BUCK'S ESTATES

A 9 LOT SUBDIVISION OLD STANDISH ROAD, BUXTON

For BILL HAM 108 DARBICK TERRACE HOLLIS, MAINE 04042

PLAN INDEX

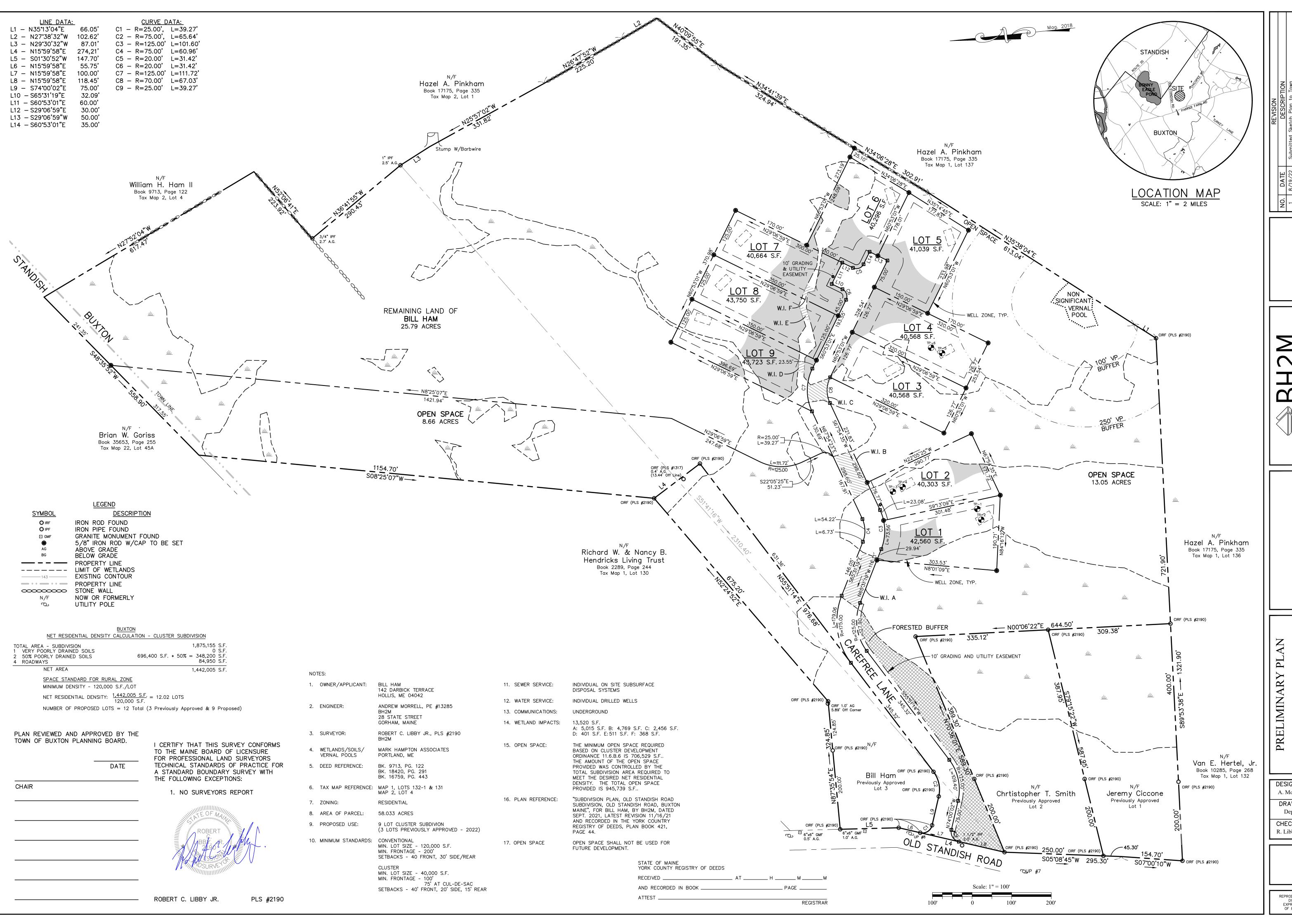
- PRELIMINARY SUBDIVISION PLAN
- STANDARD BOUNDARY SURVEY AND EXISTING CONDITIONS PLAN
- PLAN OF PRIVATE WAY CAREFREE LANE STATION 0+00 TO 8+00
- PLAN OF PRIVATE WAY CAREFREE LANE STATION 8+00 TO END
- EROSION CONTROL DETAILS
- STANDARD DETAILS
- PRE DEVELOPMENT WATERSHED
- POST DEVELOPMENT WATERSHED



Berry, Huff, McDonald, Milligan Inc. Engineers, Surveyors

Gorham, Maine 04038 Fax (207) 839-8250

Tel. (207) 839-2771



NO. DATE DESCRIPTION

1 8/19/22 Submitted Sketch Plan to Town

2 10/27/22 Submitted Sketch Plan to Client for Review

3 11/15/22 Revised per Client Comments

4 11/30/23 Submitted Preliminary Plan to Town



Berry, Huff, McDonald, Mil
Engineers, Surveyors

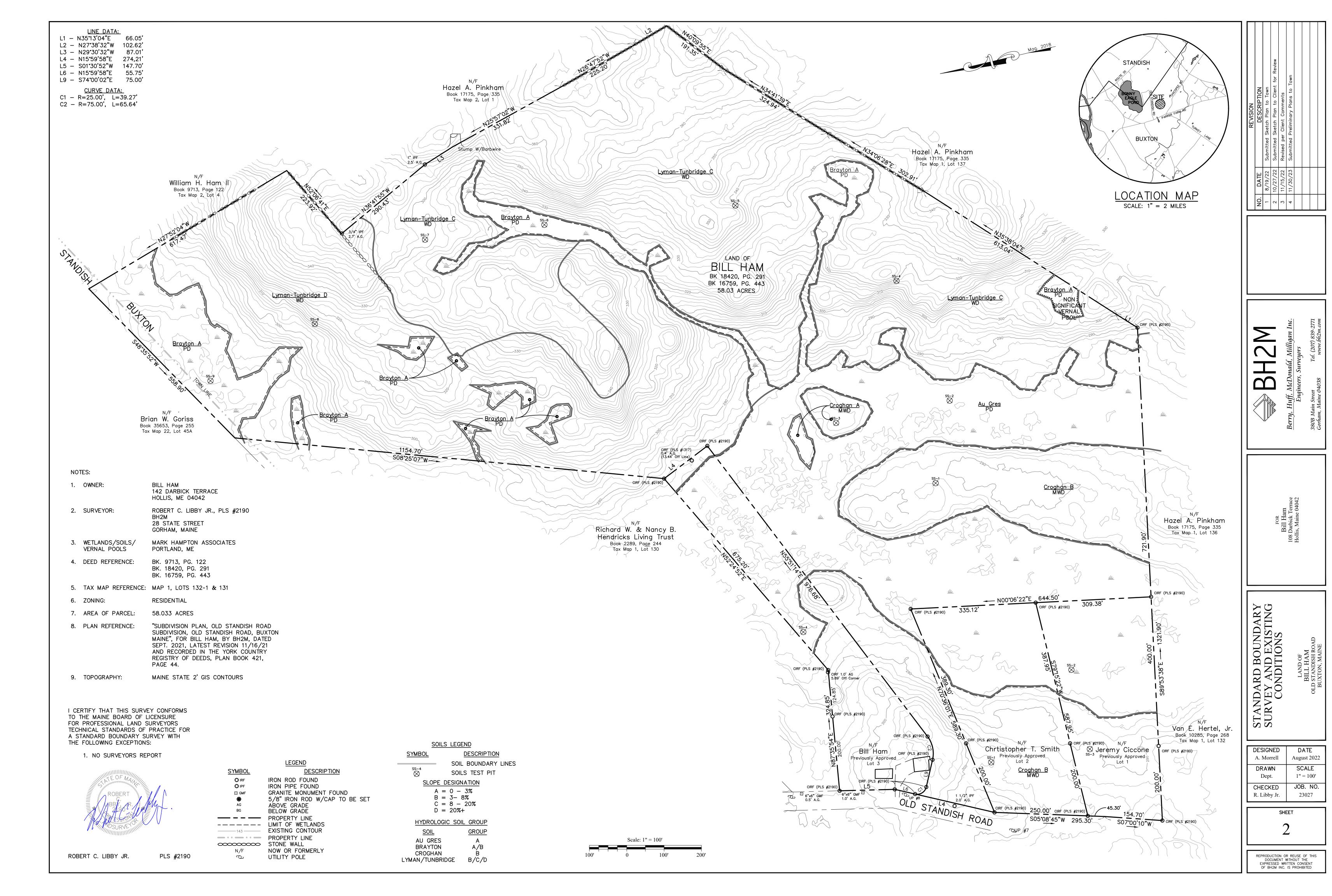
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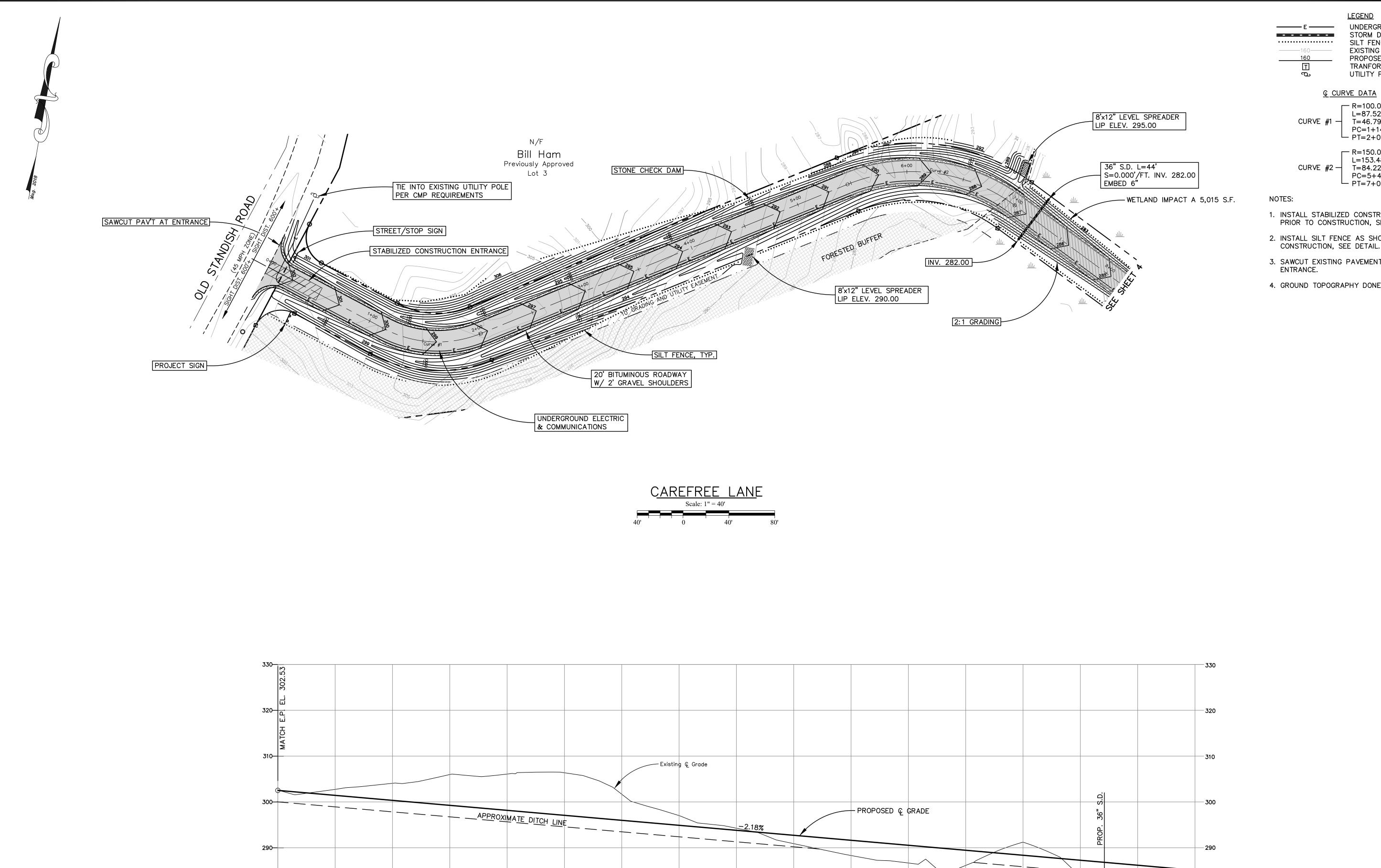
BUCK'S ESTATES
SUBDIVISION
OLD STANDISH ROAD

SIGNED Morrell	DATE August 2022			
RAWN Dept.	SCALE 1" = 100'			
IECKED Libby Jr.	JOB. NO. 23027			
CHFFT				

SHEET 1

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4+00

PROFILE

SCALE

VERTICAL: 1" = 10'

HORIZONTAL: 1" = 40'

4+50

5+00

5+50

6+00

6+50

7+00

3+50

0+50

1+50

2+00

2+50

3+00

<u>LEGEND</u> UNDERGROUND ELECTRIC STORM DRAIN SILT FENCE
EXISTING CONTOUR
PROPOSED CONTOUR
TRANFORMER PAD
UTILITY POLE

R=100.00' L=87.52' CURVE #1 — T=46.79' PC=1+14.02 └─ PT=2+01.54

R=150.00' L=153.48" CURVE #2 T=84.22 PC=5+46.86└ PT=7+00.34

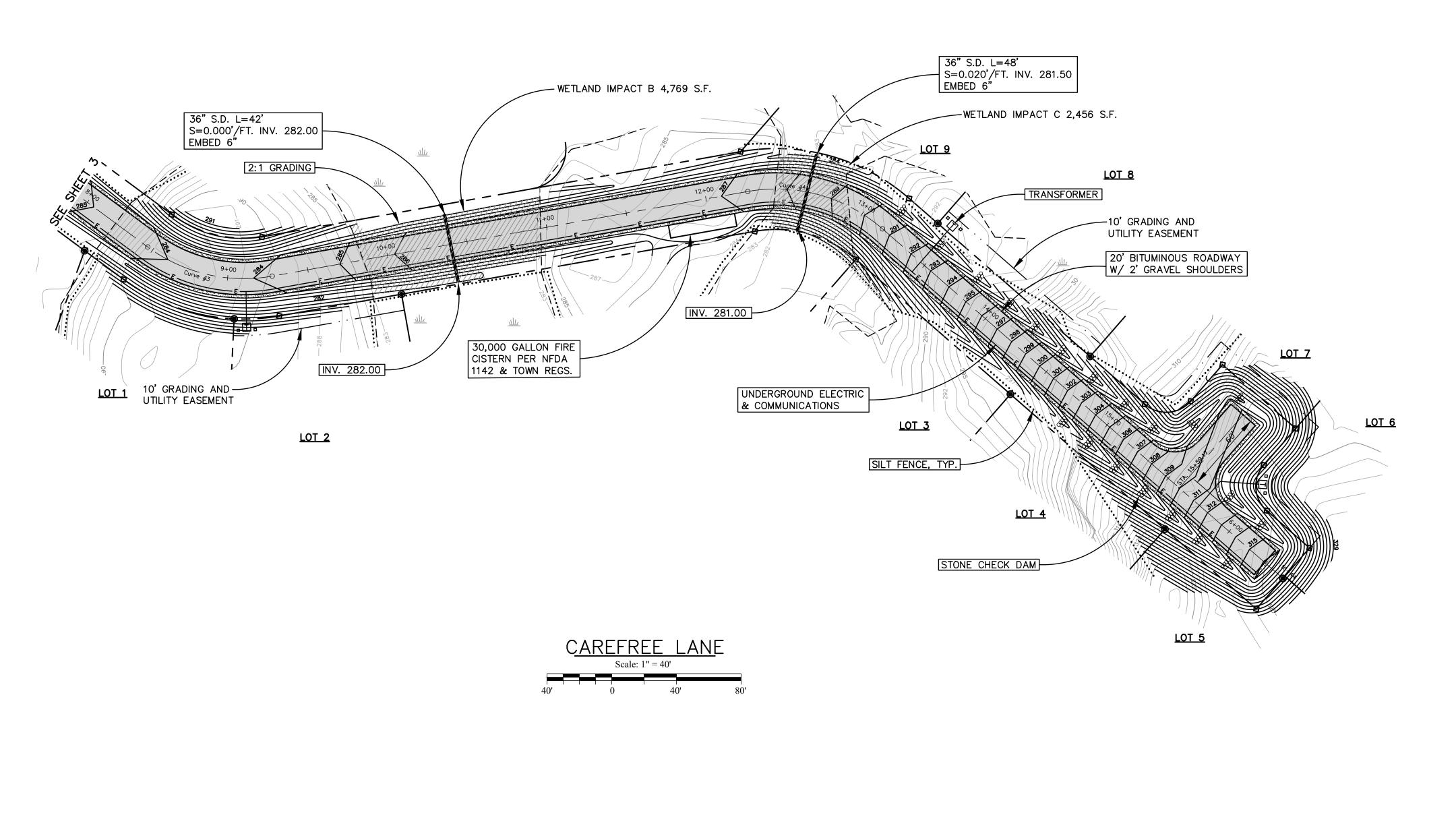
- 1. INSTALL STABILIZED CONSTRUCTION ENTRANCE PRIOR TO CONSTRUCTION, SEE DETAIL.
- 2. INSTALL SILT FENCE AS SHOWN PRIOR TO CONSTRUCTION, SEE DETAIL.
- 3. SAWCUT EXISTING PAVEMENT AT PROJECT
- 4. GROUND TOPOGRAPHY DONE BY BH2M

8+00

7+50

DESIGNED	DATE
W. Pelkey	April 2023
DRAWN	SCALE
Dept	As Noted
CHECKED	JOB. NO.
A. Morrell	23027

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LEGEND

UNDERGROUND ELECTRIC
STORM DRAIN
SILT FENCE
EXISTING CONTOUR
PROPOSED CONTOUR
TRANFORMER PAD
UTILITY POLE

<u>

© CURVE DATA</u>

CURVE #3 — R=100.00' L=81.28' T=43.03' PC=8+46.38 PT=9+27.66 R=100.00' L=89.37' T=47.92'

NOTES:

 INSTALL STABILIZED CONSTRUCTION ENTRANCE PRIOR TO CONSTRUCTION, SEE DETAIL.

PC=12+26.26 PT=13+15.63

- 2. INSTALL SILT FENCE AS SHOWN PRIOR TO CONSTRUCTION, SEE DETAIL.
- 3. SAWCUT EXISTING PAVEMENT AT PROJECT ENTRANCE.
- 4. GROUND TOPOGRAPHY DONE BY BH2M

DESCRIPTION	Submitted Sketch Plan to Town	Submitted Sketch Plan to Client for Review	Revised per Client Comments	Submitted Preliminary Plan to Town			
DATE	8/19/22	10/27/22	11/15/22	11/30/23			
NO.	1	2	5,	4			



Huff, McDonald, Milligan Inc.
Engineers, Surveyors
ain Street Tel. (207) 839-2771

rOK Ill Ham rbick Terrace , ME 04042

ROADWAY PROFILE
STA. 8+00 TO STA. 16+44

CAREFREE LANE

DESIGNED	DATE
W. Pelkey	April 2023
DRAWN	SCALE
Dept	1" = 40'
CHECKED	JOB. NO.
A. Morrell	23027

SHEET 4

REPRODUCTION OR REUSE OF THIS DOCUMENT WITHOUT THE EXPRESSED WRITTEN CONSENT OF BH2M INC. IS PROHIBITED

EROSION AND SEDIMENT CONTROL PLAN

THIS PLAN HAS BEEN DEVELOPED AS A STRATEGY TO CONTROL SOIL EROSION AND SEDIMENTATION DURING AND AFTER CONSTRUCTION. THIS PLAN IS BASED ON THE STANDARDS AND SPECIFICATIONS FOR EROSION PREVENTION IN DEVELOPING AREAS AS CONTAINED IN THE LATEST REVISION OF TO THE 2016 MAINE EROSION AND SEDIMENT CONTROL BMP'S MANUAL FOR DESIGNERS AND ENGINEERS, AND THE LATEST REVISION TO THE 2014 MAINE EROSION AND SEDIMENT CONTROL FIELD GUIDE FOR CONTRACTORS. SEE MANUALS FOR ADDITIONAL INFORMATION AND DETAILS.

DURING CONSTRUCTION THE DEVELOPER/APPLICANT OR THEIR REPRESENTATIVES WILL BE RESPONSIBLE FOR IMPLEMENTING THE EROSION AND SEDIMENT CONTROL BMP'S AS WELL ROUTINE INSPECTIONS AND MAINTENANCE OF THE BMP'S.

- THE PROPOSED LOCATIONS OF SILTATION AND EROSION CONTROL STRUCTURES ARE SHOWN ON THE SITE PLAN. I. ALL CONSTRUCTION INSPECTIONS SHALL BE CONDUCTED BY SOMEONE WITH KNOWLEDGE OF EROSION AND STORMWATER CONTROL, INCLUDING STANDARDS AND PERMIT CONDITIONS. CONSTRUCTION INSPECTIONS SHALL BE PERFORMED AT LEAST ONCE A WEEK, AND PRIOR TO AND 24 HOURS AFTER A WET WEATHER EVENT (1 INCH OR MORE IN A 24 HOUR PERIOD). CONSTRUCTION INSPECTION AND CORRECTIVE ACTION DOCUMENTATION RECORDS SHALL BE MAINTAINED FOR A MINIMUM OF 5
- 2. THE SCOPE OF CONSTRUCTION INSPECTIONS INCLUDE THE EROSION AND SEDIMENTATION CONTROL MEASURES AS WELL AS DISTURBED AREAS, MATERIAL STORAGE AREAS, AND LOCATIONS WHERE VEHICLES ENTER AND EXIT THE SITE.
- 3. ALL SEDIMENT AND EROSION CONTROL MEASURES SHALL BE DONE IN ACCORDANCE WITH THE "MAINE EROSION AND SEDIMENT CONTROL BMP'S". DEPARTMENT OF ENVIRONMENTAL PROTECTION, LATEST REVISION
- 4. THOSE AREAS UNDERGOING ACTUAL CONSTRUCTION WILL BE LEFT IN AN UNTREATED OR UNVEGETATED CONDITION FOR A MINIMUM TIME. AREAS SHALL BE PERMANENTLY STABILIZED WITHIN 7 DAYS OF INITIAL DISTURBANCE OF THE SOIL. IF THE DISTURBANCE IS WITHIN 75 FEET OF A WETLAND OR WATERBODY, THE AREA SHALL BE STABILIZED WITHIN 2 DAYS OR PRIOR TO ANY STORM EVENT, WHICHEVER COMES FIRST.
- 5. EXCAVATION AND EARTHWORK SHALL BE DONE SUCH THAT NO MORE THAN 1 ACRES OF THE SITE IS WITHOUT STABILIZATION AT ANY ONE TIME
- 6. EXPOSED AREA SHOULD BE LIMITED TO THAT WHICH CAN BE MULCHED IN ONE DAY. 7. CONTINUATION OF EARTHWORK OPERATIONS ON ADDITIONAL AREAS SHALL NOT BEGIN UNTIL THE EXPOSED SOIL SURFACE ON
- THE AREA BEING WORKED HAS BEEN STABILIZED SUCH THAT NO MORE THAN ONE ACRE OF THE SITE IS WITHOUT EROSION
- 8. SEDIMENT BARRIERS (EROSION CONTROL MIX, STONE CHECK DAMS, STABILIZED CONSTRUCTION ENTRANCE, ETC.) SHOULD BE INSTALLED PRIOR TO ANY SOIL DISTURBANCE OF THE CONTRIBUTING DRAINAGE AREA ABOVE THEM. THE CONTRACTOR SHALL MAINTAIN THE STABILIZED CONSTRUCTION ENTRANCE UNTIL ALL DISTURBED AREAS ARE STABILIZED.
- 9. INSTALL EROSION CONTROL MIX AT TOE OF SLOPES TO FILTER SILT FROM RUNOFF. SEE E.C. MIX DETAIL FOR PROPER INSTALLATION. EROSION CONTROL MIX WILL REMAIN IN PLACE PER NOTE #7. THE USE OF AN EROSION CONTROL MIX BERM IS PROHIBITED AT THE BASE OF SLOPES STEEPER THAN 8% OR WHERE THERE IS FLOWING WATER.
- 10. ALL ERSOION CONTROL STRUCTURES WILL BE INSPECTED, REPLACED, AND/OR REPAIRED EVERY 7 DAYS AND IMMEDIATELY BEFORE AND FOLLOWING ANY SIGNIFICANT RAINFALL (0.5 INCH OR MORE IN A 24-HOUR PERIOD) OR SNOW MELT OR WHEN NO LONGER SERVICEABLE DUE TO SEDIMENT ACCUMULATION OR DECOMPOSURE. IF AN INSPECTION DETERMINES THAT A CORRECTIVE ACTION IS REQUIRED, THE ACTION OR REPAIR SHALL BE STARTED BY THE END OF THE NEXT WORKDAY AND COMPLETED WITHIN SEVEN DAYS OR BEFORE THE NEXT STORM EVENT. SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH STORM EVENT. THEY MUST BE REMOVED WHEN DEPOSITS REACH APPROXIMATELY ONE HALF THE HEIGHT OF THE BARRIER. SEDIMENT CONTROL DEVICES SHALL REMAIN IN PLACE AND BE MAINTAINED BY THE CONTRACTOR UNTIL AREAS UPSLOPE ARE STABILIZED BY TURF. EROSION CONTROL MEASURES SHALL BE REMOVED WITHIN 30 DAYS OF PERMANENT STABILIZATION. PERMANENT STABILIZATION
- 11. NO SLOPES, EITHER PERMANENT OR TEMPORARY, SHALL BE STEEPER THAN ONE AND ONE HALF TO ONE (1.5 TO 1).
- 12 IF FINAL SEEDING OF THE DISTURBED AREAS IS NOT COMPLETED 45 DAYS PRIOR TO THE FIRST KILLING FROST LISE TEMPORARY MULCHING (DORMANT SEEDING MAY BE ATTEMPTED AS WELL) TO PROTECT THE SITE AND DELAY SEEDING UNTIL
- 13. TEMPORARY SEEDING OF DISTURBED AREAS THAT HAVE NOT BEEN FINAL GRADED SHALL BE COMPLETED BY AUG. 15 OR 45 DAYS PRIOR TO THE FIRST KILLING FROST (OCT. 1) TO PROTECT FROM SPRING RUNOFF PROBLEMS.
- 14. DURING THE CONSTRUCTION PHASE, INTERCEPTED SEDIMENT WILL BE RETURNED TO THE SITE AND REGRADED ONTO OPEN AREAS. POST SEEDING SEDIMENT, IF ANY WILL BE DISPOSED OF IN AN ACCEPTABLE MANNER. 15. REVEGETATION MEASURES WILL COMMENCE UPON COMPLETION OF CONSTRUCTION EXCEPT AS NOTED ABOVE. ALL DISTURBED
- AREAS NOT OTHERWISE STABILIZED WILL BE GRADED, SMOOTHED, AND PREPARED FOR FINAL SEEDING AS FOLLOWS: a. FOUR INCHES OF LOAM WILL BE SPREAD OVER DISTURBED AREAS AND SMOOTHED TO A UNIFORM SURFACE.
- b. APPLY LIMESTONE AND FERTILIZER ACCORDING TO SOIL TEST. IF SOIL TESTING IS NOT FEASIBLE ON SMALL OR VARIABLE SITES, OR WHERE TIMING IS CRITICAL, FERTILIZER MAY BE APPLIED AT THE RATE OF 800 POUNDS PER ACRE OR 18.4 POUNDS PER 1,000 SQUARE FEET USING 10-20-20 (N-P205-K20) 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.). FOLLOWING SEED BED PREPARATION, DITCHES AND BACK SLOPES WILL BE SEEDED TO A MIXTURE OF 47% CREEPING RED FESCUE, 5% REDTOP, AND 48% TALL FESCUE. THE LAWN AREAS WILL BE SEEDED TO A PREMIUM TURF MIXTURE OF 44% KENTUCKY BLUEGRASS, 44% CREEPING RED FESCUE, AND 12% PERENNIAL RYEGRASS: SEEDING RATE IS 1.03 LBS PER
- 1000 SQ. FT. LAWN QUALITY SOD MAY BE SUBSTITUTED FOR SEED. SEED MIX SHALL CONTAIN 10% ANNUAL RYE GRASS. d. HAY MULCH AT THE RATE OF 70-90 LBS PER 1000 SQUARE FEET FOR OVER 75% COVERAGE. FOR UNPROTECTED OR WINDY AREAS, ANCHOR MULCH WITH PEG AND TWINE (1 SQ. YD./BLOCK). HYDRAULIC MULCHES MAY ALSO BE USED, APPLIED AT A RATE OF 5 LBS PER 1000 SQUARE FEET FOR PAPER MULCH OR 40 LBS PER 1000 SQUARE FEET OR AS DIRECTED BY THE MANUFACTURER. ON SLOPES GREATER THAN 3:1 EROSION CONTROL MIX MAY BE USED, SEE EROSION
- e. FOR DISTURBED AREAS TO BE MAINTAINED IN POST-CONSTRUCTION AS A MEADOW BUFFER, APPLY NEW ENGLAND CONSERVATION WILDLIFE MIX BY NEW ENGLAND WETLAND PLANTS, INC., OF AMHERST, MASSACHUSETTS OR APPROVED
- 14. ALL TEMPORARY EROSION CONTROL MEASURES SHALL BE REMOVED WITHIN 30 DAYS ONCE THE SITE IS STABILIZED WITH 90% GRASS CATCH IN VEGETATED AREAS. TEMPORARY EROSION AND SEDIMENT CONTROL BLANKET SHALL BE USED IN ALL DITCHES
- 15. WETLANDS WILL BE PROTECTED WITH EROSION CONTROL MIX OR SILT FENCE INSTALLED AT THE EDGE FOR THE WETLAND OR THE BOUNDARY OF WETLAND DISTURBANCE. ALL AREAS WITHIN 75 FEET OF A PROTECTED NATURAL RESOURCE MUST BE PROTECTED WITH A DOUBLE ROW OF SEDIMENT BARRIERS DURING WINTER CONSTRUCTION.
- 16. ALL STORMWATER WILL BE PREVENTED FROM RUNNING ONTO STOCKPILES. SEDIMENT BARRIERS WILL BE INSTALLED
- 17. PERMANENT POST-CONSTRUCTION BMP'S (VEGETATED SWALES, WET PONDS, ETC.) WILL NOT BE USED TO MANAGE FLOWS DURING CONSTRUCTION WITHOUT SPECIAL PROTECTION AND/OR RESTORATION.

ADDITIONAL TEMPORARY SEED MIXTURE (FOR PERIODS LESS THAN 12 MONTHS):

<u>SEASON</u>	<u>SEED</u>	<u>RATE</u>
SUMMER $(5/15 - 8/15)$	SUDANGRASS	40 LBS/ACF
	OATS	80 LBS/ACF
LATE SUMMER/EARLY FALL	PERENNIAL RYEGRASS	40 LBS/ACF
(8/15 - 9/15)		
FALL (9/15 - 11/1)	WINTER RYE	112 LBS/AC
WINTER $(11/1 - 4/1)$	MULCH W/ DORMANT SEED	80 LBS/ACF
SPRING $(4/1 - 7/1)$	OATS	80 LBS/ACF
	ANNUAL RYEGRASS	40 LBS/ACF
**SEED RATE ONLY		

4" LOAM AND SEED

EROSION CONTROL MIX

EROSION CONTROL MIX (ECM) SHALL MEET THE REQUIREMENTS PROVIDED IN THE LATEST REVISION OF MAINE DEP'S EROSION AND SEDIMENTATION CONTROL BMP MANUAL. ECM IS ACCEPTABLE FOR USE ON SLOPES OF GREATER THAN 3:1 BUT LESS THAN 2:1. ECM SHALL CONSIST OF WELL-GRADED ORGANIC COMPONENT 50 - 100% OF DRY WEIGHT, AND COMPRISED OF FIBROUS AND ELONGATED FRAGMENTS. ECM SHALL BE FREE FROM REFUSE, MATERIAL TOXIC TO PLANT GROWTH OR CONSTRUCTION DEBRIS. ECM SHALL BE EVENLY DISTRIBUTED AND APPLIED AT A THICKNESS OF 2" ON 3:1 SLOPES, WITH AN ADDITIONAL 1/2" PER 20' OF SLOPE FOR A MAXIMUM OF 100' IN LENGTH. SLOPES GREATER THAN 3:1, ECM SHALL BE APPLIED AT THICKNESS OF 4" OR 5" FOR SLOPES GREATER THAN 60' IN LENGTH.

NO SLOPES, EITHER PERMANENT OR TEMPORARY, SHALL BE STEEPER THAN ONE AND ONE HALF TO ONE (1.5:1). EROSION CONTROL MIX IS AN ACCEPTABLE STABILIZATION MEASURE FOR SLOPES UP TO 3:1, WITH LIMITS THAT ARE COVERED BY NOTES ON THIS SHEET. SLOPES BETWEEN 3:1 AND 2:1 SHALL BE STABILIZED WITH EROSION CONTROL BLANKETS, AND ALL SLOPES GREATER THAN 2:1 SHALL BE STABILIZED WITH RIPRAP. SEE SLOPE STABILIZATION DETAIL FOR ADDITIONAL INFORMATION

EROSION CONTROL DURING CONSTRUCTION WINTER CONSTRUCTION

WINTER CONSTRUCTION PERIOD: NOVEMBER 1 THROUGH APRIL 15

2. OVERWINTER STABILIZATION OF DITCHES AND CHANNELS:
ALL STONE-LINED DITCHES AND CHANNELS MUST BE CONSTRUCTED AND STABILIZED BY NOVEMBER 15. ALL GRASS LINED
DITCHES AND CHANNELS MUST BE CONSTRUCTED AND STABILIZED BY SEPTEMBER 1. IF A DITCH OR CHANNEL IS NOT
GRASS-LINED BY SEPTEMBER 1, THEN ONE OF THE FOLLOWING ACTIONS MUST BE TAKEN TO STABILIZE THE DITCH FOR

- INSTALL A SOD LINING IN THE DITCH:
 A DITCH MUST BE LINED WITH PROPERLY INSTALLED SOD BY OCTOBER 1. PROPER INSTALLATION INCLUDES: PINNING
 THE SOD ONTO THE SOIL WITH WIRE PINS, ROLLING THE SOD TO GUARANTEE CONTACT BETWEEN THE SOD AND
 UNDERLYING SOIL, WATERING THE SOD TO PROMOTE ROOT GROWTH INTO THE DISTURBED SOIL, AND ANCHORING SOD
 AT THE BASE OF THE DITCH WITH JUTE OR PLASTIC MESH TO PREVENT THE SOD FROM SLOUGHING DURING FLOW CONDITIONS. SEE THE PERMANENT VEGETATION BMP SECTION.
- INSTALL A STONE LINING IN THE DITCH: HISTALL A STOKE LINED WITH STONE RIPRAP BY NOVEMBER 15. A REGISTERED PROFESSIONAL ENGINEER MUST BE HIRED TO DETERMINE THE STONE SIZE AND LINING THICKNESS NEEDED TO WITHSTAND THE ANTICIPATED FLOW VELOCITIES AND FLOW DEPTHS WITHIN THE DITCH. IF NECESSARY, THE CONTRACTOR WILL REGRADE THE DITCH PRIOR TO PLACING THE STONE LINING SO TO PREVENT THE STONE LINING FROM REDUCING THE DITCH'S
- 3. OVERWINTER 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. THE DEPARTMENT WILL CONSIDER ANY AREA HAVING A GRADE
 GREATER THAN 15% TO BE A SLOPE. IF A SLOPE TO BE VEGETATED IS NOT STABILIZED BY SEPTEMBER 1, THEN ONE OF
 THE FOLLOWING ACTIONS MUST BE TAKEN TO STABILIZE THE SLOPE FOR LATE FALL AND WINTER. STABILIZE THE SOIL WITH
 TEMPORARY VEGETATION AND EROSION CONTROL MATS. BY OCTOBER 1 THE DISTURBED SLOPE MUST BE SEEDED WITH
 WINTER RYE AT A SEEDING RATE OF 3 POUNDS PER 1000 SQUARE FEET AND THEN INSTALL EROSION CONTROL MATS OR
 ANCHORED MULCH OVER THE SEEDING. IF THE RYE FAILS TO GROW AT LEAST THREE INCHES OR FAILS TO COVER AT
 LEAST 75% OF THE SLOPE BY NOVEMBER 1, THEN THE CONTRACTOR WILL COVER THE SLOPE WITH A LAYER OF EROSION
 CONTROL MIX OR WITH STONE RIPRAP AS DESCRIPED IN THE FOLLOWING STANDARDS.

CONTROL MIX OR WITH STONE RIPRAP AS DESCRIBED IN THE FOLLOWING STANDARDS.

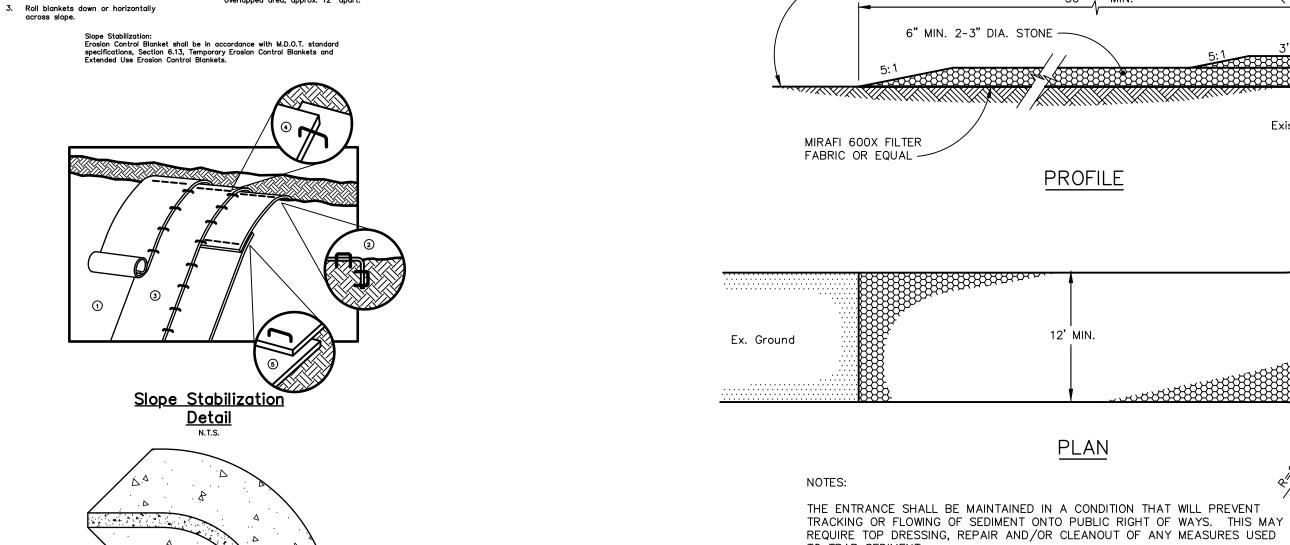
- THE DISTURBED SLOPE MUST BE STABILIZED WITH PROPERLY INSTALLED SOD BY OCTOBER 1. PROPER INSTALLATION INCLUDES THE CONTRACTOR PINNING THE SOD ONTO THE SLOPE WITH WRE PINS, ROLLING THE SOD TO GUARANTEE CONTACT BETWEEN THE SOD AND UNDERLYING SOIL, AND WATERING THE SOD TO PROMOTE ROOT GROWTH INTO THE DISTURBED SOIL. THE CONTRACTOR WILL NOT USE LATE SEASON SOD INSTALLATION TO STABILIZE SLOPES HAVING A GRADE GREATER THAN 33% (3H:1V) OR HAVING GROUNDWATER SEEPS ON THE SLOPE FACE.
- STABILIZE THE SOIL WITH EROSION CONTROL MIX: EROSION CONTROL MIX MUST BE PROPERLY INSTALLED BY NOVEMBER 15. THE CONTRACTOR WILL NOT USE EROSION CONTROL MIX TO STABILIZE SLOPES HAVING GREATER THAN 50% (2H:1V) OR HAVING GROUNDWATER SEEPS ON THE SLOPE FACE. SEE THE EROSION CONTROL MIX NOTES FOR ADDITIONAL CRITERIA.
- PLACE A LAYER OF STONE RIPRAP ON THE SLOPE BY NOVEMBER 15. THE DEVELOPMENT'S OWNER WILL HIRE A REGISTERED PROFESSIONAL ENGINEER TO DETERMINE THE STONE SIZE NEEDED FOR STABILITY ON THE SLOPE AND
- OVERWINTER 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 ONE OF THE FOLLOWING ACTIONS MUST BE TAKEN TO
- STABILIZE THE SOIL WITH TEMPORARY VEGETATION: BY OCTOBER 1, SEED THE DISTURBED SOIL WITH WINTER RYE AT A SEEDING RATE OF 3 POUNDS PER 1000 SQUARE FEET, LIGHTLY MULCH THE SEEDED SOIL WITH HAY OR STRAW AT 75 POUNDS PER 1000 SQUARE FEET, AND ANCHOR THE MULCH WITH PLASTIC NETTING. MONITOR GROWTH OF THE RYE. IF THE RYE FAILS TO GROW AT LEAST THREE INCHES OR FAILS TO COVER AT LEAST 90% OF THE DISTURBED SOIL BEFORE NOVEMBER 1, THEN MULCH THE AREA FOR OVER-WINTER PROTECTION AS DESCRIBED BELOW.
- STABILIZE THE SOIL WITH SOD: STABILIZE THE DISTURBED SOIL WITH PROPERLY INSTALLED SOD BY OCTOBER 1. PROPER INSTALLATION INCLUDES PINNING THE SOD ONTO THE SOIL WITH WIRE PINS, ROLLINIG THE SOD TO GUARANTEE CONTACT BETWEEN THE SOD AND UNDERLYING SOIL, AND WATERING THE SOD TO PROMOTE ROOT GROWTH INTO THE DISTURBED SOIL.
- BY NOVEMBER 15, MULCH THE DISTURBED SOIL BY SPREADING HAY OR STRAW AT A RATE OF AT LEAST 150 POUNDS PER 1000 SQUARE FEET ON THE AREA SO THAT NO SOIL IS VISIBLE THROUGH THE MULCH. IMMEDIATELY AFTER APPLYING THE MULCH, ANCHOR THE MULCH WITH PLASTIC NETTING TO PREVENT WIND FROM MOVING THE MULCH OFF THE DISTURBED SOIL. PROVIDE NETTING ON ALL SLOPES GREATER THAN 8%.
- IF AN INSPECTION DETERMINES THAT A CORRECTIVE ACTION IS REQUIRED, THE ACTION OR REPAIR SHALL BE STARTED BY THE END OF THE NEXT WORKDAY AND COMPLETED WITHIN SEVEN DAYS OR BEFORE THE NEXT STORM EVENT. MAINTENANCE MEASURES SHALL BE APPLIED AS NEEDED DURING THE ENTIRE CONSTRUCTION SEASON. ONCE A WEEK AND BEFORE AND AFTER EACH RAINFALL, SNOW STORM OR PERIOD OF THAWING AND RUNOFF, THE SITE CONTRACTOR SHALL PERFORM A VISUAL INSPECTION OF ALL INSTALLED EROSION CONTROL MEASURES AND PERFORM REPAIRS AS NEEDED TO INSURE THEIR CONTINUOUS FUNCTION. FOLLOWING THE TEMPORARY AND/OR FINAL SEEDING AND MULCHING, THE CONTRACTOR SHALL, IN THE SPRING, INSPECT AND REPAIR ANY DAMAGES AND OR BARE SPOTS. AN ESTABLISHED VEGETATIVE COVER MEANS A MINIMUM OF 85 TO 90% OF AREAS VEGETATED WITH VIGOROUS GROWTH.

STABILIZATION SCHEDULE BEFORE WINTER:

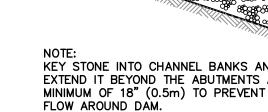
- ALL DISTURBED AREAS MUST BE SEEDED AND MULCHED. ALL SLOPES MUST BE STABILIZED, SEEDED AND MULCHED. L GRASS LINED DITCHES AND CHANNELS MUST BE STABILIZED WITH MULCH OR AN EROSION
- IF THE SLOPE IS STABILIZED WITH AN EROSION CONTROL BLANKET AND SEEDED. ALL DISTURBED AREAS TO BE PROTECTED WITH AN ANNUAL GRASS MUST BE SEEDED AT A SEEDING
- ALL STONE LINED DITCHES AND CHANNELS MUST BE CONSTRUCTED AND STABILIZED. SLOPES THAT ARE COVERED WITH RIPRAP MUST BE CONSTRUCTED BY THAT DATE. NOVEMBER 15 DURING WINTER CONSTRUCTION PERIOD ALL SNOW SHALL BE REMOVED FROM AREAS OF SEEDING AND MULCHING PRIOR TO
- AREAS WITHIN 75 FEET OF STREAMS, WETLANDS, AND OTHER PROTECTED NATURAL RESOURCES THAT ARE NOT STABILIZED WITH VEGETATION BY DEC. 1 SHALL BE MULCHED AND ANCHORED WITH NETTING. IF WORK CONTINUES IN THIS AREA DURING THE WINTER, A DOUBLE LINE OF SEDIMENT BARRIERS MUST BE USED.
- <u>SPILL PREVENTION:</u> CONTROLS MUST BE USED TO PREVENT POLLUTANTS FROM BEING DISCHARGED FROM MATERIALS 1. ON SITE, INCLUDING STORAGE PRACTICES TO MINIMIZE EXPOSURE OF THE MATERIALS TO STORMWATER, AND APPROPRIATE SPILL PREVENTION, CONTAINMENT, AND RESPONSE PLANNING AND IMPLEMENTATION.
- 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.
- 3. <u>FUGITIVE SEDIMENT AND DUST:</u> 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 MY NOT USED FOR DUST CONTROL. ANY OFFSITE TRACKING OF MUD OR SEDIMENT SHALL BE VACUUMED IMMEDIATELY AND PRIOR TO THE NEXT SIGNIFICANT STORM EVENT
- 4. <u>DEBRIS AND OTHER MATERIALS:</u> LITTER, CONSTRUCTION DEBRIS, AND CHEMICALS EXPOSED TO STORMWATER MUST BE PREVENTED FROM BECOMING A POLLUTANT SOURCE.
- . <u>TRENCH OR FOUNDATION DE-WATERING:</u> TRENCH DE-WATERING IS THE REMOVAL OF WATER FROM TRENCHES, FOUNDATIONS, COFFER DAMS, PONDS, AND OTHER AREAS WITHIN THE CONSTRUCTION AREA THAT RETAIN WATER AFTER EXCAVATION. IN MOST CASES THE COLLECTED WATER IS HEAVILY SILTED AND HINDERS CORRECT SAFE CONSTRUCTION PRACTICES. THE COLLECTED WATER MUST BE REMOVED FROM THE PONDED AREA, EITHER THROUGH GRAVITY OR PUMPING, AND MUST BE SPREAD THROUGH NATURAL WOODED BUFFERS OR REMOVED TO AREAS THAT ARE SPECIFICALLY DESIGNED TO COLLECT THE MAXIMUM AMOUNT OF SEDIMENT POSSIBLE, LIKE A COFFERDAM SEDIMENTATION BASIN AVOID ALLOWING THE WATER TO FLOW OVER DISTURBED AREAS OF THE SITE. EQUIVALENT
- NON-STORMWATER DISCHARGES: IDENTIFY AND PREVENT CONTAMINATION BY NON-STORMWATER DISCHARGES. WHERE ALLOWED NON-STORMWATER DISCHARGES EXIST, THEY MUST BE IDENTIFIED AND STEPS SHOULD BE TAKEN TO ENSURE THE IMPLEMENTATION OF APPROPRIATE POLLUTION PREVENTION MEASURES FOR THE NON-STORMWATER COMPONENT(S) OF THE DISCHARGE. AUTHORIZED NON-STORMWATER DISCHARGES ARE:
- DISCHARGES FROM FIREFIGHTING ACTIVITY; FIRE HYDRANT FLUSHINGS;
- VEHICLE WASHWATER IF DETERGENTS ARE NOT USED AND WASHING IS LIMITED TO THE EXTERIOR OF VEHICLES (ENGINE, UNDERCARRIAGE AND TRANSMISSION WASHING IS PROHIBITED); DUST CONTROL RUNOFF IN ACCORDANCE WITH PERMIT CONDITIONS AND APPENDIX (C)(3) OF MAINE DEP 06-096
- ROUTINE EXTERNAL BUILDING WASHDOWN, NOT INCLUDING SURFACE PAINT REMOVAL, THAT DOES NOT INVOLVE - PAVEMENT WASHWATER (WHERE SPILLS/LEAKS OF TOXIC OR HAZARDOUS MATERIALS HAVE NOT OCCURRED, UNLESS ALL SPILLED MATERIAL HAD BEEN REMOVED) IF DETERGENTS ARE NOT USED; - UNCONTAMINATED AIR CONDITIONING OR COMPRESSOR CONDENSATE;
- UNCONTAMINATED GROUNDWATER OR SPRING WATER FOUNDATION OR FOOTER DRAIN-WATER WHERE FLOWS ARE NOT CONTAMINATED; UNCONTAMINATED EXCAVATION DEWATERING (SEE REQUIREMENTS IN APPENDIX C(5) MAINE DEP 06-096 CHAPTER
- POTABLE WATER SOURCES INCLUDING WATERLINE FLUSHINGS; AND - LANDSCAPE IRRIGATION.
- . <u>UNAUTHORIZED NON-STORMWATER DISCHARGES:</u> THE DEPARTMENT'S APPROVAL UNDER THIS CHAPTER DOES NOT AUTHORIZE A DISCHARGE THAT IS MIXED WITH A SOURCE OF NON STORMWATER, OTHER THAN THOSE DISCHARGES IN COMPLIANCE WITH APPENDIX C(6) MAINE DEP 06-096 CHAPTER 500. SPECIFICALLY, THE DEPARTMENT'S APPROVAL DOES NOT AUTHORIZE DISCHARGES OF THE FOLLOWING: WASTEWATER FROM THE WASHOUT OR CLEANOUT OF CONCRETE, STUCCO, PAINT, FORM RELEASE OILS, CURING COMPOUNDS OR OTHER CONSTRUCTION MATERIALS;

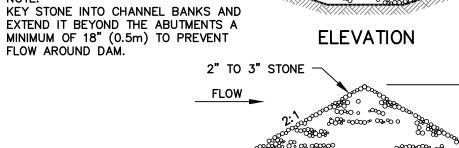
 FUELS, OILS OR OTHER POLLUTANTS USED IN VEHICLE AND EQUIPMENT OPERATION AND MAINTENANCE;

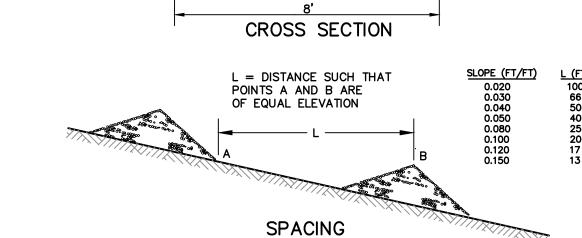
 SOAPS, SOLVENTS, OR DETERGENTS USED IN VEHICLE AND EQUIPMENT WASHING; AND
- TOXIC OR HAZARDOUS SUBSTANCES FROM A SPILL OR OTHER RELEASE. 8. ADDITIONAL REQUIREMENTS: ADDITIONAL REQUIREMENTS MAY BE APPLIED ON A SITE-SPECIFIC BASIS.



TO TRAP SEDIMENT. WHEN NECESSARY, WHEELS SHALL BE CLEANED PRIOR TO ENTRANCE ONTO PUBLIC RIGHT OF WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN. STABILIZED CONSTRUCTION ENTRANCE







DIVERSION RIDGE REQ'D. WHERE

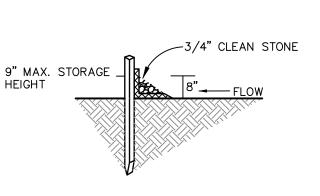
Ex. Ground

PROPOSED GRADE EXCEEDS 2%

Existing Pavement

STONE CHECK DAM DETAIL

-WOOD STAKE (36" MAX.) _PONDING HEIGHT -6"X6" TRENCH W/ COMPACTED BACKFILL WITH TRENCHING



ROLL END STAKES -WOODEN STAKES END POST DETAIL

2. SILT FENCE SHALL BE A 3' FENCE OF 120LB/M (W/ REINF. BACK OF 6' WIŔE MESH, POSTS 6' O.C. MAX) OR 200LB/M (W/ NO REINF. POSTS 6' O.C. MAX)

(OPTIONAL) WOODEN STAKES (MIN. 4' LONG) FILTER FABRIC (UPSTREAM SIDE)

SILT FENCE DETAIL

WITHOUT TRENCHING 1. KEY FABRIC IN A 6"X6" TRENCH W/ BACKFILL.

OSION CONT DETAILS

DESIGNED

A. Morrell

DRAWN

CHECKED

A. Morrell

ESTAT

DATE

August 2022

SCALE

JOB. NO.

23027

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SHEET

MDOT SPEC. #717.061 VEGETATED DITCH DETAIL

-TEMPORARY EROSION CONTROL BLANKET

Prepare soil before installing blankets, including lime, fertilzer & seed.

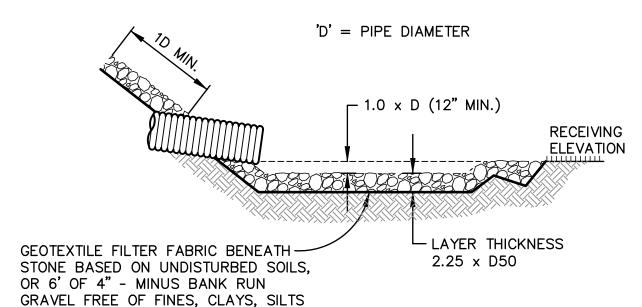
The edges of parallel blankets must be stapled with approx. 2" overlap. place blankets end over end (shingle style) with approx. 4" overlap. Staple through overlapped area, approx. 12" apart. & compact trench after stapling.

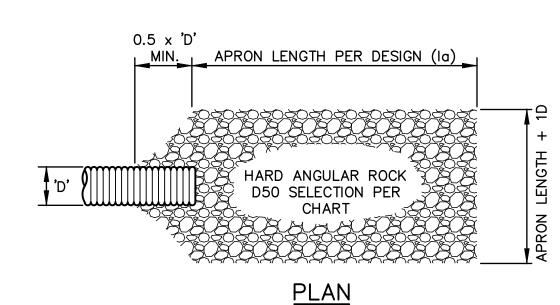
(→ |' CULVERT-

18" 7' 24" 7' PLAN VIEW 30" 8' CULVERT-

- SECTION A-A 1. USE 2" TO 3" STONE. 2. PLACE STONE OVER GEOTEXTILE. 3. ONCE THE AREAS UPSTREAM FROM THE CHECK DAM ARE STABILIZED BY VEGETATION, THE SEDIMENT TRAPPED
- BEHIND/WITHIN THE DAM SHALL BE RELOCATED TO AN AREA UNDERGOING FINAL GRADING. 4. THE CHECK DAMS SHALL BE FLATTENED AND GRADED IN
- A MANNER WHICH PROTECTS THE AREA FROM EROSION AND CHANNEL BLOCKAGE. (GEOTEXTILE MUST BE REMOVED) 5. THE GEOTEXTILE SHALL BE DISPOSED OF OFFSITE. 6. THE AREA CONTRIBUTING TO THE CHECK DAM SHALL NOT EXCEED 10 ACRES.

TEMPORARY CHECK DAM AT CULVERT INLET

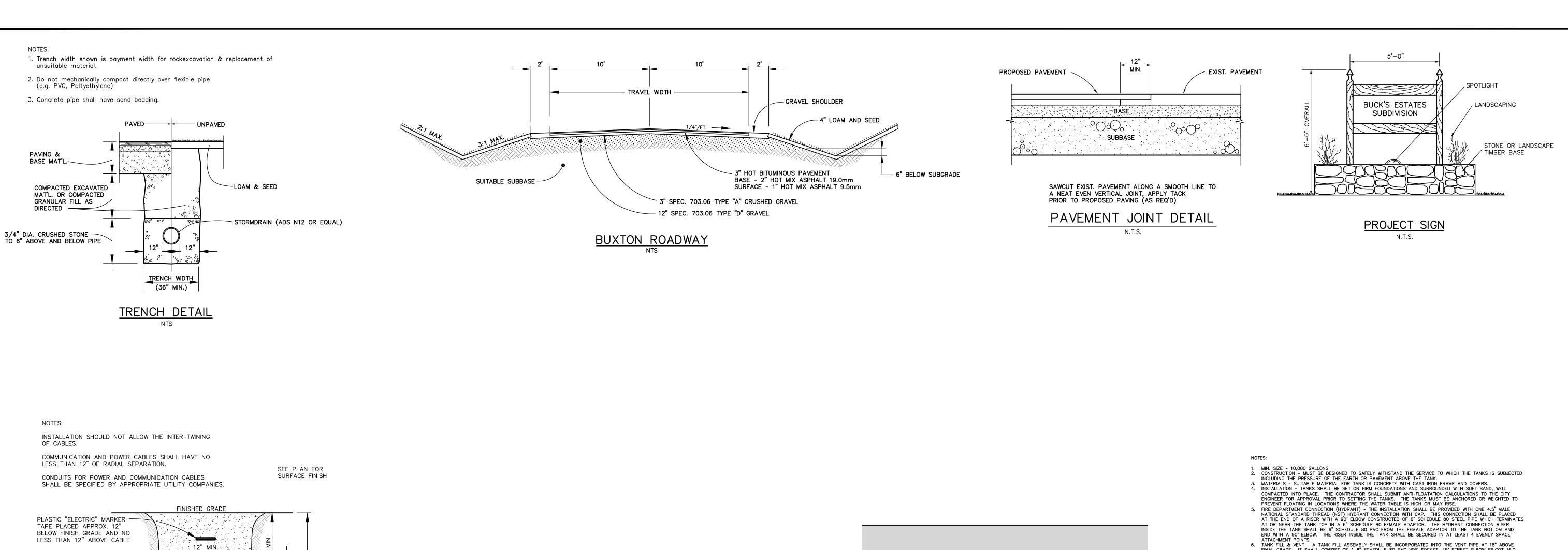


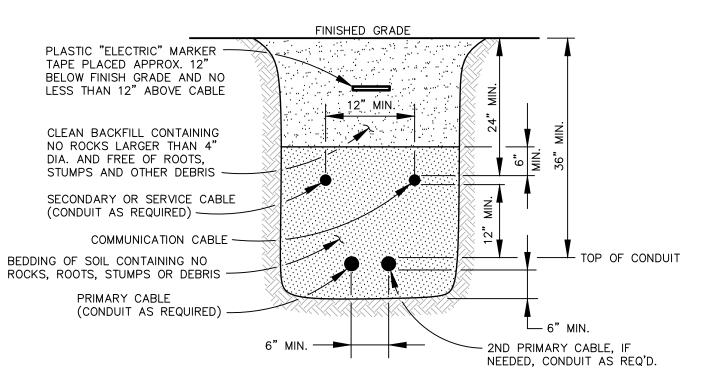


SECTION

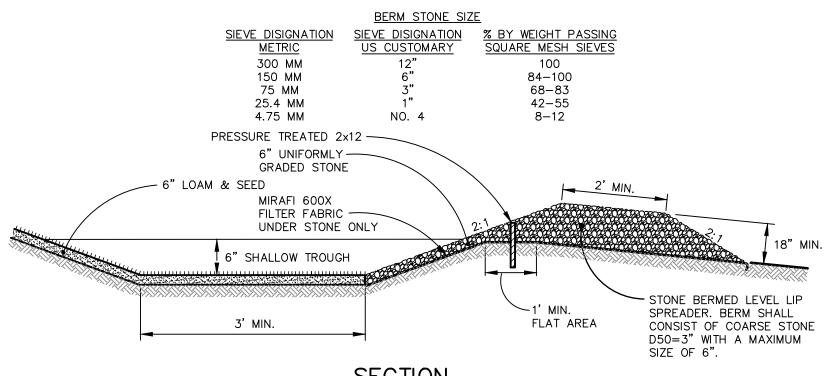
IN DEFINED CHANNELS, APRON SHALL EXTEND FULL WIDTH OF BOTTOM AND ONE FOOT ABOVE MAX. TAILWATER OR UP TO BANK FULL, WHICHEVER IS LESS.

PIPE OUTLET PROTECTION





UNDERGROUND CABLE TRENCH

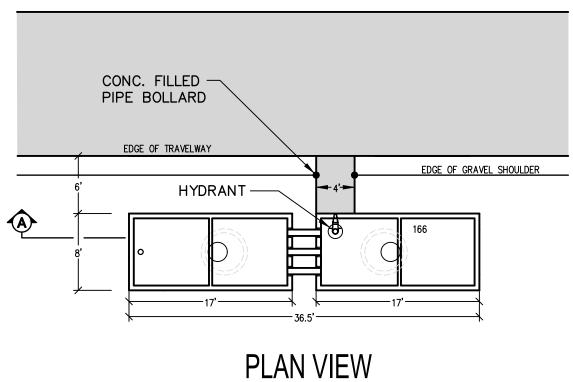


SECTION

CONSTRUCTION SPECIFICATIONS:

- 1. SPREADERS SHALL BE INSTALLED WITH A LEVEL INSTRUMENT. CONSTRUCT LEVEL LIP TO 0% GRADE TO ENSURE UNIFORM SHEET FLOWLEVEL SPREADER SHALL BE CONSTRUCTED ON UNDISTURBED SOIL, NOT FILL.
- 2. SELECTED GEOTEXTILE FABRIC BASED ON UNDISTURBED SOILS (SANDS, SILTS, CLAYS, ETC.).
- PLACE UNIFORMLY GRADED STONE (SEE TABLE 5-3).
- 4. THE INLET DITCH SHALL NOT EXCEED A 1% GRADE FOR AT LEAST 20 FEET BEFORE ENTERING THE SPREADER.
- 5. STORM RUN-OFF CONVERTED TO SHEET FLOW ACROSS OUTLET APRON SHALL FLOW ONTO STABILIZED AREAS. AREAS. RUNOFF SHALL NOT BE RECONCENTRATED IMMEDIATELY BELOW THE POINT OF DISCHARGE.
- 6. PERIODIC INSPECTION AND REQUIRED MAINTENANCE SHALL BE PROVIDED.
- 7. CONSTRUCTION OF LEVEL LIP SPREADER SHALL BE FROM UPHILL SIDE ONLY. LEVEL LIP AND AREA BELOW SPREADER SHALL BE AT EXISTING GRADES AND UNDISTURBED BY EARTHWORK OR EQUIPMENT EXCEPT AS NOTED ON PLAN.
- 8. CONSTRUCT SPREADER WITH LIP AT EXISTING ELEVATION AS SPECIFIED. 9. DOWN GRADIANT AND RECEIVING AREA MUST BE NATURALLY WELL VEGETATED.
- 10. DISCHARGE NOT PERMITTED WITHIN 25' OF A STREAM OR WETLAND, CONSULT DEP IF STRUCTURE MUST BE WITHIN 75' OF SSTREAM OR WATER BODY.

LEVEL LIP SPREADER



ATTACHMENT POINTS.

TANK FILL & VENT - A TANK FILL ASSEMBLY SHALL BE INCORPORATED INTO THE VENT PIPE AT 18" ABOVE FINAL GRADE. IT SHALL CONSIST OF A 6" SCHEDULE 80 PVC WYE SOCKET, 45" STREET ELBOW SPIGOT AND SOCKET AND A 6"X4" STORTZ HYDRANT ADAPTOR WITH CAP AND CHAIN. AN APPROXIMATE VENT SHALL BE PROVIDED FOR NORMAL OPERATION (1000 GALLONS PER MINUTE) OF THE INSTALLATION TO PERMIT FILLING PROVIDED FOR NORMAL OPERATION (1000 GALLONS PER MINUTE) OF THE INSTALLATION TO PERMIT FILLING AND EMPTYING AND FOR THE MAXIMUM EXPANSION OR CONTRACTION OF THE INSTALLATION CONTENTS WITH CHANGES IN TEMPERATURE. A SCREEN SHALL BE PROVIDED TO PREVENT A CLOGGED VENT WHICH COULD RESULT IN A RUPTURING OF TANKS FROM THE INTERNAL PRESSURE OR COLLAPSE DUE TO INTERNAL VACUUM. INADEQUATELY SIZED VENTS MAY HAVE A SAME RESULT. THE VENT SHALL BE A MINIMUM OF 6" SCHEDULE 80 PVC PIPE WITH TOP ELBOWS PROVIDING AN 180" TURN AND TERMINATE A MINIMUM OF 5' ABOVE GRADE.

7. THE INSTALLER, OWNER AND/OR RESPONSIBLE PARTY FOR THE INSTALLATION SHALL ENSURE THAT THE GRADE TO TANK TOP DEPTH BE A MINIMUM OF 5" OF EARTH TO PROTECT FROM FREEZING. A STAMPED ENGINEERED SYSTEM USING RIGID INSULATION AND REDUCED GROUND COVER CAN BE CONSIDERED BY THE CITY ENGINEER.

8. THE INSTALLER, OWNER AND/OR RESPONSIBLE PARTY SHALL BE REQUIRED TO PROVIDE ALL NECESSARY MAINTENANCE FOR 1 YEAR PERIOD FROM THE DATE THE INSTALLATION GOES INTO SERVICE.

9. INSPECTION ACCESS TO TANKS OF THE INSTALLATION SHALL BE PROVIDED BY THE USE OF A RISER WITH A 24" DIAMETER CAST IRON FRAME AND COVER. THE COVER SHALL BE ABLE TO RECEIVE TYPICAL MANHOLE COVER HOOKS FOR REMOVAL AND SHALL BE EITHER BLANK OR INSCRIBED WITH WORDS SUCH AS FIRE

24" DIAMETER CAST IRON FRAME AND COVER. THE COVER SHALL BE ABLE TO RECEIVE TYPICAL MANHOLE COVER HOOKS FOR REMOVAL AND SHALL BE EITHER BLANK OR INSCRIBED WITH WORDS SUCH AS FIRE DEPARTMENT, WATER SUPPLY, FIRE TANK OR SIMILAR.
10. TWO TANKS, OR MORE AS APPROVED BY THE FIRE CHIEF, MAY BE INTER-CONNECTED TO HOLD THE REQUIRED CAPACITY OF WATER. THERE SHALL BE THREE 8" CROSS FLOW CONNECTIONS IN THE LOWER SIDE WALL OF CONNECTED TANKS UTILIZING SCHEDULE 80 PVC PIPE. THERE SHALL BE TWO 6" CROSS VENT CONNECTIONS IN THE UPPER SIDE WALLS OF CONNECTED TANKS UTILIZING SCHEDULE 80 PVE PIPE. ALL CONNECTIONS MUST USE APPROPRIATELY SIZED BOOTS.
11. THE PIPING FOR THE HYDRANT CONNECTION RISER SHALL BE INSTALLED SO THAT IT ENTERS THE TANK THROUGH THE TANK TOP AND NOT THROUGH THE TANK ENDS OR UNDERSIDE. THE HYDRANT CONNECTION AND RISER SHALL BE PAINTED RED AND MEASURES 30" ABOVE GRADE.

SHALL BE PAINTED RED AND MEASURES 30" ABOVE GRADE.

12. AN 18" DIAMETER CONCRETE COLLAR AROUND THE HYDRANT CONNECTION RISER SHALL BE POURED INTO AN 18" DIAMETER CONCRETE COLLAR AROUND THE HYDRANT CONNECTION RISER SHALL BE POURED INTO PLACE ON THE TANK TOP. BOTH THE HYDRANT CONNECTION RISER AND THE TANK FILL & VENT PIPE SHALL BE CENTERED WITHIN A 5' DIAMETER 2" RIGID STYROFOAM BARRIER APPROXIMATELY 30" ABOVE THE TANK TOP.
 THERE SHALL BE AT LEAST 6' OF LEVEL GROUND AROUND THE HYDRANT CONNECTION RISER.
 TWO 4" DIAMETER BY 4' TALL CONCRETE FILLED PROTECTIVE BOLLARDS SHALL BE INSTALLED APPROXIMATELY 4' IN FRONT OF AND 2' TO EACH SIDE OF THE CENTER OF THE HYDRANT CONNECTION. THE BOLLARDS SHALL BE RED IN COLOR.
 THREADED OR WELDED PIPE CONNECTIONS ARE ACCEPTABLE.
 TANKS ARE REQUIRED TO BE INSPECTED BY A REPRESENTATIVE DESIGNATED BY THE CITY OF SACO BEFORE BEING FILLED WITH WATER.
 THE INSTALLER. OWNER AND/OR RESPONSIBLE PARTY SHALL BE RESPONSIBLE FOR PUMPING ANY EXISTING

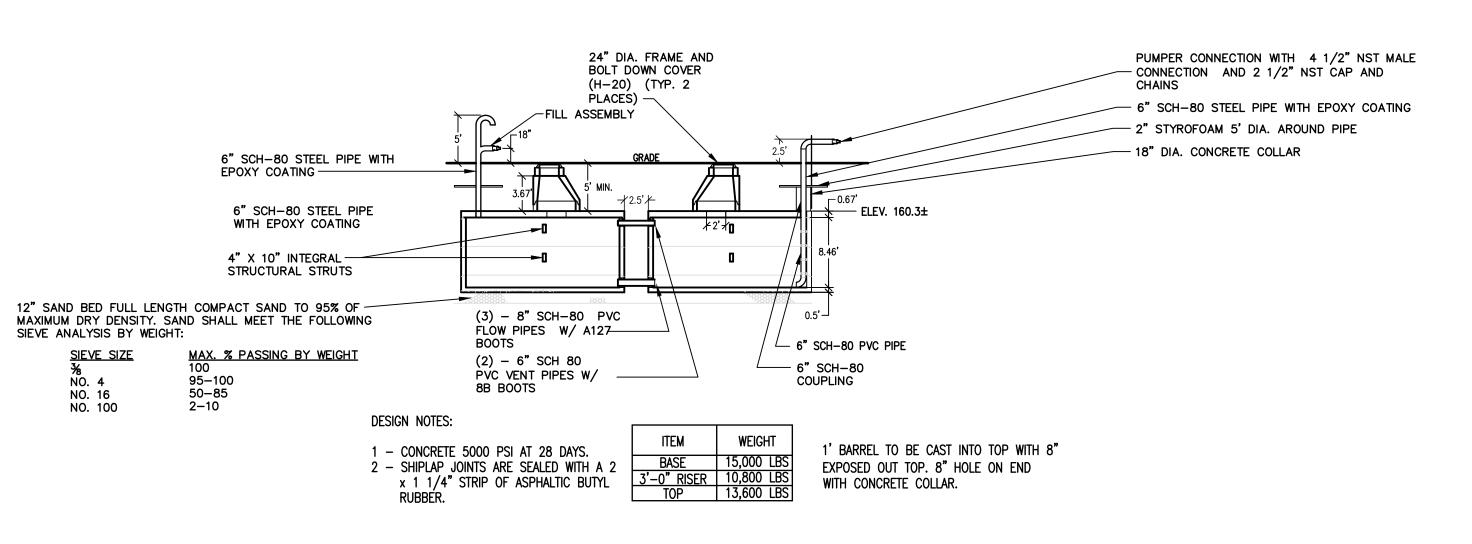
BEING FILLED WITH WATER.

17. THE INSTALLER, OWNER AND/OR RESPONSIBLE PARTY SHALL BE RESPONSIBLE FOR PUMPING ANY EXISTING WATER FROM THE TANKS, REMOVING FOREIGN MATERIAL OF ANY KIND (IE GASKET MATERIAL, DIRT, LEAVES, CONCRETE DUST, ETC.) PRIOR TO THE CITY INSPECTION.

18. THE INSTALLER, OWNER AND/OR RESPONSIBLE PARTY SHALL BE RESPONSIBLE FOR FILLING THE TANKS AND FOR NOTING WHERE THE FULL (10,000 GALLONS) LEVEL IS AS MEASURED FROM THE EXTERIOR OF THE TANK TOP. HE/SHE MAY THEN NOTIFY THE FIRE DEPARTMENT. THE FIRE DEPARTMENT WILL TEST THE INSTALLATION BY

DRAFTING WATER FROM THE TIME PIEC DEPARTMENT. THE FIRE DEPARTMENT WILL TEST THE INSTALLATION BY DRAFTING WATER FROM THE TANKS AND PUMPING IT BACK INTO THE TANK AS SOON AS POSSIBLE BUT NOT BEFORE TWENTY-FOUR HOURS OF THE TANKS BEING FILLED SO THAT IT CAN BE DETERMINED IF THERE IS A LEAK.

19. A METAL SIGN, APPROXIMATELY 24" X 24" WITH A CAPITAL H LETTERED ON IT SHALL BE AFFIXED AT A HEIGHT OF APPROXIMATELY 5' TO A METAL POST INSTALLED IN THE GROUND IN THE VICINITY OF THE HYDRANT CONNECTION AS APPROVED BY THE FIRE DEPARTMENT.



SECTION A-A

FIRE TANK DETAIL

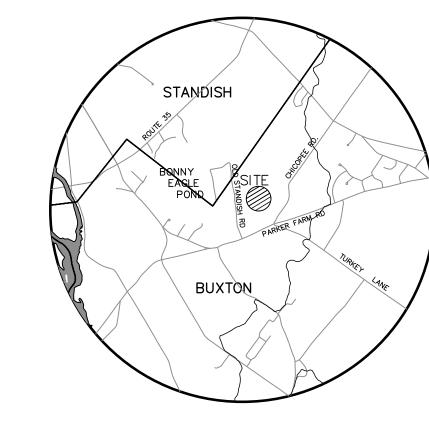
E	REVISION	DESCRIPTION	Submitted Sketch Plan to Town	Submitted Sketch Plan to Client for Review	Revised per Client Comments	Submitted Preliminary Plan to Town		
		DATE	8/19/22	10/27/22	11/15/22	11/30/23		
		ON	-	2	3	4		



NDARD

DESIGNED A. Morrell	DATE August 2022
DRAWN	SCALE
Dept.	As Noted
CHECKED	JOB. NO.
A. Morrell	23027

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LOCATION MAP SCALE: 1" = 2 MILES

NOTES:

APPLICANT:

BILL HAM 142 DARBICK TERRACE HOLLIS, ME 04042

ROBERT C. LIBBY JR., PLS #2190 2. SURVEYOR:

380B MAIN STREET GORHAM, MAINE

P.O. BOX 1931 PORTLAND, MAINE 04104

4. SOILS: SOILS SHOWN PER USDA WEB SOIL SURVEY

5. TOPOGRAPHY: MAINE STATE 2' GIS CONTOURS

3. WETLAND DELINEATION: MARK HAMPTON ASSOCIATES

6. SUBCATCHMENT BOUNDARY BETWEEN SA'S 1 & 2 WITHIN THE WETLANDS IS ASSUMED BASED UPON LIDAR TOPOGRAPHY.

7. PLEASE NOTE THAT FOR BOTH THE PRE AND POST DEVELOPMENT ANALYSIS, THE WATERSHED FLOWING TO ANALYSIS POINT #1 HAS BEEN MODELED USING THE SAME BOUNDARIES THAT WILL RESULT FROM THE PROPOSED ROADWAY IN THE POST DEVELOPMENT CONDITION. THIS HAS BEEN DONE TO PREVENT THE MODEL FROM DRASTICALLY SKEWING THE CURVE NUMBER OF THE POST DEVELOPMENT DOWNSTREAM SUBCATCHMENT, WHICH IS WHERE THE MAJORITY OF THE HYDRAULICALLY RESTRICTIVE SOILS EXIST IN THE WATERSHED.

PRE DEVELOPMENT FLOWS

ANALYSIS POINT	2 YR. STORM	10 YR. STORM	25 YR. STORM
AP#1	5.12 CFS	20.98 CFS	38.64 CFS
AP#2	0.47 CFS	2.62 CFS	5.28 CFS

Tc SUMMARY
(FOR THOSE NOT LABELED ON THE PLAN) <u>SUBCATCHMENT</u> Tc ROUTE

SA-1A 150' SHEET, 1075' SHALLOW 150' SHEET, 630' SHALLOW SA-1B SA-1C 150' SHEET, 1575' SHALLOW 150' SHEET, 400' SHALLOW SA-2



PRE DEVELOPMENT WATERSHED BUCK'S ESTATES SUBDIVISION

DESIGNED J. Jones	DATE April 2023	
DRAWN Dept.	SCALE 1"=200'	
CHECKED A. Morrell	JOB. NO. 23027	



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SOILS LEGEND **DESCRIPTION** SOIL BOUNDARY LINES SLOPE DESIGNATION A = 0 - 3%B = 3 - 8% C = 8 - 20% D = 20%

HYDROLOGIC SOIL GROUP

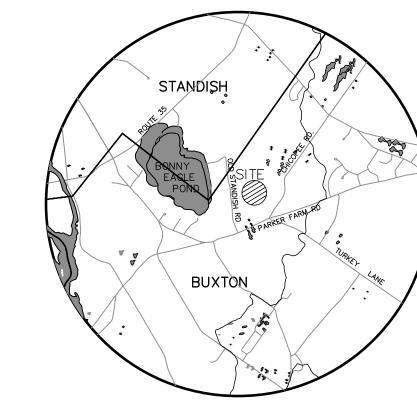
<u>SOIL</u> ADAMS (AdB, AdC)
CHOCORUA PEAT
CROGHAN (CrB)
HERMON (HeB, HeC, & HmD)
NAUMBURG (Na)
SKERRY (SkB, SrB, & SrC) A/D * C/D *

* ASSUME D SOIL TYPE FOR WETLANDS

DRAINAGE SUB AREA DRAINAGE AREA BOUNDARY

DESCRIPTION

TIME OF CONCENTRATION ROUTE LIMIT OF WETLANDS
EXISTING CONTOUR
PROPOSED CONTOUR



LOCATION MAP SCALE: 1" = 2 MILES

NOTES:

1. APPLICANT: BILL HAM 142 DARBICK TERRACE HOLLIS, ME 04042

ROBERT C. LIBBY JR., PLS #2190 2. SURVEYOR:

28 STATE STREET GORHAM, MAINE 3. WETLAND DELINEATION: MARK HAMPTON ASSOCIATES

P.O. BOX 1931 PORTLAND, MAINE 04104

4. SOILS: SOILS SHOWN PER USDA WEB SOIL SURVEY

5. TOPOGRAPHY: MAINE STATE 2' GIS CONTOURS

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7. PLEASE NOTE THAT FOR BOTH THE PRE AND POST DEVELOPMENT ANALYSIS, THE WATERSHED FLOWING TO ANALYSIS POINT #1 HAS BEEN MODELED USING THE SAME BOUNDARIES THAT WILL RESULT FROM THE PROPOSED ROADWAY IN THE POST DEVELOPMENT CONDITION. THIS HAS BEEN DONE TO PREVENT THE MODEL FROM DRASTICALLY SKEWING THE CURVE NUMBER OF THE POST DEVELOPMENT DOWNSTREAM SUBCATCHMENT, WHICH IS WHERE THE MAJORITY OF THE HYDRAULICALLY RESTRICTIVE SOILS EXIST IN THE WATERSHED.

8. NO IMPROVEMENTS ARE ANTICIPATED IN TH ANALYSIS POINT 2 WATERSHED.

POST DEVELOPMENT FLOWS FLOW RATE = POST (PRE)

ANALYSIS POINT 10 YR. STORM 25 YR. STORM 4.23 (5.12) CFS 0.47 (0.47) CFS AP#1 AP#2 16.47 (20.98) CFS 2.62 (2.62) CFS 30.00 (38.64) CFS 5.28 (5.28) CFS

> AS SHOWN IN THE TABLE ABOVE, DEVELOPMENT OF THE PROPOSED PROJECT WILL CREATE A CONDITION WHERE POST DEVELOPMENT PEAK RATES OF RUNOFF ARE DECREASED FROM THE PRE DEVELOPMENT PEAK RATES OF RUNOFF FOR ALL STORM EVENTS. THIS ANALYSIS POINT IS WITHIN A LARGE WETLAND COMPLEX AND THE PROPOSED INCREASE WILL NOT CREATE ANY ADVERSE IMPACTS TO THE DOWNSTREAM CONDITIONS.

(FOR THOSE SUBCATCHMENT	To SUMMARY NOT LABELED ON THE PLAN) To ROUTE
SA-1A	150' SHEET, 1075' SHALLOW
SA-1B	150' SHEET, 630' SHALLOW
SA-1C	150' SHEET, 1575' SHALLOW
SA-2	150' SHEET, 400' SHALLOW

REVISION	DESCRIPTION	Submitted Sketch Plan to Town	Submitted Sketch Plan to Client for Review	Revised per Client Comments	Submitted Preliminary Plan to Town		
	DATE	8/19/22	10/27/22	11/15/22	11/30/23		
	ON	-	2	٤,	4		



POST DEVELOPMENT WATERSHED BUCK'S ESTATES SUBDIVISION

DESIGNED	DATE
A. Fagan	Nov. 2023
DRAWN	SCALE
Dept	1"=200'
CHECKED	JOB. NO.
A. Morrell	23027

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SOILS LEGEND **SYMBOL DESCRIPTION** SOIL BOUNDARY LINES SLOPE DESIGNATION A = 0 - 3%B = 3 - 8% C = 8 - 20%D = 20% +

A/D *

DESCRIPTION

DRAINAGE SUB AREA DRAINAGE AREA BOUNDARY TIME OF CONCENTRATION ROUTE LIMIT OF WETLANDS EXISTING CONTOUR PROPOSED CONTOUR

<u>SYMBOL</u>

CROGHAN (CrB) HERMON (HeB, HeC, & HmD) NAUMBURG (Na) SKERRY (SkB, SrB, & SrC)

ADAMS (AdB, AdC) CHOCORUÀ PEAT (Ch)

* ASSUME D SOIL TYPE FOR WETLANDS

HYDROLOGIC SOIL GROUP