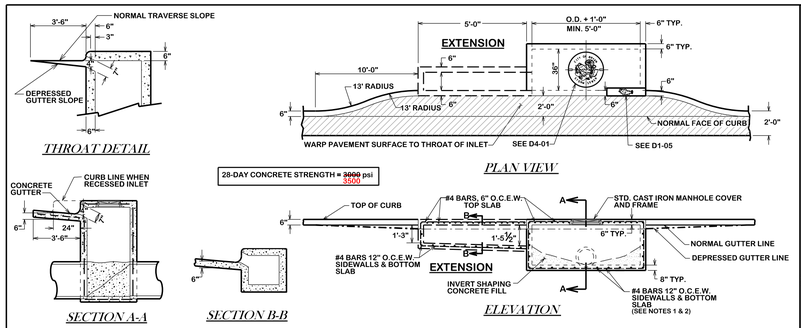
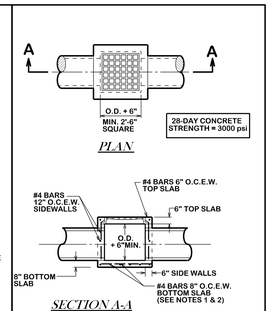


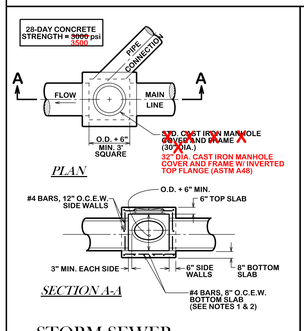
SINGLE RECESSED CURB INLET & CURB INLET W/EXTENSION

D1-00



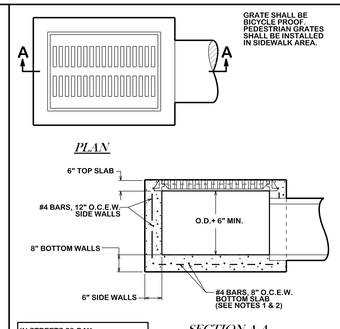
SINGLE GRATE INLET

D1-01



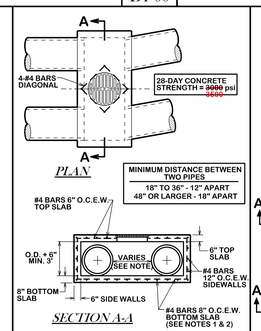
STORM SEWER JUNCTION BOX

D1-02



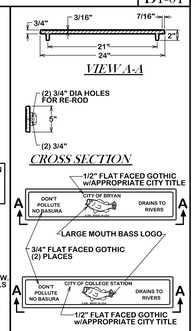
GRATE INLET

D1-03



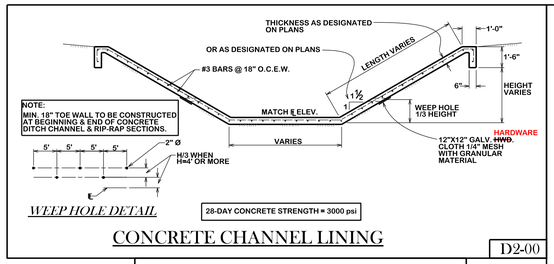
DOUBLE BARREL INLET

D1-04



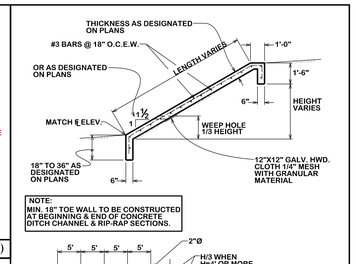
BASS LOGO PLATE

D1-05



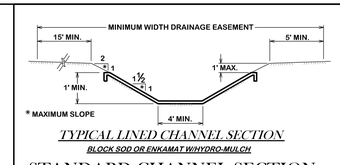
CONCRETE CHANNEL LINING

D2-00



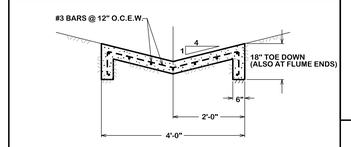
CONCRETE RIP-RAP

D2-01



STANDARD CHANNEL SECTION

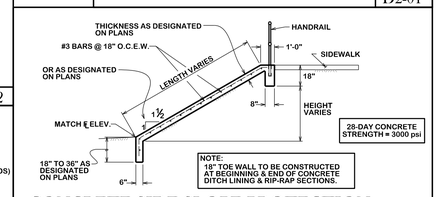
D2-02



STANDARD FLUME SECTION

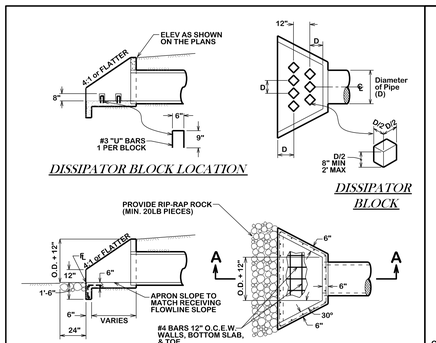
EXPANSION JOINTS AT 60' O.C.

D2-04



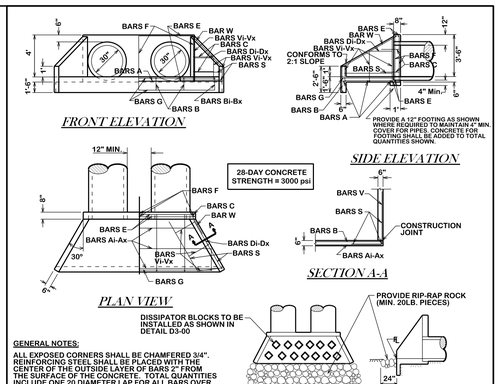
CONCRETE SIDE SLOPE PROTECTION

D2-03



TYPICAL CONCRETE HEADWALL & END WALL WITH WINGS

D3-00



REINFORCING STEEL FOR ONE HEADWALL

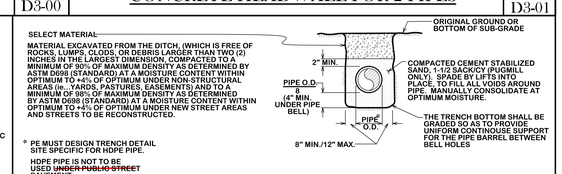
BARS Ai-Ax	BARS B	BARS Bi-Bx	BARS C	BARS Di-Dx	BARS E	BARS F	BARS G	BARS S	BARS Vi-Vx	BARS W
#4@12"±	#3@18"±	#3@18"±	#4@12"±	#3@12"±	#5	#4	#3	#4	#4@12"±	#5

CONCRETE HEADWALL FOR 2 PIPES

D3-01

STRUCTURAL BACKFILL AREA

D3-02



BEDDING AND TRENCH FOR REINFORCED CONCRETE PIPE AND BOX CULVERTS

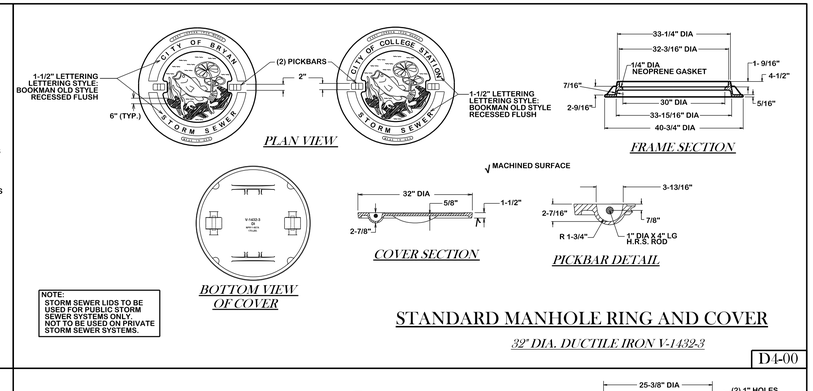
D3-03

GENERAL NOTES:

1. BASE THICKNESS AND FOUNDATION SHALL BE AS FOLLOWS:

INLET DEPTH (FT.) (MEASURED FROM FLOWLINE TO FINAL GRADE)	BASE THICKNESS
0 - 12	8"
12 AND OVER	12"

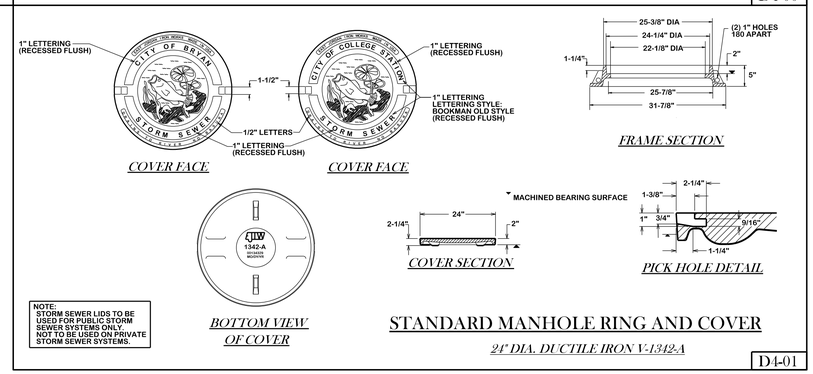
2. DEPTHS GREATER THAN 12' WILL REQUIRE 2 MATS OF REINFORCING STEEL IN THE BASE.
3. ALL AREAS WHERE EXISTING VEGETATION AND GRASS COVER HAVE BEEN BARED BY CONSTRUCTION SHALL BE ADEQUATELY BLOCK SODDED OR HYDROMULCHED AND WATERED UNTIL GROWTH IS ESTABLISHED. IN DEVELOPED AREAS WHERE GRASS IS PRESENT, BLOCK SOD WILL BE REQUIRED.
4. APPROVED EROSION CONTROL MEASURES MUST BE INSTALLED DURING THE ENTIRE TIME THAT EARTH HAS BEEN BARED BY CONSTRUCTION AND SHALL STAY IN PLACE UNTIL ACCEPTABLE VEGETATIVE GROWTH IS ESTABLISHED AFTER CONSTRUCTION IS COMPLETE AND THEN REMOVED BY CONTRACTOR.



STANDARD MANHOLE RING AND COVER

32" DIA. DUCTILE IRON V-1432-3

D4-00



STANDARD MANHOLE RING AND COVER

24" DIA. DUCTILE IRON V-1342-A

D4-01

REVISIONS:

BRYAN - COLLEGE STATION STANDARD DRAINAGE DETAILS

CITY OF COLLEGE STATION

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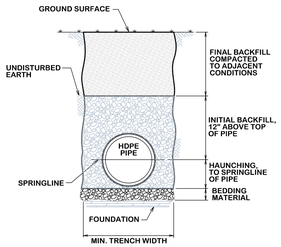
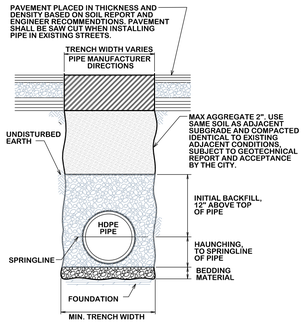
DATE: 08-01-12
SCALE: N T S
APPROVED: W. P. K.
FIGURE: D

SHEET 1 OF 1



TYPICAL TRENCH CROSS-SECTION

D5-01



TYPICAL ROADWAY CROSS-SECTION

D5-02

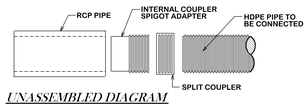
GENERAL NOTES:

1. FOUNDATION:
   WHERE THE TRENCH BOTTOM IS UNSTABLE, THE CONTRACTOR SHALL EXCAVATE TO A DEPTH REQUIRED BY THE ENGINEER AND REPLACE WITH A FOUNDATION OF CLASS I MATERIAL AS DEFINED IN ASTM D2321, "STANDARD PRACTICE FOR INSTALLATION OF THERMOPLASTIC PIPE FOR SEWERS AND OTHER GRAVITY-FLOW APPLICATIONS," LATEST EDITION.
2. BEDDING:
   SUITABLE MATERIAL SHALL BE CLASS I INSTALLED AS REQUIRED IN ASTM D2321, LATEST EDITION.

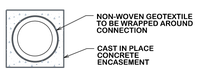
   UNLESS OTHERWISE SPECIFIED BY THE ENGINEER, MINIMUM BEDDING THICKNESS SHALL BE 4" FOR 4"-24" CORRUGATED POLYETHYLENE PIPE (CPEP); 6" FOR 30"-60" CPEP.
3. HAUNCHING AND INITIAL BACKFILL:
   SUITABLE MATERIAL SHALL BE CLASS I AND INSTALLED AS REQUIRED IN ASTM D2321, LATEST EDITION.
4. UNLESS OTHERWISE SPECIFIED BY THE ENGINEER, MINIMUM TRENCH WIDTHS SHALL BE AS FOLLOWS:

NOMINAL DIA. (inches)	MIN. TRENCH WIDTH (inches)
4	21
6	23
8	26
10	28
12	30
15	34
18	39
24	48
30	56
36	64
42	72
48	89
60	96

5. MINIMUM COVER: MINIMUM SHALL BE 2'-0"
6. BELL ENDS SHALL BE CUT OFF BEFORE BEING ASSEMBLED WITH SPLIT COUPLER.
7. CONCRETE COLLAR SHALL BE CLASS A CONCRETE. (TXDOT ITEM 421)



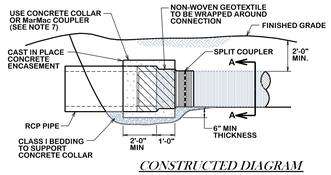
UNASSEMBLED DIAGRAM



SECTION A-A

NOTES:

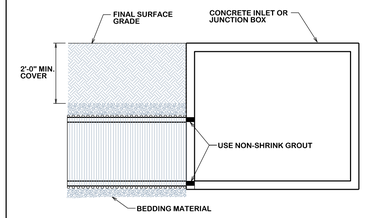
1. CONNECTION AND PIPE TO BE BACKFILLED PER ASTM D2321
2. IN LIEU OF AN INTERNAL CYLINDER, AN HDPE WATERTIGHT REPAIR COUPLER CAN BE USED TO CONNECT HDPE PIPE TO CMP.
3. INTERNAL CYLINDER ADAPTER IS NOT RECOMMENDED FOR DOWNSTREAM CONNECTIONS.



CONSTRUCTED DIAGRAM (IN PLACE)

DETAILS FOR RCP TO HDPE CONNECTION

D5-03



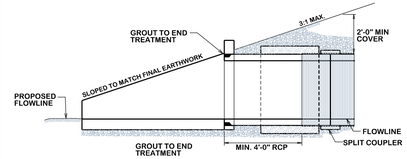
UNDERGROUND INLET-PRECAST

ELEVATION VIEW

D6-01

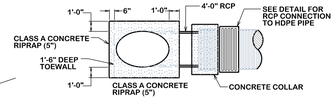
NOTES:

1. PRECAST CONCRETE END TREATMENT MAY BE USED FOR 18" - 36" PIPE TERMINAL ENDS.
2. CAST IN PLACE END TREATMENTS SHALL BE USED FOR LARGER SIZED PIPES

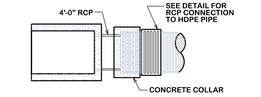


TAPERED END SECTION

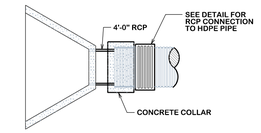
ELEVATION VIEW



SLOPED RCP END W/CONC. RIPRAP



PRECAST STRAIGHT WINGWALL



PRECAST FLARED WINGWALL

OPTIONAL WINGWALL CONNECTIONS

D6-02

REVISIONS:

BRYAN - COLLEGE STATION STANDARD DRAINAGE DETAILS

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DATE: 08-01-12
SCALE: N T S
APPROVED: W. P. K.

FIGURE:
D2

SHEET 2 OF 2