

**UNDERDRAINED SOIL FILTER INSPECTION & MAINTENANCE**

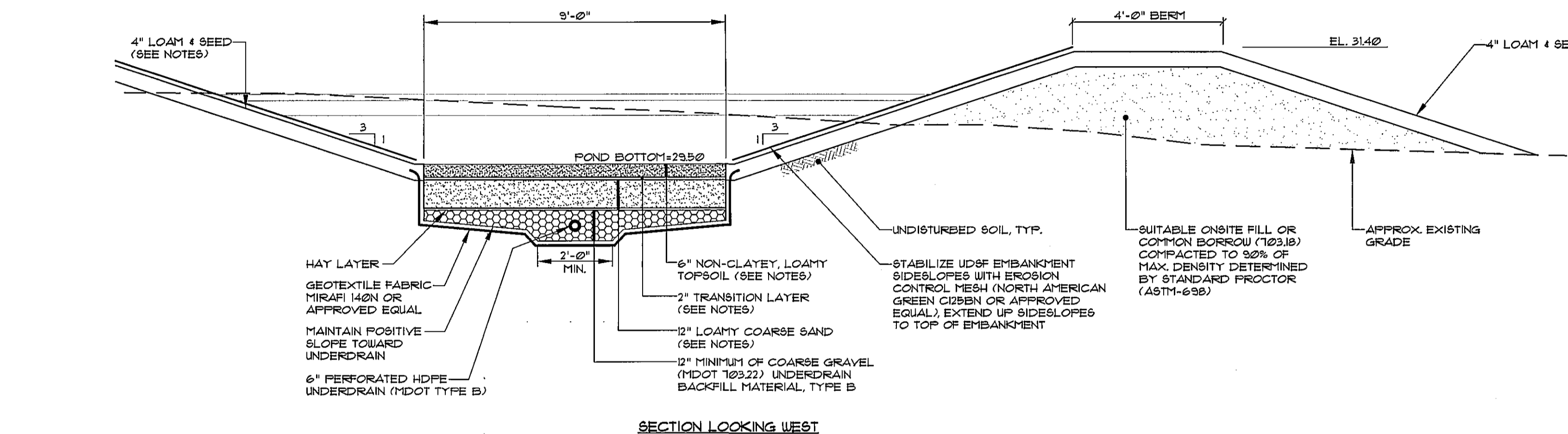
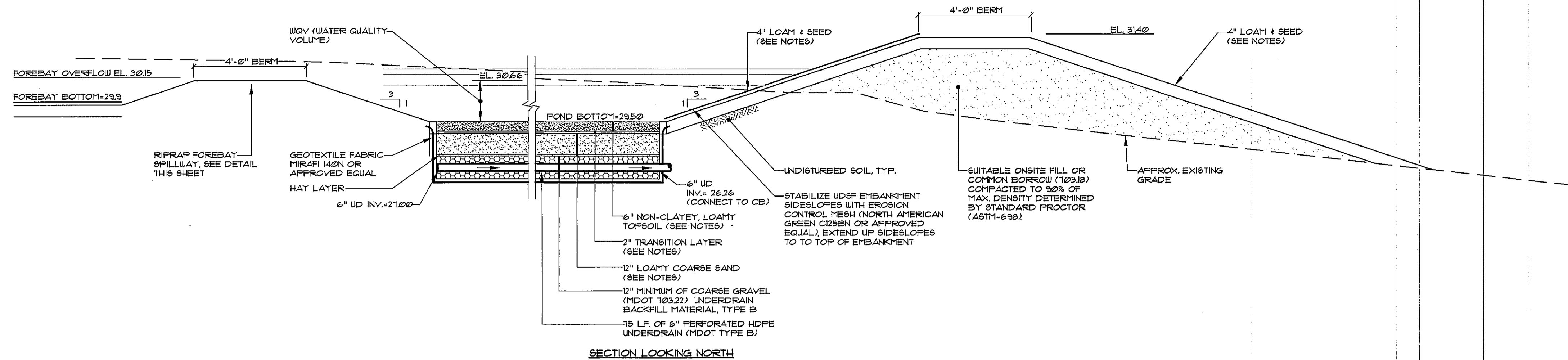
1. BYECARE MEDICAL GROUP SHALL BE RESPONSIBLE FOR THE INSPECTION AND MAINTENANCE OF THE UNDERDRAINED SOIL FILTER.
2. DURING THE FIRST YEAR, THE BASIN SHALL BE INSPECTED SEMI-ANNUALLY AND FOLLOWING MAJOR STORM EVENTS.
3. DEBRIS AND SEDIMENT BUILDUP SHALL BE REMOVED FROM THE FOREBAY AND BASIN AS NEEDED. MOWING OF A GRASSED BASIN CAN OCCUR SEMI-ANNUALLY TO A HEIGHT NO LESS THAN 6 INCHES. ANY BARE AREA OR EROSION RILLS SHALL BE REPAIRED WITH NEW FILTER MEDIA OR SANDY LOAM THEN SEEDED AND MULCHED. MAINTAINING GOOD GRASS COVER WILL MINIMIZE CLOGGING WITH FINE SEDIMENTS AND IF PONDING EXCEEDS 48 HOURS, THE TOP OF THE FILTER BED MUST BE ROTOTILLED TO REESTABLISH THE SOIL'S FILTRATION CAPACITY.
4. THE SOIL FILTER SHOULD BE INSPECTED AFTER EVERY MAJOR STORM IN THE FIRST YEAR TO BE SURE IT IS FUNCTIONING PROPERLY. THEREAFTER THE FILTER SHOULD BE INSPECTED AT LEAST ONCE EVERY SIX MONTHS TO ENSURE THAT IT IS DRAINING WITHIN 48 HOURS FOLLOWING A ONE INCH STORM OR GREATER, AND THAT FOLLOWING A STORM THAT FILL THE SYSTEM TO OVERFLOW, IT DRAINS IN NO LESS THAN 36 TO 60 HOURS. IF THE SYSTEM DRAINS TOO FAST, AN ORIFICE MAY NEED TO BE ADDED ON THE UNDERDRAIN OUTLET OR, IF ALREADY PRESENT, IT MAY NEED TO BE MODIFIED.
5. SOIL FILTER REPLACEMENT: THE TOP SEVERAL INCHES OF THE FILTER SHALL BE REPLACED WITH FRESH MATERIAL WHEN WATER POUNDS ON THE SURFACE OF THE BED FOR MORE THAN 12 HOURS. THE REMOVED SEDIMENTS SHOULD BE DISPOSED OF IN AN ACCEPTABLE MANNER.
6. SEDIMENT REMOVAL: SEDIMENT AND PLANT DEBRIS SHOULD BE REMOVED FROM THE PRETREATMENT STRUCTURE AT LEAST ANNUALLY.
7. MOWING: IF MOWING IS DESIRED, ONLY HANDHELD STRING TRIMMERS OR PUSH-MOWERS ARE ALLOWED ON THE FILTER (NO TRACTOR) AND THE GRASS BED SHOULD BE MOWED NO MORE THAN 2 TIMES PER GROWING SEASON TO MAINTAIN GRASS HEIGHTS OF NO LESS THAN 6 INCHES.
8. FERTILIZATION: FERTILIZATION OF THE UNDERDRAINED FILTER AREA SHOULD BE AVOIDED UNLESS ABSOLUTELY NECESSARY TO ESTABLISH VEGETATION.
9. HARVESTING AND WEEDING: HARVESTING AND FRUING OF EXCESSIVE GROWTH WILL NEED TO BE DONE OCCASIONALLY. WEEDING TO CONTROL UNWANTED OR INVASIVE PLANTS MAY ALSO BE NECESSARY.

**UNDERDRAINED SOIL FILTER MATERIAL NOTES:**

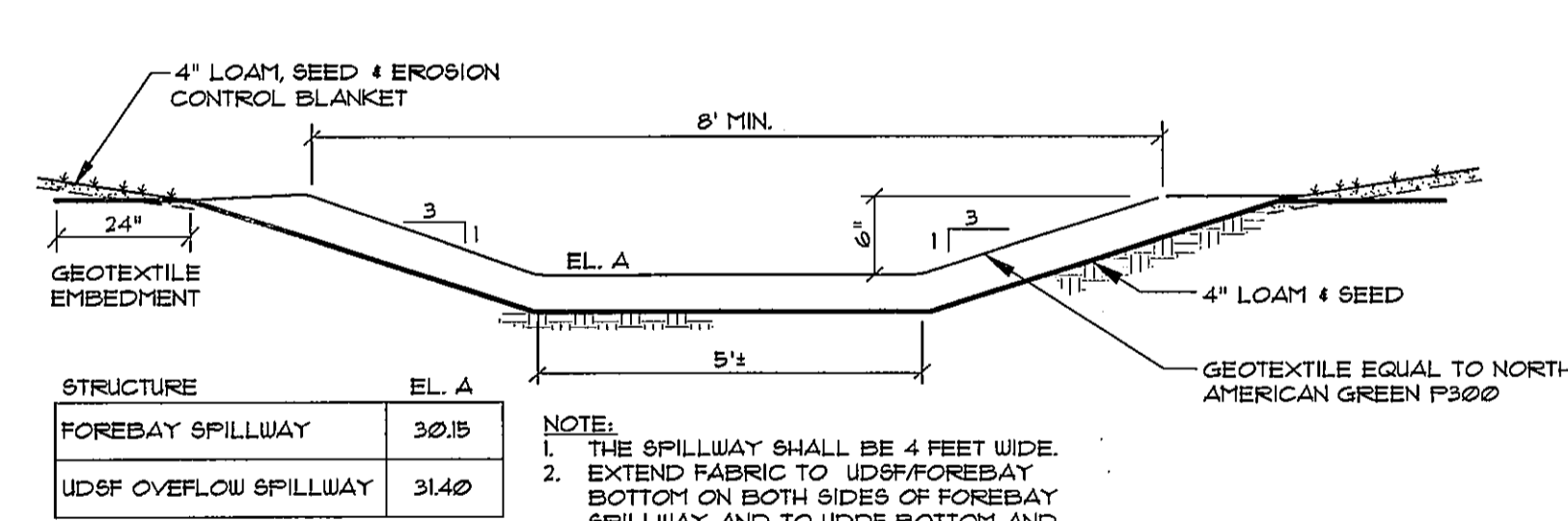
1. USE THE FOLLOWING SEED MIX TOLERANT OF FREQUENT INUNDATION AND WELL-DRAINED SOILS ACROSS THE ENTIRE FILTER AREA AND SIDESLOPES OF THE UNDERDRAINED SOIL FILTER. AN EQUIVALENT SEED MIX SHALL BE APPROVED BY THE ENGINEER.

	LB5/ ACRE	LB5/ 1000 FT.
CREeping RED FESCUE	20	0.46
BIRDFOOT TREFOIL	9	0.18
TALL FESCUE	20	0.46
TOTAL	49	1.10

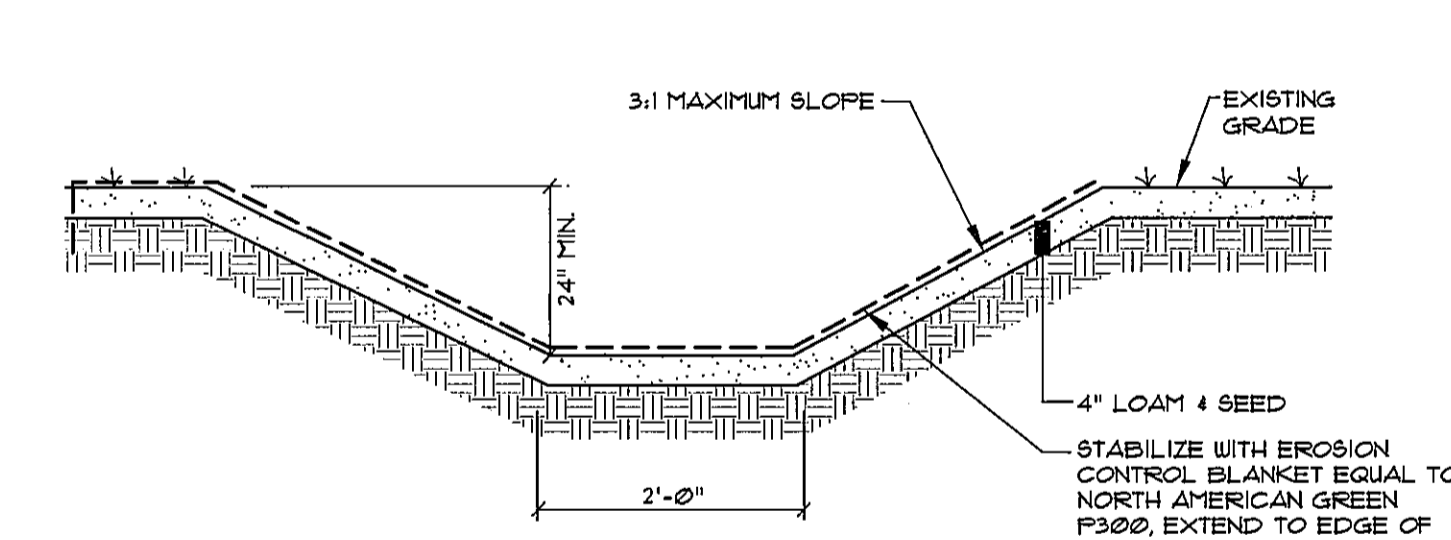
2. THE TOP 6" SHALL BE NON-CLAYEY, LOAMY TOPSOIL SUCH AS A USDA SANDY LOAM TOPSOIL WITH 5-8% HUMIFIED ORGANIC MATTER. SCREENED TOPSOIL FROM THE DEVELOPMENT MAY BE APPROPRIATE BUT SHALL BE TESTED FOR ORGANIC MATTER AND IN ACCORDANCE WITH THE TESTING AND SUBMITTALS NOTES.
3. A 2" TRANSITION LAYER OF THE NON-CLAYEY, LOAMY TOPSOIL SHALL BE ROTOTILLED INTO THE LOAMY COARSE SAND LAYER BELOW.
4. THE 12" LOAMY COARSE SAND LAYER SHALL BE TESTED IN ACCORDANCE WITH THE TESTING AND SUBMITTALS NOTES.
5. A LAYER OF HAY SHALL BE PLACED BETWEEN 12" LOAMY COARSE LAYER AND UNDERDRAIN STONE BEDDING TO HELP PREVENT SUBSIDENCE OR FLUGGING OF THE SAND/GRAVEL/STONE LAYER AND/OR PIPE.
6. UNDERDRAIN STONE BEDDING MATERIAL MUST CONSIST OF CRUSHED STONE MEETING THE MDT 103.22 UNDERDRAIN TYPE B FOR UNDERDRAIN BACKFILL MATERIAL. THE STONE BEDDING MATERIAL MUST HAVE NO MORE THAN 5% PASSING THE 20# SIEVE.
7. MATERIAL LAYERS ABOVE THE UNDERDRAIN BACKFILL LAYER SHALL BE A UNIFORM MIX FREE OF STONES, STUMPS, ROOTS, OR OTHER SIMILAR OBJECTS LARGER THAN TWO INCHES. NO OTHER MATERIALS OR SUBSTANCES THAT MAY BE HARMFUL TO PLANT GROWTH, OR FROVE A HINDRANCE TO THE PLANTING OR MAINTENANCE OPERATIONS CAN BE MIXED WITHIN THE FILTER. DURING CONSTRUCTION, CARE SHOULD BE TAKEN TO AVOID COMPACTION OF BOTH THE GRAVEL AND SOIL FILTER.
8. COMPACTION OF THE SOIL BED MATERIAL SHALL BE AVOIDED. IF COMPACTION OCCURS, ROTOTILL AGAIN PRIOR TO SEEDING OR SODDING.
9. CONSTRUCTION SEQUENCE: THE SOIL FILTER MEDIA AND VEGETATION MUST NOT BE INSTALLED UNTIL THE AREA THAT DRAINS TO THE FILTER HAS BEEN PERMANENTLY STABILIZED WITH PAVEMENT OR OTHER STRUCTURE. 90% VEGETATION COVER OR OTHER PERMANENT STABILIZATION UNLESS THE RUNOFF FROM THE CONTRIBUTING DRAINAGE AREA IS DIVERTED AROUND THE FILTER UNTIL STABILIZATION IS COMPLETED.



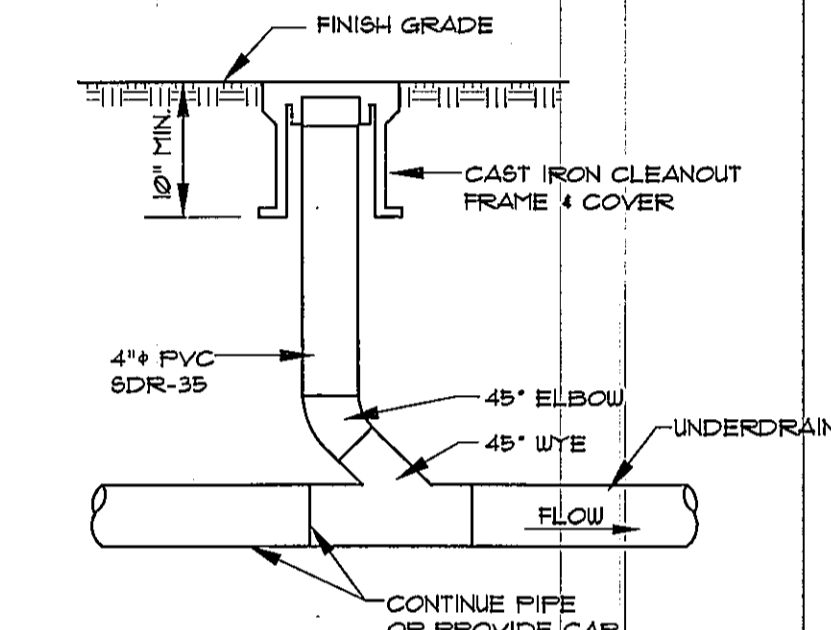
**UNDERDRAINED SOIL FILTER SECTION**  
NOT TO SCALE



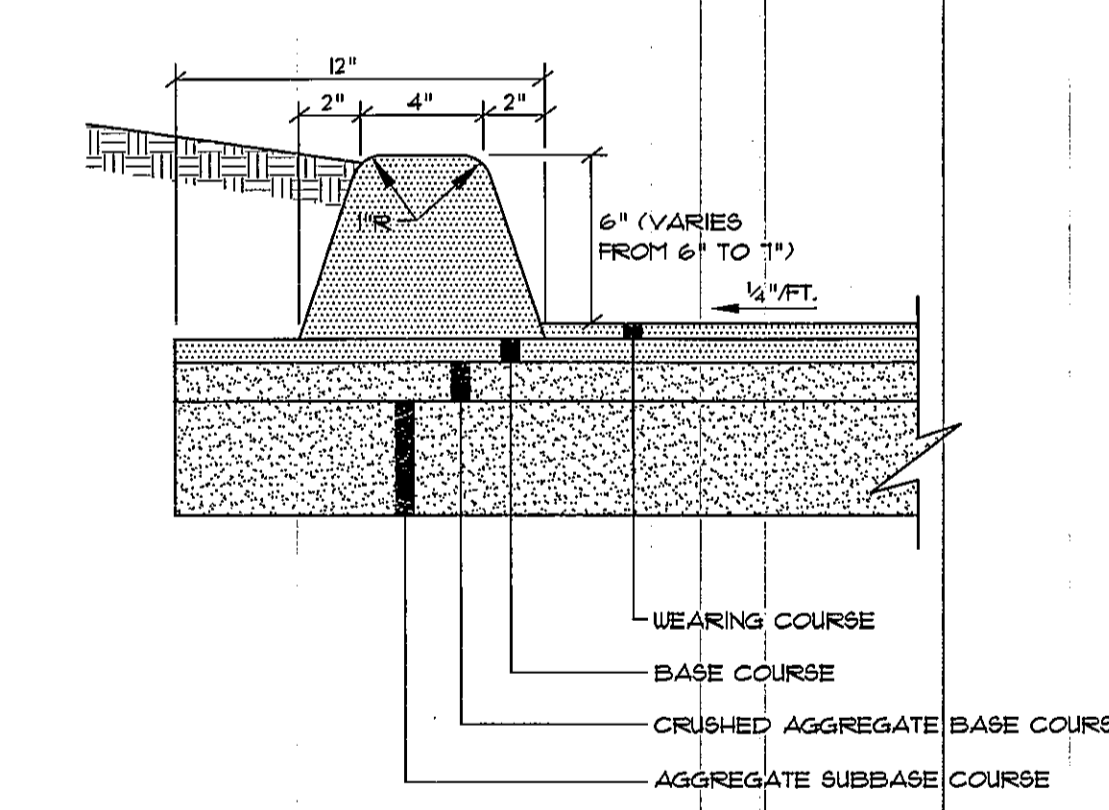
**UDSF OVERFLOW/FOREBAY SPILLWAY CROSS-SECTION**  
NOT TO SCALE



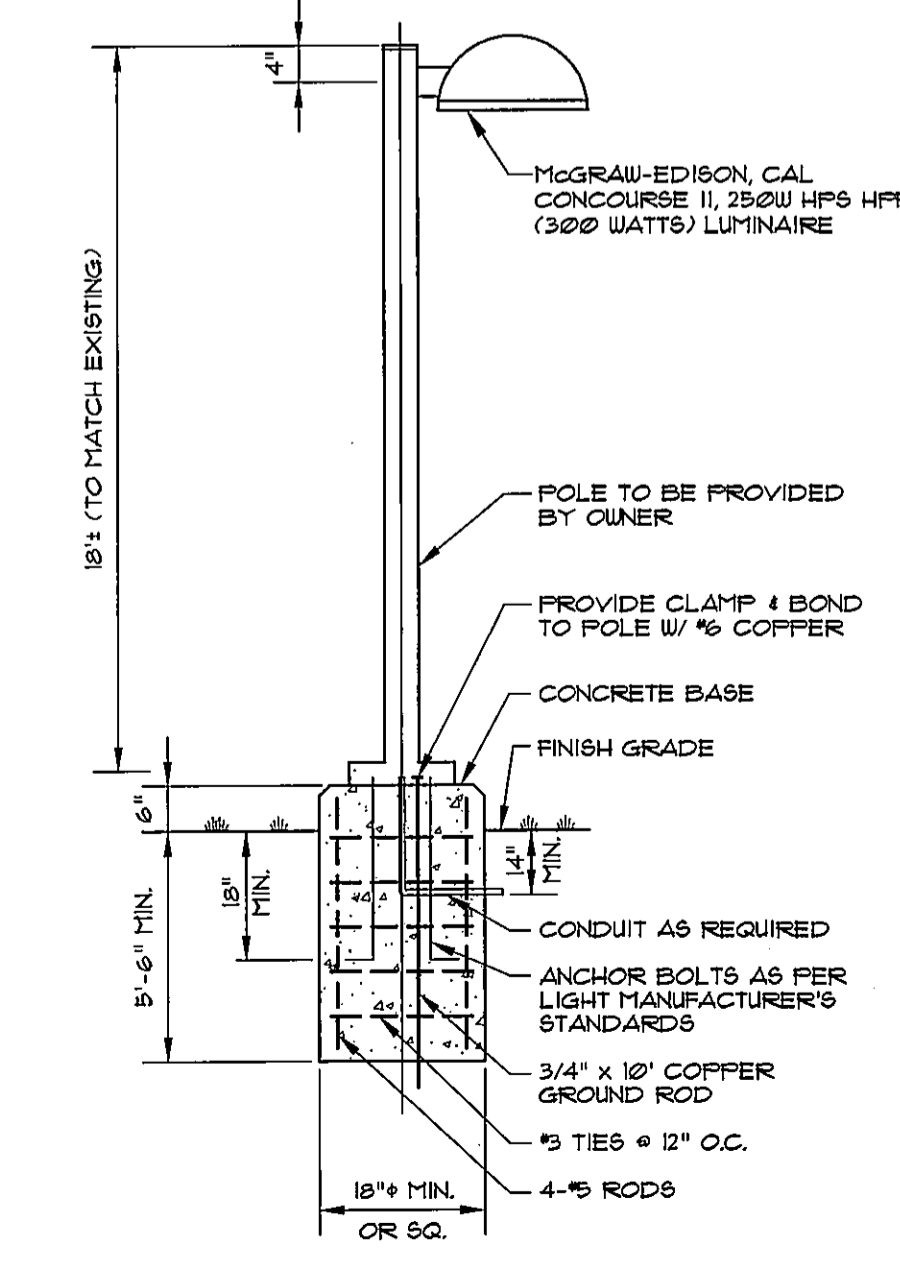
**GRASSED SWALE**  
NOT TO SCALE



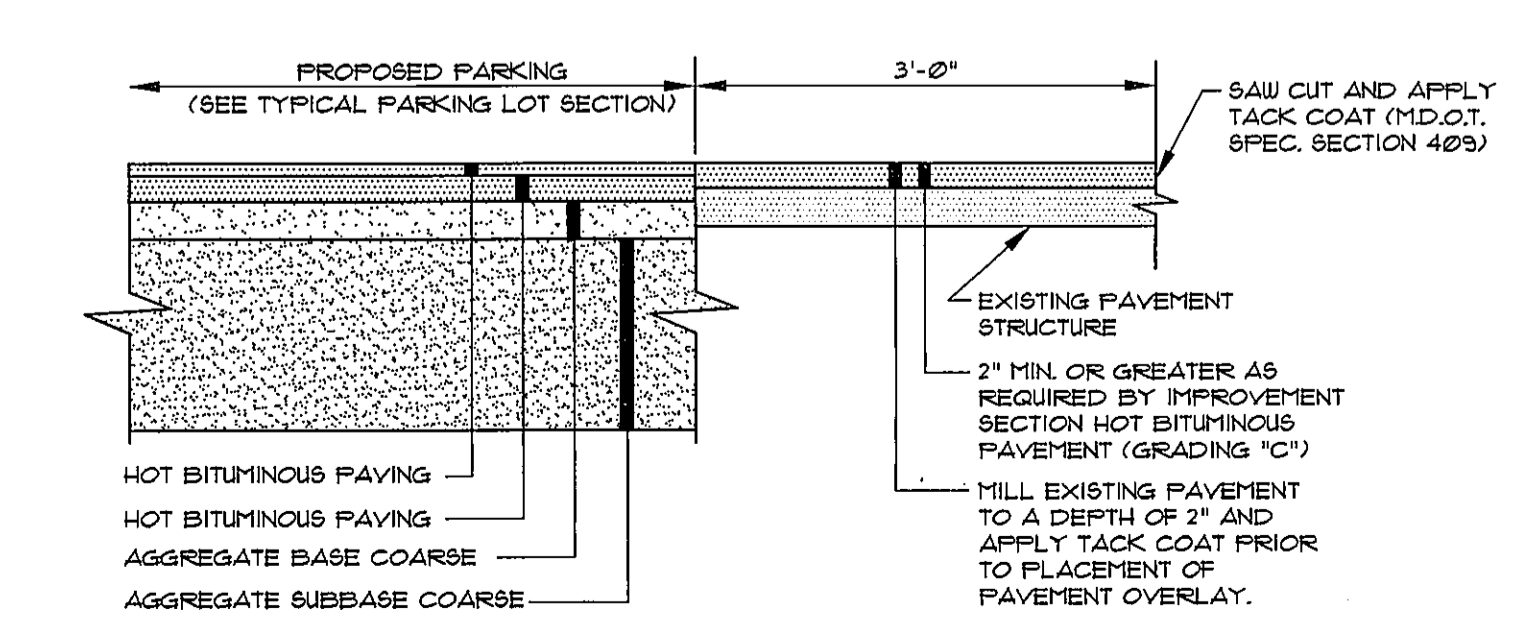
**UNDERDRAIN CLEANOUT**  
NOT TO SCALE



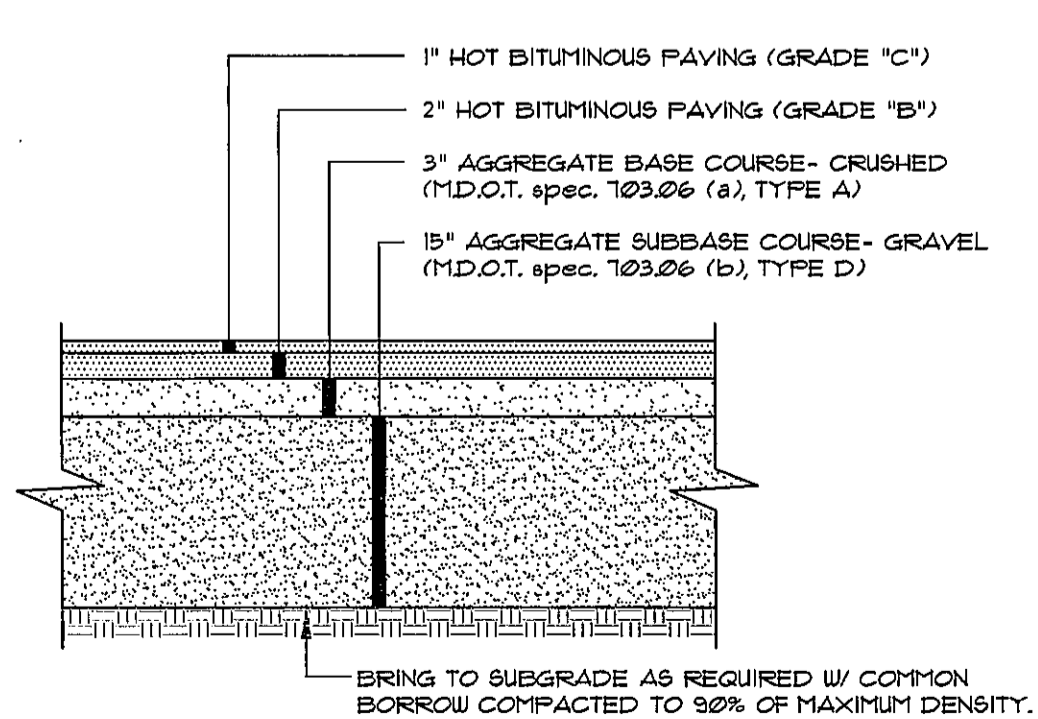
**VERTICAL BITUMINOUS CURB SECTION**  
NOT TO SCALE



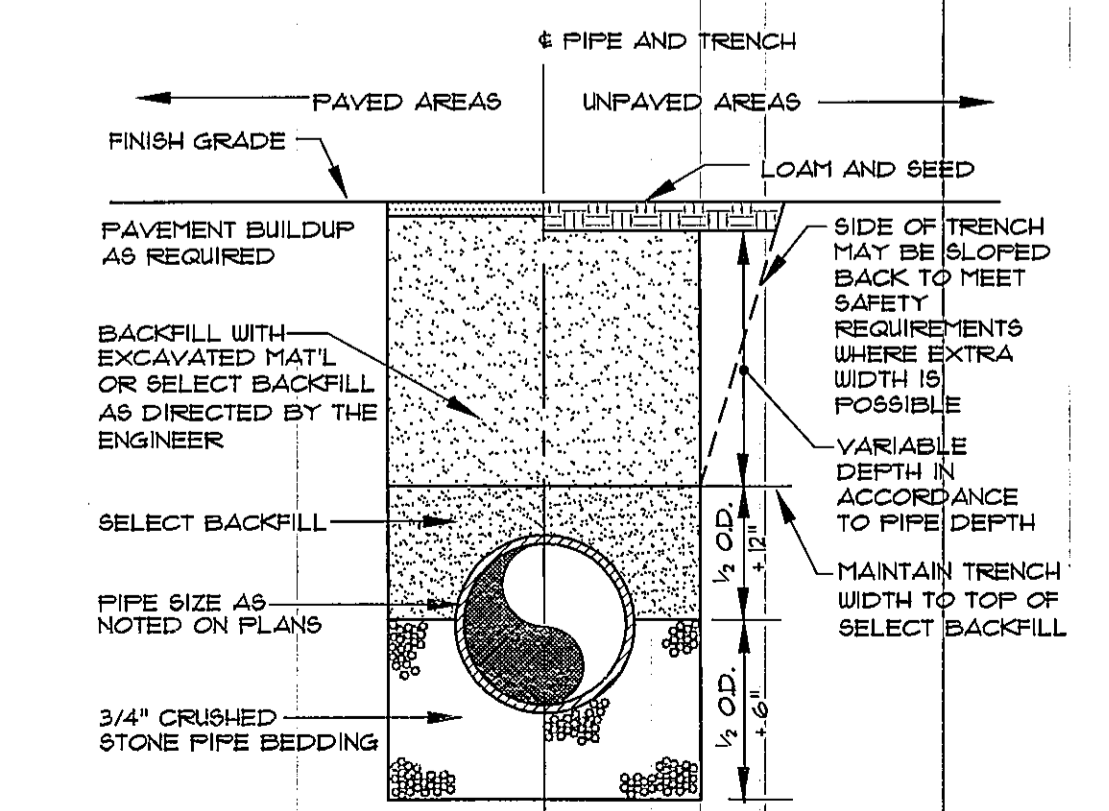
**TYPICAL LIGHT POLE DETAIL**  
NOT TO SCALE



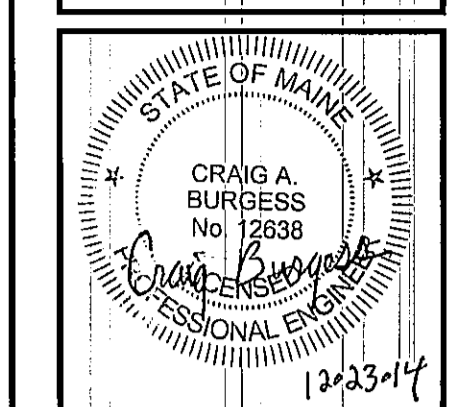
**TYPICAL PAVEMENT JOINT DETAIL**  
NOT TO SCALE



**TYP. PAVED PARKING LOT SECTION**  
NOT TO SCALE



**TYPICAL TRENCH SECTION**  
NOT TO SCALE



REV.	DATE	BY	DESCRIPTION
B	12-23-14	CAB	REISSUED FOR CITY REVIEW & APPROVAL
A	11-14-14	CAB	SUBMITTED FOR SITE PLAN & CONDITIONAL USE APPROVAL
			STA USE:

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PROJECT NO. FIELD BOOK DESIGN CHD DRAWN  
06267 ELECTRONIC CAB SAP

**SITE DETAILS**  
OF: **PARKING LOT EXPANSION**  
33 SEWALL STREET  
PORTLAND, MAINE 04102  
FOR: **EYE-VENTURE ASSOCIATES, LLC**  
52 SEWALL STREET  
PORTLAND, MAINE 04102

DATE: 11-13-14 SCALE: NTS  
SHEET 4 OF 5