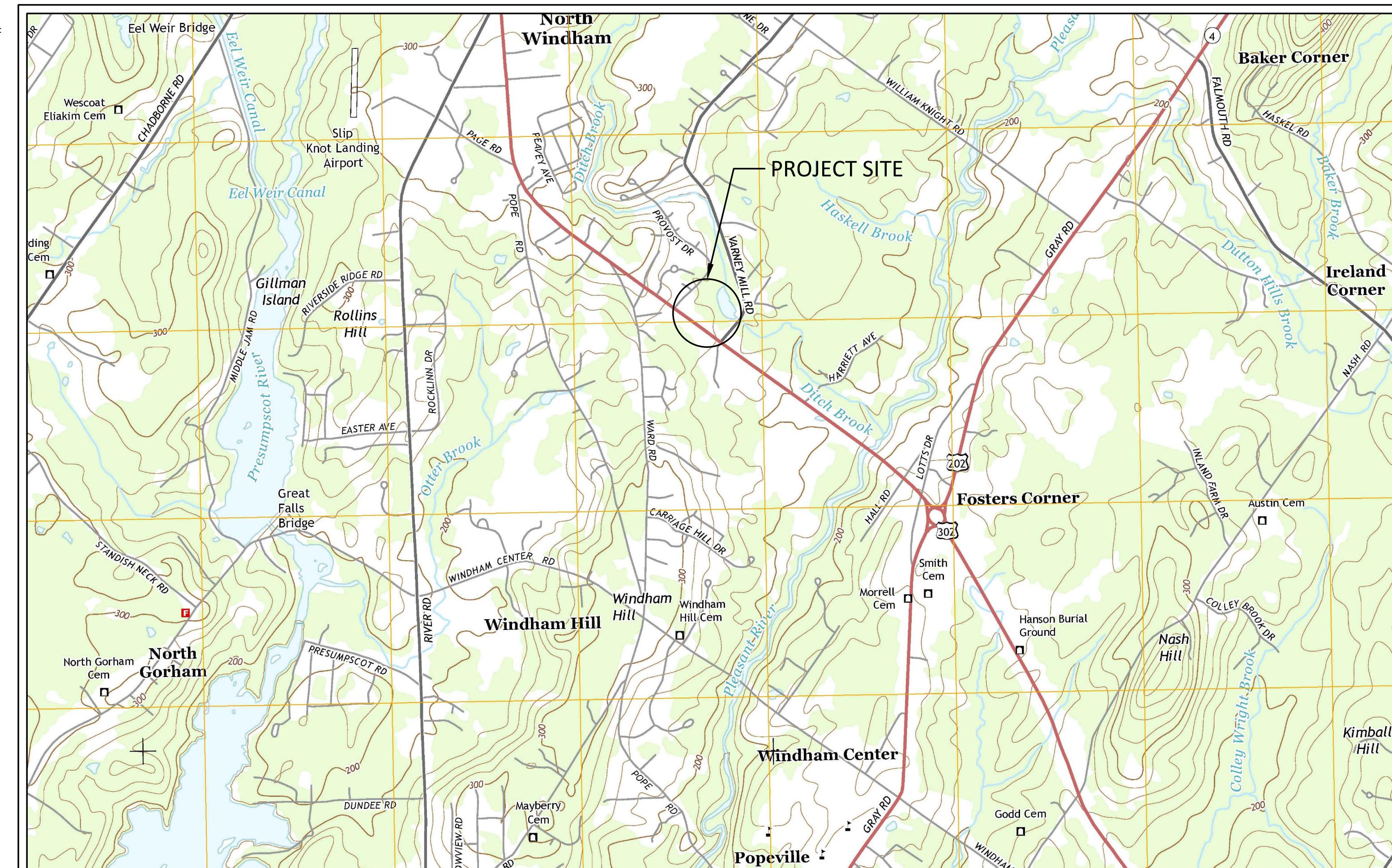


# 519 ROOSEVELT TRAIL CONDOMINIUM

ROOSEVELT TRAIL  
WINDHAM, MAINE

CONSULTANTS  
CIVIL ENGINEER DM ROMA CONSULTING ENGINEERS  
LAND SURVEYOR SURVEY, INC.  
SITE EVALUATOR LONGVIEW PARTNERS, LLC  
WETLAND SCIENTIST LONGVIEW PARTNERS, LLC



PROJECT VICINITY MAP

ISSUED TO TOWN FOR FINAL APPROVAL - NOT FOR CONSTRUCTION  
FEBRUARY 20, 2018

PREPARED BY:

**DM ROMA**

CONSULTING ENGINEERS  
59 HARVEST HILL RD  
WINDHAM, ME 04062  
(207) 310 - 0506

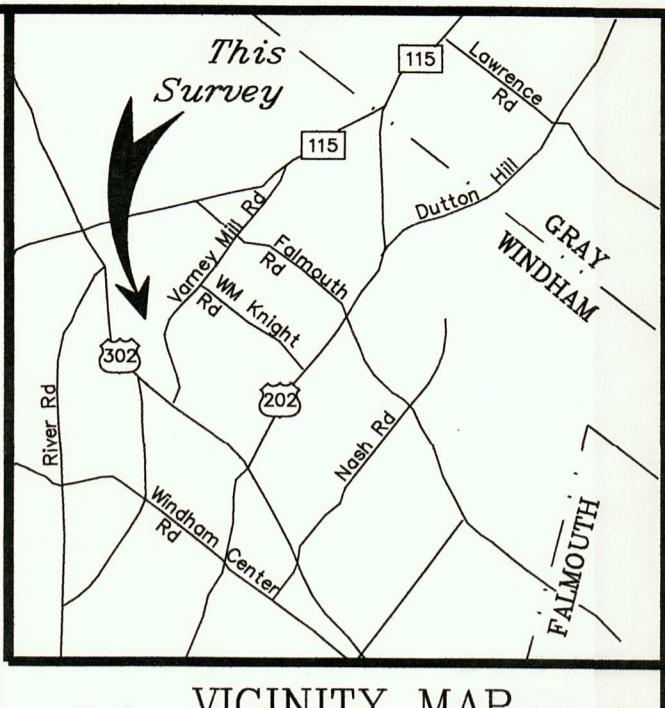
APPLICANT:  
JTSH, LLC  
PO BOX 232  
WINDHAM, MAINE 04062

519 ROOSEVELT TRAIL CONDOMINIUM  
DRAWING SHEET INDEX

PAGE NO.	DESCRIPTION
1	TITLE SHEET
2	BOUNDARY SURVEY
3	SITE PLAN
4	GRADING AND UTILITY PLAN
5	DETAILS
6	DETAILS
7	DETAILS

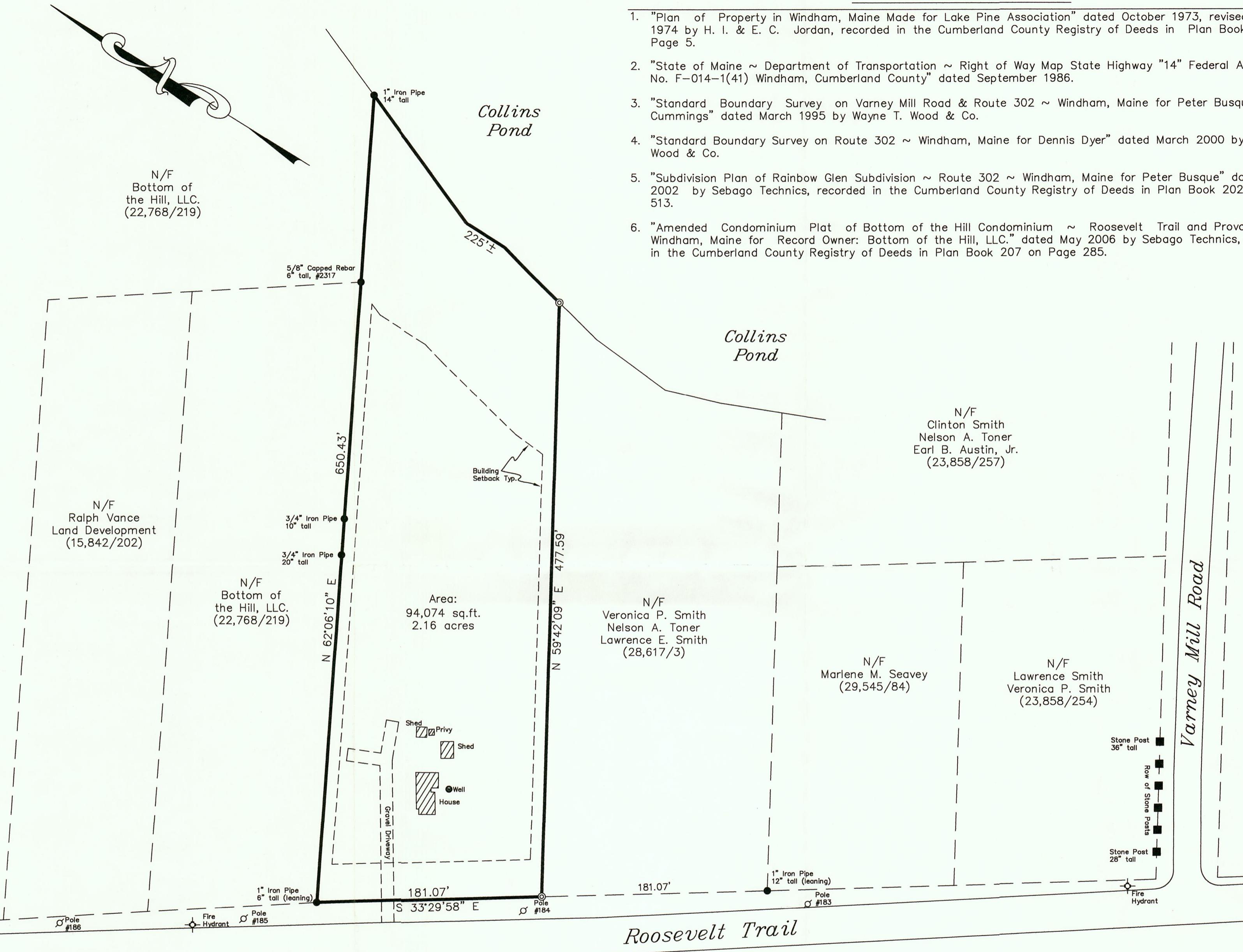
### PLAN REFERENCES

1. "Plan of Property in Windham, Maine Made for Lake Pine Association" dated October 1973, revised August 1974 by H. I. & E. C. Jordan, recorded in the Cumberland County Registry of Deeds in Plan Book 102 on Page 5.
2. "State of Maine ~ Department of Transportation ~ Right of Way Map State Highway "14" Federal Aid Project No. F-014-1(41) Windham, Cumberland County" dated September 1986.
3. "Standard Boundary Survey on Varney Mill Road & Route 302 ~ Windham, Maine for Peter Busque & Jim Cummings" dated March 1995 by Wayne T. Wood & Co.
4. "Standard Boundary Survey on Route 302 ~ Windham, Maine for Dennis Dyer" dated March 2000 by Wayne T. Wood & Co.
5. "Subdivision Plan of Rainbow Glen Subdivision ~ Route 302 ~ Windham, Maine for Peter Busque" dated June 2002 by Sebago Technics, recorded in the Cumberland County Registry of Deeds in Plan Book 202 on Page 513.
6. "Amended Condominium Plat of Bottom of the Hill Condominium ~ Roosevelt Trail and Provost Drive Windham, Maine for Record Owner: Bottom of the Hill, LLC." dated May 2006 by Sebago Technics, recorded in the Cumberland County Registry of Deeds in Plan Book 207 on Page 285.



VICINITY MAP

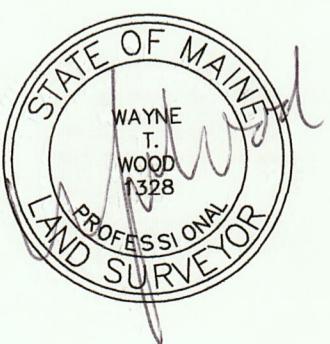
Scale: 1" = 2 miles



### LEGEND

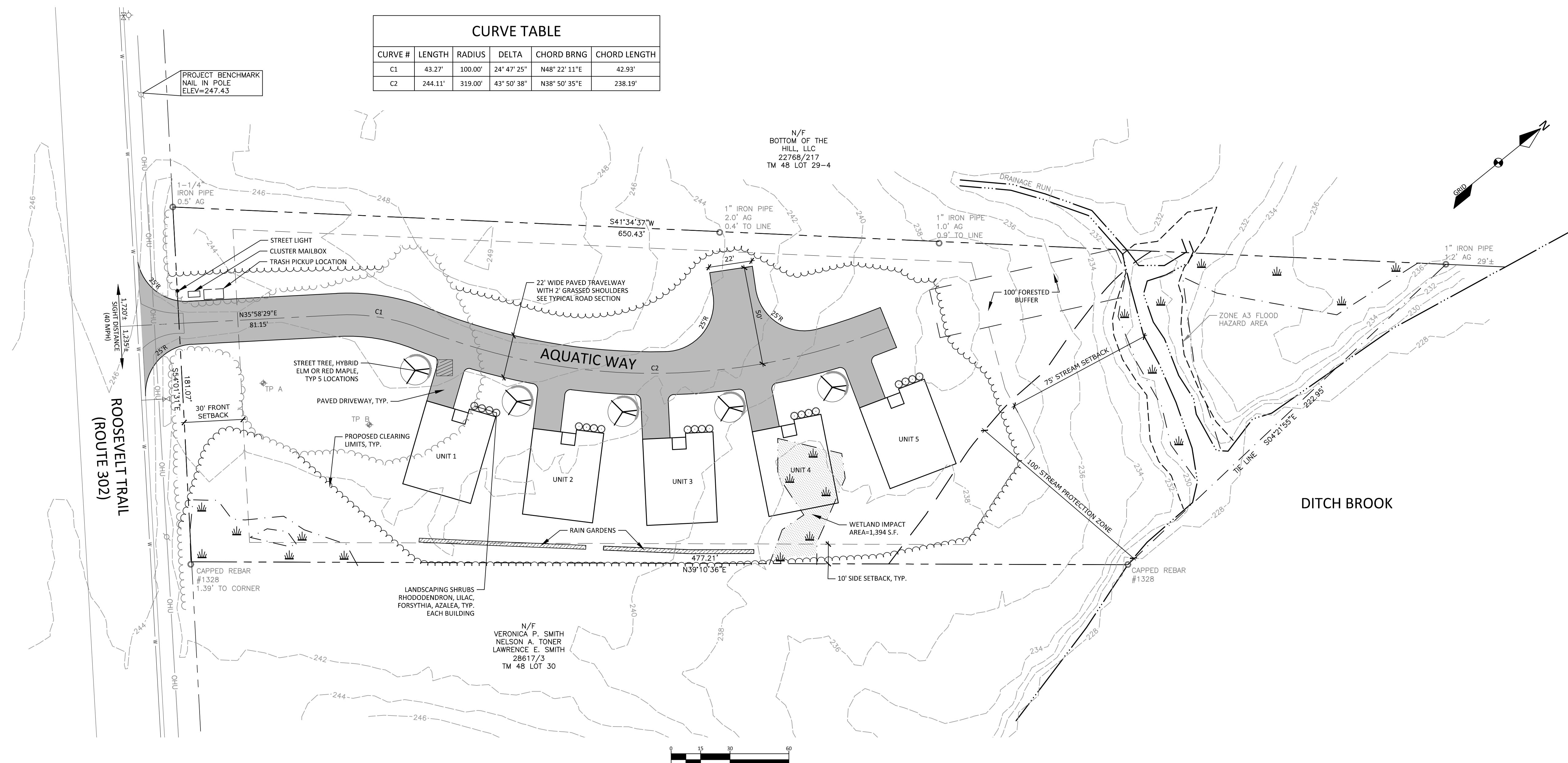
- ◎ 5/8" Capped Rebar (#132) to be set
- Iron Pipe or Pin Found as Noted
- Monument Found as Noted
- ¤ Utility Pole
- ◊ Fire Hydrant
- ▨ Existing Building
- N/F Now or Formerly of
- (29,545/84) Deed Book and Page Reference

Plan of Land On Roosevelt Trail In Windham, Maine For Jared Robie	
Wayne T. Wood & Co., Inc. - Windham, ME 04062	
WAYNE WOOD & CO.	
Gray, Maine 04039	
Drawn By: KLW/WTW	
Scale: 1" = 60'	
Checked By: WTW	
Field Crew: JW/BR	
(207)657-3330	
Date August 2017	
Job No. 217081	



NOTES

1. Owner of record is JTS, LLC, by deed of Robie Holdings, LLC, recorded in the Cumberland County Registry of Deeds in Book 34,200 on Page 133.
2. All bearings are referenced to Magnetic North of the Year 1983 per the plan in Plan Reference #4 and are calculated from angles of an actual on the ground survey.
3. The subject parcel is shown on the Town of Windham, Maine Tax Map #48 as Lot #30A and is situated in the Residential Medium (RM) Zone with a Stream Protection District Overlay.



## GENERAL NOTES:

1. THE OWNER OF RECORD OF THE PROPERTY IS JTSH, LLC BY DEED RECORDED IN THE CUMBERLAND COUNTY REGISTRY OF DEEDS BOOK 34,200 PAGE 133.
2. TOTAL AREA OF THE PARCEL IS APPROXIMATELY 2.16 ACRES.
3. PARCEL TAX MAP REFERENCE: TOWN OF WINDHAM ASSESSORS MAP 48, LOT 30-A.
4. PLAN REFERENCES:
  - A) BOUNDARY SURVEY OF 519 ROOSEVELT TRAIL, WINDHAM, MAINE FOR DM ROMA CONSULTING ENGINEERS, PREPARED BY SURVEY, INC. DATED DECEMBER 1, 2017.
  - B) PLAN OF LAND ON ROOSEVELT TRAIL IN WINDHAM MAINE, PREPARED BY WAYNE T. WOOD & COMPANY, DATED AUGUST 2017, JOB # 217081
5. HORIZONTAL DATUM: MAINE STATE PLANE, WEST ZONE, NAD83, U.S. FEET.
6. VERTICAL DATUM: NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88)
7. BOUNDARY SHOWN HEREON IS BASED ON PLAN REFERENCE 4A.
8. TOPOGRAPHIC CONTOURS SHOWN HEREON ARE BASED ON PLAN REFERENCE 4A AND SUPPLEMENTED BY 2-FOOT LIDAR CONTOURS OBTAINED FROM THE MAINE STATE OFFICE OF GIS.
9. THE PROPERTY IS LOCATED IN THE MEDIUM DENSITY RESIDENTIAL (RM) DISTRICT.
10. SPACE AND BULK REQUIREMENTS: RM DISTRICT

	RM DISTRICT
MIN LOT SIZE:	20,000 SF (PUBLIC WATER)
MIN STREET FRONTAGE:	100 FT
MIN FRONT YARD:	30 FT
MIN SIDE/REAR YARD:	10 FT
MAX BUILDING HEIGHT:	35 FT
MAX BUILDING COVERAGE:	20 %
11. WETLAND DELINEATION PERFORMED BY LONGVIEW PARTNERS, LLC IN OCTOBER 2017. THE TOTAL WETLAND IMPACT ASSOCIATED WITH THE DEVELOPMENT IS 1,394 S.F.
12. REFERENCE IS MADE TO THE FLOOD INSURANCE RATE MAP FOR THE TOWN OF WINDHAM COMMUNITY PANEL NO. 230189.0015B WITH AN EFFECTIVE DATE OF SEPTEMBER 2, 1981. APPARENT BASE FLOOD ELEVATION IS 232 (NGVD29).
13. ALL BUILDINGS WILL REQUIRE THE INSTALLATION OF A ROOFLINE DRIP EDGE FILTER FOR STORMWATER TREATMENT.
14. THE STORMWATER BUFFER SHALL REMAIN IN ITS NATURAL STATE, WITH NO REMOVAL OF VEGETATION OR NATURAL DUFF LAYER EXCEPT FOR THE REMOVAL OF DEAD TREES. THE BUFFER SHALL BE TEMPORARILY MARKED IN THE FIELD PRIOR TO SITE DISTURBANCE, AND PERMANENTLY MARKED AFTER THE LOT IS DEVELOPED.
15. THE CLEARING LIMITS SHOWN ON THIS PLAN SHALL BE MAINTAINED FOR A PERIOD OF FIVE (5) YEARS FROM THE DATE OF PLANNING BOARD APPROVAL, AND IN ACCORDANCE WITH SECTION 911.E.1.A OF THE LAND USE ORDINANCE.

## NET RESIDENTIAL DENSITY CALCULATION

GROSS LAND AREA:	2.16 ACRES (94,074 SF)
DEDUCTIONS:	
1. RIGHT-OF-WAY	0 S.F.
2. STEEP SLOPES (OVER 25%)	0 S.F.
3. 100-YEAR FLOOD PLAIN	0 S.F. (INCLUDED IN 5)
4. RESOURCE PROTECTION DISTRICT	0 S.F.
5. VERY POORLY DRAINED SOILS	7,120 S.F.
6. SURFACE WATERBODIES	0 S.F. (INCLUDED IN 5)
7. SIGNIFICANT WILDLIFE HABITAT	0 S.F.
8. ENDANGERED BOTANICAL RESOURCES	0 S.F.

#### NUMBER OF LOTS/DWELLINGS PROPOSED

## **CONDITIONS OF APPROVAL:**

1. APPROVAL IS DEPENDENT UPON, AND LIMITED TO, THE PROPOSALS AND PLANS CONTAINED IN THE APPLICATION DATED NOVEMBER 20, 2017, AS AMENDED JANUARY 25, 2018 AND SUPPORTING DOCUMENTS AND ORAL REPRESENTATIONS SUBMITTED AND AFFIRMED BY THE APPLICANT, AND CONDITIONS, IF ANY, IMPOSED BY THE PLANNING BOARD, AND ANY VARIATION FROM SUCH PLANS, PROPOSALS, AND SUPPORTING DOCUMENTS AND REPRESENTATIONS ARE SUBJECT TO REVIEW AND APPROVAL BY THE PLANNING BOARD OR THE TOWN PLANNER IN ACCORDANCE WITH SECTION 913 OF THE LAND USE ORDINANCE.

## WAIVERS GR

1. SECTION 910.C.1.c.1 - HIGH INTENSITY SOILS SURVEY, SUBMISSION REQUIREMENT
2. SECTION 910.C.1.c.3 - HYDROGEOLOGIC ASSESSMENT, SUBMISSION REQUIREMENT
3. SECTION 911.J.6 - STORMWATER FLOODING, PERFORMANCE STANDARD

APPROVED - WINDHAM PLANNING BOARD:

CHAIRPERSON	DATE

## SITE PLAN

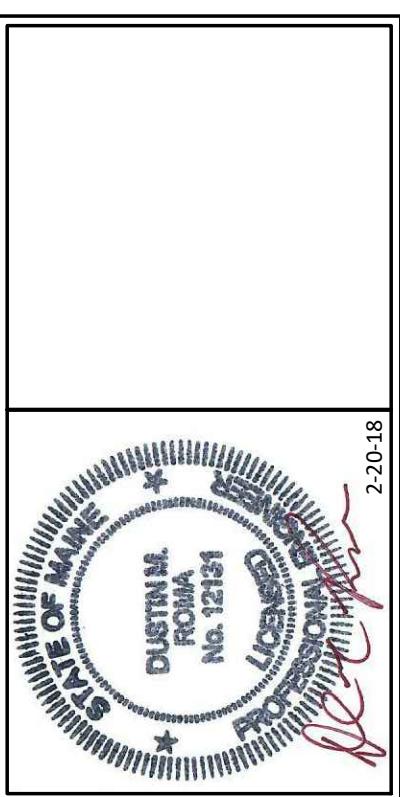
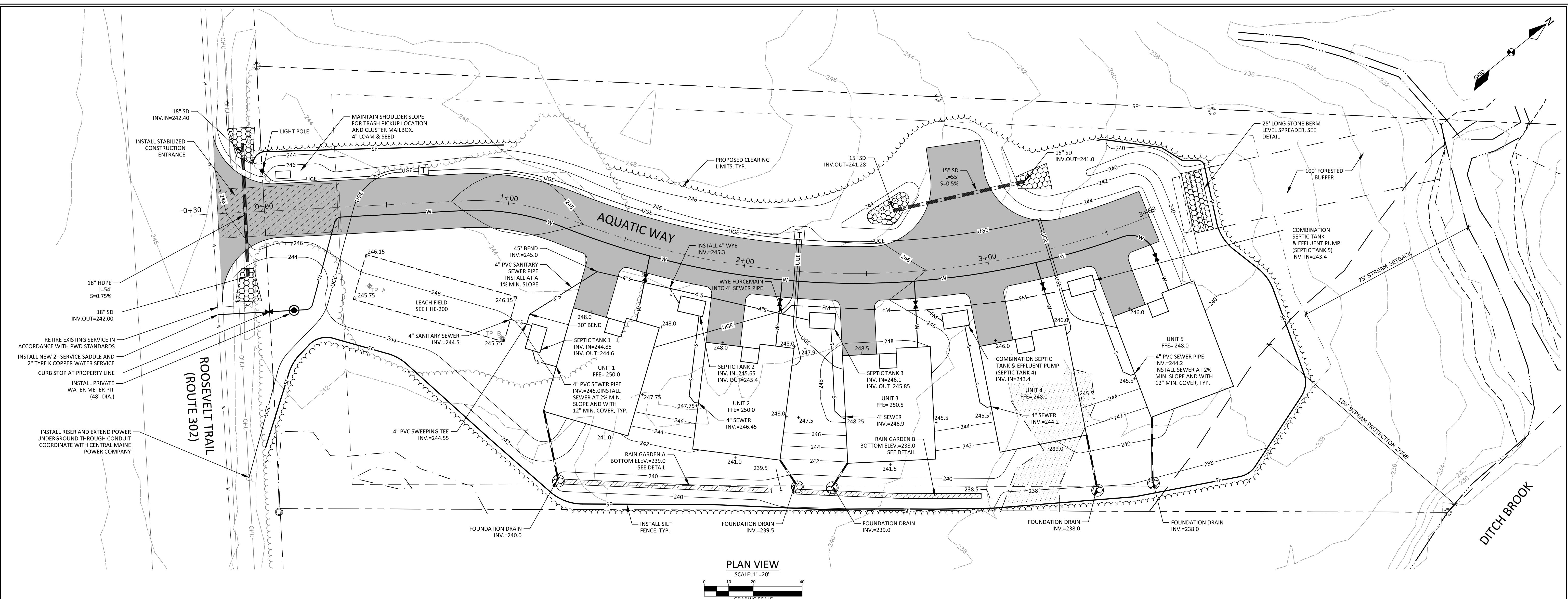
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# SITE PLAN

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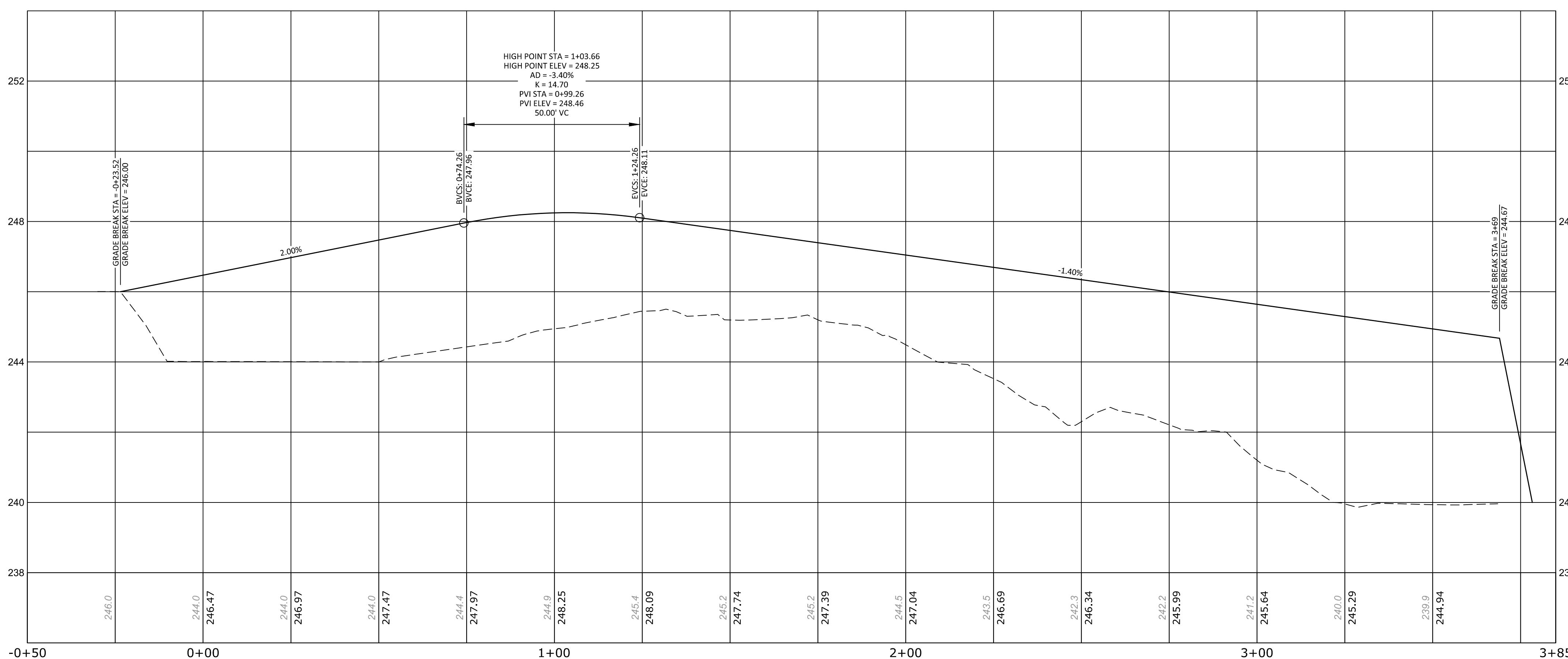
## 519 ROOSEVELT TRAIL CONDOMINIUM WINDHAM, MAINE

17058  
JOB NUMBER:  
1" = 30'  
SCALE:  
2-20-2018  
DATE:  
SHEET 3 OF 7  
S-1



**DM ROMA**  
CONSULTING ENGINEERS  
59 HARVEST HILL RD  
WINDHAM, ME 04062  
(207) 310-0506

REV	DATE	BY	DESCRIPTION
A	1-22-18	DMR	ISSUED FOR PRELIMINARY SUBDIVISION REVIEW
B	2-14-18	DMR	REVISED PER PWD REVIEW COMMENTS
C	2-20-18	DMR	ISSUED TO OWNER FOR FINAL APPROVAL



LEGEND	EXISTING	PROPOSED
PROPERTY LINE/R.O.W.	-----	-----
ABUTTER PROPERTY LINE	-----	-----
SETBACK	-----	-----
EASEMENT LINE	-----	-----
GRANITE MONUMENT	□	■
IRON PIN/DRILL HOLE	○	●
CENTERLINE	—	—
BUILDING	■	■
EDGE OF PAVEMENT/CURB	—	—
EDGE OF WETLANDS	■	■
EDGE OF STREAM	...	...
CONTOUR LINE	-200- -201-	200- 201-
TREELINE	—	—
CULVERT/STORMDRAIN	—	—
UNDERDRAIN	—	—
SEWER MANHOLE	○	○
SANITARY SEWER PIPE	—	—
WATER MAIN	—	—
WATER VALVE	■	■
UTILITY POLE	■	■
OVERHEAD UTILITIES	—	—
UNDERGROUND UTILITIES	—	—
TRANSFORMER PAD	—	—
RIPRAP	—	—
SILT FENCE	—	—

**GRADING AND UTILITY PLAN**  
519 ROOSEVELT TRAIL CONDOMINIUM  
WINDHAM, MAINE  
FOR RECORD OWNER:  
JTS, LLC  
PO BOX 232  
WINDHAM, ME 04062

17058  
JOB NUMBER:  
**AS NOTED**  
SCALE:  
2-20-2018  
DATE:  
SHEET 4 OF 7  
GU-1

## EROSION AND SEDIMENTATION CONTROL NOTES:

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 DOWNGRADIENT 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 OPEN 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 FROM THE PROTECTED NATURAL RESOURCE, PERIMETER EROSION CONTROLS MUST BE DULLED. DISTURBANCE AREAS AHEAD OF PROTECTED NATURAL RESOURCE, PERIMETER EROSION CONTROLS MUST BE DOUBLED. IF DISTURBANCE ACTIVITIES TAKE PLACE LESS THAN 30 FEET FROM ANY 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 CONSTRUCTION DEBRIS OR REPROCESSED WOOD PRODUCTS ARE NOT ACCEPTABLE. EROSION CONTROL MIX CAN BE USED AS A STAND-ALONE REINFORCEMENT ON SLOPES 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 APPROPRIATE APPLICATION RATES AND METHODS.

EROSION CONTROL BLANKETS AND MATS SHALL BE USED ON STEEP SLOPES AND IN THE BOTTOM OF GRASSED WATERWAYS, OR AS OTHERWISE DIRECTED BY THE ENGINEER. THE MAT SHALL BE INSTALLED WITH FIRM CONTINUOUS CONTACT WITH THE SOIL AND STAPLED ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS.

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 ANCHORINGS MUST BE INSPECTED AFTER RAINFALL EVENTS FOR DISLOCATION OR FAILURE, AND REPAVED 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 SITE, 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 DOWNGRADIENT 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 MANUFACTURERS' RECOMMENDATIONS. THE FILTER FENCE IS A PERVIOUS SHEET OF NYLON, POLYESTER OR ETHYLENE YARN AND SHALL PROVIDE A MINIMUM OF 6 MONTHS USABLE CONSTRUCTION LIFE INCLUDING PROTECTION AGAINST ULTRA-VIOLET LIGHT. THE FILTER FENCE SHALL BE SECURED TO THE EXISTING GROUND SURFACE AND ANCHORED TO THE SOIL. THE FILTER FENCE SHALL BE AVOIDED TO THE EXTENT POSSIBLE, AND IF NECESSARY SHALL BE SECURED TOGETHER AT A SUPPORT POST WITH A MINIMUM 6 INCH OVERLAP. A TRENCH SHALL BE EXCAVATED APPROXIMATELY 4 INCHES WIDE AND 4 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 BURIAL.

STRAW/HAY BALES SHALL BE INSTALLED WHERE SPECIFIED ON THE PLANS IN A SINGLE ROW WITH THE ENDS OF ADJACENT BALES TIGHTLY ADHERING ONE ANOTHER. ALL BALES SHALL BE EITHER WIRE-ROUND OR STRING-TIED. THE BARRIERS SHALL BE ENTRENCHED AND BACKFILLED TO A DEPTH OF AT LEAST 4 INCHES, AND THE BALES SHALL BE SECURED WITH AT LEAST TWO WOODEN STAKES OR STEEL REBAR PER BALE. STAKES SHALL BE DRIVEN IN A DIRECTION TO PUSH THE BALES TOGETHER. GAPS BETWEEN BALES SHALL BE CHINKED WITH HAY.

EROSION CONTROL MIX BERM IS 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 TOP. STEEP SLOPES OR SLOPES GREATER THAN 20% SHALL REQUIRE A CANGER WITHIN THE BERM. EROSION CONTROL MIX BERM AT THE BASE OF A LONG OR STEEP SLOPE MAY ALSO REQUIRE A FILTER FENCE TO BE INSTALLED ON THE DOWNGRADIENT SIDE OF THE BERM TO PROVIDE ADDITIONAL STABILIZATION AGAINST HIGH RUNOFF FLOWS.

CONTINUOUS CONTAINED BERM, WHICH ARE ALSO REFERRED TO AS A FILTER SOCK, PROVIDES ADDITIONAL STABILITY TO AN EROSION CONTROL MIX BERM AND SHOULD BE USED IN FROZEN GROUND CONDITIONS OR IN AREAS THAT RECEIVE CONCENTRATED FLOW.

SEDIMENT BARRIERS SHOULD BE INSTALLED DOWNGRADIENT OF SOIL OR SEDIMENT STOCKPILES AND STORMWATER PREVENTED RUNNING ONTO THE STOCKPILE. SEDIMENT BARRIERS SHALL BE INSPECTED AFTER ANY SIGNIFICANT RAINFALL EVENT AND REPAVED IMMEDIATELY IF THERE ARE ANY SIGNS OF EROSION OR SEDIMENTATION BEHIND THE BARRIER. IF THERE ARE SIGNS OF UNDERCUTTING AT THE CENTER OR EDGE OF THE BARRIER, OR IF LARGE VOLUMES OF WATER ARE PUMPED THROUGH 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. TEMPORARY CHECK DAMS

STONE CHECK DAMS SHALL BE INSTALLED IN SWALES OR DRAINAGE DITCHES TO REDUCE STORMWATER VELOCITIES AS SHOWN ON THE PLANS. STONE CHECK DAMS ARE NOT EFFECTIVE IN REMOVING SEDIMENT AND SHOULD BE USED IN CONJUNCTION WITH SEDIMENT BARRIERS IDENTIFIED ABOVE. TEMPORARY CHECK DAMS MAY BE LEFT IN PLACE PERMANENTLY IN MOST CASES. CHECK DAMS SHOULD BE NO HIGHER THAN 24 INCHES, AND THE CENTER OF THE CHECK DAM MUST BE AT LEAST 6 INCHES LOWER THAN THE OUTSIDE EDGES. CHECK DAMS SHOULD BE SPACED SUCH THAT THE CREST OF THE DOWNGRADIENT CHECK DAM IS AT THE SAME ELEVATION AS THE TOE OF THE UPSTREAM CHECK DAM. CHECK DAMS IN A DRAINAGE DITCH OR WATERWAY SHOULD BE INSTALLED PRIOR TO DIRECTING RUNOFF TO THEM.

### 5. 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:

HAY BALE OR SILT FENCE INLET STRUCTURE CONSISTS OF HAY BALES OR SILT FENCE CONFIGURED AROUND A CATCH BASIN INLET FRAME AND INSTALLED ACCORDING TO THE METHODS OUTLINED ABOVE. THIS METHOD IS SUITABLE FOR OPEN PIPE (CULVERT) INLETS, FIELD INLETS OR ROAD INLETS THAT HAVE NOT YET BEEN PAVED.

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.

### 6. STABILIZED CONSTRUCTION ENTRANCE/EXIT

TO REDUCE THE TRACKING OF SEDIMENT ONTO ROADWAYS, A STABILIZED CONSTRUCTION EXIT SHALL BE INSTALLED AT ALL POINTS OF EGSS 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 OR WASH PAVEMENT AT EXITS THAT HAVE EXPERIENCED ANY MUD-TRACKING. MAINTAIN THE PAD UNTIL ALL DISTURBED AREAS ARE STABILIZED.

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

### 7. 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.

### 8. 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 14 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 CURSES TO ENSURE THAT SURFACE RUNOFF NOT DAMAGE SLEEVES OR OTHER GRADED AREAS. CUT AND FILL SLOPES THAT ARE TO BE GRADED SHOULD BE EARTHWORKED AND PREPARED TO THE GRADE AND SLOPES OF THE EXISTING VEGETATION, ROOTS OR OTHER OBSTRUCTION MATERIALS. AREAS SHALL BE SCARIFIED TO A MINIMUM DEPTH OF 3 INCHES PRIOR TO PLACEMENT OF TOPSOIL. ALL AREAS SHALL BE COMPACTED AS REQUIRED TO REDUCE EROSION, SLIPPAGE, SETTLEMENT, SUBSIDENCE 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 OBSTRUCTION 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. SEPS OR SPRINGS ENCOUNTERED DURING CONSTRUCTION SHALL BE HANDLED APPROPRIATELY. ALL GRADED AREAS SHALL BE PERMANENTLY STABILIZED IMMEDIATELY FOLLOWING FINISHED GRADING.

### 9. TOPSOIL

IF POSSIBLE, TOPSOIL SHALL BE SCAVENGED 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 AREA 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 IRRREGULARITIES 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 COMPACTATION IS TO BE AVOIDED.

### 10. 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, SEEDING, SOD OR APPROVED EQUAL. IF RIPRAP IS USED, THE RIPRAP SHOULD BE PLACED ON THE EXISTING SUBGRADE. AREAS WITH MULCH OR, IF NECESSARY, EROSION CONTROL BLANKETS, AND SCHEDULE SODDING, PLANTING, AND SEEDING SO AS TO AVOID DIE-OFF FROM SUMMER DROUGHT AND FALL DROUGHTS. NEWLY SEDED OR SODDED AREAS MUST BE PROTECTED FROM VEHICLE TRAFFIC, EXCESSIVE PEDESTRIAN TRAFFIC, AND CONCENTRATED RUNOFF UNTIL THE VEGETATION IS WELL-ESTABLISHED WITH 90% COVERAGE BY HEALTHY VEGETATION. IF NECESSARY, AREAS MUST BE REWORKED AND RESTABILIZED IF GERMINATION IS SPOTTY, OR TOPSOIL EROSION IS EVIDENT. ONE OR MORE OF THE FOLLOWING MAY APPLY TO A PARTICULAR SITE:

SEEDED AREAS: TO PREPARE THE SEEDBED, 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 SEDED 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, REPROCESSED 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 STONE OR ROUGH UNLEVEL 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 RIRAP AND UNDERLYING SOIL SURFACE. GRAVEL FILTER BLANKETS SHALL MEET MDOT TYPE-C UNDERDRAIN MATERIAL SPECIFICATIONS AND BE AT LEAST 6 INCHES THICK. GEOTEXTILE FILTER BLANKETS SHALL BE SPECIFIED BASED ON SITE CONDITIONS. RIRAP 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 RIRAP TO GRADE.

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

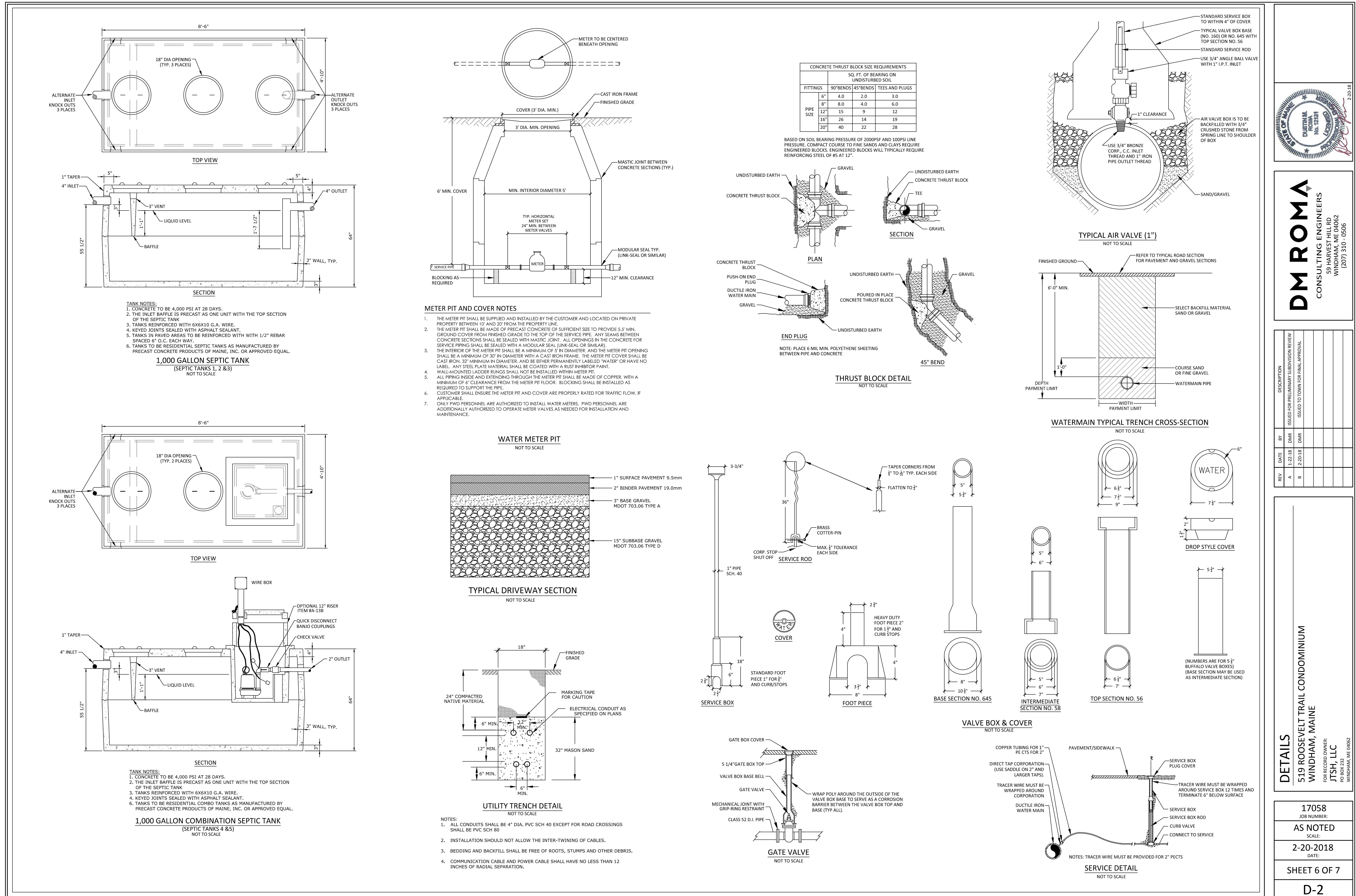
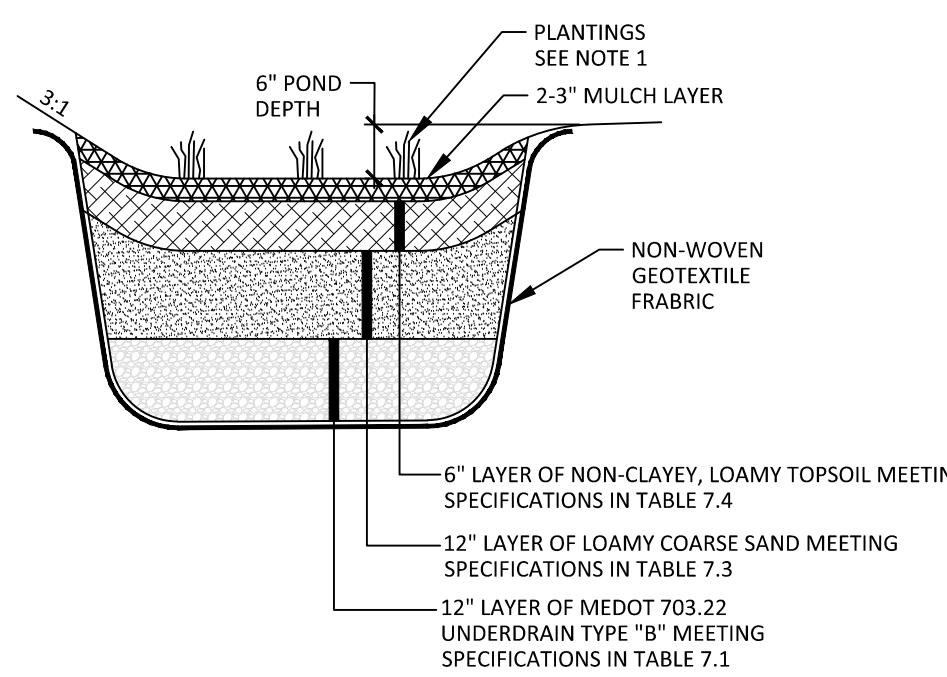


TABLE 7.1 UNDERDRAIN 703.22 TYPE "B"	
SIEVE SIZE	% PASSING BY WEIGHT
1"	90-100
1/2"	75-100
#4	50-100
#20	15-80
#50	0-15
#200	0-5

TABLE 7.3 LOAMY COARSE SAND	
SIEVE SIZE	% PASSING BY WEIGHT
#10	85-100
#20	70-100
#60	15-40
#200	8-15
200 CLAY	<2.0

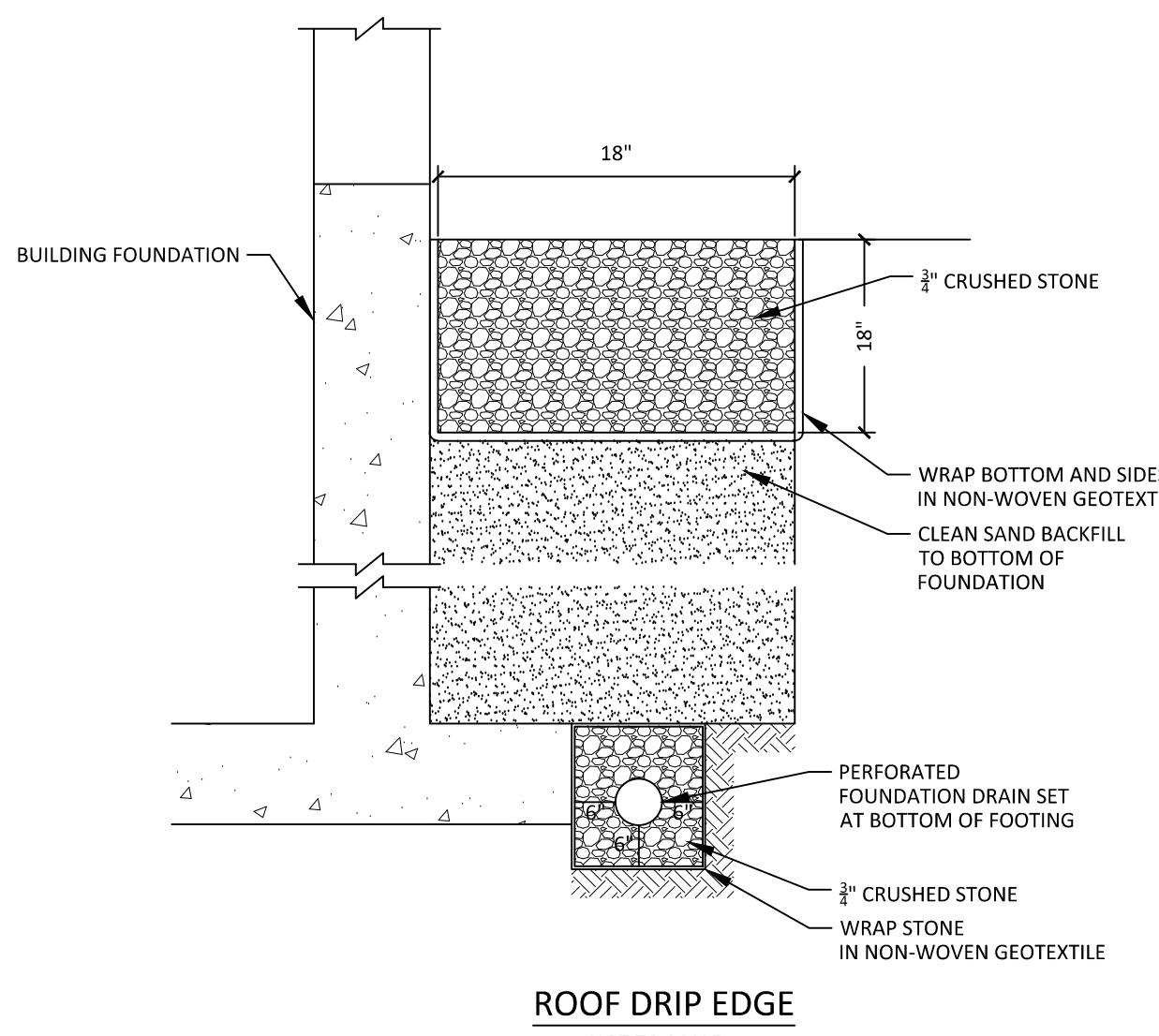
TABLE 7.4 SANDY LOAM	
SIEVE SIZE	% PASSING BY WEIGHT
#4	75-95
#10	60-90
#40	35-85
#200	20-70
200 CLAY	<2.0



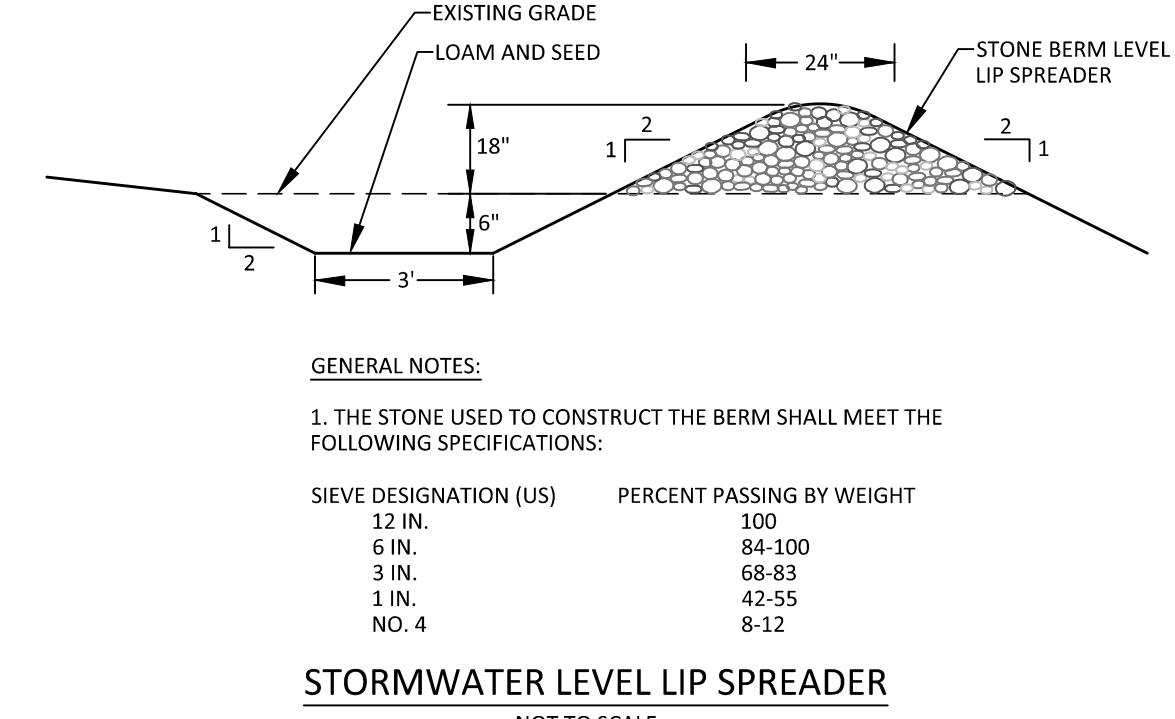
#### GENERAL NOTES:

1. PLANTINGS WITHIN RAIN GARDEN SHALL BE TOLERANT OF WELL DRAINED SOILS AND FREQUENT INUNDATION. SEE MAINE STORMWATER MANAGEMENT DESIGN MANUAL VOLUME 1 - APPENDIX A LANDSCAPE DESIGNS TO ENHANCE STORMWATER TREATMENT FOR PLANTING RECOMMENDATIONS.
2. CONSTRUCTION SEQUENCE: THE SOIL FILTER MEDIA AND VEGETATION MUST NOT BE INSTALLED UNTIL THE AREA THAT DRAINS TO THE FILTER HAS BEEN PERMANENTLY STABILIZED WITH PAVEMENT OR OTHER STRUCTURE, 90% VEGETATION COVER, OR OTHER PERMANENT STABILIZATION UNLESS THE RUNOFF FROM THE CONTRIBUTING DRAINAGE AREA IS DIVERTED AROUND THE FILTER UNTIL STABILIZATION IS COMPLETED.
3. COMPACTION OF SOIL FILTER: FILTER MEDIA AND UNDERDRAIN BEDDING MATERIAL MUST BE COMPACTED BETWEEN 90% AND 92% STANDARD PROCTOR. THE BED SHOULD BE INSTALLED IN AT LEAST TWO LIFTS TO PREVENT POCKETS OF LOOSE MEDIA.
4. CONSTRUCTION OVERSIGHT: INSPECTION BY THE DESIGN ENGINEER OR SUITABLE THIRD PARTY WILL OCCUR AT A MINIMUM:
  - A) AFTER THE PRELIMINARY CONSTRUCTION OF THE FILTER GRADES.
  - B) AFTER THE DRAINAGE LAYER IS CONSTRUCTED AND PRIOR TO THE INSTALLATION OF THE FILTER MEDIA.
  - C) AFTER THE FILTER MEDIA HAS BEEN INSTALLED, MULCHED AND PLANTED.
  - D) AFTER ONE YEAR TO INSPECT HEALTH OF THE VEGETATION AND MAKE CORRECTIONS.
  - E) ALL THE MATERIAL USED FOR THE CONSTRUCTION OF THE FILTER BASIN MUST BE CONFIRMED AS SUITABLE BY THE DESIGN ENGINEER. TESTING MUST BE DONE BY A CERTIFIED LABORATORY TO SHOW THAT THEY ARE PASSING MDEP SPECIFICATIONS.
5. TESTING AND SUBMITTALS: THE CONTRACTOR SHALL IDENTIFY THE LOCATION OF THE SOURCE OF EACH COMPONENT OF THE FILTER SECTION. ALL RESULTS OF FIELD AND LABORATORY TESTING SHALL BE SUBMITTED TO THE PROJECT ENGINEER FOR CONFIRMATION. THE CONTRACTOR SHALL:
  - A) SELECT SAMPLES FOR SAMPLING OF EACH TYPE OF MATERIAL IN THE FILTER SECTION INCLUDING TOPSOIL, FILTER LAYER AND UNDERDRAIN BEDDING MATERIAL. SAMPLES MUST BE A COMPOSITE OF THREE DIFFERENT SAMPLES FROM THE STOCKPILE. SAMPLE SIZES AND TESTS WILL BE DETERMINED BY THE TESTING LABORATORY.
  - B) PERFORM A SIEVE ANALYSIS CONFORMING TO ASTM D4243 (STANDARD TEST METHOD FOR SIEVE ANALYSIS OF FINE AND COARSE AGGREGATES 1996a) ON EACH TYPE OF THE SAMPLE MATERIAL. THE TOPSOIL AND FILTER LAYER SAMPLE MUST HAVE A CLAY CONTENT OF LESS THAN 2% (DETERMINED BY HYDROMETER GRAIN SIZE ANALYSIS). THE TOPSOIL SHALL HAVE A HUMIFIED ORGANIC CONTENT OF 5 TO 8%.
  - C) PERFORM A PERMEABILITY TEST ON THE FILTER LAYER CONFORMING TO ASTM D2434 WITH THE MIXTURE COMPACTED TO 90-92% OF MAXIMUM DRY DENSITY BASED ON ASTM D698.

RAIN GARDEN  
NOT TO SCALE



ROOF DRIP EDGE  
NOT TO SCALE



STORMWATER LEVEL LIP SPREADER  
NOT TO SCALE

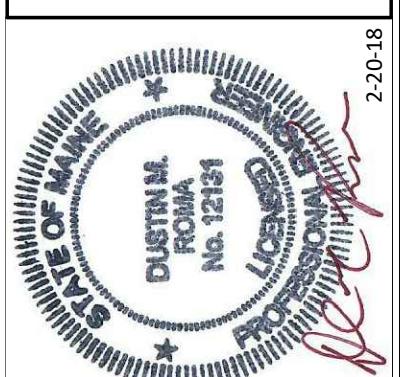
GENERAL NOTES:  
1. THE STONE USED TO CONSTRUCT THE BERM SHALL MEET THE FOLLOWING SPECIFICATIONS:

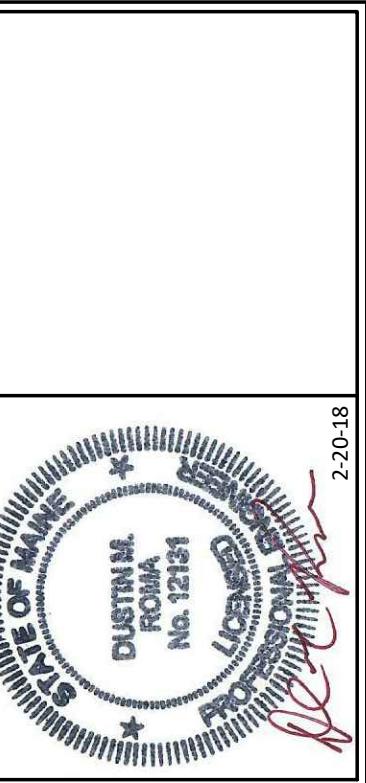
SIEVE DESIGNATION (US)	PERCENT PASSING BY WEIGHT
12 IN.	100
6 IN.	84-100
3 IN.	68-83
1 IN.	42-55
NO. 4	8-12

REV	DATE	BY	DESCRIPTION
A	1-22-18	DNR	ISSUED FOR PRELIMINARY SUBDIVISION REVIEW
B	2-20-18	DNR	ISSUED TO TOWN FOR FINAL APPROVAL

DETAILS	
519 ROOSEVELT TRAIL CONDOMINIUM	WINDHAM, MAINE
FOR RECORD OWNER:	JTSH, LLC
PO BOX 232	WINDHAM, ME 04062

17058	JOB NUMBER:
AS NOTED	SCALE:
2-20-2018	DATE:
SHEET 7 OF 7	
D-3	



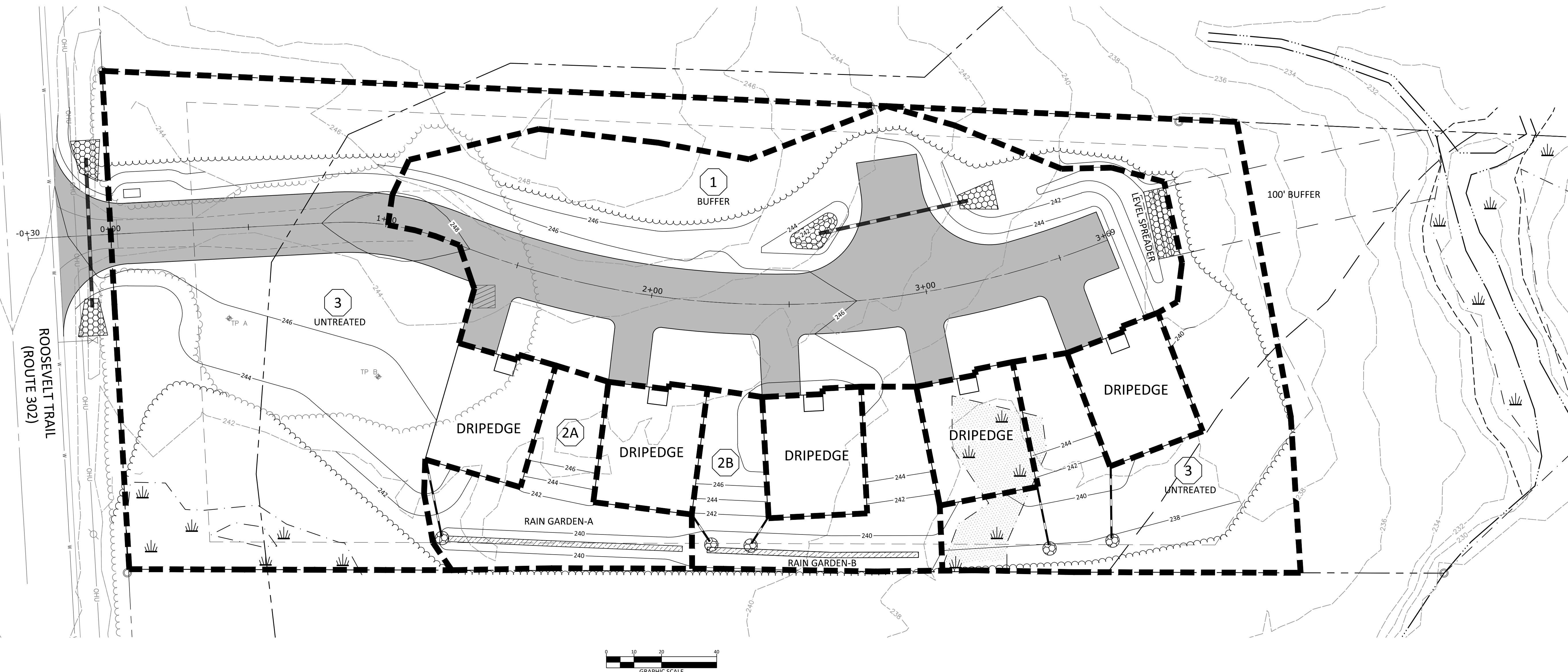


**DM ROMA**  
CONSULTING ENGINEERS  
59 HARVEST HILL RD  
WINDHAM, ME 04062  
(207) 310-0506

REV	DATE	BY	DESCRIPTION
A	1-22-18	DHR	ISSUED TO TOWN FOR REVIEW
B	2-20-18	DHR	REVISED PER TOWN REVIEW COMMENTS

**STORMWATER TREATMENT PLAN**  
519 ROOSEVELT TRAIL CONDOMINIUM  
WINDHAM, MAINE  
FOR RECORD OWNER:  
PO BOX 232  
WINDHAM, ME 04062

17058  
JOB NUMBER:  
1" = 20'  
SCALE:  
2-20-2018  
DATE:  
SHEET 1 OF 1  
TP-1



0 10 20 30 40  
GRAPHIC SCALE

#### LEGEND-STORMWATER

- 1 WATERSHED NO.
- SP1 REACH/STUDY POINT
- P1 POND
- WATERSHED BOUNDARY
- TIME OF CONCENTRATION
- REACH PATH
- SOIL BOUNDARY

#### Stormwater Treatment Calculations

##### 519 Roosevelt Trail, Windham

Existing Impervious Area =	3,730 sf
Existing Landscaped Area =	7,405 sf
Total Existing Developed Area =	11,135 sf
Post Construction Impervious Area =	18,935 sf
Post Construction Landscaped Area =	32,615 sf
Total Post Construction Developed Area =	51,550 sf
New Impervious Area Requiring Treatment =	15,205 sf
New Landscaped Area Requiring Treatment =	25,210 sf
Total New Developed Area Requiring Treatment =	40,415 sf

#### Treatment Devices

	Tributary Impervious Area (SF)	Tributary Landscaped Area (SF)	Tributary Developed Area (SF)
Level Spreader	8,325	10,230	18,555
Rain Garden	0	7,625	7,625
Roof Dripedges	8,060	0	8,060
	<b>16,385</b>	<b>17,855</b>	<b>34,240</b>

% of New Impervious Area Treated = 107.8%  
% of New Developed Area Treated = 84.7%

#### LEGEND

EXISTING	PROPOSED
— PROPERTY LINE/R.O.W.	— PROPERTY LINE/R.O.W.
— ABUTTER PROPERTY LINE	— ABUTTER PROPERTY LINE
— SETBACK	— SETBACK
— EASEMENT LINE	— EASEMENT LINE
□ GRANITE MONUMENT	■ IRON PIN/DRILL HOLE
○ CENTERLINE	— BUILDING
— EDGE OF PAVEMENT/CURB	— EDGE OF WETLANDS
— EDGE OF STREAM	— EDGE OF WETLANDS
— 200— 201— CONTOUR LINE	— 200— 201— CONTOUR LINE
— TREELINE	— TREELINE
— CULVERT/STORMDRAIN	— CULVERT/STORMDRAIN
— UNDERDRAIN	— UNDERDRAIN
○ SEWER MANHOLE	○ SEWER MANHOLE
— SANITARY SEWER PIPE	— SANITARY SEWER PIPE
— WATER MAIN	— WATER MAIN
— WATER VALVE	— WATER VALVE
— UTILITY POLE	— UTILITY POLE
— OVERHEAD UTILITIES	— OVERHEAD UTILITIES
— UNDERGROUND UTILITIES	— UNDERGROUND UTILITIES
— TRANSFORMER PAD	— TRANSFORMER PAD
— RIPRAP	— RIPRAP
— SILT FENCE	— SILT FENCE

17058  
JOB NUMBER:  
1" = 20'  
SCALE:  
2-20-2018  
DATE:  
SHEET 1 OF 1  
TP-1