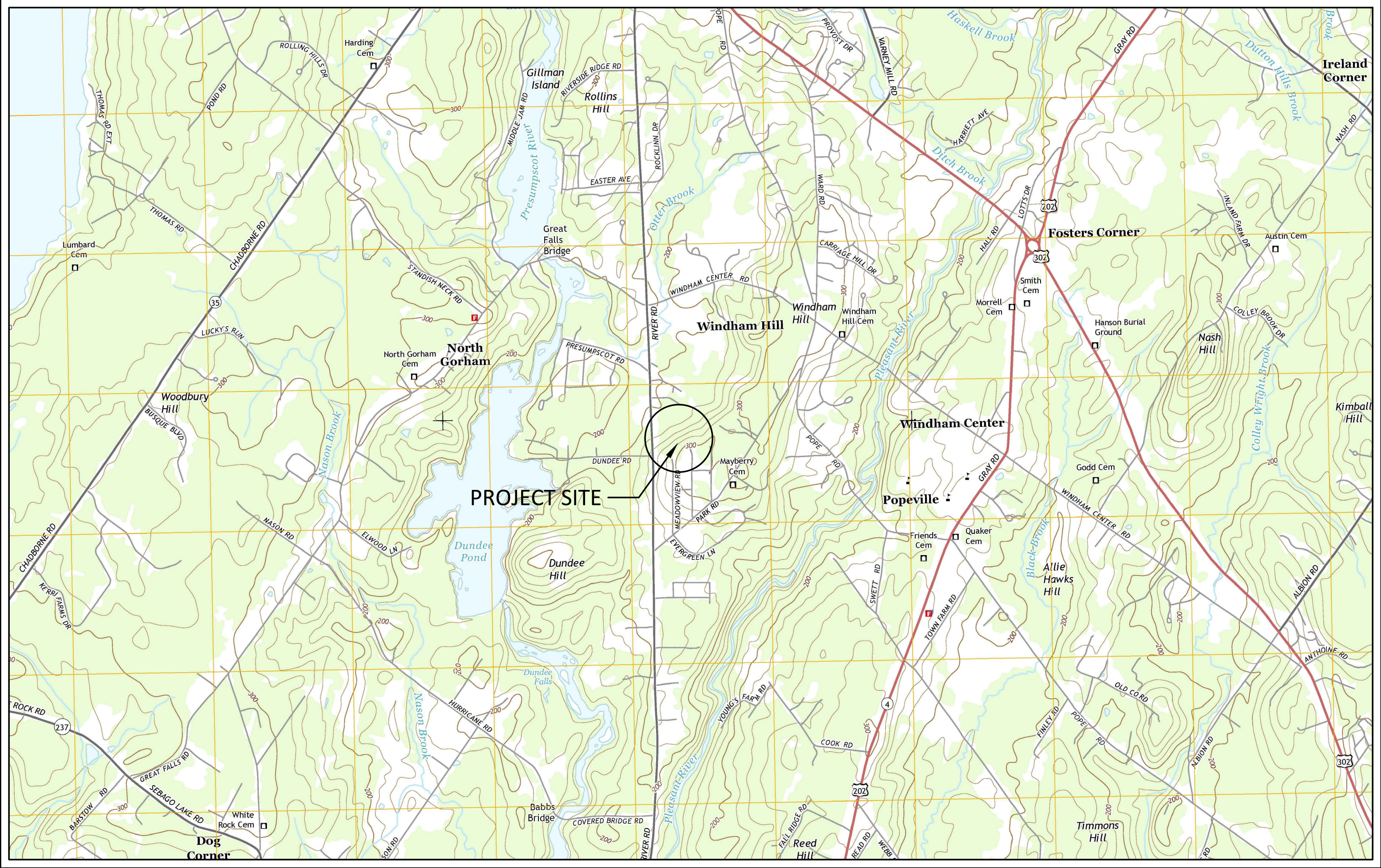


RIVER ROAD SUBDIVISION

RIVER ROAD
WINDHAM, MAINE

CONSULTANTS	
CIVIL ENGINEER	DM ROMA CONSULTING ENGINEERS
LAND SURVEYOR	WAYNE WOOD & COMPANY
SITE EVALUATOR	ALBERT FRICK ASSOCIATES, INC.
WETLAND SCIENTIST	ALBERT FRICK ASSOCIATES, INC.



PROJECT VICINITY MAP

REVISED PER TOWN REVIEW COMMENTS - NOT FOR CONSTRUCTION
DECEMBER 4, 2017

PREPARED BY:

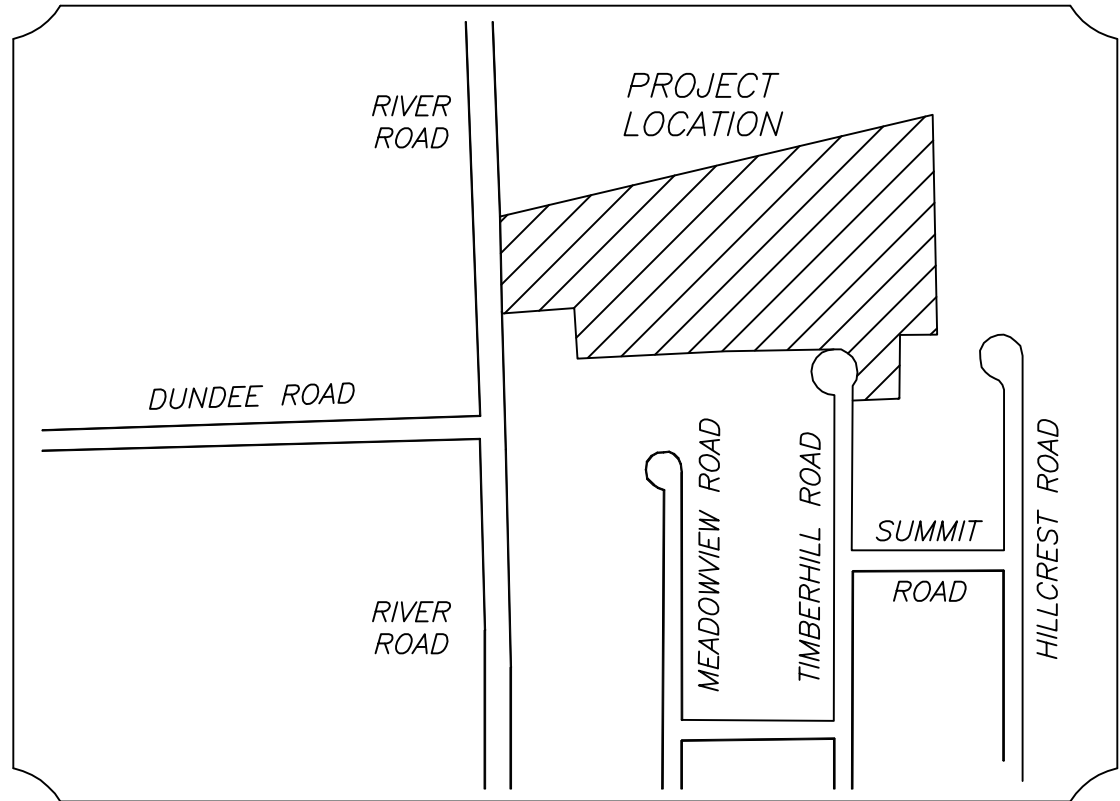
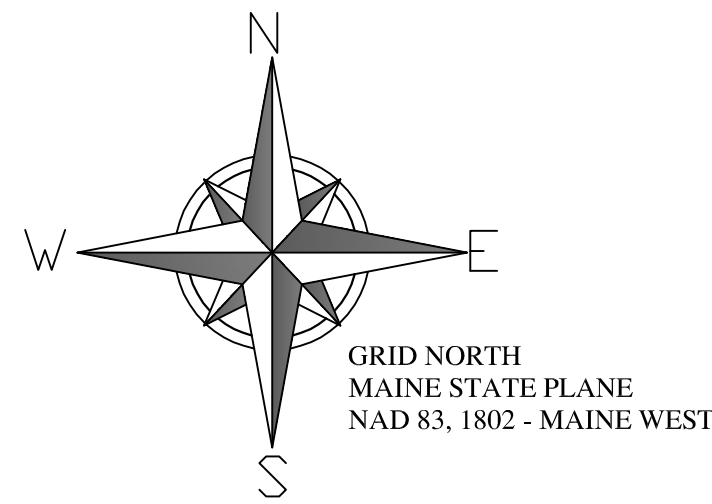
DM ROMA

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

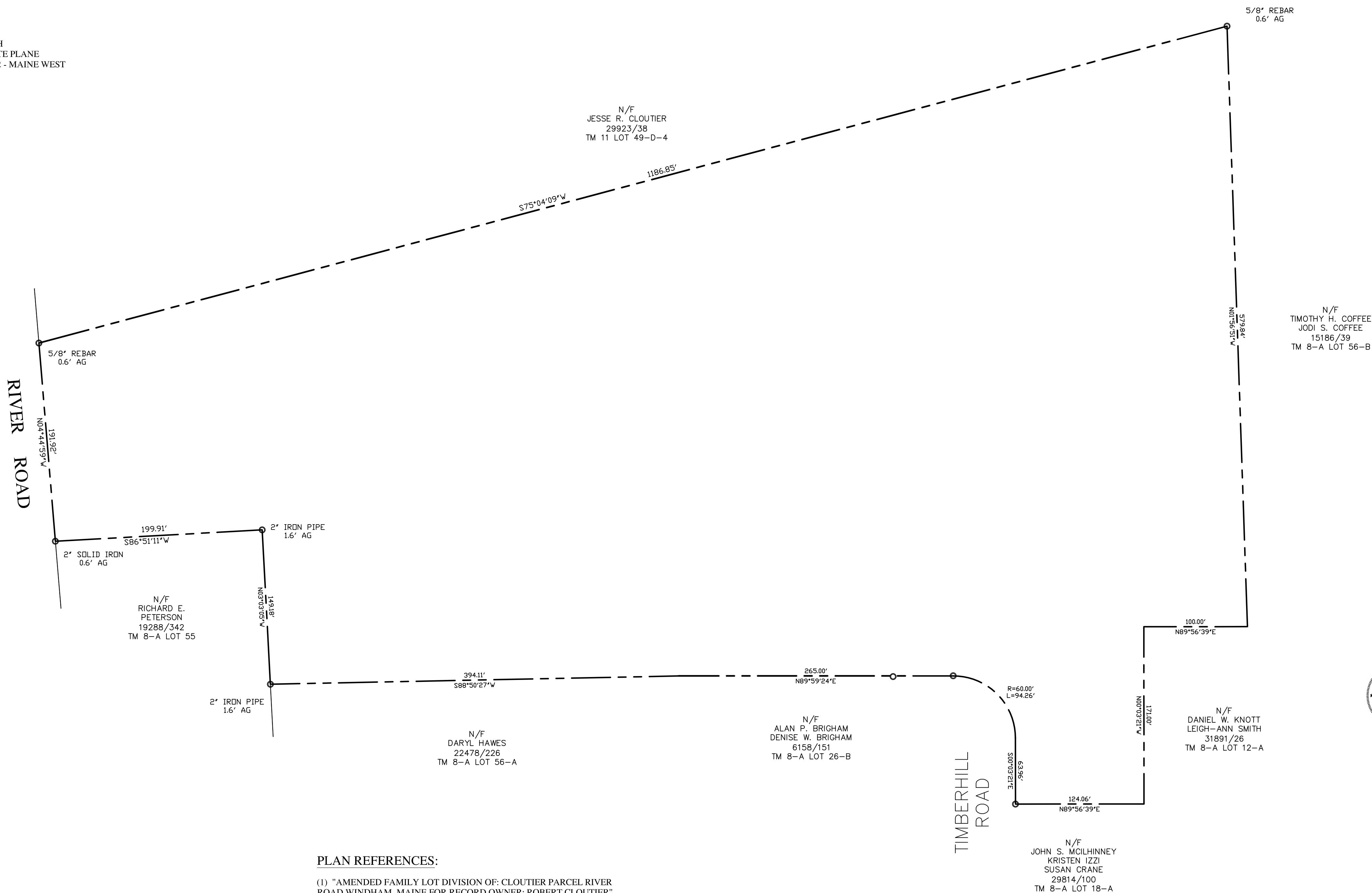
APPLICANT:
RIVER ROAD HOUSING, LLC
108 STANDISH NECK ROAD
STANDISH, MAINE 04084

RIVER ROAD SUBDIVISION
DRAWING SHEET INDEX

PAGE NO.	DESCRIPTION
1	TITLE SHEET
2	BOUNDARY SURVEY
3	SUBDIVISION PLAN
4	ROADWAY PLAN AND PROFILE: ABENAKI DRIVE
5	DETAILS
6	DETAILS



LOCATION MAP
(NOT TO SCALE)



PLAN REFERENCES:

- "AMENDED FAMILY LOT DIVISION OF: CLOUTIER PARCEL, RIVER ROAD WINDHAM, MAINE FOR RECORD OWNER: ROBERT CLOUTIER" DATED 6-29-10 BY SEBAGO TECHNICS.
- "PLAN OF LAND ON TIMBERHILL ROAD IN WINDHAM, MAINE FOR STEPHEN FARRAR" DATED JANUARY 2016 BY WAYNE T. WOOD AND CO.
- HILLCREST ESTATES IN WINDHAM, MAINE BY GLENN S. LIBBY DATED OCTOBER 1973 BY RICHARD A. MANTHORNE RECORDED IN PLAN BOOK 101 PAGE 5 IN THE CUMBERLAND COUNTY REGISTRY OF DEEDS.
- ADDITIONS TO HILLCREST ESTATES IN WINDHAM, MAINE BY GLENN S. LIBBY DATED JUNE 1976 BY RICHARD A. MANTHORNE RECORDED IN PLAN BOOK 114 PAGE 46 IN THE CUMBERLAND COUNTY REGISTRY OF DEEDS.
- SECOND ADDITION TO HILLCREST ESTATES IN WINDHAM, MAINE BY GLENN S. LIBBY DATED OCTOBER 1977 BY RICHARD A. MANTHORNE RECORDED IN PLAN BOOK 118 PAGE 55 IN THE CUMBERLAND COUNTY REGISTRY OF DEEDS.
- HILLCREST ESTATES IN WINDHAM, MAINE BY GLENN S. LIBBY DATED MAY 1978 BY RICHARD A. MANTHORNE RECORDED IN PLAN BOOK 119 PAGE 55 IN THE CUMBERLAND COUNTY REGISTRY OF DEEDS.

SURVEY NOTES:

- OWNERS OF RECORD ARE RICKY G. JONES AND BRIAN D. AASKOV AS DESCRIBED IN A DEED RECORDED IN BOOK 24181 PAGE 70 AND RIVER ROAD HOUSING, LLC AS DESCRIBED IN BOOK 34180 PAGE 67 IN THE CUMBERLAND COUNTY REGISTRY OF DEEDS.
- THE PARCEL IS SHOWN AS LOT 56 ON THE TOWN OF WINDHAM'S ASSESSORS MAP 8-A.
- BEARINGS ARE BASED ON STATIC GPS OBSERVATIONS DURING AUGUST AND NOVEMBER 2017.
- THE PARCELS CONTAIN A TOTAL OF APPROXIMATELY 12.22 ACRES.

CERTIFICATION:

I CERTIFY THAT THIS SURVEY CONFORMS TO THE STANDARDS OF THE MAINE BOARD OF LICENSURE FOR PROFESSIONAL LAND SURVEYORS AND IS CORRECT TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF.



11-17-17
WILLIAM C. SHIPPIN
P.L.S. 2118

BOUNDARY SURVEY

RIVER ROAD
WINDHAM, MAINE

FOR: **RIVER ROAD HOUSING, LLC**
RICKY G. JONES
BRIAN D. AASKOV

105 STANDISH NECK ROAD
STANDISH, MAINE ZIP 04084
(OWNERS OF RECORD)

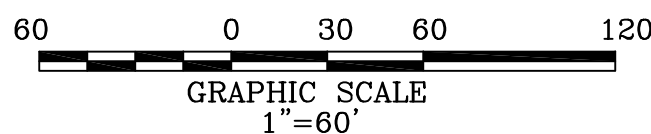
SURVEY BY: **SURVEY, INC.**
P.O. BOX 210
WINDHAM, ME 04062
(207) 892-2556
INFO@SURVEYINCORPORATED.COM

DWN: WCS

CHK:BMD

DATE: NOVEMBER 17, 2017

JOB NO. 17131

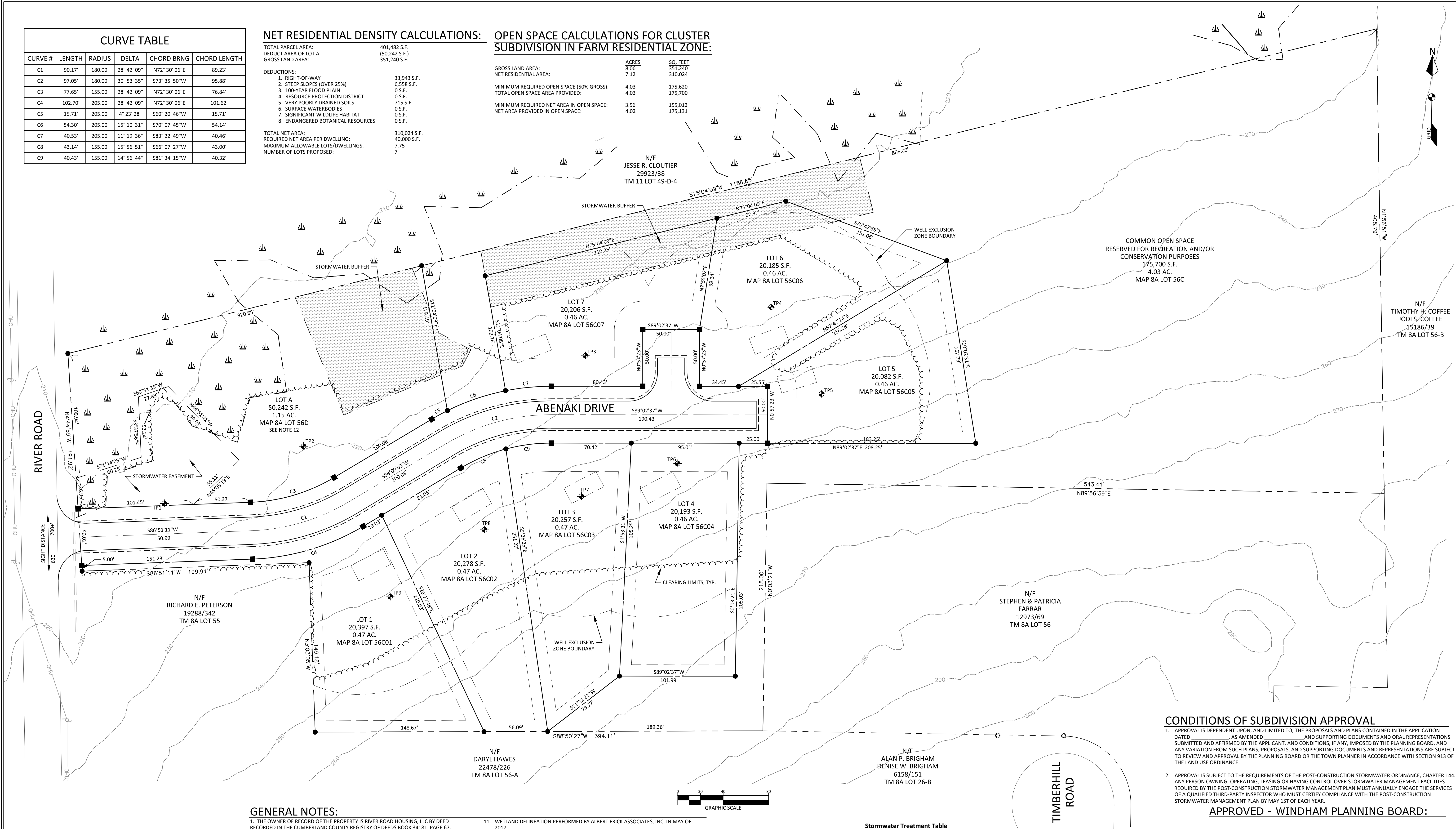


CURVE TABLE				
CURVE #	LENGTH	RADIUS	DELTA	CHORD BRNG
C1	90.17'	180.00'	28° 42' 09"	N72° 30' 06"E
C2	97.05'	180.00'	30° 53' 35"	S73° 35' 50"W
C3	77.65'	155.00'	28° 42' 09"	N72° 30' 06"E
C4	102.70'	205.00'	28° 42' 09"	N72° 30' 06"E
C5	15.71'	205.00'	4° 23' 28"	S60° 20' 46"W
C6	54.30'	205.00'	15° 10' 31"	S70° 07' 45"W
C7	40.53'	205.00'	11° 19' 36"	S83° 22' 49"W
C8	43.14'	155.00'	15° 56' 51"	S66° 07' 27"W
C9	40.43'	155.00'	14° 56' 44"	S81° 34' 15"W

NET RESIDENTIAL DENSITY CALCULATIONS:	
TOTAL PARCEL AREA:	401,482 S.F.
DEDUCT AREA OF LOT A	(50,242 S.F.)
GROSS LAND AREA:	351,240 S.F.
DEDUCTIONS:	
1. RIGHT-OF-WAY	33,943 S.F.
2. STEEP SLOPES (OVER 25%)	6,558 S.F.
3. 100-YEAR FLOOD PLAIN	0 S.F.
4. RESOURCE PROTECTION DISTRICT	0 S.F.
5. VERY POORLY DRAINED SOILS	715 S.F.
6. SURFACE WATERBODIES	0 S.F.
7. SIGNIFICANT WILDLIFE HABITAT	0 S.F.
8. ENDANGERED BOTANICAL RESOURCES	0 S.F.
TOTAL NET AREA:	310,024 S.F.
REQUIRED NET AREA PER DWELLING:	40,000 S.F.
MAXIMUM ALLOWABLE LOTS/DWELLINGS:	7.75
NUMBER OF LOTS PROPOSED:	7

OPEN SPACE CALCULATIONS FOR CLUSTER SUBDIVISION IN FARM RESIDENTIAL ZONE:

GROSS LAND AREA:	ACRES	SQ. FEET
NET RESIDENTIAL AREA:	8.06	351,240
MINIMUM REQUIRED OPEN SPACE (50% GROSS):	4.03	175,620
TOTAL OPEN SPACE AREA PROVIDED:	4.03	175,700
MINIMUM REQUIRED NET AREA IN OPEN SPACE:	3.56	155,012
NET AREA PROVIDED IN OPEN SPACE:	4.02	175,131



GENERAL NOTES:

- THE OWNER OF RECORD OF THE PROPERTY IS RIVER ROAD HOUSING, LLC BY DEED RECORDED IN THE CUMBERLAND COUNTY REGISTRY OF DEEDS BOOK 34181 PAGE 67.
- TOTAL AREA OF THE PARCEL IS APPROXIMATELY 8.06 ACRES.
- PARCEL TAX MAP REFERENCE: TOWN OF WINDHAM ASSESSORS MAP 8A, LOT 56.
- PLAN REFERENCES:
A) 'PLAN OF LAND ON TIMBERHILL ROAD IN WINDHAM, MAINE FOR STEPHEN FARRAR' PREPARED BY WAYNE T. WOOD & CO. IN JANUARY 2016.
- HORIZONTAL DATUM: MAGNETIC NORTH FROM PLAN REFERENCE 4A.
- VERTICAL DATUM: NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88)
- BOUNDARY SHOWN HEREON IS BASED SOLELY ON PLAN REFERENCE 4A.
- TOPOGRAPHIC CONTOURS SHOWN HEREON ARE BASED ON LIDAR CONTOURS OBTAINED FROM THE MAINE OFFICE OF GIS.
- THE PROPERTY IS LOCATED IN THE FARM-RESIDENTIAL DISTRICT.
- SPACE AND BULK REQUIREMENTS: FR DISTRICT

MIN LOT SIZE:	FR DISTRICT
MAX LOT SIZE:	20,000 S.F. (CLUSTER)
	35,000 S.F. (CLUSTER)
	45,000 S.F. (1 LOT WITHIN SUBDIVISION)
NET RESIDENTIAL DENSITY:	40,000 S.F.
MIN STREET FRONTAGE:	75 FT (CLUSTER)
MIN FRONT YARD:	25 FT (CLUSTER)
MIN SIDE/REAR YARD:	10 FT
MAX BUILDING HEIGHT:	35 FT
MAX BUILDING COVERAGE:	20%

WAIVERS GRANTED:

- SECTION 911-M-5-B-5-2: DEAD END STREETS SHALL BE CONSTRUCTED TO PROVIDE A CUL-DE-SAC TURN-AROUND.
- SECTION 911-M-5-B-6-2: A SHOULDER OR SIDEWALK SHALL BE PROVIDED ON MINOR LOCAL STREETS IN SUBDIVISIONS.

Stormwater Treatment Table
River Road Subdivision

	Total Watershed Area (SF)	New Impervious Area (SF)	New Landscaped Area (SF)	Existing/Offsite Impervious Area (SF)	Existing/Offsite Landscaping Area (SF)	Existing Undeveloped Area (SF)	Treatment Provided	New Impervious Area Treated (SF)	New Landscaped Area Treated (SF)	Treatment Device
WS-10	59,560	3,615	8,485	3,125	6,870	37,465	Yes	3,615	8,485	Filter Basin
WS-11	7,795	2,500	5,295	0	0	0	Yes	2,500	5,295	Filter Basin
WS-12	179,350	15,565	33,825	2,680	10,705	116,575	Yes	15,565	33,825	Level Spreader
WS-13	8,985	3,035	5,950	0	0	0	Yes	3,035	5,950	Level Spreader
WS-14	6,680	4,095	2,585	0	0	0	Yes	4,095	2,585	Level Spreader
WS-15	1,420	1,420	0	0	0	0	Yes	1,420	0	Drip Edge
WS-16	55,185	685	7,190	4,275	1,905	41,130	No	0	0	None
WS-20	157,595	8,690	31,480	3,595	3,215	110,615	Yes	8,690	31,480	Buffer
Total		39,605	94,810					38,920	87,620	

New Impervious Area =	39,605 sf
New Impervious Area Requiring Treatment (95%)	37,625 sf
Provided New Impervious Treatments=	38,920 sf
	98% New Impervious Area Treated

New Developed Area =	134,415 sf
New Developed Area Requiring Treatment (80%)=	107,532 sf
New Developed Area Treated=	126,540 sf
	94% New Developed Area Treated

CONDITIONS OF SUBDIVISION APPROVAL

- APPROVAL IS DEPENDENT UPON, AND LIMITED TO, THE PROPOSALS AND PLANS CONTAINED IN THE APPLICATION DATED _____, AS AMENDED _____, 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.
- APPROVAL IS SUBJECT TO THE REQUIREMENTS OF THE POST-CONSTRUCTION STORMWATER ORDINANCE, CHAPTER 144. ANY PERSON OWNING, OPERATING, LEASING OR HAVING CONTROL OVER STORMWATER MANAGEMENT FACILITIES REQUIRED BY THE POST-CONSTRUCTION STORMWATER MANAGEMENT PLAN MUST ANNUALLY ENGAGE THE SERVICES OF A QUALIFIED THIRD-PARTY INSPECTOR WHO MUST CERTIFY COMPLIANCE WITH THE POST-CONSTRUCTION STORMWATER MANAGEMENT PLAN BY MAY 1ST OF EACH YEAR.

APPROVED - WINDHAM PLANNING BOARD:

CHAIRPERSON	DATE

SUBDIVISION PLAN

RIVER ROAD SUBDIVISION

WINDHAM, MAINE

FOR RECORD OWNER:
RIVER ROAD HOUSING, LLC

100 STANDISH NECK ROAD
WINDHAM, MAINE 04062

17020

JOB NUMBER:

1" = 40'

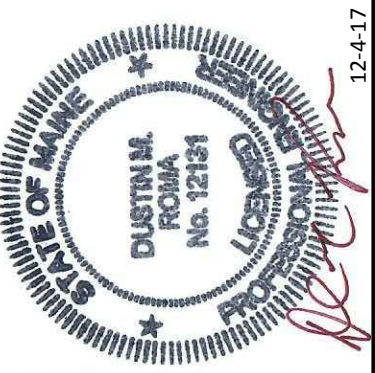
SCALE:

12-4-2017

DATE:

SHEET 3 OF 6

S-1



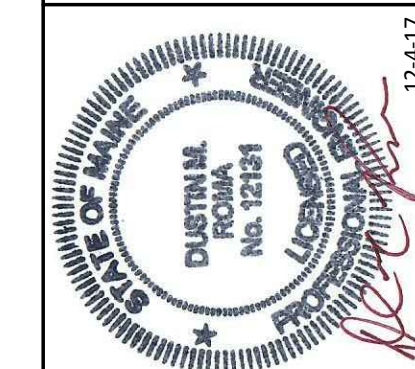
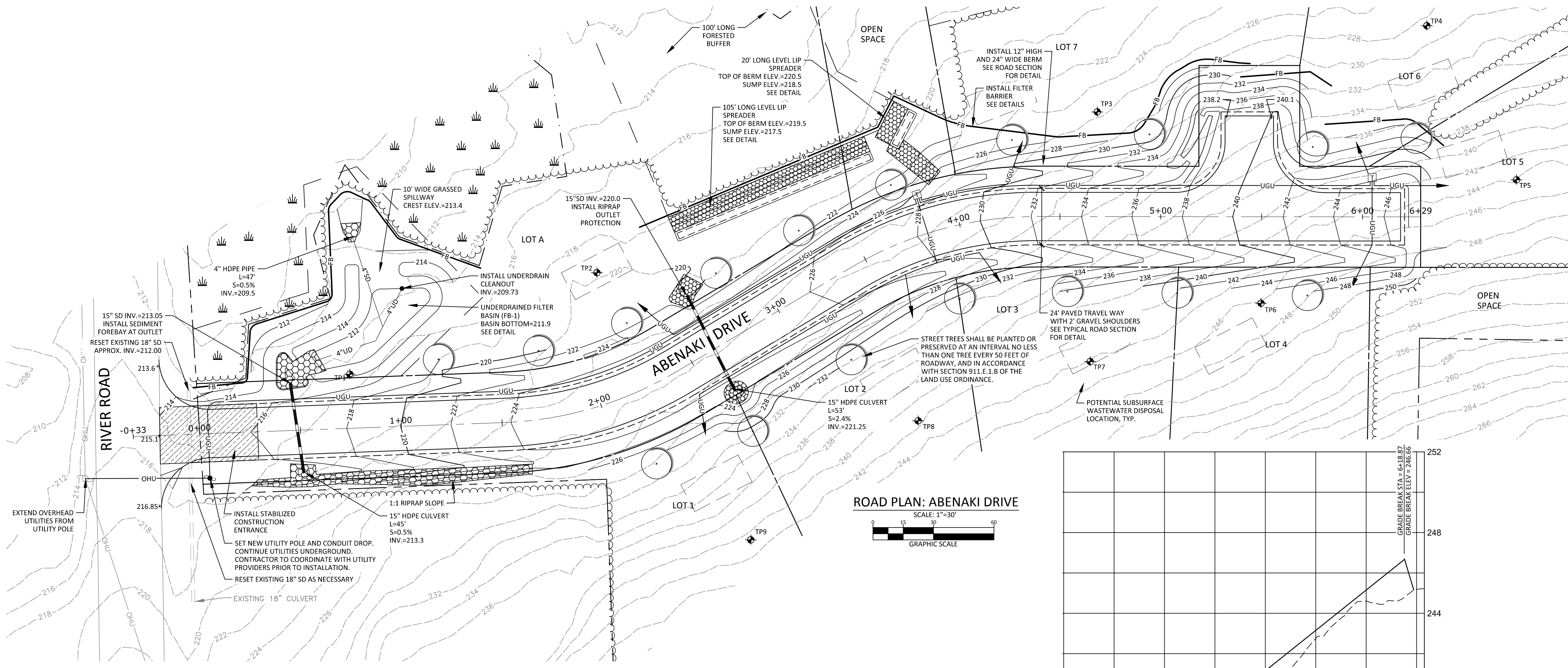
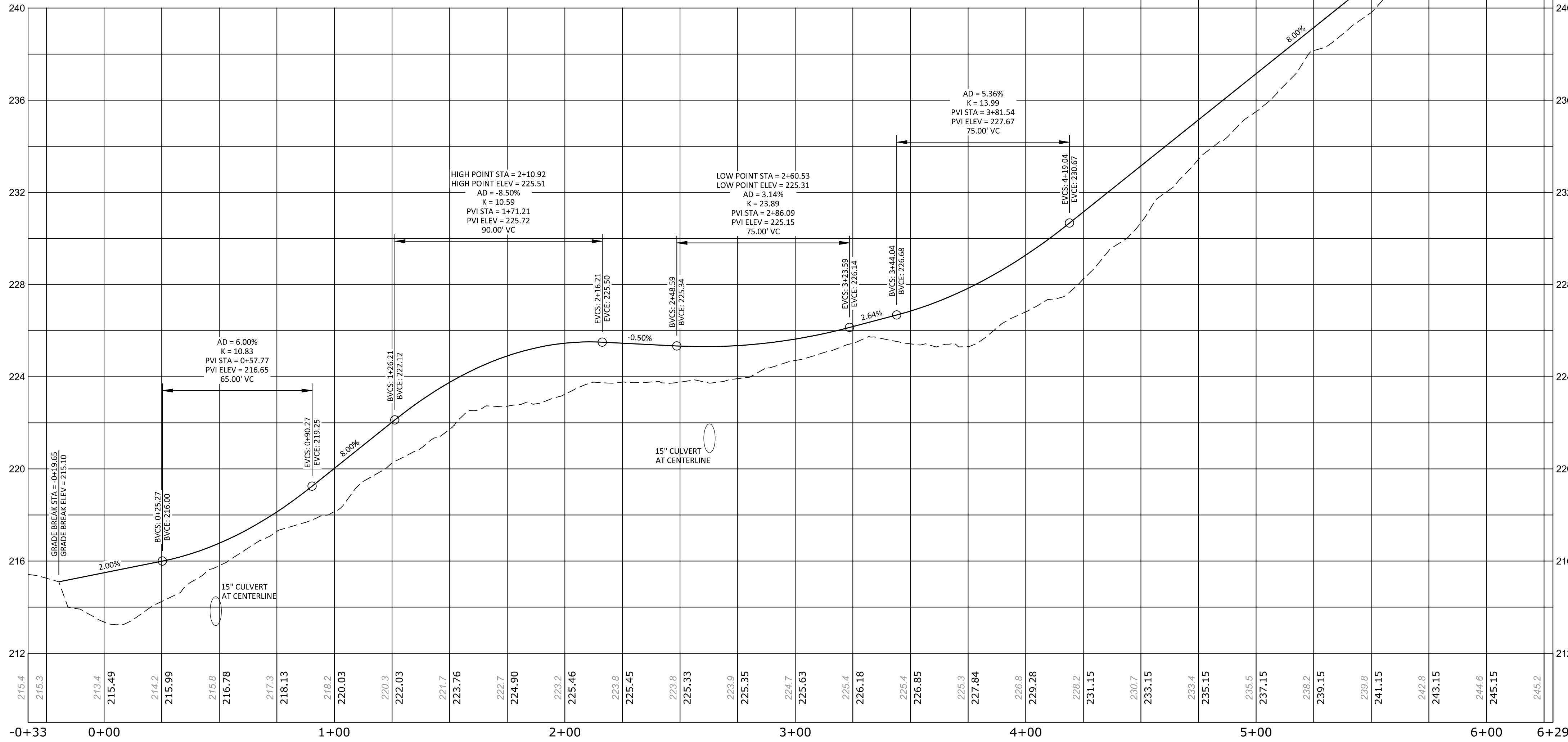
DM ROMA
CONSULTING ENGINEERS

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

REV	DATE	BY	DESCRIPTION
A	7-24-17	DMR	ISSUED TO TOWN FOR SKETCH PLAN REVIEW
B	10-2-17	DMR	ISSUED TO TOWN FOR REVIEW
C	11-30-17	DMR	REVISED PER TOWN REVIEW COMMENTS
D	12-4-17	DMR	REVISED PER TOWN REVIEW COMMENTS

LEGEND

EXISTING	PROPOSED

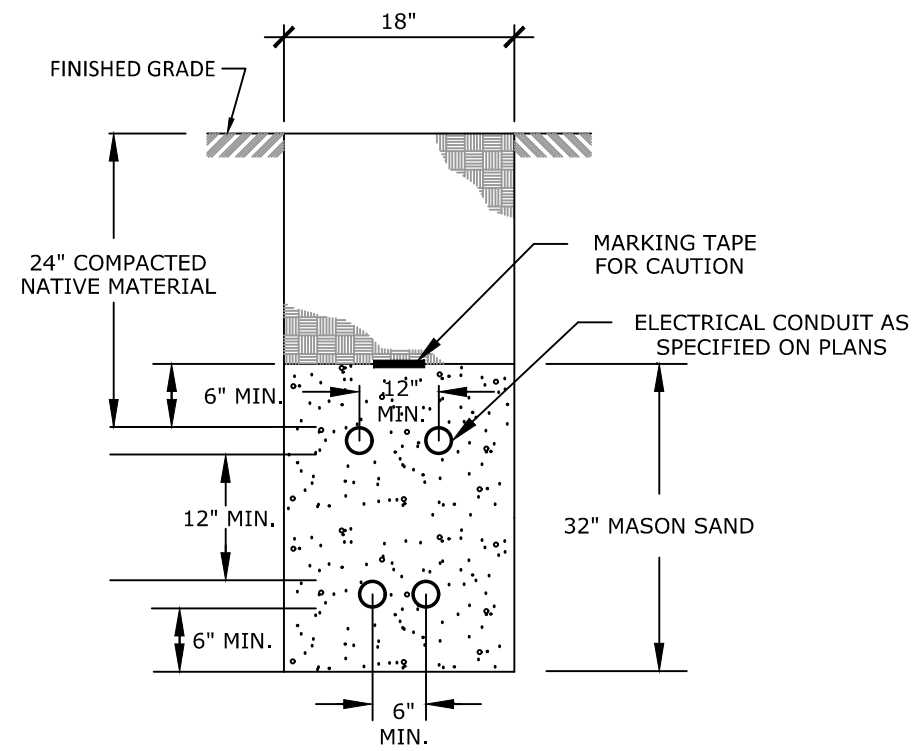


DM ROMA
CONSULTING ENGINEERS
59 HARVEST HILL RD
WINDHAM, ME 04062
(207) 310-0506

REV	DATE	BY	DESCRIPTION
A	10-2-17	DMR	ISSUED TO TOWN FOR REVIEW
B	11-20-17	DMR	REVISED PER TOWN REVIEW COMMENTS
C	12-4-17	DMR	REVISED PER TOWN REVIEW COMMENTS

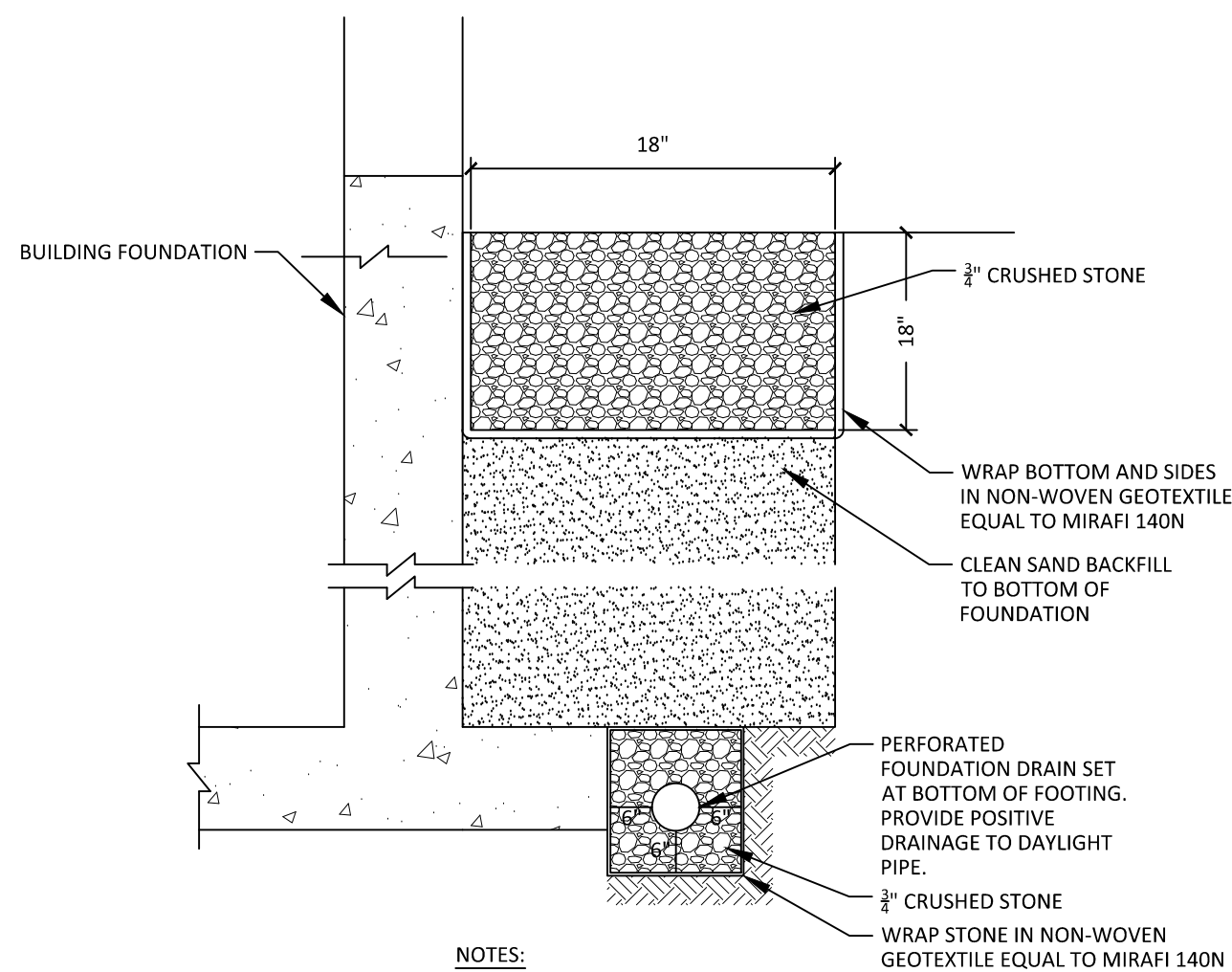
ROADWAY PLAN & PROFILE: ABENAKI DRIVE
RIVER ROAD SUBDIVISION
WINDHAM, MAINE
FOR RECORD OWNER:
RIVER ROAD HOUSING, LLC
105 STANDISH NECK ROAD
STANDISH, MAINE 04083

17020
JOB NUMBER:
AS NOTED
SCALE:
12-4-2017
DATE:
SHEET 4 OF 6
PP-1

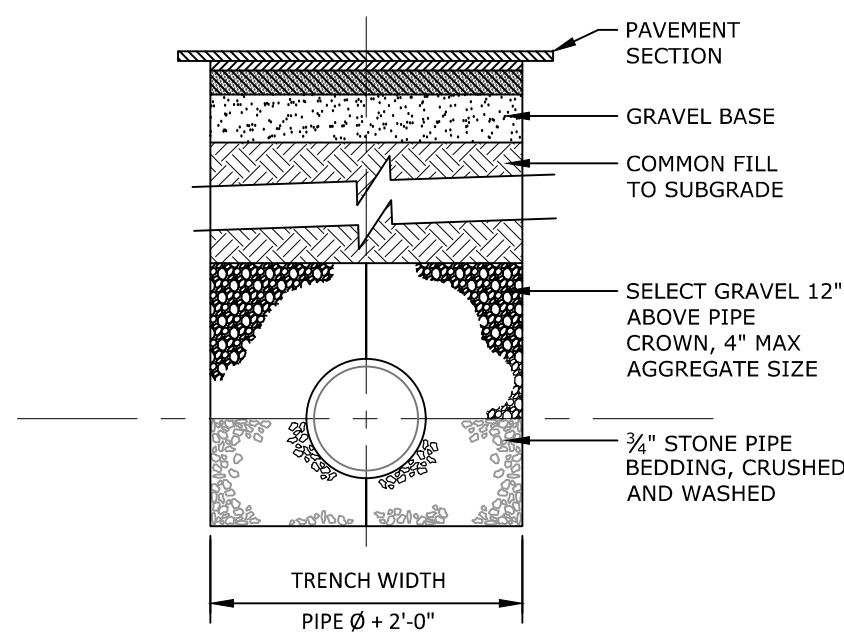


TRENCH DETAIL - ELECTRICAL CONDUIT
NOT TO SCALE

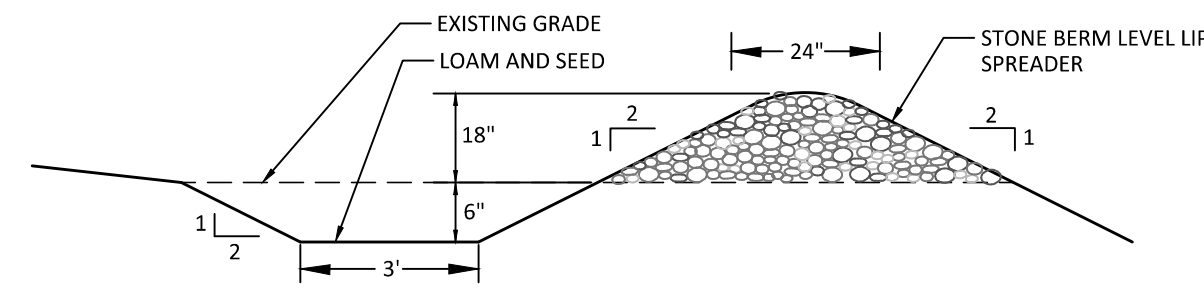
- NOTES:
1. ALL CONDUITS SHALL BE 4" DIA. PVC SCH 40 EXCEPT FOR ROAD CROSSINGS SHALL BE PVC SCH 80
 2. INSTALLATION SHOULD NOT ALLOW THE INTER-TWING OF CABLES.
 3. BEDDING AND BACKFILL SHALL BE FREE OF ROOTS, STUMPS AND OTHER DEBRIS.
 4. COMMUNICATION CABLE AND POWER CABLE SHALL HAVE NO LESS THAN 12 INCHES OF RADIAL SEPARATION.



NOTES:
1. ALL NEW BUILDINGS REQUIRE ROOF DRIP EDGES
ROOF DRIP EDGE
NOT TO SCALE



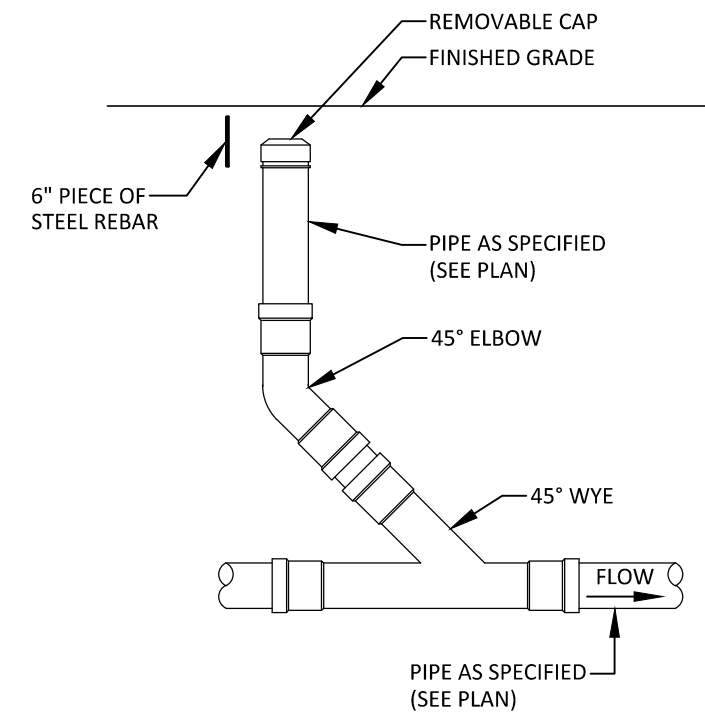
TYPICAL TRENCH SECTION
NOT TO SCALE



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

STORMWATER LEVEL LIP SPREADER
NOT TO SCALE

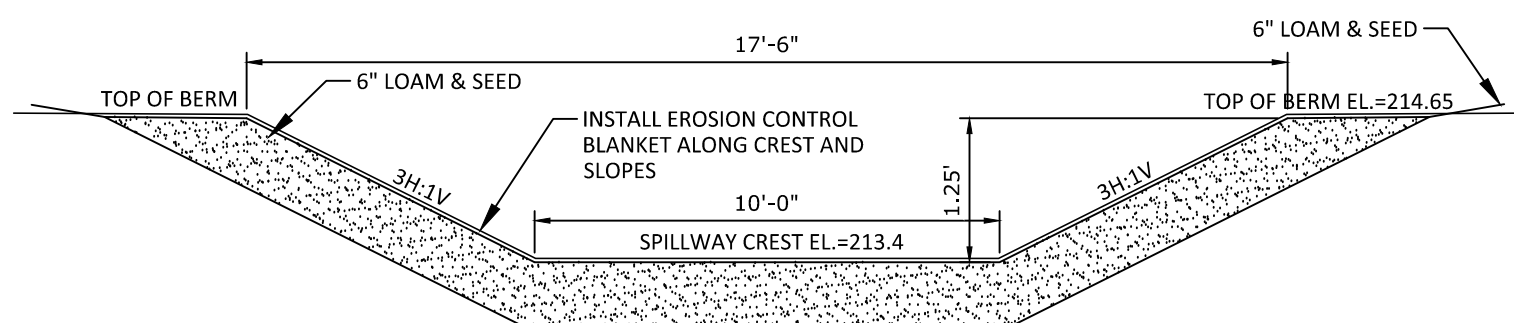


UNDERDRAIN CLEANOUT DETAIL
NOT TO SCALE

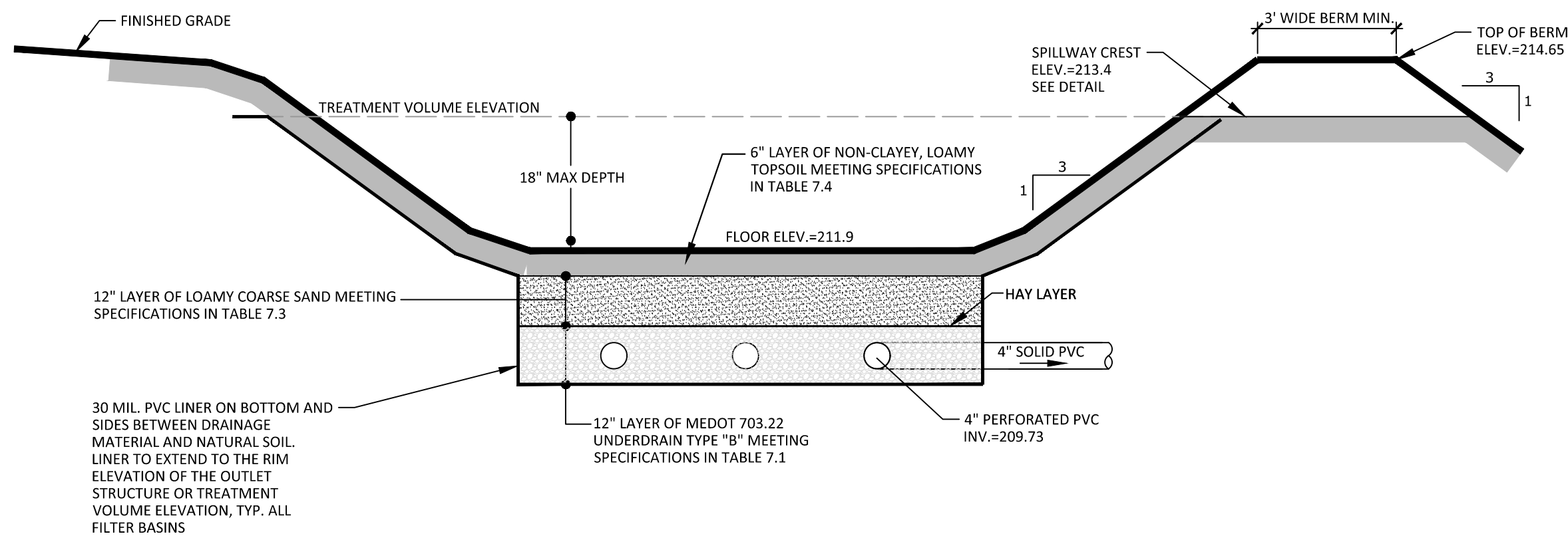
SIEVE SIZE	% PASSING BY WEIGHT
1"	90-100
1/2"	75-100
#4	50-100
#20	15-80
#50	0-15
#200	0-5

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

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



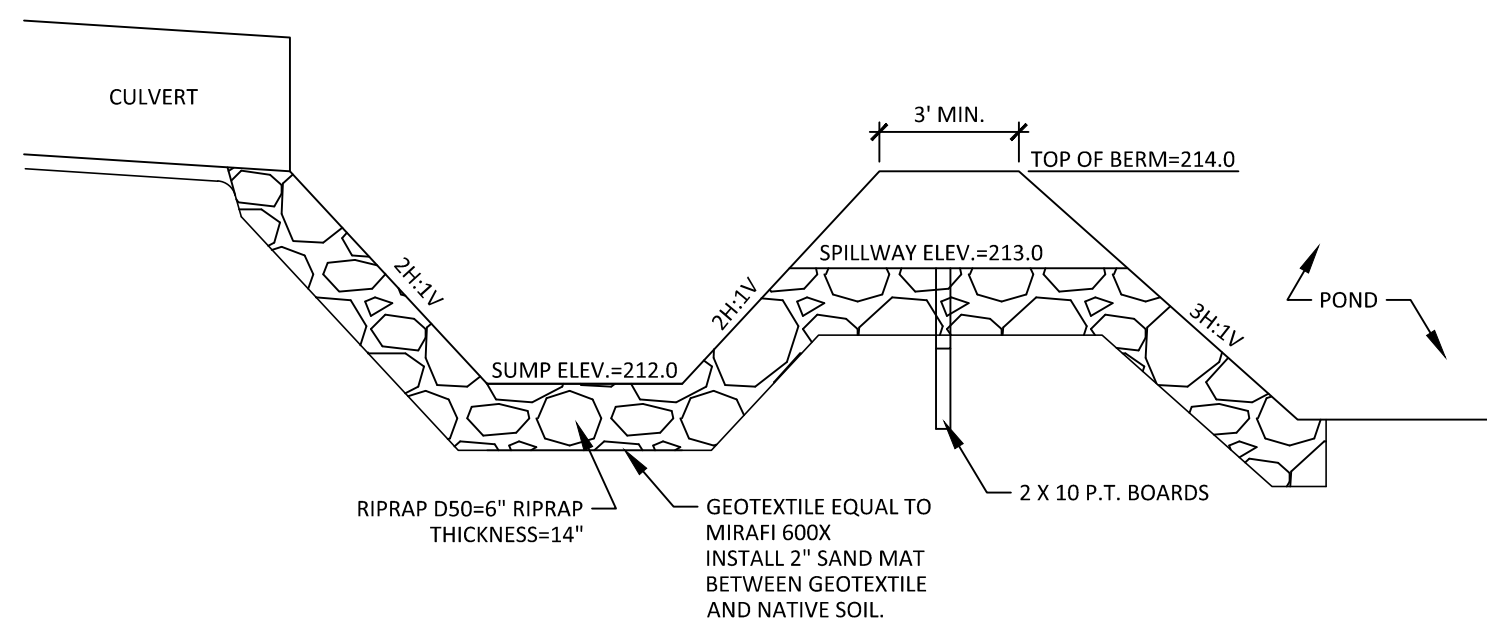
SPILLWAY CROSS-SECTION
NOT TO SCALE



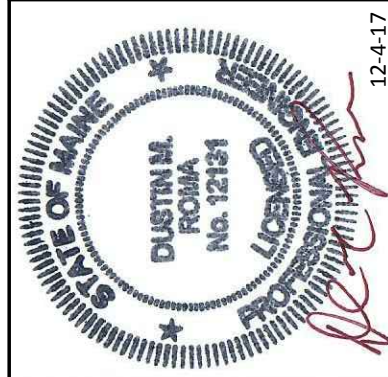
GENERAL NOTES:

1. 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.
2. COMPACTION OF SOIL FILTER: FILTER SOIL 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.
3. 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 AND ONCE THE UNDERDRAIN PIPES ARE INSTALLED BUT NOT BACKFILLED.
 - B) AFTER THE DRAINAGE LAYER IS CONSTRUCTED AND PRIOR TO THE INSTALLATION OF THE FILTER MEDIA.
 - C) AFTER THE FILTER MEDIA HAS BEEN INSTALLED AND SEED.
 - D) AFTER ONE YEAR TO INSPECT HEALTH OF THE VEGETATION AND MAKE CORRECTIONS.
4. TESTING AND SUBMITTALS: THE CONTRACTOR SHALL IDENTIFY THE LOCATION OF THE SOURCE OF EACH COMPONENT OF THE FILTER MEDIA. 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 TO BE BLENDED FOR THE MIXED FILTER MEDIA AND SAMPLES OF THE UNDERDRAIN BEDDING MATERIAL. SAMPLES MUST BE A COMPOSITE OF THREE DIFFERENT LOCATIONS (GRABS) FROM THE STOCKPILE OR PIT FACE. SAMPLE SIZE REQUIRED WILL BE DETERMINED BY THE TESTING LABORATORY.
 - B) PERFORM A SIEVE ANALYSIS CONFORMING TO STM C136 (STANDARD TEST METHOD FOR SIEVE ANALYSIS OF FINE AND COARSE AGGREGATES 1996A) ON EACH TYPE OF THE SAMPLE MATERIAL. THE RESULTING SOIL FILTER MEDIA MIXTURE MUST HAVE 8% TO 12% BY WEIGHT PASSING THE #200 SIEVE, A CLAY CONTENT OF LESS THAN 2% (DETERMINED BY HYDROMETER GRAIN SIZE ANALYSIS) AND HAVE 10% DRY WEIGHT OF ORGANIC MATTER.
 - C) PERFORM A PERMIABILITY TEST ON THE SOIL FILTER MEDIA MIXTURE CONFORMING TO ASTM D2434 WITH THE MIXTURE COMPACTED TO 90-92% OF MAXIMUM DRY DENSITY BASED ON ASTM D698

FILTER BASIN SECTION
NOT TO SCALE



SEDIMENT FOREBAY
NOT TO SCALE



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CONSULTING ENGINEERS
59 HARVEST HILL RD
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(207) 310-0506

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C	12-4-17	DMR	REVISED PER TOWN REVIEW COMMENTS

DETAILS
RIVER ROAD SUBDIVISION
WINDHAM, MAINE
FOR RECORD OWNER:
RIVER ROAD HOUSING, LLC
105 STRANDISH NECK ROAD
WINDHAM, MAINE 04062

17020 JOB NUMBER:
AS NOTED SCALE:
12-4-2017 DATE:
SHEET 6 OF 6
D-2