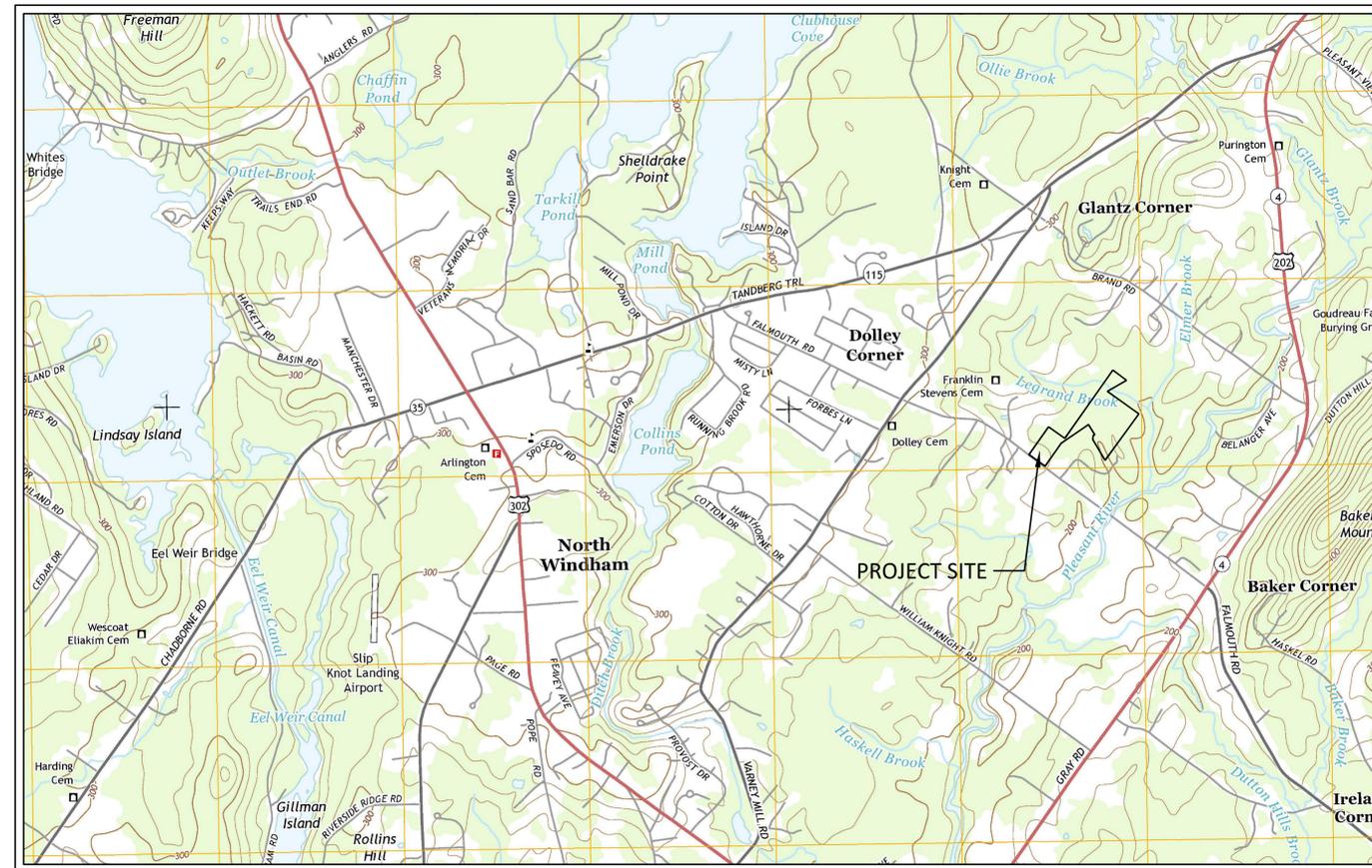


SHEPHERD LANE SUBDIVISION

421 FALMOUTH ROAD,
WINDHAM, MAINE

CONSULTANTS

CIVIL ENGINEER	DM ROMA CONSULTING ENGINEERS
LAND SURVEYOR	SURVEY, INC.
SITE EVALUATOR	HARRIS SEPTIC SOLUTIONS
WETLAND EVALUATION	MAINELY SOILS



PROJECT VICINITY MAP

ISSUED FOR PRELIMINARY REVIEW - NOT FOR CONSTRUCTION
JUNE 23, 2025

PREPARED BY:

DM ROMA

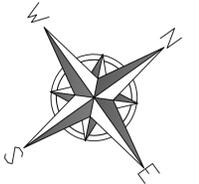
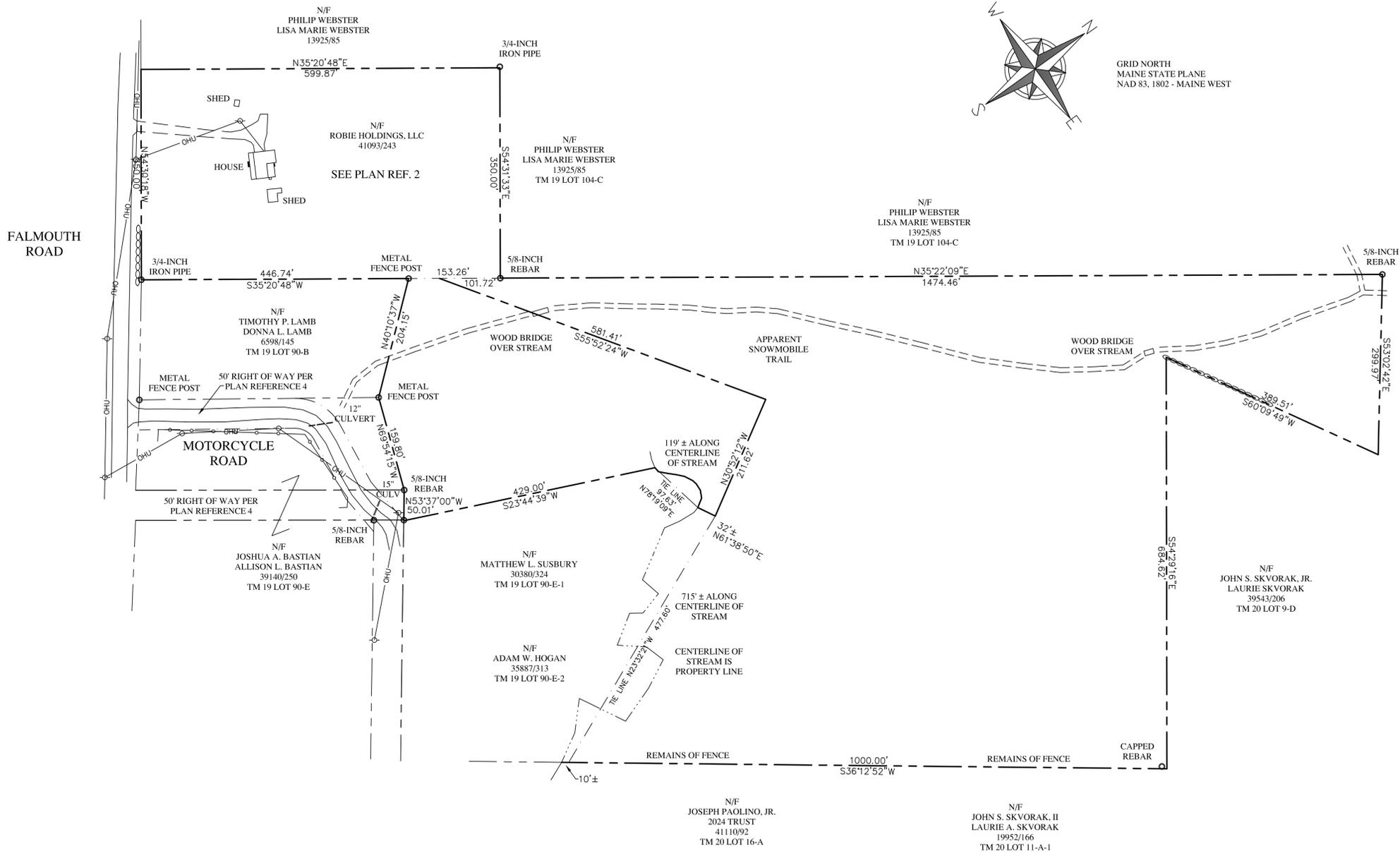
CONSULTING ENGINEERS
P.O. BOX 1116
WINDHAM, ME 04062
(207) 310 - 0506

APPLICANT:

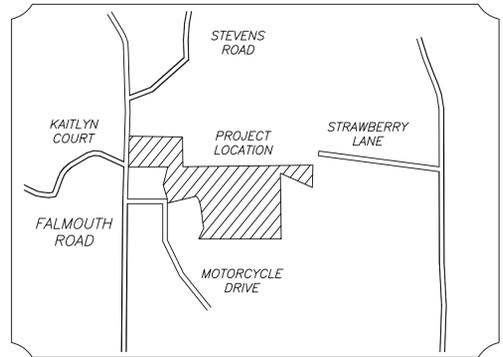
ROBIE HOLDINGS LLC
PO BOX 1508
WINDHAM, ME 04062

**SHEPHERD LANE SUBDIVISION
DRAWING SHEET INDEX**

PAGE NO.	DESCRIPTION
1	TITLE SHEET
2	BOUNDARY SURVEY
3	SUBDIVISION PLAN
4	SITE & LANDSCAPING PLAN
5	GRADING & UTILITY PLAN
6	ROADWAY PLAN & PROFILE
7	DETAILS
8	DETAILS



GRID NORTH
MAINE STATE PLANE
NAD 83, 1802 - MAINE WEST



LOCATION MAP
(NOT TO SCALE)

N/F
STRAWBERRY LAND
DEVELOPMENT, LLC
39406/274
TM 19 LOT 90-F-5-1

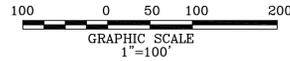
N/F
JOHN S. SKVORAK, JR.
LAURIE SKVORAK
39543/206
TM 20 LOT 9-D

N/F
MATTHEW L. SUSBURY
30380/324
TM 19 LOT 90-E-1

N/F
ADAM W. HOGAN
35887/313
TM 19 LOT 90-E-2

N/F
JOSEPH PAOLINO, JR.
2024 TRUST
41110/92
TM 20 LOT 16-A

N/F
JOHN S. SKVORAK, II
LAURIE A. SKVORAK
19952/166
TM 20 LOT 11-A-1



PLAN REFERENCE:

- (1) SKETCH SUBDIVISION PLAN 421 FALMOUTH ROAD SUBDIVISION 410 FALMOUTH ROAD WINDHAM, MAINE FOR: ROBIE HOLDINGS LLC DATED 10-7-2024 BY DM ROMA CONSULTING ENGINEERS.
- (2) BOUNDARY SURVEY 421 FALMOUTH ROAD WINDHAM, MAINE FOR: DM ROMA CONSULTING ENGINEERS DATED OCTOBER 2024 BY SURVEY INC.
- (3) PLAN OF LAND ON FALMOUTH ROAD WINDHAM, MAINE FOR WAYNE LAMB & KILTON LAMB SR. DATED DEC. 1984 BY DANIEL TC LAPOINTE.
- (4) DIVISION OF LAND ON MOTORCYCLE DRIVE WINDHAM, MAINE FOR JOE PALINO DATED NOVEMBER 2023 BY WAYNE T. WOOD & CO.
- (5) FINAL PLAN ELIZABETH FARMS SUBDIVISION ON BRAND ROAD IN WINDHAM, MAINE FOR SEBAGO REAL ESTATE INVESTMENT, LLC DATED APRIL 2015 BY WAYNE T. WOOD & CO.
- (6) PRELIMINARY STANDARD BOUNDARY SURVEY OFF BRAND & KNIGHT ROAD WINDHAM, MAINE FOR MIKE VALENTE DATED AUGUST 1997 BY WAYNE T. WOOD & CO.
- (7) PLAN OF LAND ON MOTORCYCLE DRIVE AND FALMOUTH ROAD IN WINDHAM, MAINE FOR RECORD OWNER: DANA MAINS DATED JULY 2016 BY WAYNE T. WOOD & CO.

SURVEY NOTES:

- (1) THE OWNERS OF RECORD ARE CLAIRE MARX AS DESCRIBED IN A DEED RECORDED IN BOOK 4003 PAGE 154 AND PHILIP R. WEBSTER AND LISA M. WEBSTER AS DESCRIBED IN A DEED RECORDED IN BOOK 14672 PAGE 9 IN THE CUMBERLAND COUNTY REGISTRY OF DEEDS.
- (2) THE PARCELS ARE DEPICTED AS LOTS 104 AND 90-G ON THE TOWN OF WINDHAM ASSESSORS MAP 19.
- (3) BEARINGS ARE GRID NORTH, MAINE STATE PLANE 1802 WEST ZONE.

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.

5-19-25
WILLIAM C. SHIPPEN P.L.S. 2118



BOUNDARY SURVEY
411 AND 421 FALMOUTH ROAD
WINDHAM, MAINE

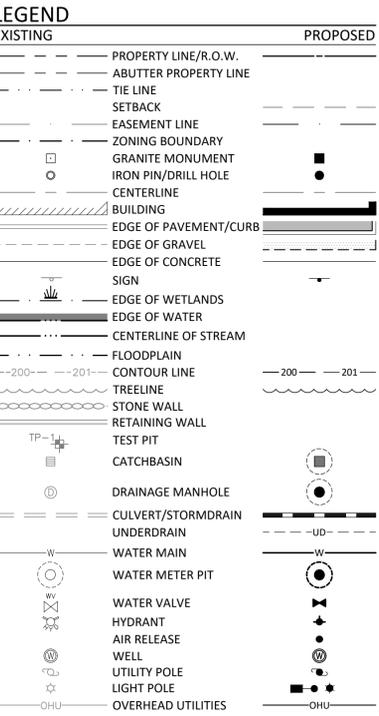
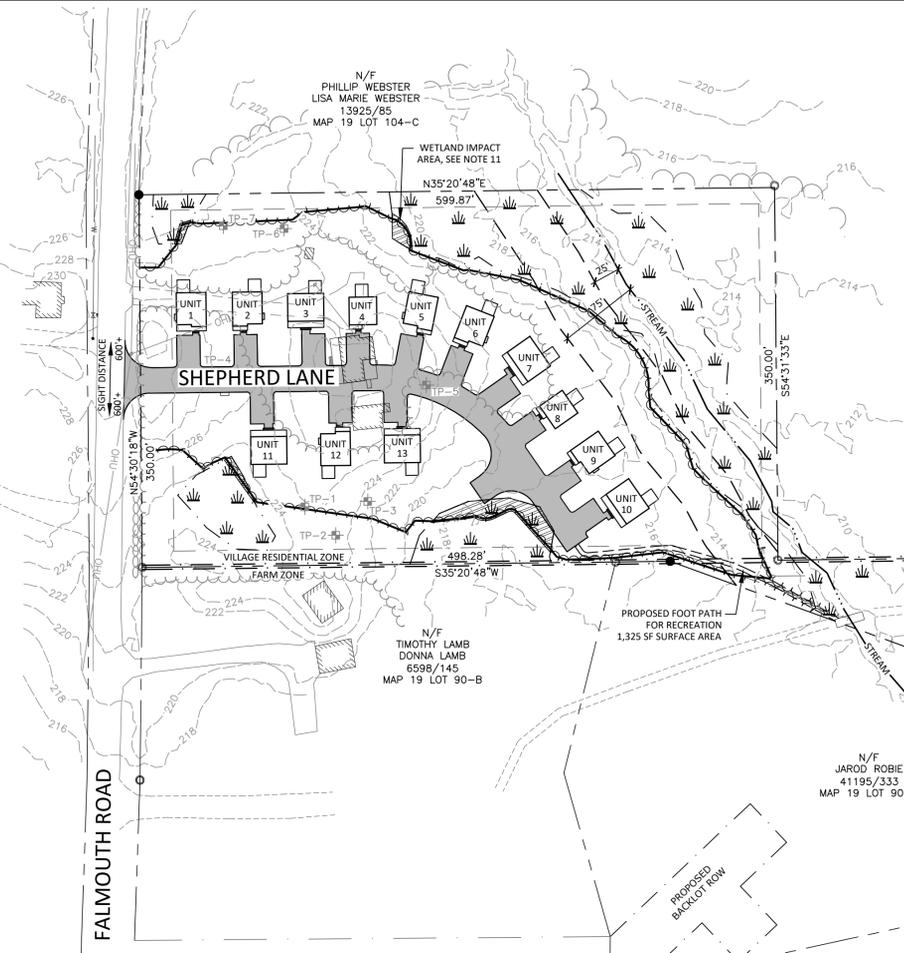
FOR: **DM ROMA CONSULTING ENGINEERS**

PO BOX 1116
WINDHAM, MAINE 04062
(CLIENT)

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

DWN:WCS
DATE: JANUARY 2025

CHK:DRR
JOB NO. 24-201-1



GENERAL NOTES:

- THE OWNER OF RECORD OF THE PROPERTY IS ROBIE HOLDINGS, LLC BY DEEDS RECORDED IN THE CUMBERLAND COUNTY REGISTRY OF DEEDS IN BOOK 41093 PAGE 243 AND BOOK 41455 PAGE 50.
- TOTAL AREA OF THE PARCEL IS APPROXIMATELY 22.75 ACRES.
- PARCEL TAX MAP REFERENCE: TOWN OF WINDHAM ASSESSORS MAP 19, LOT 104.
- PLAN REFERENCES:
 - BOUNDARY SURVEY OF 411 AND 421 FALMOUTH ROAD FOR ROBIE HOLDINGS, LLC, PREPARED BY SURVEY, INC. WITH SIGNATURE DATE 5-19-2025.
- HORIZONTAL DATUM: MAINE STATE PLANE, WEST ZONE, NAD83, U.S. FEET.
- VERTICAL DATUM: NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88)
- BOUNDARY SHOWN HEREON IS BASED ON REFERENCE 4A.
- TOPOGRAPHIC CONTOURS SHOWN HEREON ARE BASED ON 2-FOOT LIDAR OBTAINED FROM THE MAINE OFFICE OF GIS AND SUPPLEMENTED WITH ON-THE-GROUND TOPOGRAPHIC SURVEY PERFORMED BY DM ROMA CONSULTING ENGINEERS IN AREAS OF EXISTING ROADWAY AND PROPOSED STORMWATER FEATURES.
- THE PROPERTY IS LOCATED IN THE VILLAGE RESIDENTIAL DISTRICT AND FARM DISTRICT WITH THE FOLLOWING DIMENSIONAL STANDARDS:

MIN LOT SIZE:	VR ZONE	F ZONE
MIN STREET FRONTAGE:	40,000 SF	60,000 SF
MIN FRONT YARD:	100 FT	200 FT
MIN SIDE/REAR YARD:	30 FT	40 FT
MAX BUILDING COVERAGE:	15 FT	10 FT
	20%	25%
- WETLAND LIMITS SHOWN ARE BASED ON A FIELD DELINEATION PERFORMED IN OCTOBER 2024 BY ALEX FINAMORE WITH MAINELY SOILS LLC.
- THE DEVELOPMENT OF THIS PROJECT REQUIRES IMPACT TO 2,702 SF OF FORESTED WETLANDS.
- ANY TREE CLEARING BEYOND THE LIMITS OF TREE CLEARING SHOWN ON THIS PLAN SHALL NOT BE PERMITTED FOR A PERIOD OF 5 YEARS FOLLOWING THE PLANNING BOARD APPROVAL DATE PRINTED ON THIS PLAN, UNLESS AN AMENDMENT IS APPROVED BY THE PLANNING BOARD.
- ALL ROADS IN THE SUBDIVISION SHALL REMAIN PRIVATE ROADS TO BE MAINTAINED BY THE DEVELOPER, LOT OWNERS OR ROAD ASSOCIATION, AND SHALL NOT BE OFFERED FOR ACCEPTANCE, OR MAINTAINED, BY THE TOWN OF WINDHAM UNTIL THE ROAD MEETS ALL MUNICIPAL STREET DESIGN AND CONSTRUCTION STANDARDS APPLICABLE TO PUBLIC STREETS.

NET RESIDENTIAL DENSITY CALCULATIONS:

GROSS LAND AREA WITHIN VR ZONE: 209,977 S.F. +/- (4.82 ACRES ±)

DEDUCTIONS:

- RIGHT-OF-WAY: 0 S.F.
- STEEP SLOPES (OVER 25%): 0 S.F.
- 100-YEAR FLOOD PLAIN: 0 S.F.
- RESOURCE PROTECTION DISTRICT: 48,446 S.F.
- VERY POORLY DRAINED SOILS: 0 S.F.
- SURFACE WATERBODIES: 0 S.F.
- SIGNIFICANT WILDLIFE HABITAT: 0 S.F.
- ENDANGERED BOTANICAL RESOURCES: 0 S.F.

TOTAL NET AREA WITHIN VR ZONE: 161,531 S.F.

REQUIRED NET AREA PER DWELLING: 30,000 S.F.

MAXIMUM ALLOWABLE LOTS/DWELLINGS: 5.38

GROSS LAND AREA WITHIN FARM ZONE: 781,320 S.F. +/- (17.93 ACRES ±)

DEDUCTIONS:

- RIGHT-OF-WAY: 0 S.F.
- STEEP SLOPES (OVER 25%): 12,002 S.F.
- 100-YEAR FLOOD PLAIN: 1,046 S.F. (ADDITIONAL IN SECTION 5)
- RESOURCE PROTECTION DISTRICT: 0 S.F.
- VERY POORLY DRAINED SOILS: 190,799 S.F.
- SURFACE WATERBODIES: 0 S.F.
- SIGNIFICANT WILDLIFE HABITAT: 39,406 S.F.
- ENDANGERED BOTANICAL RESOURCES: 0 S.F.

TOTAL NET AREA WITHIN FARM ZONE: 577,473 S.F.

REQUIRED NET AREA PER DWELLING: 60,000 S.F.

MAXIMUM ALLOWABLE LOTS/DWELLINGS: 9.62

MAXIMUM TOTAL ALLOWABLE LOTS/DWELLINGS: 14

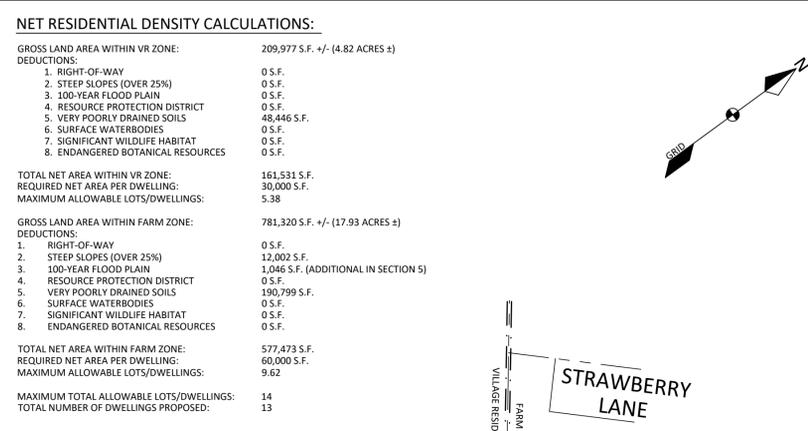
TOTAL NUMBER OF DWELLINGS PROPOSED: 13

UNIT IDENTIFICATION:

UNIT #	ASSESSING LOT ID#	ADDRESS
1	19-104-1	2 SHEPHERD LANE
2	19-104-2	4 SHEPHERD LANE
3	19-104-3	6 SHEPHERD LANE
4	19-104-4	8 SHEPHERD LANE
5	19-104-5	10 SHEPHERD LANE
6	19-104-6	12 SHEPHERD LANE
7	19-104-7	14 SHEPHERD LANE
8	19-104-8	16 SHEPHERD LANE
9	19-104-9	18 SHEPHERD LANE
10	19-104-10	20 SHEPHERD LANE
11	19-104-11	5 SHEPHERD LANE
12	19-104-12	7 SHEPHERD LANE
13	19-104-13	9 SHEPHERD LANE

CONDITIONS OF APPROVAL:

- APPROVAL IS DEPENDENT UPON AND LIMITED TO THE PROPOSALS AND PLANS CONTAINED IN THE APPLICATION DATED FEBRUARY 17, 2025 AS AMENDED JULY 14, 2025 AND SUPPORTING DOCUMENTS AND ORAL REPRESENTATIONS SUBMITTED AND AFFIRMED BY THE APPLICANT, AND CONDITIONS, IF ANY, IMPOSED BY THE PLANNING BOARD. ANY VARIATION FROM SUCH PLANS, PROPOSALS, SUPPORTING DOCUMENTS, AND REPRESENTATIONS IS SUBJECT TO REVIEW AND APPROVAL BY THE PLANNING BOARD OR THE TOWN PLANNER IN ACCORDANCE WITH SECTION 120-912 OF THE LAND USE ORDINANCE.
- IN ACCORDANCE WITH SECTION 120-911(S) OF THE LAND USE ORDINANCE, THE CONDOMINIUM ASSOCIATION DOCUMENTS SHALL BE RECORDED IN THE CUMBERLAND COUNTY REGISTRY OF DEEDS WITHIN 90 DAYS OF THE DATE THAT THE SUBDIVISION PLAN IS RECORDED IN THE CUMBERLAND COUNTY REGISTRY OF DEEDS. EVIDENCE OF SUCH RECORDING SHALL BE PROVIDED TO THE PLANNING DEPARTMENT. NO UNITS SHALL BE SOLD IN THE SUBDIVISION PRIOR TO RECORDING AND ALL DEEDS SHALL REFERENCE THE DECLARATION ESTABLISHING THE CONDOMINIUM ASSOCIATION.
- THE DEVELOPMENT IS SUBJECT TO THE FOLLOWING ARTICLE 12 IMPACT FEES, TO BE PAID WITH THE ISSUANCE OF NEW BUILDING PERMITS FOR THE EXPANDED USES: NORTH ROUTE 302 ROAD IMPROVEMENTS FEE OF \$_____, PUBLIC SAFETY IMPACT FEE, AND MUNICIPAL OFFICE IMPACT FEE. ALL FEES WILL BE DETERMINED AND COLLECTED FOR ANY BUILDING, OR ANY OTHER PERMIT FOR THE DEVELOPMENT.
- IN ACCORDANCE WITH SECTION 120-914(B)(5) OF THE LAND USE ORDINANCE, THE CONSTRUCTION OF IMPROVEMENTS COVERED BY ANY SUBDIVISION PLAN APPROVAL SHALL BE COMPLETED WITHIN TWO YEARS OF THE DATE UPON WHICH THE PERFORMANCE GUARANTEE IS ACCEPTED BY THE TOWN MANAGER. THE DEVELOPER MAY REQUEST A ONE-YEAR EXTENSION OF THE CONSTRUCTION COMPLETION DEADLINE PRIOR TO THE EXPIRATION OF THE PERIOD. SUCH REQUEST SHALL BE IN WRITING AND SHALL BE MADE TO THE TOWN PLANNER. THE TOWN MANAGER MAY REQUIRE AN UPDATE TO THE SCHEDULE OF VALUES AND THE AMOUNT OF THE GUARANTEE WHEN ACCEPTING AN EXTENSION OF THE CONSTRUCTION PERIOD. IF CONSTRUCTION HAS NOT BEEN COMPLETED WITHIN THE SPECIFIED PERIOD, THE TOWN SHALL, AT THE TOWN MANAGER'S DISCRETION, USE THE PERFORMANCE GUARANTEE TO EITHER RECLAIM AND STABILIZE THE SITE, OR TO COMPLETE THE IMPROVEMENTS AS SHOWN ON THE APPROVED PLAN.



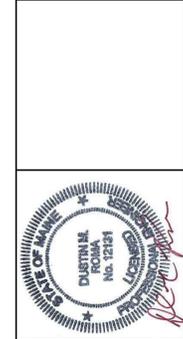
APPROVED - WINDHAM PLANNING BOARD:

CHAIRPERSON: _____ DATE: _____

STATE OF MAINE
 COUNTY SS. REGISTRY OF DEEDS
 RECEIVED _____ 20____
 AT _____ h _____ m _____ M AND RECORDED IN
 PLAN BOOK _____ PAGE _____
 ATTEST: _____ REGISTER

SUBDIVISION & SITE PLAN
 SHEPHERD LANE SUBDIVISION
 421 FALMOUTH ROAD
 WINDHAM, MAINE
 FOR RECORD OWNER:
ROBIE HOLDINGS, LLC
 PO BOX 1508
 WINDHAM, ME 04092

24057
 JOB NUMBER:
 1" = 80'
 SCALE:
 6-23-2025
 DATE:
 SHEET 3 OF 8
 SB-1



DM ROMA
 CONSULTING ENGINEERS
 P.O. BOX 1116
 WINDHAM, ME 04062
 (207) 591-5055

REV	DATE	BY	DESCRIPTION
A	5-19-25	DMR	ISSUED FOR REVIEW
B	6-23-25	DMR	ISSUED FOR REVIEW

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 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 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 CONSTRUCTION DEBRIS OR REPROCESSED 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 BY PERMANENT VEGETATION. WHERE MULCH IS USED WITH ORGANICAL 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 OF THE FOLLOWING YEAR. TO PREPARE THE SEEDBED, 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 REYGRASS	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 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 PRACTICABLE, AND IF SPUN 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 BURIAL.

EROSION CONTROL MIX BERMS 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 WIDTH BERM. EROSION CONTROL MIX BERMS 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 DOWNGRADIENT 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 WILL BE NECESSARY TO INSTALL A SEDIMENT BASIN UPGRADIENT OF THE SEDIMENT BARRIER. 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.

TEMPORARY EROSION CONTROL MEASURES ARE REMOVED ONCE THE SITE IS PERMANENTLY STABILIZED AND CONSTRUCTION ACTIVITY HAS BEEN COMPLETED.

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, TRIANGULAR WATERSHED AREA AND EXHAUSTION SHOULD BE FACTORED INTO ANY 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 4 INCH DEPTH LAYER OF 3/4" TO 1 1/2" CRUSHED STONE, AND SHALL BE PLACED OVER A GEOTEXTILE FABRIC. THE PAD SHOULD BE 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, 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 OBJECTIONABLE MATERIALS THAT WOULD INTERFERE WITH OR PREVENT CONSTRUCTION OF STRUCTURAL FILLS. 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 COMPACTION 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; AVOID 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 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 SUPPLIERS 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 UNDOED UNDER THE UNDERLYING SOIL WITH NO SLUMPING OF THE SOD OR DIE-OFF.

PERMANENT MULCH IS A LONG TERM COVER THAT PROVIDES A GOOD BUFFER AGAINST 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.

RIPRAP 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 MOST 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 BARRIERS MUST BE USED TO DIVERT STORMWATER AWAY FROM THE CHANNEL. STORMWATER CHANNELS MUST BE INSTALLED IN THE CHANNEL TO SLOW THE WATER VELOCITY, AND A TEMPORARY LINING INSTALLED ALONG THE CHANNEL TO PREVENT SCOURING.

INSPECTION & MAINTENANCE NOTES:

1. THE CONTRACTOR SHALL BE RESPONSIBLE TO ENSURE ALL CONSTRUCTION OPERATIONS COMPLY WITH THE INSPECTION AND MAINTENANCE PROCEDURES FOR THE PROJECT, INCLUDING, BUT NOT LIMITED TO THOSE INCLUDED IN THIS PLAN SET, THE "INSPECTION, AND MAINTENANCE, AND HOUSEKEEPING PLAN", AND THE "EROSION AND SEDIMENTATION CONTROL PRACTICES FIELD GUIDE FOR CONTRACTORS". INSPECTION SHALL OCCUR ON ALL DISTURBED AND IMPERVIOUS AREAS, EROSION CONTROL MEASURES, MATERIAL STORAGE AREAS THAT ARE EXPOSED TO PRECIPITATION, AND LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE. THESE AREAS SHALL BE INSPECTED AT LEAST ONCE A WEEK AS WELL AS 24 HOURS BEFORE AND AFTER A STORM EVENT GENERATING MORE THAN 0.5 INCH OF RAINFALL OVER A 24-HOUR PERIOD AND PRIOR TO COMPLETING PERMANENT STABILIZATION MEASURES. A PERSON WITH KNOWLEDGE OF EROSION AND STORMWATER CONTROL, INCLUDING THE STANDARDS AND CONDITIONS IN THE PERMIT, SHALL CONDUCT THE INSPECTIONS.

2. EROSION CONTROLS SHALL BE MAINTAINED IN EFFECTIVE OPERATING CONDITION UNTIL AREAS ARE PERMANENTLY STABILIZED. IF BEST MANAGEMENT PRACTICES (BMPs) NEED TO BE REPAIRED, THE REPAIR WORK SHOULD BE INITIATED UPON DISCOVERY OF THE PROBLEM BUT NO LATER THAN THE END OF THE NEXT WORKDAY. IF BMPs NEED TO BE MAINTAINED OR MODIFIED, ADDITIONAL BMPs ARE NECESSARY, OR OTHER CORRECTIVE ACTION IS NEEDED, IMPLEMENTATION MUST BE COMPLETED WITHIN SEVEN CALENDAR DAYS AND PRIOR TO ANY RAINFALL EVENT.

3. A REPORT SUMMARIZING THE INSPECTIONS AND ANY CORRECTIVE ACTION TAKEN MUST BE MAINTAINED ON SITE. THE LOG MUST INCLUDE THE NAME(S) AND TITLE(S) OF THE PERSON MAKING THE INSPECTIONS, THE DATES OF THE INSPECTIONS, AND THE MAJOR OBSERVATIONS ABOUT THE OPERATION AND MAINTENANCE OF EROSION AND SEDIMENTATION CONTROLS, MATERIALS STORAGE AREAS, AND VEHICLE ACCESS POINTS TO THE PARCEL. MAJOR OBSERVATIONS MUST INCLUDE BMPs THAT NEED MAINTENANCE, BMPs THAT FAILED TO OPERATE AS DESIGNED OR PROVIDED INADEQUATE FOR A PARTICULAR LOCATION, AND LOCATION(S) WHERE ADDITIONAL BMPs ARE NEEDED. FOR EACH BMP REQUIRING MAINTENANCE, BMP NEEDING REPLACEMENT, AND LOCATION(S) WHERE ADDITIONAL BMPs ARE NEEDED, THE LOG THE LOG THE CORRECTIVE ACTION TAKEN AND WHEN IT WAS TAKEN. THE LOG MUST BE MADE ACCESSIBLE TO MDEP AND TOWN STAFF, AND A COPY MUST BE PROVIDED UPON REQUEST. THE OWNER SHALL RETAIN A COPY OF THE LOG FOR A PERIOD OF AT LEAST THREE YEARS FROM THE COMPLETION OF PERMANENT STABILIZATION.

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 FENCED UNTIL THE SUBBASE GRAVEL IS INSTALLED IN THE ROADWAY AREAS OR THE AREAS OF FUTURE LOAM AND SEED HAVE BEEN LOADED, 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 RIPRAP 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 BERMS 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 APPLICATION 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 MATS. AN AREA SHALL BE CONSIDERED TO HAVE BEEN STABILIZED WHEN EXPOSED SURFACES HAVE BEEN EITHER MULCHED 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 1ST, 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 RAT EOR 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 SHALL BE FINE GRADED AND EITHER PROTECTED 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 LOOSED, 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 MULCHING. 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 S.F. 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 SOD 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

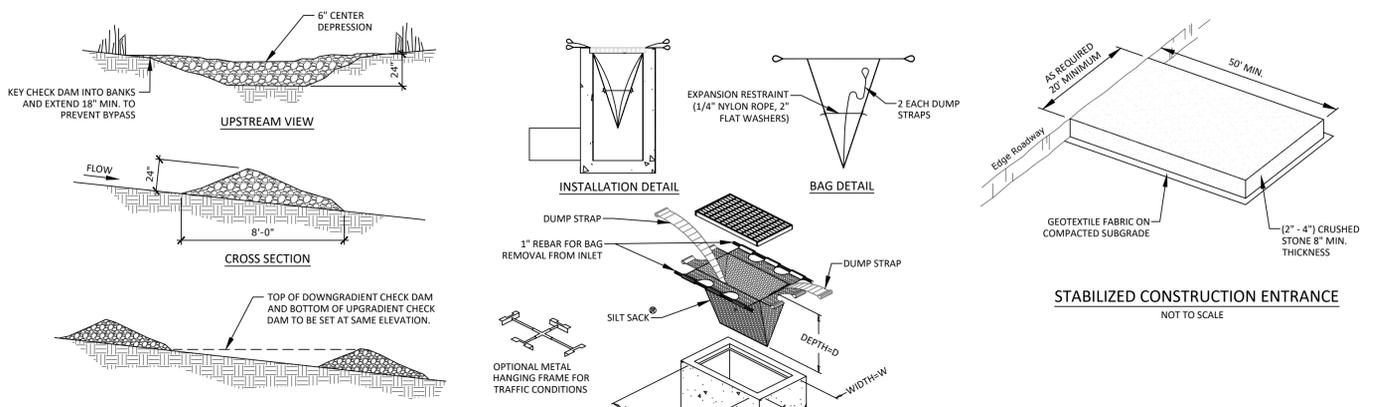
ALL STONE-COVERED SLOPES MUST BE CONSTRUCTED AND STABILIZED BY NOVEMBER 15. ALL SLOPES TO BE VEGETATED MUST BE SEEDED AND MULCHED BY SEPTEMBER 1. ALL AREAS HAVING A GRADE STEEPER THAN 8% SHALL BE CONSIDERED A SLOPE. IF A SLOPE TO BE VEGETATED IS NOT STABILIZED BY SEPTEMBER 1, THEN THE SLOPE SHALL EITHER 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 INSPECTION 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 90% OF AREAS VEGETATED WITH VIGOROUS GROWTH.



CHECK DAM SPACING

NOTES:
 1. CHECK DAMS SHOULD BE INSTALLED BEFORE RUNOFF IS DIRECTED TO THE SWALE.
 2. THE AREA AROUND THE CHECK DAM SHOULD BE FREE OF DEBRIS.
 3. A STONE CHECK DAM SHOULD BE COMPRISED OF WELL-GRADED CRUSHED ROCK WITH A MAXIMUM SIZE OF 6" AND A MINIMUM STONE SIZE OF 2".
 4. THE MAXIMUM HEIGHT OF A CHECK DAM SHOULD BE 2' WITH A 6" DEPRESSION AT ITS CENTER FOR OVERFLOW. THE EDGES OF THE DAM SHOULD BE KEVED INTO THE EMBANKMENTS TO PREVENT SIDE EROSION.
 5. MECHANICAL PLACEMENT FOLLOWED BY HAND PLACEMENT WILL BE NECESSARY TO ACHIEVE A TIGHT MASS WITHIN THE CHANNEL AND TO ENSURE THAT THE CENTER OF THE DAM IS LOWER THAN THE EDGES.
 6. ANY EROSION DOWNGRADIENT OR AROUND THE EDGES OF STONE CHECK DAMS SHOULD BE CORRECTED IMMEDIATELY.
 7. THE CHECK DAMS MAY BE REMOVED WHEN THE SWALE IS STABILIZED WITH VEGETATION (90% COVERAGE).

STONE CHECK DAM

NOT TO SCALE
 PLAN VIEW showing 6" thick layer of 3/4" to 1-1/2" crushed stone, filter bag, and flow direction.

DEWATERING GEOTEXTILE FILTER BAG

NOT TO SCALE
 SECTION VIEW showing filter bag, silty water from pump, and geotextile fabric under stone for ease of removal.

RIPRAP APRON AT PIPE

NOT TO SCALE
 PLAN VIEW showing riprap apron at pipe with dimensions W1, W2, La, D50, and T.

SD DIA.	W1	W2	La	D50	T
12"	3'	7'	6'	5"	14"
15"	4'	8'	8'	6"	14"
18"	5'	12'	10'	6"	14"

SEDIMENT FILTER FENCE

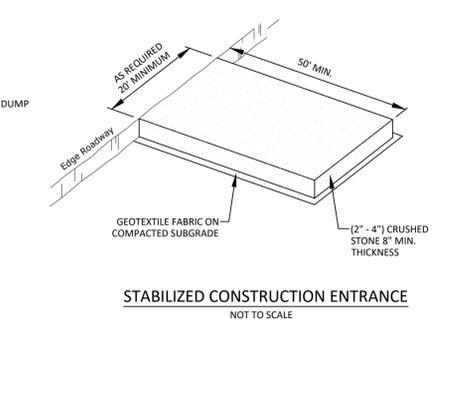
NOT TO SCALE
 SECTION VIEW showing sediment filter fence with wooden stake, Amoco proper silt stop sediment control fabric, and finish grade.

EROSION CONTROL MIX BERM

NOT TO SCALE
 SECTION VIEW showing erosion control mix berm with dimensions 12" high and 24" wide.

EROSION CONTROL BLANKET

NOT TO SCALE
 PLAN VIEW showing erosion control blanket installation with blankets vertically down slope and staple manufacturer.



CATCH BASIN INLET PROTECTION

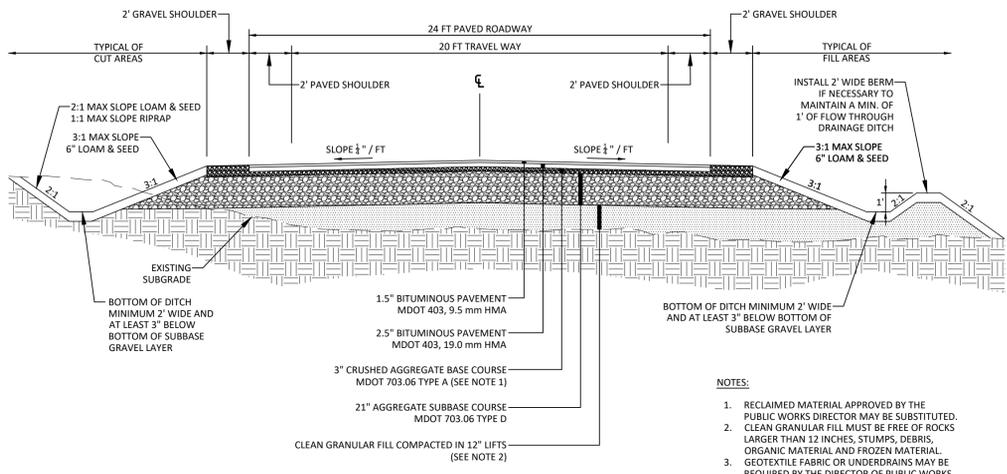
NOT TO SCALE
 SECTION VIEW showing catch basin inlet protection with dimensions 12" min, 18" min, and 3:1 TP.

DRAINAGE SWALE

NOT TO SCALE
 SECTION VIEW showing drainage swale with dimensions 4" loam & seed, 12" min, and 18" min.

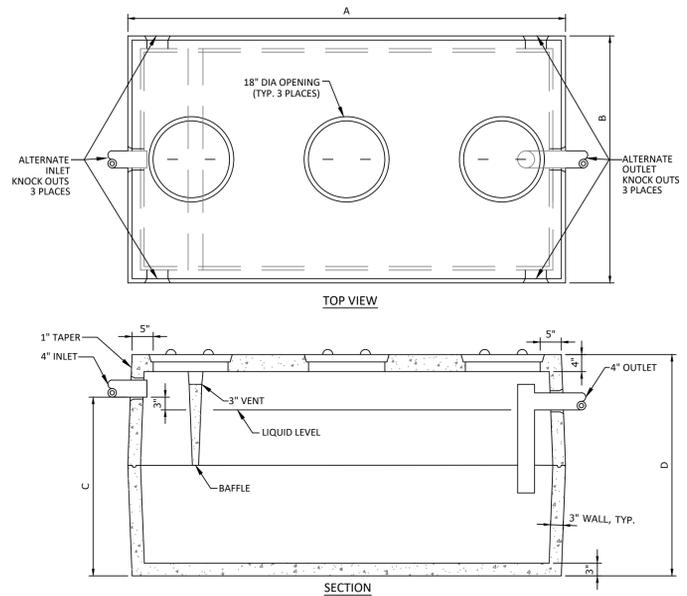
RIPRAP APRON AT PIPE

NOT TO SCALE
 SECTION VIEW showing riprap apron at pipe with dimensions 12" min, 18" min, and 3:1 TP.



TYPICAL ROADWAY SECTION
NOT TO SCALE

- NOTES:**
1. RECLAIMED MATERIAL APPROVED BY THE PUBLIC WORKS DIRECTOR MAY BE SUBSTITUTED.
 2. CLEAN GRANULAR FILL MUST BE FREE OF ROCKS LARGER THAN 12 INCHES, STUMPS, DEBRIS, ORGANIC MATERIAL AND FROZEN MATERIAL. GEOTEXTILE FABRIC OR UNDERDRAINS MAY BE REQUIRED BY THE DIRECTOR OF PUBLIC WORKS OR DESIGNER IF POOR SOILS ARE ENCOUNTERED.

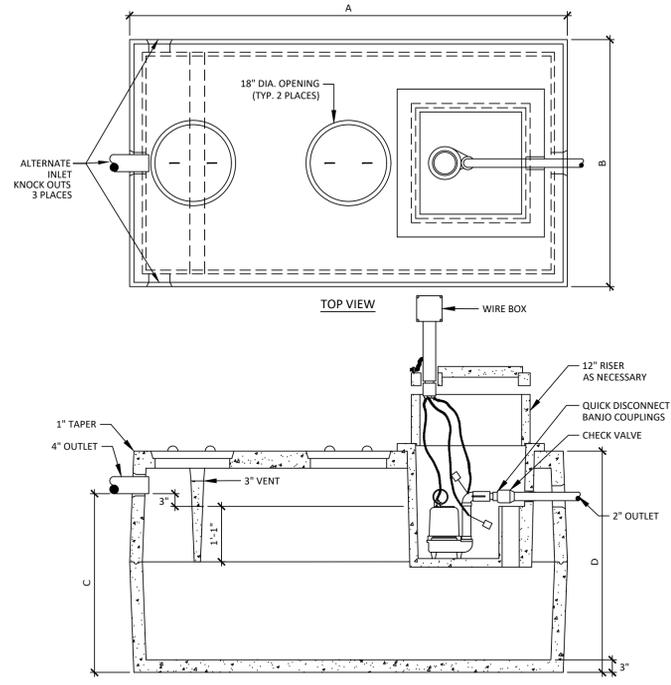


SEPTIC TANK DATA

SIZE	A	B	C	D
1,000 GAL	8'-6"	4'-10"	55-1/2"	64"
1,500 GAL	10'-6"	6'-4"	55"	64"

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

PRECAST RESIDENTIAL SEPTIC TANK
NOT TO SCALE

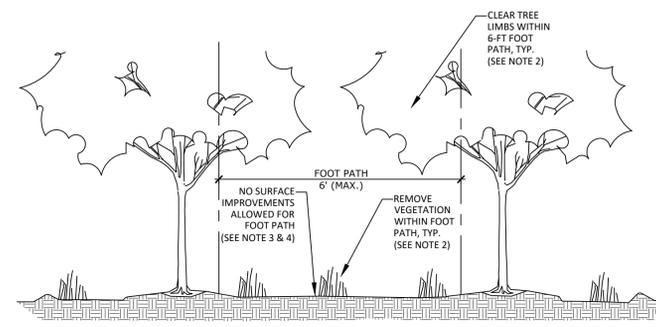


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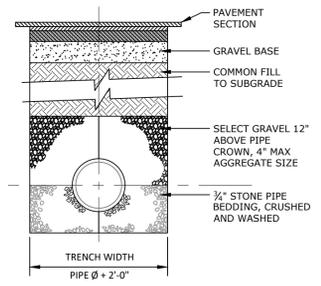
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 4. KEVED JOINTS SEALED WITH ASPHALT SEALANT.
 5. TANK TO BE A RESIDENTIAL COMBO TANK AS MANUFACTURED BY PRECAST CONCRETE PRODUCTS OF MAINE, INC. OR APPROVED EQUAL.

PRECAST COMBINATION SEPTIC TANK
NOT TO SCALE

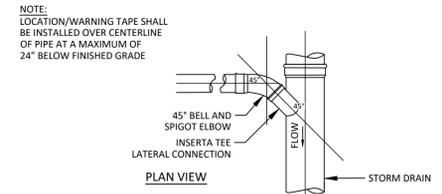


FOOT PATH DETAIL

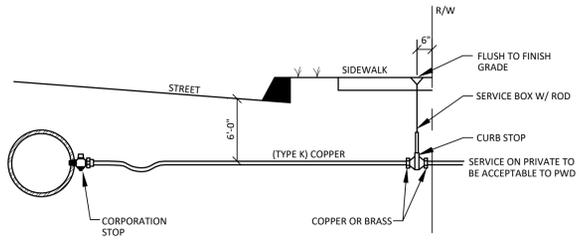
- NOTES:**
1. PROPOSED FOOT PATH THROUGH THE WOODED AREA SHALL BE FIELD LOCATED SUCH THAT NO CUTTING OF TREES WITH A DIAMETER LARGER THAN 6 INCHES IS REQUIRED.
 2. CLEARING FOR FOOT PATH IS LIMITED TO REMOVING BRUSH AND VEGETATION, CUTTING SMALL TREES WITH A TRUNK DIAMETER LESS THAN 6 INCHES, AND IF NECESSARY TRIMMING OF LIMBS ONLY.
 3. FOOT PATH SHALL NOT BE INSTALLED WITH ANY SURFACE IMPROVEMENTS AND LIMITED EARTH DISTURBANCE (NO EXCAVATION OR PLACEMENT OF FILL, AND NO INSTALLATION OF GRAVEL/PAVEMENT). IN AREAS WHERE SOIL DISTURBANCE OCCURS, SUCH AS ALONG THE STORMWATER BERM, A SURFACE OF WOOD CHIPS OR EROSION CONTROL MIX SHALL BE INSTALLED.



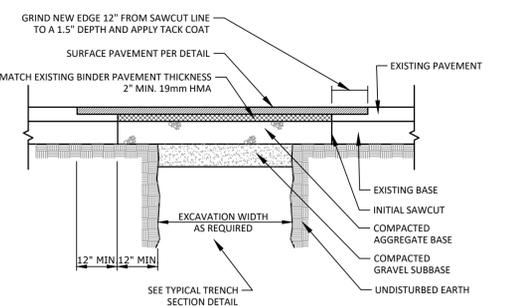
TYPICAL TRENCH SECTION
NOT TO SCALE



DRAIN/SEWER LATERAL CONNECTION
NOT TO SCALE

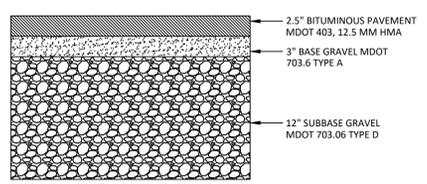


TYPICAL SERVICE CONNECTION
NOT TO SCALE



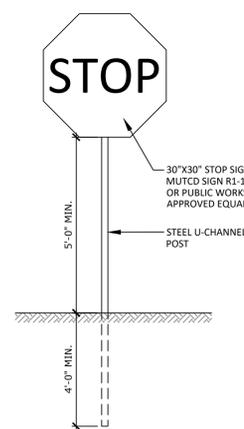
PAVEMENT REPAIR DETAIL
NOT TO SCALE

- NOTES:**
1. SEE TYPICAL ROAD SECTION FOR REQUIRED DEPTHS OF AGGREGATE AND PAVEMENT COURSES

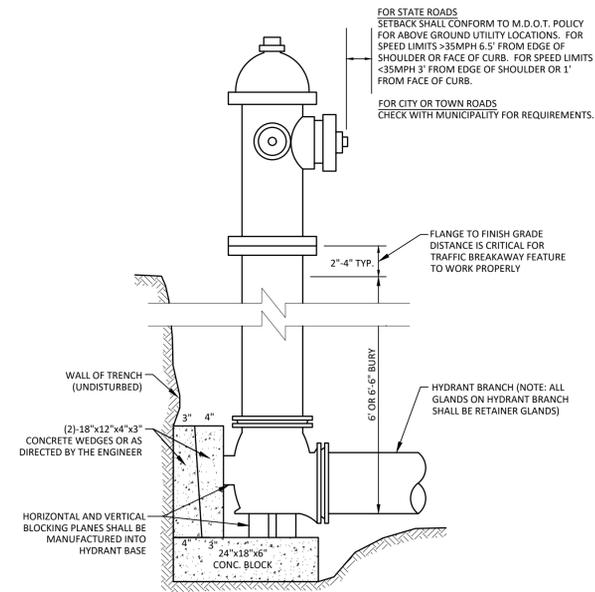


TYPICAL DRIVEWAY SECTION
NOT TO SCALE

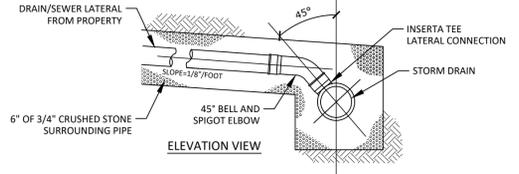
- NOTES:**
1. CLEAN GRANULAR FILL MUST BE FREE OF ROCKS LARGER THAN 12 INCHES, STUMPS, DEBRIS, ORGANIC MATERIAL AND FROZEN MATERIAL.



STOP SIGN INSTALLATION
NOT TO SCALE

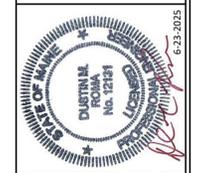


TYPICAL HYDRANT INSTALLATION DETAIL
NOT TO SCALE



UTILITY TRENCH DETAIL
NOT TO SCALE

- NOTES:**
1. CONDUIT SIZE AND MATERIAL AS SPECIFIED BY THE UTILITY PROVIDER.
 2. INSTALLATION SHOULD NOT ALLOW THE INTER-TWINGING 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.



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(207) 591-5055

REV	DATE	BY	DESCRIPTION
A	5/19/25	DMR	ISSUED FOR REVIEW
B	6/23/25	DMR	ISSUED FOR REVIEW

DETAILS
SHEPHERD LANE SUBDIVISION
421 FALKMOUTH ROAD
WINDHAM, MAINE
FOR: **ROBIE HOLDINGS, LLC**
P.O. BOX 1508
WINDHAM, ME 04092

24057
JOB NUMBER:
AS SHOWN
SCALE:
6-23-2025
DATE:
SHEET 8 OF 8
D-2