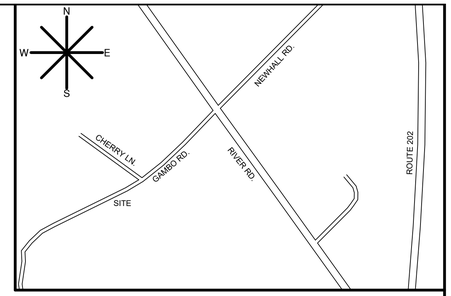
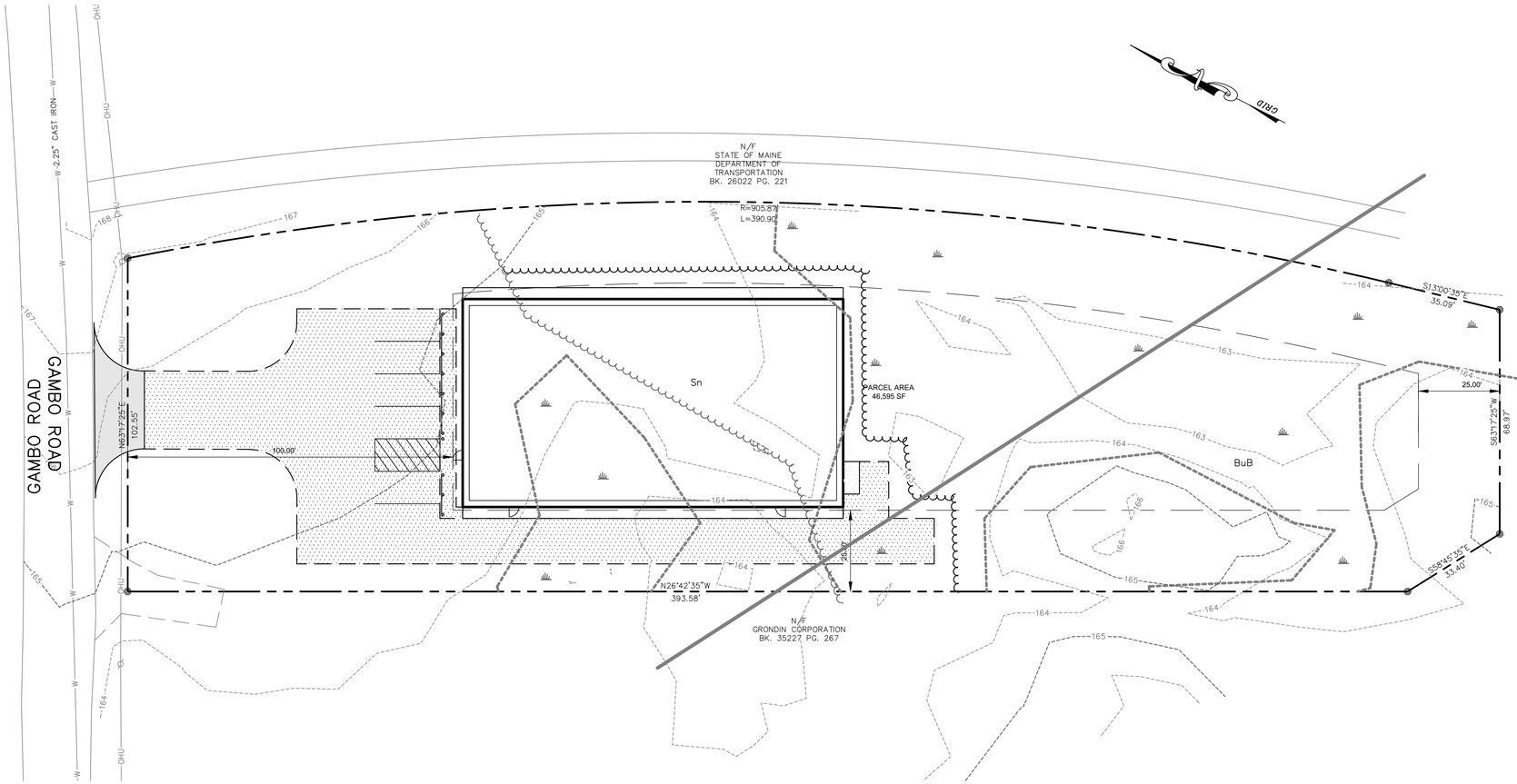
TIER III
MARIJUANA CULTIVATION



LOCATION MAP N.T.S.



GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

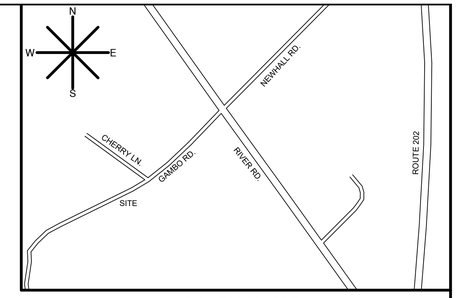
LEGEND

EXISTING	DESCRIPTION	PROPOSED
	BOUNDARY LINE/R.O.W.	
	ABUTTER LINE/R.O.W.	
	SETBACK	
	EASEMENT	

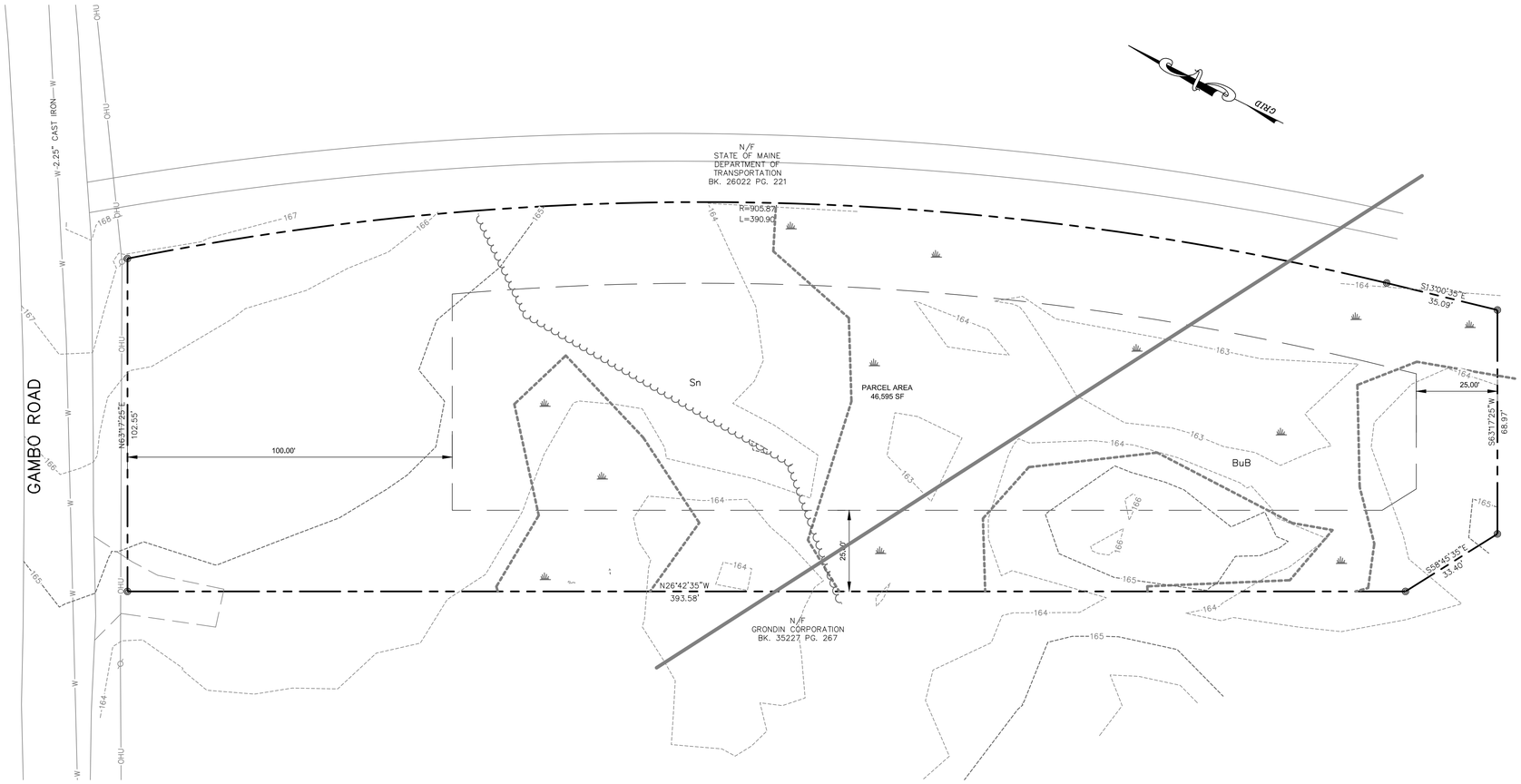
APPLICANT:
S&N INVESTMENTS LLC
91 AUBURN STREET
SUITE J #23=40
PORTLAND, ME 04103

CIVIL ENGINEER:
ST.CLAIR ASSOCIATES
34 FOREST LANE
CUMBERLAND, ME 04021

SHEET INDEX:



LOCATION MAP N.T.S.



LEGEND

EXISTING	DESCRIPTION	PROPOSED
	BOUNDARY LINE/R.O.W.	
	ABUTTER LINE/R.O.W.	
	SETBACK	
	BUILDING	
	EDGE PAVEMENT	
	EDGE OF GRAVEL	
--122-- --120--	CONTOURS	
OHU	OVERHEAD ELEC. & TEL.	
W	WATER	W
	GATE VALVE	
	SOILS BOUNDARY	

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

SOILS LEGEND

SOILS TYPE LABEL	SOIL NAME	SLOPE	HYDROLOGIC SOIL GROUP
BuB	LAMOINE SILT LOAM	3% TO 8% SLOPES	HSG C/D
Sn	SCANTIC SILT LOAM	0% TO 3% SLOPES	HSG D

GENERAL NOTES

1) THE RECORD OWNERS OF THE PROPERTY IS S&N INVESTMENTS LLC AS DESCRIBED IN A DEED RECORDED AT THE CUMBERLAND COUNTY REGISTRY OF DEEDS IN BOOK 37582 PAGE 73.

2) THE PROPERTY IS LOCATED ON THE TOWN OF WINDHAM TAX MAP 41 BEING DEPICTED AS LOT 4.

3) THE BEARINGS AND NORTH ORIENTATION SHOWN HEREON ARE BASED GRID NORTH, NORTH AMERICAN DATUM OF 1983 MAINE WEST ZONE. CONTOURS AND ELEVATIONS SHOWN HEREON ARE BASED NORTH AMERICAN VERTICAL DATUM OF 1988.

4) PLAN REFERENCES:

A) SUBDIVISION PLAN OF WINDHAM - GORHAM PROPERTY FOR THE SMALL BUSINESS ADMINISTRATION DATED JANUARY 19, 1960 BY H. I. & E. C. JORDAN SURVEYING AND RECORDED IN PLAN BOOK 52 PAGE 58.

5) THE PROPERTY SHOWN HEREON IS SUBJECT TO AND BENEFITED BY ALL MATTERS OF RECORD ON FILE AT THE CUMBERLAND COUNTY REGISTRY OF DEEDS..

6) THE PROPERTY IS LOCATED IN THE TOWN OF WINDHAM INDUSTRIAL (I) ZONING DISTRICT. THE SPACE AND BULK REQUIREMENTS FOR THE (I) ARE AS FOLLOWS:

MINIMUM LOT SIZE:	20,000 S.F.
MAXIMUM BUILDING HEIGHT:	NONE
MINIMUM FRONT YARD SETBACK:	100 FEET
MINIMUM SIDE YARD SETBACK: (OR 50% OF BUILDING HEIGHT WHICHEVER IS GREATER)	25 FEET
MINIMUM REAR YARD SETBACK (OR 50% OF BUILDING HEIGHT WHICHEVER IS GREATER)	25 FEET

STATE OF MAINE
DAVID C. ST. CLAIR, JR. 2317
REGISTERED PROFESSIONAL LAND SURVEYOR

REV:	BY:	DATE:	STATUS:
A	DCS	06-07-2021	FOR TOWN REVIEW

ST.CLAIR ASSOCIATES
LAND SURVEYING AND CIVIL ENGINEERING
34 Forest Lane
Cumberland Foreside, ME 04021
Tel (207) 829-5558

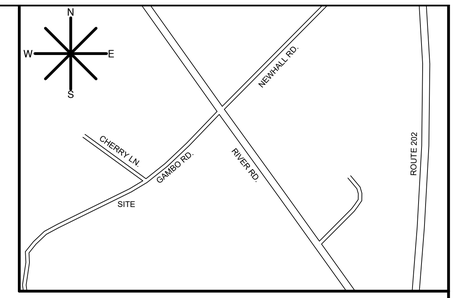
PROJECT NO.	FIELD BOOK	DESIGN	CHKD	DRAWN
20073	ELECT.	DCS	DCS	DCS

EXISTING CONDITION SURVEY
OF: GAMBO ROAD PROPERTY
GAMBO ROAD
WINDHAM, MAINE
FOR: S&N INVESTMENTS LLC
91 AUBURN STREET, SUITE J #240
PORTLAND, MAINE 04103

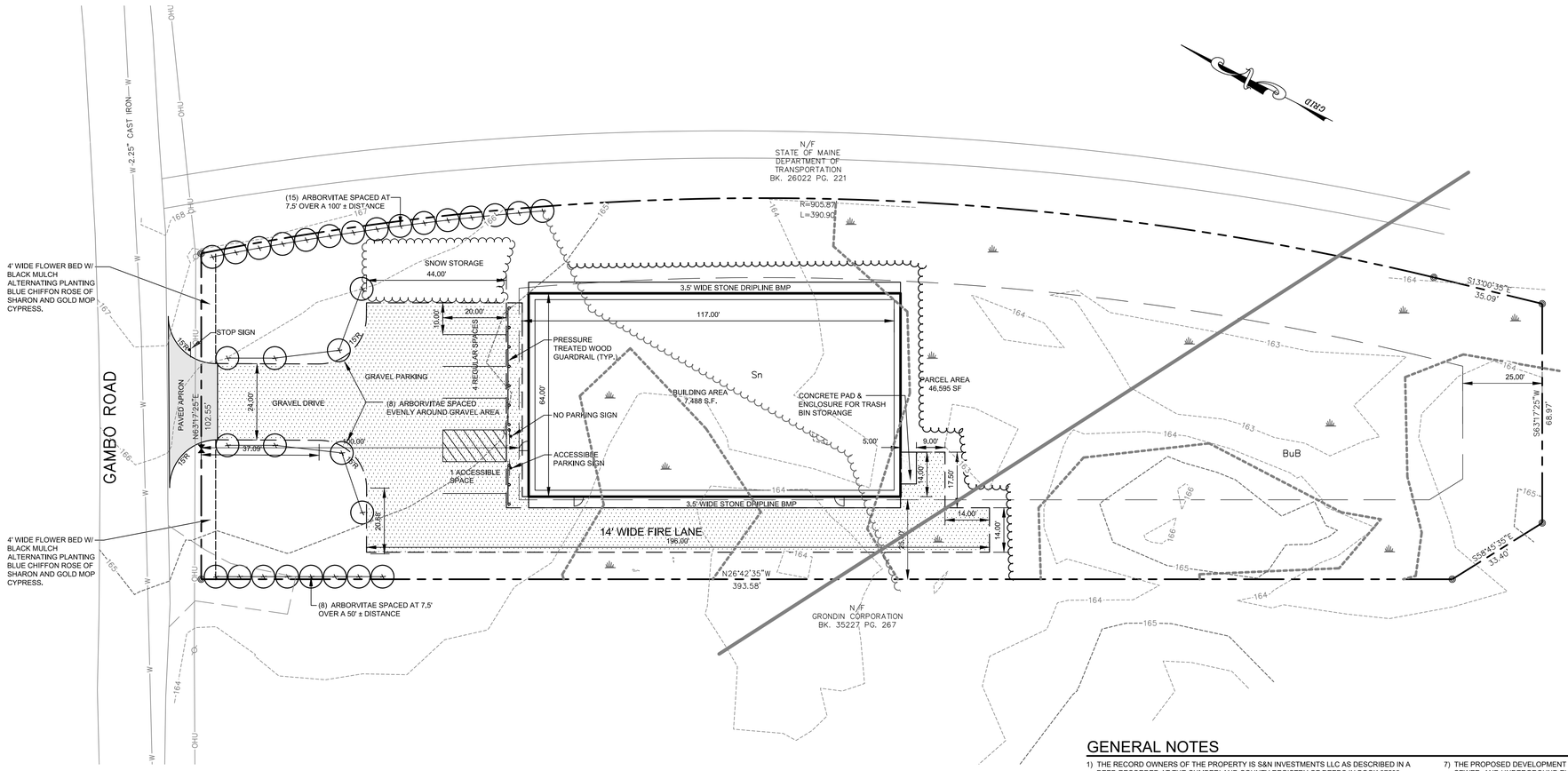
DATE	SCALE
06-07-2021	1" = 20'

SHEET 2

20073S TAB 20073EC



LOCATION MAP N.T.S.



LEGEND

EXISTING	DESCRIPTION	PROPOSED
	BOUNDARY LINE/R.O.W.	
	ABUTTER LINE/R.O.W.	
	SETBACK	
	BUILDING	
	EDGE PAVEMENT	
	EDGE OF GRAVEL	
--122-- --120--	CONTOURS	
OHU	OVERHEAD ELEC. & TEL.	
W	WATER	W
	GATE VALVE	
	GUARDRAIL	
	DECIDUOUS TREE	X
	CONIFEROUS TREE	X

APPROVAL-
TOWN OF WINDHAM
PLANNING BOARD

_____ DATE

_____ CHAIRPERSON

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

GENERAL NOTES

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MINIMUM FRONT YARD SETBACK:	100 FEET
MINIMUM SIDE YARD SETBACK: (OR 50% OF BUILDING HEIGHT WHICHEVER IS GREATER)	25 FEET
MINIMUM REAR YARD SETBACK (OR 50% OF BUILDING HEIGHT WHICHEVER IS GREATER)	25 FEET

TOTAL AREA OF THE PROPERTY	46,595 S.F.
PROPOSED BUILDING AREA:	7,488 S.F.
PROPOSED PARKING SURFACE AREA:	7,487 S.F.
PROPOSED AREA OF DISTURBANCE:	24,249 S.F.
PROPOSED PARKING SPACES:	5 SPACES (INCLUDES 1 ACCESSIBLE SPACE)
PROPOSED WETLAND IMPACT:	4,200 S.F.

7) THE PROPOSED DEVELOPMENT SHALL BE SERVICED BY PUBLIC WATER AND PUBLIC SEWER, AND UNDERGROUND ELECTRIC, TELEPHONE AND CABLE TV SERVICES.

8) THE TOWN OF WINDHAM ENGINEERING DEPARTMENT RESERVES THE RIGHT TO REQUEST ADDITIONAL WORK BEYOND WHAT IS SHOWN ON THE PLAN DUE TO UNKNOWN SITE CONDITIONS. ANY CHANGES MADE DURING CONSTRUCTION SHALL BY COORDINATED WITH THE TOWN OF WINDHAM PLANNING DEPARTMENT.

9) A PRECONSTRUCTION MEETING IS REQUIRED BEFORE START OF CONSTRUCTION. THE MEETING SHALL INCLUDE APPROPRIATE TOWN STAFF, THE DEVELOPER AND HIS CONTRACTOR, AND UTILITY COMPANY REPRESENTATIVES. ANY PLAN REVISIONS REQUIRED AS A RESULT OF THE MEETING SHALL BE PROVIDED TO ALL PARTIES ASSOCIATED WITH THE PROJECT.

10) THE PROPERTY SHOWN ON THE APPROVED SITE PLAN MAY BE DEVELOPED AND USED ONLY AS SHOWN ON THE PLAN. ALL ELEMENTS AND FEATURES OF THE PLAN AND ALL REPRESENTATIONS MADE BY THE APPLICANT WHICH APPEAR IN THE RECORD OF THE PLANNING BOARD PROCEEDINGS ARE CONDITIONS OF APPROVAL. NO CHANGE FROM THE CONDITIONS OF APPROVAL IS PERMITTED UNLESS AN AMENDED SITE PLAN IS APPROVED BY THE PLANNING BOARD.

11) ALL BUILDING MOUNTED LIGHT FIXTURES SHALL BE EQUIPPED WITH PHOTOCELLS THAT CONTROL THE SITE LIGHTING TO TURN ON AT DUSK AND WILL DIM AT 7 PM. ONLY SECURITY LIGHTING WILL REMAIN ON OVERNIGHT. ALL LIGHTING WILL TURN OFF AT DAWN.

12) SNOW STORAGE IS ONLY ALLOWED IN THE DESIGNATED AREAS SHOWN HEREON. NO SNOW STORAGE IS ALLOWED IN STORMWATER MANAGEMENT STRUCTURES.

NANCY J. ST. CLAIR
STATE OF MAINE
No. 6877
REGISTERED PROFESSIONAL ENGINEER
06-07-2021

REV:	BY:	DATE:	STATUS:
A	NST	06-07-2021	FOR TOWN REVIEW

ST.CLAIR ASSOCIATES
LAND SURVEYING AND CIVIL ENGINEERING
34 Forest Lane
Cumberland Foreside, ME 04021
Tel (207) 829-5558

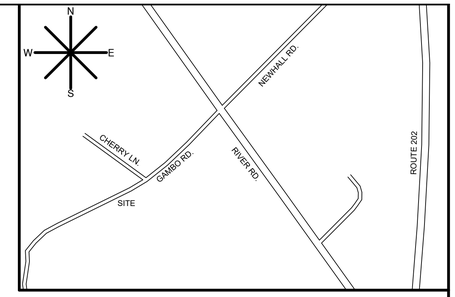
PROJECT NO.	FIELD BOOK	DESIGN	CHKD	DRAWN
20073	ELECT.	DCS	DCS	DCS

SITE PLAN
OF:
GAMBO ROAD PROPERTY
GAMBO ROAD
WINDHAM, MAINE
FOR:
S&N INVESTMENTS LLC
91 AUBURN STREET, SUITE J #240
PORTLAND, MAINE 04103

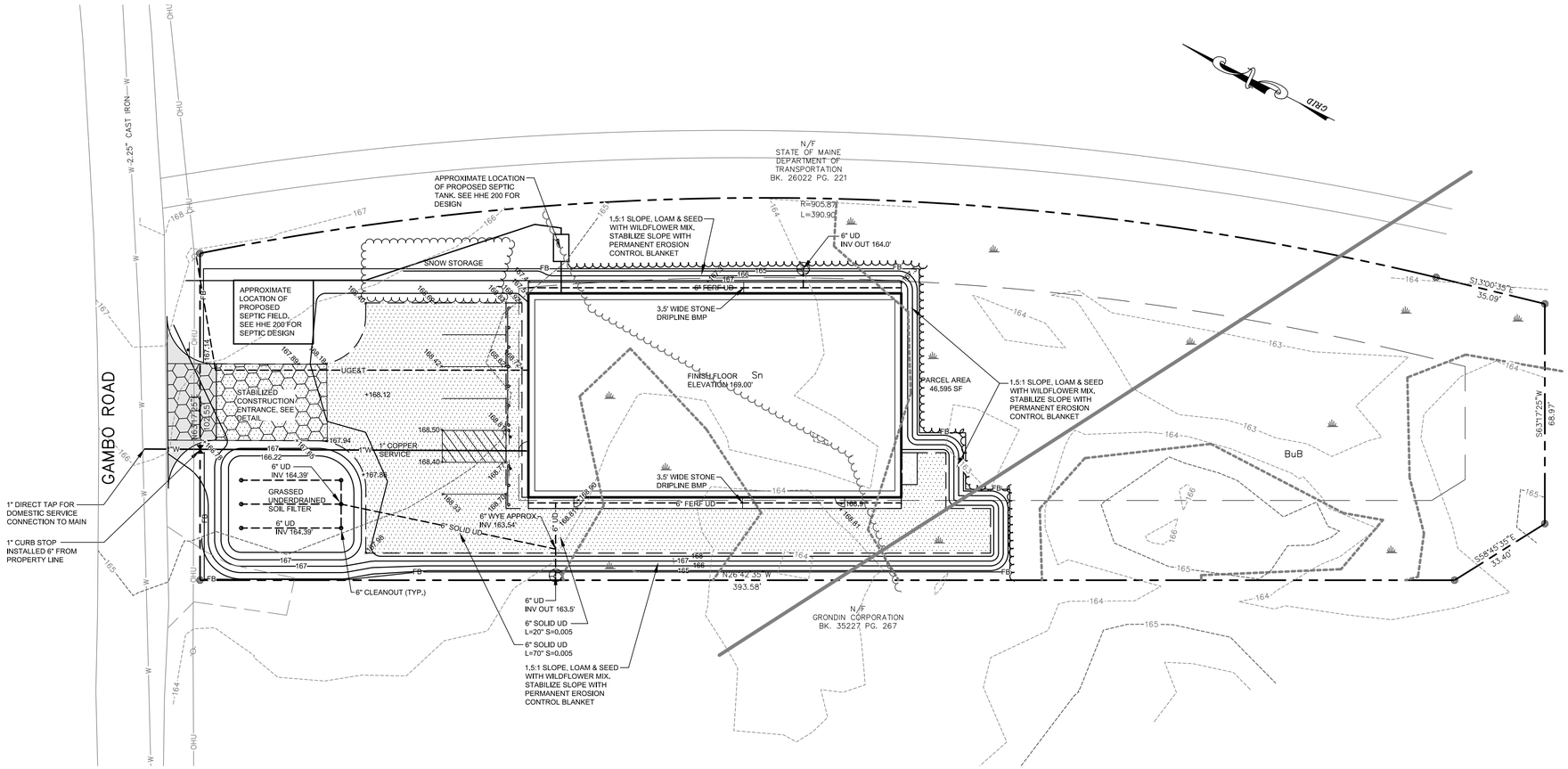
DATE	SCALE
06-07-2021	1" = 20'

SHEET 3

20073S TAB 20073S



LOCATION MAP N.T.S.



LEGEND

EXISTING	DESCRIPTION	PROPOSED
	BOUNDARY LINE/R.O.W.	
	ABUTTER LINE/R.O.W.	
	SETBACK	
	BUILDING	
	EDGE PAVEMENT	
	EDGE OF GRAVEL	
--122-- --120--	CONTOURS	124
	WETLANDS	
	EDGE WETLAND	
	SOILS BOUNDARY	
	TREELINE	
-o-	UTILITY POLE	
	GUARDRAIL	
OHU	OVERHEAD ELEC. & TEL.	OHE&T
W	WATER	W
	GATE VALVE	
	FILTER BARRIER	FB
	RIPRAP	

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

GENERAL NOTES

1) THE CONTRACTOR SHALL REVIEW AND FAMILIARIZE THEMSELVES WITH ALL THE GENERAL NOTES AND CONSTRUCTION NOTES WITHIN THE DESIGN PLAN SHEETS AND DETAILS SHEET OF THIS DESIGN PLAN SET.

2) THE PROPOSED STORMDRAIN PIPES SHALL BE HDPE SMOOTHBORE OR APPROVED EQUAL.

3) PROVIDE 2" RIGID STYROFOAM INSULATION IN ALL AREAS WHERE DEPTH OF COVER IS LESS THAN 4'.

4) INSTALL INLET PROTECTION IN ALL CATCH BASIN AND STORM DRAIN INLETS.

5) PER ADA REQUIREMENTS, ALL BARRIER FREE PARKING SPACES AND ACCESS AISLES SHALL BE CONSTRUCTED WITH NO MORE THAN 2% SLOPES IN ANY DIRECTION. ANY CONFLICTS TO THIS REQUIREMENT AS A RESULT OF FIELD CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE DESIGN ENGINEER FOR REVIEW AND FURTHER EVALUATION.

6) PER ADA REQUIREMENTS, ALL SIDEWALKS SHALL HAVE A MAXIMUM RUNNING SLOPE OF 5% WITH A MAXIMUM OF A 2% CROSS SLOPE. HANDICAP RAMPS SHALL NOT EXCEED A 1 IN 12 SLOPE (8.33%), WITH A 5 FOOT LONG LANDING AT EACH END. LANDING SLOPE SHALL NOT EXCEED 2%.

7) CONTRACTOR SHALL REFER TO THE LATEST APPLICABLE VERSION OF THE ADA REQUIREMENTS FOR ADDITIONAL INFORMATION.

8) AS STATED ON THE HHE-200 SUBSURFACE WASTE WATER DESIGN FOR THE PROPERTY, THE SEPTIC DESIGN SHOWN HEREON IS FOR EMPLOYEE USE DOMESTIC LIKE WASTE. NO FLOOR DRAINS ARE ALLOWED TO DRAIN INTO THE DESIGNED SEPTIC.

9) SNOW STORAGE IS ONLY ALLOWED IN THE DESIGNATED AREAS SHOWN HEREON. NO SNOW STORAGE IS ALLOWED IN STORMWATER MANAGEMENT STRUCTURES.

10) 1.5:1 SLOPES SHALL BE LOAM & SEED WITH WILDFLOWER MIX. STABILIZE SLOPE WITH PERMANENT EROSION CONTROL BLANKET

STATE OF MAINE
NANCY J. ST. CLAIR
No. 6877
REGISTERED PROFESSIONAL ENGINEER
06-07-2021

REV:	BY:	DATE:	STATUS:
A	NST	06-07-2021	FOR TOWN REVIEW

ST.CLAIR ASSOCIATES
LAND SURVEYING AND CIVIL ENGINEERING
34 Forest Lane
Cumberland, ME 04021
Tel (207) 829-5558

PROJECT NO.	FIELD BOOK	DESIGN	CHKD	DRAWN
20073	ELECT.	DCS	DCS	DCS

GRADING & UTILITY PLAN
OF:
GAMBO ROAD PROPERTY
GAMBO ROAD
WINDHAM, MAINE
FOR:
S&N INVESTMENTS LLC
91 AUBURN STREET, SUITE J #240
PORTLAND, MAINE 04103

DATE	SCALE
06-07-2021	1" = 20'

SHEET 4

20073S TAB 20073G

EROSION & SEDIMENTATION CONTROL

BASIC STANDARDS - EROSION CONTROL MEASURES

THIS PLAN IDENTIFIES THE MINIMUM EROSION CONTROL MEASURES THAT SHALL BE IMPLEMENTED ON THIS SITE. THE CONTRACTOR WILL BE RESPONSIBLE TO MAINTAIN ALL COMPONENTS OF THE EROSION CONTROL PLAN UNTIL THE SITE IS FULLY STABILIZED. HOWEVER, BASED ON SITE AND WEATHER CONDITIONS DURING CONSTRUCTION, ADDITIONAL EROSION CONTROL MEASURES MAY NEED TO BE IMPLEMENTED. ALL AREAS OF INSTABILITY AND EROSION SHALL BE REPAIRED IMMEDIATELY DURING CONSTRUCTION AND SHALL BE MAINTAINED UNTIL THE SITE IS FULLY STABILIZED OR VEGETATION IS ESTABLISHED. THE CONTRACTOR SHALL MAINTAIN A CONSTRUCTION LOG TO DOCUMENT ALL EROSION AND SEDIMENTATION CONTROL INSPECTIONS AND MAINTENANCE AND REPAIRS.

A. POLLUTION PREVENTION AND GENERAL HOUSEKEEPING

1. MINIMIZATION OF EXPOSED SOIL AREAS: IN ORDER TO PROTECT DOWNGRADIENT AREAS AND BUFFERS, AND TO AVOID POTENTIAL EROSION OF ANY OPEN DRAINAGE CHANNELS, SWALES, OR OTHER NATURAL RESOURCES, THE CONTRACTOR SHALL SEQUENCE AND PHASE EARTHWORKS OPERATIONS TO LIMIT THE AMOUNT OF SITE DISTURBANCE AND/OR EXPOSED SOIL TO ONLY THOSE AREAS NECESSARY TO EFFECTIVELY CONSTRUCT THE PROPOSED IMPROVEMENTS. TO THE EXTENT PRACTICABLE, THE CONTRACTOR SHALL RETAIN NATURAL COVER, AND PERMANENTLY STABILIZE AREAS AS SOON AS EARTHWORKS ARE COMPLETED. LESS EXPOSED SOIL RESULTS IN FEWER EROSION CONTROLS TO INSTALL AND MAINTAIN. IF WORK WITHIN AN AREA IS NOT ANTICIPATED TO BEGIN WITHIN TWO WEEKS TIME, THE CONTRACTOR SHALL CONSIDER LEAVING THE AREA IN ITS NATURALLY EXISTING COVER.
2. SPILL PREVENTION: CONTROLS MUST BE USED TO PREVENT POLLUTANTS FROM BEING DISCHARGED FROM MATERIALS ON SITE, INCLUDING STORAGE PRACTICES TO MINIMIZE EXPOSURE OF THE MATERIALS TO STORMWATER, AND APPROPRIATE SPILL PREVENTION, CONTAINMENT, AND RESPONSE PLANNING AND IMPLEMENTATION.
3. GROUNDWATER PROTECTION: DURING CONSTRUCTION, LIQUID PETROLEUM PRODUCTS AND OTHER HAZARDOUS MATERIALS WITH THE POTENTIAL TO CONTAMINATE GROUNDWATER MAY NOT BE STORED OR HANDLED IN AREAS OF THE SITE DRAINING TO AN INFILTRATION AREA. AN "INFILTRATION AREA" IS ANY AREA OF THE SITE THAT BY DESIGN OR AS A RESULT OF SOILS, TOPOGRAPHY AND OTHER RELEVANT FACTORS ACCUMULATES RUNOFF THAT INFILTRATES INTO THE SOIL. DIKES, BERMS, SUMPS, AND OTHER FORMS OF SECONDARY CONTAINMENT THAT PREVENT DISCHARGE TO GROUNDWATER MAY BE USED TO ISOLATE PORTIONS OF THE SITE FOR THE PURPOSES OF STORAGE AND HANDLING OF THESE MATERIALS.
4. FUGITIVE SEDIMENT AND DUST: ACTIONS MUST BE TAKEN TO ENSURE THAT ACTIVITIES DO NOT RESULT IN NOTICEABLE EROSION OF SOILS OR FUGITIVE DUST EMISSIONS DURING OR AFTER CONSTRUCTION. OIL MAY NOT BE USED FOR DUST CONTROL. FOR OPERATIONS DURING WET MONTHS, THE CONTRACTOR SHALL SWEEP ROADWAYS OR PAVED AREAS AT LEAST ONCE A WEEK AND PRIOR TO SIGNIFICANT STORM EVENTS TO AVOID TRACKING OF MUD OFF THE SITE. WHERE CHRONIC MUD TRACKING OCCURS, A STABILIZED CONSTRUCTION ENTRANCE SHALL BE PROVIDED. FOR OPERATIONS DURING DRY MONTHS, THAT EXPERIENCE FUGITIVE DUST PROBLEMS, THE CONTRACTOR SHALL WET DOWN THE ACCESS ROADS WITH WATER ONCE A WEEK OR MORE FREQUENTLY, AS NEEDED.
5. DEBRIS AND OTHER MATERIALS: LITTER, CONSTRUCTION DEBRIS, AND CHEMICALS EXPOSED TO STORMWATER MUST BE PREVENTED FROM BECOMING A POLLUTANT SOURCE.
6. NON-STORMWATER DISCHARGES: IDENTIFY AND PREVENT CONTAMINATION BY NON-STORMWATER DISCHARGES.

B. STRUCTURAL AND NON-STRUCTURAL MEASURES

1. SEDIMENT BARRIERS: PRIOR TO SOIL DISTURBANCE, THE CONTRACTOR SHALL PROPERLY INSTALL SEDIMENT BARRIERS ACROSS OR AT THE TOE OF A SLOPE AND AT THE DOWNGRADIENT EDGE OF ANY DISTURBED AREA. SEDIMENT BARRIERS SHALL BE INSTALLED IN LOCATIONS WHERE SEDIMENTATION MAY REDUCE THE CAPACITY OF STORMDRAIN SYSTEMS, UPSTREAM OF ADJACENT WETLANDS AND/OR WATERCOURSES, AND OTHER AREAS THAT MAY BE AFFECTED BY SEDIMENT. SEDIMENT BARRIERS SHALL NOT BE USED IN AREAS OF CONCENTRATED FLOWS. SEDIMENT BARRIERS MAY BE SILT FENCE, OR A BERM OF EROSION CONTROL MIX, OR OTHER APPROVED FILTER MATERIALS.

a. SILT FENCE: SILT FENCE IS GENERALLY A BETTER FILTER THAN HAY BALE BARRIERS. SILT FENCES CAN BE USED FOR 60 DAYS OR LONGER DEPENDING ON MANUFACTURER'S RECOMMENDATIONS. PROPER INSTALLATION OF SILT FENCE IS CRITICAL TO ITS FUNCTION (SEE DETAIL).

b. EROSION CONTROL MIX BERMS: EROSION CONTROL MIX CAN BE MANUFACTURED ON OR OFF THE PROJECT SITE. EROSION CONTROL MIX SHALL CONTAIN A WELL-GRADED MIXTURE OF PARTICLE SIZES AND MAY CONTAIN ROCKS LESS THAN 4" IN DIAMETER. THE MIX COMPOSITION SHALL MEET THE MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION STANDARDS FOR ORGANIC MATTER AND PARTICLE SIZE BY WEIGHT, SOLUBLE SALTS AND pH LEVELS. EROSION CONTROL MIX MUST BE FREE OF REFUSE, CONTAMINANTS, AND MATERIAL TOXIC TO PLANT GROWTH. THE EROSION CONTROL MIX BERM MUST BE PLACED ALONG A RELATIVELY LEVEL CONTOUR. CUT TALL GRASSES OR WOODY VEGETATION TO AVOID CREATING VOIDS AND BRIDGES THAT WOULD ENABLE FINES TO WASH UNDER THE BARRIER.

c. CONTINUOUS CONTAINED BERMS (FILTER SOCK): A FILTER SOCK CAN BE INSTALLED. IN AREAS WHERE TRENCHING IS NOT FEASIBLE SUCH AS OVER FROZEN GROUND OR OVER PAVEMENT. A VEHICLE CAN EVEN PASS OVER IT.

d. INSPECTION AND MAINTENANCE OF SEDIMENT BARRIERS: SEDIMENT BARRIERS ARE EFFECTIVE ONLY IF INSTALLED AND MAINTAINED PROPERLY. IF THERE IS EVIDENCE OF END FLOW ON PROPERLY INSTALLED BARRIERS, THE CONTRACTOR SHALL EXTEND BARRIERS UPHILL OR REPLACE THEM WITH TEMPORARY CHECK DAMS. THE CONTRACTOR SHALL INSPECT SEDIMENT BARRIERS IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. THEY SHALL BE REPAIRED BY THE CONTRACTOR IMMEDIATELY IF THERE ARE ANY SIGNS OF EROSION OR SEDIMENTATION BELOW THEM. IF THERE ARE SIGNS OF UNDERCUTTING AT THE CENTER OR THE EDGES OF THE BARRIER, OR IMPOUNDING OF LARGE VOLUMES OF WATER BEHIND THEM, SEDIMENT BARRIERS SHALL BE REPLACED WITH A TEMPORARY CHECK DAM. SHOULD THE FABRIC ON A SILT FENCE OR FILTER BARRIER DECOMPOSE OR BECOME INEFFECTIVE PRIOR TO THE END OF THE EXPECTED USABLE LIFE AND THE BARRIER STILL IS NECESSARY, THE FABRIC SHALL BE REPLACED PROMPTLY. SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH STORM EVENT. SEDIMENT DEPOSITS SHALL BE REMOVED WHEN DEPOSITS REACH APPROXIMATELY ONE-HALF THE HEIGHT OF THE BARRIER. FILTER BERMS SHOULD BE RESHAPED AS NEEDED. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE SILT FENCE OR FILTER BARRIER IS NO LONGER REQUIRED SHALL BE DRESSED TO CONFORM TO THE EXISTING GRADE, PREPARED AND SEEDED. THE CONTRACTOR SHALL MAINTAIN THE SEDIMENT BARRIERS UNTIL THE DISTURBED AREA IS PERMANENTLY STABILIZED. SEDIMENT BARRIERS SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFUL PURPOSE, BUT NOT BEFORE THE UPSLOPE AREAS HAVE BEEN PERMANENTLY STABILIZED.

2. TEMPORARY CHECK DAMS: MAY BE CONSTRUCTED OF EITHER STONE OR CONTAINED BERMS OF EROSION CONTROL MIX. TEMPORARY CHECK DAMS ALSO MAY TRAP SMALL AMOUNTS OF SEDIMENT BUT SHALL NOT BE USED IN PLACE OF SEDIMENT BARRIERS. THE DAM SHALL BE LEFT IN PLACE PERMANENTLY TO AVOID UNNECESSARY DISTURBANCE OF THE SOIL DURING REMOVAL. IF IT IS NECESSARY TO REMOVE A STONE CHECK DAM FROM A GRASS-LINED CHANNEL, WHICH WILL BE MOWED, THE CONTRACTOR SHALL ENSURE THAT ALL STONES ARE REMOVED, INCLUDING ANY STONES WASHED DOWNSTREAM.

a. SIZING AND PLACEMENT: THE MAXIMUM HEIGHT OF THE CHECK DAM SHALL BE 2 FEET. THE CENTER OF THE CHECK DAM MUST BE AT LEAST 6 INCHES LOWER THAN THE OUTER EDGES. THE MAXIMUM SPACING BETWEEN THE DAMS SHALL BE SUCH THAT THE TOE OF THE UPSTREAM DAM IS AT THE SAME ELEVATION AS THE TOP OF THE DOWNSTREAM DAM. CHECK DAMS SHALL BE INSTALLED BEFORE RUNOFF IS DIRECTED TO THE SWALE OR DRAINAGE DITCH. STONE CHECK DAMS SHALL BE CONSTRUCTED OF 2 TO 3 INCH STONE. HAND OR MECHANICAL PLACEMENT IS NECESSARY TO PROPERLY INSTALL (SEE DETAIL). THE CONTRACTOR SHALL PROPERLY INSTALL CHECK DAMS TO AVOID UNDERCUTTING AND BYPASS OF THE FLOW AROUND THE ENDS OF THE CHECK DAMS.

b. INSPECTIONS AND MAINTENANCE: THE CONTRACTOR SHALL MAKE REGULAR INSPECTIONS TO ENSURE THAT THE CENTER OF THE DAM IS LOWER THAN THE EDGES. EROSION CAUSED BY HIGH FLOWS AROUND THE EDGES OF THE DAM SHALL BE CORRECTED IMMEDIATELY. IF EVIDENCE OF SILTATION IN THE WATER IS APPARENT DOWNSTREAM FROM THE CHECK DAM, THE CHECK DAM SHALL BE INSPECTED AND ADJUSTED IMMEDIATELY. CHECK DAMS SHALL BE CHECKED FOR SEDIMENT ACCUMULATION AFTER EACH SIGNIFICANT RAINFALL. SEDIMENT MUST BE REMOVED WHEN IT REACHES ONE HALF OF THE ORIGINAL HEIGHT OR BEFORE. IF IT IS POSSIBLE, LEAVE THE DAM IN PLACE PERMANENTLY. THE STONE MAY BE SPREAD ALONG THE DITCH INVERT TO PROVIDE ADDITIONAL PROTECTION.

3. STABILIZED CONSTRUCTION ENTRANCE/EXIT: PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR SHALL INSTALL A STABILIZED CONSTRUCTION ENTRANCE/EXIT AT ALL POINTS OF ACCESS TO THE EXISTING ROAD. THIS AREA SHALL CONSIST OF A STABILIZED PAD OF AGGREGATE UNDERLAIN WITH FILTER FABRIC. THE CONTRACTOR SHALL MONITOR PAVEMENT EDGES TO FOR CRACKING OR RAVELING OF THE EXISTING PAVEMENT EDGE IN THE AREA OF ANY UNPROTECTED ENTRANCE. IF THE EXISTING PAVEMENT EDGE SHOWS SIGNS OF IMPACT, THEN THE STABILIZED CONSTRUCTION EXIT SHALL BE USED FOR ALL ENTERING AND EXITING CONSTRUCTION VEHICLES. WOVEN OR NONWOVEN GEOTEXTILE FABRIC SHALL BE PLACED OVER THE ENTIRE AREA TO BE COVERED WITH AGGREGATE. THE STABILIZED CONSTRUCTION ENTRANCE/EXIT SHALL CONSIST OF A 10' WIDE (MINIMUM) BY 50' LONG (MINIMUM) 6" THICK PAD OF 2"-3" STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT. THE PAD SHALL EXTEND THE FULL WIDTH OF POINTS WHERE INGRESS OR EGRESS OCCURS. THE EXIT SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. WHEN THE STABILIZED PAD BECOMES INEFFECTIVE, THE STONE SHALL BE REMOVED ALONG WITH THE COLLECTED SOIL MATERIAL AND REDISTRIBUTED ON SITE IN A STABLE MANNER. A NEW ENTRANCE SHALL BE RECONSTRUCTED. THE CONTRACTOR SHALL SWEEP OR WASH PAVEMENT AT EXITS, WHICH HAVE EXPERIENCED MUD-TRACKING ON TO THE PAVEMENT OR TRAVELED WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH AGGREGATE, WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE. ALL SEDIMENT SHALL BE PREVENTED FROM ENTERING STORM DRAINS, DITCHES, OR WATERWAYS.

4. SOIL STOCKPILES:

STOCKPILES OF SOIL OR SUBSOIL SHALL BE MULCHED WITH HAY OR STRAW AT A RATE OF 75 LBS/1,000 S.F. (1.5 TONS PER ACRE) OR WITH A FOUR-INCH LAYER OF EROSION CONTROL MIX. THIS SHALL BE DONE WITHIN 24 HOURS OF STOCKING AND RE-ESTABLISHED PRIOR TO ANY RAINFALL. PLACEMENT OF ANY SOIL STOCKPILES WITHIN 100 FEET FROM ANY NATURAL RESOURCES TO BE PRESERVED SHALL BE AVOIDED.

5. NATURAL RESOURCES PROTECTION:

ANY AREAS WITHIN 100 FEET FROM ANY NATURAL RESOURCES, IF NOT STABILIZED WITH A MINIMUM OF 75% MATURE VEGETATION CATCH, SHALL BE MULCHED USING TEMPORARY MULCHING WITHIN 7 DAYS OF EXPOSURE OR PRIOR TO ANY STORM EVENT. SEDIMENT BARRIERS SHALL BE PLACED BETWEEN ANY NATURAL RESOURCE AND THE DISTURBED AREA.

6. STORMDRAIN INLET PROTECTION: A SEDIMENT FILTER INSTALLED AROUND A STORM DRAIN DROP INLET OR CURB INLET TO PREVENT SEDIMENT FROM ENTERING A STORM DRAINAGE SYSTEM PRIOR TO PERMANENT STABILIZATION OF THE DISTURBED AREA. THE INLET PROTECTION DEVICE SHALL BE CONSTRUCTED IN A MANNER THAT WILL FACILITATE CLEAN-OUT AND DISPOSAL OF TRAPPED SEDIMENTS AND MINIMIZE INTERFERENCE WITH CONSTRUCTION ACTIVITIES. ANY RESULTANT PONDING OF STORMWATER MUST NOT CAUSE EXCESSIVE INCONVENIENCE OR DAMAGE TO ADJACENT AREAS OR STRUCTURES.

a. MANUFACTURED SEDIMENT BARRIERS AND FILTERS: INCLUDE VARIOUS TYPES OF SYSTEMS SUCH AS THE "SILT SACK" OR OTHER MANUFACTURED MATERIALS. THESE MEASURES ARE ACCEPTABLE AS LONG AS THEY ARE INSTALLED, USED AND MAINTAINED AS SPECIFIED BY THE VENDOR OR MANUFACTURER.

b. INSPECTION AND MAINTENANCE OF STORMDRAIN INLET PROTECTION: THE CONTRACTOR SHALL INSPECT STRUCTURES BEFORE AND AFTER EACH RAIN EVENT AND SHALL REPAIR AS NEEDED. IF THE FILTER BECOMES CLOGGED WITH SEDIMENT SO THAT IT NO LONGER ADEQUATELY PERFORMS ITS FUNCTION, THE THE CONTRACTOR SHALL CLEAN AND REPLACE THE FILTER. SEDIMENT SHALL BE REMOVED AND THE STORMDRAIN SEDIMENT FILTER RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO 1/2 THE DESIGN DEPTH OF THE TRAP. REMOVED SEDIMENT SHALL BE DEPOSITED IN A SUITABLE AREA AND IN SUCH A MANNER THAT IT WILL NOT ERODE. SEDIMENT FILTERS SHALL BE REMOVED AND THE AREA STABILIZED AFTER THE REMAINING DRAINAGE AREA HAS BEEN PROPERLY STABILIZED. THE CONTRACTOR SHALL CLEAN ALL CATCHBASINS AND STORMDRAIN INLETS AT THE END OF CONSTRUCTION AND AFTER THE SITE HAS BEEN FULLY STABILIZED.

7. STORMWATER CHANNELS: DITCHES, SWALES, AND OTHER OPEN STORMWATER CHANNELS SHALL BE CONSTRUCTED AND STABILIZED USING MEASURES THAT ACHIEVE LONG-TERM EROSION CONTROL. DITCHES, SWALES, AND OTHER OPEN STORMWATER CHANNELS SHALL BE CONSTRUCTED IN SECTIONS SO THAT THE GRADING, SHAPING, AND INSTALLATION OF THE PERMANENT LINING ON EACH SECTION CAN BE COMPLETED THE SAME DAY. IF A CHANNEL'S FINAL GRADING OR LINING INSTALLATION MUST BE DELAYED, THEN EITHER DIVERSION BERMS MUST BE USED TO DIVERT STORMWATER AWAY FROM THE CHANNEL, PROPERLY-SPACED CHECK DAMS MUST BE INSTALLED IN THE CHANNEL TO SLOW THE WATER VELOCITY, OR A TEMPORARY LINING SHALL BE INSTALLED ALONG THE CHANNEL TO PREVENT SCOURING.

8. TRENCH OR FOUNDATION DE-WATERING: ACCUMULATED WATER IN TRENCHES, FOUNDATIONS, PONDS, AND OTHER AREAS THAT RETAIN WATER AFTER EXCAVATION SHALL BE CAREFULLY REMOVED BY THE CONTRACTOR TO AVOID DOWNSTREAM IMPACTS DUE TO THE HEAVILY SILTED WATER. THE COLLECTED WATER SHALL BE REMOVED FROM THE PONDED AREA, EITHER THROUGH GRAVITY OR PUMPING, AND SHALL BE REMOVED TO AREAS THAT ARE SPECIFICALLY DESIGNED TO COLLECT THE MAXIMUM AMOUNT OF SEDIMENT POSSIBLE, LIKE A SEDIMENTATION BASIN OR DEVICE SUCH AS A "DIRT BAG" FILTER OR EQUAL. AVOID ALLOWING THE WATER TO FLOW OVER DISTURBED AREAS OF THE SITE. THE CONTRACTOR SHALL USE A NON-WOVEN GEOTEXTILE SEDIMENT CONTROL BAG SUCH AS A "DIRT BAG" OR EQUIVALENT AS A PREFERRED OPTION.

C. STABILIZATON MEASURES

1. TEMPORARY STABILIZATION: THE CONTRACTOR SHALL STABILIZE ANY EXPOSED SOILS THAT WILL NOT BE WORKED FOR MORE THAN 7 DAYS WITH MULCH OR OTHER NON-ERODABLE COVER. STABILIZE AREAS WITHIN 75 FEET OF A WETLAND OR WATERBODY WITHIN 48 HOURS OF THE INITIAL DISTURBANCE OF THE SOIL OR PRIOR TO ANY STORM EVENT, WHICHEVER COMES FIRST.

2. PERMANENT STABILIZATION: IF THE AREA HAS BEEN BROUGHT TO FINAL GRADE OR WILL NOT BE WORKED FOR MORE THAN ONE YEAR, THE CONTRACTOR SHALL PERMANENTLY STABILIZE THE AREA WITHIN 7 DAYS BY PLANTING VEGETATION, SEEDING, SOD, OR THROUGH THE USE OF PERMANENT MULCH, OR RIPRAP, OR PAVER SUBBASE. IF USING VEGETATION FOR STABILIZATION, AMEND AREAS OF DISTURBED SUBSOILS WITH TOPSOIL, COMPOST, OR FERTILIZERS; PROTECT SEEDED AREAS WITH MULCH OR, IF NECESSARY, EROSION CONTROL BLANKETS; AND SCHEDULE SODDING, PLANTING, AND SEEDING 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. IF GERMINATION IS SPARSE, PLANT COVERAGE IS SPOTTY, OR TOPSOIL EROSION IS EVIDENT THE CONTRACTOR SHALL RESEED AND MULCH THE AREAS. ONE OR MORE OF THE FOLLOWING SHALL APPLY TO A PARTICULAR SITE.

a. SEEDED AREAS: FOR SEEDED AREAS, PERMANENT STABILIZATION MEANS A 90% COVER OF HEALTHY PLANTS WITH NO EVIDENCE OF WASHING OR RILLING OF THE TOPSOIL.
b. SODDED AREAS: FOR SODDED AREAS, PERMANENT STABILIZATION MEANS THE COMPLETE BINDING OF THE SOD ROOTS INTO THE UNDERLYING SOIL WITH NO SLUMPING OF THE SOD OR DIE-OFF.
c. PERMANENT MULCH: FOR MULCHED AREAS, PERMANENT MULCHING MEANS TOTAL COVERAGE OF THE EXPOSED AREA WITH AN APPROVED MULCH MATERIAL. EROSION CONTROL MIX MAY BE USED AS MULCH FOR PERMANENT STABILIZATION ACCORDING TO THE MDEP APPROVED APPLICATION RATES AND LIMITATIONS.
d. RIPRAP: FOR AREAS STABILIZED WITH RIPRAP, PERMANENT STABILIZATION MEANS THAT SLOPES STABILIZED WITH RIPRAP HAVE AN APPROPRIATE BACKING OF A WELL-GRADED GRAVEL OR APPROVED GEOTEXTILE TO PREVENT SOIL MOVEMENT FROM BEHIND THE RIPRAP.
e. PAVER AREAS: FOR PAVER AREAS, PERMANENT STABILIZATION MEANS THE PLACEMENT OF THE COMPACTED SUBBASE IS COMPLETED.
f. DITCHES, CHANNELS, AND SWALES: FOR OPEN CHANNELS, PERMANENT STABILIZATION MEANS THE CHANNEL IS STABILIZED WITH A 90% COVER OF HEALTHY VEGETATION, WITH A WELL-GRADED RIPRAP LINING, OR WITH ANOTHER NON-EROSIVE LINING SUCH AS CONCRETE OR PAVEMENT. THERE MUST BE NO EVIDENCE OF SLUMPING OF THE CHANNEL LINING, UNDERCUTTING OF THE CHANNEL BANKS, OR DOWN-CUTTING OF THE CHANNEL.

3. REMOVAL OF STABILIZATION MEASURES: WITHIN 30 DAYS AFTER PERMANENT STABILIZATION IS ATTAINED THE CONTRACTOR SHALL REMOVE ANY TEMPORARY SEDIMENT CONTROL MEASURES (SUCH AS SILT FENCE, ETC.), REMOVE ANY ACCUMULATED SEDIMENTS AND STABILIZE THE AREA. SILT FENCE SHALL BE REMOVED BY CUTTING THE FENCE MATERIALS AT GROUND LEVEL TO AVOID ADDITIONAL SOIL DISTURBANCE.

A. TEMPORARY VEGETATION

THE FOLLOWING SHALL APPLY IN AREAS TO RECEIVE TEMPORARY SEEDING:

1. GRADE AS NEEDED AND FEASIBLE TO PERMIT THE USE OF EQUIPMENT FOR SEEDBED PREPARATION, SEEDING, MULCH APPLICATION, AND MULCH ANCHORING. INSTALL EROSION CONTROL MEASURES SUCH AS DIVERSIONS, GRADE STABILIZATION STRUCTURES, SEDIMENT BASINS AND GRASSED WATERWAYS TO PROTECT NEWLY SEEDED AREAS.

2. APPLY LIMESTONE AND FERTILIZER AT THE RATE OF 600 POUNDS PER ACRE OR 13.8 POUNDS PER 1,000 SQUARE FEET OF 10-10-10 (N-P2O5-K2O) OR EQUIVALENT. APPLY LIMESTONE (EQUIVALENT TO 50 PERCENT CALCIUM PLUS MAGNESIUM OXIDE) AT A RATE OF 3 TONS PER ACRE (138 LB. PER 1,000 SQUARE FEET). WHERE THE SOIL HAS BEEN COMPACTED BY CONSTRUCTION OPERATIONS, LOOSEN SOIL TO A DEPTH OF 2 INCHES BEFORE APPLYING FERTILIZER, LIME AND SEED.

3. SEEDING RATES AND DEPTHS SHALL BE AS SPECIFIED ON THE PLAN SET, OR AS IDENTIFIED IN THE TABLE BELOW. APPLY SEED UNIFORMLY BY HAND, CYCLONE SEEDER, DRILL, CULTIPACKER TYPE SEEDER OR HYDROSEEDER (SLURRY INCLUDING SEED AND FERTILIZER). HYDROSEEDING THAT INCLUDES MULCH MAY BE LEFT ON SOIL SURFACE. SEEDING RATES MUST BE INCREASED 10 % WHEN HYDROSEEDING.

4. APPLY MULCH OVER SEEDED AREA.

5. TEMPORARY SEEDING SHALL BE PERIODICALLY INSPECTED. AT A MINIMUM, 95% OF THE SOIL SURFACE SHOULD BE COVERED BY VEGETATION. IF ANY EVIDENCE OF EROSION OR SEDIMENTATION IS APPARENT, REPAIRS SHALL BE MADE AND OTHER TEMPORARY MEASURES USED IN THE INTERIM (MULCH, FILTER BARRIERS, CHECK DAMS, ETC.).

TEMPORARY SEEDING TABLE

SEED	Lb./Ac.	SEEDING	DEPTHSEEDING	DATES	NOTES
WINTER RYE	112	(2 Bu)	1-1.5 IN	8/15-10/1	GOOD FOR FALL SEEDING, SELECT HARDY SPECIES SUCH AS AROOSTOOK RYE.
OATS	80	(2.5 Bu)	1-1.5 IN	4/1-7/1 (SPRING) 8/15-9/15 (FALL)	BEST FOR SPRING SEEDING. FALL SEEDING REQUIRES MULCH
ANNUAL RYEGRASS	400		.25 IN	4/1-7/1	GROWS QUICKLY BUT IS OF SHORT DURATION, USE WHERE APPEARANCE IS IMPORTANT. CAN BE USED THROUGHOUT GROWING SEASON, IF MULCHED.
SUDANGRASS	40	(1.0 Bu)	0.5-1.0 IN	5/15-8/15	GOOD GROWTH DURING HOT SUMMER
PERENNIAL RYEGRASS	40	(2.0 Bu)	0.25 IN	8/15-9/15	GOOD COVER, LONGER LASTING THAN ANNUAL RYEGRASS. CAN BE USED THROUGHOUT GROWING SEASON, IF MULCHED.
TEMPORARY MULCH				10/1-4/1	REFER TO TEMPORARY MULCHING OR PERMANENT VEGETATION

E. TEMPORARY MULCHING

APPLY TEMPORARY MULCHING TO PROTECT THE EXPOSED SOIL SURFACE AND AID IN THE GROWTH OF VEGETATION.

1. IN SENSITIVE AREAS (WITHIN 100 FT OF STREAMS, WETLANDS AND IN LAKE WATERSHEDS) TEMPORARY MULCH MUST BE APPLIED WITHIN 7 DAYS OF EXPOSING SOIL OR PRIOR TO ANY STORM EVENT.
2. IN OTHER AREAS, THE TIME PERIOD CAN RANGE FROM 14 TO 30 DAYS, DEPENDING ON SITE CONDITIONS (SOIL ERODIBILITY, SEASON OF YEAR, EXTENT OF DISTURBANCE, PROXIMITY TO SENSITIVE RESOURCES, ETC.) AND THE POTENTIAL IMPACT OF EROSION ON ADJACENT AREAS.
3. AREAS WHICH HAVE BEEN TEMPORARILY OR PERMANENTLY SEEDED, SHALL BE MULCHED IMMEDIATELY FOLLOWING SEEDING.
4. AREAS WHICH CANNOT BE SEEDED WITHIN THE GROWING SEASON SHALL BE MULCHED FOR OVER-WINTER PROTECTION AND THE AREA SHALL BE SEEDED AT THE BEGINNING OF THE GROWING SEASON.
5. MULCH CAN BE USED IN CONJUNCTION WITH TREE, SHRUB, VINE, AND GROUND COVER PLANTINGS.
6. MULCH ANCHORING SHALL BE USED ON SLOPES GREATER THAN 5% IN LATE FALL (PAST SEPTEMBER 15), AND OVER-WINTER (SEPTEMBER 15 - APRIL 15).
7. WHEN MULCH IS APPLIED TO PROVIDE PROTECTION OVER WINTER (PAST THE GROWING SEASON), IT SHALL BE APPLIED TO A DEPTH OF FOUR INCHES (150-200 LBS. OF HAY PER 1000 SQ. FT OR DOUBLE STANDARD APPLICATION RATE). SEEDING CANNOT GENERALLY BE EXPECTED TO GROW UP THROUGH THIS DEPTH OF MULCH AND WILL BE SMOTHERED. IF VEGETATION IS DESIRED, THE MULCH WILL NEED TO BE REMOVED IN THE SPRINGTIME AND THE AREA SEEDED AND MULCHED.
8. ALL MULCHES MUST BE INSPECTED PERIODICALLY BY THE CONTRACTOR, IN PARTICULAR AFTER RAINSTORMS, TO CHECK FOR RILL EROSION. IF LESS THAN 90% OF THE SOIL SURFACE IS COVERED BY MULCH, ADDITIONAL MULCH SHALL BE IMMEDIATELY APPLIED. NETS MUST BE INSPECTED AFTER RAIN EVENTS FOR DISLOCATION OR FAILURE. IF WASHOUTS OR BREAKAGE OCCUR, RE-INSTALL THE NETS AS NECESSARY AFTER REPAIRING DAMAGE TO THE SLOPE. INSPECTIONS SHALL TAKE PLACE UNTIL GRASSES ARE FIRMLY ESTABLISHED (95% SOIL SURFACE COVERED WITH GRASS).
9. WHERE MULCH IS USED IN CONJUNCTION WITH ORNAMENTAL PLANTINGS, THE CONTRACTOR SHALL INSPECT PERIODICALLY THROUGHOUT THE YEAR TO DETERMINE IF MULCH IS MAINTAINING COVERAGE OF THE SOIL SURFACE. REPAIR AS NEEDED.
10. THE CHOICE OF MATERIALS FOR MULCHING SHALL BE BASED ON SOIL, SITE CONDITIONS AND SEASONS. RECOMMENDED MULCHES INCLUDE HAY AND STRAW OR EROSION CONTROL MIX.
11. HAY AND STRAW:

a. ORGANIC MULCHES INCLUDING HAY AND STRAW MUST BE AIR-DRIED, FREE OF UNDESIRABLE SEEDS AND COARSE MATERIALS.
b. APPLICATION RATE SHALL BE 2 BALES (70-90 POUNDS) PER 1000 SQ FT OR 1.5 TO 2 TONS (90-100 BALES) PER ACRE TO COVER 75 TO 90 % OF THE GROUND SURFACE. HAY MULCH IS SUBJECT TO WIND BLOWING UNLESS KEPT MOIST OR ANCHORED.
c. ANCHORING METHODS INCLUDE NETTING OVER HAY WITH JUTE, WOOD FIBER OR PLASTIC NETTING ANCHORED TO THE SOIL SURFACE. STAPLE MATS ACCORDING TO MANUFACTURER'S RECOMMENDATION.

12. EROSION CONTROL MIX:

a. EROSION CONTROL MIX CAN BE MANUFACTURED ON OR OFF THE PROJECT SITE. IT 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 WILL NOT BE ACCEPTABLE AS THE ORGANIC COMPONENT OF THE MIX.
b. EROSION CONTROL MIX SHALL CONTAIN A WELL-GRADED MIXTURE OF PARTICLE SIZES AND MAY CONTAIN ROCKS LESS THAN 4" IN DIAMETER.
c. EROSION CONTROL MIX SHALL BE FREE OF REFUSE, PHYSICAL CONTAMINANTS, AND MATERIAL TOXIC TO PLANT GROWTH. THE MIX COMPOSITION SHALL MEET THE MAINE DEP STANDARDS:
d. WHEN USED AS MULCH, A MINIMUM 4" THICK LAYER OF EROSION CONTROL MIX SHALL BE USED AS A STAND-ALONE REINFORCEMENT:
1. ON SLOPES 2 HORIZONTAL TO 1 VERTICAL OR LESS.
2. ON FROZEN GROUND OR FORESTED AREAS.
3. AT THE EDGE OF GRAVEL PARKING AREAS AND AREAS UNDER CONSTRUCTION.
4. OTHER REINFORCEMENT BMPS (I.E. RIPRAP) SHALL BE USED:
a. ON STEEPER SLOPES GREATER THAN 2:1 AND
b. SLOPES WITH GROUNDWATER SEEPAGE AND
c. AT LOW POINTS WITH CONCENTRATED FLOWS AND
d. IN GULLIES

5. THE MULCH MAY BE PLACED WITH A HYDRAULIC BUCKET, WITH A PNEUMATIC BLOWER OR BY HAND. IT SHALL BE PLACED EVENLY AND MUST PROVIDE 100 % SOIL COVERAGE, WITH THE SOIL TOTALLY INVISIBLE.
e. ANY REQUIRED REPAIRS SHALL BE MADE BY THE CONTRACTOR IMMEDIATELY, WITH ADDITIONAL EROSION CONTROL MIX PLACED ON TOP OF THE MULCH TO REACH THE RECOMMENDED THICKNESS. WHEN THE MIX IS DECOMPOSED, CLOGGED WITH SEDIMENT, ERODED OR INEFFECTIVE, IT SHALL BE REPLACED OR REPAIRED. EROSION CONTROL MIX MULCH SHOULD BE LEFT IN PLACE. VEGETATION ADDS STABILITY AND SHOULD BE PROMOTED. IF THE MULCH NEEDS TO BE REMOVED SPREAD IT OUT INTO THE LANDSCAPE.

13. SPRAY ON MULCHES:

a. IF USING SYNTHETIC, SPRAY-ON EMULSIONS THAT ARE MIXED WITH WATER TO HOLD WOOD FIBER, HYDRO-MULCHES OR STRAW TO THE SOIL SURFACE, THE CONTRACTOR SHALL CONSULT WITH THE MANUFACTURER TO DETERMINE ADEQUATE APPLICATION RATES, ESPECIALLY FOR STEEP SLOPES AND FALL APPLICATIONS.
b. AVOID APPLICATION DURING WINDY DAYS. A 24-HOUR CURING PERIOD AT A SOIL TEMPERATURE HIGHER THAN 45 DEGREES FAHRENHEIT IS OFTEN REQUIRED.
c. APPLICATION SHALL GENERALLY BE HEAVIEST AT EDGES OF AREAS AND AT CRESTS OF RIDGES AND BANKS TO PREVENT LOSS BY WIND. THE REMAINDER OF THE AREA SHALL HAVE BINDER APPLIED UNIFORMLY. BINDERS MAY BE APPLIED AFTER MULCH IS SPREAD OR MAY BE SPRAYED INTO THE MULCH AS IT IS BEING BLOWN ONTO THE SOIL. APPLYING STRAW AND BINDER TOGETHER IS RECOMMENDED.
d. INCREASE SEEDING RATES WHEN USING THIS METHOD.

14. EROSION CONTROL BLANKETS AND MATS:

a. MANUFACTURED COMBINATIONS OF MULCH AND NETTING SHALL BE USED AS ADDED PROTECTION IN AREAS PRONE TO EROSION. DURING THE GROWING SEASON (APRIL 15 - SEPTEMBER 15) USE MATS (OR MULCH AND NETTING) ON:
a. THE BASE OF GRASSED WATERWAYS
b. STEEP SLOPES (15% OR GREATER)
c. ANY DISTURBED SOIL WITHIN 100 FEET OF LAKES, STREAMS AND WETLANDS
b. DURING THE LATE FALL AND WINTER (SEPTEMBER 15 - APRIL 15) USE HEAVY GRADE MATS ON ALL AREAS NOTED ABOVE PLUS USE LIGHTER GRADE MATS (OR MULCH AND NETTING) ON:
a. SIDE SLOPES OF GRASSED WATERWAYS
b. MODERATE SLOPES (>>8%)
c. THERE MAY BE CASES WHERE MATS WILL BE NEEDED ON SLOPES FLATTER THAN 8%.
c. THE MOST CRITICAL ASPECT OF INSTALLING MATS IS OBTAINING FIRM CONTINUOUS CONTACT BETWEEN THE MAT AND THE SOIL. WITHOUT SUCH CONTACT THE MAT IS USELESS AND EROSION OCCURS. INSTALL MATS AND STAPLE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

F. PERMANENT VEGETATION:

THE FOLLOWING SHALL APPLY IN AREAS TO RECEIVE PERMANENT VEGETATION:

1. SEEDBED PREPARATION:
a. GRADE AS FEASIBLE TO PERMIT THE USE OF CONVENTIONAL EQUIPMENT FOR SEEDBED PREPARATION, SEEDING, MULCH APPLICATION AND ANCHORING, AND MAINTENANCE.
b. APPLY LIMESTONE AND FERTILIZER AT THE RATE OF 800 POUNDS PER ACRE OR 18.4 POUNDS PER 1,000 SQUARE FEET USING 10-20-20 (N-P2O5-K2O) OR EQUIVALENT. APPLY GROUND LIMESTONE (EQUIVALENT TO 50% CALCIUM PLUS MAGNESIUM OXIDE) AT A RATE OF 3 TONS PER ACRE (138 LB. PER 1,000 SQ. FT).
c. WORK LIME AND FERTILIZER INTO THE SOIL AS NEARLY AS PRACTICAL TO A DEPTH OF 4 INCHES WITH A DISC, SPRING TOOTH HARROW OR OTHER SUITABLE EQUIPMENT. THE FINAL HARROWING OPERATION SHALL BE ON THE GENERAL CONTOUR. CONTINUE TILLAGE UNTIL A REASONABLY UNIFORM, FINE SEEDBED IS PREPARED. ALL BUT CLAY OR SILTY SOILS AND COARSE SANDS SHALL BE ROLLED TO FIRM THE SEEDBED WHEREVER FEASIBLE. REMOVE FROM THE SURFACE ALL STONES 2 INCHES OR LARGER IN ANY DIMENSION.
d. REMOVE ALL OTHER DEBRIS, SUCH AS WIRE, CABLE, TREE ROOTS, CONCRETE, CLODS, LUMPS OR OTHER UNSUITABLE MATERIAL.
e. INSPECT SEEDBED JUST BEFORE SEEDING. IF TRAFFIC HAS LEFT THE SOIL COMPACTED, THE AREA SHALL BE TILLED AND FIRMED AS ABOVE.
2. SEEDING DATES:
a. SPRING SEEDING USUALLY GIVES THE BEST RESULTS FOR ALL SEED MIXES OR WITH LEGUMES.
b. PERMANENT SEEDING SHALL BE MADE 45 DAYS PRIOR TO THE FIRST KILLING FROST OR AS A DORMANT SEEDING WITH MULCH AFTER THE FIRST KILLING FROST AND BEFORE SNOWFALL. WHEN CROWN VETCH IS SEEDED IN LATER SUMMER, AT LEAST 35% OF THE SEED SHALL BE HARD SEED (UNSCARIFIED).
c. IF SEEDING CANNOT BE DONE WITHIN THE SEEDING DATES, DELAY SEEDING UNTIL THE NEXT RECOMMENDED SEEDING PERIOD AND MULCH ACCORDING TO THE TEMPORARY MULCHING REQUIREMENTS AND WINTER STABILIZATION AND CONSTRUCTION METHODS DESCRIBED HEREIN TO PROTECT THE SITE.
3. SEEDING:
a. UNLESS OTHERWISE SPECIFIED WITHIN THE PLAN SET, THE CONTRACTOR SHALL 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 LEVEL OF USE.
b. INOCULATE ALL LEGUME SEED WITH THE CORRECT TYPE AND AMOUNT OF INOCULANT.
c. APPLY SEED UNIFORMLY BY HAND, CYCLONE SEEDER, DRILL, CULTIPACKER TYPE SEEDER OR HYDROSEEDER.
d. NORMAL SEEDING DEPTH IS FROM 1/4 TO 1/2INCH.
e. HYDROSEEDING WITH MULCH MAY BE LEFT ON SOIL SURFACE.
f. WHERE FEASIBLE, EXCEPT WHERE EITHER A CULTIPACKER TYPE SEEDER OR HYDROSEEDER IS USED, THE SEEDBED SHOULD BE FIRMED FOLLOWING SEEDING OPERATIONS WITH A ROLLER, OR LIGHT DRAG. SEEDING OPERATIONS SHOULD BE ON THE CONTOUR.
g. APPLY MULCH ACCORDING TO THE TEMPORARY MULCHING REQUIREMENTS DESCRIBED HEREIN. ALL NEWLY SEEDED AREAS WILL NEED MULCHING AND MULCH ANCHORING.
4. HYDROSEEDING:
a. THE CONTRACTOR SHALL PREPARE THE SEEDBED IN THE CONVENTIONAL WAY OR BY HAND RAKING TO LOOSEN AND SMOOTH THE SOIL AND TO REMOVE SURFACE STONES LARGER THAN 6 INCHES IN DIAMETER.
b. SLOPES SHALL BE NO STEEPER THAN 2 TO 1 (2 FEET HORIZONTALLY TO 1 FOOT VERTICALLY).
c. LIME AND FERTILIZER MAY BE APPLIED SIMULTANEOUSLY WITH THE SEED.
d. THE CONTRACTOR SHALL USE STRAW MULCH AND HOLD IT WITH ADHESIVE MATERIALS OR 500 POUNDS PER ACRE OF WOOD FIBER MULCH.
e. SEEDING RATES SHALL BE INCREASED 10% WHEN HYDROSEEDING.
5. DORMANT SEEDING: DORMANT SEEDS NEED TO BE ANCHORED EXTREMELY WELL ON SLOPES, BUT SHOULD NOT BE USED IN DITCH BASES AND AREAS OF CONCENTRATED FLOWS.
1. DORMANT SEEDING SHALL NOT BE USED SINCE THIS IS A WATERSHED SENSITIVE TO WATER QUALITY IMPACTS. THE SITE SHALL BE STABILIZED WITH TEMPORARY OR PERMANENT SEEDING BY SEPTEMBER 15.

2. SODDING: SODDING MAY BE USED BETWEEN SEPTEMBER 15TH, AND NOVEMBER15TH WHEN NEW SEEDING CANNOT BE GUARANTEED. GROUND PREPARATION AND PROPER MAINTENANCE ARE AS IMPORTANT WITH SOD AS WITH SEED. LOCATIONS PARTICULARLY SUITED TO STABILIZATION WITH SOD ARE WATERWAYS CARRYING INTERMITTENT FLOW, AREAS AROUND DROP INLETS IN GRASSED SWALES AND RESIDENTIAL OR COMMERCIAL LAWNS WHERE AESTHETICS IS A FACTOR.

1. BEFORE LAYING SOD, PROVIDE ADEQUATE DRAINAGE WHERE INTERNAL WATER MOVEMENT, ESPECIALLY AT THE TOE OF SLOPES, MAY CAUSE SEEPS OR SOIL SLIPPAGE. GRADE SLOPES 2:1 OR FLATTER.
2. THE CONTRACTOR SHALL PROVIDE THE BEST POSSIBLE SOIL CONDITIONS FOR SODDING. THE DESIRABLE SOIL TEXTURES INCLUDE SANDY LOAM, LOAM, AND SILT LOAM
3. FILL AREAS SHALL BE COMPACTED ENOUGH TO PREVENT UNEVEN SETTLING. THE ENTIRE SURFACE TO BE SODDED SHALL BE FREE FROM LARGE CLODS, STONES, OR OTHER DEBRIS. LOOSEN SOIL TO A DEPTH OF 1 INCH AND THOROUGHLY DAMPENED, IF NOT ALREADY MOIST. INCORPORATE NEEDED LIME AND FERTILIZER UNIFORMLY. SOD SHALL NOT BE LAID ON DRY SOIL.
4. LAY STRIPS OF SOD AT RIGHT ANGLES TO DIRECTION OF SLOPE OR FLOW OF WATER STARTING AT THE LOWEST ELEVATION. WEDGE THE EDGES AND ENDS OF THE SOD STRIPS TOGETHER AND TAMP OR ROLL. STAGGER JOINTS. MAKE THE TOP OF THE SOD STRIPS FLUSH WITH THE TOP OF THE UNDISTURBED GROUND.
5. USE WIRE STAPLES, FINE MESH WIRE OR WOOD PINS AND BINDER TWINE ON VERY STEEP SLOPES TO HOLD SOD IN PLACE UNTIL SECURED BY PLANT GROWTH

CONSTRUCTION NOTES

1. SITE CONTRACTOR SHALL OBTAIN ALL REQUIRED PERMITS PRIOR TO CONSTRUCTION.

2. ALL WORK SHALL CONFORM TO THE APPLICABLE CODES AND ORDINANCES. ALL WORK PERFORMED BY THE GENERAL CONTRACTOR AND/OR TRADE SUBCONTRACTOR SHALL CONFORM TO THE REQUIREMENTS OF LOCAL, STATE OR FEDERAL LAWS, AS WELL AS ANY OTHER GOVERNING REQUIREMENTS, WHETHER OR NOT SPECIFIED ON THE DRAWINGS.

3. CONTRACTOR SHALL VISIT THE SITE AND FAMILIARIZE HIM OR HERSELF WITH ALL CONDITIONS AFFECTING THE PROPOSED WORK AND SHALL MAKE PROVISIONS AS TO THE COST THEREOF. CONTRACTOR SHALL BE RESPONSIBLE FOR FAMILIARIZING HIM OR HERSELF WITH ALL CONTRACT DOCUMENTS, FIELD CONDITIONS AND DIMENSIONS AND CONFIRMING THAT THE WORK MAY BE ACCOMPLISHED AS SHOWN PRIOR TO PROCEEDING WITH CONSTRUCTION. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO THE COMMENCEMENT OF WORK.

4. CONTRACTOR SHALL NOTIFY ENGINEER OF ALL PRODUCTS OR ITEMS NOTED AS "EXISTING" WHICH ARE NOT FOUND IN THE FIELD.

5. THE CONTRACTOR IS HEREBY CAUTIONED THAT ALL SITE FEATURES ARE BASED UPON THE LAND SURVEYORS OBSERVATIONS AND PRIOR DESIGN PLANS PREPARED BY OTHERS. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR SHALL CONTACT DIG SAFE (1-888-DIGSAFE) AT LEAST THREE (3) BUT NOT MORE THAN THIRTY (30) DAYS PRIOR TO COMMENCEMENT OF EXCAVATION OR DEMOLITION TO VERIFY HORIZONTAL AND VERTICAL LOCATION OF ALL UTILITIES AND DRAINAGE FEATURES.

6. CONTRACTOR SHALL BE CAUTIONED THAT DIG SAFE ONLY NOTIFIES ITS "MEMBER" UTILITIES ABOUT THE DIG. OTHER UTILITIES MAYBE PRESENT IN THE WORK AREA. WHEN NOTIFIED, DIG SAFE WILL ADVISE CONTRACTOR OF MEMBER UTILITIES IN THE AREA. CONTRACTOR IS RESPONSIBLE FOR IDENTIFYING AND CONTACTING NON-MEMBER UTILITIES DIRECTLY. NON-MEMBER UTILITIES MAY INCLUDE LOCAL WATER AND SEWER DISTRICTS AND SMALL LOCAL UTILITIES.

7. CONTRACTORS SHALL BE RESPONSIBLE FOR COMPLIANCE WITH THE REQUIREMENTS OF 23 MRSA 3360-A (PROTECTION OF UNDERGROUND FACILITIES). IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE WITH THE APPROPRIATE UTILITIES TO OBTAIN AUTHORIZATION PRIOR TO RELOCATION OF ANY EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THESE PLANS. IF A UTILITY CONFLICT ARISES, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER, THE MUNICIPALITY AND APPROPRIATE UTILITY COMPANY PRIOR TO PROCEEDING WITH ANY RELOCATION.

8. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED IN ACCORDANCE WITH "MAINE EROSION AND SEDIMENTATION CONTROL HANDBOOK FOR CONSTRUCTION: BEST MANAGEMENT PRACTICES" PUBLISHED BY THE CUMBERLAND COUNTY SOIL AND WATER CONSERVATION DISTRICT AND MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION, MARCH 2003 OR LATEST EDITION. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO POSSESS A COPY OF THE EROSION CONTROL PLAN AT ALL TIMES.

9. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS IN THE FIELD PRIOR TO FABRICATION AND INSTALLATION OF ANY MATERIAL. ANY UNUSUAL CONDITIONS SHALL BE REPORTED TO THE ATTENTION OF THE ENGINEER.

10. INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND OWNER'S REQUIREMENTS UNLESS SPECIFICALLY OTHERWISE INDICATED OR WHERE LOCAL CODES OR REGULATIONS TAKE PRECEDENCE.

11. CONTRACTOR SHALL INCORPORATE PROVISIONS AS NECESSARY DURING CONSTRUCTION TO PROTECT EXISTING STRUCTURES, PHYSICAL FEATURES, AND MAINTAIN SITE STABILITY. CONTRACTOR SHALL RESTORE ALL AREAS TO ORIGINAL CONDITION AND AS SHOWN ON THE PLANS.

12. CONTRACTOR SHALL CLEAN AND REMOVE DEBRIS AND SEDIMENT DEPOSITED ON PUBLIC STREETS & PRIVATE STREETS, SIDEWALKS, ADJACENT AREAS, OR OTHER PUBLIC & PRIVATE WAYS DUE TO CONSTRUCTION.

13. ALL PAVEMENT MARKINGS AND DIRECTIONAL SIGNAGE SHOWN ON THE PLAN SHALL CONFORM TO THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) STANDARDS.

14. ALL PAVEMENT JOINTS SHALL BE SAWCUT PRIOR TO PAVING TO PROVIDE A DURABLE AND UNIFORM JOINT.

15. NO HOLES, TRENCHES OR STRUCTURES SHALL BE LEFT OPEN OVERNIGHT IN ANY EXCAVATION ACCESSIBLE TO THE PUBLIC OR IN PUBLIC RIGHTS-OF-WAY.

16. ALL WORK WITHIN THE PUBLIC RIGHT-OF-WAY SHALL REQUIRE A M.D.O.T. PERMIT AS WELL AS PERMITS FROM THE MUNICIPALITY AS APPLICABLE.

17. THE PROPOSED LIMITS OF CLEARING SHOWN HEREON ARE APPROXIMATE BASED UPON THE PROPOSED LIMITS OF SITE GRADING OR OTHER SITE WORK. NO GRUBBING OR STUMP REMOVAL SHALL OCCUR OUTSIDE OF THE CLEARING LIMITS, UNLESS OTHERWISE DIRECTED BY THE ENGINEER IN ORDER TO ADDRESS EROSION AND SEDIMENT CONTROL OR STORMWATER MANAGEMENT.

18. IMMEDIATELY UPON COMPLETION OF CUTS/FILLS, THE CONTRACTOR SHALL STABILIZE DISTURBED AREAS IN ACCORDANCE WITH EROSION CONTROL NOTES AND AS SPECIFIED ON PLANS. ALL ERODED AREAS SHALL BE REPAIRED BY THE CONTRACTOR AND THE SURFACE SHALL BE STABILIZED USING THE MEASURES OUTLINED IN THE EROSION AND SEDIMENT CONTROL PLAN AND NARRATIVES INCLUDED AS PART OF THIS CONSTRUCTION SET.

19. THE CONTRACTOR SHALL BE FULLY AND SOLELY RESPONSIBLE FOR THE REMOVAL, REPLACEMENT AND RECTIFICATION OF ALL DAMAGED AND DEFECTIVE MATERIAL AND WORKMANSHIP IN CONNECTION WITH THE CONTRACT WORK. THE CONTRACTOR SHALL REPLACE OR REPAIR AS DIRECTED BY THE OWNER ALL SUCH DAMAGED OR DEFECTIVE MATERIALS WHICH APPEAR WITHIN A PERIOD OF ONE YEAR FROM THE DATE OF SUBSTANTIAL COMPLETION.

20. WHERE THE TERMS "APPROVED EQUAL", "OTHER APPROVED", "EQUAL TO", "ACCEPTABLE" OR OTHER GENERAL QUALIFYING TERMS ARE USED IN THESE NOTES, IT SHALL BE UNDERSTOOD THAT REFERENCE IS MADE TO THE RULING AND JUDGEMENT OF ST.CLAIR ASSOCIATES IN CONJUNCTION WITH THE OWNER.

21. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY PROTECTION FOR THE WORK UNTIL TURNED OVER TO THE OWNER.

23. THE CONTRACTOR SHALL MAINTAIN A CURRENT AND COMPLETE SET OF CONSTRUCTION DRAWINGS ON SITE DURING ALL PHASES OF CONSTRUCTION FOR USE OF ALL TRADES.

23. THE CONTRACTOR SHALL TAKE FULL RESPONSIBILITY FOR ANY CHANGES AND DEVIATION OF APPROVED PLANS NOT AUTHORIZED BY THE ENGINEER AND/OR CLIENT/OWNER.

24. DETAILS ARE INTENDED TO SHOW END RESULT OF DESIGN. ANY MODIFICATION TO SUIT FIELD DIMENSION AND CONDITION SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL PRIOR TO ANY WORK.

25. BEFORE THE FINAL ACCEPTANCE OF THE PROJECT, THE CONTRACTOR SHALL REMOVE ALL EQUIPMENT AND MATERIALS, REPAIR OR REPLACE PRIVATE OR PUBLIC PROPERTY WHICH MAY HAVE BEEN DAMAGED OR DESTROYED DURING CONSTRUCTION, CLEAN THE AREAS WITHIN AND ADJACENT TO THE PROJECT WHICH HAVE BEEN OBSTRUCTED BY HIS/HER OPERATIONS, AND LEAVE THE PROJECT AREA NEAT AND PRESENTABLE.

26. DRAIN MANHOLE, CATCHBASIN AND SEWER MANHOLE DIAMETER SIZING SHOWN HEREON REPRESENT CITY/TOWN/SANITARY DEPARTMENT REQUIRED MINIMUM SIZING AND MAY NOT REFLECT ACTUAL FABRICATED SIZE.
THE CONTRACTOR IS RESPONSIBLE TO COORDINATE WITH THE PREFERRED DRAIN MANHOLE, CATCHBASIN AND SEWER MANHOLE FABRICATOR TO CONFIRM STRUCTURE DIAMETER SIZING PRIOR TO PRICING AND ORDERING STRUCTURES.

27) PER ADA REQUIREMENTS, ALL BARRIER FREE PARKING SPACES AND ACCESS AISLES SHALL BE CONSTRUCTED WITH NO MORE THAN 2% SLOPES IN ANY DIRECTION. ANY CONFLICTS TO THIS REQUIREMENT AS A RESULT OF FIELD CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE DESIGN ENGINEER FOR REVIEW AND FURTHER EVALUATION.

ALL BARRIER FREE RAMPS SHALL INCLUDE CURB TIPDOWNS AND TACTILE WARNINGS PER ADA REQUIREMENTS THE LOCATION OF THE BARRIER FREE RAMPS WITH TACTILE WARNINGS SHALL INCLUDE ALL STREET CROSSWALKS AND DRIVE AISLES CROSSWALKS

28) INSTALL SILTSACK IN COVERS OF ALL CATCH BASINS STRUCTURES AND MANHOLE STRUCTURES UNTIL ONSITE IMPROVEMENTS ARE STABILIZED.

29) INSTALL 2" OF RIGID STYROFOAM INSULATION IN ALL AREAS WHERE DEPTH OF COVER OVER STORM DRAINS IS LESS THAN 3 FEET.

30) UNLESS OTHERWISE SPECIFIED, ALL STORMDRAIN PIPING AND CULVERTS SHALL BE CORRUGATED HDPE SMOOTH BORE SUCH AS ADS-N12 OR APPROVED EQUAL.

31) UNLESS OTHERWISE SPECIFIED, ALL UNDERDRAIN PIPING SHALL BE RIGID SLOTTED SCHEDULE 40 PVC, SDR 35 OR APPROVED EQUAL WITH WATERTIGHT JOINTS.

32) THE WATER MAIN LOCATION, INSTALLATION AND MATERIALS INCLUDING PIPING, BLOCKING AND FITTINGS SHOWN HEREON SHALL CONFORM TO THE LOCAL MUNICIPAL WATER DISTRICTS STANDARDS, DETAILS AND SPECIFICATIONS SHOWN ON THE DETAIL SHEET OF THIS PLAN SET AND ADDITIONAL SPECIFICATIONS AND DETAILS INCLUDED ON THE LOCAL MUNICIPAL WATER DISTRICT ONLINE DATABASE.

33) THE TRANSFORMER PAD LOCATIONS SHOWN HEREON ARE APPROXIMATE. THE OWNER/APPLICANT WILL NEED TO COORDINATE WITH POWER UTILITY COMPANY FOR FINAL LOCATION AND NUMBER. UNDERGROUND ELECTRICAL, TELEPHONE & CABLE TV UTILITY LINES SHALL BE INSTALLED IN ACCORDANCE WITH THE RESPECTIVE UTILITY COMPANY REQUIREMENTS FOR INSTALLATION.

34) ALL STORMWATER STRUCTURES AND FACILITY INFRASTRCUTURE SHALL BE MAINTAINED IN ACCORDANCE WITH THE APPROVED MAINTENANCE PLAN.

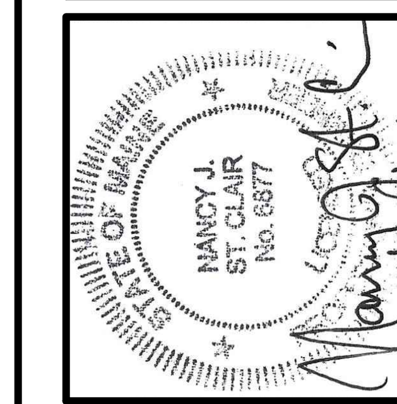
35) THE DESIGN ENGINEER RESERVES THE RIGHT TO REQUEST ADDITIONAL WORK BEYOND THAT SPECIFIED IN THE DESIGN PLAN SET TO ACHIEVE THE DESIGN INTENT OR TO PROVIDE ADDITIONAL PROTECTIONS. ANY AND ALL ADDITIONAL CONTRACTOR WORK INCLUDING ALL LABOR & MATERIALS, REMOVAL AND/OR REPAIR/RETROFIT, SHALL BE PROVIDED BY THE CONTRACTOR AT NO ADDITIONAL COST.

CONSTRUCTION SCHEDULE

SITE IMPROVEMENTS WILL BEGIN UPON RECEIPT OF ALL PERMITS AND APPROVALS. THE FOLLOWING SCHEDULE IS ANTICIPATED FOR THE CONSTRUCTION OF THE SITE IMPROVEMENTS.

SCHEDULE

1. ESTIMATED CONSTRUCTION TIME:	1 TO 2 YEARS
2. EROSION CONTROL MEASURES PLACED.	WEEK 1 - WEEK 3
3. SITE CLEARING AND GRUBBING.	WEEK 3 - WEEK 6
4. CONSTRUCTION OF PROPOSED ROAD:	WEEK 6 - WEEK 10
5. CONSTRUCTION OF RESIDENTIAL HOMES:	WEEK 10 -
6. WINTER CONSTRUCTION-PERIOD	NOV 1 THRU APRIL 15 CONSTRUCTION YEAR
7. REMOVAL OF EROSION CONTROL DEVICES	UPON FINAL PROJECT COMPLETION



REV:	BY:	DATE:	STATUS:
A	NST	06-07-2021	FOR TOWN REVIEW

THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM ST.CLAIR ASSOCIATES ANY ALTERATIONS, AUTHORIZED OR OTHERWISE, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO ST.CLAIR ASSOCIATES

ST.CLAIR ASSOCIATES

LAND SURVEYING AND CIVIL ENGINEERING

34 Forest Lane
Cumberland, ME 04021
Tel (207) 829-5558

PROJECT NO.	FIELD BOOK	DESIGN	CHKD	DRAWN
20073	ELECT.	DCS	DCS	DCS

DETAILS
OF:
GAMBO ROAD PROPERTY
GAMBO ROAD
WINDHAM, MAINE
FOR:
S&N INVESTMENTS LLC
91 AUBURN STREET, SUITE J #240
PORTLAND, MAINE 04103

DATE	SCALE
06-07-2021	NTS

SHEET 5

20073S TAB 20073D-1

GRASSED UNDERDRAINED SOIL FILTER NOTES

GRASSED UNDERDRAINED SOIL FILTER CONSTRUCTION NOTES

GENERAL:

EROSION AND SEDIMENTATION FROM UNSTABLE CONSTRUCTION AREAS IS THE MOST COMMON REASON FOR FILTER FAILURE. THE SOIL FILTER MEDIA SHALL NOT BE INSTALLED UNTIL THE AREA THAT DRAINS TO IT HAS BEEN PERMANENTLY STABILIZED OR UNLESS THE RUNOFF IS DIVERTED AROUND THE FILTER. PERMANENT STABILIZATION SHALL MEAN THAT TRIBUTARY AREAS ARE EITHER STABILIZED WITH BASE PAVEMENT, 90% VEGETATION OR OTHER PERMANENT STABILIZATION MEASURES.

CONSTRUCTION COMPONENTS: UNDERDRAINED FILTERS CONSIST OF (FROM BOTTOM UP):

- A GEOTEXTILE FABRIC TO SEPARATE THE FILTER BASIN FROM THE NATURAL SOILS. AN IMPERMEABLE MEMBRANE MAY BE REQUIRED IN PLACE OF THE GEOTEXTILE FABRIC IF GROUNDWATER IMPACT OR CONTAMINATION IS A CONCERN, OR IF IT MAY INFLUENCE THE EFFECTIVENESS OF THE BASIN.
- A 12 TO 14-INCH BASE OF COARSE CLEAN STONE OR COARSE GRAVEL IN WHICH A 4-INCH TO 6-INCH PERFORATED UNDERDRAIN PIPE SYSTEM IS BEDDED.
- AN 18-INCH LAYER OF UNCOMPACTED SOIL FILTER MEDIA.
- A SURFACE COVER OF GRASS AND MULCH.

BASIN EXCAVATION: THE BASIN AREA MAY BE EXCAVATED FOR UNDERDRAIN INSTALLATION AND CAN BE USED AS A SEDIMENT TRAP DURING CONSTRUCTION. AFTER EXCAVATION OF THE BASIN, THE OUTLET STRUCTURE AND PIPING SYSTEM MAY BE INSTALLED IF PROTECTED WITH A SEDIMENT BARRIER.

SACRIFICIAL MULCH COVER: IF THE BASIN WILL BE USED AS A SEDIMENT TRAP, THE SIDES OF THE EMBANKMENTS MUST BE STABILIZED AND MAINTAINED TO PREVENT EROSION. THE BASIN WILL NEED TO BE RESTORED FOR ITS PLANNED PURPOSE AFTER CONSTRUCTION. BEFORE FINAL STABILIZATION OF THE DRAINAGE AREA TO THE BASIN, A 2-INCH TO 3-INCH LAYER OF SANDY LOAM (WITH LESS THAN 2% CLAY CONTENT) MAY BE SPREAD ON THE SURFACE OF THE SOIL FILTER MEDIA AS A SACRIFICIAL PROTECTION LAYER. THE SACRIFICIAL LAYER WILL NEED TO BE REMOVED AT THE END OF CONSTRUCTION, AND THE SOIL FILTER MEDIA WILL NEED TO BE SEEDED AND MULCHED.

COMPACTION OF SOIL FILTER: SOIL FILTER MEDIA AND UNDERDRAIN BEDDING MATERIAL SHALL BE APPLIED TO REACH A BULK DENSITY OF BETWEEN 90% AND 92% STANDARD PROCTOR. THE SOIL FILTER MEDIA SHOULD BE INSTALLED IN AT LEAST TWO LIFTS OF 9 INCHES TO PREVENT POCKETS OF LOOSE MEDIA. THE CONTRACTOR SHALL USE CAUTION TO AVOID OVER COMPACTION OF THE FILTER MEDIA.

REMEDIAL LOAM COVER: IF VEGETATION IS NOT ESTABLISHED WITHIN THE FIRST YEAR, THE BASIN MAY BE ROTOTILLED, RESEEDED AND PROTECTED WITH A WELL-ANCHORED EROSION CONTROL BLANKET. OR, A 2-INCH TO 3-INCH LAYER OF FINE SANDY LOAM MAY BE APPLIED BEFORE SEEDING AND MULCHING.

CONSTRUCTION OVERSIGHT: INSPECTION OF THE FILTER BASIN MUST BE PROVIDED FOR EACH PHASE OF CONSTRUCTION BY THE DESIGN ENGINEER, OR QUALIFIED INSPECTING ENGINEER, WITH REQUIRED REPORTING TO THE DEP. ALL MATERIAL INTENDED FOR THE FILTER BASIN MUST BE APPROVED BY THE INSPECTING ENGINEER AFTER TESTS BY A CERTIFIED LABORATORY SHOW THAT THE MATERIAL CONFORMS TO ALL DEP SPECIFICATIONS. THE CONTRACTOR SHALL PROVIDE THE OWNER AND INSPECTING ENGINEER WITH AN UP-TO-DATE CONSTRUCTION SCHEDULE TO ALLOW TIMELY INSPECTIONS DURING THE VARIOUS STAGES OF CONSTRUCTION. AT A MINIMUM, INSPECTIONS SHALL OCCUR:

- AFTER THE PRELIMINARY CONSTRUCTION OF THE FILTER GRADES AND ONCE THE UNDERDRAIN PIPES ARE INSTALLED (NOT BACKFILLED),
- AFTER THE DRAINAGE LAYER IS CONSTRUCTED AND PRIOR TO THE INSTALLATION OF THE SOIL FILTER MEDIA,
- AFTER THE SOIL FILTER MEDIA HAS BEEN INSTALLED, SEEDED AND MULCHED, AND
- AFTER ONE YEAR, TO INSPECT VEGETATION AND MAKE CORRECTIONS.

TESTING AND SUBMITTALS: THE SOURCE OF EACH COMPONENT OF THE SOIL FILTER MEDIA SHALL BE IDENTIFIED PRIOR TO CONSTRUCTION. SAMPLES OF EACH TYPE OF MATERIAL SHOULD BE BLENDED FOR THE FILTER MEDIA AND THE UNDERDRAIN BEDDING MATERIAL. SAMPLES MUST BE A COMPOSITE OF THREE DIFFERENT LOCATIONS (GRABS) FROM THE STOCKPILE OR PIT FACE. SAMPLE SIZE REQUIREMENTS WILL BE DETERMINED BY THE TESTING LABORATORY. A SIEVE ANALYSIS CONFORMING TO ASTM C136 SHALL BE PERFORMED ON EACH TYPE OF THE SAMPLE MATERIAL. TESTING THE PERMEABILITY OF THE SOIL FILTER MEDIA MIXTURE IS REQUIRED FOR THE MIXTURE AT A MEASURED BULK DRY DENSITY OF 90-92% BASED ON ASTM D698.

ALL GRADATION TESTS, INCLUDING HYDROMETER TESTING FOR CLAY CONTENT, AND PERMEABILITY TESTING OF THE SOIL FILTER MATERIAL, SHALL BE PERFORMED BY A QUALIFIED SOIL TESTING LABORATORY. THE CONTRACTOR SHALL SUBMIT FIELD AND LABORATORY RESULTS AND VERIFICATION OF SOIL TESTING COMPLIANCE TO THE OWNER AND THE INSPECTING ENGINEER FOR REVIEW AND APPROVAL BEFORE PLACEMENT. TESTING RESULTS SHALL BE INCLUDED AS PART OF THE INSPECTING ENGINEER'S REPORTING TO THE MDEP.

CONSTRUCTION OF GRASSED UNDERDRAINED SOIL FILTER:

GEOTEXTILE FABRIC: A GEOTEXTILE FABRIC SHALL BE PLACED BETWEEN THE SIDES OF THE FILTER LAYER AND ADJACENT SOIL TO PREVENT THE SURROUNDING SOIL FROM MIGRATING INTO AND CLOGGING THE FILTER OR CLOGGING THE OUTLET. SEAMS SHOULD BE OVERLAPPED A MINIMUM OF 12 INCHES. DO NOT WRAP FABRIC OVER THE PIPE BEDDING AS IT MAY CLOG AND PREVENT FLOWS OUT OF THE FILTER. THE GEOTEXTILE FABRIC SHALL BE MIRAFI 170N OR APPROVED EQUAL.

IMPERMEABLE LINER: AN IMPERMEABLE LINER MAY BE REQUIRED ON CERTAIN SITES, IF NOTED IN THE MDEP PERMIT, OR ON THE PLANS OR DETAILS. IF REQUIRED, THE IMPERMEABLE LINER SHALL BE INSTALLED IN LIEU OF THE GEOTEXTILE FABRIC NOTED ABOVE. THE LINER MUST SEAMLESSLY EXTEND UP THE SIDES OF THE BASIN AND BE ANCHORED INTO THE SUBGRADE. THE IMPERMEABLE LINER MATERIAL SHALL BE WATERPROOF WITH SEALED JOINTS SUCH AS 30MIL PVC OR HDPE, OR APPROVED EQUAL. ALL CROSSINGS OF THE LINER FOR PIPES OR OTHER STRUCTURES SHALL BE SEALED. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL CONFIRM WITH THE OWNER AND ENGINEER WHETHER AN IMPERMEABLE LINER IS REQUIRED FOR EACH BMP.

UNDERDRAIN LAYER: THE PERFORATED PIPING IN THE UNDERDRAIN LAYER SHALL BE BEDDED IN A MINIMUM OF 12 TO 14 INCHES OF UNDERDRAIN BACKFILL MATERIAL, WITH AT LEAST 4 INCHES OF MATERIAL BENEATH THE PIPE AND 4 INCHES ABOVE THE UNDERDRAIN PIPING. THE UNDERDRAIN MATERIAL SHALL CONSIST OF WELL-GRADED, CLEAN, COARSE GRAVEL MEETING THE MAINE DOT SPECIFICATION 703.22 UNDERDRAIN BACKFILL FOR TYPE B UNDERDRAIN.

PERFORATED UNDERDRAIN PIPING: THE PERFORATED UNDERDRAIN PIPING SHALL BE EITHER A 4" DIAMETER OR 6" DIAMETER (AS SPECIFIED ON THE PLANS) RIGID SCHEDULE 40 PVC OR SDR35 PIPE. THE UNDERDRAIN PIPING WITHIN THE FILTER BED SHALL BE SPACED NO FURTHER THAN 15' APART AND SHOULD HAVE A POSITIVE SLOPE TO THE OUTLET INVERT SHOWN ON THE PLANS. STRUCTURE JOINTS SHOULD BE SEALED AND WATER TIGHT. CLEAN OUTS SHALL BE INSTALLED AT THE UPSTREAM ENDS OF THE UNDERDRAIN PIPING. CLEAN OUTS SHALL INCLUDE SCREW CAPS SET NO MORE THAN 2" ABOVE GRADE.

SOIL FILTER BED: THE SOIL FILTER OVER THE GRAVEL UNDERDRAIN PIPE BEDDING MUST BE AT LEAST 18 INCHES DEEP AND MUST EXTEND ACROSS THE ENTIRE FILTER AREA. THIS SOIL MIXTURE SHALL BE A UNIFORM MIX, FREE OF STONES, STUMPS, ROOTS, OR OTHER SIMILAR OBJECTS LARGER THAN TWO INCHES. NO MATERIALS OR SUBSTANCES THAT MAY BE HARMFUL TO PLANT GROWTH CAN BE MIXED WITHIN THE FILTER, EXCEPT FOR AGRICULTURAL SOURCES, MOST ORGANIC SOURCES MAY BE ACCEPTABLE FOR THE ORGANIC COMPONENT OF THE MEDIA. THE MEDIA MIXTURE SHALL HAVE VERY LITTLE OR NO CLAY CONTENT AS TESTED VIA HYDROMETER TEST. SOILS WITH MORE THAN 2% CLAY CONTENT COULD CAUSE FAILURE OF THE SYSTEM AND ARE NOT PERMITTED FOR USE. THE FILTER MUST BE PERMEABLE ENOUGH TO INSURE DRAINAGE WITHIN 24 TO 48 HOURS, YET HAVE SUFFICIENT FINES TO INSURE THE FILTRATION OF FINE PARTICLES AND THE REMOVAL OF DISSOLVED POLLUTANTS.

OPTIONAL HAY LAYER: A LAYER OF HAY CAN BE PLACED TO SEPARATE THE UNDERDRAIN LAYER FROM THE FILTER LAYER ABOVE TO PREVENT SUBSIDENCE OR PLUGGING OF THE UNDERDRAIN LAYER AND/OR PIPE.

SOIL FILTER MEDIA - LAYERED SYSTEM WITH TOPSOIL: THE MEDIA SHALL CONSIST OF A LAYERED SYSTEM THAT TAKES ADVANTAGE OF THE CHARACTERISTICS OF NATURAL SOILS. THE DIFFERENT LAYERS FROM THE BOTTOM UP SHALL BE:

- FILTER LAYER: A 12-INCH LAYER OF LOAMY COARSE SAND WHICH IS LOOSELY INSTALLED AND MEETS THE GRAIN SIZE SPECIFICATION SHOWN IN THE FOLLOWING TABLE.

  LOAMY COARSE SAND SPECIFICATIONS

SIEVE #	%PASSING BY WEIGHT
NO. 10	85-100
NO. 20	70-100
NO. 60	15-40
NO. 200	8-15
200 (CLAY SIZE)	LESS THAN 2.0

- TOPSOIL: THE SURFACE OF THE BASIN SHALL BE COVERED WITH 6 INCHES OF NON-CLAYEY, LOAMY TOPSOIL SUCH AS USDA LOAMY SAND TOPSOIL WITH 5 TO 8% HUMIFIED ORGANIC CONTENT. TOPSOIL FROM THE DEVELOPMENT SITE MAY BE APPROPRIATE BUT IT SHALL BE TESTED FOR ORGANIC CONTENT AND CLAY CONTENT (HYDROMETER TEST) BEFORE APPROVAL FOR INSTALLATION. THE SOIL MUST BE SCREENED, LOOSE, FRIABLE, AND SHALL BE FREE FROM ADMIXTURES OF SUBSOIL, REFUSE, STONES (GREATER THAN 2 INCHES IN DIAMETER), CLUMPS, ROOT AND OTHER UNDESIRABLE FOREIGN MATTER. THE TOPSOIL SHALL BE GENTLY MIXED WITHIN THE FILTER LAYER TO PROVIDE CONTINUITY FOR DEEP ROOT PENETRATION. THE TEETH OF A BACKHOE, A HAND RAKE, A SHOVEL OR ROTOTILLING 2-3 INCHES MAY BE USED TO CREATE A LOOSENED TRANSITION.

SEEDING AND MULCHING: THE FILTER BED SHALL BE SEEDED WITH A DROUGHT TOLERANT GRASS MIX AND MULCHED. WATERING IS RECOMMENDED TO ESTABLISH A HEALTHY VEGETATION BASE. THE FOLLOWING SEED MIX IS RECOMMENDED:

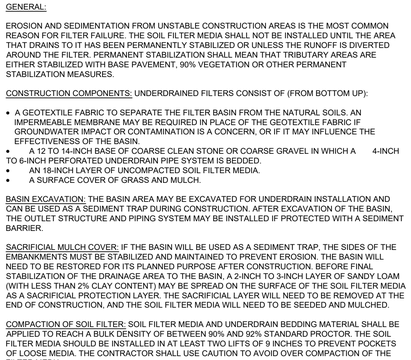
SEED MIX SHALL CONTAIN THE FOLLOWING:

CREEPING RED FESCUE	20 LBS/ACRE
TALL FESCUE	20 LBS/ACRE
BIRDSFOOT TREFOIL	8 LBS/ACRE
TOTAL	48 LBS/ACRE

UPON SEEDING, MULCH WITH HAY OR EROSION CONTROL BLANKET, DO NOT FERTILIZE.

ADDITIONAL INFORMATION:

ADDITIONAL DETAILED INFORMATION IS OUTLINED IN THE MAINE STORMWATER MANAGEMENT DESIGN MANUAL (BEST MANAGEMENT PRACTICES MANUAL VOLUME III DATED MARCH 2016 WITH SUBSEQUENT REVISIONS).



NOTES:

SILT FENCE AND FILTER BARRIERS SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY.

SHOULD THE FABRIC ON A SILT FENCE OF FILTER BARRIER DECOMPOSE OR BECOME INEFFECTIVE PRIOR TO THE END OF THE EXPECTED USABLE LIFE AND THE BARRIER STILL IS NECESSARY, THE FABRIC SHALL BE REPLACED PROMPTLY.

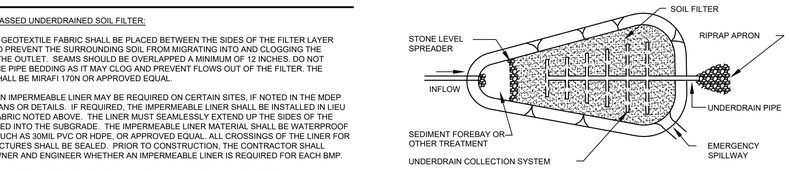
SEDIMENT DEPOSITS SHALL BE REMOVED AFTER EACH STORM EVENT. THEY MUST BE REMOVED WHEN DEPOSITS REACH APPROXIMATELY ONE-HALF THE HEIGHT OF THE BARRIER.

ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE SILT FENCE OR FILTER BARRIER IS NO LONGER REQUIRED SHALL BE DRESSED TO CONFORM WITH THE EXISTING GRADE, PREPARED AND SEEDED. THE TRENCH SHALL BE BACKFILLED AND THE SOIL COMPACTED OVER THE FILTER FABRIC.

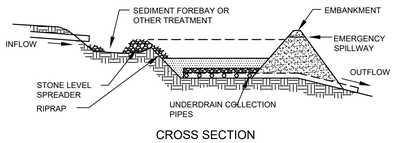
SILT FENCES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFUL PURPOSE, BUT NOT BEFORE THE UPSLOPE AREA HAS BEEN PERMANENTLY STABILIZED.

SILT-FENCE DETAIL

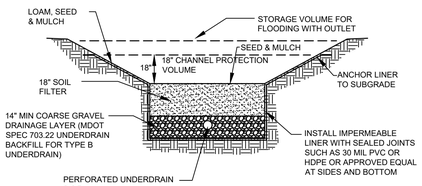
NOT TO SCALE



PLAN VIEW



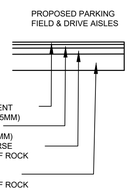
CROSS SECTION



DETAIL

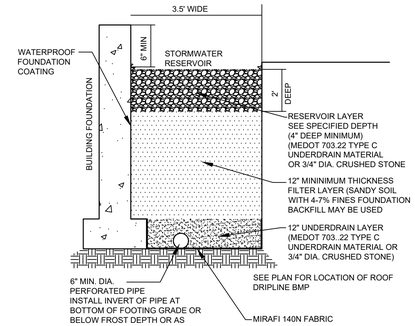
NOTE: SEE GRASSED UD SOIL FILTER NOTES FOR ADDITIONAL INFORMATION.

GRASSED UD SOIL FILTER BMP



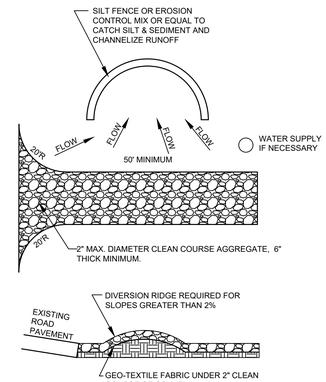
TYPICAL PAVED ENTRANCE APRON DETAIL

NOT TO SCALE



ROOF DRIPLINE BMP SECTION

NOT TO SCALE



SECTION VIEW

NOTES:
1) THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT OF WAY. THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEANOUT OF ANY MEASURES TO TRAP SEDIMENT

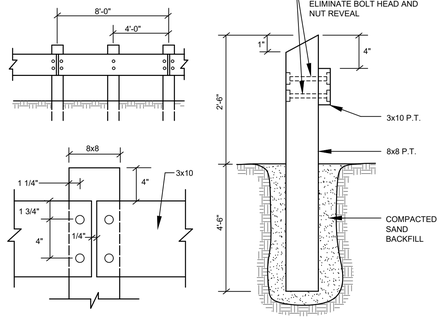
2) WHEN NECESSARY, WHEELS SHALL BE CLEANED PRIOR TO ENTRANCE ONTO PUBLIC RIGHT OF WAY OR EXISTING PAVED AREAS.

3) WHEN WASHING IS REQUIRED, IT SHALL BE COMPLETED ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN.

4) ADDITIONAL SWEEPING MAY ALSO BE REQUIRED.

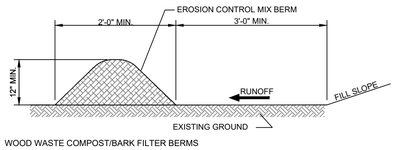
CONSTRUCTION ENTRANCE DETAIL

NOT TO SCALE



PRESSURE TREATED WOOD GUARDRAIL

NOT TO SCALE



WOOD WASTE COMPOST/BARK FILTER BERMS

A) EROSION CONTROL MIX MUST CONSIST PRIMARILY OF ORGANIC MATERIALS, SEPARATED AT THE POINT OF GENERATION, AND MAY INCLUDE: SHREDDED BARK, STUMP GRINDINGS, COMPOSTED BARK, OR ACCEPTABLE MANUFACTURED PRODUCTS. WOOD AND BARK CHIPS, GROUND CONSTRUCTION DEBRIS OR REPROCESSED WOOD PRODUCTS ARE NOT ACCEPTABLE AT THE ORGANIC COMPONENT OF THE MIX. THE MIX SHALL CONFORM TO THE FOLLOWING STANDARDS:

B) EROSION CONTROL MIX SHALL CONTAIN A WELL -GRADED MIXTURE OF PARTICLE SIZES AND MAY CONTAIN ROCKS LESS THAN 4" IN DIAMETER. EROSION CONTROL MIX MUST BE FREE OF REFUSE, PHYSICAL CONTAMINANTS, AND MATERIAL TOXIC TO PLANT GROWTH. THE MIX COMPOSITION SHALL MEET THE FOLLOWING STANDARDS:

1) THE ORGANIC MATTER CONTENT SHALL BE BETWEEN 80% AND 100%, DRY WEIGHT BASIS.

2) PARTICLE SIZE BY WEIGHT SHALL BE 100% PASSING A 6" SCREEN AND A MINIMUM OF 70% MAXIMUM OF 85%, PASSING A 0.75" SCREEN

3) THE ORGANICS PORTION NEEDS TO BE FIBROUS AND ELONGATED.

4) LARGE PORTIONS OF SILTS, CLAYS OR FINE SANDS ARE NOT ACCEPTABLE IN THE MIX.

5) SOLUBLE SALTS CONTENT SHALL BE LESS THAN 4.0 MMHOS/CM.

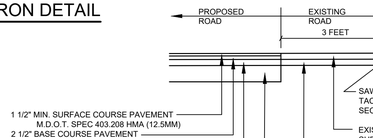
6) THE pH SHOULD FALL BETWEEN 5.0 AND 8.0 THE COMPOSTED BERM SHALL BE PLACED, UNCOMPACTED, ALONG A RELATIVELY LEVEL CONTOUR.

NOTE: EROSION CONTROL MIX FILTER BERMS MAY BE USED IN COMBINATION WITH SILT FENCE TO IMPROVE SEDIMENT REMOVAL AND PREVENT CLOGGING OF THE EROSION CONTROL MIX BERM BY LARGER SEDIMENT PARTICLES. (SILT FENCE PLACED TO FILTER RUNOFF BEFORE BERM)

NOTE: EROSION CONTROL MIX FILTER BERM CAN BE USED IN LIEU OF SILT FENCE, CONTRACTOR'S CHOICE.

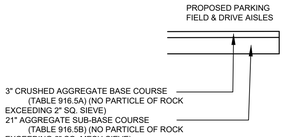
WOOD WASTE COMPOST/BARK FILTER BERM

NOT TO SCALE



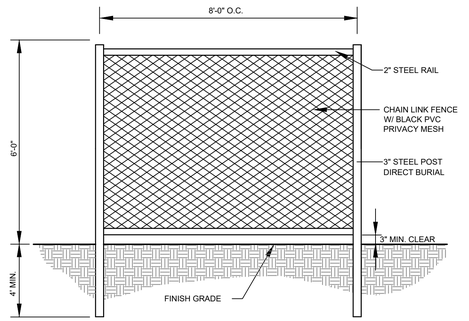
TYPICAL PAVEMENT JOINT

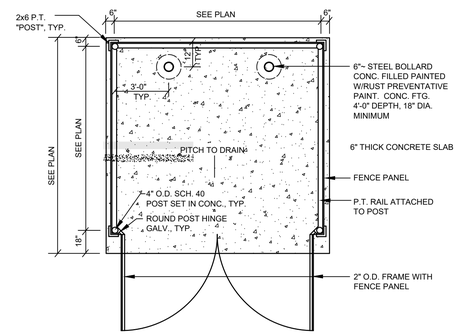
NOT TO SCALE



TYPICAL PARKING SECTION

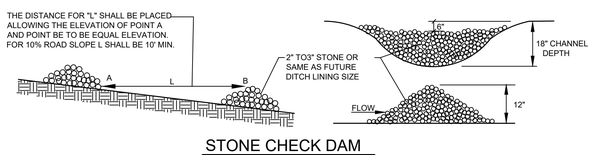
NOT TO SCALE





TYPICAL DUMPSTER ENCLOSURE

NOT TO SCALE



STONE CHECK DAM

NOT TO SCALE

ST.CLAIR ASSOCIATES
LAND SURVEYING AND CIVIL ENGINEERING
34 Forest Lane
Cumberland, ME 04021
Tel (207) 829-5558

PROJECT NO.	FIELD BOOK	DESIGN	CHKD	DRAWN
20073	ELECT.	DCS	DCS	DCS

REV:	BY:	DATE:	STATUS:
A	NST	06-07-2021	FOR TOWN REVIEW

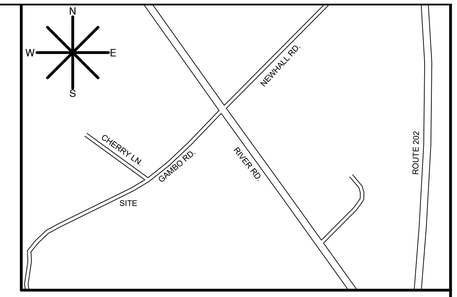
STATE OF MAINE — NANCY J. ST. CLAIR — No. 6877 — REGISTERED PROFESSIONAL ENGINEER — 06-07-2021

DETAILS
OF:
GAMBO ROAD PROPERTY
GAMBO ROAD
WINDHAM, MAINE
FOR:
S&N INVESTMENTS LLC
91 AUBURN STREET, SUITE J #240
PORTLAND, MAINE 04103

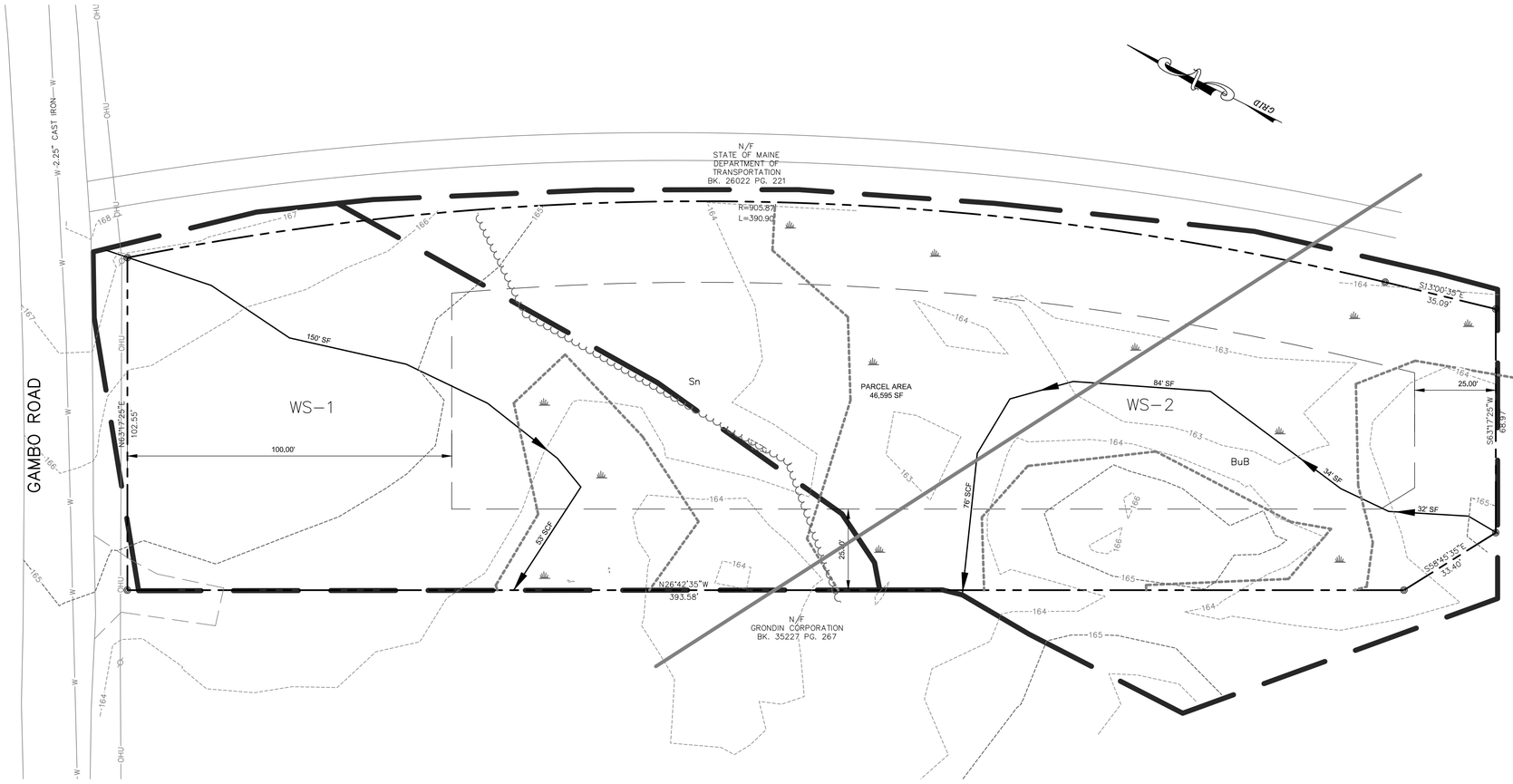
DATE	SCALE
06-07-2021	NTS

SHEET 6

20073S TAB 20073D-2



LOCATION MAP N.T.S.



LEGEND

EXISTING	DESCRIPTION	PROPOSED
	BOUNDARY LINE/R.O.W.	
	ABUTTER LINE/R.O.W.	
	SETBACK	
	BUILDING	
	EDGE PAVEMENT	
	EDGE OF GRAVEL	
--122-- --120--	CONTOURS	
OHU	OVERHEAD ELEC. & TEL.	
W	WATER	W
	GATE VALVE	
	SOILS BOUNDARY	

SOILS LEGEND

SOILS TYPE LABEL	SOIL NAME	SLOPE	HYDROLOGIC SOIL GROUP
BuB	LAMOINE SILT LOAM	3% TO 8% SLOPES	HSG C/D
Sn	SCANTIC SILT LOAM	0% TO 3% SLOPES	HSG D

LEGEND (WATERSHED MAP)

EXISTING	DESCRIPTION	PROPOSED
	TCPATH	
	WATERSHED	
WS-1	SUBCATCHMENT	WS-1

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

NANCY J. ST. CLAIR
STATE OF MAINE
No. 6877
REGISTERED PROFESSIONAL ENGINEER
06-07-2021

REV:	BY:	DATE:	STATUS:
A	DCS	06-07-2021	FOR TOWN REVIEW

ST.CLAIR ASSOCIATES
LAND SURVEYING AND CIVIL ENGINEERING
34 Forest Lane
Cumberland, ME 04021
Tel (207) 829-5558

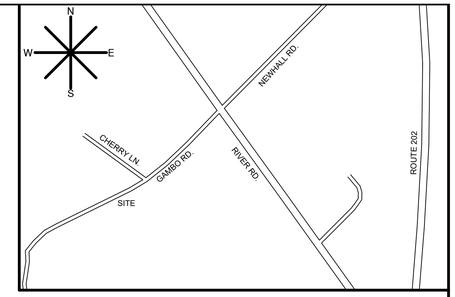
PROJECT NO.	FIELD BOOK	DESIGN	CHKD	DRAWN
20073	ELECT.	DCS	DCS	DCS

PRE-DEVELOPMENT WATERSHED MAP
OF:
GAMBO ROAD PROPERTY
GAMBO ROAD
WINDHAM, MAINE
FOR:
S&N INVESTMENTS LLC
91 AUBURN STREET, SUITE J #240
PORTLAND, MAINE 04103

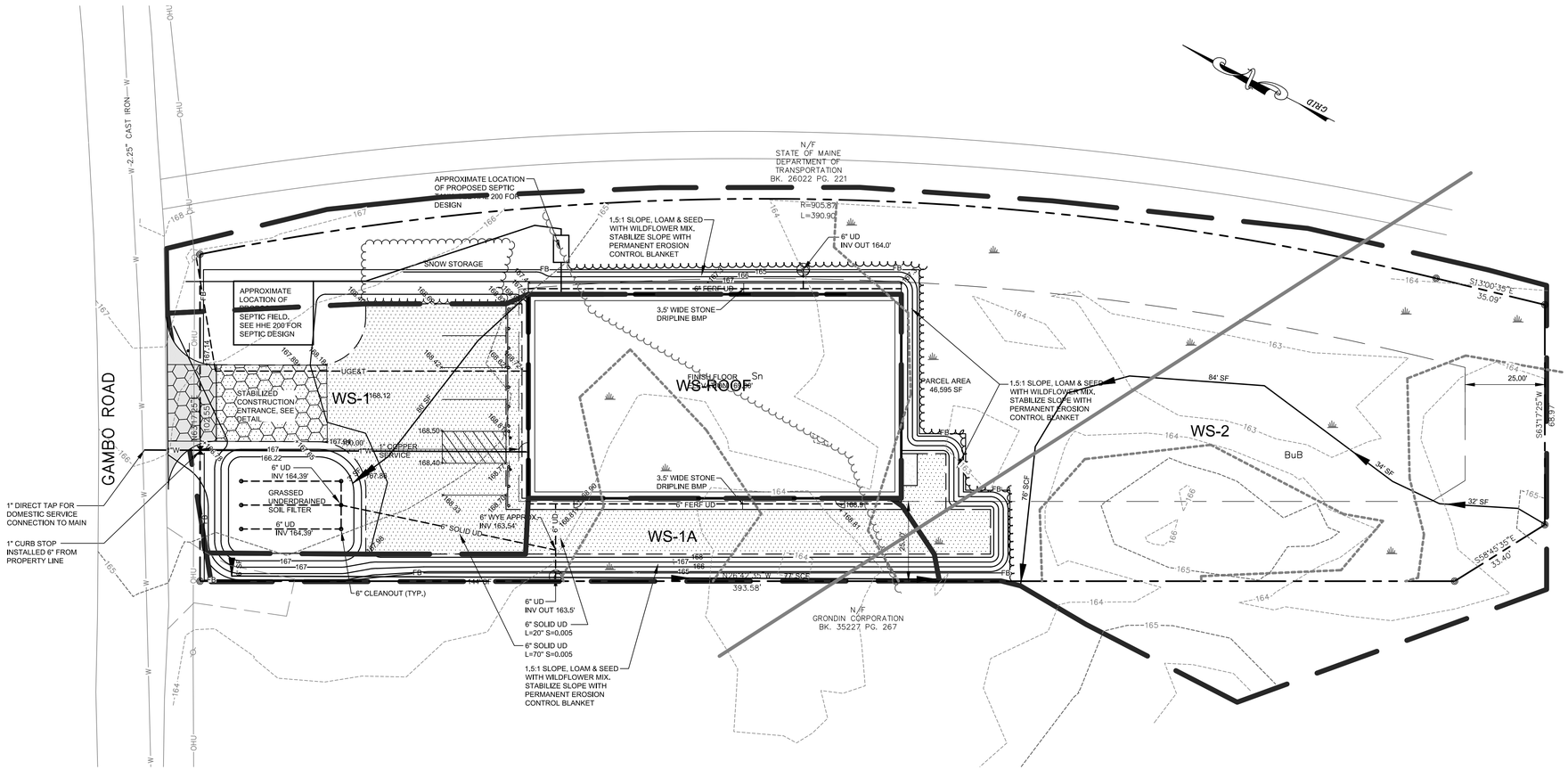
DATE	SCALE
06-07-2021	1" = 20'

SHEET 7

20073S TAB 20073PRE-WS



LOCATION MAP N.T.S.



LEGEND

EXISTING	DESCRIPTION	PROPOSED
	BOUNDARY LINE/R.O.W.	
	ABUTTER LINE/R.O.W.	
	SETBACK	
	BUILDING	
	EDGE PAVEMENT	
	EDGE OF GRAVEL	
--122-- --120--	CONTOURS	124
	WETLANDS	
	EDGE WETLAND	
	SOILS BOUNDARY	
	TREELINE	
-O-	UTILITY POLE	
	GUARDRAIL	
OHU	OVERHEAD ELEC. & TEL.	OHE&T
W	WATER	W
	GATE VALVE	
	FILTER BARRIER	FB
	RIPRAP	

SOILS LEGEND

SOILS TYPE LABEL	SOIL NAME	SLOPE	HYDROLOGIC SOIL GROUP
BuB	LAMOINE SILT LOAM	3% TO 8% SLOPES	HSG C/D
Sn	SCANTIC SILT LOAM	0% TO 3% SLOPES	HSG D

LEGEND (WATERSHED MAP)

EXISTING	DESCRIPTION	PROPOSED
	TCPATH	
	WATERSHED	
WS–1	SUBCATCHMENT	WS-1

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

STATE OF MAINE
NANCY J. ST. CLAIR
No. 6877
REGISTERED PROFESSIONAL ENGINEER
06-07-2021

REV:	BY:	DATE:	STATUS:
A	NST	06-07-2021	FOR TOWN REVIEW

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Cumberland Center, ME 04021
Tel (207) 829–5558

PROJECT NO.	FIELD BOOK	DESIGN	CHKD	DRAWN
20073	ELECT.	DCS	DCS	DCS

POST-DEVELOPMENT WATERSHED MAP
OF:
GAMBO ROAD PROPERTY
GAMBO ROAD
WINDHAM, MAINE
FOR:
S&N INVESTMENTS LLC
91 AUBURN STREET, SUITE J #240
PORTLAND, MAINE 04103

DATE	SCALE
06-07-2021	1" = 20'

SHEET 8

20073S TAB 20073POST-WS