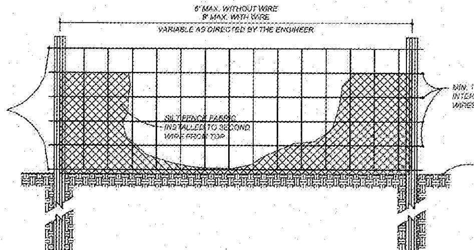
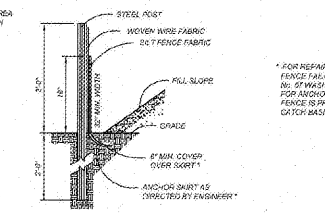


FRONT VIEW

NOTE:
-USE SILT FENCE ONLY WHEN DRAINAGE AREA DOES NOT EXCEED 1/4 ACRE AND NEVER IN AREAS OF CONCENTRATED FLOW.



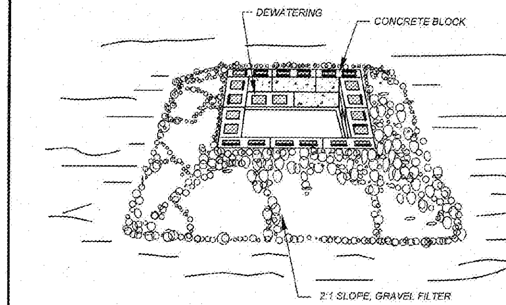
* FOR REPAIR OF SILT FENCE FAILURES, USE No. 57 WASHED STONE FOR ANCHOR WHEN SILT FENCE IS PROTECTING CATCH BASIN.

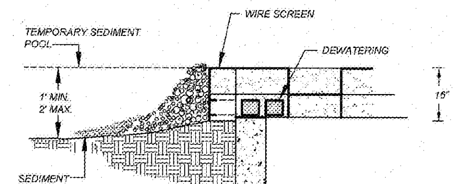
SIDE VIEW

MAINTENANCE:

INSPECT SEDIMENT FENCES AT LEAST ONCE A WEEK AND AFTER EACH RAINFALL. MAKE ANY REQUIRED REPAIRS IMMEDIATELY. SHOULD THE FABRIC OF A SEDIMENT FENCE COLLAPSE, TEAR, DECOMPOSE, OR BECOME INEFFECTIVE, REPLACE IT IMMEDIATELY. REMOVE SEDIMENT DEPOSITS AS NECESSARY TO PROVIDE ADEQUATE STORAGE VOLUME FOR THE NEXT RAIN AND TO REDUCE PRESSURE ON THE FENCE. REMOVE SEDIMENT WHEN IT REACHES 1/2 HEIGHT OF THE FENCE. TAKE CARE TO AVOID UNDERMINING THE FENCE DURING CLEANOUT. REMOVE ALL FENCING MATERIALS AND UNSTABLE SEDIMENT DEPOSITS AND BRING THE AREA TO GRADE AND STABILIZE IT AFTER THE CONTRIBUTING DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.

STANDARD TEMPORARY SILT FENCE

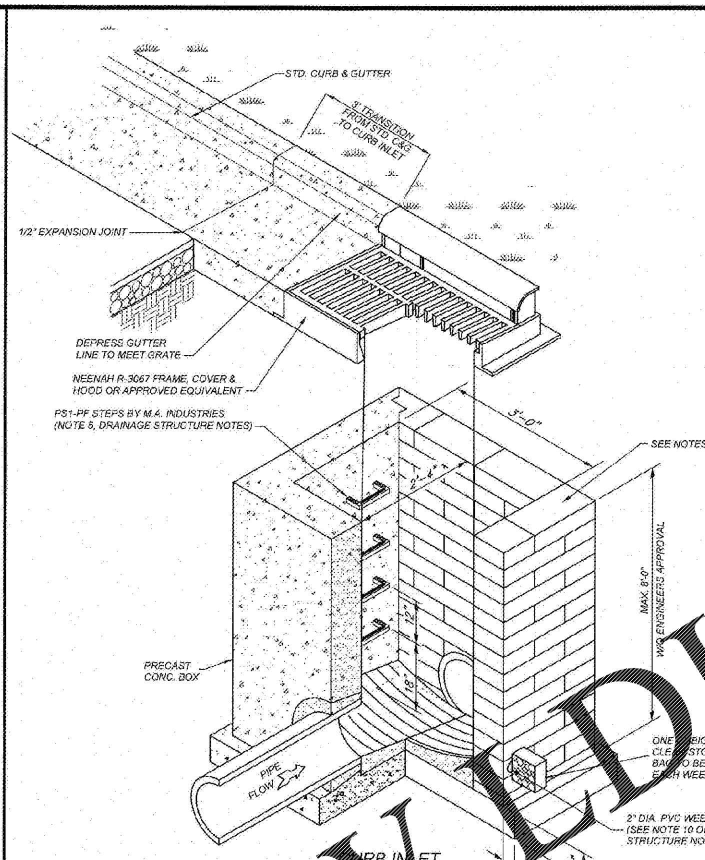




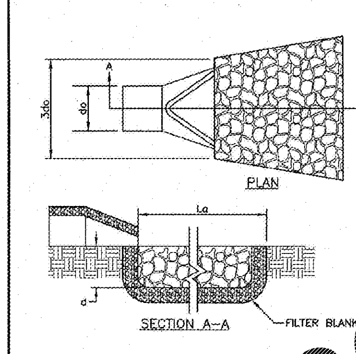
CONSTRUCTION SPECIFICATIONS

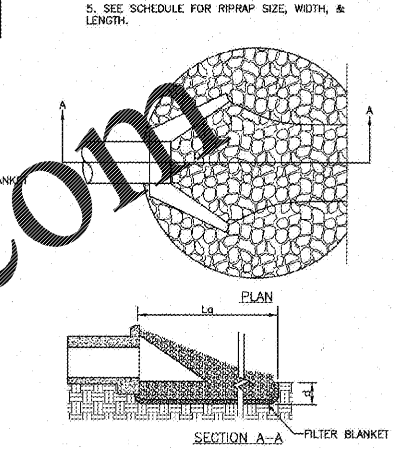
1. LAY ONE BLOCK ON EACH SIDE OF THE STRUCTURE ON ITS SIDE IN THE BOTTOM ROW TO ALLOW POOL DRAINAGE. THE FOUNDATION SHOULD BE EXCAVATED AT LEAST 2 INCHES BELOW THE CREST OF THE STORM DRAIN. PLACE THE BOTTOM ROW OF BLOCKS AGAINST THE EDGE OF THE STORM DRAIN FOR LATERAL SUPPORT AND TO AVOID WASHOUTS WHEN OVERFLOW OCCURS. IF NEEDED, GIVE LATERAL SUPPORT TO SUBSEQUENT ROWS BY PLACING 2 X 4 WOOD STUDS THROUGH BLOCK OPENINGS.
2. CAREFULLY FIT HARDWARE CLOTH OR COMPARABLE WIRE MESH WITH 1/2-INCH OPENINGS OVER ALL BLOCK OPENINGS TO HOLD GRAVEL IN PLACE.
3. USE CLEAN GRAVEL, 3/4- TO 1/2-INCH IN DIAMETER, PLACED 2 INCHES BELOW THE TOP OF THE BLOCK ON A 2:1 SLOPE OR FLATTER AND SMOOTH IT TO AN EVEN GRADE. DOT #57 WASHED STONE IS RECOMMENDED.

BLOCK AND GRAVEL DROP INLET PROTECTION



CURB INLET





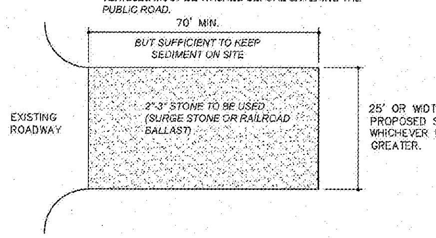
NOTES:

1. La IS THE LENGTH OF THE RIPRAP APRON.
2. d=1.5 TIMES THE MAXIMUM STONE DIAMETER BUT NOT LESS THAN 6".
3. IN A WELL-DEFINED CHANNEL EXTEND THE APRON UP THE CHANNEL BANKS TO AN ELEVATION OF 6" ABOVE THE MAXIMUM TAILWATER DEPTH OR TO THE TOPO OF THE BANK WHICHEVER IS LESS.
4. A FILTER BLANKET OR FILTER FABRIC SHOULD BE INSTALLED BETWEEN THE RIPRAP AND SOIL FOUNDATION.
5. SEE SCHEDULE FOR RIPRAP SIZE, WIDTH, & LENGTH.

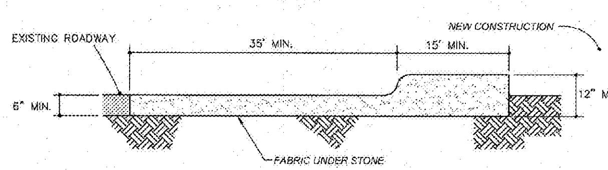
RIPRAP APRON

NOTES:

1. PUT SILT FENCE OR TREE PROTECTION FENCE UP TO ENSURE CONSTRUCTION ENTRANCE IS USED.
2. IF CONSTRUCTION ON THE SITES ARE SUCH THAT THE MUD IS NOT REMOVED BY THE VEHICLE TRAVELING OVER THE STONE, THEN THE TIRES OF THE VEHICLES MUST BE WASHED BEFORE ENTERING THE PUBLIC ROAD.



PLAN



CROSS SECTION

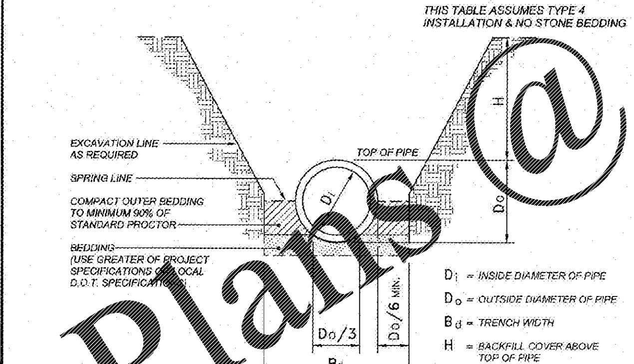
CONSTRUCTION ENTRANCE

GIVEN CONDITIONS / ASSUMPTIONS

* W = 120 pcf (BACKFILL LOAD)
* Ku' = 0.110
* SOIL TYPE = ORDINARY CLAY, SATURATED
* WALL B
* LAYING CONDITIONS: TYPE 4
* TRENCH CONDITIONS SHOWN - THESE DEPTHS DO NOT APPLY FOR "EMBANKMENT CONDITIONS", REGISTERED P.E. TO DETERMINE H FOR EMBANKMENT CONDITIONS
* DESIGN BASED ON "DESIGN DATA 40, ACPA."
* CLASS C BEDDING
(1350 plf PER Ft OF INTERNAL DIA.) CLASS III, ASTM C-76
(2000 plf PER Ft OF INTERNAL DIA.) CLASS IV, ASTM C-76

PIPE D_i	MAX. B_d	MAX. BURY H CLASS III (0.01' CRACK)	MAX. BURY H CLASS IV (0.01 CRACK)
15"	4'	9.5'	14.5'
18"	4'	9.5'	15.0'
24"	4'	12.0'	23.5'
30"	5.5'	10.0'	17.0'
36"	6'	10.5'	18.0'
42"	6.5'	13.0'	19.0'
48"	7'	13.5'	20.0'
54"	8'	13.0'	18.5'
60"	9'	11.0'	18.0'
72"	10'	13.0'	19.0'

THIS TABLE ASSUMES TYPE 4 INSTALLATION & NO STONE BEDDING

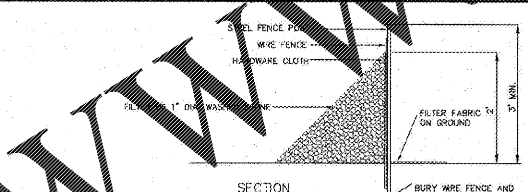


D_i = INSIDE DIAMETER OF PIPE
D_o = OUTSIDE DIAMETER OF PIPE
B_d = TRENCH WIDTH
H = BACKFILL COVER ABOVE TOP OF PIPE

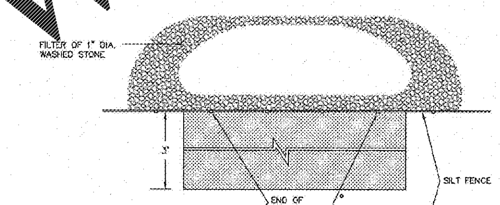
NOTES:

1. GREATER DEPTHS ARE ACHIEVABLE BY EITHER CONTROLLING BACKFILL TYPE, NARROWING TRENCH WIDTH BUT SUPPLY SUFFICIENT ROOM FOR COMPACTION, IMPROVING BEDDING OR LOADING TO ULTIMATE LOAD (Du). FOR OTHER BURY DEPTHS THAN SHOWN (H), PROFESSIONAL ENGINEER TO PROVIDE CALCS ON PIPE BURY THAT EXCEED THOSE GIVEN IN THIS CHART FOR THE CONDITIONS IN WHICH IT IS PROPOSED TO BE USED.
2. THE TABLE OF BURY DEPTHS (H) APPLIES EQUALLY TO A CLASS C STONE BEDDING, TYPE 4 LAYING CONDITIONS.
3. MINIMUM COVER NOT SHOWN BUT NO LESS THAN 12" W/O ENGINEERS APPROVAL UP TO 48" PIPE.
4. MAXIMUM BURY TABLE FOR "TRENCH CONDITIONS" PER THE DETAIL SHOWN ON THIS SHEET.

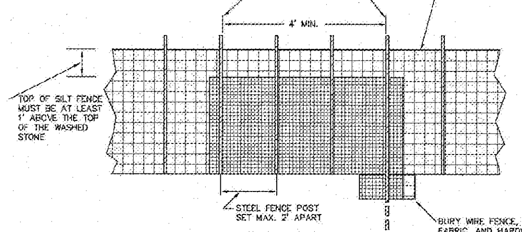
TRENCH DETAIL (STORM DRAINAGE RCP)



SECTION



PLAN VIEW



FRONT VIEW

MAINTENANCE:

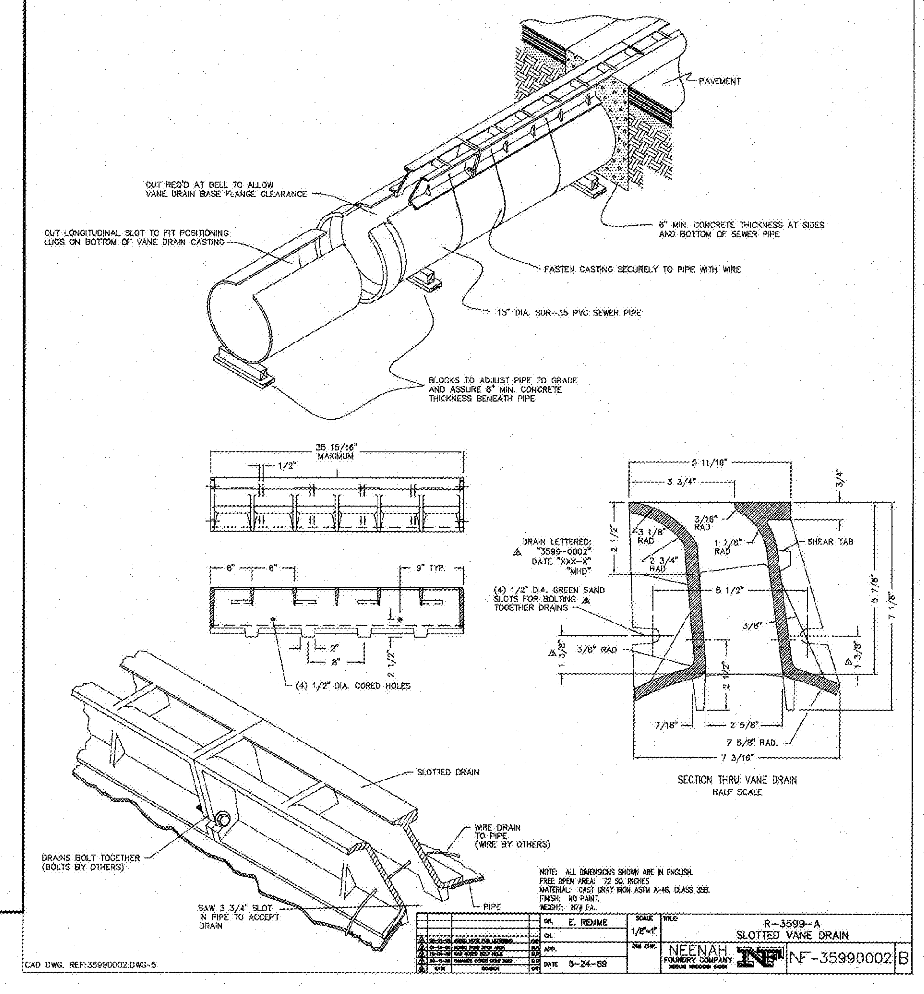
1. THE STRUCTURE SHALL BE INSPECTED AFTER EACH RAINFALL AND REPAIRS MADE AS NEEDED.
2. SEDIMENT SHALL BE REMOVED AND THE TRAP RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO ONE-HALF THE DESIGN DEPTH OF THE TRAP. REMOVED SEDIMENT SHALL BE DEPOSITED IN A SUITABLE AREA AND IN SUCH A MANNER THAT IT WILL NOT ERODE.
3. STRUCTURE SHALL BE REMOVED AND THE AREA STABILIZED WHEN THE REMAINING DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.
4. INSPECT SEDIMENT FENCES AT LEAST ONCE A WEEK AND AFTER EACH RAINFALL. MAKE ANY REQUIRED REPAIRS IMMEDIATELY. SHOULD THE FABRIC OF A SEDIMENT FENCE COLLAPSE, TEAR, DECOMPOSE, OR BECOME INEFFECTIVE, REPLACE IT IMMEDIATELY. REMOVE SEDIMENT DEPOSITS AS NECESSARY TO PROVIDE ADEQUATE STORAGE VOLUME FOR THE NEXT RAIN AND TO REDUCE PRESSURE ON THE FENCE. REMOVE SEDIMENT WHEN IT REACHES 1/2 HEIGHT OF THE FENCE. TAKE CARE TO AVOID UNDERMINING THE FENCE DURING CLEANOUT. REMOVE ALL FENCING MATERIALS AND UNSTABLE SEDIMENT DEPOSITS AND BRING THE AREA TO GRADE AND STABILIZE IT AFTER THE CONTRIBUTING DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.

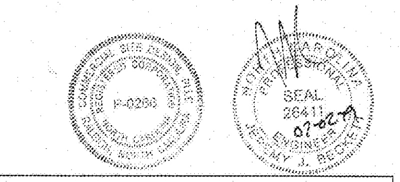
SILT FENCE GRAVEL OUTLET

(N.T.S.)

DRAINAGE STRUCTURE NOTES

1. BOXES SHALL COMPLY WITH LOCAL JURISDICTIONAL STANDARDS AND SPECIFICATIONS.
2. ANY NONSTANDARD BOX IS TO BE DESIGNED BY A PROFESSIONAL ENGINEER.
3. THE MAXIMUM HEIGHT OF AN UN-REINFORCED MASONRY DRAINAGE STRUCTURE WITH 8" WALLS SHALL BE LIMITED TO 8'-0" FROM INVERT OF THE OUTLET PIPE TO THE TOP OF THE CASTING. DEPTHS GREATER THAN 8'-0" SHALL HAVE WALLS 12" THICK. BASINS OVER 12' IN TOTAL DEPTH SHALL BE DESIGNED BY A PROFESSIONAL ENGINEER. FOUR INCH WALLS ARE NOT ALLOWED ON DRAINAGE STRUCTURES. BOTTOM SLAB ON STRUCTURES SHALL BE REINFORCED WHEN BOX DEPTHS EXCEED 8 FT.
4. STEPS ARE TO BE PROVIDED ON ALL BASINS DEEPER THAN 42".
5. STEPS ARE TO BE PS1-PF AS MANUFACTURED BY M.A. INDUSTRIES OR AN APPROVED EQUAL. LOCATE ON NON-PIPE WALLS.
6. MORTAR IN MASONRY BOXES IS TO BE TYPE M.
7. CLAY BRICK STRUCTURES ARE NOT ALLOWED.
8. CONCRETE PIPE IS TO BE MINIMUM CLASS III.
9. CONCRETE BUILDING BRICK IS TO MEET ASTM C-55, GRADE N, TYPE 1.
10. BASINS LOCATED IN WET AREAS, OR AS OTHERWISE REQUIRED BY THE TOWN ENGINEER, SHALL HAVE WEEP HOLES AS SHOWN ON DETAILS.
11. ALL CAST-IN-PLACE PRECAST CONCRETE DRAINAGE STRUCTURES LOCATED IN PAVED AREAS ACCESSIBLE TO TRUCK LOADINGS TO BE DESIGNED TO MEET AASHTO HS 20-44 LOADING. SEE MANUFACTURERS DETAILS FOR WALL, TOP AND BOTTOM THICKNESS.





REVISIONS			
NO	DATE	DESCRIPTION	BY
1	06-14-19	CITY COMMENTS	JWR
2	06-20-19	UPDATE BUILDING AREAS	RCN
3	06-26-19	CITY COMMENTS #2	JWR

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DETAILS

PROJECT NO.	GEM-1808
FILENAME:	DTL2
DRAWN BY:	RCN
SCALE:	N.T.S.
DATE:	01-17-19
SHEET NO.	C-6

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