

New construction water line parts and fittings

Water main fittings

Water mains- DR18-c900 pipe

Valves – Mueller resilient wedge gate valves MJxMJ

Water main fittings- Ductile iron with MJ fittings

Fire hydrants

Fire hydrants- Waterous Pacer hydrants

Water service lines and saddles

Ford fittings Must Be Ford Grip Joint Only

No Ford Quick Joint fittings of Any Kind

Only Ford Fittings will be allowed

¾ Tapping saddle- 202BS-¾- Double band saddle for c900

¾ Corporation stop- FB101-3-G-NL

¾ Angle stop- KV23-332W-G-NL

1in Tapping saddle- 202BS-1in- Double band saddle for c900

1in Corporation stop- FB101-4-G-NL

1in Angle stop- KV23-444W-G-NL

2in Tapping saddle-202BS-2in- Double band saddle for c900

2in Corporation stop- FB101-6-IDR7-G-NL

2IN Angle stop-BFA43-777W-G-NL

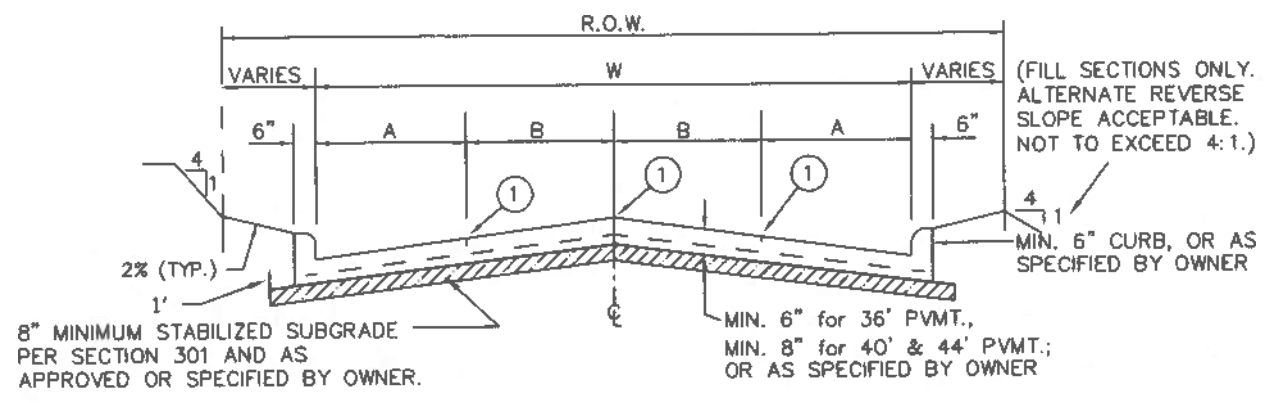
Service Lines- EndoTrace Blue poly 1in-2in

Meter cans- DFW 1500 Box with solid plastic lid

Service Lines under streets 2in-4in PVC sleeve required.

Updated 12/4/2024

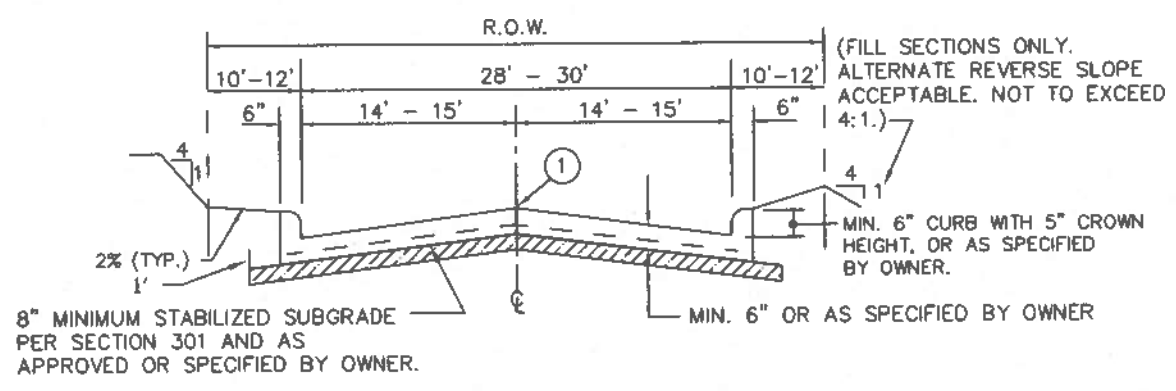
City paving - 4500 psi portland cement concrete
4 bar @ 18 in centers



LANES	STREET WIDTH(W)	A	B	R.O.W. WIDTH	CROWN HEIGHT*
2 TRAVEL LANES W/ 2 PARKING LANES	36'	8'	10'	VARIES	6"
2 TRAVEL LANES W/ 2 PARKING LANES	40'	10'	10'	VARIES	6"
4 TRAVEL LANES	44'	11'	11'	VARIES	8"

*SEE NOTE 4

FOUR TRAVEL LANES OR
TWO TRAVEL LANES & TWO PARKING LANES
N.T.S.



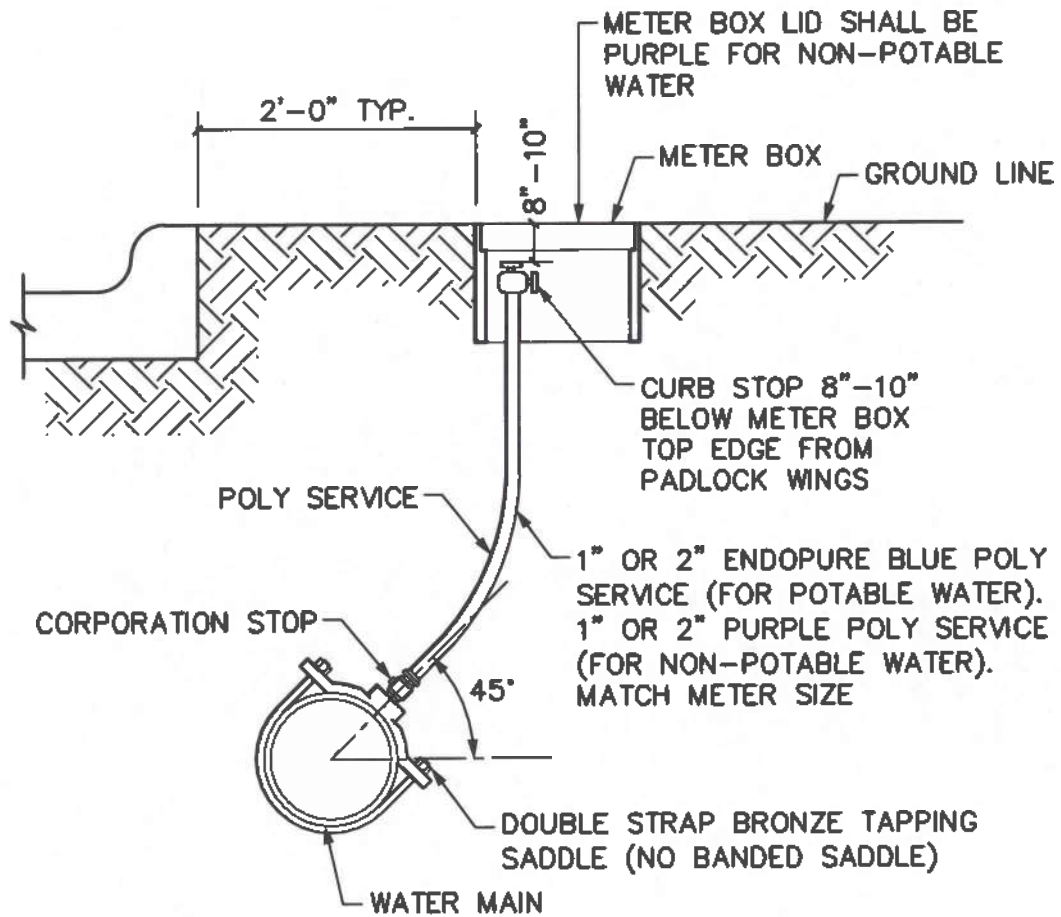
ONE TRAVEL LANE & TWO PARKING LANES
N.T.S.

① INDICATES SAWED LONGITUDINAL CONTRACTION OR CONSTRUCTION JOINT.

NOTES :

- ALL REINFORCEMENT SHALL BE 4" BARS ON 18" CENTERS BOTH WAYS, EXCEPT WHERE NOTED.
- ALTERNATIVE SUBGRADE, THICKNESS, AND STEEL MAY BE UTILIZED WITH MORE DETAILED STUDY AND ANALYSIS AND AS APPROVED BY OWNER.
- PAVEMENT STRENGTH SHALL CONFORM TO CLASS "C" OR "PC" CONCRETE, OR AS SPECIFIED BY THE OWNER.
- STRAIGHT CROWN OR PARABOLIC CROWN AS APPROVED BY OWNER.
- SEE DETAILS 2170 FOR SIDEWALKS.
- FOR ALTERNATE OFF-STREET BIKE OPTIONS, SEE AASHTO SHARED USE PATH GUIDELINES.
- BIKE LANES MAY BE ADDED PER AASHTO GUIDELINES.

2- & 4-LANE UNDIVIDED ROADWAY WITH OPTIONAL PARKING (WITHOUT BIKE LANE)	 North Central Texas Council of Governments	STANDARD SPECIFICATION REFERENCE 303	
		DATE AUG '23	STANDARD DRAWING NO. 2035



NOTES:

1. WATER SERVICES SHALL NOT BE CONNECTED TO FIRE HYDRANT LINES OR TO FIRE SERVICE MAINS.
2. METER BOX SHALL BE LOCATED OUT OF ALL FLATWORK, SIDEWALKS AND APPROACHES.
3. REFER TO TECHNICAL SPECIFICATION 331213 WATER SERVICE CONNECTIONS.
4. TRACER WIRE MUST BE OUT OF GROUND AND WRAPPED ON CURB STOP.

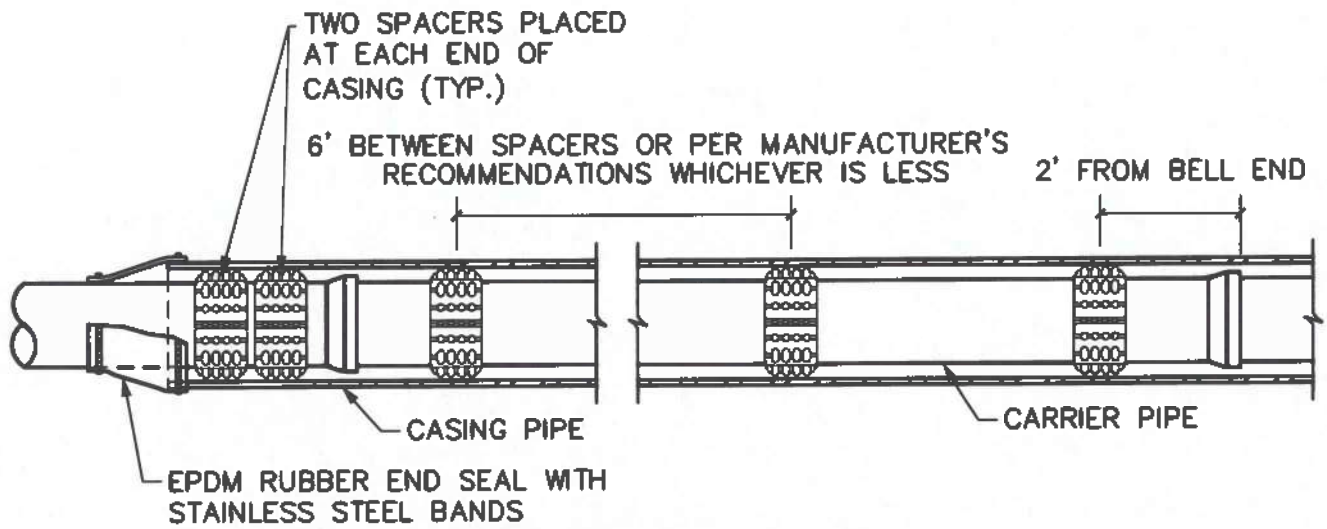


**STANDARD CONSTRUCTION DETAIL
TYPICAL SERVICE CONNECTION**

SCALE: 3/4"=1'-0"

REVISED: AUG 2020

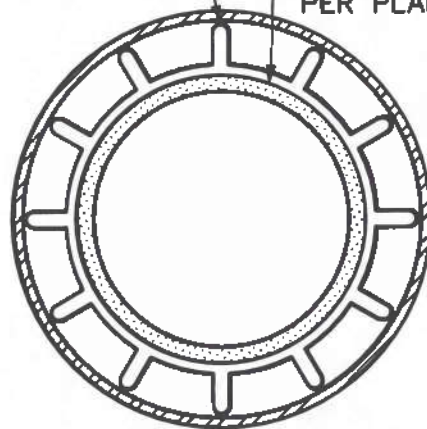
W16



CASING SPACER PROFILE

HIGH DENSITY POLYETHYLENE CASING SPACERS

CARRIER PIPE SIZE AND TYPE PER PLANS



CASING SPACER

NOTE:

1. REFER TO APPROVED MATERIALS LIST FOR CASING SPACERS.



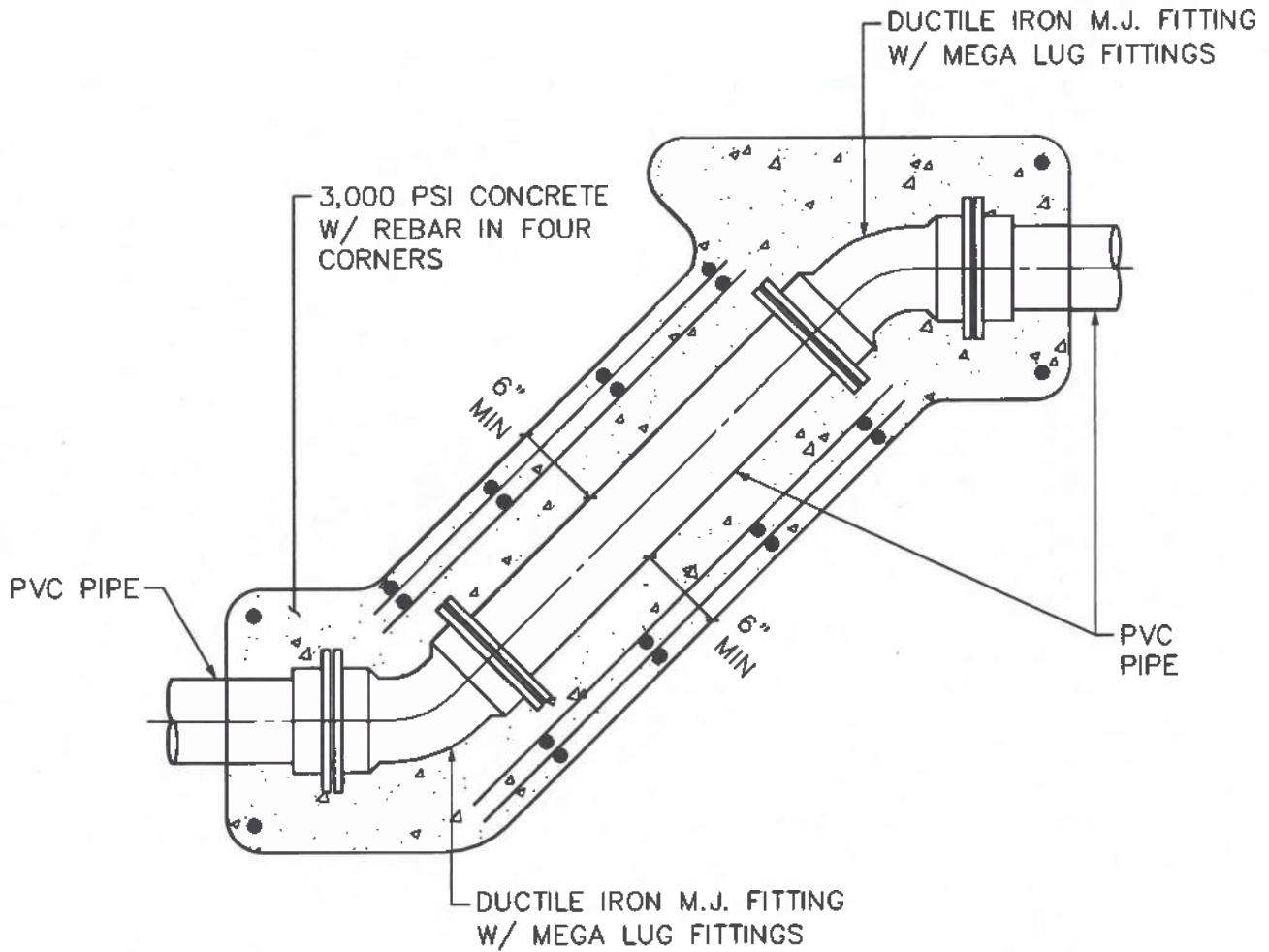
STANDARD CONSTRUCTION DETAIL

CASING SPACERS

SCALE: 3/8"=1'-0"

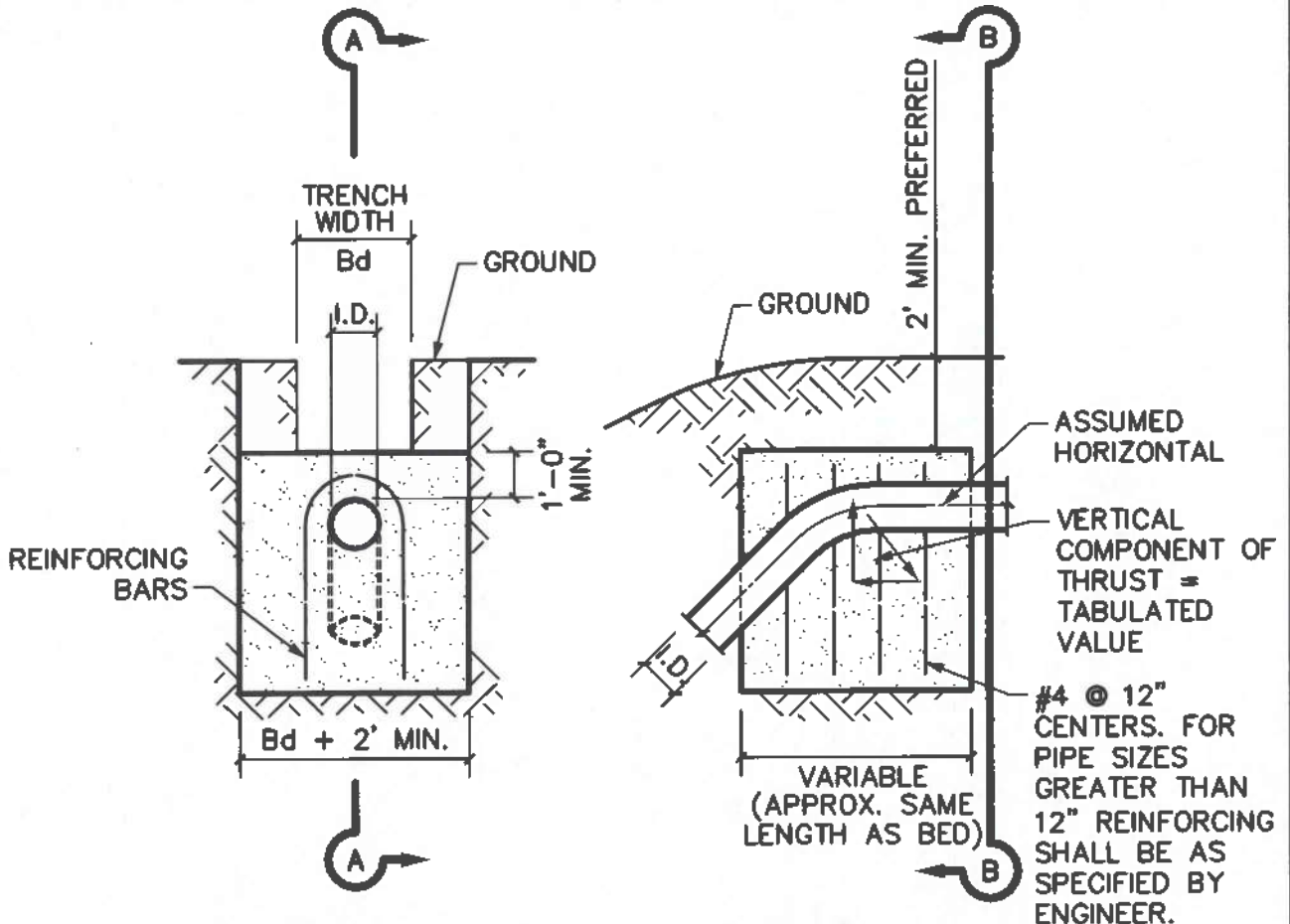
REVISED: AUG 2020

U11



STANDARD CONSTRUCTION DETAIL
THRUST HARNESS

SCALE: N.T.S.
REVISED: AUG 2020
W04



ELEVATION B-B

SECTION A-A

A	11.25'		22.50'		30'		45'		67.50'		90'		A
I.D. (IN.)	THRUST (TONS)	VOL. (C.Y.)	THRUST (TONS)	VOL. (C.Y.)	THRUST (TONS)	VOL. (C.Y.)	THRUST (TONS)	VOL. (C.Y.)	THRUST (TONS)	VOL. (C.Y.)	THRUST (TONS)	VOL. (C.Y.)	I.D. (IN.)
4,6,8	1.0	0.5	2.0	1.0	2.5	1.3	3.6	1.8	4.6	2.3	5.0	2.5	4,6,8
10,12	2.2	1.1	4.3	2.2	5.7	2.8	8.0	4.0	10.5	5.2	11.3	5.7	10,12
16,18	5.0	2.5	9.7	4.9	12.7	6.4	18.0	9.0	23.5	11.8	25.5	12.7	16,18
20	6.1	3.1	12.0	6.0	15.7	7.9	22.2	11.1	29.2	14.5	31.4	15.7	20
24	8.2	4.4	17.3	8.7	22.6	11.3	32.0	16.0	41.8	20.9	45.2	22.6	24
30	10.5	5.2	20.3	10.1	26.5	13.3	37.5	18.8	49.0	24.5	53.1	26.5	30
36	14.9	7.5	29.2	14.8	38.2	19.1	54.0	27.0	70.5	35.3	76.4	38.2	36
42	20.3	10.1	39.8	19.9	52.0	26.0	73.5	36.7	96.0	48.0	104.0	52.0	42
48	26.5	13.2	51.9	26.0	67.9	33.9	98.0	48.0	126.0	62.7	136.0	67.9	48
54	33.5	16.8	65.7	32.9	85.9	42.9	122.0	60.7	159.0	79.4	172.0	85.9	54
60	41.4	20.7	81.2	40.6	106.0	53.0	150.0	75.0	196.0	98.0	212.0	106.0	60
66	50.1	25.0	98.2	49.1	128.0	64.2	182.0	90.7	237.0	119.0	257.0	128.0	66
72	59.6	29.8	117.0	58.4	153.0	76.3	216.0	108.0	282.0	141.0	305.0	153.0	72
78	69.9	35.0	137.0	68.6	179.0	90.0	254.0	127.0	331.0	166.0	358.0	179.0	78
84	81.1	40.5	159.0	79.5	208.0	104.0	294.0	147.0	384.0	192.0	416.0	208.0	84
90	93.1	46.5	183.0	91.3	239.0	119.0	337.0	169.0	441.0	221.0	477.0	239.0	90
96	108.0	53.0	208.0	104.0	272.0	136.0	384.0	192.0	502.0	251.0	543.0	272.0	96

NOTE:

1. REFER TO STANDARD DETAIL W06 FOR GENERAL NOTES.



**STANDARD CONSTRUCTION DETAIL
VERTICAL THRUST BLOCK AT PIPE BEND**

SCALE: 1/4"=1'-0"

REVISED: AUG 2020

W05

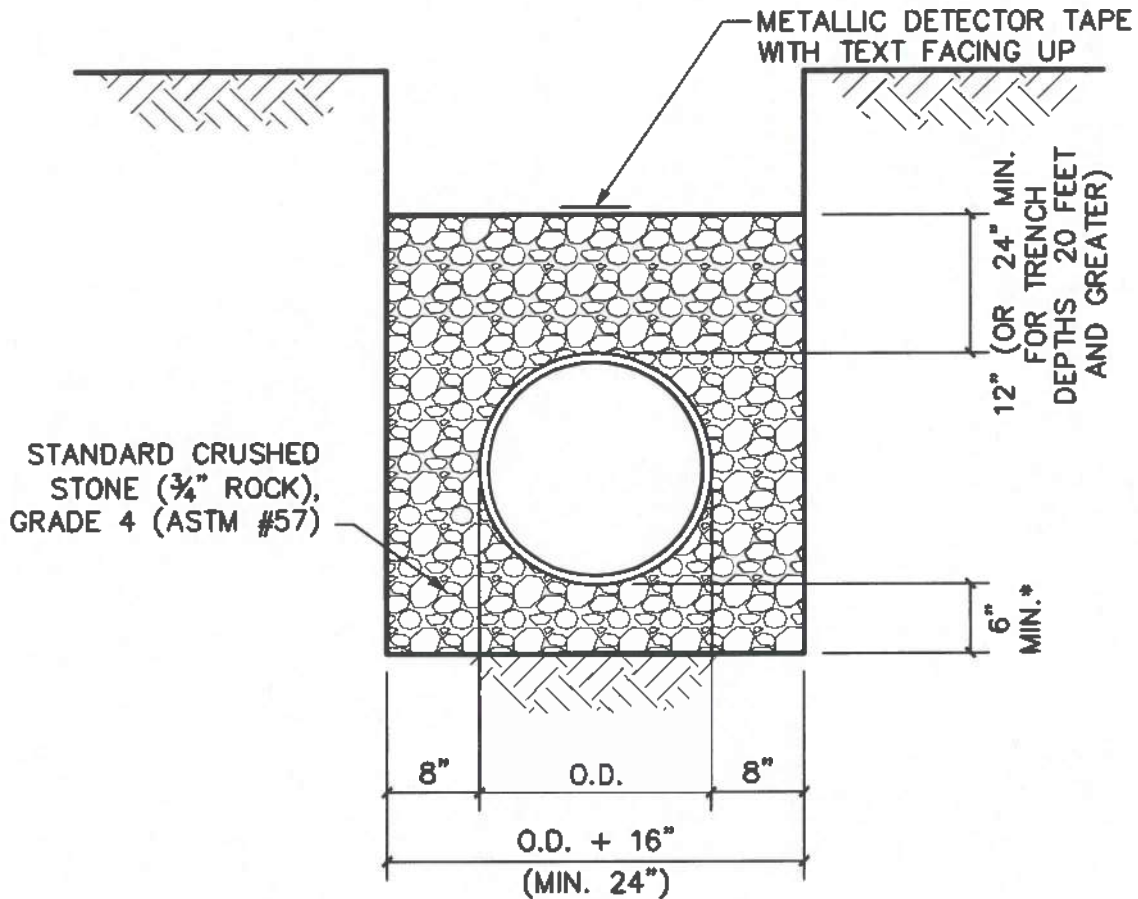
GENERAL NOTES FOR ALL THRUST BLOCKS:

1. CONCRETE FOR BLOCKING SHALL BE CLASS B AND SULFATE RESISTANT. RE: TECHNICAL SPECIFICATION 321313.
2. ALL CALCULATIONS ARE BASED ON INTERNAL PRESSURE OF 200 PSI FOR DUCTILE IRON, P.V.C.
3. VOLUMES OF THRUST BLOCKS ARE NET VOLUMES OF CONCRETE TO BE FURNISHED. THE CORRESPONDING WEIGHT OF THE CONCRETE (CLASS B) IS EQUAL TO OR GREATER THAN THE VERTICAL COMPONENT OF THE THRUST ON THE VERTICAL BEND.
4. WALL THICKNESS (T) ASSUMED HERE FOR ESTIMATING PURPOSES ONLY.
5. POUR CONCRETE FOR BLOCK AGAINST UNDISTURBED EARTH.
6. DIMENSIONS MAY BE VARIED AS REQUIRED BY FIELD CONDITIONS WHERE AND AS DIRECTED BY THE ENGINEER. THE VOLUME OF CONCRETE BLOCKING SHALL BE LESS THAN SHOWN HERE.
7. THE SOIL BEARING PRESSURES ARE BASED ON 1000 LBS./S.F. IN SOIL AND 2000 LBS./S.F. IN ROCK.
8. USE POLYETHYLENE WRAP OR EQUAL BETWEEN CONCRETE AND BEND, TEE, OR PLUG TO PREVENT THE CONCRETE FROM STICKING TO IT.
9. FOR STANDARD FITTINGS, CONCRETE SHALL NOT EXTEND BEYOND JOINTS.



**STANDARD CONSTRUCTION DETAIL
THRUST BLOCK
GENERAL NOTES**

SCALE: N.T.S.
REVISED: AUG 2020
W06



CLASS "H"

* BEDDING DEPTH MEASURED FROM OUTSIDE OF PIPE BELL.

NOTES:

1. UTILIZE CLASS "H" EMBEDMENT FOR WASTEWATER LINES.
2. REFER TO TECHNICAL SPECIFICATION 330510 TRENCHING, BACKFILLING AND COMPACTION.

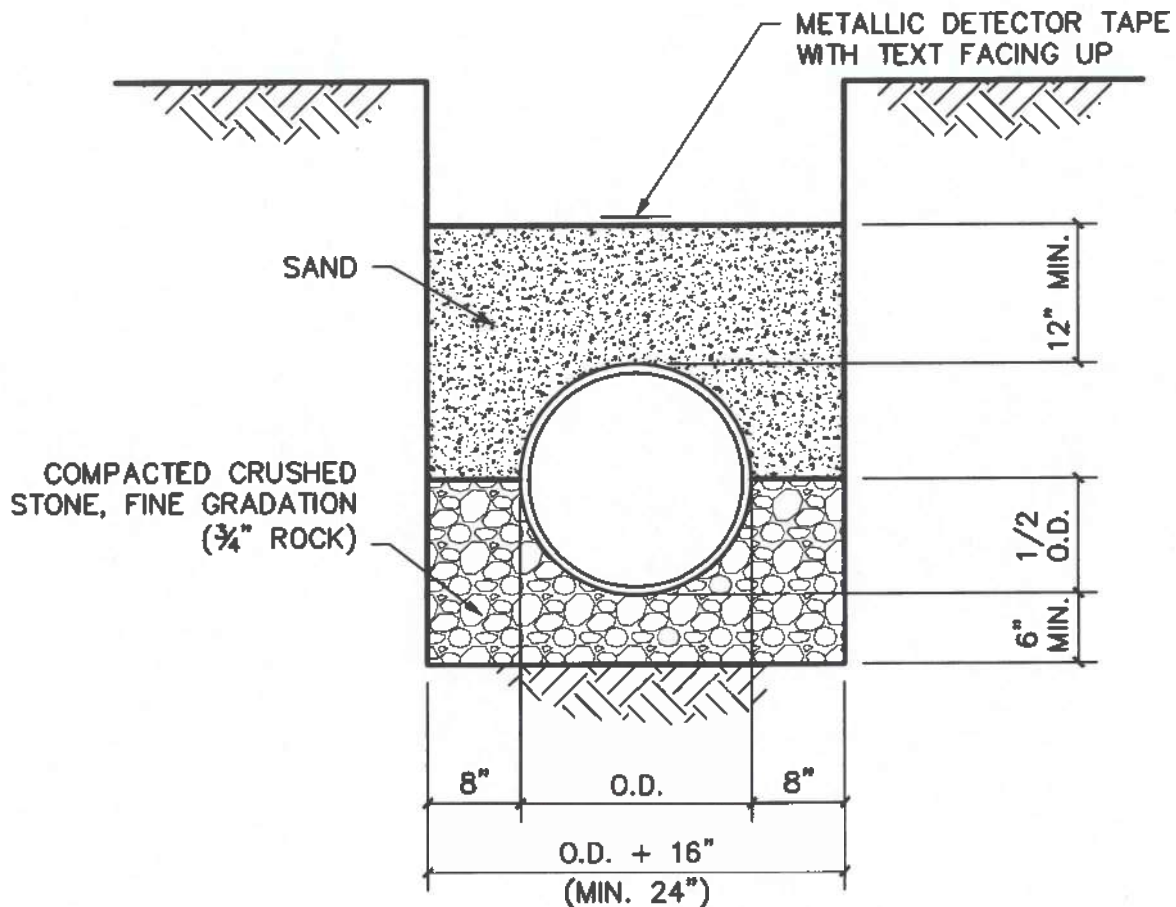


STANDARD CONSTRUCTION DETAIL
EMBEDMENT "H" (WASTEWATER)

SCALE: 3/4"=1'-0"

REVISED: AUG 2020

U06



CLASS "B+"

NOTES:

1. UTILIZE CLASS "B+" EMBEDMENT FOR PVC WATER LINES.
2. REFER TO TECHNICAL SPECIFICATION 330510 TRENCHING, BACKFILLING AND COMPACTION.
3. BEDDING DEPTH MEASURED FROM OUTSIDE THE PIPE BELL.
4. FINAL BACKFILL MOISTURE TREATED TO 3% ABOVE OPTIMUM AT 95% STANDARD PROCTOR FOR EAGLE FORD AND 0 ±4% FOR AUSTIN CHALK.

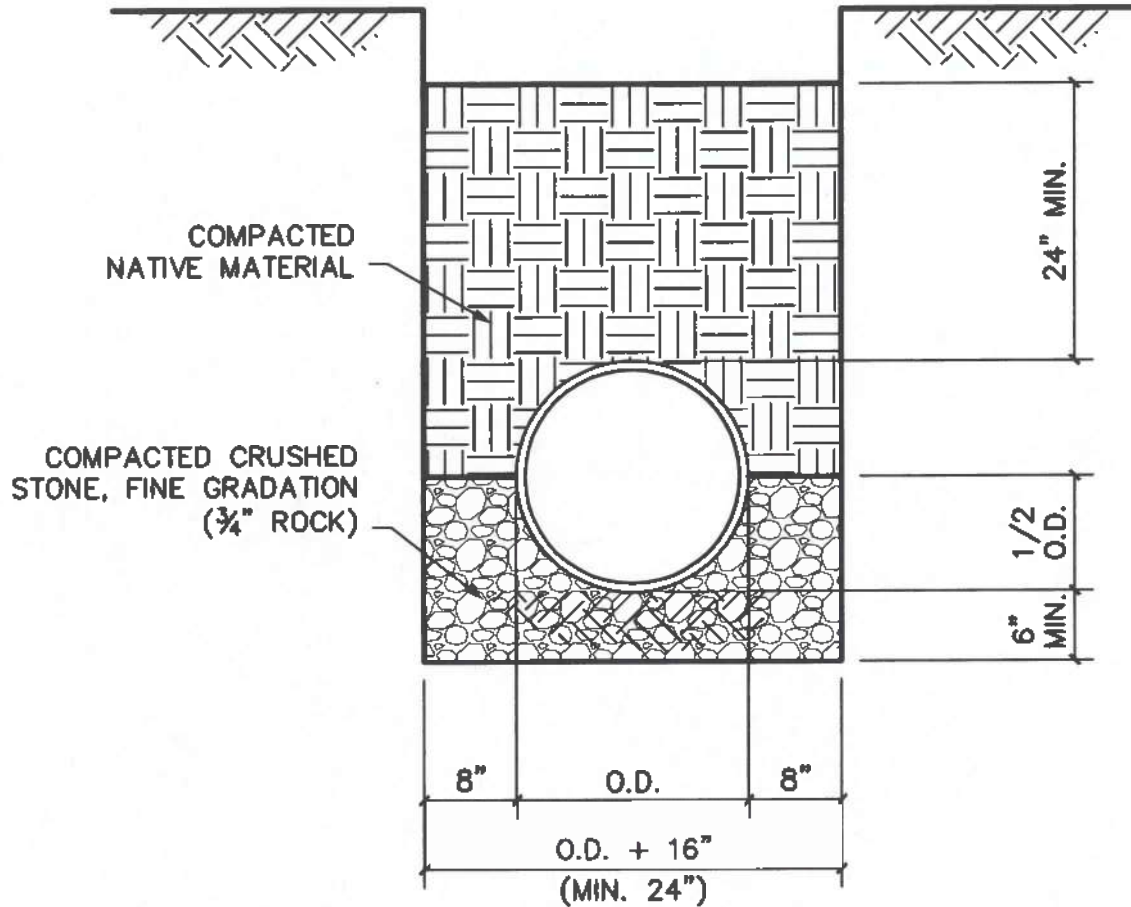


STANDARD CONSTRUCTION DETAIL
EMBEDMENT "B+" (WATER)

SCALE: 3/4"=1'-0"

REVISED: AUG 2020

U02



CLASS "B"

NOTES:

1. UTILIZE CLASS "B" EMBEDMENT FOR RCP STORM DRAIN INSTALLATIONS.
2. REFER TO TECHNICAL SPECIFICATION 330510 TRENCHING, BACKFILLING AND COMPACTION.
3. BEDDING DEPTH MEASURED FROM OUTSIDE THE PIPE BELL.
4. FINAL BACKFILL MOISTURE TREATED TO 3% ABOVE OPTIMUM AT 95% STANDARD PROCTOR FOR EAGLE FORD AND 0 ±4% FOR AUSTIN CHALK.



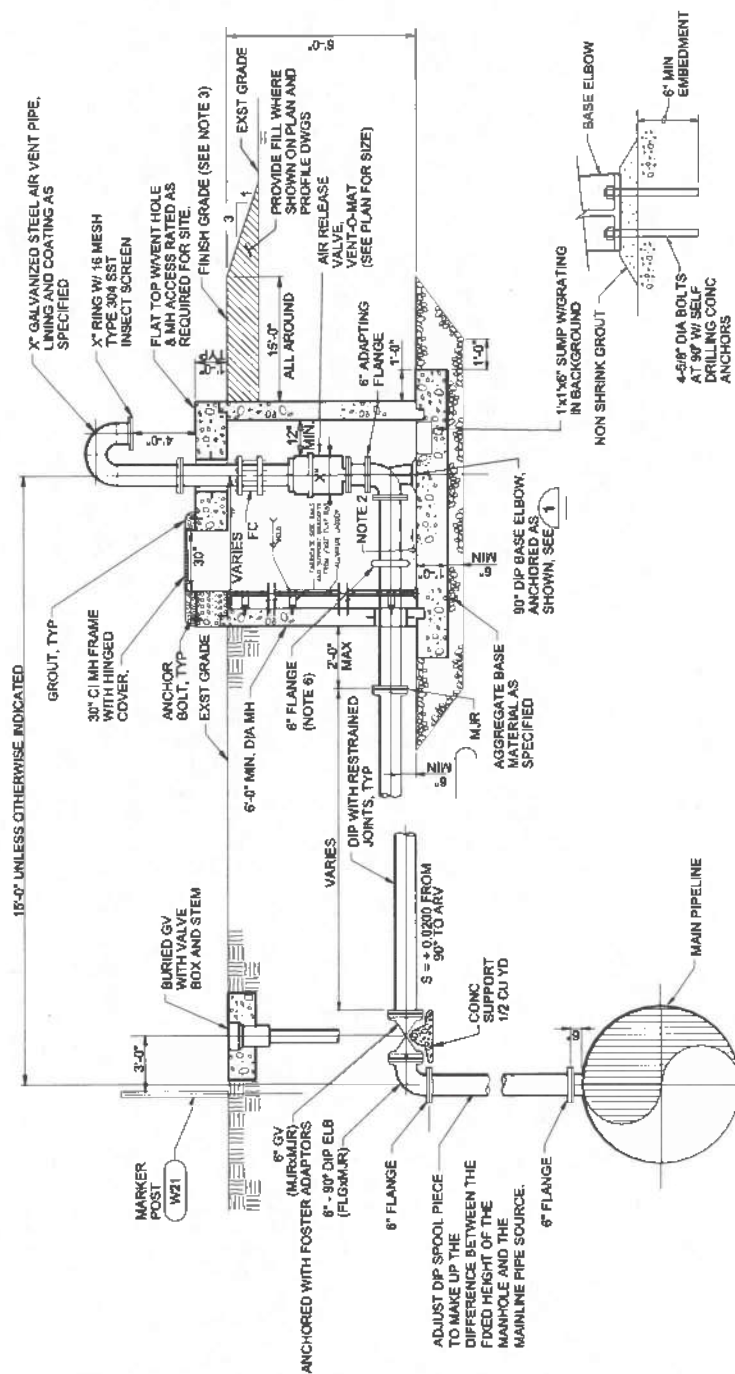
STANDARD CONSTRUCTION DETAIL

EMBEDMENT "B" (STORM)

SCALE: 3/4"=1'-0"

REVISED: AUG 2020

U01



**ANCHORAGE
ELBOW SUPPORT**



NOTES:

1. SEE CITY TYPICAL HINGED MANHOLE DETAIL.
2. PROVIDE 2% MIN SLOPE TOWARDS SUMP.
3. CONTRACTOR SHALL COORDINATE FINAL GRADING AND TOP OF MANHOLE ELEVATIONS WITH THE CITY OF FRISCO, BASED UPON ACTUAL FIELD CONDITIONS.
4. WHEN NOT ON PAVING OR SIDEWALK, A CONCRETE PAD IS REQD. REINFORCED WITH #3 @ 12" EW, CTRD. PAD SHALL EXTEND A MINIMUM OF 2'-0" AROUND THE MANHOLE AND VENT PIPE AND SHALL BE A MINIMUM OF 4" THICK.
5. REFER TO TECHNICAL SPECIFICATION 331216 "AIR VALVES FOR POTABLE WATER SYSTEMS".
6. FOR WASTEWATER SYSTEMS ONLY; PROVIDE 20 MESH STAINLESS SCREEN BRASS Y-STRAINER WITHIN THE MANHOLE PRIOR TO THE DIP BASE ELBOW. REQUIREMENT FOR STRAINER IS APPLICABLE TO TYPE 1 AND TYPE 2 COMBINATION AIR VACUUM AND AIR VENT VALVES.



**STANDARD CONSTRUCTION DETAIL
COMBINATION AIR VACUUM VALVE TYPE "1"
AND AIR VENT**