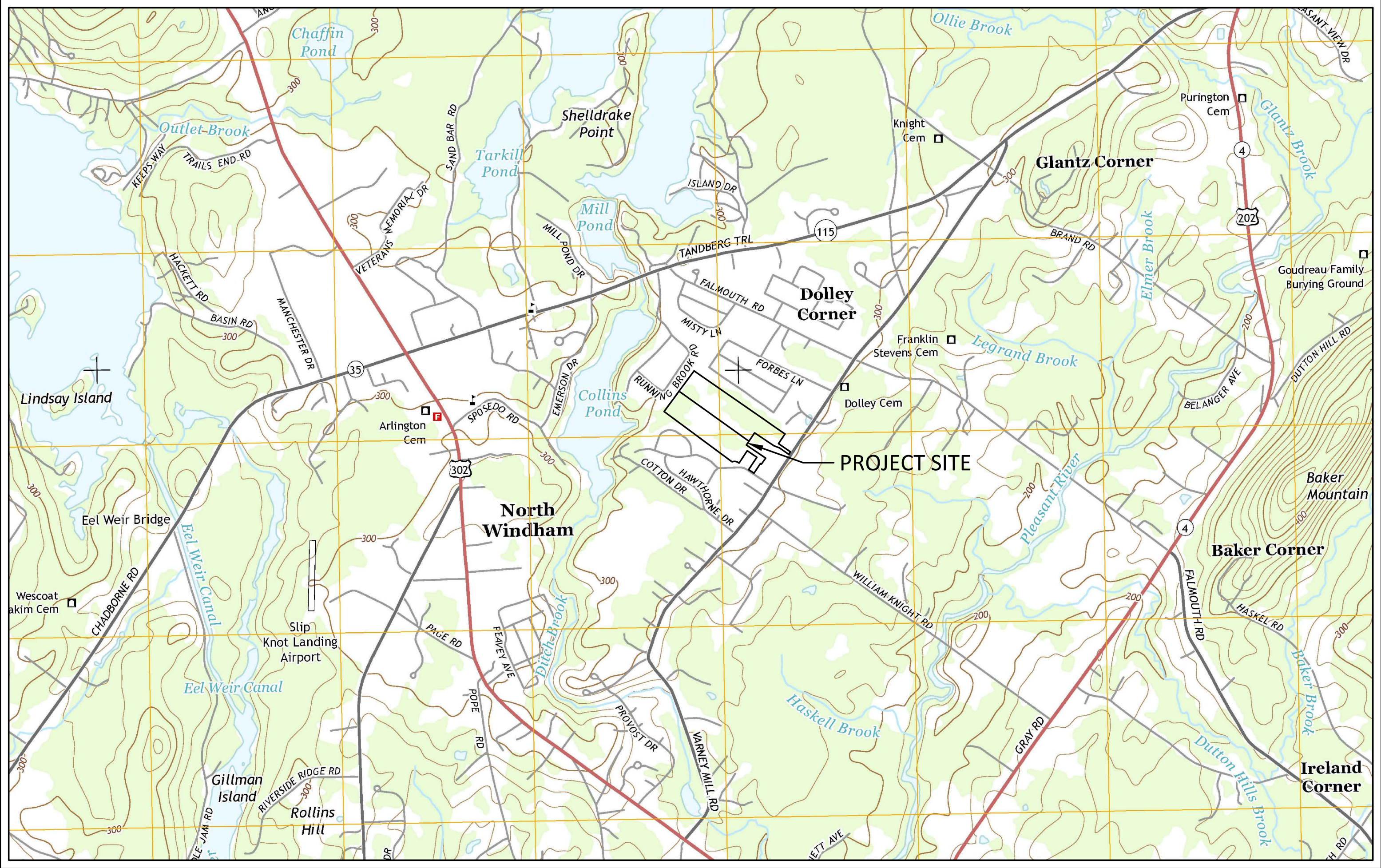


BELVEDERE COMMONS

BRIARWOOD LANE & DUSTY RHOADES LANE
WINDHAM, MAINE

CONSULTANTS	
CIVIL ENGINEER	DM ROMA CONSULTING ENGINEERS
LAND SURVEYOR	WAYNE T. WOOD & CO.
SITE EVALUATOR	MAINELY SOILS, LLC & HARRIS SEPTIC SOLUTIONS, INC.
TRAFFIC ENGINEER	TRAFFIC SOLUTIONS
GEOLOGIST	MARK CENCI GEOLOGIC, INC.
SOIL SCIENTIST	ALBERT FRICK ASSOCIATES, INC.



PROJECT VICINITY MAP

ISSUED FOR APPROVAL - NOT FOR CONSTRUCTION
OCTOBER 16, 2020

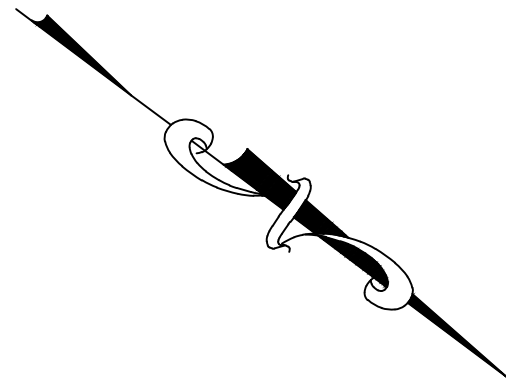
PREPARED BY:

DM ROMA

CONSULTING ENGINEERS
P.O. BOX 1116
WINDHAM, ME 04062
(207) 310 - 0506

APPLICANT:
ROBIE HOLDINGS, LLC
P.O. BOX 1508
WINDHAM, MAINE 04062

BELVEDERE COMMONS DRAWING SHEET INDEX	
PAGE NO.	DESCRIPTION
1	TITLE SHEET
2	BOUNDARY SURVEY
3	SUBDIVISION PLAN
4	PLAN AND PROFILE: BELVEDERE DRIVE
5	PLAN AND PROFILE: BELVEDERE DRIVE
6	PLAN AND PROFILE: DUSTY RHOADES LANE
7	DETAILS
8	DETAILS
9	DETAILS
10	LANDSCAPING DETAILS
	HIGH INTENSITY (CLASS A) SOIL SURVEY
	NITRATE PLUME PLAN

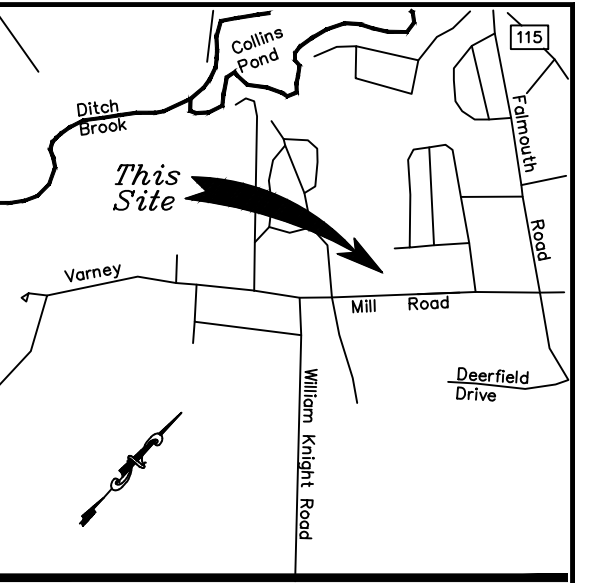
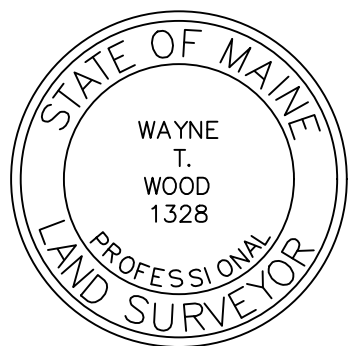


LEGEND

- 5/8" Capped Rebar #1328 to be Set
- Iron Pipe, Pin or Rebar Found as Noted
- Stone Post or Granite Monument Found
- N/F Now or Formerly of
- (8913/216) Deed Book and Page Reference
- △ Wooden Stake Set

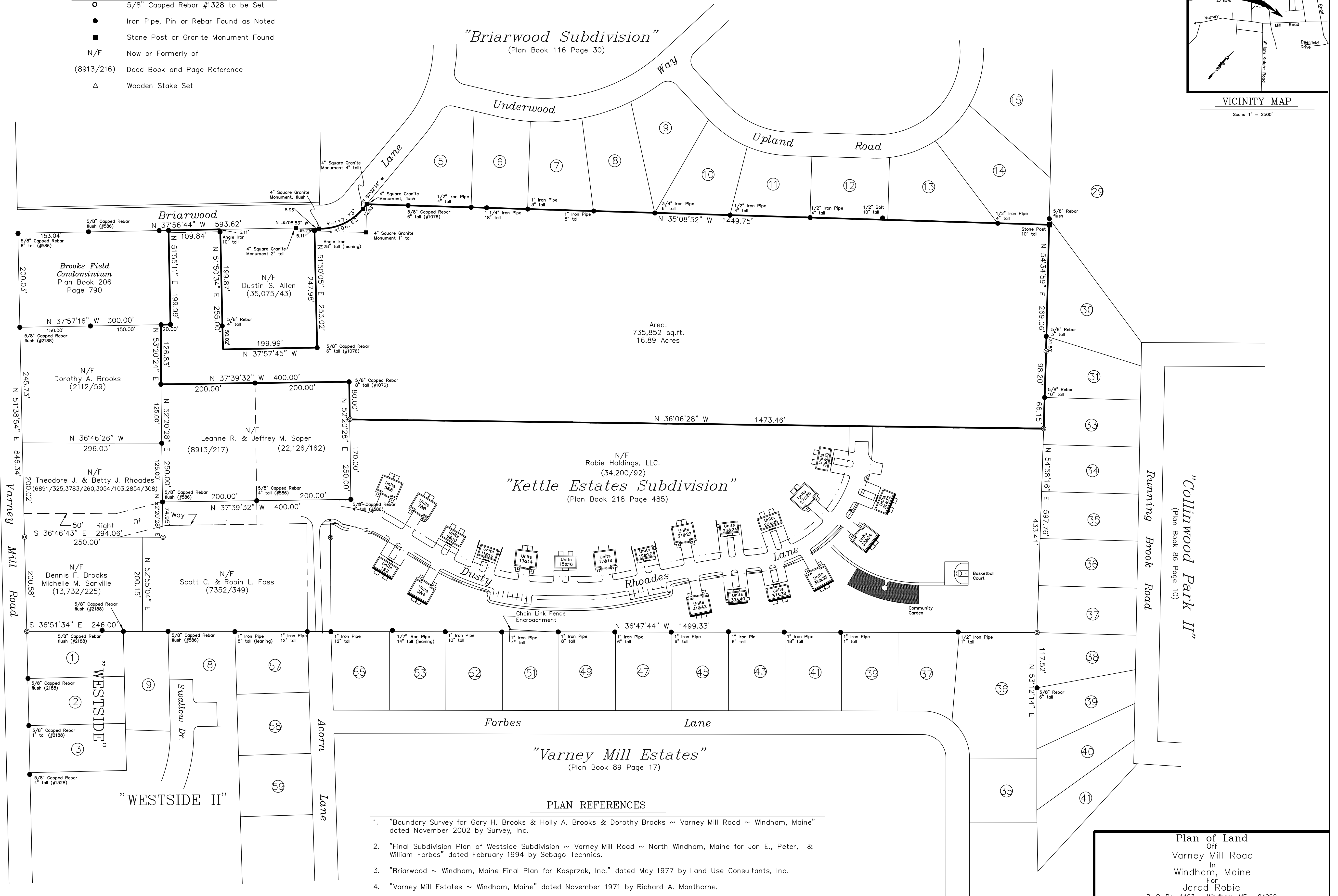
NOTES

- Owner of record is Gary H. Brooks by deed recorded in the Cumberland County Registry of Deeds in book 21,061 page 287.
- All bearings are Magnetic of the year 2001 as per the plan reference 1 below and calculated from angles of an actual on the ground survey.
- This parcel is shown as Lot 8-2 as shown on Tax Map 19 and is in the RM zone.



VICINITY MAP

Scale: 1" = 2500'



PLAN REFERENCES

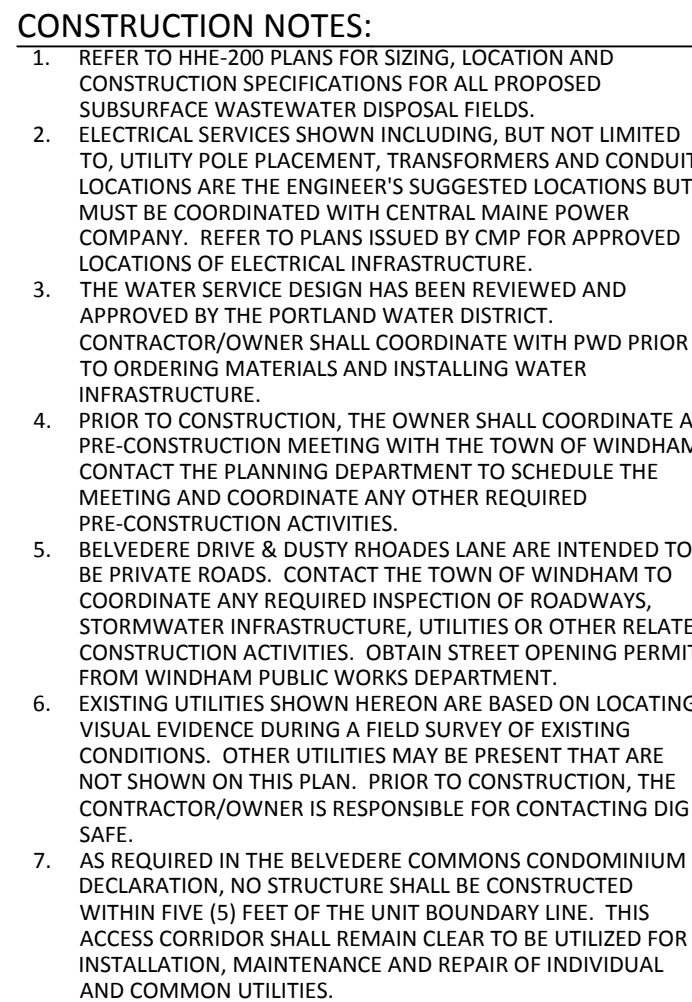
- "Boundary Survey for Gary H. Brooks & Holly A. Brooks & Dorothy Brooks ~ Varney Mill Road ~ Windham, Maine" dated November 2002 by Survey, Inc.
- "Final Subdivision Plan of Westside Subdivision ~ Varney Mill Road ~ North Windham, Maine for Jan E., Peter, & William Forbes" dated February 1994 by Sebago Technics.
- "Briarwood ~ Windham, Maine Final Plan for Kosprzak, Inc." dated May 1977 by Land Use Consultants, Inc.
- "Varney Mill Estates ~ Windham, Maine" dated November 1971 by Richard A. Manthorne.
- "Plan of Collinwood Park II for Byron Pride ~ Route 115 ~ Windham, Maine" dated April 1971 by C. R. Storer, Inc.
- Two working drawings for Soper, undated by Survey, Inc.
- "Brooks Field a Condominium ~ Brook Lane ~ Windham, Maine ~ Brooks Condominium Development, LLC." dated July 2006 by Sevee & Maher.
- "Final Subdivision Plan Kettle Estates off Varney Mill Road in Windham, Maine for Robie Holding, LLC." dated March 2018 by Wayne T. Wood & Co. recorded in Plan Book 218 o Page 485.

Plan of Land
Off
Varney Mill Road
In
Windham, Maine
For
Jarod Robie
P. O. Box 1463 ~ Windham, ME 04062

WAYNE T. WOOD & CO.

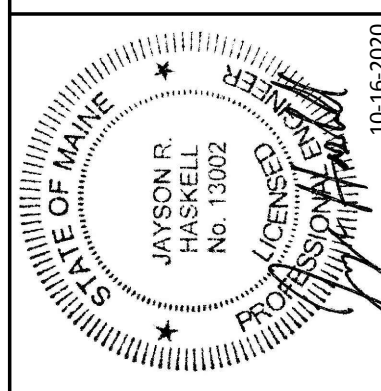
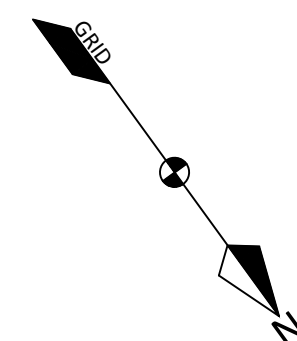
Gray, Maine 04039
Drawn By: KLV/WTW
Scale: 1" = 100'
Checked By: WTW
Field Crew:

(207)657-3330
Date
December 2018
Job No.
218150



The diagram is a road profile for Belvedere Drive, showing elevation (Y-axis, 296 to 312 feet) versus stationing (X-axis, -0+30 to 6+00 feet). The profile includes a solid line for the road grade, a dashed line for the proposed grade, and a dotted line for the existing ground. Key features include:

- Grade Break:** STA = 0+16.79, ELEV = 306.03.
- Vertical Curve Data:**
 - LOW POINT STA = 2+86.22, LOW POINT ELEV = 303.17, AD = 3.03%, K = 33.02.
 - PVI STA = 3+02.26, PVI ELEV = 302.83, 100.00' VC.
 - HIGH POINT STA = 5+81.23, HIGH POINT ELEV = 307.74, AD = -3.00%, K = 33.33.
 - PVI STA = 5+64.57, PVI ELEV = 308.08, 100.00' VC.
- Structures and Features:**
 - CB-1:** STA: 2+86.22 11'L, RIM=302.85, 15" INV. OUT=298.60.
 - CB-2:** STA: 2+86.22 11'R, RIM=302.85, 15" INV. IN=298.40, 15" INV. OUT=298.30.
 - Hydrant Branch:** Located at STA 5+00.00, ELEV 306.78.
 - Air Release:** Located at STA 5+81.23, ELEV 307.74.
 - 6'-0" COVER, TYP.:** Indicated at several points along the profile.
- Scale:** HORIZ.: 1"=30', VERT.: 1"=3'.



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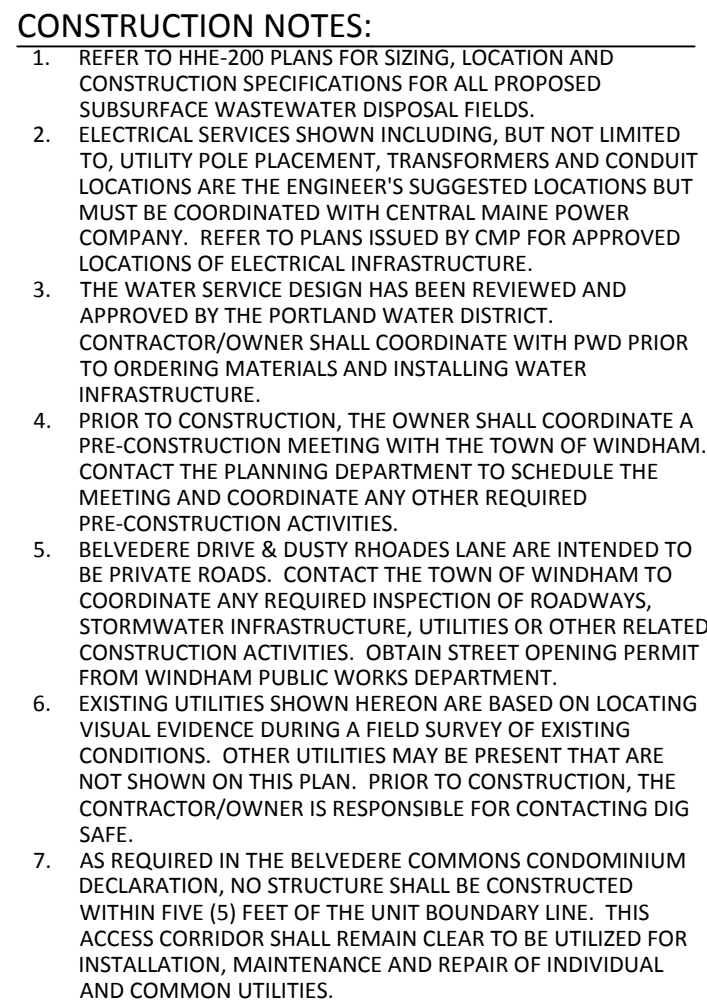
REV	DATE	BY	DESCRIPTION
G	12-16-19	DMR	ISSUED FOR MDEP PRE-APPLICATION REVIEW
H	1-30-20	DMR	REVISED WATER METER LOCATION
I	2-10-20	DMR	REVISED PER PWD REVIEW
J	3-9-20	DMR	ISSUED FOR MDEP SLODA REVIEW
K	9-18-20	DMR	REVISED PER MDEP REVIEW
L	10-2-20	DMR	REVISED PER MDEP REVIEW
M	10-16-20	DMR	ISSUED TO TOWN FOR FINAL APPROVAL

PLAN AND PROFILE: BELVEDERE DRIVE
STAs 0+45 THRU 6+28
PHASE ONE

BELVEDERE COMMONS
BELVEDERE DRIVE
WINDHAM, MAINE

FOR RECORD OWNER:
ROBIE HOLDINGS, LLC
PO BOX 1506
WINDHAM, ME 04092

18067 JOB NUMBER:
AS NOTED SCALE:
10-16-2020 DATE:
SHEET 4 OF 10
PP-1

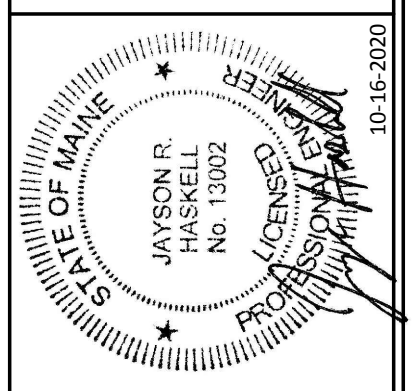


ROAD PROFILE: BELVEDERE DRIVE

SCALE: HORIZ. 1"=30'
VERT. 1"=3'

The diagram shows a road profile with the following key data points and features:

- Vertical Curve Data:**
 - LOW POINT STA = 8+77.55, LOW POINT ELEV = 305.08, AD = 3.80%, K = 26.32, PVI STA = 9+01.23, PVI ELEV = 304.71, 100.00' VC.
 - HIGH POINT STA = 11+51.24, HIGH POINT ELEV = 310.96, AD = -4.68%, K = 19.23, PVI STA = 11+42.40, PVI ELEV = 311.46, 50.00' VC.
- Stationing and Elevation Data:**
 - Station 7+00: Elevation 310.0
 - Station 8+00: Elevation 310.0
 - Station 9+00: Elevation 310.0
 - Station 10+00: Elevation 310.0
 - Station 11+00: Elevation 310.0
 - Station 12+00: Elevation 310.0
 - Station 12+50: Elevation 310.0
- Structural Features:**
 - 6'-0" COVER, TYP.
 - 15" HDPE SD, L=160' S=2.4%
 - 15" INV. IN=300.53, 15" INV. OUT=300.23
 - 15" INV. IN=304.22, 15" INV. OUT=304.12
 - 15" INV. IN=305.60 (2), 15" INV. OUT=305.50
 - 15" INV. IN=305.60 (2), 15" INV. OUT=305.77
- Other Data:**
 - CB-3 STA. 8+77.55 11'L, RIM=304.78
 - CB-4 STA. 8+77.55 11'R, RIM=304.78
 - CB-5 STA. 10+46.20 11.0'R, RIM=308.47
 - CB-6 STA. 12+17.96 24.2'L, RIM=310.02
 - CB-7 STA. 12+13.55 18.4'R, RIM=309.80



DM ROMA
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P.O. BOX 1116
WINDHAM, ME 04062
(207) 310 - 0506

REV	DATE	BY	DESCRIPTION
D	11-4-19	DMR	REVISED PER TOWN REVIEW
E	11-20-19	DMR	REVISED PER TOWN REVIEW
F	12-16-19	DMR	ISSUED FOR MDEP PRE APPLICATION REVIEW
G	3-9-20	DMR	ISSUED FOR MDEP SODA REVIEW
H	9-18-20	DMR	REVISED PER MDEP REVIEW
I	10-2-20	DMR	REVISED PER MDEP REVIEW
J	10-16-20	DMR	ISSUED TO TOWN FOR FINAL APPROVAL

PLAN AND PROFILE: BELVEDERE DRIVE

BELVEDERE COMMONS
BELVEDERE DRIVE
WINDHAM, MAINE

FOR RECORD OWNER:
ROBIE HOLDINGS, LLC
PO BOX 1508
WINDHAM, ME 04093

STA 6+28 THRU 12+30
PHASE TWO

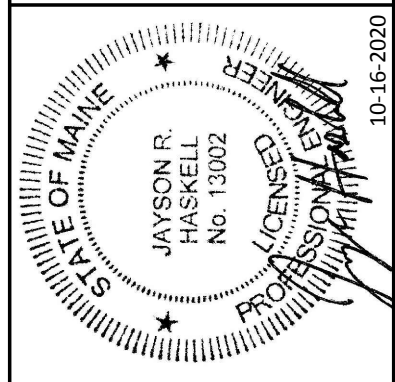
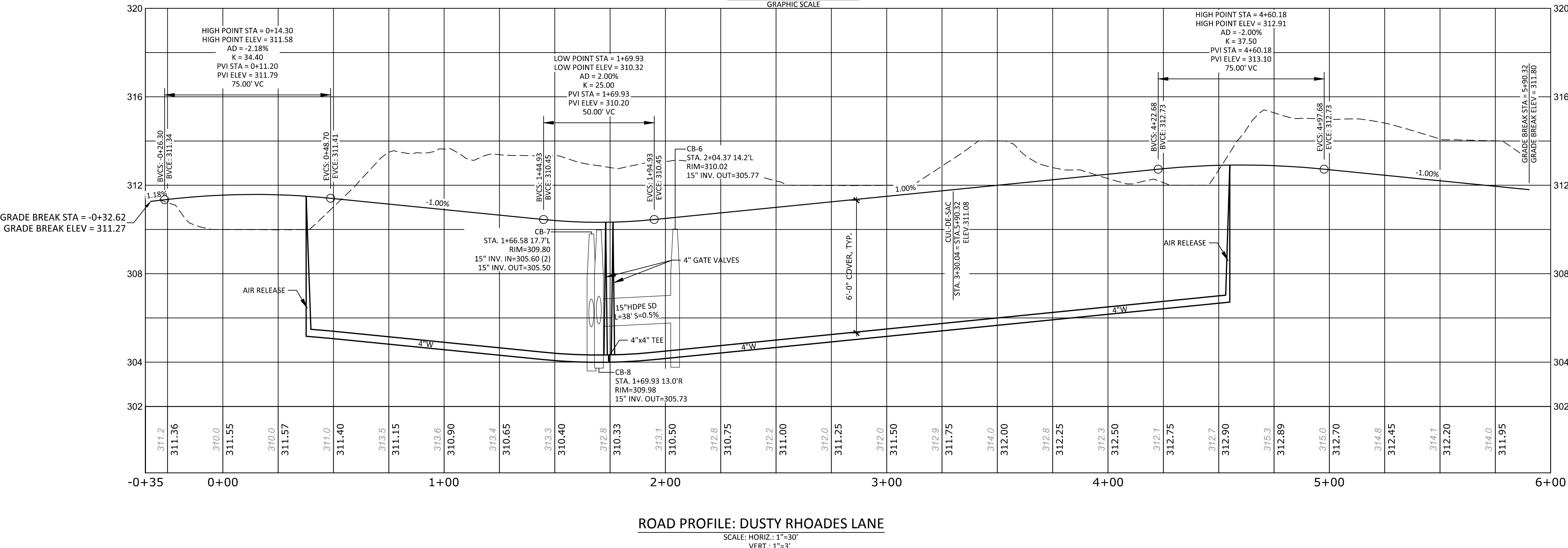
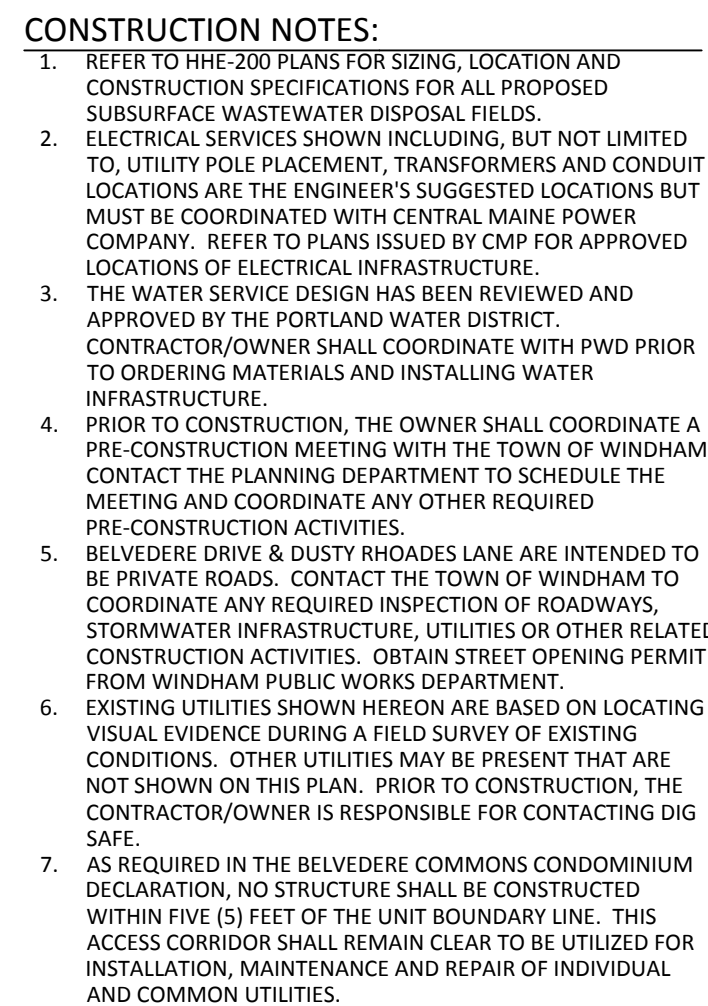
18067
JOB NUMBER:

AS NOTED

10-16-2020
DATE:

SHEET 5 OF 10

PP-2



DM ROMA
CONSULTING ENGINEERS
P.O. BOX 1116
WINDHAM, ME 04062
(207) 310 - 0506

REV	DATE	BY	DESCRIPTION
D	11-4-19	DMR	REVISED PER TOWN REVIEW
E	11-20-19	DMR	REVISED PER TOWN REVIEW
F	12-16-19	DMR	ISSUED FOR MDEP PRE-APPLICATION REVIEW
G	3-9-20	DMR	ISSUED FOR MDEP-100A REVIEW
H	9-18-20	DMR	REVISED PER MDEP REVIEW
I	10-2-20	DMR	REVISED PER MDEP REVIEW
J	10-16-20	DMR	ISSUED TO TOWN FOR FINAL APPROVAL

PLAN AND PROFILE: DUSTY RHOADES LANE

BELVEDERE COMMONS
BELVEDERE DRIVE & DUSTY RHOADES LANE
WINDHAM, MAINE

FOR RECORD OWNER:
ROBIE HOLDINGS, LLC
PO BOX 1508
WINDHAM, ME 04062

18067
JOB NUMBER:

AS NOTED

10-16-2020
DATE:

SHEET 6 OF 10

PP-3

EROSION AND SEDIMENTATION CONTROL NOTES:

EXCAVATION AND EARTHWORK SHALL BE COMPLETED SUCH THAT NO MORE THAN 1 ACRE OF THE SITE IS WITHOUT STABILIZATION AT ANY ONE TIME. LIMIT THE EXPOSED AREA TO THOSE AREAS IN WHICH WORK IS TO OCCUR DURING THE FOLLOWING 15 DAYS AND THAT CAN BE MULCHED IN ONE DAY.

IN ORDER TO EFFECTIVELY PREVENT AND CONTROL EROSION RELATED TO SOIL DISTURBANCE, THE FOLLOWING BEST MANAGEMENT PRACTICES (BMPs) SHALL BE EMPLOYED:

1. POLLUTION PREVENTION

MINIMIZE DISTURBED AREAS AND PROTECT NATURAL DOWNGRADE BUFFER AREAS TO THE EXTENT PRACTICABLE. CONTROL STORMWATER VOLUME AND VELOCITY WITHIN THE SITE TO MINIMIZE SOIL EROSION. MINIMIZE THE DISTURBANCE OF STEEP SLOPES. CONTROL STORMWATER DISCHARGES, INCLUDING BOTH PEAK FLOW RATES AND VOLUME, TO MINIMIZE EROSION AT OUTLETS. THE DISCHARGE MAY NOT RESULT IN EROSION OF ANY OTHER DRAINAGE CHANNELS, SWALES, STREAM CHANNELS OR STREAM BANKS, UPLAND, OR COASTAL OR FRESHWATER WETLANDS OFF THE PROJECT SITE.

WHENEVER PRACTICABLE, NO DISTURBANCE ACTIVITIES SHOULD TAKE PLACE WITHIN 50 FEET OF ANY PROTECTED NATURAL RESOURCE. IF DISTURBANCE ACTIVITIES TAKE PLACE BETWEEN 30 FEET AND 50 FEET OF ANY PROTECTED NATURAL RESOURCE, AND STORMWATER DISCHARGES THROUGH THE DISTURBED AREAS TOWARD THE PROTECTED NATURAL RESOURCE, PERIMETER EROSION CONTROLS MUST BE DOUBLED. IF DISTURBANCE ACTIVITIES TAKE PLACE LESS THAN 30 FEET FROM ANY PROTECTED NATURAL RESOURCE, AND STORMWATER DISCHARGES THROUGH THE DISTURBED AREAS TOWARD THE PROTECTED NATURAL RESOURCE, PERIMETER EROSION CONTROLS MUST BE DOUBLED AND DISTURBED AREAS MUST BE TEMPORARILY OR PERMANENTLY STABILIZED WITHIN 7 DAYS.

2. TEMPORARY SOIL STABILIZATION BMPs

TEMPORARY MULCHING SHALL BE APPLIED IMMEDIATELY TO ANY AREAS THAT HAVE BEEN TEMPORARILY OR PERMANENTLY SEEDED. ANY DISTURBED SOIL WITHIN 75' OF A STREAM, WATER BODY OR WETLAND MUST RECEIVE TEMPORARY MULCH WITHIN 48 HOURS FOLLOWING DISTURBANCE AND BEFORE ANY STORM EVENT. ALL OTHER AREAS SHALL RECEIVE TEMPORARY MULCH WITHIN 7 DAYS OF DISTURBANCE. AREAS WHICH CANNOT BE SEEDED DURING THE GROWING SEASON SHALL BE MULCHED FOR OVER-WINTER PROTECTION. THE FOLLOWING ARE ACCEPTABLE TEMPORARY MULCHING METHODS:

HAY OR STRAW MULCHES NEED TO BE AIR-DRIED, FREE OF UNDESIRABLE SEEDS AND COARSE MATERIALS. APPLICATION RATE MUST BE 2 BALES (70-90 POUNDS) PER 1000 SQ FT OR 1.5 TO 2 TONS (90-100 BALES) PER ACRE TO COVER 75-90% OF THE GROUND SURFACE. HAY OR STRAW CAN BE DRIVEN INTO THE GROUND WITH TRACKED EQUIPMENT IF SLOPES ARE LESS THAN 3%, OR CAN BE ANCHORED WITH JUTE, WOOD FIBER OR PLASTIC NETTING ON STEEPER SLOPES.

EROSION CONTROL MIX MUST CONSIST PRIMARILY OF ORGANIC MATERIAL AND WILL INCLUDE ANY OF THE FOLLOWING: SHREDDED BARK, STUMP GRINDINGS, COMPOSTED BARK OR OTHER ACCEPTABLE PRODUCTS BASED ON A SIMILAR RAW SOURCE. WOOD OR BARK CHIPS, GROUND CONSTRUCTED WOOD PRODUCTS ARE NOT ACCEPTABLE. EROSION CONTROL MIX CAN BE USED AS A STAND-ALONE REINFORCEMENT ON SLOPES OF 2 HORIZONTAL TO 1 VERTICAL OR LESS AND DRAINING IN SHEET FLOW. IT CAN BE PLACED WITH A HYDRAULIC BUCKET, WITH A PNEUMATIC BLOWER OR BY HAND, AND MUST PROVIDE 100% SOIL COVERAGE.

EROSION CONTROL MIX SHALL MEET THE FOLLOWING SPECIFICATIONS:
-ORGANIC MATTER CONTENT SHALL BE BETWEEN 80-100%, DRY WEIGHT BASIS.
-PARTICLE SIZE BY WEIGHT SHALL BE 100% PASSING A 6 IN. SCREEN AND BETWEEN 70-85% PASSING 0.75 IN. SCREEN
-ORGANIC PORTION NEEDS TO BE FIBROUS AND ELONGATED
-LARGE PORTIONS OF SILTS, CLAYS OR FINE SANDS ARE NOT ACCEPTABLE IN THE MIX

WHEN USED AS MULCH, THE THICKNESS OF THE EROSION CONTROL MIX IS BASED UPON THE FOLLOWING:

LENGTH OF SLOPE	3:1 SLOPE OR LESS	BETWEEN 2:1 AND 3:1 SLOPE
LESS THAN 20 FT	2.0 IN.	4.0 IN.
BETWEEN 20 - 60 FT	3.0 IN.	5.0 IN.
BETWEEN 60 - 100 FT	4.0 IN.	6.0 IN.

CHEMICAL MULCHES AND SOIL BINDERS MAY BE USED AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL CONSULT WITH THE MANUFACTURER TO DETERMINE ADEQUATE APPLICATION RATES AND METHODS.

TEMPORARY MULCH SHALL BE INSPECTED FOLLOWING ANY SIGNIFICANT RAINFALL EVENT. IF LESS THAN 90% OF THE SOIL SURFACE IS COVERED BY MULCH, ADDITIONAL MULCH SHALL BE IMMEDIATELY APPLIED. EROSION CONTROL MATS AND MULCH ANCHORING MUST BE INSPECTED AFTER RAINFALL EVENTS FOR DISLOCATION OR FAILURE, AND REPAIRED IMMEDIATELY. INSPECTIONS SHALL TAKE PLACE UNTIL 95% OF THE SOIL SURFACE IS COVERED WITH PERMANENT VEGETATION. WHERE MULCH IS USED WITH ORNAMENTAL PLANTINGS, INSPECT PERIODICALLY THROUGHOUT THE YEAR TO DETERMINE IF MULCH IS MAINTAINING COVERAGE OF THE SOIL SURFACE, AND REPAIR AS NEEDED.

TEMPORARY VEGETATION SHALL BE ESTABLISHED ON SOILS THAT WILL NOT BE BROUGHT TO FINAL GRADE FOR A PERIOD OF MORE THAN 30 DAYS. IF TEMPORARY VEGETATION CANNOT BE ESTABLISHED PRIOR TO OCTOBER 15, TEMPORARY MULCH SHALL BE APPLIED THROUGH THE WINTER AND TEMPORARY VEGETATION SHALL BE PLANTED AT THE BEGINNING OF THE GROWING SEASON THE FOLLOWING YEAR. TO PREPARE THE SEEDED, THE CONTRACTOR SHALL APPLY FERTILIZER AT A RATE OF 600 POUNDS PER ACRE OF 10-10-10 (N-P205-K20) OR EQUIVALENT AND LIMESTONE AT A RATE OF 3 TONS PER ACRE, IF NECESSARY. LOOSEN SOIL TO A DEPTH OF 2 INCHES IN AREAS THAT HAVE BEEN COMPACTED BY CONSTRUCTION ACTIVITIES. GRASS SEED SHALL BE SELECTED BASED UPON THE TIME OF YEAR THE PLANTING WILL TAKE PLACE AS SUMMARIZED IN THE FOLLOWING TABLE:

SEED	LB. PER ACRE	RECOMMENDED SEEDING DATES
WINTER RYE	112	8/15 - 10/1
OATS	80	4/1 - 7/1 8/15 - 9/15
ANNUAL RYEGRASS	40	4/1 - 7/1

TEMPORARY SEEDING SHALL BE PERIODICALLY INSPECTED TO MAINTAIN AT LEAST 95% VEGETATIVE COVER OF SOIL SURFACE. IF ANY EVIDENCE OF EROSION OR SEDIMENTATION IS APPARENT, REPAIRS SHALL BE MADE AND OTHER TEMPORARY MEASURES SHALL BE USED IN THE INTERIM SUCH AS TEMPORARY MULCH, FILTER BARRIERS, ETC.

3. SEDIMENT BARRIER BMPs

PRIOR TO CONSTRUCTION TEMPORARY SEDIMENT BARRIERS SHALL BE INSTALLED AT THE DOWNGRADE EDGE OF ANY AREA TO BE DISTURBED AND ADJACENT TO ANY DRAINAGE CHANNELS WITHIN THE DISTURBED AREA. SEDIMENT BARRIERS INCLUDE ANY OF THE FOLLOWING:

FILTER BARRIER FENCE, ALSO CALLED SILT FENCE, SHALL BE INSTALLED WHERE SHOWN ON THE PLANS AND IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. THE FILTER FABRIC SHALL BE A PERVIOUS SHEET OF PROPYLENE, NYLON, POLYESTER OR ETHYLENE YARN AND SHALL PROVIDE A MINIMUM OF 6 MONTHS USABLE CONSTRUCTION LIFE INCLUDING PROTECTION AGAINST ULTRA-VIOLET LIGHT. THE HEIGHT OF THE FENCE SHALL NOT EXCEED 36 INCHES INSTALLED AND POST SPACING SHALL NOT EXCEED 6 FEET. JOINTS IN THE FENCE SHALL BE AVOIDED TO THE EXTENT POSSIBLE, AND IF NECESSARY SHALL BE SPLICED TOGETHER AT A SUPPORT POST WITH A MINIMUM 6 INCH OVERLAP. A TRENCH SHALL BE EXCAVATED APPROXIMATELY 6 INCHES WIDE AND 6 INCHES DEEP, AND THE BOTTOM 6-8 INCHES OF FABRIC SHALL BE "TOED-IN" TO THE TRENCH AND COMPACTED. THE TRENCH SHOULD BE UPHILL OF THE FABRIC PRIOR TO BURAL.

EROSION CONTROL MIX BERMES ARE LINEAR BARRIERS COMPOSED OF EROSION CONTROL MIX AS SPECIFIED ABOVE. THE BERM MUST BE A MINIMUM OF 12 INCHES TALL AND 24 INCHES WIDE AT THE BASE IF UPHILL SLOPES ARE LESS THAN 5%. STEEPER SLOPES OR SLOPES GREATER THAN 20 FEET LONG MAY REQUIRE A LARGER VERTICAL BERM. EROSION CONTROL MIX BERMES SHALL BE PROHIBITED AT THE BASE OF A LONG OR STEEP SLOPE (8% OR GREATER) WITHOUT THE ADDITIONAL SUPPORT OF A FILTER FENCE INSTALLED ON THE DOWNHILL SIDE OF THE BERM.

SEDIMENT BARRIERS SHOULD BE INSTALLED DOWNGRADE OF SOIL OR SEDIMENT STOCKPILES AND STORMWATER PREVENTED RUNNING ONTO THE STOCKPILE. SEDIMENT BARRIERS SHALL BE INSPECTED AFTER ANY SIGNIFICANT RAINFALL EVENT AND REPAIRED IMMEDIATELY IF THERE ARE ANY SIGNS OF EROSION OR SEDIMENTATION BELOW THE BARRIERS. IF THERE ARE SIGNS OF UNDERCUTTING AT THE CENTER OR EDGES OF THE BARRIER, OR IF LARGE VOLUMES OF WATER ARE IMPOUNDED BEHIND THE BARRIER, IT MAY BE NECESSARY TO REPLACE THE BARRIER WITH A TEMPORARY STONE CHECK DAM. SEDIMENT SHALL BE REMOVED ONCE IT REACHES HALF THE BARRIER HEIGHT. AFTER THE BARRIER IS REMOVED, ANY REMAINING SILT SHALL EITHER BE REMOVED OR GRADED TO CONFORM WITH THE EXISTING TOPOGRAPHY AND VEGETATED.

4. STORM DRAIN INLET PROTECTION

STORM DRAIN INLETS THAT ARE MADE OPERATIONAL BEFORE THEIR DRAINAGE AREA IS STABILIZED SHALL BE PROTECTED WITH A FILTER UNTIL THE DRAINAGE AREA IS EITHER PAVED OR STABILIZED WITH 95% VEGETATIVE GROWTH. THE FOLLOWING ARE ACCEPTABLE BMPs ASSOCIATED WITH STORM DRAIN INLET PROTECTION:

MANUFACTURED SEDIMENT FILTERS ARE THE PREFERRED METHOD FOR PROTECTING CATCH BASIN INLETS IN PAVED OR GRAVEL ROADWAYS. THE FILTERS TYPICALLY CONSIST OF A FABRIC OR OTHER PERVIOUS MATERIAL THAT IS PLACED ABOVE OR BELOW THE GRATE THAT TRAPS SEDIMENT ON THE SURFACE AND ALLOWS WATER TO FLOW THROUGH THE GRATE. CONSIDERATIONS SUCH AS WEATHER CONDITIONS, SLOPES, TRIBUTARY WATERSHED AREA AND EXPECTED SEDIMENT ACCUMULATION SHOULD BE FACTORED INTO MAKING A DECISION ON ANY PARTICULAR PRODUCT, AND THE MANUFACTURER'S RECOMMENDATIONS ON INSTALLATION AND MAINTENANCE SHALL BE STRICTLY ADHERED TO.

5. STABILIZED CONSTRUCTION ENTRANCE/EXIT

TO REDUCE THE TRACKING OF SEDIMENT ONTO ROADWAYS, A STABILIZED CONSTRUCTION EXIT SHALL BE INSTALLED AT ALL POINTS OF EGRESS WHERE VEHICLES MAY TRAVEL FROM THE PROJECT SITE TO A PUBLIC ROAD OR OTHER PAVED AREA. THE STONE PAD SHALL CONSIST OF A MINIMUM 6 INCH DEPTH OF 2-3 INCH CRUSHED STONE, AND SHALL BE PLACED ON A GEOTEXTILE FABRIC. THE PAD SHALL EXTEND AT LEAST 50 FEET INTO THE PROJECT SITE AND BE A MINIMUM OF 10 FEET WIDE. THE EXIT SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY, AND THE CONTRACTOR SHALL SWEEP PAVEMENT AT EXITS THAT HAVE EXPERIENCED ANY MUD-TRACKING PRIOR TO THE NEXT STORM EVENT. MAINTAIN THE PAD UNTIL ALL DISTURBED AREAS ARE STABILIZED.

6. DUST CONTROL

THE CONTRACTOR IS RESPONSIBLE FOR CONTROLLING DUST ON THE PROJECT SITE AND ON ADJACENT ROADWAYS. EXPOSED SOIL SURFACES SHALL BE MOISTENED PERIODICALLY WITH ADEQUATE WATER TO CONTROL DUST. GRAVEL SURFACES SHALL EITHER BE TREATED WITH AN APPLICATION OF CALCIUM CHLORIDE OR COVERED WITH CRUSHED STONE IF DUST CONTROL BECOMES DIFFICULT WITH NORMAL WATER APPLICATIONS.

7. LAND GRADING AND SLOPE PREPARATION

GRADING SHALL BE PLANNED SO AS TO MINIMIZE THE LENGTH OF TIME BETWEEN INITIAL SOIL EXPOSURE AND FINAL GRADING. ON LARGE PROJECTS THIS SHOULD BE ACCOMPLISHED BY PHASING THE OPERATION AND COMPLETING THE FIRST PHASE UP TO FINAL GRADING AND SEEDING BEFORE STARTING THE NEXT PHASE. ANY EXPOSED AREA THAT WILL NOT BE FINISH GRADED WITHIN 7 DAYS SHALL BE TREATED WITH MULCH OR PLANTED WITH TEMPORARY VEGETATION. PROVISIONS SHALL BE MADE TO SAFELY CONVEY SURFACE RUNOFF TO STORM DRAINS, PROTECTED OUTLETS OR TO STABLE WATER COURSES TO ENSURE THAT SURFACE RUNOFF WILL NOT DAMAGE SLOPES OR OTHER GRADED AREAS. CUT AND FILL SLOPES THAT ARE TO BE STABILIZED WITH GRASS SHALL NOT BE STEEPER THAN 2:1. AREAS TO BE FILLED SHALL BE CLEARED, GRUBBED AND STRIPPED OF TOPSOIL TO REMOVE TREES, VEGETATION, ROOTS OR OTHER OBJECTIONABLE MATERIALS. AREAS SHALL BE SCARIFIED TO A MINIMUM DEPTH OF 3 INCHES PRIOR TO PLACEMENT OF TOPSOIL. ALL FILLS SHALL BE COMPACTED AS REQUIRED TO REDUCE EROSION, SURFACE SETTLEMENT, OR OTHER RELATED PROBLEMS. FILL INTENDED TO SUPPORT BUILDINGS, STRUCTURES AND CONDUITS, ETC. SHALL BE COMPACTED IN ACCORDANCE WITH LOCAL REQUIREMENTS OR CODES. ALL FILLS SHALL BE PLACED AND COMPACTED IN LAYERS NOT TO EXCEED 8 INCHES IN THICKNESS. FILL MATERIAL SHALL BE FREE OF STUMPS, BUILDING DEBRIS AND OTHER OBJECTIONABLE MATERIALS THAT WOULD INTERFERE WITH OR PREVENT CONSTRUCTION OF SATISFACTORY LIFTS. FROZEN MATERIAL OR SOFT, MUCKY OR HIGHLY COMPRESSIBLE MATERIALS SHALL NOT BE INCORPORATED INTO FILL SLOPES OR STRUCTURAL FILLS. FILL SHALL NOT BE PLACED ON A FROZEN FOUNDATION. SEEPS OR SPRINGS ENCOUNTERED DURING CONSTRUCTION SHALL BE HANDLED APPROPRIATELY. ALL GRADED AREAS SHALL BE PERMANENTLY STABILIZED IMMEDIATELY FOLLOWING FINISHED GRADING.

8. TOPSOIL

IF POSSIBLE, TOPSOIL SHALL BE STOCKPILED ON THE PROJECT SITE AND REUSED. HIGH QUALITY TOPSOIL SHALL BE FRIABLE AND LOAMY (LOAM, SANDY LOAM, SILT LOAM, SANDY CLAY LOAM, CLAY LOAM), AND SHALL BE FREE OF DEBRIS, TRASH, STUMPS, ROCKS, ROOTS AND NOXIOUS WEEDS. AFTER THE AREAS TO BE TOPSOILED HAVE BEEN BROUGHT TO GRADE, AND IMMEDIATELY PRIOR TO SPREADING THE TOPSOIL, THE SUBGRADE SHALL BE LOOSENED BY SCARIFYING TO A DEPTH OF AT LEAST 2 INCHES TO ENSURE BONDING WITH SUBSOIL. THE TOPSOIL SHALL BE UNIFORMLY DISTRIBUTED TO A MINIMUM COMPACTED DEPTH OF 4 INCHES. ANY IRREGULARITIES IN THE SURFACE RESULTING FROM TOPSOILING OR OTHER OPERATIONS SHALL BE CORRECTED IN ORDER TO PREVENT THE FORMATION OF DEPRESSIONS OR WATER POCKETS. IT IS NECESSARY TO COMPACT THE TOPSOIL ENOUGH TO ENSURE GOOD CONTACT WITH THE UNDERLYING SOIL, BUT UNDUE COMPACTIO IS TO BE AVOIDED.

9. PERMANENT SOIL STABILIZATION

IF THE AREA WILL NOT BE WORKED FOR MORE THAN ONE YEAR OR HAS BEEN BROUGHT TO FINAL GRADE, THEN PERMANENTLY STABILIZE THE AREA WITHIN 7 DAYS BY PLANTING VEGETATION, SEEDING, SOD, OR THROUGH THE USE OF PERMANENT MULCH, OR RIPRAP, OR ROAD SUB-BASE. IF USING VEGETATION FOR STABILIZATION, SELECT THE PROPER VEGETATION FOR THE LIGHT, MOISTURE, AND SOIL CONDITIONS; AMEND AREAS OF DISTURBED SUBSOILS WITH TOPSOIL, COMPOST, OR FERTILIZERS; PROTECT SEEDED AREAS WITH MULCH OR, IF NECESSARY, EROSION CONTROL BLANKETS; AND SCHEDULE SODDING, PLANTING, AND SEEDING SO TO AVOID DIE-OFF FROM SUMMER DROUGHT AND FALL FROSTS. NEWLY SEEDED OR SODDED AREAS MUST BE PROTECTED FROM VEHICLE TRAFFIC, EXCESSIVE PEDESTRIAN TRAFFIC, AND CONCENTRATED RUNOFF UNTIL THE VEGETATION IS WELL-ESTABLISHED WITH 90% COVER BY HEALTHY VEGETATION. IF NECESSARY, AREAS MUST BE REWORKED AND REESTABLISHED IF GERMINATION IS SPARSE, PLANT COVERAGE IS SPOTTY, OR TOPSOIL EROSION IS EVIDENT. ONE OR MORE OF THE FOLLOWING MAY APPLY TO A PARTICULAR SITE.

SEEDED AREAS: TO PREPARE THE SEEDED, APPLY 10-20-20 FERTILIZER AT A RATE OF 800 POUNDS PER ACRE AND GROUND LIMESTONE AT A RATE OF 3 TONS PER ACRE. WORK THE FERTILIZER AND LIMESTONE INTO THE TOPSOIL TO A DEPTH OF 4 INCHES AND REMOVE ANY STONES, ROOTS OR OTHER VISIBLE DEBRIS. SELECT A SEED MIXTURE THAT IS APPROPRIATE FOR THE SOIL TYPE AND MOISTURE CONTENT AS FOUND AT THE SITE, AND FOR THE AMOUNT OF SUN EXPOSURE AND FOR LEVEL OF USE. REFER TO THE USDA SOIL CONSERVATION SERVICE OR THE LOCAL SOIL AND WATER CONSERVATION DISTRICT FOR APPROPRIATE SEED MIXTURES. APPLY SEED UNIFORMLY IN ACCORDANCE WITH SUPPLIER RECOMMENDATIONS AND IMMEDIATELY COVER WITH MULCH AS DESCRIBED IN THE TEMPORARY MULCHING SECTION OF THIS PLAN.

HYDROSEEDING SHALL BE DONE IN ACCORDANCE WITH SUPPLIER'S RECOMMENDATIONS. FOR SEEDED AREAS TO BE PERMANENTLY STABILIZED, 90% OF THE DISTURBED SOIL SHALL BE COVERED WITH MATURE HEALTHY PLANTS WITH NO EVIDENCE OF WASHING OR RILLING OF THE TOPSOIL.

SOD STRIPS SHALL BE LAID AT RIGHT ANGLES TO DIRECTION OF SLOPE OR FLOW OF WATER STARTING AT LOWEST ELEVATION. JOINTS SHALL BE STAGGERED, AND ALL STRIPS SHALL BE ROLLED OR TAMPED INTO PLACE. ON SLOPES, SOD SHALL BE ANCHORED WITH STAPLES, WIRE OR PINS. IRRIGATE SODDED AREA IMMEDIATELY AFTER INSTALLATION. FOR SODDED AREAS TO BE PERMANENTLY STABILIZED, THE ROOTS OF THE SOD MUST BE COMPLETELY BOUND INTO THE UNDERLYING SOIL WITH NO SLUMPING OF THE SOD OR DIE-OFF.

PERMANENT MULCH IS A LONG TERM COVER THAT PROVIDES A GOOD BUFFER AROUND DISTURBED AREAS. THE EROSION CONTROL MIX SHALL CONSIST PRIMARILY OF ORGANIC MATERIAL AND MAY INCLUDE SHREDDED BARK, STUMP GRINDINGS OR COMPOSTED BARK. WOOD CHIPS, GROUND CONSTRUCTION DEBRIS, PROCESSED WOOD PRODUCTS OR BARK CHIPS ARE NOT ACCEPTABLE. THE EROSION CONTROL MIX SHALL CONTAIN A WELL-GRADED MIXTURE OF PARTICLE SIZES AND MAY CONTAIN ROCKS LESS THAN 4 INCHES IN DIAMETER. EROSION CONTROL MIX MUST BE FREE OF REFUSE, PHYSICAL CONTAMINANTS AND MATERIAL TOXIC TO PLANT GROWTH.

RIRAP STONE SHALL CONSIST OF SUB-ANGULAR FIELD STONE OR ROUGH UNEVEN QUARRY STONE OF APPROXIMATELY RECTANGULAR SHAPE. THE DEPTH OF STONE SHALL BE A MINIMUM OF 2.2 TIMES THE MAXIMUM STONE DIAMETER. A GRAVEL OR GEOTEXTILE FILTER BLANKET SHALL BE PLACED BETWEEN THE RIPRAP AND UNDERLYING SOIL SURFACE. GRAVEL FILTER BLANKETS SHALL MEET MOOT TYPE-C UNDERDRAIN MATERIAL SPECIFICATIONS AND BE AT LEAST 6 INCHES THICK. GEOTEXTILE FILTER BLANKETS SHALL BE SPECIFIED BASED ON SITE CONDITIONS. RIPRAP SLOPES SHALL BE TOED INTO THE BASE OF THE EMBANKMENT BY EXCAVATING A TRENCH AT THE BOTTOM OF THE SLOPE AND INSTALLING A STABLE BASE OF RIPRAP TO GRADE.

DITCHES, CHANNELS AND SWALES ARE CONSIDERED PERMANENTLY STABILIZED WHEN THE CHANNEL HAS 90% COVER OF HEALTHY VEGETATION WITH A WELL GRADED RIPRAP LINING, EROSION CONTROL BLANKET, OR WITH ANOTHER NON-EROSIVE LINING SUCH AS CONCRETE OR ASPHALT PAVEMENT. THERE MUST BE NO EVIDENCE OF SLUMPING OF THE CHANNEL LINING, UNDERCUTTING OF THE BANKS, OR DOWNCUTTING OF THE CHANNEL.

10. STORMWATER CHANNELS

EACH CHANNEL SHOULD BE CONSTRUCTED IN SECTIONS SO THAT THE SECTION'S GRADING, SHAPING, AND INSTALLATION OF THE PERMANENT LINING CAN BE COMPLETED THE SAME DAY. IF A CHANNEL'S FINAL GRADING OR LINING INSTALLATION MUST BE DELAYED, THEN DIVERSION BERMS MUST BE USED TO DIVERT STORMWATER AWAY FROM THE CHANNEL. PROPERLY-SPACED CHECK DAMS MUST BE INSTALLED IN THE CHANNEL TO SLOW THE WATER VELOCITY, AND A TEMPORARY LINING INSTALLED ALONG THE CHANNEL TO PREVENT SCOURING.

WINTER EROSION AND SEDIMENTATION CONTROL NOTES:

THE WINTER CONSTRUCTION PERIOD TYPICALLY BEGINS IN EARLY NOVEMBER AND ENDS IN MID APRIL. IF A CONSTRUCTION SITE IS NOT STABILIZED WITH PAVEMENT, A ROAD GRAVEL BASE OR RIPRAP BY NOVEMBER 15 THEN THE SITE NEEDS TO BE PROTECTED WITH OVER-WINTER STABILIZATION. WINTER EXCAVATION AND EARTHWORK SHALL BE COMPLETED SUCH THAT NO MORE THAN 1 ACRE OF THE SITE IS WITHOUT STABILIZATION AT ANY ONE TIME. LIMIT THE EXPOSED AREA TO THOSE AREAS IN WHICH WORK IS TO OCCUR DURING THE FOLLOWING 15 DAYS AND THAT CAN BE MULCHED IN ONE DAY PRIOR TO ANY SNOW EVENT. AN AREA SHALL BE CONSIDERED DENUDED UNTIL THE SUBBASE GRAVEL IS INSTALLED IN THE ROADWAY AREAS OR THE AREAS OF FUTURE LOAM AND SEED HAVE BEEN LOAMED, SEEDED AND MULCHED. A COVER OF EROSION CONTROL MIX IS THE PREFERRED TEMPORARY MULCH DURING WINTER CONDITIONS.

1. NATURAL RESOURCE PROTECTION

ANY AREAS WITHIN 75 FEET FROM ANY REGULATED NATURAL RESOURCES SHALL BE MULCHED BY DECEMBER 1 AND ANCHORED WITH PLASTIC NETTING OR PROTECTED WITH AN EROSION CONTROL COVER. DURING WINTER CONSTRUCTION, A DOUBLE ROW OF SEDIMENT BARRIERS (FOR EXAMPLE, SILT FENCE BACKED WITH HAY BALES OR EROSION CONTROL MIX) WILL BE PLACED BETWEEN ANY REGULATED NATURAL RESOURCE AND THE DISTURBED AREA. PROJECTS CROSSING THE REGULATED NATURAL RESOURCE SHALL BE PROTECTED A MINIMUM DISTANCE OF 100 FEET ON EITHER SIDE FROM THE RESOURCE. EXISTING PROJECTS NOT STABILIZED BY DECEMBER 1 SHALL BE PROTECTED WITH THE SECOND LINE OF SEDIMENT BARRIER TO ENSURE FUNCTIONALITY DURING THE SPRING THAW AND RAINS.

2. SEDIMENT BARRIERS

DURING FROZEN CONDITIONS, SEDIMENT BARRIERS MAY CONSIST OF EROSION CONTROL MIX BERMES OR ANY OTHER RECOGNIZED SEDIMENT BARRIERS AS FROZEN SOIL PREVENTS THE PROPER INSTALLATION OF HAY BALES OR SILT FENCES.

3. MULCHING

ALL AREAS SHALL BE CONSIDERED TO BE DENUDED UNTIL SEEDED AND MULCHED. HAY AND STRAW MULCH SHALL BE APPLIED AT A RATE OF 3 TONS PER ACRE (TWICE THE NORMAL ACCEPTED RATE) AND SHALL BE PROPERLY ANCHORED. EROSION CONTROL MIX MUST BE APPLIED WITH A MINIMUM 4 INCHES THICKNESS. MULCH SHALL NOT BE SPREAD ON TOP OF SNOW. SNOW MUST BE REMOVED DOWN TO A ONE-INCH DEPTH PRIOR TO APPLICATION. AFTER EACH DAY OF FINAL GRADING, THE AREA WILL BE PROPERLY STABILIZED WITH ANCHORED HAY OR STRAW OR EROSION CONTROL MATTING. AN AREA SHALL BE CONSIDERED TO HAVE BEEN STABILIZED OR ADEQUATELY ANCHORED SO THAT GROUND SURFACE IS NOT VISIBLE THROUGH THE MULCH. BETWEEN THE DATES OF NOVEMBER 1 AND APRIL 15, ALL MULCH SHALL BE ANCHORED BY EITHER MULCH NETTING, TRACKING OR WOOD CELLULOSE FIBER. THE COVER WILL BE CONSIDERED SUFFICIENT WITH THE GROUND SURFACE IS NOT VISIBLE THROUGH THE MULCH. AFTER NOVEMBER 15, MULCH AND ANCHORING OF ALL EXPOSED SOIL SHALL OCCUR AT THE END OF EACH FINAL GRADING WORKDAY.

4. SOIL STOCKPIILING

STOCKPILES OF SOIL OR SUBSOIL WILL BE MULCHED FOR OVER WINTER PROTECTION WITH HAY OR STRAW AT TWICE THE NORMAL RATE FOR WITH A FOUR-INCH LAYER OF EROSION CONTROL MIX. THIS WILL BE DONE WITHIN 24 HOURS OF STACKING AND RE-ESTABLISHED PRIOR TO ANY RAINFALL OR SNOWFALL. ANY SOIL STOCKPILE WILL NOT BE PLACED WITHIN 100 FEET FROM ANY REGULATED NATURAL RESOURCE.

5. SEEDING

BETWEEN THE DATES OF OCTOBER 15 AND APRIL 1, LOAM OR SEED WILL NOT BE REQUIRED. DURING PERIODS OF ABOVE FREEZING TEMPERATURES FINISHED AREAS SHOULD BE RE-GRASSED OR EITHER PROTECTED WITH MULCH OR TEMPORARILY SEEDED AND MULCHED UNTIL SUCH TIME AS THE FINAL TREATMENT CAN BE APPLIED. IF THE DATE IS AFTER NOVEMBER 1 AND IF THE EXPOSED AREA HAS BEEN LOAMED, FINAL GRADED WITH A UNIFORM SURFACE, THEN THE AREA MAY BE DORMANT SEEDED AT A RATE OF 3 TIMES HIGHER THAN SPECIFIED FOR PERMANENT SEED AND THEN MULCHED. IF DORMANT SEEDING IS USED, ALL DISTURBED AREAS SHALL RECEIVE 4 INCHES OF LOAM AND SEED AT AN APPLICATION RATE OF 5 LBS PER 1,000 SF. ALL AREAS INSUFFICIENTLY VEGETATED (LESS THAN 75%) IN THE SPRING SHALL BE REVEGETATED.

6. OVER-WINTER STABILIZATION OF DITCHES AND CHANNELS

ALL STONE-LINED DITCHES AND CHANNELS MUST BE CONSTRUCTED BY NOVEMBER 1. ALL GRASS-LINED DITCHES AND CHANNELS MUST BE CONSTRUCTED AND STABILIZED BY SEPTEMBER 1. IF A GRASS-LINED DITCH OR CHANNEL IS STABILIZED BY SEPTEMBER 1, THEN EITHER A SOIL LINING SHALL BE INSTALLED PRIOR TO OCTOBER 1 OR THE DITCH MUST BE LINED WITH STONE RIPRAP BACKED BY AN APPROPRIATE GRAVEL BED OR GEOTEXTILE PRIOR TO NOVEMBER 1.

7. OVER-WINTER STABILIZATION OF DISTURBED SLOPES

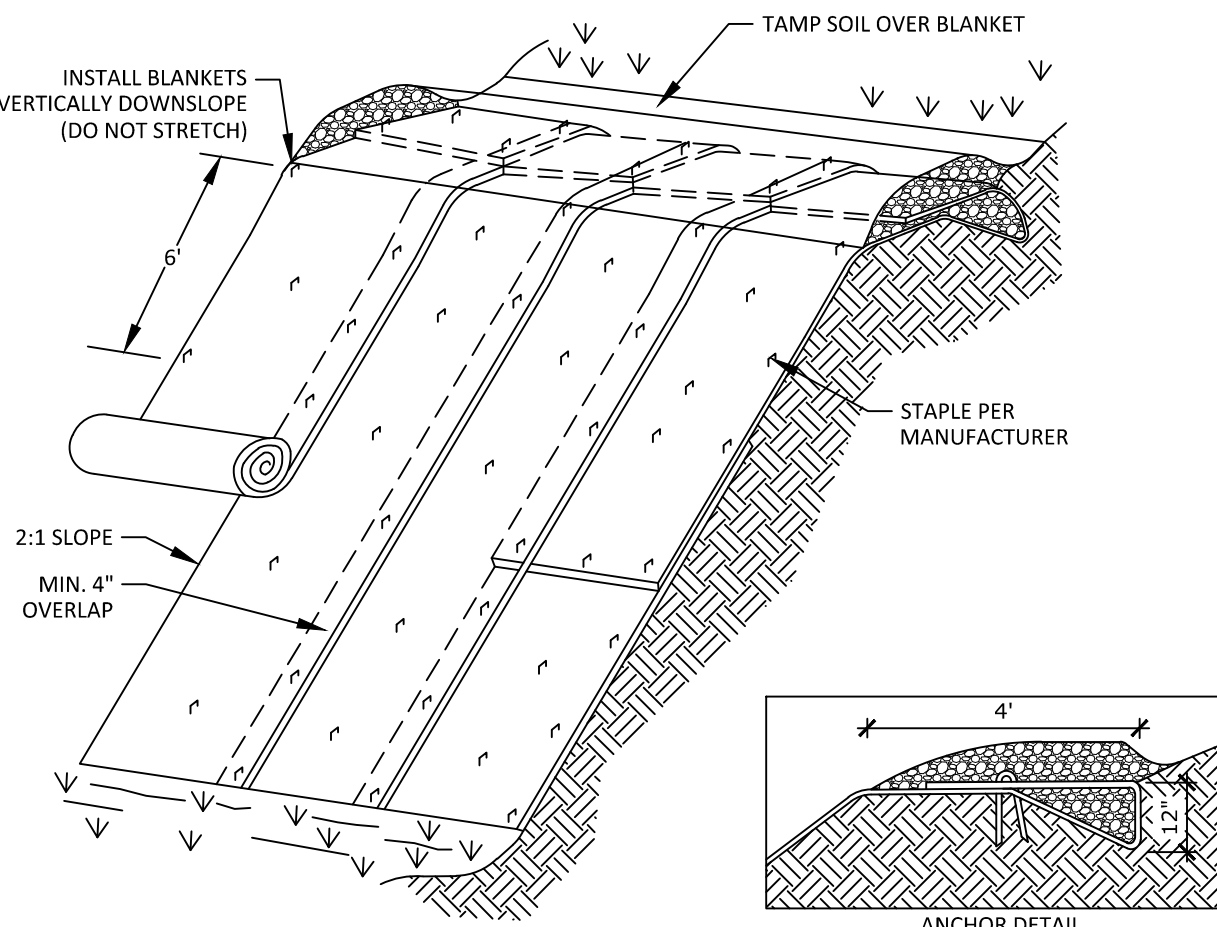
ALL STONE-COVERED SLOPES MUST BE CONSTRUCTED AND STABILIZED BY NOVEMBER 15. ALL SLOPES TO BE VEGETATED MUST BE SEEDED AND MULCHED BY SEPTEMBER 1. ALL AREAS HAVING A GRADE STEEPER THAN 8% SHALL BE CONSIDERED A SLOPE. IF A SLOPE TO BE VEGETATED IS NOT STABILIZED BY SEPTEMBER 1, THEN THE SLOPE SHALL EITHER BE STABILIZED WITH TEMPORARY VEGETATION AND EROSION CONTROL MATS BY OCTOBER 1, SOD BY OCTOBER 1, EROSION CONTROL MIX BY NOVEMBER 1 OR STONE RIPRAP BY NOVEMBER 15. SEE APPLICABLE SECTIONS UNDER EROSION AND SEDIMENTATION CONTROL NOTES FOR PROPER INSTALLATION METHODS.

8. OVER-WINTER STABILIZATION OF DISTURBED SOILS

BY SEPTEMBER 15, ALL DISTURBED SOILS ON AREAS HAVING A SLOPE LESS THAN 15% MUST BE SEEDED AND MULCHED. IF THE DISTURBED AREAS ARE NOT STABILIZED BY THIS DATE, THEN THE AREA SHALL EITHER BE STABILIZED WITH TEMPORARY VEGETATION BY OCTOBER 1, SOD BY OCTOBER 1, OR MULCH BY NOVEMBER 15. SEE APPLICABLE SECTIONS UNDER EROSION AND SEDIMENTATION CONTROL NOTES FOR PROPER INSTALLATION METHODS.

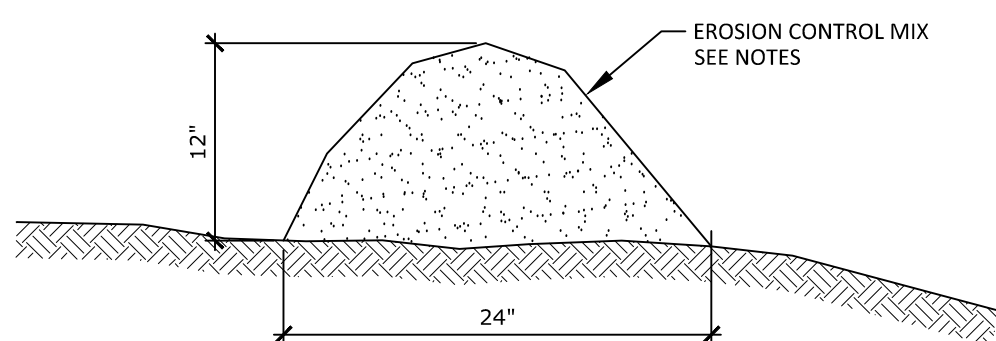
9. MAINTENANCE

MAINTENANCE MEASURES SHALL BE APPLIED AS NEEDED DURING THE ENTIRE CONSTRUCTION SEASON. AFTER EACH RAINFALL, SNOW STORM, PERIOD OF THAWING AND RUNOFF AND AT LAST ONCE A WEEK, THE SITE CONTRACTOR SHALL PERFORM A VISUAL INSPECTION OF ALL INSTALLED EROSION CONTROL MEASURES AND PERFORM REPAIRS AS NEEDED TO INSURE THEIR CONTINUOUS FUNCTION. FOLLOWING THE TEMPORARY AND/OR FINAL SEEDING AND MULCHING, THE CONTRACTOR SHALL, IN THE SPRING, INSPECT AND REPAIR ANY DAMAGES AND/OR BARE SPOTS. AN ESTABLISHED VEGETATIVE COVER MEANS A MINIMUM OF 85% OF AREAS VEGETATED WITH VIGOROUS GROWTH.



EROSION CONTROL BLANKET

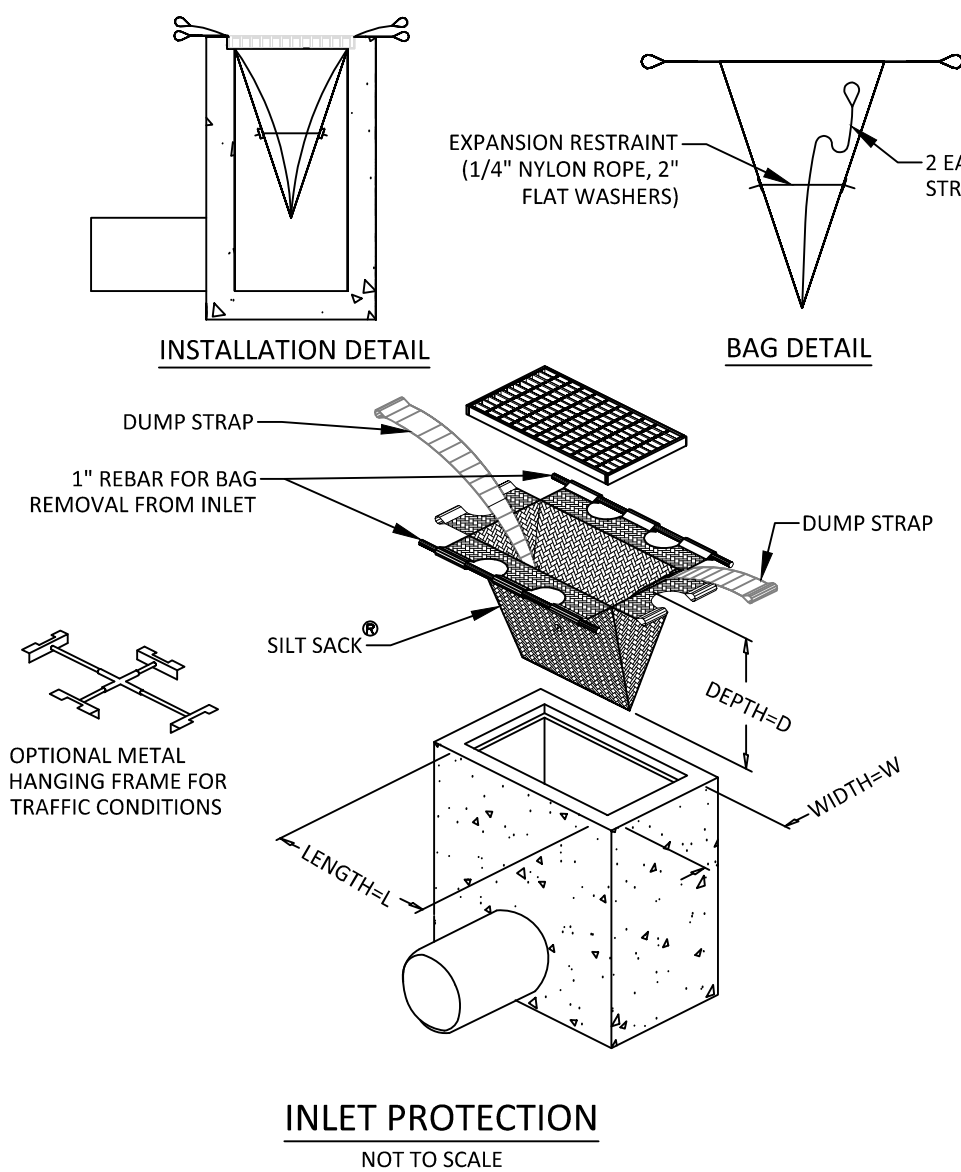
NOT TO SCALE



- NOTES:
1. EROSION CONTROL MIX BERM INSTALLED 12" HIGH AND 24" WIDE CONSISTING OF STUMP GRINDINGS WITH NO ROCKS GREATER THAN 4" OR LARGE AMOUNTS OF FINES.
 2. SEE SECTION 3 OF THE EROSION AND SEDIMENTATION CONTROL NOTES, THIS SHEET, FOR INSTALLATION LOCATION REQUIREMENTS AND ADDITIONAL DETAIL.

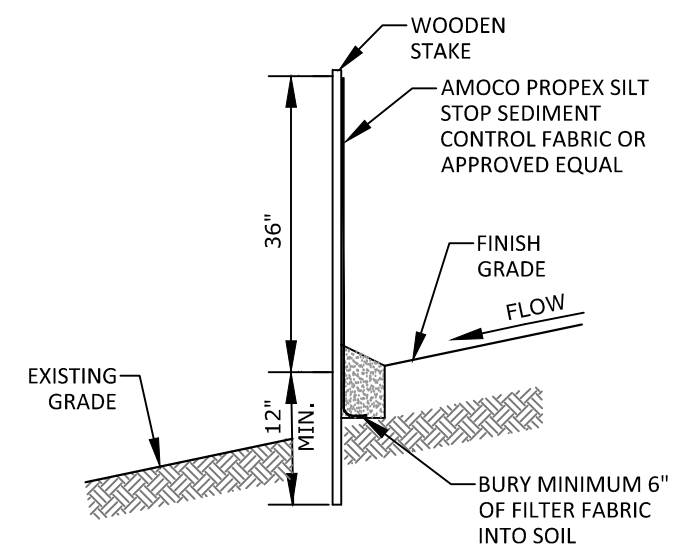
EROSION CONTROL MIX BERM

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INLET PROTECTION

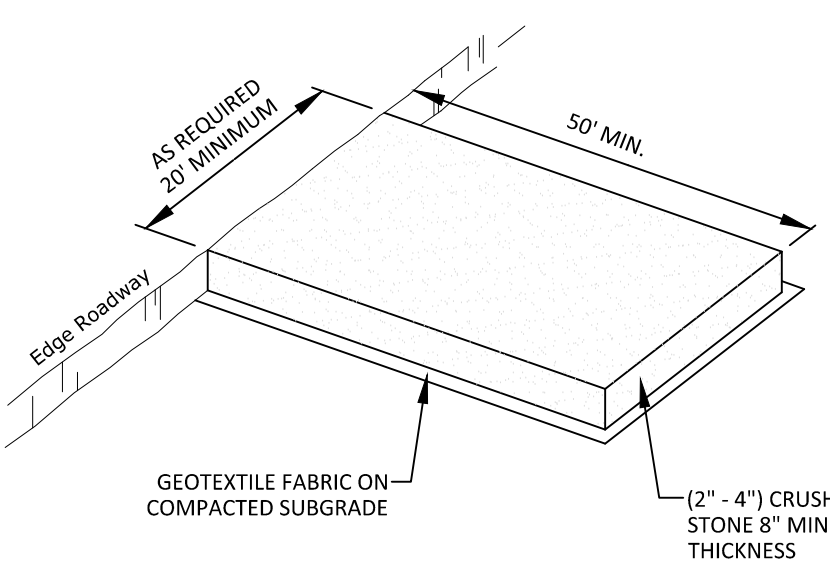
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- NOTES:
1. SEE SECTION 3 OF THE EROSION AND SEDIMENTATION CONTROL NOTES, THIS SHEET, FOR INSTALLATION LOCATION REQUIREMENTS AND ADDITIONAL DETAIL.

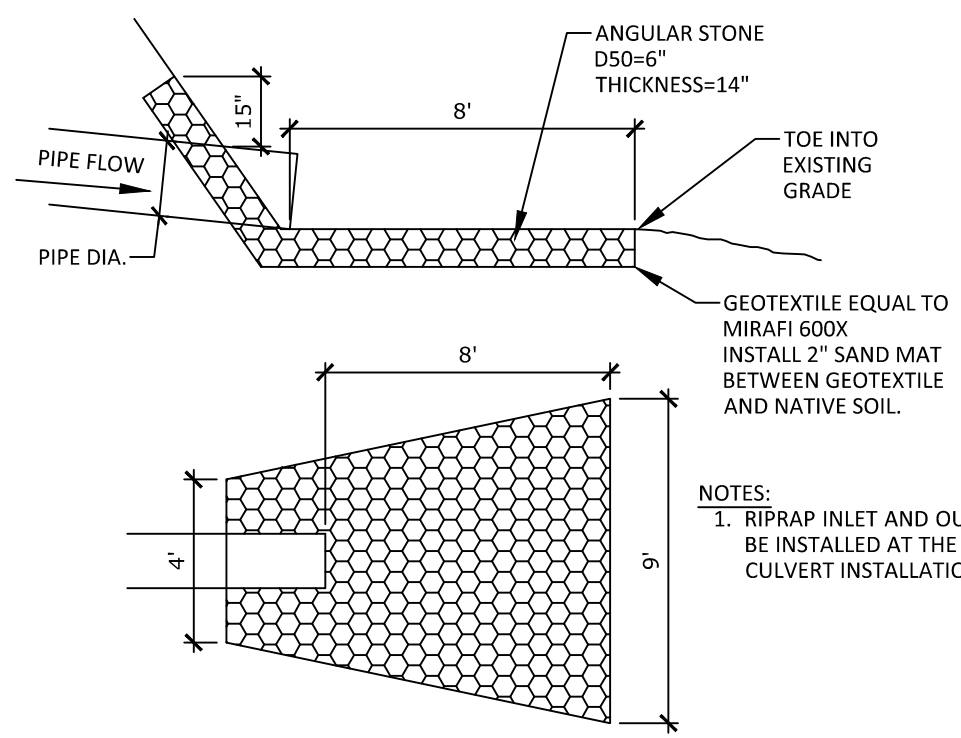
SEDIMENT FILTER FENCE

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STABILIZED CONSTRUCTION ENTRANCE

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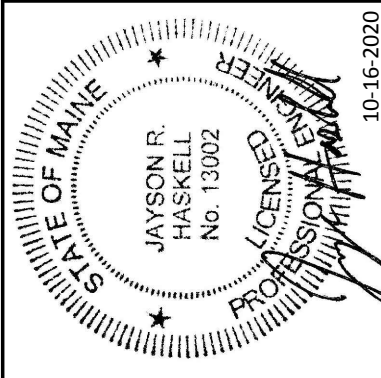


RIRAP APRON AT PIPE

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HOUSEKEEPING NOTES

1. SPILL PREVENTION: CONTROLS MUST BE USED TO PREVENT POLLUTANTS FROM CONSTRUCTION AND WASTE MATERIALS ON SITE TO ENTER STORMWATER, WHICH INCLUDES STORAGE PRACTICES TO MINIMIZE EXPOSURE OF THE MATERIALS TO STORMWATER. THE SITE CONTRACTOR OR OPERATOR MUST DEVELOP, AND IMPLEMENT AS NECESSARY, APPROPRIATE SPILL PREVENTION, CONTAINMENT, AND RESPONSE PLANNING MEASURES.
2. GROUNDWATER PROTECTION: DURING CONSTRUCTION, LIQUID PETROLEUM PRODUCTS AND OTHER HAZARDOUS MATERIALS WITH THE POTENTIAL TO CONTAMINATE GROUNDWATER MAY NOT BE STORED OR HANDLED IN AREAS OF THE SITE DRAINING INTO AN INFILTRATION AREA. AN "INFILTRATION AREA" IS ANY AREA OF THE SITE THAT BY DESIGN OR AS A RESULT OF SOILS, TOPOGRAPHY AND OTHER RELEVANT FACTORS ACCUMULATES RUNOFF THAT INFILTRATES INTO THE SOIL, DIKES, BERMS, SUMPS, AND OTHER FORMS OF SECONDARY CONTAINMENT THAT PREVENT DISCHARGE TO GROUNDWATER MAY BE USED TO ISOLATE PORTIONS OF THE SITE FOR THE PURPOSES OF STORAGE AND HANDLING OF THESE MATERIALS. ANY PROJECT PROPOSING INFILTRATION OF STORMWATER MUST PROVIDE ADEQUATE PRE-TREATMENT OF STORMWATER PRIOR TO DISCHARGE TO THE INFILTRATION AREA, OR PROVIDE FOR TREATMENT WITHIN THE INFILTRATION AREA, IN ORDER TO PREVENT THE ACCUMULATION OF FINES, REDUCTION IN INFILTRATION RATE, AND CONSEQUENT FLOODING AND DESTABILIZATION.
3. FUGITIVE SEDIMENT AND DUST: ACTIONS MUST BE TAKEN TO ENSURE THAT ACTIVITIES DO NOT RESULT IN NOTICEABLE EROSION OF SOILS OR FUGITIVE DUST EMISSIONS DURING OR AFTER CONSTRUCTION. OIL MAY NOT BE USED FOR DUST CONTROL, BUT OTHER WATER ADDITIVES MAY BE CONSIDERED AS NEEDED. A STABILIZED CONSTRUCTION ENTRANCE (SEE) SHOULD BE INCLUDED TO MINIMIZE TRACKING OF MUD AND SEDIMENT. IF OFF-SITE TRACKING OCCURS, PUBLIC ROADS SHOULD BE SWEEP IMMEDIATELY AND NO LESS THAN ONCE A WEEK AND PRIOR TO SIGNIFICANT STORM EVENTS. OPERATIONS DURING DRY MONTHS, THAT EXPERIENCE FUGITIVE DUST PROBLEMS, SHOULD WEED DOWN OR TAMPED ACCESS ROADS ONCE A WEEK OR MORE FREQUENTLY AS NEEDED WITH A WATER ADDITIVE TO SUPPRESS FUGITIVE SEDIMENT AND DUST.
4. DEBRIS AND OTHER MATERIALS: MINIMIZE THE EXPOSURE OF CONSTRUCTION DEBRIS, BUILDING AND LANDSCAPING MATERIALS, TRASH, FOUNDATION OR FOOTER DRAIN-WATER WHERE FLOWS ARE NOT CONTAMINATED, THAT DOES NOT INVOLVE DETERGENTS; PAVEMENT WASHWATER (WHERE SPILLS/LEAKS OF TOXIC OR HAZARDOUS MATERIALS HAVE NOT OCCURRED, UNLESS ALL SPILLED MATERIAL HAD BEEN REMOVED) IF DETERGENTS ARE NOT USED; UNCONTAMINATED AIR CONDITIONING OR COMPRESSOR CONDENSATE; UNCONTAMINATED GROUNDWATER OR SPRING WATER; FOUNDATION OR FOOTER DRAIN-WATER WHERE FLOWS ARE NOT CONTAMINATED; UNCONTAMINATED EXCAVATION DEWATERING (SEE REQUIREMENTS IN APPENDIX C(5)); POTABLE WATER SOURCES INCLUDING WATERLINE FLUSHINGS; AND LANDSCAPE IRRIGATION.
5. UNAUTHORIZED NON-STORMWATER DISCHARGES: APPROVAL FROM THE MDEP DOES NOT AUTHORIZE A DISCHARGE THAT IS MIXED WITH A SOURCE OF NON-STORMWATER, OTHER THAN THOSE DISCHARGES IN COMPLIANCE WITH SECTION 6 ABOVE. SPECIFICALLY, THE MDEP'S APPROVAL DOES NOT AUTHORIZE DISCHARGES OF THE FOLLOWING:
 - (a) WASTEWATER FROM THE WASHOUT OR CLEANOUT OF CONCRETE, STUCCO, PAINT, FORM RELEASE OILS, CURING COMPOUNDS OR OTHER CONSTRUCTION MATERIALS;
 - (b) FUELS, OILS OR OTHER POLLUTANTS USED IN VEHICLE AND EQUIPMENT OPERATION AND MAINTENANCE;
 - (c) SOAPS, SOLVENTS, OR DETERGENTS USED IN VEHICLE AND EQUIPMENT WASHING; AND
 - (d) TOXIC OR HAZARDOUS SUBSTANCES FROM A SPILL OR OTHER RELEASE.

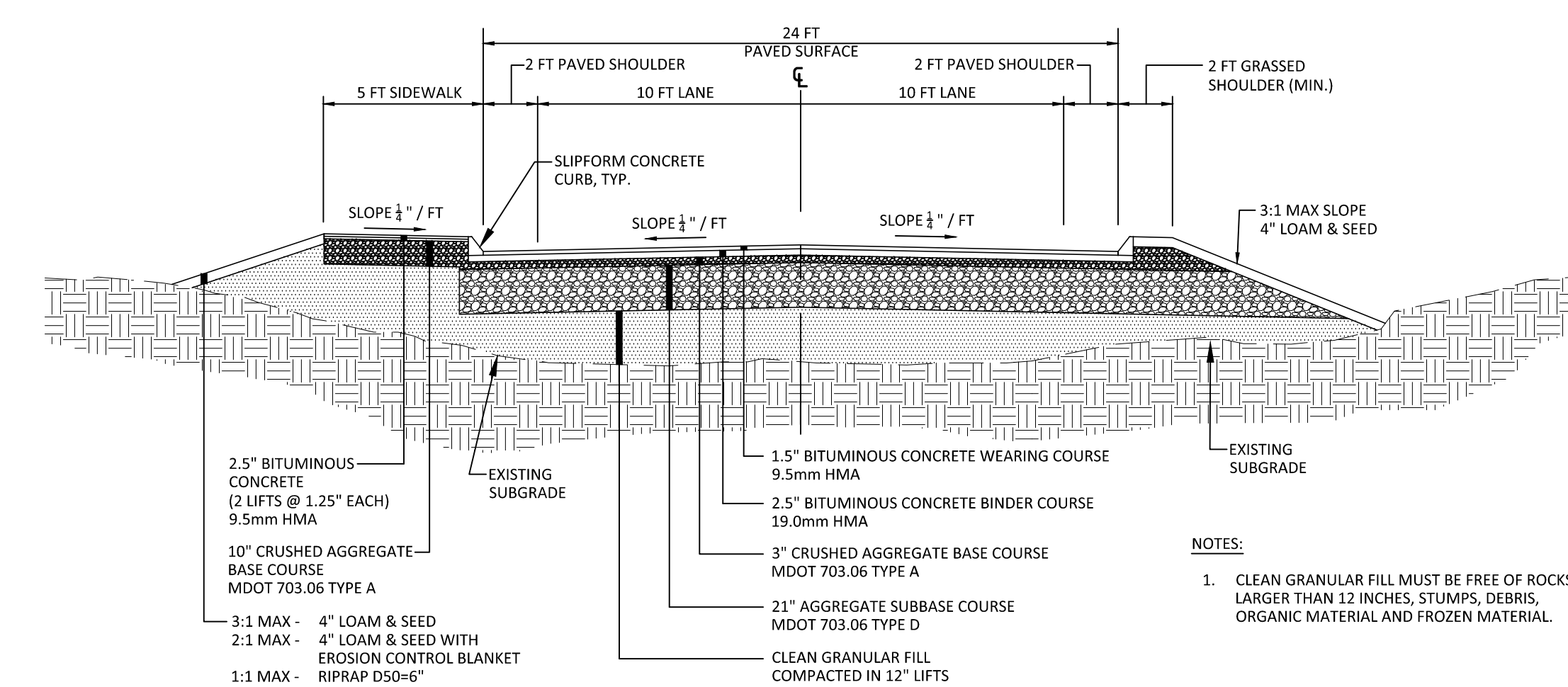


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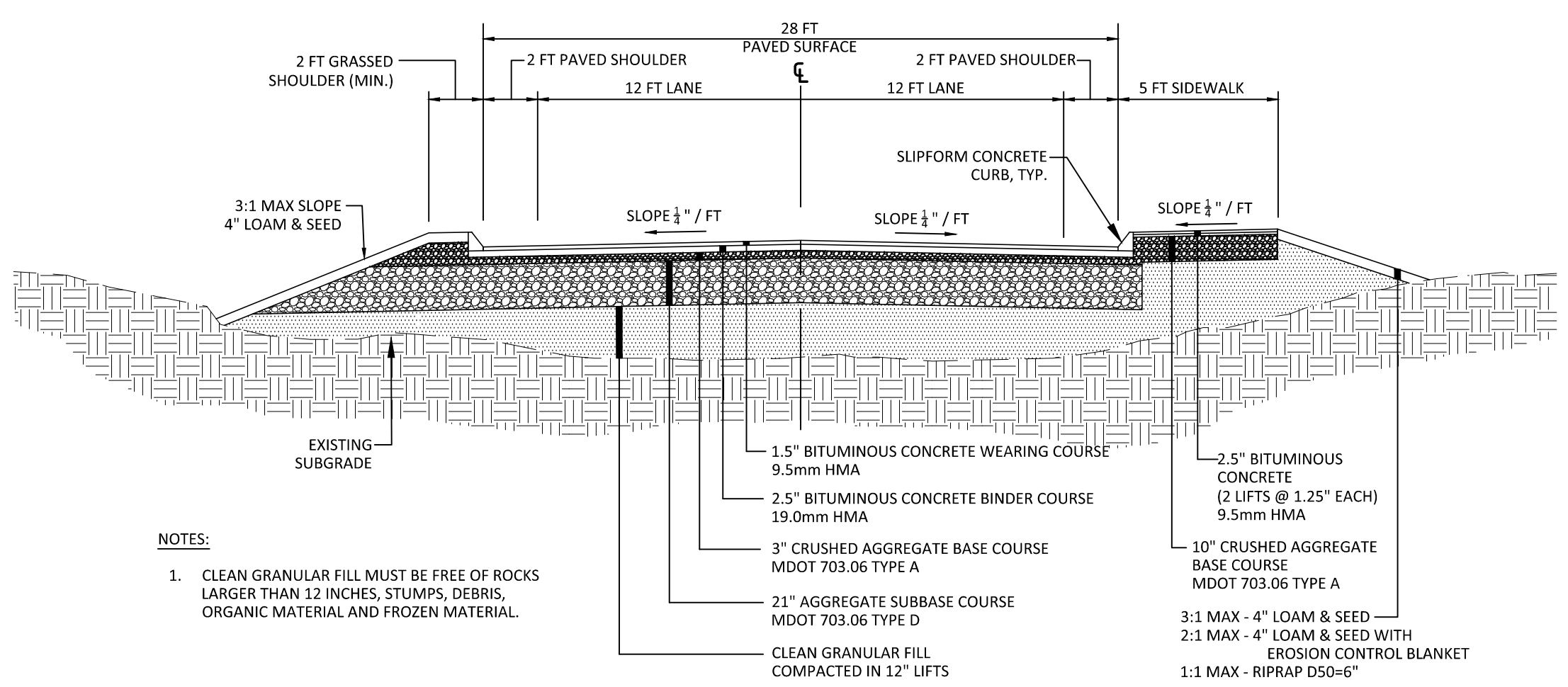
REV	DATE	BY	DESCRIPTION
B	10-23-19	DMR	REVISED PER TOWN REVIEW
C	11-14-19	DMR	REVISED PER TOWN REVIEW
D	11-20-19	DMR	REVISED PER TOWN REVIEW
E	12-16-19	DMR	ISSUED FOR MDEP PRE-APPLICATION REVIEW
F	3-9-20	DMR	ISSUED FOR MDEP SUBADA REVIEW
G	9-18-20	DMR	REVISED PER MDEP REVIEW
H	10-16-20	DMR	ISSUED TO TOWN FOR FINAL APPROVAL

DETAILS

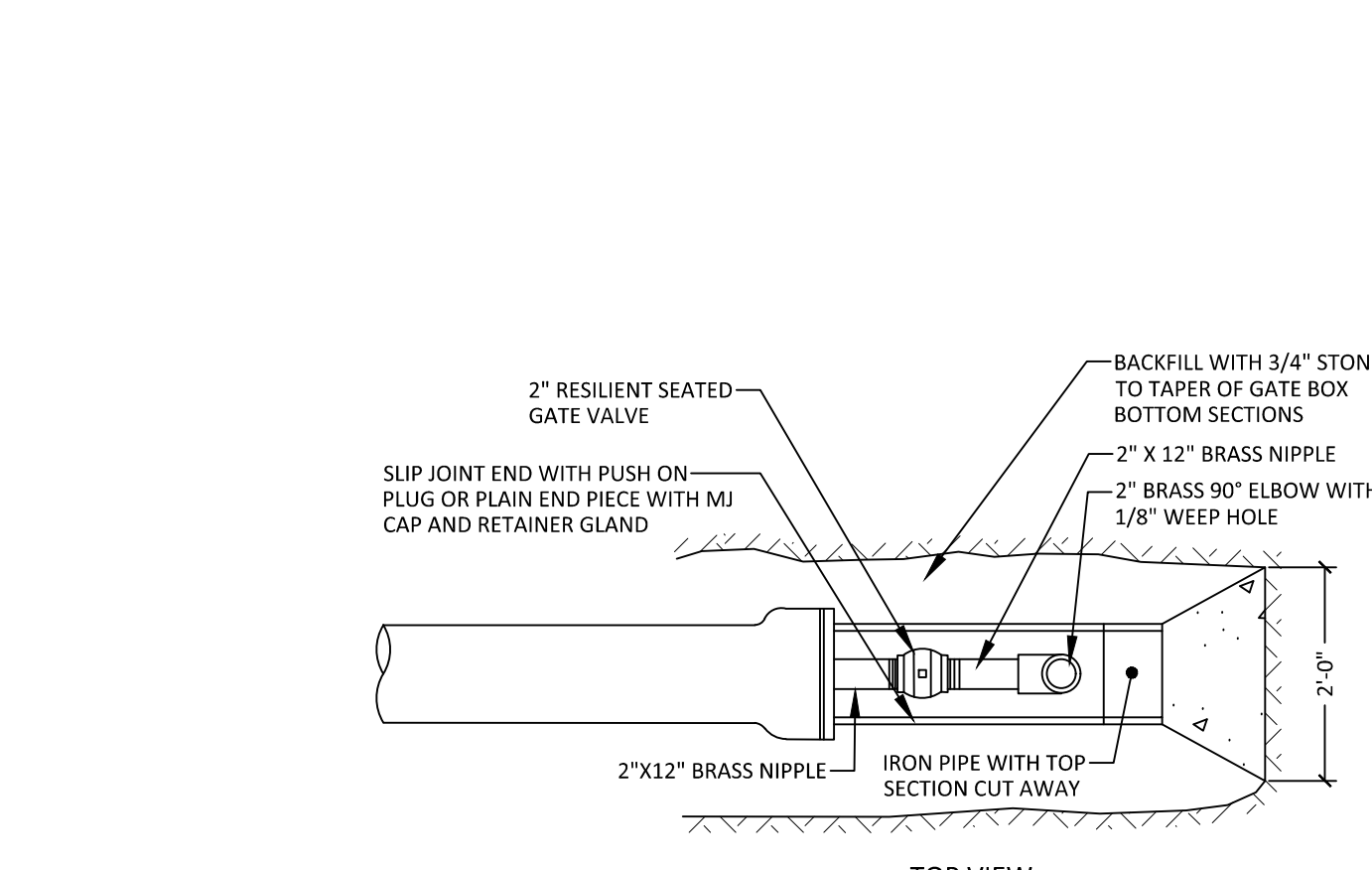
BELVEDERE COMMONS
BELVEDERE DRIVE & DUSTY ROAD/STATE LANE
WINDHAM, MAINE
FOR RECORD OWNER:
ROBIE HOLDINGS, LLC



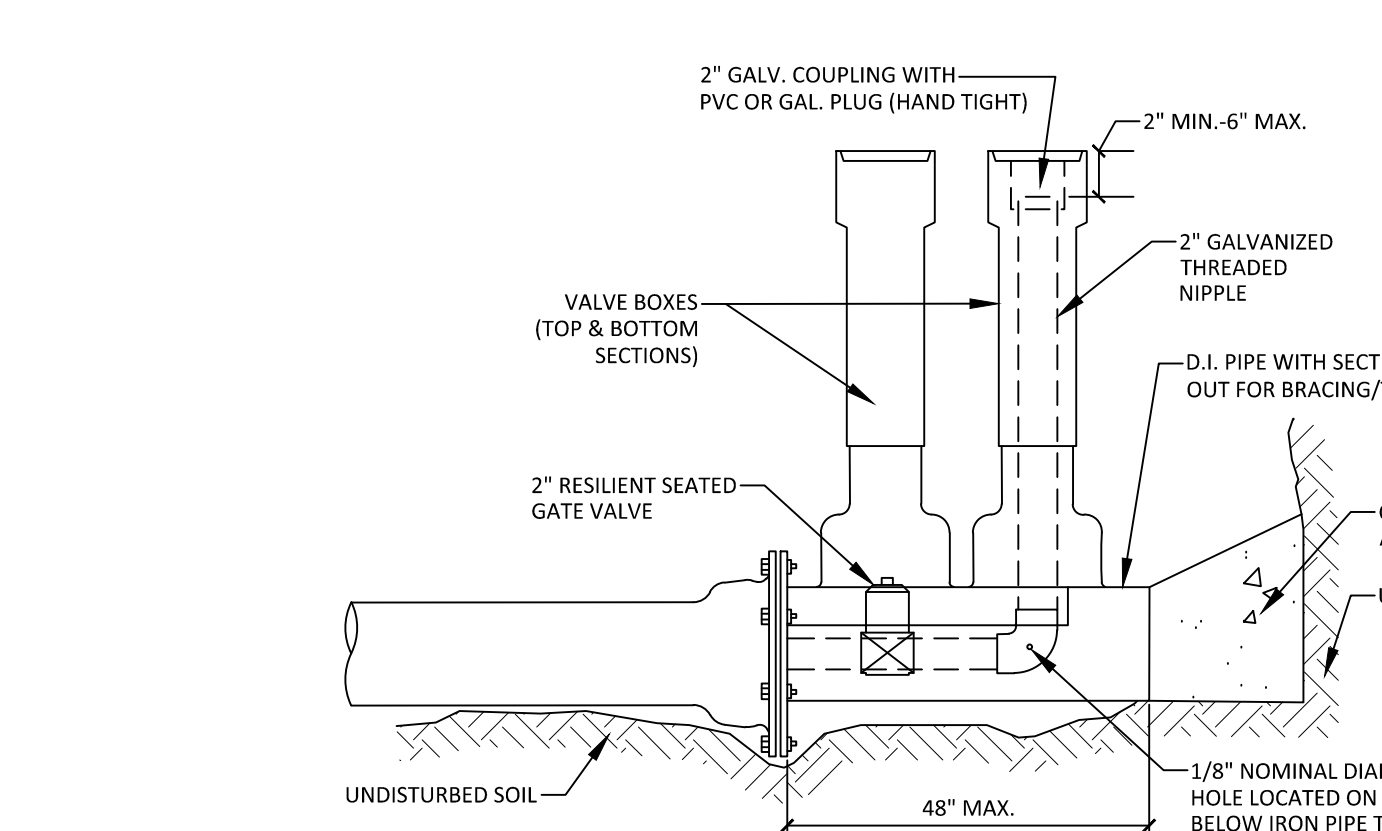
TYPICAL ROADWAY SECTION
BELVEDERE DRIVE
NOT TO SCALE



TYPICAL ROADWAY SECTION
DUSTY RHOADES LANE
NOT TO SCALE



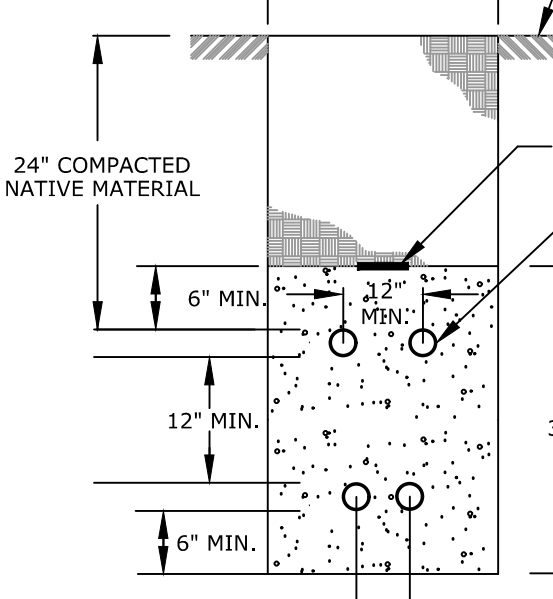
TOP VIEW



STANDARD 2\"/>

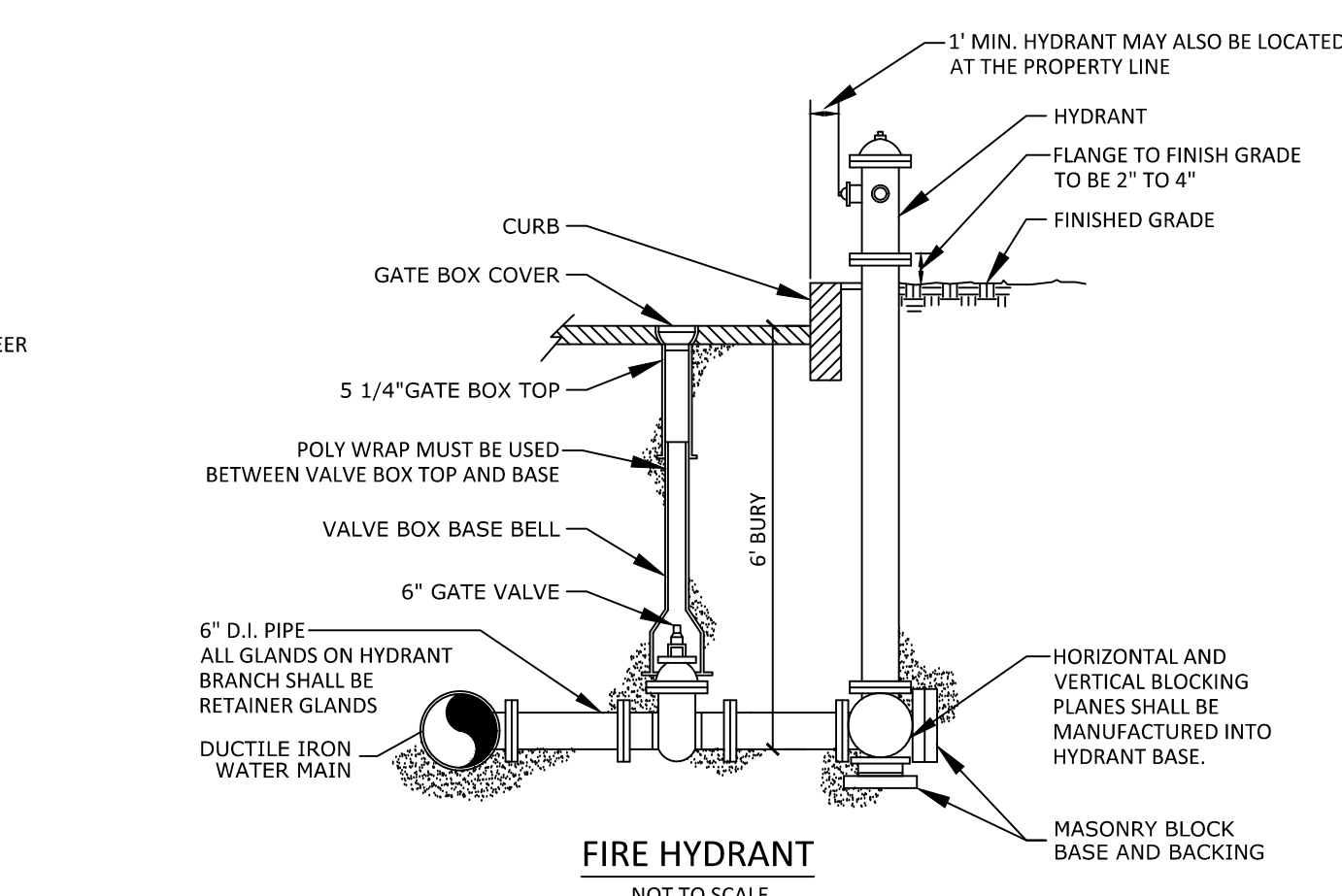
- NOTES:**
- CLEAN GRANULAR FILL MUST BE FREE OF ROCKS LARGER THAN 12 INCHES, STUMPS, DEBRIS, ORGANIC MATERIAL AND FROZEN MATERIAL.

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- CLEAN GRANULAR FILL MUST BE FREE OF ROCKS LARGER THAN 12 INCHES, STUMPS, DEBRIS, ORGANIC MATERIAL AND FROZEN MATERIAL.

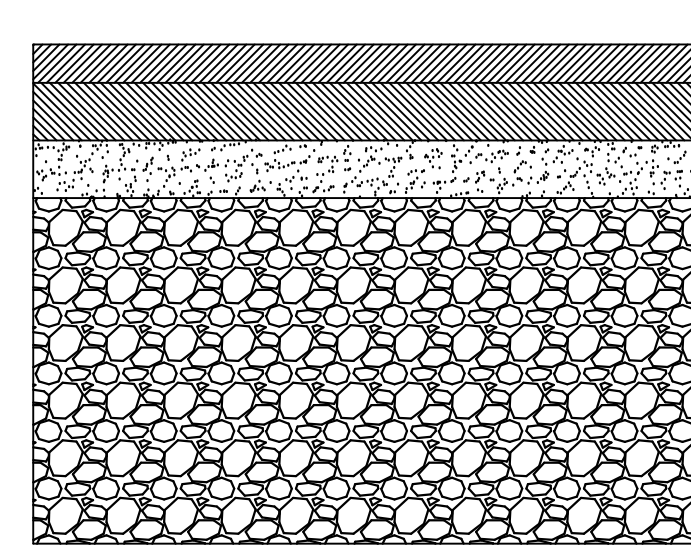


UTILITY TRENCH DETAIL
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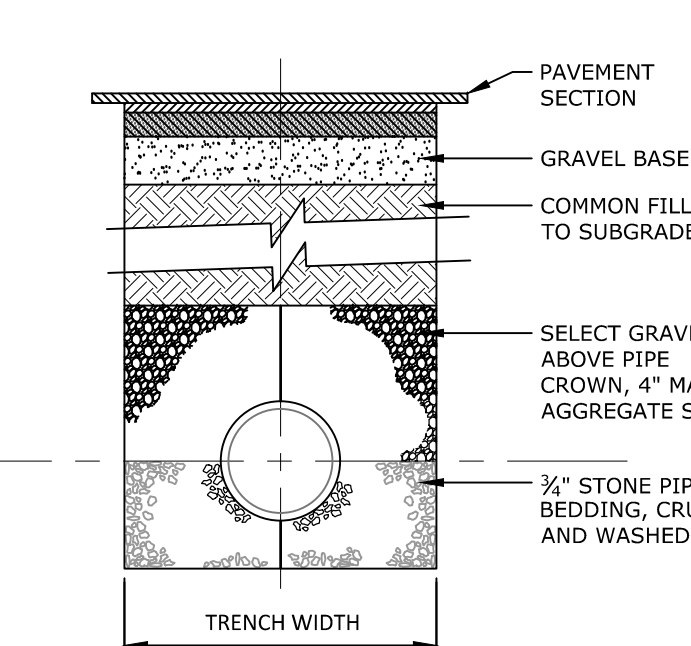
- NOTES:**
- ALL CONDUITS SHALL BE 4\"/>



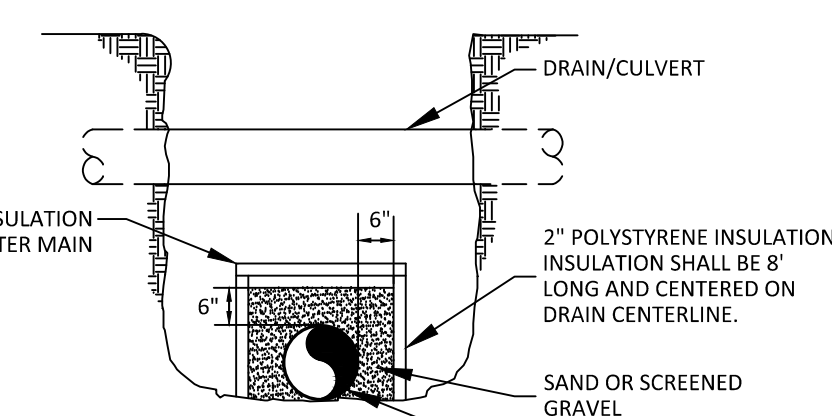
FIRE HYDRANT
NOT TO SCALE



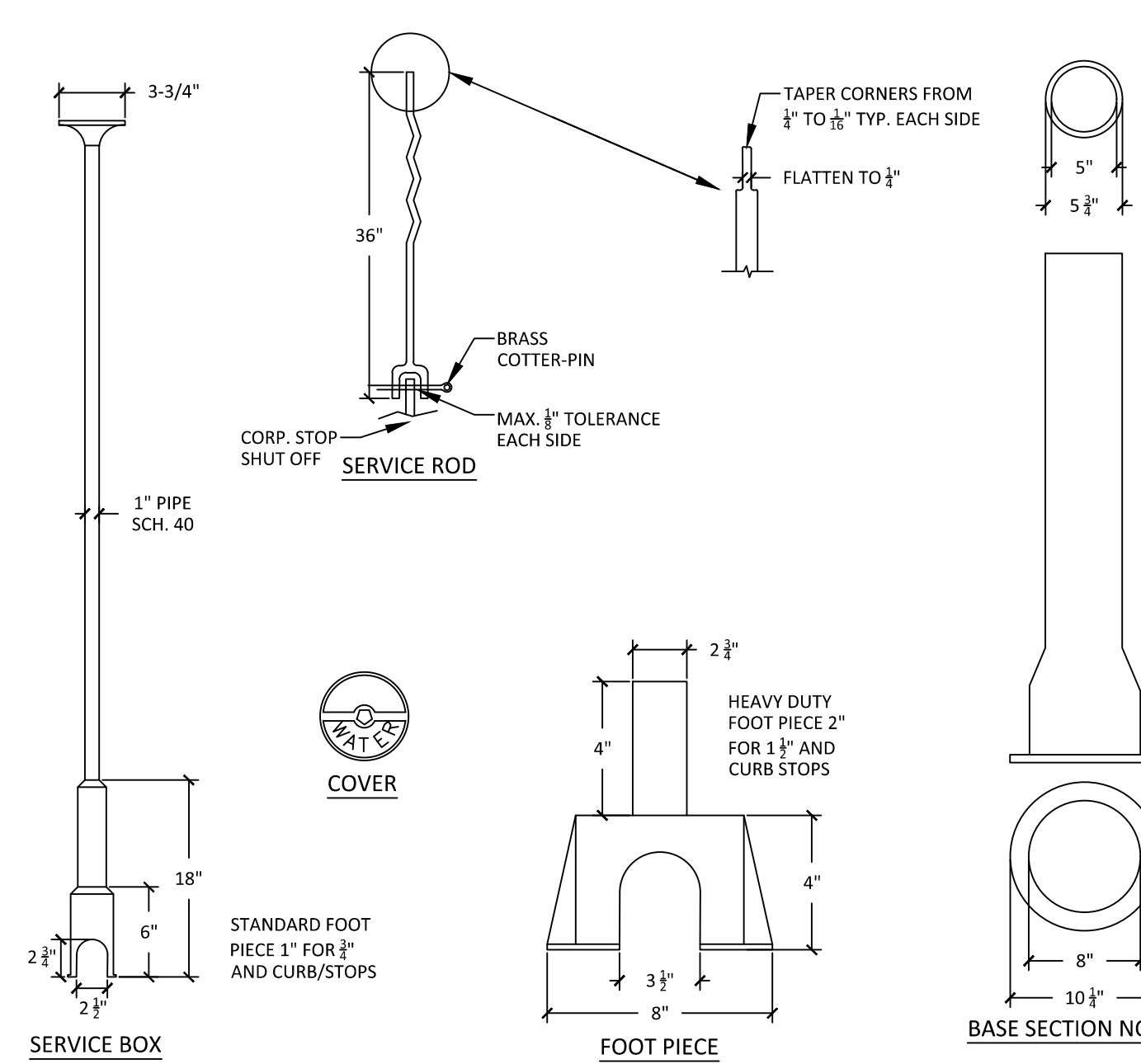
TYPICAL UNIT DRIVEWAY SECTION
NOT TO SCALE



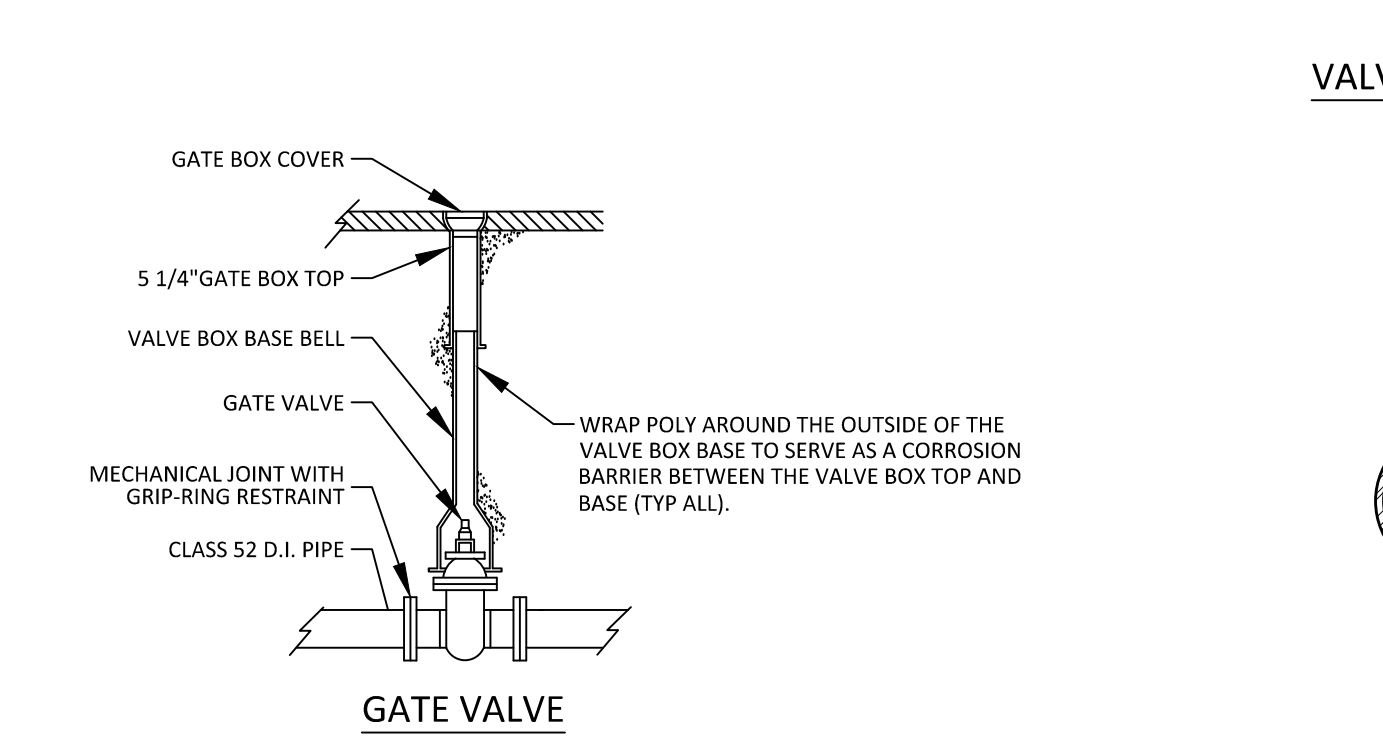
TYPICAL TRENCH SECTION
NOT TO SCALE



INSULATION DETAIL
NOT TO SCALE



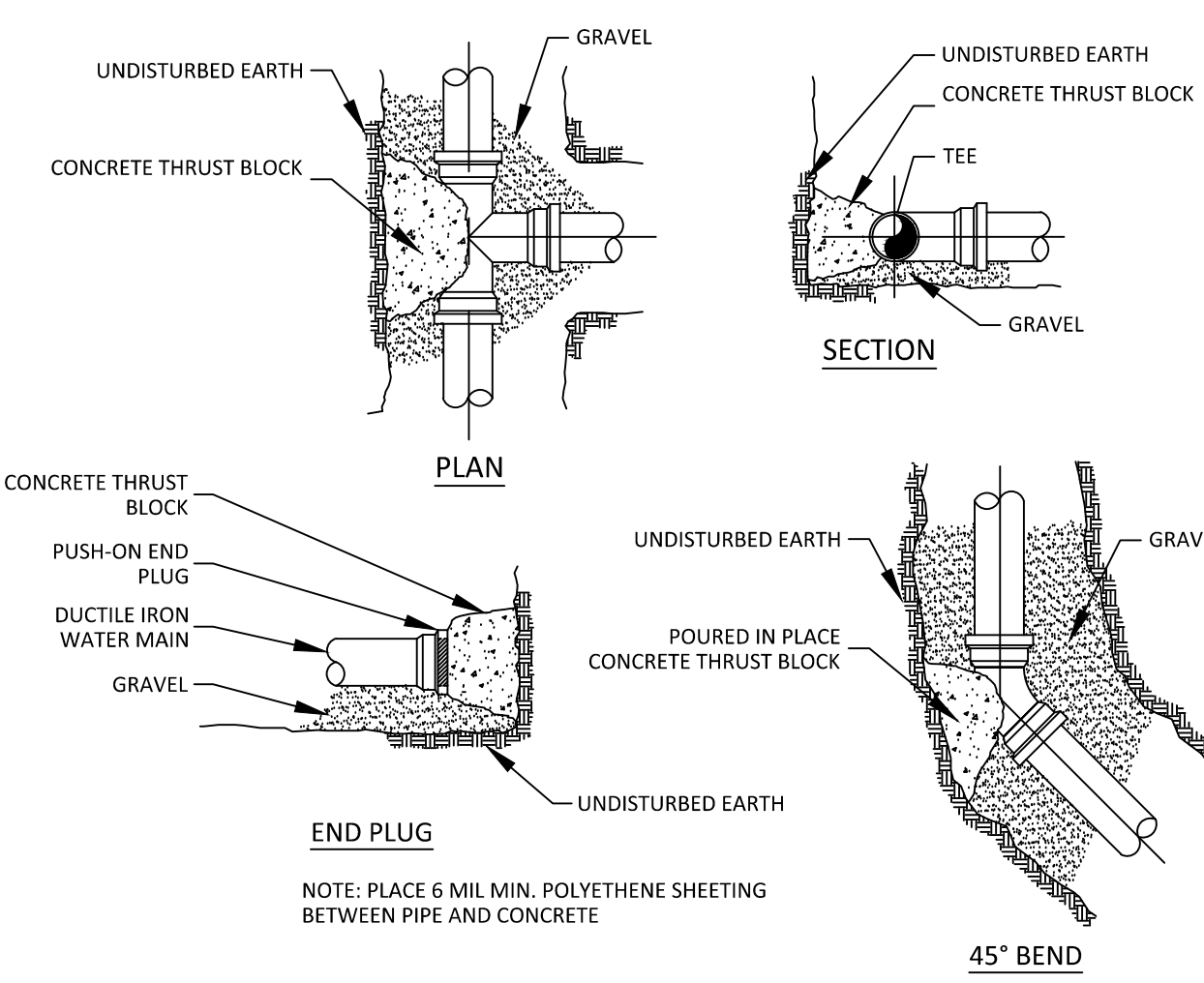
SERVICE BOX



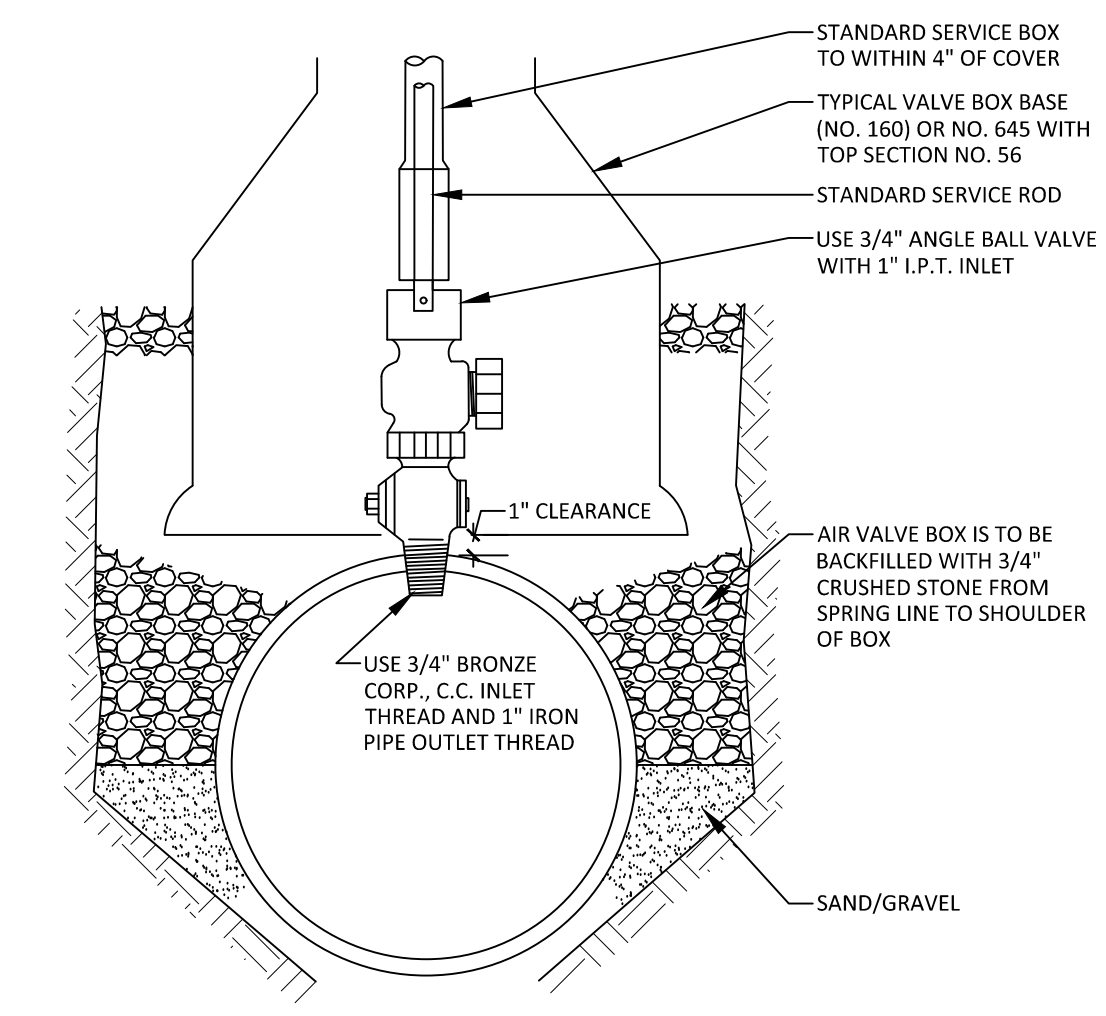
GATE VALVE
NOT TO SCALE

CONCRETE THRUST BLOCK SIZE REQUIREMENTS				
		SQ. FT. OF BEARING ON UNDISTURBED SOIL		
FITTINGS	PIPE SIZE	90° BENDS	45° BENDS	TEES AND PLUGS
		6"	8"	12"
	6"	4.0	2.0	3.0
	8"	8.0	4.0	6.0
	12"	15	9	12
	16"	26	14	19
	20"	40	22	28

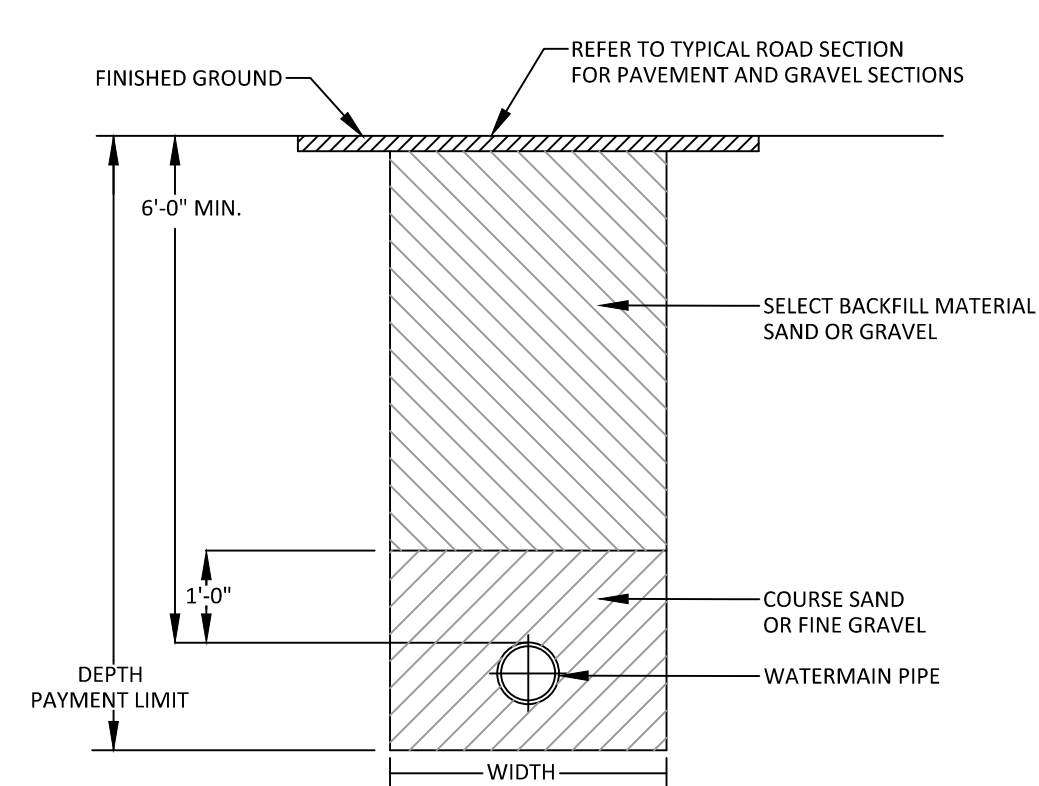
BASED ON SOIL BEARING PRESSURE OF 2000PSF AND 100PSI LINE PRESSURE. COMPACT COURSE TO FINE SANDS AND CLAYS REQUIRE ENGINEERED BLOCKS. ENGINEERED BLOCKS WILL TYPICALLY REQUIRE REINFORCING STEEL OF #5 AT 12\"/>



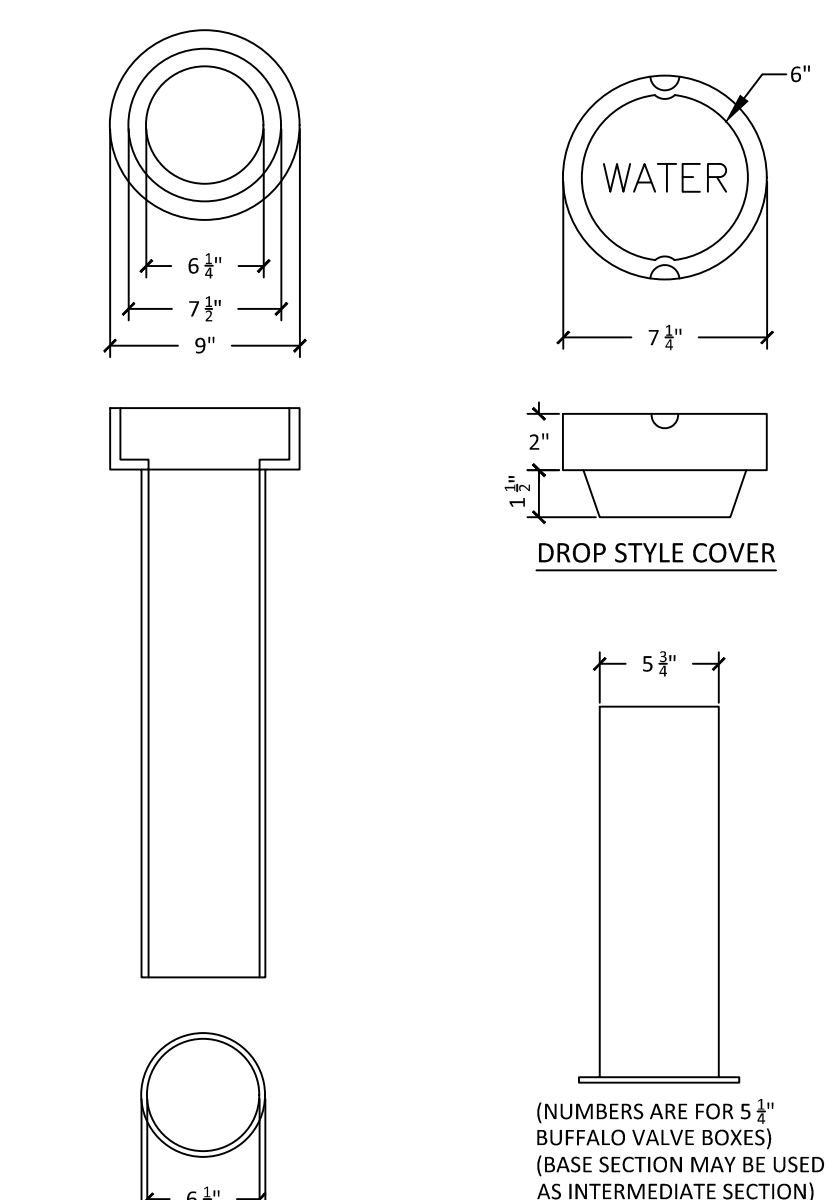
THRUST BLOCK DETAIL
NOT TO SCALE



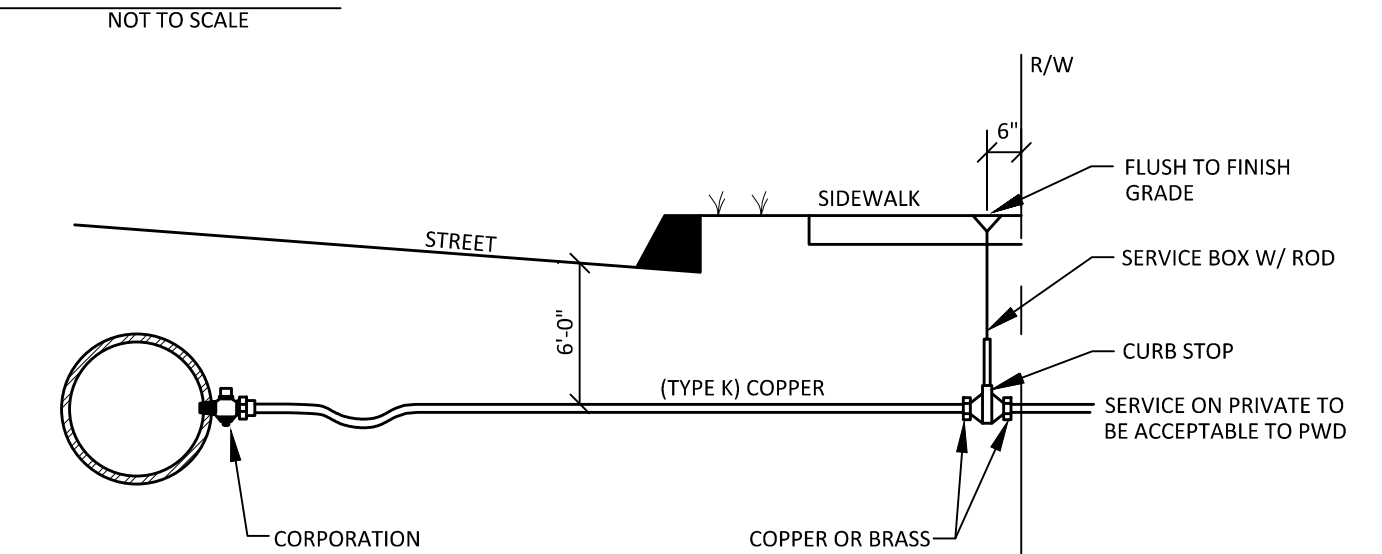
TYPICAL AIR VALVE (1\"/>



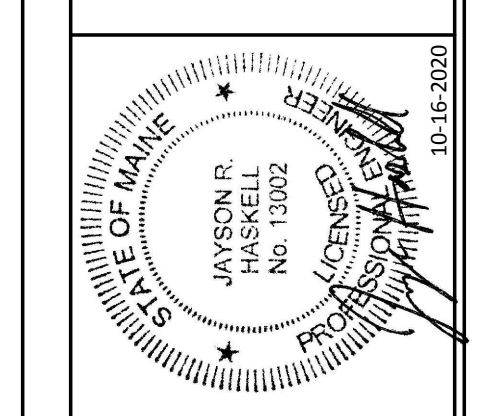
WATERMAIN TYPICAL TRENCH CROSS-SECTION
NOT TO SCALE



VALVE BOX & COVER
NOT TO SCALE



TYPICAL SERVICE CONNECTION
NOT TO SCALE

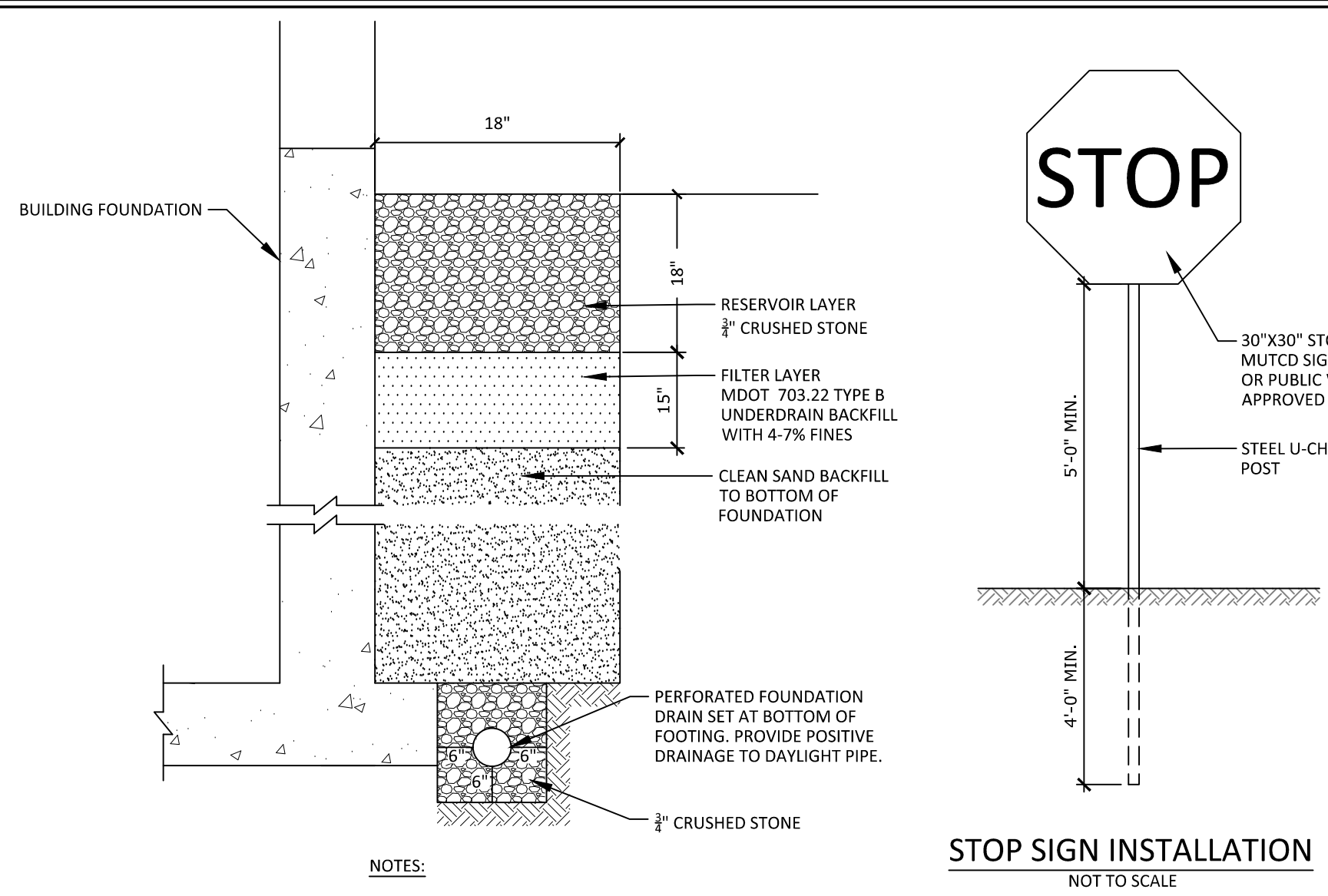


DM ROMA
CONSULTING ENGINEERS
P.O. BOX 1116
WINDHAM, ME 04062
(207) 310-0506

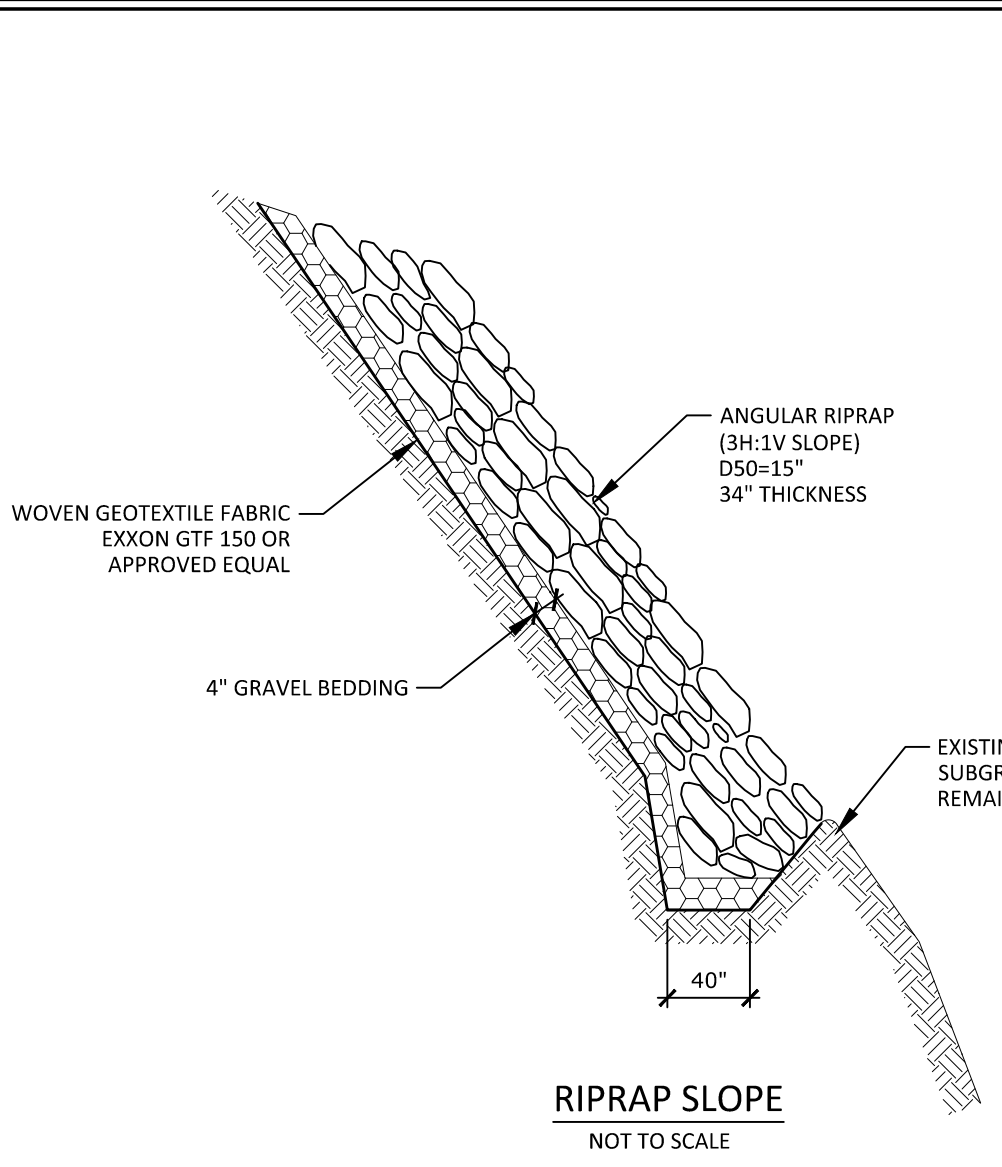
REV	DATE	DESCRIPTION
B	10-23-19	REVISED PER TOWN REVIEW
C	11-4-19	REVISED PER TOWN REVIEW
D	11-20-19	REVISED PER TOWN REVIEW
E	12-16-19	ISSUED FOR MDEP PRE-APPLICATION REVIEW
F	3-9-20	ISSUED FOR MDEP SODA REVIEW
G	9-18-20	REVISED PER MDEP REVIEW
H	10-16-20	ISSUED TO TOWN FOR FINAL APPROVAL

DETAILS
BELVEDERE COMMONS
BELVEDERE DRIVE & DUSTY RHOADES LANE
WINDHAM, MAINE
FOR RECORD OWNER:
ROBIE HOLDINGS, LLC
PO BOX 1508
WINDHAM, ME 04062

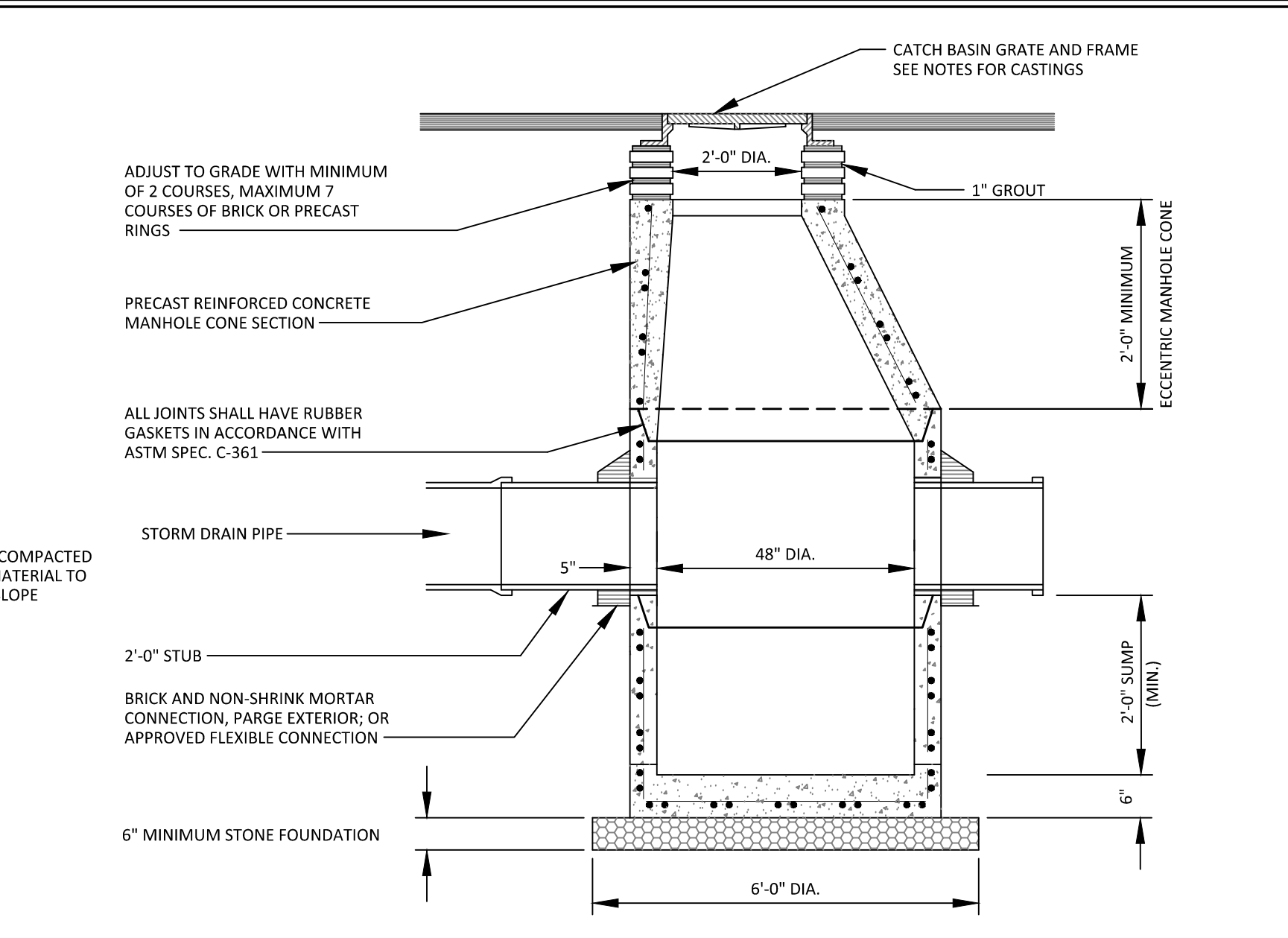
18067
JOB NUMBER:
AS NOTED
SCALE:
10-16-2020
DATE:
SHEET 8 OF 10
D-2



STOP SIGN INSTALLATION
NOT TO SCALE

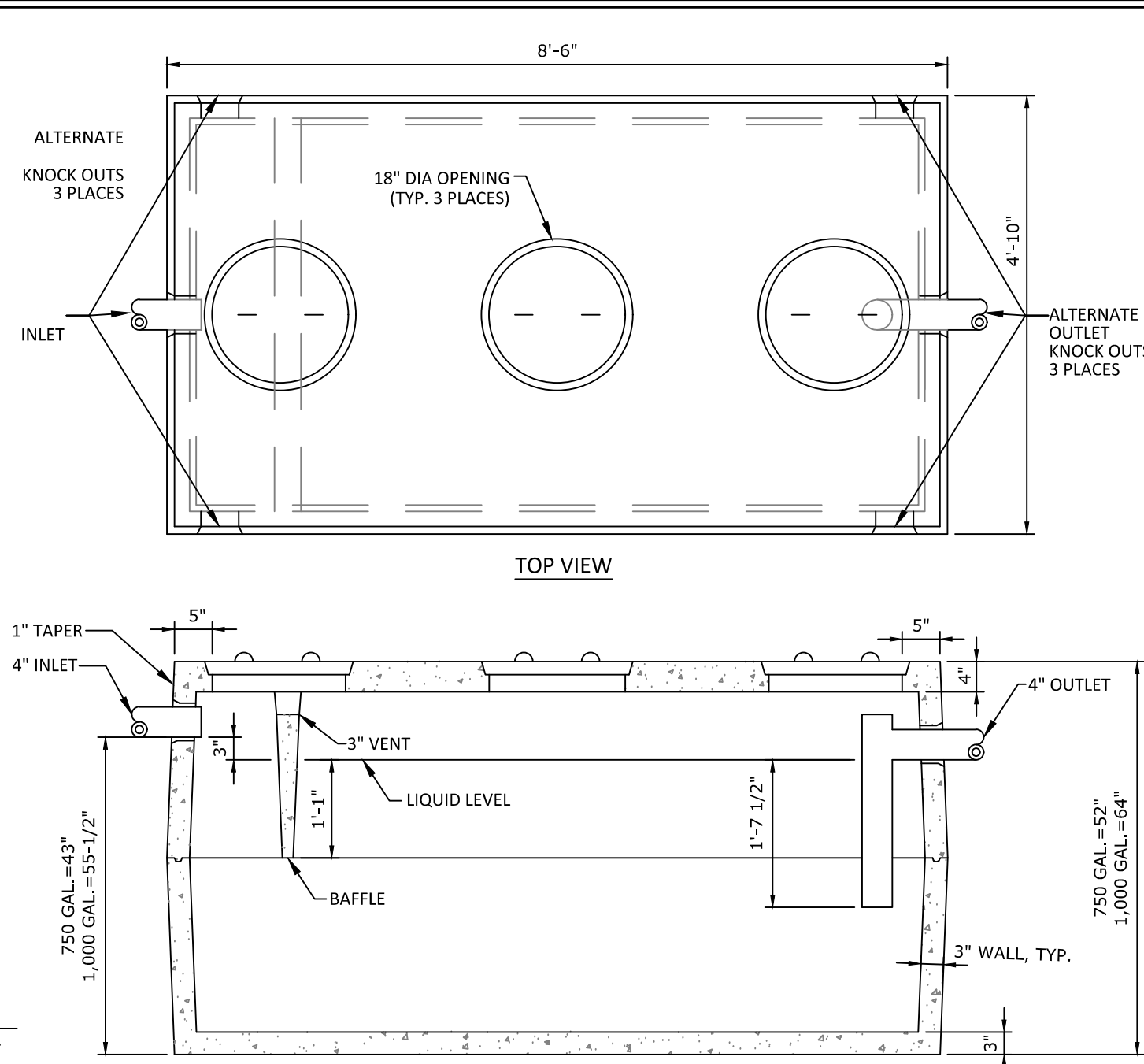


RIPRAP SLOPE
NOT TO SCALE



- NOTES:
- LARGER DIAMETER STRUCTURES MAY BE REQUIRED DUE TO SIZE OR GEOMETRY OF PIPE CONNECTIONS AT MANHOLE. WALL THICKNESS TO INCREASE BY 1" FOR EACH 1'-0" DIA. INCREASE. PROVIDE SHOP DRAWINGS.
 - DRAINAGE STRUCTURES TO BE DESIGNED FOR H-20 LOADING.
 - CAST IRON GRATES AND FRAMES SHALL BE EQUAL TO GENERAL FOUNDRIES, INC. PRODUCT NO. 12442 - 24" DIA. 4" FRAME HEIGHT HEAVY DUTY, BUILT UP TYPE FRAME, SLOTTED GRATE. SUBMIT CATALOG SHEETS TO ENGINEER FOR APPROVAL.

PRECAST CONCRETE CATCH BASIN STRUCTURE
NOT TO SCALE

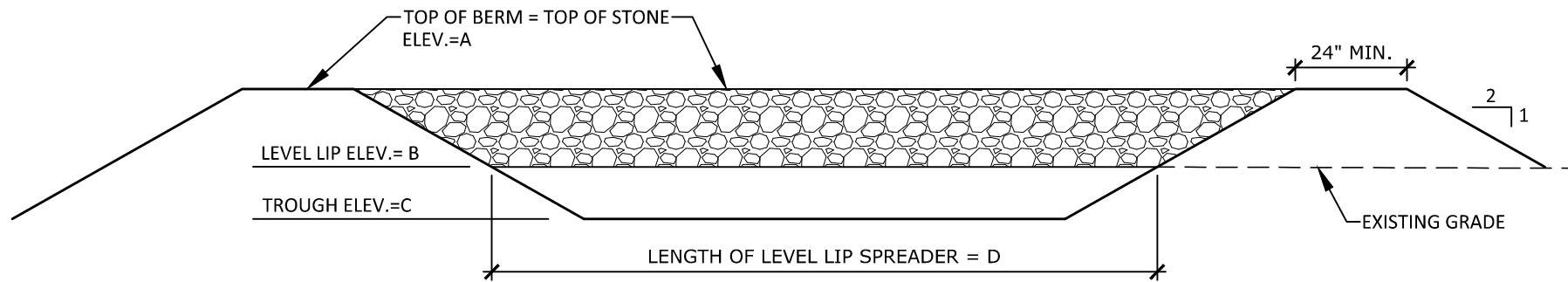
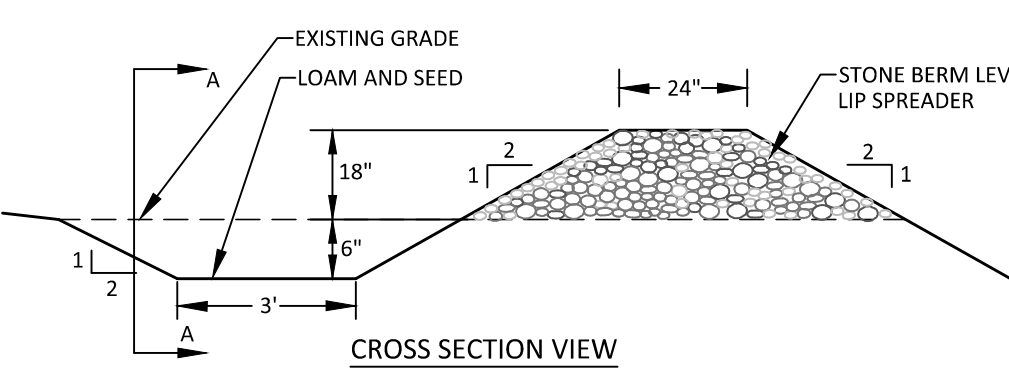


- TANK NOTES:
- CONCRETE TO BE 4,000 PSI AT 28 DAYS.
 - THE INLET BAFFLE IS PRECAST AS ONE UNIT WITH THE TOP SECTION OF THE SEPTIC TANK
 - TANKS REINFORCED WITH 6X6X10 G.A. WIRE.
 - KEYED JOINTS SEALED WITH ASPHALT SEALANT.
 - TANKS IN PAVED AREAS TO BE REINFORCED WITH WITH 1/2" REBAR SPACED 6" O.C. EACH WAY.
 - TANKS TO BE RESIDENTIAL SEPTIC TANKS AS MANUFACTURED BY PRECAST CONCRETE PRODUCTS OF MAINE, INC. OR APPROVED EQUAL.

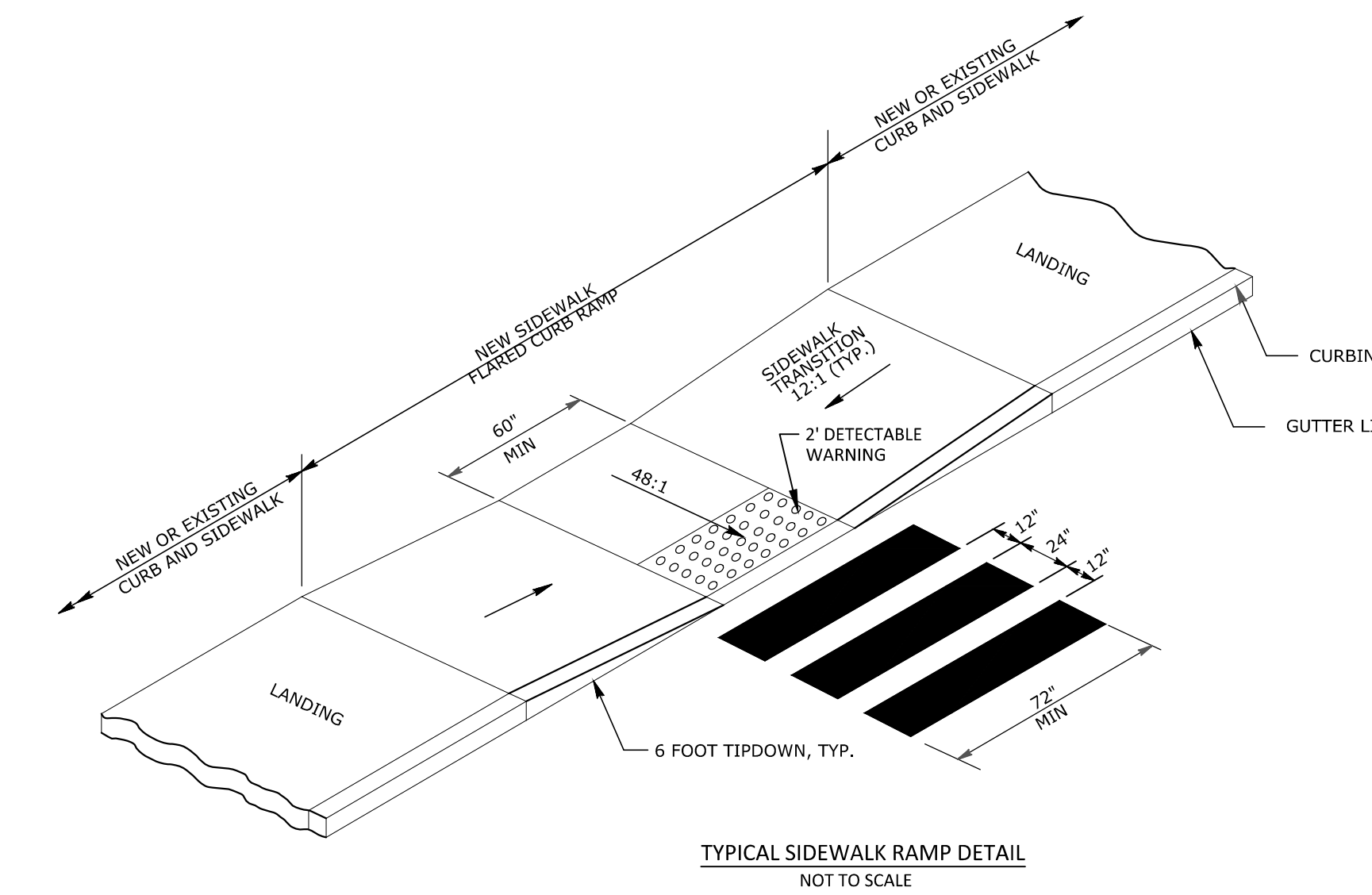
750 & 1,000 GALLON
RESIDENTIAL SEPTIC TANKS
NOT TO SCALE

- LEVEL LIP SPREADER NOTES:
- THE STONE USED TO CONSTRUCT THE BERM SHALL MEET THE FOLLOWING SPECIFICATIONS:
- | SIEVE DESIGNATION (US) | PERCENT PASSING BY WEIGHT |
|------------------------|---------------------------|
| 12 IN. | 100 |
| 6 IN. | 84-100 |
| 3 IN. | 68-83 |
| 1 IN. | 42-55 |
| NO. 4 | 8-12 |
- INSPECTION OF THE LEVEL LIP SPREADER CONSTRUCTION SHALL BE PERFORMED BY A PROFESSIONAL ENGINEER AND SHALL CONSIST OF VISITS TO THE SITE AT INITIAL GROUND DISTURBANCE, PLACEMENT OF STONE MATERIAL AND FINAL STABILIZATION. WITHIN 30 DAYS OF COMPLETION OF THE LEVEL LIP SPREADER, THE APPLICANT MUST SUBMIT A LOG OF INSPECTION REPORTS DETAILING THE ITEMS INSPECTED, PHOTOS TAKEN, AND THE DATES OF EACH INSPECTION TO THE BUREAU OF LAND RESOURCES FOR REVIEW.

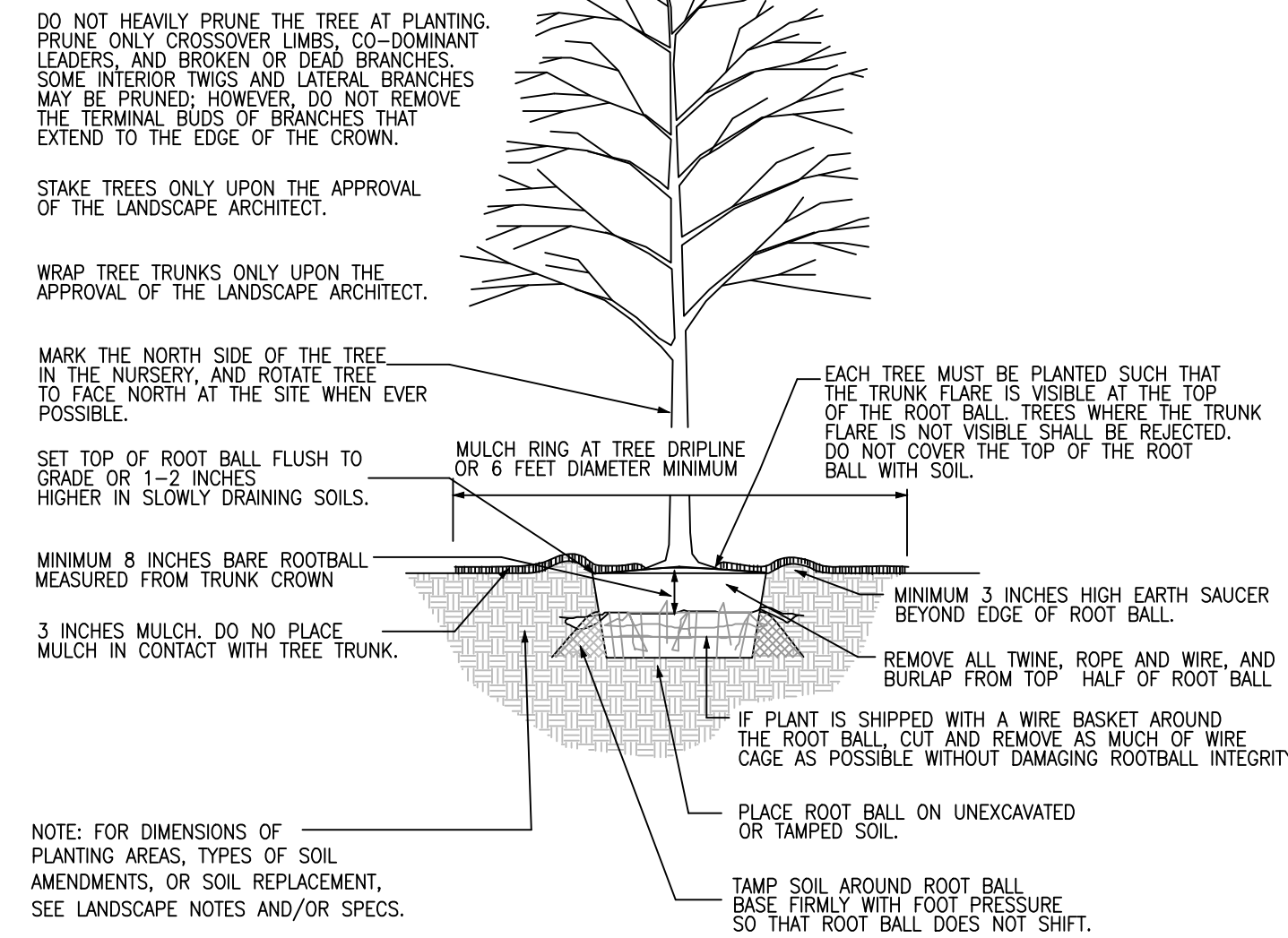
LEVEL LIP SPREADER DATA				
BUFFER NO.	A	B	C	D
1	285.50	284.00	283.50	88'
2	281.50	280.00	279.50	147'



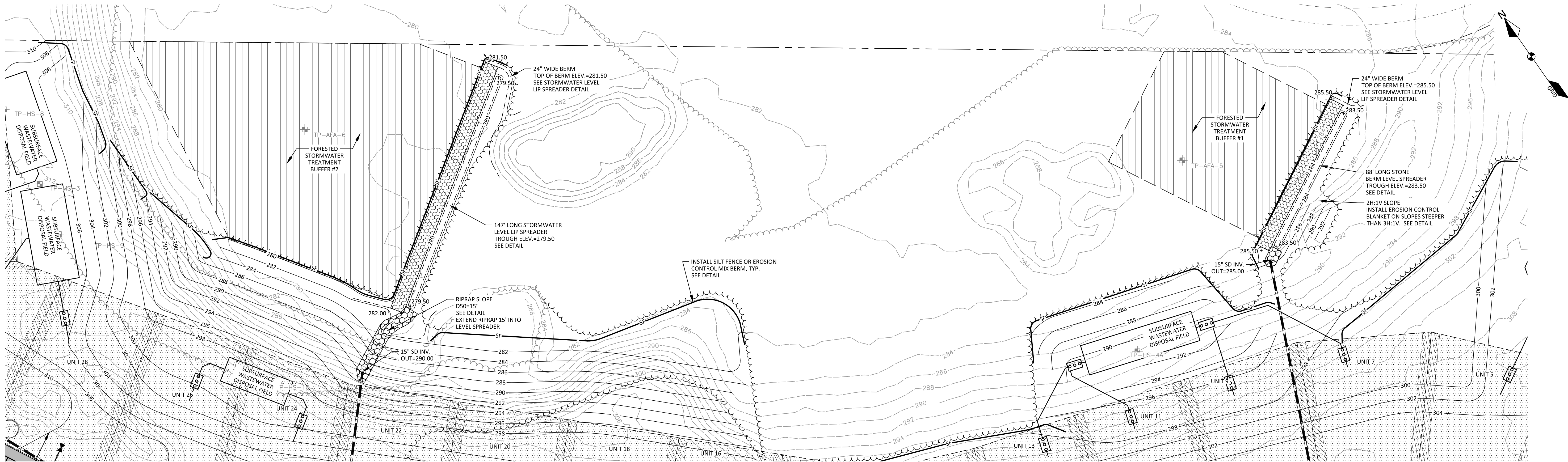
SECTION A-A
STORMWATER LEVEL LIP SPREADER
NOT TO SCALE



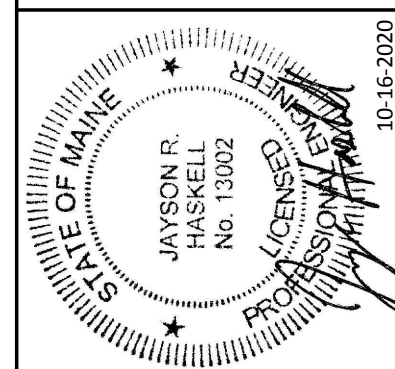
TYPICAL SIDEWALK RAMP DETAIL
NOT TO SCALE



TREE INSTALLATION DETAIL - BALL & BURLAP
NOT TO SCALE



LEVEL SPREADER DETAIL
SCALE: 1"=30'
GRAPHIC SCALE

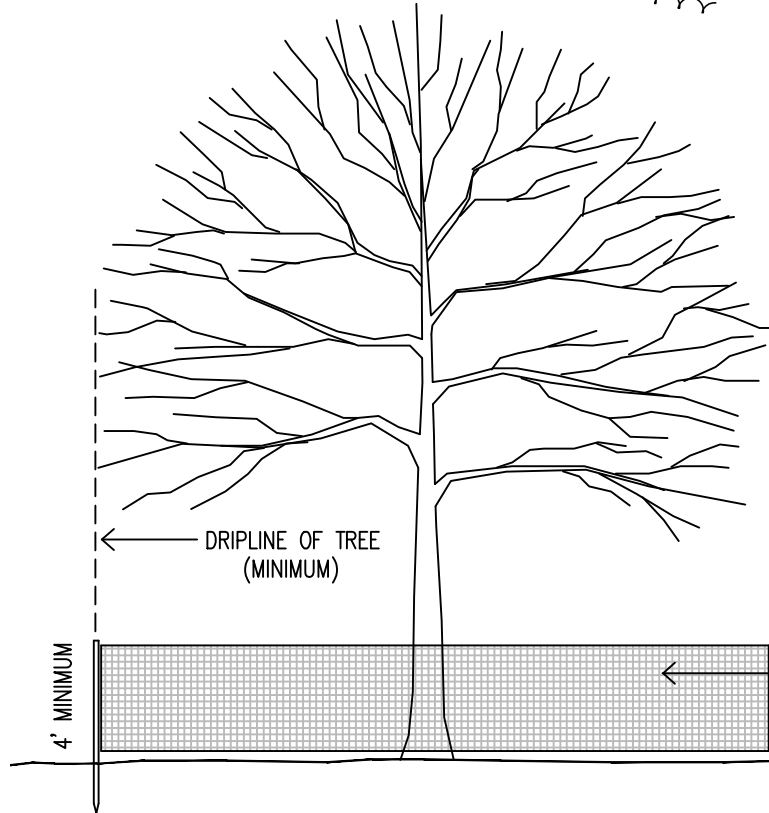
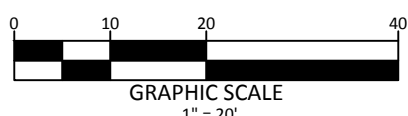
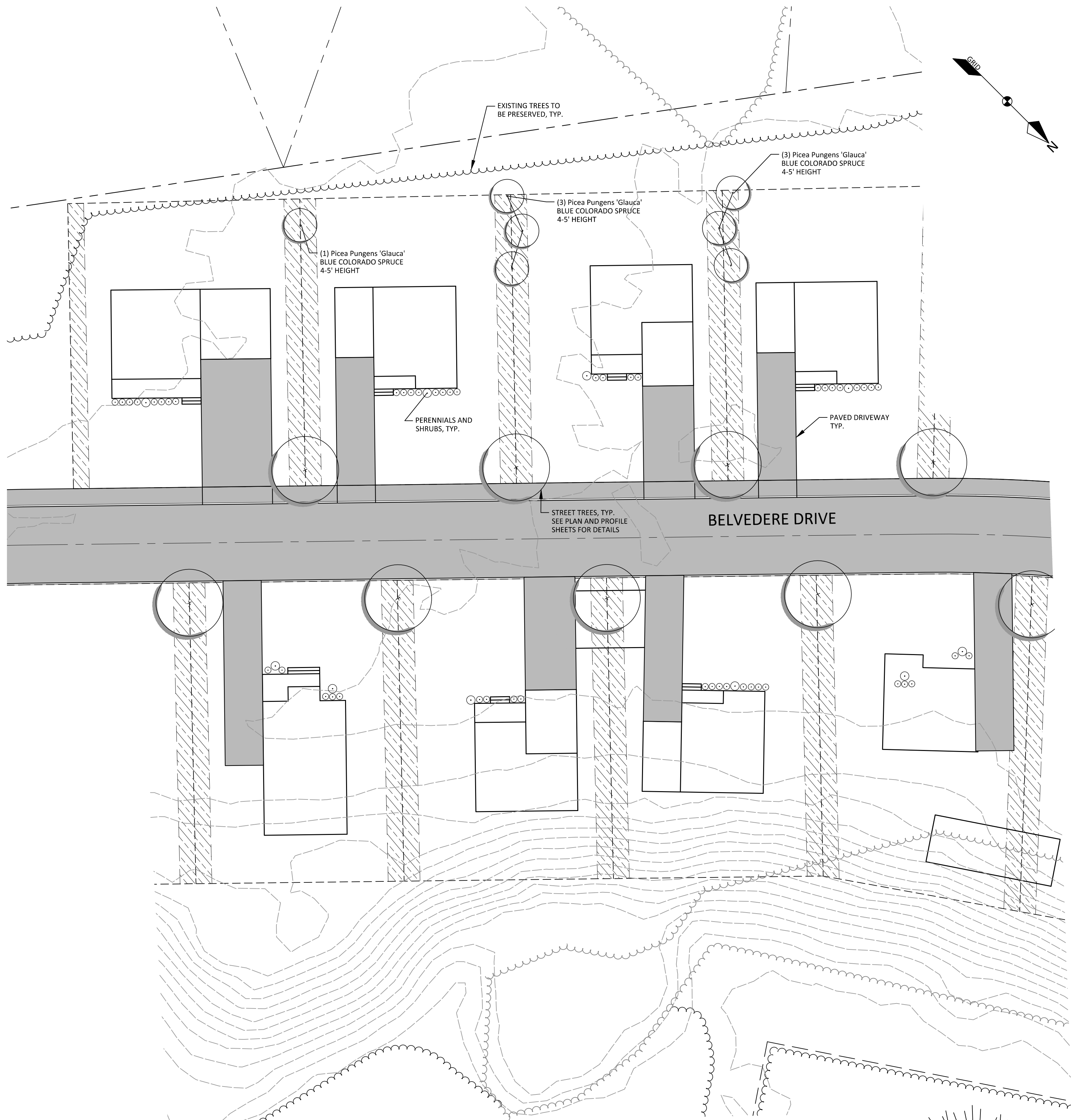


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REV	DATE	BY	DESCRIPTION
B	10-23-19	DMR	REVISED PER TOWN REVIEW
C	11-14-19	DMR	REVISED PER TOWN REVIEW
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H	10-16-20	DMR	REVISED PER MDEP REVIEW

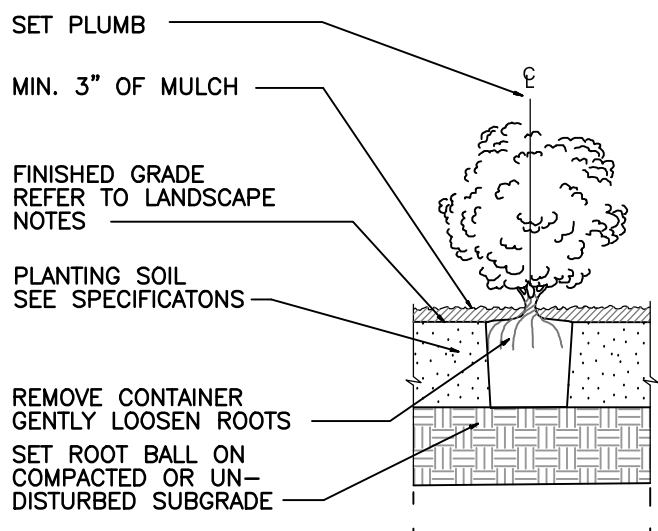
DETAILS
BELVEDERE COMMONS
BELVEDERE DRIVE & DUSTY RHODES LANE
WINDHAM, MAINE
FOR RECORD OWNER:
ROBIE HOLDINGS, LLC
PO BOX 1508
WINDHAM, ME 04062

18067
JOB NUMBER:
AS NOTED
SCALE:
10-16-2020
DATE:
SHEET 9 OF 10
D-3



TREE PROTECTION DETAIL - TEMPORARY FENCE
NOT TO SCALE

- NOTES:
1. TREE PROTECTION FENCING SHALL BE INSTALLED PRIOR TO ANY CONSTRUCTION ACTIVITY.
 2. INSTALL FENCING TO LIMIT OF THE CRITICAL ROOT ZONE OF TREE
 3. DO NOT STORE CONSTRUCTION EQUIPMENT, MATERIALS, TOOLS, ETC. WITHIN PROTECTIVE FENCING.
 4. MAINTAIN FENCING IN A NEAT AND ORDERLY FASHION THROUGHOUT CONSTRUCTION PERIOD.



SHRUB INSTALLATION DETAIL
NOT TO SCALE

DO NOT HEAVILY PRUNE THE TREE AT PLANTING. PRUNE ONLY CROSSOVER LIMES, CO-DOMINANT LEADERS, AND BROKEN OR DEAD BRANCHES. SOME INTERIOR TWIGS AND LATERAL BRANCHES MAY BE PRUNED; HOWEVER, DO NOT REMOVE THE TERMINAL BUDS OF BRANCHES THAT EXTEND TO THE EDGE OF THE CROWN.

STAKE TREES ONLY UPON THE APPROVAL OF THE LANDSCAPE ARCHITECT.

WRAP TREE TRUNKS ONLY UPON THE APPROVAL OF THE LANDSCAPE ARCHITECT.

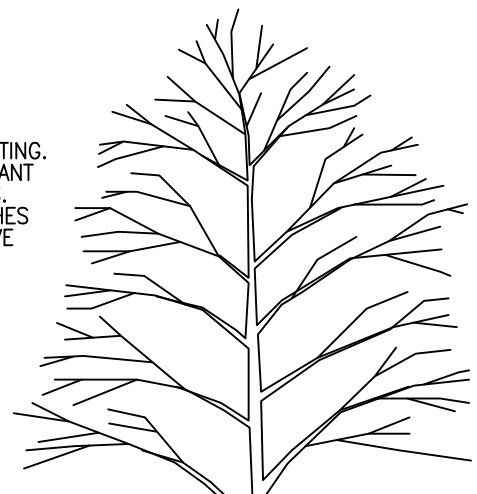
MARK THE NORTH SIDE OF THE TREE IN THE NURSERY, AND ROTATE TREE TO FACE NORTH AT THE SITE WHEN EVER POSSIBLE.

SET TOP OF ROOT BALL FLUSH TO GRADE OR 1-2 INCHES HIGHER IN SLOWLY DRAINING SOILS.

MINIMUM 8 INCHES BARE ROOTBALL MEASURED FROM TRUNK CROWN

3 INCHES MULCH, DO NO PLACE MULCH IN CONTACT WITH TREE TRUNK.

NOTE: FOR DIMENSIONS OF PLANTING AREAS, TYPES OF SOIL AMENDMENTS, OR SOIL REPLACEMENT, SEE LANDSCAPE NOTES AND/OR SPECS.



EACH TREE MUST BE PLANTED SUCH THAT THE TRUNK FLARE IS VISIBLE AT THE TOP OF THE ROOT BALL. TREES WHERE THE TRUNK FLARE IS NOT VISIBLE SHALL BE REJECTED. DO NOT COVER THE TOP OF THE ROOT BALL WITH SOIL.

MINIMUM 3 INCHES HIGH EARTH SAUCER BEYOND EDGE OF ROOT BALL.

REMOVE ALL TWINE, ROPE AND WIRE, AND BURLAP FROM TOP HALF OF ROOT BALL.

IF PLANT IS SHIPPED WITH A WIRE BASKET AROUND THE ROOT BALL, CUT AND REMOVE AS MUCH OF WIRE CAGE AS POSSIBLE, WITHOUT DAMAGING ROOTBALL INTEGRITY

PLACE ROOT BALL ON UNEXCAVATED OR TAMPED SOIL.

TAMP SOIL AROUND ROOT BALL BASE FIRMLY WITH FOOT PRESSURE SO THAT ROOT BALL DOES NOT SHIFT.

TREE INSTALLATION DETAIL - BALL & BURLAP
NOT TO SCALE

LANDSCAPING DETAIL

BELVEDERE COMMONS

BELVEDERE DRIVE
WINDHAM, MAINE

FOR RECORD OWNER:
PO BOX 1508
WINDHAM, ME 04062

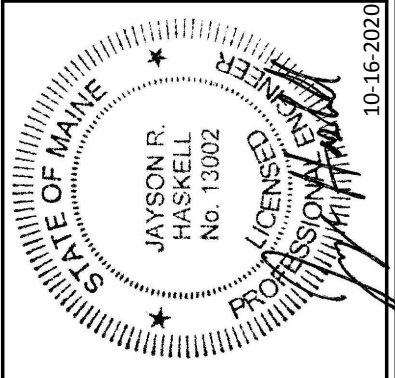
18067
JOB NUMBER:

1" = 20'
SCALE:

10-16-2020
DATE:

SHEET 10 OF 10

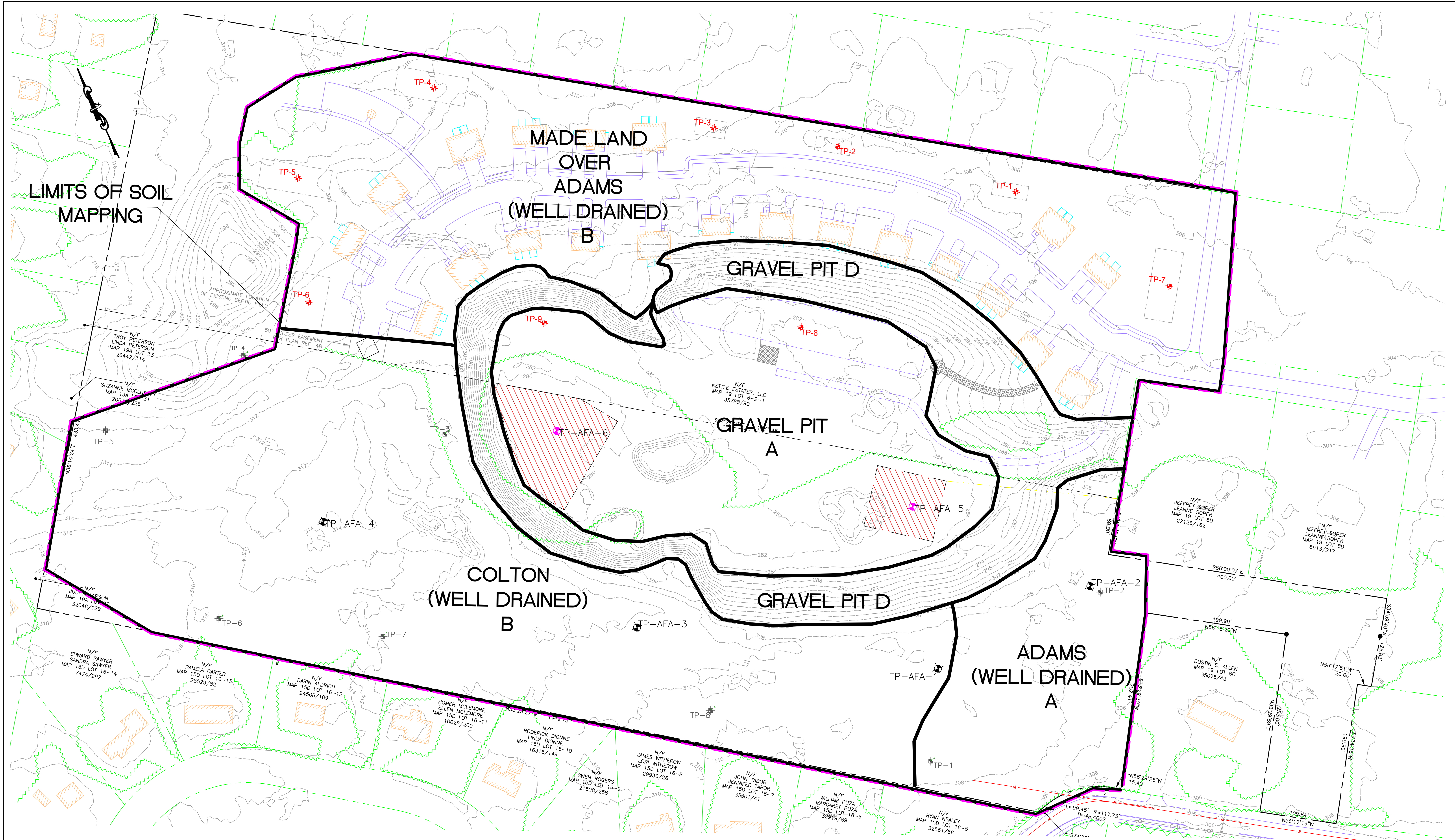
L-1



DM ROMA
CONSULTING ENGINEERS

P.O. BOX 1116
WINDHAM, ME 04062
(207) 310-0506

REV	DATE	BY	DESCRIPTION
A	11-4-19	DMR	ISSUED FOR PERMITTING
B	11-20-19	DMR	REVISED PER TOWN REVIEW
C	3-9-20	DMR	ISSUED FOR MDEP SLODA REVIEW
D	9-18-20	DMR	REVISED PER MDEP REVIEW
E	10-16-20	DMR	ISSUED TO TOWN FOR FINAL APPROVAL



SOILS MAP LEGEND:

- SOIL TEST PIT (PERFORMED BY AFA)
- SOIL TEST PIT (PERFORMED BY AFA FOR STORMWATER DESIGN PURPOSES)
- SOIL TEST PIT (PERFORMED BY MARK CENCI)
- SOIL TEST PIT (PERFORMED BY ALEX FINAMORE)
- SOIL BOUNDARY LINE
- LIMITS OF SOIL MAPPING INVESTIGATION
- PROPERTY LINES
- POTENTIAL STORMWATER AREA

SLOPE DESIGNATION

- A 0 - 3%
- B 3 - 8%
- C 8 - 20%
- D 20%+

NOTE: SEE ACCOMPANYING SOIL NARRATIVE REPORT, DATED MARCH, 2020

THE ACCOMPANYING SOILS SURVEY WAS DONE IN ACCORDANCE WITH THE STANDARDS ADOPTED BY THE MAINE ASSOCIATION OF PROFESSIONAL SOIL SCIENTISTS, FEBRUARY 1995, AS AMENDED.

STATE OF MAINE
ALBERT FRICK
66
CERTIFIED
SOIL SCIENTIST

STATE OF MAINE
ALBERT FRICK
163
CERTIFIED
SITE EVALUATOR

DATE:	REVISIONS:

HIGH INTENSITY (CLASS A)
SOIL SURVEY
PREPARED FOR
DM ROMA
VARNEY MILL ROAD
WINDHAM, MAINE

Albert Frick Associates, Inc.
Environmental Consultants
Gorham, Maine

Drawn By: B.J.	Checked By: C.C.
Date: 3/2/2020	Scale: 1" = 60'

PLAN NOTES:

1. BASE PLAN PREPARED BY DM ROMA CONSULTING ENGINEERS.
2. NITRATE PLUMES AS INDICATED IN REPORT TITLED "HYDROGEOLOGIC ASSESSMENT-BELVEDERE COMMONS, BELVEDERE DRIVE AND DUSTY RHODES LANE, WINDHAM" PREPARED BY MARK CENCI GEOLOGIC, INC. DATED NOVEMBER 4, 2019 AND "HYDROGEOLOGIC ASSESSMENT OF THE PROPOSED ACORN LANE DUPLEXES, VARNY MILL ROAD & ACORN LANE, WINDHAM" PREPARED BY MARK CENCI GEOLOGIC, INC. DATED OCTOBER 3, 2017.

LEGEND

EXISTING	PROPOSED
	PROPERTY LINE/R.O.W.
	ABUTTER PROPERTY LINE
	TIE LINE
	SETBACK
	EASEMENT LINE
	GRANITE MONUMENT
	IRON PIN/DRILL HOLE
	CENTERLINE
	BUILDING
	EDGE OF PAVEMENT/CURB
	EDGE OF GRAVEL
	EDGE OF CONCRETE
	SIGN
	EDGE OF WETLANDS
	EDGE OF WATER
	CENTERLINE OF STREAM
	CONTOUR LINE
	TREELINE
	TEST PIT - ALBERT FRICK ASSOCIATES
	TEST PIT - HARRIS SEPTIC SOLUTIONS, INC.
	TEST PIT - MARK CENCI GEOLOGIC, INC.
	TEST PIT - MAINLEY SOILS, LLC
	CULVERT/STORMDRAIN
	SANITARY SEWER PIPE
	WELL
	UTILITY POLE
	WELL EXCLUSION AREA
	DISPOSAL FIELD
	NITRATE PLUME WITH 10mg/L NO ₃ -N ISO CONC

TEST PIT SUMMARY				
TEST PIT NO.	PREPARED BY	TEST PIT NO. ON LOG	DATE EXCAVATED	PROJECT
TP-AFA-1	ALBERT FRICK ASSOCIATES, INC.	TP-AFA-1	3/4/2020	BELVEDERE COMMONS
TP-AFA-2	ALBERT FRICK ASSOCIATES, INC.	TP-AFA-2	3/4/2020	BELVEDERE COMMONS
TP-AFA-3	ALBERT FRICK ASSOCIATES, INC.	TP-AFA-3	3/4/2020	BELVEDERE COMMONS
TP-AFA-4	ALBERT FRICK ASSOCIATES, INC.	TP-AFA-4	3/4/2020	BELVEDERE COMMONS
TP-AFA-5	ALBERT FRICK ASSOCIATES, INC.	TP-AFA-5	3/4/2020	BELVEDERE COMMONS
TP-AFA-6	ALBERT FRICK ASSOCIATES, INC.	TP-AFA-6	3/4/2020	BELVEDERE COMMONS
TP-BH-1	HARRIS SEPTIC SOLUTIONS, INC.	TP-1	1/15/2020	KETTLE ESTATES
TP-BH-2	HARRIS SEPTIC SOLUTIONS, INC.	TP-2	1/16/2020	KETTLE ESTATES
TP-BH-3	HARRIS SEPTIC SOLUTIONS, INC.	TP-3	1/16/2020	KETTLE ESTATES
TP-BH-4	HARRIS SEPTIC SOLUTIONS, INC.	TP-4	1/1/2019	KETTLE ESTATES
TP-BH-5	HARRIS SEPTIC SOLUTIONS, INC.	TP-5	12/30/2018	KETTLE ESTATES
TP-BH-6	HARRIS SEPTIC SOLUTIONS, INC.	TP-6	12/30/2018	KETTLE ESTATES
TP-BH-7	HARRIS SEPTIC SOLUTIONS, INC.	TP-7	1/15/2019	KETTLE ESTATES
TP-HS-2	HARRIS SEPTIC SOLUTIONS, INC.	TP-HS-2	9/10/2020	BELVEDERE COMMONS
TP-HS-2A	HARRIS SEPTIC SOLUTIONS, INC.	TP-2A	9/15/2020	BELVEDERE COMMONS
TP-HS-3	HARRIS SEPTIC SOLUTIONS, INC.	TP-HS-3	9/10/2020	BELVEDERE COMMONS
TP-HS-3A	HARRIS SEPTIC SOLUTIONS, INC.	TP-3A	1/16/2020	BELVEDERE COMMONS
TP-HS-4	HARRIS SEPTIC SOLUTIONS, INC.	TP-HS-4	9/15/2020	BELVEDERE COMMONS

TEST PIT SUMMARY				
TEST PIT NO.	PREPARED BY	TEST PIT NO. ON LOG	DATE EXCAVATED	PROJECT
TP-HS-4A	HARRIS SEPTIC SOLUTIONS, INC.	TP-4A	5/16/2020	BELVEDERE COMMONS
TP-HS-5	HARRIS SEPTIC SOLUTIONS, INC.	TP-HS-5	9/10/2020	BELVEDERE COMMONS
TP-HS-5A	HARRIS SEPTIC SOLUTIONS, INC.	TP-5A	1/15/2020	BELVEDERE COMMONS
TP-HS-6	HARRIS SEPTIC SOLUTIONS, INC.	TP-HS-6	9/10/2020	BELVEDERE COMMONS
TP-HS-7	HARRIS SEPTIC SOLUTIONS, INC.	TP-HS-7	9/10/2020	BELVEDERE COMMONS
TP-HS-8	HARRIS SEPTIC SOLUTIONS, INC.	TP-HS-8	9/10/2020	BELVEDERE COMMONS
TP-HS-9	HARRIS SEPTIC SOLUTIONS, INC.	TP-HS-9	9/10/2020	BELVEDERE COMMONS
TP-HS-10	HARRIS SEPTIC SOLUTIONS, INC.	TP-HS-10	9/15/2020	BELVEDERE COMMONS
TP-HS-11	HARRIS SEPTIC SOLUTIONS, INC.	TP-HS-11	9/10/2020	BELVEDERE COMMONS
TP-MC-1	MARK CENCI GEOLOGIC, INC.	TP-1	8/5/2017	KETTLE ESTATES
TP-MC-2	MARK CENCI GEOLOGIC, INC.	TP-2	8/5/2017	KETTLE ESTATES
TP-MC-3	MARK CENCI GEOLOGIC, INC.	TP-3	8/5/2017	KETTLE ESTATES
TP-MC-4	MARK CENCI GEOLOGIC, INC.	TP-4	8/5/2017	KETTLE ESTATES
TP-MC-5	MARK CENCI GEOLOGIC, INC.	TP-5	8/5/2017	KETTLE ESTATES
TP-MC-6	MARK CENCI GEOLOGIC, INC.	TP-6	8/5/2017	KETTLE ESTATES
TP-MC-7	MARK CENCI GEOLOGIC, INC.	TP-7	8/5/2017	KETTLE ESTATES
TP-MC-8	MARK CENCI GEOLOGIC, INC.	TP-8	10/3/2017	KETTLE ESTATES
TP-MC-9	MARK CENCI GEOLOGIC, INC.	TP-9	10/3/2017	KETTLE ESTATES

TEST PIT SUMMARY				
TEST PIT NO.	PREPARED BY	TEST PIT NO. ON LOG	DATE EXCAVATED	PROJECT
TP-MC-10	MARK CENCI GEOLOGIC, INC.	TP-10	10/3/2017	KETTLE ESTATES
TP-MC-11	MARK CENCI GEOLOGIC, INC.	TP-11	10/3/2017	KETTLE ESTATES
TP-MC-12	MARK CENCI GEOLOGIC, INC.	TP-12	10/3/2017	KETTLE ESTATES
TP-MC-13	MARK CENCI GEOLOGIC, INC.	TP-13	10/3/2017	KETTLE ESTATES
TP-MC-14	MARK CENCI GEOLOGIC, INC.	TP-14	10/3/2017	KETTLE ESTATES
TP-MC-15	MARK CENCI GEOLOGIC, INC.	TP-15	10/3/2017	KETTLE ESTATES
TP-MS-1	MAINLEY SOILS, LLC	TP-1	9/30/2019	BELVEDERE COMMONS
TP-MS-2	MAINLEY SOILS, LLC	TP-2	9/30/2019	BELVEDERE COMMONS
TP-MS-3	MAINLEY SOILS, LLC	TP-3	9/30/2019	BELVEDERE COMMONS
TP-MS-4	MAINLEY SOILS, LLC	TP-4	9/30/2019	BELVEDERE COMMONS
TP-MS-5	MAINLEY SOILS, LLC	TP-5	9/30/2019	BELVEDERE COMMONS
TP-MS-6	MAINLEY SOILS, LLC	TP-6	9/30/2019	BELVEDERE COMMONS
TP-MS-7	MAINLEY SOILS, LLC	TP-7	9/30/2019	BELVEDERE COMMONS
TP-MS-8	MAINLEY SOILS, LLC	TP-8	9/30/2019	BELVEDERE COMMONS

NITRATE PLUME PLAN

BELVEDERE COMMONS & KETTLE ESTATES

WINDHAM, MAINE

FOR RECORD OWNER:

ROBIE HOLDINGS, LLC

P.O. BOX 1508
WINDHAM, ME 04092

18067

JOB NUMBER:

1" = 60'

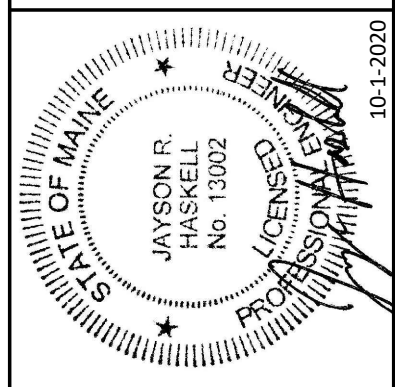
SCALE:

10-1-2020

DATE:

SHEET 1 OF 1

N-1



DM ROMA
CONSULTING ENGINEERS

P.O. BOX 1116
WINDHAM, ME 04062

(207) 310-0506

REV	DATE	BY	DESCRIPTION
A	11-4-19	DMR	ISSUED FOR PERMITTING
B	11-20-19	DMR	REVISED SEPTIC SYSTEM LOCATION
C	3-9-20	DMR	ISSUED FOR MDEP SLODA REVIEW
D	9-18-20	DMR	REVISED PER MDEP REVIEW
E	10-1-20	DMR	REVISED PER MDEP REVIEW