

Detail Description:

2/27/25

SD-1



1. MAXIMUM OUTLET DISTANCE FOR SUBDRAIN PIPE SHALL BE 500'.
2. PROVIDE TRANSVERSE SUBDRAIN PIPE AT LOW POINTS IN ROADWAY PROFILE. TRANSVERSE PIPE PROFILE TO MATCH ROADWAY CROSS SECTION SO AS TO DRAIN INTO LONGITUDINAL SUBDRAIN PIPE OR INTAKES.
3. COMPACTED SUBGRADE UNDER PAVING SHALL EXTEND TO A MINIMUM OF 12 INCHES BEYOND THE PAVEMENT BACK OF CURB.
4. SUBDRAIN PIPE NOT IN CONFLICT WITH STORM SEWER MAY BE INSTALLED WITH THE OUTER TRENCH FACE EVEN WITH THE BACK OF CURB TO 12 INCHES INSIDE THE BACK OF CURB. SUBDRAIN PIPE IN CONFLICT WITH STORM SEWER SHALL BE INSTALLED BETWEEN THE STORM SEWER AND THE STREET CENTERLINE, WITH THE OUTER SUBDRAIN TRENCH FACE 10 INCHES FROM THE OUTER WALL OF THE PIPE.

CITY OF
ELDRIDGE

Detail Description:

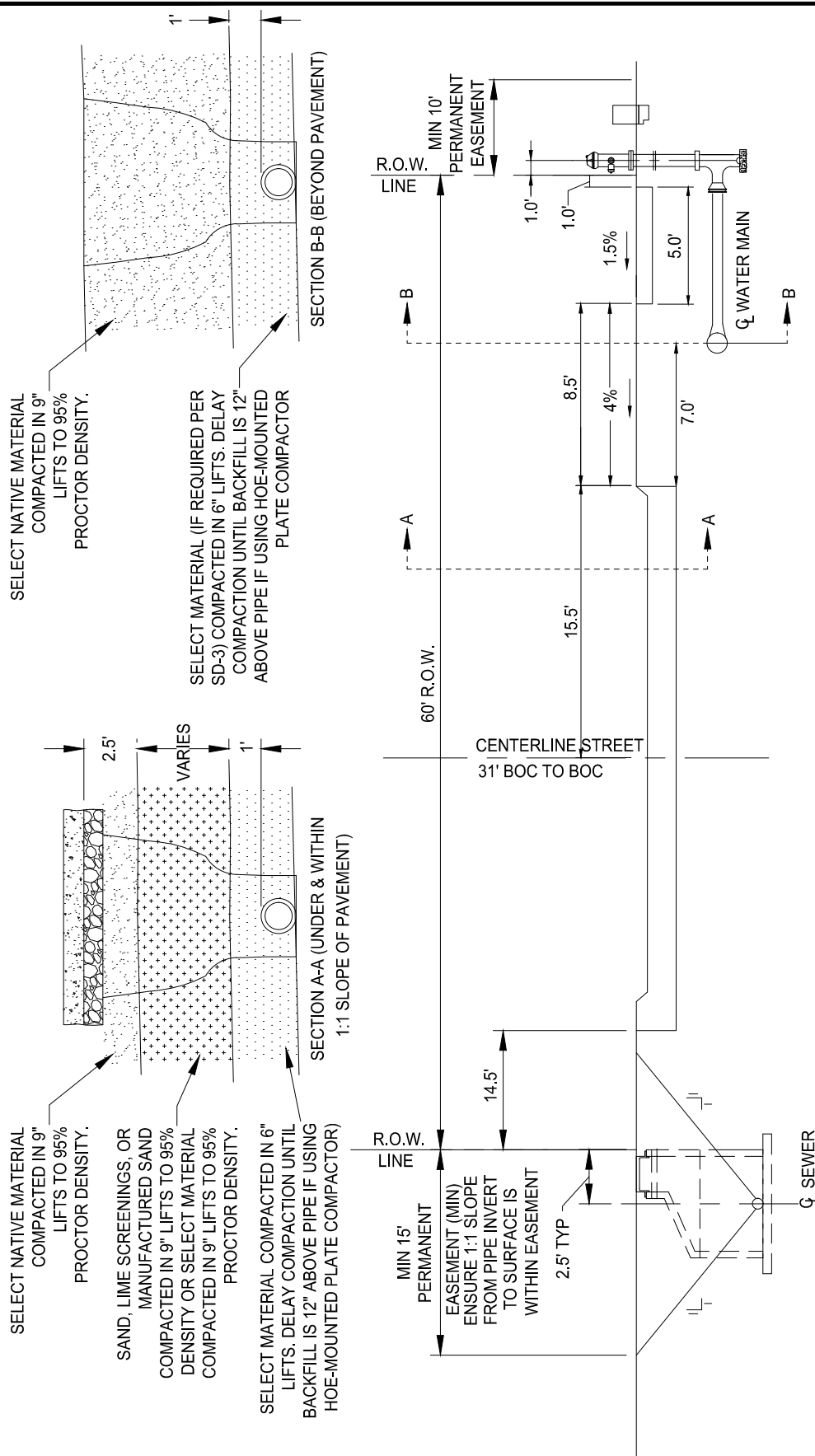
UTILITY LOCATION AND BACKFILL DETAIL

Date:

2/27/25

Detail Number:

SD-2

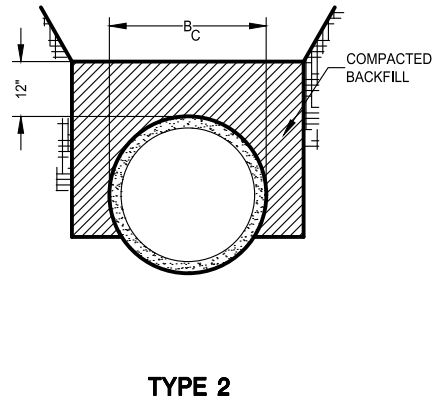
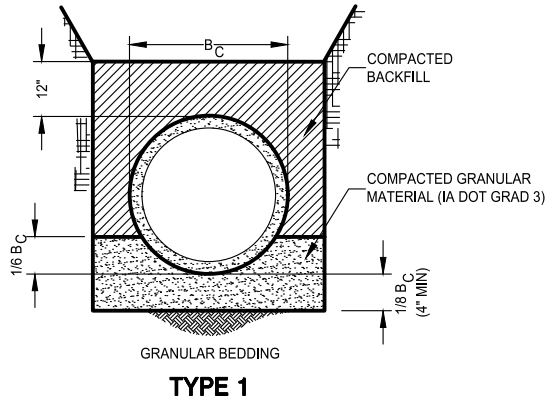


NOTES:

1. DISTURBED MATERIAL IN THE EXCAVATION MUST BE COMPACTED TO 95% DENSITY
2. SELECT MATERIAL PLACED IN TRENCH UNDER PAVING SHALL BE INCLUDED IN THE PIPE INSTALLATION COST. NO ADDITIONAL PAYMENT WILL BE MADE FOR SELECT BACKFILL UNDER EXISTING OR PROPOSED PAVING.
3. MANHOLE COVERS SHALL BE SET TO FINAL SIDEWALK GRADE. IF FURTHER ADJUSTMENT IS NECESSARY BECAUSE OF FUTURE LOT GRADING IT SHALL BE THE RESPONSIBILITY OF THE PROPERTY OWNER.
4. BACKFILL FOR PIPE TRENCH EXCAVATION UNDER PAVING SHALL CONFORM TO THAT SHOWN IN SECTION C-C ABOVE AND AS SPECIFIED IN CHAPTER 10 PARAGRAPH 1.15 OF THE STANDARD SPECIFICATIONS.
5. THE PLANTING OF TREES OR SHRUBS IN THE RIGHT-OF-WAY OR OR PERMANENT EASEMENT SHALL BE PROHIBITED.
6. INSIDE OF MANHOLE CASTING SHALL BE LOCATED AT PROPERTY LINE/R.O.W. LINE.

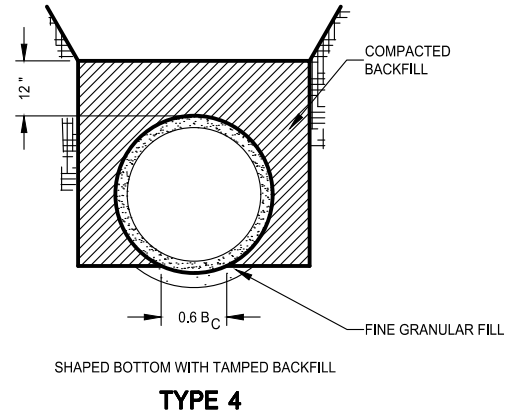
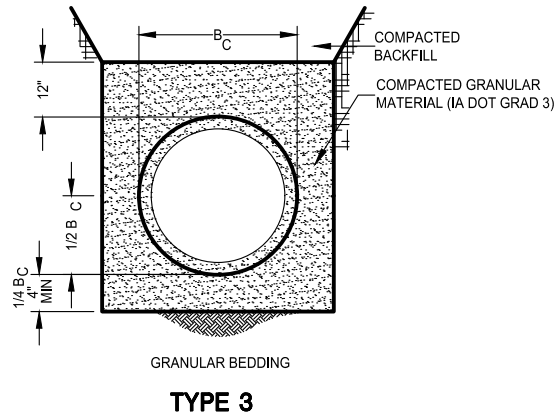
CLASS C ENVELOPE

LOAD FACTOR 1.5



CLASS B ENVELOPE

LOAD FACTOR 1.9



CLASS A ENVELOPE

SEE TABLE FOR
LOAD FACTORS

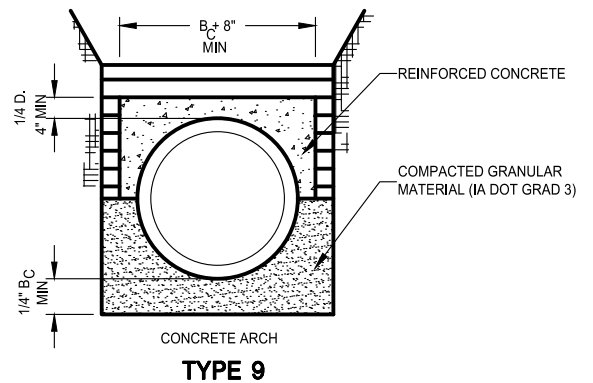
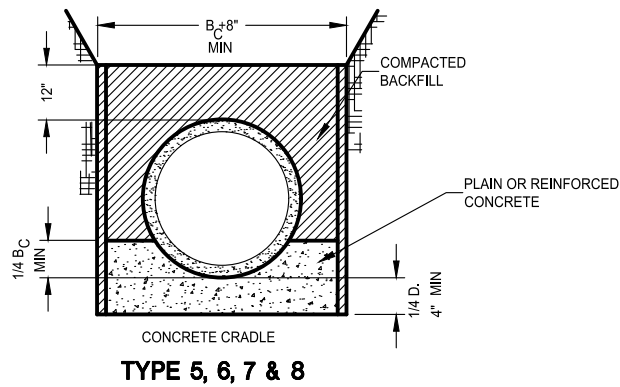


TABLE FOR CLASS A ENVELOPE

TYPE 5 - PLAIN CONCRETE, COMPACTED BACKFILL - LOAD FACTOR 2.2
TYPE 6 - PLAIN CONCRETE, COMPACTED GRANULAR BACKFILL - LOAD FACTOR 2.4
TYPE 7 - PLAIN CONCRETE, COMPACTED BACKFILL, CRADLE 1/2 D - LOAD FACTOR 2.8
TYPE 8 - REINFORCED CONCRETE WITH "P" 0.4 PERCENT - LOAD FACTOR 3.4
TYPE 9 - REINFORCED CONCRETE WITH "P" 1.0 PERCENT - LOAD FACTOR 4.8

NOTES:

1. B_C = OUTSIDE DIAMETER OF PIPE BARREL.
2. MINIMUM CONCRETE COMPRESSIVE STRENGTH 3000 PSI.
3. CURE CONCRETE 48 HOURS BEFORE BACKFILLING.
4. "P" IS THE RATIO OF THE AREA OF REINFORCING STEEL TO AREA OF CONCRETE AS MEASURED AT THE INVERT (CRADLE) OR CROWN (ARCH).

CITY OF
ELDRIDGE

Detail Description:

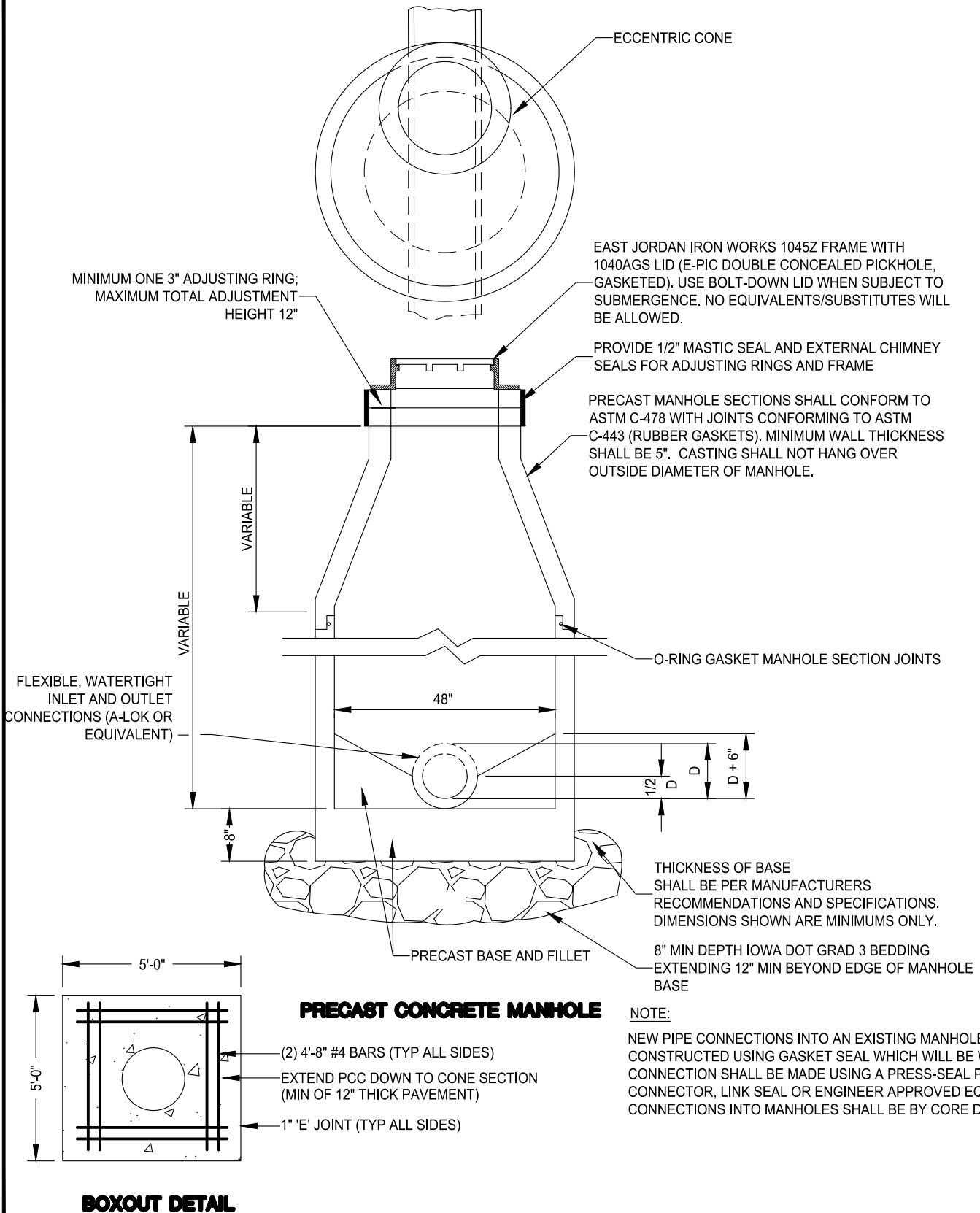
PIPE ENVELOPE REQUIREMENTS

Date:

3/20/17

Detail Number:

SD-3



CITY OF
ELDRIDGE

Detail Description:

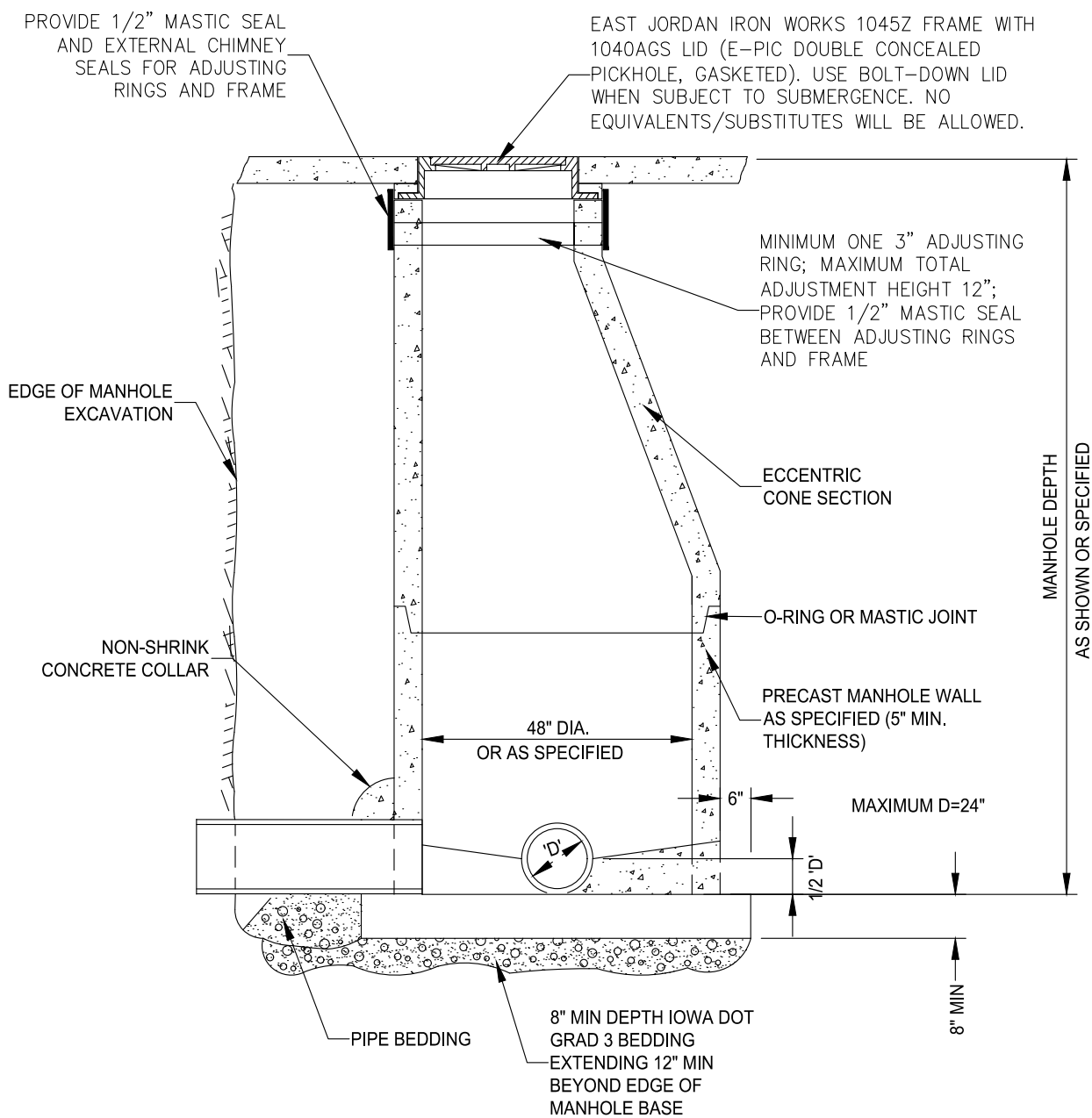
STANDARD SANITARY MANHOLE

Date:

3/20/17

Detail Number:

SD-4



NOTES:

1. SEE SD-4 FOR BOXOUT DETAIL

*CITY OF
ELDRIDGE*

Detail Description:

STANDARD STORM MANHOLE

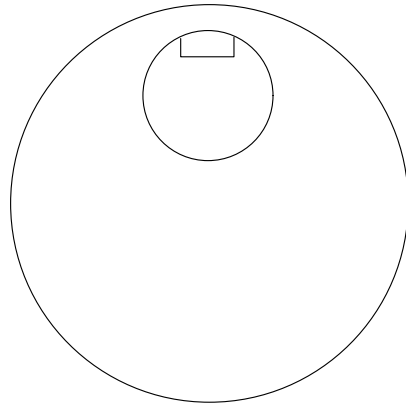
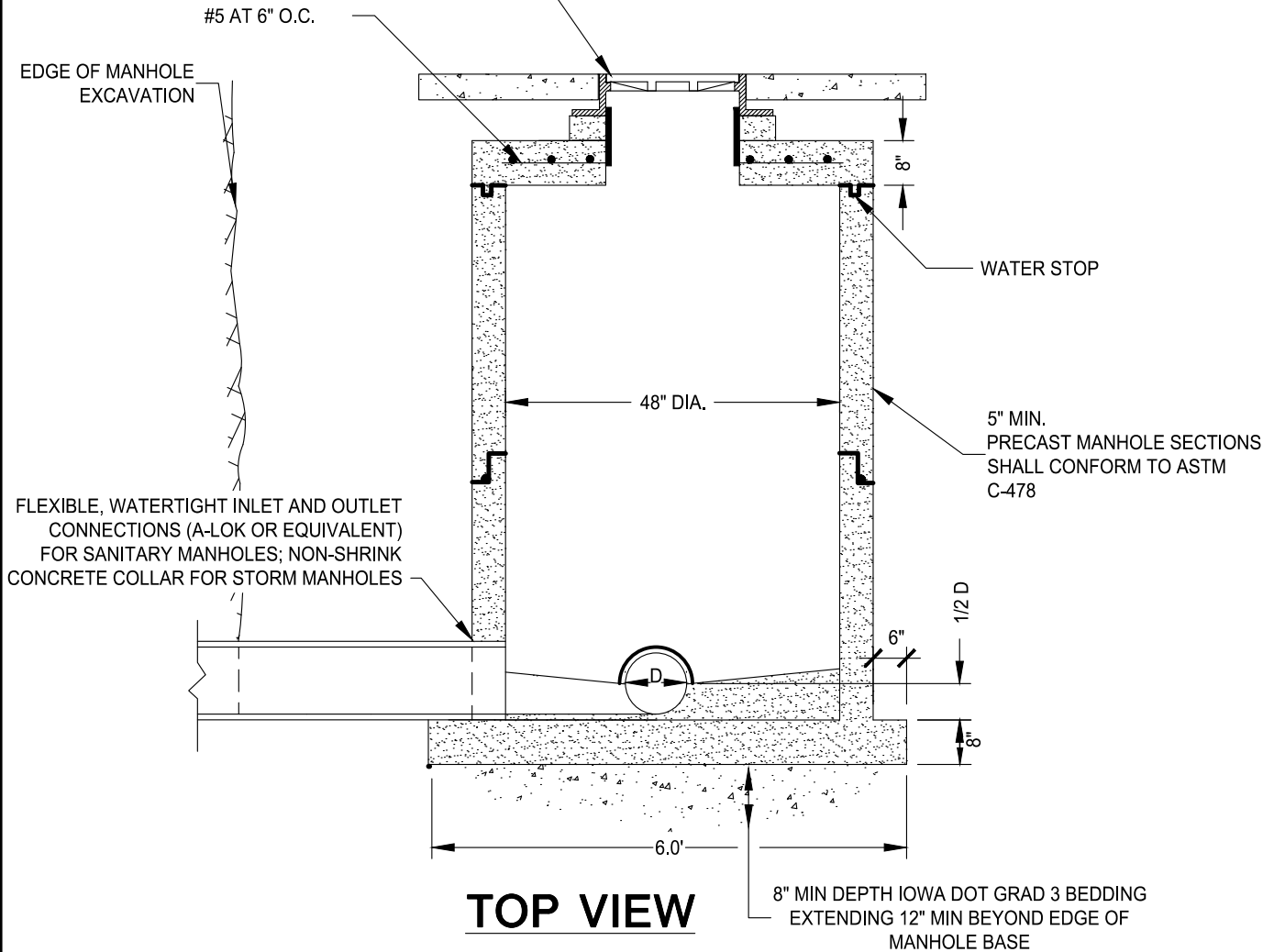
Date:

3/20/17

Detail Number:

SD-5

EAST JORDAN IRON WORKS 1045Z FRAME WITH 1040AGS LID (E-PIC DOUBLE CONCEALED PICKHOLE, GASKETED). USE BOLT-DOWN LID WHEN SUBJECT TO SUBMERGENCE. NO EQUIVALENTS/SUBSTITUTES WILL BE ALLOWED.



NOTES:

1. MAXIMUM D = 24"
2. USE FOR MANHOLES LESS THAN 6'0" IN DEPTH.
3. IF FLAT TOP MANHOLE IS NOT LOCATED WITHIN PAVING, MANHOLE CASTING SHALL BE POURED INTEGRAL TO MANHOLE TOP.
4. SEE SD-4 FOR BOXOUT DETAIL
5. REFER TO STANDARD SANITARY MANHOLE (SD-4) OR STANDARD STORM MANHOLE (SD-5) FOR MANHOLE JOINT TYPE, CHIMNEY SEAL [INTERNAL IF REQUIRED], PIPE CONNECTION, ETC

*CITY OF
ELDRIDGE*

Detail Description:

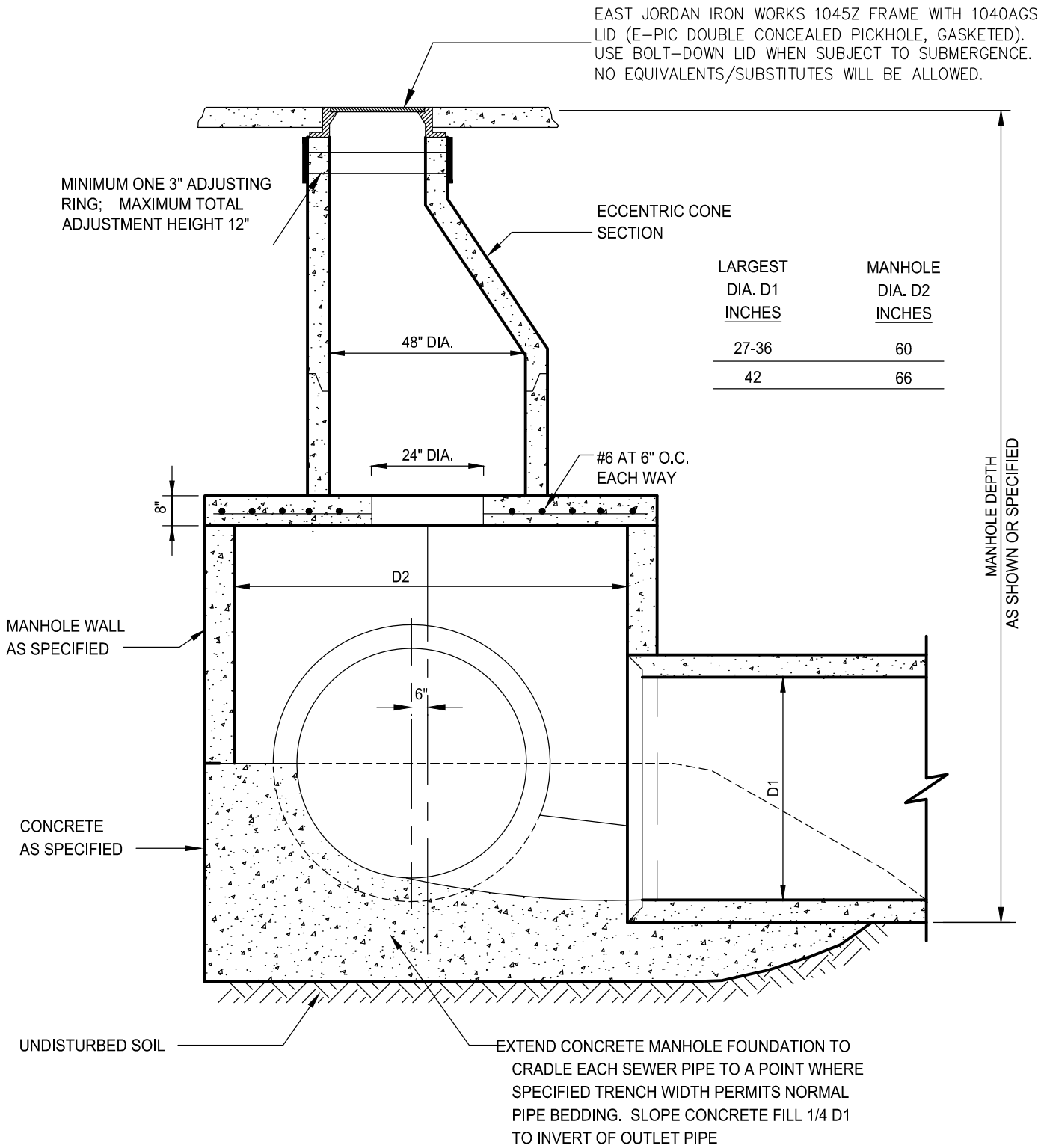
**STANDARD FLAT TOP MANHOLE
(SANITARY OR STORM)**

Date:

3/20/17

Detail Number:

SD-6



NOTE:

1. REFER TO STANDARD SANITARY MANHOLE (SD-4) OR STANDARD STORM MANHOLE (SD-5) FOR MANHOLE JOINT TYPE, CHIMNEY SEAL, PIPE CONNECTION, ETC

CITY OF
ELDRIDGE

Detail Description:

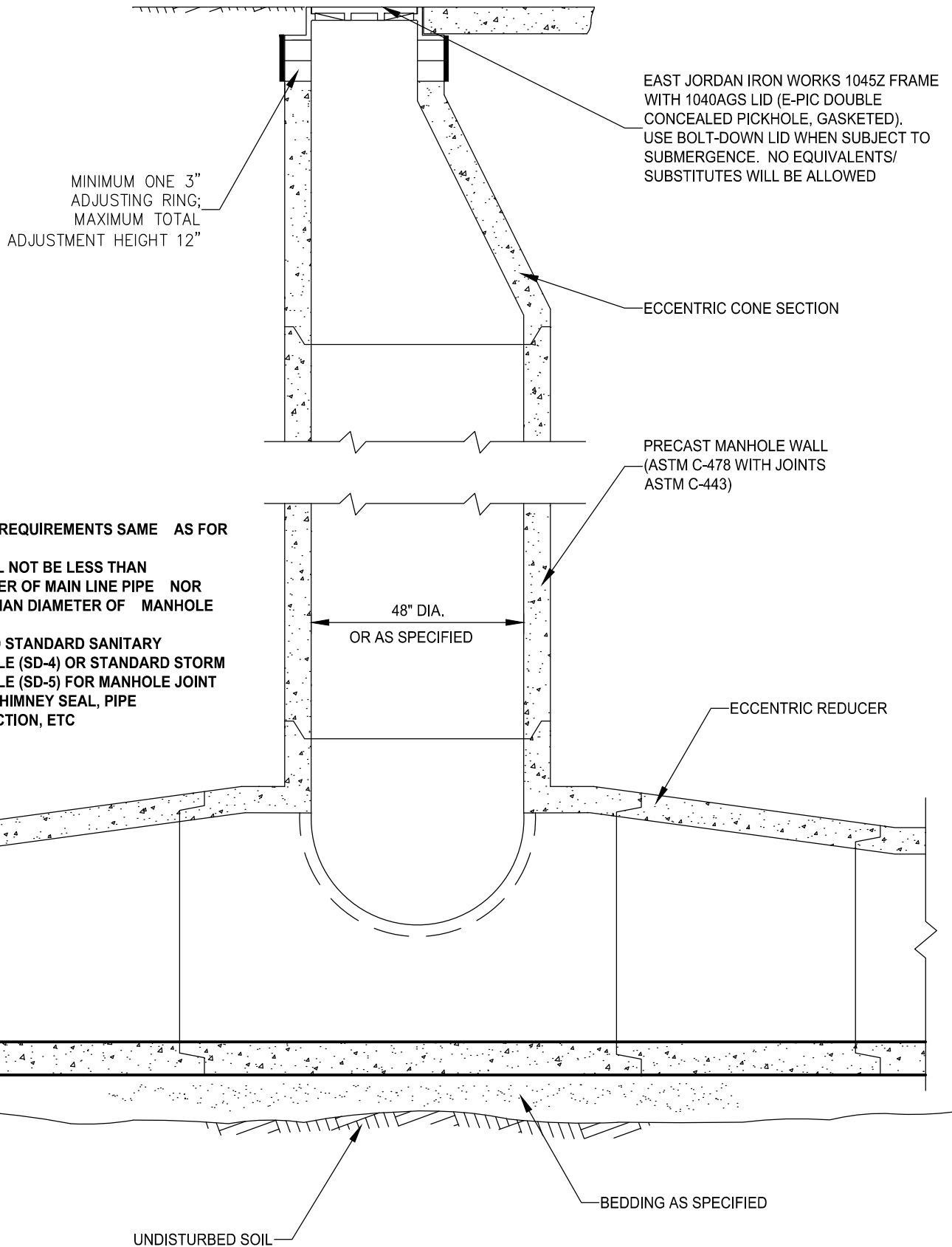
**RECTANGULAR BASE/ CIRCULAR TOP
MANHOLE (SANITARY OR STORM)**

Date:

3/20/17

Detail Number:

SD-7



NOTES:

1. BEDDING REQUIREMENTS SAME AS FOR PIPE.
2. "D" SHALL NOT BE LESS THAN DIAMETER OF MAIN LINE PIPE NOR LESS THAN DIAMETER OF MANHOLE RISER.
3. REFER TO STANDARD SANITARY MANHOLE (SD-4) OR STANDARD STORM MANHOLE (SD-5) FOR MANHOLE JOINT TYPE, CHIMNEY SEAL, PIPE CONNECTION, ETC

*CITY OF
ELDRIDGE*

Detail Description:

**TEE SECTION MANHOLE
(SANITARY OR STORM)**

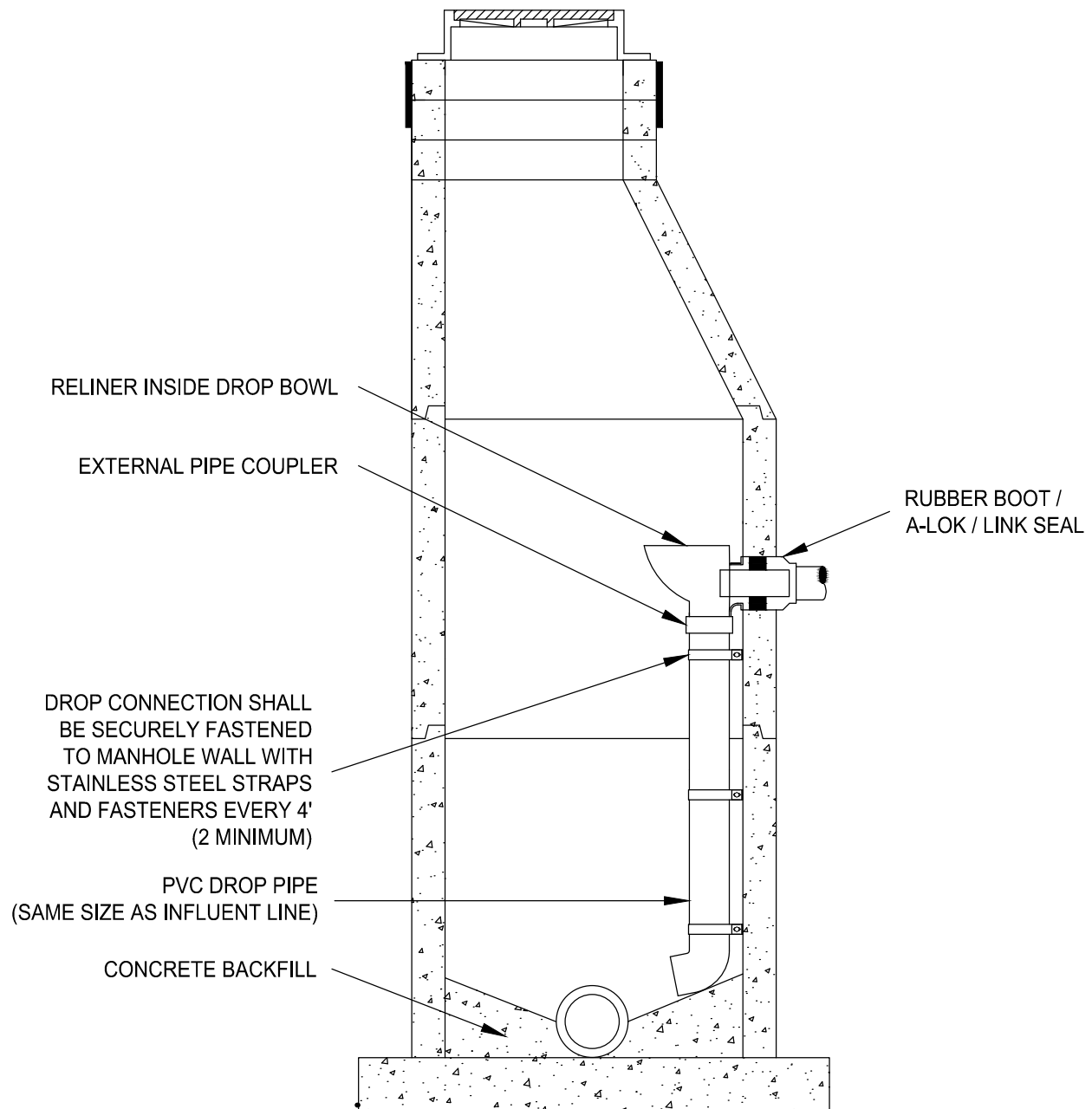
Date:

3/20/17

Detail Number:

SD-8

P:\Pr\MOIC\Ar\2017-03-15\FINAL SD-9.d 3/15/2017 10:08 AM



NOTES:

1. REFER TO STANDARD SANITARY MANHOLE (SD-4) FOR MANHOLE JOINT TYPE, CHIMNEY SEAL, PIPE CONNECTION, ETC

CITY OF
ELDRIDGE

Detail Description:

INSIDE DROP MANHOLE INLET

Date:

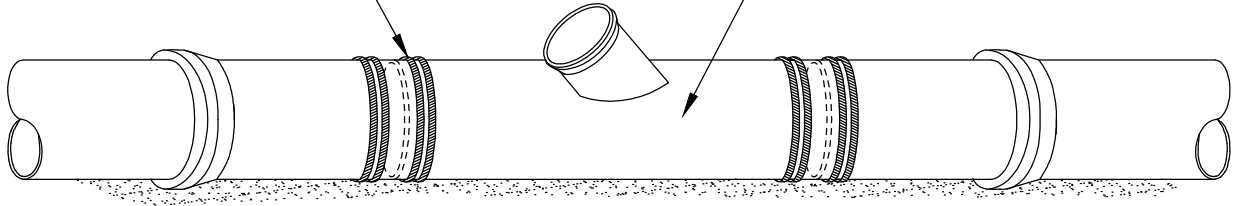
3/20/17

Detail Number:

SD-9

FERNCO STRONG BACK COUPLING
OR APPROVED EQUIVALENT

NEW TEE OR WYE



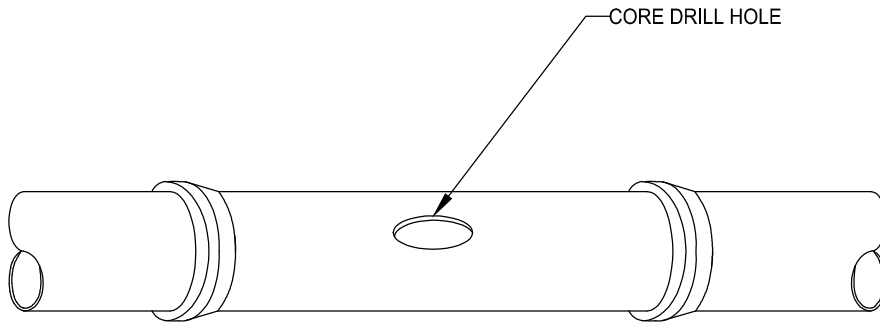
CASE 1: EXISTING PIPE IS DUCTILE IRON, CLAY, OR PLASTIC

CORE DRILL HOLE

4" THICK NON-SHRINK
GROUT

6" SOIL PIPE
(FENECO CLAY ADAPTER
OR EQUAL)

HUB SETS AGAINST PIPE



CASE 2: EXISTING PIPE IS CONCRETE

NOTE:

INSPECTION REQUIRED PRIOR TO PLACING CONCRETE
COLLAR OR BACKFILL

CITY OF
ELDRIDGE

Detail Description:

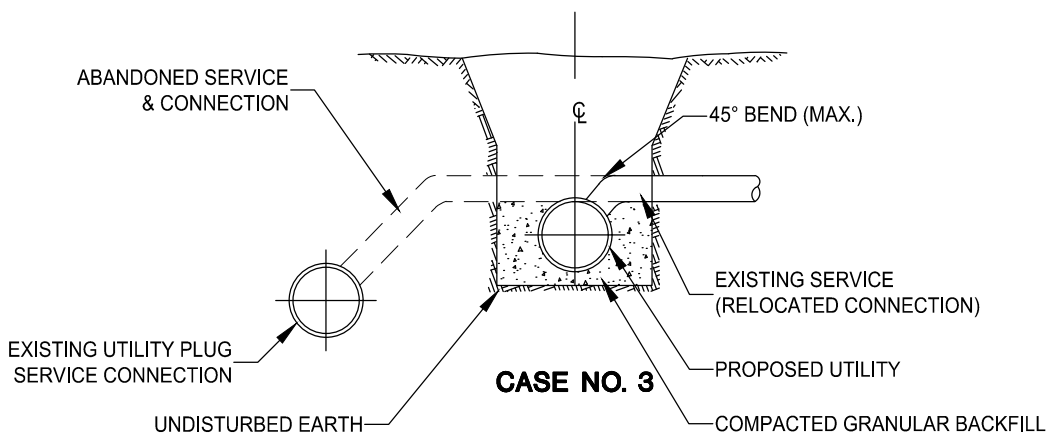
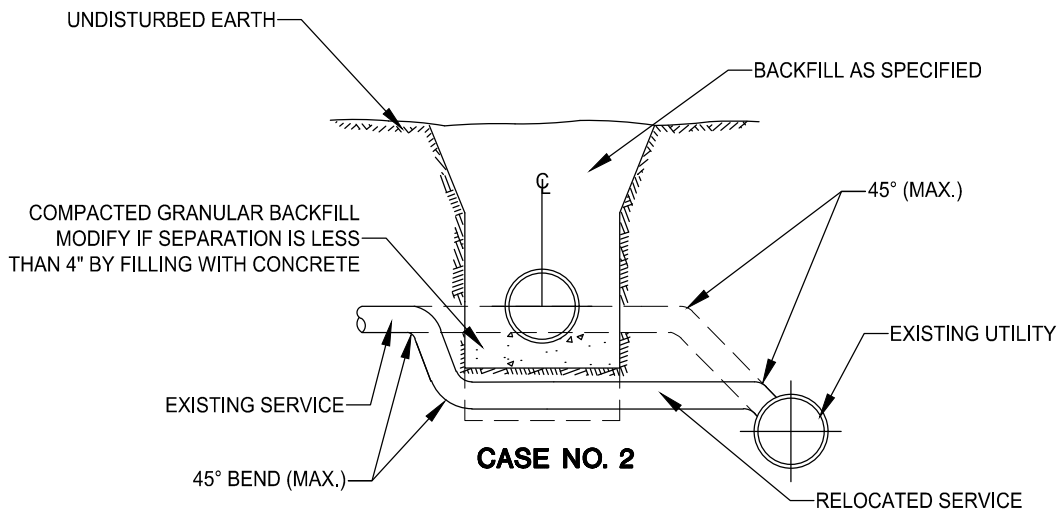
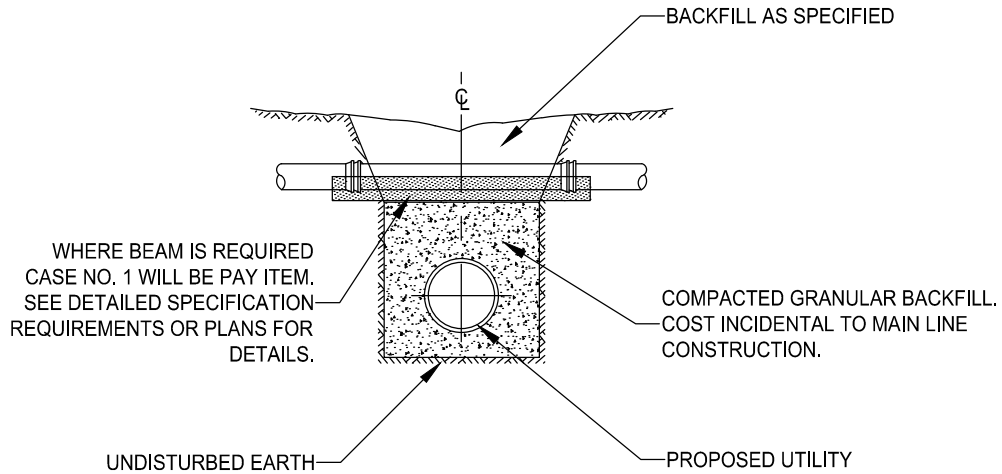
**SEWER TAP DETAILS
SANITARY, STORM, AND SUMP**

Date:

3/20/17

Detail Number:

SD-10



NOTE: WATER MAIN AND SEWER CROSSINGS SHALL MEET THE IOWA DEPARTMENT OF NATURAL RESOURCES REQUIREMENTS.

CITY OF
ELDRIDGE

Detail Description:

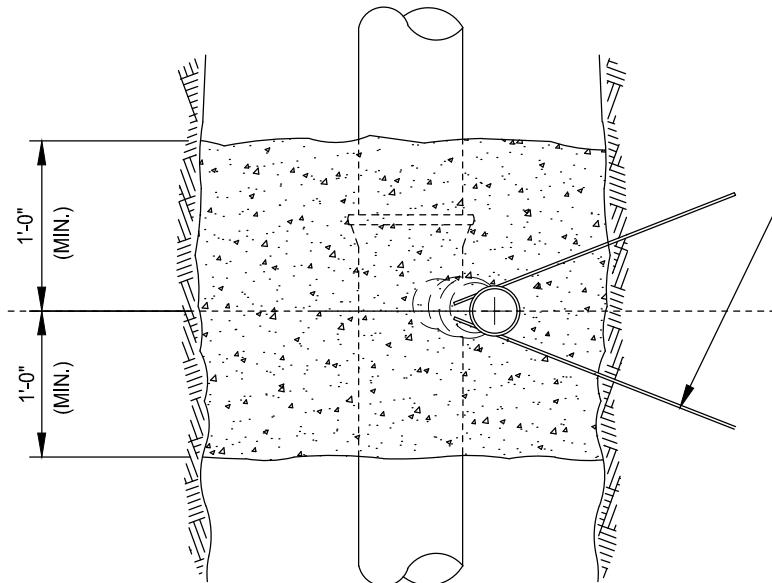
**CONFLICTS WITH EXISTING SEWER
MAINS OR SERVICES**

Date:

3/20/17

Detail Number:

SD-11

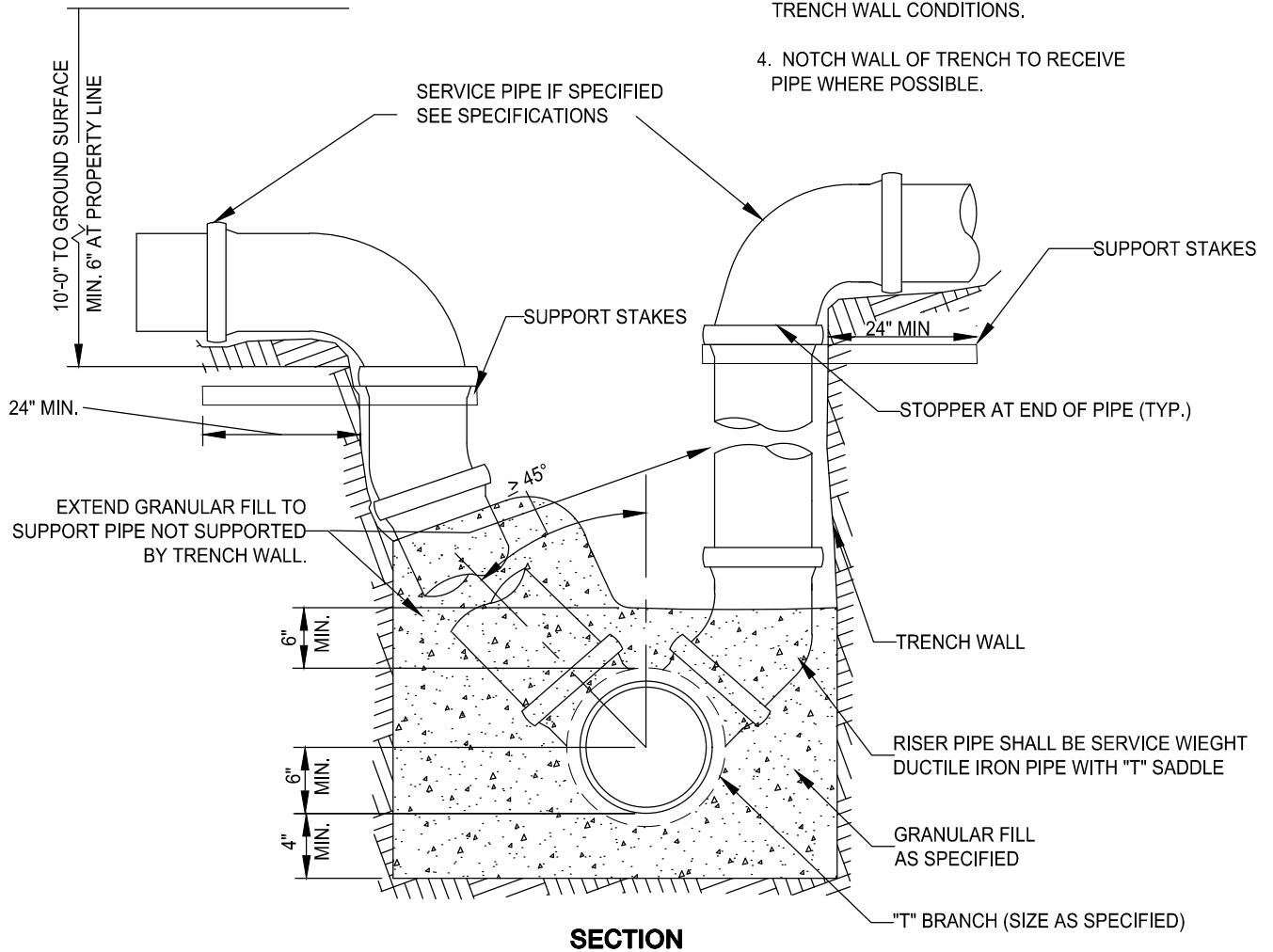


PLAN

STAKE TO WALL OF TRENCH
NEAR TOP OF RISER.

NOTES:

1. INSTALL RISER PIPE TO BEAR FIRMLY
AGAINST UNDISTURBED WALL OF TRENCH.
2. STAKE RISER PIPE IN PLACE PRIOR
TO BACKFILLING TO PREVENT TO
MOVEMENT OF PIPE.
3. SELECT VERTICAL, 30° OR 45°
POSITION OF RISER PIPE TO SUIT
TRENCH WALL CONDITIONS.
4. NOTCH WALL OF TRENCH TO RECEIVE
PIPE WHERE POSSIBLE.



SECTION

*CITY OF
ELDRIDGE*

Detail Description:

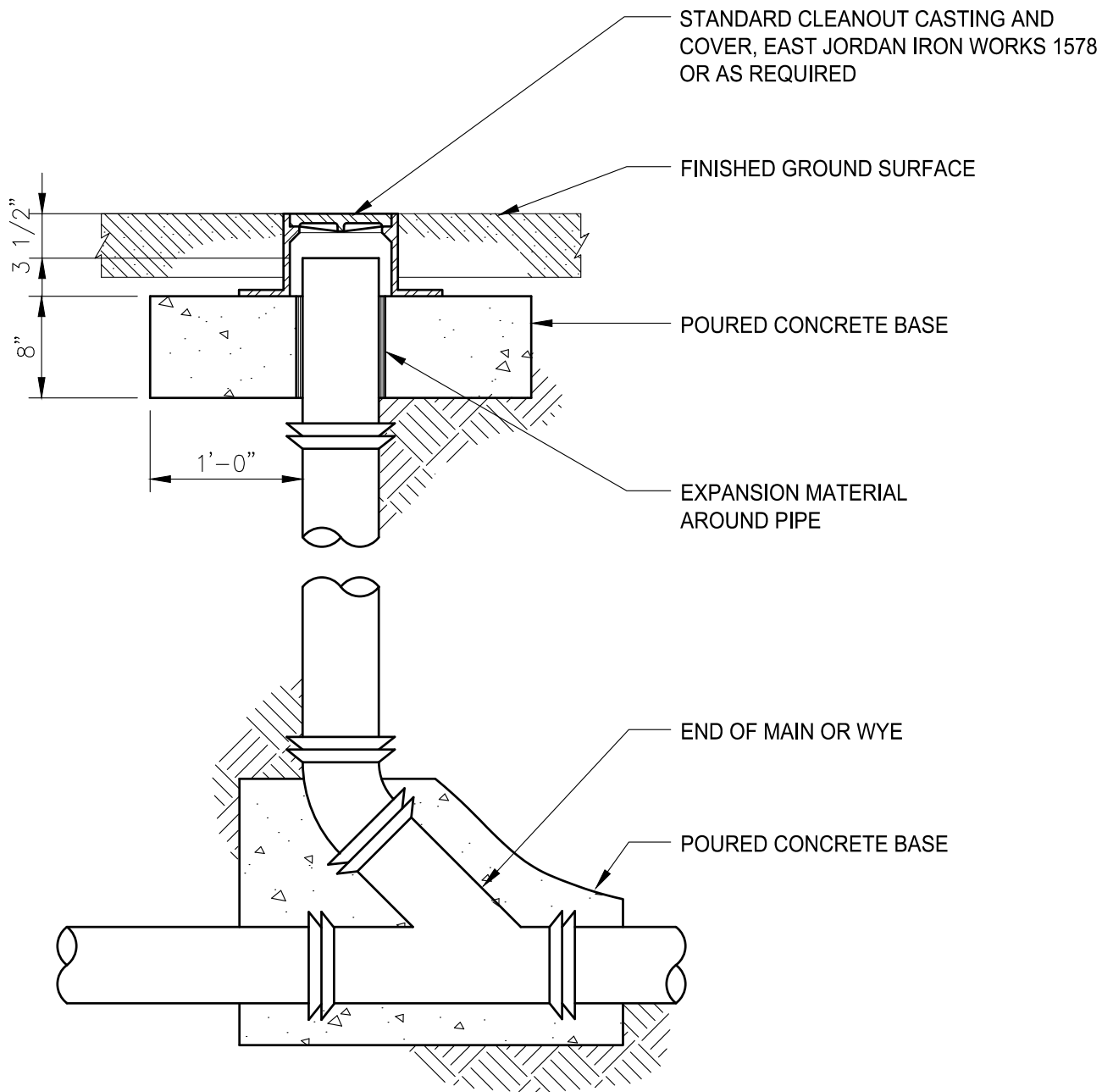
RISER CONNECTION

Date:

3/20/17

Detail Number:

SD-12



NOTE: CLEANOUT LINE TO BE OF SAME SIZE AND MATERIAL AS SEWER MAIN.

CITY OF
ELDRIDGE

Detail Description:

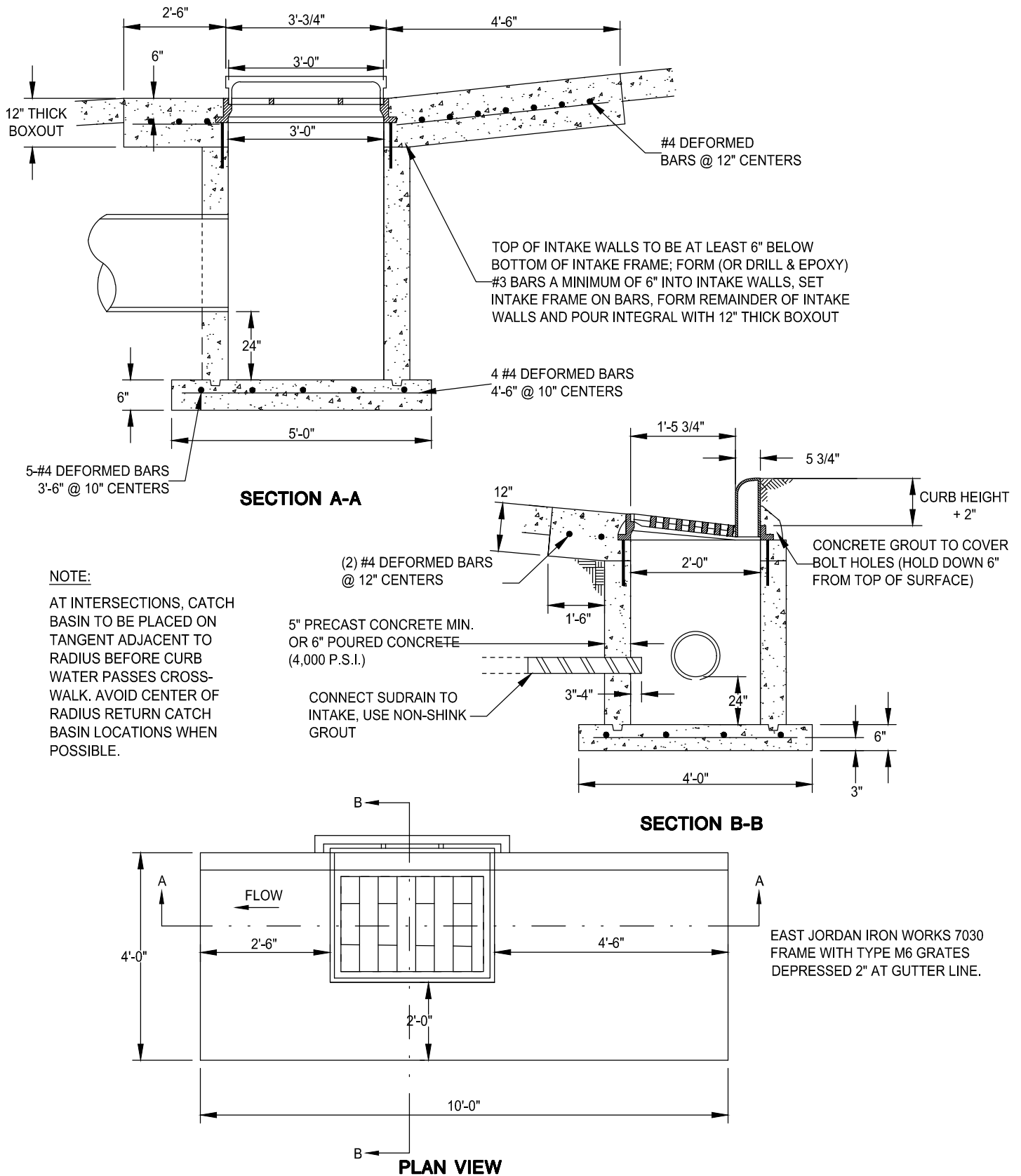
SUMP PUMP CLEANOUT STRUCTURE

Date:

3/20/17

Detail Number:

SD-13



CITY OF
ELDRIDGE

Detail Description:

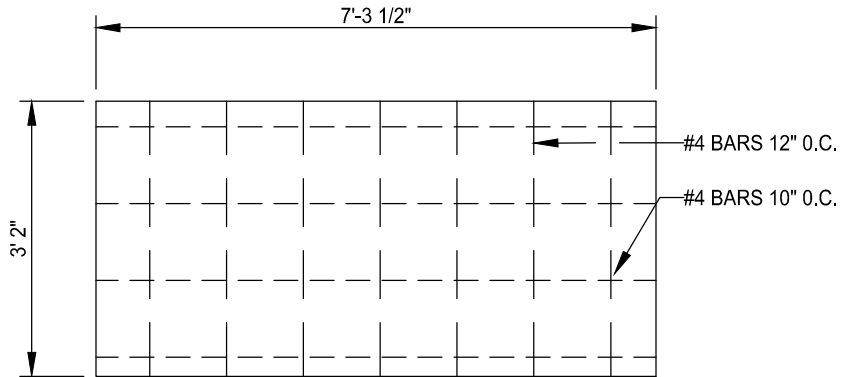
SINGLE CATCH BASIN DETAIL

Date:

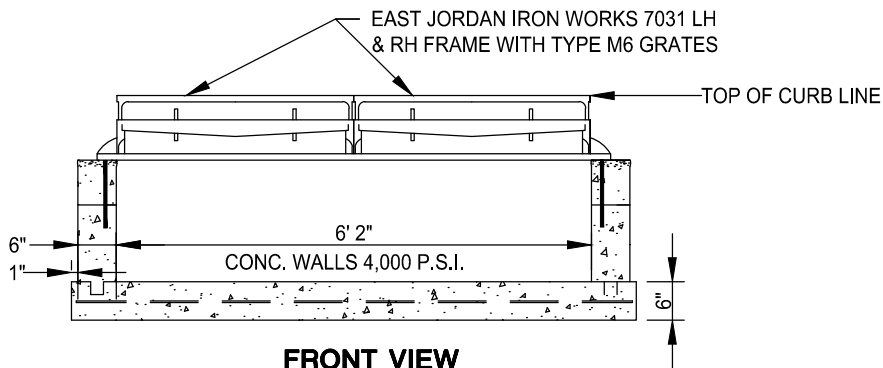
08/18/17

Detail Number:

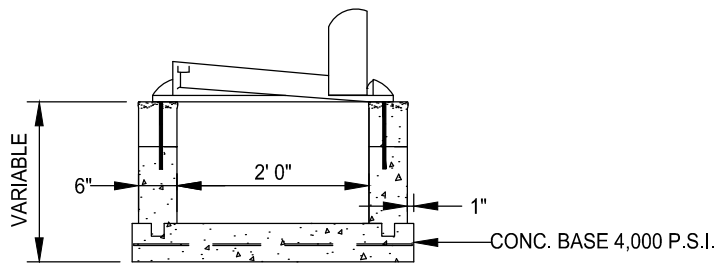
SD-14



TOP VIEW
(FRAME AND GRATE OMITTED)



FRONT VIEW



SIDE VIEW

NOTES:

1. SEE SINGLE CATCH BASIN DETAIL SHEET SD-14 FOR 24" SUMP, BOXOUT THICKNESS & REINFORCING, BOLT HOLE GROUT ETC.

*CITY OF
ELDRIDGE*

Detail Description:

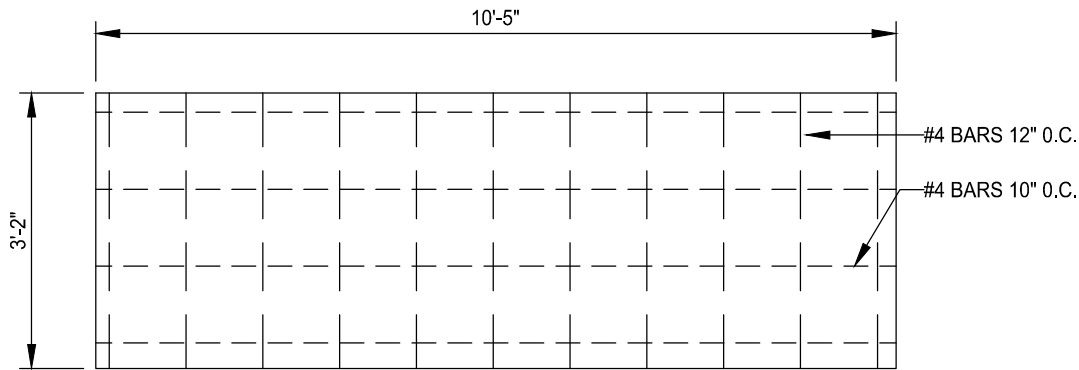
STANDARD CATCH BASIN (DOUBLE)

Date:

3/20/17

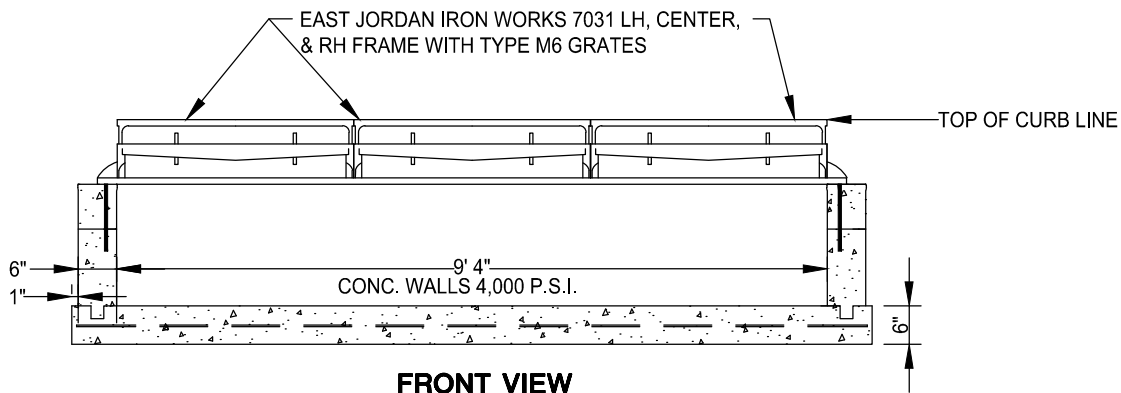
Detail Number:

SD-15

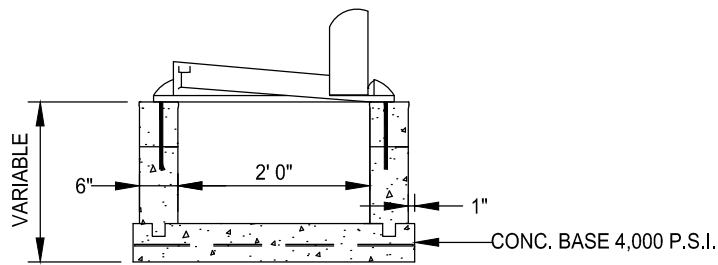


TOP VIEW

(FRAME AND GRATE OMITTED)



FRONT VIEW



SIDE VIEW

NOTES:

1. SEE SINGLE CATCH BASIN DETAIL SHEET SD-14 FOR 24" SUMP, BOXOUT THICKNESS & REINFORCING, BOLT HOLE GROUT ETC.

*CITY OF
ELDRIDGE*

Detail Description:

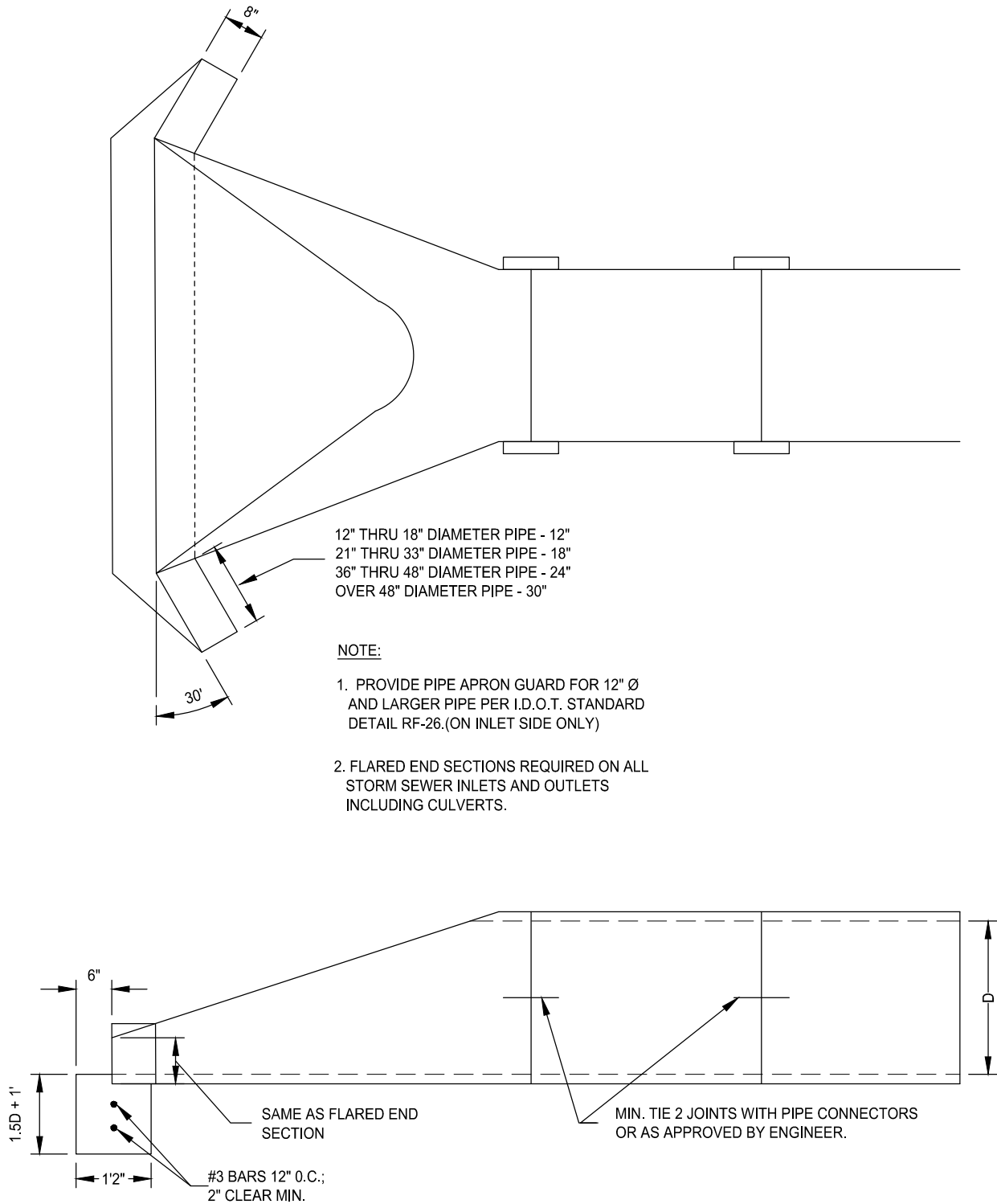
STANDARD CATCH BASIN (TRIPLE)

Date:

3/20/17

Detail Number:

SD-16



CITY OF
ELDRIDGE

Detail Description:

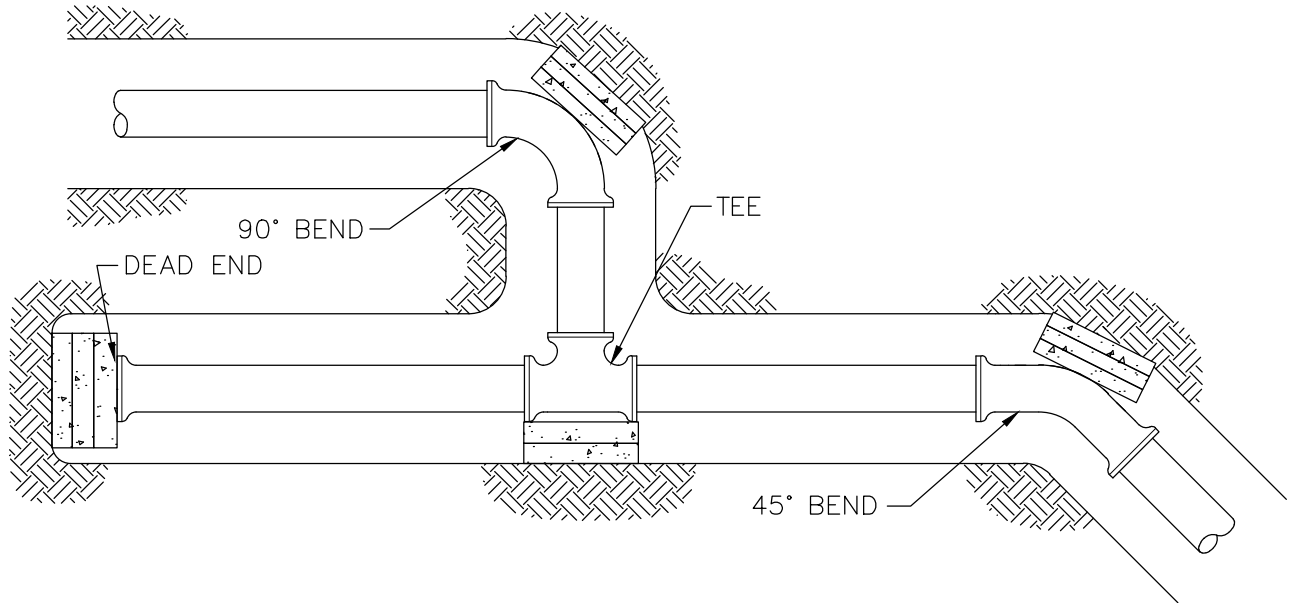
FLARED END SECTION

Date:

3/20/17

Detail Number:

SD-17



NOTES:

1. RESTRAINED JOINTS ARE REQUIRED AT ALL CHANGES IN DIRECTION, TEES, BENDS, DEAD ENDS AND HYDRANTS. IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. INSTALL MIN 8" X 8" X 16" SOLID CONCRETE BLOCK "KICKERS" BETWEEN ALL FITTINGS AND THE UNDISTURBED TRENCH WALL (INCREASE SIZE OF KICKERS AS NEEDED BASED ON SOIL CONDITIONS).

*CITY OF
ELDRIDGE*

Detail Description:

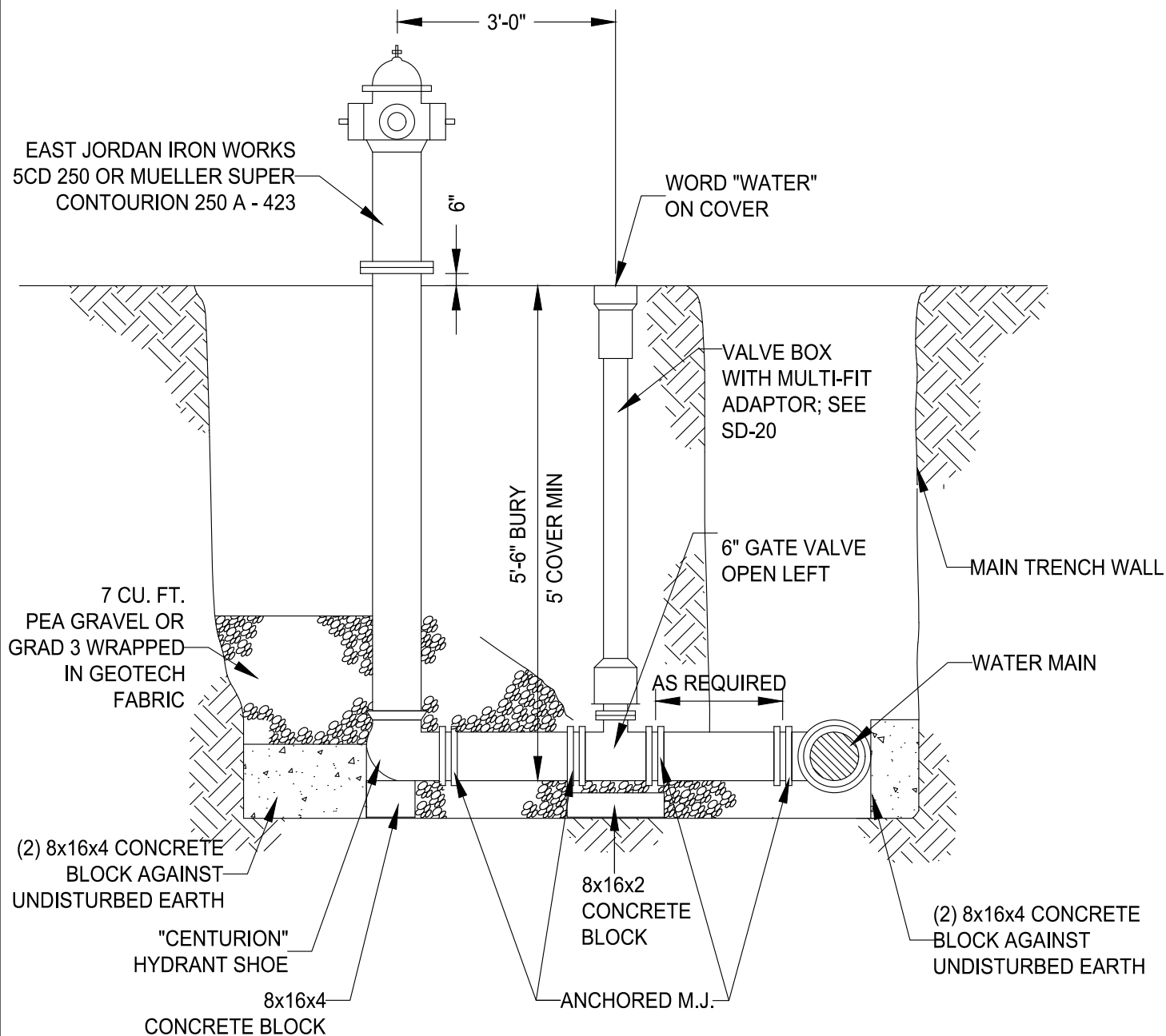
WATER MAIN FITTING DETAIL

Date:

3/20/17

Detail Number:

SD-18



NOTES:

1. ALL FITTINGS ARE TO BE CONNECTED USING MEGALUG JOINTS OR ANCHORED MECHANICAL JOINTS (HOLDING SPOOLS) IN ADDITION TO THE CONCRETE THRUST BLOCKING.
2. COVER GRAVEL WITH GEOTECH FABRIC THAT WILL NOT ALLOW SOIL TO PASS THROUGH.

*CITY OF
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Detail Description:

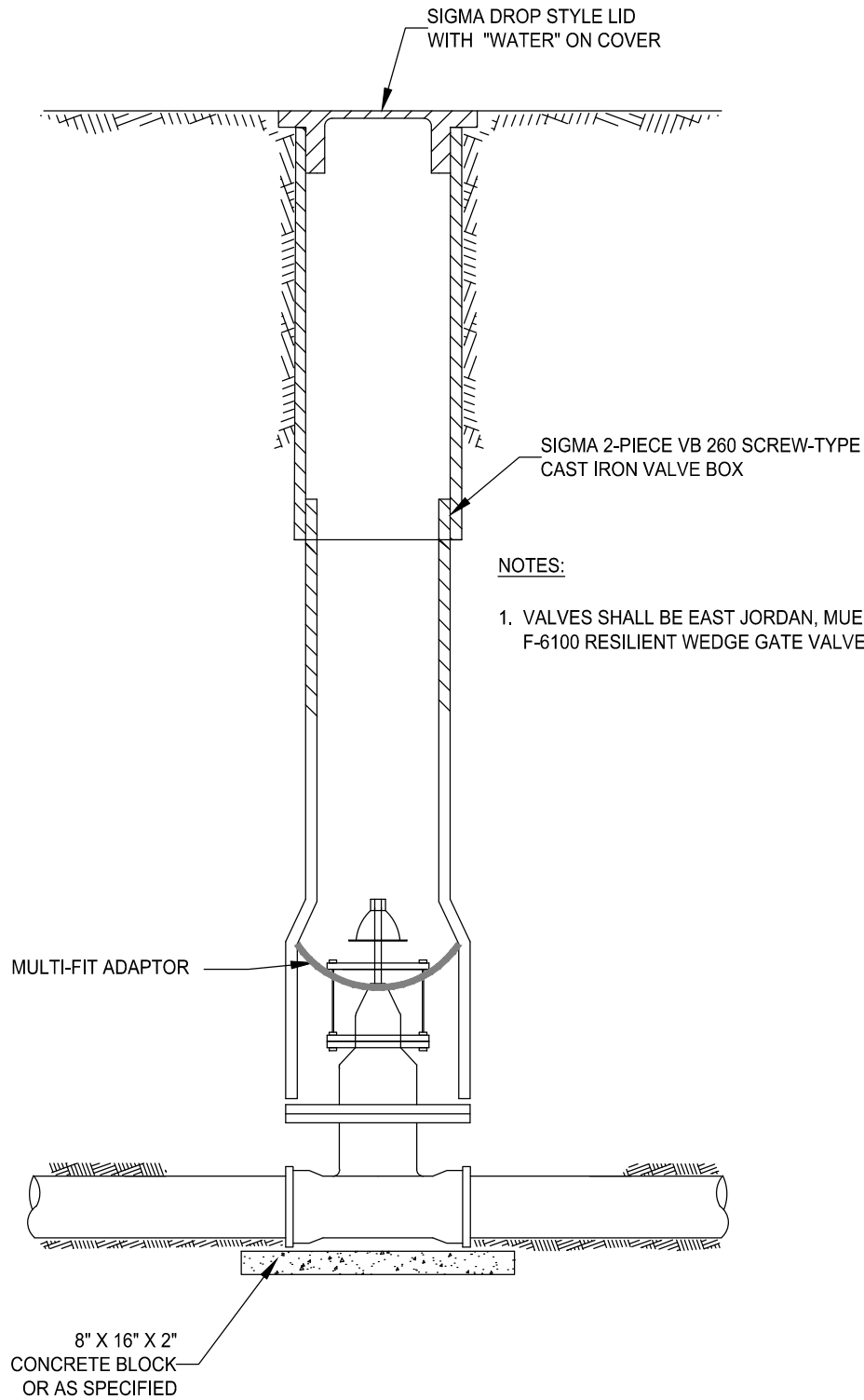
FIRE HYDRANT INSTALLATION

Date:

3/20/17

Detail Number:

SD-19



CITY OF
ELDRIDGE

Detail Description:

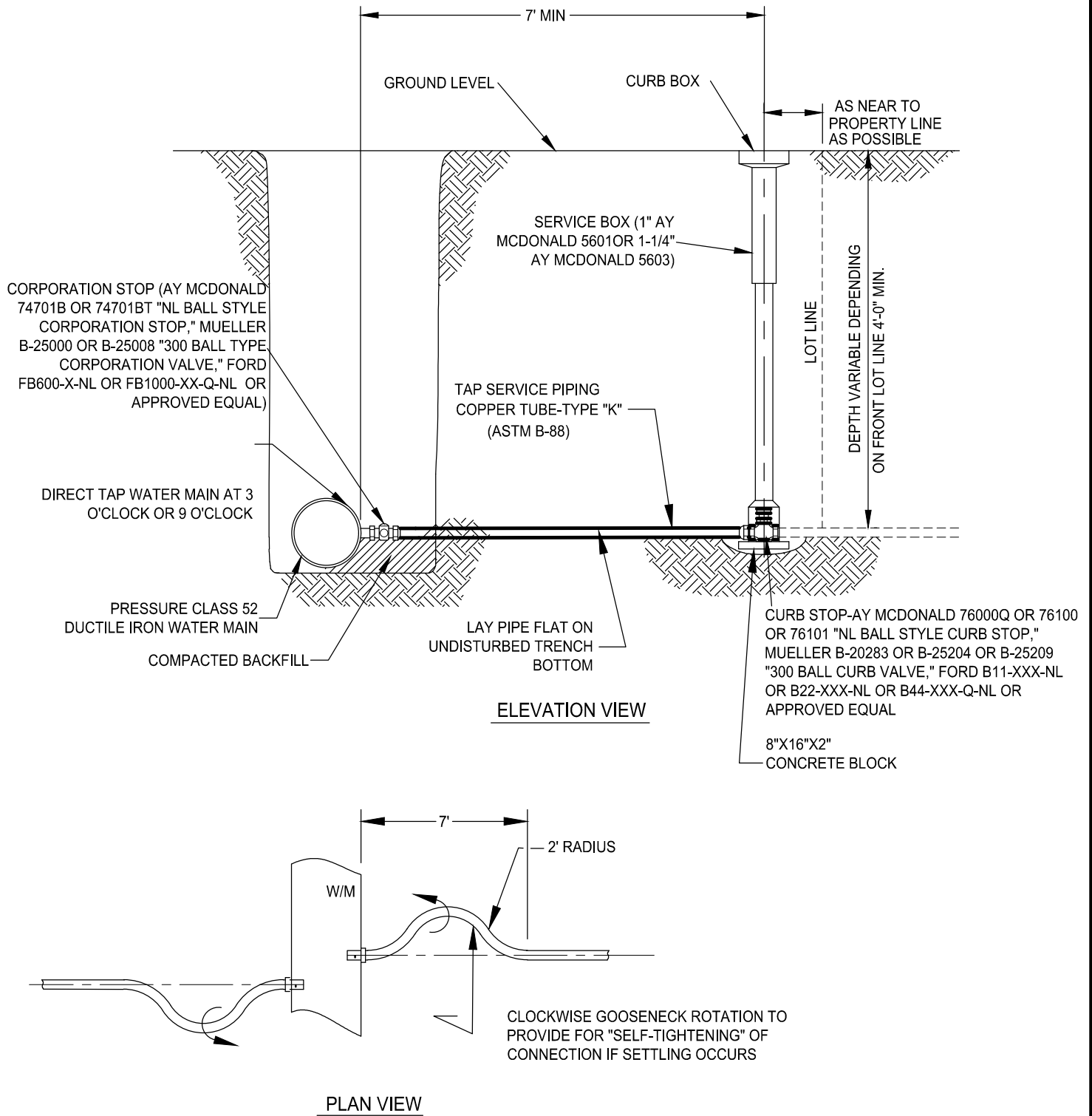
VALVE BOX DETAIL

Date:

3/20/17

Detail Number:

SD-20



CITY OF
ELDRIDGE

Detail Description:

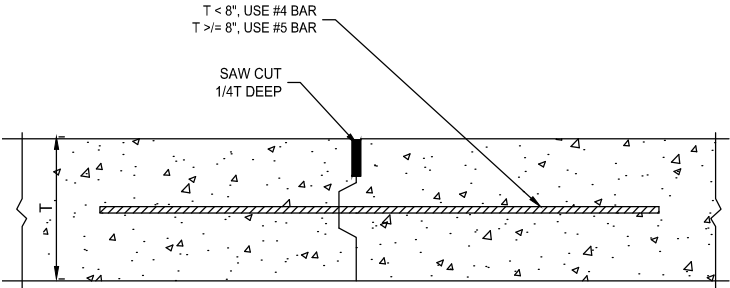
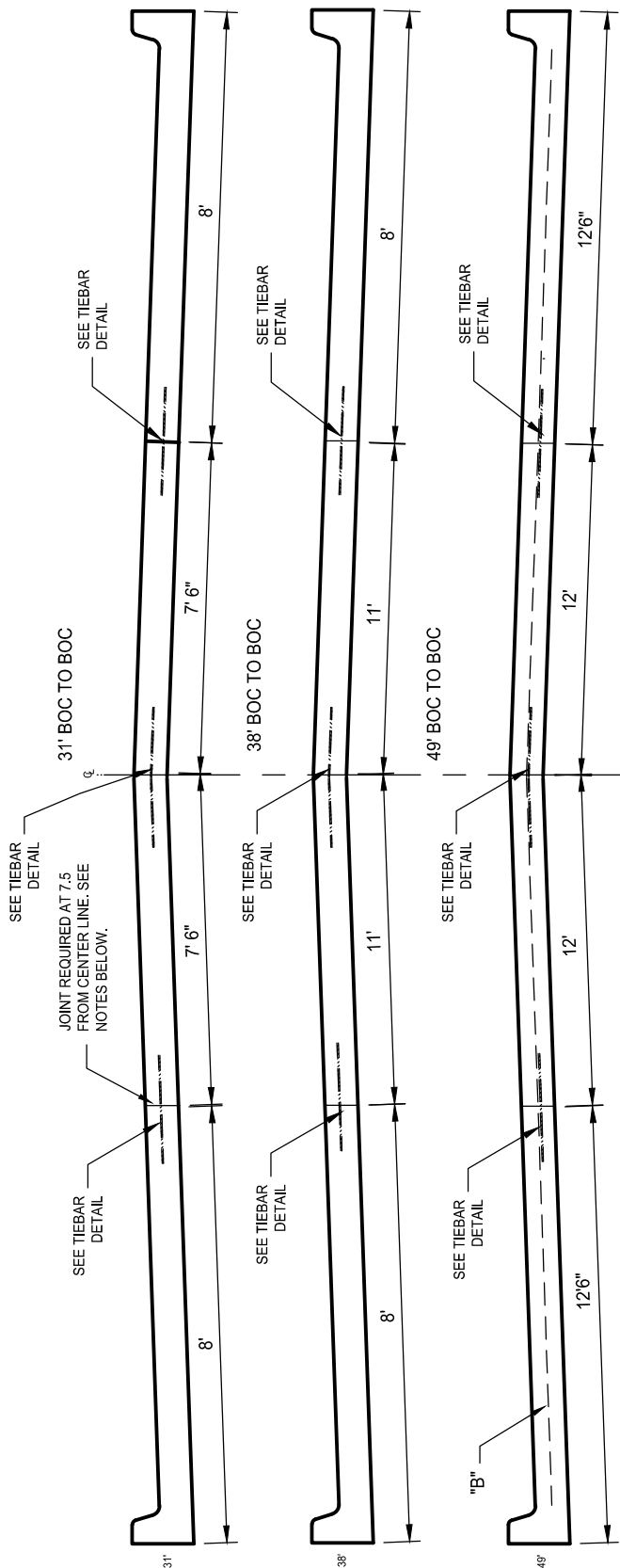
WATER SERVICE CONNECTION

Date:

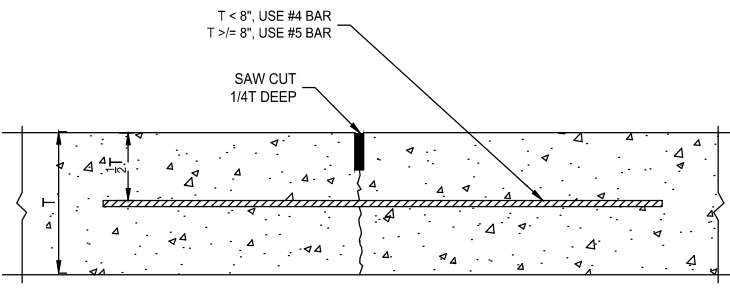
3/20/17

Detail Number:

SD-21



FORMED AND SAWED



SAWED

TIE BAR DETAILS

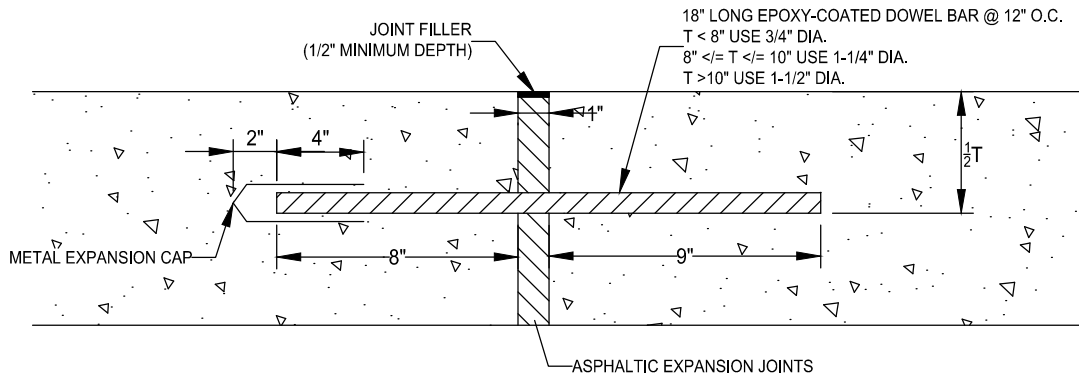
- NOTE:
1. USE DEFORMED EPOXY COATED TIE BARS 30" LONG PLACED IN THE CENTER OF THE PAVING SLAB. SPACE BARS ON 30" CENTERS. SEE SPECIFICATIONS FOR CUTTING, CLEANING AND FILLING OF JOINTS.
 2. 38' WIDE STREETS SHALL BE DIVIDED INTO 8'-11'-11'-8' SECTIONS.
 3. 31' WIDE STREETS SHALL BE DIVIDED INTO 8'-7.5'-7.5'-8' SECTIONS.
 4. 49' WIDE STREETS SHALL BE DIVIDED INTO 12'-6", 12', 12' AND 12'-6" SECTIONS.
 5. OTHER STREET WIDTH JOINTS APPROVED BY ENGINEER

CITY OF
ELDRIDGE

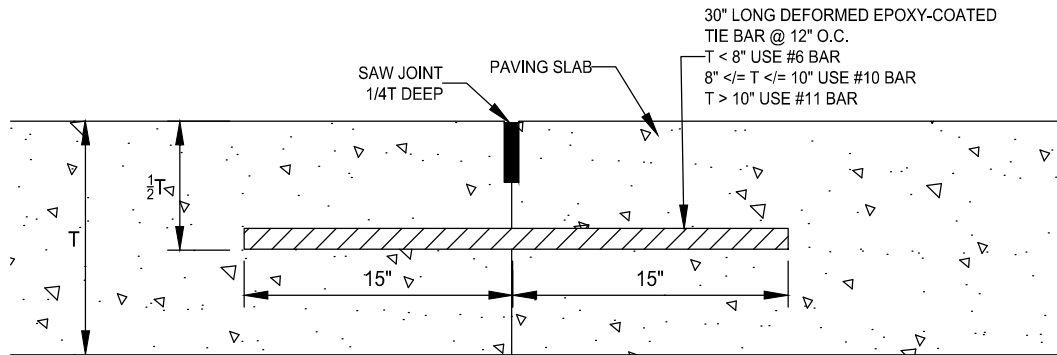
Detail Description:
LONGITUDINAL JOINT SPACING

Date:
3/20/17

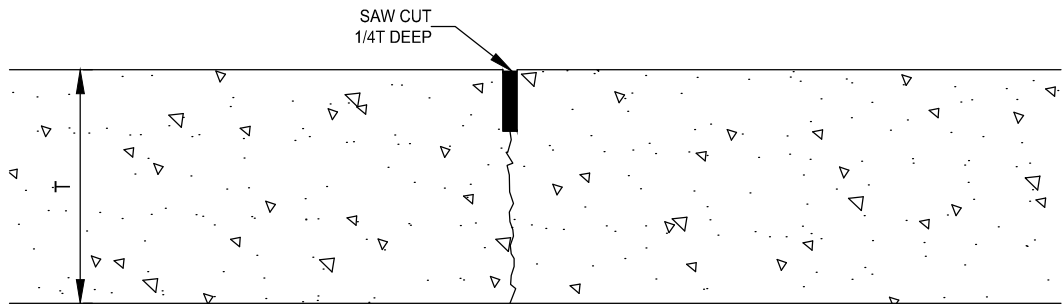
Detail Number:
SD-22



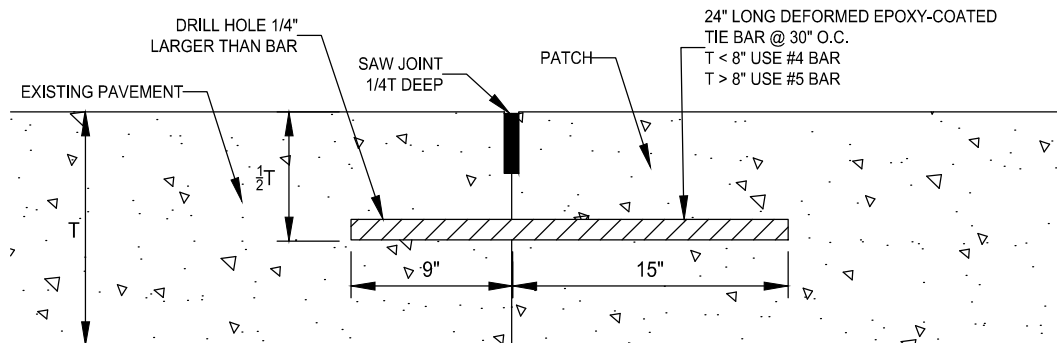
EXPANSION JOINT DETAIL



CONSTRUCTION JOINT DETAIL



CONTRACTION JOINT DETAIL



NOTE:

SEE SPECIFICATIONS FOR CUTTING, CLEANING AND FILLING OF JOINTS.

PATCH/CONNECTION TO EXISTING CONCRETE

*CITY OF
ELDRIDGE*

Detail Description:

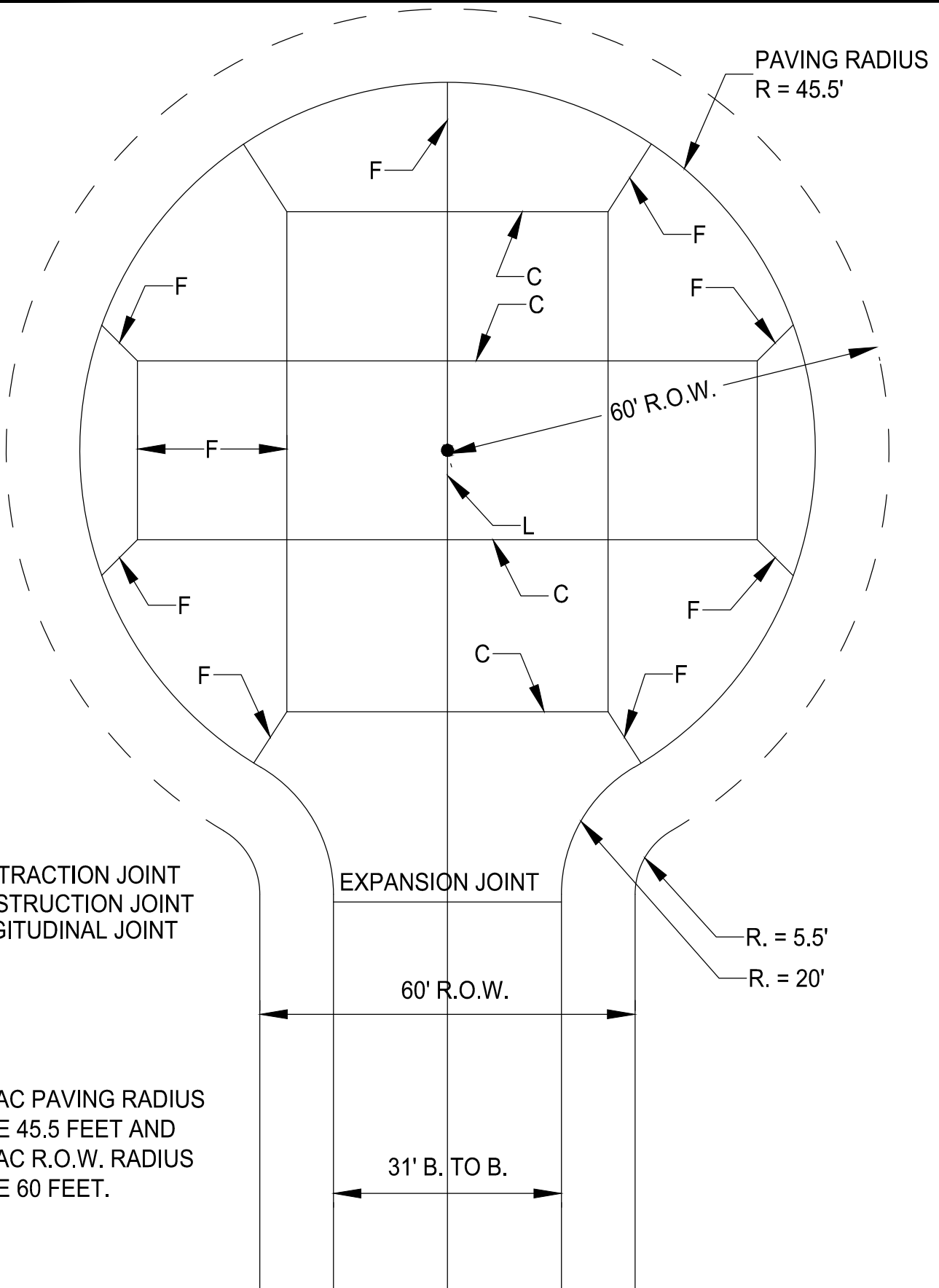
**TRANSVERSE JOINT DETAIL
FOR PAVING**

Date:

3/20/17

Detail Number:

SD-23



CITY OF
ELDRIDGE

Detail Description:

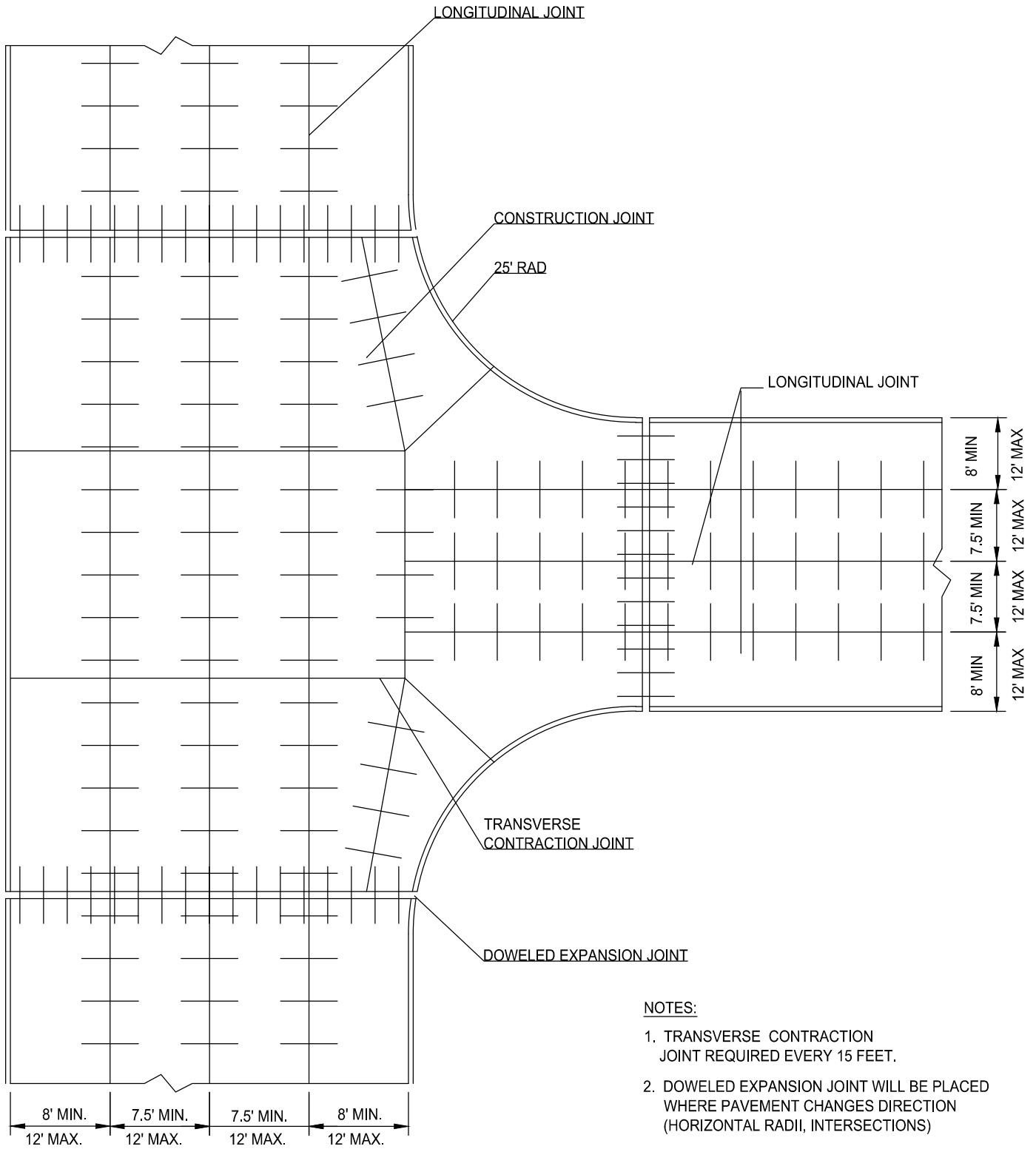
**JOINT DETAIL FOR
45.5 ' RADIUS CUL-DE-SAC**

Date:

3/20/17

Detail Number:

SD-24



CITY OF
ELDRIDGE

Detail Description:

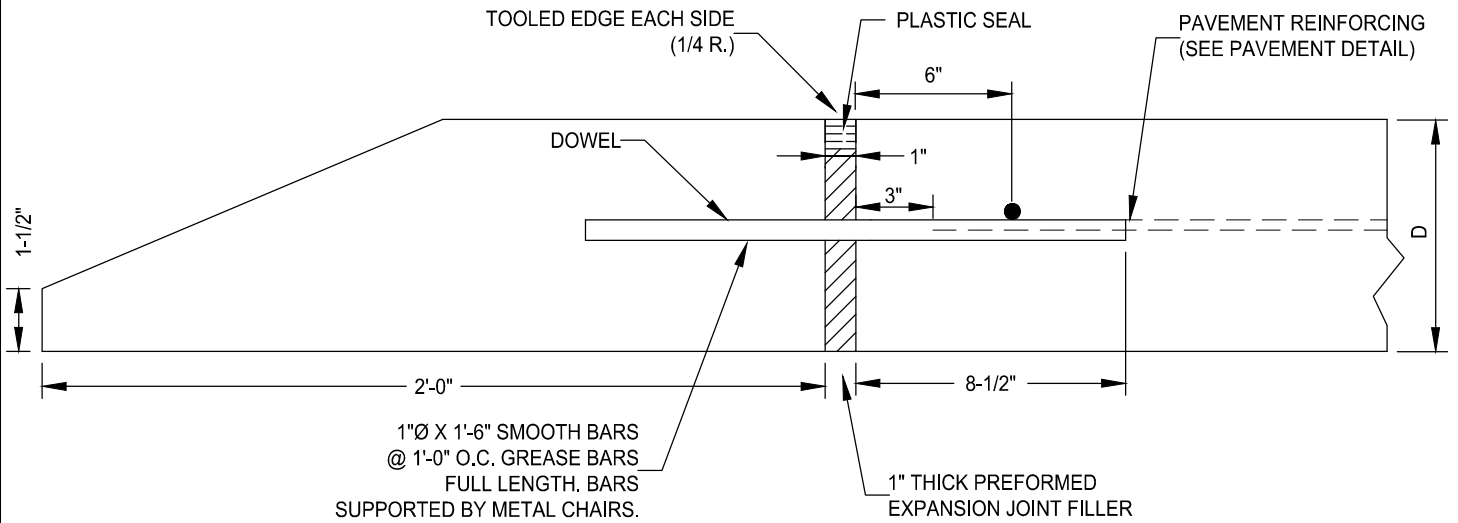
PAVEMENT JOINTS

Date:

3/20/17

Detail Number:

SD-25



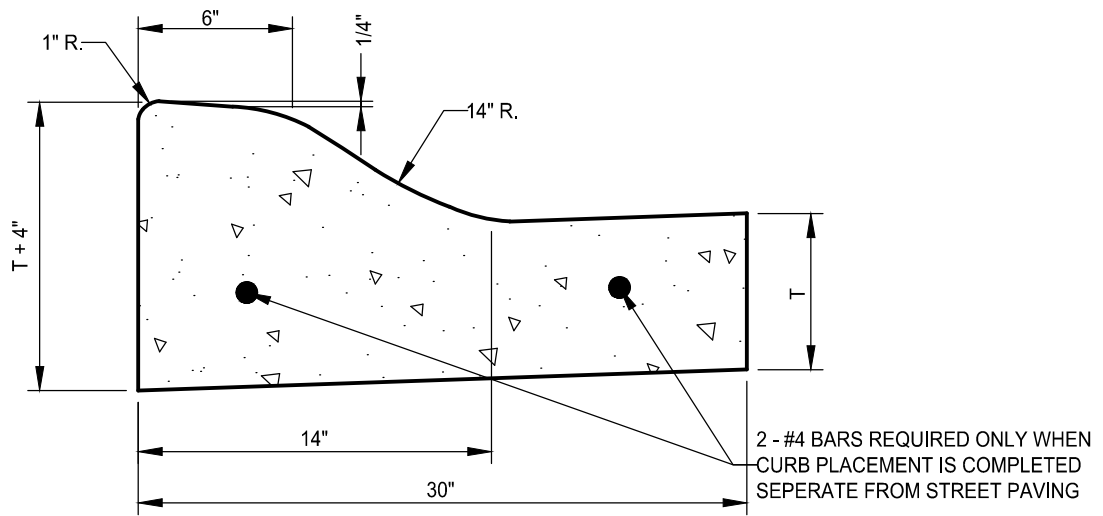
NOTE:
CONCRETE HEADERS SHALL BE REQUIRED AT THE END OF ALL CONCRETE STREETS.

*CITY OF
ELDRIDGE*

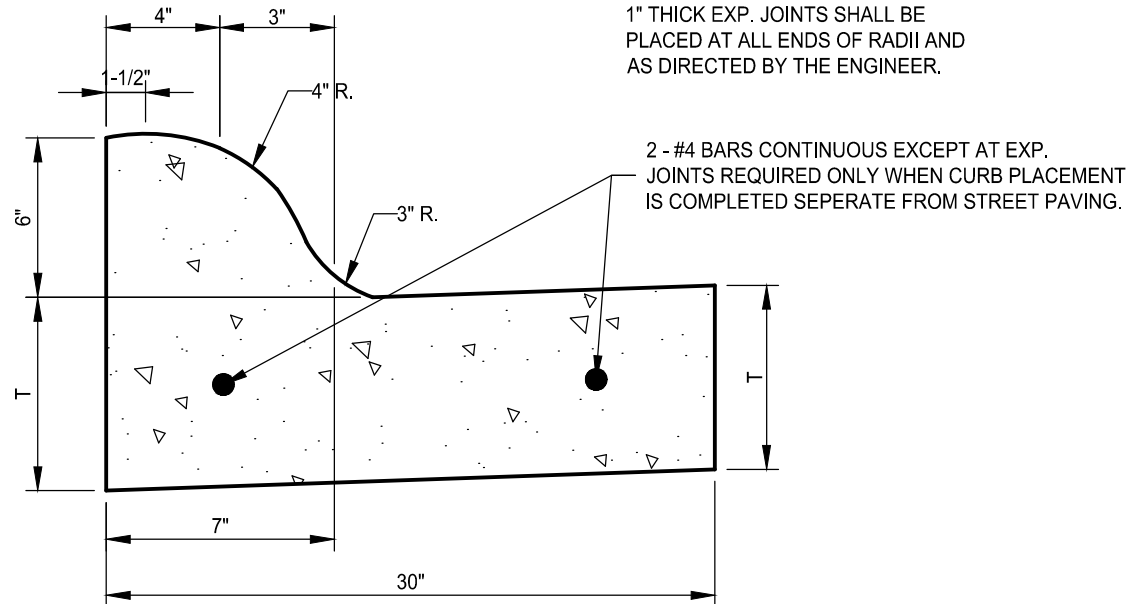
Detail Description:
CONCRETE HEADER

Date:
3/20/17

Detail Number:
SD-26



DETAIL OF 4" ROLLED CURB SECTION



DETAIL OF STANDARD CURB SECTION

*CITY OF
ELDRIDGE*

Detail Description:

CURB CROSS SECTION DETAIL

Date:

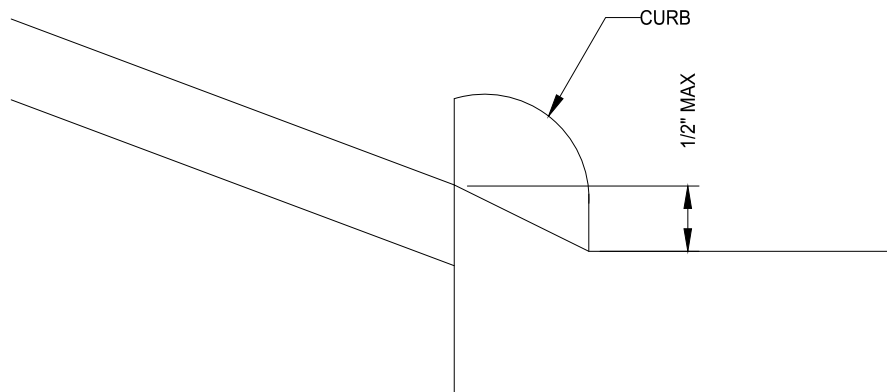
3/20/17

Detail Number:

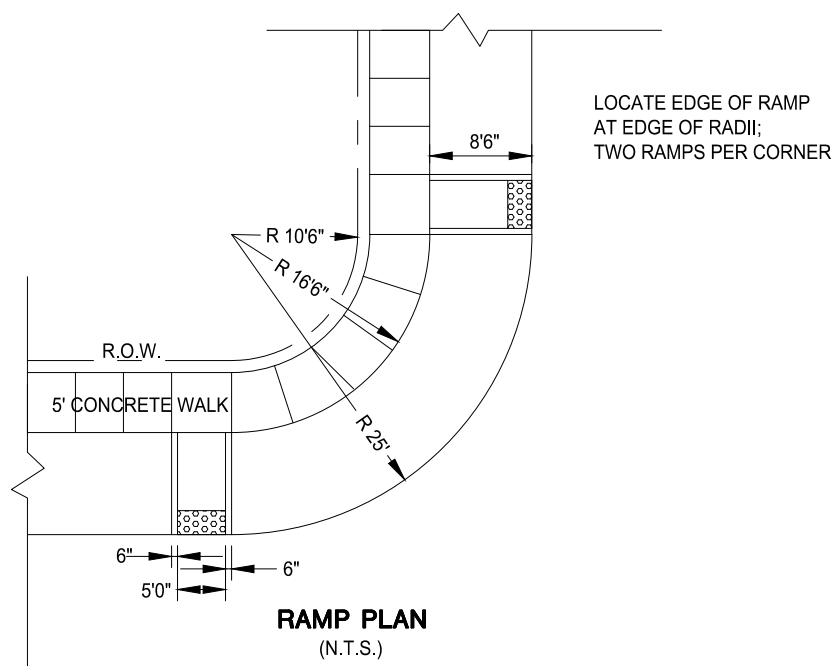
SD-27

Diagram illustrating the cross-section of a curb and gutter. The dimensions are: 6" (curb), 5' 0" (gutter), and 6" (gutter). A note indicates to "MAINTAIN EXISTING SLOPE OF HEIGHT".

(N.T.S.)



(N.T.S.)

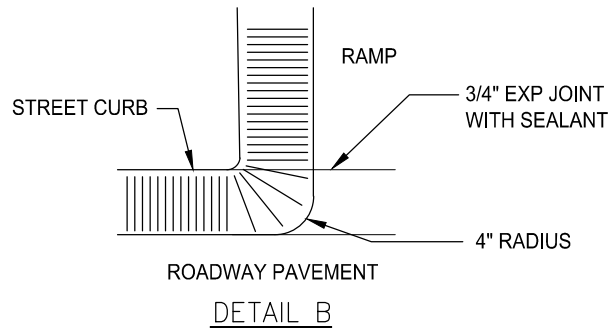
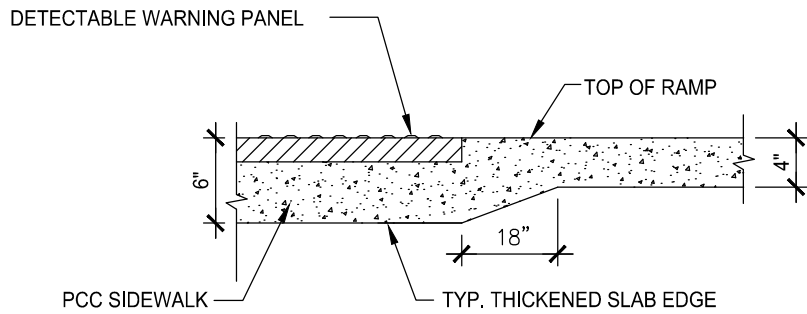
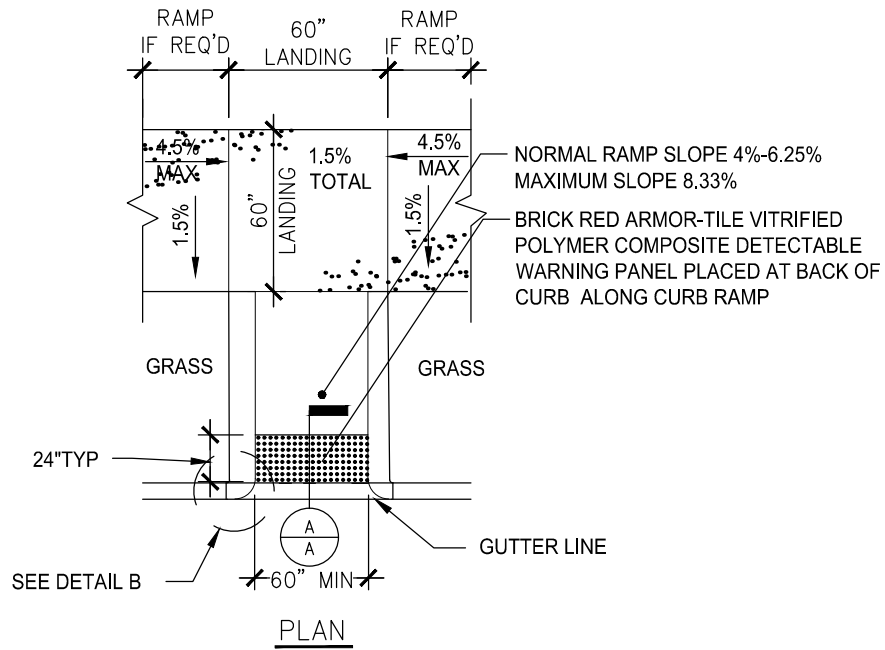


RAMP CONSTRUCTION SHALL MEET ADA & PROWAG REQUIREMENTS.

CITY OF
ELDRIDGE

STREET - SIDEWALK DETAIL

Detail Number:
SD-28



NOTE:
RAMP CONSTRUCTION SHALL MEET ADA & PROWAG REQUIREMENTS.

CITY OF
ELDRIDGE

Detail Description:

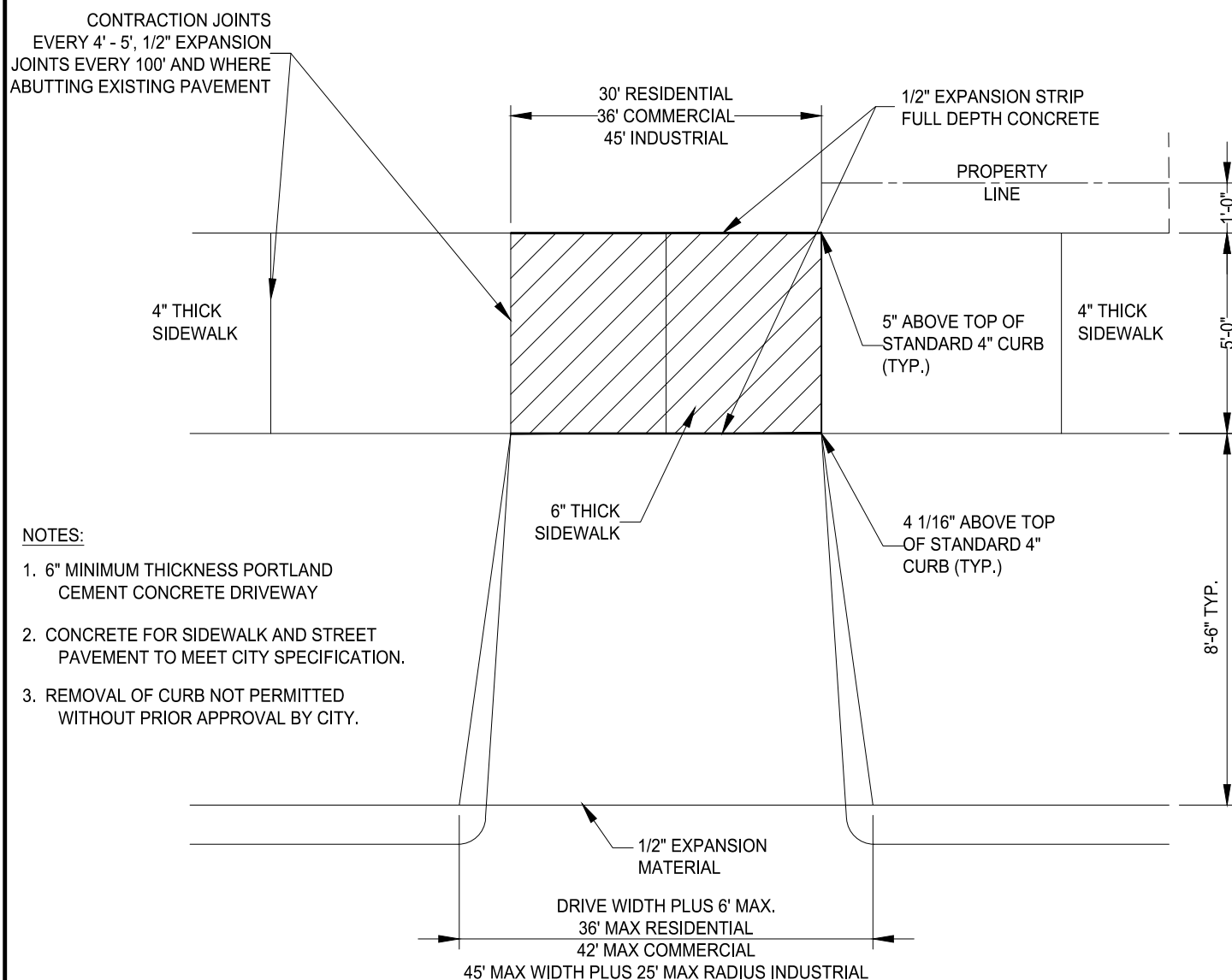
**PEDESTRIAN CURB RAMP WITH
DETECTABLE WARNING PAVERS**

Date:

3/20/17

Detail Number:

SD-29



CITY OF
ELDRIDGE

RESIDENTIAL AND COMMERCIAL (FLARED) DRIVEWAY

Detail Number:
SD-30

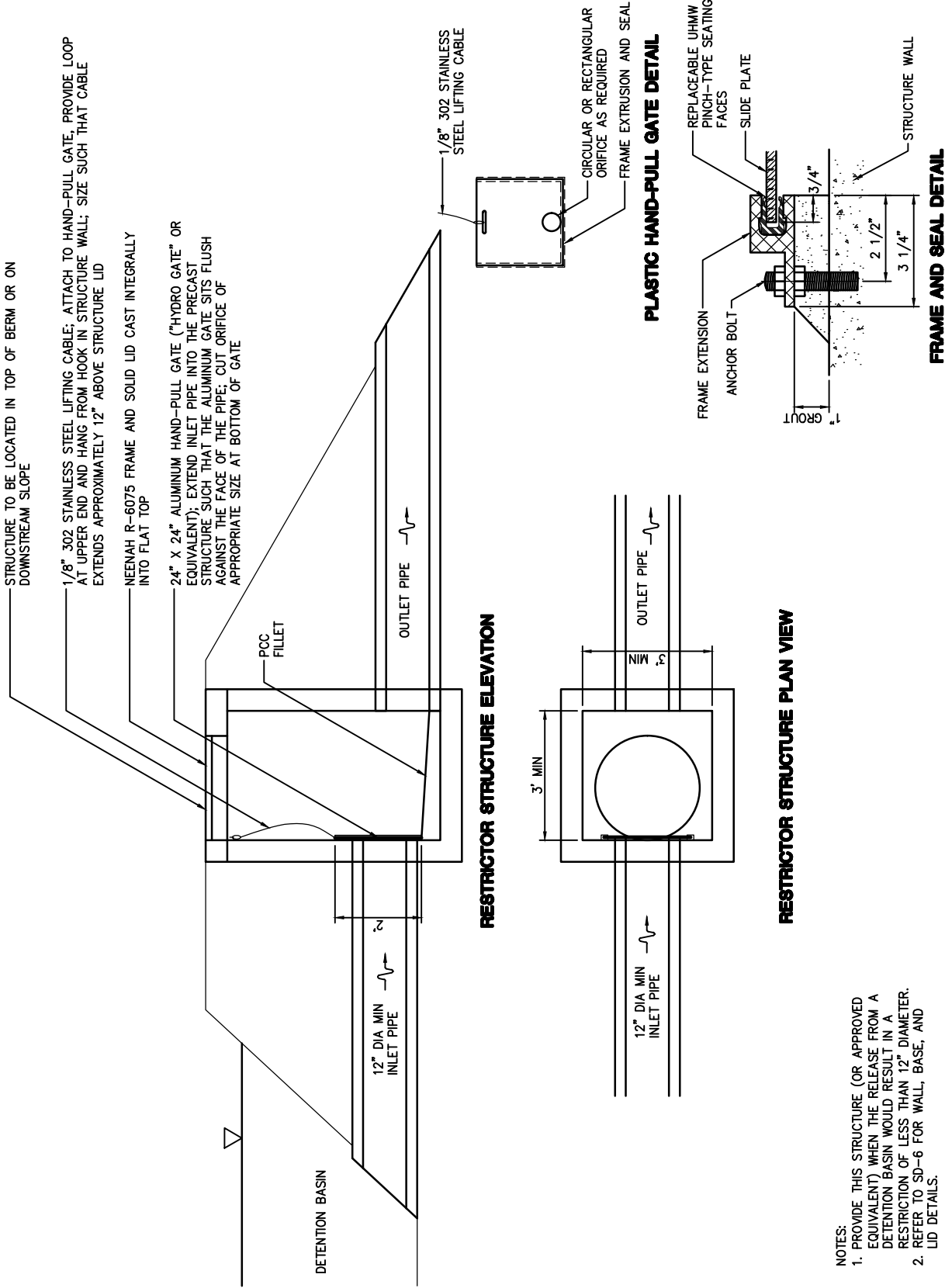
CITY OF
ELDRIDGE

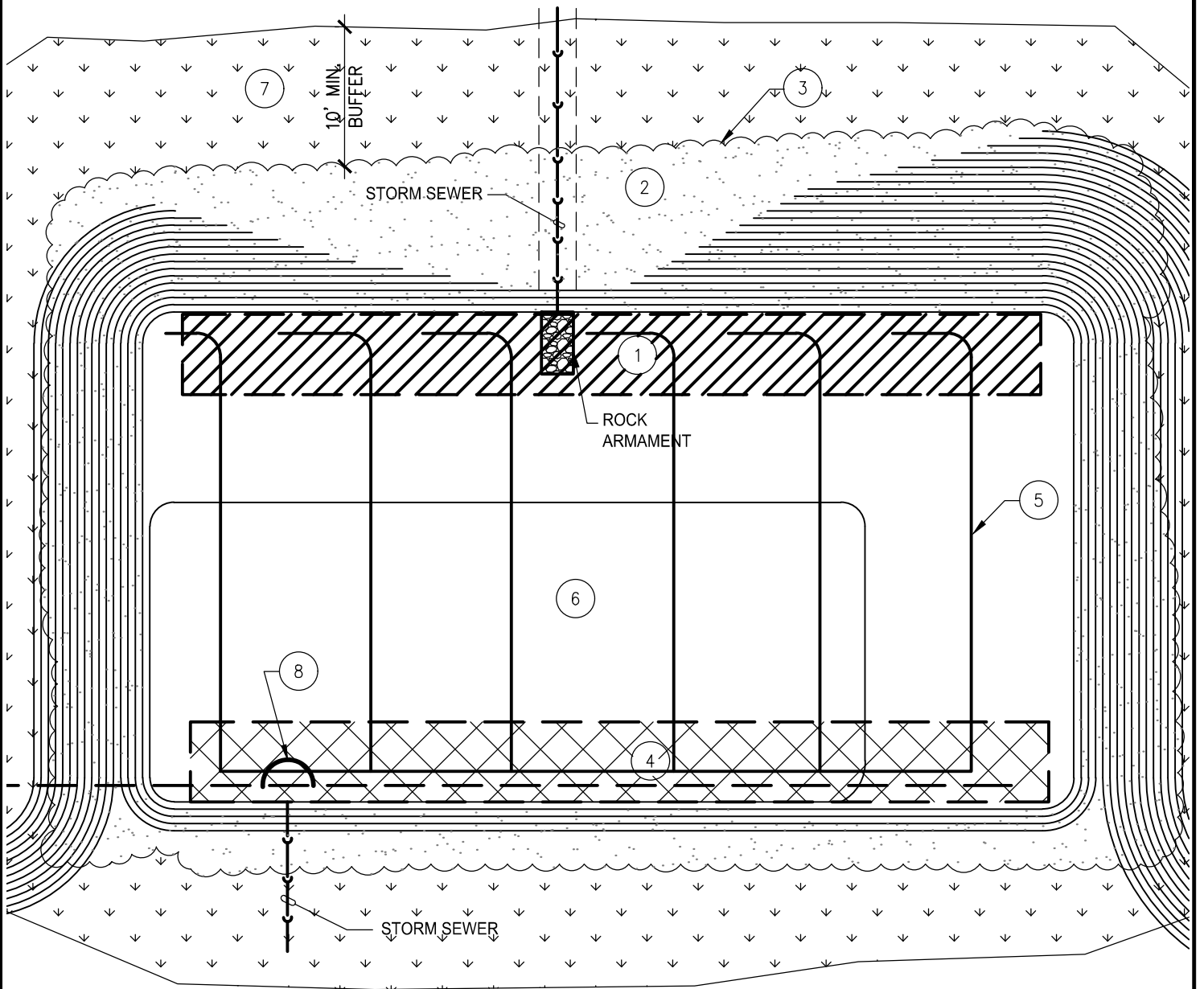
Detail Description:

STORM WATER DETENTION BASIN
OUTLET STRUCTURE PROTOTYPE

Date:
3/20/17

Detail Number:
SD-31





PLAN VIEW - Typical Basin

NOT TO SCALE

LEGEND:

- | | |
|--|--|
| <p>1 LEVEL SPREADER/ SILT TRAP WITH FABRIC AND ROCK BASE OR USE CONCRETE BASE OPTION.</p> <p>2 COMPOST BLANKET WITH NATIVE SEED MIX (3" MINIMUM THICKNESS OF COMPOST; SEED WITHIN TOP 1/4")</p> <p>3 PERIMETER CONTROL AT TOP OF SLOPE (COMPOST SOCK/ BERM).</p> <p>4 INFILTRATION CELL (POST DEVELOPMENT)</p> | <p>5 SUBSURFACE DRAIN SYSTEM - 4" PIPE SPACED AT 60' O.C. (OPTIONAL FOR DEVELOPMENT STAGE OR POST DEVELOPMENT STAGE)</p> <p>6 SOIL QUALITY RESTORATION - DEEP TILL (TILL AS DEEP AS POSSIBLE WHEN SOIL MOISTURE CONTENT IS ABOUT 40%) SEED WITH TURF. PREFERRED OPTION: POST DEVELOPMENT RESTORATION WITH NATIVE SEED.</p> <p>7 SOD FORMING TURF; TURF TO BE A MINIMUM OF 10' WIDE FOR FIRE BREAKS.</p> <p>8 EYE BROW BERM</p> |
|--|--|

NOTE: SEE SD-33 FOR LEVEL SPREADER & INFILTRATION CELL DETAILS

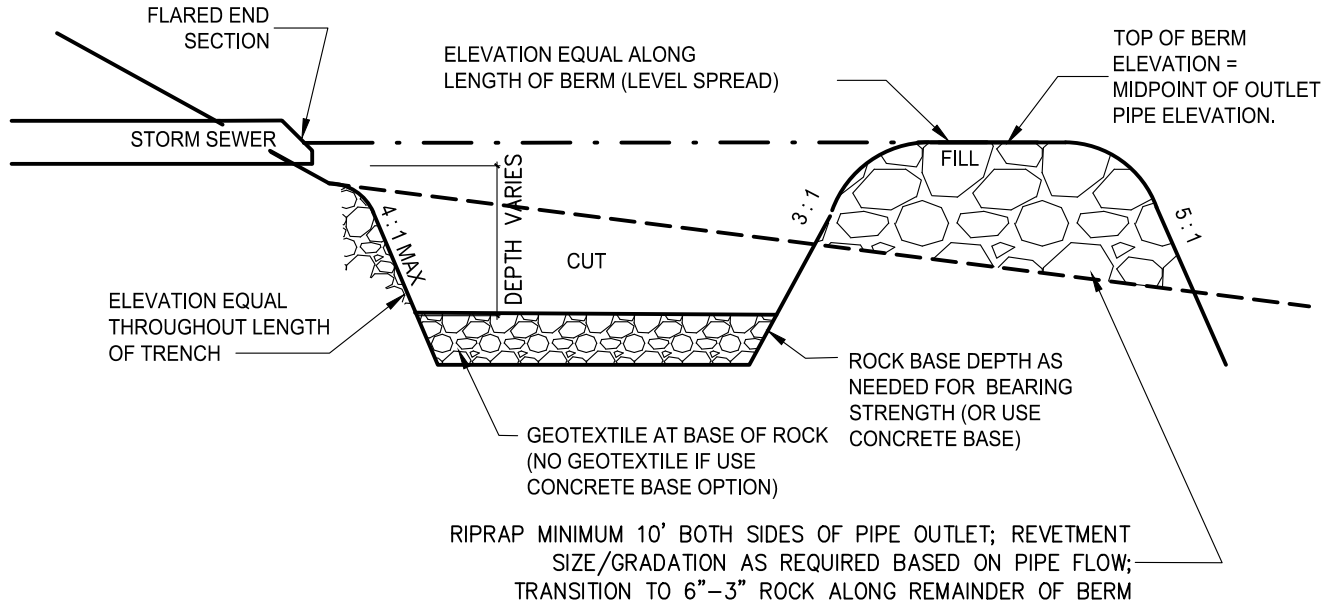
CITY OF
ELDRIDGE

Detail Description:

**STORM WATER DETENTION BASIN
PROTOTYPE**

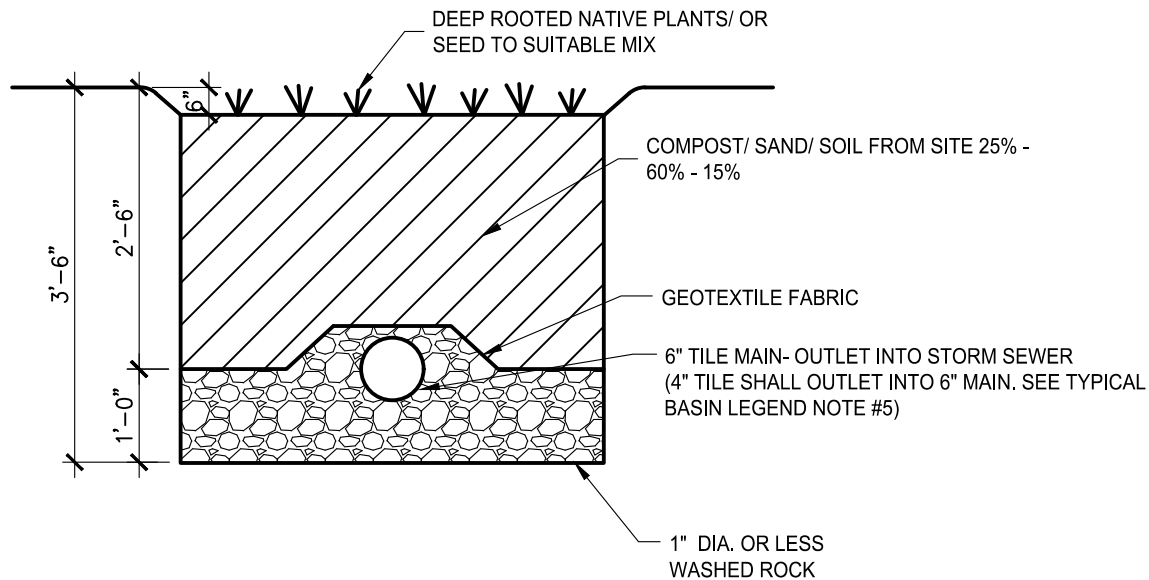
Date:
3/20/17

Detail Number:
SD-32



LEVEL SPREADER

NOT TO SCALE



NOTE:

MINIMUM INFILTRATION CELL AREA (SF)= IMPERVIOUS AREA (SF) * 0.08 OR AS DIRECTED BY THE CITY OF ELDRIDGE

INFILTRATION CELL

NOT TO SCALE

NOTE: SEE SD-32 FOR TYPICAL BASIN PLAN VIEW AND LEGEND NOTES.

CITY OF
ELDRIDGE

Detail Description:

**STORM WATER DETENTION BASIN
PROTOTYPE**

Date:

3/20/17

Detail Number:

SD-33