

# EROSION CONTROL NOTES

## GENERAL:

THE DRAWINGS DEPICT THE REQUIRED SOIL EROSION CONTROL MEASURES. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING THE CONSTRUCTION SITE IN SUCH A MANNER THAT:

- SOIL EROSION IS KEPT TO A MINIMUM.
- NO SEDIMENT LEAVES THE CONSTRUCTION SITE PROPER.
- ALL POSSIBLE MEASURES ARE EMPLOYED TO PREVENT SEDIMENT FROM ENTERING DRAINAGE COURSES AND WETLANDS EVEN BEYOND THE DETAILS SHOWN ON THIS PLAN IF NECESSARY.
- ALL EROSION CONTROL MEASURES SHALL BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH THE MAINE EROSION AND SEDIMENT CONTROL BMPs PUBLISHED BY THE BUREAU OF LAND AND WATER QUALITY, MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION, MARCH 2003.
- THE CONTRACTOR IS RESPONSIBLE FOR ALL FINES RESULTING FROM EROSION OR SEDIMENTATION FROM THE SITE TO SURROUNDING PROPERTIES, WATERBODIES, OR WETLAND AS A RESULT OF THIS PROJECT.
- LOAM AND SEED ALL DISTURBED AREAS AS SOON AS POSSIBLE AFTER DISTURBANCE, BUT NO LONGER THAN 7 DAYS. LOAM AND SEED ANY DISTURBED AREA WITHIN 15' OF WETLANDS OR WATERBODIES WITHIN 48 HOURS OR PRIOR TO AND STORM EVENT. USE WINTER SEED RATES AND SPECIFICATIONS IF APPROPRIATE.
- INSPECT SOIL EROSION MEASURES WEEKLY AND AFTER SIGNIFICANT STORM EVENTS. MAKE ALL NECESSARY REPAIRS TO FACILITIES AS SOON AS POSSIBLE, BUT NO LONGER THAN 2 DAYS. CLEAN AND RESET SILT FENCES AND STONE CHECK DAMS WHICH ACCUMULATE SEDIMENT AND DEBRIS.
- PROTECT AND STABILIZE ALL AREAS NOT SCHEDULED FOR EROSION PREVENTION OR STABILIZATION BUT THAT SHOW SIGNS OF EROSION. NOTIFY OWNER OF ANY SIGNIFICANT EROSION PROBLEM.
- APPLY MULCH TO BARE SOILS WITHIN 7 DAYS OF INITIAL DISTURBANCE OF SOILS, WITHIN 48 HOURS IF WITHIN 15' OF WETLAND OR WATERBODY, PRIOR TO ANY RAIN EVENT, OR PRIOR TO ANY WORK SHUTDOWN LASTING MORE THAN ONE DAY.
- TEMPORARILY SEED WITHIN 7 DAYS ANY AREA WHICH WILL BE LEFT DISTURBED AND UNWORKED FOR MORE THAN 14 DAYS WITH THE TEMPORARY SEED MIX LISTED BELOW. IF AREA IS WITHIN 15' OF A WETLAND OR WATERBODY, SEED WITHIN 48 HOURS. PERMANENTLY SEED ANY AREA WHICH CAN BE LOAMED AS SOON AS POSSIBLE WITH THE PERMANENT SEED MIX LISTED BELOW. DO NOT USE PERMANENT SEED MIX AFTER SEPTEMBER 15.
- MULCH ALL AREAS SEEDDED SO THAT SOIL IS NOT VISIBLE THROUGH THE MULCH REGARDLESS OF THE APPLICATION RATE. DURING THE GROWING SEASON (APRIL 15 - SEPT. 30) USE EROSION CONTROL MESH (OR MULCH AND NETTING) ON:
  - THE BASE OF GRASSSED WATERWAYS
  - SLOPES STEEPER THAN 15%
  - WITHIN 100' OF STREAMS AND WETLANDS
 BETWEEN OCT. 1 AND APRIL 14 USE EROSION CONTROL MESH (OR MULCH AND NETTING) ON:
  - SIDE SLOPES OF GRASSSED WATERWAYS
  - SLOPES STEEPER THAN 8%
- INSTALL EROSION CONTROL MESH IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. MESH TO BE EQUAL TO NORTH AMERICAN GREEN PRODUCT C212EN.
- FOLLOW SILT FENCE MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS FOR INSTALLATION OF SILT FENCE. SECURE ENTIRE BOTTOM OF FENCE EITHER BY BURYING BOTTOM OF FENCE IN A TRENCH OR BERMING WITH SOIL OR CHIPPED GRUBBINGS. REFER TO SILT FENCE DETAILS.
- PLACE AND GRADE LOAM IN A REASONABLY UNIFORM MANNER. WORK LINE AND FERTILIZER INTO THE SOIL TO A DEPTH OF 4 INCHES WITH A DISC, SPRING TOOTH HARROW OR OTHER SUITABLE EQUIPMENT. CONTINUE TILLAGE UNTIL A REASONABLY UNIFORM SEED BED IS PREPARED. REMOVE FROM SURFACE ALL STONES LARGER THAN 2" AND ALL OTHER UNSUITABLE MATERIAL. LIME AND FERTILIZER SHOULD BE MIXED INTO SOIL PRIOR TO ROLLING EXCEPT IF INCLUDED IN HYDROSEED MIXTURE. PERMANENT STABILIZATION OF REVEGETATED AREAS IS CONSIDERED AS 90% CATCH.
- ALL CULVERT OR PIPE OUTFALL PROTECTION MUST BE INSTALLED WITHIN 48 HOURS OF INSTALLING NEW PIPE OR CULVERT.
- DITCHES AND CHANNELS DESIGNATED TO BE LINED WITH RIPRAP AND/OR EROSION CONTROL MESH MUST BE INSTALLED WITHIN 48 HOURS OF COMPLETING THE GRADING OF THAT SECTION OF DITCH OR CHANNEL.
- ALL CATCH BASINS, NEW OR EXISTING, THAT MAY RECEIVE RUNOFF FROM DISTURBED AREAS MUST BE PROTECTED BY INSTALLING AND MAINTAINING SILT SACKS DURING CONSTRUCTION.
- WATER FROM CONSTRUCTION TRENCH DEWATERING OR TEMPORARY STREAM DIVERSION WILL PASS FIRST THROUGH A FILTER BAG OR SECONDARY CONTAINMENT STRUCTURE (E.G. HAY BALE OR EROSION CONTROL MIX LINED POOL) PRIOR TO DISCHARGE. THE DISCHARGE SITE SHALL BE SELECTED TO AVOID FLOODING, ICING, AND SEDIMENT DISCHARGES TO A PROTECTED RESOURCE. IN NO CASE SHALL THE FILTER BAG OR CONTAINMENT STRUCTURE BE LOCATED WITHIN 100 FEET OF A PROTECTED NATURAL RESOURCE.

## TOPSOIL:

- SUITABLE TOPSOIL SALVAGED FROM SITE OR SCREENED, LOOSE AND FRIABLE SANDY LOAM OR LOAM AS DEFINED BY THE USDA SOIL CONSERVATION SERVICE CLASSIFICATION SYSTEM, FREE FROM ADMIXTURE OF SUBSOIL, REFUSE, LARGE STONES, CLOGS, ROOTS, WEEDS, RHIZOMES OR OTHER UNDESIRABLE FOREIGN MATTER AS DETERMINED BY THE INSPECTING AUTHORITY. CONTRACTOR SHALL SUBMIT REPORTS OF LOAM TEST RESULTS PERFORMED BY AN INDEPENDENT TESTING LABORATORY FOR TOPSOIL FROM DIFFERENT SOURCES PRIOR TO PLACING. THE COST OF TESTING SHALL BE INCIDENTAL TO THE COST OF TOPSOIL. TOPSOIL SHALL MEET THE FOLLOWING SPECIFICATIONS:
  - SAND - 0.00 IN. TO 0.002 IN. DIAMETER (% BY VOLUME) . . . . . 45 - 75
  - SILT - 0.002 IN. TO 0.00020 IN. DIAMETER (% BY VOLUME) . . . . . 20 - 40
  - CLAY - LESS THAN 0.00020 IN. DIAMETER (% BY VOLUME) . . . . . 5 - 15
 ORGANICS (SHALL MEET THE REQUIREMENTS OF MDOT STANDARD SPECIFICATION 111.03.9.2.1.1.1) (% BY VOLUME) . . . . . 10 - 20
- NUTRIENTS:
  - CALCIUM (CA) (% SATURATION) . . . . . 60 - 80
  - MAGNESIUM (MG) (% SATURATION) . . . . . 10 - 25
  - POTASSIUM (K) (% SATURATION) . . . . . 2.1 - 3.0
  - PHOSPHORUS (P) (POUNDS/ACRE) . . . . . 10 - 40
  - PH . . . . . 6.0 - 6.5
- PERMEABILITY (INCHES PER HOUR) . . . . . 3 - 10
- MAXIMUM STONE SIZE (INCHES) . . . . . 3/4

## SEEDING:

USE PERMANENT SEED MIXES AND RATES BETWEEN 5/15 AND 9/30. USE TEMPORARY SEED MIXES FOR PERIODS LESS THAN 12 MONTHS. IF USING TEMPORARY SEED MIXES AND RATES BETWEEN 10/1 AND 5/14, RE-SEED WITH PERMANENT SEED MIX AFTER 5/15.

## PERMANENT SEED:

MDOT 111.03(a) METHOD NUMBER 3

## TEMPORARY SEED:

OATS	80.00 LBS/ACRE	4/01 - 5/14
ANNUAL RYEGRASS	40.00 LBS/ACRE	
SUDANGRASS	40.00 LBS/ACRE	5/15 - 8/14
ANNUAL RYEGRASS	80.00 LBS/ACRE	5/15 - 9/14
WINTER RYE	112.00 LBS/ACRE	9/15 - 9/30
WINTER RYE (W/ MULCH COVER)	112.00 LBS/ACRE	10/01 - 3/31

## LIME AND FERTILIZER:

APPLY GROUND LIMESTONE (EQUIVALENT TO 50% CALCIUM PLUS MAGNESIUM OXIDE) AT A RATE OF 3 TONS PER ACRE (138 POUNDS PER 1000 SQUARE FEET). APPLY FERTILIZER (10-20-20) AT A RATE OF 800 POUNDS PER ACRE (18.4 POUNDS PER 1000 SQUARE FEET).

## MULCH:

STRAW OR HAY (ANCHORED)	10 - 30 LBS	PROTECTED AREAS
STRAW OR HAY (ANCHORED)	185 - 275 LBS	WINDY AREAS
SHREDDED OR CHOPPED	185 - 275 LBS	
JUTE MESH	AS REQUIRED	MODERATE TO HIGH VELOCITY AREAS & STEEP SLOPES

## EXCELISIOR MAT

MULCH ANCHORING	AS REQUIRED
PEG AND TWINE	LIQUID ASPHALT
MULCH NETTING	WOOD CELLULOSE FIBER
ASPHALT EMULSION	CHEMICAL TACK

## WINTER CONSTRUCTION:

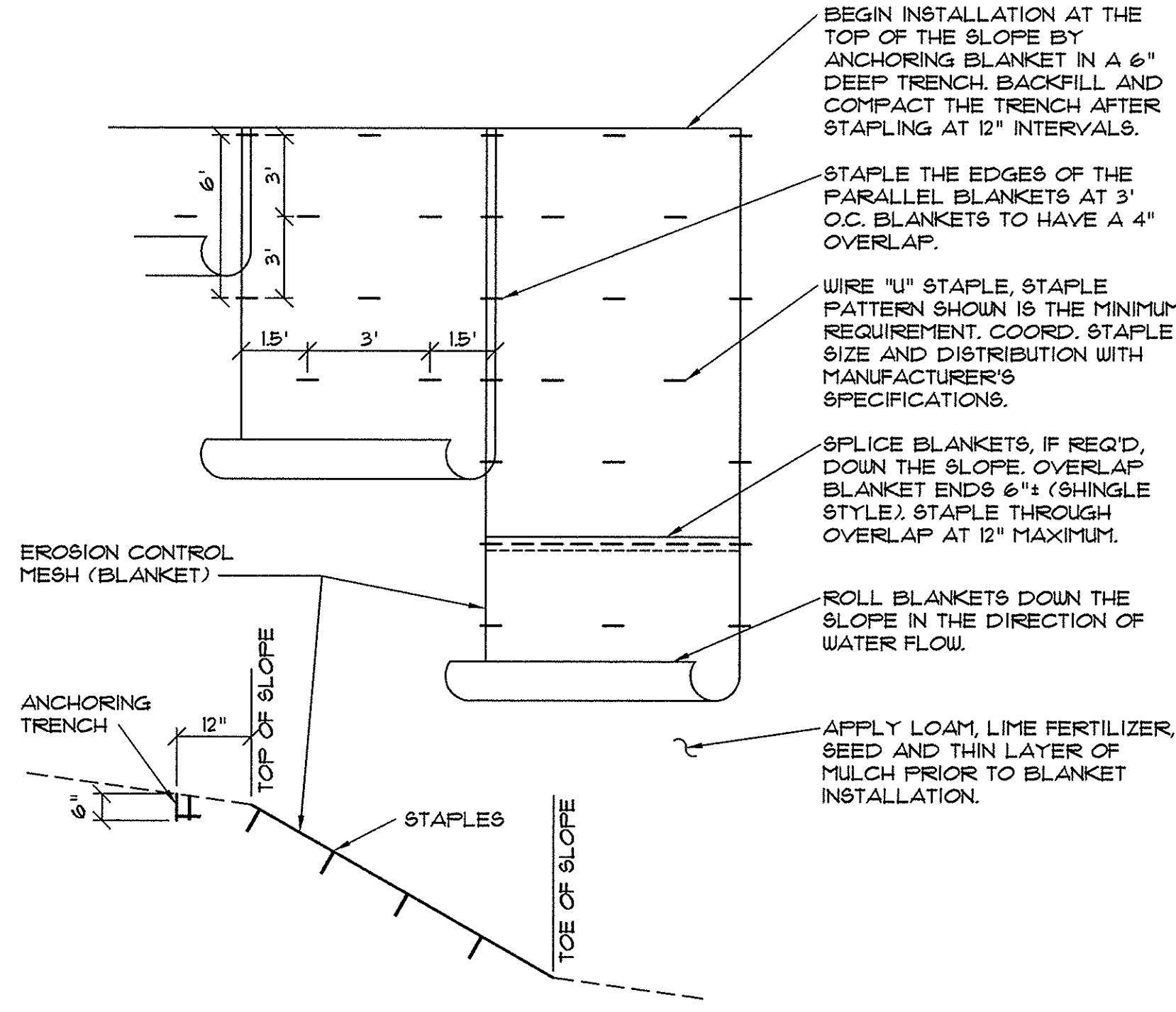
THE WINTER CONSTRUCTION PERIOD IS FROM NOVEMBER 1 THROUGH APRIL 15. IF THE CONSTRUCTION SITE IS NOT STABILIZED WITH PAVEMENT, A ROAD GRAVEL BASE, 75% MATURE VEGETATION COVER OR RIP RAP BY NOVEMBER 15 THEN THE SITE NEEDS TO BE PROTECTED WITH OVER-WINTER STABILIZATION. AN AREA CONSIDERED OPEN IS ANY AREA NOT STABILIZED WITH PAVEMENT, VEGETATION MULCHING, EROSION CONTROL MATS, RIP RAP OR GRAVEL BASE ON A ROAD. WINTER EXCAVATION AND EARTHWORK SHALL BE COMPLETED SUCH THAT NO MORE THAN 1 ACRE OF THE SITE IS WITHOUT STABILIZATION AT ANY ONE TIME. LIMIT THE EXPOSED AREA TO THOSE AREAS IN WHICH WORK IS EXPECTED TO BE UNDER TAKEN DURING THE PROCEEDING 15 DAYS AND THAT CAN BE MULCHED IN ONE DAY PRIOR TO ANY SNOW EVENT. ALL AREA SHALL BE CONSIDERED TO BE DENuded UNTIL THE SUBBASE GRAVEL IS INSTALLED IN ROADWAY AREAS OR THE AREAS OF FUTURE LOAM AND SEED HAVE BEEN LOAMED, SEEDDED AND MULCHED. HAY AND STRAW MULCH RATE SHALL BE A MINIMUM OF 150 LBS/1000 SF. (3 TONS/ACRE) AND SHALL BE PROPERLY ANCHORED. DURING WINTER CONSTRUCTION, A DOUBLE LINE OF SEDIMENT BARRIERS (I.E. SILT FENCE BACKED WITH HAY BALES OR EROSION CONTROL MIX) WILL BE PLACED BETWEEN ANY NATURAL RESOURCE AND THE DISTURBED AREA. PROJECTS CROSSING THE NATURAL RESOURCE SHALL BE PROTECTED A MINIMUM DISTANCE OF 100 FEET ON EITHER SIDE FROM THE RESOURCE. EXISTING PROJECTS NOT STABILIZED BY DECEMBER 1 SHALL BE PROTECTED WITH THE SECOND LINE OF SEDIMENT BARRIER TO ENSURE FUNCTIONALITY DURING THE SPRING THAW AND RAINS.

- SOIL STOCKPILES  
STOCKPILES OF SOIL OR SUBSOIL WILL BE MULCHED FOR OVER-WINTER PROTECTION WITH HAY OR STRAW AT TWICE THE NORMAL RATE OF 150 LBS/1000 SF. (3 TONS/ACRE) OR WITH A FOUR INCH LAYER OF EROSION CONTROL MIX. THIS WILL BE DONE WITHIN 24 HOURS OF STOCKING AND WILL BE REESTABLISHED PRIOR TO ANY RAINFALL OR SNOWFALL. ANY SOIL STOCKPILE WILL NOT BE PLACED (EVEN COVERED WITH HAY OR STRAW) WITHIN 100 FEET FROM ANY NATURAL RESOURCES.
- NATURAL RESOURCES PROTECTION  
ANY AREAS WITHIN 100 FEET FROM ANY NATURAL RESOURCES, IF NOT STABILIZED WITH A MINIMUM OF 75% MATURE VEGETATION CATCH, SHALL BE MULCHED BY DECEMBER 1 AND ANCHORED WITH PLASTIC NETTING OR PROTECTED WITH EROSION CONTROL MATS. DURING WINTER CONSTRUCTION, A DOUBLE LINE OF SEDIMENT BARRIERS (I.E. SILT FENCE BACKED WITH HAY BALES OR EROSION CONTROL MIX) WILL BE PLACED BETWEEN ANY NATURAL RESOURCE AND THE DISTURBED AREA. PROJECTS CROSSING THE NATURAL RESOURCE SHALL BE PROTECTED A MINIMUM DISTANCE OF 100 FEET ON EITHER SIDE FROM THE RESOURCE. EXISTING PROJECTS NOT STABILIZED BY DECEMBER 1 SHALL BE PROTECTED WITH THE SECOND LINE OF SEDIMENT BARRIER TO ENSURE FUNCTIONALITY DURING THE SPRING THAW AND RAINS.
- SEDIMENT BARRIERS  
DURING WINTER CONSTRUCTION, SEDIMENT BARRIERS SHALL CONSIST OF EROSION CONTROL MIX SEDIMENT BARRIERS AS FROZEN SOIL PREVENTS THE PROPER INSTALLATION OF HAY BALES AND SEDIMENT SILT FENCES.
- MULCHING  
ALL AREA SHALL BE CONSIDERED TO BE DENuded UNTIL AREAS OF FUTURE LOAM AND SEED HAVE BEEN LOAMED, SEEDDED AND MULCHED. HAY AND STRAW MULCH SHALL BE APPLIED AT A RATE OF 150 LBS/1000 SF. OR 3 TONS/ACRE (TWICE THE NORMAL ACCEPTED RATE OF 75 LBS/1000 SF. OR 15 TONS/ACRE) AND SHALL BE PROPERLY ANCHORED. MULCH SHALL NOT BE SPREAD ON TOP OF SNOW. THE SNOW WILL BE REMOVED DOWN TO A ONE INCH DEPTH OR LESS PRIOR TO APPLICATION. AFTER EACH DAY OF FINAL GRADING, THE AREA WILL BE PROPERLY STABILIZED WITH ANCHORED HAY OR STRAW OR EROSION CONTROL MATTING. AN AREA SHALL BE CONSIDERED TO HAVE BEEN STABILIZED WHEN EXPOSED SURFACES HAVE BEEN MULCHED WITH STRAW OR HAY AT A RATE OF 150 LBS/1000 SF. (3 TONS/ACRE) AND ADEQUATELY ANCHORED SO THAT GROUND SURFACE IS NOT VISIBLE THROUGH THE MULCH.

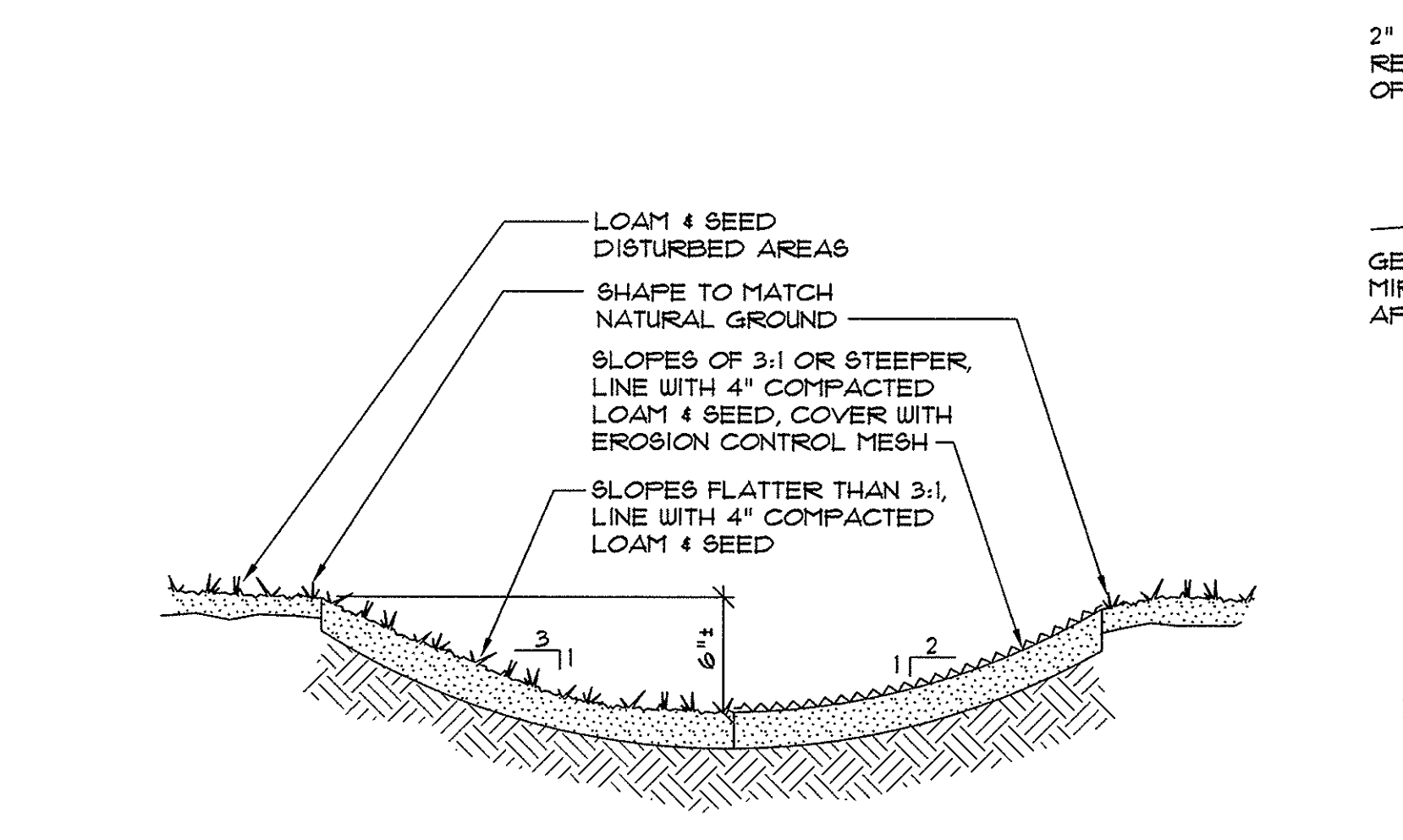
BETWEEN THE DATES OF NOVEMBER 1 AND APRIL 15, ALL MULCH SHALL BE ANCHORED BY EITHER PEG AND NETTING, ASPHALT EMULSION CHEMICAL TACK, OR WOOD CELLULOSE FIBER WHEN GROUND SURFACE IS NOT VISIBLE THROUGH THE MULCH THEN COVER IS SUFFICIENT. AFTER NOVEMBER 1 MULCH AND ANCHORING OF ALL BARE SOIL SHALL OCCUR AT THE END OF EACH FINAL GRADING WORK DAY.

- MULCHING ON SLOPES AND DITCHES  
SLOPES SHALL NOT BE LEFT EXPOSED FOR ANY EXTENDED TIME OF WORK SUSPENSION UNLESS FULLY MULCHED AND ANCHORED WITH PEG AND NETTING OR WITH EROSION CONTROL BLANKETS. MULCHING SHALL BE APPLIED AT A RATE OF 230 LBS/1000 SF. ON ALL SLOPES GREATER THAN 8%. MULCH NETTING SHALL BE USED TO ANCHOR MULCH IN ALL DRAINAGE WAYS WITH A SLOPE GREATER THAN 8% FOR SLOPES EXPOSED TO DIRECT WINDS AND FOR ALL OTHER SLOPES GREATER THAN 8%. EROSION CONTROL BLANKETS SHALL BE USED IN LIEU OF MULCH IN ALL DRAINAGE WAYS WITH SLOPE GREATER THAN 8%. EROSION CONTROL MIX CAN BE USED AS A SUBSTITUTE FOR EROSION CONTROL BLANKETS ON ALL SLOPES EXCEPT DITCHES.
- SEEDING  
BETWEEN THE DATES OF OCTOBER 15 AND APRIL 1, LOAM OR SEED WILL NOT BE REQUIRED. DURING PERIODS OF ABOVE FREEZING TEMPERATURES FINISHED AREAS SHALL BE FINE GRADED AND EITHER PROTECTED WITH MULCH OR TEMPORARILY SEEDDED AND MULCHED UNTIL SUCH TIME AS THE FINAL TREATMENT CAN BE APPLIED. AFTER NOVEMBER 1 IF THE EXPOSED AREA HAS BEEN LOAMED AND FINAL GRADED WITH A UNIFORM SURFACE, THEN THE AREA MAY BE DORMANT SEEDDED AT A RATE OF 3 TIMES HIGHER THAN SPECIFIED FOR PERMANENT SEED AND THEN MULCHED. DORMANT SEEDING MAY BE PLACED PRIOR TO THE PLACEMENT OF MULCH AND FABRIC NETTING ANCHORED WITH STAPLES. IF DORMANT SEEDING IS USED FOR THE SITE, ALL DISTURBED AREAS SHALL RECEIVE 4" OF LOAM AND BE SEEDDED AT AN APPLICATION RATE OF 5 LBS/1000 SF. ALL AREAS SEEDDED DURING THE WINTER WILL BE INSPECTED IN THE SPRING FOR ADEQUATE CATCH. ALL AREAS INSUFFICIENTLY VEGETATED (LESS THAN 15% CATCH) SHALL BE REVEGETATED BY REPLACING LOAM, SEED AND MULCH. IF DORMANT SEEDING IS NOT USED FOR THE SITE, ALL AREAS DISTURBED IN THE WINTER SHALL BE VEGETATED IN THE SPRING.

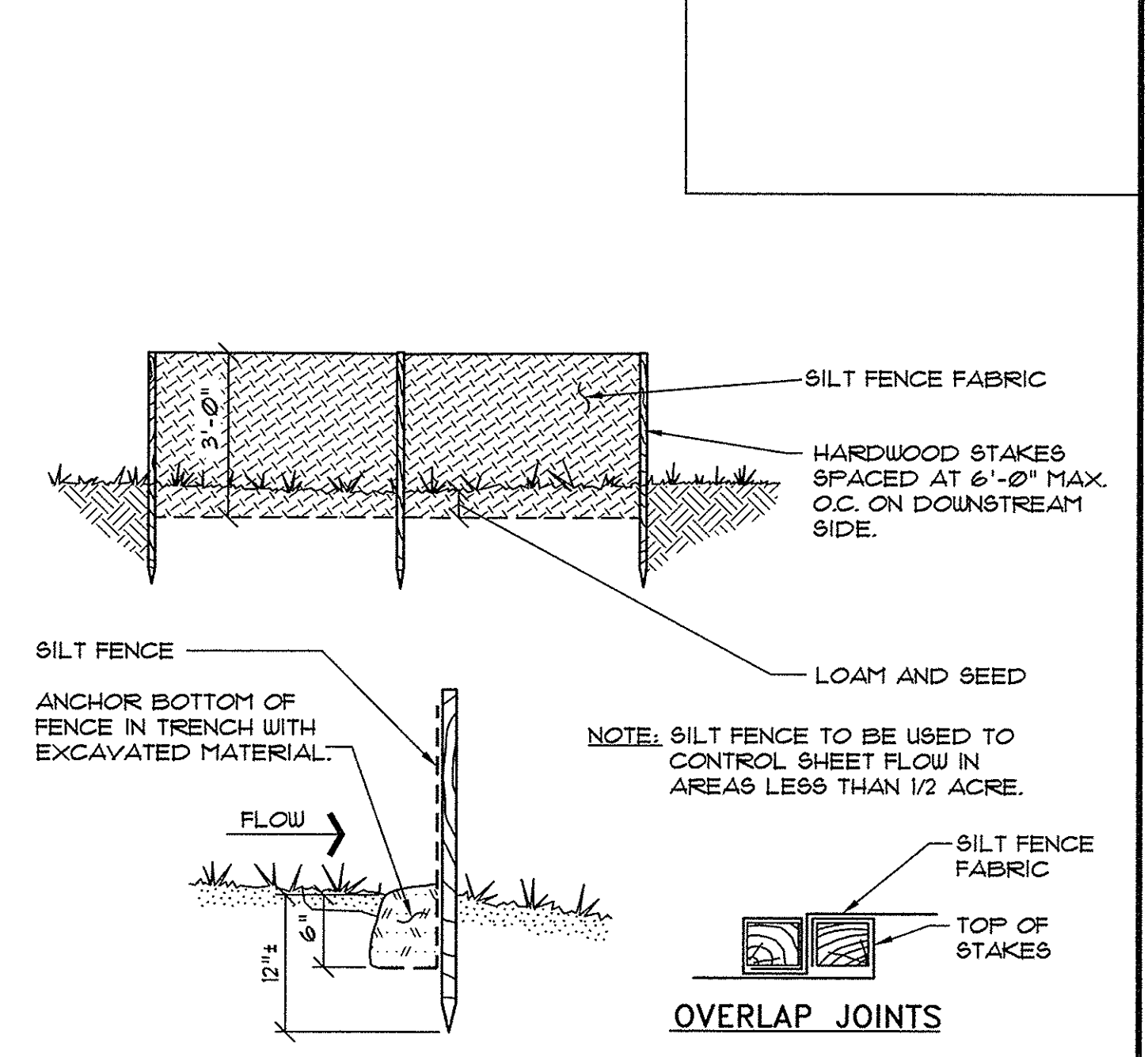
- TRENCH DEWATERING AND TEMPORARY STREAM DIVERSION  
WATER FROM CONSTRUCTION TRENCH DEWATERING OR TEMPORARY STREAM DIVERSION WILL PASS FIRST THROUGH A FILTER BAG OR SECONDARY CONTAINMENT STRUCTURE (E.G. HAY BALE OR EROSION CONTROL MIX LINED POOL) PRIOR TO DISCHARGE. THE DISCHARGE SITE SHALL BE SELECTED TO AVOID FLOODING, ICING, AND SEDIMENT DISCHARGES TO A PROTECTED RESOURCE. IN NO CASE SHALL THE FILTER BAG OR CONTAINMENT STRUCTURE BE LOCATED WITHIN 100 FEET OF A PROTECTED NATURAL RESOURCE.
- INSPECTION AND MONITORING  
MAINTENANCE MEASURES SHALL BE APPLIED AS NEEDED DURING THE ENTIRE CONSTRUCTION SEASON. 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 DAMAGED AND/OR UNESTABLISHED SPOTS. ESTABLISHED VEGETATIVE COVER MEANS A MINIMUM OF 85 TO 90% OF AREAS VEGETATED WITH VIGOROUS GROWTH.



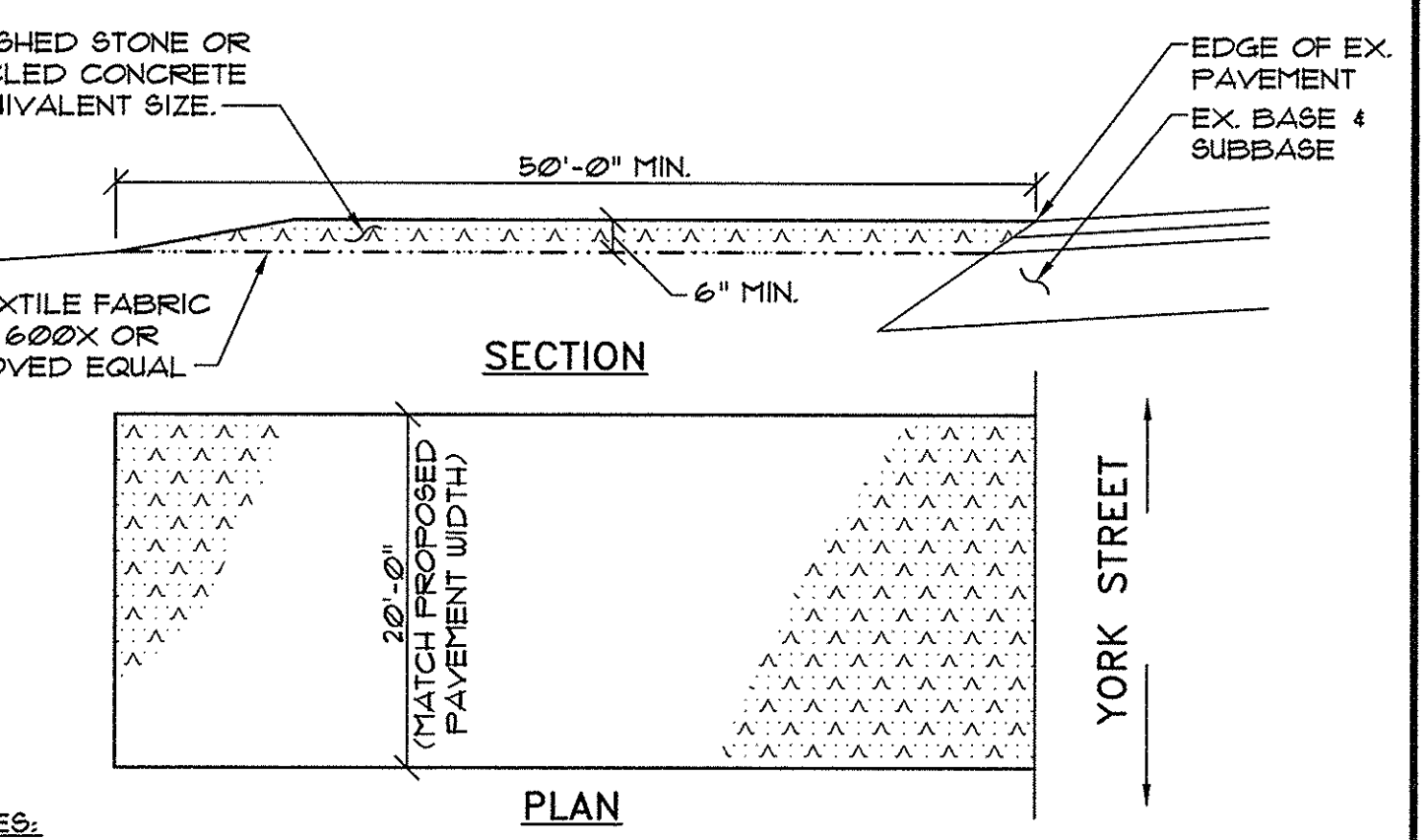
2 EROSION CONTROL MESH INSTALLATION DETAIL NOT TO SCALE



4 GRASS DITCH SECTION NOT TO SCALE

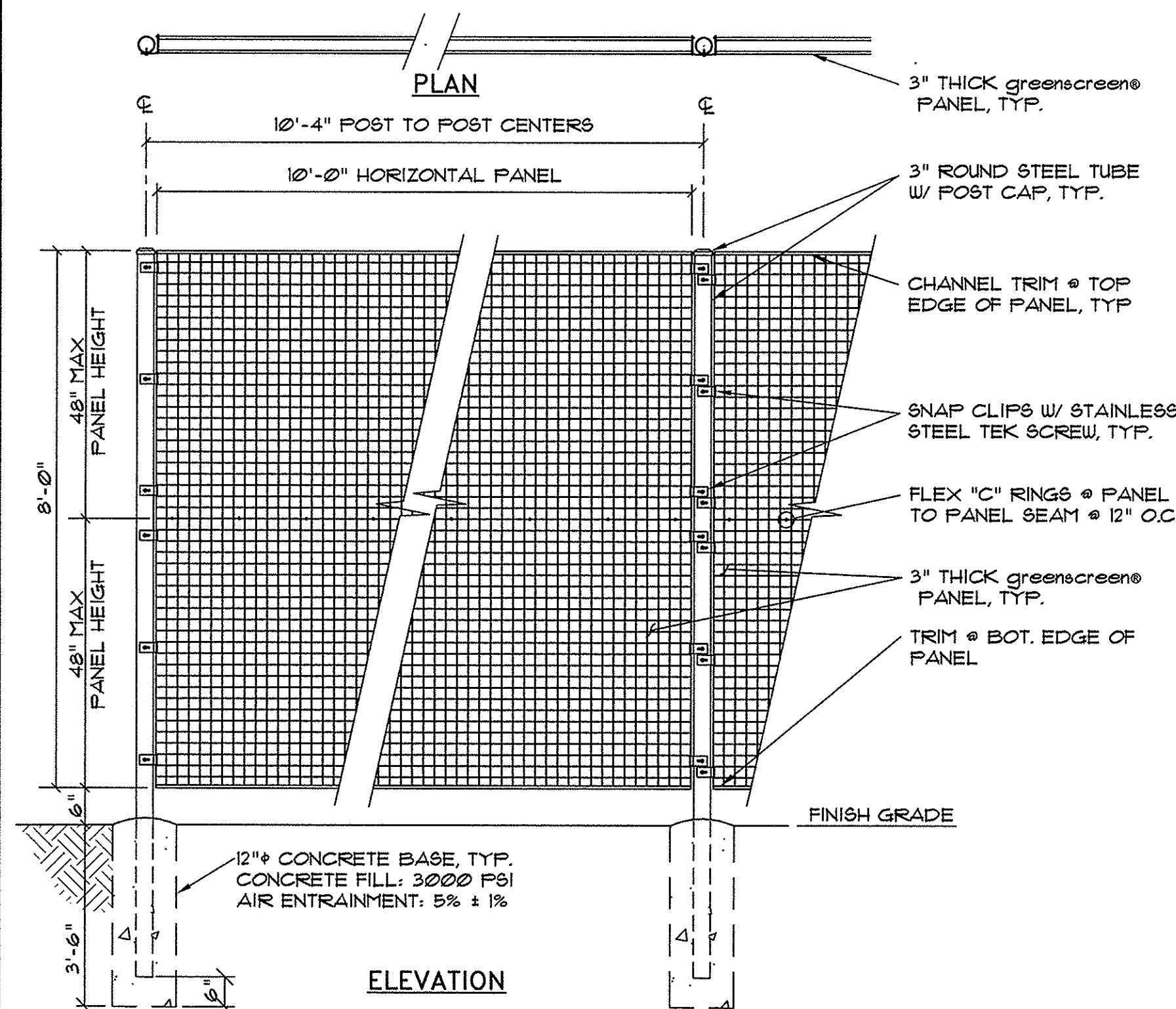


1 SILT FENCE DETAIL NOT TO SCALE



3 STABILIZED CONSTRUCTION ENTRANCE DETAIL NOT TO SCALE

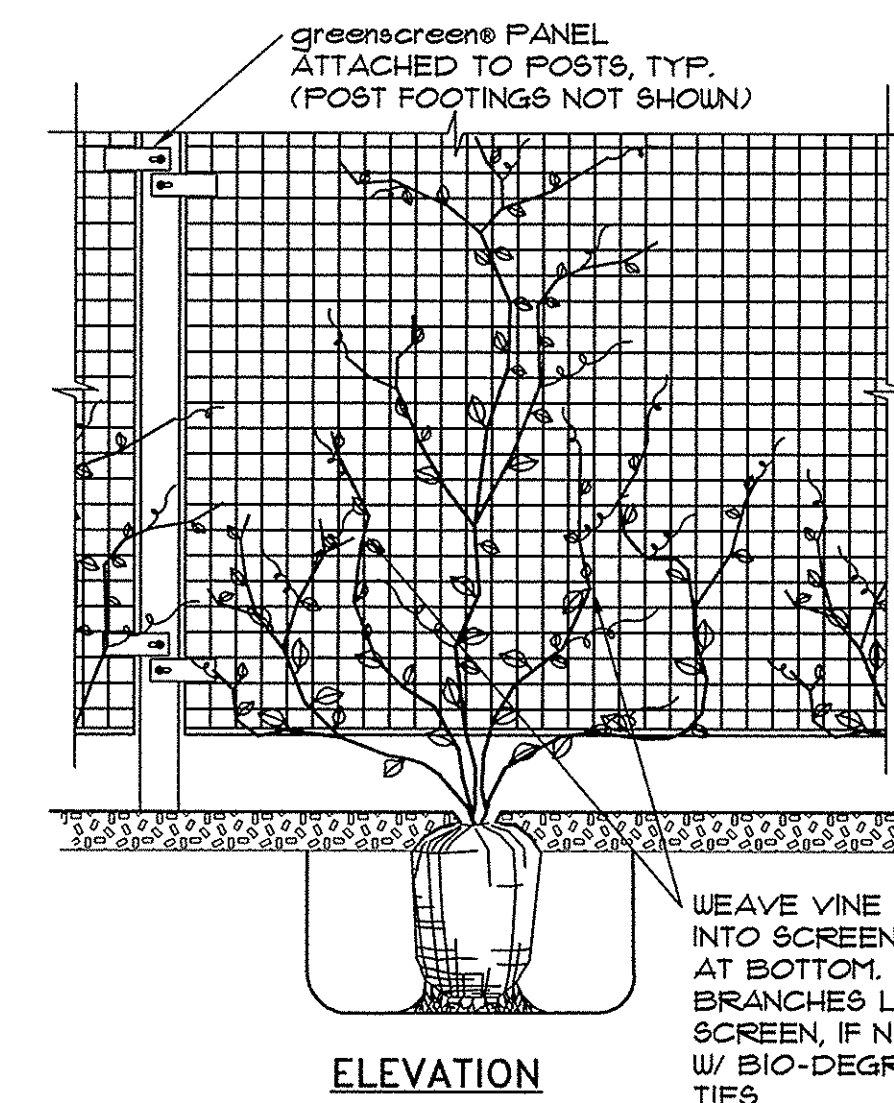
REV.	DATE	DESCRIPTION
1	10/1/13	SUBMITTED FOR FINAL APPROVAL
133 YORK, LLC 110 MARGINAL WAY, SUITE 292, PORTLAND		
133 YORK STREET CONDOMINIUMS 133 YORK STREET, PORTLAND ME		
PINKHAM & GREER CONSULTING ENGINEERS 28 VANNAH AVENUE PORTLAND, MAINE		
SCALE:	AS SHOWN	DRN BY: JDC
DATE:	JULY 23, 2013	DESG BY: TSG
PROJECT:	13105	CHK BY: JSL
		C2.1



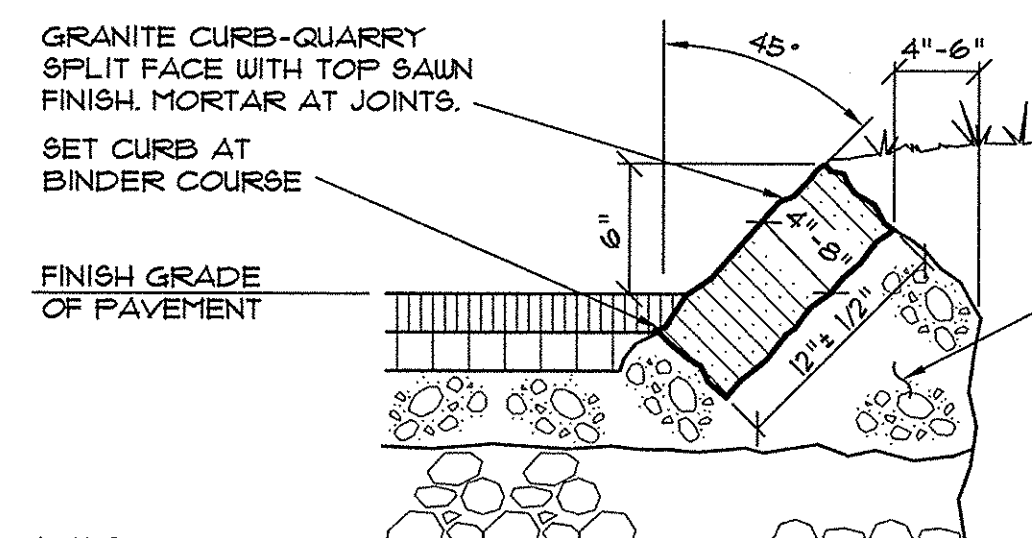
**9 FREESTANDING SCREEN DETAILS**  
NOT TO SCALE

**greenscreen® NOTES**

1. VERIFY PANEL SPAN AND CLIP SPACING FOR ALL INSTALLATIONS WITH MANUFACTURER.
2. CHOOSING THE APPROPRIATE PLANT MATERIAL FOR greenscreen® REQUIRES CAREFUL CONSIDERATION OF CLIMATE ZONE, SUN AND WIND EXPOSURE, SOIL TYPE, WATER AND NUTRIENT NEEDS, AND DESIRED VISUAL EFFECT.
3. greenscreen® RECOMMENDS THAT A LANDSCAPE ARCHITECT, LANDSCAPE DESIGNER, OR A HORTICULTURIST BE CONSULTED FOR EACH SPECIFIC APPLICATION.
4. PLANT VINES PER LANDSCAPE PLANS. TYPICAL SPACING VARIES FROM 1' TO 4' O.C. DEPENDING UPON VINE SPECIES AND CONTAINER SIZE.
5. IRRIGATION WILL BE REQUIRED IN MOST CLIMATE ZONES. INSTALL PER LANDSCAPE PLANS.
6. greenscreen® DOES NOT SUPPLY PLANT MATERIAL.

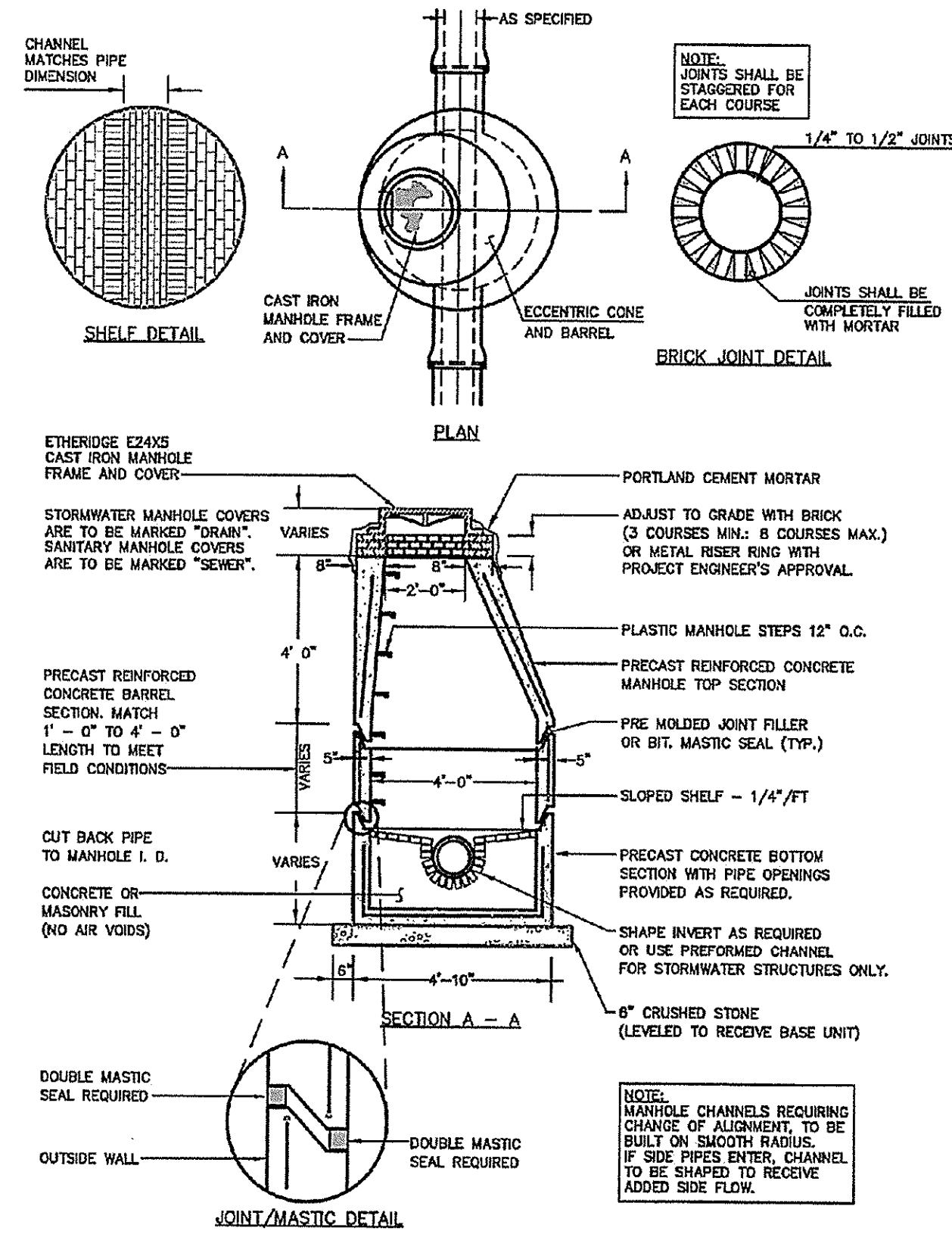


**10 greenscreen® VINE PLANTING DETAIL**  
NOT TO SCALE

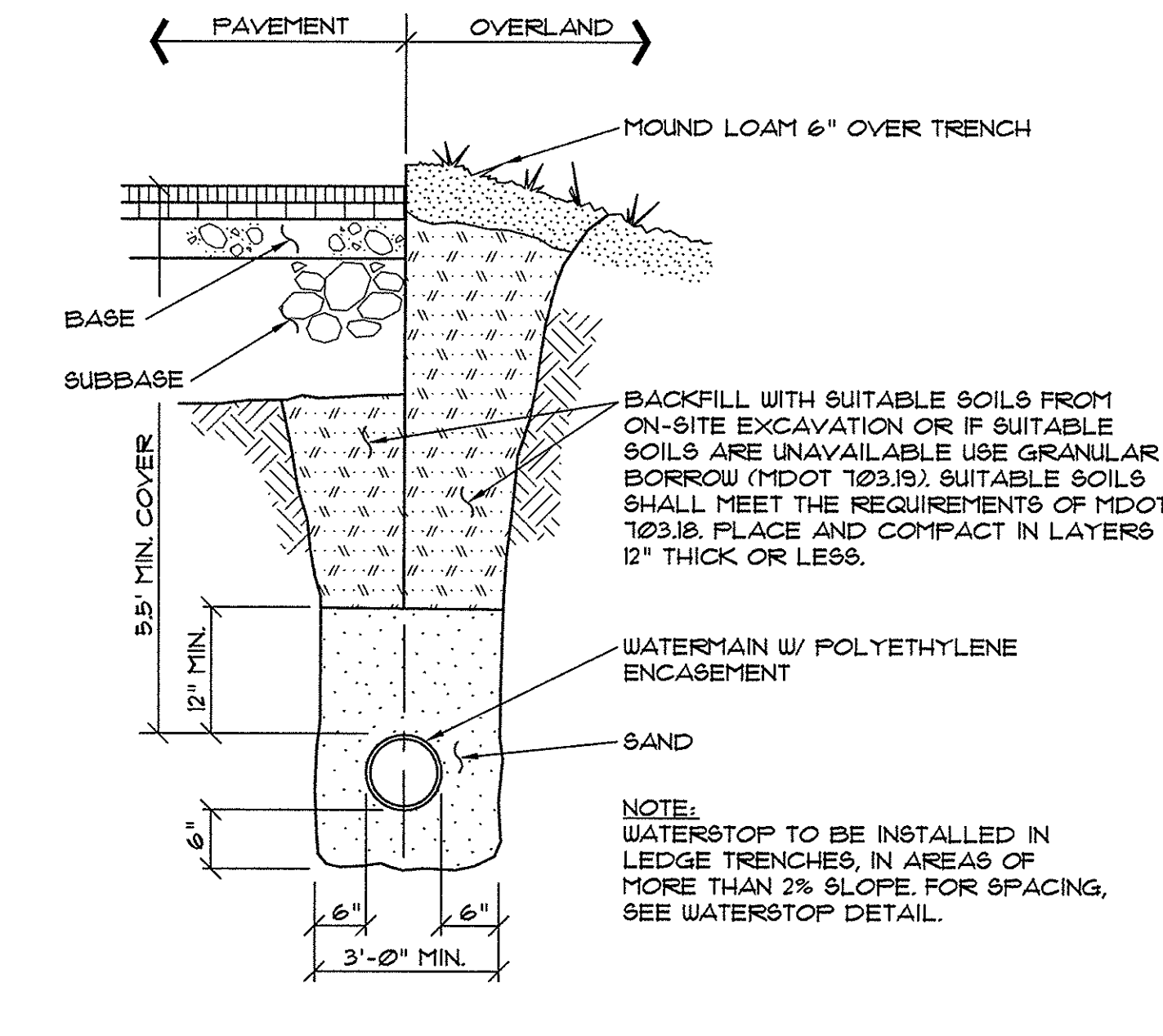


- NOTES:**
1. MINIMUM LENGTH OF THE CURB SECTIONS SHALL BE 3'-0".
  2. FOR ALL CURBS WITH RADIUS LESS THAN 15' INSTALL STONES CUT TO THE RADIUS REQUIRED (NOT STRAIGHT SECTIONS).

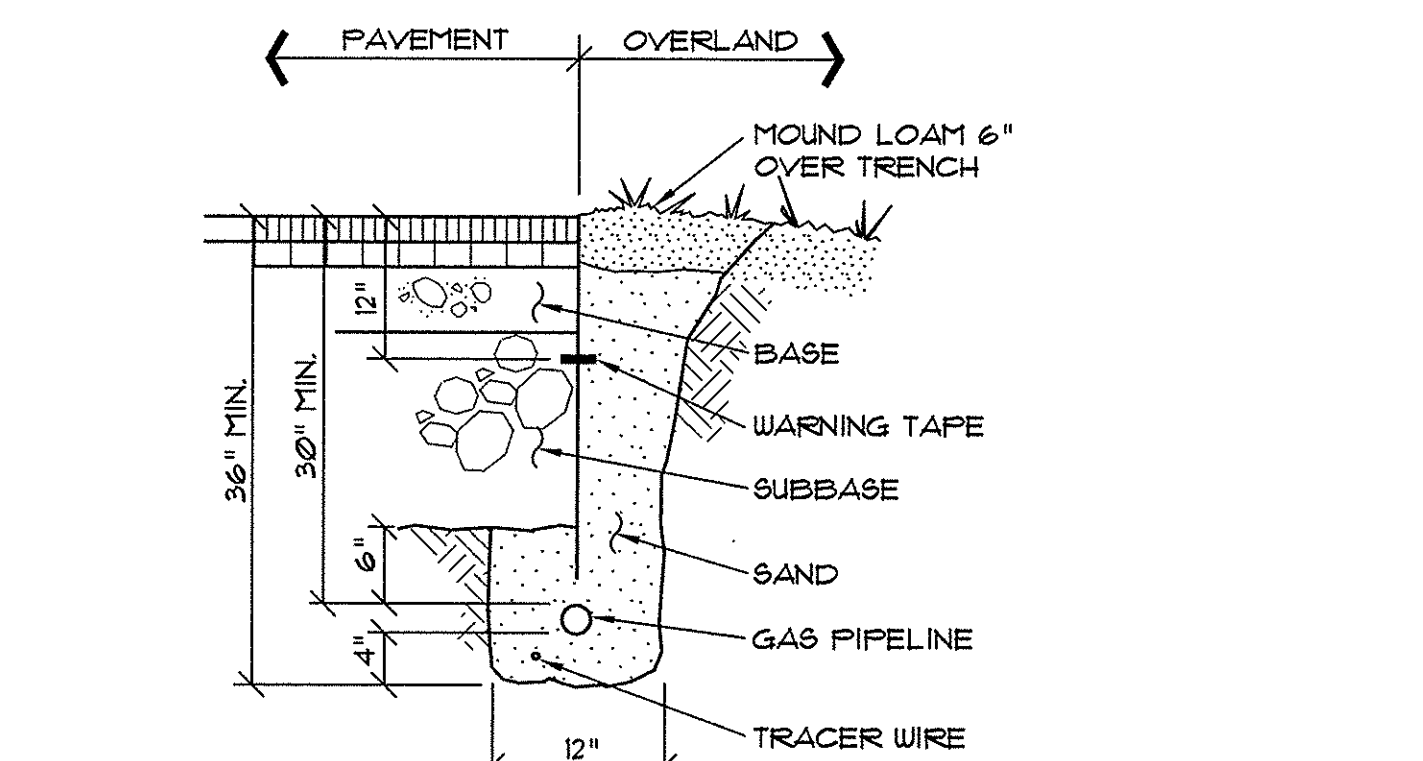
**11 SLOPED GRANITE CURB SECTION ON-SITE**  
NOT TO SCALE



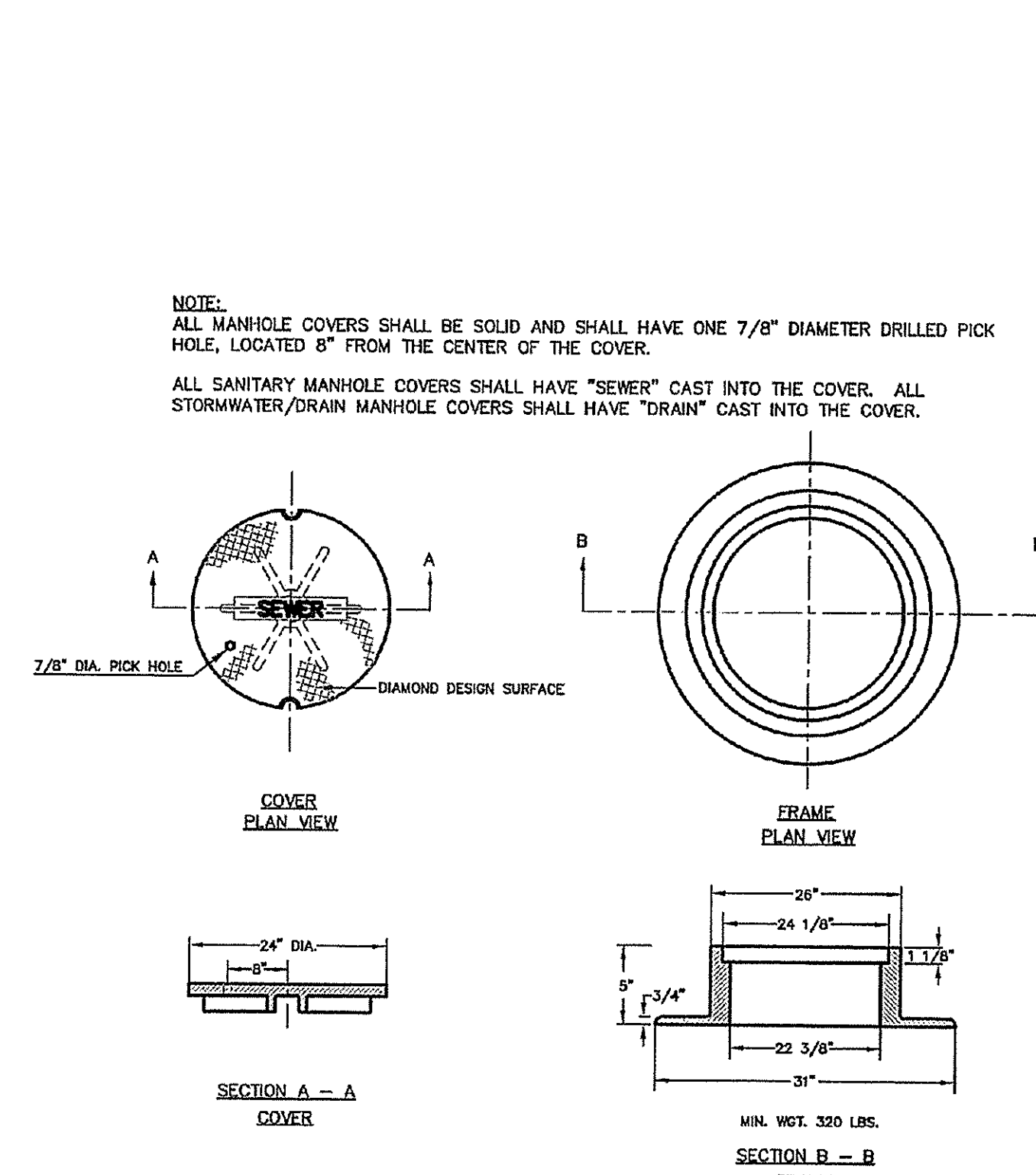
**5 PRECAST CONCRETE MANHOLE (II-1)**  
NOT TO SCALE



**6 TYPICAL WATER MAIN SECTION ON-SITE**  
NOT TO SCALE



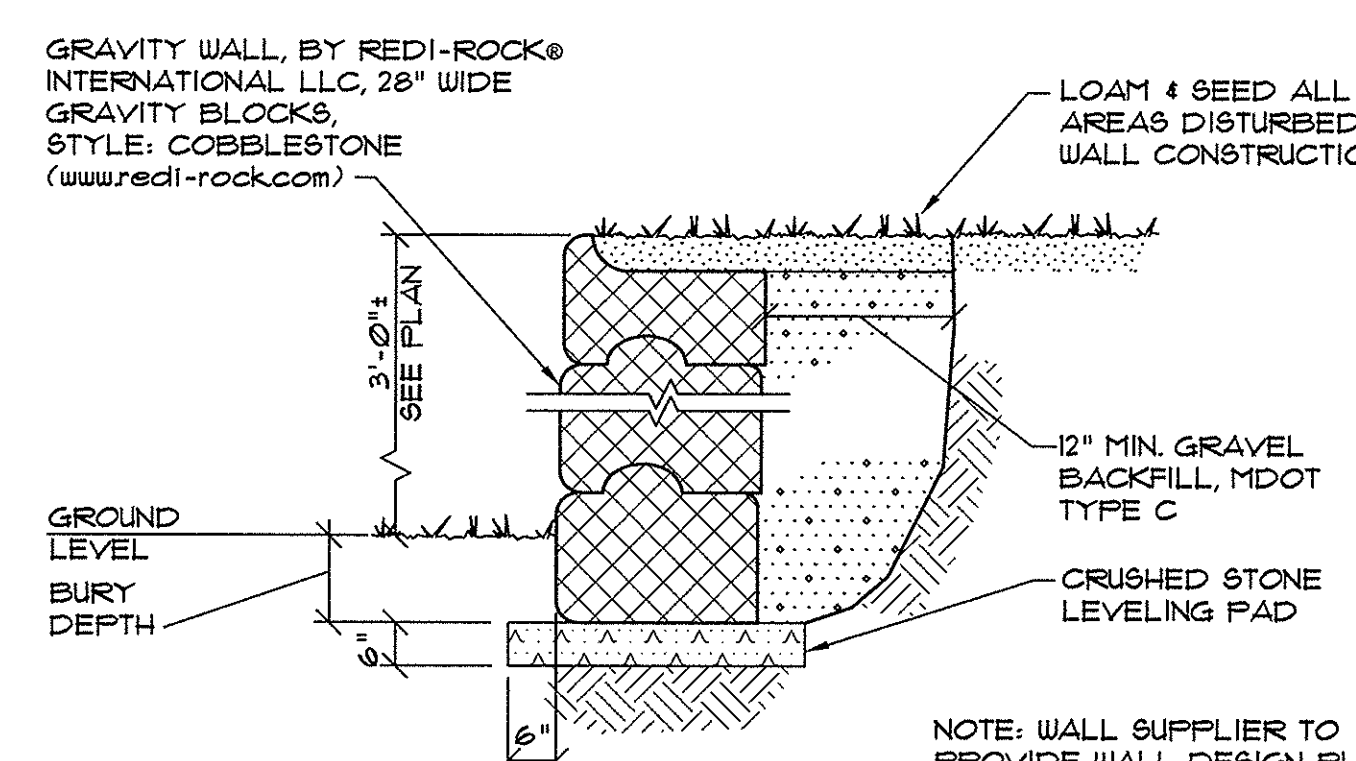
**8 GAS PIPING TRENCH SECTION**  
NOT TO SCALE



**4 CONCRETE IRON MANHOLE COVER & FRAME (II-5)**  
NOT TO SCALE

**POLYETHYLENE ENCASEMENT GENERAL SPECIFICATIONS**

1. TUBE TYPE POLYETHYLENE ENCASEMENT SHALL BE INSTALLED ON ALL DUCTILE IRON PIPE AND FITTINGS IN ACCORDANCE WITH AWWA STANDARD C105 - LATEST REVISION, METHOD A.
2. POLYETHYLENE ENCASEMENT SHALL BE EITHER LINEAR LOW-DENSITY POLYETHYLENE (LLDPE) FILM WITH A MINIMUM THICKNESS OF 8-MIL OR HIGH-DENSITY, CROSS-LAMINATED POLYETHYLENE (HDCLPE) FILM WITH A MINIMUM THICKNESS OF 4-MIL.
3. CIRCUMFERENTIAL WRAPS OF TAPE OR PLASTIC TIE STRAPS SHALL BE PLACED AT 2-FT. INTERVALS ALONG THE BARREL OF THE PIPE.
4. THE POLYETHYLENE ENCASEMENT SHALL PREVENT CONTACT BETWEEN THE PIPE AND THE SURROUNDING BACKFILL AND BEDDING MATERIAL BUT IS NOT INTENDED TO BE A COMPLETELY AIRTIGHT OR WATERTIGHT ENCLOSURE. ALL LUMPS OF CLAY, MUD, CINDERS, AND SO FORTH, ON THE PIPE SURFACE SHALL BE REMOVED PRIOR TO INSTALLATION OF THE POLYETHYLENE ENCASEMENT. DURING INSTALLATION, CARE SHALL BE EXERCISED TO PREVENT SOIL OR EMBANKMENT MATERIAL FROM BECOMING TRAPPED BETWEEN THE PIPE AND THE POLYETHYLENE.
5. THE POLYETHYLENE FILM SHALL BE FITTED TO THE CONTOUR OF THE PIPE TO EFFECT A SNUG, BUT NOT TIGHT, ENCASEMENT WITH MINIMUM SPACE BETWEEN THE POLYETHYLENE AND THE PIPE. SUFFICIENT SLACK SHALL BE PROVIDED IN CONTOURING TO PREVENT STRETCHING THE POLYETHYLENE WHERE IT BRIDGES IRREGULAR SURFACES, SUCH AS BELL-SPIGOT INTERFACES, BOLTED JOINTS, OR FITTINGS, AND TO PREVENT DAMAGE TO THE POLYETHYLENE DUE TO BACKFILLING OPERATIONS. OVERLAPS AND ENDS SHALL BE SECURED WITH ADHESIVE TAPE, STRING, PLASTIC TIE STRAPS, OR ANY OTHER MATERIAL CAPABLE OF HOLDING THE POLYETHYLENE ENCASEMENT IN PLACE UNTIL BACKFILLING OPERATIONS ARE COMPLETE.
6. THREE LAYERS OF POLYETHYLENE ADHESIVE TAPE SHALL BE WRAPPED AROUND ANY POLYWRAPPED PIPE WHERE A TAPPING MACHINE WILL BE PLACED. ALL COPPER SERVICES CONNECTED TO A PIPE WRAPPED IN POLYETHYLENE ENCASEMENT SHALL BE WRAPPED WITHIN THREE FEET OF THE PIPE.



**7 MODULAR BLOCK WALL**  
NOT TO SCALE

**UNDERGROUND UTILITIES WARNING TAPE**

IDENTIFICATION TAPE TO BE INSTALLED ABOVE ALL NEW UNDERGROUND UTILITIES AND ABOVE ANY EXISTING UTILITIES THAT MAY BE EXPOSED BY THIS CONSTRUCTION.

DETECTABLE UNDERGROUND MARKING TAPE TO BE PERMANENT, BRIGHT-COLORED, CONTINUOUS-PRINTED PLASTICIZED ALUMINUM TAPE, INTENDED FOR DIRECT-BURIAL SERVICE NOT LESS THAN 3" WIDE x 3 MILS THICK. PROVIDE TAPE WITH BLACK PRINTING IDENTIFYING THE UTILITY. DETECTABLE WARNING TAPE REQUIRED OVER ALL WATER, SEWER, DRAINAGE, OR GAS UTILITIES. TAPE TO BE TERRA TAPE BY REEF INDUSTRIES, INC., www.reefindustries.com, OR EQUAL.

**AFWA UNIFORM COLOR CODE:**

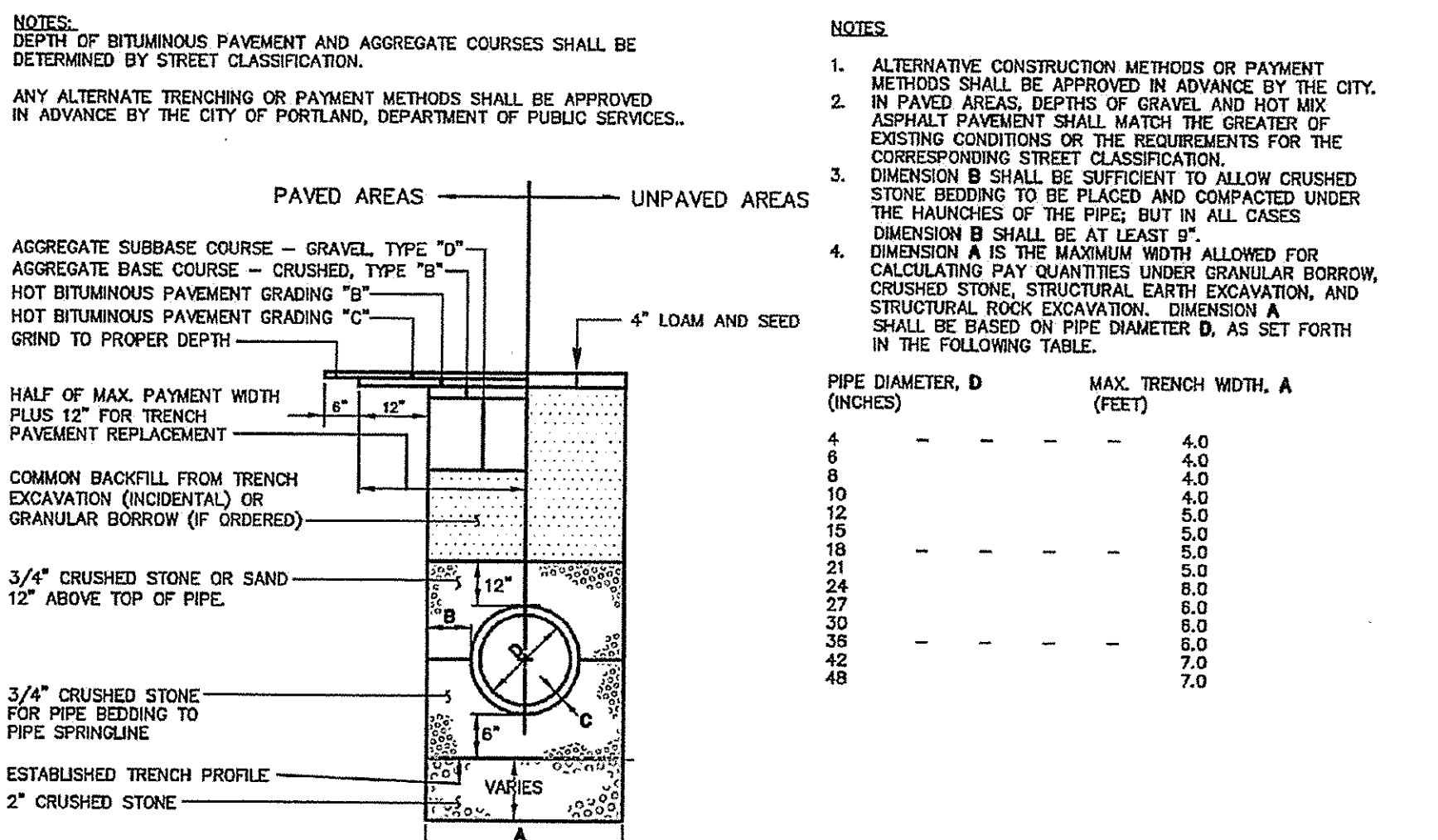
WHITE	PROPOSED EXCAVATION
PINK	TEMPORARY SURVEY MARKINGS
RED	ELECTRIC POWER LINES, CABLES, CONDUIT AND LIGHTING CABLES
YELLOW	GAS, OIL, STEAM, PETROLEUM OR GASEOUS MATERIALS
ORANGE	COMMUNICATION, ALARM OR SIGNAL LINES, CABLES OR CONDUIT
BLUE	POTABLE WATER
PURPLE	RECLAIMED WATER, IRRIGATION AND SLURRY LINES
GREEN	SEWERS AND DRAIN LINES

**1 UNDERGROUND UTILITIES WARNING TAPE**

**GENERAL NOTES FOR MANHOLES AND CATCH BASINS**

1. ALL CONCRETE SHALL HAVE A MINIMUM ULTIMATE COMPRESSIVE STRENGTH OF 4000 PSI PER SQ. INCH AT THE END OF 28 DAYS, UNLESS OTHERWISE NOTED.
2. MANHOLES MAY BE CONSTRUCTED OF PRECAST REINFORCED CONCRETE, OR CAST IN PLACE.
3. PRECAST REINFORCED CONE BARREL MANUFACTURED PER ASTM SPEC. C-478.
4. ALL STORM AND SEWER MANHOLE COVERS SHALL BE SOLID AND SHALL HAVE ONE 7/8" DIAMETER DRILLED PICK HOLE LOCATED 8" FROM THE CENTER OF THE COVER.
5. ALL SANITARY MANHOLE COVERS SHALL HAVE "SEWER" CAST INTO THE COVER. ALL STORMWATER/DRAIN MANHOLE COVERS SHALL HAVE "DRAIN" CAST INTO THE COVER.
6. ALL MANHOLE RISERS SHALL BE ETHERIDGE 24" OR APPROVED EQUAL.
7. SEWER BRICK SHALL CONFORM TO ASTM SPEC. DESIGNATE ON C-32-63, GRADE MA AND SA.
8. ALL SANITARY MANHOLES SHALL HAVE A WATERPROOFING COATING APPLIED TO THE EXTERIOR SURFACE.
9. CATCH BASIN FRAMES FOR TYPE A4 CATCH BASIN CURB INLETS SHALL BE ETHERIDGE DRSA OR APPROVED EQUAL.
10. CASTINGS SHALL CONFORM TO ASTM DESIGNATION A48-CLASS 35.
11. EXISTING MANHOLES, CATCH BASINS, FRAMES, AND COVERS SHALL BE SALVAGED BY THE CONTRACTOR, AND SHALL REMAIN THE PROPERTY OF THE CITY OF PORTLAND.
12. ALL CATCH BASIN OUTLETS SHALL BE INSTALLED WITH A GASO TRAP. SEE FIGURE II-09.

**2 GENERAL NOTES FOR MANHOLES AND CATCH BASINS (II-4)**



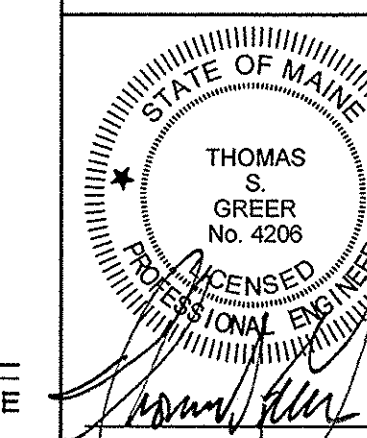
**3 TYPICAL PIPE TRENCH INSTALLATION (11-12)**  
NOT TO SCALE

REV.	DATE	DESCRIPTION
2	10/1/13	SUBMITTED FOR FINAL APPROVAL
1	9/3/13	REV'D PER STAFF REVIEW COMMENTS

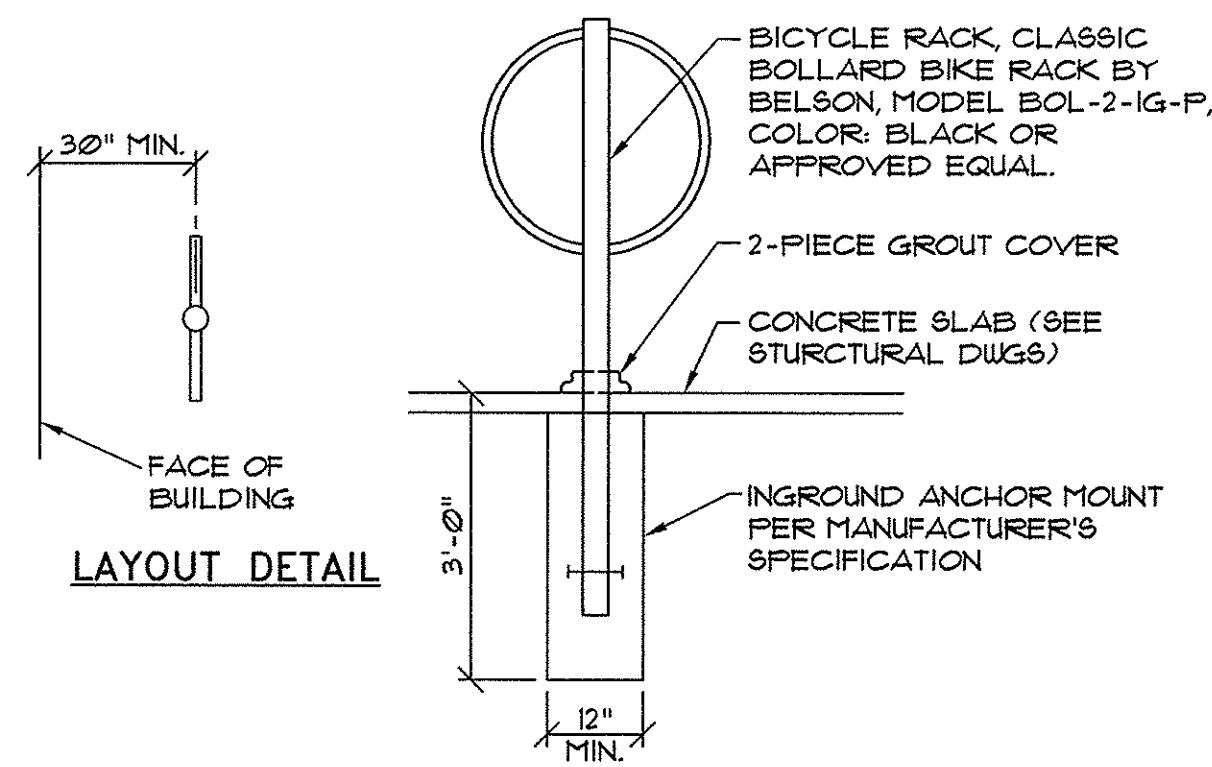
133 YORK, LLC  
110 MARGINAL WAY, SUITE 292, PORTLAND  
133 YORK STREET CONDOMINIUMS  
133 YORK STREET, PORTLAND ME

**DETAILS**

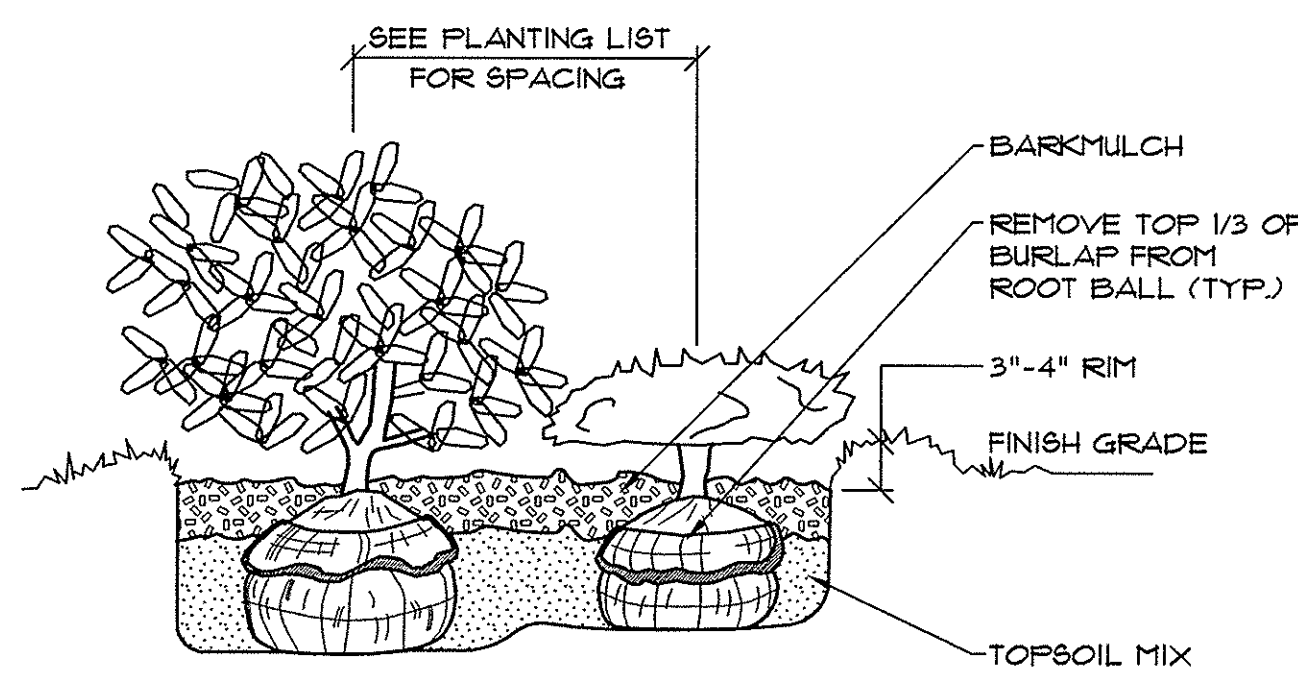
SCALE: AS SHOWN	DRN BY: JDC
DATE: JULY 23, 2013	DESG BY: TSG
PROJECT: 13105	CHK BY: TSG



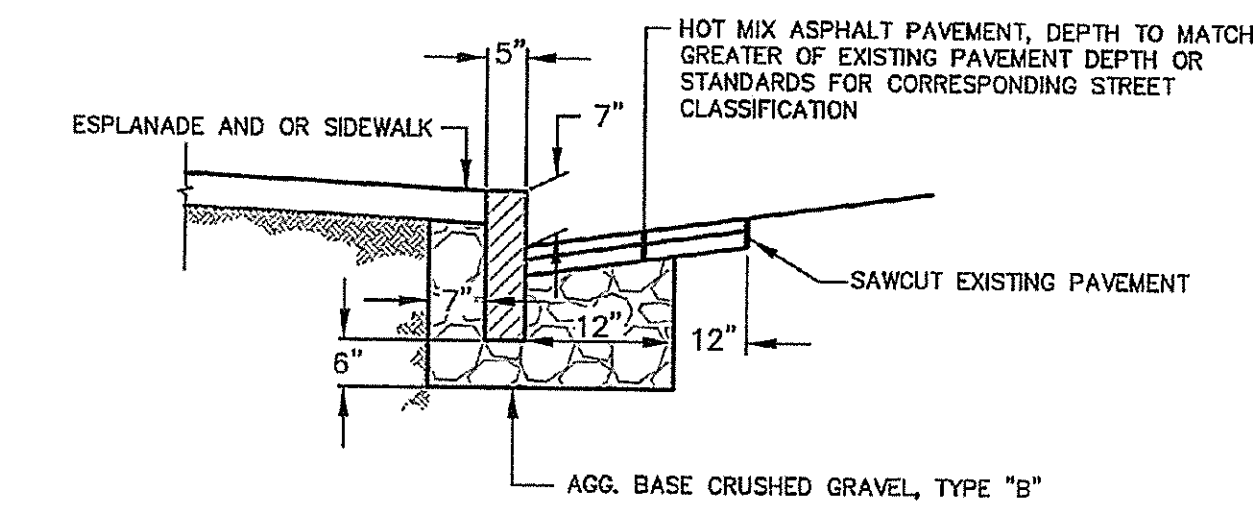
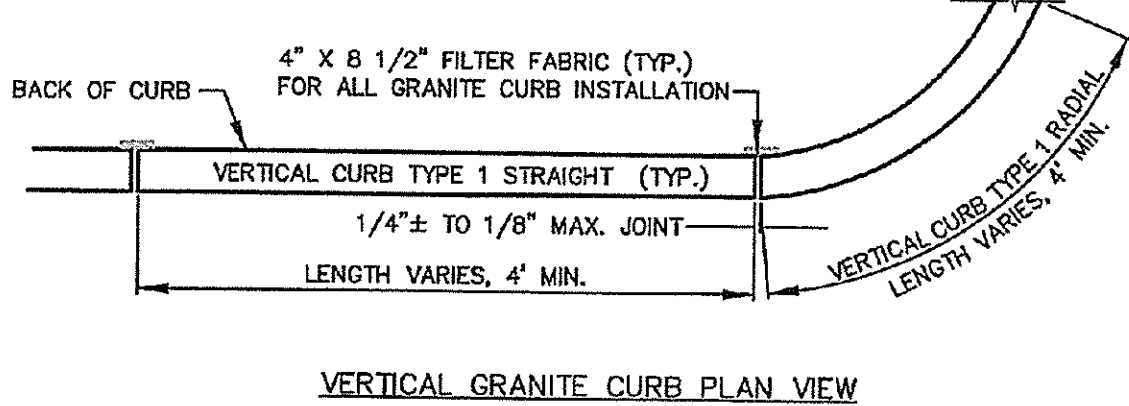
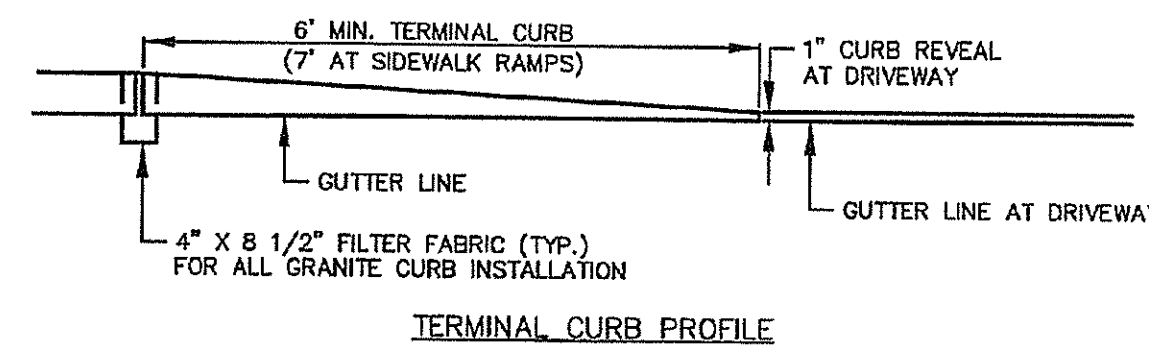
C2.2



9 BIKE RACK DETAIL



7 SHRUB PLANTING DETAIL

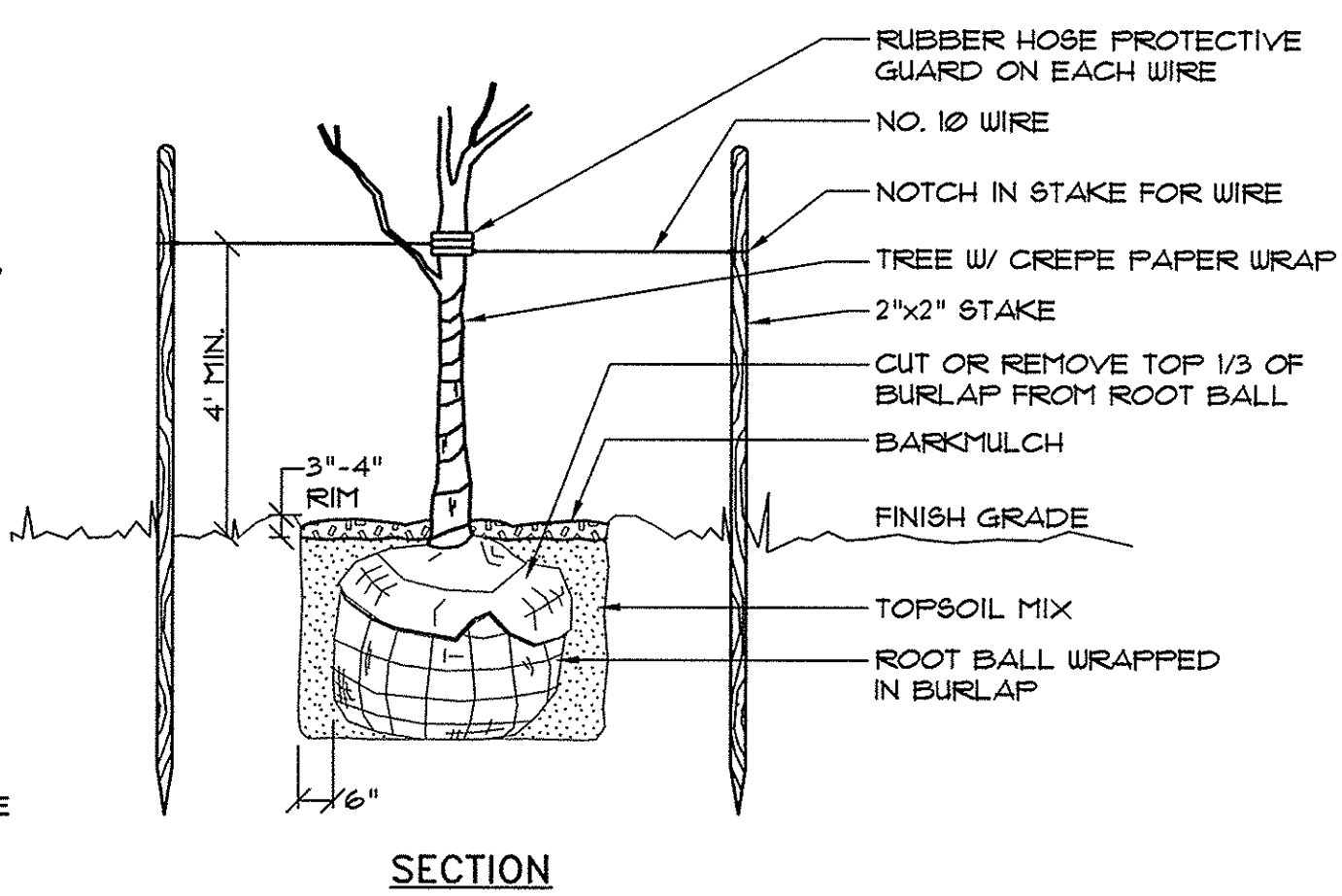
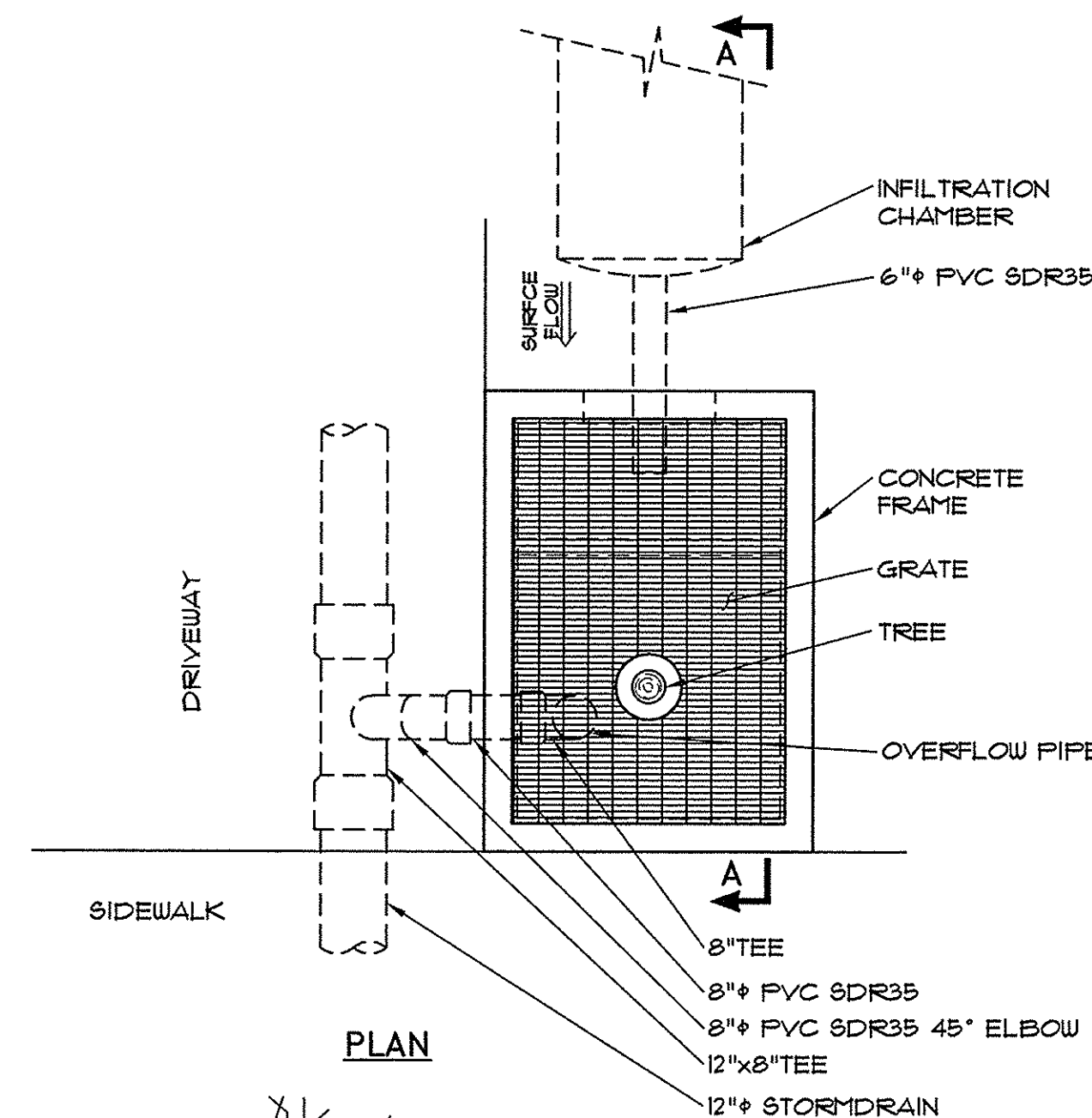


4 VERTICAL GRANITE CURB INSTALLATION IN EXISTING STREET (I-17)

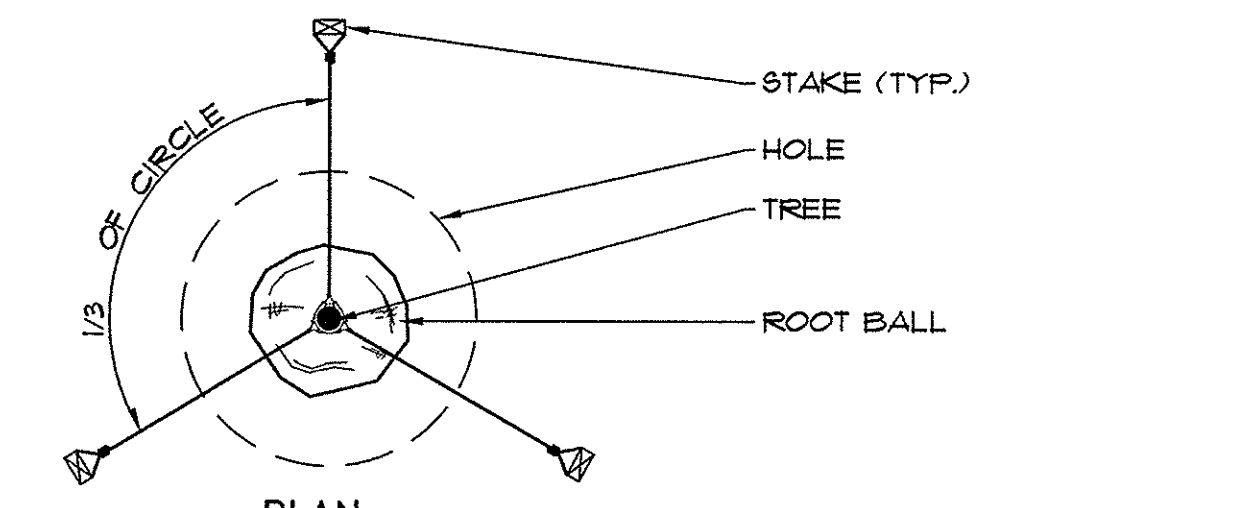
CONSTRUCTION	USE
1 1/4" HMA MDOT 9.5mm 2 1/4" HMA MDOT 19.2mm 4" COMPACTED AGGREGATE BASE, MDOT 103.06(a) TYPE A 15" COMPACTED AGGREGATE SUBBASE, MDOT 103.06(b) TYPE D COMPACTED SUBGRADE	BITUMINOUS FULL DEPTH CONSTRUCTION
4" TOPSOIL, NO STONES OVER 3/4" DIA. GRANULAR MATERIAL IN FILL AREAS COMPACTED SUBGRADE	GRASS ALL DISTURBED AREAS
3" BARKMULCH PREPARED SUBGRADE	PLANT BED BARKMULCH

NOTES:  
1. HMA = HOT MIX ASPHALT.  
MDOT = MAINE DEPARTMENT OF TRANSPORTATION.  
2. ALL COURSE THICKNESS AFTER FINAL COMPACTION.

1 SCHEDULE OF SURFACE FINISHES ON-SITE



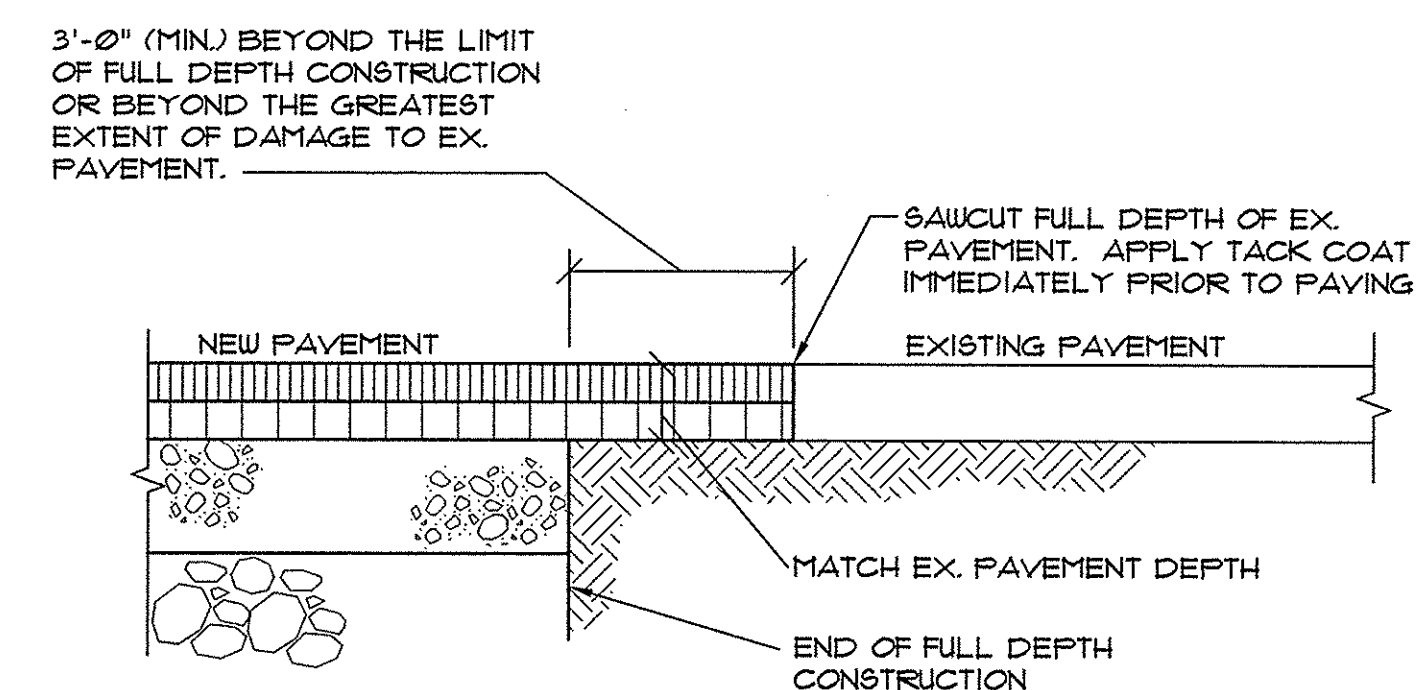
8 TREE PLANTING DETAIL



NOTE: TREES UNDER 8" DO NOT REQUIRE STAKING.

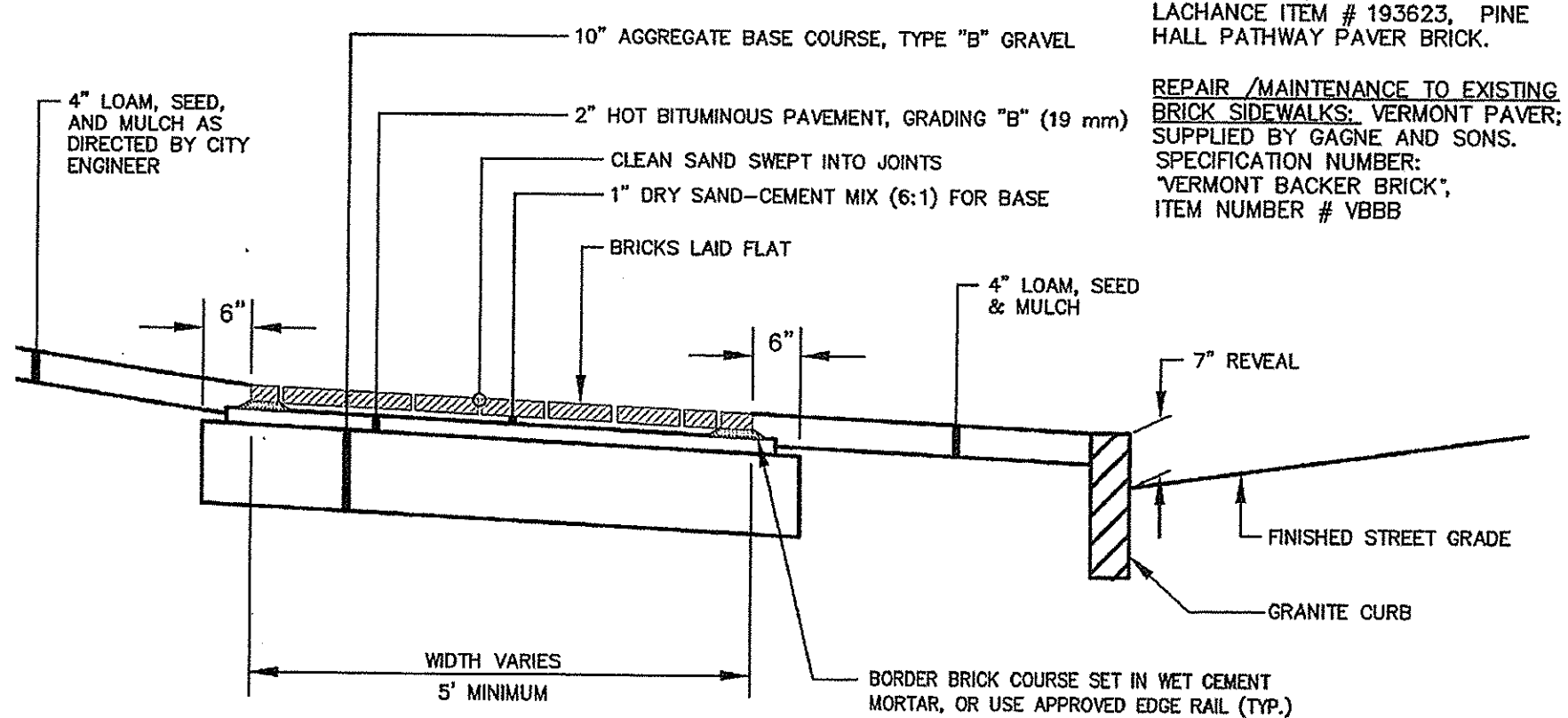
8 TREE PLANTING DETAIL

BRICKS TO BE USED:  
NEW CONSTRUCTION:  
4"x8" PINE HALL PATHWAY PAVEMENT BRICK; MFG. BY PINE HALL BRICK CO., MADISON, NORTH CAROLINA. LACHANCE ITEM # 193623, PINE HALL PATHWAY PAVEMENT BRICK.  
REPAIR / MAINTENANCE TO EXISTING BRICK SIDEWALKS, VERMONT PAVEMENT SUPPLIED BY GAGNE AND SONS. SPECIFICATION NUMBER: "VERMONT BACKER BRICK", ITEM NUMBER # VBBS

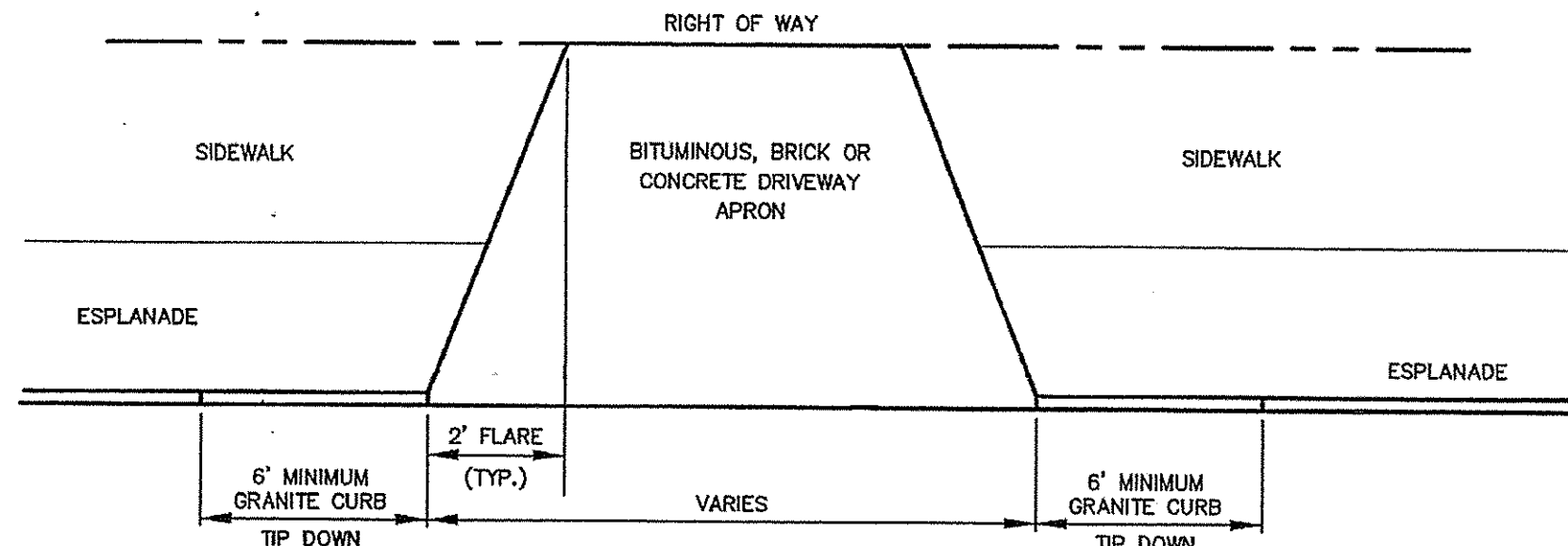


2 PAVEMENT CUTTING & MATCHING SECTION

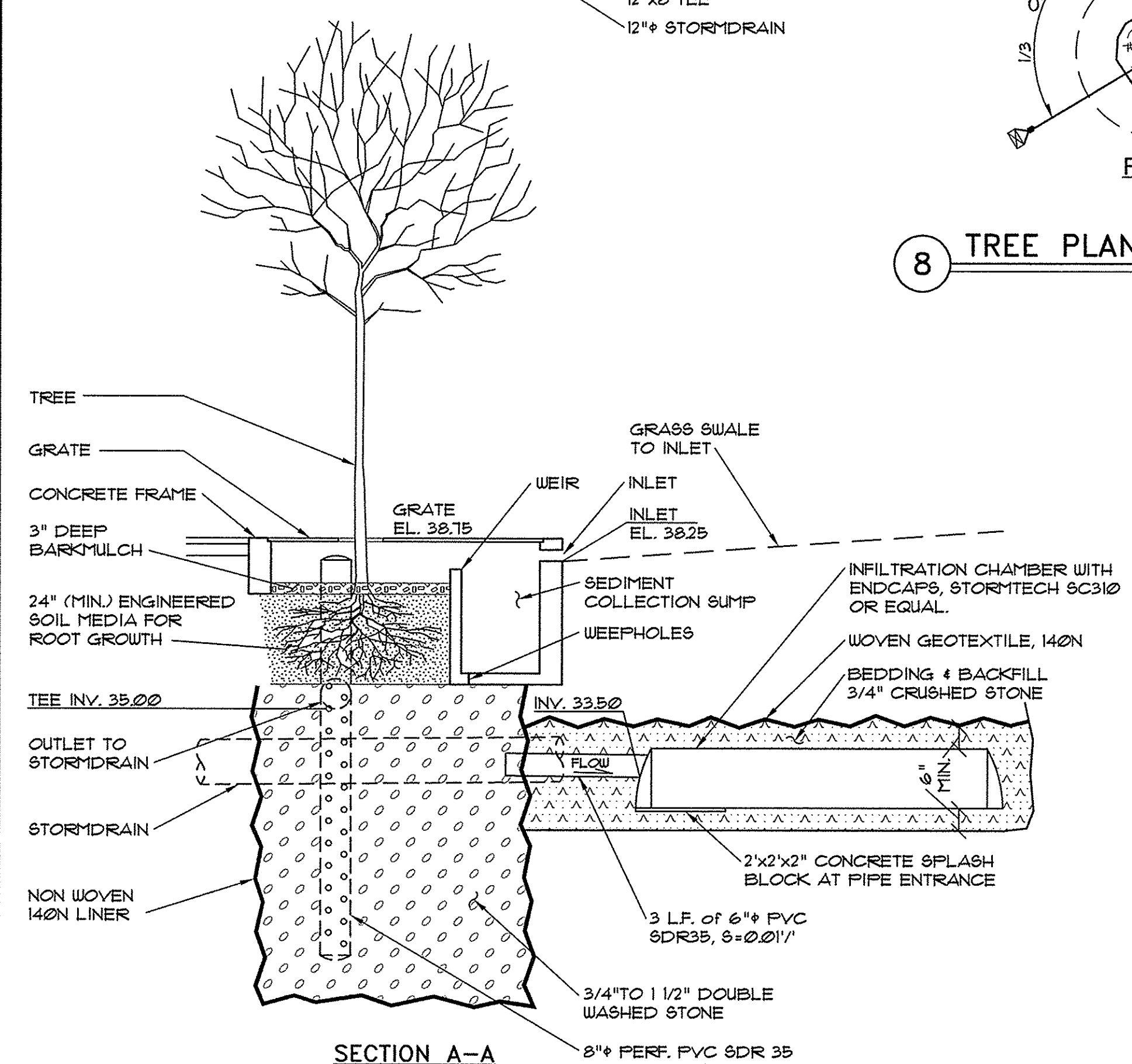
NOTE: MATCH GRADE OF EXISTING DRIVEWAY AT R. O. W. LINE, EXCEPT WHEN DIRECTED OTHERWISE BY CITY ENGINEER.



5 BRICK SIDEWALK RAMP WITH BITUMINOUS BASE (I-10)

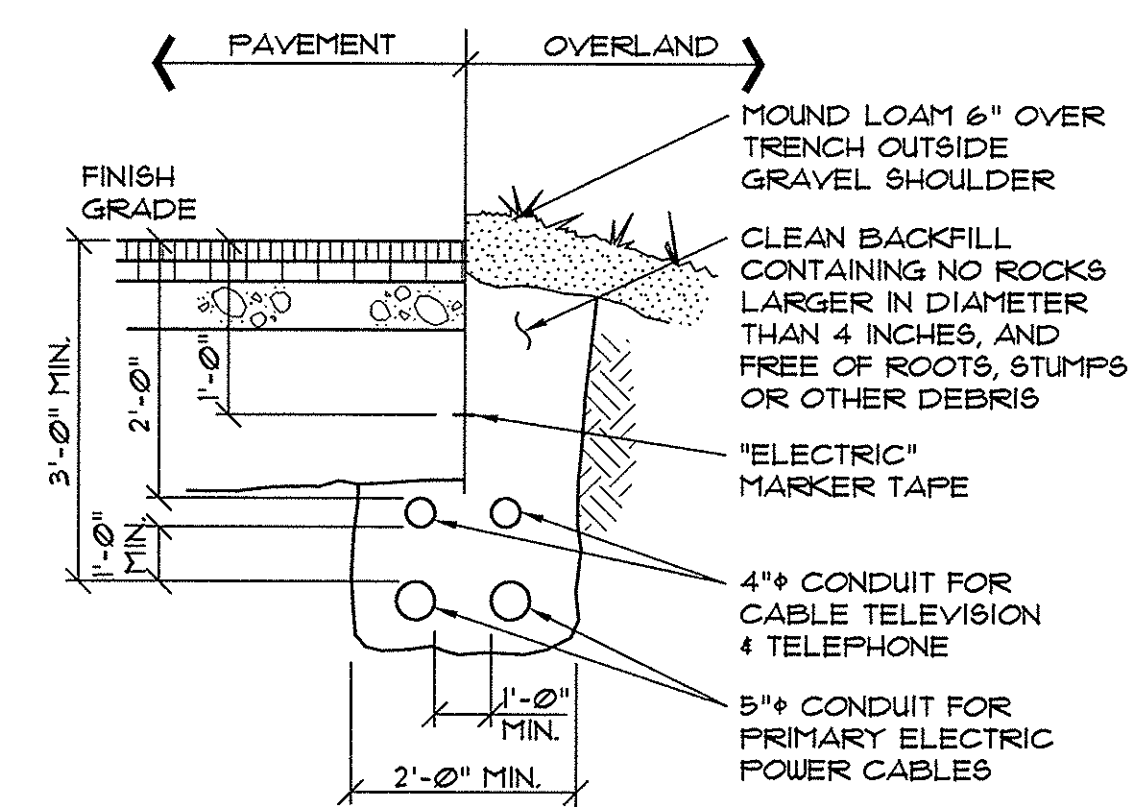


3 DRIVEWAY APRON LAYOUT (I-9)



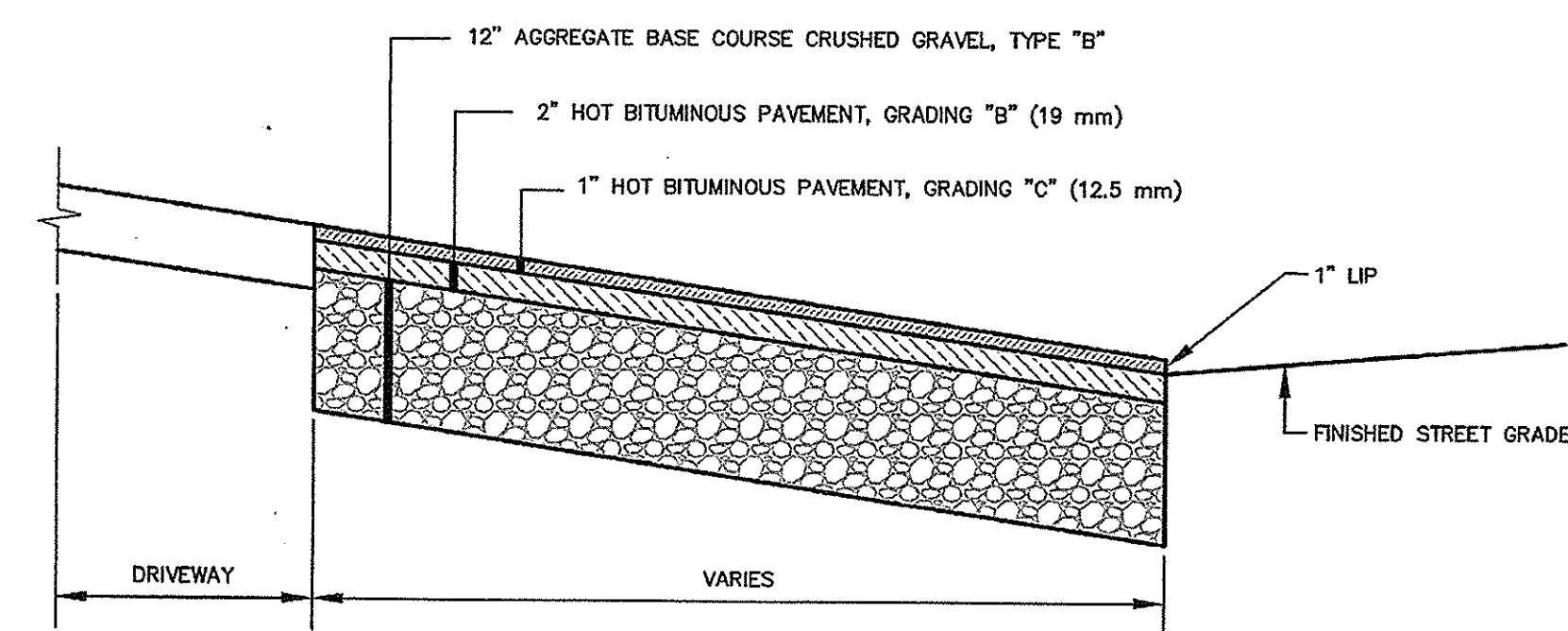
10 TREE FILTER DETAILS

NOTE: SEE SHEET C2.4 FOR ADD'L INFORMATION ABOUT THE TREE FILTER SYSTEM



NOTES:  
1. INSTALLATION SHALL NOT ALLOW INTER-TWING OF CABLES.  
2. DIRECT BURY CABLES EXCEPT UNDER PAVED AREAS.  
PROVIDE SCH. 40 PVC CONDUIT UNDER PAVED AREAS, EXTEND CONDUIT 5'-0" BEYOND EDGE OF PAVEMENT.

11 CABLE TRENCH SECTION



6 BITUMINOUS DRIVEWAY APRON (I-13)

REV.	DATE	DESCRIPTION
2	10/21/13	REV'D PER CITY REVIEW
1	10/1/13	SUBMITTED FOR FINAL APPROVAL

133 YORK, LLC  
110 MARGINAL WAY, SUITE 292, PORTLAND

133 YORK STREET CONDOMINIUMS  
133 YORK STREET, PORTLAND ME

PINKHAM & GREER  
CONSULTING ENGINEERS  
28 VANNAH AVENUE  
PORTLAND, MAINE

DETAILS

SCALE: AS SHOWN DRN BY: JDC  
DATE: JULY 23, 2013 DESG BY: TSG  
PROJECT: 13105 CHK BY: TSG

