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811 before you dig

# MIXED USE NEIGHBORHOOD DEVELOPMENT "LILAC PLACE" TAX MAP 65 LOT 118 76 PORTSMOUTH AVENUE, EXETER, NH

## GENERAL LEGEND

EXISTING	PROPOSED	DESCRIPTION
---	---	PROPERTY LINES
---	---	SETBACK LINES
---	---	CENTERLINE
---	---	FRESHWATER WETLANDS LINE
---	---	STREAM CHANNEL
---	---	TREE LINE
---	---	STONEWALL
---	---	BARBED WIRE
---	---	FENCE
---	---	STOCKADE FENCE
---	---	SOIL BOUNDARY
---	---	AQUIFER PROTECTION LINE
---	---	ZONELINE
---	---	EASEMENT
---	---	MAJOR CONTOUR
---	---	MINOR CONTOUR
---	---	EDGE OF PAVEMENT
---	---	VERTICAL GRANITE CURB
---	---	SLOPE GRANITE CURB
---	---	SILT FENCE
---	---	DRAINAGE LINE
---	---	SEWER LINE
---	---	SEWER FORCE MAIN
---	---	GAS LINE
---	---	WATER LINE
---	---	WATER SERVICE
---	---	OVERHEAD ELECTRIC
---	---	UNDERGROUND ELECTRIC
---	---	GUARDRAIL
---	---	UNDERDRAIN
---	---	FIRE PROTECTION LINE
---	---	THRUST BLOCK
---	---	IRON PIPE/IRON ROD
---	---	DRILL HOLE
---	---	IRON ROD/DRILL HOLE
---	---	STONE/GRANITE BOUND
---	---	SPOT GRADE
---	---	PAVEMENT SPOT GRADE
---	---	CURB SPOT GRADE
---	---	BENCHMARK (TBM)
---	---	DOUBLE POST SIGN
---	---	SINGLE POST SIGN
---	---	TEST PIT
---	---	PERC TEST
---	---	PHOTO LOCATION
---	---	TREES AND BUSHES
---	---	UTILITY POLE
---	---	LIGHT POLES
---	---	DRAIN MANHOLE
---	---	SEWER MANHOLE
---	---	HYDRANT
---	---	WATER GATE
---	---	WATER SHUT OFF
---	---	REDUCER
---	---	SINGLE GRATE CATCH BASIN
---	---	DOUBLE GRATE CATCH BASIN
---	---	TRANSFORMER
---	---	CULVERT W/WINGWALLS
---	---	CULVERT W/FLARED END SECTION
---	---	CULVERT W/STRAIGHT HEADWALL
---	---	STONE CHECK DAM
---	---	DRAINAGE FLOW DIRECTION
---	---	WETLAND BUFFER IMPACT
---	---	VEGETATED FILTER STRIP
---	---	RIPRAP
---	---	PAVEMENT HATCH
---	---	OPEN WATER
---	---	FRESHWATER WETLANDS
---	---	STABILIZED CONSTRUCTION ENTRANCE
---	---	CONCRETE
---	---	GRAVEL
---	---	SNOW STORAGE
---	---	RETAINING WALL



LOCUS MAP  
SCALE 1" = 2000'

## SHEET INDEX

CS	COVER SHEET
C1	EXISTING CONDITIONS PLAN
D1	DEMOLITION PLAN
C2	SITE PLAN
C3	GRADING AND DRAINAGE PLAN
C4	UTILITY PLAN
L1	LANDSCAPE PLAN (BY OTHERS)
L2	LANDSCAPE DETAIL PLAN
L3	LIGHTING PLAN
D1-D8	DETAIL SHEETS
E1-E2	EROSION AND SEDIMENT CONTROL DETAILS

**CIVIL ENGINEER / SURVEYOR**  
**JONES & BEACH ENGINEERS, INC.**  
 85 PORTSMOUTH AVENUE  
 PO BOX 219  
 STRATHAM, NH 03885  
 (603) 772-4746  
 CONTACT: PAIGE LIBBEY, P.E.  
 E-MAIL: PLIBBEY@JONESANDBEACH.COM

**WETLAND CONSULTANT**  
**JOHN HAYES**  
 7 LIMESTONE WAY  
 NORTH HAMPTON, NH 03862  
 (603) 205-4396  
 EMAIL: JOHNPHAYES@COMCAST.NET

**LIGHTING DESIGN**  
**EXPOSURE LIGHTING**  
 501 ISLINGTON STREET, UNIT 1A  
 PORTSMOUTH, NH 03801  
 (603) 601-8080  
 CONTACT: KEN SWEENEY

**TRAFFIC ENGINEER**  
**TEPP LLC**  
 93 STILES ROAD, SUITE 201  
 SALEM, NH 03079  
 (603) 212-9133  
 EMAIL: TEPP@TEPPLLC.COM  
 CONTACT: KIM HAZARVARTIAN, P.E.

**LANDSCAPE DESIGNER**  
**LM LAND DESIGN, LLC**  
 11 SOUTH ROAD  
 BRENTWOOD, NH 03833  
 (603) 770-7728  
 CONTACT: LISE MCNAUGHTON

**ELECTRIC**  
**EVERSOURCE**  
 265 CALEF HIGHWAY  
 EPPING, NH 03042  
 (800) 662-7764

**WATER & SEWER**  
**EXETER PUBLIC WORKS**  
 13 NEWFIELDS ROAD  
 EXETER, NH 03833  
 (603) 773-6157

**TELEPHONE**  
**CONSOLIDATED COMMUNICATIONS**  
 1575 GREENLAND ROAD  
 GREENLAND, NH 03840  
 (603) 427-5525

**WETLAND/SOILS CONSULTANT**  
**GOVE ENVIRONMENTAL SERVICES**  
 8 CONTINENTAL DRIVE, UNIT H  
 EXETER, NH 03833-7507  
 (603) 778-0644  
 CONTACT: JAMES GOVE

**PROJECT PARCEL**  
 TOWN OF EXETER  
 TAX MAP 65, LOT 118

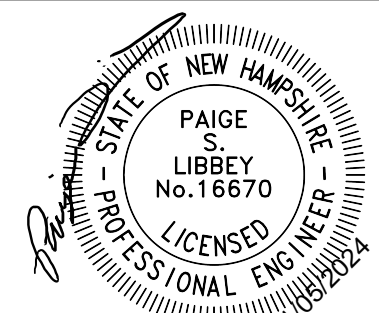
**APPLICANT**  
**GREEN & COMPANY**  
 11 LAFAYETTE RD  
 PO BOX 1297  
 NORTH HAMPTON, NH 03862

**TOTAL LOT AREA**  
 291,630 SQ. FT.  
 6.7 ACRES

APPROVED — EXETER, NH  
 PLANNING BOARD

DATE:

Design: MLS	Draft: GDR	Date: 3/15/24
Checked: WGM	Scale: AS NOTED	Project No.: 24029
Drawing Name: 24029-PLAN.dwg		
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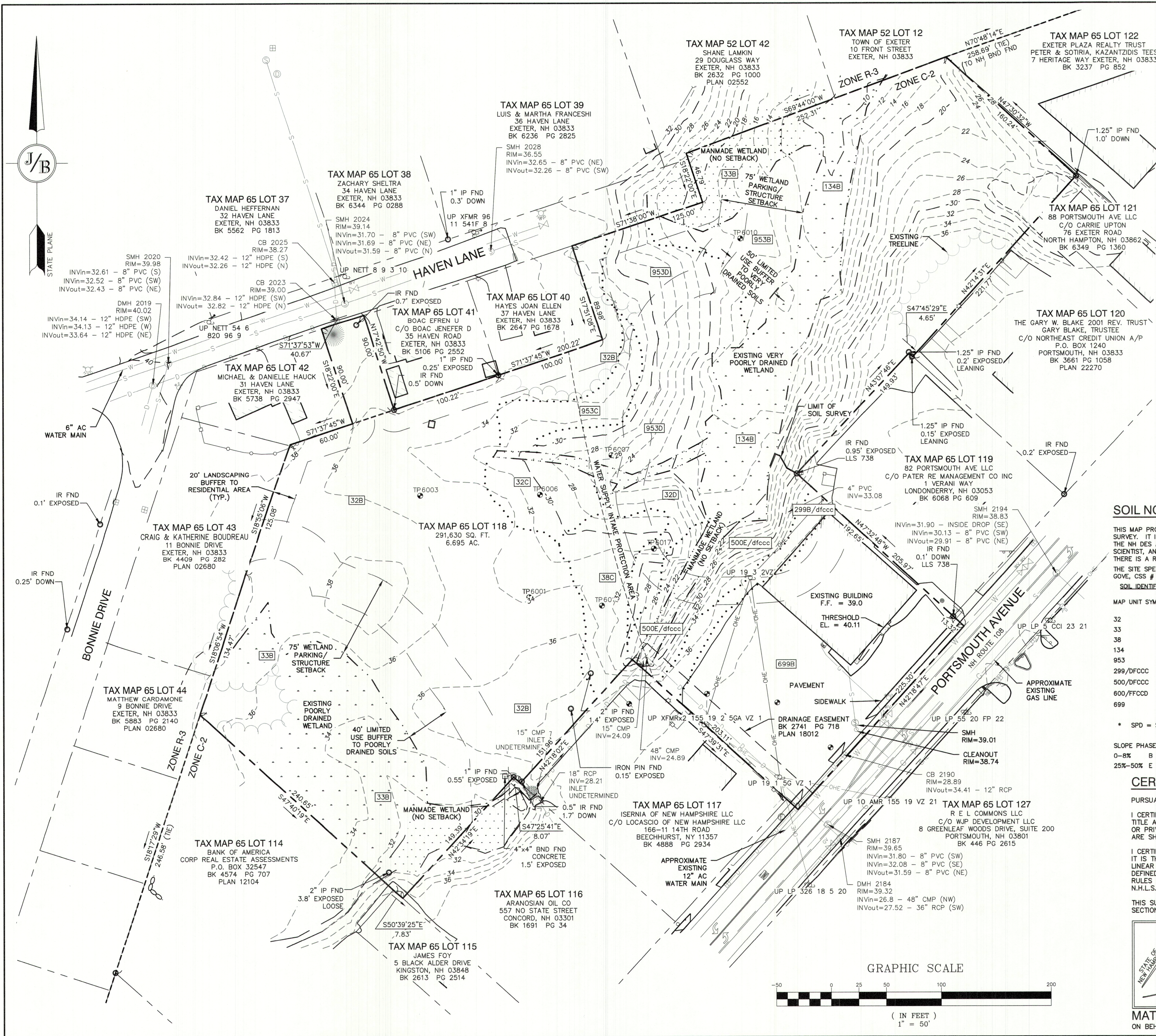
**J/B Jones & Beach Engineers, Inc.**

85 Portsmouth Ave. Civil Engineering Services 603-772-4746  
 PO Box 219  
 Stratham, NH 03885 E-MAIL: JBE@JONESANDBEACH.COM

Plan Name:	<b>COVER SHEET</b>
Project:	<b>"LILAC PLACE" 76 PORTSMOUTH AVE, EXETER, NH</b>
Owner of Record:	<b>RAP REALTY MANCHESTER LLC 50 ATLANTIC AVE, SEABROOK, NH</b>

DRAWING No.	<b>CS</b>
SHEET 1 OF 20 JBE PROJECT NO. 24029	





**PLAN REFERENCES**

- "PLAN OF DRAINAGE EASEMENT, EXETER, NH, PREPARED FOR EXETER HOSPITAL" BY KIMBALL CHASE, DATED MAY 23, 1988. R.C.R.D. PLAN 18012.
- "LOT LINE CHANGE FOR GARY W. BLAKE, EXETER, NH" BY PARKER SURVEY ASSOC., INC., DATED JANUARY 12, 1984. R.C.R.D. PLAN 12104.
- "SUBDIVISION OF LAND FOR JOHN W. FLYNN, EXETER, NH" BY KIMBALL CHASE COMPANY, INC., DATED FEBRUARY 11, 1988. R.C.R.D. PLAN 17605.
- "BOUNDARY AND TOPOGRAPHIC PLAN FOR STAR ENTERPRISE, EXETER, NH" BY STORCH ASSOCIATES, DATED JUNE 15, 1999. R.C.R.D. PLAN 22270.
- "PLAN OF LAND FOR HENRY & ROBERTA A. SHEPARD AND CHARLES A. & EVA S. KOIRTH, EXETER, NH" BY JOHN W. DURGIN CIVIL ENGINEERS, DATED JULY 17, 1963. R.C.R.D. PLAN 00108.
- "PLAN OF LOTS, PROPERTY OF J. EVERETT TOWLE, EXETER, NH" BY ARTHUR W. DUDLEY, C.E., DATED 1924. R.C.R.D. PLAN 0671.
- "A PORTION OF THE LAND OF JEAN AND SUE PULVER, EXETER, NH" BY LEACH AND HUNTER, DATED OCTOBER 4, 1949. R.C.R.D. PLAN 01721.
- "PLOT OF LAND FOR CARROLLS DEVELOPMENT CORP & CHICAGO TILE COMPANY, EXETER, NH" BY UNITED SURVEYORS & ENGRS., DATED MARCH 20, 1970. R.C.R.D. PLAN 1726.
- "PLAN OF LAND FOR JEAN A. & SUE E. PULVER, EXETER, NH" BY JOHN W. DURGIN CIVIL ENGINEERS, DATED AUGUST 1951. R.C.R.D. PLAN 01823.
- "PLAN OF LAND FOR JEAN A. & SUE E. PULVER, EXETER, NH" BY JOHN W. DURGIN CIVIL ENGINEERS, DATED AUGUST 1951. R.C.R.D. PLAN 02551.
- "PART OF COUNTRY CLUB ESTATES, SCALE: 1 IN = 40 FT" BY JOHN W. DURGIN CIVIL ENGINEERS, DATED AUGUST 4TH, 1955. R.C.R.D. PLAN 02552.
- "PLOT PLAN FOR HENRY SHEPARD & CHARLES KOIRTH, EXETER, NH" BY T.A. NOWAK, DATED APRIL 1958. R.C.R.D. PLAN 02680.
- "SUBDIVISION OF LAND, SIMONS TO ROCKINGHAM NATIONAL BANK, EXETER, NH" BY JOHN W. DURGIN CIVIL ENGINEERS, DATED MAY 2, 1972. R.C.R.D. PLAN 2924.
- "PLAN OF LAND IN EXETER, N.H. PREPARED FOR FRIENDLY ICE CREAM CORP." DATED AUGUST 12, 1974. PREPARED BY THOMAS F. MORAN INC. NOT RECORDED.
- "PLAT OF LAND FOR M.H.K. REALTY IN EXETER, N.H." DATED NOVEMBER 1988. PREPARED BY PARKER SURVEY ASSOCIATES. NOT RECORDED.
- STATE OF NEW HAMPSHIRE DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS, PLANS OF PROPOSED FEDERAL AID PRIMARY PROJECT F 018-2(1) N.H. NO. P-2428. ON FILE WITH THE NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION.

**SOIL NOTE:**

THIS MAP PRODUCT IS WITHIN THE TECHNICAL STANDARDS OF THE NATIONAL COOPERATIVE SOIL SURVEY. IT IS A SPECIAL PURPOSE PRODUCT, INTENDED FOR INFILTRATION REQUIREMENTS BY THE NH DES ALTERATION OF TERRAIN BUREAU. IT WAS PRODUCED BY A PROFESSIONAL SOIL SCIENTIST, AND IS NOT A PRODUCT OF THE USDA NATIONAL RESOURCES CONSERVATION SERVICE. THERE IS A REPORT THAT ACCOMPANIES THIS MAP.

THE SITE SPECIFIC SOIL MAP WAS PRODUCED 10-22-2024, AND WAS PREPARED BY JAMES P. GOVE, CSS # 004, GOVE ENVIRONMENTAL SERVICES, INC.

**SOIL IDENTIFICATION LEGEND**

MAP UNIT SYMBOL	MAP UNIT NAME	HISS SYMBOL	HYDROLOGIC SOIL GROUP
32	BOXFORD SILT LOAM	353	C
33	SCITCO SILT LOAM	553	C
38	ELDRIDGE LOAMY SAND	343	C
134	MAYBID MUCKY SILT LOAM	653	D
953	BOXFORD SPD*	453	C
299/DFCCC	UDORTHENTS, SMOOTHED	363	C
500/DFCCC	UDORTHENTS, LOAMY	363	C
600/FFCCC	ENDOQUENTS, LOAMY	563	D
699	URBAN LAND	N/A	N/A

\* SPD = SOMEWHAT POORLY DRAINED

**SLOPE PHASE:**

SLOPE PHASE	HISS SYMBOL	HYDROLOGIC SOIL GROUP
0-8%	B	C
8-15%	C	D
15-25%	D	
25%-50%	E	
50%+	F	

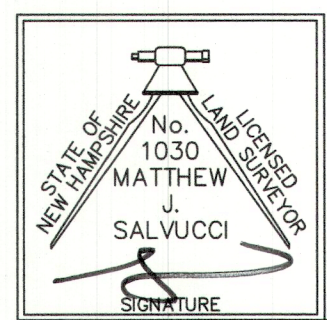
**CERTIFICATION:**

PURSUANT TO RSA 676:18-III AND RSA 672:14

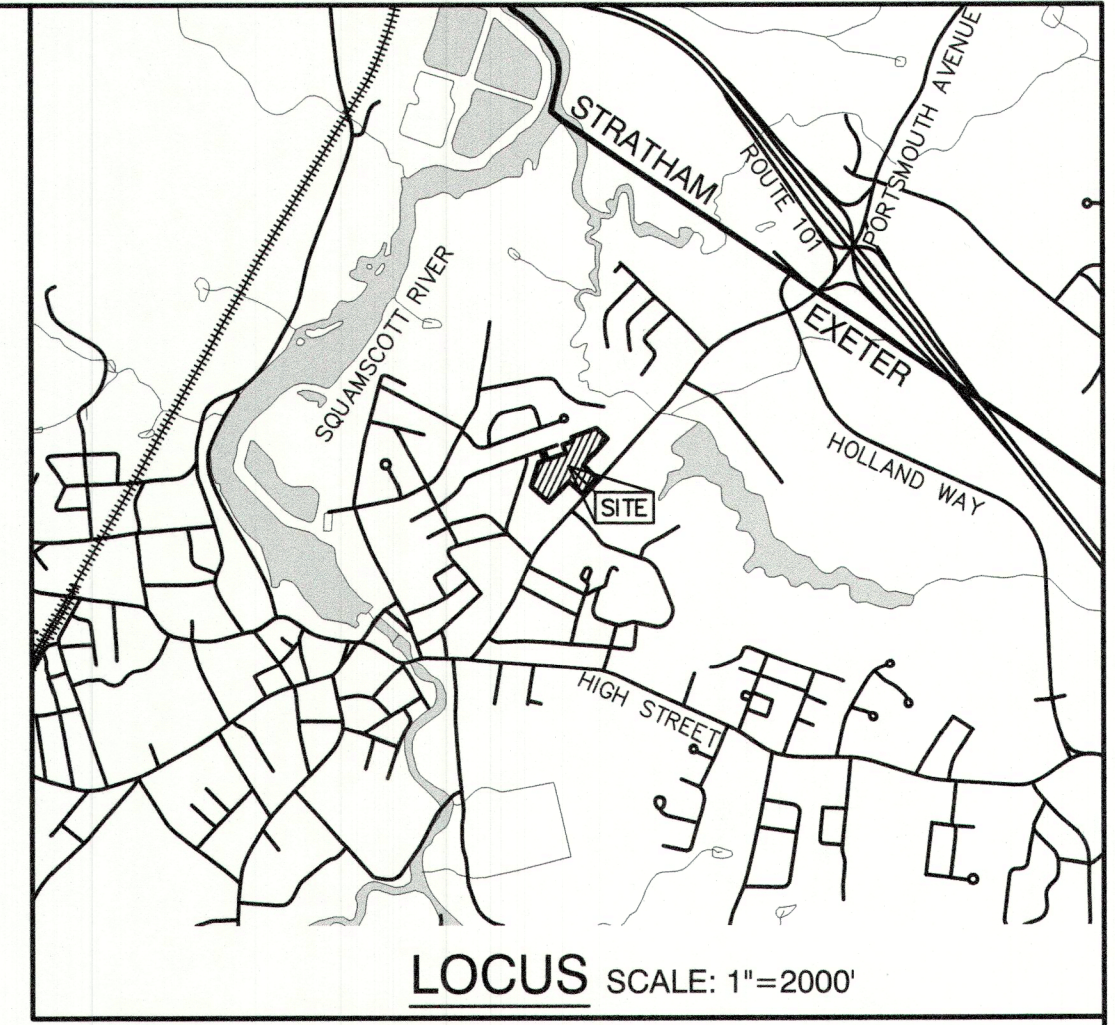
I CERTIFY THAT THIS SURVEY PLAT IS NOT A SUBDIVISION PURSUANT TO THIS TITLE AND THAT THE LINES OF STREETS AND WAYS SHOWN ARE THOSE OF PUBLIC OR PRIVATE STREETS OR WAYS ALREADY ESTABLISHED AND THAT NO NEW WAYS ARE SHOWN.

I CERTIFY THAT THIS PLAT WAS PREPARED UNDER MY DIRECT SUPERVISION, THAT IT IS THE RESULT OF A FIELD SURVEY BY THIS OFFICE AND HAS AN UNADJUSTED LINEAR ERROR OF CLOSURE THAT EXCEEDS BOTH THE MINIMUM OF 1:10,000 AS DEFINED IN SECTION 503.04 OF THE NEW HAMPSHIRE CODE OF ADMINISTRATIVE RULES AND THE MINIMUM OF 1:15,000 AS DEFINED IN SECTION 4.2 OF THE N.H.L.S.A. ETHICS AND STANDARDS.

THIS SURVEY CONFORMS TO A CATEGORY 1 CONDITION 1 SURVEY AS DEFINED IN SECTION 4.1 OF THE N.H.L.S.A. ETHICS AND STANDARDS.

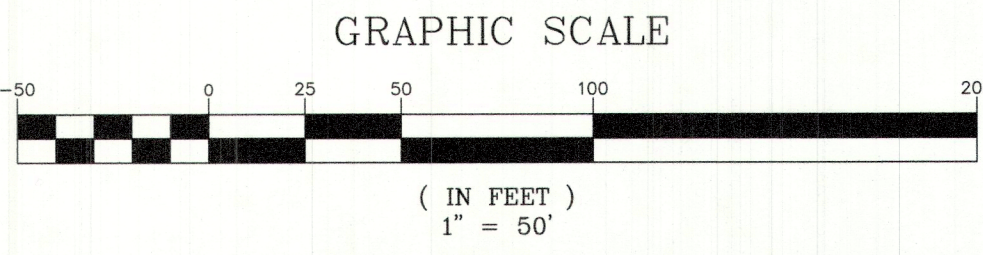


MATTHEW J. SALVUCCI, LLS 1030 DATE: 11/5/24  
ON BEHALF OF JONES & BEACH ENGINEERS, INC.

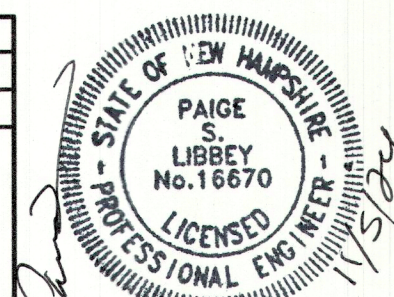


**NOTES:**

- THE INTENT OF THIS PLAN IS TO SHOW THE BOUNDARY AND EXISTING CONDITIONS OF LOT 118 AS SHOWN ON TOWN OF EXETER TAX MAP 65.
- ZONING DISTRICT: C2  
LOT AREA MINIMUM = 20,000 SF  
LOT WIDTH MINIMUM = 150'  
LOT DEPTH MINIMUM = 100'  
MINIMUM LOT AREA/ DWELLING UNIT = 5,000 S.F.  
BUILDING SETBACKS (MINIMUM):  
FRONT SETBACK = 50'  
SIDE SETBACK = 20' ON ONE SIDE, 40' ON THE OTHER  
REAR SETBACK = 50'  
MAX. BUILDING HEIGHT = 35'  
MAX. BUILDING COVERAGE = 30%  
MIN. OPEN SPACE = 15%  
TOWN WETLAND BUFFER = 40' LIMITED USE BUFFER TO P.D. SOILS,  
75' PARKING AND STRUCTURE SETBACK
- THE UTILITY LOCATIONS SHOWN HEREON WERE DETERMINED BY OBSERVED ABOVE GROUND EVIDENCE AND SHOULD BE CONSIDERED APPROXIMATE IN LOCATION ONLY. LOCATION, DEPTH, SIZE, TYPE, EXISTENCE OR NONEXISTENCE OF UNDERGROUND UTILITIES AND/OR UNDERGROUND STORAGE TANKS WAS NOT VERIFIED BY THIS SURVEY. ALL CONTRACTORS SHOULD NOTIFY IN WRITING ALL UTILITY COMPANIES AND GOVERNMENT AGENCIES PRIOR TO ANY EXCAVATION WORK OR CALL DIG-SAFE AT 1-888-DIG-SAFE.
- THE SUBJECT PARCEL IS NOT LOCATED WITHIN AN AREA HAVING A SPECIAL FLOOD HAZARD ZONE DESIGNATION BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA), ON FLOOD INSURANCE RATE MAP NOS. 33015C0402E AND 33015C0406E, BOTH WITH EFFECTIVE DATE OF MAY 17, 2005.
- BASIS OF BEARING: HORIZONTAL - NH STATE PLANE. VERTICAL - NAVD88.
- ALL BOOK AND PAGE NUMBERS REFER TO THE ROCKINGHAM COUNTY REGISTRY OF DEEDS.
- THE TAX MAP AND LOT NUMBERS ARE BASED ON THE TOWN OF EXETER TAX RECORDS AND ARE SUBJECT TO CHANGE.
- THIS SURVEY IS NOT A CERTIFICATION TO OWNERSHIP OR TITLE OF LANDS SHOWN. OWNERSHIP AND ENCUMBRANCES ARE MATTERS OF TITLE EXAMINATION NOT OF A BOUNDARY SURVEY. THE INTENT OF THIS PLAN IS TO RETRACE THE BOUNDARY LINES OF DEEDS REFERENCED HEREON. OWNERSHIP OF ADJOINING PROPERTIES IS ACCORDING TO ASSESSOR'S RECORDS. THIS PLAN MAY OR MAY NOT INDICATE ALL ENCUMBRANCES EXPRESSED, IMPLIED OR PRESCRIPTIVE.
- ANY USE OF THIS PLAN AND OR ACCOMPANYING DESCRIPTIONS SHOULD BE DONE WITH LEGAL COUNSEL, TO BE CERTAIN THAT TITLES ARE CLEAR, THAT INFORMATION IS CURRENT, AND THAT ANY NECESSARY CERTIFICATES ARE IN PLACE FOR A PARTICULAR CONVEYANCE, OR OTHER USES.
- THE LIMITS OF JURISDICTIONAL WETLANDS WERE DELINEATED BY JACK HAYES, APRIL 1, 2024 IN ACCORDANCE WITH THE FOLLOWING GUIDANCE DOCUMENTS:  
A. THE CORPS OF ENGINEERS FEDERAL MANUAL FOR IDENTIFYING AND DELINEATING JURISDICTIONAL WETLANDS.  
B. THE NORTH CENTRAL & NORTHEAST REGIONAL SUPPLEMENT TO THE FEDERAL MANUAL.  
C. THE CURRENT VERSION OF THE FIELD INDICATORS FOR IDENTIFYING HYDRIC SOILS IN NEW ENGLAND, AS PUBLISHED BY THE NEW ENGLAND INTERSTATE WATER POLLUTION CONTROL COMMISSION AND/OR THE CURRENT VERSION OF THE FIELD INDICATORS OF HYDRIC SOILS IN THE UNITED STATES, AS PUBLISHED BY THE USDA, NRCS, AS APPROPRIATE.  
D. THE CURRENT NATIONAL LIST OF PLANT SPECIES THAT OCCUR IN WETLANDS, AS PUBLISHED BY THE US FISH AND WILDLIFE SERVICE.
- TEST PITS PERFORMED BY JAMES GOVE, GOVE ENVIRONMENTAL SERVICES, INC., 7/2/24.
- SURVEY TOE LINES SHOWN HEREON ARE NOT BOUNDARY LINES. THEY SHOULD ONLY BE USED TO LOCATE THE PARCEL SURVEYED FROM THE FOUND MONUMENTS SHOWN AND LOCATED BY THIS SURVEY.
- THE SURVEYED PROPERTY MAY BE SUBJECT TO EASEMENT IN BOOK 2096 PAGE 211. LOCATION IS UNABLE TO BE DETERMINED AT THIS TIME.



Design: MLS	Draft: GDR	Date: 3/15/24
Checked: WGM	Scale: AS SHOWN	Project No.: 24029
Drawing Name: 24029-PLAN.dwg		
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Designed and Produced in NH

**J/B Jones & Beach Engineers, Inc.**

85 Portsmouth Ave. PO Box 219 Stratham, NH 03885

Civil Engineering Services

603-772-4746

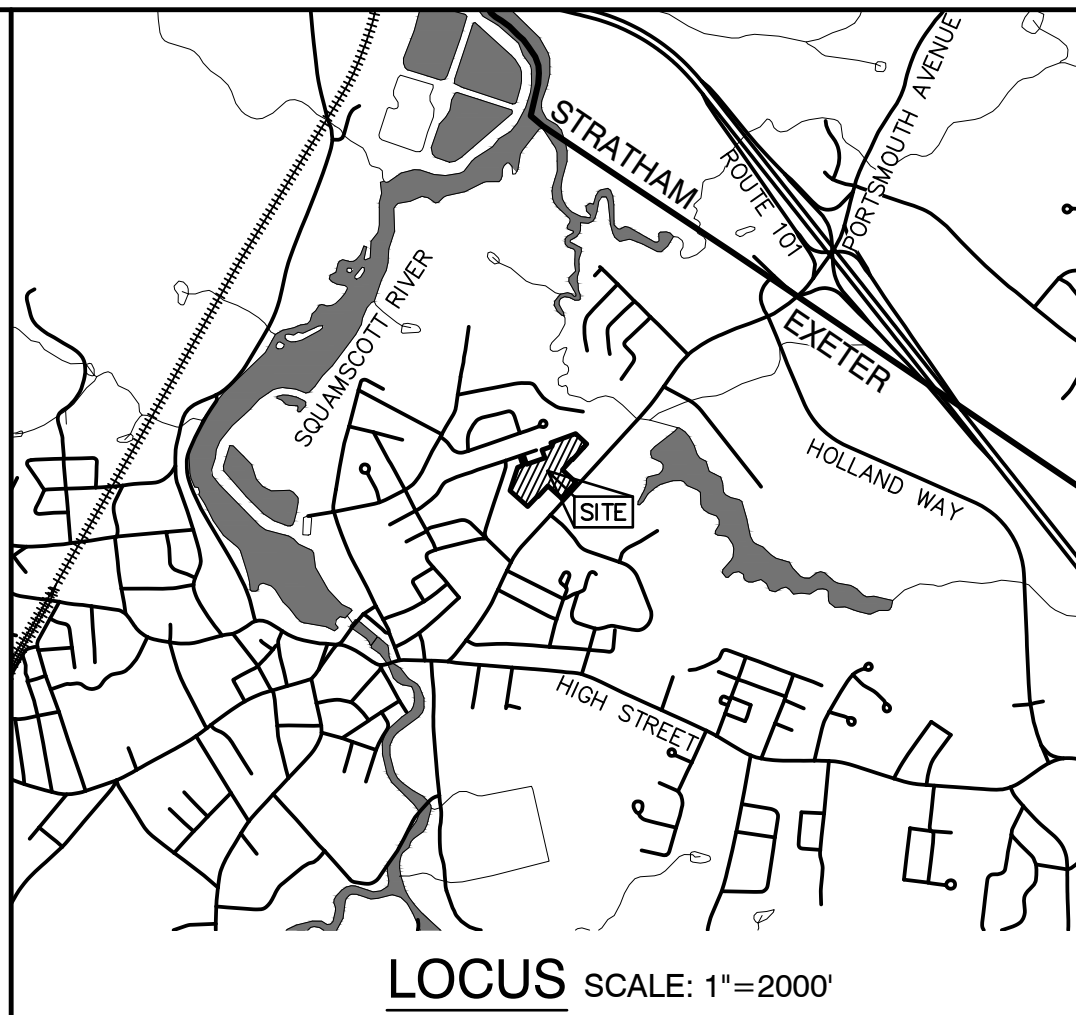
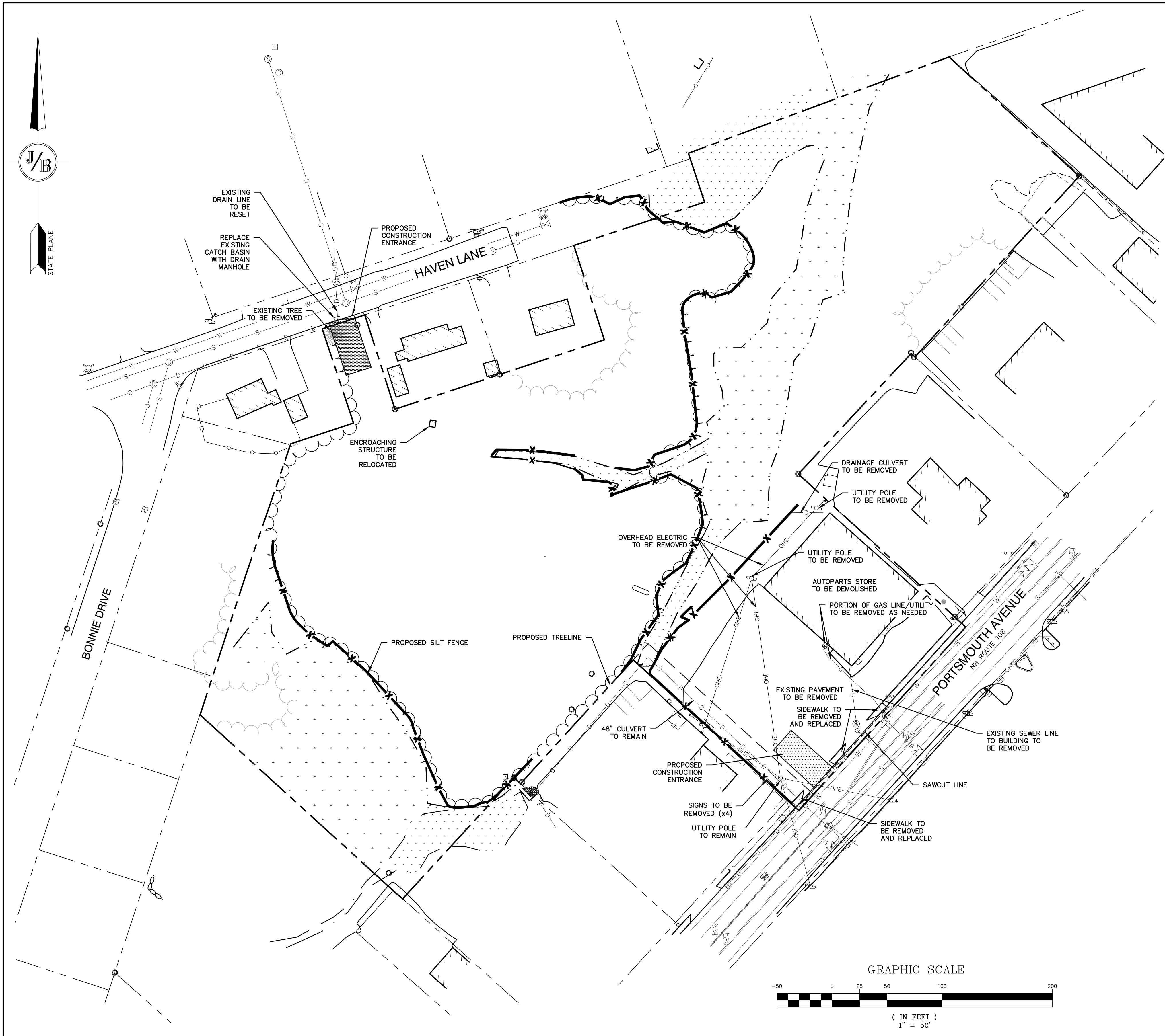
E-MAIL: JBE@JONESANDBEACH.COM

Plan Name:	<b>EXISTING CONDITIONS PLAN</b>
Project:	"LILAC PLACE" 76 PORTSMOUTH AVE, EXETER, NH
Owner of Record:	RAP REALTY MANCHESTER LLC 50 ATLANTIC AVE, SEABROOK, NH

DRAWING No.	<b>C1</b>
SHEET 2 OF 21	JBE PROJECT NO. 24029

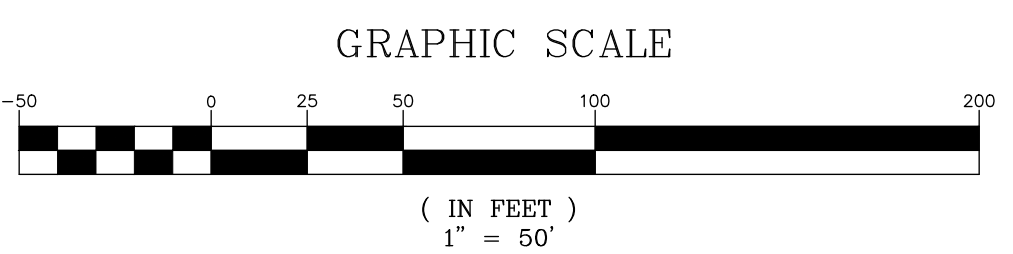
<b>PROJECT PARCEL</b> TOWN OF EXETER TAX MAP 65, LOT 118
<b>APPLICANT</b> GREEN & COMPANY 11 LAFAYETTE RD PO BOX 1297 NORTH HAMPTON, NH 03862
<b>TOTAL LOT AREA</b> 291,630 SQ. FT. 6.7 ACRES





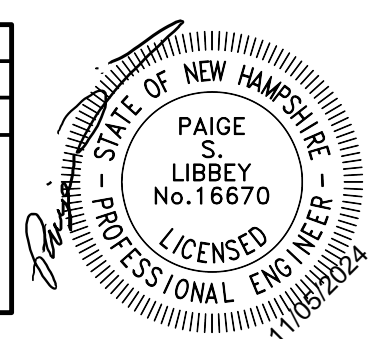
**DEMOLITION NOTES:**

1. THIS PLAN IS INTENDED TO PROVIDE MINIMUM GUIDELINES FOR SITE DEMOLITION. IT SHOULD BE NOTED THAT ALL MANMADE FEATURES, PAVEMENT, SIGNS, POLES, CURBING, CONCRETE WALKS, UTILITIES, ETC., SHALL BE REMOVED AS NECESSARY TO CONSTRUCT WORK, UNLESS OTHERWISE NOTED TO REMAIN. THROUGHOUT THE CONSTRUCTION PROCESS, THE CONTRACTOR SHALL INFORM THE ENGINEER IMMEDIATELY OF ANY FIELD DISCREPANCIES FROM DATA AS SHOWN ON DESIGN PLANS. THIS INCLUDES ANY UNFORESEEN CONDITIONS, SUBSURFACE OR OTHERWISE FOR EVALUATION AND RECOMMENDATIONS. ANY CONTRADICTION BETWEEN ITEMS OF THIS PLAN/PLAN SET, OR BETWEEN THE PLANS AND ON-SITE CONDITIONS MUST BE RESOLVED BEFORE RELATED CONSTRUCTION HAS BEEN INITIATED.
2. PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR IS REQUIRED TO HAVE THE PROJECT LAND SURVEYOR STAKE OR FLAG CLEARING LIMITS. A MINIMUM OF 48 HOURS NOTICE IS REQUIRED. CLEARING LIMITS ARE THE EDGE OF THE PROPERTY AND THE LIMITS OF WORK.
3. ALL EXISTING STRUCTURES WITHIN THE CONSTRUCTION AREA, UNLESS OTHERWISE NOTED TO REMAIN, SHALL BE REMOVED AND DISPOSED OF OFF-SITE IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL GUIDELINES. ANY BURNING ON-SITE SHALL BE SUBJECT TO LOCAL ORDINANCES.
4. ALL EXISTING UTILITIES SHALL BE TERMINATED AT THE PROPERTY LINE, UNLESS OTHERWISE NOTED ON THE PLANS, IN CONFORMANCE WITH LOCAL, STATE AND UTILITY COMPANY STANDARDS, SPECIFICATIONS AND DETAILS. THE CONTRACTOR SHALL COORDINATE UTILITY SERVICE DISCONNECTS WITH THE UTILITY REPRESENTATIVES PRIOR TO THE START OF WORK.
5. EXISTING WATERLINES TO BE REMOVED SHALL BE CAPPED AT EXISTING WATERMAIN.
6. EXISTING GAS SERVICE LINES ARE TO BE REMOVED ON-SITE UP TO EXISTING GASMAIN LINES OR VALVES.
7. ALL CURBING, CONCRETE, PAVEMENT, BUILDINGS AND SUBBASE MATERIALS LOCATED WITHIN PROPOSED LANDSCAPED AREAS SHALL BE REMOVED AND REPLACED WITH LOAM MATERIALS SUITABLE FOR LANDSCAPING IN ACCORDANCE WITH TECHNICAL SPECIFICATIONS. (SEE ALSO LANDSCAPE PLAN).
8. THE CONTRACTOR SHALL OBTAIN TREE CLEARING PERMIT FROM LOCAL AND STATE AUTHORITIES PRIOR TO START OF CONSTRUCTION (IF REQUIRED).
9. IN AREAS WHERE CONSTRUCTION IS PROPOSED ADJACENT TO ABUTTING PROPERTIES, THE CONTRACTOR SHALL INSTALL ORANGE CONSTRUCTION FENCING ALONG PROPERTY LINES IN ALL AREAS WHERE SILT FENCING IS NOT REQUIRED.
10. EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO CONSTRUCTION AND ANY EARTH MOVING OPERATIONS. SILT FENCE SHALL BE INSTALLED AT THE LIMITS OF IMPACT AREAS ACCORDING TO THE DETAILS SHOWN ON SHEET E1.
11. EXCAVATED MATERIALS WILL BE PLACED WITHIN UPLAND AREAS AS FILL MATERIAL OR HAULED OFF-SITE FOR DISPOSAL IN AN APPROPRIATE UPLAND LOCATION.



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<b>APPLICANT</b> GREEN & COMPANY 11 LAFAYETTE RD PO BOX 1297 NORTH HAMPTON, NH 03862
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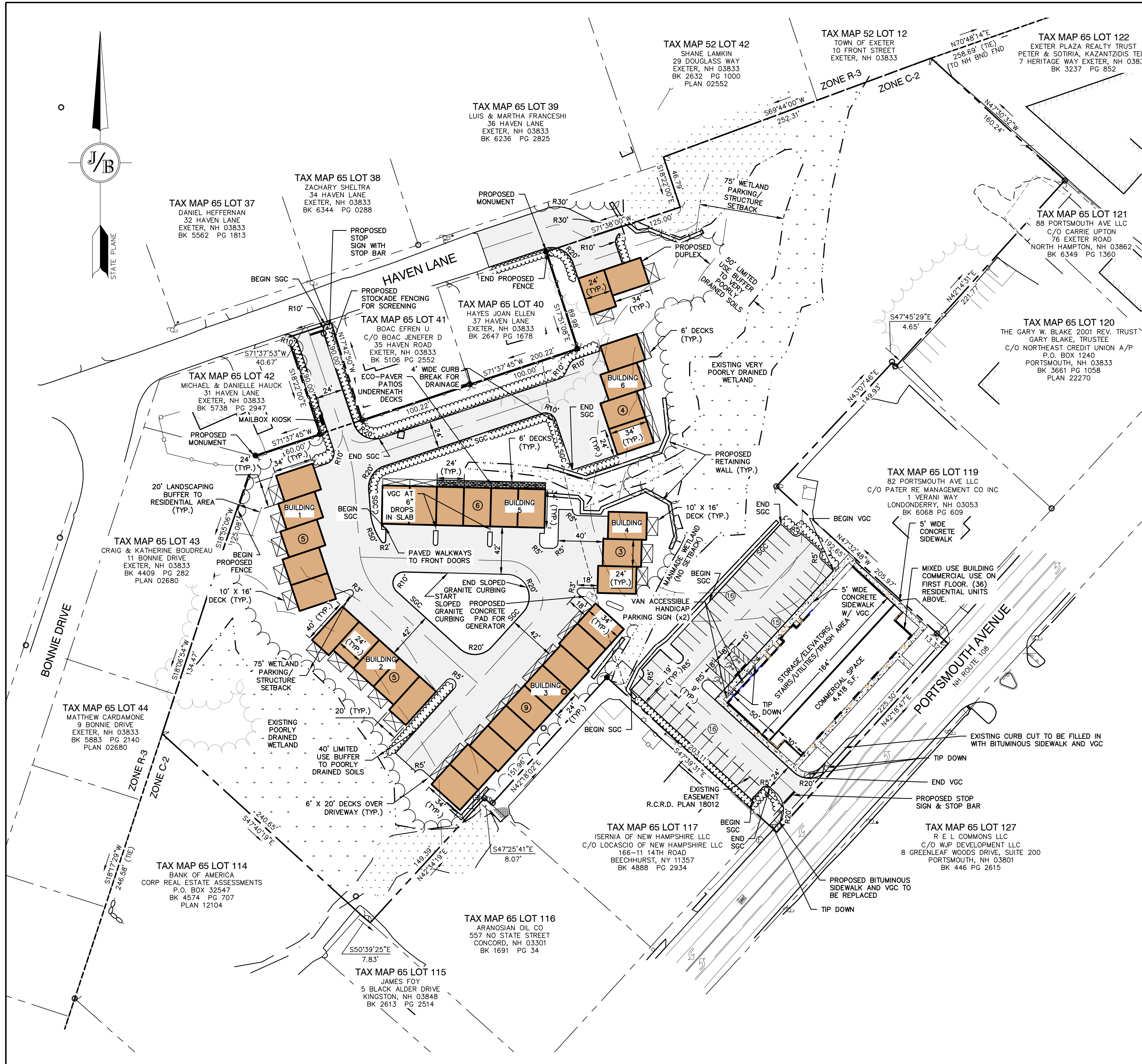
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85 Portsmouth Ave.    PO Box 219    Stratham, NH 03885    603-772-4746    E-MAIL: JBE@JONESANDBEACH.COM

Plan Name:	<b>DEMOLITION PLAN</b>
Project:	"LILAC PLACE" 76 PORTSMOUTH AVE, EXETER, NH
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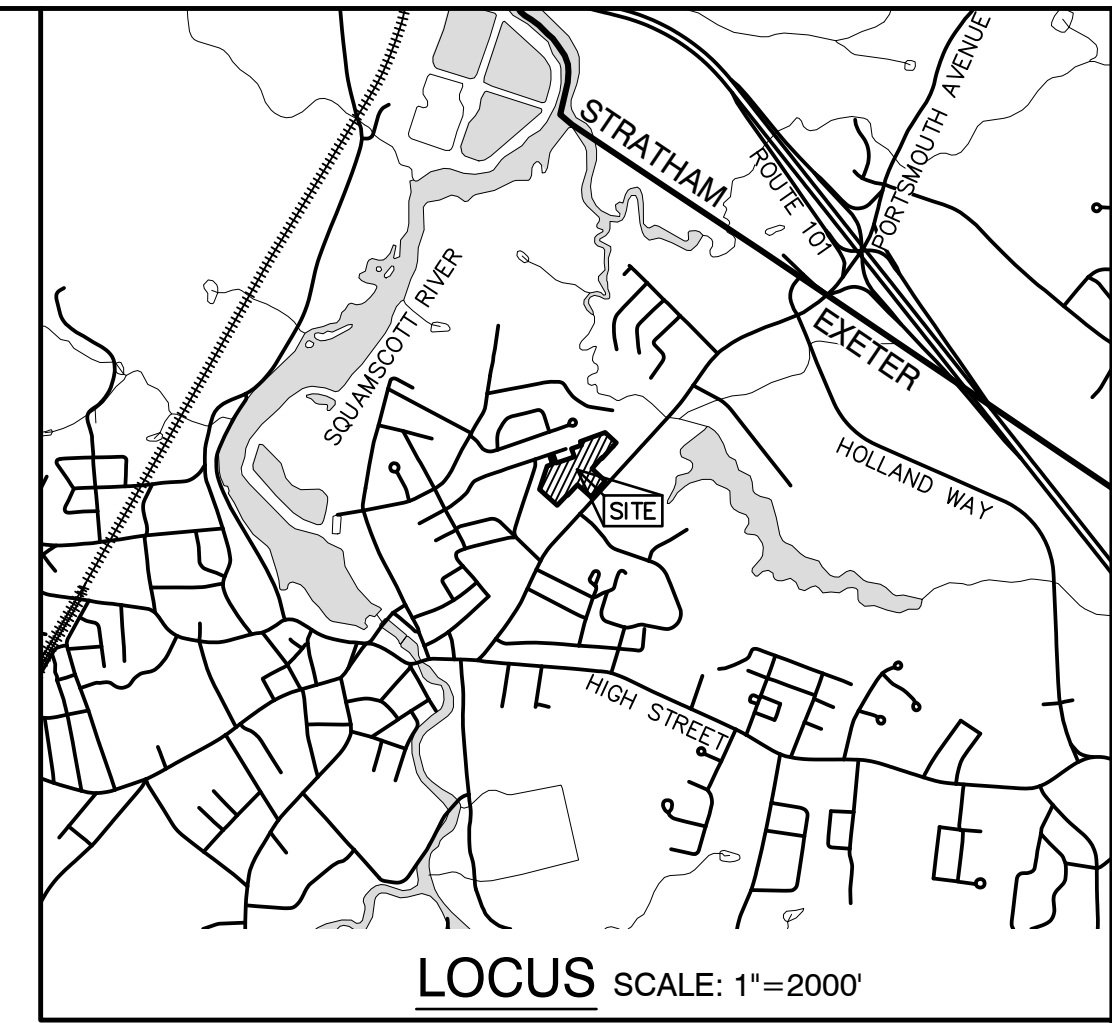
DRAWING No.  
**DM-1**  
SHEET 3 OF 20  
JBE PROJECT NO. 24029



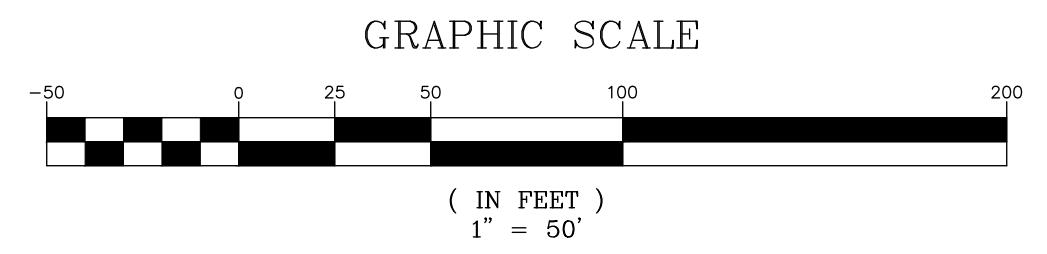


**NOTES:**

- THE INTENT OF THIS PLAN IS TO SHOW A MIXED USE NEIGHBORHOOD DEVELOPMENT (MUND) CONSISTING OF A TOWNHOUSE DEVELOPMENT OFF HAVEN LANE WITH (32) 3-BEDROOM UNITS, A 4 STORY MIXED USE BUILDING ON PORTSMOUTH AVENUE HAVING COMMERCIAL USE ON THE FIRST FLOOR AND (36) ONE BEDROOM UNITS ABOVE, AND ONE SEPARATE DUPLEX WITH 3 BEDROOM UNITS ON HAVEN LANE.
- ZONING DISTRICT: C2  
 LOT AREA MINIMUM = 20,000 SF  
 LOT WIDTH MINIMUM = 150'  
 LOT DEPTH MINIMUM = 100'  
 MINIMUM LOT AREA/ DWELLING UNIT = 5,000 S.F.  
 BUILDING SETBACKS (MINIMUM):  
 FRONT SETBACK = 50'  
 SIDE SETBACK = 20' ON ONE SIDE, 40' ON THE OTHER  
 REAR SETBACK = 50'  
 MAX. BUILDING HEIGHT = 35'  
 MAX. BUILDING COVERAGE = 30%  
 MIN. OPEN SPACE = 15%  
 TOWN WETLAND BUFFER = 40' LIMITED USE BUFFER TO P.D. SOILS, 75' PARKING AND STRUCTURE SETBACK
- PARKING CALCULATIONS  
 PORTSMOUTH AVENUE DEVELOPMENT:  
 MIXED USE NEIGHBORHOOD DISTRICT (MUND) PARKING REQUIREMENTS = 1 SPACE/RESIDENTIAL UNIT + COMMERCIAL PARKING AT 50% OF TOWN OF EXETER SITE PLAN REGULATIONS  
 REQUIRED PARKING = 1 SPACE/300 S.F. X 4,418 S.F. COMMERCIAL SPACE X 50% = 8 SPACES REQUIRED  
 +1 SPACE/ RESIDENTIAL UNIT = 36 SPACES REQUIRED  
 TOTAL REQUIRED PARKING = 44 SPACES  
 PARKING PROVIDED = 47 SPACES  
 TOWNHOUSE DEVELOPMENT:  
 1 SPACE PER UNIT REQUIRED  
 34 UNITS / 1 SPACE PER UNIT = 34 SPACES REQUIRED  
 4 SPACES PER UNIT PROVIDED (2 IN GARAGE + 2 IN FRONT OF UNIT)  
 PARKING PROVIDED = 136 PARKING SPACES
- THE LIMITS OF JURISDICTIONAL WETLANDS WERE DELINEATED BY JOHN HAYES, DURING APRIL, 2024 IN ACCORDANCE WITH THE FOLLOWING GUIDANCE DOCUMENTS:
  - THE CORPS OF ENGINEERS FEDERAL MANUAL FOR IDENTIFYING AND DELINEATING JURISDICTIONAL WETLANDS.
  - THE NORTH CENTRAL & NORTHEAST REGIONAL SUPPLEMENT TO THE FEDERAL MANUAL.
  - THE CURRENT VERSION OF THE FIELD INDICATORS FOR IDENTIFYING HYDRIC SOILS IN NEW ENGLAND, AS PUBLISHED BY THE NEW ENGLAND INTERSTATE WATER POLLUTION CONTROL COMMISSION AND/OR THE CURRENT VERSION OF THE FIELD INDICATORS OF HYDRIC SOILS IN THE UNITED STATES, AS PUBLISHED BY THE USDA, NRCS, AS APPROPRIATE.
  - THE CURRENT NATIONAL LIST OF PLANT SPECIES THAT OCCUR IN WETLANDS, AS PUBLISHED BY THE US FISH AND WILDLIFE SERVICE.
- ALL WATER, SEWER, ROAD AND DRAINAGE WORK SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 9.3 STORMWATER MANAGEMENT STANDARDS, STORMWATER MANAGEMENT PLAN, STORMWATER POLLUTION PREVENTION PLAN, AND EROSION AND SEDIMENT CONTROL STANDARDS AND THE STANDARD SPECIFICATIONS FOR CONSTRUCTION OF PUBLIC UTILITIES IN EXETER, NEW HAMPSHIRE.
- THIS PLAN SET HAS BEEN PREPARED BY JONES & BEACH ENGINEERS, INC., FOR MUNICIPAL AND STATE APPROVALS AND FOR CONSTRUCTION BASED ON DATA OBTAINED FROM ON-SITE FIELD SURVEY AND EXISTING MUNICIPAL RECORDS. THROUGHOUT THE CONSTRUCTION PROCESS, THE CONTRACTOR SHALL INFORM THE ENGINEER IMMEDIATELY OF ANY FIELD DISCREPANCY FROM DATA AS SHOWN ON THE DESIGN PLANS, INCLUDING ANY UNFORESEEN CONDITIONS, SUBSURFACE OR OTHERWISE, FOR EVALUATION AND RECOMMENDATIONS. ANY CONTRADICTION BETWEEN ITEMS ON THIS PLAN/PLAN SET, OR BETWEEN THE PLANS AND ON-SITE CONDITIONS, MUST BE RESOLVED BEFORE RELATED CONSTRUCTION HAS BEEN INITIATED. CONTRACTOR TO ALWAYS CONTACT DIG SAFE PRIOR TO DIGGING ON-SITE OR OFF-SITE TO ENSURE SAFETY AND OBEY THE LAW.
- ALL CONSTRUCTION SHALL CONFORM TO TOWN STANDARDS AND REGULATIONS, AND NHDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, WHICHEVER IS MORE STRINGENT.
- THE SUBJECT PARCEL IS NOT LOCATED WITHIN AN AREA HAVING A SPECIAL FLOOD HAZARD ZONE DESIGNATION BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA), ON FLOOD INSURANCE RATE MAP NOS. 33015C0402E AND 33015C0406E, BOTH WITH EFFECTIVE DATE OF MAY 17, 2005.
- LANDOWNERS ARE RESPONSIBLE FOR COMPLYING WITH ALL APPLICABLE LOCAL, STATE AND FEDERAL WETLAND REGULATIONS, INCLUDING PERMITTING REQUIRED UNDER THESE REGULATIONS.
- ALL CONSTRUCTION ACTIVITIES SHALL BE PERFORMED IN ACCORDANCE WITH THE STORMWATER POLLUTION PREVENTION PLAN (S.W.P.P.). THIS DOCUMENT IS TO BE KEPT ON-SITE AT ALL TIMES AND UPDATED AS REQUIRED.

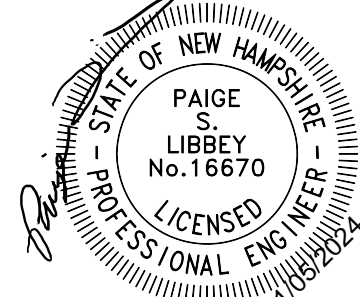


- THE CONTRACTOR SHALL READ AND FOLLOW ALL RECOMMENDATIONS MADE IN THE SITE GEOTECHNICAL ENGINEER REPORT, PREPARED BY GEOTECHNICAL SERVICES, INC., DATED JULY 12, 2024.
- PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR SHALL COORDINATE WITH THE ENGINEER, ARCHITECT AND/OR OWNER, IN ORDER TO OBTAIN AND/OR PAY ALL THE NECESSARY LOCAL PERMITS, FEES AND BONDS.
- ALL PROPOSED SIGNAGE SHALL CONFORM WITH THE TOWN ZONING REGULATIONS, UNLESS A VARIANCE IS OTHERWISE REQUESTED.
- ALL SIGNAGE AND PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (M.U.T.C.D.) AND NHDOT STANDARDS AND SPECIFICATIONS (NON-REFLECTORIZED PAVEMENT MARKINGS), UNLESS OTHERWISE NOTED.
- ALL PARKING STALLS SHALL BE SEPARATED USING 4" WIDE SOLID STRIPES. STRIPING SHALL BE 100% ACRYLIC TYPE, LOW VOC, FAST DRYING, IN A COLOR OF WHITE.
- ALL STOP BARS SHALL BE 18" IN WIDTH IN A COLOR OF WHITE; ALL TRAFFIC ARROWS SHALL BE PAINTED IN A COLOR OF WHITE.
- ALL CURBING TO BE SLOPED GRANITE WITH A MINIMUM RADIUS OF 2', UNLESS OTHERWISE NOTED.
- ALL BUILDING DIMENSIONS SHALL BE VERIFIED WITH THE ARCHITECTURAL AND STRUCTURAL PLANS PROVIDED BY THE OWNER. ANY DISCREPANCIES SHOULD BE BROUGHT TO THE ATTENTION OF THE ENGINEER AND OWNER PRIOR TO THE START OF CONSTRUCTION. BUILDING DIMENSIONS AND AREAS TO BE OUTSIDE OF MASONRY, UNLESS OTHERWISE NOTED.
- SNOW TO BE STORED AT EDGE OF PAVEMENT AND IN AREAS SHOWN ON THE PLANS, OR TRUCKED OFF-SITE TO AN APPROVED SNOW DUMPING LOCATION.
- ROOF TOP HEATING AND AIR CONDITIONING UNITS (RTU's) SHALL BE DESIGNED TO VENT UPWARDS AND AIR INTAKES SHALL BE DIRECTED AWAY FROM ABUTTING NEIGHBORS.
- ALL ARCHITECTURAL BLOCK RETAINING WALLS ARE TO BE DESIGNED AND STAMPED BY THE MANUFACTURER'S STRUCTURAL ENGINEER. CONTRACTOR TO COORDINATE WITH APPROVED MANUFACTURER PRIOR TO INSTALLATION.
- ALL CONSTRUCTION ACTIVITIES SHALL CONFORM TO LABOR OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) RULES AND REGULATIONS.
- ALL PRECAST CONCRETE PRODUCTS WILL BE SOURCED FROM MANUFACTURING FACILITIES IN COMPLIANCE WITH THE NATIONAL PRECAST CONCRETE ASSOCIATION (NPCA) PLANT CERTIFICATION PROGRAM. EVIDENCE OF COMPLIANCE WILL BE PROVIDED FOR THE CURRENT CALENDAR YEAR THE PRODUCTS WERE MANUFACTURED WITHIN.



APPROVED - EXETER, NH PLANNING BOARD	PROJECT PARCEL TOWN OF EXETER TAX MAP 65, LOT 118
APPLICANT GREEN & COMPANY 11 LAFAYETTE RD PO BOX 1297 NORTH HAMPTON, NH 03862	TOTAL LOT AREA 291,630 SQ. FT. 6.7 ACRES
DATE:	

Design: MLS	Draft: GDR	Date: 3/15/24
Checked: WGM	Scale: AS SHOWN	Project No.: 24029
Drawing Name: 24029-PLAN.dwg		
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0	4/11/24	ISSUED FOR REVIEW	PSL
REV.	DATE	REVISION	BY

Designed and Produced in NH

**J/B Jones & Beach Engineers, Inc.**

85 Portsmouth Ave. Stratham, NH 03885

Civil Engineering Services

603-772-4746

E-MAIL: JBE@JONESANDBEACH.COM

Plan Name:	<b>SITE PLAN</b>
Project:	<b>"LILAC PLACE"</b> 76 PORTSMOUTH AVE, EXETER, NH
Owner of Record:	RAP REALTY MANCHESTER LLC 50 ATLANTIC AVE, SEABROOK, NH
DRAWING No.	<b>C2</b>
	SHEET 4 OF 20 JBE PROJECT NO. 24029



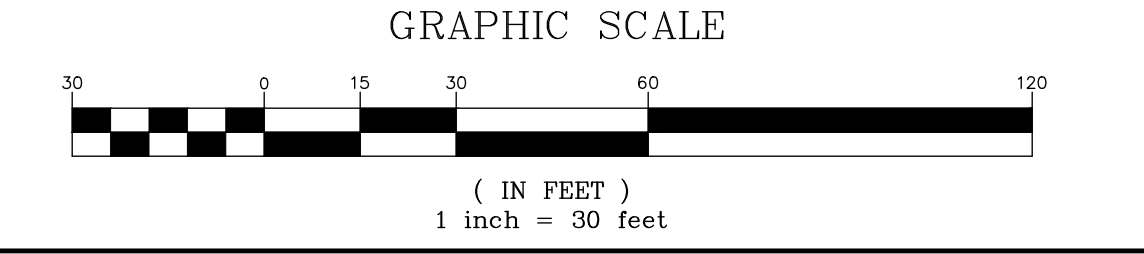


- ### GRADING AND DRAINAGE NOTES:
- UNDERGROUND FACILITIES, UTILITIES AND STRUCTURES HAVE BEEN PLOTTED FROM FIELD OBSERVATION AND THEIR LOCATION MUST BE CONSIDERED APPROXIMATE ONLY. NEITHER JONES & BEACH ENGINEERS, INC., NOR ANY OF THEIR EMPLOYEES TAKE RESPONSIBILITY FOR THE LOCATION OF ANY UNDERGROUND STRUCTURES AND/OR UTILITIES NOT SHOWN THAT MAY EXIST. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO HAVE ALL UNDERGROUND STRUCTURES AND/OR UTILITIES LOCATED PRIOR TO EXCAVATION WORK BY CALLING 888-DIG-SAFE (888-344-7233).
  - VERTICAL DATUM: NAVD88.
  - ALL BENCHMARKS AND TOPOGRAPHY SHOULD BE FIELD VERIFIED BY THE CONTRACTOR.
  - SITE GRADING SHALL NOT PROCEED UNTIL EROSION CONTROL MEASURES HAVE BEEN INSTALLED. SEE CONSTRUCTION SEQUENCE ON SHEET E1.
  - PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR IS REQUIRED TO HAVE THE PROJECT'S LAND SURVEYOR STAKE OR FLAG CLEARING LIMITS. A MINIMUM OF 48 HOURS NOTICE IS REQUIRED.
  - ALL EXTERIOR ROOF DOWNSPOUTS ARE TO BE INSTALLED WITH OVERFLOW DEVICES.
  - ALL SWALES AND DETENTION PONDS ARE TO BE STABILIZED PRIOR TO DIRECTING RUNOFF TO THEM.
  - PROPOSED RIM ELEVATIONS OF DRAINAGE STRUCTURES ARE APPROXIMATE. FINAL ELEVATIONS ARE TO BE SET FLUSH WITH FINISH GRADES.
  - ALL SWALES AND ANY SLOPES GREATER THAN 3:1 SHALL BE STABILIZED WITH NORTH AMERICAN GREEN SCI505N EROSION CONTROL BLANKETS (OR AN EQUIVALENT APPROVED IN WRITING BY THE ENGINEER), UNLESS OTHERWISE SPECIFIED.
  - ALL DRAINAGE AND SANITARY STRUCTURE INTERIOR DIAMETERS (4" MIN) SHALL BE DETERMINED BY THE MANUFACTURER BASED ON THE PIPE CONFIGURATIONS SHOWN ON THESE PLANS. CATCH BASINS SHALL HAVE 3" DEEP SUMPS WITH GREASE HOODS, UNLESS OTHERWISE NOTED.
  - ALL DRAINAGE STRUCTURES SHALL BE PRECAST, UNLESS OTHERWISE SPECIFIED. SEE DRAINAGE DETAILS ON DETAIL SHEETS.
  - ALL DRAINAGE STRUCTURES AND STORMWATER PIPES SHALL MEET HEAVY DUTY TRAFFIC H20 LOADING AND SHALL BE INSTALLED ACCORDINGLY.
  - IMMEDIATELY APPLY AND COMPACT STONE BASE FOR BUILDING PAD TO +/- 1/2" PRIOR TO EXCAVATING INTERIOR AND PERIMETER FOOTINGS.
  - IN AREAS WHERE CONSTRUCTION IS PROPOSED ADJACENT TO ABUTTING PROPERTIES, THE CONTRACTOR SHALL INSTALL ORANGE CONSTRUCTION FENCING ALONG PROPERTY LINES IN ALL AREAS WHERE SILT FENCING IS NOT REQUIRED.
  - ALL DRAINAGE PIPE SHALL BE NON-PERFORATED ADS N-12 OR APPROVED EQUAL.
  - STONE INLET PROTECTION SHALL BE PLACED AT ALL CATCH BASINS. SEE DETAIL WITHIN THE DETAIL SHEETS.
  - LAND DISTURBING ACTIVITIES SHALL NOT COMMENCE UNTIL APPROVAL TO DO SO HAS BEEN RECEIVED BY ALL GOVERNING AUTHORITIES. THE GENERAL CONTRACTOR SHALL STRICTLY ADHERE TO THE EPA SWPPP DURING CONSTRUCTION OPERATIONS.
  - ALL EXPOSED AREAS SHALL BE SEED AS SPECIFIED WITHIN 3 DAYS OF FINAL GRADING AND ANYTIME CONSTRUCTION STOPS FOR LONGER THAN 3 DAYS.
  - MAINTAIN EROSION CONTROL MEASURES AFTER EACH RAIN EVENT OF 0.25" OR GREATER IN A 24 HOUR PERIOD AND AT LEAST ONCE A WEEK.
  - THIS PLAN SHALL NOT BE CONSIDERED ALL INCLUSIVE, AS THE GENERAL CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PREVENT SEDIMENT FROM LEAVING THE SITE.
  - CONSTRUCTION VEHICLES SHALL UTILIZE THE STABILIZED CONSTRUCTION ENTRANCE TO THE EXTENT POSSIBLE THROUGHOUT CONSTRUCTION.
  - IF INSTALLATION OF STORM DRAINAGE SYSTEM SHOULD BE INTERRUPTED BY WEATHER OR NIGHTFALL, THE PIPE ENDS SHALL BE COVERED WITH FILTER FABRIC.
  - THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE TO TAKE WHATEVER MEANS NECESSARY TO ESTABLISH PERMANENT SOIL STABILIZATION.
  - SEDIMENT SHALL BE REMOVED FROM ALL SEDIMENT BASINS BEFORE THEY ARE 25% FULL.
  - ALL WORK SHALL BE DONE IN STRICT ACCORDANCE WITH PROJECT SPECIFICATIONS.
  - ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED, IF DEEMED NECESSARY BY ON-SITE INSPECTION BY ENGINEER AND/OR REGULATORY OFFICIALS.
  - SEE ALSO EROSION AND SEDIMENT CONTROL SPECIFICATIONS ON SHEET E1.
  - TOTAL DISTURBANCE = 166,000 S.F.

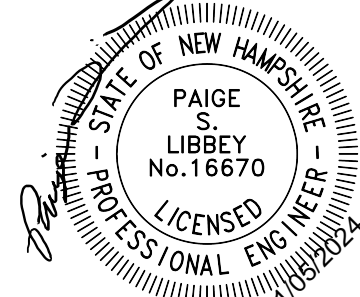
FOCAL POINT SCHEDULE						
FOCAL POINT	BOTTOM SIZE	SIDE SLOPES	BERM EL.	TOP OF FILTER COURSE	BOTTOM OF FILTER COURSE	R-TANK UNDERDRAIN INVERT
1	5' X 5'	3:1	30.0	29.0	27.5	26.00
2	4' X 15'	3:1	38.5	37.75	36.25	34.75

- LEGEND:**
- LIMITED USE BUFFER IMPACT = 20,146 S.F.
  - PARKING/STRUCTURE BUFFER IMPACT = 23,973 S.F.
- TOTAL WETLAND BUFFER IMPACTS = 44,119 S.F.

PARKING / STRUCTURE WETLAND BUFFER IMPACTS TABLE			LIMITED USE WETLAND BUFFER IMPACTS TABLE		
WETLAND TYPE	SURFACE COVER	AREA (S.F.)	WETLAND TYPE	SURFACE COVER	AREA (S.F.)
VPD	IMPERVIOUS	7,600	VPD	IMPERVIOUS	4,800
VPD	PERVIOUS	4,600	VPD	PERVIOUS	5,800
PD	IMPERVIOUS	8,300	PD	IMPERVIOUS	2,800
PD	PERVIOUS	3,500	PD	PERVIOUS	6,800
TOTAL	IMPERVIOUS	15,900	TOTAL	IMPERVIOUS	7,600
TOTAL	PERVIOUS	8,100	TOTAL	PERVIOUS	12,600
VPD	TOTAL	12,200	VPD	TOTAL	10,600
PD	TOTAL	11,800	PD	TOTAL	9,600
TOTAL	TOTAL	24,000	TOTAL	TOTAL	20,200



Design: MLS Draft: GDR Date: 3/15/24  
 Checked: WGM Scale: AS SHOWN Project No.: 24029  
 Drawing Name: 24029-PLAN.dwg  
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0	4/11/24	ISSUED FOR REVIEW	PSL
REV.	DATE	REVISION	BY

Designed and Produced in NH

**J/B Jones & Beach Engineers, Inc.**

85 Portsmouth Ave. Civil Engineering Services 603-772-4746  
 PO Box 219 Stratham, NH 03885 E-MAIL: JBE@JONESANDBEACH.COM

Plan Name: **GRADING AND DRAINAGE PLAN**

Project: **"LILAC PLACE"**  
**76 PORTSMOUTH AVE, EXETER, NH**

Owner of Record: **RAP REALTY MANCHESTER LLC**  
**50 ATLANTIC AVE, SEABROOK, NH**

DRAWING No. **C3**

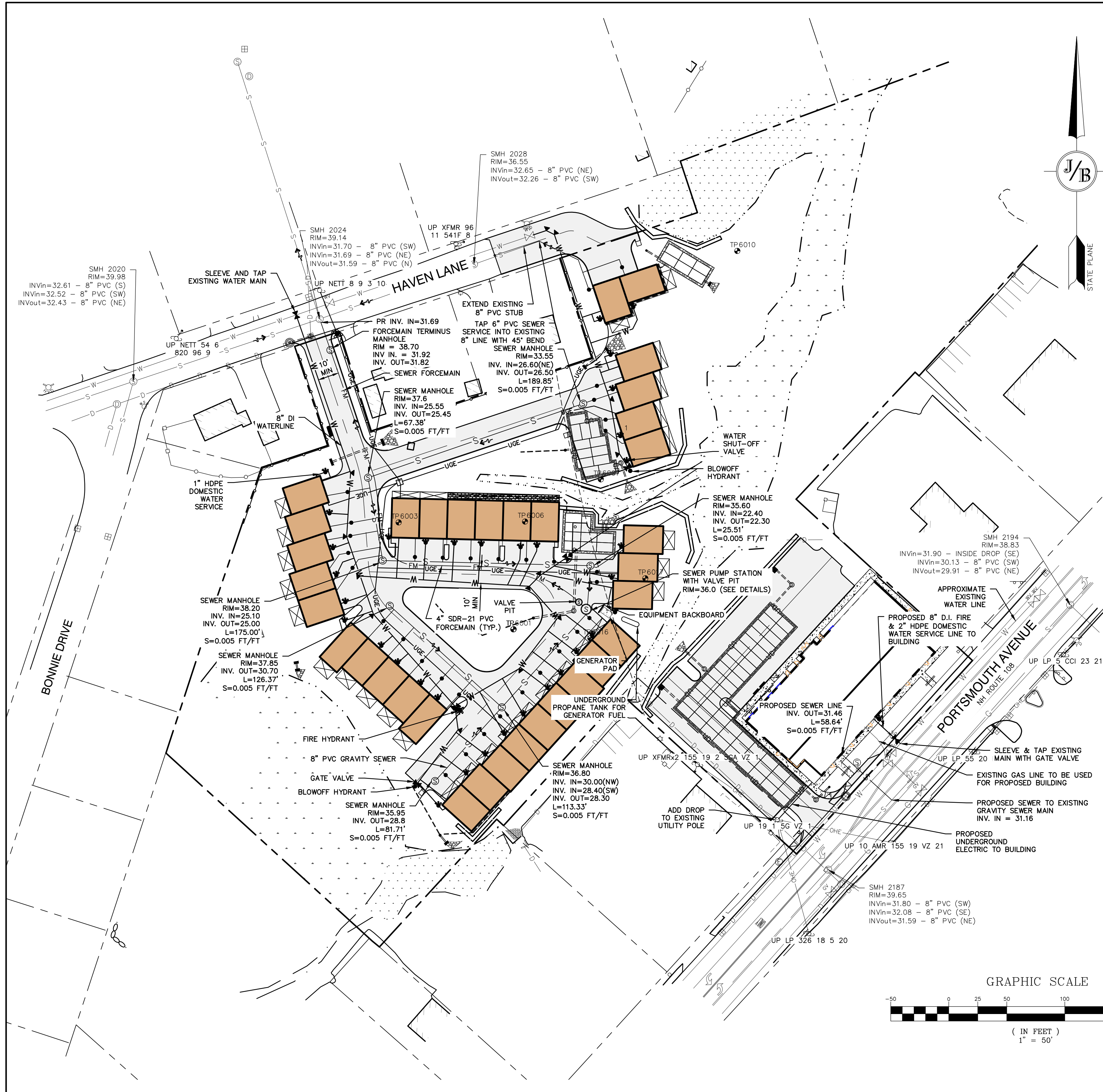
SHEET 5 OF 20  
 JBE PROJECT NO. 24029

**PROJECT PARCEL**  
 TOWN OF EXETER  
 TAX MAP 65, LOT 118

**APPLICANT**  
 GREEN & COMPANY  
 11 LAFAYETTE RD  
 PO BOX 1297  
 NORTH HAMPTON, NH 03862

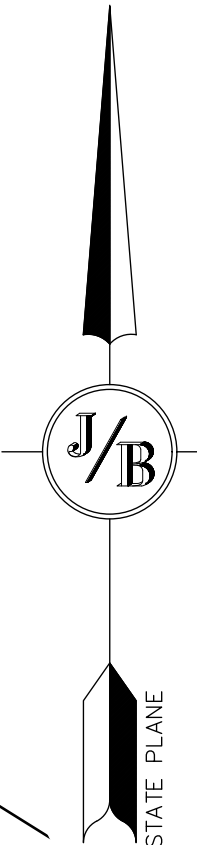
**TOTAL LOT AREA**  
 291,630 SQ. FT.  
 6.7 ACRES





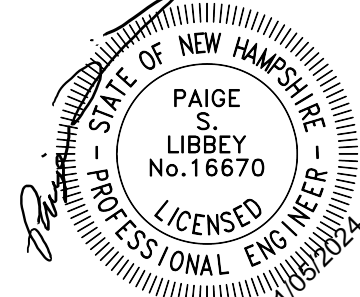
**UTILITY NOTES:**

- PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR SHALL COORDINATE WITH THE ENGINEER, ARCHITECT AND/OR OWNER, IN ORDER TO OBTAIN AND/OR PAY ALL THE NECESSARY LOCAL PERMITS, CONNECTION FEES AND BONDS.
- THE CONTRACTOR SHALL PROVIDE A MINIMUM NOTICE OF FOURTEEN (14) DAYS TO ALL CORPORATIONS, COMPANIES AND/OR LOCAL AUTHORITIES OWNING OR HAVING A JURISDICTION OVER UTILITIES RUNNING TO, THROUGH OR ACROSS PROJECT AREAS PRIOR TO DEMOLITION AND/OR CONSTRUCTION ACTIVITIES.
- THE LOCATION, SIZE, DEPTH AND SPECIFICATIONS FOR CONSTRUCTION OF PROPOSED PRIVATE UTILITY SERVICES SHALL BE TO THE STANDARDS AND REQUIREMENTS OF THE RESPECTIVE UTILITY COMPANY (ELECTRIC, TELEPHONE, CABLE TELEVISION, FIRE ALARM, GAS, WATER, AND SEWER).
- A PRECONSTRUCTION MEETING SHALL BE HELD WITH THE OWNER, ENGINEER, ARCHITECT, CONTRACTOR, LOCAL OFFICIALS, AND ALL PROJECT-RELATED UTILITY COMPANIES (PUBLIC AND PRIVATE) PRIOR TO START OF CONSTRUCTION.
- ALL CONSTRUCTION SHALL CONFORM TO THE TOWN STANDARDS AND REGULATIONS, AND NHDES STANDARDS AND SPECIFICATIONS, WHICHEVER ARE MORE STRINGENT, UNLESS OTHERWISE SPECIFIED.
- ALL CONSTRUCTION ACTIVITIES SHALL CONFORM TO LABOR OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) RULES AND REGULATIONS.
- BUILDING TO BE SERVICED BY UNDERGROUND UTILITIES UNLESS OTHERWISE NOTED.
- THE CONTRACTOR IS TO VERIFY LOCATION AND DEPTH OF ALL EXISTING UTILITY STUBS PRIOR TO CONSTRUCTION AND DISCONNECT ALL EXISTING SERVICE CONNECTIONS AT THEIR RESPECTIVE MAINS IN ACCORDANCE WITH THE RESPECTIVE UTILITY COMPANY'S STANDARDS AND SPECIFICATIONS. ENGINEER TO BE NOTIFIED.
- AS-BUILT PLANS SHALL BE SUBMITTED TO DEPARTMENT OF PUBLIC WORKS.
- INVERTS AND SHELVES: MANHOLES SHALL HAVE A BRICK PAVED SHELF AND INVERT, CONSTRUCTED TO CONFORM TO THE SIZE OF PIPE AND FLOW AT CHANGES IN DIRECTION. THE INVERTS SHALL BE LAID OUT IN CURVES OF THE LONGEST RADIUS POSSIBLE TANGENT TO THE CENTER LINE OF THE SEWER PIPES. SHELVES SHALL BE CONSTRUCTED TO THE ELEVATION OF THE THROUGH CHANNEL UNDERLAYMENT OF INVERT, AND SHELF SHALL CONSIST OF BRICK MASONRY.
- FRAMES AND COVERS: MANHOLE FRAMES AND COVERS SHALL BE OF HEAVY DUTY DESIGN AND PROVIDE A 30 INCH DIA. CLEAR OPENING. THE WORD "SEWER" OR "DRAIN" SHALL BE CAST INTO THE CENTER OF THE UPPER FACE OF EACH COVER WITH RAISED, 3" LETTERS.
- SHALLOW MANHOLE: IN LIEU OF A CONE SECTION, WHEN MANHOLE DEPTH IS LESS THAN 6 FEET, A REINFORCED CONCRETE SLAB COVER MAY BE USED HAVING AN ECCENTRIC ENTRANCE OPENING AND CAPABLE OF SUPPORTING H2O LOADS.
- CONTRACTOR SHALL PLACE 2" WIDE METAL WIRE IMPREGNATED RED PLASTIC WARNING TAPE OVER ENTIRE LENGTH OF ALL GRAVITY SEWERS, SERVICES, AND FORCE MAINS.
- SANITARY SEWER FLOW CALCULATIONS PER METCALF & EDDY:  
**HOUSING UNITS FLOW**  
 32 - THREE BEDROOM UNITS @ 70 GPD/BEDROOM = 6,720 GPD  
 36 - ONE BEDROOM UNITS @ 70 GPD/BEDROOM = 2,520 GPD  
 1 - DUPLEX (3 BEDROOMS PER UNIT) @ 70 GPD = 420 GPD  
**COMMERCIAL USE FLOW (SHOPPING CENTER)**  
 1 - SHOPPING CENTER WITH 16 PARKING SPACES @ 1.5 GPD PER SPACE = 24 GPD  
 6 - EMPLOYEES @ 8 GPD = 48 GPD  
**TOTAL FLOW = 9,732 GPD**
- ALL SANITARY STRUCTURE INTERIOR DIAMETERS (4' MIN) SHALL BE DETERMINED BY THE MANUFACTURER BASED ON THE PIPE CONFIGURATIONS SHOWN ON THESE PLANS.
- PROPOSED RIM ELEVATIONS OF DRAINAGE AND SANITARY MANHOLES ARE APPROXIMATE. FINAL ELEVATIONS ARE TO BE SET FLUSH WITH FINISH GRADES. ADJUST ALL OTHER RIM ELEVATIONS OF MANHOLES, WATER GATES, GAS GATES AND OTHER UTILITIES TO FINISH GRADE AS SHOWN ON THE GRADING AND DRAINAGE PLAN.
- ALL WATER MAINS AND SERVICE PIPES SHALL HAVE A MINIMUM 12" VERTICAL AND 24" HORIZONTAL SEPARATION TO MANHOLES, OR CONTRACTOR SHALL INSTALL BOARD INSULATION FOR FREEZING PROTECTION.
- WATER MAINS SHALL BE HYDROSTATICALLY PRESSURE TESTED FOR LEAKAGE PRIOR TO ACCEPTANCE. WATERMANS SHALL BE TESTED AT 1.5 TIMES THE WORKING PRESSURE OR 150 PSI, WHICHEVER IS GREATER. TESTING SHALL BE CONDUCTED IN ACCORDANCE WITH SECTION 4 OF AWWA STANDARD C 600. WATERMANS SHALL BE DISINFECTED AFTER THE ACCEPTANCE OF THE PRESSURE AND LEAKAGE TESTS ACCORDING TO AWWA STANDARD C 651.
- ALL WATER AND SANITARY LEADS TO BUILDING(S) SHALL END 5' OUTSIDE THE BUILDING LIMITS AS SHOWN ON PLANS AND SHALL BE PROVIDED WITH A TEMPORARY PLUG AND WITNESS AT END.
- IF THE BUILDING IS REQUIRED TO HAVE A SPRINKLER SYSTEM, A PRECONSTRUCTION MEETING SHALL BE HELD BETWEEN THE CONTRACTOR, OWNER, ARCHITECT AND THE LOCAL FIRE DEPARTMENT PRIOR TO THE INSTALLATION.
- THRUST BLOCKS SHALL BE PROVIDED AT ALL BENDS, TEES, MECHANICAL JOINTS AND FIRE HYDRANTS.
- DIMENSIONS ARE SHOWN TO CENTERLINE OF PIPE OR FITTING.
- CONTRACTOR TO FURNISH SHOP DRAWINGS FOR UTILITY RELATED ITEMS TO ENSURE CONFORMANCE WITH THE PLANS AND SPECIFICATIONS. SHOP DRAWINGS SHOULD BE SENT IN TRIPLICATE TO THE DESIGN ENGINEER FOR REVIEW AND APPROVAL PRIOR TO INSTALLATION.
- EXISTING UTILITIES SHALL BE DIGSAFE BEFORE CONSTRUCTION.
- ALL WATER LINES SHOULD HAVE TESTABLE BACKFLOW PREVENTERS AT THE ENTRANCE TO EACH BUILDING.
- ALL GRAVITY SEWER PIPE, MANHOLES, AND FORCE MAINS SHALL BE TESTED ACCORDING TO NHDES STANDARDS OF DESIGN AND CONSTRUCTION FOR SEWAGE AND WASTEWATER TREATMENT FACILITIES, CHAPTER ENV-WQ 700. ADOPTED ON 10-15-14.
- ENV-WQ 704.06 GRAVITY SEWER PIPE TESTING: GRAVITY SEWERS SHALL BE TESTED FOR WATER TIGHTNESS BY USE OF LOW-PRESSURE AIR TESTS CONFORMING WITH ASTM F1417-92(2005) OR UNI-BELL PVC PIPE ASSOCIATION UNI-B-6. LINES SHALL BE CLEANED AND VISUALLY INSPECTED AND TRUE TO LINE AND GRADE. DEFLECTION TESTS SHALL TAKE PLACE AFTER 30 DAYS FOLLOWING INSTALLATION AND THE MAXIMUM ALLOWABLE DEFLECTION OF FLEXIBLE SEWER PIPE SHALL BE 5% OF AVERAGE INSIDE DIAMETER. A RIGID BALL OR MANDREL WITH A DIAMETER OF AT LEAST 95% OF THE AVERAGE INSIDE PIPE DIAMETER SHALL BE USED FOR TESTING PIPE DEFLECTION. THE DEFLECTION TEST SHALL BE CONDUCTED WITHOUT MECHANICAL PULLING DEVICES.
- ENV-WQ 704.09 FORCE MAIN AND PRESSURE SEWER TESTING: FORCE MAINS AND PRESSURE SEWERS SHALL BE TESTED IN ACCORDANCE WITH SECTION 5 OF HTE AWWA C600, "INSTALLATION OF CAST IRON WATER MAINS AND THEIR APPURTENANCES" STANDARD IN EFFECT WHEN THE TEST IS CONDUCTED, AVAILABLE AS NOTED IN APPENDIX D, AT A PRESSURE EQUAL TO THE GREATER OF 150 PERCENT OF THE DESIGN OPERATING DYNAMIC HEAD OR AT LEAST 100 PSI
- ENV-WQ 704.17 SEWER MANHOLE TESTING: SHALL BE TESTED FOR LEAKAGE USING A VACUUM TEST PRIOR TO BACKFILLING AND PLACEMENT OF SHELVES AND INVERTS.
- SANITARY SEWER LINES SHALL BE LOCATED AT LEAST TEN (10) FEET HORIZONTALLY FROM AN EXISTING OR PROPOSED WATER LINE. WHEN A SEWER LINE CROSSES UNDER A WATER LINE, THE SEWER PIPE JOINTS SHALL BE LOCATED AT LEAST 6 FEET HORIZONTALLY FROM THE WATERMAIN. THE SEWER LINE SHALL ALSO MAINTAIN A VERTICAL SEPARATION OF NOT LESS THAN 18 INCHES.
- SEWERS SHALL BE BURIED TO A MINIMUM DEPTH OF 6 FEET BELOW GRADE IN ALL ROADWAY LOCATIONS, AND TO A MINIMUM DEPTH OF 4 FEET BELOW GRADE IN ALL CROSS-COUNTRY LOCATIONS. PROVIDE TWO-INCHES OF R-10 FOAM BOARD INSULATION 2-FOOT WIDE TO BE INSTALLED 6-INCHES OVER SEWER PIPE IN AREAS WHERE DEPTH IS NOT ACHIEVED. A WAIVER FROM THE DEPARTMENT OF ENVIRONMENTAL SERVICES WASTEWATER ENGINEERING BUREAU IS REQUIRED PRIOR TO INSTALLING SEWER AT LESS THAN MINIMUM COVER.
- THE CONTRACTOR SHALL MINIMIZE THE DISRUPTIONS TO THE EXISTING SEWER FLOWS AND THOSE INTERRUPTIONS SHALL BE LIMITED TO FOUR (4) HOURS OR LESS AS DESIGNATED BY THE TOWN SEWER DEPARTMENT.
- LIGHTING CONDUIT SHALL BE SCHEDULE 40 PVC, AND SHALL BE INSTALLED IN CONFORMANCE WITH THE NATIONAL ELECTRIC CODE. CONTRACTOR SHALL PROVIDE EXCAVATION AND BACKFILL.
- ALL TRENCHING, PIPE LAYING, AND BACKFILLING SHALL BE IN ACCORDANCE WITH FEDERAL OSHA REGULATIONS.
- DISINFECTION OF WATER MAINS SHALL BE CARRIED OUT IN STRICT ACCORDANCE WITH AWWA STANDARD C651, LATEST EDITION. THE BASIC PROCEDURE TO BE FOLLOWED FOR DISINFECTING WATER MAINS IS AS FOLLOWS:  
 a. PREVENT CONTAMINATING MATERIALS FROM ENTERING THE WATER MAIN DURING STORAGE, CONSTRUCTION, OR REPAIR.  
 b. REMOVE, BY FLUSHING OR OTHER MEANS, THOSE MATERIALS THAT MAY HAVE ENTERED THE WATER MAINS.  
 c. CHLORINATE ANY RESIDUAL CONTAMINATION THAT MAY REMAIN, AND FLUSH THE CHLORINATED WATER FROM THE MAIN.  
 d. PROTECT THE EXISTING DISTRIBUTION SYSTEM FROM BACKFLOW DUE TO HYDROSTATIC PRESSURE TEST AND DISINFECTION PROCEDURES.  
 e. DETERMINE THE BACTERIOLOGICAL QUALITY BY LABORATORY TEST AFTER DISINFECTION.  
 f. MAKE FINAL CONNECTION OF THE APPROVED NEW WATER MAIN TO THE ACTIVE DISTRIBUTION SYSTEM



<b>PROJECT PARCEL</b> TOWN OF EXETER TAX MAP 65, LOT 118
<b>APPLICANT</b> GREEN & COMPANY 11 LAFAYETTE RD PO BOX 1297 NORTH HAMPTON, NH 03862
<b>TOTAL LOT AREA</b> 291,630 SQ. FT. 6.7 ACRES

Design: MLS	Draft: GDR	Date: 3/15/24
Checked: WGM	Scale: AS SHOWN	Project No.: 24029
Drawing Name: 24029-PLAN.dwg		
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1	6/6/24	REVISED PER CLIENT	PSL
0	4/11/24	ISSUED FOR REVIEW	PSL
REV.	DATE	REVISION	BY

Designed and Produced in NH

**J/B Jones & Beach Engineers, Inc.**

85 Portsmouth Ave. Stratham, NH 03885

Civil Engineering Services

603-772-4746

E-MAIL: JBE@JONESANDBEACH.COM

Plan Name:	<b>UTILITY PLAN</b>
Project:	"LILAC PLACE" 76 PORTSMOUTH AVE, EXETER, NH
Owner of Record:	RAP REALTY MANCHESTER LLC 50 ATLANTIC AVE, SEABROOK, NH

DRAWING No.	<b>C4</b>
SHEET 6 OF 20 JBE PROJECT NO. 24029	

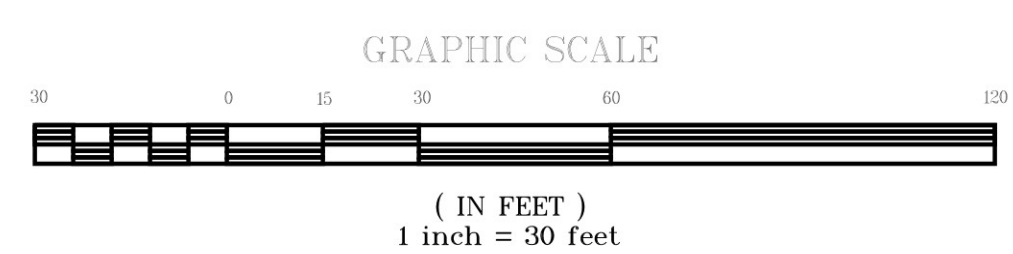




**LILAC PLACE PLANT LIST**

Quantity	Botanical Name	Common Name	Size
<b>TREES</b>			
12	<i>Acer rubrum</i> 'October Glory'	** OCTOBER GLORY RED MAPLE	3 Inch Caliper
9	<i>Amelanchier x grandiflora</i> 'Robin Hill'	** ROBIN HILL SERVICEBERRY	15 Gallon
4	<i>Cercidiphyllum japonicum</i>	** KATSURA TREE	2.5 Inch Caliper
5	<i>Chionanthus virginicus</i> 'Spring Fleecing'	** WHITE FRINGE TREE	2 Inch Caliper
6	<i>Cornus florida</i> f. <i>rubra</i>	** PINK FLOWERING DOGWOOD	2 Inch Caliper
5	<i>Ginkgo biloba</i> 'Spring Grove'	** SPRING GROVE GINKGO	3 Inch Caliper
24	<i>Juniperus scopulorum</i> 'Wichita Blue'	** WICHITA BLUE MT JUNIPER	7-8 Ft. Ht.
20	<i>Juniperus virginiana</i> 'Emerald Sentinel™'	** EMERALD SENTINEL RED CEDAR	7-8 Ft. Ht.
14	<i>Liquidambar styraciflua</i> 'Slender Silhouette'	** SILHOUETTE SWEETGUM	3 Inch Caliper
8	<i>Liriodendron tulipifera</i>	** TULIP TREE	3 Inch Caliper
13	<i>Malus x 'Prairifire'</i>	** PRAIRIFIRE CRABAPPLE	15 Gallon
4	<i>Picea glauca</i>	** WHITE SPRUCE	8-10 Ft. Ht.
18	<i>Thuja occidentalis</i> 'Nigra'	** DARK AMERICAN ARBORVITAE	7-8 Ft. Ht.
12	<i>Thuja occidentalis</i> 'Smaragd Emerald'	** EMERALD GREEN ARBORVITAE	6-7 Ft. Ht.
3	<i>Tilia americana</i>	** AMERICAN LINDEN	3 Inch Caliper
<b>SHRUBS</b>			
37	<i>Cephalanthus occidentalis</i>	** BUTTONBUSH	5 Gallon
33	<i>Clethra alnifolia</i>	** SUMMER SWEET	5 Gallon
6	<i>Hydrangea paniculata</i> 'Bobo'	** BOBO PANICLE HYDRANGEA	5 Gallon
34	<i>Ilex glabra</i>	** GALLBERRY HOLLY	5 Gallon
6	<i>Ilex glabra</i> 'Shamrock'	** SHAMROCK INKBERRY HOLLY	5 Gallon
6	<i>Itea virginica</i> 'Henry's Garnet'	** HENRY'S GARNET SWEETSPIRE	5 Gallon
29	<i>Juniperus communis</i>	** COMMON JUNIPER	3 Gallon
23	<i>Kalmia angustifolia</i> 'Royal Dwarf'	** ROYAL DWARF SHEEP LAUREL	3 Gallon
4	<i>Kalmia latifolia</i> 'Raspberry Glow'	** RASPBERRY GLOW MT LAUREL	5 Gallon
42	<i>Myrica gale</i>	** SWEET GALE	3 Gallon
4	<i>Rhododendron</i> 'Olga Mezitt'	** OLGA MEZITT RHODODENDRON	5 Gallon
97	<i>Vaccinium angustifolium</i>	** LOWBUSH BLUEBERRY	3 Gallon
15	<i>Viburnum dentatum</i> 'Autumn Jazz'	** AUTUMN JAZZ VIBURNUM	5 Gallon
<b>PERENNIALS</b>			
8	<i>Hemerocallis</i> 'Happy Returns'	** HAPPY RETURNS DAYLILY	1 Gallon
29	<i>Miscanthus sinensis</i> 'Morning Light'	** MORNING LIGHT MAIDEN GRASS	2 Gallon
12	<i>Panicum virgatum</i> 'Heavy Metal'	** HEAVY METAL SWITCH GRASS	2 Gallon
1	<i>Sedum</i> 'Autumn Joy'	** AUTUMN JOY SEDUM	1 Gallon

Note \*\* Denotes plant species native to North East region.



DESIGN: LMM DRAFT: LMM DATE: 11/ 5/ 2024  
 SCALE: 1"=30'-0" PROJECT NO: 24029  
 DRAWING NAME: 24029 LILAC PLACE L-1

REV.	DATE	REVISION	BY

LANDSCAPE DESIGN BY:

11 South Road  
 Brentwood, NH 03833  
 LMLandDesign.com  
 603-770-7728

Plan Name: **LANDSCAPE PLAN**  
 Project: **LILAC PLACE**  
 76 PORTSMOUTH AVE, EXETER, NH  
 Owner of Record: **RAP REALTY MANCHESTER LLC**  
 50 ATLANTIC AVE, SEABROOK, NH

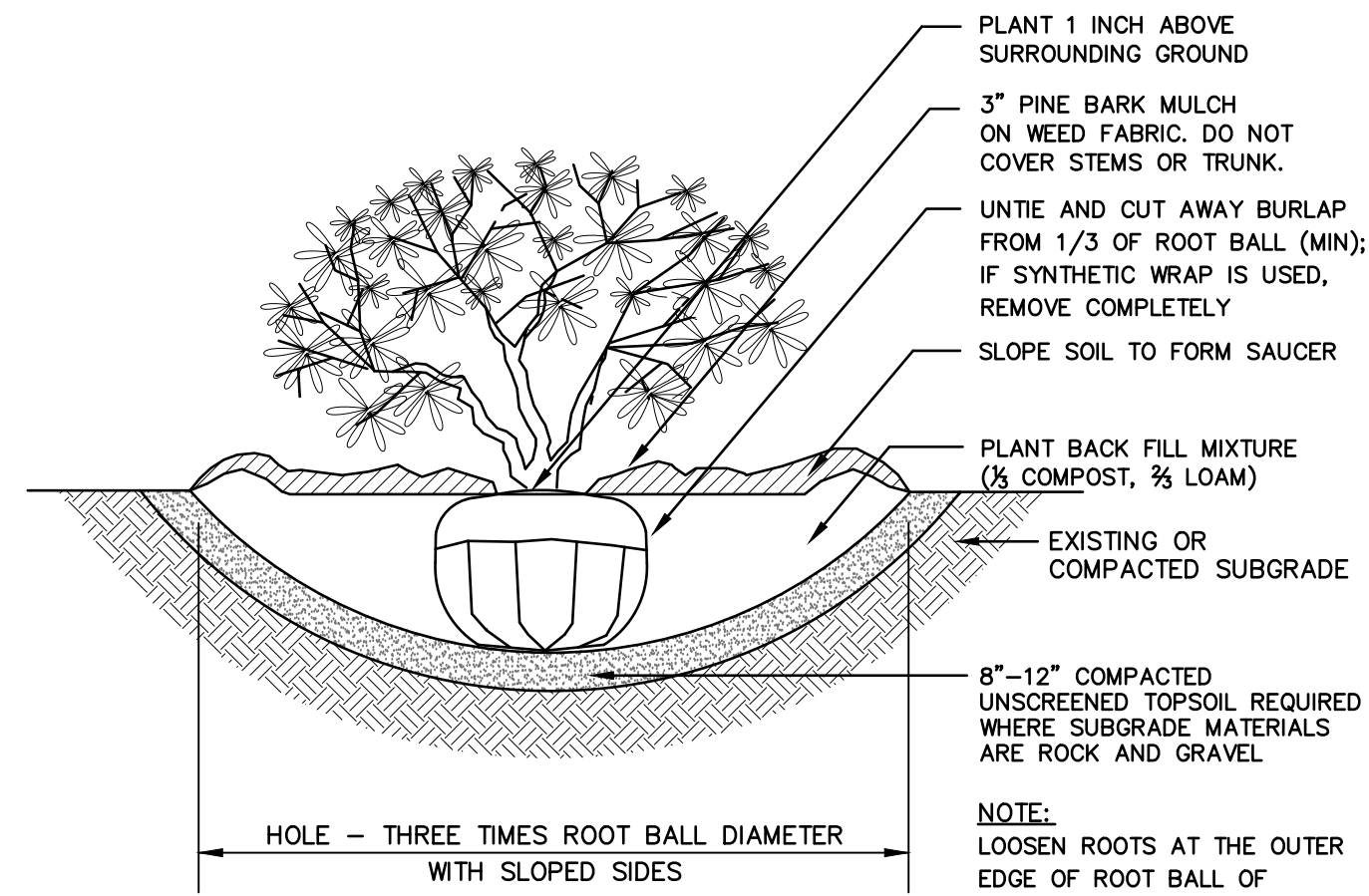
DRAWING No.  
**L-1**  
 JBE PROJECT NO. 24029

PROJECT PARCEL  
 TOWN OF EXETER  
 TAX MAP 65, LOT 118

APPLICANT  
 GREEN & COMPANY  
 11 LAFAYETTE RD  
 PO BOX 1297  
 NORTH HAMPTON, NH 03862

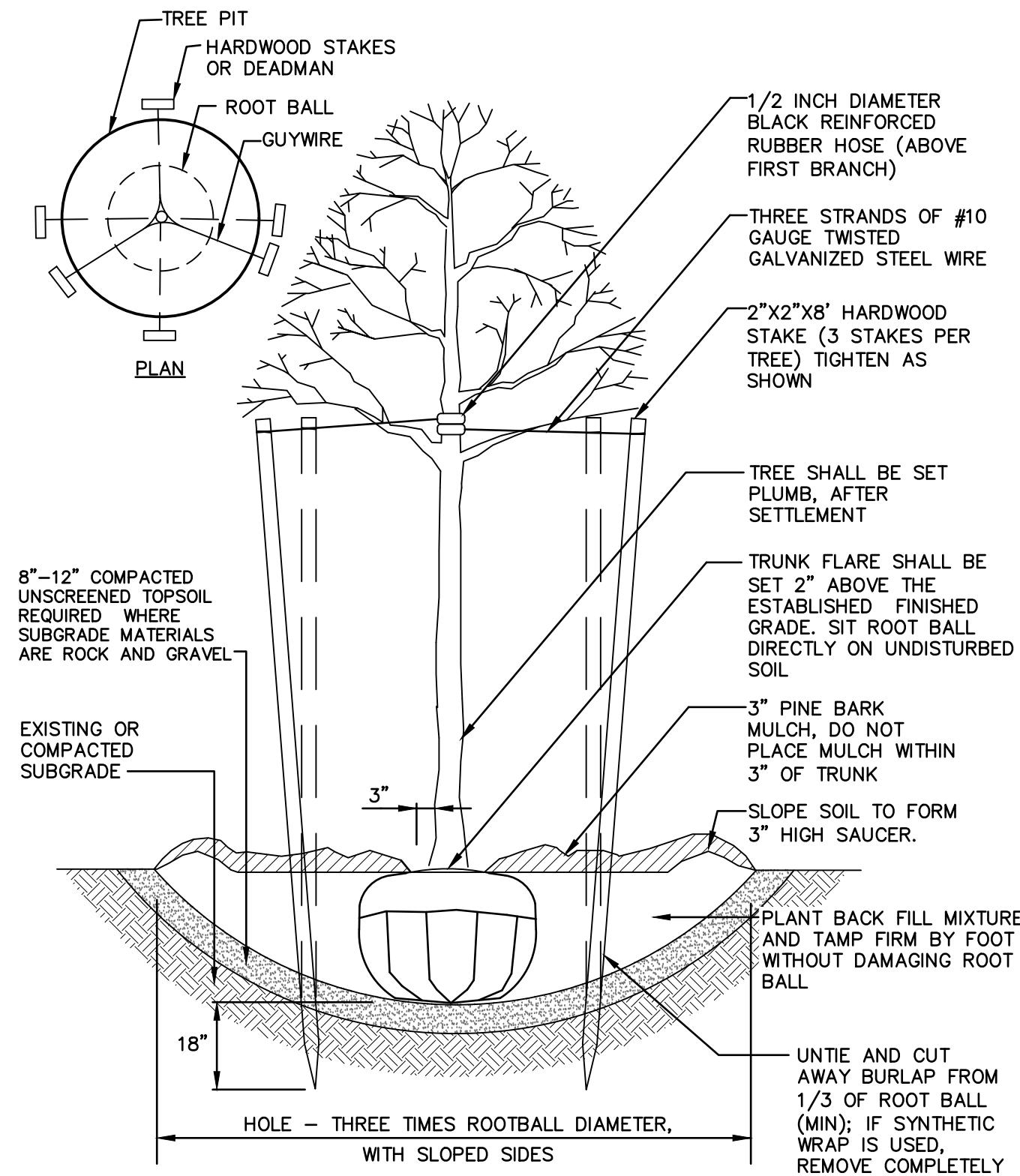
TOTAL LOT AREA  
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 6.7 ACRES





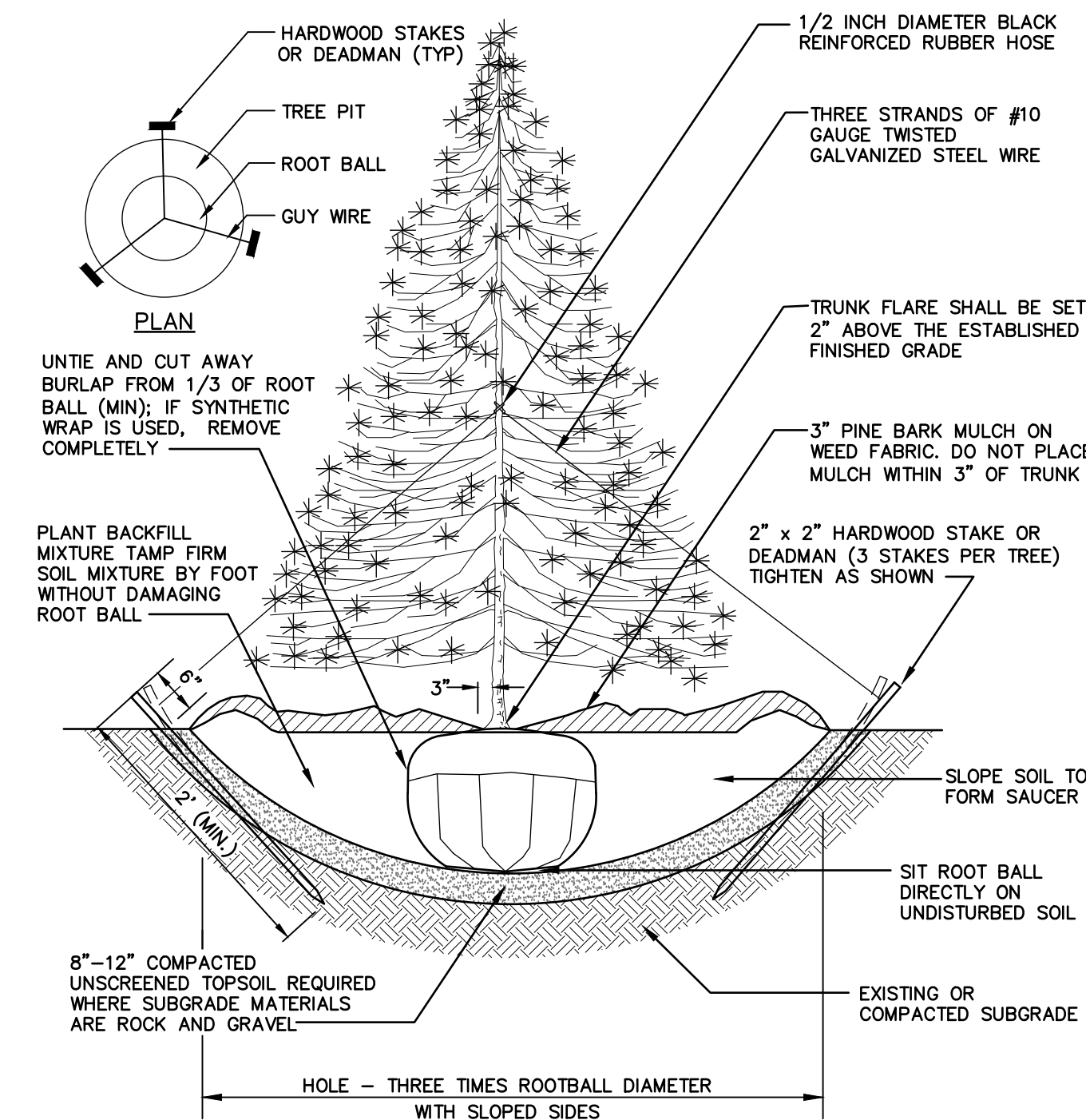
**SHRUB PLANTING**

NOT TO SCALE



**TREE PLANTING (FOR TREES UNDER 4" CALIPER)**

NOT TO SCALE



**EVERGREEN PLANTING**

NOT TO SCALE

**LANDSCAPE NOTES:**

1. THE CONTRACTOR SHALL LOCATE AND VERIFY THE EXISTENCE OF ALL UTILITIES PRIOR TO STARTING WORK.
2. THE CONTRACTOR SHALL SUPPLY ALL PLANT MATERIALS IN QUANTITIES SUFFICIENT TO COMPLETE THE PLANTINGS SHOWN ON THE DRAWINGS.
3. ALL MATERIAL SHALL CONFORM TO THE GUIDELINES ESTABLISHED BY THE CURRENT AMERICAN STANDARD FOR NURSERY STOCK PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERMEN.
4. ALL PLANT SUBSTITUTIONS MUST BE APPROVED THE LANDSCAPE ARCHITECT.
5. ALL PLANT MATERIALS SHALL BE EXACTLY AS SPECIFIED BY THE LANDSCAPE ARCHITECT. IF PLANT SPECIES CULTIVARS ARE FOUND TO VARY FROM THAT SPECIFIED AT ANY TIME DURING THE GUARANTEE PERIOD, THE LANDSCAPE ARCHITECT RESERVES THE RIGHT TO HAVE THE CONTRACTOR REPLACE THAT PLANT MATERIAL.
6. PLANTS SHALL BE SUBJECT TO INSPECTION AND APPROVAL AT THE PLACE OF GROWTH, UPON DELIVERY OR AT THE JOB SITE WHILE WORK IS ON-GOING FOR CONFORMITY TO SPECIFIED QUALITY, SIZE AND VARIETY.
7. PLANTS FURNISHED IN CONTAINERS SHALL HAVE THE ROOTS WELL ESTABLISHED IN THE SOIL MASS AND SHALL HAVE AT LEAST ONE (1) GROWING SEASON. ROOT-BOUND PLANTS OR INADEQUATELY SIZED CONTAINERS TO SUPPORT THE PLANT MAY BE DEEMED UNACCEPTABLE.
8. NO PLANT SHALL BE PUT IN THE GROUND BEFORE GRADING HAS BEEN FINISHED AND APPROVED BY THE LANDSCAPE ARCHITECT.
9. ALL WORK AND PLANTS SHALL BE DONE, INSTALLED AND DETAILED IN STRICT ACCORDANCE WITH PROJECT SPECIFICATIONS.
10. ALL PLANTS SHALL BE WATERED THOROUGHLY TWICE DURING THE FIRST 24-HOUR PERIOD AFTER PLANTING. ALL PLANTS SHALL BE WATERED WEEKLY, OR MORE OFTEN IF NECESSARY, DURING THE FIRST GROWING SEASON.
11. ALL PLANTS SHALL BE GUARANTEED BY THE CONTRACTOR FOR NOT LESS THAN ONE FULL YEAR FROM THE TIME OF PROVISIONAL ACCEPTANCE. DURING THIS TIME, THE OWNER SHALL MAINTAIN ALL PLANT MATERIALS IN THE ABOVE MANNER. IT IS THE CONTRACTOR'S RESPONSIBILITY TO INSPECT THE PLANTS TO ENSURE PROPER CARE. IF THE CONTRACTOR IS DISSATISFIED WITH THE CARE GIVEN, HE SHALL IMMEDIATELY, AND IN SUFFICIENT TIME TO PERMIT THE CONDITION TO BE RECTIFIED, NOTIFY THE LANDSCAPE ARCHITECT IN WRITING OR OTHERWISE FORFEIT HIS CLAIM.
12. FINAL ACCEPTANCE BY THE LANDSCAPE ARCHITECT WILL BE MADE UPON THE CONTRACTOR'S REQUEST AFTER ALL CORRECTIVE WORK HAS BEEN COMPLETED.
13. BY THE END OF THE GUARANTEE PERIOD, THE CONTRACTOR SHALL HAVE REPLACED ANY PLANT MATERIAL THAT IS MISSING, NOT TRUE TO SIZE AS SPECIFIED, THAT HAS DIED, LOST NATURAL SHAPE DUE TO DEAD BRANCHES, EXCESSIVE PRUNING OR INADEQUATE OR IMPROPER CARE, OR THAT IS, IN THE OPINION OF THE LANDSCAPE ARCHITECT, IN UNHEALTHY OR UNSIGHTLY CONDITION.
14. THE CONTRACTOR SHALL REMOVE WEEDS, ROCKS, CONSTRUCTION ITEMS, ETC. FROM ANY LANDSCAPE AREA SO DESIGNATED TO REMAIN, WHETHER ON OR OFF-SITE. GRASS SEED OR PINE BARK MULCH SHALL BE APPLIED AS DEPICTED ON PLANS.
15. FINISHED GRADES IN LANDSCAPED ISLANDS SHALL BE INSTALLED SO THAT THEY ARE 1" HIGHER THAN THE TOP OF THE SURROUNDING CURB.
16. ALL LANDSCAPING SHALL MEET THE TOWN STANDARDS AND REGULATIONS.
17. ALL MULCH AREAS SHALL RECEIVE A 3" LAYER OF SHREDDED PINE BARK MULCH OVER A 10 MIL WEED MAT EQUAL TO "WEEDBLOCK" BY EASY GARDENER OR DEWITT WEED BARRIER.
18. ALL LANDSCAPED AREAS SHALL HAVE SELECT MATERIALS REMOVED TO A DEPTH OF AT LEAST 9" BELOW FINISH GRADE. THE RESULTING VOID IS TO BE FILLED WITH A MINIMUM OF 9" HIGH-QUALITY SCREENED LOAM AMENDED WITH 3" OF AGED ORGANIC COMPOST.
19. THIS PLAN IS INTENDED FOR LANDSCAPING PURPOSES ONLY. REFER TO CIVIL/SITE DRAWINGS FOR OTHER SITE CONSTRUCTION INFORMATION.
20. IRRIGATION PIPING SYSTEM SHALL BE REVIEWED AND APPROVED BY OWNER AND ENGINEER PRIOR TO INSTALLATION.

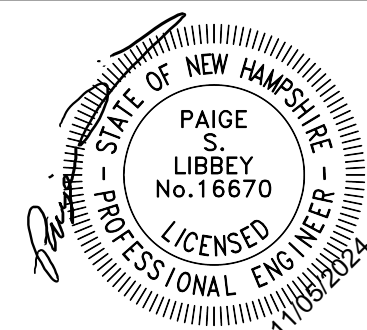
**PROJECT PARCEL**  
TOWN OF EXETER  
TAX MAP 65, LOT 118

**APPLICANT**  
GREEN & COMPANY  
11 LAFAYETTE RD  
PO BOX 1297  
NORTH HAMPTON, NH 03862

**TOTAL LOT AREA**  
291,630 SQ. FT.  
6.7 ACRES

Design: MLS Draft: GDR Date: 3/15/24  
Checked: WGM Scale: AS SHOWN Project No.: 24029  
Drawing Name: 24029-PLAN.dwg

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		REVISION	

Designed and Produced in NH

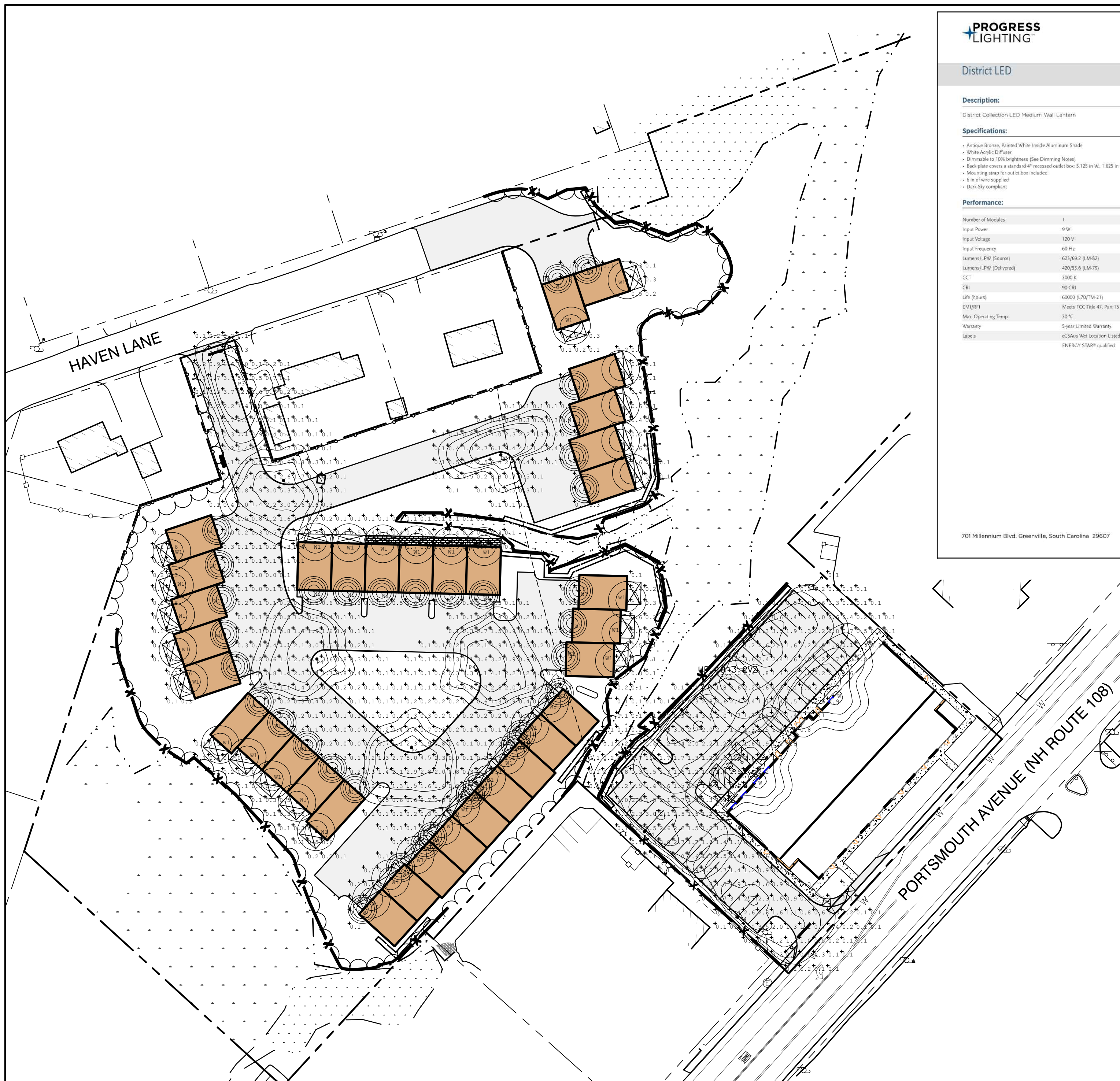
**J/B Jones & Beach Engineers, Inc.**

85 Portsmouth Ave. Civil Engineering Services 603-772-4746  
PO Box 219 Stratham, NH 03885 E-MAIL: JBE@JONESANDBEACH.COM

Plan Name:	<b>LANDSCAPE PLAN</b>
Project:	"LILAC PLACE" 76 PORTSMOUTH AVE, EXETER, NH
Owner of Record:	RAP REALTY MANCHESTER LLC 50 ATLANTIC AVE, SEABROOK, NH

DRAWING No.  
**L2**  
SHEET 8 OF 20  
JBE PROJECT NO. 24029







### District LED

District Collection LED Medium Wall Lantern

**P5622-2030K9**



701 Millennium Blvd. Greenville, South Carolina 29607

www.progresslighting.com

Rev. 05/21

**Description:**

District Collection LED Medium Wall Lantern

**Specifications:**

- Antique Bronze, Painted White Inside Aluminum Shade
- White Acrylic Diffuser
- Dimmable to 10% brightness (See Dimming Notes)
- Backplate covers a standard 4" recessed outlet box 3.125" x 3.125" in height and depth
- Mounting strap for outlet box included
- 6" in wire supplied
- Dark Sky compliant

**Performance:**

- Number of Modules: 1
- Input Power: 9 W
- Input Voltage: 120 V
- Input Frequency: 60 Hz
- Lumen(L70, Source): 623(L80, L.M.52)
- Lumen(L70, Delivery): 420(S1.6, L.M.79)
- CCT: 3000 K
- CRI: 90 CRI
- Life (hours): 60000 (L70/TM 21)
- (LMF)R1: Meets FCC Title 47, Part 15 Class B
- Max. Operating Temp: 35°C
- Warranty: 5-year limited warranty
- Labels: CSA/cULe Wet Location Listed, ENERGY STAR® qualified

**Dimensions:**

Width: 8 in  
Depth: 10 1/4 in  
Height: 8 1/4 in  
H/CRT: 4 1/8 in

Antique Bronze, Painted White Inside Aluminum Shade  
Width: 5 7/8 in  
Height: 5 7/8 in

White Acrylic Diffuser  
Width: 2 1/8 in  
Height: 3 1/8 in



### DPS

Downlight Pendant-Small  
18" LED Luminaire



5 Year Limited Warranty

ETL Listed, suitable for wet locations.

**Features**

Improved performance, directional control, and efficacy allows this newest generation of the DPS to accommodate needs in the strictest environments. Multiple shade styles make this luminaire suitable for a wide variety of decorative applications, and the improved optics allow it to be used where Dark Sky luminaire requirements are in place.

**Product Overview**

Wattage: 43W, 49W, 63W, 70W  
Lumen Output: 3024 lm (DOW: T3: 4000K)  
Color Temp: 3000K, 4000K  
Dimming: 0-10V dimming

\*IDA Dark Sky approved in 3000K only

**Installation:**

The luminaire will mount to the bracket at floor top luminaire brackets will mount to a 3" O.D. post or tennon with (B) 81/8" stainless steel set screws. Wall bracket models have four 3/8" holes for mounting (wall mount hardware is not included).

**Light Source:**

The luminaire utilizes IP68 sealed optical modules consisting of a high performance LED board with an acrylic (FR) lens to deliver maximum spacing and uniformity. A choice of Type I, Type II, Type IV, or Type V, ES clear fixtures are available with the capability to meet application criteria. Custom configurations available.

**Driver:**

Correction cooled driver with electro-magnetic constant current operates with over voltage and short circuit protection. Auto-matic voltage sensing for 100V to 277V inputs, 0-10V dimming.



### APQ200R Series

Extruded Pole w/Anchor Plate



5 Year Limited Warranty

**Features**

Aluminum light poles featuring a choice of extruded shafts. Accepts a wide variety of Amerlux post top luminaires.

8" square cast aluminum base flange

**Choice of extruded shafts:**

- 1" O.D fluted, 0.025" wall
- 1" O.D smooth round, 0.025" wall
- 1" O.D fluted, 0.025" wall
- 1" O.D smooth round, 0.025" wall

Extruded shaft is circumferentially welded to the structural base.

A 2x4 flat handhole with reinforced frame.

Ground lug provided inside base

**Materials:**

Base - Cast aluminum (A360)  
Shaft - Extruded Aluminum (A306)  
Tennon - Cast aluminum (A360)  
Anchor Bolts - Hot dipped galvanized steel, ordered separately

**Finish:**

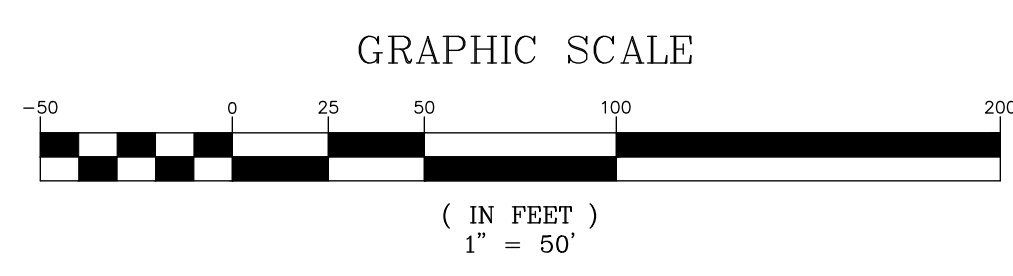
Premium quality thermoplastic powdercoat for a durable finish.

**Accessories:**

- Single or double sided field rotatable banner arms
- Flag pole holder
- GFCI covered ground fault circuit protected duplex outlet
- Two-piece cover placed at base of pole for better aesthetics.

**LIGHTING AND ELECTRICAL NOTES:**

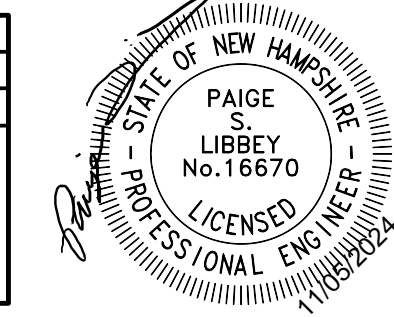
- SITE ELECTRICAL CONTRACTOR SHALL COORDINATE LOCATION OF EASEMENTS, UNDERGROUND UTILITIES AND DRAINAGE BEFORE DRILLING POLE BASES.
- CONTRACTOR SHALL INSTALL PROPOSED LIGHT POLES ACCORDING TO TOWN REGULATIONS.
- ALL OUTDOOR LIGHTING SYSTEMS SHALL BE EQUIPPED WITH TIMERS TO REDUCE ILLUMINATION LEVELS TO NON-OPERATIONAL VALUES PER TOWN REGULATIONS.
- LIGHTING CONDUIT SHALL BE SCHEDULE 40 PVC, AND SHALL BE INSTALLED IN CONFORMANCE WITH THE NATIONAL ELECTRICAL CODE. CONTRACTOR SHALL PROVIDE EXCAVATION AND BACKFILL.
- ILLUMINATION READINGS SHOWN ARE BASED ON A TOTAL LLF OF 0.75 AT GRADE. ILLUMINATION READINGS SHOWN ARE IN UNITS OF FOOT-CANDLES.
- LIGHTING CALCULATIONS SHOWN ARE NOT A SUBSTITUTE FOR INDEPENDENT ENGINEERING ANALYSIS OF LIGHTING SYSTEM AND SAFETY.
- ALL LIGHTING FIXTURES SHALL BE FULL CUT-OFF DARK-SKY COMPLIANT, UNLESS OTHERWISE NOTED.
- NL INDICATES THAT THIS LUMINAIRE SHALL BE ON A NIGHT LIGHT CIRCUIT. FL INDICATES THAT THIS LUMINAIRE SHALL BE A FLOOD LIGHT FIXTURE. MOUNTING BRACKET FOR THIS FL FIXTURE SHALL BE MOUNTED 25' ABOVE BOTTOM OF POLE BASE FOR ALL LIGHT POLES CLOSEST TO STOREFRONT. THESE DESIGNATIONS INDICATE WHAT PHASE LIGHTS ARE WIRED TO (TYP).
- EXTEND A 480/277V, 3" DIAMETER SERVICE TO ROAD SIGN. INSTALL A 30A 3P NEMA 3R DISC. SWITCH (EACH LEG FUSED @ 20A). SIGN REQUIRES (3) 20A 277V CIRCUITS.
- THE PROPOSED LIGHTING CALCULATIONS AND DESIGN WAS PERFORMED BY EXPOSURE LIGHTING, 501 USLINGTON STREET, UNIT 1A, PORTSMOUTH, NH 03801, ATTENTION KEN SWEENEY. ALL LIGHTS SHOULD BE PURCHASED FROM THIS COMPANY, OR AN EQUAL LIGHTING DESIGN SHOULD BE SUBMITTED FOR REVIEW IF EQUAL SUBSTITUTIONS ARE PROPOSED BY THE CONTRACTOR OR OWNER.



System	Qty	Label	AC assignment	Mounting/Height	Notes	MANUFACTURER
1	2	FL	1P	306-10-2M-13-30-110K-BLK / PFD1-BLK / 12' POLE		AMERLUX LLC
2	4	FL	1P	306-10-2M-13-30-110K-BLK / PFD1-BLK / 12' POLE		AMERLUX LLC
3	4	FL	1P	306-10-2M-13-30-110K-BLK / PFD1-BLK / 12' POLE		AMERLUX LLC
4	1	FL	1P	306-10-2M-13-30-110K-BLK / PFD1-BLK / 12' POLE		AMERLUX LLC
5	2	N	1P	306-10-2M-13-30-110K-BLK / PFD1-BLK / 12' POLE		AMERLUX LLC
6	68	NL	1P	306-10-2M-13-30-110K-BLK / PFD1-BLK / 12' POLE		AMERLUX LLC

Design: MLS   Draft: GDR   Date: 3/15/24  
Checked: WGM   Scale: AS SHOWN   Project No.: 24029  
Drawing Name: 24029-PLAN.dwg

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Designed and Produced in NH

## J/B Jones & Beach Engineers, Inc.

85 Portsmouth Ave.   Civil Engineering Services   603-772-4746  
PO Box 219   Stratham, NH 03885   E-MAIL: JBE@JONESANDBEACH.COM

Plan Name: **LIGHTING PLAN**

Project: **"LILAC PLACE"**  
**76 PORTSMOUTH AVE, EXETER, NH**

Owner of Record: **RAP REALTY MANCHESTER LLC**  
**50 ATLANTIC AVE, SEABROOK, NH**

DRAWING No. **L3**

SHEET 9 OF 20  
JBE PROJECT NO. 24029



### V-Locity Small (VALS)

Outdoor LED Area Light



5 Year Limited Warranty

**Overview**

Lumen Package	4,000 - 27,000
Wattage Range	36 - 178
Efficacy Range (LPW)	142 - 171
Weight (lbs/kg)	20 (9/3)
Control Options	0-10V Dimming, DALI, DALI 2, DMX

**QUICK LINKS**

[Ordering Guide](#)   [Performance](#)   [Photometrics](#)   [Dimensions](#)


**FEATURES & SPECIFICATIONS**

**Construction**

- Rugged die-cast aluminum housing contains factory pre-wired driver and optical units. Cast aluminum wiring access door is located underneath.
- Self-contained optic, board and heat sink assembly can be rotated or replaced in the field.
- Fixtures are finished with LSI's Duragrip® polyester powder coat finishing process. The Duragrip finish withstands extreme weather changes without cracking or peeling. Other standard LSI finishes are available. Consult factory.


**Optical System**

- State-of-the-art acrylic optics delivers industry leading optical control with an integrated gasket to provide IP66 rated seal.
- Proprietary reflector optics provide exceptional coverage and uniformity in distribution types 2, 3A, 3M, 4M, 4M, 4F, FTM, SQM, SQM, 5Q, SQW, AM, WF and L/C/R.
- Available in 5000K, 4000K, 3000K, 3000K and 2700K color temperatures per ANSI C78.377 as well as phosphor converted amber.
- Minimum CRI of 80 (optional 70 CRI for 5000K and 4000K).
- Factory or field installable integral shielding available for enhanced spill light control.
- Zero Uplight (excludes adjustable arms)



### Steel Poles

Square Straight



5 Year Limited Warranty

**Features & Specifications**

**Pole Shaft**

- Straight poles are 4", 5", or 6" square.
- Pole shaft is electro-welded ASTM-A500 Grade C steel tubing with a minimum yield strength of 50,000 psi.
- On Tennon Mount steel bolts, tennon is 2-3/8" O.D. high-strength pipe, Tennon is 4-3/4" in length.

**Hand-Hole**

- Standard hand-hole location is 12" above pole base.
- Poles 22" and above have a 3" x 6" reinforced hand-hole. Shorter poles have a 2" x 4" non-reinforced hand-hole.

**Base**

- Pole base is ASTM-A36 hot-rolled steel plate with a minimum yield strength of 36,000 psi.
- Two-piece square base cover is optional.

**Anchor Bolts**

- Poles are furnished with anchor bolts featuring zinc-plated double nuts and washers. Galvanized anchor bolts are optional.
- Anchor bolts conform to ASTM F 1554-07a Grade 55 with a minimum yield strength of 55,000 PSI.

**Ground Lug**

- Ground lug is standard.

**QUICK LINKS**

[Ordering Guide](#)   [Configurations](#)   [Dimensions](#)   [EPA](#)

**FEATURES & SPECIFICATIONS**

**Duplex Receptacle**

- Weatherproof duplex receptacle is optional.

**Ground Fault Circuit Interrupter**

- Self-testing Ground fault circuit interrupter is optional.

**Finishes**

- Every pole is provided with the Duragrip Protection System and a 5-year limited warranty.
- When the top-of-the-line Duragrip Plus Protection System is selected, in addition to the Duragrip Protection System, a non-porous, automotive-grade corrosion coating is applied to the lower portion of the pole interior sealing and further protecting it from corrosion. This option extends the limited warranty to 7 years.

**Determining The Luminaire/Pole Combination For Your Application:**

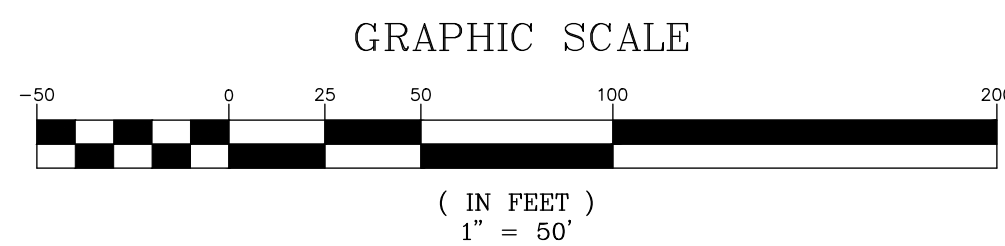
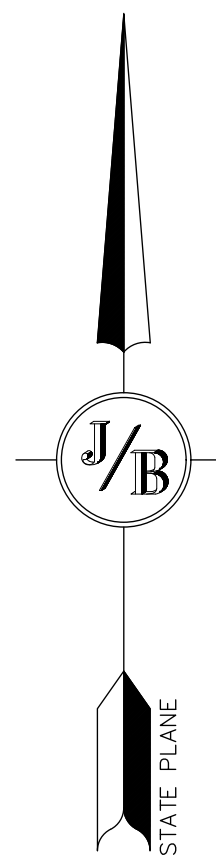
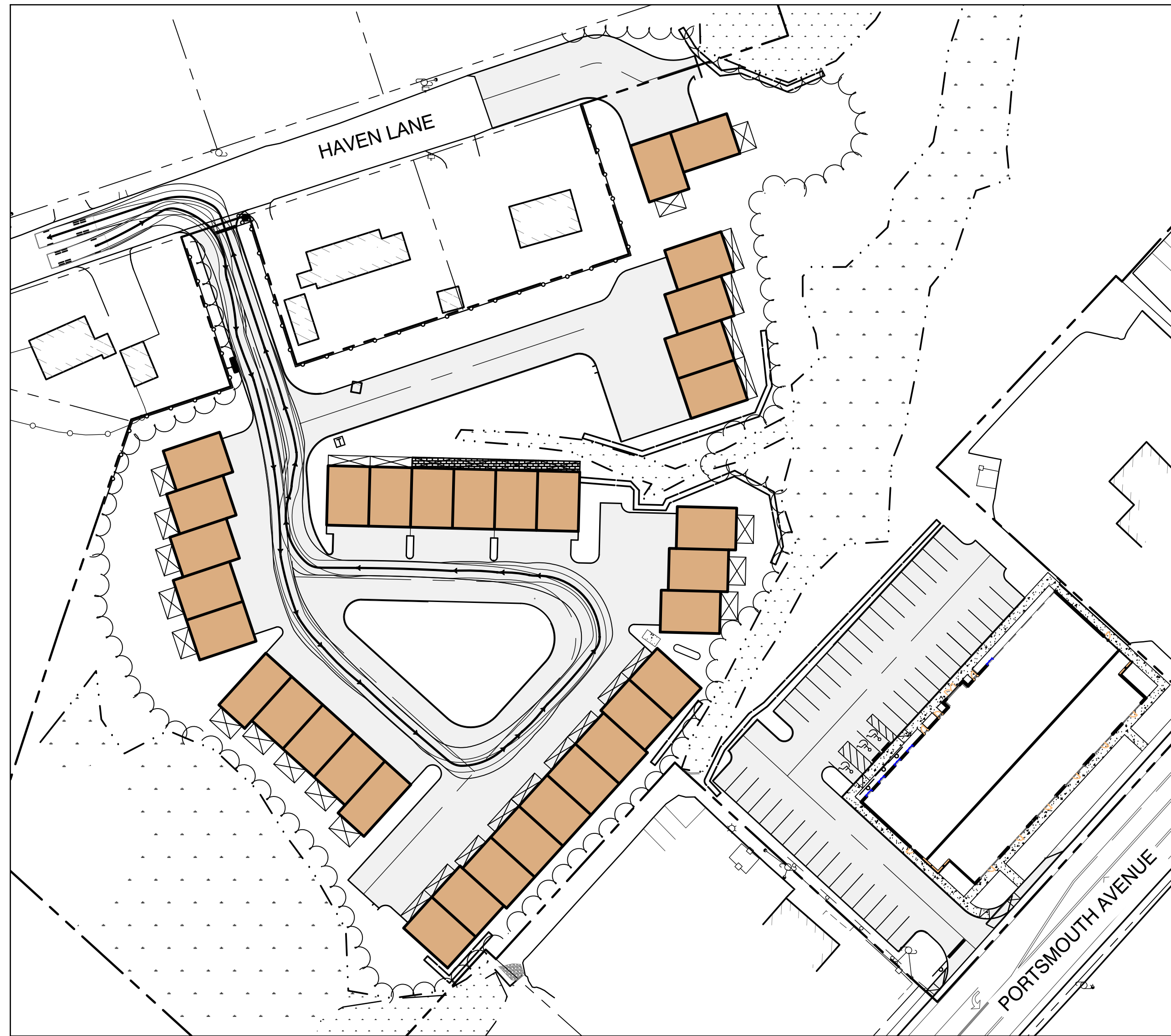
- Select luminaire from luminaire ordering information.
- Select bracket configuration if required
- Determine EPA value from luminaire/bracket EPA chart
- Select Pole Height
- Select MPH to match wind speed in the application area (see windspeed maps).
- Confirm pole EPA equal to or exceeding value of luminaire/bracket EPA.
- Consult factory for special wind load requirements and banner brackets.

**PROJECT PARCEL**  
TOWN OF EXETER  
TAX MAP 65, LOT 118

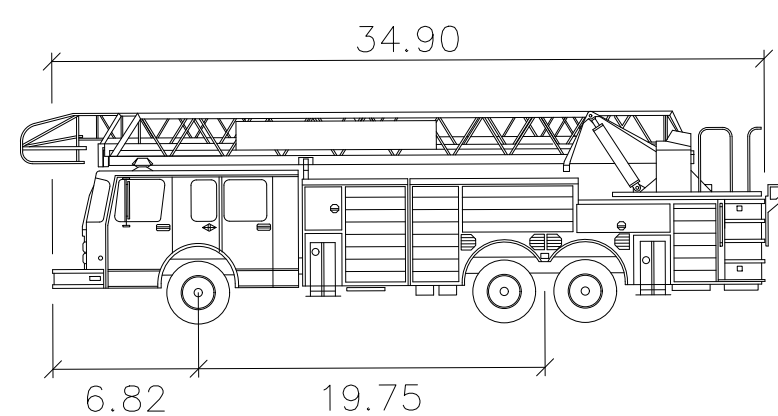
**APPLICANT**  
GREEN & COMPANY  
11 LAFAYETTE RD  
PO BOX 1297  
NORTH HAMPTON, NH 03862

**TOTAL LOT AREA**  
291,630 SQ. FT.  
6.7 ACRES



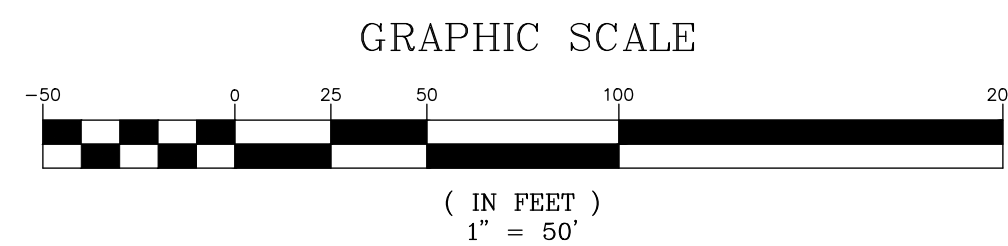
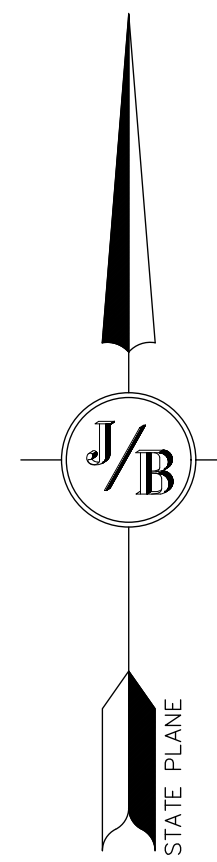
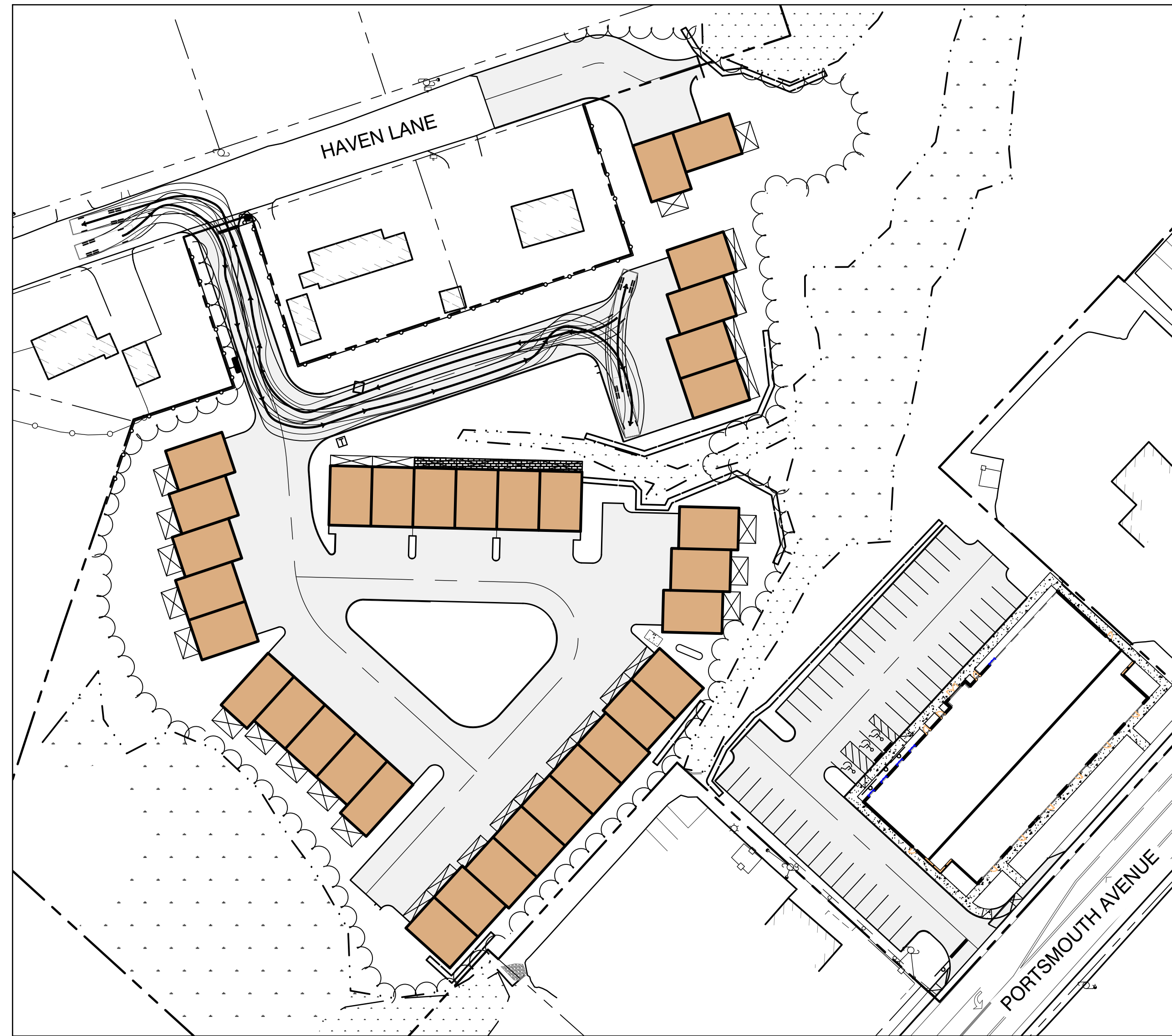


**VEHICLE INFORMATION**

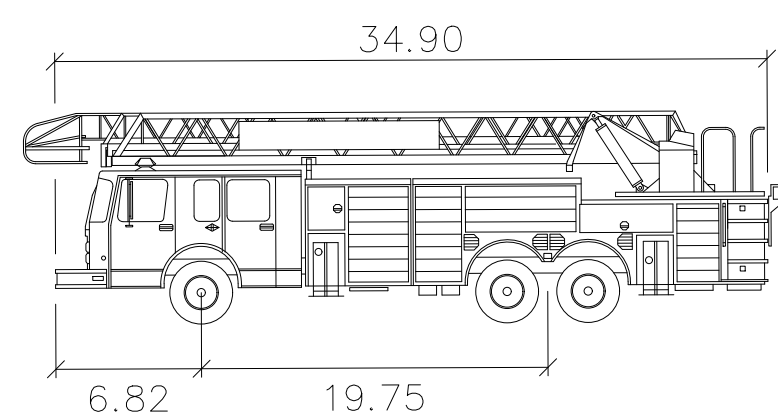


Exeter Fire Trucks

- Width : 8.50
- Track : 6.50
- Lock to Lock Time : 6.00
- Steering Angle : 34.10



**VEHICLE INFORMATION**

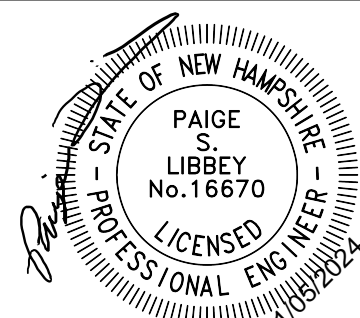


Exeter Fire Trucks

- Width : 8.50
- Track : 6.50
- Lock to Lock Time : 6.00
- Steering Angle : 34.10

<b>PROJECT PARCEL</b> TOWN OF EXETER TAX MAP 65, LOT 118
<b>APPLICANT</b> GREEN & COMPANY 11 LAFAYETTE RD PO BOX 1297 NORTH HAMPTON, NH 03862
<b>TOTAL LOT AREA</b> 291,630 SQ. FT. 6.7 ACRES

Design: MLS | Draft: GDR | Date: 3/15/24  
 Checked: WGM | Scale: AS SHOWN | Project No.: 24029  
 Drawing Name: 24029-PLAN.dwg  
 THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM JONES & BEACH ENGINEERS, INC. (JBE). ANY ALTERATIONS, AUTHORIZED OR OTHERWISE, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO JBE.



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1	6/6/24	REVISED PER CLIENT	PSL
0	4/11/24	ISSUED FOR REVIEW	PSL
REV.	DATE	REVISION	BY

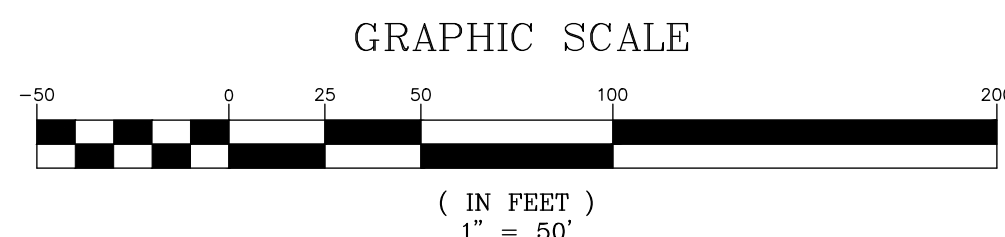
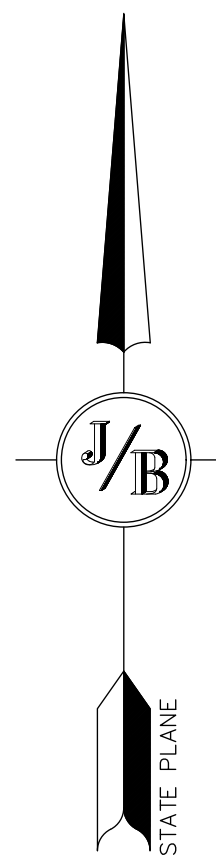
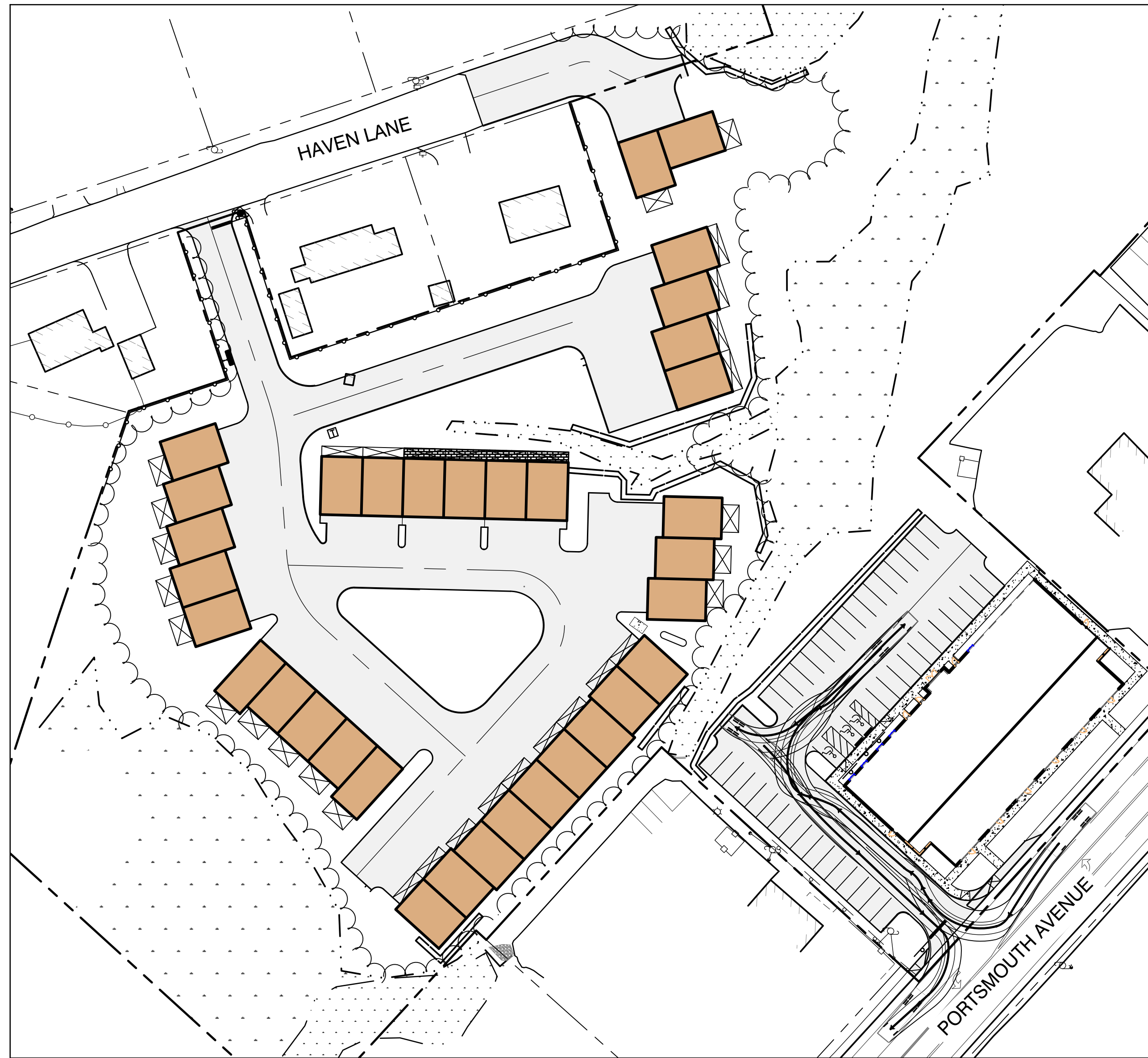
Designed and Produced in NH

**J/B Jones & Beach Engineers, Inc.**  
 Civil Engineering Services  
 85 Portsmouth Ave. | Stratham, NH 03885 | 603-772-4746  
 PO Box 219 | E-MAIL: JBE@JONESANDBEACH.COM

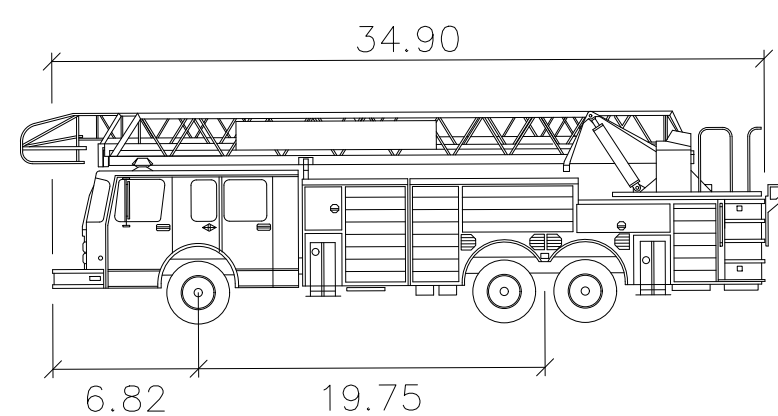
Plan Name:	<b>TRUCK TURNING PLAN</b>
Project:	<b>"LILAC PLACE" 76 PORTSMOUTH AVE, EXETER, NH</b>
Owner of Record:	<b>RAP REALTY MANCHESTER LLC 50 ATLANTIC AVE, SEABROOK, NH</b>

DRAWING No.  
**T1**  
 SHEET 10 OF 20  
 JBE PROJECT NO. 24029



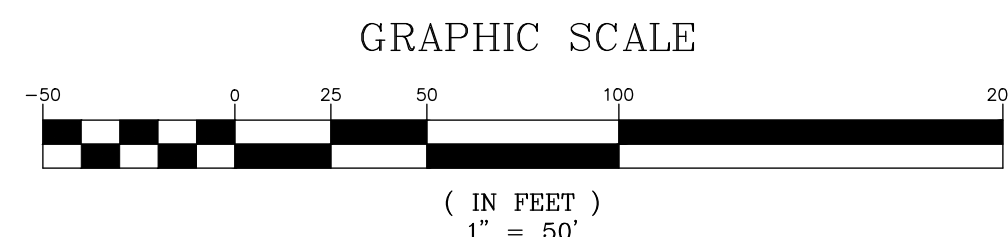
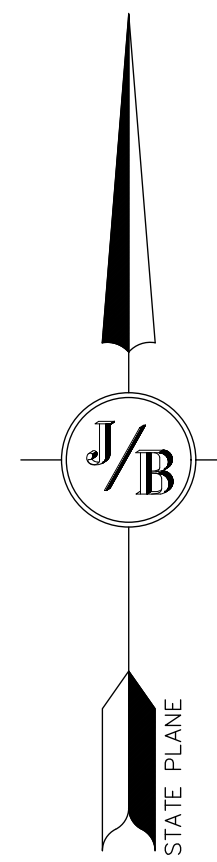
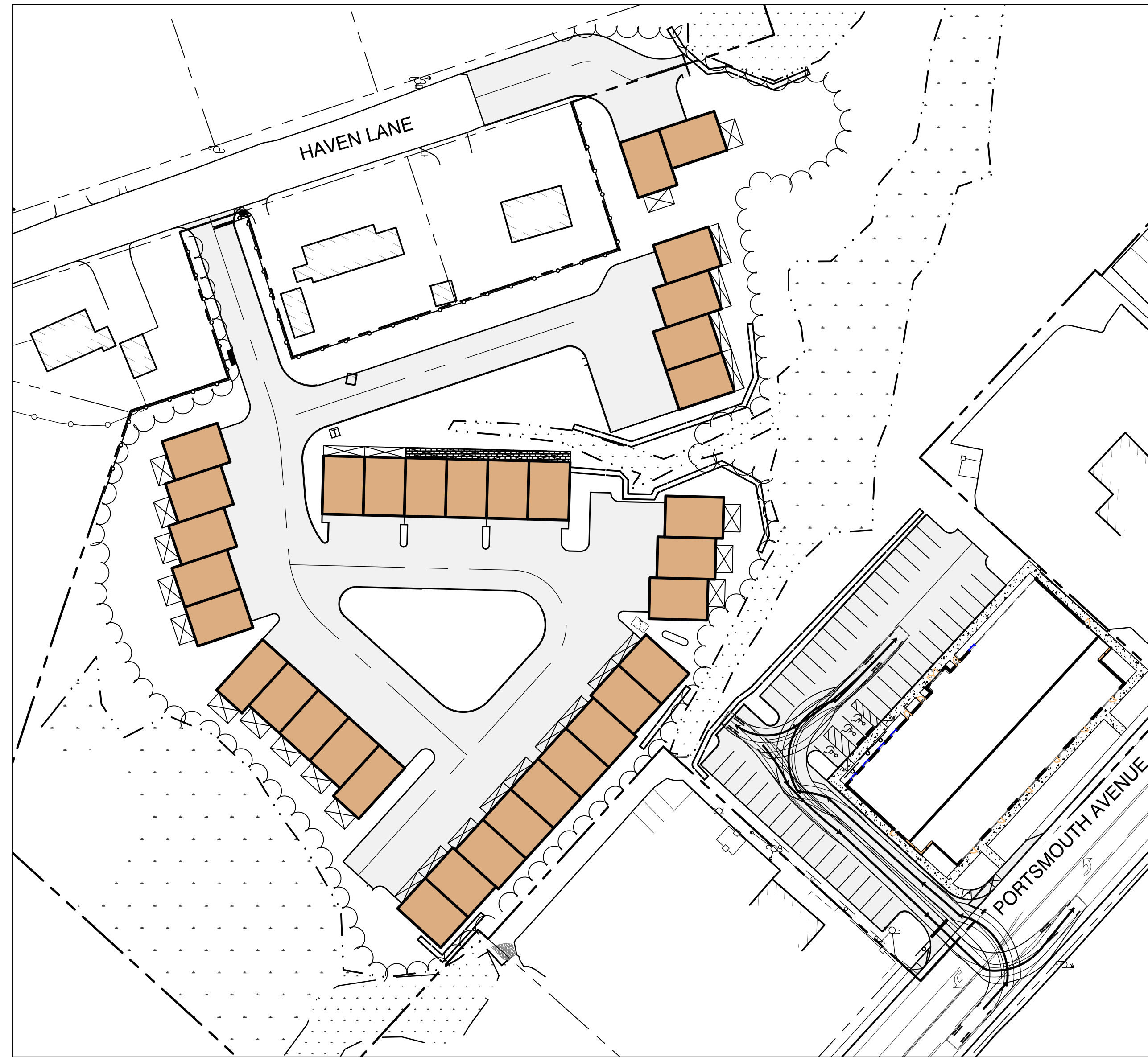


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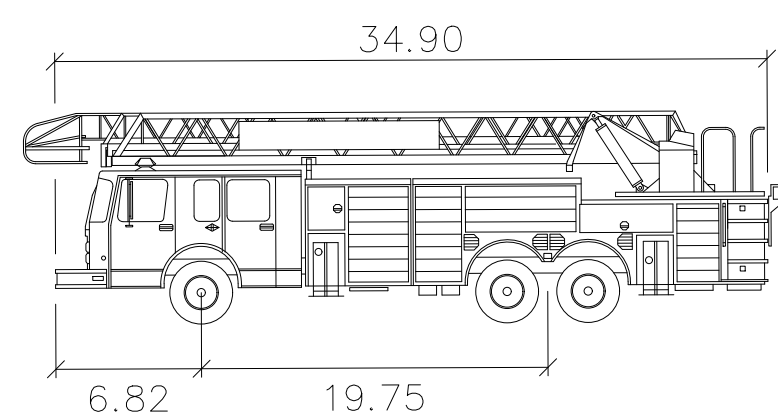


Exeter Fire Trucks

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- Track : 6.50
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- Steering Angle : 34.10



**VEHICLE INFORMATION**

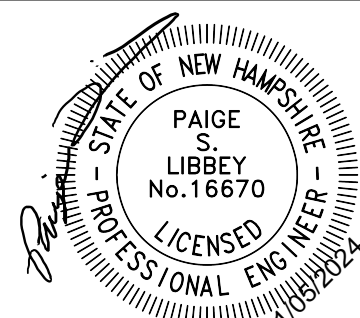


Exeter Fire Trucks

- Width : 8.50
- Track : 6.50
- Lock to Lock Time : 6.00
- Steering Angle : 34.10

<b>PROJECT PARCEL</b> TOWN OF EXETER TAX MAP 65, LOT 118
<b>APPLICANT</b> GREEN & COMPANY 11 LAFAYETTE RD PO BOX 1297 NORTH HAMPTON, NH 03862
<b>TOTAL LOT AREA</b> 291,630 SQ. FT. 6.7 ACRES

Design: MLS | Draft: GDR | Date: 3/15/24  
 Checked: WGM | Scale: AS SHOWN | Project No.: 24029  
 Drawing Name: 24029-PLAN.dwg  
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0	4/11/24	ISSUED FOR REVIEW	PSL
REV.	DATE	REVISION	BY

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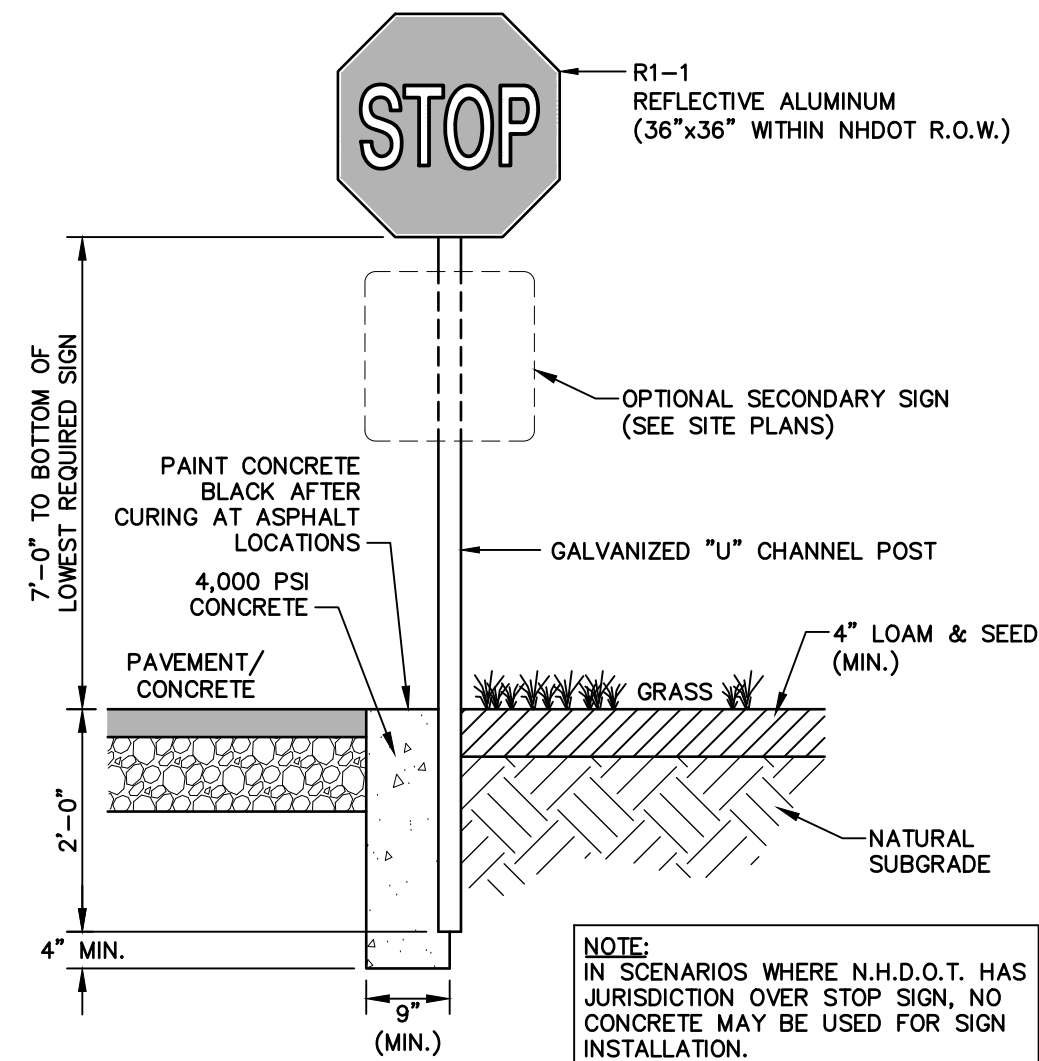
**J/B Jones & Beach Engineers, Inc.**

85 Portsmouth Ave. | Civil Engineering Services | 603-772-4746  
 PO Box 219 | Stratham, NH 03885 | E-MAIL: JBE@JONESANDBEACH.COM

Plan Name:	<b>TRUCK TURNING PLAN</b>
Project:	"LILAC PLACE" 76 PORTSMOUTH AVE, EXETER, NH
Owner of Record:	RAP REALTY MANCHESTER LLC 50 ATLANTIC AVE, SEABROOK, NH

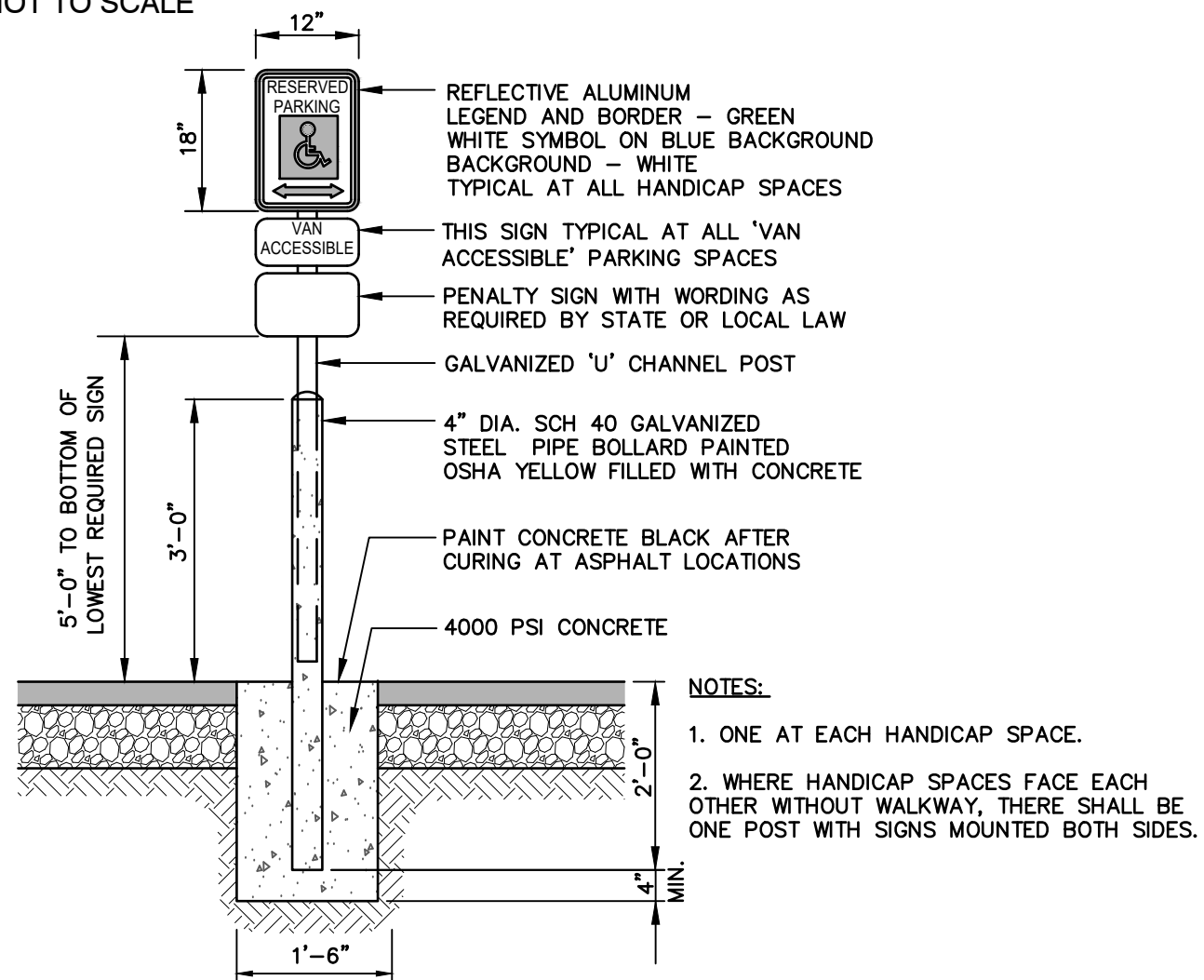
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SHEET 11 OF 20  
JBE PROJECT NO. 24029





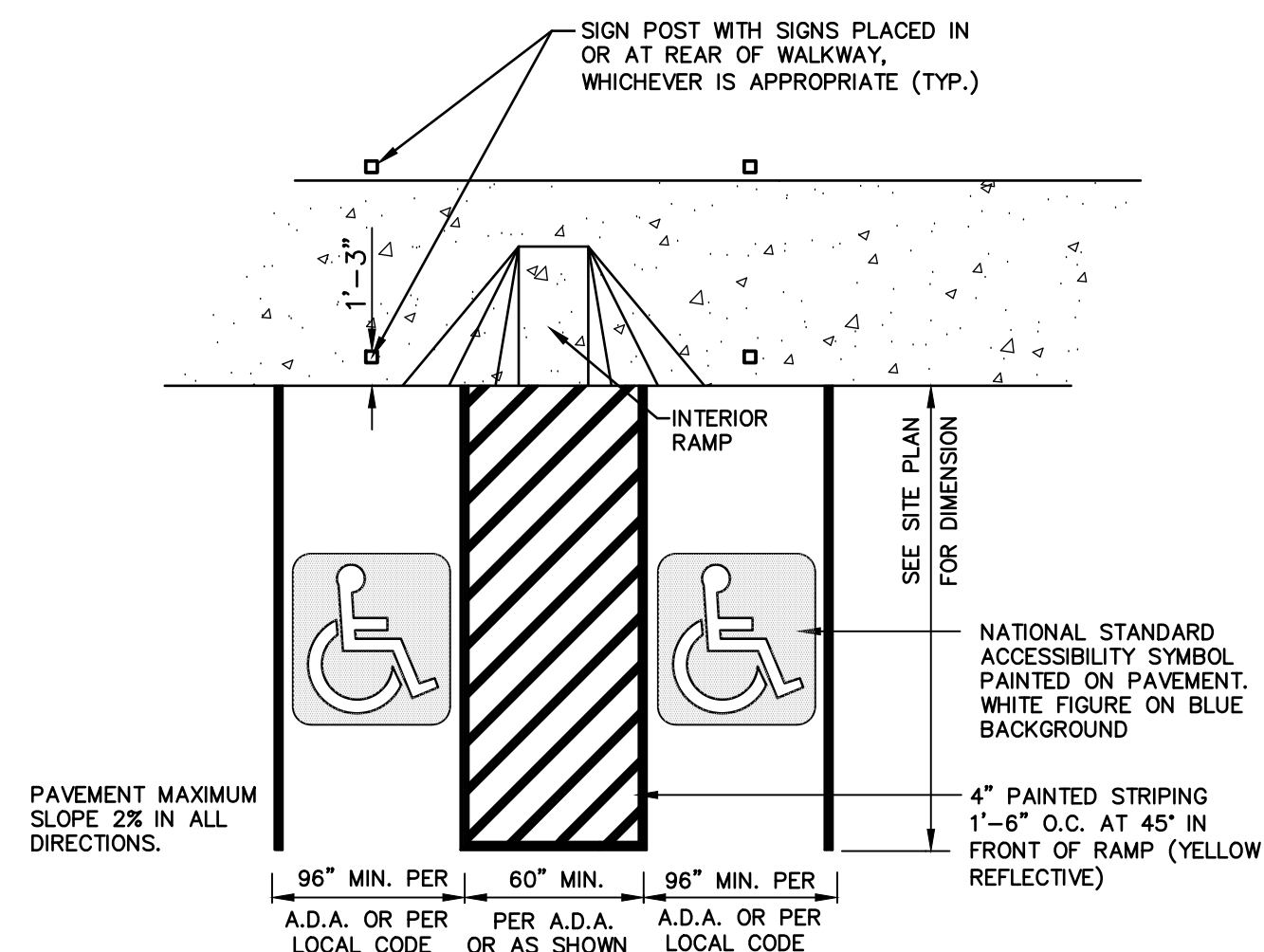
**STOP SIGN (R1-1)**

NOT TO SCALE



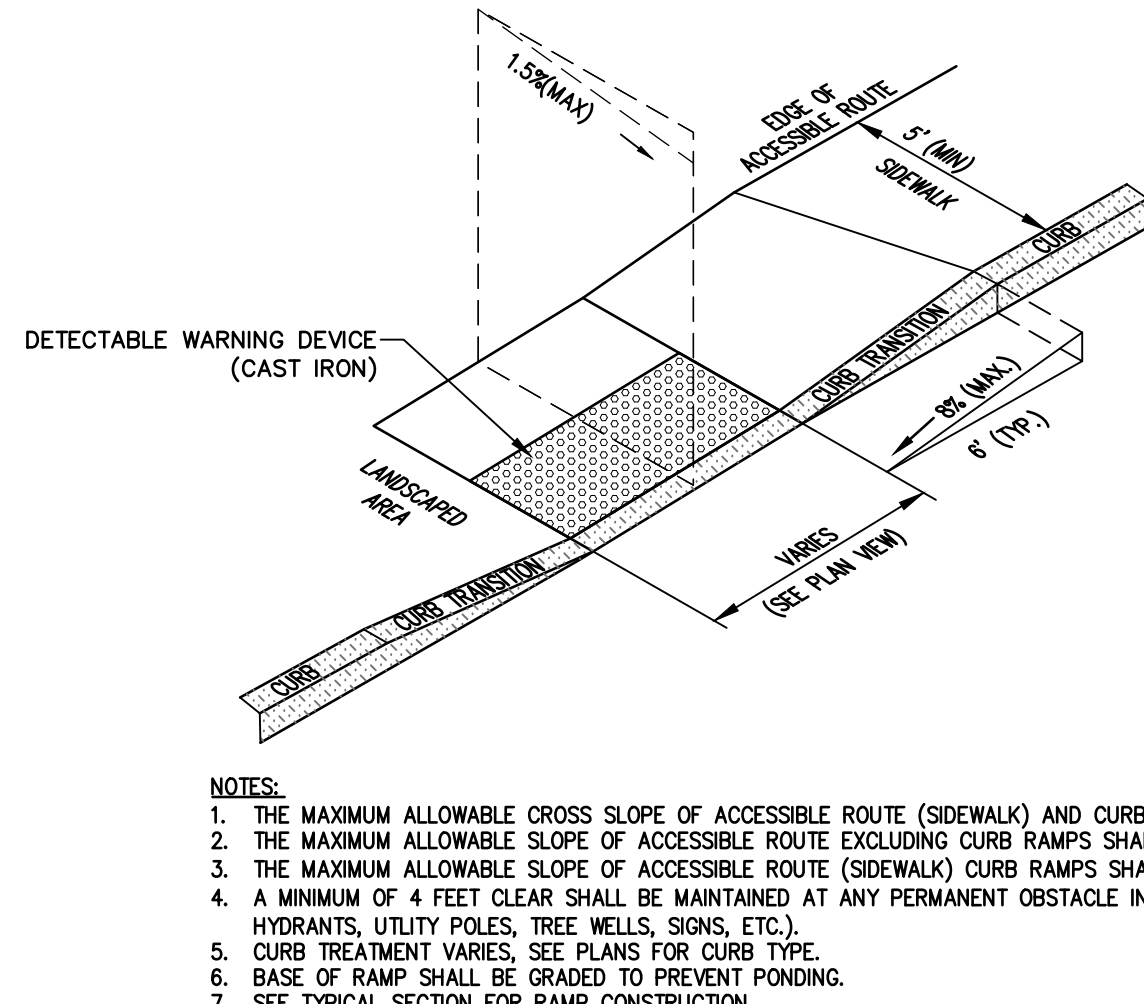
**HANDICAP PARKING SIGN (R7-8)**

NOT TO SCALE



**HANDICAP PARKING LAYOUT**

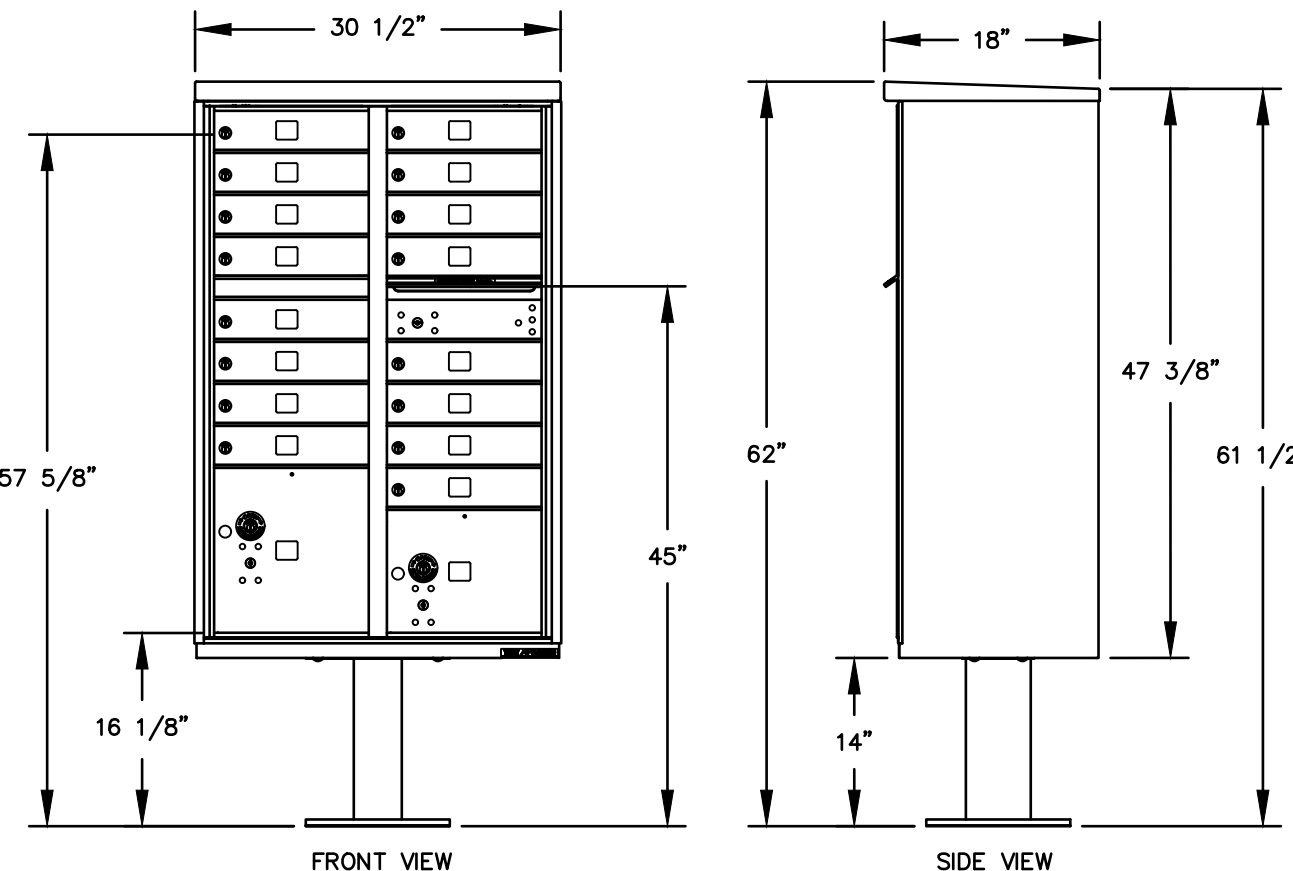
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**ACCESSIBLE CURB RAMP (TYPE 'I')**

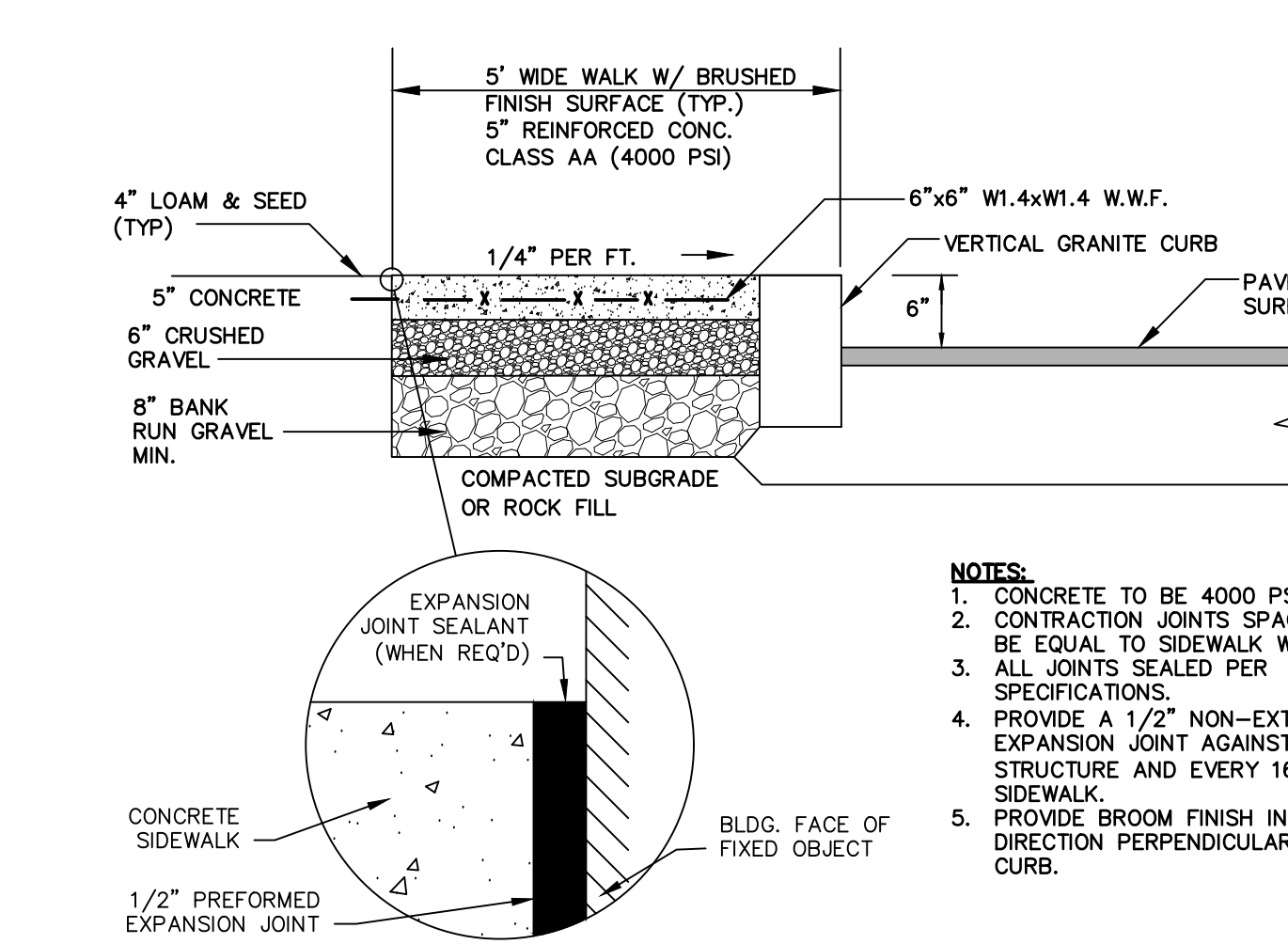
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**vital™ Cluster Box Unit - Type III**



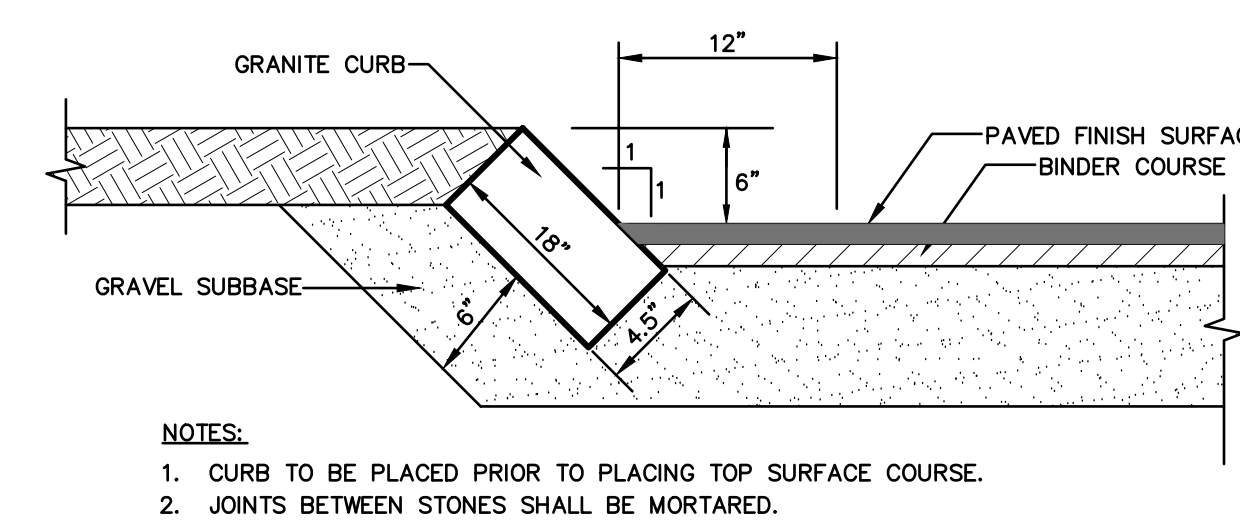
**MAIL BOX KIOSK DETAIL - AF FLORENCE MANUFACTURING COMPANY (MODEL 1570-16)**

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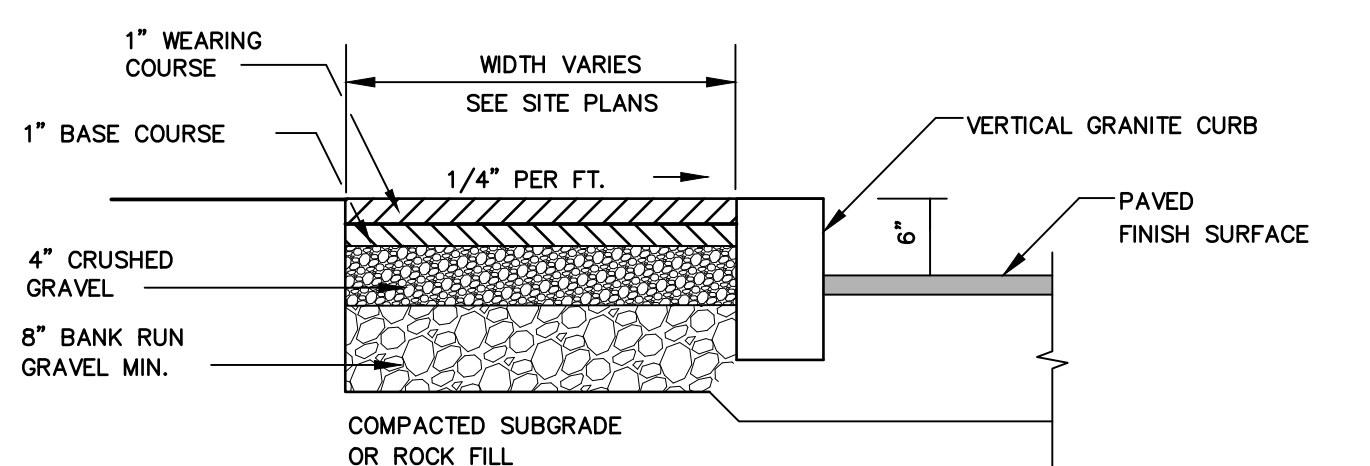
**CONCRETE SIDEWALK W/ VERTICAL GRANITE CURB**

NOT TO SCALE



**SLOPE GRANITE CURB**

NOT TO SCALE

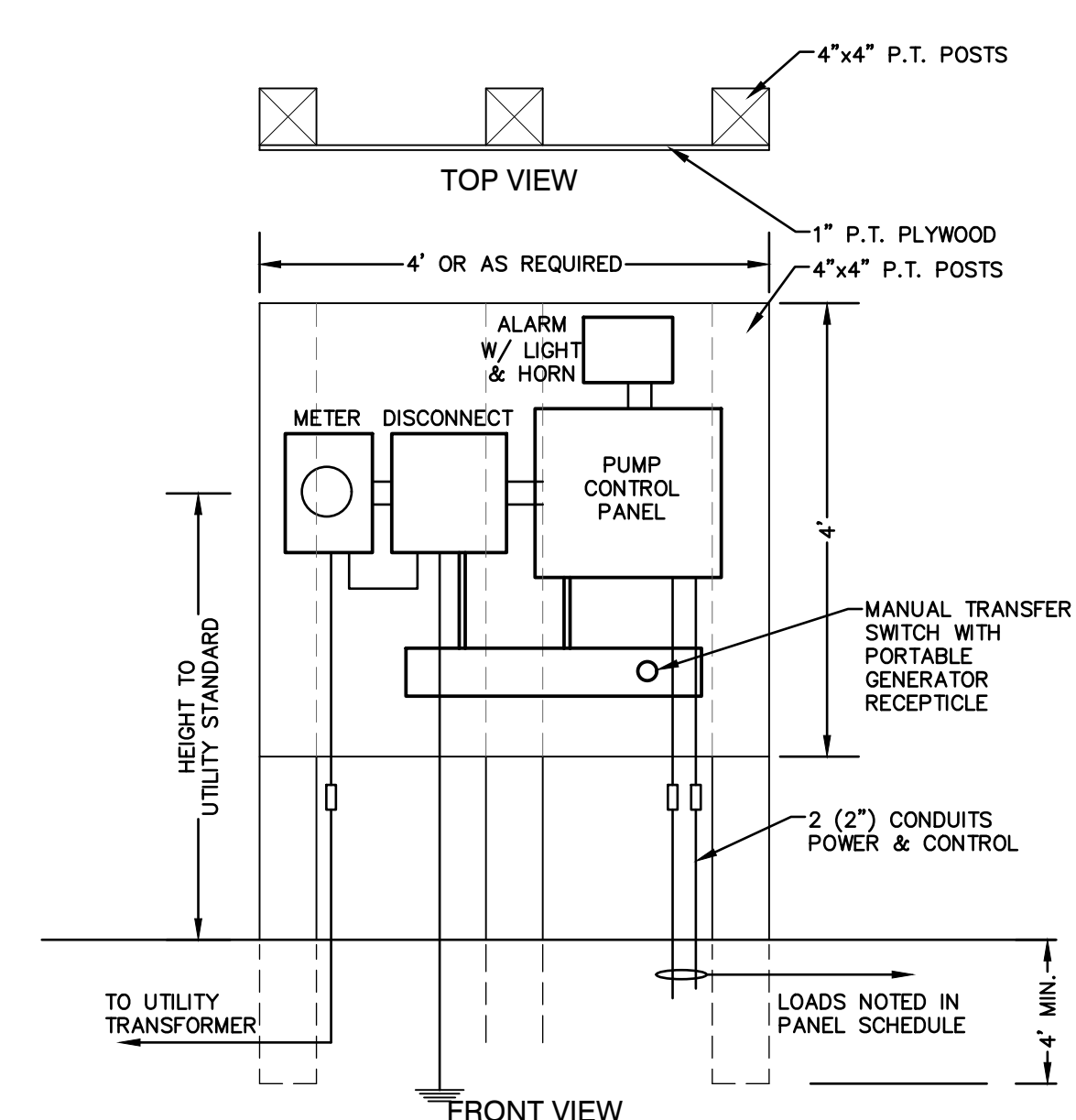


**BIT. SIDEWALK W/ VERTICAL GRANITE CURB (FOR PORTSMOUTH AVE.)**

NOT TO SCALE

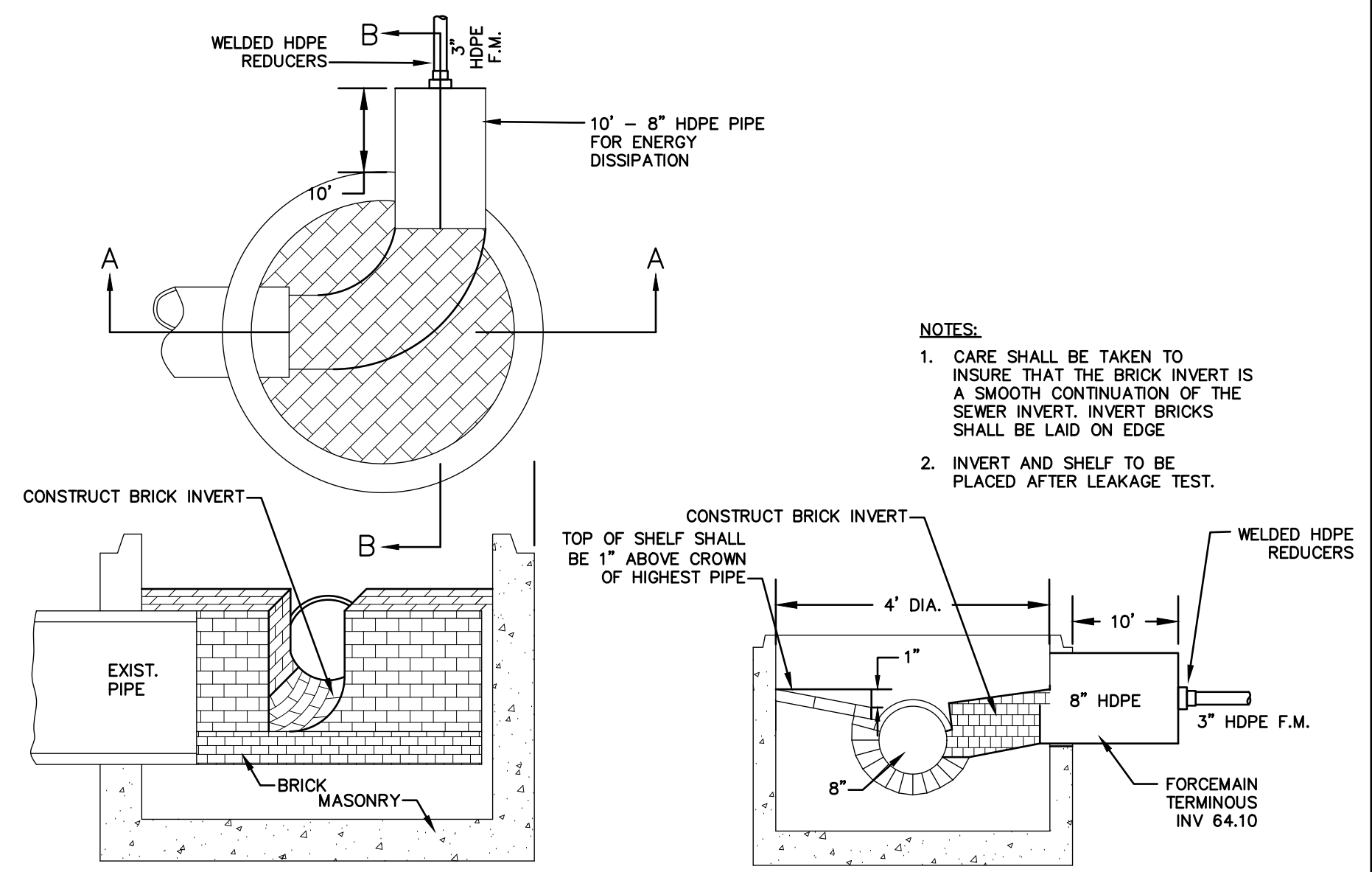
**DOOR CHART**

DOOR TYPE	DIMENSION (HEIGHT x WIDTH)
TENANT	3-3/8"x12-13/16"
10" PARCEL	10-1/4"x12-13/16"
13" PARCEL	13-3/4"x12-13/16"
OUTGOING SLOT	3/4"x11-3/4"



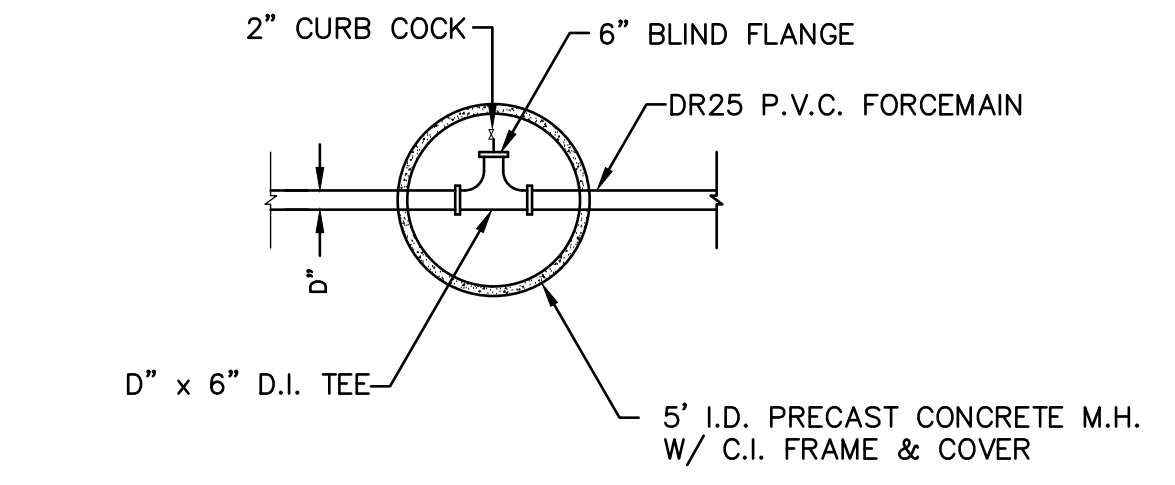
**EQUIPMENT BACKBOARD**

NOT TO SCALE



**FORCEMAIN TERMINUS INTO NEW MANHOLE**

NOT TO SCALE

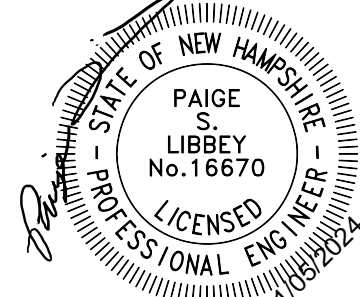


**FORCEMAIN ACCESS MANHOLE**

NOT TO SCALE

Design: MLS Draft: GDR Date: 3/15/24  
Checked: WGM Scale: AS NOTED Project No.: 24029  
Drawing Name: 24029-PLAN.dwg

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1	6/6/24	REVISED PER CLIENT	PSL
0	4/11/24	ISSUED FOR REVIEW	PSL
REV.	DATE	REVISION	BY

Designed and Produced in NH

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85 Portsmouth Ave. Civil Engineering Services 603-772-4746  
PO Box 219 Stratham, NH 03885 E-MAIL: JBE@JONESANDBEACH.COM

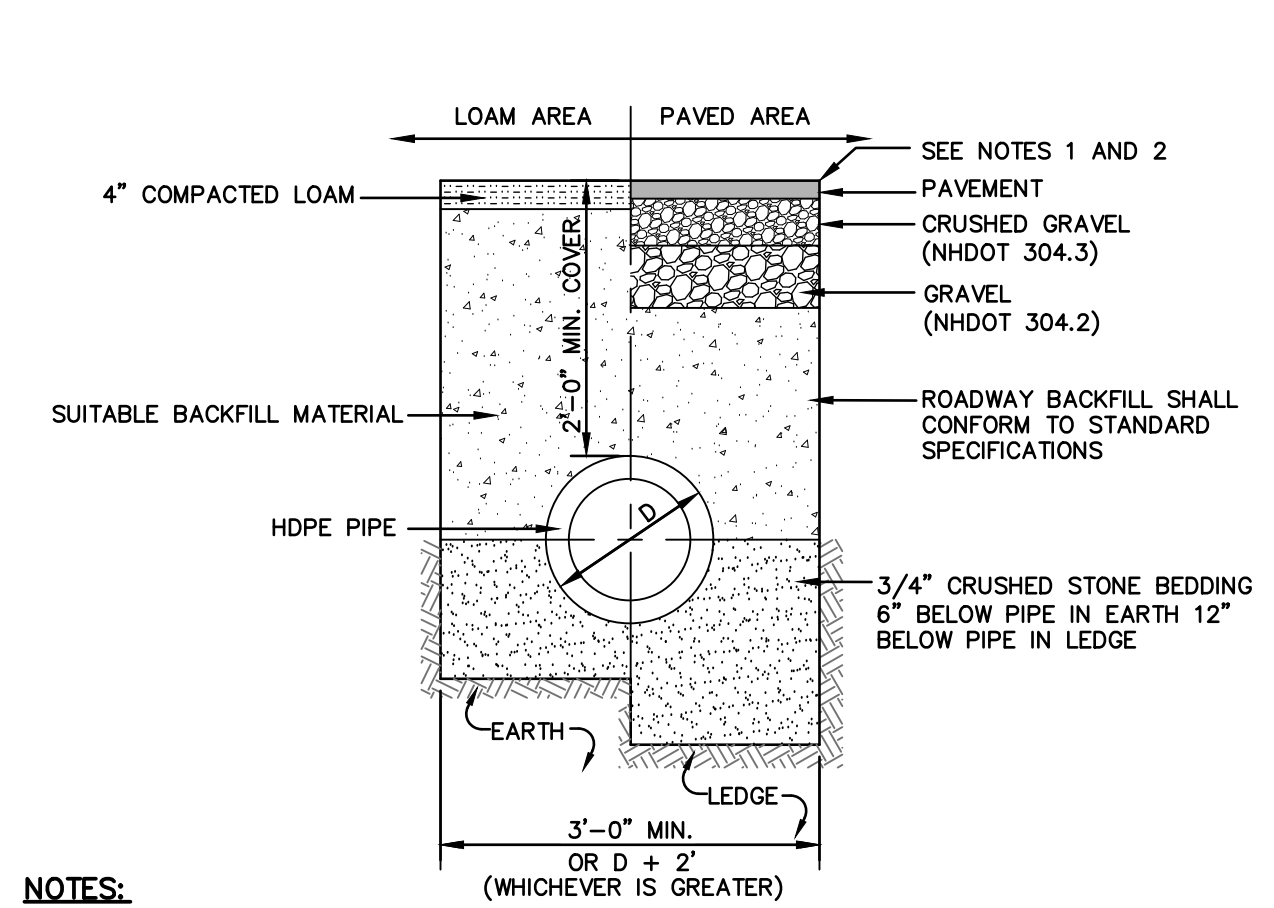
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Project:	"LILAC PLACE" 76 PORTSMOUTH AVE, EXETER, NH
Owner of Record:	RAP REALTY MANCHESTER LLC 50 ATLANTIC AVE, SEABROOK, NH

DRAWING No.

**D1**

SHEET 12 OF 20  
JBE PROJECT NO. 24029

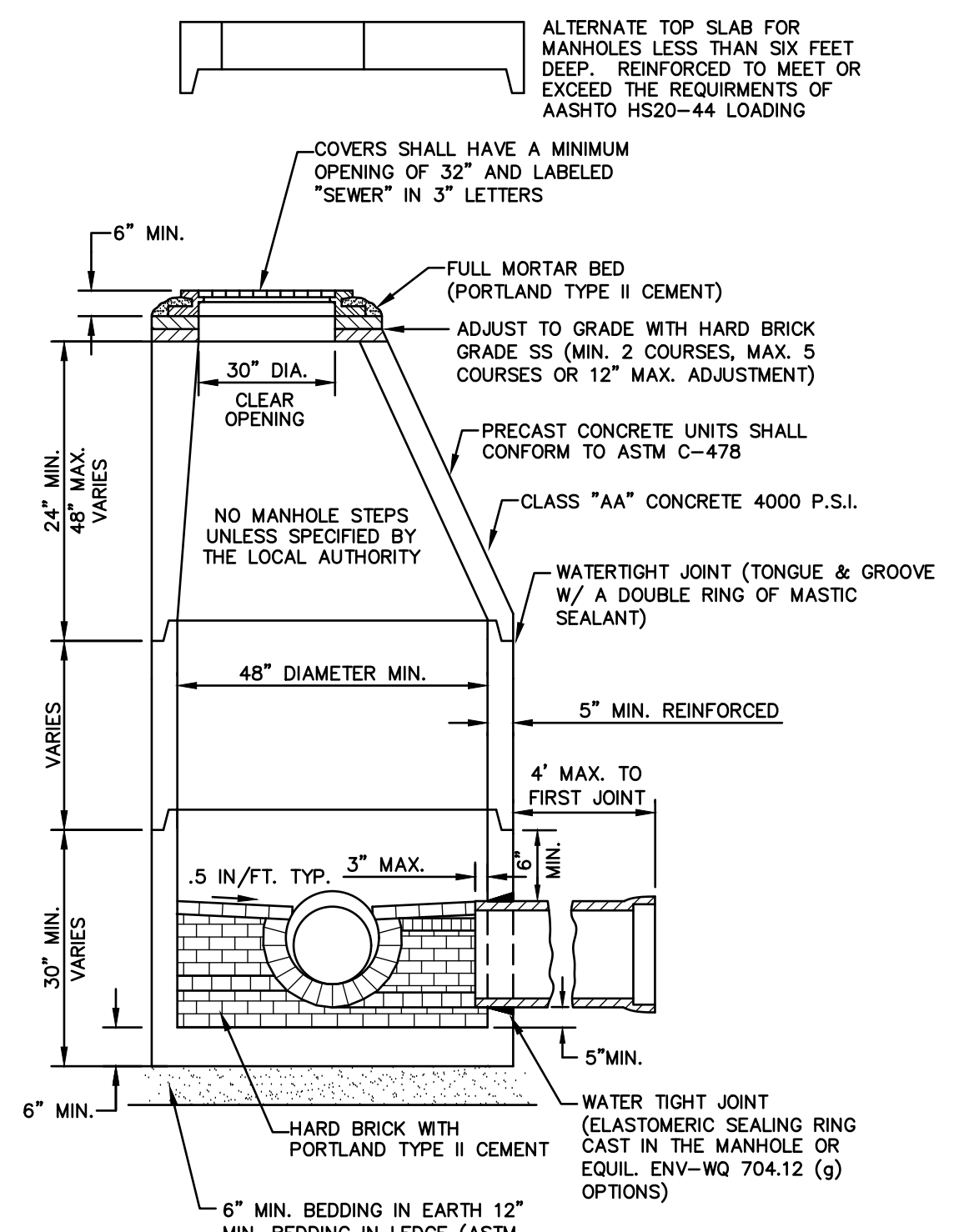




- NOTES:**
- PAVEMENT REPAIR IN EXISTING ROADWAYS SHALL CONFORM TO STREET OPENING REGULATIONS.
  - NEW ROADWAY CONSTRUCTION SHALL CONFORM WITH PROJECT AND TOWN SPECIFICATIONS.
  - ALL MATERIALS ARE TO BE COMPACTED TO 95% OF ASTM D-1557.

**DRAINAGE TRENCH**

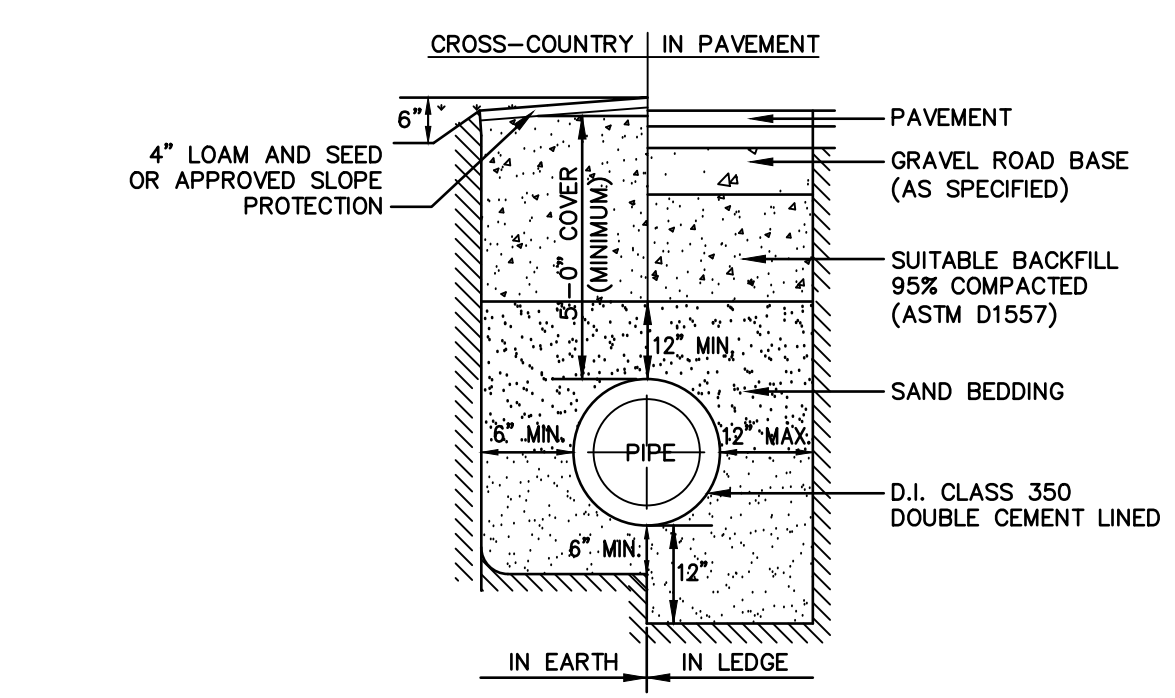
NOT TO SCALE



- NOTES:**
- PER NHDES ENV-WQ 704.13(C), MORTAR USED IN MANHOLE CONSTRUCTION SHALL COMPLY WITH THE FOLLOWING:
    - MORTAR SHALL BE COMPOSED OF TYPE II PORTLAND CEMENT AND SAND WITH OR WITHOUT HYDRATED LIME ADDITION
    - PROPORTIONS IN MORTAR OF PARTS BY VOLUMES SHALL BE PER TABLE 704-4:
      - 4.5 PARTS SAND AND 1.5 PARTS CEMENT; OR
      - 4.5 PARTS SAND, ONE PART CEMENT AND 0.5 PART HYDRATED LIME.
    - CEMENT SHALL BE TYPE II PORTLAND CEMENT THAT IS CERTIFIED BY ITS MANUFACTURER AS CONFORMING TO THE ASTM C150/C150M STANDARD IN EFFECT AT THE TIME THE CEMENT WAS MANUFACTURED
    - HYDRATED LIME SHALL BE TYPE S THAT IS CERTIFIED BY ITS MANUFACTURER AS CONFORMING TO THE ASTM C207 STANDARD IN EFFECT AT THE TIME THE HYDRATED LIME WAS PROCESSED
    - SAND SHALL CONSIST OF INERT NATURAL SAND THAT IS CERTIFIED BY ITS SUPPLIER AS CONFORMING TO THE ASTM C33 STANDARD IN EFFECT AT THE TIME THE SAND IS PROCESSED BY STANDARD SPECIFICATIONS FOR CONCRETE, FINE AGGREGATES
    - CONCRETE FOR DROP SUPPORTS SHALL CONFORM TO THE REQUIREMENT FOR CLASS AAA CONCRETE OF THE NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION'S STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AS AVAILABLE AT: [HTTP://WWW.NH.GOV/DOT/ORG/PROJECTDEVELOPMENT/HIGHWAYDESIGN/SPECIFICATIONS/INDEX.HTM](http://www.nh.gov/dot/org/projectdevelopment/highwaydesign/specifications/index.htm)
  - SHELVES SHALL BE CONSTRUCTED TO THE ELEVATION OF THE HIGHEST PIPE CROWN AND SLOPED TO DRAIN TOWARD THE FLOWING THROUGH CHANNEL IN ACCORDANCE WITH ENV-WQ 704.12 (K).
  - ALL MANHOLES SHALL BE TESTED FOR LEAKAGE IN ACCORDANCE WITH ENV-WQ 704.17 (g) THROUGH (e).
  - SEWER MANHOLE COVERS SHALL CONFORM TO ASTM A48/48M WITH A CASTING EQUAL TO CLASS 30 IN ACCORDANCE WITH ENV-WQ 704.13 (a) (8).
  - ALL PRECAST SECTIONS SHALL BE COATED ON THE EXTERIOR WITH A BITUMINOUS DAMP-PROOFING COATING IN ACCORDANCE WITH ENV-WQ 704.12 (j).
  - ALL PRECAST SECTIONS AND BASES SHALL HAVE THE DATE OF MANUFACTURE AND THE NAME OR TRADEMARK OF THE MANUFACTURER IMPRESSED OR INDELIBLY MARKED ON THE INSIDE WALL PER ENV-WQ 704.12(f).
  - BRICK MASONRY SHALL CONFORM TO ASTM C32 (ENV-WQ 704.12(a)(9))

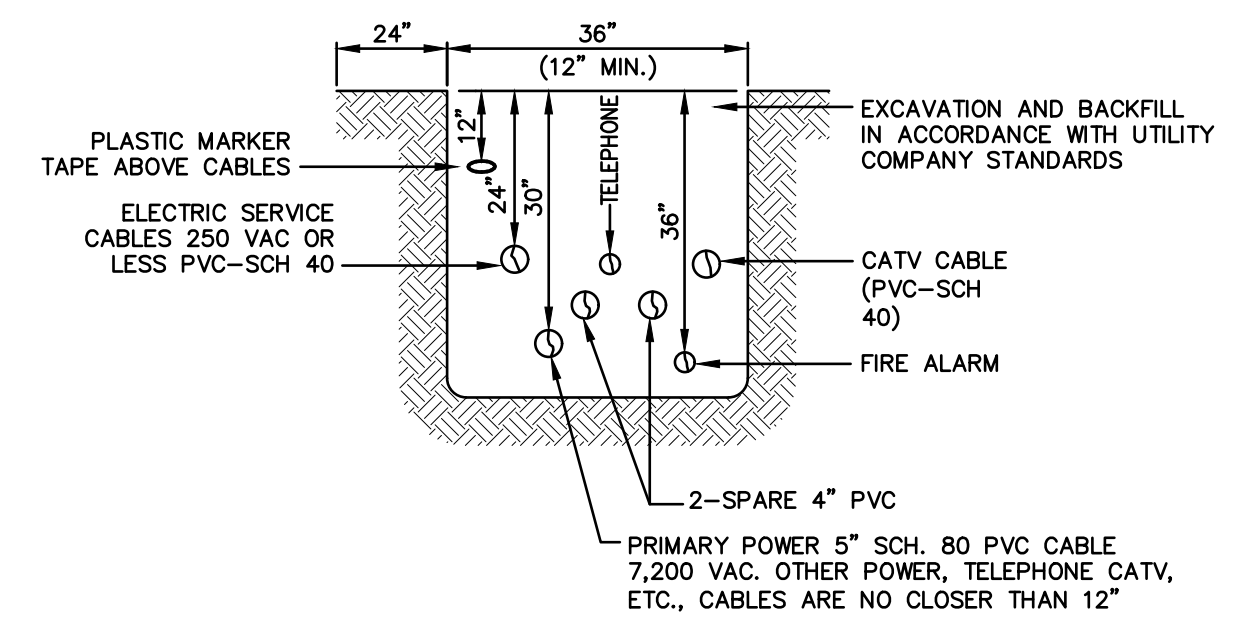
**SEWER MANHOLE**

NOT TO SCALE



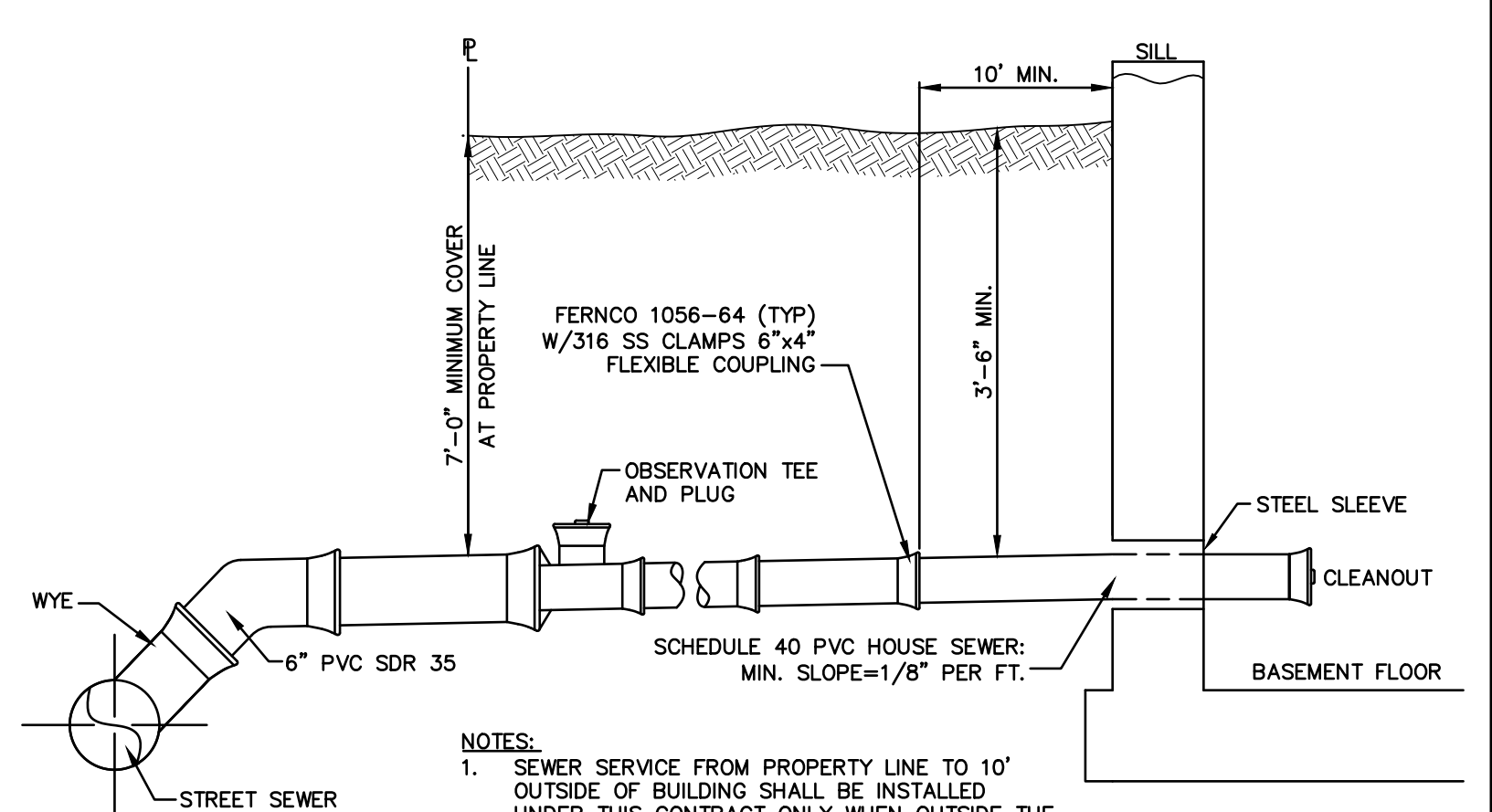
**WATER SYSTEM TRENCH**

NOT TO SCALE



**UTILITY TRENCH**

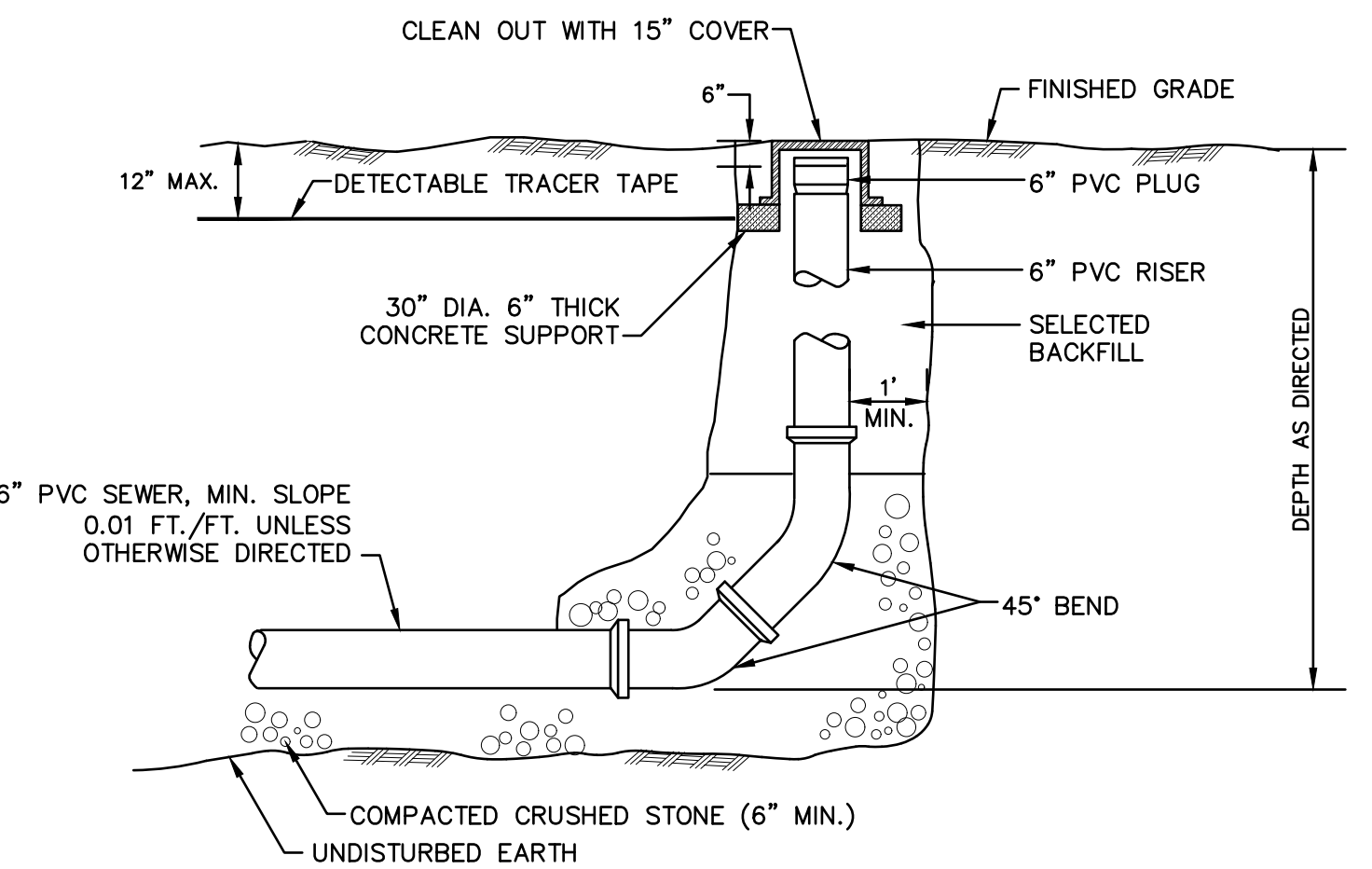
NOT TO SCALE



**HOUSE SEWER SERVICE**

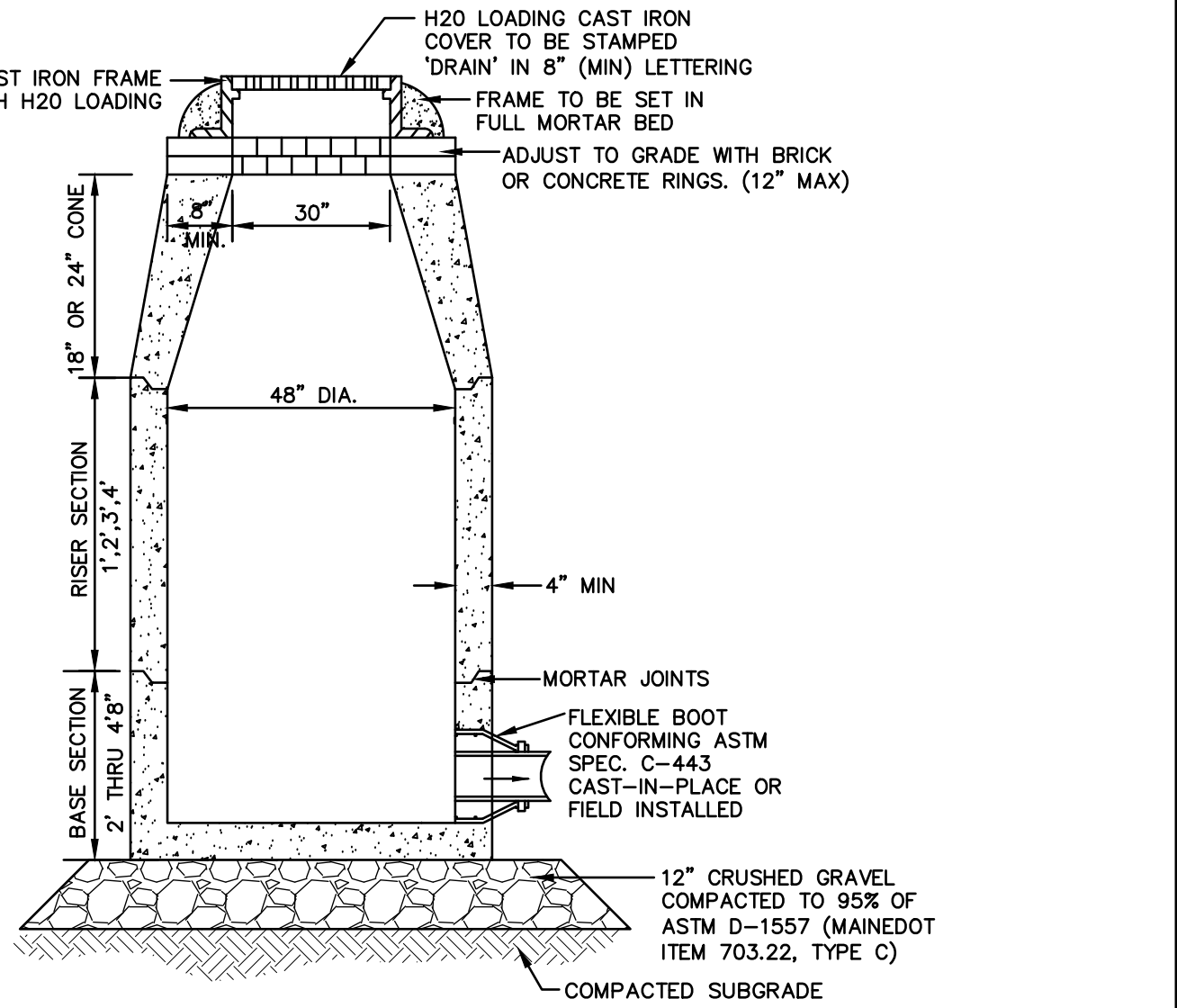
NOT TO SCALE

- NOTES:**
- SEWER SERVICE FROM PROPERTY LINE TO 10' OUTSIDE OF BUILDING SHALL BE INSTALLED UNDER THIS CONTRACT ONLY WHEN OUTSIDE THE TRENCH DEWATERING OR LEDGE EXCAVATION IS REQUIRED.
  - PIPE DEPTH AT HOUSE SHALL BE ABOVE THE SEASONAL GROUND WATER LEVEL.
  - SEWER SHALL BE BELOW SLAB ONLY WHEN BASEMENT TOILETS EXIST.



**SEWER CLEAN OUT**

NOT TO SCALE

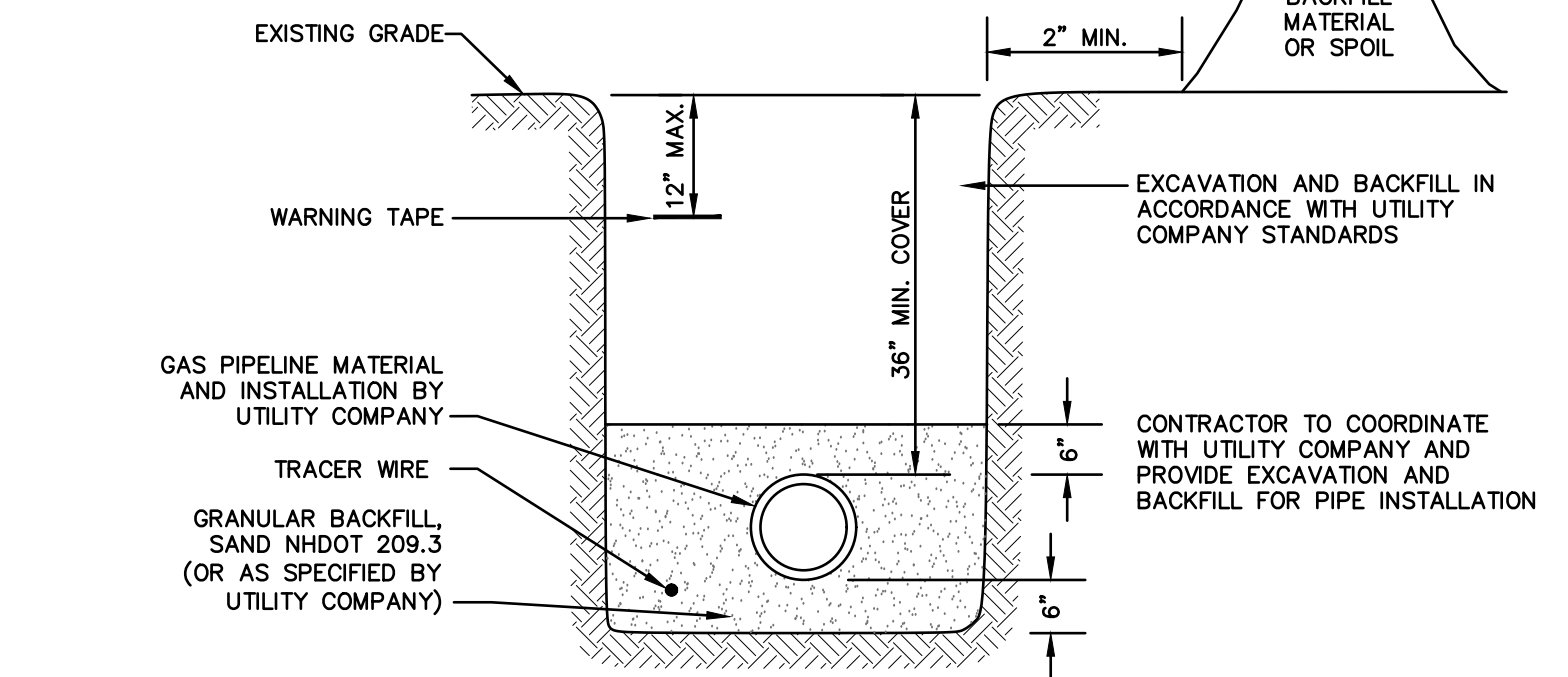


**NOTES:**

- BASE SECTION SHALL BE MONOLITHIC WITH 48" INSIDE DIAMETER.
- ALL SECTIONS SHALL BE DESIGNED FOR H2O LOADING.
- CONCRETE SHALL BE COMPRESSIVE STRENGTH 4000 PSI, TYPE II CEMENT.
- FRAMES AND GRATES SHALL BE HEAVY DUTY AND DESIGNED FOR H2O LOADING.
- PROVIDE "V" KNOCKOUTS FOR PIPES WITH 2" MAX. CLEARANCE TO OUTSIDE OF PIPE. MORTAR ALL PIPE CONNECTIONS SO AS TO BE WATERTIGHT.
- JOINT SEALANT BETWEEN PRECAST SECTIONS SHALL BE BUTYL RUBBER.
- ALL DRAIN MANHOLE FRAMES AND GRATES SHALL BE NENAH R-1798 OR APPROVED EQUAL (30" DIA. TYPICAL).
- STANDARD FRAME(S) AND GRATE(S) SHALL BE SET IN FULL MORTAR BED. ADJUST TO GRADE WITH CLAY BRICK AND MORTAR (2 BRICK COURSES TYPICALLY, 5 BRICK COURSES MAXIMUM, BUT NO MORE THAN 12"), OR PRECAST CONCRETE "DONUTS".

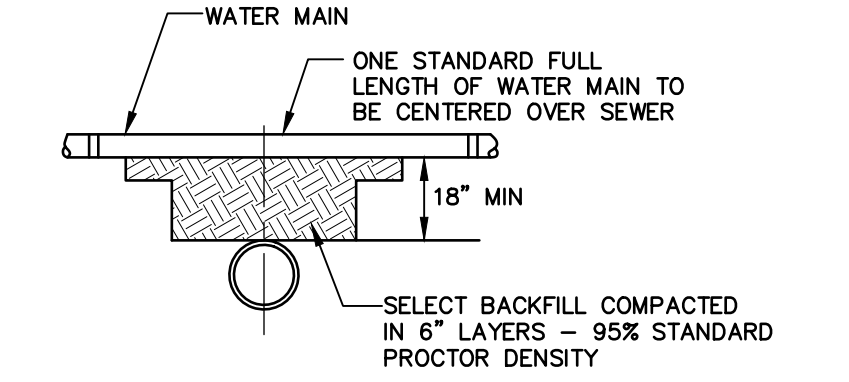
**DRAIN MANHOLE (4" DIAM.)**

NOT TO SCALE



**GAS TRENCH**

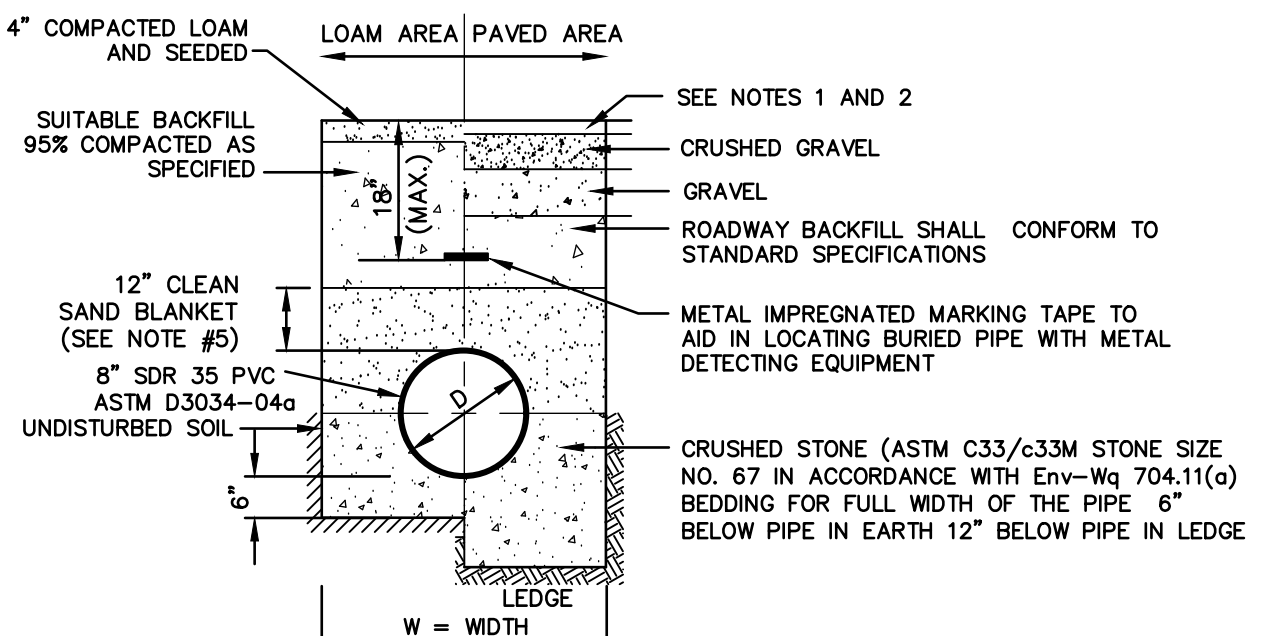
NOT TO SCALE



- SEPARATION NOTES:**
- WATER MAINS SHALL BE LAID AT LEAST 10 FEET HORIZONTALLY FROM ANY EXISTING OR PROPOSED SEWERS. THE DISTANCE SHALL BE MEASURED EDGE TO EDGE.
  - WATER MAINS CROSSING SEWERS SHALL BE LAID TO PROVIDE A MINIMUM VERTICAL DISTANCE OF 18 INCHES BETWEEN PIPES. SEWER PIPE JOINTS SHALL BE LOCATED AT LEAST 6 FEET HORIZONTALLY FROM THE WATER MAIN.

**TYPICAL WATER / SEWER SEPARATION**

NOT TO SCALE

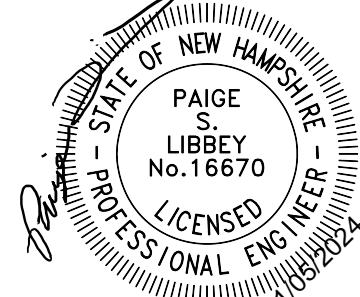


- NOTES:**
- PAVEMENT REPAIR IN EXISTING ROADWAYS SHALL CONFORM TO STREET OPENING REGULATIONS.
  - NEW ROADWAY CONSTRUCTION SHALL CONFORM TO SUBDIVISION SPECIFICATIONS.
  - TRENCH BACKFILL SHALL CONFORM WITH ENV. Wq 704.11(h) AND BE FREE OF DEBRIS, PAVEMENT, ORGANIC MATTER, TOP SOIL, WET OR SOFT MUCK, PEAT OR CLAY, EXCAVATED LEDGE OR ROCKS OVER SIX INCHES.
  - W = MAXIMUM ALLOWABLE TRENCH WIDTH TO A PLANE 12" INCHES ABOVE THE PIPE. FOR PIPES 15 INCHES NOMINAL DIAMETER OR LESS, W SHALL BE NO MORE THAN 36"; FOR PIPES GREATER THAN 15 INCHES NOMINAL DIAMETER, W SHALL BE 24 INCHES PLUS PIPE O.D. W SHALL ALSO BE THE PAYMENT WIDTH FOR LEDGE EXCAVATION AND FOR ORDERED EXCAVATION BELOW GRADE.
  - RIGID FOAM INSULATION TO BE PROVIDED WHERE COVER IN THE ROADWAY IS LESS THAN 6" AND CROSS COUNTRY IS LESS THAN 4", PURSUANT TO DES WAIVER BEING ISSUED.
  - PIPE SAND BLANKET MATERIAL SHALL BE GRADED SAND, FREE FROM ORGANIC MATERIALS, GRADED SUCH THAT 100% PASSES A 1/2" SIEVE AND A MAXIMUM OF 15% PASSES A #200 SIEVE IN ACCORDANCE WITH ENV-Wq 704.11(b).
  - JOINT SEALS FOR PVC PIPE SHALL BE OIL RESISTANT COMPRESSION RINGS OF ELASTOMERIC MATERIAL AND CERTIFIED BY THE MANUFACTURER AS CONFORMING TO THE ASTM D3212 STANDARD IN EFFECT WHEN THE JOINT SEALS WERE MANUFACTURED, AND SHALL BE PUSH-ON, BELL-AND-SPIGOT TYPE PER ENV-Wq 704.05 (e).

**SEWER TRENCH**

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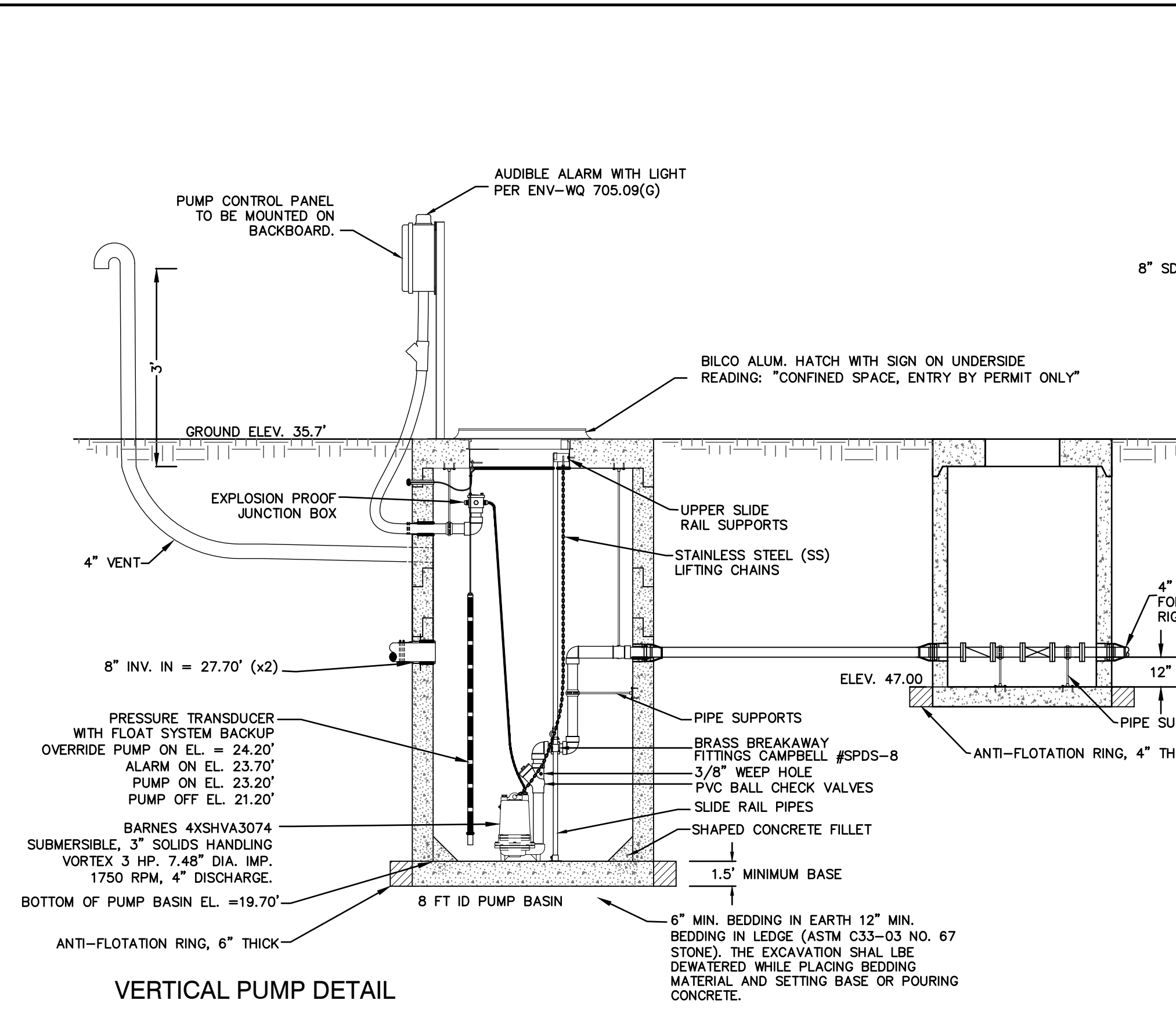
Plan Name:	DETAIL SHEET
Project:	"LILAC PLACE" 76 PORTSMOUTH AVE, EXETER, NH
Owner of Record:	RAP REALTY MANCHESTER LLC 50 ATLANTIC AVE, SEABROOK, NH

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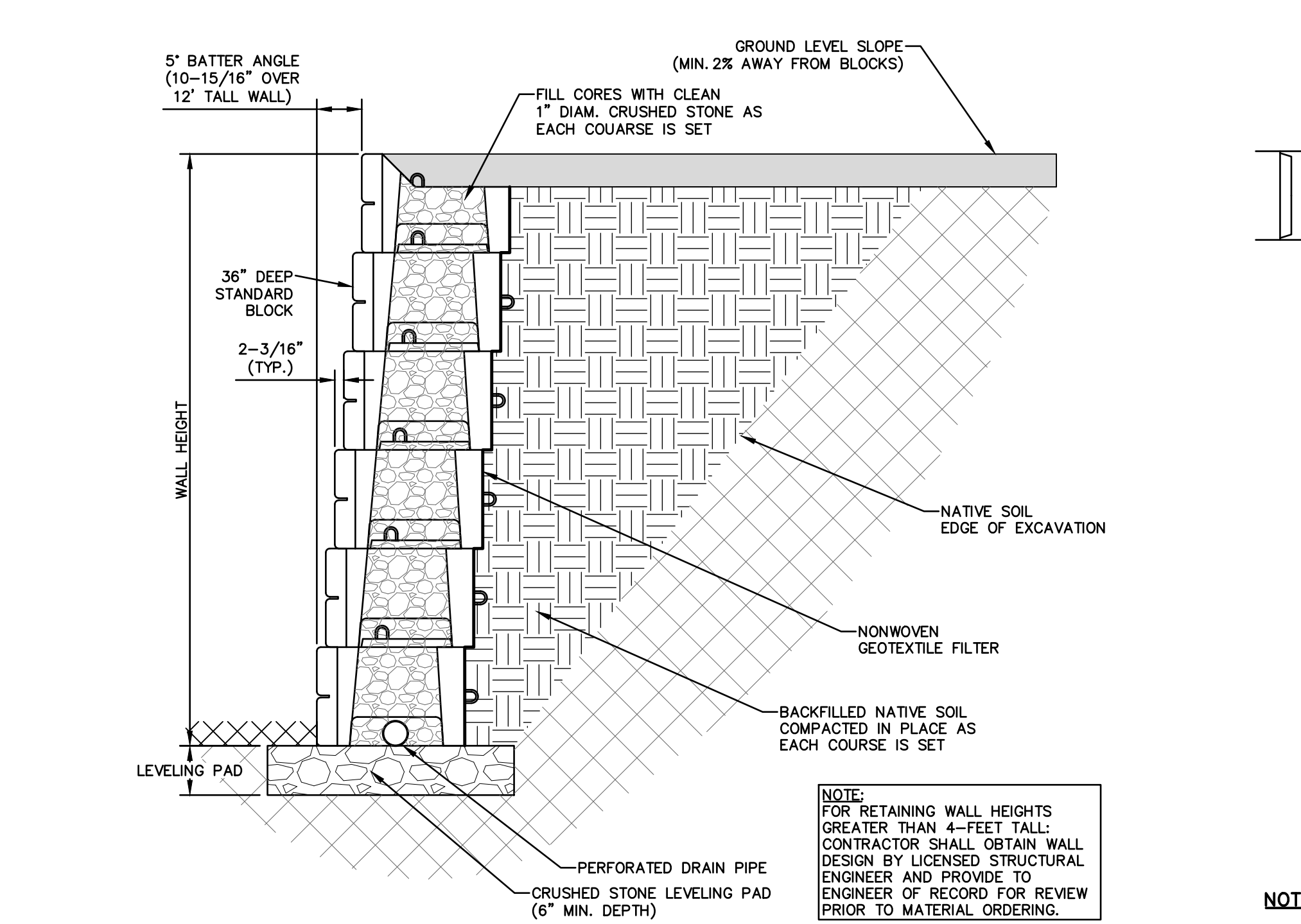
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SHEET 13 OF 20  
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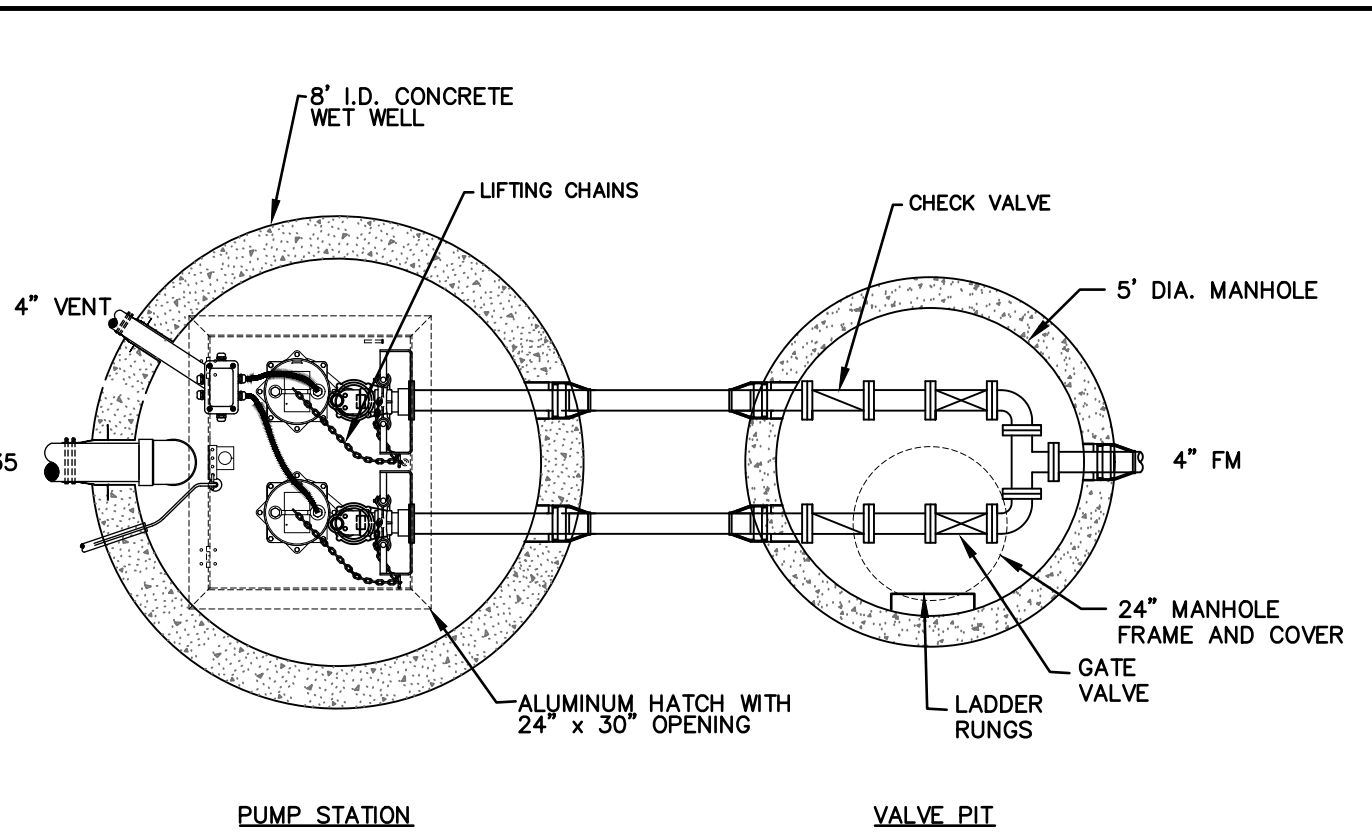


**VERTICAL PUMP DETAIL**  
NOT TO SCALE



**VERTI-BLOCK RETAINING WALL**  
NOT TO SCALE

NOTE: FOR RETAINING WALL HEIGHTS GREATER THAN 4- FEET TALL, CONTRACTOR SHALL OBTAIN WALL DESIGN BY LICENSED STRUCTURAL ENGINEER AND PROVIDE TO ENGINEER OF RECORD FOR REVIEW PRIOR TO MATERIAL ORDERING.



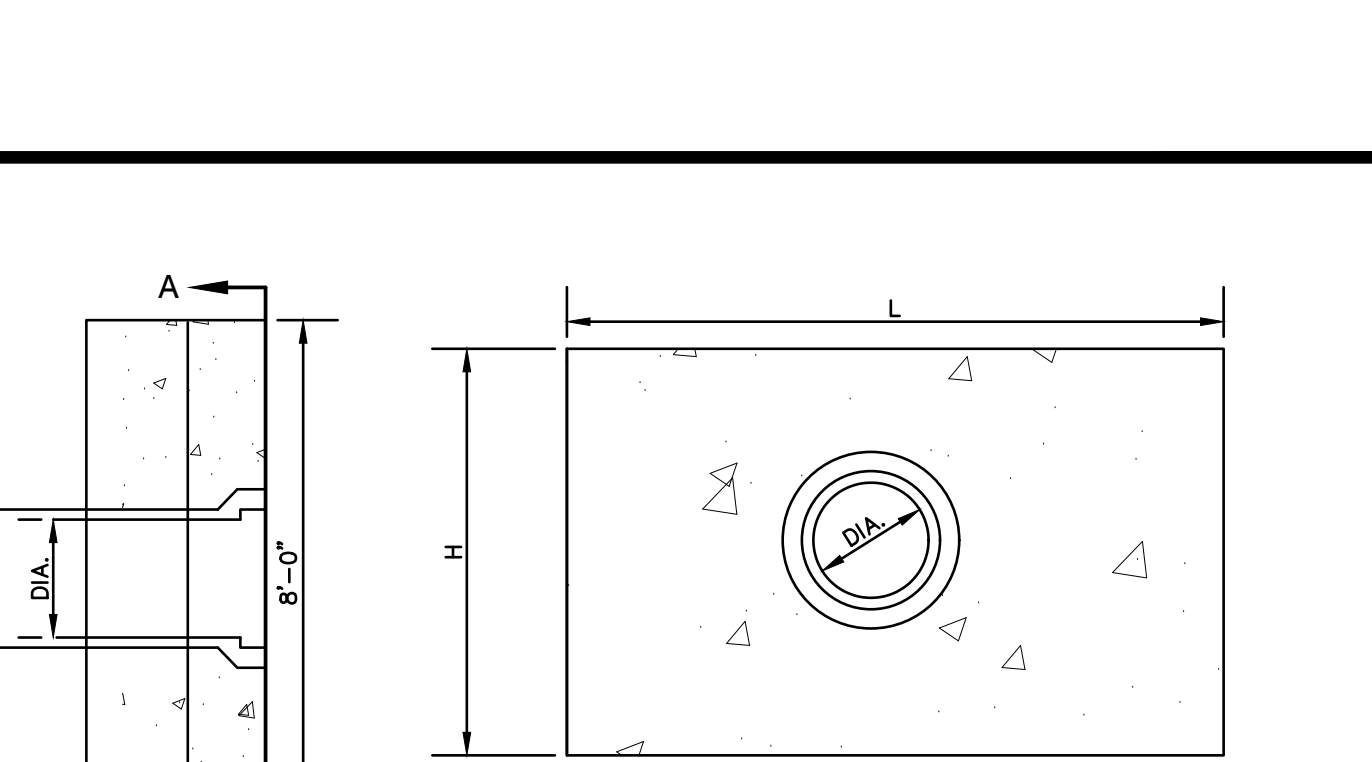
**PUMP STATION VALVE PIT**

**PUMP INFORMATION:**  
ELEV. HEAD: 10.40'  
FRICTION HEAD: 5.82'  
VELOCITY HEAD: 0.21'  
TOTAL HEAD: 16.44'

**DOSEING INFORMATION:**  
DESIGN FLOW: 120 GPM  
VOLUME OF DOSE = 752 GALLONS  
NO. OF DOSES/PUMP = 12.9 DOSES/DAY  
PUMPING TIME = 6.3 MINUTES  
VELOCITY IN DISCHARGE LINES = 3.71 FPS  
EACH PUMP TO MAINTAIN MIN. PUMP RATE OF 120 GPM

**PUMP STATION NOTES:**

- ALL JOINTS SHALL BE SEALED WITH A BUTYL JOINT SEALANT.
- PUMPS TO BE WIRED TO DOSE AT ALTERNATING INTERVALS.
- SEPARATE ELECTRICAL CIRCUITS SHALL BE PROVIDED FOR EACH OF THE PUMPS (SEPARATELY) AND ALARM SYSTEMS. ALL TO BE WIRED TO THE STAND-BY GENERATOR, AS REQUIRED.



**SECTION A-A**

DIA.	HEADWALL LENGTH	HEADWALL HEIGHT	FILL HEIGHT	PIPE COVER	HEADWALL BOTTOM WIDTH
12"	4'-2"	3'-9"	1'-6"	1'-3"	1'-11"
15"	5'-11"	4'-2"	1'-6"	1'-5"	2'-0"
18"	6'-11"	4'-5"	1'-6"	1'-5"	2'-1"
24"	8'-10"	4'-11"	1'-6"	1'-5"	2'-3"

**LONGITUDINAL SECTION**

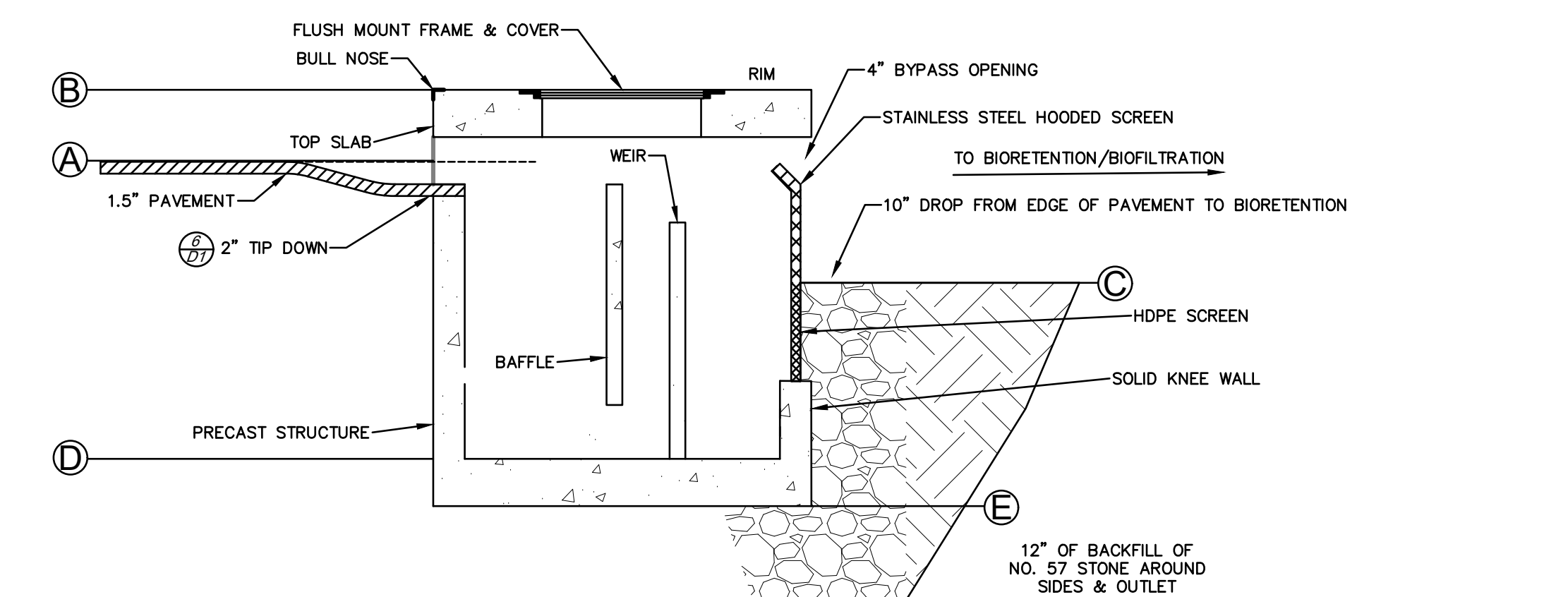
**NOTES:**

- ALL DIMENSIONS GIVEN IN FEET & INCHES.
- PROVIDE BELL END AT INLET HEADWALL, AND SPIGOT END AT OUTLET END HEADWALL.
- CONCRETE: 5,000 PSI MINIMUM AFTER 28 DAYS; CEMENT TO BE TYPE III PER ASTM C-150. REINFORCING TO MEET OR EXCEED ASTM A-615 GRADE 60 DEFORMED BARS.
- 1" THREADED INSERTS PROVIDED FOR FINAL ATTACHMENT IN FIELD BY OTHERS.

**PRECAST CONCRETE HEADWALL**  
NOT TO SCALE

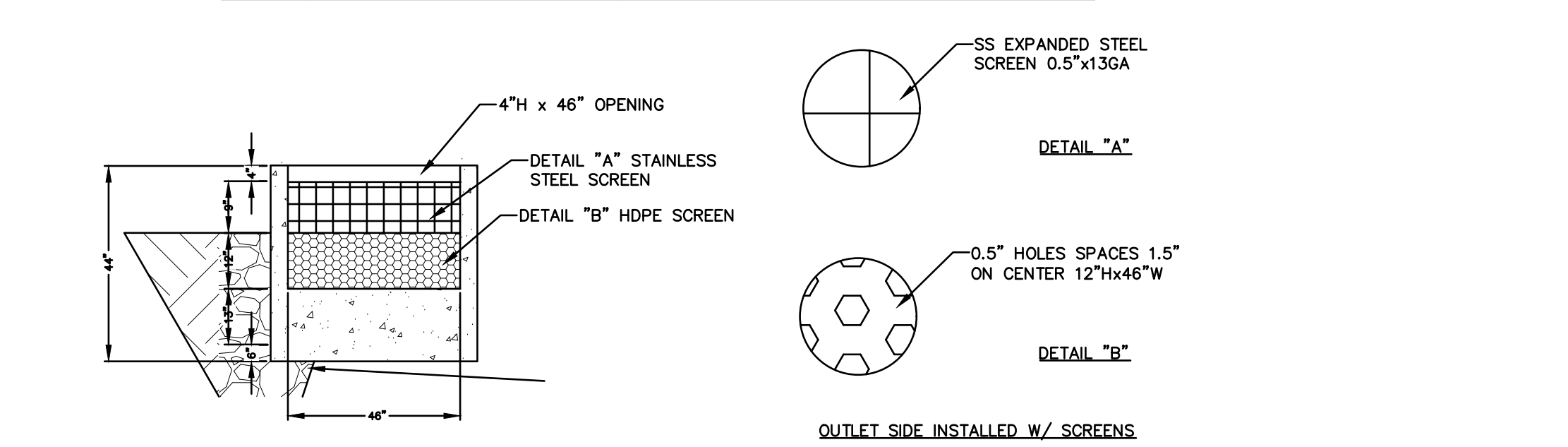
- NOTES:**
- ALL COMPONENT PARTS OF MANHOLE STRUCTURES SHALL HAVE THE STRENGTH, LEAK RESISTANCE AND SPACE NECESSARY FOR THE INTENDED SERVICE.
  - THERE IS NO NEARBY BASE FLOOD ELEVATION FOR THE PROJECT. SEE SHEET C2, NOTE 7.
  - MANHOLE STRUCTURES SHALL HAVE A LIFE EXPECTANCY OF AT LEAST 25 YEARS.
  - MANHOLE STRUCTURES SHALL BE DESIGNED TO WITHSTAND HS-20 LOADING AND SHALL NOT LEAK IN EXCESS OF ONE GPD PER VERTICAL FOOT OF MANHOLE FOR THE LIFE OF THE STRUCTURE.
  - BASE SECTIONS SHALL BE OF MONOLITHIC CONSTRUCTION TO A POINT AT LEAST 6 INCHES ABOVE THE CROWN OF THE INCOMING PIPE.
  - HORIZONTAL JOINTS BETWEEN SECTIONS OF PRECAST CONCRETE BARRELS SHALL BE OF AN OVERLAPPING TYPE SEALED FOR WATER TIGHTNESS USING A DOUBLE ROW OF AN ELASTOMERIC OR MASTIC-LIKE SEALANT.
  - PER NHDES ENV-WQ 704.13(C), MORTAR USED IN MANHOLE CONSTRUCTION SHALL COMPLY WITH THE FOLLOWING:
    - MORTAR SHALL BE COMPOSED OF TYPE II PORTLAND CEMENT AND SAND WITH OR WITHOUT HYDRATED LIME ADDITION
    - PROPORTIONS IN MORTAR OF PARTS BY VOLUMES SHALL BE PER TABLE 704-4:
 

A. 4.5 PARTS SAND AND 1.5 PARTS CEMENT; OR
B. 4.5 PARTS SAND, ONE PART CEMENT AND 0.5 PART HYDRATED LIME;
    - CEMENT SHALL BE TYPE II PORTLAND CEMENT THAT IS CERTIFIED BY ITS MANUFACTURER AS CONFORMING TO THE ASTM C150/C150M STANDARD IN EFFECT AT THE TIME THE CEMENT WAS MANUFACTURED
    - HYDRATED LIME SHALL BE TYPE S THAT IS CERTIFIED BY ITS MANUFACTURER AS CONFORMING TO THE ASTM C207 STANDARD IN EFFECT AT THE TIME THE HYDRATED LIME WAS PROCESSED
    - SAND SHALL CONSIST OF INERT NATURAL SAND THAT IS CERTIFIED BY ITS SUPPLIER AS CONFORMING TO THE ASTM C33 STANDARD IN EFFECT AT THE TIME THE SAND IS PROCESSED BY STANDARD SPECIFICATIONS FOR CONCRETE, FINE AGGREGATES
    - CONCRETE FOR DROP SUPPORTS SHALL CONFORM TO THE REQUIREMENT FOR CLASS AAA CONCRETE OF THE NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION'S STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AS AVAILABLE AT: [HTTP://WWW.NH.GOV/DO/ORG/PROJECTDEVELOPMENT/HIGHWAYDESIGN/SPECIFICATIONS/INDEX.HTM](http://www.nh.gov/dot/org/PROJECTDEVELOPMENT/HIGHWAYDESIGN/SPECIFICATIONS/INDEX.HTM)
  - ALL MANHOLES SHALL BE TESTED FOR LEAKAGE IN ACCORDANCE WITH ENV-WQ 704.17 (c) THROUGH (e). WET WELLS SHALL BE TESTED FOR LEAKAGE IN ACCORDANCE WITH ENV-WQ 705.02(i).
  - ALL PRECAST SECTIONS SHALL BE COATED ON THE EXTERIOR WITH A BITUMINOUS DAMP-PROOFING COATING IN ACCORDANCE WITH ENV-WQ 704.12 (J).
  - ALL PRECAST SECTIONS AND BASES SHALL HAVE THE DATE OF MANUFACTURE AND THE NAME OR TRADEMARK OF THE MANUFACTURER IMPRESSED OR INDELIBLY MARKED ON THE INSIDE WALL PER ENV-WQ 704.12(i).
  - ALL PRESSURE PVC PIPES TO CONFORM TO ASTM D2241 PER ENV-WQ 704.08(C), AS APPLICABLE.
  - PUMPS AND ELECTRICAL COMPONENTS IN THE WET WELL SHALL BE DESIGNED FOR CLASS I DIVISION 1 LOCATIONS.
  - PUMP CONTROL PANEL TO HAVE INDIVIDUAL PUMP RUN METERS.
  - PUMP STATION ALARM CONDITIONS
    - HIGH WATER ALARM
    - LOW WATER ALARM
    - PHASE LOSS
  - WITHIN 60 DAYS OF SUBSTANTIAL PROJECT COMPLETION AND A FINAL OWNER/OPERATOR IS DETERMINED, THE ENGINEER WILL SUBMIT AN EMERGENCY OPERATIONS PLAN AND PROCEDURES PER ENV-WQ 705.10.
  - A PERMANENT GENERATOR FOR BACK-UP POWER SUPPLY TO BE INSTALLED.
  - SHOP DRAWINGS MUST BE SUBMITTED TO PORTSMOUTH DPW AND THE PROJECT'S THIRD PARTY INSPECTOR FOR REVIEW.



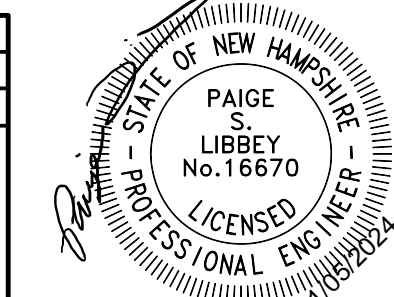
**PRETX-CURB ELEVATION GUIDE**

POINT	DESCRIPTION	HEIGHT IN REFERENCE TO PT. A
A	EDGE OF PAVEMENT	0 INCHES
B	OUTSIDE TOP SLAB	8 INCHES
C	TOP OF BIORETENTION	12 INCHES
D	SUMP INVERT	36 INCHES
E	OUTSIDE BOTTOM	42 INCHES



**PRETX CURB INLET PRE-TREATMENT DETAIL**  
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Plan Name: **DETAIL SHEET**

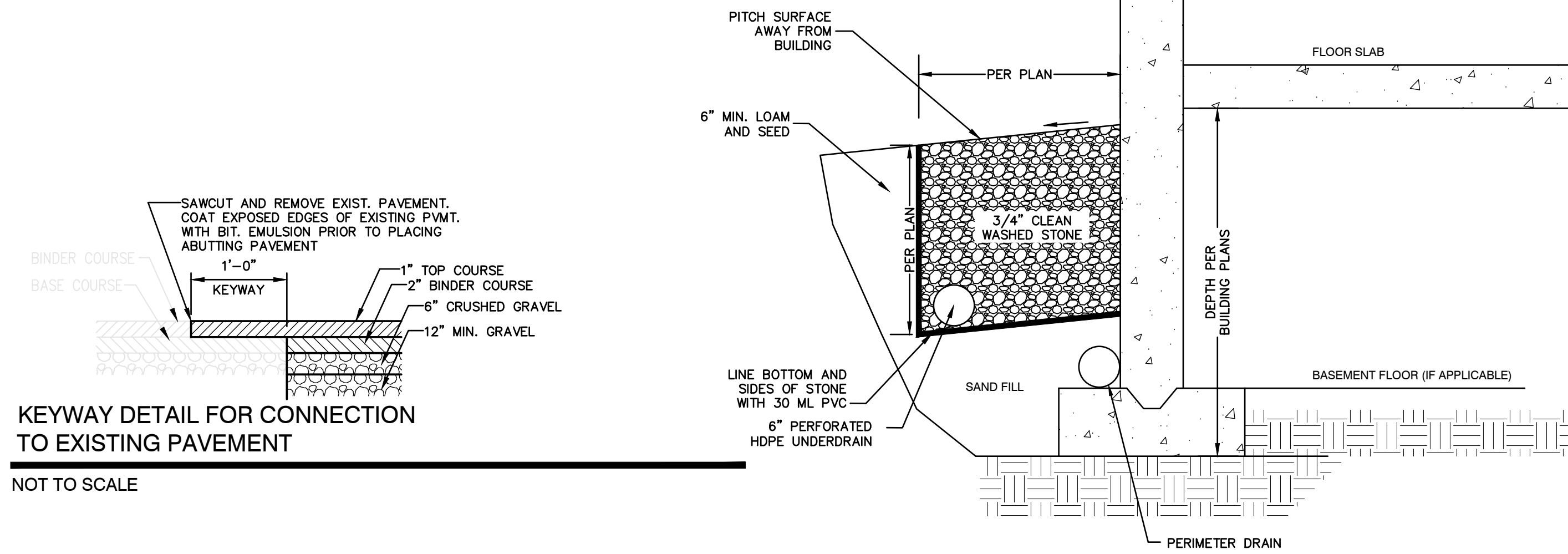
Project: **"LILAC PLACE"**  
**76 PORTSMOUTH AVE, EXETER, NH**

Owner of Record: **RAP REALTY MANCHESTER LLC**  
**50 ATLANTIC AVE, SEABROOK, NH**

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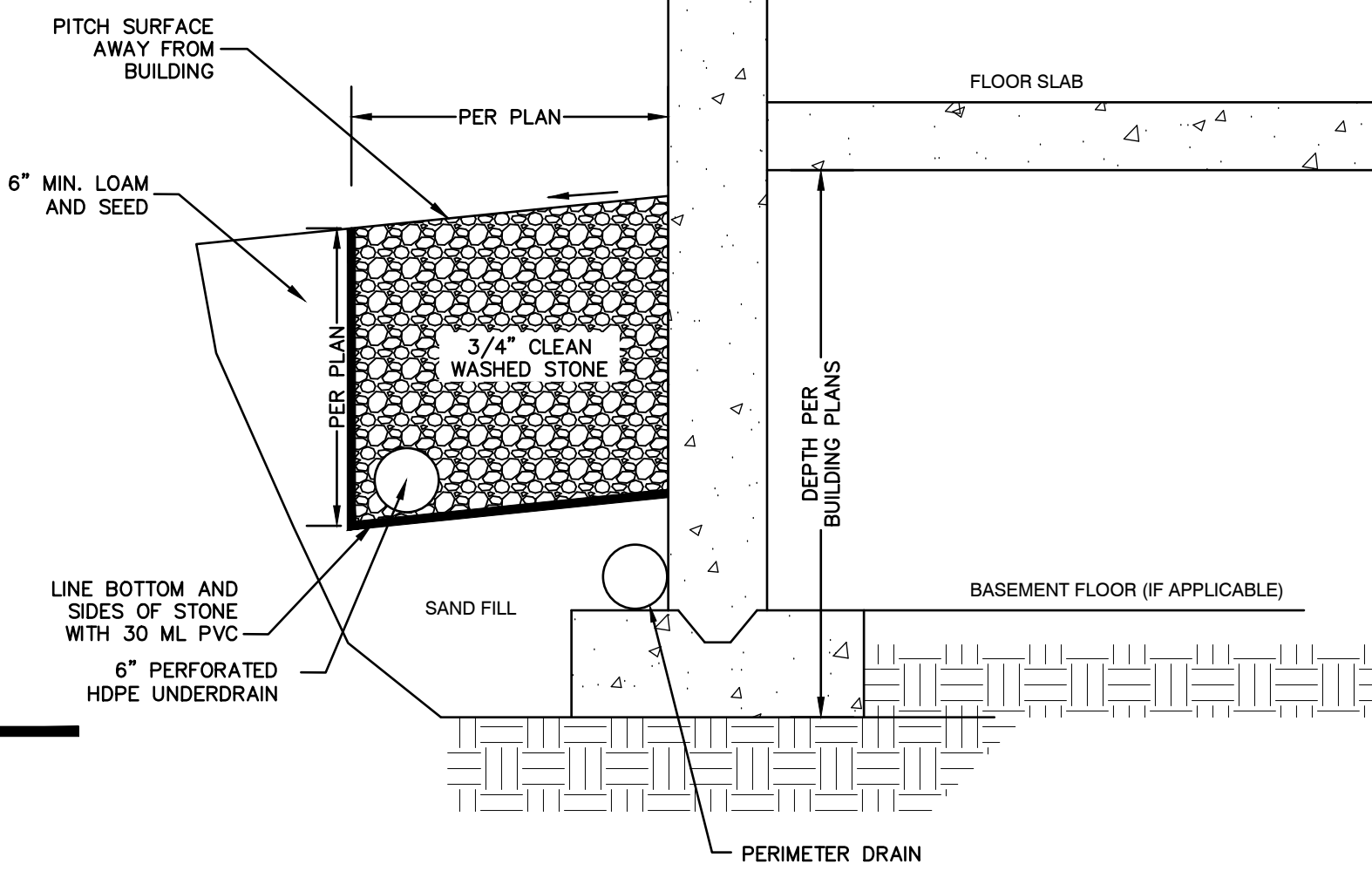
SHEET 14 OF 20  
JBE PROJECT NO. 24029





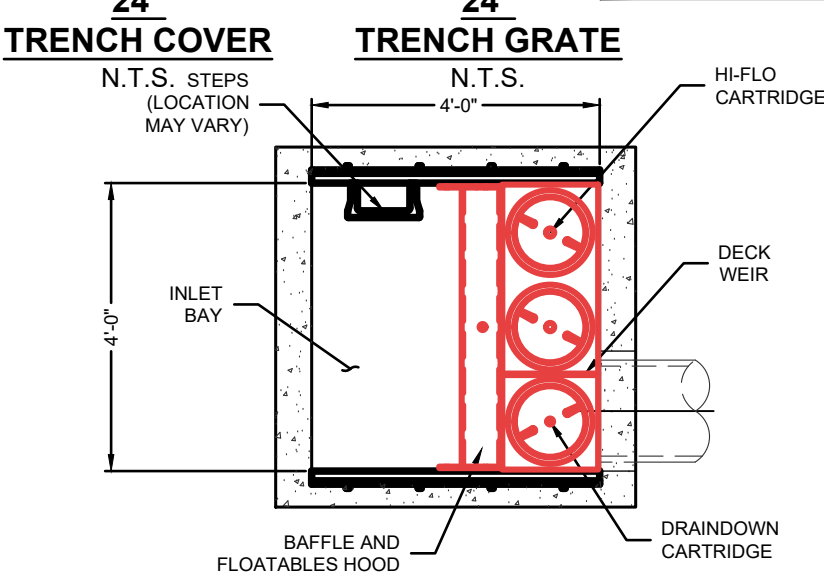
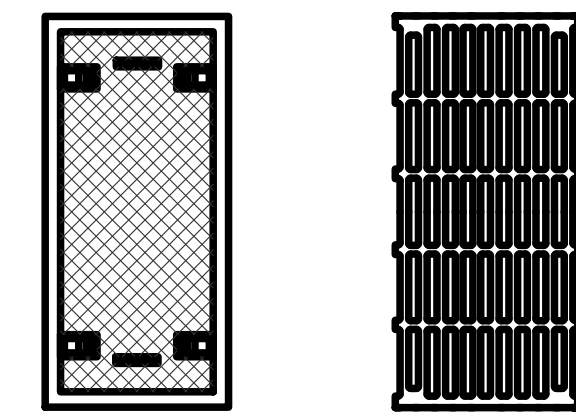
**KEYWAY DETAIL FOR CONNECTION TO EXISTING PAVEMENT**

NOT TO SCALE

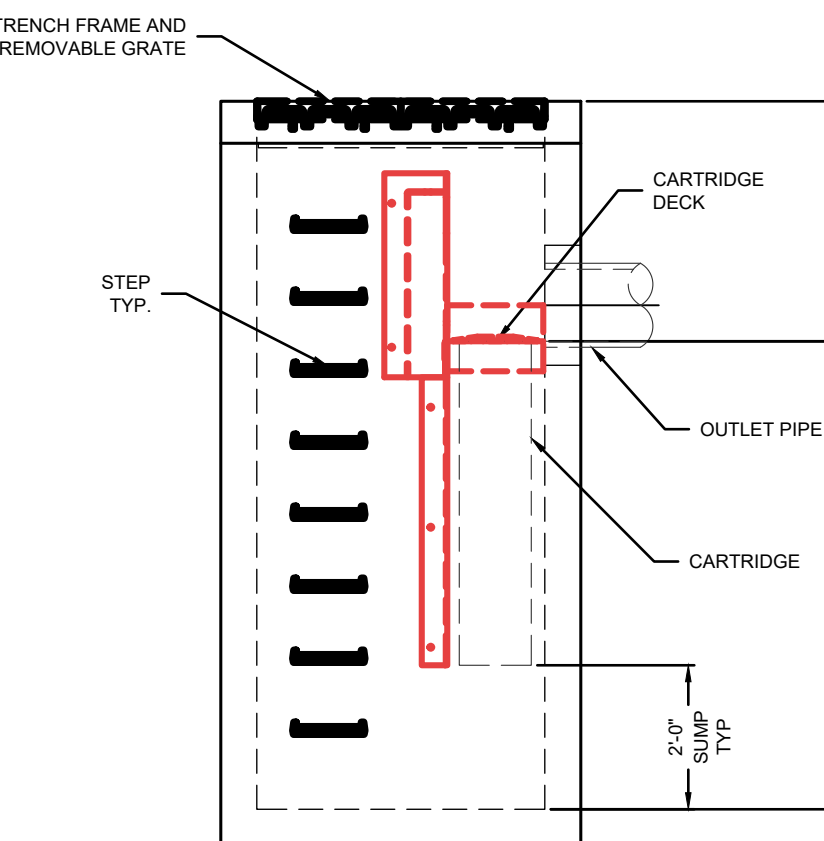


**LINED STONE DRIP EDGE DETAIL**

NOT TO SCALE



**PLAN VIEW**  
(TOP SLAB NOT SHOWN FOR CLARITY)



**ELEVATION VIEW**

**CONTECH "JELLYFISH" JFSI0404 - SURFACE INLET CONFIGURATION DETAIL**

NOT TO SCALE

**JELLYFISH DESIGN NOTES**

JELLYFISH TREATMENT CAPACITY IS A FUNCTION OF THE CARTRIDGE LENGTH AND THE NUMBER OF CARTRIDGES. THE STANDARD SURFACE INLET STYLE WITH TRENCH GRATE AND COVER IS SHOWN. ALTERNATE CURB INLET OR PIPE INLET OPTIONS ARE AVAILABLE. PEAK CONVEYANCE CAPACITY TO BE DETERMINED BY ENGINEER OF RECORD.

CARTRIDGE SELECTION	64"	40"	27"	15"
CARTRIDGE LENGTH	64"	40"	27"	15"
OUTLET INVERT TO STRUCTURE INVERT (A)	6'-6"	5'-4"	4'-3"	3'-3"
FLOW RATE HIGH-FLO / DRAINDOWN (CFS) (PER CART)	0.178 / 0.089	0.133 / 0.067	0.089 / 0.045	0.049 / 0.025
MAX. TREATMENT (CFS)	0.45	0.33	0.22	0.12
OUTLET INVERT TO RIM (MIN) (B)	3'-4"	3'-4"	3'-4"	3'-4"

**SITE SPECIFIC DATA REQUIREMENTS**

STRUCTURE ID	#1	#2
WATER QUALITY FLOW RATE (cfs)	0.22	0.21
PEAK FLOW RATE (cfs)	1.91	1.74
RETURN PERIOD OF PEAK FLOW (yrs)	50	50
# OF CARTRIDGES REQUIRED (HF / DD)	2/1	2/1
CARTRIDGE LENGTH	27"	27"

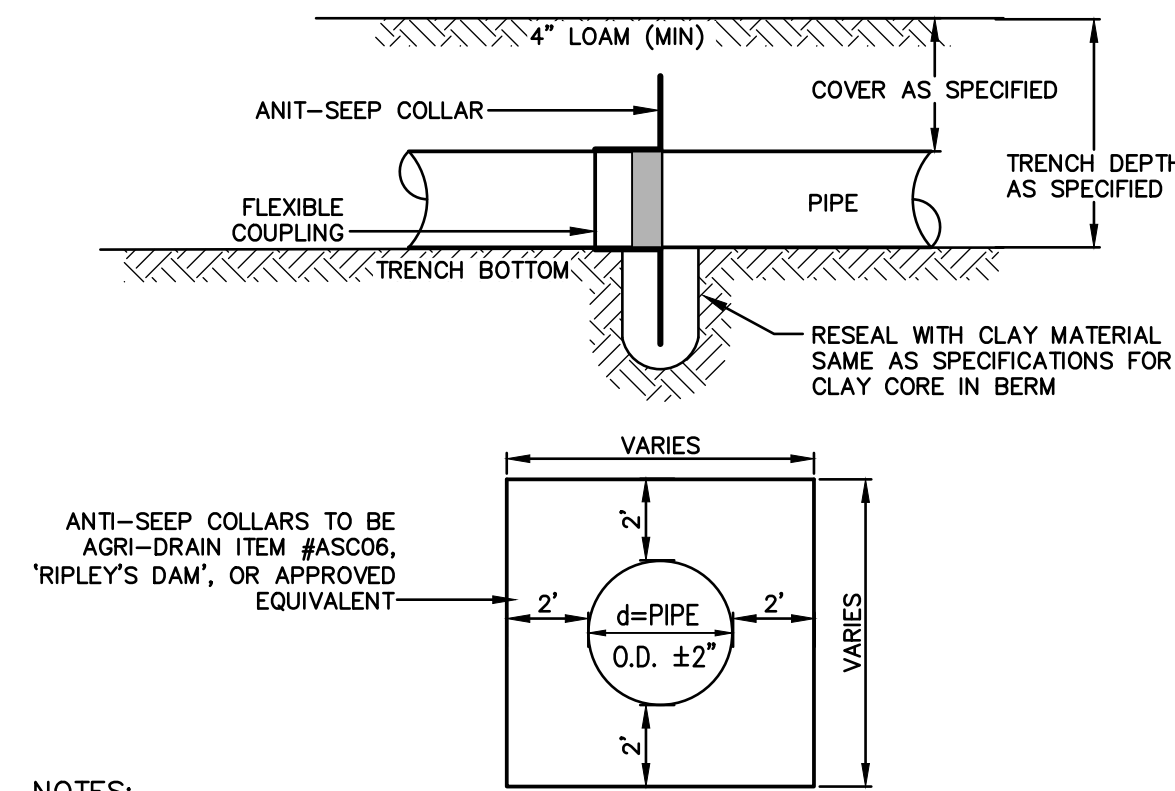
PIPE DATA: SEE GRADING AND DRAINAGE PLAN  
SEE GENERAL NOTES 6-7 FOR INLET AND OUTLET HYDRAULIC AND SIZING REQUIREMENTS.

RIM ELEVATION	SEE PLAN
---------------	----------

NOTES/SPECIAL REQUIREMENTS:  
\* PER ENGINEER OF RECORD

- GENERAL NOTES:**
- CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
  - FOR SITE SPECIFIC DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHT, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS REPRESENTATIVE.
  - JELLYFISH WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING. CONTRACTOR TO CONFIRM STRUCTURE MEETS REQUIREMENTS OF PROJECT.
  - STRUCTURE SHALL MEET AASHTO HS-20 OR PER APPROVING JURISDICTION REQUIREMENTS, WHICHEVER IS MORE STRINGENT, ASSUMING EARTH COVER OF 0' AND GROUNDWATER ELEVATION AT OR BELOW THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION. CASTINGS SHALL MEET AASHTO M308 LOAD RATING AND BE CAST WITH THE CONTECH LOGO.
  - STRUCTURE SHALL BE PRECAST CONCRETE CONFORMING TO ASTM C-857, ASTM C-918, AND AASHTO LOAD FACTOR DESIGN METHOD.
  - OUTLET PIPE INVERT IS EQUAL TO THE CARTRIDGE DECK ELEVATION.
  - THE OUTLET PIPE DIAMETER FOR NEW INSTALLATIONS IS RECOMMENDED TO BE ONE PIPE SIZE LARGER THAN THE INLET PIPE (WHERE APPLICABLE) AT EQUAL OR GREATER SLOPE.
  - NO PRODUCT SUBSTITUTIONS SHALL BE ACCEPTED UNLESS SUBMITTED 10 DAYS PRIOR TO PROJECT BID DATE, OR AS DIRECTED BY THE ENGINEER OF RECORD.

- INSTALLATION NOTES**
- ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
  - CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE STRUCTURE.
  - CONTRACTOR WILL INSTALL AND LEVEL THE STRUCTURE, SEALING THE JOINTS, LINE ENTRY AND EXIT POINTS (NON-SHRINK GROUT WITH APPROVED WATERSTOP OR FLEXIBLE BOOT).
  - CARTRIDGE INSTALLATION, BY CONTECH, SHALL OCCUR ONLY AFTER SITE HAS BEEN STABILIZED AND THE JELLYFISH UNIT IS CLEAN AND FREE OF DEBRIS. CONTACT CONTECH TO COORDINATE CARTRIDGE INSTALLATION WITH SITE STABILIZATION.

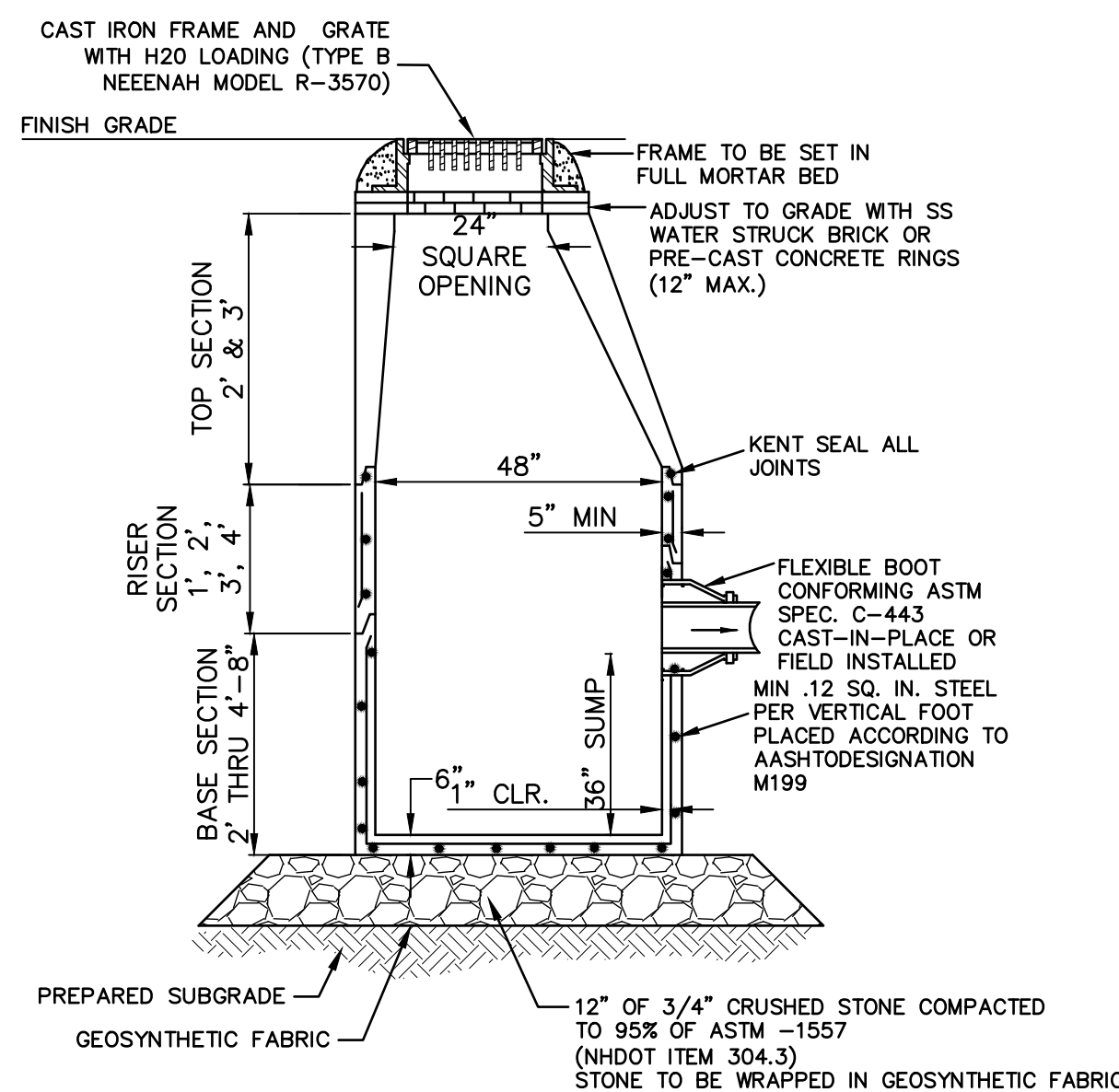
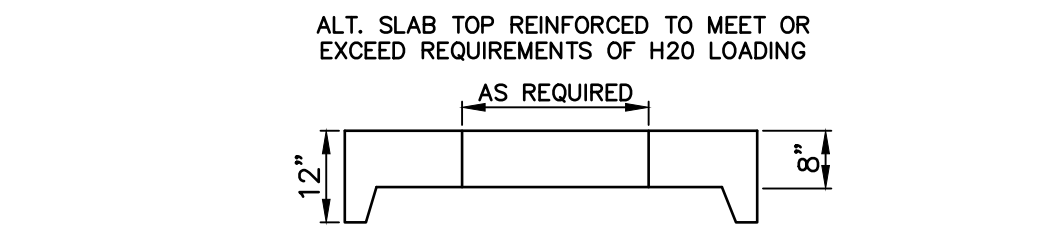


**ANTI-SEEP COLLAR**

- NOTES:
- CONTRACTOR SHALL INSTALL COLLAR(S) PER MANUFACTURER'S SPECIFICATIONS.
  - CONTRACTOR SHALL ENSURE A WATERTIGHT SEAL BETWEEN THE COLLAR(S) AND PIPE(S).
  - ANTI-SEEP COLLARS SHALL BE PLACED ±15' AND ±25' DOWNSTREAM OF THE CULVERT INLETS, UNLESS OTHERWISE SPECIFIED. WHEN A CLAY CORE IS SPECIFIED, A COLLAR SHALL BE INSTALLED ON BOTH SIDES OF THE CORE.

**ANTI-SEEP COLLAR**

NOT TO SCALE

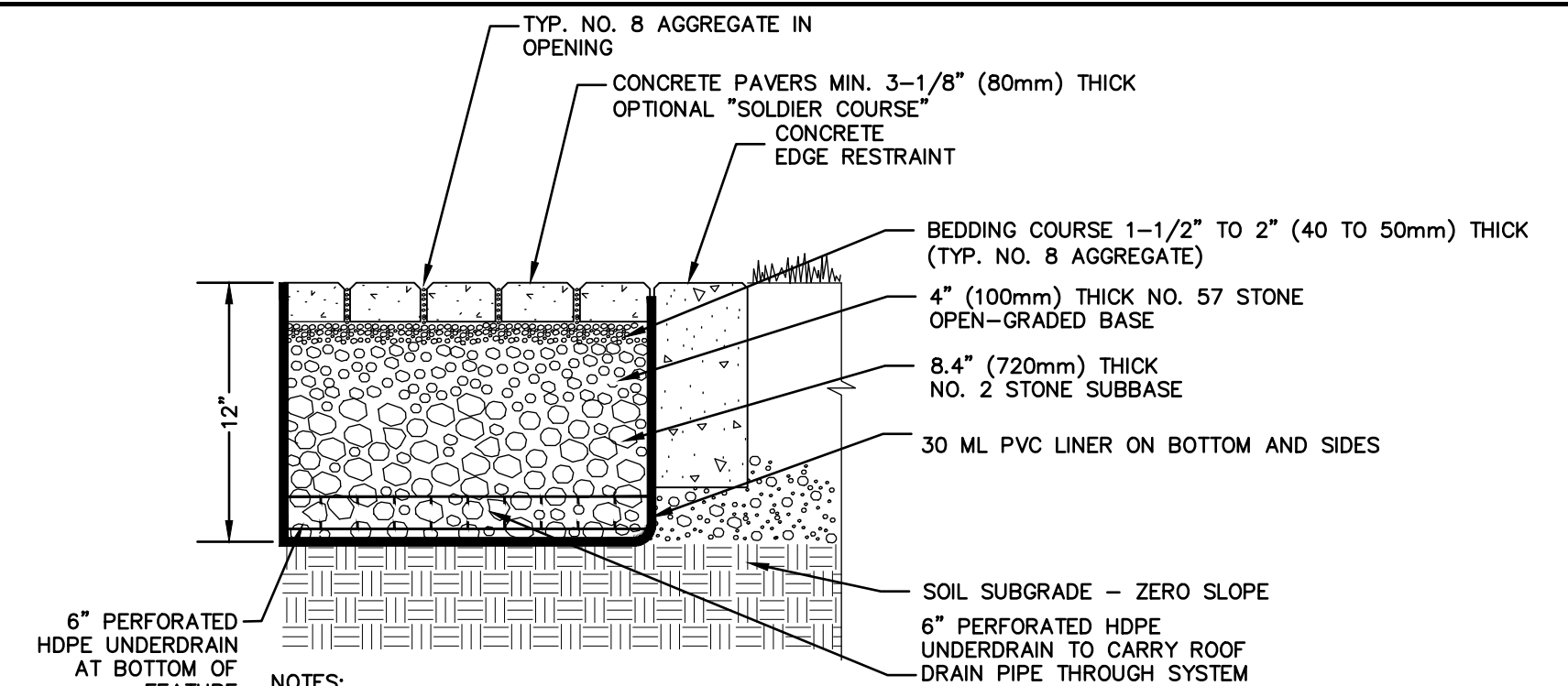


**CATCH BASIN**

- NOTES:
- BASE SECTION SHALL BE MONOLITHIC WITH 48" INSIDE DIAMETER.
  - ALL SECTIONS SHALL BE DESIGNED FOR H2O LOADING.
  - CONCRETE SHALL BE COMPRESSIVE STRENGTH 4000 PSI, TYPE II CEMENT.
  - FRAMES AND GRATES SHALL BE HEAVY DUTY AND DESIGNED FOR H2O LOADING.
  - PROVIDE "V" KNOCKOUTS FOR PIPES WITH 2" MAX. CLEARANCE TO OUTSIDE OF PIPE. MORTAR ALL PIPE CONNECTIONS SO AS TO BE WATERTIGHT.
  - JOINT SEALANT BETWEEN PRECAST SECTIONS SHALL BE BUTYL RUBBER.
  - ALL CATCH BASIN FRAMES AND GRATES SHALL BE NHDOT CATCH BASIN TYPE ALTERNATE 1 OR NEEHAH R-3570 OR APPROVED EQUAL (24"x24" TYPICAL).
  - STANDARD CATCH BASIN FRAME AND GRATE(S) SHALL BE SET IN FULL MORTAR BED. ADJUST TO GRADE WITH CLAY BRICK AND MORTAR (2 BRICK COURSES TYPICALLY; 5 BRICK COURSES MAXIMUM, BUT NO MORE THAN 12") OR PRECAST CONCRETE "DONUTS".

**CATCH BASIN**

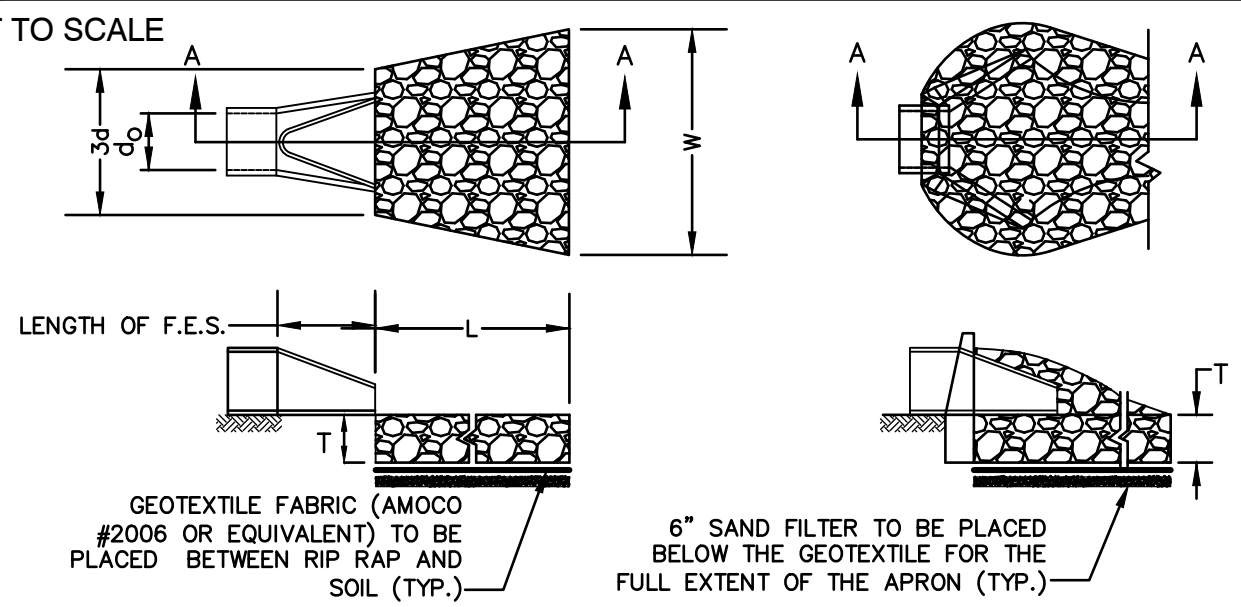
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- NOTES:
- 2 3/8" (60 MM) THICK PAVERS MAY BE USED IN PEDESTRIAN APPLICATIONS.
  - NO. 2 STONE SUBBASE THICKNESS VARIES WITH DESIGN. CONSULT ICPI PERMEABLE INTERLOCKING CONCRETE PAVEMENT MANUAL.
  - INSTALLATION TO BE PERFORMED TO MANUFACTURER'S GUIDELINES AND THE PERMEABLE INTERLOCKING CONCRETE PAVEMENT SPECIFICATIONS.
  - THIS DETAIL IS FOR ECO-PAVERS FOR CONSTRUCTION WHERE SHOWN ON SHEET C2. SEE ALSO STANDARD PAVER DETAIL ON SHEET D4.

**PERMEABLE CONCRETE PAVER DETAIL ("ECO-PAVER")**

NOT TO SCALE



**SECTION A-A**  
PIPE OUTLET TO FLAT AREA WITH NO DEFINED CHANNEL

**SECTION A-A**  
PIPE OUTLET TO WELL-DEFINED CHANNEL

**TABLE 7-24--RECOMMENDED RIP RAP GRADATION RANGES**

THICKNESS OF RIP RAP = 0.75 FEET

d50 SIZE=	0.25 FEET	3 INCHES
% OF WEIGHT SMALLER THAN THE GIVEN d50 SIZE	SIZE OF STONE (INCHES) FROM	TO
100%	5	6
85%	4	5
50%	3	5
15%	1	2

**TABLE 7-24--RECOMMENDED RIP RAP GRADATION RANGES**

THICKNESS OF RIP RAP = 1.5 FEET

d50 SIZE=	0.5 FEET	6 INCHES
% OF WEIGHT SMALLER THAN THE GIVEN d50 SIZE	SIZE OF STONE (INCHES) FROM	TO
100%	9	12
85%	8	11
50%	6	9
15%	2	3

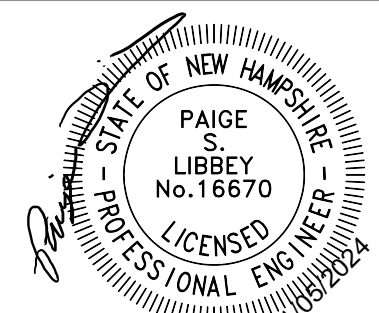
**NOTES:**

- THE SUBGRADE FOR THE GEOTEXTILE FABRIC AND RIP RAP SHALL BE PREPARED TO THE LINES AND GRADES SHOWN ON THE PLANS.
- THE RIP RAP SHALL CONFORM TO THE SPECIFIED GRADATION.
- GEOTEXTILE FABRICS SHALL BE PROTECTED FROM PUNCTURE OR TEARING DURING THE PLACEMENT OF THE ROCK RIP. DAMAGED AREAS IN THE FABRIC SHALL BE REPAIRED BY PLACING A PIECE OF FABRIC OVER THE DAMAGED AREA OR BY COMPLETE REPLACEMENT OF THE FABRIC. ALL OVERLAPS REQUIRED FOR REPAIRS OR JOINING TWO PIECES OF FABRIC SHALL BE A MINIMUM OF 12 INCHES.
- STONE FOR THE RIP RAP MAY BE PLACED BY EQUIPMENT AND SHALL BE CONSTRUCTED TO THE FULL LAYER THICKNESS IN ONE OPERATION AND IN SUCH A MANNER AS TO PREVENT SEGREGATION OF THE STONE SIZES.
- OUTLETS TO A DEFINED CHANNEL SHALL HAVE 2:1 OR FLATTER SIDE SLOPES AND SHOULD BEGIN AT THE TOP OF THE CULVERT AND TAPER DOWN TO THE CHANNEL BOTTOM THROUGH THE LENGTH OF THE APRON.
- MAINTENANCE:** THE OUTLET PROTECTION SHOULD BE CHECKED AT LEAST ANNUALLY AND AFTER EVERY MAJOR STORM. IF THE RIP RAP HAS BEEN DISPLACED, UNDERMINED OR DAMAGED, IT SHOULD BE REPAIRED IMMEDIATELY. THE CHANNEL IMMEDIATELY BELOW THE OUTLET SHOULD BE CHECKED TO SEE THAT EROSION IS NOT OCCURRING. THE DOWNSTREAM CHANNEL SHOULD BE KEPT CLEAR OF OBSTRUCTIONS SUCH AS FALLEN TREES, DEBRIS, AND SEDIMENT THAT COULD CHANGE FLOW PATTERNS AND/OR TAILWATER DEPTHS ON THE PIPES. REPAIRS MUST BE CARRIED OUT IMMEDIATELY TO AVOID ADDITIONAL DAMAGE TO OUTLET PROTECTION.

**RIP RAP OUTLET PROTECTION APRON**

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DRAWING No.	<b>D4</b>
SHEET 15 OF 20	JBE PROJECT NO. 24029



CONTRACTOR ORDER SCHEDULE					
	FLOW-THROUGH HOLES ON ALL SIDES	NO FLOW-THROUGH HOLES ON ONE 8' SIDE	NO FLOW-THROUGH HOLES ON ONE 14' SIDE	NO FLOW-THROUGH HOLES ON ONE 8' AND ONE 14' SIDE	NO FLOW-THROUGH HOLES ON TWO 8' AND ONE 14' SIDE
SYSTEM A	0	2	2	5	0
SYSTEM B	0	0	2	4	0
SYSTEM C	10	24	12	6	0
SYSTEM D	1	6	1	3	1

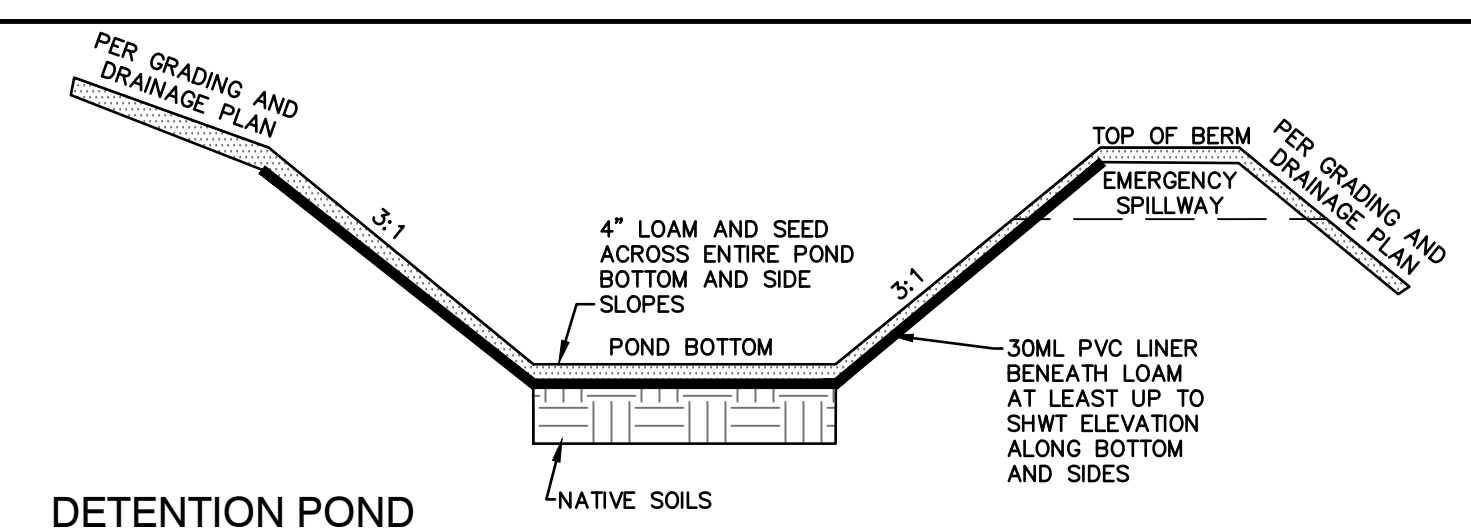
ELEVATION SCHEDULE						
	EL. A	EL. B	EL. C	EL. D	EL. E	F (HEIGHT)
SYSTEM A	>34.5 (LOAM) >35.4 (PAVED)	33.67	33.0	28.0	27.0	5.67'
SYSTEM B	>28.75	27.92	27.25	23.25	22.25	4.67'
SYSTEM C	>37.25	36.92	36.25	32.25	31.25	4.67'
SYSTEM D	>33.1	29.67	29.00	26.00	25.00	3.67'

**STONE BACKFILL SPECIFICATION**

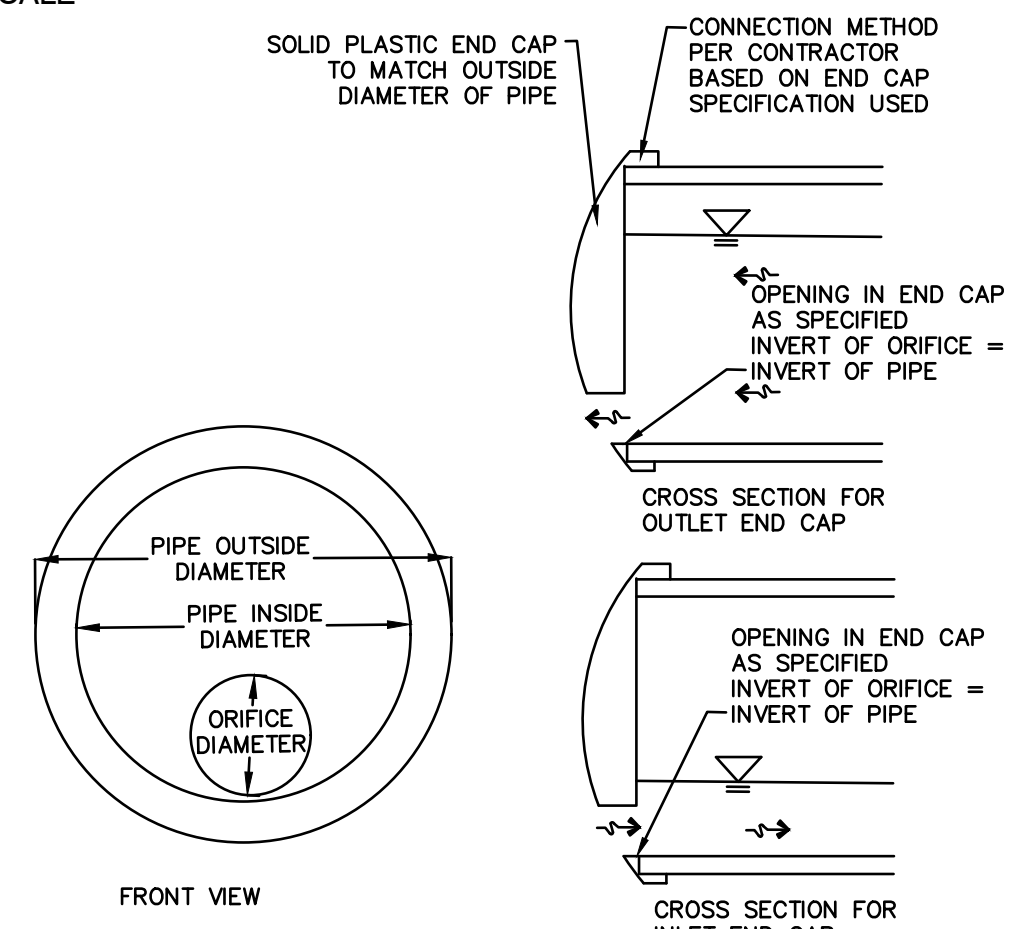
SIEVE SIZE	% BY WEIGHT
100	100
90-100	90-100
40-90	40-90
23-49	23-49
2-8	2-8

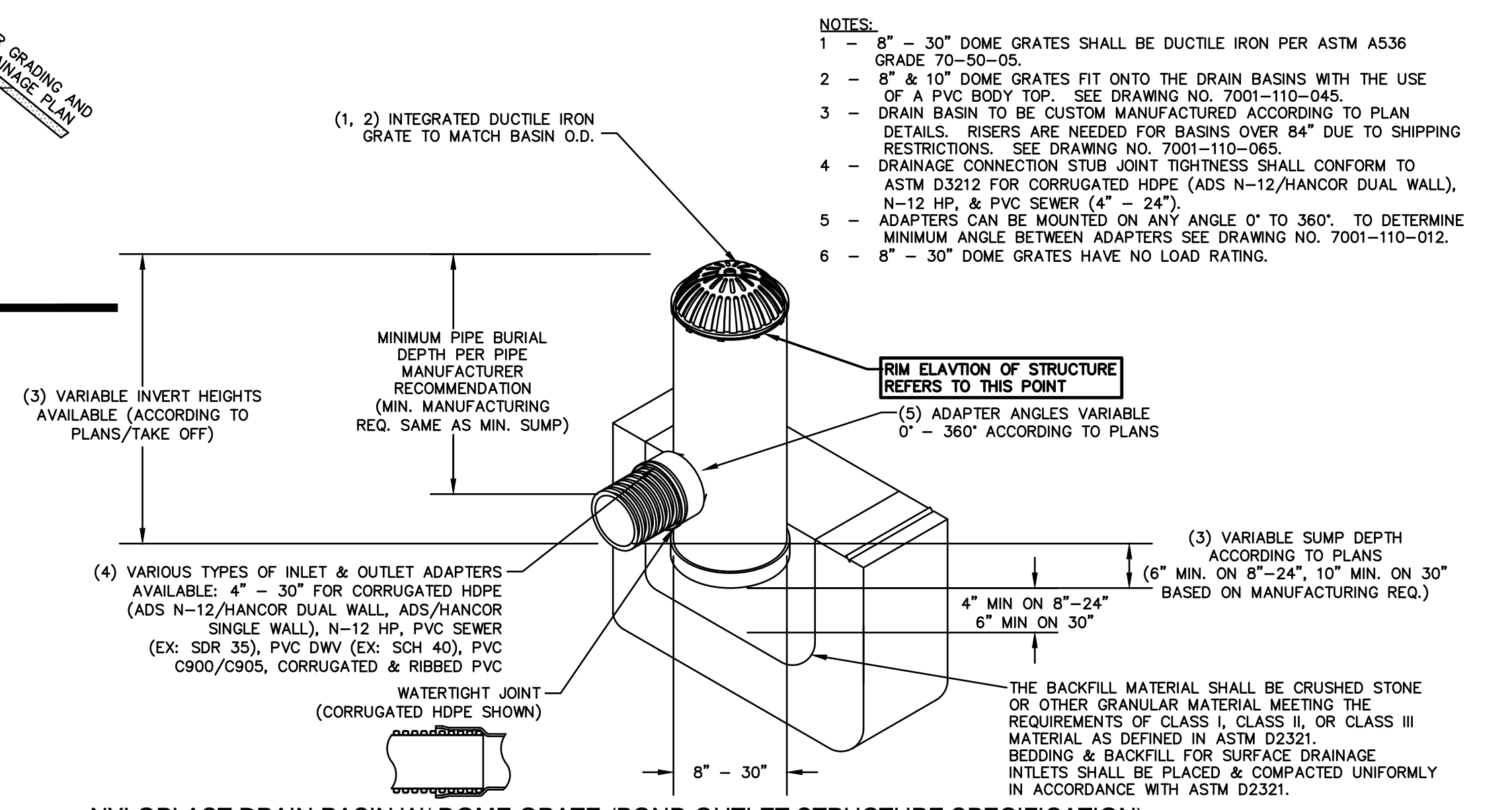
HEIGHT(H)	VOLUME(EA)	WEIGHT
3'-8"	300CF	16,600#
4'-8"	400CF	18,300#
5'-8"	500CF	20,000#



**DETENTION POND**  
NOT TO SCALE

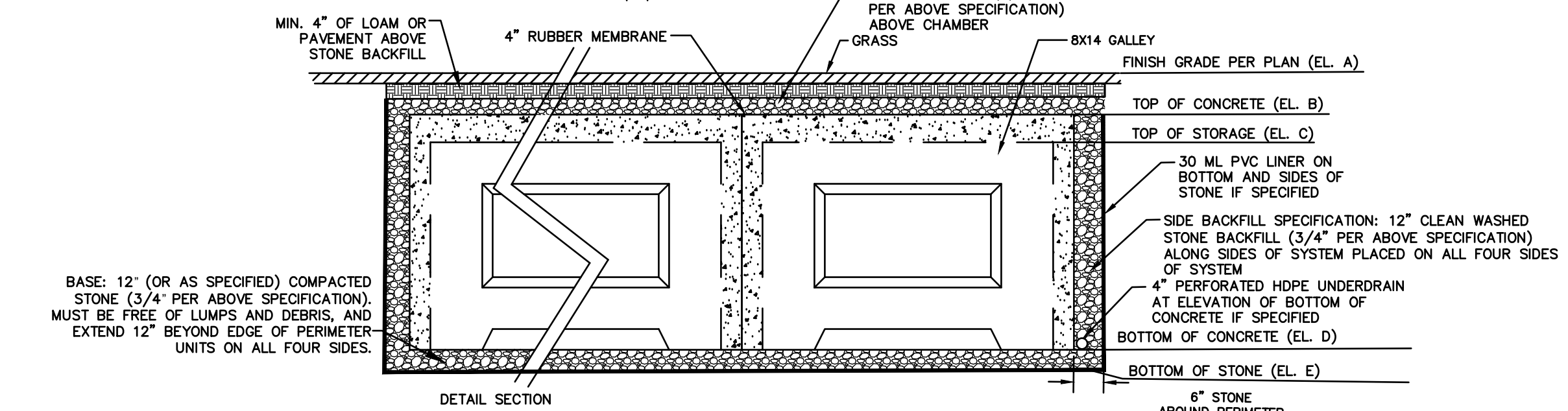
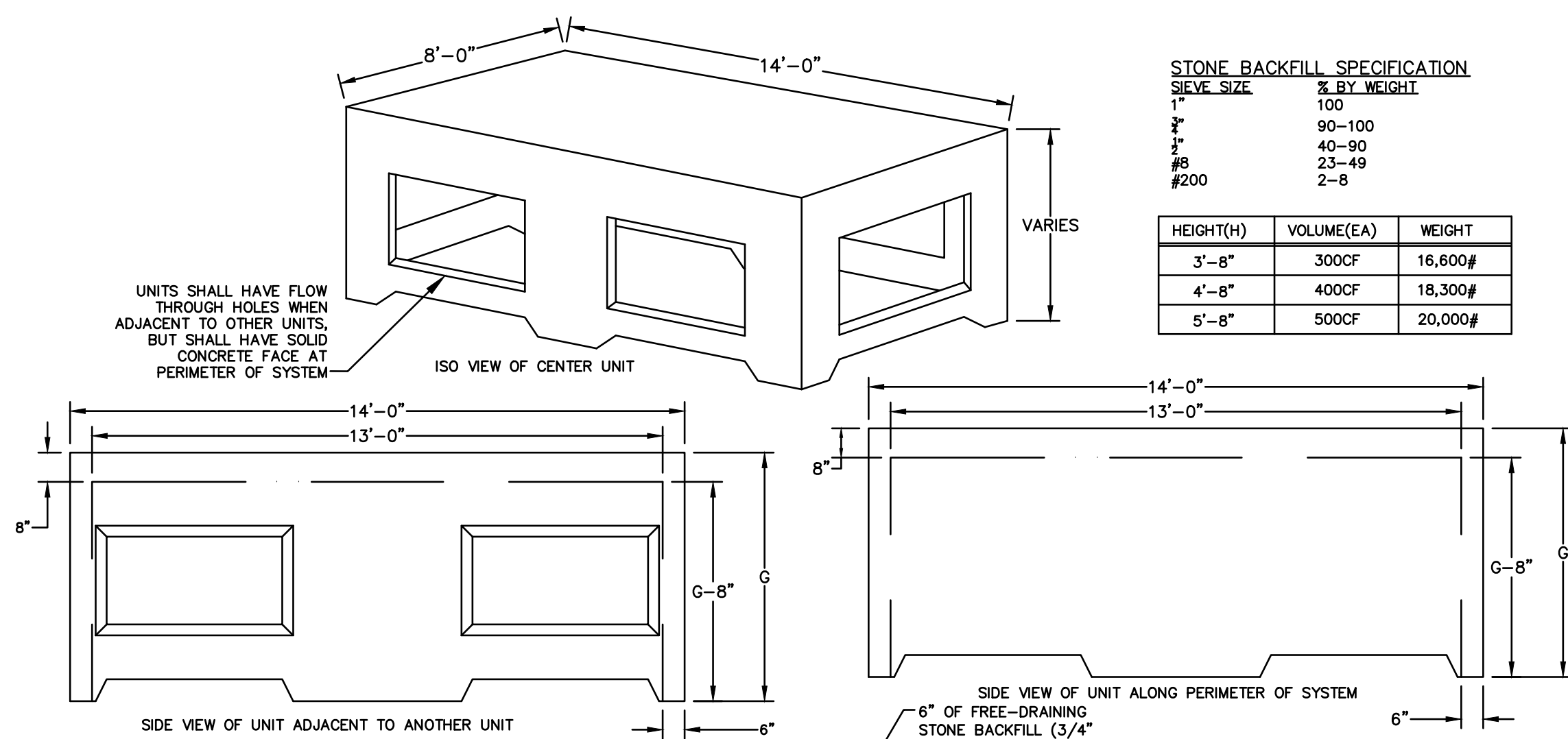


**PIPE END CAP WITH ORIFICE**  
NOT TO SCALE



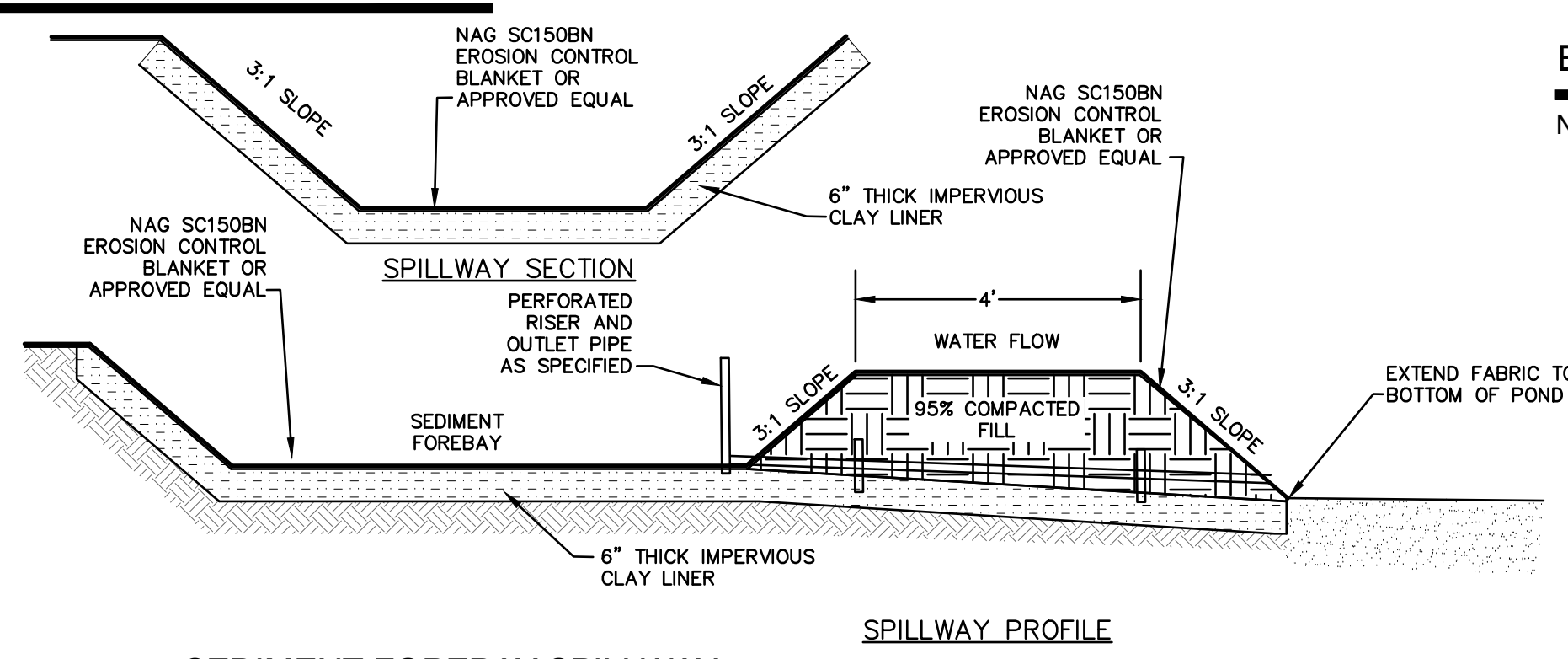
**NYLOPLAST DRAIN BASIN W/ DOME GRATE (POND OUTLET STRUCTURE SPECIFICATION)**  
NOT TO SCALE

BIORETENTION SYSTEM ELEVATIONS							
RAIN GARDEN	SIZE OF BOTTOM	ELEV. A	ELEV. B	ELEV. C	ELEV. D	ELEV. E	ELEV. F
1	926 S.F.	34.50	31.50	31.25	29.75	29.50	28.75
2	490 S.F.	35.50	34.50	34.25	32.75	32.50	31.75
3	238 S.F.	33.00	30.00	29.75	28.25	28.00	27.25

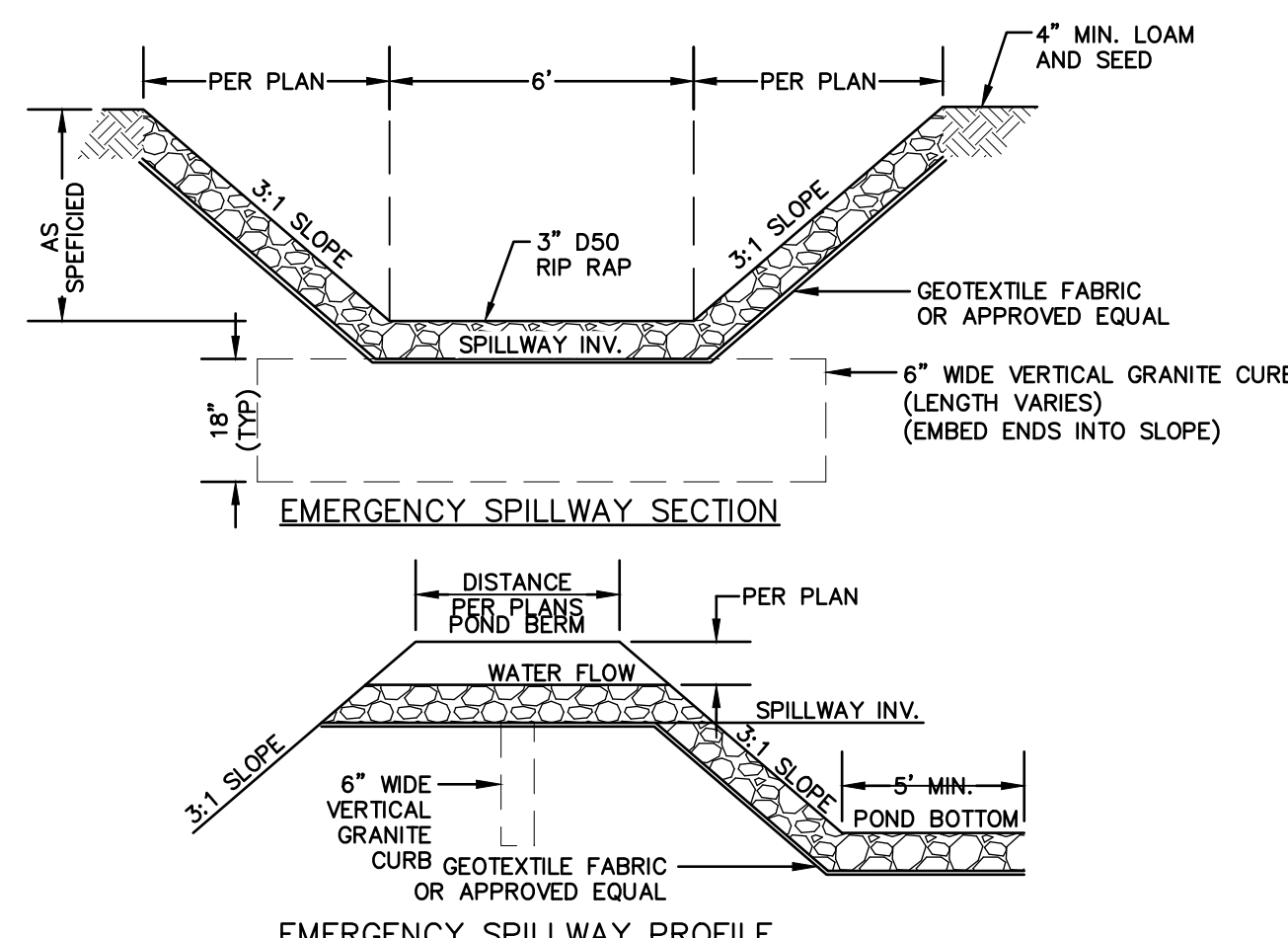


- NOTES:**
1. CONCRETE: 5,000 PSI MINIMUM AFTER 28 DAYS.
  2. DESIGNED FOR AASHTO HS-20 LOAD, 0 TO 5 FT COVER. CAN BE DESIGNED FOR ADDITIONAL COVER IF REQUIRED.
  3. STANDARD SLAB DESIGN WITHSTANDS 40KIP OUTRIGGER LOAD ON A 24\"/>

**SHEA CONCRETE PRODUCTS "GALLEY 8x14"**  
NOT TO SCALE

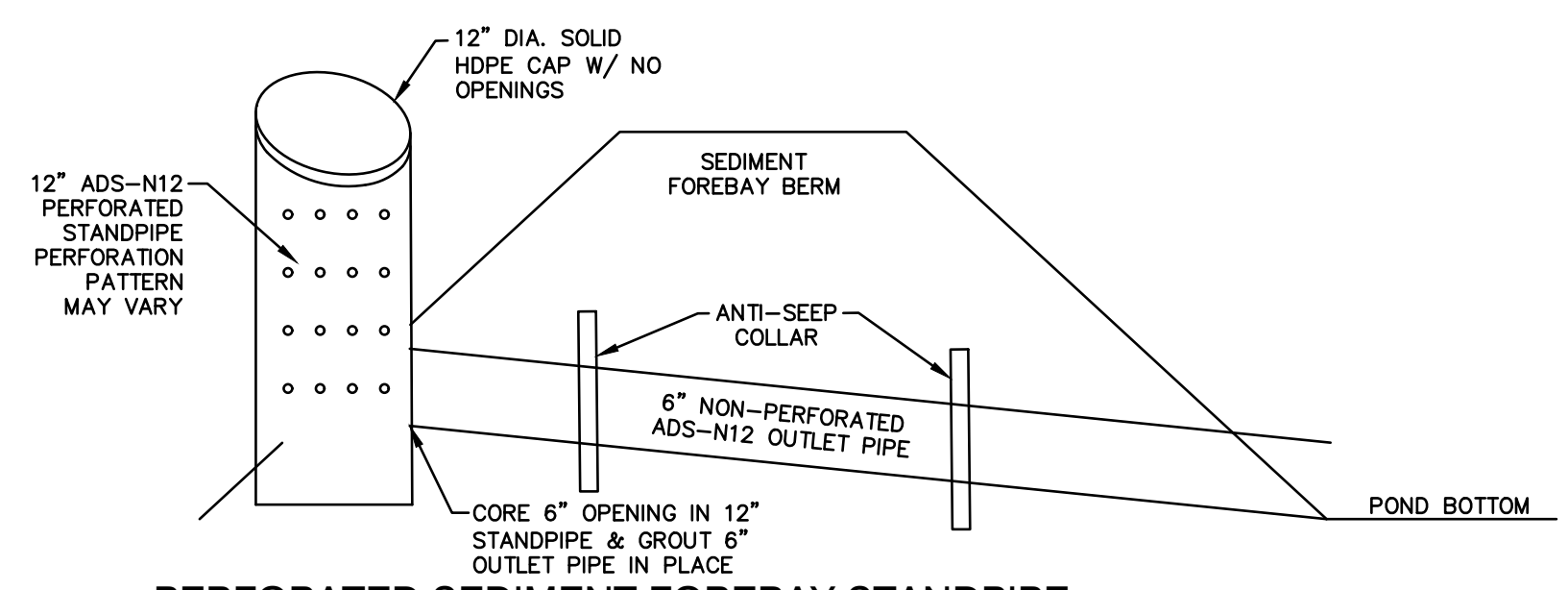


**SEDIMENT FOREBAY SPILLWAY**  
NOT TO SCALE

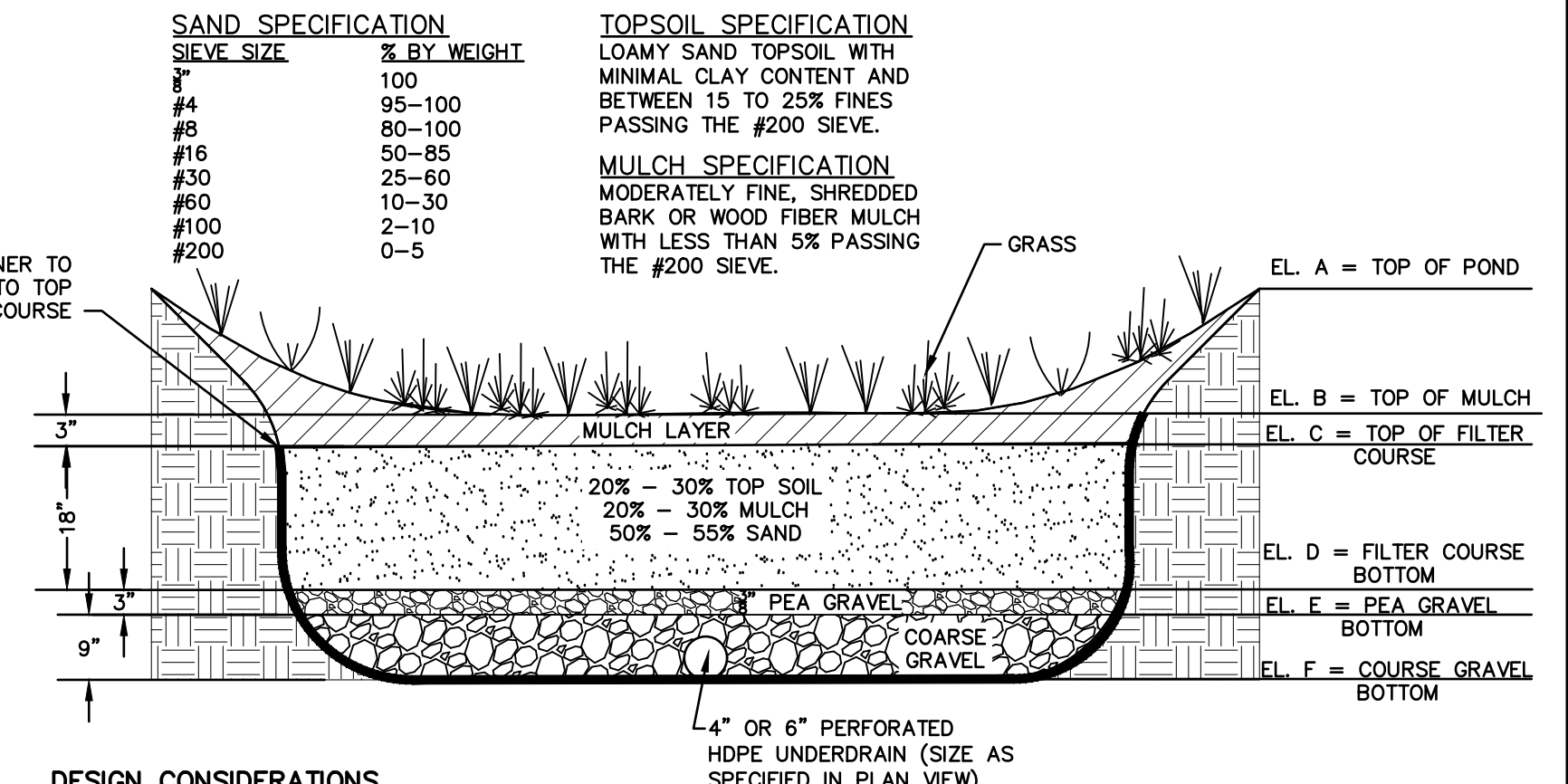


**EMERGENCY SPILLWAY PROFILE**  
SPILLWAY ELEVATION NOTED ON GRADING AND DRAINAGE PLAN REFERS TO BOTTOM OF RIP RAP.

**EMERGENCY SPILLWAY**  
NOT TO SCALE



**PERFORATED SEDIMENT FOREBAY STANDPIPE**  
NOT TO SCALE



**DESIGN CONSIDERATIONS**

1. DO NOT DIRECT RUNOFF TO THE BIORETENTION SYSTEMS UNTIL IT HAS BEEN SEEDDED AND ITS CONTRIBUTING AREAS HAVE BEEN FULLY STABILIZED.
2. DO NOT DISCHARGE SEDIMENT-LADEN WATERS FROM CONSTRUCTION ACTIVITIES (RUN-OFF, WATER FROM EXCAVATIONS) TO THE BIORETENTION AREA DURING ANY STAGE OF CONSTRUCTION.
3. DO NOT TRAFFIC EXPOSED SOIL SURFACE WITH CONSTRUCTION EQUIPMENT. IF FEASIBLE, PERFORM EXCAVATIONS WITH EQUIPMENT OUTSIDE THE LIMITS OF THE INFILTRATION COMPONENTS OF THE SYSTEM.

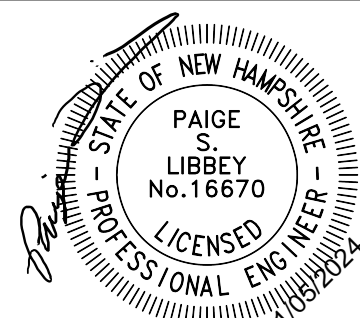
**MAINTENANCE REQUIREMENTS:**

1. SYSTEMS SHALL BE INSPECTED AT LEAST TWICE ANNUALLY, AND FOLLOWING ANY RAINFALL EVENT EXCEEDING 2.5 INCHES IN A 24 HOUR PERIOD, WITH MAINTENANCE OR REHABILITATION CONDUCTED AS WARRANTED BY SUCH INSPECTION.
2. PRETREATMENT MEASURES (SEDIMENT FOREBAY OR PRE-TX) SHALL BE INSPECTED AT LEAST TWICE ANNUALLY, AND CLEANED OF ACCUMULATED SEDIMENT AS WARRANTED BY INSPECTION, BUT NO LESS THAN ONCE ANNUALLY.
3. TRASH AND DEBRIS SHALL BE REMOVED AT EACH INSPECTION.
4. AT LEAST ONCE ANNUALLY, SYSTEM SHALL BE INSPECTED FOR DRAWDOWN TIME. IF BIORETENTION SYSTEM DOES NOT DRAIN WITHIN 72 HOURS FOLLOWING A RAINFALL EVENT, THEN A QUALIFIED PROFESSIONAL SHALL ASSESS THE CONDITION OF THE FACILITY TO DETERMINE MEASURES REQUIRED TO RESTORE FILTRATION FUNCTION OR INFILTRATION FUNCTION (AS APPLICABLE), INCLUDING BUT NOT LIMITED TO REMOVAL OF ACCUMULATED SEDIMENTS OR RECONSTRUCTION OF THE FILTER MEDIA.
5. VEGETATION SHALL BE INSPECTED AT LEAST ANNUALLY, AND MAINTAINED IN HEALTHY CONDITION, INCLUDING PRUNING, REMOVAL AND REPLACEMENT OF DEAD OR DISEASED VEGETATION, AND REMOVAL OF INVASIVE SPECIES.

**BIORETENTION SYSTEM (RAIN GARDEN)**

NOT TO SCALE

Design: MLS Draft: GDR Date: 3/15/24  
 Checked: WGM Scale: AS NOTED Project No.: 24029  
 Drawing Name: 24029-PLAN.dwg  
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		REVISION	BY

Designed and Produced in NH

**J/B Jones & Beach Engineers, Inc.**

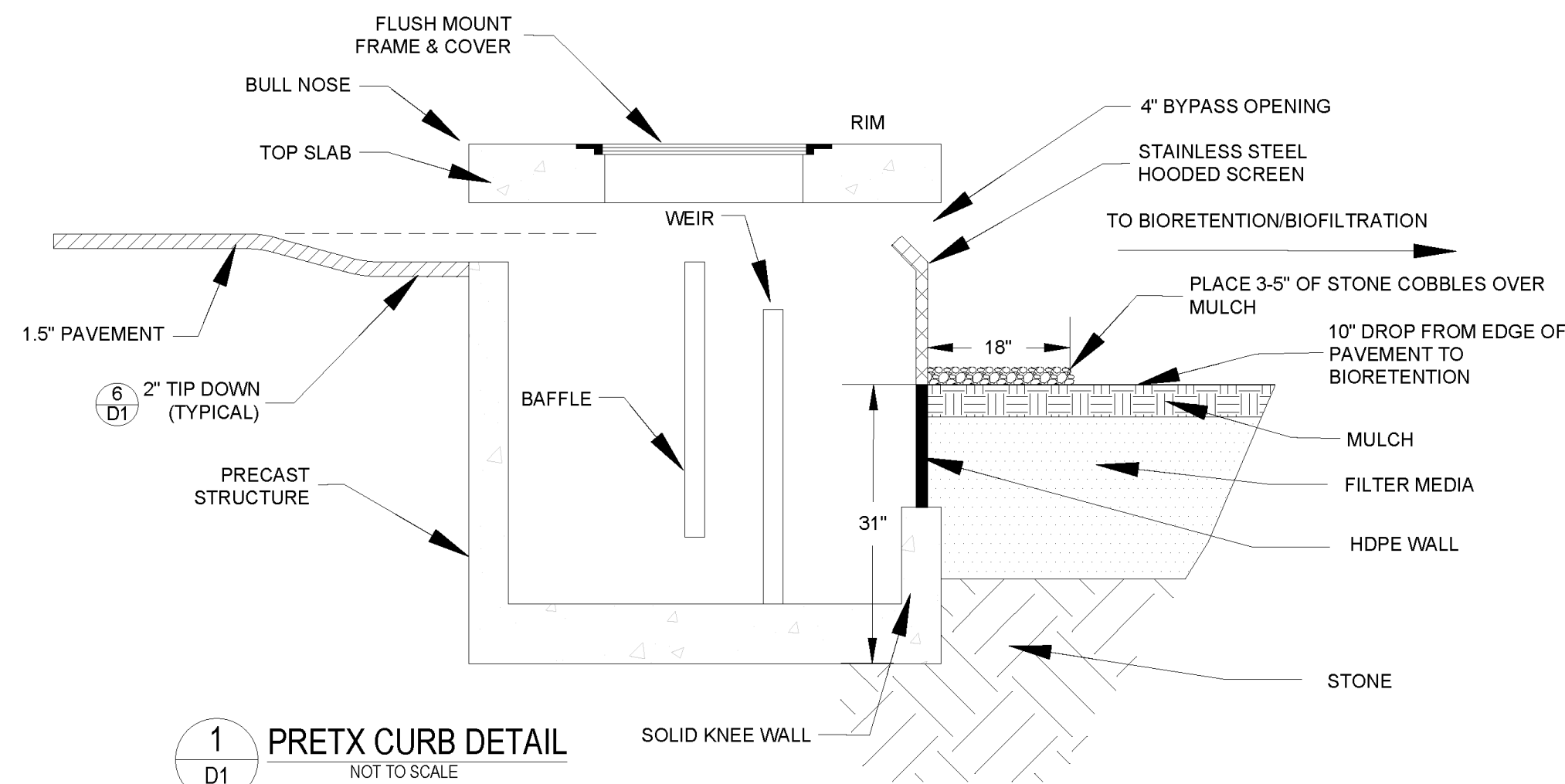
85 Portsmouth Ave. Stratham, NH 03885  
 Civil Engineering Services  
 603-772-4746  
 E-MAIL: JBE@JONESANDBEACH.COM

Plan Name:	DETAIL SHEET
Project:	"LILAC PLACE" 76 PORTSMOUTH AVE, EXETER, NH
Owner of Record:	RAP REALTY MANCHESTER LLC 50 ATLANTIC AVE, SEABROOK, NH

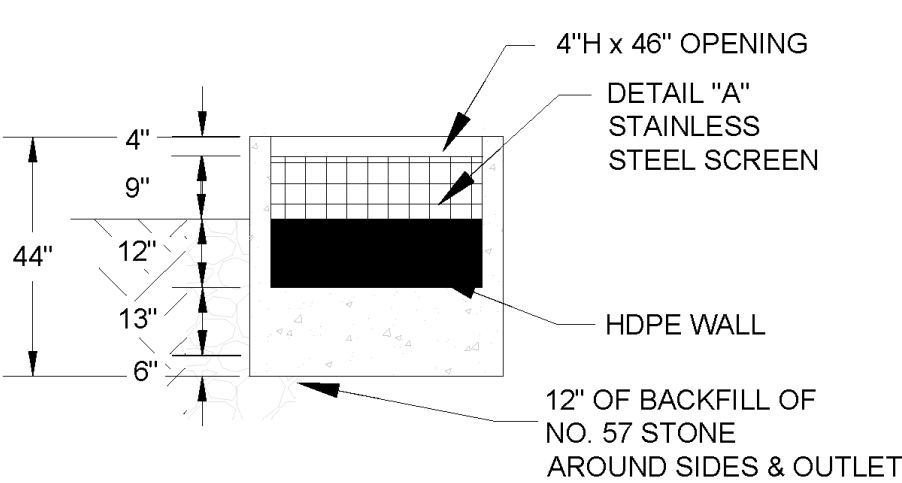
DRAWING No.  
**D5**  
SHEET 16 OF 20  
JBE PROJECT NO. 24029



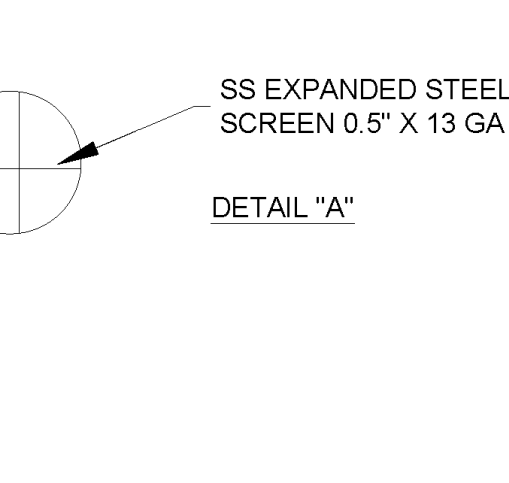
- PRETX SPECIFICATIONS**
- A. GENERAL**
- PRETX SYSTEMS ARE A PRE-FILTER AND CRITICAL MAINTENANCE DEVICE THAT EXTENDS THE OPERATING LIFE AND REDUCES THE MAINTENANCE BURDEN OF BIORETENTION SYSTEMS, RAIN GARDENS, BIOSWALES AND OTHER TYPES OF SURFACE BEST MANAGEMENT PRACTICES BY FILTERING OUT SEDIMENT, TRASH AND DEBRIS AT THE INLET.
- B. PRODUCTS**
- PRETX IS AVAILABLE IN 3 MODELS THAT MANAGE MOST BIORETENTION INLET CONFIGURATIONS: CURB, DROP, AND IN-LINE.
  - PRETX-CURB IS FOR EDGE OF PAVEMENT RUNOFF AT A CURB CUT IN LIEU OF A STONE SPREADER.
  - PRETX-DROP IS FOR USE AS A DROP INLET CONFIGURATION ALONG A CURB LINE AND WOULD BE INSTALLED WITH A STANDARD DROP INLET GRATE.
  - PRETX-IN-LINE IS FOR USE WITH SUBSURFACE INLET AND OUTLET PIPE.
  - PRETX IS SIZED TO PRETREAT WATER QUALITY FLOWS AND BYPASS LARGER FLOWS THAT HAVE MINIMAL TRASH AND DEBRIS. PRETX CAN BE USED BOTH IN RETROFIT OR NEW INSTALLATIONS.
  - ACCEPTABLE SYSTEM SUPPLIER: CONVERGENT WATER TECHNOLOGIES, INC. OR ITS AUTHORIZED VALUE-ADDED RESELLER (800) 711-5428 WWW.CONVERGENTWATER.COM
- C. SUBMITTALS**
- SUBMIT PROPOSED LAYOUT DRAWINGS. DRAWINGS SHALL INCLUDE TYPICAL SECTION DETAILS ANNOTED WITH SYSTEM ELEVATIONS (E.G., RIM, PIPE INVERTS, OUTSIDE BOTTOM OF STRUCTURE, ETC.).
  - SUBMIT MATERIAL CERTIFICATES FOR FRAMES AND COVERS.
  - ANY PROPOSED EQUAL ALTERNATE PRODUCT SUBSTITUTION TO THIS SPECIFICATION MUST BE SUBMITTED FOR REVIEW AND APPROVED PRIOR TO BID OPENING.
- D. EXECUTION**
- ALL PUBLIC STORM DRAINAGE SYSTEMS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE LATEST EDITION OF THE STATE DEPARTMENT OF TRANSPORTATION STANDARDS AND SPECIFICATIONS AND ACCORDING TO LOCAL MUNICIPAL REQUIREMENTS.
  - ALL STORM DRAINAGE SYSTEM CONSTRUCTION IS SUBJECT TO INSPECTION AND APPROVAL BY THE PROJECT ENGINEER.
  - THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER A MINIMUM OF TWO FULL BUSINESS DAYS PRIOR TO THE START OF CONSTRUCTION.
  - THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING AND OBTAINING APPROVAL FROM DIG-SAFE AND DETERMINING THE LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO THE START OF CONSTRUCTION EXCAVATION AND SHALL NOTIFY THE PROJECT ENGINEER OF ANY POTENTIAL CONFLICTS.
  - TO PROTECT STORMWATER FLOW CONTROL AND QUALITY TREATMENT FACILITIES FROM SEDIMENTATION, THEY SHALL BE CONNECTED TO THE STORM CONVEYANCE SYSTEM ONLY AFTER ALL SITE WORK, ROAD CONSTRUCTION, UTILITY WORK AND LANDSCAPING ARE IN PLACE IN ALL AREAS ABOVE AND UPSTREAM OF THE FACILITY.
  - THE EXISTING STORM SEWER SYSTEM SHALL STAY ISOLATED FROM THE NEW SYSTEM UNTIL THE NEW SYSTEM IS CLEANED, AND APPROVED FOR USE. THERE SHALL BE NO DEBRIS IN THE LINES OR FURTHER CLEANING WILL BE REQUIRED PRIOR TO ACCEPTANCE.
  - PROVIDE A 1.5" MINIMUM GAP BETWEEN THE KNOCKOUT WALL AND THE OUTSIDE OF THE PIPE. AFTER THE PIPE IS INSTALLED, FILL THE GAP WITH JOINT MORTAR.
  - THE OPENING SHALL BE MEASURED AT THE TOP OF THE PRECAST BASE SECTION.
  - ALL HOLES SHALL BE GROUTED FULL AFTER THE BASIN HAS BEEN PLACED.
  - STANDARD CURB INLETS AND TIPDOWNS SHALL BE PRECAST CONCRETE OR ASPHALT.
  - PIPE ENDS SHALL BE FLUSH WITH THE INNER WALL OR 1" MAXIMUM INTRUSION. MASONRY, CINDER BLOCKS, OR SIMILAR MATERIALS MAY BE USED TO ADJUST THE RISERS TO GRADE PRIOR TO GROUTING.
  - GROUTING SHALL BE SUFFICIENT TO PREVENT LEAKS BETWEEN THE PRECAST COMPONENTS OF THE COMPLETED STRUCTURE & SHALL BE PERFORMED INSIDE, BETWEEN & OUTSIDE OF ALL RISERS, JOINTS & PIPE PENETRATIONS.
  - MANHOLES TO BE CONSTRUCTED IN ACCORDANCE WITH AASHTO M-199 UNLESS OTHERWISE SHOWN ON PLANS OR NOTED IN THE STANDARD SPECIFICATIONS.
  - ALL REINFORCED CAST IN PLACE CONCRETE SHALL BE CLASS 4000. ALL PRECAST CONCRETE SHALL BE CLASS 4000.
  - RECAST BASES SHALL BE FURNISHED WITH CUTOUTS OR KNOCKOUTS. KNOCKOUTS SHALL HAVE A WALL THICKNESS OF 2" MINIMUM.
  - MATHING SURFACES OF MANHOLE RINGS AND COVERS SHALL BE FINISHED TO ASSURE NON-ROCKING FIT WITH ANY COVER POSITIONS.
- E. CONSTRUCTION AND SEQUENCING**
- EXAMINATION
    - VERIFY LAYOUT AND ORIENTATION OF PRE-TX SYSTEM AREA INCLUDING EDGE OF PAVEMENT, TIP DOWN, CURBS AND SIDEWALK, BIOFILTRATION SYSTEM, AND CONNECTIONS.
    - VERIFY EXCAVATION BASE IS READY TO RECEIVE WORK AND EXCAVATIONS, DIMENSIONS, AND ELEVATIONS ARE AS INDICATED ON DRAWINGS.
  - PREPARATION
    - CALL DIG SAFE AND RECEIVE APPROVAL BEFORE PERFORMING WORK.
    - REQUEST UNDERGROUND UTILITIES TO BE LOCATED AND MARKED WITHIN AND SURROUNDING CONSTRUCTION AREAS.
    - IDENTIFY REQUIRED LINES, LEVELS, CONTOURS, AND DATUM.
    - CLEAR AND GRUB THE PROPOSED PRE-TX SYSTEM AREA.
  - EXCAVATION AND INSTALLATION
    - THE FOLLOWING CONSTRUCTION SEQUENCE IS TO BE USED AS A GENERAL GUIDELINE. COORDINATE WITH THE OWNER, AND ENGINEERS FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION.
    - INSTALL TEMPORARY EROSION AND SEDIMENT CONTROLS TO DIVERT STORM WATER AWAY FROM THE PRE-TX SYSTEM AREA.
    - EXCAVATE TO THE BOTTOM INVERT OF THE SYSTEM.
    - TO MINIMIZE COMPACTION OF ADJACENT BIOFILTRATION SYSTEMS, WORK EXCAVATORS OR BACKHOES FROM THE SIDES TO EXCAVATE THE PRE-TX SYSTEM AREA TO ITS APPROPRIATE DESIGN DEPTH AND DIMENSIONS.
    - ROUGH GRADE THE PRE-TX SYSTEM AREA DURING GENERAL CONSTRUCTION. EXCAVATE THE PRE-TX SYSTEM FACILITIES TO WITHIN 1 FOOT OF STRUCTURE BOTTOM.
    - PLACE 1 FOOT BED OF COARSE STONE TO ELEVATION OF BASE OF STRUCTURE.
    - ESTABLISH ELEVATIONS FOR ADJACENT CURBS, EDGE OF PAVEMENT AND TIP DOWN, SIDEWALK, PIPE INVERTS FOR INLETS AND OUTLETS AS INDICATED ON DRAWINGS.
  - INSTALLATION
    - PLACE THE PRECAST SYSTEM TO NECESSARY ELEVATION.
    - VERIFY ELEVATIONS FOR ADJACENT CURBS, EDGE OF PAVEMENT, PAVEMENT GRADING FOR INLET GRATE FOR PRETX-DROP, SIDEWALK, PIPE INVERTS FOR INLETS AND OUTLETS, OUTLET INVERT FOR KNEE WALL.
    - FOR PRETX-SURFACE:
      - VERIFY ELEVATIONS FOR ADJACENT CURBS.
      - VERIFY EDGE OF PAVEMENT TIP DOWN PAVEMENT GRADING FOR INLET GRATE.
      - VERIFY CURB ELEVATION IN RELATION TO PAVEMENT AND TIP DOWN.
      - VERIFY OUTLET INVERT FOR KNEE WALL IN RELATION TO FILTER MEDIA.
    - FOR PRETX-DROP:
      - VERIFY ALL INLET PIPES ENTER THE STRUCTURE UPSTREAM OF BAFFLE.
      - VERIFY FRAME AND GRATE OFFSET ON INLET SIDE AND UPSTREAM OF BAFFLE.
      - VERIFY CURB LOCATION WITH RESPECT TO FRAME AND GRATE ORIENTATION.
    - INSTALL BAFFLES, WEIR, AND SCREENS AS INDICATED ON DRAWINGS.
    - VERIFY MAINTENANCE ACCESS THROUGH GRATE OR COVER AND CLEARANCE FOR VACTOR.
    - INSTALL TOP OF STRUCTURE LEVEL WITH ADJACENT CURB OR SIDEWALK AS PER MANUFACTURERS SPECIFICATIONS. ENGINEER FIELD VISIT REQUIRED PRIOR TO BACKFILLING.
  - BACKFILLING
    - BACKFILL WITH APPROVED SOIL AND STONE TO THE DESIGN GRADE AS SPECIFIED IN THE DRAWINGS.
    - BACKFILL WITH 12" OF NO. 57 STONE AROUND REAR, LEFT, AND RIGHT SIDES TO LEVEL WITH TOP OF HDPE SCREEN.
    - BACKFILL WITH BIORETENTION SOIL MIX BEYOND STONE BACKFILL TO EQUAL ELEVATION OF THE TOP OF HDPE SCREEN.
    - DO NOT BACKFILL SOIL OR STONE AGAINST STAINLESS STEEL SCREEN.
    - DO NOT COMPACT ADJACENT FILTRATION SYSTEM SOIL WITH MECHANICAL EQUIPMENT.
    - STABILIZE ALL REMAINING DISTURBED AREAS AND SIDE SLOPES WITH SEEDING, HYDROSEEDING, AND/OR EROSION CONTROL BLANKETS AS INDICATED ON DRAWINGS.
  - CLEAN UP
    - AFTER COMPLETION OF THE WORK, REMOVE AND PROPERLY DISPOSE ALL DEBRIS, CONSTRUCTION MATERIALS, RUBBISH, EXCESS SOIL, ETC., FROM THE PROJECT SITE. REPAIR PROMPTLY ANY IDENTIFIED DEFICIENCIES AND LEAVE THE PROJECT SITE IN A CLEAN AND SATISFACTORY CONDITION.



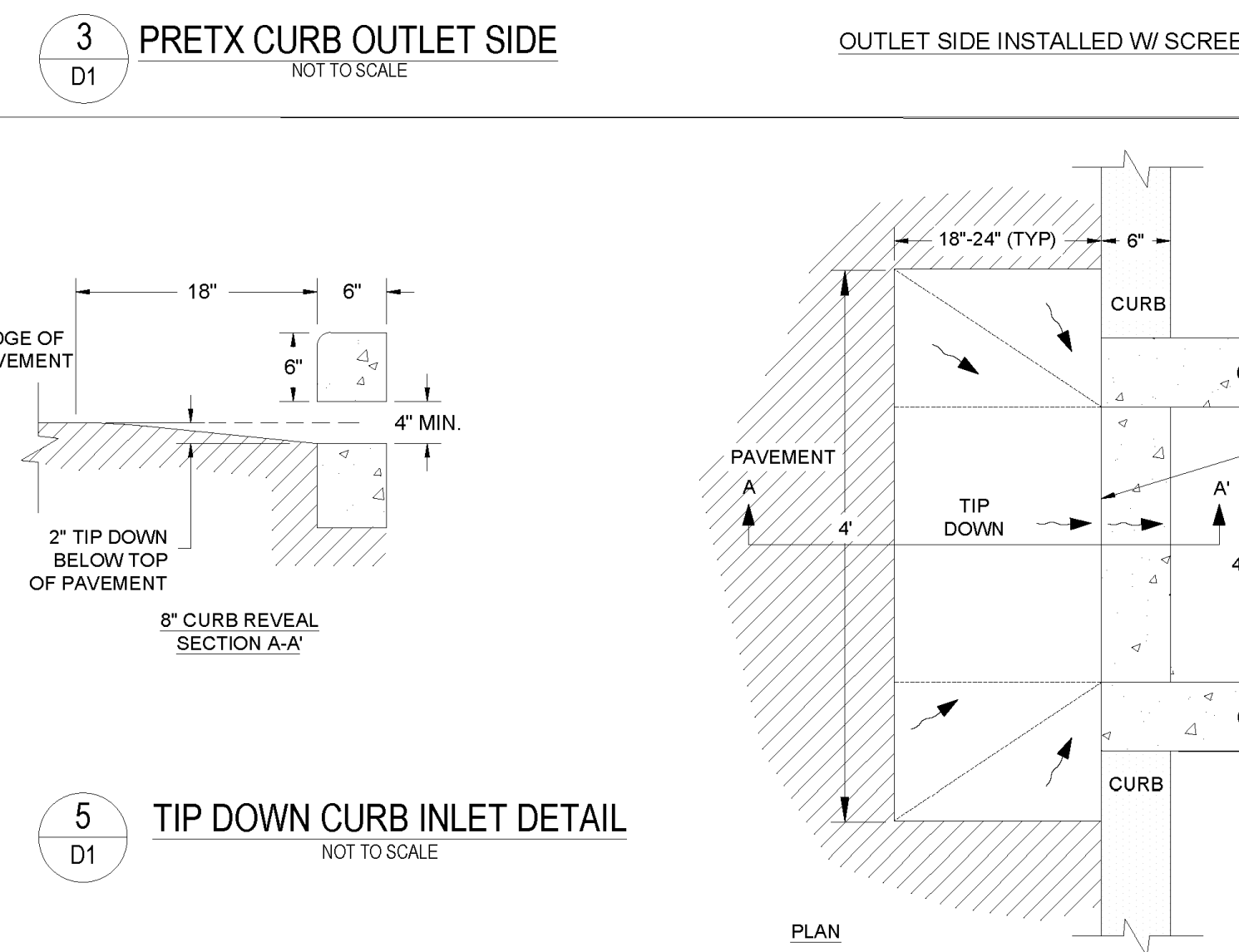
1 PRETX CURB DETAIL  
NOT TO SCALE



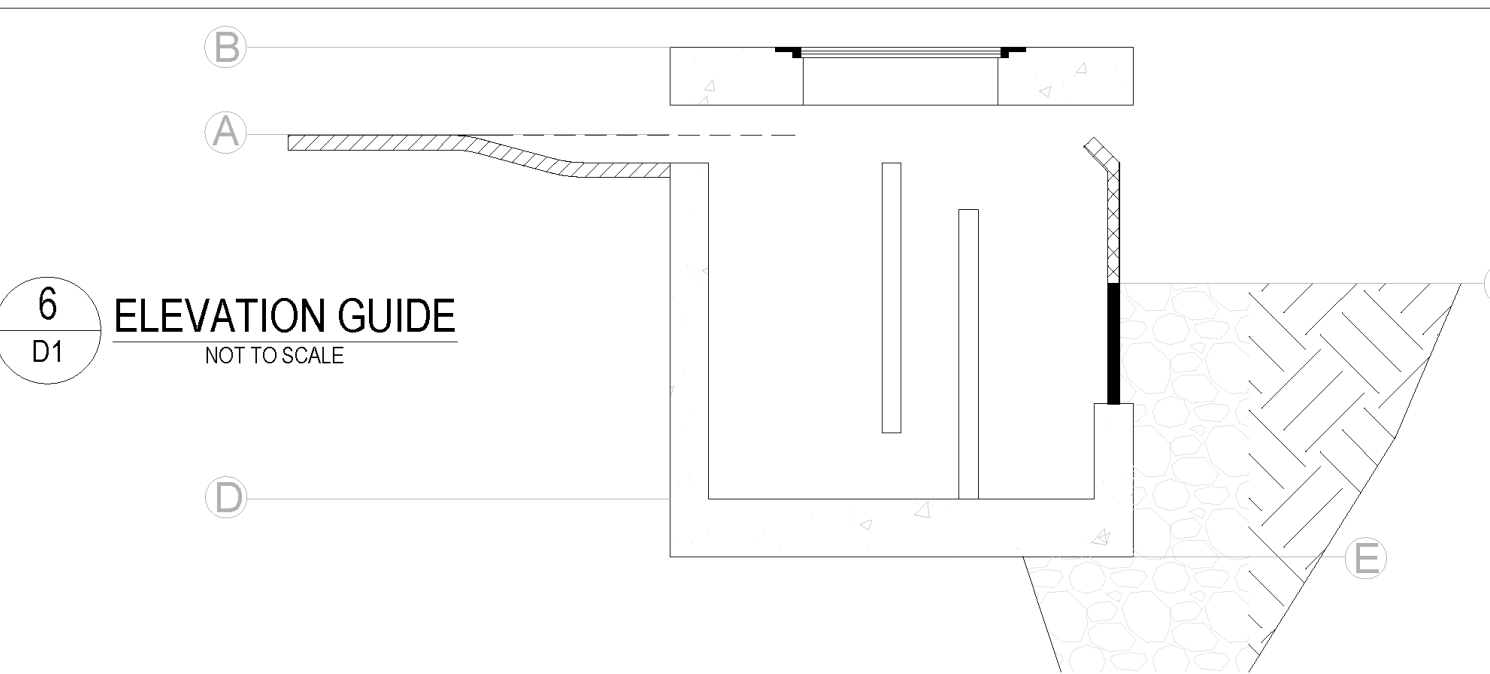
3 PRETX CURB OUTLET SIDE  
NOT TO SCALE



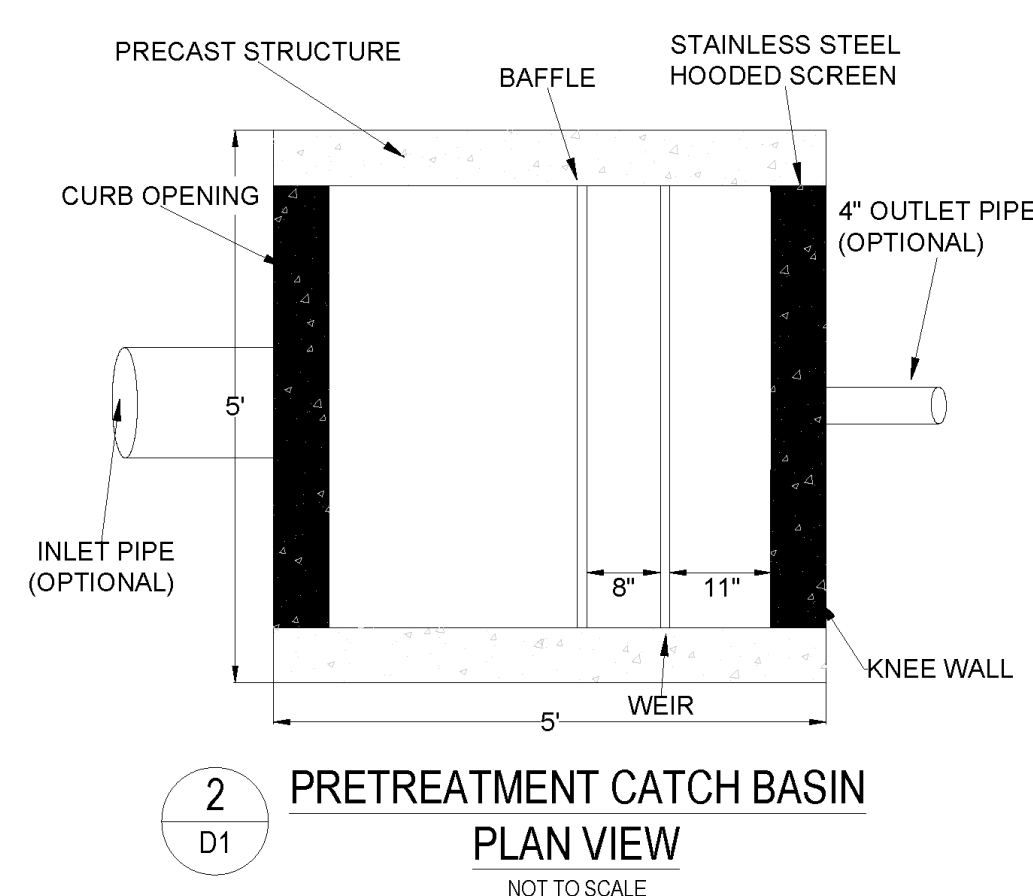
4 PRETX CURB SIDE DETAIL  
NOT TO SCALE



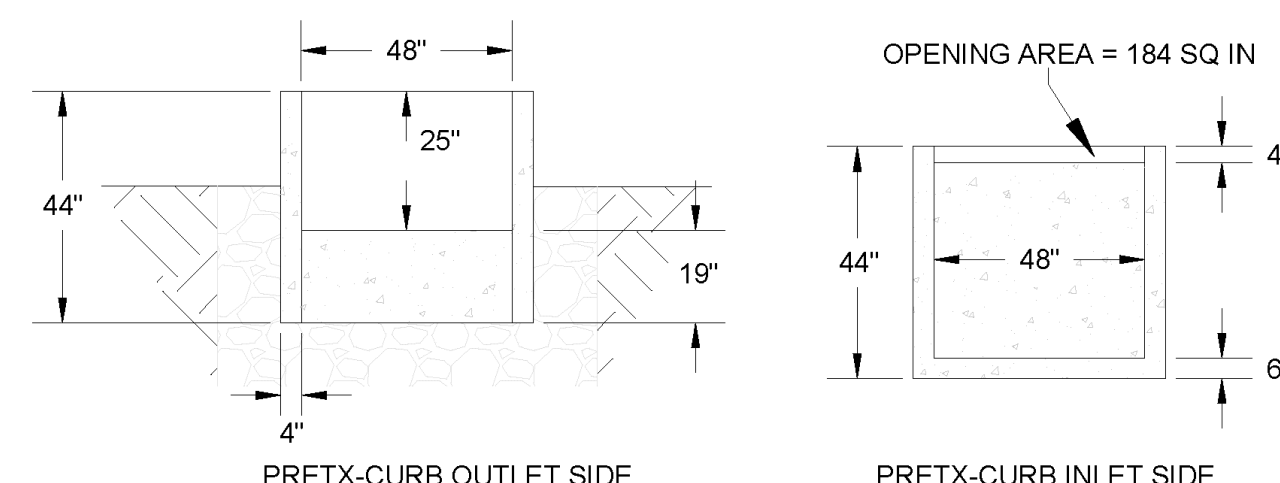
5 TIP DOWN CURB INLET DETAIL  
NOT TO SCALE



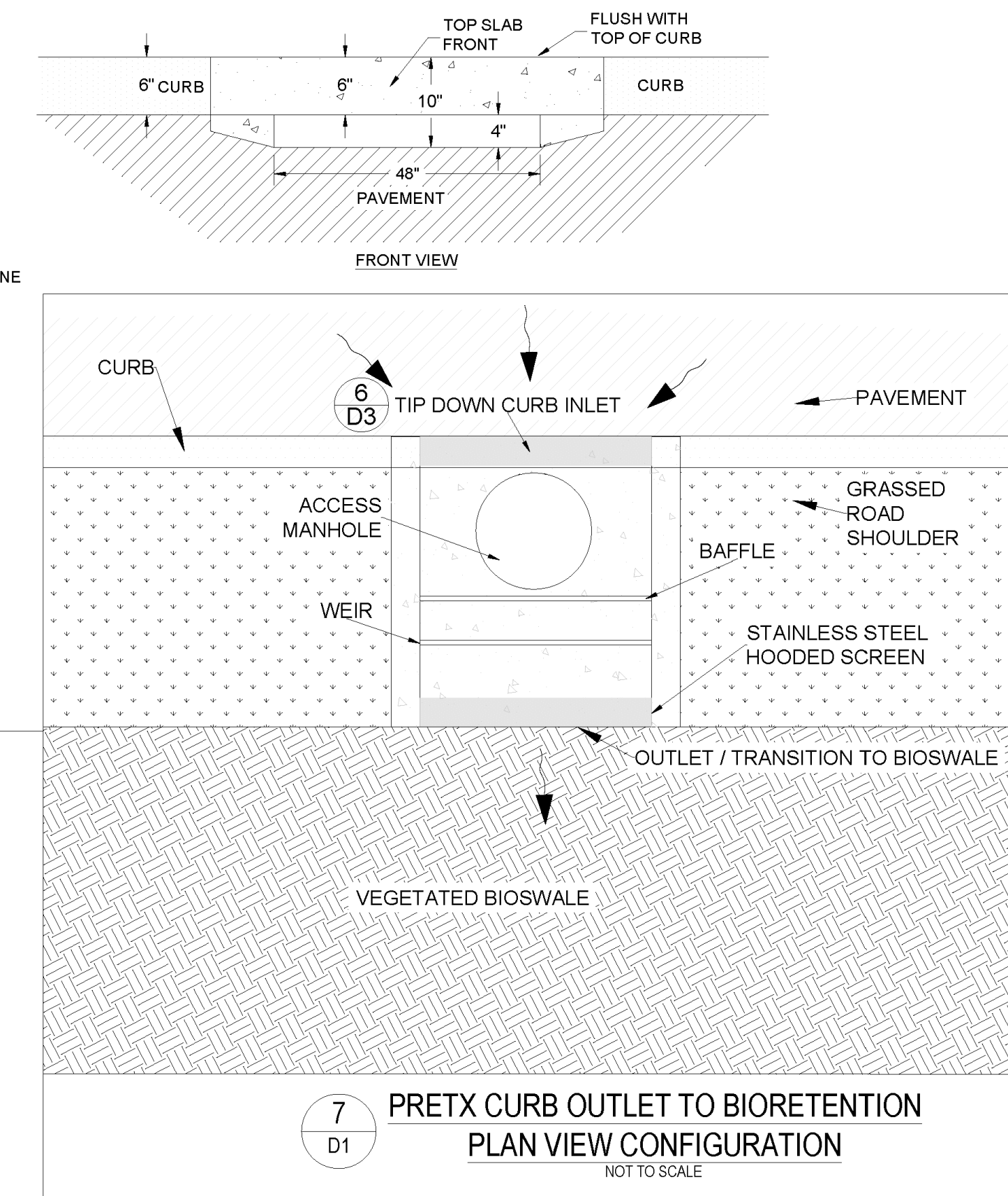
6 ELEVATION GUIDE  
NOT TO SCALE



2 PRETREATMENT CATCH BASIN  
PLAN VIEW  
NOT TO SCALE



4 PRETX CURB INLET SIDE  
NOT TO SCALE



7 PRETX CURB OUTLET TO BIORETENTION  
PLAN VIEW CONFIGURATION  
NOT TO SCALE

PRETX-CURB ELEVATION GUIDE		
POINT	DESCRIPTION	HEIGHT IN REFERENCE TO PT. A
A	EDGE OF PAVEMENT	0 INCHES
B	OUTSIDE TOP SLAB	8 INCHES
C	TOP OF BIORETENTION	12 INCHES
D	SUMP INVERT	36 INCHES
E	OUTSIDE BOTTOM	42 INCHES

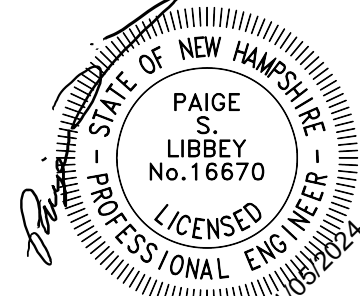
**D-1 PRETX™ CURB INLET SOLID HDPE WALL PRETREATMENT DETAIL**

TO FIND A VALUE ADDED RESELLER IN YOUR AREA VISIT  
WWW.CONVERGENTWATER.COM/STORMWATER-PRODUCTS  
OR CONTACT CONVERGENT WATER TECHNOLOGIES AT  
1.800.711.5428

...\\l1.cad Files\logos\Convergent\LOGO\_RGB.tif

REVISED 11/20/19, ELEVATION DETAILS ADDED, CHECKED BY RR

Design: MLS	Draft: GDR	Date: 3/15/24
Checked: WGM	Scale: AS NOTED	Project No.: 24029
Drawing Name: 24029-PLAN.dwg		
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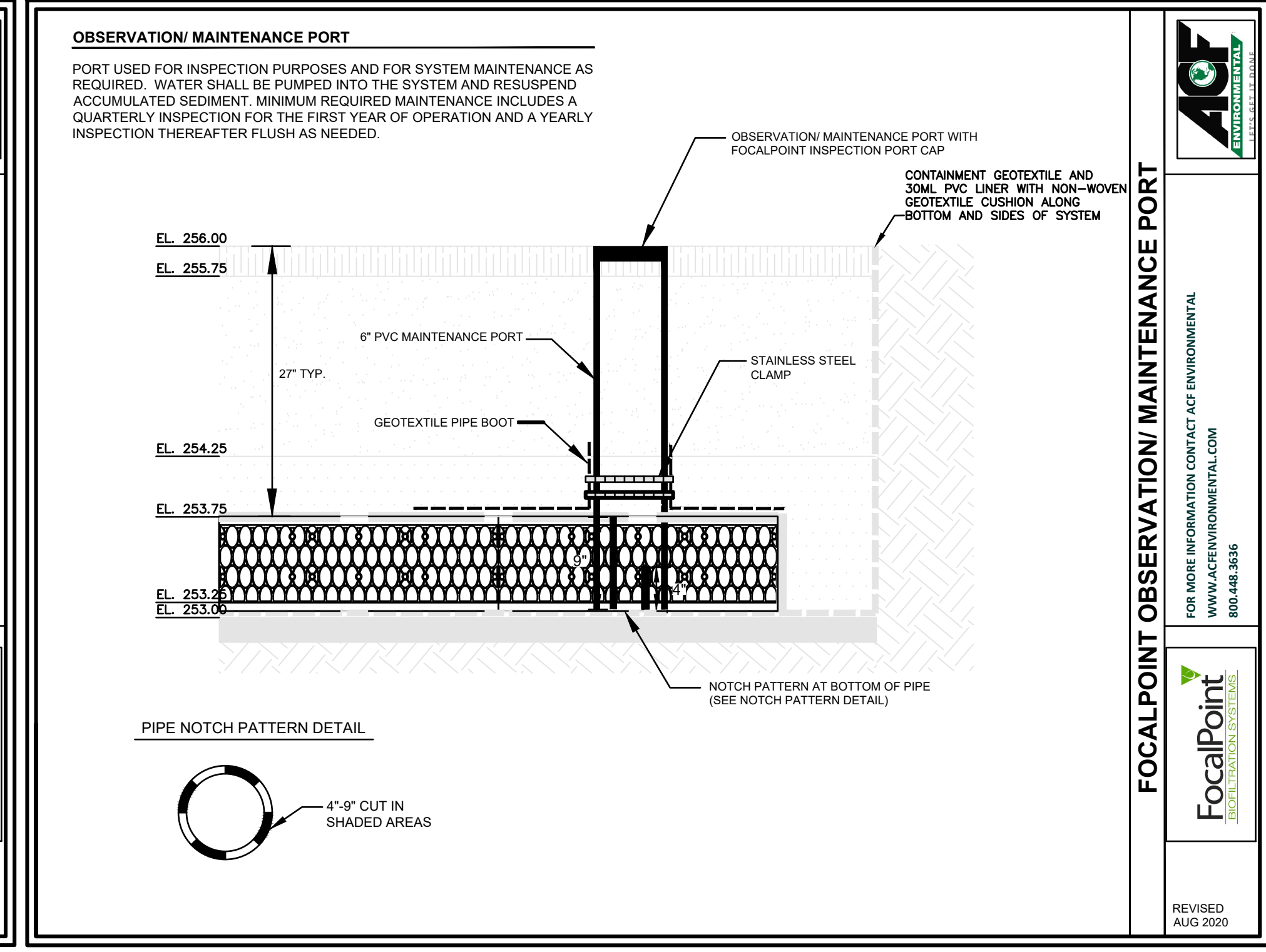
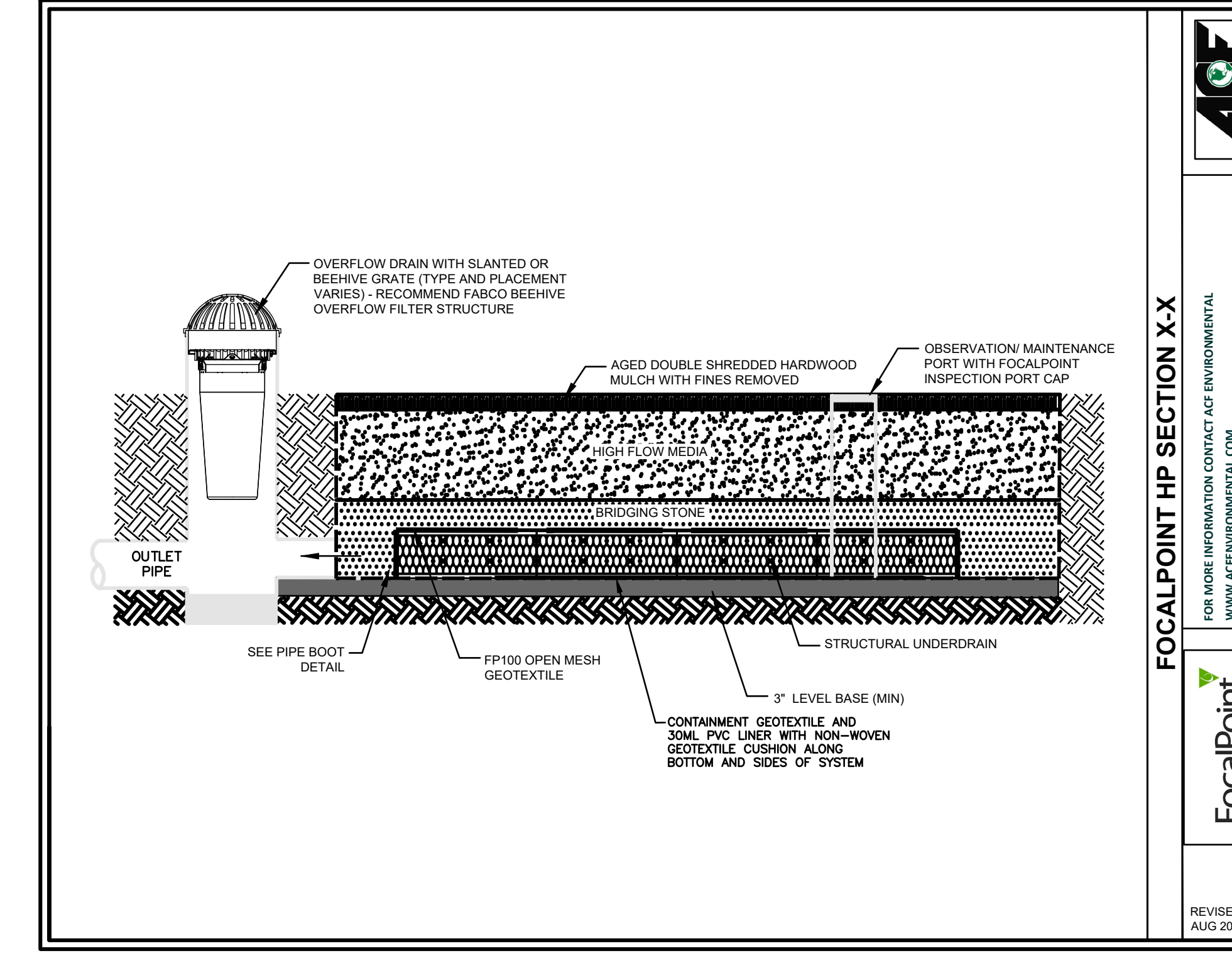
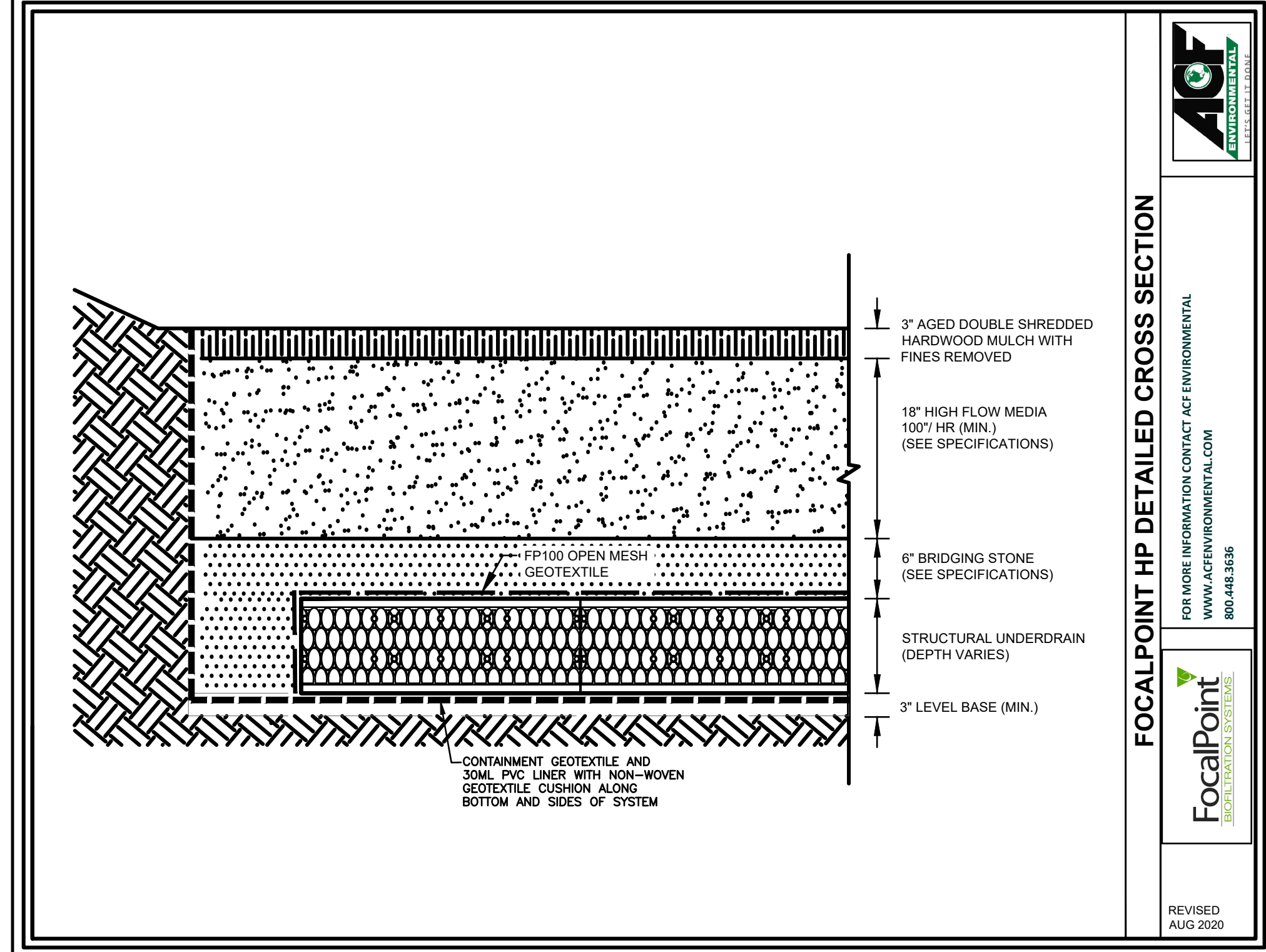
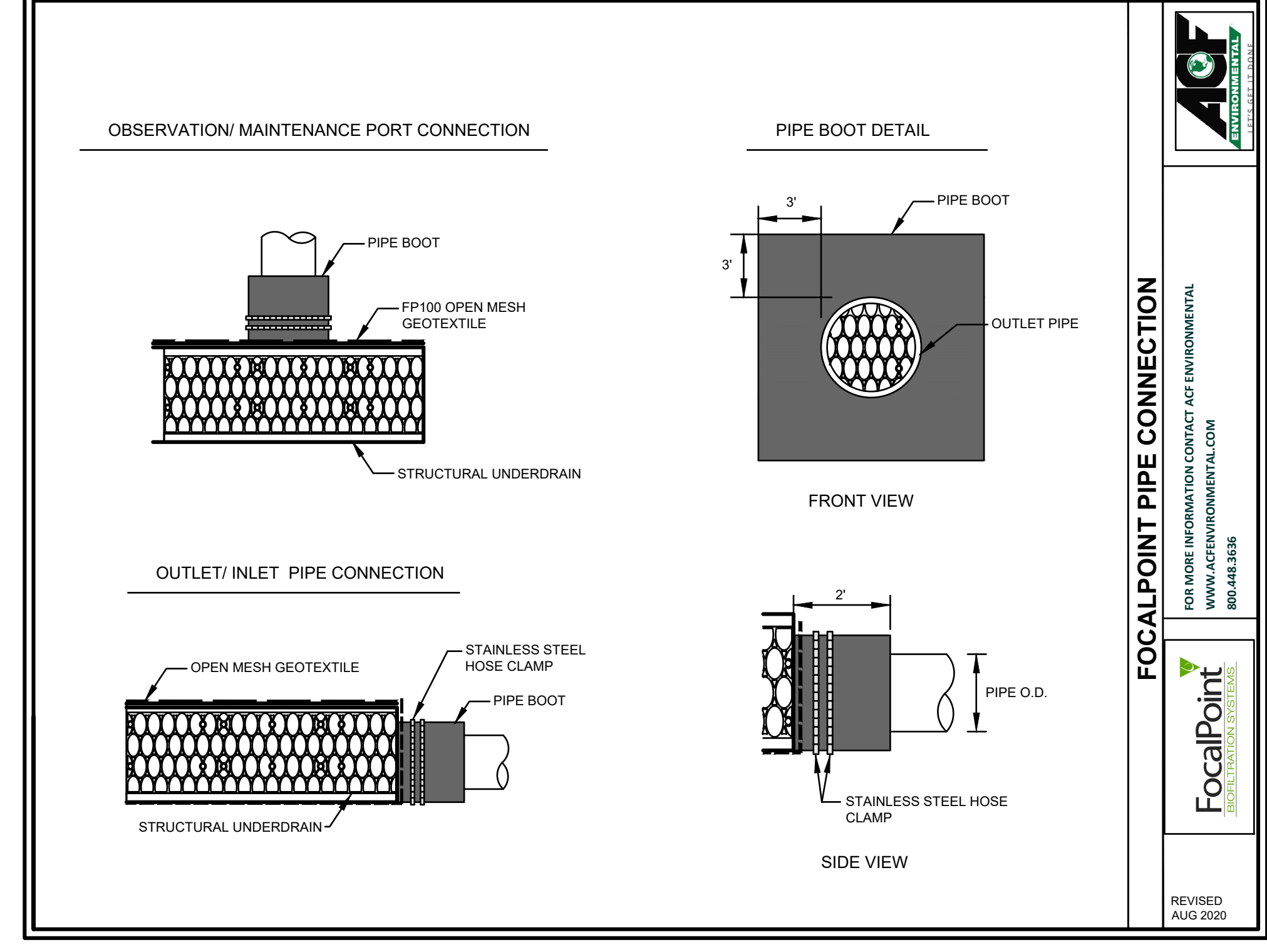
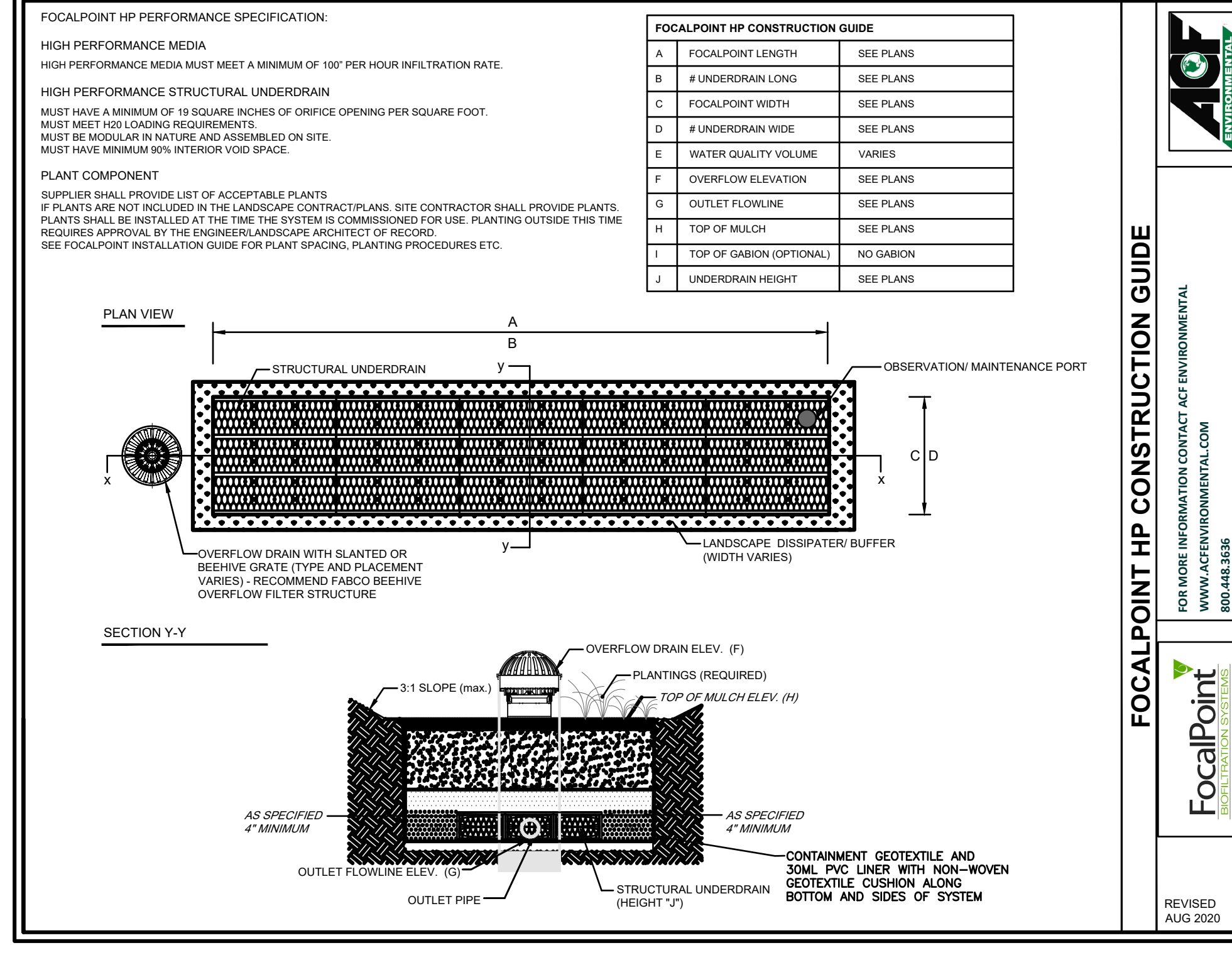
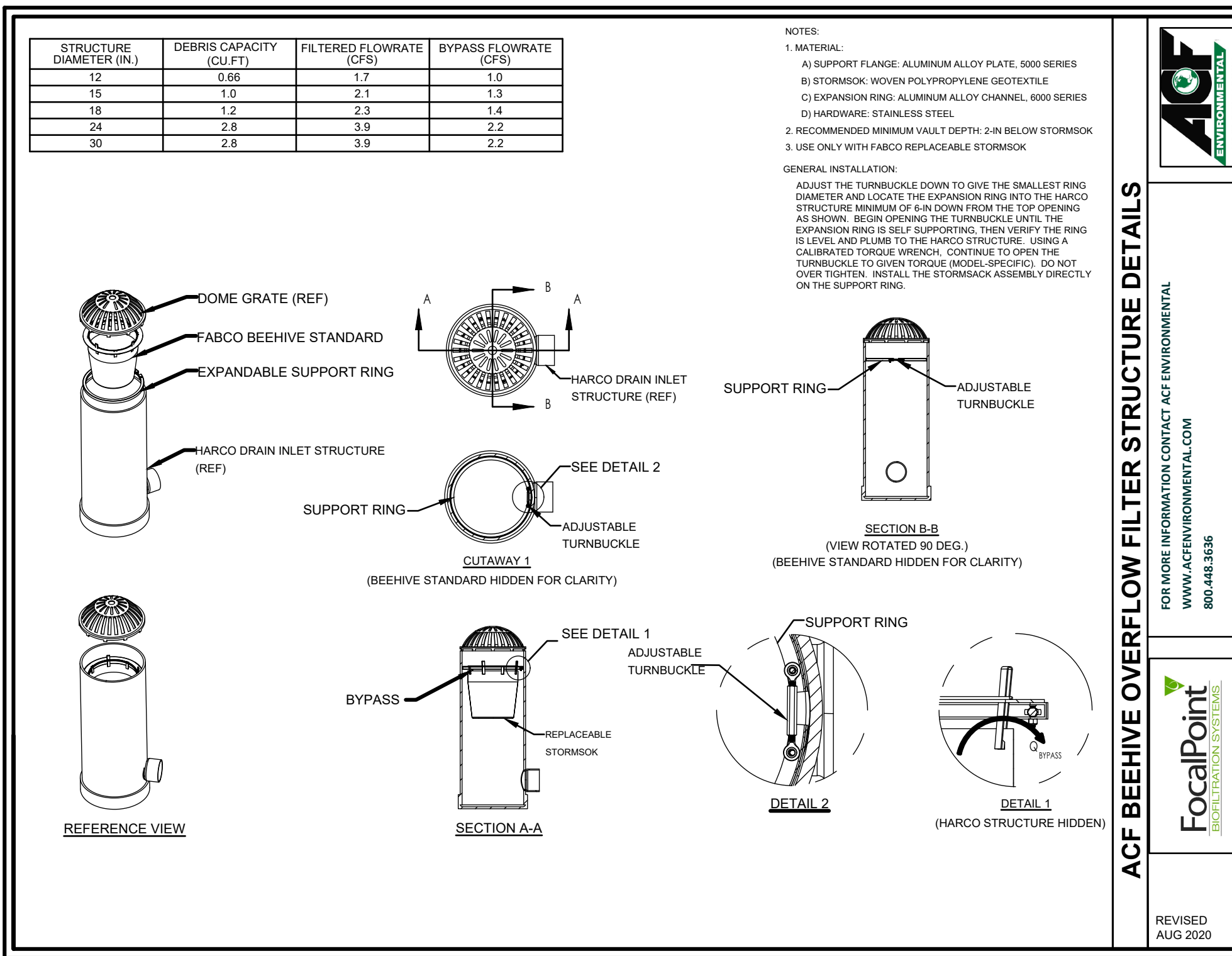
**J/B Jones & Beach Engineers, Inc.**

85 Portsmouth Ave. Civil Engineering Services 603-772-4746  
PO Box 219 Stratham, NH 03885 E-MAIL: JBE@JONESANDBEACH.COM

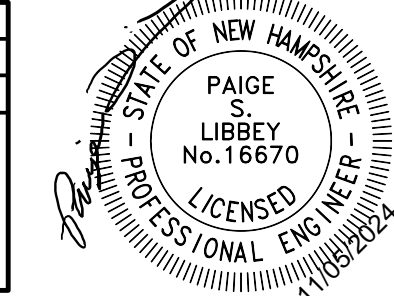
Plan Name:	DETAIL SHEET
Project:	"LILAC PLACE" 76 PORTSMOUTH AVE, EXETER, NH
Owner of Record:	RAP REALTY MANCHESTER LLC 50 ATLANTIC AVE, SEABROOK, NH

DRAWING No.	D6
SHEET 17 OF 20 JBE PROJECT NO. 24029	





Design: MLS Draft: GDR Date: 3/15/24  
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0	4/11/24	ISSUED FOR REVIEW	PSL
		REVISION	BY

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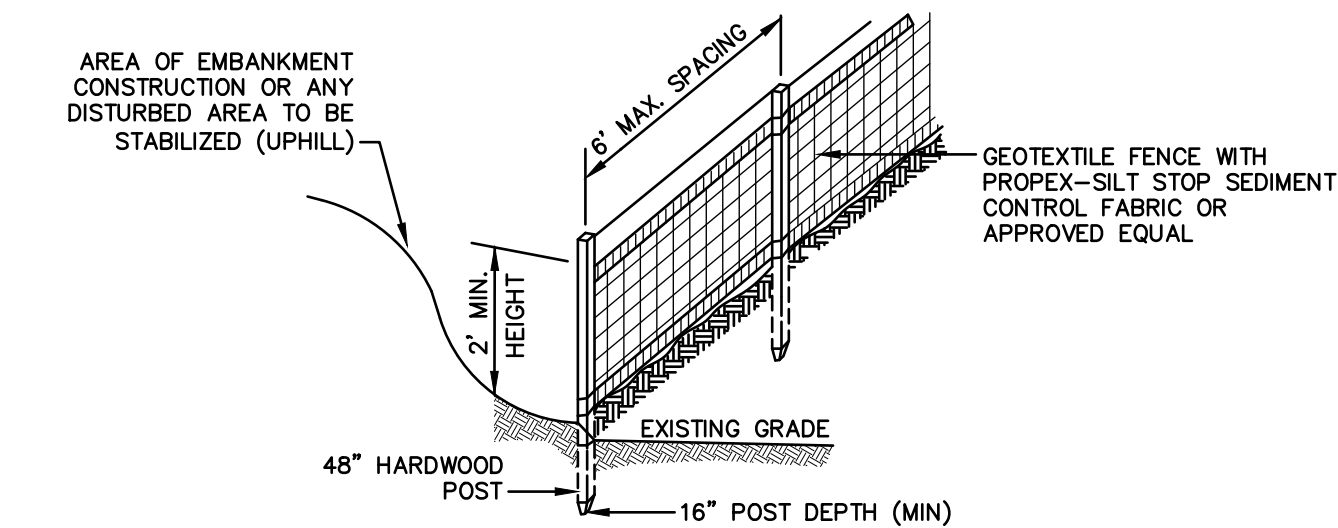
Plan Name: DETAIL SHEET  
 Project: "LILAC PLACE"  
 76 PORTSMOUTH AVE, EXETER, NH  
 Owner of Record: RAP REALTY MANCHESTER LLC  
 50 ATLANTIC AVE, SEABROOK, NH

DRAWING No. D7  
 SHEET 18 OF 20  
 JBE PROJECT NO. 24029



**TEMPORARY EROSION CONTROL NOTES**

- THE SMALLEST PRACTICAL AREA OF LAND SHALL BE EXPOSED AT ANY ONE TIME. AT NO TIME SHALL AN AREA IN EXCESS OF 5 ACRES BE EXPOSED AT ANY ONE TIME BEFORE DISTURBED AREAS ARE STABILIZED.
- EROSION, SEDIMENT AND DETENTION MEASURES SHALL BE INSTALLED AS SHOWN ON THE PLANS AND AT LOCATIONS AS REQUIRED, DIRECTED BY THE ENGINEER.
- ALL DISTURBED AREAS (INCLUDING POND AREAS BELOW THE PROPOSED WATERLINE) SHALL BE RETURNED TO PROPOSED GRADES AND ELEVATIONS. DISTURBED AREAS SHALL BE LOAMED WITH A MINIMUM OF 6" OF SCREENED ORGANIC LOAM AND SEEDED WITH SEED MIXTURE 'C' AT A RATE NOT LESS THAN 1.10 POUNDS OF SEED PER 1,000 S.F. OF AREA (48 LBS. / ACRE).
- SILT FENCES AND OTHER BARRIERS SHALL BE INSPECTED EVERY SEVEN CALENDAR DAYS AND WITHIN 24 HOURS OF A RAINFALL OF 0.5" OR GREATER. ALL DAMAGED AREAS SHALL BE REPAIRED, AND SEDIMENT DEPOSITS SHALL PERIODICALLY BE REMOVED AND DISPOSED OF.
- AFTER ALL DISTURBED AREAS HAVE BEEN STABILIZED, THE TEMPORARY EROSION CONTROL MEASURES SHALL BE REMOVED AND THE AREA DISTURBED BY THE REMOVAL SMOOTHED AND RE-VEGETATED.
- AREAS MUST BE SEEDED AND MULCHED OR OTHERWISE PERMANENTLY STABILIZED WITHIN 3 DAYS OF FINAL GRADING, OR TEMPORARILY STABILIZED WITHIN 14 DAYS OF THE INITIAL DISTURBANCE OF SOIL. ALL AREAS SHALL BE STABILIZED WITHIN 45 DAYS OF INITIAL DISTURBANCE.
- ALL PROPOSED VEGETATED AREAS THAT DO NOT EXHIBIT A MINIMUM OF 85 PERCENT VEGETATIVE GROWTH BY OCTOBER 15, OR WHICH ARE DISTURBED AFTER OCTOBER 15, SHALL BE STABILIZED BY SEEDING AND INSTALLING NORTH AMERICAN GREEN S75 EROSION CONTROL BLANKETS (OR AN EQUIVALENT APPROVED IN WRITING BY THE ENGINEER) 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.
- ALL DITCHES OR SWALES WHICH DO NOT EXHIBIT A MINIMUM OF 85 PERCENT VEGETATIVE GROWTH BY OCTOBER 15, OR WHICH ARE DISTURBED AFTER OCTOBER 15, SHALL BE STABILIZED TEMPORARILY WITH STONE OR EROSION CONTROL BLANKETS APPROPRIATE FOR THE DESIGN FLOW CONDITIONS.
- AFTER OCTOBER 15th, INCOMPLETE ROAD OR PARKING SURFACES, WHERE WORK HAS STOPPED FOR THE WINTER SEASON, SHALL BE PROTECTED WITH A MINIMUM OF 3" OF CRUSHED GRAVEL PER NHDOT ITEM 304.3.
- AN AREA SHALL BE CONSIDERED STABLE IF ONE OF THE FOLLOWING HAS OCCURRED:
  - 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 STONE OR RIPRAP HAS BEEN INSTALLED; OR
  - EROSION CONTROL BLANKETS HAVE BEEN PROPERLY INSTALLED.
- FUGITIVE DUST CONTROL IS REQUIRED TO BE CONTROLLED IN ACCORDANCE WITH ENV-A 1000, AND THE PROJECT IS TO MEET THE REQUIREMENTS AND INTENT OF RSA 430:53 AND AGR 3800 RELATIVE TO INVASIVE SPECIES.
- PRIOR TO BEGINNING CONSTRUCTION, THE CONTRACTOR'S NAME, ADDRESS, AND PHONE NUMBER SHALL BE SUBMITTED TO DES VIA EMAIL (SEE BELOW).
- PRIOR TO CONSTRUCTION, A PHASING PLAN THAT DELINEATES EACH PHASE OF THE PROJECT SHALL BE SUBMITTED. ALL TEMPORARY SEDIMENT BASINS THAT WILL BE NEEDED FOR DEWATERING WORK AREAS SHALL BE LOCATED AND IDENTIFIED ON THIS PLAN.
  - A CERTIFIED PROFESSIONAL IN EROSION AND SEDIMENT CONTROL OR A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF NEW HAMPSHIRE ("MONITOR") SHALL BE EMPLOYED TO INSPECT THE SITE FROM THE START OF ALTERATION OF TERRAIN ACTIVITIES UNTIL THE SITE IS IN FULL COMPLIANCE WITH THE SITE SPECIFIC PERMIT ("PERMIT").
  - DURING THIS PERIOD, THE MONITOR SHALL INSPECT THE SUBJECT SITE AT LEAST ONCE A WEEK, AND IF POSSIBLE, DURING ANY 1/2 INCH OR GREATER RAIN EVENT (I.E. 1/2 INCH OF PRECIPITATION OR MORE WITHIN A 24 HOUR PERIOD). IF UNABLE TO BE PRESENT DURING SUCH A STORM, THE MONITOR SHALL INSPECT THE SITE WITHIN 24 HOURS OF THIS EVENT.
  - THE MONITOR SHALL PROVIDE TECHNICAL ASSISTANCE AND RECOMMENDATIONS TO THE CONTRACTOR ON THE APPROPRIATE BEST MANAGEMENT PRACTICES FOR EROSION AND SEDIMENT CONTROLS REQUIRED TO MEET THE REQUIREMENTS OF RSA 485 A:17 AND ALL APPLICABLE DES PERMIT CONDITIONS.
  - WITHIN 24 HOURS OF EACH INSPECTION, THE MONITOR SHALL SUBMIT A REPORT TO DES VIA EMAIL (RIDGELY MAUCK AT: RIDGELY.MAUCK@DES.NH.GOV).
  - THE MONITOR SHALL MEET WITH DES TO DECIDE UPON A REPORT FORMAT. THE REPORT FORMAT SHALL BE REVIEWED AND APPROVED BY DES PRIOR TO THE START OF CONSTRUCTION.

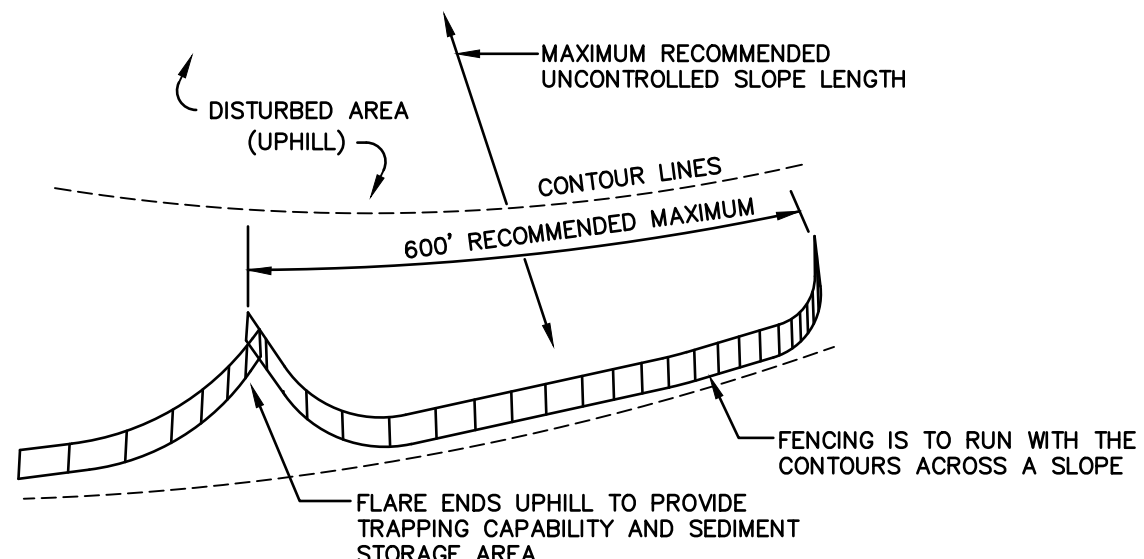


**CONSTRUCTION SPECIFICATIONS:**

- WOVEN FABRIC FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES. FILTER CLOTH SHALL BE FASTENED TO WOVEN WIRE EVERY 24" AT TOP, MID AND BOTTOM AND EMBEDDED IN THE GROUND A MINIMUM OF 8" AND THEN COVERED WITH SOIL.
- THE FENCE POSTS SHALL BE A MINIMUM OF 48" LONG, SPACED A MAXIMUM 6' APART, AND DRIVEN A MINIMUM OF 16" INTO THE GROUND.
- WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER, THE ENDS OF THE FABRIC SHALL BE OVERLAPPED 6", FOLDED AND STAPLED TO PREVENT SEDIMENT FROM BY-PASSING.
- MAINTENANCE SHALL BE PERFORMED AS NEEDED AND SEDIMENT REMOVED AND PROPERLY DISPOSED OF WHEN IT IS 6" DEEP OR VISIBLE 'BULGES' DEVELOP IN THE SILT FENCE.
- PLACE THE ENDS OF THE SILT FENCE UP CONTOUR TO PROVIDE FOR SEDIMENT STORAGE.
- SILT FENCE SHALL REMAIN IN PLACE FOR 24 MONTHS.

**SILT FENCE**

NOT TO SCALE



- SILT FENCES SHALL BE REMOVED WHEN NO LONGER NEEDED AND THE SEDIMENT COLLECTED SHALL BE DISPOSED AS DIRECTED BY THE ENGINEER. THE AREA DISTURBED BY THE REMOVAL SHALL BE SMOOTHED AND REVEGETATED.

**MAINTENANCE:**

- SILT FENCES SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REPAIRS THAT ARE REQUIRED SHALL BE DONE IMMEDIATELY.
- IF THE FABRIC ON A SILT FENCE SHOULD DECOMPOSE OR BECOME INEFFECTIVE DURING THE EXPECTED LIFE OF THE FENCE, THE FABRIC SHALL BE REPLACED PROMPTLY.
- SEDIMENT DEPOSITS SHOULD BE INSPECTED AFTER EVERY STORM EVENT. THE DEPOSITS SHOULD BE REMOVED WHEN THEY REACH APPROXIMATELY ONE HALF THE HEIGHT OF THE BARRIER.
- SEDIMENT DEPOSITS THAT ARE REMOVED, OR LEFT IN PLACE AFTER THE FABRIC HAS BEEN REMOVED, SHALL BE GRADED TO CONFORM WITH THE EXISTING TOPOGRAPHY AND VEGETATED.

**SEEDING SPECIFICATIONS**

**1. GRADING AND SHAPING**

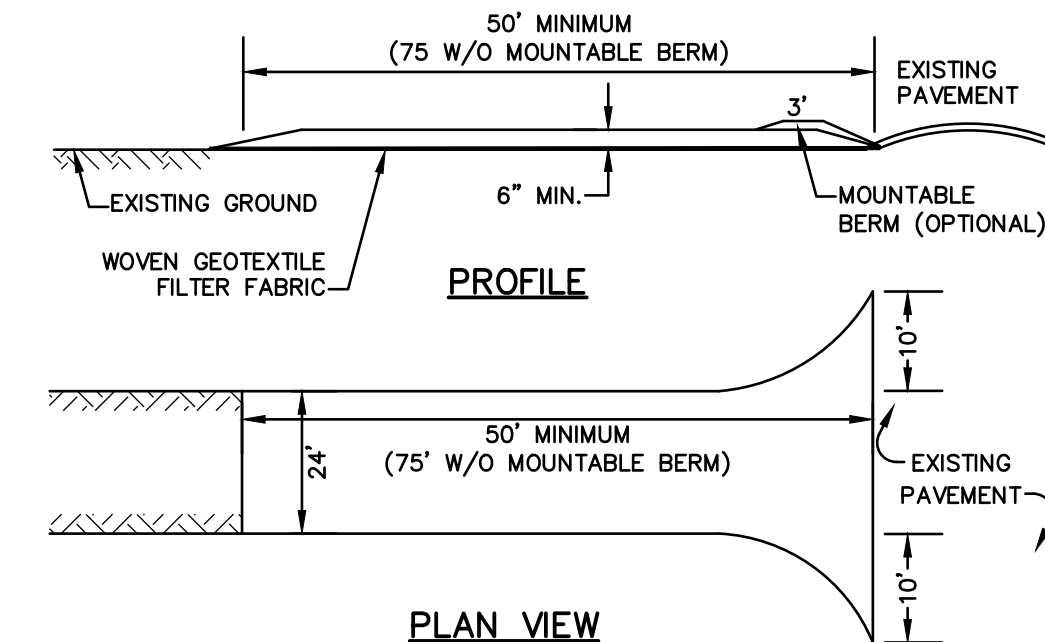
- SLOPES SHALL NOT BE STEEPER THAN 2:1 WITHOUT APPROPRIATE EROSION CONTROL MEASURES AS SPECIFIED ON THE PLANS (3:1 SLOPES OR FLATTER ARE PREFERRED).
- WHERE MOWING WILL BE DONE, 3:1 SLOPES OR FLATTER ARE RECOMMENDED.

**2. SEEDBED PREPARATION**

- SURFACE AND SEEPAGE WATER SHOULD BE DRAINED OR DIVERTED FROM THE SITE TO PREVENT DROWNING OR WINTER KILLING OF THE PLANTS.
- STONES LARGER THAN 4 INCHES AND TRASH SHOULD BE REMOVED BECAUSE THEY INTERFERE WITH SEEDING AND FUTURE MAINTENANCE OF THE AREA. WHERE FEASIBLE, THE SOIL SHOULD BE TILLED TO A DEPTH OF ABOUT 4 INCHES TO PREPARE A SEEDBED AND FERTILIZER AND LIME MIXED INTO THE SOIL. THE SEEDBED SHOULD BE LEFT IN A REASONABLY FIRM AND SMOOTH CONDITION. THE LAST TILLAGE OPERATION SHOULD BE PERFORMED ACROSS THE SLOPE WHEREVER PRACTICAL.

**3. ESTABLISHING A STAND**

- LIME AND FERTILIZER SHOULD BE APPLIED PRIOR TO OR AT THE TIME OF SEEDING AND INCORPORATED INTO THE SOIL. TYPES AND AMOUNTS OF LIME AND FERTILIZER SHOULD BE BASED ON AN EVALUATION OF SOIL TESTS. WHEN A SOIL TEST IS NOT AVAILABLE, THE FOLLOWING MINIMUM AMOUNTS SHOULD BE APPLIED:
  - AGRICULTURAL LIMESTONE, 2 TONS PER ACRE OR 100 LBS. PER 1,000 SQ.FT.
  - NITROGEN(N), 50 LBS. PER ACRE OR 1.1 LBS. PER 1,000 SQ.FT.
  - PHOSPHATE(P2O5), 100 LBS. PER ACRE OR 2.2 LBS. PER 1,000 SQ.FT.
  - POTASH(K2O), 100 LBS. PER ACRE OR 2.2 LBS. PER 1,000 SQ.FT.
  - (NOTE: THIS IS THE EQUIVALENT OF 500 LBS. PER ACRE OF 10-20-20 FERTILIZER OR 1,000 LBS. PER ACRE OF 5-10-10.)
- SEED SHOULD BE SPREAD UNIFORMLY BY THE METHOD MOST APPROPRIATE FOR THE SITE. METHODS INCLUDE BROADCASTING, DRILLING AND HYDROSEEDING. WHERE BROADCASTING IS USED, COVER SEED WITH .25 INCH OF SOIL OR LESS, BY CULTIPACKING OR RAKING.
- REFER TO THE "SEEDING GUIDE" AND "SEEDING RATES" TABLES ON THIS SHEET FOR APPROPRIATE SEED MIXTURES AND RATES OF SEEDING. ALL LEGUMES (CROWNVETCH, BIRDSFOOT, TREFOL AND FLATPEA) MUST BE INOCULATED WITH THEIR SPECIFIC INOCULANT PRIOR TO THEIR INTRODUCTION TO THE SITE. WHEN SEEDS ARE MULCHED, PLANTINGS MAY BE MADE FROM EARLY SPRING TO EARLY OCTOBER. WHEN SEEDS ARE NOT MULCHED, PLANTINGS SHOULD BE MADE FROM EARLY SPRING TO MAY 20th OR FROM AUGUST 10th TO SEPTEMBER 1st.
- MULCH
  - HAY, STRAW, OR OTHER MULCH, WHEN NEEDED, SHOULD BE APPLIED IMMEDIATELY AFTER SEEDING.
  - MULCH WILL BE HELD IN PLACE USING APPROPRIATE TECHNIQUES FROM THE BEST MANAGEMENT PRACTICE FOR MULCHING. HAY OR STRAW MULCH SHALL BE PLACED AT A RATE OF 90 LBS PER 1000 S.F.
- MAINTENANCE TO ESTABLISH A STAND
  - PLANTED AREAS SHOULD BE PROTECTED FROM DAMAGE BY FIRE, GRAZING, TRAFFIC, AND DENSE WEED GROWTH.
  - FERTILIZATION NEEDS SHOULD BE DETERMINED BY ONSITE INSPECTIONS. SUPPLEMENTAL FERTILIZER IS USUALLY THE KEY TO FULLY COMPLETE THE ESTABLISHMENT OF THE STAND BECAUSE MOST PERENNIALS TAKE 2 TO 3 YEARS TO BECOME FULLY ESTABLISHED.
  - IN WATERWAYS, CHANNELS, OR SWALES WHERE UNIFORM FLOW CONDITIONS ARE ANTICIPATED, ANNUAL MOWING MAY BE NECESSARY TO CONTROL GROWTH OF WOODY VEGETATION.



**NOTES:**

- STONE FOR STABILIZED CONSTRUCTION ENTRANCE SHALL BE 3 INCH STONE, RECLAIMED STONE, OR RECYCLED CONCRETE EQUIVALENT.
- THE LENGTH OF THE STABILIZED ENTRANCE SHALL NOT BE LESS THAN 50 FEET, 75' WITHOUT A MOUNTABLE BERM, AND EXCEPT FOR A SINGLE RESIDENTIAL LOT WHERE A 30 FOOT MINIMUM LENGTH WOULD APPLY.
- THICKNESS OF THE STONE FOR THE STABILIZED ENTRANCE SHALL NOT BE LESS THAN 6 INCHES.
- THE WIDTH OF THE ENTRANCE SHALL NOT BE LESS THAN THE FULL WIDTH OF THE ENTRANCE WHERE INGRESS OR EGRESS OCCURS, OR 10 FEET, WHICHEVER IS GREATER.
- GEOTEXTILE FILTER FABRIC SHALL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING THE STONE. FILTER FABRIC IS NOT REQUIRED FOR A SINGLE FAMILY RESIDENTIAL LOT.
- ALL SURFACE WATER THAT IS FLOWING TO OR DIVERTED TOWARD THE CONSTRUCTION ENTRANCE SHALL BE PIPED BENEATH THE ENTRANCE. IF PIPING IS IMPRACTICAL, A STONE BERM WITH 5:1 SLOPES THAT CAN BE CROSSED BY VEHICLES MAY BE SUBSTITUTED FOR THE PIPE.
- THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO THE PUBLIC RIGHT-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEAN OUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, WASHED, OR TRACKED ONTO THE PUBLIC RIGHT-OF-WAY MUST BE REMOVED PROMPTLY.

**STABILIZED CONSTRUCTION ENTRANCE**

NOT TO SCALE

USE	SEEDING MIXTURE 1/	DROUGHTY	WELL DRAINED	MODERATELY WELL DRAINED	POORLY DRAINED
STEEP CUTS AND FILLS, BORROW AND DISPOSAL AREAS	A	FAIR	GOOD	GOOD	FAIR
	B	POOR	GOOD	FAIR	FAIR
	C	POOR	GOOD	EXCELLENT	GOOD
	D	FAIR	EXCELLENT	EXCELLENT	POOR
WATERWAYS, EMERGENCY SPILLWAYS, AND OTHER CHANNELS WITH FLOWING WATER.	A	GOOD	GOOD	GOOD	FAIR
	C	GOOD	EXCELLENT	EXCELLENT	FAIR
LIGHTLY USED PARKING LOTS, ODD AREAS, UNUSED LANDS, AND LOW INTENSITY USE RECREATION SITES.	A	GOOD	GOOD	GOOD	FAIR
	B	GOOD	GOOD	FAIR	POOR
	C	GOOD	EXCELLENT	EXCELLENT	FAIR
PLAY AREAS AND ATHLETIC FIELDS. (TOPSOIL IS ESSENTIAL FOR GOOD TURF.)	E	FAIR	EXCELLENT	EXCELLENT	2/
	F	FAIR	EXCELLENT	EXCELLENT	2/
GRAVEL PIT, SEE NH-PM-24 IN APPENDIX FOR RECOMMENDATION REGARDING RECLAMATION OF SAND AND GRAVEL PITS.					

1/ REFER TO SEEDING MIXTURES AND RATES IN TABLE BELOW.  
2/ POORLY DRAINED SOILS ARE NOT DESIRABLE FOR USE AS PLAYING AREA AND ATHLETIC FIELDS.  
NOTE: TEMPORARY SEED MIX FOR STABILIZATION OF TURF SHALL BE WINTER RYE OR OATS AT A RATE OF 2.5 LBS. PER 1000 S.F. AND SHALL BE PLACED PRIOR TO OCTOBER 15th, IF PERMANENT SEEDING NOT YET COMPLETE.

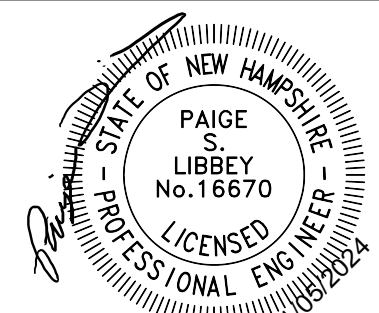
**SEEDING GUIDE**

MIXTURE	POUNDS PER ACRE	POUNDS PER 1,000 Sq. Ft.
A. TALL FESCUE	20	0.45
CREeping RED FESCUE	20	0.45
RED TOP	2	0.05
TOTAL	42	0.95
B. TALL FESCUE	15	0.35
CREeping RED FESCUE	10	0.25
CROWN VETCH	15	0.35
OR FLAT PEA	30	0.75
TOTAL	40 OR 55	0.95 OR 1.35
C. TALL FESCUE	20	0.45
CREeping RED FESCUE	20	0.45
BIRDS FOOT TREFOL	8	0.20
TOTAL	48	1.10
D. TALL FESCUE	20	0.45
FLAT PEA	30	0.75
TOTAL	50	1.20
E. CREeping RED FESCUE 1/	50	1.15
KENTUCKY BLUEGRASS 1/	50	1.15
TOTAL	100	2.30
F. TALL FESCUE 1	150	3.60

1/ FOR HEAVY USE ATHLETIC FIELDS CONSULT THE UNIVERSITY OF NEW HAMPSHIRE COOPERATIVE EXTENSION TURF SPECIALIST FOR CURRENT VARIETIES AND SEEDING RATES.

**SEEDING RATES**

Design: MLS	Draft: GDR	Date: 3/15/24
Checked: WGM	Scale: AS NOTED	Project No.: 24029
Drawing Name: 24029-PLAN.dwg		
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REV.	DATE	REVISION	BY
3	8/19/24	PLAN SET	KDR
2	7/29/24	CONCEPT 3	KDR
1	6/6/24	REVISED PER CLIENT	PSL
0	4/11/24	ISSUED FOR REVIEW	PSL
REV.	DATE	REVISION	BY

Designed and Produced in NH

**J/B Jones & Beach Engineers, Inc.**

85 Portsmouth Ave. Stratham, NH 03885

Civil Engineering Services

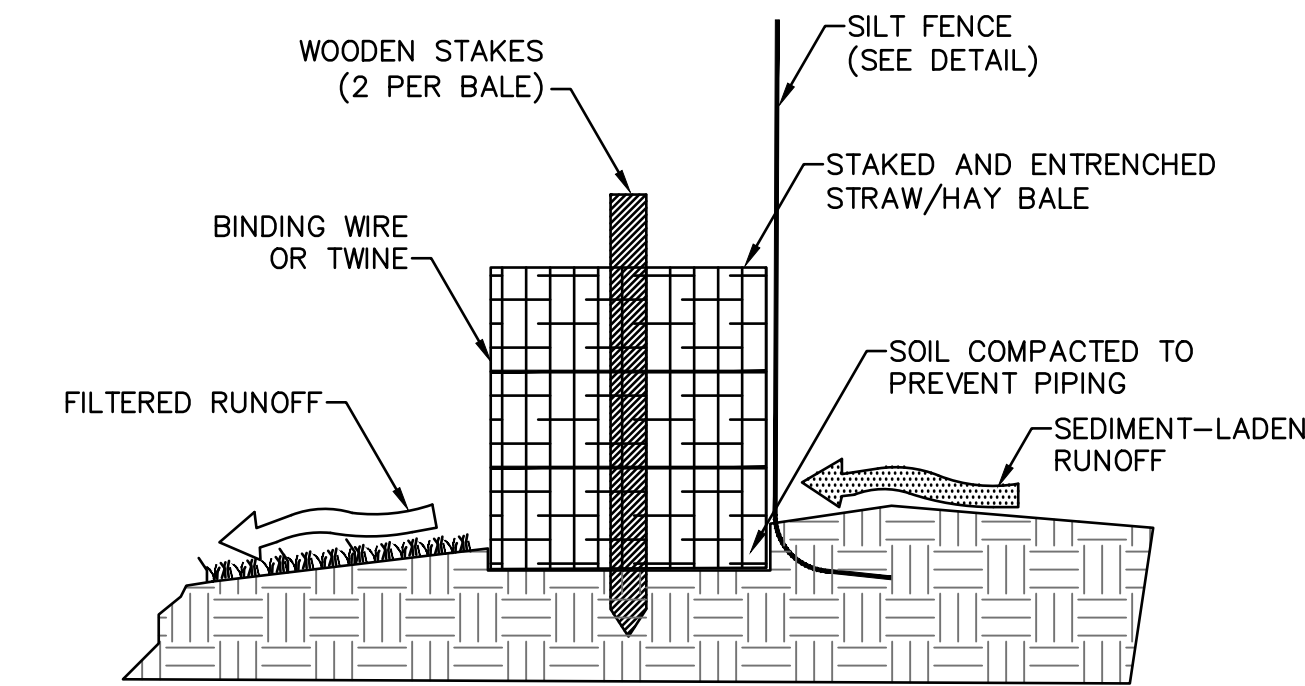
603-772-4746

E-MAIL: JBE@JONESANDBEACH.COM

Plan Name:	<b>EROSION AND SEDIMENT CONTROL DETAILS</b>
Project:	<b>"LILAC PLACE" 76 PORTSMOUTH AVE, EXETER, NH</b>
Owner of Record:	<b>RAP REALTY MANCHESTER LLC 50 ATLANTIC AVE, SEABROOK, NH</b>

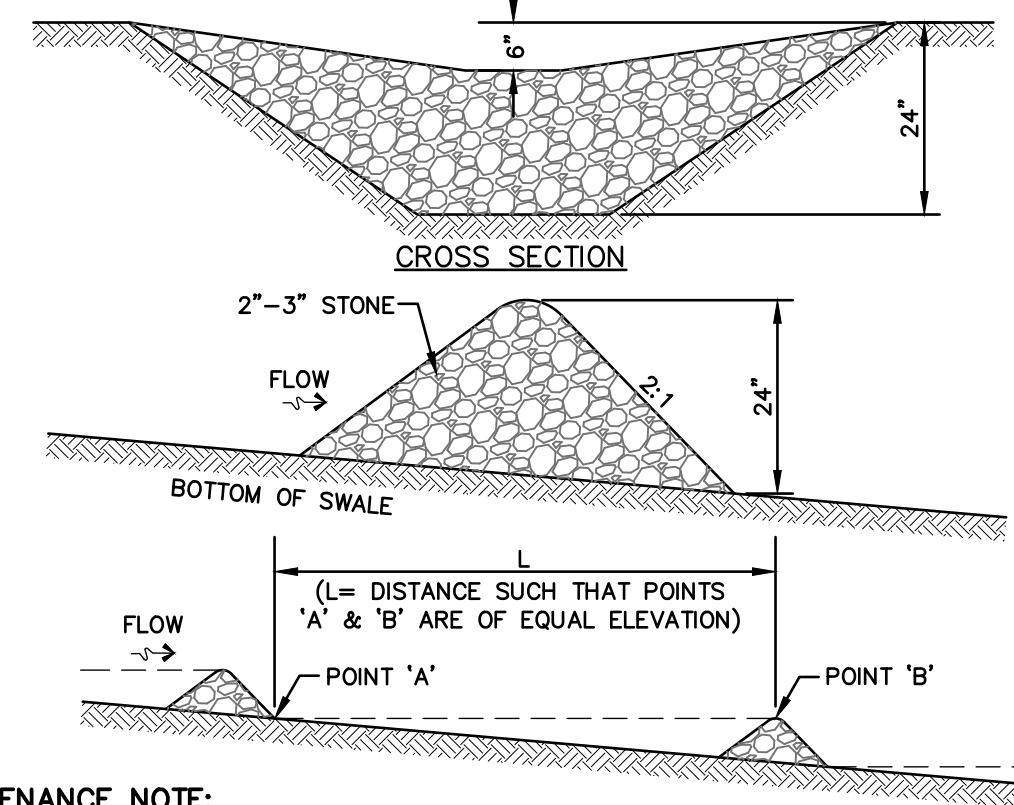
DRAWING No.	<b>E1</b>
SHEET 19 OF 20	JBE PROJECT NO. 24029





**HAYBALE DETAIL**

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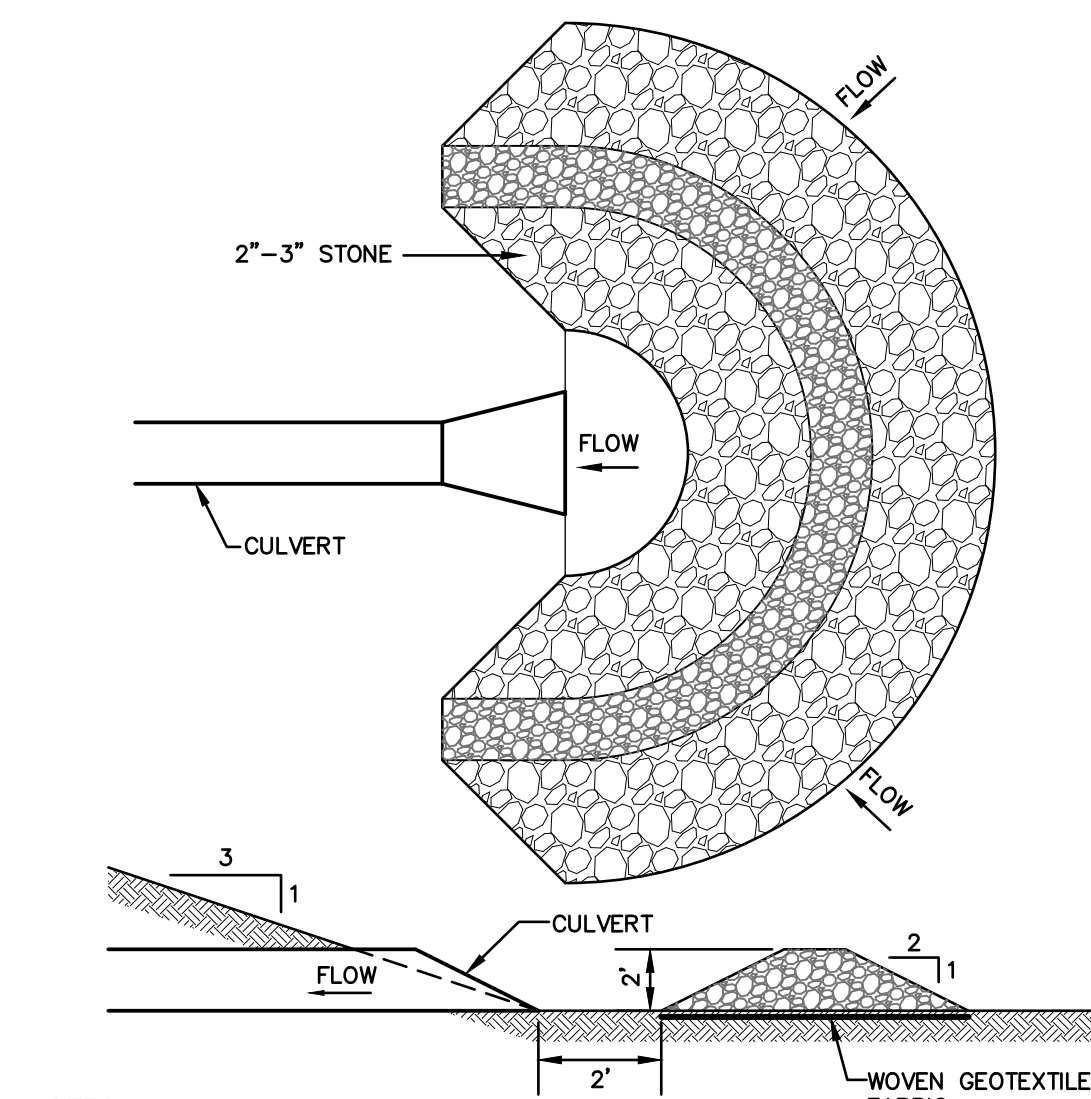


**STONE CHECK DAM**

**MAINTENANCE NOTE:**  
 1. STONE CHECK DAMS SHOULD BE CHECKED AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY NECESSARY REPAIRS SHOULD BE MADE IMMEDIATELY. PARTICULAR ATTENTION SHOULD BE GIVEN TO END RUN AND EROSION AT THE DOWNSTREAM TOE OF THE STRUCTURE. WHEN THE STRUCTURES ARE REMOVED, THE DISTURBED PORTION SHOULD BE BROUGHT TO THE EXISTING CHANNEL GRADE AND THE AREAS PREPARED, SEEDED AND MULCHED. WHILE THIS PRACTICE IS NOT INTENDED TO BE USED PRIMARILY FOR SEDIMENT TRAPPING, SOME SEDIMENT WILL ACCUMULATE BEHIND THE STRUCTURES. SEDIMENT SHALL BE REMOVED FROM BEHIND THE STRUCTURES WHEN IT HAS ACCUMULATED TO ONE HALF OF THE ORIGINAL HEIGHT OF THE STRUCTURE.

**STONE CHECK DAM**

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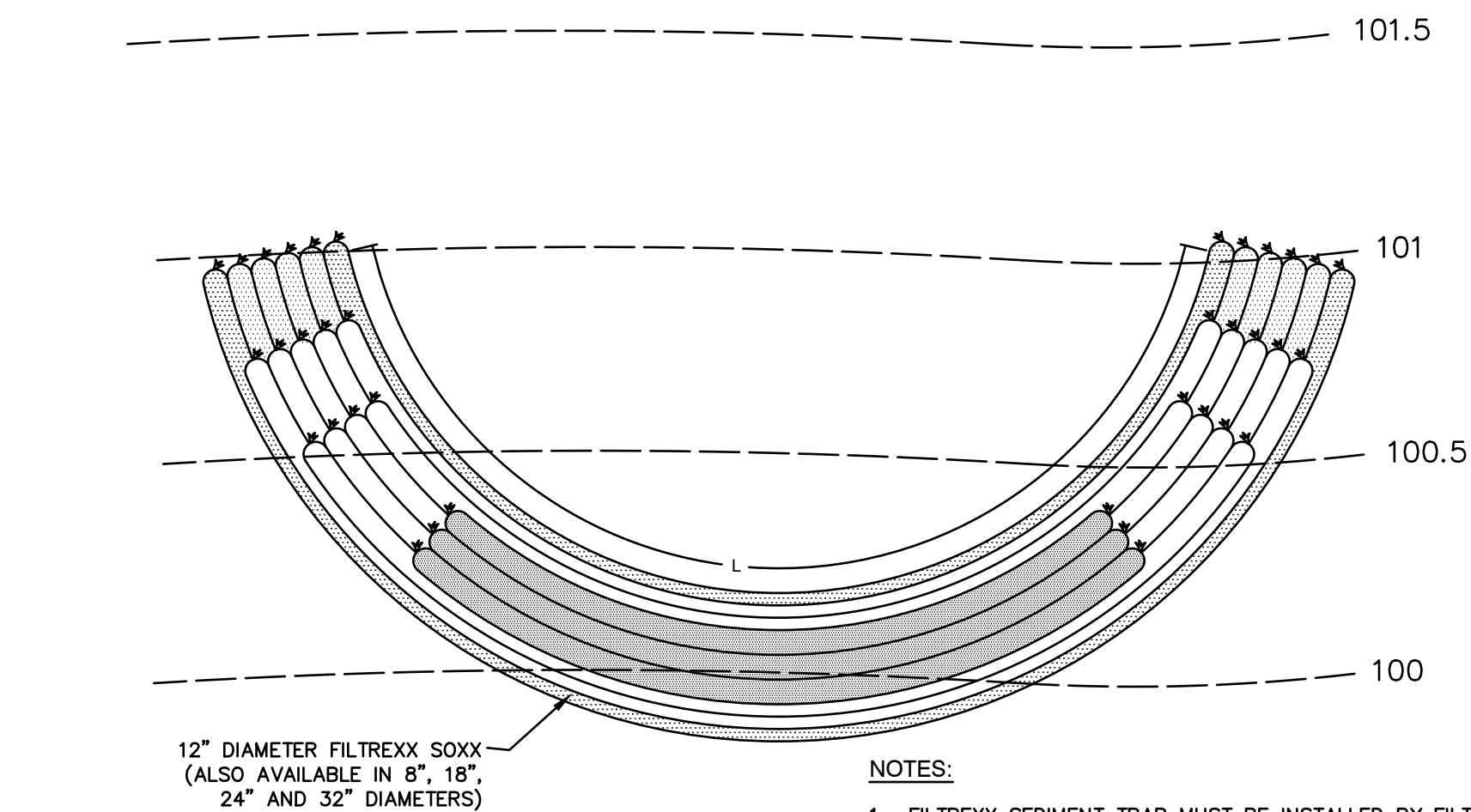


**NOTES:**

- TEMPORARY CULVERT INLET PROTECTION CHECK DAMS SHALL BE CONSTRUCTED OF 2-3" STONE OVER WOVEN GEOTEXTILE FABRIC.
- INLET PROTECTION MEASURES SHALL BE INSTALLED AT THE OPENINGS OF ALL EXISTING AND PROPOSED CULVERTS LOCATED BELOW (DOWNSTREAM) FROM AND WITHIN 100' OF THE PROJECT SITE.
- SEDIMENT SHALL BE REMOVED FROM BEHIND THE STRUCTURE WHEN IT HAS ACCUMULATED TO ONE HALF THE ORIGINAL HEIGHT OF THE STRUCTURE.
- STRUCTURES SHALL BE REMOVED WHEN THE SITE IS STABILIZED WITH VEGETATION AND THE CHANNEL SHALL BE SMOOTHED AND REVEGETATED.

**TEMPORARY CULVERT INLET PROTECTION CHECK DAM**

NOT TO SCALE

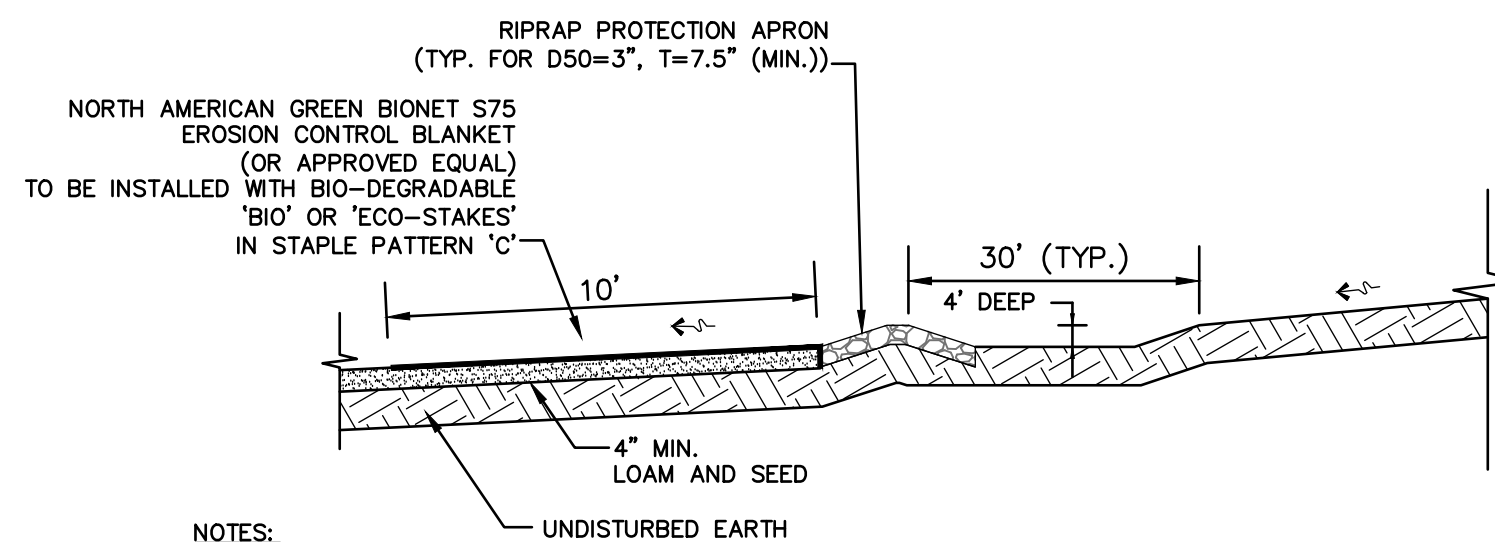


**NOTES:**

- FILTREXX SEDIMENT TRAP MUST BE INSTALLED BY FILTREXX CERTIFIED INSTALLER.
- FILTREXX SEDIMENT TRAP MUST COMPLY WITH ALL FILTREXX STANDARD SPECIFICATIONS.
- FILTREXX SEDIMENT TRAP MUST USE FILTREXX FILTERMEDIA.
- FILTREXX SEDIMENT TRAP BARRIER FACE SIZING SHALL USE  $Q/0.98CFM(PER\ SF\ OF\ AREA\ FACE) = A (Q=5L/SEC/SQ.M)$
- FILTREXX SEDIMENT TRAP BARRIER FACE SHALL BE MEASURED AS  $A=L*W$
- FILTREXX SEDIMENT TRAP SHALL BE CONSTRUCTED SO THAT THE MINIMUM BASE WIDTH IS EQUIVALENT TO THE HEIGHT (1H:1V).
- SEDIMENT ACCUMULATION SHALL NOT EXCEED 1/2 THE HEIGHT OF THE BARRIER.
- FILTREXX SEDIMENT TRAP SHALL BE INSPECTED AND MAINTAINED AFTER STORM EVENTS.
- SOXX SHALL BE OF LARGER DIAMETER AT THE BASE OF THE SEDIMENT TRAP AND DECREASE IN DIAMETER FOR SUCCESSIVE LAYERS.
- ENDS OF THE SEDIMENT TRAP SHALL BE A MINIMUM 1 FT (30 CM) HIGHER IN ELEVATION THAN THE MID-SECTION, WHICH SHALL BE AT THE LOWEST ELEVATION.
- BOTTOM LAYER OF SOXX SHALL BE STAKED WITH 2X2X36" WOODEN STAKES. SUCCESSIVE LAYERS SHALL BE STAKED WITH 1/2" REBAR AT A 45 DEGREE ANGLE.

**FILTREXX SEDIMENT TRAP DETAIL**

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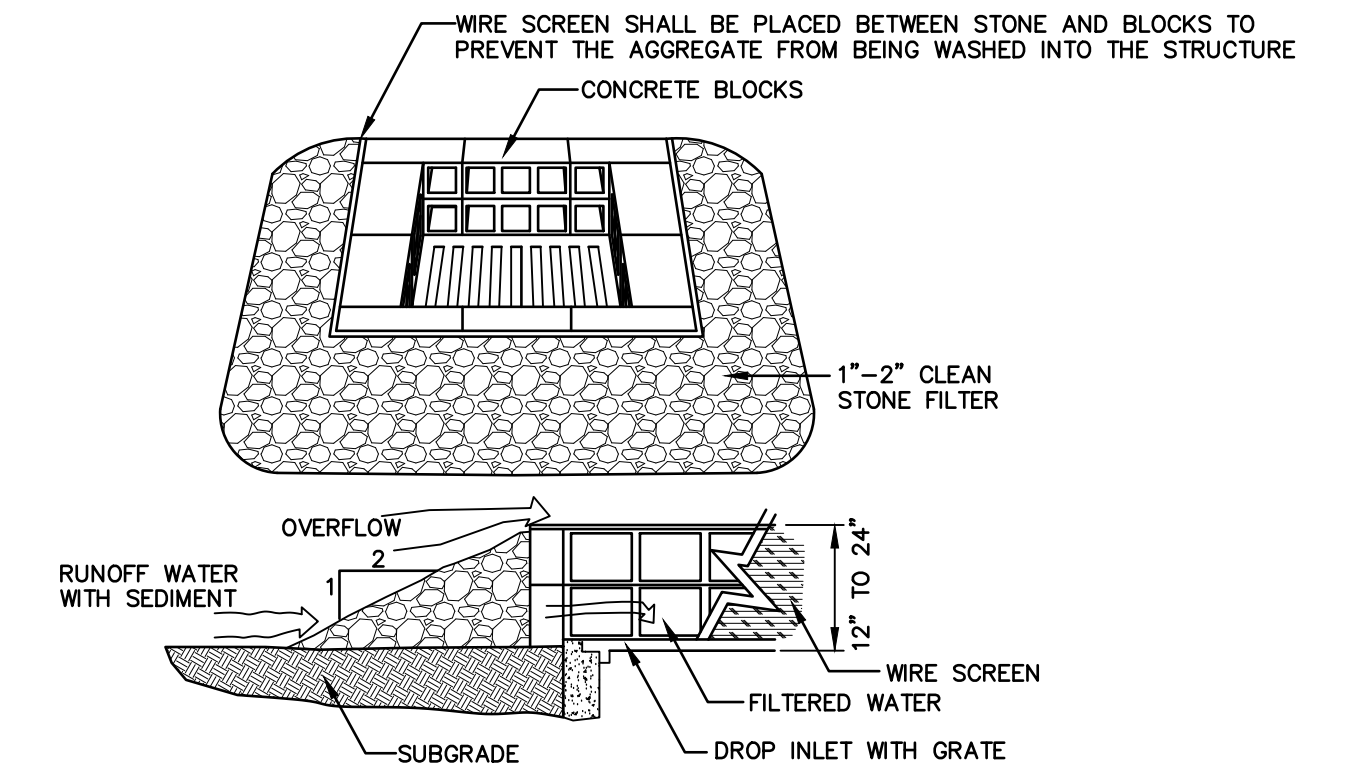


**NOTES:**

- CONSTRUCT LEVEL SPREADER LIP ON ZERO PERCENT GRADE TO INSURE UNIFORM SPREADING OF RUNOFF.
- VERTICAL GRANITE CURB SHALL BE PLACED A MINIMUM OF SIX INCHES DEEP AND EXTEND ENTIRE LENGTH OF LIP.
- THE RIP RAP APRON PRIOR TO THE LEVEL SPREADER SHALL NOT EXCEED A 0 PERCENT GRADE.
- THE FLOW FROM THE LEVEL SPREADER SHALL OUTLET ONTO STABILIZED AREAS. WATER MUST NOT RECONCENTRATE IMMEDIATELY BELOW THE SPREADER.
- PERIODIC INSPECTION AND REQUIRED MAINTENANCE SHALL BE PERFORMED.
- MAINTENANCE: LEVEL SPREADER SHOULD BE CHECKED PERIODICALLY AND AFTER EVERY MAJOR STORM TO DETERMINE IF THE SPREADER HAS BEEN DAMAGED. SEDIMENT DEEPER THAN FOUR INCHES ACCUMULATION SHOULD BE REMOVED. IF RILLING HAS TAKEN PLACE ON LIP, THEN DAMAGE SHOULD BE REPAIRED AND REVEGETATED. VEGETATION SHOULD BE MOWED OCCASIONALLY TO CONTROL WEEDS AND ENCROACHMENT OF WOODY VEGETATION. CLIPPINGS SHOULD BE REMOVED AND DISPOSED OF OUTSIDE SPREADER AND AWAY FROM OUTLET AREA. FERTILIZATION SHOULD BE DONE AS NECESSARY TO KEEP VEGETATION HEALTHY AND DENSE.

**LEVEL SPREADER DETAIL**

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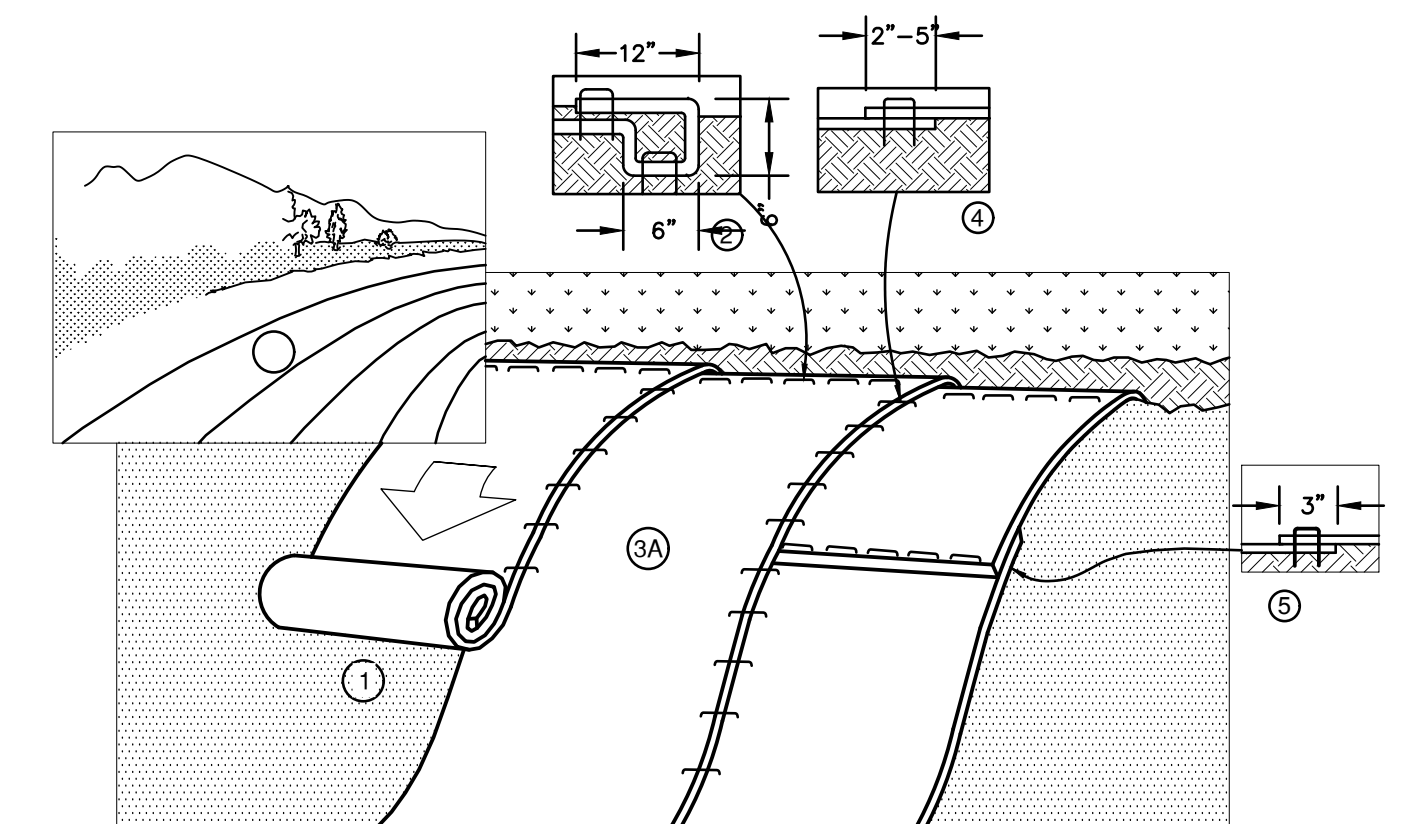


**MAINTENANCE NOTE:**

- ALL STRUCTURES SHOULD BE INSPECTED AFTER EVERY RAINFALL AND REPAIRS MADE AS NECESSARY. SEDIMENT SHOULD BE REMOVED FROM TRAPPING DEVICES AFTER THE SEDIMENT HAS REACHED A MAXIMUM OF ONE HALF THE DEPTH OF THE TRAP. THE SEDIMENT SHOULD BE DISPOSED IN A SUITABLE UPLAND AREA AND PROTECTED FROM EROSION BY EITHER STRUCTURE OR VEGETATIVE MEANS. THE TEMPORARY TRAPS SHOULD BE REMOVED AND THE AREA REPAIRED AS SOON AS THE CONTRIBUTING DRAINAGE AREA TO THE INLET HAS BEEN COMPLETELY STABILIZED.

**TEMPORARY CATCH BASIN INLET PROTECTION (Block and Gravel Drop Inlet Sediment Filter)**

NOT TO SCALE



**NOTES:**

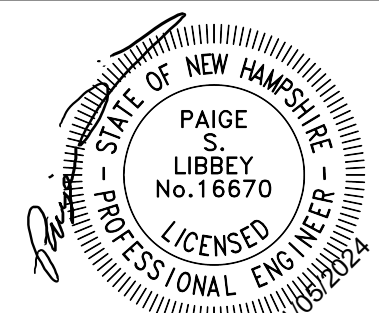
- PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED. NOTE: WHEN USING CELL-0-SEED DO NOT SEED PREPARED AREA. CELL-0-SEED MUST BE INSTALLED WITH PAPER SIDE DOWN.
- BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE BLANKET IN A 6" DEEP BY 6" WIDE TRENCH WITH APPROXIMATELY 12" OF BLANKET EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE BLANKET WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" PORTION OF BLANKET BACK OVER SEED AND COMPACTED SOIL. SECURE BLANKET OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" APART ACROSS THE WIDTH OF THE BLANKET.
- BEGIN AT THE TOP OF THE SLOPE (A) DOWN OR (B) HORIZONTALLY ACROSS THE SLOPE. BLANKETS WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL BLANKETS MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE. WHEN USING OPTIONAL DOT SYSTEM, STAPLES/STAKES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN.
- THE EDGES OF PARALLEL BLANKETS MUST BE STAPLED WITH APPROXIMATELY 2"-5" OVERLAP DEPENDING ON BLANKET TYPE. TO ENSURE PROPER SEAM ALIGNMENT, PLACE THE EDGE OF THE OVERLAPPING BLANKET (BLANKET BEING INSTALLED ON TOP) EVEN WITH THE COLORED SEAM STITCH ON THE PREVIOUSLY INSTALLED BLANKET.
- CONSECUTIVE BLANKETS SPICED DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE) WITH AN APPROXIMATE 3" OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" APART ACROSS ENTIRE BLANKET WIDTH. NOTE: IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" MAY BE NECESSARY TO PROPERLY SECURE THE BLANKETS.

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**EROSION CONTROL BLANKET SLOPE INSTALLATION (North American Green SC150BN)**

NOT TO SCALE

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Designed and Produced in NH

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Plan Name:	<b>EROSION AND SEDIMENT CONTROL DETAILS</b>
Project:	"LILAC PLACE" 76 PORTSMOUTH AVE, EXETER, NH
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