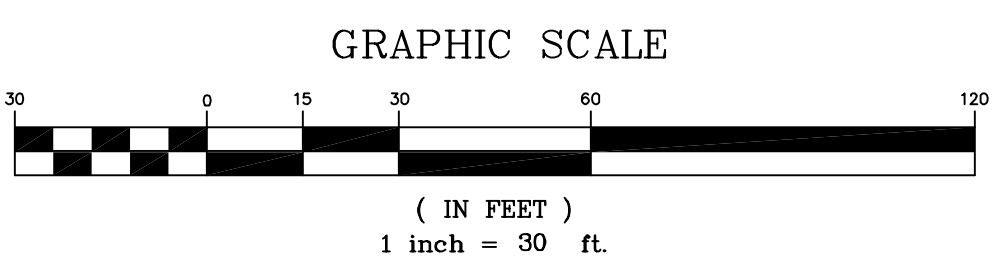


- LEGEND**
- IRON ROD FOUND
 - IRON PIPE FOUND
 - DRILL HOLE IN LEDGE
 - GRANITE MONUMENT FOUND
 - 5/8" REBAR PROPOSED
 - 4"x4" GRANITE MONUMENT PROPOSED
 - UTILITY POLE
 - GUY ANCHOR
 - OVERHEAD UTILITY LINE
 - BELOW GROUND ELECTRIC
 - LIGHT
 - HYDRANT
 - WATER VALVE
 - WELL
 - MONITORING WELL
 - UNDERGROUND WATER LINE
 - SIGN
 - EXISTING CONTOUR
 - SURVEYED LINE
 - STOCKADE FENCE
 - WIRE FENCE
 - GUARDRAIL
 - STONE WALL
 - CATCH BASIN
 - STORM PIPE
 - SANITARY MANHOLE
 - SANITARY PUMP STATION
 - SANITARY LINE
 - SETBACK
 - FLAG
 - TEST PIT
 - CONIFEROUS TREE
 - DECIDUOUS TREE
 - VEGETATION
 - APPROXIMATE WETLANDS
 - P. JAMES BROWN P. OWNER



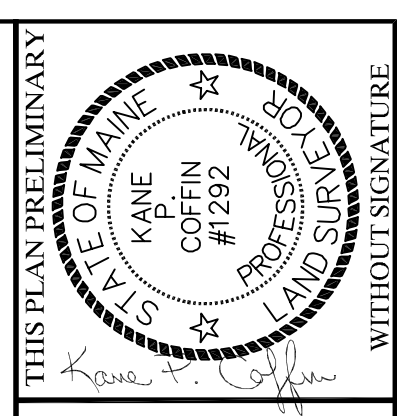
SURVEYOR'S NOTES:

The purpose of this plan is to show existing topographic conditions for Lot 26 on Plan Reference 2.

The location of underground utilities is not a part of this survey. The location of water and sewer lines shown are apparent. Wetland delineation is based on Plan Reference 3.

The one foot contours were field surveyed by E. S. Coffin Engineering & Surveying, Inc. in October, 2022 and are derived from NGS RM-2 and datum NAVD 1985. Directions are Gnd North, derived from Plan Reference 1.

- PLAN REFERENCES:**
- 1) "Amended Subdivision Plan, Libby Hill Business Park, Gardiner, Maine for City of Gardiner" by OEST Associates, Inc., dated August 1, 1998, revised September 3, 1999, recorded at Kennebec County Registry of Deeds in Plan Book 1999-Page 176 & 177.
 - 2) "Overall Buffer Plan, Libby Hill Business Park, Phase 2, Gardiner, Kennebec County, Maine" by Milne & MacBroom, dated April 3, 2008, recorded May 20, 2008 at Kennebec County Registry of Deeds in Plan Book 2008-Page 111.
 - 3) "2020 Wetland Delineation for Lots 8,9,12,18,20,25 & 26, Libby Hill Business Park, Gardiner, Kennebec County, Maine" by E.S. Coffin Engineering, dated February 17, 2021.



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NO.	DATE	REVISIONS

TOPOGRAPHIC SURVEY

SCALE: 1 INCH=30 FEET

DATE: OCTOBER 3, 2022

DRAWN BY: CSC
CHECKED BY: KPC

LIBBY HILL BUSINESS PARK LOT #26

CLIENT/PROJECT: LIBBY HILL BUSINESS PARK

LOCATION: TECHNOLOGY DRIVE

TOWN: GARDINER COUNTY: KENNEBEC STATE: MAINE

PROJ. NO. 2022-005

TS

Kane F. Coffin PLS 1292
an agent of E.S. Coffin Engineering & Surveying, Inc.
No warranty is made to others utilizing this plan for
the purpose of further divisions, title certifications,
deed descriptions, construction, etc.

EROSION AND SEDIMENTATION NOTES:

1. CONTRACTOR SHALL FOLLOW BEST MANAGEMENT PRACTICES OF THE KENNEBEC COUNTY SOIL CONSERVATION SERVICE AND THE MAINE DEP BEST MANAGEMENT PRACTICES HANDBOOK.

GENERAL EROSION AND SEDIMENTATION CONTROL PRACTICES:

EROSION/SEDIMENT CONTROL DEVICES:

THE FOLLOWING EROSION SEDIMENTATION CONTROL DEVICES ARE PROPOSED FOR CONSTRUCTION ON THIS PROJECT. INSTALL THESE DEVICES AS INDICATED ON THE PLANS.

- 1. **SILT FENCE:** SILT FENCE WILL BE INSTALLED ALONG THE DOWN GRADING EDGES OF DISTURBED AREAS TO TRAP RUNOFF BORNE SEDIMENTS UNTIL THE SITE IS STABILIZED. IN AREAS WHERE STORMWATER DISCHARGES THE SILT FENCE WILL BE REINFORCED WITH HAY BALES TO HELP MAINTAIN THE INTEGRITY OF THE SILT FENCE AND TO PROVIDE ADDITIONAL TREATMENT.
2. **STONE CHECK DAMS:** STONE CHECK DAMS ARE TO BE PLACED IN LOW FLOW DRAINAGE SWALES AND PATHS TO TRAP SEDIMENTS AND REDUCE RUNOFF VELOCITIES. DO NOT PLACE STONE CHECK DAMS IN FLOWING WATER OR STREAMS.
3. **RIPRAP:** PROVIDE RIPRAP IN AREAS WHERE CULVERTS DISCHARGE OR AS SHOWN ON THE PLANS.
4. **LOAM, SEED, & MULCH:** ALL DISTURBED AREAS, WHICH ARE NOT OTHERWISE TREATED, SHALL RECEIVE PERMANENT SEEDING AND MULCH TO STABILIZE THE DISTURBED AREAS. THE DISTURBED AREAS WILL BE REVEGETATED WITHIN 5 DAYS OF FINAL GRADING. SEEDING REQUIREMENTS ARE PROVIDED ARE THE END OF THIS SPECIFICATION.
5. **STRAW AND HAY MULCH:** USED TO COVER DENUDED AREA UNTIL PERMANENT SEED OR EROSION CONTROL MEASURES ARE IN PLACE. MULCH BY ITSELF CAN BE USED ON SLOPES LESS THAN 15% IN SUMMER AND 8% IN WINTER. JUTE MESH IS TO BE USED OVER MULCH ONLY. CURLEX II AND EXCELSIOR MAY BE USED IN PLACE OF JUTE MESH OVER MULCH.
6. **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%.

TEMPORARY EROSION/SEDIMENTATION CONTROL MEASURES:

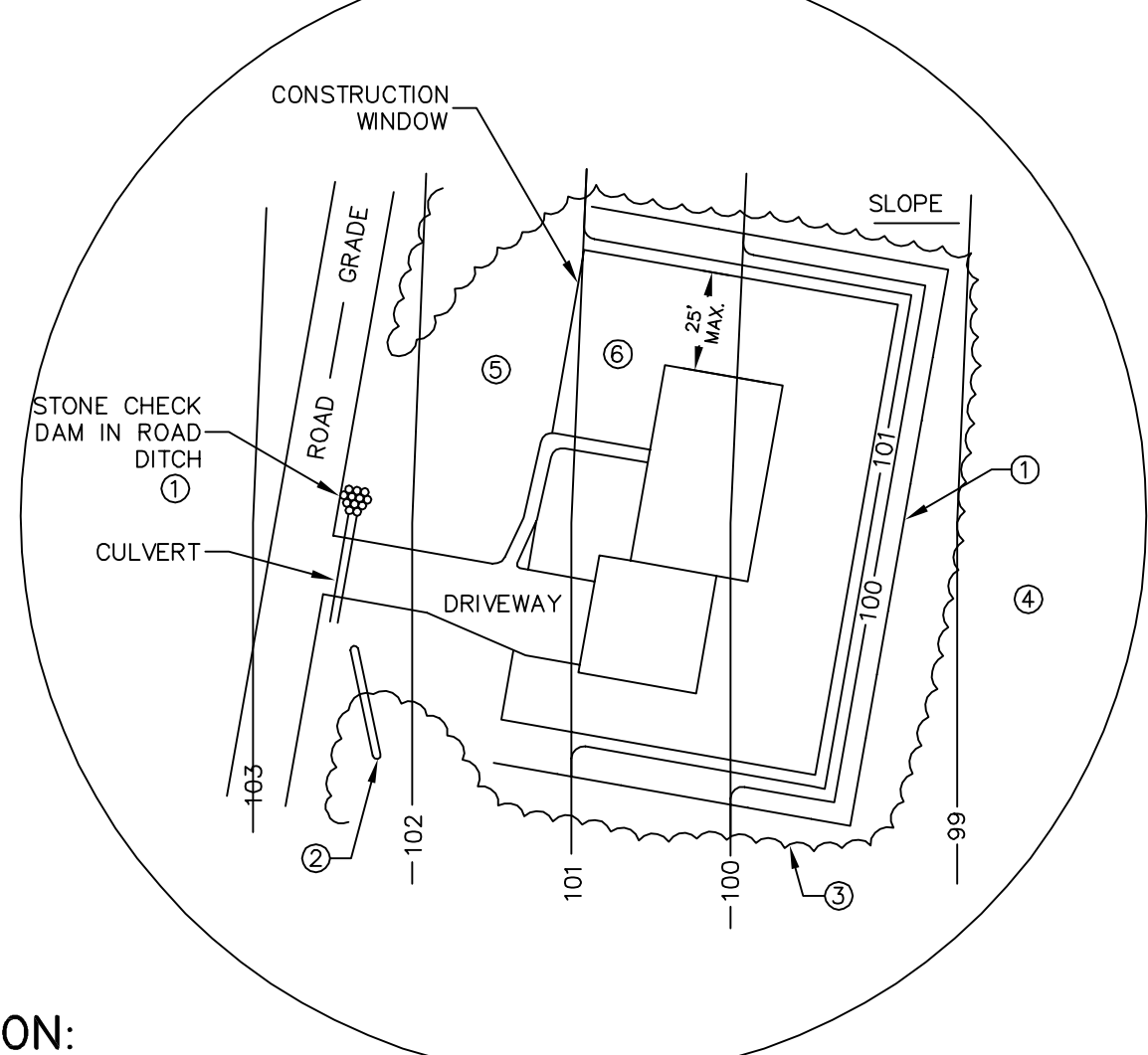
PROVIDE THE FOLLOWING TEMPORARY EROSION/SEDIMENTATION CONTROL MEASURES DURING CONSTRUCTION OF THE DEVELOPMENT:

- 1. SILTATION FENCE ALONG THE DOWN GRADIENT SIDE OF THE PARKING AREAS AND OF ALL FILL SECTIONS. THE SILTATION FENCE WILL REMAIN IN PLACE UNTIL THE SITE IS 85% REVEGETATED.
2. HAY BALES PLACED AT KEY LOCATIONS TO SUPPLEMENT THE SILT FENCE.
3. PROTECT TEMPORARY STOCKPILES OF STUMPS, GRUBBINGS, OR COMMON EXCAVATION AS FOLLOWS:
(A) SOIL STOCKPILE SIDE SLOPES SHALL NOT EXCEED 2:1.
(B) AVOID PLACING TEMPORARY STOCKPILES IN AREA WITH SLOPES OVER 10 PERCENT, OR NEAR DRAINAGE SWALES. SEE ITEM 3 IN CONSTRUCTION PHASE NOTES BELOW.
(C) THE CONTRACTOR MUST STABILIZE SOIL AND FILL STOCKPILES WITHIN 7 DAYS PRIOR TO ANY RAINFALL.
(D) SURROUND STOCKPILE SOIL WITH SILTATION FENCE AT BASE OF PILE.
4. ALL DENUDED AREA WHICH HAVE BEEN ROUGH GRADED AND ARE NOTE LOCATED WITHIN THE BUILDING PAD, OR PARKING AND DRIVEWAY SUBBASE AREA SHALL RECEIVE MULCH WITHIN 7 DAYS OF INITIAL DISTURBANCE OF SOIL IN ANY AREA OR WITHIN 7 DAYS AFTER COMPLETING THE ROUGH GRADING OPERATIONS IN ANY AREA, OR PRIOR TO ANY RAINFALL. IN THE EVENT THE CONTRACTOR COMPLETES FINAL GRADING AND INSTALLATION OF LOAM AND SOD WITHIN THE TIME PERIODS PRESENTED ABOVE, INSTALLATION OF MULCH AND NETTING, IS NOT REQUIRED.
5. IF WORK IS CONDUCTED BETWEEN OCTOBER 15 AND APRIL 15, ALL DENUDED AREAS ARE TO BE COVERED WITH HAY MULCH, APPLIED AT TWICE THE NORMAL APPLICATION RATE, AND ANCHORED WITH FABRIC NETTING. THE PERIOD BETWEEN FINAL GRADING AND MULCHING SHALL BE REDUCED TO A 1 DAY MAXIMUM FOR WORK COMPLETED BETWEEN OCTOBER 15TH AND APRIL 15TH.
6. TEMPORARY EROSION CONTROL MEASURES SHALL BE REMOVED ONCE THE SITE HAS BEEN STABILIZED OR IN AREAS WHERE PERMANENT EROSION CONTROL MEASURES HAVE BEEN INSTALLED.

PERMANENT EROSION CONTROL MEASURES:

THE FOLLOWING PERMANENT CONTROL MEASURES ARE REQUIRED BY THIS EROSION/ SEDIMENTATION CONTROL PLAN:

- 1. ALL AREAS DISTURBED DURING CONSTRUCTION, BUT NOT SUBJECT TO OTHER RESTORATION (PAVING, RIPRAP, ETC.), WILL BE LOAMED, LIMED, FERTILIZED AND SEEDED. NATIVE TOPSOIL SHALL BE STOCKPILED AND REUSED FOR FINAL RESTORATION WHEN IT IS OF SUFFICIENT QUALITY.
2. SLOPES GREATER THAN 2:1 WILL RECEIVE RIPRAP.



INSTALLATION:

- 1. INSTALL SEDIMENT BARRIERS ON YOUR SITE BEFORE DISTURBING SOILS. SEE THE "SEDIMENT BARRIERS" MEASURE FOR DETAILS ON INSTALLATION AND MAINTENANCE.
2. CONSTRUCT A DIVERSION DITCH TO KEEP UPSLOPE RUNOFF OUT OF WORK AREA.
3. MARK CLEARING LIMITS ON THE SITE TO KEEP EQUIPMENT OUT OF AREAS WITH STEEP SLOPES, CHANNELIZED FLOW, OR ADJACENT SURFACE WATERS AND WETLANDS.
4. PRESERVE BUFFERS BETWEEN THE WORK AREA AND ANY DOWNSTREAM SURFACE WATERS AND WETLANDS. SEE THE "BUFFERS" MEASURE FOR BUFFER PRESERVATION.
5. USE TEMPORARY MULCH AND RYE-SEED TO PROTECT DISTURBED SOIL OUTSIDE THE ACTIVE CONSTRUCTION AREA. SEE THE "MULCHING" MEASURE AND "VEGETATION" MEASURE FOR DETAILS AND SPECIFICATIONS FOR THESE CONTROLS.
6. PERMANENTLY SEED AREAS NOT TO BE PAVED WITHIN SEVEN DAYS OF COMPLETING FINAL GRADING. SEE "VEGETATION" MEASURE FOR INFORMATION ON PROPER SEEDING.

MAINTENANCE:

EVERY MONTH THE FIRST YEAR AFTER CONSTRUCTION AND YEARLY THEREAFTER, INSPECT FOR AREAS SHOWING EROSION OR POOR VEGETATION GROWTH. FIX THESE PROBLEMS AS SOON AS POSSIBLE. EACH SPRING REMOVE ANY ACCUMULATION OF DEBRIS OR WINTER SAND THAT WOULD IMPEDE RUNOFF FROM ENTERING A BUFFER OR DITCH.

HOUSE SITE - BEST MANAGEMENT PRACTICES

NOT TO SCALE

CONSTRUCTION PHASE:

THE FOLLOWING PRACTICES WILL BE USED TO PREVENT EROSION DURING CONSTRUCTION OF THIS PROJECT.

- 1. ONLY THOSE AREAS UNDER ACTIVE CONSTRUCTION WILL BE CLEARED AND LEFT IN AN UNTREATED OR UNVEGETATED CONDITION. IF FINAL GRADING, LOAMING AND SEEDING WILL NOT OCCUR WITHIN 7 DAYS, SEE ITEM NO. 4.
2. PRIOR TO THE START OF CONSTRUCTION IN A SPECIFIC ARE, SILT FENCING AND/OR HAY BALES WILL BE INSTALLED AT THE TOE OF SLOPE AND IN AREAS AS LOCATED ON THE PLANS TO PROTECT AGAINST ANY CONSTRUCTION RELATED EROSION. IMMEDIATELY FOLLOWING CONSTRUCTION OF CULVERTS AND SWALES, RIP RAP APRONS SHALL BE INSTALLED, AS SHOWN ON THE PLANS.
3. TOPSOIL WILL BE STOCKPILED WHEN NECESSARY IN AREAS WHICH HAVE MINIMUM POTENTIAL FOR EROSION AND WILL BE KEPT AS FAR AS POSSIBLE FROM THE EXISTING DRAINAGE COURSE. NO STOCKPILE SHALL BE CLOSER THEN 100' OF A RESOURCE INCLUDING, BUT NOT LIMITED TO, WETLANDS, STREAMS, AND OPEN WATER BODIES. ALL STOCKPILES SHALL HAVE A SILTATION FENCE BELOW THEM REGARDLESS OF TIME OF PRESENCE. ALL STOCKPILES EXPECTED TO REMAIN LONGER THAN 15 DAYS SHALL BE:
(A) ALL STOCKPILES ANTICIPATED TO REMAIN IN PLACE FOR LESS THAN 30 DAYS SHALL BE TREATED WITH ANCHORED MUGH (WITHIN 5 DAYS OF THE LAST DEPOSIT OF STOCKPILED SOIL), OR PRIOR TO ANY RAINFALL OR COVERED WITH AN ANCHORED TARP WITHIN 7 DAYS OR PRIOR TO ANY RAINFALL.
(B) ALL STOCKPILES ANTICIPATED TO REMAIN IN PLACE LONGER THAN 30 DAYS SHALL BE SEEDED WITH CONSERVATION MIX OF ANNUAL RYE GRASS (0.9 LB/1,000 SQ. FT.) AND MULCHED WITHIN 7 DAYS OR PRIOR TO ANY RAINFALL OR COVERED WITH AN ANCHORED TARP WITHIN 7 DAYS OR PRIOR TO ANY RAINFALL.
(C) INSTALL SILT FENCE AROUND STOCKPILE AT BASE OF PILE, STOCKPILES TO HAVE SILT FENCE INSTALLED AT TIME ESTABLISHMENT AT BASE OF PILE.
4. DISTURBED AREAS:
(A) DISTURBED AREAS ANTICIPATED REMAINING UNDISTURBED FOR LESS THAN 30 DAYS UNTIL PERMANENTLY STABILIZED SHALL BE TREATED WITH ANCHORED MULCH WITHIN 7 DAYS OR PRIOR TO ANY RAINFALL.
(B) DISTURBED AREAS ANTICIPATED TO REMAIN UNDISTURBED FOR MORE THAN 30 DAYS UNTIL PERMANENTLY STABILIZED SHALL BE TREATED SEEDED WITH CONSERVATION MIX OF ANNUAL RYE GRASS (0.9 LBS/1,000 SQ. FT.) AND MULCHED AT A RATE OF 150 LB. PER 1000 S.F. WITHIN 7 DAYS OR PRIOR TO ANY RAINFALL.
5. ALL GRADING WILL BE HELD TO A MAXIMUM 2:1 SLOPE WHERE PRACTICAL. ALL SLOPES WILL BE STABILIZED WITH PERMANENT SEEDING, OR WITH STONE, WITHIN 5 DAYS AFTER FINAL GRADING IS COMPLETE. (SEE POST-CONSTRUCTION REVEGETATION FOR SEEDING SPECIFICATION.) ALL SLOPES HAVING A GRADE GREATER THAN 8% WILL BE STABILIZED WITH RIP RAP OR PERMANENT SEEDING WITHIN 5 DAYS OF COMPLETING THE SLOPES FINAL GRADING.
6. THE CONTRACTOR SHALL WITHIN 24 HOURS OF PLACING A CULVERT PLACE STONE RIP RAP, APRON OR PLUNGE POOL, AT THE CULVERTS OUTLET. ALL CULVERTS WILL BE PROTECTED WITH STONE RIP RAP (D50 = 6" UNLESS OTHERWISE SPECIFIED) AT INLETS AND OUTLETS.
7. ANY DITCH SECTION BROUGHT TO FINAL GRADE WILL BE STABILIZED WITH RIP RAP LINED OR PROPERLY INSTALLED EROSION CONTROL BLANKETS (USED OVER PERMANENT SEEDING) WITHIN 5 DAYS.

POST-CONSTRUCTION REVEGETATION:

THE FOLLOWING GENERAL PRACTICES WILL BE USED TO PREVENT EROSION AS SOON AS AN AREA IS READY TO UNDERGO FINAL GRADING.

- 1. A MINIMUM OF 4" OF LOAM WILL BE SPREAD OVER DISTURBED AREAS AND GRADED TO A UNIFORM DEPTH AND NATURAL APPEARANCE, OR STONE WILL BE PLACED ON SLOPES TO STABILIZE SURFACES.
2. IF FINAL GRADING IS REACHED DURING THE NORMAL GROWING SEASON (4/15 TO 9/15), PERMANENT SEEDING WILL BE DONE AS SPECIFIED BELOW. PRIOR TO SEEDING, LIMESTONE SHALL BE APPLIED AT A RATE OF 138 LBS/1,000 SQ. FT. AND 10:20:20 FERTILIZER AT A RATE OF 18.4 LBS/1,000 SQ. FT. WILL BE APPLIED. BROADCAST SEEDING AT THE FOLLOWING RATES:

LAWNS
KENTUCKY BLUEGRASS 0.46 LBS/1,000 S.F.
CREEPING RED FESCUE 0.46 LBS/1,000 S.F.
PERENNIAL RYE GRASS 0.11 LBS/1,000 S.F.

SWALES
RED TOP 0.05 LBS/1,000 S.F.
TALL FESCUE 0.46 LBS/1,000 S.F.

- 3. AN AREA SHALL BE MULCHED IMMEDIATELY AFTER IS HAS BEEN SEEDED. MULCHING SHALL CONSIST OF HAY MULCH, HYDRO-MULCH, JUTE NET OVER MULCH, PRE-MANUFACTURED EROSION MATS OR ANY SUITABLE SUBSTITUTE DEEMED ACCEPTABLE BY THE DESIGNER.
(A) HAY MULCH SHALL BE APPLIED AT THE RATE OF 2 TONS PER ACRE. HAY MULCH SHALL BE SECURED BY EITHER: (NOTE: SOIL SHALL NOT BE VISIBLE)
1. BEING DRIVEN OVER BY TRACKED CONSTRUCTION EQUIPMENT ON GRADES OF 5% AND LESS.
2. BLANKETED BY TACKED PHOTODEGRADABLE/BIODEGRADABLE NETTING, OR WITH SPRAY, ON GRADES GREATER THAN 5%.
3. SEE NOTE 6, GENERAL NOTES, AND NOTE 8, WINTER CONSTRUCTION.
B. HYDRO-MULCH SHALL CONSIST OF A MIXTURE OF EITHER ASPHALT, WOOD FIBER OR PAPER FIBER AND WATER SPRAYED OVER A SEEDED AREA. HYDRO-MULCH SHALL NOT BE USED BETWEEN 9/15 AND 4/15.
4. CONSTRUCTION SHALL BE PLANNED TO ELIMINATE THE NEED FOR SEEDING BETWEEN SEPTEMBER 15 AND APRIL 15. SHOULD SEEDING BE NECESSARY BETWEEN SEPTEMBER 15 AND APRIL 15 THE FOLLOWING PROCEDURE SHALL BE FOLLOWED. ALSO REFER TO NOTE 9 OF WINTER CONSTRUCTION.
(A) ONLY UNFROZEN LOAM SHALL BE USED.
(B) LOAMING, SEEDING AND MULCHING WILL NOT BE DONE OVER SNOW OR ICE COVER. IF SNOW EXISTS, IT MUST BE REMOVED PRIOR TO PLACEMENT OF SEED.
(C) WHERE PERMANENT SEEDING IS NECESSARY, ANNUAL WINTER RYE (1.2 LBS/1,000 SQ. FT.) SHALL BE ADDED TO THE PREVIOUSLY NOTED AREAS.
(D) WHERE TEMPORARY SEEDING IS REQUIRED, ANNUAL WINTER RYE (2.6 LBS/1,000 SQ.FT.) SHALL BE SOWN INSTEAD OF THE PREVIOUSLY NOTED SEEDING RATE.
(E) FERTILIZING, SEEDING AND MULCHING SHALL BE APPLIED TO LOAM THE DAY THE LOAM IS SPREAD BY MACHINERY.
(F) ALTERNATIVE HAY MULCH SHALL BE SECURED WITH PHOTODEGRADABLE/BIODEGRADABLE NETTING. TRACKING BY MACHINERY ALONE WILL NOT SUFFICE.
5. FOLLOWING FINAL SEEDING, THE SITE WILL BE INSPECTED EVERY 30 DAYS UNTIL 85% COVER HAS BEEN ESTABLISHED. THE CONTRACTOR WILL CARRY OUT RESEEDING WITHIN 10 DAYS OF NOTIFICATION BY THE ENGINEER THAT THE EXISTING CATCH IS INADEQUATE.

MONITORING SCHEDULE:

THE CONTRACTOR IS RESPONSIBLE FOR INSTALLING, MONITORING, MAINTAINING, REPAIRING, REPLACING AND REMOVING ALL OF THE EROSION AND SEDIMENTATION CONTROLS OR APPOINTING A QUALIFIED SUBCONTRACTOR TO DO SO. MAINTENANCE MEASURES WILL BE APPLIED AS NEEDED DURING THE ENTIRE CONSTRUCTION CYCLE. AFTER EACH RAINFALL, A VISUAL INSPECTION WILL BE MADE OF ALL EROSION AND SEDIMENTATION CONTROLS AS FOLLOWS:

- 1. HAY BALE BARRIERS, SILT FENCE, AND STONE CHECK DAMS SHALL BE INSPECTED AND REPAIRED ONCE A WEEK OR IMMEDIATELY FOLLOWING ANY SIGNIFICANT RAINFALL. SEDIMENT TRAPPED BEHIND THESE BARRIERS SHALL BE EXCAVATED WHEN IT REACHES A DEPTH OF 6" AND REDISTRIBUTED TO AREA UNDERGOING FINAL GRADING. SHOULD THE HAY BALE BARRIERS PROVE TO BE INEFFECTIVE, THE CONTRACTOR SHALL INSTALL SILT FENCE BEHIND THE HAY BALES.
2. VISUALLY INSPECT RIP RAP ONCE A WEEK OR AFTER EACH SIGNIFICANT RAINFALL AND REPAIR AS NEEDED. REMOVE SEDIMENT TRAPPED BEHIND THESE DEVICES ONCE IT ATTAINS A DEPTH EQUAL TO 1/2 THE HEIGHT OF THE DAM OR RISER. DISTRIBUTE REMOVED SEDIMENT OFF-SITE OR TO AN AREA UNDERGOING FINAL GRADING.
3. REVEGETATION OF DISTURBED AREAS WITHIN 25' OF DRAINAGE-COURSE/STREAM WILL BE SEEDED WITH THE "MEADOW AREA MIX" AND INSPECTED ON A WEEKLY BASIS OR AFTER EACH SIGNIFICANT RAINFALL AND RESEEDED AS NEEDED. EXPOSED AREAS WILL BE RESEEDED AS NEEDED UNTIL THE AREA HAS OBTAINED 100% GROWTH RATE. PROVIDE PERMANENT RIP RAP FOR SLOPES IN EXCESS OF 3:1 AND WITHIN 25' OF DRAINAGE COURSE.

EROSION CONTROL DURING WINTER CONSTRUCTION:

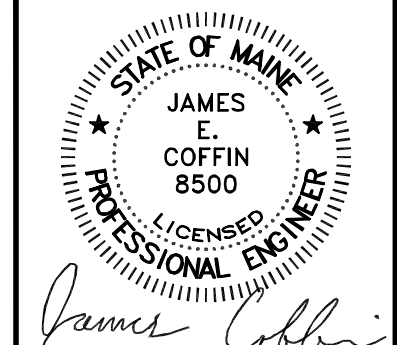
- 1. WINTER CONSTRUCTION PRIOR: NOVEMBER 1 THROUGH APRIL 15.
2. WINTER EXCAVATION AND EARTHWORK SHALL BE COMPLETED SUCH THAT NO MORE THAN 1 ACRE OF THE SITE IS WITHOUT STABILIZATION AT ANY ONE TIME.
3. EXPOSED AREA SHALL BE LIMITED TO THOSE AREAS TO BE MULCHED IN ONE DAY PRIOR TO ANY SNOW EVENT. ATE END OF EACH WORK WEEK NO AREAS MAY BE LEFT UNSTABILIZED OVER THE WEEKEND.
4. CONTINUATION OF EARTHWORK OPERATIONS ON ADDITIONAL AREAS SHALL NOT BEGIN UNTIL THE EXPOSED SOIL SURFACE ON THE AREA BEING WORKED HAS BEEN STABILIZED, SUCH TAT NO LARGER AREA OF THE SITE IS WITHOUT EROSION CONTROL PROTECTION AS LISTED IN ITEM 2 ABOVE.
5. AN AREA SHALL BE CONSIDERED TO HAVE BEEN STABILIZED WHEN EXPOSED SURFACES HAVE BEEN EITHER MULCHED WITH STRAW OR HAY AT A RATE OF 150 LB. PER 1,000 B.F. (WITH OR WITHOUT SEEDING) OR DORMANT SEEDED, MULCHED AND ANCHORED SUCH TAT SOIL SURFACE IS NOT VISIBLE THROUGH THEY MULCH. NOTE: AN AREA TO BE USED AS A ROAD OR VEHICLE PARKING LOT IS ALSO CONSIDERED STABLE IF SODDED, COVERED WITH COMPACTED GRAVEL SUBBASE OR COMPACTED STRUCTURAL SAND.
6. BETWEEN THE DATES OF OCTOBER 15 AND APRIL 1, LOAM OR SEED WILL NOT BE REQUIRED. DURING 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 1 AND IF THE EXPOSED AREA HAS BEEN LOAMED, FINAL GRADED WITH A UNIFORM SURFACE, THEN THE AREA MAY BE DORMANT SEEDED AT A RATE OF 3 TIMES HIGHER THAN SPECIFIED FOR PERMANENT SEED AND 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 EITHER CONDITIONS ALLOW, DITCHES TO BE FINISHED WITH THE PERMANENT SURFACE TREATMENT, EROSION SHALL BE CONTROLLED BY THE INSTALLATION OF BALES OF HAY, SILT FENCE OR STONE CHECK DAMS IN ACCORDANCE WITH THE STANDARD DETAILS SHOWN ON THE DESIGN DRAWINGS. NOTE: DORMANT SEEDING SHOULD NOT BE ATTEMPTED UNLESS SOIL TEMPERATURE REMAINS ABOVE 50 DEGREES AND DAY TIME TEMPERATURES REMAIN IN THE 30'S.
7. 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% VEGETATED DRAINAGE SWALES SHALL BE LINED WITH EXCELSIOR OR CURLEX.
8. MULCH NETTING SHALL BE USED TO ANCHOR MULCH IN ALL DRAINAGE WAYS WITH SLOPES GREATER THAN 15%. AFTER OCTOBER 1 THE SAME APPLIES FOR ALL SLOPES GREATER THAN 8%.
9. WINTER RYE IS RECOMMENDED FOR STABILIZATION UNTIL OCTOBER 1ST. AFTER OCTOBER 1, WINTER RYE IS NOT EFFECTIVE. AROUND NOVEMBER 15 OR LATER, ONCE TEMPERATURES OF THE AIR AND SOIL PERMIT, DORMANT SEEDING IS EFFECTIVE.
10. IN THE EVENT OF SNOWFALL (FRESH OR CUMULATIVE) GREATER THAN 1 INCH DURING WINTER CONSTRUCTION PERIOD ALL SNOW SHALL BE REMOVED FROM THE AREAS OF SEEDING AND MULCHING PRIOR TO PLACEMENT.

GUIDELINES FOR STABILIZING SITES FOR THE WINTER:

- 1. STANDARD FOR THE TIMELY STABILIZATION OF DITCHES AND CHANNELS. THE CONTRACTOR WILL CONSTRUCT AND STABILIZE ALL STONE-LINED DITCHES AND CHANNELS ON THE SITE BY NOVEMBER 15TH. THE CONTRACTOR WILL CONSTRUCTION AND STABILIZE ALL GRASS-LINED DITCHES AND CHANNELS ON THE SITE BY SEPTEMBER 1ST. IF THE CONTRACTOR FAILS TO STABILIZE A DITCH OR CHANNEL TO BE GRASS-LINED BY SEPTEMBER 1ST, THEN THE CONTRACTOR WILL TAKE ONE OF THE FOLLOWING ACTIONS TO STABILIZE THE DITCH FOR LATE FALL AND WINTER.
(A) INSTALL A SOD LINING IN THE DITCH: THE CONTRACTOR WILL LINE THE DITCH WITH PROPERLY INSTALLED SOD BY OCTOBER 1ST. PROPER INSTALLATION INCLUDES THE CONTRACTOR 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.
(B) INSTALL A STONE LINING IN THE DITCH: THE CONTRACTOR WILL LINE THE DITCH WITH STONE RIP RAP BY NOVEMBER 15TH. THE DEVELOPMENT'S OWNER WILL HIRE A REGISTERED PROFESSIONAL ENGINEER TO DETERMINE THE STONE SIZE AND LINE 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 AS TO PREVENT THE STONE LINING FORM REDUCING THE DITCH'S CROSS-SECTIONAL AREA.
2. STANDARD FOR THE TIMELY STABILIZATION OF DISTURBED SLOPES: THE CONTRACTOR WILL CONSTRUCT AND STABILIZE STONE COVERED SLOPES BY NOVEMBER 15. THE CONTRACTOR WILL SEED AND MULCH ALL SLOPES TO BE VEGETATED BY SEPTEMBER 1. THE DEPARTMENT WILL CONSIDER ANY AREA HAVING A GRADE GREATER THAN 15% TO BE A SLOPE. IF THE CONTRACTOR FAILS TO STABILIZE ANY SLOPE TO BE VEGETATED BY SEPTEMBER 15, THEN THE CONTRACTOR WILL TAKE ONE OF THE FOLLOWING ACTIONS TO STABILIZE THE SLOPE FOR LATE FALL AND WINTER.
(A) STABILIZE THE SOIL WITH TEMPORARY VEGETATION AND EROSION CONTROL MATS BY OCTOBER 1 THE CONTRACTOR WILL SEED THE DISTURBED SLOPE WITH WINTER RYE AT A SEEDING RATE OF 3 POUNDS PER 1,000 SQUARE FEET AND THEN INSTALL EROSION CONTROL MATS OR ANCHORED MULCH OVER THE SEEDING. THE CONTRACTOR WILL MONITOR GROWTH OF THE RYE OVER THE NEXT 30 DAYS. 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 WOOD-WASTE COMPOST AS DESCRIBED IN ITEM 3 OF THIS STANDARD OR WITH STONE RIP RAP AS DESCRIBED IN ITEM 4 OF THIS STANDARD.
(B) STABILIZE THE SLOPE WITH SOD: THE CONTRACTOR WILL STABILIZE THE DISTURBED SLOPE WITH PROPERLY INSTALLED SOD BY OCTOBER 1. PROPER INSTALLATION INCLUDES THE CONTRACTOR PINNING THE SOD ONTO THE SLOPE WITH WIRE 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.
(C) STABILIZE THE SLOPE WITH WOOD-WASTE COMPOST: THE CONTRACTOR WILL PLACE A SIX-INCH LAYER OF WOOD-WASTE COMPOST ON THE SLOPE BY NOVEMBER 15. THE CONTRACTOR WILL NOT USE WOOD-WASTE COMPOST TO STABILIZE SLOPES HAVING GRADES GREATER THAN 50% (2H: 1V) OR HAVING GROUNDWATER SEEPS ON THE SLOPE FACE.
(D) STABILIZE THE SLOPE WITH STONE RIP RAP: THE CONTRACTOR WILL PLACE A LAYER OF STONE RIP RAP 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 TO DESIGN A FILTER LAYER FOR UNDERNEATH THE RIP RAP.
3. STANDARD FOR THE TIMELY STABILIZATION OF DISTURBED SOILS: BY SEPTEMBER 15 THE CONTRACTOR WILL SEED AND MULCH ALL DISTURBED SOILS ON THE SITE. IF THE CONTRACTOR FAILS TO STABILIZE THESE SOILS BY THIS DATE, THEN THE CONTRACTOR WILL TAKE ONE OF THE FOLLOWING ACTIONS TO STABILIZE THE SOIL FOR LATE FALL AND WINTER.
(A) STABILIZE THE SOIL WITH TEMPORARY VEGETATION: BY OCTOBER 1 THE CONTRACTOR WILL SEED THE DISTURBED SOIL WITH WINTER RYE AT SEEDING RATE OF 3 POUNDS PER 1,000 SQUARE FEET, LIGHTLY MULCH THE SEEDED SOIL WITH HAY OR STRAW AT 75 POUNDS PER 1,000 SQUARE FEET, AND ANCHOR THE MULCH WITH PLASTIC NETTING THE CONTRACTOR WILL MONITOR GROWTH OF THE RYE OVER THE NEXT 30 DAYS. IF THE RYE FAILS TO GROW AT LEAST THREE INCHES OR FAILS T COVER AT LEAST 75% OF THE DISTURBED SOIL BEFORE NOVEMBER 1, THEN THE CONTRACTOR WILL MULCH THE AREA FOR OVER PROTECTION AS DESCRIBED IN ITEM 3 OF THIS STANDAR.
(B) STABILIZE THE SOIL WITH SOD: THE CONTRACTOR WILL STABILIZE THE DISTURBED SOIL WITH PROPERLY INSTALLED SOD BY OCTOBER 1. PROPER INSTALLATION INCLUDES THE CONTRACTOR PINNING THE SOD ONTO THE SOIL WITH WIRE PINS, ROLLING THE SOD TO GUARANTEE CONTACT BETWEEN THE SOD AND UNDERLYING SOIL, AND WATERING THE SOD TO PRONTO ROOT GROWTH INTO THE DISTURBED SOIL.
(C) STABILIZE THE SOIL WITH MULCH: BY NOVEMBER 15 THE CONTRACTOR WILL MULCH THE DISTURBED SOIL BY SPREADING HAY OR STRAW AT A RATE OF AT LEAST 150 POUNDS PER 1,000 SQUARE FEET ON THE AREA SO THAT NO SOIL IS VISIBLE THROUGH THE MULCH. IMMEDIATELY AFTER APPLYING THE MULCH, THE CONTRACTOR WILL ANCHOR THE MULCH WITH NETTING OR OTHER METHOD TO PREVENT WIND FROM MOVING THE MULCH OFF THE DISTURBED SOIL.

SITE INSPECTION AND MAINTENANCE:

- 1. WEEKLY INSPECTIONS, AS WELL AS ROUTINE INSPECTIONS FOLLOWING RAIN FALLS, SHALL BE CONDUCTED BY GENERAL CONTRACTOR OF ALL TEMPORARY AND PERMANENT EROSION CONTROL DEVICES UNTIL FINAL ACCEPTANCE OF THE PROJECT (85% GRASS CATCH). NECESSARY REPAIRS SHALL BE MADE TO CORRECT UNDERMINING OR DETERIORATION. FINAL ACCEPTANCE SHALL INCLUDE A SITE INSPECTION TO VERIFY THE STABILITY OF ALL DISTURBED AREAS AND SLOPES. UNTIL FINAL INSPECTION, ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL IMMEDIATELY BE CLEANED, AND REPAIRED BY THE GENERAL CONTRACTOR AS REQUIRED. DISPOSAL OF ALL TEMPORARY EROSION AND CONTROL DEVICES SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR.
IT IS RECOMMENDED THAT THE OWNER HIRE THE SERVICES OF THE DESIGN ENGINEER TO PROVIDE COMPLIANCE INSPECTIONS (DURING ACTIVE CONSTRUCTION) RELATIVE TO IMPLEMENTATION OF THE STORMWATER AND EROSION CONTROL PLANS. SUCH INSPECTIONS SHOULD BE LIMITED TO ONCE A WEEK OR AS NECESSARY AND BE REPORTABLE TO THE OWNER, TOWN AND DEP.
2. SHORT-TERM SEDIMENTATION MAINTENANCE SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO CLEAN OUT ALL SWALES AND STRUCTURES PRIOR TO TURNING PROJECT OVER.
3. LONG-TERM PROVISIONS FOR PERMANENT MAINTENANCE OF ALL EROSION AND SEDIMENTATION CONTROL DEVICES AFTER ACCEPTANCE OF THE PROJECT SHALL BE THE RESPONSIBILITY OF THE OWNER, TOWN OR THEIR DESIGNER.



NO.	REVISIONS	DATE

CLIENT/PROJECT: CORE CUTTER, LLC LOT #26
DRAWN BY: TCH
CHECKED BY: JEC
SCALE: AS SHOWN
DATE: JULY 10, 2023
SHEET TITLE: DETAILS I

LOCATION: TECHNOLOGY DRIVE
TOWN: GARDNER COUNTY: KENNEBEC STATE: MAINE
PROJ. NO. 2022-005

GENERAL NOTES

1. AGGREGATE FOR GRAVEL BASE

AGGREGATE FOR GRAVEL BASE SHALL BE SCREENED OR CRUSHED GRAVEL OF HARD DURABLE PARTICLES FREE FROM VEGETABLE MATTER, LUMPS OR BALLS OF CLAY AND OTHER DELETERIOUS SUBSTANCES. THE GRADATION OF THE PART THAT PASSES A 3 INCH SIEVE SHALL MEET THE GRADING REQUIREMENTS OF THE FOLLOWING TABLE:

SIEVE DESIGNATION	PERCENTAGE BY WEIGHT PASSING SQUARE MESH SIEVES		
	TYPE A AGGREGATE	TYPE D AGGREGATE	STRUCTURAL FILL
2" / 3" / 4"	100 (2")	100 (3")	100 (4")
1/2 INCH	45-70	35-80	90-100
1/4 INCH	30-55	25-65	25-90
No. 40	0-20	0-30	0-30
No. 200	0-6	0-7	0-5

TYPE "A" AGGREGATE SHALL NOT CONTAIN PARTICLES WHICH WILL NOT PASS THE 2 INCH SQUARE MESH SIEVE.

TYPE "D" AGGREGATE SHALL NOT CONTAIN PARTICLES WHICH WILL NOT PASS THE 6 INCH SQUARE MESH SIEVE.

EACH LAYER AS APPLIED SHALL BE ROLLED WITH A 20 TON ROLLER. THE MATERIAL AS SPREAD SHALL BE WELL MIXED WITH NO POCKETS OF EITHER FINE OR COARSE MATERIAL. OVER SIZED STONES SHALL BE REMOVED FROM THE AGGREGATE.

EACH LAYER OF AGGREGATE SHALL BE PLACED OVER THE FULL WIDTH OF THE SECTION. AGGREGATE BASE AND SUB-BASE COURSES MAY BE PLACED UPON FROZEN SURFACES WHEN SUCH SURFACES HAVE BEEN PROPERLY CONSTRUCTED.

THE SURFACE OF EACH LAYER SHALL BE MAINTAINED DURING COMPACTION OPERATIONS IN SUCH A MANNER THAT A UNIFORM TEXTURE IS PRODUCED AND THE AGGREGATE IS FIRMLY KEYS. THE MOISTURE CONTENT OF THE MATERIAL SHALL BE MAINTAINED AT THE PROPER PERCENT TO ATTAIN THE REQUIRED COMPACTION AND STABILITY. COMPACTION OF EACH LAYER SHALL BE CONTINUED UNTIL DENSITY OF NOT LESS THAN 95 PERCENT OF THE MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D-1557 MODIFIED PROCTOR DENSITY HAS BEEN ACHIEVED FOR THE FULL WIDTH AND DEPTH OF EACH LAYER AS APPLIED.

THE SURFACE TOLERANCE OF EACH BASE COURSE AS APPLIED SHALL BE 3/8 INCHES ABOVE OR BELOW THE REQUIRED TEMPLATE LINES.

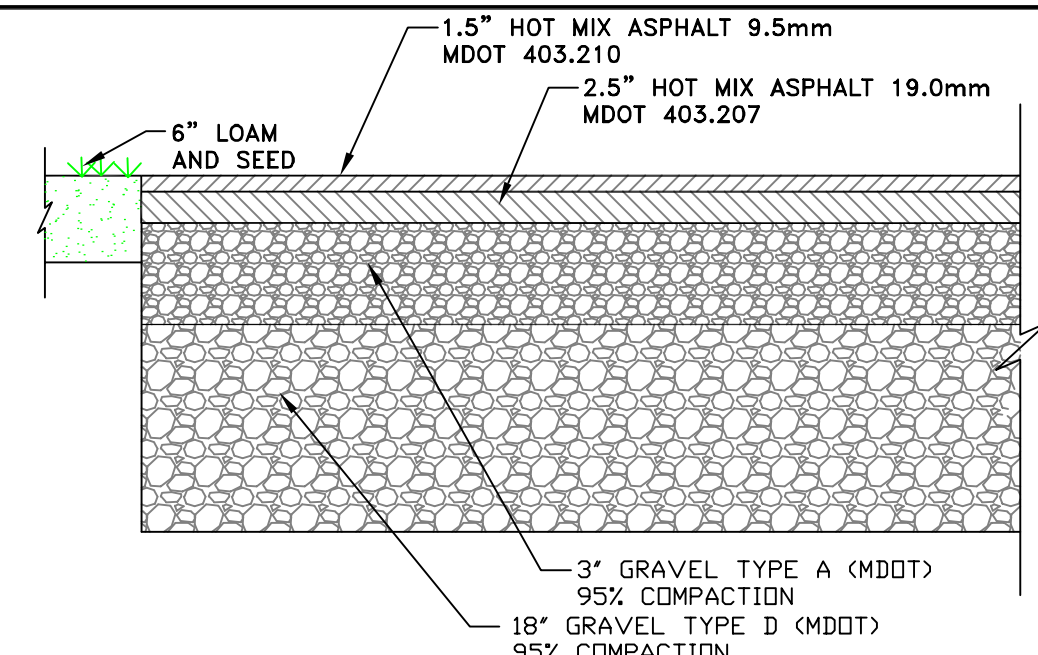
2. AGGREGATE FOR SUB-BASE

AGGREGATE FOR SUB-BASE SHALL BE TYPE "D" (MDOT). IT SHALL BE FREE FROM VEGETABLE MATTER, LUMPS OR BALLS OF CLAY AND OTHER DELETERIOUS SUBSTANCES.

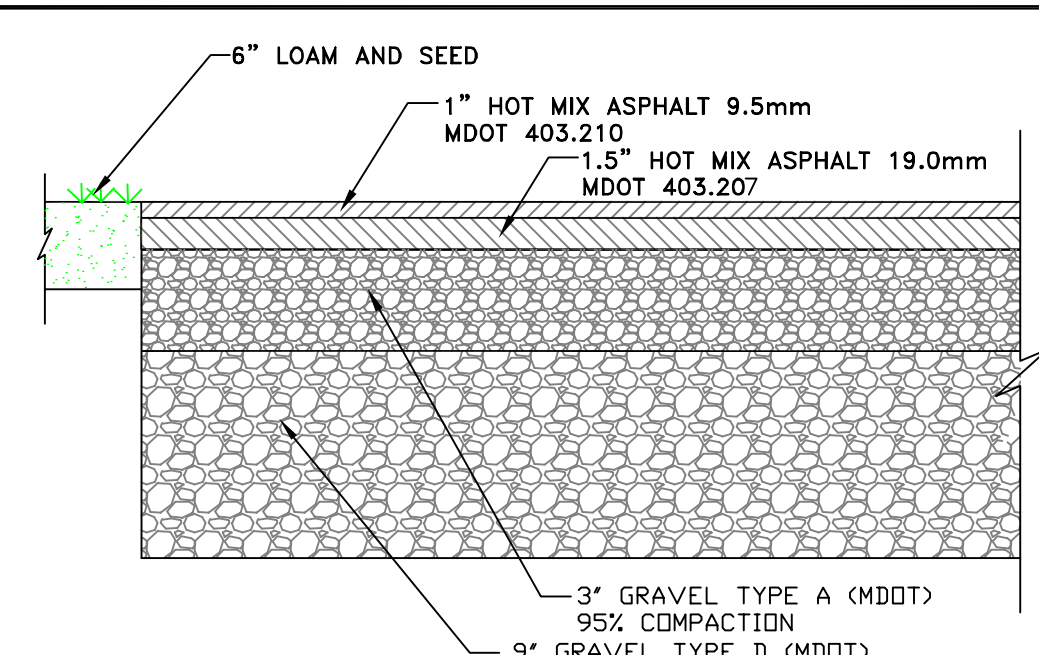
3. COMMON BORROW

COMMON BORROW SHALL CONSIST OF EARTH, SUITABLE FOR EMBANKMENT CONSTRUCTION. IT SHALL BE FREE FROM FROZEN MATERIAL, PERISHABLE RUBBISH, PEAT AND OTHER UNSUITABLE MATERIAL. THE MOISTURE CONTENT SHALL BE SUFFICIENT TO PROVIDE THE REQUIRED COMPACTION AND STABLE EMBANKMENT. IN NO CASE SHALL THE MOISTURE CONTENT EXCEED 4 PERCENT ABOVE OPTIMUM.

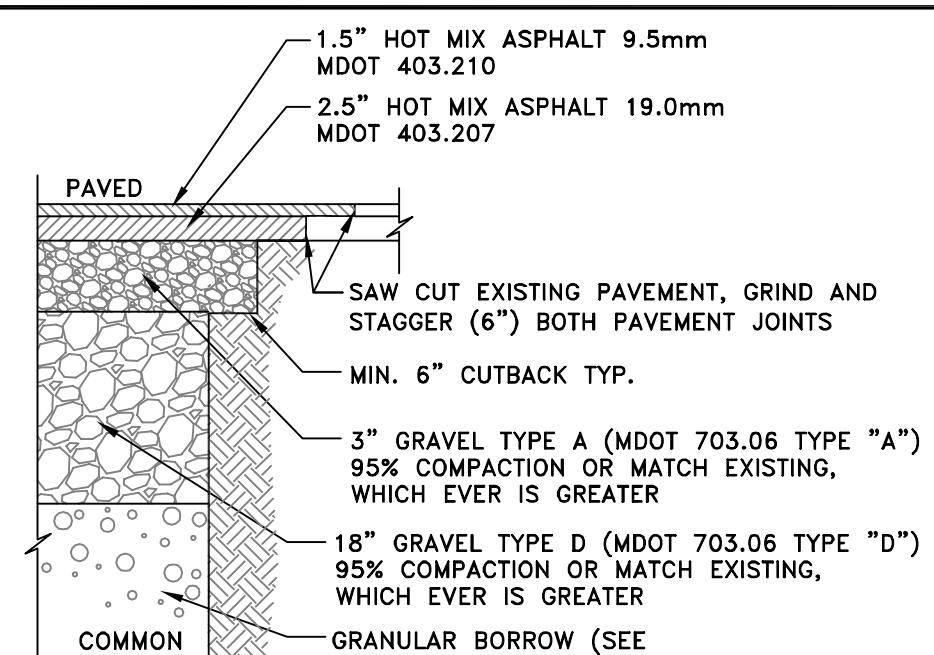
ALL COMMON BORROW AND GRAVEL AREAS TO BE COMPACTED TO 95% OF ITS MAX. DRY DENSITY AS DETERMINED BY ASTM D-1557 "MODIFIED PROCTOR DENSITY". PLACE IN 9" TO 12" LIFTS.



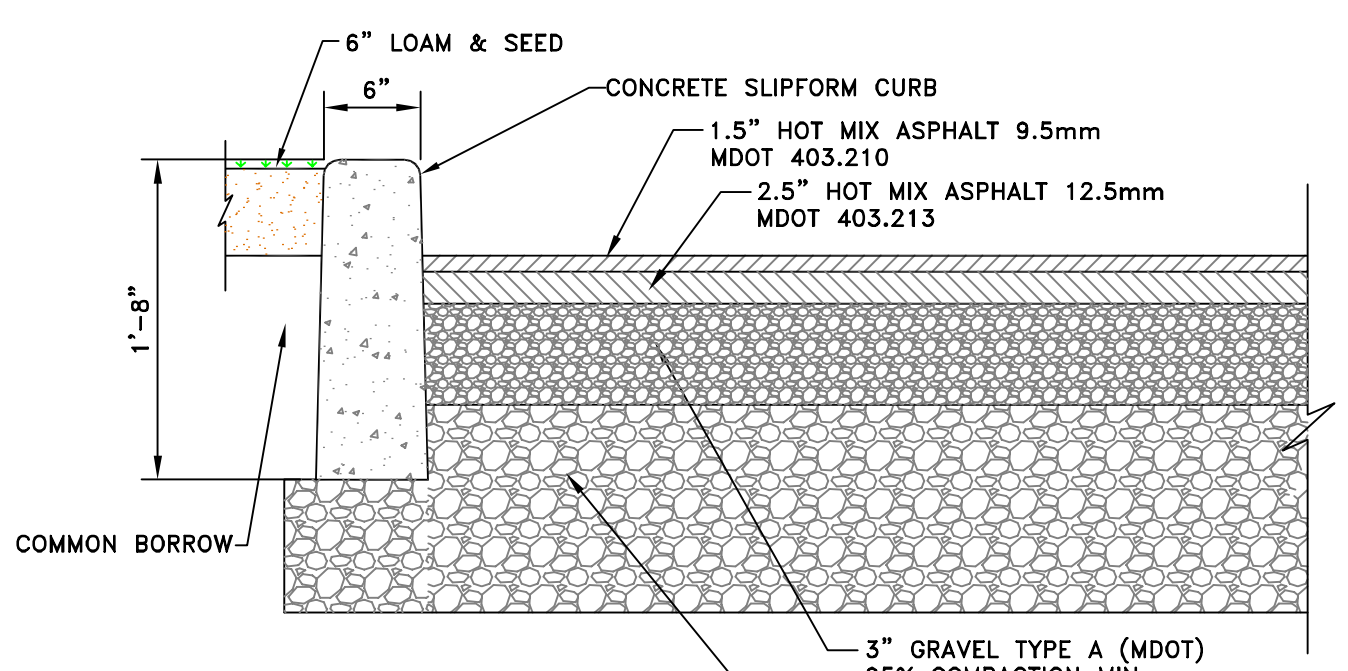
PAVED PARKING AND DRIVE DETAIL
NOT TO SCALE



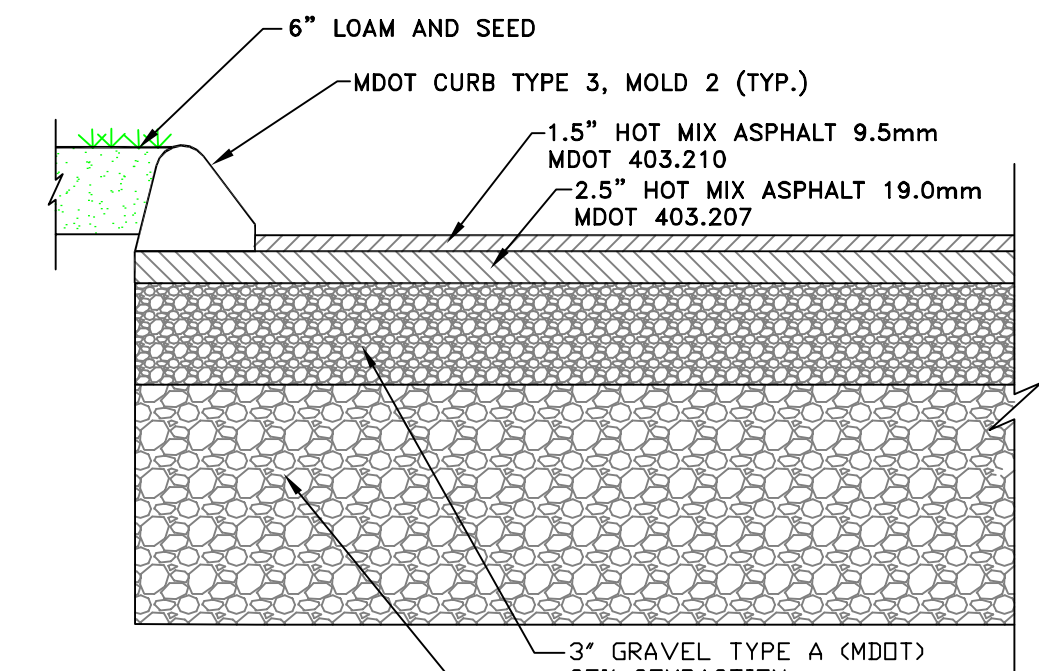
PAVED SIDEWALK DETAIL
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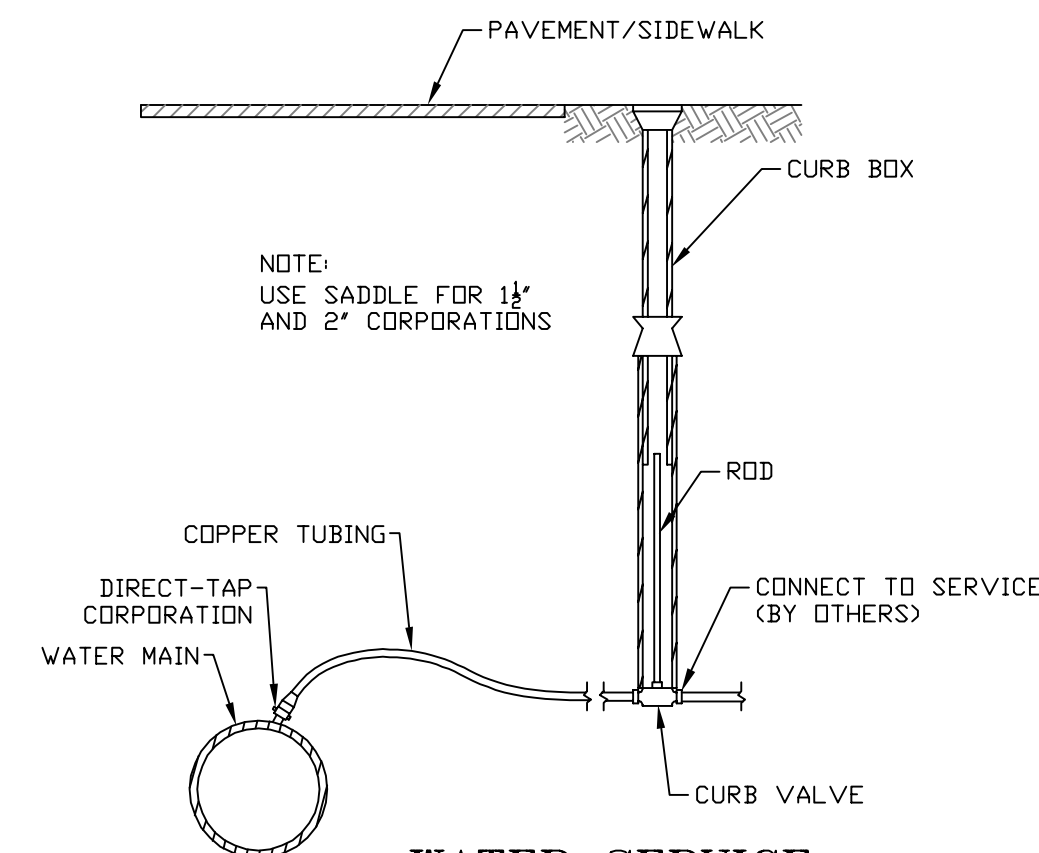
BUTT JOINT DETAIL
NOT TO SCALE



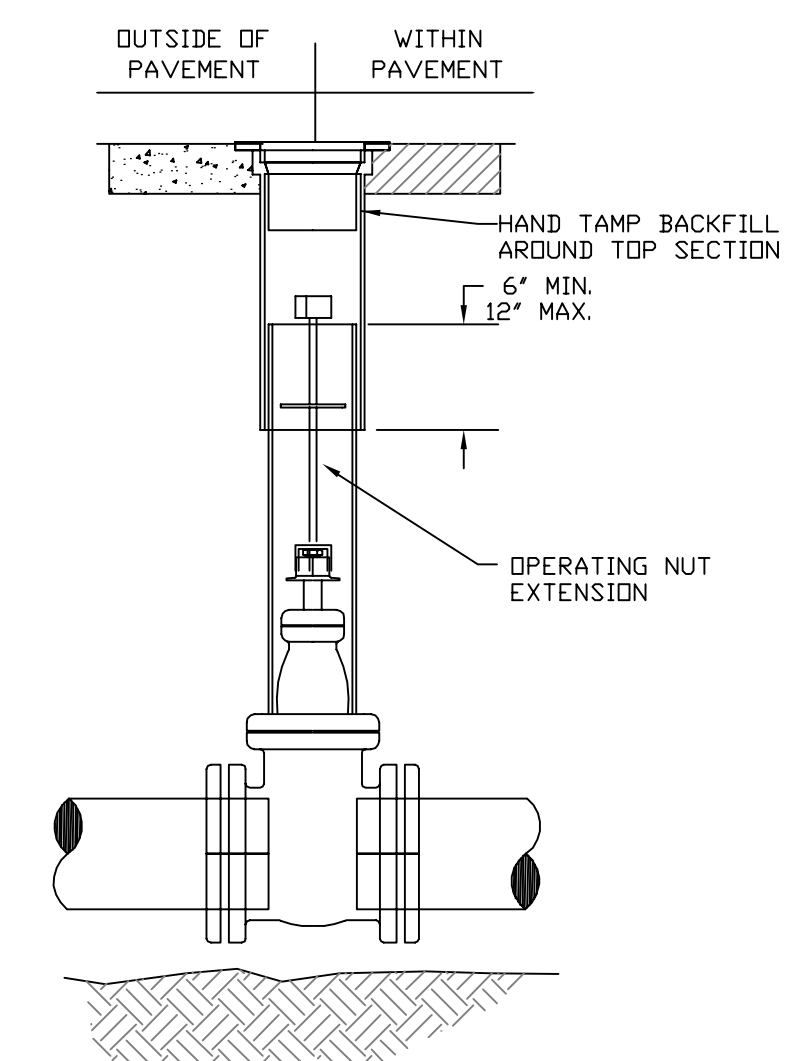
CONCRETE SLIPFORM CURB DETAIL
NOT TO SCALE



BITUMINOUS CAPE COD CURB DETAIL
NOT TO SCALE



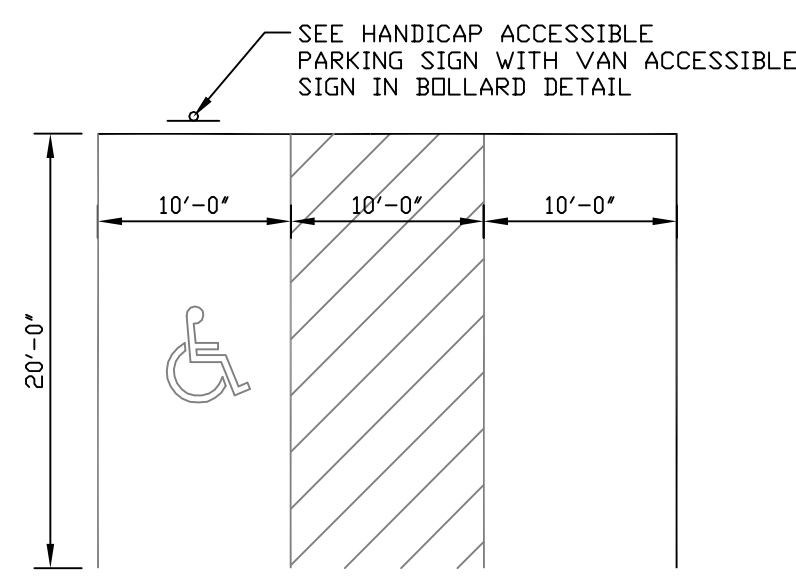
WATER SERVICE
NOT TO SCALE



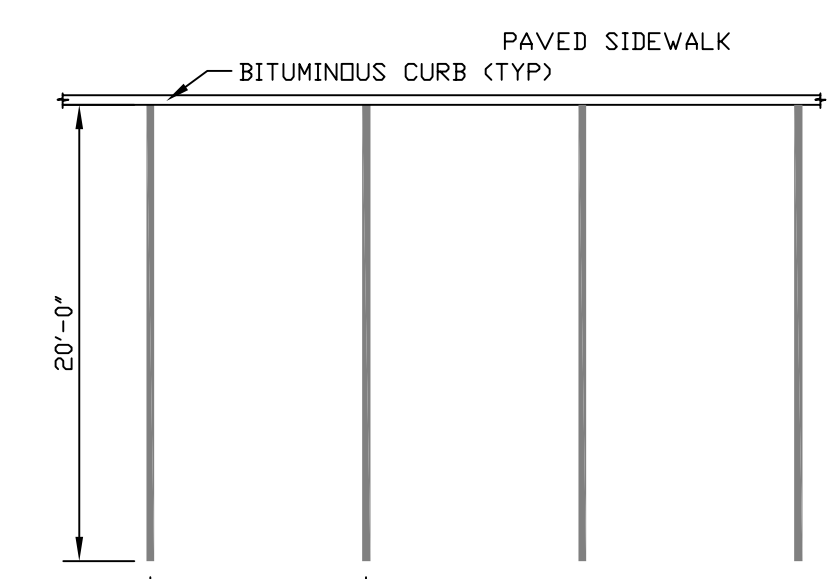
NOTES:

- 1) VALVE BOX NOT TO REST ON OPERATING ASSEMBLY.
- 2) A PERMANENTLY ATTACHED VALVE EXTENSION STEM SHALL BE REQUIRED FOR ANY VALVE WITH AN OPERATING NUT LOCATED IN EXCESS OF 4 FEET BELOW THE TOP OF THE VALVE BOX. THIS EXTENSION SHALL BE SUFFICIENT LENGTH TO ENSURE THAT ITS TOP IS WITHIN 4 FEET OF THE VALVE BOX LID.

GATE VALVE DETAIL
NOT TO SCALE



HANDICAP PARKING DETAIL
NOT TO SCALE

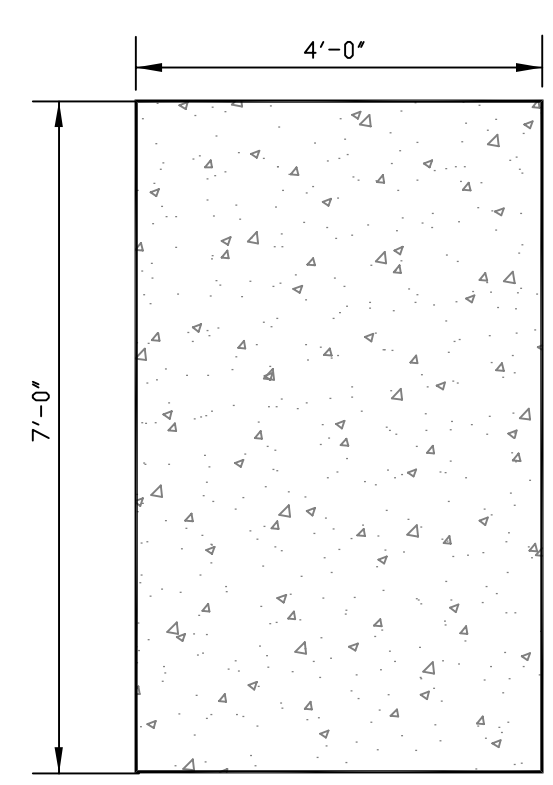


TYPICAL PARKING STALL

SPECIFICATIONS

PAVEMENT MARKING PAINT FOR FINAL AND TEMPORARY PAVEMENT MARKINGS SHALL MEET THE REQUIREMENTS OF AASHTO M248. EITHER TYPE N (REGULAR TRAFFIC PAINT) OR TYPE F (FAST DRY TRAFFIC PAINT) MAY BE USED. ALL PAVEMENT LINES AND MARKINGS SHALL BE APPLIED IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES. IMMEDIATELY BEFORE APPLYING THE PAVEMENT PAINT TO THE PAVEMENT OR CURB, THE SURFACE SHALL BE DRY AND ENTIRELY FREE FROM DIRT, GREASE, OIL OR OTHER FOREIGN MATTER. ALL PAVEMENT MARKING LINES SHALL BE 4" SOLID WHITE.

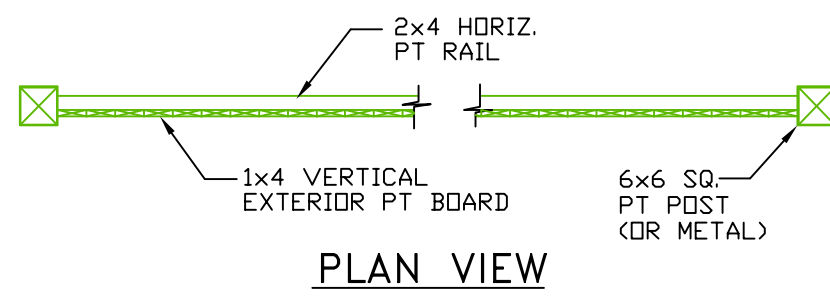
PAVEMENT MARKING DETAIL & SPECIFICATION
NOT TO SCALE



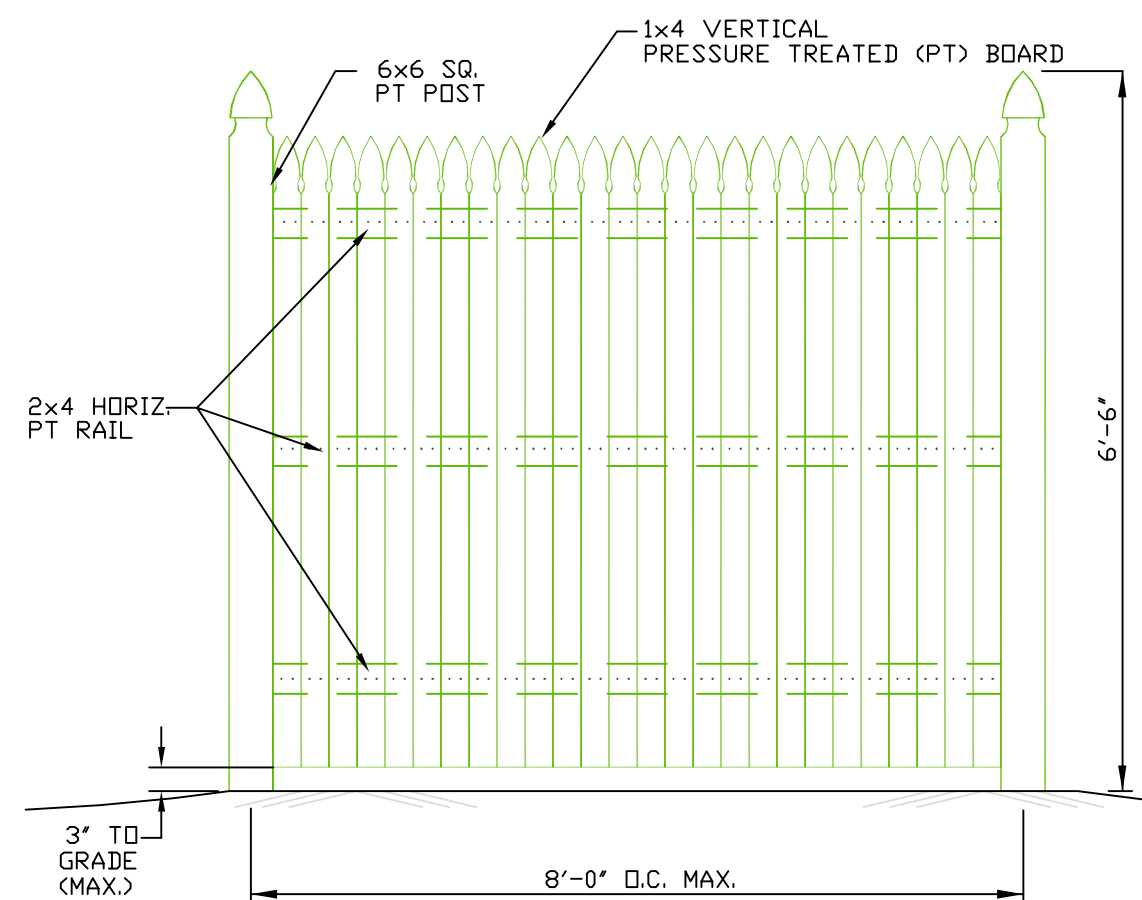
TYPICAL TRANSFORMER SLAB DETAIL
NOT TO SCALE

CONCRETE SPECIFICATION:

- 4000 P.S.I.
- 3/4" STONE
- 6% AIR ENTRAINMENT
- SLUMP = 3" ± 1"
- FINE BROOM FINISH



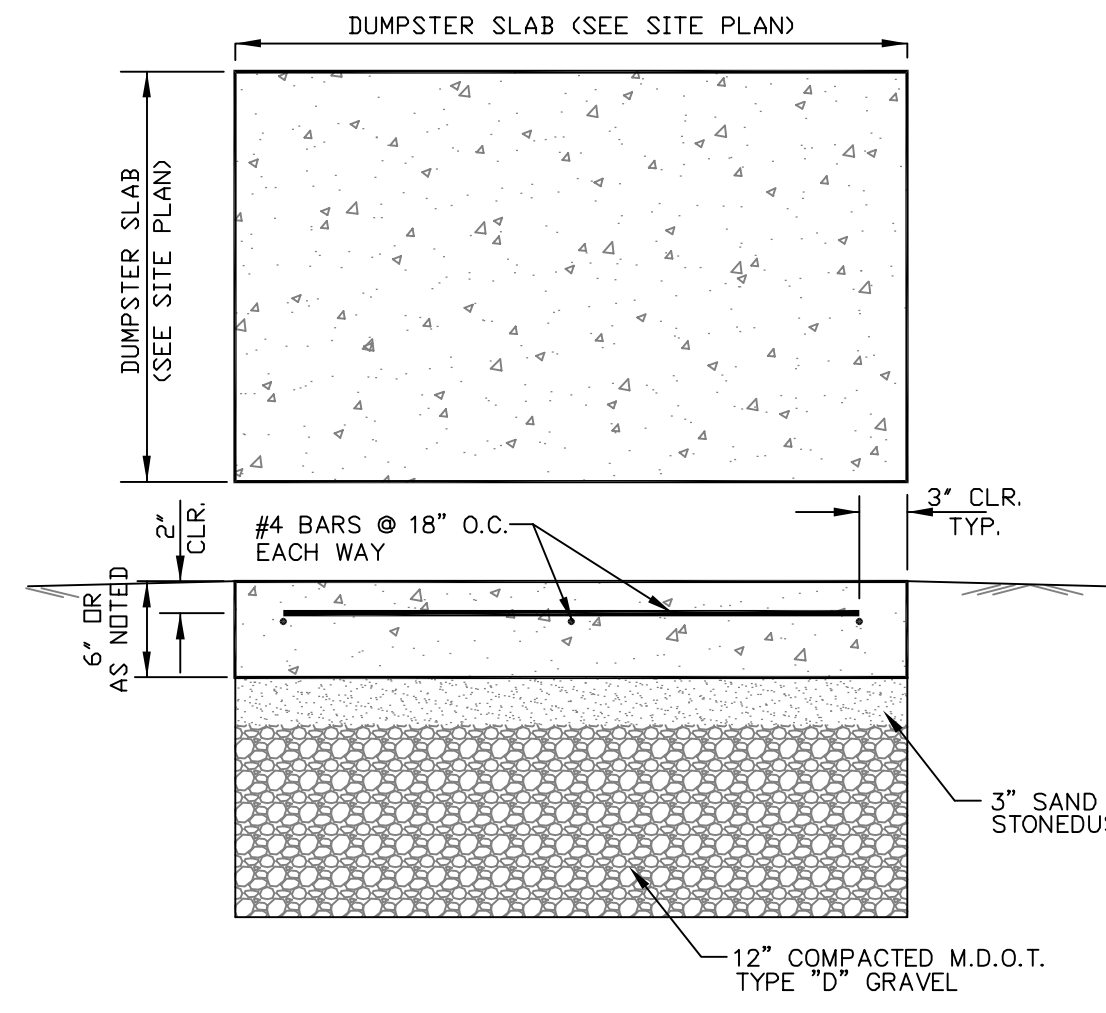
PLAN VIEW



EXTERIOR ELEVATION

- NOTES:**
1. ALL POSTS TO BE SET 3'-6" INTO GROUND AND COMPACTED ALL AROUND.
 2. ANY POST SET LESS THAN 3'-0" SHALL BE SET ON 10" DIAM. CONCRETE FILLED SMDTUBE. USE SIMPSON STRONG-TIE POST BASE, AND SET BELOW GRADE TO HIDE CONCRETE & CONNECTOR.
 3. POST SET ON LEDGE SHALL BE DRILLED AND PINNED. ANCHERING METHOD TO BE APPROVED BY SITE ENGINEER.
 4. 2x4 PT RAILS SHALL HAVE DOVELED ENDS FOR POST CONNECTION.
 5. ALL GATES TO MATCH FENCE.
 6. OWNER TO SPECIFY PAINTING

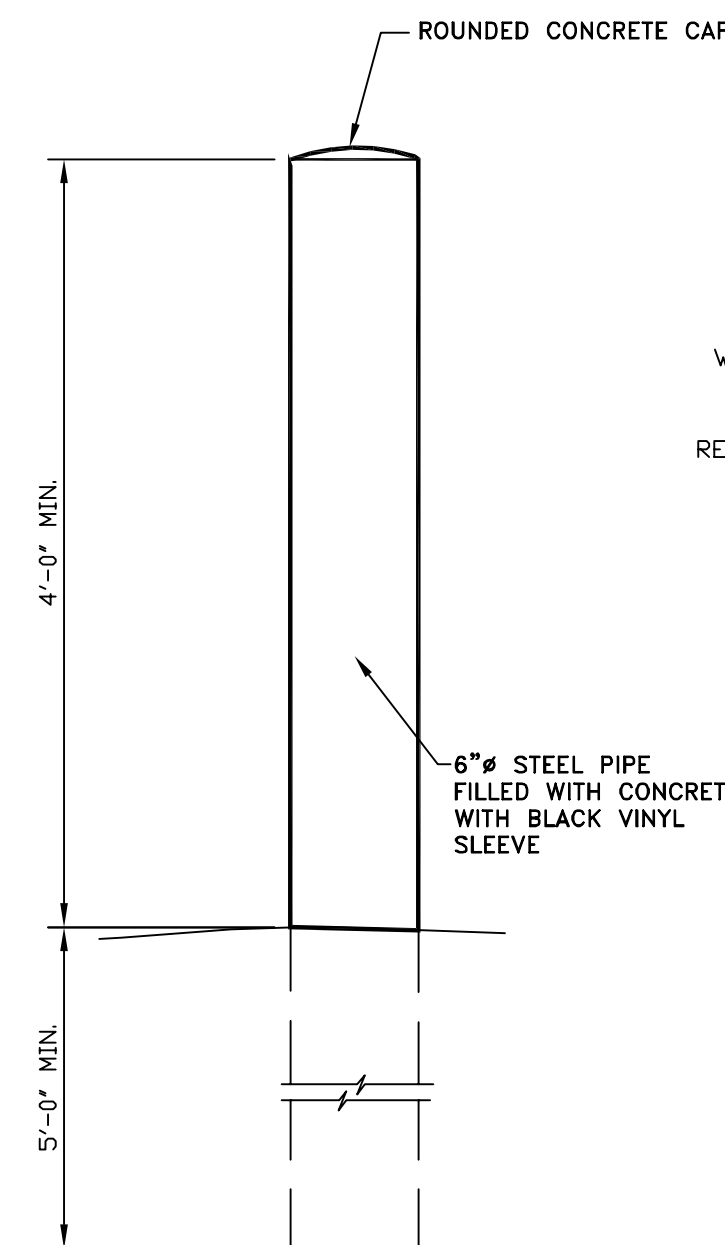
WOOD STOCKADE FENCE DETAIL
NOT TO SCALE



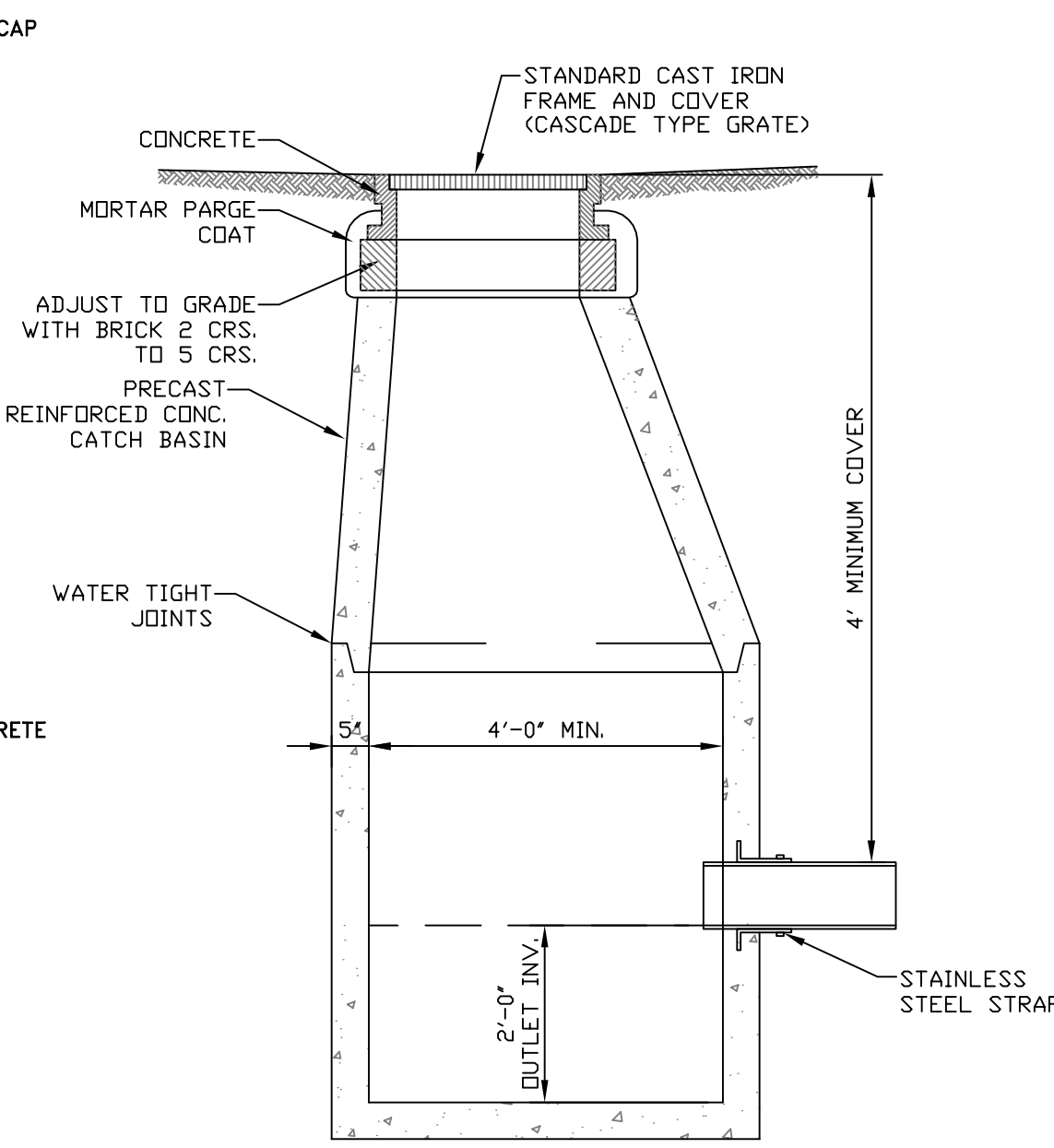
TYPICAL DUMPSTER SLAB DETAIL
NOT TO SCALE

CONCRETE SPECIFICATION:

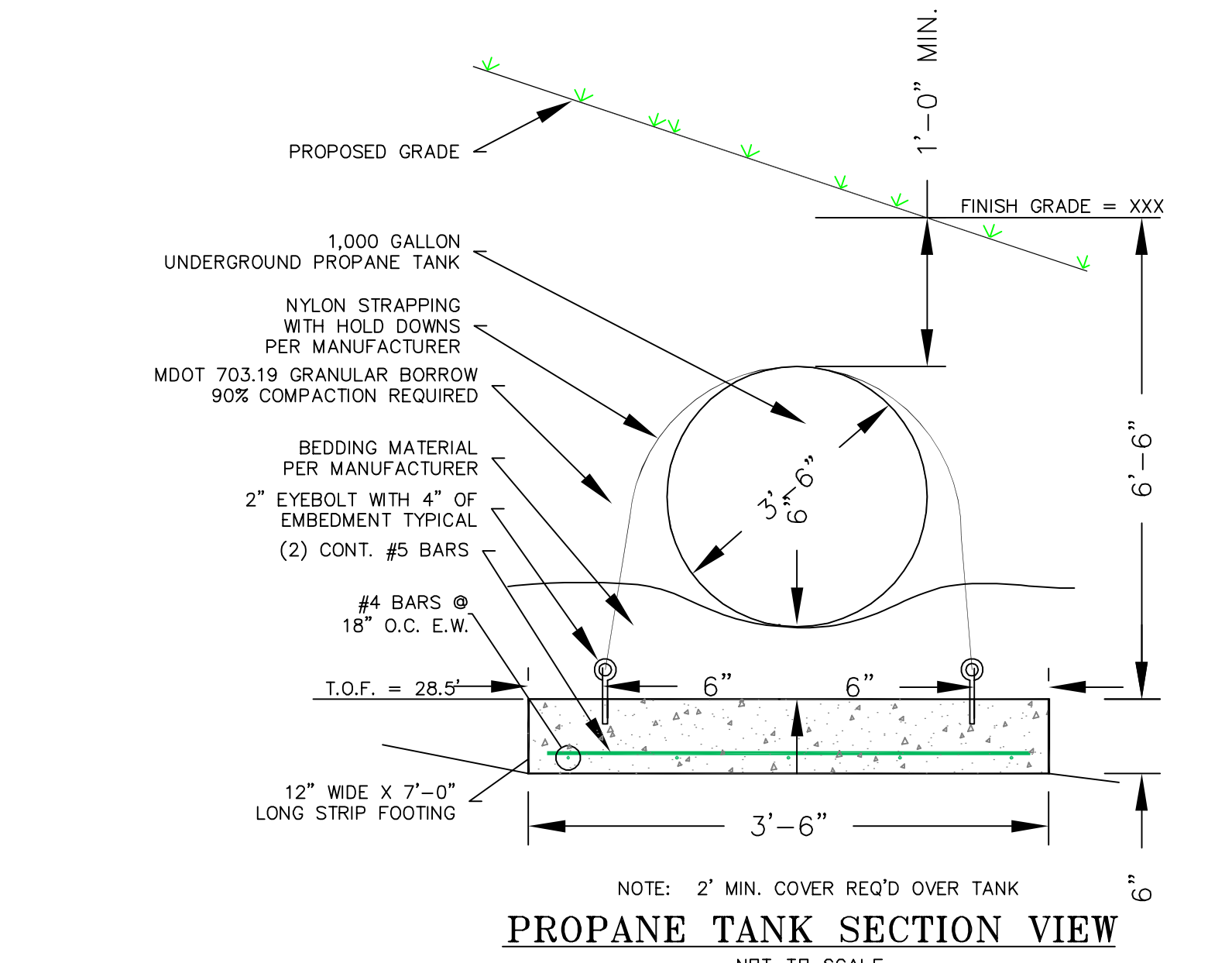
- 4000 P.S.I.
- 3/4" STONE
- 6% AIR ENTRAINMENT
- SLUMP = 3" ± 1"
- FINE BROOM FINISH



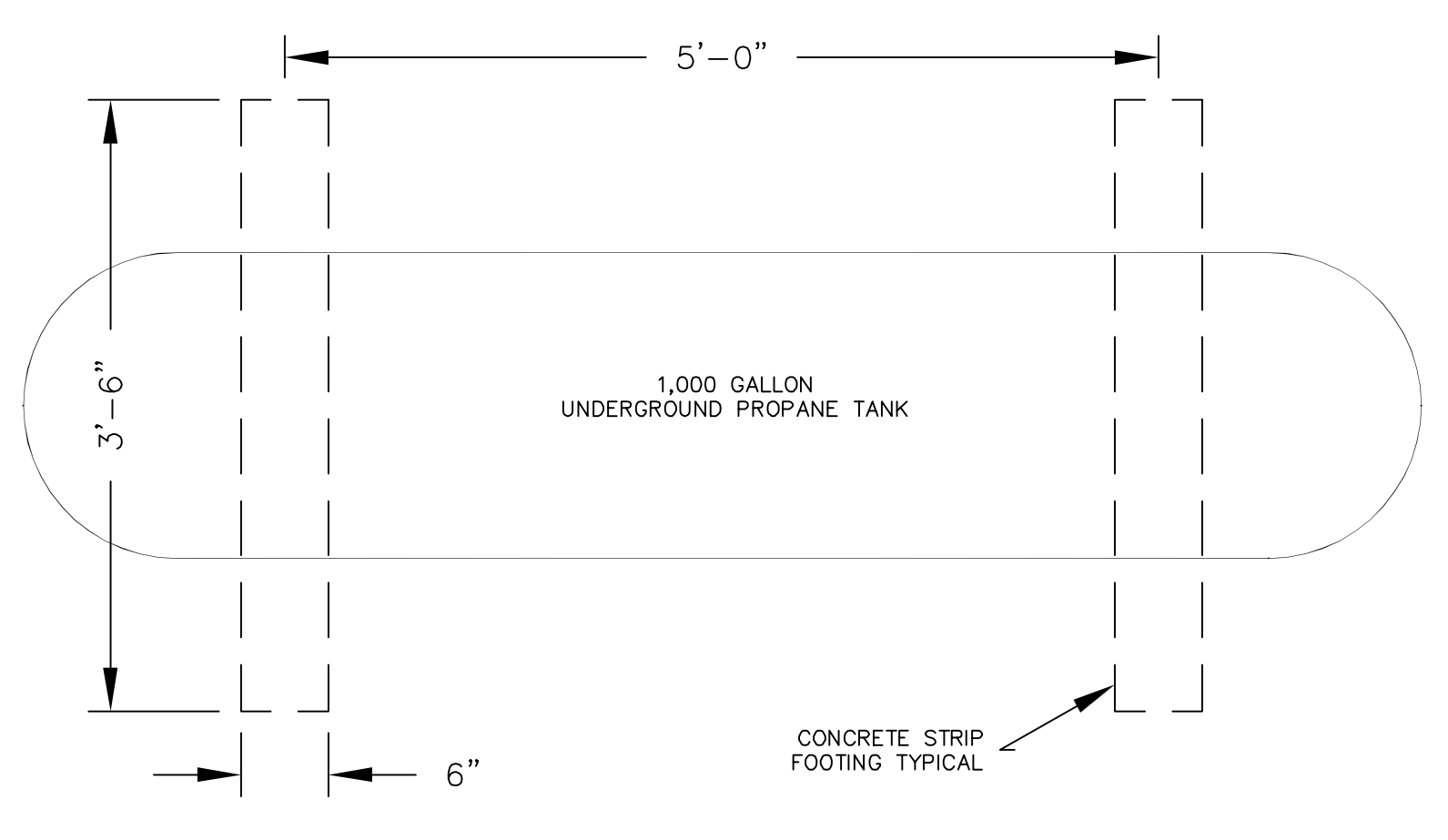
BOLLARD DETAIL
NOT TO SCALE



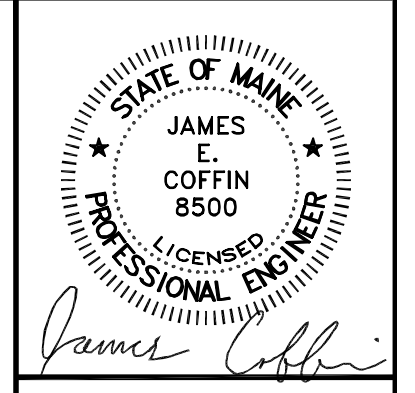
PRECAST CATCH BASIN
NOT TO SCALE



PROPANE TANK SECTION VIEW
NOT TO SCALE



PROPANE TANK PLAN VIEW
NOT TO SCALE



E.S. COFFIN
ENGINEERING & SURVEYING, INC.
432 Corn Road, P.O. Box 4687, Augusta, Maine 04330
PH: (207) 625-9475 Fax: (207) 625-9976 Toll Free: 1-800-249-9475

NO.	REVISIONS	DATE

DETAILS III
DRAWN BY: TCH
CHECKED BY: JEC
SCALE: AS SHOWN
DATE: JULY 10, 2023

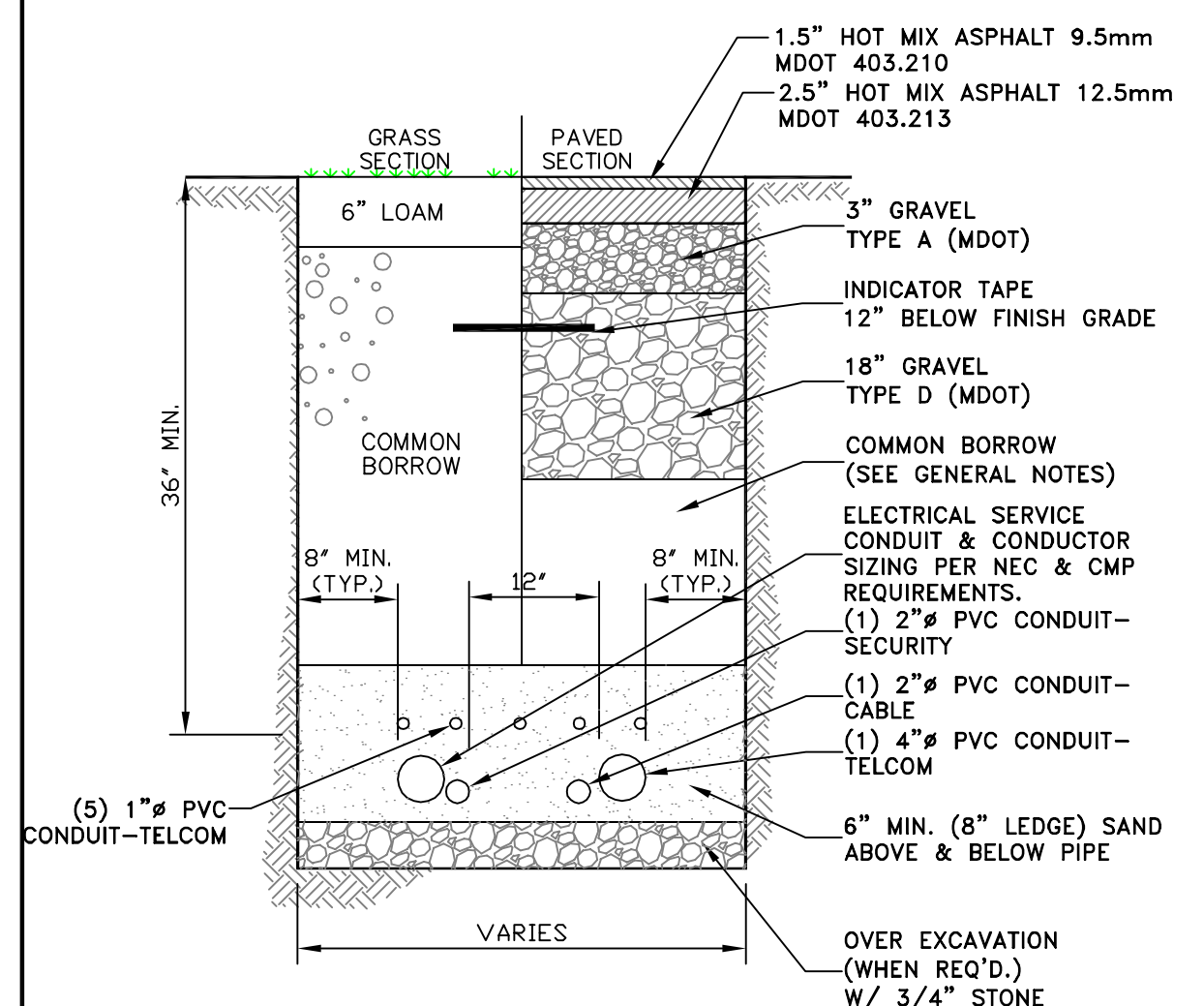
CLIENT/PROJECT: **CORE CUTTER, LLC LOT #26**
LOCATION: **TECHNOLOGY DRIVE**
TOWN: **GARDNER** COUNTY: **KENNEBEC** STATE: **MAINE**

PROJ. NO. **2022-005**

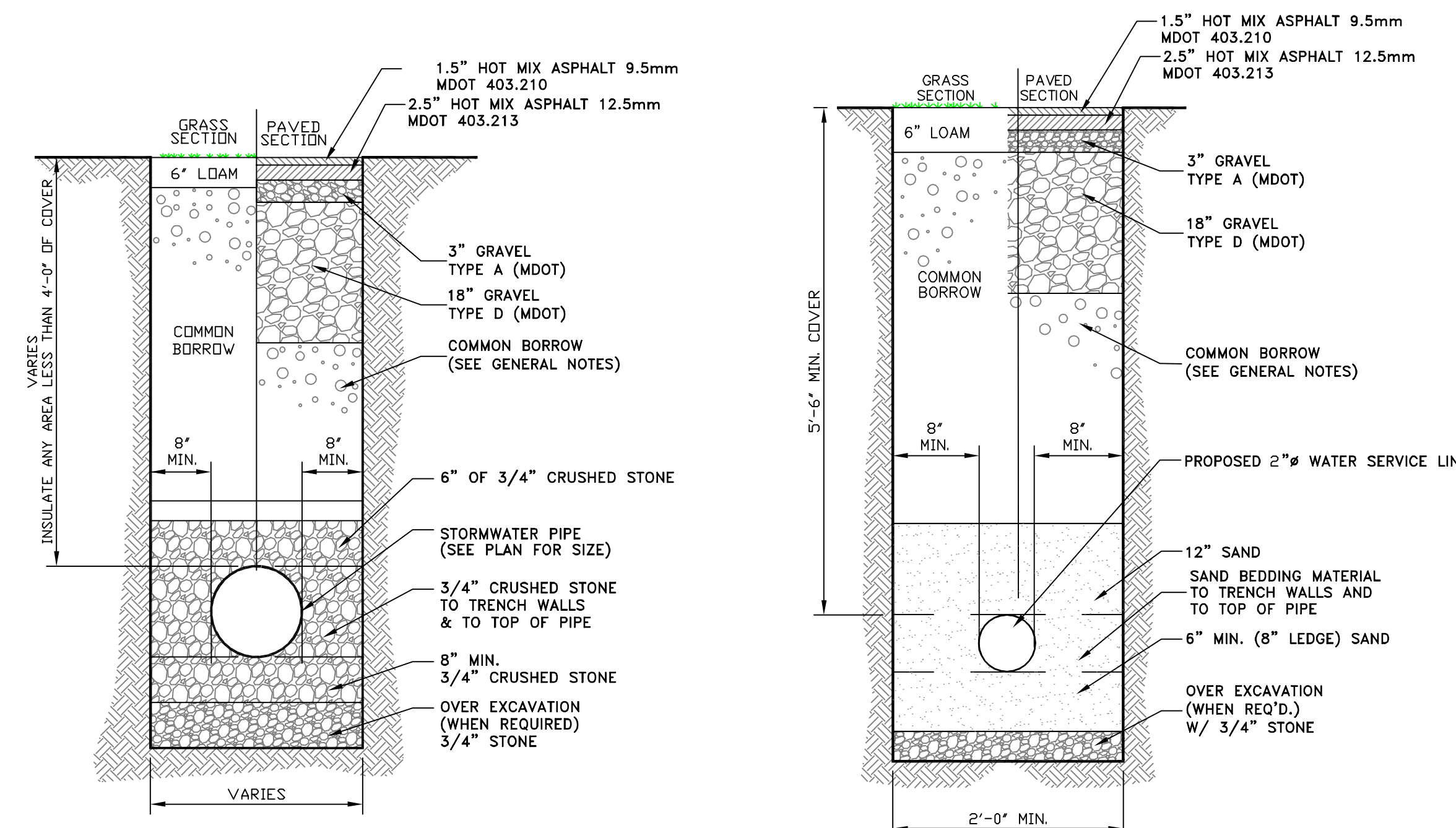
C-5

TRENCH NOTES:

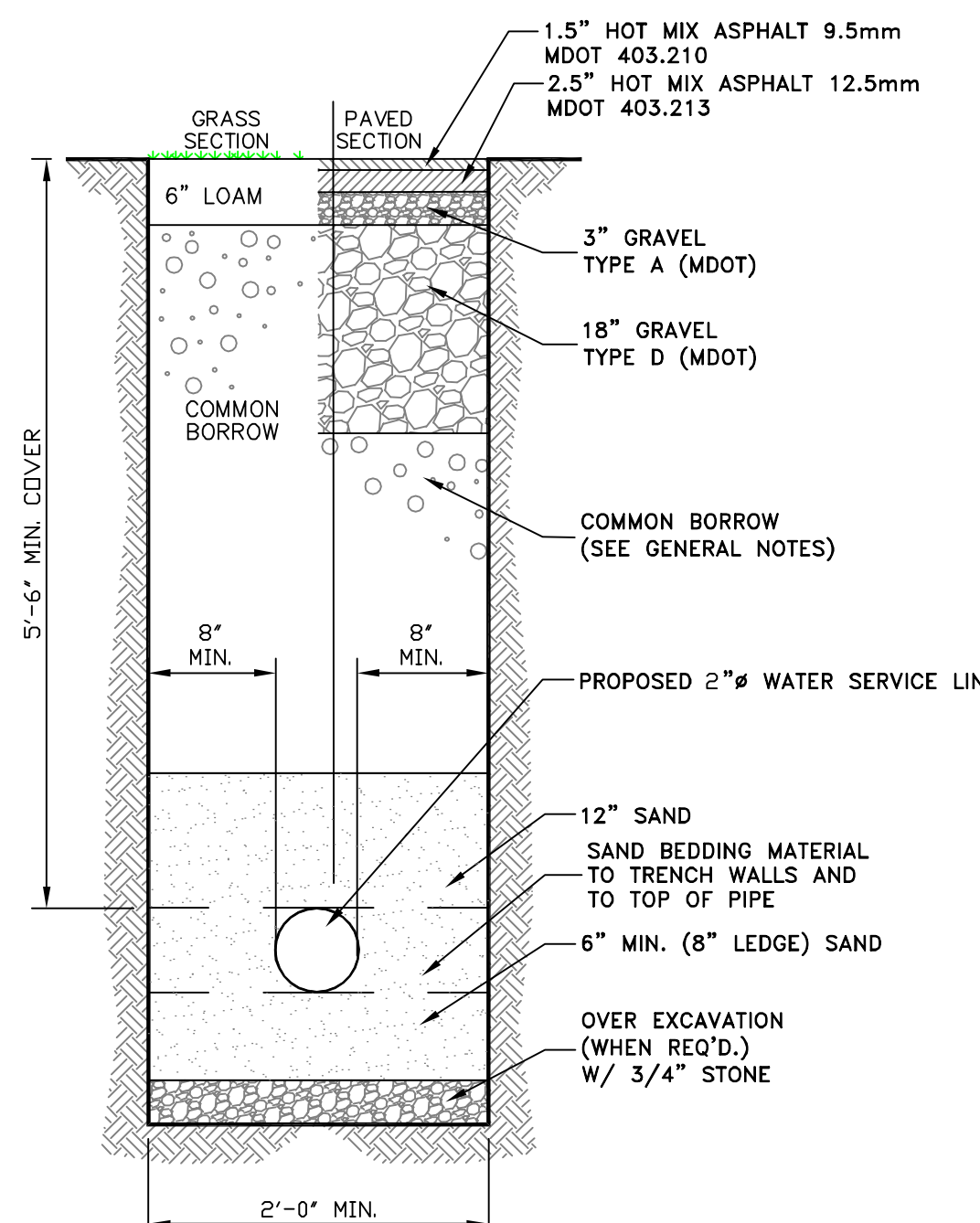
- CONTRACTOR SHALL COMPLY WITH OCCUPATIONAL SAFETY & HEALTH ADMINISTRATION REGULATIONS PERTAINING TO THE EXCAVATION OF ALL TRENCHES. CONTRACTOR SHALL ALLOW FOR PAYMENT OF ADDITIONAL EXCAVATION, TRENCH BOXES AND BACKFILL WITH REGARD TO COMPLYING WITH ALL OCCUPATIONAL SAFETY & HEALTH ADMINISTRATION STANDARDS.
- ALL COMMON BORROW AND GRAVEL AREAS TO BE COMPACTED TO 95% OF ITS MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D-1557 "MODIFIED PROCTOR DENSITY". PLACE IN 9" TO 12" LIFTS.



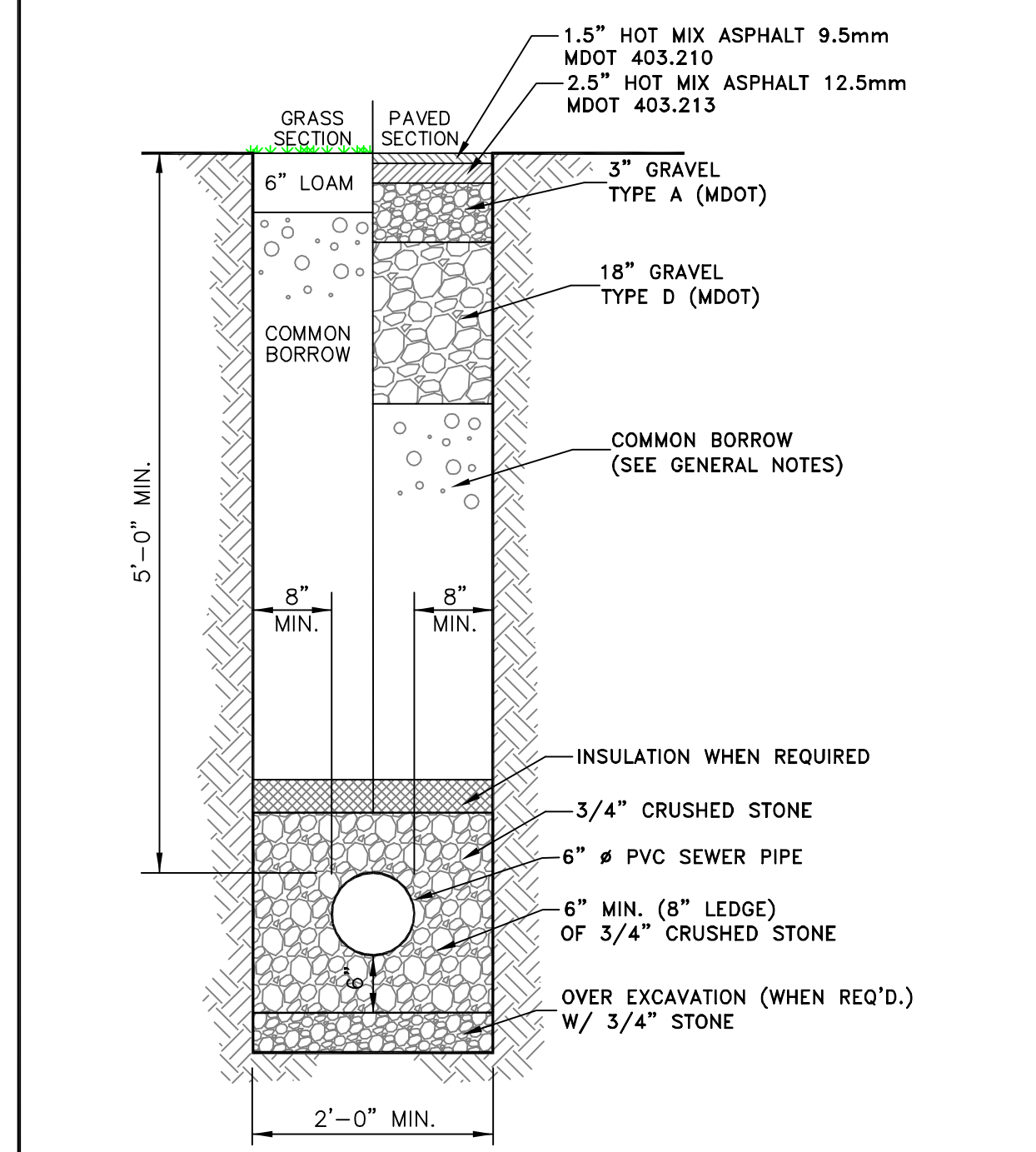
TYPICAL ELECTRICAL/SITE LIGHTING TRENCH SECTION
NOT TO SCALE



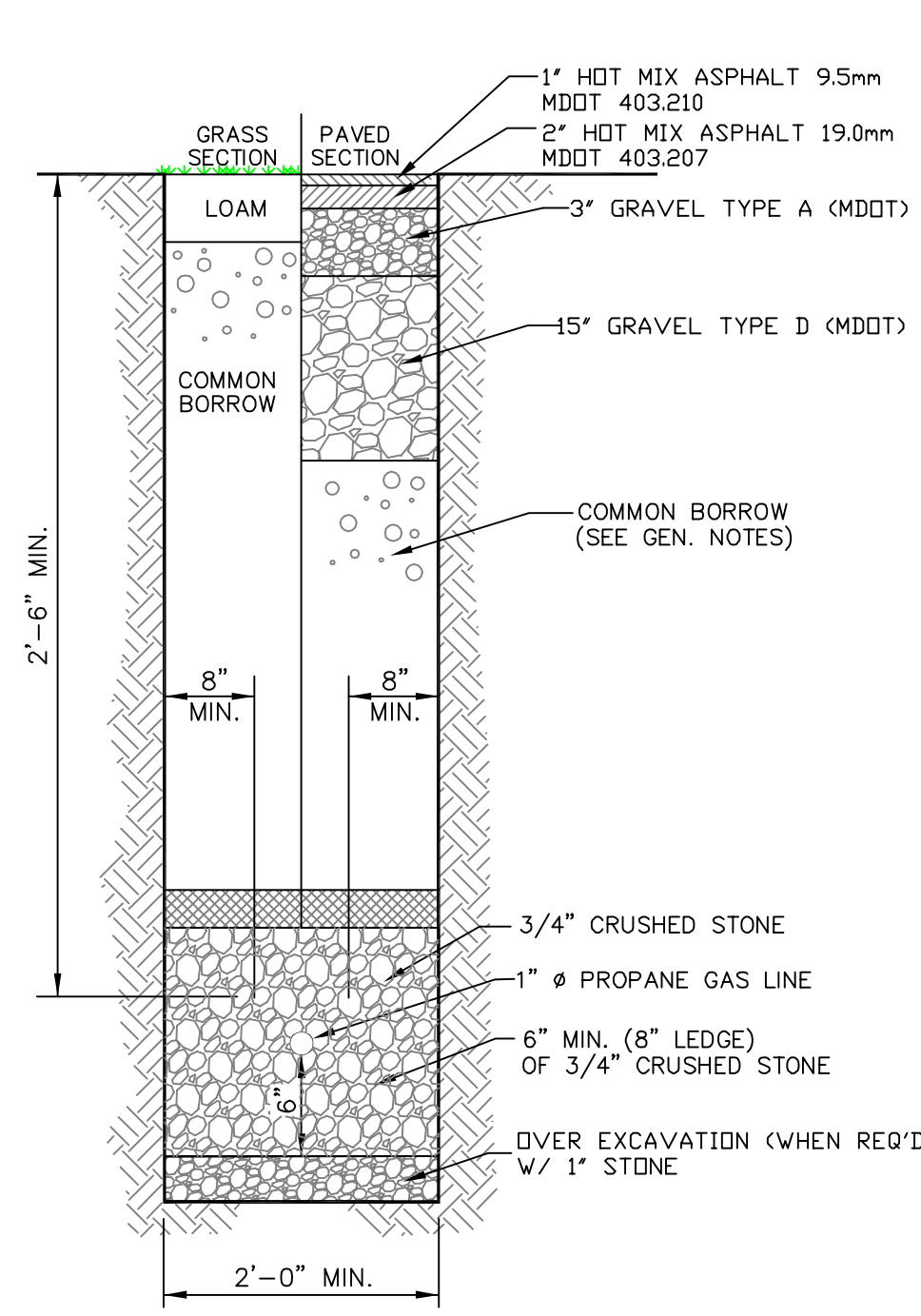
TYPICAL STORMWATER TRENCH SECTION
NOT TO SCALE



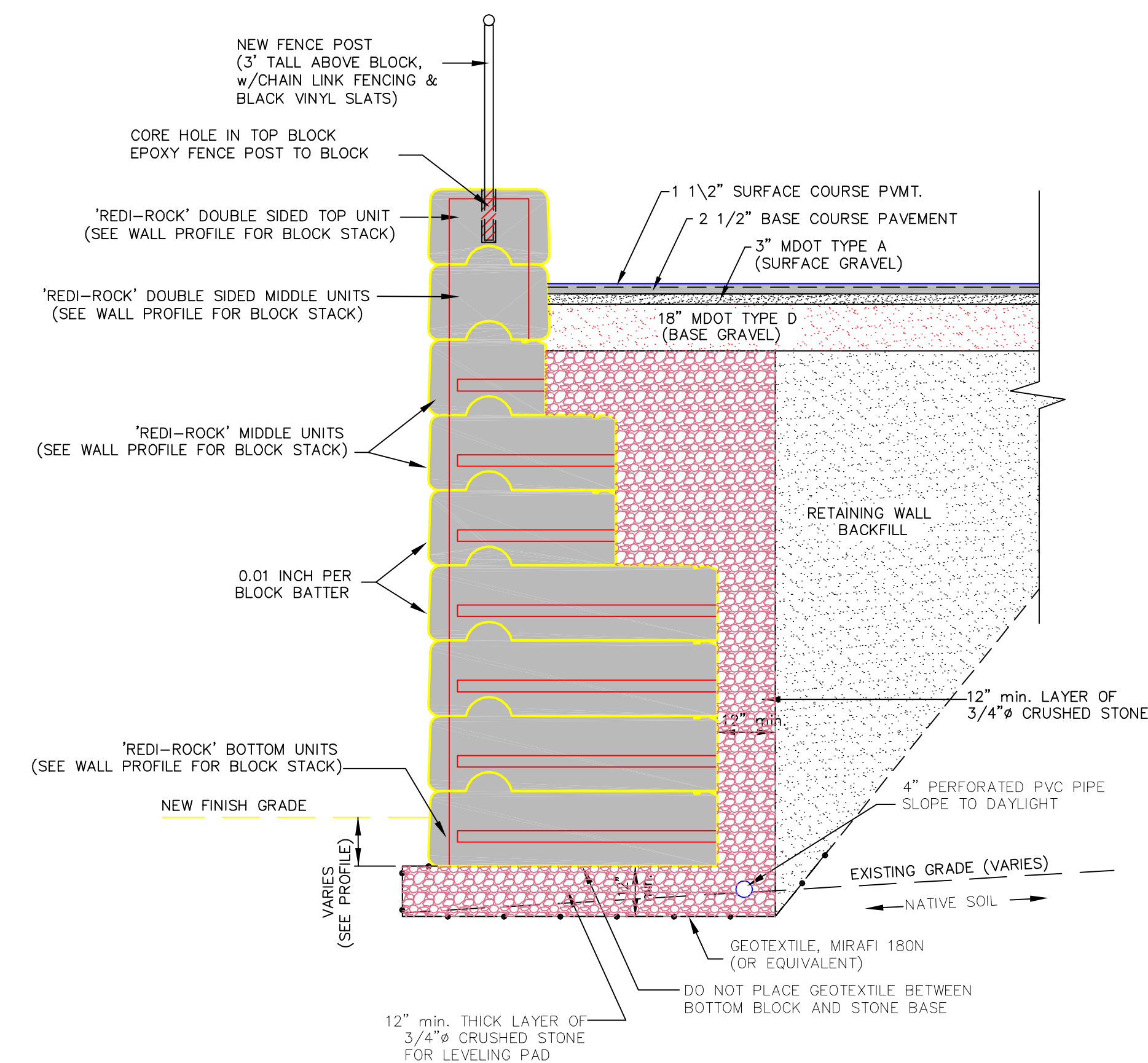
WATER SERVICE TRENCH SECTION
NOT TO SCALE



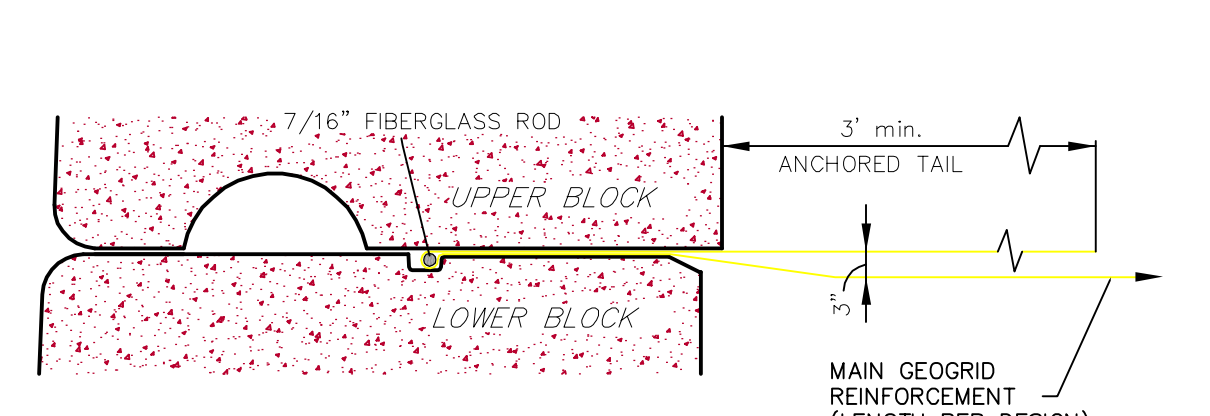
TYPICAL SANITARY TRENCH SECTION
NOT TO SCALE



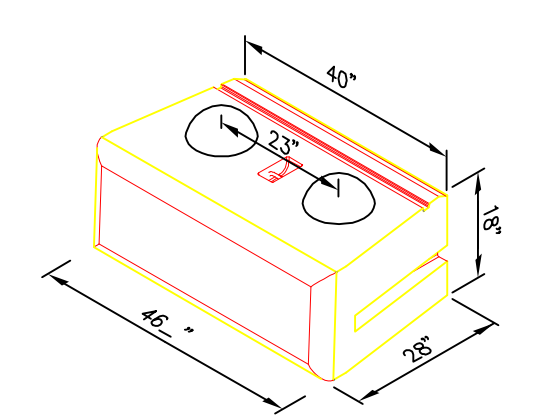
TYPICAL PROPANE GAS TRENCH SECTION
NOT TO SCALE



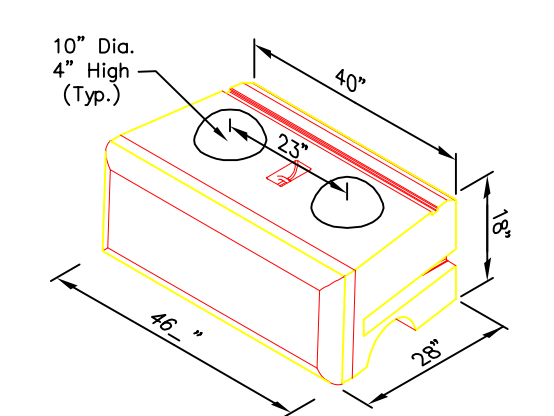
TYPICAL CROSS SECTION
NOT TO SCALE



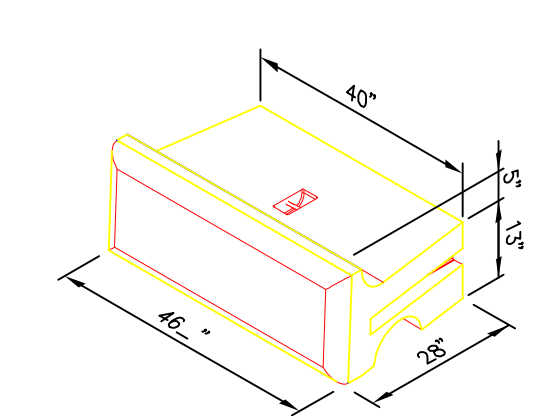
GEOGRID TO BLOCK CONNECTION DETAIL
NOT TO SCALE



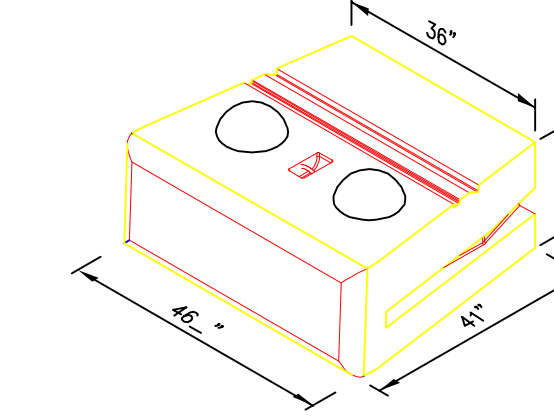
VOLUME = 12.36 c.f. WEIGHT = 1,768 lbs.
28\"/>



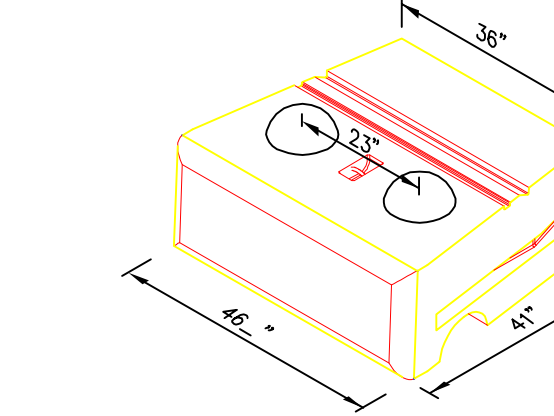
VOLUME = 11.40 c.f. WEIGHT = 1,630 lbs.
28\"/>



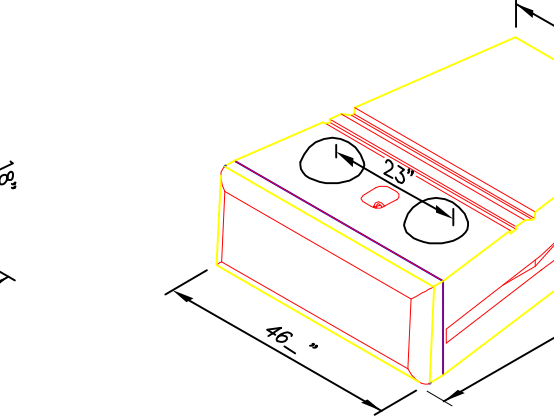
VOLUME = 8.55 c.f. WEIGHT = 1,223 lbs.
28\"/>



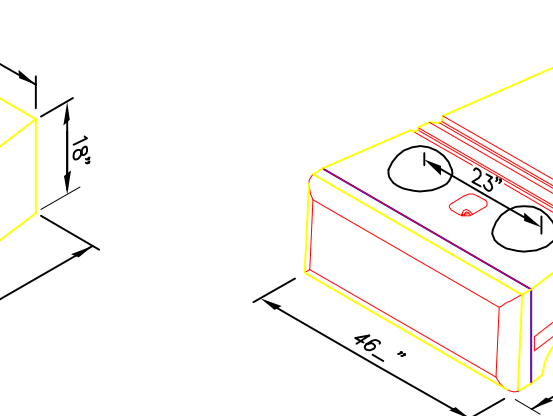
VOLUME = 17.37 c.f. WEIGHT = 2,483 lbs.
41\"/>



VOLUME = 16.44 c.f. WEIGHT = 2,351 lbs.
41\"/>



VOLUME = 23.97 c.f. WEIGHT = 3,428 lbs.
60\"/>



VOLUME = 23.06 c.f. WEIGHT = 3,297 lbs.
60\"/>

MATERIAL SPECIFICATIONS

INSTALL 3/4" DRAINAGE STONE AND WALL BACKFILL SOIL BEHIND THE WALL. COMPACT WALL BACKFILL IN LIFTS NOT EXCEEDING 18".

SWEEP OFF TOP OF BLOCKS AND GRIND SMOOTH ANY ROUGH EDGES ON THE BACK OF THE BLOCKS TO AVOID DAMAGE TO GEOGRID.

CONTRACTOR SHALL TAKE PRECAUTIONS DURING THE INSTALLATION AND COMPACTION OF THE DRAINAGE AND BACKFILL MATERIAL TO ENSURE THAT WALL BACKFILL DOES NOT CONTAMINATE THE DRAINAGE STONE DIRECTLY BEHIND THE WALL. REMOVE AND REPLACE ANY AREAS OF DRAINAGE MATERIAL THAT INADVERTENTLY BECOMES CONTAMINATED DURING THE BACKFILLING OPERATION.

CONTINUE PLACEMENT OF BLOCK WALL, DRAINAGE AGGREGATE AND WALL BACKFILL SOIL TO FULL HEIGHT OF WALL MAINTAINING HORIZONTAL AND VERTICAL ALIGNMENT DURING CONSTRUCTION. USE SMALL VIBRATORY PLATE COMPACTOR WITHIN 3' OF THE BACK OF THE WALL.

3/4" DRAINAGE STONE SHALL BE CLEAN ANGULAR CRUSHED STONE MEETING THE FOLLOWING GRADATION AS DETERMINED IN ACCORDANCE WITH ASTM D422.

SIEVE SIZE	PERCENT PASSING
1"	100
1 1/4"	90 - 100
3/8"	20 - 55
No. 4	0 - 10
No. 8	0 - 5

WALL BACKFILL SHALL BE A FREE DRAINING, WELL GRADED GRANULAR MATERIAL MEETING THE FOLLOWING GRADATION (REFERENCE MDT 703.22, GRAVEL BORROW).

SIEVE SIZE	PERCENT PASSING
4"	100
1 1/4"	25 - 70
No. 40	0 - 30
No. 200	0 - 5

BLOCKS SHALL BE 28", 41" AND 60" REDI-ROCK, UNDER LICENSE OF REDI-ROCK INTERNATIONAL, VERTICAL BATTER. COLOR AND FACING TO BE SELECTED BY OWNER BASED ON SAMPLES PROVIDED BY MANUFACTURER. SETBACK SHALL BE 0.01 INCHES PER BLOCK.

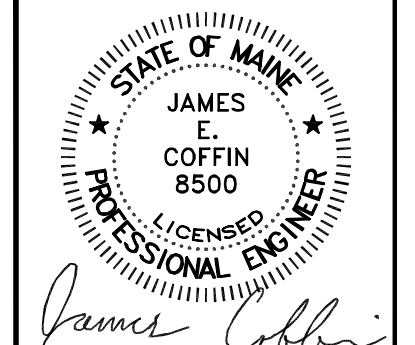
- THE FOLLOWING ASSUMPTIONS WERE USED IN THE DESIGN:
- SLOPE AT TOP OF WALL IS LEVEL.
 - MINIMUM DESIGN EMBEDMENT AT WALL FACE VARIES
 - SOIL PROPERTIES:
 - FOUNDATION SOIL: NATIVE, UNIT WEIGHT = 125 pcf, phi = 30°
 - RETAINED SOIL: NATIVE, UNIT WEIGHT = 130 pcf, phi = 34°
 - LIVE LOAD SURCHARGE = 250 psf
 - GROUNDWATER AT OR BELOW GRADE.
 - SEISMIC DESIGN COEFFICIENT = 0.08
 - MAXIMUM CONTACT PRESSURE = 3,500 psf

GEOTEXTILE SHALL CONSIST OF MIRAFI 180N OR EQUIVALENT.

CONCRETE FOR WALL BASE FOOTINGS SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 4,000psi AND BE AIR ENTRAINED AS REQUIRED TO PROVIDE AN AIR CONTENT OF 5% (±1%).

GENERAL NOTES

- IT IS THE RESPONSIBILITY OF THE OWNER, CONTRACTOR OR THEIR RESPECTIVE REPRESENTATIVES TO ENSURE THAT CONSTRUCTION OF THE WALL AND MATERIALS USED IN THE CONSTRUCTION OF THE WALL ARE IN ACCORDANCE WITH THESE SPECIFICATIONS AND/OR THE CONTRACT SPECIFICATIONS WHICH EVER ARE MORE STRINGENT.
- E.S. COFFIN ENGINEERING & SURVEYING ACCEPTS NO RESPONSIBILITY NOR LIABILITY IN THE DETERMINATION OF THE ADEQUACY OF SITE MATERIALS AND WALL LAYOUT.
- PRIOR TO THE START OF CONSTRUCTION THE CONTRACTOR SHALL VERIFY THAT ALL ELEVATIONS AND ASSUMED SITE CONDITIONS SHOWN ON THESE DRAWINGS ARE ACCURATE TO THE GIVEN SITE CONDITIONS. ANY DISCREPANCY SHALL BE BROUGHT TO THE ATTENTION OF S.G.S. PRIOR TO THE START OF CONSTRUCTION.
- THE WALL HAS BEEN DESIGNED ON THE ASSUMPTION THAT THE WALL BACKFILL MATERIAL SHALL BE FREE OF SUBSURFACE DRAINAGE OR WATER (SEEPAGE). PERMANENT SUBSURFACE WATER (SEEPAGE) COLLECTION AND DIVERSION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR OR OWNER'S ENGINEER (SEE RECOMMENDED TYPICAL DETAILS).
- DURING CONSTRUCTION BEFORE RAIN EVENTS, BACKFILL SURFACE SHALL BE GRADED AWAY FROM THE WALL FACE AND A TEMPORARY SOIL BERM CONSTRUCTED NEAR THE TOP CREST TO PREVENT SURFACE WATER RUNOFF FROM OVERTOPPING THE WALL. PROVIDE PRECAUTIONS AS NECESSARY TO ENSURE THAT SURFACE RUN OFF FROM ADJACENT AREAS DOES NOT ENTER THE WALL CONSTRUCTION SITE. DURING CONSTRUCTION BEFORE RAIN EVENTS, BACKFILL SURFACE SHALL BE SMOOTHED OUT TO PREVENT PONDING OF WATER AND SATURATION OF SOIL.
- THE REDI-ROCK WALL SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER AND THE INFORMATION FURNISHED ON THESE DRAWINGS.
- FOUNDATION EXCAVATION SHALL EXTEND TO COMPETENT SOIL. (UNLESS NOTED OTHERWISE) ALL EXISTING TOPSOIL, LOOSE MATERIAL, FILL, ORGANIC SOIL AND OTHER SOFT OR UNSTABLE FOUNDATION SOILS SHALL BE REMOVED FROM THE AREA TO BE OCCUPIED BY THE WALL AND REPLACED WITH 3/4" CRUSHED STONE. REMOVE UNSUITABLE FOUNDATION SOILS TO THE LATERAL LIMITS EXTENDING BEYOND THE WALL A DISTANCE EQUAL TO THE DEPTH OF FILL REQUIRED BELOW THE WALL PLUS (1) ONE FOOT.
- UPON COMPLETION OF THE EXCAVATION, THE NATURAL SUBGRADE SHALL BE COMPACTED USING A VIBRATORY ROLLER AND MAKING A MINIMUM OF 5 PASSES.
- INSTALL A 12" (MINIMUM THICK) LAYER OF COMPACTED 1" CRUSHED STONE FOR BLOCK WALL LEVELING PAD OR CONCRETE FOOTING. EXTEND LEVELING PAD 6" HORIZONTALLY IN ALL DIRECTIONS BEYOND LIMITS OF THE PRECAST BLOCK WALL.
- INSTALL THE BASE COURSE OF BLOCKS ON THE PREPARED FOUNDATION LEVELING PAD. LEVELING PAD MATERIAL VARIES ACCORDING TO SECTION AND PLAN/PROFILE. ENSURE THAT THE BASE COURSE IS LEVEL SIDE TO SIDE AND PLUMB. ADJUST BLOCKS AS REQUIRED TO PROVIDE A STRAIGHT AND LEVEL BASE COURSE.



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NO.	REVISIONS	DATE

DETAILS IV
SCALE: AS SHOWN
DATE: JULY 10, 2023
DRAWN BY: TCH
CHECKED BY: JEC

CLIENT/PROJECT: **CORE CUTTER, LLC**
LOT #26
LOCATION: **TECHNOLOGY DRIVE**
TOWN: **GARDNER** COUNTY: **KENNEBEC** STATE: **MAINE**

PROJ. NO. **2022-005**

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