/oaab	UDORTHERTS	0-8%+	MODERATELY WELL	B
400B/oaab	UDORTHERTS	0-8%	MODERATELY WELL	B
500B/oaab	UDORTHERTS	0-8%+	MODERATELY WELL	C
500B/oaab	UDORTHERTS	0-8%	MODERATELY WELL	C
500B/oaab	UDORTHERTS	0-8%+	MODERATELY WELL	C

THIS MAP PRODUCT IS WITHIN THE TECHNICAL STANDARDS OF THE NATIONAL COOPERATIVE SOILS SURVEY. IT IS A SPECIAL PURPOSE PRODUCT, PRODUCED BY A CERTIFIED SOIL SCIENTIST, AND IS NOT A PRODUCT OF THE USDA NATURAL RESOURCE CONSERVATION SERVICE. THERE IS A NARRATIVE REPORT THAT ACCOMPANIES THIS MAP AND MAP KEY.

GRAPHIC SCALE



GRADING & DRAINAGE PLAN

AUTO BODY SHOP
 MAP 128 LOTS 31, 32 & 84
 MAP 132 LOTS 38 & 84
 WEST GLENWOOD STREET
 NASHUA, NEW HAMPSHIRE
 HILLSBOROUGH COUNTY

OWNER/APPLICANT:
 ROSCOMMON INVESTMENTS, LLC
 147 DANIEL WEBSTER HIGHWAY
 NASHUA, NH 03060
 (603) 888-5050

KMA
 KEACH-NORDSTROM ASSOCIATES, INC.
 Civil Engineering Land Surveying Landscape Architecture
 10 Commerce Park North, Suite 30, Bedford, NH 03110 Phone (603) 637-8861



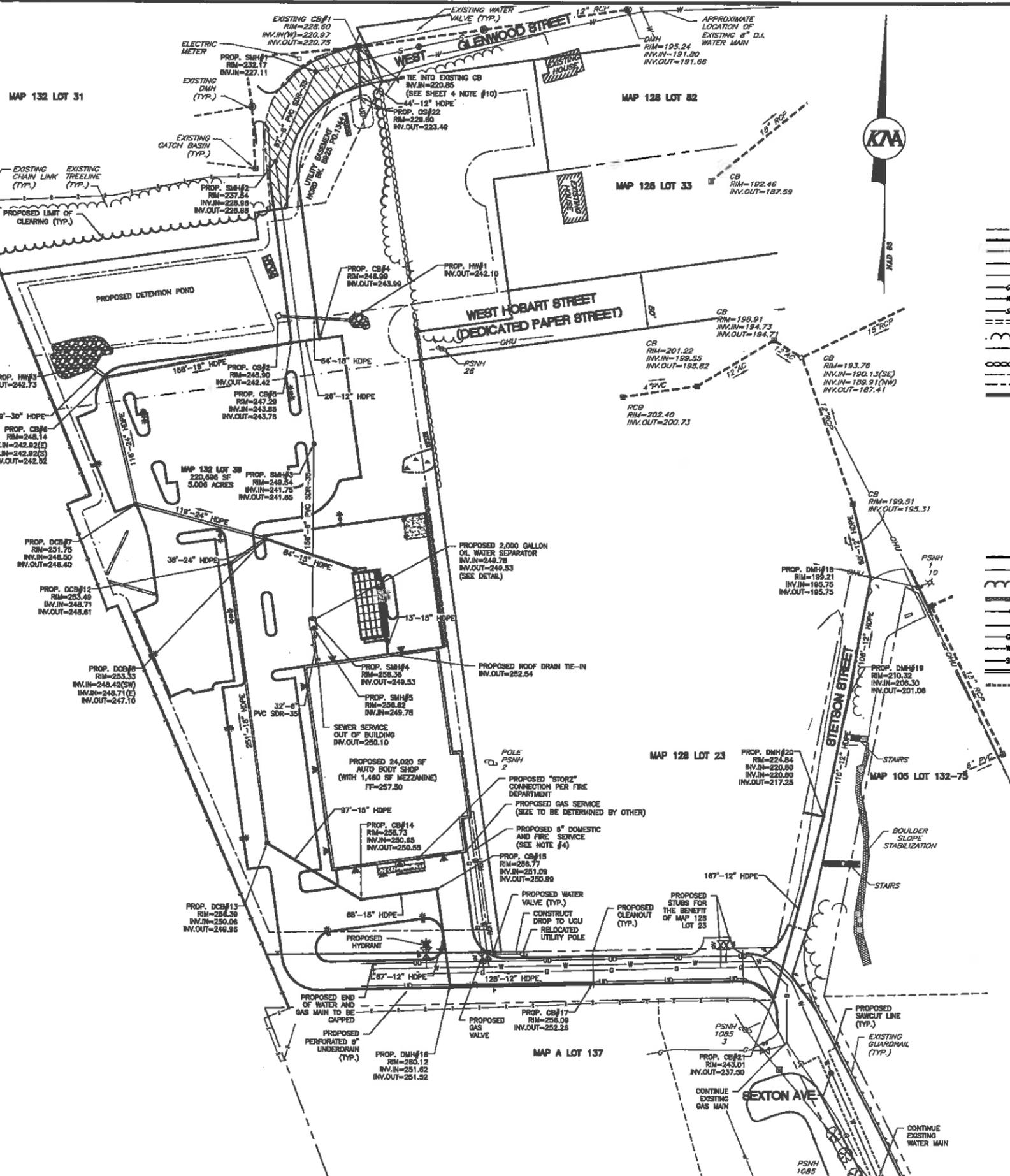
REVISIONS			
No.	DATE	DESCRIPTION	BY
1	7/29/20	AUTO STORAGE & MEZZANINE REVS	PCM
2	10/1/20	CITY ENGINEERING REVISIONS	PCM

DATE: JUNE 22, 2020 SCALE: 1"=50'
 PROJECT NO: 17-1011-1 SHEET 4 OF 22

THIS DETAILED SITE-SPECIFIC SOIL MAP, PERFORMED ON JULY 22, 2019 BY THOMAS E. SKOGLORSKI, CERTIFIED SOIL SCIENTIST #003 OF THE ENVIRONMENTAL CONSULTANTS, L.L.C. IN BOW, NEW HAMPSHIRE WITH ASSISTANCE FROM JOSHUA BRIEN OF KEACH-NORDSTROM ASSOCIATES, CONFORMS TO THE STANDARDS OF SSSNNE PUBLICATION NO. 3, AS AMENDED, "SITE-SPECIFIC SOIL MAPPING STANDARDS FOR NEW HAMPSHIRE AND VERMONT". THIS MAP HAS BEEN PREPARED TO COMPLY WITH SOIL MAPPING REQUIREMENTS OF RSA 480-A:17 AND NHDES ENV-WO 1500, ALTERATION OF TERRAIN. SEE ACCOMPANYING REPORT FOR METHODOLOGY, MAP SYMBOL LEGEND, AND INTERPRETATIONS.



FE EVERETT TURNPIKE
ROUTE 8 NORTHBOUND



LEGEND

- SB-F STONE BOUND FOUND
- IPN-F IRON PIN FOUND
- IPP-F IRON PIPE FOUND
- UTILITY POLE
- SIGN
- LIGHT
- GAS VALVE
- WATER VALVE
- HYDRANT
- WATER SHUT OFF
- SEWER MANHOLE
- DRAINAGE MANHOLE
- CATCH BASIN
- FLARED END SECTION
- WELL
- ABUTTER LINE
- PROPERTY LINE
- WETLAND
- CHAIN LINK FENCE
- OVERHEAD UTILITIES
- OHU GAS LINE
- WATER LINE
- SEWER LINE
- DRAINAGE LINE
- TIE LINE
- ZEP EDGE OF PAVEMENT
- STONE WALL
- BUILDING SETBACK
- EASEMENT
- ZONE LINE
- PROPOSED UTILITY POLE
- PROPOSED SIGN
- PROPOSED BUILDING MOUNTED LIGHT
- PROPOSED PARKING LOT LIGHT
- PROPOSED BACK TO BACK PARKING LOT LIGHT
- PROPOSED GAS VALVE
- PROPOSED WATER VALVE
- PROPOSED SEWER MANHOLE
- PROPOSED DRAINAGE MANHOLE
- PROPOSED CATCH BASIN
- PROPOSED OUTLET STRUCTURE
- PROPOSED BITUMINOUS CURB
- PROPOSED EDGE OF PAVEMENT
- PROPOSED TREELINE
- PROPOSED MODULAR BLOCK WALL
- PROPOSED STOCKADE FENCE
- PROPOSED UNDERGROUND UTILITIES
- PROPOSED GAS LINE
- PROPOSED WATER LINE
- PROPOSED SEWER LINE
- PROPOSED DRAINAGE LINE
- SAWCUT LINE

CONSTRUCTION NOTES:

1. ALL WORK SHALL CONFORM TO THE CITY OF NASHUA, LATEST EDITION, CONSTRUCTION STANDARDS AND DETAILS. IN THE ABSENCE OF A CITY STANDARD/SPECIFICATION, WORK SHALL CONFORM TO THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, AS PUBLISHED BY THE STATE OF NEW HAMPSHIRE, DEPARTMENT OF TRANSPORTATION, ARE HEREBY INCORPORATED BY REFERENCE.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING AND DETERMINING THE LOCATION, SIZE AND ELEVATION OF ALL EXISTING UTILITIES, SHOWN OR NOT SHOWN ON THESE PLANS, PRIOR TO THE START OF ANY CONSTRUCTION. THE ENGINEER SHALL BE NOTIFIED IN WRITING OF ANY UTILITIES FOUND INTERFERING WITH THE PROPOSED CONSTRUCTION, AND APPROPRIATE REMEDIAL ACTION TAKEN BEFORE PROCEEDING WITH THE WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING "DIG SAFE" AT 811 AT LEAST 72 HOURS BEFORE DIGGING.
3. ALL DRAINAGE PIPE SHALL BE INSTALLED FOLLOWING MANUFACTURER'S INSTALLATION INSTRUCTIONS.
4. CONTRACTOR TO VERIFY SIZE OF WATER AND GAS SERVICE LINES WITH MECHANICAL CONTRACTOR/FIRE SUPPRESSION ENGINEER PRIOR TO THE START OF CONSTRUCTION.
5. THE PROPOSED BUILDING SHALL BE FULLY SPRINKLER PROTECTED AND CONTAIN AN INTERNAL FIRE PUMP.
6. PRIOR TO THE START OF CONSTRUCTION AND PRIOR TO ORDERING ANY WATER SYSTEM/SERVICE PARTS, THE PROPOSED SIZE OF THE VARIOUS WATER SERVICES SHALL BE CONFIRMED BY THE PROJECT FIRE SUPPRESSION ENGINEER. ANY ADJUSTMENTS TO THE DESIGN MUST BE APPROVED BY THE CITY OF NASHUA.
7. FINAL LAYOUT OF UNDERGROUND UTILITIES TO BE APPROVED BY LOCAL PROVIDER PRIOR TO CONSTRUCTION.
8. FINAL OIL/WATER SEPARATOR SIZE SHALL BE DETERMINED BY PLUMBING ENGINEER PRIOR TO CONSTRUCTION.

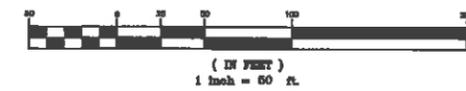
FIRE DEPARTMENT NOTES

1. THE MASTER FIRE ALARM BOX LOCATION SHALL BE DETERMINED AT TIME OF BUILDING DESIGN BY THE FIRE DEPARTMENT.
2. FINAL KNIX BOX LOCATIONS FOR THE PROPOSED BUILDING SHALL BE DETERMINED BY THE FIRE DEPARTMENT OR FIRE PROTECTION ENGINEER.
3. THERE WILL BE NO FLAMMABLE LIQUID STORAGE ROOM OR SHED LOCATED ON SITE.
4. THE PAINT MIXING ROOM WILL BE MADE EXPLOSION PROOF TO COMPLY WITH NH FIRE CODE.

UTILITY NOTE

THE UNDERGROUND UTILITIES DEPICTED HEREIN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND PLOTTED FROM EXISTING DRAWINGS. THE SURVEYOR MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES DEPICTED COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM THE INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND PORTIONS OF THE UTILITIES.

GRAPHIC SCALE



UTILITY PLAN
AUTO BODY SHOP
MAP 128 LOTS 31, 32 & 84
MAP 132 LOTS 38 & 84
WEST GLENWOOD STREET
NASHUA, NEW HAMPSHIRE
HILLSBOROUGH COUNTY

OWNER/APPLICANT:
ROSCOMMON INVESTMENTS, LLC
147 DANIEL WEBSTER HIGHWAY
NASHUA, NH 03060
(603) 888-5050

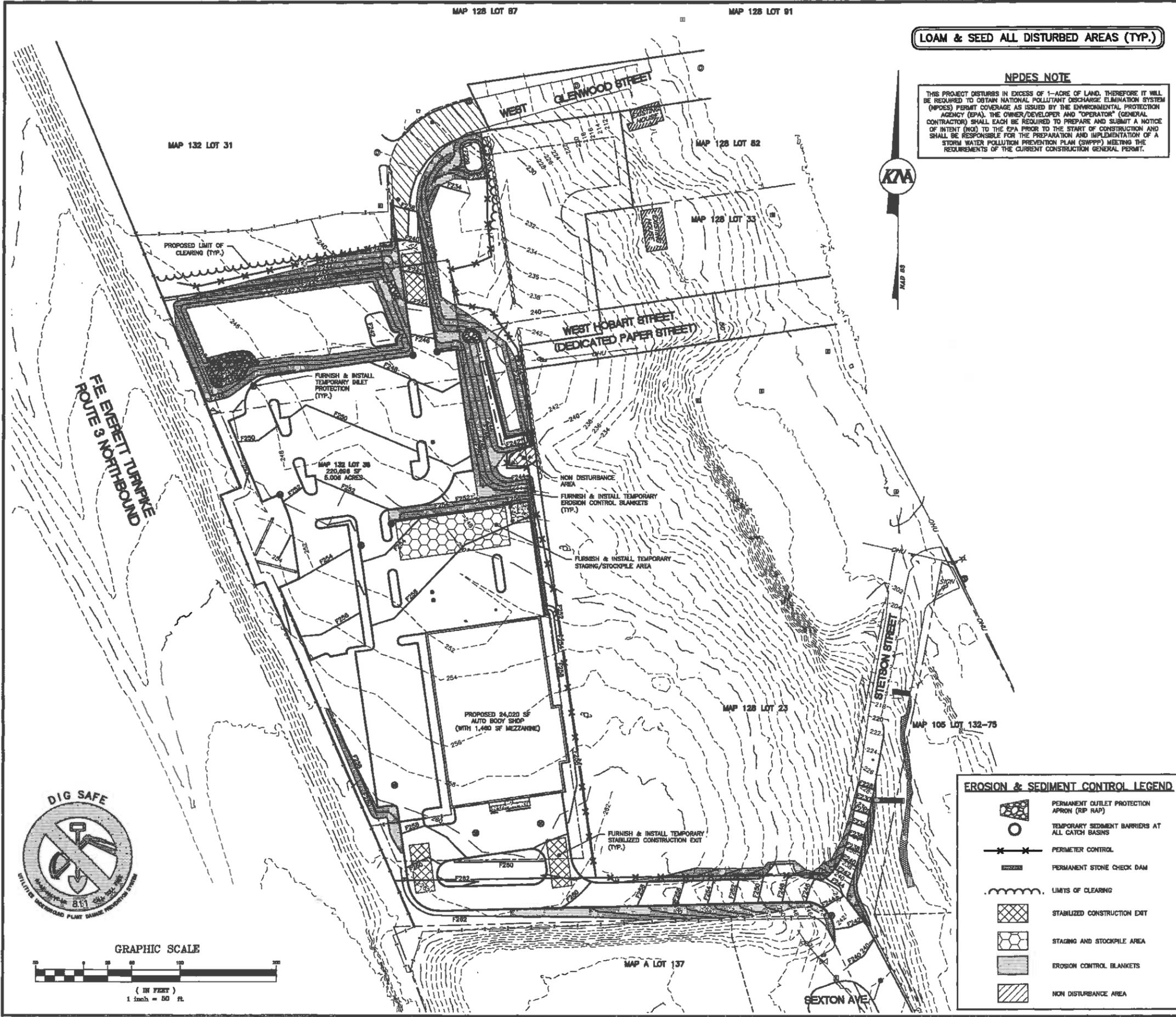
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Civil Engineering Land Surveying Landscape Architecture
10 Commerce Park North, Suite 301, Bedford, NH 08110 Phone (603) 487-2801



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DATE: JUNE 22, 2020 SCALE: 1"=50'
PROJECT NO: 17-1011-1 SHEET 5 OF 22





LOAM & SEED ALL DISTURBED AREAS (TYP.)

NPDES NOTE
 THIS PROJECT DISTURBS IN EXCESS OF 1-ACRE OF LAND, THEREFORE IT WILL BE REQUIRED TO OBTAIN NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT COVERAGE AS ISSUED BY THE ENVIRONMENTAL PROTECTION AGENCY (EPA). THE OWNER/DEVELOPER AND "OPERATOR" (GENERAL CONTRACTOR) SHALL EACH BE REQUIRED TO PREPARE AND SUBMIT A NOTICE OF INTENT (NOI) TO THE EPA PRIOR TO THE START OF CONSTRUCTION AND SHALL BE RESPONSIBLE FOR THE PREPARATION AND IMPLEMENTATION OF A STORM WATER POLLUTION PREVENTION PLAN (SWPPP) MEETING THE REQUIREMENTS OF THE CURRENT CONSTRUCTION GENERAL PERMIT.

- EROSION CONTROL NOTES:**
1. THE PURPOSE OF THIS PLAN IS TO DEPICT THE REQUIRED ONSITE TEMPORARY CONSTRUCTION EROSION CONTROL MEASURES AS WELL AS THE PERMANENT EROSION CONTROL MEASURES.
 2. ALL MEASURES IN THE PLAN SHALL MEET AS A MINIMUM THE BEST MANAGEMENT PRACTICES SET FORTH IN VOLUME 3 OF THE NEW HAMPSHIRE STORMWATER MANUAL TITLED "EROSION AND SEDIMENT CONTROLS DURING CONSTRUCTION," DATED DECEMBER 2010, AS AMENDED FROM TIME TO TIME.
 3. WHENEVER PRACTICAL, NATURAL VEGETATION SHALL BE RETAINED, PROTECTED OR SUPPLEMENTED. THE STRIPPING OF VEGETATION SHALL BE DONE IN A MANNER THAT MINIMIZES SOIL EROSION.
 4. APPROPRIATE EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED PRIOR TO LAND DISTURBANCE.
 5. THE AREA OF DISTURBANCE SHALL BE KEPT TO A MINIMUM. DISTURBED AREAS REMAINING IDLE FOR MORE THAN 30 DAYS SHALL BE STABILIZED.
 6. MEASURES SHALL BE TAKEN TO CONTROL EROSION WITHIN THE PROJECT AREA. SEDIMENT IN RUNOFF WATER SHALL BE TRAPPED AND RETAINED WITHIN THE PROJECT AREA USING APPROVED MEASURES. WETLAND AREAS AND SURFACE WATERS SHALL BE PROTECTED FROM SEDIMENT.
 7. OFFSITE SURFACE WATER AND RUNOFF FROM UNDISTURBED AREAS SHALL BE DIVERTED AWAY FROM DISTURBED AREAS WHERE FEASIBLE OR CARRIED NON-EROSIVELY THROUGH THE PROJECT AREA. INTEGRITY OF DOWNSTREAM DRAINAGE SYSTEMS SHALL BE MAINTAINED.
 8. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE MAINTAINED IN FUNCTIONING CONDITION UNTIL FINAL SITE STABILIZATION IS ACCOMPLISHED.
 9. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED AFTER FINAL SITE STABILIZATION. TRAPPED SEDIMENT AND OTHER DISTURBED SOIL AREAS RESULTING FROM THE REMOVAL OF TEMPORARY MEASURES SHALL BE PERMANENTLY STABILIZED WITHIN 30 DAYS UNLESS CONDITIONS DICTATE OTHERWISE.
 10. THE CITY OF NASHUA SHALL RESERVE THE RIGHT TO REQUIRE FURTHER EROSION CONTROL PRACTICES DURING CONSTRUCTION SHOULD THEY FIND IT NECESSARY.

LEGEND

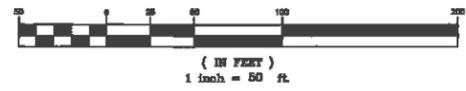
- SB-F STONE BOUND FOUND
- IPW-F IRON PIPE FOUND
- IPP-F IRON PIPE FOUND
- UTY UTILITY POLE
- SIGN
- LIGHT
- GAS VALVE
- WATER VALVE
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- PROPOSED CATCH BASIN
- PROPOSED OUTLET STRUCTURE
- PROPOSED BITUMINOUS CURB
- PROPOSED EDGE OF PAVEMENT
- PROPOSED TREELINE
- PROPOSED MODULAR BLOCK WALL
- PROPOSED STOCKADE FENCE

EROSION & SEDIMENT CONTROL LEGEND

- PERMANENT OUTLET PROTECTION APRON (RIP RAP)
- TEMPORARY SEDIMENT BARRIERS AT ALL CATCH BASINS
- PERIMETER CONTROL
- PERMANENT STONE CHECK DAM
- LIMITS OF CLEARING
- STABILIZED CONSTRUCTION EXIT
- STAGING AND STOCKPILE AREA
- EROSION CONTROL BLANKETS
- NON DISTURBANCE AREA



GRAPHIC SCALE



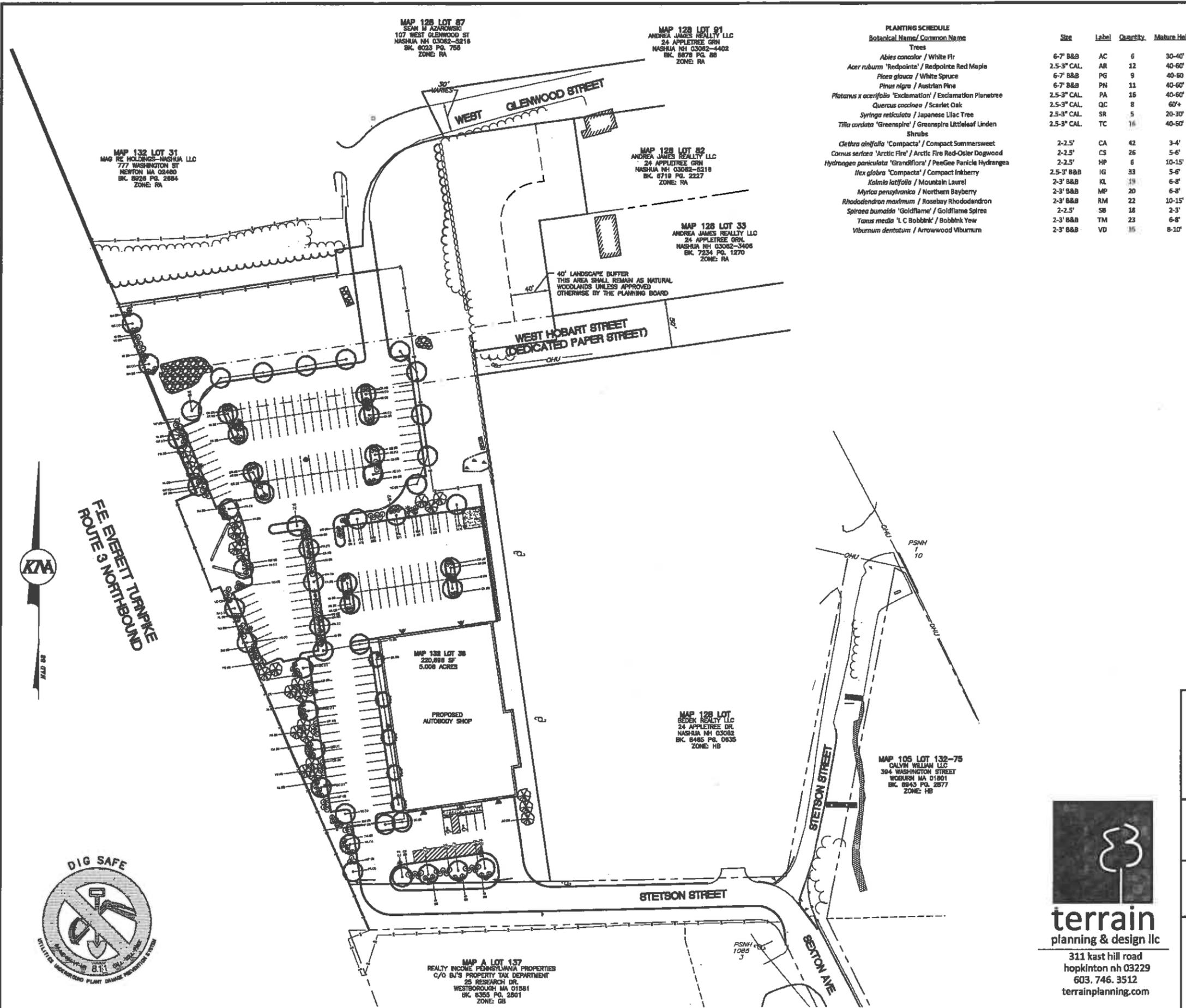
EROSION CONTROL PLAN
AUTO BODY SHOP
 MAP 128 LOTS 31, 32 & 84
 MAP 132 LOTS 38 & 84
 WEST GLENWOOD STREET
 NASHUA, NEW HAMPSHIRE
 HILLSBOROUGH COUNTY

OWNER/APPLICANT:
 ROSCOMMON INVESTMENTS, LLC
 147 DANIEL WEBSTER HIGHWAY
 NASHUA, NH 03050
 (603) 888-5050

KMA
 KEACH-NORDSTROM ASSOCIATES, INC.
 Civil Engineering Land Surveying Landscape Architecture
 10 Commerce Park North, Suite 30, Bedford, NH 03110 Phone (603) 887-8881

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2	10/1/20	CITY ENGINEERING REVISIONS	PCM

DATE: JUNE 22, 2020 SCALE: 1"=50'
 PROJECT NO: 17-1011-1 SHEET 6 OF 22



MAP 128 LOT 87
55M W AZAROVSKI
107 WEST GLENWOOD ST
NASHUA NH 03082-5218
BK. 8023 PG. 758
ZONE: RA

MAP 128 LOT 91
ANDREA JAMES REALTY LLC
24 APPLE TREE GRN
NASHUA NH 03082-4402
BK. 8878 PG. 88
ZONE: RA

MAP 132 LOT 31
MAG RE HOLDINGS-NASHUA LLC
777 WASHINGTON ST
NEWTON MA 02460
BK. 8928 PG. 2884
ZONE: RA

MAP 128 LOT 82
ANDREA JAMES REALTY LLC
24 APPLE TREE GRN
NASHUA NH 03082-8218
BK. 8719 PG. 2227
ZONE: RA

MAP 128 LOT 33
ANDREA JAMES REALTY LLC
24 APPLE TREE GRN
NASHUA NH 03082-3406
BK. 7234 PG. 1270
ZONE: RA

MAP 128 LOT 38
220,888 SF
5.008 ACRES

MAP 128 LOT
BEDEK REALTY LLC
24 APPLE TREE DR
NASHUA NH 03082
BK. 8485 PG. 0635
ZONE: HB

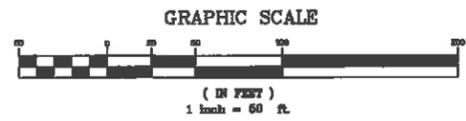
MAP 105 LOT 132-75
CALVIN WILLIAM LLC
394 WASHINGTON STREET
WOBURN MA 01801
BK. 8943 PG. 2577
ZONE: HB

MAP A LOT 137
REALTY INCOME PENNSYLVANIA PROPERTIES
C/O BJ'S PROPERTY TAX DEPARTMENT
25 RESEARCH DR.
WESTBOROUGH MA 01581
BK. 8355 PG. 2861
ZONE: GB

PLANTING SCHEDULE				
Botanical Name/ Common Name	Size	Label	Quantity	Mature Height
Trees				
<i>Abies concolor</i> / White Fir	6-7' B&B	AC	6	30-40'
<i>Acer rubrum</i> 'Redpointe' / Redpointe Red Maple	2.5-3' CAL	AR	12	40-60'
<i>Picea glauca</i> / White Spruce	6-7' B&B	PG	9	40-60'
<i>Pinus nigra</i> / Austrian Pine	6-7' B&B	PN	11	40-60'
<i>Platanus x acerifolia</i> 'Exclamation' / Exclamation Planetree	2.5-3' CAL	PA	16	40-60'
<i>Quercus cocinea</i> / Scarlet Oak	2.5-3' CAL	QC	8	60'+
<i>Syringa reticulata</i> / Japanese Lilac Tree	2.5-3' CAL	SR	5	20-30'
<i>Tilia cordata</i> 'Greenspire' / Greenspire Littleleaf Linden	2.5-3' CAL	TC	16	40-60'
Shrubs				
<i>Clethra alnifolia</i> 'Compacta' / Compact Summersweet	2-2.5'	CA	42	3-4'
<i>Camus sericea</i> 'Arctic Fire' / Arctic Fire Red-Osier Dogwood	2-2.5'	CS	26	5-6'
<i>Hydrangea paniculata</i> 'Grandiflora' / PeeGee Panicle Hydrangea	2-2.5'	HP	6	10-15'
<i>Ilex glabra</i> 'Compacta' / Compact Inkberry	2.5-3' B&B	IG	33	5-6'
<i>Kalmia latifolia</i> / Mountain Laurel	2-3' B&B	KL	39	6-8'
<i>Myrica pensylvanica</i> / Northern Bayberry	2-3' B&B	MP	20	6-8'
<i>Rhododendron maximum</i> / Rosebay Rhododendron	2-3' B&B	RM	22	10-15'
<i>Spiraea bumalda</i> 'Goldflame' / Goldflame Spirea	2-2.5'	SB	18	2-3'
<i>Taxus media</i> 'L.C. Bobbink' / Bobbink Yew	2-3' B&B	TM	23	6-8'
<i>Viburnum dentatum</i> / Arrowwood Viburnum	2-3' B&B	VD	35	8-10'

LANDSCAPE CALCULATIONS
INTERIOR LANDSCAPE AREA:
MEDIAN = 135'
LENGTH = 135'
TREES REQUIRED: 1 TREE + 1 TREE / 40' OF MEDIAN LENGTH
= 135 / 40 = 3.4 + 1 = 5 TREES REQUIRED
TREES PROVIDED: 5 TREES PROVIDED
SHRUBS REQUIRED: 1 SHRUB + 1 SHRUB / 5' OF MEDIAN LENGTH
= 135 / 5 = 27 + 1 = 28 SHRUBS REQUIRED
SHRUBS PROVIDED: 28 SHRUBS PROVIDED
ISLANDS:
6 ISLANDS (40' LENGTH EACH)
SHADE TREES REQUIRED = 2 x 6 = 12 SHADE TREES REQUIRED
SHRUBS REQUIRED: 1 SHRUB + 1 SHRUB / 5' OF ISLAND LENGTH
= 40 / 5 = 8 + 1 = 9 SHRUBS REQUIRED PER ISLAND
SHRUBS PROVIDED: 8 SHRUBS PROVIDED PER ISLAND
LANDSCAPE YARD REQUIREMENTS:
SHADE TREES REQUIRED: 1 SHADE TREE / 40 LF OF FRONTAGE
SHRUBS REQUIRED: 1 SHRUB + 1 SHRUB / 5' OF FRONTAGE
MAP 128 LOT 82:
78 LINEAR FEET OF FRONTAGE ON EVERETT TURNPIKE
SHADE TREES REQUIRED = 78 / 40 = 2 SHADE TREES REQUIRED
SHADE TREES PROVIDED: 2 SHADE TREES PROVIDED
SHRUBS = 78 / 5 = 15.6 + 1 = 17 SHRUBS REQUIRED
SHRUBS PROVIDED: 17 SHRUBS PROVIDED
MAP 132 LOT 38:
175 LINEAR FEET OF FRONTAGE ON STETSON STREET (MINUS DRIVEWAY)
SHADE TREES REQUIRED = 175 / 40 = 4 SHADE TREES REQUIRED
SHADE TREES PROVIDED: 4 SHADE TREES PROVIDED
SHRUBS = 175 / 5 = 35 + 1 = 36 SHRUBS REQUIRED
SHRUBS PROVIDED: 40 SHRUBS PROVIDED
320 LINEAR FEET OF FRONTAGE ON EVERETT TURNPIKE
SHADE TREES REQUIRED = 320 / 40 = 8 SHADE TREES REQUIRED
SHADE TREES PROVIDED: 13 SHADE TREES PROVIDED
SHRUBS = 320 / 5 = 64 + 1 = 65 SHRUBS REQUIRED
SHRUBS PROVIDED: 108 SHRUBS PROVIDED

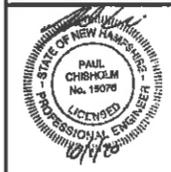
LANDSCAPE CALCULATIONS
REQUIRED BUFFER YARDS:
BUFFER TYPE E:
REQUIREMENTS: 40' WIDE
2 LARGE TREES + 4 MEDIUM/SMALL TREES + 20 SHRUBS / 100 LF
MAP 132 LOT 38 (NB) BUFFER FOR MAP A LOT 884 (R-18):
20 LINEAR FEET / 100 = 5
LARGE TREES REQUIRED = 5 x 2 = 10 LARGE TREES REQUIRED
LARGE TREES PROVIDED: 13 LARGE TREES PROVIDED
MEDIUM/SMALL TREES REQUIRED = 5 x 4 = 20 MEDIUM/LARGE TREES REQUIRED
MEDIUM/LARGE TREES PROVIDED = 20 MEDIUM/LARGE TREES PROVIDED
SHRUBS = 5 x 20 = 100 SHRUBS REQUIRED
SHRUBS PROVIDED: 108 SHRUBS PROVIDED
MAP 132 LOT 38 (NB) BUFFER FOR MAP 128 LOTS 82 & 33 (R-18):
BUFFER TYPE E: REQUIRED: 40' BUFFER PROPOSED: NATURAL BUFFER TO REMAIN INTACT



LANDSCAPE PLAN
AUTO BODY SHOP
MAP 128 LOTS 31, 32 & 84
MAP 132 LOTS 38 & 84
WEST GLENWOOD STREET
NASHUA, NEW HAMPSHIRE
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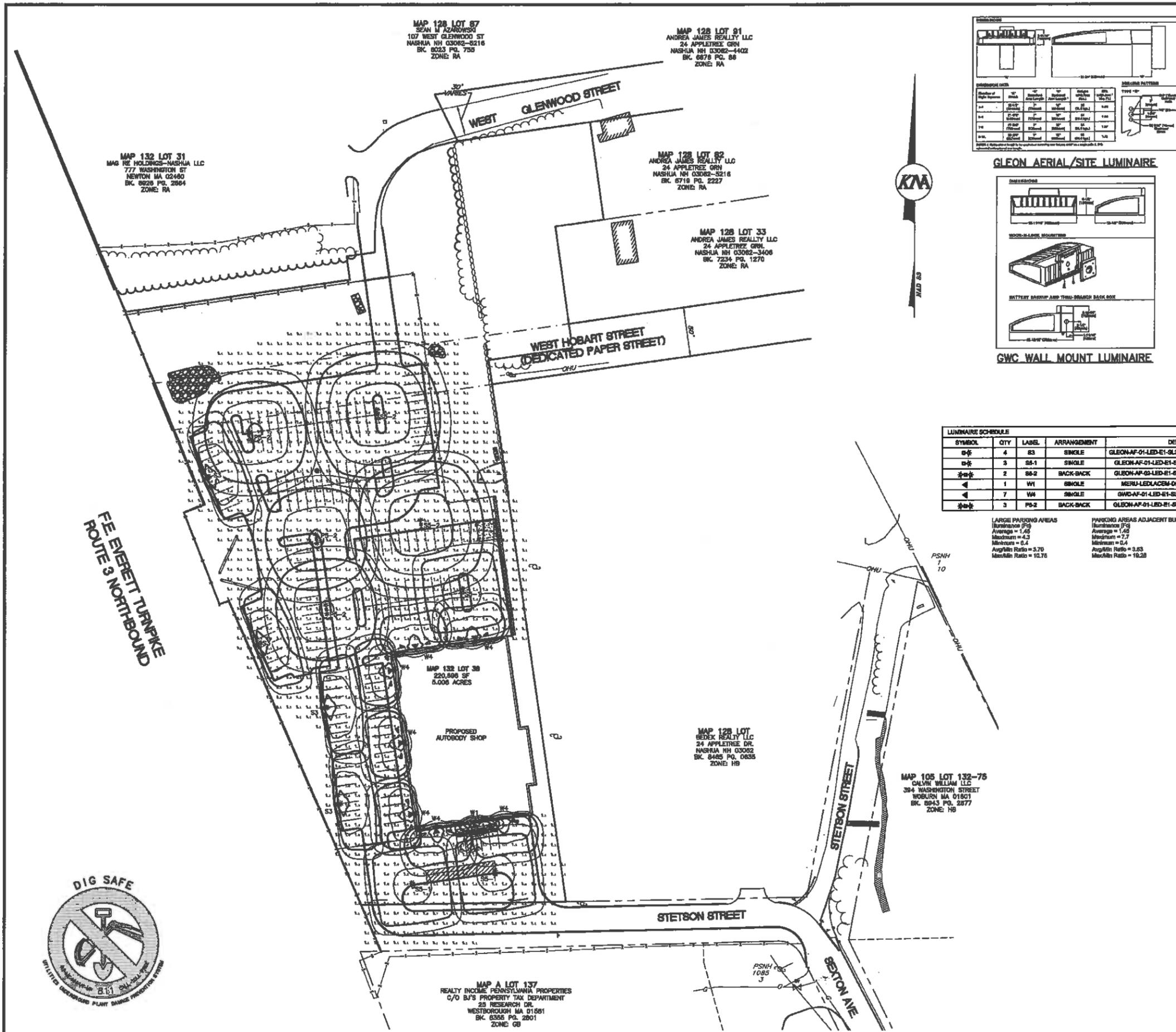
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PROJECT NO: 17-1011-1 SHEET 7 OF 22

311 kast hill road
hopkinton nh 03229
603. 746. 3512
terrainplanning.com

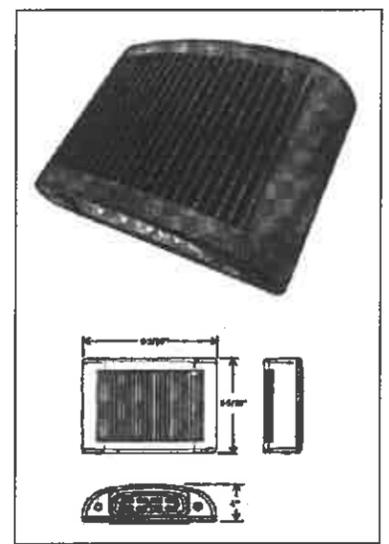
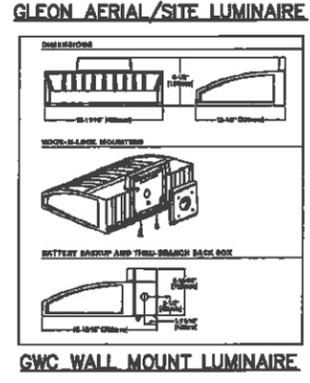
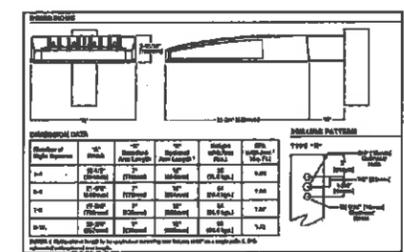


FE EVERETT TURNPIKE
ROUTE 3 NORTHBOUND





- LIGHTING NOTES:**
1. ALL LIGHTS/FIXTURES SHALL BE AS SPECIFIED BY CHARRON LIGHTING.
 2. ALL PROPOSED LIGHTS/FIXTURES ARE TO BE FULL CUTOFF.
 3. FIXTURES SHALL BE MOUNTED AT HEIGHTS AS SPECIFIED IN TABLE.
 4. PRIOR TO CONSTRUCTION, THE SITE CONTRACTOR SHALL COORDINATE WITH THE PROJECT ELECTRICIAN FOR THE EXACT LOCATION, LAYOUT, CONDUIT SIZE AND CIRCUITS ASSOCIATED WITH THE SITE LIGHTING.

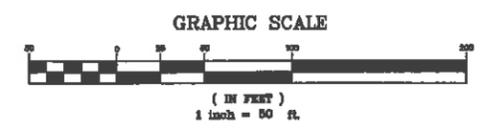


LUMINAIRE SCHEDULE

SYMBOL	QTY	LABEL	ARRANGEMENT	DESCRIPTION
☼	4	S3	SINGLE	GLEON-AP-01-LED-E1-SL3-H89/SS84A208FN1 (27 AFG)
☼	3	S8-1	SINGLE	GLEON-AP-01-LED-E1-SM0/SS84A208FN1 (27 AFG)
☼☼	2	S8-2	BACK-BACK	GLEON-AP-02-LED-E1-SM0/SS84A208FN2 (27 AFG)
◀	1	W1	SINGLE	MERU-LEDLACEM-08-01/WALL MTD (17 AFG)
◀	7	W4	SINGLE	GWC-AP-01-LED-E1-SL4-H89/WALL MTD (17 AFG)
☼☼	3	P8-2	BACK-BACK	GLEON-AP-01-LED-E1-SM0/SS84A208FN2 (27 AFG)

LARGE PARKING AREAS
Illuminance (Fc)
Average = 1.42
Minimum = 0.43
Maximum = 0.4
Average Ratio = 5.70
Max/Min Ratio = 13.75

PARKING AREAS ADJACENT BUILDING
Illuminance (Fc)
Average = 1.42
Minimum = 0.4
Maximum = 0.4
Average Ratio = 3.53
Max/Min Ratio = 10.25



IN ASSOCIATION WITH:

CHARRON
BRIGHTER.

P.O. BOX 4560
MANCHESTER, NH 03108
(603) 634-4827
FAX (603) 634-8754
SALES@CHARRONINC.COM

LIGHTING PLAN
AUTO BODY SHOP
MAP 128 LOTS 31, 32 & 84
MAP 132 LOTS 38 & 84
WEST GLENWOOD STREET
NASHUA, NEW HAMPSHIRE
HILLSBOROUGH COUNTY

OWNER/APPLICANT:
ROSCOMMON INVESTMENTS, LLC
147 DANIEL WEBSTER HIGHWAY
NASHUA, NH 03060
(603) 888-5050

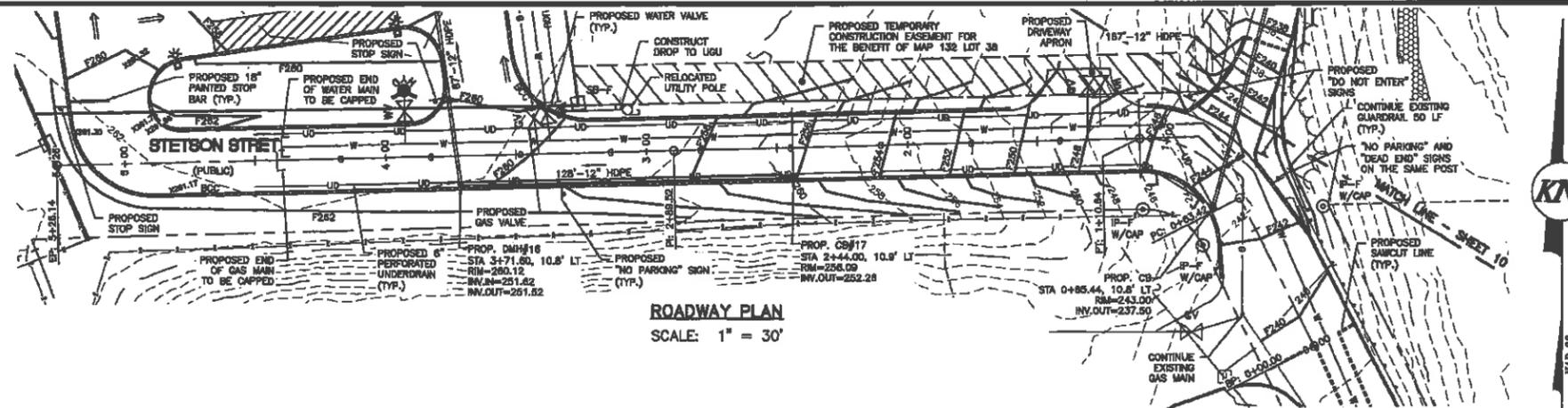
KM
KEACH-NORDSTROM ASSOCIATES, INC.
Civil Engineering Land Surveying Landscape Architecture
10 Commerce Park North, Suite 30, Bedford, NH 03110 Phone (603) 687-8881

REVISIONS

No.	DATE	DESCRIPTION	BY
1	7/29/20	AUTO STORAGE & MEZZANINE REVS	PCM
2	10/1/20	QTY ENGINEERING REVISIONS	PCM

DATE: JUNE 22, 2020 SCALE: 1"=50'
PROJECT NO: 17-1011-1 SHEET 8 OF 22



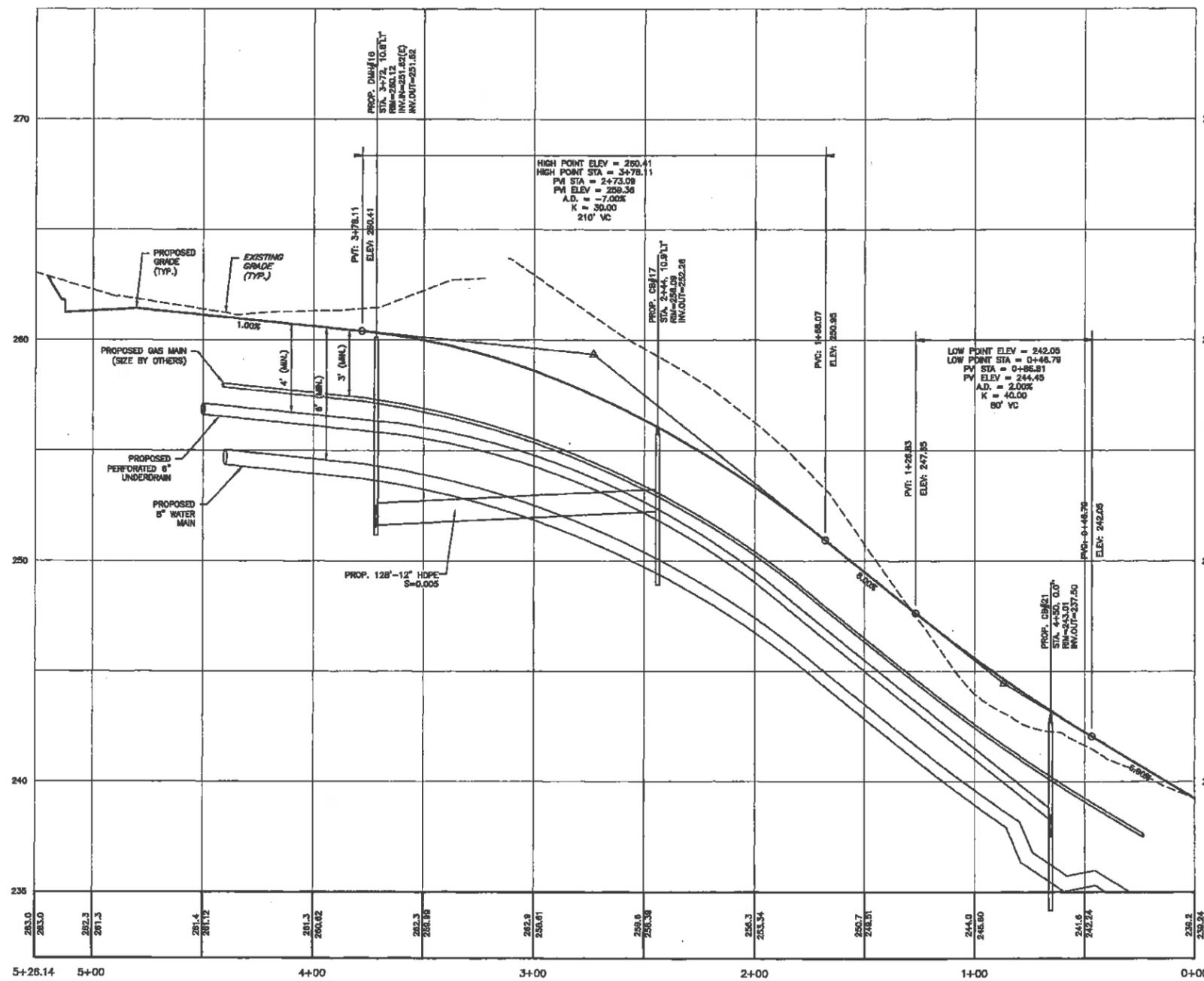


ROADWAY PLAN
SCALE: 1" = 30'

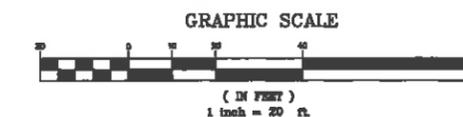
- CONSTRUCTION NOTES:**
1. THE PURPOSE OF THIS PLAN IS TO SHOW THE PROPOSED RECONSTRUCTION OF STETSON STREET.
 2. ALL WORK SHALL CONFORM TO THE APPLICABLE REGULATIONS AND STANDARDS OF THE CITY OF NASHUA, AND SHALL BE BUILT IN A WORKMANLIKE MANNER IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS. ALL WORK PERFORMED IN THE NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION RIGHT-OF-WAY SHALL CONFORM TO THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, STATE OF NEW HAMPSHIRE, DEPARTMENT OF TRANSPORTATION, APPROVED AND ADOPTED 2016 ARE HEREBY INCORPORATED BY REFERENCE. CONSTRUCTION SHALL CONFORM TO THE TYPICAL SECTIONS AND DETAILS SHOWN ON THE PLANS, AND SHALL MEET THE REQUIREMENTS AND SPECIFICATIONS FOR ROAD CONSTRUCTION, PUBLIC WORKS DEPARTMENT, NASHUA, NEW HAMPSHIRE.
 3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING AND DETERMINING THE LOCATION, SIZE AND ELEVATION OF ALL EXISTING UTILITIES, SHOWN OR NOT SHOWN ON THESE PLANS, PRIOR TO THE START OF ANY CONSTRUCTION. THE ENGINEER SHALL BE NOTIFIED IN WRITING OF ANY UTILITIES FOUND INTERFERING WITH THE PROPOSED CONSTRUCTION, AND APPROPRIATE REMEDIAL ACTION TAKEN BEFORE PROCEEDING WITH THE WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING "DIG SAFE" AT 811 AT LEAST 72 HOURS BEFORE DIGGING.
 4. THE GAS AND ELECTRICAL UTILITIES SHOWN HERE SHALL BE COORDINATED WITH THE FINAL BUILDING PLANS PRIOR TO CONSTRUCTION. THE DESIGN ENGINEER SHALL BE NOTIFIED OF ANY DISCREPANCIES.

LEGEND

- ABUTTER LINE
- PROPERTY LINE
- EDP --- EDGE OF PAVEMENT
- 10' CONTOUR
- 2' CONTOUR
- PROPOSED UTILITY POLE
- PROPOSED SIGN
- PROPOSED BITUMINOUS CURB
- PROPOSED EDGE OF PAVEMENT
- UGU --- PROPOSED UNDERGROUND UTILITIES
- PROPOSED GAS LINE
- PROPOSED 2' CONTOUR



ROADWAY PROFILE
SCALE: 1" = 30' (HORIZ.)
1" = 3' (VERT.)



ROADWAY PLAN & PROFILE
AUTO BODY SHOP
MAP 128 LOTS 31, 32 & 84
MAP 132 LOTS 38 & 84
WEST GLENWOOD STREET
NASHUA, NEW HAMPSHIRE
HILLSBOROUGH COUNTY

OWNER/APPLICANT:
ROSCOMMON INVESTMENTS, LLC
147 DANIEL WEBSTER HIGHWAY
NASHUA, NH 03060
(603) 888-5050

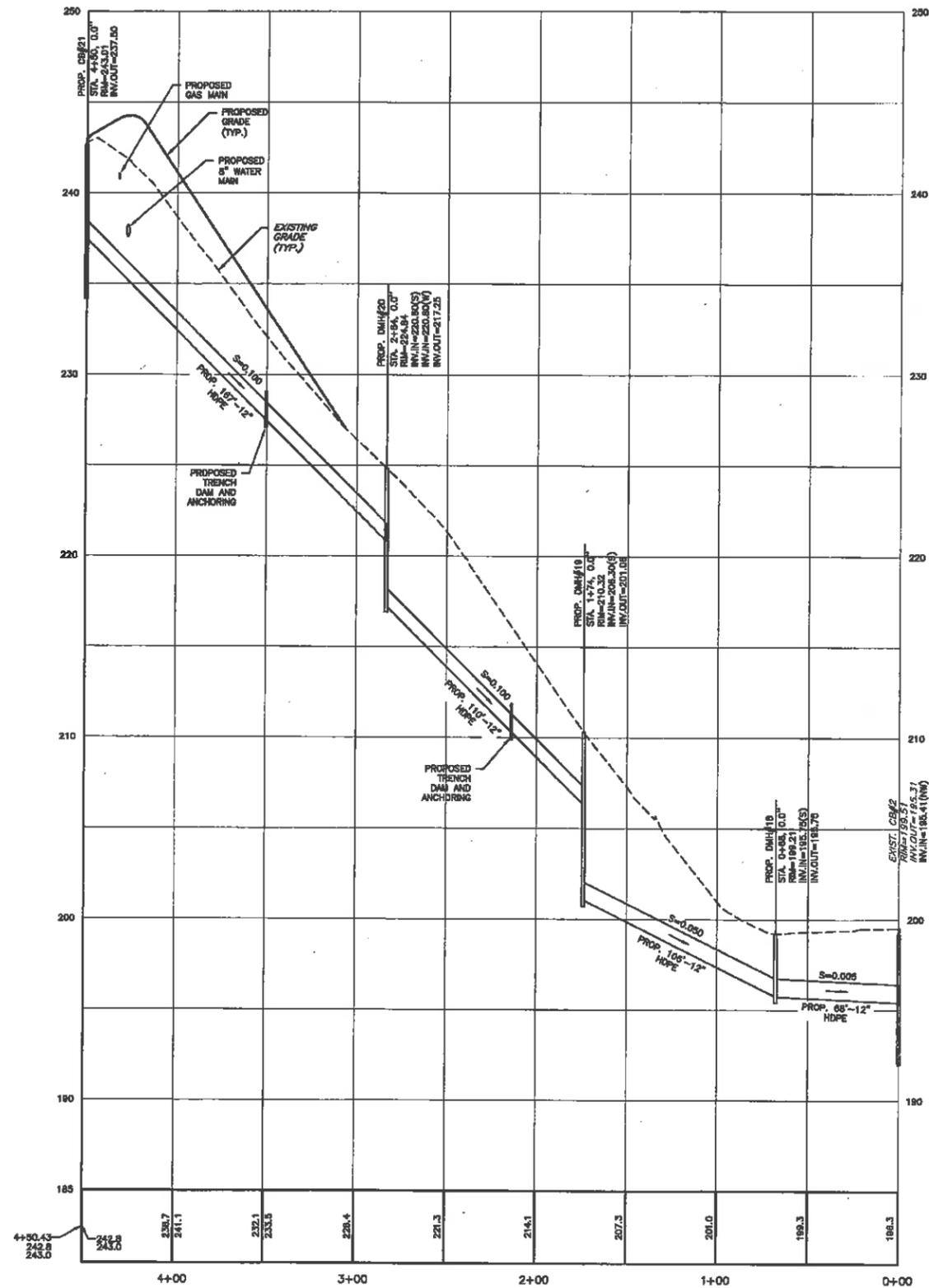
KMA KEACH-NORDSTROM ASSOCIATES, INC.
Civil Engineering Land Surveying Landscape Architecture
10 Commerce Park North, Suite 3B, Bedford, NH 08110 Phone (603) 887-2881



REVISIONS				
No.	DATE	DESCRIPTION	BY	PC
1	7/29/20	AUTO STORAGE & MEZZANINE REVS	PCM	
2	10/1/20	CITY ENGINEERING REVISIONS	PCM	

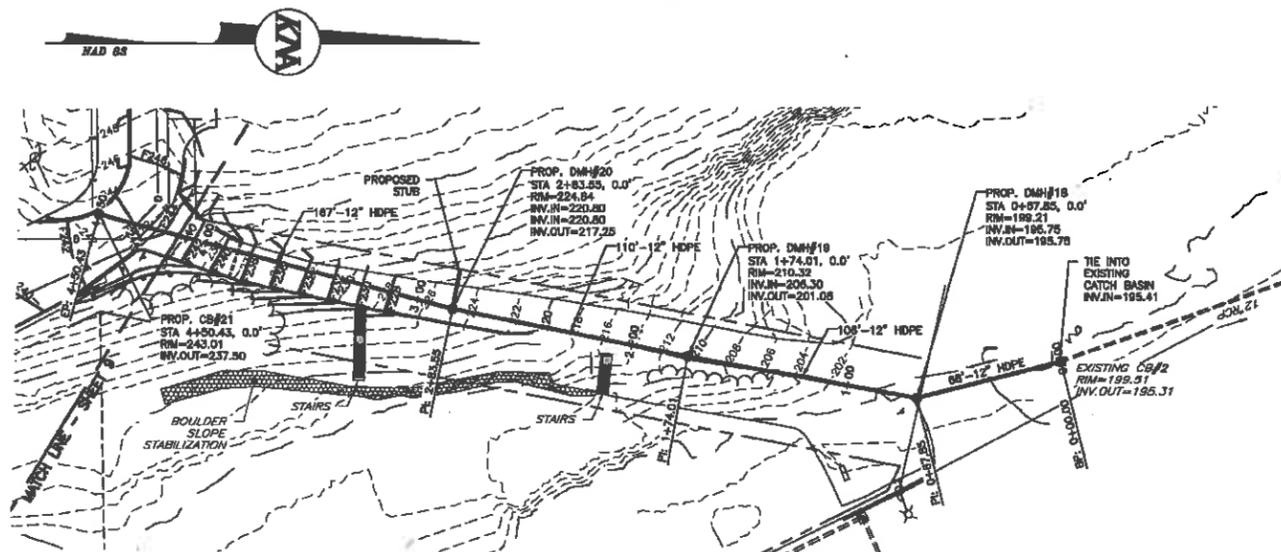
DATE: JUNE 22, 2020 SCALE: 1"=20'
PROJECT NO: 17-1011-1 SHEET 9 OF 22





DRIVEWAY DRAINAGE PROFILE

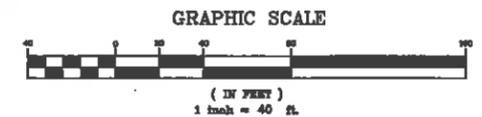
SCALE: 1" = 40' (HORIZ.)
1" = 4' (VERT.)



DRIVEWAY PLAN
SCALE: 1" = 40'

LEGEND

- ABUTTER LINE
- PROPERTY LINE
- EOP --- EDGE OF PAVEMENT
- 10' CONTOUR
- 2' CONTOUR
- PROPOSED UTILITY POLE
- PROPOSED SIGN
- PROPOSED BITUMINOUS CURB
- PROPOSED EDGE OF PAVEMENT
- PROPOSED MODULAR BLOCK WALL
- UGU --- PROPOSED UNDERGROUND UTILITIES
- PROPOSED GAS LINE
- PROPOSED 2' CONTOUR



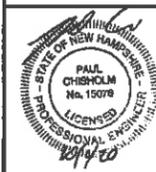
DRIVEWAY DRAINAGE PLAN & PROFILE

AUTO BODY SHOP
MAP 128 LOTS 31, 32 & 84
MAP 132 LOTS 38 & 84
WEST GLENWOOD STREET
NASHUA, NEW HAMPSHIRE
HILLSBOROUGH COUNTY

OWNER/APPLICANT:
ROSCOMMON INVESTMENTS, LLC
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NASHUA, NH 03080
(603) 888-5050

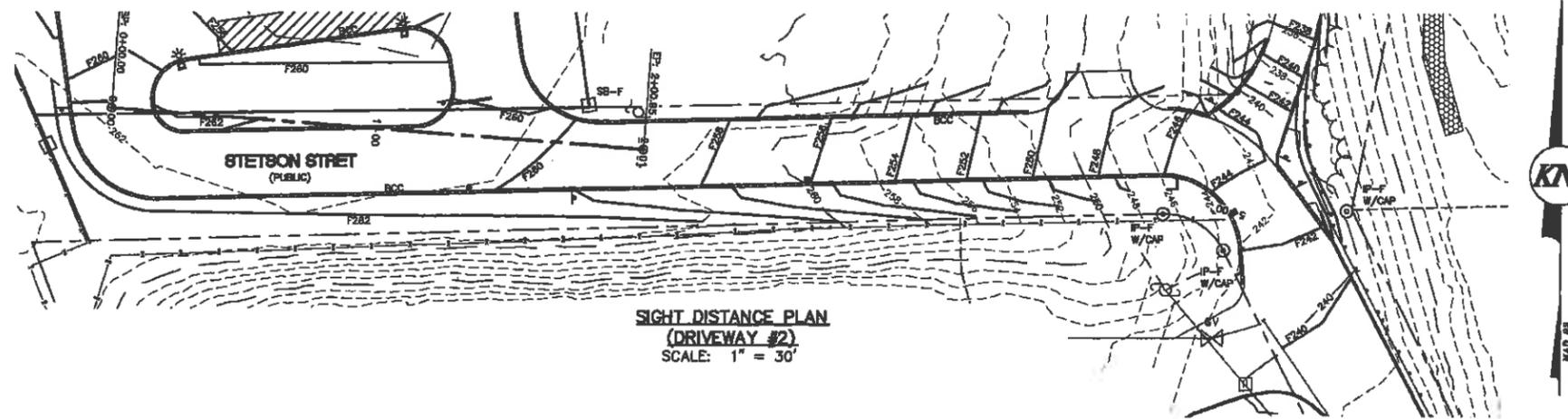
KMA KEACH-NORDSTROM ASSOCIATES, INC.

Civil Engineering Land Surveying Landscape Architecture
10 Commerce Park North, Suite 302, Bedford, NH 08110 Phone (603) 887-8841

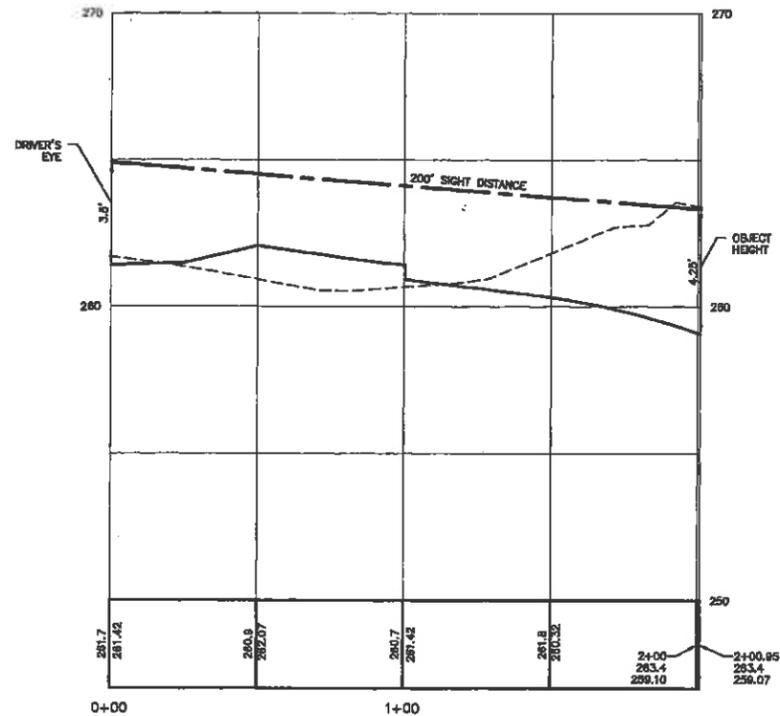


REVISIONS			
No.	DATE	DESCRIPTION	BY
1	7/29/20	AUTO STORAGE & MEZZANINE REVS	PCM
2	10/1/20	CITY ENGINEERING REVISIONS	PCM

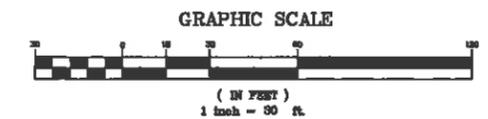
DATE: JUNE 22, 2020 SCALE: 1"=40'
PROJECT NO: 17-1011-1 SHEET 10 OF 22



- LEGEND**
- ABUTTER LINE
 - PROPERTY LINE
 - EOP
 - 10' CONTOUR
 - 2' CONTOUR
 - PROPOSED UTILITY POLE
 - ▽ PROPOSED SIGN
 - PROPOSED BITUMINOUS CURB
 - PROPOSED EDGE OF PAVEMENT
 - PROPOSED 2' CONTOUR



SIGHT DISTANCE PROFILE
SCALE: 1" = 30' (HORIZ.)
1" = 3' (VERT.)



SIGHT DISTANCE PLAN & PROFILE
AUTO BODY SHOP
MAP 128 LOTS 31, 32 & 84
MAP 132 LOTS 38 & 84
WEST GLENWOOD STREET
NASHUA, NEW HAMPSHIRE
HILLSBOROUGH COUNTY

OWNER/APPLICANT:
ROSCOMMON INVESTMENTS, LLC
147 DANIEL WEBSTER HIGHWAY
NASHUA, NH 03060
(603) 888-5050

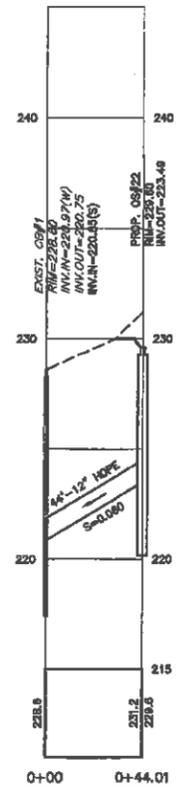
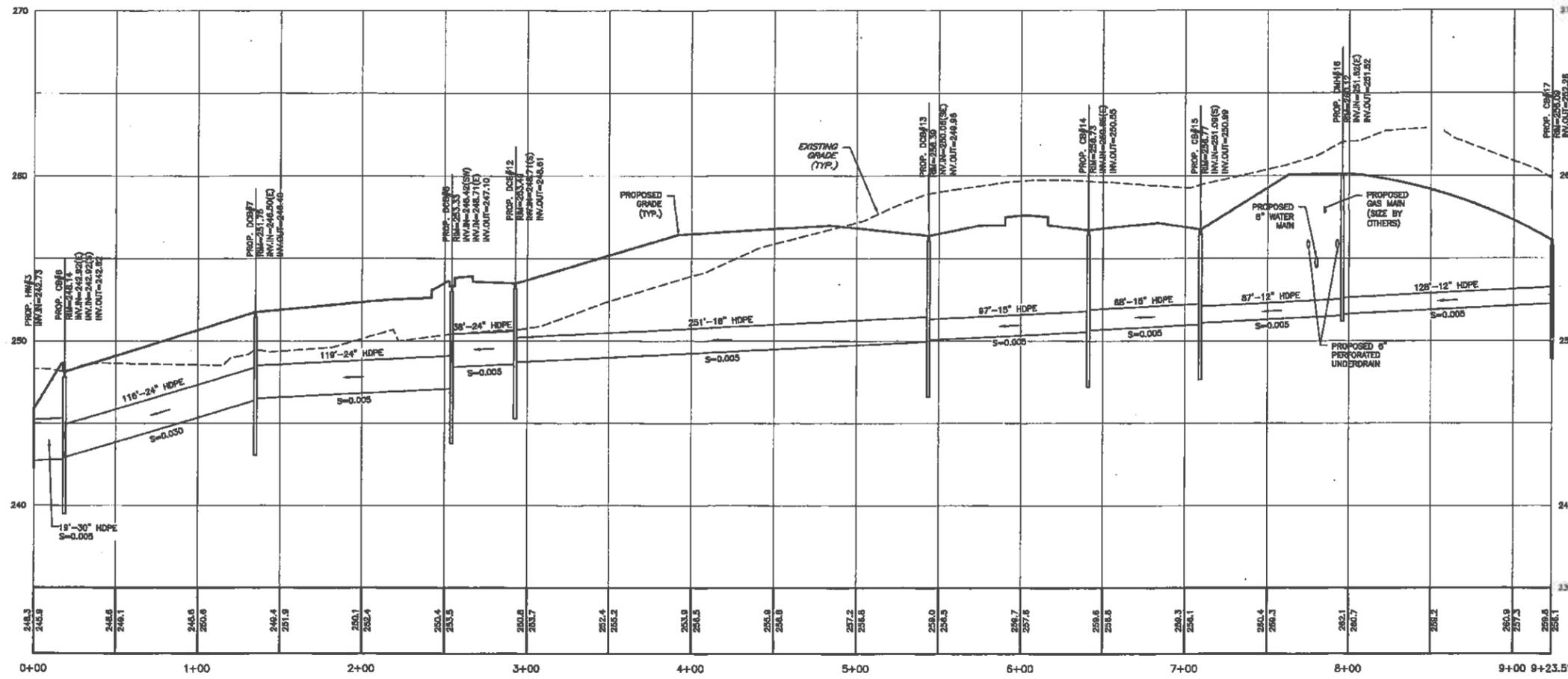
KM KEACH-NORDSTROM ASSOCIATES, INC.
Civil Engineering Land Surveying Landscape Architecture
10 Commerce Park North, Suite 2B, Bedford, NH 03110 Phone (603) 887-8661



REVISIONS			
No.	DATE	DESCRIPTION	BY
1	7/29/20	AUTO STORAGE & MEZZANINE REVS	PCM
2	10/1/20	CITY ENGINEERING REVISIONS	PCM

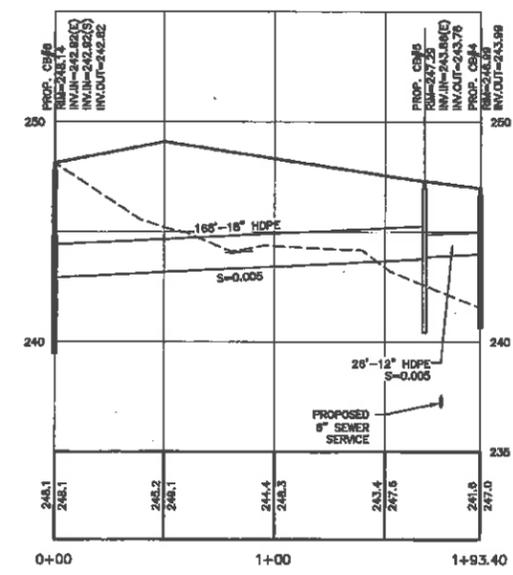
DATE: JUNE 22, 2020 SCALE: 1"=30'
PROJECT NO: 17-1011-1 SHEET 12 OF 22



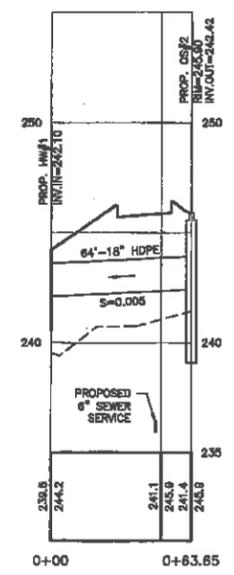


HW#3 TO CB#17
 SCALE: 1" = 40' (HORIZ.)
 1" = 4' (VERT.)

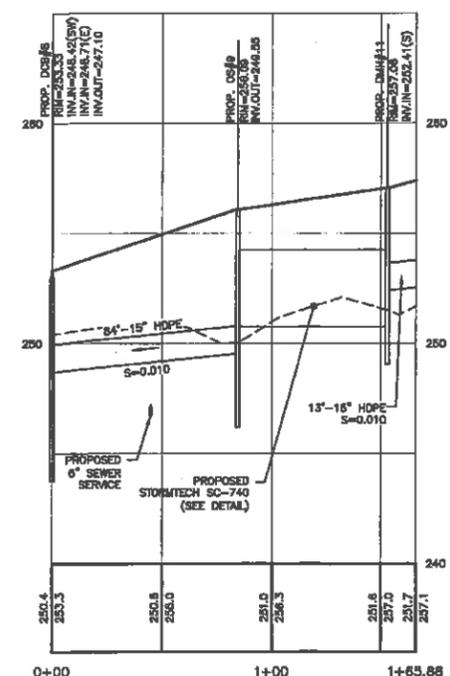
EXISTING CB TO OS#22
 SCALE: 1" = 40' (HORIZ.)
 1" = 4' (VERT.)



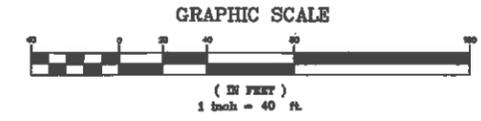
CB#6 TO CB#4
 SCALE: 1" = 40' (HORIZ.)
 1" = 4' (VERT.)



HW#1 TO OS#2
 SCALE: 1" = 40' (HORIZ.)
 1" = 4' (VERT.)



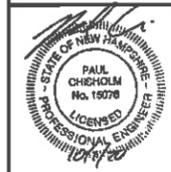
DCB#8 TO ROOF DRAIN
 SCALE: 1" = 40' (HORIZ.)
 1" = 4' (VERT.)



DRAINAGE PROFILES
AUTO BODY SHOP
 MAP 128 LOTS 31, 32 & 84
 MAP 132 LOTS 38 & 84
 WEST GLENWOOD STREET
 NASHUA, NEW HAMPSHIRE
 HILLSBOROUGH COUNTY

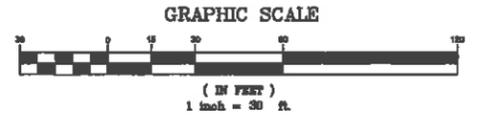
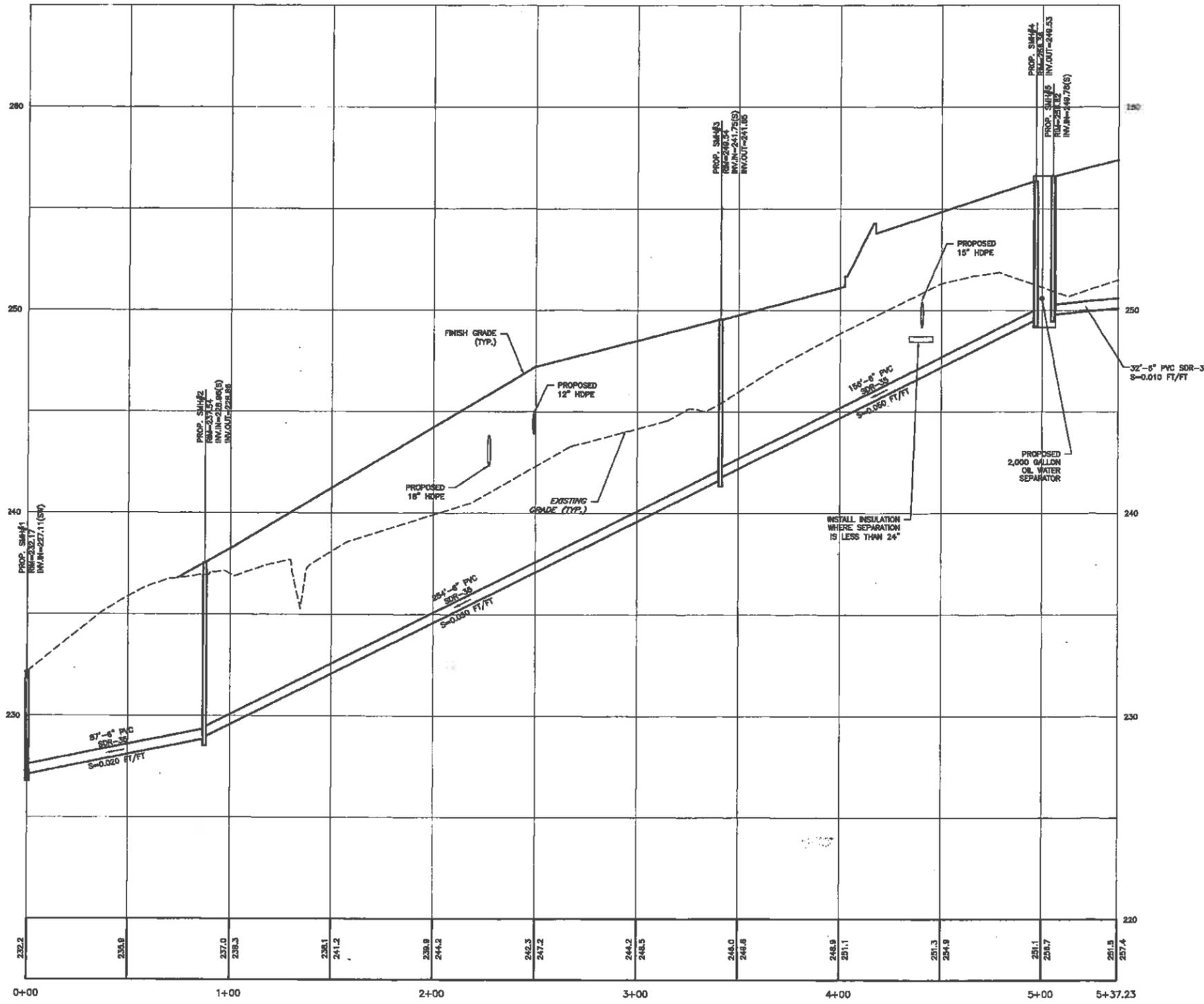
OWNER/APPLICANT:
 ROSCOMMON INVESTMENTS, LLC
 147 DANIEL WEBSTER HIGHWAY
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 (603) 888-5050

KMA
 KEACH-NORDSTROM ASSOCIATES, INC.
 Civil Engineering Land Surveying Landscape Architecture
 10 Commerce Park North, Suite 22, Bedford, NH 03110 Phone (603) 687-8881



REVISIONS			
No.	DATE	DESCRIPTION	BY
1	7/29/20	AUTO STORAGE & MEZZANINE REVS	PCM
2	10/17/20	CITY ENGINEERING REVISIONS	PCM

DATE: JUNE 22, 2020 SCALE: 1"=40'
 PROJECT NO: 17-1011-1 SHEET 13 OF 22



SEWER PROFILE
AUTO BODY SHOP
 MAP 128 LOTS 31, 32 & 84
 MAP 132 LOTS 38 & 84
 WEST GLENWOOD STREET
 NASHUA, NEW HAMPSHIRE
 HILLSBOROUGH COUNTY

OWNER/APPLICANT:
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 (603) 888-5050

KM
 KEACH-NORSTROM ASSOCIATES, INC.
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 10 Commerce Park North, Suite 20, Bedford, NH 03110 Phone (603) 887-8881

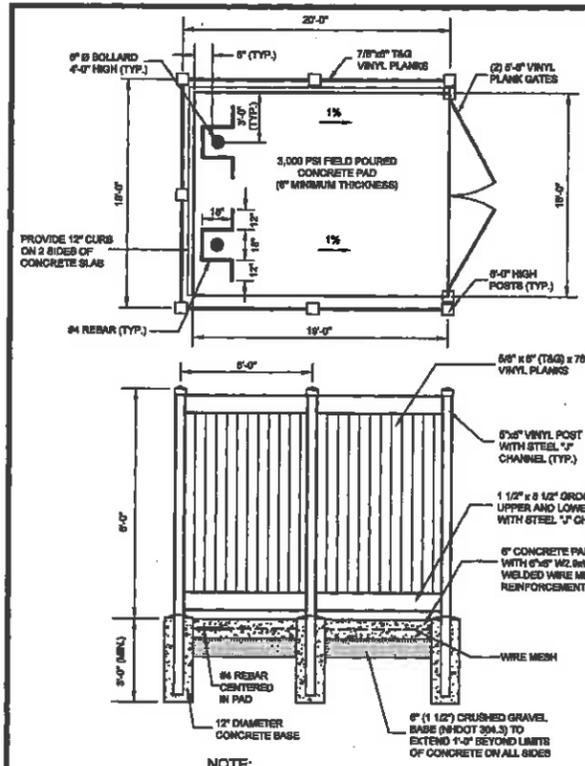


SEWER PROFILE
 SCALE: 1" = 30' (HORIZ.)
 1" = 3' (VERT.)

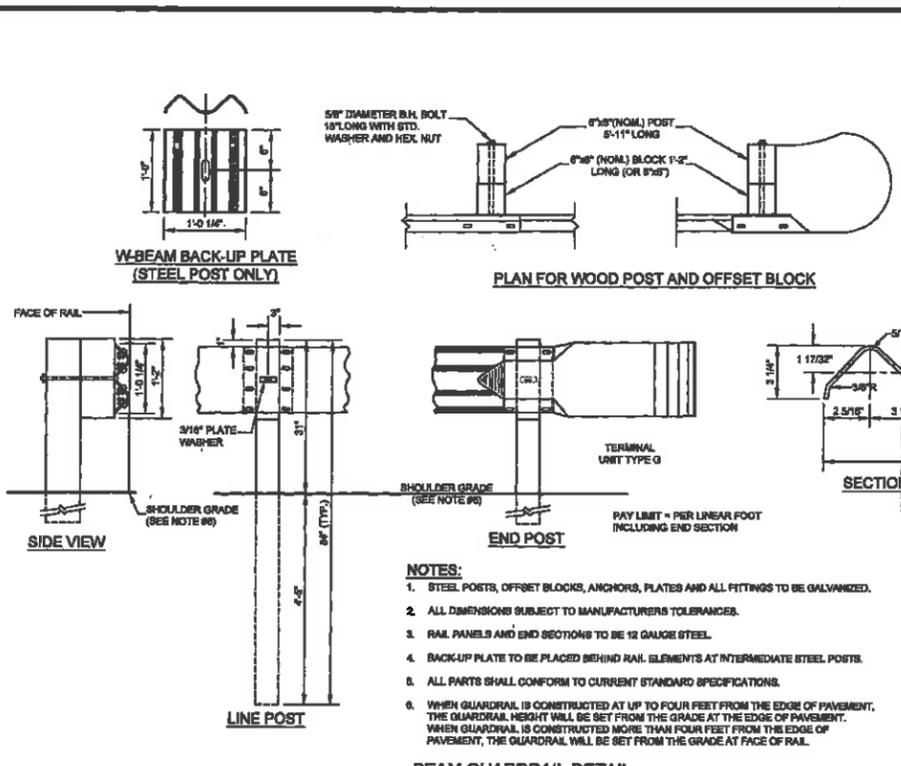


REVISIONS			
No.	DATE	DESCRIPTION	BY
1	7/29/20	AUTO STORAGE & MEZZANINE REVS	PCM
2	10/1/20	CITY ENGINEERING REVISIONS	PCM

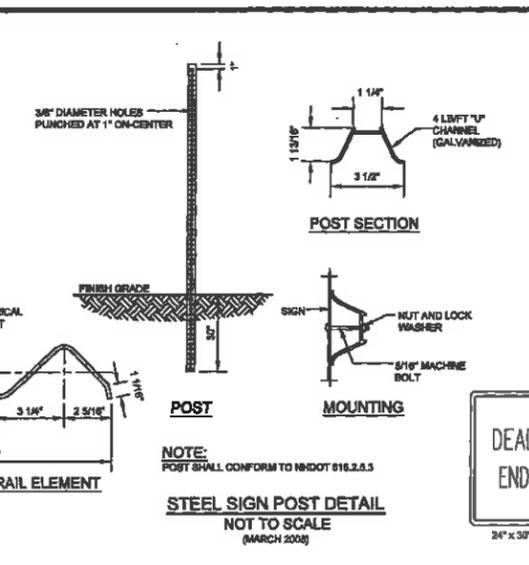
DATE: JUNE 22, 2020 SCALE: 1"=30'
 PROJECT NO: 17-1011-1 SHEET 14 OF 22



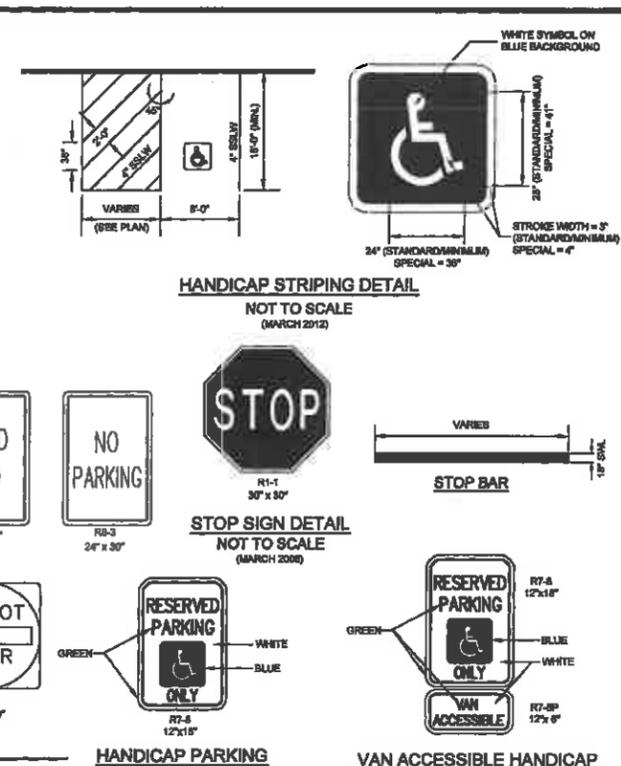
VINYL STOCKADE TRASH ENCLOSURE DETAIL
NOT TO SCALE



BEAM GUARDRAIL DETAIL
NOT TO SCALE
(MARCH 2008)

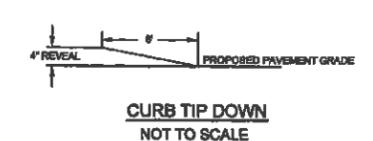


STEEL SIGN POST DETAIL
NOT TO SCALE
(MARCH 2008)

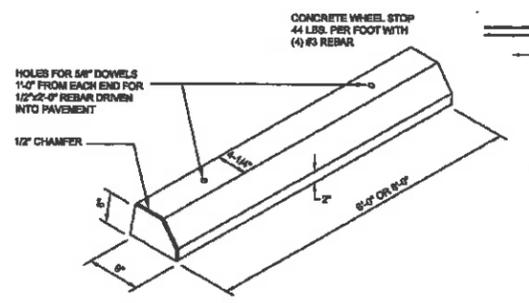


HANDICAP PARKING SIGN DETAIL
NOT TO SCALE
(MARCH 2008)

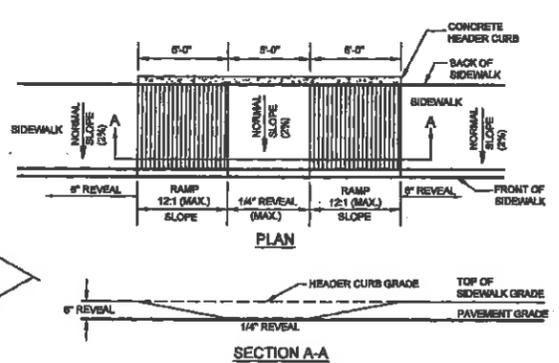
VAN ACCESSIBLE HANDICAP PARKING SIGN DETAIL
NOT TO SCALE
(NOVEMBER 2016)



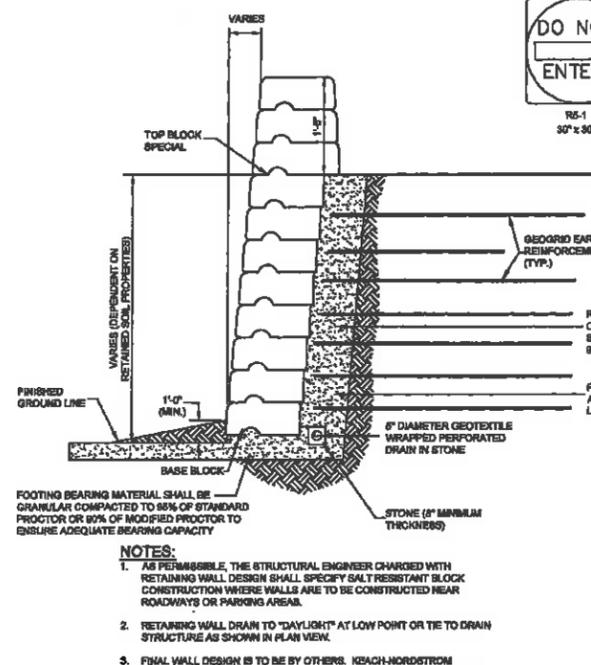
CURB TIP DOWN
NOT TO SCALE



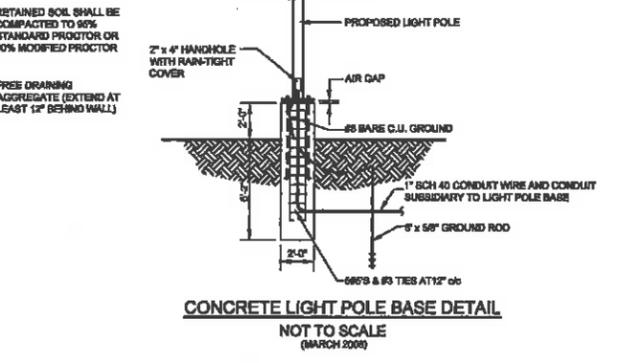
PRECAST CONCRETE WHEEL STOP
NOT TO SCALE
(MARCH 2008)



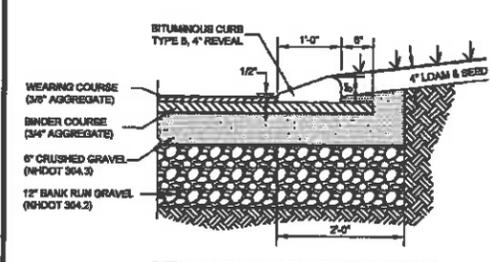
SIDEWALK RAMP
NOT TO SCALE
(JUNE 2012)



MODULAR BLOCK RETAINING WALL
(TO BE DESIGNED BY OTHERS)
NOT TO SCALE

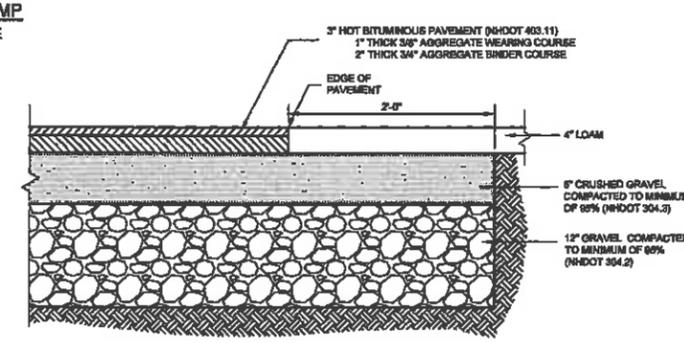


CONCRETE LIGHT POLE BASE DETAIL
NOT TO SCALE
(MARCH 2008)

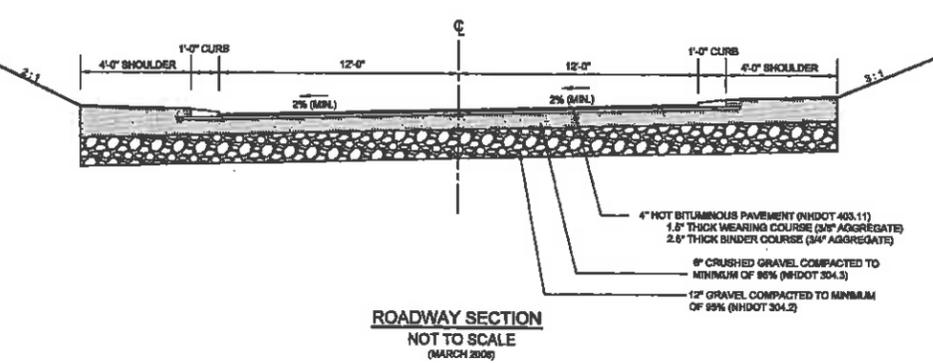


BITUMINOUS CURB TYPE B DETAIL
NOT TO SCALE
(MARCH 2008)

NOTES:
1. A BROOM FINISH TRANSVERSE TO THE SLOPE OF THE RAMP SHALL BE USED ON PORTLAND CEMENT CONCRETE RAMP.
2. MAINTAIN THE NORMAL PAVEMENT PROFILE THROUGHOUT THE RAMP AREA.
3. MAINTAIN A MAXIMUM 1/4" OF CURB REVEAL AT THE RAMP, SEE SECTION A-A



DRIVEWAY AND PARKING LOT SECTION
NOT TO SCALE
(MARCH 2008)



ROADWAY SECTION
NOT TO SCALE
(MARCH 2008)

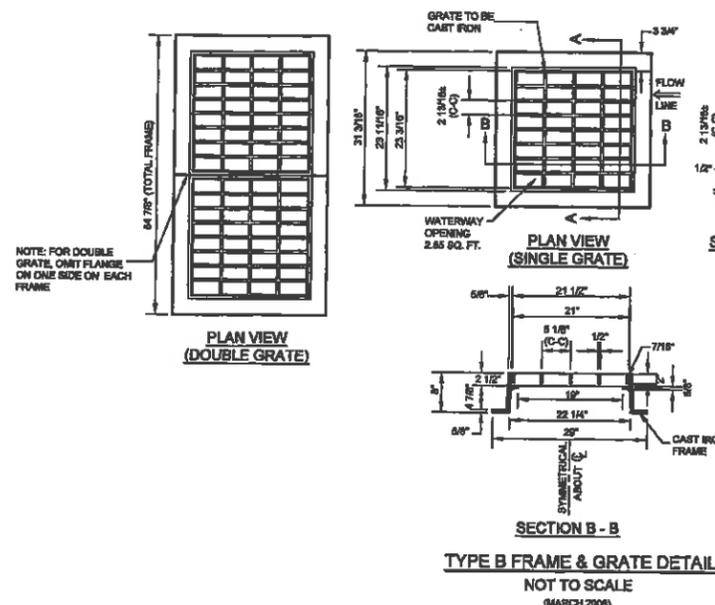
CONSTRUCTION DETAILS
AUTO BODY SHOP
MAP 128 LOTS 31, 32 & 84
MAP 132 LOTS 38 & 84
WEST GLENWOOD STREET
NASHUA, NEW HAMPSHIRE
HILLSBOROUGH COUNTY

OWNER/APPLICANT:
ROSCOMMON INVESTMENTS, LLC
147 DANIEL WEBSTER HIGHWAY
NASHUA, NH 03080
(603) 888-5050

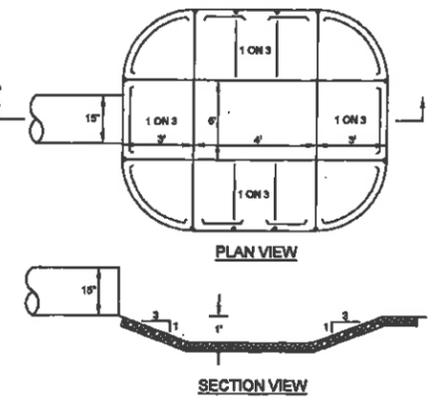
KM KEACH-NORDSTROM ASSOCIATES, INC.
Civil Engineering Lead Surveying Landscape Architecture
10 Commerce Park North, Suite 20, Bedford, NH 03110 Phone (603) 687-8881

REVISIONS			
No.	DATE	DESCRIPTION	BY
1	7/29/20	AUTO STORAGE & MEZZANINE REVS	PCM
2	10/1/20	CITY ENGINEERING REVISIONS	PCM

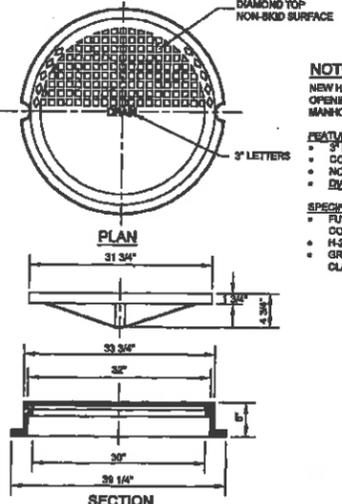
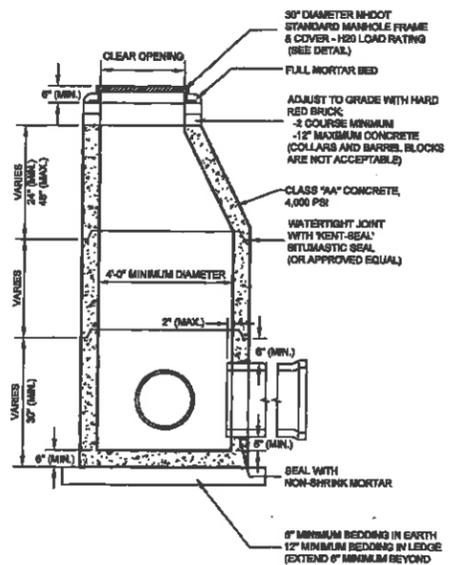
DATE: JUNE 22, 2020 SCALE: AS NOTED
PROJECT NO: 17-1011-1 SHEET 15 OF 22



TYPE B FRAME & GRATE DETAIL
NOT TO SCALE
(MARCH 2008)



PREFORMED SCOUR HOLE DETAIL
NOT TO SCALE
(MARCH 2008)



DRAIN MANHOLE FRAME AND COVER DETAIL
NOT TO SCALE

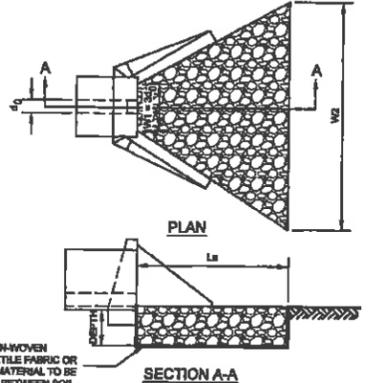
- NOTES:**
NEW HAMPSHIRE MAINTAINS A CLEAR OPENING DESIGNATION OF 30\"/>

FEATURES:
• 3\"/>

SPECIFICATIONS:
• FULLY MACHINED FRAME AND COVER
• H-30 LOAD RATED
• GRAY CAST IRON MEETS ASTM A48 CLASS 30

- NOTES:**
1. STEPS ARE NOT ALLOWED.
2. ALL SECTIONS SHALL BE CONCRETE CLASS AA (4,000 PSI). CIRCUMFERENTIAL REINFORCEMENT SHALL BE 0.12 SQ. IN. PER L.F. IN ALL SECTIONS AND SHALL BE PLACED IN THE CENTER OF THE WALL.
3. THE TONGUE OR THE GROOVE OF THE JOINT SHALL CONTAIN ONE LINE OF CIRCUMFERENTIAL REINFORCEMENT EQUAL TO 0.12 SQ. IN. PER L.F.
4. MATERIALS AND CONSTRUCTION TO MHDT STANDARDS.

PRECAST REINFORCED DRAIN MANHOLE DETAIL
NOT TO SCALE
(MARCH 2008)



PIPE OUTLET TO FLAT AREA WITH NO DEFINED CHANNEL
NOT TO SCALE
(MARCH 2008)

LOCATION	La	W1	W2	ØD	DEPTH
PROP. HWYS	23'	6'	30'	4"	10"

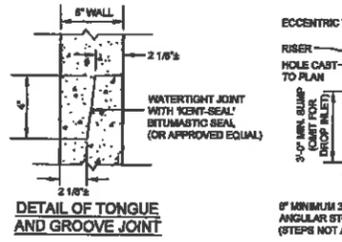
TABLE 7-04 - RECOMMENDED RIP RAP GRADATION RANGES

PERCENT OF WEIGHT SMALLER THAN THE GIVEN SIZE	SIZE OF STONE
100%	1.5 TO 2.0 ØSD
85%	1.3 TO 1.8 ØSD
50%	1.0 TO 1.5 ØSD
15%	0.5 TO 0.8 ØSD

- CONSTRUCTION SPECIFICATIONS:**
- THE SUBGRADE FOR THE FILTER MATERIAL, GEOTEXTILE FABRIC AND RIP RAP SHALL BE PREPARED TO THE LINES AND GRADES SHOWN ON THE PLANS.
 - FRAGMENTED ROCK USED FOR FILTER OR RIP RAP SHALL CONFORM TO THE SPECIFIED GRADATION.
 - GEOTEXTILE FABRICS SHALL BE PROTECTED FROM FRACTURE OR TEARING DURING THE PLACEMENT OF THE 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 PIECES OF FABRIC SHALL BE A MINIMUM OF 12 INCHES.
 - 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.

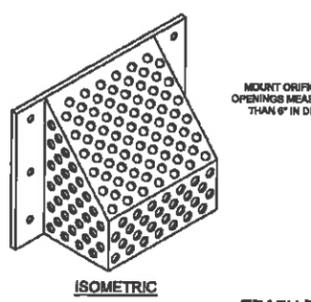
MAINTENANCE:
THE OUTLET PROTECTION SHOULD BE CHECKED AT LEAST ANNUALLY AND AFTER EVERY MAJOR RAIN EVENT. IF THE RIP RAP HAS BEEN DISPLACED, UNDERMINED, OR DAMAGED, IT SHOULD BE REPAIRED IMMEDIATELY. THE CHANNEL IMMEDIATELY BELOW THE OUTLET SHOULD BE CHECKED TO SEE THAT EROSION IS NOT OCCURRING. THE DOWNSTREAM 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.

- NOTES:**
- ALL SECTIONS SHALL BE CONCRETE CLASS AA (4,000 PSI). CIRCUMFERENTIAL REINFORCEMENT SHALL BE 0.12 SQUARE INCH PER LINEAR FOOT IN ALL SECTIONS AND SHALL BE PLACED IN THE CENTER THIRD OF THE WALL.
 - THE TONGUE OR GROOVE OF THE JOINT SHALL CONTAIN ONE LINE OF CIRCUMFERENTIAL REINFORCEMENT EQUAL TO 0.12 SQUARE INCH PER LINEAR FOOT.
 - RISER OF 1", 2", 3" & 4" CAN BE USED TO REACH DESIRED DEPTH.
 - MATERIALS AND CONSTRUCTION TO MHDT STANDARDS.

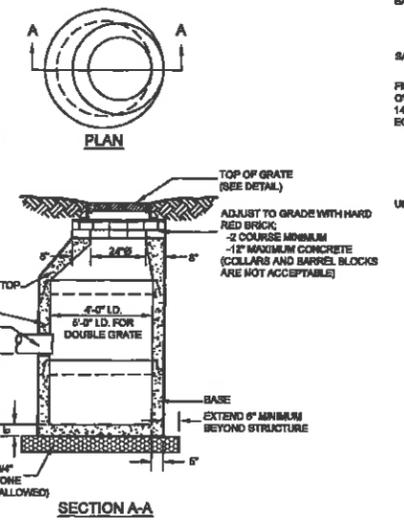


DETAIL OF TONGUE AND GROOVE JOINT

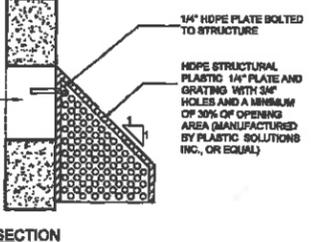
PRECAST REINFORCED CATCH BASIN
NOT TO SCALE
(MAY 2012)



ISOMETRIC

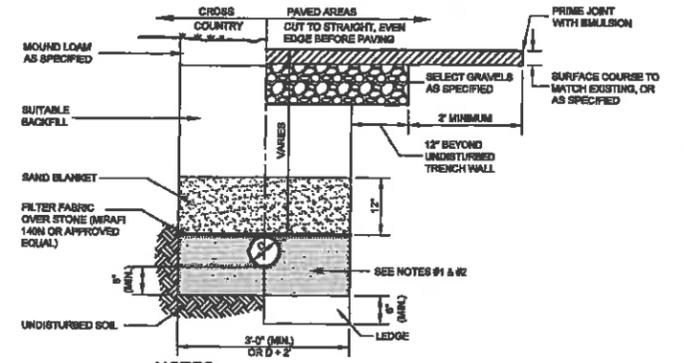


SECTION A-A



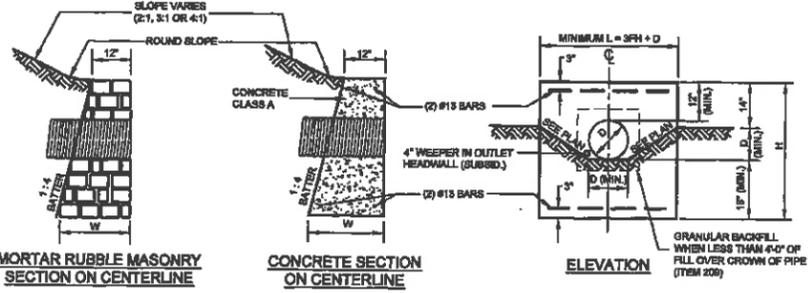
SECTION

TRASH RACK DETAIL
NOT TO SCALE



- NOTES:**
1. THOROUGHLY COMPACTED SCREENED GRAVEL FOR RCP PIPE. SCREENED GRAVEL TO EXTEND TO SELECT FILL LINE.
2. FOR HDPE OR PVC PIPE, BEDDING SHALL BE 3/4\"/>

STORM DRAINAGE TRENCH DETAIL
NOT TO SCALE
(MARCH 2008)



MORTAR RUBBLE MASONRY SECTION ON CENTERLINE

CONCRETE SECTION ON CENTERLINE

ELEVATION

NOTE:
DIMENSIONS SHOWN ARE TO PAYMENT LINES. MORTAR RUBBLE MASONRY TO BE STEPPED OUTSIDE PAYMENT LINES ON SLOPING FACES.

DIAMETER D (INCH)	AREA OF PIPE (SF)	MASONRY PER FOOT OF WALL (CU. YD.)	MASONRY PER HOLE (CU. FT.)	MASONRY PER STANDARD HEADER (CU. YD.)	STEEL PER STANDARD HEADER (LBS)	LENGTH OF BARS	PIPE EXC. 1' DEPTH (CU. YD.)	HEADER EXC. PER HEADER 1' DEPTH (CU. YD.)	ITEM 200 PER LINEAR FOOT	HEADER LENGTH L	HEADER HEIGHT H	FILL HEIGHT FH	WIDTH AT BOTTOM OF HEADER W	MASONRY IN CORNER FRUSTUM (CU. YD.)	HEADER EXC. PER HEADER 1' DEPTH (CU. YD.)
12"	0.78	0.188	1.58	0.91	8	3'-2"	0.111	0.786	0.30	3'-6"	3'-6"	10"	1'-10 1/2"	0.28	1.067
15"	1.25	0.282	1.75	0.85	11	3'-10"	0.130	0.947	0.35	4'-0"	3'-6"	11'-1"	1'-11 1/4"	0.31	1.232
18"	1.77	0.322	2.52	1.13	14	5'-2"	0.136	1.111	0.39	5'-0"	4'-0"	11'-8"	2'-0"	0.36	1.408
24"	3.14	0.280	4.71	1.78	20	7'-2"	0.148	1.451	0.48	7'-8"	4'-0"	11'-10"	2'-1 1/2"	0.43	1.778
30"	4.91	0.301	7.87	2.58	28	9'-2"	0.168	1.910	0.65	9'-8"	4'-0"	12'-4"	2'-3"	0.51	2.184

NOTE: STEEL QUANTITIES ARE FOR CONCRETE HEADWALLS ONLY.

MORTAR RUBBLE MASONRY AND CONCRETE HEADWALLS
NOT TO SCALE
(MARCH 2008)

CONSTRUCTION DETAILS
AUTO BODY SHOP
MAP 128 LOTS 31, 32 & 84
MAP 132 LOTS 38 & 84
WEST GLENWOOD STREET
NASHUA, NEW HAMPSHIRE
HILLSBOROUGH COUNTY

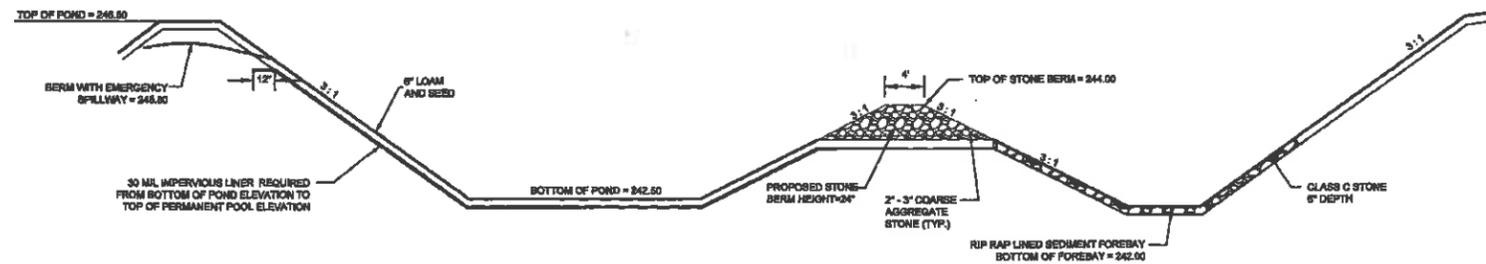
OWNER/APPLICANT:
ROSCOMMON INVESTMENTS, LLC
147 DANIEL WEBSTER HIGHWAY
NASHUA, NH 03060
(603) 888-5050

KM **KEACH-NORDSTROM ASSOCIATES, INC.**
Civil Engineering Land Surveying Landscape Architecture
10 Commerce Park North, Suite 62, Bedford, NH 03110 Phone (603) 887-8881



No.	DATE	REVISIONS	BY
1	7/29/20	AUTO STORAGE & MEZZANINE REVS	PCM
2	10/1/20	CITY ENGINEERING REVISIONS	PCM

DATE: JUNE 22, 2020 **SCALE:** AS NOTED
PROJECT NO: 17-1011-1 **SHEET:** 16 OF 22



TYPICAL DETENTION POND SECTION
NOT TO SCALE

MAINTENANCE REQUIREMENTS:

SEDIMENT FOREBAYS:

- INSPECT AT LEAST ANNUALLY;
- CONDUCT PERIODIC MOWING OF EMBANKMENTS (GENERALLY TWO TIMES PER YEAR) TO CONTROL GROWTH OF WOODY VEGETATION ON EMBANKMENTS;
- REMOVE DEBRIS FROM OUTLET STRUCTURES AT LEAST ONCE ANNUALLY;
- REMOVE AND DISPOSE OF ACCUMULATED SEDIMENT BASED ON INSPECTION;
- INSTALL AND MAINTAIN A STAFF GAGE OR OTHER MEASURING DEVICE, TO INDICATE DEPTH OF SEDIMENT ACCUMULATION AND LEVEL AT WHICH CLEAN-OUT IS REQUIRED.

DETENTION POND:

- THE BOTTOMS, INTERIOR AND EXTERIOR SIDE SLOPES AND CREST OF EARTHEN DETENTION BASINS SHOULD BE MOWED, AND THE VEGETATION MAINTAINED IN HEALTHY CONDITION, AS APPROPRIATE TO THE FUNCTION OF THE FACILITY AND TYPE OF VEGETATION.
- VEGETATED EMBANKMENTS THAT SERVE AS "BERMS" OR "DAMS" THAT IMPOUND WATER SHOULD BE MOWED AT LEAST ONCE ANNUALLY TO PREVENT THE ESTABLISHMENT OF WOODY VEGETATION;
- INLET AND OUTLET PIPES, INLET AND OUTLET STRUCTURES, ENERGY DISSIPATION STRUCTURES OR PRACTICES AND OTHER STRUCTURAL APPURTENANCES SHOULD BE INSPECTED AT LEAST ANNUALLY BY A QUALIFIED PROFESSIONAL AND CORRECTIVE ACTION IMPLEMENTED (E.G. MAINTENANCE, REPAIRS OR REPLACEMENT) AS INDICATED BY SUCH INSPECTION;
- TRASH AND DEBRIS SHOULD BE REMOVED FROM THE BASIN AND ANY INLET OR OUTLET STRUCTURES WHENEVER OBSERVED BY INSPECTION;
- ACCUMULATED SEDIMENT SHOULD BE REMOVED WHEN IT SIGNIFICANTLY AFFECTS BASIN CAPACITY.

SUBSURFACE:

- INSPECT SUB-SURFACE CHAMBER OR PIPE SYSTEM TWO (2) TIMES PER YEAR (PREFERABLY IN SPRING AND FALL) VIA THE INSPECTION PORTS, CLEANOUTS OR OTHER ACCESS STRUCTURE. CLEAN SYSTEM PER MANUFACTURER'S RECOMMENDATIONS. INSPECT OUTLET CONTROL STRUCTURES TO ENSURE THEY ARE IN GOOD WORKING ORDER AND ARE UNOBSTRUCTED FROM TRASH AND DEBRIS. REMOVE AND DISPOSE OF ANY SEDIMENTS OR DEBRIS.

ISOLATOR ROW:

- INSPECT ALL UPSTREAM PRE-TREATMENT MEASURES FOR SEDIMENT AND FLOATABLE ACCUMULATION. REMOVE AND DISPOSE OF SEDIMENTS OR DEBRIS AS NEEDED. INSPECT ISOLATOR ROW ON A SEMI-ANNUAL BASIS BY USING INSPECTION PORT AND/OR ACCESS STRUCTURE. REMOVE SEDIMENT AS NEEDED WHEN AVERAGE DEPTHS REACH 1" PER THE MANUFACTURER'S RECOMMENDATION.

SWALE:

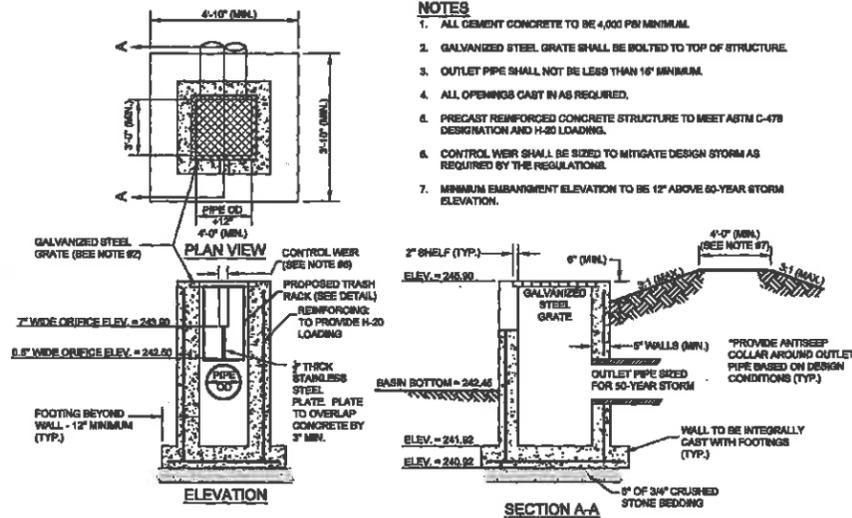
- INSPECT AT LEAST TWICE ANNUALLY.
- CONDUCT PERIODIC MOWING OF EMBANKMENTS (GENERALLY TWO TIMES PER YEAR) TO CONTROL GROWTH OF WOODY VEGETATION ON EMBANKMENTS;
- REMOVE TRASH AND DEBRIS AT LEAST EACH INSPECTION;
- REMOVE AND DISPOSE OF ACCUMULATED SEDIMENT BASED ON INSPECTION;

CONSTRUCTION PRACTICE REQUIREMENTS:

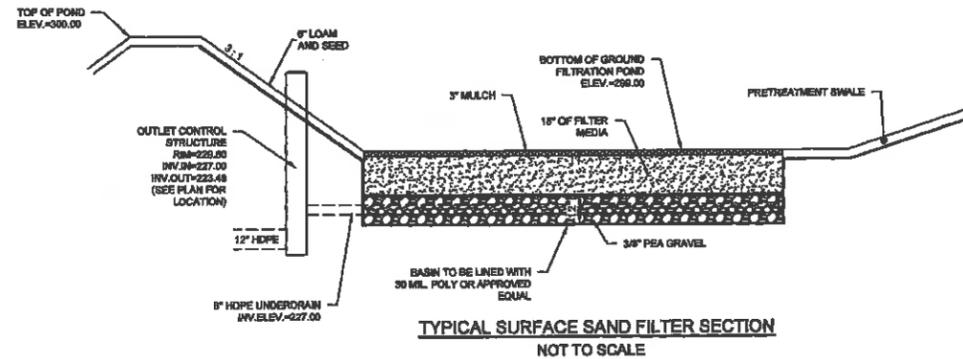
1. STORMWATER PONDS, INFILTRATION BASINS, AND SWALES MUST BE INSTALLED BEFORE ROUGH GRADING TO SITE.
2. RUNOFF MUST BE DIRECTED TO TEMPORARY PRACTICES UNTIL STORMWATER SWIPS ARE STABILIZED.
3. STORMWATER PONDS, INFILTRATION BASINS, AND SWALES MUST BE STABILIZED PRIOR TO DIRECTING RUNOFF TO THEM.
4. DO NOT TRAFFIC EXPOSED SOIL SURFACE WITH CONSTRUCTION EQUIPMENT. IF FEASIBLE, PERFORM EXCAVATION WITH EQUIPMENT POSITIONED OUTSIDE THE LIMITS OF THE INFILTRATION SYSTEM.

NOTES

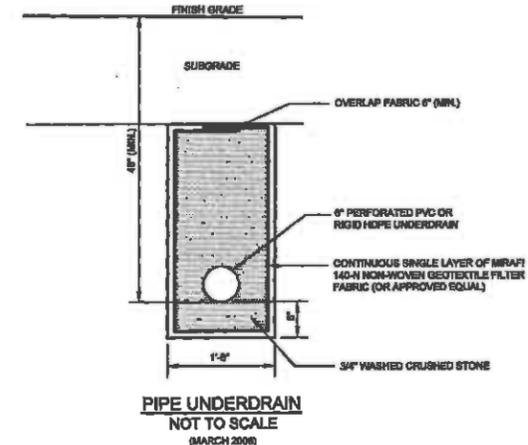
1. ALL CEMENT CONCRETE TO BE 4,000 PSI MINIMUM.
2. GALVANIZED STEEL GRATE SHALL BE BOLTED TO TOP OF STRUCTURE.
3. OUTLET PIPE SHALL NOT BE LESS THAN 16" MINIMUM.
4. ALL OPENINGS CAST IN AS REQUIRED.
5. PRECAST REINFORCED CONCRETE STRUCTURE TO MEET ASTM C-478 DESIGNATION AND H-20 LOADING.
6. CONTROL WEIR SHALL BE SIZED TO MITIGATE DESIGN STORM AS REQUIRED BY THE REGULATIONS.
7. MINIMUM EMBANKMENT ELEVATION TO BE 12" ABOVE 50-YEAR STORM ELEVATION.



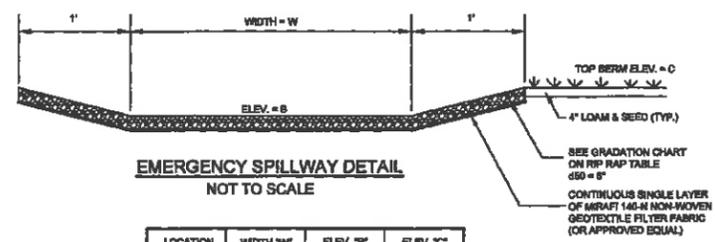
OUTLET STRUCTURE #2 AT DETENTION POND
NOT TO SCALE
(AUGUST 2011)



TYPICAL SURFACE SAND FILTER SECTION
NOT TO SCALE

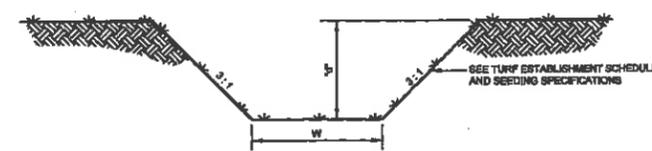


PIPE UNDERDRAIN
NOT TO SCALE
(MARCH 2008)



EMERGENCY SPILLWAY DETAIL
NOT TO SCALE

LOCATION	WIDTH "W"	ELEV. "B"	ELEV. "C"
DETENTION POND	20'	245.80	246.80
INFILTRATION POND	8'	238.80	237.80



MAINTENANCE

1. TIMELY MAINTENANCE IS IMPORTANT TO KEEP THE VEGETATION IN THE SWALE IN GOOD CONDITION. MOWING SHOULD BE DONE FREQUENTLY ENOUGH TO KEEP THE VEGETATION IN VIGOROUS CONDITION AND TO CONTROL ENCROACHMENT OF WEEDS AND WOODY VEGETATION, HOWEVER IT SHOULD NOT BE MOWED TOO CLOSELY SO AS TO REDUCE THE FILTERING EFFECT. FERTILIZE ON AN "AS NEEDED" BASIS TO KEEP THE GRASS HEALTHY. OVER FERTILIZATION CAN RESULT IN THE SWALE BECOMING A SOURCE OF POLLUTION.
2. THE SWALE SHOULD BE INSPECTED PERIODICALLY AND AFTER EVERY MAJOR STORM TO DETERMINE THE CONDITION OF THE SWALE. RILLS AND DAMAGED AREAS SHOULD BE PROMPTLY REPAIRED AND RE-VEGETATED AS NECESSARY TO PREVENT FURTHER DETERIORATION.

TREATMENT SWALE DETAIL
NOT TO SCALE
(MARCH 2008)

LOCATION	SWALE WIDTH "W"	SWALE LENGTH	SWALE SLOPE	DEPTH "D"
SWALE #1	6'	120'	0.005 FT/FT	2'

CONSTRUCTION DETAILS
AUTO BODY SHOP
 MAP 128 LOTS 31, 32 & 84
 MAP 132 LOTS 38 & 84
 WEST GLENWOOD STREET
 NASHUA, NEW HAMPSHIRE
 HILLSBOROUGH COUNTY

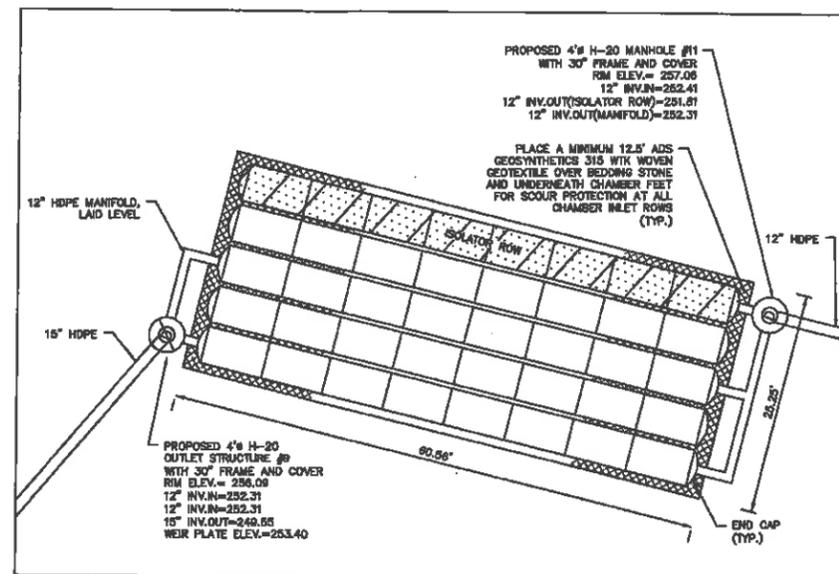
OWNER/APPLICANT:
 ROSCOMMON INVESTMENTS, LLC
 147 DANIEL WEBSTER HIGHWAY
 NASHUA, NH 03080
 (603) 888-5050

KM
 KEACH-NORDSTROM ASSOCIATES, INC.
 Civil Engineering Land Surveying Landscape Architecture
 10 Commerce Park North, Suite 203, Bedford, NH 03110 Phone (603) 687-2881

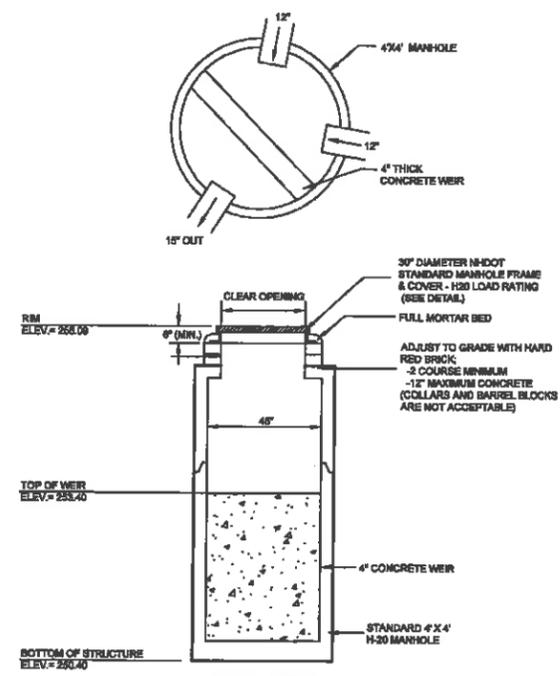


REVISIONS			
No.	DATE	DESCRIPTION	BY
1	7/29/20	AUTO STORAGE & MEZZANINE REVS	PCM
2	10/1/20	QTY ENGINEERING REVISIONS	PCM

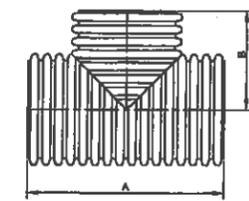
DATE: JUNE 22, 2020 SCALE: AS NOTED
 PROJECT NO: 17-1011-1 SHEET 17 OF 22



STORMTECH SC-740 CHAMBER SYSTEM
SCALE 1' = 10'



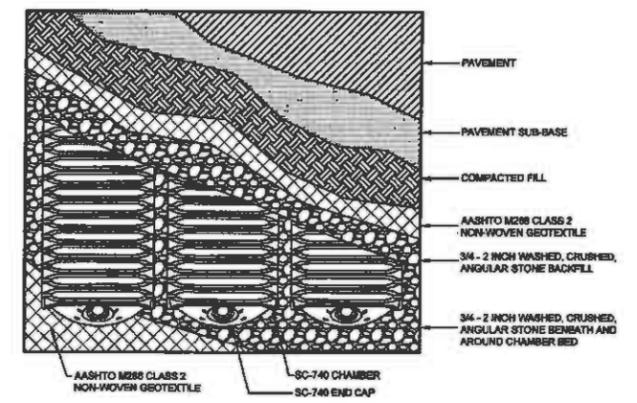
OUTLET STRUCTURE #9
NOT TO SCALE



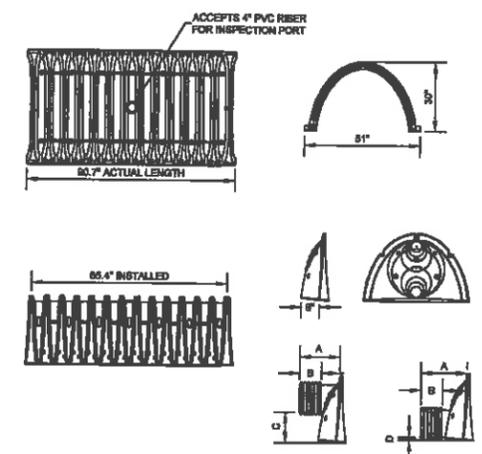
SC-740 SINGLE MANIFOLD
NOT TO SCALE
(OCTOBER 2012)

PIPE SIZE	A	B
6" (150 mm)	58.08" (1447 mm)	28.49" (724 mm)
8" (200 mm)	68.84" (1749 mm)	28.32" (719 mm)
10" (250 mm)	68.70" (1740 mm)	28.36" (720 mm)
12" (300 mm)	67.80" (1723 mm)	28.50" (728 mm)
15" (375 mm)	64.08" (1628 mm)	28.48" (724 mm)
18" (450 mm)	58.28" (1480 mm)	28.14" (715 mm)
24" (600 mm)	68.70" (1740 mm)	28.32" (720 mm)

- STORMTECH GENERAL NOTES:**
- INSTALLING CONTRACTORS ARE REQUIRED TO USE AND UNDERSTAND STORMTECH'S LATEST INSTALLATION INSTRUCTIONS PRIOR TO BEGINNING SYSTEM INSTALLATION.
 - OUR TECHNICAL SERVICES DEPARTMENT OFFERS INSTALLATION CONSULTATIONS TO INSTALLING CONTRACTORS. CONTACT OUR TECHNICAL SERVICES REPRESENTATIVE AT LEAST 30 DAYS PRIOR TO SYSTEM INSTALLATION TO ARRANGE A PRE-INSTALLATION CONSULTATION. OUR REPRESENTATIVE CAN THEN ANSWER QUESTIONS OR ADDRESS COMMENTS ON THE STORMTECH CHAMBER SYSTEM AND INFORM THE INSTALLING CONTRACTOR OF THE MINIMUM INSTALLATION REQUIREMENTS BEFORE BEGINNING THE SYSTEM'S CONSTRUCTION. CALL 1-888-892-2894 TO SPEAK TO A TECHNICAL SERVICE REPRESENTATIVE OR VISIT WWW.ADS-PIPE.COM TO RECEIVE A COPY OF OUR INSTALLATION INSTRUCTIONS.
 - STORMTECH'S REQUIREMENTS FOR SYSTEMS WITH PAVEMENT DESIGN (ASPHALT, CONCRETE PAVES, ETC.): MINIMUM COVER IS 18 INCHES NOT INCLUDING PAVEMENT; MAXIMUM COVER IS 98 INCHES INCLUDING PAVEMENT. FOR INSTALLATIONS THAT DO NOT INCLUDE PAVEMENT, WHERE RUTTING FROM VEHICLES MAY OCCUR, MINIMUM REQUIRED COVER IS 24 INCHES, MAXIMUM COVER IS 98 INCHES.
 - THE CONTRACTOR MUST REPORT ANY DISCREPANCIES WITH CHAMBER FOUNDATION MATERIALS BEARING CAPACITIES TO THE DESIGN ENGINEER.
 - AASHTO M288 CLASS 2 NON-WOVEN GEOTEXTILE (FILTER FABRIC) MUST BE USED AS INDICATED IN THE PROJECT PLANS.
 - STONE PLACEMENT BETWEEN CHAMBERS ROWS AND AROUND PERIMETER MUST FOLLOW INSTRUCTIONS AS INDICATED IN THE MOST CURRENT VERSION OF STORMTECH'S INSTALLATION INSTRUCTIONS.
 - BACKFILLING OVER THE CHAMBERS MUST FOLLOW REQUIREMENTS AS INDICATED IN THE MOST CURRENT VERSION OF STORMTECH'S INSTALLATION INSTRUCTIONS.
 - THE CONTRACTOR MUST REFER TO STORMTECH'S INSTALLATION INSTRUCTIONS FOR A TABLE OF ACCEPTABLE VEHICLE LOADS AT VARIOUS DEPTHS OF COVER. THIS INFORMATION IS ALSO AVAILABLE AT STORMTECH'S WEBSITE: WWW.ADS-PIPE.COM. THE CONTRACTOR IS RESPONSIBLE FOR PREVENTING VEHICLES THAT EXCEED STORMTECH'S REQUIREMENTS FROM TRAVELING ACROSS OR PARKING OVER THE STORMWATER SYSTEM. TEMPORARY FENCING, WARNING TAPE, AND APPROPRIATELY LOCATED SIGNS ARE COMMONLY USED TO PREVENT UNAUTHORIZED VEHICLES FROM ENTERING SENSITIVE CONSTRUCTION AREAS.
 - THE CONTRACTOR MUST APPLY EROSION AND SEDIMENT CONTROL MEASURES TO PROTECT THE STORMWATER SYSTEM DURING ALL PHASES OF SITE CONSTRUCTION PER LOCAL CODES AND DESIGN ENGINEER'S SPECIFICATIONS.
 - STORMTECH PRODUCT WARRANTY IS LIMITED. SEE CURRENT PRODUCT WARRANTY FOR DETAILS. TO ACQUIRE A COPY CALL STORMTECH AT 1-888-892-2894 OR VISIT WWW.ADS-PIPE.COM.



SC-740 CHAMBER SYSTEM PLAN VIEW DETAIL
NOT TO SCALE
(OCTOBER 2012)

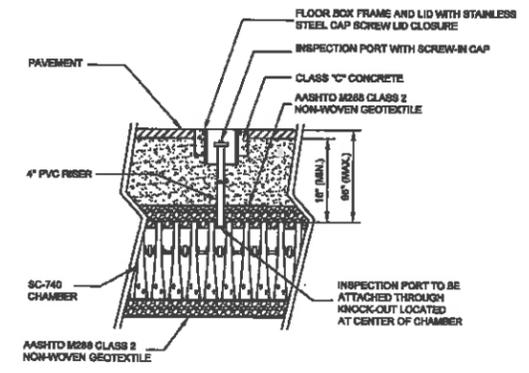


SC-740 ISOLATOR ROW PROFILE
NOT TO SCALE
(OCTOBER 2012)

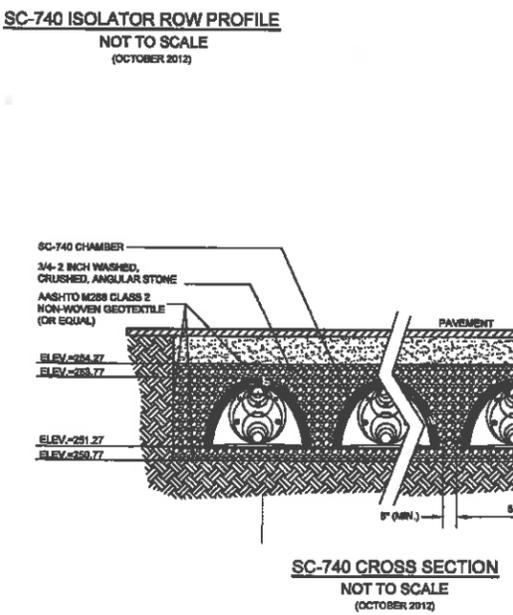
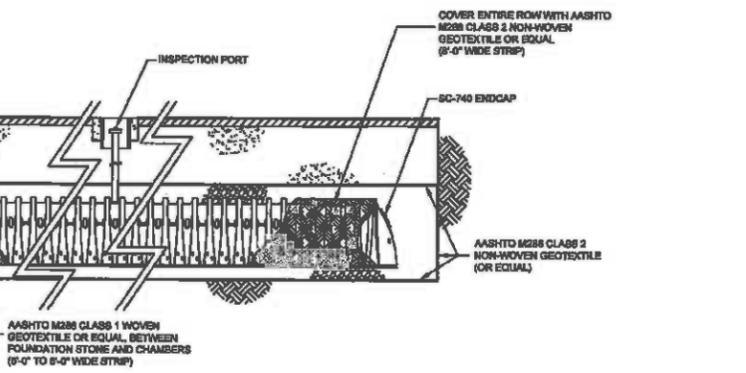
NOMINAL CHAMBER SPECIFICATIONS
SIZE (W x H x INSTALLED LENGTH)
CHAMBER STORAGE
MINIMUM INSTALLED STORAGE WEIGHT

PIPE SIZE	A	B	C	D
6 in (150 mm)	10.90 in (277 mm)	5.85 in (98 mm)	18.50 in (470 mm)	N/A
8 in (200 mm)	10.90 in (277 mm)	3.85 in (98 mm)	N/A	0.50 in (13 mm)
12 in (300 mm)	14.70 in (373 mm)	7.70 in (196 mm)	12.50 in (318 mm)	N/A
12 in (300 mm)	14.70 in (373 mm)	7.70 in (196 mm)	N/A	1.20 in (30 mm)
15 in (375 mm)	16.40 in (467 mm)	10.38 in (263 mm)	9.00 in (229 mm)	N/A
15 in (375 mm)	16.40 in (467 mm)	10.38 in (263 mm)	N/A	1.30 in (33 mm)
18 in (450 mm)	19.70 in (500 mm)	16.72 in (423 mm)	8.00 in (127 mm)	N/A
18 in (450 mm)	19.70 in (500 mm)	16.72 in (423 mm)	N/A	1.50 in (41 mm)
24 in (600 mm)	18.50 in (470 mm)	9.46 in (240 mm)	N/A	0.10 in (3 mm)

SC-740 TECHNICAL SPECIFICATIONS
NOT TO SCALE
(OCTOBER 2012)



SC-740 INSPECTION PORT DETAIL
NOT TO SCALE
(OCTOBER 2012)

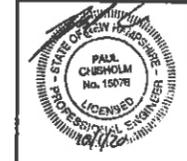


SC-740 CROSS SECTION
NOT TO SCALE
(OCTOBER 2012)

CONSTRUCTION DETAILS
AUTO BODY SHOP
MAP 128 LOTS 31, 32 & 84
MAP 132 LOTS 38 & 84
WEST GLENWOOD STREET
NASHUA, NEW HAMPSHIRE
HILLSBOROUGH COUNTY

OWNER/APPLICANT:
ROSCOMMON INVESTMENTS, LLC
147 DANIEL WEBSTER HIGHWAY
NASHUA, NH 03060
(603) 888-5050

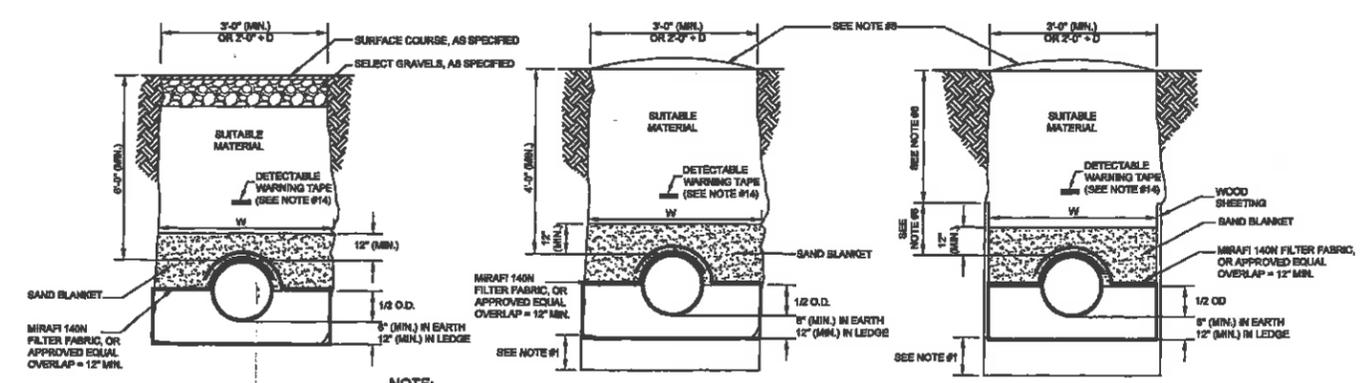
KMA
KEACH-NORDSTROM ASSOCIATES, INC.
Civil Engineering Land Surveying Landscape Architecture
10 Commerce Park North, Suite 300, Bedford, NH 03110 Phone (603) 637-2881



REVISIONS

No.	DATE	DESCRIPTION	BY
1	7/29/20	AUTO STORAGE & MEZZANINE REVS	PCM
2	10/1/20	CITY ENGINEERING REVISIONS	PCM

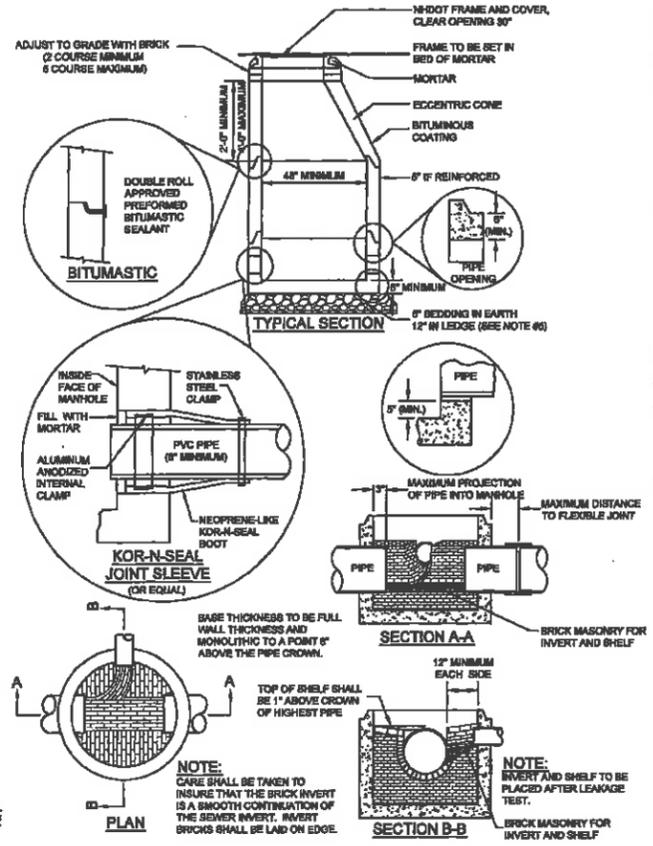
DATE: JUNE 22, 2020
PROJECT NO: 17-1011-1
SCALE: AS NOTED
SHEET 18 OF 22



SANITARY SEWER TRENCH DETAIL
NOT TO SCALE
(NOVEMBER 2018)

NOTES:

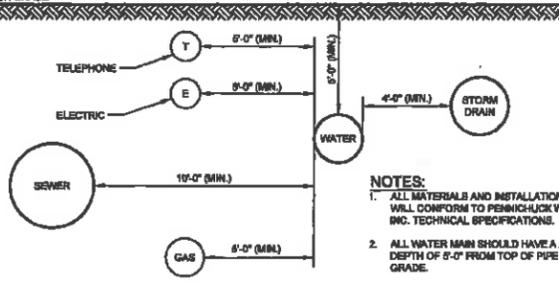
- ORDERED EXCAVATION OF UNSUITABLE MATERIAL BELOW GRADE. REFILL WITH BEDDING MATERIAL, ALSO SEE NOTE #7. BEDDING: CRUSHED STONE FREE FROM CLAY, LOAM, ORGANIC MATTER AND MEETING ASTM C33/C33M STONE SIZE NO. 57.
 - 100% PASSING 1 INCH SCREEN
 - 90 - 100% PASSING 3/4 INCH SCREEN
 - 20 - 65% PASSING 3/8 INCH SCREEN
 - 0 - 10% PASSING # 4 SIEVE
 - 0 - 5% PASSING # 8 SIEVE
 WHERE ORDERED BY THE ENGINEER TO STABILIZE THE TRENCH BASE, GRADED CRUSHED STONE 1/2 INCH TO 1-1/2 INCHES SHALL BE USED.
- SAND BLANKET: GRADED CLEAN SAND FREE FROM ORGANIC MATTER, SO THAT 100% PASSES A 1/2 INCH SIEVE AND NOT MORE THAN 1% WILL PASS A # 200 SIEVE. BLANKET MAY BE OMITTED FOR CAST IRON, DUCTILE IRON AND REINFORCED CONCRETE PIPE PROVIDED, HOWEVER, THAT NO STONE LARGER THAN 2 INCHES IS IN CONTACT WITH THE PIPE.
- MIRAFI 140N FILTER FABRIC, OR APPROVED EQUAL, SHALL BE INSTALLED ABOVE PIPE.
- SUITABLE MATERIAL: IN ROADS, ROAD SHOULDERS, WALKWAYS AND TRAVELED WAYS SUITABLE MATERIAL FOR TRENCH BACKFILL SHALL BE THE NATURAL MATERIAL EXCAVATED DURING THE COURSE OF CONSTRUCTION, BUT SHALL EXCLUDE DEBRIS, PIECES OF PAVEMENT, ORGANIC MATTER, TOP SOIL, ALL WET OR SOFT MUCK, PEAT OR CLAY, ALL EXCAVATED LEDGE MATERIAL AND ALL ROCKS OVER 6 INCHES IN LARGEST DIMENSION, OR ANY MATERIAL WHICH, AS DETERMINED BY THE ENGINEER, WILL NOT PROVIDE SUFFICIENT SUPPORT OR MAINTAIN THE COMPLETED CONSTRUCTION IN A STABLE CONDITION. IN CROSS COUNTRY CONSTRUCTION, SUITABLE MATERIAL SHALL BE AS DESCRIBED ABOVE EXCEPT THAT THE ENGINEER MAY PERMIT THE USE OF TOP SOIL, LOAM, MUCK OR PEAT IF HE/SHE IS SATISFIED THAT THE COMPLETED CONSTRUCTION WILL BE ENTIRELY STABLE AND PROVIDED THAT EASY ACCESS TO THE SEWER WILL BE PRESERVED FOR MAINTENANCE AND POSSIBLY RECONSTRUCTION, WHEN NECESSARY.
- BASE COURSE: IF ORDERED BY THE ENGINEER, SHALL MEET THE REQUIREMENTS OF DIVISION 300 OF THE LATEST EDITION OF THE "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION OF THE STATE OF NEW HAMPSHIRE, DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS".
- WOOD SHEETING: IF REQUIRED, WHERE PLACED ALONGSIDE THE PIPE AND EXTENDING BELOW MID-DIAMETER, SHALL BE CUT OFF AND LEFT IN PLACE TO AN ELEVATION NOT LESS THAN 1 FOOT ABOVE THE TOP OF THE PIPE. WHERE SHEETING IS ORDERED BY THE ENGINEER TO BE LIFT IN PLACE, IT SHALL BE CUT OFF AT LEAST 3 FEET BELOW FINISH GRADE, BUT NOT LESS THAN 1 FOOT ABOVE THE TOP OF THE PIPE.
- IF MAXIMUM ALLOWABLE TRENCH WIDTH TO A PLANE 12 INCHES ABOVE THE PIPE, FOR PIPES 18 INCHES NOMINAL DIAMETER OR LESS, SHALL BE NO MORE THAN 30 INCHES. FOR PIPES GREATER THAN 18 INCHES NOMINAL DIAMETER, SHALL BE 24 INCHES PLUS PIPE O.D. W SHALL ALSO BE THE PAYMENT WIDTH FOR LEDGE EXCAVATION AND FOR ORDERED EXCAVATION BELOW GRADE.
- FOR CROSS COUNTRY CONSTRUCTION, BACKFILL OR FILL SHALL BE MOUND TO A HEIGHT OF 6 INCHES ABOVE THE ORIGINAL GROUND SURFACE.
- NEW HAMPSHIRE DEPARTMENT OF ENVIRONMENTAL SERVICES DESIGN STANDARDS REQUIRE 10 FEET OF SEPARATION BETWEEN WATER AND SEWER. HOWEVER, SHOULD CONSTRUCTION REVEAL OR EXPOSE A WATERLINE (GAIN OR SERVICE) RUNNING APPROXIMATELY PARALLEL AND LESS THAN 10 FEET HORIZONTALLY FROM THE PROPOSED SEWER INSTALLATION AND WHERE IT IS NOT PRACTICAL TO RELOCATE THE SEWER, A DEVIATION MAY BE GRANTED PROVIDED THAT THE SEWER IS CONSTRUCTED IN ACCORDANCE WITH THE FORCE MAIN CONSTRUCTION REQUIREMENT SPECIFIED BELOW.
 - A. FORCE MAINS SHALL BE CONSTRUCTED FROM DUCTILE IRON, HIGH DENSITY POLYETHYLENE, OR PVC PER ENH-704.09(6). PVC SHALL CONFORM TO ASTM D2241-05 OR ASTM D1785-05.
 - B. HOPE SHALL CONFORM TO ASTM D2635-05.
- D.I. SHALL BE CORROSION PROTECTED IN CORROSIVE ENVIRONMENTS
- WHERE WATER LINES AND SEWER LINES CROSS, THEY SHOULD CROSS AS PERPENDICULAR AS POSSIBLE AND THE WATER MAIN SHALL CROSS AT LEAST 18 INCHES ABOVE THE SEWER. FURTHER, THE SEWER JOINTS SHALL BE LOCATED AT LEAST 6 FEET HORIZONTALLY FROM THE WATER MAIN.
- ALL SEWERS AT 8 PERCENT SLOPE, OR GREATER, SHALL HAVE IMPROVED TRENCH DAMS CONSTRUCTED EVERY 300 FEET.
- UNLESS OTHERWISE NOTED, ALL GRANULAR MATERIAL SHALL BE PLACED IN 12" LIFTS AND COMPACTED TO 90% OF THE MODIFIED PROCTOR TEST.
- WHERE WATER MAINS CROSS UNDER SEWER MAINS, BOTH THE SEWER AND WATER MAINS SHALL BE PRESSURE RATED PIPE PER ENH-704.06 AND TESTED PER AWWA C900-06 AT 1.5 TIMES DESIGN PRESSURE OR 100 PSI, WHICHEVER IS GREATER, WITH NO JOINTS WITHIN 9 FEET OF THE CROSSING POINT AND 18" MINIMUM VERTICAL SEPARATION.
- ALL SEWERS SHALL BE MARKED USING METAL IMPREGNATED MARKING TAPE OR TRACER WIRE THAT CAN BE LOCATED USING METAL DETECTION EQUIPMENT.
- GRAVITY PIPE SEWER TESTING:
 - A. ALL NEW GRAVITY SEWERS SHALL BE TESTED FOR WATER TIGHTNESS BY THE USE OF LOW-PRESSURE AIR TESTS.
 - B. LOW-PRESSURE AIR TESTING SHALL BE IN CONFORMANCE WITH:
 - ASTM F417-02(2009) "STANDARD TEST METHOD FOR INSTALLATION ACCEPTANCE OF PLASTIC GRAVITY SEWER LINES USING LOW-PRESSURE AIR," OR
 - UNI-BELL PVC PIPE ASSOCIATION UNI-3-4, "LOW-PRESSURE AIR TESTING OF INSTALLED SEWER PIPE" (1998).
 - C. ALL NEW GRAVITY SEWERS SHALL BE CLEANED AND VISUALLY INSPECTED USING A LAMP TEST AND BY INTRODUCING WATER TO DETERMINE THAT THERE IS NO STANDING WATER IN THE SEWER AND SHALL BE TRUE TO LINE AND GRADE FOLLOWING INSTALLATION.
 - D. ALL PLASTIC SEWER PIPE SHALL BE DEFLECTION TESTED NOT LESS THAN 30 DAYS NOR MORE THAN 90 DAYS FOLLOWING INSTALLATION.
 - E. THE MAXIMUM ALLOWABLE DEFLECTION OF FLEXIBLE SEWER PIPE SHALL BE 5 PERCENT OF AVERAGE INSIDE DIAMETER. A RIGID BALL OR MANHOLE WITH A DIAMETER OF AT LEAST 36 PERCENT OF THE AVERAGE INSIDE PIPE DIAMETER SHALL BE USED FOR TESTING PIPE DEFLECTION. THE DEFLECTION TEST SHALL BE CONDUCTED WITHOUT MECHANICAL PULLING DEVICES.



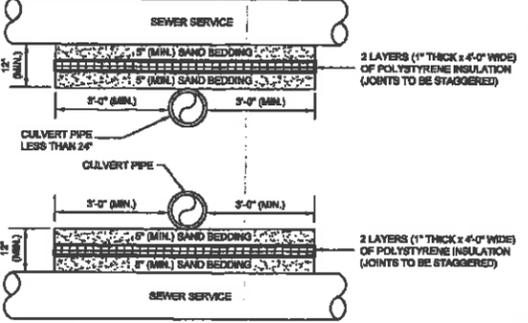
SANITARY SEWER MANHOLE

NOTES:

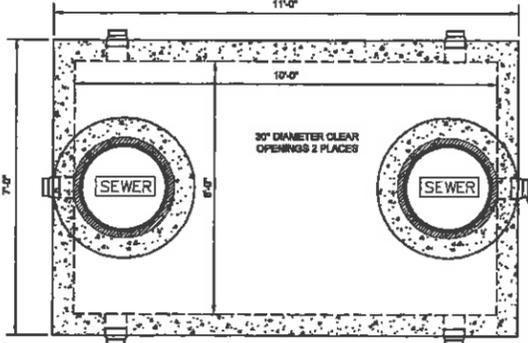
- ALL MATERIALS AND INSTALLATION PROCEDURES SHALL CONFORM TO PENNSYLVANIA WATER WORKS, INC. TECHNICAL SPECIFICATIONS.
- ALL WATER MAINS SHOULD HAVE A MINIMUM DEPTH OF 5'-0" FROM TOP OF PIPE TO FINISH GRADE.
- SEE DETAIL FOR TRENCH SPECIFICATIONS.
- SEE DETAIL FOR OUTSIDE SERVICE ENTRANCE SPECIFICATIONS.



UTILITY SEPARATION (MAIN) DETAIL
(A-01)
NOT TO SCALE
(MARCH 2009)

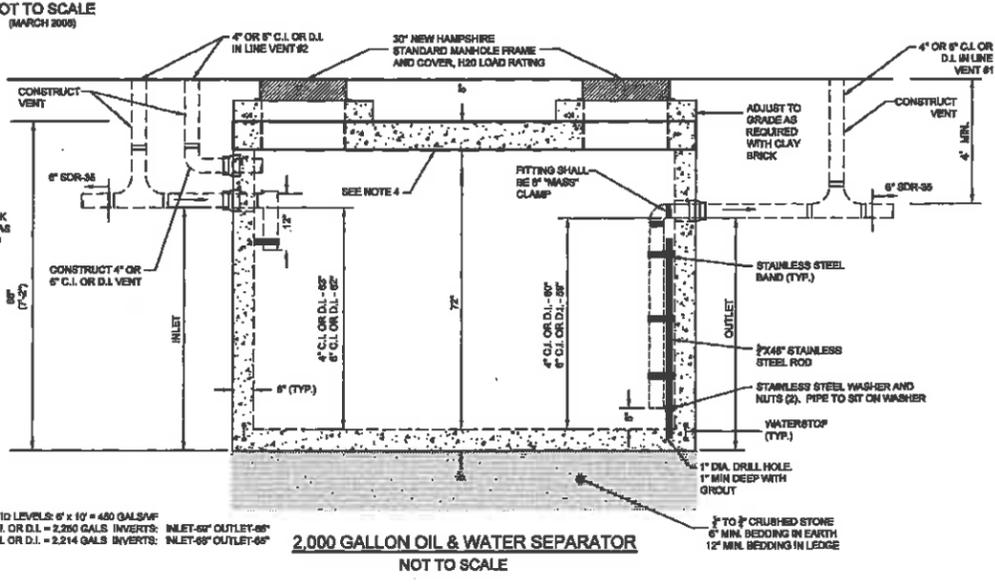


SEWER PIPE CROSSING INSULATION DETAIL
NOT TO SCALE
(JUNE 2012)



OIL & WATER SEPARATOR NOTES:

- STEEL REINFORCEMENT CONFORMS TO LATEST ASTM SPECIFICATIONS.
- ASTM-A618 GRADE 60 REBAR.
- CONCRETE: FC = 3,000 PSI @ 28 DAYS MINIMUM.
- FLEXIBLE SLEEVES PROVIDED ON ALL PIPE CONNECTIONS.
- BUTYL RUBBER JOINT SEALANT PROVIDED.
- INTERNAL PVC BAPFLES AVAILABLE UPON REQUEST.
- INLET: SHALL PENETRATE AT LEAST 6" BELOW THE LIQUID LEVEL, BUT NOT DEEPER THAN THE OUTLET BAFFLE.
- OUTLET: SHALL EXTEND BELOW THE SURFACE OF THE LIQUID TO 6" FROM THE FLOOR. (ENR 302 1012.02)
- DESIGN LOADINGS: AASHTO-H20-44, ASTM C-893-05.
- DESIGN SPECIFIED AS: ASTM C-1227-08, ASTM C-913-08.
- STEPS ARE NOT ALLOWED.
- TWO IN-LINE VENTS MAY BE MERGED INTO SINGLE RISER.



2,000 GALLON OIL & WATER SEPARATOR
NOT TO SCALE

- NOTES: (NHDES ENV WQ700 - 2015)**
- ALL COMPONENT PARTS OF MANHOLE STRUCTURES SHALL HAVE THE STRENGTH, LEAK RESISTANCE AND SPACE NECESSARY FOR THE INTENDED SERVICE.
 - MANHOLE STRUCTURES SHALL HAVE A LIFE EXPECTANCY IN EXCESS OF 25 YEARS.
 - MANHOLE STRUCTURES SHALL BE DESIGNED TO WITHSTAND H-20 LOADING AND SHALL NOT LEAK IN EXCESS OF ONE GPD PER VERTICAL FOOT OF THE HEIGHT OF THE STRUCTURE.
 - BARRELS, CONCRETE GRADE RINGS AND CONE SECTIONS SHALL BE CONSTRUCTED OF PRECAST REINFORCED CONCRETE AND SHALL CONFORM TO ASTM C475.
 - BEDDING: CRUSHED STONE FREE FROM CLAY, LOAM, ORGANIC MATTER AND MEETING ASTM C33
 - 100% PASSING 1 INCH SCREEN
 - 80% PASSING 3/4 INCH SCREEN
 - 20-65% PASSING 3/8 INCH SCREEN
 - 0-10% PASSING # 4 SIEVE
 - 0-5% PASSING # 8 SIEVE
 WHERE ORDERED BY THE ENGINEER TO STABILIZE THE BASE, CRUSHED STONE 1/2 INCH TO 1-1/2 INCH SHALL BE USED.
 - BASE SECTIONS SHALL BE OF MONOLITHIC CONSTRUCTION TO A POINT AT LEAST 6 INCHES ABOVE THE CROWN OF THE INCOMING PIPE.
 - 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:
 - A. ELASTOMERIC RUBBER GASKETS WITH WATER-TIGHT JOINTS AT THE MANHOLE OPENING AND PIPE SURFACES;
 - B. CAST INTO THE WALL OR SECURED WITH STAINLESS STEEL CLAMPS;
 - C. ELASTOMERIC SEALING RING CAST IN THE MANHOLE OPENING WITH SEAL FORMED ON THE SURFACE OF THE PIPE BY COMPRESSION OF THE RING AND
 - D. NON-SHRINK GROUTED JOINTS WHERE WATER-TIGHT BONDING TO THE MANHOLE AND PIPE CAN BE OBTAINED.
 - MANHOLE CONE SECTIONS SHALL BE ECCENTRIC IN SHAPE.
 - ALL PRECAST SECTIONS AND BASES SHALL HAVE THE DATE OF MANUFACTURE AND THE NAME OR TRADEMARK OF THE MANUFACTURER IMPRESSED OR INDUBLY MARKED ON THE INSIDE WALL.
 - ALL PRECAST SECTIONS AND BASES SHALL BE COATED ON THE EXTERIOR WITH A BITUMINOUS DAMP-PROOFING COATING.
 - MANHOLES SHALL HAVE A BRICK PAVED SHELF AND INVERT CONSTRUCTED TO CONFORM TO THE SIZE OF PIPE AND FLOW. AT CHANGES IN DIRECTION, THE INVERTS SHALL BE LAID OUT IN CURVES OF THE LONGEST RADIUS POSSIBLE TANGENT TO THE CENTER LINE OF THE SEWER PIPE. SHELVES SHALL BE CONSTRUCTED TO THE ELEVATION OF THE HIGHEST PIPE CROWN AND SLOPED TO DRAIN TOWARD THE FLOWING THROUGH CHANNEL. UNDERLAYMENT OF INVERT AND SHELF SHALL CONSIST OF BRICK MASONRY. INVERTS AND SHELVES SHALL BE PLACED AFTER TESTING.
 - MATERIALS OF CONSTRUCTION FOR MANHOLES SHALL BE AS FOLLOWS:
 - A. CONCRETE FOR PRECAST BASES OR 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".
 - B. REINFORCING FOR PRECAST CONCRETE SHALL BE STEEL OR STRUCTURAL FIBERS THAT CONFORM TO THE REQUIREMENTS OF THE NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION'S "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION".
 - C. PRECAST CONCRETE BARREL SECTIONS, CONES AND BASES SHALL BE CERTIFIED BY THEIR MANUFACTURERS AS CONFORMING TO ASTM C475.
 - D. THE MANHOLE FRAME AND COVER SHALL PROVIDE A 20-INCH DIAMETER CLEAR OPENING.
 - E. THE MANHOLE COVER SHALL HAVE THE WORD "SEWER" IN 3/4-INCH LETTERS CAST INTO THE TOP SURFACE.
 - F. THE CASTINGS SHALL BE OF EVEN-GRAINED CAST IRON, SMOOTH AND FREE FROM SCALE, LAMPS, BUSTERS, SAND Holes AND DEFECTS.
 - G. CONTACT SURFACES OF COVERS AND FRAMES SHALL BE MACHINED AT THE FOUNDRY TO PREVENT ROCKING OF COVERS IN ANY ORIENTATION;
 - H. CASTINGS SHALL BE EQUAL TO CLASS 30, BE CERTIFIED BY THEIR MANUFACTURERS AS CONFORMING TO ASTM A486.
 - I. BRICK MASONRY FOR SHELF, INVERT AND GRADE ADJUSTMENT SHALL BE CERTIFIED BY THEIR MANUFACTURERS AS CONFORMING TO ASTM C222, CLAY OR SHALE, FOR GRADE 88 HARD BRICK; MORTAR SHALL BE COMPOSED OF TYPE 3 PORTLAND CEMENT AND SAND WITH OR WITHOUT HYDRATED LIME ADDITIVE;
 - K. PROPORTIONS IN MORTAR OF PARTS BY VOLUMES SHALL BE:
 - 1. 4.5 PARTS SAND AND 1.5 PARTS CEMENT; OR
 - 2. 4.5 PARTS SAND, ONE PART CEMENT AND 0.5 PARTS HYDRATED LIME;
 - L. CEMENT SHALL BE TYPE II PORTLAND CEMENT CONFORMING TO ASTM C150/C150M;
 - M. HYDRATED LIME SHALL BE TYPE S CONFORMING TO THE ASTM C207 "STANDARD SPECIFICATIONS FOR HYDRATED LIME FOR MASONRY PURPOSES";
 - N. SAND SHALL CONSIST OF MIST NATURAL SAND CONFORMING TO THE ASTM C33 "STANDARD SPECIFICATIONS FOR CONCRETE, FINE AGGREGATES";
 - O. CONCRETE FOR DROP SUPPORTS SHALL CONFORM TO THE REQUIREMENT FOR CLASS AAA CONCRETE OF THE NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION'S "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION".
 - P. SUBJECT TO (Q) BELOW, A FLEXIBLE PIPE JOINT SHALL BE PROVIDED WITHIN THE FOLLOWING DISTANCES FROM ANY MANHOLE CONNECTION:
 - 1. WITHIN 48-INCHES FOR REINFORCED CONCRETE (PVC) PIPE; AND
 - 2. WITHIN 60-INCHES FOR PVC PIPE LARGER THAN 18-INCH DIAMETER;
 - Q. NO FLEXIBLE JOINT SHALL BE REQUIRED FOR D.I. PIPE OR FOR PVC PIPE UP THROUGH 18-INCH DIAMETER; AND
 - R. WHEN MANHOLE DEPTH IS LESS THAN 6 FEET, A REINFORCED CONCRETE GLASS COVER MAY BE USED IN LIEU OF A CONE SECTION, PROVIDED THE GLASS HAS AN ECCENTRIC ENTRANCE OPENING AND IS CAPABLE OF SUPPORTING H-20 LOADS.
 - MANHOLE TESTING:
 - A. MANHOLES SHALL BE TESTED FOR LEAKAGE USING A VACUUM TEST.
 - B. THE MANHOLE VACUUM TEST SHALL CONFORM TO THE FOLLOWING:
 - 1. THE INITIAL VACUUM GAUGE TEST PRESSURE SHALL BE 10 INCHES Hg; AND
 - 2. THE MINIMUM ACCEPTABLE TEST HOLD TIME FOR A 1-INCH Hg PRESSURE DROP TO 9 INCH Hg SHALL BE:
 - a. NOT LESS THAN 2 MINUTES FOR MANHOLES LESS THAN 10 FEET DEEP IN DEPTH;
 - b. NOT LESS THAN 2.5 MINUTES FOR MANHOLES 10 TO 16 FEET DEEP; AND
 - c. NOT LESS THAN 3 MINUTES FOR MANHOLES MORE THAN 16 FEET DEEP.
 - C. THE MANHOLE SHALL BE REPAIRED AND RETESTED IF THE TEST HOLD TIMES FAIL TO ACHIEVE THE ACCEPTANCE LIMITS SPECIFIED IN (B) ABOVE.
 - D. FOLLOWING COMPLETION OF THE LEAKAGE TEST, THE FRAME AND COVER SHALL BE PLACED ON THE TOP OF THE MANHOLE OR SOME OTHER MEANS USED TO PREVENT ACCIDENTAL ENTRY BY UNAUTHORIZED PERSONS, CHILDREN OR ANIMALS UNTIL THE CONTRACTOR IS READY TO MAKE FINAL ADJUSTMENTS TO GRADE.

CONSTRUCTION DETAILS
AUTO BODY SHOP
MAP 128 LOTS 31, 32 & 84
MAP 132 LOTS 38 & 84
WEST GLENWOOD STREET
NASHUA, NEW HAMPSHIRE
HILLSBOROUGH COUNTY

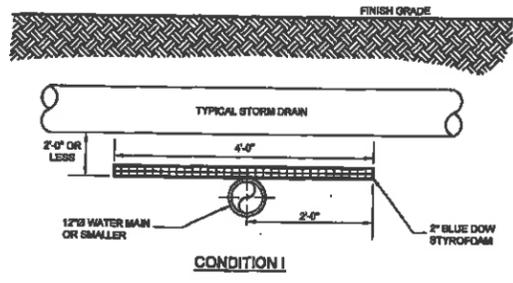
OWNER/APPLICANT:
ROSCOMMON INVESTMENTS, LLC
147 DANIEL WEBSTER HIGHWAY
NASHUA, NH 03080
(603) 888-5050

KMA KEACE-NORSTROM ASSOCIATES, INC.
Civil Engineering Land Surveying Landscape Architecture
10 Commers Park North, Suite 303, Bedford, NH 03110 Phone (603) 887-8821

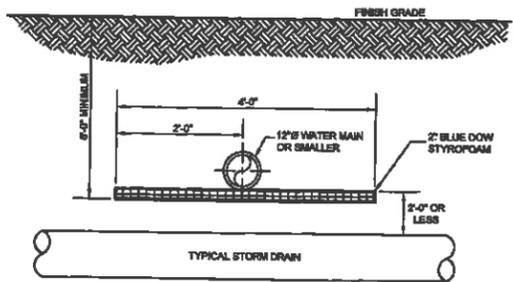
REVISIONS

No.	DATE	DESCRIPTION	BY
1	7/29/20	AUTO STORAGE & MEZZANINE REVS	PCM
2	10/1/20	CITY ENGINEERING REVISIONS	PCM

DATE: JUNE 22, 2020 **SCALE:** AS NOTED
PROJECT NO: 17-1011-1 **SHEET:** 19 OF 22



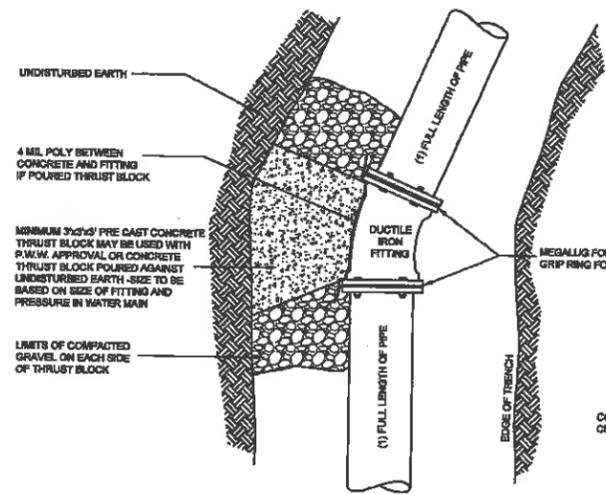
CONDITION I



CONDITION II

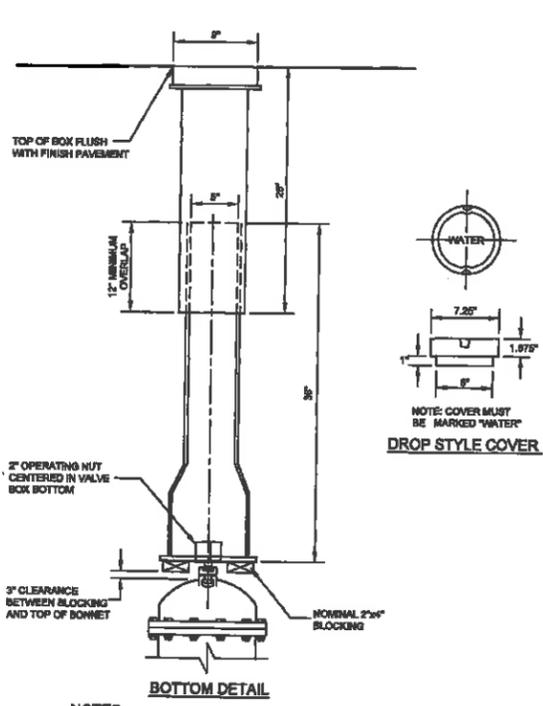
- NOTES:**
1. PENNICHUCK WATER WORKS, INC. RESERVES THE RIGHT TO MODIFY INSULATION REQUIREMENTS AS NECESSARY BASED ON FIELD CONDITIONS, ETC.
 2. THE LENGTH OR WIDTH OF INSULATION SHALL EXTEND 1 STORM DRAIN PIPE DIAMETER BEYOND THE EDGE OF STORM DRAIN PIPE IN EACH DIRECTION OR A MINIMUM OF 2" BEYOND THE CENTERLINE OF THE STORM DRAIN PIPE, WHICHEVER IS GREATER.
 3. ALL JOINT SEAMS TO BE OVERLAPPED WITH A 1" PIECE OF INSULATION CENTERED OVER SEAM.

STORM DRAIN/WATER MAIN INTERSECTION RUNS - ELEVATION VIEW (A-18) NOT TO SCALE



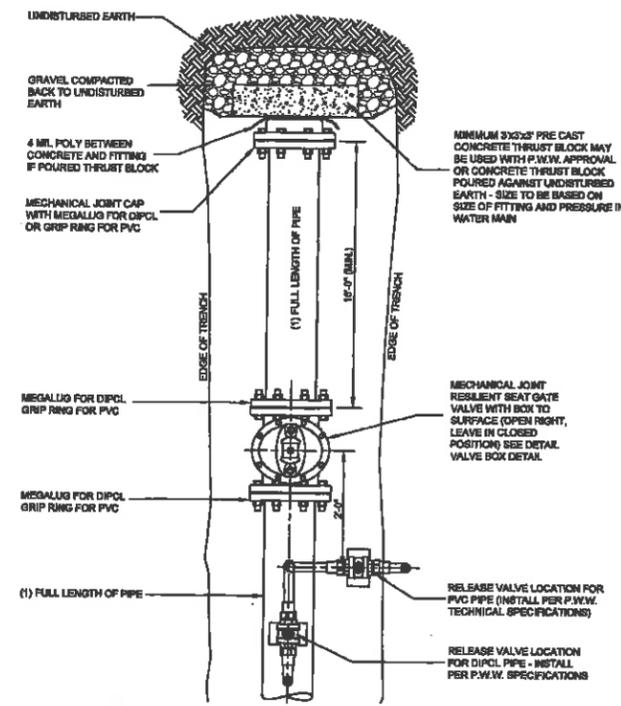
- NOTES:**
1. ALL MATERIALS AND INSTALLATION PROCEDURES WILL CONFORM TO PENNICHUCK WATER WORKS, INC. TECHNICAL SPECIFICATIONS.
 2. ALL PIPE SHOULD HAVE A MINIMUM DEPTHS OF 5'-0" FROM TOP OF PIPE TO FINISH GRADE.
 3. 3/4" S.S. RODS SHALL BE USED IN CONJUNCTION WITH REQUIRED S.S. NUTS. RODS ARE TO BE ATTACHED TO FITTINGS WITH EITHER STAR BOLTS OR DUC LUGS. 10" FITTING OR SMALLER = (2) 3/4" S.S. RODS & ASSOCIATED HARDWARE. 12" FITTING OR LARGER = (4) 3/4" S.S. RODS & ASSOCIATED HARDWARE.
 4. MIN 3x3x3 PRE CAST CONCRETE THRUST BLOCK MAY BE USED WITH PENNICHUCK WATER WORKS, INC. APPROVAL OR CONCRETE THRUST BLOCK POURED AGAINST UNDISTURBED EARTH - SIZE TO BE BASED ON SIZE OF FITTING AND PRESSURE IN WATER MAIN.

THRUST BLOCK BEHIND FITTINGS INSTALLATION (A-07) NOT TO SCALE (MARCH 2008)



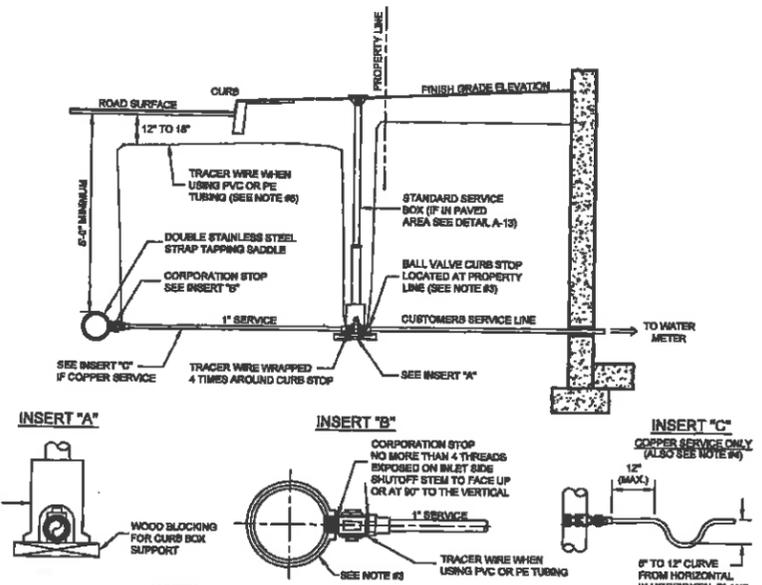
- NOTES:**
1. ALL MATERIALS AND INSTALLATION PROCEDURES WILL CONFORM TO PENNICHUCK WATER WORKS, INC. TECHNICAL SPECIFICATIONS.
 2. ALL PIPE SHOULD HAVE A MINIMUM DEPTH OF 5'-0" FROM TOP OF PIPE TO FINISH GRADE.

VALVE BOX DETAIL (A-08) NOT TO SCALE (MARCH 2008)



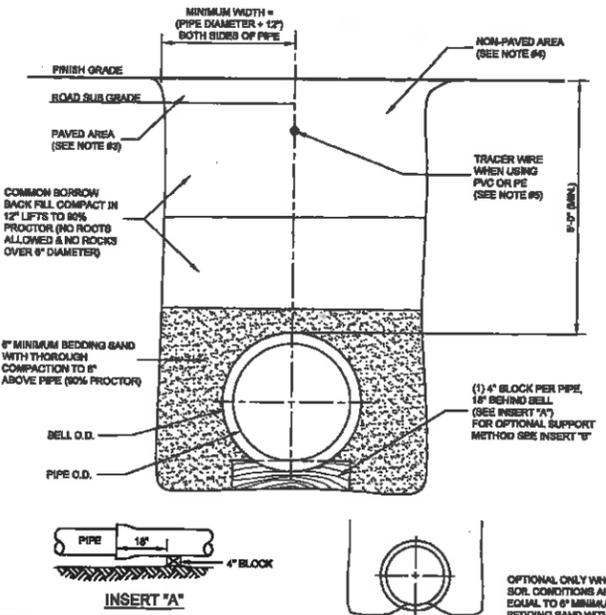
- NOTES:**
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 2. ALL PIPE SHOULD HAVE A MINIMUM DEPTH OF 5'-0" FROM TOP OF PIPE TO FINISH GRADE.

END OF MAIN INSTALLATION (A-08) NOT TO SCALE (MARCH 2008)



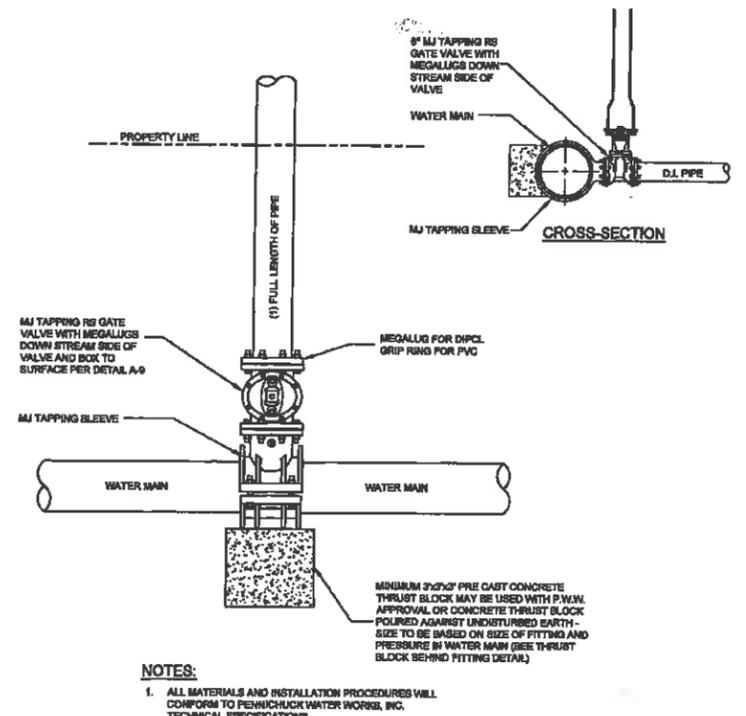
- NOTES:**
1. ALL MATERIALS AND INSTALLATION PROCEDURES WILL CONFORM TO PENNICHUCK WATER WORKS, INC. TECHNICAL SPECIFICATIONS.
 2. ALL PIPE SHOULD HAVE A MINIMUM DEPTH OF 5'-0" FROM TOP OF PIPE TO FINISH GRADE.
 3. IF WATER MAIN IS PVC OR TRANSITE, A DOUBLE STAINLESS STEEL STRAP TAPPING SADDLE MUST BE USED TO CONNECT THE CORPORATION TO THE WATER MAIN.
 4. IF WATER MAIN IS PVC OR TRANSITE, AND THE NEW WATER SERVICE IS COPPER THEN SEE DETAIL A-16.
 5. IF WATER MAIN IS A FIRE SERVICE, THEN SEE DETAIL A-2A.
 6. 10 GAUGE TRACER WIRE AS MANUFACTURED BY BMS, DIVISION OF ALBETAR CORP., AVON, MA OR EQUIVALENT.

1" SERVICE AND VALVE BOX INSTALLATION DETAIL (A-20) NOT TO SCALE (MARCH 2008)



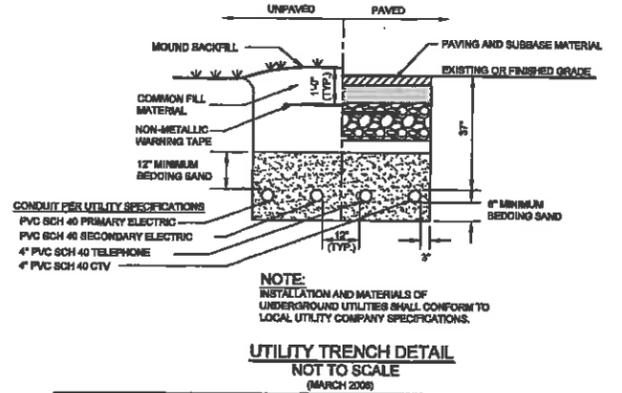
- NOTES:**
1. ALL MATERIALS AND INSTALLATION PROCEDURES WILL CONFORM TO PENNICHUCK WATER WORKS, INC. TECHNICAL SPECIFICATIONS.
 2. ALL PIPE SHOULD HAVE A MINIMUM DEPTH OF 5'-0" FROM TOP OF PIPE TO FINISH GRADE.
 3. REQUIREMENTS FOR SUBBASE AND BASE MATERIAL TYPE ARE TO BE IN ACCORDANCE WITH LOCAL AUTHORITY HAVING LOCAL JURISDICTION IN PAVED AREAS.
 4. REQUIREMENTS FOR GRAVEL, LOAM AND/OR SEED ARE TO BE IN ACCORDANCE WITH LOCAL AUTHORITY HAVING LOCAL JURISDICTION IN NON-PAVED AREAS.
 5. 10 GAUGE TRACER WIRE AS MANUFACTURED BY BMS, DIVISION OF ALBETAR CORP., AVON, MA OR EQUIVALENT.

TRENCH DETAIL (A-02) NOT TO SCALE (MARCH 2008)



- NOTES:**
1. ALL MATERIALS AND INSTALLATION PROCEDURES WILL CONFORM TO PENNICHUCK WATER WORKS, INC. TECHNICAL SPECIFICATIONS.
 2. ALL PIPE SHOULD HAVE A MINIMUM DEPTH OF 5'-0" FROM TOP OF PIPE TO FINISH GRADE.

LARGE SERVICE AND/OR TAPPING SLEEVE DETAIL (A-21) NOT TO SCALE (MARCH 2008)



- NOTE:** INSTALLATION AND MATERIALS OF UNDERGROUND UTILITIES SHALL CONFORM TO LOCAL UTILITY COMPANY SPECIFICATIONS.

UTILITY TRENCH DETAIL (MARCH 2008)

CONSTRUCTION DETAILS

AUTO BODY SHOP

MAP 128 LOTS 31, 32 & 84
 MAP 132 LOTS 38 & 84
 WEST GLENWOOD STREET
 NASHUA, NEW HAMPSHIRE
 HILLSBOROUGH COUNTY

OWNER/APPLICANT:
 ROSCOMMON INVESTMENTS, LLC
 147 DANIEL WEBSTER HIGHWAY
 NASHUA, NH 03080
 (603) 888-5050

KMA KEACH-NORDSTROM ASSOCIATES, INC.
 Civil Engineering Land Surveying Landscape Architecture
 10 Commerce Park North, Suite 202, Bedford, NH 03110 Phone (603) 687-8881

REVISIONS			
No.	DATE	DESCRIPTION	BY
1	7/29/20	AUTO STORAGE & MEZZANINE REVS	PCM
2	10/1/20	CITY ENGINEERING REVISIONS	PCM

DATE: JUNE 22, 2020 SCALE: AS SHOWN
 PROJECT NO: 17-1011-1 SHEET 20 OF 22

TURF ESTABLISHMENT SCHEDULE

PURPOSE:
TO ESTABLISH AND MAINTAIN PERMANENT AND TEMPORARY TURF AREAS, RESTORE GROWTH TO EXISTING TURF AREAS DISTURBED DURING CONSTRUCTION AND CONTROL SOIL EROSION.

PREPARATION AND EXECUTION:

1. RAISE THE SUBGRADE OF ALL AREAS TO BE LOAMED AND SEED TO REMOVE RUBBER, STICKS, ROOTS AND STONES LARGER THAN 1 INCH.
2. PLACE LOAM OVER AREAS TO BE SEED AND BROADCAST.
3. FINE GRADE SURFACE AND SUPPLEMENT WITH SUITABLE LOAM WHERE NEEDED TO CREATE A UNIFORM SURFACE ACCORDING TO THE FINISH GRADES INDICATED; TOP AND BOTTOM OF SLOPES SHALL BE ROUNDED. NO LOAM SHALL BE SPREAD IF THE SUBGRADE IS EXCESSIVELY WET OR FROZEN.
4. APPLY LIME EVENLY OVER LOAM SURFACE AND THOROUGHLY INCORPORATE LIME INTO THE LOAM BY HEAVY RAINING TO AT LEAST ONE-HALF THE DEPTH OF THE LOAM.
5. APPLY NO PHOSPHATE, SLOW RELEASE FERTILIZER AND MIX WITH THE UPPER 2 INCHES OF LOAM.
6. DETERMINE APPROPRIATE MIXTURE FOR AREA TO BE SEED BASED ON EXAMINATION OF PROJECT PLANS. UNIFORMLY SPREAD THE SEED BY BROADCASTING OR HYDROSEEDING. IF BROADCASTING, LIGHTLY RAKE INTO THE PREPARED SURFACE AND ROLL. IF HYDROSEEDING, USE 4 TIMES THE RECOMMENDED RATE OF INOCULANT. AFTER SEED IS SPREAD, WATER THOROUGHLY WITH A FINE SPRAY.
7. SEEDING FOR PERMANENT COVER SHALL OCCUR BETWEEN SEPTEMBER 15 AND OCTOBER 15 AND BETWEEN APRIL 15 AND JUNE 15. SEEDING SHALL NOT BE DONE DURING WINDY WEATHER, WHEN THE GROUND IS FROZEN OR EXCESSIVELY WET OR OTHERWISE UNUSABLE.
8. WITHIN 24 HOURS AFTER SEEDING OPERATION, UNIFORMLY MULCH THE AREA WITH STRAW. ANCHOR MULCH ON ALL SLOPES EXCEEDING 3:1 USING MULCH NETTING INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.
9. PROTECT AND PREVENT AGAINST WASHOUTS, ANY WASHOUTS WHICH OCCUR SHALL BE PROMPTLY REGRADED AND RESEED.
10. WHEN IT IS IMPRACTICAL TO ESTABLISH PERMANENT GROWTH ON DISTURBED EARTH BY OCTOBER 15, A TEMPORARY SEED MIXTURE SHALL BE USED. WHEN TEMPORARY SEEDING CANNOT ESTABLISH VISIBLE GROWTH, THE DISTURBED AREA SHALL BE COVERED WITH 600 INCHES OF MULCH FOR THE WINTER.

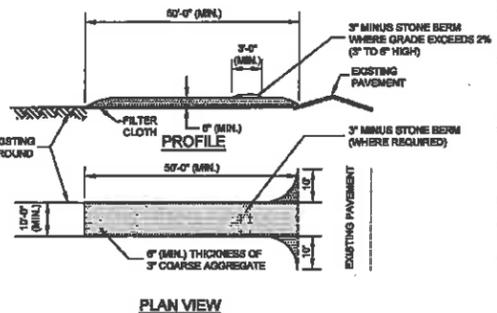
MAINTENANCE:
ALL SEEDING AREAS SHALL BE KEPT WATERED AND IN GOOD CONDITION. RESEED AS NECESSARY TO ESTABLISH HEALTHY UNIFORM GROWTH OVER THE ENTIRE SEEDING AREA. MAINTAIN SEEDING AREAS IN AN APPROVED CONDITION UNTIL FINAL ACCEPTANCE. MAINTENANCE SHALL INCLUDE REPAIRS FOR DAMAGE CAUSED BY EROSION.

APPLICATION RATES:

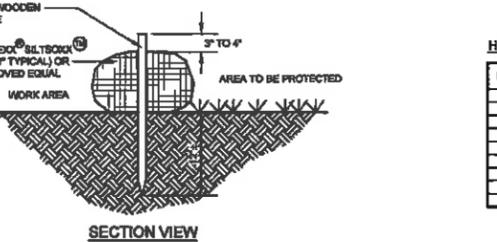
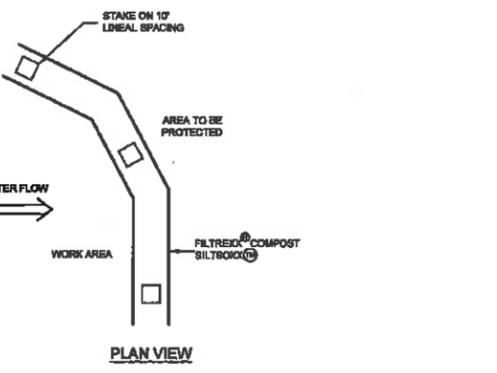
1. LOAM SHALL BE APPLIED AT A MINIMUM COMPACTED THICKNESS OF 4 INCHES.
2. LIME SHALL BE APPLIED AT A RATE OF 75 TO 100 POUNDS PER 1,000 S.F.
3. FERTILIZER SHALL BE APPLIED AT A RATE OF 30 POUNDS PER 1,000 S.F. IT IS RECOMMENDED THAT THE SOIL BE TESTED PRIOR TO APPLYING ANY FERTILIZERS TO DETERMINE WHAT LEVELS AND RATES ARE NECESSARY.
4. SEED MIXTURE FOR LAWN AREAS SHALL BE APPLIED AT A RATE OF AT LEAST 80 POUNDS PER ACRE OR 2 POUNDS PER 1,000 S.F.
5. TEMPORARY SEED MIXTURE SHALL BE APPLIED AT A RATE OF 2 POUNDS PER 1,000 S.F.
6. SEED MIXTURE FOR SLOPE AREAS SHALL BE APPLIED AT A RATE OF 80 POUNDS PER ACRE OR 2 POUNDS PER 1,000 S.F.
7. SEED MIXTURE FOR STORMWATER MANAGEMENT AREAS SHALL BE APPLIED AT A RATE OF 70 POUNDS PER ACRE OR 1.5 POUNDS PER 1,000 S.F.
8. MULCH SHALL BE APPLIED AT A RATE OF 30 POUNDS PER 1,000 S.F.

MATERIALS:

1. LOAM USED FOR TOPSOIL SHALL BE FRABLE, FERTILE, NATURAL FINE-DRAINING LOAM; FREE OF ROOTS, GRASS, STICKS, WEEDS, CLAY, SOD LUMPS, DEBRIS AND STONES LARGER THAN 1 INCH IN ANY DIMENSION. SOIL SHALL NOT BE EXCESSIVELY ACID OR ALKALINE AND CONTAIN NO TOXIC MATERIALS.
2. LIME SHALL BE GROUND LIMESTONE CONTAINING NO LESS THAN 95% CALCIUM AND MAGNESIUM CARBONATES.
3. FERTILIZER SHALL BE NO PHOSPHORUS, SLOW RELEASE.
4. SEED MIXTURE FOR LAWN AREAS SHALL BE 95% PURE LIVE SEED AND CONSIST OF THE FOLLOWING:
20% CREEPING RED FESCUE
25% KENTUCKY BLUEGRASS
25% REDTOP
25% PERENNIAL RYEGRASS
5. TEMPORARY SEEDING MIXTURE SHALL BE AN APPROVED CONSERVATION MIX OR CONSIST OF THE FOLLOWING:
15% BLACKWELL OR SHELTER SWITCHGRASS
15% NIAGARA OR HAW BIG BLUESTEM
30% CAMPER OR BLAZE SAND LOVEGRASS
15% WE-27 OR BLAZE SAND LOVEGRASS
10% WINGED BROODFOOT TREFOIL
INOCULUM SPECIFIC TO BROODFOOT TREFOIL MUST BE USED WITH THIS MIXTURE. IF SEEDING BY HAND, A STICKING AGENT SHALL BE USED. IF SEEDING WITH A HYDROSEEDER, USE FOUR TIMES THE RECOMMENDED AMOUNT OF INOCULUM.
6. SEED MIXTURE FOR SLOPE AREAS SHALL BE 95% PURE LIVE SEED AND SHALL CONSIST OF THE FOLLOWING:
30% CREEPING RED FESCUE
40% PERENNIAL RYE GRASS
15% REDTOP
15% BROODFOOT TREFOIL
*IN ADDITION TO THE MIX SPECIFIED ABOVE, CROWN VETCH SHALL BE USED ON ALL SLOPES STEEPER THAN 3:1. CROWN VETCH SHALL BE APPLIED AT A RATE OF 10 POUNDS PER ACRE AND INOCULUM SPECIFIC TO CROWN VETCH MUST BE USED.
7. SEED MIXTURE FOR STORMWATER MANAGEMENT AREAS, INCLUDING DETENTION BASINS AND VEGETATED TREATMENT SHALES SHALL CONSIST OF THE FOLLOWING:
25% CREEPING RED FESCUE
15% SWITCH GRASS
15% FOX SEDGE
15% CREEPING BENTGRASS
10% FLATPEA
20% WILDFLOWER VARIETY
8. STRAW USED FOR MULCH SHALL CONSIST OF MOWN AND PROPERLY CURED GRASS OR LEGUME MOWINGS, FREE FROM WEEDS, TWIGS, DEBRIS OR OTHER DELETERIOUS MATERIAL AND NOT OR MOLD.
9. NATIVE PLANTINGS SHOULD BE USED FOR ALL NEW GREENSCAPES.
10. ALL WILDFLOWER SEEDING MIXES SHOULD BE FREE OF INVASIVE SPECIES.



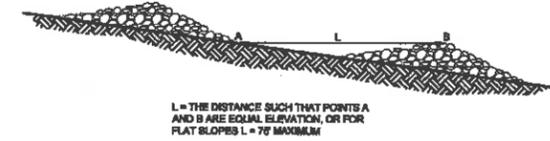
STABILIZED CONSTRUCTION EXIT DETAIL
NOT TO SCALE



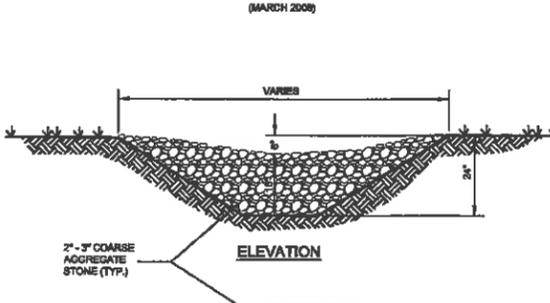
NOTES:

1. ALL MATERIAL TO MEET FILTREX® SPECIFICATIONS.
2. SILT SOX® COMPOST/ROCK/SEED FILL TO MEET APPLICATION REQUIREMENTS.
3. SILT SOX® DEFLECTED IS FOR MINIMUM SLOPES. GREAT SLOPES MAY REQUIRE LARGER SOCKS PER THE ENGINEER.
4. COMPOST MATERIAL TO BE DISPERSED ON SITE, AS DETERMINED BY ENGINEER.

FILTREX® SILT SOX® DETAIL
NOT TO SCALE
(AUGUST 2011)



STONE CHECK DAM SPACING DETAIL
NOT TO SCALE
(MARCH 2008)



STONE CHECK DAM DETAIL
NOT TO SCALE
(MARCH 2008)

SIEVE DESIGNATION	PERCENT BY WEIGHT PASSING SQUARE MESH SIEVES
12 INCH	100%
8 INCH	84 - 100%
3 INCH	88 - 95%
1 INCH	42 - 55%
NO. 4	8 - 12%

GRADATION OF STONE FOR LEVEL SPREADER BERM

MAINTENANCE REQUIREMENTS:

1. INSPECT AT LEAST ONCE ANNUALLY FOR ACCUMULATION OF SEDIMENT AND DEBRIS AND FOR SIGNS OF EROSION WITHIN APPROACH CHANNEL, SPREADER CHANNEL OR DOWN-SLOPE OF THE SPREADER.
2. REMOVE DEBRIS WHENEVER OBSERVED DURING INSPECTION.
3. REMOVE SEDIMENT WHEN ACCUMULATION EXCEEDS 25% OF SPREADER CHANNEL DEPTH.
4. NOW AS REQUIRED BY LANDSCAPE DESIGN. AT A MINIMUM, NOW ANNUALLY TO CONTROL WOODY VEGETATION WITHIN THE SPREADER.
5. SNOW SHOULD NOT BE STORED WITHIN OR DOWN-SLOPE OF THE LEVEL SPREADER OR ITS APPROACH CHANNEL.
6. REPAIR ANY EROSION AND RE-GRADE OR REPLACE STONE BERM MATERIAL, AS WARRANTED BY INSPECTION.
7. RECONSTRUCT THE SPREADER IF DOWN-SLOPE CHANNELIZATION INDICATES THAT THE SPREADER IS NOT LEVEL OR THAT DISCHARGE HAS BECOME CONCENTRATED, AND CORRECTIONS CANNOT BE MADE THROUGH MINOR RE-GRADEING.

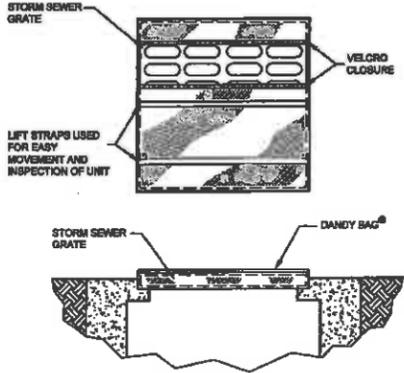
STONED BERMED LEVEL LIP SPREADER DETAIL
NOT TO SCALE
(APRIL 2010)

MAINTENANCE:

1. MUD AND SOIL PARTICLES WILL EVENTUALLY CLOG THE VOIDS IN THE CRUSHED STONE AND THE EFFECTIVENESS OF THE CRUSHED STONE PAD WILL NOT BE SATISFACTORY. WHEN THIS OCCURS, THE PAD SHOULD BE TOPDRESSED WITH NEW CRUSHED STONE OR COMPLETE REPLACEMENT OF THE PAD MAY BE NECESSARY WHEN THE PAD BECOMES COMPLETELY CLOGGED.
2. IF WASHING FACILITIES ARE USED, THE BEDMENT TRAPS SHOULD BE CLEANED OUT AS OFTEN AS NECESSARY TO ASSURE THAT ADEQUATE TRAPPING EFFICIENCY AND STORAGE VOLUME IS AVAILABLE. VEGETATIVE FILTER STRIPS SHOULD BE MAINTAINED TO INSURE A VIGOROUS STAND OF VEGETATION AT ALL TIMES.

CONSTRUCTION SPECIFICATIONS:

1. STONE FOR A STABILIZED CONSTRUCTION EXIT SHALL BE 1 TO 2 INCH STONE, RECLAIMED STONE OR RECYCLED CONCRETE EQUIVALENT.
2. THE LENGTH OF THE STABILIZED EXIT SHALL NOT BE LESS THAN 50 FEET, EXCEPT FOR A SINGLE RESIDENTIAL LOT WHERE A 30 FOOT MINIMUM LENGTH WOULD APPLY.
3. THE THICKNESS OF THE STONE FOR THE STABILIZED EXIT SHALL NOT BE LESS THAN 6 INCHES.
4. THE WIDTH OF THE EXIT SHALL NOT BE LESS THAN THE FULL WIDTH OF THE AREA WHERE INGRESS OR EGRESS OCCURS OR 10 FEET, WHICHEVER IS GREATER.
5. GEOTEXTILE FILTER CLOTH SHALL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING THE STONE. FILTER CLOTH IS NOT REQUIRED FOR A SINGLE FAMILY RESIDENTIAL LOT.
6. ALL SURFACE WATER THAT IS FLOWING TO OR DIVERTED TOWARD THE CONSTRUCTION EXIT SHALL BE PIPED BENEATH THE EXIT. IF PIPING IS IMPRACTICAL, A BERM WITH 3:1 SLOPES THAT CAN BE CROSSED BY VEHICLES MAY BE SUBSTITUTED FOR THE PIPE.
7. THE EXIT SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE TOPDRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, WASHED OR TRACKED ONTO PUBLIC RIGHT-OF-WAY MUST BE REMOVED PROMPTLY.
8. WHEELS SHALL BE CLEANED TO REMOVE MUD PRIOR TO ENTRANCE ONTO PUBLIC RIGHTS-OF-WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.

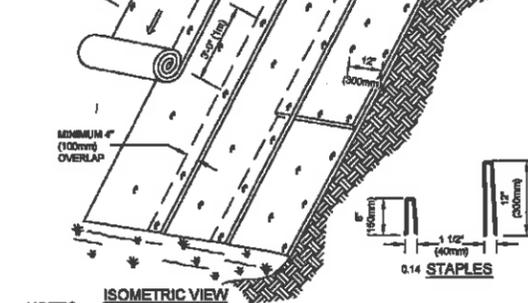


H-FLOW DANDY BAG® (SAFETY ORANGE)

MECHANICAL PROPERTIES	TEST METHOD	UNITS	MARY
GRAB TENSILE STRENGTH	ASTM D 4632	KN (lbs)	1.52 (335) ± 0.50 (200)
GRAB TENSILE ELONGATION	ASTM D 4632	%	24 ± 10
PUNCTURE STRENGTH	ASTM D 4683	KN (lbs)	0.40 (90)
MILLEN BURST STRENGTH	ASTM D 3786	KN (lbs)	3087 (499)
TRAPEZOID TEAR STRENGTH	ASTM D 4633	KN (lbs)	0.51 (115) ± 0.33 (75)
UV RESISTANCE	ASTM D 4328	%	80
APPARENT OPENING SIZE	ASTM D 4751	mm (US Std Sieve)	0.425 (10)
FLOW RATE	ASTM D 2491	liters/m ² (gallons/ft ²)	6007 (143)
PERMITTIVITY	ASTM D 4491	Sec ⁻¹	2.1



DANDY BAG®
NOT TO SCALE
(APRIL 2010)



EROSION CONTROL BLANKETS - SLOPE INSTALLATION
NOT TO SCALE
(AUGUST 2011)

CONSTRUCTION SEQUENCE

1. THE CONTRACTOR WILL ENSURE THAT NO MORE THAN 6 ACRES IS DISTURBED AT ANY ONE TIME.
2. FIRST CUT AND CLEAR TREES AND BRUSH ONLY WITHIN DESIGNATED LIMITS OF CLEARING AS NECESSARY TO FACILITATE PROPOSED CONSTRUCTION. ALL TREES, BRANCHES AND OTHER VEGETATIVE MATERIALS SHALL BE PROPERLY DISPOSED OF OFF SITE BY THE CONTRACTOR. THIS PROJECT IS MANAGED TO MEET THE REQUIREMENTS AND INTENT OF RSA 430:3 AND AGR 3800 RELATIVE TO INVASIVE SPECIES.
3. PRIOR TO COMMENCEMENT OF ANY EARTHMOVING OPERATIONS, ALL APPLICABLE TEMPORARY EROSION CONTROL MEASURES, INCLUDING SPECIFIED PERIMETER SILTATION FENCING AND STABILIZED CONSTRUCTION EXIT SHALL BE IN PLACE AS SHOWN ON THE PROJECT PLANS.
4. COMPLETE GROUNDING OPERATIONS. ALL STUMPS AND SIMILAR ORGANIC DEBRIS SHALL BE PROPERLY DISPOSED OF BY THE CONTRACTOR. NATIVE ORGANIC SOIL MATERIALS SUITABLE FOR USE AS STOCKPILES SHALL BE STOCKPILED WITHIN AREAS OUT OF THE WAY OF OTHER CONSTRUCTION ACTIVITIES AND DRAINAGE FLOW. STOCKPILES SHALL BE TEMPORARILY SEEDED WITH WINTER RYE AND BE SURROUNDED WITH STRAW BALES AND/OR FABRIC SILTATION FENCE IN ORDER TO PREVENT LOSS DUE TO EROSION.
5. BEGIN EARTHMOVING OPERATIONS, COMMENCING WITH WORK NEEDED TO BALANCE SITE AND FACILITATE BUILDING FOUNDATION AND DITCHES/WALLS/SHALES SHALL BE INSTALLED BEFORE ROUGH GRADING THE SITE.
6. TEMPORARY WATER DIVERSION (SWALES, BASINS, ETC.) MUST BE USED AS NECESSARY UNTIL SOILS ARE STABILIZED.
7. DETENTION BASINS/WALLS SHALL BE INSTALLED BEFORE ROUGH GRADING THE SITE.
8. TEMPORARY WATER DIVERSION (SWALES, BASINS, ETC.) MUST BE USED AS NECESSARY UNTIL SOILS ARE STABILIZED.
9. DETENTION BASINS/WALLS SHALL BE INSTALLED BEFORE ROUGH GRADING THE SITE.
10. DETENTION BASINS/WALLS SHALL BE INSTALLED BEFORE ROUGH GRADING THE SITE.
11. DETENTION BASINS/WALLS SHALL BE INSTALLED BEFORE ROUGH GRADING THE SITE.
12. DETENTION BASINS/WALLS SHALL BE INSTALLED BEFORE ROUGH GRADING THE SITE.
13. COMPLETE EXCAVATION/STABILIZATION GRADING ACTIVITIES. WHEN COMPLETE, IMMEDIATELY BEGIN TOPSOILING PROPOSED TURF AREAS USING STOCKPILED LOAM SUPPLEMENTED WITH BORROW LOAM, IF NECESSARY, TO LEAVE A THICKNESS OF 4 INCHES OF FRABLE LOAM.
14. FINE GRADE ALL FUTURE TURF AREAS AND HYDROSEED WITH THE SPECIFIED SEED MIXTURE IMMEDIATELY AFTER FINE GRADING IS COMPLETED. ALL AREAS SHALL BE STABILIZED WITHIN 72 HOURS OF ACHIEVING FINISH GRADE.
15. INSTALL THE BINDER COURSE OF PAVEMENT OVER ALL DESIGNATED AREAS.
16. CONTINUE TO MONITOR AND RECTIFY MINOR SITE AND SLOPE EROSION UNTIL ENTIRE SITE APPEARS TO BE COMPLETELY STABILIZED AND VEGETATED WITH A HEALTHY STAND OF TURF OR GROUND COVER. MAINTAIN SPECIFIED SILTATION/EROSION CONTROL MEASURES THROUGH ONE WINTER.
17. INSTALL THE SPECIFIED WEARING COURSE OF PAVEMENT OVER THE BINDER COURSE.
18. COMPLETE INSTALLATION OF LANDSCAPING, SIGNAGE AND OTHER SITE AMENITIES.

CERTIFICATE OF OCCUPANCY PHASING PLAN AGREEMENT:

1. THE FOLLOWING SITE IMPROVEMENTS ARE REQUIRED FOR INDIVIDUAL CERTIFICATES OF OCCUPANCY AS CONSTRUCTION PROGRESSES:
A. ROAD BASE COAT;
B. STOP SIGNS AND TEMPORARY STRIPING OF STOP BARS;
C. GRADING AND DRAINAGE;
D. LOAM AND SEED THAT SUPPORTS THE SUBJECT UNIT OF THE CERTIFICATE OF OCCUPANCY;
E. TEMPORARY STRIPING OF VISITOR PARKING; AND
F. UTILITIES.

EROSION CONTROL NOTES

1. EXPOSED EARTHWORK SHALL BE COVERED TO AN LIMITED AREA AS IS PRACTICAL AT ANY GIVEN TIME THROUGHOUT THE CONSTRUCTION SEQUENCE. AT NO TIME SHALL MORE THAN FIVE (5) ACRES OF SITE AREA BE IN AN UNSTABLE CONDITION UNLESS AN ENVIRONMENTAL MONITOR IS EMPLOYED THROUGHOUT THE DURATION OF CONSTRUCTION. NO OPEN AREA OF THE SITE SHALL BE LEFT IN AN UNSTABLE CONDITION FOR A PERIOD OF TIME EXCEEDING FORTY-FIVE (45) CALENDAR DAYS.
2. TEMPORARY EROSION CONTROL MEASURES SHALL BE INSTALLED IN STRICT ACCORDANCE WITH PROJECT PLANS. IN ADDITION, SIMILAR MEASURES SHALL BE INSTALLED WHERE AND WHEN THE FIELD OPERATION OF THE INDIVIDUAL SITE CONTRACTOR, MAY WARRANT. ALL TEMPORARY EROSION CONTROL MEASURES USED SHALL BE INSPECTED WEEKLY AND WITHIN 24 HOURS AFTER 0.25\"/>

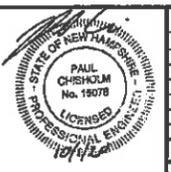
WINTER CONSTRUCTION NOTES:

1. ALL PROPOSED POST-DEVELOPMENT VEGETATED AREAS WHICH DO NOT EXHIBIT A MINIMUM OF 80% VEGETATIVE GROWTH BY OCTOBER 15TH OR WHICH ARE DISTURBED AFTER OCTOBER 15TH SHALL BE STABILIZED BY SEEDING AND INSTALLING EROSION CONTROL BLANKETS ON SLOPES GREATER THAN 4:1, AND SEEDING AND PLACING 3 TO 4 TONS OF MULCH PER ACRE. SECURED WITH ANCHORED NETTING, ELSEWHERE. THE PLACEMENT OF EROSION CONTROL BLANKETS OR MULCH AND NETTING SHALL NOT OCCUR OVER ACCUMULATED SNOW OR ON FROZEN GROUND AND SHALL BE COMPLETED IN ADVANCE OF THAW OR SPRING MELT EVENTS.
2. ALL DITCHES OR SWALES WHICH DO NOT EXHIBIT A MINIMUM OF 80% VEGETATIVE GROWTH BY OCTOBER 15TH OR WHICH ARE DISTURBED AFTER OCTOBER 15TH, SHALL BE STABILIZED WITH STONE OR EROSION CONTROL BLANKETS APPROPRIATE FOR THE DESIGN FLOW CONDITIONS.
3. AFTER OCTOBER 15TH, INCOMPLETE ROAD OR PARKING SURFACES SHALL BE PROTECTED WITH A MINIMUM OF 3 INCHES OF CRUSHED GRAVEL PER INCH OF ROAD OR PARKING SURFACE. IF CONSTRUCTION IS TO CONTINUE THROUGH THE WINTER SEASON, BE CLEANED OF ANY ACCUMULATED SNOW AFTER EACH STORM EVENT.
4. AN AREA SHALL BE CONSIDERED STABLE IF ONE OF THE FOLLOWING HAS OCCURRED:
A. BASE COURSE GRAVELS ARE INSTALLED IN AREAS TO BE PAVED;
B. A MINIMUM OF 80% VEGETATED GROWTH HAS BEEN ESTABLISHED;
C. A MINIMUM OF 3\"/>

CONSTRUCTION DETAILS
AUTO BODY SHOP
MAP 128 LOTS 31, 32 & 84
MAP 132 LOTS 38 & 84
WEST GLENWOOD STREET
NASHUA, NEW HAMPSHIRE
HILLSBOROUGH COUNTY

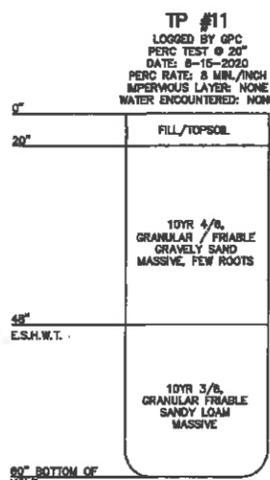
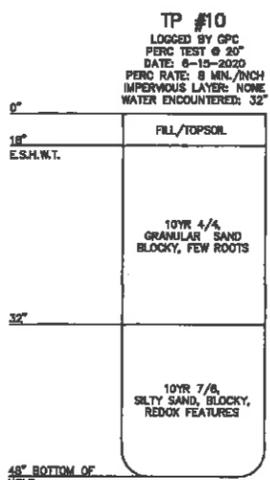
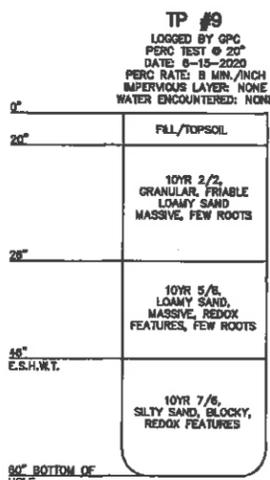
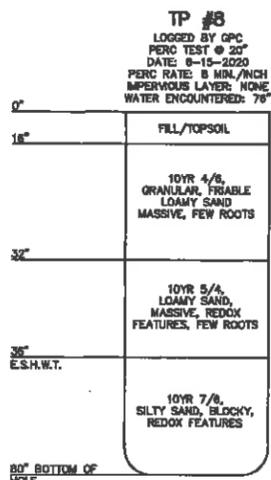
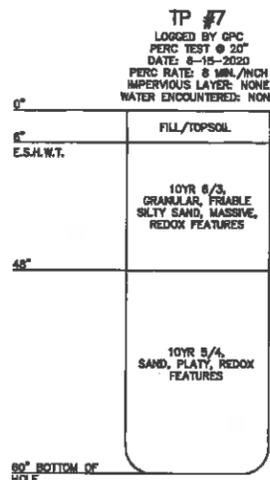
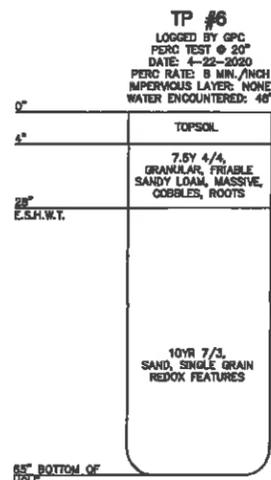
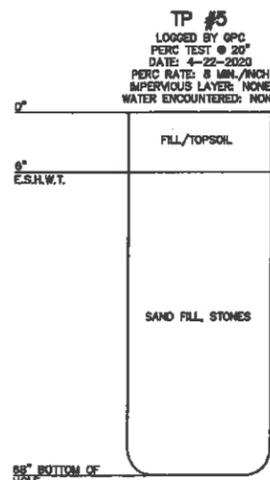
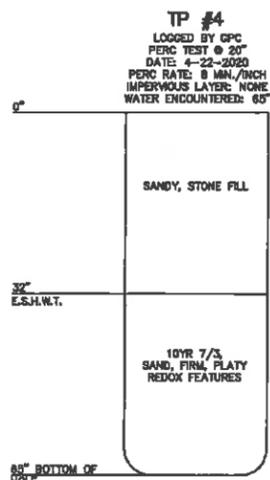
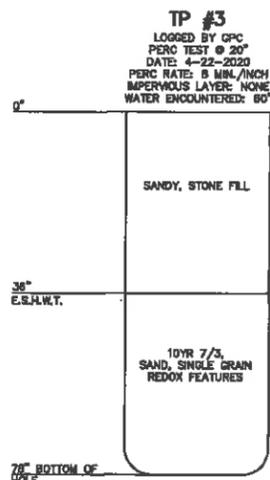
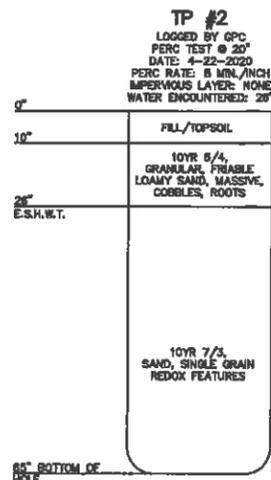
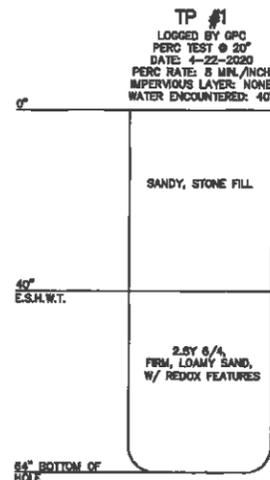
OWNER/APPLICANT:
ROSCOMMON INVESTMENTS, LLC
147 DANIEL WEBSTER HIGHWAY
NASHUA, NH 03080
(603) 888-5050

KMA KEACH-NORDSTROM ASSOCIATES, INC.
Civil Engineering Land Surveying Landscape Architecture
10 Commerce Park North, Suite 302, Bedford, NH 08110 Phone (603) 697-2891



REVISIONS			
No.	DATE	DESCRIPTION	BY
1	7/29/20	AUTO STORAGE & MEZZANINE REVS	PCM
2	10/1/20	QTY ENGINEERING REVISIONS	PCM

DATE: JUNE 22, 2020 SCALE: AS SHOWN
PROJECT NO: 17-1011-1 SHEET 21 OF 22



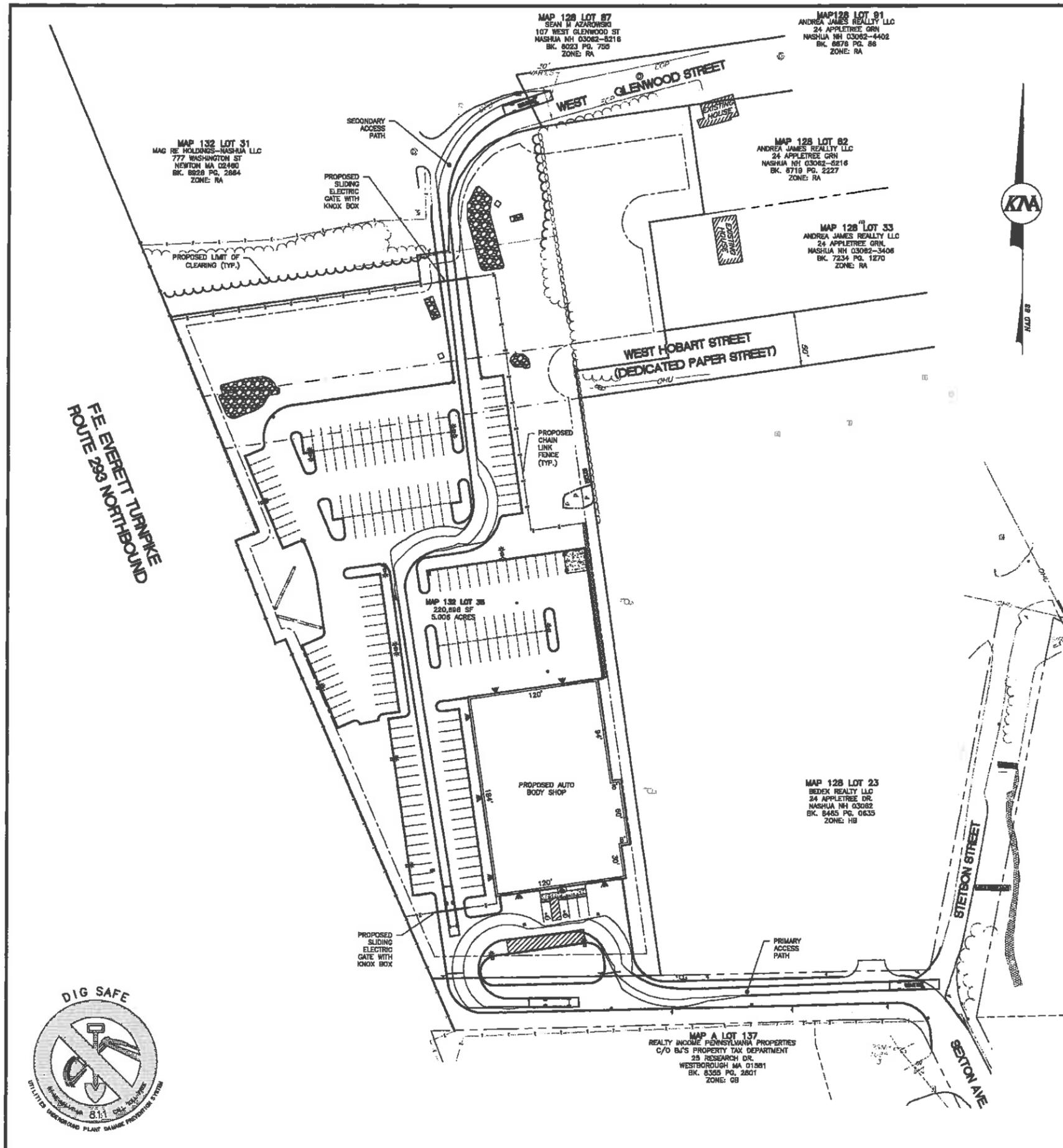
TEST PITS
AUTO BODY SHOP
 MAP 128 LOTS 31, 32 & 84
 MAP 132 LOTS 38 & 84
 WEST GLENWOOD STREET
 NASHUA, NEW HAMPSHIRE
 HILLSBOROUGH COUNTY

OWNER/APPLICANT:
 ROSCOMMON INVESTMENTS, LLC
 147 DANIEL WEBSTER HIGHWAY
 NASHUA, NH 03060
 (603) 888-8050

KMA
 KEACH-NORDSTROM ASSOCIATES, INC.
 Civil Engineering Land Surveying Landscape Architecture
 10 Commerce Park North, Suite 52, Bedford, NH 08110 Phone (603) 687-8881

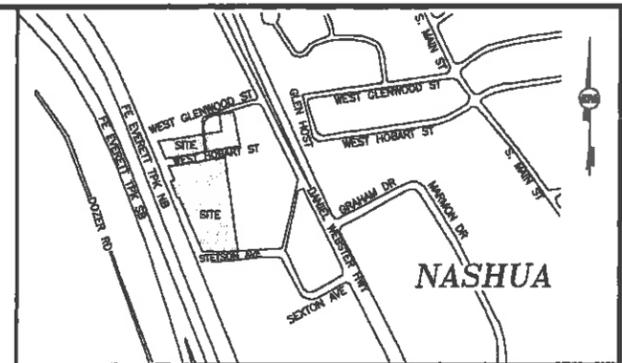
REVISIONS			
No.	DATE	DESCRIPTION	BY
1	7/28/20	AUTO STORAGE & MEZZANINE REVS	PCM
2	10/1/20	CITY ENGINEERING REVISIONS	PCM

DATE: JUNE 22, 2020 SCALE: AS SHOWN
 PROJECT NO: 17-1011-1 SHEET 22 OF 22



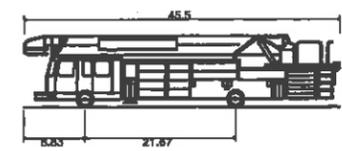
LEGEND

- SB-F STONE BOUND FOUND
- PIN-F IRON PIN FOUND
- UPP-F UTILITY POLE
- SIGN SIGN
- LIGHT LIGHT
- GAS VALVE GAS VALVE
- WATER VALVE WATER VALVE
- HYDRANT HYDRANT
- WATER SHUT OFF WATER SHUT OFF
- SEWER MANHOLE SEWER MANHOLE
- DRAINAGE MANHOLE DRAINAGE MANHOLE
- CATCH BASIN CATCH BASIN
- FLARED END SECTION FLARED END SECTION
- WELL WELL
- ABUTTER LINE ABUTTER LINE
- PROPERTY LINE PROPERTY LINE
- WETLAND WETLAND
- CHAIN LINK FENCE CHAIN LINK FENCE
- OVERHEAD UTILITIES OVERHEAD UTILITIES
- GAS LINE GAS LINE
- WATER LINE WATER LINE
- SEWER LINE SEWER LINE
- DRAINAGE LINE DRAINAGE LINE
- TREELINE TREELINE
- STONE WALL STONE WALL
- EDGE OF PAVEMENT EDGE OF PAVEMENT
- VERTICAL GRANITE CURB VERTICAL GRANITE CURB
- STONE WALL STONE WALL
- BUILDING SETBACK BUILDING SETBACK
- EASEMENT EASEMENT
- ZONE LINE ZONE LINE
- PROPOSED UTILITY POLE PROPOSED UTILITY POLE
- PROPOSED SIGN PROPOSED SIGN
- PROPOSED BUILDING MOUNTED LIGHT PROPOSED BUILDING MOUNTED LIGHT
- PROPOSED PARKING LOT LIGHT PROPOSED PARKING LOT LIGHT
- PROPOSED BACK TO BACK PARKING LOT LIGHT PROPOSED BACK TO BACK PARKING LOT LIGHT
- PROPOSED GAS VALVE PROPOSED GAS VALVE
- PROPOSED WATER VALVE PROPOSED WATER VALVE
- PROPOSED SEWER MANHOLE PROPOSED SEWER MANHOLE
- PROPOSED DRAINAGE MANHOLE PROPOSED DRAINAGE MANHOLE
- PROPOSED CATCH BASIN PROPOSED CATCH BASIN
- PROPOSED OUTLET STRUCTURE PROPOSED OUTLET STRUCTURE
- PROPOSED BITUMINOUS CURB PROPOSED BITUMINOUS CURB
- PROPOSED EDGE OF PAVEMENT PROPOSED EDGE OF PAVEMENT
- SNOW STORAGE SNOW STORAGE
- PROPOSED TREELINE PROPOSED TREELINE
- PROPOSED STORMWATER SYSTEM PROPOSED STORMWATER SYSTEM
- PROPOSED MODULAR BLOCK WALL PROPOSED MODULAR BLOCK WALL
- PROPOSED STOCKADE FENCE PROPOSED STOCKADE FENCE



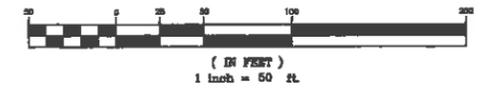
VICINITY PLAN
SCALE: 1" = 500' +/-

NOTES:
1. THE PURPOSE OF THIS PLAN IS TO SHOW THE PATH OF A TYPICAL NASHUA FIRE ENGINE TRAVERING THE SITE.



NASHUA FIRE ENGINE
 Overall Length 45.500ft
 Overall Width 8.670ft
 Overall Body Height 10.227ft
 Min Body Ground Clearance 0.657ft
 Track Width 6.830ft
 Lock-to-lock time 6.00s
 Max Wheel Angle 45.00°

GRAPHIC SCALE



FIRE TRUCK OVERLAY PLAN
AUTO BODY SHOP
 MAP 128 LOTS 31, 32 & 84
 MAP 132 LOTS 38 & 84
 WEST GLENWOOD STREET
 NASHUA, NEW HAMPSHIRE
 HILLSBOROUGH COUNTY

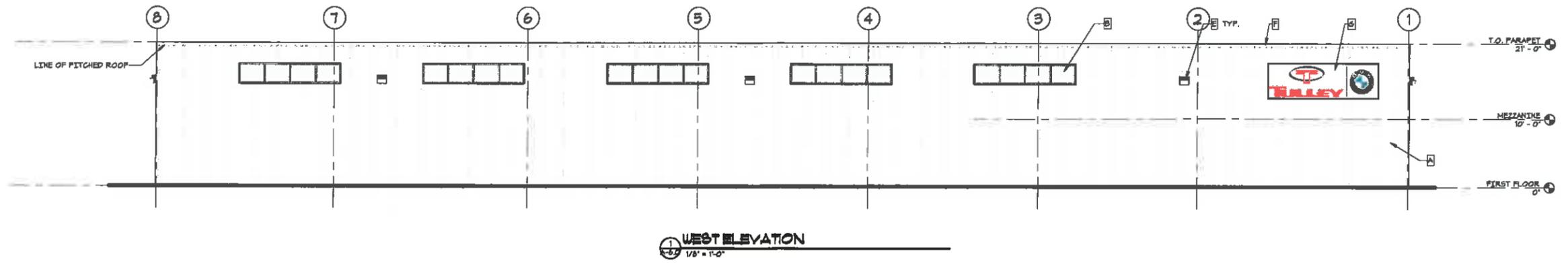
OWNER/APPLICANT:
 ROSCOMMON INVESTMENTS, LLC
 147 DANIEL WEBSTER HIGHWAY
 NASHUA, NH 03060
 (603) 888-5050

KM
 KEACH-NORDSTROM ASSOCIATES, INC.
 Civil Engineering Land Surveying Landscape Architecture
 10 Commerce Park North, Suite 3B, Bedford, NH 03110 Phone (603) 687-2881

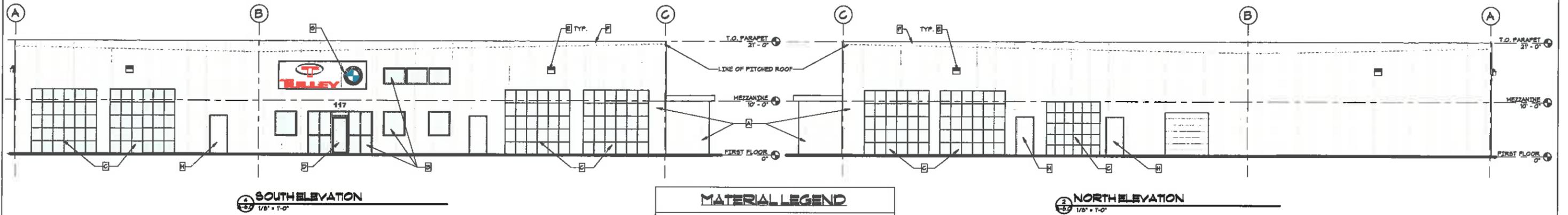
REVISIONS			
No.	DATE	DESCRIPTION	BY
1	9/30/20	UPDATED LAYOUT	PCM

DATE: JULY 7, 2020 SCALE: 1"=50'
 PROJECT NO: 17-1011-1 SHEET 1 OF 1





1 WEST ELEVATION
1/8" = 1'-0"

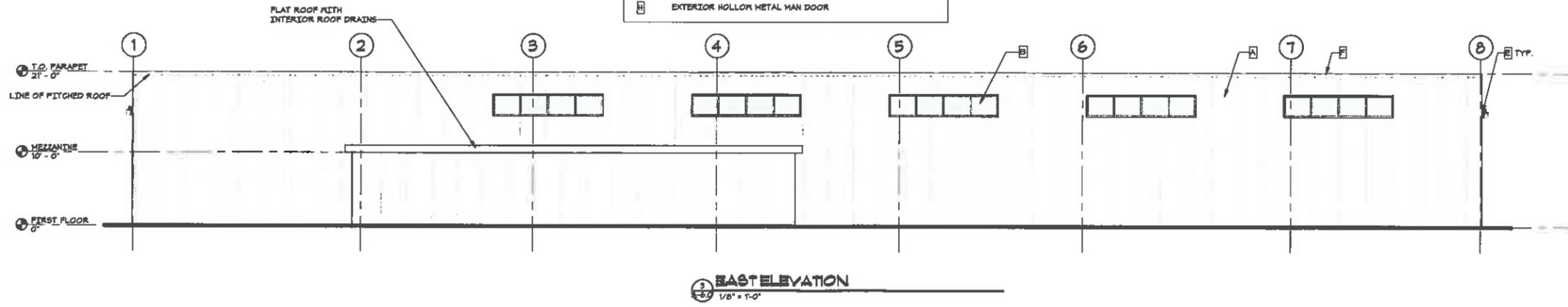


2 SOUTH ELEVATION
1/8" = 1'-0"

3 NORTH ELEVATION
1/8" = 1'-0"

MATERIAL LEGEND

- A 3" INSULATED METAL PANEL, 42" WIDE, BY METL SPAN (OR APPROVED EQUAL) COLOR TO MATCH RAL 9010 (WHITE)
- B FIXED ALUM. & GLASS STOREFRONT WINDOWS w/ INSULATED GLAZING AND THERMALLY BROKEN FRAMES (CLEAR ANODIZED)
- C FULL LITE OVERHEAD DOORS
- D EXTERIOR ALUM. & GLASS DOOR
- E EXTERIOR WALL PACKING LIGHTING (SEE CIVIL)
- F PRE-FINISHED ALUM. ROOF EDGE - COLOR TBD
- G EXTERIOR SIGNAGE, PROVIDE BLOCKING & ELECTRICAL FEED AS REQUIRED
- H EXTERIOR HOLLOW METAL MAN DOOR



4 EAST ELEVATION
1/8" = 1'-0"

EXTERIOR ELEVATIONS

TULLEY BODY SHOP

WEST GLENWOOD STREET
NASHUA, NH, 03060
1/29/20

ARCHITECTURE
LAND PLANNING
INTERIOR DESIGN
3D VISUALIZATION

833 TURNPIKE ROAD P.O. BOX 104
NEW IPSWICH, NEW HAMPSHIRE 03071



NASHUA CITY PLANNING BOARD
STAFF REPORT

TO: Nashua City Planning Board
FROM: Linda McGhee, Deputy Planning Manager
FOR: September 24, 2020
RE: **New Business #7- Site Plan**

I. Project Statistics:

Owner: Granite State Credit Union
Proposal: Amendment to NR2186 to show a proposed credit union
Location: 190 Broad Street
Total Site Area: 1.224 acres (53,333 sf)
Existing Zoning: GB-General Business
Surrounding Uses: Retail and medical

II. Background Information:

According to assessing records, this parcel has been home to medical offices since the 1960's. On November 16, 2014, the planning board approved a site plan to construct a 2-story 10,388 sf multi-tenant office. In 2015, 2016 and 2017 the board granted one year extensions; however that project never moved forward. Copies of the approval letters and staff reports are attached.

III. Project Description:

The proposal is to redevelop the existing two-story 6,400 sf building and construct a new two-story, 10,000 sf credit union building. Like the current site, there will be access from Coliseum Avenue to an upper driveway entry with four drive-through lanes and one bypass lane. The lower floor of the building will face the south and contain a parking lot, with access to Norwood Street. A one-way directional travel lane will connect the north drive-through lanes to the parking lot. A total of 37 parking spaces will service the proposed credit union. On-site drainage improvements include two subsurface stormwater recharge areas. Additionally, a number of other site improvements including curbing, sidewalks, landscaping and new site lighting are proposed.

A traffic memorandum dated July 9, 2020 from Stephen G. Pernaw, P.E., PTOE has been submitted for the proposed development. The Traffic Impact Report (TIR) Threshold Worksheet demonstrates a formal Traffic Impact Report is not required. A waiver request for architectural standards has been requested.

City Staff reviewed the plans; comments are attached.

Staff Recommendations and Findings:

The Planning Board should make a determination that the plan meets, or does not meet, the requirements outlined in the Site Plan NRO § 190-146(D). The Board should review these prior to making a motion. If the Planning Board chooses to disapprove the plan, specific reasons should be given. If the Planning Board chooses to approve this plan, staff recommends the following stipulations be made part of that approval:

1. The request for a waiver of § 190-172(D) (3) and (4), which requires façade colors and predominant exterior building materials, **is/is not** granted, finding that the waiver **will/will not** be contrary to the spirit and intent of the regulation.
2. Prior to the Chair signing the plan, minor drafting corrections will be made.
3. Prior to the Chair signing the plan, all comments in a letter Joe Mendola, Street Construction Engineer, dated _____ shall be addressed to the satisfaction of the Engineering Department.

3 Congress Street Nashua, NH 03063 (603) 883-2057
 131 Middlesex Turnpike Burlington, MA 01803 (781) 203-1501
 www.hayner-swanson.com

Hayner/Swanson, Inc.



MAP 'E', LOT 744
 SITE PLAN

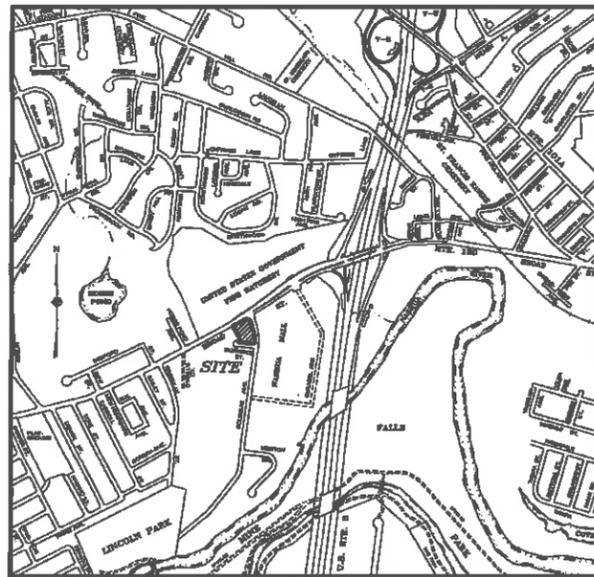
PROPOSED CREDIT UNION BUILDING

190 BROAD STREET
 NASHUA, NEW HAMPSHIRE

PREPARED FOR / RECORD OWNER

GRANITE STATE CREDIT UNION

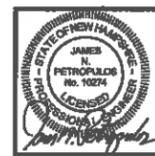
1415 ELM STREET
 MANCHESTER, NEW HAMPSHIRE 03108
 (603)-668-2221



VICINITY PLAN
 SCALE: 1"=200'

30 JULY 2020
 24 SEPTEMBER 2020

INDEX OF PLANS		
SHEET No.	TITLE	
1 OF 16	MASTER SITE PLAN	1"=30'
2 OF 16	EXISTING CONDITIONS PLAN	1"=20'
3 OF 16	SITE DEMOLITION PLAN	1"=20'
4 OF 16	SITE PLAN	1"=20'
5 OF 16	FIRE TRUCK TURNING ANALYSIS PLAN	1"=30'
6 OF 16	UTILITY PROFILES AND SMA DETAILS	H:1"=20' V:1"=4'
7-8 OF 16	DETAIL SHEET - GENERAL SITE	
9 OF 16	DETAIL SHEET - SEWER	
10 OF 16	DETAIL SHEET - WATER	
11 OF 16	EROSION CONTROL PLAN	1"=20'
12 OF 16	DETAIL SHEET - EROSION CONTROL	
13 OF 16	LANDSCAPE PLAN	1"=20'
14 OF 16	DETAIL SHEET - LANDSCAPE	
15 OF 16	PHOTOMETRIC LIGHTING PLAN	1"=20'
16 OF 16	LIGHTING SPECIFICATIONS	
BUILDING ELEVATIONS		



HSI Hayner/Swanson, Inc.

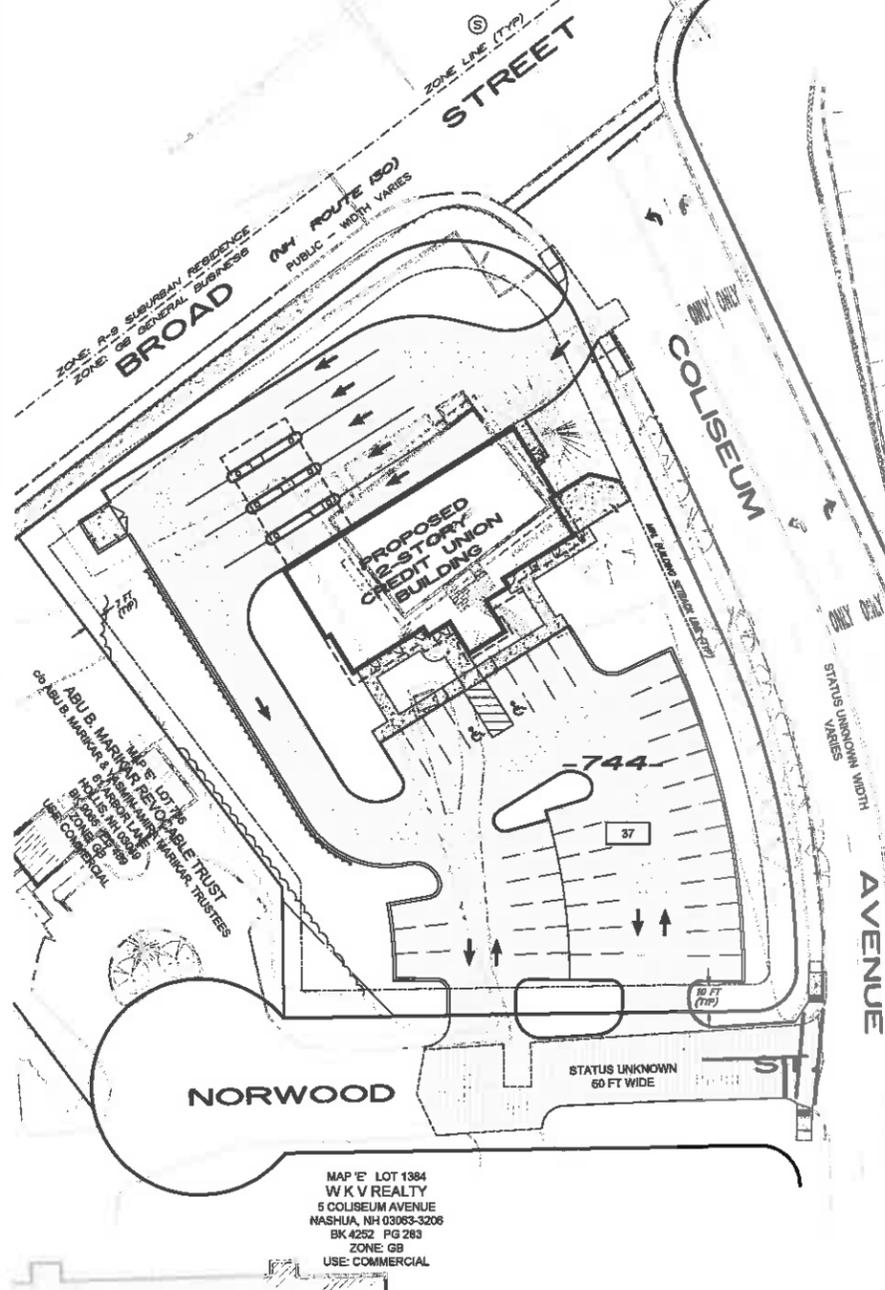
Civil Engineers/Land Surveyors
 3 Congress Street Nashua, NH 03062 (603) 883-2057
 131 Middlesex Turnpike Burlington, MA 01803 (781) 203-1501
 www.hayner-swanson.com



9.28.20



MAP 'E' LOT 42
 US FISH COMMISSION
 151 BROAD STREET
 NASHUA, NH 03063
 BK 1842 PG 287
 ZONE: R-9
 USE: HATCHERY



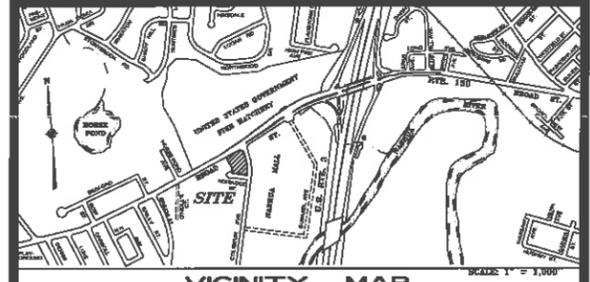
MAP 'E' LOT 2187
 VICKERRY REALTY CO
 o/a THE MEG COMPANIES
 25 ORCHARD DRIVE DRIVE
 LONDONDERRY, NH 03053
 ZONE: GB
 USE: RETAIL

MAP 'E' LOT 2188
 VICKERRY REALTY CO
 o/a THE MEG COMPANIES
 25 ORCHARD VIEW DRIVE
 LONDONDERRY, NH 03053
 ZONE: GB
 USE: RETAIL

MAP 'E' LOT 1384
 W K V REALTY
 5 COLISEUM AVENUE
 NASHUA, NH 03063-3206
 BK 4282 PG 283
 ZONE: GB
 USE: COMMERCIAL

NOTES - CONT'D:

14. ALL LIGHTING SHALL BE AS SHOWN ON THE PLANS, DIRECTED ONTO THE SITE AND CONFORM TO APPLICABLE CITY OF NASHUA LAND USE CODE REGULATIONS.
15. A PRE-CONSTRUCTION MEETING WITH THE CITY OF NASHUA PLANNING/ENGINEERING/FIRE OFFICIALS SHALL TAKE PLACE PRIOR TO ANY WORK BEING PERFORMED.
16. HOURS OF OPERATION:
 MONDAY - FRIDAY: 8:30 AM TO 5:00 PM
 SATURDAY: 8:30 AM TO 12:00 NOON
17. THE APPLICANT SHALL SUBMIT AN ELECTRONIC FILE OF THE SITE PLAN (PLOT) PRIOR TO ISSUANCE OF A BUILDING PERMIT.
18. PRIOR TO A BUILDING PERMIT BEING ISSUED, BONDING FOR ALL PUBLIC IMPROVEMENTS SHALL BE SUBMITTED TO AND APPROVED BY THE ENGINEERING DEPARTMENT AND CORPORATION COUNSEL.
19. PRIOR TO A BUILDING PERMIT BEING ISSUED, DOCUMENTS PERTAINING TO THE STORM WATER OPERATION AND MAINTENANCE PLAN SHALL BE RECORDED.
20. THE PARCEL IS NOT LOCATED IN A FLOOD HAZARD AREA AS DETERMINED FROM THE FLOOD INSURANCE STUDY (FIRM), HILLSBOROUGH COUNTY, CITY OF NASHUA, NEW HAMPSHIRE, COMMUNITY No. 33007, PREPARED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY, MAP NUMBER: 33011006130, DATED: SEPTEMBER 25, 2003.
21. ROOF DRAIN TIE-INS AND DRAIN LINES SHALL BE INSPECTED PRIOR TO BACKFILLING AND PAVING.
22. MECHANICAL APPURTENANCES, IF ANY, SHALL BE SCREENED AND FINISHED TO MATCH THE BUILDING EXTERIOR. MECHANICAL APPURTENANCES SHALL NOT EXCEED 90 DECIBELS BETWEEN 7 AM - 8 PM AND 45 DECIBELS AT NIGHT 8 PM - 7 AM ALONG RESIDENTIAL ZONING DISTRICTS.
23. THE DEVELOPER/BUILDER SHALL WORK WITH THE CITY OF NASHUA PLANNING STAFF TO OPTIMIZE SIGHT DISTANCE, WHICH MAY REQUIRE TREE REMOVAL, AT THE NORWOOD STREET/COLISEUM AVENUE INTERSECTION.
24. PRESENT OWNER OF RECORD:
 MAP 'E', LOT 744
 GRANITE STATE CREDIT UNION
 1415 ELM STREET
 MANCHESTER, NEW HAMPSHIRE 03101
 BK 9316, PG 185



PLAN REFERENCES:

1. RIVERSIDE PARK, NASHUA, NEW HAMPSHIRE, SCALE: 1"=50', DATED: AUGUST 1995. PREPARED BY: A.E. MAYNARD C.E. RECORDED: HCRD - PLAN No. 3193.
2. BOUNDARY PLAN OF LAND OF, CHANTAL VON OLDENBURG, NORWOOD STREET, SHT F -- LOT 730, NASHUA, NEW HAMPSHIRE, SCALE: 1"=20', DATED: 9 JUNE 1987, PREPARED BY: GEORGE F. KELLER ENGINEER. RECORDED: HCRD - PLAN No. 20757
3. NASHUA, NH BROAD STREET 1936 S.A.O., SCALE 1"=50', DATED JANUARY 1936 ON FILE AT THE CITY OF NASHUA PUBLIC WORKS DEPARTMENT, CITY ENGINEERS OFFICE.

NOTES:

1. SITE AREA: 1.224 ACRES (53,333 SF)
2. PRESENT ZONING: GB, GENERAL BUSINESS

MINIMUM LOT REQUIREMENTS	GB	LOT 744
- LOT AREA	10,000 SF	63,333 SF
- LOT FRONTAGE	50 FT	709 FT
- LOT WIDTH	50 FT	184.7 FT
- LOT DEPTH	76 FT	N/A FT

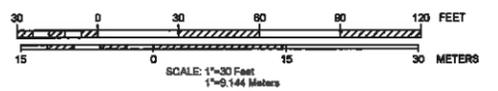
MINIMUM YARD SETBACKS	GB	LOT 744
- FRONT YARD	10 FT	33.9 FT
- SIDE YARD	7 FT	87.8 FT
- REAR YARD	10 FT	N/A FT
- MAX. BUILDING HEIGHT	80 FT	28 FT
- MAX. STORIES	8	2
- OPEN SPACE (%)	10%	37.5%
- F.A.R.	1.25	0.22

3. LOT NUMBERS REFER TO THE CITY OF NASHUA ASSESSORS MAP 'E'.
4. SITE IS SERVICED BY MUNICIPAL SEWER, WATER BY PENNICKOCK WATER WORKS AND UNDERGROUND TELEPHONE, ELECTRIC AND GAS UTILITIES.
5. PURPOSE OF PLAN: TO AMEND PLAN WNR-2186, TO SHOW PROPOSED 2-STORY 10,000 SF BANK BUILDING WITH DRIVE-THROUGH FACILITIES AND ACCOMPANYING SITE IMPROVEMENTS.
6. PARKING:
 REQUIRED (BANK):
 MINIMUM: 1 SPACE/500 SF ± 10,000 SF = 34 SPACES
 MAXIMUM: 1 SPACE/150 SF ± 10,000 SF = 67 SPACES
 PROVIDED: (INCLUDING 2 RESERVED SPACES) = 37 SPACES
7. THE SUBJECT PROPERTY WAS INSPECTED BY A CERTIFIED WETLAND SCIENTIST ON AUGUST 28, 2014 AT THE DATE OF THE INSPECTION, IT WAS DETERMINED THAT THERE ARE NO WETLANDS OR ASSOCIATED BUFFERS AFFECTING THE PROPERTY.
8. ALL LANDSCAPING SHALL BE AS SHOWN ON THE PLANS AND CONFORM TO THE APPLICABLE CITY OF NASHUA LAND USE CODE UNDER ARTICLE 8.XV.
9. ALL SIGNAGE SHALL CONFORM TO THE APPLICABLE CITY OF NASHUA REGULATIONS WITH ALL PERMITS SECURED PRIOR TO INSTALLATION.
10. SITE IMPROVEMENTS DEPICTED ON THE PLAN SHALL CONFORM WITH TITLE III OF THE AMERICANS WITH DISABILITIES ACT WITH REGARD TO DIMENSION, GRADE AND NUMBER OF PARKING SPACES.
11. IT SHALL BE UNLAWFUL TO MODIFY, CHANGE, OR ALTER ANY STRUCTURE SHOWN ON THIS SITE PLAN IN ANYWAY WHATSOEVER, OR CONVERT OR ALTER ANY STRUCTURE SHOWN ON THIS SITE PLAN, OR CHANGE THE ABOVE USE INDICATED ON THE PLAN WITHOUT RECEIVING APPROVAL FROM THE CITY.
12. PUBLIC STREET RESTORATION WORK SHALL BE IN ACCORDANCE WITH N.R.O. SECTION 285-13, LATEST EDITION.
13. FUTURE BUILDING CONSTRUCTION SHALL INCORPORATE FOUNDATION DRAINAGE SYSTEMS, EXCEPT WHERE AN INVESTIGATION ESTABLISHES THAT SPECIFIC BUILDING SITES ARE LOCATED IN WELL-DRAINED SOILS AND THAT SUCH SYSTEMS ARE NOT REQUIRED.

No.	DATE	REVISION	BY
1	06/24/20	ADDRESS TECHNICAL REVIEW COMMITTEE COMMENTS	6JA

MASTER SITE PLAN
 (LOT 744, MAP 'E')
PROPOSED CREDIT UNION BUILDING
 190 BROAD STREET
 NASHUA, NEW HAMPSHIRE

PREPARED FOR/RECORD OWNER
GRANITE STATE CREDIT UNION
 1415 ELM STREET MANCHESTER, NEW HAMPSHIRE 03108 (603) 668-2221



30 JULY 2020

HISJ Hayner/Swanson, Inc.
 Civil Engineer/Lead Surveyor
 3 Congress Street
 Nashua, NH 03063
 (603) 883-2037
 237 Middlesex Turnpike
 Burlington, MA 01803
 (781) 203-1501
 www.hayner-swanson.com



APPROVED
 NASHUA CITY PLANNING BOARD

CHAIRMAN _____ DATE _____

*** ZONING NOTE ***
 THE ZONING/BUILDING SETBACKS DEPICTED ON THIS PLAN ARE THOSE WE HAVE INTERPRETED FROM THE LATEST ZONING ORDINANCE OF THE MUNICIPALITY AND, AS SUCH, ARE ONLY OPIONS EXPRESSED BY HAYNER/SWANSON, INC. THE FINAL INTERPRETATION OF THE ORDINANCE CAN ONLY BE MADE BY THE APPROPRIATE ZONING AUTHORITY. SINCE BUILDING ORIENTATION, PROPOSED USES, AND OTHER FACTORS CAN AFFECT THE SETBACKS, PRIOR TO ANY DEVELOPMENT OF THIS PROPERTY, THE BUILDER/OWNER MUST CONSULT WITH THE TOWN/CITY TO INSURE THE CORRECT APPLICATION OF THE ZONING ORDINANCE.

THE UNDERSIGNED DOES HEREBY AGREE TO PERFORM ALL OF THE SITE IMPROVEMENTS AS SHOWN ON THIS PLAN AND AS CONDITIONED OR STIPULATED BY THE NASHUA CITY PLANNING BOARD. ALL REQUIRED SITE IMPROVEMENTS MUST BE COMPLETED OR GUARANTEED PRIOR TO THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY.

[Signature] 7-13-2020
 FOR GRANITE STATE CREDIT UNION DATE



CERTIFICATION

I HEREBY CERTIFY, TO MY KNOWLEDGE, INFORMATION AND BELIEF, THAT THIS PLAN SHOWS THE RESULTS OF AN ON THE GROUND "STANDARD PROPERTY SURVEY" AND THAT SAID SURVEY MEETS THE MINIMUM PRECISION AND/OR ACCURACY MEASUREMENTS FOR SURVEY CLASSIFICATION "U" (URBAN) AS SET FORTH IN TABLE 500.1 OF THE NEW HAMPSHIRE CODE OF ADMINISTRATIVE RULES OF THE BOARD OF LICENSURE FOR LAND SURVEYORS ADOPTED 08/23/01, EFFECTIVE 01/01/08.

I FURTHER CERTIFY THAT THIS PLAN IS THE RESULT OF AN ACTUAL FIELD SURVEY MADE ON THE GROUND AND HAS A MAXIMUM ERROR OF CLOSURE OF ONE PART IN FIFTEEN THOUSAND ON ALL PROPERTY LINES WITHIN AND BORDERING THE SUBJECT PROPERTY.

DATE 9-28-20



ZONING NOTE

THE ZONING/BUILDING RETRACKS DEPICTED ON THIS PLAN ARE THOSE WE HAVE INFERRED FROM THE LATEST ZONING ORDINANCE OF THE MUNICIPALITY AND, AS SUCH, ARE ONLY OPINIONS EXPRESSED BY HAYNER/SWANSON, INC. THE FINAL INTERPRETATION OF THE ORDINANCE CAN ONLY BE MADE BY THE APPROPRIATE ZONING AUTHORITY. SINCE BUILDING ORIENTATION, PROPOSED USES, AND OTHER FACTORS CAN AFFECT THE OUTCOME, PRIOR TO ANY DEVELOPMENT OF THIS PROPERTY, THE BUILDER/OWNER MUST CONSULT WITH THE TOWN/CITY TO ENSURE THE CORRECT APPLICATION OF THE ZONING ORDINANCE.

UTILITY NOTE

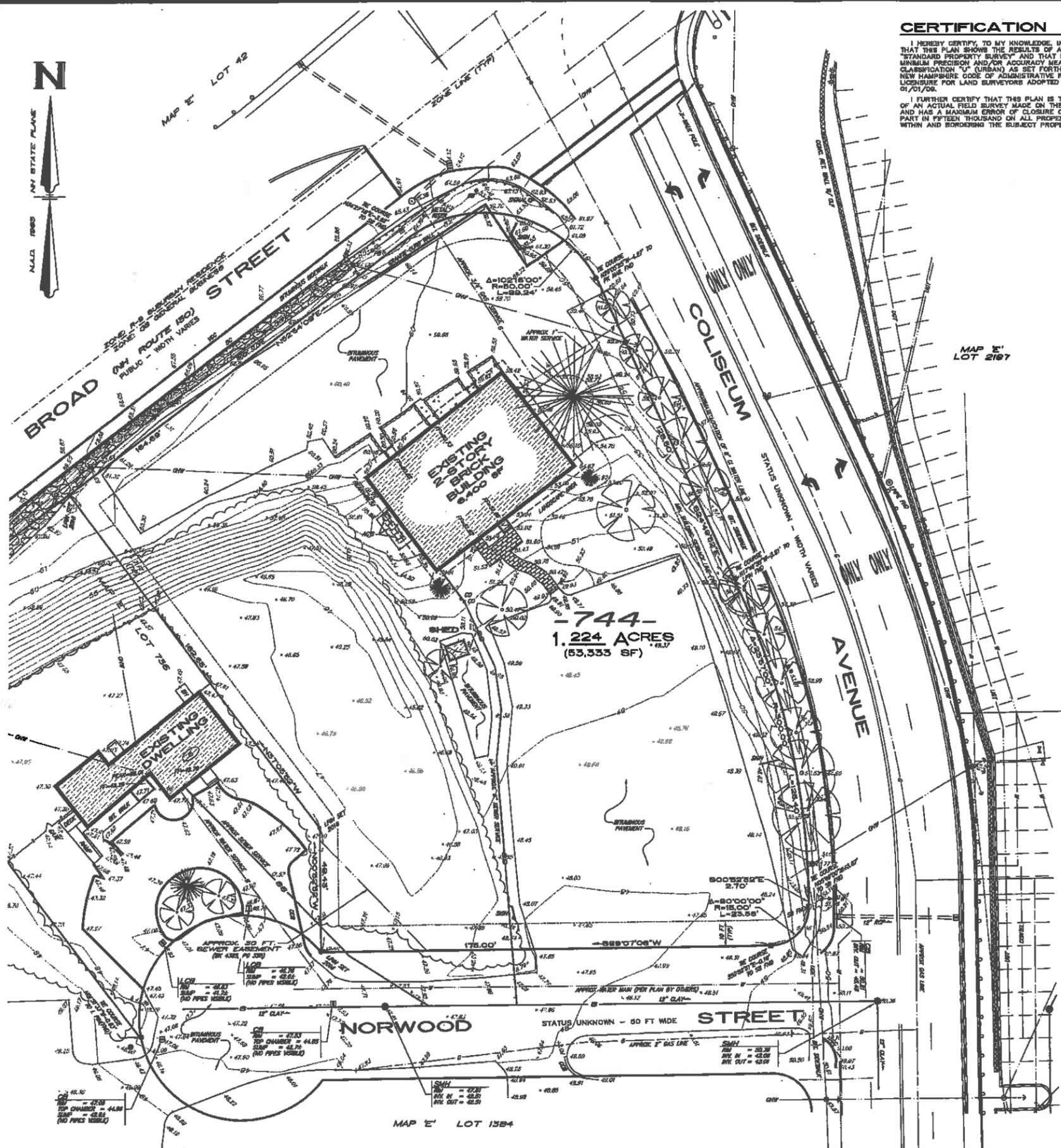
THE UNDERGROUND UTILITIES DEPICTED HEREON HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND PLOTTED FROM EXISTING DRAWINGS. THE SURVEYOR MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES DEPICTED CORRESPOND TO ALL SUCH UTILITIES IN THE AREA, EITHER IN KIND OR IN LOCATION. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM THE INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNRECORDED PORTIONS OF THE UTILITIES.

GENERAL NOTES:

1. THE EXISTING TOPOGRAPHY, AS SHOWN ON THE PLANS, IS BASED ON AN ACTUAL FIELD SURVEY MADE ON THE GROUND IN AUGUST 2014.
2. THE NASHUA CITY DATUM HAS BEEN USED ON THIS PROJECT. (NASHUA CITY DATUM TO NGVD 1929 DATUM = + 90.47).
3. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE ACCURACY OF THE EXISTING TOPOGRAPHY PRIOR TO EARTHWORK OPERATIONS. NO CLAIM FOR EXTRA WORK DUE TO TOPOGRAPHIC INACCURACY SHALL BE CONSIDERED AFTER EARTHWORK HAS COMMENCED.
4. THE CONTRACTOR SHALL ONLY USE BENCHMARKS AS PROVIDED BY THE ENGINEER.
5. MAP E, LOT 744 IS SUBJECT TO THE RESTRICTIONS CONTAINED IN THE DEED FROM F.N.M., INC. RECORDED AT BOOK 2588, PAGE 62 AS AMENDED BY THE LIMITED WARRANTY OF VICKERY REALTY CO. TRUST RECORDED AT BOOK 8316, PAGE 173 AND THE CONSENT AND WAIVER OF TD BANK, NA AS RECORDED AT BOOK 8316 PAGE 176

LEGEND

- 100 — EXISTING GROUND CONTOUR
- +50.5 EXISTING SPOT ELEVATION
- 100.5 — PROPOSED GRADE
- +100.5 PROPOSED SPOT GRADE
- S — STORM DRAIN & CATCH BASIN
- S — STORM DRAIN & MANHOLE
- S — SANITARY SEWER & MANHOLE
- W — WATER MAIN & HYDRANT
- W — WATER MAIN & GATE VALVE
- G — GAS LINE & GATE VALVE
- U — UTILITY POLE WITH GUY SUPPORT
- S — STREET LIGHT
- O — OVERHEAD ELECTRIC & TELEPHONE
- U — UNDERGROUND ELEC./TEL. & MANHOLES
- S — SIGN
- T — TREE LINE
- S — STONE BOUND
- I — IRON PIN
- S — BUILDING SETBACK LINE
- C — CHAINLINK FENCE
- C — CAPE COD BERM
- V — VERTICAL GRANITE CURBING
- S — SLOPE GRANITE CURBING
- S — STORMWATER RUNOFF DIRECTION
- H — HANDICAP PARKING SPACE
- H — HANDICAP SIDEWALK RAMP
- P — PARKING SPACE COUNT
- G — GUARD RAIL
- S — PAVEMENT SAWCUT
- C — CONCRETE
- P — PROPOSED FULL-DEPTH PAVEMENT
- P — PROPOSED MILL/FILL PAVEMENT
- S — RIPRAP / STONE
- S — RETAINING WALL
- T — CONIFEROUS TREE
- D — DECIDUOUS TREE
- S — STREET ADDRESS



No.	DATE	ADDRESS TECHNICAL REVIEW COMMENTS	BY
1	09/28/20		BJA

EXISTING CONDITIONS PLAN
(LOT 744, MAP "E")
PROPOSED CREDIT UNION BUILDING
150 BROAD STREET
NASHUA, NEW HAMPSHIRE

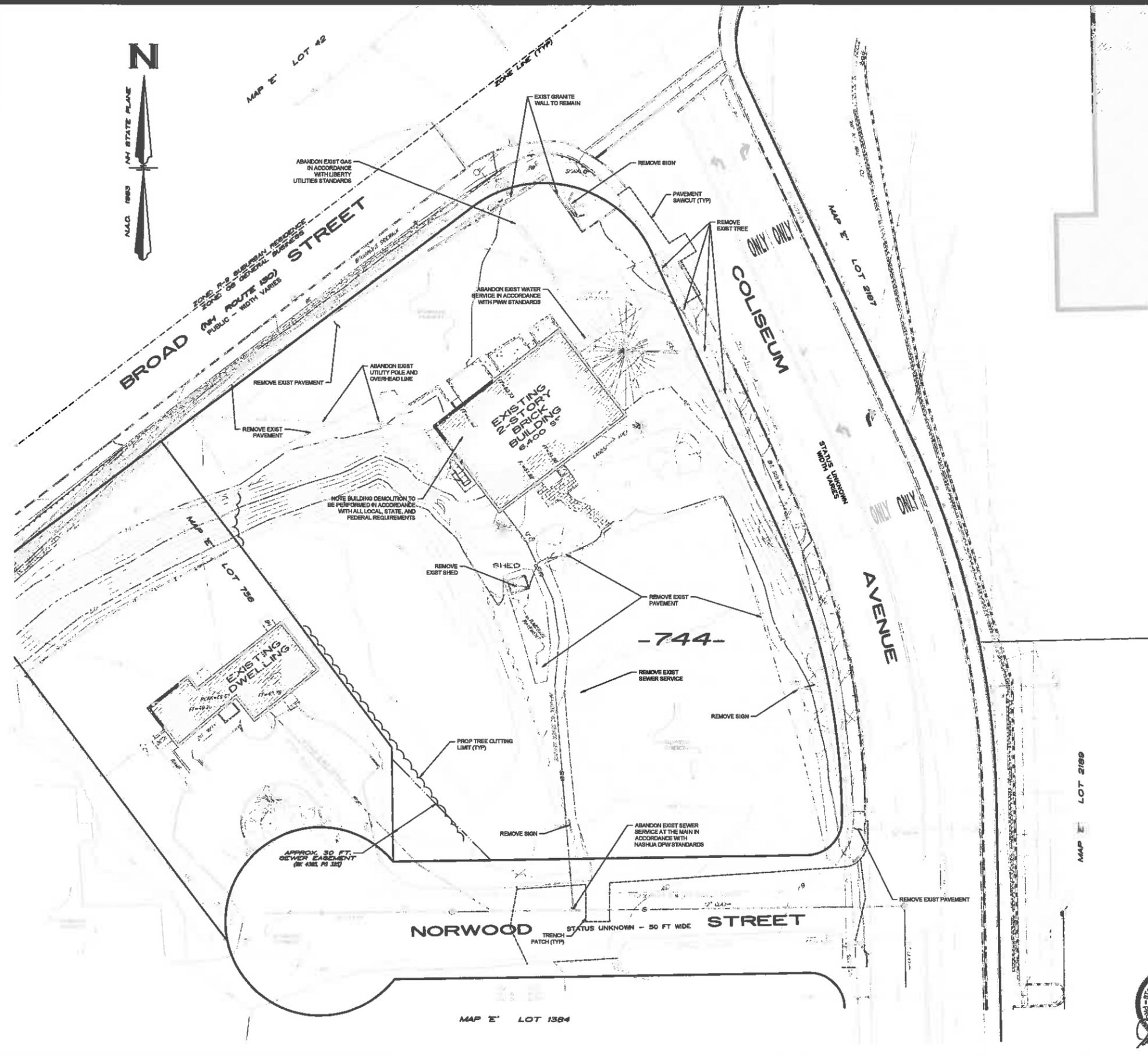
PREPARED FOR/RECORD OWNER
GRANITE STATE CREDIT UNION
1415 ELM STREET MANCHESTER, NEW HAMPSHIRE 03108 (603) 866-2221

SCALE: 1"=20 Feet
1"=6.096 Meters

30 JULY 2020

HSI Hayner/Swanson, Inc.
Civil Engineer/Lead Surveyor
3 Congress Street
Nashua, NH 03003
(603) 883-9057
www.haynerswanson.com

FIELD BOOK: — DRAWING NAME: 2202CU E221 5292 2 OF 16
DRAWING LOG: D:\2202\2202.CAD, DWG



SITE DEMOLITION NOTES:

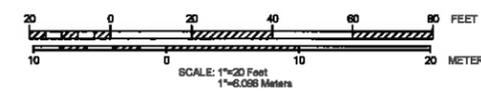
1. THE CONTRACTOR IS RESPONSIBLE FOR THE DEMOLITION, REMOVAL, AND DISPOSING IN A LOCATION APPROVED BY ALL GOVERNING AUTHORITIES, OF ALL STRUCTURES, PADS, WALLS, FLUMES, FOUNDATIONS, PARKING, DRIVES, DRAINAGE, STRUCTURES, UTILITIES, ETC., SUCH THAT THE IMPROVEMENTS SHOWN ON THE REMAINING PLANS CAN BE CONSTRUCTED. ALL FACILITIES TO BE REMOVED SHALL BE UNDERCUT TO SUITABLE MATERIAL AND BROUGHT TO GRADE WITH SUITABLE COMPACTED FILL MATERIAL PER THE GEOTECHNICAL SPECIFICATIONS.
2. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING ALL DEBRIS FROM THE SITE AND DISPOSING THE DEBRIS IN A LAWFUL MANNER. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMITS REQUIRED FOR DEMOLITION AND DISPOSAL.
3. THE CONTRACTOR SHALL COORDINATE WITH RESPECTIVE UTILITY COMPANIES PRIOR TO THE REMOVAL AND/OR RELOCATION OF UTILITIES. THE CONTRACTOR SHALL COORDINATE WITH THE UTILITY COMPANY CONCERNING PORTIONS OF WORK WHICH MAY BE PERFORMED BY THE UTILITY COMPANY'S FORCES AND ANY FEES WHICH ARE TO BE PAID TO THE UTILITY COMPANY FOR THEIR SERVICES. THE CONTRACTOR IS RESPONSIBLE FOR PAYING ALL FEES AND CHARGES.
4. THE LOCATIONS OF ALL EXISTING UTILITIES SHOWN ON THIS PLAN HAVE BEEN DETERMINED FROM THE BEST INFORMATION AVAILABLE AND ARE GIVEN FOR THE CONVENIENCE OF THE CONTRACTOR. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THEIR ACCURACY. PRIOR TO THE START OF ANY DEMOLITION ACTIVITY, THE CONTRACTOR SHALL NOTIFY THE UTILITY COMPANIES FOR ON SITE LOCATIONS OF EXISTING UTILITIES.
5. ALL EXISTING SEWERS, PIPING AND UTILITIES SHOWN ARE NOT TO BE INTERPRETED AS THE EXACT LOCATION OR AS THE ONLY OBSTACLES THAT MAY OCCUR ON THE SITE. VERIFY EXISTING CONDITIONS AND PROCEED WITH CAUTION AROUND ANY ANTICIPATED FEATURES. GIVE NOTICE TO ALL UTILITY COMPANIES REGARDING DESTRUCTION AND REMOVAL OF ALL SERVICE LINES AND CAP ALL LINES BEFORE PROCEEDING WITH THE WORK.
6. ELECTRICAL, TELEPHONE, CABLE, WATER, FIBER OPTIC CABLE AND/OR GAS LINES NEEDING TO BE REMOVED OR RELOCATED SHALL BE COORDINATED WITH THE AFFECTED UTILITY COMPANY. ADEQUATE TIME SHALL BE PROVIDED FOR RELOCATION AND CLOSE COORDINATION WITH THE UTILITY COMPANY IS NECESSARY TO PROVIDE A SMOOTH TRANSITION IN UTILITY SERVICE. CONTRACTOR SHALL PAY CLOSE ATTENTION TO EXISTING UTILITIES WITHIN THE ANY ROAD RIGHT OF WAY DURING CONSTRUCTION.
7. DURING ANY WORK ON CITY OF NASHUA SEWER OR DRAINAGE, CONTRACTOR SHALL ENSURE NO DEBRIS ENTERS THE CITY SYSTEM.
8. FOR ALL WORK ON COUSELUM AVENUE, A TRAFFIC CONTROL PLAN WILL BE SUBMITTED TO THE NASHUA ENGINEERING DEPARTMENT FOR REVIEW AT LEAST 14 CALENDAR DAYS PRIOR TO A PRE-CONSTRUCTION MEETING. THIS TRAFFIC CONTROL PLAN WILL INCLUDE PEDESTRIAN ACCOMMODATIONS.
9. ACCESS TO BUSINESSES ON NORWOOD STREET WILL BE MAINTAINED. THIS MAY REQUIRE WORK TO BE PERFORMED AT NIGHT OR ON WEEKENDS.
10. THERE WILL BE NO STAGING OF EQUIPMENT OR SUPPLIES NOR PARKING OF CONSTRUCTION VEHICLES ON NORWOOD STREET.
11. CONTRACTOR TO OBTAIN A STREET OPENING PERMIT PRIOR TO WORK IN THE RIGHT OF WAY.



NO.	DATE	REVISION	BY
1	08/24/20	ADDRESS TECHNICAL REVIEW COMMITTEE COMMENTS	SJA

SITE DEMOLITION PLAN
 (LOT 744, MAP 'E')
PROPOSED CREDIT UNION BUILDING
 190 BROAD STREET
 NASHUA, NEW HAMPSHIRE

PREPARED FOR/RECORD OWNER
GRANITE STATE CREDIT UNION
 1415 ELM STREET MANCHESTER, NEW HAMPSHIRE 03108 (603) 668-2221

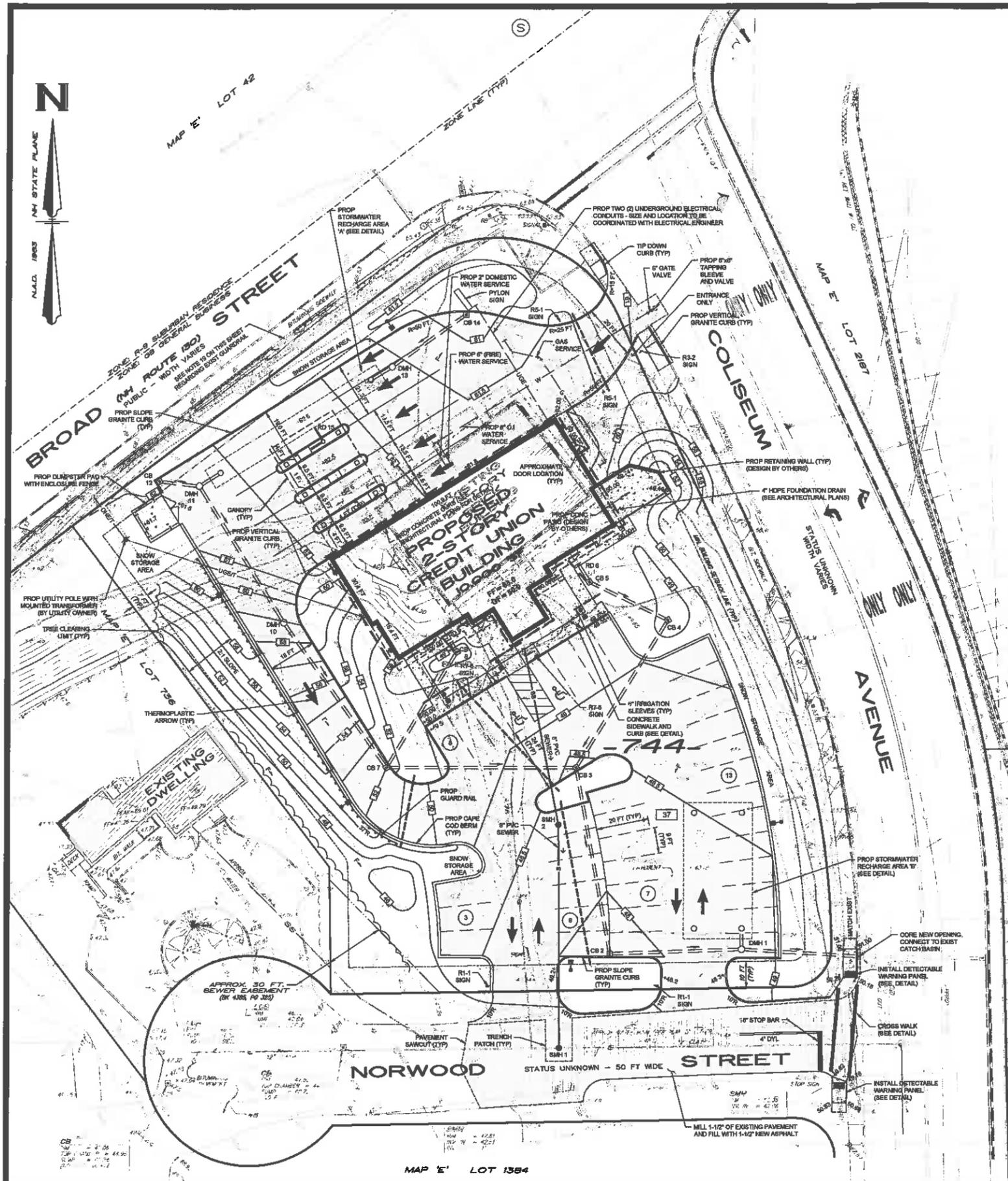


30 JULY 2020

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 Civil Engineer/Lead Surveyor
 5 Congress Street
 Nashua, NH 03063
 (603) 883-2037
 www.haynes-swanson.com



FIELD BOOK: ---	DRAWING NAME: 030923J 03121	5292	3 OF 15
DRAWING LOG: G:\CDS\2\CIVIL.DWG		PLN 12/20/20	



CONSTRUCTION NOTES:

- ALL WORK SHALL CONFORM TO THE APPLICABLE REGULATIONS AND STANDARDS OF THE CITY OF NASHUA, AND SHALL BE BUILT IN A WORKMANLIKE MANNER IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS. THE STANDARD SPECIFICATIONS FOR ROAD CONSTRUCTION, BOARD OF PUBLIC WORKS, NASHUA, NEW HAMPSHIRE, AND THE STANDARD SPECIFICATIONS FOR SEWERS AND DRAINS, BOARD OF PUBLIC WORKS, NASHUA, NEW HAMPSHIRE, AND THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, STATE OF NEW HAMPSHIRE, DEPARTMENT OF TRANSPORTATION, APPROVED AND ADOPTED 2010 ARE HEREBY INCORPORATED BY REFERENCE.
- ROAD AND DRAINAGE CONSTRUCTION SHALL CONFORM TO THE TYPICAL SECTIONS AND DETAILS SHOWN ON THE PLANS, AND SHALL MEET THE REQUIREMENTS AND SPECIFICATIONS FOR ROAD CONSTRUCTION, BOARD OF PUBLIC WORKS, NASHUA, NEW HAMPSHIRE, AND THE STANDARD SPECIFICATIONS FOR SEWERS AND DRAINS, BOARD OF PUBLIC WORKS, NASHUA, NEW HAMPSHIRE.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING AND DETERMINING THE LOCATION, SIZE AND ELEVATION OF ALL EXISTING UTILITIES, SHOWN OR NOT SHOWN ON THESE PLANS. PRIOR TO THE START OF ANY CONSTRUCTION, THE ENGINEER SHALL BE NOTIFIED IN WRITING OF ANY UTILITIES FOUND INTERFERING WITH THE PROPOSED CONSTRUCTION, AND APPROPRIATE REMEDIAL ACTION TAKEN BEFORE PROCEEDING WITH THE WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING "DIG SAFE" AT 1-888-344-7283 AT LEAST 72 HOURS BEFORE DIGGING.
- BLASTING, IF NEEDED, SHALL BE PERFORMED IN ACCORDANCE WITH THE CITY OF NASHUA FIRE DEPARTMENT REGULATIONS.
- ALL STUMPS SHALL BE DISPOSED OF OFF-SITE IN A LEGAL MANNER.
- ALL DISTURBED AREAS SHALL BE LOAMED AND SEEDED IMMEDIATELY UPON BEING CONSTRUCTED.
- ALL DRAINAGE PIPE SHALL BE FURNISHED AND INSTALLED WITH FLEXIBLE GASKETS. JOINTS SHALL BE MADE WITH OIL RESISTANT COMPRESSION RINGS OF AN ELASTOMERIC MATERIAL CONFORMING TO ASTM C-443. MANUFACTURER'S INSTALLATION INSTRUCTIONS SHALL BE FOLLOWED.
- ALL DRAINAGE PIPES SHALL BE CLASS IV 3000 D (RCP) UNLESS OTHERWISE NOTED. CATCH BASINS SHALL BE TYPE B, AND HAVE 4 FT SLABS UNLESS OTHERWISE NOTED.
- SEWER SHALL BE CONSTRUCTED IN ACCORDANCE WITH PLANS AND SPECIFICATIONS AND WITH THE REQUIREMENTS OF THE DEPARTMENT OF ENVIRONMENTAL SERVICES, WS 4 POC AND ANY STRICTER REQUIREMENTS OF DIVISION 3 - SANITARY SEWERS, OF THE STANDARD SPECIFICATIONS OF SEWERS AND DRAINS, BOARD OF PUBLIC WORKS, NASHUA, NEW HAMPSHIRE, LATEST EDITION.
- SEWER SHALL BE SOLID WALL PVC UNLESS OTHERWISE REQUIRED BY THESE SPECIFICATIONS. SEWER SHALL BE LOCATED AT LEAST 10 FEET HORIZONTALLY AND 18 INCHES VERTICALLY FROM WATER LINES. WHENEVER SEWER MUST CROSS WATER MAINS, SEWER SHALL BE CONSTRUCTED AS FOLLOWS:
 - SEWER PIPE SHALL BE CLASS 52 DUCTILE IRON FOR A MINIMUM DISTANCE OF 8 FEET EACH SIDE OF THE CROSSING.
 - JOINTS SHALL BE MECHANICAL TYPE WATER PRESSURE RATED WITH ZERO LEAKAGE WHEN TESTED AT 25 POUNDS PER SQUARE INCH FOR GRAVITY SEWERS AND 1-1/2 TIMES WORKING PRESSURE FOR FORCE MAINS. JOINTS SHALL NOT BE LOCATED WITHIN 8 FEET OF THE CROSSING.
- THE CONTRACTOR SHALL COORDINATE THE EXACT SIZE, LOCATION AND ELEVATION OF ALL ROOF DRAINS AND SEWER SERVICE CONNECTIONS PRIOR TO THE CONSTRUCTION OF THE BUILDING.
- ROOF DRAIN TIE-INS AND DRAIN LINES WILL BE INSPECTED PRIOR TO BACKFILLING AND PAVING.
- FOUNDATION DRAINS, IF NECESSARY, SHALL BE COORDINATED WITH THE ARCHITECT AND ENGINEER PRIOR TO CONSTRUCTION.
- ALL TRAFFIC SIGNS SHALL CONFORM TO THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION.
- DIMENSIONS TO CURB AND GUTTERS INDICATE EDGE OF PAVING UNLESS OTHERWISE NOTED.
- EXISTING PAVEMENT SHALL BE SAWCUT AS NECESSARY. CONTRACTOR SHALL ENSURE A SMOOTH TRANSITION BETWEEN NEW AND EXISTING PAVEMENT.
- THE CONTRACTOR SHALL REFER TO THE ARCHITECTURAL PLANS FOR EXACT BUILDING DIMENSIONS AND DETAILS.
- THE CONTRACTOR SHALL MONITOR THE EXISTING QUADRAL ALONG BROAD STREET DURING CONSTRUCTION AND REPORT ANY CHANGES, IF ANY, TO THE ENGINEER.
- PRIOR TO CONSTRUCTION THE CONTRACTOR SHALL DIG TEST PITS AND PERFORM PERMEABILITY TESTING IN THE VICINITY OF SMA 'A' AND SMA 'B'. RESULTS SHALL BE REPORTED TO THE ENGINEER.

CITY OF NASHUA CONTACTS

PLANNING DEPARTMENT
COMMUNITY DEVELOPMENT DIVISION
228 MAIN STREET
NASHUA, NH 03080
ATT: LINDA MCGHEE
(603) 598-3110

ENGINEERING DEPARTMENT
NASHUA DIVISION OF
PUBLIC WORKS / ENGINEERING
9 RIVERSIDE STREET
NASHUA, NH 03062
ATT: JOE MENDOLA
(603) 598-3124

FIRE DEPARTMENT
NASHUA FIRE RESCUE
177 LAKE STREET
NASHUA, NH 03082
ATT: ADAM POLJOT
(603) 598-3480

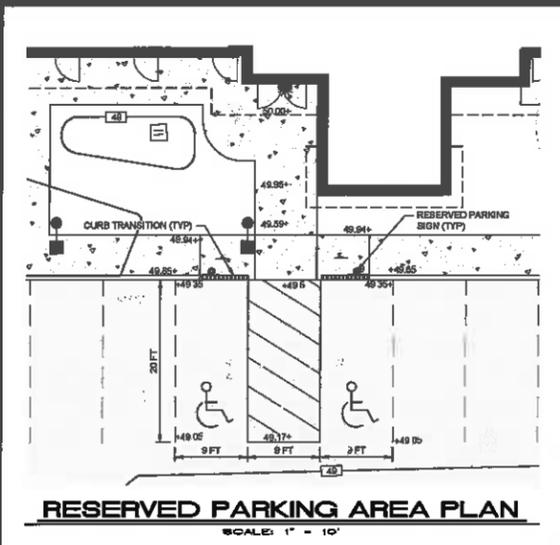
UTILITY CONTACTS

WATER:
PENNICUK WATER WORKS
28 MANCHESTER STREET
MERRIMACK, NH 03054
ATT: JOHN BOISVERT, PE
(603) 913-2200

TELEPHONE:
CONSOLIDATED COMMUNICATIONS
100 BAY STREET
MANCHESTER, NH 03103
ATT: ROBERTO DIAZ
(603) 292-5288

POWER:
EVERSOURCE
370 AMHERST STREET
NASHUA, NH 03080
ATT: MARC GAGNON
(603) 882-8884

GAS:
LIBERTY UTILITIES
11 NORTHEASTERN BOULEVARD
SALEM, NH 03079
ATT: ANDREW MORGAN
(603) 327-5387

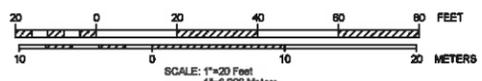


SIGN LEGEND		
TEXT	IDENTIFICATION NUMBER	SIZE WIDTH/HEIGHT
SEE MUTCD FOR TEXT DIMENSIONS		
	R1-1	30" / 30"
	R5-1	30" / 30"
	R3-2	36" / 36"

SEE 2009 MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS

SITE PLAN
(LOT 744, MAP 'E')
PROPOSED CREDIT UNION BUILDING
190 BROAD STREET
NASHUA, NEW HAMPSHIRE

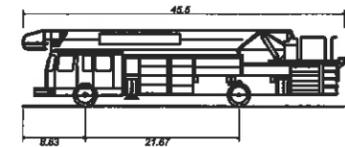
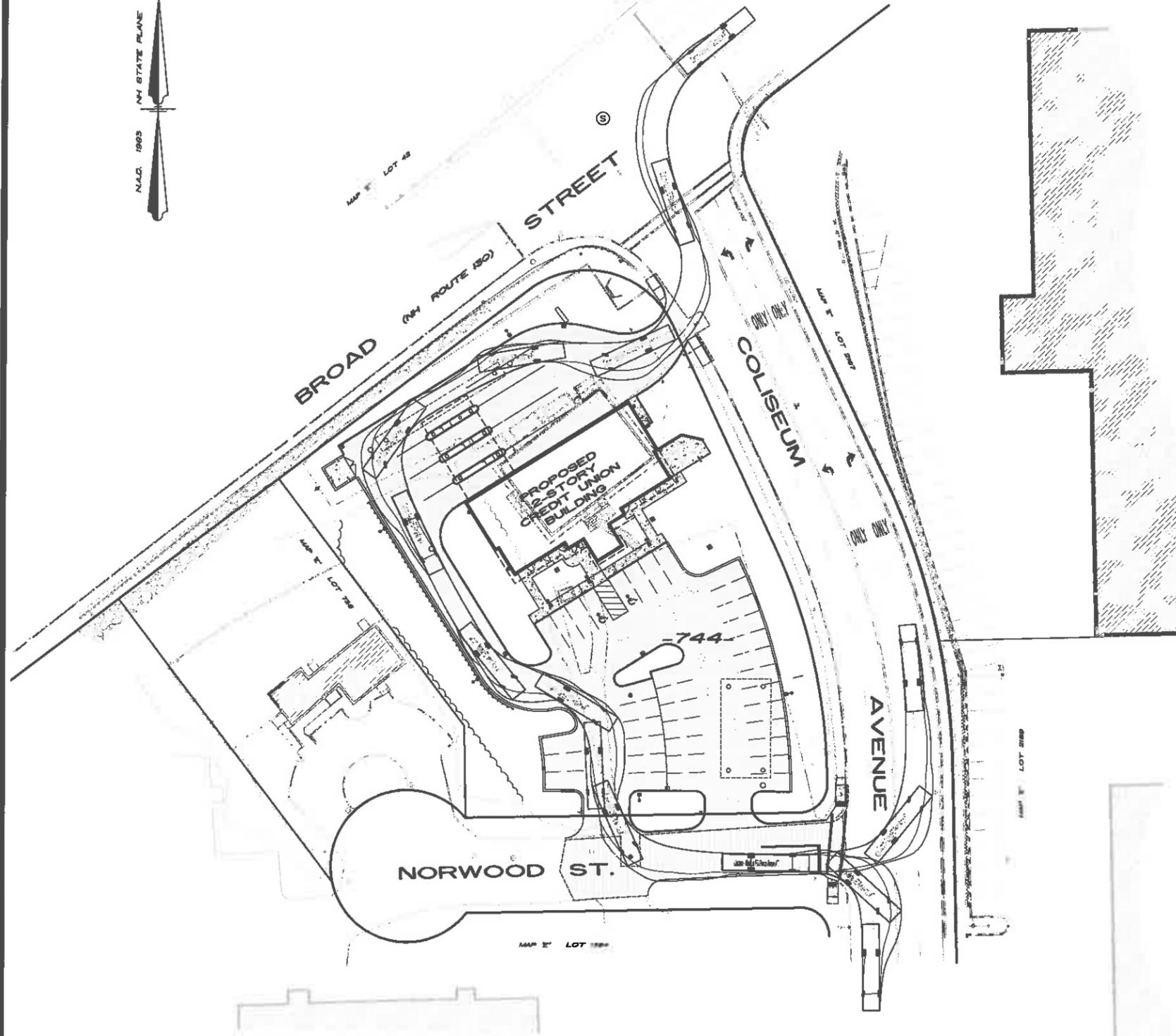
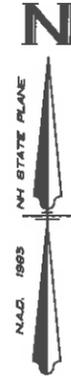
PREPARED FOR/RECORD OWNER
GRANITE STATE CREDIT UNION
1415 ELM STREET MANCHESTER, NEW HAMPSHIRE 03108 (603) 668-2221



30 JULY 2020

HSI Hayner/Swanson, Inc.
Civil Engineers/Land Surveyors
3 Congress Street
Nashua, NH 03062
(603) 883-4057
www.haynerswanson.com



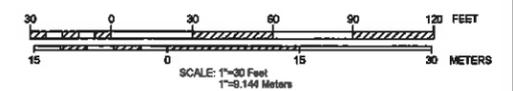


Custom - Nashua FD Pierce Arrow-XT
 Overall Length 45.500ft
 Overall Width 8.670ft
 Overall Body Height 10.622ft
 Min Body Ground Clearance 1.052ft
 Track Width 9.095ft
 Lock-to-lock time 4.00s
 Curb to Curb Turning Radius 36.920ft

No.	DATE	REVISION	BY
1	08/24/20	ADDRESS TECHNICAL REVIEW COMMITTEE COMMENTS	MA

FIRE TRUCK TURNING ANALYSIS PLAN
 (LOT 744, MAP 'E')
PROPOSED CREDIT UNION BUILDING
 190 BROAD STREET
 NASHUA, NEW HAMPSHIRE

PREPARED FOR/RECORD OWNER
GRANITE STATE CREDIT UNION
 1415 ELM STREET MANCHESTER, NEW HAMPSHIRE 03108 (603) 868-2221



30 JULY 2020

HSI Hayner/Swanson, Inc.
 Civil Engineer/Land Surveyor
 3 Congress Street
 Nashua, NH 03063
 (603) 883-2057
 83 Middlesex Turnpike
 Bennington, MA 01613
 (413) 303-1901
 www.hayner-swanson.com



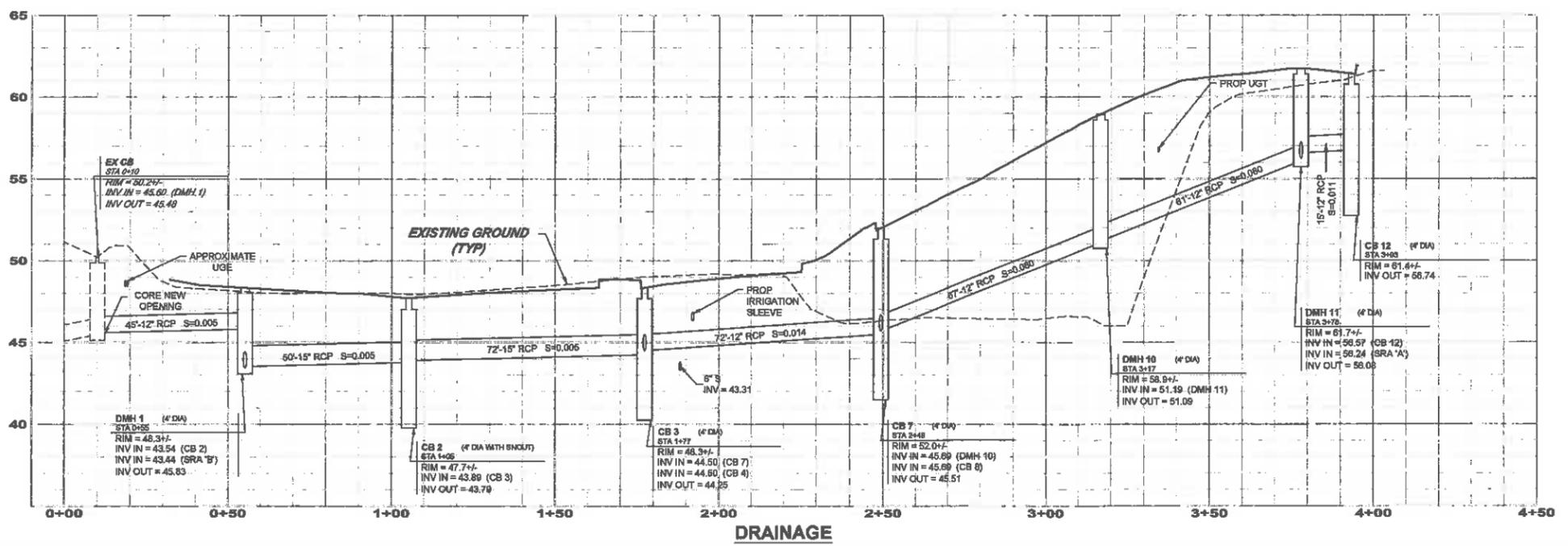
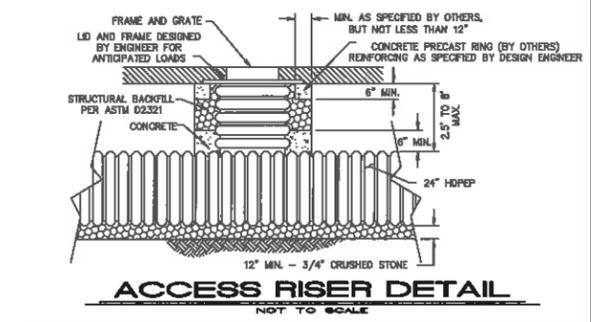
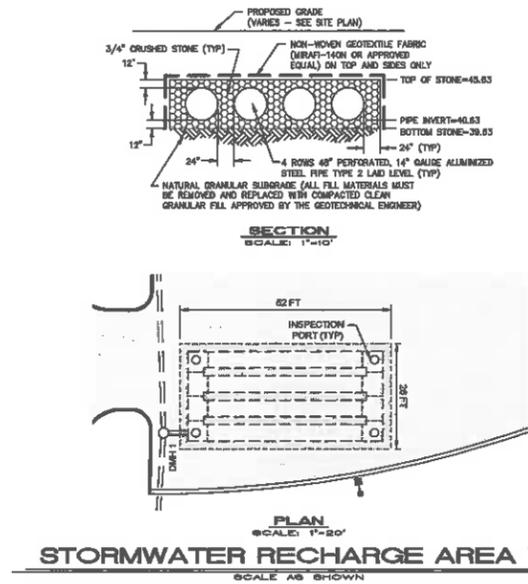
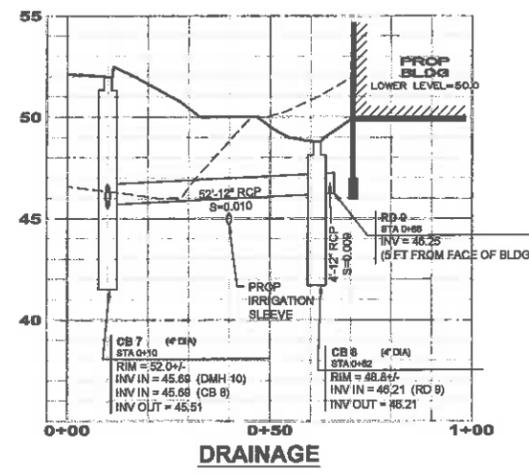
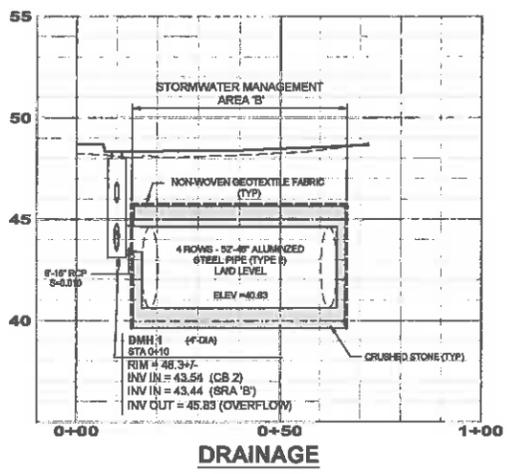
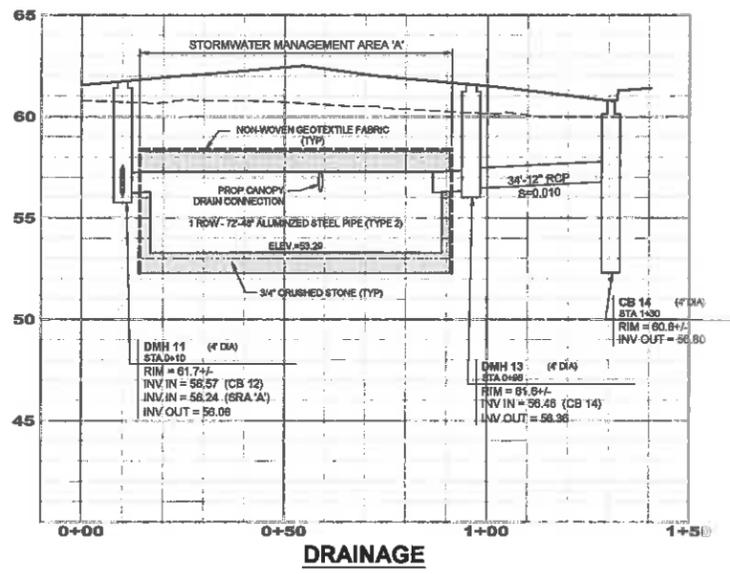
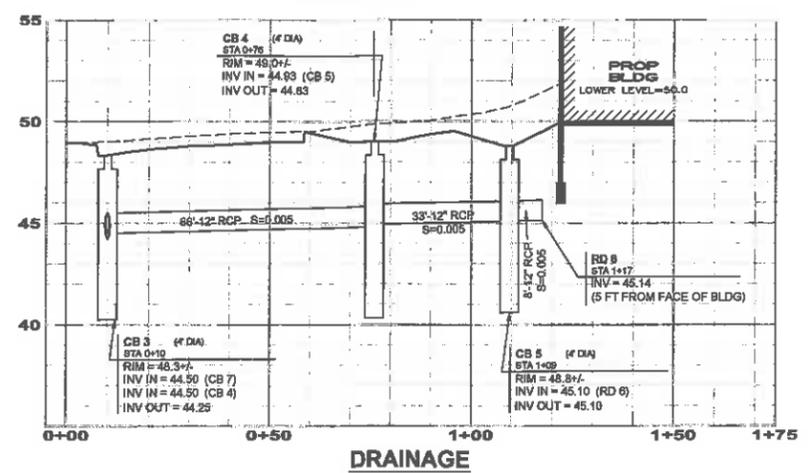
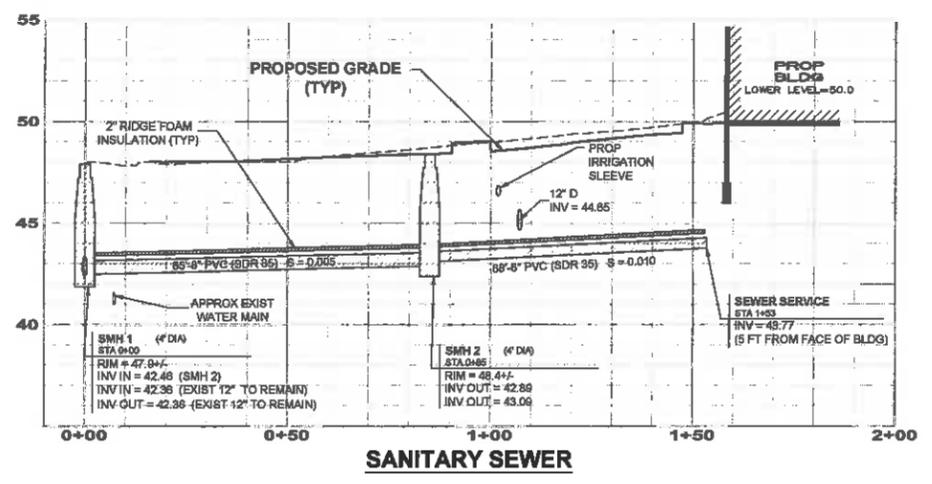
FIELD BOOK: ---	DRAWING NAME: 5292CJ FB21	5292	5 OF 16
DRAWING LOC: D:\5292\CIVIL.DWG		PLT: 10/20/20	DATE:

NOTES

- STRUCTURE DIAMETERS AS SHOWN ON DRAINAGE PROFILES ARE CONSIDERED TO BE MINIMUM INSIDE DIMENSIONS. ALL STRUCTURES SHALL BE A MINIMUM INSIDE DIAMETER OF 48" UNLESS OTHERWISE INDICATED. LARGER STRUCTURES MAY BE NECESSARY DUE TO ALIGNMENT AND/OR PIPE SIZES. STRUCTURE MANUFACTURER SHALL DETERMINE FINAL SIZE.
- PIPE LENGTHS ARE MEASURED FROM CENTERLINE OF STRUCTURE TO CENTERLINE OF STRUCTURE.
- EXTERIOR FOUNDATION WALLS AND FOOTINGS AS SHOWN ARE APPROXIMATE. REFER TO ARCHITECTURAL PLANS.

STORMWATER RECHARGE AREA NOTES

- THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OF THE PROPOSED SUBSURFACE STORMWATER MANAGEMENT AREA, FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION. SHOP DRAWINGS SHALL BE PREPARED BY A NEW HAMPSHIRE LICENSED PROFESSIONAL ENGINEER.
- DIMENSIONS OF THE PIPE/FIELD ARE SUBJECT TO MANUFACTURER'S TOLERANCES.
- SYSTEM IS TO BE DESIGNED FOR H20 AND H25 LOADING.
- PRIOR TO CONSTRUCTION, THE ENGINEER SHALL WITNESS A TEST FIT AND PERFORM A PERCOLATION TEST AT THE PROPOSED STORMWATER RECHARGE AREAS. THE RESULTS SHALL BE SUBMITTED TO THE CITY OF NASHUA ENGINEERING DEPARTMENT.



NO.	DATE	ADDRESS TECHNICAL REVIEW COMMITTEE COMMENTS	BY
1	09/24/20		SA

UTILITY PROFILES AND STORMWATER MANAGEMENT AREA (SMA) DETAILS (LOT 744, MAP 'E')

PROPOSED CREDIT UNION BUILDING

190 BROAD STREET
NASHUA, NEW HAMPSHIRE

PREPARED FOR/RECORD OWNER
GRANITE STATE CREDIT UNION
1415 ELM STREET MANCHESTER, NEW HAMPSHIRE 03108 (603) 868-2221

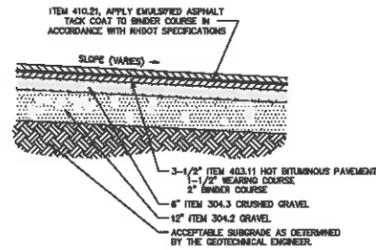
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VERT. 1" = 4 Feet

30 JULY 2020

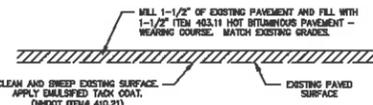
HISI Hayner/Swanson, Inc.
Civil Engineers/Land Surveyors
121 Middlesex Turnpike
Nashua, NH 03063
(603) 883-2057
www.hayner-swanson.com

FIELD BOOK: --- DRAWING NAME: 5292CU FY21 5292 6 OF 16
DRAWING LOC: D:\5292\CIVIL.DWG

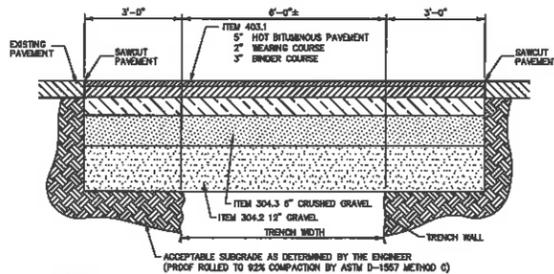




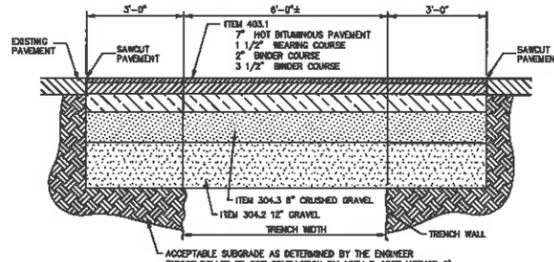
TYPICAL PAVEMENT SECTION
NOT TO SCALE



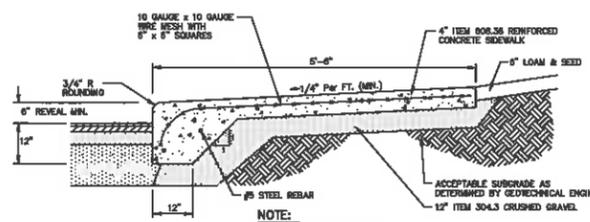
PAVEMENT MILL/FILL DETAIL
NOT TO SCALE



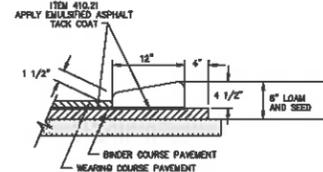
TRENCH PATCH DETAIL NORWOOD STREET
NOT TO SCALE



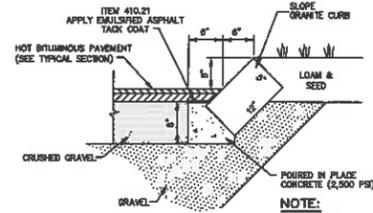
TRENCH PATCH DETAIL COLISEUM AVENUE
NOT TO SCALE



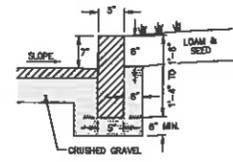
CONCRETE SIDEWALK AND CURB DETAIL
NOT TO SCALE



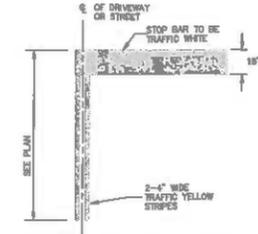
CAPE COD BERM DETAIL
NOT TO SCALE



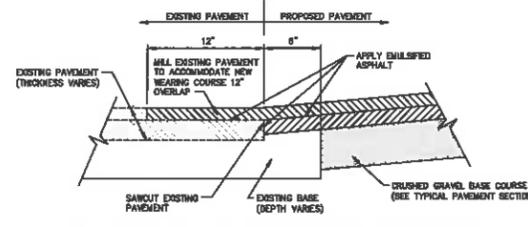
SLOPE GRANITE CURB DETAIL
NOT TO SCALE



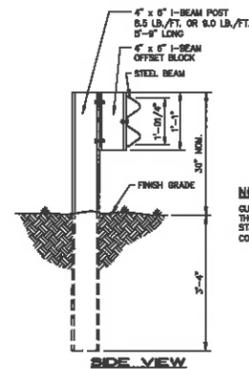
STRAIGHT OR CURVED GRANITE CURB
(ITEM 608.1 OR 608.3-MODIFIED)
NOT TO SCALE



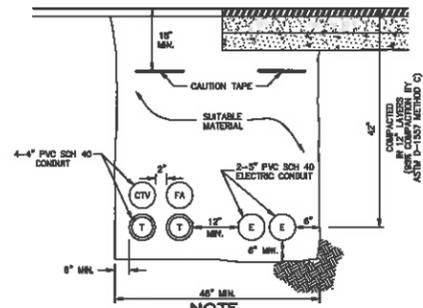
STOP BAR DETAIL
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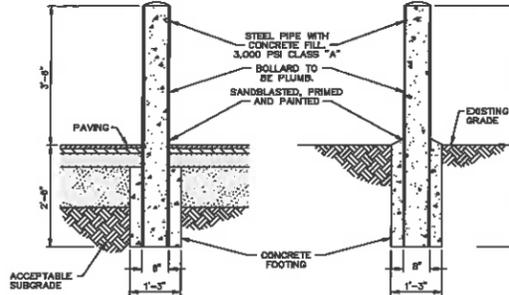
SAWCUT PAVEMENT DETAIL
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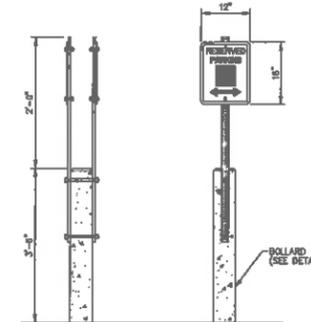
STEEL POST GUARDRAIL DETAIL
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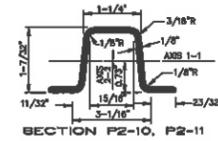
TYPICAL UTILITY TRENCH
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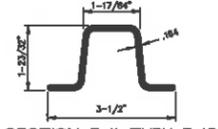
BOLLARD DETAIL
NOT TO SCALE



RESERVED PARKING SIGN DETAIL
NOT TO SCALE

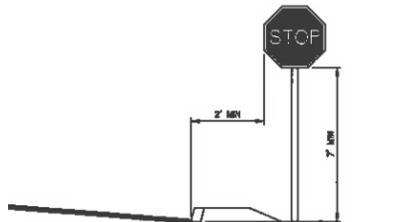


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LENGTH: P2-10, 10'-0\"/>

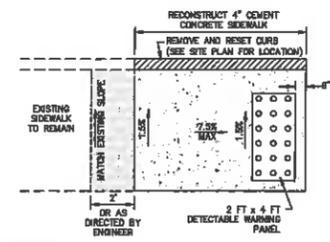


SECTION P-11 THRU P-16
LENGTH: P-11, 11'-0\"/>

TRAFFIC SIGN SUPPORT DETAIL
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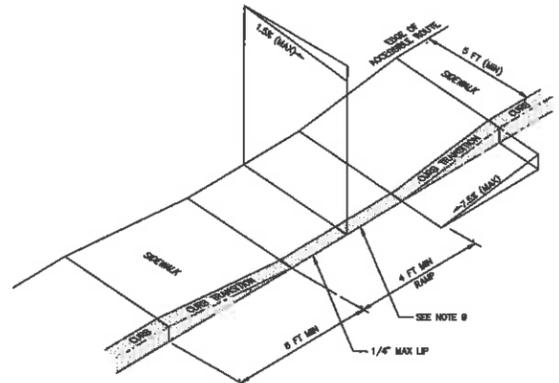


STOP SIGN LOCATION DETAIL
NOT TO SCALE



- NOTES**
1. DETECTABLE WARNING PANEL TO BE MADE OF CAST IRON.
 2. DETECTABLE WARNING PANEL FRAME OR STUDS TO BE EMBEDDED IN CONCRETE.
 3. DETECTABLE WARNING PANEL TO BE 'BRICK RED'.
 4. SIDEWALK RAMP TO BE CONSTRUCTED OF CONCRETE.

COLISEUM AVENUE SIDEWALK DETAIL
NOT TO SCALE



- NOTES**
1. THE MAXIMUM ALLOWABLE SIDEWALK AND CURB CROSS SLOPES SHALL BE 1:50 (1% MIN).
 2. THE MAXIMUM ALLOWABLE SLOPE OF ACCESSIBLE ROUTE EXCLUDING CURB RAMPS SHALL BE 1:50.
 3. THE MAXIMUM ALLOWABLE SLOPE OF ACCESSIBLE ROUTE CURB RAMPS SHALL BE 7:50.
 4. A MINIMUM OF 3 FEET CLEAR SHALL BE MAINTAINED AT ANY PERMANENT OBSTACLE IN ACCESSIBLE ROUTE (I.E. HYDRANTS, UTILITY POLES, TREE WELLS, SIGNS, ETC.)
 5. CURB TREATMENT VARIES. SEE PLANS FOR CURB TYPE.
 6. BASE OF RAMP SHALL BE GRADED TO PREVENT PONDING.
 7. SEE TYPICAL SIDEWALK SECTION FOR RAMP CONSTRUCTION.
 8. WHERE ACCESSIBLE ROUTES ARE LESS THAN 5 FT IN WIDTH (EXCLUDING CURB) A 5 FT x 5 FT PASSING AREA SHALL BE PROVIDED AT INTERVALS NOT TO EXCEED 200 FEET.
 9. ELIMINATE ALL CURBING AT RAMP OTHER THAN VERTICAL CURBING, WHICH SHALL BE SET FLUSH WHERE IT ABUTS PAVEMENT.

HANDICAP ACCESSIBLE CURB RAMP DETAIL
NOT TO SCALE

No.	DATE	REVISION	BY
1	08/24/20	ADDRESS TECHNICAL REVIEW COMMITTEE COMMENTS	SJA

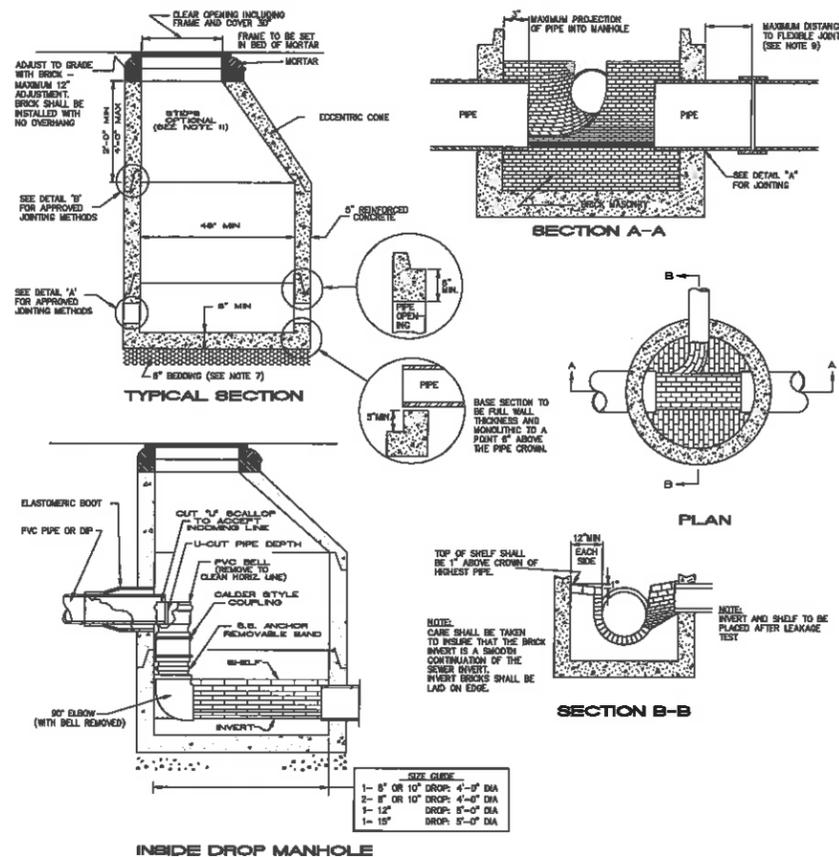
DETAIL SHEET - GENERAL SITE
(LOT 744, MAP 'E')
PROPOSED CREDIT UNION BUILDING
190 BROAD STREET
NASHUA, NEW HAMPSHIRE
PREPARED FOR/RECORD OWNER
GRANITE STATE CREDIT UNION
1415 ELM STREET MANCHESTER, NEW HAMPSHIRE 03108 (603) 668-2221

SCALE AS SHOWN

30 JULY 2020

HISI Hayner/Swanson, Inc.
Civil Engineers/Land Surveyors
122 Middlesex Turnpike
Nashua, NH 03063
(603) 883-2057
www.hisyswanson.com

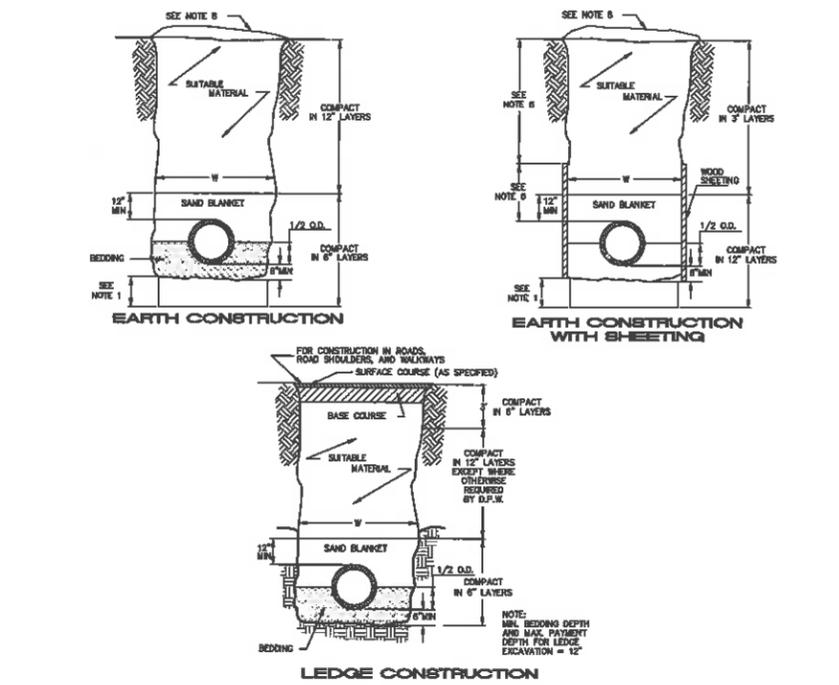




STANDARD MANHOLE - PART A

NOTES

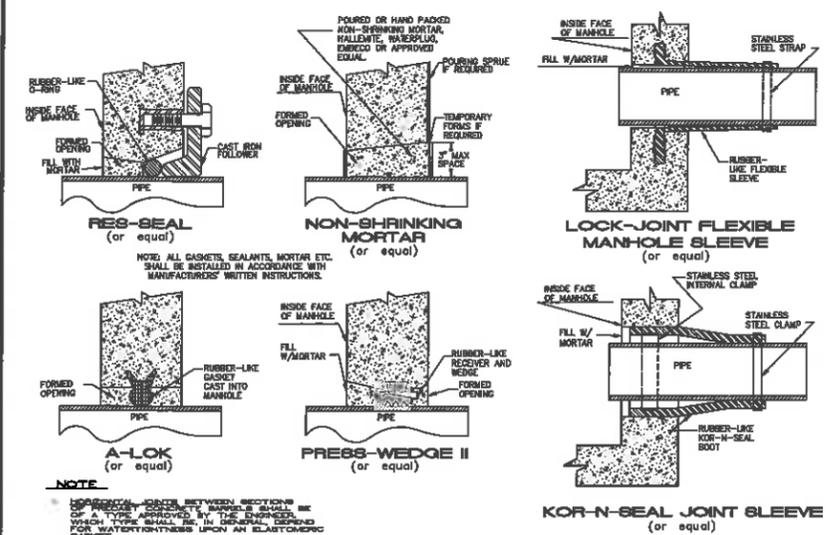
1. ALL MANHOLES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, LATEST EDITION, AS APPLICABLE TO THE STATE OF NEW HAMPSHIRE.
2. PRECAST CONCRETE MANHOLE SECTIONS, COVERS AND BASES SHALL CONFORM TO ASTM C 478.
3. BRICKS AND REINFORCING BARS SHALL HAVE A TENSILE STRENGTH CONFORMING TO THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, LATEST EDITION, AS APPLICABLE TO THE STATE OF NEW HAMPSHIRE.
4. BRICKS SHALL BE Laid IN A COURSE AND SHALL BE SET IN A BED OF MORTAR.
5. THE TOP OF THE MANHOLE SHALL BE FINISHED TO THE FINISH GRADE.
6. THE MANHOLE SHALL BE CONSTRUCTED TO A MINIMUM DEPTH OF 4 FEET.
7. THE MANHOLE SHALL BE CONSTRUCTED TO A MINIMUM DEPTH OF 4 FEET.
8. THE MANHOLE SHALL BE CONSTRUCTED TO A MINIMUM DEPTH OF 4 FEET.
9. THE MANHOLE SHALL BE CONSTRUCTED TO A MINIMUM DEPTH OF 4 FEET.
10. THE MANHOLE SHALL BE CONSTRUCTED TO A MINIMUM DEPTH OF 4 FEET.



STANDARD TRENCH SECTION

NOTES

1. EXCAVATION OF UNSUITABLE MATERIAL SHALL BE REMOVED AND REPLACED WITH BEDDING MATERIAL.
2. BEDDING SHALL BE SIFTED OR CRUSHED STONE OR FINE SAND.
3. THE TRENCH SHALL BE CONSTRUCTED TO A MINIMUM DEPTH OF 4 FEET.
4. THE TRENCH SHALL BE CONSTRUCTED TO A MINIMUM DEPTH OF 4 FEET.
5. THE TRENCH SHALL BE CONSTRUCTED TO A MINIMUM DEPTH OF 4 FEET.
6. THE TRENCH SHALL BE CONSTRUCTED TO A MINIMUM DEPTH OF 4 FEET.
7. THE TRENCH SHALL BE CONSTRUCTED TO A MINIMUM DEPTH OF 4 FEET.
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9. THE TRENCH SHALL BE CONSTRUCTED TO A MINIMUM DEPTH OF 4 FEET.
10. THE TRENCH SHALL BE CONSTRUCTED TO A MINIMUM DEPTH OF 4 FEET.

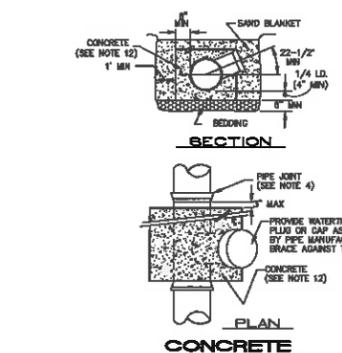


DETAIL A

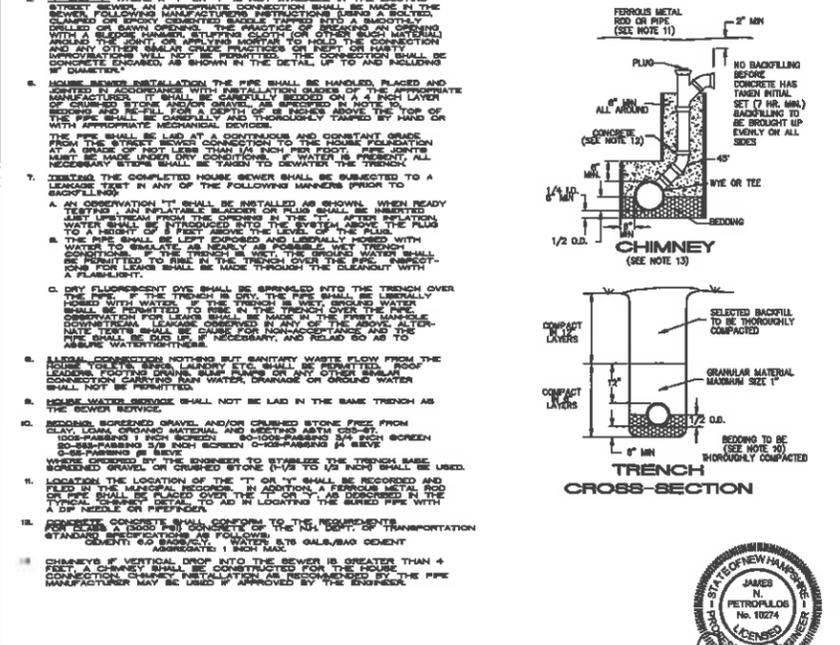
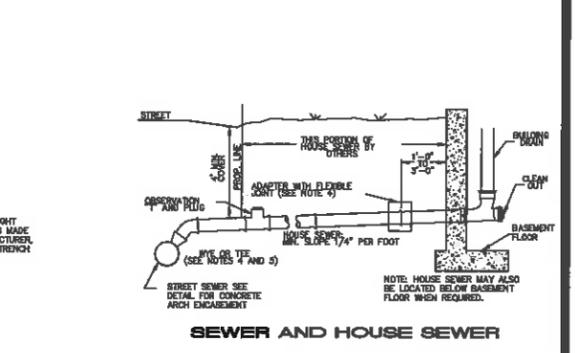
STANDARD MANHOLE - PART B

NOTES

1. MANHOLE SIZE FOR HOUSE SERVICE SHALL BE 8 INCHES.
2. SEE AND JOINT MATERIALS.
3. DAMAGED PIPE SHALL BE REJECTED AND REMOVED FROM THE JOB SITE.
4. JOINTS SHALL BE DEPENDENT UPON A NEOPRENE OR ELASTOMERIC GASKET FOR WATER-TIGHTNESS.
5. THE JOINT SHALL BE DEPENDENT UPON A NEOPRENE OR ELASTOMERIC GASKET FOR WATER-TIGHTNESS.
6. THE JOINT SHALL BE DEPENDENT UPON A NEOPRENE OR ELASTOMERIC GASKET FOR WATER-TIGHTNESS.
7. THE JOINT SHALL BE DEPENDENT UPON A NEOPRENE OR ELASTOMERIC GASKET FOR WATER-TIGHTNESS.
8. THE JOINT SHALL BE DEPENDENT UPON A NEOPRENE OR ELASTOMERIC GASKET FOR WATER-TIGHTNESS.
9. THE JOINT SHALL BE DEPENDENT UPON A NEOPRENE OR ELASTOMERIC GASKET FOR WATER-TIGHTNESS.
10. THE JOINT SHALL BE DEPENDENT UPON A NEOPRENE OR ELASTOMERIC GASKET FOR WATER-TIGHTNESS.



CONCRETE FULL ENCASEMENT



HOUSE SEWER DETAILS

DETAIL SHEET - SEWER
(LOT 744, MAP 'E')

PROPOSED CREDIT UNION BUILDING
190 BROAD STREET
NASHUA, NEW HAMPSHIRE

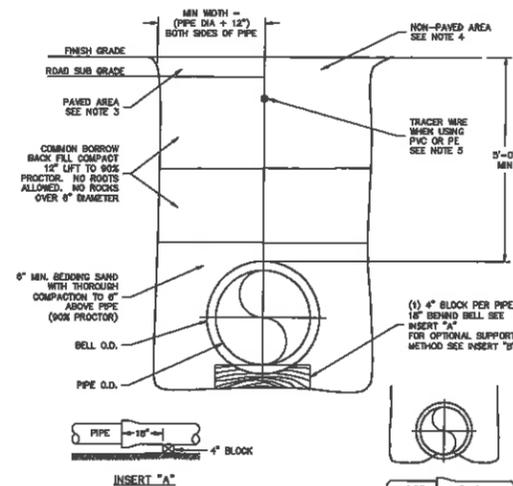
PREPARED FOR/RECORD OWNER
GRANITE STATE CREDIT UNION
1415 ELM STREET MANCHESTER, NEW HAMPSHIRE 03108 (603) 658-2221

SCALE AS SHOWN

30 JULY 2020

HSL Hayner/Swanson, Inc.
Civil Engineer/Land Surveyor
3 Congress Street
Nashua, NH 03083
(603) 883-2057
www.hayner-swanson.com

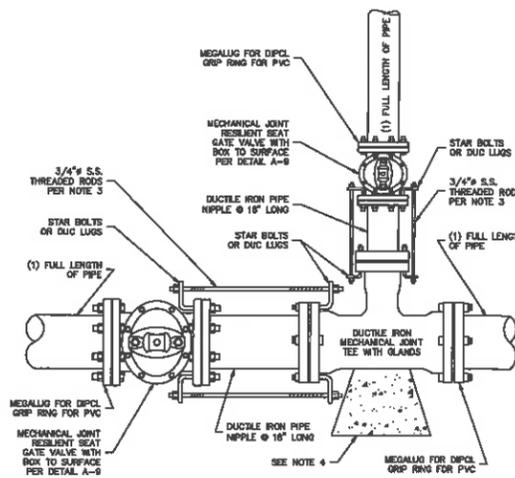
FIELD BOOK: — DRAWING NAME: 529202J DET1 5292 9 OF 16
DRAWING LOC: Q:\5292\CIVIL.DWG



- NOTES:**
1. ALL MATERIALS AND INSTALLATION PROCEDURES WILL CONFORM TO P.W.W. TECHNICAL SPECIFICATIONS.
 2. ALL PIPE SHOULD HAVE A MINIMUM DEPTH OF 5' FROM TOP OF PIPE TO FINISH GRADE.
 3. REQUIREMENTS FOR SUBBASE AND BASE MATERIAL TYPE ARE TO BE IN ACCORDANCE WITH LOCAL AUTHORITY HAVING LOCAL JURISDICTION IN PAVED AREAS.
 4. REQUIREMENTS FOR GRAVEL, LOAM AND/OR SEED ARE TO BE IN ACCORDANCE WITH LOCAL AUTHORITY HAVING LOCAL JURISDICTION IN NON-PAVED AREAS.
 5. 10 GAUGE TRACER WIRE AS MANUFACTURED BY BMS, DIVISION OF ALBESTAR CORP., AVON, MA OR EQUIVALENT.

TYPICAL TRENCH DETAIL

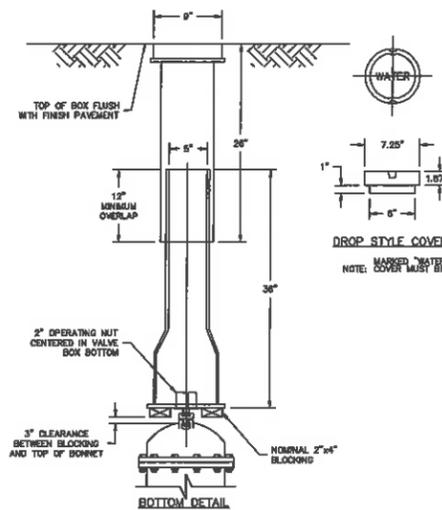
NOT TO SCALE



- NOTES:**
1. ALL MATERIALS AND INSTALLATION PROCEDURES WILL CONFORM TO P.W.W. TECHNICAL SPECIFICATIONS.
 2. ALL PIPE SHOULD HAVE A MINIMUM DEPTHS OF 5' FROM TOP OF PIPE TO FINISH GRADE.
 3. 3/4" S.S. RODS SHALL BE USED IN CONJUNCTION WITH REQUIRED S.S. NUTS. RODS ARE TO BE ATTACHED TO FITTINGS WITH EITHER STAR BOLTS OR DUC LUGS. 10" FITTING OR SMALLER = (2) 3/4" S.S. RODS & ASSOC. HARDWARE. 12" FITTING OR LARGER = (4) 3/4" S.S. RODS & ASSOC. HARDWARE.
 4. MIN 3"x3"x3" PRE CAST CONCRETE THRUST BLOCK MAY BE USED WITH P.W.W. APPROVAL OR CONCRETE THRUST BLOCK POURED AGAINST UNDISTURBED EARTH - SIZE TO BE BASED ON SIZE OF FITTING AND PRESSURE IN WATER MAIN. SEE DETAIL A-7.

TYPICAL TEE INSTALLATION

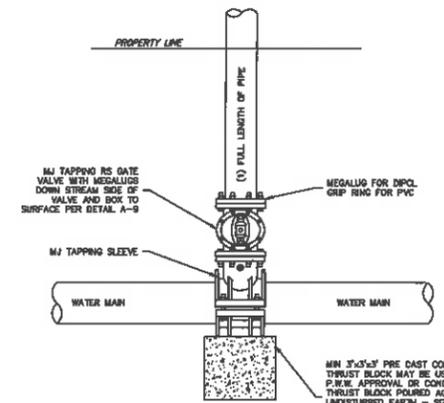
NOT TO SCALE



- NOTES:**
1. ALL MATERIALS AND INSTALLATION PROCEDURES WILL CONFORM TO P.W.W. TECHNICAL SPECIFICATIONS.
 2. ALL PIPE SHOULD HAVE A MINIMUM DEPTH OF 5' FROM TOP OF PIPE TO FINISH GRADE.

TYPICAL VALVE BOX DETAIL

NOT TO SCALE



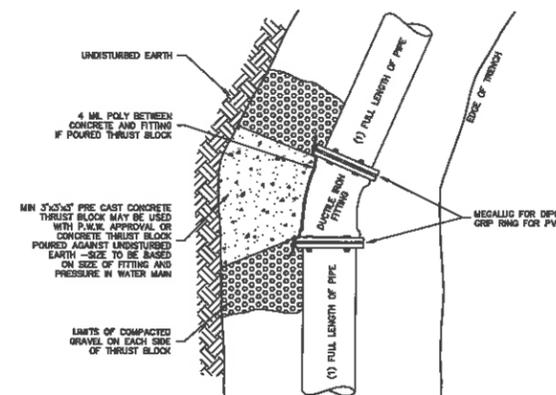
- NOTES:**
1. ALL MATERIALS AND INSTALLATION PROCEDURES WILL CONFORM TO P.W.W. TECHNICAL SPECIFICATIONS.
 2. ALL PIPE SHOULD HAVE A MINIMUM DEPTH OF 5' FROM TOP OF PIPE TO FINISH GRADE.
 3. SEE DETAIL A-22 FOR CROSS-SECTIONAL VIEW.

TYPICAL LARGE SERVICE AND/OR TAPPING SLEEVE DETAIL

NOT TO SCALE

WATER NOTES

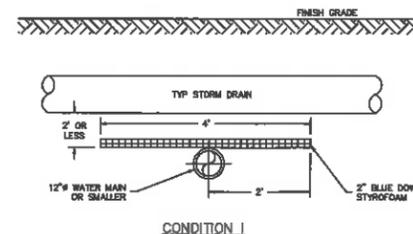
1. REFERENCE PENNACOCK WATER WORKS SPECIFICATIONS FOR INSTALLATION OF ALL WATER LINES.
2. ALL SPRINKLER AND DOMESTIC LEADS TO BUILDING SHALL END 5'-0" OUTSIDE THE FACE OF BUILDING WALL UNLESS NOTED, AND SHALL BE PROVIDED WITH A TEMPORARY PLUG AT END (FOR OTHERS TO REMOVE AND EXTEND AS NECESSARY).
3. THRUST BLOCKS AND MEGALUG RESTRAINTS SHALL BE PROVIDED AT ALL HORIZONTAL BENDS, TEES, AND FIRE HYDRANTS. SEE DETAIL.
4. MINIMUM COVER ON ALL WATER LINES IS 5'-0".
5. CONTRACTOR SHALL MAINTAIN A 5'-0" HORIZONTAL (UNLESS OTHERWISE NOTED) AND 12" VERTICAL SEPARATION BETWEEN WATER SERVICE AND UTILITIES OTHER THAN SANITARY SEWER.
6. INSPECTIONS ON WATER SERVICE INSTALLATION DURING CONSTRUCTION IS THE RESPONSIBILITY OF THE SITE CONTRACTOR AND SHALL BE COORDINATED WITH PENNACOCK WATER WORKS, AND ALL INSPECTION FEES SHALL BE PAID BY THE CONTRACTOR.
7. CONTRACTOR SHALL HAVE BACTERIOLOGICAL AND PRESSURE TESTING PERFORMED. CONTRACTOR SHALL GIVE PENNACOCK WATER WORKS A COPY OF RESULTS. PENNACOCK WATER WORKS SHALL BE ON-SITE TO WITNESS TEST.
8. ALL PIPE, VALVES, MISCELLANEOUS MATERIALS AND INSTALLATION SHALL CONFORM WITH PENNACOCK WATER WORKS SPECIFICATIONS.
9. ALL FIRE HYDRANTS, VALVES, FITTINGS, PIPES, ETC. SHALL BE IN ACCORDANCE WITH PENNACOCK WATER WORKS REQUIREMENTS.
10. METALLIC TAPE OR DETECTOR WIRE SHALL BE INSTALLED IN THE SAME TRENCH WITH ALL NONMETALLIC PIPE SUCH THAT THE PIPE MAY BE LOCATED WITH ELECTRONIC LOCATING EQUIPMENT. DETECTOR WIRE OR METALLIC TAPE SHALL BE INSTALLED APPROXIMATELY 12" TO 18" BELOW GRADE DIRECTLY ABOVE THE TOP OF THE PIPE. DETECTOR WIRE SHALL BE 14 - GAUGE SOLID COPPER, SIMPLEX BRAND, OR EQUAL. METALLIC TAPE SHALL BE 2" MINIMUM METALLIZED TAPE, GRIFPOLYN COMPANY, INC. TERALAPE OR EQUAL.
11. CONTRACTOR SHALL ENSURE ALL WATER VALVES ARE IN A FULLY-OPEN POSITION UPON COMPLETION OF PROJECT.
12. CONTRACTOR SHALL COORDINATE ALL WATER INTERRUPTIONS WITH THE PENNACOCK WATER WORKS AND AFFECTED PROPERTY OWNERS.



- NOTES:**
1. ALL MATERIALS AND INSTALLATION PROCEDURES WILL CONFORM TO P.W.W. TECHNICAL SPECIFICATIONS.
 2. ALL PIPE SHOULD HAVE A MINIMUM DEPTHS OF 5' FROM TOP OF PIPE TO FINISH GRADE.
 3. 3/4" S.S. RODS SHALL BE USED IN CONJUNCTION WITH REQUIRED S.S. NUTS. RODS ARE TO BE ATTACHED TO FITTINGS WITH EITHER STAR BOLTS OR DUC LUGS. 10" FITTING OR SMALLER = (2) 3/4" S.S. RODS & ASSOC. HARDWARE. 12" FITTING OR LARGER = (4) 3/4" S.S. RODS & ASSOC. HARDWARE.
 4. MIN 3"x3"x3" PRE CAST CONCRETE THRUST BLOCK MAY BE USED WITH P.W.W. APPROVAL OR CONCRETE THRUST BLOCK POURED AGAINST UNDISTURBED EARTH - SIZE TO BE BASED ON SIZE OF FITTING AND PRESSURE IN WATER MAIN.

TYPICAL THRUST BLOCK BEHIND FITTINGS INSTALLATION

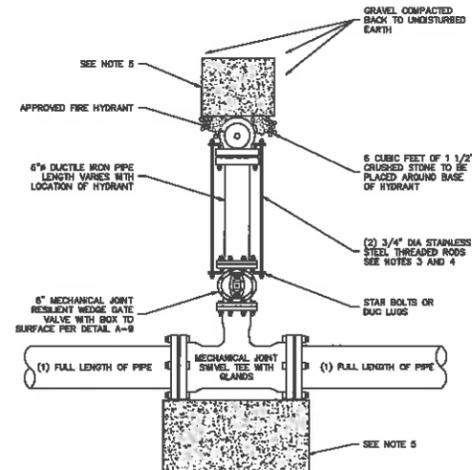
NOT TO SCALE



- NOTES:**
1. PENNACOCK WATER WORKS, INC. RESERVES THE RIGHT TO MODIFY INSULATION REQUIREMENTS AS NECESSARY BASED ON FIELD CONDITIONS, ETC.
 2. THE LENGTH OR WIDTH OF INSULATION SHALL EXTEND 1 STORM DRAIN PIPE DIAMETER BEHIND THE EDGE OF STORM DRAIN PIPE IN EACH DIRECTION OR A MINIMUM OF 2' BEYOND THE CENTERLINE OF THE STORM DRAIN PIPE, WHICHEVER IS GREATER.
 3. ALL JOINT SEAMS TO BE OVERLAPPED WITH A 1' PIECE OF INSULATION CENTERED OVER SEAM.

STORM DRAIN/WATER MAIN INTERSECTING RUNS-ELEV. VIEW

NOT TO SCALE



- NOTES:**
1. ALL MATERIALS AND INSTALLATION PROCEDURES WILL CONFORM TO P.W.W. TECHNICAL SPECIFICATIONS.
 2. ALL PIPE SHOULD HAVE A MINIMUM DEPTHS OF 5' FROM TOP OF PIPE TO FINISH GRADE.
 3. 3/4" S.S. RODS SHALL BE USED IN CONJUNCTION WITH REQUIRED S.S. NUTS. RODS ARE TO BE ATTACHED TO FITTINGS WITH EITHER STAR BOLTS OR DUC LUGS. 10" FITTING OR SMALLER = (2) 3/4" S.S. RODS & ASSOC. HARDWARE. 12" FITTING OR LARGER = (4) 3/4" S.S. RODS & ASSOC. HARDWARE.
 4. WHEN DISTANCE FROM WATER MAIN TO HYDRANT IS MORE THAN 10' SUBSTITUTE MEGALUGS (OR GRP RINGS) IN LIEU OF THREADED RODS.
 5. MIN 3"x3"x3" PRE CAST CONCRETE THRUST BLOCK MAY BE USED WITH P.W.W. APPROVAL OR CONCRETE THRUST BLOCK POURED AGAINST UNDISTURBED EARTH - SIZE TO BE BASED ON SIZE OF FITTING AND PRESSURE IN WATER MAIN. SEE DETAIL A-7.

TYPICAL HYDRANT INSTALLATION

NOT TO SCALE



NO.	DATE	REVISION	BY
1	08/24/20	ADDRESS TECHNICAL REVIEW COMMITTEE COMMENTS	SJA

DETAIL SHEET - WATER
(LOT 744, MAP 'E')
PROPOSED CREDIT UNION BUILDING
190 BROAD STREET
NASHUA, NEW HAMPSHIRE

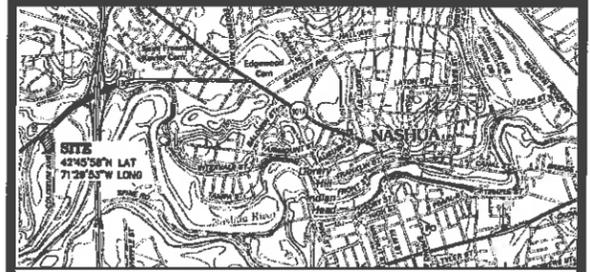
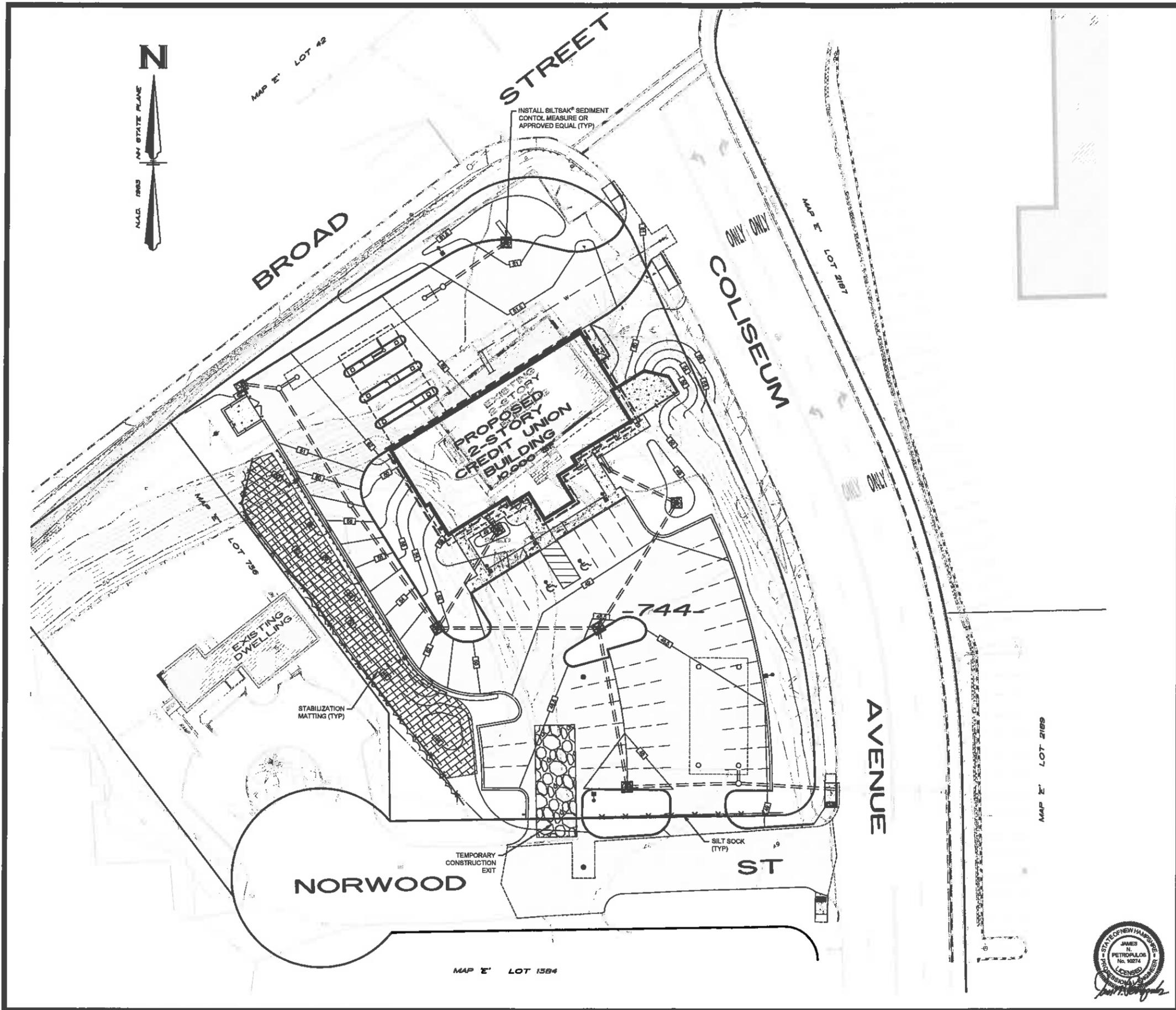
PREPARED FOR/RECORD OWNER
GRANITE STATE CREDIT UNION
1415 ELM STREET MANCHESTER, NEW HAMPSHIRE 03108 (603) 668-2221

SCALE AS SHOWN

30 JULY 2020



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DRAWING LOC: D:\52202\CIVIL.DWG	FILE NUMBER: ---	Sheet	Sheet



VICINITY MAP

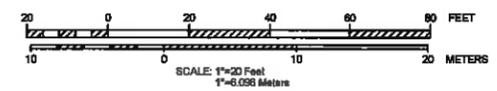
CONSTRUCTION SEQUENCE

1. CLEAR SITE ACCORDING TO PLAN.
2. CONSTRUCTION OF TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES, INCLUDING SILT FENCES, TO BE IN ACCORDANCE WITH THE PLANS.
3. GRUB SITE ACCORDING TO PLAN.
4. CUT AND DISPOSE OF ANY DEBRIS PRODUCED DURING THE CLEARING AND GRUBBING ACTIVITY.
5. SITE GRADING OF BUILDING AND PARKING AREAS. ALL CUT AND FILL SLOPES SHALL BE SEEDED AND MULCHED AFTER BEING CONSTRUCTED.
6. INSTALLATION OF UNDERGROUND UTILITIES AND SUBSURFACE STORMWATER MANAGEMENT AREAS. CATCH BASINS SHALL BE PROTECTED FROM SEDIMENT IN ACCORDANCE WITH THE SILTSAK DETAIL. THE CONTROL SHALL REMAIN UNTIL THE SITE IS SUFFICIENTLY STABILIZED.
7. AS THE BUILDING IS COMPLETED, ALL DISTURBED AREAS SHALL BE PERMANENTLY STABILIZED.
8. NO PORTION OF THE PROJECT SHALL BE LEFT DISTURBED AND UNSTABILIZED FOR A PERIOD OF TWO (2) MONTHS OR GREATER. ALL DISTURBED AREAS SHALL BE PERMANENTLY STABILIZED PRIOR TO WINTER CONDITIONS. STABILIZATION SHALL BE DEFINED AS 70% VEGETATIVE GROWTH BY NOVEMBER 1ST OR INSTALLATION OF EROSION CONTROL MATTING.
9. COMPLETED AREAS SHALL BE STABILIZED 72 HOURS AFTER COMPLETION.
10. FINAL PAVING OF PARKING LOT.
11. LODM AND SEED ALL DISTURBED AREAS.
12. INSPECTION OF ALL SEDIMENT AND EROSION CONTROL MEASURES.
13. SITE LANDSCAPING ALONG WITH PERMANENT SEEDING OF ALL DISTURBED AREAS.
14. REMOVE ANY TEMPORARY EROSION CONTROL MEASURES NOT NEEDED.

NO.	DATE	REVISION	BY
1	08/24/20	ADDRESS TECHNICAL REVIEW COMMITTEE COMMENTS	SJA

EROSION CONTROL PLAN
 (LOT 744, MAP 'E')
PROPOSED CREDIT UNION BUILDING
 190 BROAD STREET
 NASHUA, NEW HAMPSHIRE

PREPARED FOR/RECORD OWNER
GRANITE STATE CREDIT UNION
 1415 ELM STREET MANCHESTER, NEW HAMPSHIRE 03108 (603) 888-2221

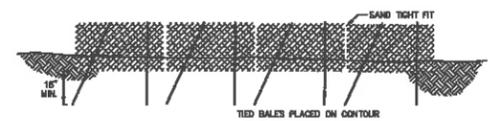


30 JULY 2020

HESI Hayner/Strauss, Inc.
 Civil Engineers/Land Surveyors
 3 Congress Street
 Nashua, NH 03042
 603-883-2057
 122 Middle Street
 Manchester, MA 03103
 (603) 263-2901
 www.hesiv.com

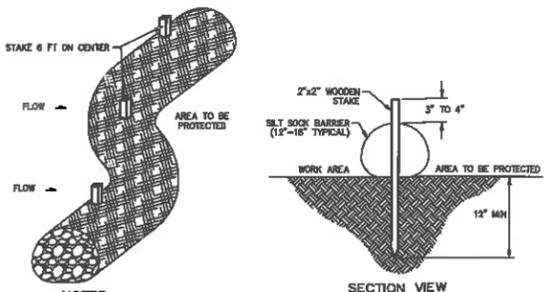


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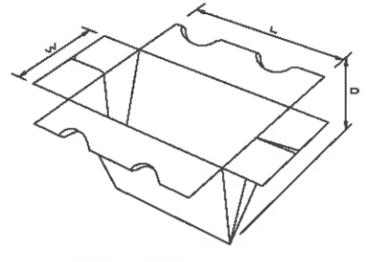
- NOTES:**
- 2 STAKES PER BALE TO BE NO. 4 REBAR, STEEL PIPE, OR 2" X 2" WOOD.
 - WHILE FIRST STAKE TOWARD PREVIOUSLY Laid BALE.
 - CONSTRUCTION SPECIFICATIONS AND MAINTENANCE REQUIREMENTS SHOWN IN NHDES STORMWATER MANUAL, VOLUME 3.

STRAW BALE BARRIER DETAIL
NOT TO SCALE



- NOTES:**
- SILT SOCK BARRIER SHALL BE FILTERED SILT SOCK (OR APPROVED EQUAL) AND SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
 - SILT SOCK BARRIER SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REPAIRS THAT ARE REQUIRED SHALL BE MADE IMMEDIATELY.
 - IF THE SILT SOCK SHOULD DECOMPOSE OR BECOME INEFFECTIVE, THE BARRIER SHALL BE REPLACED PROMPTLY.
 - SEDIMENT DEPOSITS SHOULD BE INSPECTED AFTER EVERY STORM EVENT. THE DEPOSITS SHOULD BE REMOVED WHEN THEY REACH APPROXIMATELY ONE-THIRD THE HEIGHT OF THE BARRIER.
 - SEDIMENT DEPOSITS THAT ARE REMOVED OR LEFT IN PLACE AFTER THE BARRIER HAS BEEN REMOVED SHALL BE GRADED TO CONFORM WITH THE EXISTING TOPOGRAPHY AND VEGETATED.
 - COMPOST TO BE REMOVED OR DISPOSED ON-SITE AS DETERMINED BY THE ENGINEER.

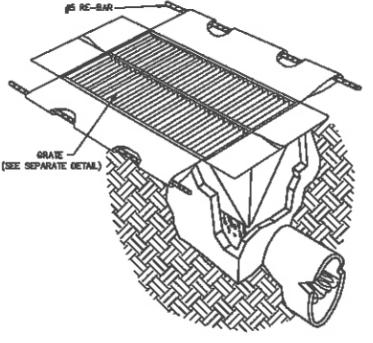
SILT SOCK DETAIL
NOT TO SCALE



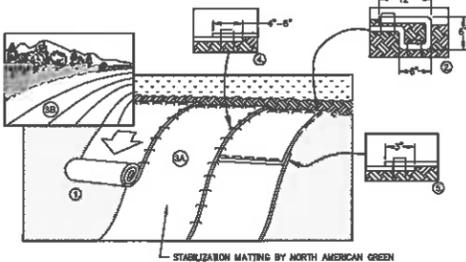
- SILTSAK NOTES**
- THE SILTSAK SHALL BE MANUFACTURED FROM WOVEN POLYPROPYLENE AND SEWN BY A DOUBLE NEEDLE MACHINE, USING A HIGH STRENGTH NYLON THREAD.
 - THE SILTSAK SEAMS SHALL HAVE A CERTIFIED AVERAGE WIDE WIDTH STRENGTH PER ASTM D-4844 STANDARDS AS FOLLOWS:

MULTISAK STYLE	TEST METHOD	TEST RESULT
REGULAR FLOW	ASTM D-4844	165.0 LBS/W
H-FLow	ASTM D-4844	114.8 LBS/W

OR SILTSAK H-FLow	TEST METHOD	TEST RESULT
GRAB TENSILE	ASTM D-4802	200 LBS
GRAB ELONGATION	ASTM D-4801	25%
PUNCTURE	ASTM D-4853	130 LBS
MULLEN BURST	ASTM D-3788	450 PSI
TRAPEZOID TEAR	ASTM D-4833	500 LBS
UV RESISTANCE	ASTM D-4355	90%
APPERTENT OPENING	ASTM D-4791	40 US BIVE
FLOW RATE	ASTM G-4461	40 GAL/40V/12
PERMEABILITY	ASTM D-4461	0.55 SEC



SILTSAK® DETAIL
NOT TO SCALE



- PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED.
 - BEgin AT THE TOP OF THE SLOPE BY ANCHORING THE BLANKET IN A 6" DEEP X 6" WIDE TRENCH WITH APPROXIMATELY 12" OF BLANKET EXTENDED BEHIND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE BLANKET WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" PORTION OF BLANKET BACK OVER SEED AND COMPACTED SOIL. SECURE BLANKET OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" APART ACROSS THE WIDTH OF THE BLANKET.
 - ROLL THE BLANKETS (A) DOWN OR (B) HORIZONTALLY ACROSS THE SLOPE. BLANKETS WILL UNROLL WITH APPROPRIATE FORCE AGAINST THE SOIL SURFACE. ALL BLANKETS MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS PER MANUFACTURER'S RECOMMENDATION.
 - THE EDGES OF PARALLEL BLANKETS MUST BE STAPLED WITH MINIMUM 6" OVERLAP. TO ENSURE PROPER SEAM ALIGNMENT, PLACE THE EDGE OF THE OVERLAPPING BLANKET (BLANKET BEING INSTALLED ON TOP) EVEN WITH THE SEAM STITCH ON THE PROXIMALLY INSTALLED BLANKET.
 - CONSECUTIVE BLANKETS SPUN DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLED) WITH AN APPROXIMATE 3" OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" APART ACROSS ENTIRE BLANKET WIDTH.
 - PLACE STAPLES/STAKES PER MANUFACTURE RECOMMENDATION FOR THE APPROPRIATE SLOPE BEING APPLIED.
- NOTE: IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" MAY BE NECESSARY TO PROPERLY SECURE THE BLANKETS.

STABILIZATION MATTING DETAIL
NOT TO SCALE

GENERAL NOTES

- ALL SOIL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IN ACCORDANCE WITH STANDARDS AND SPECIFICATIONS THEREOF IN NEW HAMPSHIRE DEPARTMENT OF ENVIRONMENTAL SERVICES STORMWATER MANUAL, VOLUME 1-3, LATEST EDITION.
 - THE WORK AREA SHALL BE GRADED, SHAPED, AND OTHERWISE DRAINED IN SUCH A MANNER AS TO MINIMIZE SOIL EROSION, SALINATION OF DRAINAGE CHANNELS, DAMAGE TO EXISTING VEGETATION, AND DAMAGE TO PROPERTY OUTSIDE THE LIMITS OF THE WORK AREA. SILT FENCES, STRAW BALES AND/OR DETENTION BASINS WILL BE NECESSARY TO ACCOMPLISH THIS END.
 - STRIPPED TOPSOIL SHALL BE STOCKPILED, WITHOUT COMPACTION, AND STABILIZED AGAINST EROSION IN ACCORDANCE WITH TEMPORARY STABILIZATION OF DISTURBED AREAS, AS OUTLINED IN NOTE NO. 4.
 - TEMPORARY STABILIZATION OF DISTURBED AREAS:
SEED BED PREPARATION: 10-16 LB FERTILIZATION TO BE SPREAD AT THE RATE OF 7 LBS PER 1,000 SF AND AGRICULTURAL LIMESTONE AT A RATE OF 10 LBS PER 1,000 SF AND INCORPORATED INTO THE SOIL. THE SOIL, FERTILIZER AND LIMESTONE SHALL BE TILLED TO PREPARE FOR SEEDING.
- | SPECIES | RATE PER 1,000 SF | DEPTH | SEEDING DATES |
|------------------|-------------------|-------|----------------|
| WINTER RYE | 2.5 LBS | 1" | 08/15 TO 09/15 |
| OATS | 2.5 LBS | 1" | 04/15 TO 10/15 |
| ANNUAL RYE GRASS | 1.0 LBS | 0.25" | 08/15 TO 09/15 |
- SEED MIXTURE: USE ANY OF THE FOLLOWING:
MULCHING: MULCH SHOULD BE USED ON HIGHLY ERODIBLE AREAS, AND WHERE CONSERVATION OF MOISTURE WILL FACILITATE PLANT ESTABLISHMENT AS FOLLOWS:
TYPE RATE PER 1,000 SF USE & COMMENTS
STRAW 70 TO 90 LBS MAY BE USED WITH PLANTINGS, MUST BE ANCHORED TO BE USED ALONE
WOOD CHIPS OR BARK MULCH 450 TO 820 LBS USED WITH TREE AND SHRUB PLANTINGS
FIBROUS MATTINGS AS RECOMMENDED BY MANUFACTURER MUST BE BIODEGRADABLE, USE IN SLOPE AREAS AND AREAS DIFFICULT TO VEGETATE.
CRUSHED STONE 1" TO 1 1/2" DIA SPREAD TO GREATER THAN 1" THICKNESS USE IN SPECIFIC AREAS AS SHOWN ON PLAN OR AS NEEDED.
- PERMANENT STABILIZATION OF DISTURBED AREAS:
- ALL ROADWAYS SHALL BE STABILIZED WITHIN 72 HOURS OF ACHIEVING FINISHED GRADE.
 - ALL CUT AND FILL SLOPES SHALL BE SEED/LOAMED WITHIN 72 HOURS OF ACHIEVING FINISHED GRADE.
- THE SMALLEST PRACTICAL AREA SHALL BE DISTURBED DURING CONSTRUCTION, BUT IN NO CASE SHALL EXCEED 3 ACRES AT ANY ONE TIME BEFORE DISTURBED AREAS ARE STABILIZED.
 - AN AREA SHALL BE CONSIDERED STABILIZED IF ONE OF THE FOLLOWING HAS OCCURRED:
A. BASE COURSE GRAVELS HAVE BEEN INSTALLED IN AREAS TO BE PAVED.
B. A MINIMUM OF 80% VEGETATED GROWTH HAS BEEN ESTABLISHED.
C. A MINIMUM OF 3 INCHES OF NON-EROSIVE MATERIAL, SUCH AS STONE OR RIPRAP HAS BEEN INSTALLED.
D. OR, EROSION CONTROL BLANKETS HAVE BEEN PROPERLY INSTALLED.
 - ALL AREAS SHALL BE STABILIZED WITHIN 45 DAYS OF INITIAL DISTURBANCE.
 - SITE LOCATION:
47° 49' 31" N LATITUDE, 71° 29' 53" W LONGITUDE (PER GOOGLE EARTH)
 - TOTAL AREA OF DISTURBED SOILS: 50,956 SF
 - REFERENCE IS MADE TO THE LATEST EDITION OF THE FEDERAL REGISTER (39 FR 7827), ENVIRONMENTAL PROTECTION AGENCY NHDES GENERAL PERMITS FOR STORMWATER DISCHARGES FROM CONSTRUCTION ACTIVITIES. FOR ADDITIONAL INFORMATION CONTACT (603) 284-8245 OR www.nhdes.gov/hpdes/vp/consulter.
 - THE ENTIRE CONTENTS OF THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP) SHALL BE OBTAINED ON-SITE FOR THE DURATION OF THE CONTRACT AND BE MADE AVAILABLE TO LOCAL, STATE AND FEDERAL CODE ENFORCEMENT PERSONNEL.

WINTER CONDITION NOTES

- ALL PROPOSED POST-DEVELOPMENT VEGETATED AREAS WHICH DO NOT EXHIBIT A MINIMUM OF 80% VEGETATIVE GROWTH BY OCTOBER 15TH, OR WHICH ARE DISTURBED AFTER OCTOBER 15TH, SHALL BE STABILIZED BY SEEDING AND INSTALLING EROSION CONTROL BLANKETS ON SLOPES GREATER THAN 3:1, AND SEEDING AND PLACING 3 TO 4 TONS OF MULCH PER ACRE, SECURED WITH ANCHORED NETTING ELASTOMERS. THE PLACEMENT OF EROSION CONTROL BLANKETS OR MULCH AND NETTING SHALL NOT OCCUR OVER ACCUMULATED SNOW OR ON FROZEN GROUND AND SHALL BE COMPLETED IN ADVANCE OF THAW OR SPRING MELT EVENTS.
- ALL DITCHES OR SWALES WHICH DO NOT EXHIBIT A MINIMUM OF 80% VEGETATIVE GROWTH BY OCTOBER 15TH, OR WHICH ARE DISTURBED AFTER OCTOBER 15TH SHALL BE STABILIZED WITH STONE OR EROSION CONTROL BLANKETS APPROPRIATE FOR THE DESIGN FLOW CONDITIONS.
- AFTER OCTOBER 15TH INCOMPLETE ROAD OR PARKING SURFACES SHALL BE PROTECTED WITH A MINIMUM OF 3-INCHES OF CRUSHED GRAVEL PER 1000 SQ FT.

SITE MAINTENANCE/INSPECTION PROGRAM

THE FOLLOWING PROVIDES AN ITEMIZATION OF SPECIFIC SITE MAINTENANCE PRACTICES THAT WILL BE EMPLOYED ON THE SITE TO MINIMIZE POLLUTANT GENERATION AND TRANSPORT FROM THE SITE. THE SITE MAINTENANCE PROGRAM INCLUDES ROUTINE INSPECTIONS, PREVENTATIVE MAINTENANCE AND "GOOD HOUSEKEEPING" PRACTICES.

ROUTINE INSPECTIONS

- THE CONTRACTOR SHALL INSPECT ALL CONTROL MEASURES AT LEAST ONCE A WEEK AND WITHIN TWELVE (12) HOURS OF THE END OF A STORM WITH RAINFALL AMOUNT GREATER THAN 0.5 INCHES. THE INSPECTIONS WILL VERIFY THAT THE STRUCTURAL BMPs DESCRIBED IN THE PLANS ARE IN GOOD CONDITION AND ARE MINIMIZING EROSION. A MAINTENANCE INSPECTION REPORT WILL BE MADE WITH EACH INSPECTION. COMPLETED INSPECTION FORMS SHALL BE KEPT ON-SITE FOR THE DURATION OF THE PROJECT. FOLLOWING CONSTRUCTION, THE COMPLETED FORMS SHALL BE RETAINED AT THE CONTRACTOR'S OFFICE FOR A MINIMUM OF ONE YEAR.

PREVENTATIVE MAINTENANCE

- THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE OF ALL TEMPORARY AND PERMANENT CONTROLS THROUGHOUT THE DURATION OF THE CONTRACT. MAINTENANCE PRACTICES SHALL INCLUDE, BUT ARE NOT LIMITED TO:
- CLEANING OF CATCH BASINS TWICE PER YEAR OR MORE FREQUENTLY AS DICTATED BY QUARTERLY INSPECTIONS
 - CLEANING OF SEDIMENT AND DEBRIS FROM STORMWATER MANAGEMENT AREA FOREBAY TWICE PER YEAR OR MORE FREQUENTLY AS DICTATED BY MONTHLY INSPECTIONS.
 - IMPLEMENTATION OF OTHER MAINTENANCE OR REPAIR ACTIVITIES AS DEEMED NECESSARY BASED UPON WEEKLY INSPECTIONS.
 - REMOVAL OF BUILT UP SEDIMENT ALONG BUILT FENCES AND/OR STRAW BALE BARRIERS.
 - REMOVAL OF BUILT UP SEDIMENT IN BOTH TEMPORARY AND PERMANENT CONTROLS SUCH AS GRASS SWALES, SEDIMENT FOREBAYS AND RECHARGE/DETENTION BASINS
 - RECONSTRUCTING THE TEMPORARY GRAVEL CONSTRUCTION EXIT IF NOT WORKING PROPERLY.
 - TREATMENT OF NON-STORM WATER DISCHARGES SUCH AS WATER FROM WATER LINE FLUSHINGS OR GROUNDWATER FROM DEWATERING EXCAVATIONS. SUCH FLOWS SHOULD BE DIRECTED TO A TEMPORARY SEDIMENTATION BASIN OR STORMWATER MANAGEMENT AREA.
 - SWEEP PARKING LOTS AND DRIVES REGULARLY TO MINIMIZE SEDIMENT ACCUMULATION. FREQUENCY WILL VARY SEASONALLY ACCORDING TO SEASONAL ACCUMULATION ON PAVED SURFACES (E.G., MORE FREQUENT SWEEPING DURING THE WINTER AND SPRING).

GOOD HOUSEKEEPING PRACTICES

- THE CONTRACTOR SHALL EMPLOY MEASURES AND PRACTICES TO REDUCE THE RISK OF SPILLS OR OTHER ACCIDENTAL EXPOSURE OF MATERIALS TO STORM AND WATER RUNOFF. THE CONTRACTOR SHALL PAY SPECIAL ATTENTION TO THE HANDLING, USE AND DISPOSAL OF MATERIALS SUCH AS PETROLEUM PRODUCTS, FERTILIZERS AND PAINTS TO ENSURE THAT THE RISK ASSOCIATED WITH THE USE OF THESE PRODUCTS IS MINIMIZED. THE FOLLOWING "GOOD HOUSEKEEPING" PRACTICES SHALL BE FOLLOWED DURING CONSTRUCTION OF THE PROJECT:
- AN EFFORT SHALL BE MADE TO STORE ONLY ENOUGH PRODUCT REQUIRED TO DO THE JOB.
 - ALL MATERIALS STORED ON-SITE SHALL BE STORED IN A NEAT, ORDERLY MANNER IN THEIR APPROPRIATE CONTAINERS AND, IF POSSIBLE, UNDER A ROOF OR OTHER ENCLOSURE.
 - PRODUCTS SHALL BE KEPT IN THEIR ORIGINAL CONTAINERS WITH THEIR MANUFACTURER'S LABELS.
 - WHENEVER POSSIBLE, ALL OF A PRODUCT SHALL BE USED BEFORE DISPOSING OF THE CONTAINER.
 - MANUFACTURER'S RECOMMENDATIONS FOR PROPER USE AND DISPOSAL SHALL BE FOLLOWED.
 - THE CONTRACTOR SHALL INSPECT DAILY TO ENSURE PROPER USE AND DISPOSAL OF MATERIALS.

SPILL PREVENTION AND CLEANUP PRACTICES

- MANUFACTURER'S RECOMMENDED METHODS FOR SPILL CLEANUP WILL BE CLEARLY POSTED AND SITE PERSONNEL WILL BE MADE AWARE OF THE PROCEDURES AND THE LOCATION OF THE INFORMATION AND CLEANUP SUPPLIES.
- MATERIALS AND EQUIPMENT NECESSARY FOR SPILL CLEANUP WILL BE KEPT IN THE MATERIAL STORAGE AREA ON-SITE. EQUIPMENT AND MATERIAL WILL INCLUDE BUT NOT BE LIMITED TO BROOMS, DUSTPANS, MOPS, BAGS, GLOVES, BOOZERS, KITTY LITTER, SAND, SAWDUST, AND PLASTIC AND METAL TRASH CONTAINERS SPECIFICALLY FOR THIS PURPOSE.
- ALL SPILLS WILL BE CLEANED UP IMMEDIATELY AFTER DISCOVERY.
- THE SPILL AREA WILL BE KEPT WELL VENTILATED AND PERSONNEL WILL WEAR APPROPRIATE PROTECTIVE CLOTHING TO PREVENT INJURY FROM CONTACT WITH A HAZARDOUS SUBSTANCE.
- SPILLS OF TOXIC OR HAZARDOUS MATERIAL WILL BE REPORTED TO THE APPROPRIATE STATE OR LOCAL GOVERNMENT AGENCY, REGARDLESS OF THE SIZE.
- THE SPILL PREVENTION PLAN WILL BE ADJUSTED TO INCLUDE MEASURES TO PREVENT THIS TYPE OF SPILL FROM REOCCURRING AND HOW TO CLEAN UP THE SPILL IF THERE IS ANOTHER ONE. A DESCRIPTION OF THE SPILL, WHAT CAUSED IT, AND THE CLEANUP MEASURES WILL ALSO BE INCLUDED.

No.	DATE	REVISION	BY
1	09/24/20	ADDRESS TECHNICAL REVIEW COMMITTEE COMMENTS	BJA

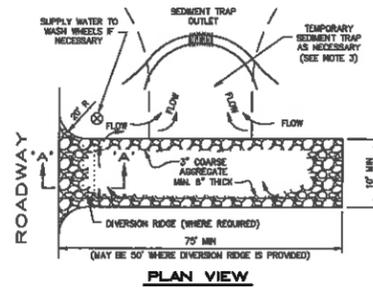
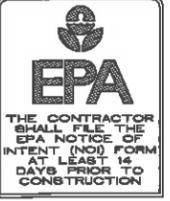
DETAIL SHEET - EROSION CONTROL
(LOT 744, MAP 'E')
PROPOSED CREDIT UNION BUILDING
190 BROAD STREET
NASHUA, NEW HAMPSHIRE

PREPARED FOR/RECORD OWNER
GRANITE STATE CREDIT UNION
1415 ELM STREET MANCHESTER, NEW HAMPSHIRE 03108 (603) 668-2221

SCALE AS SHOWN

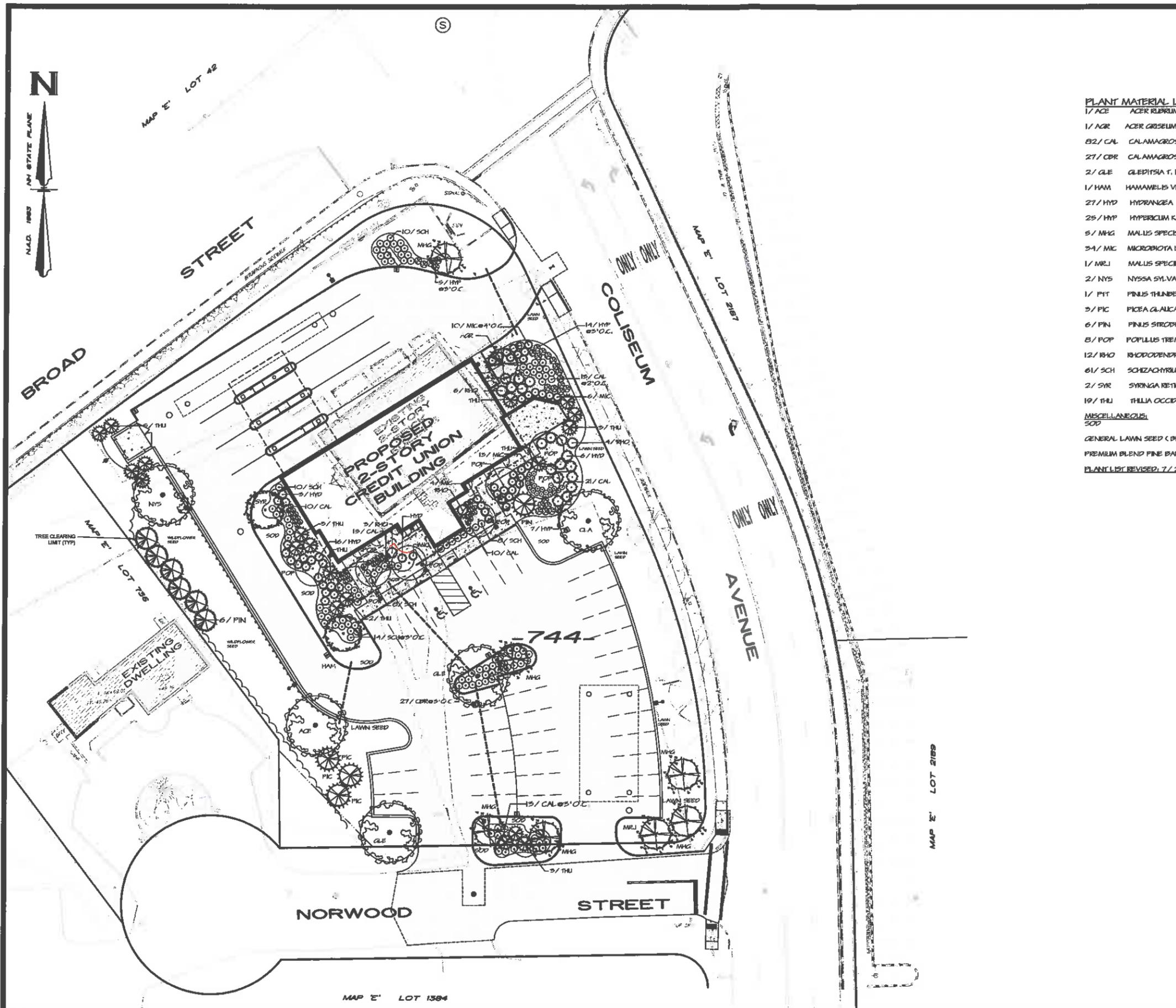
30 JULY 2020

HISI Haynes/Swanson, Inc.
Civil Engineer/Land Surveyor
3 Congress Street
Nashua, NH 03083
(603) 883-2097
www.hayneswanson.com



- NOTES:**
- THE EXIT SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC ROADWAYS. WHEELS SHALL BE CLEANED PRIOR TO EXITTING THE SITE ONTO A PUBLIC RIGHT-OF-WAY.
 - WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN.
 - CONSTRUCTION SPECIFICATIONS AND MAINTENANCE REQUIREMENTS SHOWN IN NHDES STORMWATER MANUAL, VOLUME 3.

TEMPORARY GRAVEL CONSTRUCTION EXIT
NOT TO SCALE



PLANT MATERIAL LIST

1/ ACE	ACER RUBRUM (RED SUNSET MAPLE)	2.5"-3" CAL.
1/ AGR	ACER GRISEBUM (PAPERBARK MAPLE)	10'-12' MULTI-STEM
82/ CAL	CALAMAGROSIS A. (OVERDAM FEATHER REED)	#2 GAL.
27/ CBR	CALAMAGROSIS BRACHYTRICHA (KOREAN FEATHER REED)	#1 GAL.
2/ GLE	GLEPITSIA T. I. (CHALKA HONEYLOCUST)	2.5"-3" CAL.
1/ HAM	HAMAMELIS VIRGINIANA (COMMON WITCHAZZEL)	7'-8' B&B
27/ HYD	HYDRANGEA QUERCIFOLIA (RUBY SLIPPERS OAKLEAF)	2.5"-3" B&B
28/ HYP	HYPERICUM KALMIANUM (AMES ST. JOHNSWORT)	#2 GAL.
8/ MHG	MALUS SPECIES (HARVEST GOLDCRABAPPLE)	2.5"-3" CAL.
34/ MIC	MICROBIOTA DECUSSATA (RUSSIAN CYPRESS)	#9 GAL.
1/ MRJ	MALUS SPECIES (RED JADE CRABAPPLE)	2.5"-3" CAL.
2/ NYS	NYSSA SYLVATICA (TUPELO & WILDFIRE)	2.5"-3" CAL.
1/ PYT	PINUS THUNBERGIANA (THUNDERHEAD JAPANESE PINE)	6'-7' B&B
3/ PIC	PICEA GLAUC (WHITE SPRUCE)	7'-8' B&B
6/ PIN	PINUS STROBUS (WHITE PINE)	6'-7' B&B
8/ POP	POPULUS TREMULOIDES (MOUNTAIN SENTINEL ASPEN)	2"-2.5" CAL.
12/ RHO	RHODODENDRON (WHITE CATAMPA RHODODENDRON)	#7 GAL.
61/ SCH	SCHIZACHYRIUM ACOPARUM (THE BLUES BLUESTEM)	#1 GAL.
2/ SYR	SYRINGA RETICULATA (IVORY SILK JAPANESE TREE LILAC)	5"-5.5" CAL.
19/ THU	THUJA OCCIDENTALIS (TECHNY MISSION ARBORVITAE)	7'-8' B&B
MISCELLANEOUS		
SOD		PER PLAN
GENERAL LAWN SEED (BLUE SEAL 'EZ GREEN' #1 LB./ 2005F.)		PER PLAN
PREMIUM BLEND PINE BARK MULCH (DO NOT USE TINTED MULCH)		4" SETTLED
PLANT LIST REVISED: 7/28/20		

No.	DATE	REVISION	BY
1	08/24/20	ADDRESS TECHNICAL REVIEW COMMITTEE COMMENTS	SJA

LANDSCAPE PLAN
(LOT 744, MAP 'E')

PROPOSED CREDIT UNION BUILDING
190 BROAD STREET
NASHUA, NEW HAMPSHIRE

PREPARED FOR/RECORD OWNER
GRANITE STATE CREDIT UNION
1415 ELM STREET MANCHESTER, NEW HAMPSHIRE 03108 (603) 688-2221

30 JULY 2020

PREPARED BY:
BLACKWATER DESIGN
PHONE (603) 646-6500 FAX (603) 646-6505
Land Planning - Landscape Architecture
85 Front Lane - Webster, NH 03303

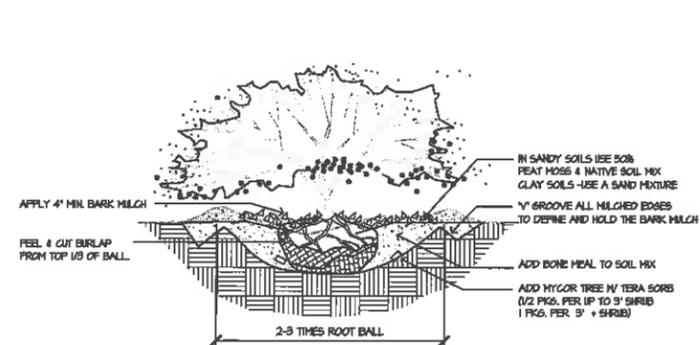
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General Specifications

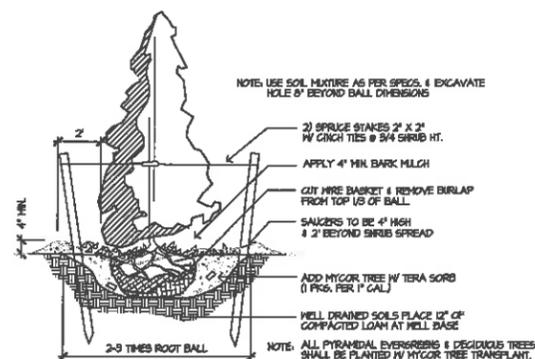
- The contractor shall at his expense furnish all the materials, supplies, machinery, equipment, tool, superintendent, labor, insurance, & other accessories and services necessary to complete the said project within the unit costs stated within the bid price.
- The work to be done under this contract is as shown and described on the drawings. Each bidder shall make a careful examination of the plans and specifications (the plan shall dictate quantities) and acquaint himself with all conditions before making his proposal. He will be held responsible for errors in his proposal resulting from his failure to make such an examination. All bidders shall visit the site and inform themselves of all conditions.
- The bids shall be based on materials and equipment complying with the drawings and the specifications. The contractor shall be responsible under this contract price, for furnishing and installing materials conforming to the bid items. Under no circumstances may a species "hybrid" be substituted or size changed without written consent of the landscape architect.
- The contractor shall be responsible for the protection of such existing utilities as water mains, sewer systems, gas mains, electrical conduits, telephone lines and any other utilities and if any damage or destruction may occur to these utilities, he shall be responsible for their repair and/or replacement at his expense.
- The contractor shall make payment for all damages to buildings, structures, trees, shrubs and/or any other property outside the construction area or located within those limits but not designated for removal or reconstructed providing such damage shall result from accident caused by negligence for which the contractor shall be legally liable.
- If additional labor and/or materials is requested or required, the contractor shall submit a price to the owner. If the owner approves the price he shall prepare a change order for approval and signature. The contractor shall not proceed without a written authorization from the owner for the additional work. If the contractor proceeds with the additional work without this authorization he shall forfeit any claim for additional compensation.
- The landscape architect shall reserve the right to inspect the project work at any time deemed necessary to insure that the specifications and plans and any other contract documents are being followed.
- The L.A. shall have the right to reject any plant on-site based upon condition, size, or incorrect species or hybrid. LA must be contacted prior to install, to inspect materials delivered to the site, and to insure that soil amendments, bark mulch, roof ballast, etc. are to the written specifications.
- All seeded areas shall receive a minimum 6" topsoil blanket (by site contractor) w/site preparation, raking and general clean up prior to application. Operations shall include a preemergence type herbicide, 12-25-12 granular fertilizer @ 10 lbs./1000 sq. ft., and pelletized limestone @ 25 lbs./1000 sq. ft. power raked into the top 2" of soil prior to hydro-seeding. Ratios & application rates may change based upon the required soil analysis.
- Contractor is responsible for establishing a thick, weed free lawn. Seed shall be spread @ 4lbs./1000. Lawn germination shall be 95% free of noxious weeds for acceptance. Define differences in seed mixes (if applicable) with irrigation flagging until 2nd mowing. Site review by LA is required.

- Review of the installed irrigation system by the designer is required prior to release of final payment.
- Hydroseeding operations shall be a one part process with a paper fiber mulch; a tackifier shall be applied on all slopes greater than 3:1. Excelsior Drainage mat shall be applied to all 2:1 slopes and drainage swales per plan.
- Contractor shall maintain, from acceptance date, the lawn areas through the first mowing. Contractor is not responsible for the first mowing.
- All plant materials shall be installed in accordance with A.L.C.C. Trees and shrubs shall have appropriate soil mixtures, fertilizer and soil retention granules.
- If the soil conditions are extremely sandy, all trees shall have a 6" layer of compacted topsoil (verify with Landscape Architect) placed in the base of the plant pit as a moisture retention layer. The plant pit sidewalls shall be over excavated by an additional 12" beyond the normal outside radius of the hole. A topsoil planting mixture shall be used to backfill as per spec # 22.
- Landscape architect shall have the right to reject and have ground removed any plant material not of proper size or of weak quality, i.e. thin, no lower branching, etc. Contractor must submit shipping lists (billing invoices) for verification, prior to installation.
- All plant material shall be guaranteed for a period of one (1) year from date of installation. Any material which dies or does not show a healthy appearance within this time shall be replaced at the contractors expense; with same warranty requirements as the original. Warranty does not cover loss due mechanical damage, i.e. snow storage. Contractor should protect susceptible species from insect infestation. Use a liquid systemic application on birch, etc.
- Plant beds and saucers vary in dia. (refer to dwg). Trees and shrubs shall receive a 4" (settled) covering of pine/hamlock bark mulch; saucer diameters per drawing & details. Deciduous trees shall have a 6" dia. saucer (typ.), evergreen trees shall have a saucer 2' min. beyond it's outer branches. All edges shall have a "V" groove.
- All B&B material which are encased in wire baskets shall have the wires cut loose and the top third removed prior to backfill operation.
- If road base is encountered in any plant bed areas, i.e. parking islands, it shall be removed and suitable amended soil installed per drawings and specifications.
- Soil planting mixture shall be a 6%-10% organic topsoil, amended with 10% wood ash, 10% manure, & 30% peatmoss or incorporate a dehydrated compost material. If planting in sand, gravel or other well drained soils, a 50% peatmoss to excavated soil. Other soil amendments shall include; Agriform tablets, Hydro-Gel or equal, and Roots growth enhancer to all trees and shrubs listed, per manufacturers specifications. All plant material pits will receive a min. 20% in volume mix of a compost soil amendment. Submittal required. 'Roots' STEP 1 can be substituted for the individual supplements. Install per manufacturer's specs.
- Landscape contractor shall not be responsible for topsoil spreading but shall coordinate with the site contractor adherence to the mound grades, plant bed soil depths and soil type per dwgs & spec. Landscape contractor shall power rake-out for seed.

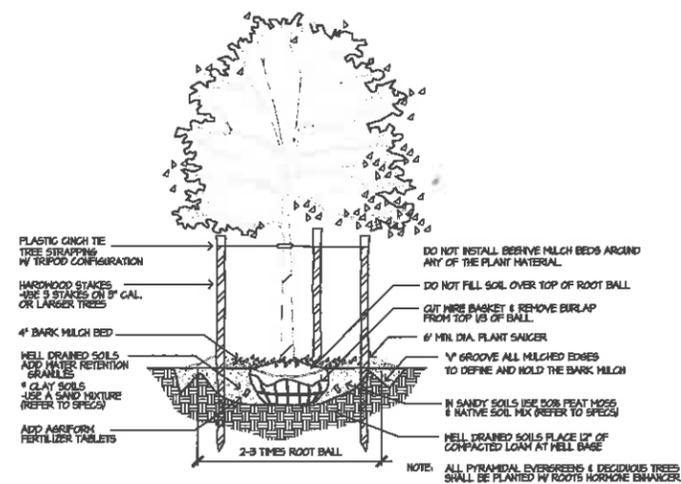
- Landscape contractor shall provide a soil analysis of the topsoil planting mixture. Analysis to show soil classification (min. sandy loam) and nutrients.
- Contractor shall protect all B&B materials left above grade prior to installation from drying out. All plants shall be stored, covered in mulch, and irrigated until planted. Any plant left on the ground and whose outer ball surface dries out, shall be rejected by the landscape architect. Plants stored in shade and off pavement.
- Plan dictates, contractor shall alert Landscape Architect if any discrepancies exist between the plan, the material list, and as-built site conditions.
- Installer shall notify landscape architect prior to planting, to review plant locations and bedline configurations. If contractor installs without the placement approval of the L.A., said architect shall have the right to relocate any installed plants at the contractor's expense.
- Installer shall notify landscape architect prior to plant installation to review all materials. Any plants of poor condition, improper size, or species will be rejected.
- Upon one year review, contractor shall straighten any trees that have shifted. Any weak or bare spots in lawn shall be reseeded.
- All bedlines shall have a deep 'V' groove to define lawn to mulch edge. No "Beehive" mounding of mulch is allowed, also keep mulch away from base of perennials.
- Do not plant materials too close to the edge of bedlines. Refer to drawings for center of plant to bedline. At a minimum no outer branching of a shrub or perennial shall be closer than two feet from the bedlines. If the as-built does not comply contractor shall adjust the plant location or bedline at his expense.
- Seed mixes include: Sandy Soil Lawn Mix by: deercrekseed.com; New England Wetland Plants, Amherst, Ma. refer to planting plan for designations.
- Any items not completed to the specifications will be required at contractors expense prior to final approvals. Contractor is to bid the work according to the specifications and not to what they may do under their standard practices. Special attention will be payed to soils, amendments, guy stakes, bedline & saucer configurations, seed mixtures, etc.
- Certain designated foundation edging is road ballast (washed rounds, non-crushed, natural) Size of stone is a range of 3/4"-1.5" dia. placed to a depth of 3", upon placement apply a coating of granular Preen (preemergent).
- Any questions concerning this drawing shall be directed to Joseph Hochrein c/o Blackwater Design, 85 Frost Lane, Webster, NH 03303, 603-668-2541.



B&B SHRUB PLANTING
NOT TO SCALE



PYRAMIDAL EVERGREEN TREE PLANTING
NOT TO SCALE



TREE PLANTING 2" + CAL.
NOT TO SCALE

1	08/24/20	ADDRESS TECHNICAL REVIEW COMMITTEE COMMENTS	BA
NO.	DATE	REVISION	BY

DETAIL SHEET - LANDSCAPE
(LOT 744, MAP "E")
PROPOSED CREDIT UNION BUILDING
190 BROAD STREET
NASHUA, NEW HAMPSHIRE

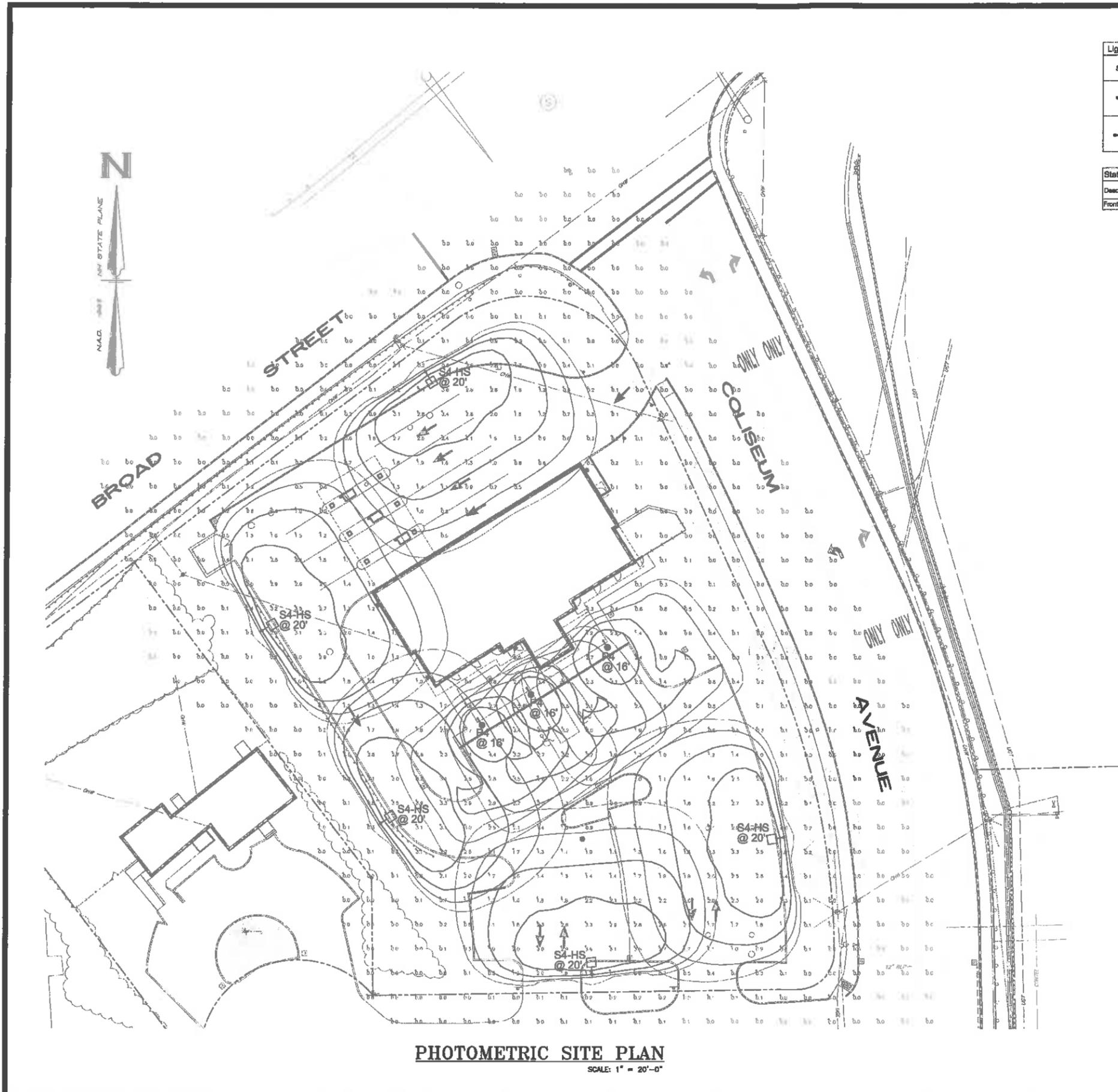
PREPARED FOR/RECORD OWNER
GRANITE STATE CREDIT UNION
1415 ELM STREET MANCHESTER, NEW HAMPSHIRE 03108 (603) 668-2221

SCALE: 1"=20 Feet
1"=6.096 Meters

30 JULY 2020

PREPARED BY:
BLACKWATER DESIGN
PHONE (603) 648-6300 FAX (603) 648-6305
Lead Planning - Landscape Architecture
85 Frost Lane - Webster, NH 03303

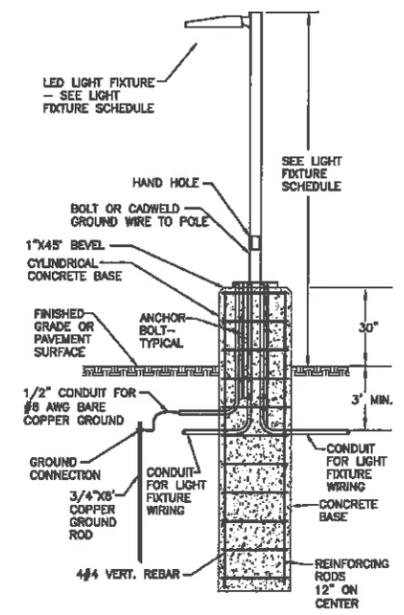
FIELD BOOK: ---	DRAWING NAME: 5292CU LS21	5292	14 OF 16
DRAWING LOG Q:\5292\CIVIL.DWG			



Light Fixture Schedule									
Symbol	Label	QTY	Catalog Number	Description	Lamp	Number Lamps	Lumens per Lamp	LLF	Wallage
□	S4-HS	5	GLEON-AP-02-LED-E1-SL4-7030-HSS/888420SPN1	EATON MCGRAW-EDISON AREA/SITE POLE LIGHT WITH TYPE 4 DISTRIBUTION WITH SPILL CONTROL, 20-FT SQUARE STRAIGHT STEEL POLE	LED	1	7,374	-	113
●	P4	3	ECM-ED2-LED-E1-SL4-90-9L-6K-7030/9A6164-6K/STL1649R946K	EATON EPIC MEDIUM DECORATIVE/SITE POLE LIGHT WITH TYPE 4 DISTRIBUTION WITH SPILL CONTROL, 16-FT DECORATIVE POLE	LED	1	6,847	-	62

Statistics Area 1					
Description	Avg	Max	Min	Avg/Min	Max/Min
Front Parking Lot Only	1.99 fc	4.4 fc	0.5 fc	3.98	8.80

Statistics Area 2					
Description	Avg	Max	Min	Avg/Min	Max/Min
Side Drive and Drive Up Area	1.91 fc	3.9 fc	0.5 fc	3.82	7.80



POLE BASE DETAIL
N.T.S.

1	08/24/20	ADDRESS TECHNICAL REVIEW COMMITTEE COMMENTS	8/A
NO.	DATE	REVISION	BY

PHOTOMETRIC LIGHTING PLAN
(LOT 744, MAP "E")
PROPOSED CREDIT UNION BUILDING
190 BROAD STREET
NASHUA, NEW HAMPSHIRE

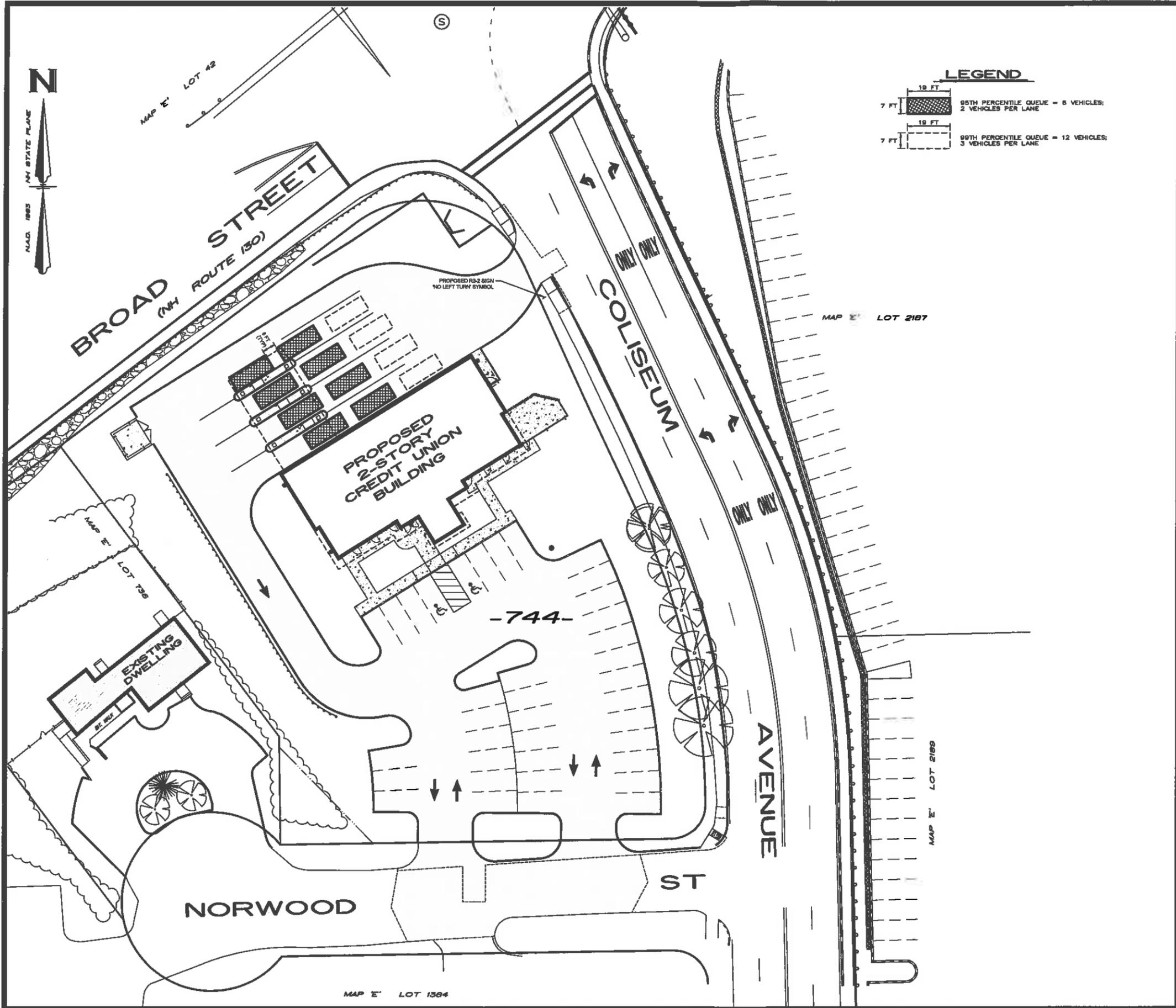
PREPARED FOR/RECORD OWNER
GRANITE STATE CREDIT UNION
1415 ELM STREET MANCHESTER, NEW HAMPSHIRE 03108 (603) 688-2221

0 20 40 60 80 FEET
10 0 10 20 METERS
SCALE: 1"=20 Feet
1"=6.096 Meters

30 JULY 2020

VA
YEATON ASSOCIATES, INC.
Bedford, NH | Lebanon, NH
MEP/FP Engineers
603.444.6578
5292

FIELD BOOK ---	DRAWING NAME: 0220CJ 01.21	5292	15 OF 16
DRAWING LOG: Q:\5292\CIVIL.DWG		Plot Number	Sheet



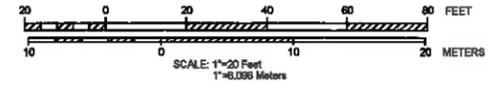
LEGEND

7 FT	19 FT	95TH PERCENTILE QUEUE = 6 VEHICLES; 2 VEHICLES PER LANE
7 FT	19 FT	95TH PERCENTILE QUEUE = 12 VEHICLES; 3 VEHICLES PER LANE

NO.	DATE	REVISION	BY

DRIVE-THRU STACKING PLAN
(LOT 744, MAP 'E')
PROPOSED CREDIT UNION BUILDING
NASHUA, NEW HAMPSHIRE

PREPARED FOR/RECORD OWNER
GRANITE STATE CREDIT UNION
1415 ELM STREET MANCHESTER, NEW HAMPSHIRE 03108

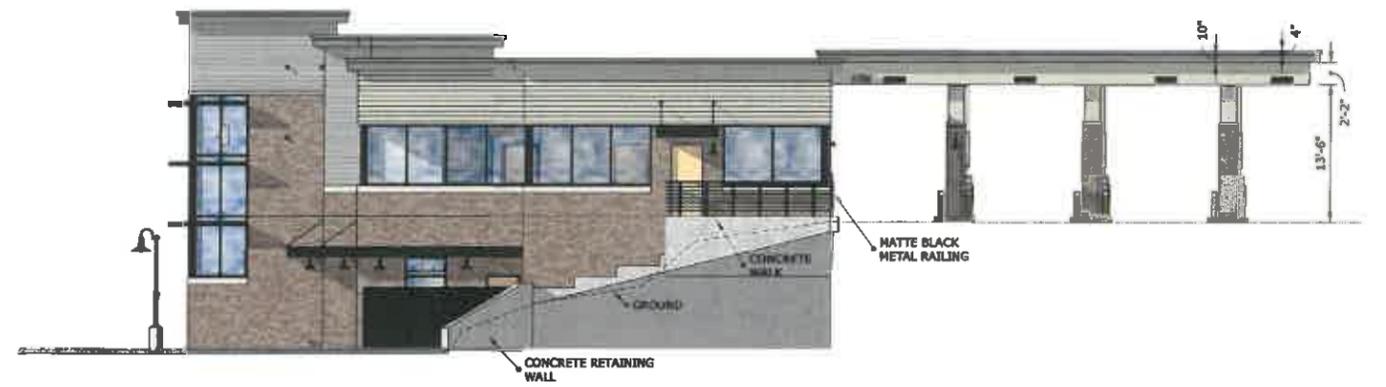


14 SEPTEMBER 2020

HISI Hayner/Swanson, Inc.
Civil Engineers/Land Surveyors
3 Congress Street 131 Middlesex Turnpike
Nashua, NH 03063 Burlington, MA 01803
603-883-3037 (NH) 303-4304
www.hisinc.com



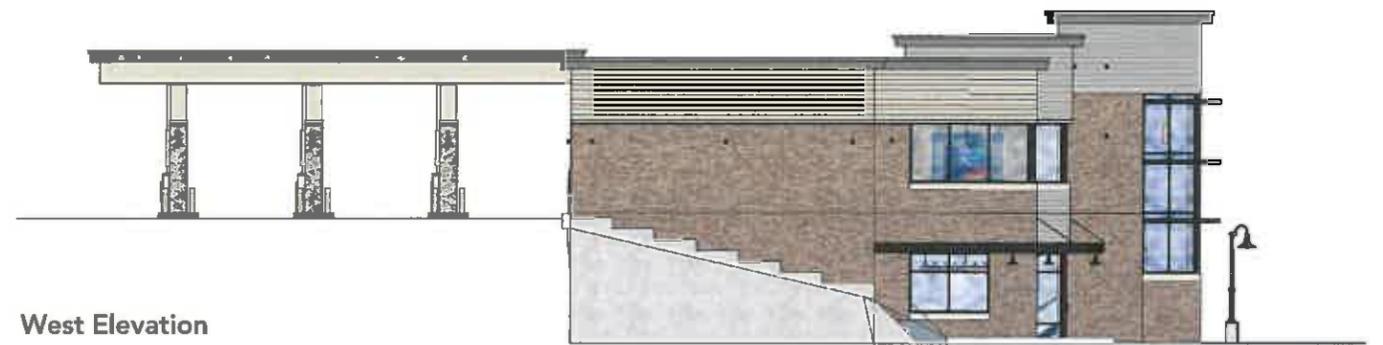
South Elevation



East Elevation



North Elevation



West Elevation



Right Perspective



Drive Thru Perspective



Left Perspective

NASHUA CITY PLANNING BOARD
STAFF REPORT

TO: Nashua City Planning Board
FROM: Linda McGhee, Deputy Planning Manager
FOR: October 8, 2020
RE: **New Business #9 - Site Plan**

I. Project Statistics:

Owner: 278 Daniel Webster Highway, LLC
Proposal: Site plan amendment to NR974 to demolish existing building and construct a 4,000 sf Sleep Number store and associated site improvements
Location: 278 Daniel Webster Highway
Total Site Area: 0.69 acres
Existing Zoning: HB - Highway Business and TOD – Transit Oriented Development
Surrounding Uses: Commercial

II. Background Information:

On the subject parcel is two-story mixed use retail and office building that was constructed in 1983. The building is comprised of eight units ranging in size from 798 sf to 1,914sf. Primary access is via a curb cut on Danforth Road. The property is located adjacent to the Daniel Webster Highway.

III. Project Description:

The proposal is to demolish the existing building and construct a new 4,000 sf Sleep Number store along with parking, utilities, signs, landscaping, lighting and other improvements. A 24' wide entrance from Danforth Road is being proposed along with 20 parking spaces. The site plan also maintains the cross-access easement between the subject property and the U-Haul facility to the south. Typical store hours will be 11 am to 7 pm during the weekdays and weekends.

A stormwater management plan was submitted and is attached to this report.

A Traffic Impact Report (TIR) Threshold Worksheet was submitted for this project and indicates that a formal Traffic Impact Report (TIR) is not required as the daily and peak hour trip estimates are below the TIR threshold values.

Within the Mixed Use Districts, all site plans submitted to the planning board for approval shall be accompanied by a site plan suitability report and is subject to the provisions of the code. The report has been attached for the board's review.

One waiver is being requested for setback relief. In the TOD, a maximum setback of 15' is allowed. The applicant is requesting a setback of 50'7" from Daniel Webster Highway and 66'7" are being proposed to allow for vehicle access and parking.

City staff reviewed the plans; comments are attached.

Staff Recommendations and Findings:

The Planning Board should make a determination that the plan meets, or does not meet, the requirements outlined in the Site Plan NRO § 190-146(D) and §190-23(E). The Board should review these prior to making a motion. If the Planning Board chooses to disapprove the plan, they should state specific reasons. If the Planning Board chooses to approve this plan, staff recommends the following stipulation(s) be made part of that approval:

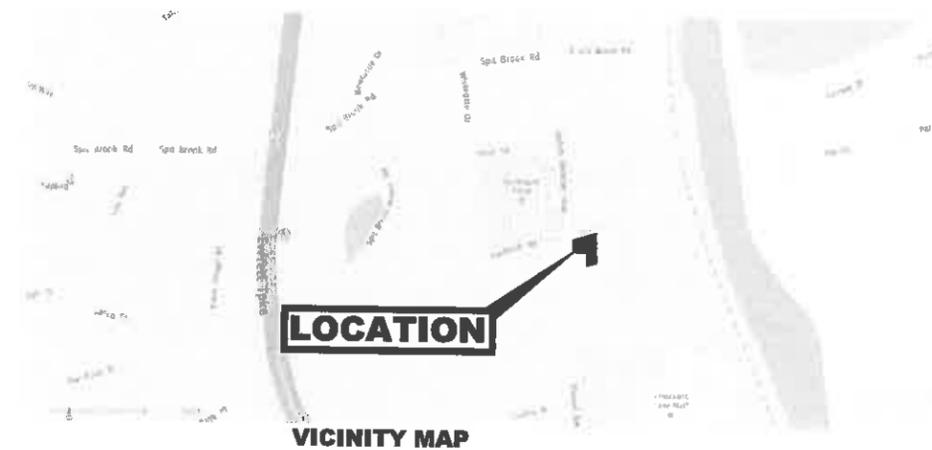
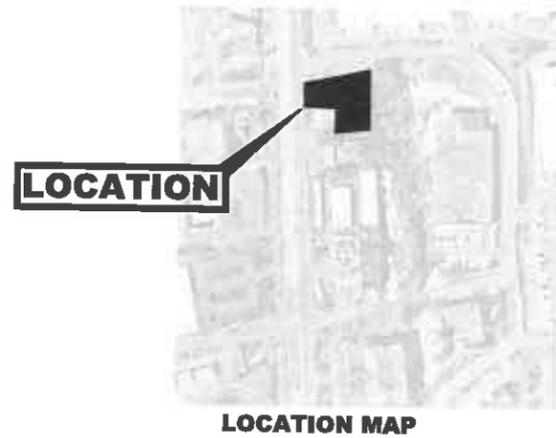
1. The request for a waiver of NRO § 190-26.1(H)(2), which requires a maximum front setback of 15 feet, **is/is not** granted, finding that the waiver **will/will not** be contrary to the spirit and intent of the regulation.
2. Prior to the Chair signing the plan, all conditions from the Planning Board approval letter will be added to the cover page of the final plans.
3. Prior to the Chair signing the plan, minor drafting corrections will be made.
4. Prior to the Chair signing the plan, all comments in an e-mail from Pete Kohalmi, P.E. dated October 5, 2020 shall be addressed to the satisfaction of the Engineering Department.
5. Prior to the issuance of a building permit, stormwater documents shall be submitted to Planning Staff for review and recorded at the applicant's expense.
6. Prior to any work and a pre-construction meeting, a financial guarantee shall be approved.
7. Prior to the issuance of a Certificate of Occupancy, all off-site and on-site improvements will be completed.

GMX REAL ESTATE

278 DANIEL WEBSTER HWY & DANFORTH RD CITY OF NASHUA

HILLSBOROUGH COUNTY, NEW HAMPSHIRE

MAP A, LOT 133



No.	DATE	DESCRIPTION	ISSUED FOR PERMIT
0	08/26/20		

600 E. Algonquin Road
 Suite 250
 Nashua, NH 03073
 Telephone: (603) 756-4180
 www.tntm.com

OWNER / APPLICANT/CONTACT

GMX REAL ESTATE GROUP, LLC
 3000 DUNDEE RD STE 408
 NORTHBROOK, IL 60062

ANDY GOODMAN
 PHONE (312) 607-6418

APPROVED - NASHUA PLANNING BOARD

CHARMAN SIGNATURE	DATE
SECRETARY SIGNATURE	DATE

SHEET INDEX

Sheet List Table		
Sheet Number	Sheet Title	Revision Date
C0.0	TITLE SHEET	
C1.0	EXISTING CONDITIONS & DEMOLITION PLAN	
C2.0	SITE PLAN	
C3.0	UTILITY PLAN	
C3.1	UTILITY PROFILES	
C4.0	GRADING PLAN	
C5.0	EROSION CONTROL PLAN	
C5.1	EROSION CONTROL DETAILS	
C6.0	SPECIFICATIONS	
C7.0	DETAILS	
C7.1	DETAILS	
C8.0	OPERATION AND MAINTENANCE PLAN	
ES1.0	PHOTOMETRIC PLAN	
X1.0	DRAINAGE PLAN	

CITY OF NASHUA CONTACTS:

- PLANNING / ZONING DEPARTMENT:**
COMMUNITY DEVELOPMENT DIVISION
229 MAIN STREET
NASHUA, NH 03060

ATT: ROGER HOUSTON,
PLANNING DIRECTOR
(603) 589-3090
- BUILDING DEPARTMENT:**
229 MAIN STREET
NASHUA, NH 03060

ATT: NELSON ORTEGA,
CODE ENFORCEMENT MANAGER
(603) 589-3080
- ENGINEERING DEPARTMENT:**
NASHUA DEPT. OF PUBLIC WORKS
9 RIVERSIDE STREET
NASHUA, NH 03060

ATT: USA FAUTEUX,
PUBLIC WORKS DIRECTOR
(603) 589-3169
- FIRE DEPARTMENT:**
NASHUA FIRE DEPARTMENT
70 EAST HOLLIS STREET
NASHUA, NH 03060

ATT: BRIAN RHODES, CHIEF
(603) 594-3651

UTILITY CONTACTS:

- WATER:**
PENNINGLUCK WATER WORKS
25 MANCHESTER STREET
MERRIMACK, NH 03054

ATT: JOHN BOISVERT, PE
(603) 913-2300
- GAS:**
LIBERTY UTILITIES
130 ELM STREET
MANCHESTER, NH 03101

ATT: RYAN LAGASSE
(603) 327-7151
- TELEPHONE:**
FAIRPOINT COMMUNICATIONS
237 DANIEL WEBSTER HWY,
MERRIMACK, NH 03054

ATT: ROBERTO DIAZ
(603) 595-1150
- POWER:**
EVERSOURCE
370 AMHERST STREET
NASHUA, NH 03060
ATT: THOMAS VALLTON
(603) 662-5694 EXT. 5208

OWNER SIGNATURE BLOCK

THE UNDER-SIGNED DOES HEREBY AGREE TO PERFORM ALL OF THE IMPROVEMENTS AS SHOWN ON THIS PLAN AND AS CONDITIONED OR STIPULATED BY THE NASHUA CITY PLANNING BOARD. ALL REQUIRED SITE IMPROVEMENTS MUST BE COMPLETED OR GUARANTEED PRIOR TO THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY.

OWNER SIGNATURE	DATE
-----------------	------

1. THE LOCATION OF THE UTILITIES SHOWN ARE APPROXIMATE. ITS THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE AND PRESERVE ALL UTILITY SERVICES.

2. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING AND COORDINATING WITH ALL UTILITY COMPANIES AND JURISDICTIONAL AGENCIES PRIOR TO AND DURING CONSTRUCTION.

3. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND WORK PRIOR TO CONSTRUCTION.

CONTACT DIG SAFE
72 HOURS PRIOR
TO CONSTRUCTION
DIGSAFE.COM
OR DIAL 811
CALL BEFORE YOU DIG
ITS THE LAW

NOTES

- SITE ACCESS CONTROL INCLUDING SAFETY FENCES AND TRAFFIC CONTROL, ALL CONSTRUCTION MEANS AND METHODS, AND SITE SAFETY ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
- THE CONTRACTORS SHALL NOTIFY ALL UTILITY COMPANIES OF THEIR FACILITIES PRIOR TO BEGINNING CONSTRUCTION. THE CONTRACTOR WILL BE RESPONSIBLE FOR THE MAINTENANCE AND PRESERVATION OF THESE FACILITIES. ALL UTILITIES SHOWN IN THE PLANS ARE FROM RECORDS OR FIELD OBSERVABLE IN INFORMATION LOCATED BY SURVEYOR. ANY UTILITY LOCATIONS SHOWN SHALL BE VERIFIED BY THE CONTRACTOR IN THE FIELD.
- PLANS BASED UPON GEOTECHNICAL ENGINEERING REPORT PREPARED BY JOHN TURNER CONSULTING, INC., DATED: AUGUST 18, 2020.



SIGNED AT : 08-26-2020

User: emt.asdman File: J:\2019\19.GMX.C08 - GMX Nashua, NH\09 DESIGN DRAWINGS\02-SHEETS\C00-TITLE SHEET.dwg Time: Aug 26, 2020 - 1:14pm

TITLE SHEET

PROJECT NAME: **GMX NASHUA**

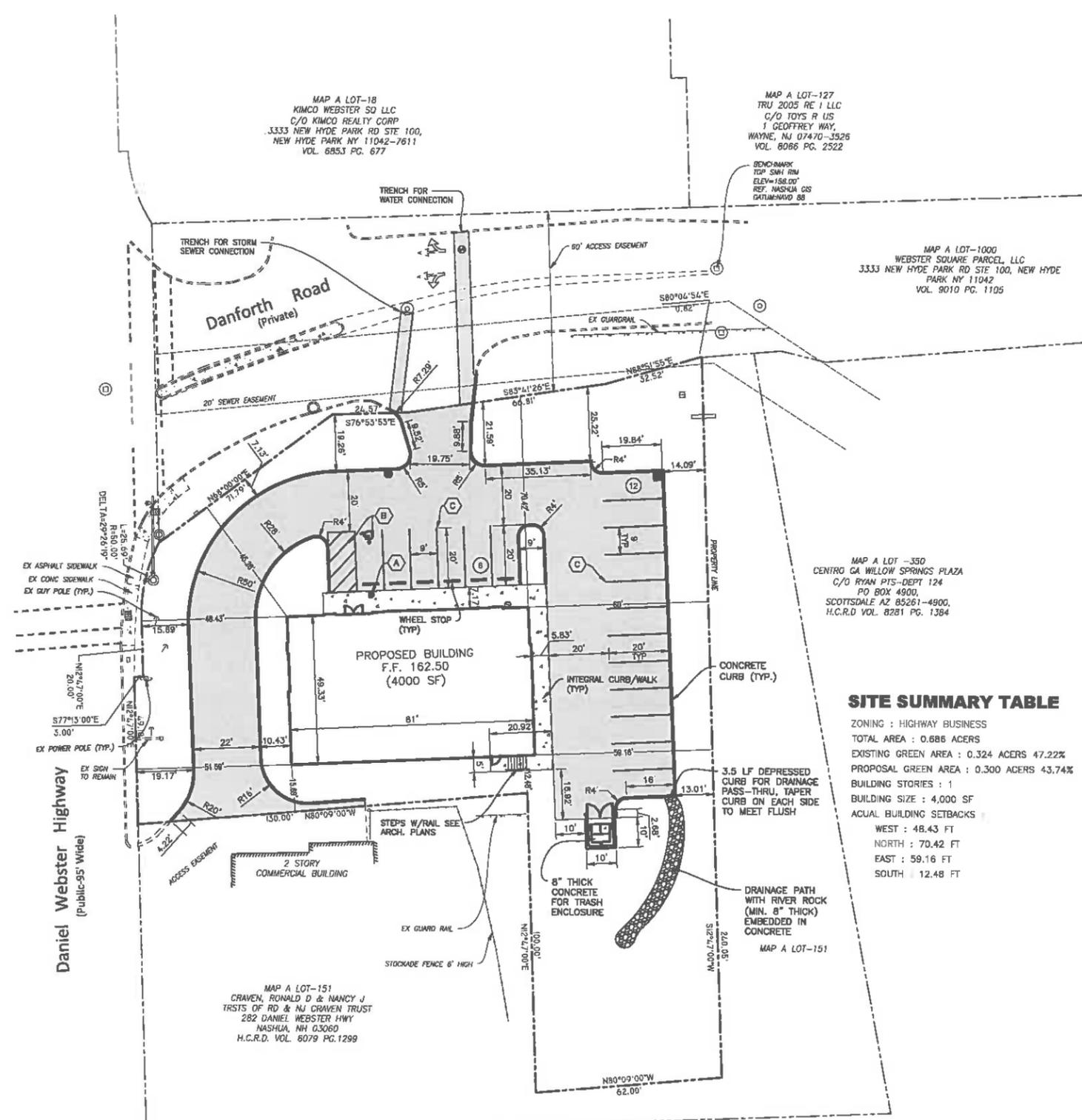
PROJECT No. **19.GMX.C08**

SHEET No. **C0.0**

OF 14 SHEETS

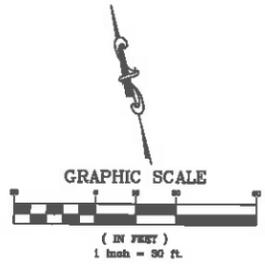
SHEET NAME: NASHUA, NH
PROJECT NAME: 278 DANIEL WEBSTER HWY

User: emkashman File: J:\2019\19.GMX.C08 - GMX Nashua, NH\08 DESIGN\08-05-SHEETS\C2.0_SITE PLAN.dwg Title: Aug 26, 2020 1:14pm



LEGEND

- CONCRETE SIDEWALK
- CONCRETE PAVEMENT
- ASPHALT PAVEMENT
- BARRIER CURB UNLESS NOTED OTHERWISE
- DEPRESSED CURB
- EXISTING CURB
- EXISTING STRIPING
- EXISTING SIDEWALK
- PARKING STALL COUNT
- SIGN AND STRIPING CALLOUT



CITY OF NASHUA SITE NOTES:

1. THE PURPOSE OF THIS PLAN IS TO OBTAIN SITE PLAN APPROVAL AND PERMITS FOR CONSTRUCTION OF THE NEW COMMERCIAL BUILDING, PARKING LOT, SIDEWALKS, TRASH ENCLOSURE AND UTILITY SERVICES.
2. PROPERTY IS ZONED: HIGHWAY BUSINESS
3. ALL SIGNAGE SHALL CONFORM TO APPLICABLE CITY OF NASHUA ZONING REGULATIONS WITH ALL PERMITS SECURED PRIOR TO INSTALLATION.
4. SITE IMPROVEMENTS DEPICTED ON THESE PLANS SHALL CONFORM TO TITLE 111 OF THE AMERICANS WITH DISABILITIES ACT WITH REGARD TO DIMENSIONS AND GRADE AND NUMBER OF SPACES.
5. BASED ON AVAILABLE GIS MAPPING, THE SITE IS BELIEVED TO BE SERVED BY BOTH MUNICIPAL SEWER AND BY PENNICHUCK WATERWORKS.
6. NO VARIANCES OR SPECIAL EXCEPTIONS ARE BEING REQUESTED AS PART OF THESE PLANS.
7. PER FEMA FLOOD INSURANCE RATE MAP (FIRM) NUMBER 33011C0658D, THE SITE IS NOT LOCATED IN A FLOOD ZONE.
8. THE PURPOSE OF THIS PLAN IS TO DEPICT THE PROPOSED SITE DESIGN AND ASSOCIATED FEATURES IN SUPPORT OF THE APPLICATION FOR PLANNING BOARD ACTION.
9. FUTURE BUILDING CONSTRUCTION SHALL INCORPORATE FOUNDATION DRAINAGE SYSTEMS EXCEPT WHERE AN INVESTIGATION ESTABLISHES THAT SPECIFIC BUILDING SITES ARE LOCATED IN WELL DRAINED SOILS AND THAT SUCH SYSTEMS ARE NOT REQUIRED.
10. PRIOR TO ANY WORK BEING CONDUCTED, A PRE-CONSTRUCTION CONFERENCE SHALL BE HELD WITH THE PLANNING STAFF AND OTHER CITY DEPARTMENTS AS NECESSARY TO REVIEW THE PROPOSED WORK.
11. UTILITIES, INCLUDING ALL ELECTRIC, TELEPHONE, CABLE TELEVISION, AND OTHER COMMUNICATION LINES, BOTH MAIN AND SERVICE CONNECTIONS, SERVING NEW DEVELOPMENTS SHALL BE PROVIDED BY UNDERGROUND WIRING WITHIN EASEMENTS OR DEDICATED PUBLIC RIGHT-OF-WAY INSTALLED IN ACCORDANCE WITH THE BOARD OF PUBLIC WORKS SPECIFICATIONS.
12. STREET RESTORATION WORK IS TO BE IN ACCORDANCE WITH NRO SECTION 19-26.
13. THE PRESENCE OF WETLANDS HAVE NOT BEEN OBSERVED ON THE SUBJECT SITE.
14. THE PROPOSED SITE PLAN DOCUMENTS, AS DESIGNED, ARE BELIEVED TO COMPLY WITH THE MINIMUM REQUIREMENTS ESTABLISHED IN THE LAND USE CODE CHAPTER 190 OF THE CITY OF NASHUA BY-LAWS.
15. IT SHALL BE UNLAWFUL TO MODIFY, CHANGE, OR ALTER ANY STRUCTURE SHOWN ON THIS PLAN IN ANY WAY WHATSOEVER, OR CONVERT OR ALTER THE STRUCTURE SHOWN ON THIS SITE PLAN, OR CHANGE THE ABOVE USE INDICATED ON THE PLAN WITHOUT RECEIVING APPROVAL FROM THE CITY.
16. PERMITTED USE: RETAIL.

SITE SUMMARY TABLE

ZONING : HIGHWAY BUSINESS
 TOTAL AREA : 0.686 ACERS
 EXISTING GREEN AREA : 0.324 ACERS 47.22%
 PROPOSAL GREEN AREA : 0.300 ACERS 43.74%
 BUILDING STORIES : 1
 BUILDING SIZE : 4,000 SF
 ACTUAL BUILDING SETBACKS
 WEST : 48.43 FT
 NORTH : 70.42 FT
 EAST : 59.16 FT
 SOUTH : 12.48 FT

GENERAL NOTES:

1. ALL DIMENSIONS ALONG CURB LINES ARE TO FACE OF CURB, UNLESS NOTED OTHERWISE.
2. BUILDINGS AND ADJACENT TO BUILDING IMPROVEMENTS SHOWN ON THESE PLANS ARE BASED UPON THE BUILDING PLANS PROVIDED BY OTHERS AT THE DATE OF THESE PLANS BEING PREPARED. BUILDING PLANS NORMALLY CONTINUE TO CHANGE AFTER SITE PLANS HAVE BEEN APPROVED. THEREFORE THE CONTRACTOR SHALL USE THE BUILDING PLANS FOR FINAL BUILDING IMPROVEMENTS, AND VERIFY THAT ALL ADJACENT IMPROVEMENTS ARE CONSISTENT WITH THE DESIGN INTENT AND REQUIREMENTS OF THE SITE PLANS. THE CONTRACTOR SHALL NOTIFY ENGINEER IMMEDIATELY IF CLARIFICATION IS NEEDED, OR IF CONFLICTS OR INCONSISTENCIES EXIST.
3. ADA DETECTABLE WARNING STRIPS SHALL BE CAST IRON TILES, WET SET INTO CONCRETE SURFACE, PER MANUFACTURERS INSTALLATION RECOMMENDATIONS.
4. REFER TO LANDSCAPE PLAN FOR RESTORATION OF ALL NON-PAVED AREAS.

SIGNING AND STRIPING SCHEDULE

- A. HANDICAP SIGN
- B. HANDICAP SYMBOL AND STRIPING (BLUE)
- C. 4" YELLOW STRIPE

PARKING SUMMARY

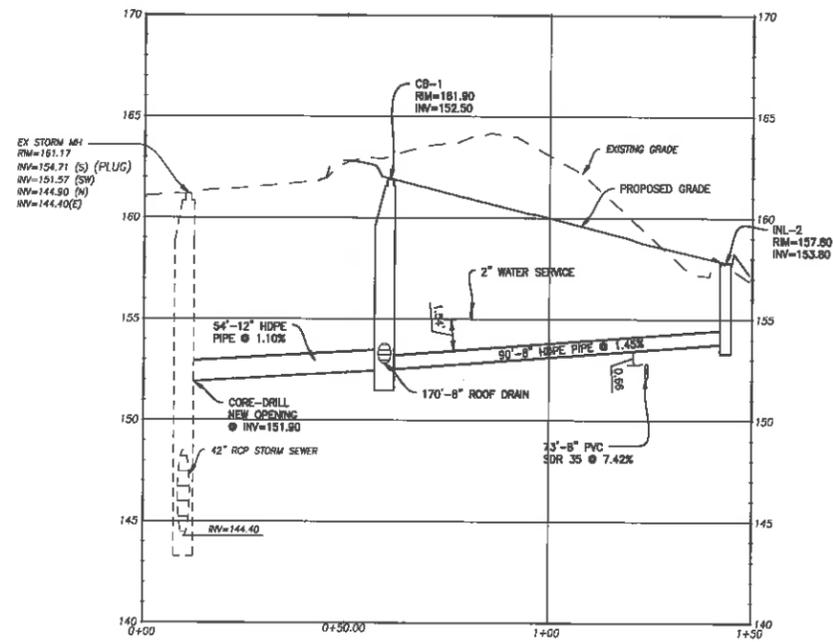
PARKING SPACES PROVIDED: 17
 ADA PARKING SPACES PROVIDED = 1
 TOTAL PARKING SPACES PROVIDED = 18

PROJECT No.	19.GMX.C08
SHEET No.	C2.0
PROJECT NAME	GMX NASHUA
SHEET NAME	SITE PLAN
PROJECT ADDRESS	278 DANIEL WEBSTER HWY NASHUA, NH
DATE	08/26/20
ISSUED FOR PERMIT	
DESCRIPTION	
DATE	
DESCRIPTION	

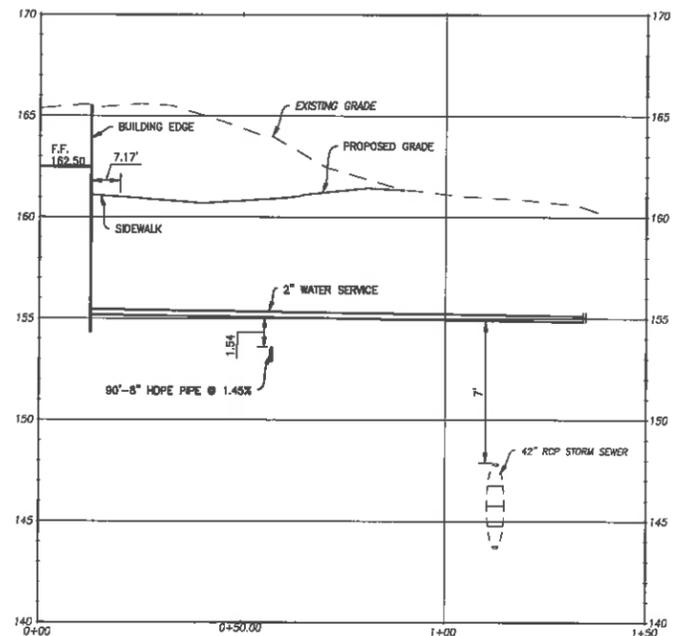
600 E. Algonquin Road
 Schaumburg, IL 60173
 Telephone: (815) 756-4180
 www.rtm.com

rtm
 engineering consultants

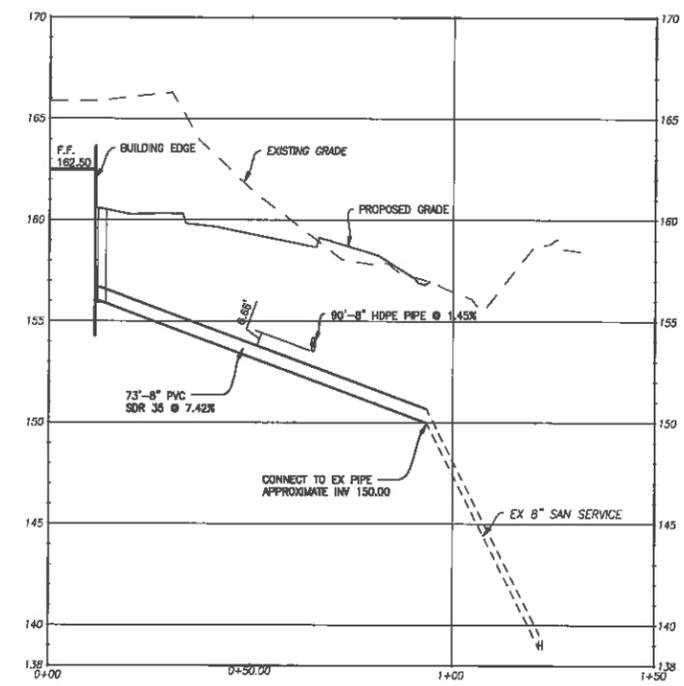
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STORM PROFILE



WATER PROFILE



SANITARY PROFILE

VERTICAL



1 inch = 4 ft.

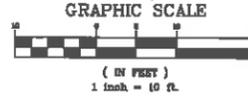
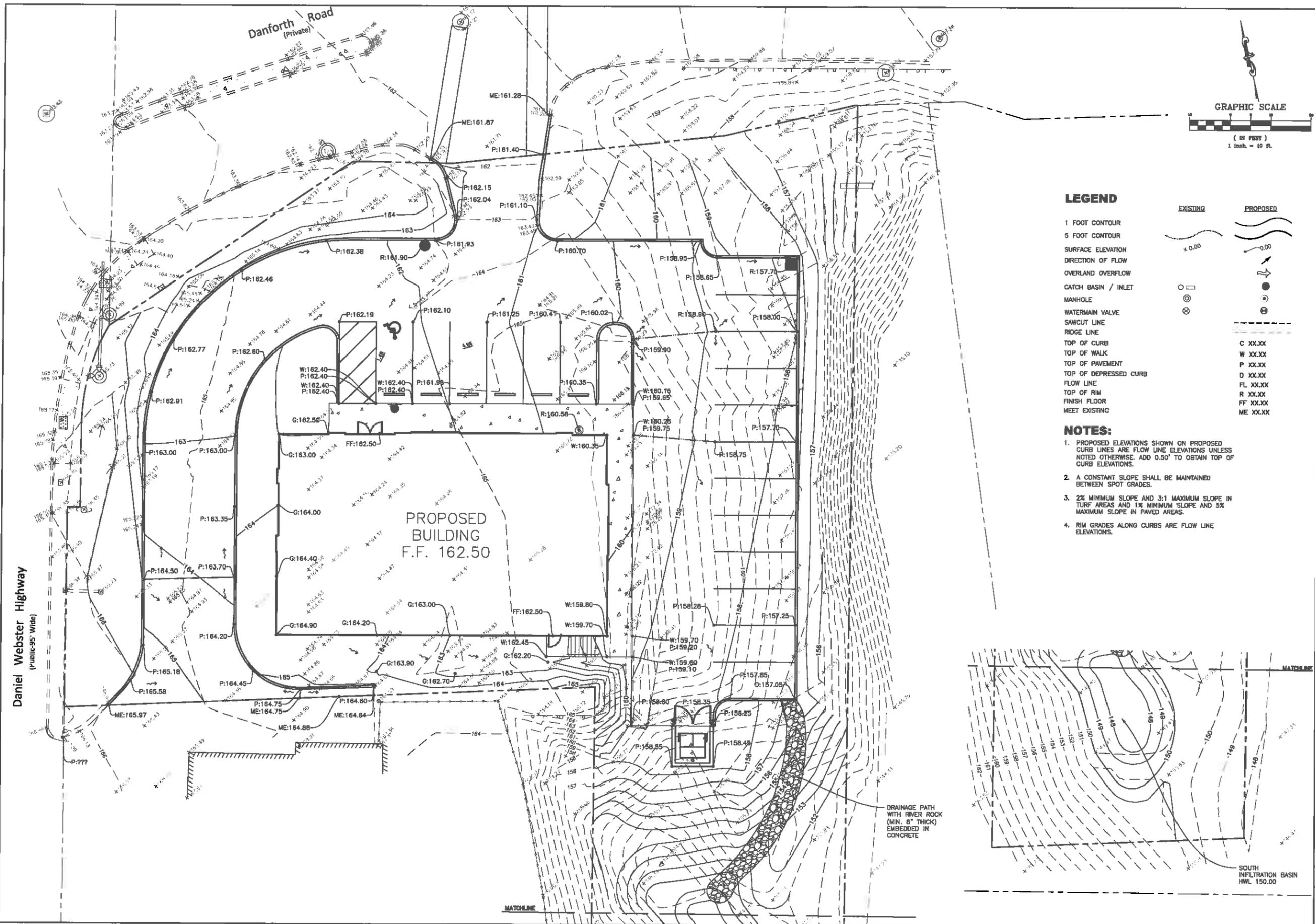
HORIZONTAL



(IN FEET)
1 inch = 20 ft.

PROJECT No. 19.GMX.C08	SHEET No. C3.1	OF 14 SHEETS	PROJECT NAME GMX NASHUA	SHEET NAME UTILITY PROFILES		800 E. Mountain Road Schaumburg, IL 60173 Telephone: (847) 786-4180 www.artm.com	No.	DATE	DESCRIPTION
							0	08/26/20	ISSUED FOR PERMIT

User: emicadman File: J:\2019\19.GMX.C08 - GMX Nashua, NH\05 DESIGN DRAWINGS\02-SHEETS\C4.0_GROUND PLAN.dwg Time: Aug 26, 2020 - 1:15pm

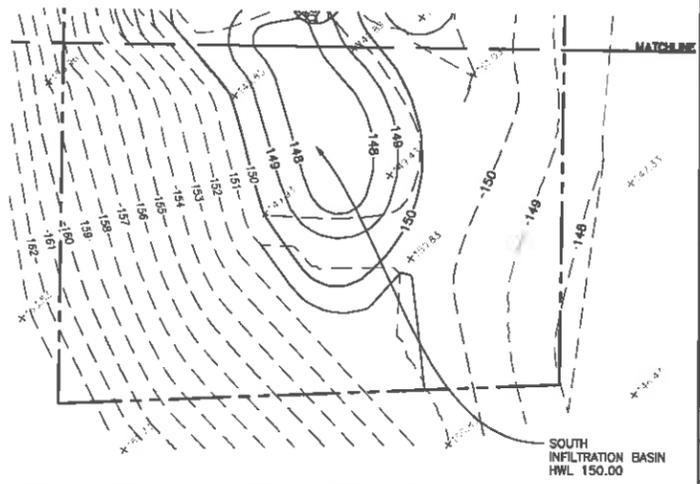


LEGEND

- | | | |
|-----------------------|----------|----------|
| 1 FOOT CONTOUR | EXISTING | PROPOSED |
| 5 FOOT CONTOUR | ~ x 0.00 | ~ -0.00 |
| SURFACE ELEVATION | | |
| DIRECTION OF FLOW | | → |
| OVERLAND OVERFLOW | | ↗ |
| CATCH BASIN / INLET | □ | ● |
| MANHOLE | ⊗ | ⊙ |
| WATERMAIN VALVE | | ⊕ |
| SAWCUT LINE | | — |
| RIDGE LINE | | — |
| TOP OF CURB | | C XX.XX |
| TOP OF WALK | | W XX.XX |
| TOP OF PAVEMENT | | P XX.XX |
| TOP OF DEPRESSED CURB | | D XX.XX |
| FLOW LINE | | FL XX.XX |
| TOP OF RIM | | R XX.XX |
| FINISH FLOOR | | FF XX.XX |
| MEET EXISTING | | ME XX.XX |

NOTES:

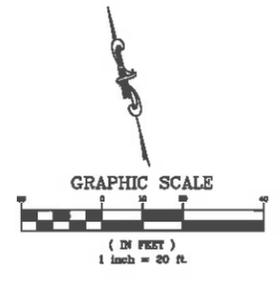
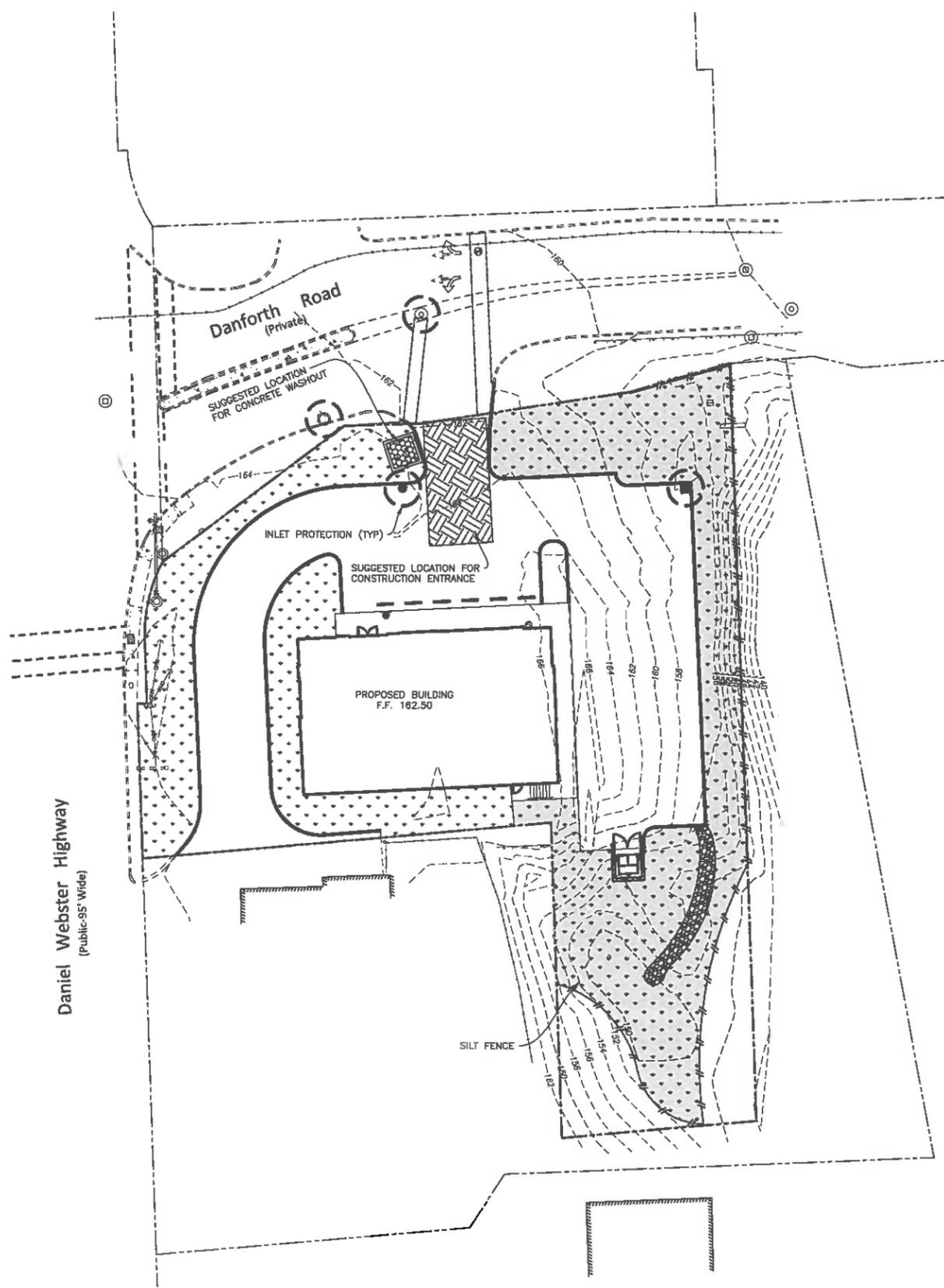
1. PROPOSED ELEVATIONS SHOWN ON PROPOSED CURB LINES ARE FLOW LINE ELEVATIONS UNLESS NOTED OTHERWISE. ADD 0.50' TO OBTAIN TOP OF CURB ELEVATIONS.
2. A CONSTANT SLOPE SHALL BE MAINTAINED BETWEEN SPOT GRADES.
3. 2% MINIMUM SLOPE AND 3:1 MAXIMUM SLOPE IN TURF AREAS AND 1% MINIMUM SLOPE AND 5% MAXIMUM SLOPE IN PAVED AREAS.
4. RIM GRADES ALONG CURBS ARE FLOW LINE ELEVATIONS.



PROJECT No.	19.GMX.C08
SHEET No.	C4.0
PROJECT NAME	GMX NASHUA
SHEET NAME	GRADING PLAN
PROJECT NAME	278 DANIEL WEBSTER HWY
SHEET NAME	NASHUA, NH
DATE	08/26/20
DESCRIPTION	ISSUED FOR PERMIT
NO.	0

590 E. Algonquin Road
Schaumburg, IL 60173
Telephone: (847) 756-4180
www.rtm.com

rtm
engineering consultants



- LEGEND**
- 20' X 40' CONSTRUCTION ENTRANCE, SEE DETAILS.
 - EROSION CONTROL BLANKET
 - RESTORE PER LANDSCAPE PLANS
 - INLET PROTECTION, AND INLET BASKET FILTERS, SEE DETAILS.
 - SILT FENCE, SEE DETAILS.
 - CONCRETE/MORTAR WASHOUT FACILITY
 - CATCH BASIN/INLET
 - STORM SEWER MANHOLE

SOIL EROSION AND SEDIMENT CONTROL NOTES:

1. INLET PROTECTION SHALL BE INSTALLED AT EACH DRAINAGE STRUCTURE THAT ACCEPTS WATER ONCE THAT STRUCTURE IS ABLE TO RECEIVE WATER.
2. ALL ROADS INCLUDING ADJACENT ROADWAYS, SWALES, DRAINAGE STRUCTURES, MANHOLES AND PIPES MUST BE KEPT CLEAN AND FREE OF DIRT, SILT AND DEBRIS AT ALL TIMES.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD ADJUSTING THE LOCATION OF THE SILT FENCE TO ACCOMMODATE CONSTRUCTION ACTIVITIES. RELOCATED SILT FENCE SHALL BE RELOCATED BACK TO ORIGINAL LOCATION AS NECESSARY AFTER CONSTRUCTION ACTIVITY IN THE EFFECTED AREA IS COMPLETED.
4. AFTER PERMANENT GROUND COVER IS ESTABLISHED THROUGHOUT THE SITE, THE SEDIMENT SHALL BE REMOVED FROM THE UNDERGROUND DETENTION SYSTEM AND ALL STORM SEWER PIPES AND STRUCTURES.

INSPECTION SCHEDULE

1. EROSION CONTROL DEVICES & SWALES SHALL BE MONITORED DAILY.
2. FOREBAY/SEDIMENT TRAPS SHALL BE MONITORED WEEKLY. TRAPPED SEDIMENT SHALL BE REMOVED, RESPREAD, & STABILIZED.
3. VEGETATIVE PLANTINGS (SEEDING, SODDING, ETC.) SHALL BE CHECKED PERIODICALLY TO VERIFY THAT ADEQUATE GROUND COVER IS BEING ESTABLISHED. AREAS OF INSUFFICIENT COVER SHALL BE RESEEDED.
4. REPAIRS TO EROSION CONTROL DEVICES SHALL BE MADE IMMEDIATELY UPON DISCOVERY.

ANTICIPATED CONSTRUCTION SEQUENCE	RESPONSIBLE CONTRACTOR			
	GRADING	UNDERGROUND	PAVING	LANDSCAPE
1. INSTALL SEDIMENT CONTROL DEVICES				
STABILIZED CONSTRUCTION ENTRANCE	X			
SILT FENCE	X			
2. GRADE SITE / STOCK PILE TOPSOIL				
SILT FENCE (TOPSOIL STOCKPILES & OPEN SPACE SLOPES)	X			
3. INSTALL STORM WATER MANAGEMENT				
STORM SEWER EXPLORATORY DIG		X		
INLET PROTECTION		X		
4. TEMPORARY VEGETATIVE STABILIZATION				
TEMPORARY SEEDING				X
MULCHING				X
5. SITE WORK - CONCRETE WASHOUT AREA				
CURB & GUTTER & PATCHING			X	
AGGREGATE SUBBASE			X	
BAW & SINDER			X	
SIDEWALKS AND CONCRETE PAVEMENT			X	
ASPHALT PATCHES			X	
LANDSCAPE INSTALLATION				X
6. TEMPORARY SEEDING ON ALL AREAS TO BE EXPOSED LONGER THAN 60 DAYS				X
7. SURFACE PARKING LOTS			X	
8. PERMANENT VEGETATIVE STABILIZATION OF EXPOSED AREAS				X
PERMANENT SEEDING				X
SODDING				X
9. PERFORM CONTINUING MAINTENANCE	X	X	X	X

SEEDING SCHEDULE

A KENTUCKY BLUEGRASS 135#/ac. MIXED WITH PERENNIAL RYEGRASS 45#/ac. & 2 TONS STRAW MULCH PER ACRE
 B SPRING OATS 100#/ac.
 C WHEAT OR CEREAL RYE 150#/ac.
 D SALT TOLERANT SOD, PER PROJECT SPECIFICATIONS
 E STRAW MULCH

STABILIZATION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
DORMANT SEEDING	A									A		
TEMPORARY SEEDING			B				C					
SODDING			D**									
MULCHING	E											

* IRRIGATE AS NECESSARY
 ** IRRIGATE AS NECESSARY TO ESTABLISH SOD

EROSION CONTROL PLAN

PROJECT No. **19.GMX.C08**
 SHEET No. **C5.0**
 OF 14 SHEETS

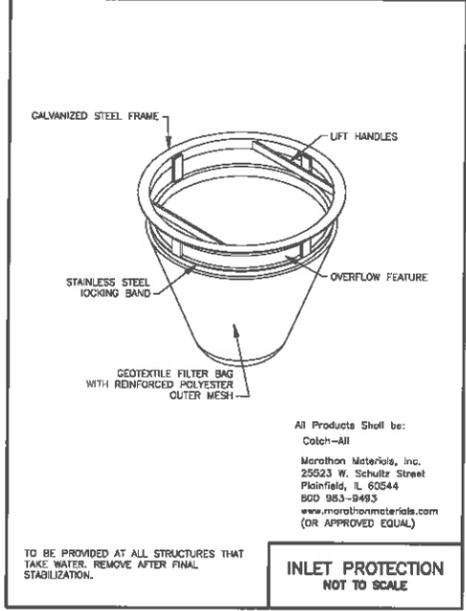
SHEET NAME: **EROSION CONTROL PLAN**

PROJECT NAME: **GMX NASHUA**

NASHUA, NH
 278 DANIEL WEBSTER HWY

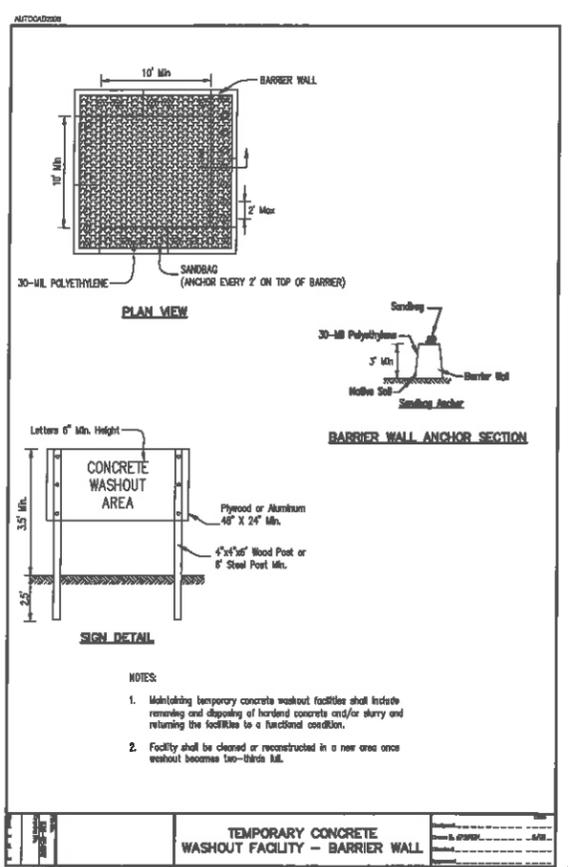
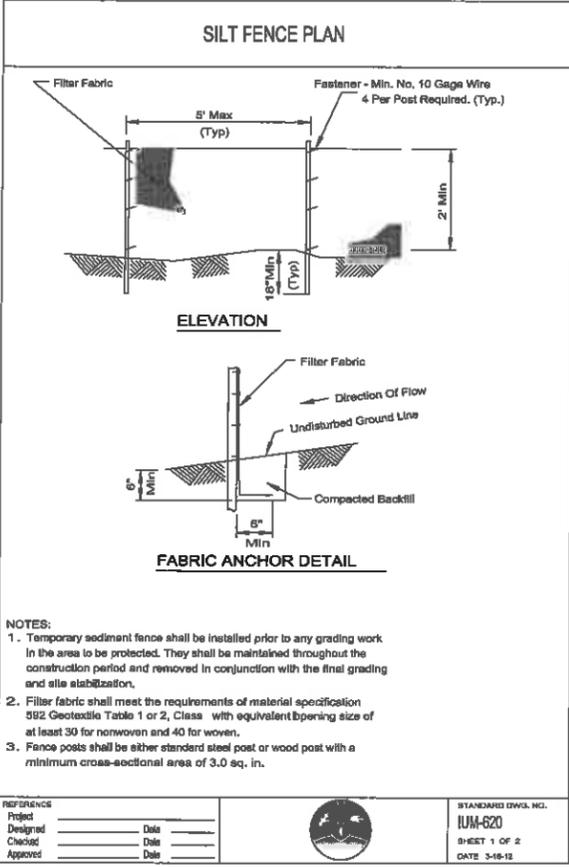
DESIGN FIRM: **artm** engineering consultants
 650 E. Algonquin Road
 Suite 250
 Schaumburg, IL 60173
 Telephone: (815) 766-1168
 www.artm.com

No.	DATE	DESCRIPTION	DATE	DESCRIPTION
0	08/26/20	ISSUED FOR PERMIT		



All Products Shall be:
 Colch-Ali
 Marathon Materials, Inc.
 25523 W. Schultz Street
 Plainfield, IL 60544
 800 383-2493
 www.marathonmaterials.com
 (OR APPROVED EQUAL)

INLET PROTECTION
 NOT TO SCALE



User: ericadefman Date: 2019/10/08 08:08 - GMX Nashua NH 0P DESIGN DRAWINGS 02--SHEETS\CSO EROSION CONTROL.dwg Time: Aug 26, 2020 - 11:15pm

PROJECT NAME	SHEET NAME	DESCRIPTION	DATE	NO.	DATE	DESCRIPTION	DATE	NO.	DESCRIPTION
GMX NASHUA	EROSION CONTROL DETAILS	ISSUED FOR PERMIT	08/26/20						
		ISSUED FOR PERMIT	08/26/20						
278 DANIEL WEBSTER HWY	NASHUA, NH								
PROJECT No. 19.GMX.008									
SHEET No. C5.1									
OF 14 SHEETS									

ERICADEFMAN
 engineering consultants

650 E. Algonquin Road
 Suite 200
 Schaumburg, IL 60173
 Telephone: (630) 756-4100
 www.ericadefman.com
 Design Firm: 19400677-0002

GENERAL NOTES AND CONDITIONS

- 1. THE MUNICIPAL AUTHORITY GOVERNING THIS WORK IS CITY OF NASHUA.
2. ALL WORK SHALL BE IN ACCORDANCE WITH THE APPLICABLE SECTIONS OF THE FOLLOWING SPECIFICATIONS...
3. THE PROJECT SPECIFICATIONS SHALL GOVERN THE CONSTRUCTION OF THIS DEVELOPMENT WITH THE ABOVE SPECIFICATIONS...
4. IN THE EVENT OF CONFLICTS, ERRORS, OR AMBIGUITIES IN THE DOCUMENTS CLIENT AND OR CONTRACTOR SHALL IMMEDIATELY...
5. THE STANDARD SPECIFICATIONS, CONSTRUCTION PLANS AND SUBSEQUENT DETAILS ARE ALL TO BE CONSIDERED AS PART OF THE CONTRACT...
6. THE MUNICIPALITY SHALL HAVE THE AUTHORITY TO INSPECT, APPROVE AND REJECT THE CONSTRUCTION OF THE IMPROVEMENTS CONSTRUCTED UNDER THESE CONTRACT DOCUMENTS...
7. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL QUANTITIES INDICATED ON THE ENGINEERING PLANS...
8. THE IMPROVEMENTS SHOWN ON THE ENGINEERING PLANS SHALL CONSIST OF FURNISHING ALL LABOR, MATERIAL AND EQUIPMENT...
9. ANY QUANTITIES CONTAINED IN THESE DOCUMENTS ARE APPROXIMATE AND ESTIMATED...
10. NO CONSTRUCTION PLANS SHALL BE USED FOR CONSTRUCTION UNLESS SPECIFICALLY MARKED 'FOR CONSTRUCTION'...
11. ALL WORK SHALL BE CONDUCTED IN ACCORDANCE WITH OSHA REQUIREMENTS AND MUNICIPAL REGULATIONS...
12. UTILITY INFORMATION SHOWN HEREON WAS OBTAINED FROM THE BEST AVAILABLE SOURCE...
13. THE CITY OF NASHUA MUST BE NOTIFIED AT LEAST TWO (2) WORKING DAYS PRIOR TO THE COMMENCEMENT OF ANY APPROVED CONSTRUCTION ACTIVITY...
14. EXCAVATIONS SHOULD COMPLY WITH THE REQUIREMENTS OF OSHA 29CFR, PART 1926, SUBPART P...
15. REMOVED PAVEMENT, SIDEWALK, CURB AND GUTTER, EXCESS MATERIALS, DEBRIS, ANY EXCESS DIRT OR MATERIALS, ETC. SHALL BE LEGALLY DISPOSED OF AT OFF-SITE LOCATIONS...
16. CONSTRUCTION SITE SAFETY IS SOLE RESPONSIBILITY OF THE CONTRACTOR WHO CONTROLS THE MEANS, METHODS, AND SEQUENCING OF CONSTRUCTION OPERATIONS...
17. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ADEQUATE SIGNS, BARRICADES, FENCING, TRAFFIC CONTROL DEVICES AND MEASURES...
18. SITE ACCESS CONTROL INCLUDING SAFETY FENCES, AND ALL CONSTRUCTION MEANS AND METHODS AND SITE SAFETY ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR...
19. ALL PERMANENT TYPE PAVEMENTS OR PERMANENT IMPROVEMENTS WHICH ABUT THE PROPOSED IMPROVEMENT AND MUST BE REMOVED, SHALL BE FULL DEPTH SAW-CUT PRIOR TO REMOVAL...
20. WHENEVER THE PERFORMANCE OF WORK IS INDICATED ON THE PLANS, AND NO ITEM IS INCLUDED IN THE CONTRACT FOR PAYMENT, THE WORK SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT...
21. THE CONTRACTOR, BY AGREEING TO PERFORM THE WORK, AGREES TO INDEMNIFY AND HOLD HARMLESS THE OWNER, THE ENGINEER, THE CITY, AND ALL AGENTS AND ASSIGNS OF THOSE PARTIES...
22. ALL ROADS, SWALES, DRAINAGE STRUCTURES, MANHOLES AND PIPES MUST BE KEPT CLEAN AND FREE OF DIRT, SILT AND DEBRIS AT ALL TIMES...
23. IF ANY EXISTING UNDERGROUND UTILITIES ARE ENCOUNTERED OR DAMAGED DURING CONSTRUCTION, THEY SHALL BE REPAIRED PROPERLY BY THE CONTRACTOR...
24. CONTRACTOR SHALL PURCHASE AND MAINTAIN FOR THE DURATION OF THE WORK INSURANCE TO PROTECT ENGINEER, OWNER, ALL OF THEIR AGENTS, EMPLOYEES, SUCCESSORS, AND ASSIGNS FROM ANY AND ALL CLAIMS ARISING OUT OF THE CONSTRUCTION OF THE WORK...
25. ALL WORK PERFORMED BY THE CONTRACTOR SHALL BE GUARANTEED BY THE CONTRACTOR FOR A MINIMUM PERIOD OF TWELVE (12) MONTHS FROM THE DATE OF FINAL ACCEPTANCE...

EARTHWORK AND GRADING

- 1. THE GEOTECHNICAL REPORT FOR THE PROJECT WAS PREPARED BY JOHN TURNER CONSULTING, DATED, AUGUST 18, 2020. THEIR REQUIREMENTS AND RECOMMENDATIONS SHALL BE FOLLOWED...
2. SOIL EROSION CONTROL SPECIFICATIONS SHALL BE CONSIDERED AS PART OF THIS SECTION...
3. SOIL EROSION CONTROL MEASURES IN ACCORDANCE WITH THE CHARLES SOIL CONSERVATION DISTRICT SHALL BE FOLLOWED...
4. ALL PROPOSED PAVEMENT AREAS SHALL BE STRIPPED OF ALL TOPSOIL AND UNSUITABLE MATERIAL AND EXCAVATED OR FILLED TO DESIGN SUBGRADE...
5. STOCKPILING OF SOIL SHALL BE AT LOCATIONS APPROVED BY THE OWNER...
6. PROPOSED PAVEMENT AREAS AND WHEN APPLICABLE, BUILDING PADS, DRIVEWAYS AND SIDEWALKS SHALL BE EXCAVATED OR FILLED TO PLUS OR MINUS 0.1 FOOT OF DESIGN SUBGRADE ELEVATIONS...
7. THE SUBGRADE SHALL BE FREE OF UNSUITABLE MATERIAL AND SHALL BE COMPACTED TO A MINIMUM OF NINETY-FIVE (95) PERCENT OF MODIFIED PROCTOR DENSITY...
8. DURING CONSTRUCTION OPERATIONS, THE CONTRACTOR SHALL INSURE POSITIVE SITE DRAINAGE AT THE CONCLUSION OF EACH DAY...
9. UPON COMPLETION OF THE SURFACE IMPROVEMENTS, THE CONTRACTOR SHALL RE-SPREAD A MINIMUM OF A 6" LAYER OF TOPSOIL...
10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL OF ALL SPOILS MATERIAL AS NECESSARY...

PAVING

- 1. THE PROPOSED ASPHALT PAVEMENT SHALL CONSIST OF THE SUBGRADE COURSE (AS SPECIFIED) BASE COURSE, BITUMINOUS CONCRETE BINDER COURSE AND BITUMINOUS CONCRETE SURFACE COURSE...
2. ALL DAMAGED AREAS IN THE BINDER, BASE OR CURB AND GUTTER SHALL BE REPAIRED TO THE SATISFACTION OF THE ENGINEER AND MUNICIPALITY...
3. CONCRETE CURBS (& GUTTERS):
A. ALL CURB AND GUTTER SHALL BE CONSTRUCTED WITH NHDOT CLASS A APPROVED CONCRETE...
B. CONTRACTION JOINTS SHALL BE SAW-CUT AT TWENTY (20) FOOT INTERVALS...
C. PREFORMED FIBER BOARD EXPANSION JOINTS, ONE (1) INCH THICK, SHALL BE PLACED FIVE FEET EITHER SIDE OF STORM STRUCTURES...
D. TWO (2)-#5 PLAIN ROUND STEEL BOWLS, 2 FEET LONG, SHALL BE PROVIDED AT ALL EXPANSION JOINTS...
E. THE PROPOSED CURB AND GUTTER AND PAVEMENT SHALL BE OF THE TYPE AND THICKNESS AS SPECIFIED IN THESE DRAWINGS...
F. DEPRESSED CURB SHALL BE PROVIDED FOR HANDICAPPED RAMPS LOCATIONS...
G. ALL ON-SITE JOINTS SHALL BE SEALED WITH CONCRETE JOINT SEALANT PER NOTE B BELOW...
4. CONCRETE SIDEWALK (INCLUDING CURB RAMPS):
A. ALL SIDEWALK SHALL BE CONSTRUCTED WITH NHDOT, CLASS A CONCRETE...
B. TOOLED CONTRACTION JOINTS SHALL CONSTRUCTED AT EVERY ± FIVE (5) FEET...
C. PREFORMED FIBER BOARD EXPANSION JOINTS, 3/4" THICK, SHALL BE PLACED EVERY 100' AND AT ALL ABUTTING DRIVEWAYS...
D. PREFORMED EXPANSION JOINTS, 1/2" THICK, SHALL BE PLACED BETWEEN BUILDINGS...
E. ALL SIDEWALKS CROSSING UTILITY TRENCHES SHALL HAVE TWO #4 REINFORCING BARS...
F. DETECTIBLE WARNING SHALL CONSIST OF TRUNCATED DOMES MEETING THE REQUIREMENTS OF ADAAG AND INSTALLED AT LOCATIONS SHOWN ON PLAN...
5. CONCRETE PAVEMENT AND DRIVE APRONS:
A. CONCRETE PAVEMENT SHALL BE CONSTRUCTED WITH NHDOT CLASS AA CONCRETE...
B. ADEQUATE CONSTRUCTION JOINTS, CONTRACTION JOINTS FOR ISOLATION JOINTS...
C. ALL ON-SITE JOINTS, WITH THE EXCEPTION OF SAWED JOINTS, SHALL BE SEALED WITH CONCRETE JOINT SEALANT PER NOTE B BELOW...

STANDARD UTILITY PROVISIONS

- 1. ALL UTILITY CONSTRUCTION WORK SHALL GOVERNED BY:
• SANITARY DISTRICT REQUIREMENTS
• MUNICIPAL/LOCAL REQUIREMENTS
• ROADWAY AUTHORITIES REQUIREMENTS
2. ALL UTILITY TRENCHES UNDER AND WITHIN TWO FEET OF PAVEMENT, SIDEWALK, CURB AND GUTTER, ETC. SHALL BE BACKFILLED WITH SCREENED GRAVEL CONFORMING TO ASTM C31, STONE SIZE #67, COMPACTED IN 8" LIFTS TO 95% OF MODIFIED PROCTOR, PER ASTM D-1557.
3. UTILITY CONNECTIONS WITHIN THE STREET RIGHT OF WAY SHALL BE ACCOMPLISHED BY SAW CUTTING AND REMOVING EXISTING PAVEMENT, BACKFILL AND RESTORATION SHALL BE DONE IN ACCORDANCE WITH THE REQUIREMENTS OF THE STREET JURISDICTIONAL AUTHORITY.
4. THE UNDERGROUND CONTRACTOR, AT THE CONTRACTOR'S EXPENSE, SHALL REMOVE AND DISPOSE OF OFFSITE ANY EXCESS DIRT OR MATERIALS.
5. "BAND/SEAL" OR SIMILAR FLEXIBLE-TYPE COUPLINGS SHALL BE USED IN THE CONNECTION OF SEWER PIPE OR DISSIMILAR MATERIALS.
6. A MINIMUM HORIZONTAL DISTANCE OF 10 FEET SHALL BE MAINTAINED BETWEEN WATER MAIN AND ANY SEWERS WHEN THEY ARE PARALLEL...
7. ALL CAST AND DUCTILE IRON PIPE AND FITTINGS SHALL BE ENCASED IN A 8-MIL POLYETHYLENE TUBING...
8. ALL MANHOLES, CATCH BASINS, INLETS AND VALVE VAULTS SHALL BE CONSTRUCTED OF REINFORCED PRECAST CONCRETE RING CONSTRUCTION...
9. SEE DETAIL SHEETS THIS SET FOR FURTHER INFORMATION REGARDING THE STORM, SANITARY AND WATERMAIN REQUIREMENTS...

STANDARD SANITARY SEWER PROVISIONS:

- 1. ALL FLOOR DRAINS SHALL DISCHARGE TO THE SANITARY SEWER.
2. ALL DOWNSPOUTS, FOOTING DRAINS, AND OUTSIDE DRAINS SHALL DISCHARGE TO THE STORM SEWER SYSTEM OR TO GRADE.
3. SANITARY SEWER SHALL BE CONSTRUCTED OF ONE OR MORE OF THE FOLLOWING MATERIALS AS SPECIFIED ON THE PLANS:
A. POLYVINYLCHLORIDE PLASTIC GRAVITY SEWER PIPE (PVC) SDR-35 (ASTM D-3034 WITH GASKETED JOINTS PER ASTM D-3212)
B. DUCTILE IRON PIPE CLASS 52 (ANSI A21.51 WITH ANSI A21.11 JOINTS)
C. ALL SANITARY FIRING SHALL BE INSTALLED ON CLASS "B" BEDDING
4. "BAND-SEAL" OR SIMILAR FLEXIBLE-TYPE COUPLINGS SHALL BE USED IN THE CONNECTION OF SEWER PIPE OF DISSIMILAR MATERIALS OR SIZES.
5. WHEN CONNECTING TO AN EXISTING SEWER MAIN BY MEANS OTHER THAN AN EXISTING WYE, TEE, OR AN EXISTING MANHOLE, ONE OF THE FOLLOWING METHODS SHALL BE USED:
A. CIRCULAR SAW-CUT OF THE SEWER MAIN BY PROPER TOOLS ("SEWER-TAP" MACHINE OR SIMILAR) AND PROPER INSTALLATION OF HUB-WYE SADDLE OR HUB-TEE SADDLE.
B. REMOVE AN ENTIRE SECTION OF PIPE (BREAKING ONLY THE TOP OF ONE BELL) AND REPLACE WITH A WYE OR TEE BRANCH SECTION.
C. WITH PIPE CUTTER, NEATLY AND ACCURATELY CUT OUT DESIRED LENGTH OF PIPE FOR INSERTION OF PROPER FITTING, USING "BAND-SEAL" OR SIMILAR COUPLINGS TO HOLD IT FIRMLY IN PLACE.
D. INSTALL A NEW MANHOLE.
6. SANITARY MANHOLES SHALL HAVE IN ADDITION TO THE GENERAL MANHOLE REQUIREMENTS:
A. BASE AND BOTTOM SECTION SHALL BE MONOLITHICALLY CAST INCLUDING BENCHES, INVERTS AND FLOW LINES.
B. PIPE CONNECTION OPENINGS SHALL BE PRECAST WITH RESILIENT RUBBER WATERTIGHT PIPE SLEEVES CONFORMING TO ASTM C-923.
C. CHIMNEY SEAL OR APPROVED ALTERNATE AS REQUIRED BY MUNICIPALITY OR SANITARY DISTRICT.
D. ALL SANITARY MANHOLES SHALL BE TESTED PER ASTM C-989 OR ASTM C-1244.
E. SANITARY MANHOLES SHALL HAVE NEDENH R-1772 CASTINGS, WITH CONCEALED PICK HOLES, SELF-SEALING GASKET AND "SANITARY" CAST IN LD, OR APPROVED EQUAL.
7. ALL SEPTIC TANKS (IF ANY) BEING ABANDONED SHALL BE FILLED OR REMOVED, APPROVAL MUST BE OBTAINED FROM THE APPROPRIATE HEALTH DEPARTMENTS...
8. ALL SANITARY SEWERS SHALL BE TESTED PER MUNICIPAL STANDARDS IN KEEPING WITH ALL STATE AND MUNICIPALITY REQUIREMENTS...
9. ALL FLEXIBLE (PVC) PIPE SHALL BE DEFLECTION TESTED PER MUNICIPAL AND/OR MANUFACTURER REQUIREMENTS.
10. ALL SANITARY SEWERS SHALL BE TESTED PER MUNICIPAL STANDARDS IN KEEPING WITH ALL STATE AND MUNICIPALITY REQUIREMENTS...
11. ALL SANITARY SEWER MANHOLES SHALL BE INSPECTED AND TESTED PER MUNICIPAL STANDARDS...
12. ALL FLEXIBLE (PVC) PIPE SHALL BE DEFLECTION TESTED PER MUNICIPAL AND/OR MANUFACTURER REQUIREMENTS.
13. ALL SANITARY SEWERS SHALL BE TOLERATED AND TESTED AS REQUIRED BY THE MUNICIPALITY...

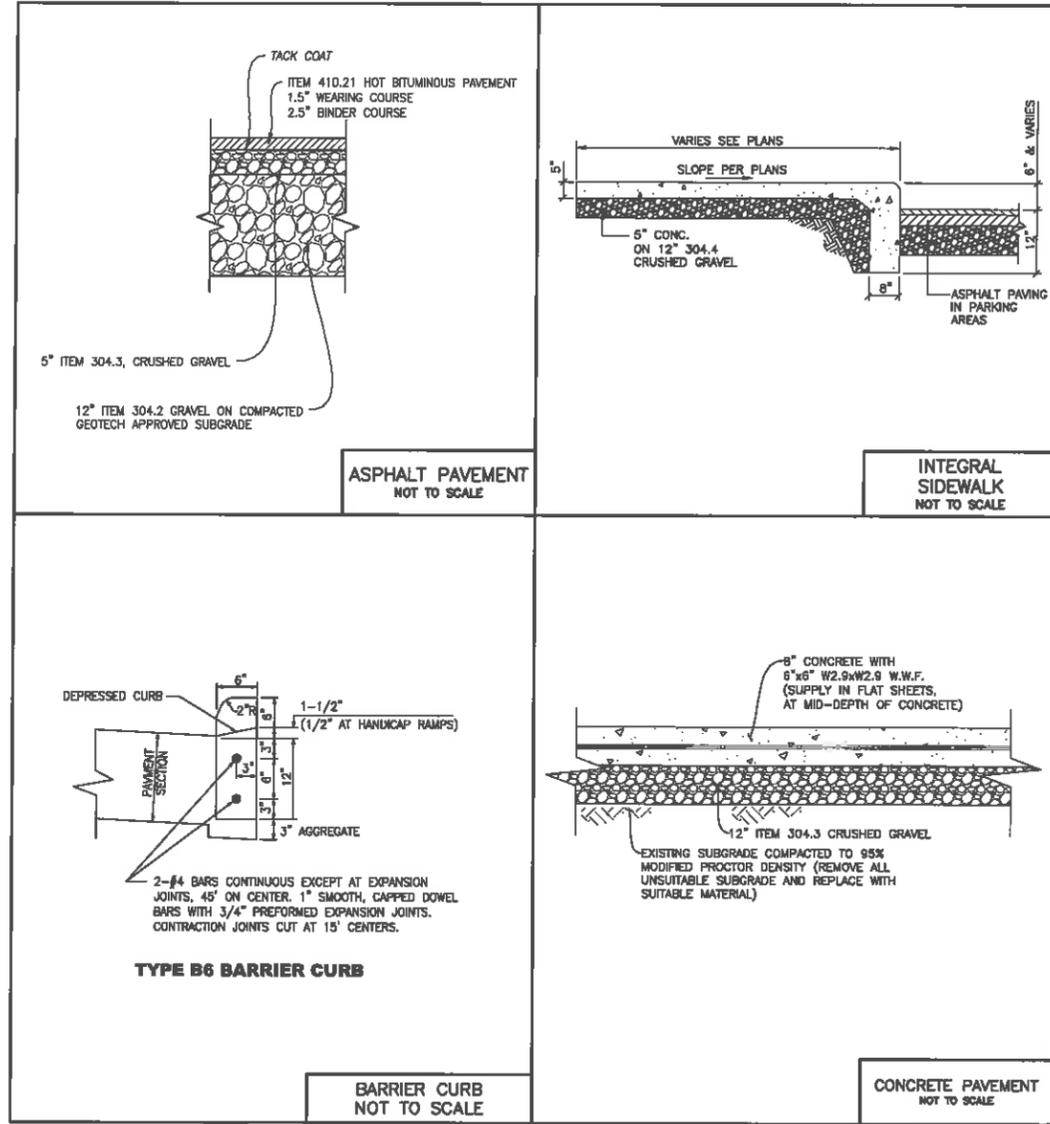
STANDARD WATER MAIN PROVISIONS

- 1. WATER MAIN AND SERVICES SHALL BE CONSTRUCTED OF ONE OR MORE OF THE FOLLOWING MATERIALS AS SPECIFIED ON THE PLANS:
A. DUCTILE IRON PIPE CLASS 52 PER ANSI A 21.51 (AWWA C151), 150 PSI, CEMENT LINED PER ANSI A 21.4 (AWWA C104), WITH "PUSH ON" JOINTS.
B. TYPE K, OR GREATER, COPPER WATER TUBE, CONFORMING TO ASTM 888 AND ASTM B291.
C. POLYVINYLCHLORIDE PLASTIC PRESSURE PIPE, PER AWWA C-900, CLASS 150, WITH A DR OF 1/8" BILE IN COLOR AND CLEARLY LABELED AS "WATER", BEAR THE NSF SEAL, WITH RUBBER COMPRESSION RING SEALS PER ASTM D-1869. PIPE INSTALLATION SHALL ALSO INCLUDE A 14-GAUGE UF TRACER WIRE WITH JOINT SEAL AND BLUE INSULATION.
2. FITTINGS TO BE FURNISHED AND INSTALLED AS NEEDED...
3. ALL JOINTS AT BENDS, TEES, OFFSETS, REDUCERS, ETC. SHALL HAVE MEGA-LUG 1100 MECHANICAL JOINT RESTRAINTS...
4. ALL RUBBER GASKETS SHALL BE VULCANIZED NATURAL OR VULCANIZED SYNTHETIC RUBBER...
5. THE PIPE JOINT SHALL BE SUCH THAT ELECTRICAL CURRENT WILL PASS FROM ONE PIPE TO THE OTHER...
6. THE MINIMUM COVER FOR ALL WATER MAIN AND WATER SERVICE PIPE IS FIVE AND ONE-HALF FEET...
7. ALL VALVE BASINS ARE TO BE A MINIMUM OF 5 FEET IN DIAMETER...
8. VALVES SHALL BE MUELLER, OR APPROVED EQUAL...
9. HYDRANTS SHALL BE IN ACCORDANCE WITH THE MUNICIPALITIES STANDARD DETAIL.
10. ALL WATER MAINS SHALL BE INSPECTED, TESTED AND DISINFECTED PER ALL GOVERNING AGENCY REQUIREMENTS.
11. ANY WELLS FOUND SHALL BE CAPPED/ABANDONED PER COUNTY HEALTH DEPARTMENT REQUIREMENTS.

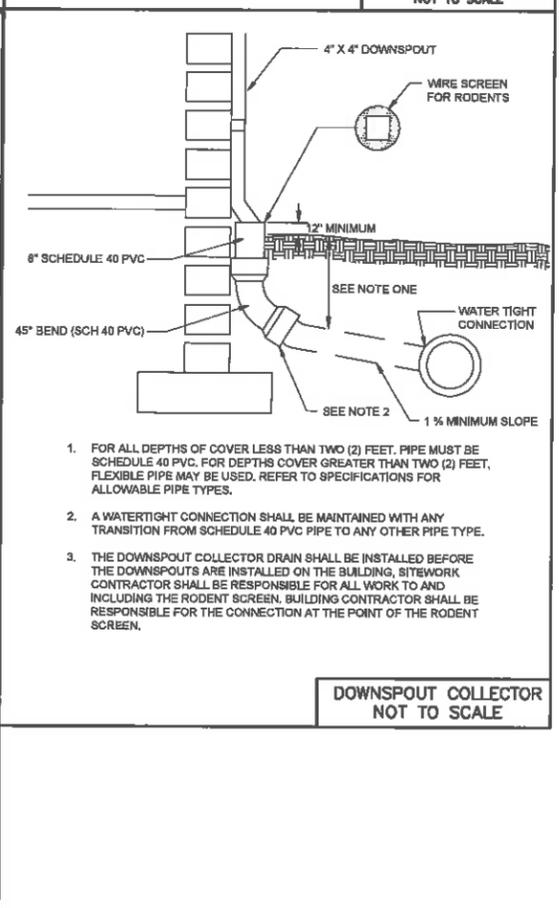
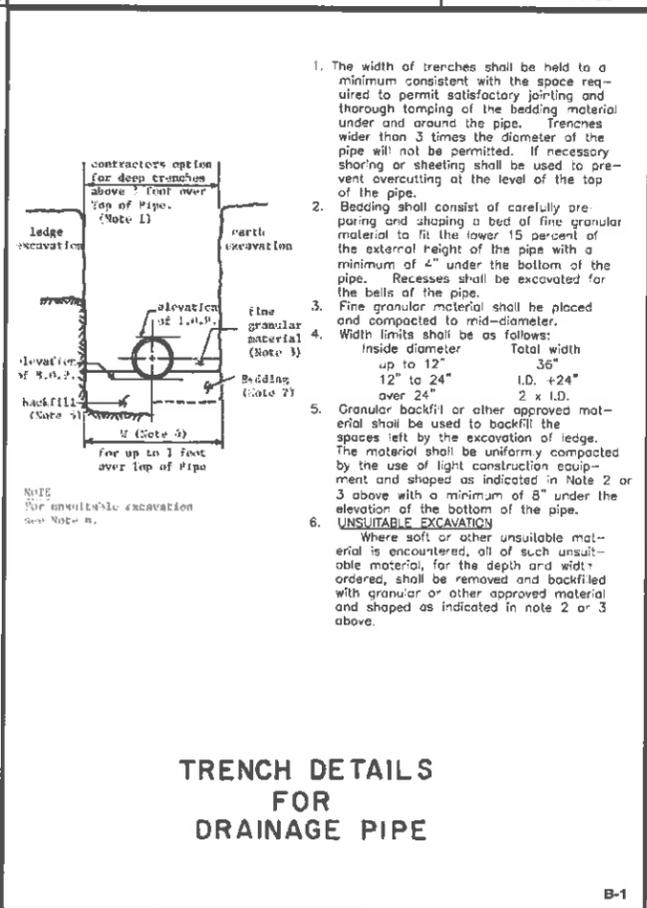
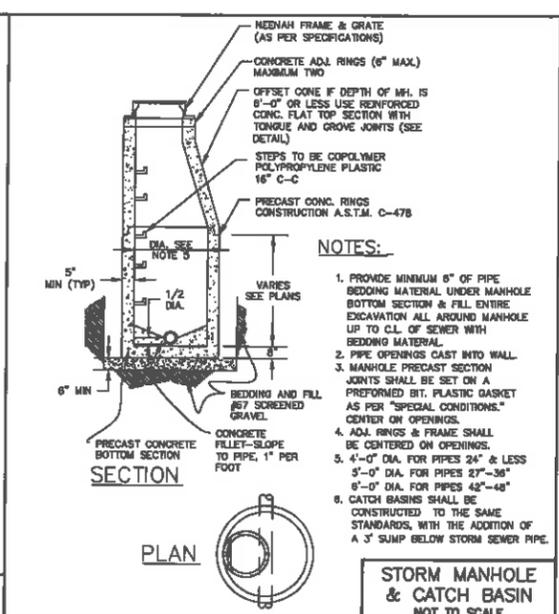
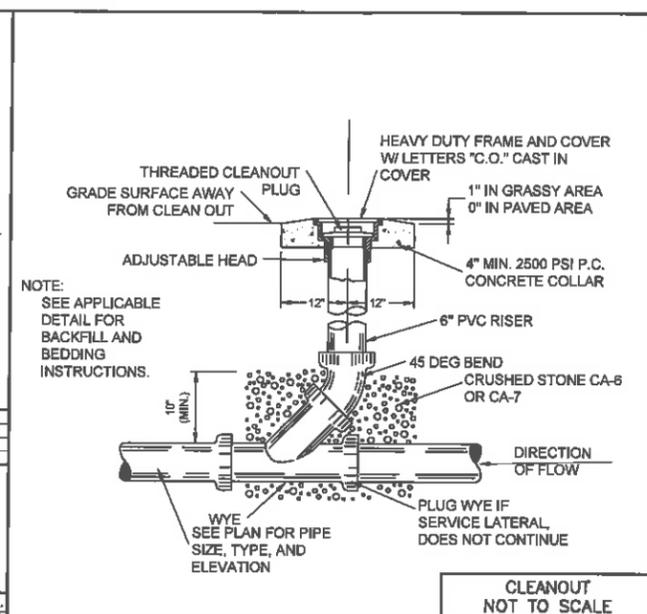
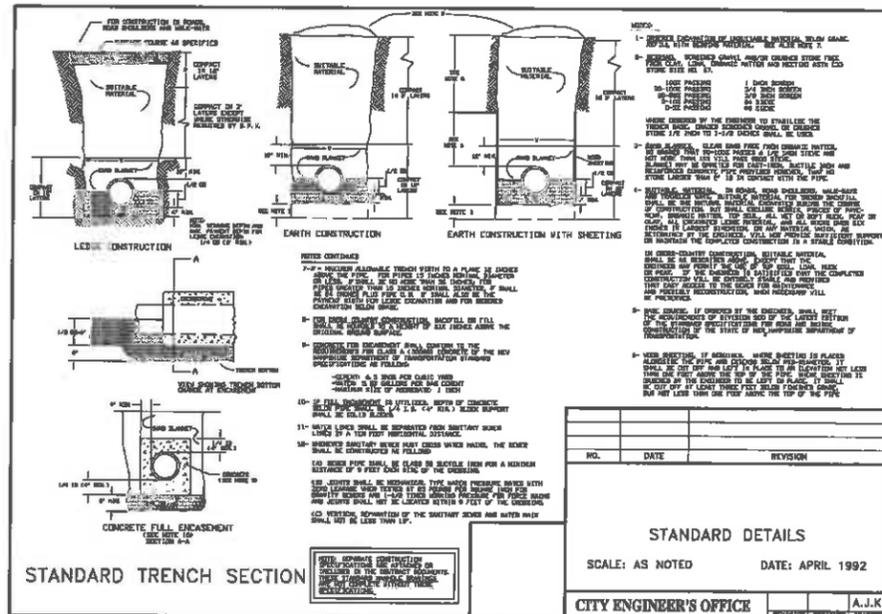
STANDARD STORM SEWER PROVISIONS

- 1. STORM SEWER SHALL BE CONSTRUCTED OF ONE OR MORE OF THE FOLLOWING MATERIALS AS SPECIFIED ON THE PLANS:
A. ADS HP-STORM HDPE HIGH PERFORMANCE PIPE, PER ASTM F-2881, WITH JOINTS PER ASTM D-3212...
B. UNDERDRAINS: PERFORATED POLYVINYLCHLORIDE PLASTIC GRAVITY SEWER PIPE (PVC) SDR-35 (ASTM D-3034)
C. DUCTILE IRON PIPE CLASS 52 (ANSI A21.51 WITH ANSI A21.11 JOINTS)
2. STORM STRUCTURES SHALL HAVE IN ADDITION TO THE GENERAL MANHOLE REQUIREMENTS:
A. ALL STORM STRUCTURE CASTINGS SHALL HAVE "DRAINS TO RIVER" AND "DUMP NO WASTE" CAST IN LD.
B. ALL STORM STRUCTURES SHALL HAVE STRUCTURAL STEEL, BICYCLE SAFE, HEAVY DUTY, OPEN GRATES.
C. PROVIDE EXPANDED INLET BOXES WHERE STORM DRAIN DIAMETER AND/OR ORIENTATION PROHIBITS THE OUTSIDE OF PIPE WALLS FACING THE INSIDE FACE OF THE STANDARD STRUCTURE.
3. ALL ROOF DRAINS, FOOTING DRAINS, AND OUTSIDE DRAINS SHALL DISCHARGE TO THE STORM SEWER SYSTEM.
4. MINIMUM SIZE OF STORM SEWER SHALL NOT BE LESS THAN 4 INCHES.
5. ALL STORM SEWERS SHALL BE INSPECTED AND TESTED IN KEEPING WITH ALL GOVERNING AGENCY REQUIREMENTS

PROJECT NAME: GMX NASHUA SHEET NAME: SPECIFICATIONS SHEET No. 19.GMX.C08 PROJECT No. 19.GMX.C08 SHEET No. C6.0 OF 14 SHEETS
660 E. Abbequin Road, Suite 250, Scarborough, NH 06075, Telephone: (603) 756-4160, www.gmx.com, Design Firm: 114008777-0002



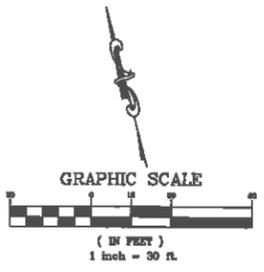
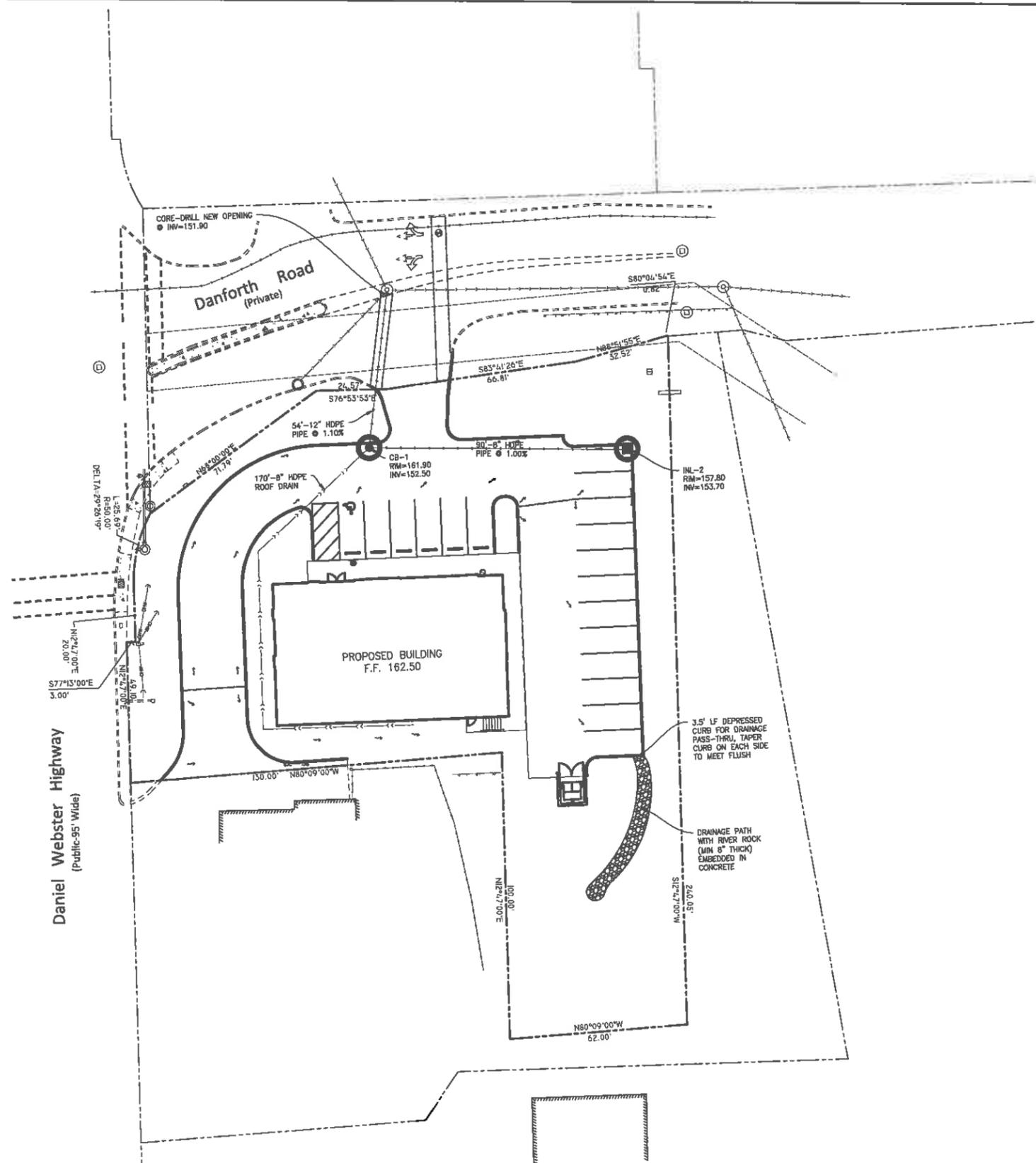
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SHEET No. C7.0		PROJECT NAME 278 DANIEL WEBSTER HWY		SHEET NAME DETAILS	
OF 14 SHEETS		PROJECT NAME NASHUA, NH		SHEET NAME DETAILS	
No.	DATE	DESCRIPTION	No.	DATE	DESCRIPTION
0	08/26/20	ISSUED FOR PERMIT			
650 E. Algonquin Road Suite 200 Schaumburg, IL 60173 Telephone: (630) 750-4100 www.rtm.com Design Firm: 19450677-0002  engineering consultants					



PROJECT No.	PROJECT NAME	SHEET NAME	DATE	DESCRIPTION
19.GMX.C08	GMX NASHUA	DETAILS	08/26/20	ISSUED FOR PERMIT
C7.1	278 DANIEL WEBSTER HWY	NASHUA, NH		
OF 14 SHEETS				

650 E. Algonquin Road
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 Schaumburg, IL 60173
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 Design Firm: 19400877-0002

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O & P PRACTICES AND IMPLEMENTATION SCHEDULE:

INFORMATION IN THIS SECTION OUTLINES THE SPECIFIC INSPECTION AND MAINTENANCE REGIMEN FOR BMP AND MUST COMPLY WITH THE FOLLOWING:

- O&M PLAN PROCEDURES AND PRACTICES MUST BE REVIEWED AND ASSESSED ANNUALLY.
- THE CITY REQUIRES THAT PROPERTY OWNERS KEEP AN O&M INSPECTION AND MAINTENANCE LOGBOOK. IN GENERAL, THE LOGBOOK SHOULD NOTE ALL INSPECTION AND ANY MAINTENANCE PERFORMED AND REPAIRS MADE. ALL INSPECTIONS AND MAINTENANCE, BOTH ROUTINE AND EMERGENCY, SHOULD BE RECORDED IN THE LOGBOOK. EACH BMP-SPECIFIC O&M SHEET SHOULD SERVE AS A CHECKLIST FOR DESIGN ELEMENTS THAT REQUIRE INSPECTION, THE FREQUENCY OF INSPECTIONS, AND CONDITIONS THAT INDICATE THAT THE MAINTENANCE IS NEEDED. LOG BOOKS MUST BE PRODUCED UPON THE REQUEST OF CITY INSPECTOR.
- DRAINAGE STRUCTURES AND FLOW RESTRICTORS MUST BE INSPECTED AND CLEANED SEMI-ANNUALLY.

DETENTION BASINS

- MAINTENANCE BEGINS IMMEDIATELY AFTER EACH PLANT IS INSTALLED AND SHALL INCLUDE WATERING, NECESSARY CULTIVATION, WEEDING, PRUNING, DISEASE AND INSECT PEST CONTROL, PROTECTIVE SPRAYING, RESETING OF PLANTS TO PROPER GRADES OR UPRIGHT POSITION, RESTORATION OF DAMAGED PLANTING SAUCERS, AND ANY OTHER PROCEDURE CONSISTENT WITH GOOD HORTICULTURAL PRACTICE NECESSARY TO ENSURE NORMAL, VIGOROUS, AND HEALTHY GROWTH OF WORK.

RESTRICTOR CATCH BASIN STRUCTURE

- ONCE A MONTH AND AFTER EVERY SIGNIFICANT RAINFALL
 - INSPECT THE INLET AND OUTLET AREAS AND CLEAN MATERIALS TRAPPED ON GRATES PROTECTING CATCH BASINS AND INLETS AREA.
- AS NEEDED GOING
 - ROUTE SWEEPING AND CLEANING OF IMPERVIOUS DRAINAGE AREAS WILL REDUCE FLOATABLES AND SEDIMENT LOADING TO UNDERGROUND STORMWATER STORAGE.
 - ANY STRUCTURAL REPAIRS REQUIRED TO INLET AND OUTLET AREAS.
- AT LEAST TWICE PER YEAR
 - REMOVAL OF FLOATABLES AND ACCUMULATING SEDIMENTS WITHIN THE RESTRICTOR CATCH BASIN. SEDIMENTS ARE BEST REMOVED MECHANICALLY RATHER THAN FLUSHING. IF FLUSHING IS THE ONLY OPTION THEN GREAT CARE MUST BE TAKEN NOT TO FLUSH SEDIMENTS DOWNSTREAM INTO NATIVE WATERS.

O & M PLAN/SITE MAP:

THE SITE MAP OUTLINES THE LOCATION OF ALL BMPs AND DOCUMENTS THE FOLLOWING:

- STORMWATER RUNOFF FLOW DIRECTION.
- OPEN GRATE STRUCTURES (CATCH BASIN, INLETS AND MANHOLE) TO BE PROPERLY MAINTAINED.

OWNER INFORMATION:

THE PEOPLE REPRESENTED BELOW ARE INVOLVED WITH AND RESPONSIBLE FOR THE OPERATIONS AND MAINTENANCE (O&M) OF THE STORMWATER DETENTION FACILITIES AS OUTLINED HEREIN.

- PROPERTY OWNER LISTED BELOW SHALL BE RESPONSIBLE FOR OVERSEEING AND ENSURING PROPERTY O&M IS CARRIED OUT AND PERFORMED AS DOCUMENTED HEREIN.

CONTACT:

PROJECT No.	PROJECT NAME	SHEET NAME	DATE	DESCRIPTION	No.	DATE	DESCRIPTION
19.GMX.C08	GMX NASHUA	OPERATION AND MAINTENANCE PLAN	08/28/20	ISSUED FOR PERMIT	0	08/28/20	
C8.0							

PROJECT No. 19.GMX.C08
SHEET No. C8.0
OF 14 SHEETS

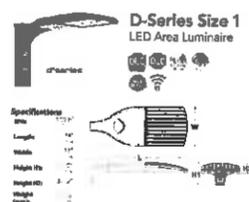
PROJECT NAME: GMX NASHUA
SHEET NAME: OPERATION AND MAINTENANCE PLAN
NASHUA, NH
278 DANIEL WEBSTER HWY

680 E. Algonquin Road
Suite 200
Schaumburg, IL 60173
Telephone: (815) 708-4100
www.artm.com

Design Firm: 19400877-0002

artm
engineering consultants

D-Series Size 1 LED Area Luminaire



Specifications:
 Length: 12.5"
 Height: 1.5"
 Weight: 1.5 lbs

Introduction:
 The modern styling of the D-Series is only one of its many features. It is a compact, low-profile luminaire that is designed to be installed in a variety of applications. The D-Series luminaire is designed to provide a high level of performance, with a long life span and a high level of energy efficiency.

EXAMPLE: DSX1 LED P7 40K T3M MVOLT 5R HINTAZ P7HV D004D

SYMBOL	DESCRIPTION	QTY	UNIT	REMARKS
DSX1	DSX1 LED P7 40K T3M MVOLT 5R HINTAZ P7HV D004D	1	EA	

D-Series Size 2 LED Wall Luminaire



Specifications:
 Length: 11.25"
 Height: 1.5"
 Weight: 1.5 lbs

Introduction:
 The modern styling of the D-Series is only one of its many features. It is a compact, low-profile luminaire that is designed to be installed in a variety of applications. The D-Series luminaire is designed to provide a high level of performance, with a long life span and a high level of energy efficiency.

EXAMPLE: DSX2 LED 20C 700 40K T3M MVOLT D007D

SYMBOL	DESCRIPTION	QTY	UNIT	REMARKS
DSX2	DSX2 LED 20C 700 40K T3M MVOLT D007D	1	EA	

HINKLEY & IR.



ATLANTIS 1649BZ-LED

FEATURES & SPECIFICATIONS:
 - 1649BZ-LED
 - 1649BZ-LED
 - 1649BZ-LED

1 PHOTOMETRIC - SITE PLAN

1" = 20'-0"

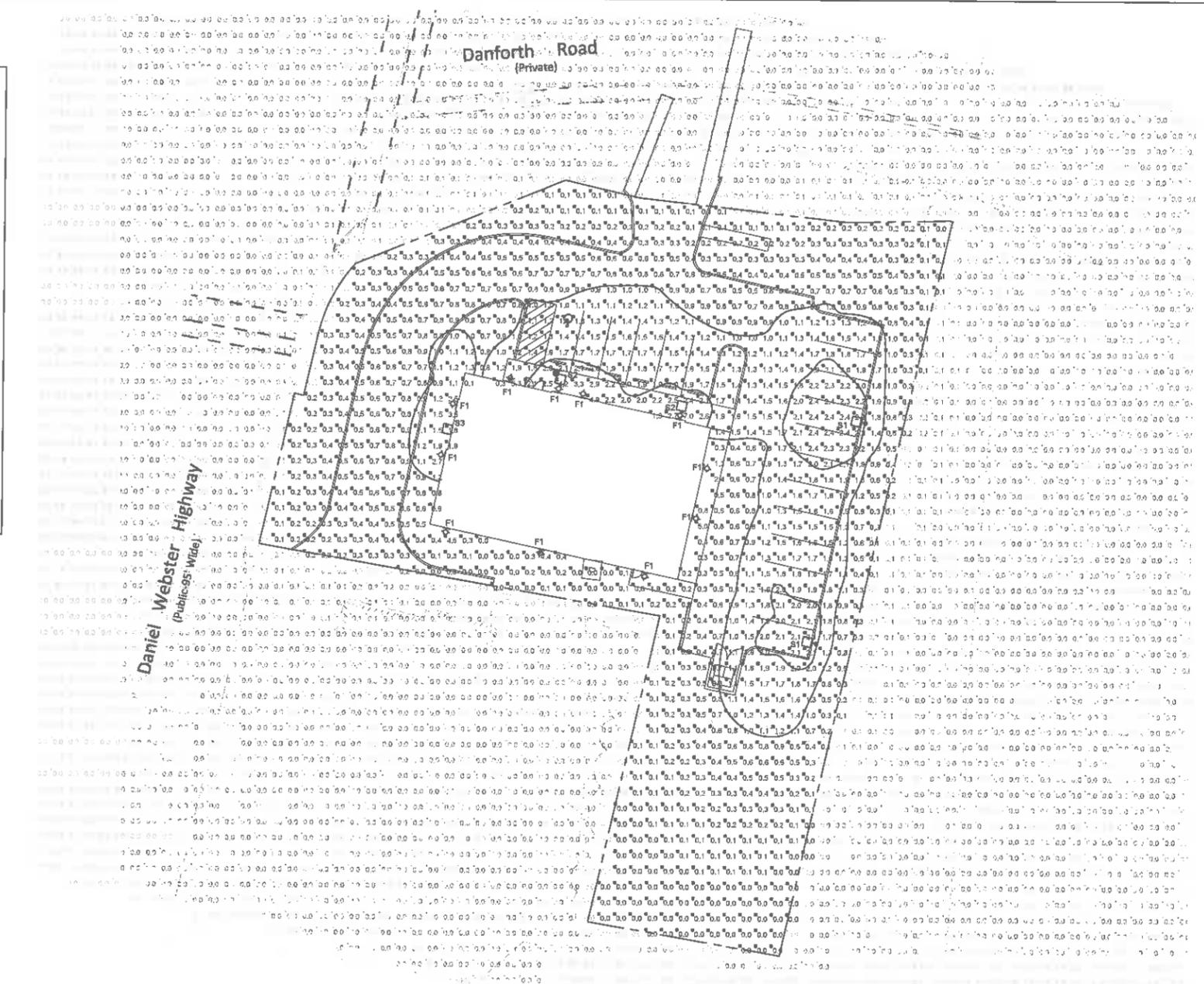
LITHONIA LIGHTING

FEATURES & SPECIFICATIONS:
 - SQUARE STRAIGHT ALIGNMENT
 - SQUARE STRAIGHT ALIGNMENT

Anchor Base Plate

SSA

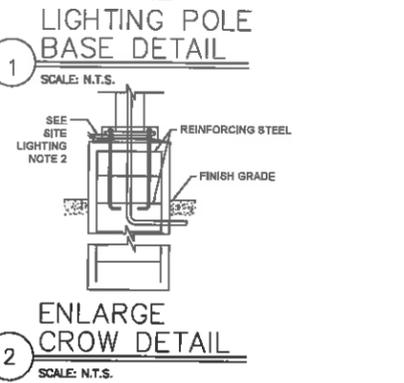
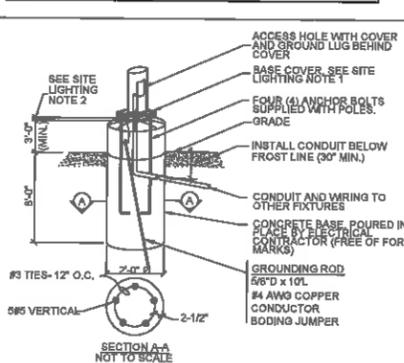
SQUARE STRAIGHT ALIGNMENT



- ### GENERAL NOTES
- ALL EXTERIOR LIGHTING, WHETHER FREE-STANDING OR MOUNTED ON A STRUCTURE, SHALL BE FULL-CUTOFF.
 - THE TOWNSHIP RESERVES THE RIGHT TO CONDUCT A POST-INSTALLATION NIGHT TIME INSPECTION TO VERIFY COMPLIANCE WITH TOWNSHIP LIGHTING STANDARDS. IF SAID INSPECTION REVEALS A VIOLATION OF SAID STANDARDS, THE TOWNSHIP SHALL DIRECT CORRECTIVE ACTION, WHICH SHALL BE EXECUTED BY THE PROPERTY OWNER AT NO EXPENSE TO THE TOWNSHIP.
 - POST-APPROVAL ALTERATIONS TO LIGHTING PLANS OR SUBSTITUTIONS FOR APPROVED LIGHTING EQUIPMENT SHALL BE SUBMITTED TO THE TOWNSHIP FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION OR INSTALLATION.
 - EXTERIOR LIGHT FIXTURE CONTROLLED VIA ELECTRONIC ASTRONOMIC TIME CLOCK WITH OVERRIDE PHOTOCELL.
 - CALCULATIONS ARE BASED ON FIXTURE TYPE SCHEDULED. IF FIXTURE OTHER THAN THOSE SPECIFIED IS PROVIDED THE MANUFACTURER SHALL PROVIDE A DETAILED POINT BY POINT CALCULATION TO VERIFY COMPLIANCE WITH LOCAL STREET LIGHTING GUIDELINES.
 - INFORMATION CONCERNING EXISTING UNDERGROUND UTILITIES WAS OBTAINED FROM AVAILABLE RECORDS. THE CONTRACTOR DETERMINES THE EXACT LOCATION AND ELEVATION OF ALL EXISTING UTILITIES AND UTILITY CROSSING BY DIGGING TEST PITS BY HAND, WELL IN ADVANCE OF THE START OF EXCAVATION. CONTACT "EVERSOURCE" AT 803-882-5894, 48 HOURS PRIOR TO THE START OF EXCAVATION. IF CLEARANCES ARE LESS THAN SHOWN ON THIS PLAN OR TWELVE (12) INCHES, WHICHEVER IS LESS, CONTACT THE ENGINEER AND THE UTILITY COMPANY BEFORE PROCEEDING WITH CONSTRUCTION. CLEARANCES LESS THAN NOTED MAY REQUIRE REVISIONS TO THIS PLAN.

SITE AREA STATISTICS (WITH LLF=0.90)

Description	Avg	Max	Min	Max/Min	Avg/Min
ALL PROPERTY	0.8fc	7.0fc	0.0fc	N/A	N/A
PARKING & DRIVE	1.2fc	2.4fc	0.2fc	12.0:1	6.0:1
PARKING - NORTH	1.6fc	2.4fc	1.0fc	2.4:1	1.6:1
PARKING - EAST	1.6fc	2.4fc	1.2fc	2.0:1	1.6:1



- ### LIGHTING NOTES
- PROVIDE CROWN ON TOP OF CONCRETE BASE TO COMPLETELY SHED WATER.
 - 1/2" (MIN) AIR GAP SPACE BETWEEN TOP OF CONCRETE CROWN AND BOTTOM OF POLE BASE PLATE FOR VENTILATION.
 - LOCATE LUMINAIRE ON THE DRAWING, AND VERIFY LUMINAIRE CATALOG NUMBER, POSITION OF LAMP SOCKET AND DIRECTION.
 - PRIOR TO LUMINAIRE INSTALLATION, VERIFY THAT THE LUMINAIRE CATALOG NUMBER MATCHES THE CATALOG NUMBER SHOWN ON THE DRAWING.
 - CONTRACTOR SHALL CONFIRM THE MANUFACTURER STANDARD COLOR FOR THE POLE AND FIXTURE WITH THE ARCHITECT.
 - CONTRACTOR SHALL CONFIRM THE LIGHT POLE BASE BOLT PATTERN LAYOUT PRIOR TO INSTALLATION OF THE CONCRETE BASE.

LIGHTING FIXTURE SCHEDULE

SYMBOL	FIXTURE	INCAN.	FLUOR.	H.I.D.	L.E.D.	LAMPS		MOUNTING		DESCRIPTION & VARIATIONS	MANUFACTURER & CATALOG # OR APPROVED EQUAL	
						WATT	LUMENS	POLE	HT. (FT)			
F1	ATLANTIS 1649BZ-LED				L	120V	6W	250 LUMENS	W	10FT	ARCHITECTURAL LED WALL MOUNTED LIGHT FIXTURE, WET LOCATION.	HINKLEY LIGHTING: ATLANTIS 1649BZ-LED
S1	DSX1 LED P7 40K T3M MVOLT 5R HINTAZ P7HV D004D				L	120V	70W	8240 LUMENS	P	23FT	POLE MOUNTED 23' HIGH (INCLUDING 5' BASE) WITH 1 HEAD, HOUSE SHIELD	LITHONIA LIGHTING: DSX1 LED P7 40K T3M MVOLT HS
S2	DSX2 LED 20C 700 40K T3M MVOLT D007D				L	120V	47W	5980 LUMENS	W	18FT	WALL MOUNTED 18' HIGH	LITHONIA LIGHTING: DSX2 LED 20C 700 40K T3M MVOLT
S3	DSX2 LED 20C 700 40K T3M MVOLT D007D				L	120V	36W	3960 LUMENS	W	18FT	WALL MOUNTED 18' HIGH	LITHONIA LIGHTING: DSX2 LED 20C 700 40K T3M MVOLT

PROJECT No. 19.GMX.C08
 SHEET No. ES1.0
 OF 14 SHEETS

PROJECT NAME: GMX NASHUA
 SHEET NAME: PHOTOMETRIC PLAN
 NASHUA, NH
 278 DANIEL WEBSTER HWY

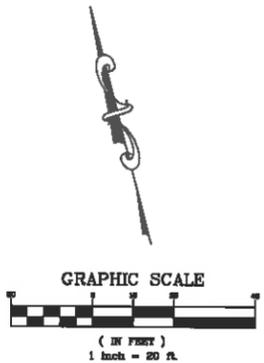
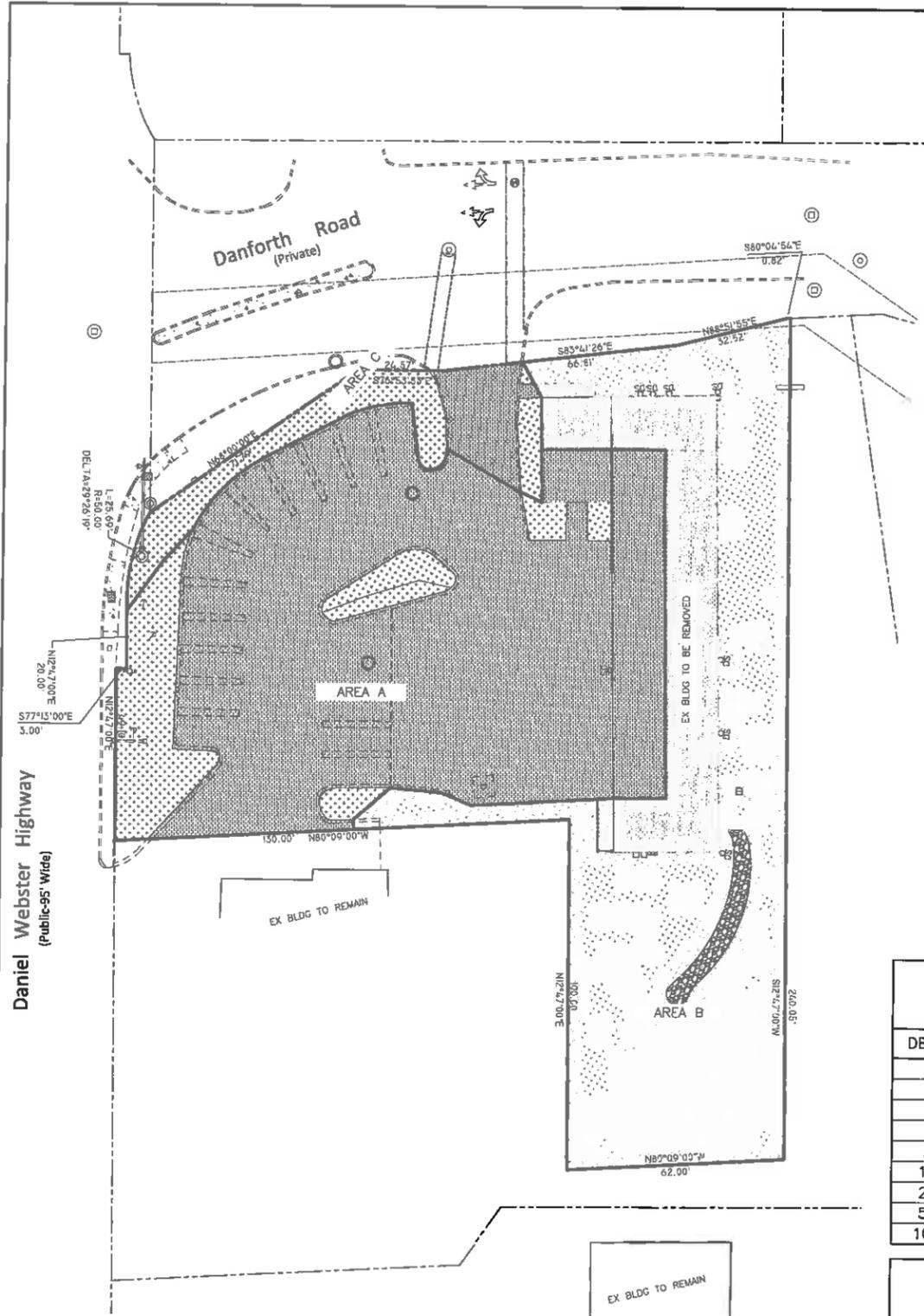
DATE: 08/26/20
 ISSUED FOR PERMIT

DESCRIPTION: PHOTOMETRIC PLAN

DESIGNER: rtm engineering consultants

User: emil.asilmon File: J:\2018\18.000.000 - GMX Nashua, NH\08 DESIGN DRAWINGS\02 - SHEETS\08 DRAINAGE PLAN.dwg Time: Aug 28, 2020 - 1:17pm

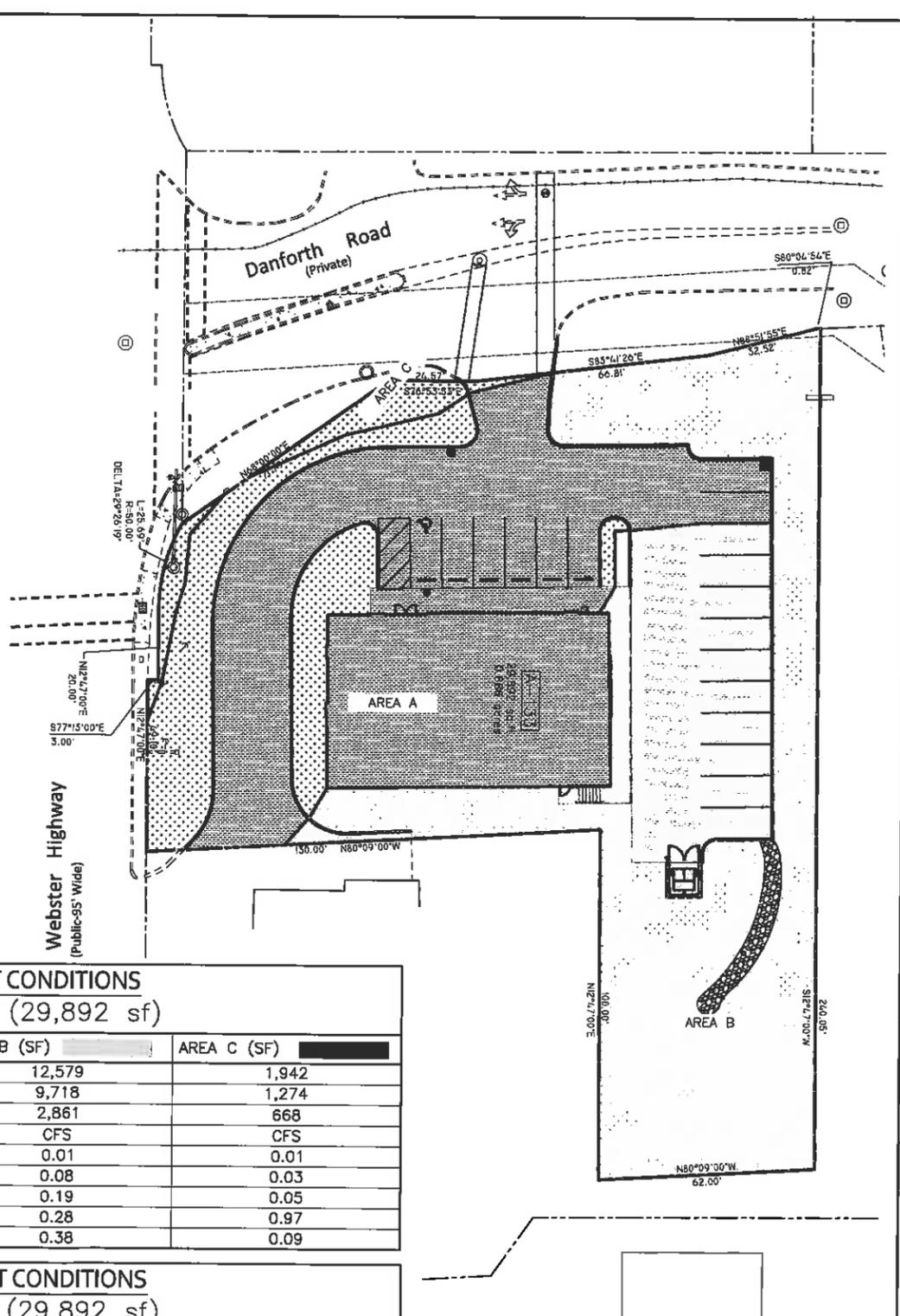
Daniel Webster Highway
(Public-95' Wide)



LEGEND

- PERVIOUS AREA
- IMPERVIOUS AREA
- DRAINAGE AREA
- PROPERTY LINE

Webster Highway
(Public-95' Wide)



PREDEVELOPMENT CONDITIONS
DRAINAGE TABLE (29,892 sf)

DESCRIPTION/AREA	AREA A (SF)	AREA B (SF)	AREA C (SF)
TOTAL	15,371	12,579	1,942
PERVIOUS	2,078	9,718	1,274
IMPERVIOUS	13,293	2,861	668
CFS	CFS	CFS	CFS
2-YR RUNOFF	0.70	0.01	0.01
10-YR RUNOFF	1.12	0.08	0.03
25-YR RUNOFF	1.40	0.19	0.05
50-YR RUNOFF	1.59	0.28	0.97
100-YR RUNOFF	1.78	0.38	0.09

POSTDEVELOPMENT CONDITIONS
DRAINAGE TABLE (29,892 sf)

DESCRIPTION/AREA	AREA A (SF)	AREA B (SF)	AREA C (SF)
TOTAL	14,322	14,854	716
PERVIOUS	3,000	10394	716
IMPERVIOUS	11,322	4,460	0
CFS	CFS	CFS	CFS
2-YR RUNOFF	0.55	0.01 reduced to 0.00	0.00
10-YR RUNOFF	0.93	0.03 reduced to 0.00	0.00
25-YR RUNOFF	1.20	0.36 reduced to 0.00	0.00
50-YR RUNOFF	1.38	0.48 reduced to 0.00	0.00
100-YR RUNOFF	1.55	0.62 reduced to 0.00	0.00

AREA B RUNOFF REDUCED TO ZERO THROUGH RECHARGE IN THE SOUTH INFILTRATION BASIN

PROJECT NAME: GMX NASHUA
PROJECT No.: 19.GMX.008
SHEET No.: X1.0
SHEET VALUE: DRAINAGE PLAN
DATE: 08/28/20
ISSUED FOR PERMIT

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OF 14 SHEETS

