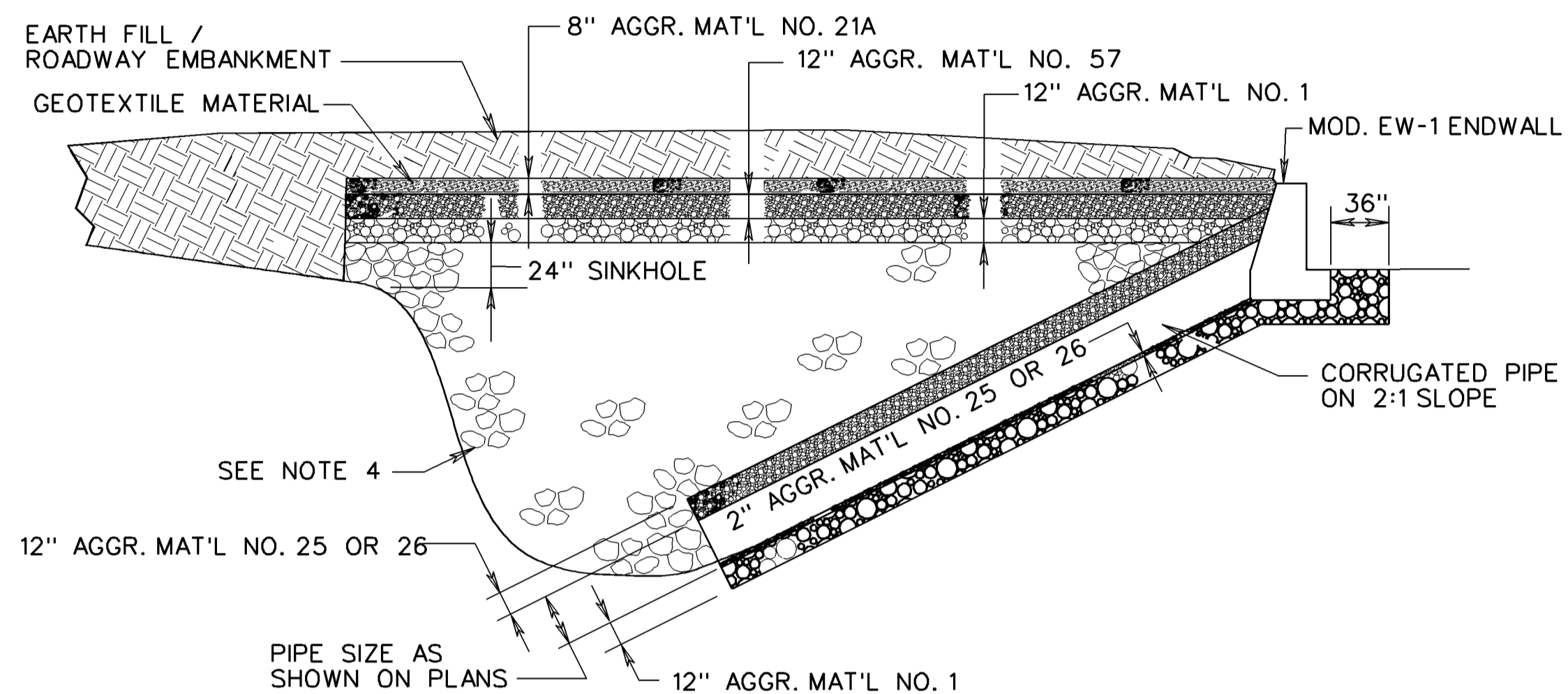


PROJECT MANAGER _____
 SURVEYED BY _____
 DESIGN SUPERVISED BY _____
 DESIGNED BY _____

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

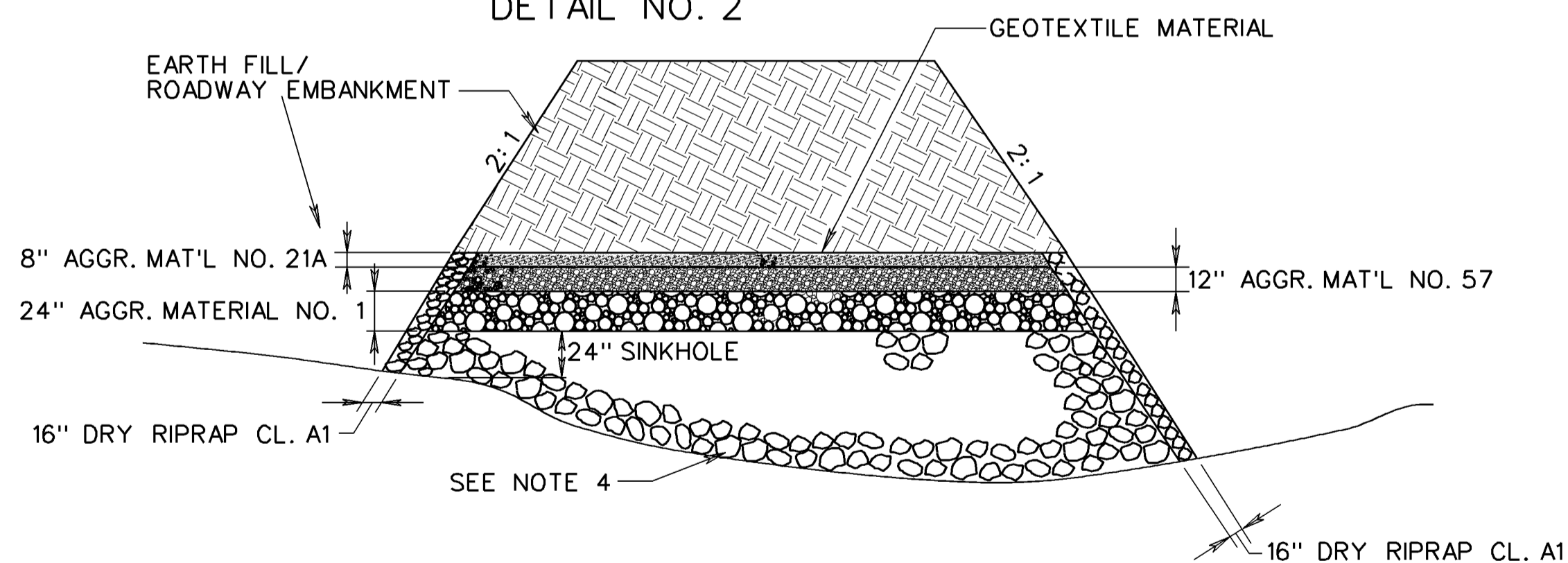
REVISED	STATE	FEDERAL AID PROJECT	ROUTE	STATE PROJECT	SHEET NO.
	VA.				

DETAIL NO. 1



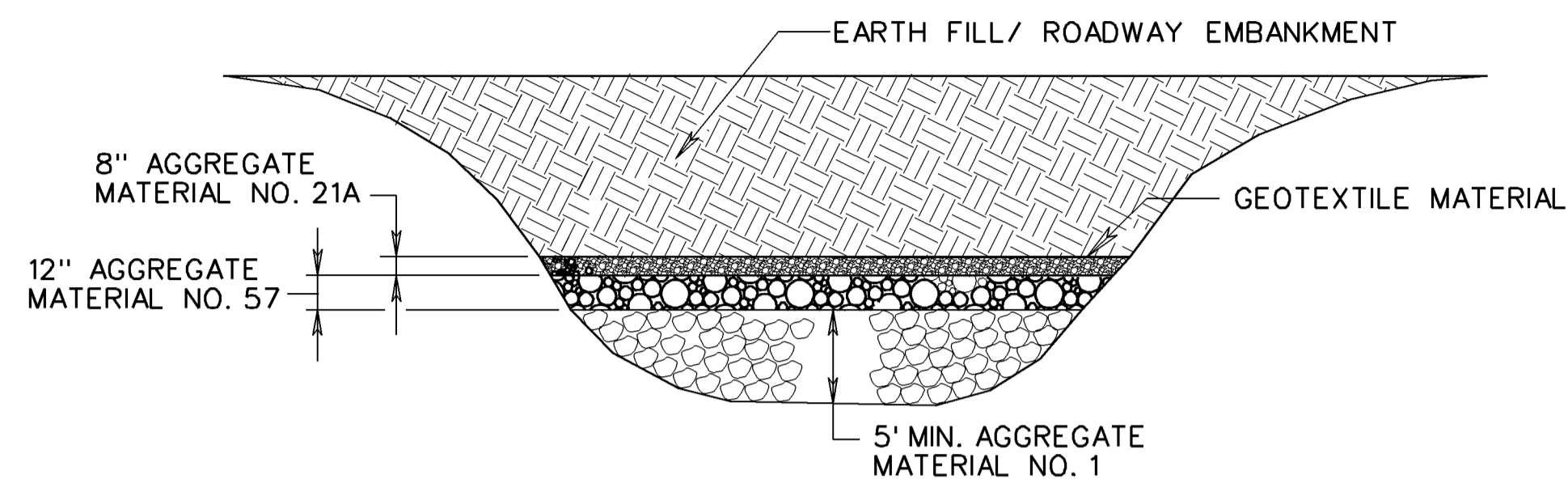
REMOVE ALL FOREIGN MATTER INCLUDING TRASH, REFUSE OR OTHER WASTE MATERIALS. EXCAVATE THE BOTTOM OF THE SINK TO ROCK, EXCAVATE THE SIDES (BACK, AHEAD, AND TOWARD TOE OF FILL SLOPE) TO AN ANGLE OF REPOSE OF 27° (2:1 SLOPE) FROM THE BOTTOM PLANE OF THE SINK. INSTALL A PIPE OF SUFFICIENT LENGTH TO INSURE POSITIVE DRAINAGE INTO THE SINK AT THE TOE OF FILL SLOPE. BED THE PIPE WITH 12" OF AGGREGATE MATERIAL NO. 1 OVERLAPPED BY 2" OF AGGREGATE MATERIAL NO. 25 OR 26 FOR A LEVELING COURSE. PLACE 12" AGGREGATE MATERIAL NO. 25 OR 26 ALONG THE SIDES AND TOP OF THE PIPE FOR PROTECTION AGAINST THE BACKFILL. BACKFILL WITH DRY RIP RAP, CLASS II TO A HEIGHT OF 24" ABOVE ORIGINAL GROUND AS SHOWN, CAP WITH 12" AGGREGATE MATERIAL NO. 1, 12" AGGREGATE NO. 57 AND 8" AGGREGATE MATERIAL NO. 21A. OVERLAY AGGREGATE MATERIAL WITH GEOTEXTILE MATERIAL AND BACKFILL WITH EARTH FILL AS NEEDED.

DETAIL NO. 2

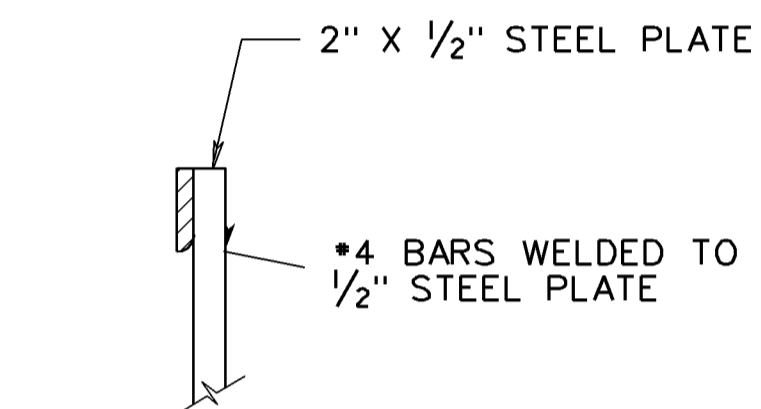


REMOVE ALL FOREIGN MATTER INCLUDING ALL VEGETATION, TRASH, REFUSE OR OTHER WASTE MATERIALS. EXCAVATE ALL UNSTABLE SOILS FROM THE SIDES AND BOTTOM OF THE SINK. BACKFILL WITH DRY RIP RAP, CLASS I TO A HEIGHT OF 24" ABOVE THE SURFACE DRAINAGE LINE. CAP WITH 24" AGGREGATE MATERIAL NO. 1, 12" AGGREGATE MATERIAL NO. 57 AND 8" AGGREGATE MATERIAL NO. 21A. A HEAVY VIBRATOR SHALL BE USED TO STABILIZE THE RIP RAP AND THE AGGREGATE MATERIAL AS EACH COURSE IS PLACED. PLACE A LAYER OF GEOTEXTILE MATERIAL ABOVE THE AGGREGATE MATERIAL COURSES. EARTH FILL IS BE PLACED ABOVE THE GEOTEXTILE FABRIC AS NEEDED. OVERLAY EXPOSED RIP RAP/AGGREGATE FILL SLOPES WITH 16" DRY RIPRAP CLASS A1.

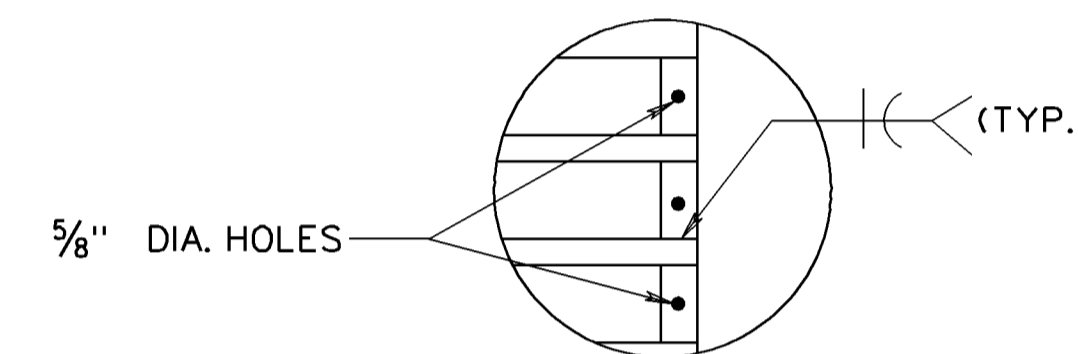
DETAIL NO. 3



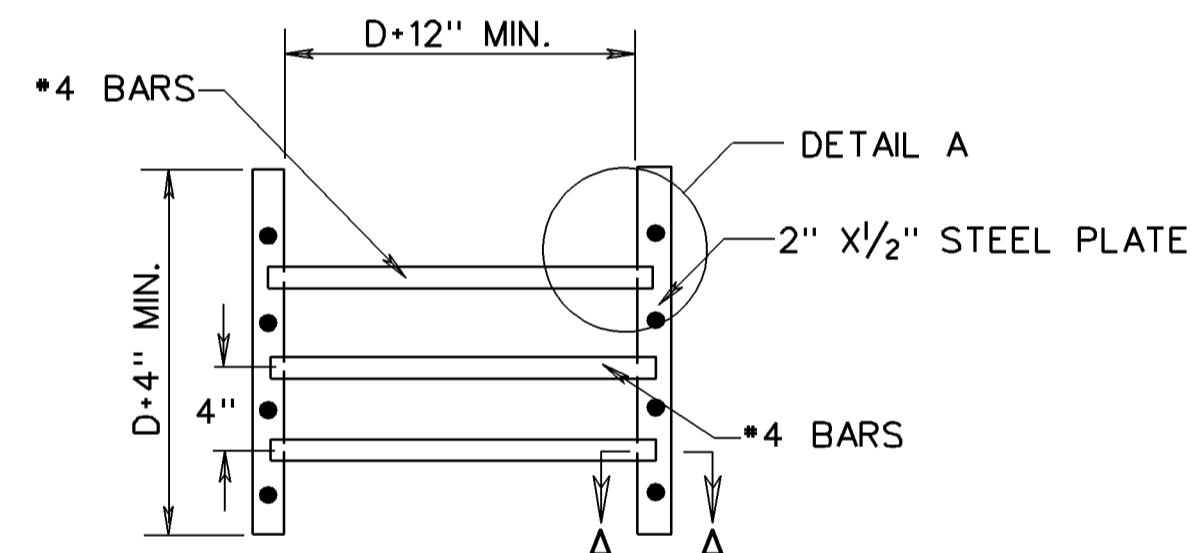
TREATMENT SHALL INCLUDE CLEARING AND GRUBBING, STRIPPING TOPSOIL AND REMOVING EXCESS ORGANIC MATERIAL. ALL FOREIGN MATTER INCLUDING TRASH, WHITE GOODS AND OTHER REFUSE OR WASTE MATERIALS SHALL BE REMOVED. STRIPPED SINKHOLE SHALL BE BACKFILLED WITH A MINIMUM OF 5' DEPTH OF NO. 1 AGGREGATE OVERLAPED WITH 12" OF NO. 57 AGGREGATE AND 8" OF AGGREGATE MATERIAL NO. 21A. THE AGGREGATE SHALL BE OVERLAPED WITH A GEOTEXTILE MATERIAL.



SECTION A-A

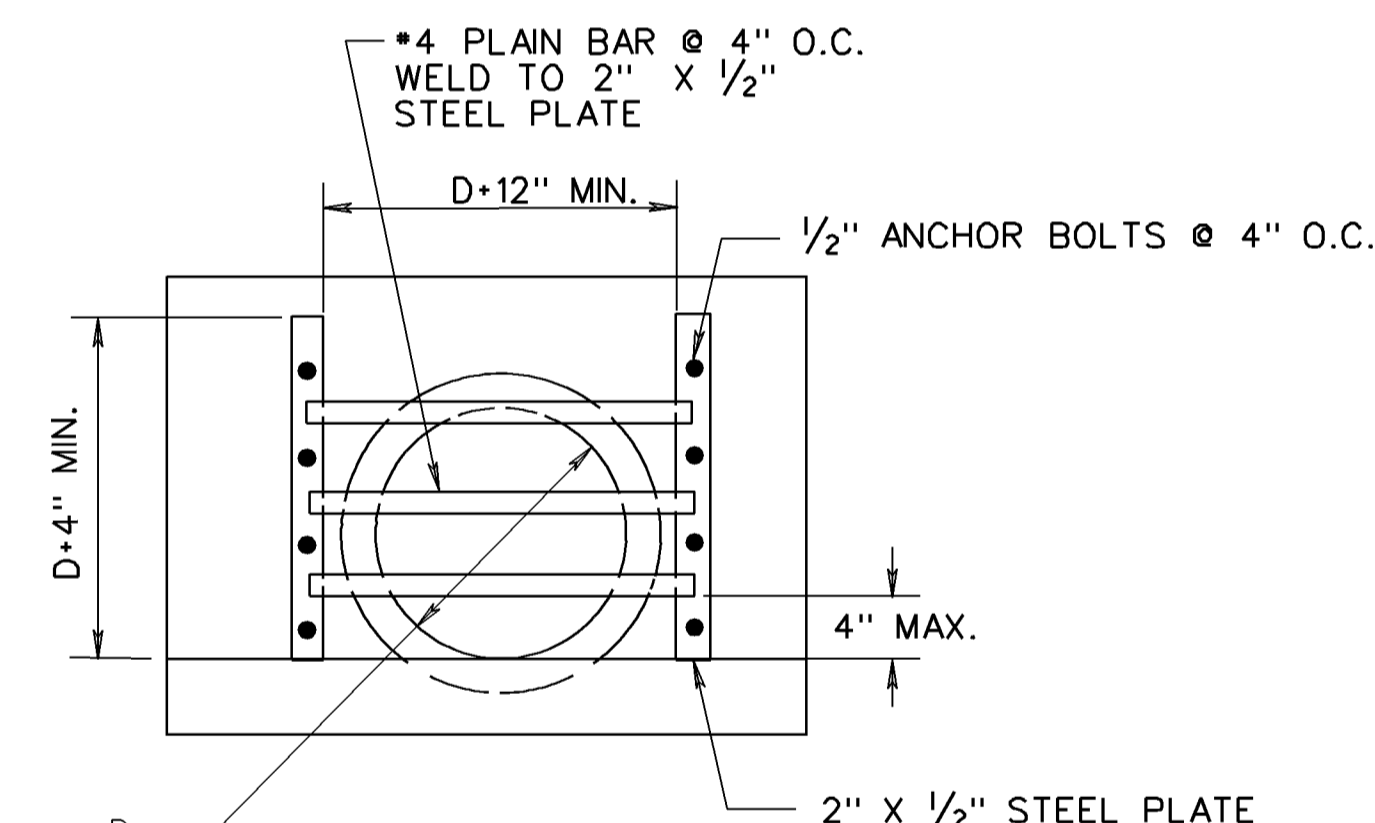


DETAIL A



GRATE ASSEMBLY AS SHOWN SHALL BE GALVANIZED AFTER FABRICATION.

SPECIAL DESIGN GRATE DETAIL



ATTACHMENT TO STANDARD EW-1

FOR USE ON STANDARD EW-1

GENERAL NOTES:

- PRIOR TO ANY SINKHOLE EXCAVATION THE CONTRACTOR SHALL CONTACT THE DISTRICT MATERIALS ENGINEER.
- EACH SINKHOLE SHOULD BE TREATED ON AN INDIVIDUAL, SITE SPECIFIC BASIS DEPENDING ON THE CONDITIONS IN THE AREA.
- CONSECUTIVE LAYERS OF AGGREGATE SHALL BE PLACED IN SUCH A MANNER AS TO PREVENT FUTURE MIGRATION OF SMALLER STONES INTO LARGER STONES.
- WHEN THE DEPTH OF A SINKHOLE OR A DEPRESSION IS LESS THAN 10', AGGREGATE MATERIAL NO. 1 SHALL BE USED FOR BACKFILL IN LIEU OF DRY RIP-RAP. THE AGGREGATE MATERIAL NO. 1 SHALL EXTEND TO A HEIGHT OF 24" ABOVE THE SURFACE DRAINAGE LINE. THE AGGREGATE MATERIAL NO. 1 SHALL BE CAPPED WITH NO. 57 AGGREGATE, NO. 21A AGGREGATE, AND GEOTEXTILE MATERIAL AS NOTED ON THE APPLICABLE DETAIL.
- EXCAVATION NECESSARY FOR PLACEMENT OF THE SINKHOLE FILL SHALL BE MEASURED AND PAID FOR AS REGULAR EXCAVATION IN ACCORDANCE WITH THE SECTION 303 OF THE SPECIFICATIONS. ALL OTHER MATERIAL SHALL CONFORM TO AND BE MEASURED AND PAID FOR IN ACCORDANCE WITH THE APPLICABLE SECTIONS.
- GEOTEXTILE MATERIAL SHALL CONFORM TO SECTION 245.03(B) OF THE SPECIFICATIONS
- BASIS OF PAYMENT FOR SPECIAL DESIGN GRATE WILL BE MEASURED AND PAID FOR AT THE CONTRACT UNIT PRICE PER EACH. THIS PRICE SHALL INCLUDE ALL COST FOR FURNISHING THE FABRICATED GRATE AND ITS INSTALLATION. ALL HARDWARE, EQUIPMENT, LABOR, TOOLS, GALVANIZING AND INCIDENTALS NECESSARY TO COMPLETE THE WORK SHALL BE INCLUDED IN THE UNIT PRICE PER EACH COST.

NEW 11/02
 SPECIAL DESIGN SECTION
 DRAWING NO. 2944

SINKHOLE TREATMENT DETAILS

PLAN NO.	PROJECT	FILE NO.	SHEET NO.