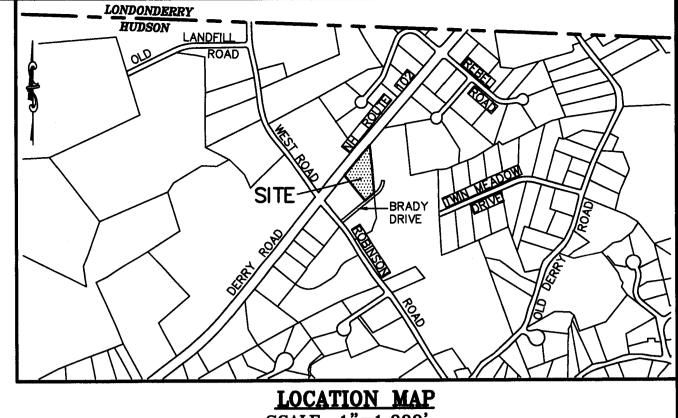


# NON-RESIDENTIAL SITE PLAN INDUSTRIAL COMPLEX MAP 105; LOT 20 16 BRADY DRIVE

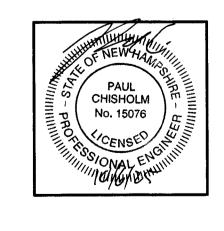
HUDSON, NEW HAMPSHIRE



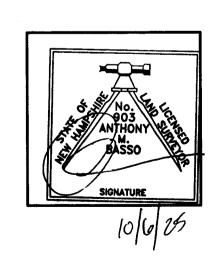
**OWNER:** MSE PROPERTIES, LLC 20 SENTER FARM ROAD HUDSON, NH 03051

PREPARED FOR: KLN CONSTRUCTION 70 BRIDGE STREET PELHAM, NH 03076

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

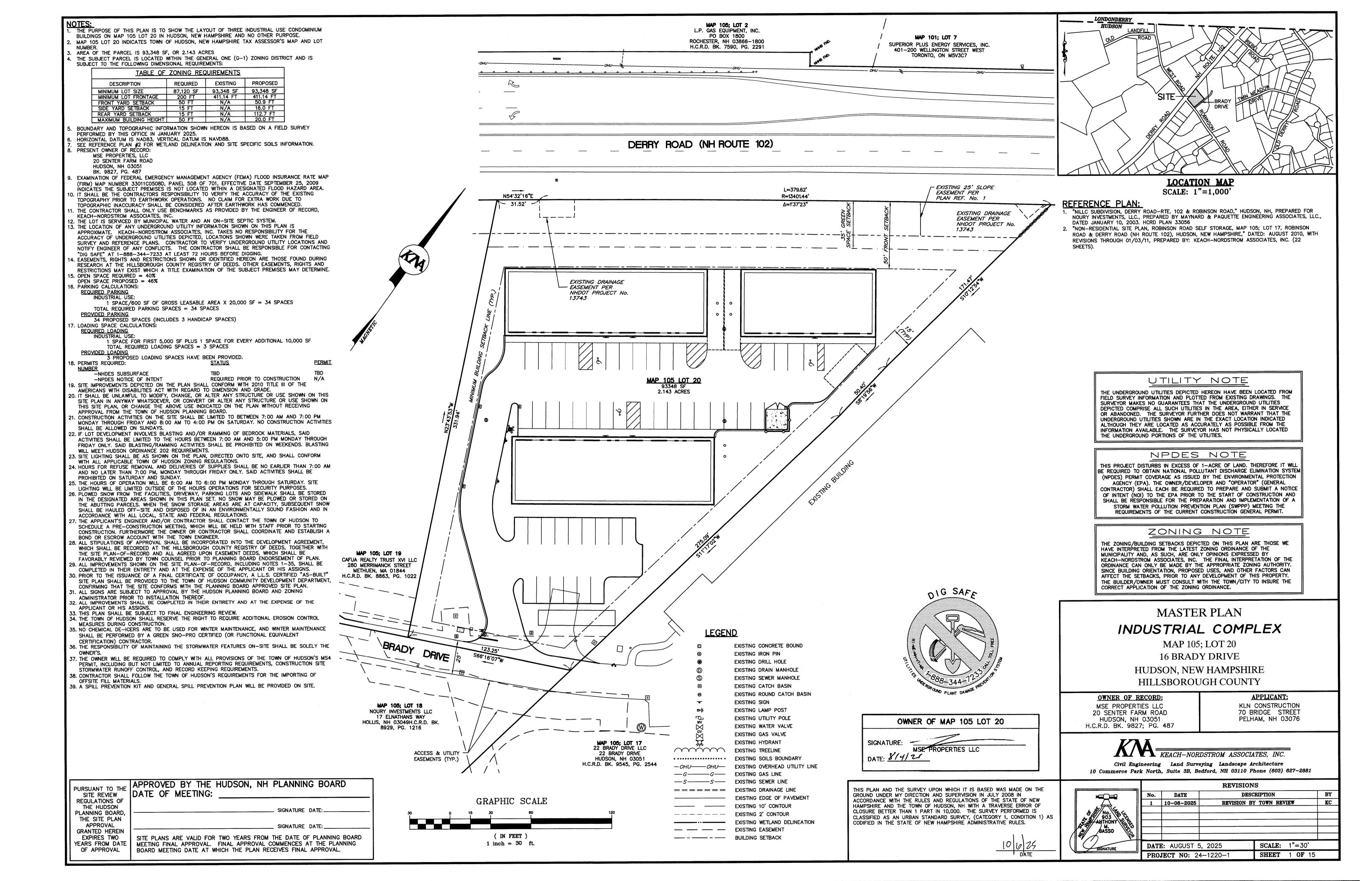


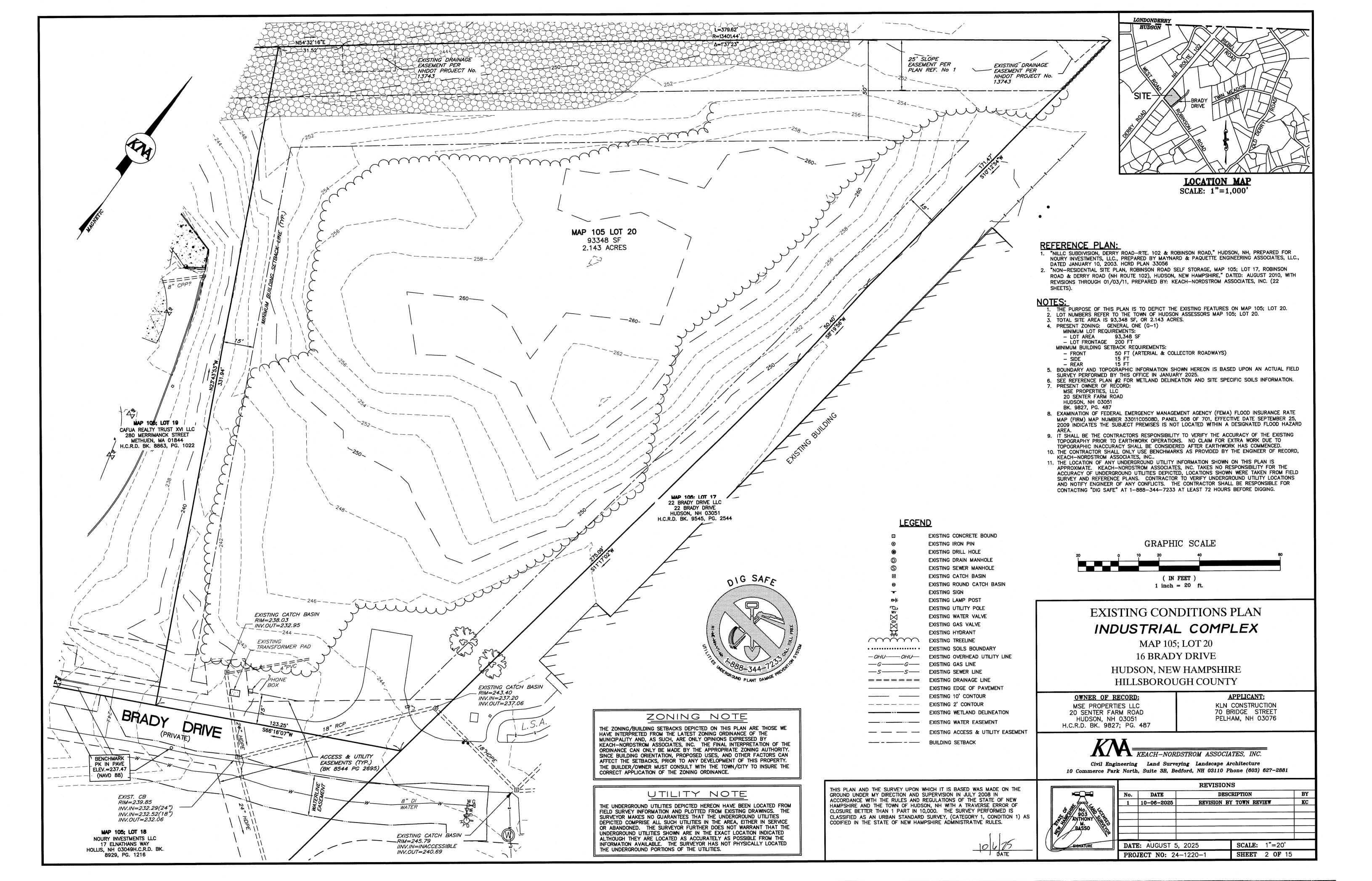


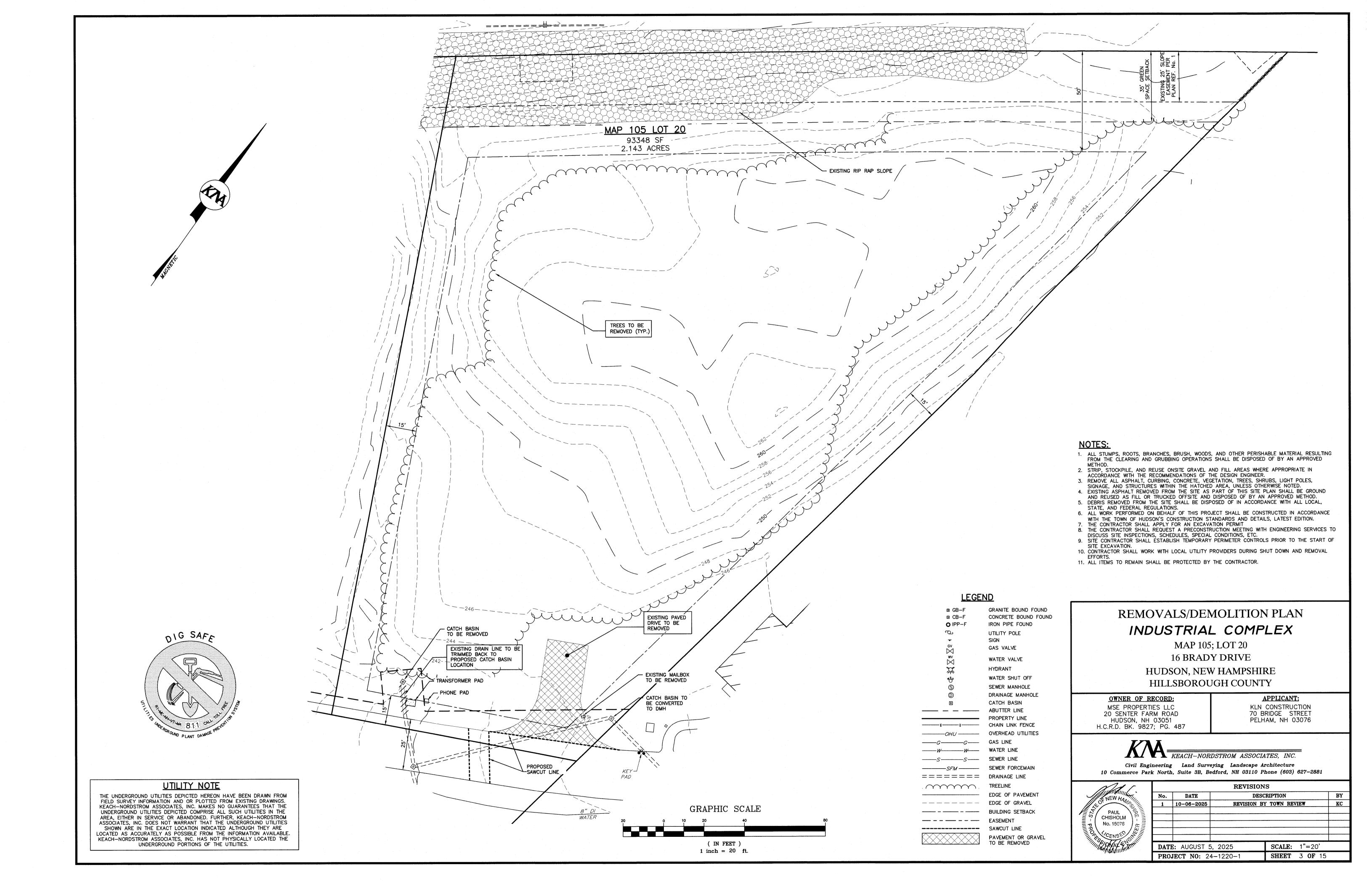


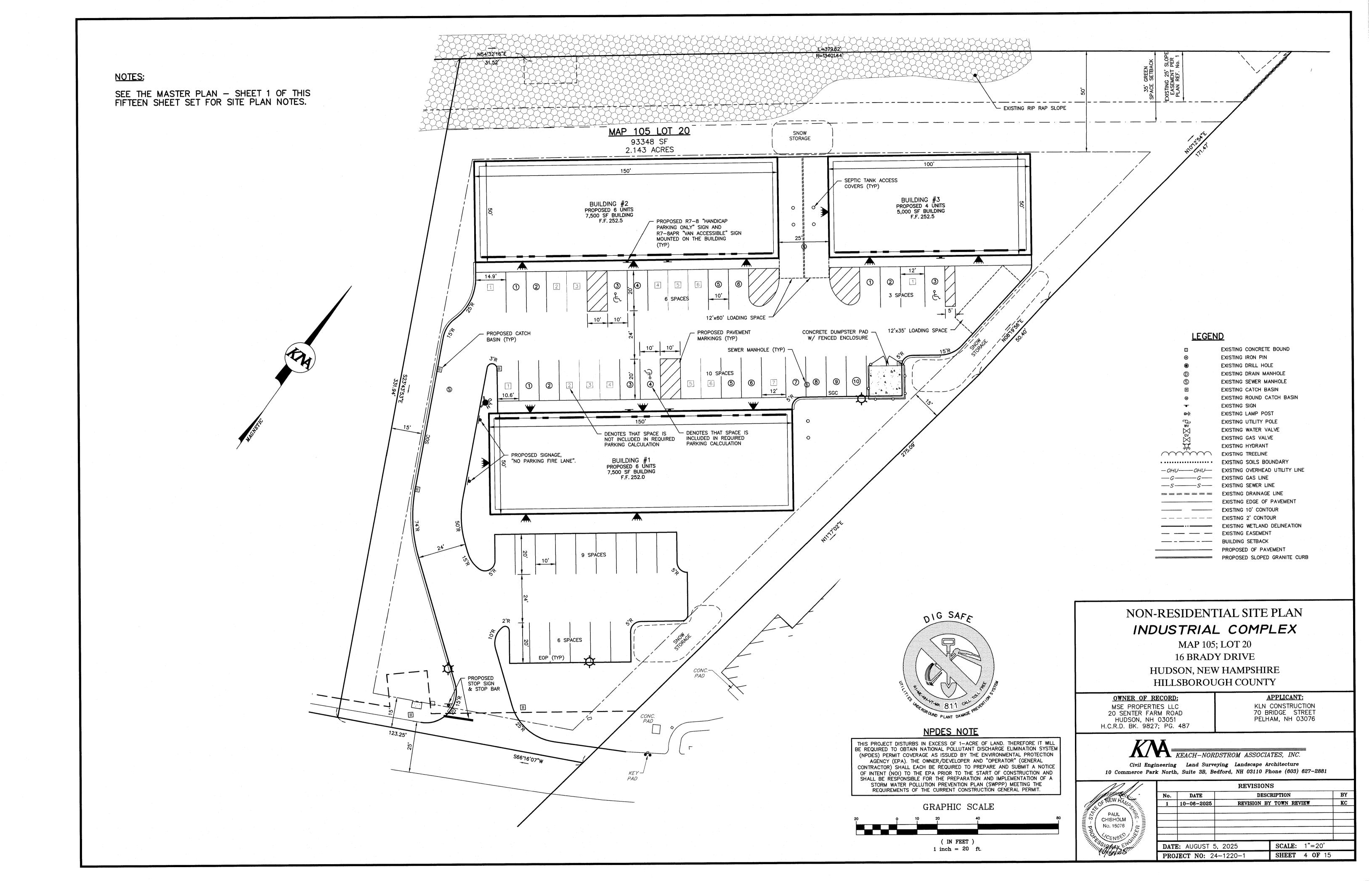
AUGUST 5, 2025 REVISED OCTOBER 6, 2025 PROJECT NO. 24-1220-1

SHEET TITLE	SHEET No.
MASTER PLAN	1
EXISTING CONDITIONS PLAN	2
REMOVALS/DEMOLITION PLAN	3
NON-RESIDENTIAL SITE PLAN	4
GRADING, DRAINAGE, & UTILITY PLA	AN 5
EROSION CONTROL PLAN	6
LANDSCAPE PLAN	7
LIGHTING PLAN	8
EFFLUENT DISPOSAL DESIGN	9 - 10
SEWER AND WATER DETAILS	11
CONSTRUCTION DETAILS	12 - 14
SIGHT DISTANCE PLAN	15

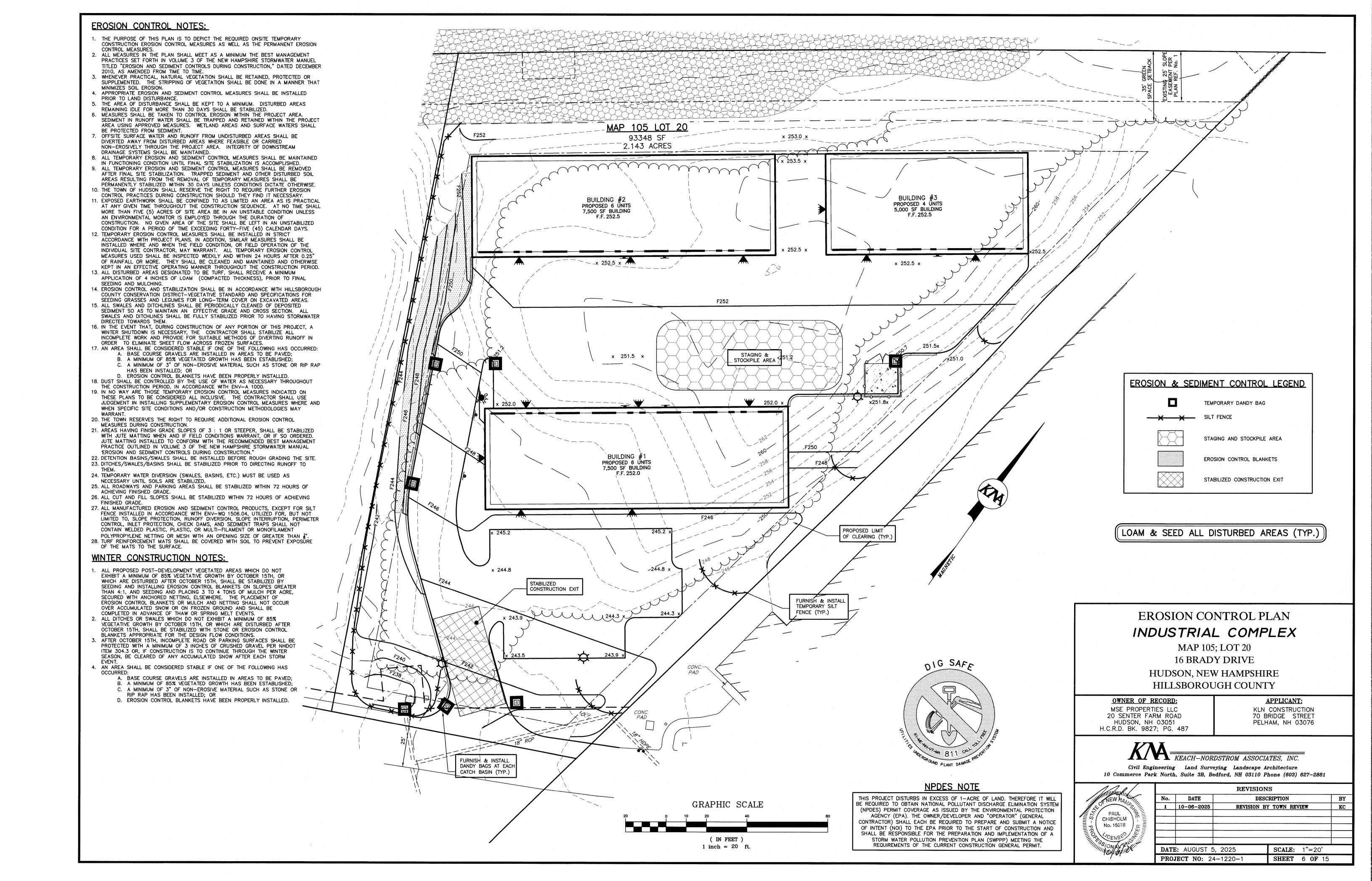


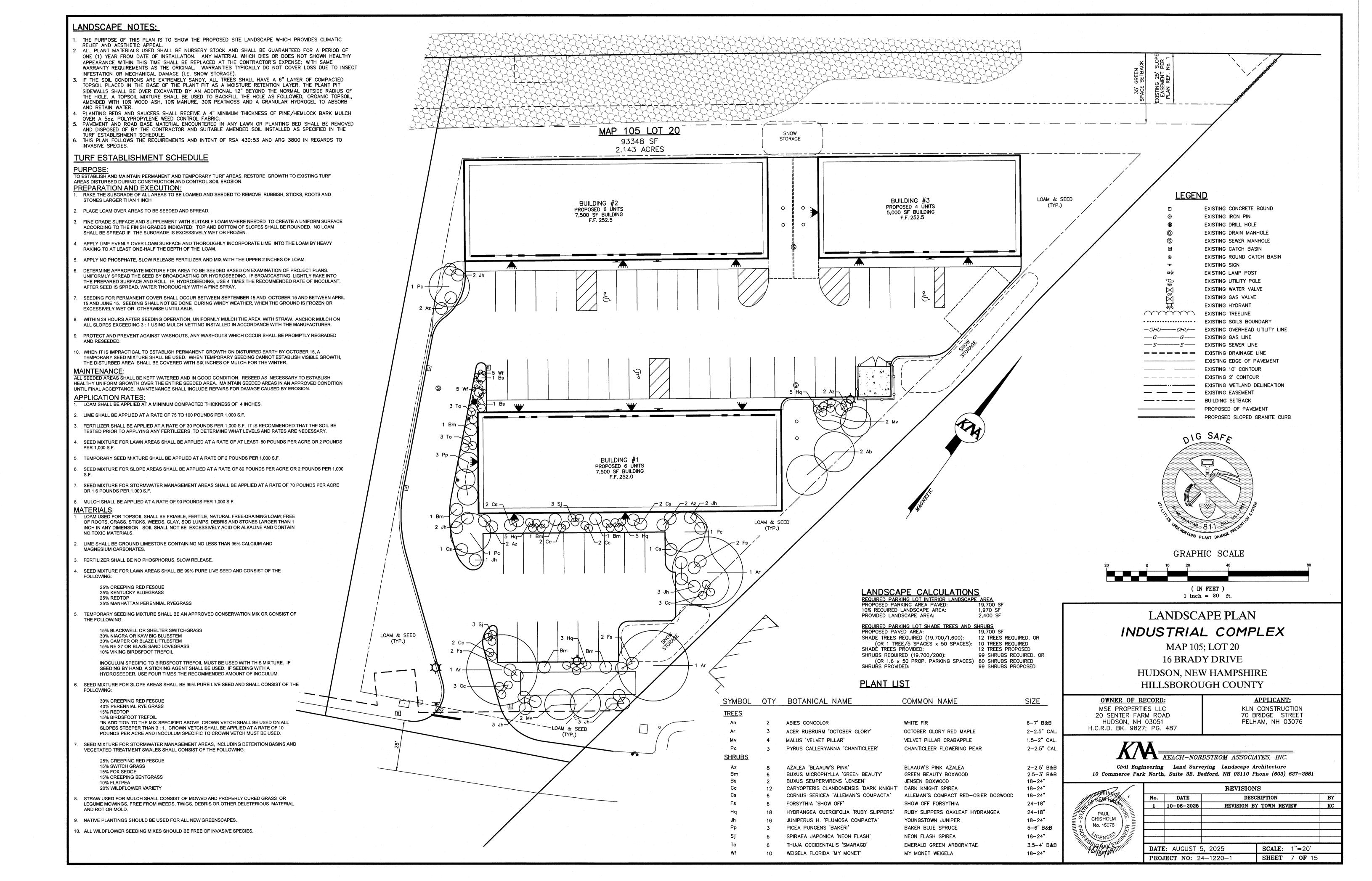


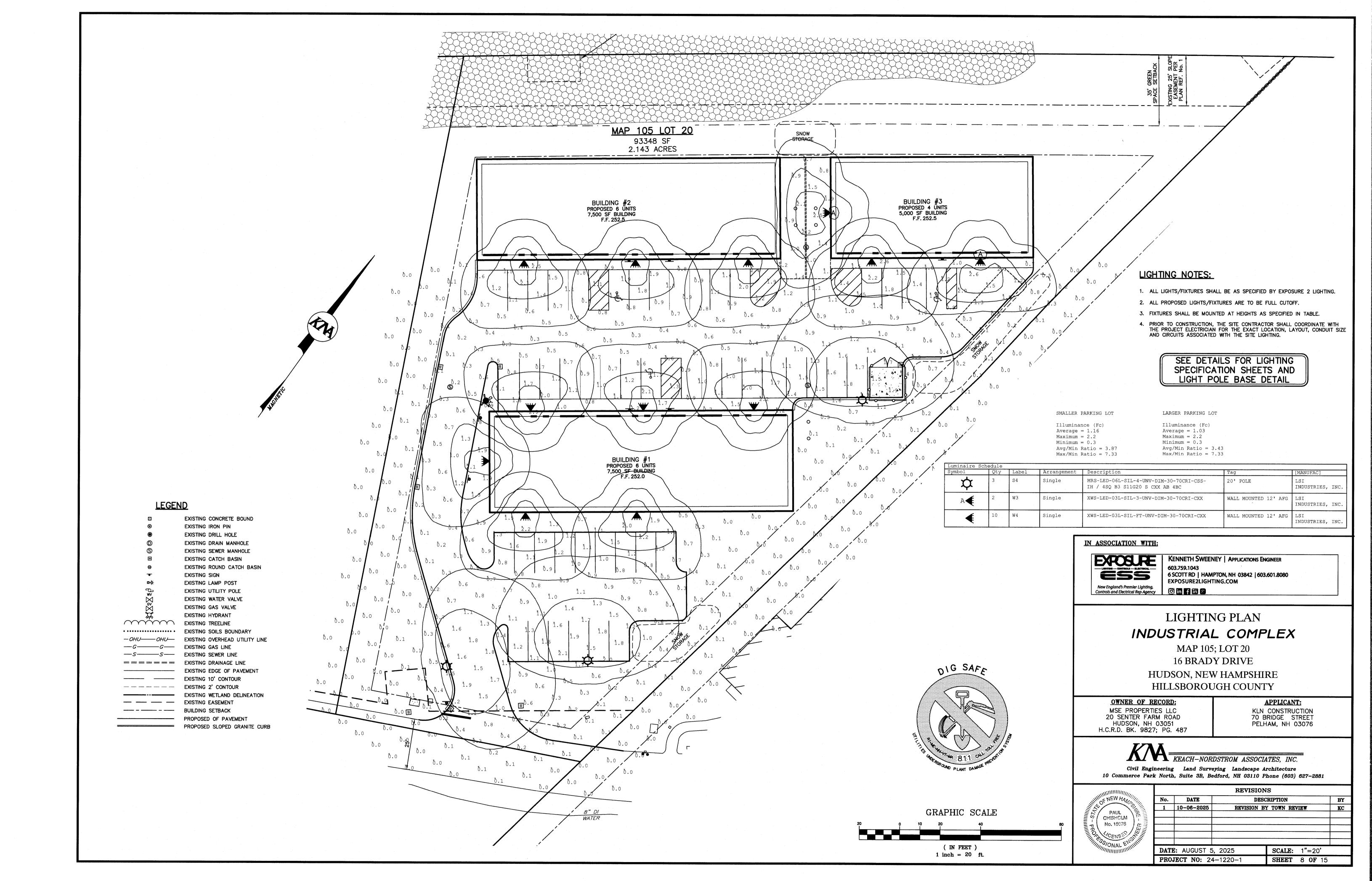


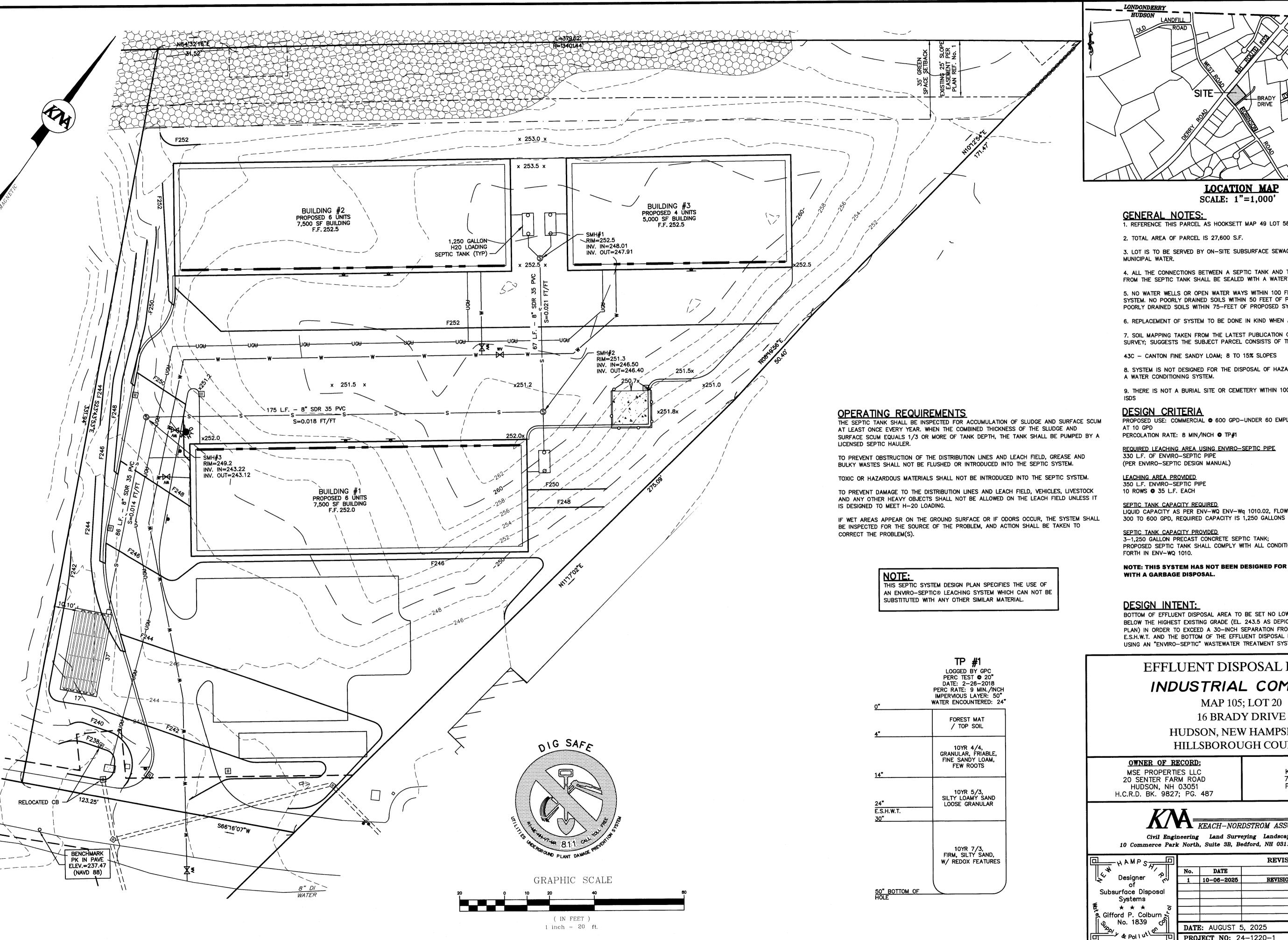


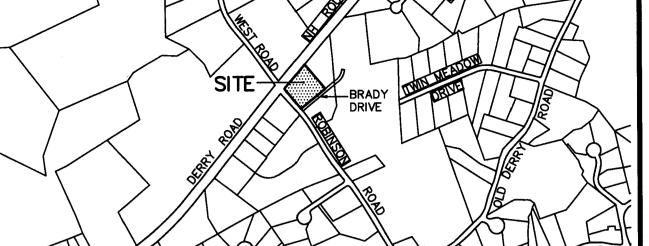
#### **CONSTRUCTION NOTES:** 1. ALL WORK SHALL CONFORM TO THE TOWN OF NASHUA, LATEST EDITION, CONSTRUCTION STANDARDS AND DETAILS. IN THE ABSENCE OF A TOWN STANDARD/SPECIFICATION, WORK SHALL CONFORM TO THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, AS PUBLISHED BY THE STATE OF NEW HAMPSHIRE, DEPARTMENT OF TRANSPORTATION, ARE HEREBY INCORPORATED BY REFERENCE. PARKING LOT CONSTRUCTION SHALL CONFORM TO THE TYPICAL SECTIONS AND DETAILS SHOWN ON THE PLANS, AND SHALL MEET THE REQUIREMENTS. 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. ALL DRAINAGE PIPE SHALL BE INSTALLED FOLLOWING MANUFACTURER'S INSTALLATION ALL DISTURBED AREAS SHALL RECEIVE 6" LOAM AND SHALL BE SEEDED. 6. SEE SEPTIC DESIGN PLANS FOR PROPOSED SEWER INFORMATION. **CONSTRUCTION SEQUENCE:** 93348 SF 2.143 ACRES THE CONTRACTOR WILL ENSURE THAT NO MORE THAN 5 ACRES IS DISTURBED AT ANY ONE TIME. FIRST CUT AND CLEAR TREES AND BRUSH ONLY WITHIN DESIGNATED LIMITS OF CLEARING AS x 253.5 x 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 430:53 AND AGR 3800 RELATIVE TO INVASIVE SPECIES. 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. BUILDING #3 COMPLETE GRUBBING OPERATIONS. ALL STUMPS AND SIMILAR ORGANIC DEBRIS SHALL BE BUILDING #2 PROPOSED 4 UNITS PROPERLY DISPOSED OF BY THE CONTRACTOR. NATIVE ORGANIC SOIL MATERIALS SUITABLE FOR PROPOSED 6 ÜNITS 5,000 SF BUILDING USE AS TOPSOIL SHALL BE STOCKPILED WITHIN AREAS OUT OF THE WAY OF OTHER 7,500 SF BUILDING F.F. 252.5 CONSTRUCTIONS ACTIVITIES AND DRAINAGE FLOW. STOCKPILES SHALL BE TEMPORARILY SEEDED F.F. 252.5 WITH WINTER RYE AND BE SURROUNDED WITH STRAW BALES AND/OR FABRIC SILTATION FENCE IN ORDER TO PREVENT LOSS DUE TO EROSION. 1,250 GALLON~ RIM = 252.5BEGIN EARTHMOVING OPERATIONS, COMMENCING WITH WORK NEEDED TO BALANCE SITE AND **H20 LOADING** INV. IN=248.01 FACILITATE BUILDING FOUNDATION AND RETAINING WALL CONSTRUCTION. PERMANENT DOWNSLOPE INV. OUT=247.91 SEPTIC TANK (TYP) -WORK SHALL BE PROTECTED FROM UPGRADIENT STORMWATER FLOW BY THE CONSTRUCTION OF TEMPORARY EARTHEN DIKES OR EXCAVATED SWALES. ONCE BUILDING FOUNDATION WORK IS UNDERWAY, CONTINUE EARTHMOVING OPERATIONS UNTIL DESIGN SUBGRADE IS ACHIEVED. **LEGEND** x 252.5 x - x 252.5 x DETENTION BASINS/SWALES SHALL BE INSTALLED BEFORE ROUGH GRADING THE SITE. 8. DITCHES/SWALES/BASINS SHALL BE STABILIZED PRIOR TO DIRECTING RUNOFF TO THEM. EXISTING CONCRETE BOUND 9. TEMPORARY WATER DIVERSION (SWALES, BASINS, ETC.) MUST BE USED AS NECESSARY UNTIL SOILS EXISTING IRON PIN ARE STABILIZED. PROPOSED UNDERGROUND 10. INSTALL DRAINAGE SWALE SYSTEMS AND OTHER UTILITIES WORKING FROM LOW TO HIGH. EXISTING DRILL HOLE ELECTRIC LINE (TYP) INCOMPLETE WORK SHALL BE PROTECTED FROM SILTATION BY THE USE OF SILTATION BARRIERS AROUND SWALES UNTIL THE SITE HAS BECOME FULLY STABILIZED. EXISTING DRAIN MANHOLE F252 11. DEEPLY TILL THE BASE OF THE INFILTRATION BASIN TO RESTORE INFILTRATION RATES FOLLOWED EXISTING SEWER MANHOLE BY A PASS WITH A LEVELING DRAG. STORMWATER FLOWS ARE NOT TO BE DIRECTED TO THE INFILTRATION AREA UNTIL CONTRIBUTING AREAS HAVE BEEN FULLY STABILIZED. EXISTING CATCH BASIN 12. PLACE GRAVEL AND CRUSHED GRAVEL OVER PROPOSED DRIVEWAY, WALKS AND PARKING AREAS EXISTING ROUND CATCH BASIN AND COMPACT IN SPECIFIED LIFT THICKNESS. 13. COMPLETE EXCAVATION/STABILIZATION GRADING ACTIVITIES. WHEN COMPLETE, IMMEDIATELY BEGIN TOPSOILING PROPOSED TURF AREAS USING STOCKPILED LOAM SUPPLEMENTED WITH BORROW LOAM, EXISTING SIGN RIM=251.3 INV. IN=246.50EXISTING LAMP POST IF NECESSARY, TO LEAVE A THICKNESS OF 4 INCHES OF FRIABLE LOAM. TEE WITH (2) INV. OUT=246.40 14. FINE GRADE ALL FUTURE TURF AREAS AND HYDROSEED WITH THE SPECIFIED SEED MIXTURE EXISTING UTILITY POLE RIM = 249.5GATE VALVES INV.IN=245.50 IMMEDIATELY AFTER FINE GRADING IS COMPLETED. ALL AREAS SHALL BE STABILIZED WITHIN 72 INV.IN=244.95 x 251.5 x EXISTING WATER VALVE INV.OUT=245.25 200 L.F. 15" HDPE x251.2 HOURS OF ACHIEVING FINISH GRADE. INV.OUT=244.7 15. INSTALL THE BINDER COURSE OF PAVEMENT OVER ALL DESIGNATED AREAS. EXISTING GAS VALVE S=0.005 16. CONTINUE TO MONITOR AND RECTIFY MINOR SITE AND SLOPE EROSION UNTIL ENTIRE SITE APPEARS - PROROSED HYDRANT √30 L.F. -18" HDPE EXISTING HYDRANT TO BE COMPLETELY STABILIZED AND VEGETATED WITH A HEALTHY STAND OF TURF OR GROUND AND GATE VALVE 175 L.F. - 8" SDR 35 PVC $\sim$ EXISTING TREELINE COVER. MAINTAIN SPECIFIED SILTATION/EROSION CONTROL MEASURES THROUGH ONE WINTER. 17. INSTALL THE SPECIFIED WEARING COURSE OF PAVEMENT OVER THE BINDER COURSE. • • • • • EXISTING SOILS BOUNDARY S=0.018 FT/FT 18. COMPLETE INSTALLATION OF LANDSCAPING, SIGNAGE AND OTHER SITE AMENITIES. - OHU----OHU-- EXISTING OVERHEAD UTILITY LINE — G — EXISTING GAS LINE ---S-----S EXISTING SEWER LINE RIM = 250.7===== EXISTING DRAINAGE LINE INV.OUT=246.5 RIM = 249.2EXISTING EDGE OF PAVEMENT INV. IN=243.22 ----- EXISTING 10' CONTOUR INV. OUT=243.12 EXISTING 2' CONTOUR EXISTING WETLAND DELINEATION RIM=246.5 BUILDING #1 — — — EXISTING EASEMENT INV.IN=241.70 PROPOSED 6 UNITS F248 INV.OUT=237.36 BUILDING SETBACK 7,500 SF BUILDING F.F. 252.0 PROPOSED WATER VALVE PROPOSED GAS VALVE PROPOSED OF PAVEMENT WITH GATE VALVE PROPOSED SLOPED GRANITE CURB PROPOSED DRAINAGE LINE PROPOSED 2' CONTOUR LINE ----- SAWCUT LINE x 245.2 PROPOSED 6" D.I. GRADING, DRAINAGE & UTILITY PLAN 244.3 244.3 x INDUSTRIAL COMPLEX MAP 105: LOT 20 16 BRADY DRIVE HUDSON, NEW HAMPSHIRE EXISTING -TRANSFORMER \_/ > HILLSBOROUGH COUNTY DIG SAFE PROPOSED 30,000 GALLON CISTERN OWNER OF RECORD: **APPLICANT:** EXISTING CATCH BASIN NPDES NOTE TO BE CONVERTED TO KLN CONSTRUCTION MSE PROPERTIES LLC S=0.006 A DRAIN MANHOLE 20 SENTER FARM ROAD 70 BRIDGE STREET THIS PROJECT DISTURBS IN EXCESS OF 1-ACRE OF LAND. THEREFORE IT WILL HUDSON, NH 03051 PELHAM, NH 03076 BE REQUIRED TO OBTAIN NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT COVERAGE AS ISSUED BY THE ENVIRONMENTAL PROTECTION H.C.R.D. BK. 9827; PG. 487 AGENCY (EPA). THE OWNER/DEVELOPER AND "OPERATOR" (GENERAL RELOCATED CB#20 RIM=237.8 CONTRACTOR) SHALL EACH BE REQUIRED TO PREPARE AND SUBMIT A NOTICE INV.IN=233.00 OF INTENT (NOI) TO THE EPA PRIOR TO THE START OF CONSTRUCTION AND SHALL BE RESPONSIBLE FOR THE PREPARATION AND IMPLEMENTATION OF A INV.OUT=232.75 KEACH-NORDSTROM ASSOCIATES, INC. STORM WATER POLLUTION PREVENTION PLAN (SWPPP) MEETING THE CB#6 RIM=240.5 REQUIREMENTS OF THE CURRENT CONSTRUCTION GENERAL PERMIT. Civil Engineering Land Surveying Landscape Architecture INV.IN=235.10 10 Commerce Park North, Suite 3B, Bedford, NH 03110 Phone (603) 627-2881 INV.IN=235.56 INV.OUT=233.10 INV.OUT=235.31 **UTILITY NOTE** REVISIONS THE UNDERGROUND UTILITIES DEPICTED HEREON HAVE BEEN DRAWN FROM DATE DESCRIPTION BENCHMARK FIELD SURVEY INFORMATION AND OR PLOTTED FROM EXISTING DRAWINGS. GRAPHIC SCALE PK IN PAVE REVISION BY TOWN REVIEW KC 10-06-2025 KEACH-NORDSTROM ASSOCIATES, INC. MAKES NO GUARANTEES THAT THE ELEV.=237.47 UNDERGROUND UTILITIES DEPICTED COMPRISE ALL SUCH UTILITIES IN THE PAUL (NAVD 88) AREA. EITHER IN SERVICE OR ABANDONED. FURTHER, KEACH-NORDSTROM CHISHOLM ASSOCIATES, INC. DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES No. 15076 PROVIDE TAPPING SLEEVE SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH THEY ARE WITH GATE VALVE LOCATED AS ACCURATELY AS POSSIBLE FROM THE INFORMATION AVAILABLE KEACH-NORDSTROM ASSOCIATES, INC. HAS NOT PHYSICALLY LOCATED THE ( IN FEET ) UNDERGROUND PORTIONS OF THE UTILITIES. 1 inch = 20 ft.SCALE: 1"=20' DATE: AUGUST 5, 2025 PROJECT NO: 24-1220-**SHEET** 5 **OF** 15











### LOCATION MAP SCALE: 1"=1,000'

#### **GENERAL NOTES:**

1. REFERENCE THIS PARCEL AS HOOKSETT MAP 49 LOT 58-44.

2. TOTAL AREA OF PARCEL IS 27,600 S.F.

3. LOT IS TO BE SERVED BY ON-SITE SUBSURFACE SEWAGE DISPOSAL SYSTEM AND

4. ALL THE CONNECTIONS BETWEEN A SEPTIC TANK AND THE PIPES LEADING TO AND EXITING FROM THE SEPTIC TANK SHALL BE SEALED WITH A WATERTIGHT, FLEXIBLE JOINT CONNECTOR.

5. NO WATER WELLS OR OPEN WATER WAYS WITHIN 100 FEET OF THE PROPOSED SEPTIC SYSTEM. NO POORLY DRAINED SOILS WITHIN 50 FEET OF PROPOSED SYSTEM. NO VERY POORLY DRAINED SOILS WITHIN 75-FEET OF PROPOSED SYSTEM.

6. REPLACEMENT OF SYSTEM TO BE DONE IN KIND WHEN AND/OR IF NEEDED.

7. SOIL MAPPING TAKEN FROM THE LATEST PUBLICATION OF THE U.S.D.A.-S.C.S. SOIL SURVEY; SUGGESTS THE SUBJECT PARCEL CONSISTS OF THE FOLLOWING MAPPING UNITS.

43C - CANTON FINE SANDY LOAM; 8 TO 15% SLOPES

8. SYSTEM IS NOT DESIGNED FOR THE DISPOSAL OF HAZARDOUS WASTE OR DISCHARGE FROM A WATER CONDITIONING SYSTEM.

9. THERE IS NOT A BURIAL SITE OR CEMETERY WITHIN 100' OF ANY COMPONENT OF THE

PROPOSED USE: COMMERCIAL @ 600 GPD-UNDER 60 EMPLOYEES

PERCOLATION RATE: 8 MIN/INCH • TP#1

REQUIRED LEACHING AREA USING ENVIRO-SEPTIC PIPE 330 L.F. OF ENVIRO-SEPTIC PIPE

(PER ENVIRO-SEPTIC DESIGN MANUAL)

#### LEACHING AREA PROVIDED 350 L.F. ENVIRO-SEPTIC PIPE

10 ROWS @ 35 L.F. EACH

LIQUID CAPACITY AS PER ENV-WQ ENV-Wq 1010.02, FLOWS FROM

## SEPTIC TANK CAPACITY PROVIDED

3-1,250 GALLON PRECAST CONCRETE SEPTIC TANK; PROPOSED SEPTIC TANK SHALL COMPLY WITH ALL CONDITIONS SET

NOTE: THIS SYSTEM HAS NOT BEEN DESIGNED FOR USE

WITH A GARBAGE DISPOSAL.

## **DESIGN INTENT:**

BOTTOM OF EFFLUENT DISPOSAL AREA TO BE SET NO LOWER THAN 2.5' BELOW THE HIGHEST EXISTING GRADE (EL. 243.5 AS DEPICTED ON THE PLAN) IN ORDER TO EXCEED A 30-INCH SEPARATION FROM THE E.S.H.W.T. AND THE BOTTOM OF THE EFFLUENT DISPOSAL PIPE WHEN USING AN "ENVIRO-SEPTIC" WASTEWATER TREATMENT SYSTEM.

## EFFLUENT DISPOSAL DESIGN

## INDUSTRIAL COMPLEX

MAP 105; LOT 20 16 BRADY DRIVE

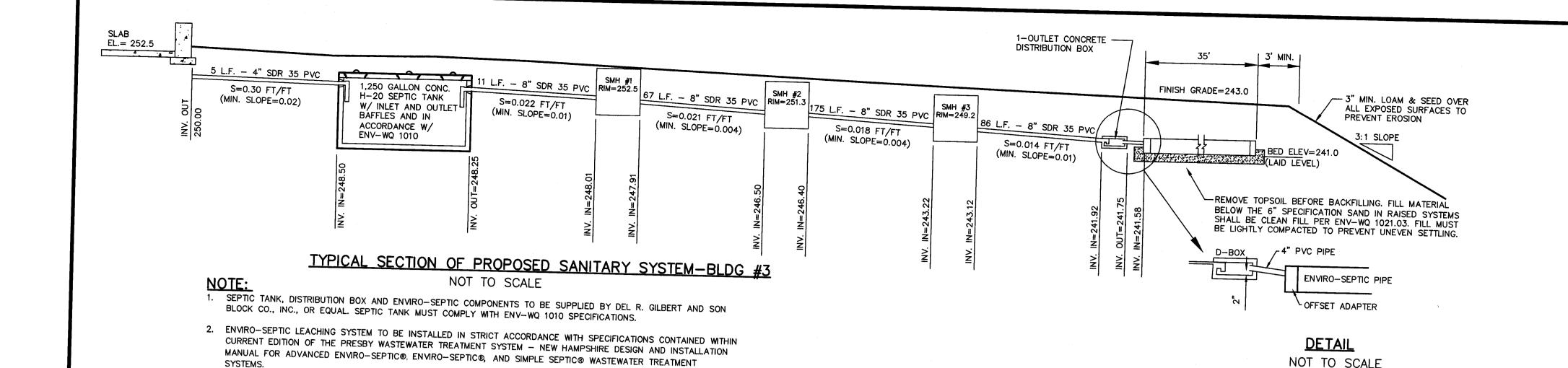
HUDSON, NEW HAMPSHIRE HILLSBOROUGH COUNTY

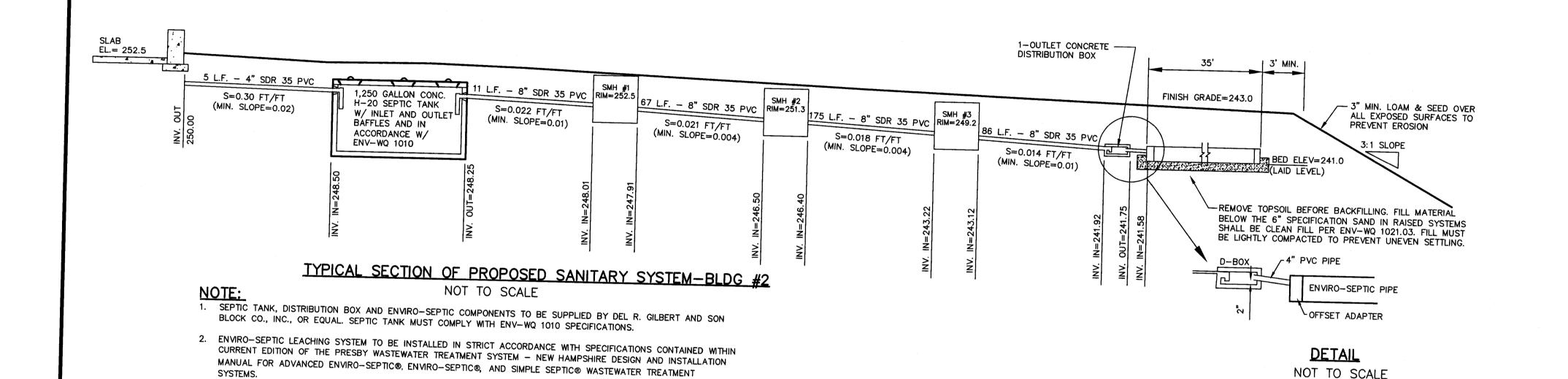
## OWNER OF RECORD: MSE PROPERTIES LLC

20 SENTER FARM ROAD HUDSON, NH 03051 H.C.R.D. BK. 9827; PG. 487

APPLICANT: KLN CONSTRUCTION 70 BRIDGE STREET PELHAM, NH 03076

NP S AMP S AMP S AMP S	REVISIONS					
	No. DATE DESCRIPTION		BY			
Designer A	1	10-06-2025	REVISION	BY TOWN	REVIEW	KC
Subsurface Disposal Systems						
£ * * * 5						
Gifford P. Colburn	<b> </b>					
Gifford P. Colburn No. 1839 Pol 1 White Po	DATI	E: AUGUST 5	5, 2025	SCAL	<b>.E</b> : 1"=20'	
& Pol I ut	PRO.	JECT NO: 24	4-1220-1	SHE	ET 9 OF 15	

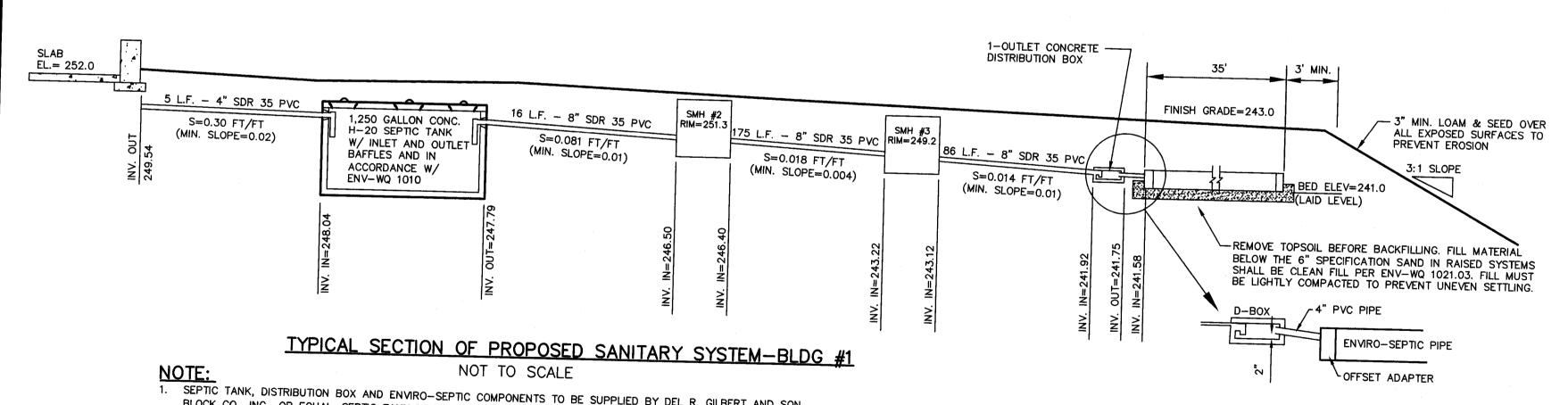




NOT TO SCALE

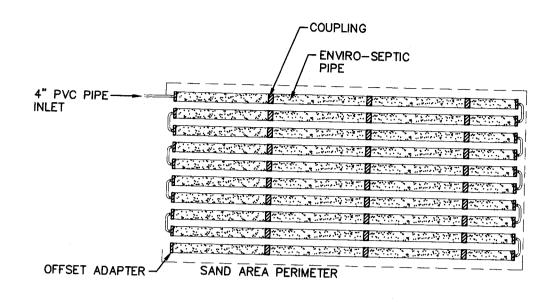
**DETAIL** 

NOT TO SCALE



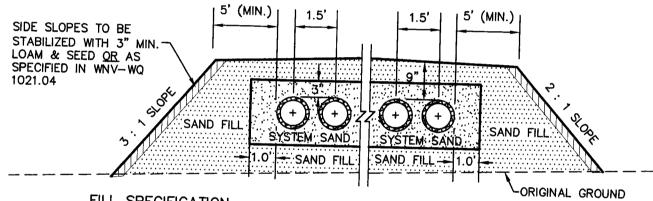
1. SEPTIC TANK, DISTRIBUTION BOX AND ENVIRO-SEPTIC COMPONENTS TO BE SUPPLIED BY DEL R. GILBERT AND SON BLOCK CO., INC., OR EQUAL. SEPTIC TANK MUST COMPLY WITH ENV-WQ 1010 SPECIFICATIONS.

2. ENVIRO-SEPTIC LEACHING SYSTEM TO BE INSTALLED IN STRICT ACCORDANCE WITH SPECIFICATIONS CONTAINED WITHIN CURRENT EDITION OF THE PRESBY WASTEWATER TREATMENT SYSTEM - NEW HAMPSHIRE DESIGN AND INSTALLATION MANUAL FOR ADVANCED ENVIRO-SEPTIC®, ENVIRO-SEPTIC®, AND SIMPLE SEPTIC® WASTEWATER TREATMENT



NOTE: EFFLUENT DISPOSAL AREA SHOWN IS A "SERIAL DISTRIBUTION" SYSTEM AS DEPICTED IN THE NEW HAMPSHIRE DESIGN AND INSTALLATION MANUAL FOR ADVANCED ENVIRO-SEPTIC®, AND ENVIRO-SEPTIC® WASTEWATER TREATMENT SYSTEMS (2019

> EDA PLAN DETAIL SCALE: 1" = 10



SYSTEM SAND TO BE 6" MINIMUM OF MEDIUM TO COARSE GRAVELLY SAND WITH AN EFFECTIVE PARTICLE SIZE OF 0.25 MM TO 2.00 MM, WITH NO GREATER THAN 2% PASSING A #200 SIEVE AND NO PARTICLES LARGER THAN 3/4" AROUND THE CIRCUMFERENCE OF THE ENVIRO-SEPTIC PIPE (SEE THE LATEST EDITION OF THE "ENVIRO-SEPTIC AND SIMPLE SEPTIC LEACHING SYSTEM DESIGN AND INSTALLATION MANUAL" FOR DETAILED SAND AND FILL REQUIREMENTS. ALL OTHER FILL USED IN RAISED SYSTEMS SHALL BE CLEAN BANK RUN SAND, FREE FROM TOPSOIL, HUMUS, DREDGING, DEBRIS, OR STONES LARGER THAN 6 IN ANY DIMENSION IN ACCORDANCE WITH ENV-WQ 1021.03

TYPICAL "ENVIRO-SEPTIC" CROSS SECTION -NOT TO SCALE-

## EFFLUENT DISPOSAL DESIGN INDUSTRIAL COMPLEX

MAP 105; LOT 20 16 BRADY DRIVE

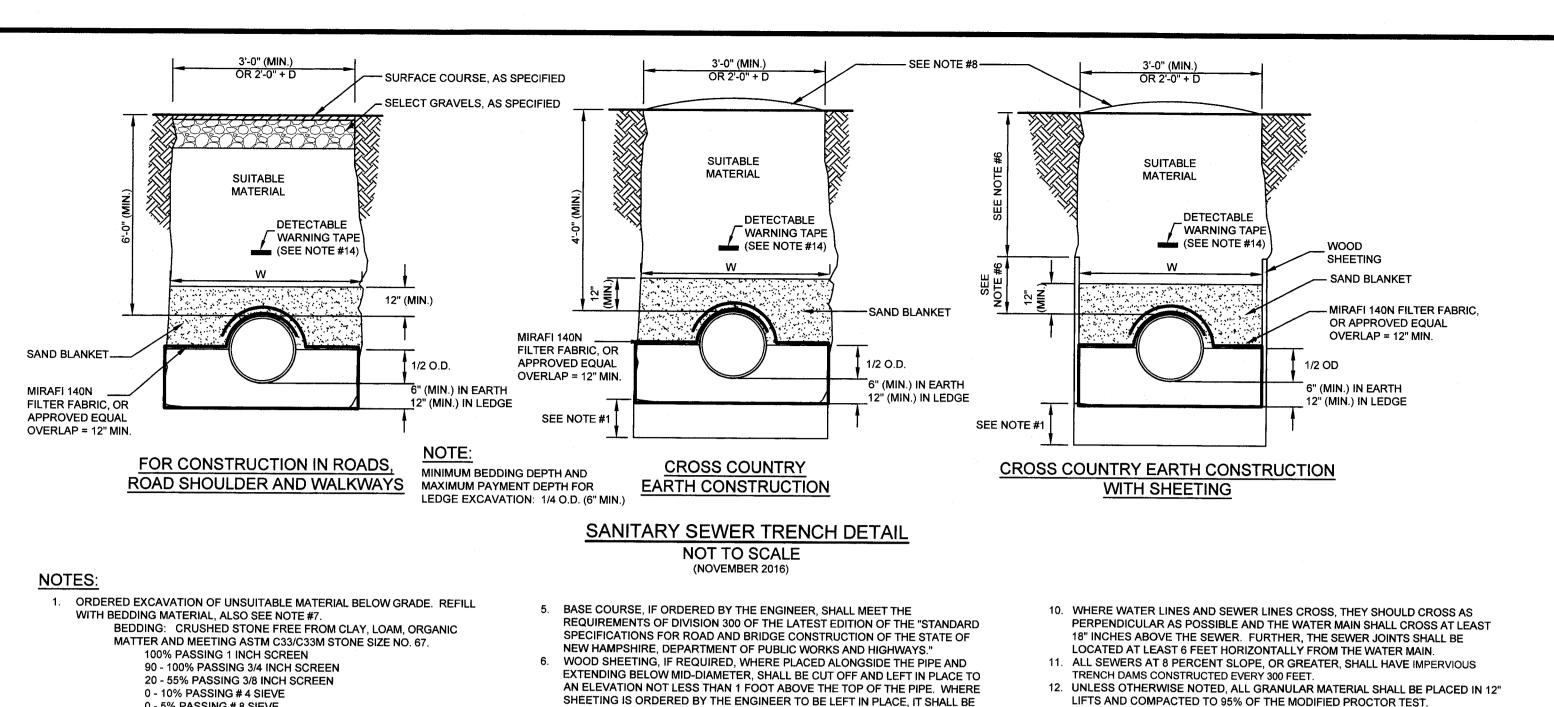
HUDSON, NEW HAMPSHIRE HILLSBOROUGH COUNTY

OWNER OF RECORD: MSE PROPERTIES LLC 20 SENTER FARM ROAD HUDSON, NH 03051 H.C.R.D. BK. 9827; PG. 487

APPLICANT: KLN CONSTRUCTION 70 BRIDGE STREET PELHAM, NH 03076

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

HAMPS	REVISIONS				
Designer	No.	DATE	DESCRIPTION		BY
of	11	10-06-2025	REVISION B	Y TOWN REVIEW	KC
Subsurface Disposal					no
Systems ≨					
0 Cifford D Coll					
g Gifford P. Colburn & இ No. 1839 இ					
No. 1839 6		: AUGUST 5		SCALE: 1"=20'	
	PROJ	ECT NO: 24	1-1220-1	<b>SHEET</b> 10 <b>OF</b> 15	
SILLEI 10 OF 15					



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

FINISHED GROUND

SURFACE

A THE THE PARTY OF THE PARTY OF

- 3. MIRAFI 140 N FILTER FABRIC, OR APPROVED EQUAL, SHALL BE INSTALLED ABOVE PIPE.
- 4. SUITABLE MATERIAL: IN ROADS, ROAD SHOULDERS, WALKWAYS AND RAVELED 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

ROADWAY SURFACE

C.I. VALVE BOX

GATE VALVE ---

DISTRIBUTION MAIN -

WATER MAIN -

WATER AND GAS GATE VALVE

NOT TO SCALE

SEWER MAIN, LATERAL

PARALLEL INSTALLATION

6'-0" MINIMUM | 6'-0" MINIMUM

MAIN CROSSINGS

WATER PIPE/SEWER PIPE SEPARATION

NOT TO SCALE

1'-6" (MIN.)

SEWER MAIN

WITHOUT JOINTS

OR FORCE MAIN -

10'-0" MINIMUM

PIPE. FOR PIPES 15 INCHES NOMINAL DIAMETER OR LESS, W SHALL BE NO MORE THAN 36 INCHES. FOR PIPES GREATER THAN 15 INCHES NOMINAL DIAMETER. W SHALL BE 24 INCHES PLUS PIPE O.D. W SHALL ALSO BE THE PAYMENT WIDTH FOR LEDGE EXCAVATION AND FOR ORDERED EXCAVATION BELOW GRADE.

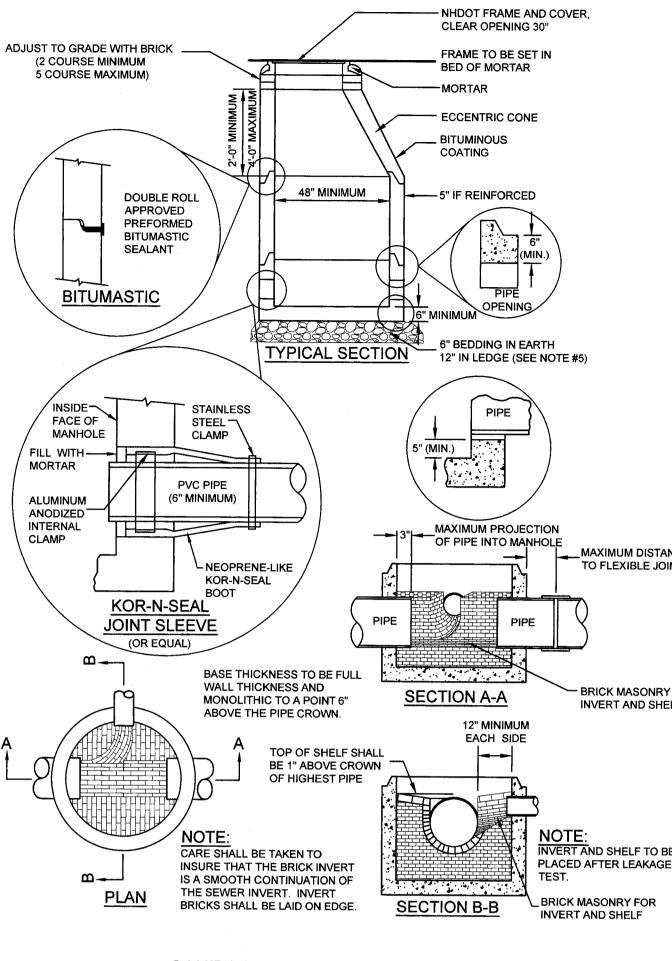
FOR CROSS COUNTRY CONSTRUCTION, BACKFILL OR FILL SHALL BE

FOOT ABOVE THE TOP OF THE PIPE.

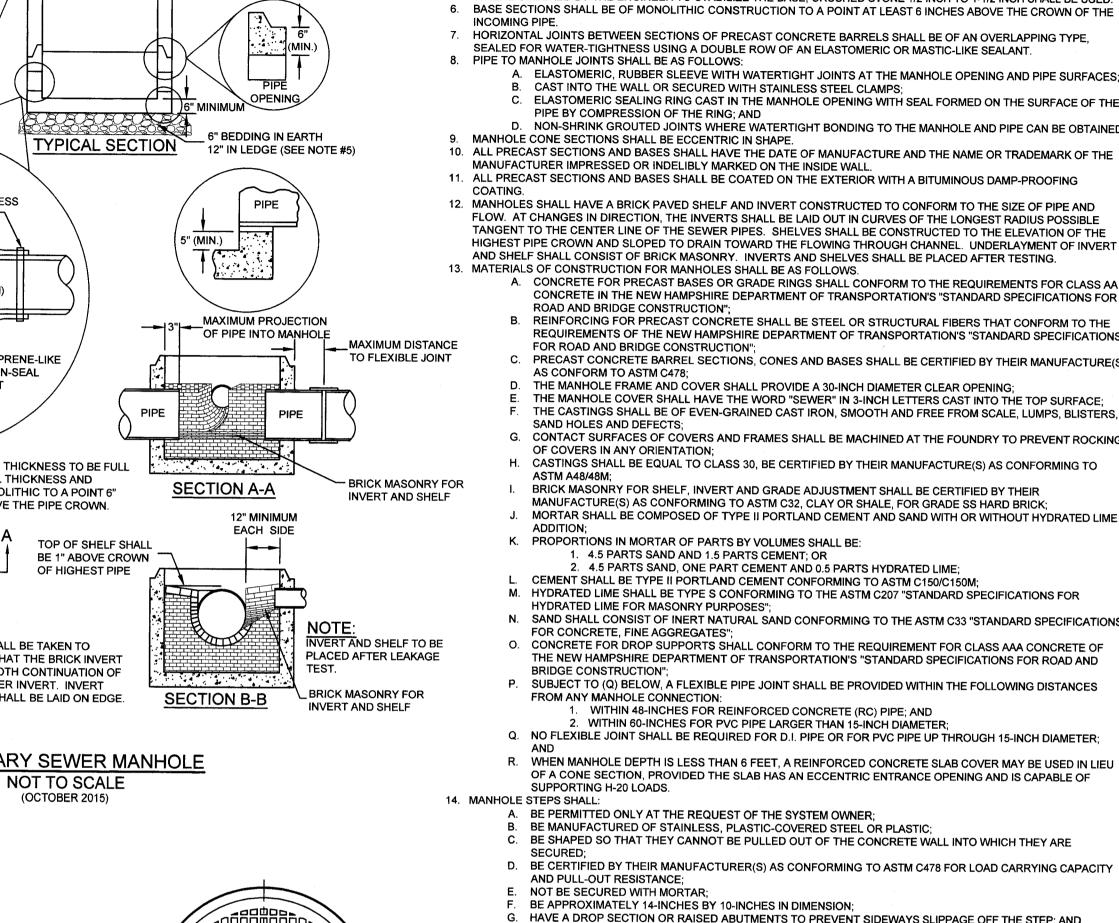
CUT OFF AT LEAST 3 FEET BELOW FINISHED GRADE, BUT NOT LESS THAN 1

W = MAXIMUM ALLOWABLE TRENCH WIDTH TO A PLANE 12 INCHES ABOVE THE

- MOUNDED 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 (MAIN 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
- A. FORCE MAINS SHALL BE CONSTRUCTED FROM DUCTILE IRON, HIGH DENSITY POLYETHYLENE, OR PVC PER ENV-WQ 704.06(a).
  - PVC SHALL CONFORM TO ASTM D2241-05 OR ASTM D1785-05 HDPE SHALL CONFORM TO ASTM D3035-03a D.I. SHALL BE CORROSION PROTECTED IN CORROSIVE ENVIRONMENTS
- IN ACCORDANCE WITH THE FORCE MAIN CONSTRUCTION REQUIREMENT SPECIFIED BELOW:
- LIFTS AND COMPACTED TO 95% OF THE MODIFIED PROCTOR TEST. 13. WHERE WATER MAINS CROSS UNDER SEWER MAINS, BOTH THE SEWER AND WATER MAINS SHALL BE PRESSURE RATED PIPE PER ENV-WQ 704.06 AND TESTED PER AWWA C600-05 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.
- 14. ALL SEWERS SHALL BE MARKED USING METAL IMPREGNATED MARKING TAPE OR TRACER WIRE THAT CAN BE LOCATED USING METAL DETECTION EQUIPMENT.
- 15. GRAVITY PIPE SEWER TESTING: A. ALL NEW GRAVITY SEWERS SHALL BE TESTED FOR WATER TIGHTNESS BY
  - 2. UNI-BELL PVC PIPE ASSOCIATION UNI-B-6, "LOW-PRESSURE AIR TESTING
- 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
- DAYS NOR MORE THAN 90 DAYS FOLLOWING INSTALLATION.
- 5 PERCENT OF AVERAGE INSIDE DIAMETER. A RIGID BALL OR MANDREL DIAMETER SHALL BE USED FOR TESTING PIPE DEFLECTION. THE DEFLECTION TEST SHALL BE CONDUCTED WITHOUT MECHANICAL PULLING DEVICES.



## SANITARY SEWER MANHOLE NOT TO SCALE



#### G. HAVE A DROP SECTION OR RAISED ABUTMENTS TO PREVENT SIDEWAYS SLIPPAGE OFF THE STEP: AN H. HAVE NON-SKID SAFETY SERRATIONS ON THE FOOT CONTACT SURFACES. 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

NOTES: (NHDES ENV WQ700 - 2015)

NECESSARY FOR THE INTENDED SERVICE.

CONCRETE AND SHALL CONFORM TO ASTM C478.

100% PASSING 1 INCH SCREEN

90% PASSING 3/4 INCH SCREEN

0-10% PASSING #4 SIEVE

0-5% PASSING #8 SIEVE

20-55% PASSING 3/8 INCH SCREEN

1. ALL COMPONENT PARTS OF MANHOLE STRUCTURES SHALL HAVE THE STRENGTH, LEAK RESISTANCE AND SPACE

BARRELS, CONCRETE GRADE RINGS AND CONE SECTIONS SHALL BE CONSTRUCTED OF PRECAST REINFORCED

SEALED FOR WATER-TIGHTNESS USING A DOUBLE ROW OF AN ELASTOMERIC OR MASTIC-LIKE SEALANT.

3. MANHOLE STRUCTURES SHALL BE DESIGNED TO WITHSTAND H-20 LOADING AND SHALL NOT LEAK IN EXCESS OF ONE GPD

WHERE ORDERED BY THE ENGINEER TO STABILIZE THE BASE, CRUSHED STONE 1/2 INCH TO 1-1/2 INCH SHALL BE USED.

A. ELASTOMERIC, RUBBER SLEEVE WITH WATERTIGHT JOINTS AT THE MANHOLE OPENING AND PIPE SURFACES;

C. ELASTOMERIC SEALING RING CAST IN THE MANHOLE OPENING WITH SEAL FORMED ON THE SURFACE OF THE

D. NON-SHRINK GROUTED JOINTS WHERE WATERTIGHT BONDING TO THE MANHOLE AND PIPE CAN BE OBTAINED.

TANGENT TO THE CENTER LINE OF THE SEWER PIPES. SHELVES SHALL BE CONSTRUCTED TO THE ELEVATION OF THE

D. THE MANHOLE FRAME AND COVER SHALL PROVIDE A 30-INCH DIAMETER CLEAR OPENING

A. CONCRETE FOR PRECAST BASES OR GRADE RINGS SHALL CONFORM TO THE REQUIREMENTS FOR CLASS AA

B. REINFORCING FOR PRECAST CONCRETE SHALL BE STEEL OR STRUCTURAL FIBERS THAT CONFORM TO THE

CONCRETE IN THE NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION'S "STANDARD SPECIFICATIONS FOR

REQUIREMENTS OF THE NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION'S "STANDARD SPECIFICATIONS

C. PRECAST CONCRETE BARREL SECTIONS, CONES AND BASES SHALL BE CERTIFIED BY THEIR MANUFACTURE(S)

THE MANHOLE COVER SHALL HAVE THE WORD "SEWER" IN 3-INCH LETTERS CAST INTO THE TOP SURFACE:

F. THE CASTINGS SHALL BE OF EVEN-GRAINED CAST IRON, SMOOTH AND FREE FROM SCALE, LUMPS, BLISTERS,

G. CONTACT SURFACES OF COVERS AND FRAMES SHALL BE MACHINED AT THE FOUNDRY TO PREVENT ROCKING

J. MORTAR SHALL BE COMPOSED OF TYPE II PORTLAND CEMENT AND SAND WITH OR WITHOUT HYDRATED LIME

N. SAND SHALL CONSIST OF INERT NATURAL SAND CONFORMING TO THE ASTM C33 "STANDARD SPECIFICATIONS

THE NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION'S "STANDARD SPECIFICATIONS FOR ROAD AND

O. CONCRETE FOR DROP SUPPORTS SHALL CONFORM TO THE REQUIREMENT FOR CLASS AAA CONCRETE OF

P. SUBJECT TO (Q) BELOW, A FLEXIBLE PIPE JOINT SHALL BE PROVIDED WITHIN THE FOLLOWING DISTANCES

Q. NO FLEXIBLE JOINT SHALL BE REQUIRED FOR D.I. PIPE OR FOR PVC PIPE UP THROUGH 15-INCH DIAMETER;

C. BE SHAPED SO THAT THEY CANNOT BE PULLED OUT OF THE CONCRETE WALL INTO WHICH THEY ARE

R. WHEN MANHOLE DEPTH IS LESS THAN 6 FEET, A REINFORCED CONCRETE SLAB COVER MAY BE USED IN LIEU

OF A CONE SECTION, PROVIDED THE SLAB HAS AN ECCENTRIC ENTRANCE OPENING AND IS CAPABLE OF

D. BE CERTIFIED BY THEIR MANUFACTURER(S) AS CONFORMING TO ASTM C478 FOR LOAD CARRYING CAPACITY

H. CASTINGS SHALL BE EQUAL TO CLASS 30, BE CERTIFIED BY THEIR MANUFACTURE(S) AS CONFORMING TO

BRICK MASONRY FOR SHELF, INVERT AND GRADE ADJUSTMENT SHALL BE CERTIFIED BY THEIR

2. 4.5 PARTS SAND, ONE PART CEMENT AND 0.5 PARTS HYDRATED LIME;

WITHIN 48-INCHES FOR REINFORCED CONCRETE (RC) PIPE; AND

2. WITHIN 60-INCHES FOR PVC PIPE LARGER THAN 15-INCH DIAMETER;

CEMENT SHALL BE TYPE II PORTLAND CEMENT CONFORMING TO ASTM C150/C150M:

MANUFACTURE(S) AS CONFORMING TO ASTM C32, CLAY OR SHALE, FOR GRADE SS HARD BRICK;

M. HYDRATED LIME SHALL BE TYPE S CONFORMING TO THE ASTM C207 "STANDARD SPECIFICATIONS FOR

MANHOLE STRUCTURES SHALL HAVE A LIFE EXPECTANCY IN EXCESS OF 25 YEARS.

5. BEDDING: CRUSHED STONE FREE FROM CLAY, LOAM, ORGANIC MATTER AND MEETING ASTM C33

B. CAST INTO THE WALL OR SECURED WITH STAINLESS STEEL CLAMPS:

PER VERTICAL FOOT OF MANHOLE FOR THE LIFE OF THE STRUCTURE.

PIPE BY COMPRESSION OF THE RING: AND

ROAD AND BRIDGE CONSTRUCTION";

AS CONFORM TO ASTM C478:

OF COVERS IN ANY ORIENTATION:

K. PROPORTIONS IN MORTAR OF PARTS BY VOLUMES SHALL BE:

HYDRATED LIME FOR MASONRY PURPOSES":

FOR CONCRETE, FINE AGGREGATES";

FROM ANY MANHOLE CONNECTION:

BRIDGE CONSTRUCTION

SUPPORTING H-20 LOADS.

AND PULL-OUT RESISTANCE: NOT BE SECURED WITH MORTAR:

1. 4.5 PARTS SAND AND 1.5 PARTS CEMENT; OR

A. BE PERMITTED ONLY AT THE REQUEST OF THE SYSTEM OWNER;

BE APPROXIMATELY 14-INCHES BY 10-INCHES IN DIMENSION:

B. BE MANUFACTURED OF STAINLESS, PLASTIC-COVERED STEEL OR PLASTIC

ASTM A48/48M;

FOR ROAD AND BRIDGE CONSTRUCTION"

- b. NOT LESS THAN 2.5 MINUTES FOR MANHOLES 10 TO 15 FEET DEEP; AND c. NOT LESS THAN 3 MINUTES FOR MANHOLES MORE THAN 15 FEET DEEP. THE MANHOLE SHALL BE REPAIRED AND RETESTED IF THE TEST HOLD TIMES FAIL TO ACHIEVE THE
- ACCEPTANCE LIMITS SPECIFIED IN (B) ABOVE
  - 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.

## SEWER AND WATER DETAILS INDUSTRIAL COMPLEX MAP 105; LOT 20 **16 BRADY DRIVE** HUDSON, NEW HAMPSHIRE HILLSBOROUGH COUNTY

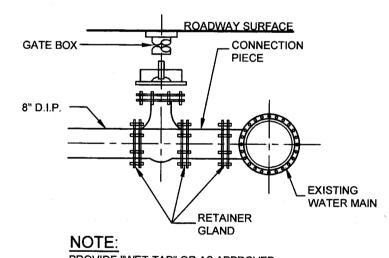
OWNER OF RECORD: MSE PROPERTIES LLC 20 SENTER FARM ROAD HUDSON, NH 03051 H.C.R.D. BK. 9827; PG. 487

APPLICANT: KLN CONSTRUCTION 70 BRIDGE STREET PELHAM, NH 03076

KEACH-NORDSTROM ASSOCIATES, INC.

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

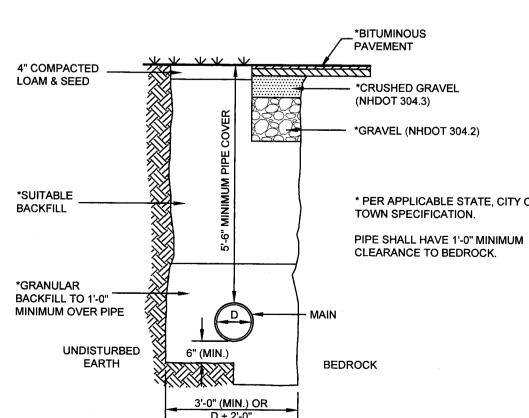
REVISIONS DATE DESCRIPTION BY Designer 10-06-2025 REVISION BY TOWN REVIEW Subsurface Disposal Systems S Gifford P. Colburn No. 1839 DATE: AUGUST 5, 2025 SCALE: AS SHOWN PROJECT NO: 24-1220-**SHEET** 11 **OF** 15

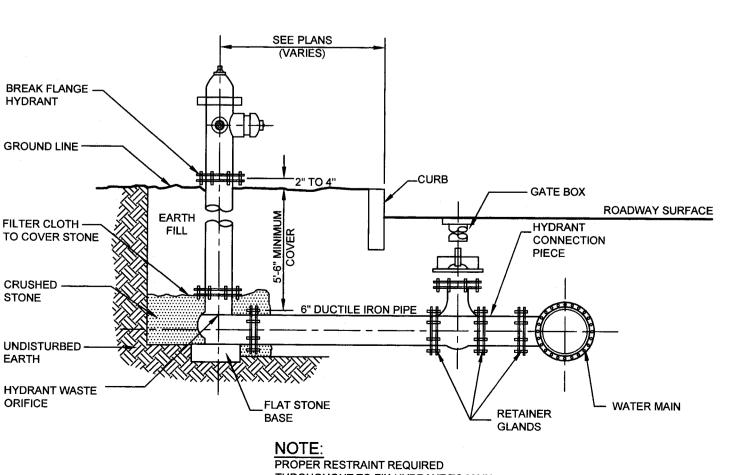


PROVIDE "WET-TAP" OR AS APPROVED BY WATER WORKS DEPARTMENT

## **NOT TO SCALE**

(MARCH 2008)





THROUGHOUT TO FIX HYDRANT TO MAIN. HYDRANT INSTALLATION NOT TO SCALE (MARCH 2008)

39 1/4" **SECTION** 

NOTES: **NEW HAMPSHIRE MAINTAINS A CLEAR OPENING** DESIGNATION OF 30" FOR ITS MANHOLE CASTINGS

 COVERS MARKED SEWER NONROCKING COVER DIAMOND SURFACE DESIGN

SPECIFICATIONS:FULLY MACHINED FRAME AND COVER H-20 LOAD RATED GRAY CAST IRON MEETS ASTM A48 CLASS 30

SEWER MANHOLE FRAME AND COVER DETAIL

NOT TO SCALE (MARCH 2008)

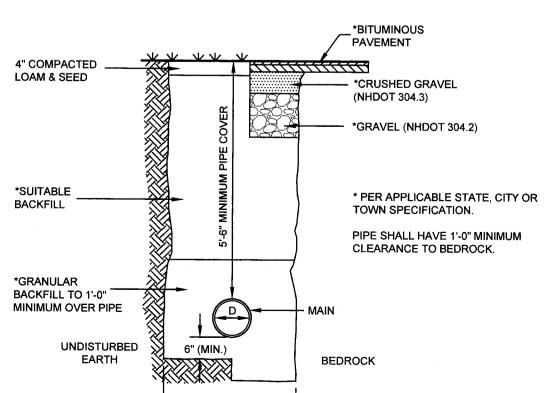
THE USE OF LOW-PRESSURE AIR TESTS. B. LOW-PRESSURE AIR TESTING SHALL BE IN CONFORMANCE WITH: . ASTM F1417-92(2005) "STANDARD TEST METHOD FOR INSTALLATION ACCEPTANCE OF PLASTIC GRAVITY SEWER LINES USING LOW-PRESSURE

OF INSTALLED SEWER PIPE" (1998)

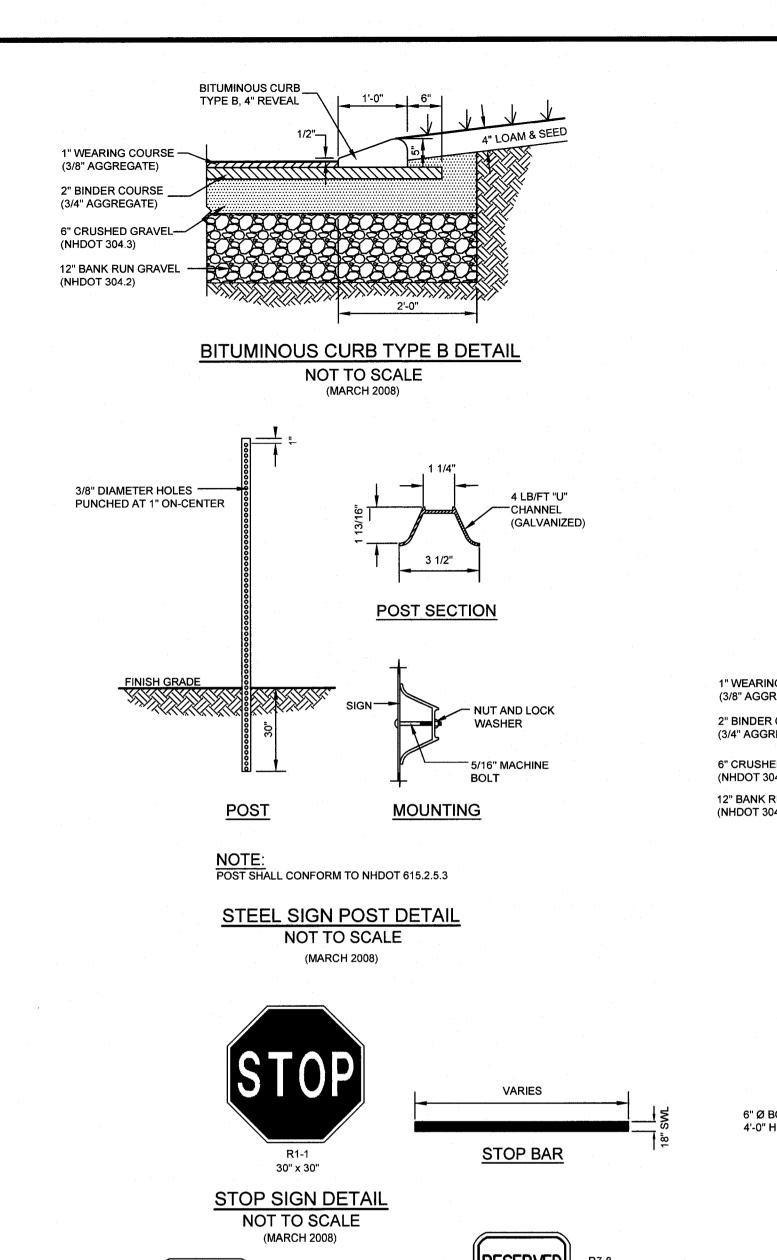
AND GRADE FOLLOWING INSTALLATION AND PRIOR TO USE. D. ALL PLASTIC SEWER PIPE SHALL BE DEFLECTION TESTED NOT LESS THAN 30

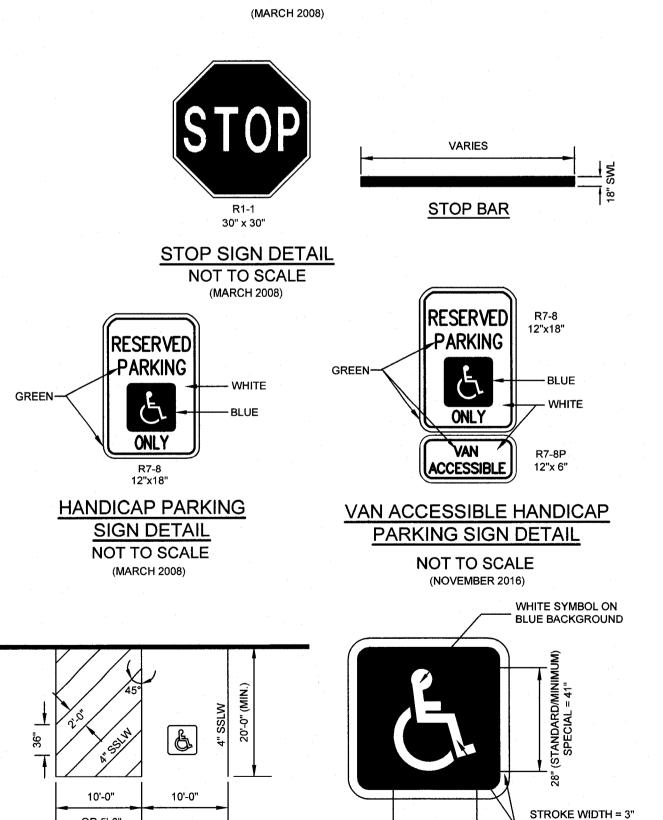
E. THE MAXIMUM ALLOWABLE DEFLECTION OF FLEXIBLE SEWER PIPE SHALL BE WITH A DIAMETER OF AT LEAST 95 PERCENT OF THE AVERAGE INSIDE PIPE

WATER MAIN CONNECTION DETAIL



WATER LINE TRENCH DETAIL NOT TO SCALE (MARCH 2008)





## HANDICAP STRIPING DETAIL NOT TO SCALE (MARCH 2012)

### STRIPING NOTES:

1. ALL PAVEMENT MARKINGS SHALL BE IN CONFORMANCE WITH THESE STANDARDS AND THE

(STANDARD/MINIMUM)

24" (STANDARD/MINIMUM) SPECIAL = 4"

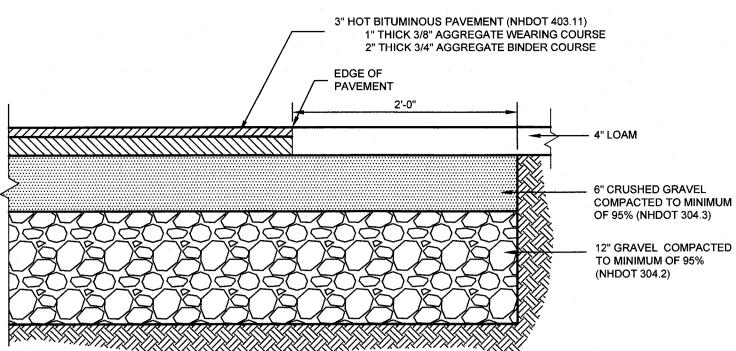
SPECIAL = 36"

- CURRENT EDITION OF MUTCD.

  2. WIDTH OF LINES SHALL VARY NO MORE THAN = 1/4 INCH FROM THAT SPECIFIED.

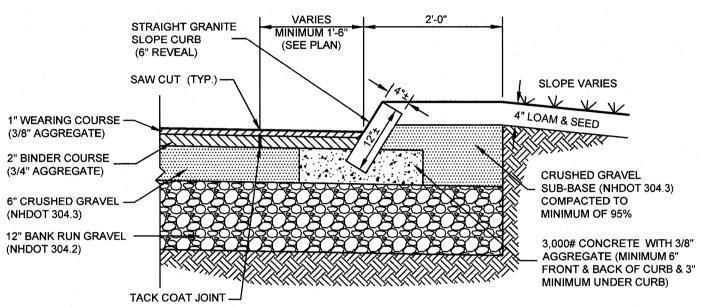
  3. THE WET FILM THICKNESS OF A PAINTED LINE SHALL BE A MINIMUM OF 15 MILS THROUGHOUT
- THE ENTIRE WIDTH AND LENGTH OF LINE SPECIFIED.

  4. OVERSPRAY SHALL BE KEPT TO AN ABSOLUTE MINIMUM.



## DRIVEWAY AND PARKING LOT SECTION

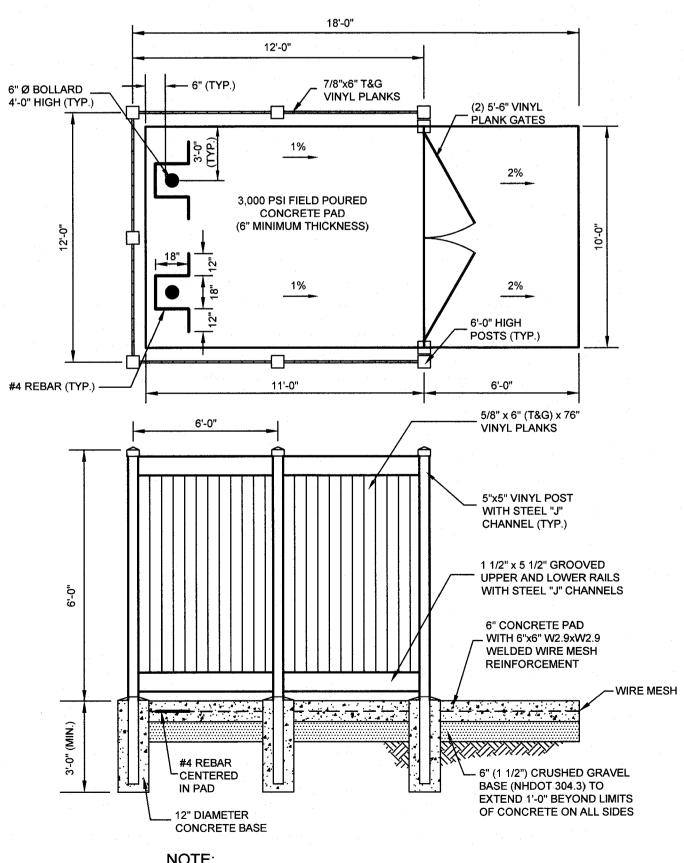
NOT TO SCALE (MARCH 2008)



NOTE: PLACEMENT OF THE CONCRETE SHALL BE SUBSIDIARY TO THE INSTALLATION OF THE CURBING

## STRAIGHT GRANITE SLOPE CURB DETAIL

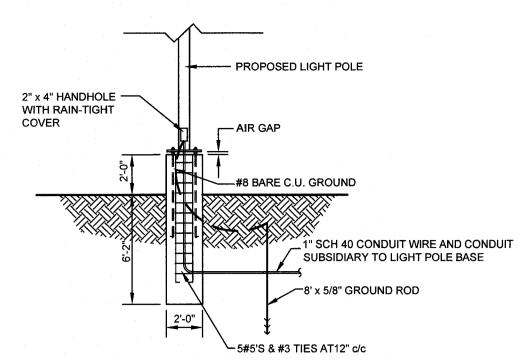
NOT TO SCALE (MARCH 2008)



NOTE:
THIS DUMPSTER ENCLOSURE WILL ACCOMMODATE MOST 2, 4, 6 AND 8 CY DUMPSTERS.

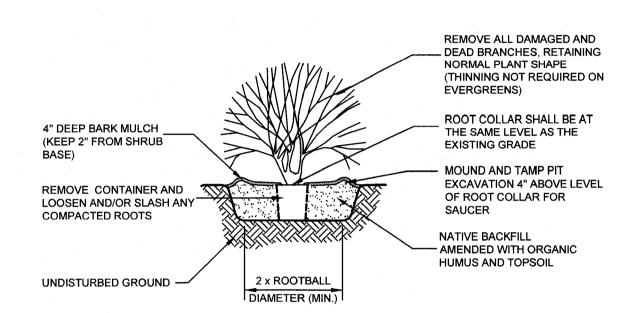
### VINYL TRASH ENCLOSURE DETAIL

NOT TO SCALE (MARCH 2008)



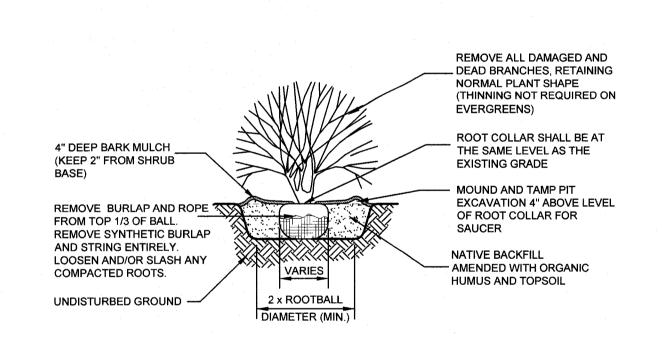
## CONCRETE LIGHT POLE BASE DETAIL

NOT TO SCALE (MARCH 2008)



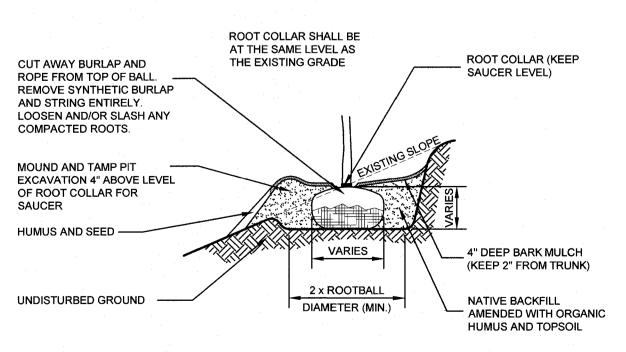
### CONTAINER SHRUB PLANTING DETAIL

NOT TO SCALE
(JANUARY 2012)



## BALLED & BURLAP SHRUB PLANTING DETAIL NOT TO SCALE

(JANUARY 2012)



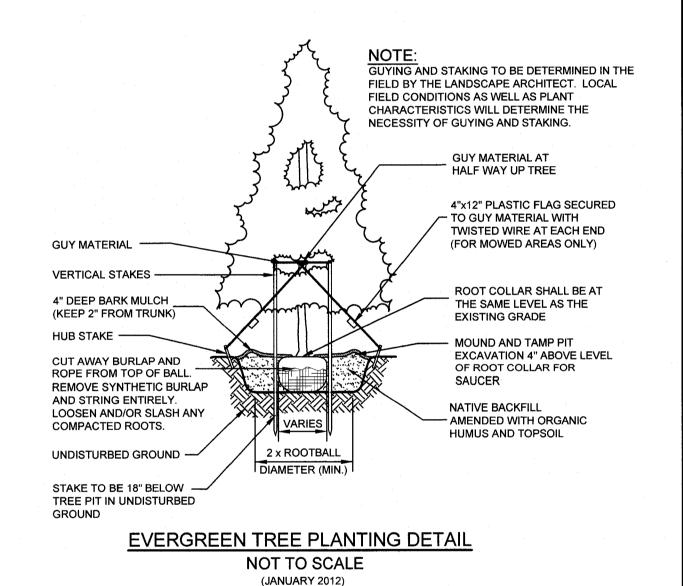
## TYPICAL PLANTING PIT ON SLOPE 4:1 OR GREATER

NOT TO SCALE (JANUARY 2012)

GUYING AND STAKING TO BE DETERMINED IN THE FIELD BY THE LANDSCAPE ARCHITECT. LOCAL FIELD CONDITIONS AS WELL AS PLANT CHARACTERISTICS WILL DETERMINE THE NECESSITY OF GUYING AND STAKING. **GUY MATERIAL AT TREE (HALF** UP TREE OR TO FIRST BRANCH, WHICHEVER IS LOWER) NEVER CUT LEADER -4"x12" PLASTIC FLAG SECURED TO GUY MATERIAL WITH TWISTED WIRE AT EACH END (FOR MOWED AREAS ONLY) **GUY MATERIAL** VERTICAL STAKES -ROOT COLLAR SHALL BE AT 4" DEEP BARK MULCH THE SAME LEVEL AS THE (KEEP 2" FROM TRUNK) EXISTING GRADE MOUND AND TAMP PIT **EXCAVATION 4" ABOVE LEVEL** CUT AWAY BURLAP AND OF ROOT COLLAR FOR ROPE FROM TOP OF BALL SAUCER REMOVE SYNTHETIC BURLAP AND STRING ENTIRELY. NATIVE BACKFILL LOOSEN AND/OR SLASH ANY - AMENDED WITH ORGANIC COMPACTED ROOTS. HUMUS AND TOPSOIL 2 x ROOTBALL UNDISTURBED GROUND -STAKE TO BE 18" BELOW -TREE PIT IN UNDISTURBED GROUND

## DECIDUOUS TREE PLANTING DETAIL NOT TO SCALE

(JANUARY 2012)



## CONSTRUCTION DETAILS INDUSTRIAL COMPLEX

MAP 105; LOT 20 16 BRADY DRIVE HUDSON, NEW HAMPSHIRE

HILLSBOROUGH COUNTY

OWNER OF RECORD:

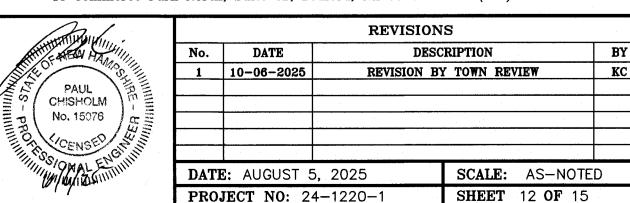
MSE PROPERTIES LLC
20 SENTER FARM ROAD
HUDSON, NH 03051

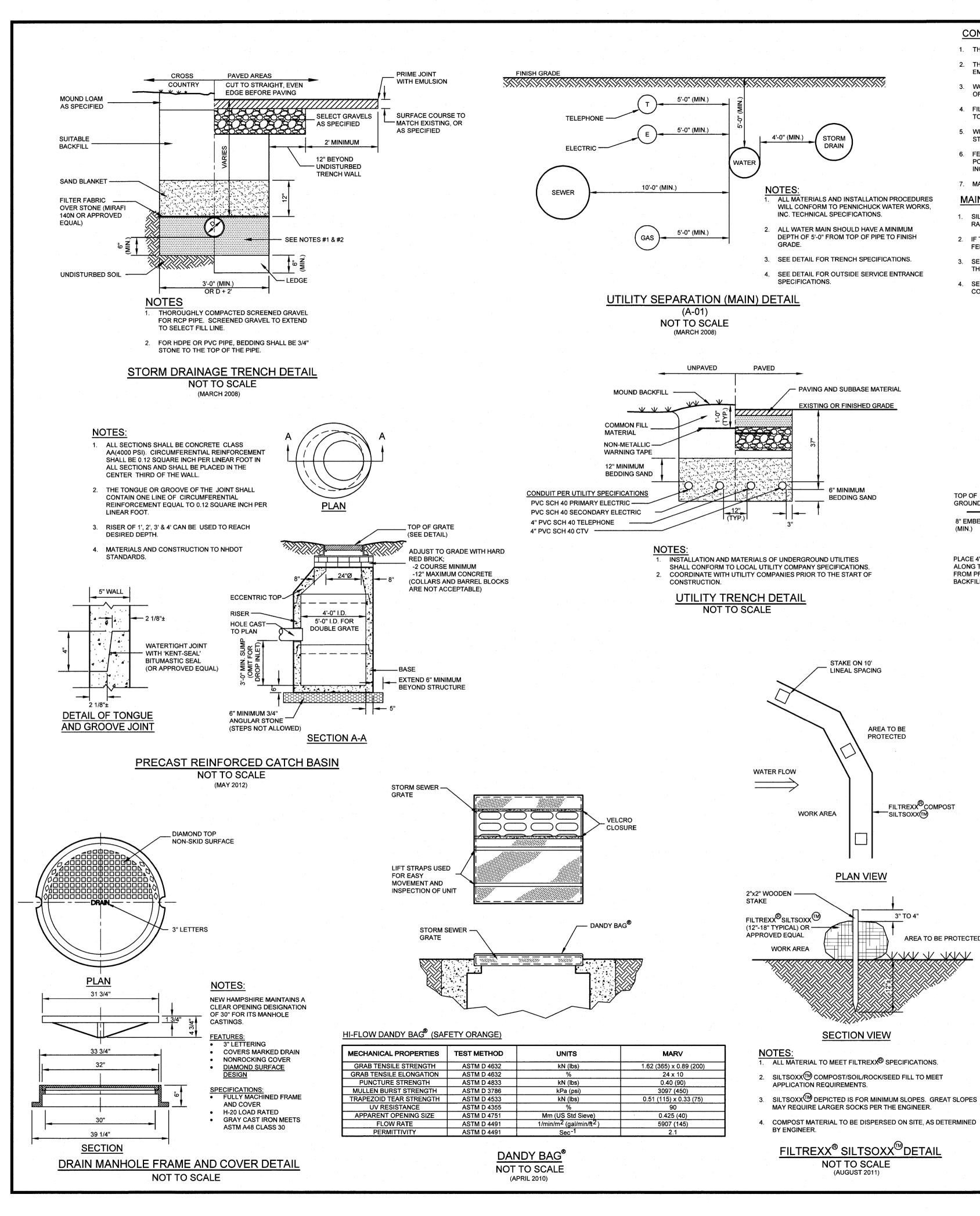
H.C.R.D. BK. 9827; PG. 487

APPLICANT:
KLN CONSTRUCTION
70 BRIDGE STREET
PELHAM, NH 03076

## KA KEAC

KEACH-NORDSTROM ASSOCIATES, INC.





#### CONSTRUCTION SPECIFICATIONS:

- 1. THE GEOTEXTILE FABRIC SHALL MEET THE DESIGN CRITERIA FOR SILT FENCES.
- 2. THE FABRIC SHALL BE EMBEDDED A MINIMUM OF 8 INCHES INTO THE GROUND AND THE SOIL COMPACTED OVER THE
- 3. WOVEN WIRE FENCE SHALL BE FASTENED SECURELY TO THE FENCE POSTS WITH WIRE TIE OR STAPLES WHERE NOTED OR AS DIRECTED BY DESIGN ENGINEER.
- 4. FILTER CLOTH SHALL BE FASTENED SECURELY TO THE WOVEN WIRE FENCE WITH TIES SPACED EVERY 24 INCHES AT THE TOP, MIDSECTION AND BOTTOM.
- 5. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER, THEY SHALL BE OVERLAPPED BY 6 INCHES, FOLDED AND
- 6. FENCE POSTS SHALL BE A MINIMUM OF 36 INCHES LONG AND DRIVEN A MINIMUM OF 16 INCHES INTO THE GROUND. WOOD POSTS SHALL BE OF SOUND QUALITY HARDWOOD AND SHALL HAVE A MINIMUM CROSS SECTIONAL AREA OF 3.0 SQUARE
- 7. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.

### MAINTENANCE

**BEDDING SAND** 

STAKE ON 10'

LINEAL SPACING

**PLAN VIEW** 

**SECTION VIEW** 

NOT TO SCALE

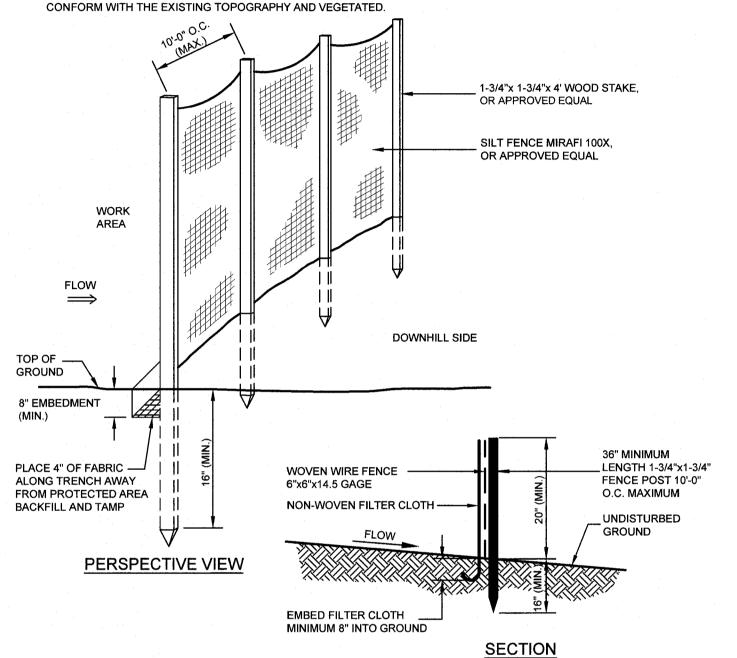
AREA TO BE

\_FILTREXX<sup>®</sup>COMPOST \_SILTSOXX®

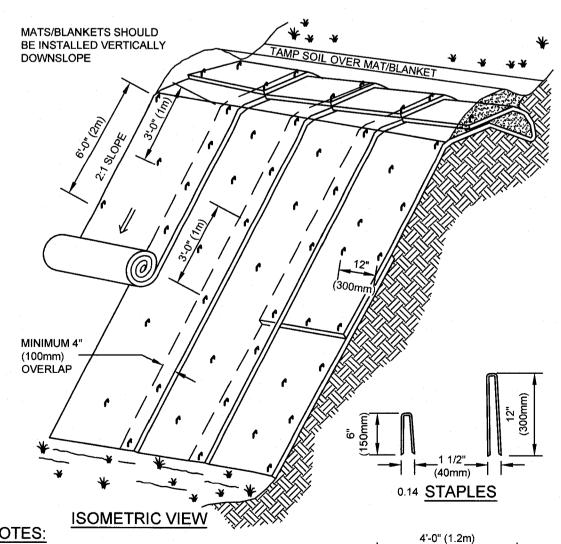
3" TO 4"

AREA TO BE PROTECTED

- 1. SILT FENCES 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 FABRIC ON A SILT FENCE SHOULD DECOMPOSE OR BECOME INEFFECTIVE DURING THE EXPECTED LIFE OF THE FENCE, THE FABRIC SHALL BE REPLACED PROMPTLY.
- SEDIMENT DEPOSITS SHOULD BE INSPECTED AFTER EVERY STORM EVENT. THE DEPOSITS SHOULD BE REMOVED WHEN THEY REACH APPROXIMATELY ONE-HALF THE HEIGHT OF THE BARRIER.
- SEDIMENT DEPOSITS THAT ARE REMOVED OR LEFT IN PLACE AFTER THE FABRIC HAS BEEN REMOVED SHALL BE GRADED TO



#### SILT FENCE DETAIL NOT TO SCALE (MARCH 2008)



### SLOPE SURFACE SHALL BE FREE OF ROCKS, CLODS, STICKS AND GRASS. MATS/ BLANKETS SHALL HAVE

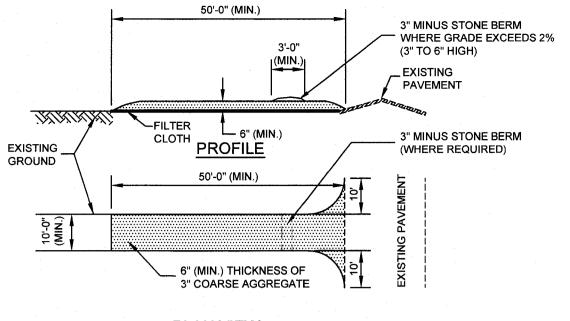
2. APPLY PERMANENT SEEDING BEFORE PLACING

GOOD SOIL CONTACT.

- 3. LAY BLANKETS LOOSELY AND STAKE OR STAPLE TO MAINTAIN DIRECT CONTACT WITH THE SOIL. DO NOT STRETCH.
- 4. EROSION BLANKETS TO BE A BCN150 OR AN APPROVED ALTERNATIVE WHICH MUST CONSIST OF ALL NATURAL

**EROSION CONTROL BLANKETS - SLOPE INSTALLATION** NOT TO SCALE

(AUGUST 2011)



#### **PLAN VIEW**

## STABILIZED CONSTRUCTION EXIT DETAIL

NOT TO SCALE

#### MAINTENANCE

RESIDENCE LOT.

- 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 SEDIMENT 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

#### **CONSTRUCTION SPECIFICATIONS:**

- 1. STONE FOR A STABILIZED CONSTRUCTION EXIT SHALL BE 3 INCH MINIMUM 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
- 3. THE THICKNESS OF THE STONE FOR THE STABILIZED EXIT SHALL NOT BE LESS THAN 3 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
- 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

- 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 5:1 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 PERIODIC 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.
- 9. THE MOUNTABLE BERM IS REQUIRED FOR 50' LONG EXITS

## **CONSTRUCTION DETAILS** INDUSTRIAL COMPLEX

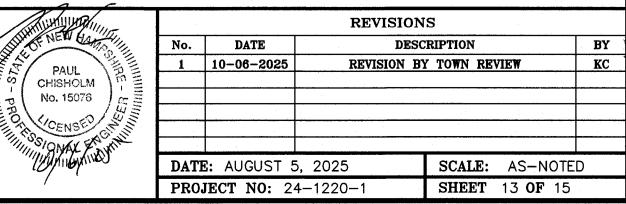
MAP 105; LOT 20 **16 BRADY DRIVE** 

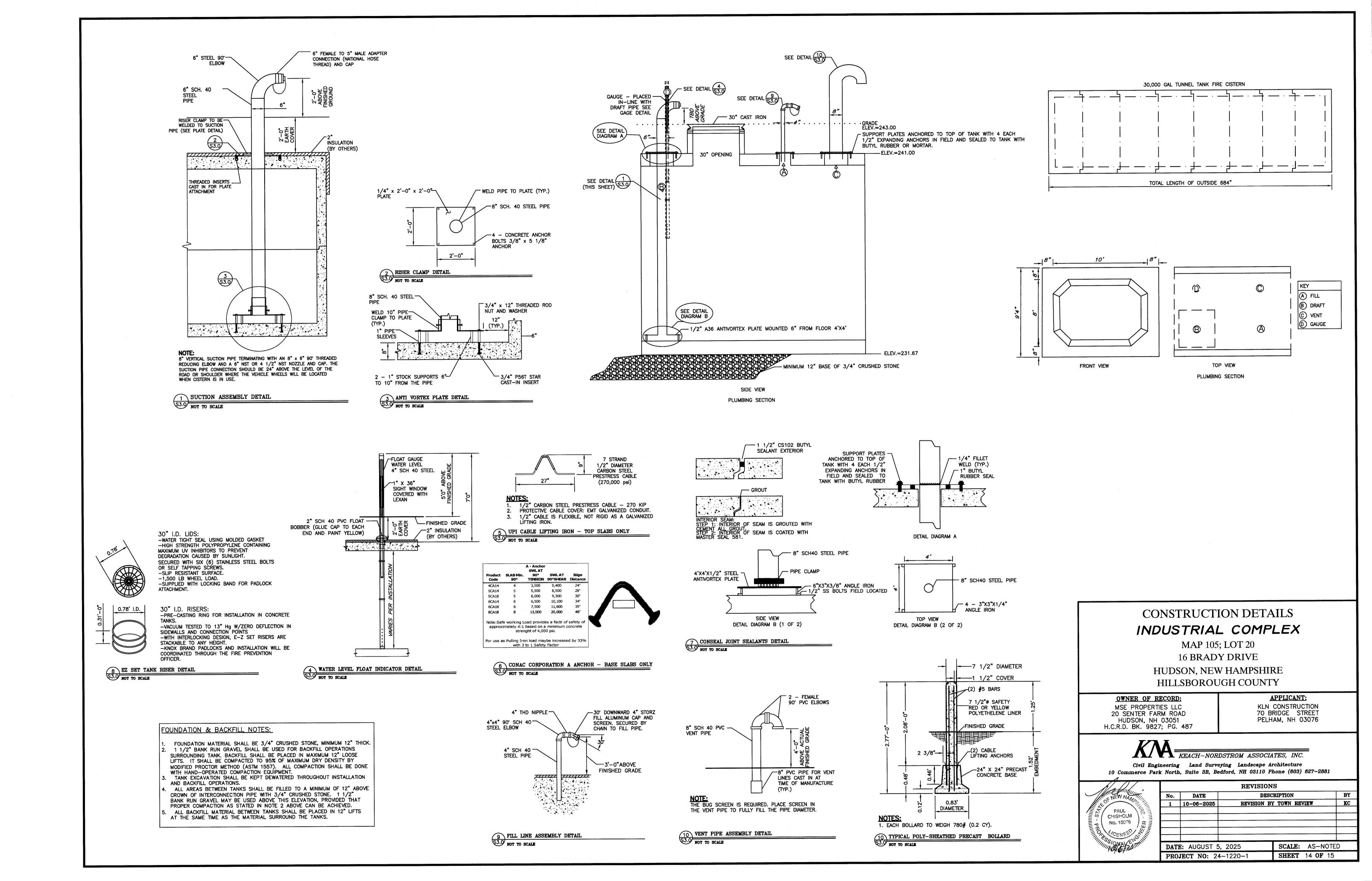
HUDSON, NEW HAMPSHIRE HILLSBOROUGH COUNTY

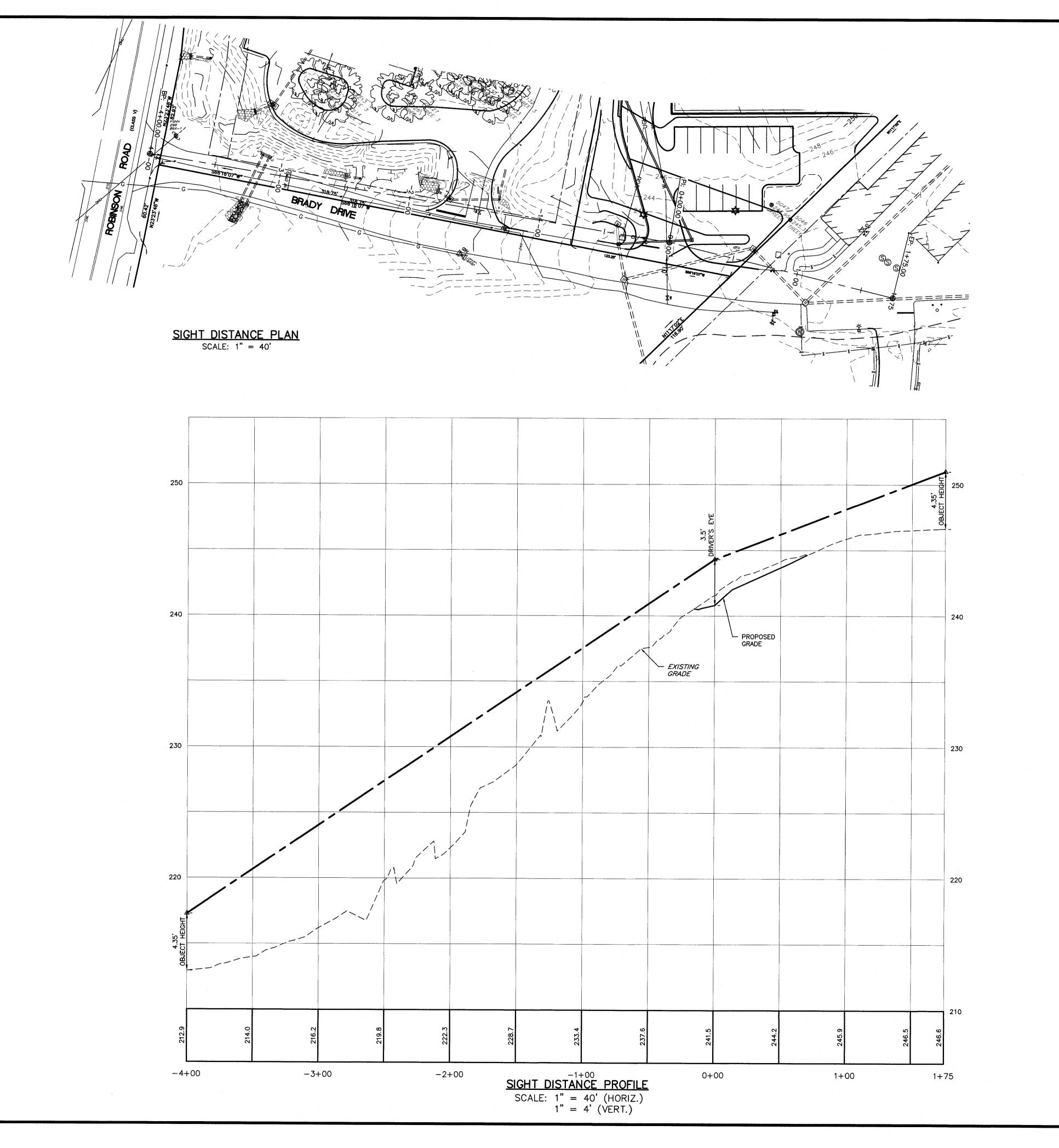
## OWNER OF RECORD: MSE PROPERTIES LLC

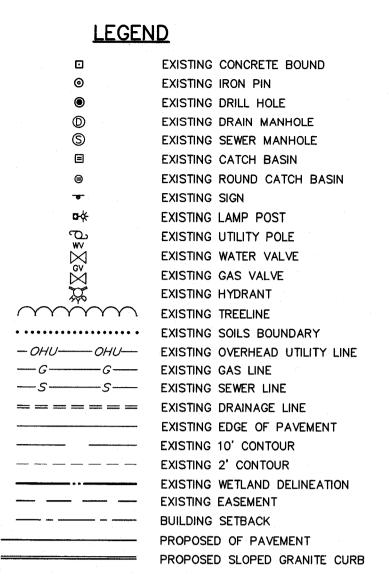
20 SENTER FARM ROAD HUDSON, NH 03051 H.C.R.D. BK. 9827; PG. 487

**APPLICANT:** KLN CONSTRUCTION 70 BRIDGE STREET PELHAM, NH 03076







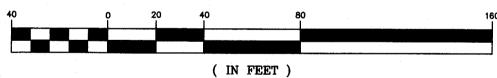




## NPDES NOTE

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.

GRAPHIC SCALE



1 inch = 40 ft.

## SITE DISTANCE PLAN INDUSTRIAL COMPLEX

MAP 105; LOT 20 16 BRADY DRIVE

HUDSON, NEW HAMPSHIRE HILLSBOROUGH COUNTY

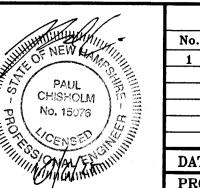
OWNER OF RECORD:

MSE PROPERTIES LLC
20 SENTER FARM ROAD
HUDSON, NH 03051
H.C.R.D. BK. 9827; PG. 487

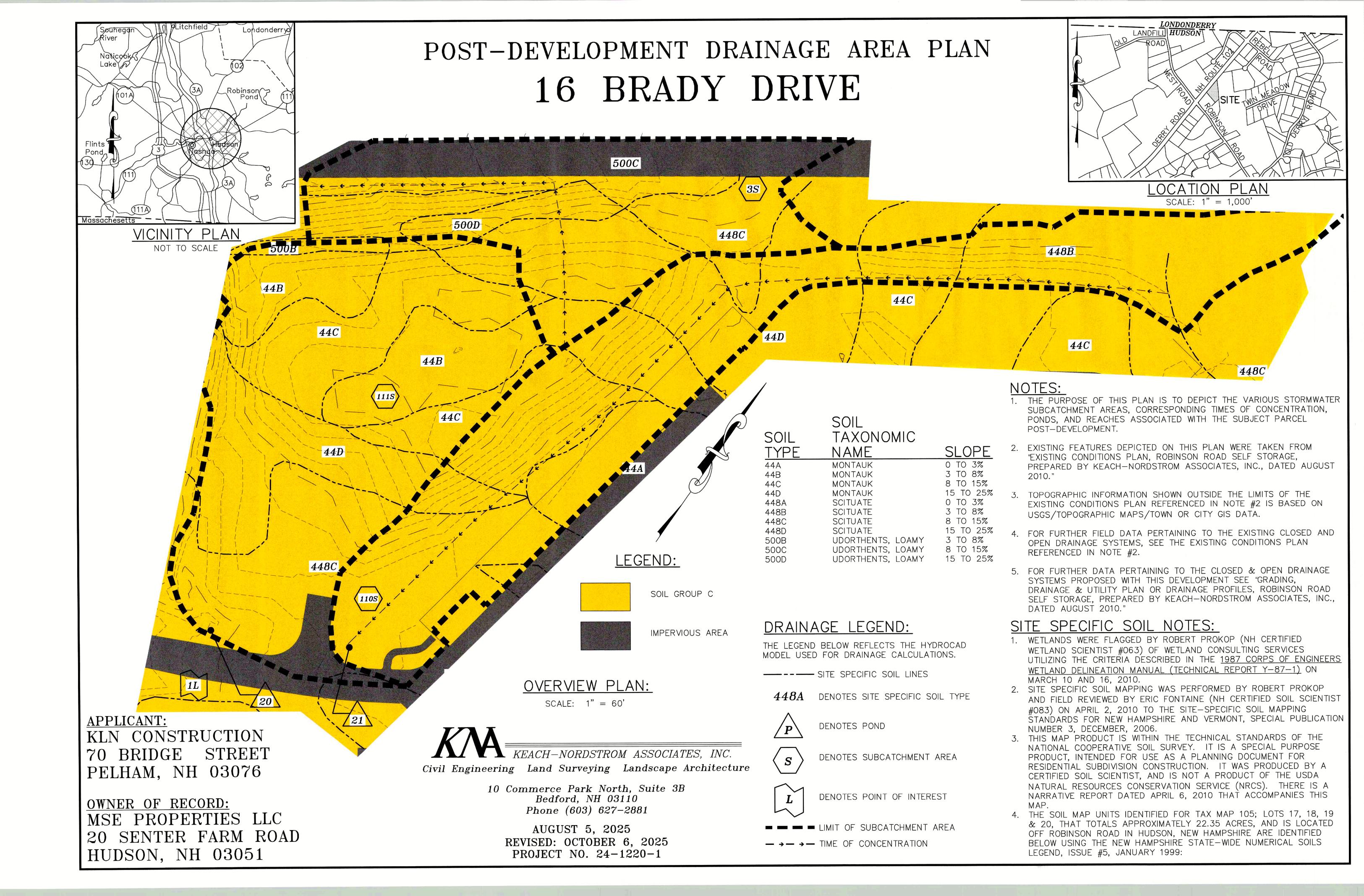
APPLICANT:
KLN CONSTRUCTION
70 BRIDGE STREET
PELHAM, NH 03076

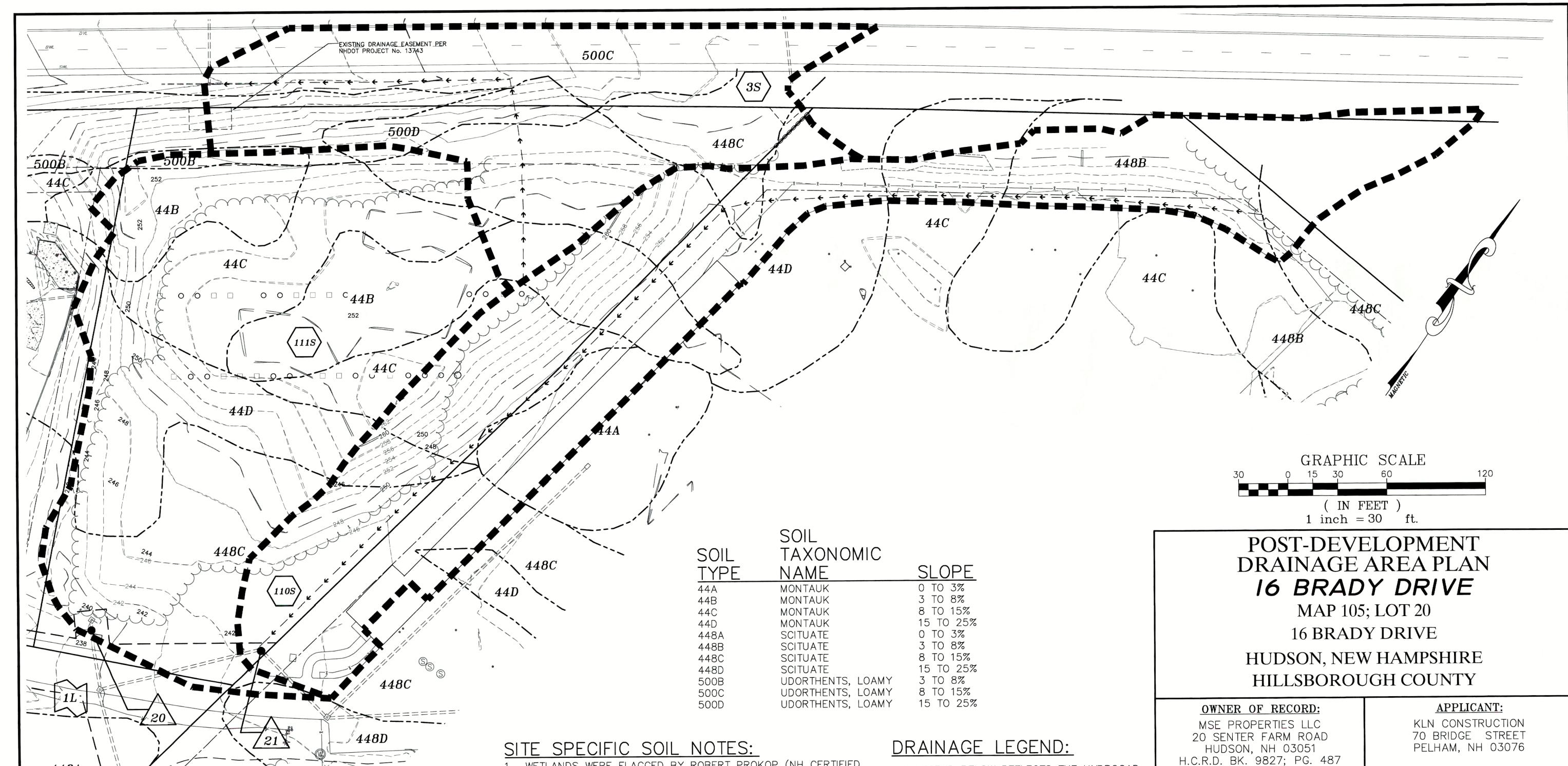


■ KEACH-NORDSTROM ASSOCIATES, INC



REVISIONS					
No.	DATE	DESCRIPTION			
1	10-06-2025	REVISION BY	Y TOWN REVIEW	KC	
DAT	E: AUGUST 5	5, 2025	<b>SCALE:</b> $1" = 40'$		
PRO	JECT NO: 2	4-1220-1	<b>SHEET</b> 15 <b>OF</b> 15		





448A

NOTES:

NOTE #2.

1. THE PURPOSE OF THIS PLAN IS TO DEPICT THE VARIOUS STORMWATER

CONDITIONS PLAN, ROBINSON ROAD SELF STORAGE, PREPARED BY

KEACH-NORDSTROM ASSOCIATES, INC., DATED AUGUST 2010."

CONDITIONS PLAN REFERENCED IN NOTE #2 IS BASED ON

USGS/TOPOGRAPHIC MAPS/TOWN OR CITY GIS DATA.

2. EXISTING FEATURES DEPICTED ON THIS PLAN WERE TAKEN FROM "EXISTING

3. TOPOGRAPHIC INFORMATION SHOWN OUTSIDE THE LIMITS OF THE EXISTING

4. FOR FURTHER FIELD DATA PERTAINING TO THE EXISTING CLOSED AND OPEN

5. FOR FURTHER DATA PERTAINING TO THE CLOSED & OPEN DRAINAGE

DRAINAGE SYSTEMS, SEE THE EXISTING CONDITIONS PLAN REFERENCED IN

SYSTEMS PROPOSED WITH THIS DEVELOPMENT SEE "GRADING, DRAINAGE &

PREPARED BY KEACH-NORDSTROM ASSOCIATES, INC., DATED AUGUST 2010."

UTILITY PLAN OR DRAINAGE PROFILES, ROBINSON ROAD SELF STORAGE,

SUBCATCHMENT AREAS, CORRESPONDING TIMES OF CONCENTRATION, PONDS,

AND REACHES ASSOCIATED WITH THE SUBJECT PARCEL POST-DEVELOPMENT.

1. WETLANDS WERE FLAGGED BY ROBERT PROKOP (NH CERTIFIED WETLAND SCIENTIST #063) OF WETLAND CONSULTING SERVICES UTILIZING THE CRITERIA DESCRIBED IN THE 1987 CORPS OF ENGINEERS WETLAND DELINEATION MANUAL (TECHNICAL REPORT Y-87-1) ON MARCH 10 AND 16, 2010.

2. SITE SPECIFIC SOIL MAPPING WAS PERFORMED BY ROBERT PROKOP AND FIELD REVIEWED BY ERIC FONTAINE (NH CERTIFIED SOIL SCIENTIST #083) ON APRIL 2, 2010 TO THE SITE-SPECIFIC SOIL MAPPING STANDARDS FOR NEW HAMPSHIRE AND VERMONT, SPECIAL PUBLICATION NUMBER 3, DECEMBER, 2006.

3. THIS MAP PRODUCT IS WITHIN THE TECHNICAL STANDARDS OF THE NATIONAL COOPERATIVE SOIL SURVEY. IT IS A SPECIAL PURPOSE PRODUCT, INTENDED FOR USE AS A PLANNING DOCUMENT FOR RESIDENTIAL SUBDIVISION CONSTRUCTION. IT WAS PRODUCED BY A CERTIFIED SOIL SCIENTIST, AND IS NOT A PRODUCT OF THE USDA NATURAL RESOURCES CONSERVATION SERVICE (NRCS). THERE IS A NARRATIVE REPORT DATED APRIL 6, 2010 THAT ACCOMPANIES THIS MAP.

4. THE SOIL MAP UNITS IDENTIFIED FOR TAX MAP 105; LOTS 17, 18, 19 & 20, THAT TOTALS APPROXIMATELY 22.35 ACRES, AND IS LOCATED OFF ROBINSON ROAD IN HUDSON, NEW HAMPSHIRE ARE IDENTIFIED BELOW USING THE NEW HAMPSHIRE STATE-WIDE NUMERICAL SOILS LEGEND, ISSUE #5, JANUARY 1999:

THE LEGEND BELOW REFLECTS THE HYDROCAD MODEL USED FOR DRAINAGE CALCULATIONS.

448A DENOTES SITE SPECIFIC SOIL TYPE



DENOTES POND



DENOTES SUBCATCHMENT AREA



DENOTES POINT OF INTEREST

- LIMIT OF SUBCATCHMENT AREA — → — → TIME OF CONCENTRATION

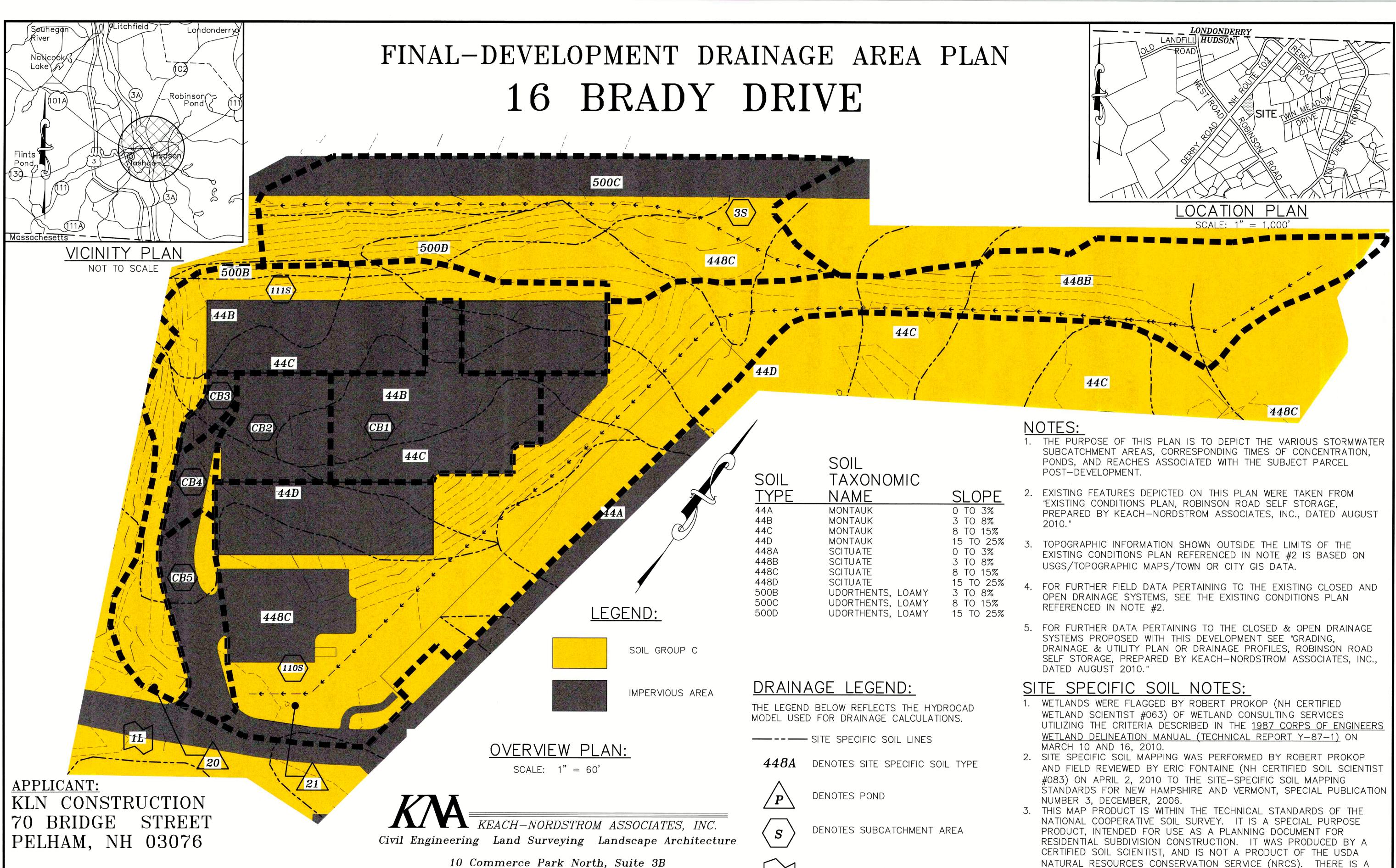


KEACH-NORDSTROM ASSOCIATES, INC. Civil Engineering Land Surveying Landscape Architecture

10 Commerce Park North, Suite 3B

Bedford, NH 03110 Phone (603) 627-2881

REVISIONS					
No.	DATE	DESCR	DESCRIPTION		
1	10-06-2025	REVISION BY	REVISION BY TOWN REVIEW		
DATE: AUGUST 5, 2025			<b>SCALE:</b> $1" = 30'$		
PRO					



OWNER OF RECORD: MSE PROPERTIES LLC 20 SENTER FARM ROAD

HUDSON, NH 03051

AUGUST 5, 2025 REVISED: OCTOBER 6, 2025 PROJECT NO. 24-1220-1

Bedford, NH 03110

Phone (603) 627-2881

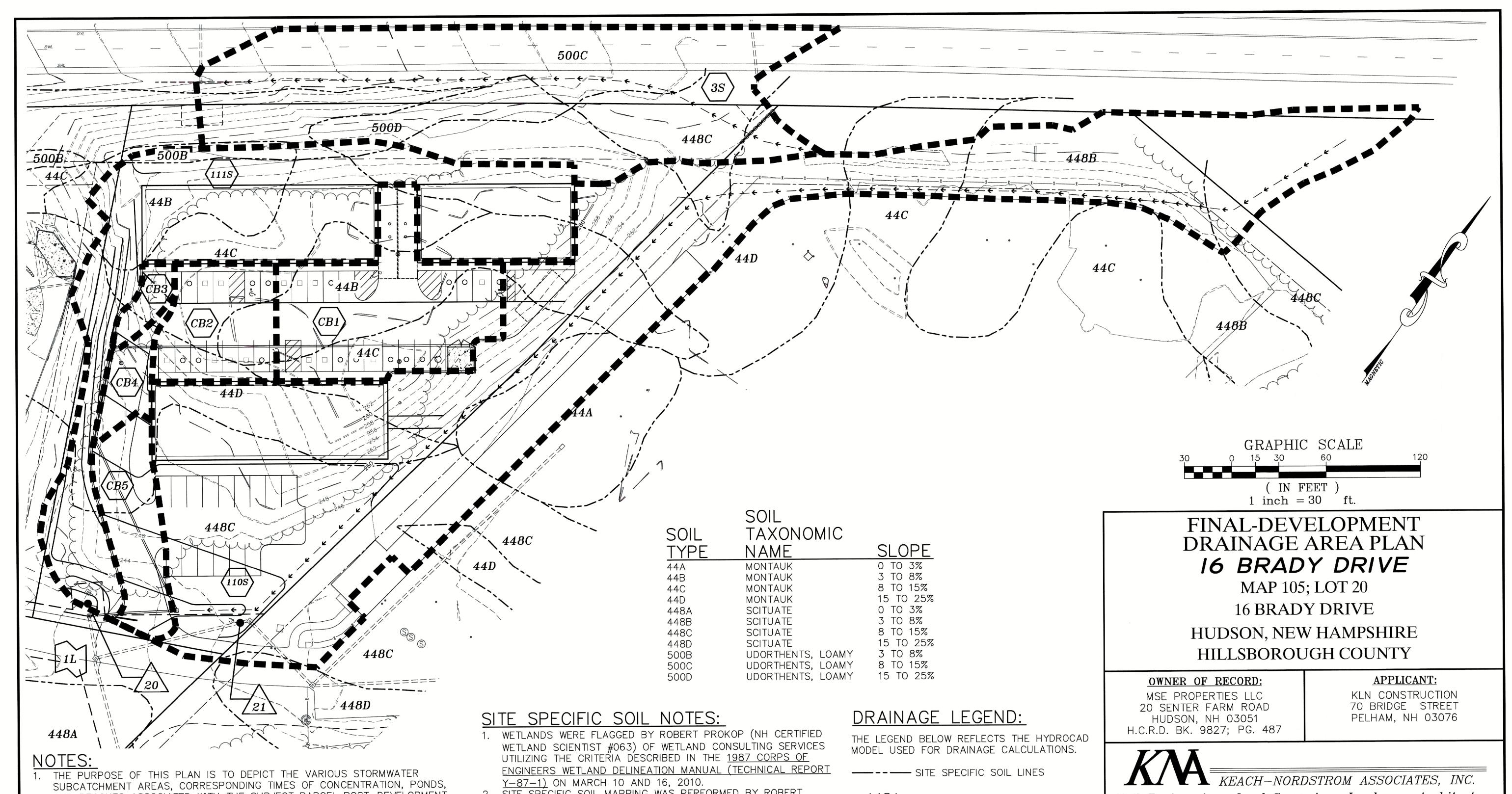


DENOTES POINT OF INTEREST

- LIMIT OF SUBCATCHMENT AREA

- →- →- TIME OF CONCENTRATION

- NATURAL RESOURCES CONSERVATION SERVICE (NRCS). THERE IS A NARRATIVE REPORT DATED APRIL 6, 2010 THAT ACCOMPANIES THIS
- 4. THE SOIL MAP UNITS IDENTIFIED FOR TAX MAP 105; LOTS 17, 18, 19 & 20, THAT TOTALS APPROXIMATELY 22.35 ACRES, AND IS LOCATED OFF ROBINSON ROAD IN HUDSON, NEW HAMPSHIRE ARE IDENTIFIED BELOW USING THE NEW HAMPSHIRE STATE-WIDE NUMERICAL SOILS LEGEND, ISSUE #5, JANUARY 1999:



AND REACHES ASSOCIATED WITH THE SUBJECT PARCEL POST-DEVELOPMENT.

- 2. EXISTING FEATURES DEPICTED ON THIS PLAN WERE TAKEN FROM "EXISTING CONDITIONS PLAN, ROBINSON ROAD SELF STORAGE, PREPARED BY KEACH-NORDSTROM ASSOCIATES, INC., DATED AUGUST 2010."
- 3. TOPOGRAPHIC INFORMATION SHOWN OUTSIDE THE LIMITS OF THE EXISTING CONDITIONS PLAN REFERENCED IN NOTE #2 IS BASED ON USGS/TOPOGRAPHIC MAPS/TOWN OR CITY GIS DATA.
- 4. FOR FURTHER FIELD DATA PERTAINING TO THE EXISTING CLOSED AND OPEN DRAINAGE SYSTEMS, SEE THE EXISTING CONDITIONS PLAN REFERENCED IN NOTE #2.
- 5. FOR FURTHER DATA PERTAINING TO THE CLOSED & OPEN DRAINAGE SYSTEMS PROPOSED WITH THIS DEVELOPMENT SEE "GRADING, DRAINAGE & UTILITY PLAN OR DRAINAGE PROFILES, ROBINSON ROAD SELF STORAGE, PREPARED BY KEACH-NORDSTROM ASSOCIATES, INC., DATED AUGUST 2010."

2. SITE SPECIFIC SOIL MAPPING WAS PERFORMED BY ROBERT PROKOP AND FIELD REVIEWED BY ERIC FONTAINE (NH CERTIFIED SOIL SCIENTIST #083) ON APRIL 2, 2010 TO THE SITE-SPECIFIC SOIL MAPPING STANDARDS FOR NEW HAMPSHIRE AND VERMONT, SPECIAL PUBLICATION NUMBER 3, DECEMBER, 2006.

3. THIS MAP PRODUCT IS WITHIN THE TECHNICAL STANDARDS OF THE NATIONAL COOPERATIVE SOIL SURVEY. IT IS A SPECIAL PURPOSE PRODUCT, INTENDED FOR USE AS A PLANNING DOCUMENT FOR RESIDENTIAL SUBDIVISION CONSTRUCTION. IT WAS PRODUCED BY A CERTIFIED SOIL SCIENTIST, AND IS NOT A PRODUCT OF THE USDA NATURAL RESOURCES CONSERVATION SERVICE (NRCS). THERE IS A NARRATIVE REPORT DATED APRIL 6, 2010 THAT ACCOMPANIES THIS MAP.

4. THE SOIL MAP UNITS IDENTIFIED FOR TAX MAP 105; LOTS 17, 18, 19 & 20, THAT TOTALS APPROXIMATELY 22.35 ACRES, AND IS LOCATED OFF ROBINSON ROAD IN HUDSON, NEW HAMPSHIRE ARE IDENTIFIED BELOW USING THE NEW HAMPSHIRE STATE-WIDE NUMERICAL SOILS LEGEND, ISSUE #5, JANUARY 1999:

448A DENOTES SITE SPECIFIC SOIL TYPE



DENOTES POND



DENOTES SUBCATCHMENT AREA



DENOTES POINT OF INTEREST



- LIMIT OF SUBCATCHMENT AREA

— → — → — TIME OF CONCENTRATION

Civil Engineering Land Surveying Landscape Architecture

10 Commerce Park North, Suite 3B Bedford, NH 03110 Phone (603) 627-2881

REVISIONS				
No.	DATE DESCRIPTION			BY
1	10-06-2025	REVISION BY TOWN REVIEW		
<b>DATE:</b> AUGUST 5, 2025 <b>SCALE:</b> 1" = 30'				
PROJECT NO: 24-1220-1			SHEET 1 OF 1	