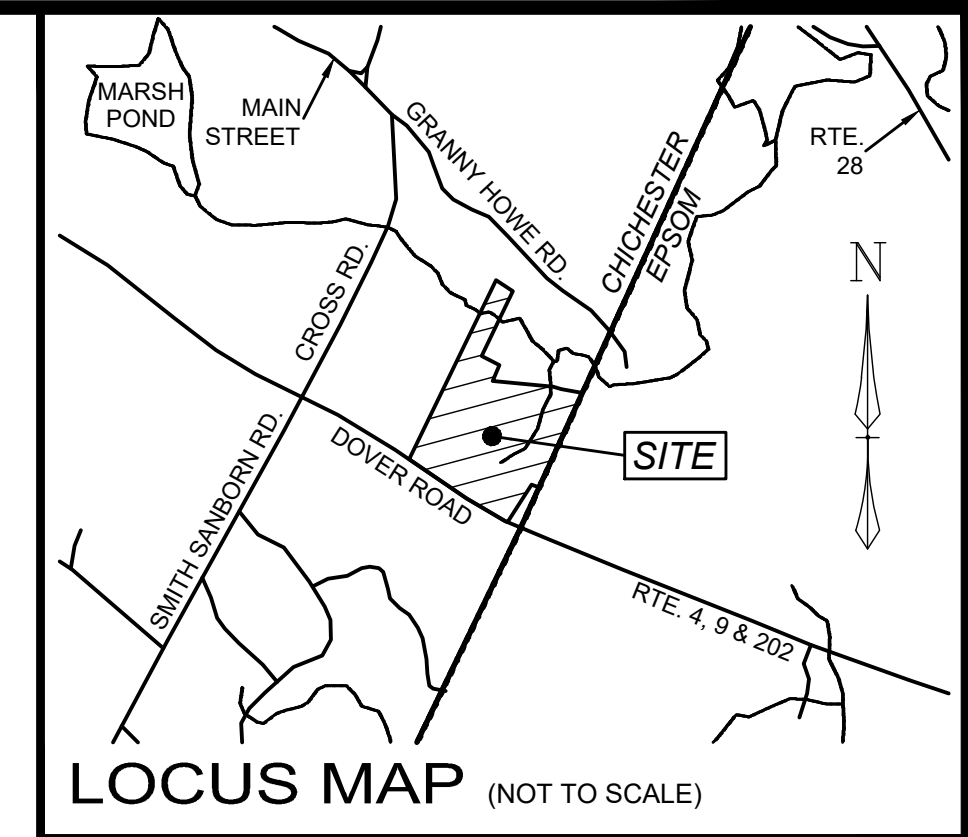


S I T E D E V E L O P M E N T P L A N S

DOVER ROAD- CHICHESTER, NH



NOTES:

1.) THE SUBJECT PARCEL IS LOT 151 ON THE TOWN OF CHICHESTER TAX MAP 4. THE OWNER OF RECORD IS D.B.U. CONSTRUCTION, INC. OF PO BOX 984, EPSOM, NEW HAMPSHIRE 03038. SEE MCRD V. 3599 P. 869.

2.) THE SUBJECT PARCEL IS ZONED CI/MF, R & OSW. MINIMUM LOT SIZE IS 2 ACRES. MINIMUM LOT FRONTAGE = 200'. SETBACKS ARE AS FOLLOWS: FRONT = 40' MIN. (90' FROM CENTERLINE OF ROUTE 4, 202 & 9), SIDE = 15' AND REAR = 15', ALL SUBJECT TO EXACT USE AND ZONE. THE SETBACKS SHOWN ARE FOR REFERENCE ONLY AND NEED TO BE VERIFIED WITH THE ZONING COMPLIANCE OFFICER.

3.) THIS PLAN IS THE RESULT OF AN ACTUAL FIELD SURVEY PERFORMED BY THIS OFFICE IN AUGUST TO DECEMBER OF 2018. I, JOSEPH M. WICHERT, NHLLS #783, CERTIFY THAT THE WORK WAS PREPARED BY ME OR THOSE UNDER MY DIRECT SUPERVISION.

4.) THE INTENT OF THIS PLAN IS TO SHOW THE BOUNDARY OF THE SUBJECT PARCEL AND THE CURRENT CONDITIONS THEREON.

5.) THE SUBJECT PARCEL IS IN ZONE X (AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN) AS SHOWN ON THE FLOOD INSURANCE RATE MAP, MERRIMACK COUNTY, NEW HAMPSHIRE, MAP NUMBER 33013C0557E, EFFECTIVE DATE APRIL 19, 2010.

6.) THE VERTICAL DATUM IS NAVD 1988 AND THE HORIZONTAL DATUM IS NHSPC 1983/2011. THE DATUM WERE ESTABLISHED USING STATIC GPS OBSERVATIONS PERFORMED BY THIS OFFICE IN AUGUST OF 2018.

7.) THE UTILITY INFORMATION SHOWN IS BASED ON THE ABOVE GROUND LOCATION OF VISIBLE UTILITIES, THE CONTRACTOR NEEDS TO FIELD VERIFY ALL UTILITIES PRIOR TO ANY CONSTRUCTION. THIS OFFICE DOES NOT GUARANTEE THE LOCATION AND ACCURACY OF THE UTILITY DATA. DIG SAFE SHALL BE CONTACTED 72 HOURS PRIOR TO COMMENCING ANY CONSTRUCTION (811).

8.) THE PURPOSE OF THE PLAN SET IS TO SHOW THE PROPOSED IMPROVEMENTS FOR A COMMERCIAL DEVELOPMENT ON THE SUBJECT PARCEL. DRAINAGE, GRADING, UTILITIES, AND PARKING LAYOUTS HAVE BEEN INCLUDED.

9.) THE PROPOSED PROJECT WILL BE CONSTRUCTED IN THREE PHASES PER NHDES AOT REQUIREMENTS. PHASE I WILL CONSIST OF THE COMMERCIAL FRONTAGE SITE ON NH RT 4. PHASE II WILL CONSIST OF THE PROPOSED OFFICE AND SHOP AREA ALONG WITH ASSOCIATED DRAINAGE AND PHASE III WILL BE THE CONTRACTOR YARD TO THE NORTHEAST. EACH PHASE MUST BE STABILIZED BEFORE ADVANCING TO A SUCCESSIVE PHASE.

CONTACT DIG SAFE 72 HOURS PRIOR TO CONSTRUCTION

THE LOCATION OF ANY UTILITY INFORMATION SHOWN ON THIS PLAN IS APPROXIMATE. ROKEH CONSULTING, LLC, MAKES NO CLAIM TO THE ACCURACY OR COMPLETENESS OF UTILITIES SHOWN. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ANY UTILITIES WHETHER THEY BE ABOVE OR BELOW GROUND. PRIOR TO ANY EXCAVATION ON SITE THE CONTRACTOR SHALL CONTACT DIG SAFE AT 1-800-DIG-SAFE.

AGENCY APPROVALS:

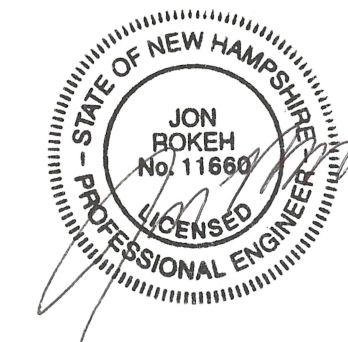
NHDOT - DRIVEWAY PERMIT APPR # NH DOT DRIVEWAY PERMIT NO. 05-089-0035

NHDES - WETLAND APPROVAL # 2019-00923

NHDES - ALTERATION OF TERRAIN APPROVAL # AOT-1631

L I S T O F D R A W I N G S

DWG NO.	DESCRIPTION
1	COVER SHEET
2,3	EXISTING CONDITIONS / BOUNDARY PLAN
4	OVERALL SITE AND GRADING PLAN
5, 6, 7	GRADING DRAINAGE EROSION CONTROL PLANS
8, 9, 10, 11	LANDSCAPING LIGHTING PLANS
12,13,14,15,16	PARKING LOT DRIVE PROFILES
17, 18,19,20,21,22,23	CONSTRUCTION & EROSION CONTROL DETAILS



LIST OF ADDITIONAL CONSULTANTS

LAND SURVEYOR

JOSEPH M. WICHERT, LLS INC
802 AMHERST STREET
MANCHESTER, NH 03104
Phone: (603) 647-4282

WETLANDS AND SOIL SCIENTIST

AARON WECHSLER
ASPEN ENVIRONMENTAL
41 LIBERTY HILL ROAD
BUILDING 2, UNIT 201
HENNIKER, NH 03242
603) 848-5606

NOTE :

1. ALL MATERIALS AND METHODS OF CONSTRUCTION SHALL CONFORM TO THE TOWN OF CHICHESTER REGULATIONS AND THE NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION", LATEST EDITION.

2. ELEVATIONS ARE BASED ON NAVD 1988 DATUM.

3. PHYSICAL EVIDENCE OF EXISTING UTILITIES WERE LOCATED ON THE GROUND HOWEVER PRIOR TO ANY CONSTRUCTION IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTACT DIG-SAFE AND VERIFY ALL UNDERGROUND UTILITY LOCATIONS.

APPROVED

UNDER THE PROVISIONS OF RSA 674:35 & 673:36

CHICHESTER PLANNING BOARD

IN ACCORDANCE OF A MAJORITY VOTE OF THE BOARD APPROVED _____

CHAIR _____

SECRETARY _____

DATE SIGNED: _____

Developer:
DBU CONSTRUCTION
PO Box 984
Epsom, NH 03234

COVER SHEET
COMMERCIAL SITE PLAN
TAX PARCEL 4 LOT 151
DOVER ROAD
CHICHESTER, MERRIMACK COUNTY, NEW HAMPSHIRE

REVISIONS

DATE	DESCRIPTION	DWN BY	CK BY
3-12-20	EDITS TO CONTRACTOR YARD LAYOUT	JR	JR

Rokeh Consulting, LLC
89 KING ROAD, CHICHESTER, NH
PH: 603-387-8688

SCALE: 1" = 100"
DATE: JANUARY 14, 2019
DR. BY: JR CK. BY: JR
JOB NO. _____
SHEET NO. 1 OF 23

WETLANDS NOTE:

WETLANDS SHOWN WERE DELINEATED USING STANDARDS AND METHODOLOGY APPROVED BY THE ARMY CORPS OF ENGINEERS AND THE NEW HAMPSHIRE DEPARTMENT OF ENVIRONMENTAL SERVICES WETLANDS BUREAU. WETLANDS WERE DELINEATED ON AUGUST 5-8 AND SEPTEMBER 7 & 14, 2018 BY AARON WECHSLER, CWS #250, FROM ASPEN ENVIRONMENTAL CONSULTANTS, LLC.



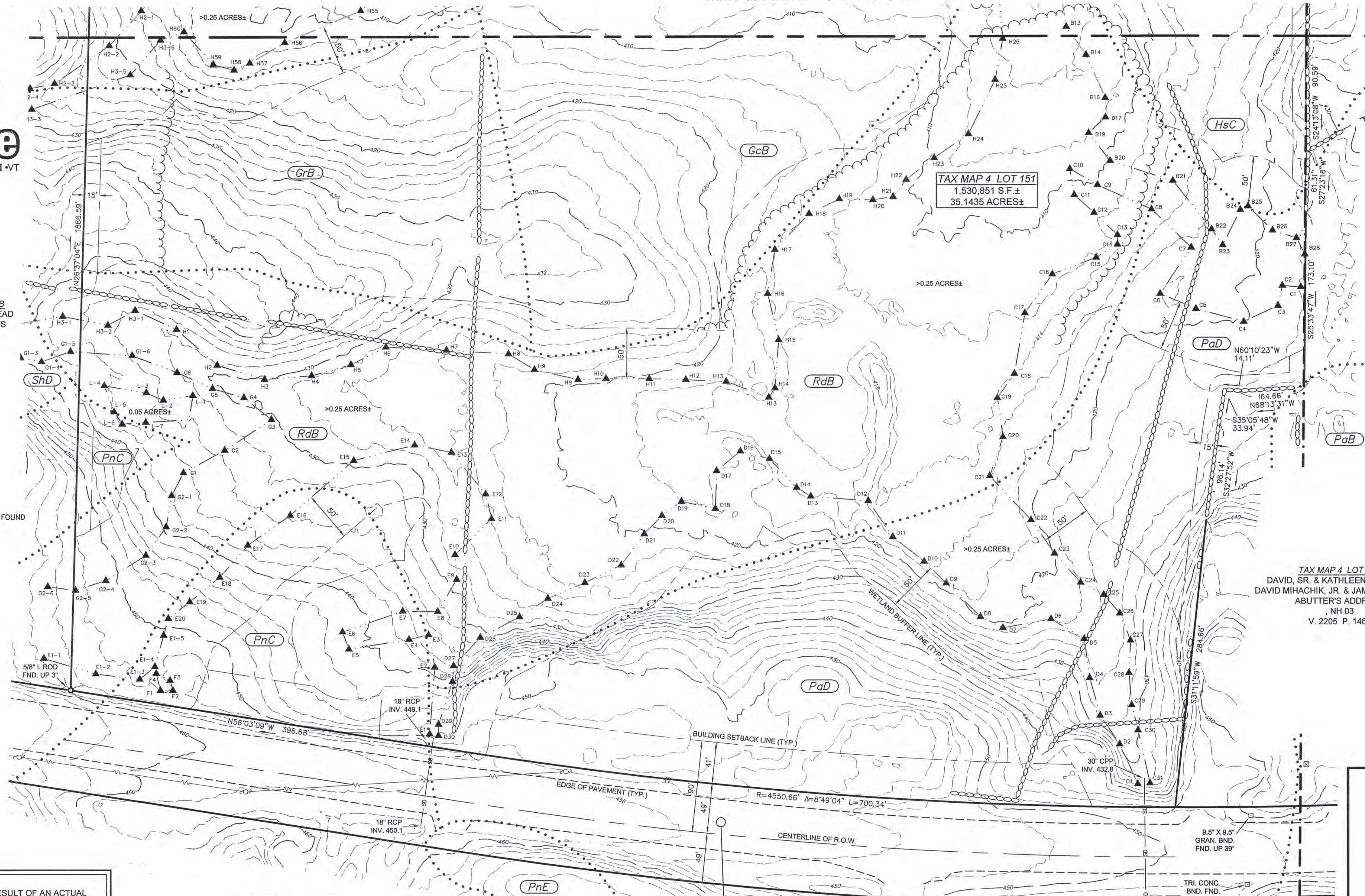
MATCH LINE - SHEET S-2



TAX MAP 4 LOT 151B
KENNETH & KAREN HEAD
ABUTTER'S ADDRESS
NH 03
V. 1853 P. 2093

SYMBOL LEGEND

- IRON ROD FOUND
- IRON PIPE FOUND
- CONC. OR GRAN. BOUND FOUND
- DRILL HOLE
- ☆ LIGHT POLE
- UTILITY POLE
- ▲ WETLAND FLAG
- SOIL LINE
- WETLAND LINE
- SD STORM DRAIN
- OVERHEAD UTILITY LINE
- STONE WALL
- TREE LINE
- GrB SOIL TYPE



TAX MAP 4 LOT 151
1,530,851 S.F. ±
35.1435 ACRES ±

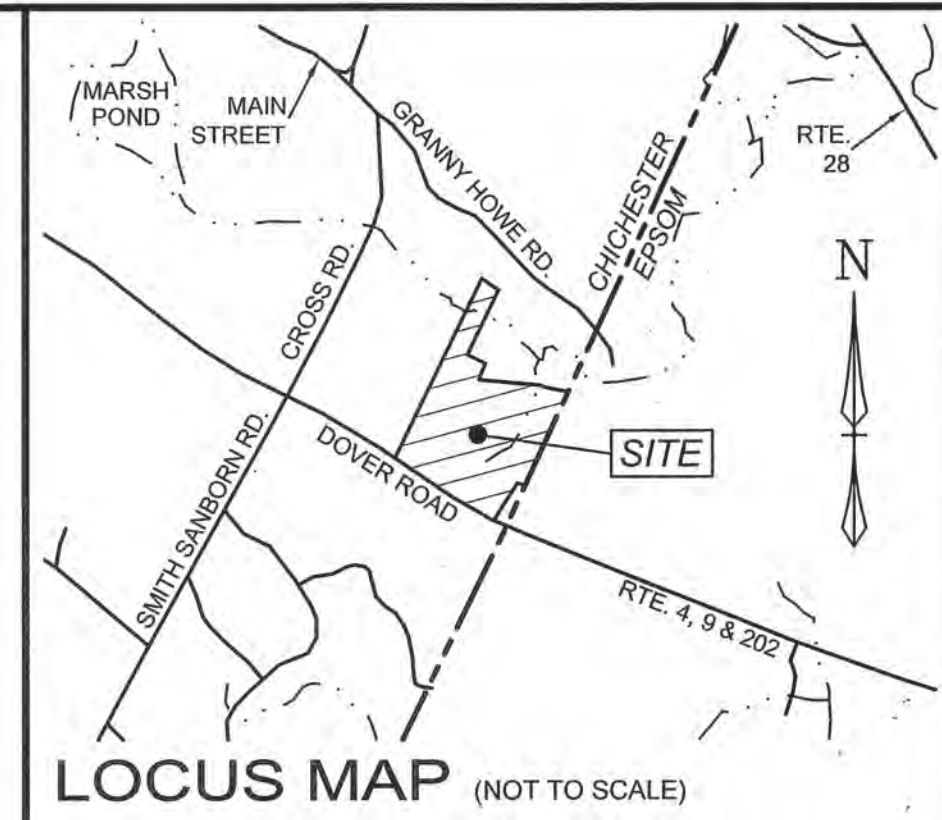
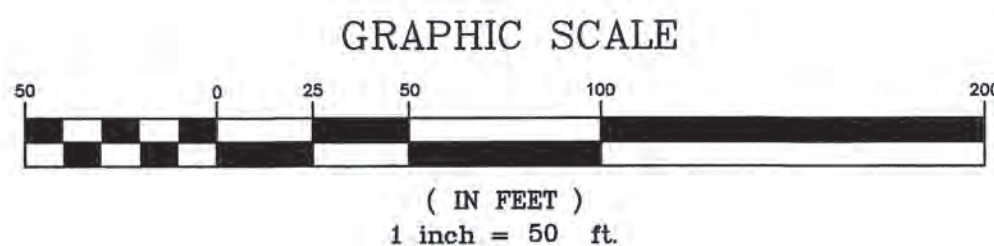
TAX MAP 4 LOT 152
DAVID, SR. & KATHLEEN MIHACHIK,
DAVID MIHACHIK, JR. & JAMES MIHACHIK
ABUTTER'S ADDRESS
NH 03
V. 2205 P. 1464

TAX MAP 4 LOT 150B
JOHN E. ARSENAULT, TRUSTEES
FRA JAC ASSOC.
ABUTTER'S ADDRESS
NH 03
V. P.

TAX MAP 4 LOT 150C
MAL-MAR LLC
ABUTTER'S ADDRESS
NH 03
V. P.

TAX MAP 4 LOT 150E
JOHN E. ARSENAULT, TRUSTEES
FRA JAC ASSOC.
ABUTTER'S ADDRESS
NH 03
V. P.

**DOVER ROAD A.K.A.
U.S. RTE. 4 & 202,
N.H. RTE. 9**
98' WIDE R.O.W.



NOTES:

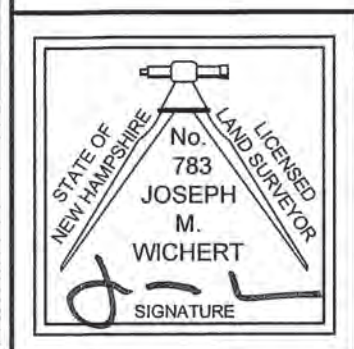
- 1.) THE SUBJECT PARCEL IS LOT 151 ON THE TOWN OF CHICHESTER TAX MAP 4. THE OWNER OF RECORD IS D.B.U. CONSTRUCTION, INC. OF PO BOX 984, EPSOM, NEW HAMPSHIRE 03038. SEE MCRD V. 3599 P. 869.
- 2.) THE SUBJECT PARCEL IS ZONED C1/MF, R & OSW. MINIMUM LOT SIZE IS 2 ACRES. MINIMUM LOT FRONTAGE = 200'. SETBACKS ARE AS FOLLOWS: FRONT = 40' MIN. (90' FROM CENTERLINE OF ROUTE 4, 202 & 9), SIDE = 15' AND REAR = 15', ALL SUBJECT TO EXACT USE AND ZONE. THE SETBACKS SHOWN ARE FOR REFERENCE ONLY AND NEED TO BE VERIFIED WITH THE ZONING COMPLIANCE OFFICER.
- 3.) THIS PLAN IS THE RESULT OF AN ACTUAL FIELD SURVEY PERFORMED BY THIS OFFICE IN AUGUST TO DECEMBER OF 2018. I, JOSEPH M. WICHERT, NHLS #783, CERTIFY THAT THE WORK WAS PREPARED BY ME OR THOSE UNDER MY DIRECT SUPERVISION.
- 4.) THE INTENT OF THIS PLAN IS TO SHOW THE BOUNDARY OF THE SUBJECT PARCEL AND THE CURRENT CONDITIONS THEREON.
- 5.) THE SUBJECT PARCEL IS IN ZONE X (AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN) AS SHOWN ON THE FLOOD INSURANCE RATE MAP, MERRIMACK COUNTY, NEW HAMPSHIRE, MAP NUMBER 33013C0557E, EFFECTIVE DATE APRIL 19, 2010.
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I CERTIFY THAT THIS PLAN IS THE RESULT OF AN ACTUAL FIELD SURVEY MADE WITH A TOPCON GT 503. THE ERROR OF CLOSURE ON ALL LOT LINES WITHIN AND BORDERING THE SUBJECT PROPERTY IS BETTER THAN 1 IN 10,000.

I CERTIFY THAT THIS SURVEY PLAT IS NOT A SUBDIVISION PURSUANT TO THIS TITLE AND THAT THE LINES OF STREETS AND WAYS SHOWN ARE THOSE OF PUBLIC OR PRIVATE STREETS OR WAYS ALREADY ESTABLISHED AND THAT NO NEW WAYS ARE SHOWN.

I HEREBY CERTIFY THAT A COPY OF THIS PLAN HAS BEEN FILED WITH THE CHICHESTER PLANNING BOARD IN ACCORDANCE WITH RSA 676:18(IV).

11 DEC. 2018
DATE



COPYRIGHT 2018 JOSEPH M. WICHERT, L.L.S., INC.

NO.	DATE	DESCRIPTION	BY

**EXISTING CONDITIONS PLAN FOR
D.B.U. CONSTRUCTION, INC.
MAP 4 LOT 151
10 DOVER ROAD
U.S. RTE. 4 & 202, N.H. RTE. 9
CHICHESTER, NEW HAMPSHIRE**

DATE: OCTOBER 15, 2018 SCALE: 1" = 60'

EXISTING CONDITIONS PLAN BY:

802 AMHERST STREET
MANCHESTER, NH 03104
TEL: (603) 647-4282 OR 736-8203
FAX: (603) 623-1910
WEB: WWW.JMWLLS.COM



LAND SURVEYOR & SEPTIC SYSTEM DESIGNER

SHEET EC1 SHEET OF F.B. - P. - JOB #2018152

PLAN REFERENCES:

- 1.) "PROPOSED SUBDIVISION, ROBERT HEAD, ROUTE 4, CHICHESTER, N.H. 03263", DATED JULY 1988 AND PREPARED BY WILLARD E. TURNER ASSOCIATES, INC. MCRD PLAN 10,478.
- 2.) "LOT LINE ADJUSTMENT, TAX MAP U6-12-2, 2146 DOVER ROAD, EPSOM, NH, MERRIMACK COUNTY, PREPARED FOR & OWNED BY: ANN S. SHUMWAY, 2146 DOVER RD., EPSOM NH 03234, RUTH & FRANK QIMBY, 2148 DOVER RD., EPSOM NH 03234", DATED OCTOBER 22, 2008 AND PREPARED BY J.E. BELANGER LAND SURVEYING PLLC. MCRD PLAN 19,264.
- 3.) "STATE OF NEW HAMPSHIRE HIGHWAY DEPARTMENT, PLANS OF PROPOSED FEDERAL AID PROJECT, NO. 179 (2), CENTRAL ROAD, AS-BUILT PLANS, TOWN OF CHICHESTER, COUNTY OF MERRIMACK", ON FILE AT THE NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION.
- 4.) "PLAN OF SURVEY FOR WILLIAM & EDNA WELCH", DATED 8/17/79 AND PREPARED BY DAVID R. NOYES. ON FILE AT THE OFFICE OF DAVID R. NOYES, LLS.

SCS SOILS DATA & TOWN OF CHICHESTER ZONING:

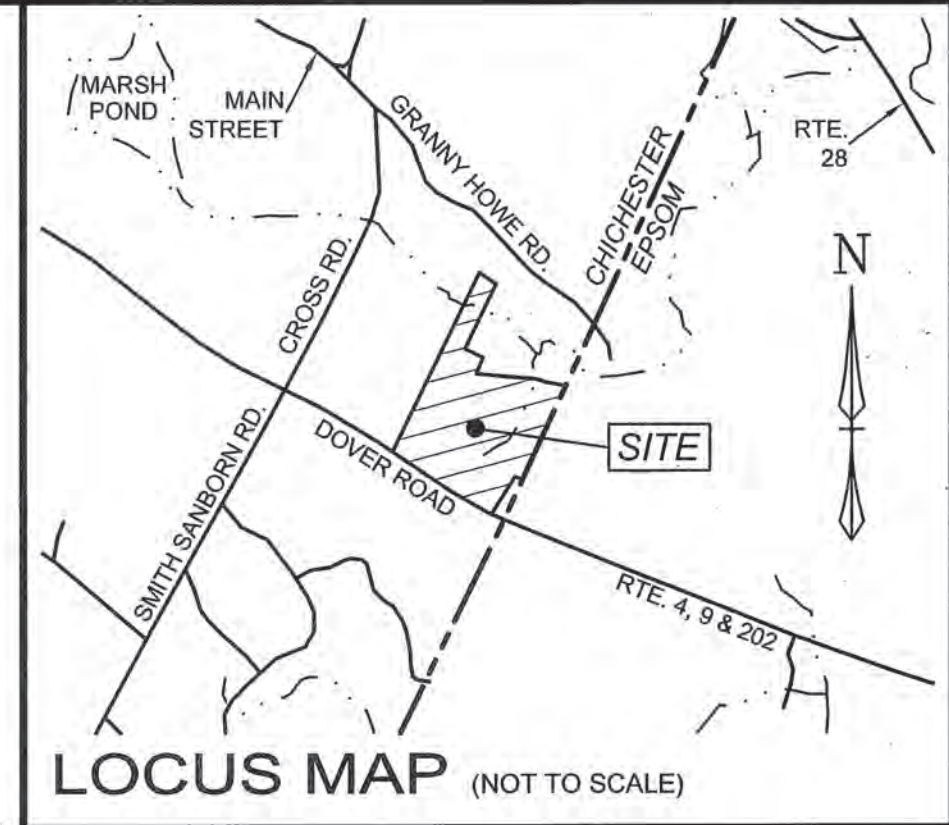
ZONE OSW - CONSERVATION - OPEN SPACE - WETLANDS
 Mp - MUCK AND PEAT
 RdA - RIDGEBURY AND WHITMAN VERY STONY LOAM, 0 TO 3% SLOPES
 RdB - RIDGEBURY AND WHITMAN VERY STONY LOAM, 3 TO 8% SLOPES

ZONE OSS - CONSERVATION - OPEN SPACE - STEEPLANDS
 PaD - PAXTON LOAM, 15 TO 25% SLOPES
 PnE - PAXTON VERY STONY LOAM, 15 TO 60% SLOPES
 ShD - SHAPLEIGH-GLOUCESTER VERY ROCKY SANDY LOAMS, 15 TO 25% SLOPES

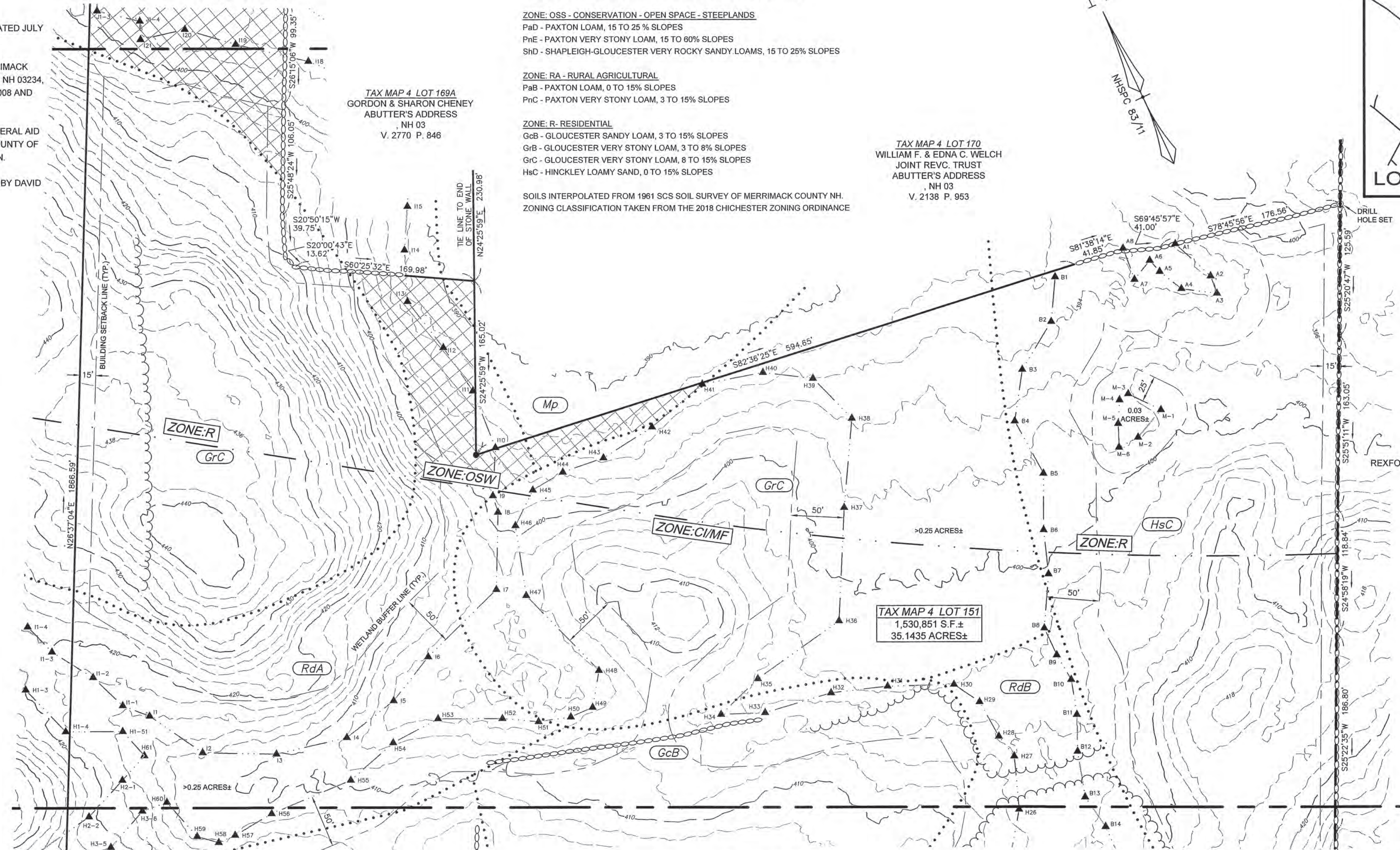
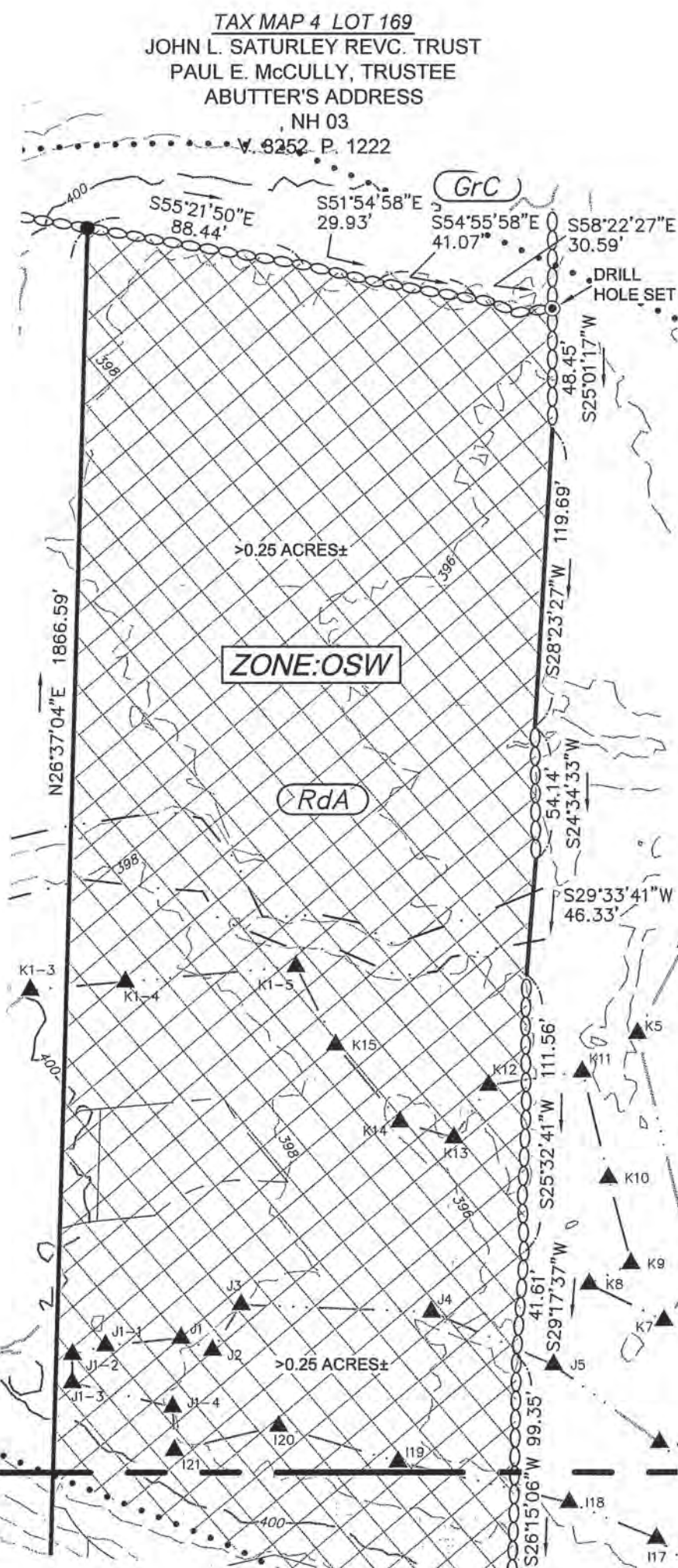
ZONE RA - RURAL AGRICULTURAL
 PaB - PAXTON LOAM, 0 TO 15% SLOPES
 PnC - PAXTON VERY STONY LOAM, 3 TO 15% SLOPES

ZONE R - RESIDENTIAL
 GcB - GLOUCESTER SANDY LOAM, 3 TO 15% SLOPES
 GrB - GLOUCESTER VERY STONY LOAM, 3 TO 8% SLOPES
 GrC - GLOUCESTER VERY STONY LOAM, 8 TO 15% SLOPES
 HsC - HINCKLEY LOAMY SAND, 0 TO 15% SLOPES

SOILS INTERPOLATED FROM 1961 SCS SOIL SURVEY OF MERRIMACK COUNTY NH.
 ZONING CLASSIFICATION TAKEN FROM THE 2018 CHICHESTER ZONING ORDINANCE



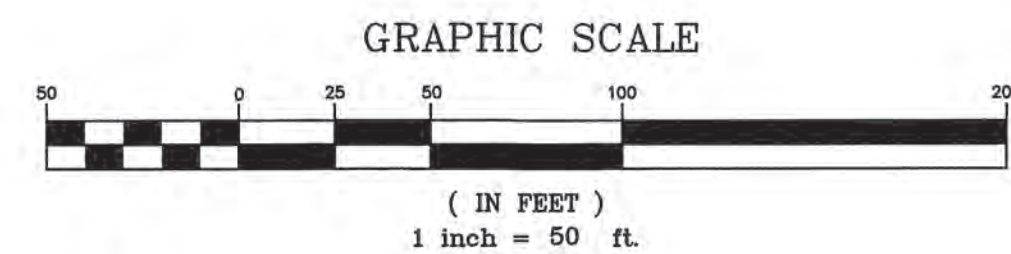
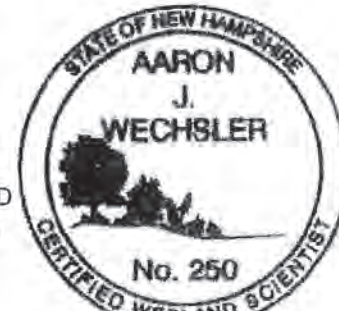
MATCH LINE - THIS SHEET



MATCH LINE - SHEET S-1

WETLANDS NOTE:

WETLANDS SHOWN WERE DELINEATED USING STANDARDS AND METHODOLOGY APPROVED BY THE ARMY CORPS OF ENGINEERS AND THE NEW HAMPSHIRE DEPARTMENT OF ENVIRONMENTAL SERVICES WETLANDS BUREAU. WETLANDS WERE DELINEATED ON AUGUST 5-8 AND SEPTEMBER 7 & 14, 2018 BY AARON WECHSLER, CWS #250, FROM ASPEN ENVIRONMENTAL CONSULTANTS, LLC.



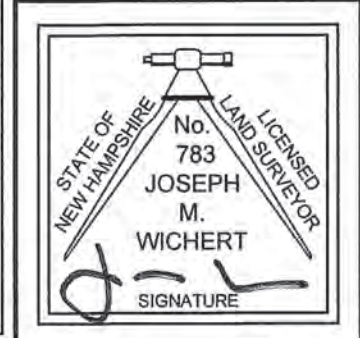
EXISTING CONDITIONS PLAN FOR
D.B.U. CONSTRUCTION, INC.
 MAP 4 LOT 151
 10 DOVER ROAD
 U.S. RTE. 4 & 202, N.H. RTE. 9
 CHICHESTER, NEW HAMPSHIRE
 DATE: OCTOBER 15, 2018 SCALE: 1" = 60'

I CERTIFY THAT THIS PLAN IS THE RESULT OF AN ACTUAL FIELD SURVEY MADE WITH A TOPCON GT 503. THE ERROR OF CLOSURE ON ALL LOT LINES WITHIN AND BORDERING THE SUBJECT PROPERTY IS BETTER THAN 1 IN 10,000.

I CERTIFY THAT THIS SURVEY PLAT IS NOT A SUBDIVISION PURSUANT TO THIS TITLE AND THAT THE LINES OF STREETS AND WAYS SHOWN ARE THOSE OF PUBLIC OR PRIVATE STREETS OR WAYS ALREADY ESTABLISHED AND THAT NO NEW WAYS ARE SHOWN.

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11 DEC. 2018
 DATE



COPYRIGHT 2018 JOSEPH M. WICHERT, L.L.S., INC.

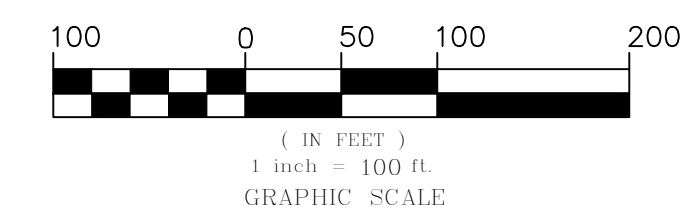
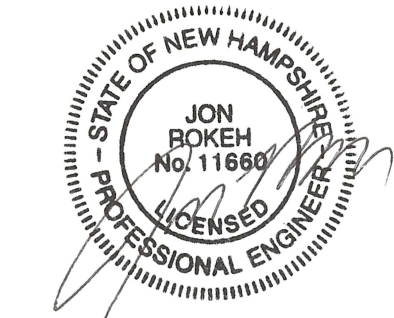
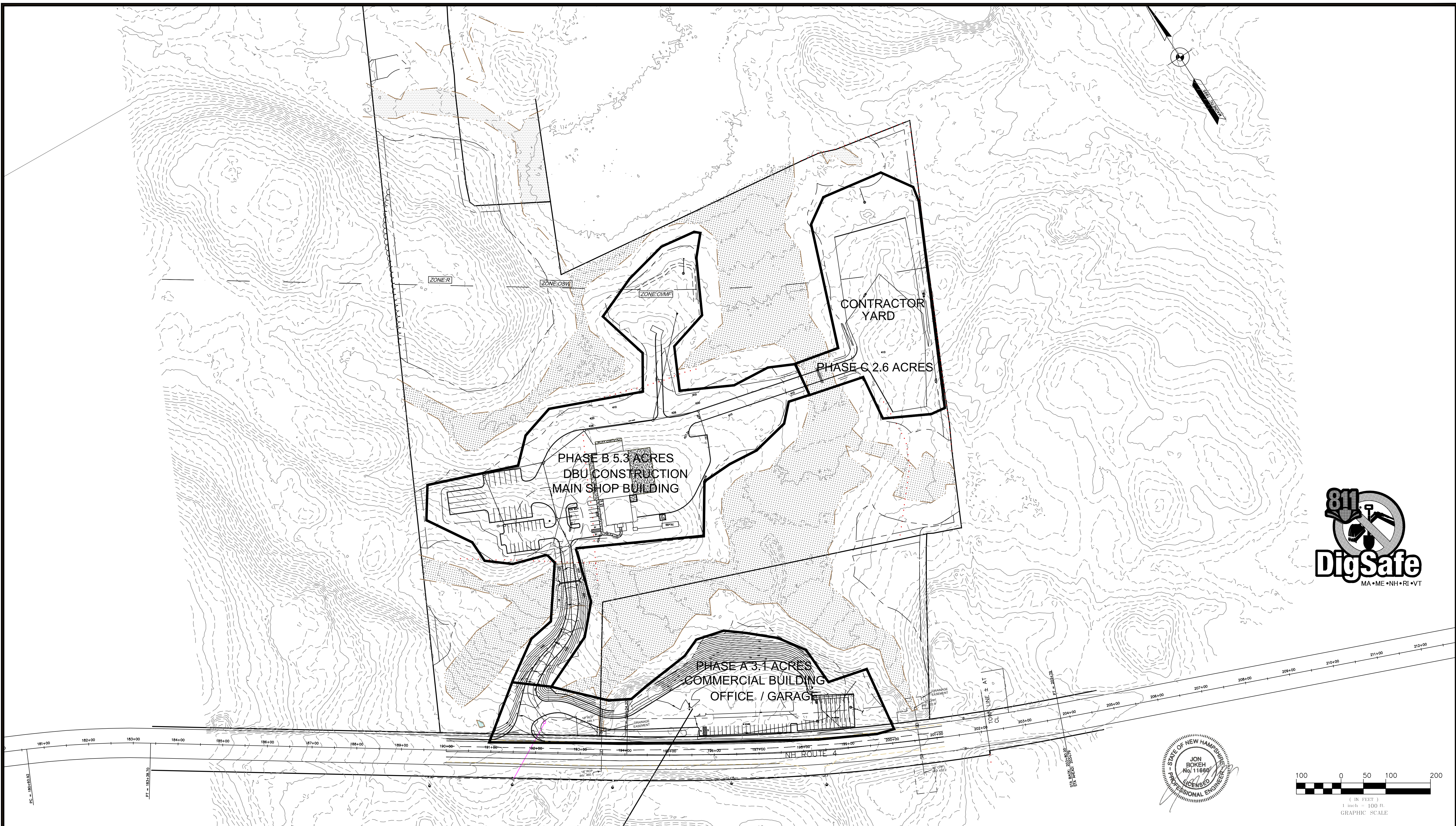
NO.	DATE	DESCRIPTION	BY

EXISTING CONDITIONS PLAN BY:

802 AMHERST STREET
 MANCHESTER, NH 03104
 TEL: (603) 647-4282 OR 736-8203
 FAX: (603) 623-1910
 WEB: WWW.JMWLLS.COM



LAND SURVEYOR & SEPTIC SYSTEM DESIGNER



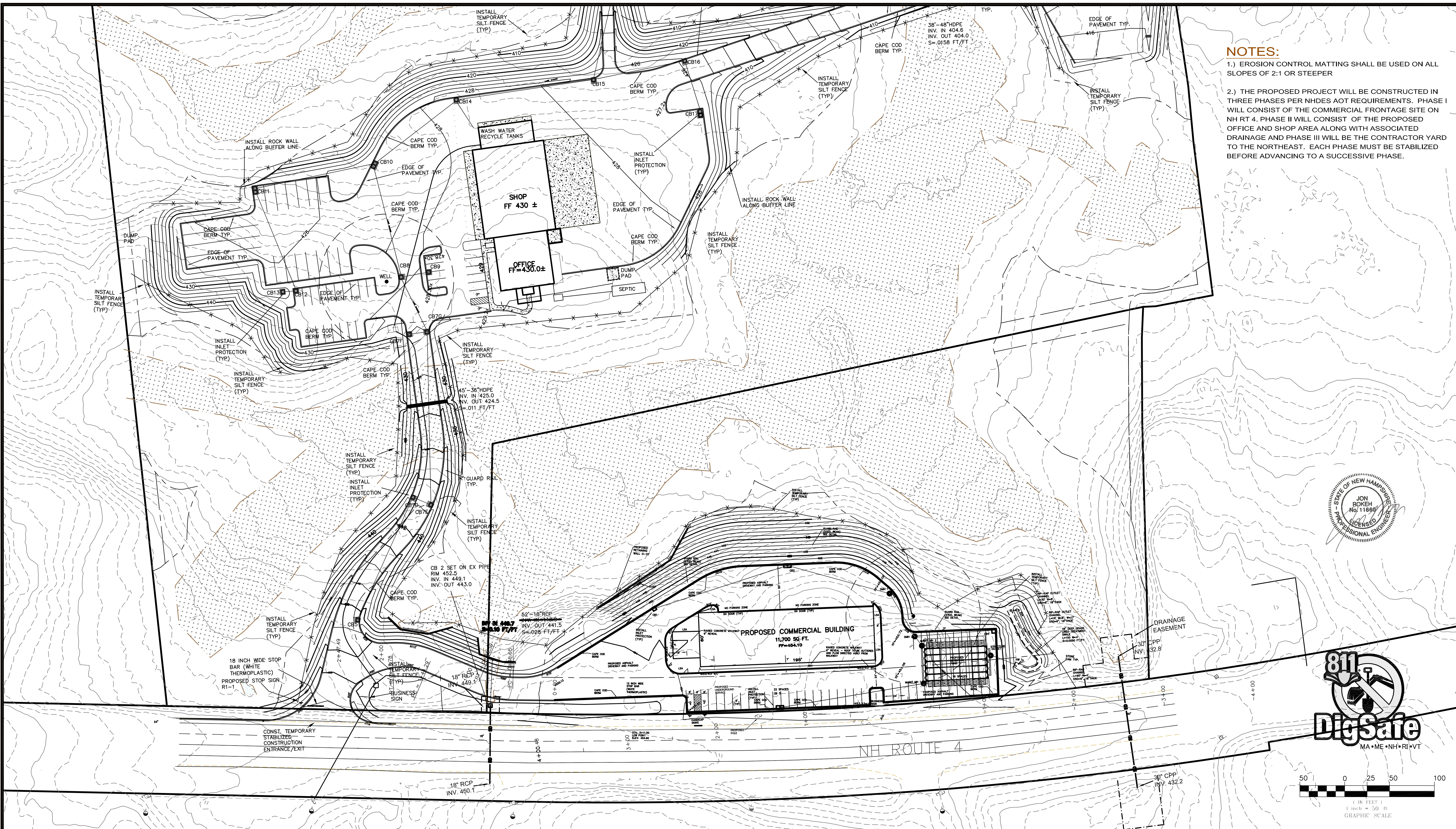
Developer:
 DBU CONSTRUCTION
 PO Box 984
 Epsom, NH 03234

OVERALL SITE PLAN & PHASING PLAN
 COMMERCIAL SITE PLAN
 TAX PARCEL 4 LOT 151
 DOVER ROAD
 CHICHESTER, MERRIMACK COUNTY, NEW HAMPSHIRE

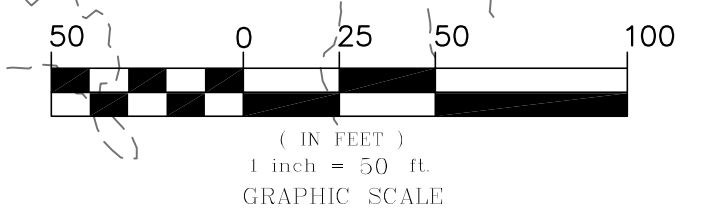
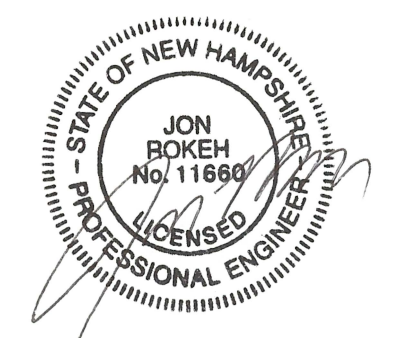
REVISIONS			
DATE	DESCRIPTION	DWN BY	CK BY
4-4-19	EDITS PER PLANNING BOARD	JR	JR
5-20-19	EDITS PER AOT COMMENTS	JR	JR
6-17-19	EDITS PER AOT COMMENTS	JR	JR
9-10-19	EDITS TO DRIVES PER NHDOT COMMENTS	JR	JR
3-12-20	EDITS TO CONTRACTOR YARD LAYOUT	JR	JR

Rokeh Consulting, LLC
 89 KING ROAD, CHICHESTER, NH
 PH: 603-387-8688

SCALE: 1" = 30"
 DATE: JANUARY 14, 2019
 DR. BY: JR CK. BY: JR
 JOB NO. _____
 SHEET NO. 4 OF 23



- NOTES:**
- 1.) EROSION CONTROL MATTING SHALL BE USED ON ALL SLOPES OF 2:1 OR STEEPER
 - 2.) THE PROPOSED PROJECT WILL BE CONSTRUCTED IN THREE PHASES PER NHDES AOT REQUIREMENTS. PHASE I WILL CONSIST OF THE COMMERCIAL FRONTAGE SITE ON NH RT 4. PHASE II WILL CONSIST OF THE PROPOSED OFFICE AND SHOP AREA ALONG WITH ASSOCIATED DRAINAGE AND PHASE III WILL BE THE CONTRACTOR YARD TO THE NORTHEAST. EACH PHASE MUST BE STABILIZED BEFORE ADVANCING TO A SUCCESSIVE PHASE.



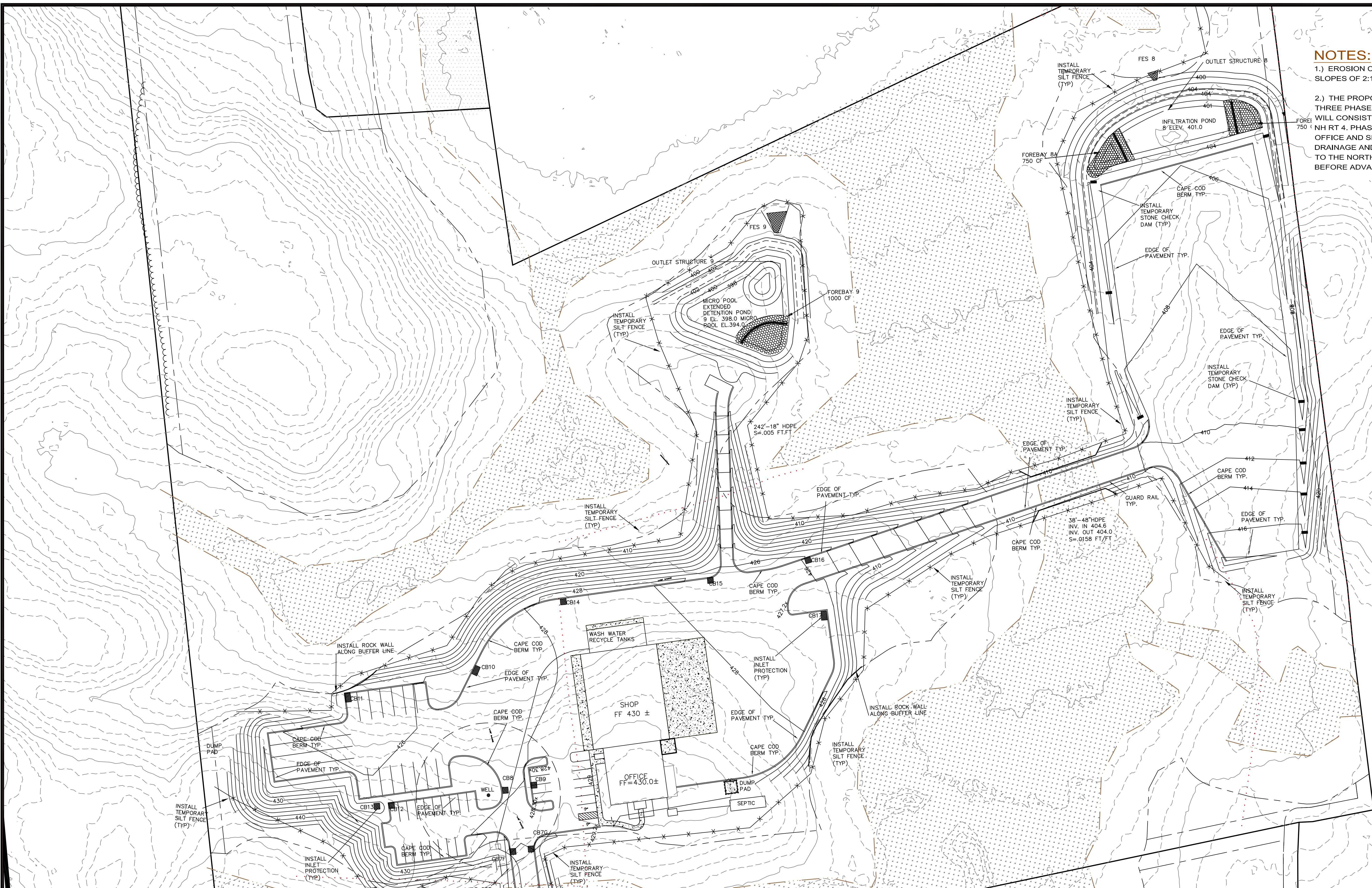
Developer:
 DBU CONSTRUCTION
 PO Box 984
 Epsom, NH 03234

SITE PLAN
 COMMERCIAL SITE PLAN
 TAX PARCEL 4 LOT 151
 DOVER ROAD
 CHICHESTER, MERRIMACK COUNTY, NEW HAMPSHIRE

REVISIONS			
DATE	DESCRIPTION	DWN BY	CK BY
3-12-20	EDITS TO CONTRACTOR YARD LAYOUT	JR	JR

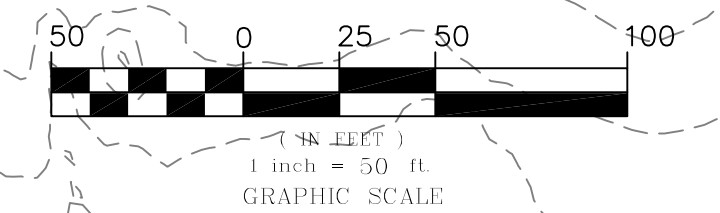
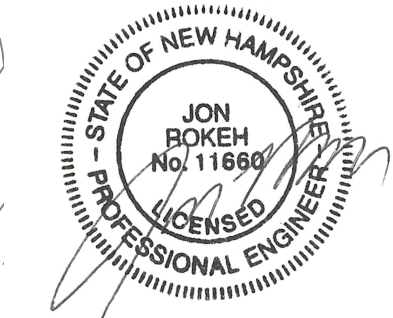
Rokeh Consulting, LLC
 89 KING ROAD, CHICHESTER, NH
 PH: 603-387-8688

SCALE: 1" = 50"
 DATE: JANUARY 14, 2019
 DR. BY: JR CK. BY: JR
 JOB NO. _____
 SHEET NO. 5 OF 23



NOTES:

- 1.) EROSION CONTROL MATTING SHALL BE USED ON ALL SLOPES OF 2:1 OR STEEPER
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Developer:
 DBU CONSTRUCTION
 PO Box 984
 Epsom, NH 03234

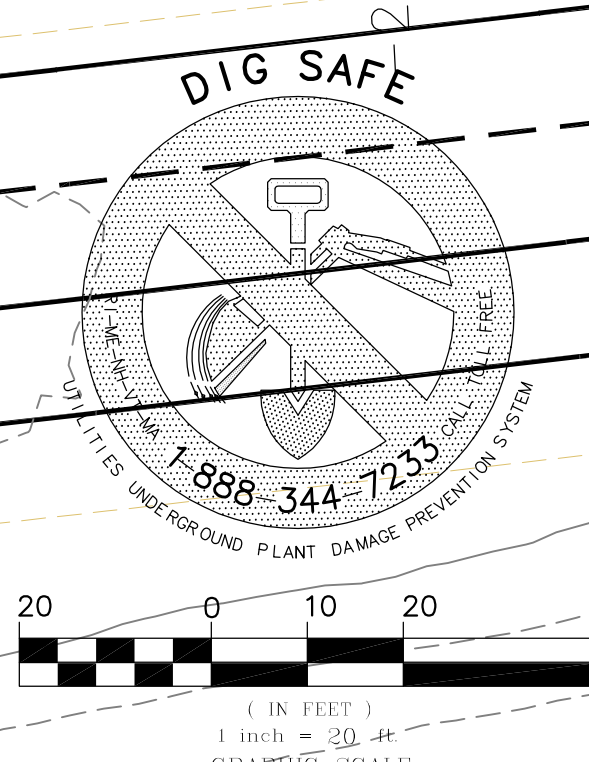
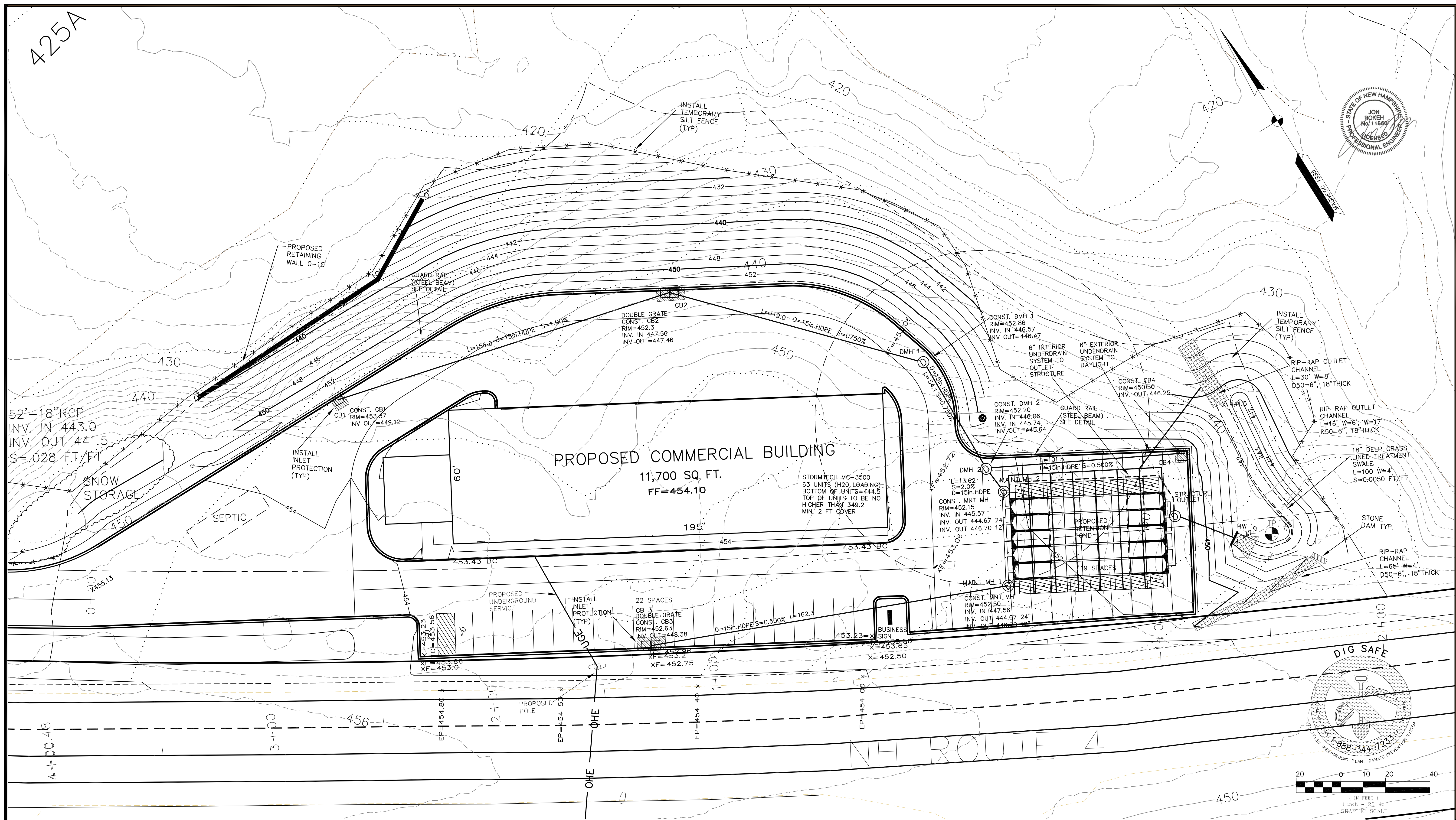
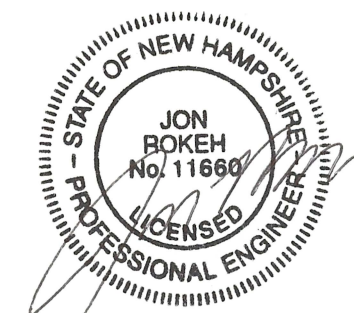
SITE PLAN
COMMERCIAL SITE PLAN
 TAX PARCEL 4 LOT 151
 DOVER ROAD
 CHICHESTER, MERRIMACK COUNTY, NEW HAMPSHIRE

REVISIONS			
DATE	DESCRIPTION	DWN BY	CK BY
3-12-20	EDITS TO CONTRACTOR YARD LAYOUT	JR	JR

Rokeh Consulting, LLC
 89 KING ROAD, CHICHESTER, NH
 PH: 603-387-8688

SCALE: 1" = 50"
 DATE: JANUARY 14, 2019
 DR. BY: JR CK. BY: JR
 JOB NO. _____
 SHEET NO. 6 OF 23

425A



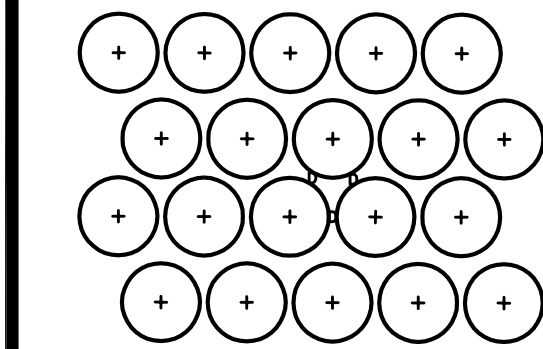
Developer:
DBU CONSTRUCTION
PO Box 984
Epsom, NH 03234

DRAINAGE AND GRADING PLAN
COMMERCIAL SITE PLAN
TAX PARCEL 4 LOT 151
DOVER ROAD
CHICHESTER, MERRIMACK COUNTY, NEW HAMPSHIRE

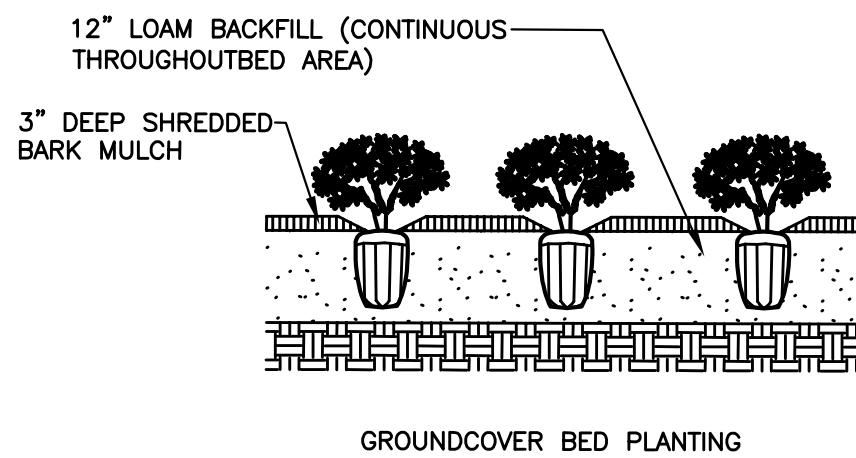
REVISIONS			
DATE	DESCRIPTION	DWN BY	CK BY
4-4-19	EDITS PER PLANNING BOARD	JR	JR
5-20-19	EDITS PER AOT COMMENTS	JR	JR
6-17-19	EDITS TO DRIVES PER NHDOT COMMENTS	JR	JR
6-19-19	EDITS PER AOT COMMENTS	BT	JR
6-26-19	EDITS PER AOT COMMENTS	BT	JR

Rokeh Consulting, LLC
89 KING ROAD, CHICHESTER, NH
PH: 603-387-8688

SCALE: 1" = 20"
DATE: JANUARY 14, 2019
DR. BY: JR CK. BY: JR
JOB NO. _____
SHEET NO. 7 OF 23



NOTE:
D = DIMENSION OF PLANT SPACING (SHRUB OR
GROUNDCOVER AS INDICATED ON PLANS)



SHRUB TO BE SET PLUMB,
AFTER SETTLEMENT

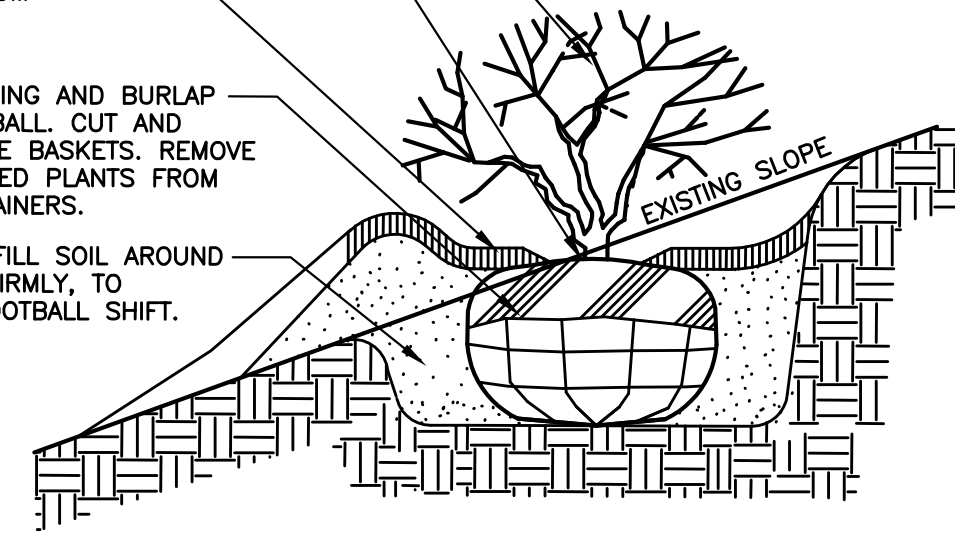
TRUNK FLARE AND TOP OF
ROOTBALL SHOULD BE AT
GRADE (TRUNK FLARE IS
WHERE THE ROOTS BEGIN
TO BRANCH FROM THE
TRUNK)

3" SHREDDED BARK
MULCH, PULL MULCH
BACK 4" FROM
TRUNK

REMOVE STRING AND BURLAP
FROM ROOTBALL. CUT AND
REMOVE WIRE BASKETS. REMOVE
CONTAINERIZED PLANTS FROM
THEIR CONTAINERS.

TAMP BACKFILL SOIL AROUND
ROOTBALL FIRMLY, TO
MINIMIZE ROOTBALL SHIFT.

- NOTE:
- DO NOT HEAVILY PRUNE SHRUB AT PLANTING, PRUNE ONLY CROSSOVER LIMBS AND DAMAGED OR DEAD BRANCHES.
 - BACKFILL WITH LOAM, AMEND AS REQUIRED BY LANDSCAPE ARCHITECT.
 - SHRUBS & GROUNDCOVER PLANTED ADJACENT TO CITY SIDEWALKS NEED TO BE PLACED SO THE PLANTS, AT THEIR MATURE HEIGHT & WIDTH, WILL NOT ENCRUCH INTO THE CITY'S SIDEWALK.



DO NOT HEAVILY PRUNE TREE
AT PLANTING PRUNE ONLY
CROSS OVER LIMBS,
CO-DOMINANT LEADERS, AND
DAMAGED OR DEAD BRANCHES

GUY MATERIAL AT TREE
1/2 UP TREE OR TO
FIRST BRANCH,
WHICHEVER IS LOWER

TRUNK FLARE AND TOP OF
ROOTBALL SHOULD BE AT
GRADE (TRUNK FLARE IS
WHERE THE ROOTS BEGIN TO
BRANCH FROM THE TRUNK)

STAKE TO BE 18" BELOW TREE
PIT IN UNDISTURBED GROUND

NEVER CUT LEADER

TREE TO BE SET PLUMB,
AFTER SETTLEMENT

REMOVE STRING AND
BURLAP FROM
ROOTBALL.
CUT AND REMOVE
WIRE BASKETS.

FLAG W/ 4" x 12"
PLASTIC SECURED
TO GUY MATERIAL
W/ TWISTED WIRE
EACH END (FOR
MOWED AREAS ONLY)

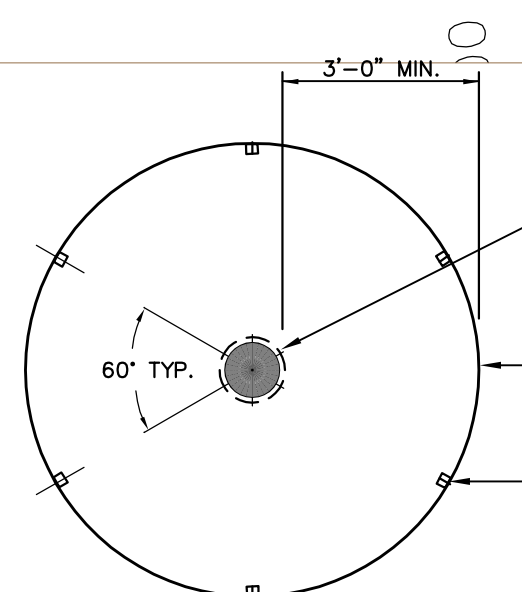
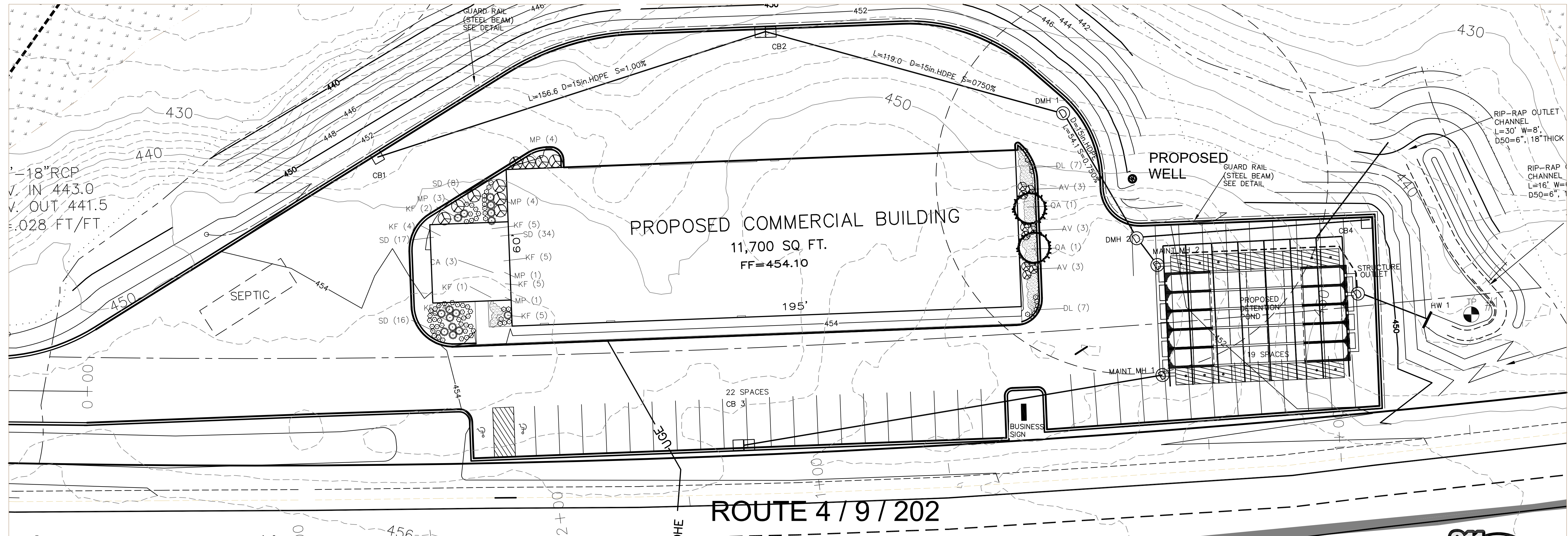
3" SHREDDED
BARK MULCH,
PULL MULCH
BACK 4" FROM
TRUNK

HUB STAKE

VARIES

3X ROOTBALL DIAMETER MIN

- NOTES:
- 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.
 - TYPICALLY ONLY TREES WITH A 3" OR GREATER CALIPER NEED TO BE STAKED. TREES WITH LESS THAN A 3" CALIPER NEED TO BE STAKED ONLY AS REQUIRED BY LANDSCAPE ARCHITECT.
 - ONLY WRAP TREE TRUNKS AS REQUIRED BY LANDSCAPE ARCHITECT.
 - TREE SHALL BE SET PLUMB, AFTER SETTLEMENT.
 - LOAM FOR BACKFILLING SHALL BE AMENDED AS REQUIRED BY LANDSCAPE ARCHITECT.
 - CITY TREES PLANTED ON PRIVATE PROPERTY, ADJACENT TO A PUBLIC RIGHT-OF-WAY, NEED TO BE PLANTED A MINIMUM OF 5 FEET FROM THE EDGE OF THE CITY SIDEWALK.



EXISTING TREE; WRAP WITH TWO
LAYERS OF BURLAP AND WITH
TWO LAYERS OF STANDARD
SNOW FENCE, WIRE TO FASTEN
SECURELY.

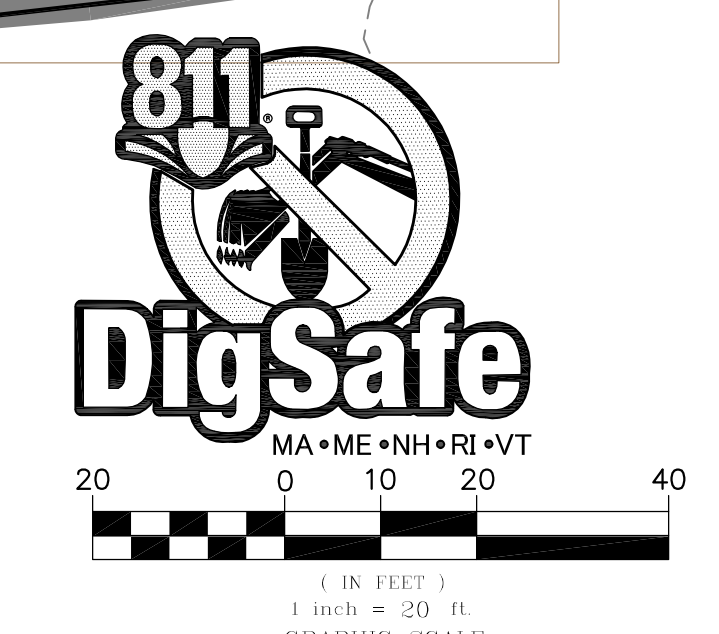
TREE PROTECTION FENCE, USE
STANDARD SNOW FENCE, 4' HT

METAL POST TO SUPPORT FENCE,
(6 REQUIRED), DRIVEN INTO THE
GROUND 2'-0" MIN., EQUAL
SPACING AROUND TREE.

TREE PROTECTION

NOT TO SCALE

- GENERAL LANDSCAPE NOTES:
- NO PLANTINGS CONFLICT WITH SNOW STORAGE AREAS.
 - NO LANDSCAPING CONFLICTS WITH SIGHT DISTANCE.
 - 1 PERIMETER TREE / 20 FEET OF PARKING PERIMETER: 300 LF/20 = 15 TREES REQUIRED (22 PERIMETER TREES PROVIDED)
 - 1 INTERNAL TREE / 15 PARKING SPACES: 58 SPACES / 15 = 3.8 REQUIRED (6 INTERNAL PROVIDED)



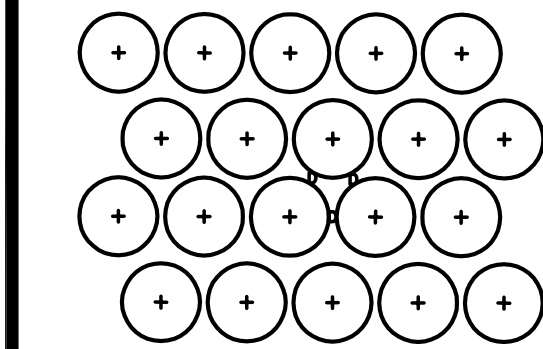
Developer:
DBU CONSTRUCTION
PO Box 984
Epsom, NH 03234

LANDSCAPE PLAN
COMMERCIAL SITE PLAN
TAX PARCEL 4 LOT 151
DOVER ROAD
CHICHESTER, MERRIMACK COUNTY, NEW HAMPSHIRE

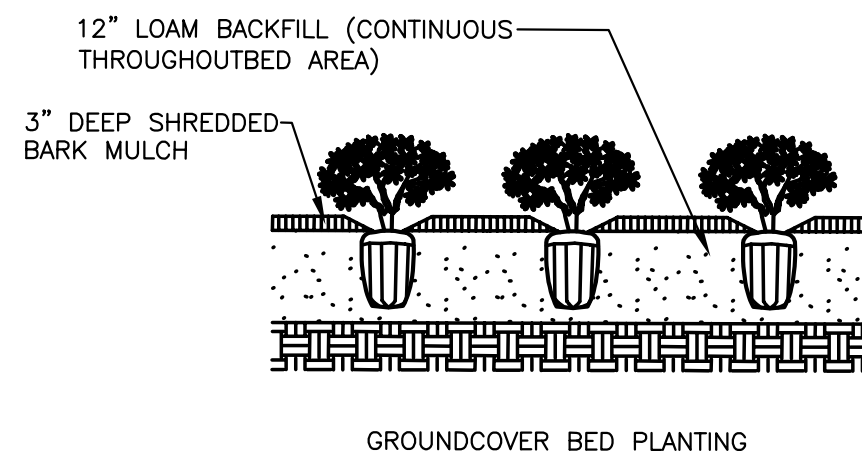
REVISIONS			
DATE	DESCRIPTION	DWN BY	CK BY
4-4-19	EDITS PER PLANNING BOARD	JR	JR
5-20-19	EDITS PER AOT COMMENTS	JR	JR
6-17-19	EDITS TO DRIVES PER NHDOT COMMENTS	JR	JR
6-19-19	EDITS PER AOT COMMENTS	BT	JR

Rokeh Consulting, LLC
89 KING ROAD, CHICHESTER, NH
PH: 603-387-8688

SCALE: 1" = 20"
DATE: DECEMBER 7, 2018
DR. BY: JR CK. BY: JR
JOB NO. _____
SHEET NO. 8 OF 14



NOTE:
D = DIMENSION OF PLANT SPACING (SHRUB OR
GROUNDCOVER AS INDICATED ON PLANS)



SHRUB TO BE SET PLUMB,
AFTER SETTLEMENT

TRUNK FLARE AND TOP OF
ROOTBALL SHOULD BE AT
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TO BRANCH FROM THE
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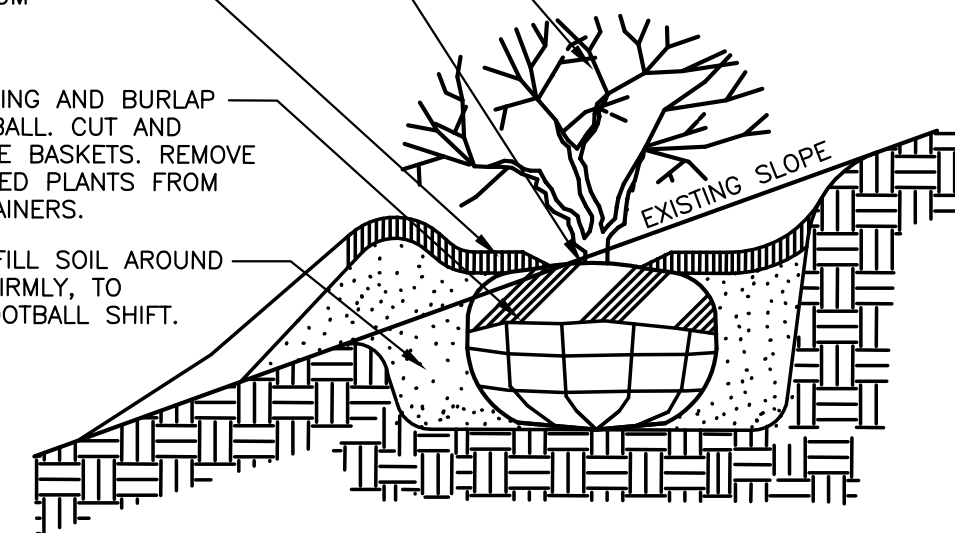
3" SHREDDED BARK
MULCH, PULL MULCH
BACK 4" FROM
TRUNK

REMOVE STRING AND BURLAP
FROM ROOTBALL. CUT AND
REMOVE WIRE BASKETS. REMOVE
CONTAINERIZED PLANTS FROM
THEIR CONTAINERS.

TAMP BACKFILL SOIL AROUND
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NOTE:

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FLAG W/ 4" x 12"
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W/ TWISTED WIRE
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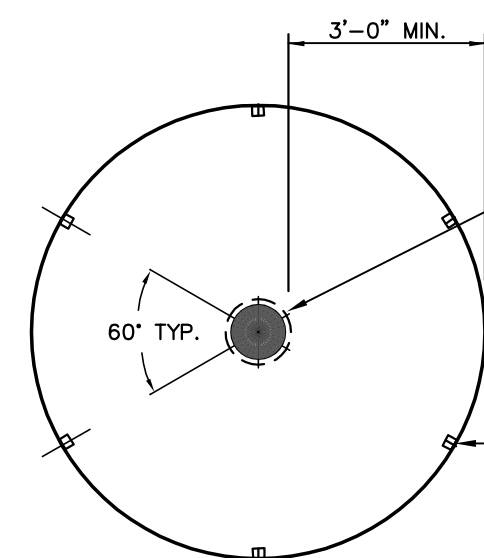
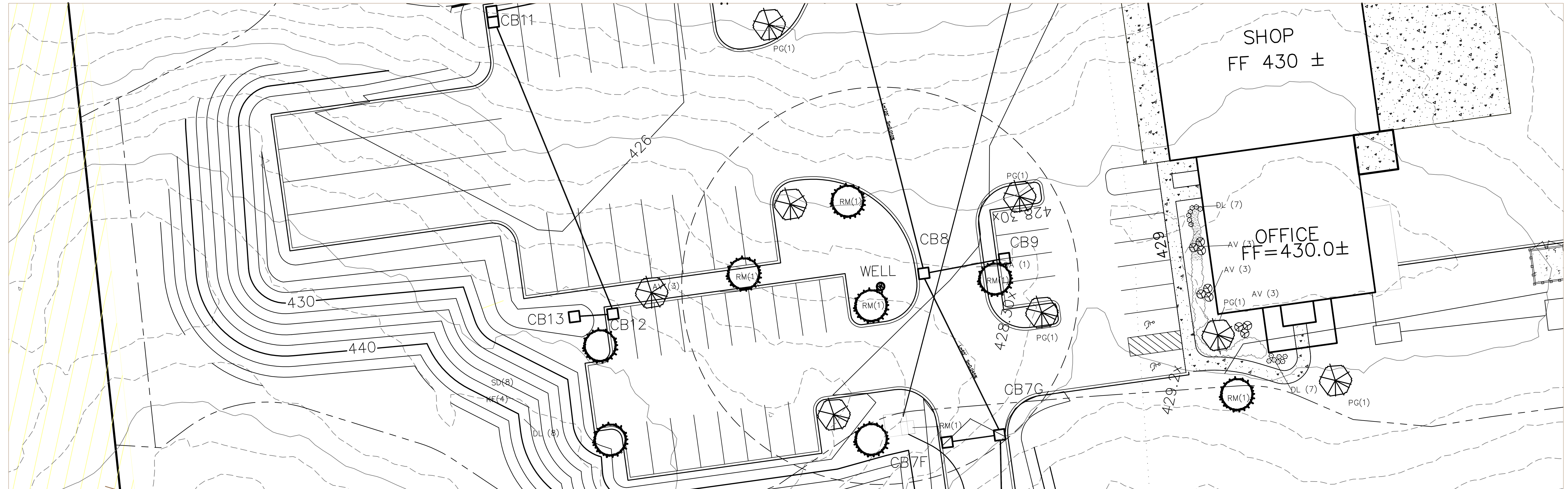
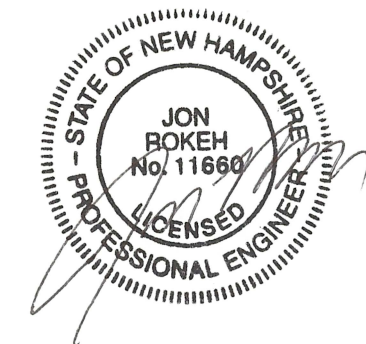
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HUB STAKE

VARIES
3X ROOTBALL DIAMETER MIN

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TREE PROTECTION

NOT TO SCALE

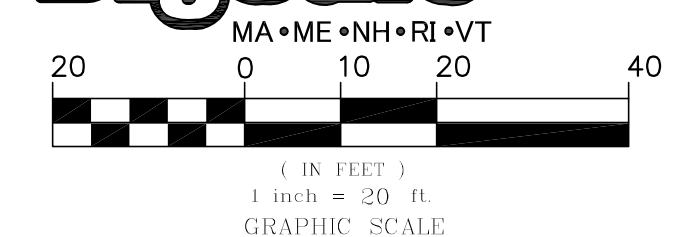
EXISTING TREE; WRAP WITH TWO
LAYERS OF BURLAP AND WITH
TWO LAYERS OF STANDARD
SNOW FENCE, WIRE TO FASTEN
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Developer:
DBU CONSTRUCTION
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Epsom, NH 03234

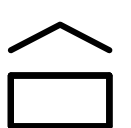
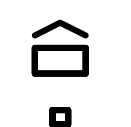
LANDSCAPE PLAN
COMMERCIAL SITE PLAN
TAX PARCEL 4 LOT 151
DOVER ROAD
CHICHESTER, MERRIMACK COUNTY, NEW HAMPSHIRE

REVISIONS

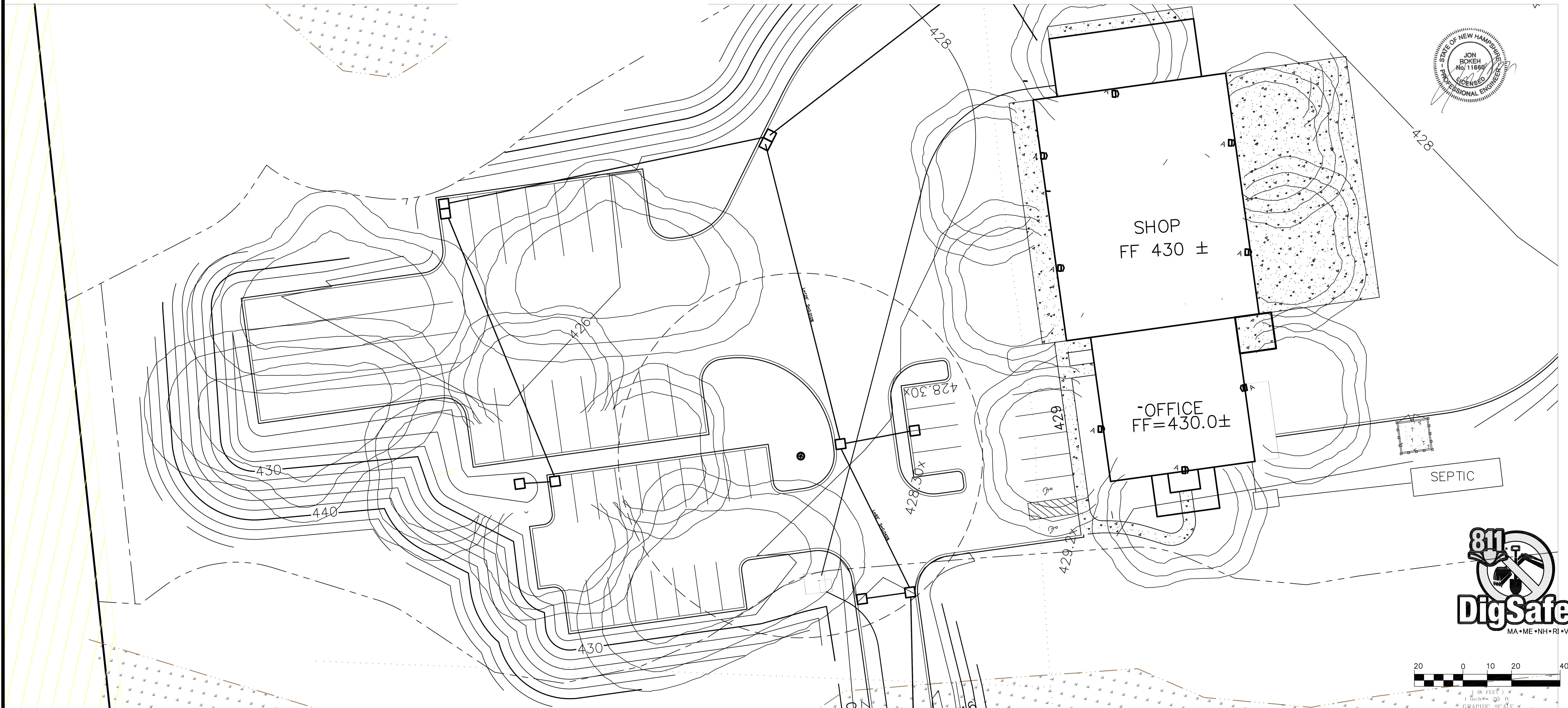
DATE	DESCRIPTION	DWN BY	CK BY
3-12-20	EDITS TO CONTRACTOR YARD LAYOUT	JR	JR

Rokeh Consulting, LLC
89 KING ROAD, CHICHESTER, NH
PH: 603-387-8688

SCALE: 1" = 20"
DATE: DECEMBER 7, 2018
DR. BY: JR CK. BY: JR
JOB NO. _____
SHEET NO. 10 OF 23

Schedule											
Symbol	Label	Quantity	Manufacturer	Catalog Number	Description	Lamp	Number Lamps	Filename	Lumens Per Lamp	Light Loss Factor	Wattage
	W	10	Lithonia Lighting	KAXW LED P2 40K R4 MVOLT	KAXW LED, PERFORMANCE PACKAGE 2, 4000K, TYPE 4, 120-277V; mounted at 18ft	LED	1	KAXW_LED_P2_40K_R4_MVOLT.ies	6284	0.9	49
	B3	4	Lithonia Lighting	RSX1 LED P2 40K R3 MVOLT RPA DDBXD	RSX Area Fixture Size 1 P2 Lumen Package 4000K CCT Type R3 Distribution; mounted at 20ft (18ft pole on 2ft base)	LED	1	RSX1_LED_P2_40K_R3.ies	9843	0.9	72.95

LIGHT POLE BASE



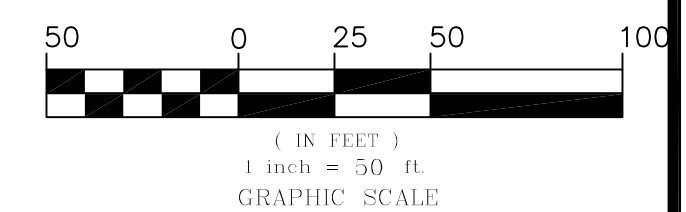
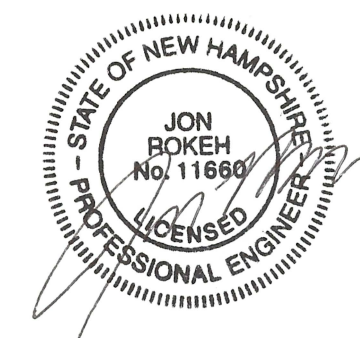
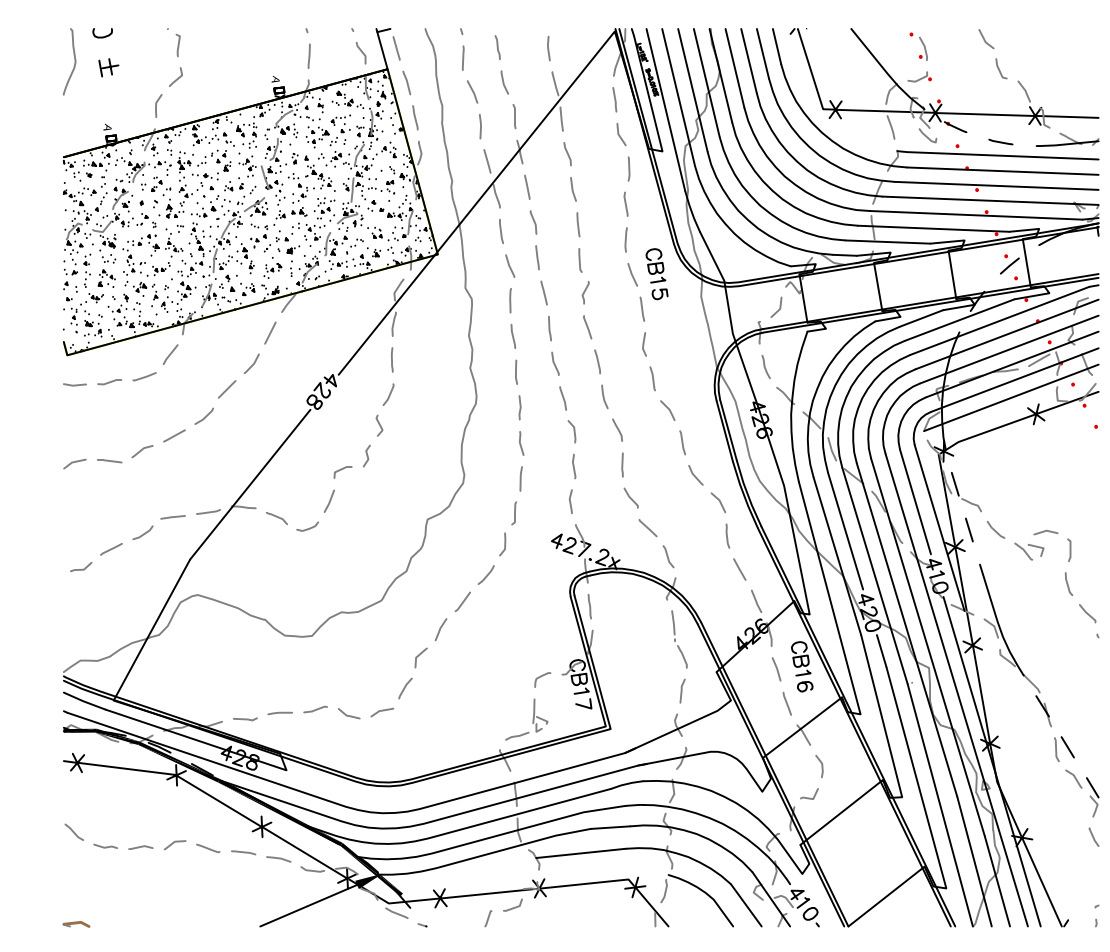
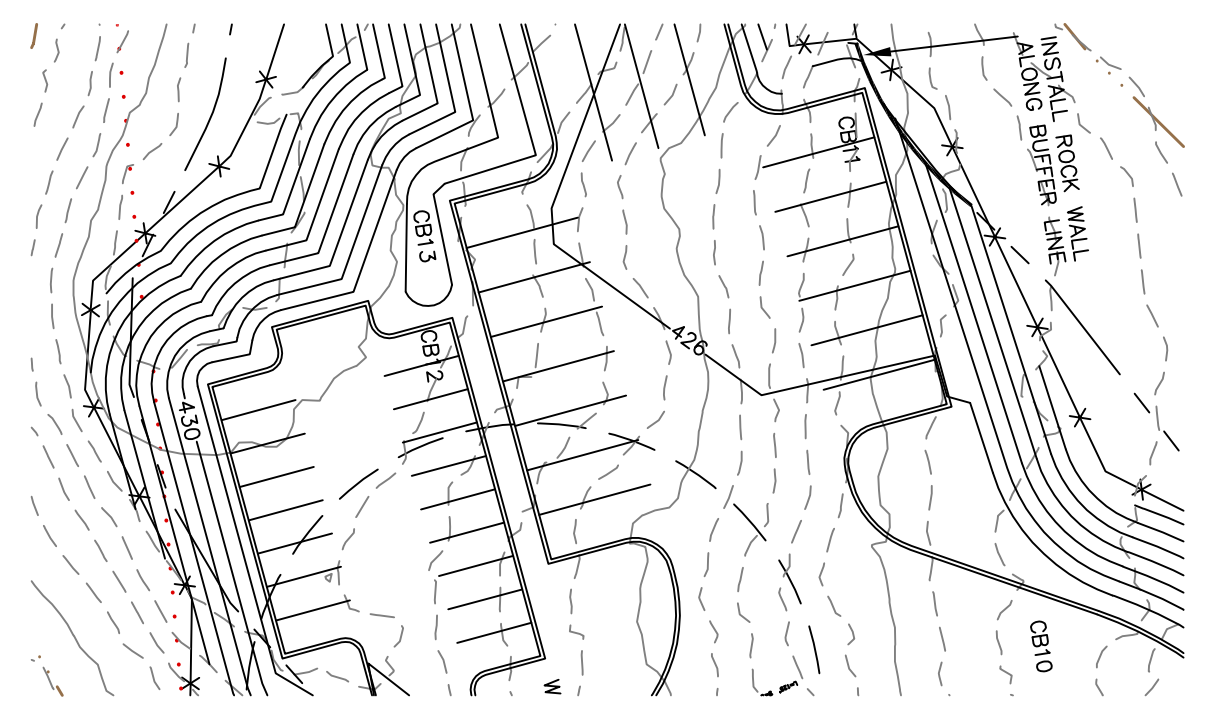
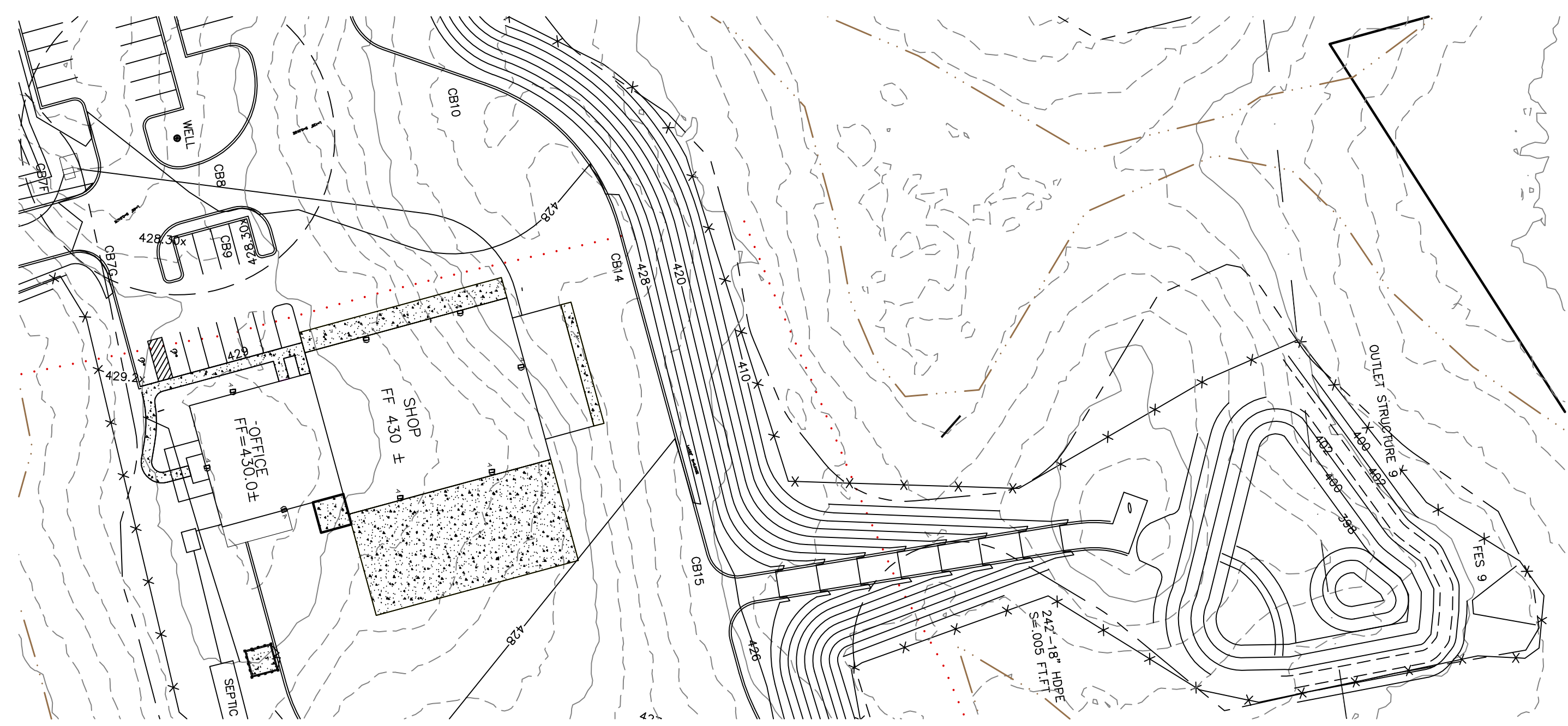
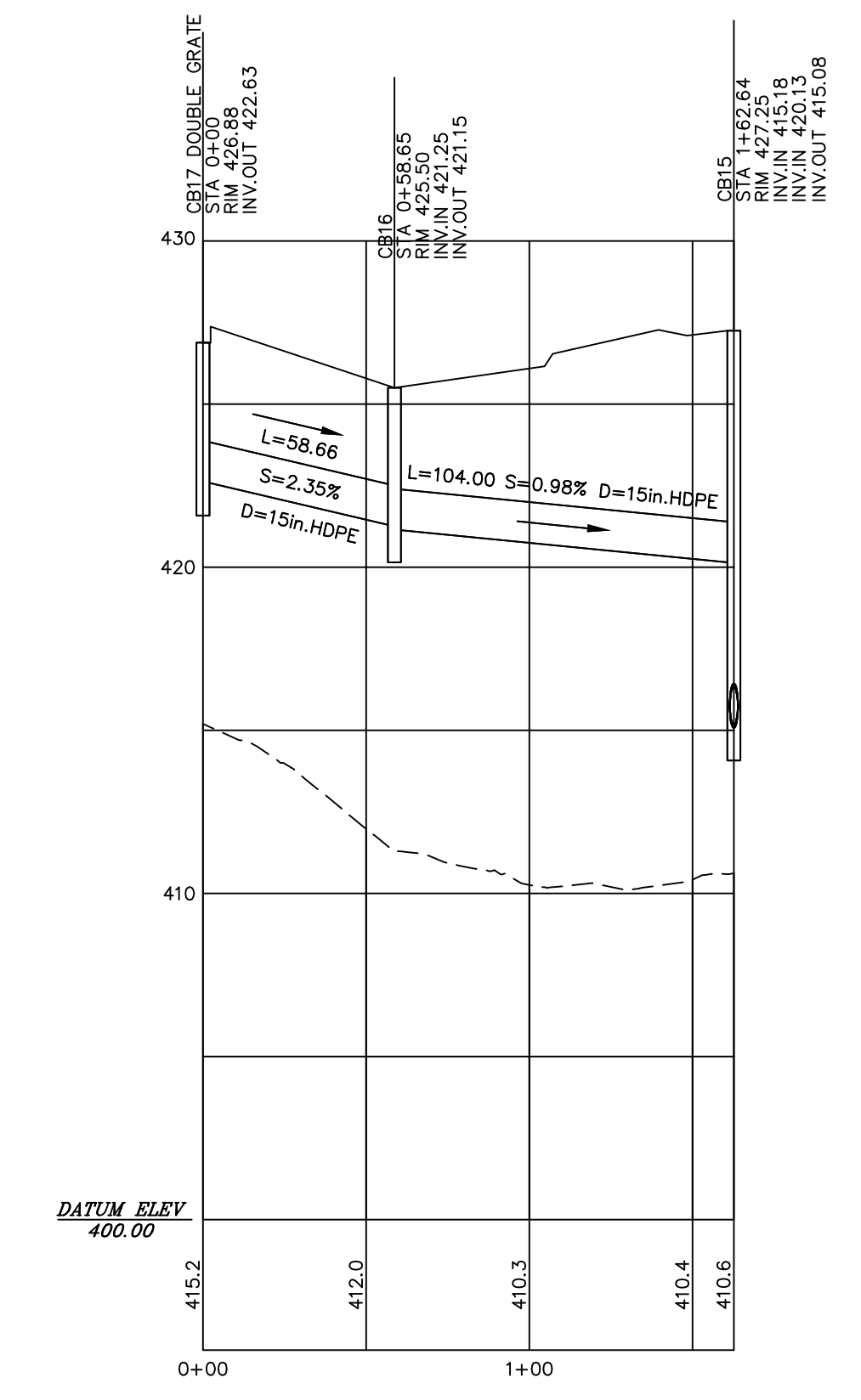
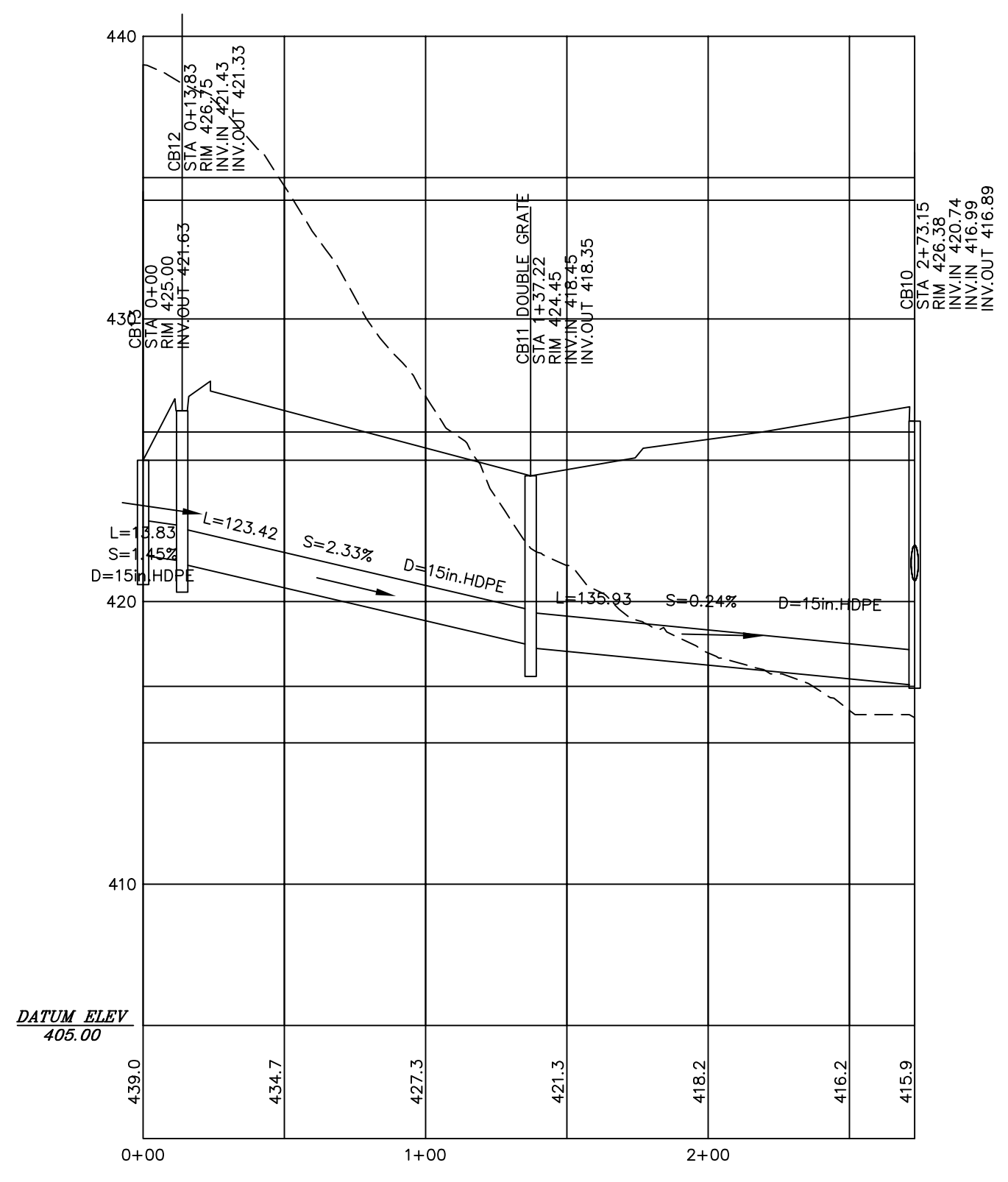
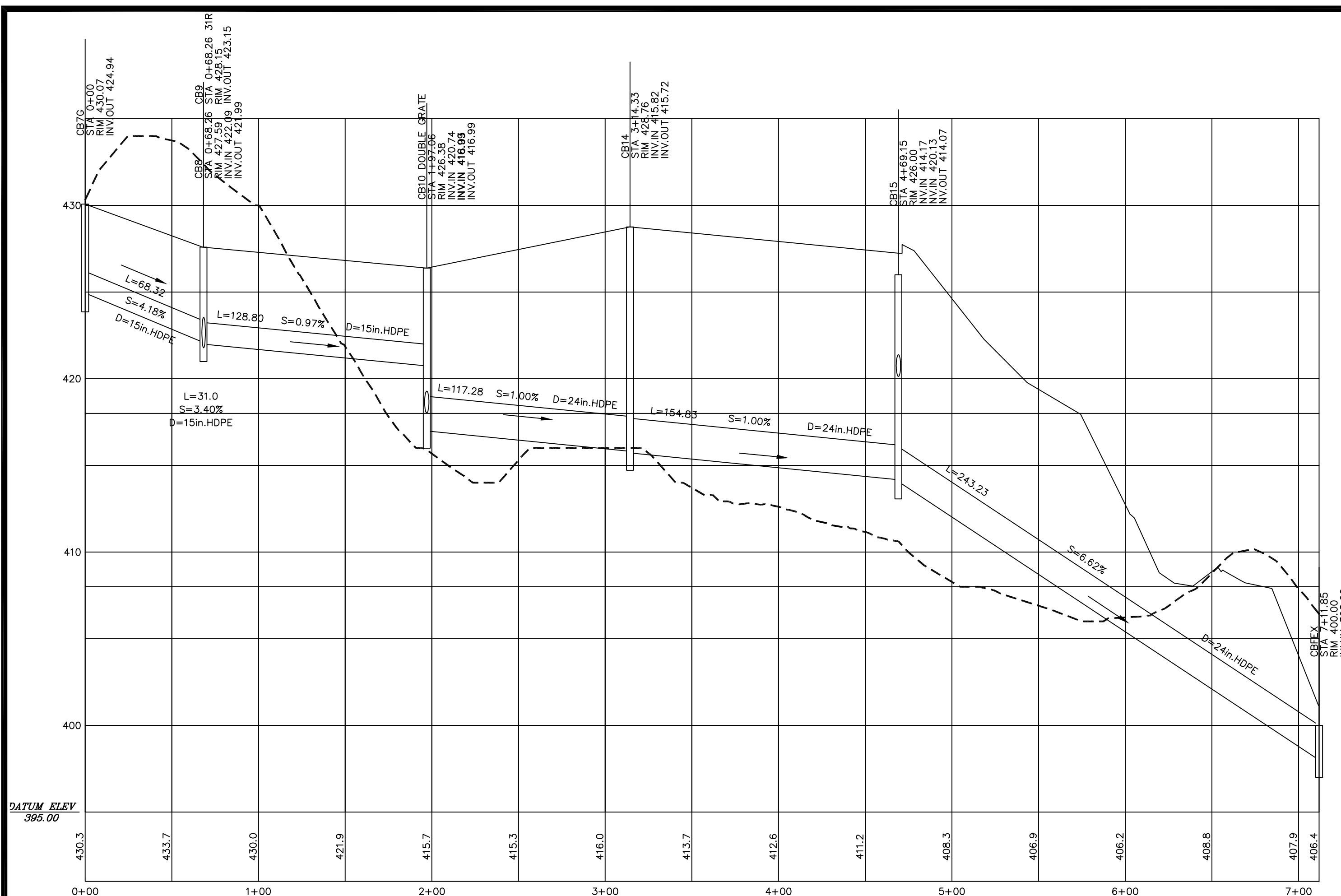
Developer:
DBU CONSTRUCTION
PO Box 984
Epsom, NH 03234

LIGHTING PLAN
COMMERCIAL SITE PLAN
TAX PARCEL 4 LOT 151
DOVER ROAD
CHICHESTER, MERRIMACK COUNTY, NEW HAMPSHIRE

REVISIONS			
DATE	DESCRIPTION	DWN BY	CK BY
3-12-20	EDITS TO CONTRACTOR YARD LAYOUT	JR	JR

Rokeh Consulting, LLC
89 KING ROAD, CHICHESTER, NH
PH: 603-387-8688

SCALE: 1" = 20"
DATE: DECEMBER 7, 2018
DR. BY: JR CK. BY: JR
JOB NO. _____
SHEET NO. 11 OF 23



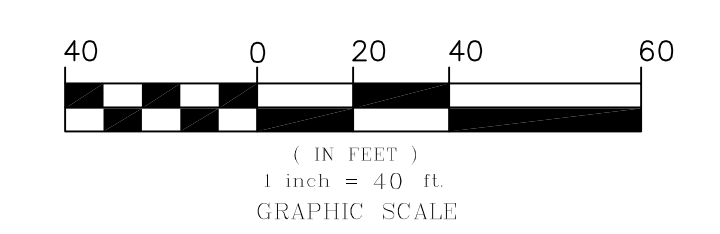
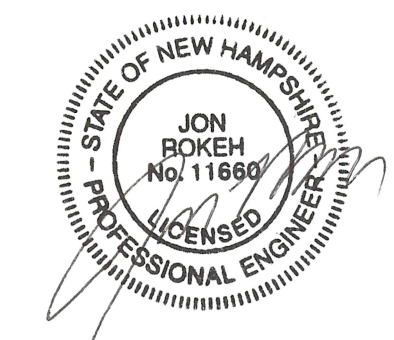
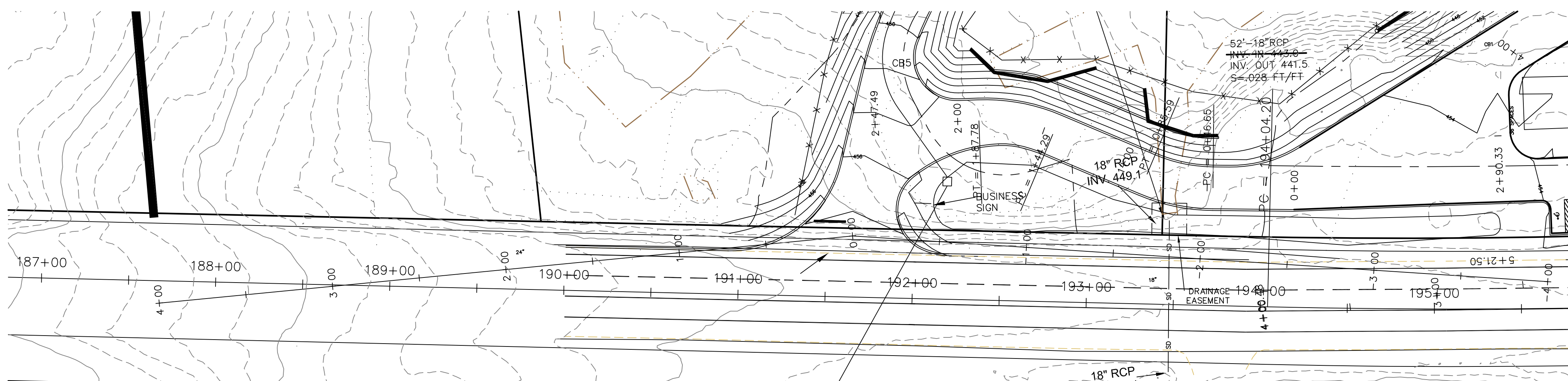
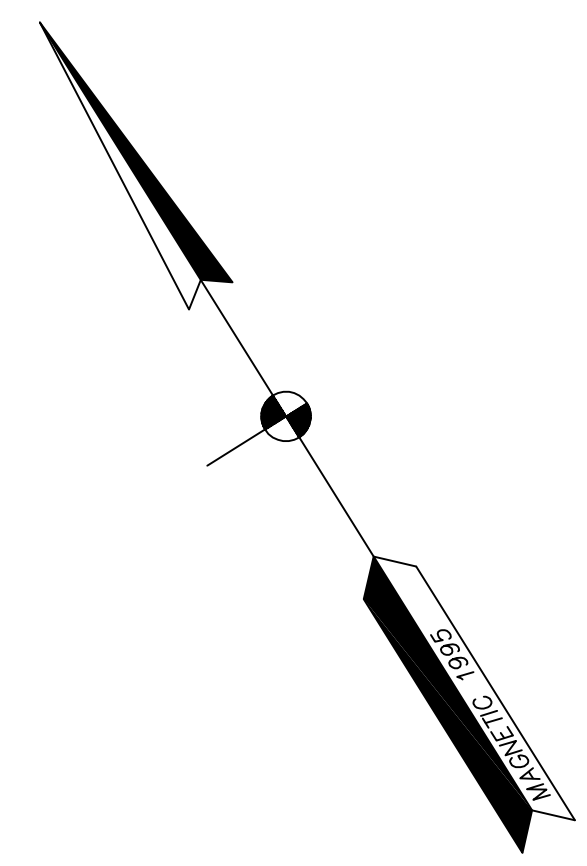
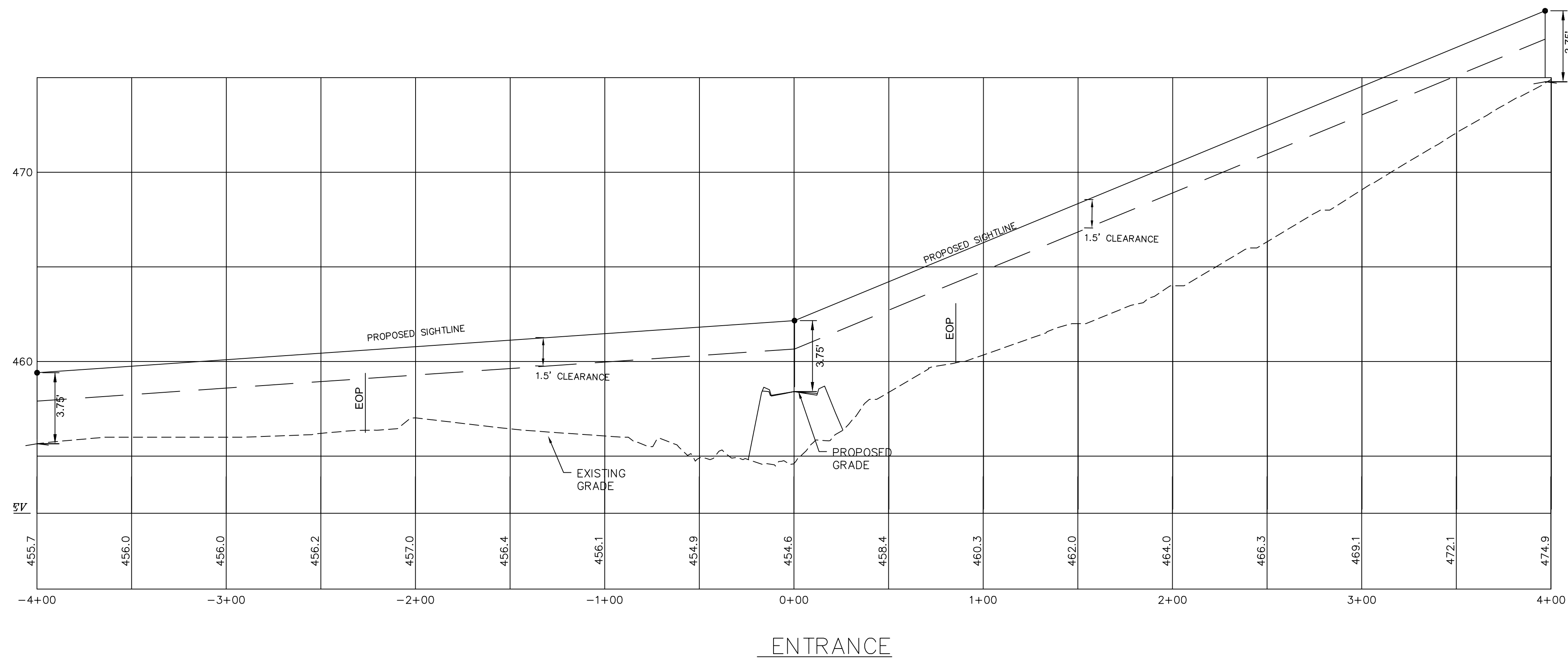
Developer:
DBU CONSTRUCTION
PO Box 984
Epsom, NH 03234

ROADWAY AND DRAINAGE PROFILES
COMMERCIAL SITE PLAN
TAX PARCEL 4 LOT 151
DOVER ROAD
CHICHESTER, MERRIMACK COUNTY, NEW HAMPSHIRE

REVISIONS			
DATE	DESCRIPTION	DWN BY	CK BY
3-12-20	EDITS TO CONTRACTOR YARD LAYOUT	JR	JR

Rokeh Consulting, LLC
89 KING ROAD, CHICHESTER, NH
PH: 603-387-8688

SCALE: 1" = 50"
DATE: JANUARY 14, 2019
DR. BY: JR CK. BY: JR
JOB NO. _____
SHEET NO. 13 OF 23



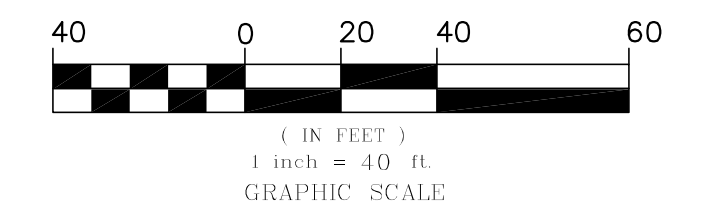
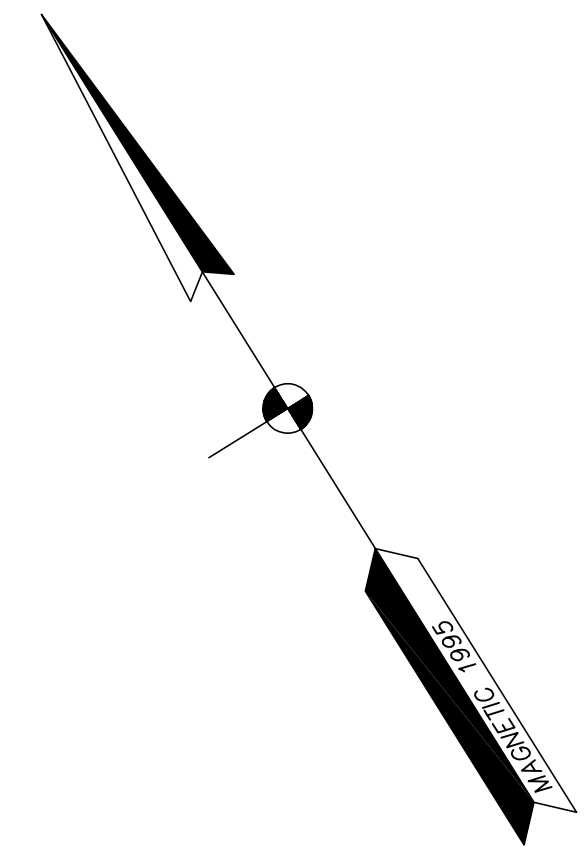
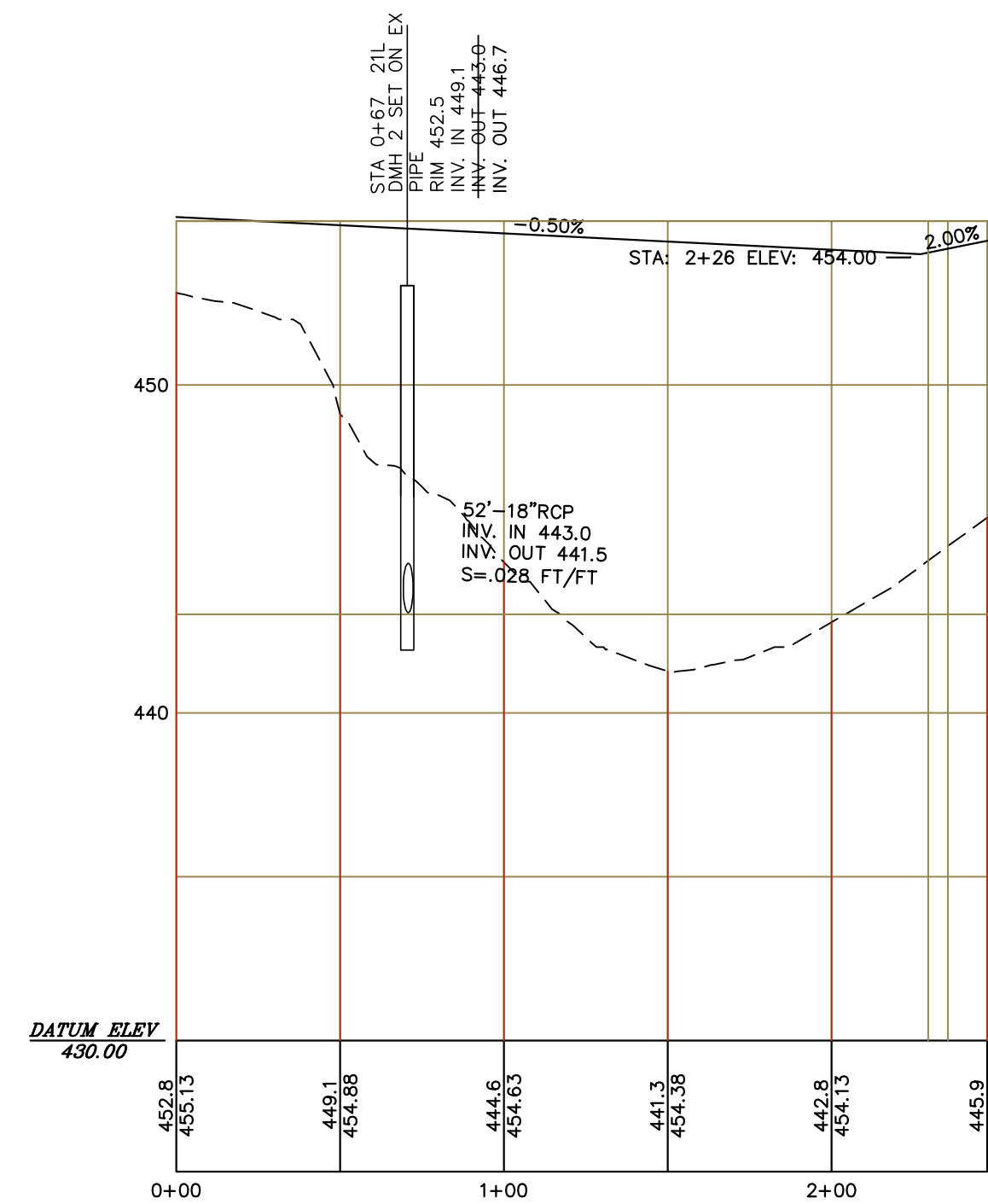
Developer:
 DBU CONSTRUCTION
 PO Box 984
 Epsom, NH 03234

**SITE DISTANCE PROFILES
 COMMERCIAL SITE PLAN
 TAX PARCEL 4 LOT 151
 DOVER ROAD
 CHICHESTER, MERRIMACK COUNTY, NEW HAMPSHIRE**

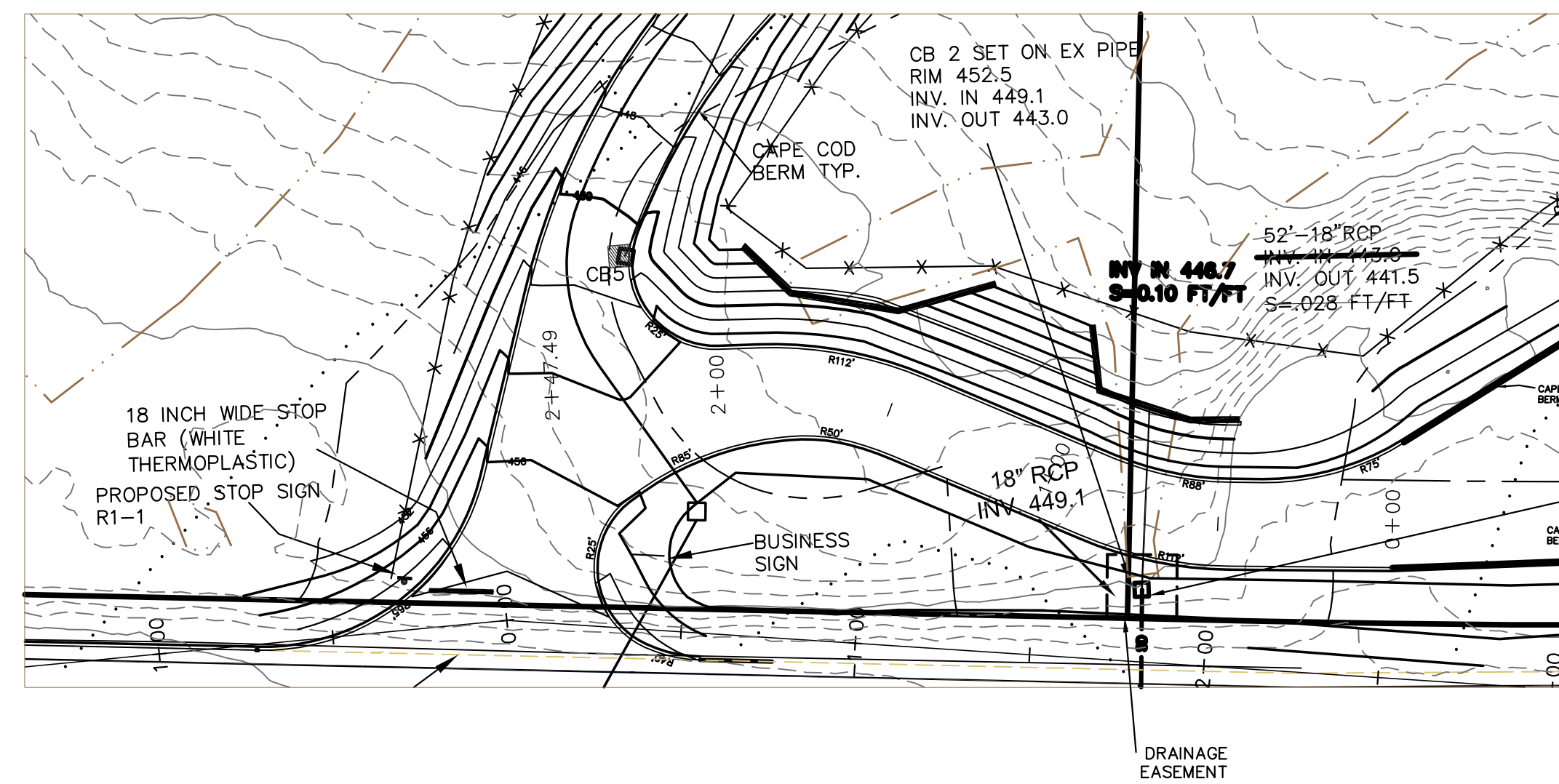
REVISIONS			
DATE	DESCRIPTION	DWN BY	CK BY
4-4-19	EDITS PER PLANNING BOARD	JR	JR
5-20-19	EDITS PER AOT COMMENTS	JR	JR
6-17-19	EDITS TO DRIVES PER NHDOT COMMENTS	JR	JR
9-10-19	EDITS TO DRIVES PER NHDOT COMMENTS	JR	JR

Rokeh Consulting, LLC
 89 KING ROAD, CHICHESTER, NH
 PH: 603-387-8688

SCALE: 1" = 40"
 DATE: JANUARY 14, 2019
 DR. BY: JR CK. BY: JR
 JOB NO. _____
 SHEET NO. 14 OF 23



CONNECTOR ROAD



CB 2 IS TO BE INSTALLED AT THE LOCATION OF THE EXISTING OUTLET (HEADER TO BE REMOVED), AND ALL ADDITIONAL LENGTHS OF 18" RCP WILL BE OWNED AND MAINTAINED BY THE DRIVEWAY PERMITTEE. THE ANNULAR SPACE SHOULD BE SEALED/GROUTED.



Developer:
DBU CONSTRUCTION
PO Box 984
Epsom, NH 03234

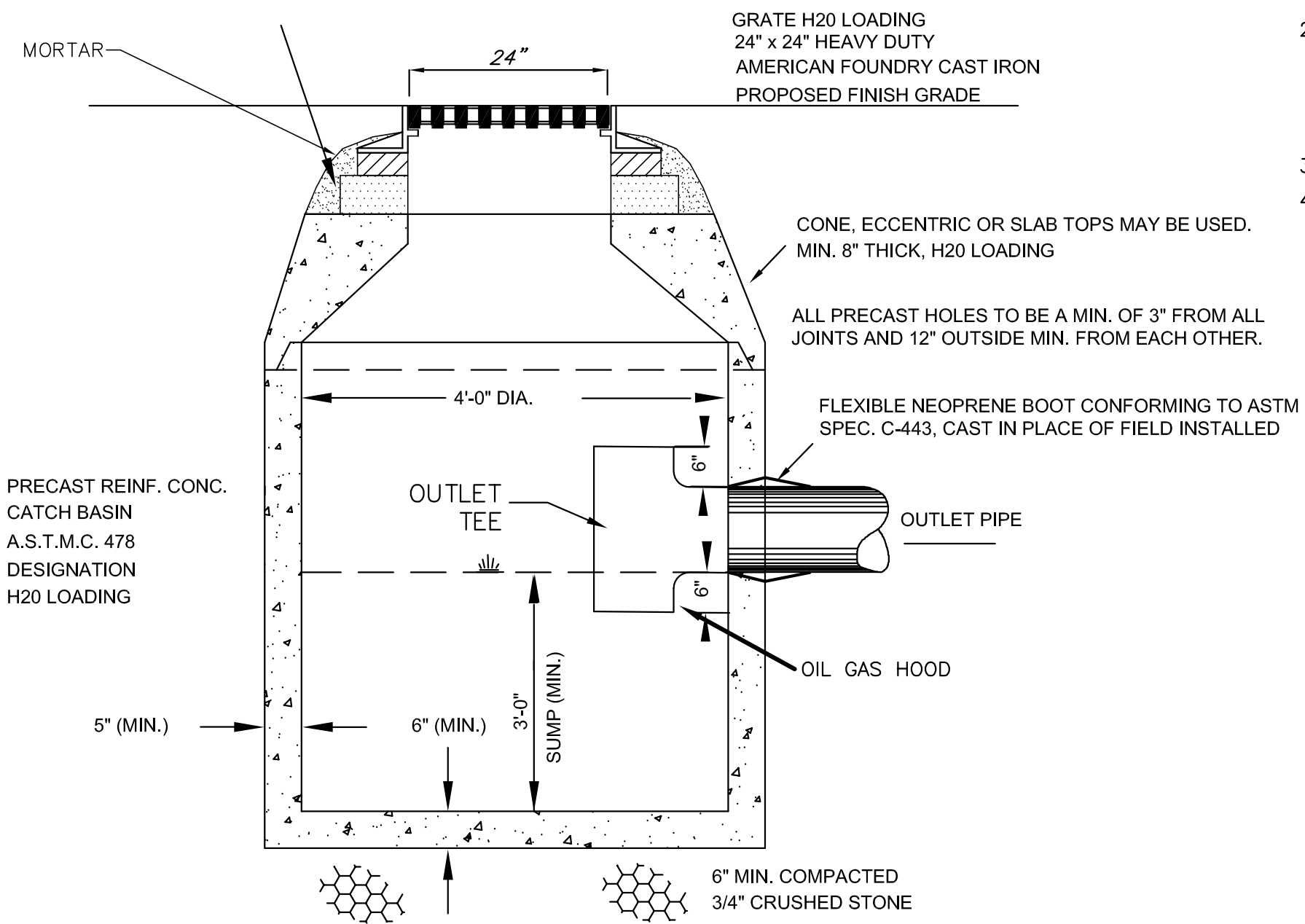
CONNECTION ROAD PROFILES
COMMERCIAL SITE PLAN
TAX PARCEL 4 LOT 151
DOVER ROAD
CHICHESTER, MERRIMACK COUNTY, NEW HAMPSHIRE

REVISIONS			
DATE	DESCRIPTION	DWN BY	CK BY
4-4-19	EDITS PER PLANNING BOARD	JR	JR
5-20-19	EDITS PER AOT COMMENTS	JR	JR
6-17-19	EDITS TO DRIVES PER NHDOT COMMENTS	JR	JR
8-19-19	EDITS TO DRIVES PER NHDOT COMMENTS	JR	JR

Rokeh Consulting, LLC
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PH: 603-387-8688

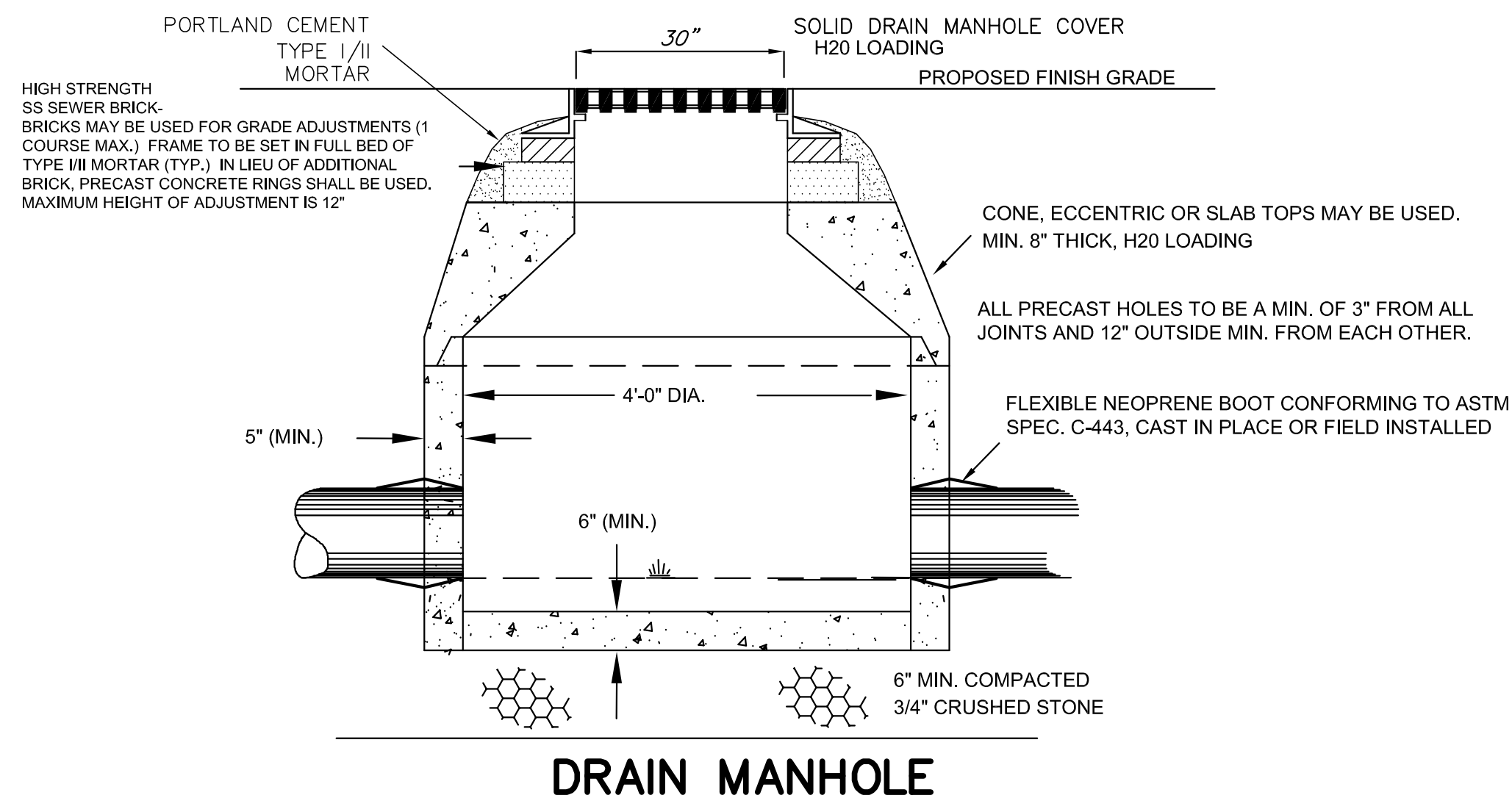
SCALE: 1" = 40"
DATE: JANUARY 14, 2019
DR. BY: JR CK. BY: JR
JOB NO. _____
SHEET NO. 16 OF 23

SS SEWER BRICK-
BRICKS MAY BE USED FOR GRADE ADJUSTMENTS (1
COURSE MAX.) FRAME TO BE SET IN FULL BED OF
TYPE III MORTAR (TYP.) IN LIEU OF ADDITIONAL
BRICK. PRECAST CONCRETE RINGS SHALL BE USED.
MAXIMUM HEIGHT OF ADJUSTMENT IS 12"

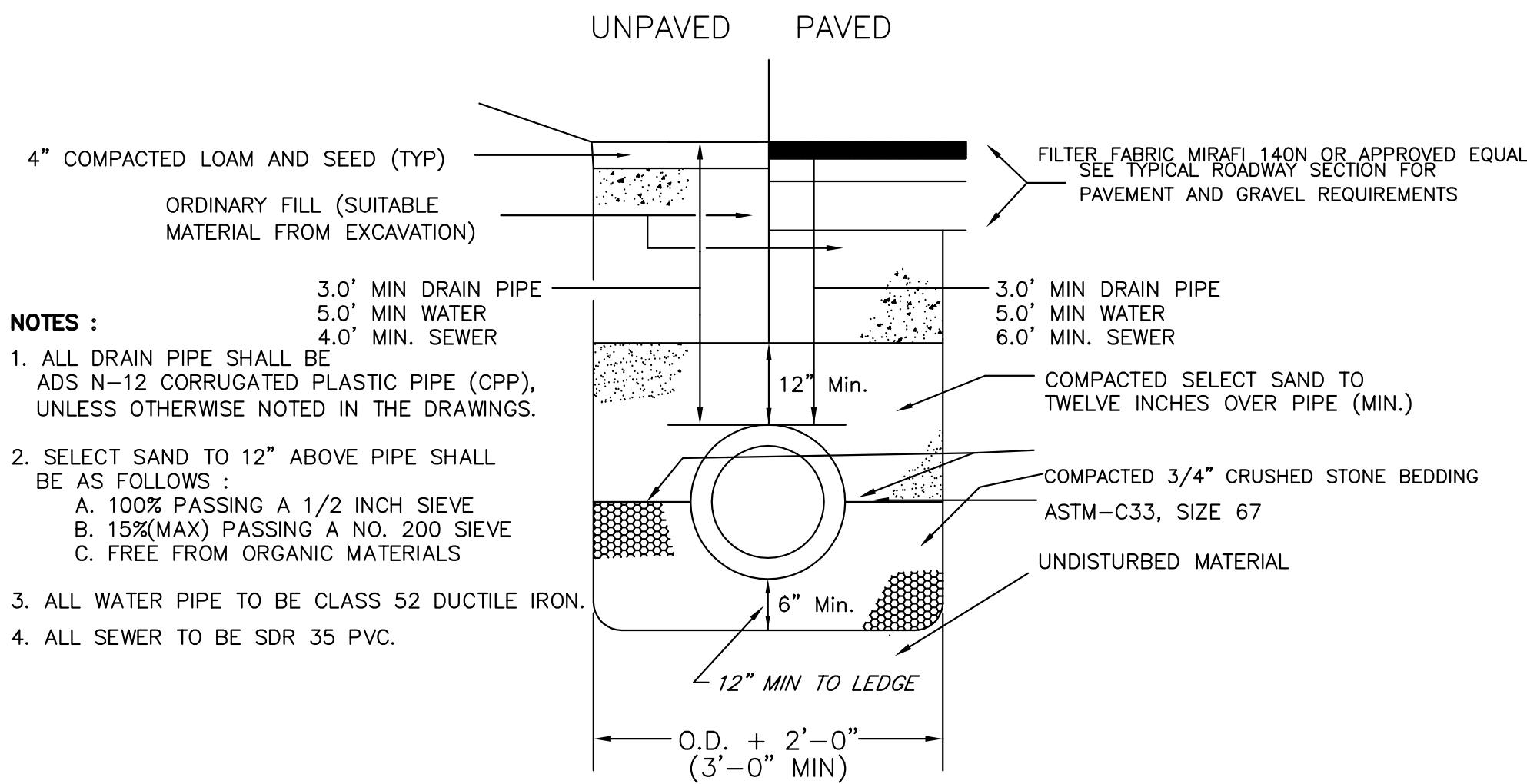


TYPICAL PRECAST OUTLET STRUCTURE & CATCH BASIN DETAIL

NOT TO SCALE



DRAIN MANHOLE

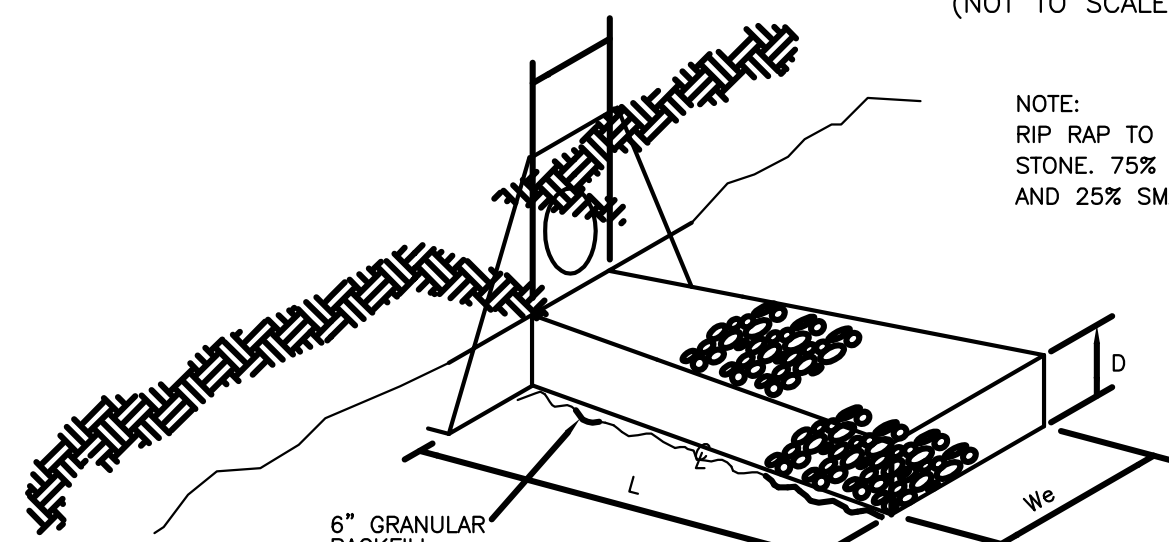


NOTES :

- ALL DRAIN PIPE SHALL BE ADS N-12 CORRUGATED PLASTIC PIPE (CPP), UNLESS OTHERWISE NOTED IN THE DRAWINGS.
- SELECT SAND TO 12" ABOVE PIPE SHALL BE AS FOLLOWS :
A. 100% PASSING A 1/2 INCH SIEVE
B. 15%(MAX) PASSING A NO. 200 SIEVE
C. FREE FROM ORGANIC MATERIALS
- ALL WATER PIPE TO BE CLASS 52 DUCTILE IRON.
- ALL SEWER TO BE SDR 35 PVC.

TYPICAL SEWER/ DRAIN PIPE TRENCH

(NOT TO SCALE)

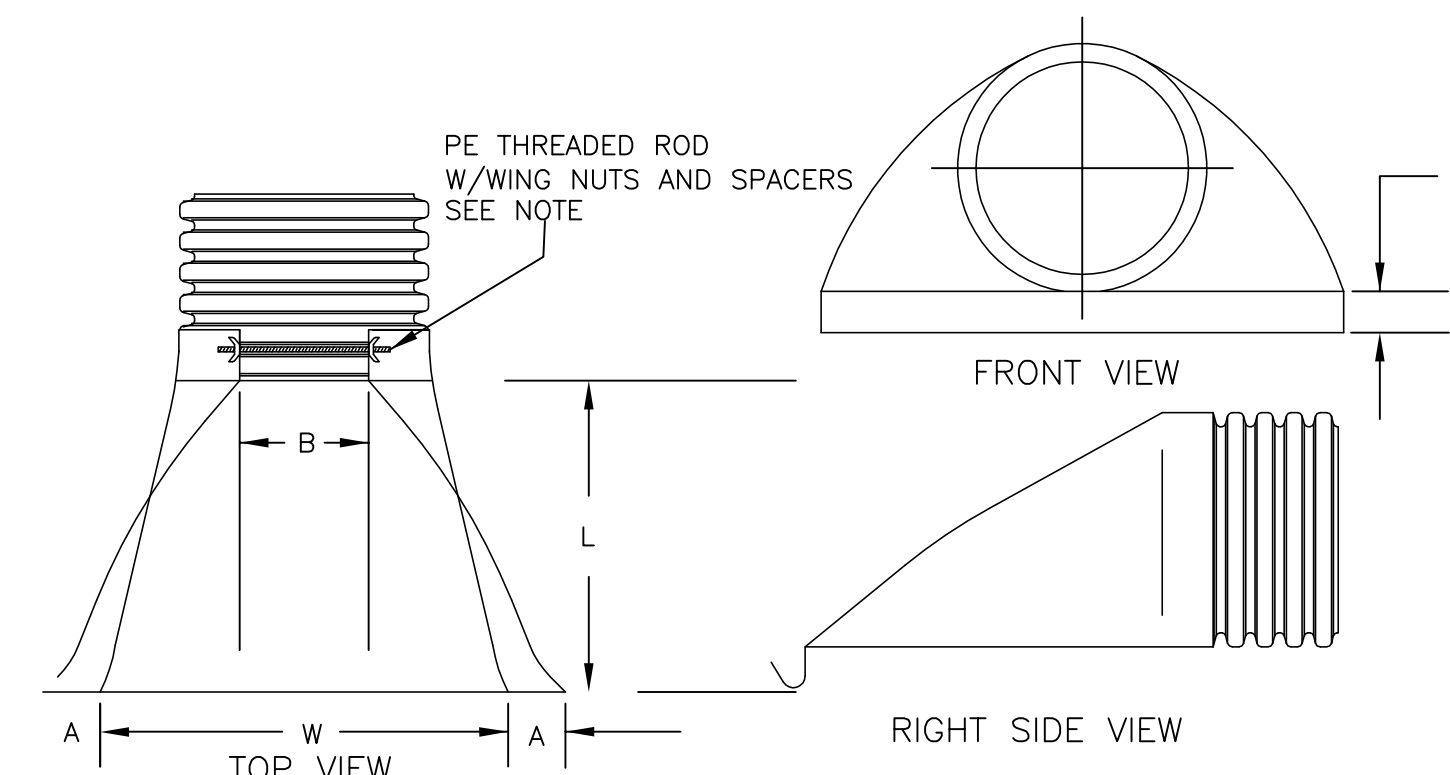


RIP-RAP SPECIFICATIONS

NOT TO SCALE

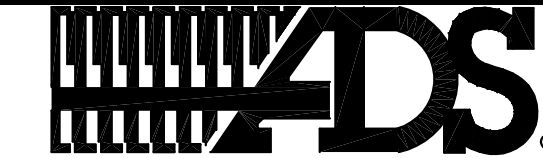
DESCRIPTION	LENGTH L	INVERT WIDTH Wi	END WIDTH We	STONE D50	DEPTH OF STONE- D
HW1	12'	4.5'	14'	3"	1.5'
FES 8	17'	4.5'	18'	14"	2'
FES 9	18'	6'	20'	17"	2'

NOTE:
RIP RAP TO BE CRUSHED
STONE. 75% OF STONE DIAMETER
AND 25% SMALLER TO FILL VOIDS.



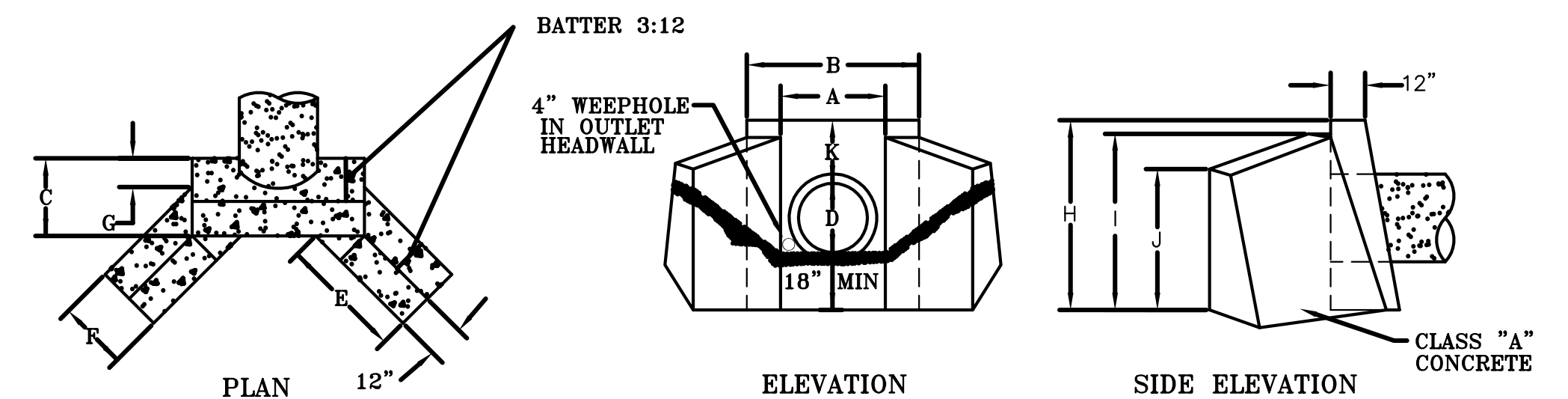
NOTE:
PE THREADED ROD W/WING NUTS PROVIDED FOR END
SECTIONS 12"-24". 30" & 36" END SECTIONS REQUIRE
TWO (2) THREADED RODS FOR ASSEMBLY.

PART #	PIPE SIZE	A	B (MAX)	H	L
1210NP	12 IN	6.50 IN	10.00 IN	6.50 IN	25.00 IN
1510NP	15 IN	6.50 IN	10.00 IN	6.50 IN	25.00 IN
1810NP	18 IN	7.50 IN	15.00 IN	6.50 IN	32.00 IN
2410NP	24 IN	7.50 IN	18.00 IN	6.50 IN	36.00 IN
3015NP	30 IN	7.50 IN	12.00 IN	8.60 IN	58.00 IN
3615NP	36 IN	7.50 IN	25.00 IN	8.60 IN	58.00 IN



ADVANCED DRAINAGE SYSTEMS, INC.

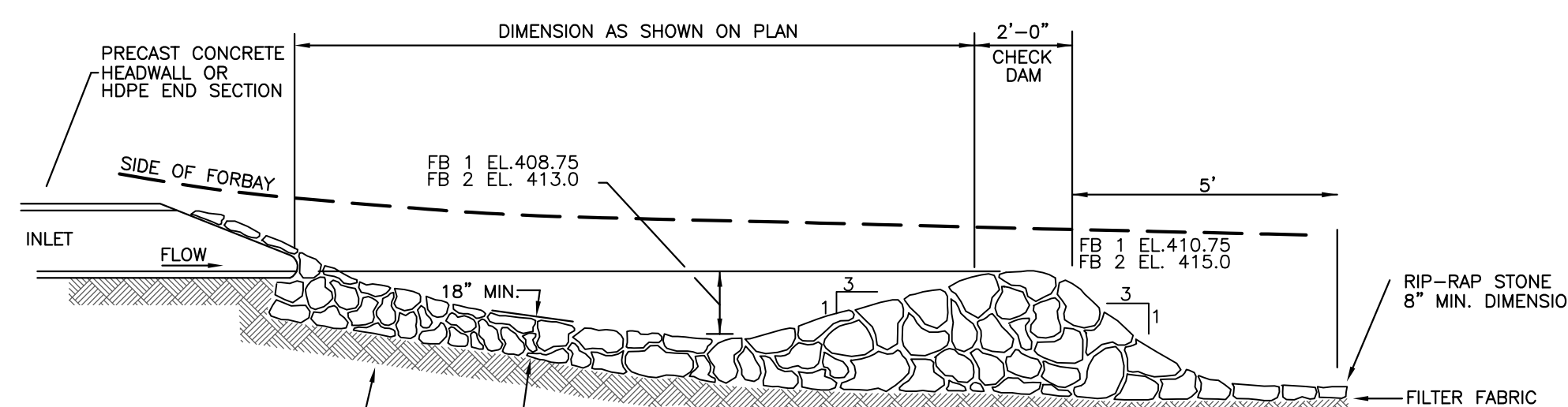
HDPE FLARED END SECTION



	A	B	C	D	E	F	G	H	I	J
12"	1'-6"	4'-0"	2'-0"	3'-0"	1'-9"	8"	4'-0"	3'-8"	2'-8"	1'-3"
15"	1'-9"	4'-4"	2'-1"	3'-2"	1'-10"	7"	4'-2"	3'-10"	3'-0"	1'-6"
18"	2'-0"	4'-10"	2'-2"	3'-4"	1'-11"	6"	4'-6"	4'-0"	3'-4"	1'-6"
24"	2'-6"	5'-4"	2'-3"	3'-6"	2'-0"	5"	5'-0"	4'-6"	3'-10"	1'-6"

HEADWALL DETAIL WITH 45° WINGS

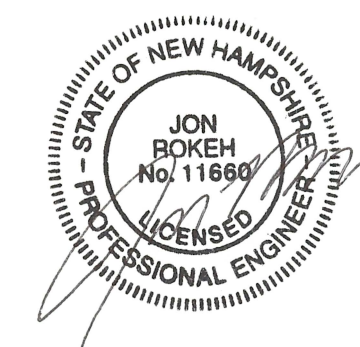
NOT TO SCALE



FORBAY SECTION

NOT TO SCALE

FORBAY	REQUIRED FORBAY	PROPOSED FORBAY VOLUME CF	ROCK DAM	STONE
8	1448	1500CF	2.0	CLASS C
9	964	1000CF	2.0	CLASS C



Developer:
DBU CONSTRUCTION
PO Box 984
Epsom, NH 03234

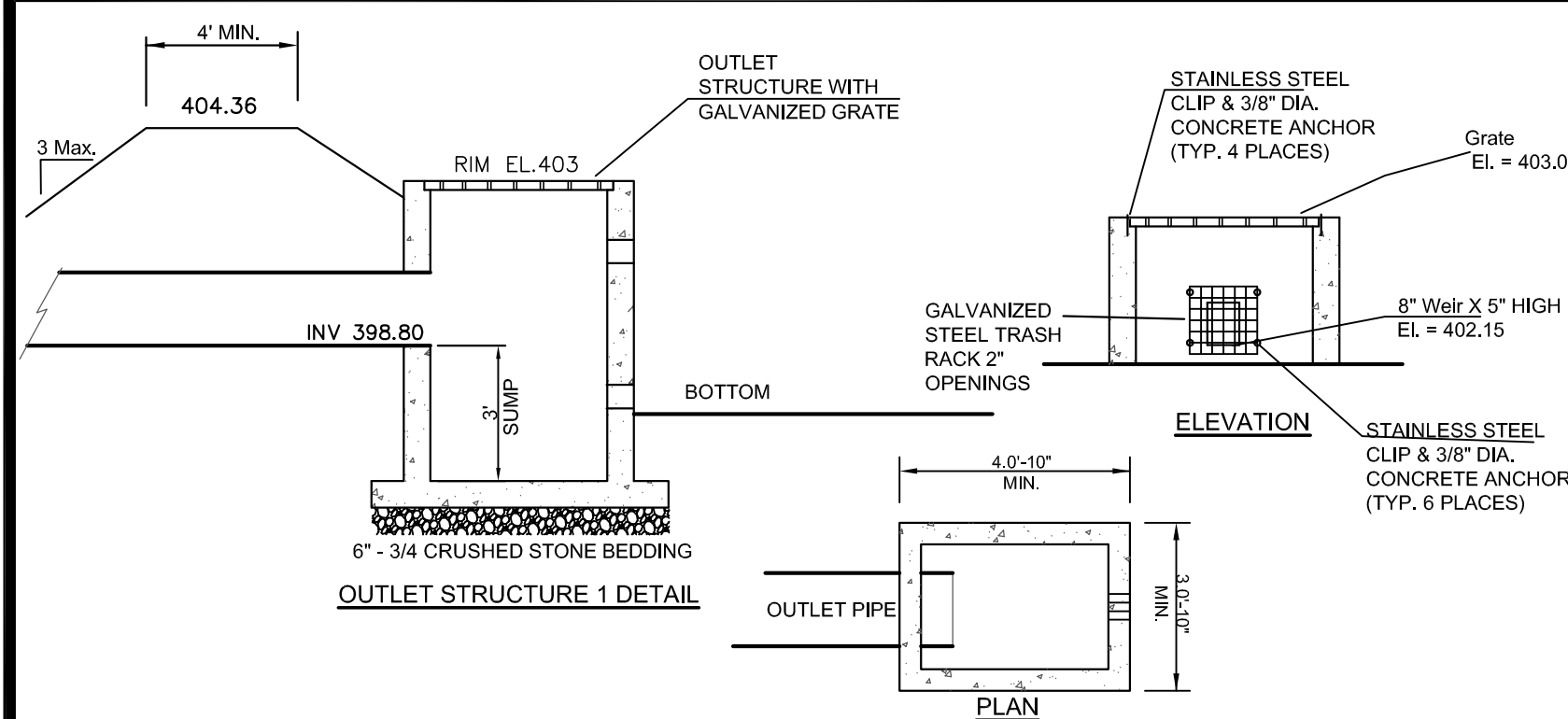
CONSTRUCTION DETAILS
COMMERCIAL SITE PLAN
TAX PARCEL 4 LOT 151
DOVER ROAD
CHICHESTER, MERRIMACK COUNTY, NEW HAMPSHIRE

REVISIONS

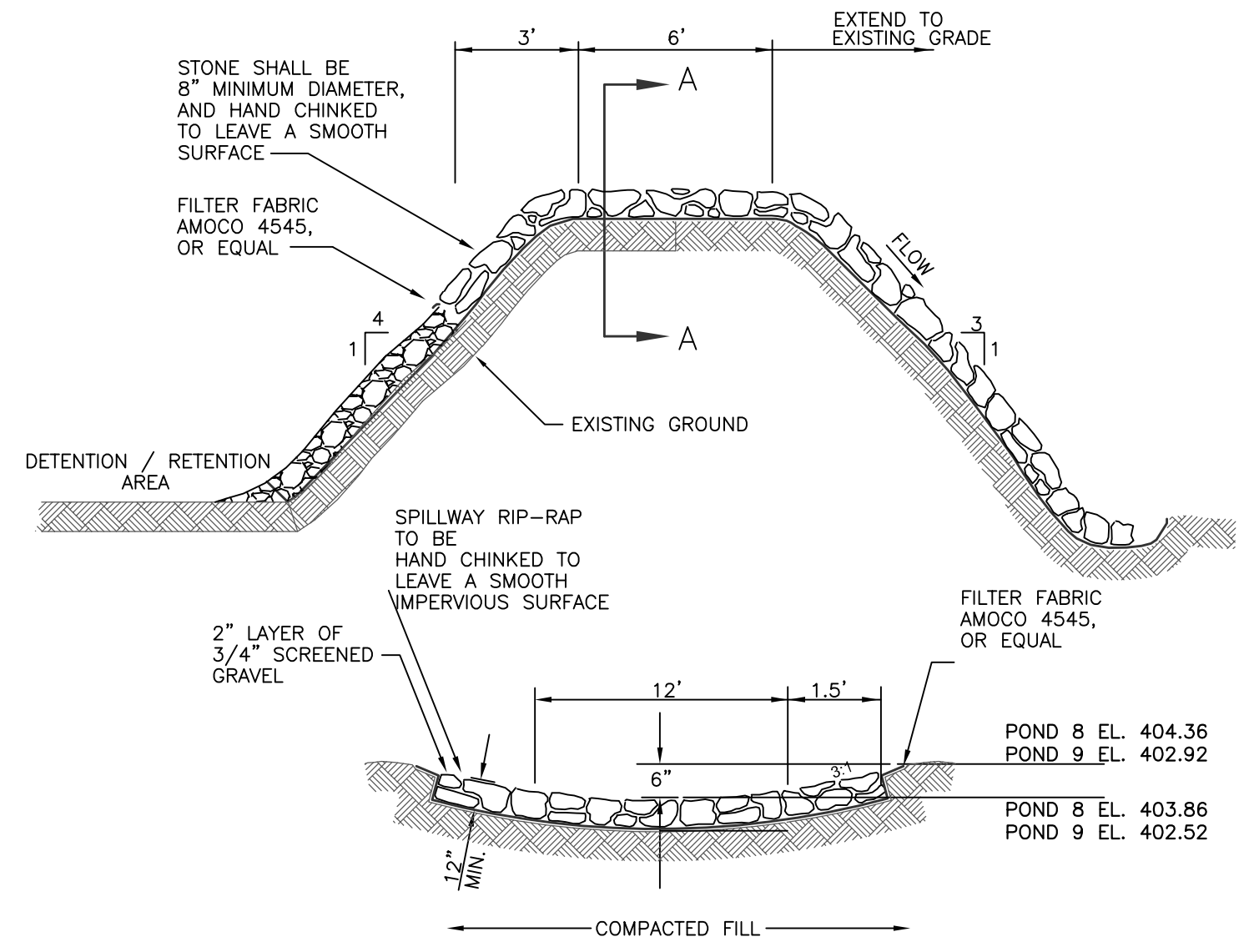
DATE	DESCRIPTION	GRATE H20 LOADING DWN BY	CK BY

Rokeh Consulting, LLC
89 KING ROAD, CHICHESTER, NH
PH: 603-387-8688

SCALE: 1" = 50"
DATE: JANUARY 14, 2019
DR. BY: JR CK. BY: JR
JOB NO. _____
SHEET NO. 18 OF 23



DETENTION POND 9 OUTLET STRUCTURE

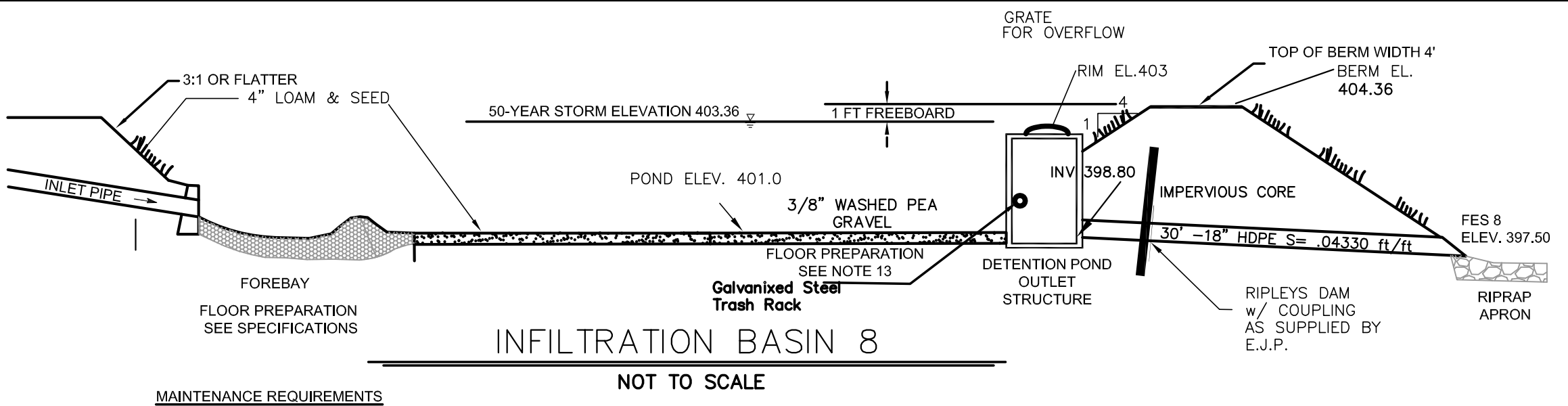


SECTION A-A NOT TO SCALE
DETENTION BASIN OVERFLOW WIER

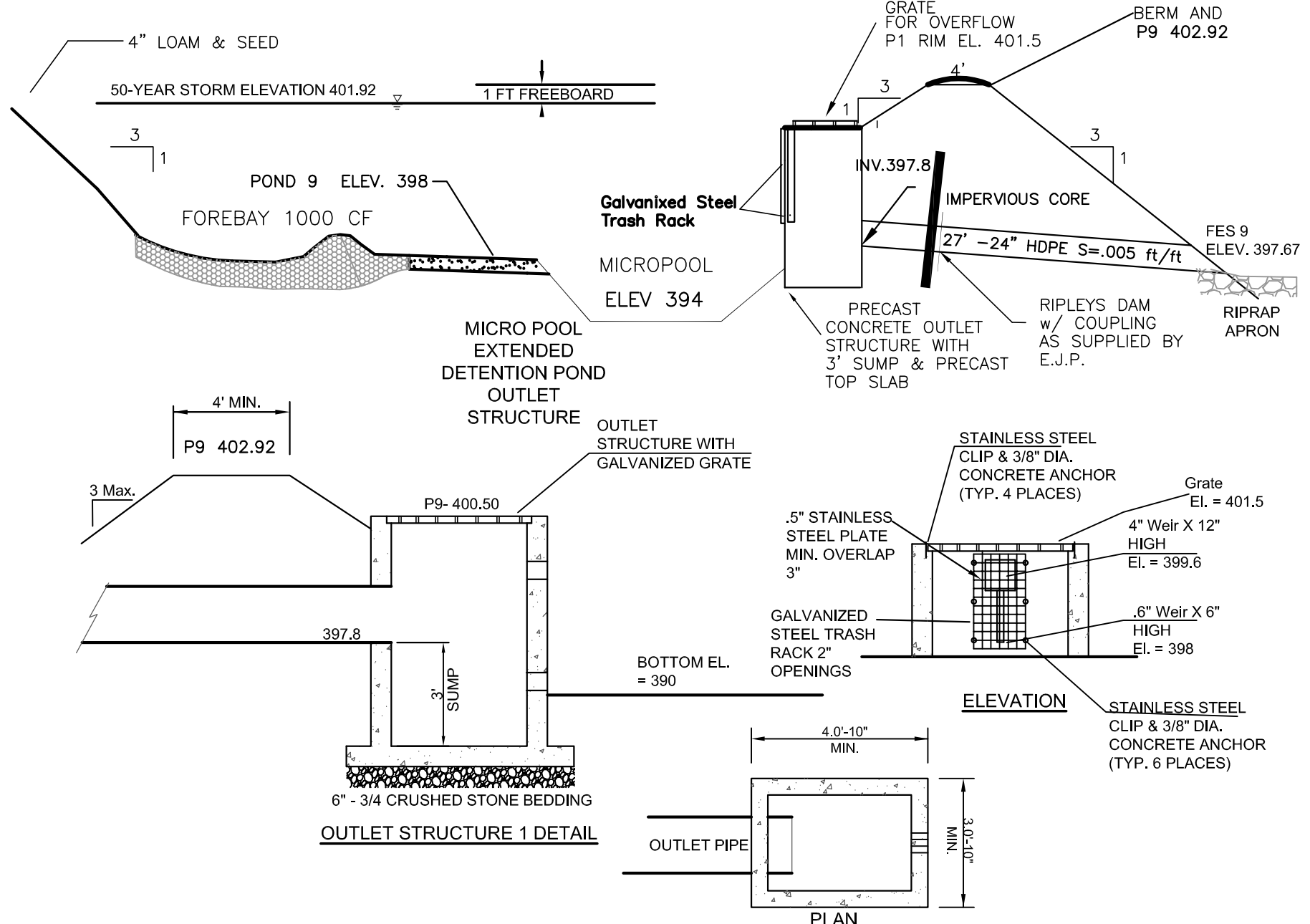
- NOTES:**
- ALL CEMENT TO BE 4000 PSI (MIN)
 - GALVANIZED STEEL GRATE SHALL BE BOLTED TO TOP OF STRUCTURE WITH 1/2" STAINLESS STEEL BOLTS AND THREADED INSERTS.
 - OUTLET PIPE SHALL NOT BE LESS THAN 15" DIAMETER AND SHALL BE SIZED FOR A 50-YEAR STORM.
 - ALL OPENINGS SHALL BE CAST IN AS REQUIRED. MINIMUM CONCRETE WEIR WIDTH SHALL BE 2 INCHES.
 - PRE CAST REINFORCED CONCRETE STRUCTURE TO MEET ASTM C-478 DESIGNATION AND H-20 LOADING.
 - CONTROL WEIR SHALL BE SIZED TO MITIGATE DESIGN STORM AS REQUIRED BY THE REGULATIONS AND IN ACCORDANCE WITH THE APPROVED DRAINAGE CALCULATIONS. STAINLESS STEEL PLATE SHALL BE USED FOR CONTROL WEIRS LESS THAN 2 INCHES WIDE.
 - ALL STAINLESS STEEL SHALL BE GRADE 316
 - MINIMUM EMBANKMENT ELEVATION TO BE 12" ABOVE 100-YEAR STORM ELEVATION.
 - ALL CONSTRUCTION TO COMPLY WITH THE MOST RECENT EDITION OF DERRY REGULATIONS.

- NOTES:**
- IMPERVIOUS CORE AND POND LINER SOIL SAMPLES AND SIEVE ANALYSIS TO BE SUBMITTED FOR APPROVAL PRIOR TO CONSTRUCTION. IMPERVIOUS SOILS TO MEET THE FOLLOWING CRITERIA. SOIL SHALL HAVE NO ORGANIC MATTER OR FROZEN MATERIAL AND NO STONES LARGER THAN 2/3 OF THE MAXIMUM LIFT SIDE. STONES AROUND ANY STRUCTURES AND/OR CONDUITS SHALL NOT EXCEED 3 INCHES. FILL MATERIAL SHALL HAVE THE FOLLOWING GRADATION:

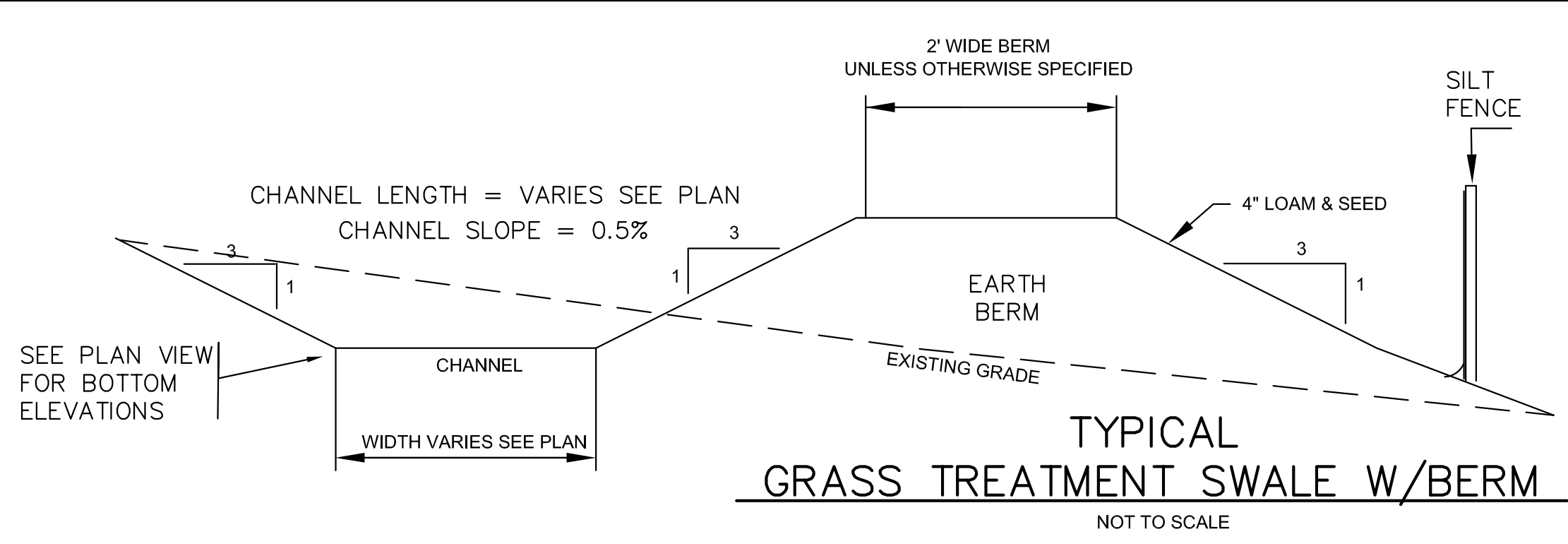
SIEVE SIZE:	% PASSING
95 - 100	
#40	60 - 90
#100	40 - 60
#200	25 - 45
 - THE CONTRACTOR SHALL USE CARE NOT TO OVER EXCAVATE AND DISTURB THE EXISTING SOIL AT THE BERM AND OUTLET PIPE AREAS.
 - IMPERVIOUS SOIL SHALL BE INSTALLED WITHIN THE LIMITS SHOWN ALONG THE BERM AREA. THE SOIL SHALL BE KEYED 12" INTO THE BOTTOM OF THE POND AND SHALL BE PLACED IN LIFTS NOT EXCEEDING 9" AND COMPACTED TO A MINIMUM 95% OF THE WET WEIGHT AS DETERMINED BY MODIFIED TESTING (ASTM 1557)
 - AT THE IMPERVIOUS DAM AREA, THE DAM SHALL BE KEYED INTO TO BOTTOM AND SIDES OF THE TRENCH A MINIMUM OF 2". THE IMPERVIOUS SOIL SHALL BE PLACED IN LIFTS NOT EXCEEDING 9" AND COMPACTED TO A MINIMUM 95% OF THE WET WEIGHT AS DETERMINED BY MODIFIED TESTING (ASTM 1557)



- MAINTENANCE REQUIREMENTS**
- THE INTERIOR AND EXTERIOR SIDE SLOPES, AND CREST OF EARTHEN INFILTRATION BASINS SHALL BE MOWED, AND THE VEGETATION MAINTAINED IN HEALTHY CONDITION, AS APPROPRIATE TO THE FUNCTION OF THE FACILITY AND TYPE OF VEGETATION.
 - VEGETATED EMBANKMENTS THAT SERVE AS "BERMS" THAT IMPOUND WATER SHALL BE CLEARED OF WOODY VEGETATION ONCE PER YEAR.
 - EMBANKMENTS SHALL BE INSPECTED AT LEAST ANNUALLY BY A QUALIFIED PROFESSIONAL FOR SETTLEMENT, EROSION, SEEPAGE, ANIMAL BURROWS, WOODY VEGETATION, AND OTHER CONDITIONS THAT COULD DEGRADE THE EMBANKMENT AND REDUCE ITS STABILITY FOR IMPOUNDING WATER. IMMEDIATE CORRECTIVE ACTION SHALL BE IMPLEMENTED IF ANY SUCH CONDITIONS ARE FOUND.
 - INLET AND OUTLET PIPES, INLET AND OUTLET STRUCTURES, ENERGY DISSIPATION STRUCTURES OR PRACTICES, AND OTHER STRUCTURAL APPURTENANCES SHALL BE INSPECTED AT LEAST ANNUALLY BY A QUALIFIED PROFESSIONAL, AND CORRECTIVE ACTION IMPLEMENTED (E.G., MAINTENANCE, REPAIRS, OR REPLACEMENT) AS INDICATED BY SUCH INSPECTION.
 - TRASH AND DEBRIS SHALL BE REMOVED FROM THE BASIN AND ANY INLET OR OUTLET STRUCTURES WHENEVER OBSERVED BY INSPECTION.
 - ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT SIGNIFICANTLY AFFECTS BASIN INFILTRATION CAPACITY.
- SPECIFICATIONS**
- PONDS SHALL BE CONSTRUCTED IN THE INITIAL STAGES OF CONSTRUCTION.
 - FOUNDATION PREPARATION - THE FOUNDATION AREA SHALL BE CLEARED OF TREES, LOGS, STUMPS, ROOTS, BRUSH, BOULDERS, SOD, AND RUBBISH. IF NEEDED TO ESTABLISH VEGETATION, THE TOPSOIL AND SOD SHALL BE STOCKPILED AND SPREAD ON THE COMPLETED SLOPES AND SPILLWAYS. FOUNDATION AREA SHALL BE THOROUGHLY SCARIFIED BEFORE PLACEMENT OF THE MATERIAL. THE SURFACE SHALL HAVE MOISTURE ADDED OR IS SHALL BE COMPACTED IF NECESSARY SO THAT THE FIRST LAYER OF FILL MATERIAL CAN BE COMPACTED AND BONDED TO THE FOUNDATIONS. FOUNDATION AREAS SHALL BE KEPT FREE OF STANDING WATER WHEN FILL IS BEING PLACED ON THEM.
 - FILL PLACEMENT - THE MATERIAL PLACED IN THE FILL SHALL BE FREE OF DETRIMENTAL AMOUNTS OF SOD, ROOTS, FROZEN SOIL, STONES MORE THAN 6 INCHES IN DIAMETER (EXCEPT FOR ROCK FILLS), AND OTHER OBJECTIONABLE MATERIAL. SELECTED BACKFILL MATERIAL SHALL BE PLACED AROUND STRUCTURES, PIPE CONDUITS, AND ANTISEEP COLLARS AT ABOUT THE SAME RATE ON ALL SIDES TO PREVENT DAMAGE FROM UNEQUAL LOADING. THE PLACING AND SPREADING OF FILL MATERIAL SHALL BE STARTED AT THE LOWEST POINT OF THE FOUNDATION AND THE FILL BROUGHT UP IN HORIZONTAL LAYERS OF SUCH THICKNESS THAT THE REQUIRED COMPACTION CAN BE OBTAINED. THE FILL SHALL BE CONSTRUCTED IN CONTINUOUS HORIZONTAL LAYERS EXCEPT WHERE OPENINGS OR SECTIONALIZED FILLS ARE REQUIRED. IN THOSE CASES, THE SLOPE OF THE BONDING SURFACES BETWEEN THE EMBANKMENT IN PLACE AND THE EMBANKMENT TO BE PLACED SHALL NOT BE STEEPER THAN 3 HORIZONTAL TO 1 VERTICAL. THE BONDING SURFACE SHALL BE TREATED THE SAME AS THAT SPECIFIED FOR THE FOUNDATION SO AS TO INSURE A GOOD BOND WITH THE NEW FILL. THE DISTRIBUTION AND GRADATION OF MATERIALS SHALL BE SUCH THAT NO LENSES, POCKETS, STREAKS, OR LAYERS OF MATERIAL DIFFER SUBSTANTIALLY IN TEXTURE OF GRADATION FROM THE SURROUNDING MATERIAL. IF IT IS NECESSARY TO USE MATERIALS OF VARYING TEXTURE AND GRADATION, THE MOST IMPERVIOUS MATERIAL SHALL BE PLACED IN THE CENTER AND UPSTREAM PARTS OF THE FILL. IF ZONED FILLS OF SUBSTANTIALLY DIFFERING MATERIALS ARE SPECIFIED, THE ZONES SHALL BE PLACED ACCORDING TO THE LINES AND GRADES SHOWN ON THE DRAWINGS. THE COMPLETE WORK SHALL CONFORM TO THE LINES, GRADES, AND ELEVATIONS SHOWN ON THE DRAWINGS OR AS STAKED IN THE FIELD.
 - MOISTURE CONTROL - THE MOISTURE CONTENT OF THE FILL MATERIAL SHALL BE ADEQUATE FOR OBTAINING THE REQUIRED COMPACTION. MATERIAL THAT IS TOO WET SHALL BE DRIED TO MEET THIS REQUIREMENT, AND MATERIAL THAT IS TOO DRY SHALL HAVE WATER ADDED AND MIXED UNTIL THE REQUIREMENT IS MET. IF A MINIMUM REQUIRED DENSITY IS SPECIFIED, EACH LAYER OF FILL SHALL BE COMPACTED AS NECESSARY TO OBTAIN THAT DENSITY. FILL ADJACENT TO STRUCTURES, PIPE CONDUITS, AND ANTISEEP COLLARS SHALL BE COMPACTED TO A DENSITY EQUIVALENT TO THAT OF THE SURROUNDING FILL BY MEANS OF HAND TAMPING OR MANUALLY DIRECTED POWER TAMPER OR PLATE VIBRATORS.
 - PROTECTION - A PROTECTIVE COVER OF VEGETATION SHALL BE ESTABLISHED ON ALL EXPOSED SURFACES OF THE EMBANKMENT, SPILLWAY, AND BORROW AREA IF SOIL AND CLIMATIC CONDITIONS PERMIT. IF SOIL OR CLIMATIC CONDITIONS PRECLUDE THE USE OF VEGETATION AND PROTECTION IS NEEDED, NON-VEGETATIVE MEANS, SUCH AS MULCHES OR GRAVEL, MAY BE USED. IN SOME PLACES, TEMPORARY VEGETATION MAY BE USED UNTIL CONDITIONS PERMIT ESTABLISHMENT OF PERMANENT VEGETATION. THE EMBANKMENT AND SPILLWAY SHALL BE FENCED IF NECESSARY TO PROTECT THE VEGETATION. SEEDBED PREPARATION, SEEDING, FERTILIZING, AND MULCHING SHALL COMPLY WITH THE APPROPRIATE VEGETATIVE BMPs.
 - BASIN FLOOR CONSTRUCTION - THE BASIN FLOOR SHALL NOT BE TRAFFICED WITH CONSTRUCTION EQUIPMENT. ONCE THE BASIN IS ECAVATED TO THE FINAL DESIGN ELEVATION THE FLOOR SHALL BE DEEPLY TILLED TO RESTORE THE INFILTRATION RATE. ONCE TILLED THE AREA CAN BE PASSED WITH A LEVELING DRAG. THE FLOOR SHALL RECEIVE A 6" LAYER OF VERY CLEAN COARSE SAND OR 3/8" WASHED PEA GRAVEL.

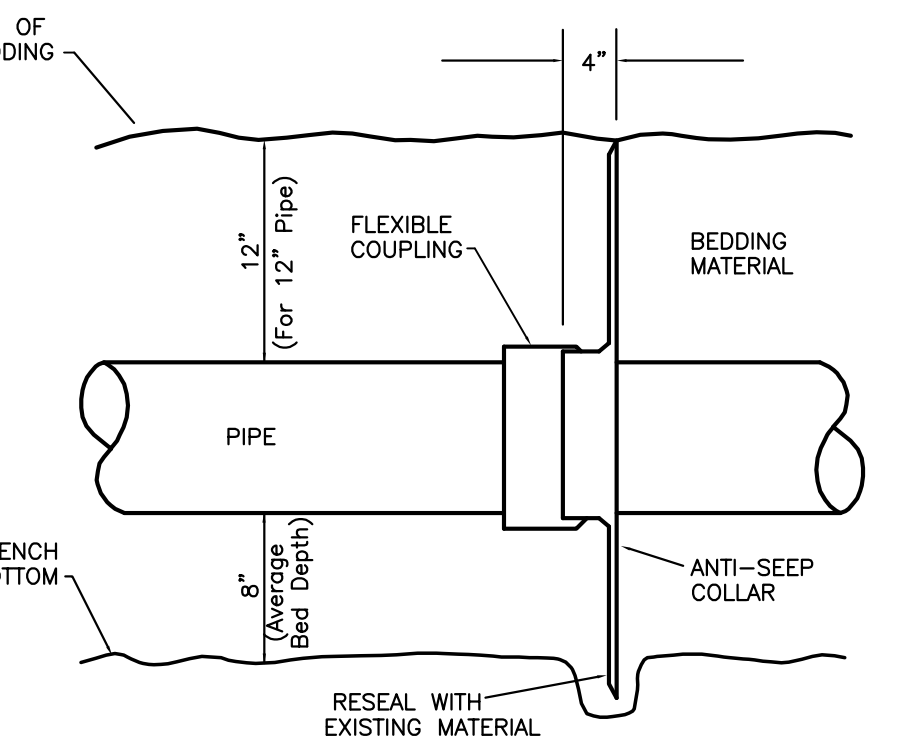
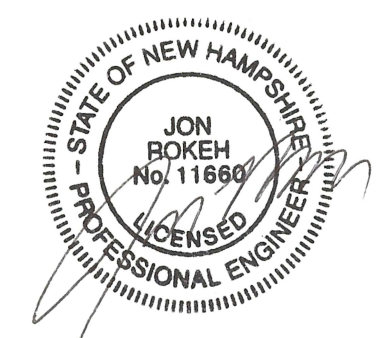


DETENTION POND 9 OUTLET STRUCTURE



TYPICAL GRASS TREATMENT SWALE W/BERM

- MAINTENANCE**
- THE EARTH DIKE SHALL BE INSPECTED AFTER EVERY STORM AND REPAIRS MADE TO THE DIKE, FLOW CHANNEL, AND THE OUTLET AS NECESSARY. DAMAGE CAUSED BY CONSTRUCTION EQUIPMENT SHOULD BE REPAIRED THE SAME DAY AS THE DAMAGE OCCURS. WHEN THE DIKE IS REMOVED, THE AREA SHALL BE SMOOTHED AND VEGETATED USING THE APPROPRIATE MEASURES OUTLINED IN THE BMP'S FOR VEGETATIVE MEASURES.
- TIMELY MAINTENANCE IS IMPORTANT TO KEEP THE VEGETATION IN THE SWALE IN GOOD CONDITION. MOWING SHOULD BE DONE FREQUENTLY ENOUGH TO KEEP THE VEGETATION IN VIGOROUS CONDITION AND TO CONTROL ENCROACHMENT OF WEEDS AND WOODY VEGETATION. HOWEVER IT SHOULD NOT BE MOWED BELOW 6 INCHES SO AS TO REDUCE THE FILTERING EFFECT. FERTILIZE ON AN "AS NEEDED" BASIS TO KEEP THE GRASS HEALTHY. OVER FERTILIZATION CAN RESULT IN THE SWALE BECOMING A SOURCE OF POLLUTION.
- THE SWALE SHOULD BE INSPECTED PERIODICALLY AND AFTER EVERY MAJOR STORM TO DETERMINE THE CONDITION OF THE SWALE. RILLS AND DAMAGED AREAS SHOULD BE PROMPTLY REPAIRED AND RE-VEGETATED AS NECESSARY TO PREVENT FURTHER DETERIORATION.
- CONSTRUCTION SPECIFICATIONS**
- ALL DIKES SHALL BE COMPACTED BY EARTH-MOVING EQUIPMENT.
 - ALL DIKES SHALL HAVE POSITIVE DRAINAGE TO AN OUTLET.
 - TOP WIDTH MAY BE WIDER AND SIDE SLOPES TO BE FLATTER IF DESIRED TO FACILITATE CROSSING BY CONSTRUCTION TRAFFIC.
 - FIELD LOCATION SHOULD BE ADJUSTED AS NEEDED TO UTILIZE A STABILIZED SAFE
 - EARTH DIKES SHALL HAVE AN OUTLET THAT FUNCTIONS WITH A MINIMUM OF EROSION. RUFF SHALL BE CONVEYED TO A SEDIMENT TRAPPING DEVICE SUCH AS A SEDIMENT TRAP OR SEDIMENT BASIN WHERE EITHER THE DIKE CHANNEL OR DRAINAGE AREA ABOVE THE DIKE ARE NOT ADEQUATELY STABILIZED.
 - STABILIZATION SHALL BE IN ACCORDANCE WITH THE SEEDING FOR TEMPORARY PROTECTION OF DISTURBED AREAS BEST MANAGEMENT PRACTICE, THE MULCHING



ANTI-SEEP COLLAR BY E.J. PRESCOTT OR APPROVED EQUAL

Developer:
DBU CONSTRUCTION
PO Box 984
Epsom, NH 03234

CONSTRUCTION DETAILS
COMMERCIAL SITE PLAN
TAX PARCEL 4 LOT 151
DOVER ROAD
CHICHESTER, MERRIMACK COUNTY, NEW HAMPSHIRE

REVISIONS

DATE	DESCRIPTION	GRATE H20 LOADING DWN BY	CK BY
3-12-20	EDITS TO CONTRACTOR YARD LAYOUT	JR	JR

Rokeh Consulting, LLC
89 KING ROAD, CHICHESTER, NH
PH: 603-387-8688

SCALE: 1" = 50"
DATE: JANUARY 14, 2019
DR. BY: JR CK. BY: JR
JOB NO. _____
SHEET NO. 19 OF 23

BLASTING BMP'S

NOTE: IF GREATER THAN 5000 CUBIC YARD OF BLAST ROCK WILL BE GENERATED, A GROUNDWATER MONITORING PROGRAM MUST BE DEVELOPED AND SUBMITTED TO NHDES.

A. Best Management Practices for Blasting. All activities related to blasting shall follow Best Management Practices (BMPs) to prevent contamination of groundwater including preparing, reviewing and following an approved blasting plan; proper drilling, explosive handing and loading procedures; observing the entire blasting procedures; evaluating blasting performance; and handling and storage of blasted rock.

- (1) **Loading practices.** The following blasthole loading practices to minimize environmental effects shall be followed:
 - (a) Drilling logs shall be maintained by the driller and communicated directly to the blaster. The logs shall indicate depths and lengths of voids, cavities, and fault zones or other weak zones encountered as well as groundwater conditions.
 - (b) Explosive products shall be managed on-site so that they are either used in the borehole, returned to the the delivery vehicle, or placed in secure containers for off-site disposal.
 - (c) Spillage around the borehole shall either be placed in the borehole or cleaned up and returned to an appropriate vehicle for handling or placement in secured containers for off-site disposal.
 - (d) Loaded explosives shall be detonated as soon as possible and shall not be left in the blastholes overnight, unless weather or other safety concerns reasonably dictate that detonation should be postponed.
 - (e) Loading equipment shall be cleaned in an area where wastewater can be properly contained and handled in a manner that prevents release of contaminants to the environment.
 - (f) Explosives shall be loaded to maintain good continuity in the column load to promote complete detonation. Industry accepted loading practices for priming, stemming, decking and column rise need to be attended to.
- (2) **Explosive Selection.** The following BMPs shall be followed to reduce the potential for groundwater contamination when explosives are used:
 - (a) Explosive products shall be selected that are appropriate for site conditions and safe blast execution.
 - (b) Explosive products shall be selected that have the appropriate water resistance for the site conditions present to minimize the potential for hazardous effect of the product upon groundwater.
- (3) **Prevention of Misfires.** Appropriate practices shall be developed and implemented to prevent misfires.
- (4) **Muck Pile Management.** Muck piles (the blasted pieces of rock) and rock piles shall be managed in a manner to reduce the potential for contamination by implementing the following measures:
 - (a) Remove the muck pile from the blast area as soon as reasonably possible.
 - (b) Manage the interaction of blasted rock piles and stormwater to prevent contamination of water supply wells or surface water.

- (5) **Spill Prevention Measures and Spill Mitigation.** Spill prevention and spill mitigation measures shall be implemented to prevent the release of fuel and other related substances to the environment. The measures shall include at a minimum:
 - (a) The fuel storage requirements shall include:
 1. Storage of regulated substances on an impervious surface.
 2. Secure storage areas against unauthorized entry.
 3. Label regulated containers clearly and visibly.
 4. Inspect storage areas weekly.
 5. Cover regulated containers in outside storage areas.
 6. Wherever possible, keep regulated containers that are stored outside more than 50 feet from surface water and storm drains, 75 feet from private wells, and 400 feet from public wells.
 7. Secondary containment is required for containers containing regulated substances stored outside, except for on premise use heating fuel tanks, or aboveground or underground storage tanks otherwise regulated.
 - (b) The fuel handling requirements shall include:
 1. Except when in use, keep containers containing regulated substances closed and sealed.
 2. Place drip pans under spigots, valves, and pumps.
 3. Have spill control and containment equipment readily available in all work areas.
 4. Use funnels and drip pans when transferring regulated substances.
 5. Perform transfers of regulated substances over an impervious surface.
 - (c) The training of on-site employees and the on-site posting of release response information describing what to do in the event of a spill of regulated substances.
 - (d) Fueling and maintenance of excavation, earthmoving and other construction related equipment will comply with the regulations of the New Hampshire Department of Environmental Services [note these requirements are summarized in WD-DWGB-22-6 Best Management Practices for Fueling and Maintenance of Excavation and Earthmoving Equipment" or its successor document. (see <http://des.nh.gov/organization/commissioner/pjp/factsheets/dwgb/documents/dwgb-22-6.pdf>)



Developer:
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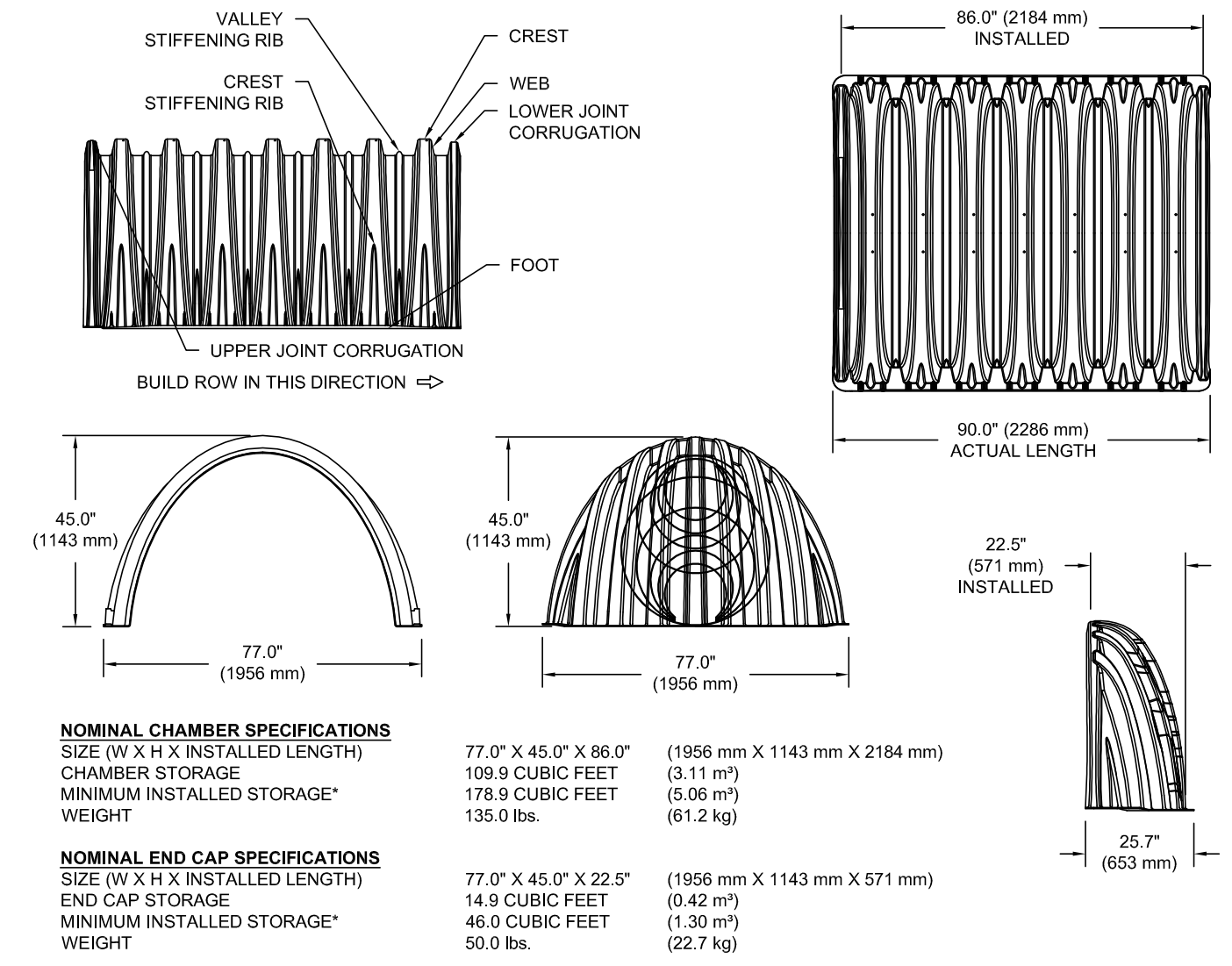
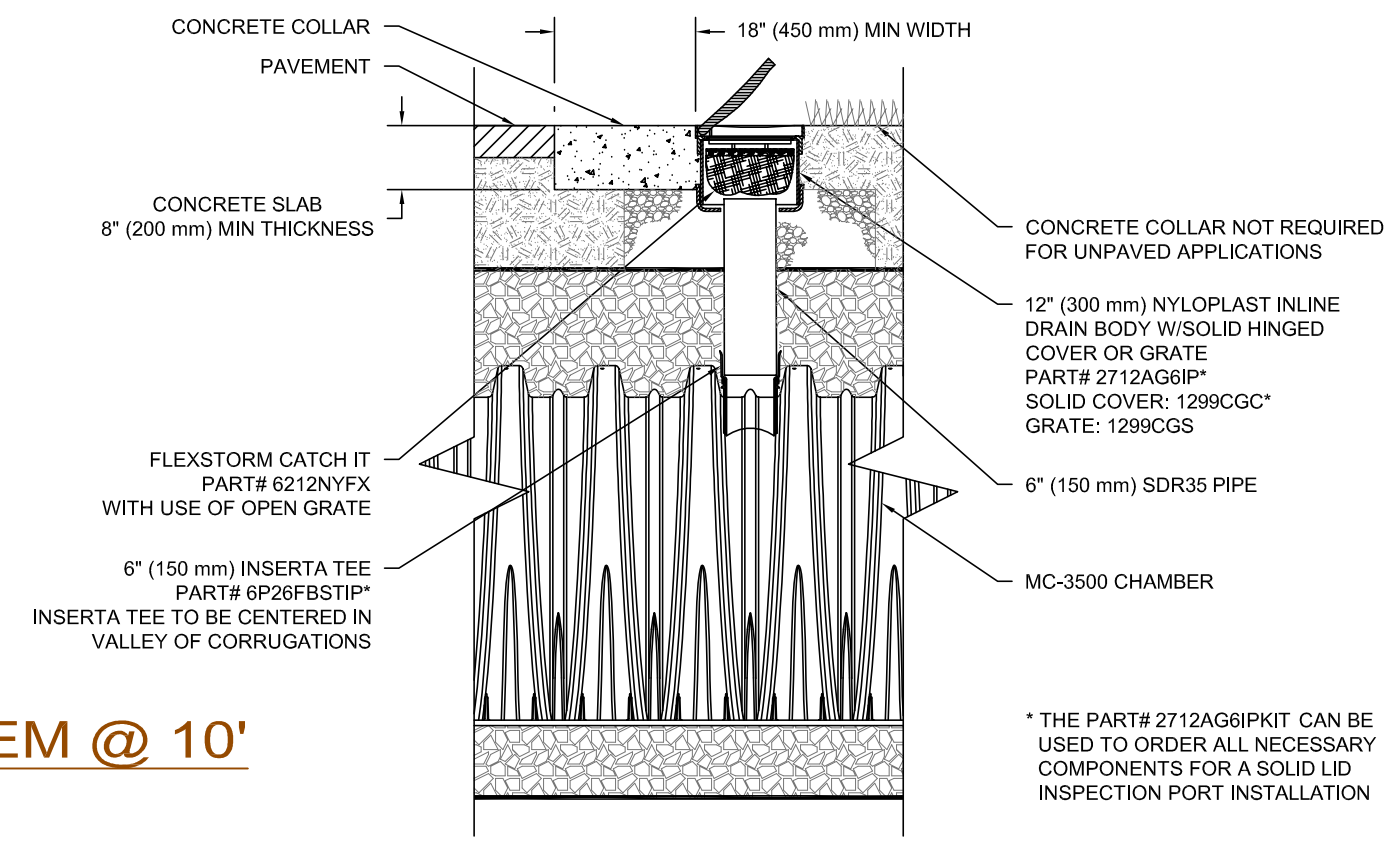
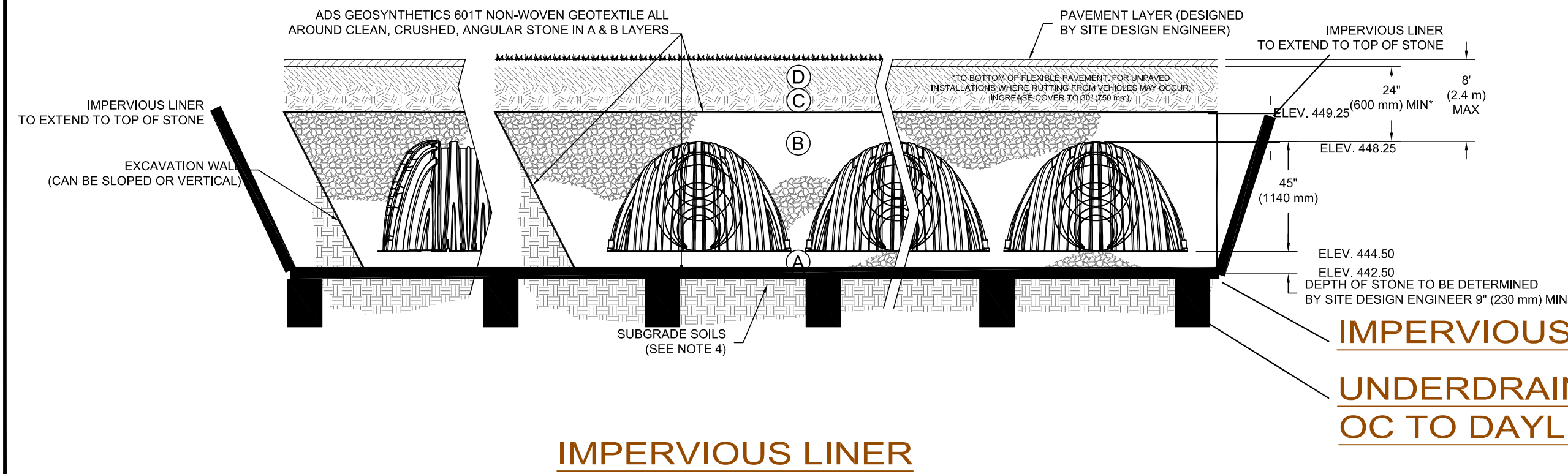
CONSTRUCTION DETAILS
COMMERCIAL SITE PLAN
TAX PARCEL 4 LOT 151
DOVER ROAD
CHICHESTER, MERRIMACK COUNTY, NEW HAMPSHIRE

REVISIONS		GRATE H20 LOADING	DWN BY	CK BY
DATE	DESCRIPTION			
6-26-19	EDITS PER AOT COMMENTS		BT	JR

Rokeh Consulting, LLC
89 KING ROAD, CHICHESTER, NH
PH: 603-387-8688

SCALE: 1" = 50'
DATE: JANUARY 14, 2019
DR. BY: JR CK. BY: JR
JOB NO. _____
SHEET NO. 20 OF 23

PLEASE NOTE:
 1. THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR NO. 4 (AASHTO M43) STONE".
 2. STORMTECH COMPACTION REQUIREMENTS ARE MET FOR 'A' LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 9" (230 mm) (MAX) LIFTS USING TWO FULL COVERAGES WITH A VIBRATORY COMPACTOR.
 3. WHERE INFILTRATION SURFACES MAY BE COMPROMISED BY COMPACTION, FOR STANDARD DESIGN LOAD CONDITIONS, A FLAT SURFACE MAY BE ACHIEVED BY RAKING OR DRAGGING WITHOUT COMPACTION EQUIPMENT. FOR SPECIAL LOAD DESIGNS, CONTACT STORMTECH FOR COMPACTION REQUIREMENTS.

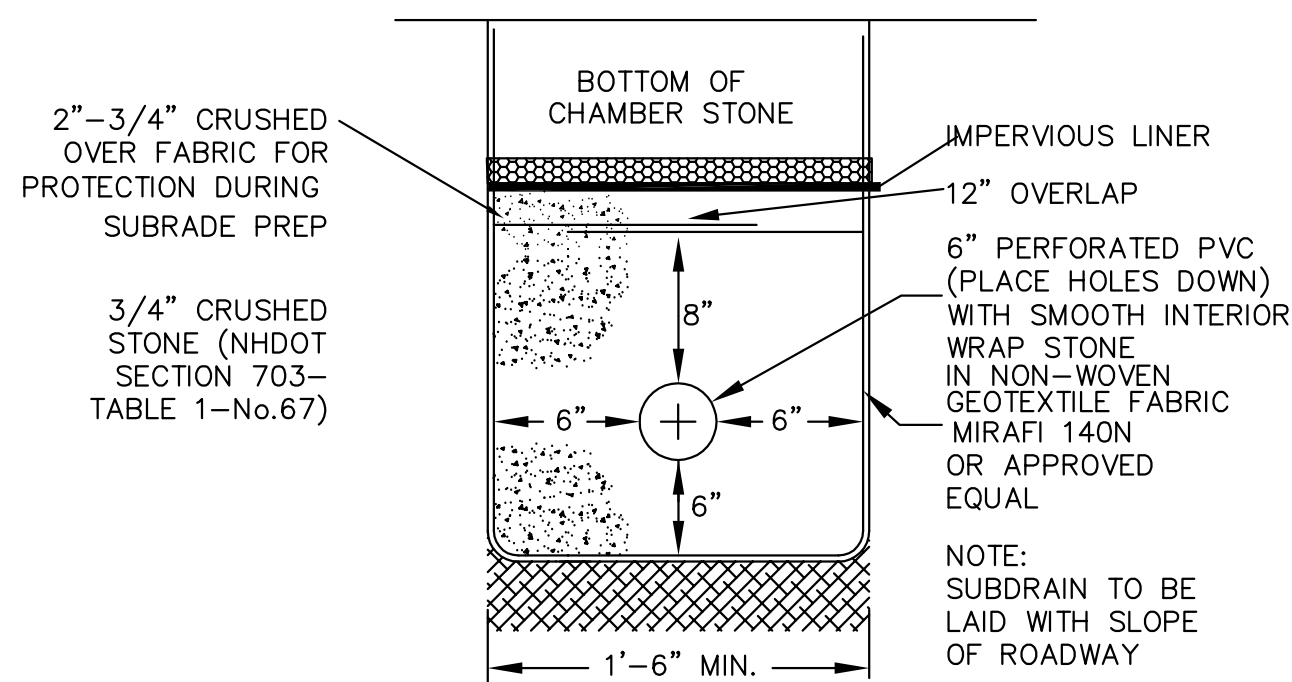


INSPECTION & MAINTENANCE

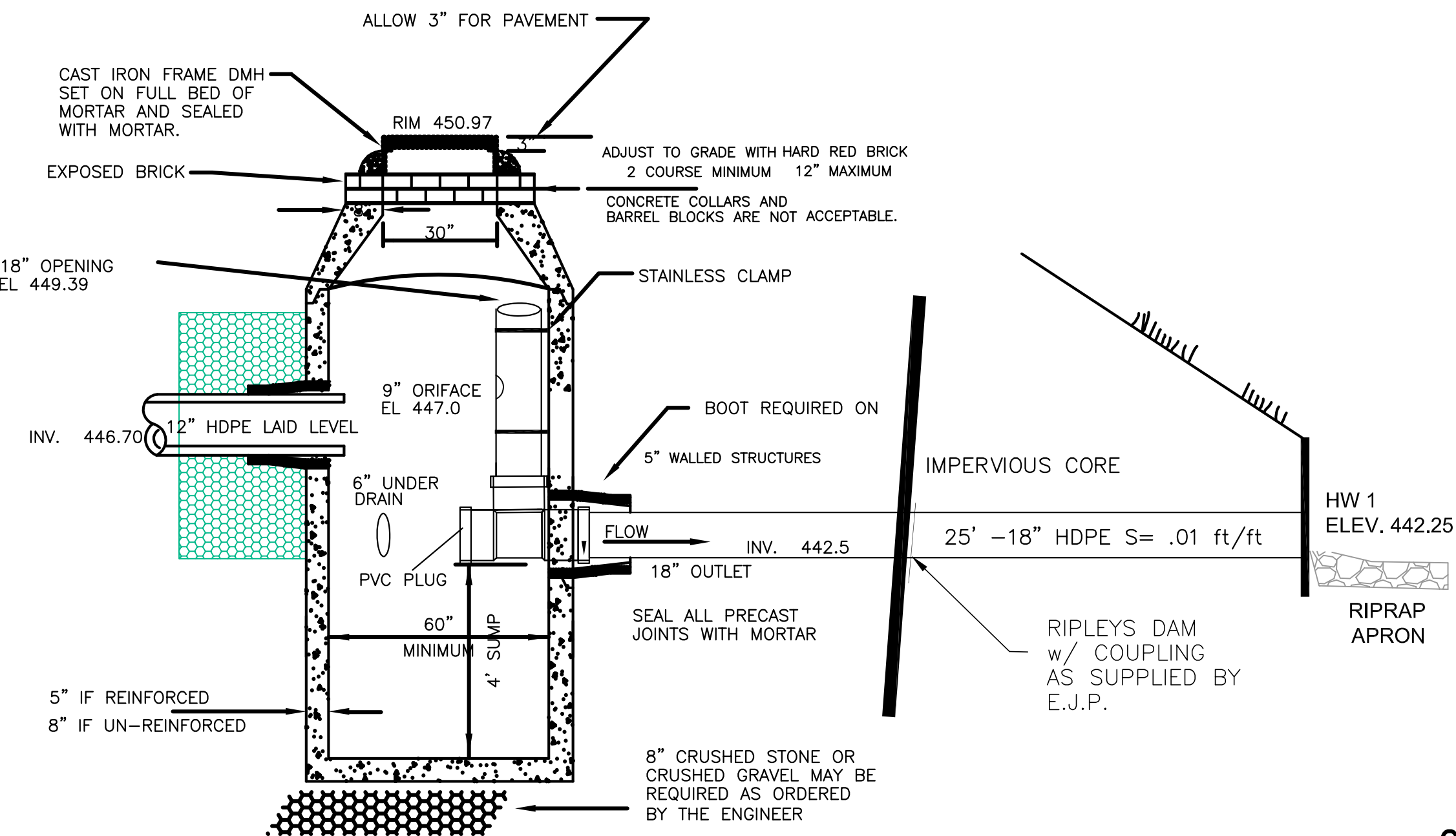
- STEP 1) INSPECT ISOLATOR ROW FOR SEDIMENT
 A. INSPECTION PORTS (IF PRESENT)
 A.1. REMOVE/OPEN LID ON NYLOPLAST IN-LINE DRAIN
 A.2. REMOVE AND CLEAN FLEXSTORM FILTER IF INSTALLED
 A.3. USING A FLASHLIGHT AND STADIA ROD, MEASURE DEPTH OF SEDIMENT AND RECORD ON MAINTENANCE LOG
 A.4. LOWER A CAMERA INTO ISOLATOR ROW FOR VISUAL INSPECTION OF SEDIMENT LEVELS (OPTIONAL)
 A.5. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.
 B. ALL ISOLATOR ROWS
 B.1. REMOVE COVER FROM STRUCTURE AT UPSTREAM END OF ISOLATOR ROW
 B.2. USING A FLASHLIGHT, INSPECT DOWN THE ISOLATOR ROW THROUGH OUTLET PIPE
 i) MIRRORS ON POLES OR CAMERAS MAY BE USED TO AVOID A CONFINED SPACE ENTRY
 ii) FOLLOW OSHA REGULATIONS FOR CONFINED SPACE ENTRY IF ENTERING MANHOLE
 B.3. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.
- STEP 2) CLEAN OUT ISOLATOR ROW USING THE JETVAC PROCESS
 A. A FIXED CULVERT CLEANING NOZZLE WITH REAR FACING SPREAD OF 45° (1.1 m) OR MORE IS PREFERRED
 B. APPLY MULTIPLE PASSES OF JETVAC UNTIL BACKFLUSH WATER IS CLEAN
 C. VACUUM STRUCTURE SUMP AS REQUIRED
- STEP 3) REPLACE ALL COVERS, GRATES, FILTERS, AND LIDS; RECORD OBSERVATIONS AND ACTIONS.
- STEP 4) INSPECT AND CLEAN BASINS AND MANHOLES UPSTREAM OF THE STORMTECH SYSTEM.

NOTES

- INSPECT EVERY 6 MONTHS DURING THE FIRST YEAR OF OPERATION. ADJUST THE INSPECTION INTERVAL BASED ON PREVIOUS OBSERVATIONS OF SEDIMENT ACCUMULATION AND HIGH WATER ELEVATIONS.
- CONDUCT JETTING AND VACTORING ANNUALLY OR WHEN INSPECTION SHOWS THAT MAINTENANCE IS NECESSARY.



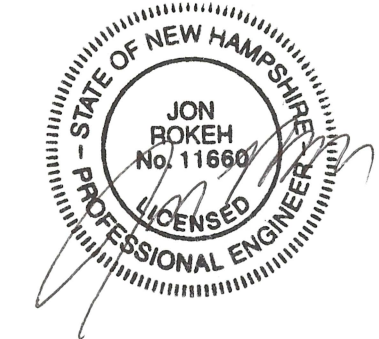
TYPICAL CROSS SECTION
 SUBDRAINS TO BE TIED TO HEADWALLS OR DRAINAGE DITCHES
CHAMBER SUBDRAIN DETAIL TYPICAL



MC-3500 TECHNICAL SPECIFICATION
 NTS

NOTE:
 SEE ADS SHOP DRAWINGS FOR UNDERGROUND DETENTION DETAILS AND CONSTRUCTION

OUTLET STRUCTURE DETAIL



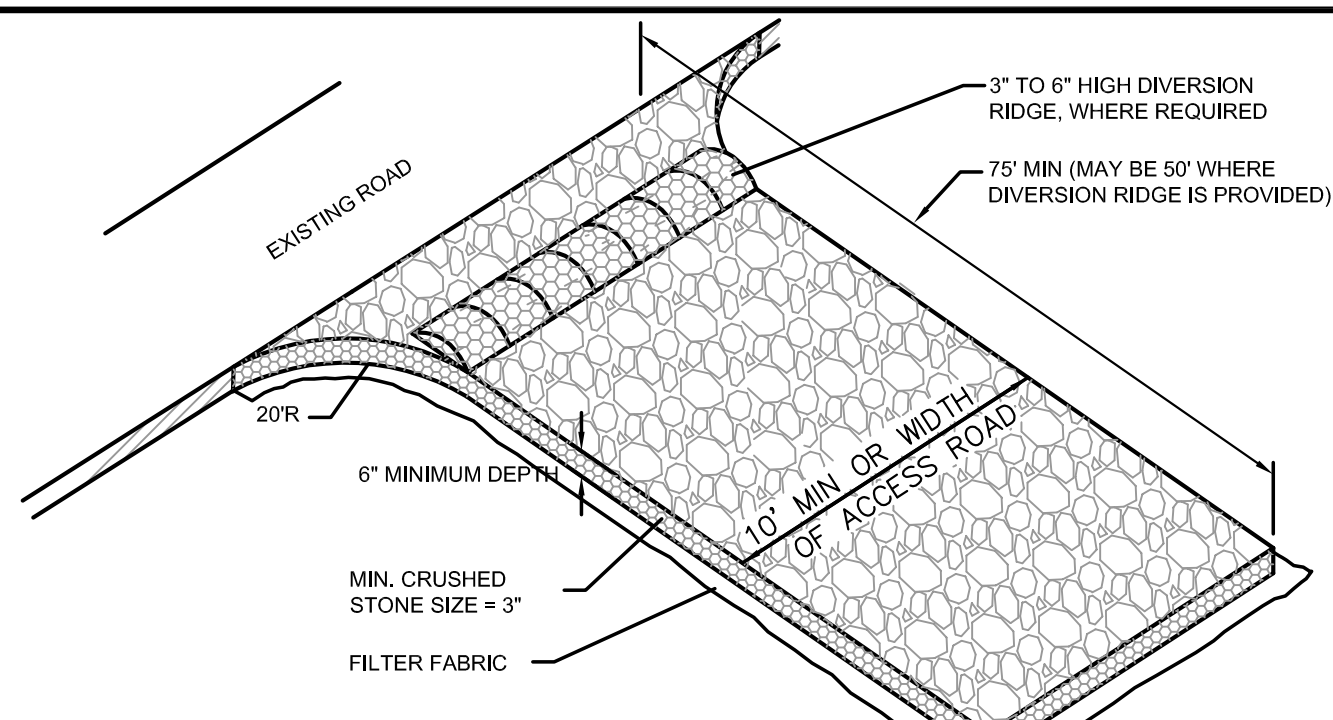
Developer:
 DBU CONSTRUCTION
 PO Box 984
 Epsom, NH 03234

STORMTECH DETAILS
 COMMERCIAL SITE PLAN
 TAX PARCEL 4 LOT 151
 DOVER ROAD
 CHICHESTER, MERRIMACK COUNTY, NEW HAMPSHIRE

REVISIONS				
DATE	DESCRIPTION	GRATE H2O LOADING DWN BY	CK BY	

Rokeh Consulting, LLC
 89 KING ROAD, CHICHESTER, NH
 PH: 603-387-8688

SCALE: 1" = 40"
 DATE: JANUARY 14, 2019
 DR. BY: JR CK. BY: JR
 JOB NO. _____
 SHEET NO. 21 OF 23



- MAINTENANCE**
- THE EXIT SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. WHEN THE CONTROL PAD BECOMES INEFFECTIVE, THE STONE SHALL BE REMOVED ALONG WITH THE COLLECTED SOIL MATERIAL, REGRADED ON SITE, AND STABILIZED. THE ENTRANCE SHALL THEN BE RECONSTRUCTED.
 - THE CONTRACTOR SHALL SWEEP THE PAVEMENT AT EXITS WHENEVER SOIL MATERIALS ARE TRACKED ONTO THE ADJACENT PAVEMENT OR TRAVELED WAY.
 - WHEN WHEEL WASHING IS REQUIRED, IT SHALL BE CONDUCTED ON AN AREA STABILIZED WITH AGGREGATE, WHICH DRAINS INTO AN APPROVED SEDIMENT-TRAPPING DEVICE. ALL SEDIMENT SHALL BE PREVENTED FROM ENTERING STORM DRAINS, DITCHES, OR WATERWAYS.
- CONSTRUCTION SPECIFICATIONS**
- ONLY CONSTRUCTION TRAFFIC LEAVING THE SITE IS REQUIRED TO USE THE TEMPORARY STABILIZED EXIT. CONSIDER PROVIDING A SEPARATE, UNPROTECTED, ENTRANCE FOR TRAFFIC ENTERING THE SITE. THIS WILL INCREASE THE LONGEVITY OF THE STABILIZED EXIT BY ELIMINATING HEAVY LOADS ENTERING THE SITE AND REDUCING THE TOTAL TRAFFIC OVER THE DEVICE.
 - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND, AND REPAIR AND/OR MAINTENANCE OF ANY MEASURES USED TO TRAP SEDIMENT.
 - STONE FOR A TEMPORARY CONSTRUCTION EXIT SHALL BE 3 INCH STONE, RECLAIMED STONE, OR RECYCLED CONCRETE EQUIVALENT.
 - THE MINIMUM LENGTH OF THE PAD SHALL BE 75 FEET, EXCEPT THAT THE MINIMUM LENGTH MAY BE REDUCED TO 50 FEET IF A 3-INCH TO 6-INCH HIGH BERM IS INSTALLED AT THE ENTRANCE OF THE PROJECT SITE.
 - THE THICKNESS OF THE STONE FOR THE STABILIZED ENTRANCE SHALL NOT BE LESS THAN 4 INCHES.
 - THE WIDTH OF THE ENTRANCE SHALL NOT BE LESS THAN THE FULL WIDTH OF THE EXIT OR 10 FEET, WHICH EVER IS GREATER.
 - GEOTEXTILE FILTER CLOTH SHALL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING THE STONE.
 - ALL SURFACE WATER THAT IS FLOWING TO OR DIVERTED TOWARD THE CONSTRUCTION EXIT SHALL BE PIPED BENEATH THE ENTRANCE. IF PIPING IS IMPRACTICAL, A BERM WITH 5:1 SLOPES THAT CAN BE CROSSED BY VEHICLES MAY BE SUBSTITUTED FOR THE PIPE.

TEMPORARY CONSTRUCTION EXIT
NOT TO SCALE

CONSTRUCTION SEQUENCES:

(THESE SEQUENCES TO APPLY FOR BOTH ROAD & LOT CONSTRUCTION)
NOTE: -- ALL EROSION CONTROLS TO BE INSPECTED WEEKLY AND AFTER EVERY .5" OF RAINFALL.

- NOTE:**
AN ENVIRONMENTAL MONITOR MAY BE REQUIRED DUE TO THE POSSIBILITY OF A GREATER THAN 5 ACRES BEING DISTURBED PRIOR TO STABILIZATION. THE MONITOR SHALL ADHERE TO ALL REQUIREMENTS OF ENV-WQ 1505.03(D) AS NOTED BELOW.
- PRIOR TO CONSTRUCTION INSTALL FABRIC SILTATION FENCING AS SHOWN ON PLAN. CONSTRUCT TEMPORARY STABILIZED ENTRANCE, AND INSTALL OTHER APPROPRIATE SEDIMENT AND EROSION CONTROL.
 - CUT AND CLEAR ALL VEGETATION AND STUMPS FROM CUT SLOPES, PONDS, AND SWALE AREAS.
 - COMPLETE TEMPORARY SEDIMENT BASINS AT POND LOCATIONS. CONSTRUCT BERMS AND SWALES TO DIRECT STORMWATER TO BASINS. SEDIMENT BASINS LOCATED WITHIN PROPOSED INFILTRATION BASIN AREAS ARE TO BE CONSTRUCTED A MINIMUM OF 1' ABOVE THE FINAL BASIN FLOOR ELEVATION.
 - AN AREA IS CONSIDERED STABLE IF:
 - A BASE COURSE GRAVELS HAVE BEEN INSTALLED IN AREAS TO BE PAVED;
 - A MINIMUM OF 85% VEGETATED GROWTH HAS BEEN ESTABLISHED;
 - A MINIMUM OF 3" OF NON-EROSIVE MATERIAL SUCH AS STONE, OR RIP-RAP HAS BEEN INSTALLED; OR
 - EROSION CONTROL BLANKETS HAVE BEEN PROPERLY INSTALLED.
 - CUT AND CLEAR ALL VEGETATION AND STUMPS FROM AREAS TO BE DISTURBED FOR THE CONSTRUCTION OF THE PROPOSED ROADWAY
 - REMOVE TOPSOIL AND OTHER ORGANIC MATERIALS FROM AREAS TO BE DISTURBED. ALL SUCH TOPSOIL REMOVED SHALL BE STOCKPILED FOR LATER USE. ALL STOCKPILES SHALL BE SEEDED AND MULCHED TO PREVENT LOSS DUE TO EROSION, AND ENCLOSED WITH FABRIC SILT FENCE. WHEN CONSTRUCTION ACTIVITIES ARE TEMPORARILY CEASED FOR MORE THAN 21 DAYS, PERMANENTLY CEASED, OR SHUT DOWN FOR WINTER, THE CONTRACTOR SHALL LEAVE NO SLOPES STEEPER THAN 3:1 AND SHALL IMPLEMENT TEMPORARY LOAMING, SEEDING AND MULCHING. WHERE CONSTRUCTION ACTIVITIES HAVE BEEN SUSPENDED OUTSIDE THE GROWING SEASON ALL EXPOSED SOIL SHALL BE STABILIZED BY MULCHING, AND ALL SLOPES GREATER THAN 3:1 SHALL BE STABILIZED WITH NETTING & PINNING.
 - CONSTRUCT, CUT, AND FILL SLOPES. ALL CUT AND FILL SLOPES TO BE STABILIZED IMMEDIATELY AFTER CONSTRUCTION. ALL SLOPES GREATER THAN 3:1 TO BE STABILIZED WITH JUTE MATTING. ALL CUT AND FILL SLOPES SHALL BE SEEDED AND LOAMED WITHIN 72 HOURS OF ACHIEVING FINISH GRADE.
 - CONSTRUCT STORM DRAINAGE, AND OTHER UNDERGROUND UTILITIES. ALL SWALES TO BE PROTECTED WITH TEMPORARY EROSION CONTROL MEASURES SHOWN. ALL CATCH BASIN OPENINGS TO BE PROTECTED WITH BLOCK AND GRAVEL INLET SEDIMENT FILTERS AS SHOWN. SEDIMENT TRAPS AND/OR BASINS SHOULD BE USED UNTIL BASINS/PONDS ARE STABILIZED.
 - BEGIN TOP SOILING, SEEDING AND MULCHING IMMEDIATELY AFTER COMPLETION OF EMBANKMENTS. TEMPORARY EROSION CONTROL / DIVERSION CHANNELS SHALL BE IMPLEMENTED WHERE REQUIRED TO PREVENT EROSION OF EMBANKMENTS. ANY EROSION OCCURRING SHALL BE REPAIRED IMMEDIATELY UPON DISCOVERY.
 - FINISH GRADING & PAVING. ALL ROADWAYS AND PARKING LOTS SHALL BE STABILIZED WITHIN 72 HOURS OF ACHIEVING FINISH GRADES.
 - ALL PAVED AREAS TO BE COMPLETED BY OCTOBER 15. ALL LANDSCAPED AREAS TO BE STABILIZED BY OCTOBER 15TH, WITH HAY MULCH AND SEED.
 - COMPLETE PERMANENT SEEDING AND MULCHING OF ALL DISTURBED AREAS. ALL TEMPORARY EROSION CONTROL MEASURES TO REMAIN IN PLACE UNTIL A FULL VEGETATIVE COVER HAS BEEN ESTABLISHED ON ALL DISTURBED AREAS.
 - SILT FENCES AND HAY BALE BARRIERS TO BE REMOVED ONCE THE SITE HAS STABILIZED.

MAINTENANCE REQUIREMENTS

- TEMPORARY SEEDING SHALL BE INSPECTED WEEKLY AND AFTER ANY RAINFALL EXCEEDING 1/4 INCH IN 24 HOURS ON ACTIVE CONSTRUCTION SITES. TEMPORARY SEEDING SHALL ALSO BE INSPECTED JUST PRIOR TO SEPTEMBER 15, TO ASCERTAIN WHETHER ADDITIONAL SEEDING IS REQUIRED TO PROVIDE STABILIZATION OVER THE WINTER PERIOD.
- BASED ON INSPECTION, AREAS SHALL BE RESEEDED TO ACHIEVE FULL STABILIZATION OF EXPOSED SOILS. IF IT IS TOO LATE IN THE PLANTING SEASON TO APPLY ADDITIONAL SEED, THEN OTHER TEMPORARY STABILIZATION MEASURES SHALL BE IMPLEMENTED
- AT A MINIMUM, 85% OF THE SOIL SURFACE SHALL BE COVERED BY VEGETATION.
- IF ANY EVIDENCE OF EROSION OR SEDIMENTATION IS APPARENT, REPAIRS SHALL BE MADE AND AREAS SHALL BE RESEEDED, WITH OTHER TEMPORARY MEASURES (E.G., MULCH) USED TO PROVIDE EROSION PROTECTION DURING THE PERIOD OF VEGETATION ESTABLISHMENT.
- INSTALL NEEDED EROSION AND SEDIMENT CONTROL MEASURES SUCH AS SILTATION BARRIERS, DIVERSIONS, AND SEDIMENT TRAPS.
- GRADE AS NEEDED FOR THE ACCESS OF EQUIPMENT FOR SEEDBED PREPARATION, SEEDING, MULCH APPLICATION, AND MULCH ANCHORING.
- RUNOFF SHALL BE DIVERTED FROM THE SEEDED AREA.
- ON SLOPES 4:1 OR STEEPER, THE FINAL PREPARATION SHALL INCLUDE CREATING HORIZONTAL GROOVES PERPENDICULAR TO THE DIRECTION OF THE SLOPE TO CATCH SEED AND REDUCE RUNOFF.

SEEDBED PREPARATION:

- STONES AND TRASH SHALL BE REMOVED SO AS NOT TO INTERFERE WITH THE SEEDING AREA.
- WHERE THE SOIL HAS BEEN COMPACTED BY CONSTRUCTION OPERATIONS, LOOSEN SOIL TO A DEPTH OF 2 INCHES BEFORE APPLYING FERTILIZER, LIME AND SEED.
- IF APPLICABLE, FERTILIZER AND ORGANIC SOIL AMENDMENTS SHALL BE APPLIED DURING THE GROWING SEASON.
 - APPLY LIMESTONE AND FERTILIZER ACCORDING TO SOIL TEST RECOMMENDATIONS. IF SOIL TESTING IS NOT FEASIBLE ON SMALL OR VARIABLE SITES, OR WHERE TIMING IS CRITICAL, FERTILIZER MAY BE APPLIED AT THE RATE OF 800 POUNDS PER ACRE OR 15.8 POUNDS PER 1,000 SQUARE FEET OF LOW PHOSPHATE FERTILIZER (N-F205-K20) OR EQUIVALENT. APPLY LIMESTONE (EQUIVALENT TO 50 PERCENT CALCIUM PLUS MAGNESIUM OXIDE) AT A RATE OF 3 TONS PER ACRE (138 LB. PER 1,000 SQUARE FEET).
 - FERTILIZER SHALL BE RESTRICTED TO A LOW PHOSPHATE, SLOW RELEASE NITROGEN FERTILIZER WHEN APPLIED TO AREAS BETWEEN 25 FEET AND 250 FEET FROM A SURFACE WATER BODY. NO FERTILIZER EXCEPT LIMESTONE SHALL BE APPLIED WITHIN 25 FEET OF A SURFACE WATER BODY. THESE LIMITATIONS ARE REQUIREMENTS FOR ANY WATER BODY PROTECTED BY THE COMPREHENSIVE SHORELAND PROTECTION ACT.

SEEDING:

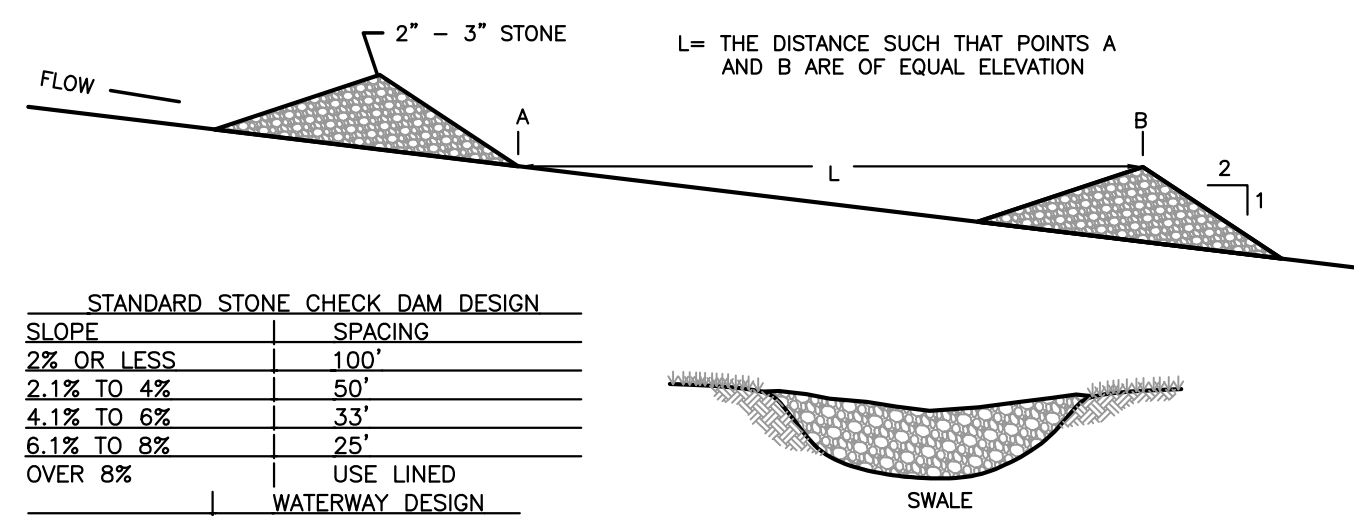
- SELECT SEED FROM RECOMMENDATIONS IN TABLE 4-1.
- APPLY SEED UNIFORMLY BY HAND, CYCLONE SEEDER, DRILL, CULTIPACKER TYPE SEEDER OR HYDROSEEDER (SLURRY INCLUDING SEED AND FERTILIZER). NORMAL SEEDING DEPTH IS FROM 1/4 TO 1/2 INCH. HYDROSEEDING THAT INCLUDES MULCH MAY BE LEFT ON SOIL SURFACE. SEEDING RATES MUST BE INCREASED 10% WHEN HYDROSEEDING.
- TEMPORARY SEEDING SHALL TYPICALLY OCCUR PRIOR TO SEPTEMBER 15TH.
- AREAS SEEDED BETWEEN MAY 15TH AND AUGUST 15TH SHALL BE COVERED WITH HAY OR STRAW MULCH, ACCORDING TO THE TEMPORARY AND PERMANENT MULCHING PRACTICE.
- VEGETATED GROWTH COVERING AT LEAST 85% OF THE DISTURBED AREA SHALL BE ACHIEVED PRIOR TO OCTOBER 15TH. IF THIS CONDITION IS NOT ACHIEVED, IMPLEMENT OTHER TEMPORARY STABILIZATION MEASURES FOR OVERWINTER PROTECTION.

TABLE 4-1. SEEDING RECOMMENDATIONS FOR TEMPORARY VEGETATION

SPECIES	PER ACRE BUSHELS (BU) OR POUNDS (LBS)	PER 1,000 FT2	REMARKS
WINTER RYE	2 BU. OR 112 LBS.	2.5	LBS. BEST FOR FALL SEEDING. SEED FROM AUGUST 15 TO SEPTEMBER 15 FOR BEST COVER. SEED TO A DEPTH OF 1 INCH.
OATS	2 LBS. OR 80 LBS.	2.5 BU. OR 80 LBS.	BEST FOR SPRING SEEDINGS. SEED NO LATER THAN MAY 15 FOR SUMMER PROTECTION. SEED TO A DEPTH OF 1 INCH.
ANNUAL RYEGRASS	40 LBS.	1 LB.	GROWS QUICKLY, BUT IS OF SHORT DURATION. USE WHERE APPEARANCES ARE IMPORTANT. SEED EARLY SPRING AND/OR BETWEEN AUGUST 15 AND SEPTEMBER 15. COVER THE SEED WITH NO MORE THAN 0.25 INCH OF SOIL.
PERENNIAL RYEGRASS	30 LBS.	0.7 LB.	GOOD COVER WHICH IS LONGER LASTING THAN ANNUAL RYEGRASS. SEED BETWEEN APRIL 1 AND JUNE 1 AND/OR BETWEEN AUGUST 15 AND SEPTEMBER 15. MULCHING WILL ALLOW SEEDING THROUGHOUT THE GROWING SEASON. SEED TO A DEPTH OF APPROXIMATELY 0.5 INCH. LOAM & MATTED AS NECESSARY UPON COMPLETION OF PROJECT.

TEMPORARY VEGETATION

- REMOVE ACCUMULATIONS OF SEDIMENT FROM DRAINAGE STRUCTURES, MICROPOOL, POND TO BE CLEANED OUT.
- THE MAXIMUM AMOUNT OF AREA ALLOWED TO BE DISTURBED & UNSTABILIZED AT ONE TIME IS 1.5 ACRES. ALL AREAS SHALL BE STABILIZED WITHIN 45 DAYS FROM INITIAL DISTURBANCE.
- WINTER CONSTRUCTION NOTES:
 - DURING WINTER CONDITIONS, THE MAXIMUM ALLOWABLE DISTURBED AREA SHALL BE 0.5 ACRES.
 - ALL PROPOSED VEGETATED AREAS WHICH DO NOT EXHIBIT A MAXIMUM OF 85% VEGETATIVE GROWTH BY OCTOBER 15TH, OR WHICH ARE DISTURBED AFTER OCTOBER 15TH, SHALL BE STABILIZED BY SEEDING AND INSTALLING EROSION CONTROL BLANKETS ON SLOPES GREATER THAN 3:1, AND SEEDING AND PLACING 3 TO 4 TONS OF MULCH PER ACRE, SECURED WITH ANCHORED DOTTING. ELIMINATE THE INSTALLATION OF EROSION CONTROL BLANKETS OR MULCH AND NETTING SHALL NOT OCCUR OVER ACCUMULATED SNOW OR FROZEN GROUND AND SHALL BE COMPLETED IN ADVANCE OF THAW OR SPRING MELT EVENTS.
 - ALL DITCHES AND SWALES WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCTOBER 15TH, OR WHICH ARE DISTURBED AFTER OCTOBER 15TH, SHALL BE STABILIZED TEMPORARILY WITH STONE OR EROSION CONTROL BLANKETS APPROPRIATE FOR THE DESIGN FLOW CONDITIONS.
 - AFTER OCTOBER 15TH, INCOMPLETE ROAD OR PARKING SURFACES, WHERE WORK HAS STOPPED FOR THE WINTER SEASON, SHALL BE PROTECTED WITH A MINIMUM OF 3 INCHES OF CRUSHED GRAVEL PER N.H.D.O.T. ITEM 304.3.
- 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;
 - A MINIMUM OF 85% VEGETATIVE GROWTH HAS BEEN ESTABLISHED;
 - A MINIMUM OF 3" OF NON-EROSIVE MATERIAL SUCH AS STONE OR RIPRAP HAS BEEN INSTALLED; OR
 - EROSION CONTROL BLANKETS HAVE BEEN PROPERLY INSTALLED.
- BASINS AND SWALES SHALL BE INSTALLED EARLY IN THE CONSTRUCTION SEQUENCE AND PRIOR TO ANY ROUGH GRADING OF THE SITE.
- ALL DITCHES, SWALES AND BASINS SHALL BE STABILIZED PRIOR TO DIRECTING RUNOFF TO THEM.
- LOT DISTURBANCE, OTHER THAN THAT SHOWN ON THE APPROVED PLANS, SHALL NOT OCCUR UNTIL AFTER THE ROADWAY AND ASSOCIATED DRAINAGE HAVE BEEN COMPLETED AND STABILIZED. INDIVIDUAL LOT DEVELOPMENT THAT IS PLANNED TO EXCEED 100,000 SQUARE FEET (OR 50,000 SQUARE FEET WITHIN THE CSPFA) MAY REQUIRE AN ALTERATION OF TERRAIN APPLICATION PRIOR TO LOT DEVELOPMENT.



STANDARD STONE CHECK DAM DESIGN

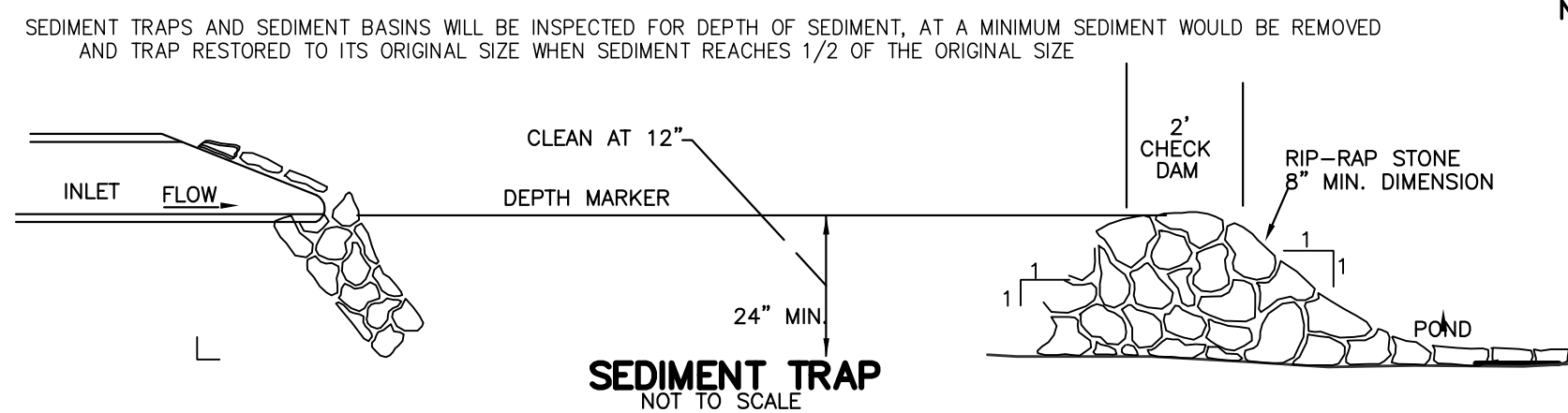
SLOPE	SPACING
2% OR LESS	100'
2.1% TO 4%	50'
4.1% TO 6%	33'
6.1% TO 8%	25'
OVER 8%	USE LINED WATERWAY DESIGN

CONSIDERATIONS

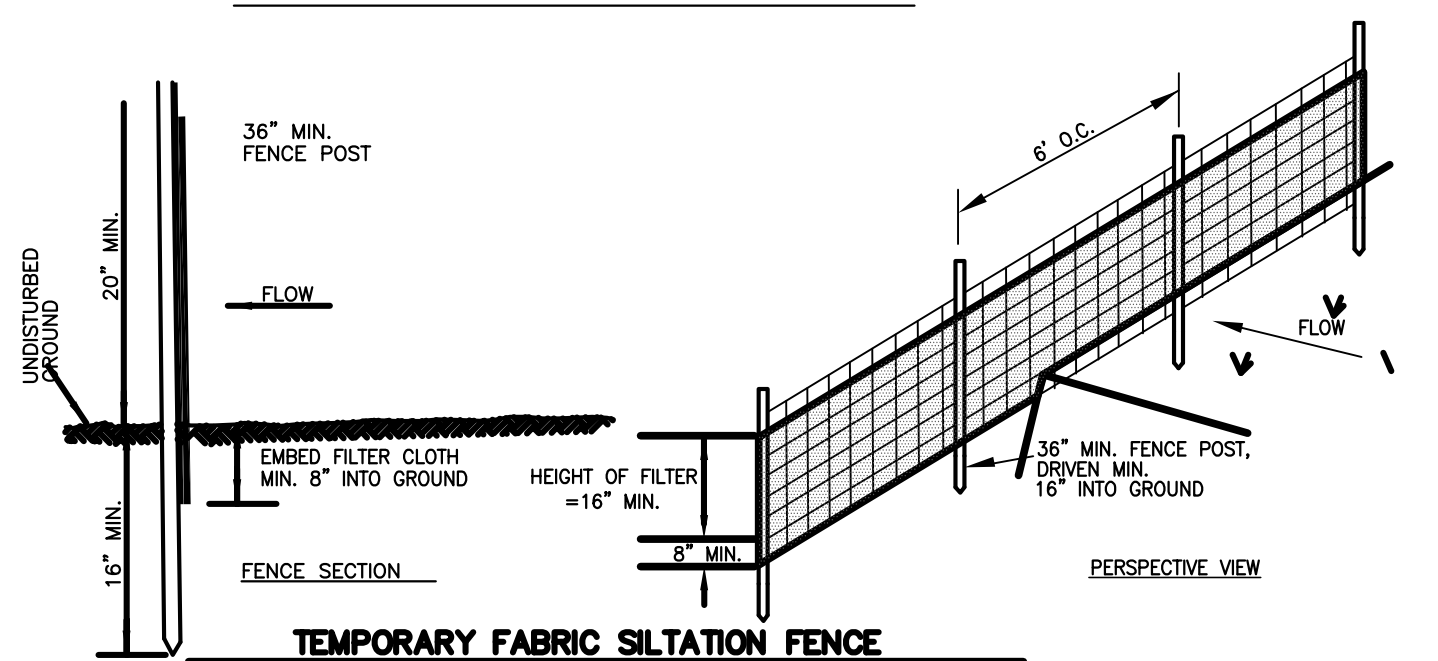
- THIS PRACTICE IS INTENDED FOR USE IN AREAS OF CONCENTRATED FLOW, BUT MUST NOT BE USED IN STREAM CHANNELS (WHETHER PERENNIAL OR INTERMITTENT).
 - THE CHECK DAM MAY BE LEFT IN PLACE PERMANENTLY TO AVOID UNNECESSARY DISTURBANCE OF THE SOIL ON REMOVAL, BUT ONLY IF THE PROJECT DESIGN HAS ACCOUNTED FOR THEIR HYDRAULIC PERFORMANCE AND CONSTRUCTION PLANS CALL FOR THEM TO BE RETAINED.
 - IF IT IS NECESSARY TO REMOVE A STONE CHECK DAM FROM A GRASSLINED CHANNEL THAT WILL BE MOWED, CARE SHALL BE TAKEN TO ENSURE THAT ALL STONES ARE REMOVED. THIS INCLUDES STONE THAT HAS WASHED DOWNSTREAM.
- MAINTENANCE REQUIREMENTS**
- CHECK DAMS SHALL BE INSPECTED AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL AND NECESSARY REPAIRS SHALL BE MADE IMMEDIATELY.
 - INSPECTIONS SHALL VERIFY THAT THE CENTER OF THE DAM IS LOWER THAN THE EDGES.
 - EROSION CAUSED BY HIGH FLOWS AROUND THE EDGES OF THE DAM MUST BE CORRECTED IMMEDIATELY.
 - IF EVIDENCE OF SILTATION IN THE WATER IS APPARENT DOWNSTREAM FROM THE CHECK DAM, THE CHECK DAM SHALL BE INSPECTED AND ADJUSTED IMMEDIATELY.
 - CHECK DAMS SHALL BE CHECKED FOR SEDIMENT ACCUMULATION AFTER EACH SIGNIFICANT RAINFALL. SEDIMENT SHALL BE REMOVED WHEN IT REACHES ONE HALF OF THE ORIGINAL HEIGHT OR BEFORE.
- SPECIFICATIONS**
- CHECK DAMS SHALL BE INSTALLED BEFORE RUNOFF IS DIRECTED TO THE SWALE OR DRAINAGE DITCH.
 - THE MAXIMUM CONTRIBUTING DRAINAGE AREA TO THE DAM SHALL BE LESS THAN ONE ACRE.
 - THE MAXIMUM HEIGHT OF THE DAM SHALL BE 2 FEET.
 - THE CENTER OF THE DAM SHALL BE AT LEAST 6 INCHES LOWER THAN THE OUTER EDGES.
 - THE MAXIMUM SPACING BETWEEN THE DAMS SHALL BE SUCH THAT THE TOE OF THE UPSTREAM DAM IS AT THE SAME ELEVATION AS THE OVERFLOW ELEVATION OF THE DOWNSTREAM DAM.
 - STONE CHECK DAMS SHALL BE CONSTRUCTED OF A WELL-GRADED ANGULAR 2-INCH TO 3-INCH STONE. 3/4-INCH STONE ON THE UPGRADIENT FACE IS RECOMMENDED FOR BETTER FILTERING.
 - IF PROVIDED BY DESIGN AND CONSTRUCTION PLANS, LEAVE THE DAM IN PLACE PERMANENTLY.
 - TEMPORARY STRUCTURES SHALL BE REMOVED ONCE THE SWALE OR DITCH HAS BEEN STABILIZED:
 - IN TEMPORARY DITCHES AND SWALES, CHECK DAMS SHALL BE REMOVED AND THE DITCH FILLED IN WHEN IT IS NO LONGER NEEDED.
 - IN PERMANENT STRUCTURES, CHECK DAMS SHALL BE REMOVED WHEN A PERMANENT LINING HAS BEEN ESTABLISHED. IF THE PERMANENT LINING IS VEGETATION, THEN THE CHECK DAM SHALL BE RETAINED UNTIL THE GRASS HAS MATURED TO PROTECT THE DITCH OR SWALE. THE AREA BENEATH THE CHECK DAM MUST BE SEEDED AND MULCHED IMMEDIATELY AFTER REMOVAL.

TEMPORARY STONE CHECK DAMS

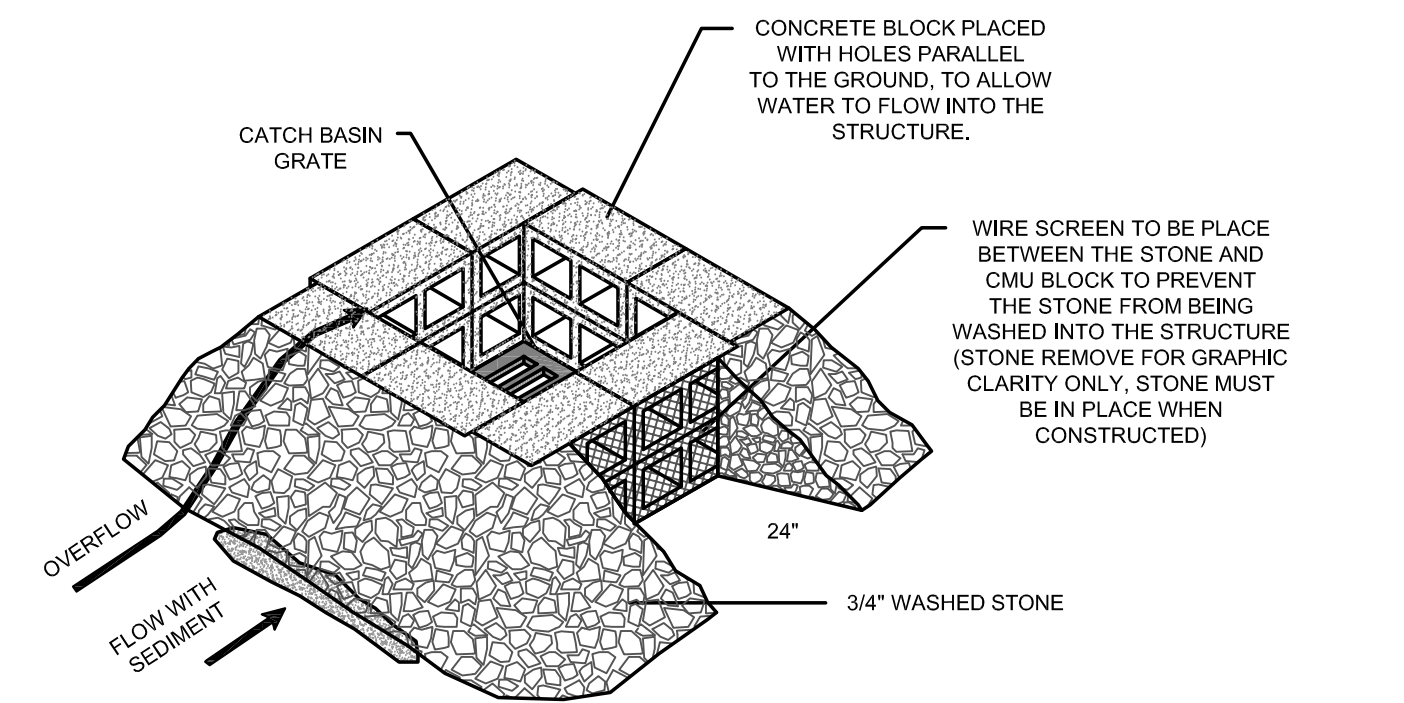
NOT TO SCALE



SEDIMENT TRAP
NOT TO SCALE



- NOTES:**
- WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER, THEY SHALL BE OVERLAPPED BY 6 INCHES, FOLDED AND STAPLED.
 - MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.



MAINTENANCE REQUIREMENTS

- INLET BARRIERS SHALL BE INSPECTED BEFORE AND AFTER EACH RAIN EVENT AND REPAIRED AS NEEDED.
- SEDIMENT SHALL BE REMOVED AND THE STORM DRAIN SEDIMENT BARRIER RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO 1/2 THE DESIGN DEPTH OF THE BARRIER. REMOVED SEDIMENT SHALL BE DEPOSITED IN A SUITABLE AREA AND IN SUCH A MANNER THAT IT WILL NOT ERODE.
- THE BARRIERS SHALL BE REMOVED AND THE AREA STABILIZED WHEN THE CONTRIBUTING DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.
- ALL CATCH BASINS AND STORM DRAIN INLETS MUST BE CLEANED AT THE END OF CONSTRUCTION AND AFTER THE SITE HAS BEEN FULLY STABILIZED.

SPECIFICATIONS

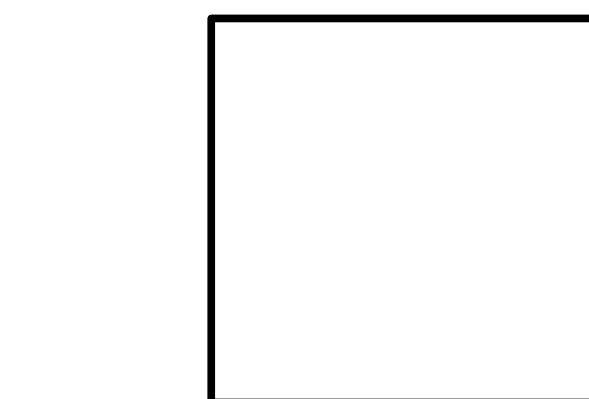
- THE MAXIMUM CONTRIBUTING DRAINAGE AREA TO THE TRAP SHALL BE LESS THAN ONE ACRE.
- THE INLET PROTECTION DEVICE SHALL BE CONSTRUCTED IN A MANNER THAT WILL FACILITATE CLEAN-OUT AND DISPOSAL OF TRAPPED SEDIMENTS AND MINIMIZE INTERFERENCE WITH CONSTRUCTION ACTIVITIES.
- ANY RESULTANT PONDING OF STORMWATER MUST NOT CAUSE EXCESSIVE INCONVENIENCE OR DAMAGE TO ADJACENT AREAS OR STRUCTURES.
- THE BLOCKS SHALL BE PLACED LENGTHWISE IN A SINGLE ROW AROUND THE PERIMETER OF THE INLET.
- THE BLOCK ENDS SHALL ABUT ONE ANOTHER.
- THE HEIGHT OF THE BARRIER CAN BE VARIED, DEPENDING ON DESIGN NEEDS, BY STACKING COMBINATIONS OF 4-INCH, 8-INCH AND 12-INCH WIDE BLOCKS. THE BARRIER OF BLOCKS AND GRAVEL FILTER SHALL BE A MINIMUM OF 12 INCHES HIGH AND NO MORE THAN 24 INCHES HIGH.
- A HARDWARE CLOTH OR WIRE MESH SHALL BE PLACED OVER THE OPENINGS OF THE CONCRETE BLOCKS AND EXTEND AT LEAST 12 INCHES AROUND THE OPENING TO PREVENT AGGREGATE FROM BEING TRANSPORTED THROUGH THE OPENINGS IN THE BLOCKS. HARDWARE CLOTH OR COMPARABLE WIRE MESH WITH 1/2-INCH OPENINGS SHALL BE USED.
- THE GRAVEL FILTER SHALL BE CLEAN COARSE AGGREGATE.
- THE GRAVEL SHALL BE PLACED AGAINST THE WIRE AND ALONG THE OUTSIDE EDGES OF THE BLOCKS TO THE TOP OF THE BLOCK BARRIER.
- IF THE STONE FILTER BECOMES CLOGGED WITH SEDIMENT SO THAT IT NO LONGER ADEQUATELY PERFORMS ITS FUNCTION, THE STONE MUST BE PULLED AWAY FROM THE BLOCKS, CLEANED AND REPLACED.

MANUFACTURED SEDIMENT BARRIERS

15. MANUFACTURED SEDIMENT BARRIERS ARE NOW AVAILABLE THAT COULD BE FUNCTIONALLY EQUIVALENT TO THE BARRIERS LISTED ABOVE. THESE MEASURES ARE ACCEPTABLE AS LONG AS THEY ARE INSTALLED, USED, AND MAINTAINED AS SPECIFIED BY THE VENDOR OR MANUFACTURER, AND PREVENT SEDIMENT FROM ENTERING THE STORM DRAIN SYSTEM. IF SUCH PRODUCTS FAIL TO PERFORM THE REQUIRED SEDIMENT TRAPPING FUNCTION, THEY SHALL BE REMOVED AND REPLACED WITH AN EFFECTIVE ALTERNATIVE BARRIER.

TEMPORARY STORM DRAIN INLET PROTECTION

NOT TO SCALE



Developer:
DBU CONSTRUCTION
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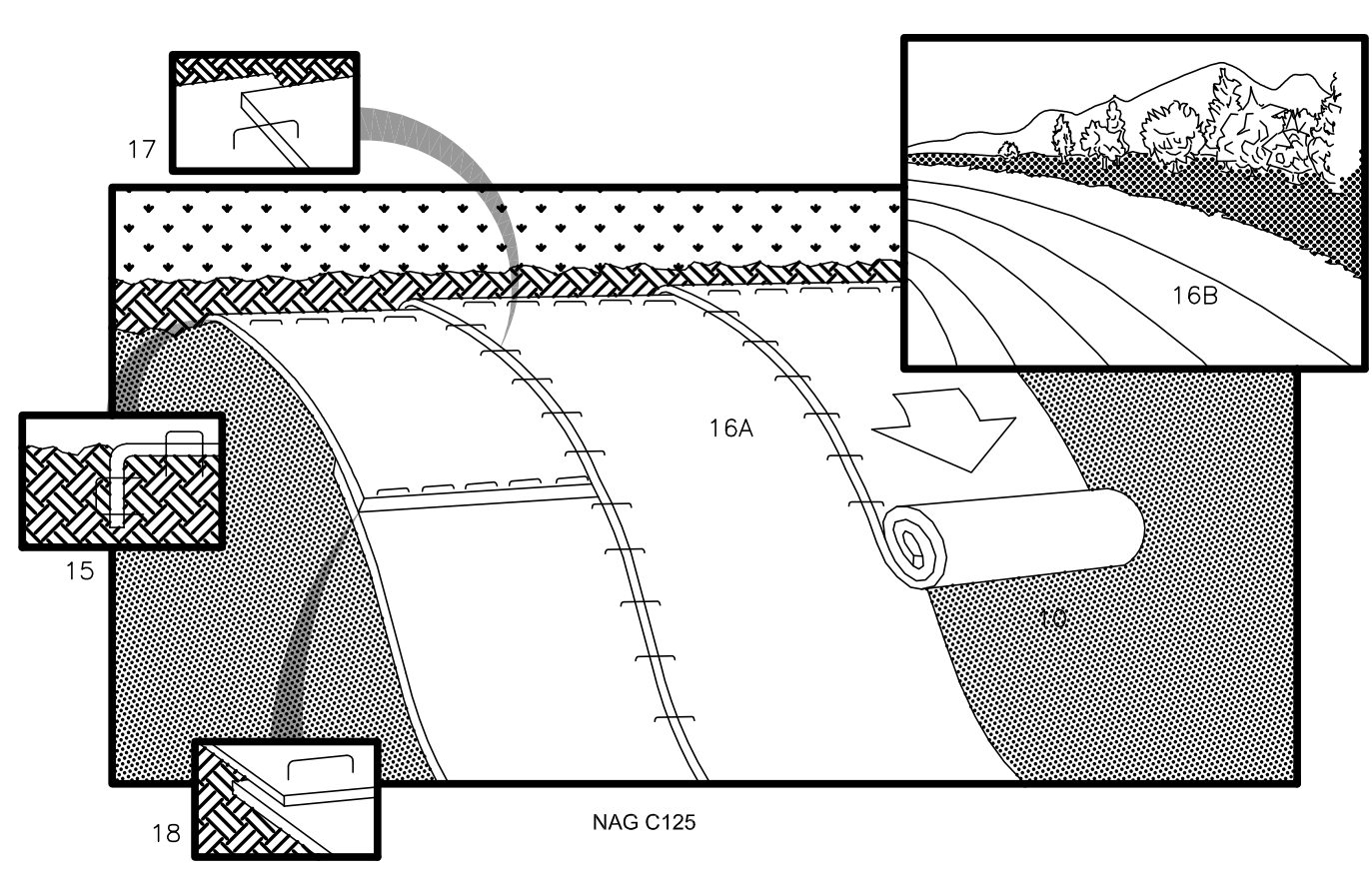
EROSION CONTROL DETAILS
COMMERCIAL SITE PLAN
TAX PARCEL 4 LOT 151
DOVER ROAD
CHICHESTER, MERRIMACK COUNTY, NEW HAMPSHIRE

REVISIONS

DATE	DESCRIPTION	DWN BY	CK BY

Rokeh Consulting, LLC
89 KING ROAD, CHICHESTER, NH
PH: 603-387-8688

SCALE: 1" = 50"
DATE: JANUARY 14, 2019
DR. BY: JR CK. BY: JR
JOB NO. _____
SHEET NO. 22 OF 23

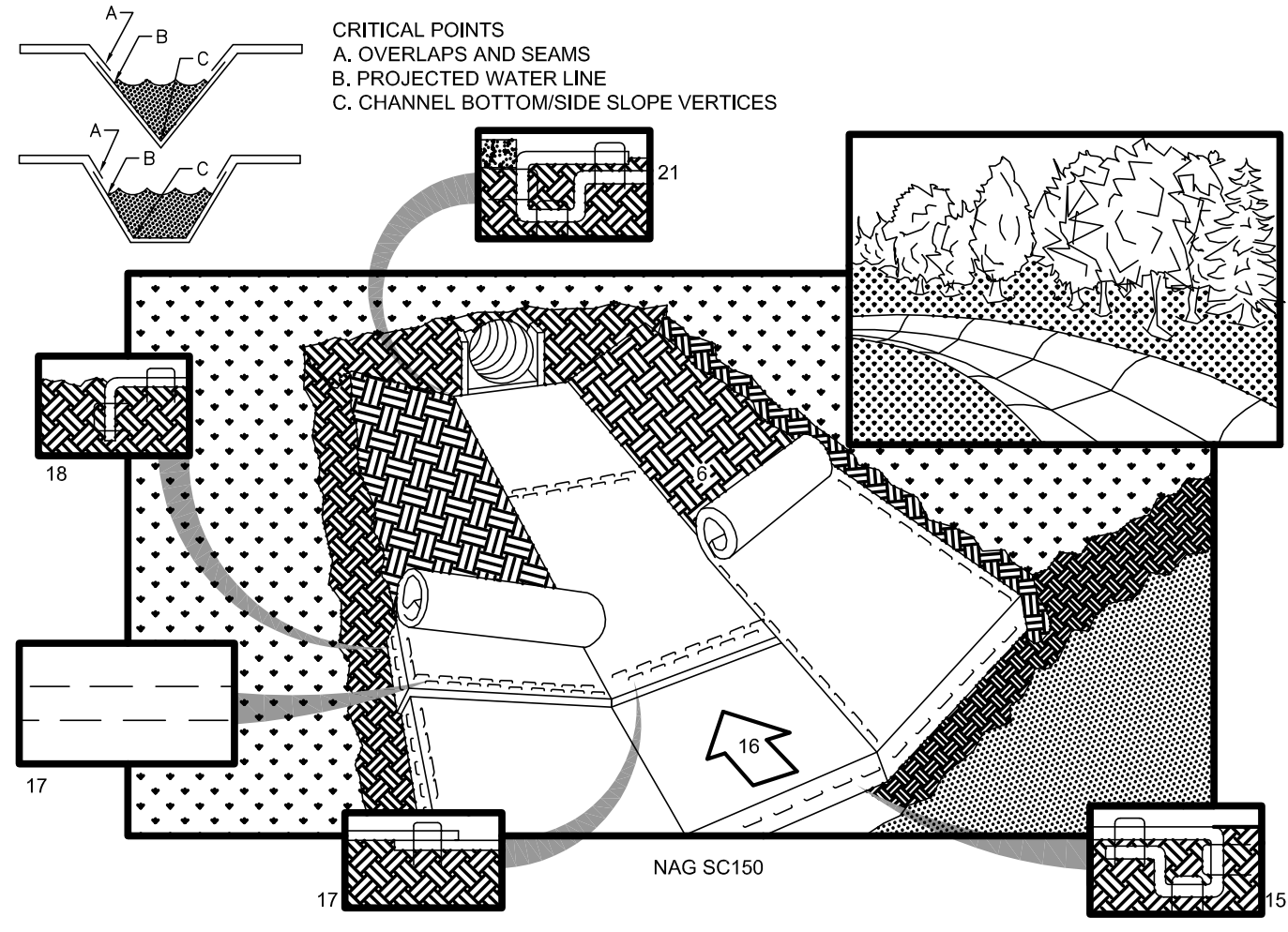


- CONSIDERATIONS**
1. DURING THE GROWING SEASON (APRIL 15 - SEPTEMBER 15) USE MATS OR MULCH AND NETTING ON SLOPES 15% OR GREATER AND ANY DISTURBED SOIL WITHIN 100 FEET OF LAKES, STREAMS AND OOVETLANDS.
 2. DURING THE LATE FALL AND WINTER (SEPTEMBER 15 - APRIL 15) USE HEAVY GRADE MATS ON ALL AREAS NOTED ABOVE PLUS USE LIGHTER GRADE MATS OR MULCH AND NETTING ON SLOPES GREATER THAN 8%. THERE MAY BE CASES WHERE MATS WILL BE NEEDED ON SLOPES FLATTER THAN 8%, DEPENDING ON SITE CONDITIONS AND THE LENGTH OF THE SLOPE.
 3. INSTALL MATS AND STAPLE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
- MAINTENANCE REQUIREMENTS**
4. ALL BLANKET AND MATS SHOULD BE INSPECTED WEEKLY DURING THE CONSTRUCTION PERIOD, AND AFTER ANY RAINFALL EVENT EXCEEDING 1/2 INCH IN A 24-HOUR PERIOD.
 5. ANY FAILURE SHOULD BE REPAIRED IMMEDIATELY. IF WASHOUT OF THE SLOPE, DISPLACEMENT OF THE MAT, OR DAMAGE TO THE MAT OCCURS, THE AFFECTED SLOPE SHALL BE REPAIRED AND RESEEDED, AND THE AFFECTED AREA OF MAT SHALL BE RE-INSTALLED OR REPLACED.
- SPECIFICATIONS**
- SITE PREPARATION:**
6. GRADE AND SHAPE AREA OF INSTALLATION.
 7. REMOVE ALL ROCKS, CLODS, TRASH, VEGETATIVE OR OTHER OBSTRUCTIONS SO THAT THE INSTALLED BLANKETS WILL HAVE DIRECT CONTACT WITH THE SOIL.
 8. PREPARE SEEDBED BY LOOSENING 2-3 INCHES OF TOPSOIL ABOVE FINAL GRADE.
 9. INCORPORATE AMENDMENTS, SUCH AS LIME AND FERTILIZER, INTO SOIL ACCORDING TO SOIL TEST AND THE SEEDING PLAN.
- SEEDING:**
10. SEED AREA BEFORE BLANKET INSTALLATION FOR EROSION CONTROL AND RE-VEGETATION. SEEDING AFTER MAT INSTALLATION IS OFTEN SPECIFIED FOR TURF REINFORCEMENT APPLICATION. WHEN SEEDING PRIOR TO BLANKET INSTALLATION, ALL CHECK SLOTS AND OTHER AREAS DISTURBED DURING INSTALLATION MUST BE RESEEDED.
 11. WHERE SOIL FILLING IS SPECIFIED, SEED THE MATTING AND THE ENTIRE DISTURBED AREA AFTER INSTALLATION AND PRIOR TO FILLING THE MAT WITH SOIL.
- INSTALLING AND ANCHORING BLANKETS:**
12. BLANKETS SHALL BE INSTALLED AND ANCHORED PER THE MANUFACTURER'S SPECIFICATIONS.
 13. ENSURE COMPLETE CONTACT OF THE PROTECTION MATTING WITH THE SOIL.
- INSTALLATION ON SLOPES:**
14. BLANKETS SHALL BE INSTALLED ON SLOPES PER THE MANUFACTURER'S SPECIFICATIONS. IF THE MANUFACTURER'S INSTRUCTIONS DIFFER FROM THOSE LISTED BELOW, THE MANUFACTURER'S INSTRUCTIONS SHOULD BE FOLLOWED.
 15. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE BLANKET IN A 6" DEEP X 6" WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.
 16. ROLL THE BLANKETS (A) DOWN OR (B) HORIZONTALLY ACROSS THE SLOPE.
 17. THE EDGES OF PARALLEL BLANKETS MUST BE STAPLED WITH APPROXIMATELY 6" OVERLAP.
 18. WHEN BLANKETS MUST BE SPLICED DOWN THE SLOPE, PLACE BLANKETS END OVER END (SHINGLE STYLE) WITH APPROXIMATELY 6" OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" APART.

TEMPORARY EROSION CONTROL BLANKET ON SLOPES
NOT TO SCALE

TEMPORARY EROSION CONTROL BLANKETS NHFG WILDLIFE FRIENDLY REQUIREMENTS

- CONSIDERATIONS**
1. THE ELIMINATION OF PLASTIC OR 'BIODEGRADABLE PLASTIC' EROSION CONTROL NETTING IS REQUIRED AS THESE ARE KNOWN SOURCE OF ENTRAPMENT AND MORTALITY TO PROTECTED SNAKES AND TURTLES.
 2. SEVERAL 'WILDLIFE FRIENDLY' OPTIONS SUCH AS WOVEN ORGANIC MATERIAL (E.G., COCO MATTING) OR THE USE OF EROSION CONTROL BERM OKAY
 3. ACCEPTABLE MATERIALS INCLUDE NORTH AMERICAN GREEN C125BN OR EAST COAST EROSION CONTROL BLANKET ECC-2B BOTH ARE BIODEGRADABLE WITH A COCONUT FIBER MATRIX AND JUTE NETTING.



- CONSIDERATIONS**
1. DURING THE GROWING SEASON (APRIL 15 - SEPTEMBER 15) USE MATS OR MULCH AND NETTING ON THE BASE OF GRASSED WATERWAYS.
 2. DURING THE LATE FALL AND WINTER (SEPTEMBER 15 - APRIL 15) USE HEAVY GRADE MATS ON SIDE SLOPES OF GRASSED WATERWAYS.
 3. INSTALL MATS AND STAPLE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
- MAINTENANCE REQUIREMENTS**
4. ALL BLANKET AND MATS SHOULD BE INSPECTED WEEKLY DURING THE CONSTRUCTION PERIOD, AND AFTER ANY RAINFALL EVENT EXCEEDING 1/2 INCH IN A 24-HOUR PERIOD.
 5. ANY FAILURE SHOULD BE REPAIRED IMMEDIATELY. IF WASHOUT OF THE SLOPE, DISPLACEMENT OF THE MAT, OR DAMAGE TO THE MAT OCCURS, THE AFFECTED SLOPE SHALL BE REPAIRED AND RESEEDED, AND THE AFFECTED AREA OF MAT SHALL BE RE-INSTALLED OR REPLACED.
- SPECIFICATIONS**
- SITE PREPARATION:**
6. GRADE AND SHAPE AREA OF INSTALLATION.
 7. REMOVE ALL ROCKS, CLODS, TRASH, VEGETATIVE OR OTHER OBSTRUCTIONS SO THAT THE INSTALLED BLANKETS WILL HAVE DIRECT CONTACT WITH THE SOIL.
 8. PREPARE SEEDBED BY LOOSENING 2-3 INCHES OF TOPSOIL ABOVE FINAL GRADE.
 9. INCORPORATE AMENDMENTS, SUCH AS LIME AND FERTILIZER, INTO SOIL ACCORDING TO SOIL TEST AND THE SEEDING PLAN.
- SEEDING:**
10. SEED AREA BEFORE BLANKET INSTALLATION FOR EROSION CONTROL AND RE-VEGETATION. SEEDING AFTER MAT INSTALLATION IS OFTEN SPECIFIED FOR TURF REINFORCEMENT APPLICATION. WHEN SEEDING PRIOR TO BLANKET INSTALLATION, ALL CHECK SLOTS AND OTHER AREAS DISTURBED DURING INSTALLATION MUST BE RESEEDED.
 11. WHERE SOIL FILLING IS SPECIFIED, SEED THE MATTING AND THE ENTIRE DISTURBED AREA AFTER INSTALLATION AND PRIOR TO FILLING THE MAT WITH SOIL.
- INSTALLING AND ANCHORING BLANKETS:**
12. BLANKETS SHALL BE INSTALLED AND ANCHORED PER THE MANUFACTURER'S SPECIFICATIONS.
 13. ENSURE COMPLETE CONTACT OF THE PROTECTION MATTING WITH THE SOIL.
- INSTALLATION IN CHANNELS:**
14. BLANKETS SHALL BE INSTALLED IN CHANNELS PER THE MANUFACTURER'S SPECIFICATIONS. IF THE MANUFACTURER'S INSTRUCTIONS DIFFER FROM THOSE LISTED BELOW, THE MANUFACTURER'S INSTRUCTIONS SHOULD BE FOLLOWED.
 15. BEGIN AT THE OUTLET OF THE CHANNEL BY ANCHORING THE BLANKET IN A 6" DEEP X 6" WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.
 16. ROLL CENTER BLANKET IN DIRECTION OF THE INLET END OF THE CHANNEL.
 17. PLACE BLANKETS END OVER END (SHINGLE STYLE) WITH A 6" OVERLAP. USE A DOUBLE ROW OF STAGGERED STAPLES 4" APART TO SECURE BLANKETS.
 18. FULL LENGTH EDGE OF BLANKETS AT TOP OF SIDE SLOPES MUST BE ANCHORED IN 6" DEEP X 6" WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.
 19. BLANKETS ON SIDE SLOPES MUST BE OVERLAPPED 4" OVER THE CENTER BLANKET AND STAPLED.
 20. IN HIGH FLOW CHANNEL APPLICATIONS, A STAPLE CHECK SLOT IS RECOMMENDED AT 30 TO 40 FOOT INTERVALS. USE A ROW OF STAPLES 4" APART OVER ENTIRE WIDTH OF THE CHANNEL. PLACE A SECOND ROW 4" BELOW THE FIRST ROW IN A STAGGERED PATTERN.
 21. THE TERMINAL END OF THE BLANKETS MUST BE ANCHORED IN A 6" DEEP X 6" WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.

TEMPORARY EROSION CONTROL BLANKET FOR CHANNELS
NOT TO SCALE

EROSION CONTROL DETAIL
COMMERCIAL SITE PLAN
TAX PARCEL 4 LOT 151
DOVER ROAD
CHICHESTER, MERRIMACK COUNTY, NEW HAMPSHIRE

TEMPORARY & PERMANENT MULCHING

- CONSIDERATIONS**
1. WITHIN 100 FEET OF STREAMS, WETLANDS AND IN LAKE WATERSHEDS, TEMPORARY MULCH SHOULD BE APPLIED WITHIN 7 DAYS OF EXPOSING SOIL OR PRIOR TO ANY STORM EVENT.
 2. AREAS THAT HAVE BEEN TEMPORARILY OR PERMANENTLY SEEDED SHOULD BE MULCHED IMMEDIATELY FOLLOWING SEEDING.
 3. AREAS THAT CANNOT BE SEEDED WITHIN THE GROWING SEASON SHOULD BE MULCHED FOR OVER-WINTER PROTECTION. THE AREA SHOULD BE SEEDED AT THE BEGINNING OF THE NEXT GROWING SEASON.
 4. MULCH ANCHORING SHOULD BE USED ON SLOPES WITH GRADIENTS GREATER THAN 5% IN LATE FALL (PAST SEPTEMBER 15), AND OVER-WINTER (SEPTEMBER 15 - MAY 15).
 5. PERMANENT MULCH CAN BE USED IN CONJUNCTION WITH TREE, SHRUB, VINE, AND GROUND COVER PLANTINGS.
- MAINTENANCE REQUIREMENTS**
6. ALL TEMPORARY MULCHES MUST BE INSPECTED PERIODICALLY AND IN PARTICULAR AFTER RAINSTORMS, TO CHECK FOR RILL EROSION OR DISPLACEMENT OF THE MULCH. IF LESS THAN 90% OF THE SOIL SURFACE IS COVERED BY MULCH, ADDITIONAL MULCH SHOULD BE IMMEDIATELY APPLIED. NETS MUST BE INSPECTED AFTER RAIN EVENTS FOR DISLOCATION OR FAILURE. IF WASHOUTS OR BREAKAGES OCCUR, REPAIR ANY DAMAGE TO THE SLOPE AND RE-INSTALL OR REPLACE NETTING AS NECESSARY. INSPECTIONS SHOULD TAKE PLACE UNTIL GRASSES ARE FIRMLY ESTABLISHED (85% SOIL SURFACE UNIFORMLY COVERED WITH HEALTHY STAND OF GRASS).
 7. EROSION CONTROL MIX MULCH USED FOR TEMPORARY STABILIZATION SHOULD BE LEFT IN PLACE. VEGETATION ADDS STABILITY AND SHOULD BE PROMOTED.
 8. WHERE PERMANENT MULCH IS USED IN CONJUNCTION WITH ORNAMENTAL PLANTINGS, INSPECT PERIODICALLY THROUGHOUT THE YEAR TO DETERMINE IF MULCH IS MAINTAINING COVERAGE OF THE SOIL SURFACE. REPAIR AS NEEDED.
 9. PERMANENT MULCHED AREAS SHOULD BE INSPECTED AT LEAST ANNUALLY, AND AFTER EACH LARGE RAINFALL (2.5 INCHES OR MORE IN A 24-HOUR PERIOD). ANY REQUIRED REPAIRS SHOULD BE MADE IMMEDIATELY. WHERE EROSION CONTROL MIX HAS BEEN USED, PLACE ADDITIONAL MIX ON TOP OF THE MULCH TO MAINTAIN THE RECOMMENDED THICKNESS. WHEN THE MULCH IS DECOMPOSED, CLOGGED WITH SEDIMENT, ERODED OR INEFFECTIVE, IT MUST BE REPLACED OR REPAIRED.
 10. IF THE MULCH NEEDS TO BE REMOVED, SPREAD IT OUT INTO THE LANDSCAPE.
- SPECIFICATIONS**
- GENERAL:**
11. APPLY MULCH PRIOR TO A STORM EVENT. THIS IS APPLICABLE IN EXTREMELY SENSITIVE AREAS SUCH AS WITHIN 100 FEET OF LAKES, PONDS, RIVERS, STREAMS, AND WETLANDS. IT WILL BE NECESSARY TO CLOSELY MONITOR WEATHER PREDICTIONS TO HAVE ADEQUATE WARNING OF SIGNIFICANT STORMS.
 12. MULCHING SHOULD BE COMPLETED WITHIN THE FOLLOWING SPECIFIED TIME PERIODS FROM ORIGINAL SOIL EXPOSURE:
 - WITHIN 100 FEET OF RIVERS AND STREAMS, WETLANDS, AND IN LAKE AND POND WATERSHEDS, THE TIME PERIOD SHOULD BE NO GREATER THAN 7 DAYS. THIS 7 DAY LIMIT SHOULD BE REDUCED FURTHER DURING WET WEATHER PERIODS.
 - IN OTHER AREAS, THE TIME PERIOD CAN RANGE FROM 14 TO 30 DAYS, THE LENGTH OF TIME VARYING WITH SITE CONDITIONS (SOIL EROSION, EXTENT OF DISTURBANCE, PROXIMITY TO SENSITIVE RESOURCES) AND THE POTENTIAL IMPACT OF EROSION ON ADJACENT AREAS. OTHER STATE OR LOCAL RESTRICTIONS MAY ALSO APPLY.
 13. THE CHOICE OF MATERIALS FOR MULCHING SHOULD BE BASED ON SITE CONDITIONS, SOILS, SLOPE, FLOW CONDITIONS, AND TIME OF YEAR.
- HAY OR STRAW MULCHES:**
14. ORGANIC MULCHES INCLUDING HAY AND STRAW SHOULD BE AIR-DRIED, FREE OF UNDESIRABLE SEEDS AND COARSE MATERIALS.
 15. APPLICATION RATE SHOULD BE 2 BALES (70-90 POUNDS) PER 1000 SQUARE FEET OR 1.5 TO 2 TONS (90-100 BALES) PER ACRE TO COVER 75 TO 90 % OF THE GROUND SURFACE.
 16. HAY OR STRAW MULCH SHOULD BE ANCHORED TO PREVENT DISPLACEMENT BY WIND OR FLOWING WATER, USING ONE OF THE FOLLOWING METHODS:
 - NETTING: INSTALL JUTE, WOOD FIBER, OR BIODEGRADABLE PLASTIC NETTING OVER HAY OR STRAW TO ANCHOR IT TO THE SOIL SURFACE. INSTALL NETTING MATERIAL ACCORDING TO MANUFACTURER'S RECOMMENDATION. NETTING SHOULD BE USED JUDICIOUSLY, AS WILDLIFE CAN BECOME ENTANGLED IN THE MATERIALS.
 - TACKIFIER: APPLY POLYMER OR ORGANIC TACKIFIER TO ANCHOR HAY OR STRAW MULCH. APPLICATION RATES VARY BY MANUFACTURER. TYPICALLY 40-80 LBS/ACRE FOR POLYMER MATERIAL, AND 90-120 LBS/ACRE FOR ORGANIC MATERIAL. LIQUID MULCH BINDERS ARE ALSO TYPICALLY APPLIED HEAVIER AT EDGES, IN VALLEYS, AND AT CRESTS THAN OTHER AREAS.
 17. WHEN MULCH IS APPLIED TO PROVIDE PROTECTION OVER WINTER (PAST THE GROWING SEASON), IT SHOULD BE APPLIED TO A DEPTH OF FOUR INCHES (150-200 POUNDS OF HAY OR STRAW PER 1000 SQUARE FEET, OR DOUBLE STANDARD APPLICATION RATE). SEEDING CANNOT GENERALLY BE EXPECTED TO GROW UP THROUGH THIS DEPTH OF MULCH AND WILL BE SMOOTHED. IF VEGETATION IS DESIRED, THE MULCH WILL NEED TO BE REMOVED IN THE SPRINGTIME AND THE AREA SEEDED AND MULCHED.
- WOOD CHIPS OR BARK:**
18. WOOD CHIPS OR GROUND BARK SHOULD BE APPLIED TO A THICKNESS OF 2 TO 8 INCHES.
 19. WOOD CHIPS OR GROUND BARK SHOULD BE APPLIED AT A RATE OF 10 TO 20 TONS PER ACRE OR 460 TO 920 POUNDS PER 1,000 SQUARE FEET.
- EROSION CONTROL MIX:**
20. EROSION CONTROL MIX CAN BE MANUFACTURED ON OR OFF THE PROJECT SITE. IT MUST CONSIST PRIMARILY OF ORGANIC MATERIAL, SEPARATED AT THE POINT OF GENERATION, AND MAY INCLUDE SHREDDED BARK, STUMP GRINDINGS, COMPOSTED BARK, OR ACCEPTABLE MANUFACTURED PRODUCTS. WOOD AND BARK CHIPS, GROUND CONSTRUCTION DEBRIS OR REPROCESSED WOOD PRODUCTS WILL NOT BE ACCEPTABLE AS THE ORGANIC COMPONENT OF THE MIX.
 21. COMPOSITION OF THE EROSION CONTROL MIX SHOULD BE AS FOLLOWS:
 - EROSION CONTROL MIX SHOULD CONTAIN A WELL-GRADED MIXTURE OF PARTICLE SIZES AND MAY CONTAIN ROCKS LESS THAN 4" IN DIAMETER. EROSION CONTROL MIX MUST BE FREE OF REFUSE, PHYSICAL CONTAMINANTS, AND MATERIAL TOXIC TO PLANT GROWTH. THE MIX COMPOSITION SHOULD MEET THE FOLLOWING STANDARDS:
 - THE ORGANIC MATTER CONTENT SHOULD BE BETWEEN 25 AND 65% DRY WEIGHT BASIS.
 - PARTICLE SIZE BY WEIGHT SHOULD BE 100% PASSING A 4" SCREEN, 90% TO 100% PASSING A 1-INCH SCREEN, 70% TO 100% PASSING A 0.75-INCH SCREEN, AND A MAXIMUM OF 30% TO 75% PASSING A 0.25-INCH SCREEN.
 - THE ORGANIC PORTION NEEDS TO BE FIBROUS AND ELONGATED.
 - THE MIX SHOULD NOT CONTAIN SILTS, CLAYS OR FINE SANDS.
 - SOLUBLE SALTS CONTENT SHOULD BE < 4.0 MMHOS/CM.
 - THE PH SHOULD BE BETWEEN 5.0 AND 8.0.
 22. THE BARRIER MUST BE PLACED ALONG A RELATIVELY LEVEL CONTOUR. IT MAY BE NECESSARY TO CUT TALL GRASSES OR WOODY VEGETATION TO AVOID CREATING VOIDS AND BRIDGES THAT WOULD ENABLE FINES TO WASH UNDER THE BARRIER THROUGH THE GRASS BLADES OR PLANT STEMS.
 23. THE BARRIER MUST BE A MINIMUM OF 12" HIGH, AS MEASURED ON THE UPHILL SIDE OF THE BARRIER, AND A MINIMUM OF TWO FEET WIDE.

WINTER CONSTRUCTION NOTES

1. ALL PROPOSED VEGETATED AREAS WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCT. 15TH, OR WHICH ARE DISTURBED AFTER OCT. 15TH, SHALL BE STABILIZED BY SEEDING AND INSTALLING EROSION CONTROL BLANKETS ON SLOPES GREATER THAN 3:1, AND SEEDING AND PLACING 3 TO 4 TONS OF MULCH PER ACRE, SECURED WITH ANCHORED NETTING ELSEWHERE. THE INSTALLATION OF EROSION CONTROL BLANKETS OR MULCH AND NETTING SHALL NOT OCCUR OVER ACCUMULATED SNOW OR ON FROZEN GROUND AND SHALL BE COMPLETED IN ADVANCE OF THAW OR SPRING MELT EVENTS.
2. ALL DITCHES OR SWALES WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCT. 15TH, OR WHICH ARE DISTURBED AFTER OCT. 15TH, SHALL BE STABILIZED TEMPORARILY WITH STONE OR EROSION CONTROL BLANKETS APPROPRIATE FOR THE DESIGN FLOW CONDITIONS.
3. AFTER OCTOBER 15TH, INCOMPLETE ROAD OR PARKING SURFACES, WHERE WORK HAS STOPPED FOR THE WINTER SEASON, SHALL BE PROTECTED WITH A MINIMUM OF 3 INCHES OF CRUSHED GRAVEL PER NHDOT ITEM 304.3.

REVISIONS				
DATE	DESCRIPTION	GRATE H2O LOADING DWN BY	CK BY	

GN-4: VEGETATION STABILIZATION NOTES

ALL VEGETATION STABILIZATION SHALL BE IN ACCORDANCE WITH USDA NRCS "VEGETATING NEW HAMPSHIRE SAND and GRAVEL PITS", IN ADDITION TO "BEST MANAGEMENT PRACTICES FOR ROUTINE ROADWAY MAINTENANCE ACTIVITIES IN NEW HAMPSHIRE", LATEST EDITIONS.

PARK SEED TYPE 15 SHALL NORMALLY BE USED ON LOAM AREAS. THIS SEED MIXTURE SHALL CONFORM TO TABLE 1 UNLESS AMENDED BY THE PROJECT ENGINEER TO SUIT ACTUAL FIELD CONDITIONS.

KIND OF SEED	MINIMUM	MINIMUM	POUNDS/ACRE
	PURITY (%)	GERMINATION (%)	
CREeping FESCUE	96	85	40
PERENNIAL RYEGRASS	98	90	50
KENTUCKY BLUEGRASS	97	85	25
REDTOP	95	80	5
		TOTAL	120

SLOPE SEED TYPE 44 SHALL NORMALLY BE USED FOR ALL SLOPE WORK, and SHALL CONFORM TO TABLE 2 UNLESS AMENDED BY THE DESIGN ENGINEER TO SUIT ACTUAL FIELD CONDITIONS.

KIND OF SEED	MINIMUM	MINIMUM	POUNDS/ACRE
	PURITY (%)	GERMINATION (%)	
CREeping RED FESCUE	96	85	35
PERENNIAL RYEGRASS	98	90	30
REDTOP	95	80	5
ALSIKE CLOVER	97	90	5
BIRDSFOOT TREFOLI	98	80	5
		TOTAL	80

SEEDING SEASON:

1. SEEDBED PREPARATION
 - A. ALL AREAS TO BE SEEDED SHALL BE A REASONABLY FIRM, BUT FRABLE.
 - B. SURFACE and SEEPAGE WATER SHOULD BE DRAINED OR DIVERTED FROM THE SITE TO PREVENT DROWNING OR WINTER KILLING.
 - C. THE SEEDBED SHOULD BE LEFT IN A REASONABLY FIRM and SMOOTH CONDITION, FOLLOWING SEEDING OPERATIONS.
 - D. ALL AREAS TO BE SEEDED SHALL MEET THE SPECIFIED GRADES, AS SPECIFIED ON THE APPROVED PLAN.
 - E. ALL VEGETATION SHALL BE INSPECTED ANNUALLY FOR UNHEALTHY or DEAD AREAS. ANY and ALL SUCH AREAS ARE TO BE REPAIRED or REPLACED IN KIND.
2. ESTABLISHING A STAND
 - 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 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 0.09 LBS. PER SQ. FT.
 - NITROGEN (N): 50 LBS. PER ACRE OR 1.1 LBS. PER 1000 SQ. FT.
 - PHOSPHATE (P₂O₅): 100 LBS. PER ACRE OR 2.2 LBS. PER 1000 SQ. FT.
 - POTASH (K₂O): 100 LBS. PER ACRE OR 2.2 LBS. PER 1000 SQ. FT.
 (NOTE: THIS IS THE EQUIVALENT OF 500 LBS. PER ACRE OF 10-20-20 FERTILIZER OR 1,000 LBS. PER ACRE OF 5-10-10)
 - 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 0.25 INCH O SOIL OR LESS, BY CULTIPACKING OR RAKING.
3. MULCH
 - A. HAY, STRAW, OR OTHER MULCH, WHEN NEEDED, SHOULD BE APPLIED IMMEDIATELY AFTER SEEDING.
 - B. MULCH WILL BE HELD IN PLACE USING TECHNIQUES FROM THE "BEST MANAGEMENT PRACTICE FOR MULCHING", AS SHOWN IN, "STORMWATER MANAGEMENT AND SEDIMENTATION CONTROL HANDBOOK FOR URBAN AND DEVELOPING AREAS IN NEW HAMPSHIRE".
4. MAINTENANCE TO ESTABLISH A STAND
 - A. PLANTED AREAS SHOULD BE PROTECTED FROM DAMAGE BY FIRE, GRAZING, TRAFFIC, AND DENSE WEED GROWTH.
 - B. FERTILIZATION WILL BE PERFORMED ANNUALLY IN ACCORDANCE WITH NOTE 2A.
 - C. IN WATERWAYS, CHANNELS, OR SWALES WHERE UNIFORM FLOW CONDITIONS ARE ANTICIPATED, OCCASIONAL MOWING or TRIMMING WILL BE PERFORMED ANNUALLY TO CONTROL GROWTH.
 - B. ALL VEGETATION SHOULD BE INSPECTED REGULARLY and AFTER EVERY MAJOR RAIN EVENT (≥ 5"/24 hr). DAMAGED AREAS SHOULD BE REPAIRED AND RE-VEGETATED IMMEDIATELY.



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SCALE: 1" = 50'
DATE: JANUARY 14, 2019
DR. BY: JR CK. BY: JR
JOB NO. _____
SHEET NO. 23 OF 23