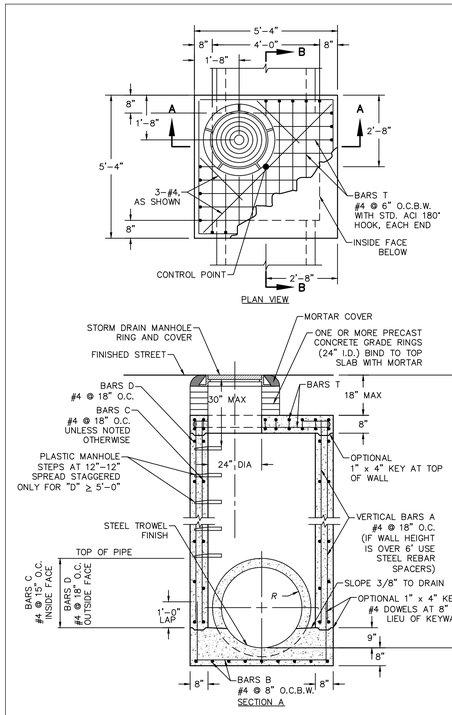
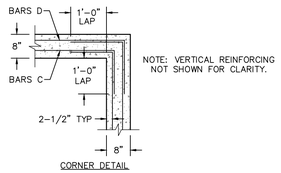
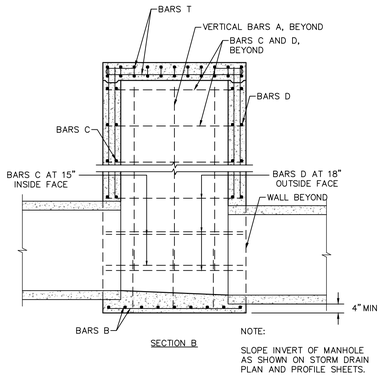


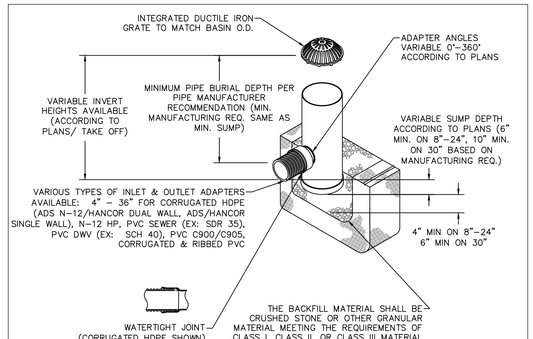




NOTES:
1. ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH f'c = 3,000 PSI AT 28 DAYS.
2. ALL REINFORCING STEEL SHALL BE GRADE 60.
3. ALL REINFORCING STEEL SHALL HAVE MINIMUM 2" COVER TO CENTER OF BAR, UNLESS NOTED OTHERWISE.
4. ALL DIMENSIONS RELATING TO REINFORCING ARE TO CENTER OF BARS.
5. LOCATION OF STRUCTURE AS SHOWN IN PLANS REFERS TO CONTROL POINT SHOWN ON THIS DETAIL.
6. FIELD CUT AND BEND BARS AS NECESSARY TO ACCOMMODATE STORM DRAIN PIPE PER TYPICAL MANHOLE / PIPE PENETRATION DETAIL.
7. MAXIMUM PIPE INSIDE DIAMETER FOR WALL PENETRATIONS.

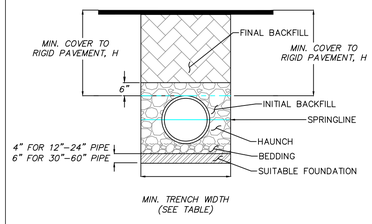
JUNCTION BOX SIZE	DIAMETER
4' SQUARE	36"
5' SQUARE	48"
6' SQUARE	60"

3 STANDARD 4' SQUARE JUNCTION BOX
NOT TO SCALE



ALL DOME GRATE INLETS TO BE NYOPLAST OR APPROVED EQUAL.

2 DRAIN BASIN WITH DOME GRATE
NOT TO SCALE



RECOMMENDED MINIMUM TRENCH WIDTHS

PIPE DIAM.	MIN. TRENCH WIDTH
4"	21"
6"	23"
8"	26"
10"	28"
12"	30"
15"	34"
18"	39"
24"	48"
30"	56"
36"	64"
42"	72"
48"	80'
60"	96"

MAXIMUM RECOMMENDED COVER BASED ON VEHICLE LOADING CONDITIONS

PROP	CLASS I		CLASS II	
	COMPACTED	DUMPED	95%	90%
4"	34	16	23	16
6"	40	19	27	19
8"	30	14	21	14
10"	34	16	23	16
12"	35	17	24	17
15"	37	18	25	18
18"	32	15	22	15
24"	27	13	19	13
30"	22	11	16	11
36"	26	12	18	12
42"	24	11	17	11
48"	23	11	16	11
60"	26	12	18	12

FILL HEIGHT TABLE GENERATED USING AASHTO SECTION 12, LOAD RESISTANCE FACTOR DESIGN (LRFD) PROCEDURE WITH THE FOLLOWING ASSUMPTIONS:
NO HYDROSTATIC PRESSURE,
UNIT WEIGHT OF SOIL (YS) = 120 PCF

NOTES:
1. ALL PIPE SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH ASTM D2321, "STANDARD PRACTICE FOR UNDERGROUND INSTALLATION OF THERMOPLASTIC PIPE FOR SEWERS AND OTHER GRAVITY FLOW APPLICATIONS", LATEST ADDITION
2. MEASURES SHOULD BE TAKEN TO PREVENT MIGRATION OF NATIVE FINES INTO BACKFILL MATERIAL, WHEN REQUIRED.
3. FOUNDATION: WHERE THE TRENCH BOTTOM IS UNSTABLE, THE CONTRACTOR SHALL EXCAVATE TO A DEPTH REQUIRED BY THE ENGINEER AND REPLACE WITH SUITABLE MATERIAL AS SPECIFIED BY THE ENGINEER. AS AN ALTERNATIVE AND AT THE DISCRETION OF THE DESIGN ENGINEER, THE TRENCH BOTTOM MAY BE STABILIZED USING A GEOTEXTILE MATERIAL.
4. BEDDING: SUITABLE MATERIAL SHALL BE CLASS I, II OR III. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. UNLESS OTHERWISE NOTED BY THE ENGINEER, MINIMUM BEDDING THICKNESS SHALL BE 4" FOR 4"-24"; 6" FOR 30"-60".
5. INITIAL BACKFILL: SUITABLE MATERIAL SHALL BE CLASS I, II OR III IN THE PIPE ZONE EXTENDING NOTE LESS THAN 6" ABOVE CROWN OF PIPE. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. MATERIAL SHALL BE INSTALLED AS REQUIRED IN ASTM D2321, LATEST EDITION.
6. MINIMUM COVER: MINIMUM COVER, H, IN NON-TRAFFIC APPLICATIONS (GRASS OR LANDSCAPE AREAS) IS 12" FROM THE TOP OF PIPE TO GROUND SURFACE. ADDITIONAL COVER MAY BE REQUIRED TO PREVENT FLOATATION. FOR TRAFFIC APPLICATIONS, MINIMUM COVER, H, IS 12" UP TO 48" DIAMETER PIPE AND 24" OF COVER FOR 60" DIAMETER PIPE, MEASURED FROM TOP OF PIPE TO BOTTOM OF FLEXIBLE PAVEMENT OR TO TOP OF RIGID PAVEMENT. FOR TRAFFIC APPLICATIONS WITH LESS THAN FOUR FEET OF COVER, EMBEDMENT OF THE PIPE SHALL BE USING ONLY A CLASS I OR CLASS II BACKFILL.

*MINIMUM RECOMMENDED COVER BASED ON VEHICLE LOADING CONDITIONS***

PIPE DIAM.	SURFACE LIVE LOADING CONDITION	
	H-25	HEAVY CONSTRUCTION (75T AXLE LOAD)*
12" - 48"	12"	48"
60"	24"	60"

* VEHICLES IN EXCESS OF 75T MAY REQUIRE ADDITIONAL COVER
** SEE BACKFILL REQUIREMENTS IN NOTE 6

1 STORM HDPE DRAINAGE STANDARD EMBEDMENT
NOT TO SCALE

ST. TERESA OF CALCUTTA CATHOLIC CHURCH
FORT WORTH, TEXAS

STORM DRAIN DETAILS

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ISSUE DATE:	2/16/2024

REV.	DATE	DESCRIP.	BY

SHEET CONTENT:

STORM DRAIN DETAILS

SHEET NO:

C11.3