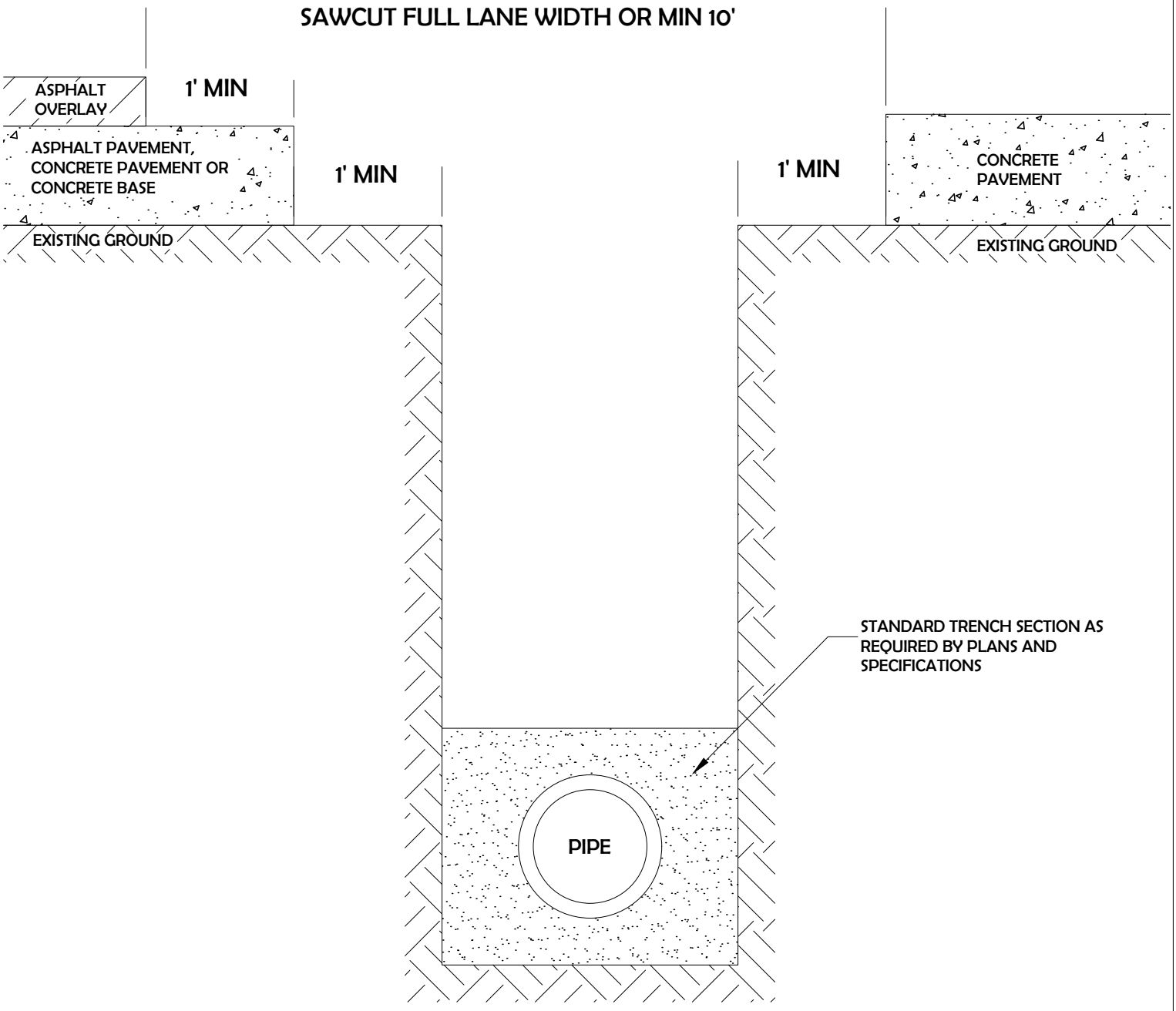
1-A-1

PAVEMENT SAWCUT - TRENCH SECTION (TYPICAL)



Fond du Lac
First on the Lake

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ENGINEERING AND TRAFFIC DIVISION
CITY OF FOND DU LAC, WISCONSIN

SCALE: 1" =1'
REVISED 02/12/12 BY JMK
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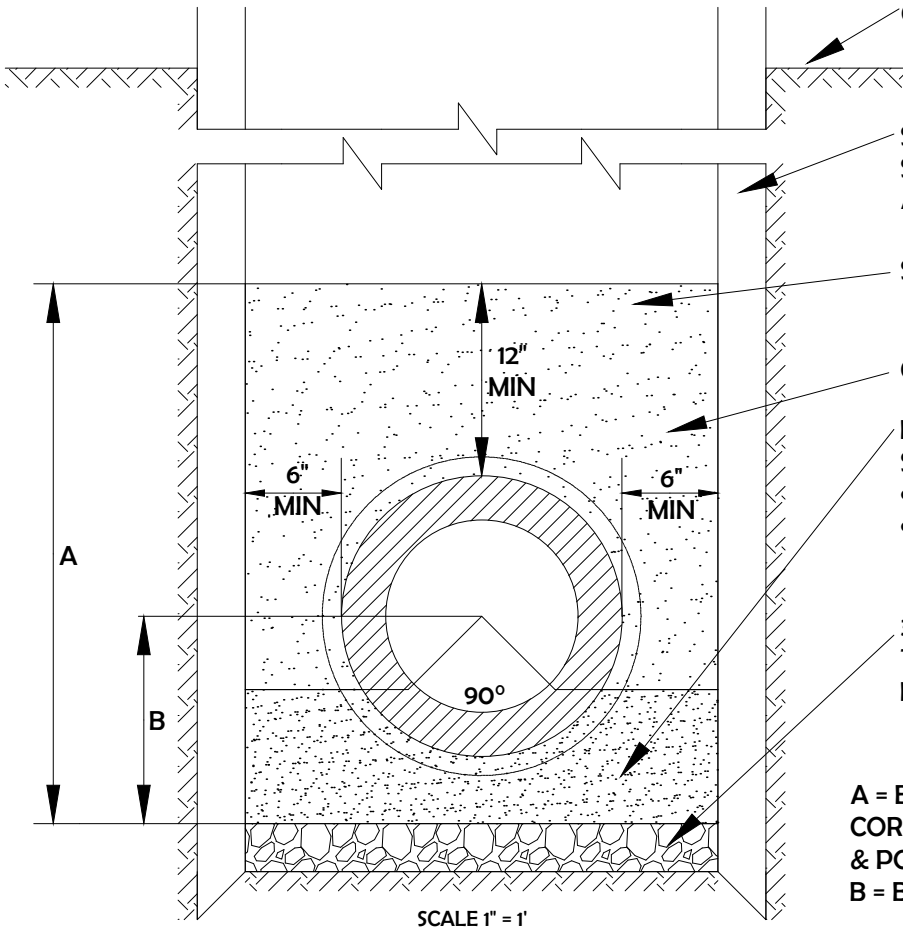
1-A-2

TRENCH SECTION (TYPICAL)



GROUND OR PAVEMENT SURFACE

SHEATHING AS REQUIRED BY PLAN, SPECIFICATIONS OR WISCONSIN ADMINISTRATIVE CODE

SEE SPECIFICATIONS FOR FILL MATERIAL

COVER MATERIAL

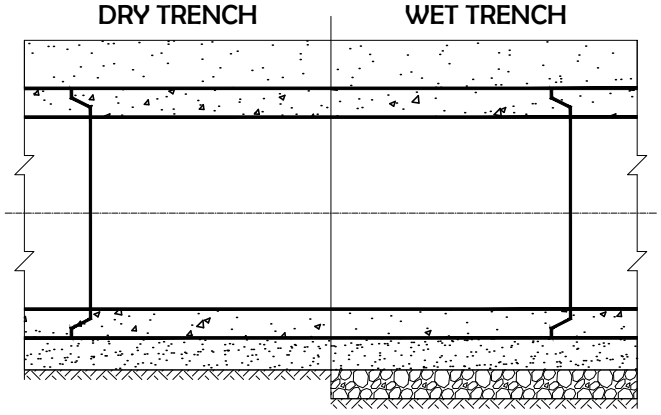
BEDDING MATERIAL TO BE PLACED BEFORE SETTING PIPE:

- 4" MIN UNDER BARREL
- 3" MIN UNDER BELL

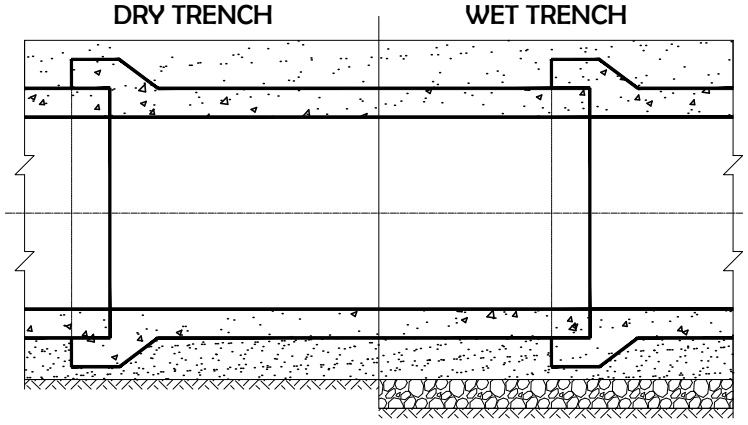
3" CRUSHED AGGREGATE BASE REQUIRED IN WET TRENCH. COST TO BE INCIDENTAL TO SEWER INSTALLATION

A = BEDDING MATERIAL LIMITS FOR PVC, CORRUGATED POLYETHYLENE, POLYPROPYLENE & POLYMER MORTAR PIPE
B = BEDDING LIMITS FOR CONCRETE PIPE

BELL AND SPIGOT JOINT SHOWN



TONGUE AND GROOVE CROSS SECTION
(EXAGGERATED)



BELL AND SPIGOT CROSS SECTION
(EXAGGERATED)

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CITY OF FOND DU LAC, WISCONSIN

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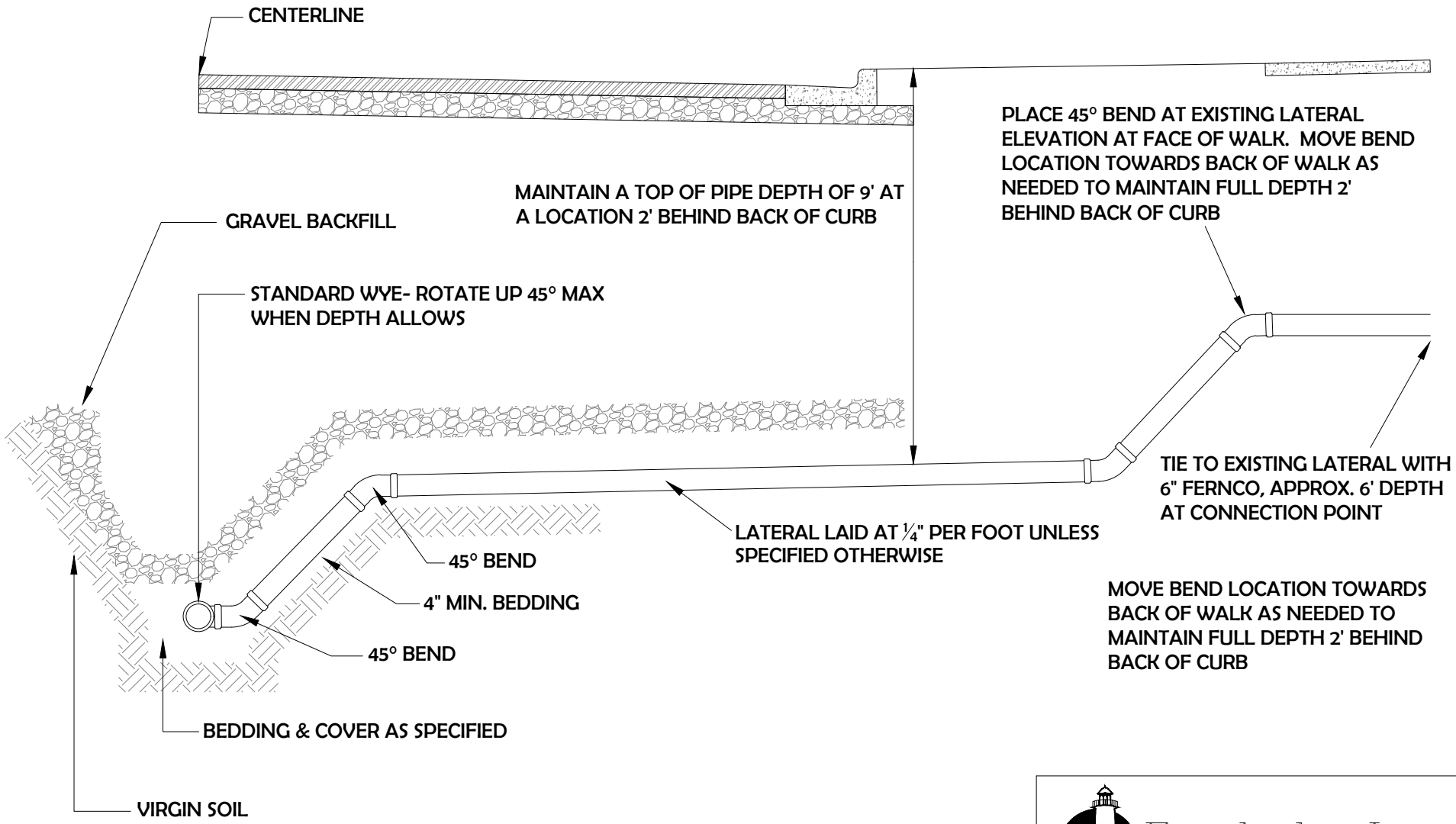
J:\CITYDWG\Civil 3D Drawings\DTL\City SDDs\TRENCH SECTION DETAIL.PDF

1-A-3

SANITARY RISER DETAIL (TYPICAL)
EXISTING LATERAL



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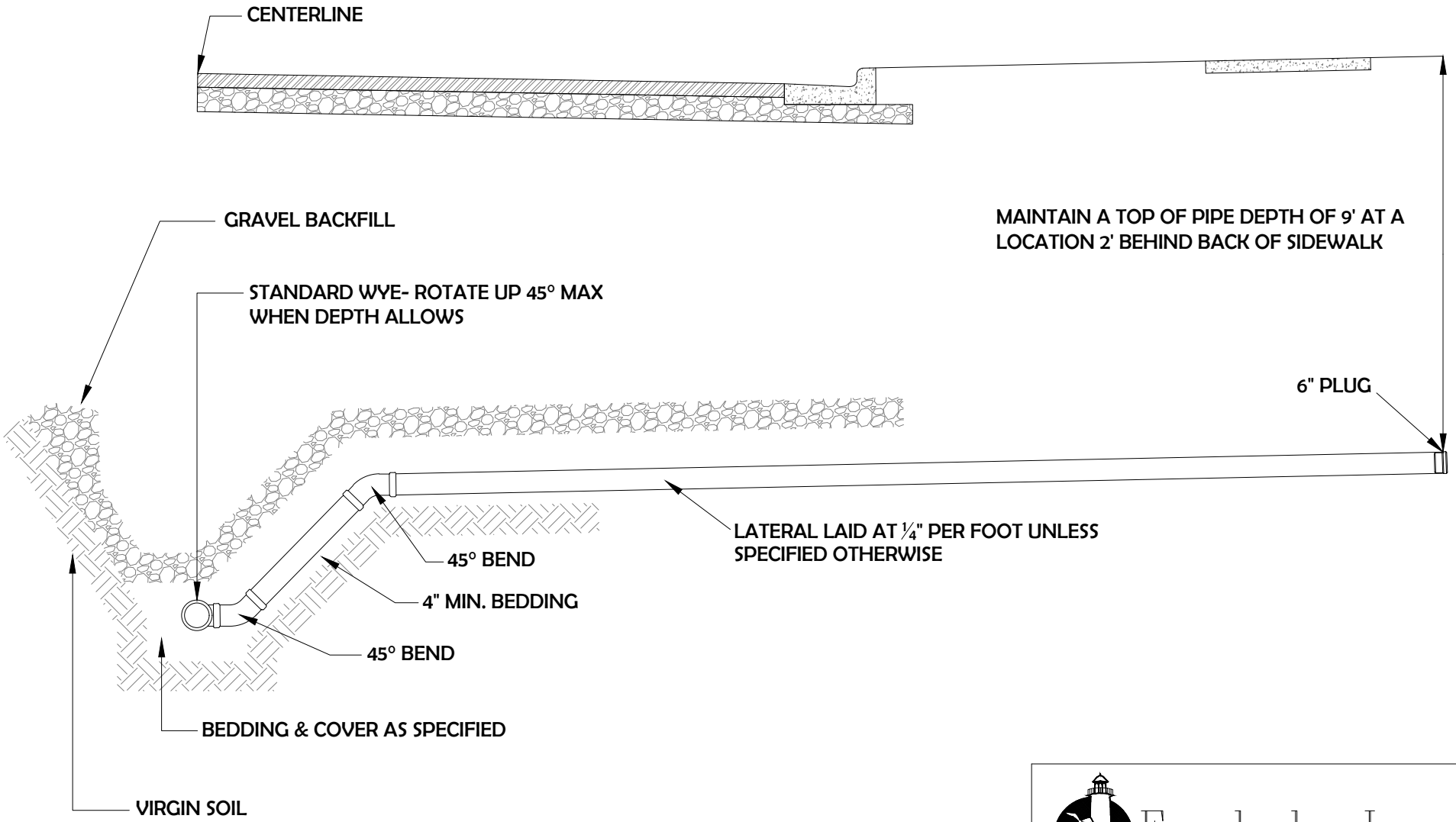
CITY OF FOND DU LAC, WISCONSIN

SCALE: 1" = 4'
REVISED 03/20/18 BV NW
J:\CITYDWG\Civil 3D Drawings\DTL\City SDDs\Sanitary Riser Detail-Existing Lateral.pdf

1-A-4

SANITARY RISER DETAIL (TYPICAL)
NEW LATERAL



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SCALE: 1" = 4'
REVISED 04/20/17 BY NW
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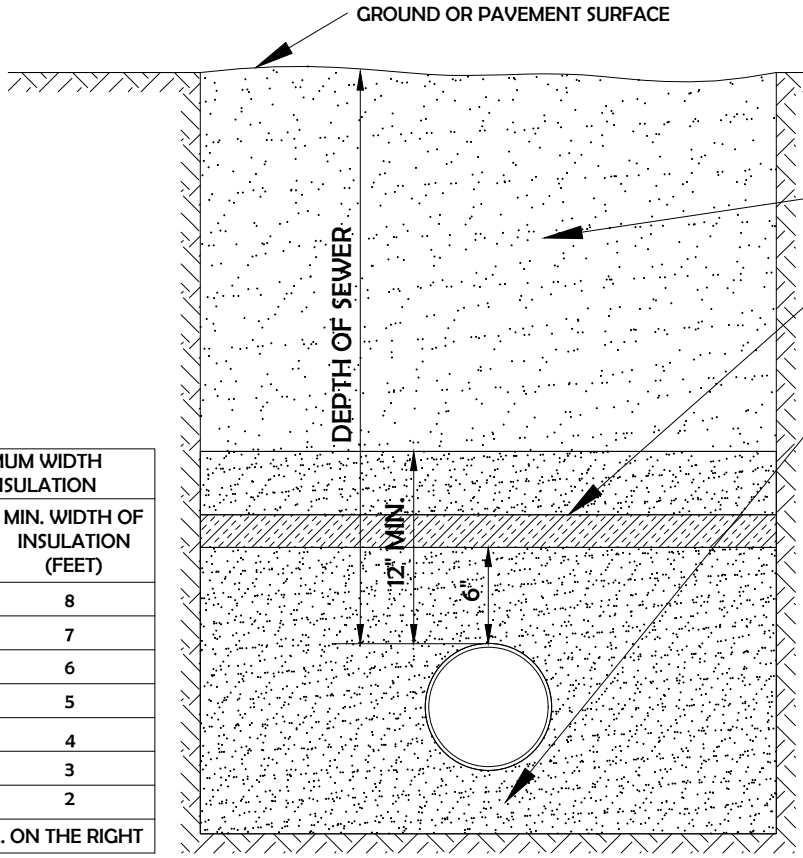
1-A-5

SANITARY SEWER INSULATION DETAIL

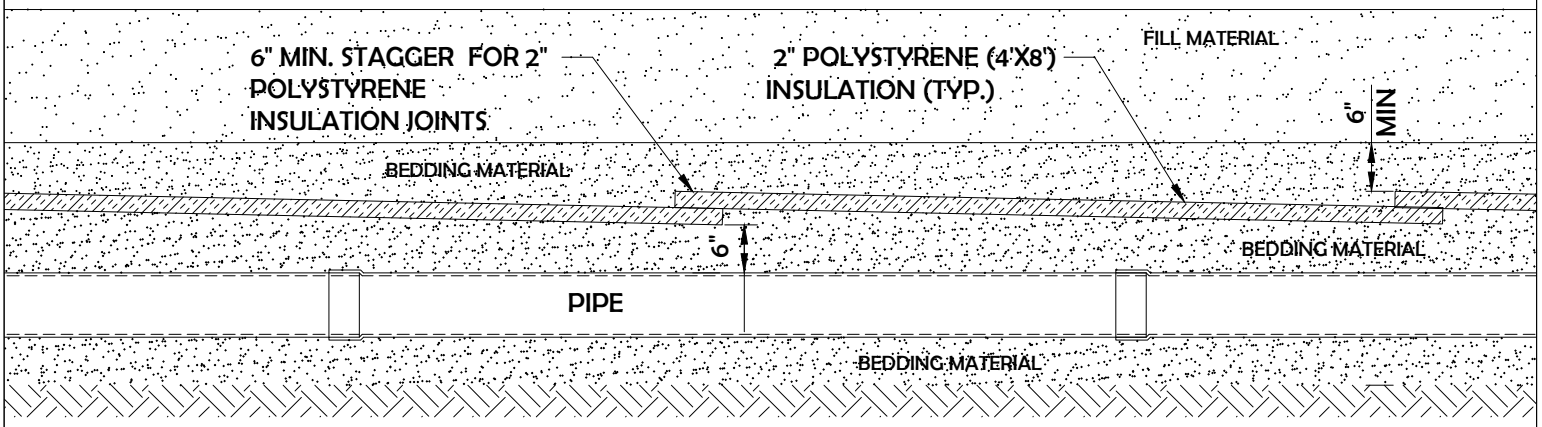


MINIMUM WIDTH OF INSULATION	
DEPTH OF SEWER (FEET)	MIN. WIDTH OF INSULATION (FEET)
*2.0	8
*2.5	7
*3.0	6
3.5	5
4.0	4
4.5	3
5.0	2
SEE NOTE 2. ON THE RIGHT	

★- DOUBLE THICKNESS INSULATION 4"

SCALE 1" = 1'

NOTES:
1. INSTALL INSULATION AT SANITARY SEWER MAIN AND LATERALS WITHIN 5'-0" OF GROUND SURFACE OR WITHIN 2'-0" OF A STRUCTURE.
2. THE WIDTH OF INSULATION IS NOT REQUIRED TO EXCEED THE TRENCH WIDTH.
3. ADD MULTIPLE LAYERS OF INSULATION WHEN SPECIFIED.
4. IF TWO OR MORE LAYERS OF INSULATION BOARD ARE USED, EACH LAYER SHOULD BE PLACED SO AS TO COVER THE JOINTS OF THE LAYER IMMEDIATELY BELOW.



INSULATION INSTALLATION CROSS-SECTION

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CITY OF FOND DU LAC, WISCONSIN

03/08/2021 BY MJC

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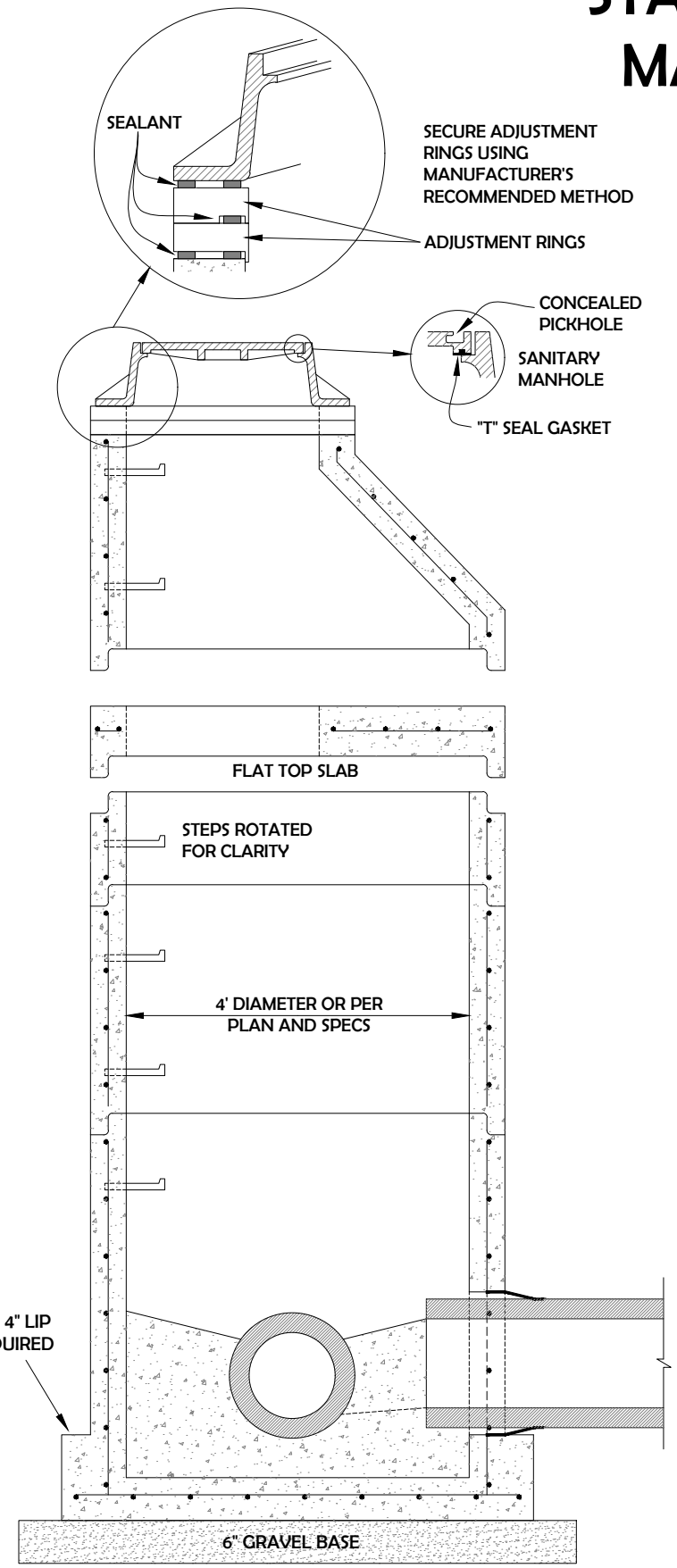
1-B-1

STANDARD PRECAST MANHOLE DETAIL



- 6 INCHES OF CRUSHED STONE BASE REQUIRED
- CONCRETE AND STEEL REINFORCEMENT SHALL CONFORM TO ASTM DESIGNATION C478
- MANHOLE CONCRETE STRENGTH TO BE 4,000 PSI OR GREATER
- MIN. MANHOLE WALL, BASE & FLAT TOP SLAB THICKNESSES
  4 FT I.D.: 5 INCH WALL, 6 INCH BASE & FLAT TOP SLAB
  5 FT I.D.: 6 INCH WALL, 8 INCH BASE & FLAT TOP SLAB
  6 FT I.D.: 7 INCH WALL, 8 INCH BASE & FLAT TOP SLAB
  8 FT I.D.: 9 INCH WALL, 8 INCH BASE & FLAT TOP SLAB
- MANHOLE BASE TO BE CONSTRUCTED OF CLASS "C" CONCRETE, MINIMUM OF 12 INCHES PLACED UNDER FLOW LINE OF PIPE
- STORM SEWER BENCH SLOPE - 1 INCH PER FT
  SANITARY SEWER BENCH SLOPE - 3 INCHES PER FT
- PIPE HOLES TO BE MANUFACTURED SO AS TO ALLOW FOR LATERAL AND VERTICAL MOVEMENT, AS WELL AS ANGULAR ADJUSTMENT THROUGH 15°
- PIPE TO MANHOLE CONNECTORS SHALL MEET ASTM C923 (KOR-N-SEAL, QUIK-LOK OR EQUAL)
- JOINTS SHALL BE WATERTIGHT AND SHALL BE MADE USING RUBBER TYPE GASKETS OR PRE-FORMED JOINT MATERIAL
- MANHOLE STEPS TO BE PLACED AT 16 INCH INTERVALS. THE FIRST STEP SHALL BE PLACED 16 INCHES ABOVE THE BENCH. THE TOP STEP MAY VARY FROM 16 INCHES - 24 INCHES FROM THE TOP OF CASTING. STEPS SHALL BE STEEL REINFORCED PLASTIC. MANHOLE STEPS SHALL BE ALIGNED OVER THE OUTGOING PIPE.
- BARREL SECTION - 12 INCH, 16 INCH, 24 INCH, 32 INCH, 48 INCH AND 64 INCH HIGH. AREA OF CIRCUMFERENTIAL STEEL = 0.12 SQ INCH PER LINEAL FOOT
- ECCENTRIC CONE MAY VARY IN HEIGHT FROM 28 INCHES TO 36 INCHES
- INSTALL FLAT TOP WHEN SHOWN ON PLANS, IN SPECIFICATIONS OR APPROVED BY ENGINEER
- ADJUSTMENT RINGS SHALL BE HDPE ADJUSTING RINGS BY LADTECH, INC., CRETEX PRO-RING, OR EJ INFRA-RISER. RINGS SHALL HAVE AN INSIDE DIAMETER OF APPROX. 23-3/4 INCHES. CONCRETE ADJUSTMENT RINGS SHALL NOT BE ALLOWED.
- FRAME SHALL BE NEENAH FOUNDRY R-1550 OR EQUAL.
- SANITARY MANHOLE LID TO HAVE CONCEALED PICK HOLES AND "T" SEAL GASKET.

SCALE: 1" = 2'
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J:\CITYDWG\Civil 3D Drawings\DTL\City SDDs\PRECAST MANHOLE DETAIL.PDF

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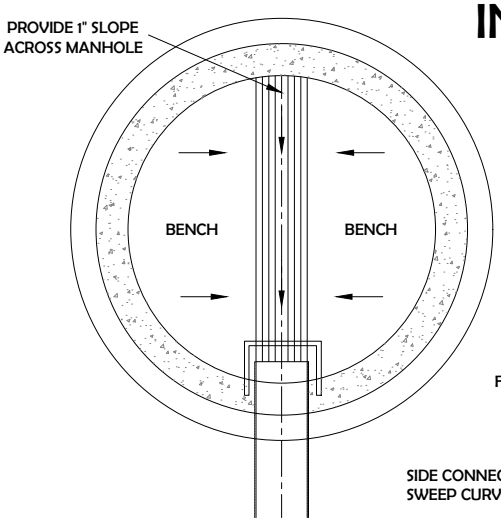
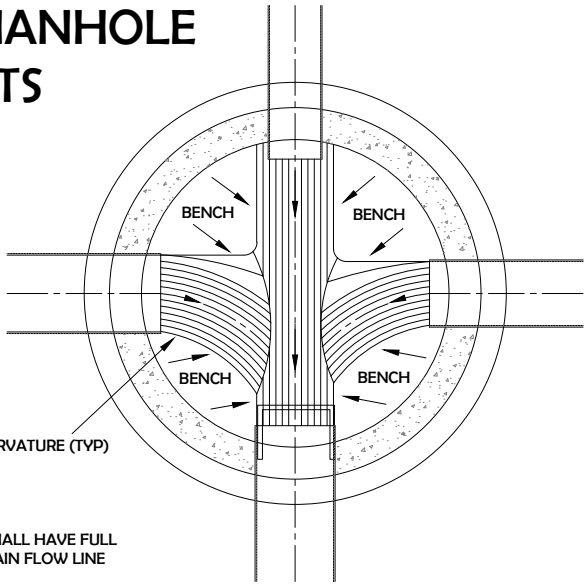
ENGINEERING AND TRAFFIC DIVISION
CITY OF FOND DU LAC, WISCONSIN

1-B-2

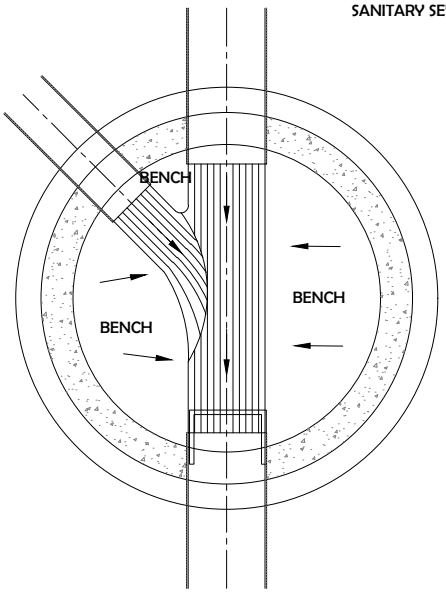
STANDARD MANHOLE INVERTS

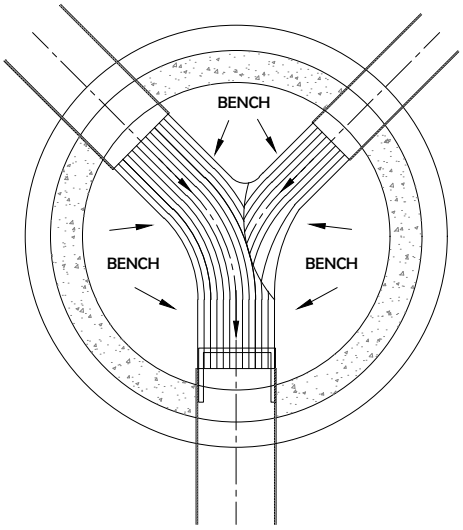


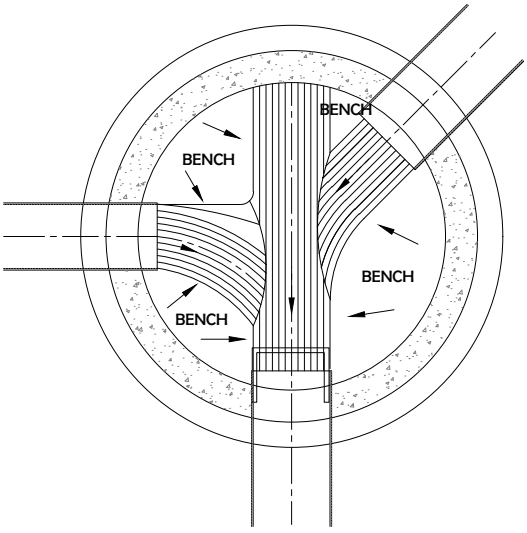


SIDE CONNECTING MAINS SHALL HAVE FULL SWEEP CURVATURE INTO MAIN FLOW LINE

STORM SEWER BENCH SLOPE - 1 INCH PER FT
SANITARY SEWER BENCH SLOPE - 3 INCHES PER FT

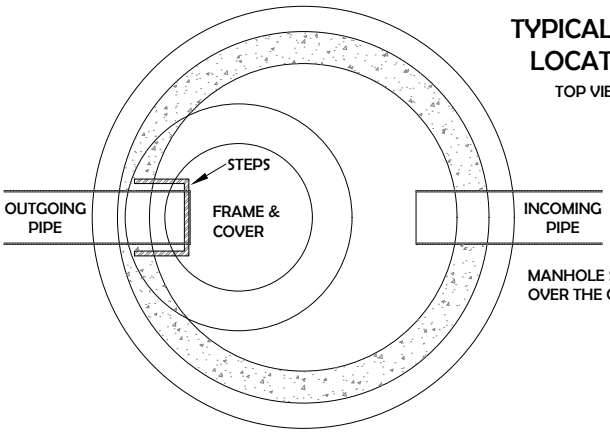






TYPICAL STEP LOCATION

TOP VIEW



MANHOLE STEPS SHALL BE ALIGNED OVER THE OUTGOING PIPE

HEIGHT OF BENCH:

- PIPES 12 INCHES OR LESS = 0.8 X DIA. OF SEWER
- PIPES 15 TO 24 INCHES = 12 INCHES
- PIPES GREATER THAN 24 INCHES = SPRING LINE OF LARGEST PIPE
- ALL SANITARY PIPES 12 INCHES OR LESS HAVE A BENCH POURED TO SPRING LINE WHENEVER A LESSER HEIGHT BENCH IS ALLOWED FOR ADJOINING PIPES.

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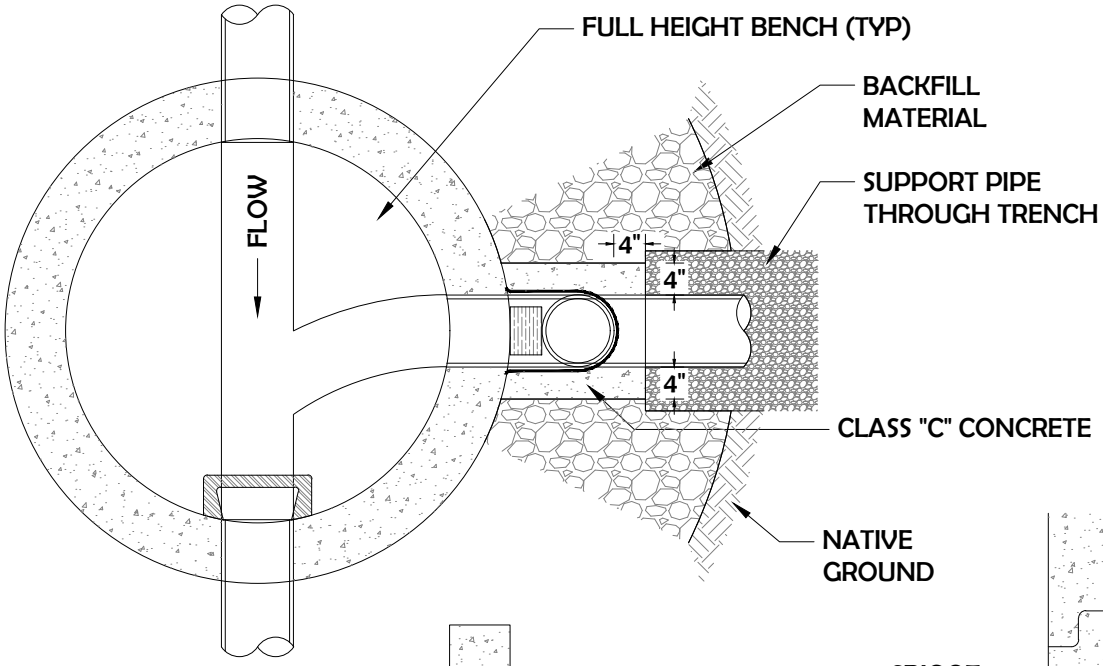
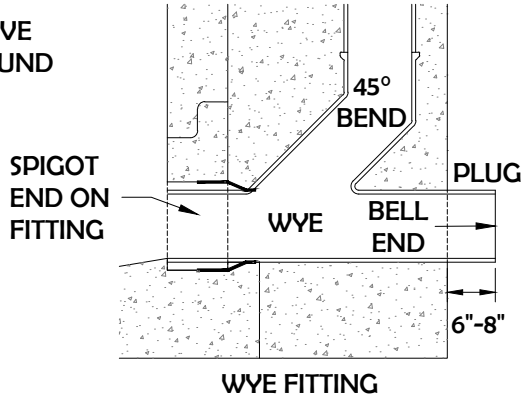
CITY OF FOND DU LAC, WISCONSIN

1-B-3

SANITARY PRECAST OUTSIDE DROP DETAIL

(N.T.S.)





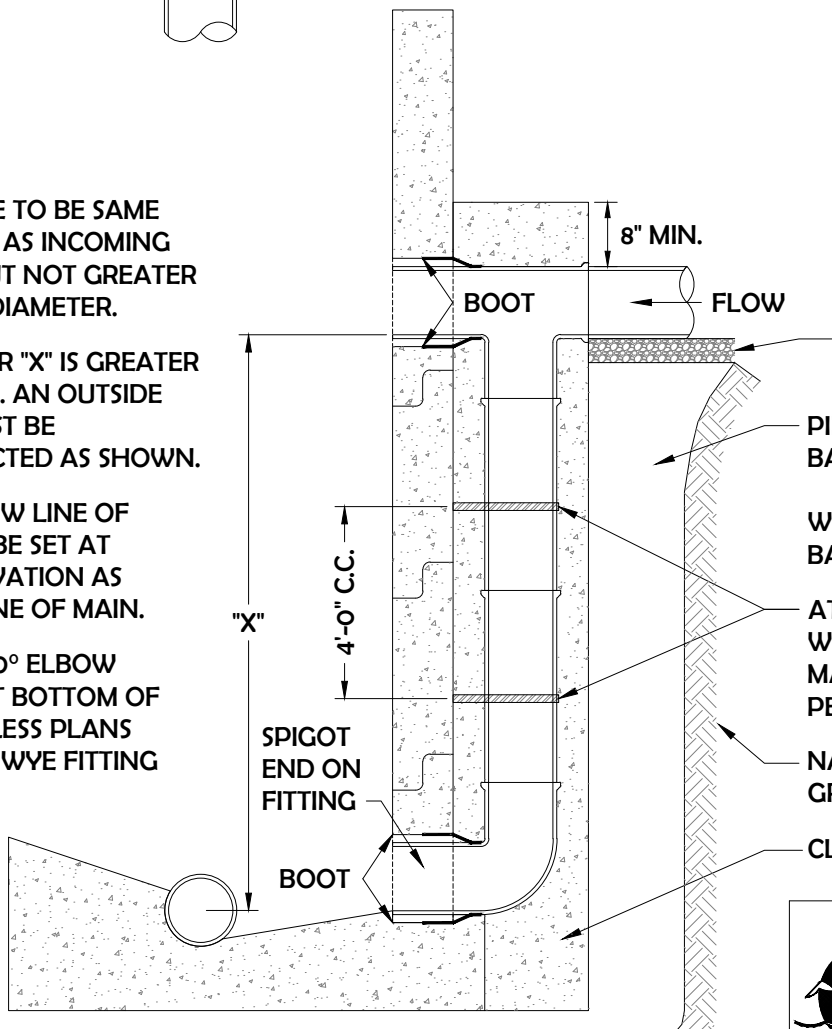
WYE FITTING

DROP PIPE TO BE SAME DIAMETER AS INCOMING SEWER, BUT NOT GREATER THAN 18" DIAMETER.

WHENEVER "X" IS GREATER THAN 2 FT. AN OUTSIDE DROP MUST BE CONSTRUCTED AS SHOWN.

NOTE: FLOW LINE OF DROP TO BE SET AT SAME ELEVATION AS SPRING LINE OF MAIN.

INSTALL 90° ELBOW FITTING AT BOTTOM OF DROP UNLESS PLANS SPECIFY A WYE FITTING



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CITY OF FOND DU LAC, WISCONSIN

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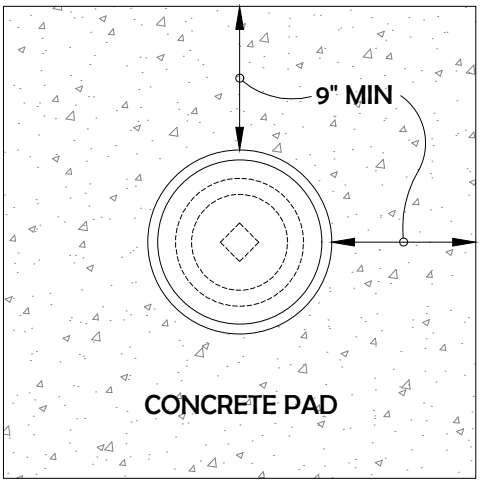
1-B-4

CONCRETE PAD REQUIRED WHEN CLEANOUT IS WITHIN A PAVED VEHICULAR TRAFFIC AREA

CONCRETE PAD MIN. THICKNESS 7" IN ROADWAY OR AS DIRECTED BY CITY



NEENAH FOUNDRY R-1792-AL OR R-5900-A FRAME, FLANGE SIDE DOWN

8" PVC CAP

TOPSOIL

CONCRETE PAD

ASPHALT/CONCRETE

GRAVEL BASE

6" PVC CLEAN OUT ADAPTER FITTED TO OUTSIDE OF PIPE WITH REMOVABLE PLUG

6" PVC PIPE

8" PVC FROST SLEEVE

PREDICTED DEPTH OF FROST:
4' IN SOIL BACKFILL AREAS
5' IN GRANULAR BACKFILL AREAS

6"

PREDICTED DEPTH OF FROST

6" BELOW PREDICTED FROST DEPTH

- OR -

6" TO 12" ABOVE SEWER

WYE PATTERN FITTING

6" PVC PIPE

FLOW TO STREET

STANDARD PVC CLEANOUT DETAIL

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SCALE: 1" = 1'
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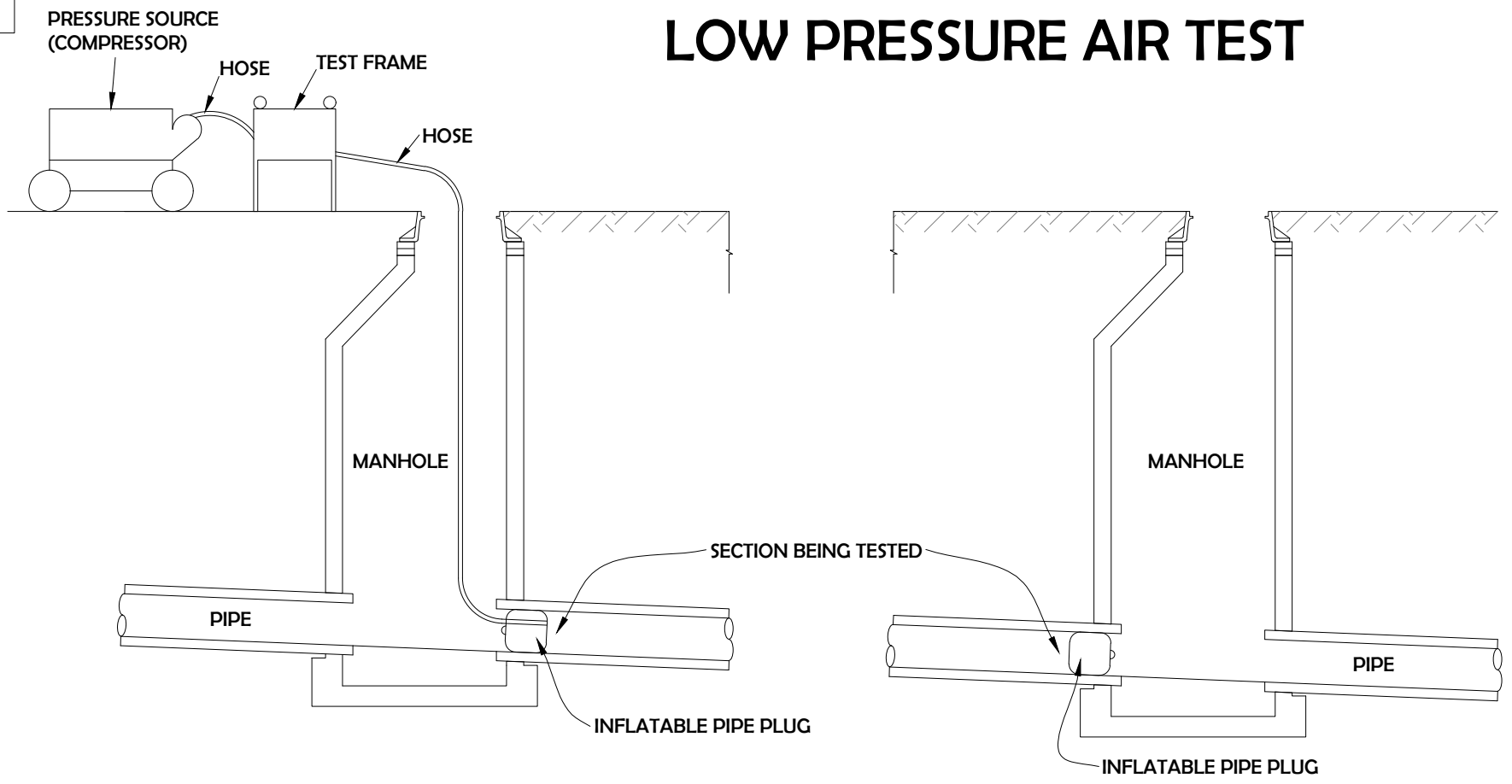
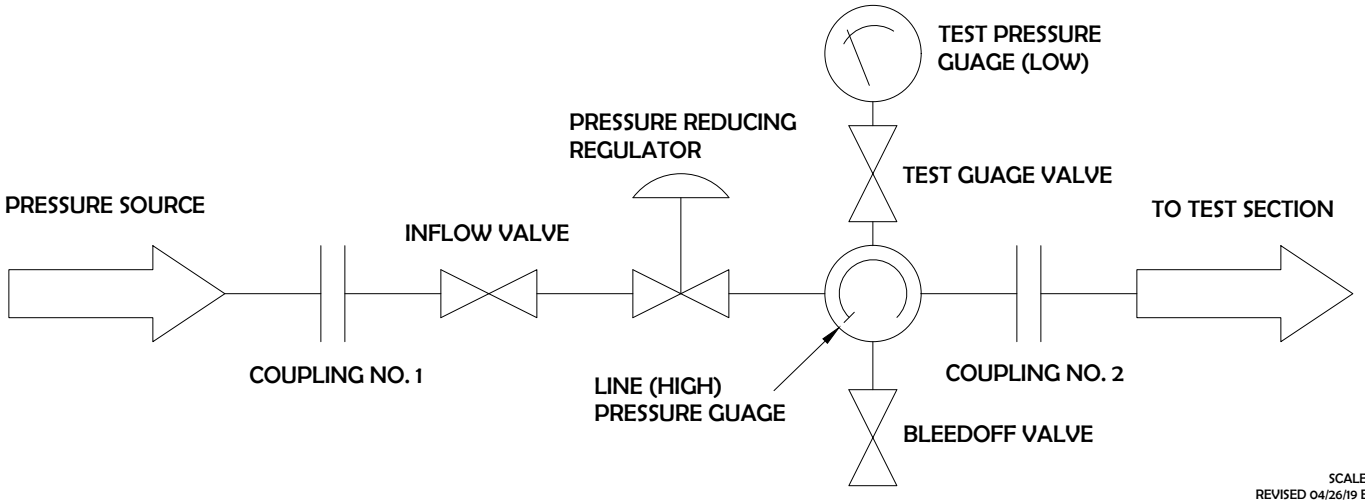
1-C-1

LOW PRESSURE AIR TEST





SCALE: 1" = 2'
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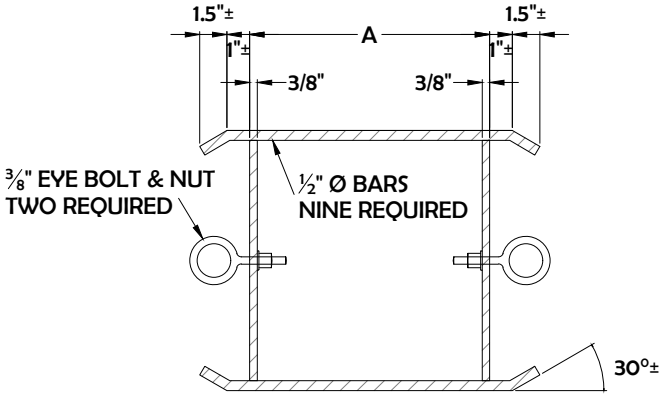
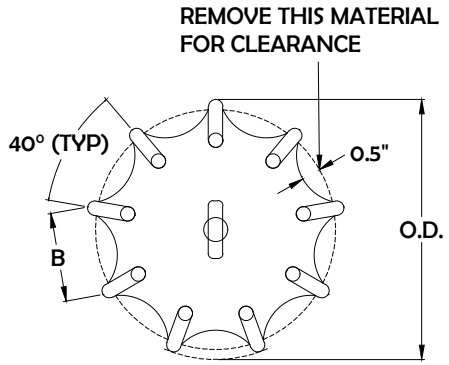
CITY OF FOND DU LAC, WISCONSIN

1-C-2

MANDREL FOR DEFLECTION TESTS



SIDE OR TOP VIEW



END VIEW

NOTE:
1. TOLERANCE ON MANDREL O.D. IS ± 0.010"

REQUIRED DIMENSIONS:
1. MANDREL DIMENSIONS ON "O.D."
2. 40° SPACING BETWEEN ANGLES
3. DIMENSIONS A ARE MINIMUMS
ALL OTHER DIMENSIONS ARE OPTIONAL

SUGGESTED MANDREL DESIGN

NOMINAL PIPE SIZE I.D.	A (MIN.)	MINIMUM MANDREL O.D. (INCHES)							
		DEFLECTION= D-3034 SDR-35				DEFLECTION= F-949			
		5%	B	7.5%	B	5%	B	7.5%	B
8"	8"	7.28	2.496	7.09	2.424	7.27	2.484	7.08	2.424
10"	10"	9.08	3.108	8.85	3.024	9.07	3.096	8.83	3.024
12"	10"	10.79	3.684	10.51	3.600				
15"	12"	13.20	4.512	12.85	4.392				
		F679 PS46 12454C PIPE				F679 PS46 12364C PIPE			
		5%	B	7.5%	B	5%	B	7.5%	B
18"	15"	16.13	5.520	15.70	5.316	16.20	5.544	15.78	5.400
21"	18"	19.00	6.492	18.50	6.324	19.09	6.528	18.59	6.360
24"	21"	21.36	7.308	20.79	7.116	21.46	7.344	20.89	7.152
27"	24"	24.06	8.232	23.43	8.016	24.17	8.268	23.54	8.052

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CITY OF FOND DU LAC, WISCONSIN

SCALE: 1" = 2'
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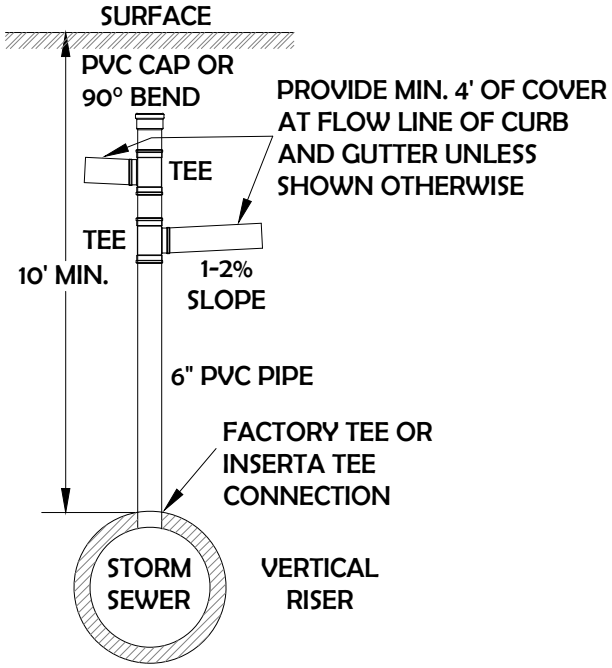
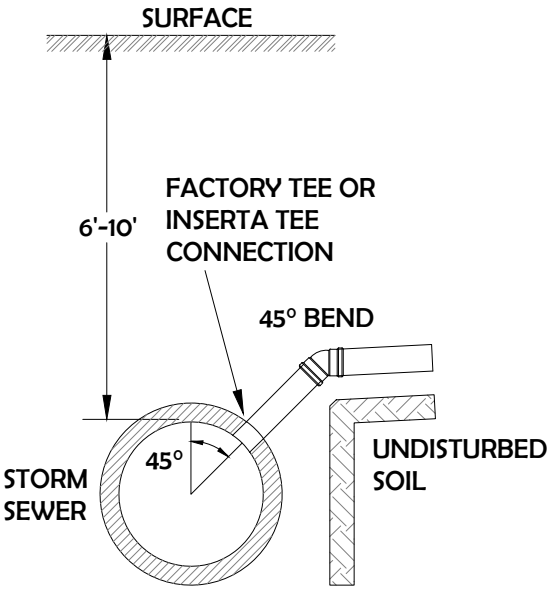
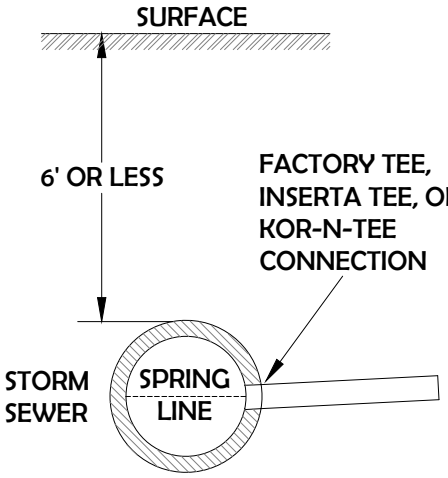
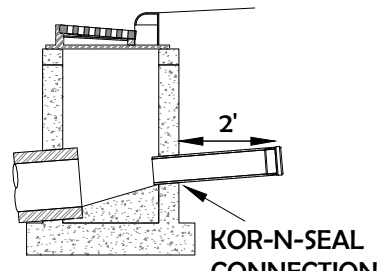
2-A-1

STORM SEWER LATERALS









NOTES:

1. LATERALS SHALL BE 6" SDR-35 PVC UNLESS SHOWN OTHERWISE.
2. LATERALS SHALL BE LAID AT 1% TO 2% EXCEPT AS NEEDED TO AVOID OTHER UTILITIES.
3. PROVIDE MINIMUM 4' OF COVER AT FLOW LINE OF CURB AND GUTTER UNLESS SHOWN OTHERWISE.
4. LATERALS SHALL BE LAID TO A POINT 2' BEHIND THE CURB AND GUTTER UNLESS SHOWN OTHERWISE.
5. INSTALL PVC CAP OR PLUG AT END OF PIPE OR CONNECT TO EXISTING PIPE.
6. ALL LOCATIONS SHALL BE VERIFIED BY THE ENGINEER.

SCALE: 1" = 4'
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J:\CITYDWG\Civil 3D Drawings\DTL\City SDDs\Storm Sewer Lateral Detail.pdf

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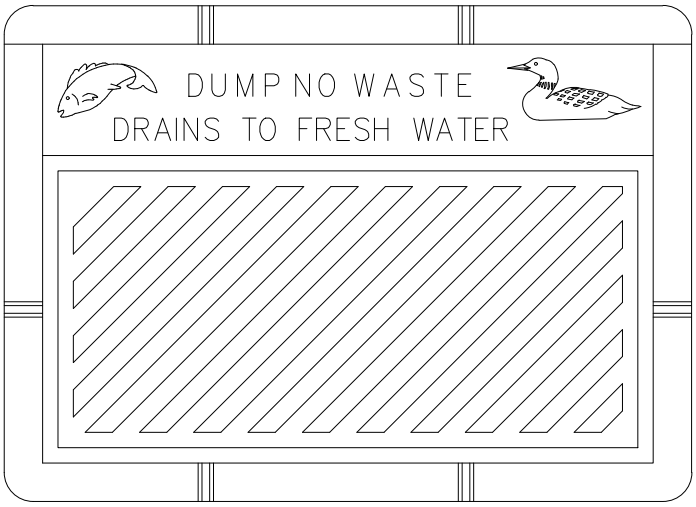
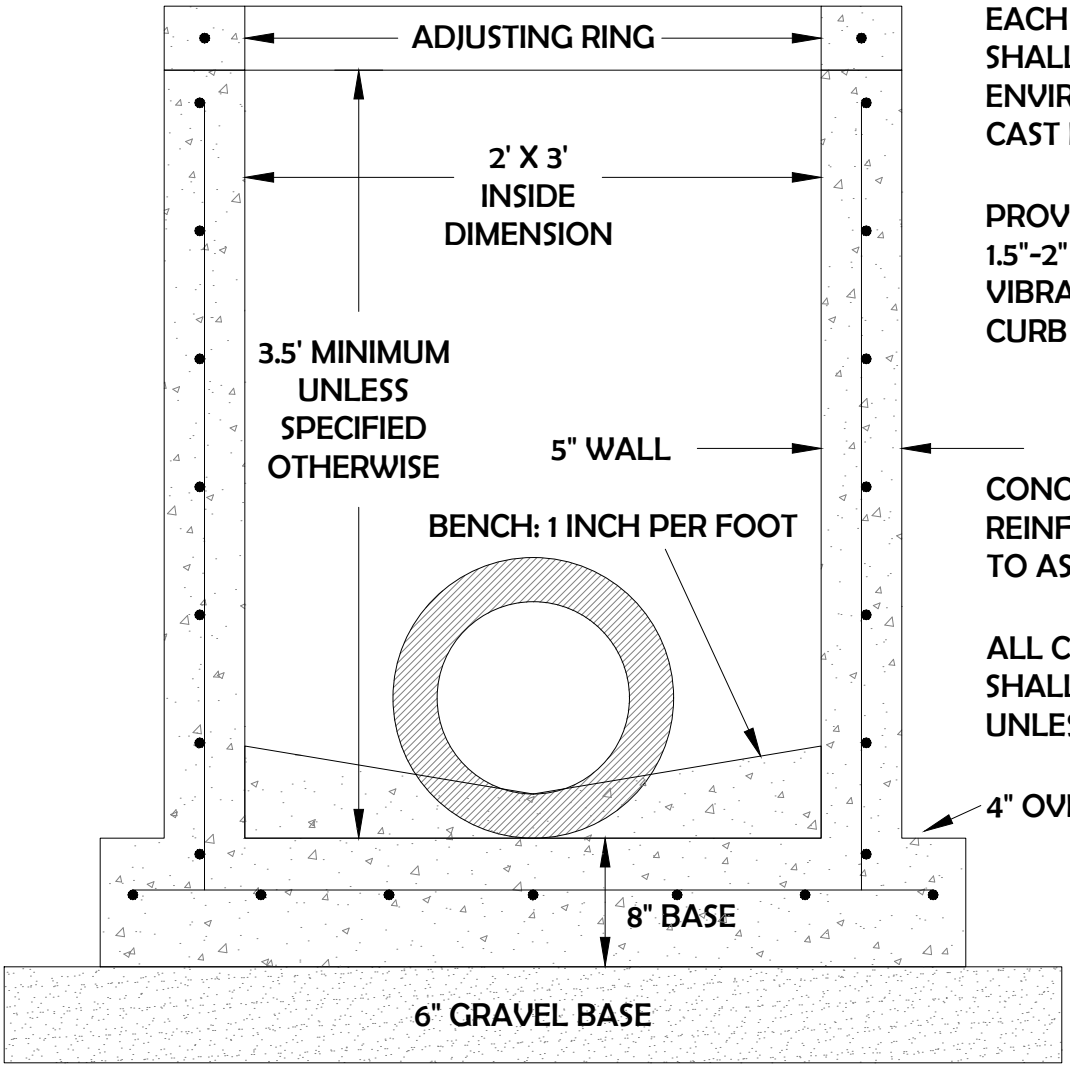
CITY OF FOND DU LAC, WISCONSIN

2-C-1

STANDARD CATCH BASIN DETAIL



PRECAST
TYPE "H" CATCH BASIN



TYPE R GRATE REQUIRED, UNLESS SPECIFIED OTHERWISE

NEENAH FOUNDRY FRAME TYPE R-3067 (VERTICAL FACE CURB) OR R-3067-C (DRIVEWAY OR MOUNTABLE CURB), UNLESS SPECIFIED OTHERWISE

EACH R-3067 CATCH BASIN SHALL INCLUDE NEENAH ENVIRONOTICE LETTERING CAST INTO TOP OF CURB BOX.

PROVIDE 3"-6" OF ADJUSTMENT 1.5"-2" OF CONCRETE TO BE VIBRATED UNDER FRAME WHEN CURB AND GUTTER INSTALLED.

CONCRETE AND STEEL REINFORCEMENT SHALL CONFORM TO ASTM DESIGNATION C913

ALL CATCH BASIN LEADS SHALL BE 12" CLASS III RCP UNLESS OTHERWISE NOTED

ADJUSTMENT RINGS SHALL BE HDPE ADJUSTING RINGS BY LADTECH, INC., CRETEX PRO-RING, OR EJ INFRA-RISER. CONCRETE ADJUSTMENT RINGS SHALL NOT BE ALLOWED.

Fond du Lac
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DEPARTMENT OF PUBLIC WORKS
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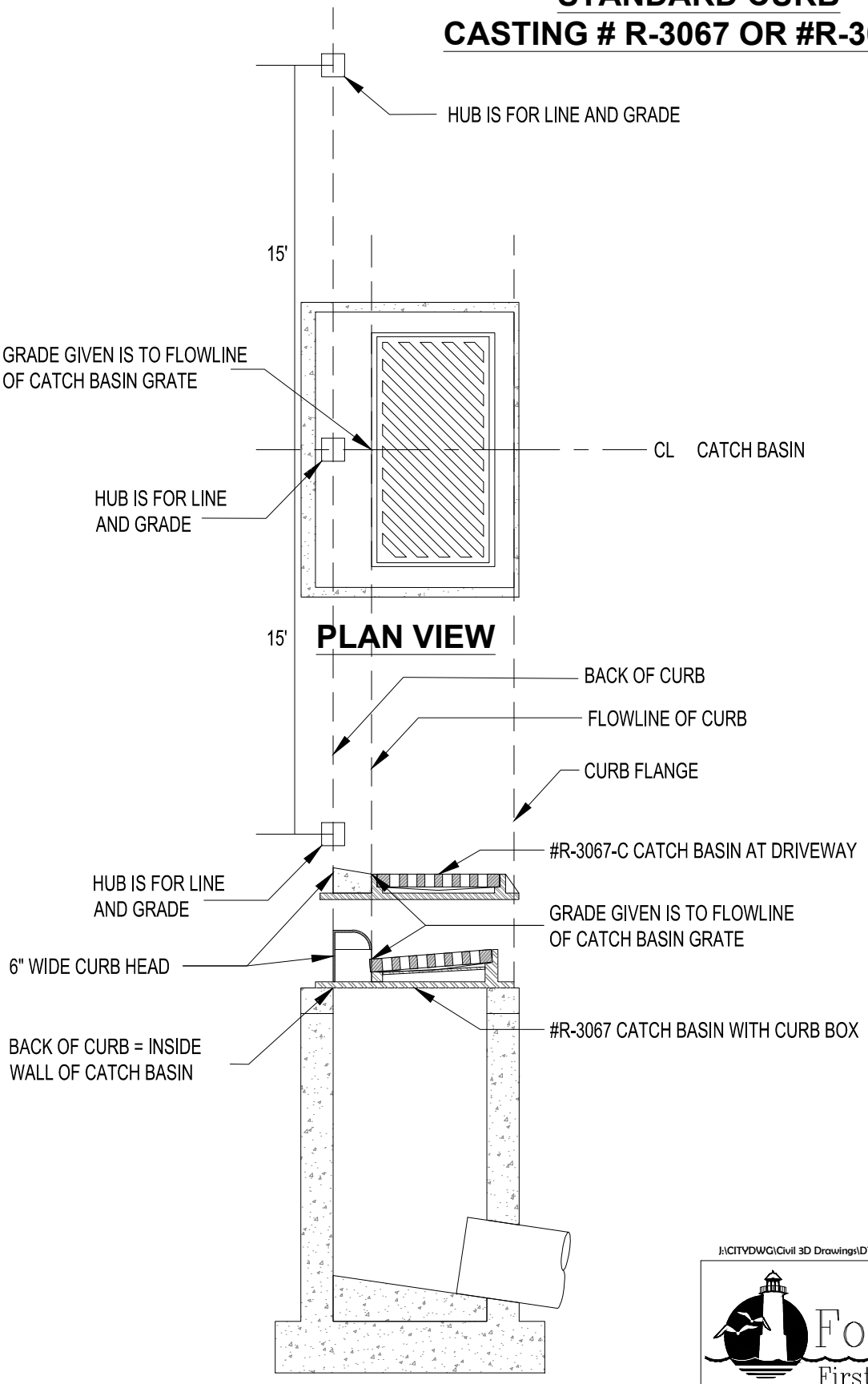
CITY OF FOND DU LAC, WISCONSIN

SCALE: 1" = 1'
REVISED 01/20/20 BY NW
J:\CITYDWG\Civil 3D Drawings\DTL\City SDDs\CATCH BASIN TYPE H DETAIL.PDF

2-C-2

CATCH BASIN STAKING DIAGRAM
STANDARD CURB
CASTING # R-3067 OR #R-3067-C



SCALE: 1" = 2'
REVISED 04/10/18 BY NW
J:\CITYDWG\Civil 3D Drawings\DTL\City SDDs\CATCH BASIN STAKING DETAIL-STANDARD.PDF

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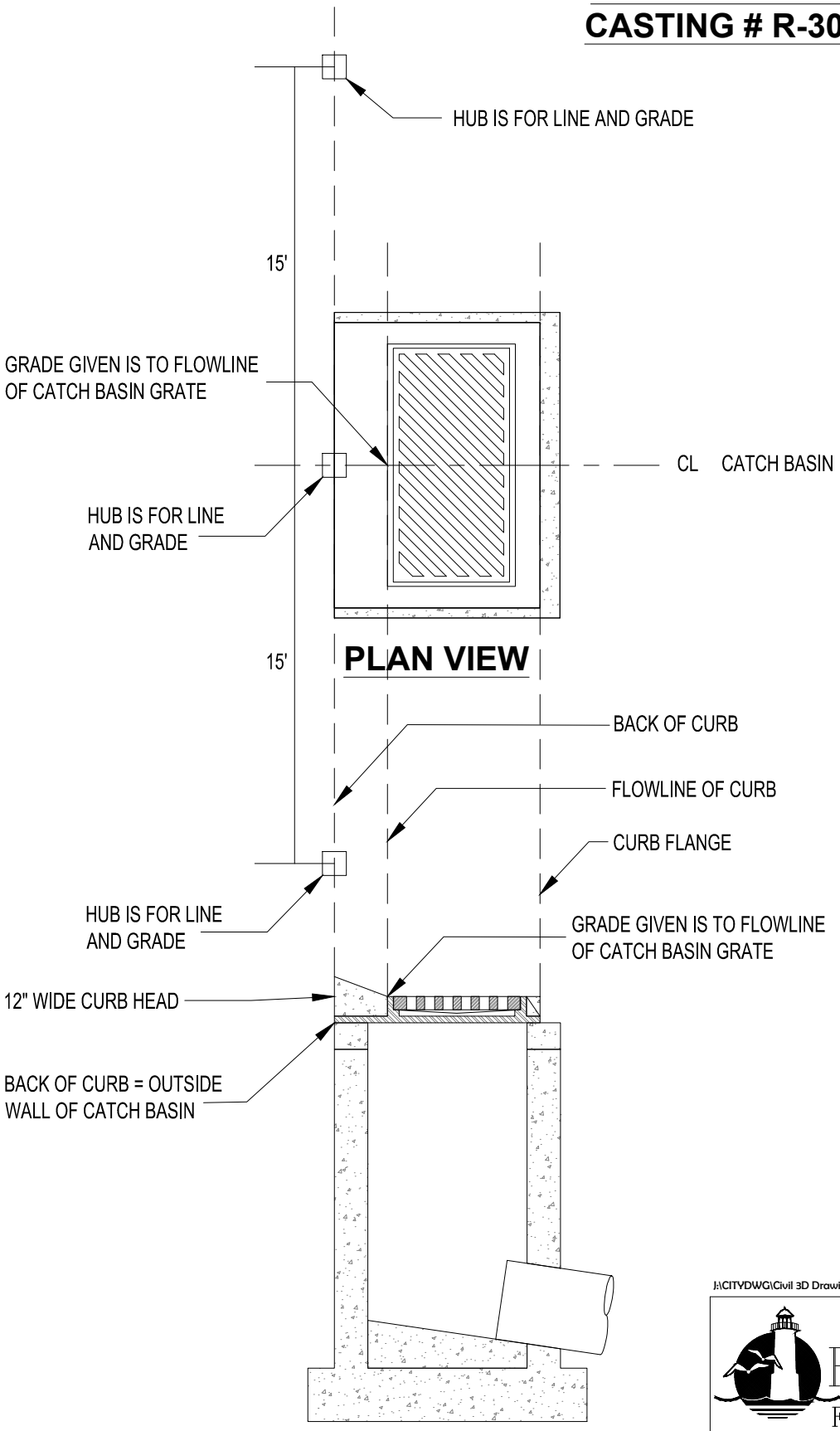
CITY OF FOND DU LAC, WISCONSIN

2-C-3

CATCH BASIN STAKING DIAGRAM
MOUNTABLE CURB
CASTING # R-3067-C



CROSS SECTION

SCALE: 1" = 2'
REVISED 04/10/18 BY NW
J:\CITYDWG\Civil 3D Drawings\DTL\City SDDs\CATCH BASIN STAKING DETAIL-MOUNTABLE.PDF

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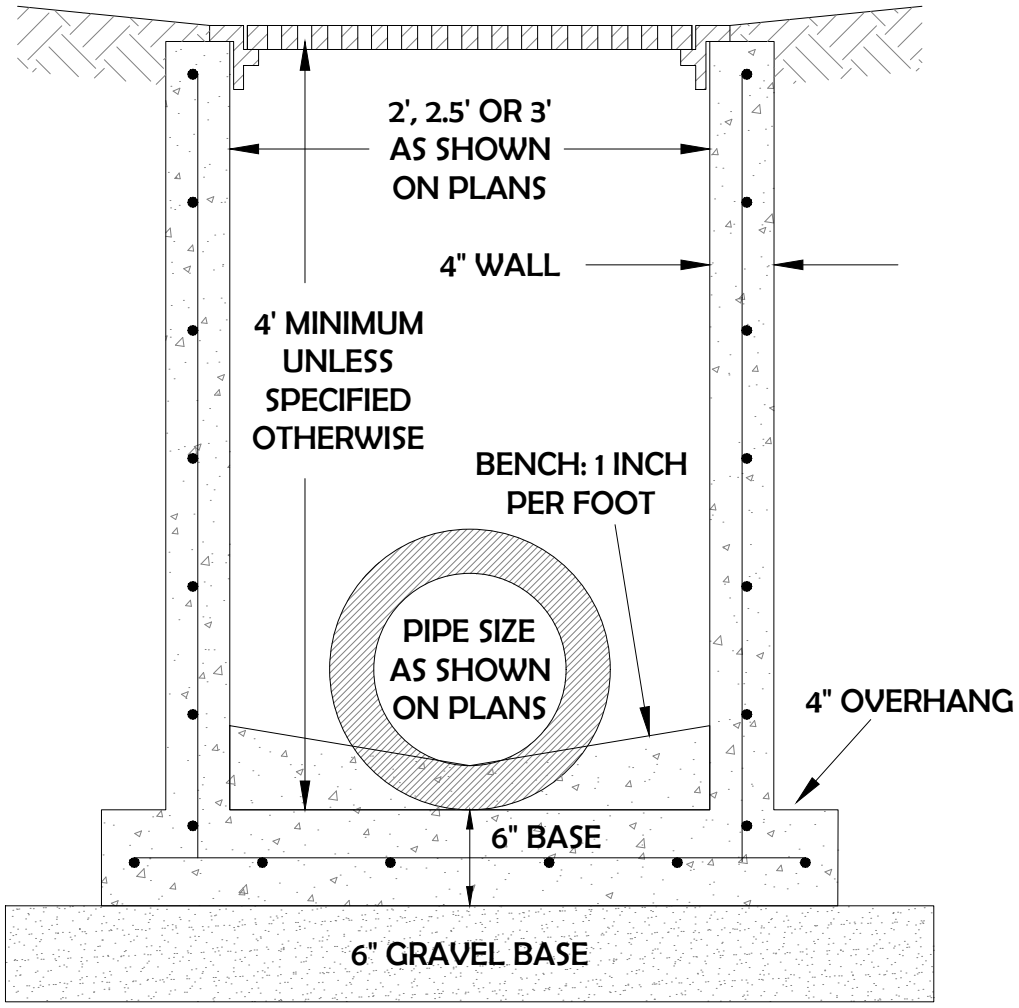
ENGINEERING AND TRAFFIC DIVISION
CITY OF FOND DU LAC, WISCONSIN

2-C-4

STANDARD FIELD INLET DETAIL



NEENAH FOUNDRY R-5901 FRAME SERIES WITH TYPE G GRATE OR R-2560-E FRAME AS SHOWN ON THE PLANS

CONCRETE AND STEEL REINFORCEMENT SHALL CONFORM TO ASTM DESIGNATION C478

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SCALE: 1" = 1'
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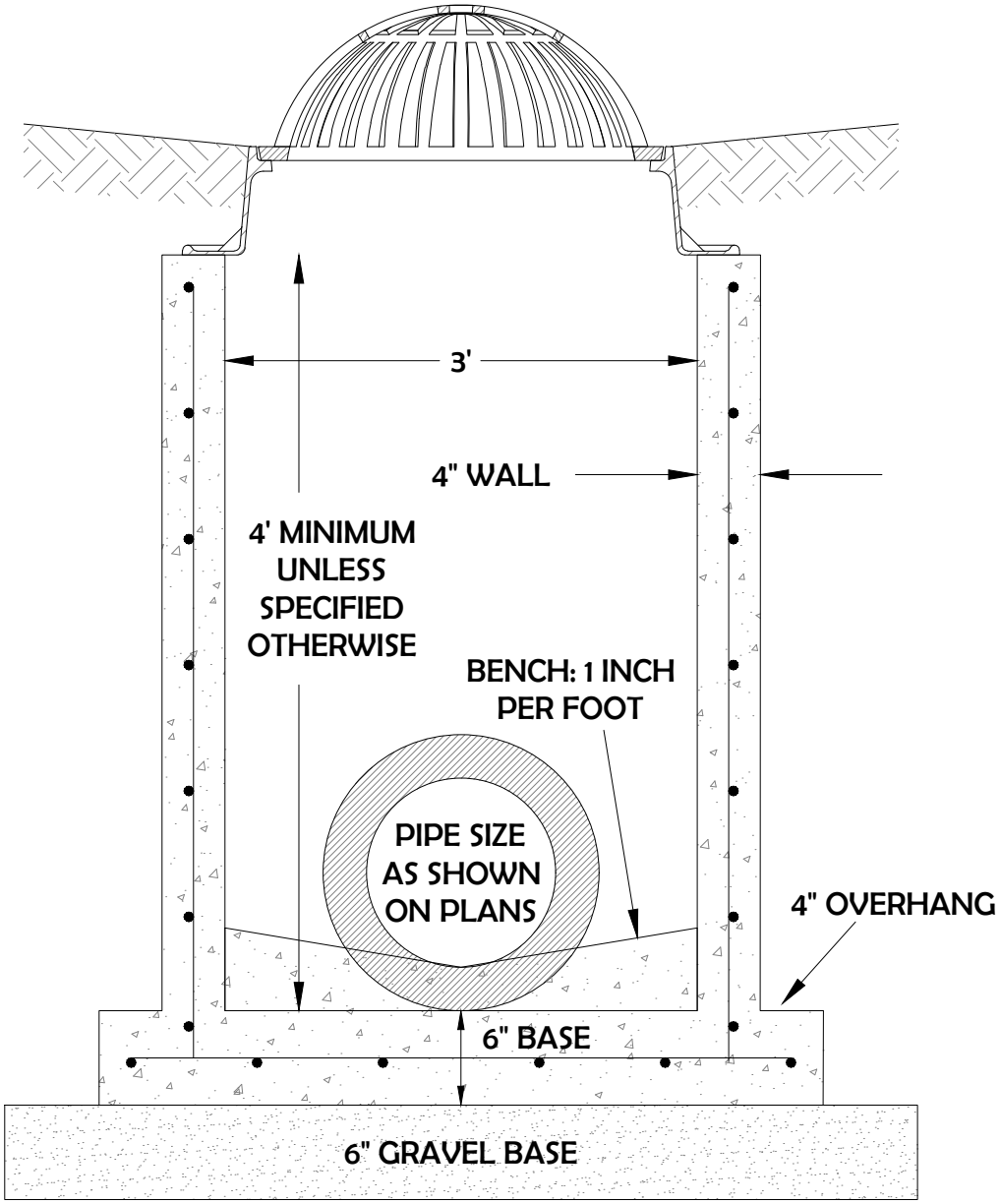
J:\CITYDWG\Civil 3D Drawings\DTL\City SDDs\FIELD INLET DETAIL.PDF

2-C-5

STANDARD FIELD INLET DETAIL WITH BEEHIVE GRATE



NEENAH FOUNDRY R-2560-E2 FRAME UNLESS SHOWN OTHERWISE

CONCRETE AND STEEL REINFORCEMENT SHALL CONFORM TO ASTM DESIGNATION C478

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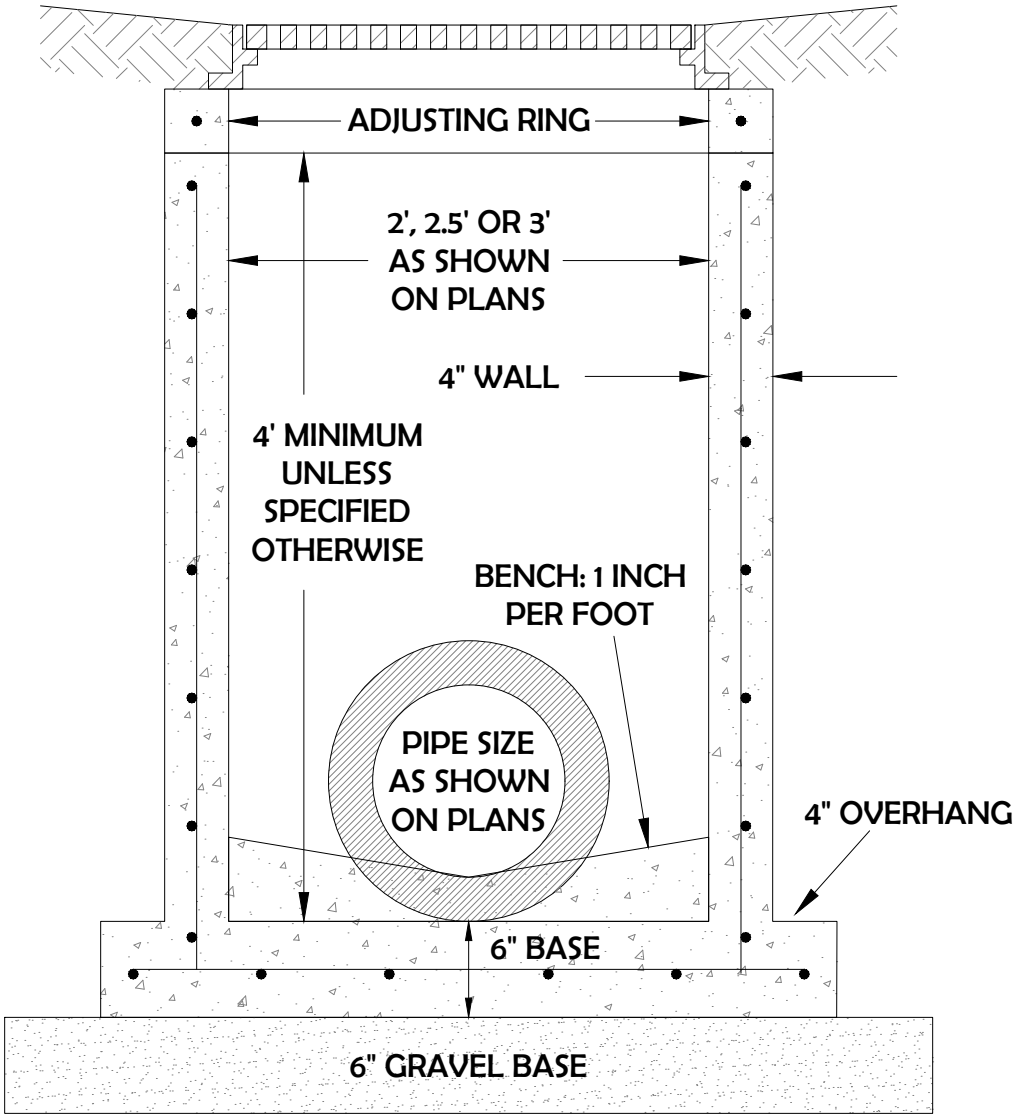
CITY OF FOND DU LAC, WISCONSIN

SCALE: 1" = 1'
REVISED 10/12/16 BY NW
J:\CITYDWG\Civil 3D Drawings\DTL\City SDDs\FIELD INLET WITH BEEHIVE DETAIL.PDF

2-C-6

FIELD INLET FLANGE DOWN DETAIL



NEENAH FOUNDRY R-1792 FRAME SERIES WITH TYPE G GRATE OR R-2560-E FRAME AS SHOWN ON THE PLANS

CONCRETE AND STEEL REINFORCEMENT SHALL CONFORM TO ASTM DESIGNATION C478

ADJUSTMENT RINGS SHALL BE HDPE ADJUSTING RINGS BY LADTECH, INC., CRETEX PRO-RING, OR EJ INFRA-RISER. CONCRETE ADJUSTMENT RINGS SHALL NOT BE ALLOWED.

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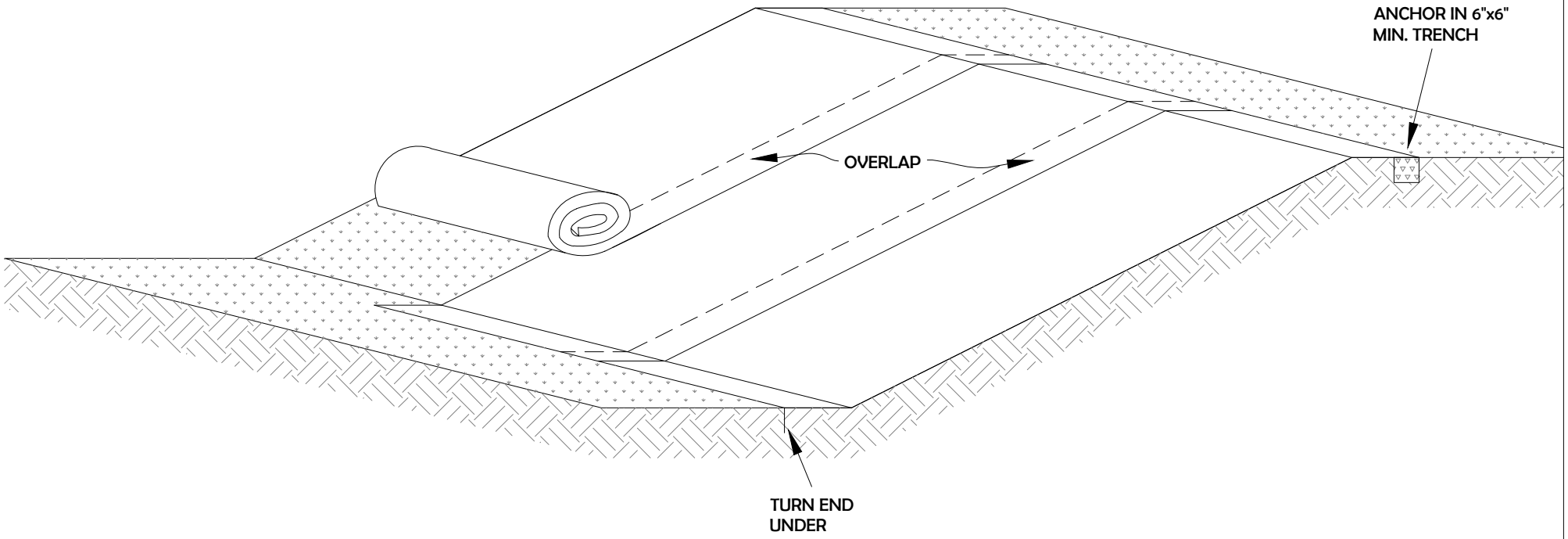
CITY OF FOND DU LAC, WISCONSIN

SCALE: 1" = 1'
REVISED 01/20/20 BY NW
J:\CITYDWG\Civil 3D Drawings\DTL\City SDDs\FIELD INLET FLANGE DOWN DETAIL.PDF

3-A-1

EROSION MAT DETAIL



NOTES:

1. GROUND SURFACE SHALL BE SMOOTH BEFORE PLACEMENT FOR PROPER SOIL CONTACT
2. ANCHOR PER MANUFACTURER'S REQUIREMENTS. PROVIDE MIN. ANCHOR FREQUENCY LISTED IN WISDOT PRODUCT ACCEPTABILITY LIST
3. PROVIDE URBAN ANCHORING DEVICES LISTED IN WISDOT PRODUCT ACCEPTABILITY LIST FOR CLASS I AND CLASS II MATS UNLESS DENOTED OTHERWISE
4. PROVIDE ANCHORS AT OVERLAPS AND SEAMS; PROJECTED WATER LINE; AND CHANNEL BOTTOM/SIDE SLOPE VERTICES
5. ENTRENCH MATS APPROXIMATELY 3 INCHES DEEP ALONG THE EDGE FACING TRAFFIC FOR ALL INSTALLATIONS WITHIN 5 FEET OF ACTIVE TRAFFIC LANES
6. OVERLAP MATS BY 3 INCHES OR LESS FOR ALL URBAN MATS
7. DO NOT USE SINGLE ROLL MATERIAL LESS THAN 6 FEET WIDE IN CHANNELS
8. FERTILIZE & SEED BEFORE INSTALLATION
9. COVER TURF REINFORCEMENT MATS IMMEDIATELY AFTER INSTALLATION WITH EROSION MAT OR SOIL STABILIZER, TYPE A
10. RESEED ANY VEGETATED AREAS DAMAGED OR DESTROYED DURING PLACEMENT OF MAT
11. APPLY WATER UNIFORMLY AFTER PLACING MAT TO SUFFICIENTLY MOISTEN SEEDBED TO A DEPTH OF 2 INCHES AND IN A WAY THAT PRECLUDES WASHING OR EROSION

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CITY OF FOND DU LAC, WISCONSIN

SCALE: 1" = 6'
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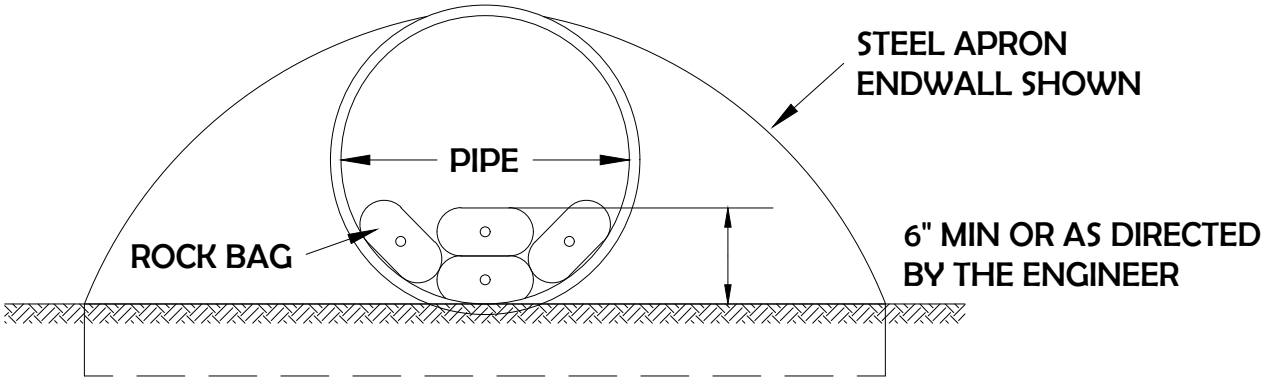
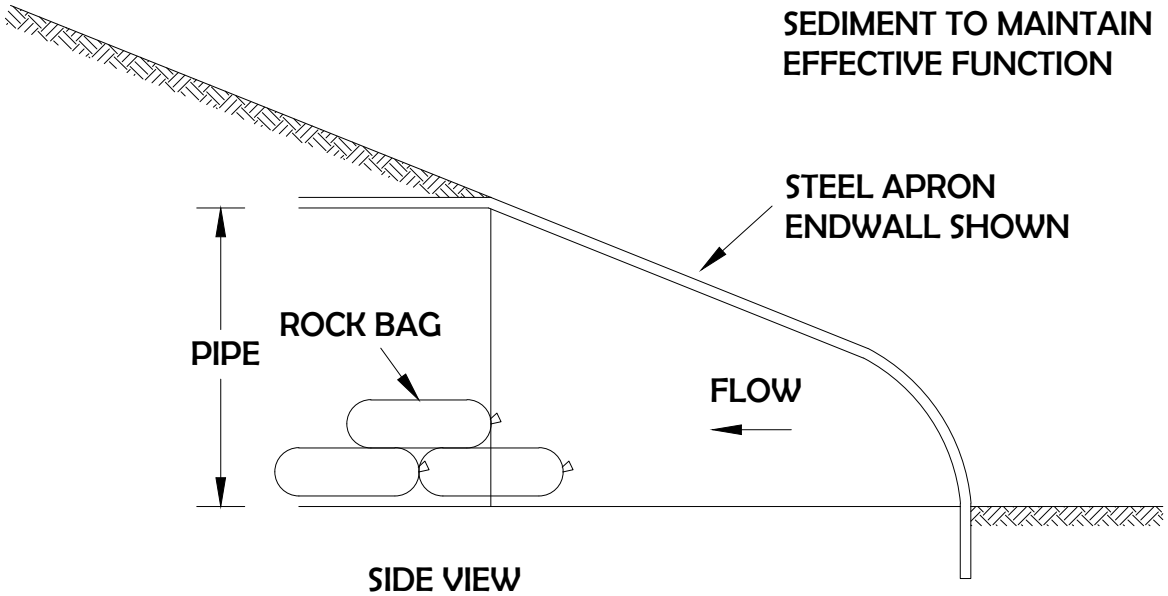
3-B-1

CULVERT PIPE CHECK DETAIL



END VIEW

PERIODICALLY REMOVE SEDIMENT TO MAINTAIN EFFECTIVE FUNCTION



SIDE VIEW

FILL BAGS WITH AGGREGATE CONFORMING TO THE FOLLOWING GRADATION (WISDOT NO. 1 COARSE AGGREGATE)

SIEVE	PERCENT PASSING BY WEIGHT
2-INCH	-
1 $\frac{1}{2}$"-INCH	-
1-INCH	100
$\frac{3}{4}$"-INCH	90-100
$\frac{3}{8}$"-INCH	20-55
No. 4	0-10
No. 8	0-5

PROVIDE BAGS MADE OF HIGH-DENSITY POLYETHYLENE OR GEOTEXTILE FABRIC

BAGS SHALL HAVE A MINIMUM IN-PLACE FILLED SIZE OF 18 INCHES LONG BY 12 INCHES WIDE BY 6 INCHES HIGH

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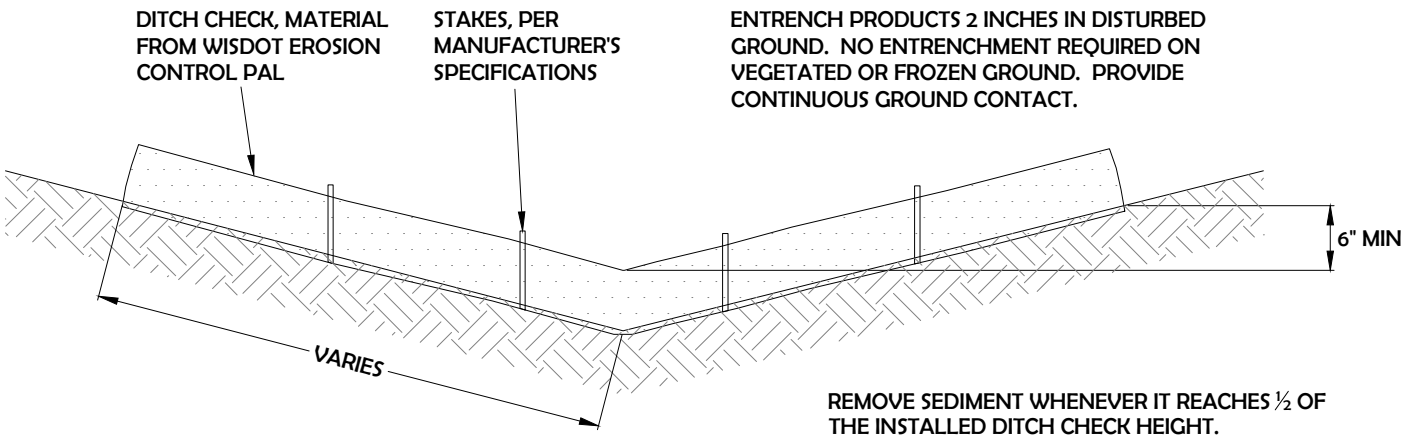
CITY OF FOND DU LAC, WISCONSIN

3-B-2

DITCH CHECK DETAIL

LOG-TYPE DITCH CHECK

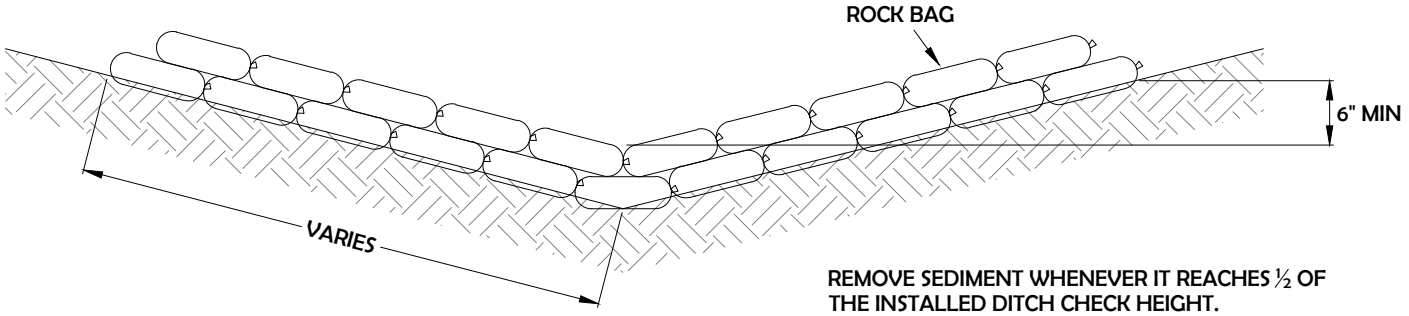


REMOVE SEDIMENT WHENEVER IT REACHES ½ OF THE INSTALLED DITCH CHECK HEIGHT.

ROCK BAG DITCH CHECK

PLACE ROCK BAGS TIGHTLY AGAINST EACH OTHER TO PREVENT VOIDS

STAGGER JOINTS BETWEEN ADJACENT ROWS OF BAGS



REMOVE SEDIMENT WHENEVER IT REACHES ½ OF THE INSTALLED DITCH CHECK HEIGHT.

FILL BAGS WITH AGGREGATE CONFORMING TO THE FOLLOWING GRADATION (WISDOT NO. 1 COARSE AGGREGATE)

SIEVE	PERCENT PASSING BY WEIGHT
2-INCH	-
1½"-INCH	-
1-INCH	100
¾"-INCH	90-100
⅜"-INCH	20-55
No. 4	0-10
No. 8	0-5

PROVIDE BAGS MADE OF HIGH-DENSITY POLYETHYLENE OR GEOTEXTILE FABRIC

BAGS SHALL HAVE A MINIMUM IN-PLACE FILLED SIZE OF 18 INCHES LONG BY 12 INCHES WIDE BY 6 INCHES HIGH

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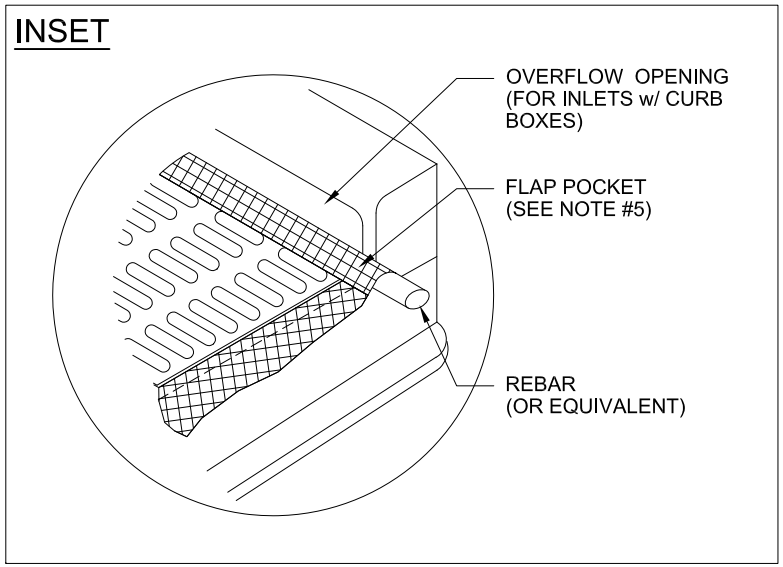
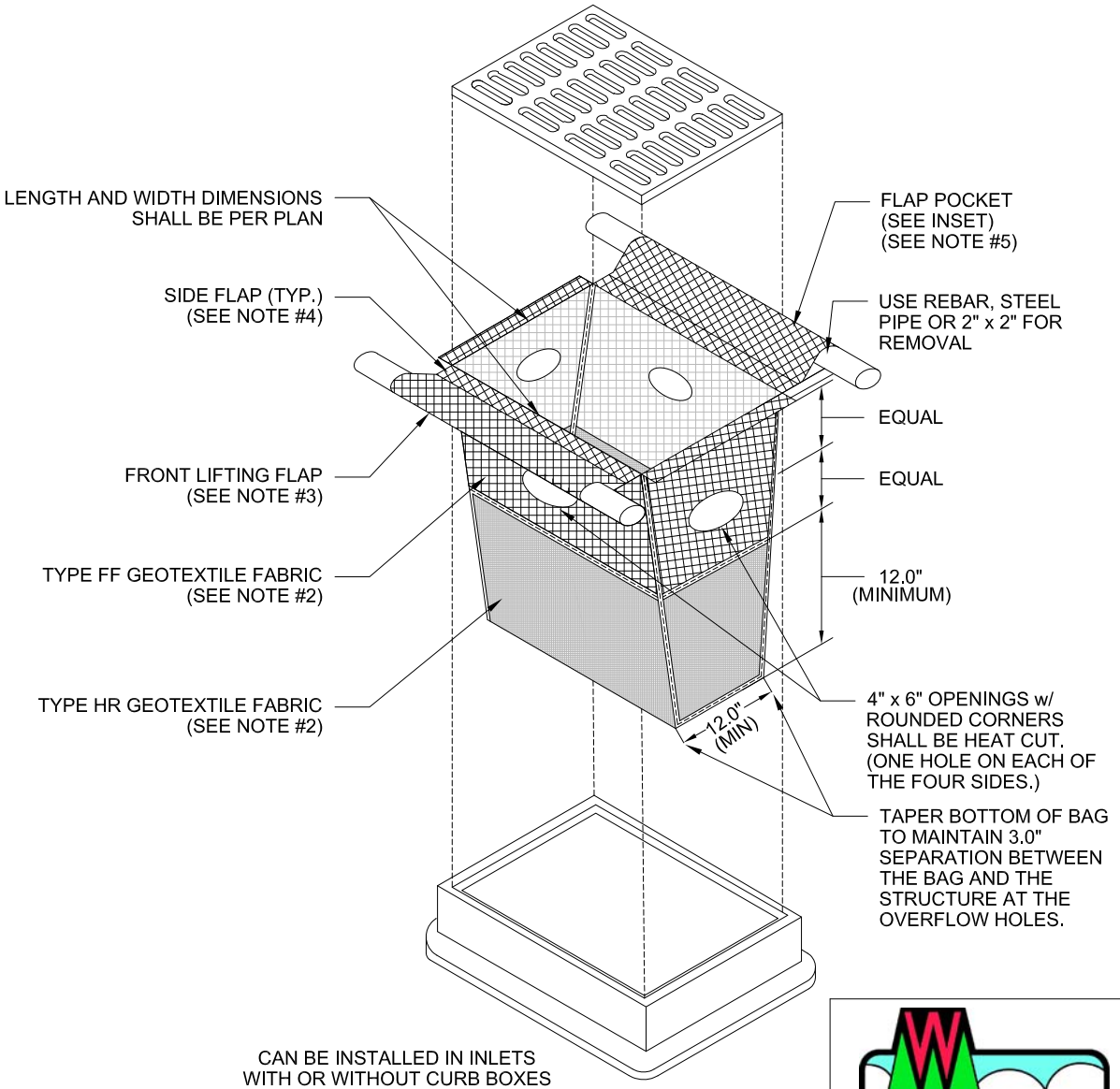
FIGURE 3. INLET PROTECTION TYPE D-HR





CAN BE INSTALLED IN INLETS
WITH OR WITHOUT CURB BOXES

NOTES:

1. TAPER BOTTOM OF BAG TO MAINTAIN THREE INCHES OF CLEARANCE BETWEEN THE BAG AND THE STRUCTURE, MEASURED FROM THE BOTTOM OF THE OVERFLOW OPENINGS TO THE STRUCTURE WALL.
2. GEOTEXTILE FABRIC, TYPE FF FOR FLAPS AND TOP HALF OF FILTER BAG. GEOTEXTILE FABRIC, TYPE HR FOR BOTTOM HALF OF FILTER BAG WITH FRONT, BACK, AND BOTTOM BEING ONE PIECE.
3. FRONT LIFTING FLAP IS TO BE USED WHEN REMOVING AND MAINTAINING FILTER BAG.
4. SIDE FLAPS SHALL BE A MAXIMUM OF TWO INCHES LONG. FOLD THE FABRIC OVER AND REINFORCE WITH MULTIPLE STITCHES.
5. FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2" x 2". THE REBAR, STEEL PIPE, OR WOOD SHALL BE INSTALLED IN THE REAR FLAP AND SHALL NOT BLOCK THE TOP HALF OF THE CURB FACE OPENING.

MAINTENANCE NOTES:

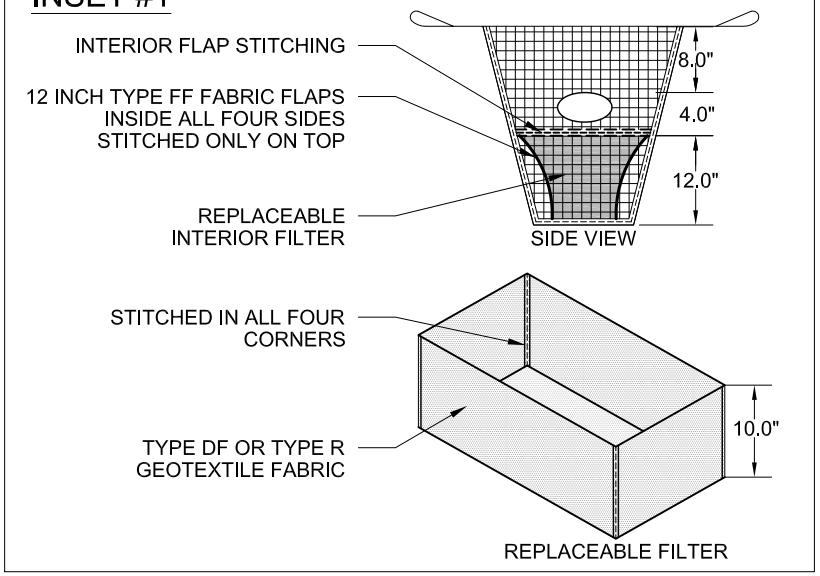
1. WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED IN THE FABRIC DOES NOT FALL INTO THE STRUCTURE. MATERIAL THAT HAS FALLEN INTO THE INLET SHALL BE IMMEDIATELY REMOVED.

WISCONSIN
DEPT. OF NATURAL RESOURCES

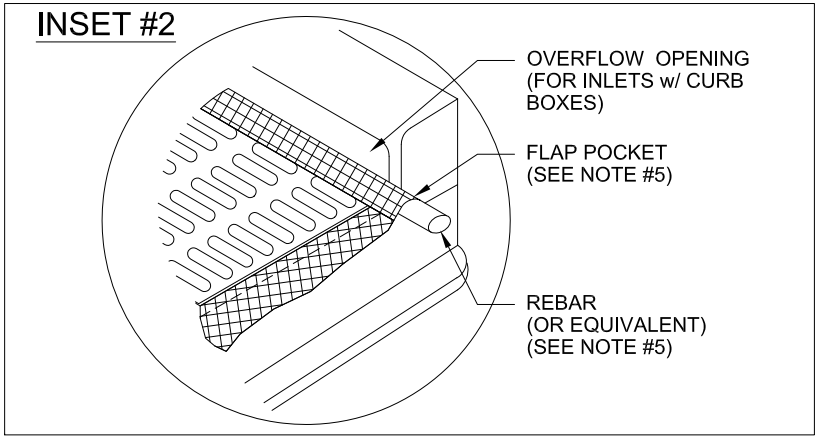
1060	TECHNICAL STANDARD No.
08/2014	REVISION DATE
NOT TO SCALE	

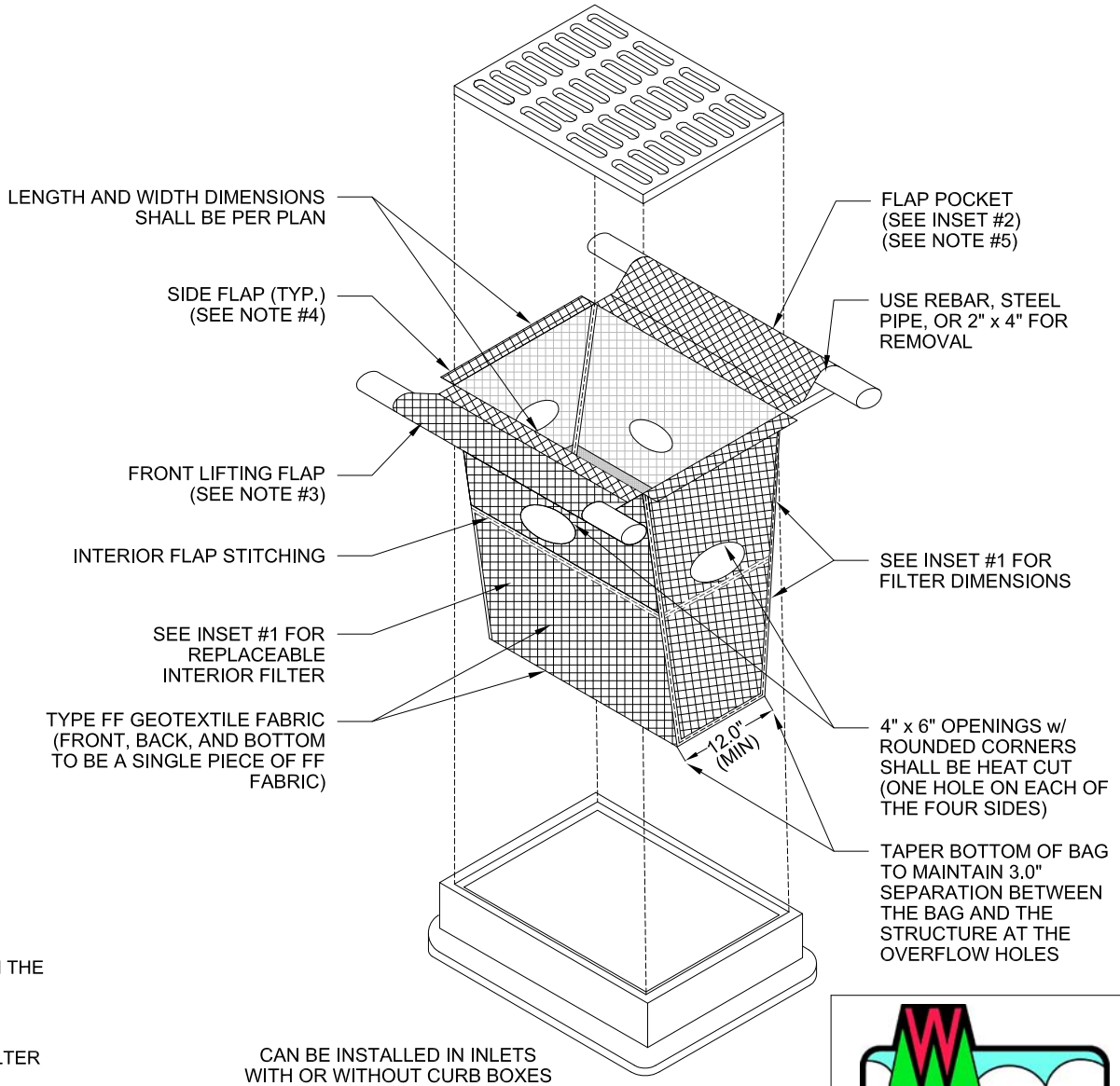
FIGURE 2. INLET PROTECTION TYPE D-M

INSET #1



INSET #2





CAN BE INSTALLED IN INLETS WITH OR WITHOUT CURB BOXES

NOTES:

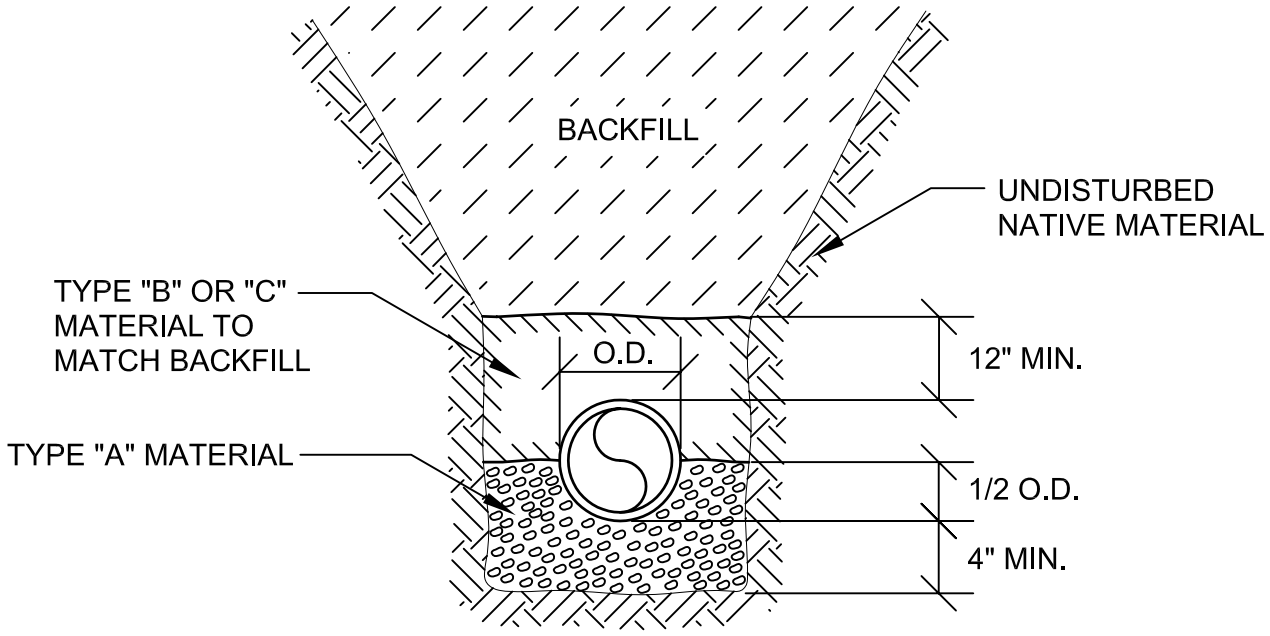
1. TAPER BOTTOM OF BAG TO MAINTAIN THREE INCHES OF CLEARANCE BETWEEN THE BAG AND THE STRUCTURE, MEASURED FROM THE BOTTOM OF THE OVERFLOW OPENINGS TO THE STRUCTURE WALL.
2. GEOTEXTILE FABRIC TYPE FF FOR FLAPS, TOP AND BOTTOM OF OUTSIDE OF FILTER BAG. FRONT, BACK, AND BOTTOM OF FILTER BAG BEING ONE PIECE.
3. FRONT LIFTING FLAP IS TO BE USED WHEN REMOVING AND MAINTAINING FILTER BAG.
4. SIDE FLAPS SHALL BE A MAXIMUM OF TWO INCHES LONG. FOLD THE FABRIC OVER AND REINFORCE WITH MULTIPLE STITCHES.
5. FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2" x 4". THE REBAR, STEEL PIPE, OR WOOD SHALL BE INSTALLED IN THE REAR FLAP AND SHALL NOT BLOCK THE TOP HALF OF THE CURB FACE OPENING.

MAINTENANCE NOTES:

1. WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED IN THE FABRIC DOES NOT FALL INTO THE STRUCTURE. MATERIAL THAT HAS FALLEN INTO THE INLET SHALL BE IMMEDIATELY REMOVED.

WISCONSIN DEPT. OF NATURAL RESOURCES

1060	TECHNICAL STANDARD No.
08/2014	REVISION DATE
NOT TO SCALE	



PROJECT

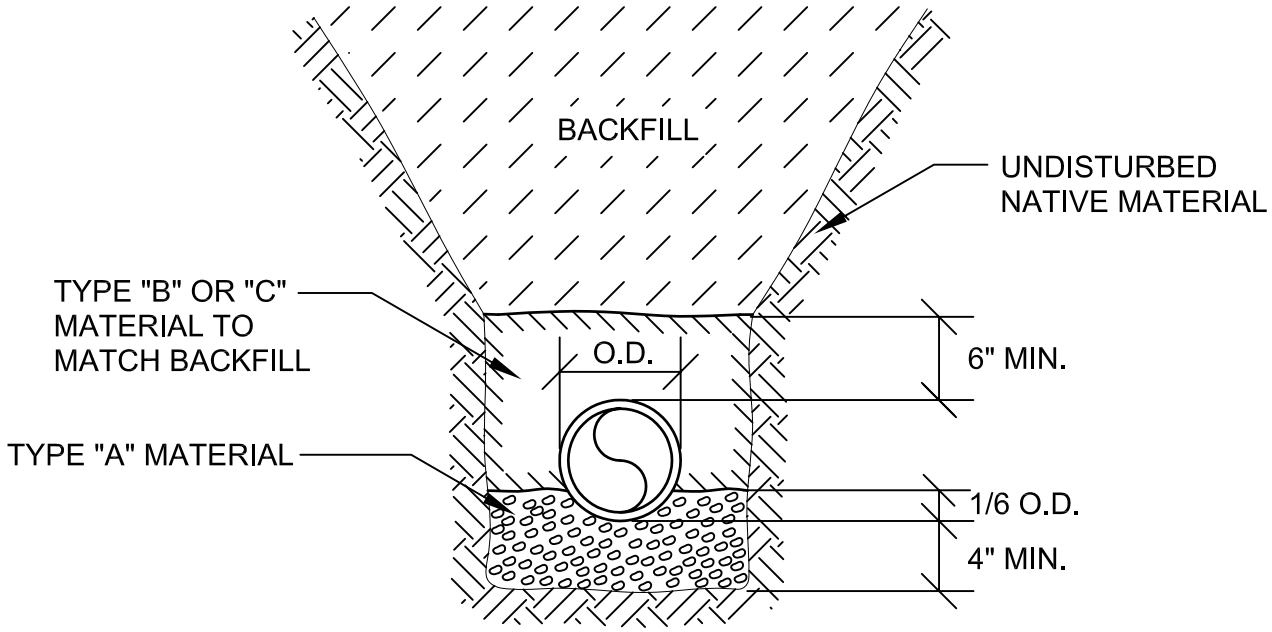
STANDARD DETAILS FOR WATER MAIN CONSTRUCTION

CITY OF FOND DU LAC
WATER UTILITY
FOND DU LAC COUNTY, WISCONSIN

TITLE

CLASS "B" BEDDING

DRAWN	JS	JOB NO. E101-54.01		DETAIL NO. S-2
CHECKED	MW	DATE	11/30/99	



PROJECT

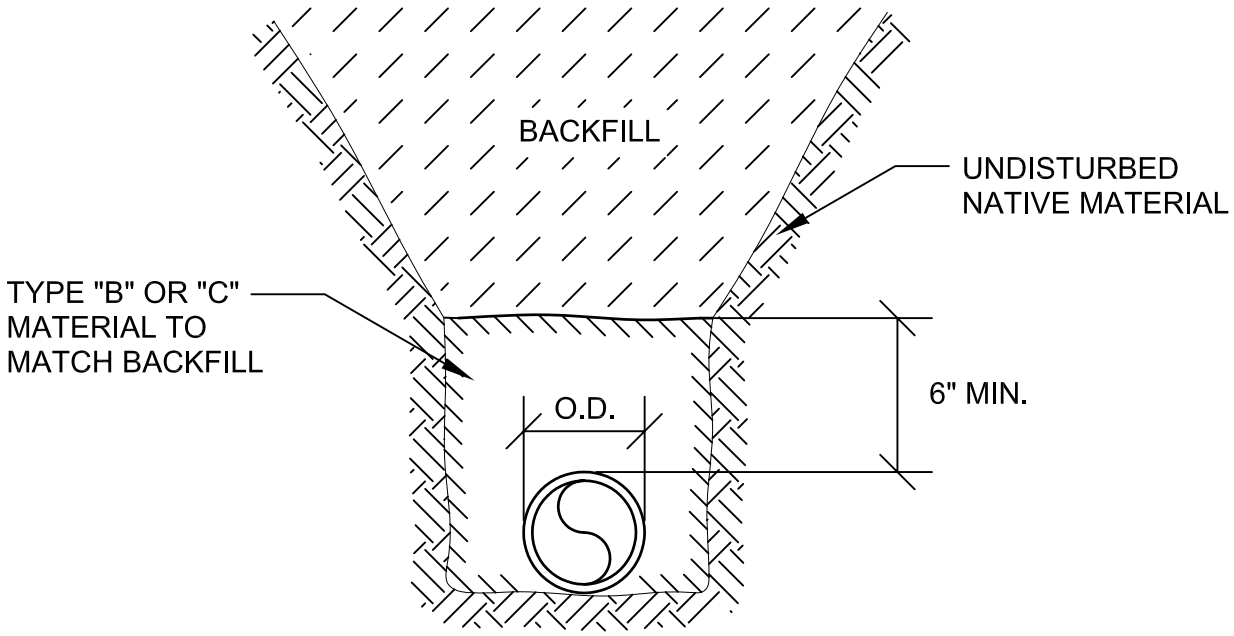
STANDARD DETAILS FOR WATER MAIN CONSTRUCTION

CITY OF FOND DU LAC
WATER UTILITY
FOND DU LAC COUNTY, WISCONSIN

TITLE

CLASS "C" BEDDING

DRAWN	JS	JOB NO. E101-54.01		DETAIL NO. S-3
CHECKED	MW	DATE	11/30/99	



PROJECT

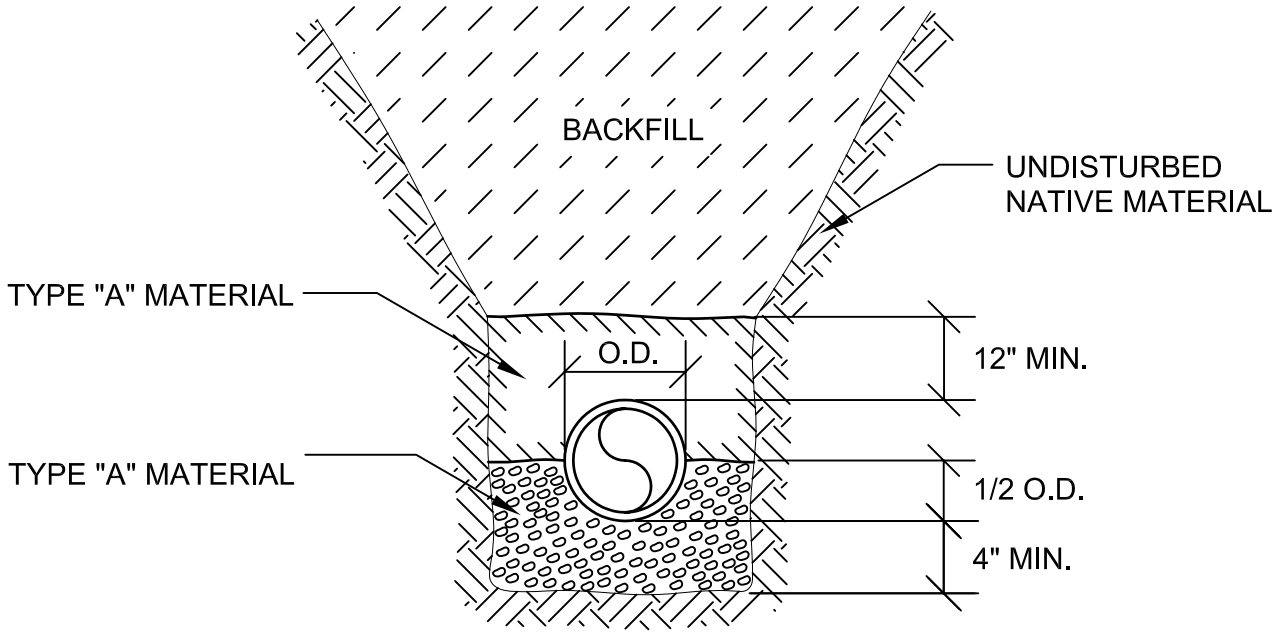
STANDARD DETAILS FOR WATER MAIN CONSTRUCTION

CITY OF FOND DU LAC
WATER UTILITY
FOND DU LAC COUNTY, WISCONSIN

TITLE

CLASS "D" BEDDING

DRAWN	JS	JOB NO. E101-54.01		DETAIL NO. S-4
CHECKED	MW	DATE	11/30/99	



PROJECT

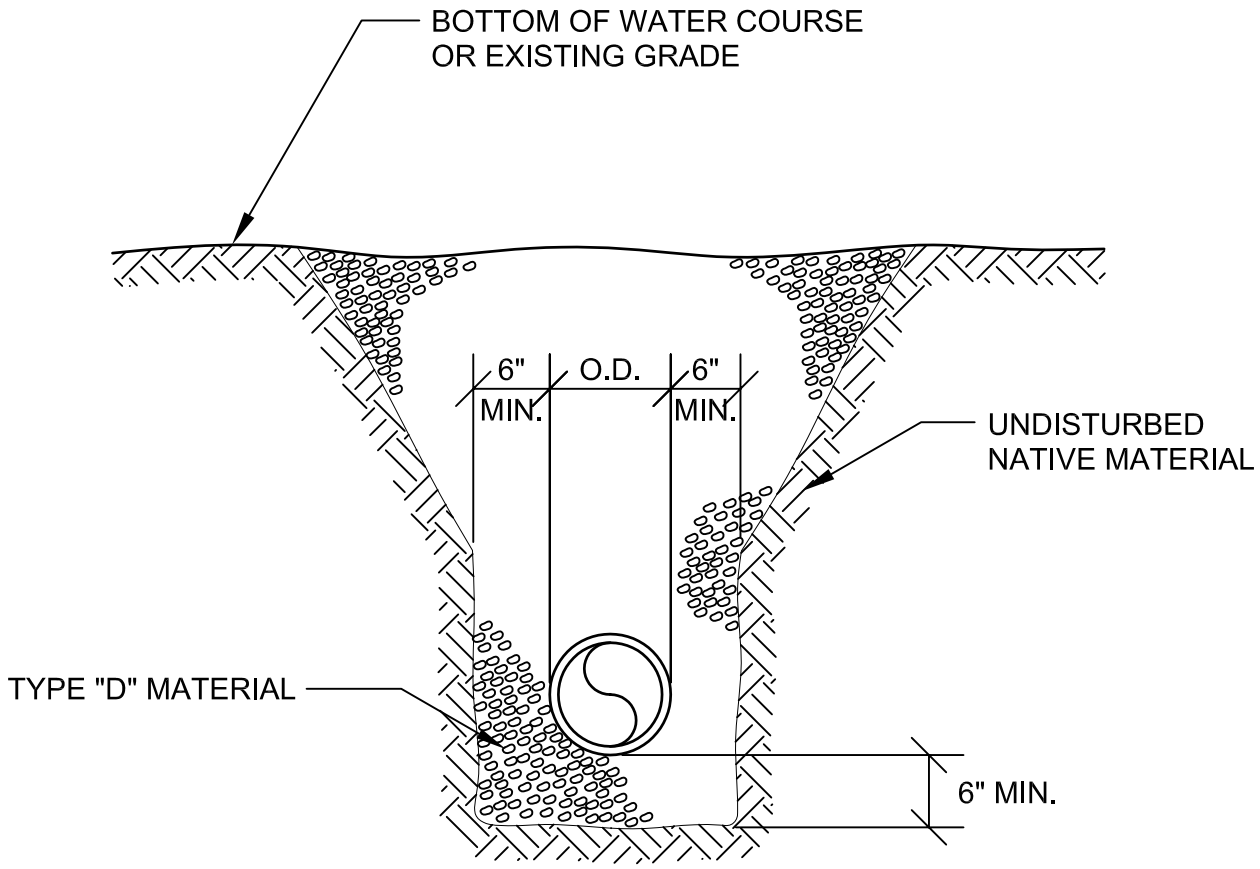
STANDARD DETAILS FOR WATER MAIN CONSTRUCTION

CITY OF FOND DU LAC
WATER UTILITY
FOND DU LAC COUNTY, WISCONSIN

TITLE

CLASS "E" BEDDING

DRAWN	JS	JOB NO. E101-54.01		DETAIL NO. S-5
CHECKED	MW	DATE	11/30/99	



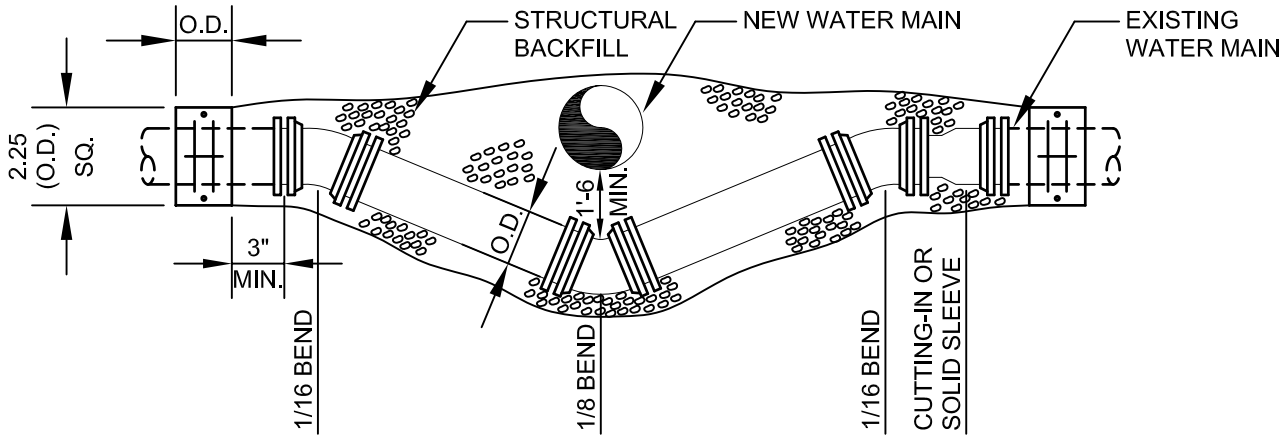
PROJECT

STANDARD DETAILS FOR WATER MAIN CONSTRUCTION

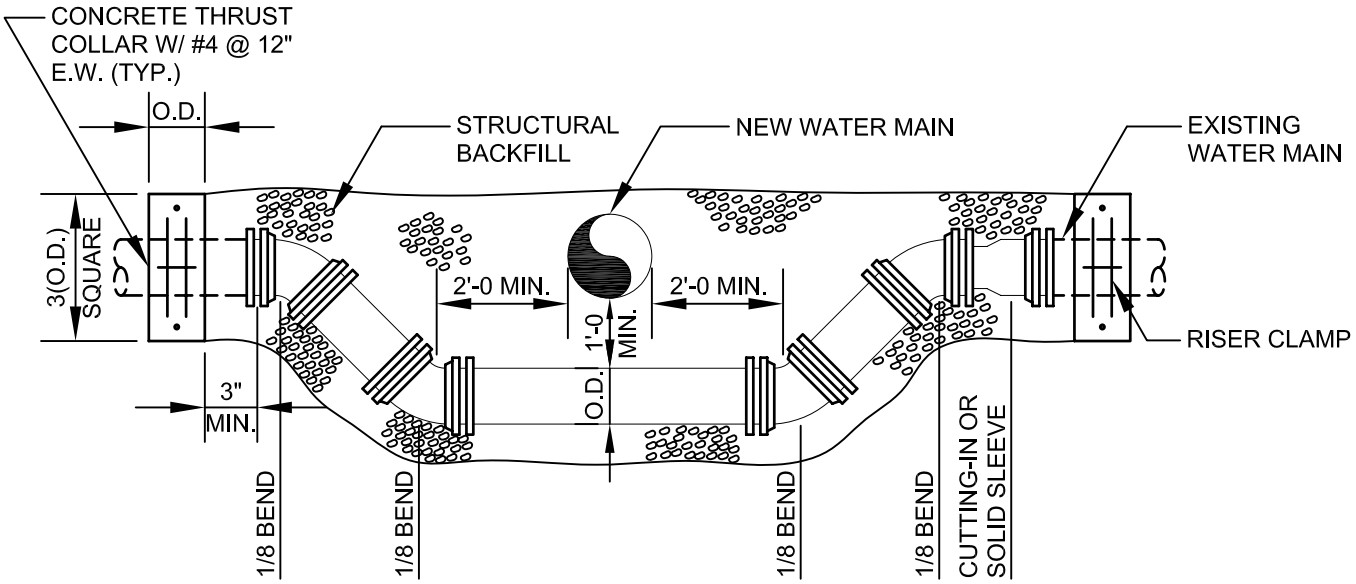
CITY OF FOND DU LAC
WATER UTILITY
FOND DU LAC COUNTY, WISCONSIN

TITLE: CLASS "S" BEDDING (SUBMERGED PIPE)

DRAWN	JS	JOB NO. E101-54.01	DETAIL NO. S-6
CHECKED	MW	DATE 11/30/99	



ALTERNATE METHOD NO. 1



ALTERNATE METHOD NO. 2

NOTES: JOINT RESTRAINT SYSTEM SHALL BE PROVIDED FOR ALL PIPE JOINTS BETWEEN THRUST COLLARS

PROJECT

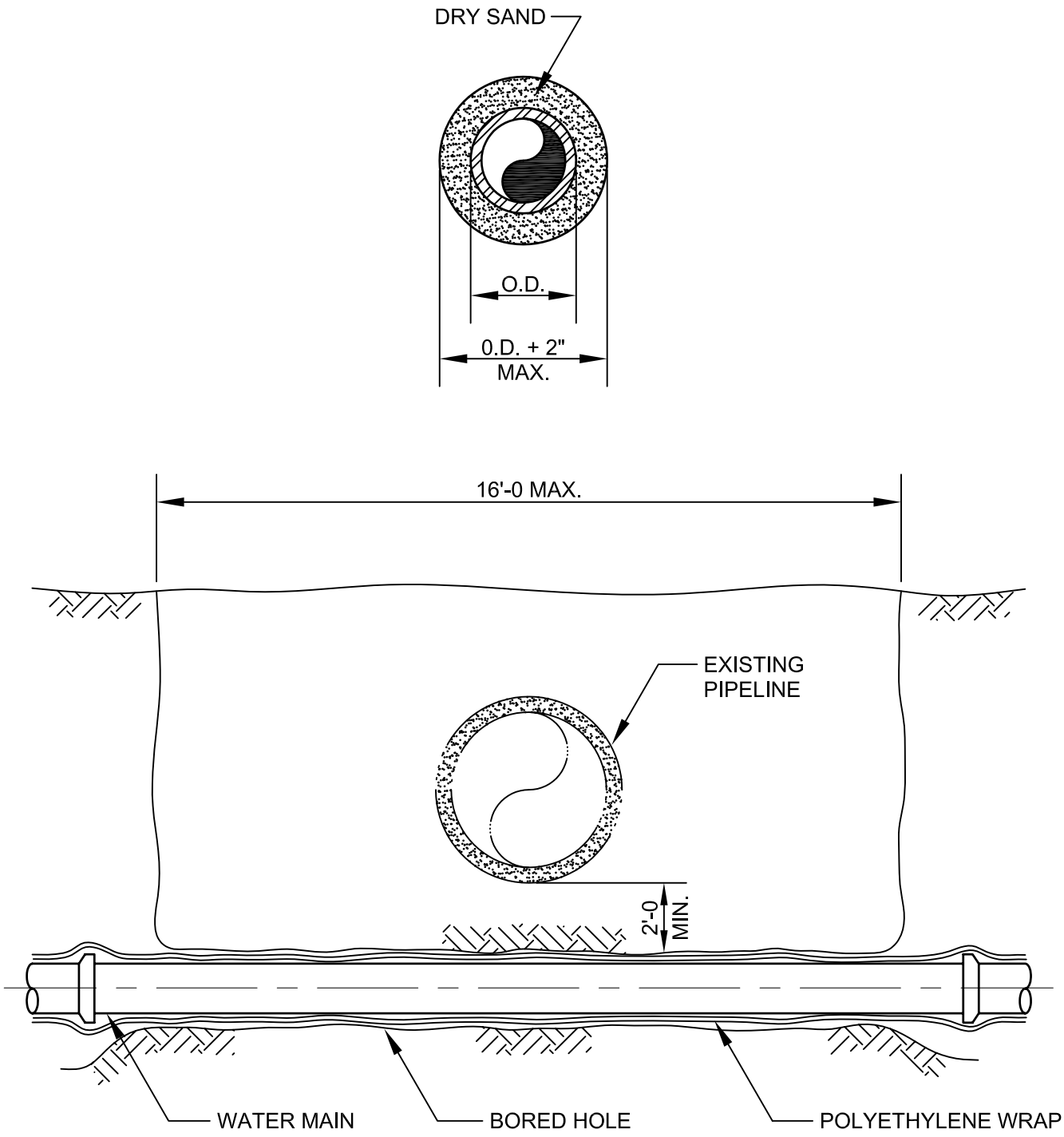
STANDARD DETAILS FOR WATER MAIN CONSTRUCTION

CITY OF FOND DU LAC
WATER UTILITY
FOND DU LAC COUNTY, WISCONSIN

TITLE

WATER MAIN LOWERING 4" TO 14" INCLUSIVE

DRAWN	JS	JOB NO. E101-54.01		DETAIL NO. S-10
CHECKED	MW	DATE	11/30/99	



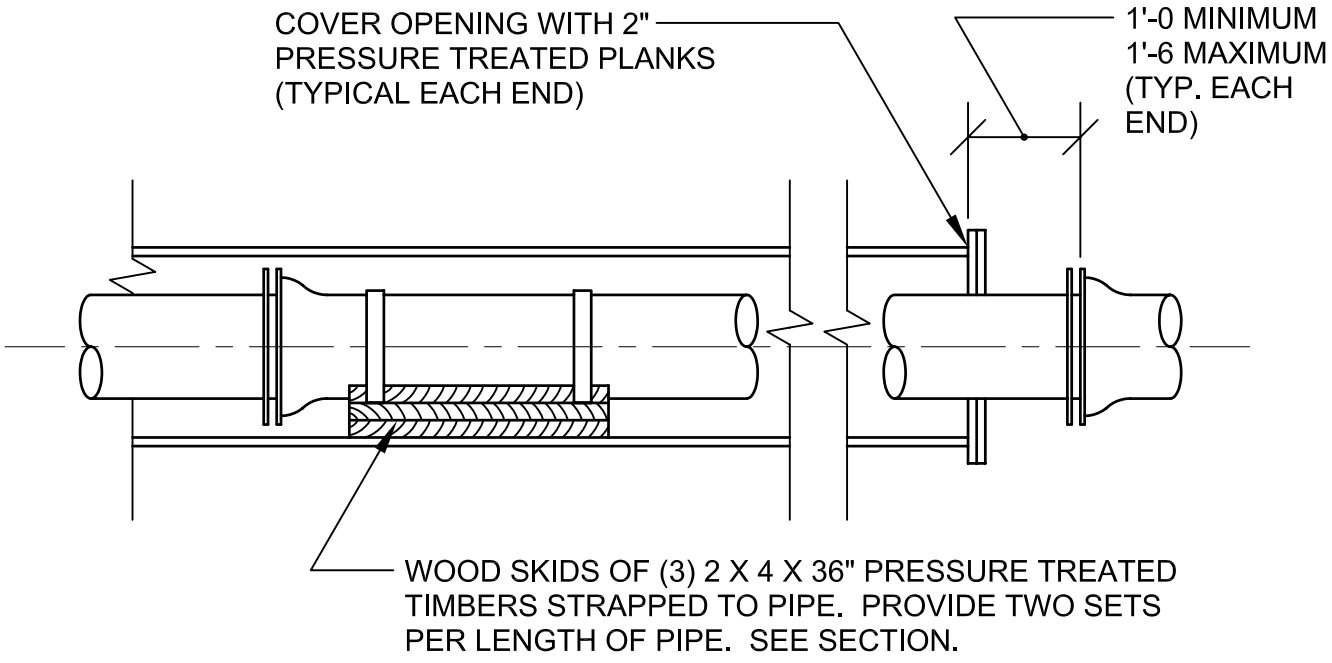
PROJECT

STANDARD DETAILS FOR WATER MAIN CONSTRUCTION

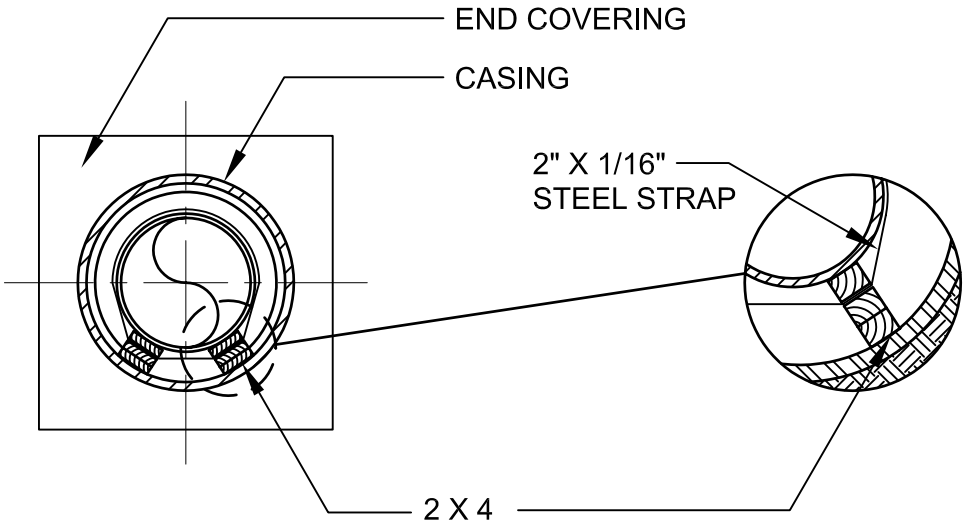
CITY OF FOND DU LAC
WATER UTILITY
FOND DU LAC COUNTY, WISCONSIN

TITLE **BORING WITHOUT CASING PIPE**

DRAWN	JS	JOB NO. E101-54.01		DETAIL NO. S-8
CHECKED	MW	DATE	11/30/99	



ELEVATION



SECTION DETAIL

PROJECT

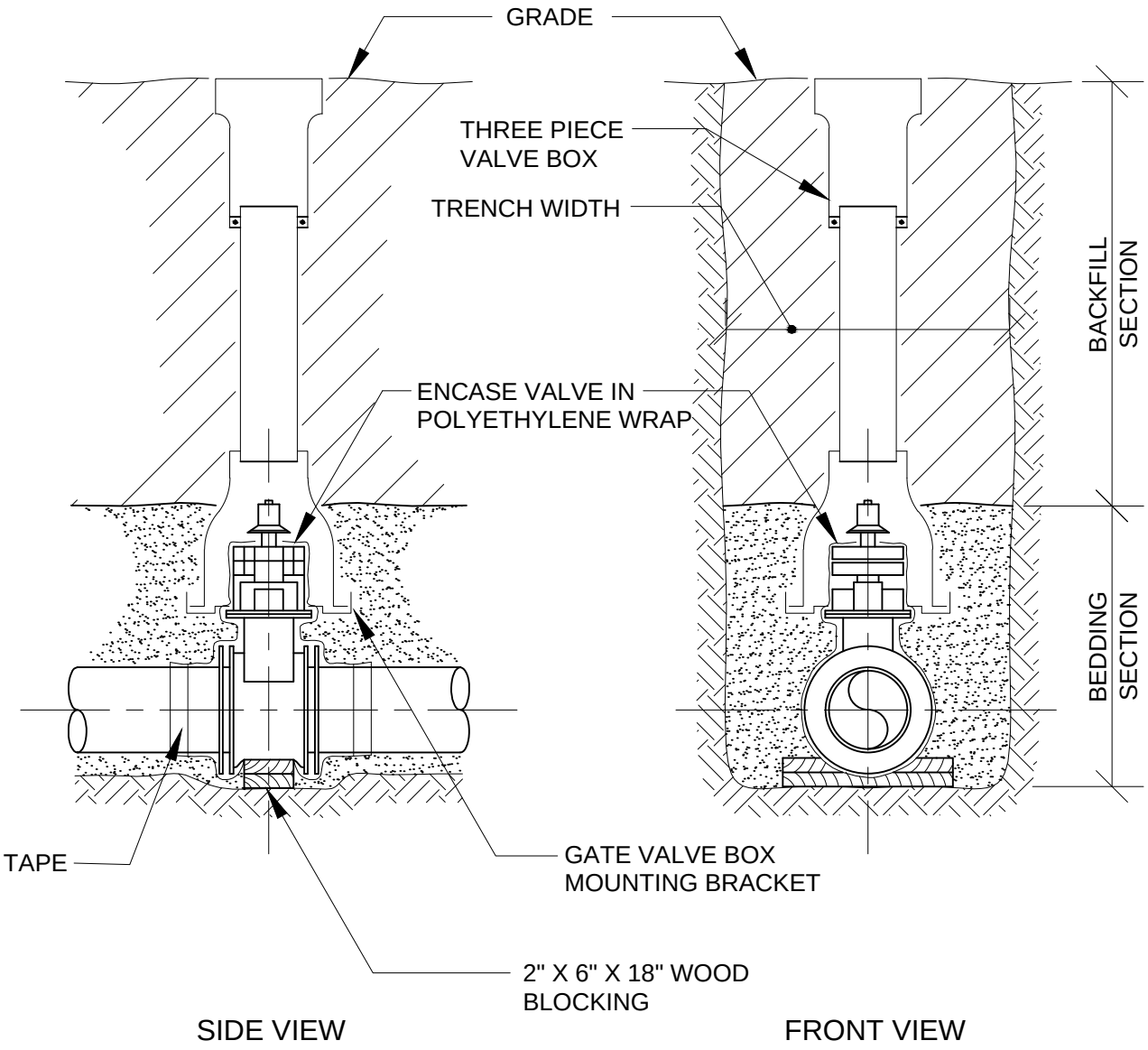
STANDARD DETAILS FOR WATER MAIN CONSTRUCTION

CITY OF FOND DU LAC
WATER UTILITY
FOND DU LAC COUNTY, WISCONSIN

TITLE

CASING INSTALLATION

DRAWN JS	JOB NO. E101-54.01	DETAIL NO.
CHECKED MW	DATE 11/30/99	S-7



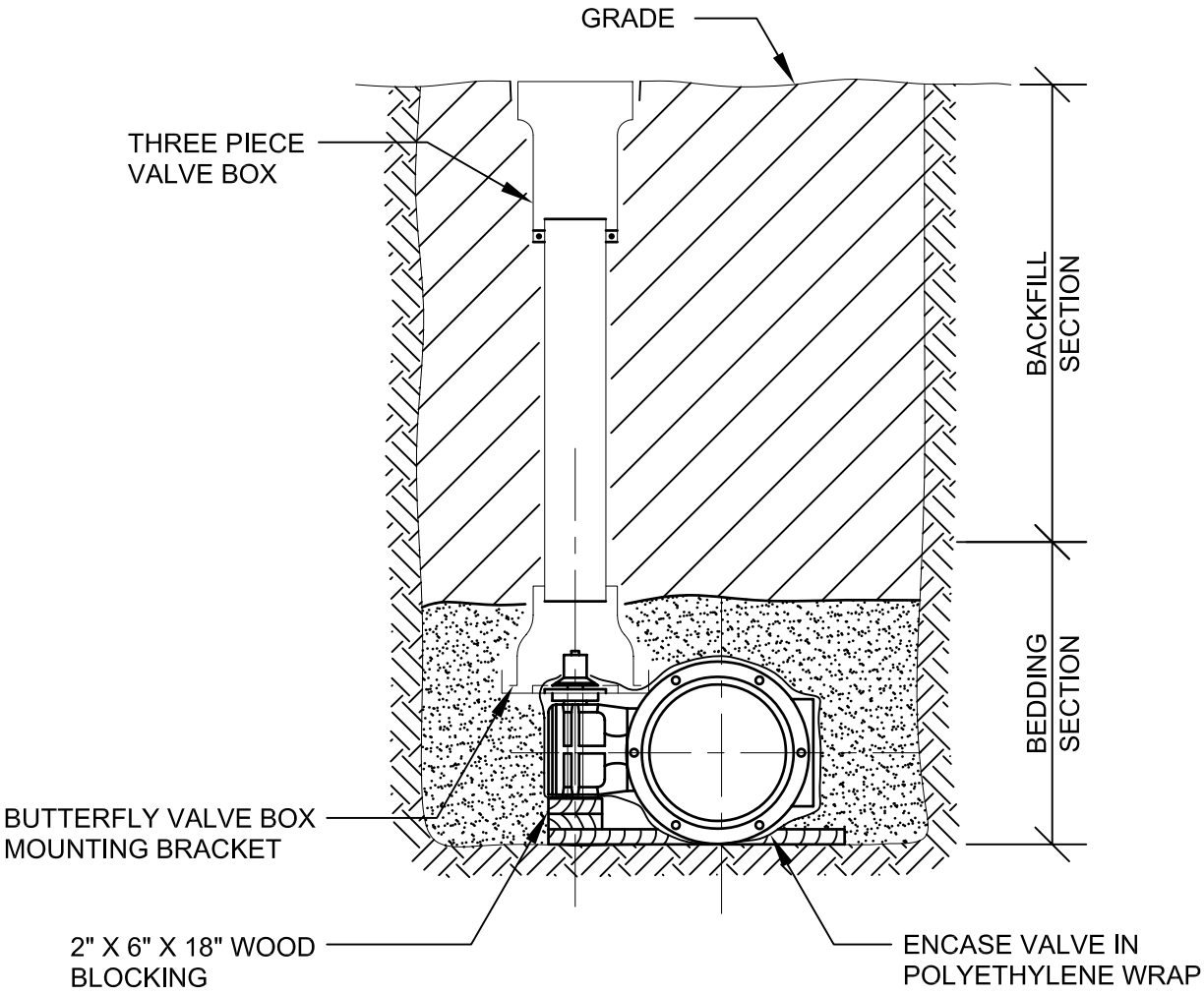
PROJECT

STANDARD DETAILS FOR WATER MAIN CONSTRUCTION

CITY OF FOND DU LAC
WATER UTILITY
FOND DU LAC COUNTY, WISCONSIN

TITLE: RESILIENT SEATED GATE VALVE & BOX SETTING WITH PVC WATER MAIN

DRAWN	JS	JOB NO. E101-54.01		DETAIL NO. S-13
CHECKED	MW	DATE	2/15/2000	



PROJECT

STANDARD DETAILS FOR WATER MAIN CONSTRUCTION

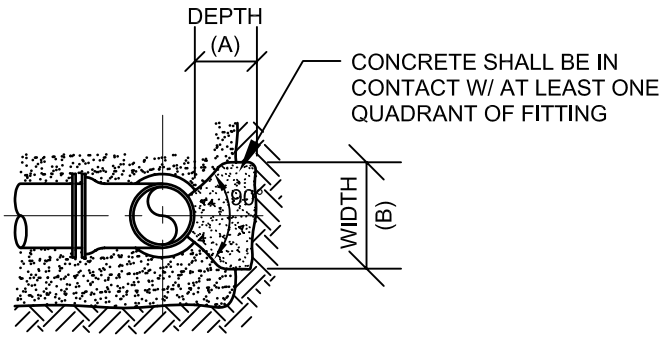
CITY OF FOND DU LAC
WATER UTILITY
FOND DU LAC COUNTY, WISCONSIN

TITLE **BUTTERFLY VALVE & BOX SETTING**

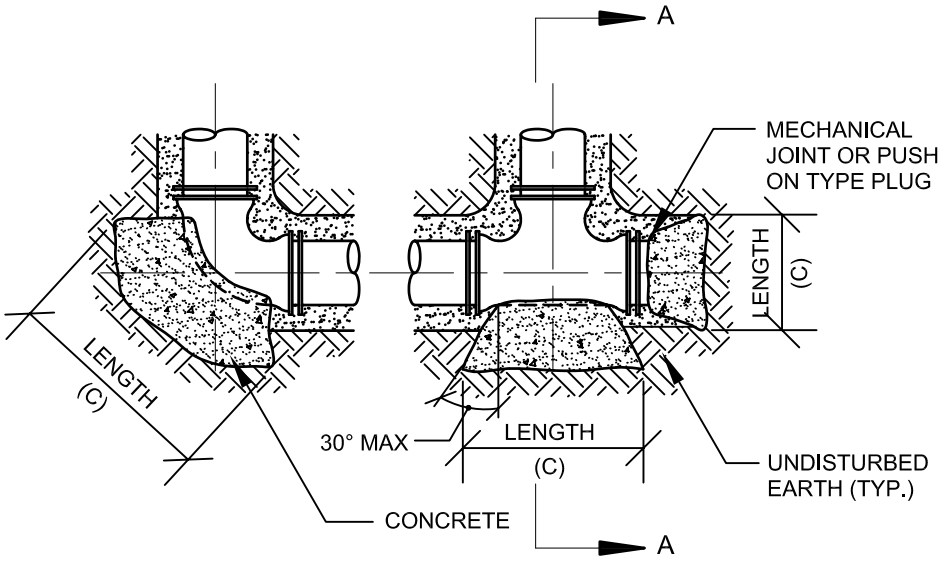
DRAWN JS	JOB NO. E101-54.01	DETAIL NO.
CHECKED MW	DATE 11/30/99	S-14

THRUST BLOCKING NOTES:

1. CONCRETE SHALL HAVE A MIN. COMPRESSIVE STRENGTH OF 2000 PSI & SHALL BE CAST AGAINST UNDISTURBED EARTH.
2. FITTINGS SHALL BE ENCASED IN PLASTIC TO PREVENT CONCRETE BONDING TO FITTINGS.
3. FORM CONCRETE AS REQUIRED TO PREVENT CONTACT OR INTERFERENCE W/PIPE JOINTS.
4. THE LENGTH OF THE THRUST BLOCK SHALL BE APPROXIMATELY TWICE THE WIDTH. BEARING AREA = LENGTH (A) X WIDTH (B).



SECTION A-A



BEND PLAN
(* VARIES)

TEE PLAN

PROJECT

STANDARD DETAILS FOR WATER MAIN CONSTRUCTION

CITY OF FOND DU LAC
WATER UTILITY
FOND DU LAC COUNTY, WISCONSIN

TITLE

THRUST BLOCKING

DRAWN	JS	JOB NO. E101-54.01		DETAIL NO. S-9
CHECKED	MW	DATE	11/30/99	

THRUST BLOCK DIMENSIONS (1)											
PIPE SIZE	A	11 1/4° BEND		22 1/2° BEND		45° BEND		90° BEND		TEE/DEAD END	
		B	C	B	C	B	C	B	C	B	C
6"	1'-0	1'-8	1'-0	1'-8	1'-0	1'-8	1'-0	1'-8	1'-4	1'-8	1'-0
8"	1'-2	2'-0	1'-0	2'-0	1'-0	2'-0	1'-0	2'-0	1'-10	2'-0	1'-4
10"	1'-4	2'-3	1'-0	2'-3	1'-0	2'-3	1'-4	2'-3	2'-4	2'-3	1'-8
12"	1'-6	2'-6	1'-0	2'-6	1'-0	2'-6	1'-8	2'-6	3'-0	2'-6	2'-2
16"	2'-0	3'-0	1'-0	3'-0	1'-2	3'-0	2'-4	3'-0	4'-4	3'-0	3'-0
20"	2'-6	3'-9	1'-0	3'-9	1'-6"	3'-9	2'-10"	3'-9	5'-4"	3'-9	3'-9"
24"	3'-0	4'-3	1'-0	4'-3	1'-10"	4'-3	3'-8"	4'-3	6'-8"	4'-3	4'-8"

(1) DIMENSIONS IN TABLE ARE BASED ON A WATER PRESSURE OF 150 PSI AND AN ALLOWABLE SOIL BEARING PRESSURE OF 4000 PSF.

PROJECT

STANDARD DETAILS FOR WATER MAIN CONSTRUCTION

CITY OF FOND DU LAC
WATER UTILITY
FOND DU LAC COUNTY, WISCONSIN

TITLE

THRUST BLOCK DIMENSIONS

DRAWN	JS	JOB NO. E101-54.01	DETAIL NO.
CHECKED	MW	DATE 11/30/99	S-11

U.S. JOINT RESTRAINT LENGTHS(1) (FEET)					
PIPE SIZE	HORIZONTAL & VERTICAL-UP BENDS				
	11 1/4° BEND	22 1/2° BEND	45° BEND	90° BEND	DEAD END
6"	2	4	7	16	31
8"	3	5	9	21	41
10"	3	5	11	25	49
12"	3	6	13	30	58
16"	4	8	17	39	75
18"	4	9	19	44	84
20"	5	10	20	48	92
24"	6	12	24	57	109
PIPE SIZE	VERTICAL-DOWN BENDS				
	11 1/4° BEND	22 1/2° BEND	45° BEND	90° BEND	
6"	4	7	13	31	
8"	5	9	17	41	
10"	5	10	21	49	
12"	6	12	25	59	
16"	8	16	32	77	
18"	9	18	37	95	
20"	10	19	40	95	
24"	12	23	47	113	

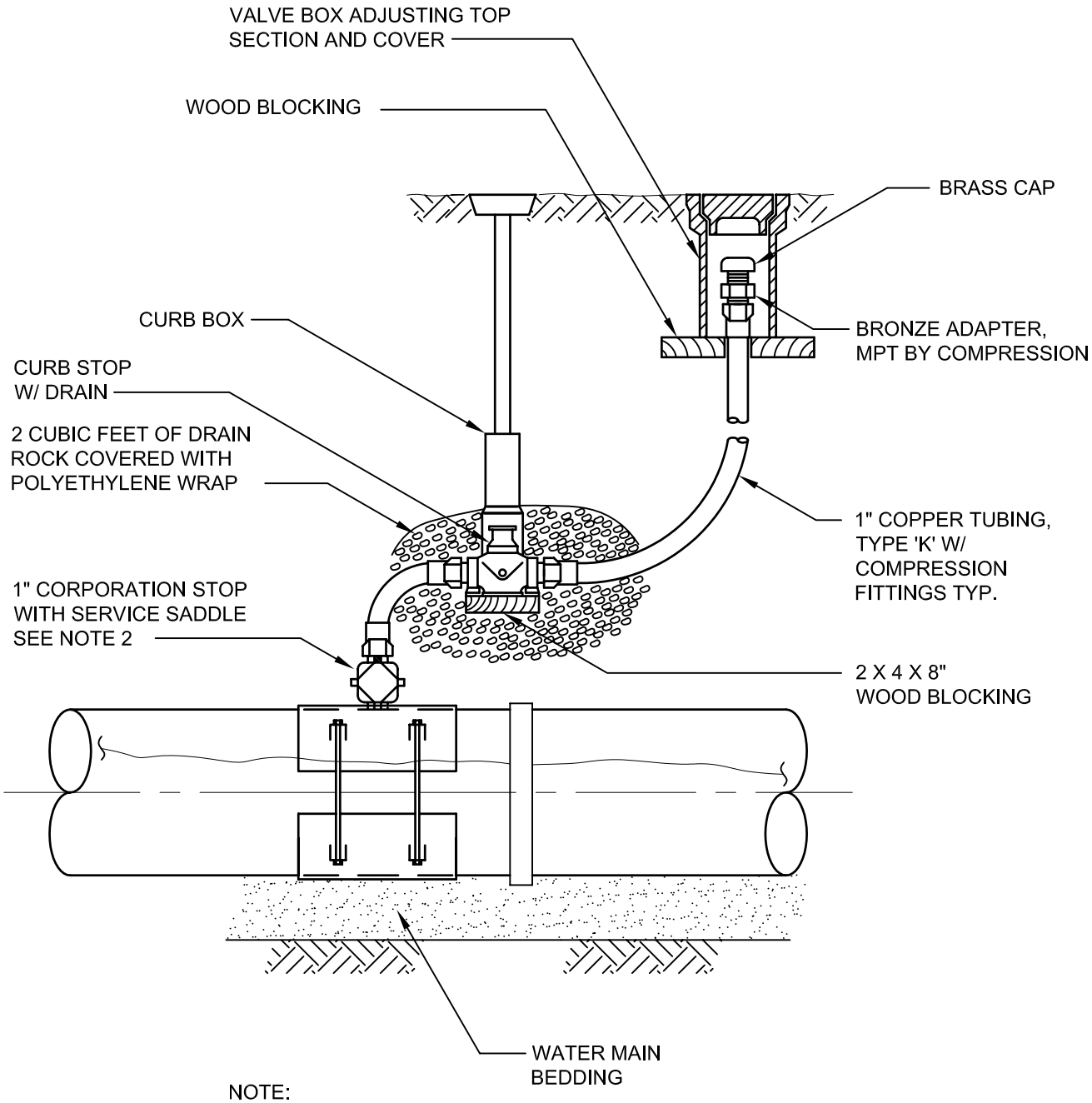
(1) RESTRAINT LENGTHS BASED ON DIPRA PUBLICATION "THRUST RESTRAINT DESIGN FOR DUCTILE IRON PIPE" SECOND EDITION 1986. WITH THE FOLLOWING ASSUMPTIONS:
LAY CONDITION - TYPE 4
SOILS - CLAY 1 (TABLE 3, PG. 11)
DEPTH - 6'-0
PIPE ENCASED IN POLYETHYLENE WRAP
SAFTEY FACTOR - 1.5
PIPELINE PRESSURE - 100 PSI

PROJECT
STANDARD DETAILS FOR WATER MAIN CONSTRUCTION

CITY OF FOND DU LAC
WATER UTILITY
FOND DU LAC COUNTY, WISCONSIN

TITLE
U.S. JOINT RESTRAINT LENGTHS

DRAWN	JS	JOB NO. E101-54.01	DETAIL NO.
CHECKED	MW	DATE 11/30/99	S-12.1



NOTE:

1. AN AIR RELEASE ASSEMBLY SHALL BE PROVIDED AT ALL HIGH POINTS AS NOTED ON PLANS.
2. NO SERVICE SADDLE SHALL BE PROVIDED WHEN FOUR FULL THREADS CAN BE OBTAINED IN A DUCTILE IRON PIPE.
3. SADDLE, CORPOTATION AND COPPER PIPE TO CURB STOP SHALL BE POLYETHYLENE WRAPED.

PROJECT

STANDARD DETAILS FOR WATER MAIN CONSTRUCTION

CITY OF FOND DU LAC
WATER UTILITY
FOND DU LAC COUNTY, WISCONSIN

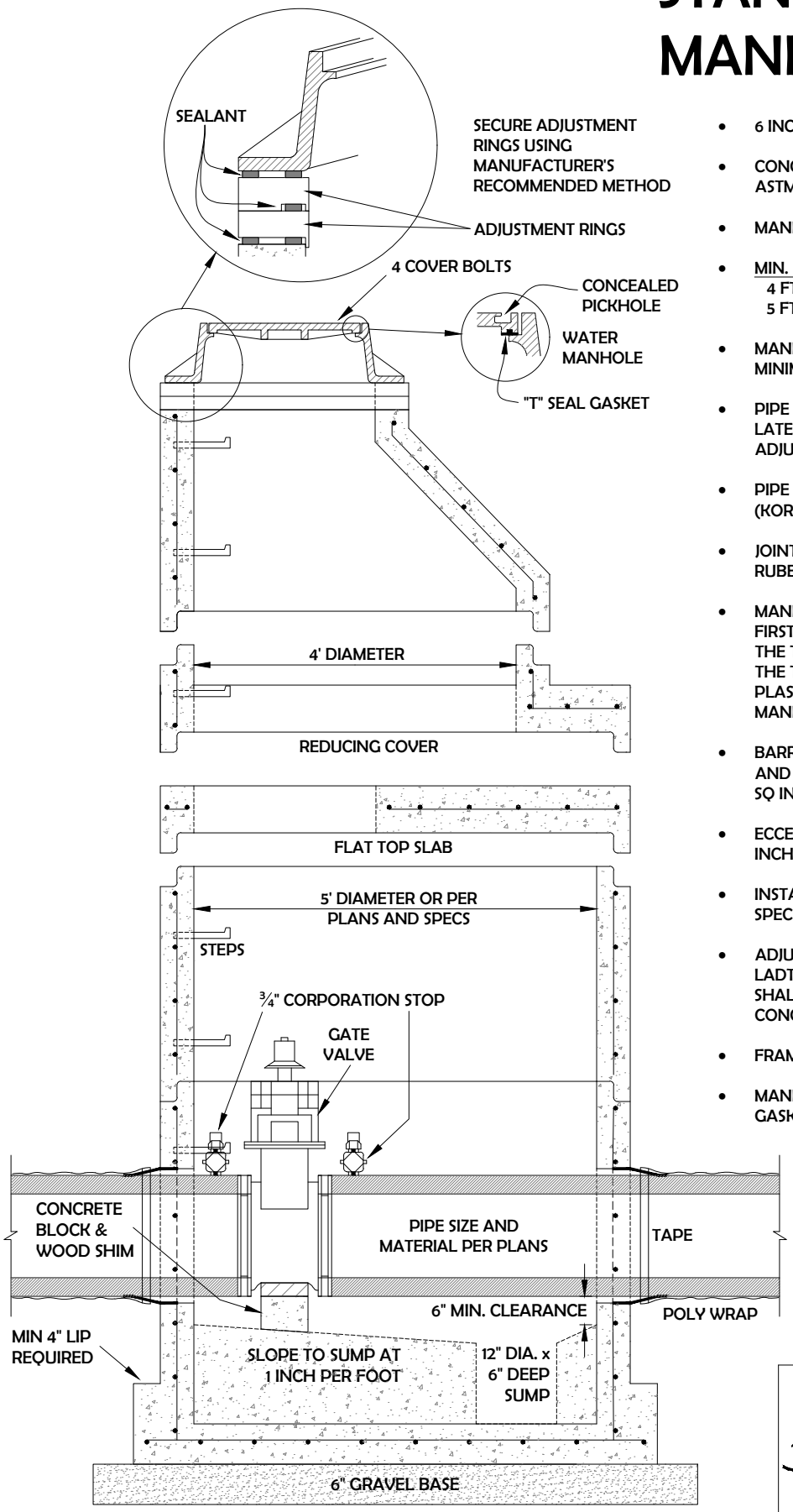
TITLE

AIR RELEASE ASSEMBLY

DRAWN	RRF	JOB NO. E101-03.24	DETAIL NO. S-21
CHECKED	JW	DATE 6/30/05	

4-C-7

STANDARD VALVE MANHOLE DETAIL



- 6 INCHES OF CRUSHED STONE BASE REQUIRED
- CONCRETE AND STEEL REINFORCEMENT SHALL CONFORM TO ASTM DESIGNATION C478
- MANHOLE CONCRETE STRENGTH TO BE 4,000 PSI OR GREATER
- MIN. MANHOLE WALL, BASE & FLAT TOP SLAB THICKNESSES
  4 FT I.D.: 5 INCH WALL, 6 INCH BASE & FLAT TOP SLAB
  5 FT I.D.: 6 INCH WALL, 8 INCH BASE & FLAT TOP SLAB
- MANHOLE BASE TO BE CONSTRUCTED OF CLASS "C" CONCRETE, MINIMUM OF 12 INCHES PLACED UNDER FLOW LINE OF PIPE
- PIPE HOLES TO BE MANUFACTURED SO AS TO ALLOW FOR LATERAL AND VERTICAL MOVEMENT, AS WELL AS ANGULAR ADJUSTMENT THROUGH 15°
- PIPE TO MANHOLE CONNECTORS SHALL MEET ASTM C923 (KOR-N-SEAL, QUIK-LOK OR EQUAL)
- JOINTS SHALL BE WATERTIGHT AND SHALL BE MADE USING RUBBER TYPE GASKETS OR PRE-FORMED JOINT MATERIAL
- MANHOLE STEPS TO BE PLACED AT 16 INCH INTERVALS. THE FIRST STEP SHALL BE PLACED 16 INCHES ABOVE THE FLOOR. THE TOP STEP MAY VARY FROM 16 INCHES - 24 INCHES FROM THE TOP OF CASTING. STEPS SHALL BE STEEL REINFORCED PLASTIC. MANHOLE STEPS SHALL BE ALIGNED OVER THE MANHOLE FRAME.
- BARREL SECTION - 12 INCH, 16 INCH, 24 INCH, 32 INCH, 48 INCH AND 64 INCH HIGH. AREA OF CIRCUMFERENTIAL STEEL = 0.12 SQ INCH PER LINEAL FOOT
- ECCENTRIC CONE MAY VARY IN HEIGHT FROM 28 INCHES TO 36 INCHES
- INSTALL FLAT TOP WHEN SHOWN ON PLANS, IN SPECIFICATIONS OR APPROVED BY ENGINEER
- ADJUSTMENT RINGS SHALL BE HDPE ADJUSTING RINGS BY LADTECH, INC., CRETEX PRO-RING, OR EJ INFRA-RISER. RINGS SHALL HAVE AN INSIDE DIAMETER OF APPROX. 23-3/4 INCHES. CONCRETE ADJUSTMENT RINGS SHALL NOT BE ALLOWED.
- FRAME SHALL BE NEENAH FOUNDRY R-1916-C OR EQUAL.
- MANHOLE LID TO HAVE CONCEALED PICK HOLES, "T" SEAL GASKET AND COVER BOLTS.
- SUMP SHALL NOT BE LOCATED DIRECTLY UNDER PIPE.
- INSTALL SOLID CONCRETE BLOCK UNDER VALVE. WIDTH SHALL BE AT LEAST 4 INCHES GREATER THAN VALVE DIAMETER. INSTALL HARDWOOD SHIM BETWEEN CONCRETE BLOCK AND VALVE.

SCALE: 1" = 2'
REVISED 07/6/20 BY NW
J:\CITYDWG\Civil 3D Drawings\DTL\City SDDs\WATER VALVE MANHOLE DETAIL.PDF

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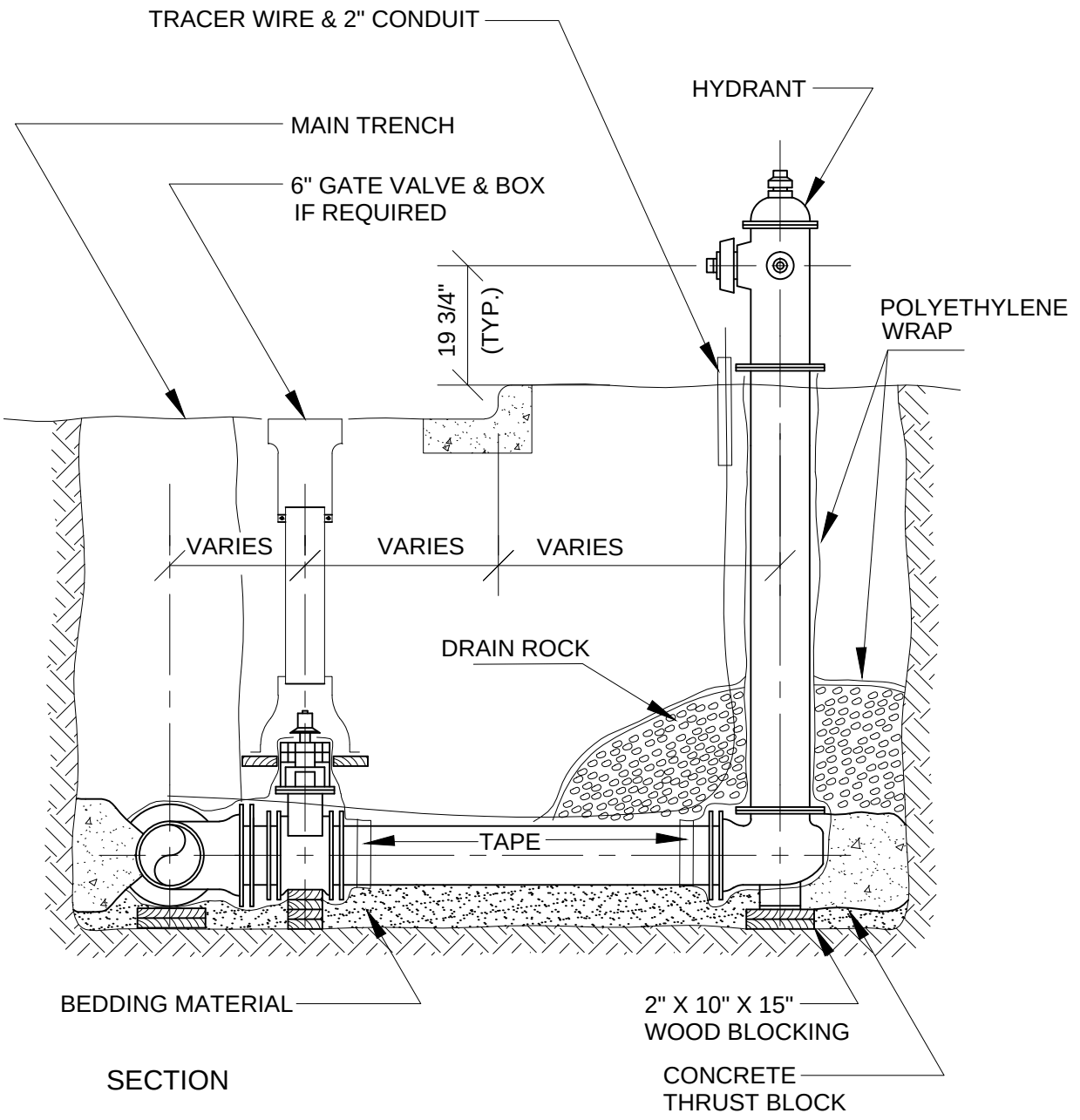
CITY OF FOND DU LAC, WISCONSIN



SECTION

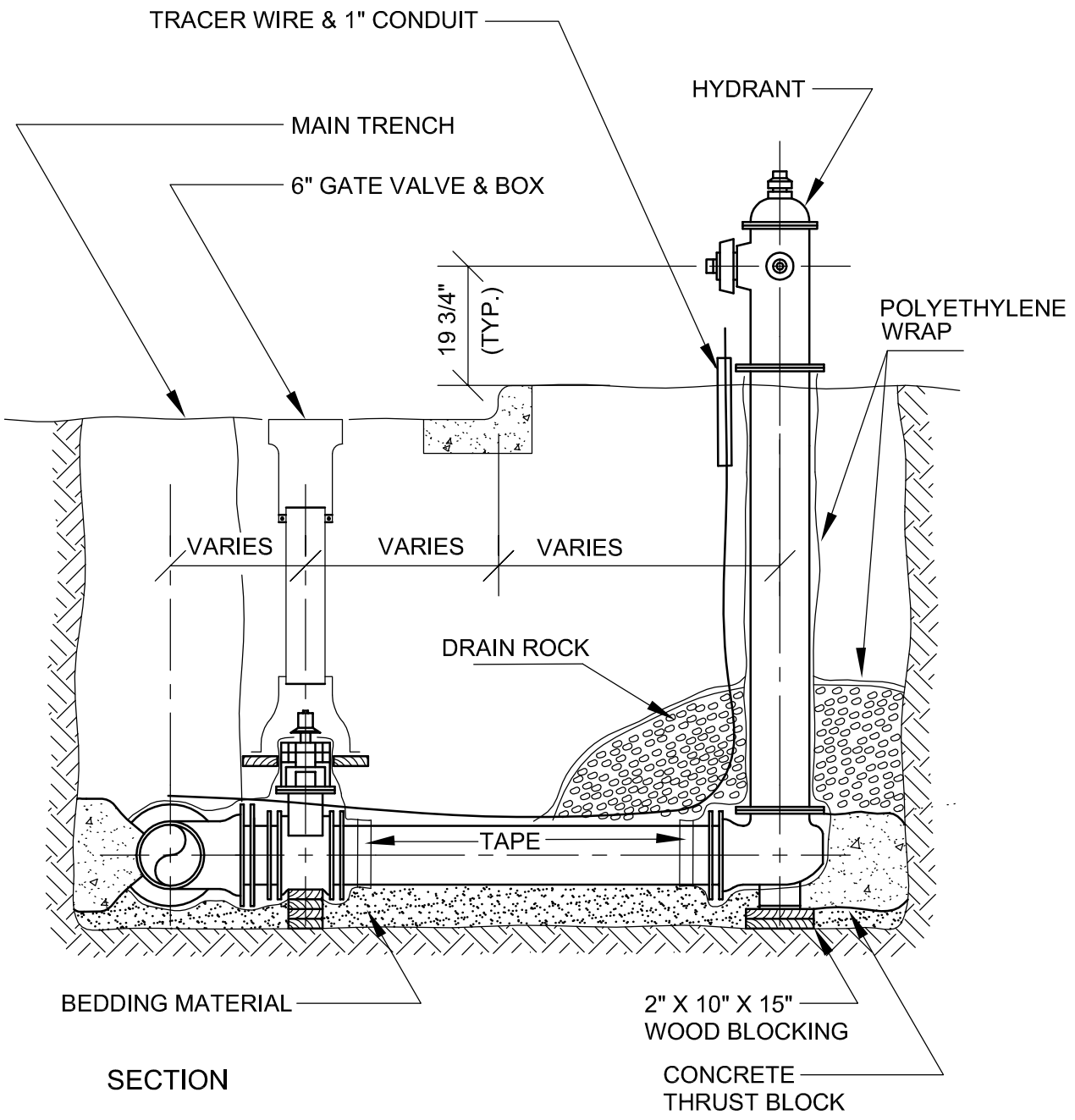
PROJECT

STANDARD DETAILS FOR WATER MAIN CONSTRUCTION

CITY OF FOND DU LAC
WATER UTILITY
FOND DU LAC COUNTY, WISCONSIN

TITLE: STANDARD HYDRANT WITH PVC WATER MAIN

DRAWN	JS	JOB NO. E101-54.01	DETAIL NO. S-15
CHECKED	MW	DATE 3/29/2010	



SECTION

PROJECT

STANDARD DETAILS FOR WATER MAIN CONSTRUCTION

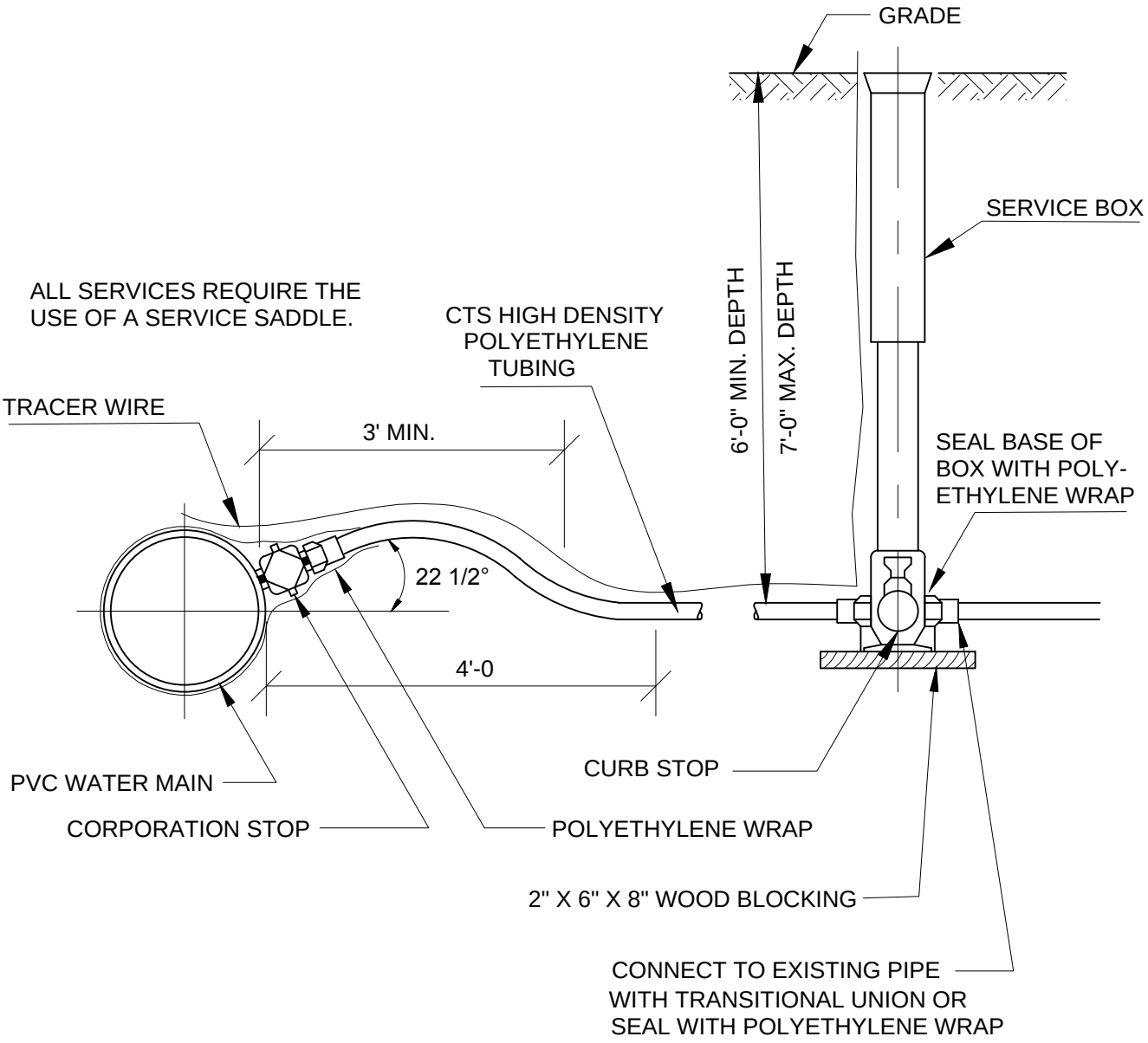
CITY OF FOND DU LAC
WATER UTILITY
FOND DU LAC COUNTY, WISCONSIN

TITLE

STANDARD HYDRANT

DRAWN	JS	JOB NO. E101-54.01		DETAIL NO. S-15
CHECKED	MW	DATE	11/30/99	

SERVICE PIPE	CORP. STOP	CURB STOP	SERVICE BOX
1"	3/4" x 1"	1" x 3/4" x 1"	2 1/2"
1 1/4"	1" x 1 1/4"	1 1/4" x 1" x 1 1/4"	2 1/2"
1 1/2"	1 1/2"	1 1/2"	2 1/2"
2"	2"	2"	2 1/2"



PROJECT

STANDARD DETAILS FOR WATER MAIN CONSTRUCTION

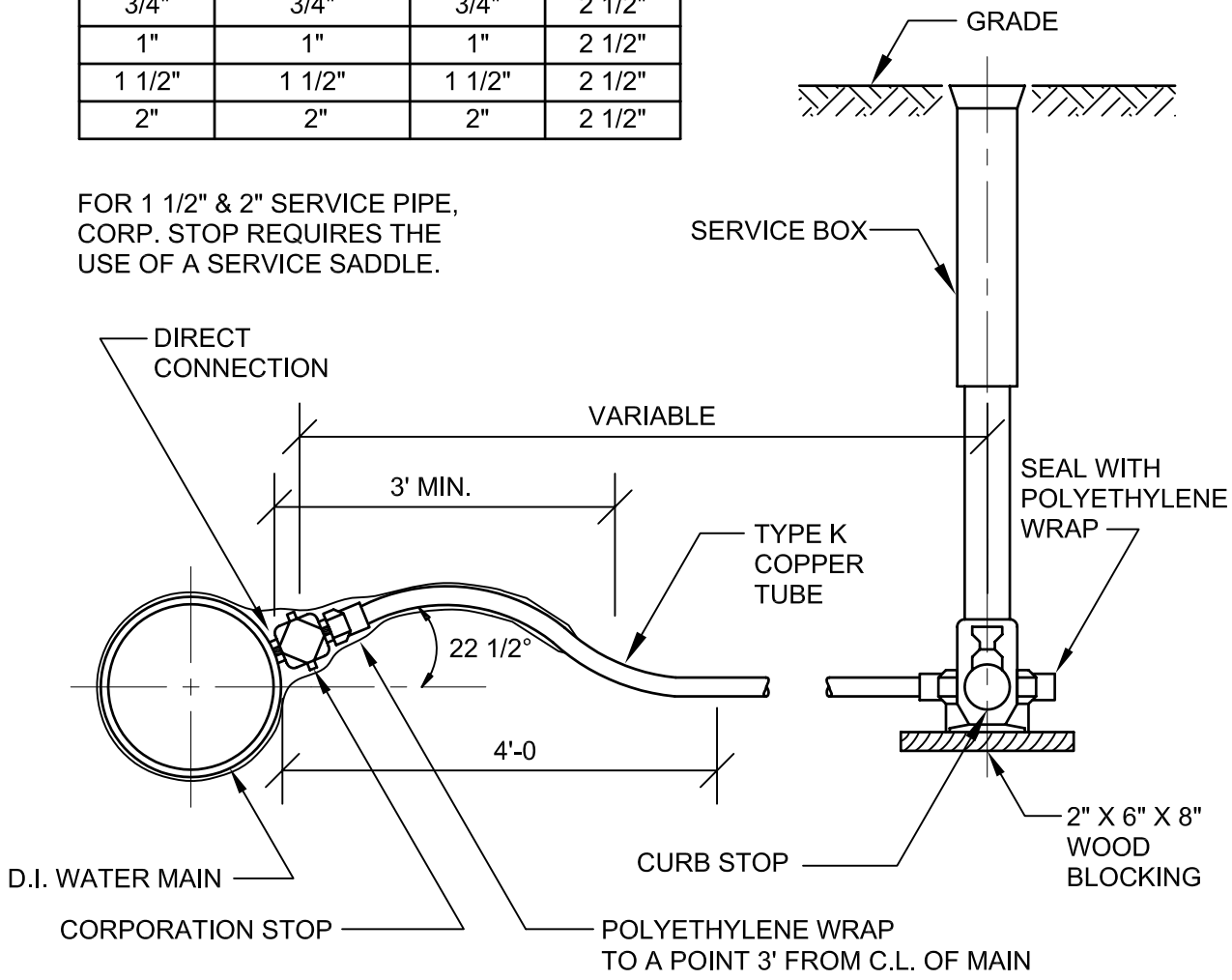
CITY OF FOND DU LAC
WATER UTILITY
FOND DU LAC COUNTY, WISCONSIN

TITLE: POLYETHYLENE WATER SERVICE

DRAWN	JS	JOB NO. E101-54.01	DETAIL NO.
CHECKED	MW	DATE 2/14/14	S-16

SERVICE PIPE	CORP. STOP	CURB STOP	SERVICE BOX
3/4"	3/4"	3/4"	2 1/2"
1"	1"	1"	2 1/2"
1 1/2"	1 1/2"	1 1/2"	2 1/2"
2"	2"	2"	2 1/2"

FOR 1 1/2" & 2" SERVICE PIPE, CORP. STOP REQUIRES THE USE OF A SERVICE SADDLE.



PROJECT

STANDARD DETAILS FOR WATER MAIN CONSTRUCTION

CITY OF FOND DU LAC
WATER UTILITY
FOND DU LAC COUNTY, WISCONSIN

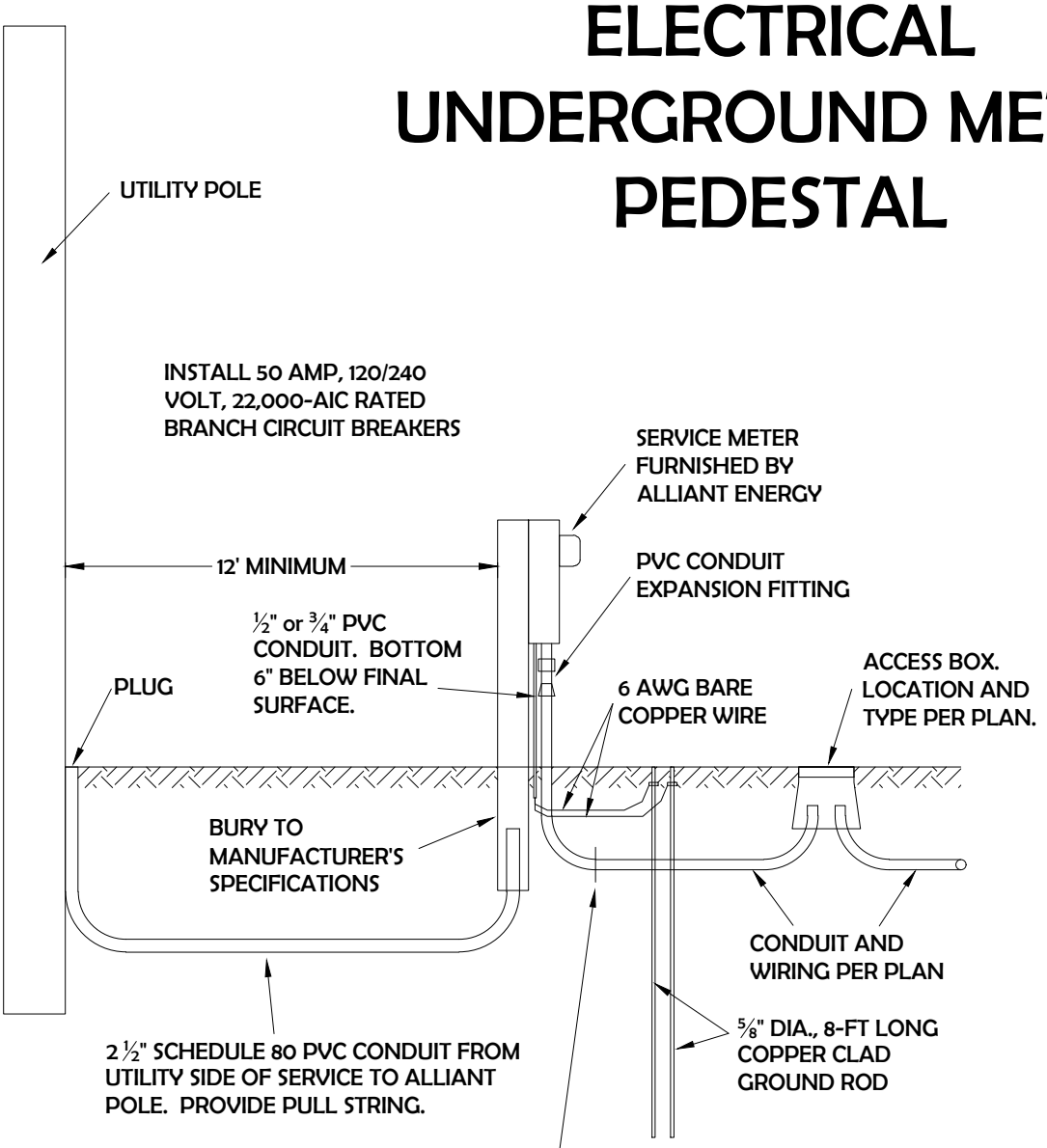
TITLE

COPPER WATER SERVICE

DRAWN	JS	JOB NO. E101-54.01		DETAIL NO. S-16
CHECKED	MW	DATE	3/30/04	

5-A-1

ELECTRICAL UNDERGROUND METER PEDESTAL



CONDUIT, WIRING, AND ACCESS BOXES PAID SEPARATELY FROM THIS POINT. OTHER ITEMS SHOWN PAID AS "ELECTRICAL SERVICE METER PEDESTAL".

UNDERGROUND METER PEDESTAL INSTALLATION SHALL CONFORM WITH THE LATEST ACCEPTED NATIONAL ELECTRIC CODE AND THE ALLIANT ENERGY SERVICE MANUAL.

REVISED 01/11/21 BY NW
J:\CITYDWG\Civil 3D Drawings\DTL\City SDDs\Electrical Underground Meter Pedestal.pdf

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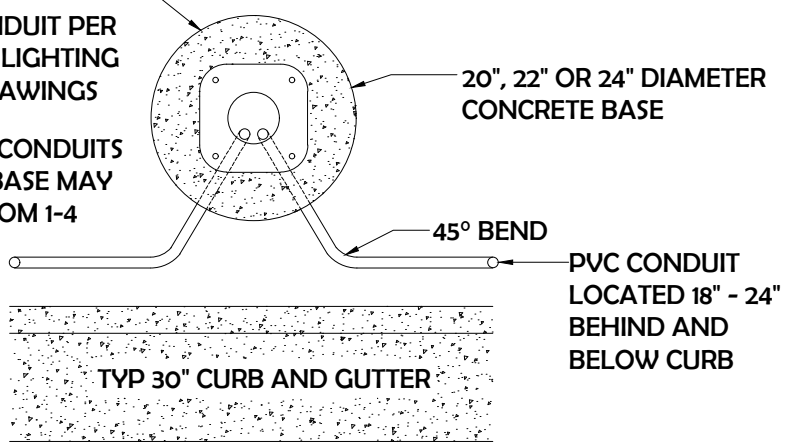
CITY OF FOND DU LAC, WISCONSIN

5-B-1

CONCRETE BASES FOR TRAFFIC SIGNALS & STREET LIGHTS

TOP VIEW



TB1 TRANSFORMER BASE
22" OR 24" CONCRETE BASE
15" DIAMETER BOLT PATTERN

TB2 TRANSFORMER BASE
20" CONCRETE BASE
11.5" DIAMETER BOLT PATTERN

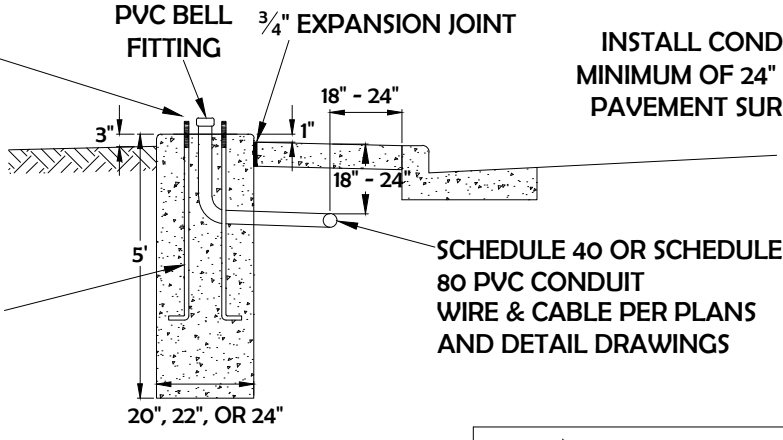
PEDESTAL BASE
20" CONCRETE BASE
12.5" DIAMETER BOLT PATTERN

HALF SECTION IN UNPAVED AREA

HALF SECTION IN CONCRETE

REMOVE TOP 12" OF SONOTUBE

THREADED BOLTS 4" MAX ABOVE BASE FOR COBRA HEAD LIGHTS AND 3" MAX ABOVE BASE FOR TRAFFIC SIGNALS



INSTALL CONDUIT A MINIMUM OF 24" BELOW PAVEMENT SURFACES

ALL THREADS SHALL BE ANTI-SEIZED

1" X 42" GALVANIZED ANCHOR BOLTS

SCHEDULE 40 OR SCHEDULE 80 PVC CONDUIT WIRE & CABLE PER PLANS AND DETAIL DRAWINGS

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CITY OF FOND DU LAC, WISCONSIN

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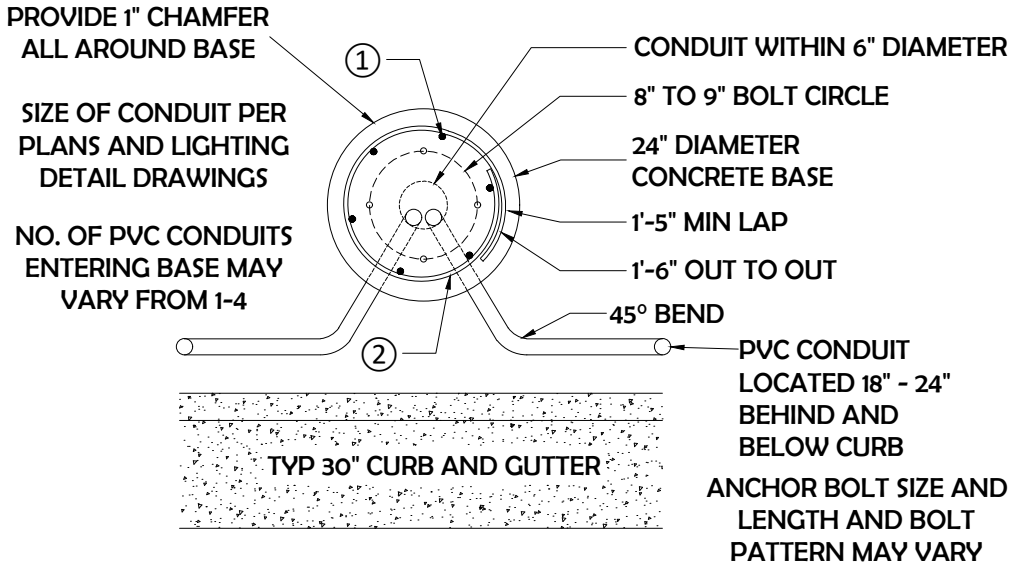
J:\CITYDWG\Civil 3D Drawings\DTL\City SDDs\Concrete Bases for Traffic Signals & Street Lights Detail.pdf

5-B-2

CONCRETE BASES FOR PARKING LOT LIGHTS

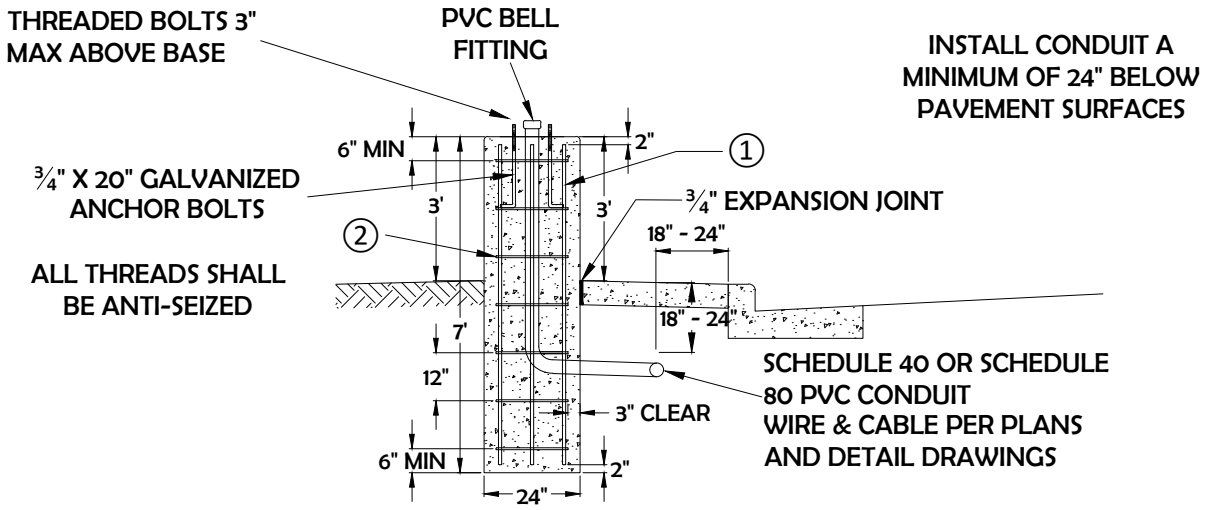
TOP VIEW



HALF SECTION IN UNPAVED AREA

HALF SECTION IN CONCRETE

REMOVE TOP 4' OF SONOTUBE



① (6) No. 6 x 6'-8" BAR STEEL REINFORCEMENT

② (7) No. 4 x 6'-2" BAR STEEL REINFORCEMENT @ 1'-0" C-C

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CITY OF FOND DU LAC, WISCONSIN

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5-C-1

ORNAMENTAL STREET LIGHT

UTILITY POSTOP LED LUMINAIRE, LED PERFORMANCE PACKAGE P20, 3000K CCT, GLASS REFRACTOR TYPE 3, BALL FINIAL & BLACK FINISH (HOLOPHANE PTUE2P2030KASGL3BKBP7PHSS90)
NEMA TWISTLOCK PHOTOCONTROL (TORK 5237A)

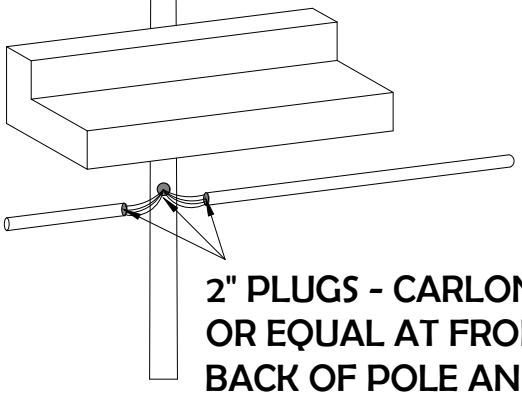
19' POLE (VALMONT TB19X503HST3)

USE 3 - ELEC. WIRE 12 AWG (HOT, NEUTRAL, GROUND) FROM HANDHOLE TO LUMINAIRE. USE 20' OF EACH WIRE (60' TOTAL).

INSTALL IN-LINE FUSE ASSEMBLY WITH 5 AMP FUSE

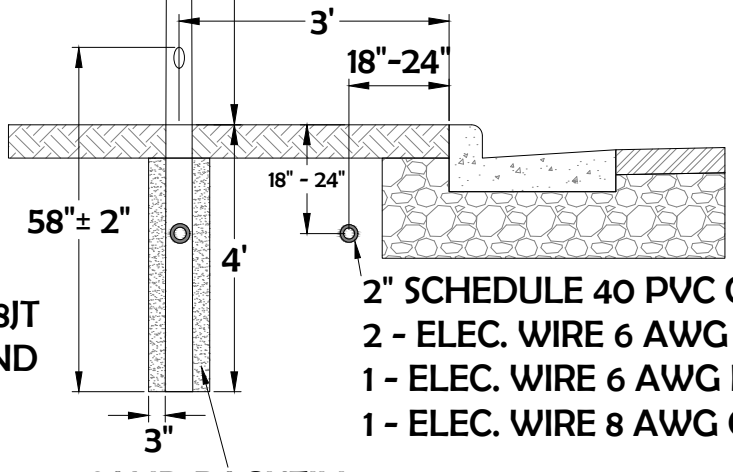
USE APPROVED INSULATED TERMINAL BLOCK CONNECTORS FOR SPLICES

HANDHOLE SHALL BE 8"-12" ABOVE GRADE & ORIENTED TOWARD STREET



2" PLUGS - CARLON P258JT OR EQUAL AT FRONT AND BACK OF POLE AND AT CONDUIT ENDS

15'



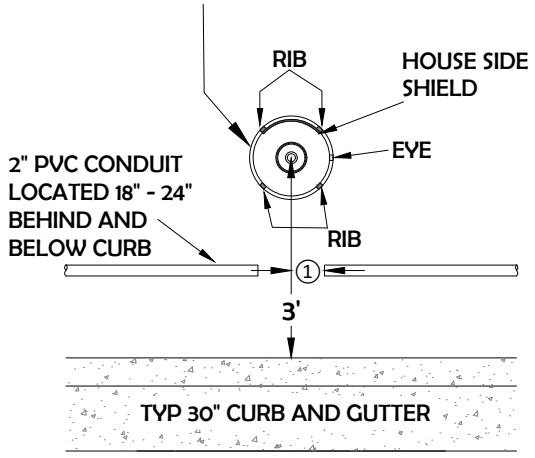
SAND BACKFILL

2" SCHEDULE 40 PVC CONDUIT
2 - ELEC. WIRE 6 AWG HOTS
1 - ELEC. WIRE 6 AWG NEUTRAL
1 - ELEC. WIRE 8 AWG GROUND

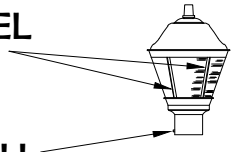
TOP VIEW

① ENDS OF CONDUIT NO MORE THAN 1' FROM CENTER OF LIGHT POLE

LIGHT POLE AND BASE



ORIENT RIBS PARALLEL TO ROADWAY



ORIENT EYE TO NORTH

NOT TO SCALE
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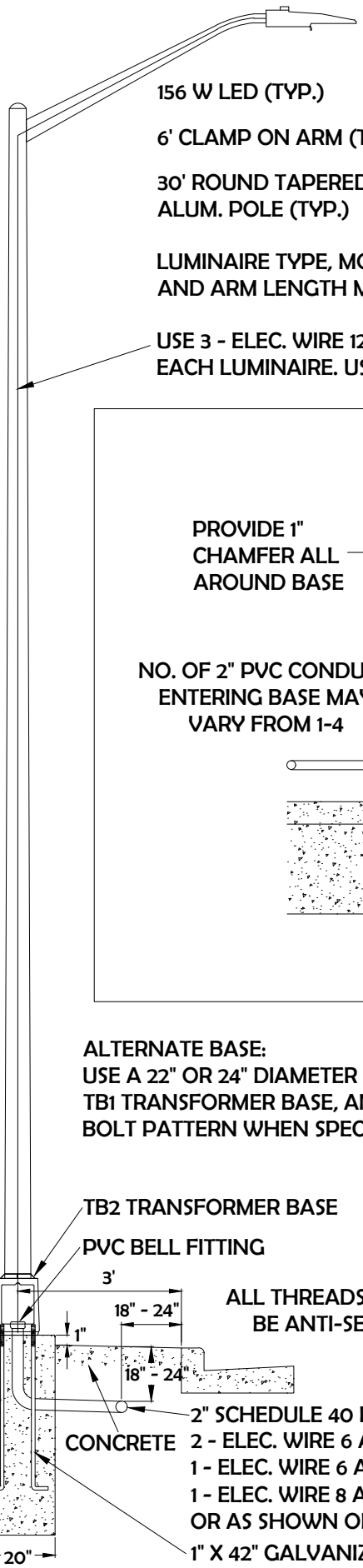
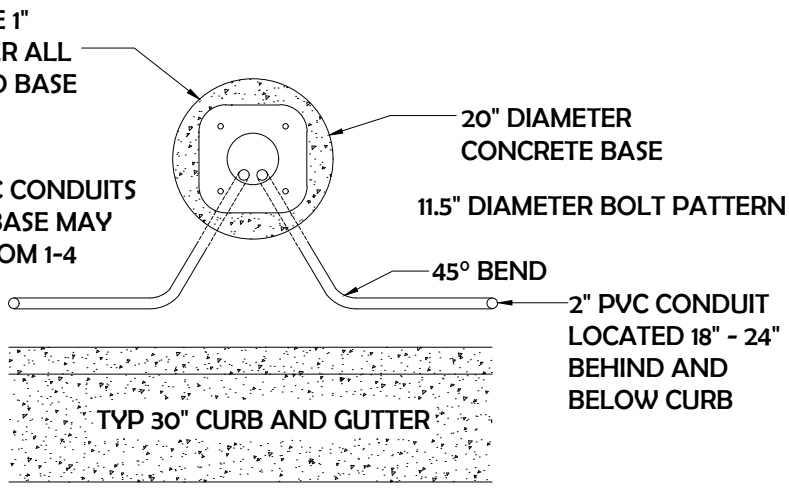
CITY OF FOND DU LAC, WISCONSIN

5-C-2

COBRA HEAD STREET LIGHT



TOP VIEW



ALTERNATE BASE:
USE A 22" OR 24" DIAMETER CONCRETE BASE, TB1 TRANSFORMER BASE, AND 15" DIAMETER BOLT PATTERN WHEN SPECIFIED ON PLANS

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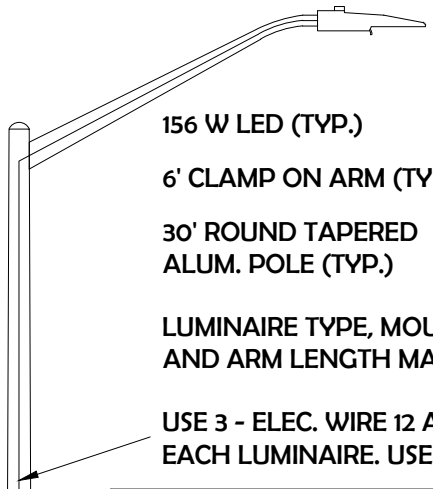
ENGINEERING AND TRAFFIC DIVISION
CITY OF FOND DU LAC, WISCONSIN

5-C-3

COBRA HEAD STREET LIGHT - ROADSIDE DITCH



156 W LED (TYP.)

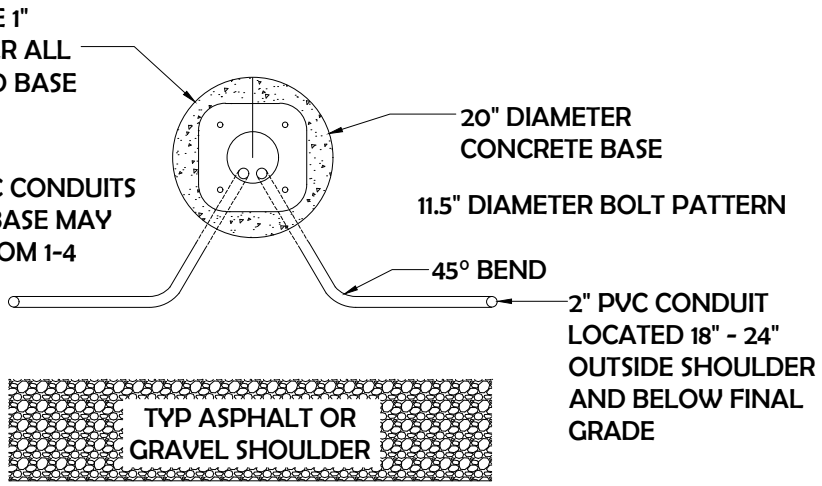
6' CLAMP ON ARM (TYP.)

30' ROUND TAPERED ALUM. POLE (TYP.)

LUMINAIRE TYPE, MOUNTING HEIGHT AND ARM LENGTH MAY VARY

USE 3 - ELEC. WIRE 12 AWG (HOT, NEUTRAL, GROUND) TO EACH LUMINAIRE. USE 40' OF EACH WIRE (120' TOTAL). (TYP.)

TOP VIEW



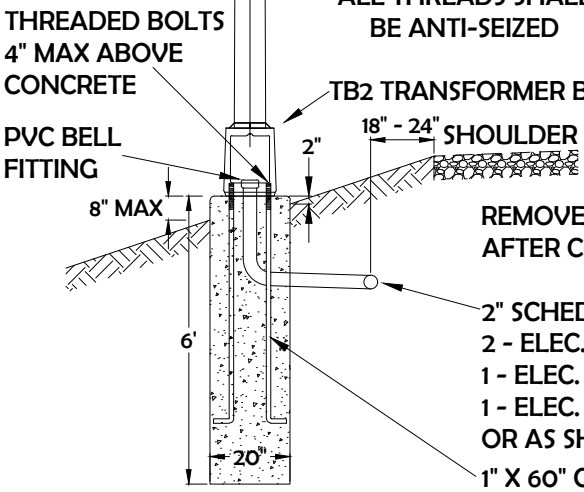
INSTALL IN-LINE FUSE ASSEMBLY WITH 5 AMP FUSE

USE APPROVED INSULATED TERMINAL BLOCK CONNECTORS FOR SPLICES

ALTERNATE BASE:
USE A 22" OR 24" DIAMETER CONCRETE BASE, TB1 TRANSFORMER BASE, AND 15" DIAMETER BOLT PATTERN WHEN SPECIFIED ON PLANS

ALL THREADS SHALL BE ANTI-SEIZED

INSTALL CONCRETE BASE AT LOCATION SHOWN ON PLANS. INSTALL CONCRETE BASE A MINIMUM OF 3' FROM EDGE OF SHOULDER TO EDGE OF BASE IF NO LOCATION SHOWN ON PLANS. CONFIRM LOCATION WITH CITY OF FOND DU LAC.



REMOVE ALL FORMS AFTER CONCRETE HAS SET

2" SCHEDULE 40 PVC CONDUIT
2 - ELEC. WIRE 6 AWG HOTS
1 - ELEC. WIRE 6 AWG NEUTRAL
1 - ELEC. WIRE 8 AWG GROUND
OR AS SHOWN ON PLANS

1" X 60" GALVANIZED ANCHOR BOLTS

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CITY OF FOND DU LAC, WISCONSIN

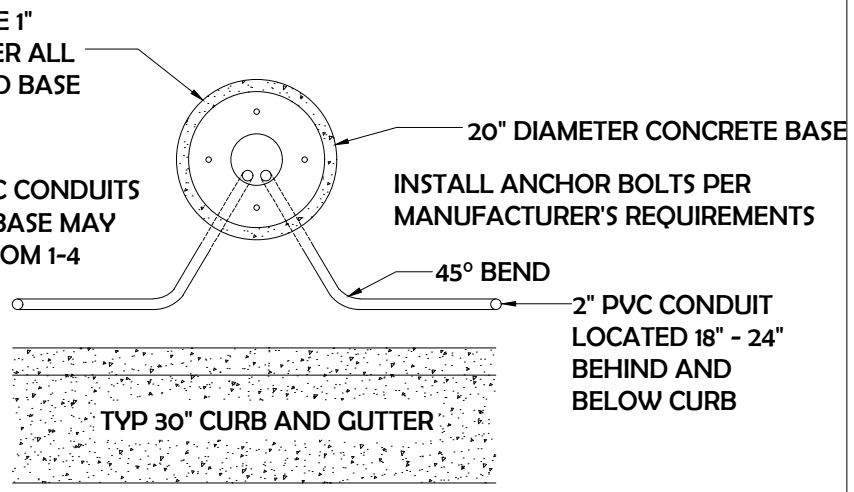
5-C-4

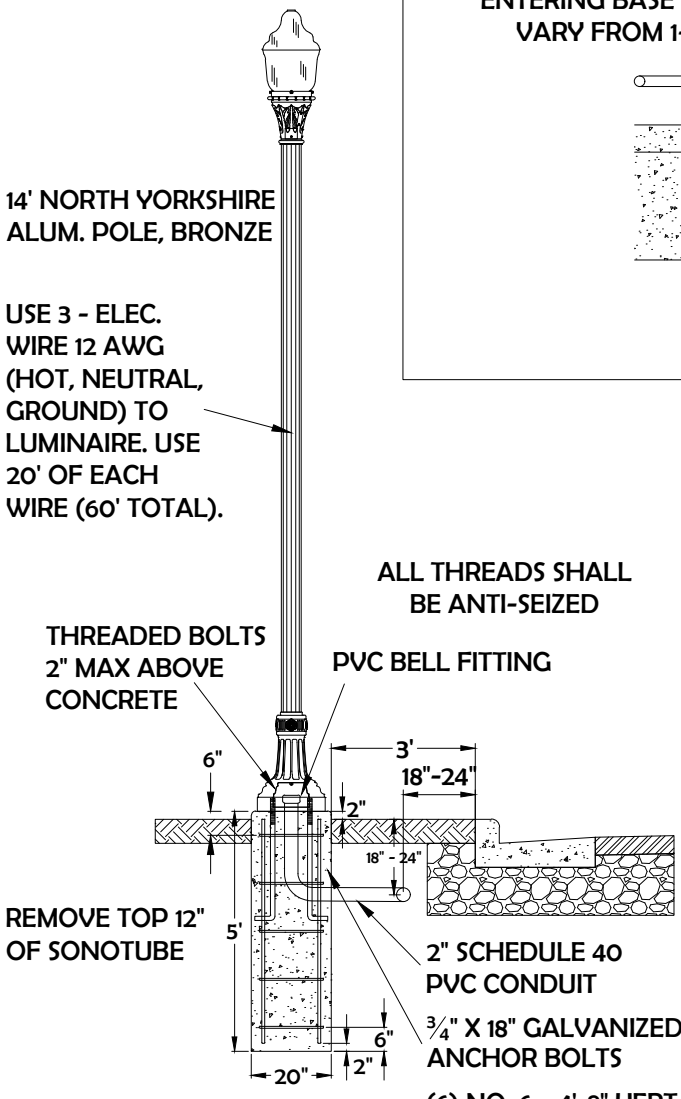
RESIDENTIAL DECORATIVE STREET LIGHT

INSTALL IN-LINE FUSE ASSEMBLY WITH 5 AMP FUSE.

USE APPROVED INSULATED TERMINAL BLOCK CONNECTORS FOR SPLICES

TOP VIEW





HOLOPHANE UTILITY GRANVILLE LUMINAIRE
100 W HPS, MOGUL BASE, MULTI TAP
ASYMMETRIC TYPE IV
BRONZE FINISH

2 - ELEC. WIRE 6 AWG
1 - ELEC. WIRE 6 AWG NEUTRAL
1 - ELEC. WIRE 8 AWG GROUND

(6) NO. 6 x 4'-8" VERT. BARS

(5) NO. 4 RINGS AT 12" C-C WITH 17" OVERLAP (14" DIA.)

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J:\CITYDWG\Civil 3D Drawings\DTL\City SDDs\Decorative Street Light Detail-Residential.pdf

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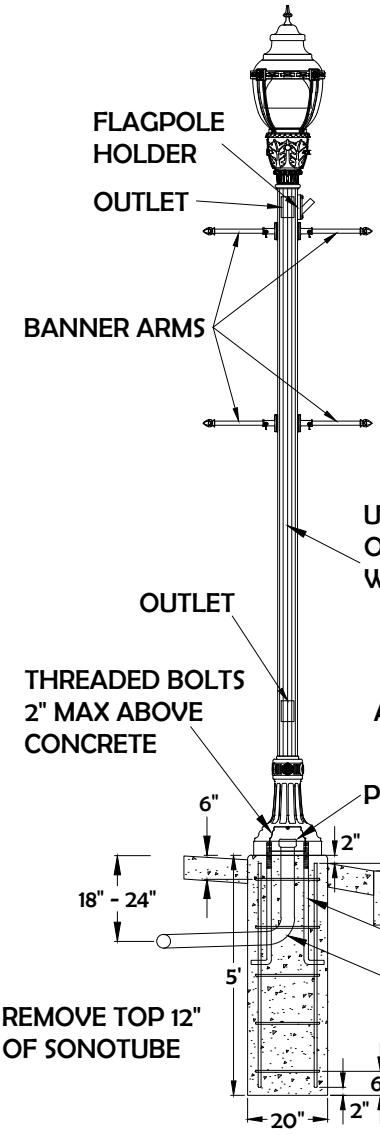
5-C-5

DOWNTOWN DECORATIVE STREET LIGHT

INSTALL IN-LINE FUSE ASSEMBLY WITH 5 AMP FUSE FOR LUMINAIRES AND 15 AMP FUSE FOR OUTLETS

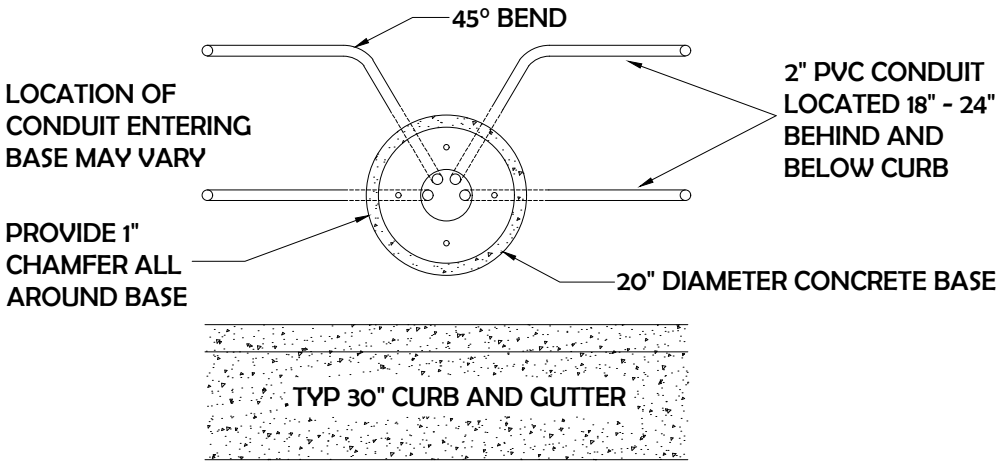
USE APPROVED INSULATED TERMINAL BLOCK CONNECTORS FOR SPLICES

14' NORTH YORKSHIRE ALUM. POLE, BLACK



TOP VIEW

INSTALL ANCHOR BOLTS PER MANUFACTURER'S REQUIREMENTS



USE 3 - ELEC. WIRE 12 AWG (HOT, NEUTRAL, GROUND) TO EACH LUMINAIRE AND OUTLET. USE 20' OF EACH WIRE TO LUMINAIRE AND UPPER OUTLET. USE 6' OF EACH WIRE TO LOWER OUTLET. (138' TOTAL).

WASHINGTON POSTLITE ENHANCED LED 2 LUMINAIRE
LED PERFORMANCE PACKAGE 40
3000 K CCT
ASYMMETRIC TYPE III
GOLD BAND & RIBS, SPIKE FINIAL
BLACK FINISH
(HOLOPHANE WSE2 P40 30K BK GL 6 PSC P7)

2 - ELEC. WIRE 6 AWG (IN EACH CONDUIT)
1 - ELEC. WIRE 6 AWG NEUTRAL (IN EACH CONDUIT)
1 - ELEC. WIRE 8 AWG GROUND (IN EACH CONDUIT)
OR AS SHOWN ON PLANS

(6) NO. 6 x 4'-8" VERT. BAR STEEL

(5) NO. 4 BAR STEEL AT 12" C-C WITH 17" OVERLAP (14" DIA.)

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J:\CITYDWG\Civil 3D Drawings\DTL\City SDDs\Decorative Street Light Detail-Downtown.pdf

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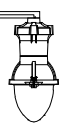
CITY OF FOND DU LAC, WISCONSIN

5-C-6

TEAR DROP STREET LIGHT



ESPLANADE UTILITY TEAR DROP LED 2 LUMINAIRE,
LED PERFORMANCE PACKAGE P30S,
3000 K CCT, TEARDROP & GLASS DOOR TYPE 4,
PENDANT MOUNT & BLACK FINISH
(HOLOHANE ESL2 P30S 30K AH BK TG 4 P)

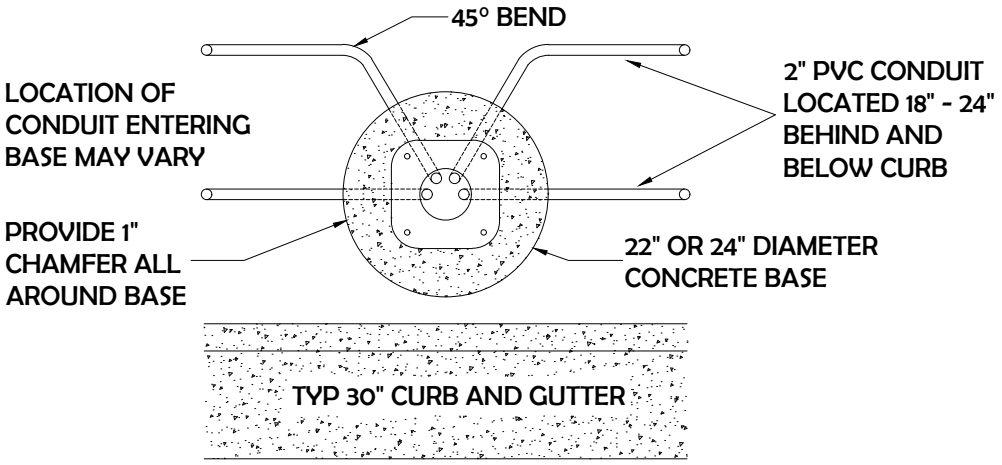
USE 3 - ELEC. WIRE 12 AWG (HOT, NEUTRAL, GROUND) TO EACH LUMINAIRE. USE 35' OF EACH WIRE (105' TOTAL).

30' ROUND TAPERED ALUM. POLE, BLACK ANODIZED

TOP VIEW

11.5" DIAMETER BOLT PATTERN

USE A 22" OR 24" DIAMETER CONCRETE BASE, TB1 TRANSFORMER BASE, AND 15" DIAMETER BOLT PATTERN WHEN SPECIFIED ON PLANS



INSTALL IN-LINE FUSE ASSEMBLY WITH 5 AMP FUSE

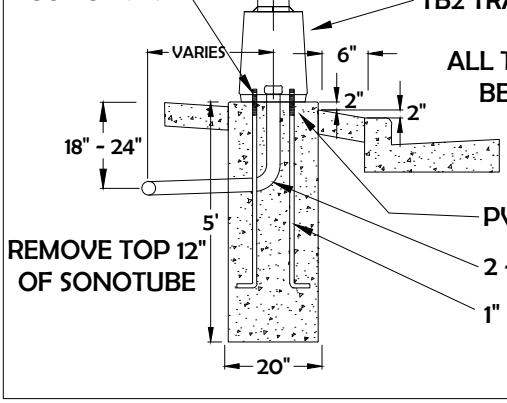
USE APPROVED INSULATED TERMINAL BLOCK CONNECTORS FOR SPLICES

2 - ELEC. WIRE 6 AWG (IN EACH CONDUIT)
1 - ELEC. WIRE 6 AWG NEUTRAL (IN EACH CONDUIT)
1 - ELEC. WIRE 8 AWG GROUND (IN EACH CONDUIT)

THREADED BOLTS 4" MAX ABOVE CONCRETE

TB2 TRANSFORMER BASE

ALL THREADS SHALL BE ANTI-SEIZED



PVC BELL FITTING

2 - 2" SCHEDULE 40 PVC CONDUITS

1" X 42" GALVANIZED ANCHOR BOLTS

REMOVE TOP 12" OF SONOTUBE

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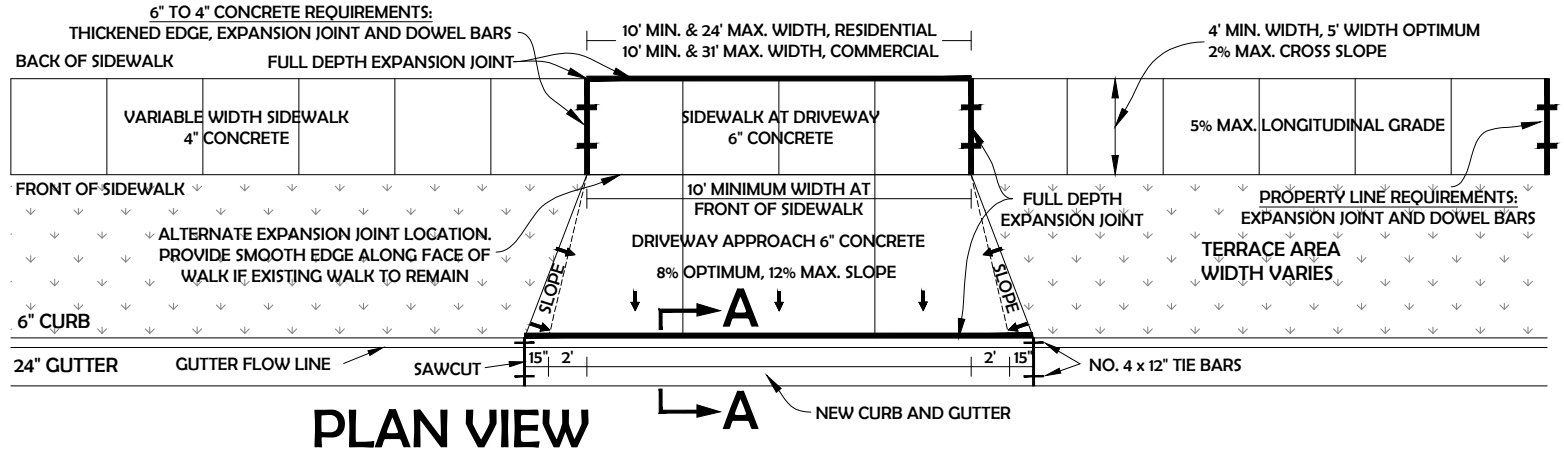
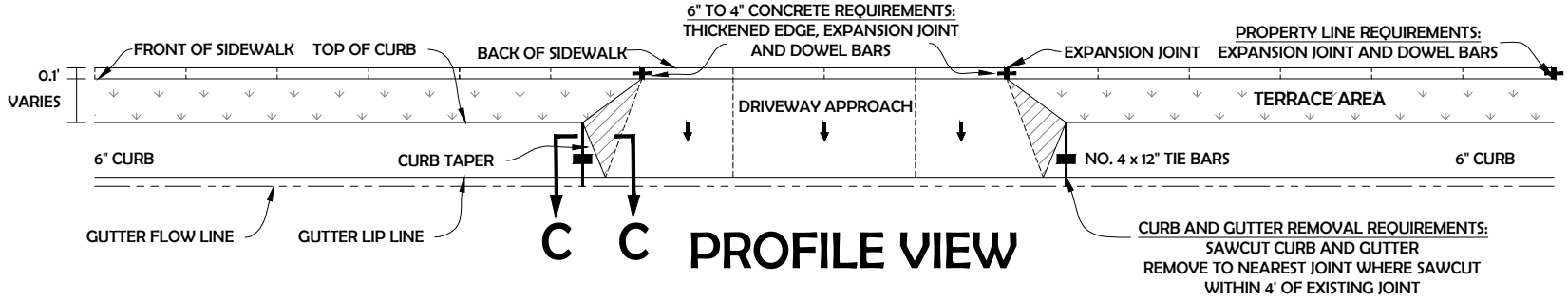
6-A-1



PLAN VIEW

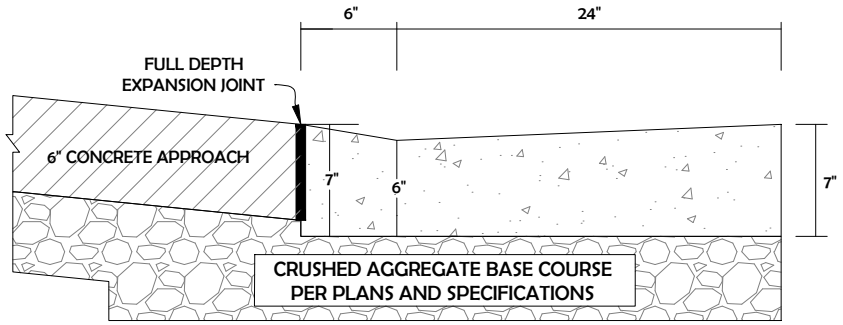


PROFILE VIEW

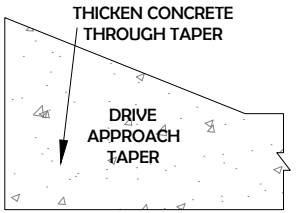
NOTES:

- TIE BARS ARE REQUIRED IN THE CURB AND GUTTER AT LOCATIONS WHERE NEW CURB AND GUTTER WILL CONNECT TO EXISTING.
- EXISTING CURB AND GUTTER TO BE SAWCUT AND REMOVED FOR THE ENTIRE LENGTH OF THE PROPOSED DRIVEWAY AND REPLACED AS SHOWN IN SECTION A-A.
- A PROFILE SAWCUT OF THE EXISTING CURB HEAD MAY BE PERFORMED WHEN APPROVED BY CITY. SAWCUT AS SHOWN IN SECTION A-A USING APPROVED EQUIPMENT.
- WHEN SPOT REPLACING SIDEWALK, INSTALL NO. 4 TIE BARS, 12" IN LENGTH, INTO BOTH SIDES OF EXISTING WALK 18" FROM THE FRONT AND BACK OF WALK.
- NO. 4 DOWEL BARS, 12" IN LENGTH, TO BE INSTALLED AT EXPANSION JOINTS. BARS ONLY REQUIRED WHERE NEW CONCRETE ABUTS EXISTING CONCRETE.
- DOWEL BARS SHALL BE ANCHORED INTO DRILLED HOLES WITH AN APPROVED EPOXY GROUT.
- THE FREE END OF DOWEL BARS SHALL RECEIVE A THIN UNIFORM COATING OF BOND BREAKER.
- ALL TIE BARS AND DOWEL BARS SHALL BE EPOXY COATED.

TYPICAL DRIVE APPROACH: GRASS TERRACE



SECTION A -A



SECTION C -C

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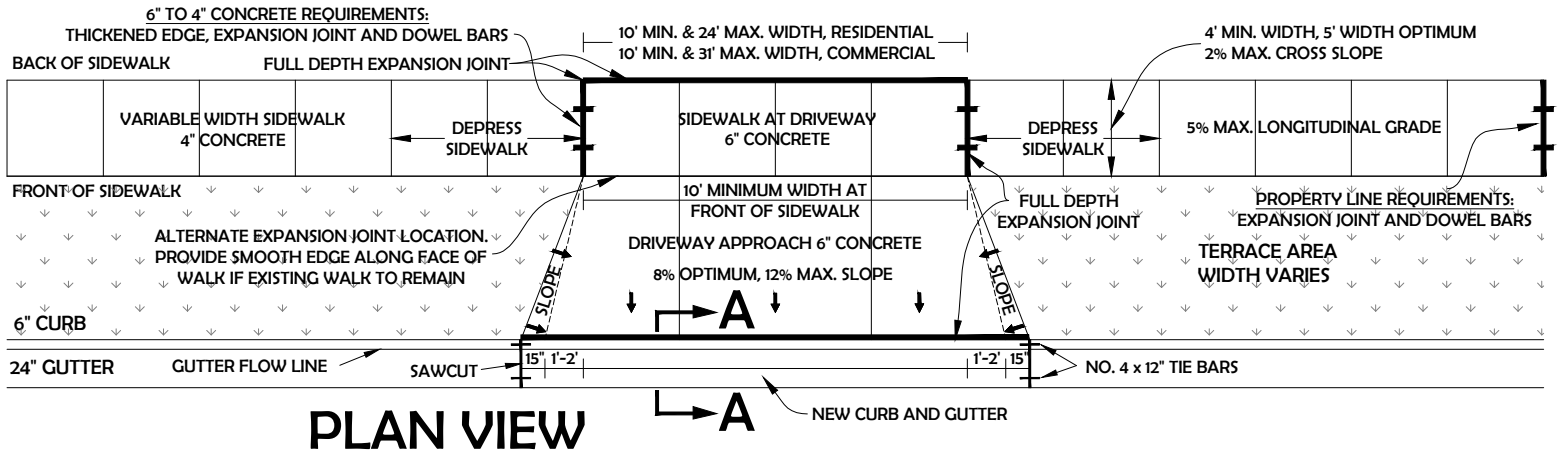
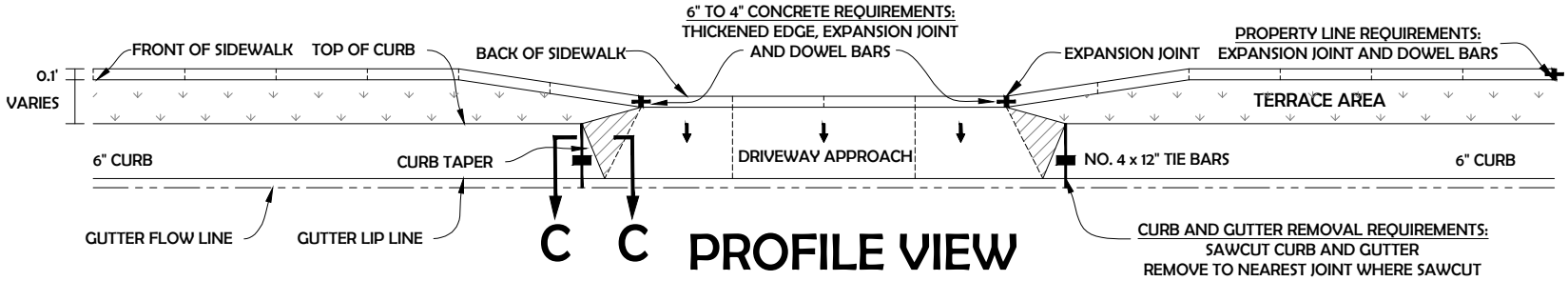
CITY OF FOND DU LAC, WISCONSIN

6-A-3



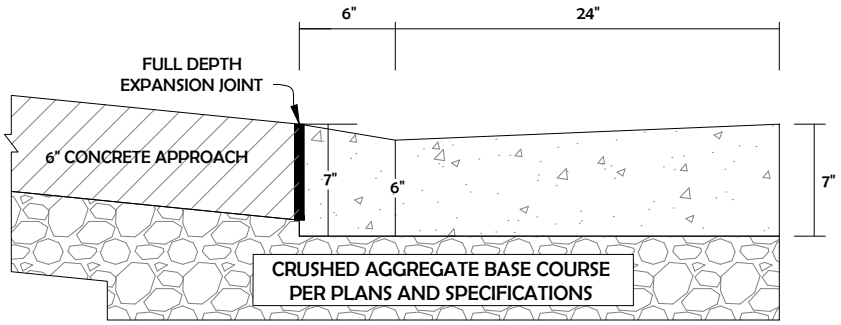
PLAN VIEW



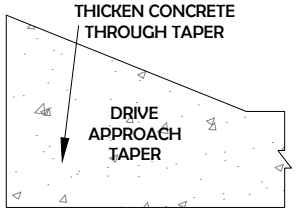
PROFILE VIEW

NOTES:

- TIE BARS ARE REQUIRED IN THE CURB AND GUTTER AT LOCATIONS WHERE NEW CURB AND GUTTER WILL CONNECT TO EXISTING.
- EXISTING CURB AND GUTTER TO BE SAWCUT AND REMOVED FOR THE ENTIRE LENGTH OF THE PROPOSED DRIVEWAY AND REPLACED AS SHOWN IN SECTION A-A.
- A PROFILE SAWCUT OF THE EXISTING CURB HEAD MAY BE PERFORMED WHEN APPROVED BY CITY. SAWCUT AS SHOWN IN SECTION A-A USING APPROVED EQUIPMENT.
- WHEN SPOT REPLACING SIDEWALK, INSTALL NO. 4 TIE BARS, 12" IN LENGTH, INTO BOTH SIDES OF EXISTING WALK 18" FROM THE FRONT AND BACK OF WALK.
- NO. 4 DOWEL BARS, 12" IN LENGTH, TO BE INSTALLED AT EXPANSION JOINTS. BARS ONLY REQUIRED WHERE NEW CONCRETE ABUTS EXISTING CONCRETE.
- DOWEL BARS SHALL BE ANCHORED INTO DRILLED HOLES WITH AN APPROVED EPOXY GROUT.
- THE FREE END OF DOWEL BARS SHALL RECEIVE A THIN UNIFORM COATING OF BOND BREAKER.
- DRIVEWAY FLARE WIDTH VARIES PER PLAN.
- DEPRESS SIDEWALK THROUGH DRIVE APPROACH. 5% MAX. LONGITUDINAL SLOPE.
- ALL TIE BARS AND DOWEL BARS SHALL BE EPOXY COATED.



SECTION A -A



SECTION C -C

TYPICAL DRIVE APPROACH: GRASS TERRACE WITH DEPRESSED DRIVE APPROACH

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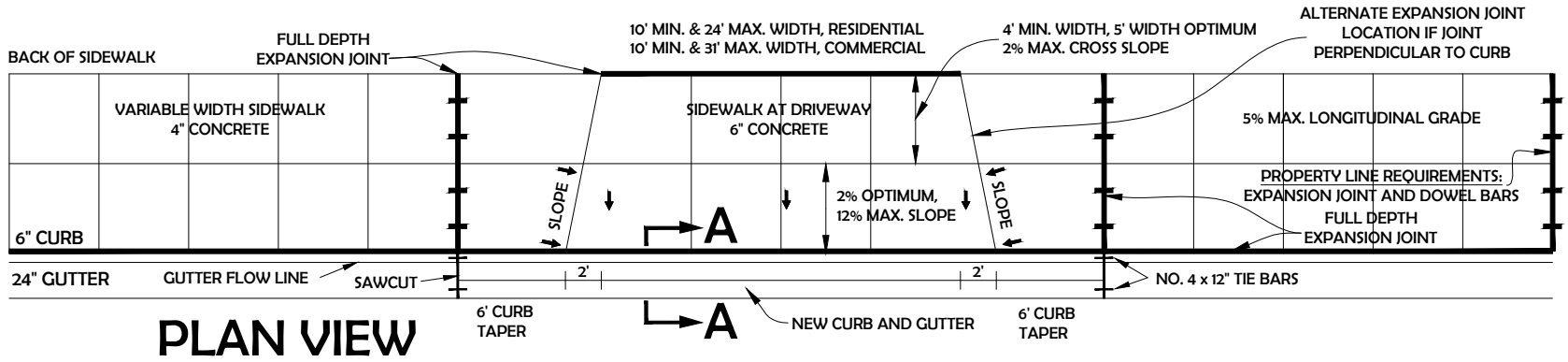
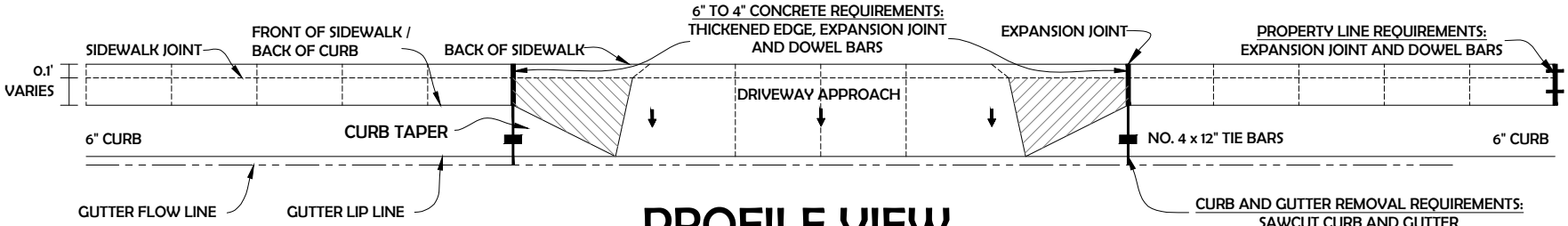
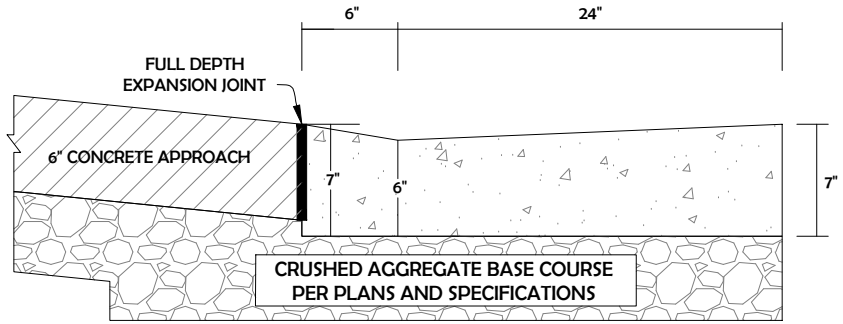
6-A-4



PLAN VIEW



PROFILE VIEW



SECTION A -A

NOTES:

- TIE BARS ARE REQUIRED IN THE CURB AND GUTTER AT LOCATIONS WHERE NEW CURB AND GUTTER WILL CONNECT TO EXISTING.
- EXISTING CURB AND GUTTER TO BE SAWCUT AND REMOVED FOR THE ENTIRE LENGTH OF THE PROPOSED DRIVEWAY AND REPLACED AS SHOWN IN SECTION A-A.
- A PROFILE SAWCUT OF THE EXISTING CURB HEAD MAY BE PERFORMED WHEN APPROVED BY CITY. SAWCUT AS SHOWN IN SECTION A-A USING APPROVED EQUIPMENT.
- WHEN SPOT REPLACING SIDEWALK, INSTALL NO. 4 TIE BARS, 12" IN LENGTH, INTO BOTH SIDES OF EXISTING WALK 18" FROM THE FRONT AND BACK OF WALK.
- NO. 4 DOWEL BARS, 12" IN LENGTH, TO BE INSTALLED AT EXPANSION JOINTS. BARS ONLY REQUIRED WHERE NEW CONCRETE ABUTS EXISTING CONCRETE.
- DOWEL BARS SHALL BE ANCHORED INTO DRILLED HOLES WITH AN APPROVED EPOXY GROUT.
- THE FREE END OF DOWEL BARS SHALL RECEIVE A THIN UNIFORM COATING OF BOND BREAKER.
- ALL TIE BARS AND DOWEL BARS SHALL BE EPOXY COATED.

TYPICAL DRIVE APPROACH: CURBSIDE SIDEWALK

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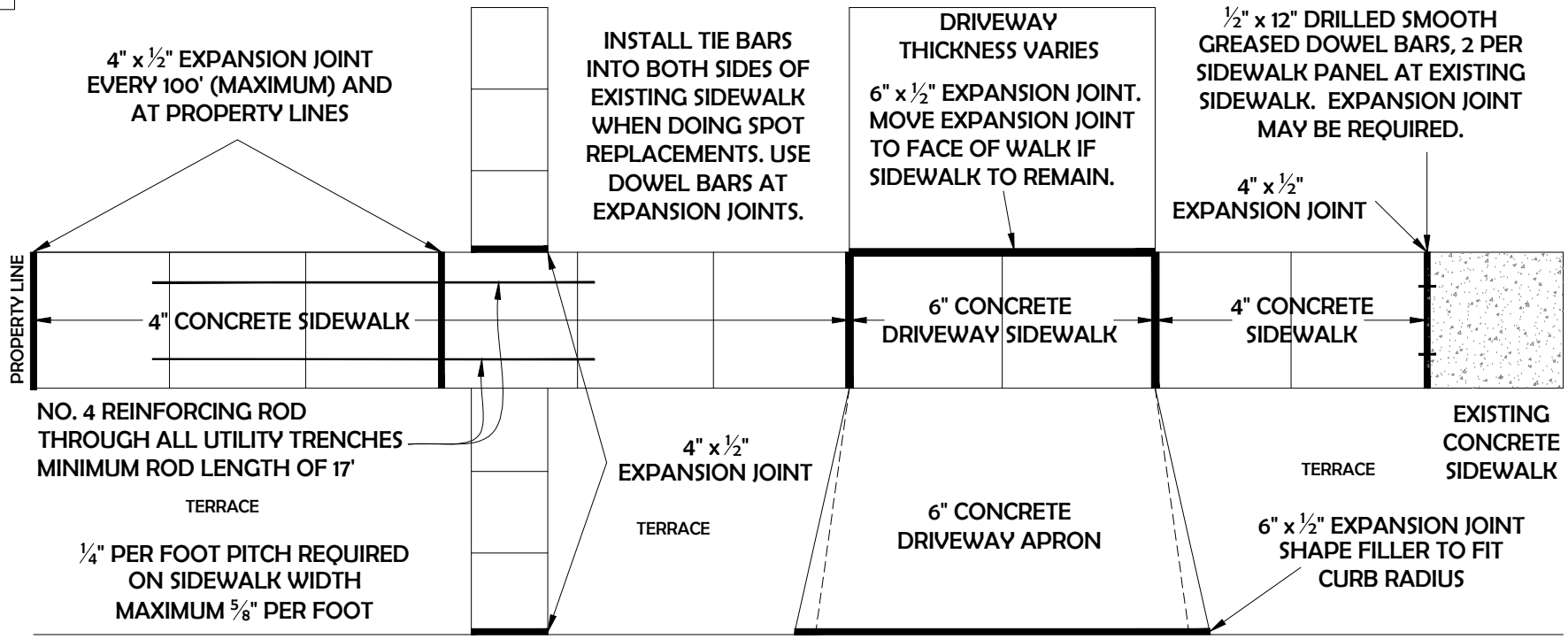
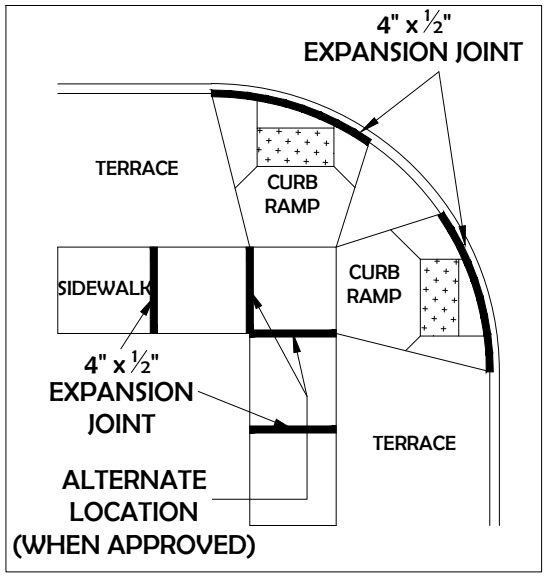
6-B-1





TYPICAL SIDEWALK

(MINIMUM WIDTH 4.5')

INSTALL "HUDSON" BOX (PROVIDED BY CITY) AT WATER & GAS SERVICE BOXES LOCATED IN CONCRETE AREAS

INSTALL DETECTABLE WARNING FIELDS AT CURB RAMPS

EXPANSION JOINT & FILLER SHALL MATCH SIDEWALK THICKNESS

ALL TIE BARS, DOWEL BARS, AND RODS SHALL BE EPOXY COATED

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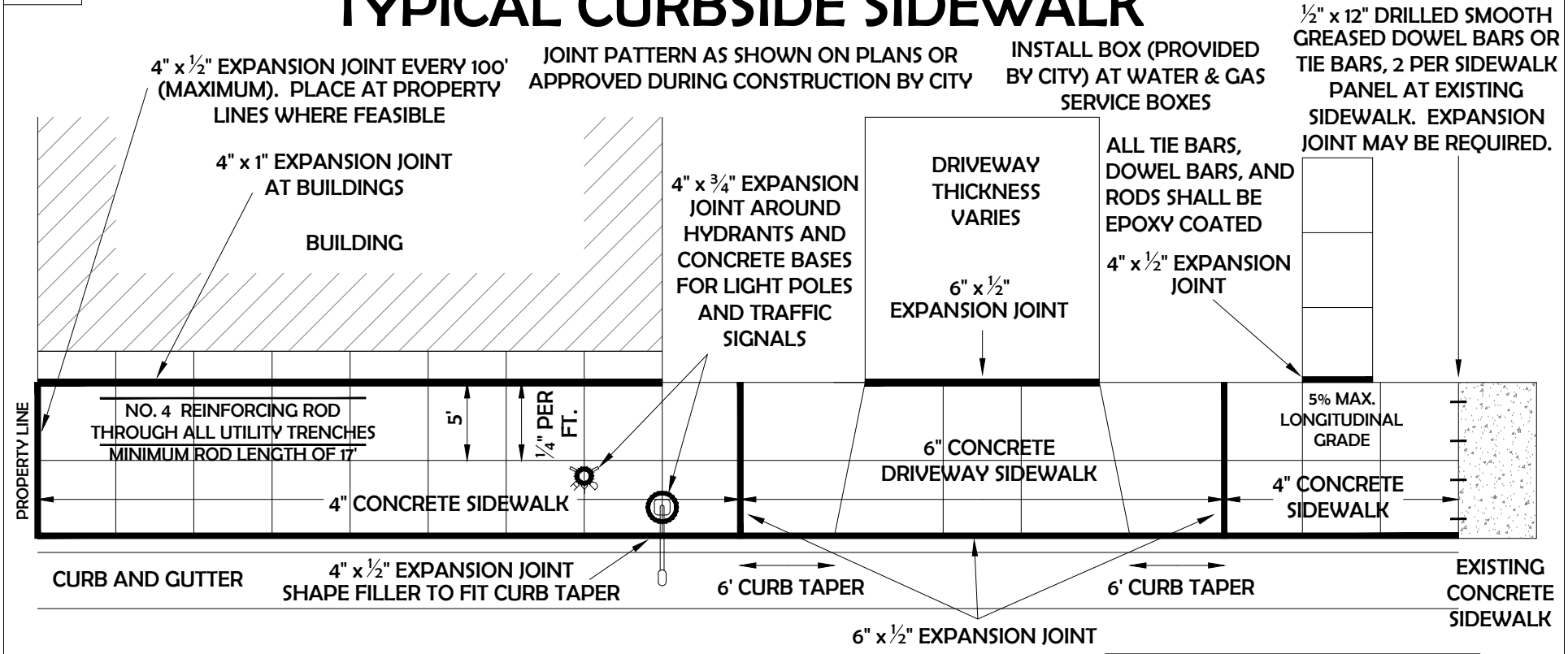
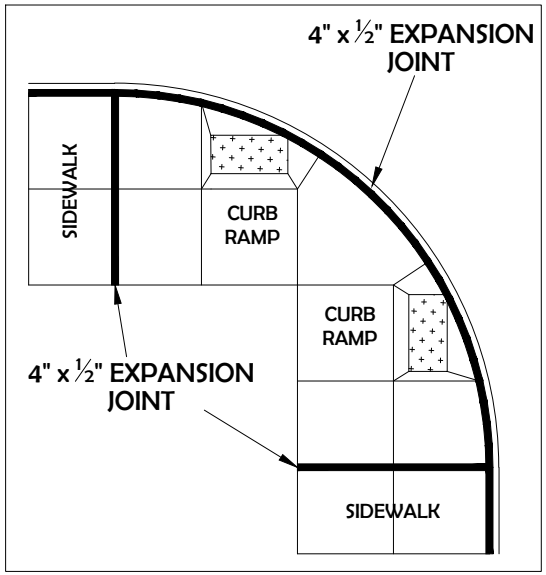
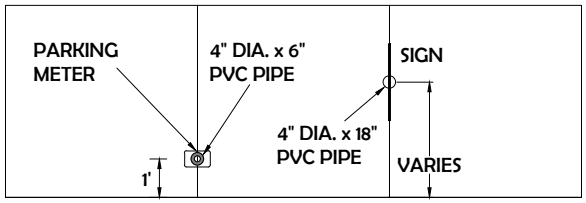
6-B-2

TYPICAL CURBSIDE SIDEWALK





PARKING METER INSTALLATION STREET SIGN INSTALLATION



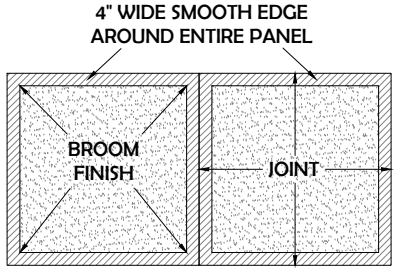
CURB & GUTTER

PROVIDE JOINT AT SIGN AND METER POSTS WHEN FEASIBLE

CONTRACTOR TO INSTALL PVC SLEEVE FOR PARKING METERS. EXACT LOCATION TO BE APPROVED BY CITY. METER INSTALLED BY CITY

CONTRACTOR TO INSTALL PVC SLEEVE FOR STREET SIGNS. EXACT LOCATION TO BE APPROVED BY CITY. POST AND SIGN TO BE INSTALLED BY CITY.

PICTURE-FRAMED SIDEWALK
(WHERE SHOWN ON PLANS)



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CITY OF FOND DU LAC, WISCONSIN

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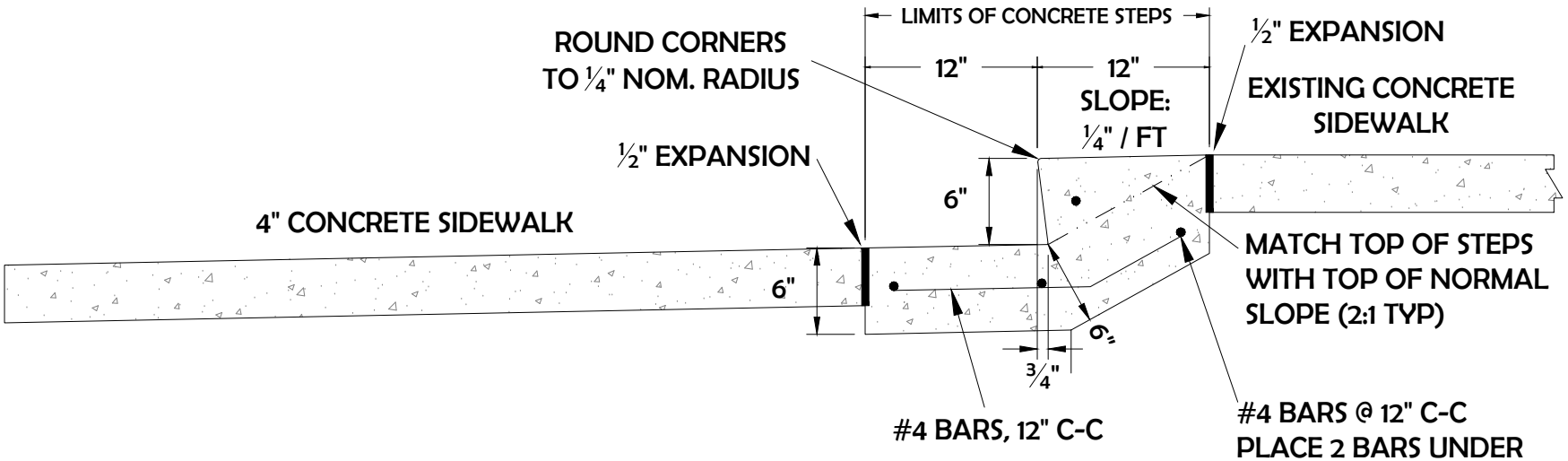
6-B-3

CONCRETE STEPS DETAIL



ALL RISERS SHALL BE THE SAME HEIGHT

ACTUAL HEIGHT AND NUMBER OF STEPS MAY VARY DUE TO FIELD CONDITIONS

MINIMUM WIDTH OF STEP SHALL BE 4 FT

ALL STEEL TO BE 2" CLEAR

INSTALL HANDRAIL IF SHOWN ON PLANS

CONCRETE STEPS INCLUDE A 3" COMPACTED CRUSHED AGGREGATE BASE COURSE

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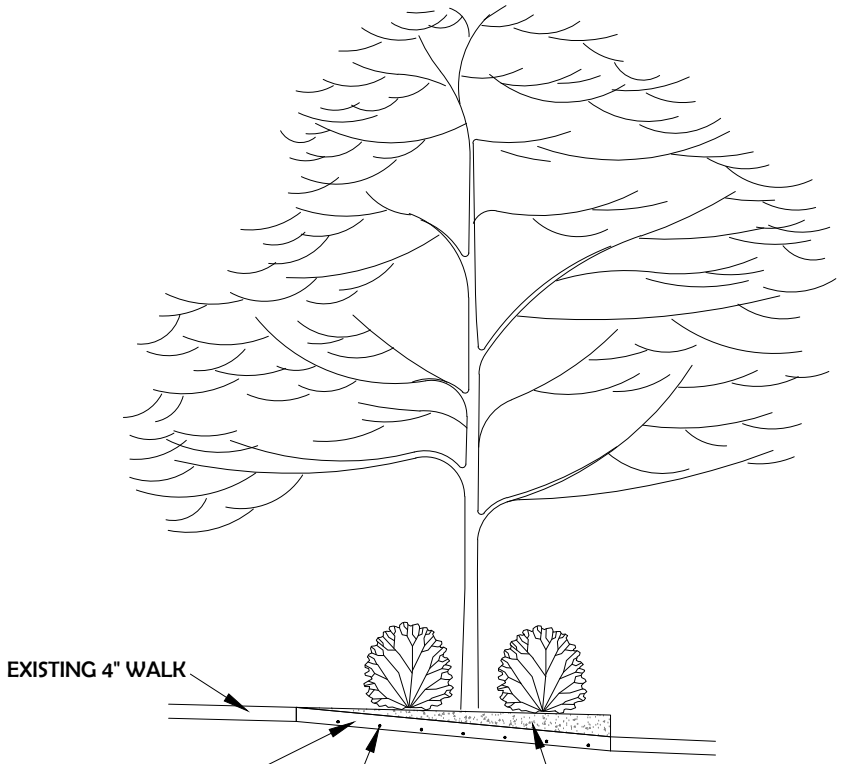
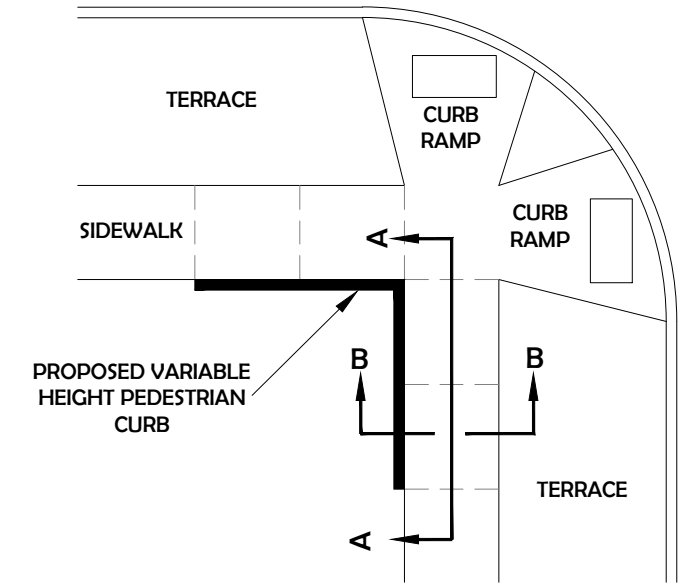
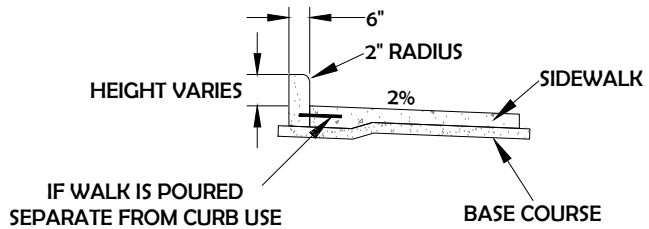
6-B-4



SECTION A-A



PLAN VIEW



SECTION B-B

VARIABLE HEIGHT CONCRETE PEDESTRIAN CURB

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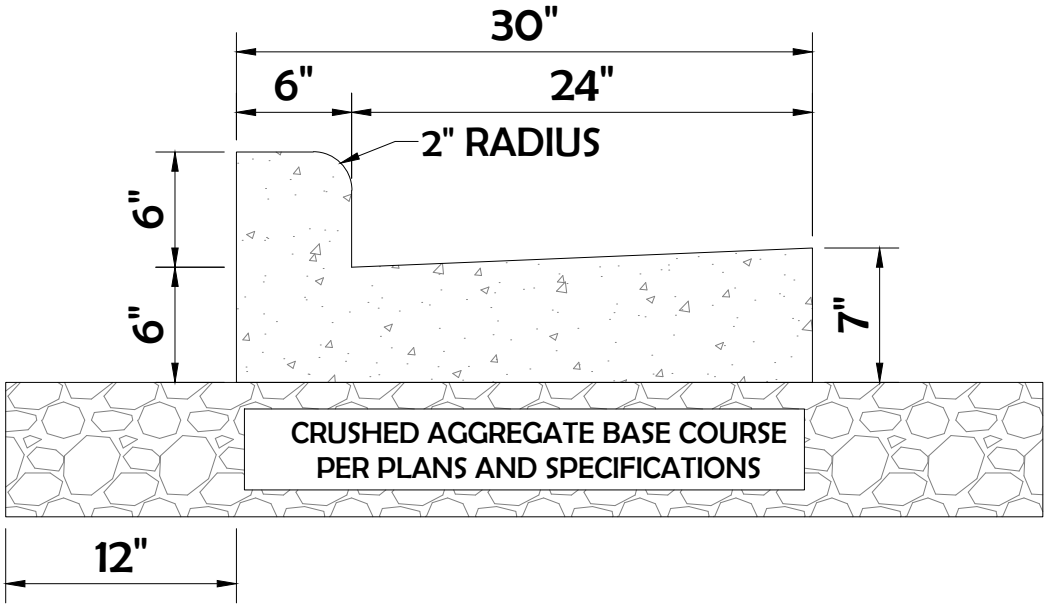
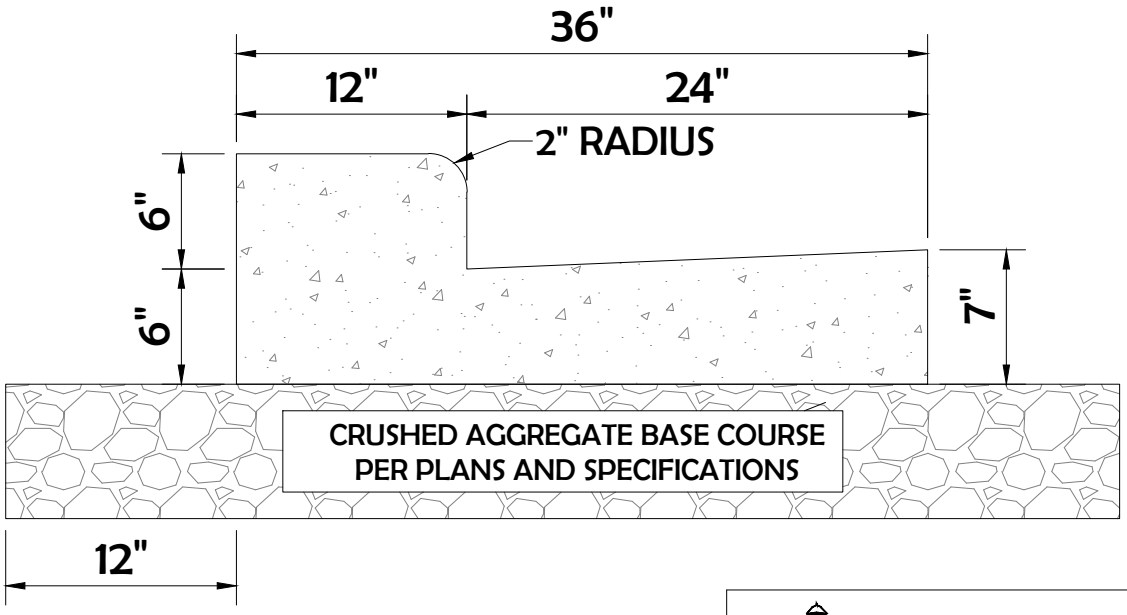
CITY OF FOND DU LAC, WISCONSIN

6-C-1

30" CONCRETE CURB AND GUTTER - STANDARD



36" CONCRETE CURB AND GUTTER - STANDARD



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SCALE: 1" = 10'
REVISED 02/13/18 BY NW
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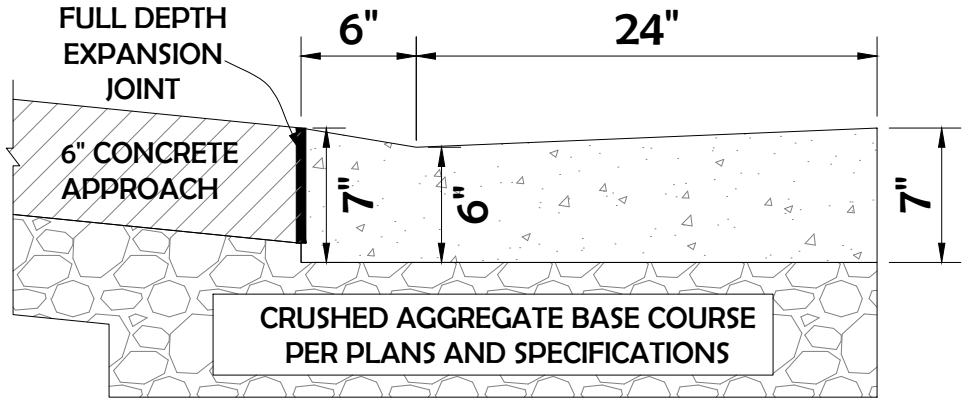
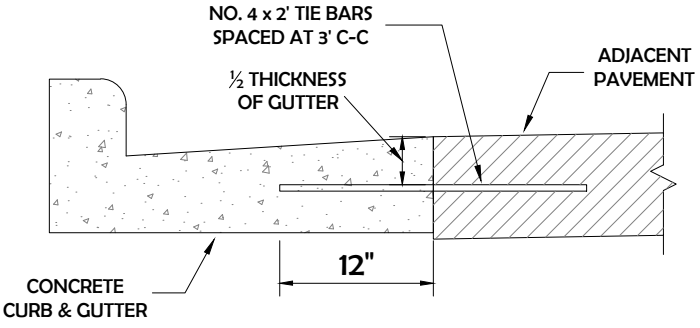
6-C-2

DRIVE APPROACH CURB AND GUTTER

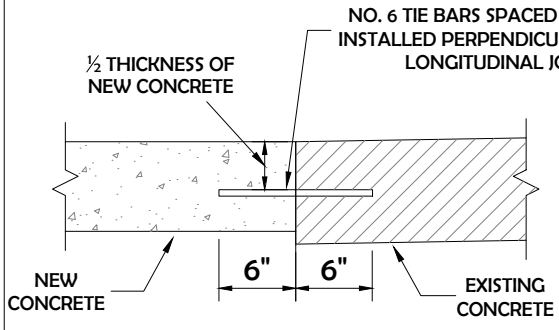


TIE BARS

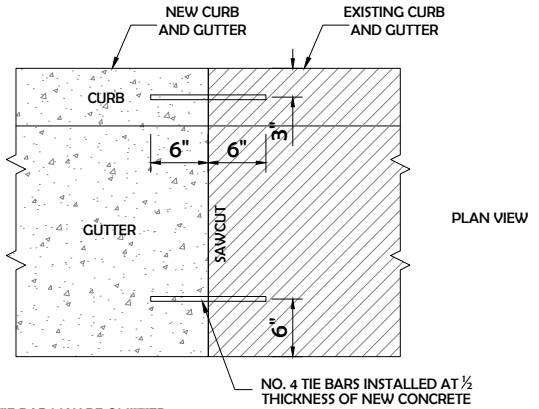
TYPICAL TIE BAR LOCATION

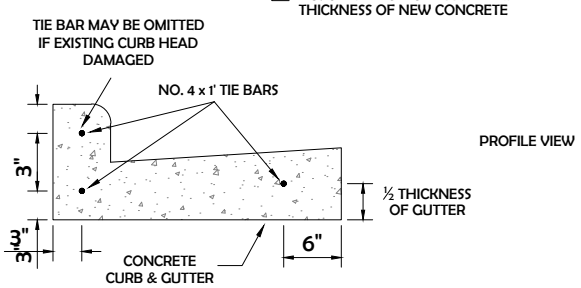


TIE BARS DRILLED INTO EXISTING PAVEMENT



TIE BARS DRILLED INTO EXISTING CURB AND GUTTER





Fond du Lac
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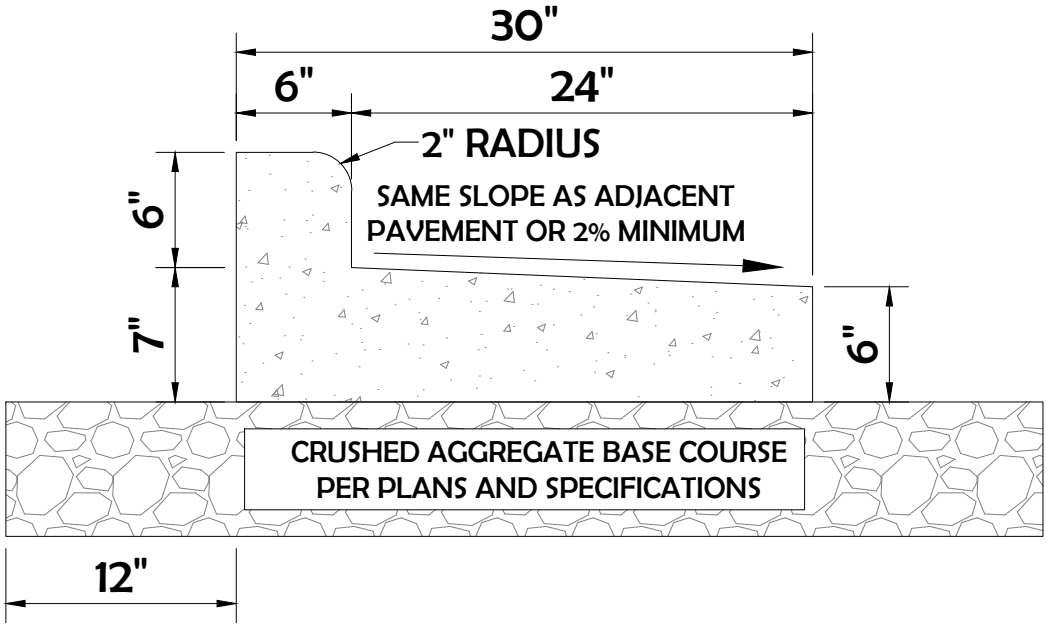
CITY OF FOND DU LAC, WISCONSIN

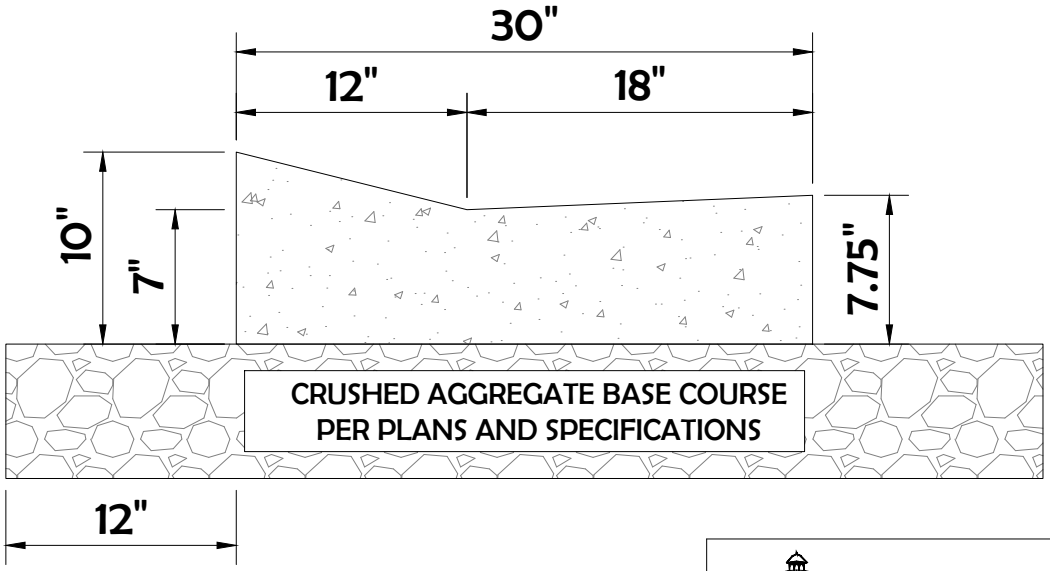
NOT TO SCALE
REVISED 01/23/19 BY NW
J:\CITYDWG\Civil 3D Drawings\DTL\City SDDs\Curb and Gutter Details-Drive Approach & Tie Bars.pdf

6-C-3

30" CONCRETE CURB AND GUTTER - REVERSE SLOPE



30" CONCRETE CURB AND GUTTER - MOUNTABLE



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SCALE: 1" = 10'
REVISED 02/13/18 BY NW
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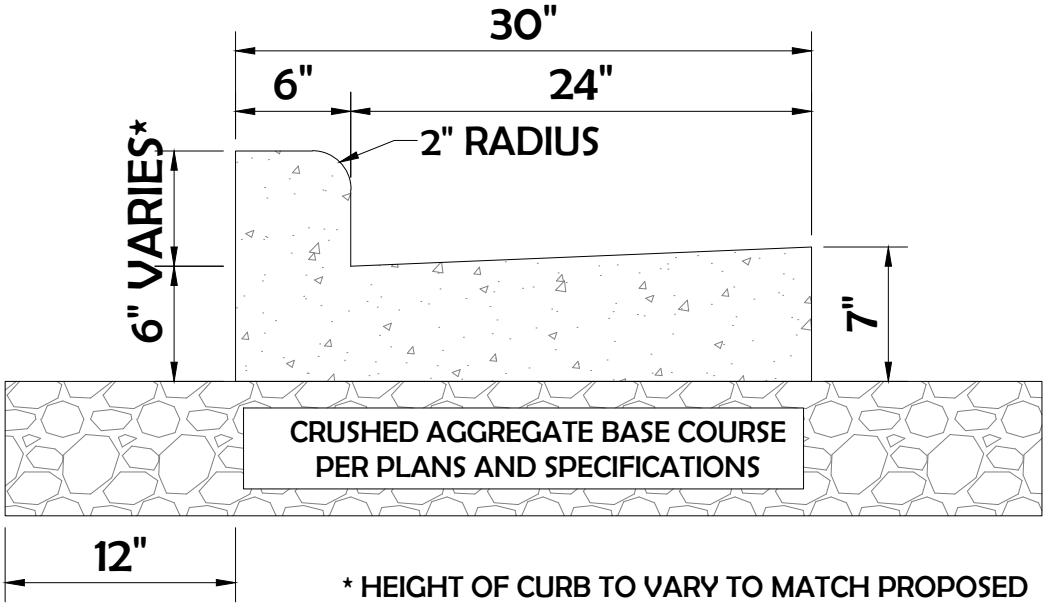
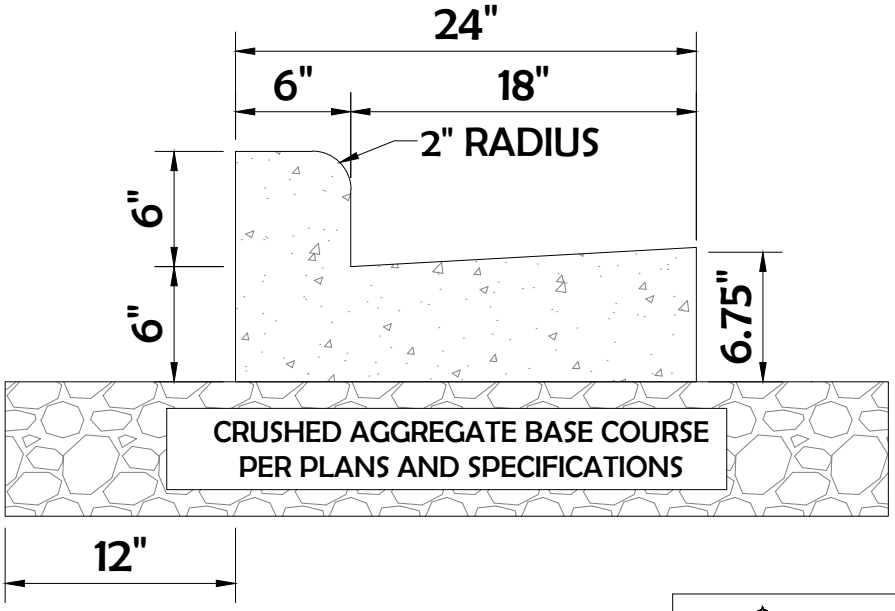
6-C-4

30" CONCRETE CURB AND GUTTER - STANDARD WITH VARIABLE CURB HEIGHT



* HEIGHT OF CURB TO VARY TO MATCH PROPOSED GUTTER FLOW LINE AND TOP OF CURB ELEVATIONS

24" CONCRETE CURB AND GUTTER - STANDARD



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SCALE: 1" = 10'
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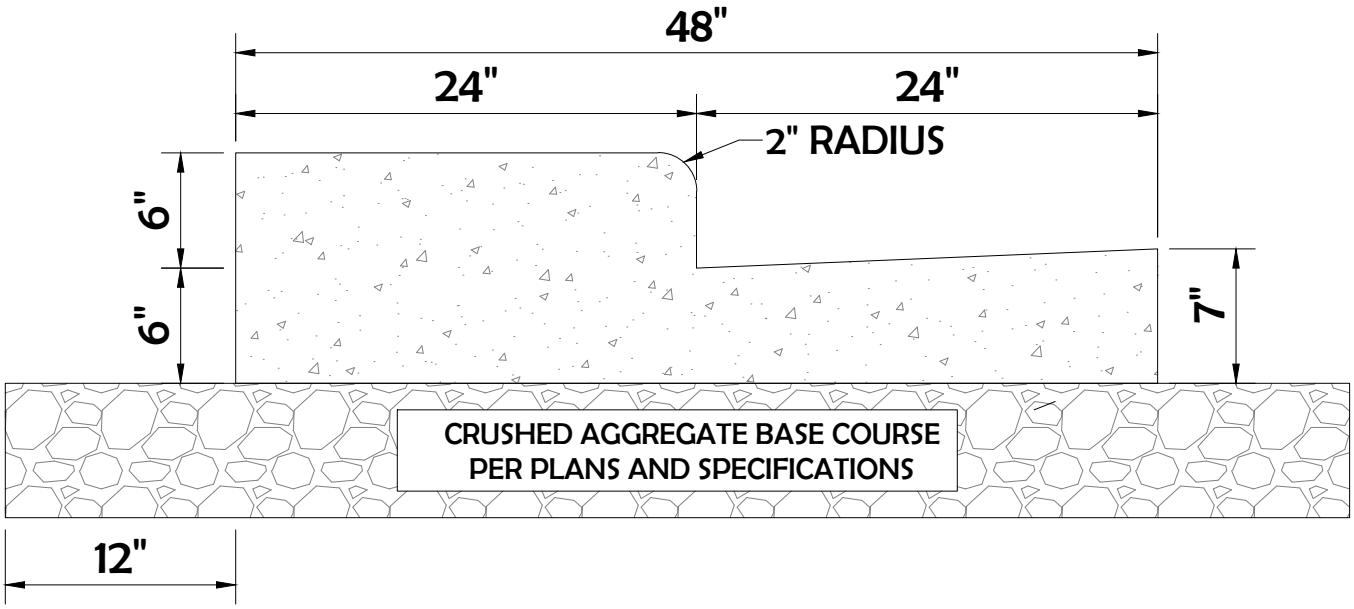
6-C-5

48" CONCRETE CURB AND GUTTER - STANDARD



SCALE: 1" = 10'
REVISED 02/13/18 BY NW
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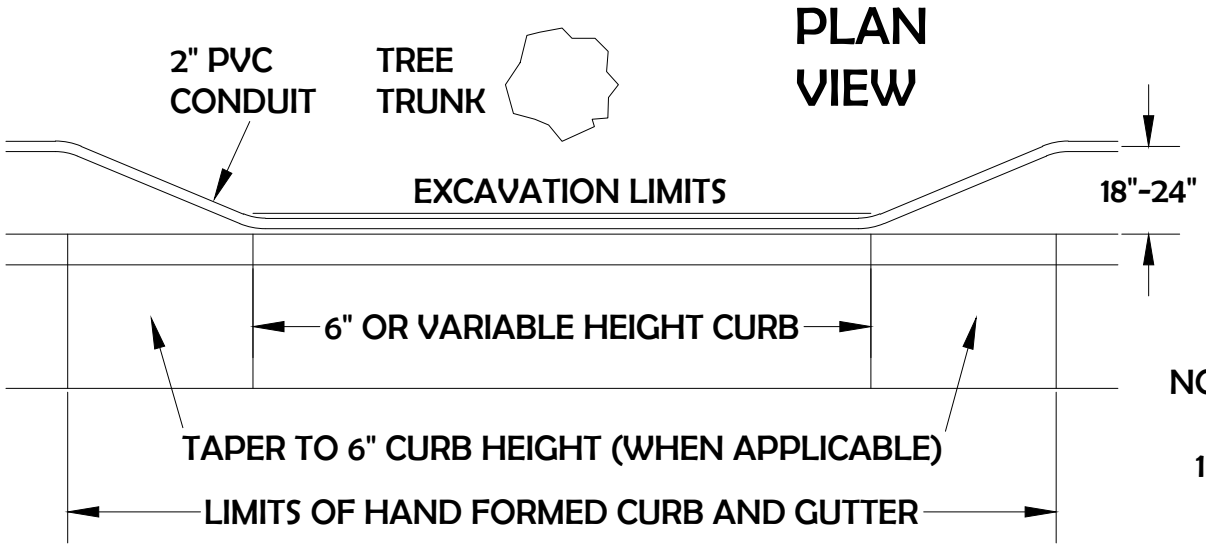
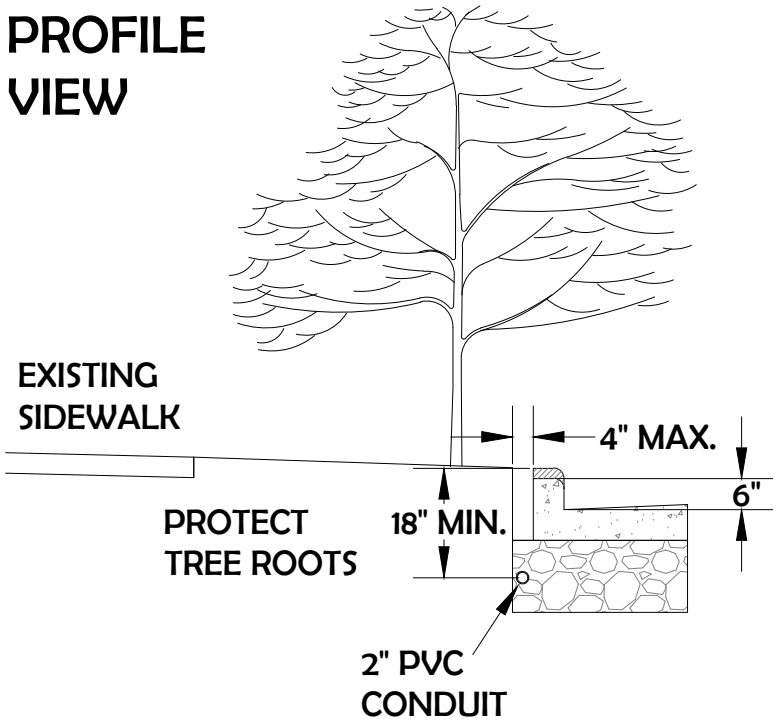
6-C-6

HAND FORMED CURB AND GUTTER

PLAN VIEW



PROFILE VIEW



NOTES:

1. EXCAVATION LIMITS OF 4" BEHIND CURB AND GUTTER UNLESS DIRECTED OTHERWISE BY ENGINEER.
2. HAND FORMED CURB MAY INCLUDE VARIABLE HEIGHT CURB.
3. TAPER CURB HEAD AT 12:1 WHEN TRANSITIONING BETWEEN 6" CURB AND VARIABLE HEIGHT CURB.
4. VARIABLE HEIGHT CURB SHALL HAVE A MAXIMUM HEIGHT OF 9" UNLESS DIRECTED OTHERWISE.
5. INSIDE EDGE OF CONDUIT SHALL BE PLACED BEHIND BACK OF CURB AND GUTTER.

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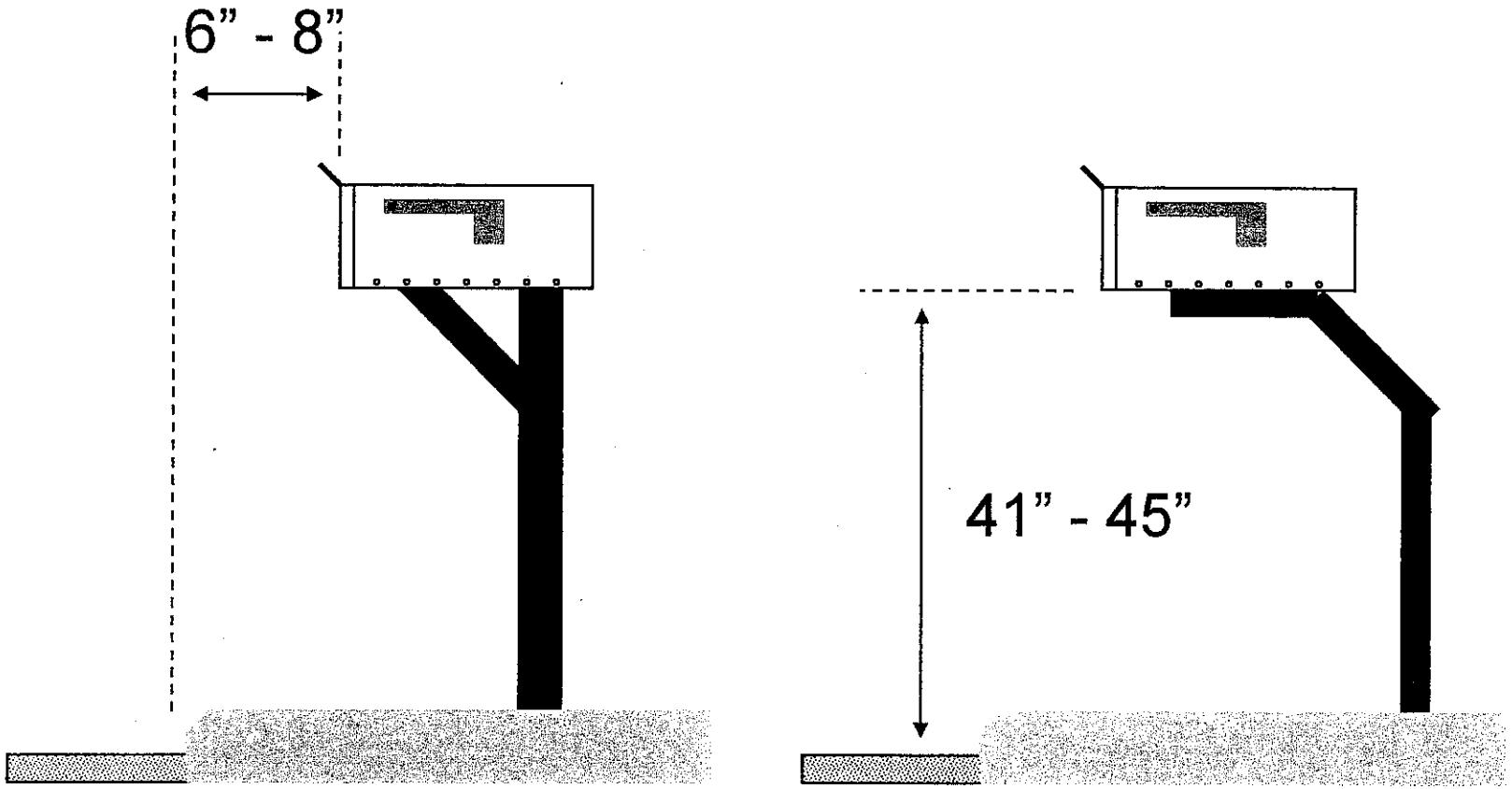
Mailbox Location (POM 632)



Mailboxes are set back 6 to 8 inches from the front face of the curb or road edge to the mailbox door.

Generally, mailboxes are installed at a height of 41 to 45 inches from the road surface to the bottom of the mailbox.

Note Check with your local municipality/county for mailbox requirements which may differ from above. Customers should contact the postmaster or carrier before erecting or replacing their mailbox.**