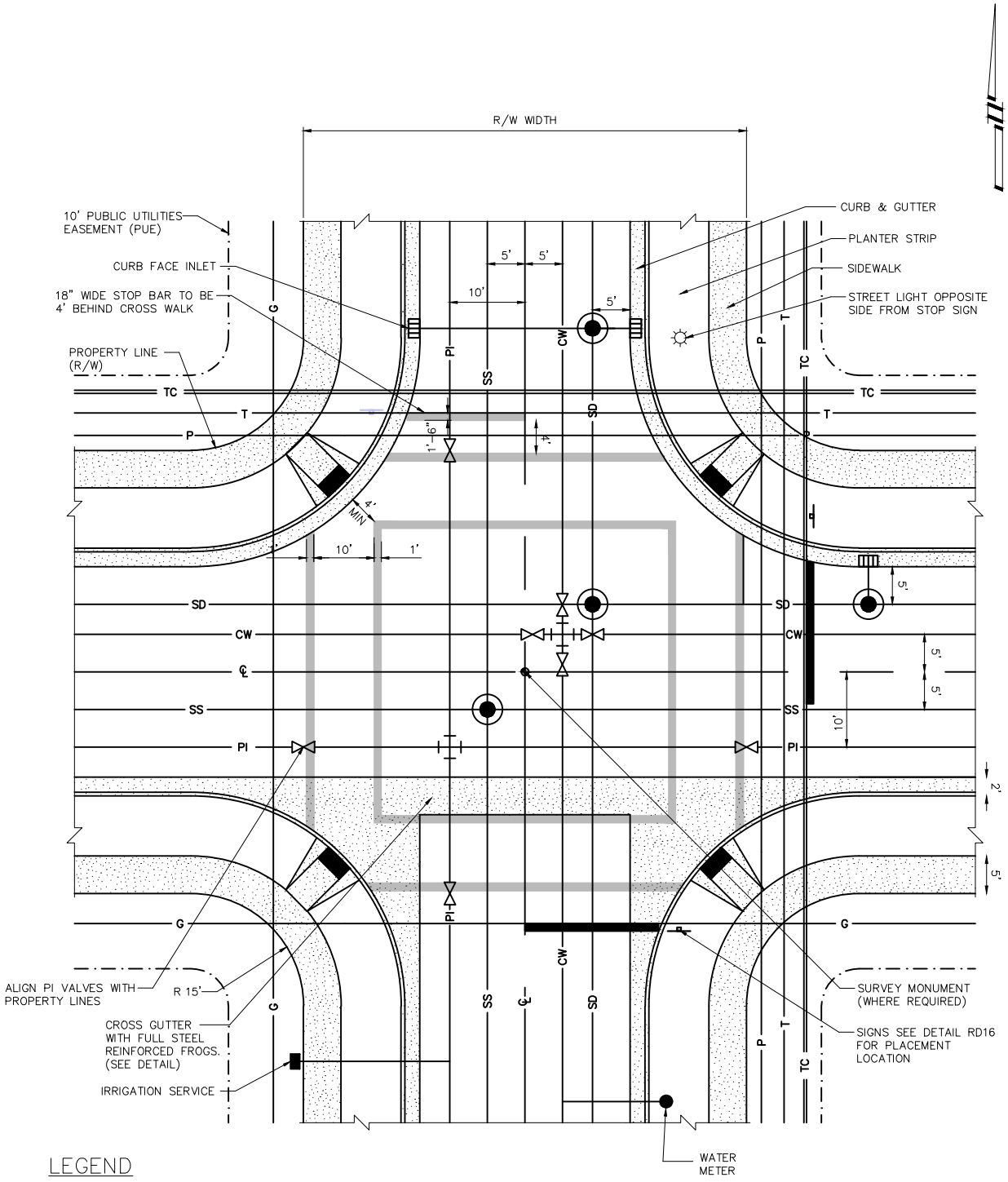

LEGEND

SS= SANITARY SEWER
SD= STORM DRAIN
CW= CULINARY WATER
PI= PRESSURE IRRIGATION
G= NATURAL GAS
P= POWER
T= TELEPHONE
TC= TELECOMMUNICATIONS

NOTE:
1. CROSS GUTTERS ARE NOT PERMITTED WHERE SURFACE WATER CAN BE PICKED UP IN A STORM DRAIN.
2. EXACT UTILITY PLACEMENT TO BE DETERMINED BY CITY AND UTILITY COMPANIES

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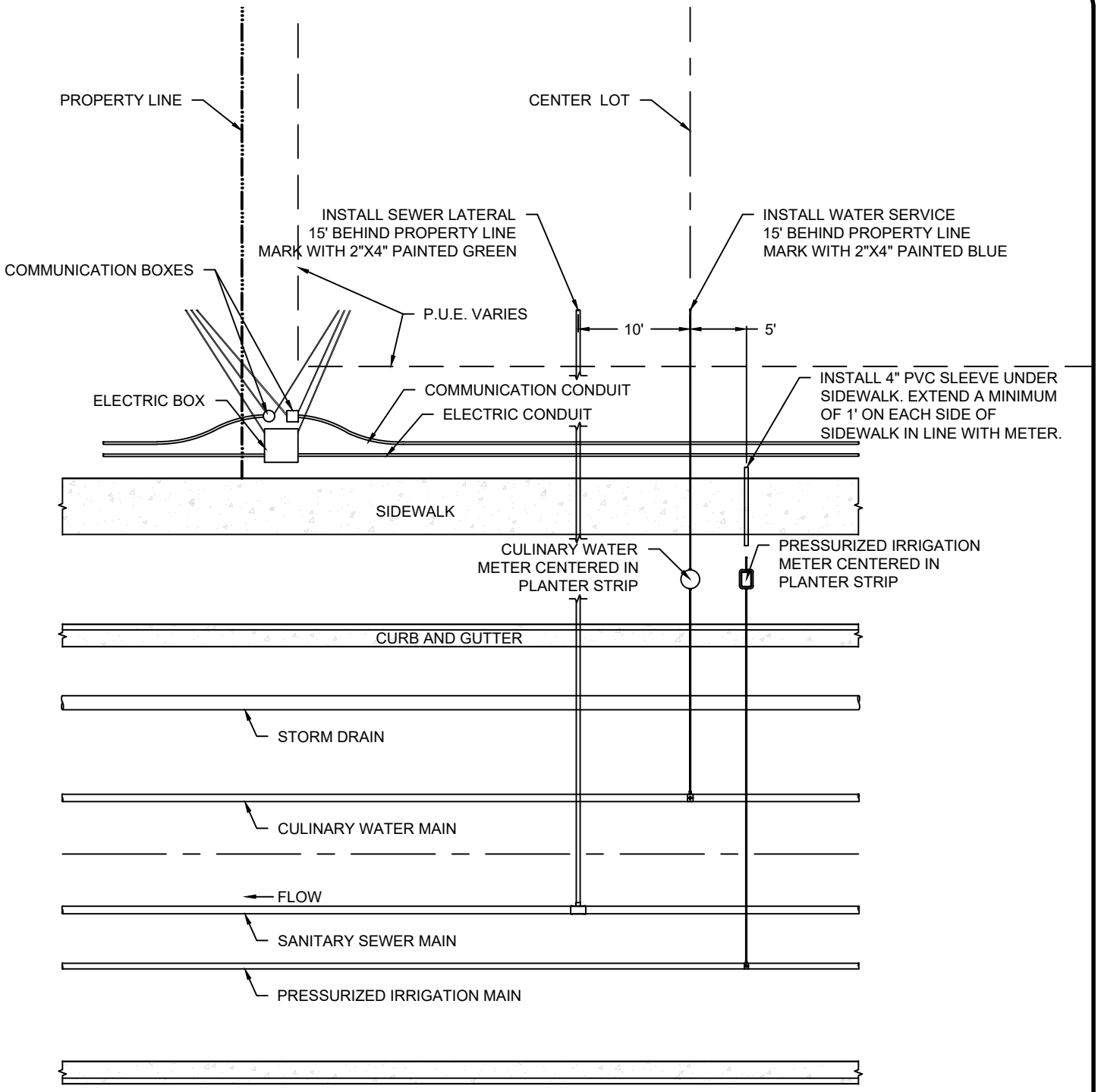
STANDARD STREET INTERSECTION AND UTILITY LOCATIONS

DRAWING # GN-01

ADOPTED DATE APRIL 2018



NOTES:

1. SEWER LATERAL TO BE INSTALLED 10' OFF CENTER OF LOT TOWARDS DIRECTION OF FLOW SEWER MAIN
2. PRESSURIZED IRRIGATION METER TO BE INSTALLED 5' OFF CENTER OF LOT OPPOSITE SEWER

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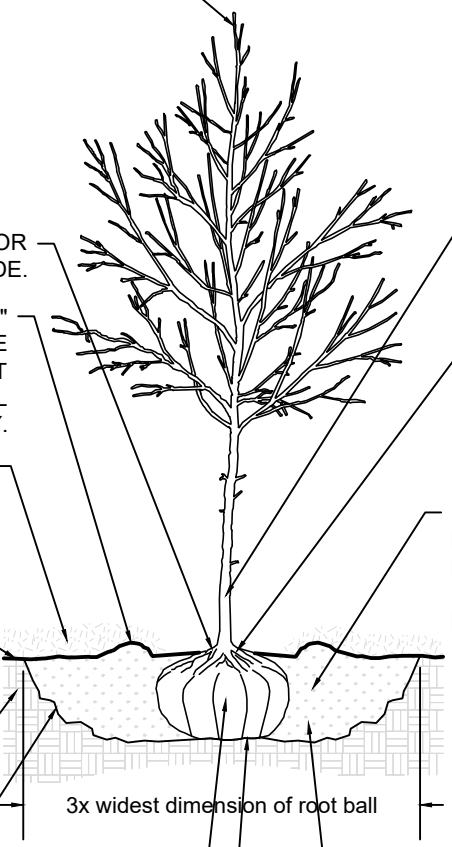
UTILITY LOCATION
BUILDING LOT

DRAWING #
GN-02
ADOPTED DATE
APRIL 2018



NOTES:

1. PROPERLY-PLANTED TREES GENERALLY DO NOT REQUIRE STAKING. IF STAKING IS NECESSARY, STAKES SHOULD BE DRIVEN INTO GROUND OUTSIDE OF THE ROOT BALL. GUYING MATERIAL MUST BE WIDE AND FLEXIBLE; HOSE AND WIRE SHOULD NOT BE USED. TREES SHALL BE STAKED SO THAT THE TRUNK MAY MOVE NATURALLY IN THE WIND. ALL STAKING MATERIALS SHALL BE REMOVED WITHIN ONE YEAR'S TIME.
2. TREE PLANTING SEASON IS FROM LABOR DAY TO MEMORIAL DAY. NO TREES MAY BE PLANTED IN PUBLIC RIGHTS-OF-WAY OUTSIDE OF THIS TIME PERIOD. TREES PLANTED WHILE THE TREE IS NOT DORMANT WILL REQUIRE A TWO-YEAR REPLACEMENT GUARANTEE.

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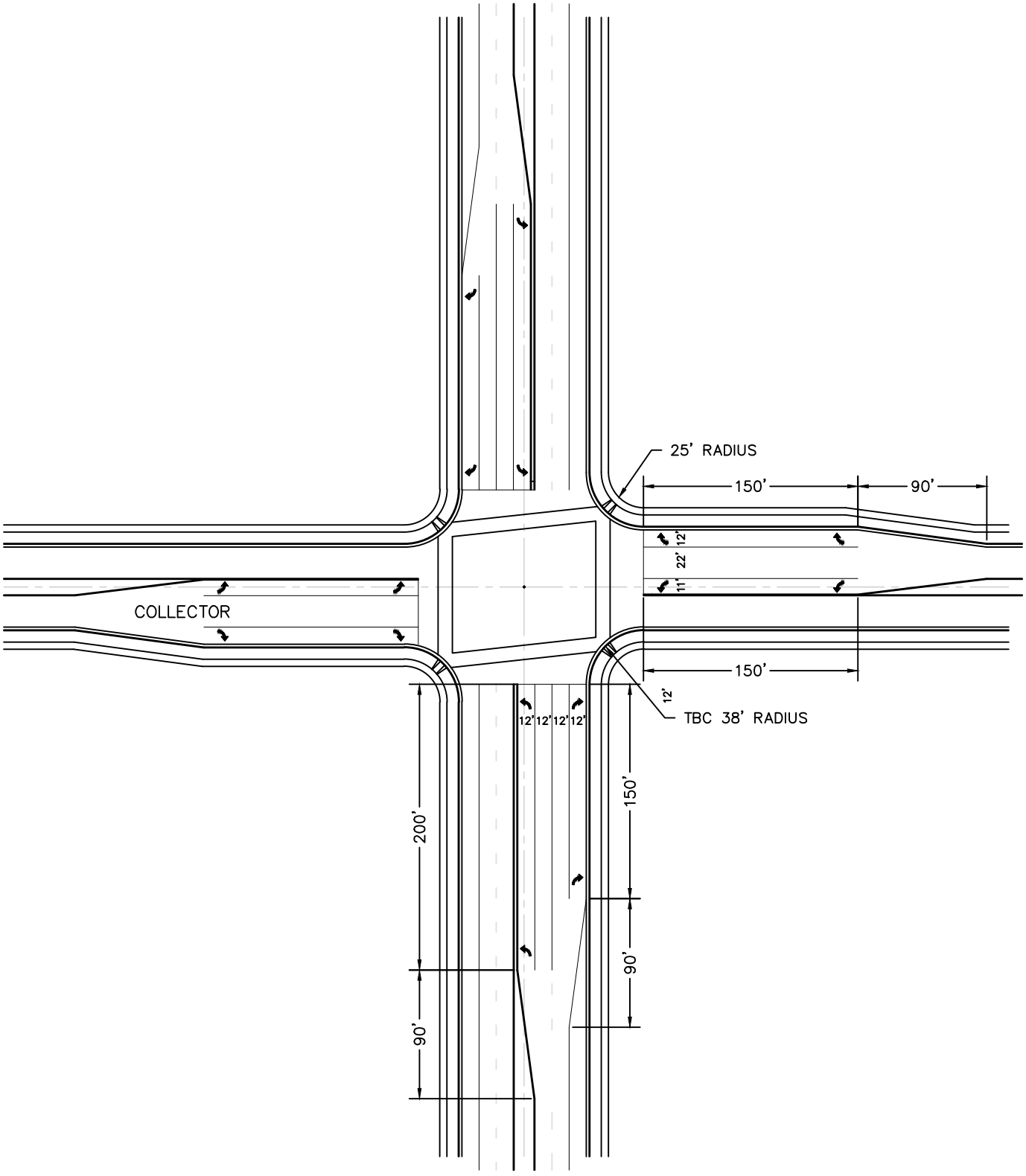
TREE PLANTING DETAIL

DRAWING #
GN-03
ADOPTED DATE
APRIL 2018



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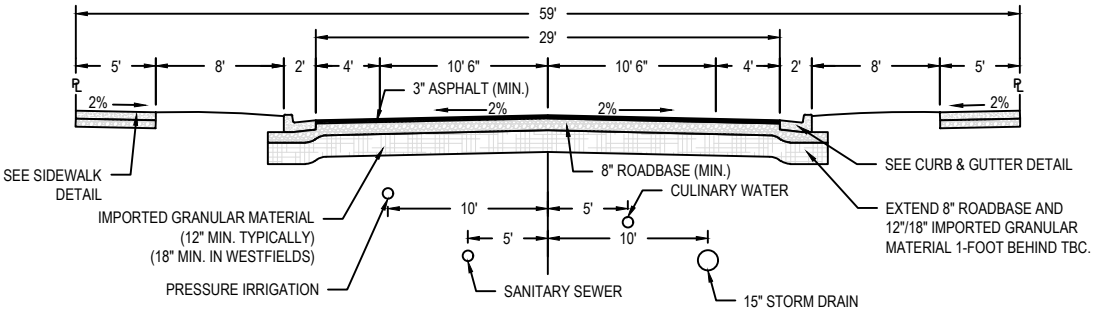
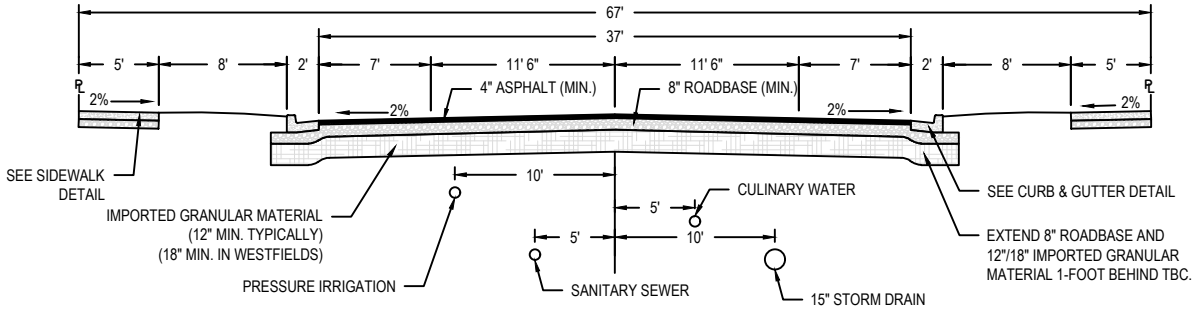
COLLECTOR-ARTERIAL INTERSECTION

DRAWING #
RD-01
ADOPTED DATE
APRIL 2018



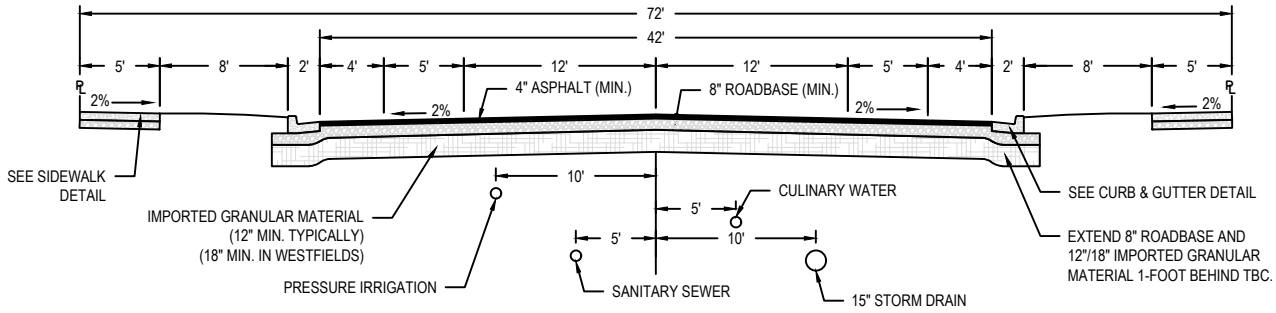
59' STREET CROSS-SECTION (RESIDENTIAL LOCAL)

LOOKING NORTH OR WEST



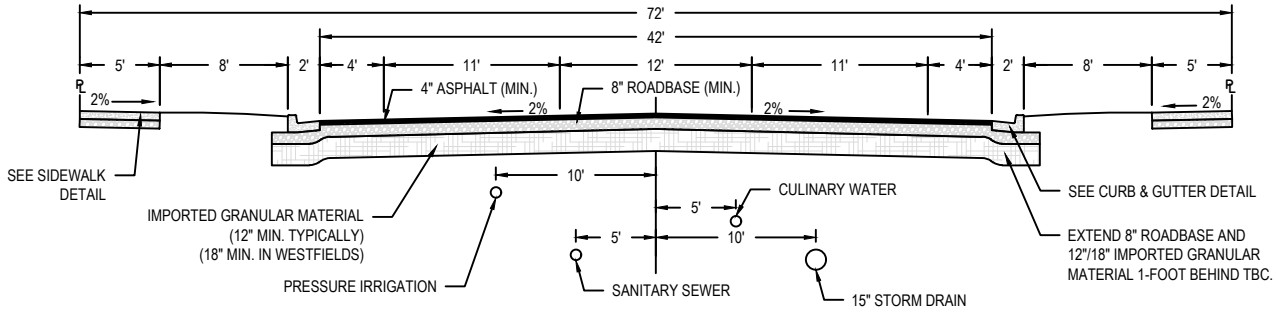
67' STREET CROSS-SECTION (COMMERCIAL LOCAL)

LOOKING NORTH OR WEST



72' STREET CROSS-SECTION (MINOR COLLECTOR)

TWO LANE LOOKING NORTH OR WEST



72' STREET CROSS-SECTION (MINOR COLLECTOR)

THREE LANE LOOKING NORTH OR WEST

NOTES:

1. IMPORTED GRANULAR MATERIAL, ROADBASE AND WHERE NECESSARY ASPHALT THICKNESS WILL MEET THE CITY MIN. AS SHOWN ABOVE OR THE RECOMMENDED THICKNESS FROM THE GEOTECHNICAL REPORT, WHICHEVER IS GREATER.
2. TELECOMMUNICATIONS CONDUIT SHALL BE LAID WHERE TELEPHONE CONDUIT IS LAID.
3. 30" OF COVER IS REQUIRED FOR ALL UTILITIES UNDER THE ASPHALT SECTION OF A PUBLIC ROADWAY. THE REQUIRED COVER OVER UTILITY LINES ARE AS FOLLOWS:
   CULINARY WATER = 48" MINIMUM
   PRESSURE IRRIGATION = 30" MINIMUM
   SANITARY SEWER = PER DESIGN
   STORM DRAIN = 30" MINIMUM
   TELECOMMUNICATIONS = 30" MINIMUM
   ALL OTHERS = PER UTILITY REQUIREMENTS

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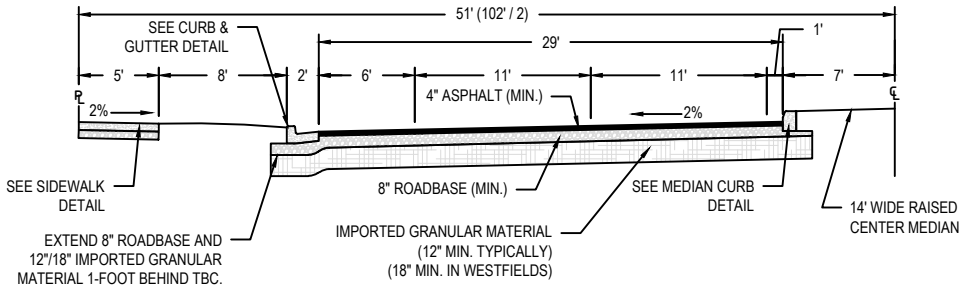
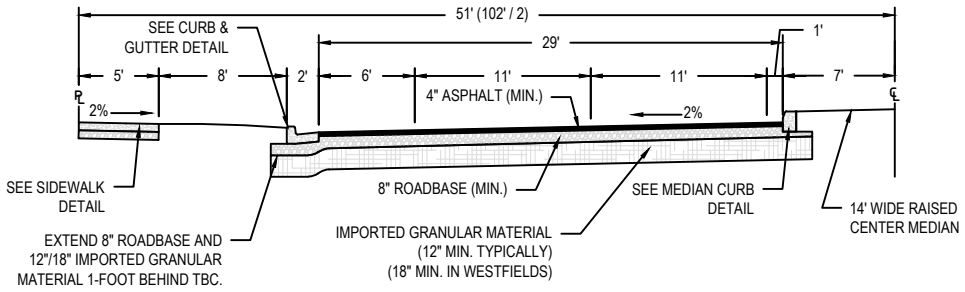
MAJOR STREET CROSS SECTION AND UTILITY LOCATION

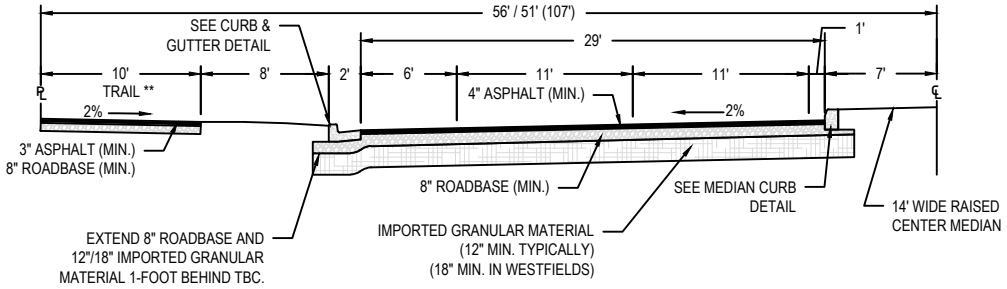
DRAWING #
RD-02
ADOPTED DATE
APRIL 2018



102' STREET CROSS-SECTION (MAJOR ARTERIAL)

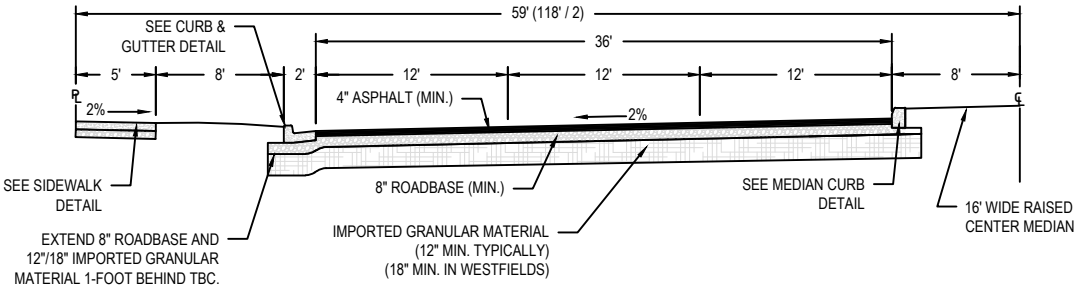


102' STREET CROSS-SECTION (MAJOR ARTERIAL WITH TRAIL)



107' STREET CROSS-SECTION (MAJOR ARTERIAL WITH TRAIL)

** TRAIL LOCATION MAY VARY EITHER SIDE OF CROSS SECTION (5' SIDEWALK ON OPPOSITE SIDE)



118' STREET CROSS-SECTION (PRINCIPAL ARTERIAL)

NOTES:
1. IMPORTED GRANULAR MATERIAL, ROADBASE AND WHERE NECESSARY ASPHALT THICKNESS WILL MEET THE CITY MIN. AS SHOWN ABOVE OR THE RECOMMENDED THICKNESS FROM THE GEOTECHNICAL REPORT, WHICHEVER IS GREATER.
2. TELECOMMUNICATIONS CONDUIT SHALL BE LAID WHERE TELEPHONE CONDUIT IS LAID.
3. ALL UTILITY LOCATIONS TO BE APPROVED BY CITY ENGINEER.
4. 30" OF COVER IS REQUIRED FOR ALL UTILITIES UNDER THE ASPHALT SECTION OF A PUBLIC ROADWAY. THE REQUIRED COVER OVER UTILITY LINES ARE AS FOLLOWS:
   CULINARY WATER = 48" MINIMUM
   PRESSURE IRRIGATION = 30" MINIMUM
   SANITARY SEWER = PER DESIGN
   STORM DRAIN = 30" MINIMUM
   TELECOMMUNICATIONS = 30" MINIMUM
   ALL OTHERS = PER UTILITY REQUIREMENTS

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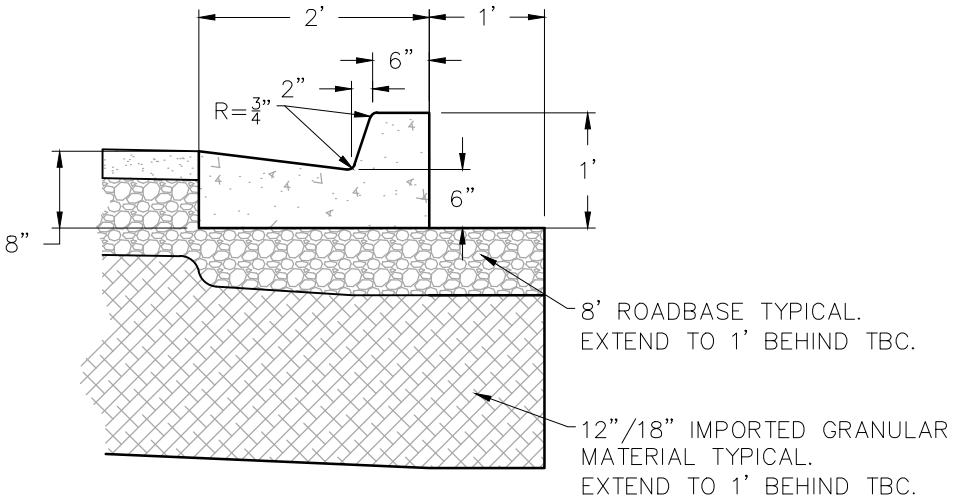
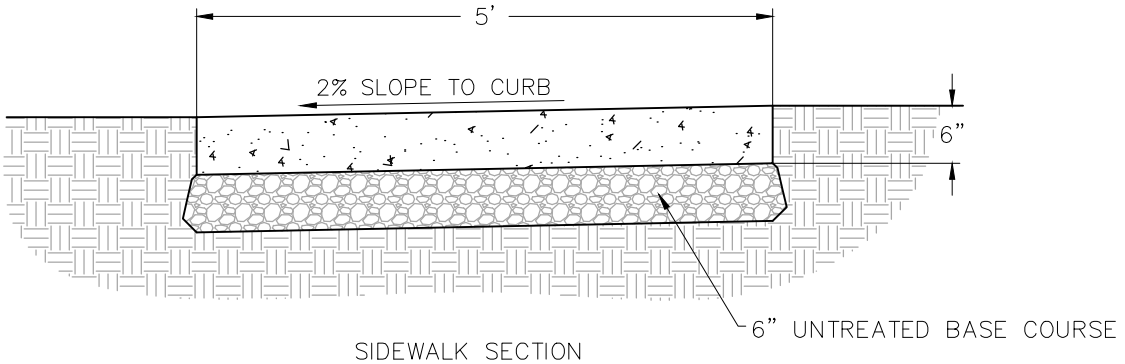
MAJOR STREET CROSS SECTION AND UTILITY LOCATION

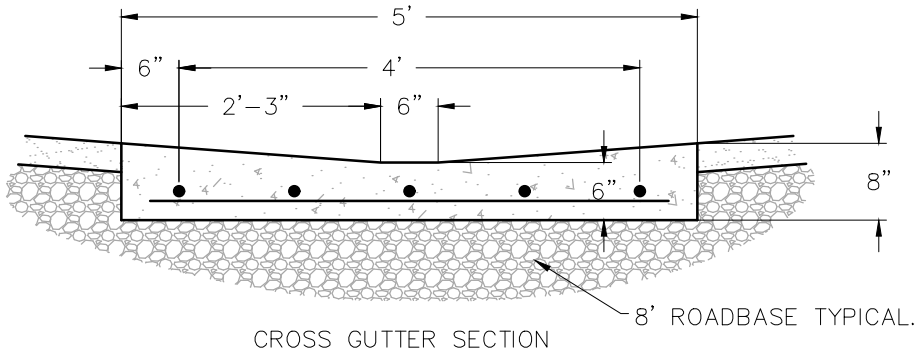
DRAWING # RD-03
ADOPTED DATE APRIL 2018



TYPICAL CURB & GUTTER SECTION (TYPE E)



SIDEWALK SECTION



CROSS GUTTER SECTION

NOTE:

1. CONTRACTION JOINTS EVERY 10' MAXIMUM AND EXPANSION JOINTS EVERY 50' MAXIMUM
2. SAME REINFORCING REQUIRED IN FROGS SHOW ON STANDARD STREET INTERSECTION AND UTILITY LOCATION DRAWING

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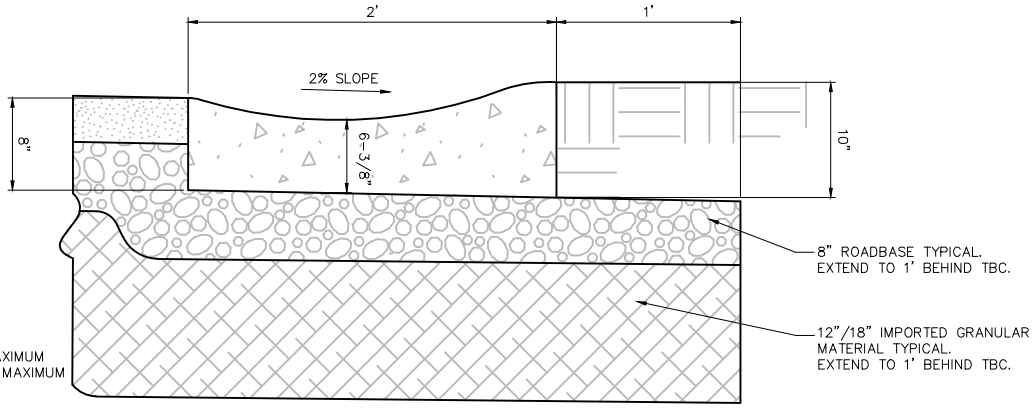
CURB, GUTTER &SIDEWALK DETAILS

DRAWING # RD-04

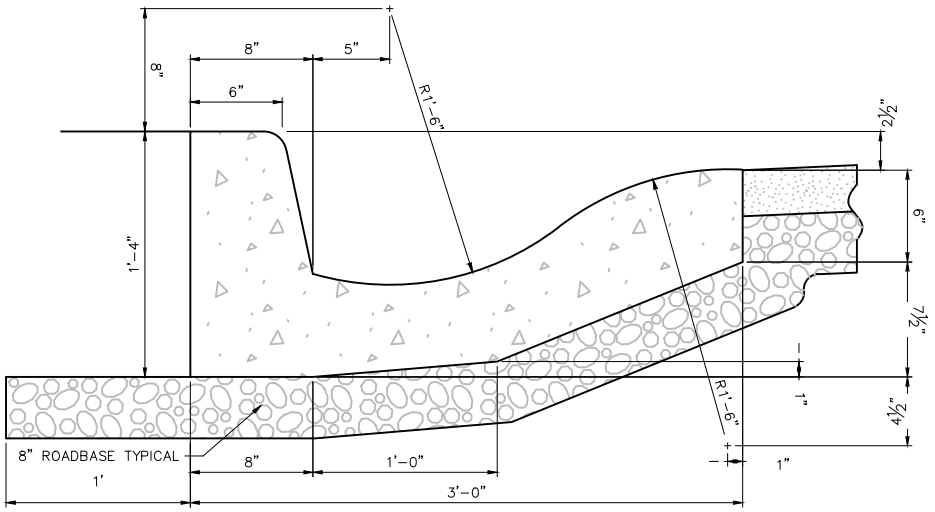
ADOPTED DATE APRIL 2018

DETAILS ON THIS SHEET TO BE USED ONLY BY PERMISSION OF CITY ENGINEER

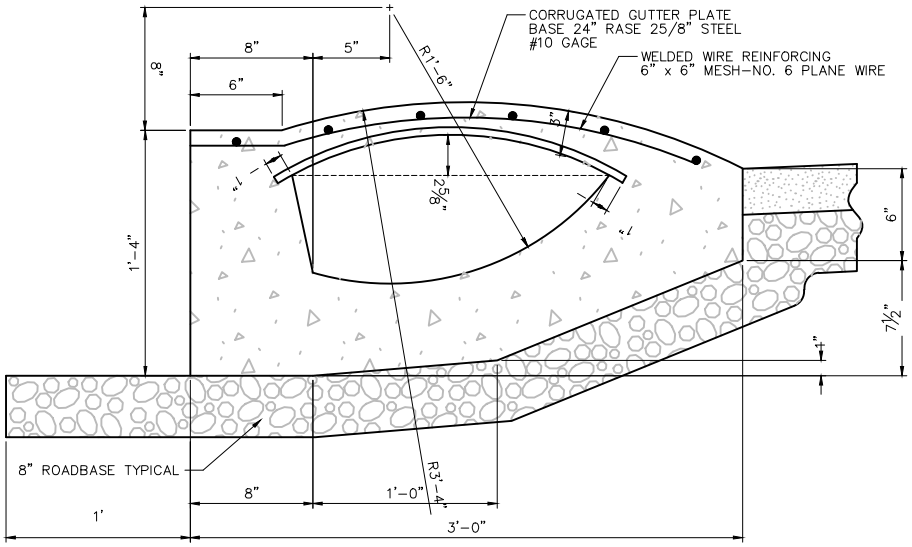


NOTE:
CONTRACTION JOINTS EVERY 10' MAXIMUM
AND EXPANSION JOINTS EVERY 50' MAXIMUM

APWA TYPE "G" CURB & GUTTER



CURB & GUTTER (TYPE B)
FOR MATCHING EXISITNG CONDITIONS



CURB & GUTTER (TYPE B AT DRIVEWAY CROSSING)
FOR MATCHING EXISITNG CONDITIONS

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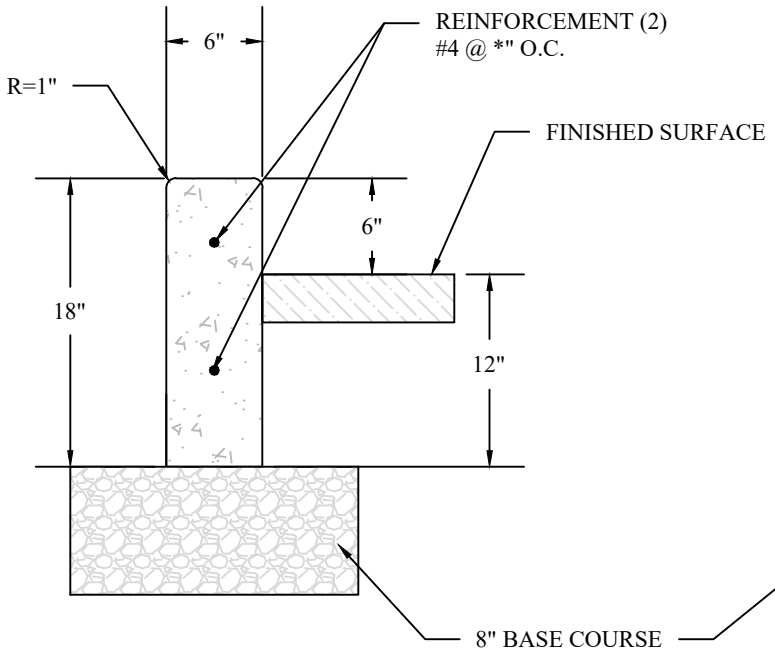
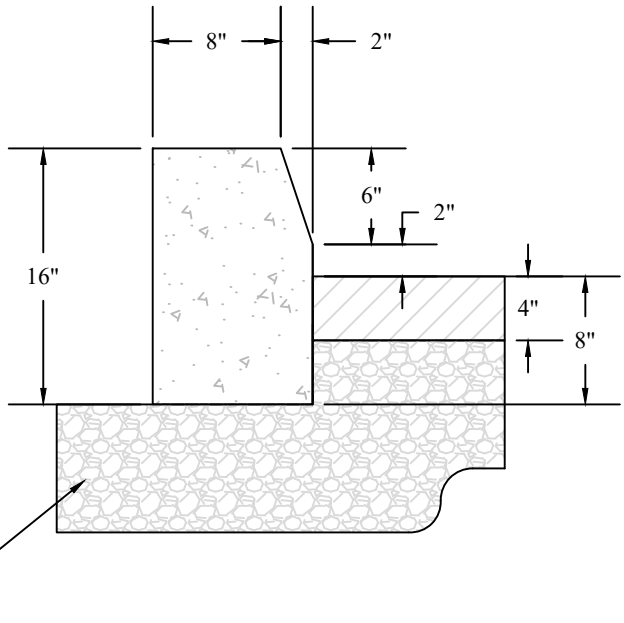
CURB & GUTTER
CONCRETE CURB

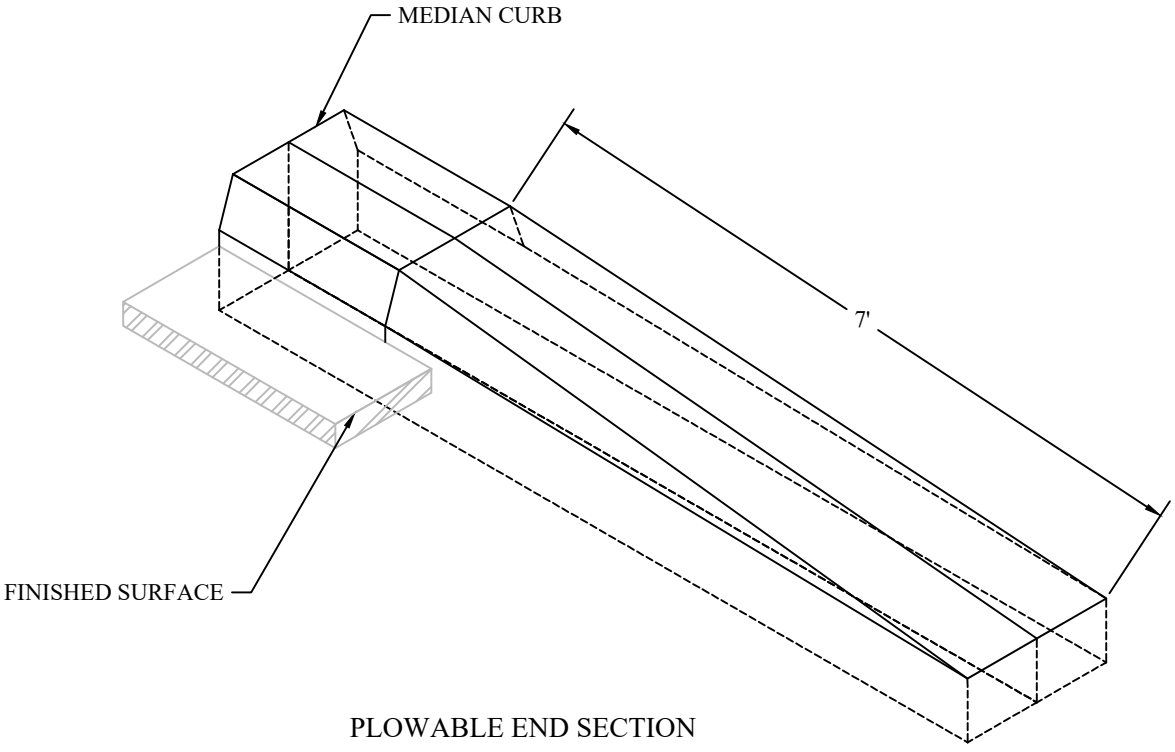
DRAWING #
RD-05
ADOPTED DATE
APRIL 2018



APWA TYPE "P" CURB WALL



APWA TYPE "Q" MEDIAN CURB



PLOWABLE END SECTION

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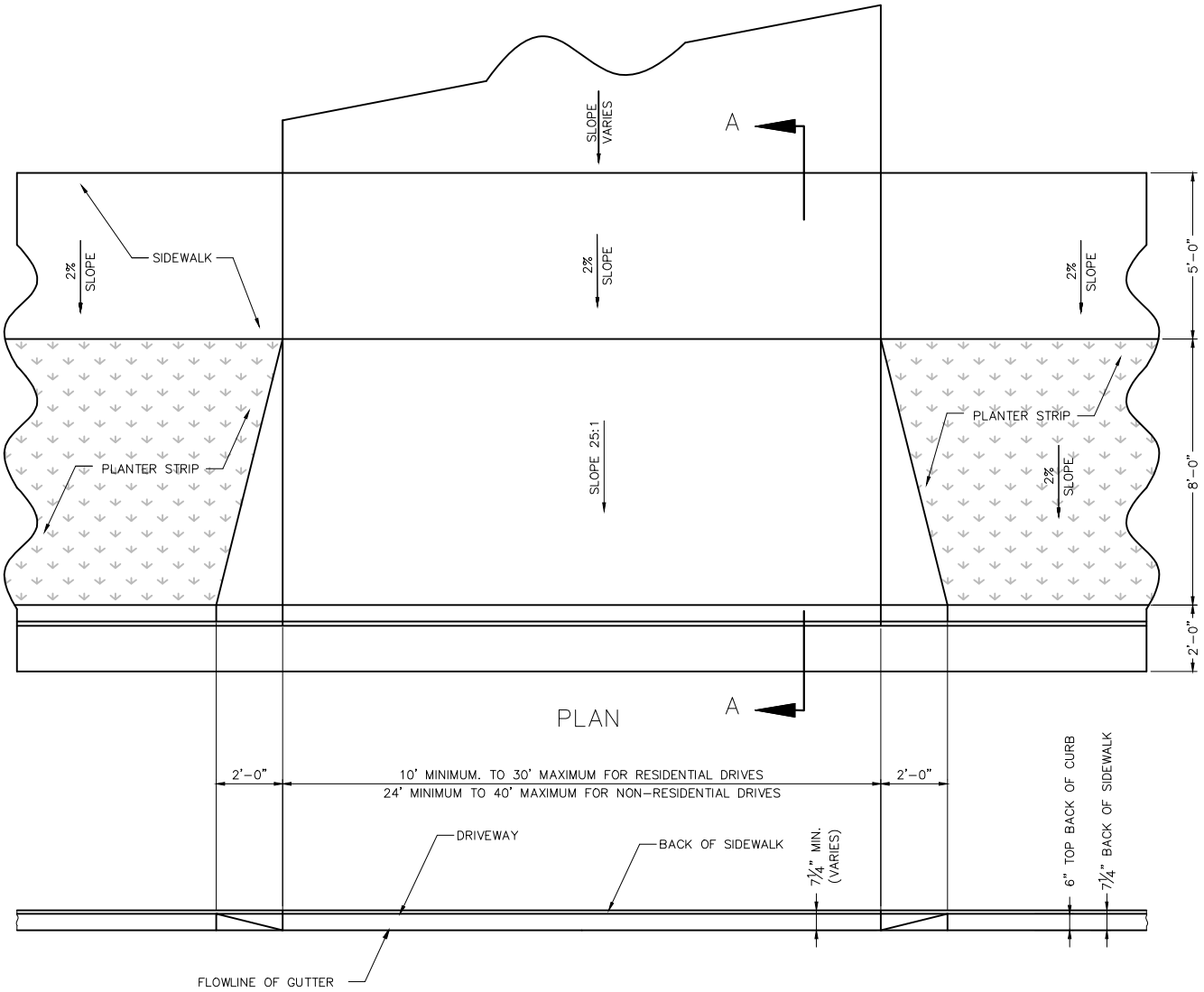
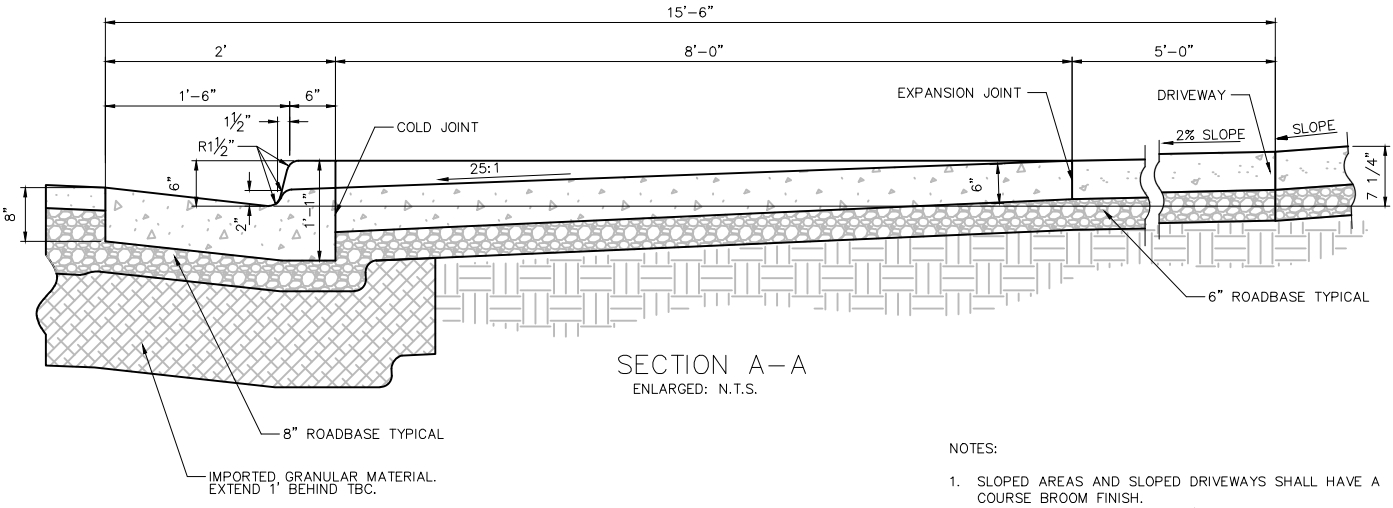
CURB WALL & MEDIAN CURB
PLOWABLE END SECTION

DRAWING #
RD-06
ADOPTED DATE
APRIL 2018



PLAN

ELEVATION



SECTION A-A
ENLARGED: N.T.S.

NOTES:

1. SLOPED AREAS AND SLOPED DRIVEWAYS SHALL HAVE A COURSE BROOM FINISH.
2. THE DRIVEWAY, AT A POINT 4' BEHIND THE SIDEWALK SHALL BE AT LEAST 7 ¼" HIGHER THAN THE FLOWLINE OF THE GUTTER.
3. DRIVEWAY WILL NOT BE INSTALLED MONOLITHIC WITH SIDEWALK OR CURB AND GUTTER

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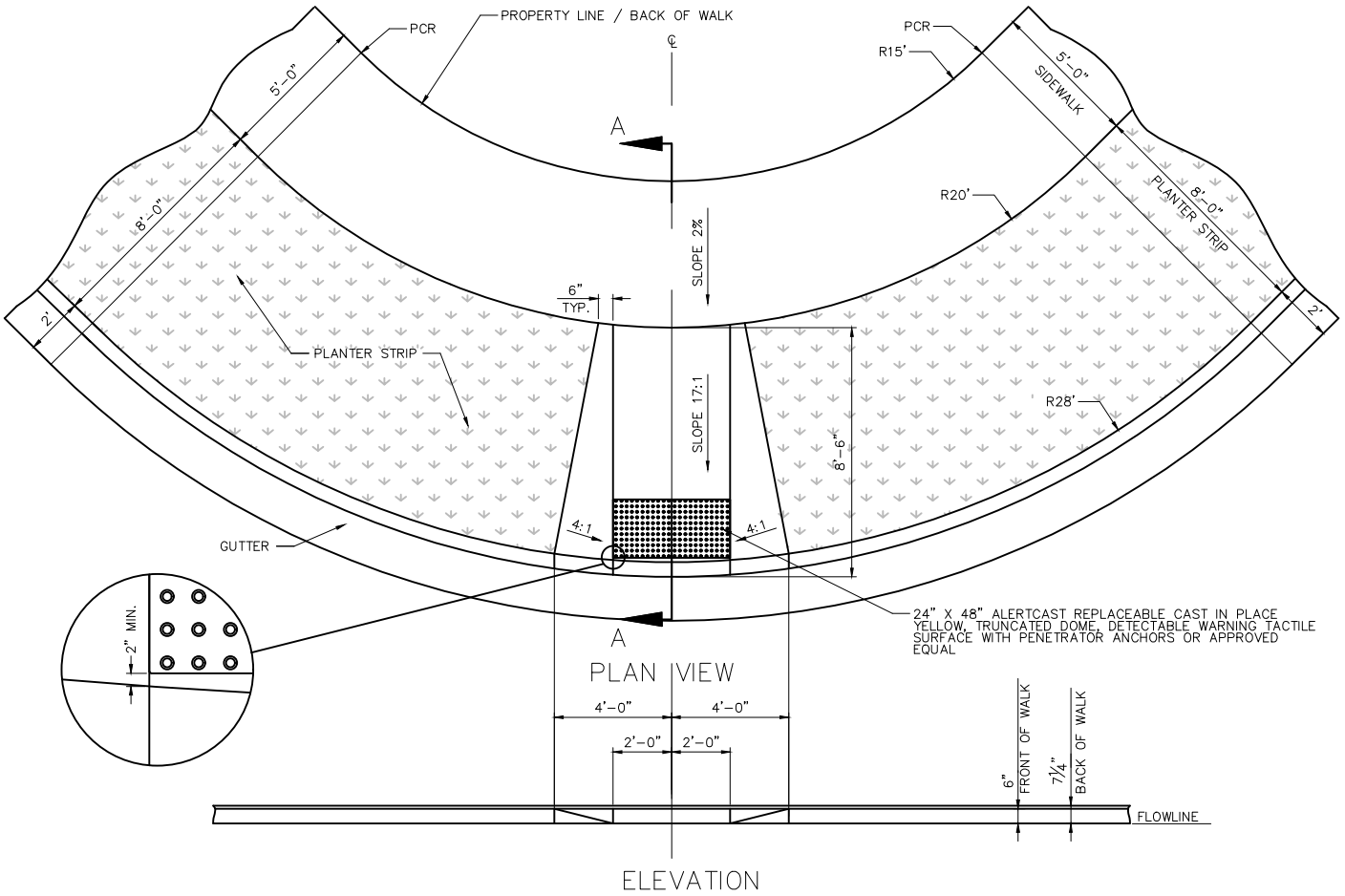
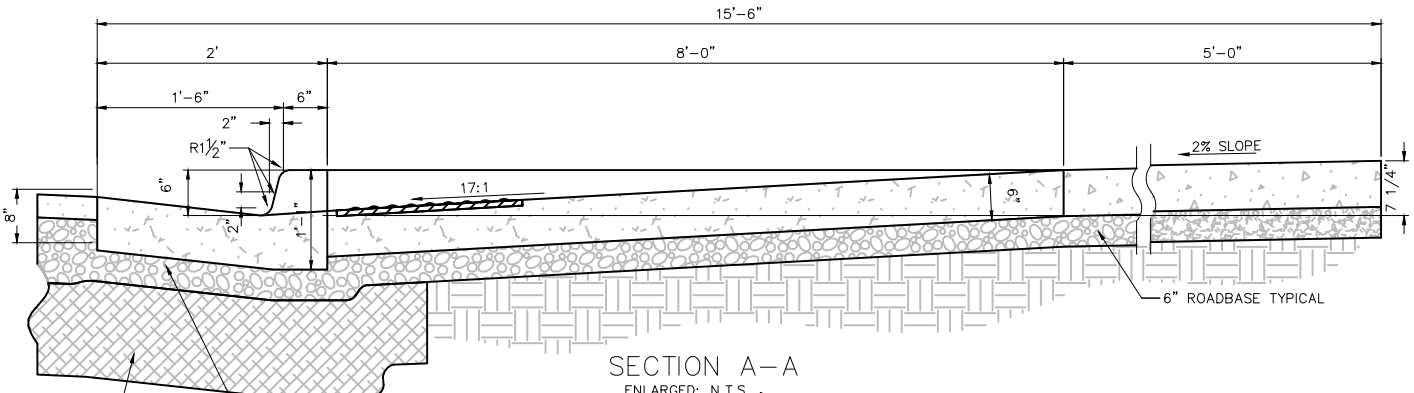
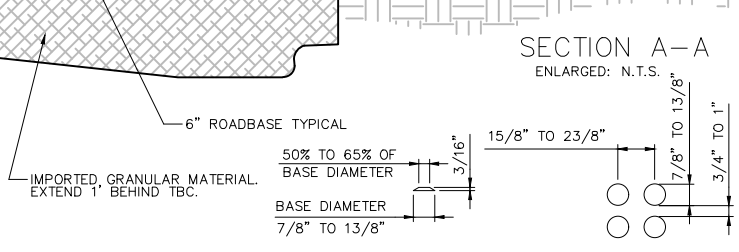
TYPICAL DRIVE APPROACH

DRAWING #
RD-07
ADOPTED DATE
APRIL 2018







NOTES:

1. LANDING SHALL NOT EXCEED 2% IN ANY DIRECTION.
2. MID-BLOCK CROSSINGS SHALL USE THE SAME RAMP CONFIGURATION, EXCEPT THAT THERE WOULD BE A DIFFERENT RADIUS CURVE OR NO CURVE AT ALL.

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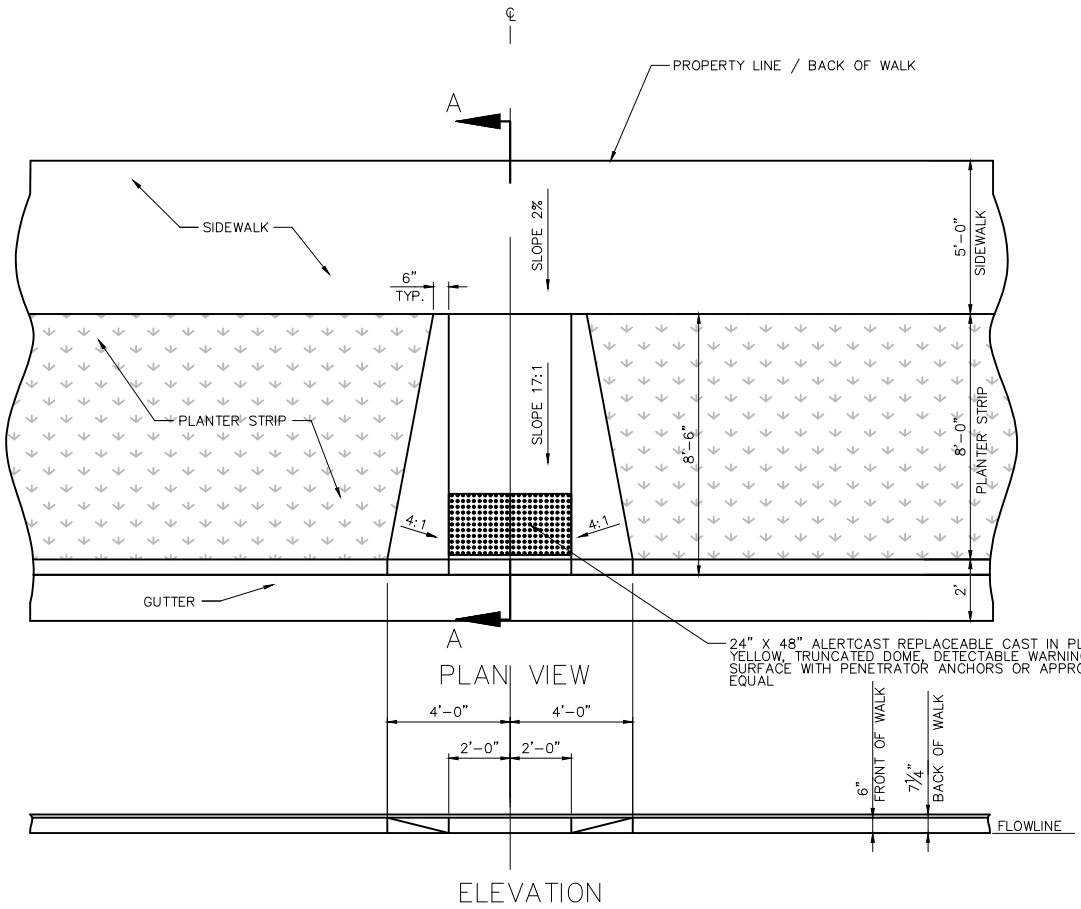
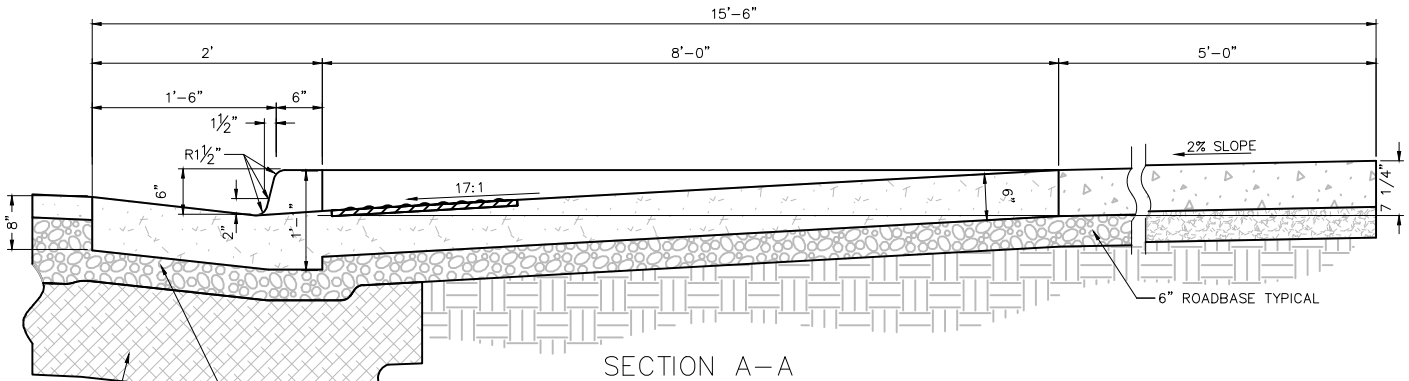
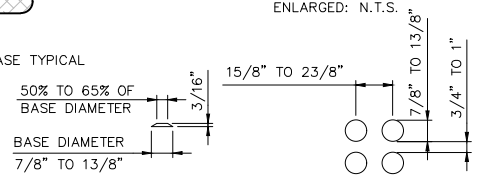
STANDARD CURB RETURN & ADA RAMP AT INTERSECTION

DRAWING #
RD-08
ADOPTED DATE
APRIL 2018







NOTES:

1. LANDING SHALL NOT EXCEED 2% IN ANY DIRECTION.
2. MID-BLOCK CROSSINGS SHALL USE THE SAME RAMP CONFIGURATION, EXCEPT THAT THERE WOULD BE A DIFFERENT RADIUS CURVE OR NO CURVE AT ALL.

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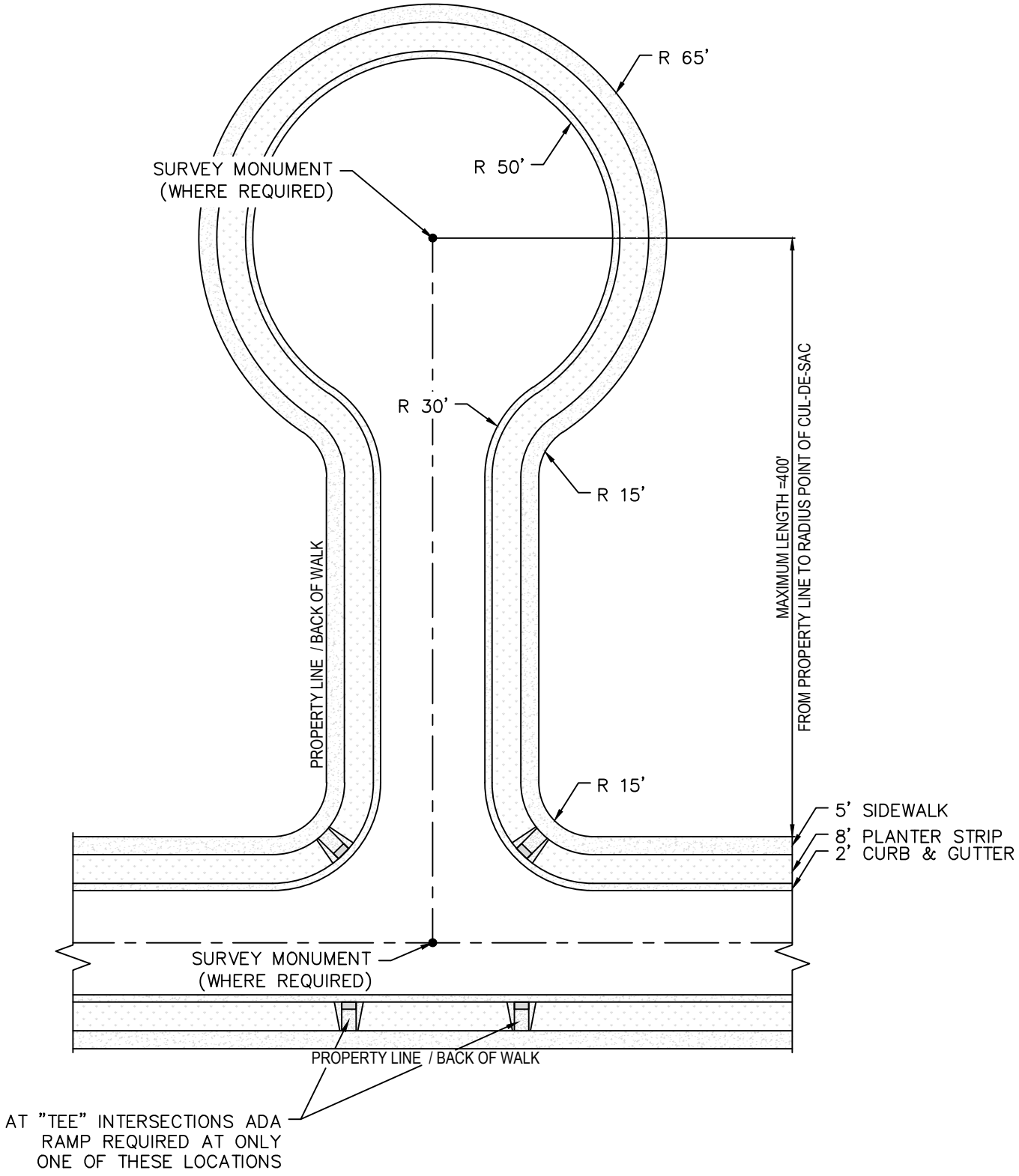
STANDARD ADA RAMP AT MIDBLOCK

DRAWING # RD-09

ADOPTED DATE APRIL 2018



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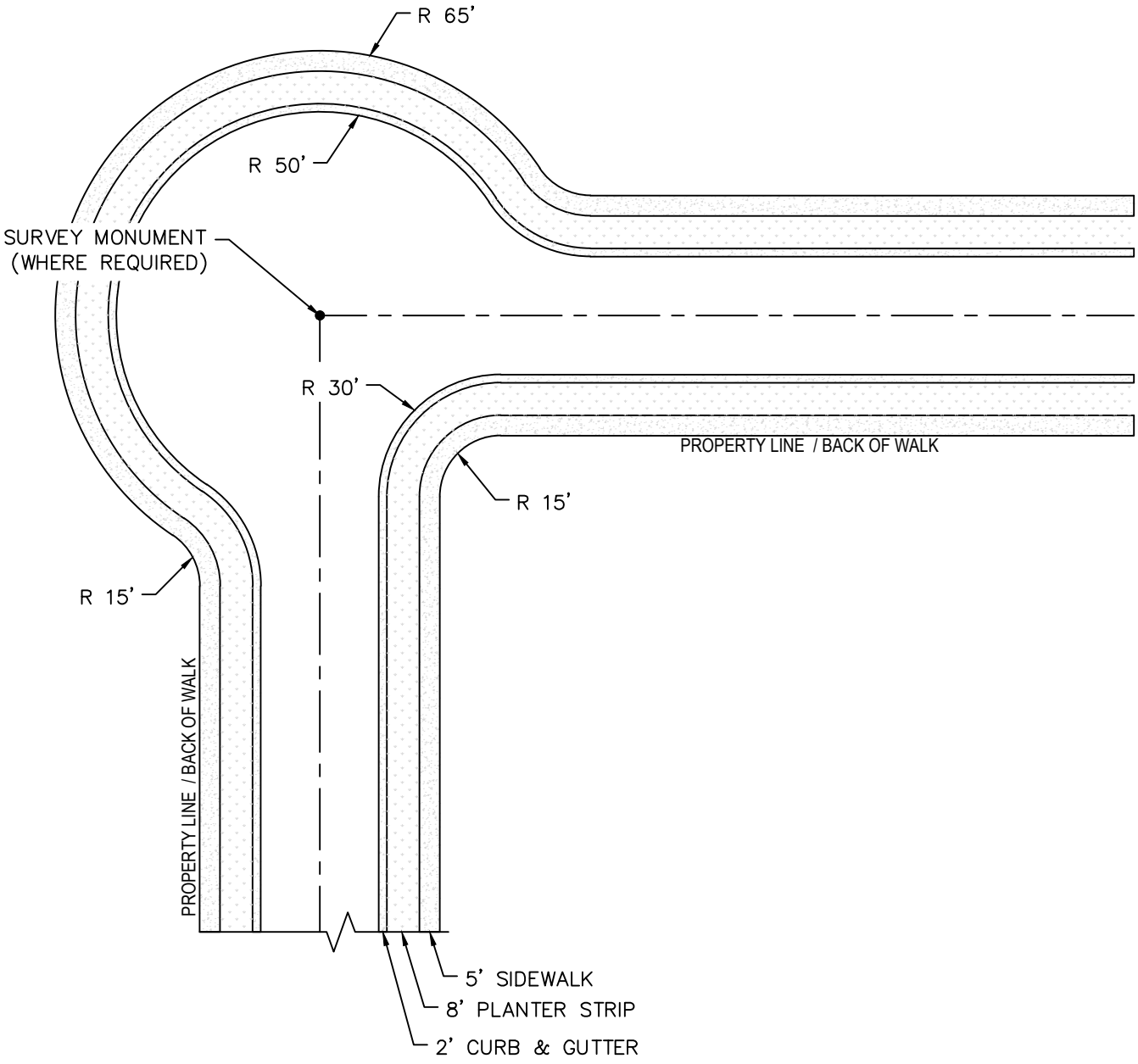
CUL-DE-SAC

DRAWING #
RD-10
ADOPTED DATE
APRIL 2018



SPRINGVILLE CITY
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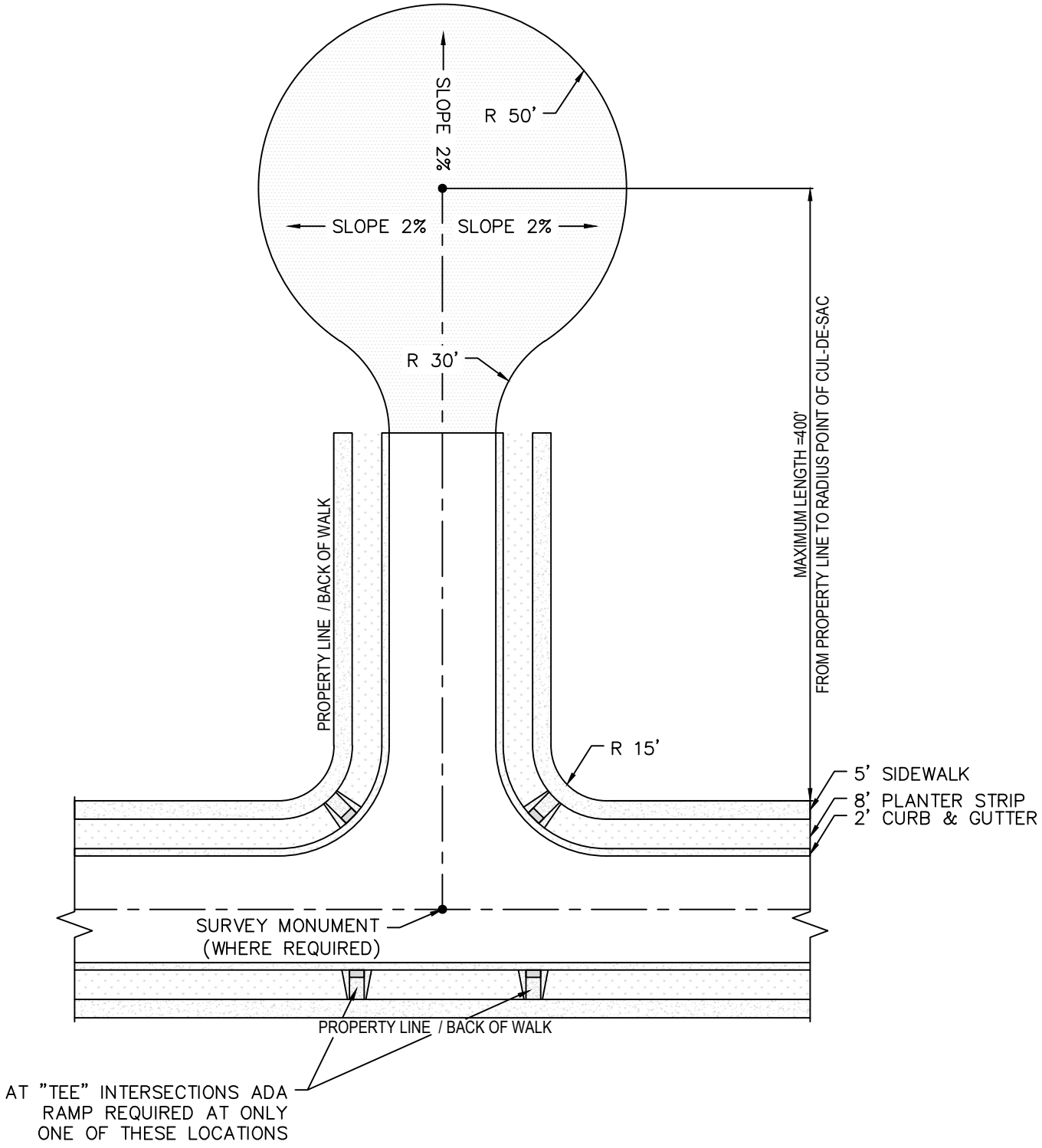
KNUCKLE

DRAWING #
RD-11
ADOPTED DATE
APRIL 2018

DETAILS ON THIS SHEET TO BE USED ONLY BY PERMISSION OF CITY ENGINEER



NOTES:

1. TEMPORARY TURN AROUND TO CONSIST OF A MAINTAINABLE ALL WEATHER PASSABLE SURFACE CONSISTING OF ASPHALT, CONCRETE OR OTHER SIMILAR APPROVED DRIVING SURFACE (AS APPROVED BY CITY ENGINEER AND FIRE MARSHALL) CAPABLE OF SUPPORTING THE IMPOSED LOAD OF FIRE APPARATUS
2. ASYMMETRICAL TURN AROUND'S ARE ALLOWED.

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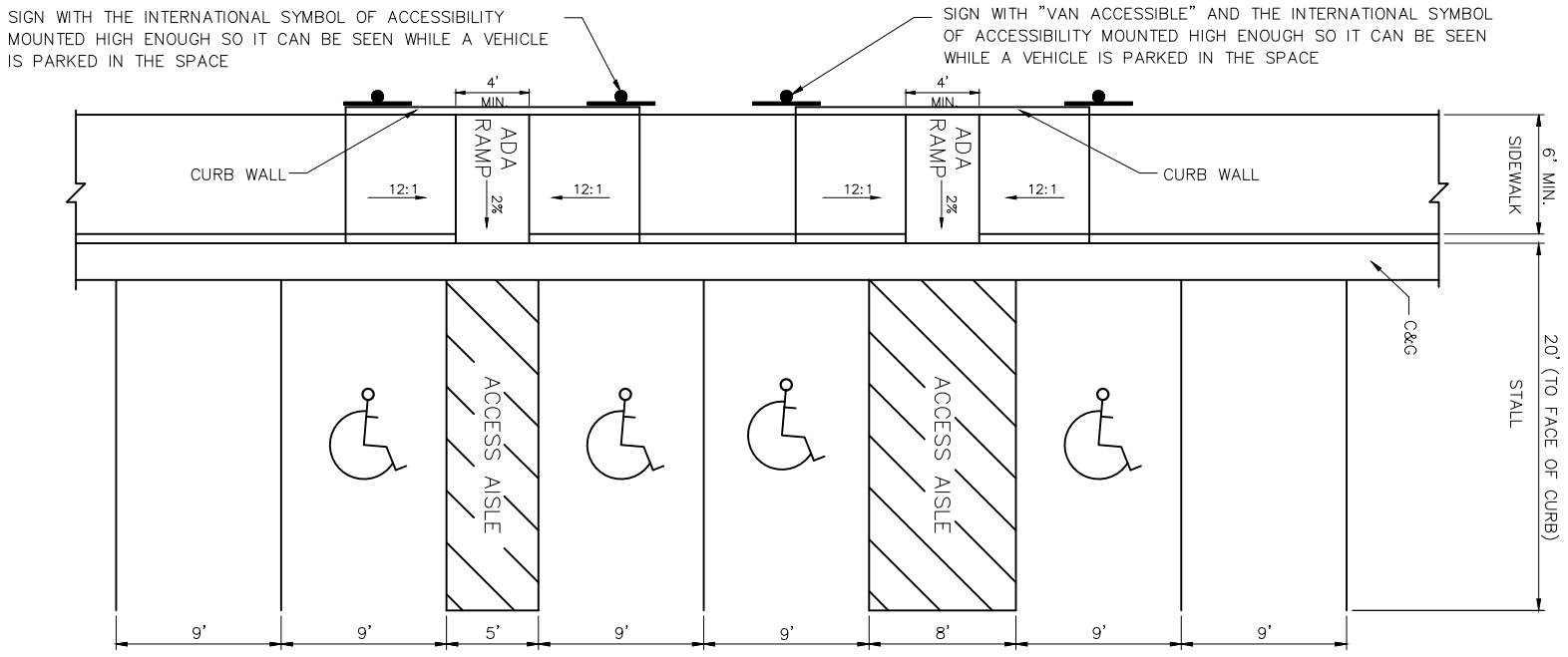
TEMPORARY TURNAROUND

DRAWING #
RD-12
ADOPTED DATE
APRIL 2018

Springville
SPRINGVILLE CITY
110 SOUTH MAIN STEET
SPRINGVILLE UTAH 84663
ENGINEERING OFFICE
(801)491-2780

ADA PARKING & PASSENGER LOADING ZONE



NOTES:

1. ACCESSIBLE PARKING AS CLOSE TO BUILDING AS POSSIBLE.
2. DESIGNATED RESERVED SIGN BY EACH SPACE.
3. EACH PARKING LOT SHALL HAVE A MINIMUM OF ONE (1) "VAN ACCESSIBLE" SPACE
4. ONE IN EVERY EIGHT (8) ACCESSIBLE SPACES SHALL HAVE AN ACCESS AISLE 8'-0" WIDE AND SHALL BE SIGNED " VAN ACCESSIBLE".
5. SIGNS SHALL HAVE THE "ACCESSIBLE SYMBOL" WITH "VAN ACCESSIBLE" INDICATED BELOW.
6. RAMP MAXIMUM SLOPE 12:1.
7. OTHER AS REQUIRED BY ADA STANDARDS.

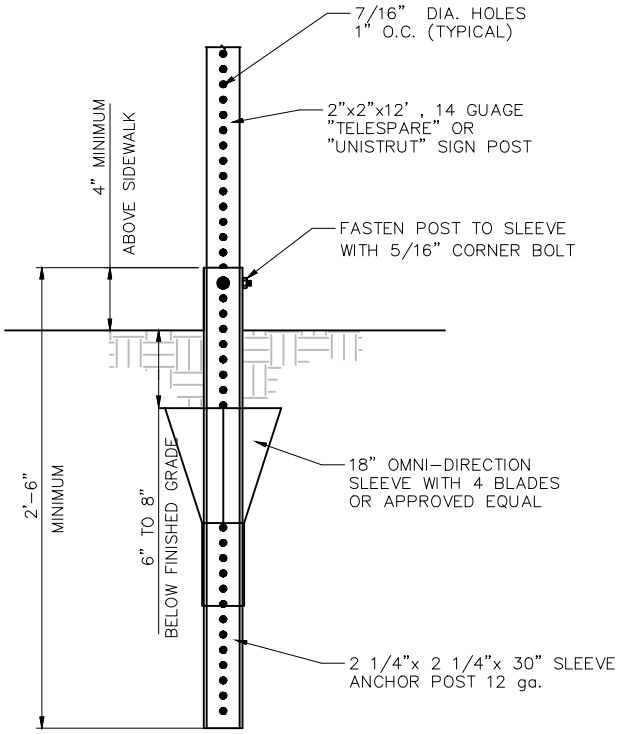
MINIMUM NUMBER OF ACCESSIBLE PARKING SPACES

ADA STANDARD FOR ACCESSIBLE DESIGN 4.1.2(5)

TOTAL NUMBER OF PARKING SPACES PROVIDED (PER LOT)	TOTAL MINIMUM NUMBER OF ACCESSIBLE PARKING SPACES (60" & 96" AISLES)	VAN ACCESSIBLE PARKING SPACES WITH MIN. 96" WIDE ACCESS AISLE	ACCESSIBLE PARKING SPACES WITH MIN. 60" WIDE ACCESS AISLE
	COLUMN A		
1 TO 25	1	1	0
26 TO 50	2	1	1
51 TO 75	3	1	2
76 TO 100	4	1	3
101 TO 150	5	1	4
151 TO 200	6	1	5
201 TO 300	7	1	6
301 TO 400	8	1	7
401 TO 500	9	2	7
501 TO 1000	2% OF TOTAL PARKING PROVIDED IN EACH LOT	1/8 OF COLUMN A *	7/8 OF COLUMN A **
1001 AND OVER	20 PLUS 1 FOR EACH 100 OVER 1000	1/8 OF COLUMN A *	7/8 OF COLUMN A **

* ONE OUT OF EVERY 8 ACCESSILBE SPACES ** 7 OUT OF EVERY 8 ACCESSIBLE PARKING SPACES

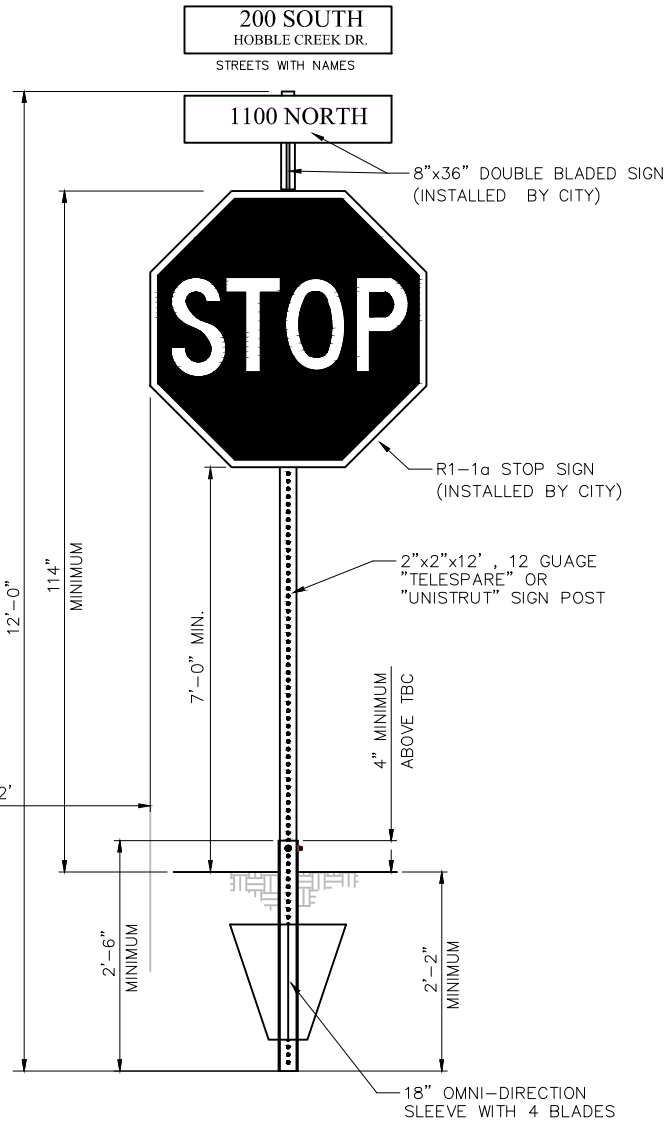
DRAWING # RD-13
ADOPTED DATE APRIL 2018



GROUND INSTALLATION DETAIL

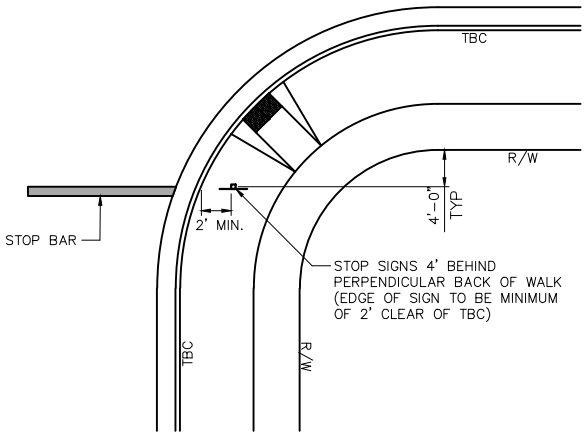
(W/ONE PIECE BREAKAWAY ANCHOR)

SCALE: 1"=1'



TYPICAL STREET/STOP SIGN INSTALLATION

SCALE: 1"=2'



TYPICAL STREET/STOP SIGN LOCATION
PLAN VIEW

SCALE: 1"=20'

NOTES:

1. STREET SIGN SHALL BE 8"x38" DOUBLE BLADED.
   IF THE STREET HAS A NAME, THE NUMBER SHALL BE PLACED ABOVE AND THE NAME UNDERNEATH. (INSTALLED BY CITY)
2. SIGN POST AND SLEEVE SHALL BE "TELESPARE" OR "UNISTRUT" MANUFACTURED PRODUCTS. (INSTALLED BY CITY)
3. SIGNS AND POSTS ARE TO BE OBTAINED FROM THE FOLLOWING SUPPLIERS:
   SAFETY SUPPLY/UTAH BARRICADE, SALT LAKE CITY
   INTERMOUNTAIN TRAFFIC SUPPLY, SALT LAKE CITY
   INTERWEST SAFETY SUPPLY, PROVO
4. ALL STOP SIGNS SHALL MEET CURRENT RETOR-REFLECTIVITY REQUIREMENTS PER MUTCD. (SIGNS INSTALLED BY CITY)

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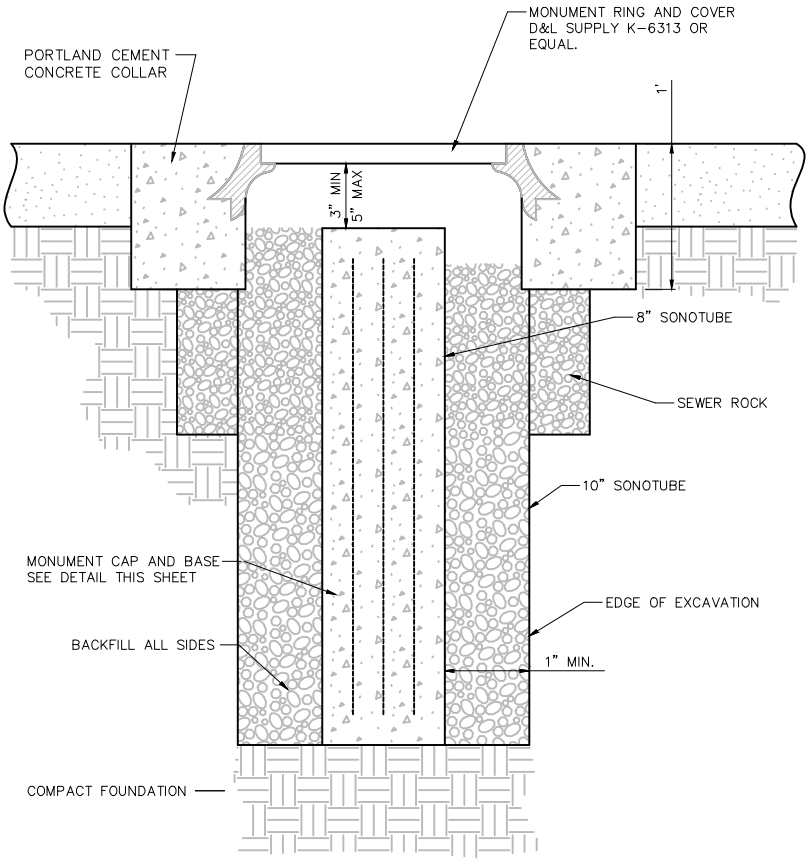
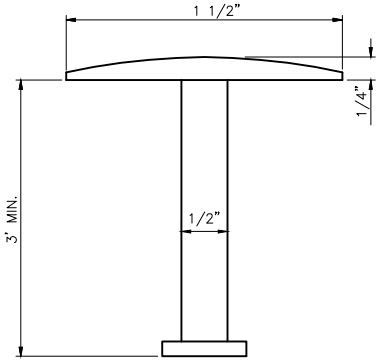
TYPICAL STREET/STOP SIGN INSTALLATION

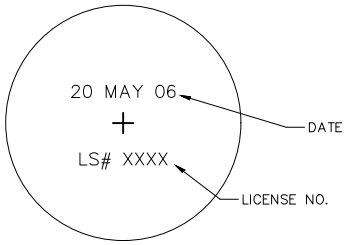
DRAWING # RD-14

ADOPTED DATE APRIL 2018

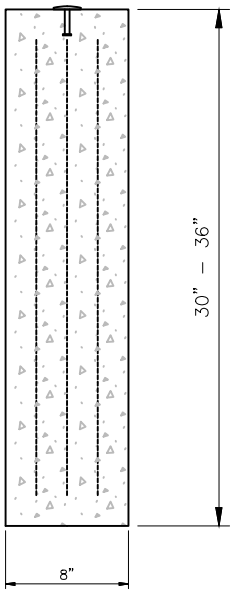




CAP SECTION



CAP PLAN



SECTION OF BASE

(TYPICAL SETTING)

NOTES:
1. THE INSTALLED MONUMENT MUST BE INDEPENDENT OF THE ROADWAY PAVEMENT. VIBRATIONS OF THE PAVEMENT SURFACE MUST BE TRANSMITTED TO THE UNDERLYING SOILS AND NOT TO THE MONUMENT. THIS WILL ASSURE THE MONUMENT REMAINS UNDISTURBED.
2. MONUMENTS TO BE INSTALLED AT THE LOCATION SHOWN ON THE APPROVED SUBDIVISION PLAT.

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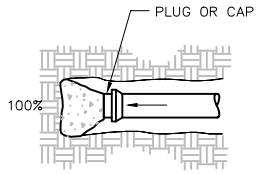
SURVEY MONUMENT PLACEMENT IN PAVEMENT

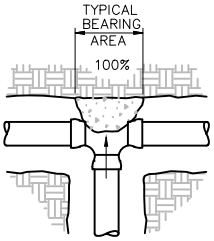
DRAWING # RD-15

ADOPTED DATE APRIL 2018

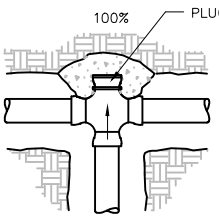
DETAILS ON THIS SHEET TO BE USED ONLY BY PERMISSION OF CITY ENGINEER



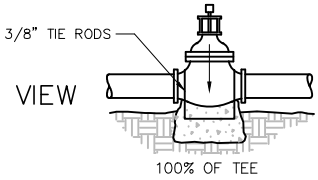
DEAD END PLAN VIEW



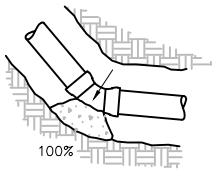
TEE PLAN VIEW



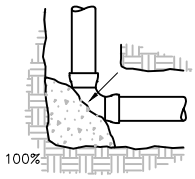
CROSS W/PLUG PLAN VIEW



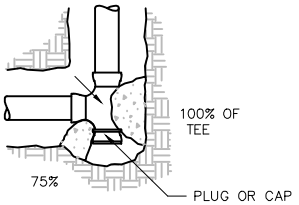
VALVE ELEVATION VIEW



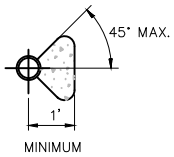
ELBOW PLAN VIEW



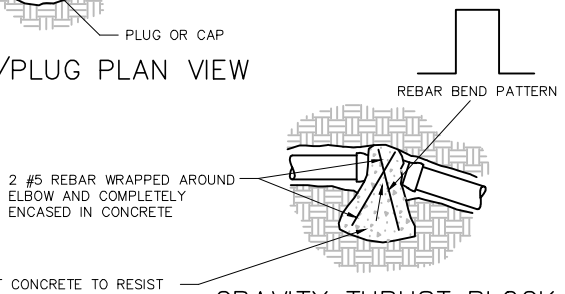
ELBOW PLAN VIEW



TEE W/PLUG PLAN VIEW



TYPICAL SECTION
THRU THRUST BLOCK



GRAVITY THRUST BLOCK
ELEVATION VIEW

NOTES:
1. THE FIGURE (100%) AT THE THRUST BLOCK INDICATES PER CENT OF TOTAL THRUST TO BE APPLIED FOR BEARING AREA.
2. THE ARROW (⟶) INDICATES THRUST DIRECTION.
3. CONCRETE FOR THRUST BLOCKS TO BE 3000 P.S.I. .
4. ALL MJ AND FLANGED FITTINGS TO BE WRAPPED WITH 12 MIL POLYETHYLENE PRIOR TO PLACING CONCRETE THRUST BLOCK
5. WHERE SUFFICIENT BEARING SURFACE IS NOT AVAILABLE FOR THRUST BLOCK, MEGALUG THRUST RESTRAINING GLANDS MAY BE USED. MEGALUG THRUST RESTRAINING GLANDS SHALL BE INSTALLED PER MANUFACTURER'S RECOMENDATION INCLUDING ANY JOINT RESTRAINT. ANY USE OF MEGALUG OR CHANGE TO THE THRUST BEARING CHART MUST BE REVIEWED BY THE CITY ENGINEER.

USE WHEN LINE PRESSURE AND SOIL BEARING STRENGTH ARE KNOWN						
LINE PRESSURE: _____ PSI TEST PRESSURE (SF = 1.5): _____ PSI SOIL BEARING STRENGTH: _____ PSF (SOIL BEARING STRENGTH DETERMINED FROM A GEOTECHNICAL INVESTIGATION.)						
SIDE THRUST (LBS.) PER 1 PSI LINE PRESSURE						
PIPE SIZE	PIPE AREA*	DEAD END OR TEE	90° BEND	45° BEND	22.5° BEND	11.5° BEND
(")	(SQ. IN.)	(LBS.)	(LBS.)	(LBS.)	(LBS.)	(LBS.)
4	14.39	22	31	17	9	5
6	32.17	49	69	37	19	10
8	56.88	86	121	66	34	17
10	86.92	131	185	100	51	26
12	124.29	187	264	143	73	37
14	168.33	253	358	194	99	50
16	219.56	330	466	253	129	65
18	277.59	417	589	319	163	82
20	342.41	514	727	394	201	101
24	490.09	736	1040	563	287	145
30	757.69	1137	1608	870	444	223

USE WHEN LINE PRESSURE AND SOIL BEARING STRENGTH ARE NOT KNOWN						
LINE PRESSURE: 120 PSI TEST PRESSURE (SF = 1.5): 180 PSI SOIL BEARING STRENGTH: 800 PSF						
AREA OF BEARING REQUIRED (SQ. FT.)						
PIPE SIZE	PIPE AREA*	DEAD END OR TEE	90° BEND	45° BEND	22.5° BEND	11.5° BEND
(")	(SQ. IN.)	(LBS.)	(LBS.)	(LBS.)	(LBS.)	(LBS.)
4	14.39	3.2	4.6	2.5	1.3	0.6
6	32.17	7.2	10.2	5.5	2.8	1.4
8	56.88	12.8	18.1	9.8	5.0	2.5
10	86.92	19.6	27.7	15.0	7.6	3.8
12	124.29	28.0	39.6	21.4	10.9	5.5
14	168.33	37.9	53.6	29.0	14.8	7.4
16	219.56	49.4	69.9	37.8	19.3	9.7
18	277.59	62.5	88.3	47.8	24.4	12.2
20	342.41	77.0	109.0	59.0	30.1	15.1
24	490.09	110.3	155.9	84.4	43.0	21.6
30	757.69	170.5	241.1	130.5	66.5	33.4

Example for Table 1:
8–inch 90° bend
Line Pressure = 100 psi
From Table: Thrust per 1 psi = 121 lbs.
Calculate Total Thrust: 100 psi x 121 lbs/psi = 12,100 lbs
Soil Bearing Strength = 2,000 psf
Area of bearing required for thrust block is 6.1 sq. ft. (12,100 lbs / 2,000 psf = 6.1 sq.ft.)

* Pipe area is based on largest actual inside diameter of ductile iron pipe.

Springville
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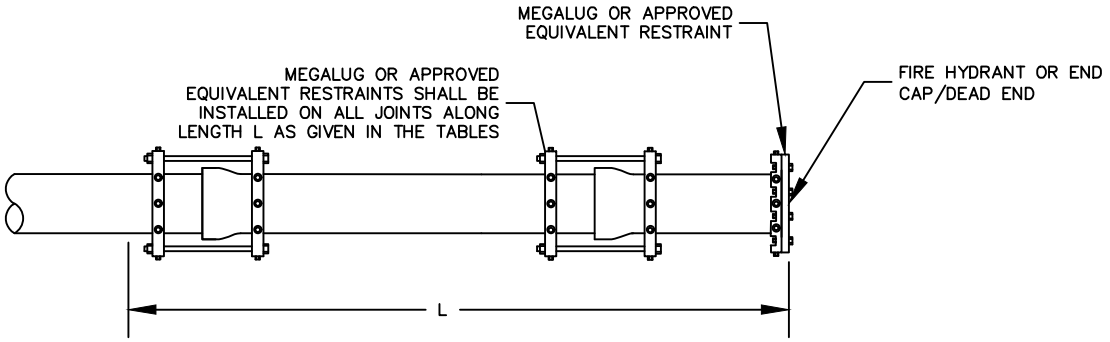
THRUST BLOCK

DRAWING #
PS-01
ADOPTED DATE
APRIL 2018

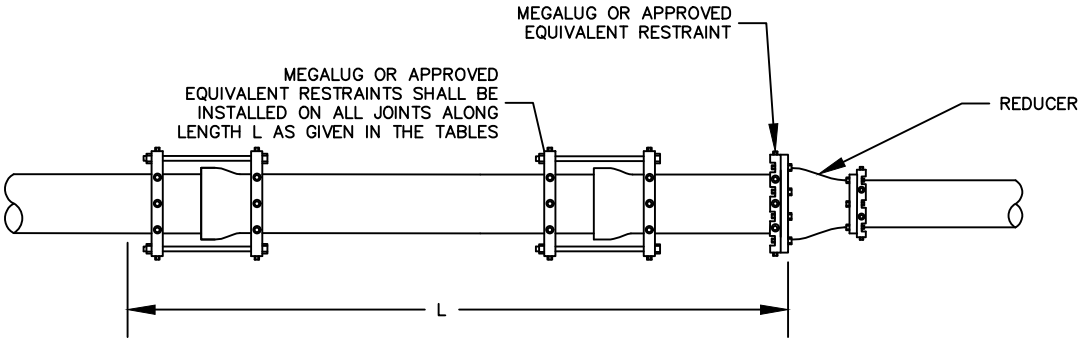


PVC PIPE

MECHANICAL RESTRAINT SPECIFICATION "L" IN FEET FOR DEAD ENDS ON SPECIFIED DIAMETERS					
TYPE OF PIPE	12"	10"	8"	6"	4"
PRESSURIZED IRRIGATION	231	197	166	127	91
CULINARY WATER	123	104	87	66	47

DUCTILE IRON PIPE

MECHANICAL RESTRAINT SPECIFICATION "L" IN FEET FOR DEAD ENDS ON SPECIFIED DIAMETERS					
TYPE OF PIPE	12"	10"	8"	6"	4"
PRESSURIZED IRRIGATION	143	123	103	80	57
CULINARY WATER	79	67	56	42	30



PVC PIPE

MECHANICAL RESTRAINT SPECIFICATION "L" IN FEET FOR REDUCERS ON SPECIFIED DIAMETERS										
TYPE OF PIPE	12"–4"	12"–6"	12"–8"	12"–10"	10"–4"	10"–6"	10"–8"	8"–4"	8"–6"	6"–4"
PRESSURIZED IRRIGATION	200	168	122	113	160	121	66	119	43	66
CULINARY WATER	107	89	65	60	85	64	35	62	36	34

DUCTILE IRON PIPE

MECHANICAL RESTRAINT SPECIFICATION "L" IN FEET FOR REDUCERS ON SPECIFIED DIAMETERS										
TYPE OF PIPE	12"–4"	12"–6"	12"–8"	12"–10"	10"–4"	10"–6"	10"–8"	8"–4"	8"–6"	6"–4"
PRESSURIZED IRRIGATION	124	104	76	70	100	75	41	74	43	41
CULINARY WATER	68	57	42	39	54	41	22	40	23	22

NOTES:
1. ALL RESTRAINING DEVICES SHALL BE INSTALLED ACCORDING TO THESE REQUIREMENTS OR MANUFACTURER SPECIFICATIONS, WHICHEVER IS MOST CONSERVATIVE.
2. MECHANICAL RESTRAINTS FOR PIPE LARGER THAN 12" IN DIAMETER MUST BE DESIGNED BY A LICENSED PROFESSIONAL ENGINEER AND APPROVED BY CITY ENGINEER.
3. MECHANICAL RESTRAINTS MAY ONLY BE USED ON PVC OR DUCTILE IRON PIPE.
4. A FIRE HYDRANT IS CONSIDERED AN END CAP/DEAD END.
5. EXTERNAL BELL RESTAURANTS REQUIRED AT FIRST JOINT FROM FITTING REGARDLESS OF LENGTH/DISTANCE FROM FITTING

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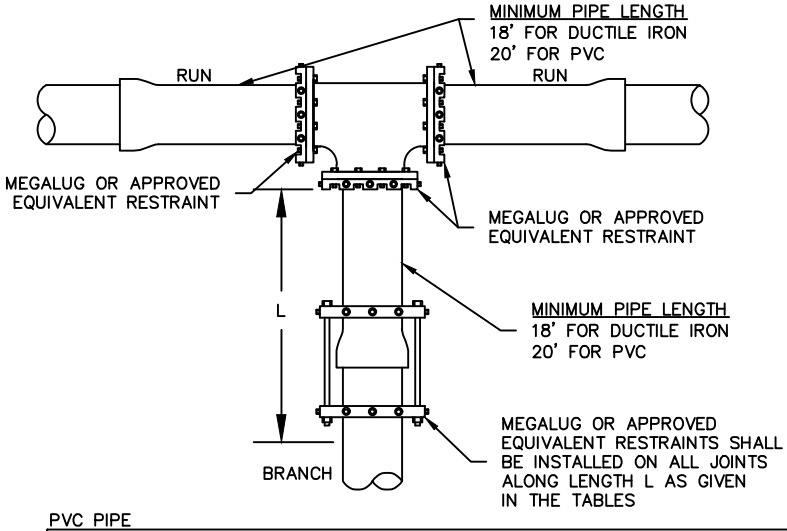
RESTRAINING DETAIL END CAP AND REDUCER

DRAWING #
PS-02
ADOPTED DATE
APRIL 2018

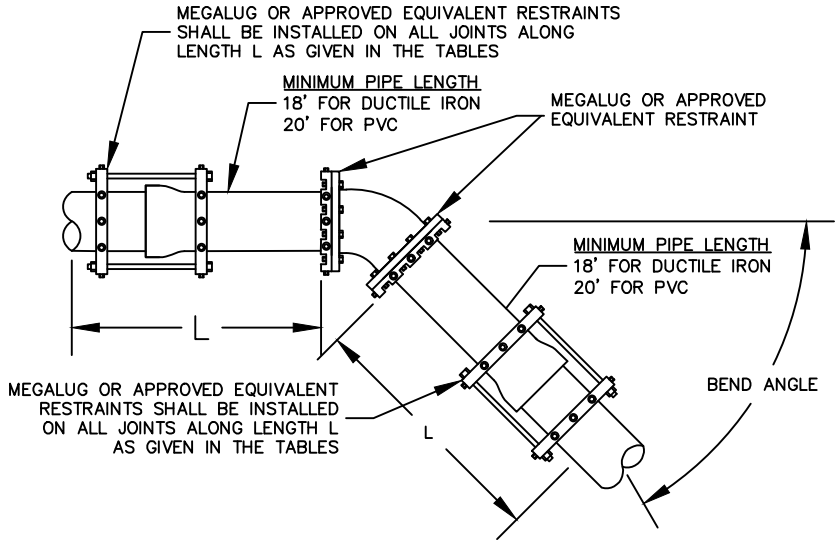


PVC PIPE

MECHANICAL RESTRAINT SPECIFICATION "L" IN FEET FOR BENDS ON SPECIFIED DIAMETERS															
TYPE OF PIPE	12"–4"	12"–6"	12"–8"	12"–10"	12"–12"	10"–4"	10"–6"	10"–8"	10"–10"	8"–4"	8"–6"	8"–8"	6"–4"	6"–6"	4"–4"
PRESSURIZED IRRIGATION	20	20	57	150	150	20	20	74	118	20	34	91	20	55	23
CULINARY WATER	20	20	20	74	74	20	20	29	56	20	20	40	20	20	20

DUCTILE IRON PIPE

MECHANICAL RESTRAINT SPECIFICATION "L" IN FEET FOR BENDS ON SPECIFIED DIAMETERS															
TYPE OF PIPE	12"–4"	12"–6"	12"–8"	12"–10"	12"–12"	10"–4"	10"–6"	10"–8"	10"–10"	8"–4"	8"–6"	8"–8"	6"–4"	6"–6"	4"–4"
PRESSURIZED IRRIGATION	18	18	38	100	100	18	18	49	78	18	23	60	18	36	18
CULINARY WATER	18	18	18	49	49	18	18	19	37	18	18	27	18	18	18



PVC PIPE MECHANICAL RESTRAINT SPECIFICATION "L" IN FEET FOR BENDS ON SPECIFIED DIAMETERS

TYPE OF PIPE	11 1/4° BEND					22 1/2° BEND					45° BEND					90° BEND				
	12"	10"	8"	6"	4"	12"	10"	8"	6"	4"	12"	10"	8"	6"	4"	12"	10"	8"	6"	4"
PRESSURIZED IRRIGATION	20	20	20	20	20	20	20	20	20	20	29	24	21	20	20	69	59	50	39	28
CULINARY WATER	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	48	41	34	26	20

DUCTILE IRON PIPE

MECHANICAL RESTRAINT SPECIFICATION "L" IN FEET FOR BENDS ON SPECIFIED DIAMETERS																				
TYPE OF PIPE	11 1/4° BEND					22 1/2° BEND					45° BEND					90° BEND				
	12"	10"	8"	6"	4"	12"	10"	8"	6"	4"	12"	10"	8"	6"	4"	12"	10"	8"	6"	4"
PRESSURIZED IRRIGATION	18	18	18	18	18	18	18	18	18	18	24	21	18	18	18	58	50	42	33	24
CULINARY WATER	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	40	33	28	21	18

NOTES:
1. ALL RESTRAINING DEVICES SHALL BE INSTALLED ACCORDING TO THESE REQUIREMENTS OR MANUFACTURER SPECIFICATIONS, WHICHEVER IS MOST CONSERVATIVE.
2. FOR TRANSITIONS BETWEEN PVC AND DUCTILE IRON PIPE USE THE PVC TABLE.
3. MECHANICAL RESTRAINTS FOR PIPE LARGER THAN 12" IN DIAMETER MUST BE DESIGNED BY A LICENSED ENGINEER AND APPROVED BY CITY ENGINEER.
4. ALL RESTRAINTS ON VERTICAL BENDS MUST BE DESIGNED BY A LICENSED PROFESSIONAL ENGINEER AND APPROVED BY CITY ENGINEER.
5. MECHANICAL RESTRAINTS MAY ONLY BE USED ON PVC OR DUCTILE IRON PIPE.
6. EXTERNAL BELL RESTAURANTS REQUIRED AT FIRST JOINT FROM FITTING REGARDLESS OF LENGTH/DISTANCE FROM FITTING

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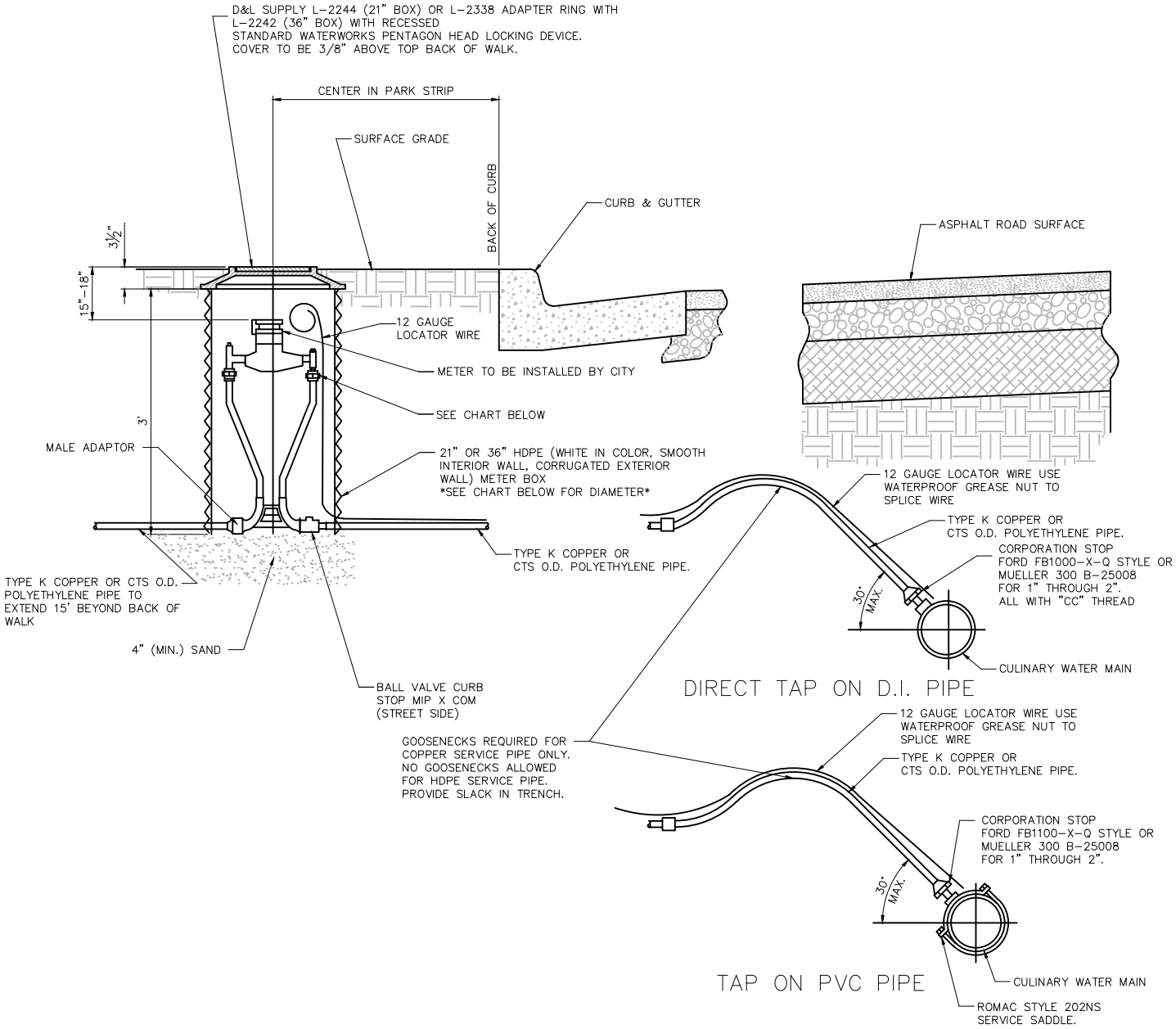
Springville

RESTRAINING DETAIL TEE AND BENDS

DRAWING #
PS-03
ADOPTED DATE
APRIL 2018



SPRINGVILLE CITY CORPORATION WATER SERVICE INFORMATION					
SERVICE SIZE	METER BOX SIZE	YOKE/SETTER DESCRIPTION	WIDTH REQUIRED FOR METER	CONNECTION TYPE	BYPASS
1"	21" DIA.	FORD VBHC74-18W-11-44-NL	11 1/16"	COMPRESSION	NO
1 1/2"	36" DIA.	FORD VBHH76-18W-11-66-NL	13 1/2"	COMPRESSION	NO
2"	36" DIA.	FORD VBHH77-18W-11-77-NL	17 1/2"	COMPRESSION	NO

NOTE:
1. METER BOX AND SETTER INSTALLED BY DEVELOPER/CONTRACTOR.
2. WATER SERVICE TO BE STUBBED AT CENTER OF LOT.
3. ALL CONNECTIONS SHALL BE MADE USING PACK JOINTS (COMPRESSION) TYPE FITTINGS.
4. USE WATERPROOF GREASE NUT TO SPLICE LOCATOR WIRE.

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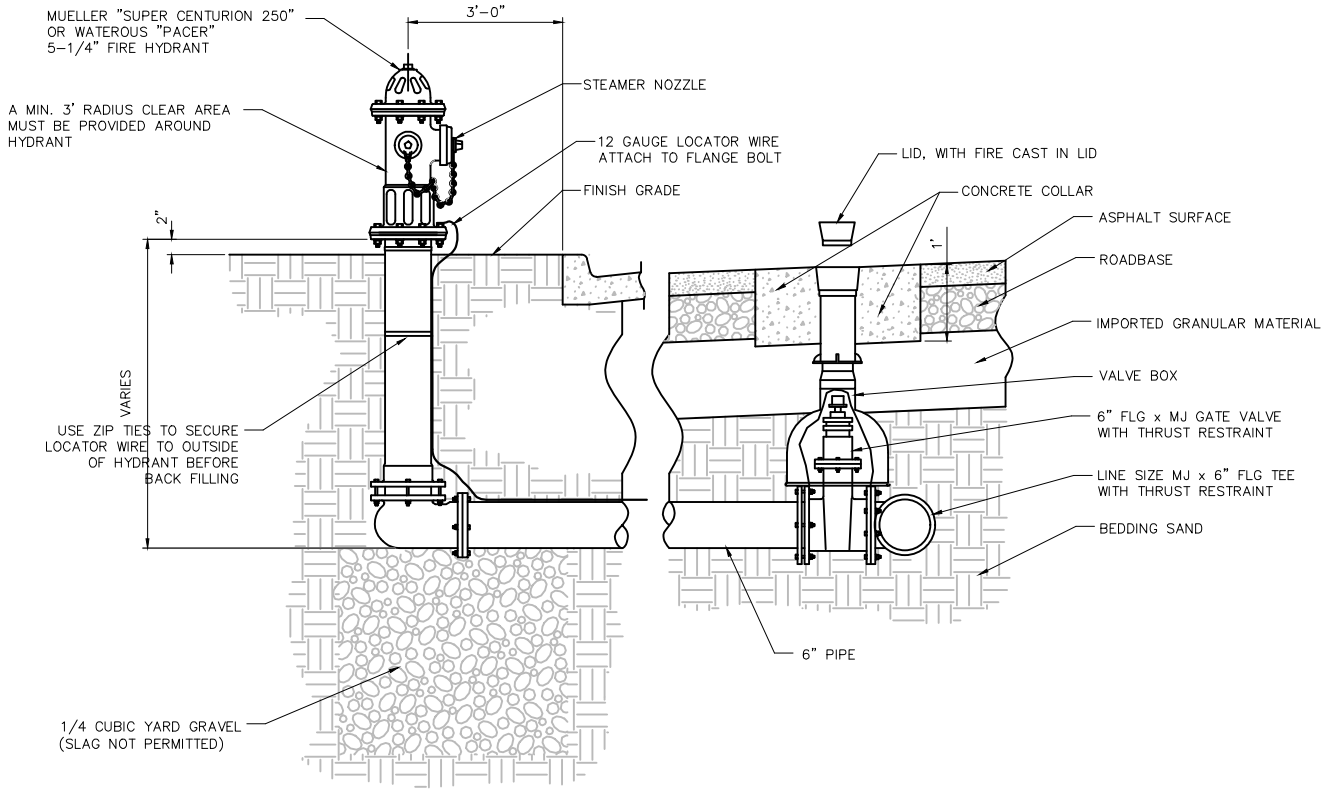
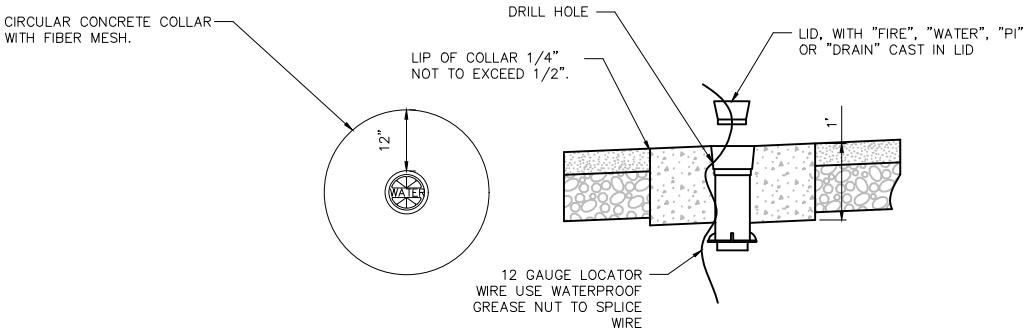
TYPICAL CULINARY WATER CONNECTION

DRAWING # PS-04

ADOPTED DATE APRIL 2018



FIRE HYDRANT & WATER VALVE



CULINARY AND SECONDARY WATER VALVE
CONCRETE COLLAR

NOTE:
1. ALL NON FLG X FJG JOINTS TO BE MECHANICALLY RESTRAINED.
2. FIRE HYDRANTS TO BE INSTALLED ON THE FIRST PROPERTY LINE FROM CORNER.
3. FIRE HYDRANTS MUST BE INSTALLED ON OPPOSITE SIDE OF STREET THAN STORM DRAIN WHEN MIN. 1' CLEARANCE BETWEEN UTILITIES CANNOT BE ACCOMPLISHED.

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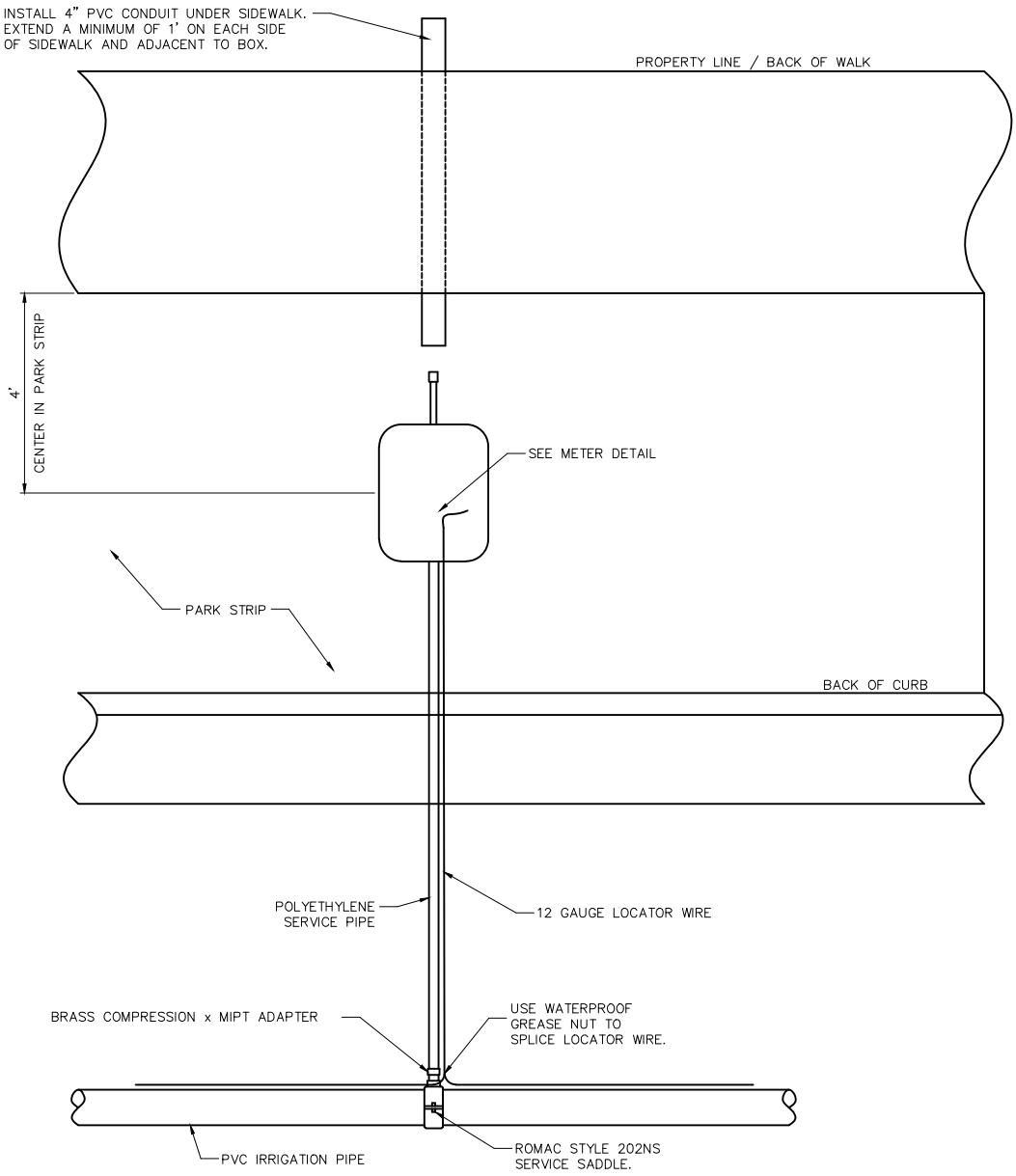
FIRE HYDRANT, BLOW-OFF HYDRANT
& WATER VALVE DETAIL

DRAWING #
PS-05
ADOPTED DATE
APRIL 2018



NOTES:
1. A RIGID LINER SHALL BE USED INSIDE OF TUBING AT THE COMPRESSION FITTINGS ON 1", 1-1/2" AND 2" SERVICE LINES.
2. ALL FITTINGS SHALL BE COMPATIBLE WITH SERVICE SIZE.
3. SERVICE LINE INSTALLATION AT EXISTING OR NEW MONOLITHIC CURB, GUTTER & SIDEWALK SHALL HAVE THE UTILITY BOX LOCATED BEHIND THE SIDEWALK.
4. SERVICE LINE INSTALLATION AT A LOCATION WITH NO CURB, GUTTER & SIDEWALK SHALL HAVE THE UTILITY BOX LOCATED BEHIND THE FUTURE SIDEWALK.

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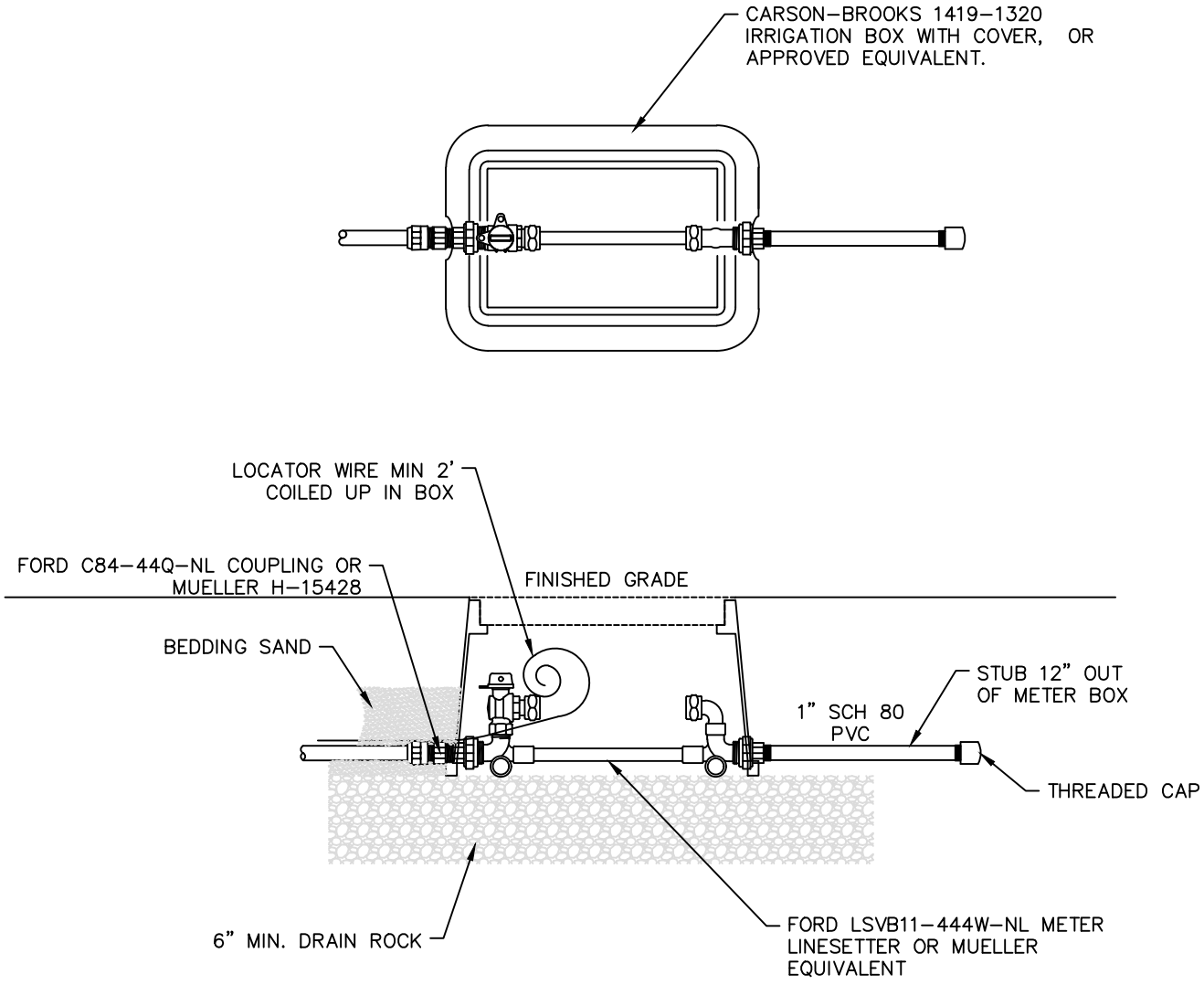
TYPICAL SECONDARY WATER CONNECTION

DRAWING #
PS-06
ADOPTED DATE
APRIL 2018



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ENGINEERING OFFICE
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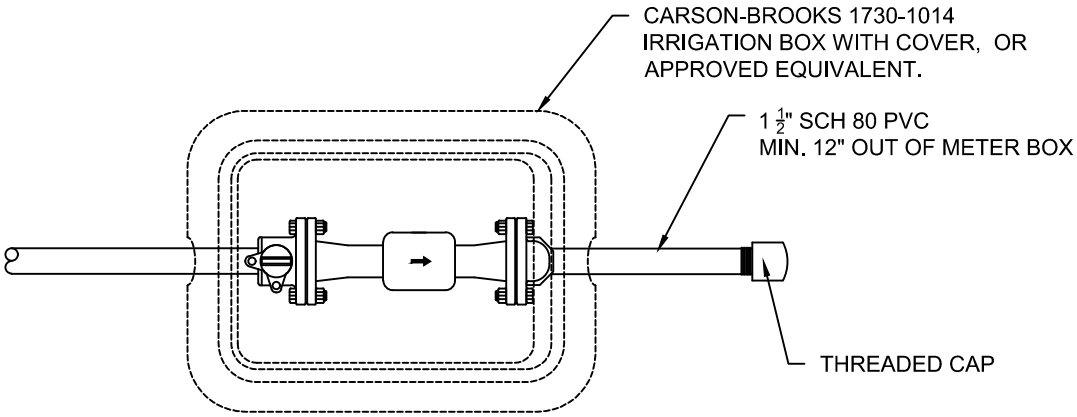
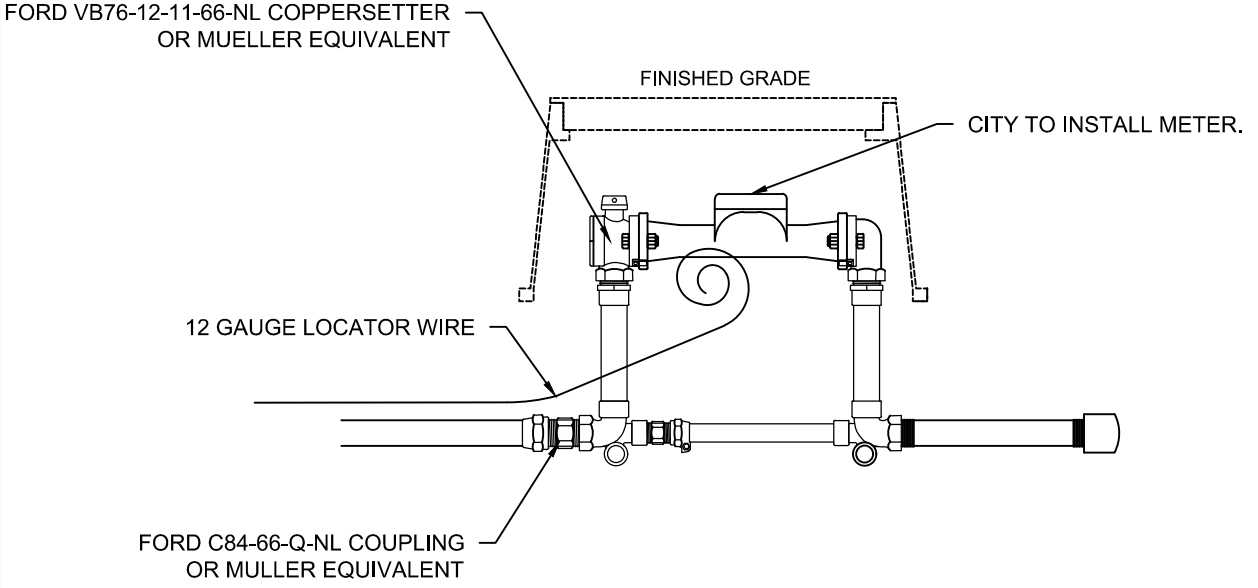
PRESSURIZED IRRIGATION 1" METER

DRAWING #
PS-07
ADOPTED DATE
APRIL 2018





NOTES:
1. FINISHED GRADE TO BE SET LEVEL WITH FRONT OF SIDEWALK
2. BOX TO SET ON MIN. 12" OF 6" DRAIN ROCK

SPRINGVILLE CITY
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ENGINEERING OFFICE
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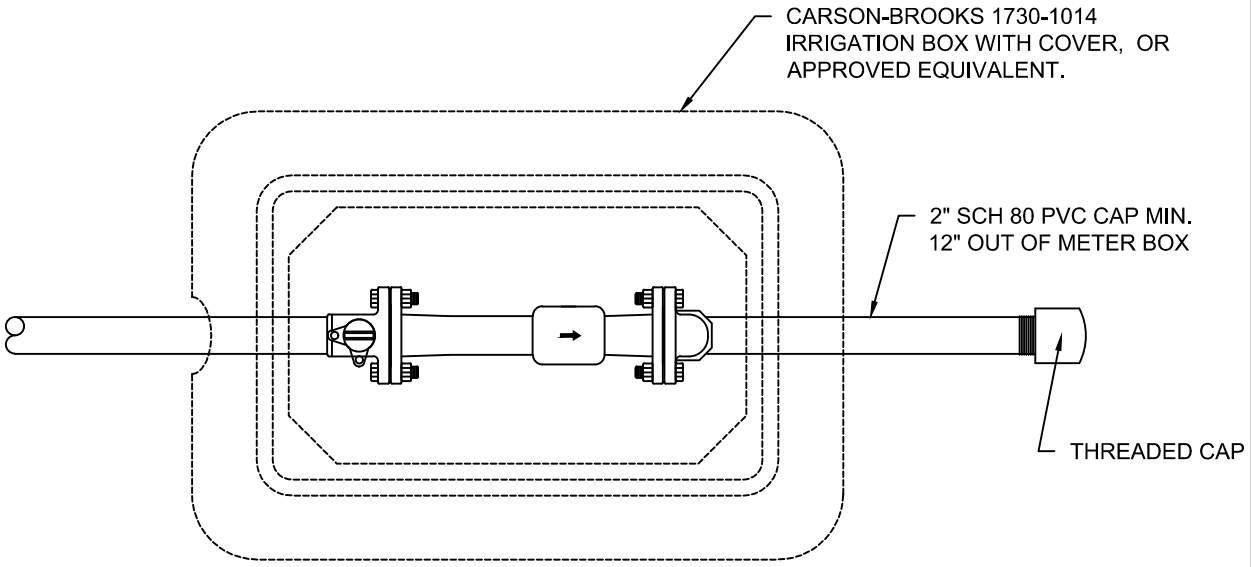
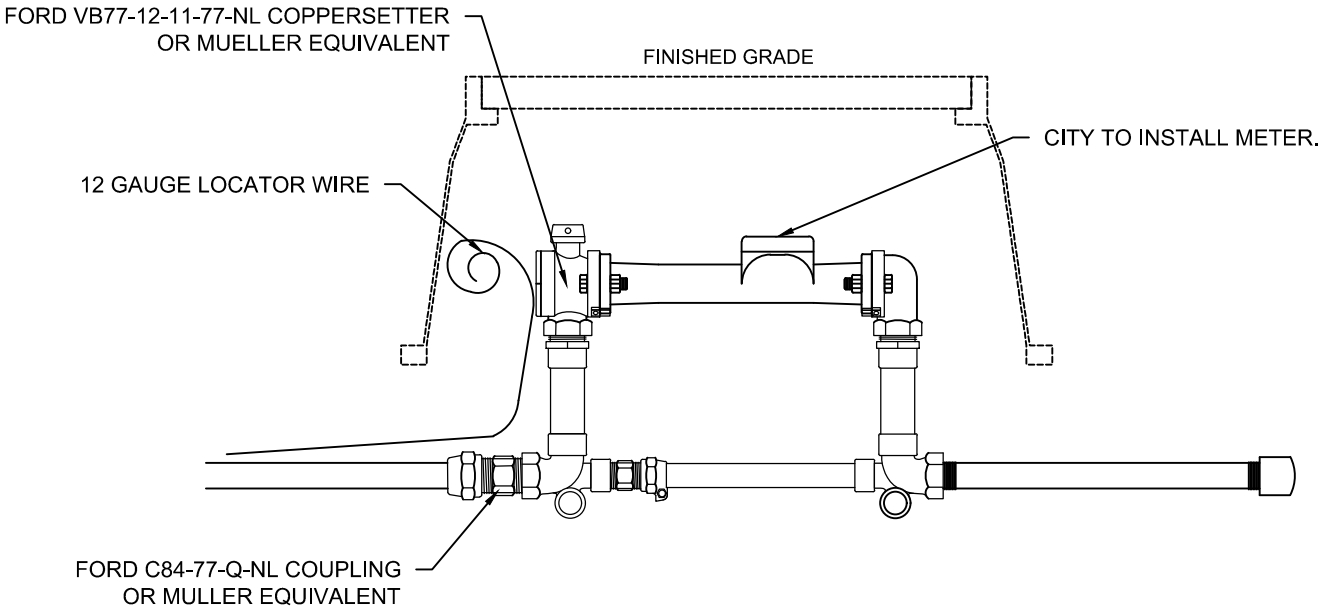
PRESSURIZED IRRIGATION 1 1/2" METER

DRAWING #
PS-08
ADOPTED DATE
APRIL 2018





NOTES:
1. FINISHED GRADE TO BE SET LEVEL WITH FRONT OF SIDEWALK
2. BOX TO SET ON MIN. 12" OF 6" DRAIN ROCK

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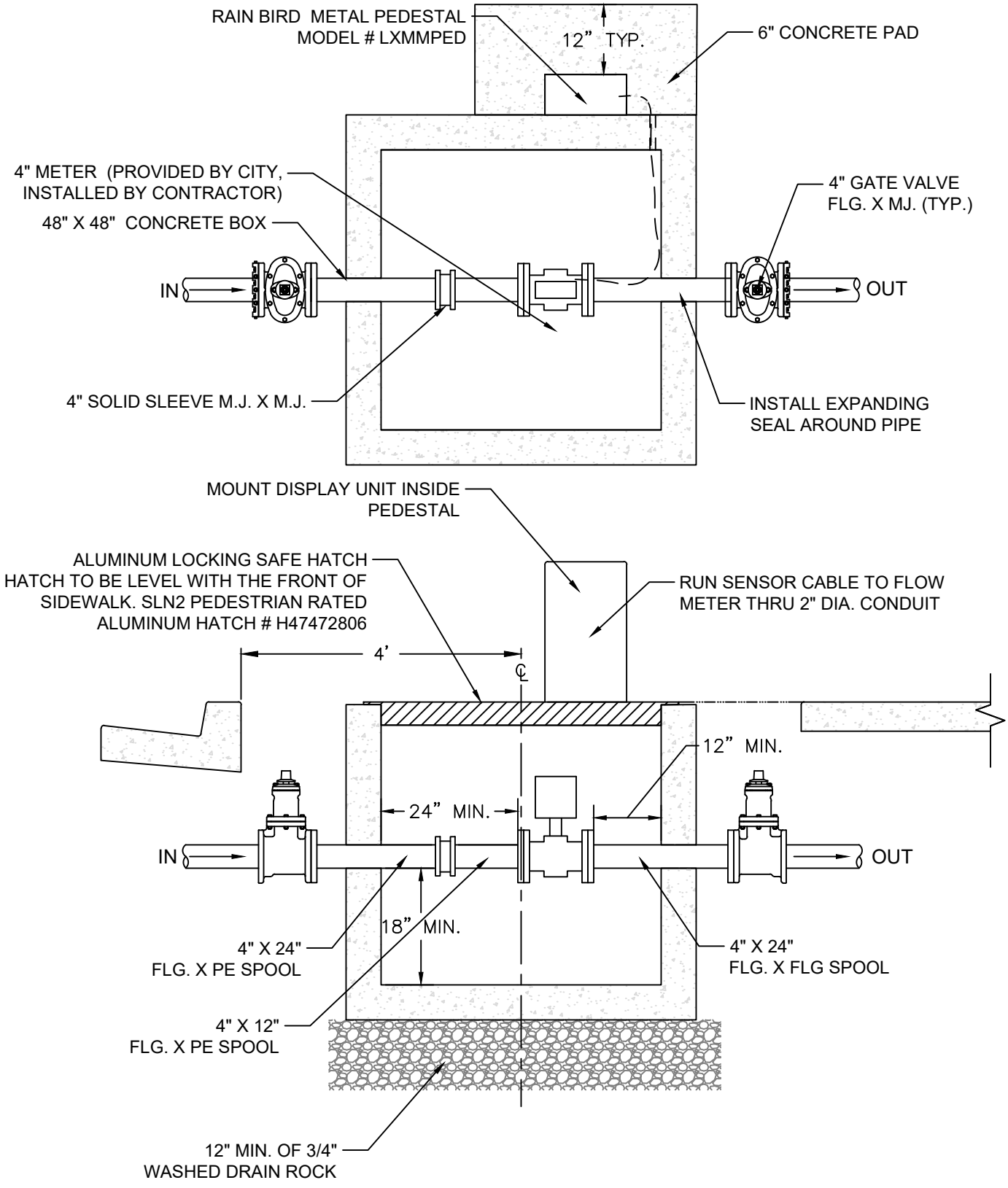
PRESSURIZED IRRIGATION 2" METER

DRAWING #
PS-09
ADOPTED DATE
APRIL 2018



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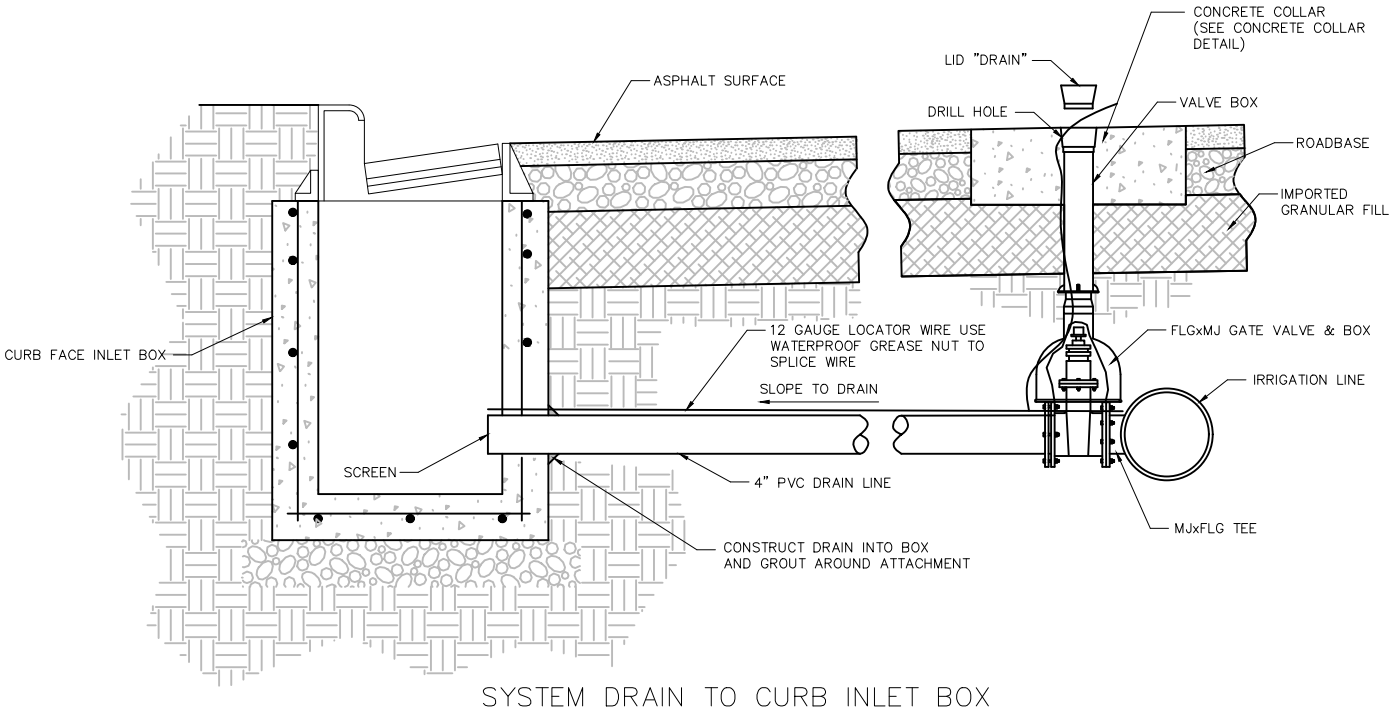
4" SECONDARY WATER METER

DRAWING #
PS-10
ADOPTED DATE
APRIL 2018



SYSTEM DRAIN TO CURB INLET BOX

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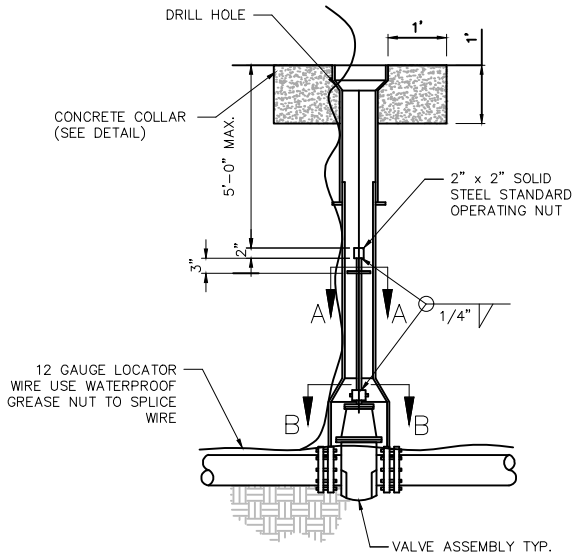
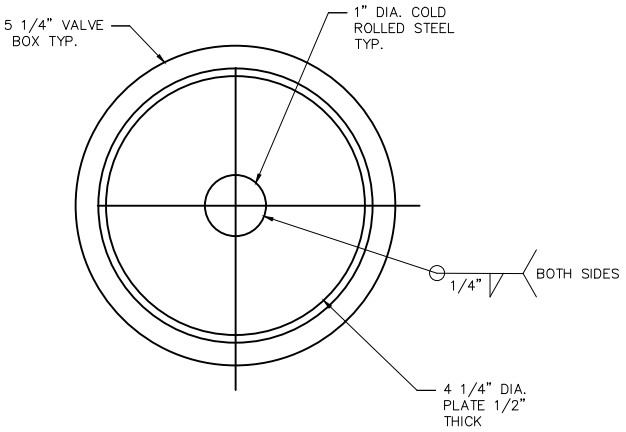
SECONDARY WATER DRAIN

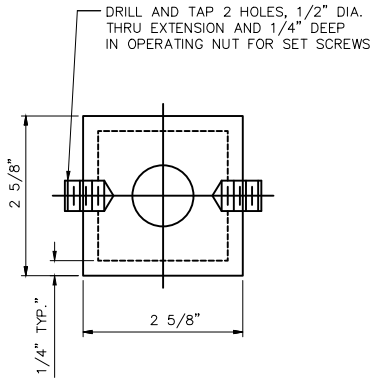
DRAWING #
PS-11
ADOPTED DATE
APRIL 2018

DETAILS ON THIS SHEET TO BE USED ONLY BY PERMISSION OF CITY ENGINEER





SECTION A–A



SECTION B–B

NOTE:
1. HOT DIP GALVANIZED STEM EXTENSION AFTER FABRICATION.

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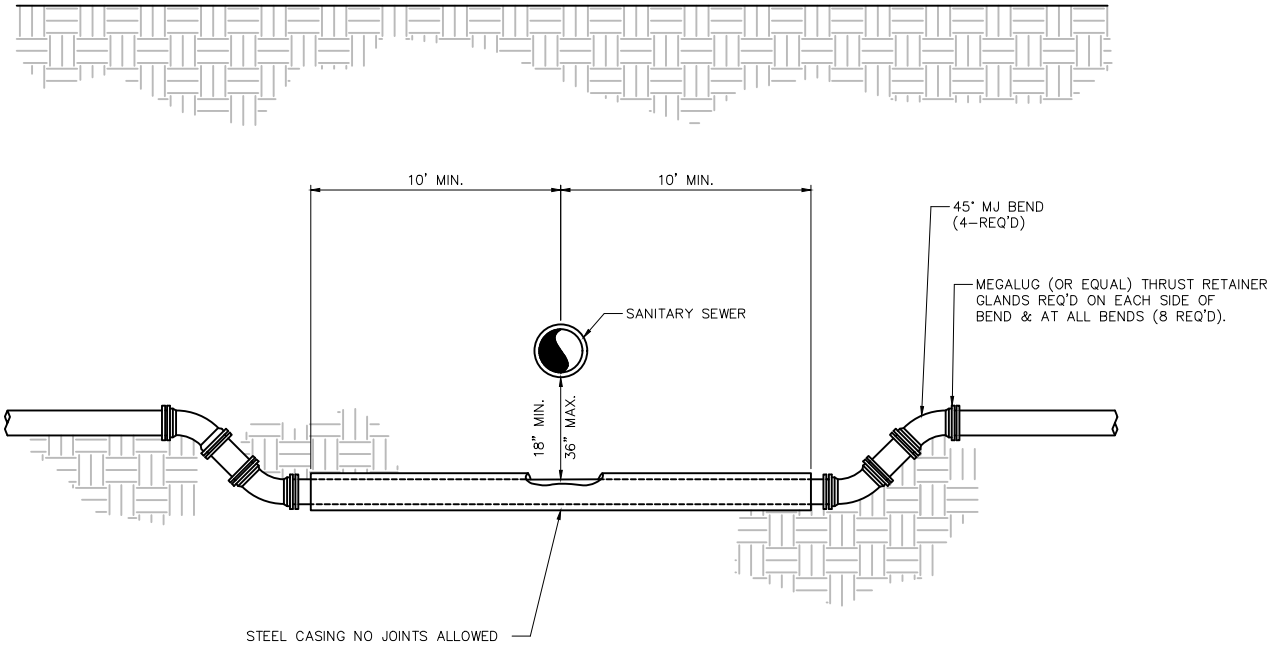
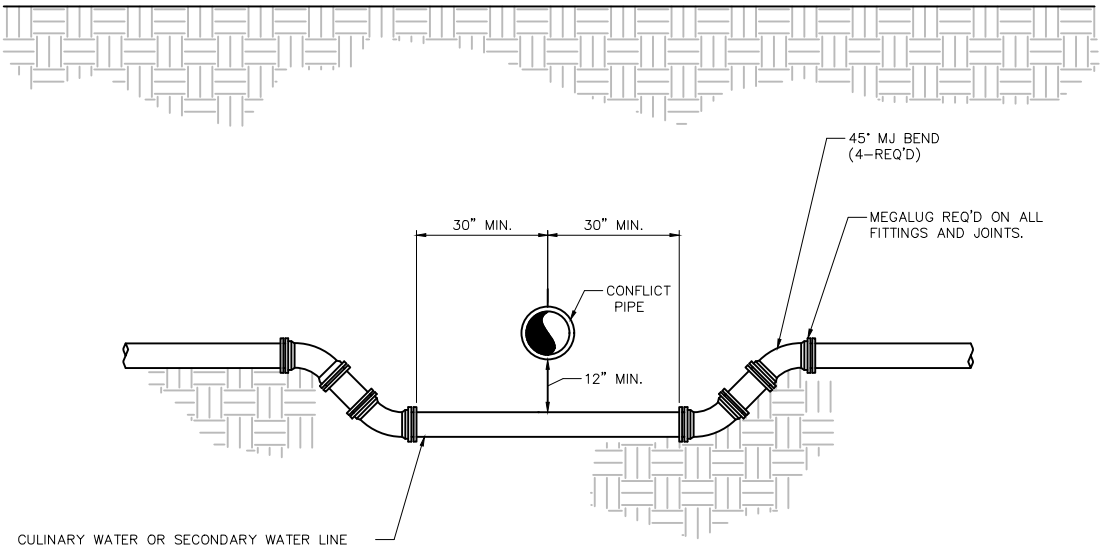
VALVE STEM EXTENSION

DRAWING #
PS-12
ADOPTED DATE
APRIL 2018

DETAILS ON THIS SHEET TO BE USED ONLY BY PERMISSION OF CITY ENGINEER



NOTE:
1. CONTRACTOR IS TO REVIEW AND FOLLOW STATE CODE.



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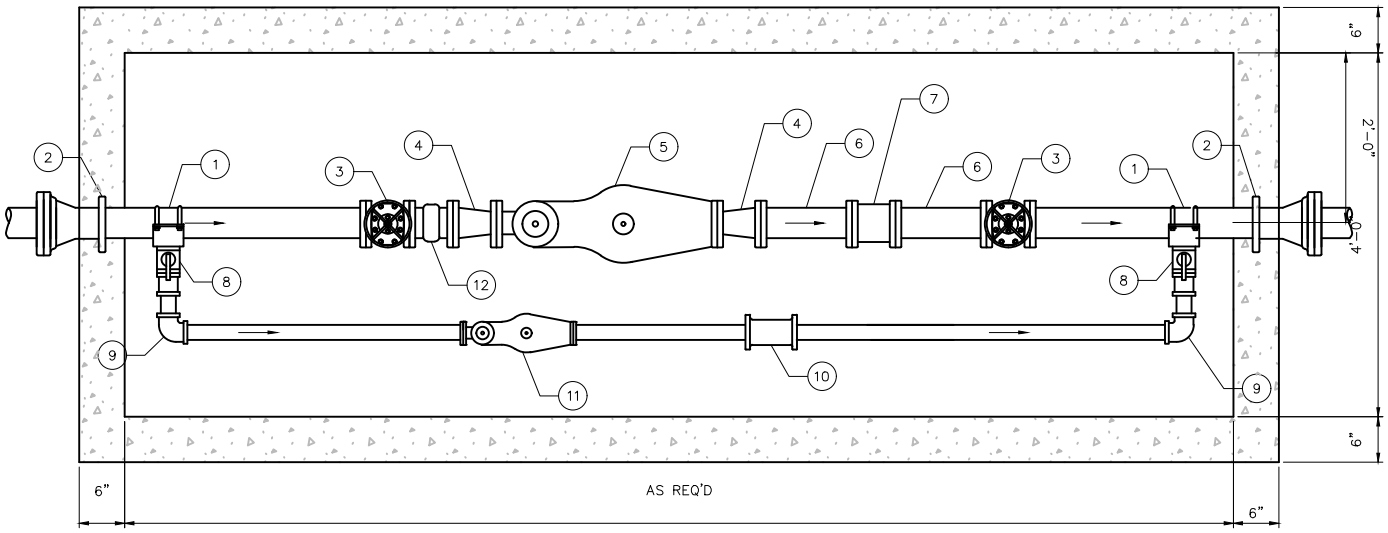
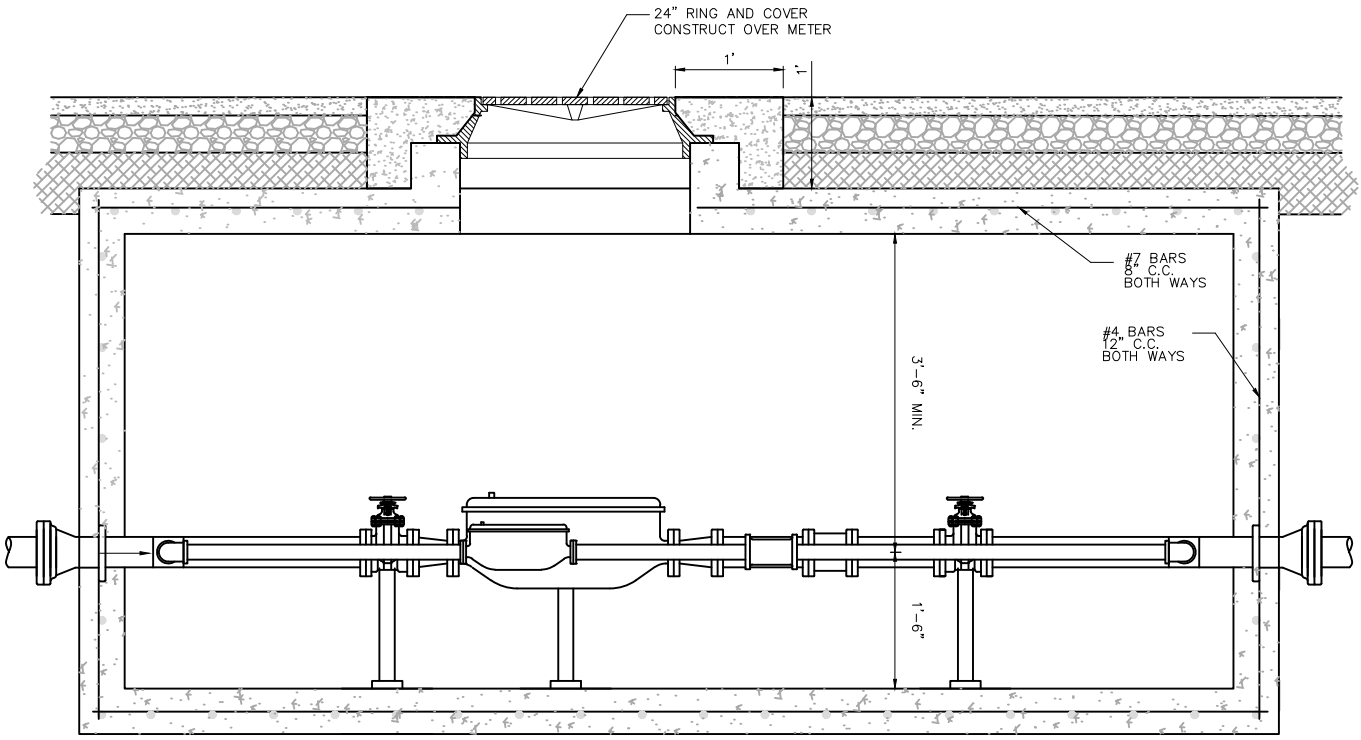
CULINARY UNDER SEWER CROSSINGS PRESSURE PIPE LOOPS

DRAWING #
PS-13
ADOPTED DATE
APRIL 2018





LEGEND	
NO.	DESCRIPTION
1	4" x 2" TAPPING SADDLE DOUBLE STRAPPED
2	4" x 18" WELDED WALL SLEEVE M.J. x FLG.
3	4" GATE VALVE FLG. WITH WHEEL
4	4" x 3" REDUCER FLG.
5	3" COMPOUND METER
6	4" x 12" SPOOL FLG. x P.E.
7	4" SOLID SLEEVE M.J.
8	2" BALL VALVE
9	2" ELBOW
10	2" DRESSER COUPLING
11	2" METER
12	3" STRAINER

NOTES:
1. ALL WORK MUST BE INSPECTED BY CITY WATER DEPARTMENT PRIOR TO BACKFILL.
2. CONCRETE BLOCKING AND ADJUSTABLE STEEL PIPE SUPPORTS REQ'D. AS SHOWN.
3. DIMENSIONS OF METER ASSEMBLY MAY VARY SLIGHTLY.
4. ALL GALVANIZED FITTINGS AND NIPPLES MUST BE WRAPPED WITH PLASTIC.

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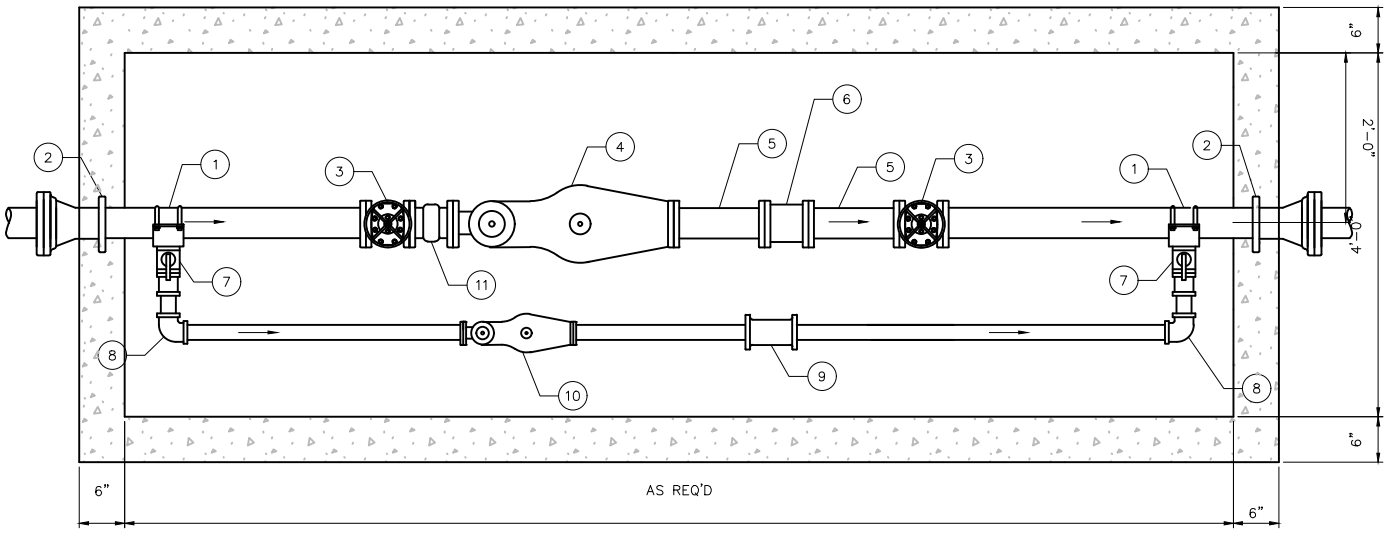
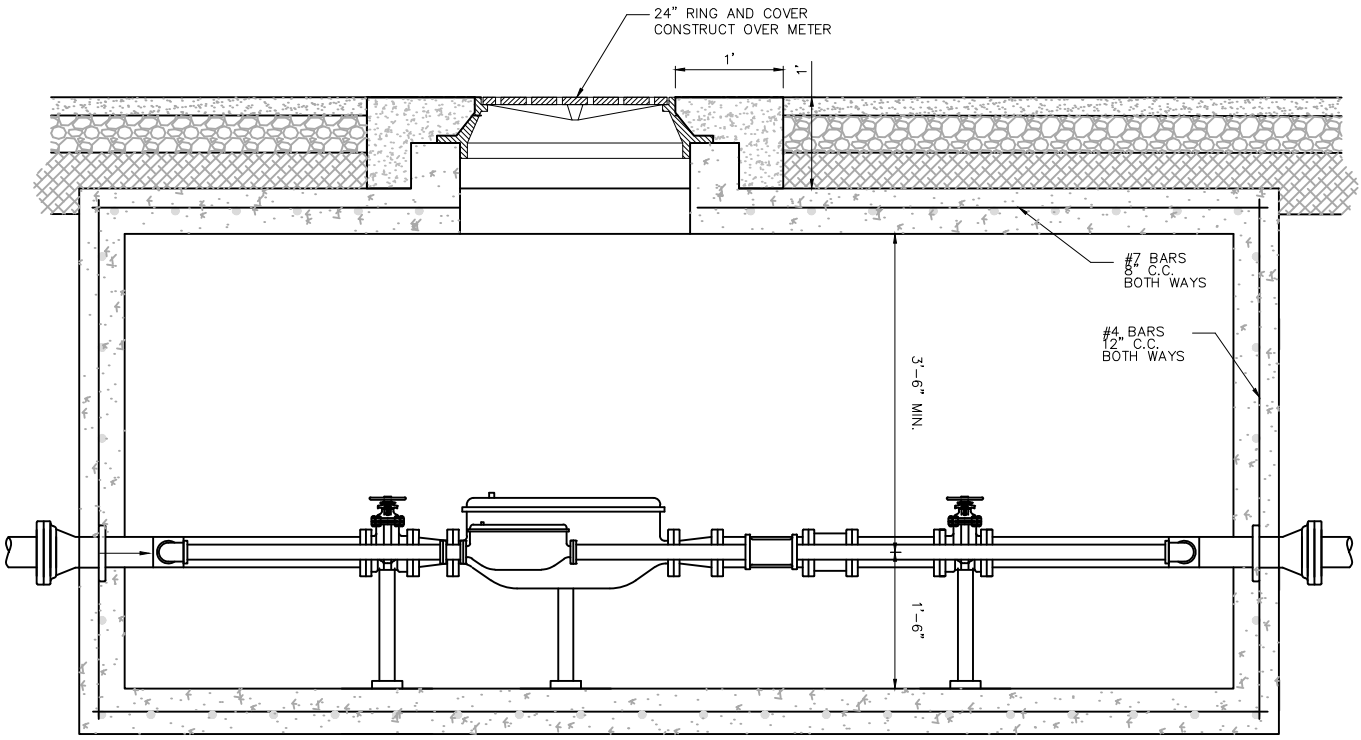
3" METER WITH 2" BYPASS

DRAWING #
PS-14
ADOPTED DATE
APRIL 2018





LEGEND	
NO.	DESCRIPTION
1	4" x 2" TAPPING SADDLE DOUBLE STRAPPED
2	4" x 18" WELDED WALL SLEEVE M.J. x FLG.
3	4" GATE VALVE FLG. WITH WHEEL
4	4" COMPOUND METER
5	4" x 12" SPOOL FLG. x P.E.
6	4" SOLID SLEEVE M.J.
7	2" BALL VALVE
8	2" ELBOW
9	2" DRESSER COUPLING
10	2" METER
11	4" STRAINER

NOTES:
1. ALL WORK MUST BE INSPECTED BY CITY WATER DEPARTMENT PRIOR TO BACKFILL.
2. CONCRETE BLOCKING AND ADJUSTABLE STEEL PIPE SUPPORTS REQ'D. AS SHOWN.
3. DIMENSIONS OF METER ASSEMBLY MAY VARY SLIGHTLY.
4. ALL GALVANIZED FITTINGS AND NIPPLES MUST BE WRAPPED WITH PLASTIC.

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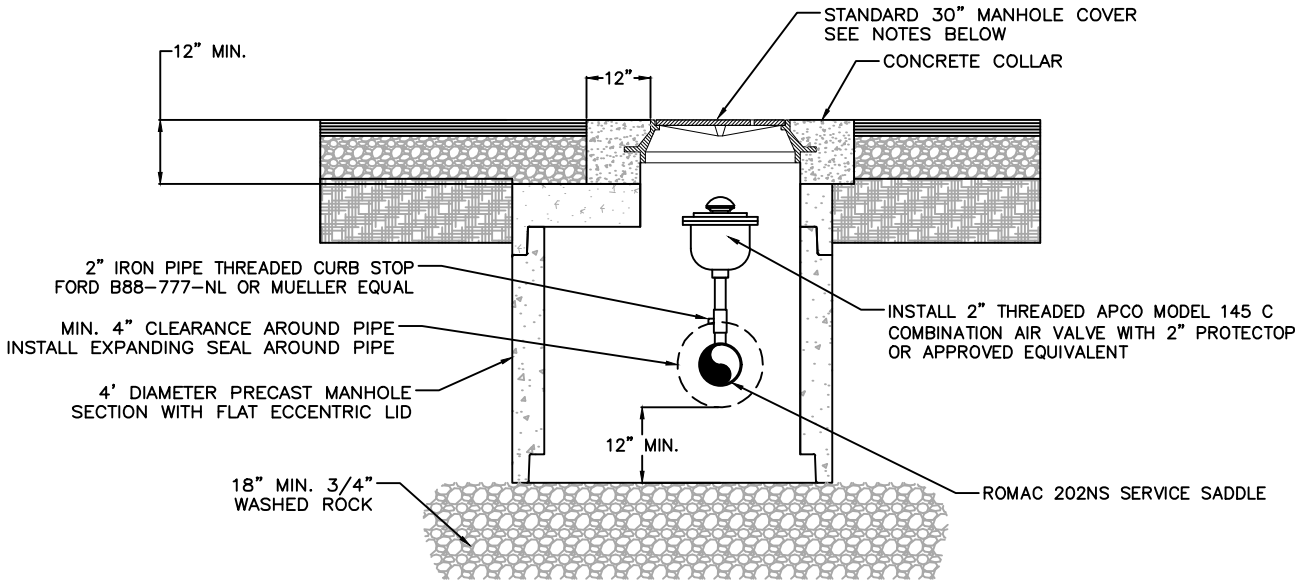
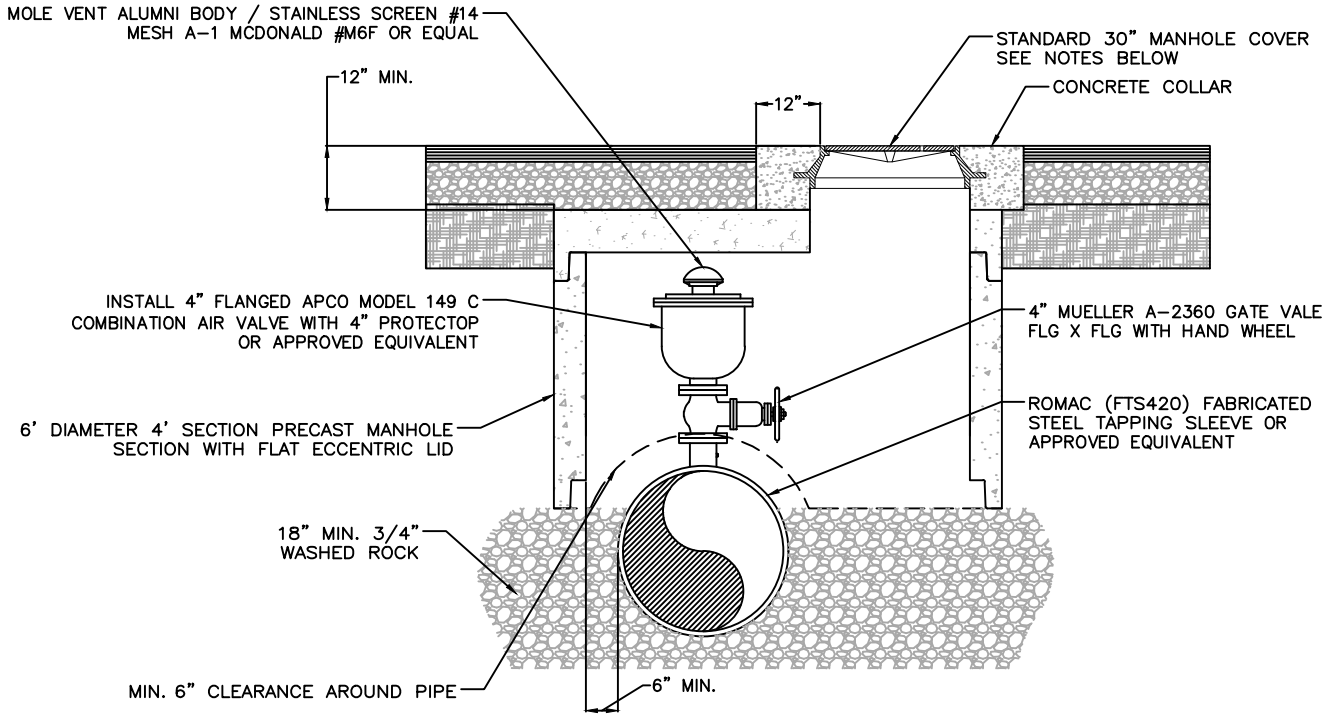
4" METER WITH 2" BYPASS

DRAWING #
PS-15
ADOPTED DATE
APRIL 2018



2" PRESSURIZED IRRIGATION AIR VALVE



4" PRESSURIZED IRRIGATION AIR VALVE

NOTES:
1. MANHOLE COVER TO BE A SOLID LID CONTAINING ONE PICK HOLE. SEE SPECIFICATION DIVISION 5 FOR COVER LABEL. D&L 1180 OR APPROVED EQUIVALENT MANHOLE FRAME AND LID THAT READS "PRESSURIZED IRRIGATION" AS APPROPRIATE
2. LID SHALL BE OF ECCENTRIC DESIGN AND MEET H20 LIVE LOADING.
3. IF POSSIBLE MOVE VALVE OUT OF LINE OF ACCESS.
4. CONCRETE FOR COLLARS SHALL UTILIZE FIBER MESH.

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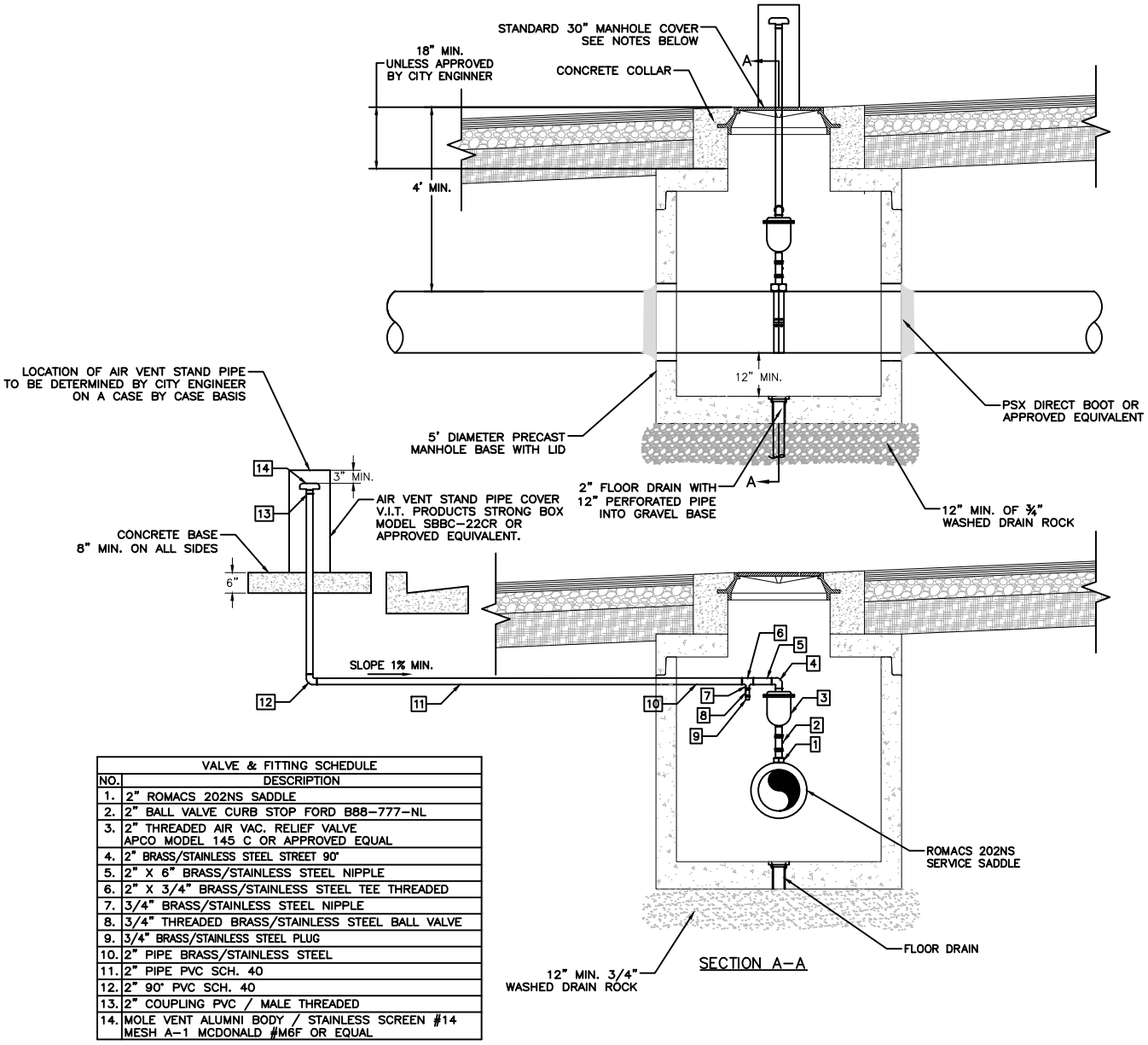
SECONDARY WATER AIR-VAC

DRAWING #
PS-16
ADOPTED DATE
APRIL 2018



VALVE & FITTING SCHEDULE	
NO.	DESCRIPTION
1.	2" ROMACS 202NS SADDLE
2.	2" BALL VALVE CURB STOP FORD B88-777-NL
3.	2" THREADED AIR VAC. RELIEF VALVE APCO MODEL 145 C OR APPROVED EQUAL
4.	2" BRASS/STAINLESS STEEL STREET 90°
5.	2" X 6" BRASS/STAINLESS STEEL NIPPLE
6.	2" X 3/4" BRASS/STAINLESS STEEL TEE THREADED
7.	3/4" BRASS/STAINLESS STEEL NIPPLE
8.	3/4" THREADED BRASS/STAINLESS STEEL BALL VALVE
9.	3/4" BRASS/STAINLESS STEEL PLUG
10.	2" PIPE BRASS/STAINLESS STEEL
11.	2" PIPE PVC SCH. 40
12.	2" 90° PVC SCH. 40
13.	2" COUPLING PVC / MALE THREADED
14.	MOLE VENT ALUMNI BODY / STAINLESS SCREEN #14 MESH A-1 MCDONALD #M6F OR EQUAL

NOTES:
1. MANHOLE COVER TO BE A SOLID LID CONTAINING ONE PICK HOLE. SEE SPECIFICATION DIVISION 5 FOR COVER LABEL. D&L 1180 OR APPROVED EQUIVALENT MANHOLE FRAME AND LID THAT READS "WATER"
2. LID SHALL BE OF ECCENTRIC DESIGN AND MEET H20 LIVE LOADING. NO FLAT RING AND COVERS WILL BE ALLOWED UNLESS APPROVED BY THE CITY ENGINEER OR HIS REPRESENTATIVE.
3. UNDER WET CONDITIONS INSTALL A DRAIN ABOVE THE WATER TABLE AND BELOW THE VALVE.
4. IF POSSIBLE MOVE VALVE OUT OF LINE OF ACCESS.
5. CONCRETE FOR COLLARS SHALL UTILIZE FIBER MESH.

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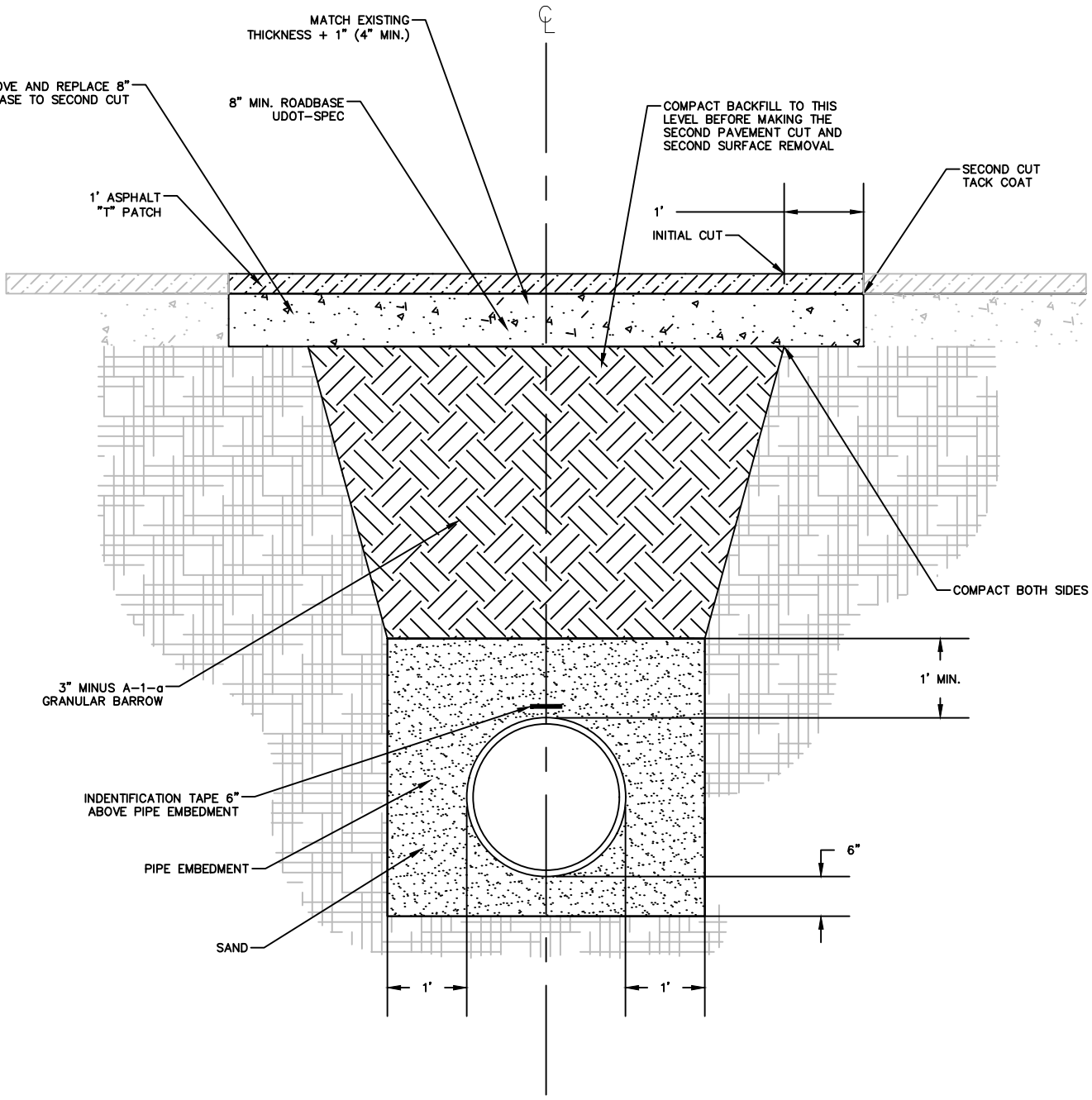
CULINARY WATER AIR-VAC

DRAWING #
PS-17
ADOPTED DATE
APRIL 2018



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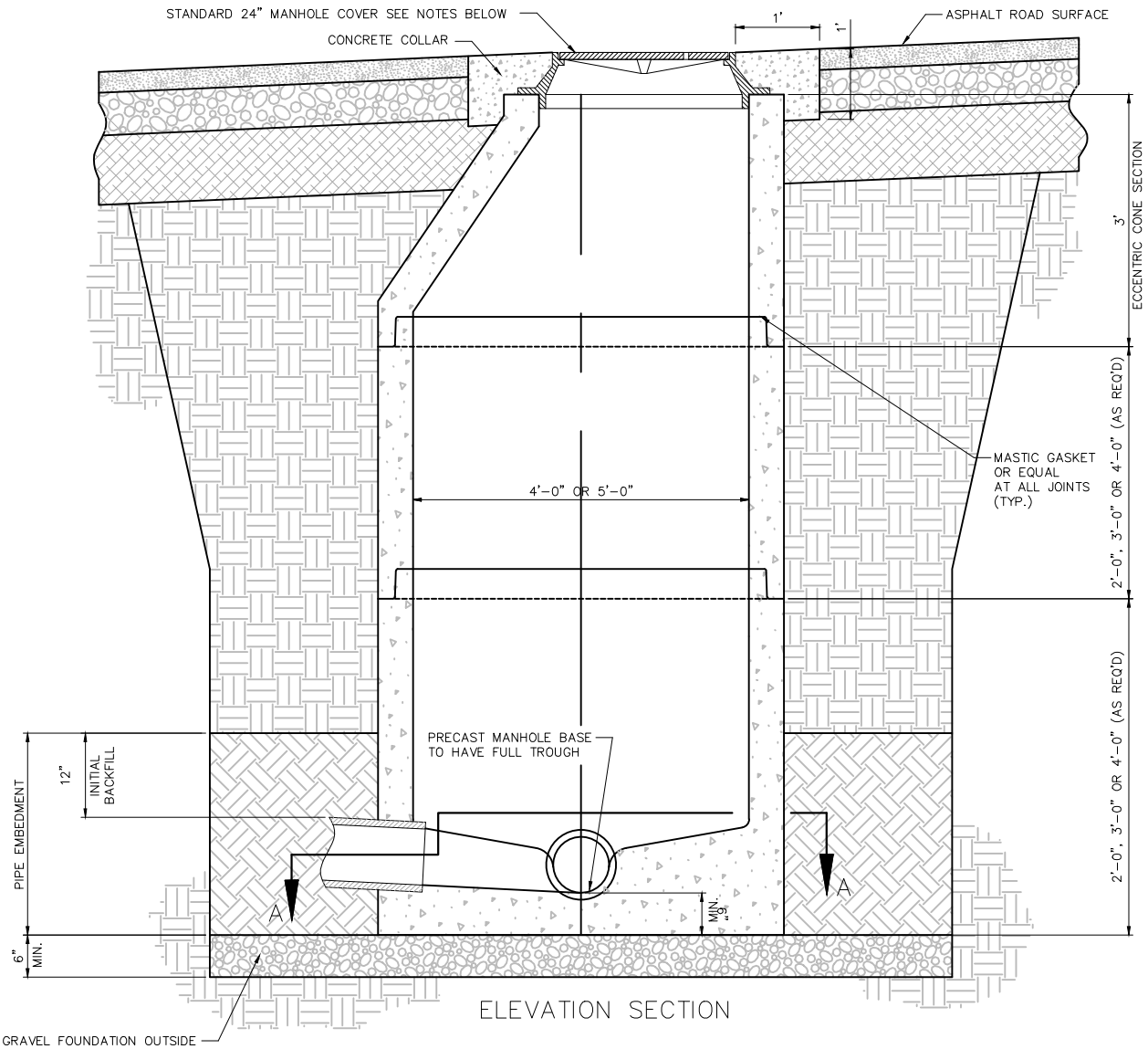
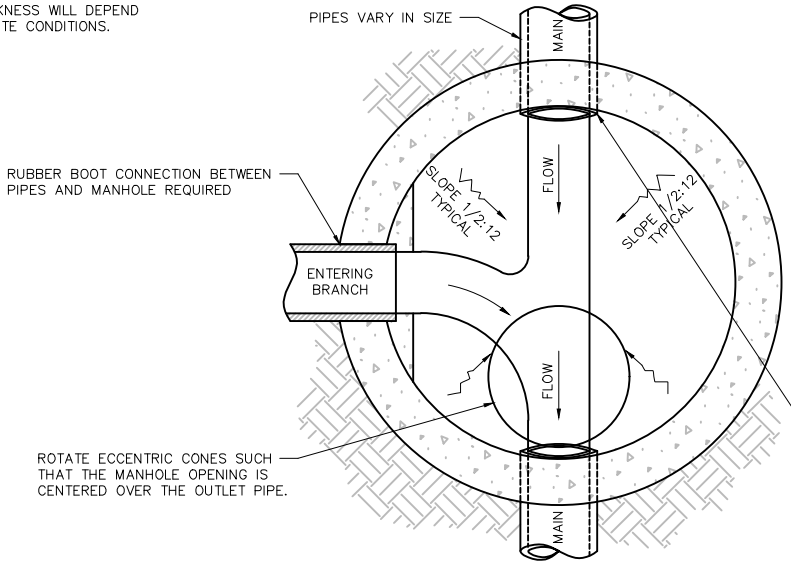
PRESSURE PIPE TRENCH

DRAWING #
PS-18
ADOPTED DATE
APRIL 2018



ELEVATION SECTION



SECTION A–A

NOTES:

1. MANHOLE COVER AND LID TO BE D&L P/N A–1180–13 OR EQUAL. "SEWER"
2. FLAT LIDS MAY BE USED IN LIEU OF ECCENTRIC CONES WHERE NECESSARY. FLAT LIDS SHALL BE OF ECCENTRIC DESIGN AND MEET H20 LIVE LOADING. NO FLAT RING AND COVERS WILL BE ALLOWED UNLESS APPROVED BY THE CITY ENGINEER OR HIS REPRESENTATIVE.
3. FOR CAST–IN–PLACE BASES, CONCRETE SHALL BE PLACED AGAINST UNDISTURBED EARTH.
4. ECCENTRIC CONES ARE TO BE ROTATED SUCH THAT MANHOLE OPENING IS CENTERED OVER OUTLET PIPE.
5. CONCENTRIC CONES ARE TO BE USED ONLY WITH THE PERMISSION OF THE CITY ENGINEER OR HIS REPRESENTATIVE.
6. WHEN 2 PIPES CONNECT TO A MANHOLE , A 4' DIAM. MANHOLE IS TO BE USED. WHEN 3 OR MORE PIPES CONNECT TO A MANHOLE,A 5' DIAM. MANHOLE WILL BE USED.
7. CONCRETE FOR COLLARS SHALL UTILIZE FIBER MESH.
8. PIPE INVERTS SHALL HAVE ONE–TENTH (0.10) FALL FROM INLET TO OUTLET WHEN PIPES ARE GRATER THAN 100° WHEN PIPES ARE 90° TWO–TENTHS FALL WILL BE REQUIRED.
9. PIPE ALIGNMENTS UNDER 90° WILL NOT BE ALLOWED.

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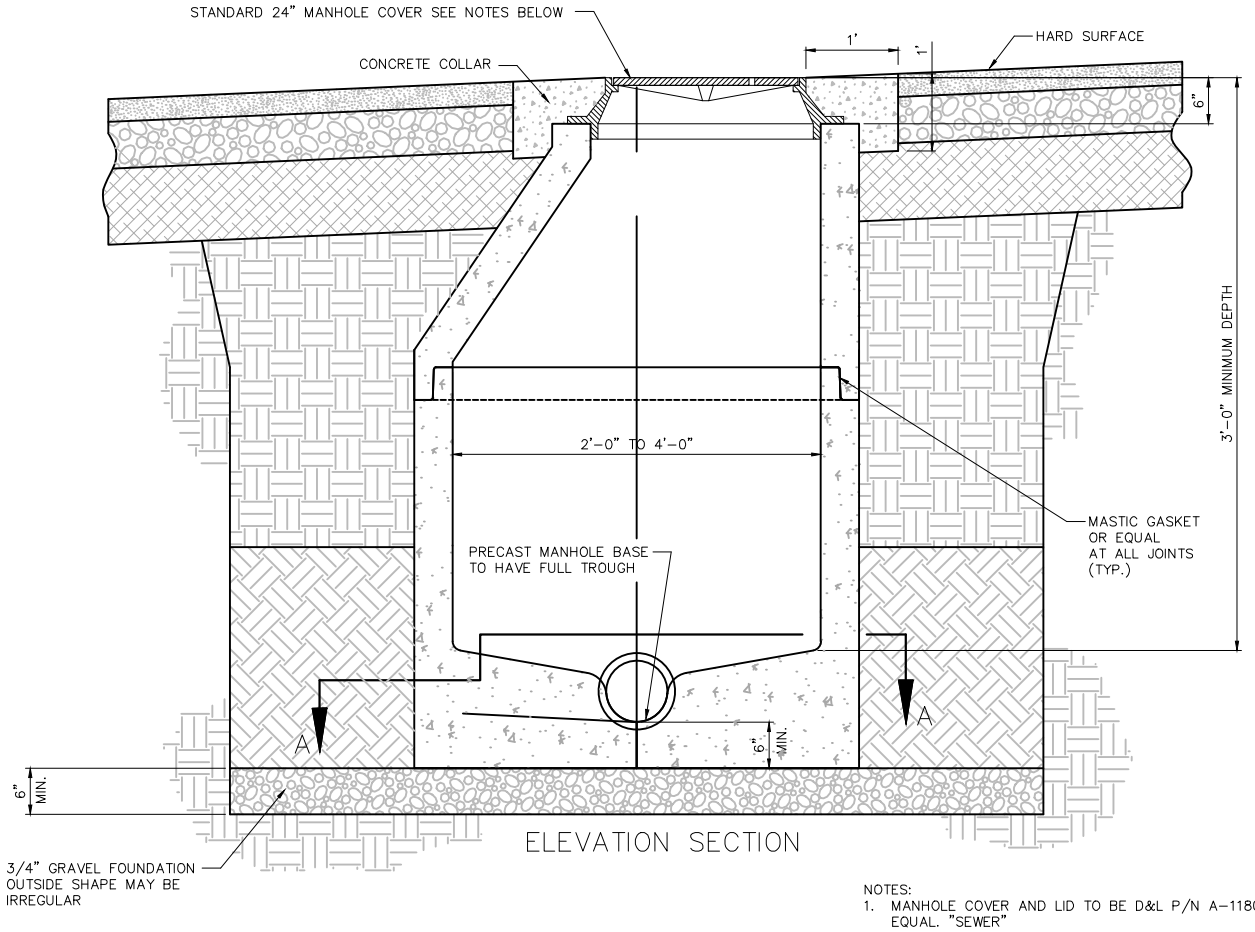
SEWER MANHOLE

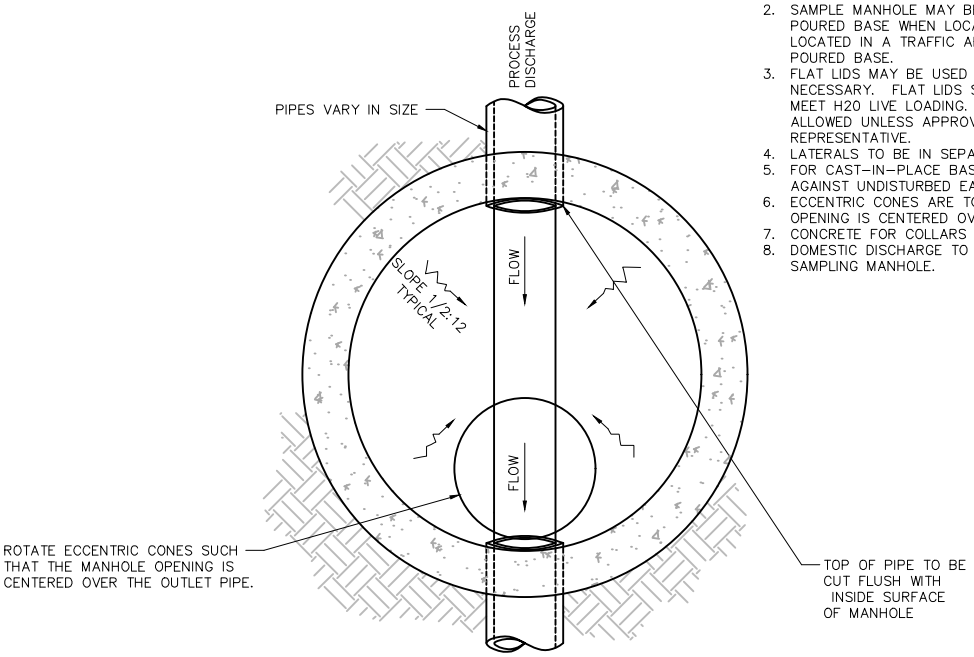
DRAWING #
SS-01
ADOPTED DATE
APRIL 2018



ELEVATION SECTION

NOTES:

1. MANHOLE COVER AND LID TO BE D&L P/N A-1180-13 OR EQUAL. "SEWER"
2. SAMPLE MANHOLE MAY BE CORRUGATED METAL PIPE WITH A POURED BASE WHEN LOCATED IN A NON-TRAFFIC AREA. IF LOCATED IN A TRAFFIC AREA IT MUST BE CONCRETE WITH A POURED BASE.
3. FLAT LIDS MAY BE USED IN LIEU OF ECCENTRIC CONES WHERE NECESSARY. FLAT LIDS SHALL BE OF ECCENTRIC DESIGN AND MEET H20 LIVE LOADING. NO FLAT RING AND COVERS WILL BE ALLOWED UNLESS APPROVED BY THE CITY ENGINEER OR HIS REPRESENTATIVE.
4. LATERALS TO BE IN SEPARATE TROUGHS IN MANHOLE.
5. FOR CAST-IN-PLACE BASES, CONCRETE SHALL BE PLACED AGAINST UNDISTURBED EARTH.
6. ECCENTRIC CONES ARE TO BE ROTATED SUCH THAT MANHOLE OPENING IS CENTERED OVER OUTLET PIPE.
7. CONCRETE FOR COLLARS SHALL UTILIZE FIBER MESH.
8. DOMESTIC DISCHARGE TO BE CONNECTED DOWN STREAM FROM SAMPLING MANHOLE.



SECTION A-A

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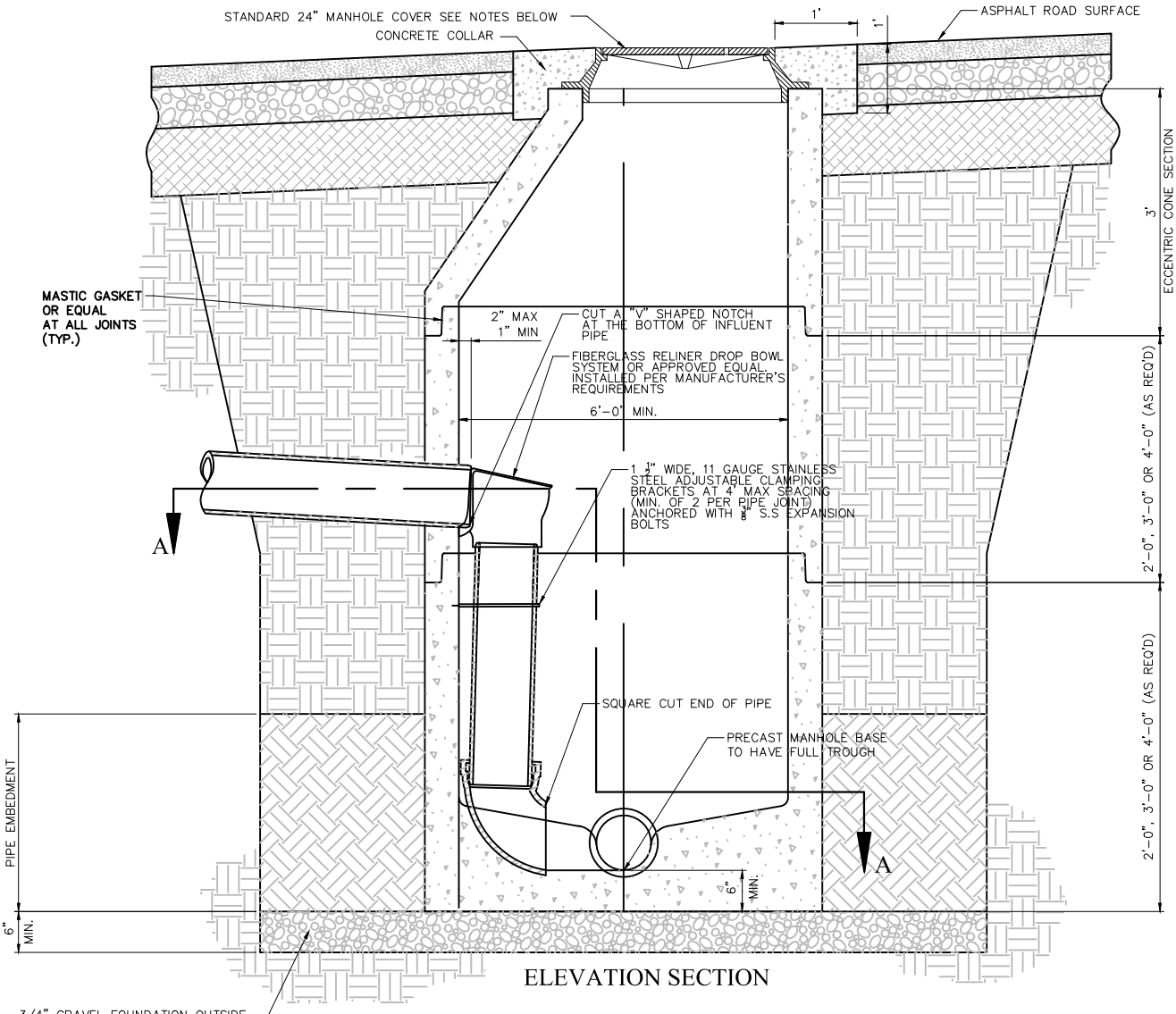
SAMPLING MANHOLE

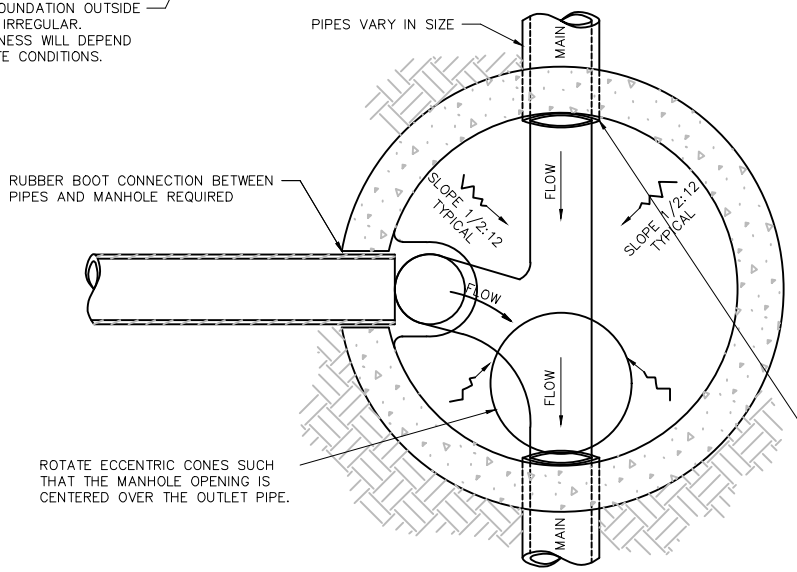
DRAWING #
SS-02
ADOPTED DATE
APRIL 2018

DETAILS ON THIS SHEET TO BE USED ONLY BY PERMISSION OF CITY ENGINEER



ELEVATION SECTION

3/4" GRAVEL FOUNDATION OUTSIDE SHAPE MAY BE IRREGULAR. MAXIMUM THICKNESS WILL DEPEND ON SPECIFIC SITE CONDITIONS.



SECTION A-A

NOTES:
1. MANHOLE COVER AND LID TO BE D&L P/N A-1180-13 OR EQUAL. "SEWER"
2. FLAT LIDS MAY BE USED IN LIEU OF ECCENTRIC CONES WHERE NECESSARY. FLAT LIDS SHALL BE OF ECCENTRIC DESIGN AND MEET H20 LIVE LOADING. NO FLAT RING AND COVERS WILL BE ALLOWED UNLESS APPROVED BY THE CITY ENGINEER OR HIS REPRESENTATIVE.
3. FOR CAST-IN-PLACE BASES, CONCRETE SHALL BE PLACED AGAINST UNDISTURBED EARTH.
4. ECCENTRIC CONES ARE TO BE ROTATED SUCH THAT MANHOLE OPENING IS CENTERED OVER OUTLET PIPE.
5. CONCENTRIC CONES ARE TO BE USED ONLY WITH THE PERMISSION OF THE CITY ENGINEER OR HIS REPRESENTATIVE.
6. MAXIMUM SIZE OF INFLUENT PIPE IS 12".
7. CONCRETE FOR COLLARS SHALL UTILIZE FIBER MESH

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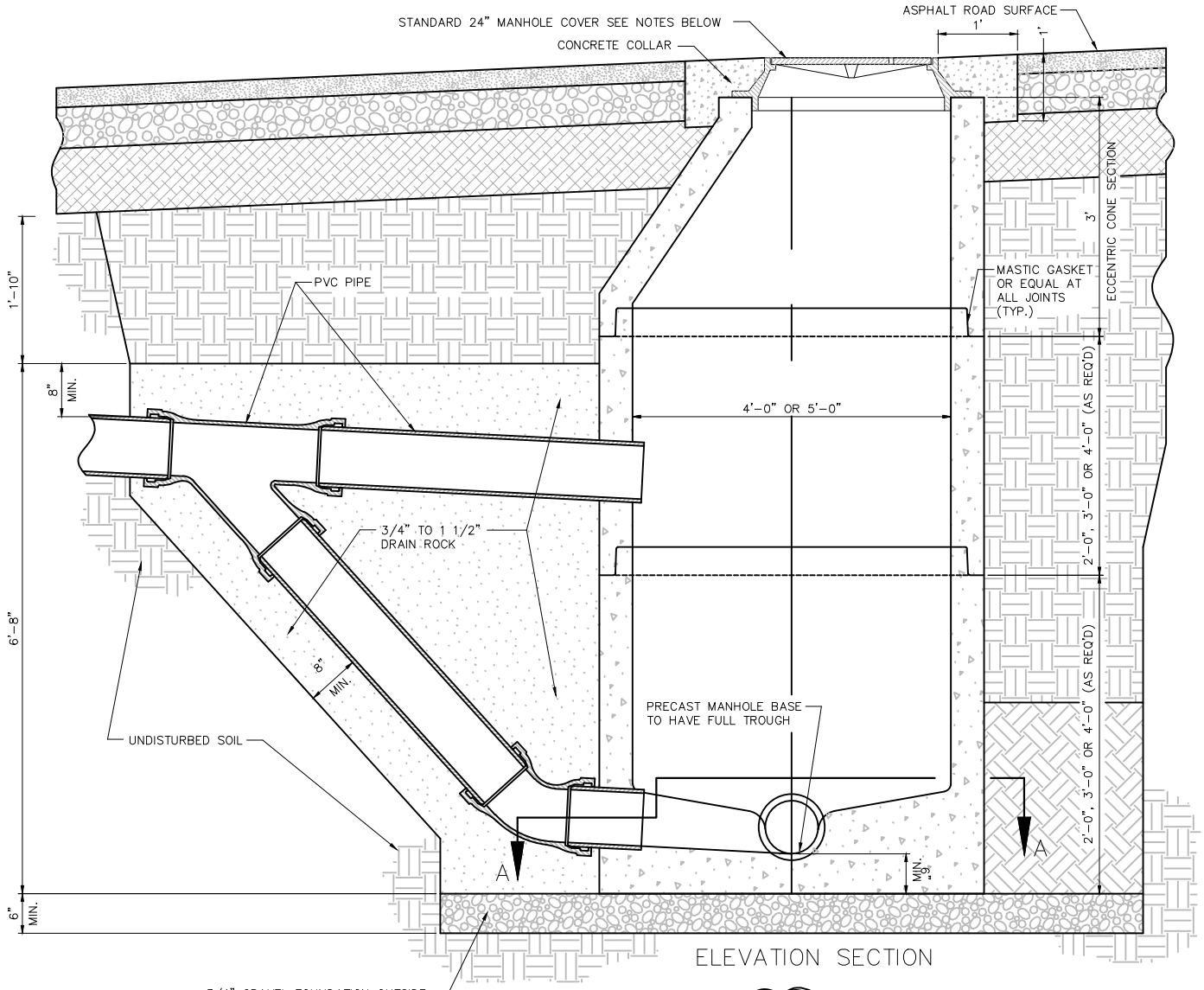
DROP MANHOLE

DRAWING # SS-03

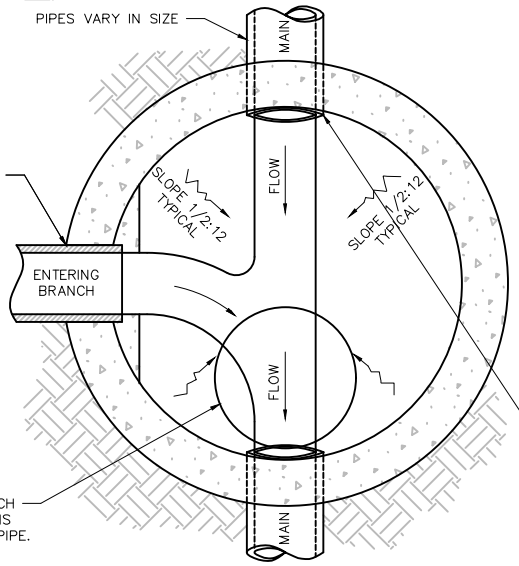
ADOPTED DATE APRIL 2018

DETAILS ON THIS SHEET TO BE USED ONLY BY PERMISSION OF CITY ENGINEER



ELEVATION SECTION

3/4" GRAVEL FOUNDATION OUTSIDE SHAPE MAY BE IRREGULAR. MAXIMUM THICKNESS WILL DEPEND ON SPECIFIC SITE CONDITIONS.



SECTION A-A

NOTES:
1. MANHOLE COVER AND LID TO BE D&L P/N A-1180-13 OR EQUAL. "SEWER"
2. FLAT LIDS MAY BE USED IN LIEU OF ECCENTRIC CONES WHERE NECESSARY. FLAT LIDS SHALL BE OF ECCENTRIC DESIGN AND MEET H20 LIVE LOADING. NO FLAT RING AND COVERS WILL BE ALLOWED UNLESS APPROVED BY THE CITY ENGINEER OR HIS REPRESENTATIVE.
3. FOR CAST-IN-PLACE BASES, CONCRETE SHALL BE PLACED AGAINST UNDISTURBED EARTH.
4. ECCENTRIC CONES ARE TO BE ROTATED SUCH THAT MANHOLE OPENING IS CENTERED OVER OUTLET PIPE.
5. CONCENTRIC CONES ARE TO BE USED ONLY WITH THE PERMISSION OF THE CITY ENGINEER OR HIS REPRESENTATIVE.
6. WHEN 2 PIPES CONNECT TO A MANHOLE , A 4' DIAM. MANHOLE IS TO BE USED. WHEN 3 OR MORE PIPES CONNECT TO A MANHOLE, A 5' DIAM. MANHOLE WILL BE USED.
7. CONCRETE FOR COLLARS SHALL UTILIZE FIBER MESH.

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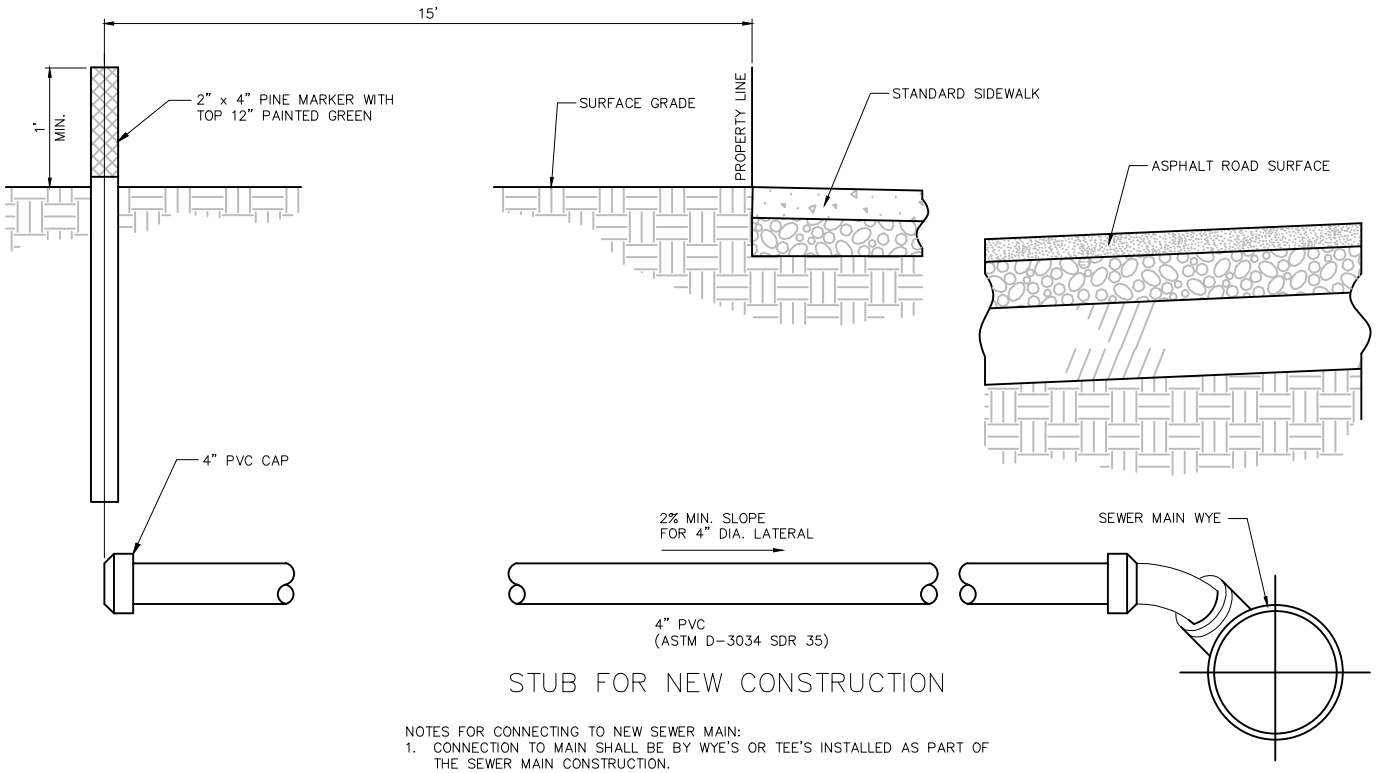
ALTERNATE DROP MANHOLE

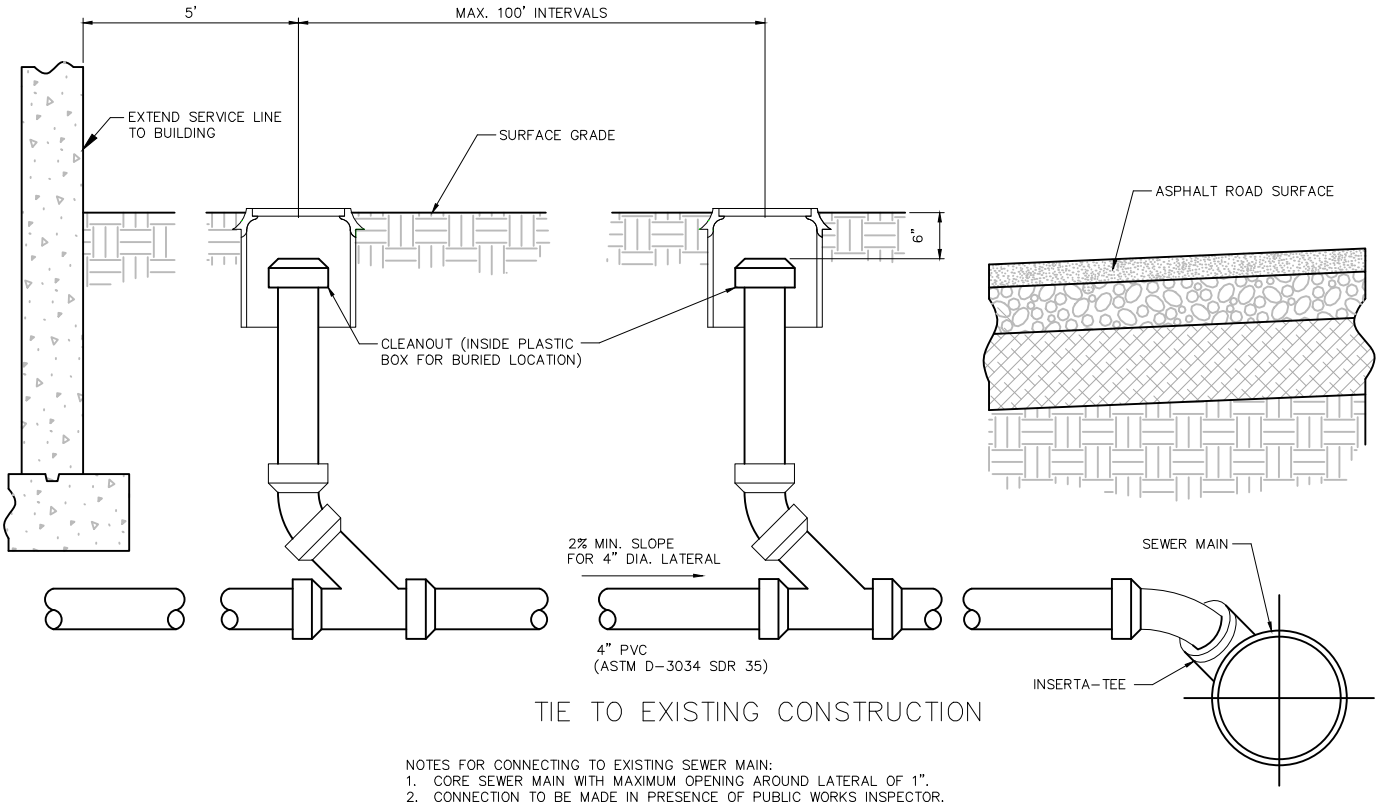
DRAWING # SS-04

ADOPTED DATE APRIL 2018



STUB FOR NEW CONSTRUCTION

NOTES FOR CONNECTING TO NEW SEWER MAIN:
1. CONNECTION TO MAIN SHALL BE BY WYE'S OR TEE'S INSTALLED AS PART OF THE SEWER MAIN CONSTRUCTION.
2. LOCATION OF STUB TO BE 10' DOWNHILL FROM THE LOT CENTER LINE.
3. SHOW CENTERLINE STATION OF THE LATERAL FROM THE NEAREST DOWNSTREAM MANHOLE. USE SAME STATIONING USED FOR SEWER MAIN.



TIE TO EXISTING CONSTRUCTION

NOTES FOR CONNECTING TO EXISTING SEWER MAIN:
1. CORE SEWER MAIN WITH MAXIMUM OPENING AROUND LATERAL OF 1".
2. CONNECTION TO BE MADE IN PRESENCE OF PUBLIC WORKS INSPECTOR.

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110 SOUTH MAIN STEET
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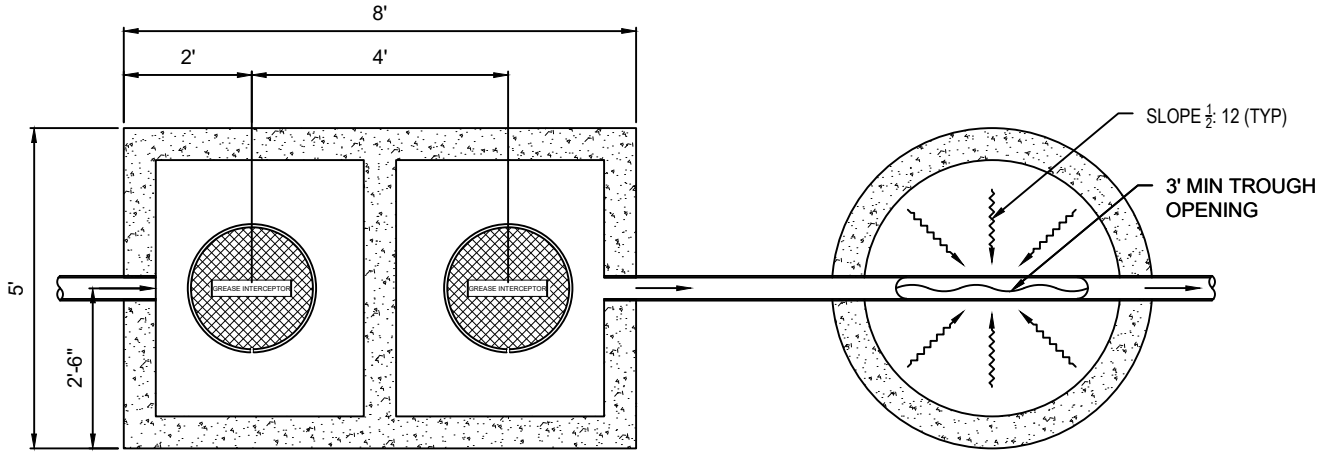
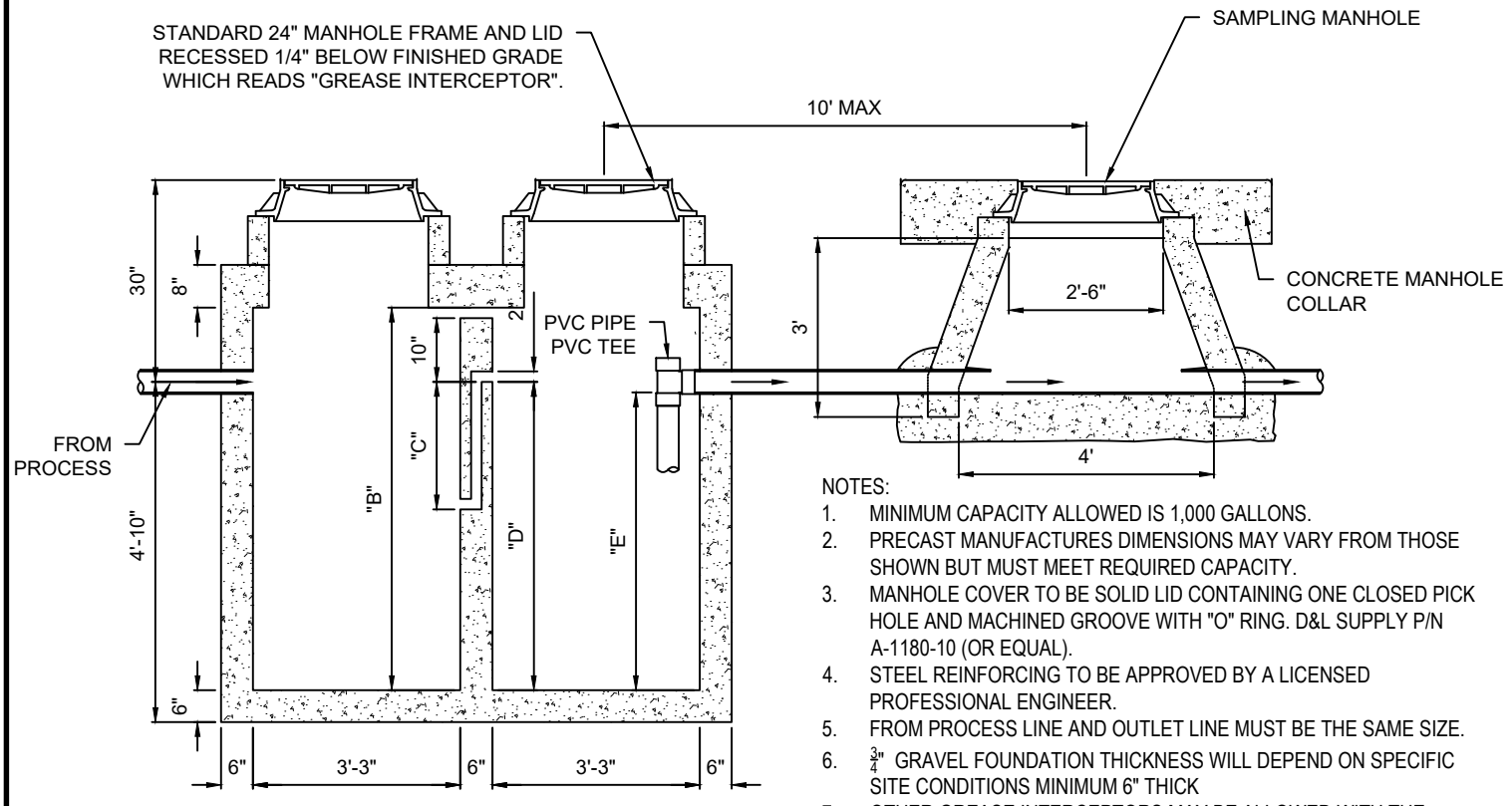
TYPICAL SEWER LATERAL

DRAWING # SS-05

ADOPTED DATE APRIL 2018





NOTES:

1. MINIMUM CAPACITY ALLOWED IS 1,000 GALLONS.
2. PRECAST MANUFACTURES DIMENSIONS MAY VARY FROM THOSE SHOWN BUT MUST MEET REQUIRED CAPACITY.
3. MANHOLE COVER TO BE SOLID LID CONTAINING ONE CLOSED PICK HOLE AND MACHINED GROOVE WITH "O" RING. D&L SUPPLY P/N A-1180-10 (OR EQUAL).
4. STEEL REINFORCING TO BE APPROVED BY A LICENSED PROFESSIONAL ENGINEER.
5. FROM PROCESS LINE AND OUTLET LINE MUST BE THE SAME SIZE.
6. 3/4" GRAVEL FOUNDATION THICKNESS WILL DEPEND ON SPECIFIC SITE CONDITIONS MINIMUM 6" THICK
7. OTHER GREASE INTERCEPTORS MAY BE ALLOWED WITH THE APPROVAL FROM SEWER SUPERINTENDENT.

GREASE TRAP DIMENSIONS PER CAPACITY					
CAPACITY	DIMENSION "A"	DIMENSION "B"	DIMENSION "C"	DIMENSION "D"	DIMENSION "E"
1000 GALLON	68"	72"	24"	61"	65"
1200 GALLON	74"	78"	24"	67"	71"

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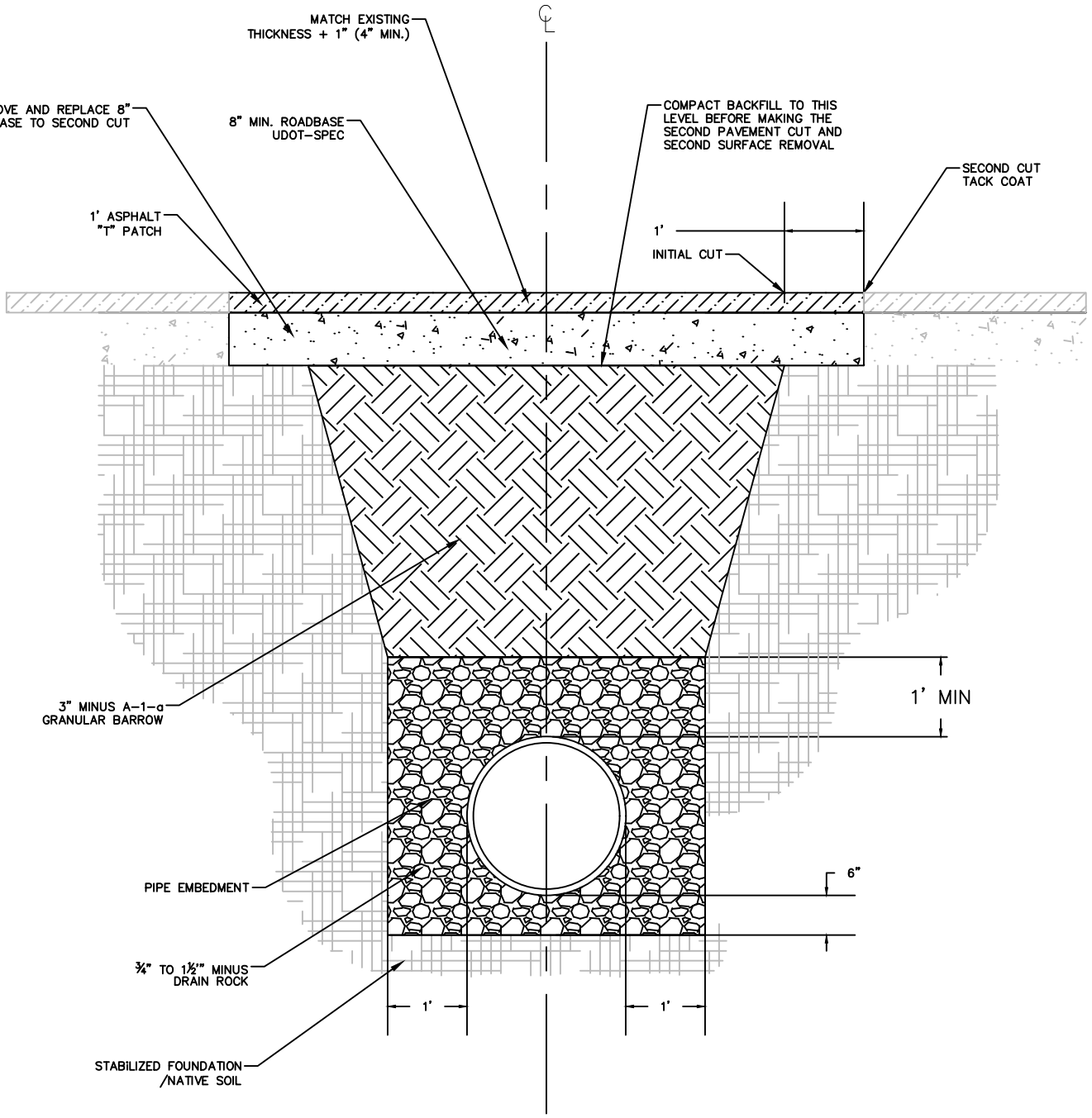
TYPICAL GREASE INTERCEPTOR

DRAWING # SS-06

ADOPTED DATE APRIL 2018



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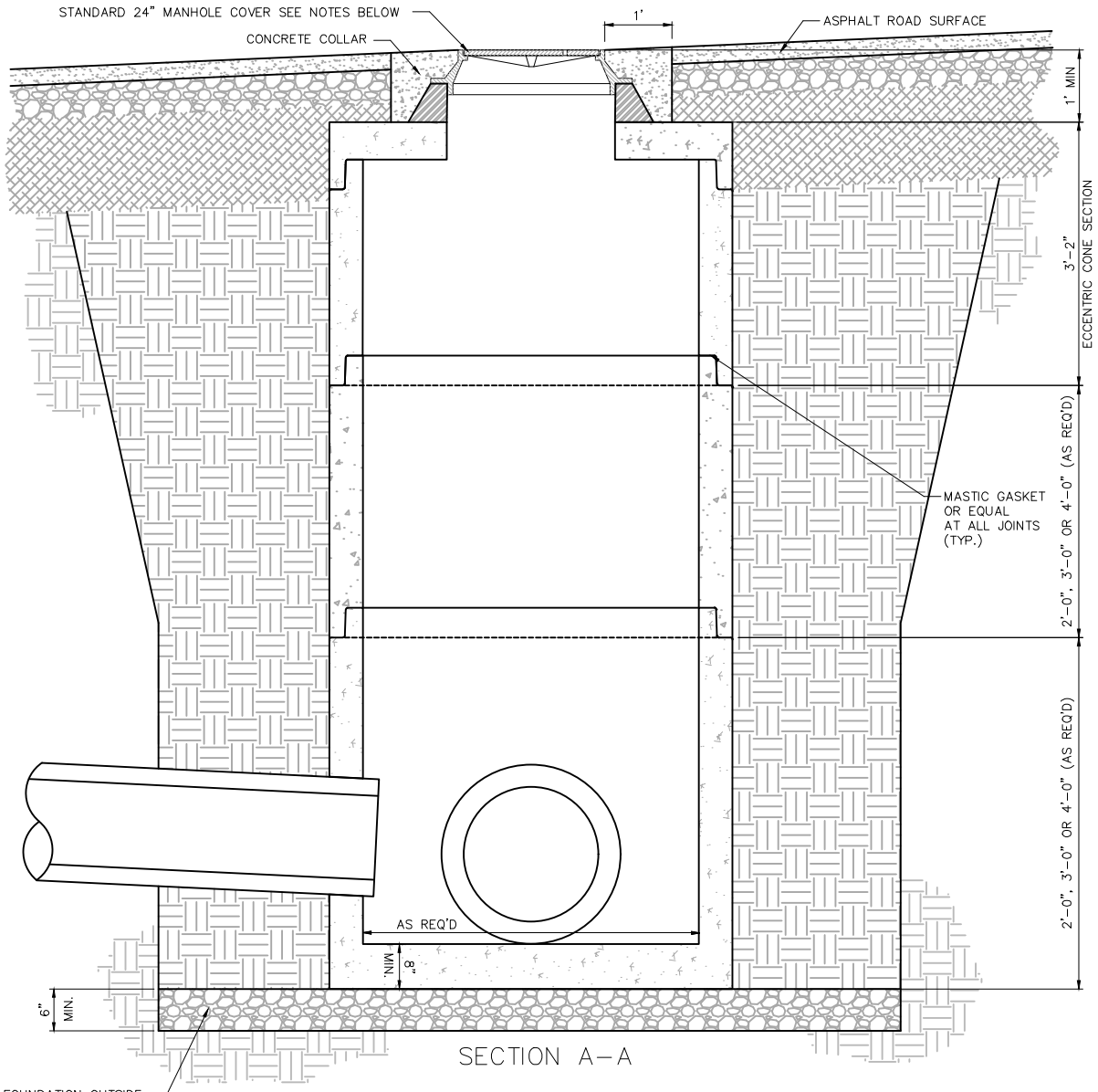
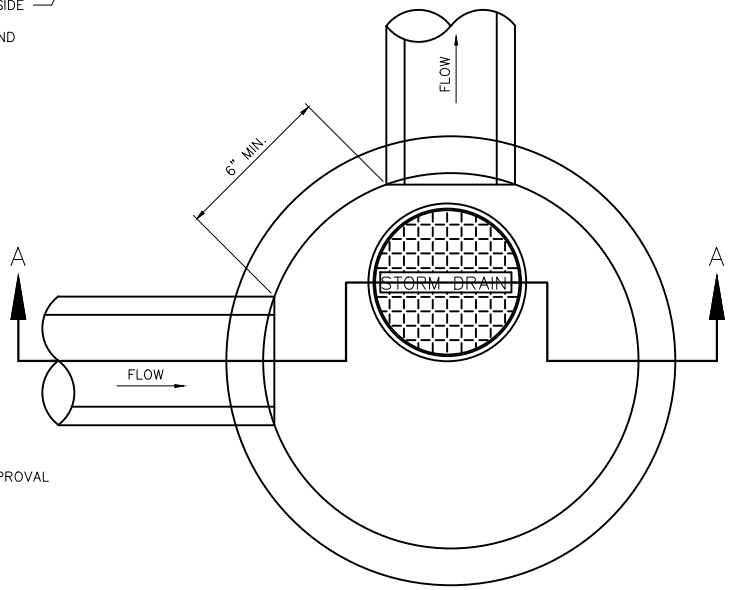
SANITARY SEWER TRENCH

DRAWING #
SS-07
ADOPTED DATE
APRIL 2018



SECTION A–A

3/4" GRAVEL FOUNDATION OUTSIDE SHAPE MAY BE IRREGULAR. MAXIMUM THICKNESS WILL DEPEND ON SPECIFIC SITE CONDITIONS.



PIPE SIZE	MANHOLE SIZE
15"	60"
18"	60"
24"	60"
30"	72"
36"	84"
42"	84"
48"	90"
54"	96"
60"	96"

FOR LARGER PIPE SIZE, PRIOR APPROVAL FROM CITY ENGINEER IS REQUIRED.

NOTES:
1. MANHOLE COVER TO BE A SOLID LID CONTAINING ONE PICK HOLE. SEE SPECIFICATION DIVISION 5 FOR COVER LABEL. D&L SUPPLY P/N A–1181 (OR EQUAL). "STORM DRAIN"
2. FLAT LIDS SHALL BE OF ECCENTRIC DESIGN AND MEET H20 LIVE LOADING. NO FLAT RING AND COVERS WILL BE ALLOWED UNLESS APPROVED BY THE CITY ENGINEER OR HIS REPRESENTATIVE.
3. AN ECCENTRIC CONE SECTION MAY BE USED AS THE TOP MANHOLE SECTION IF THE STORM DRAIN IS DEEP ENOUGH TO BE UNDER IT.
4. MULTIPLE INLETS CAN BE INSTALLED IN SERIES OR IN PARALLEL BEFORE DISCHARGING INTO THE MANHOLE. HOWEVER, THE TOTAL DESIGN FLOW ENTERING A SINGLE MANHOLE BELOW THE OUTLET ELEVATION IS NOT TO EXCEED 6 CFS. USE OF A 5' DIAMETER MANHOLE WOULD INCREASE THE ALLOWABLE FLOWRATE TO 9 CFS.
5. OPENING IS CENTERED OVER OUTLET PIPE.
6. FOR CAST–IN–PLACE BASES, CONCRETE SHALL BE PLACED AGAINST UNDISTURBED EARTH.
7. CONCRETE FOR COLLARS SHALL UTILIZE FIBER MESH.

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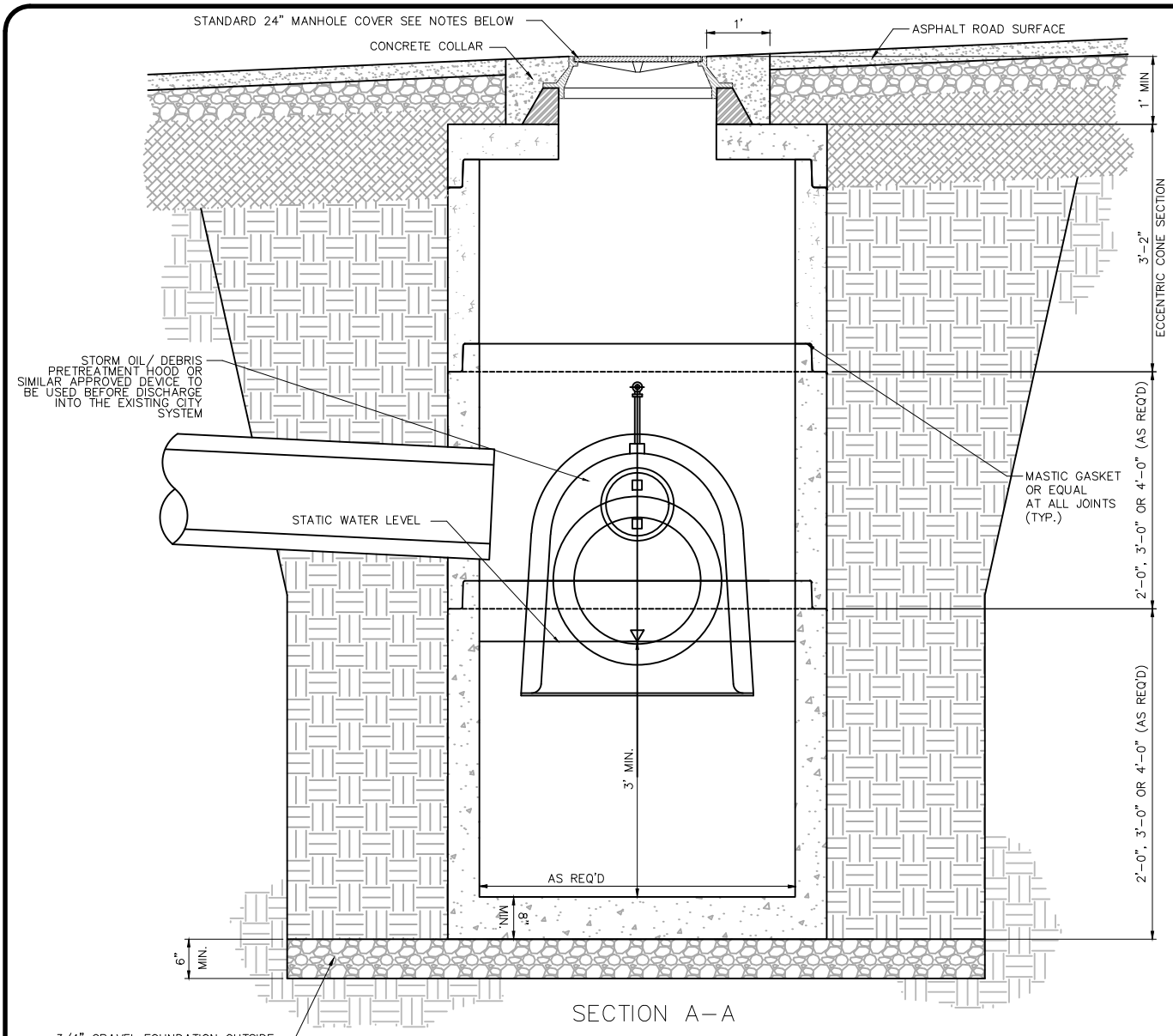
STORM DRAIN MANHOLE

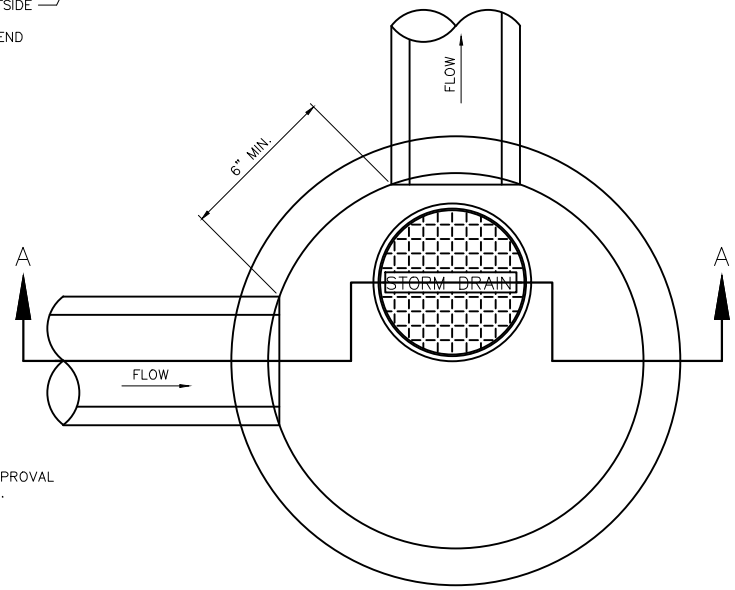
DRAWING # SD-01

ADOPTED DATE APRIL 2018



SECTION A–A

3/4" GRAVEL FOUNDATION OUTSIDE SHAPE MAY BE IRREGULAR. MAXIMUM THICKNESS WILL DEPEND ON SPECIFIC SITE CONDITIONS.



PIPE SIZE	MANHOLE SIZE
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18"	60"
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30"	72"
36"	84"
42"	84"
48"	90"
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FOR LARGER PIPE SIZE, PRIOR APPROVAL FROM CITY ENGINEER IS REQUIRED.

NOTES:
1. MANHOLE COVER TO BE A SOLID LID CONTAINING ONE PICK HOLE. SEE SPECIFICATION DIVISION 5 FOR COVER LABEL. D&L SUPPLY P/N A–1181 (OR EQUAL). "STORM DRAIN"
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3. AN ECCENTRIC CONE SECTION MAY BE USED AS THE TOP MANHOLE SECTION IF THE STORM DRAIN IS DEEP ENOUGH TO BE UNDER IT.
4. MULTIPLE INLETS CAN BE INSTALLED IN SERIES OR IN PARALLEL BEFORE DISCHARGING INTO THE MANHOLE. HOWEVER, THE TOTAL DESIGN FLOW ENTERING A SINGLE MANHOLE BELOW THE OUTLET ELEVATION IS NOT TO EXCEED 6 CFS. USE OF A 5' DIAMETER MANHOLE WOULD INCREASE THE ALLOWABLE FLOWRATE TO 9 CFS.
5. OPENING IS CENTERED OVER OUTLET PIPE.
6. FOR CAST–IN–PLACE BASES, CONCRETE SHALL BE PLACED AGAINST UNDISTURBED EARTH.
7. CONCRETE FOR COLLARS SHALL UTILIZE FIBER MESH.
8. SUMP DEPTH MY BE LARGER DEPENDING ON MANUFACTURE RECOMMENDATION.

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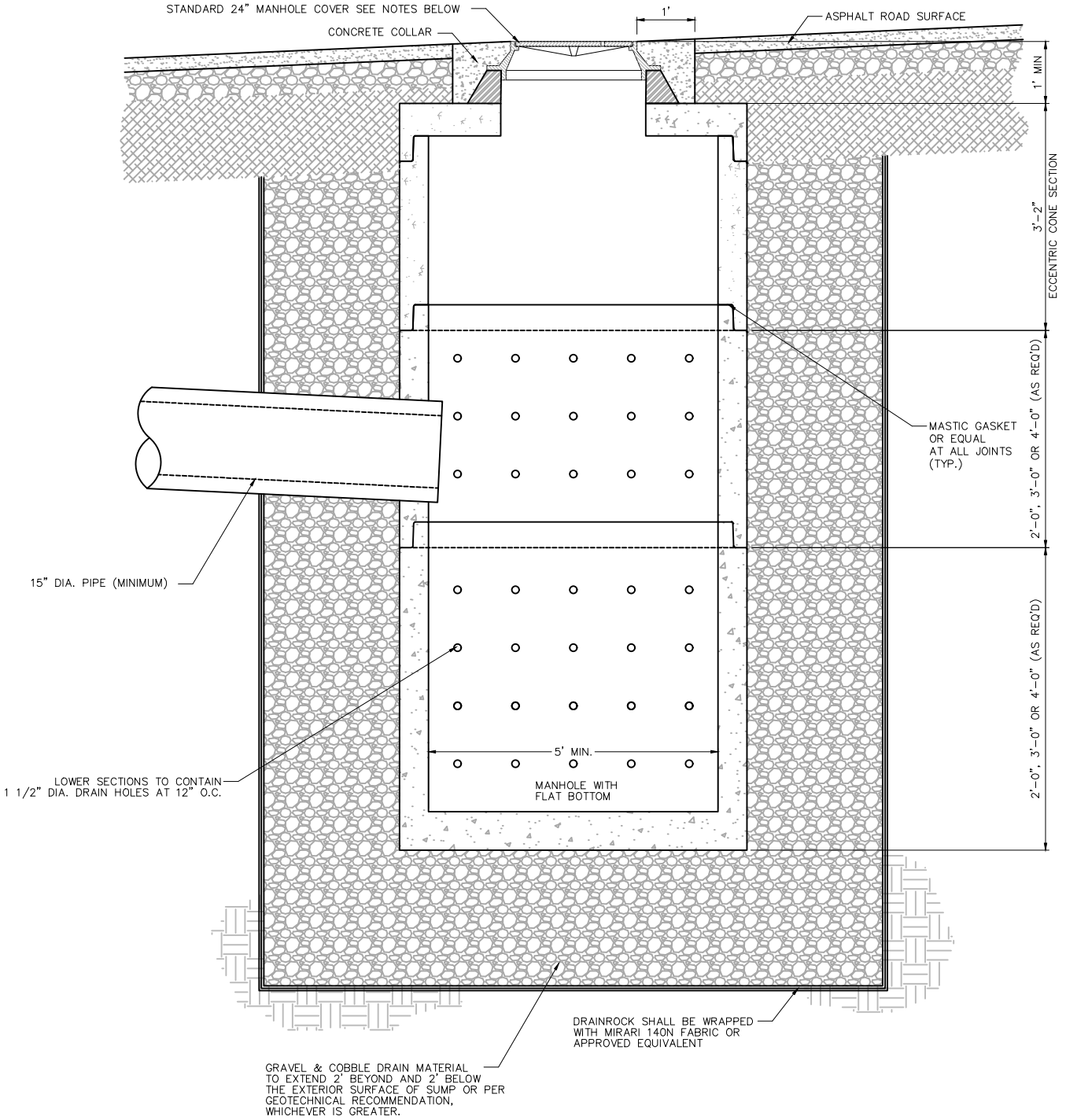
PRETREATMENT MANHOLE

DRAWING # SD-02

ADOPTED DATE APRIL 2018

DETAILS ON THIS SHEET TO BE USED ONLY BY PERMISSION OF CITY ENGINEER



NOTES:

1. MANHOLE COVER TO BE A SOLID LID CONTAINING ONE PICK HOLE. SEE SPECIFICATION DIVISION 5 FOR COVER LABEL. D&L SUPPLY P/N A-1181 (OR EQUAL). "STORM DRAIN"
2. FLAT LIDS SHALL BE OF ECCENTRIC DESIGN AND MEET H20 LIVE LOADING. NO FLAT RING AND COVERS WILL BE ALLOWED UNLESS APPROVED BY THE CITY ENGINEER OR HIS REPRESENTATIVE.
3. AN ECCENTRIC CONE SECTION MAY BE USED AS THE TOP MANHOLE SECTION IF THE STORM DRAIN IS DEEP ENOUGH TO BE UNDER IT.
4. MULTIPLE INLETS CAN BE INSTALLED IN SERIES OR IN PARALLEL BEFORE DISCHARGING INTO THE SUMP MANHOLE.
5. CONCRETE FOR COLLARS SHALL UTILIZE FIBER MESH.
6. CAN NOT BE USED IN WELL PROTECTION AREA.
7. MUST BE REGISTERED WITH THE STATE OF UTAH DEPARTMENT OF ENVIRONMENTALLY QUALITY.

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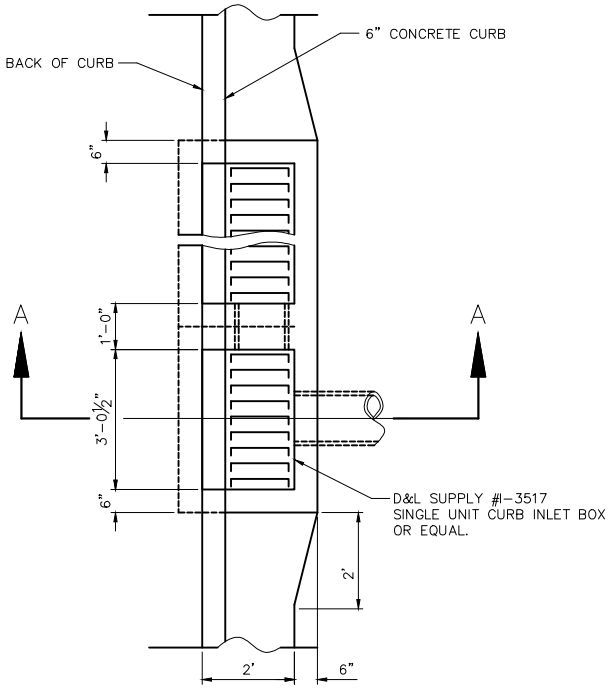
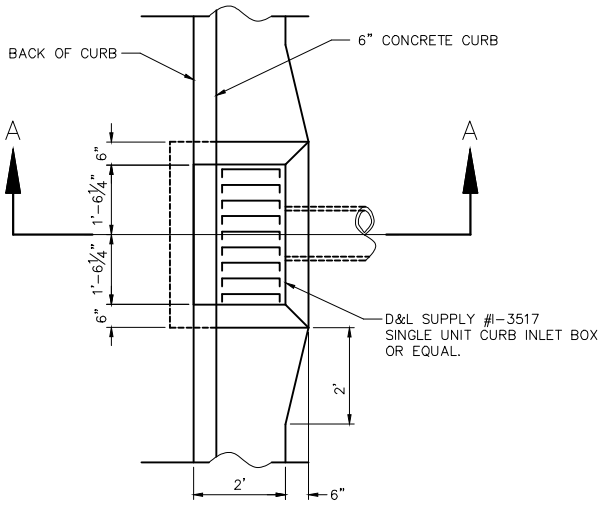
STORM DRAIN SUMP

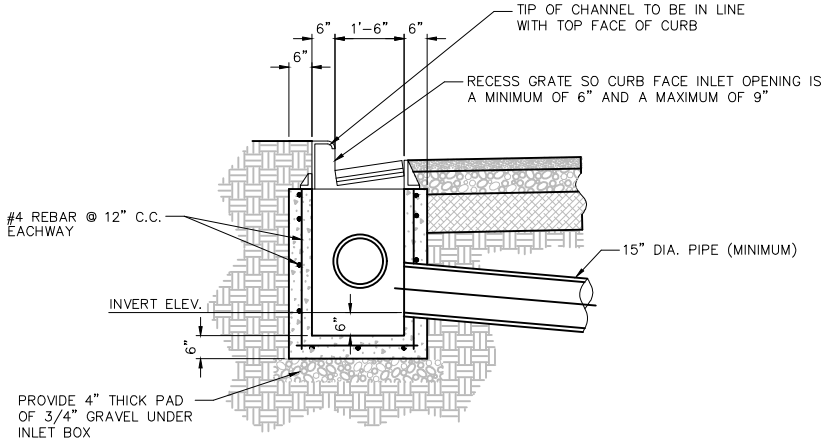
DRAWING #
SD-03
ADOPTED DATE
APRIL 2018



MULTIPLE INLET PLAN VIEW



SINGLE INLET PLAN VIEW



SECTION A–A

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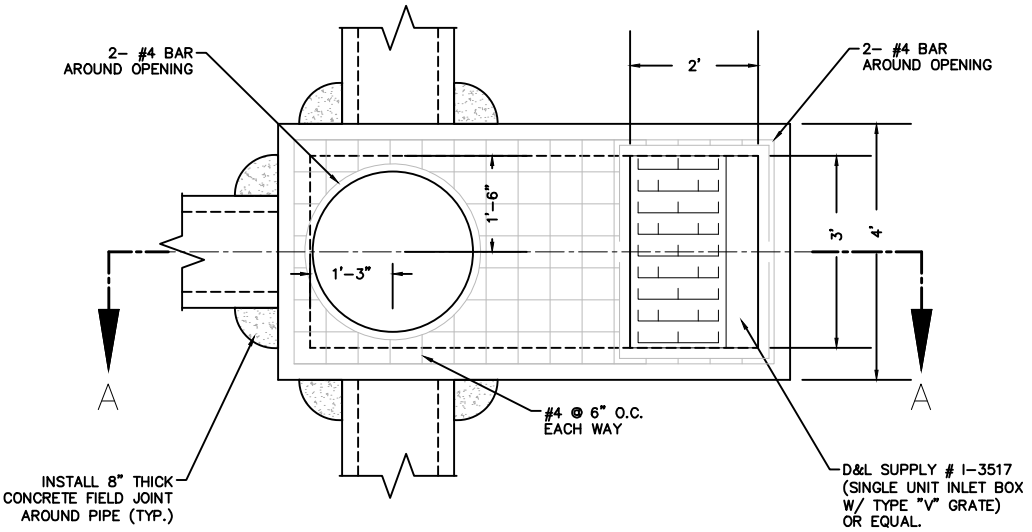
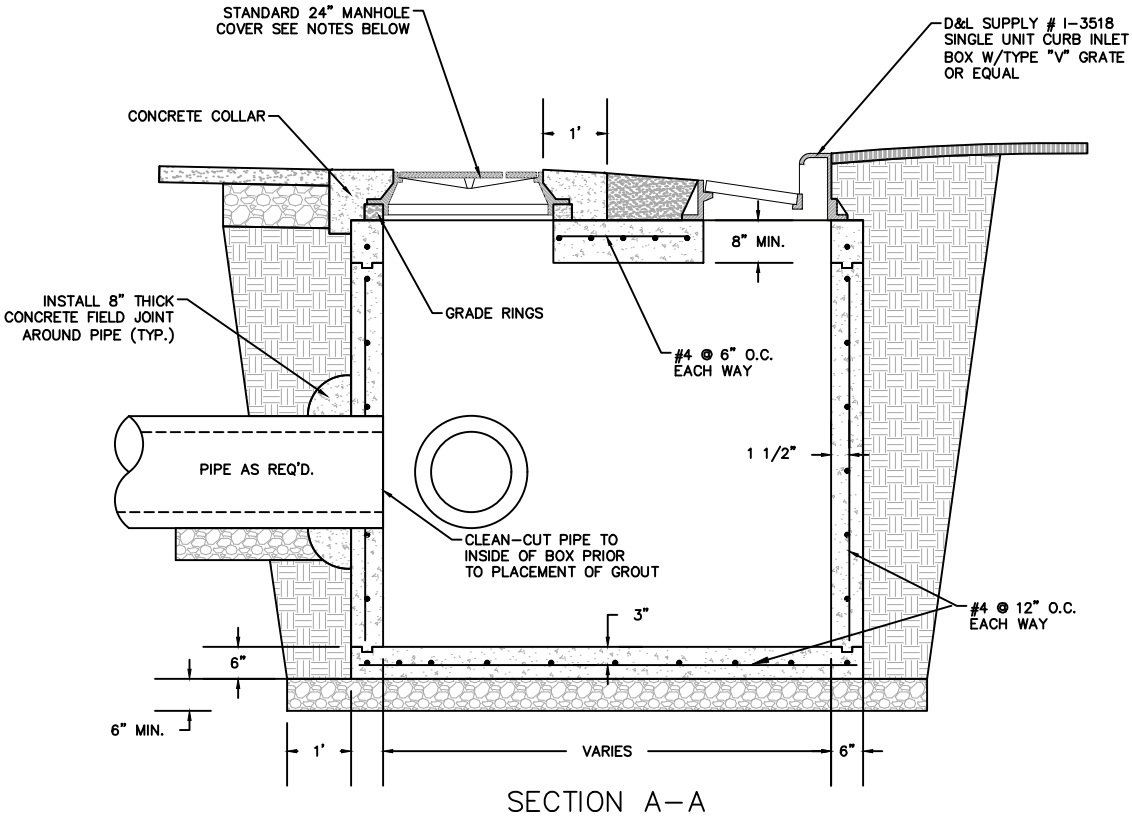
CURB FACE INLET

DRAWING #
SD-04
ADOPTED DATE
APRIL 2018





SECTION A-A

NOTES:
1. MANHOLE COVER TO BE A SOLID LID CONTAINING ONE PICK HOLE. SEE SPECIFICATION DIVISION 5 FOR COVER LABEL. D&L SUPPLY P/N A-1181 (OR EQUAL). "STORM DRAIN"
2. FLAT LIDS SHALL BE OF ECCENTRIC DESIGN AND MEET H20 LIVE LOADING. NO FLAT RING AND COVERS WILL BE ALLOWED UNLESS APPROVED BY THE CITY ENGINEER OR HIS REPRESENTATIVE.
3. CONCRETE FOR COLLARS SHALL UTILIZE FIBER MESH.

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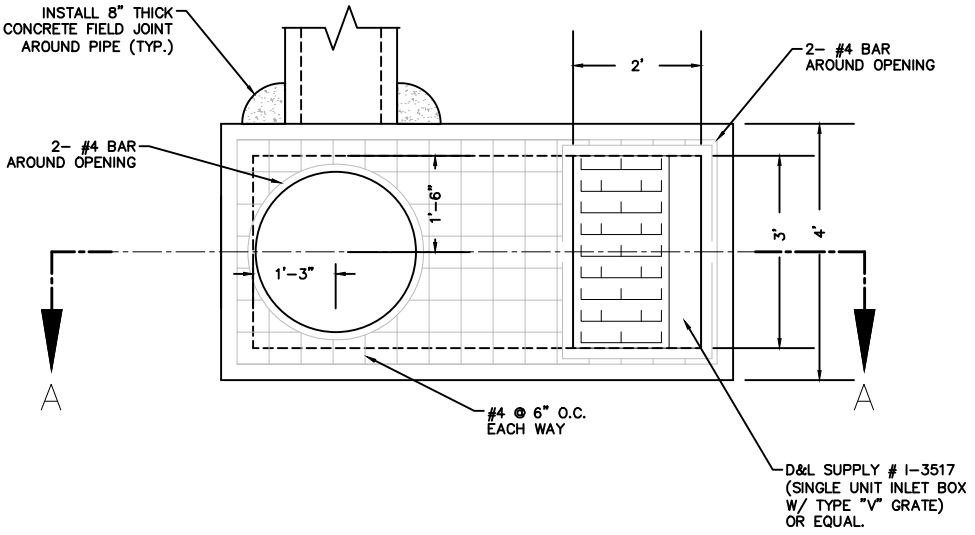
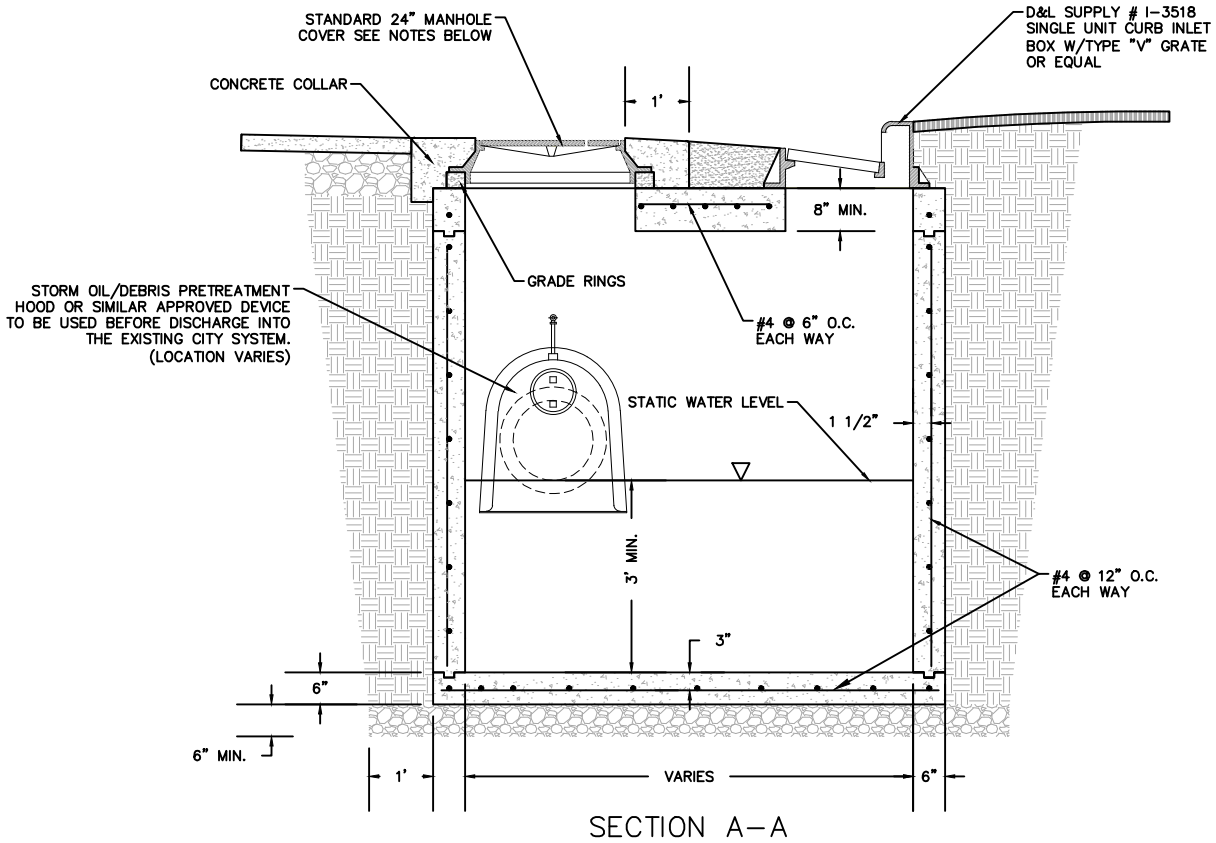
STORM DRAIN COMBO BOX

DRAWING #
SD-05
ADOPTED DATE
APRIL 2018





SECTION A-A

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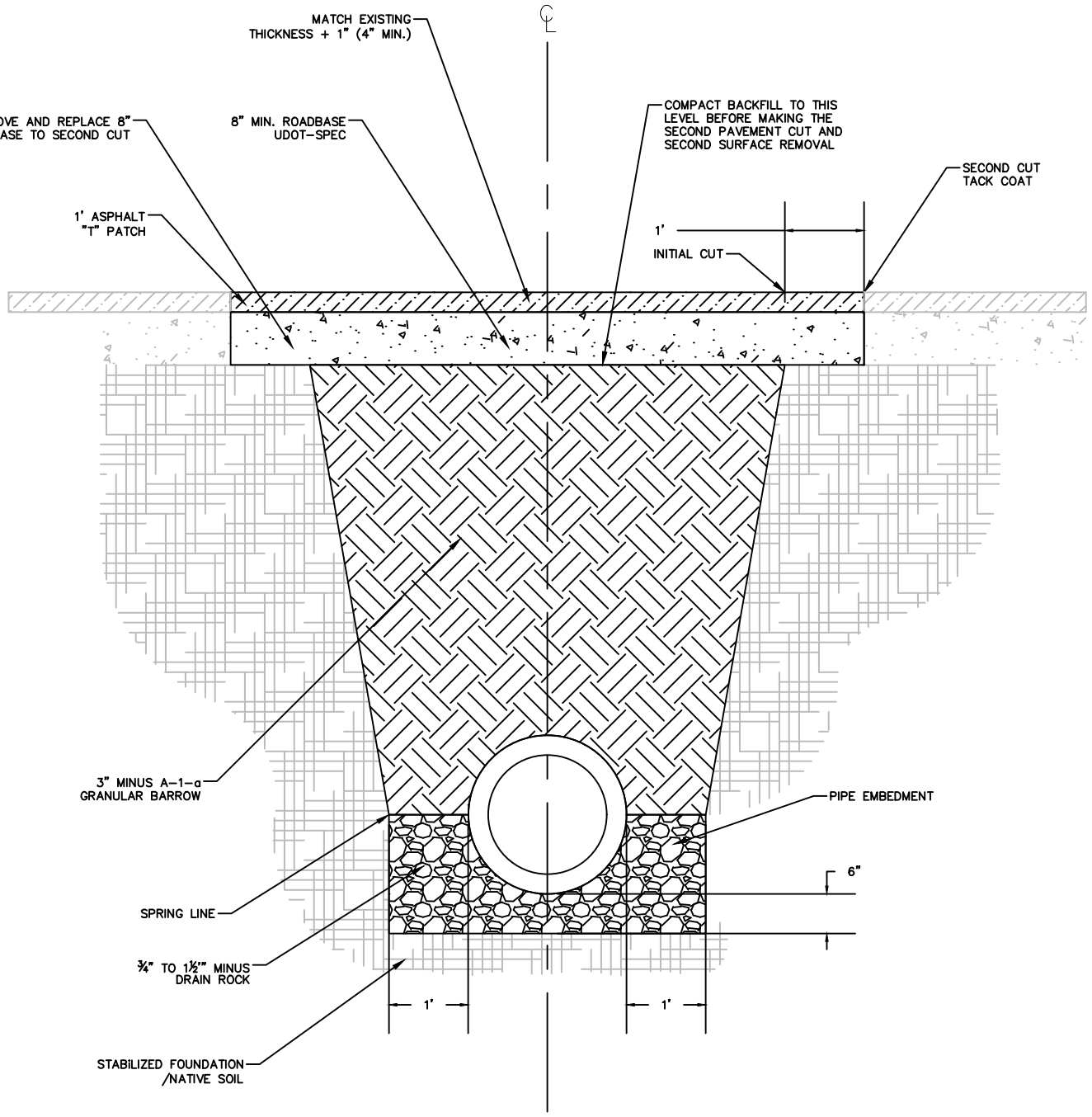
STORM DRAIN COMBO BOX WITH PRETREATMENT

DRAWING # SD-06
ADOPTED DATE APRIL 2018



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STORM DRAIN TRENCH

DRAWING #
SD-07
ADOPTED DATE
APRIL 2018