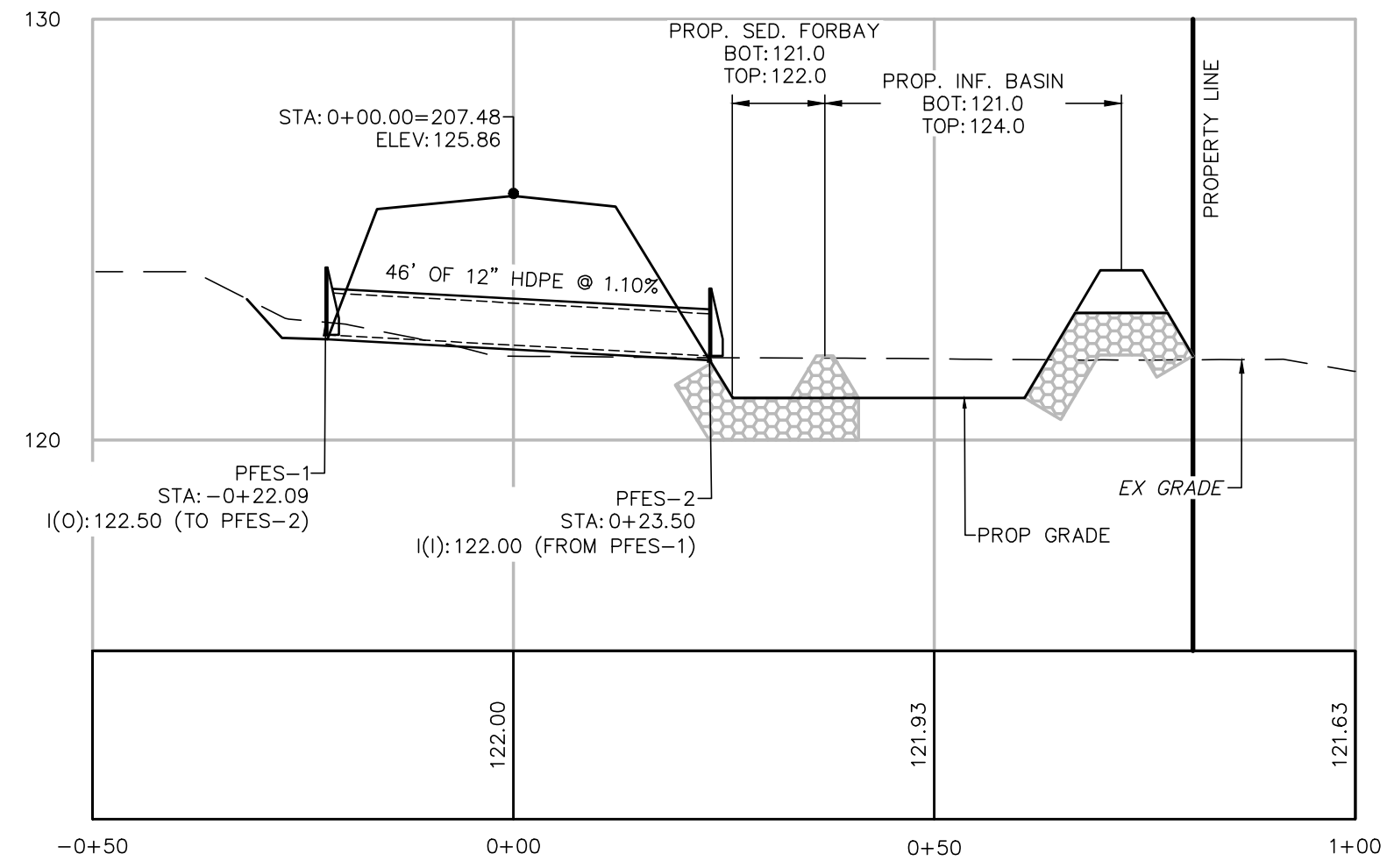
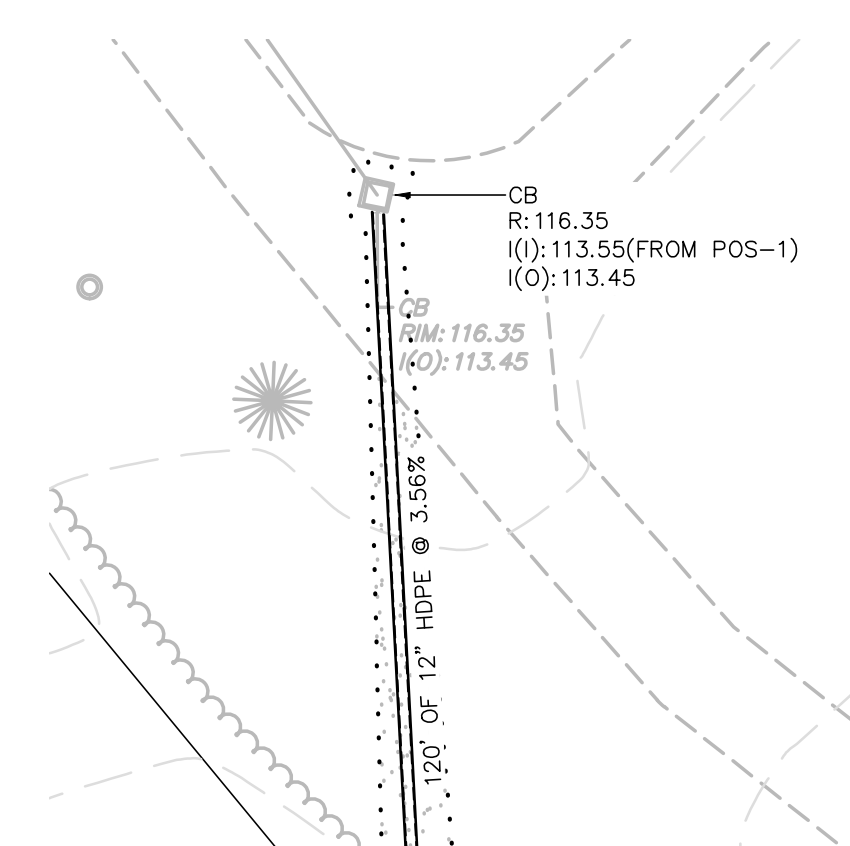


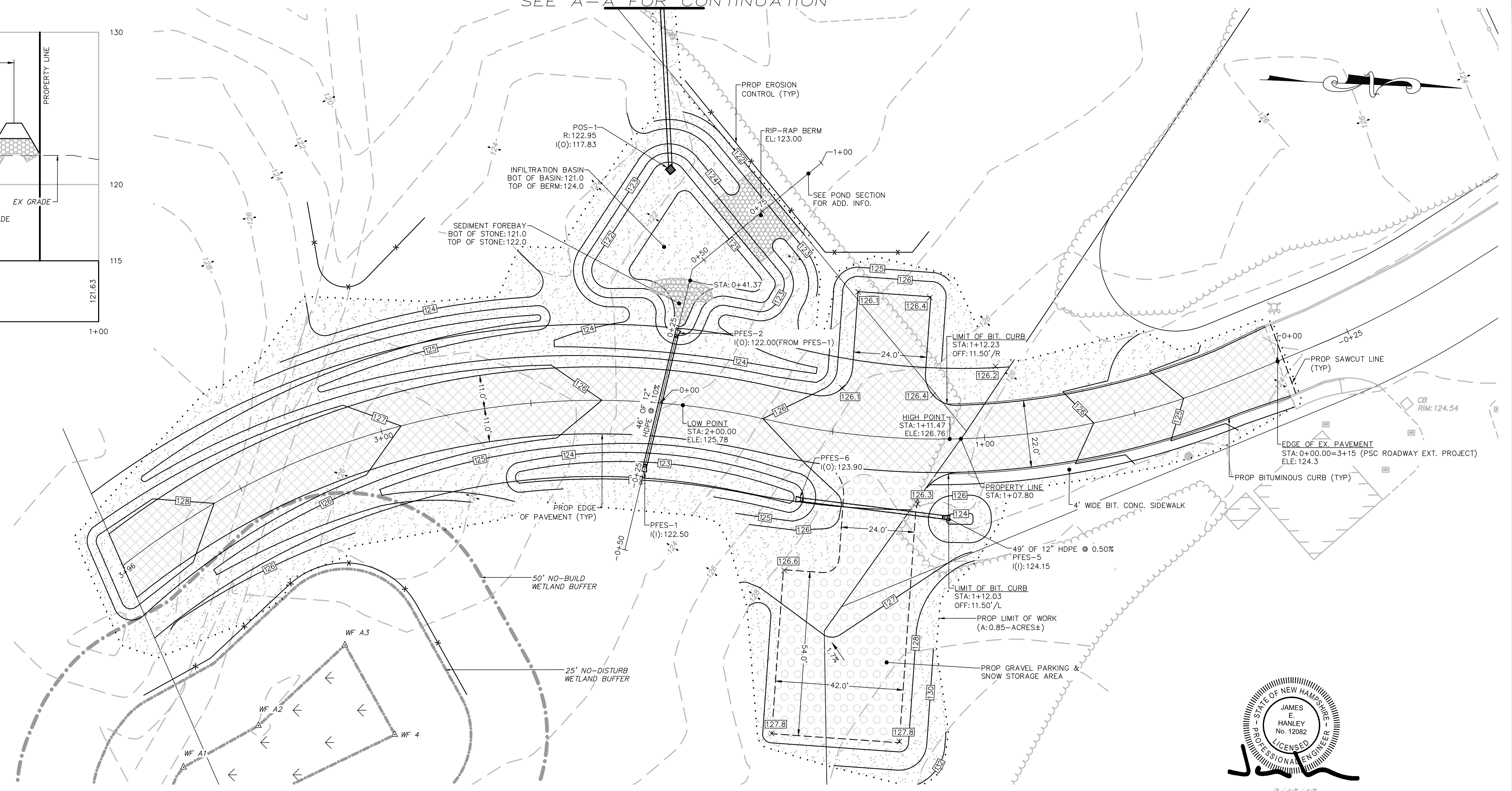
SEE A-A FOR CONTINUATION



POND SECTION  
HORIZONTAL SCALE: 1"=20'  
VERTICAL SCALE: 1"=4'

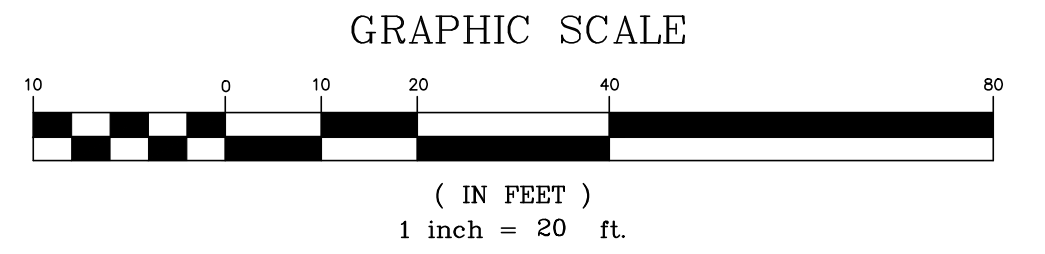


DETAIL A-A

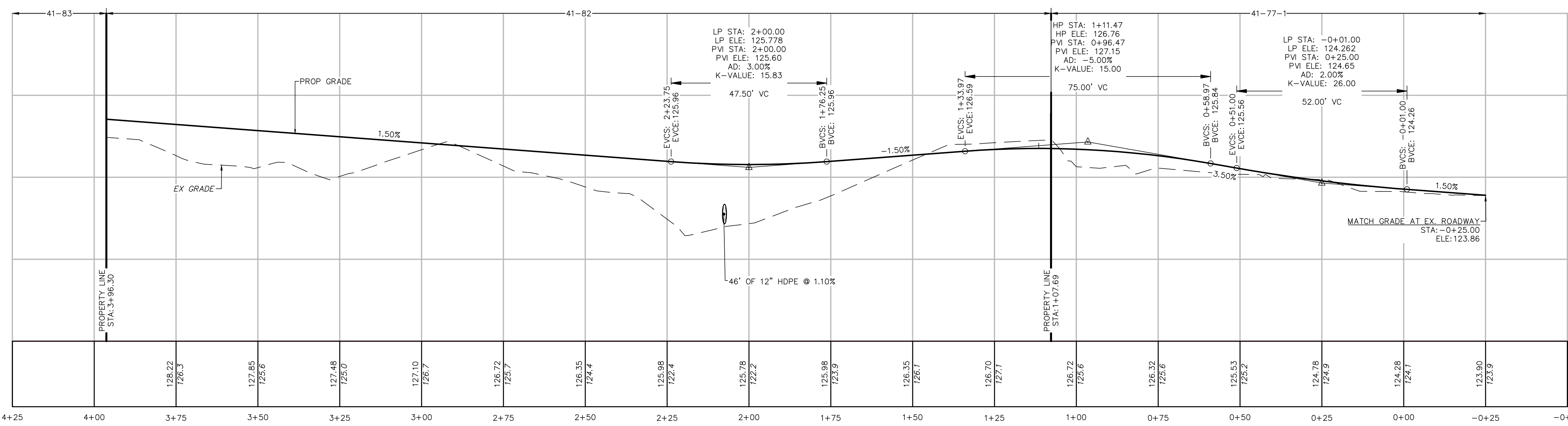


STATE OF NEW HAMPSHIRE  
JAMES E. HANLEY  
No. 12082  
LICENSED PROFESSIONAL ENGINEER  
9/19/19

ENGINEERING SERVICES PROVIDED BY:  
**CIVIL DESIGN Consultants, Inc.**  
SURVEY - DESIGN - PERMITTING - CONSTRUCTION ADMINISTRATION  
30 River Street Methuen, MA 01844-1097 Tel: (978) 416-0920 Fax: (978) 416-7865

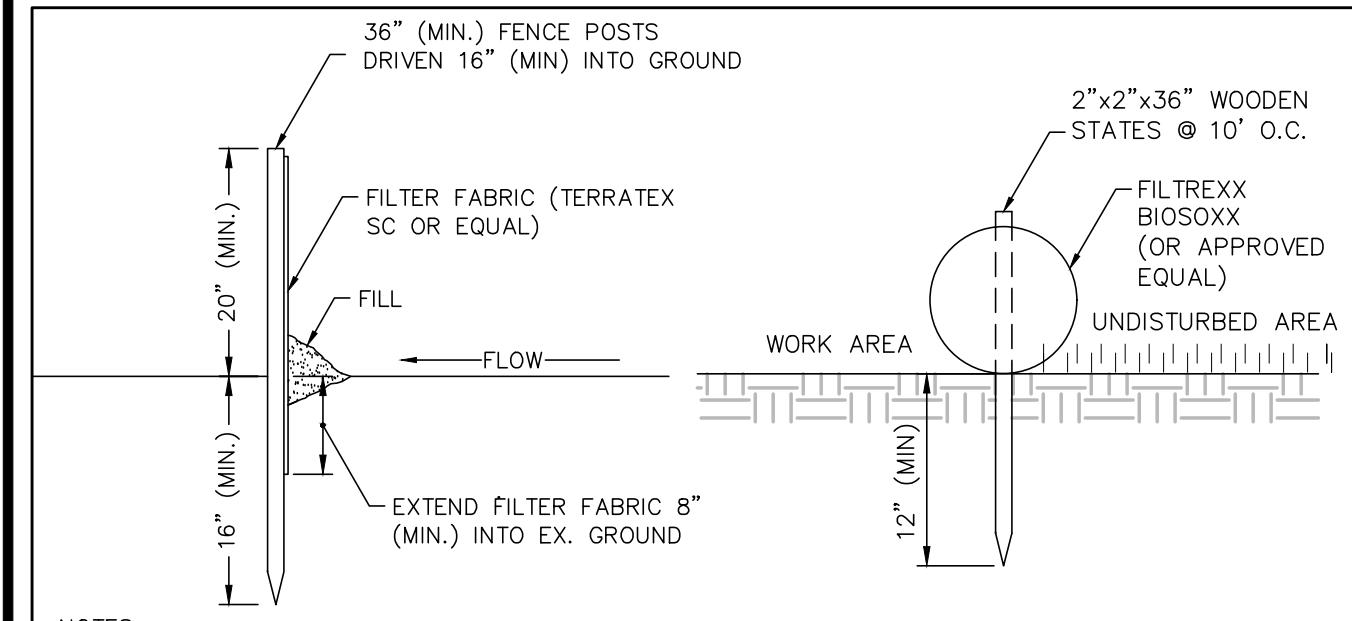
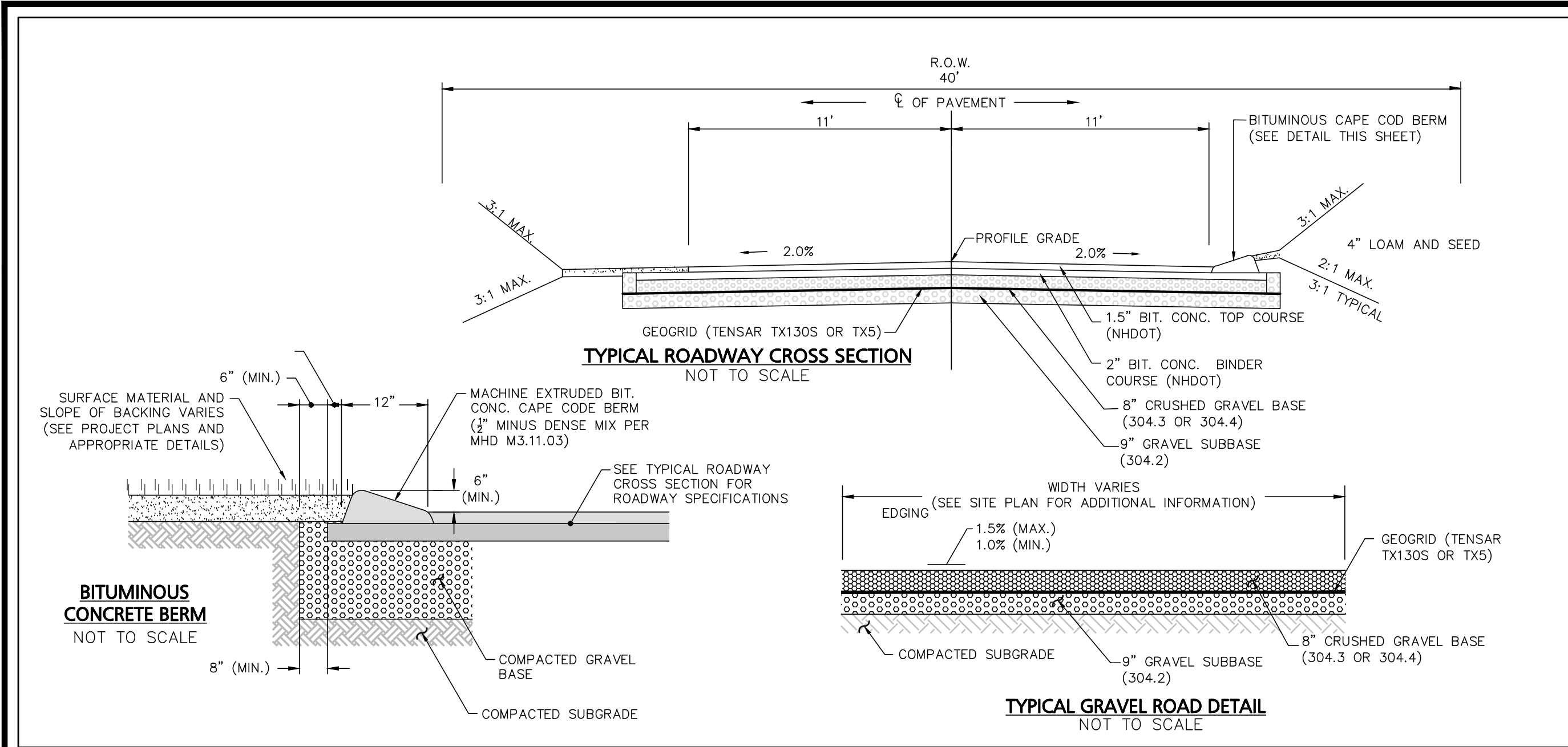


**GRADING & DRAINAGE**



PROJECT: TAX MAP 41 LOT 82 ELM STREET PLAISTOW, NEW HAMPSHIRE	
SCALE: 1" = 30'	DRAWN BY: AKG
DATE: APRIL 9, 2018	REVISED: 1. 9/19/19
APPLICANT: TOWN OF PLAISTOW 145 MAIN STREET PLAISTOW, NH 03865	2.
PREPARED BY: <b>S.E.C. &amp; ASSOCIATES, INC.</b>	3.
<b>SURVEYING &amp; ENGINEERING CONSULTANTS</b> P.O. BOX 1337 - PLAISTOW, NH 03865 PHONE: (603)-382-5065 ~ SERVING N.H. & MA. ~ EMAIL: SEC@SECENGINEERING.COM	4.
	5.





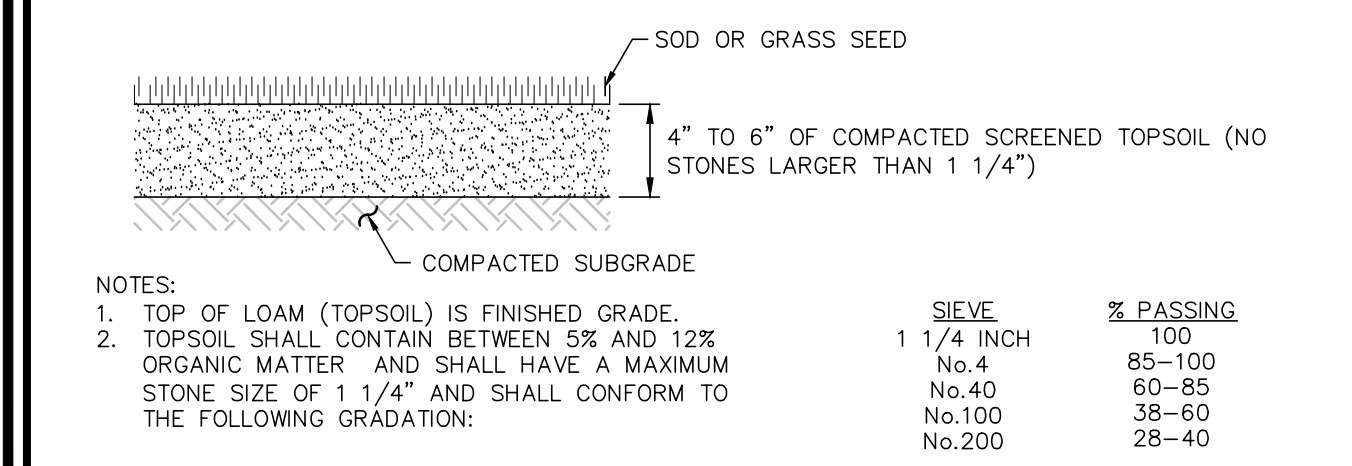
- NOTES:**
- SILT FENCES SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REPAIRS THAT ARE REQUIRED SHALL BE MADE IMMEDIATELY.
  - IF THE FABRIC ON A SILT FENCE SHOULD DECOMPOSE OR BECOME INEFFECTIVE DURING THE EXPECTED LIFE OF THE FENCE, THE FABRIC SHALL BE REPLACED PROMPTLY.
  - SEDIMENT DEPOSITS SHOULD BE INSPECTED AFTER EVERY STORM EVENT. THE DEPOSITS SHOULD BE REMOVED WHEN THEY REACH APPROXIMATELY ONE-HALF THE HEIGHT OF THE BARRIER.
  - SEDIMENT DEPOSITS THAT ARE REMOVED OR LEFT IN PLACE AFTER THE FABRIC HAS BEEN REMOVED SHALL BE GRADED TO CONFORM WITH THE EXISTING TOPOGRAPHY AND VEGETATED.
- MAINTENANCE:**
- FILTER SOCK SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REPAIRS THAT ARE REQUIRED SHALL BE MADE IMMEDIATELY.
  - IF THE FABRIC SHOULD DECOMPOSE OR BECOME INEFFECTIVE DURING THE EXPECTED LIFE OF THE FENCE, REPLACE PROMPTLY.
  - SEDIMENT DEPOSITS SHOULD BE INSPECTED AFTER EVERY STORM EVENT. THE DEPOSITS SHOULD BE REMOVED WHEN THEY REACH APPROXIMATELY ONE-HALF THE HEIGHT OF THE BARRIER.
  - SEDIMENT DEPOSITS SHALL BE REMOVED WITH FILTER SOCK UPON COMPLETION OF CONSTRUCTION ACTIVITIES.

**GENERAL CONSTRUCTION NOTES**

- THE CONTRACTOR SHALL VERIFY THE PROPOSED LAYOUT WITH ITS RELATIONSHIP TO THE EXISTING SITE SURVEY, THE CONTRACTOR SHALL ALSO VERIFY ALL DIMENSIONS, SITE CONDITIONS, AND MATERIAL SPECIFICATIONS AND SHALL NOTIFY THE OWNER AND ENGINEER OF ANY ERRORS, OMISSIONS OR DISCREPANCIES BEFORE COMMENCING OR PROCEEDING WITH CONSTRUCTION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS, INSPECTIONS, BONDS, ETC. AND OTHER APPROVAL RELATED ITEMS. NO CONSTRUCTION SHALL COMMENCE UNTIL SUCH PERMITS HAVE BEEN SECURED.
- METHODS AND MATERIALS USED IN THE CONSTRUCTION OF IMPROVEMENTS FOR THIS PROJECT SHALL CONFORM TO THE CURRENT CONSTRUCTION STANDARDS AND SPECIFICATIONS OF THE MASSACHUSETTS HIGHWAY DEPARTMENT AND THE LOCAL SUBDIVISION REGULATIONS.
- CONTRACTOR TO CONFIRM AND VERIFY THE VALIDITY, LOCATION, MATERIAL, AND AVAILABILITY TO USE EXISTING UTILITIES ON OR NEAR THE PROJECT SITE PROPERTY. CONTRACTOR TO LOCATE EXISTING UTILITIES AND CONFIRM SAID UTILITIES WITH ALL APPLICABLE MUNICIPALITIES AND UTILITY COMPANIES PRIOR TO ANY CONSTRUCTION. ONCE UTILITIES HAVE BEEN CONFIRMED IN THE FIELD BY CONTRACTOR AND VERIFIED BY APPLICABLE MUNICIPALITY AND UTILITY COMPANY AND CONNECTION HAS BEEN APPROVED BY ENTITY, ONLY THEN SHALL CONTRACTOR CONSTRUCT AND UTILIZE THESE UTILITIES. CONTRACTOR TO IMMEDIATELY INFORM ENGINEER OF RECORD OF ANY DEVIATIONS TO PLANS.
- THE CONTRACTOR SHALL MAKE EXPLORATORY EXCAVATIONS AND LOCATE ANY EXISTING UTILITIES SUFFICIENTLY AHEAD OF CONSTRUCTION TO PERMIT REVISIONS TO PLANS IF NECESSARY. THE EXISTENCE AND/OR LOCATION OF UTILITIES SHOWN ON THESE PLANS MAY BE ONLY APPROXIMATELY CORRECT AND THE CONTRACTOR IS REQUIRED TO TAKE PRECAUTIONARY MEASURES TO PROTECT THE UTILITIES SHOWN HEREON AND ANY OTHER EXISTING UTILITIES NOT OF RECORD OR NOT SHOWN ON THESE PLANS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING, AT HIS EXPENSE, ANY EXISTING UTILITIES DAMAGED DURING CONSTRUCTION.
- THE CONTRACTOR SHALL NOTIFY OPERATORS WHO MAINTAIN UNDERGROUND UTILITY LINES IN THE AREA OF PROPOSED EXCAVATION AT LEAST THREE WORKING DAYS, BUT NOT MORE THAN TEN WORKING DAYS, PRIOR TO COMMENCEMENT OF EXCAVATION OR DEMOLITION. ALL WATER, GAS, SEWER AND OTHER UTILITIES SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION.
- RELOCATION OF ANY UTILITIES SHALL BE AT THE OWNERS EXPENSE AND COMPLETED WITH THE UTILITY WORK, THE OWNER SHALL BE NOTIFIED AS TO THE RELOCATIONS REQUIRED PRIOR TO THE START OF CONSTRUCTION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACING, WITH MATCHING MATERIALS, ANY PAVEMENT, WALKS, CURBS, ETC. THAT MUST BE CUT OR THAT ARE DAMAGED DURING CONSTRUCTION.
- AN APPROVED SET OF PLANS AND ALL APPLICABLE PERMITS MUST BE AVAILABLE AT THE CONSTRUCTION SITE.
- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THESE DOCUMENTS AND SUBSEQUENT ISSUED PLAN REVISIONS. ANY DEVIATIONS FROM THESE DOCUMENTS SHALL REQUIRE NOTIFICATION TO THE ENGINEER PRIOR TO THE COMMENCEMENT OF CONSTRUCTING ANY CHANGE. THE CONTRACTOR WILL BE WORKING AT HIS OR HER OWN RISK.

**PROJECT SPECIFIC CONSTRUCTION SEQUENCING:**

- DESCRIBED BELOW ARE THE MAJOR CONSTRUCTION ACTIVITIES. THEY ARE PRESENTED IN THE ORDER (OR SEQUENCE) THEY ARE EXPECTED TO BEGIN, BUT EACH ACTIVITY WILL NOT NECESSARILY BE COMPLETED BEFORE THE NEXT BEGINS. ALSO, THESE ACTIVITIES COULD OCCUR IN A DIFFERENT ORDER IF NECESSARY TO MAINTAIN ADEQUATE EROSION AND SEDIMENTATION CONTROL. ALL ACTIVITIES AND THE TIMEFRAME (BEGINNING AND ENDING DATES) SHALL BE RECORDED BY THE GENERAL CONTRACTOR:
- CONTRACTOR TO REVIEW ALL LOCAL, STATE AND FEDERAL PERMITS AND CONDITIONS THEREOF.
  - REVIEW AND CERTIFY THE STORMWATER POLLUTION PREVENTION PLAN.
  - INSTALL STABILIZED CONSTRUCTION ENTRANCE AND SILT FENCE.
  - CONSTRUCT RECEIVING STORMWATER MANAGEMENT PRACTICE
  - BEGIN EARTHWORK OPERATIONS.
  - CONTINUE WITH ROUGH GRADING AND EARTHWORK OPERATIONS. CONSTRUCT REMAINING DRAINAGE IMPROVEMENTS. ALL SLOPES SHALL BE STABILIZED IMMEDIATELY AFTER GRADING. ALL DISTURBED AREAS SHALL BE STABILIZED NO LATER THAN 72-HOURS AFTER CONSTRUCTION ACTIVITIES CEASE. IF EARTHWORK TEMPORARILY CEASES ON A PORTION OF OR ON THE ENTIRE SITE, AND WILL NOT RESUME WITHIN 21-DAYS, THE AREA SHALL BE STABILIZED. (STABILIZE PROPOSED PAVEMENT AREAS WITH COMPACTED GRAVELS AND OTHER DISTURBED AREAS WITH TEMPORARY GRASS SEED). AN AREA SHALL BE CONSIDERED STABLE IF ONE OF THE FOLLOWING HAS OCCURRED:
    - BASE COURSE GRAVELS HAVE BEEN INSTALLED IN AREAS TO BE PAVED;
    - A MINIMUM OF 85% VEGETATED GROWTH HAS BEEN ESTABLISHED;
    - A MINIMUM OF 3" OF NON-EROSIVE MATERIAL SUCH AS STONE OR RIP-RAP HAS BEEN INSTALLED; OR
    - EROSION CONTROL BLANKETS HAVE BEEN PROPERLY INSTALLED.
  - INSTALL ALL UNDERGROUND UTILITIES.
  - CONSTRUCT ROADWAYS AND FINISH GRADE ACCORDING TO THE PLAN. ALL SLOPES SHALL BE STABILIZED IMMEDIATELY AFTER GRADING.
  - SURFACE TREATMENT OF ALL DISTURBED AREAS NOT PAVED OR OTHERWISE LANDSCAPED SHALL BE TREATED WITH 4" OF LOAM AND SEED.
  - INSPECT AND MAINTAIN ALL EROSION AND SEDIMENTATION CONTROL MEASURES CONSISTENT WITH THE PROCEDURE AND SCHEDULE OUTLINED IN THE STORMWATER POLLUTION PREVENTION PLAN.
  - COMPLETE PERMANENT SEEDING AND LANDSCAPING.
  - REMOVE TEMPORARY EROSION CONTROL MEASURES ONCE ALL AREAS ARE STABILIZED WITH A SUITABLE STAND OF GRASS, PAVEMENT OR COMPACTED GRAVELS.



**NOTES:**

- TOP OF LOAM (TOPSOIL) IS FINISHED GRADE.
- TOPSOIL SHALL CONTAIN BETWEEN 5% AND 12% ORGANIC MATTER AND SHALL HAVE A MAXIMUM STONE SIZE OF 1 1/4" AND SHALL CONFORM TO THE FOLLOWING GRADATION:

SIEVE	% PASSING
1 1/4 INCH	100
No. 4	85-100
No. 40	60-85
No. 100	38-60
No. 200	28-40

**EROSION CONTROL NOTES**

**EROSION CONTROL NOTES:**

- DURING CONSTRUCTION, AND THEREAFTER, EROSION CONTROL MEASURES ARE TO BE IMPLEMENTED AS NOTED ON THIS PLAN, AN REVISIONS TO THIS PLAN AND AS DETAILED IN THE STORMWATER AND EROSION CONTROL MANAGEMENT PLAN.
- SILT FENCE SHALL BE INSTALLED AND MAINTAINED WHERE SHOWN ON THE PLAN. IT SHOULD BE MAINTAINED DURING THE CONSTRUCTION ACTIVITIES, UNTIL ALL EXPOSED AREAS HAVE A HEALTHY STAND OF VEGETATION.
- ALL EROSION CONTROLS SHOULD BE INSPECTED WEEKLY AND AFTER RAINFALL EVENTS IN EXCESS OF 0.5" WITHIN A 24-HOUR PERIOD.
- THE SMALLEST PRACTICAL AREA SHOULD BE DISTURBED DURING CONSTRUCTION, BUT IN NO CASE SHALL EXCEED 5-ACRES AT ANY ONE TIME BEFORE DISTURBED AREAS ARE STABILIZED.
- ALL DISTURBED AREAS SHALL BE STABILIZED WITHIN 45-DAYS OF INITIAL DISTURBANCE.
- ANY FILL USED FOR THE COMPLETION OF STABILIZATION ACTIVITIES SHALL BE APPROVED SOIL TYPE FREE FROM STUMPS, ROOTS, WOOD, ETC. TO BE PLACED IN 12" LIFTS OR AS SPECIFIED. BULLDOZERS, TRUCKS, TRACTORS, OR ROLLERS MAY BE USED FOR COMPACTION BY ROUTING THE EQUIPMENT TO ALL AREAS OF EACH LAYER.
- ALL DISTURBED AREAS AND SIDE SLOPES, WHICH ARE FINISH GRADED WITH NO FURTHER CONSTRUCTION TO TAKE PLACE SHALL BE LOAMED AND SEEDED AS SOON AS POSSIBLE BUT AND IN NO CASE LATER THAN 72 HOURS. A MINIMUM 4 INCHES OF LOAM SHALL BE INSTALLED. A SEED, LIME AND FERTILIZER PROGRAM SHALL CONFORM TO "STORMWATER MANAGEMENT AND EROSION AND SEDIMENTATION CONTROL FOR URBAN AND DEVELOPING AREAS IN NEW HAMPSHIRE".
- STABILIZATION SHALL BE DEFINED AS THE ESTABLISHMENT OF 85% SUCCESSFUL VEGETATIVE COVER.
- ANY DISTURBED AREAS WHICH ARE TO BE LEFT TEMPORARILY, AND WHICH WILL BE REGRADED LATER DURING CONSTRUCTION, SHALL BE MACHINE HAY MULCHED AND SEEDED WITH RYE GRASS TO PREVENT EROSION. HAY OR STRAW MULCH SHALL BE APPLIED TO ALL FRESHLY SEEDED AREAS AT THE RATE OF 2 TONS PER ACRE. BALES SHALL BE UNSPOILED, AIR-DRIED, AND FREE FROM WEED, SEEDS AND ANY COARSE MATERIAL.

**WINTER CONSTRUCTION NOTES:**

- WINTER CONSTRUCTION PERIOD: OCTOBER 15 THROUGH APRIL 1.
- ALL EXPOSED AND OR DISTURBED SOILS SHALL BE STABILIZED PRIOR TO THE END OF THE GROWING SEASON.
- ALL EXPOSED AND OR DISTURBED SOILS SHALL BE STABILIZED NO LESS THAN 8-HOURS PRIOR TO A FORECASTED STORM.
- EXCAVATION AND EARTHWORK SHALL BE DONE IN SUCH A MANNER THAT NO MORE THAN 1 ACRES OF THE SITE IS DISTURBED WITHOUT STABILIZATION AT ANY ONE TIME.
- EXPOSED AREA SHOULD BE LIMITED TO THAT WHICH CAN BE STABILIZED IN ONE DAY PRIOR TO ANY SNOW EVENT.
- CONTINUATION OF EARTHWORK OPERATIONS ON ADDITIONAL AREAS SHALL NOT BEGIN UNTIL THE EXPOSED SOIL SURFACE ON THE AREA BEING WORKED HAS BEEN STABILIZED.
- AN AREA SHALL BE CONSIDERED TO HAVE BEEN STABILIZED WHEN EXPOSED SURFACES HAVE BEEN EITHER MULCHED WITH STRAW OR HAY AT A RATE OF 100 LB. PER 1,000 SQUARE FEET (WITH OR WITHOUT SEEDING) OR DORMANT SEEDED, MULCHED AND ADEQUATELY ANCHORED BY AN APPROVED ANCHORING TECHNIQUE. IN ALL CASES MULCH SHALL BE APPLIED SUCH THAT THE SOIL SURFACE IS NOT VISIBLE THROUGH THE MULCH.
- PLACEMENT OF LOAM AND SEED WILL NOT BE REQUIRED. DURING THE PERIODS OF ABOVE FREEZING TEMPERATURES, THE SLOPES SHALL BE FINE GRADED AND EITHER PROTECTED WITH MULCH OR TEMPORARILY SEEDED AND MULCHED UNTIL SUCH TIME AS THE FINAL TREATMENT CAN BE APPLIED. IF THE DATE IS AFTER NOVEMBER 1ST AND THE EXPOSED AREA HAS BEEN LOAMED, FINAL GRADED AND IS SMOOTH, THEN THE AREA MAY BE DORMANT SEEDED AT A RATE OF 200 - 300% HIGHER THAN SPECIFIED FOR PERMANENT SEED AND THEN MULCHED. IF CONSTRUCTION CONTINUES DURING FREEZING WEATHER, ALL EXPOSED AREAS SHALL BE CONTINUOUSLY GRADED BEFORE FREEZING AND THE SURFACE TEMPORARILY PROTECTED FROM EROSION BY THE APPLICATION OF MULCH. SLOPES SHALL NOT BE LEFT UNEXPOSED OVER THE WINTER OR ANY OTHER EXTENDED TIME OF WORK SUSPENSION UNLESS TREATED IN THE ABOVE MANNER. UNTIL SUCH TIME AS WEATHER CONDITIONS ALLOW DITCHES TO BE FINISHED WITH THE PERMANENT SURFACE TREATMENT, EROSION SHALL BE CONTROLLED BY THE INSTALLATION OF BALES OF HAY OR STONE CHECK DAMS IN ACCORDANCE WITH THE STANDARD DETAILS.
- ALL MULCH SHALL BE ANCHORED BY EITHER PEG LINE OR MULCH NETTING.
- MULCH NETTING SHALL BE USED TO ANCHOR MULCH IN ALL DRAINAGE WAYS WITH A SLOPE GREATER THAN 3% FOR SLOPES EXPOSED TO DIRECT WINDS AND FOR ALL OTHER SLOPES GREATER THAN 8%.
- CONTRACTOR SHALL APPLY DORMANT SEEDING OR MULCH AND ANCHORING ON ALL BARE EARTH AT THE END OF EACH WORKING DAY AS NEEDED.
- ALL SNOW SHALL BE REMOVED FROM AREAS OF SEEDING AND MULCHING PRIOR TO PLACEMENT.
- ALL PROPOSED VEGETATED AREAS THAT DO NOT EXHIBIT A MINIMUM OF 85 PERCENT VEGETATIVE GROWTH BY OCTOBER 15, OR WHICH ARE DISTURBED AFTER OCTOBER 15, SHALL BE STABILIZED BY SEEDING AND INSTALLING EROSION CONTROL BLANKETS ON SLOPES GREATER THAN 3:1, AND SEEDING AND PLACING 3 TO 4 TONS OF MULCH PER ACRE, SECURED WITH ANCHORED NETTING, ELSEWHERE. THE INSTALLATION OF EROSION CONTROL BLANKETS OR MULCH AND NETTING SHALL NOT OCCUR OVER ACCUMULATED SNOW OR ON FROZEN GROUND AND SHALL BE COMPLETED IN ADVANCE OF THAW OR SPRING MELT EVENTS.

**PERMANENT SEEDING NOTES**

**MAINTENANCE REQUIREMENTS:**

- PERMANENT SEEDED AREAS SHOULD BE INSPECTED AT LEAST MONTHLY DURING THE COURSE OF CONSTRUCTION. INSPECTIONS, MAINTENANCE, AND CORRECTIVE ACTIONS SHOULD CONTINUE UNTIL THE OWNER ASSUMES PERMANENT OPERATION OF THE SITE.
- SEEDED AREAS SHOULD BE MOWED AS REQUIRED TO MAINTAIN A HEALTHY STAND OF VEGETATION, WITH MOWING HEIGHT AND FREQUENCY DEPENDENT ON TYPE OF GRASS COVER.
- BASED ON INSPECTION, AREAS SHOULD BE RESEDED TO ACHIEVE FULL STABILIZATION OF EXPOSED SOILS.
- AT A MINIMUM, 85% OF THE SOIL SURFACE SHOULD BE COVERED BY VEGETATION.
- IF ANY EVIDENCE OF EROSION OR SEDIMENTATION IS APPARENT, REPAIRS SHOULD BE MADE AND AREAS SHOULD BE RESEDED, WITH OTHER TEMPORARY MEASURES (E.G., MULCH) USED TO PROVIDE EROSION PROTECTION DURING THE PERIOD OF VEGETATION ESTABLISHMENT.

**SITE PREPARATION:**

- INSTALL NEEDED EROSION AND SEDIMENT CONTROL MEASURES SUCH AS SILTATION BARRIERS, DIVERSIONS, AND SEDIMENT TRAPS.
- GRADE AS NEEDED FOR THE ACCESS OF EQUIPMENT FOR SEEDBED PREPARATION, SEEDING, MULCH APPLICATION, AND MULCH ANCHORING.
- RUNOFF SHOULD BE DIVERTED FROM THE SEEDED AREA.
- ON SLOPES 4:1 OR STEEPER, THE FINAL PREPARATION SHOULD INCLUDE CREATING HORIZONTAL GROOVES PERPENDICULAR TO THE DIRECTION OF THE SLOPE TO CATCH SEED AND REDUCE RUNOFF.

**SEEDBED PREPARATION:**

- 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 SHOULD BE ON THE GENERAL CONTOUR. CONTINUE TILLAGE UNTIL A REASONABLY UNIFORM, FINE SEEDED IS PREPARED. ALL BUT CLAY OR SILTY SOILS AND COARSE SANDS SHOULD BE ROLLED TO FIRM THE SEEDED WHEREVER FEASIBLE.
- REMOVE FROM THE SURFACE ALL STONES 2 INCHES OR LARGER IN ANY DIMENSION.
- REMOVE ALL OTHER DEBRIS, SUCH AS WIRE, CABLE, TREE ROOTS, CONCRETE, CLODS, LUMPS, TRASH OR OTHER UNSUITABLE MATERIAL.
- INSPECT SEEDED JUST BEFORE SEEDING. IF TRAFFIC HAS LEFT THE SOIL COMPACTED, THE AREA MUST BE TILLED AND FIRMED AS ABOVE.
- WHERE THE SOIL HAS BEEN COMPACTED BY CONSTRUCTION OPERATIONS, LOOSEN SOIL TO A DEPTH OF 2 INCHES BEFORE APPLYING FERTILIZER, LIME AND SEED.
- IF APPLICABLE, FERTILIZER AND ORGANIC SOIL AMENDMENTS SHOULD BE APPLIED DURING THE GROWING SEASON.
  - APPLY LIMESTONE AND FERTILIZER ACCORDING TO SOIL TEST RECOMMENDATIONS. IF SOIL TESTING IS NOT FEASIBLE ON SMALL OR VARIABLE SITES, OR WHERE TIMING IS CRITICAL, FERTILIZER MAY BE APPLIED AT THE RATE OF 600 POUNDS PER ACRE OR 13.8 POUNDS PER 1,000 SQUARE FEET OF LOW PHOSPHATE FERTILIZER1 (N-P205-K20) 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).
  - FERTILIZER SHOULD BE RESTRICTED TO A LOW PHOSPHATE, SLOW OORLELEASE2 NITROGEN FERTILIZER WHEN APPLIED TO AREAS BETWEEN 25 FEET AND 250 FEET FROM A SURFACE WATER BODY. NO FERTILIZER EXCEPT LIMESTONE SHOULD BE APPLIED WITHIN 25 FEET OF THE SURFACE WATER. THESE LIMITATIONS ARE REQUIREMENTS FOR ANY WATER BODY PROTECTED BY THE COMPREHENSIVE SHORELAND PROTECTION ACT.

**SEEDING:**

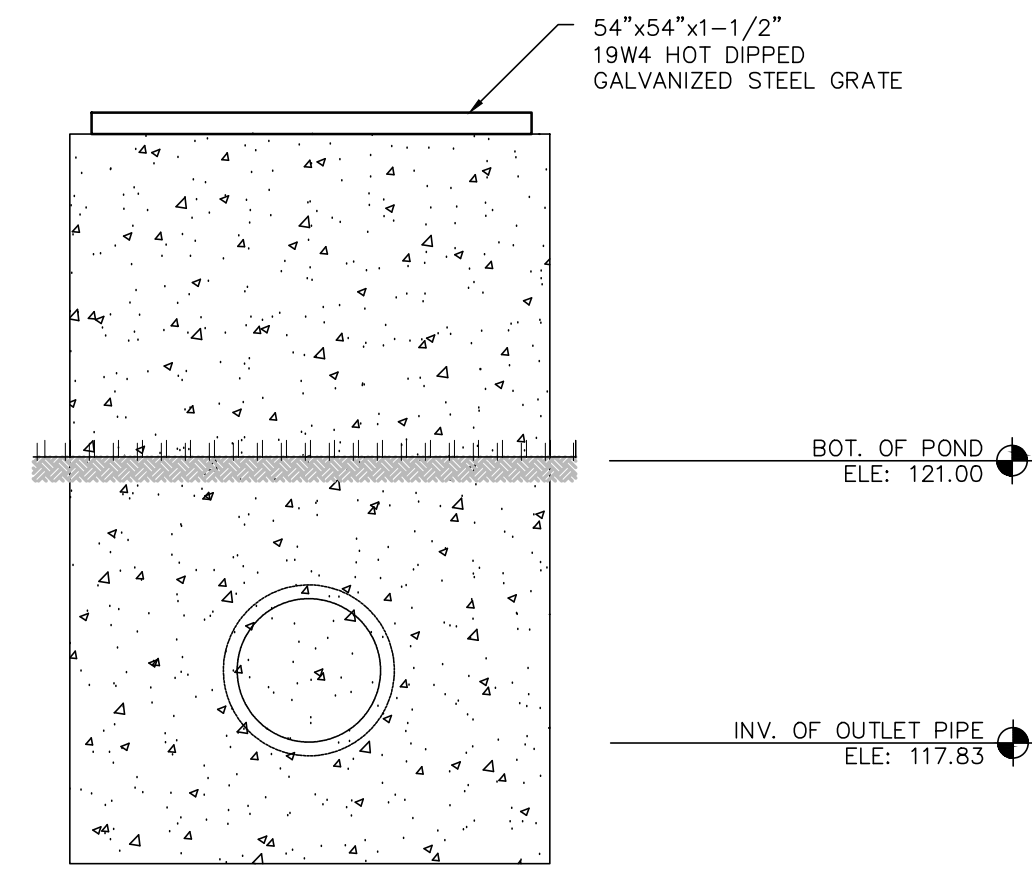
- SELECT A SEED MIXTURE IN TABLE 4-2 THAT IS APPROPRIATE FOR THE SOIL TYPE AND MOISTURE CONTENT AS FOUND AT THE SITE, FOR THE AMOUNT OF SUN EXPOSURE AND FOR LEVEL OF USE. SELECT SEED FROM RECOMMENDATIONS IN TABLE 4-3.
- INOCULATE ALL LEGUME SEED WITH THE CORRECT TYPE AND AMOUNT OF INOCULANT.
- APPLY SEED UNIFORMLY BY HAND, CYCLONE SEEDER, DRILL, CULTIPACKER TYPE SEEDER OR HYDROSEEDER (SLURRY INCLUDING SEED AND FERTILIZER). NORMAL SEEDING DEPTH IS FROM 1/4 TO 1/2 INCH. HYDROSEEDING THAT INCLUDES MULCH MAY BE LEFT ON SOIL SURFACE. SEEDING OPERATIONS SHOULD BE ON THE CONTOUR.
- WHERE FEASIBLE, EXCEPT WHERE EITHER A CULTIPACKER TYPE SEEDER OR HYDROSEEDER IS USED, THE SEEDED SHOULD BE FIRMED FOLLOWING SEEDING OPERATIONS WITH A ROLLER, OR LIGHT DRAG.
- SPRING SEEDING USUALLY GIVES THE BEST RESULTS FOR ALL SEED MIXES OR WITH LEGUMES. PERMANENT SEEDING SHOULD BE COMPLETED 45 DAYS PRIOR TO THE FIRST KILLING FROST. WHEN CROWN VETCH IS SEEDED IN LATER SUMMER, AT LEAST 35% OF THE SEED SHOULD BE HARD SEED (UNSCARIFIED) IF SEEDING CANNOT BE DONE WITHIN THE SPECIFIED SEEDING DATES. MULCH ACCORDING TO THE "TEMPORARY AND PERMANENT MULCHING PRACTICE," AND DELAY SEEDING UNTIL THE NEXT RECOMMENDED SEEDING PERIOD.
  - TEMPORARY SEEDING SHOULD TYPICALLY OCCUR PRIOR TO OOSEPTEMBER 15TH.
  - AREAS SEEDED BETWEEN MAY 15TH AND AUGUST 15TH SHOULD OOOE COVERED WITH HAY OR STRAW MULCH, ACCORDING TO THE "TEMPORARY AND PERMANENT MULCHING" PRACTICE.
- VEGETATED GROWTH COVERING AT LEAST 85% OF THE DISTURBED AREA SHOULD BE ACHIEVED PRIOR TO OCTOBER 15TH. IF THIS CONDITION IS NOT ACHIEVED, IMPLEMENT TEMPORARY STABILIZATION MEASURES FOR OVERWINTER PROTECTION, AND COMPLETE PERMANENT SEED STABILIZATION DURING THE NEXT GROWING SEASON.

**HYDROSEEDING:**

- WHEN HYDROSEEDING (HYDRAULIC APPLICATION), PREPARE THE SEEDED AS SPECIFIED ABOVE OR BY HAND RAKING TO LOOSEN AND SMOOTH THE SOIL AND TO REMOVE SURFACE STONES LARGER THAN 2 INCHES IN DIAMETER.
- SLOPES MUST BE NO STEEPER THAN 2 TO 1 (2 FEET HORIZONTALLY TO 1 FOOT VERTICALLY).
- LIME AND FERTILIZER MAY BE APPLIED SIMULTANEOUSLY WITH THE SEED. THE USE OF FIBER MULCH ON CRITICAL AREAS IS NOT RECOMMENDED (UNLESS IT IS USED TO HOLD STRAW OR HAY). BETTER PROTECTION IS GAINED BY USING STRAW MULCH AND HOLDING IT WITH ADHESIVE MATERIALS OR 500 POUNDS PER ACRE OF WOOD FIBER MULCH.
- SEEDING RATES MUST BE INCREASED 10% WHEN HYDROSEEDING.

**CONSTRUCTION DETAILS**

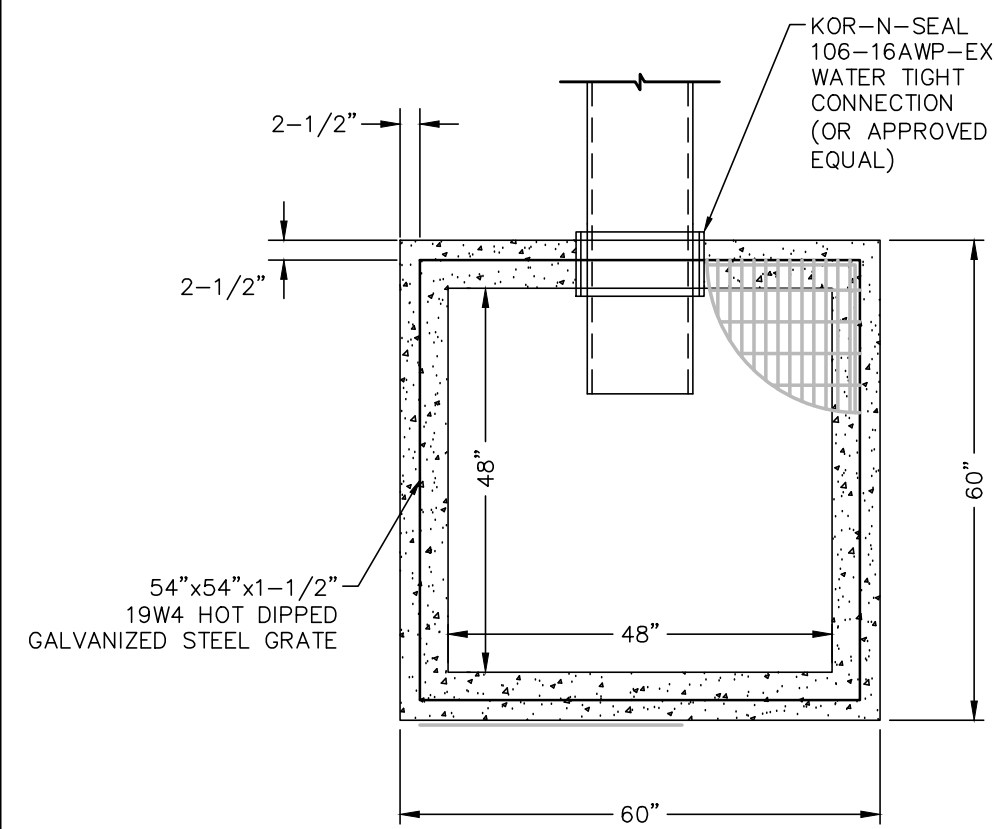
PROJECT: TAX MAP 41 LOT 82 ELM STREET PLAISTOW, NEW HAMPSHIRE	
SCALE: 1" = 30'	DRAWN BY: AKG
DATE: APRIL 9, 2018	REVISED: 1. 9/19/19
APPLICANT: TOWN OF PLAISTOW 145 MAIN STREET PLAISTOW, NH 03865	2.
PREPARED BY: S.E.C. & ASSOCIATES, INC.	3.
30 River Street Methuen, MA 01844-1097 Tel: (978) 416-0920 Fax: (978) 416-7865	4.
ENGINEERING SERVICES PROVIDED BY: <b>CIVIL DESIGN</b> Consultants, Inc. SURVEY - DESIGN - PERMITTING - CONSTRUCTION ADMINISTRATION	5.
DRAWING #: 1411-W JOB NO. 06-1411	



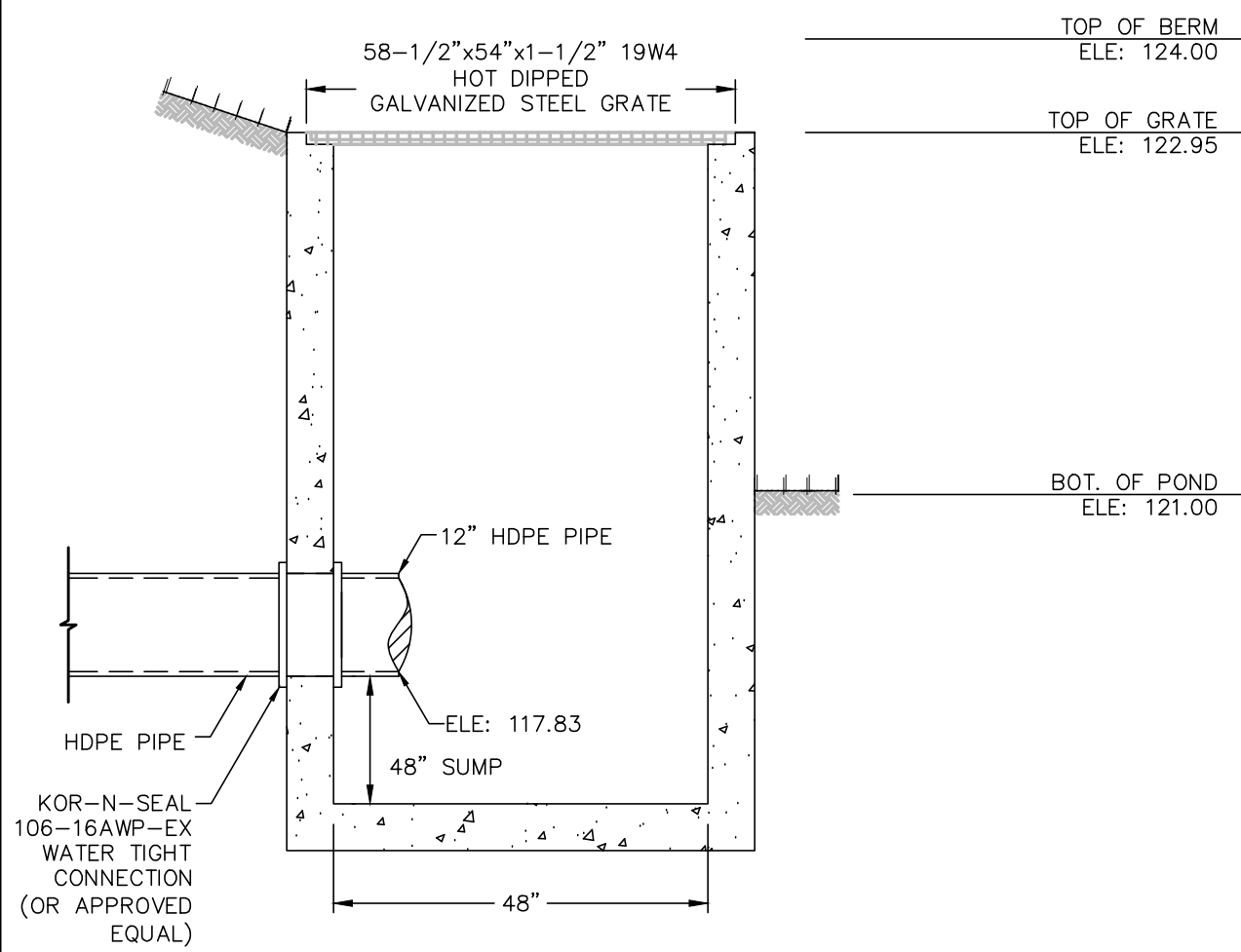
- NOTES:
1. MDD: MAXIMUM DRY DENSITY.
  2. ACCEPTABLE TO ENGINEER.
  3. COMPACT TO TEST AVERAGE OF 92%, NO TEST LESS THAN 90.
  4. BASIN TO BE SEED WITH NEW ENGLAND EROSION CONTROL/RESTORATION SEED MIX AT A RATE OF 1 LB/1,250-SF.

LOCATION	MATERIAL	MAX. PARTICLE SIZE (IN)	LOOSE LIFT THICKNESS (IN)	COMPACTION REQUIREMENTS (% MDD) <sup>1</sup>
KEY	NATIVE SOIL <sup>2</sup>	6	12 (MAX)	92% <sup>3</sup>
EMBANKMENT	NATIVE SOIL <sup>2</sup>	6	12 (MAX)	92% <sup>3</sup>
LOAM COVER	NATIVE TOPSOIL	1	8 (MIN)	80%
IMP. CORE	SOIL W/ AT LEAST 30% CLAY & SILT CONTENT	3	12 (MAX)	92% <sup>3</sup>

**PROPOSED POND EMBANKMENT DETAIL**  
NOT TO SCALE

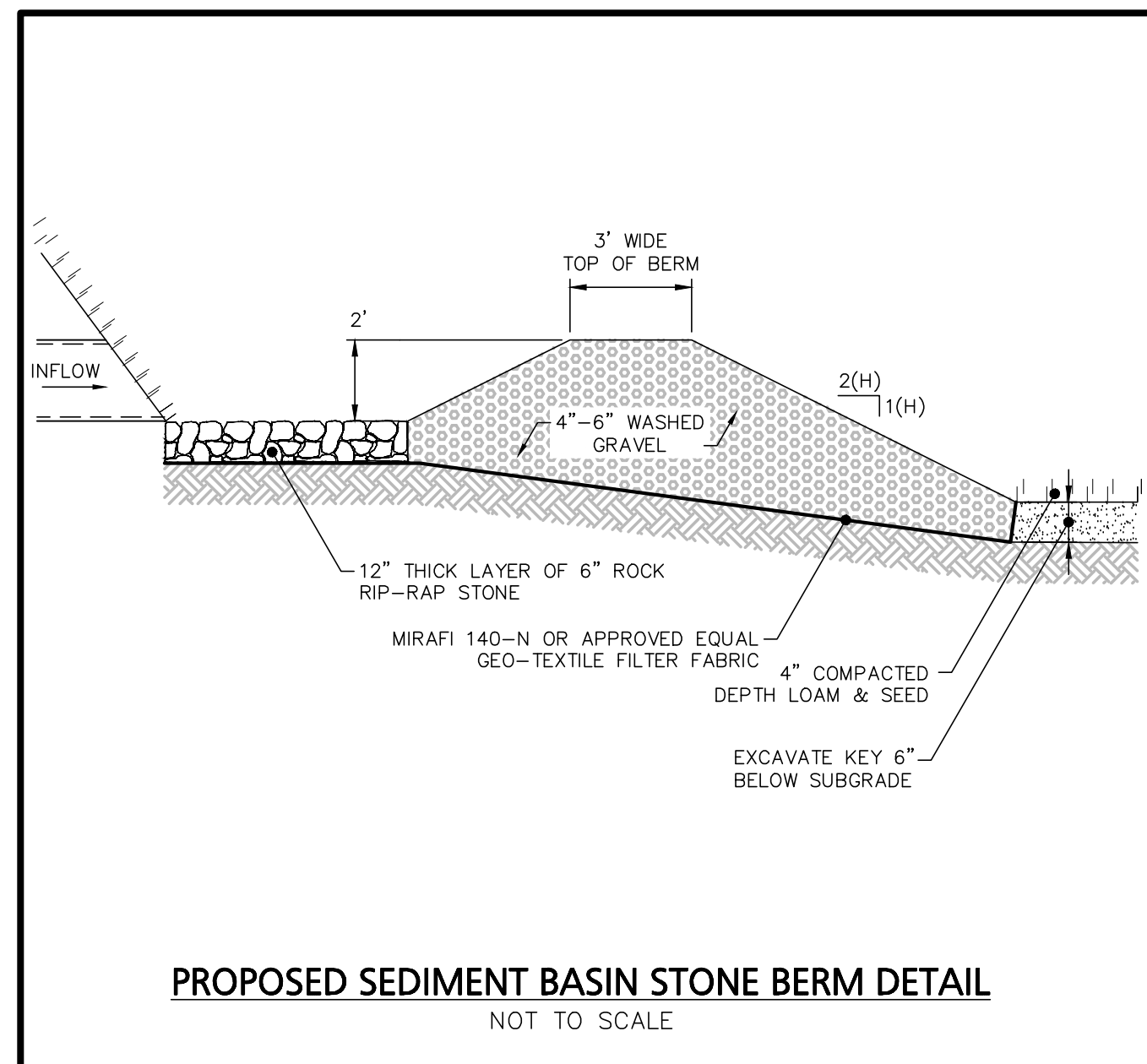


**PLAN**  
NOT TO SCALE

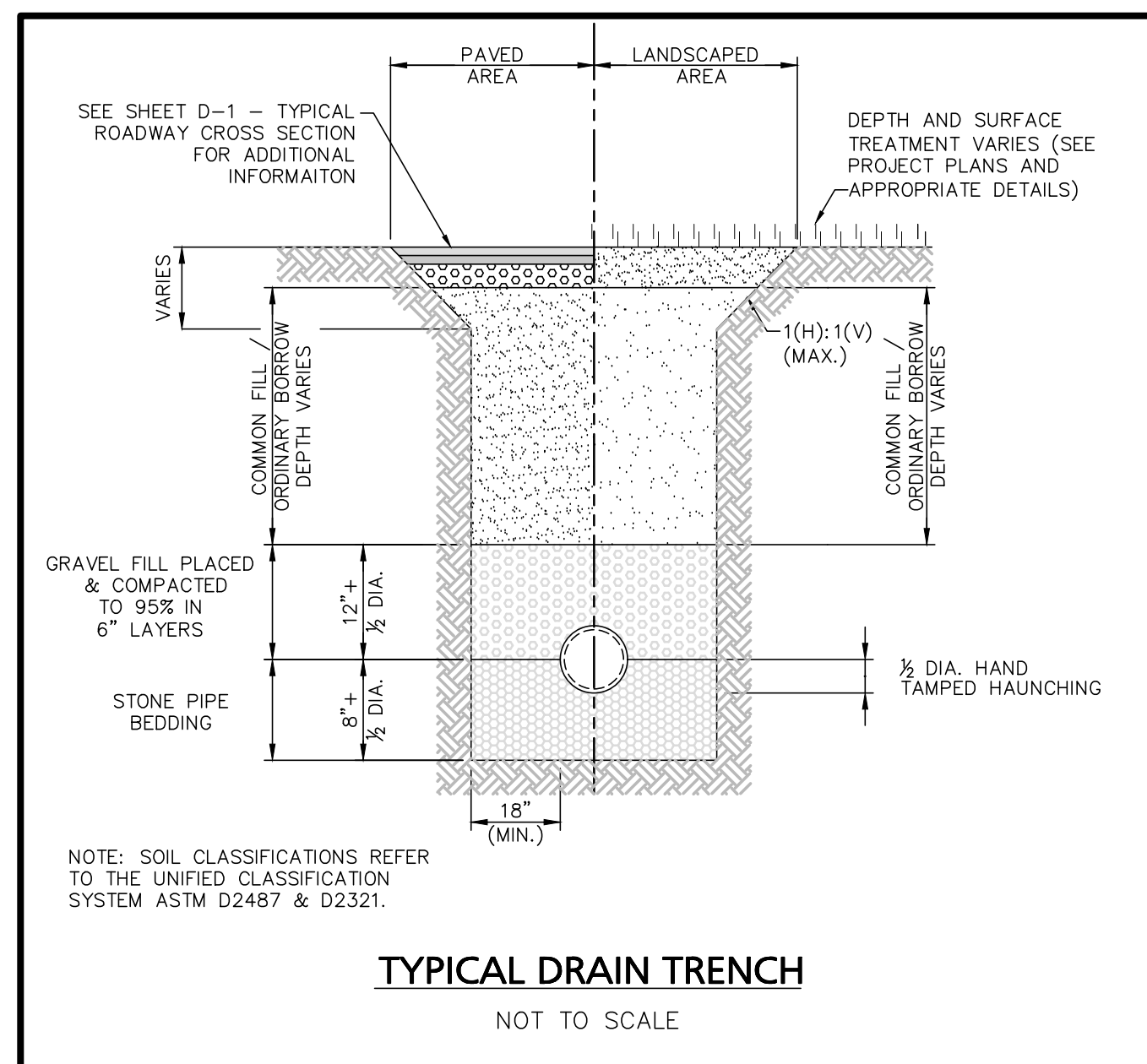


**PROFILE**  
NOT TO SCALE

**OUTLET STRUCTURE DETAIL**



**PROPOSED SEDIMENT BASIN STONE BERM DETAIL**  
NOT TO SCALE



**TYPICAL DRAIN TRENCH**  
NOT TO SCALE

**GENERAL UTILITY NOTES**

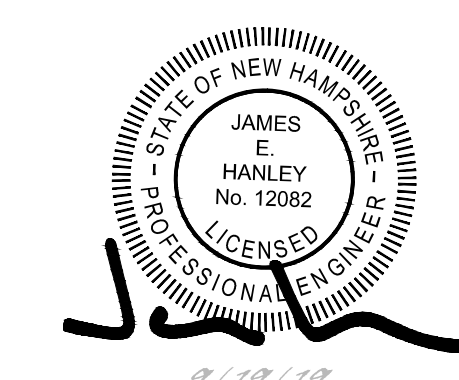
1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING AND MAINTAINING ALL CONTROL POINTS AND BENCHMARKS NECESSARY FOR THE WORK.
2. ALL UTILITY WORK PERFORMED WITHIN RIGHT-OF-WAY SHALL BE PERFORMED BY A CONTRACTOR LICENSED BY THE DPW AND OBTAIN A PERMIT FOR SUCH WORK FROM THE DPW, IF NEEDED.
3. ALL DEBRIS SHALL BE REMOVED FROM THE SITE AND DISPOSED OF IN ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE AND FEDERAL REGULATIONS.
4. A DUST EMISSION CONTROL PLAN SHALL BE DEVELOPED AND IMPLEMENTED BY THE CONTRACTOR IF CONDITIONS WARRANT.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING ALL UTILITIES AS SHOWN ON THESE PLANS IN ACCORDANCE WITH THE APPROPRIATE UTILITY COMPANY SPECIFICATIONS. ALL UTILITY CONSTRUCTION SHALL CONFORM TO THE APPROPRIATE UTILITY COMPANY STANDARDS FOR CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING SPECIFICATIONS OF MATERIALS AND INSTALLATION PROCEDURES AND INSTALL IN ACCORDANCE WITH APPLICABLE REGULATIONS.
6. THE CONTRACTOR IS RESPONSIBLE TO CONTACT AND DETERMINE, COORDINATE AND SCHEDULE ALL NECESSARY INSPECTIONS AND MONITORING WITH ALL APPROPRIATE UTILITY COMPANIES.
7. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING AND PAYING FOR ANY PERMITS AND/OR CONNECTION FEES REQUIRED TO PERFORM THE WORK.
8. ALL ELEVATIONS SHOWN ARE IN REFERENCE TO THE PROJECT BENCHMARK AND MUST BE VERIFIED BY THE GENERAL CONTRACTOR PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SITE RESTORATION AND CLEAN UP UPON COMPLETION OF THE PROJECT.

**INFILTRATION BASIN NOTES**

1. SEDIMENT LADEN WATERS DUE TO CONSTRUCTION ACTIVITIES SHALL NOT BE DISCHARGED TO THE INFILTRATION BASINS.
2. EXPOSED SOIL SURFACES SHALL NOT BE TRAVERSED WITH CONSTRUCTION EQUIPMENT. IF FEASIBLE, EXCAVATIONS SHALL BE PERFORMED OUTSIDE THE LIMITS OF THE INFILTRATION BASINS.
3. AFTER THE BASIN IS EXCAVATED TO THE FINAL DESIGN ELEVATION, THE FLOOR SHALL BE DEEPLY TILLED WITH A ROTARY TILLER OR DISC HARROW TO RESTORE INFILTRATION RATES, FOLLOWED BY A PASS WITH A LEVEL DRAG.
4. THE BASINS SHALL IMMEDIATELY BE SEED FOR VEGETATIVE COVER TO BE ESTABLISHED AFTER GRADING ACTIVITIES ARE COMPLETED.
5. THE INFILTRATION BASINS SHALL NOT BE PLACED INTO SERVICE UNTIL ALL CONTRIBUTING AREAS HAVE BEEN FULLY STABILIZED.

**CONSTRUCTION DETAILS**

PROJECT: TAX MAP 41 LOT 82 ELM STREET PLAISTOW, NEW HAMPSHIRE	
SCALE: 1" = 30'	DRAWN BY: AKG
DATE: APRIL 9, 2018	REVISED: 1. 9/19/19
APPLICANT: TOWN OF PLAISTOW 145 MAIN STREET PLAISTOW, NH 03865	2.
PREPARED BY: S.E.C. & ASSOCIATES, INC.	3.
	4.
	5.
DRAWING #: 1411-W JOB NO. 06-1411	



ENGINEERING SERVICES PROVIDED BY:  
**CIVIL DESIGN**  
Consultants, Inc.  
SURVEY - DESIGN - PERMITTING - CONSTRUCTION ADMINISTRATION  
30 River Street Methuen, MA 01844-1097 Tel: (978) 416-0920 Fax: (978) 416-7865