GENERAL NOTES: 1. OWNER OF RECORD CC RAILROAD STREET NEWMARKET LLC PO BOX 571 GREENLAND, NH 03840 2. THE INTENT OF THIS PLAN IS TO SHOW A BOUNDARY LINE ADJUSTMENT ON PARCELS U4-16A AND U3-138A. 3. THE BEARINGS SHOWN ON THIS PLAN REFER TO GRID NORTH, NH STATE PLANE (NAD83), BASED ON A RTK GPS OBSERVATION TAKEN WITH A LEICA GS-16 ON 11/06/19, DISTANCE SHOWN ARE GROUND DISTANCES. 4. THE STATE OF NEW HAMPSHIRE HAS AN EASEMENT WITH A WIDTH OF FORTY NINE AND A HALF FEET (49.5') ON EITHER SIDE OF THE BASELINE OF THE WESTERN PORTLAND BRANCH LINE. SEE THE RETURN OF LAYOUT, THE BOSTON AND MAINE CORPORATION TO THE STATE OF NEW HAMPSHIRE, OFFICE OF THE SECRETARY OF STATE, DATED NOVEMBER 9TH, 1891. SEE VOLUME 4, PAGES 177 THROUGH 179 AT THE STATE OF NEW HAMPSHIRE ARCHIVES. PARCELS U4-16 & U3-138A LIE WITHIN ZONE M-2A. A PORTION OF PARCEL U4-16 IS IN ZONE R2. 6. MINIMUM LOT SIZE: ZONE M-2A (0.25 ACRES), ZONE R2 (0.5 ACRES) 7. MINIMUM FRONTAGE: ZONE M-2A (50 FEET), ZONE R2 (100 FEET) 8. BUILDING SETBACKS: ZONE M-2A: FY. = 5', SY. = 10', RY. = 10' MFY: = 10' ZONE R2: FY. = 25', SY. = 15', RY. = 15' MFY: = N/A PANEL 33015C0230E

I HEREBY CERTIFY THAT THIS PLAT IS BASED ON A PRECISION GPS SURVEY AND

I CERTIFY THAT THIS SURVEY PLAT IS NOT A SUBDIVISION PURSUANT TO RSA

PUBLIC OR PRIVATE STREETS OR WAYS ALREADY ESTABLISHED AND THAT NO

TITLE LXIV AND THAT THE LINES OF STREETS AND WAYS SHOWN ARE THOSE OF

DATE

IS CLASSIFIED URBAN.

NEW WAYS ARE SHOWN.

ANDREW J. NADEAU, LLS 947

REFERENCE PLANS:

- 1. "LAND IN NEWMARKET, N.H., ROBERT W. MESERVE ET AL, TRUSTEES OF THE PROPERTY OF THE BOSTON AND MAINE CORPORATION, TO ROBERT H. FILLION" PLAN R2-55-6 DATED: MAY 1974 BY DAVID W. SIDMORE.
 - 2. "LAND IN NEWMARKET, N.H., BOSTON AND MAINE RAILROAD TO EDGAR MOISAN" PLAN R2-55-5 DATED: FEBRUARY, 1958 BY THE ENGINEER OF DESIGN ON FILE AT NORWAY PLAINS ASSOCIATES, INC.

ON FILE AT NORWAY PLAINS ASSOCIATES, INC.

- 3. "LAND IN NEWMARKET, N.H., BOSTON AND MAINE RAILROAD TO PALPH H. HAINES" PLAN R2-55-2 DATED: APRIL 1940 BY THE ASSISTANT CHIEF ENGINEER ON FILE AT NORWAY PLAINS ASSOCIATES, INC.
- 4. "LAND IN NEWMARKET, N.H., BOSTON AND MAINE RAILROAD TO WILLIAM J. O'CONNOR" PLAN R2-55-1 DATED: JUNE 1925 BY E.W. CHAPMAN, REAL ESTATE ENGINEER
- ON FILE AT NORWAY PLAINS ASSOCIATES, INC. 5. "LAND IN NEWMARKET, N.H., BOSTON AND MAINE RAILROAD TO ROCKINGHAM COUNTY GAS COMPANY" PLAN R2-56-2, DATED: SEPTEMBER 1963 BY J.F. KERN ASSISTANT CHIEF
- 6. "RIGHT OF WAY PROPOSED BRIDGE AT LAND OF JOSEPH A ROY, NEWMARKET, N.H." DATED FEBRUARY 1909 BY H. BISSELL, CHIEF ENGINEER FOR B&M RR RCRD PLAN 00483

ENGINEER, ON FILE AT NORWAY PLAINS ASSOCIATES, INC.

FINAL BOUNDARY LINE

ADJUSTMENT PLAN

APPROVED

PLANNING BOARD

Newmarket, New Hampshire

- 7. "PLAN OF LAND OF MRS MARY TROTTIER, NEWMARKET, N.H." DATED DECEMBER 1960 BY T.W. CHESLEY ENGINEERING CO. PLAN NO. 1299 ON FILE AT THE STATE OF NEW HAMPSHIRE ARCHIVES & NORWAY PLAINS ASSOCIATES,
- 8. "FOR RECORDING ONLY PLAN IN NEWMARKET, NH, TAX MAP U3, LOTS 139A & A40, EXETER STREET (RTE 108) & GERRY AVENUE. OWNED BY: GREAT BAY ENTERPRISES, 44 **EXETER STREET, NEWMARKET, NH 03857** DATED SEPTEMBER 1994 BY GERALD H. MILLER, NHLLS 665. RCRD PLAN D-23250

- 9. "TRANSFER OF LAND PLAN IN NEWMARKET, NH FROM TAX MAP U3 LOT 138-1 OWNED BY: BOSTON & MAINE CORPORATION, IRON HORSE PARK, NORTH BILLERICA, MA 01862 TO TAX MAP U3, LOT 139A, OWNED BY: GREAT BAY ENTERPRISES, 44 EXETER STREET, NEWMARKET, NH 03857" PLAN R2-55-7 DATED: NOVEMBER 1, 1993 BY: GERALD H. MILLER, NHLLS 665. RCRD PLAN D-22565
- 10. "FINAL PLAN, BI-STATE BUILDERS INC., BASCOM PROPERTY, NEWMARKET, N.H." DATED: MARCH 1985 BY G.L. DAVIS & ASSOCIATES. RCRD PLAN C-13877
- 11. "LOT CONSOLIDATION AND AMENDED CONDOMINIMUM SITE & FLOOR PLAN OF NEWMARKET BUSINESS PARK CONDOMINIUM, FOR CHENEY PROPERTY MANAGEMENT CORP., WRIGHT OFFICE MANAGEMENT LLC, AND WENTWORTH-DOUGLAS HOSPITAL, EXETER ROAD (NH ROUTE 108), NEWMARKET, NEW HAMPSHIRE." DATED: DEC 21, 2015 BY: DOUCET SURVEY, INC. RCRD PLAN D-39568
- 12. THE SANBORN FIRE INSURANCE MAPS FOR NEWMARKET, ROCKINGHAM COUNTY, NEW HAMPSHIRE DATED JANUARY 1898, AND AUGUST 1892 BY: THE SANBORN MAP COMPANY.

ON FILE AT THE LIBRARY OF CONGRESS AND AT NORWAY PLAINS ASSOCIATES, INC.

- 13. "RIGHT-OF-WAY AND TRACK MAP, BOSTON AND MAINE R.R., OPERATED BY THE BOSTON AND MAINE R.R., STATION 2968+20 TO STATION 3021+00" DATED: JUNE 30, 1914 BY: THE OFFICE OF VALUATION ENGINEER, V2NH-55" ONFILE AT NORWAY PLAINS ASSOCIATES, INC.
- 14. "RIGHT-OF-WAY AND TRACK MAP, BOSTON AND MAINE R.R., OPERATED BY THE BOSTON AND MAINE R.R., STATION 3021+00 TO STATION 3073+80" DATED: JUNE 30, 1914 BY: THE OFFICE OF VALUATION ENGINEER, V2NH-56" ONFILE AT NORWAY PLAINS ASSOCIATES, INC.
- 15. "THE STATE OF NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION PLANS OF PROPOSED BRIDGE REHABILITATION PROJECT, NH PROJECT 11084, NH RTE 152 OVER BOSTON & MAINE RAILROAD" DATED: MARCH 22, 1993 BY: NHDOT. ON FILE AT NHDOT AND NORWAY PLAINS ASSOCIATES, INC.
- 16. "STATE OF NEW HAMPSHIRE HIGHWAY DEPARTMENT, PLANS OF PROPOSED FEDERAL AID PRIMARY PROJECT, NO. FG 272(4), NEW HAMPSHIRE COLLEGE WAY." DATED: OCTOBER 28, 1949 BY: THE NH HIGHWAY DEPARTMENT. NH PROJECT NO. P-1817. ON FILE AT NHDOT AND NORWAY PLAINS ASSOCIATES, INC.

REFERENCE DOCUMENTS: (ALL ON FILE AT NORWAY PLAINS ASSOCIATES, INC.

- 1. STATE OF NEW HAMPSHIRE DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS, FIELD BOOK NUMBER 12226, PAGES 66-78, DATED APRIL THROUGH OCTOBER, 1993.
- 2. STATE OF NEW HAMPSHIRE DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS, FIELD BOOK NUMBER 12524, PAGES 75-77, DATED NOVEMBER, 1993.
- 3. AN UNRECORDED DEED FROM ROBERT H. FILLION TO NEW ENGLAND BARRICADE CORP, FOR THE BUILDING ONLY, LOCATED ON MAP U3,
- 4. FINAL HORIZONTAL ALIGNMENT REPORTS FOR ROUTE 152, RAILROAD STREET, AND BEECH STREET EXTENSION, PROVIDED BY NHDOT. (FALIGN MA01, MAO2, & MAO3.)
- 5. RETURN OF LAYOUT FROM THE BOSTON AND MAINE CORPORATION TO THE SECRETARY OF THE STATE OF NEW HAMPSHIRE. NH ARCHIVES VOLUME 4, PAGE 177-179

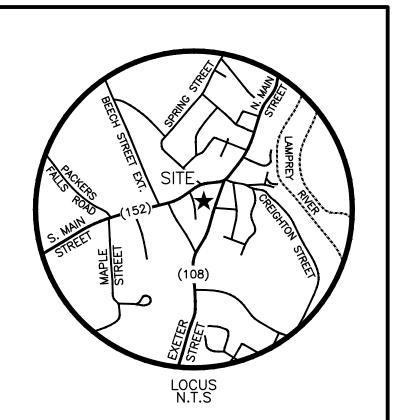
OWNERS OF RECORD:

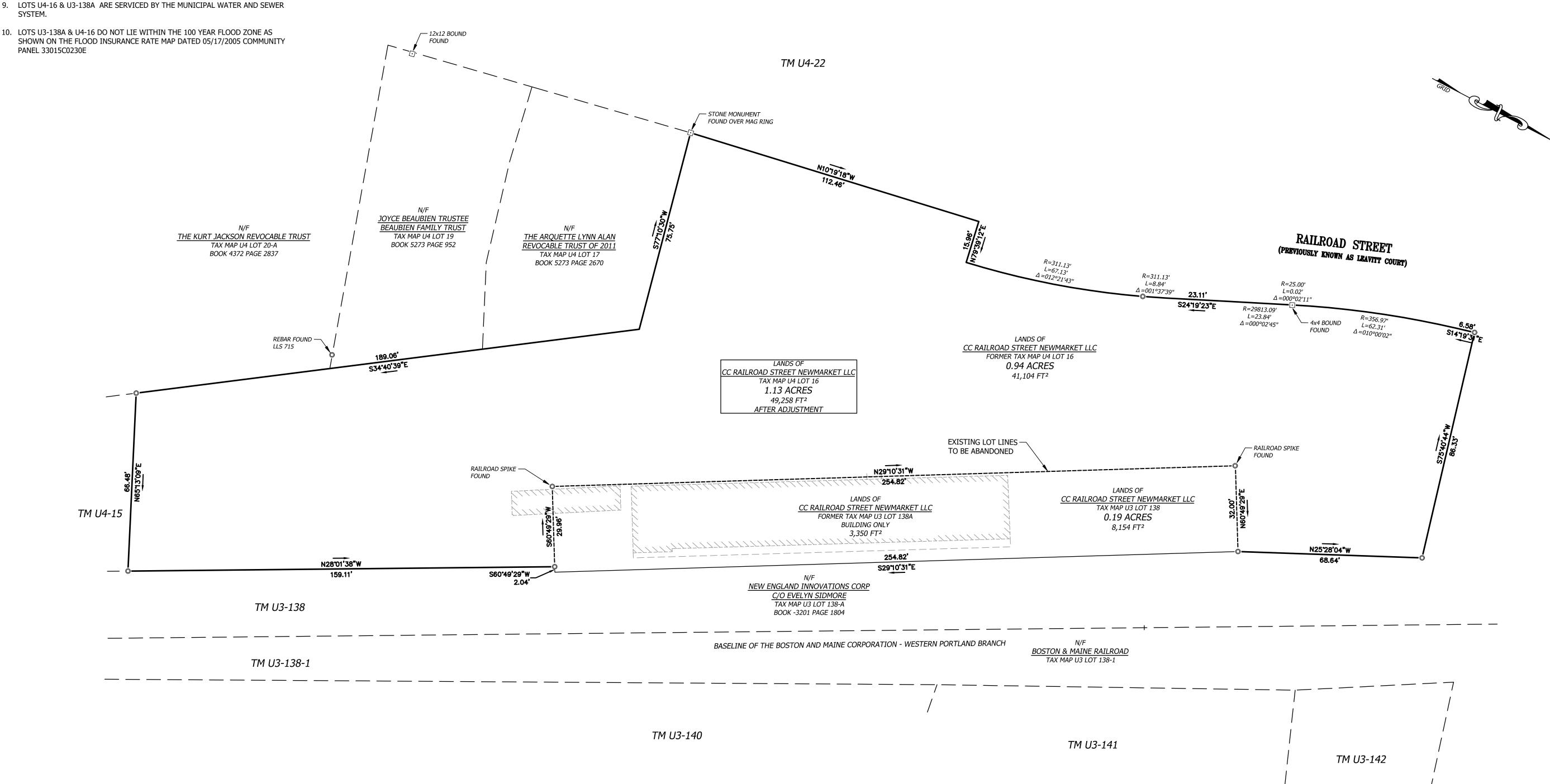
<u>U4-16</u> CC RAILROAD STREET NEWMARKET, LLC P.O. BOX 571 GREENLAND, NH 03840

U3-138 & U3-138A CC RAILROAD STREET NEWMARKET, LLC P.O. BOX 571 GREENLAND, NH 03840

LOT AREAS: U3-138 & U3-138A ORIGINAL AREA: 7,893 SQ FT (0.18 ACRES) REVISED AREA: 0 SQ FT (0 ACRES)

> ORIGINAL AREA: 41,110 SQ FT (0.94 ACRES) REVISED AREA: 52,003 SQ FT (1.19 ACRES)





LEGEND

PROPERTY LINE TO BE ABANDONED

— APPROXIMATE ABUTTER PROPERTY BOUNDARY LINE

REBAR OR IRON PIPE FOUND

MONUMENT FOUND

Engineering Civil and Structural Engineering

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CC RAILROAD STREET **NEWMARKET LLC**

3 RAIL ROAD STREET NEWMARKET, NH 03857

BOUNDARY LINE ADJUSTMENT

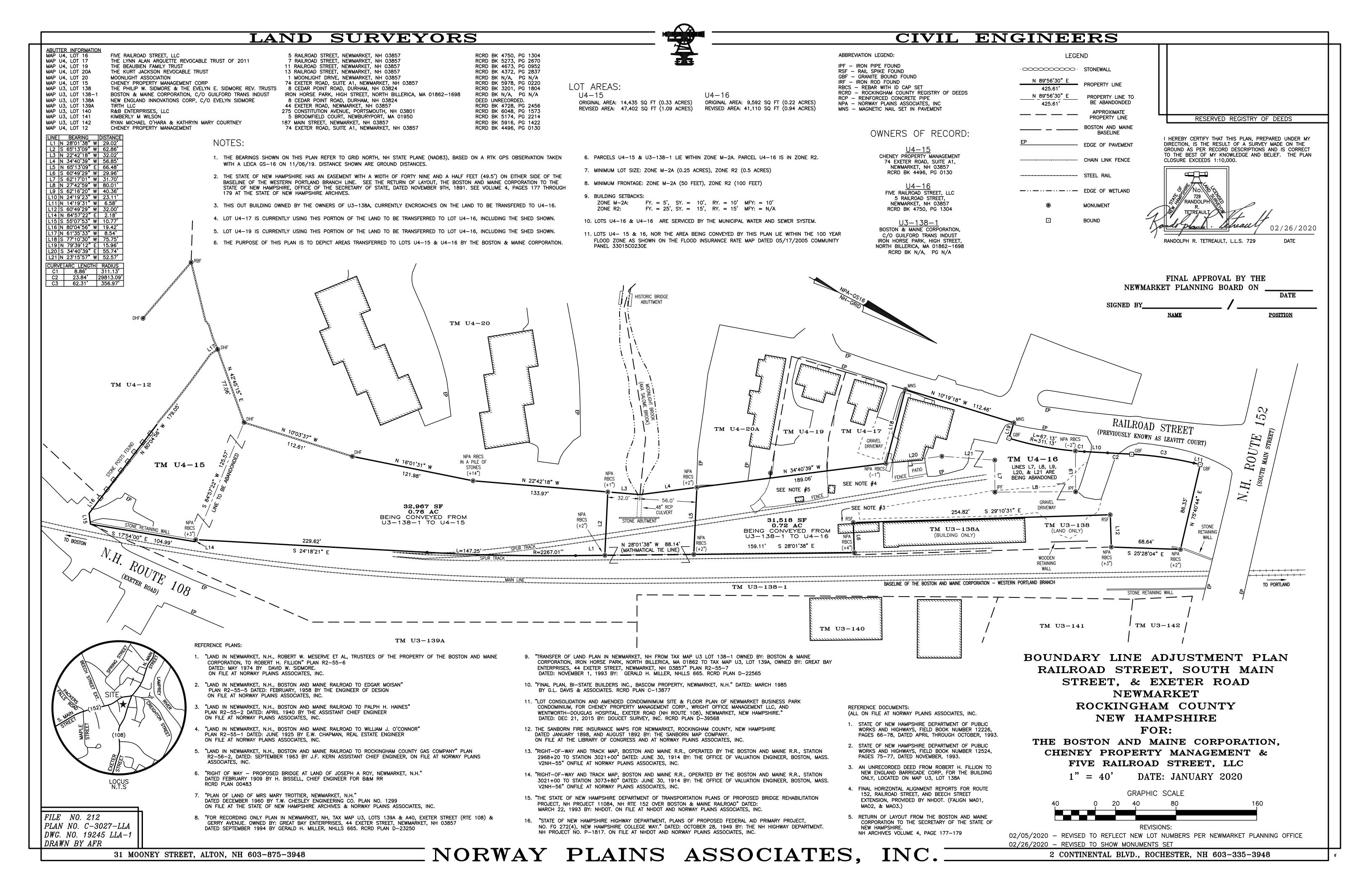
NO. DATE | REVISION DESCRIPTION

PROJECT # FEB. 2024 230750 DRAWN BY ENG'D BY: CHECK'D BY: ARCHIVE #

SHEET 1

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SCALE IN FEET



CC RAILROAD STREET NEWMARKET LLC

SITE PLAN 3 RAILROAD STREET

NEWMARKET, NEW HAMPSHIRE
JANUARY 2024



LOCATION PLAN

<u>PERMIT NOTES AND APPROVALS:</u>
THIS PROJECT SHALL COMPLY WITH ALL CONDITIONS OF ALL PERMITS FOR THIS PROJECT. COPIES OF THESE PERMITS MAY BE REQUESTED FROM THE HEI NEWMARKET OFFICE.

NHDES SEWER CONNECTION PERMIT - PENDING, TO BE OBTAINED PRIOR TO CONSTRUCTION EPA CONSTRUCTION GENERAL PERMIT - PENDING, TO BE OBTAINED PRIOR TO CONSTRUCTION

SHEET INDEX

	COVER
E101	EXISTING CONDITIONS PLAN
C101	SITE & UTILITY PLAN
C102	GRADING PLAN
C103	DEMOLITION AND EROSION CONTROL PLAN
C501	DEMO AND EROSION AND SEDIMENT CONTROL DETAILS
C502	CONSTRUCTION DETAILS
C503	UTILITY DETAILS
C504	DRAINAGE DETAILS

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CC RAILROAD STREET
NEWMARKET LLC
3 RAIL ROAD STREET

NEWMARKET, NH 03857

COVER

REVISION DESCRIPTION

COVER

FOR REVIEW		DATE: 10.17.23	PROJE 2307	
T FOR CONSTRUCTION		ENGIN'D BY:	DRAWI	N BY:
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DATE OF PRINT
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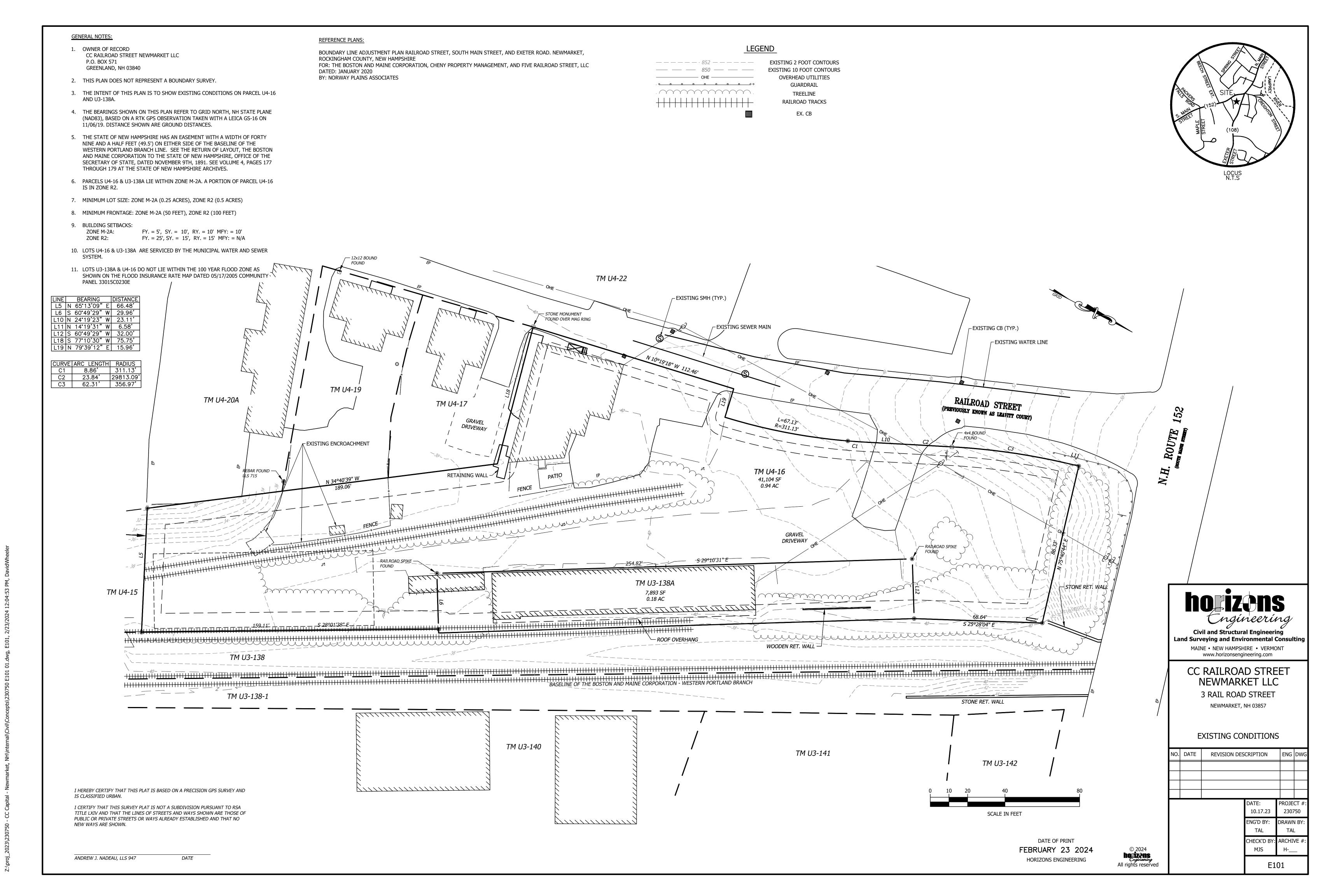
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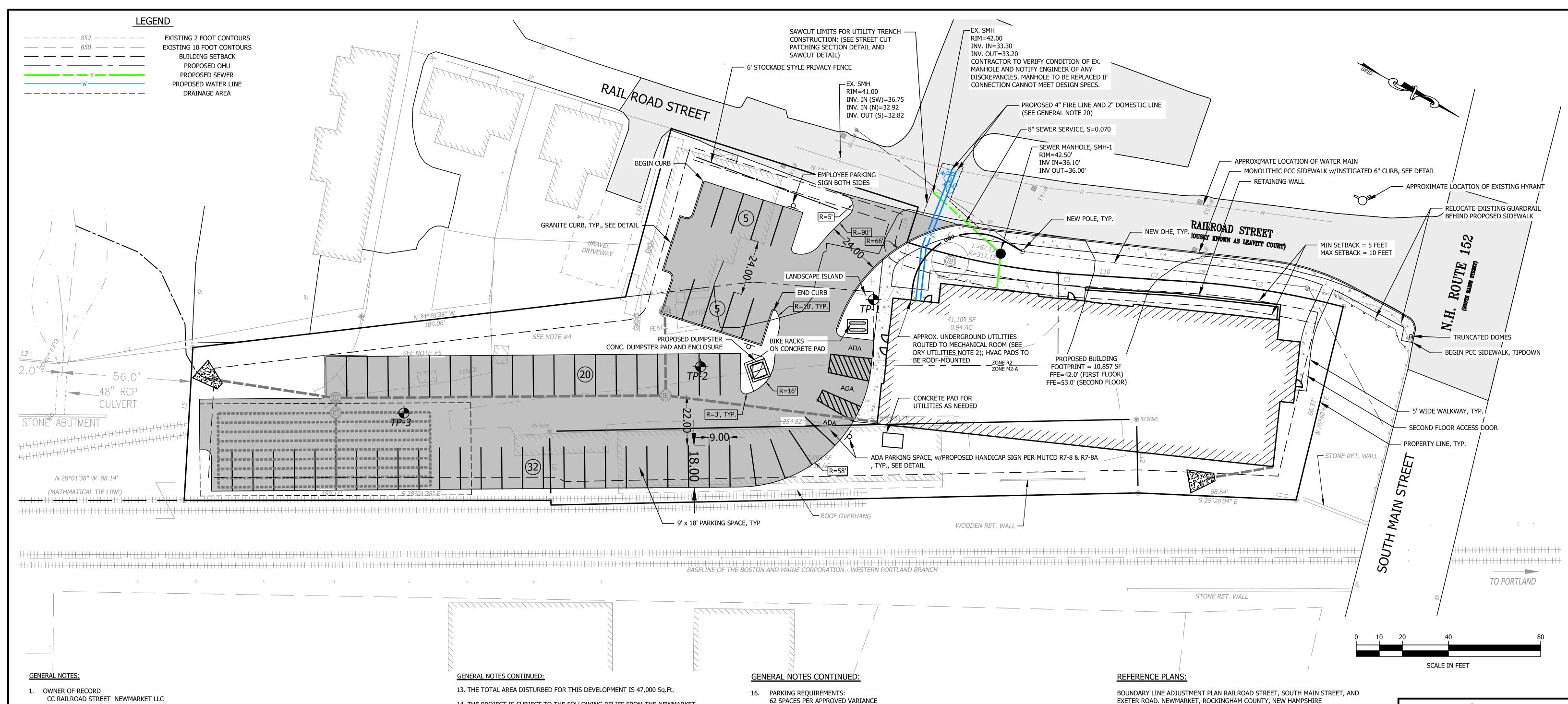
CHECK'D BY

MJS

MIS

reserved





- PO BOX 571 GREENLAND, NH 03840
- THIS PLAN DOES NOT REPRESENT A BOUNDARY SURVEY.
- 3. THE INTENT OF THIS PLAN IS TO SHOW PROPOSED CONDITIONS FOR THE CONSTRUCTION OF AN 41-UNIT APARTMENT BUILDING WITH COMMERCIAL SPACE ON THE FIRST FLOOR.
- 6. PARCELS U4-16 & U3-138A LIE WITHIN ZONE M-2A. A PORTION OF PARCEL U4-16 IS IN ZONE R2.
- 7. LOT SIZE: MAP U4-16: 0.94 ACRES MAP U3-138A: 0.18 ACRES
- THE FIELD SURVEY WAS COMPLETED BY NORWAY PLAINS ASSOCIATES AND HORIZONS ENGINEERING, INC.
- VERTICAL DATUM BASED ON NAD83.
- 10. THERE ARE NO WETLANDS ON THIS PROPERTY.
- 11. MAP U3-138A HAS NO FRONTAGE BUT HAS AN ACCESS EASEMENT ACROSS LOT 16.
- 12. AUTOMOBILE PARKING CALCULATIONS 62 PARKING SPACER PER APPROVED VARIANCE

SEWER DESIGN CALCULATIONS:

NEW BUILDING INCLUDES (1) COMMERCIAL SPACE WITH 7 EXMPLOYEES AND (41) 1-BEDROOM APARTMENTS.

TOTAL DAILY DESIGN FLOW RATE: 7 EMPLOYEES X 10 GPD = 70 GPD

41 APARTMENTS X 225 GPD = 9,225 GPD ---> TOTAL NEW BUILDING FLOW RATE = 70 GPD + 9,225 GPD = 9,295 GPD TOTAL INFILTRATION DESIGN FLOW RATE:

150 GPD/ACRE = 150 GPD * 1.12 ACRES = 168 GPD

TOTAL COMBINED BUILDING & INFILTRATION DESIGN FLOW RATE: = 9,295 GPD + 168 GPD = 9,463 GPD TOTAL DESIGN FLOW RATE

USING A PEAKING FACTOR OF 6, TOTAL COMBINED DESIGN PEAK HOURLY FLOW RATE = 39.4 GPM/0.09 CFS NEW 8" PVC SEWER SERVICE PIPE, SLOPE = 0.07, AT 75% DESIGN FLOW CAPACITY PROVIDES 2.398 CFS / 1,076.2 GPM ALLOWABLE FLOW IN PIPE. DESIGN IS SUFFICIENT FOR NEW BUILDING DESIGN PEAK HOURLY FLOW RATES.

1) FLOWRATES PER WASTEWATER ENGINEERING TREATMENT AND RESOURCE RECOVERY, METCALF & EDDY/AECOM, 5TH EDITION. 2) INILTRATION (150 GPD/ACRE) PER NH ENV-WQ 700, SEC. 704.03.F. PEAKING FACTOR PER H ENV-WQ 700, SEC. 704.03.D. CONTRIBUTING SEWER AREAS: LOT = 1.12 ACRES.

- 14. THE PROJECT IS SUBJECT TO THE FOLLOWING RELIEF FROM THE NEWMARKET ZONING AND SITE PLAN REGULATIONS:
- VARIANCE: RELIEF FROM SECTION 32-56 PERMITTED USES OF THE MUNICIPAL CODE OF THE TOWN OF NEWMARKET TO PERMIT A MIXED-USE DEVELOPMENT
- IN THE R2 ZONING DISTRICT. VARIANCE: RELIEF FROM SECTION 32-46A(B)(2)E M2A PERMITTED USES OF THE MUNICIPAL CODE OF THE TOWN OF NEWMARKET TO PERMIT A RESIDENTIAL UNITS ON THE FIRST FLOOR OF A MIXED USE BUILDING WITH FRONTAGE ON SOUTH MAIN STREET IN THE M2A ZONING DISTRICT. VARIANCE: RELIEF FROM SECTION 32-89 DIMENSIONS TABLE OF THE MUNICIPAL CODE OF THE TOWN OF NEWMARKET TO PERMIT A TOTAL OF 41 RESIDENTIAL UNITS WITH 35 RESIDENTIAL UNITES IN THE M2A ZONING

DISTRICT AND 6 RESIDENTIAL UNITS IN THE R2 ZONING DISTRICT.

- VARIANCE: RELIEF FROM SECTION 32-46A(B)(2)C M2A PERMITTED USES OF THE MUNICIPAL CODE OF THE TOWN OF NEWMARKET TO PERMIT 62 ON-SITE PARKING SPACES INSTEAD OF THE REQUIRED 2 ON-SITE PARKING SPACES PER RESIDENTIAL UNIT.
- 15. ZONE: M-2A DIMENSIONAL DECLIDEMENTS:

DIMENSIONAL REQUIREMENTS.		
	REQUIRED	PROVID
MIN. LOT AREA	0.25 AC	0.18 AC
MIN. FRONTAGE	50 FT	N/A*

89.2 FT* MIN. ROAD SETBACK MAX. ROAD SETBACK 10 FT 89.2 FT* 10 FT 41.7 FT / 6.8 FT MIN. SIDE/REAR SETBACK 35 FT MAX. BUILDING HEIGHT 30.6 FT

*EXISTING NONCONFORMING

ZONE: R-2 DIMENSIONAL REQUIREMENTS:

-	
MIN. LOT AREA	0.50 AC
MIN. FRONTAGE	100 FT
MIN. ROAD SETBACK	25 FT
MAX. ROAD SETBACK	N/A
MIN. SIDE/REAR SETBACK	15 FT
MAX BUILDING HEIGHT	35 FT

ZONING INFORMATION IS BASED ON THE TOWN OF NEWMARKET ZONING ORDINANCE DATED 8/7/13.

- 17. IF CONTAMINATED SOILS ARE FOUND TO EXIST ON THE LOT, THEY MUST BE PROPERLY HANDLED AND DISPOSED OF IN ACCORDANCE WITH ALL STATE AND FEDERAL REGULATIONS. SOIL BELOW EXISTING RR IS SUSPECTED TO BE CONTAMINATED WITH CREOSOTE.
- 18. SITE IMPROVEMENTS ON LOT 16 THAT WILL BE USED BY THE SUBJECT PROPERTY (LOT 138A):
- 18.1. AN EASEMENT TO CONSTRUCT, MAINTAIN AND USE A "5' WIDE BRICK PAVER WALKWAY" AS SHOWN ON 18.2. A NONEXCLUSIVE EASEMENT TO PAVE AND/OR REPAVE, USE AND MAINTAIN THE EXISTING DRIVEWAYS FROM RAILROAD STREET AND TO PLACE OVER OR UNDER SUCH EXISTING DRIVEWAYS UTILITY LINES
- SERVING THE 3 RAILROAD PROPERTY; 18.3. A NONEXCLUSIVE EASEMENT FOR ACCESS TO AND USE OF THE AREA ON THE PLAN SHOWN AS "PROPOSED DUMPSTER TO REPLACE EXISTING DUMPSTER AND SERVICE PROPOSED RESIDENTIAL UNITS AND EXISTING COMMERCIAL USE" AND FOR THE PLACEMENT, USE AND MAINTENANCE OF SUCH
- 18.4. AN EASEMENT TO CONSTRUCT AND MAINTAIN A "ROOF OVERHANG ABOVE ENTRY" AS SHOWN ON THE
- 18.5. A NONEXCLUSIVE EASEMENT FOR ACCESS TO AND USE OF THE AREA SHOWN ON THE PLAN AS "SNOW STORAGE" FOR SNOW STORAGE.
- 18.6. AN EASEMENT TO CONSTRUCT, MAINTAIN AND USE THE "PADS" OUTSIDE OF THE GARAGE DOOR AS SHOWN ON THE PLAN.
- 18.7. AN EASEMENT 10 FEET WIDE ALONG THE NORTHWESTERLY BOUNDARY LINE OF THE PROPOSED BUILDING ON THE LOT IN WHICH NO STRUCTURES MAY BE CONSTRUCTED. [THIS NEEDS TO BE ADDED
- 18.8. AN EASEMENT FOR ACCESS TO AND TO CONSTRUCT, USE AND MAINTAIN THE "TWO BICYCLE STANDS" SHOWN ON THE PLAN.
- 19. ALL PROPOSED AND FUTURE LIGHTING FIXTURES ON THE LOT SHALL BE DARK SKY COMPLIANT.
- 20. CONTRACTOR TO NOTIFY TOWN AT TIME OF CONSTRUCTION FOR WATER LINE SERVICE CONNECTION TO MUNICIPAL SYSTEM. COORDINATE WITH TOWN AS NECESSARY FOR POTENTIAL INSTALLATION OF HYDRANT AT TIME OF CONSTRUCTION.

DRY UTILITY NOTES:

TRANSFORMERS, AS REQUIRED.

1. OWNER TO COORDINATE WITH UTILITY PROVIDER TO RELOCATE EXISTING POWER POLE AND OVERHEAD ELECTRICAL LINES 2. OWNER TO COORDINATE WITH UTILITY PROVIDER FOR ELECTRICAL SERVICES TO BUILDING INCLUDING

SNOW STORAGE NOTES:

1. ALL SNOW STORAGE TO BE WITHIN ON-SITE LANDSCAPING AREAS. OWNER TO COORDINATE REMOVAL OF SNOW OFF SITE, AS NEEDED.

FOR: THE BOSTON AND MAINE CORPORATION, CHENY PROPERTY MANAGEMENT, AND FIVE RAILROAD STREET, LLC

DATED: JANUARY 2020 BY: NORWAY PLAINS ASSOCIATES

CONSTRUCTION PHASING:

THE SUBJECT PROPERTY WILL BE DEVELOPED AS TWO PRIMARY PHASES:

- PHASE 1 INCLUDES THE SITE PREPARATION AND CONSTRUCTION FOR THE PROPOSED BUILDING ONLY. THE THE EXISTING HISTORIC BRICK BUILDING LOCATED ALONG THE RAILROAD TRACKS WILL BE REMOVED AS PART OF PHASE 1. EARTHWORK WILL ONLY BE CONDUCTED ON THE NORTHERN PORTION OF THE SUBJECT PROPERTY IN THE VICINITY OF THE PROPOSED BUILDING. PHASE 1 STORMWATER CONTROL BMPS WILL BE IMPLEMENTED ACCORDINGLY, WHICH INCLUDED A CONSTRUCTION ENTRANCE ALONG RAILROAD STREET AND SILT FENCE ALONG THE DOWNGRADIENT PERIMETER OF THE PROPOSED BUILDING. THE BMPS WILL REMAIN IN PLACE UNTIL VERTICAL CONSTRUCTION IS COMPLETE. PHASE 1 ALSO INCLUDES THE PROPOSED WATER AND SEWER UTILITY CONNECTIONS.
- PHASE 2 INCLUDES THE CONSTRUCTION OF THE PARKING AREA, SIDEWALK, STORMWATER INFRASTRUCTURE LOCATED AT THE SOUTHERN AND WESTERN PORTION OF THE PROPERTY. THE EXISTING OFFICE BUILDING AND HISTORIC RAILROAD TRACKS WILL BE REMOVED AS PART OF PHASE 2. PHASE 2 STORMWATER CONTROL BMPS WILL BE IMPLEMENTED ACCORDINGLY, WHICH INCLUDED A CONSTRUCTION ENTRANCE ALONG PARKING LOT ENTRANCE AND SILT FENCE ALONG THE PERIMETER OF THE PROPOSED PARKING AREA. THE BMPS WILL REMAIN IN PLACE UNTIL CONSTRUCTION IS COMPLETE AND THE SITE ACHIEVES FINAL STABILIZATION.



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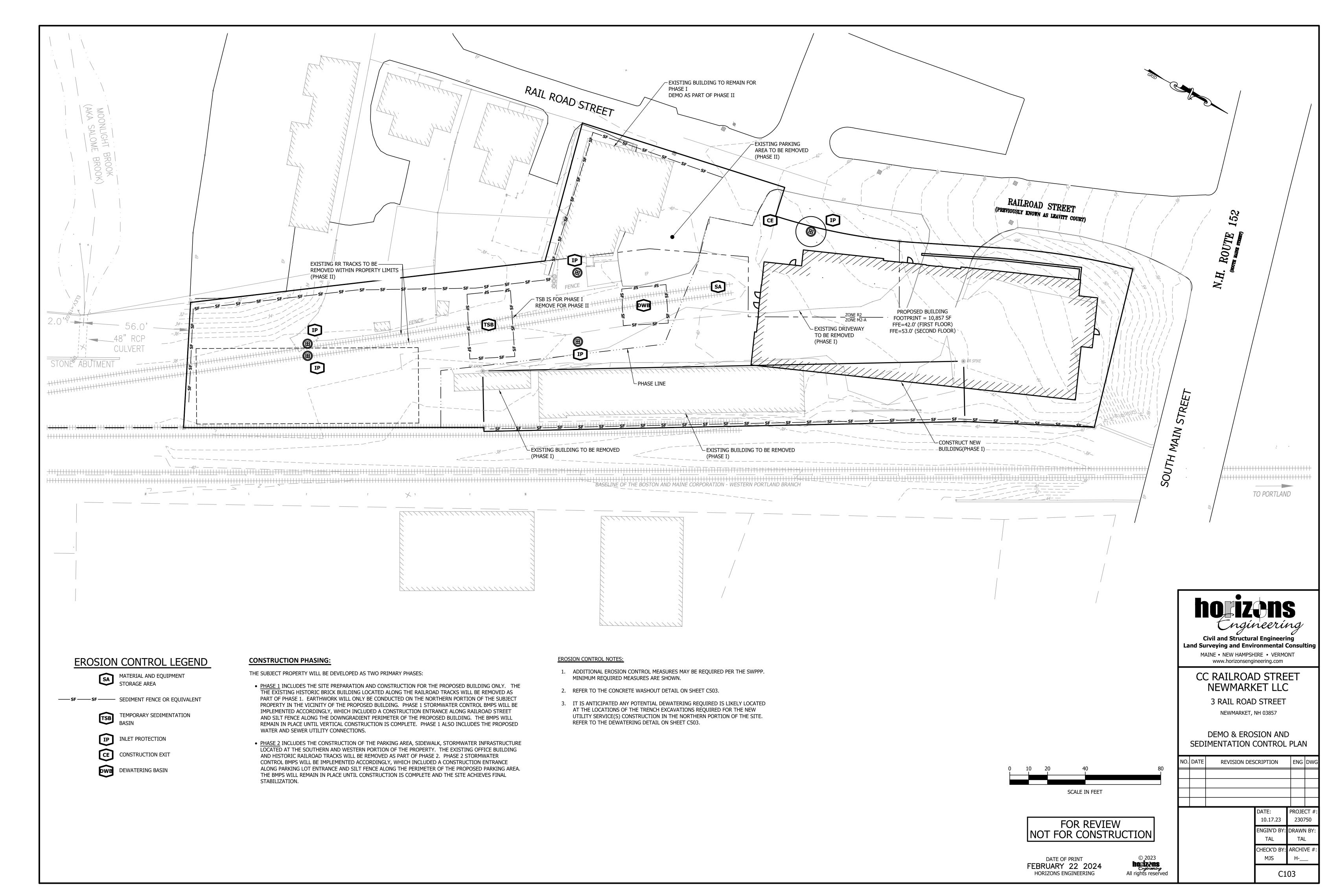
SITE & UTILITY PLAN

REVISION DESCRIPTION

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SEEDING RECOMMENDATIONS

GRADING AND SHAPING

A. SLOPES SHALL NOT BE STEEPER THAN 2:1; 3:1 SLOPES OR FLATTER ARE PREFERRED. WHERE MOWING WILL BE DONE, 3:1 SLOPES OR FLATTER ARE RECOMMENDED.

SEEDBED PREPARATION

A. SURFACE AND SEEPAGE WATER SHOULD BE DRAINED OR DIVERTED FROM THE SITE TO PREVENT DROWNING OR WINTER KILLING OF THE PLANTS.

B. STONES LARGER THAN 4 INCHES AND TRASH SHOULD BE REMOVED BECAUSE THEY INTERFERE WITH SEEDING AND FUTURE MAINTENANCE OF THE AREA. WHERE FEASIBLE, THE SOIL SHOULD BE AMENDED WITH ORGANIC MATTER AND TILLED TO A DEPTH OF ABOUT 4 INCHES TO PREPARE A SEEDBED AND MIX FERTILIZER AND LIME THOROUGHLY INTO THE SOIL. THE SEEDBED SHOULD BE LEFT IN A REASONABLY FIRM AND SMOOTH CONDITION. THE LAST TILLAGE OPERATION SHOULD BE PERFORMED ACROSS THE SLOPE WHEREVER PRACTICAL.

ESTABLISHING VEGETATION

A. LIME AND FERTILIZER SHOULD BE APPLIED PRIOR TO OR AT THE TIME OF SEEDING AND INCORPORATED INTO THE SOIL. KINDS AND AMOUNTS OF LIME AND FERTILIZER SHOULD BE BASED ON AN EVALUATION OF SOIL TESTS. WHEN A SOIL TEST IS NOT AVAILABLE, THE FOLLOWING MINIMUM AMOUNTS SHOULD BE APPLIED:

-AGRICULTURAL LIMESTONE, 2 TONS PER ACRE OR 100 LBS. PER 1,000 SQ. FT. -NITROGEN (N), 50 LBS., PER ACRE OR 1.1 LBS. PER 1,000 SQ. FT. -PHOSPHATE (P, O_E), 100 LBS. PER ACRE OR 2.2 LBS. PER 1,000 SQ. FT. -POTASH (K₂0), 100 LBS. PER ACRE OR 2.2 LBS. PER 1,000 SQ. FT.

(NOTE: THIS IS THE EQUIVALENT OF 500 LBS. PER ACRE OF 10-20-20 FERTILIZER OR 1,000 LBS. PER ACRE OF

B. SEED SHOULD BE SPREAD UNIFORMLY BY THE METHOD MOST APPROPRIATE FOR THE SITE. METHODS INCLUDE BROADCASTING, DRILLING, AND HYDROSEEDING. WHERE BROADCASTING IS USED, COVER SEED WITH .25 INCH OF SOIL OR LESS, BY CULTIPACKING OR RAKING.

C. SEEDING GUIDE:

. SEEDING GOIDE.	SEEDING	SEEDING SOIL TYPE			
USE	MIXTURE (SEE 3D)	DROUGHTY	WELL DRAINED	MOD. WELL DRAINED	POORLY DRAINED
STEEP CUTS AND FILLS, BORROW AND DISPOSAL AREAS	A B C	FAIR POOR FAIR	GOOD GOOD EXCELLENT	GOOD FAIR EXCELLENT	FAIR FAIR POOR
WATERWAYS, EMERGENCY SPILL- WAYS, AND OTHER CHANNELS WITH FLOWING WATER	А	GOOD	GOOD	GOOD	FAIR
LIGHTLY USED PARKING LOTS, ODD AREAS, UNUSED LANDS, AND LOW INTENSITY USE RECREATION SITES	A B	GOOD GOOD	GOOD GOOD	GOOD FAIR	FAIR POOR

D. SEEDING RATES:

-	,. J∟	LDING KATLS.		
			POUNDS	POUNDS PER
		MIXTURE	PER ACRE	1,000 SQ. FT.
	Α	TALL FESCUE	20	0.45
		CREEPING RED FESCUE	20	0.45
		REDTOP	2	0.05
		TOTAL:	42	0.95
	В	TALL FESCUE	15	0.35
		CREEPING RED FESCUE	10	0.25
		CROWN VETCH OR	15 OR	0.35 OR
		FLATPEA	30	0.75
		TOTAL:	40 OR 55	0.95 OR 1.35
	C	TALL FESCUE	20	0.45
		FLATPEA	30	0.75
		ΤΟΤΔΙ ·	50	1.20

E. WHEN SEEDED AREAS ARE MULCHED, PLANTINGS MAY BE MADE FROM EARLY SPRING TO SEPTEMBER 15. WHEN SEEDED AREAS ARE NOT MULCHED, PLANTINGS SHOULD BE MADE FROM EARLY SPRING TO MAY 20 OR FROM AUGUST 10 TO SEPTEMBER 1

F. TEMPORARY SEEDING RATES:

•			1	
	SPECIES	POUNDS PER ACRE	POUNDS PER 1,000 SQ. FT.	REMARKS
	WINTER RYE	112	2.5	BEST FOR FALL SEEDING. SEED FROM AUGUST TO SEPTEMBER 5TH FOR BEST COVER. SEED TO A DEPTH OF 1 INCH.
	OATS	80	2.0	BEST FOR SPRING SEEDING. SEED NO LATER THAN MAY 15TH FOR SUMMER PROTECTION. SEED TO A DEPTH OF 1 INCH.
-	ANNUAL RYEGRASS	40	1.0	GROWS QUICKLY, BUT IS OF SHORT DURATION. USE WHERE APPEARANCES ARE NOT IMPORTANT. SEED EARLY SPRING AND/OR BETWEEN AUGUST 15TH AND SEPTEMBER 15TH. COVER SEED WITH NO MORE THAN 0.25 INCH OF SOIL.
	PERENNIAL RYEGRASS	30	0.7	GOOD COVER WHICH IS LONGER LASTING THAN ANNUAL RYEGRASS. SEED BETWEEN APRIL 1ST AND JUNE 1ST AND/OR BETWEEN AUGUST 15TH AND SEPTEMBER 15TH. MULCHING WILL ALLOW SEEDING THROUGHOUT THE GROWING SEASON. SEED TO A DEPTH OF APPROXIMATELY 0.5 INCH.

A. HAY, STRAW, OR OTHER MULCH, WHEN NEEDED, SHOULD BE APPLIED IMMEDIATELY AFTER SEEDING

B. MULCH WILL BE HELD IN PLACE USING APPROPRIATE TECHNIQUES FROM THE BEST MANAGEMENT PRACTICE FOR MULCHING.

MAINTENANCE TO ESTABLISH A STAND

CONSTRUCTION NOTES

. WOVEN WIRE FENCE, IF REOUIRED

2. FILTER CLOTH TO BE FASTENED

TO BE FASTENED SECURELY TO FENCE

POSTS WITH WIRE TIES OR STAPLES.

SECURELY TO WOVEN WIRE FENCE

. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER, THEY SHALL BE OVERLAPPED BY 6

1. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE

SEDIMENT FENCE, OR 50% OF CAPACITY IS USED.

SHALL BE CONSIDERED AN ACCEPTABLE EQUAL TO SEDIMENT FENCE IF INSTALLED PER MANUFACTURER'S

WITH TIES SPACED EVERY 24" AT TOP, MID SECTION, AND BOTTOM.

INCHES, FOLDED AND STAPLED.

5. 12" DIAMETER FILTREXX SILTSOXX

RECOMMENDATIONS.

FOR SEDIMENT FENCE

A. PLANTED AREAS SHOULD BE PROTECTED FROM DAMAGE BY FIRE, GRAZING, TRAFFIC, AND DENSE WEED

B. FERTILIZATION NEEDS SHOULD BE DETERMINED BY ON SITE INSPECTIONS. SUPPLEMENTAL FERTILIZER IS USUALLY THE KEY TO FULLY COMPLETE THE ESTABLISHMENT OF THE STAND BECAUSE MOST PERENNIALS TAKE 2 TO 3 YEARS TO BECOME ESTABLISHED.

C. IN WATERWAYS, CHANNELS, OR SWALES WHERE UNIFORM FLOW CONDITIONS ARE ANTICIPATED, OCCASIONAL MOWING MAY BE NECESSARY TO CONTROL GROWTH OF WOODY VEGETATION.

EROSION CONTROL GENERAL NOTES

A. KEEP SITE MODIFICATION TO A MINIMUM

- 1. CONSIDER FITTING THE BUILDING AND DRIVEWAY TO THE NATURAL TOPOGRAPHY. THIS REDUCES THE NEED FOR CUTS AND FILLS. AVOID EXTENSIVE GRADING THAT WOULD ALTER DRAINAGE PATTERNS OR CREATE VERY STEEP SLOPES.
- 2. EXPOSE AREAS OF BARE SOIL TO EROSIVE ELEMENTS FOR THE SHORTEST TIME POSSIBLE.
- 3. SAVE AND PROTECT DESIRABLE EXISTING VEGETATION WHERE POSSIBLE. ERECT BARRIERS TO PREVENT DAMAGE FROM CONSTRUCTION EQUIPMENT.
- 4. LIMIT THE GRADES OF SLOPES SO VEGETATION CAN BE EASILY ESTABLISHED AND
- 5. AVOID SUBSTANTIAL INCREASE IN RUNOFF LEAVING THE SITE.

B. MINIMIZE POLLUTION OF WATER DURING CONSTRUCTION ACTIVITIES

- 1. STOCKPILE TOPSOIL REMOVED FROM CONSTRUCTION AREA AND SPREAD OVER ANY DISTURBED AREAS PRIOR TO REVEGETATION. TOPSOIL STOCKPILES MUST BE PROTECTED
- 2. PROTECT BARE SOIL AREAS EXPOSED BY GRADING ACTIVITIES WITH TEMPORARY VEGETATION OR MULCHES.
- 3. USE SEDIMENT BASINS TO TRAP DEBRIS AND SEDIMENT WHICH WILL PREVENT THESE MATERIALS FROM MOVING OFF SITE.
- 4. USE DIVERSIONS TO DIRECT WATER AROUND THE CONSTRUCTION AREA AND AWAY FROM EROSION PRONE AREAS TO POINTS OF SAFE DISPOSAL.
- 5. USE TEMPORARY CULVERTS OR BRIDGES WHEN CROSSING STREAMS WITH EQUIPMENT.
- 6. PLACE CONSTRUCTION FACILITIES, MATERIALS, AND EQUIPMENT STORAGE AND

C. PROTECT AREA AFTER CONSTRUCTION.

MAINTENANCE AREAS AWAY FROM DRAINAGE WAYS.

- ESTABLISH GRASS OR OTHER SUITABLE VEGETATION ON ALL DISTURBED AREAS. SELECT SPECIES ADAPTED TO THE SITE CONDITIONS AND THE FUTURE USE OF THE AREA. FINAL GRADES SHALL BE SEEDED WITHIN 72 HOURS. STABILIZATION SHALL BE DEFINED AS 85% VEGETATIVE COVER.
- 2. MAINTAIN VEGETATED AREAS USING PROPER VEGETATIVE 'BEST MANAGEMENT PRACTICES' DURING THE CONSTRUCTION PERIOD.
- 3. MAINTAIN NEEDED STRUCTURAL 'BEST MANAGEMENT PRACTICES' AND REMOVE SEDIMENT FROM DETENTION PONDS AND SEDIMENT BASINS AS NEEDED.
- 4. DETERMINE RESPONSIBILITY FOR LONG TERM MAINTENANCE OF PERMANENT 'BEST MANAGEMENT PRACTICES'.
- 5. IF CONSTRUCTION IS ANTICIPATED DURING WINTER MONTHS, REFER TO 'COLD WEATHER SITE STABILIZATION REQUIREMENTS'.

D. INVASIVE SPECIES AND FUGITIVE DUST

1. THE PROJECT SHALL NOT CONTRIBUTE TO THE SPREAD OF INVASIVE SPECIES. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL EVALUATE WORK AREAS FOR THE PRESENCE OF INVASIVE SPECIES, AND IF FOUND SHALL TAKE NECESSARY MEASURES TO PREVENT THEIR SPREAD IN ACCORDANCE WITH RSA 430:51-57 AND AGR 3800. THE CONTRACTOR SHALL TAKE ALL NECESSARY MEASURES TO PREVENT THE INTRODUCTION OF INVASIVE SPECIES BY INSPECTING AND CLEANING ALL EQUIPMENT ARRIVING ON SITE.

STABILIZE ENTIRE PILE WITH —

2. FUGITIVE DUST SHALL BE CONTROLLED IN ACCORDANCE WITH ENV-A 1000.

VEGETATION OR COVER

MINIMUM

DISTURBED AREAS.

SOIL STOCKPILING IS TO BE USED WHERE TOPSOIL

IS NECESSARY FOR REGRADING AND VEGETATING

TEMPORARY STOCKPILE STABILIZATION MEASURES

STABILIZATION MEASURE(S) SELECTED SHOULD BE

INCLUDE VEGETATIVE COVERS, MULCH,

SEDIMENT TRAPPING BARRIERS. THE

NON-VEGETATIVE COVERS, AND PERIPHERAL

APPROPRIATE FOR THE TIME OF YEAR, SITE

CONDITIONS, AND REQUIRED PERIOD OF USE.

✓ SLOPE

COLD WEATHER SITE STABILIZATION **REQUIREMENTS**

TO ADEQUATELY PROTECT WATER QUALITY DURING COLD WEATHER AND DURING SPRING RUNOFF, THE FOLLOWING ADDITIONAL STABILIZATION TECHNIQUES SHALL BE EMPLOYED DURING THE PERIOD FROM OCTOBER 15 THROUGH MAY 1:

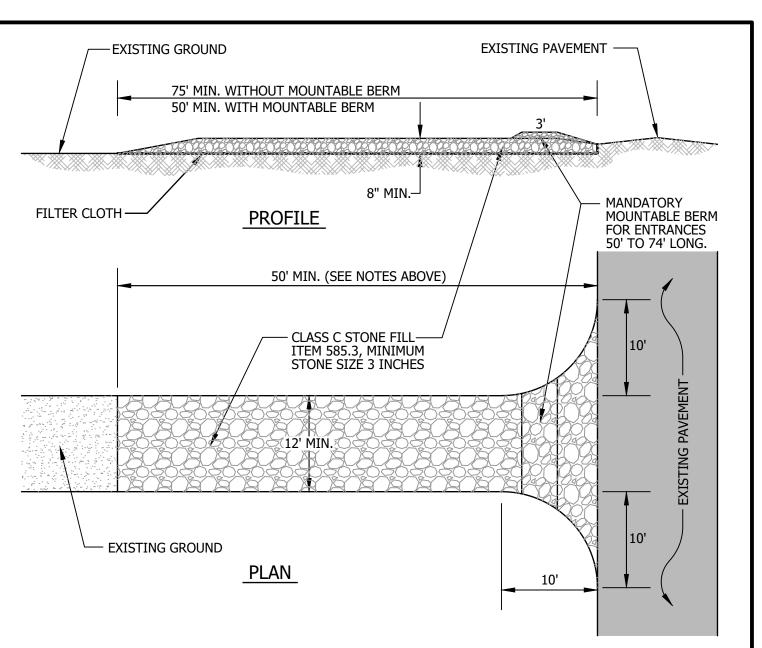
- THE AREA OF EXPOSED, UNSTABILIZED SOIL SHALL BE LIMITED TO 1 ACRE AND SHALL BE PROTECTED AGAINST EROSION BY THE METHODS DESCRIBED IN THIS SECTION PRIOR TO ANY THAW OR SPRING MELT EVENT. THE ALLOWABLE AREA OF EXPOSED SOIL MAY BE INCREASED IF A WINTER CONSTRUCTION PLAN, DEVELOPED BY A QUALIFIED ENGINEER OR A CPESC SPECIALIST, IS REVIEWED AND APPROVED BY NHDES.
- 2. ALL PROPOSED VEGETATED AREAS HAVING A SLOPE OF LESS THAN 15% WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCTOBER 15, OR WHICH ARE DISTURBED AFTER OCTOBER 15, SHALL BE SEEDED AND COVERED WITH 3 TO 4 TONS OF HAY OR STRAW MULCH PER ACRE, SECURED WITH ANCHORED NETTING OR TACKIFIER, OR 2 INCHES OF EROSION CONTROL MIX MEETING THE CRITERIA OF ENV-WQ 1506.05(D) THROUGH (H).
- 3. ALL PROPOSED VEGETATED AREAS HAVING A SLOPE OF GREATER THAN 15% WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCTOBER 15, OR WHICH ARE DISTURBED AFTER OCTOBER 15, SHALL BE SEEDED AND COVERED WITH PROPERLY INSTALLED AND ANCHORED EROSION CONTROL MATTING OR WITH A MINIMUM 4 INCH THICKNESS OF EROSION CONTROL MIX MEETING THE CRITERIA OF ENV-WQ 1506.05(D) THROUGH (H).
- 4. INSTALLATION OF ANCHORED HAY MULCH OR EROSION CONTROL MIX, MEETING THE CRITERIA OF ENV-WQ 1506.05(D) THROUGH (H), SHALL NOT OCCUR OVER SNOW OF GREATER THAN 1 INCH IN DEPTH.
- 5. INSTALLATION OF EROSION CONTROL MATTING SHALL NOT OCCUR OVER SNOW OF GREATER THAN ONE INCH IN DEPTH OR ON FROZEN GROUND.
- 6. ALL PROPOSED STABILIZATION IN ACCORDANCE WITH NOTES 2 OR 3 ABOVE, SHALL BE COMPLETED WITHIN 1 DAY OF ESTABLISHING THE GRADE THAT IS FINAL OR THAT

OTHERWISE WILL EXIST FOR MORE THAN 5 DAYS.

- 7. ALL DITCHES OR SWALES WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCTOBER 15, OR WHICH ARE DISTURBED AFTER OCTOBER 15, SHALL BE STABILIZED TEMPORARILY WITH STONE OR EROSION CONTROL BLANKETS APPROPRIATE FOR THE DESIGN FLOW CONDITIONS, AS DETERMINED BY THE OWNER'S ENGINEERING CONSULTANT.
- 8. AFTER OCTOBER 15, INCOMPLETE ROAD OR PARKING AREAS WHERE ACTIVE CONSTRUCTION OF THE ROAD OR PARKING AREA HAS STOPPED FOR THE WINTER SEASON SHALL BE PROTECTED WITH A MINIMUM 3 INCH LAYER OF BASE COURSE GRAVELS MEETING THE GRADATION REQUIREMENTS OF NHDOT STANDARD SPECIFICATION FOR ROAD AND BRIDGE CONSTRUCTION, 2016, ITEM NO. 304.1 OR 304.2.

CONSTRUCTION SEQUENCE

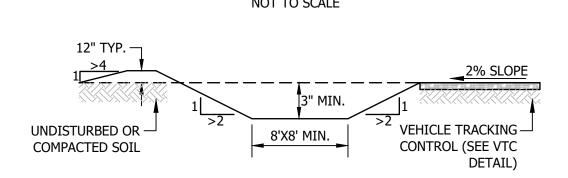
- 1. INSTALL CONSTRUCTION ENTRANCE, SEE DETAIL
- 2. CUT AND CLEAR TREES WITHIN THE CLEARING LIMITS.
- 3. INSTALL SEDIMENT FENCES, ROCK CHECK DAMS, AND OTHER APPROPRIATE EROSION CONTROL MEASURES AT LOCATIONS SHOWN ON THE PLANS AND AS
- 4. GRUB SITE WITHIN GRADING LIMITS.
- 5. STRIP AND STOCKPILE TOPSOIL AND INSTALL EROSION CONTROL MEASURES.
- 6. INSTALL/ADJUST SEDIMENT FENCE, CHECK DAMS, AND HAYBALES, AS REQUIRED.
- 7. PROCEED WITH WORK, LIMITING THE DURATION OF DISTURBANCE. THE MAXIMUM OF UNCOVERED DISTURBED EARTH AT ANY ONE TIME IS FIVE ACRES. THE MAXIMUM LENGTH OF TIME THAT DISTURBED EARTH MAY BE LEFT UNSTABILIZED IS 45 DAYS.
- 8. BEGIN SEEDING AND MULCHING IMMEDIATELY AFTER GRADING. ALL DISTURBED AREAS SHALL BE STABILIZED WITH APPROVED METHODS WITHIN 72 HOURS OF ACHIEVING FINISHED GRADE.
- AN AREA SHALL BE CONSIDERED STABLE 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" OF NON-EROSIVE MATERIAL SUCH AS STONE OR RIPRAP HAS BEEN INSTALLED; OR
- D) EROSION CONTROL BLANKETS HAVE BEEN PROPERLY INSTALLED.
- 9. INSPECT ALL EROSION CONTROL MEASURES ON A DAILY BASIS AND AFTER EVERY 0.5 INCHES OF PRECIPITATION. MAINTAIN SEDIMENT FENCE. SEDIMENT TRAPS, HAY BALES, ETC., AS NECESSARY
- 10. PAVE DRIVEWAY AND PARKING AREAS.
- 11. PLACE TOPSOIL, SEED AND MULCH.
- 12. COMPLETE ALL REMAINING PERMANENT EROSION CONTROL STRUCTURES.



STABILIZED CONSTRUCTION ENTRANCE

NOT TO SCALE

CONCRETE WASHOUT SIGN A'. MĨN 🖎 VEHICLE TRACKING CONTROL 8'X8' MIN.



SECTION A

NOT TO SCALE

CONCRETE WASHOUT AREA PLAN

INSTALLATION NOTES:

- 1. SEE PLAN FOR CWA INSTALLATION LOCATION.
- 2. DO NOT LOCATE AN UNLINED CWA WITHIN 400' OF ANY NATURAL DRAINAGE PATHWAY OR WATERBODY. DO NOT LOCATE WITHIN 1,000' OF ANY WELLS OR DRINKING WATER SOURCES. IF SITE CONSTRAINTS MAKE THIS INFEASIBLE, OR IF HIGHLY PERMEABLE SOILS EXIST ON SITE, THE CWA MUST BE INSTALLED WITH AN IMPERMEABLE LINER (16 MIL MIN. THICKNESS) OR SURFACE STORAGE ALTERNATIVES USING PREFABRICATED CONCRETE WASHOUT DEVICES OR A LINED ABOVE GROUND STORAGE ARE TO BE USED.
- 3. THE CWA SHALL BE INSTALLED PRIOR TO CONCRETE PLACEMENT ON SITE.
- 4. CWA SHALL INCLUDE A FLAT SUBSURFACE PIT THAT IS AT LEAST 8' BY 8'. SLOPES LEADING OUT OF THE SUBSURFACE PIT SHALL BE 2:1 OR FLATTER. THE PIT SHALL BE AT LEAST 3' DEEP.
- 5. BERM SURROUNDING SIDES AND BACK OF THE CWA SHALL HAVE MINIMUM HEIGHT OF 1'.
- 6. VEHICLE TRACKING PAD SHALL BE SLOPED 2% TOWARDS THE CWA.
- 7. SIGNS SHALL BE PLACED AT THE CONSTRUCTION ENTRANCE, AT THE CWA, AND ELSEWHERE AS NECESSARY TO CLEARLY INDICATE THE LOCATION OF THE CWA TO OPERATORS OF CONCRETE TRUCKS AND PUMP RIGS.
- 8. USE EXCAVATED MATERIAL FOR PERIMETER BERM CONSTRUCTION

MAINTENANCE NOTES

(SEE VTC DETAIL) OR OTHER

STABLE SURFACE

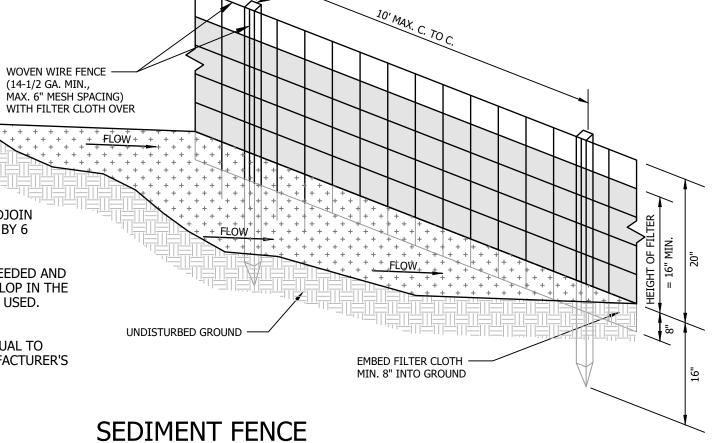
- 1. INSPECT BMPs EACH WORKDAY AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NO REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.
- 2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
- 3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.
- 4. THE CWA SHALL BE REPAIRED, CLEANED, OR ENLARGED AS NECESSARY TO MAINTAIN CAPACITY FOR CONCRETE WASTE. CONCRETE MATERIALS, ACCUMULATED IN PIT, SHALL BE REMOVED ONCE THE MATERIALS HAVE REACHED A DEPTH OF 2'.
- 5. CONCRETE WASHOUT WATER, WASTED PIECES OF CONCRETE AND ALL OTHER DEBRIS IN THE SUBSURFACE PIT SHALL BE TRANSPORTED FROM THE JOB SITE IN A WATER-TIGHT CONTAINER AND DISPOSED OF PROPERLY.
- 6. THE CWA SHALL REMAIN IN PLACE UNTIL ALL CONCRETE FOR THE PROJECT IS PLACED.
- 7. WHEN THE CWA IS REMOVED, COVER THE DISTURBED AREA WITH TOP SOIL, SEED AND MULCH OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE LOCAL JURISDICTION.

SOIL STOCKPILING DETAIL

STRAWBALES

SEDIMENT FENCE

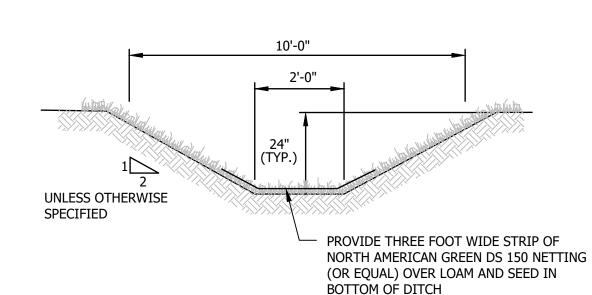
2 MAXIMUM



NO SCALE

36" MIN. FENCE POSTS, DRIVEN

MIN. 16" INTO GROUND



MINIMUM \

1. AREA CHOSEN FOR STOCKPILING OPERATIONS

2. MAXIMUM SLOPE OF STOCKPILE SHALL BE 2:1.

FENCING OR STRAWBALES AND THEN

3. UPON COMPLETION OF SOIL STOCKPILING, EACH

STABILIZED WITH VEGETATION OR COVERED.

PILE SHALL BE SURROUNDED WITH EITHER SILT

SLOPE

INSTALLATION NOTES:

SHALL BE DRY AND STABLE.

GRASS LINED DITCH DETAIL

Engineering Civil and Structural Engineering **Land Surveying and Environmental Consulting** MAINE • NEW HAMPSHIRE • VERMONT www.horizonsengineering.com CC RAILROAD STREET NEWMARKET LLC 3 RAIL ROAD STREET NEWMARKET, NH 03857 **EROSION AND SEDIMENT CONTROL** DETAILS REVISION DESCRIPTION PROJECT 10.17.23 230750

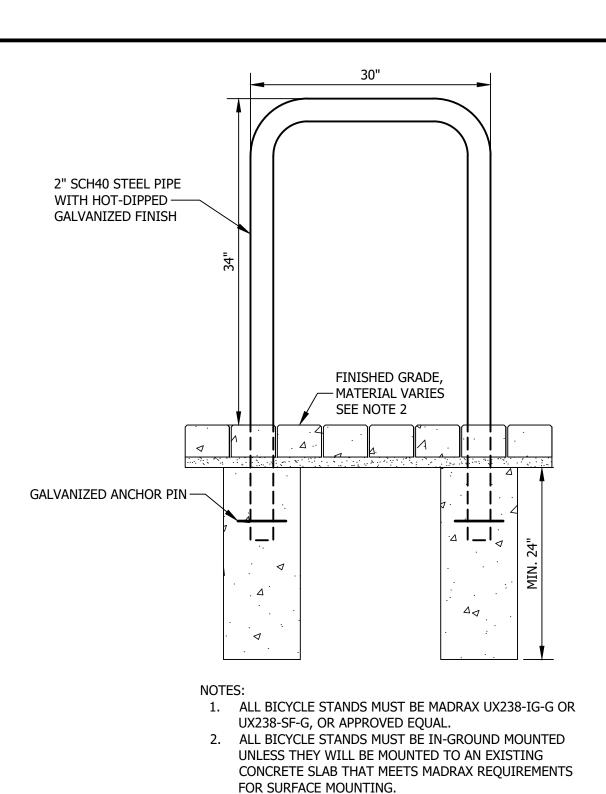
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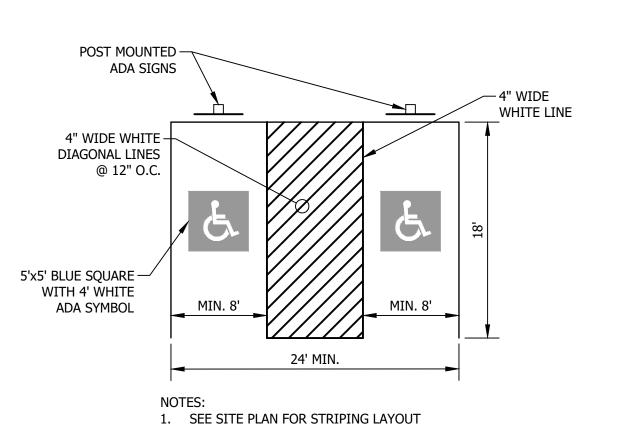
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SHEFFIELD BICYCLE STAND DETAIL

NOT TO SCALE

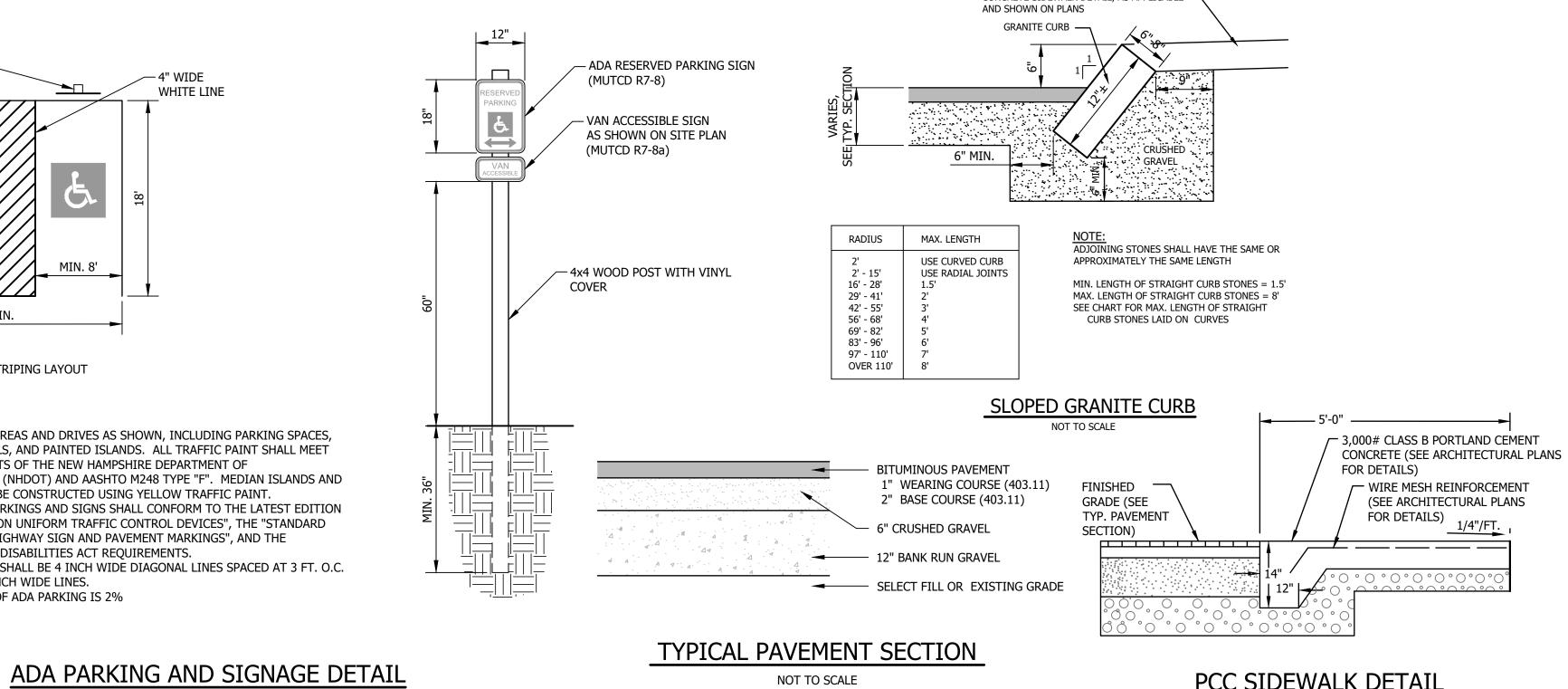


PAVEMENT MARKINGS:

- 1. STRIPE PARKING AREAS AND DRIVES AS SHOWN, INCLUDING PARKING SPACES, HANDICAP SYMBOLS, AND PAINTED ISLANDS. ALL TRAFFIC PAINT SHALL MEET THE REQUIREMENTS OF THE NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION (NHDOT) AND AASHTO M248 TYPE "F". MEDIAN ISLANDS AND
- CENTERLINES TO BE CONSTRUCTED USING YELLOW TRAFFIC PAINT. 2. ALL PAVEMENT MARKINGS AND SIGNS SHALL CONFORM TO THE LATEST EDITION OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES", THE "STANDARD ALPHABETS FOR HIGHWAY SIGN AND PAVEMENT MARKINGS", AND THE AMERICANS WITH DISABILITIES ACT REQUIREMENTS.

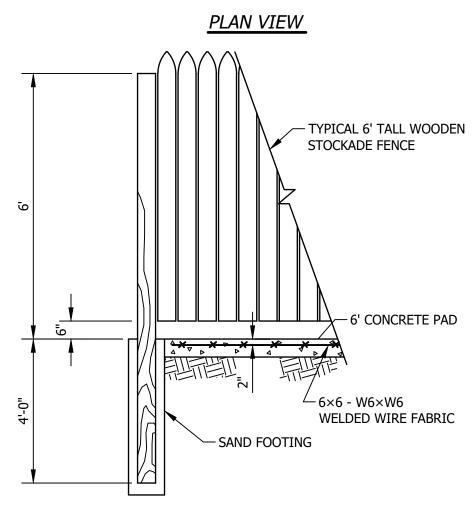
NOT TO SCALE

- PAINTED ISLANDS SHALL BE 4 INCH WIDE DIAGONAL LINES SPACED AT 3 FT. O.C. BORDERED BY 4 INCH WIDE LINES.
- 4. MAXIMUM SLOPE OF ADA PARKING IS 2%



FINISH GRADE: LOAM, SEED, AND MULCH OR CONCRETE SIDEWALK DETAIL, AS APPLICABLE

> PCC SIDEWALK DETAIL NOT TO SCALE



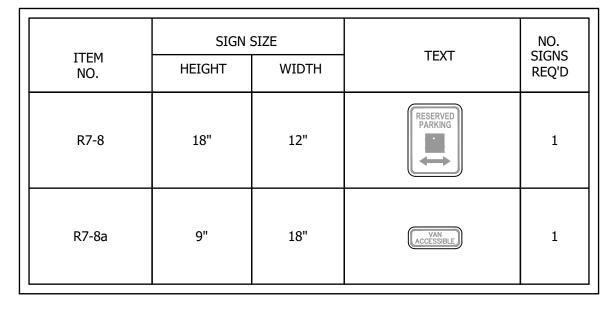
PANEL LENGTH BY FENCE COMPANY

POST AND PANELS BY FENCE COMPANY

ELEVATION VIEW

DUMPSTER ENCLOSURE

NOT TO SCALE



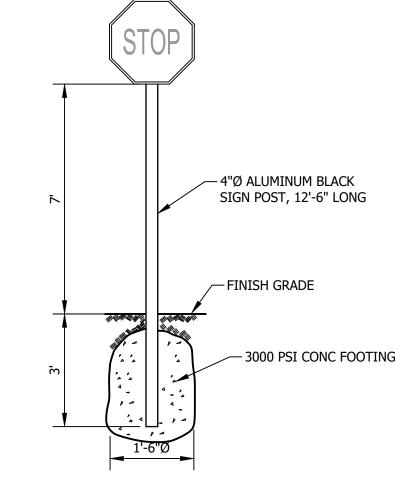
PRIOR TO PLACING NEW PAVEMENT.

TYPICAL PAVEMENT SAWCUT DETAIL

NOT TO SCALE

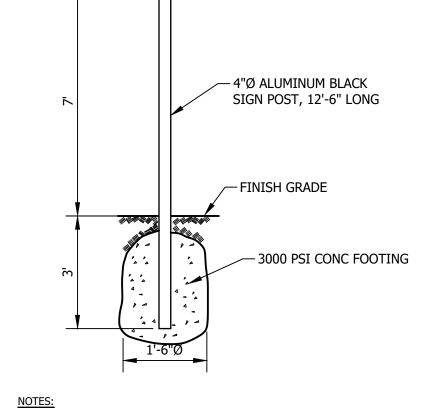
- 1. ALL SIGNS SHALL BE PER "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES",
- 2. ALL FREE STANDING SIGNS TO BE MOUNTED AT A MINIMUM HEIGHT OF 7' FROM THE EXISTING GRADE TO THE BOTTOM OF THE SIGN



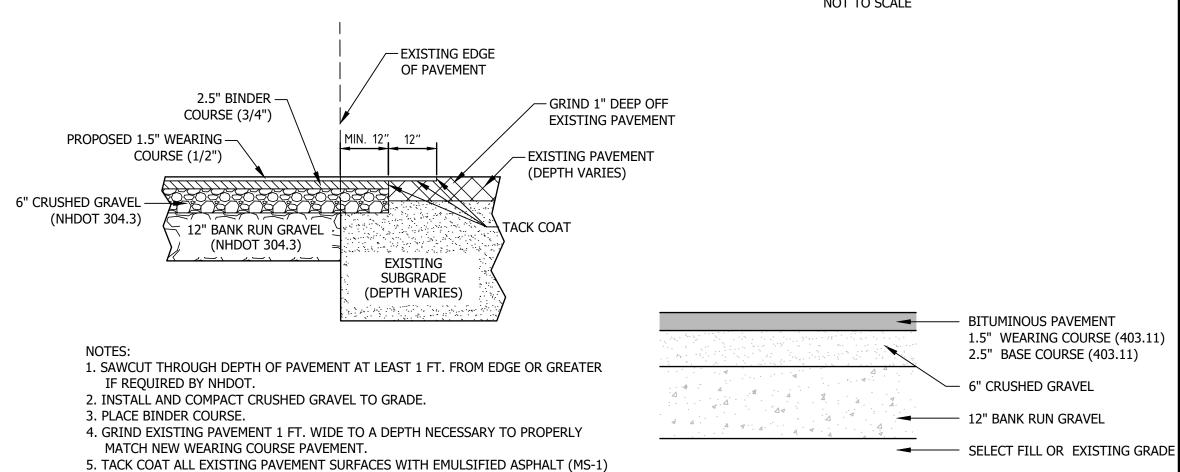


NOTES:

1. SEE PLANS FOR SIGN PLACEMENT.

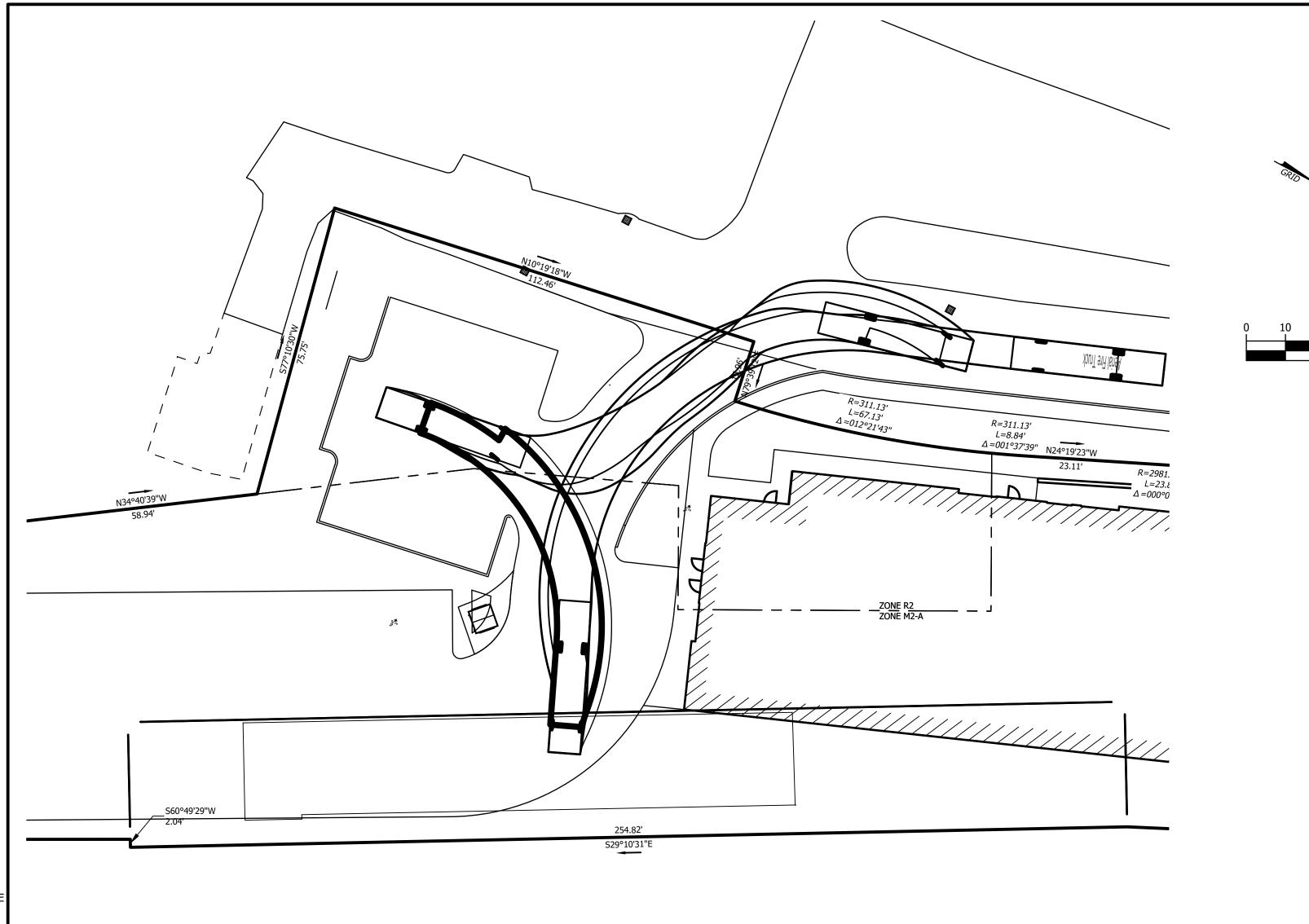


TYPICAL POLE MOUNTED SIGN DETAIL

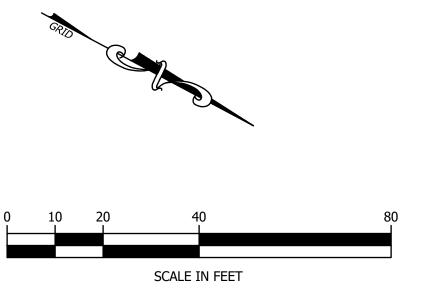


STREET-CUT PATCHING SECTION

NOT TO SCALE



FIRE TRUCK TURNING EXHIBIT



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CC RAILROAD STREET **NEWMARKET LLC**

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CONSTRUCTION DETAILS

NO. DATE REVISION DESCRIPTION ENG DWG

	DATE:	PROJE	CT #:
	10.17.23	2307	750

ARCHIVE # CHECK'D BY

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SEWER NOTES

<u>GENERAL</u>

CONSTRUCTION OF ALL COMPONENTS OF THE SANITARY SEWER SYSTEM SHALL CONFORM TO THE MOST CURRENT VERSION OF THE NEW HAMPSHIRE CODE OF ADMINISTRATIVE RULES ENV-WQ 700 AND ARTICLE III OF THE MUNICIPAL CODE OF THE TOWN OF NEWMARKET, NEW HAMPSHIRE

2. TYPES OF SEWERS

A. THERE SHALL BE NO CONNECTION BETWEEN SANITARY SEWERS AND STORM SEWERS. B. RUNOFF FROM ROOFS, STREETS, AND OTHER AREAS AND GROUNDWATER FROM FOUNDATION DRAINS, SUMP PUMPS, OR OTHER SUBSURFACE DRAINS SHALL BE EXCLUDED FROM SANITARY

3. SEWER SIZE AND COVER

A. MINIMUM PIPE SIZE FOR GRAVITY SEWER MAINS SHALL BE 8 INCHES. B. MINIMUM PIPE SIZE FOR GRAVITY SEWER SERVICES SHALL BE 4 INCHES.

C. MINIMUM PIPE SIZE FOR FORCE MAIN SEWER SERVICES SHALL BE 2 INCHES. D. SANITARY SEWERS SHALL HAVE 6 FEET MINIMUM COVER IN ALL ROADWAY LOCATIONS AND 4 FEET MINIMUM COVER IN ALL CROSS-COUNTRY LOCATIONS.

PIPE AND FITTING MATERIALS:

A. DUCTILE IRON PIPE

DUCTILE IRON PIPE AND FITTINGS SHALL CONFORM TO THE FOLLOWING STANDARDS OF THE AMERICAN WATER WORKS ASSOCIATION:

(1) AWWA C151 FOR DUCTILE IRON PIPE, CENTRIFUGALLY CAST IN METAL OR SAND LINED MOLDS, FOR WATER OR OTHER LIQUIDS;

(3) JOINTS SHALL BE MECHANICAL TYPE, PUSH-ON TYPE, OR BALL-AND-SOCKET TYPE;

(2) AWWA C150 FOR THICKNESS DESIGN OF DUCTILE IRON PIPE AND WITH ASTM A 536 IRON

B. PVC (POLY VINYL CHLORIDE) PIPE

PVC PIPE AND FITTINGS SHALL BE APPROVED FOR SEWAGE SERVICE AND CONFORM TO THE FOLLOWING:

(1) PVC PIPE USED FOR GRAVITY SEWERS SHALL BE TYPE SDR 35 CONFORMING TO ASTM D3034: (2) PVC PIPE USED FOR FORCE MAINS SHALL BE TYPE SDR 26 CONFORMING TO ASTM D2241 OR

(3) JOINTS SHALL BE PUSH-ON, BELL-AND-SPIGOT TYPE HAVING OIL RESISTANT COMPRESSION RINGS OF ELASTOMERIC MATERIAL CONFORMING TO ASTM D3212.

BEDDING

PIPE BEDDING SHALL BE SCREENED GRAVEL AND/OR CRUSHED STONE FREE FROM ORGANIC MATTER, CLAY, AND/OR LOAM MEETING ASTM C33 STONE SIZE NO. 67. BEDDING SHALL EXTEND FROM THE SPRING LINE OF THE PIPE TO A MINIMUM DEPTH OF 6" BELOW THE BOTTOM OF THE PIPE OUTSIDE SURFACE.

100% PASSING 1 INCH SCREEN 4 INCH SCREEN 90-100% PASSING % INCH SCREEN 20-55% PASSING 0-10% PASSING #4 SIEVE 0-5% PASSING #8 SIEVE

<u>MANHOLES</u>

A. PRECAST CONCRETE BARREL SECTIONS, CONES, AND BASES SHALL CONFORM TO ASTM C478. B. MANHOLES SHALL BE DESIGNED FOR H-20 LOADING.

C. HORIZONTAL JOINTS BETWEEN BARREL SECTIONS SHALL BE OF AN OVERLAPPING TYPE WHICH SHALL DEPEND UPON A DOUBLE ROW OF ELASTOMERIC OR MASTIC-LIKE SEALANT FOR WATER TIGHTNESS. D. PIPE TO MANHOLE JOINTS SHALL BE AS FOLLOWS:

(1) ELASTOMERIC, RUBBER SLEEVE WITH WATERTIGHT JOINTS AT THE MANHOLE OPENING AND PIPE SURFACES:

(2) CAST INTO THE WALL OR SECURED WITH STAINLESS STEEL CLAMPS; (3) ELASTOMERIC SEALING RING CAST IN THE MANHOLE OPENING WITH SEAL FORMED ON THE

SURFACE OF THE PIPE BY COMPRESSION OF THE RING; AND

(4) NON-SHRINK GROUTED JOINTS WHERE WATERTIGHT BONDING TO THE MANHOLE AND PIPE CAN

E. 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 PIPES. 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.

PROTECTION OF WATER SUPPLIES

A. THERE SHALL BE NO PHYSICAL CONNECTION BETWEEN A PUBLIC OR PRIVATE WATER SUPPLY SYSTEM AND A SEWER OR SEWER APPURTENANCE WHICH WOULD PERMIT THE PASSAGE OF SEWAGE OR POLLUTED WATER INTO THE POTABLE SUPPLY. NO WATER PIPE SHALL PASS THROUGH OR COME IN CONTACT WITH ANY PART OF A SEWER OR SEWER MANHOLE.

B. NO SEWER SHALL BE LOCATED WITHIN THE WELL PROTECTIVE RADII ESTABLISHED IN ENV-WS 300 FOR ANY PUBLIC WATER SUPPLY WELLS OR WITHIN 100 FEET OF ANY PRIVATE WATER SUPPLY WELL.

C. SEWERS SHALL BE LOCATED AT LEAST 10 FEET HORIZONTALLY FROM ANY EXISTING OR PROPOSED WATER MAIN.

D. A DEVIATION FROM THE SEPARATION REQUIREMENTS OF (B) OR (C) ABOVE SHALL BE ALLOWED WHERE NECESSARY TO AVOID CONFLICT WITH SUBSURFACE STRUCTURES, UTILITY CHAMBERS, AND BUILDING FOUNDATIONS, PROVIDED THAT THE SEWER IS CONSTRUCTED IN ACCORDANCE WITH THE FORCE MAIN CONSTRUCTION REQUIREMENTS SPECIFIED IN ENV-WQ 704.06.

E. WHENEVER SEWERS MUST CROSS WATER MAINS, THE SEWER SHALL BE CONSTRUCTED AS FOLLOWS: (1) VERTICAL SEPARATION OF THE SEWER AND WATER MAIN SHALL BE NOT LESS THAN 18 INCHES, WITH WATER ABOVE SEWER; AND

(2) SEWER PIPE JOINTS SHALL BE LOCATED AT LEASE 6 FEET HORIZONTALLY FROM THE WATER MAIN.

STANDARD TRENCH NOTES - SEWER

ORDERED EXCAVATION OF UNSUITABLE MATERIAL BELOW GRADE SHALL BE REPLACED WITH BEDDING MATERIAL. SEE ALSO NOTE 4.

BEDDING: SCREENED GRAVEL AND/OR CRUSHED STONE FREE FROM ORGANIC MATTER, CLAY, AND/OR LOAM MEETING ASTM C33 STONE SIZE NO. 67.

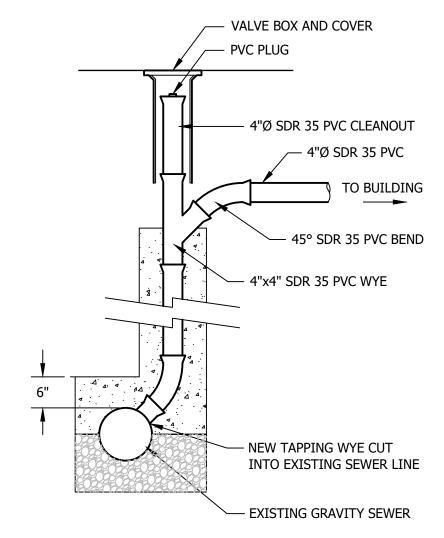
100% PASSING 1 INCH SCREEN 90-100% PASSING ¼ INCH SCREEN ⅓ inch screen 20-55% PASSING 0-10% PASSING #4 SIEVE 0-5% PASSING #8 SIEVE

3. SAND BLANKET: CLEAN SAND FREE FROM ORGANIC MATTER, SO GRADED THAT 100% PASSES A ½ INCH SIEVE AND NOT MORE THAN 15% PASSES A #200 SIEVE.

4. SUITABLE MATERIAL: IN ROADS, ROAD SHOULDERS, WALKWAYS, AND TRAVELED WAYS, SUITABLE MATERIAL FOR TRENCH BACKFILL SHALL BE THE NATURAL MATERIAL EXCAVATED FROM THE TRENCH DURING THE COURSE OF CONSTRUCTION, AFTER EXCLUDING DEBRIS, PIECES OF PAVEMENT, ORGANIC MATTER, TOP SOIL, WET OR SOFT MUCK, PEAT OR CLAY, EXCAVATED LEDGE MATERIAL, AND ALL ROCKS OVER SIX INCHES IN LARGEST DIMENSION, OR ANY MATERIAL NOT APPROVED BY

TRENCH BACKFILL IN CROSS-COUNTRY LOCATIONS SHALL BE SUITABLE MATERIAL AS DESCRIBED ABOVE, EXCEPT THAT TOP SOIL, LOAM, MUCK, OR PEAT MAY BE USED PROVIDED THAT THE COMPLETED CONSTRUCTION WILL BE STABLE AND ACCESS TO THE PIPE FOR MAINTENANCE AND RECONSTRUCTION IS PRESERVED. BACKFILL SHALL BE MOUNDED TO A HEIGHT OF SIX INCHES ABOVE THE ORIGINAL GROUND SURFACE

- 5. BASE COURSE FOR TRENCH REPAIR SHALL MEET THE REQUIREMENTS OF SECTION 300 OF THE LATEST EDITION OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION OF THE STATE OF NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION.
- 6. SHEETING: ALL TRENCH SUPPORTS SHALL CONFORM TO OSHA STANDARDS. CONTRACTOR IS RESPONSIBLE FOR OSHA COMPLIANCE AND WORKER SAFETY THROUGHOUT CONSTRUCTION.
- 7. TRENCH DIMENSIONS: W = MAXIMUM ALLOWABLE TRENCH WIDTH MEASURED 12 INCHES ABOVE THE PIPE. FOR PIPES 15 INCHES NOMINAL DIAMETER (D) OR LESS, W SHALL BE NO MORE THAN 36 INCHES; FOR PIPES GREATER THAN 15 INCHES NOMINAL DIAMETER, W SHALL BE 24 INCHES PLUS THE PIPE OUTSIDE DIAMETER. W SHALL ALSO BE THE PAYMENT WIDTH FOR LEDGE EXCAVATION AND FOR ORDERED EXCAVATION BELOW GRADE. THE MAXIMUM ALLOWABLE TRENCH PAVEMENT PAYMENT WIDTH SHALL BE 8 FEET CENTERED OVER PIPE.
- 8. PIPE INSULATION AT STORM DRAIN CROSSING: INSTALL 2" THICK RIGID FOAM INSULATION OVER SEWER AT STORM DRAIN CROSSINGS, EXTEND INSULATION 4 FEET EITHER SIDE OF STORM DRAIN ALONG SEWER.



IF VERTICAL DROP INTO SEWER IS GREATER THAN 4 FEET, A CHIMNEY SHALL BE CONSTRUCTED AT THE CONNECTION.

PIPE

KOR-N-SEAL JOINT SLEEVE

CHIMNEY AT NEW SEWER CONNECTION

NOT TO SCALE

-STAINLESS

RUBBER - LIKE

KOR-N-SEAL BOOT

STEEL STRAP

STANDARD TRENCH NOTES - WATER

1. ORDERED EXCAVATION OF UNSUITABLE MATERIAL BELOW GRADE SHALL BE REPLACED WITH BEDDING MATERIAL. SEE ALSO NOTE 4.

2. BEDDING: SCREENED GRAVEL AND/OR CRUSHED STONE FREE FROM ORGANIC MATTER, CLAY, AND/OR LOAM MEETING ASTM C33 STONE SIZE NO. 67.

1 INCH SCREEN 100% PASSING 90-100% PASSING 20-55% PASSING 3/8 INCH SCREEN 0-10% PASSING #4 SIEVE 0-5% PASSING #8 SIEVE

3. SAND BLANKET: CLEAN SAND FREE FROM ORGANIC MATTER, SO GRADED THAT 100% PASSES A 1/2 INCH SIEVE AND NOT MORE THAN 15% PASSES A #200 SIEVE.

4. SUITABLE MATERIAL: IN ROADS, ROAD SHOULDERS, WALKWAYS, AND TRAVELED WAYS, SUITABLE MATERIAL FOR TRENCH BACKFILL SHALL BE THE NATURAL MATERIAL EXCAVATED FROM THE TRENCH DURING THE COURSE OF CONSTRUCTION, AFTER EXCLUDING DEBRIS, PIECES OF PAVEMENT, ORGANIC MATTER, TOP SOIL, WET OR SOFT MUCK, PEAT OR CLAY, EXCAVATED LEDGE MATERIAL AND ALL ROCKS OVER SIX INCHES IN LARGEST DIMENSION, OR ANY MATERIAL NOT APPROVED BY

TRENCH BACKFILL IN CROSS-COUNTRY LOCATIONS SHALL BE SUITABLE MATERIAL AS DESCRIBED ABOVE, EXCEPT THAT TOP SOIL, LOAM, MUCK, OR PEAT MAY BE USED PROVIDED THAT THE COMPLETED CONSTRUCTION WILL BE STABLE AND ACCESS TO THE PIPE FOR MAINTENANCE AND RECONSTRUCTION IS PRESERVED. BACKFILL SHALL BE MOUNDED TO A HEIGHT OF SIX INCHES ABOVE THE ORIGINAL GROUND SURFACE

- 5. BASE COURSE FOR TRENCH REPAIR SHALL MEET THE REQUIREMENTS OF SECTION 300 OF THE LATEST EDITION OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION OF THE STATE OF NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION.
- 6. SHEETING: ALL TRENCH SUPPORTS SHALL CONFORM TO OSHA STANDARDS. CONTRACTOR IS RESPONSIBLE FOR OSHA COMPLIANCE AND WORKER SAFETY THROUGHOUT CONSTRUCTION.
- 7. TRENCH DIMENSIONS: W = MAXIMUM ALLOWABLE TRENCH WIDTH MEASURED 12 INCHES ABOVE THE PIPE. FOR PIPES 15 INCHES NOMINAL DIAMETER (D) OR LESS, W SHALL BE NO MORE THAN 36 INCHES; FOR PIPES GREATER THAN 15 INCHES NOMINAL DIAMETER, W SHALL BE 24 INCHES PLUS THE PIPE OUTSIDE DIAMETER. W SHALL ALSO BE THE PAYMENT WIDTH FOR LEDGE EXCAVATION AND FOR ORDERED EXCAVATION BELOW GRADE. THE MAXIMUM ALLOWABLE TRENCH PAVEMENT PAYMENT WIDTH SHALL BE 8 FEET CENTERED OVER PIPE.
- 8. WATER/SEWER SEPARATION: WATER MAINS SHALL BE SEPARATED FROM SANITARY SEWER BY A MINIMUM OF 10 FEET HORIZONTALLY AND A MINIMUM OF 18 INCHES VERTICALLY, WITH THE WATER MAIN ABOVE THE SEWER.

COVER OVER WATER SHALL BE 6 FEET MINIMUM IN ALL LOCATIONS.

WATER SUPPLY NOTES

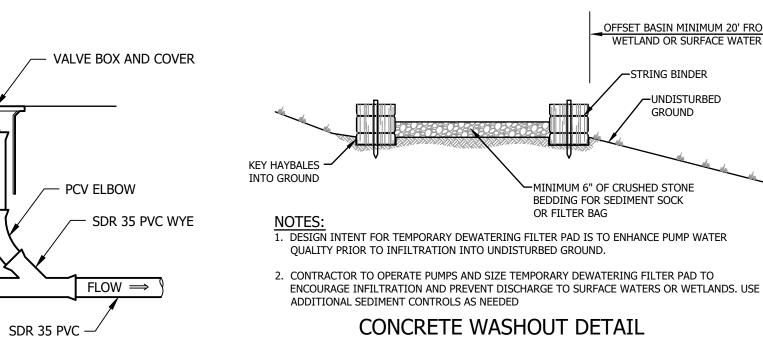
BUILD THE WATER SUPPLY SYSTEM IN CONFORMANCE WITH THE MOST CURRENT VERSION OF THE NEW HAMPSHIRE CODE OF ADMINISTRATIVE RULES, NEWMARKET'S WATER USE RULES, REGULATIONS AND CONSTRUCTION SPECIFICATIONS, AND CHAPTER 31 OF THE MUNICIPAL CODE OF THE TOWN OF NEWMARKET, NEW HAMPSHIRE

PIPES WITH DIAMETERS GREATER THAN 2 INCHES MUST BE PVC OR PVCO COMPLYING WITH AWWA C900 OR C909 RESPECTIVELY. ALL PIPES MUST HAVE A PRESSURE RATING OF 200 PSI OR GREATER.

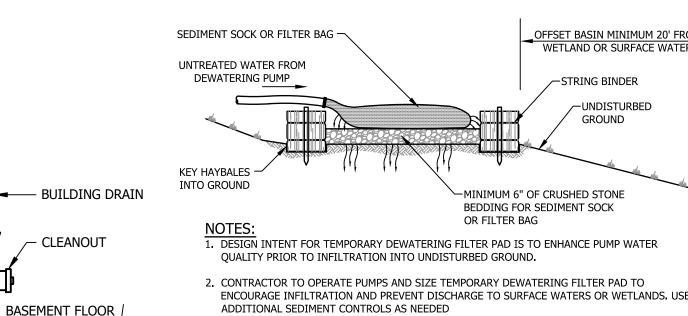
3. JOINT RESTRAINT: USE MECHANICALLY RESTRAINED JOINTS FOR THE ENTIRE LENGTH OF THE NEW 4" PVC FIRE SERVICE LINE.

4. PRESSURE TESTING: PRESSURE TEST IN ACCORDANCE WITH NEWMARKET DPW REQUIREMENTS OR ANSI/AWWA C600 IF AHJ DOES NOT HAVE A PREFFERED METHOD OF TESTING. MINIMUM TEST PRESSURE IS 1.5 × MAXIMUM SYSTEM PRESSURE OR 100 PSI, WHICHEVER IS GREATER.

DISINFECTION: DISINFECT WATER MAIN AND DOMESTIC SERVICES IN ACCORDANCE WITH NEWMARKET REQUIREMENTS AND ANSI/AWWA C651.

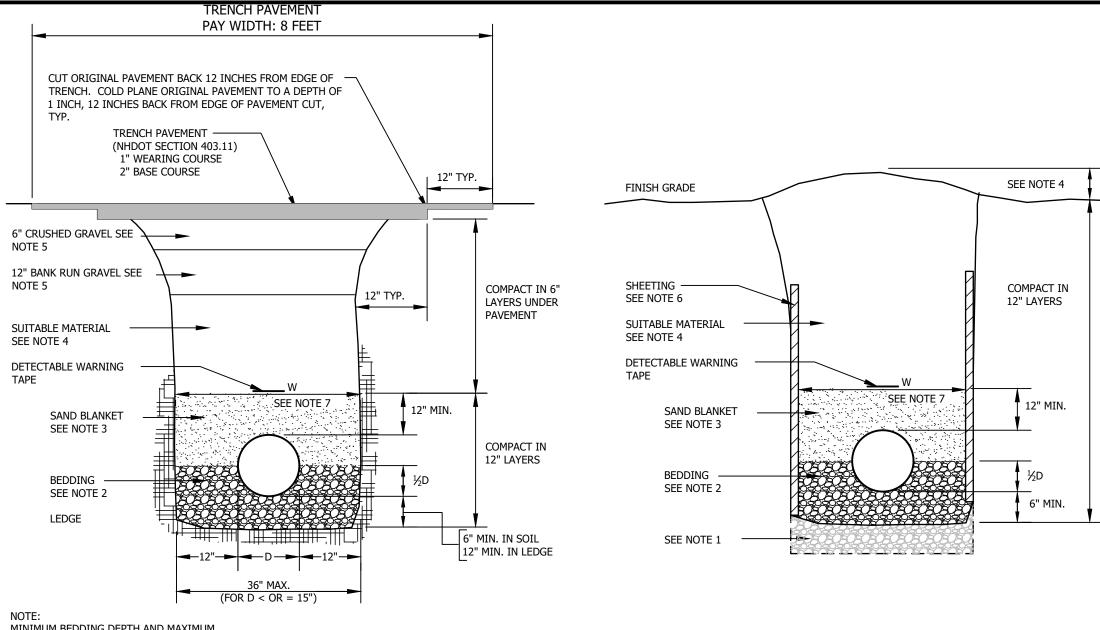


SEWER CLEANOUT DETAIL NOT TO SCALE



ENCOURAGE INFILTRATION AND PREVENT DISCHARGE TO SURFACE WATERS OR WETLANDS. USE ADDITIONAL SEDIMENT CONTROLS AS NEEDED

TEMPORARY DEWATERING FILTER PAD DETAIL

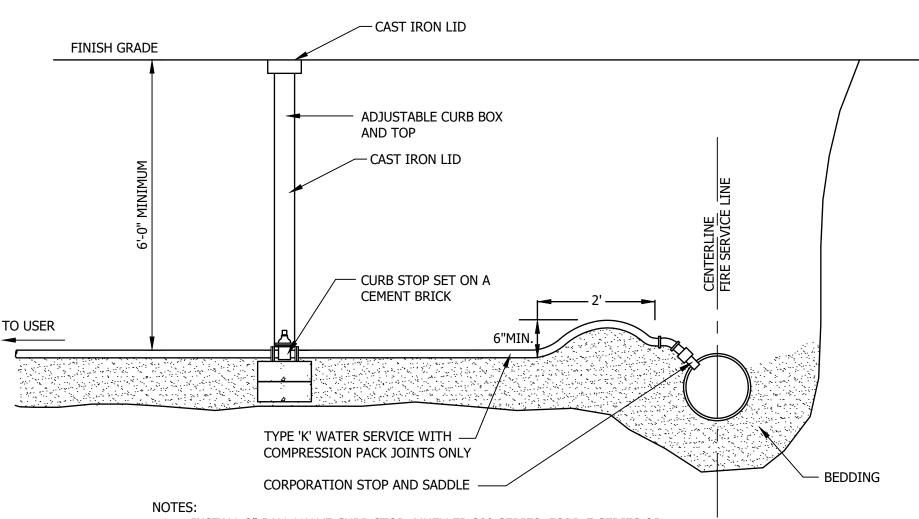


MINIMUM BEDDING DEPTH AND MAXIMUM PAYMENT LIMIT FOR LEDGE EXCAVATION = $\frac{1}{4}$ D (12" MINIMUM)

LEDGE/SUB PAVEMENT CONSTRUCTION

EARTH CONSTRUCTION WITH OR WITHOUT SHEETING

STANDARD TRENCH SECTIONS



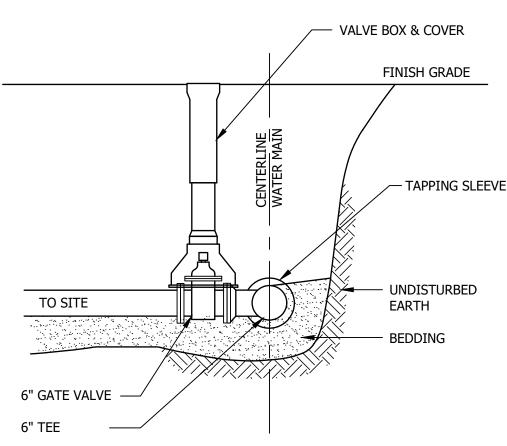
1. INSTALL 2" BALL VALVE CURB STOP, MUELLER 300 SERIES, FORD Z SERIES OR

APPROVED EQUAL. CURB BOX MUST BE INSTALLED PLUMB AND FLUSH WITH FINAL GRADE.

3. DO NOT PLACE ANY OBSTRUCTION WITHIN 4 FEET OF THE CURB BOX THAT WOULD OBSTRUCT USE OF THE VALVE.

DOMESTIC WATER SERVICE CONNECTION

NOT TO SCALE

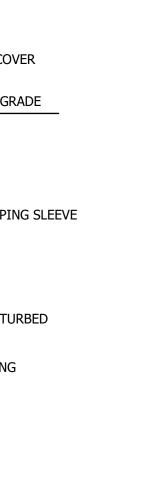


PAVED ROAD.

1. ALL CONNECTIONS MUST USE FULLY RESTRAINED MECHANICAL JOINTS DO NOT REDUCE SIZE OF WATER PIPE FROM 6" TO 4" UNTIL OUTSIDE OF

WATER MAIN TAPPING DETAIL

NOT TO SCALE



UTILITY DETAILS REVISION DESCRIPTION

Engineering

Civil and Structural Engineering

Land Surveying and Environmental Consulting

MAINE • NEW HAMPSHIRE • VERMONT

www.horizonsengineering.com

CC RAILROAD STREET

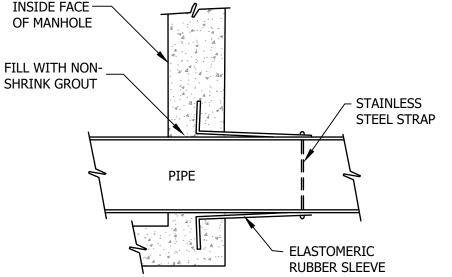
NEWMARKET LLC

3 RAIL ROAD STREET

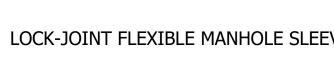
NEWMARKET, NH 03857

PROJECT

10.17.23 230750 ENG'D BY: DRAWN BY ARCHIVE # CHECK'D B C503



LOCK-JOINT FLEXIBLE MANHOLE SLEEVE





INSIDE FACE -

OF MANHOLE

FILL WITH NON-

SHRINK GROUT

ANODIZED

INTERNAL

CLAMP

ALUMINUM

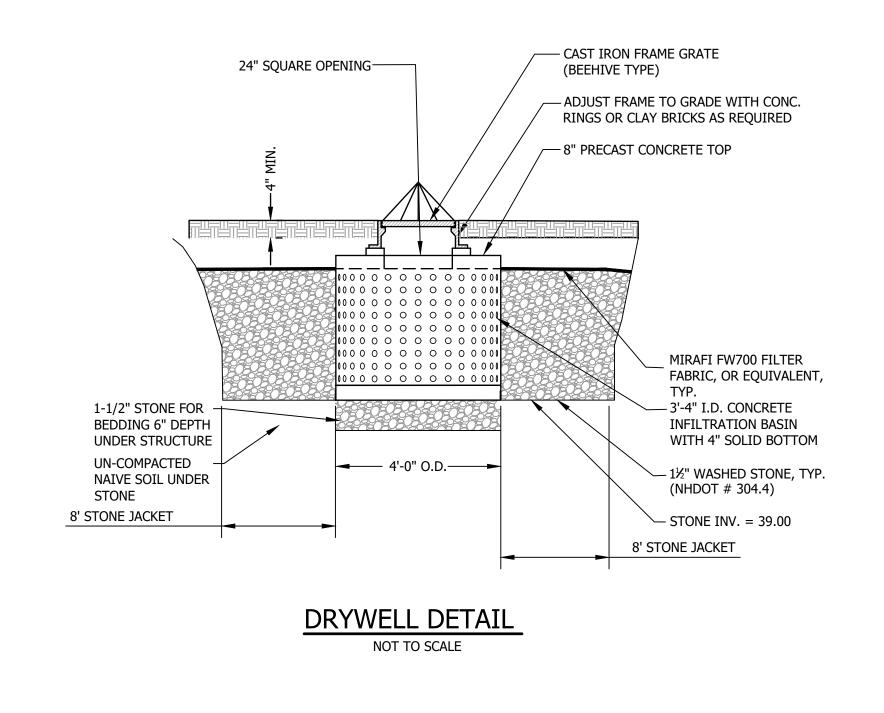
SEWER SERVICE DETAIL

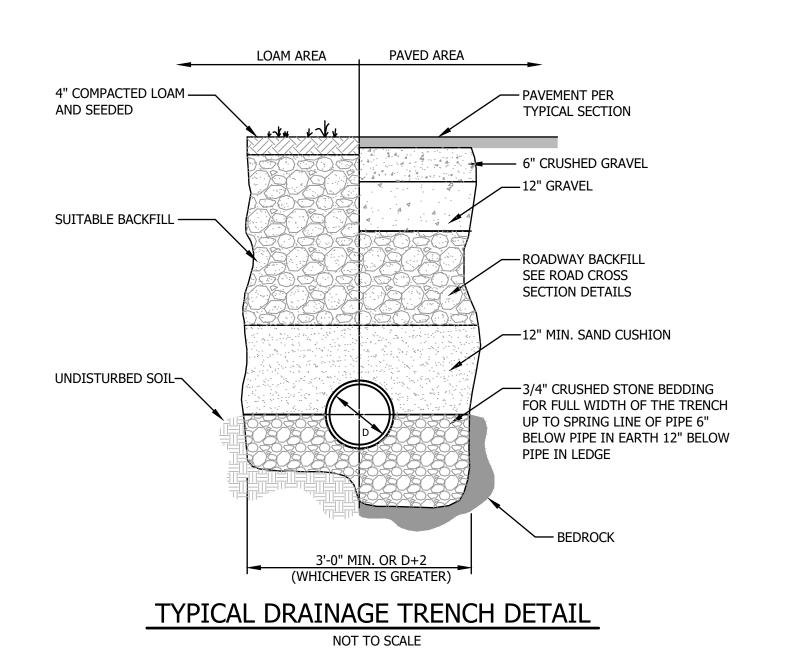
FINISH GRADE

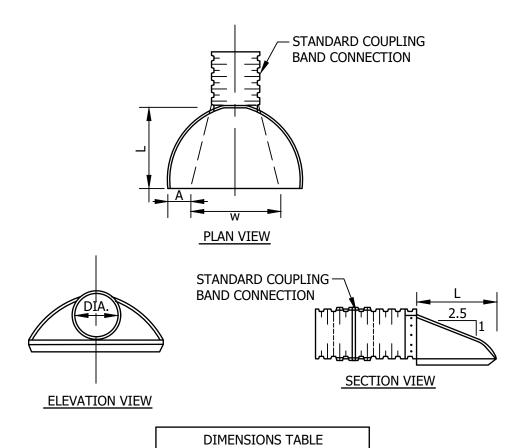
4" SDR 35 PVC SEWER SERVICE

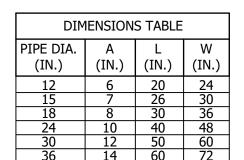
MIN. SLOPE 1/4" PER FOOT

NOT TO SCALE

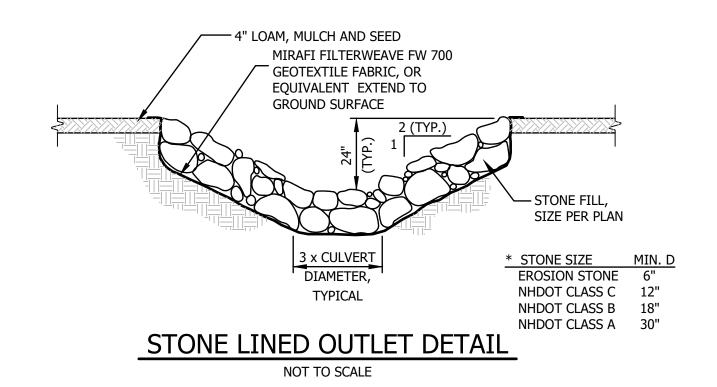


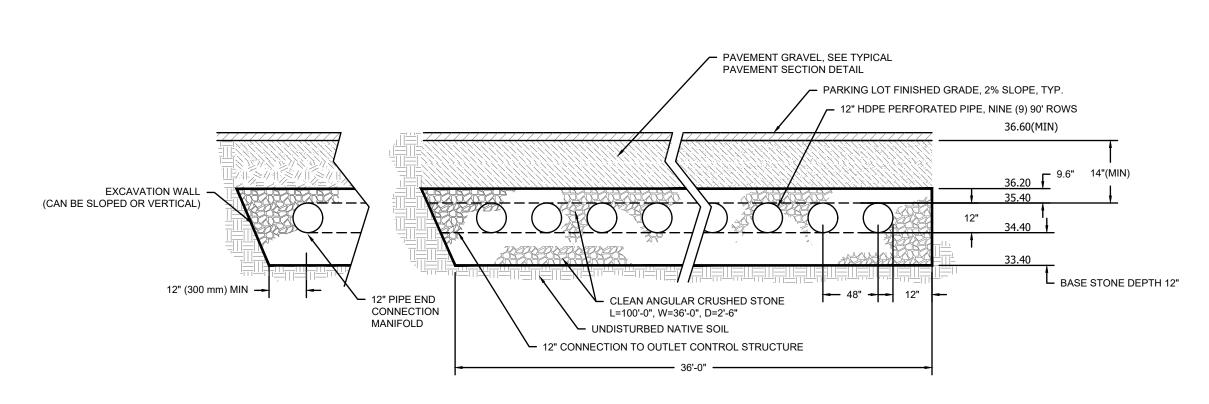






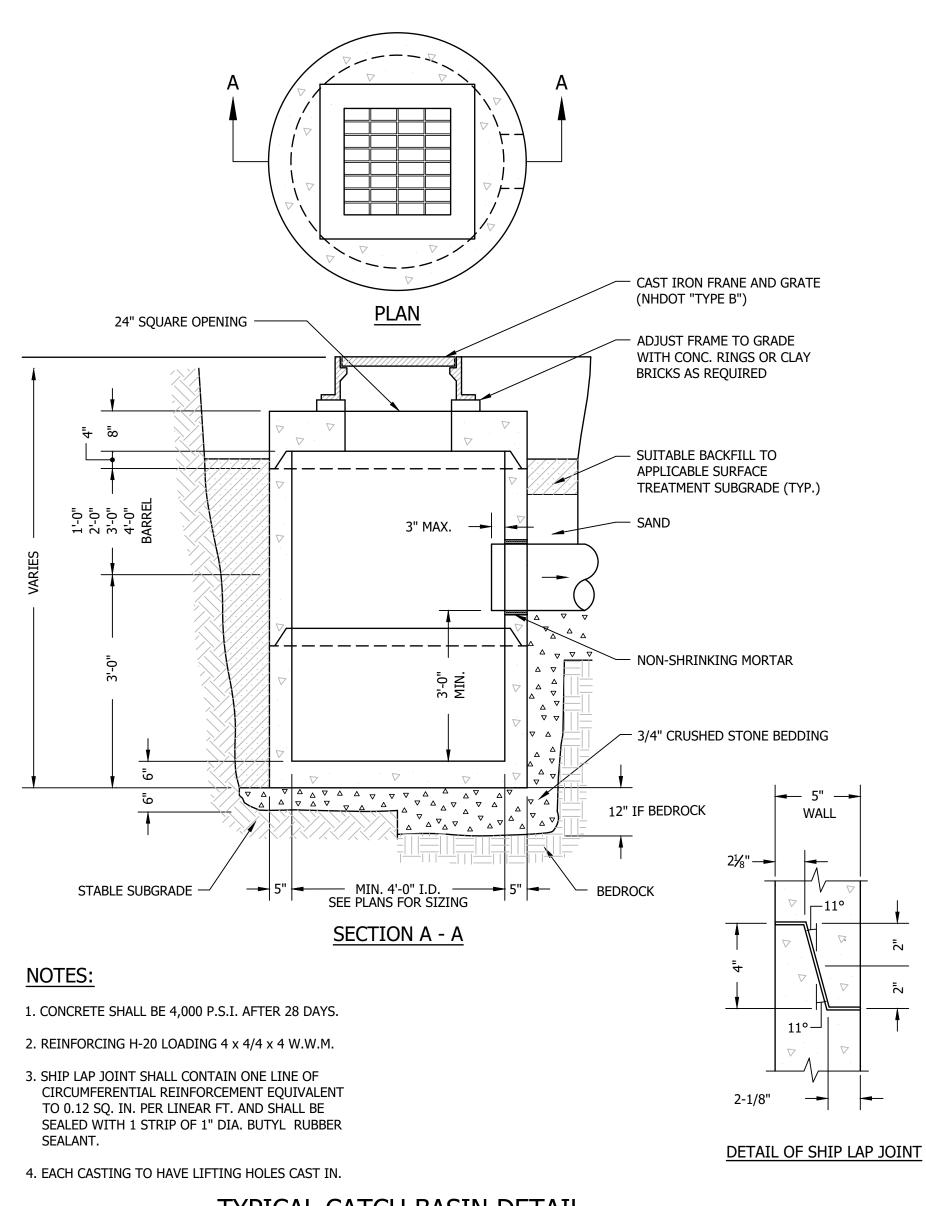






UNDERGROUND INFILTRATION SYSTEM

NOT TO SCALE



TYPICAL CATCH BASIN DETAIL

NOT TO SCALE



DRAINAGE DETAILS

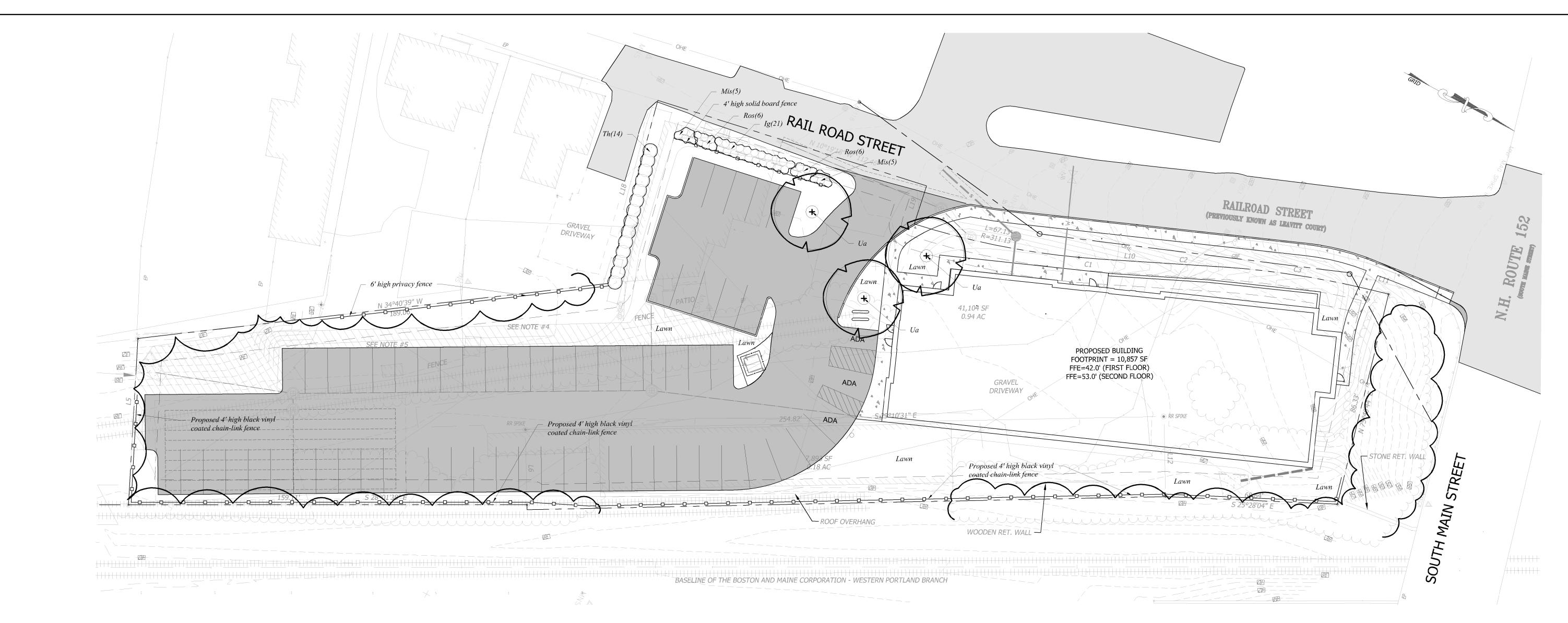
REVISION DESCRIPTION

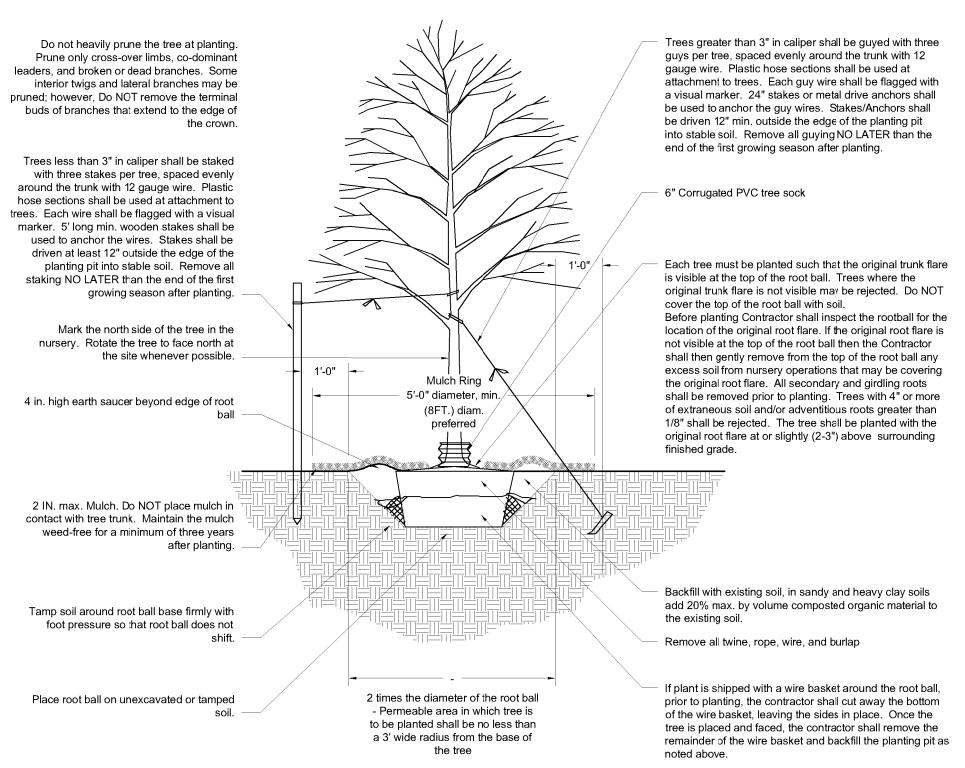
NEWMARKET, NH 03857

	DATE: 10.17.23	PROJE 2307	
	ENG'D BY: TAL	DRAWI TAI	
	CHECK'D BY: MJS	ARCHI'	VE #:

C504

Z:\proj_2023\230750 - CC Capital - Newmarket, NH\internal\Civil\Concepts\: 2/22/2024 2:16:36 PM, CourtneyWaterman





Tree Planting Detail

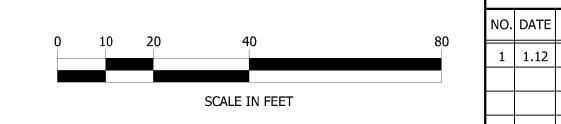
- 1. Design is based on drawings by Horizons Engineering dated October 24, 2023 and may require adjustment due to actual field
- 2. The contractor shall follow best management practices during construction and shall take all means necessary to stabilize and Erosion Control shall be in place prior to construction.
- 4. Erosion Control to consist of Hay Bales and Erosion Control Fabric shall be staked in place between the work and Water bodies, Wetlands and/or drainage ways prior to any construction.
- 5. The Contractor shall verify layout and grades and inform the Landscape Architect or Client's Representative of any discrepancies or changes in layout and/or grade relationships prior to construction.
- 6. It is the contractor's responsibility to verify drawings provided are to the correct scale prior to any bid, estimate or installation. A graphic scale bar has been provided on each sheet for this purpose. If it is determined that the scale of the drawing is incorrect, the landscape architect will provide a set of drawings at the correct scale, at the request of the contractor. Trees to Remain within the construction zone shall be protected from damage for the duration of the project by snow fence or
- other suitable means of protection to be approved by Landscape Architect or Client's Representative. Snow fence shall be located at the drip line at a minimum and shall include any and all surface roots. Do not fill or mulch on the trunk flare. Do not disturb roots. In order to protect the integrity of the roots, branches, trunk and bark of the tree(s) no vehicles or construction equipment shall drive or park in or on the area within the drip line(s) of the tree(s). Do not store any refuse or construction materials or portalets within the tree protection area.
- 8. Location, support, protection, and restoration of all existing utilities and appurtenances shall be the responsibility of the
- 9. The Contractor shall verify exact location and elevation of all utilities with the respective utility owners prior to construction. Call DIGSAFE at 1-888-344-7233. 10. The Contractor shall procure any required permits prior to construction.
- 11. Prior to any landscape construction activities Contractor shall test all existing loam and loam from off-site intended to be used for lawns and plant beds using a thorough sampling throughout the supply. Soil testing shall indicate levels of pH, nitrates, macro and micro nutrients, texture, soluble salts, and organic matter. Contractor shall provide Landscape Architect with test results and recommendations from the testing facility along with soil amendment plans as necessary for the proposed plantings to thrive. All loam to be used on site shall be amended as approved by the Landscape Architect prior to placement. 12. Contractor shall notify landscape architect or owner's representative immediately if at any point during demolition or

construction a site condition is discovered which may negatively impact the completed project. This includes, but is not limited

- to, unforeseen drainage problems, unknown subsurface conditions, and discrepancies between the plan and the site. If a contractor is aware of a potential issue, and does not bring it to the attention of the landscape architect or owner's representative immediately, they may be responsible for the labor and materials associated with correcting the problem. 13. The Contractor shall furnish and plant all plants shown on the drawings and listed thereon. All plants shall be nursery-grown under climatic conditions similar to those in the locality of the project. Plants shall conform to the botanical names and
- standards of size, culture, and quality for the highest grades and standards as adopted by the American Association of Nurserymen, Inc. in the American Standard of Nursery Stock, American Standards Institute, Inc. 230 Southern Building, Washington, D.C. 20005.
- 14. A complete list of plants, including a schedule of sizes, quantities, and other requirements is shown on the drawings. In the event that quantity discrepancies or material omissions occur in the plant materials list, the planting plans shall govern.
- 15. All plants shall be legibly tagged with proper botanical name. 16. The Contractor shall guarantee all plants for not less than one year from time of acceptance.
- 17. Owner or Owner's Representative will inspect plants upon delivery for conformity to Specification requirements. Such approval shall not affect the right of inspection and rejection during or after the progress of the work. The Owner reserves the right to inspect and/or select all trees at the place of growth and reserves the right to approve a representative sample of each type of shrub, herbaceous perennial, annual, and ground cover at the place of growth. Such sample will serve as a minimum standard for all plants of the same species used in this work.
- 18. No substitutions of plants may be made without prior approval of the Owner or the Owner's Representative for any reason. 19. All landscaping shall be provided with either of the following a. An underground sprinkling system
- b. An outside hose attachment within 150 feet 20. If an automatic irrigation system is installed, all irrigation valve boxes shall be located within planting bed areas. 21. The contractor is responsible for all plant material from the time their work commences until final acceptance. This includes but is not limited to maintaining all plants in good condition, the security of the plant material once delivered to the site, and watering of plants. Plants shall be appropriately watered prior to, during and after planting. It is the contractor's responsibility
- to provide water from off site, should it not be available on site. 22. All disturbed areas will be dressed with 6" of topsoil and planted as noted on the plans or seeded except plant beds. Plant
- beds shall be prepared to a depth of 12" with 75% loam and 25% compost. 23. Trees, ground cover, and shrub beds shall be mulched to a depth of 2" with one-year-old, well-composted, shredded native bark not longer than 4" in length and ½" in width, free of woodchips and sawdust. Mulch for ferns and herbaceous perennials shall be no longer than 1" in length. Trees in lawn areas shall be mulched in a 5' diameter min. saucer. Color of mulch shall be
- 24. Drip strip shall extend to 6" beyond roof overhang and shall be edged with 3/16" thick metal edger. 25. In no case shall mulch touch the stem of a plant nor shall mulch ever be more than 3" thick total (including previously applied
- mulch) over the root ball of any plant. 26. Secondary lateral branches of deciduous trees overhanging vehicular and pedestrian travel ways shall be pruned up to a height of 6' to allow clear and safe passage of vehicles and pedestrians under tree canopy.
- 27. Snow shall be stored a minimum of 5' from shrubs and trunks of trees.
- 28. Landscape Architect is not responsible for the means and methods of the contractor.

Plant Li	ist				
· idiic E					
TREES					
Symbol	Botanical Name	Common Name	Quantity	Size	Comments
Ua	Ulmus americana 'Princeton'	Princeton American Elm	3	2.3-3" Cal	B&B
SHRUBS					
Symbol	Botanical Name	Common Name	Quantity	Size	Comments
lg	Ilex glabra 'Shamrock'	Shamrock Inkberry	21	5 gal	full to ground
Ros	Rosa 'Knockout'	Knockout Rose	12	3 gal	
Th	Thuja occidentalis 'Smaragd'	Emerald Green Arborvitae	14	5-6' Ht	B&B
PERENNIA	ALS, GROUNDCOVERS, VINES and A	ANNUALS			
Symbol	Botanical Name	Common Name	Quantity	Size	Comments
Mis	Miscanthus sinensis 'Morning Light'	Morning Light Maiden Grass	10	1 gal	





FOR REVIEW NOT FOR CONSTRUCTION



Civil and Structural Engineering Land Surveying and Environmental Consulting MAINE • NEW HAMPSHIRE • VERMONT www.horizonsengineering.com

CONDOR CAPITAL

3 RAIL ROAD STREET NEWMARKET, NH 03857

LANDSCAPE PLAN

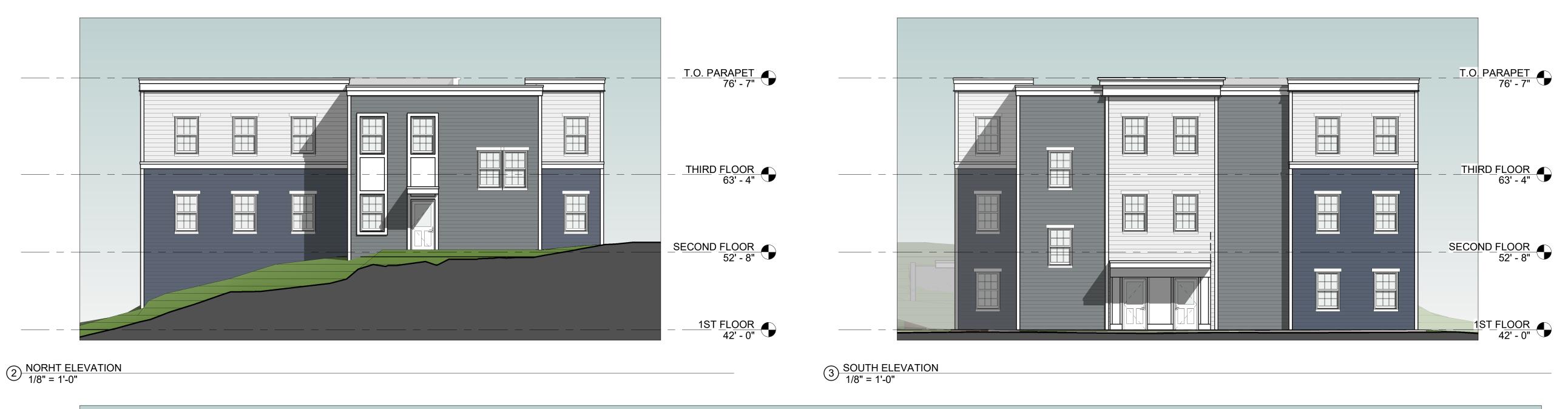
REVISION DESCRIPTION

			_	
.12	Arborvitae hedge at parking lot VM			
		DATE: 10.24.23	PROJE 2307	
		ENGIN'D BY: VM	DRAWI VM	
		CHECK'D BY: RW	ARCHI	VE #:
		C1	.03	





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





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

PROJECT:	RAILROAD STREET MIXED-USE RAILROAD STREET NEWMARKET, NH
Date 10/24/2023	Issue Description PLANNING BOARD
Drawn By:	ANM
Project No.:	2020001
Drawing Shee	at ATIONS
Drawing Shee	

A2.01







Issue Description

Project No.: 2020001

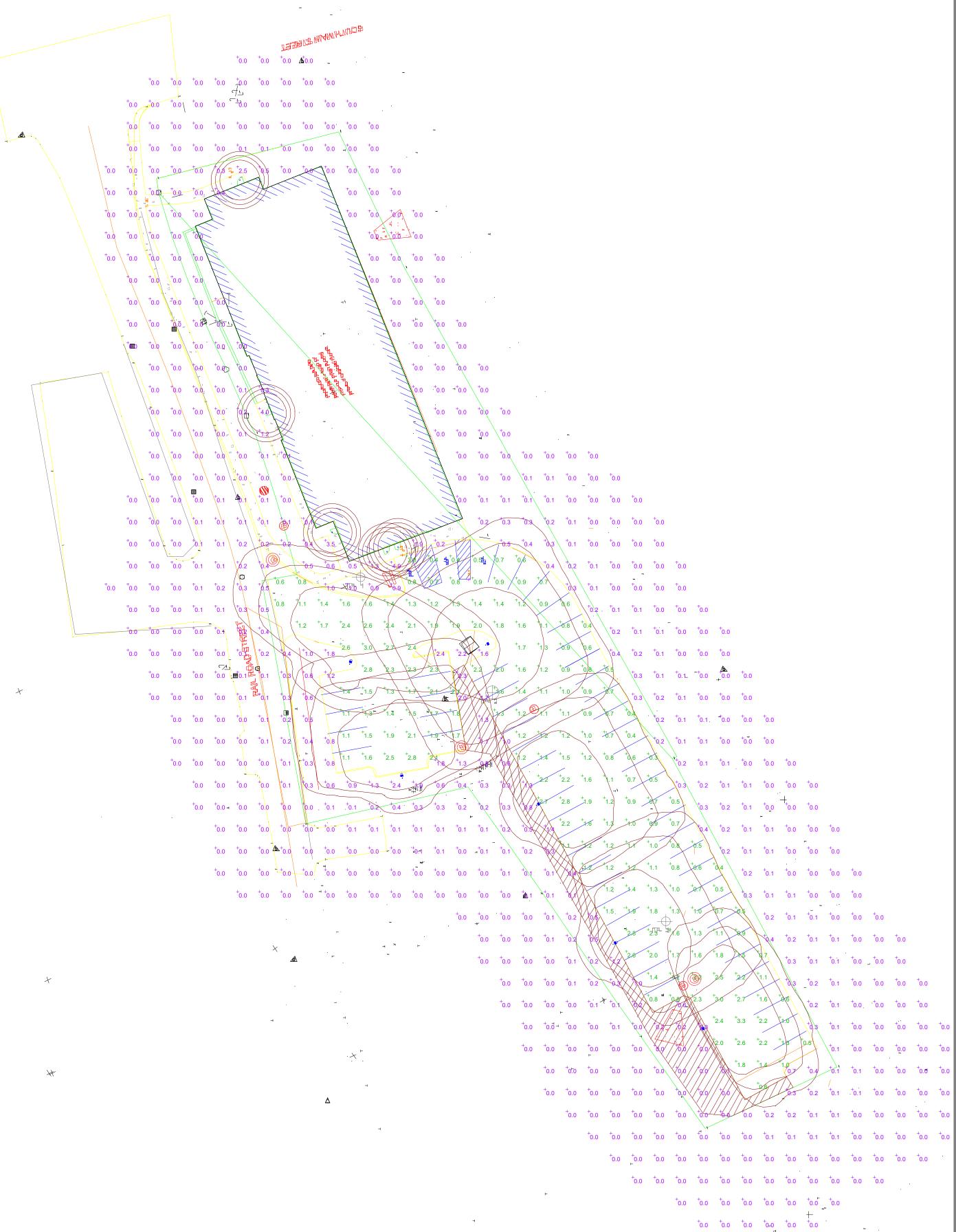
Drawing Sheet

PERSPECTIVES

Prawing Sheet
A8.01

Statistics						
Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
Outside of Parking Lot	+	0.1 fc	4.9 fc	0.0 fc	N/A	N/A
Parking Lot	+	1.4 fc	3.8 fc	0.3 fc	12.7:1	4.7:1

Schedule Lumens Distribute												
Symbol	Label	QTY	Manufacturer	Catalog Number	Description	Lamp	Filename	per Lamp	LLF	Wattage	Distribut ion	Polar Plot
	D	5	Juno Lighting	JPDZ4 DB 1000LM 3000K 90CRI WWH	Juno Podz 4in LED Downlight; mounted at 10ft	LED	JPDZ4_DB_100 0LM_3000K_9 0CRI_WWH.ies	1027	0.9	13.6	DIRECT, SC- 0=1.12, SC- 90=1.12	Max: 616cd
- C	S 3	1	Lithonia Lighting	DSX0 LED P3 30K 80CRI T3M MVOLT SPA DDBXD with SSS 14 4C DM19AS DDBXD	D-Series Size 0 Area Fixture; mounted at 16ft (14ft pole on 2ft base)	LED	DSX0_LED_P3 _30K_80CRI_T 3M.ies	7661	0.9	68.95	TYPE IV, MEDIUM, BUG RATING: B1 - U0 - G3	Max: 6412cd
⟨ □ □	S3-B	1	Lithonia Lighting	DSX0 LED P3 30K 80CRI BLC3 MVOLT SPA DDBXD with SSS 14 4C DM19AS DDBXD	D-Series Size 0 Area Fixture with Extreme Backlight Control; mounted at 16ft (14ft pole on 2ft base)	1	DSX0_LED_P3 _30K_80CRI_B LC3.ies	5573	0.9	68.95	TYPE III, SHORT, BUG RATING: B0 - U0 - G2	Max: 5723cd
⟨ □ □	S4-B	3	Lithonia Lighting	DSX0 LED P3 30K 80CRI TFTM HS MVOLT SPA DDBXD with SSS 14 4C DM19AS DDBXD	D-Series Size 0 Area Fixture with Houseside Shield; mounted at 16ft (14ft pole on 2ft base)	LED	DSX0_LED_P3 _30K_80CRI_T FTM_HS.ies	6566	0.9	68.95	TYPE IV, SHORT, BUG RATING: B1 - U0 - G2	Max: 6377cd
	S5	1	Lithonia Lighting	DSX0 LED P3 30K 80CRI T5M MVOLT SPA DDBXD with SSS 14 4C DM19AS DDBXD	D-Series Size 0 Area Fixture; mounted at 16ft (14ft pole on 2ft base)	LED	DSX0_LED_P3 _30K_80CRI_T 5M.ies	8000	0.9	68.95	TYPE VS, BUG RATING: B3 - U0 - G2	Max: 4389cd



Plan View
Scale - 1" = 30ft

Scale 1"=30' Drawing No.

⁺0.0 ⁺0.0

10/24/2023

Summary

2 of 2