



## CONSTRUCTION STANDARD DRAWINGS



Updated April 11, 2022

CULINARY WATER & IRRIGATION GENERAL NOTES:

1. INFORMATION FOR EXISTING CULINARY WATER, IRRIGATION LINES, AND OTHER BURIED UTILITIES IS BASED ON BEST AVAILABLE INFORMATION AND IS ACCORDING TO BEAVER CITY RECORDS, HOWEVER ACCURACY OF THIS INFORMATION CANNOT BE GUARANTEED BY CITY. CONTRACTOR SHALL ACCEPT SITE AS IS, AND SHALL ASSUME ALL LIABILITY FOR FINAL LOCATION AND PRESERVATION OF ALL UTILITIES.
2. WHEN AN EXISTING LINE IS TO BE ABANDONED, COMPLETELY DISCONNECT FROM ANY PIPING THAT REMAIN PART OF THE WATER SYSTEM. VALVE BOXES ON ABANDONED WATER LINES SHALL BE FULLY REMOVED.
3. WHEN NEW VALVES ARE INSTALLED ON WATER MAIN LINES, VALVES ARE TO BE LOCATED IMMEDIATELY ADJACENT TO MAINLINE OR FITTINGS (WITH MJ X FLG), OR IN LINE WITH APPARENT PROPERTY LINES, OR DIRECTED BY BEAVER CITY WATER DEPARTMENT.
4. PRIOR TO STARTING ANY WORK ON PRIVATE PROPERTY OUTSIDE OF EASEMENTS OR OUTSIDE OF PUBLIC RIGHTS OF WAY, CONTRACTOR REQUIRED TO OBTAIN WRITTEN APPROVAL FROM PROPERTY OWNER. COORDINATE WORK WITH PROPERTY OWNER AND BEAVER CITY. PROVIDE MINIMUM 24 HR. NOTICE BEFORE STARTING WORK.
5. REMOVE AND REPLACE ALL TRAFFIC AND SAFETY SIGNS AS NECESSARY. STOP SIGNS AND OTHER IMPORTANT SAFETY SIGNS SHALL BE IMMEDIATELY TEMPORARILY INSTALLED IN AN APPROPRIATE LOCATION UNTIL THEY CAN BE PERMANENTLY REINSTALLED IN ORIGINAL LOCATION OR AS DIRECTED.
6. REPLACE OR RECONNECT EXISTING SERVICE LINES AS DIRECTED. CONNECT TO COMPETENT SERVICE LINE ON PRIVATE SIDE OF METER AND TO MAINLINE ON CITY SIDE OF METER.
7. OPEN CUTTING TRENCHING OF EXISTING PAVED STREETS/HIGHWAYS FOR SERVICE LINE IS NOT PERMITTED UNLESS PERMITTED BY BEAVER CITY. TRENCHLESS CROSSING BY JACKING, MOLE, BORE HORIZONTAL DIRECTIONAL DRILL REQ'D.
8. WHERE WATER LINE CROSSES OVER THE TOP OF A SEWER LINE A VERTICAL SEPARATION OF 18" SHALL BE MAINTAINED AND NO JOINTS IN PIPE ARE ALLOWED ON WATER LINES WITHIN 10 FEET EACH SIDE OF CROSSING.
9. WHERE A CULINARY WATERLINE PARALLELS SEWER LINE A HORIZONTAL SEPARATION OF AT LEAST 10 FEET MUST BE MAINTAINED.
10. SEWER LATERALS TO BE INSTALLED BELOW EXISTING WATERLINES.
11. NEW INACTIVE FIRE HYDRANTS OR TEMPORARILY DISCONNECTED EXISTING FIRE HYDRANTS SHALL BE CLEARLY MARKED BY BEAVER CITY AS BEING UNUSABLE BY COVERING SECURELY WITH BLACK PLASTIC OR OTHER METHOD APPROVED.
12. EXCAVATE AS NECESSARY TO MAINTAIN POSITIVE GRADE ON DISTRIBUTION MAINLINE PIPING EXCEPT WHERE AIR VALVE(S) ARE REQ'D BY BEAVER CITY. INSTALL AIR VALVE(S) AT HIGH POINT.
13. CONTRACTOR SHALL OBTAIN AND PAY COST FOR ENCROACHMENT PERMIT AND BOND FROM BEAVER CITY AND/OR UTAH DEPARTMENT OF TRANSPORTATION PRIOR TO STARTING WORK ACCORDANCE TO SPECIFICATIONS. ADDITIONALLY CONTRACTOR SHALL PROVIDE TRAFFIC SAFETY AND SIGNAGE PLAN TO BEAVER CITY/UDOT FOR REVIEW AND APPROVAL PRIOR TO STARTING WORK.
14. FLOWABLE FILL MAY BE USED IN PLACE OF COMPACTED BACKFILL. SEE R16. PRE-APPROVAL FROM CITY MANAGER REQ'D.
15. ALL MATERIALS MUST MEET BEAVER CITY SPECIFICATIONS OR BE APPROVED BY BEAVER CITY.
16. OPEN CUTTING MAY BE ALLOWED, CONTRACTOR/DEVELOPER REQUIRED TO OBTAIN AND PAY FOR ENCROACHMENT PERMIT FROM BEAVER CITY.



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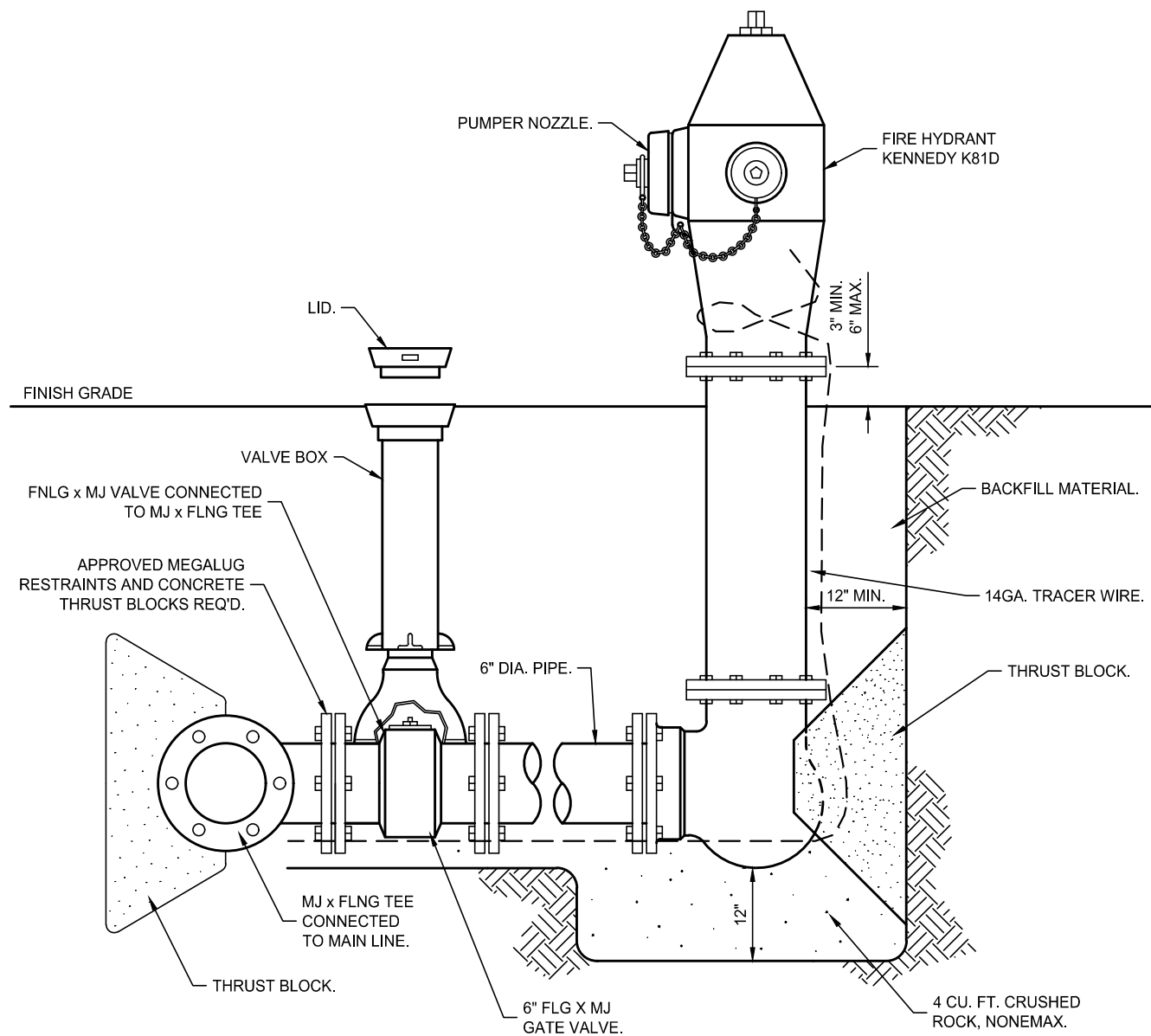


CONSTRUCTION STANDARDS

GENERAL NOTES

GENERAL NOTES

SCALE:	DRAWN: LG 08/17	FILE: STND_DET2_2022	PROJECT: 1705-381	SHEET:
NONE	CHECK: . .	UPDATED: 3/31/2022	PLOTTED: 3/31/2022	G1



NOTES:

1. STAINLESS STEEL BOLTS REQUIRED IN AREAS WITH HIGH WATER TABLE.
2. INSTALL TRACER WIRE WITH PLASTIC PIPE. WRAP TRACER WIRE AROUND FIRE HYDRANT ABOVE GROUND.
3. INSTALL FIRE HYDRANTS PLUMB.
4. GREASE ALL FITTING BOLTS, AND PLASTIC WRAP REQ'D.
5. HOT TAP TEES MAY BE PLACED UNDER CERTAIN SITUATIONS PER BEAVER CITY.



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CONSTRUCTION STANDARDS

CULINARY WATER CONSTRUCTION

FIRE HYDRANT

SCALE:

NONE

DRAWN: SJ 08/17

CHECK: - -

FILE: STND\_DET2022

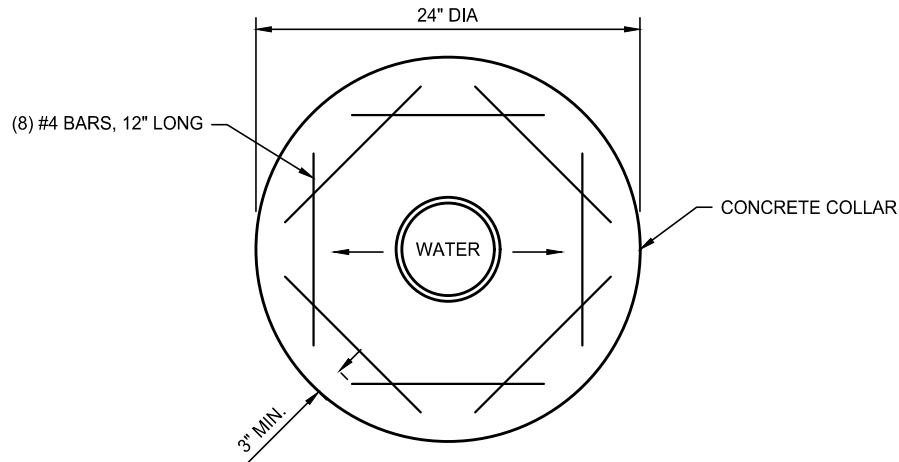
UPDATED: 3/31/2022

PROJECT: 1705-381

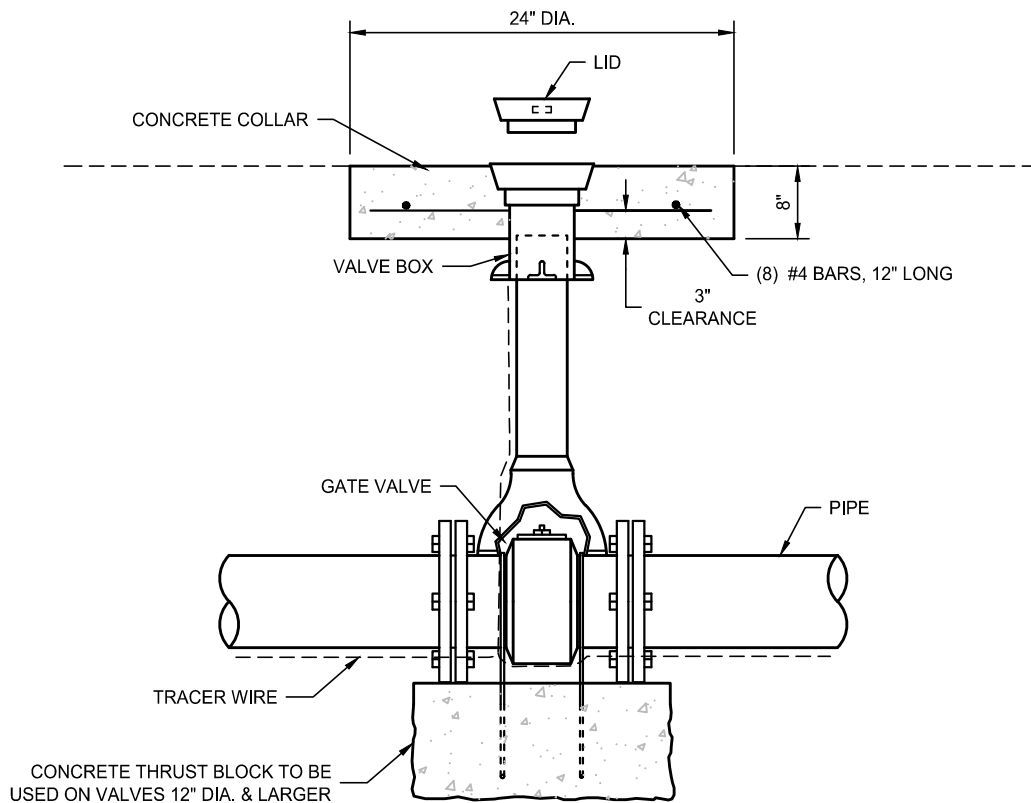
PLOTTED: 3/31/2022

SHEET:

CW1



PLAN



SECTION

NOTES:

1. APPROVED MEGALUG RESTRAINTS AND CONCRETE THRUST BLOCKS REQ'D.
2. STAINLESS STEEL BOLTS REQUIRED IN AREAS WITH HIGH WATER TABLE.
3. INSTALL TRACER WIRE WITH PLASTIC PIPE. WRAP TRACER WIRE AROUND FIRE HYDRANT ABOVE GROUND.
4. INSTALL VALVE PLUMB.
5. GREASE ALL FITTING BOLTS AND PLASTIC WRAP REQ'D.
6. SCRATCH DIRECTIONAL ARROWS IN CONCRETE COLLAR.
7. LOCATE METERS WITHIN TEN(10) FEET OF EDGE OF PROPERTY, AS APPROVED BY BEAVER CITY WATER DEPT.



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CONSTRUCTION STANDARDS

CULINARY WATER CONSTRUCTION

GATE VALVE

SCALE:

NONE

DRAWN: SJ 08/17

CHECK: - -

FILE: STND\_DET2022

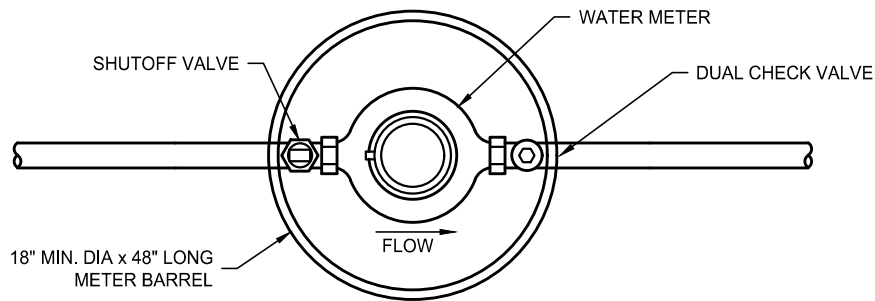
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PROJECT: 1705-381

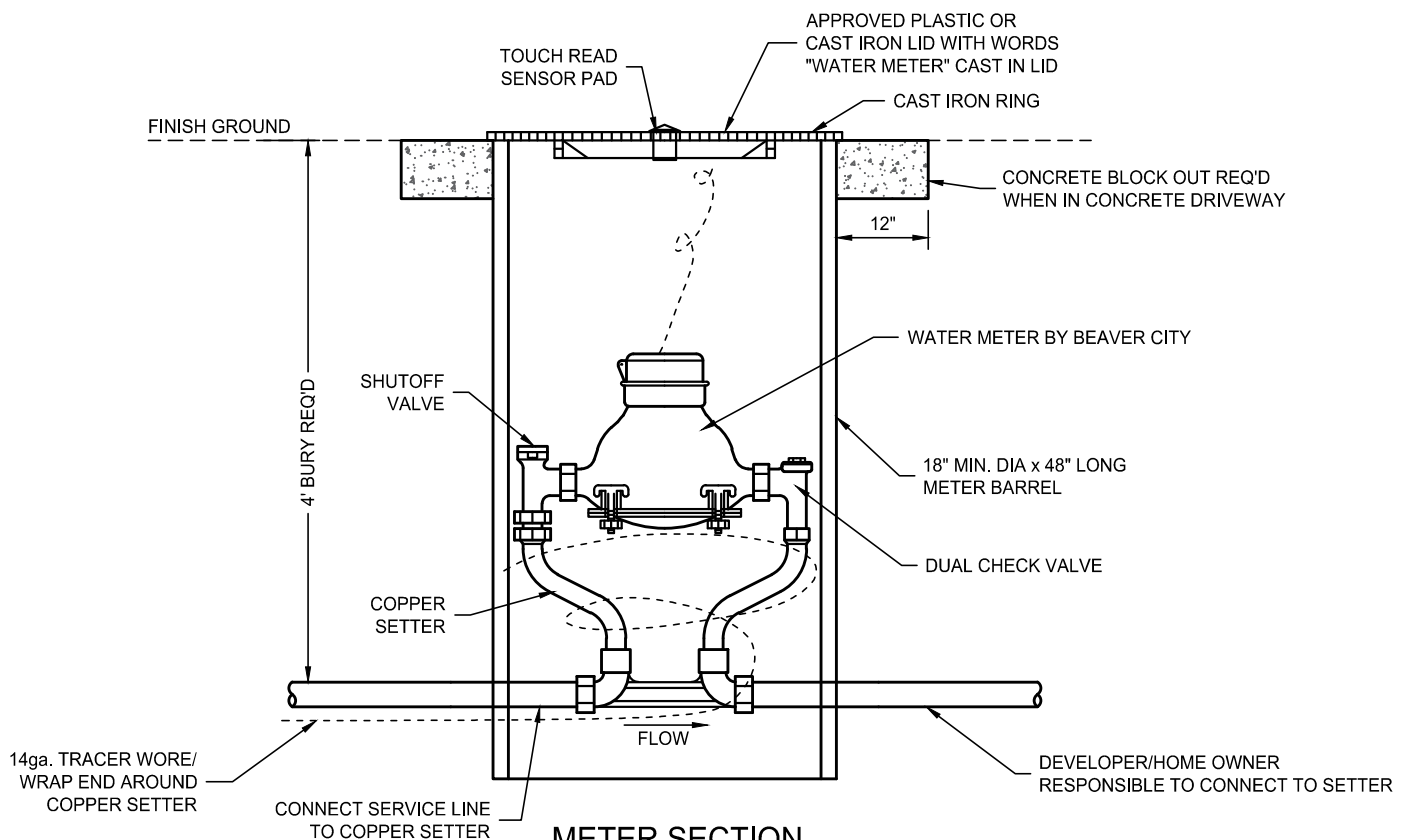
PLOTTED: 3/31/2022

SHEET:

CW2



**METER PLAN**



**METER SECTION**

**NOTE:**

1. TRAFFIC BARREL REQ'D AS DIRECTED.
2. WHEN METER IS LOCATED WITHIN EXISTING OR NEW CONCRETE DRIVEWAY, BLOCK OUT REQ'D W/ MIN. 12" OUTSIDE OF BARREL.



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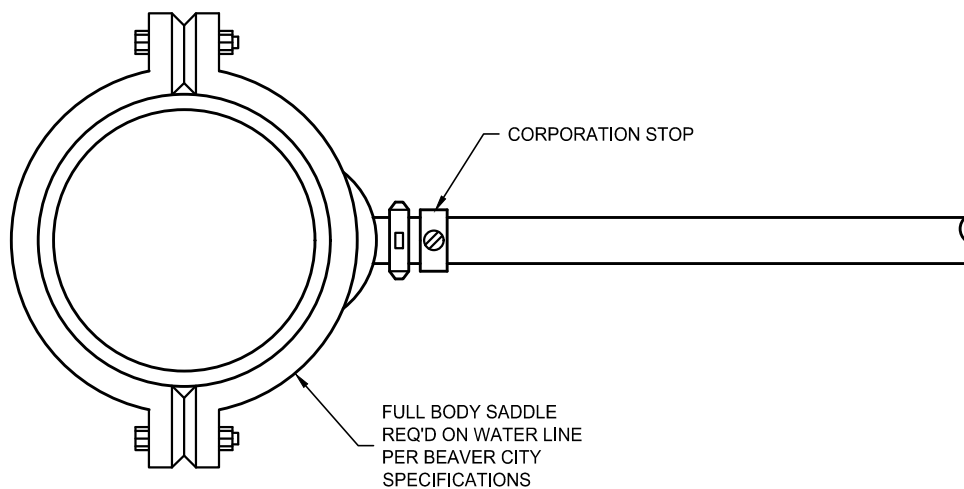


**CONSTRUCTION STANDARDS**

**CULINARY WATER CONSTRUCTION**

**METER BOX**

SCALE:	DRAWN: SJ 08/17	FILE: STND_DET5_2022	PROJECT: 1705-381	SHEET:
NONE	CHECK: . .	UPDATED: 3/31/2022	PLOTTED: 3/31/2022	CW3



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CONSTRUCTION STANDARDS

CULINARY WATER CONSTRUCTION

WATER SERVICE CONNECTION

SCALE:

NONE

DRAWN: SJ 08/17

CHECK: . .

FILE: STND\_DET5\_12

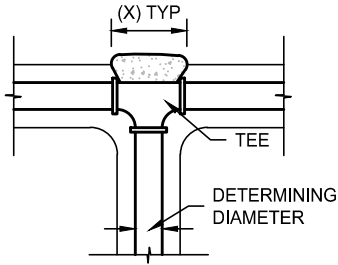
UPDATED: 3/31/2022

PROJECT: 1705-381

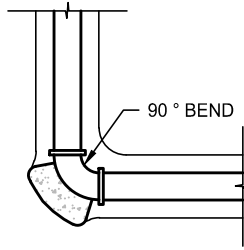
PLOTTED: 3/31/2022

SHEET:

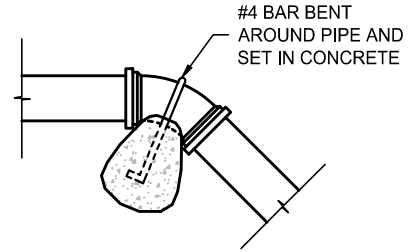
CW4



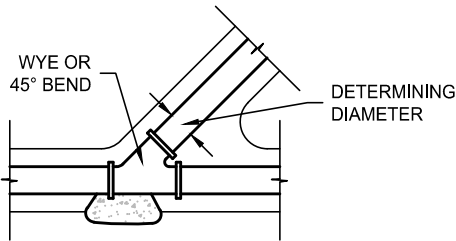
CONDITION 1



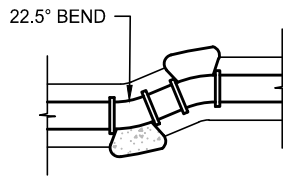
CONDITION 2



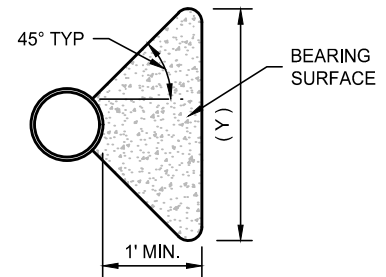
VERTICAL BEND DETAIL



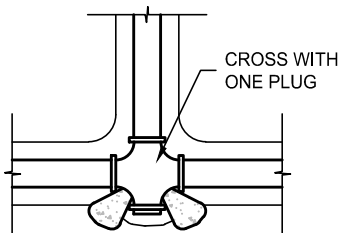
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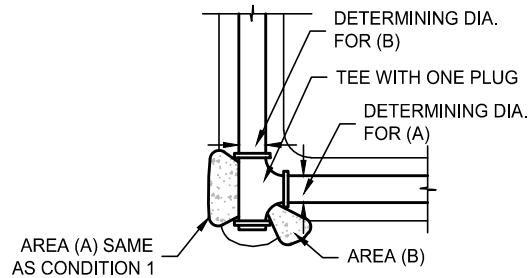
CONDITION 4



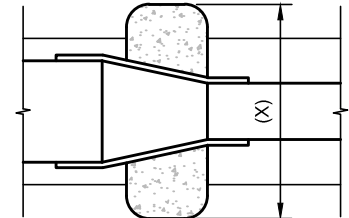
TYPICAL THRUST BLOCK SECTION



CONDITION 5

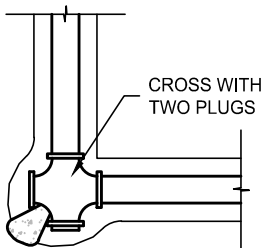


CONDITION 6

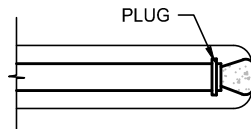


REDUCER THRUST BLOCK

8"x 4" REDUCER - BEARING AREA = 7.5 SQ. FT.  
 8"x 6" REDUCER - BEARING AREA = 4.4 SQ. FT.  
 10"x 6" REDUCER - BEARING AREA = 10.0 SQ. FT.  
 10"x 8" REDUCER - BEARING AREA = 5.6 SQ. FT.  
 12"x 6" REDUCER - BEARING AREA = 17.0 SQ. FT.  
 12"x 10" REDUCER - BEARING AREA = 6.9 SQ. FT.



CONDITION 7



CONDITION 8

NOTE:  
 SEE CW6 FOR THRUST BLOCK BEARING AREAS.



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CONSTRUCTION STANDARDS

CULINARY WATER CONSTRUCTION

THRUST BLOCKS

SCALE:

NONE

DRAWN: SJ 08/17

CHECK: - -

FILE: STND\_DET2022


UPDATED: 3/31/2022

PROJECT: 1705-381

PLOTTED: 3/31/2022

SHEET:

CW5

THRUST BLOCK BEARING AREA (X) x (Y)								
PIPE SIZE	CONDITION NUMBER & PIPE WORKING PRESSURE							
	1	2	3	4	* 5	6 (B)	7	8
	200	200	200	200	200	200	200	200
2"	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
4"	2.5	3.5	1.9	1.0	1.8	1.8	3.5	2.5
6"	5.7	8.0	4.4	2.2	4.0	4.0	8.0	5.7
8"	10.1	14.2	7.7	3.9	7.1	7.1	14.2	10.1
10"	15.7	22.2	12.1	6.1	11.1	11.1	22.2	15.7
12"	22.6	31.9	17.4	8.8	16.0	16.0	31.9	22.6
16"	31.6	44.6	24.4	12.3	22.4	22.4	44.6	31.6

\* NOTE: BEARING AREAS ARE IN SQUARE FEET. AREA APPLIES TO EACH INDIVIDUAL BLOCK (2 REQ'D).

NOTES:

1. ALL THRUST BLOCKS SHALL BE POURED WITH BEARING SURFACES AGAINST UNDISTURBED EARTH OR AN APPROVED COMPACTED FILL.
2. CONCRETE SHALL BE 2500 psi OR HIGHER.
3. ALL THRUST BLOCK SIDES SHALL BE FORMED.
4. ALLOWABLE SOIL BEARING PRESSURE ASSUMED TO BE 1000 psf.
5. THE RATIO OF "X" TO "Y" (THRUST BLOCK AREA) SHALL BE NO GREATER THAN 3:1.
6. MINIMUM CURE TIME FOR THRUST BLOCKS IS 3 DAYS PRIOR TO PRESSURIZING SYSTEM.
7. THRUST BLOCKS SHALL NOT INTERFERE WITH NUTS & BOLTS OF FITTINGS.
8. SEE PIPE CONDITIONS ON CW5.
9. INSTALL MECHANICAL JOINT RESTRAINT ON ALL JOINTS OF FITTINGS.
10. INCLUDE APPROVED MECHANICAL RESTRAINT WITH CONCRETE THRUST BLOCKS. SEE CW7.



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CONSTRUCTION STANDARDS

CULINARY WATER CONSTRUCTION

THRUST BLOCKS-BEARING AREAS & NOTES

SCALE:

NONE

DRAWN: SJ 08/17

CHECK: - -

FILE: STND\_DET5\_2022

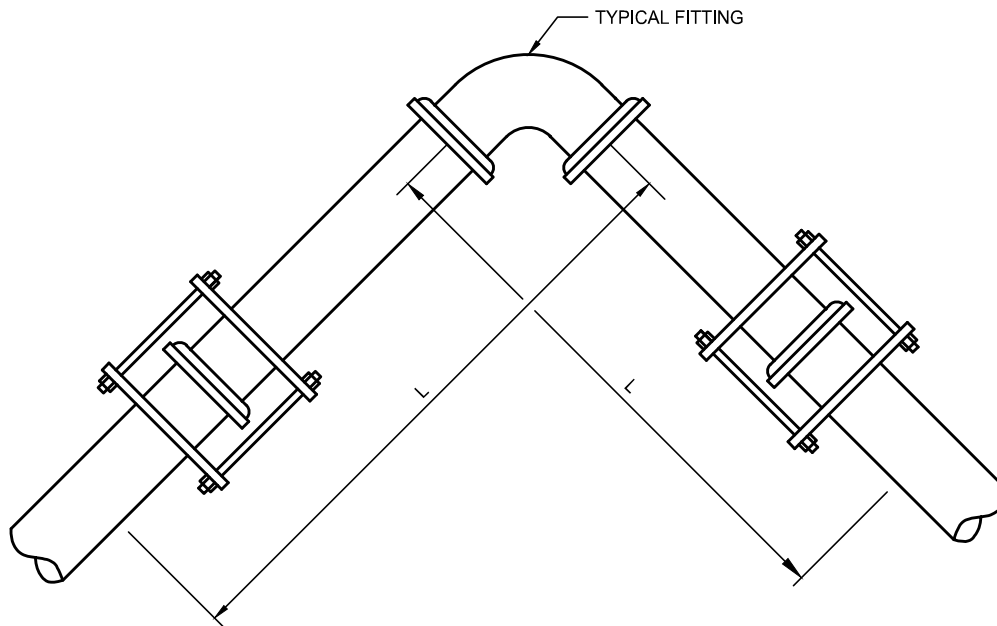
UPDATED: 3/31/2022

PROJECT: 1705-381

PLOTTED: 3/31/2022

SHEET:

CW6



PLAN

NOTES:

1. ALL JOINTS WITHIN DISTANCE "L" SHALL BE RESTRAINED.
2. RESTRAIN JOINTS REQ'D ON ALL FITTINGS.
3. DISTANCE REQ'D FOR JOINT RESTRAINTS DEPENDS ON FITTING TYPE, SOIL TYPE AND WORKING PRESSURE.
4. DESIGN CRITERIA:
  - a. WORKING PRESSURE: 200 p.s.i.
  - b. SAFETY FACTOR: 1.5.
5. DISTANCE "L" REQUIRED FOR JOINT RESTRAINTS SHALL BE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.



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CONSTRUCTION STANDARDS

CULINARY WATER CONSTRUCTION

STANDARD RESTRAINED JOINTS

SCALE:

NONE

DRAWN: SJ 08/17

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FILE: STND\_DET5\_2022

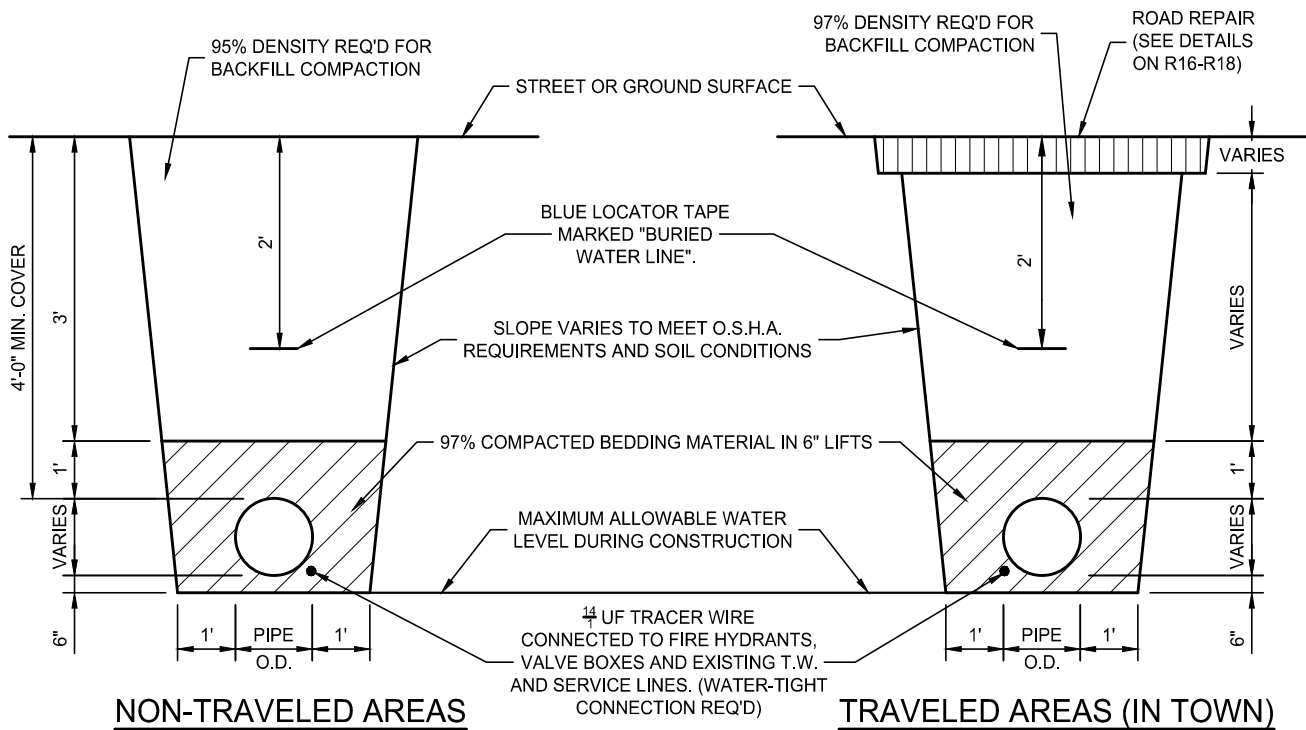
UPDATED: 3/31/2022

PROJECT: 1705-381

PLOTTED: 3/31/2022

SHEET:

CW7



NOTE:  
FLOWABLE FILL MAY BE USED IN PLACE OF COMPACTED  
BACKFILL IF APPROVED BY CITY MANAGER. SEE R16.



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## CONSTRUCTION STANDARDS

## CULINARY WATER CONSTRUCTION

## UTILITY TRENCH DETAIL FOR WATER LINES

SCALE:

NONE

DRAWN: SJ 08/17

CHECK: - -

FILE: STND\_DET2022

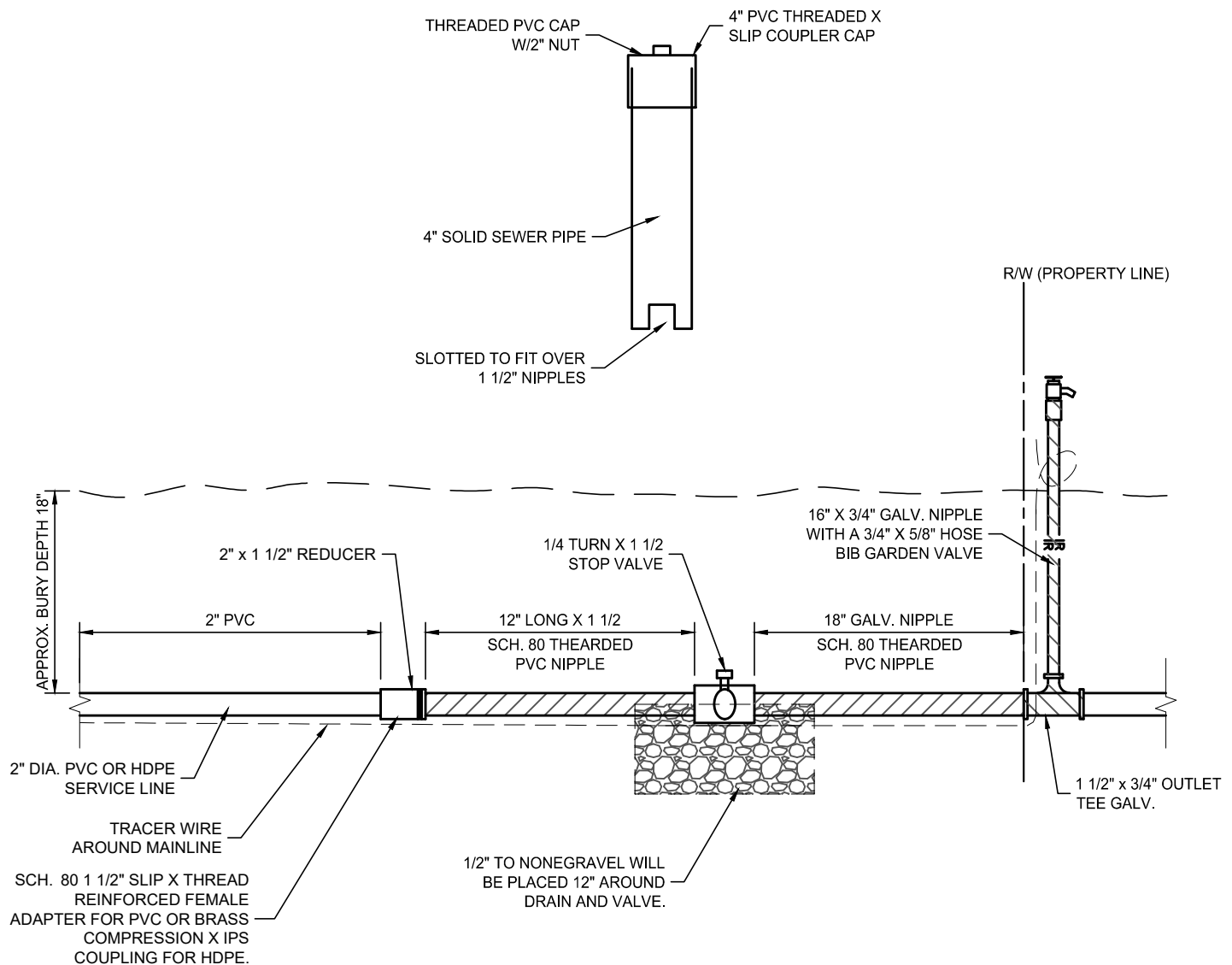
UPDATED: 3/31/2022

PROJECT: 1705-381

PLOTTED: 3/31/2022

SHEET:

CW8



NOTES:

1. IRRIGATION VALVE SHALL BE A MINIMUM CLEARANCE OF 18" FROM ALL STRUCTURES, FENCES, ETC.
2. ALL GALVANIZED PIPE & FITTINGS TO BE SCH. 40.
3. SERVICE LINE TO DRAIN BACK INTO MAINLINE TO DRAIN ENTIRE PI SYSTEM.



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CONSTRUCTION STANDARDS

IRRIGATION CONSTRUCTION

IRRIGATION SERVICE VALVE & RISER

SCALE:

NONE

DRAWN: SJ 08/17

CHECK: . .

FILE: STND\_DET2S\_2022

UPDATED: 3/31/2022

PROJECT: 1705-381

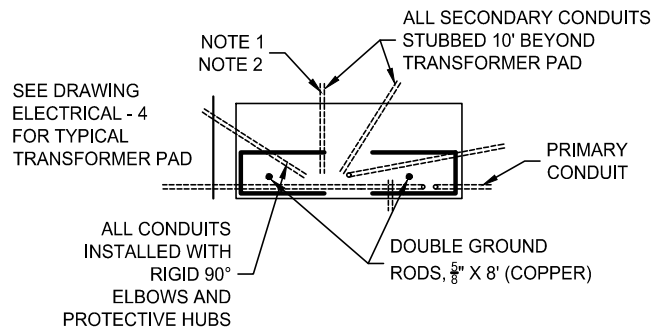
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SHEET:

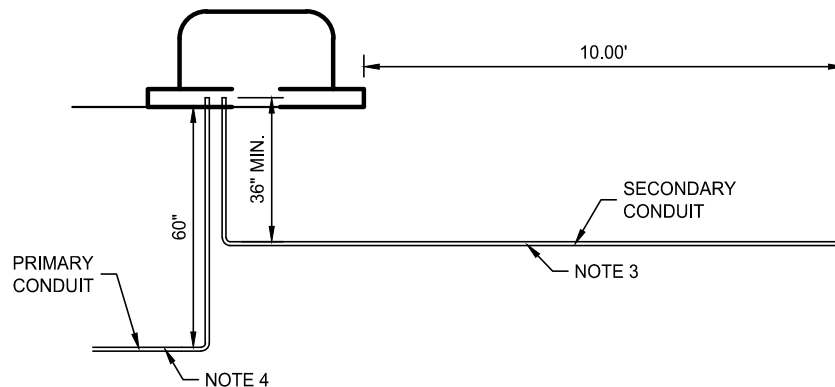
IR1

NOTES:

1. THE DEVELOPER IS RESPONSIBLE FOR THE INSTALLATION OF SUFFICIENT QUALITY OF CONDUITS.
2. ALL STUB OUTS MUST POINT IN GENERAL DIRECTION OF FRONT CORNER OF BUILDING & EXTEND BEYOND PROPERTY LINE OF INTENDED LOT USE.
3. FOR RESIDENTIAL 200A SERVICE:  
3" CONDUITS TO RESIDENT  
3" CONDUITS TO SECONDARY JUNCTION DOME
4. PRIMARY CABLE CONDUIT TYPICAL 4" THE DEVELOPER IS REQUIRED TO COORDINATE WITH THE POWER DEPARTMENT FOR SPECIFIC CONDUIT SIZE REQUIRED.
5. CONDUIT MUST BE BURIED 1' FOR EACH 1" IN DIAMETER, (EXAMPLE 6" MUST BE BURIED 6').
6. ALL CONDUIT UNDER 6" WILL USE RIGID 90'S AND FITTINGS, EXCEPT IN AREAS OTHERWISE SPECIFIED BY POWER DEPARTMENT OR ON RISER POLE INSTALLATIONS, WHICH WILL BE RIGID STEEL.
7. 6" CONDUIT SHALL USE RIGID STEEL 90'S AND FITTINGS, WHICH MUST BE PVC WRAPPED.
8. RED MARKED RIBBON 18" - 24" ABOVE CONDUIT.



DEVELOPER	POWER DEPARTMENT
PRIMARY CONDUITS	TRANSFORMER
SECONDARY CONDUIT	
TRANSFORMER PAD	
2" $\frac{5}{8}$ " x 8' GROUND ROD	



FOR SUBDIVISION DEVELOPMENT



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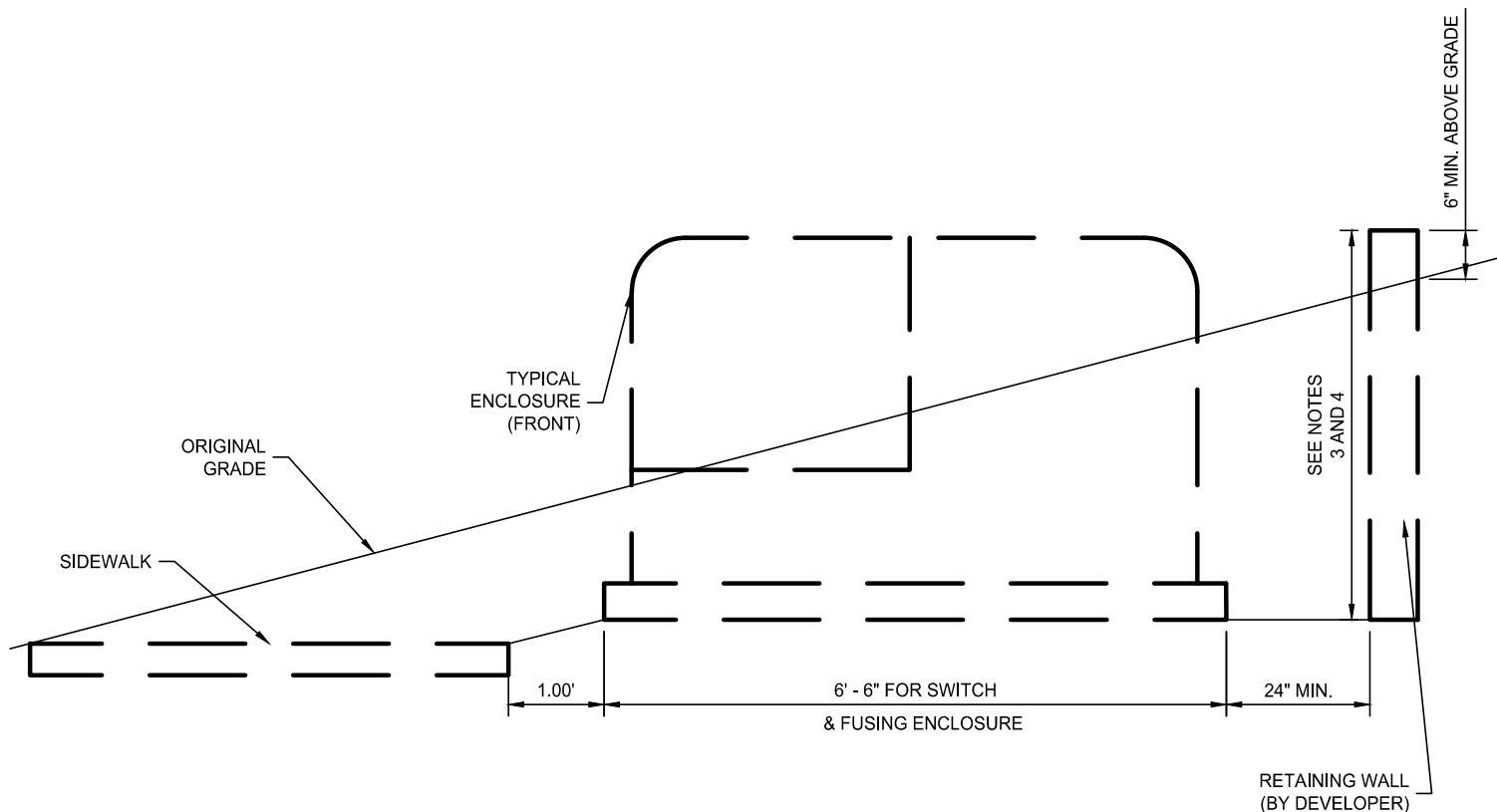


CONSTRUCTION STANDARDS

ELECTRICAL

SINGLE PHASE TYPICAL CONDUIT INSTALLATION

SCALE:	DRAWN: SJ 08/17	FILE: STND_ELEC_DET_02	PROJECT: 1705-381	SHEET:
NONE	CHECK: . .	UPDATED: 3/31/2022	PLOTTED: 3/31/2022	E1



NOTES:

1. WHEN IT BECOMES NECESSARY TO NOTCH-OUT OR FILL A SLOPE TO INSTALL AN ENCLOSURE, THE CLEARED AREA SHOULD BE SUFFICIENT SIZE TO ACCOMMODATE THE ENCLOSURE AND SHORINGS. THE FRONT OF TRANSFORMER PAD SHALL BE PLACED 2" ABOVE SIDEWALK MAX.
2. AREA UNDER AND BEHIND PAD MUST BE LEVEL AND COMPACTED. PER TRENCH SPECIFICATION NOTES IN TRENCHING SECTION
3. A WALL IS REQUIRED IF THIS DIMENSION IS 12" OR MORE.
4. SIDE WALLS ALSO REQUIRED IF THIS DIMENSION IS OVER 18". SIDE WALL TO BE 6" ABOVE EXISTING GRADE AND 18" FROM SIDE OF ENCLOSURE PAD.
5. ALL GRADING IS TO BE DONE BY DEVELOPER.
6. IF ASSISTANCE IS REQUIRED, CONTACT BEAVER CITY POWER DEPARTMENT.

INSTALLED ON SLOPES



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CONSTRUCTION STANDARDS

ELECTRICAL

EQUIPMENT EROSION PREVENTION METHOD ENCLOSURES

SCALE:

NONE

DRAWN: SJ 08/17

CHECK: - -

FILE: STND\_ELEC\_DET\_02

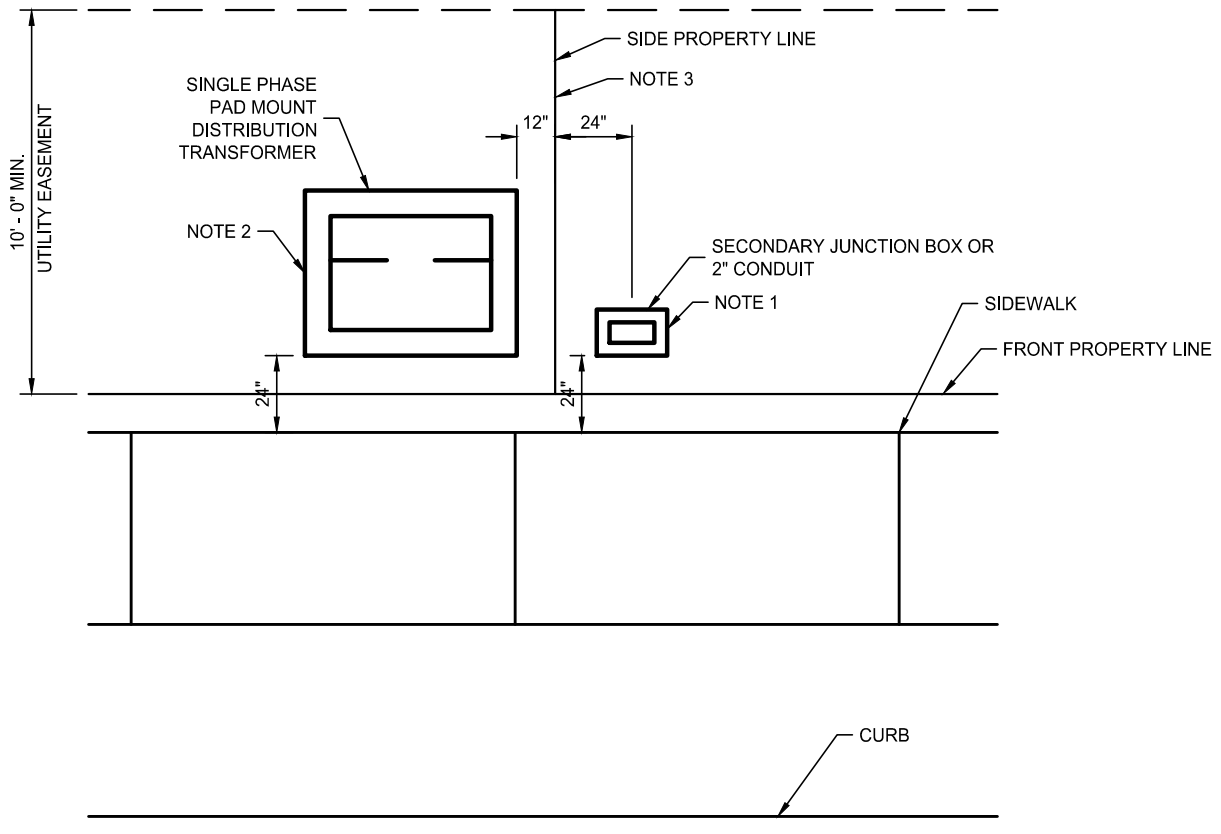
UPDATED: 3/31/2022

PROJECT: 1705-381

PLOTTED: 3/31/2022

SHEET:

E2



NOTES:

1. JUNCTION BOX TO BE LOCATED IN AN ADJACENT LOT FROM WHERE THE TRANSFORMER SECONDARY JUNCTION BOX OR CABLE SWITCHING STATIONS ARE LOCATED.
2. TRANSFORMERS OR OTHER EQUIPMENT FRONTS TO BE INSTALLED THAT THE FRONTS ARE FACING SIDEWALK AND NOT TO BE OBSTRUCTED.
3. NO EQUIPMENT SHALL BE MOUNTED ON PROPERTY LINES.
4. SPARE CONDUITS SHALL BE PERMANENTLY CAPPED 2" ABOVE FINAL GRADE.
5. MAX. SPACING BETWEEN TRANSFORMER AND JUNCTION BOX OR JUNCTION BOX TO JUNCTION: 175' FOR SECONDARY  
500' FOR PRIMARY

FRONT LOT LINE CONSTRUCTION



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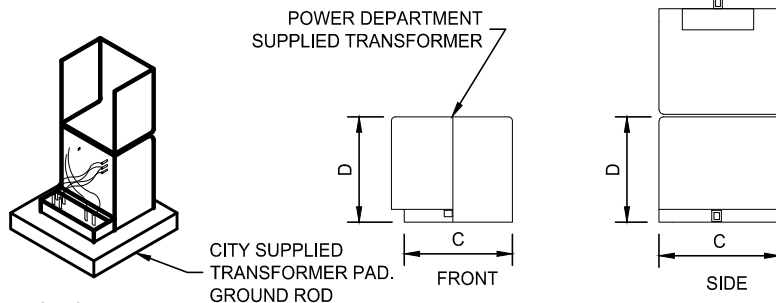


CONSTRUCTION STANDARDS

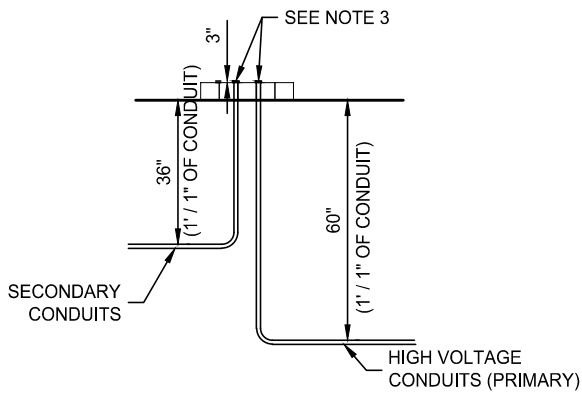
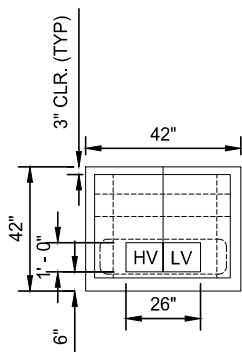
ELECTRICAL

SINGLE PHASE PAD MOUNT TRANSFORMER

SCALE:	DRAWN: SJ 08/17	FILE: STND_ELEC_DET_08	PROJECT: 1705-381	SHEET:
NONE	CHECK: . .	UPDATED: 3/31/2022	PLOTTED: 3/31/2022	E3



NOTES:  
CONDUITS TO ALLOW  
NON-INTERFERENCE OF SECONDARY



#### NOTES:

1. DIMENSIONS TO BE PROPERLY SIZED FOR EACH INDIVIDUAL TRANSFORMER
2. TRANSFORMERS CONCRETE PAD MAY BE SUBSTITUTED WITH APPROVED PREFABRICATED CONCAST PAD
3. FILL MATERIAL UNDER THE CONCRETE PAD SHALL BE ROADBASE MEETING STATE SPEC AND SHALL BE COMPACTED TO 95%. ROADBASE FILL SHALL EXTEND FROM BOTTOM OF TRENCH TO TRANSFORMER PAD.



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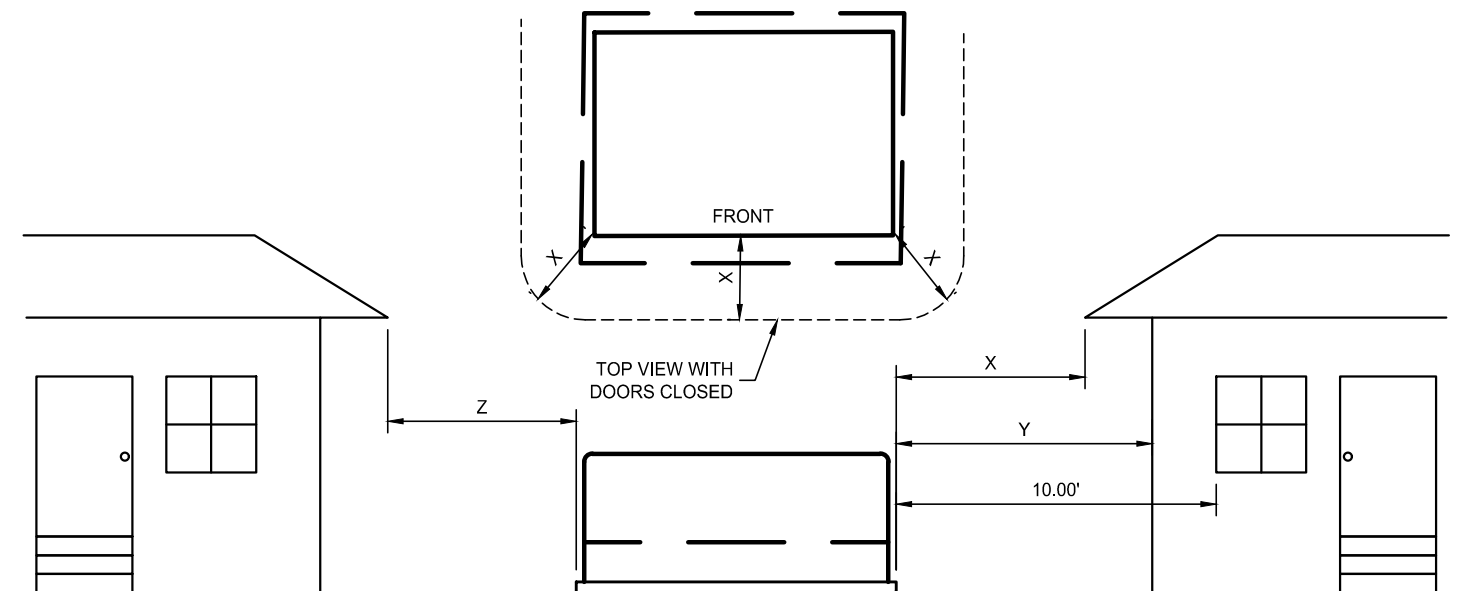


#### CONSTRUCTION STANDARDS

#### ELECTRICAL

#### TYPICAL SINGLE PHASE PAD MOUNT TRANSFORMER

SCALE:	DRAWN: SJ 08/17	FILE: STND_ELEC_0	PROJECT: 1705-381	SHEET:
NONE	CHECK: . .	UPDATED: 3/31/2022	PLOTTED: 3/31/2022	E4



**MINIMUM DISTANCE REQUIRED:**

X = 10' CLEAR AREA IN FRONT OF UNIT TO ALLOW USE OF HOT STICKS (SEE NOTE 2)

Y = 3' TO NON-COMBUSTIBLE BUILDING SURFACES HAVING NO OPENINGS CLOSER THAN 10 FT.

Z = 10' FROM ANY TRANSFORMER SURFACE IF STRUCTURE IS OF COMBUSTIBLE MATERIAL..

OPEN TO SIDEWALK  
FRONT VIEW WITH DOORS CLOSED  
(SEE NOTE 2)

**NOTES:**

1. CONSULT NATIONAL ELECTRICAL SAFETY CODE, NEC, STATE REQUIREMENTS AND LOCAL BUILDING AND FIRE CODES FOR ADDITIONAL CLEARANCE REQUIREMENTS
2. FRONT OF PAD-MOUNTED TRANSFORMER TO BE LOCATED AWAY FROM BUILDING WALLS OR OTHER BARRIERS TO ALLOW FOR SAFE WORKING PRACTICES. IF FRONT OF TRANSFORMER MUST FACE WALL, ALLOW "X" DIMENSIONS FOR WORKING AREA.
3. CONSULT POWER DEPT. FOR ADDITIONAL CLEARANCES THAT MAY BE REQUIRED TO BUILDING DOORS, WINDOWS, FIRE ESCAPES, AND AIR VENTS ETC.
4. WHERE PAD MOUNTED TRANSFORMER OR OTHER EQUIPMENT IS INSTALLED IN A LOCATION WHERE IT MIGHT BE STRUCK BY A MOTORIZED VEHICLE THE CUSTOMER IS TO INSTALL AND MAINTAIN POWER DEPT. APPROVED BARRIER POSTS TO PROTECT THE EQUIPMENT. (SEE PIPE BOLLARD DETAIL).

**SINGLE PHASE AND THREE PHASE INSTALLATIONS**

*Beaver City*

PREPARED BY:

Jones & DeMille Engineering, Inc.



CONSTRUCTION STANDARDS

ELECTRICAL

PAD MOUNTED TRANSFORMER CLEARANCES

SCALE:

NONE

DRAWN: SJ 08/17

CHECK: . .

FILE: STND\_ELEC\_0

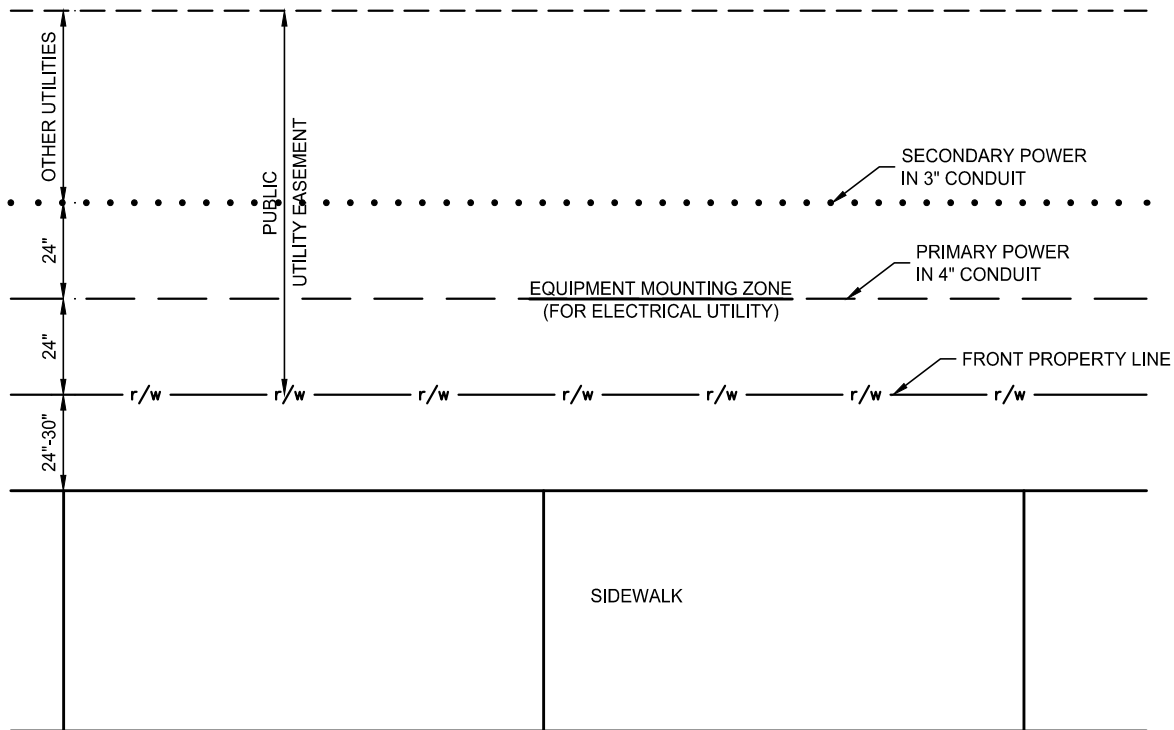
UPDATED: 3/31/2022

PROJECT: 1705-381

PLOTTED: 3/31/2022

SHEET:

E5



NOTE:

1. NO UTILITIES ALLOWED BETWEEN PUE (STREET SIDE) AND BURIED ELECTRICAL.
2. PRIMARY POWER BURY DEPTH = 5' MIN.
3. SECONDARY POWER BURY DEPTH = 3' MIN.

FRONT LOT LINE CONSTRUCTION

*Beaver City*

PREPARED BY:

Jones & DeMille Engineering, Inc.



CONSTRUCTION STANDARDS

ELECTRICAL

UNDERGROUND CABLE

SCALE:

NONE

DRAWN: SJ 08/17

CHECK: . .

FILE: STND\_ELEC\_0

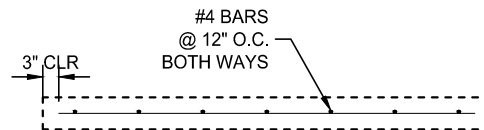
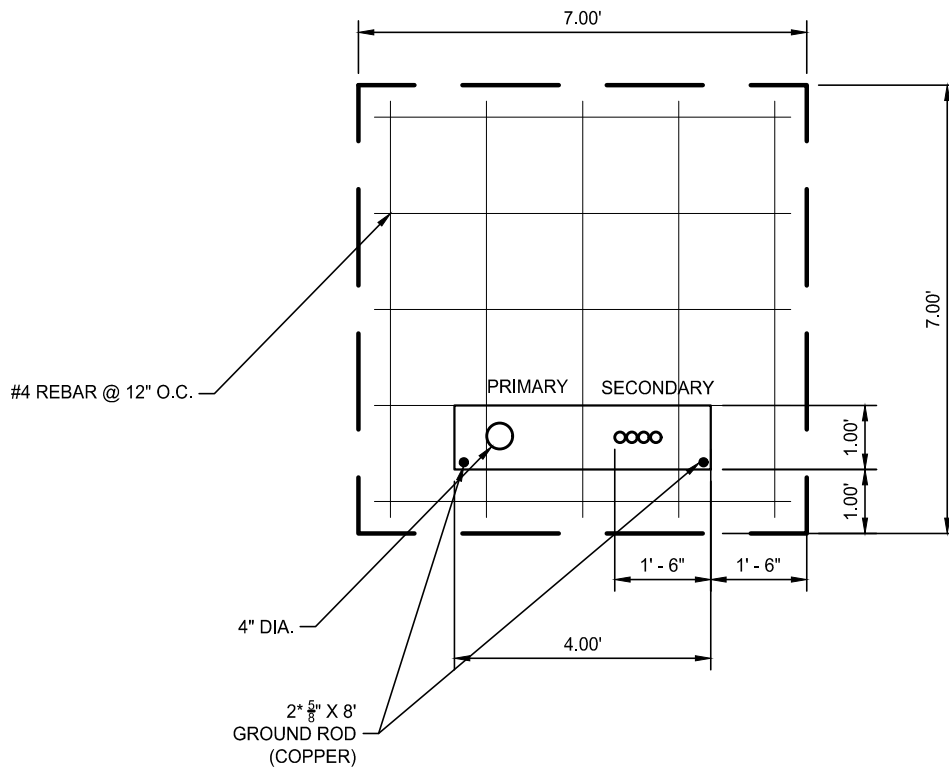
UPDATED: 3/31/2022

PROJECT: 1705-381

PLOTTED: 3/31/2022

SHEET:

E6



NOTES:

1. CONCRETE TO MEET BEAVER CITY CONCRETE SPECIFICATION CLASS AA (AE) 4,000 PSI MIN.
2. PAD DIMENSIONS VARY WITH SIZE OF TRANSFORMER.



PREPARED BY:

Jones & DeMille Engineering, Inc.



CONSTRUCTION STANDARDS

ELECTRICAL

THREE PHASE TRANSFORMER CONCRETE PAD WITHOUT CT RACK

SCALE:

NONE

DRAWN: SJ 08/17

CHECK: . .

FILE: STND\_ELEC\_0

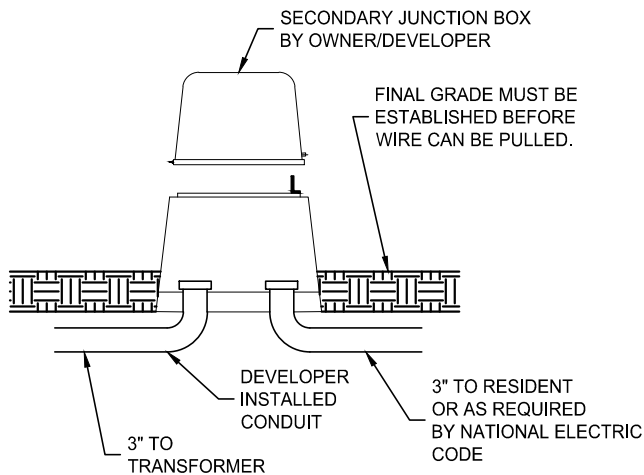
UPDATED: 3/31/2022

PROJECT: 1705-381

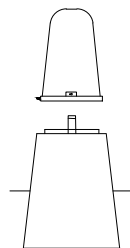
PLOTTED: 3/31/2022

SHEET:

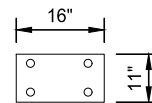
E7



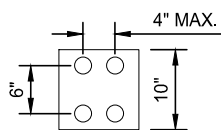
FRONT VIEW



SIDE VIEW

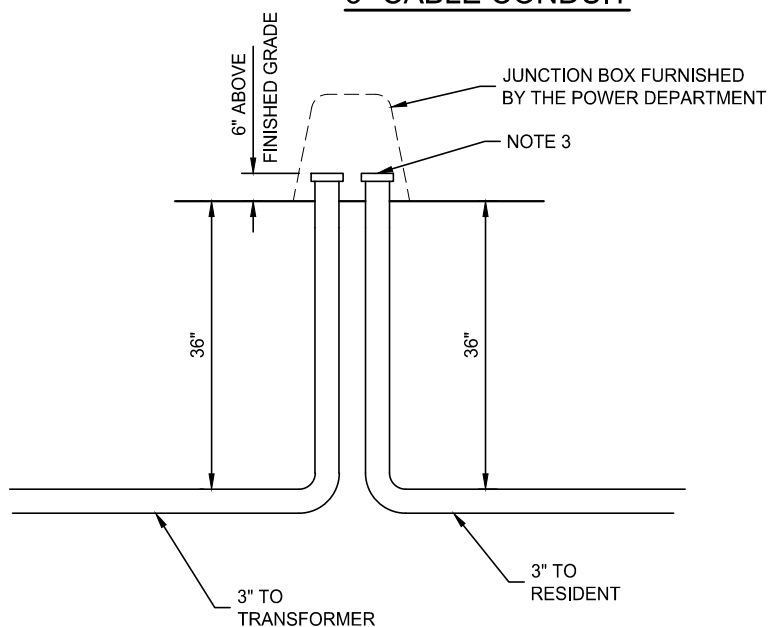


PLAN VIEW



PLAN VIEW

### 3" CABLE CONDUIT



#### NOTES:

1. THE DEVELOPER IS TO PROVIDE A 3" PVC CONDUIT SYSTEM, LABOR, ETC.
2. THE DEVELOPER TO PROVIDE MINIMUM SPACING BETWEEN CONDUITS
3. THE DEVELOPER TO SEAL ALL CONDUIT END POINTS WITH PERMANENT CAPS TO PREVENT PLUGGING
4. THE DEVELOPER IS RESPONSIBLE FOR TRENCHING AND BACKFILLING IN ACCORDANCE WITH OTHER SECTION OF THIS DOCUMENT.



PREPARED BY:

Jones & DeMille Engineering, Inc.



CONSTRUCTION STANDARDS

ELECTRICAL

TYPICAL SECONDARY JUNCTION BOX

SCALE:

NONE

DRAWN: SJ 08/17

CHECK: - -

FILE: STND\_ELEC\_0

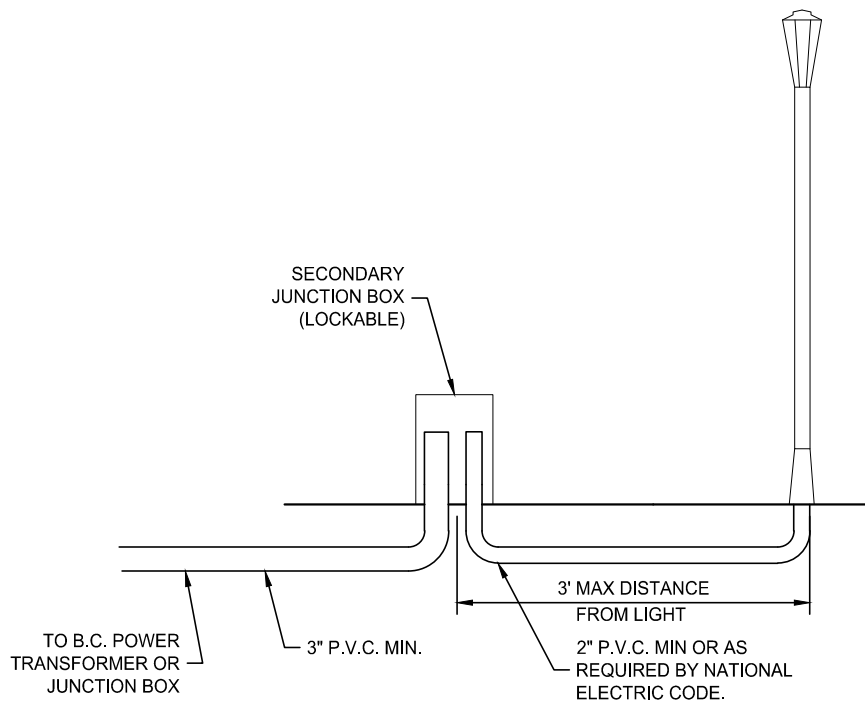
UPDATED: 3/31/2022

PROJECT: 1705-381

PLOTTED: 3/31/2022

SHEET:

E8



#### RESPONSIBILITIES

##### DEVELOPER:

- CONDUIT FROM POWER SOURCE TO SECONDARY JUNCTION BOX
- SECONDARY JUNCTION BOX (MUST BE LOCKABLE)
- CONDUIT TO LIGHT
- LIGHT POLE AND BASE
- DISCONNECT ON LOAD SIDE

##### NOTES:

1. LIGHTING PER BEAVER CITY STREET LIGHT POLICY.
2. SEE NOTES ON SHEET E10.



PREPARED BY:

Jones & DeMille Engineering, Inc.

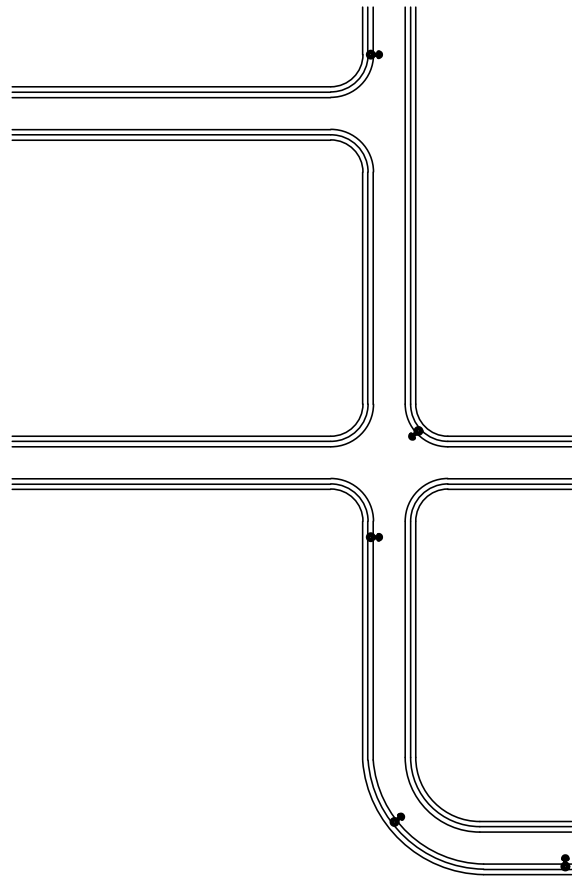
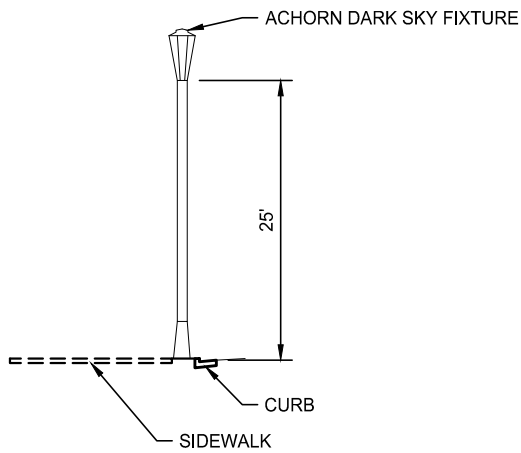


#### CONSTRUCTION STANDARDS

#### ELECTRICAL

#### DECORATIVE OR H.O.A. INSTALLED STREET LIGHTING

SCALE:	DRAWN: SJ 08/17	FILE: STND_ELEC_0	PROJECT: 1705-381	SHEET:
NONE	CHECK: . .	UPDATED: 3/31/2022	PLOTTED: 3/31/2022	E9



NOTES:

1. STREET LIGHTS INSTALLED WITH 400 FT. MAXIMUM SEPARATION OR MIN. AT EACH INTERSECTION.
2. STREET LIGHTS TO BE LOCATED NEAR INTERSECTIONS
3. LIGHTING LAYOUT TO BE APPROVED BY BEAVER CITY POWER DEPARTMENT
4. THE CONTRACTOR / DEVELOPER SHALL BE RESPONSIBLE FOR THE INSTALLATION OF THE STREET LIGHTING CONDUIT SYSTEM (2 INCH DIAMETER) EXTENDED FROM TRANS/J BOX TO LIGHTING FIXTURES.
5. ACHORN DARK SKY REQ'D. PROVIDE SUBMITTAL TO BEAVER CITY FOR APPROVAL.



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CONSTRUCTION STANDARDS

ELECTRICAL

TYPICAL RESIDENTIAL STREET LIGHT LAYOUT

SCALE:

NONE

DRAWN: SJ 08/17

CHECK: . .

FILE: STND\_ELEC\_0

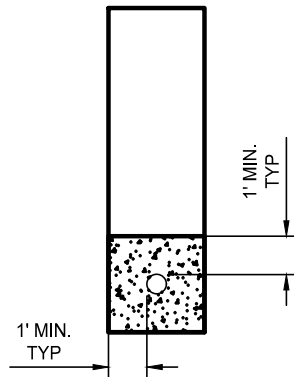
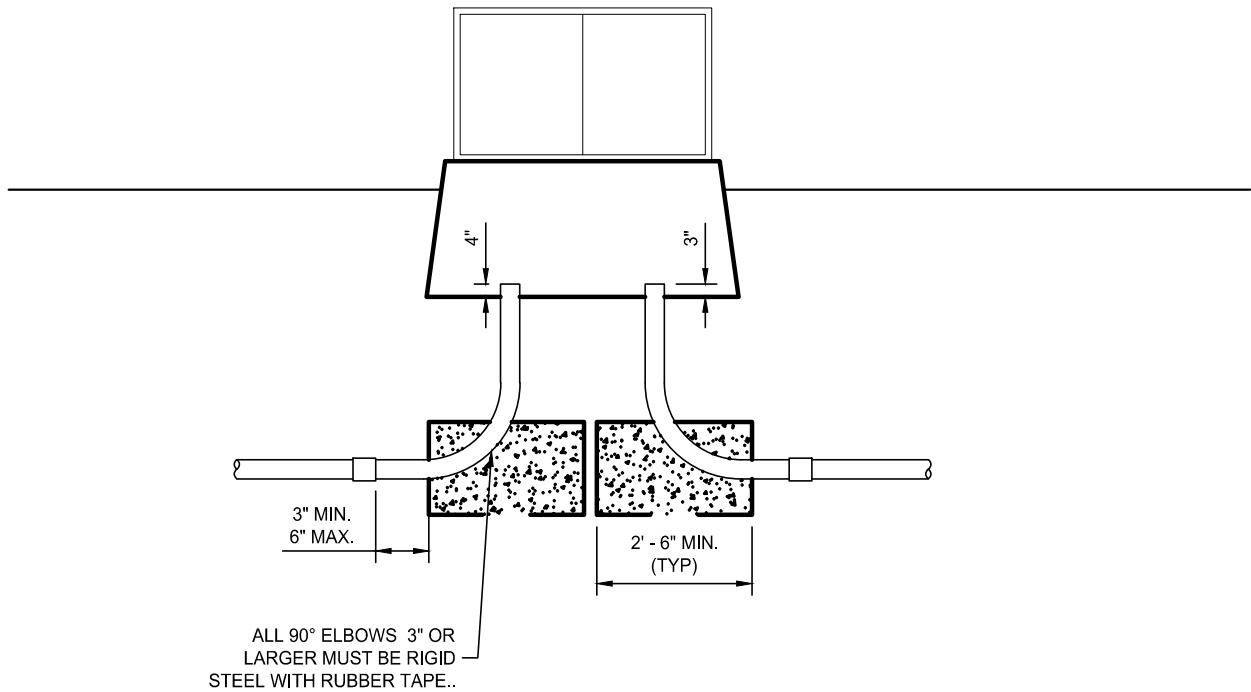
UPDATED: 3/31/2022

PROJECT: 1705-381

PLOTTED: 3/31/2022

SHEET:

E10



NOTES: CONCRETE TO MEET BEAVER CITY CONCRETE SPECIFICATION  
CLASS B (AE) 4,000 PSI MIN.



PREPARED BY:

Jones & DeMille Engineering, Inc.



## CONSTRUCTION STANDARDS

### ELECTRICAL

#### 90° RIGID ELBOW

SCALE:

NONE

DRAWN: SJ 08/17

CHECK: - -

FILE: STND\_ELEC\_0

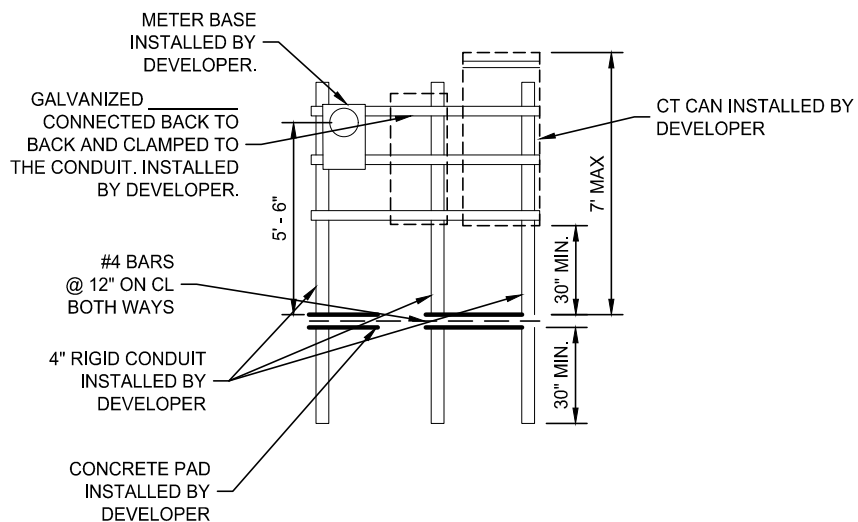
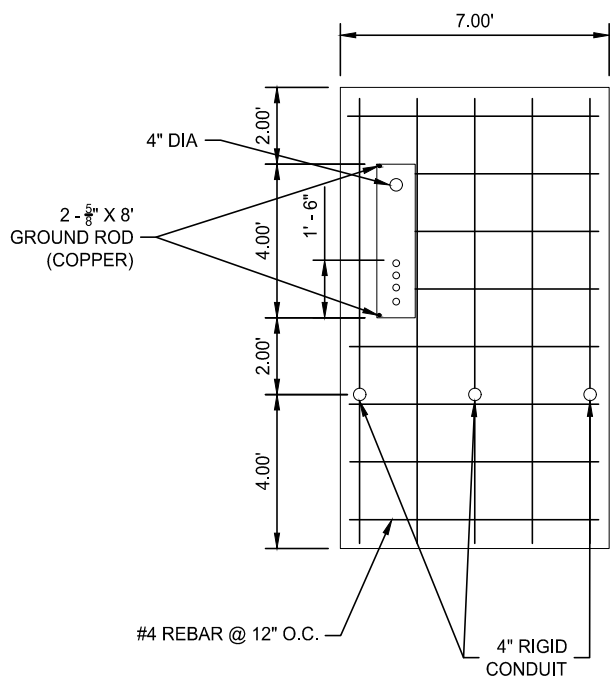
UPDATED: 3/31/2022

PROJECT: 1705-381

PLOTTED: 3/31/2022

SHEET:

E11



NOTES:

1. CONCRETE TO MEET BEAVER CITY CONCRETE SPECIFICATION CLASS AA (AE) 4,000 PSI MIN.
2. PAD DIMENSIONS VARY WITH SIZE OF TRANSFORMER.



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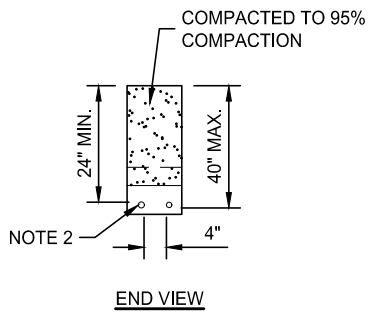


CONSTRUCTION STANDARDS

ELECTRICAL

THREE PHASE TRANSFORMER PAD W/ METERING STATION

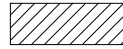
SCALE:	DRAWN: SJ 08/17	FILE: STND_ELEC_08	PROJECT: 1705-381	SHEET:
NONE	CHECK: . .	UPDATED: 3/31/2022	PLOTTED: 3/31/2022	E12



#### LEGEND



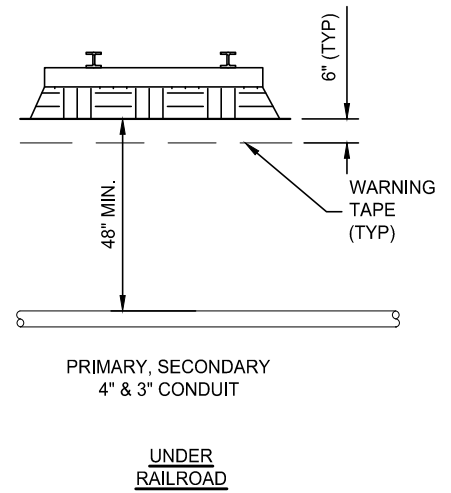
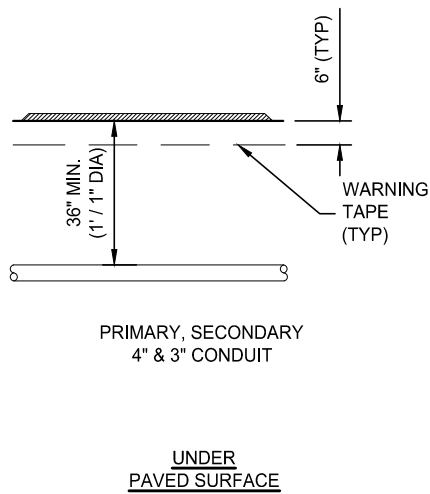
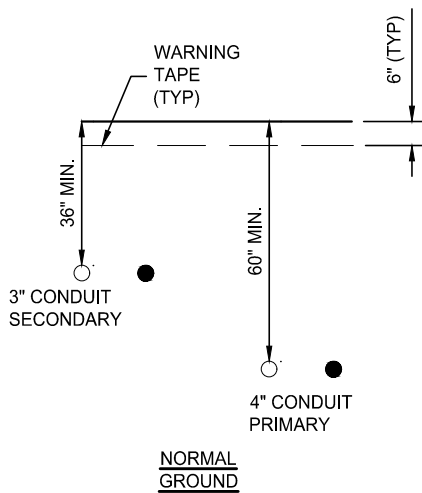
SAND UNDERFILL (AS REQUIRED)



SAND OR SOIL (AS REQUIRED)



SAND, STRUCTURAL FILL, OR RIBBON (AS REQUIRED)



#### NOTES:

1. 3" CONDUIT TO BE INSTALLED AT THE SAME DEPTH AS SECONDARY WHERE SECONDARY IS PRESENT, ELSE AT THE PRIMARY CONDUIT DEPTH.
2. 24" MIN. SPACING REQUIRED.



PREPARED BY:

Jones & DeMille Engineering, Inc.



#### CONSTRUCTION STANDARDS

#### ELECTRICAL

#### TYPICAL CONDUIT BURIAL

SCALE:

NONE

DRAWN: SJ 08/17

CHECK: - -

FILE: STND\_ELEC\_0

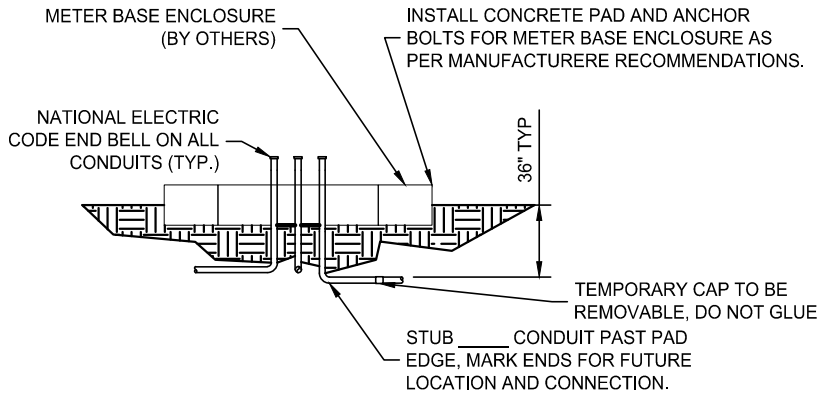
UPDATED: 3/31/2022

PROJECT: 1705-381

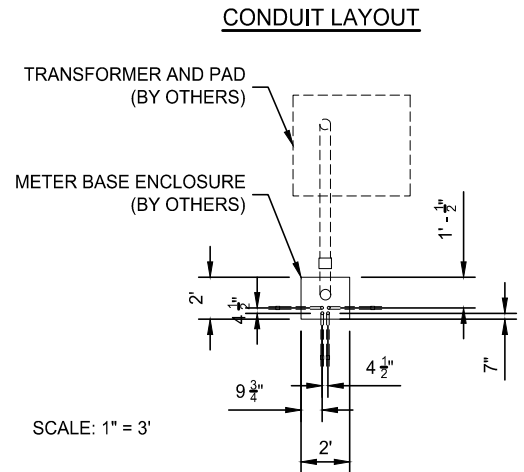
PLOTTED: 3/31/2022

SHEET:

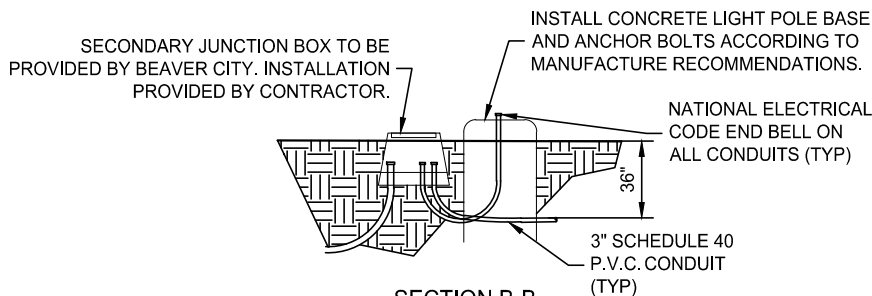
E13



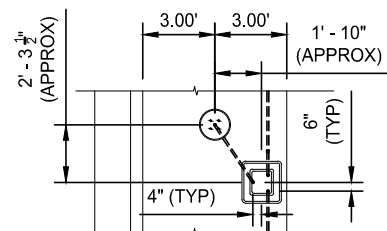
**SECTION A-A**



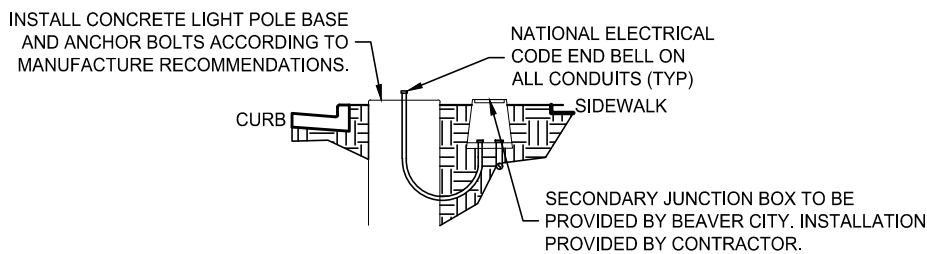
**TYPICAL METER BASE ENCLOSURE PAD INSTALLATION**



**SECTION B-B**



**TYPICAL LIGHT POLE BASE AND JUNCTION BOX INSTALLATION**



**SECTION C-C**



PREPARED BY:

Jones & DeMille Engineering, Inc.



CONSTRUCTION STANDARDS

ELECTRICAL

STREET LIGHT CONDUIT LAYOUT

SCALE:

NONE

DRAWN: SJ 08/17

CHECK: - -

FILE: STND\_ELEC\_0

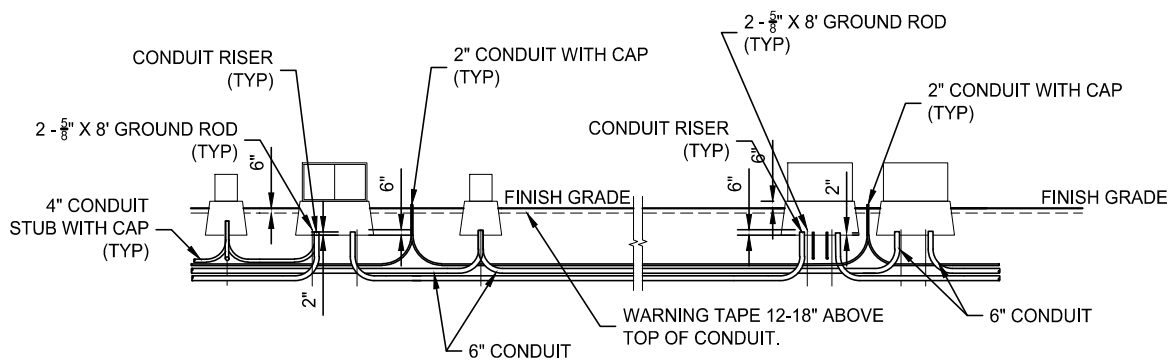
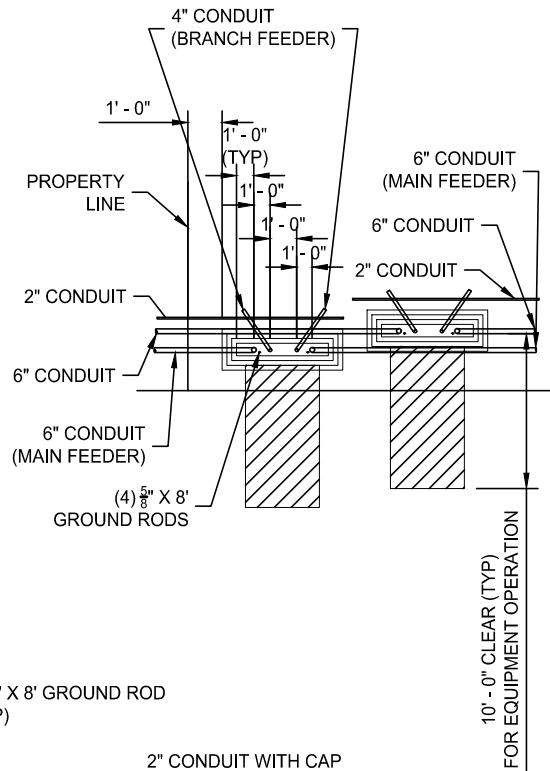
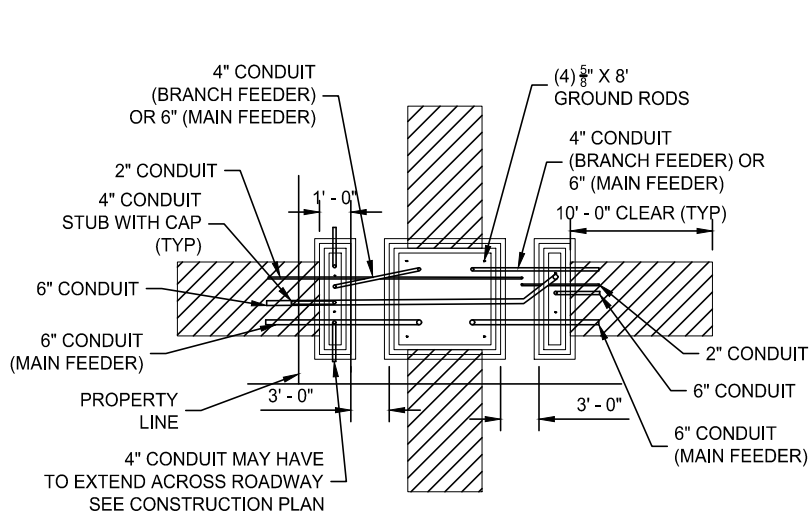
UPDATED: 3/31/2022

PROJECT: 1705-381

PLOTTED: 3/31/2022

SHEET:

E14

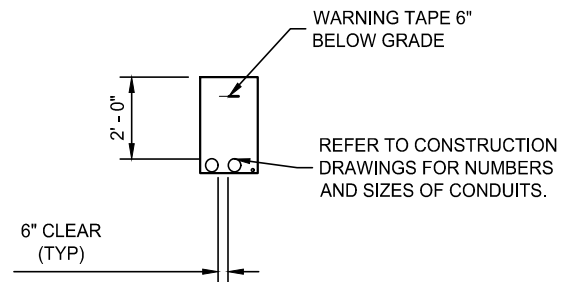


### 1 PAD MOUNTED SWITCHGEAR INSTALLATION

### 2 LOADBREAK JUNCTION ENCLOSURE INSTALLATION

#### NOTES:

1. SECTIONALIZER ENCLOSURE AND BASE WILL BE PROVIDED BY BEAVER CITY AND INSTALLED BY DEVELOPER
2. SWITCHGEAR AND BASE WILL BE PROVIDED BY BEAVER CITY AND INSTALLED BY THE DEVELOPER
3. THE DEVELOPER IS TO PROVIDE AND INSTALL TRANSFORMER PADS
4. THE DEVELOPER IS TO PROVIDE ALL GROUND RODS AND SUBSEQUENT MATERIALS FOR COMPLETE INSTALLATION AS SHOWN.
5. SEE NOTE 5 ON SHEET E3.



### 3 TYPICAL CONDUIT TRENCH SECTION



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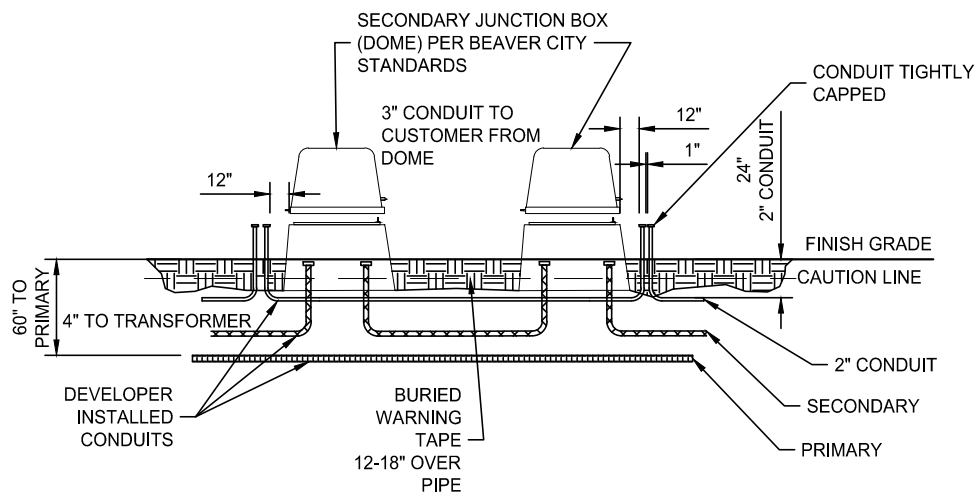


#### CONSTRUCTION STANDARDS

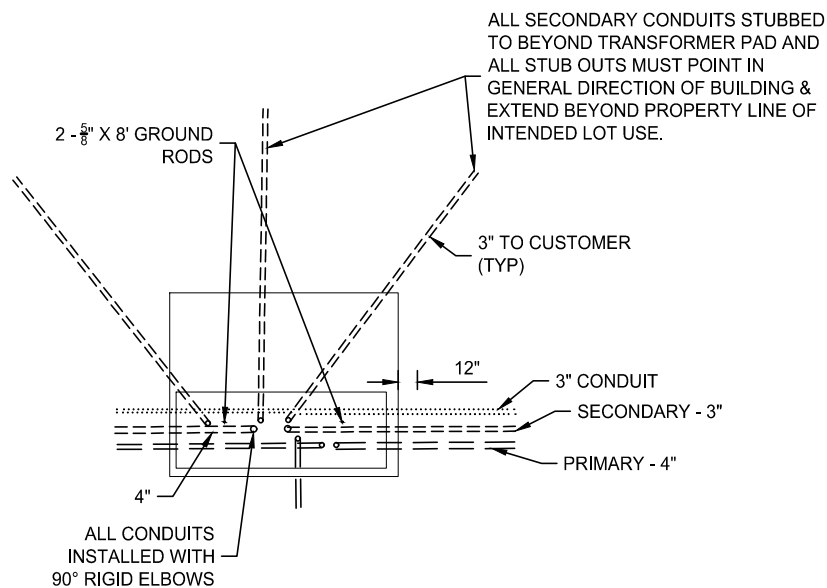
#### ELECTRICAL

#### SWITCH GEAR & SECTIONALIZER LAYOUT

SCALE:	DRAWN: SJ 08/17	FILE: STND_ELEC_0	PROJECT: 1705-381	SHEET:
NONE	CHECK: .	UPDATED: 3/31/2022	PLOTTED: 3/31/2022	E15



## SECONDARY LAYOUT



## PRIMARY TRANSFORMER

CONDUIT \_\_\_\_\_ LAYOUT  
LOOP \_\_\_\_\_ TRANSFORMER SHOWN

### NOTES:

- SEE NOTE 5 ON SHEET E3.



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## CONSTRUCTION STANDARDS

## ELECTRICAL

## JUNCTION BOX LAYOUT

SCALE:

NONE

DRAWN: SJ 08/17

CHECK: - -

FILE: STND\_ELEC\_DET\_02

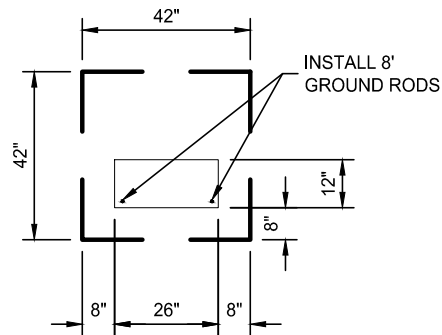
UPDATED: 3/31/2022

PROJECT: 1705-381

PLOTTED: 3/31/2022

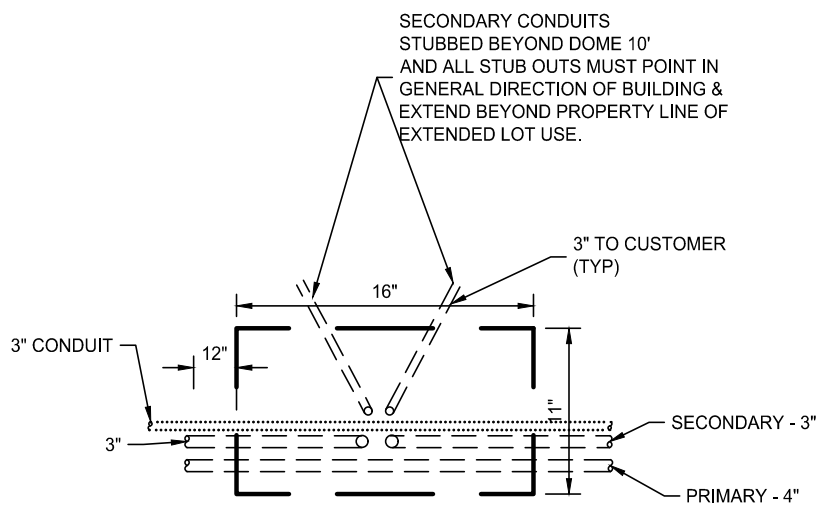
SHEET:

E16



### TRANSFORMER PAD

PAD MAY BE CONCRETE OR FORMED PLASTIC



### SECONDARY DOME

CONDUIT EXIT LAYOUT

NOTES:

1. SEE NOTE 3 ON SHEET E3.



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CONSTRUCTION STANDARDS

ELECTRICAL

TRANSFORMER LAYOUT

SCALE:

NONE

DRAWN: SJ 08/17

CHECK: . .

FILE: STND\_ELEC\_DET\_082

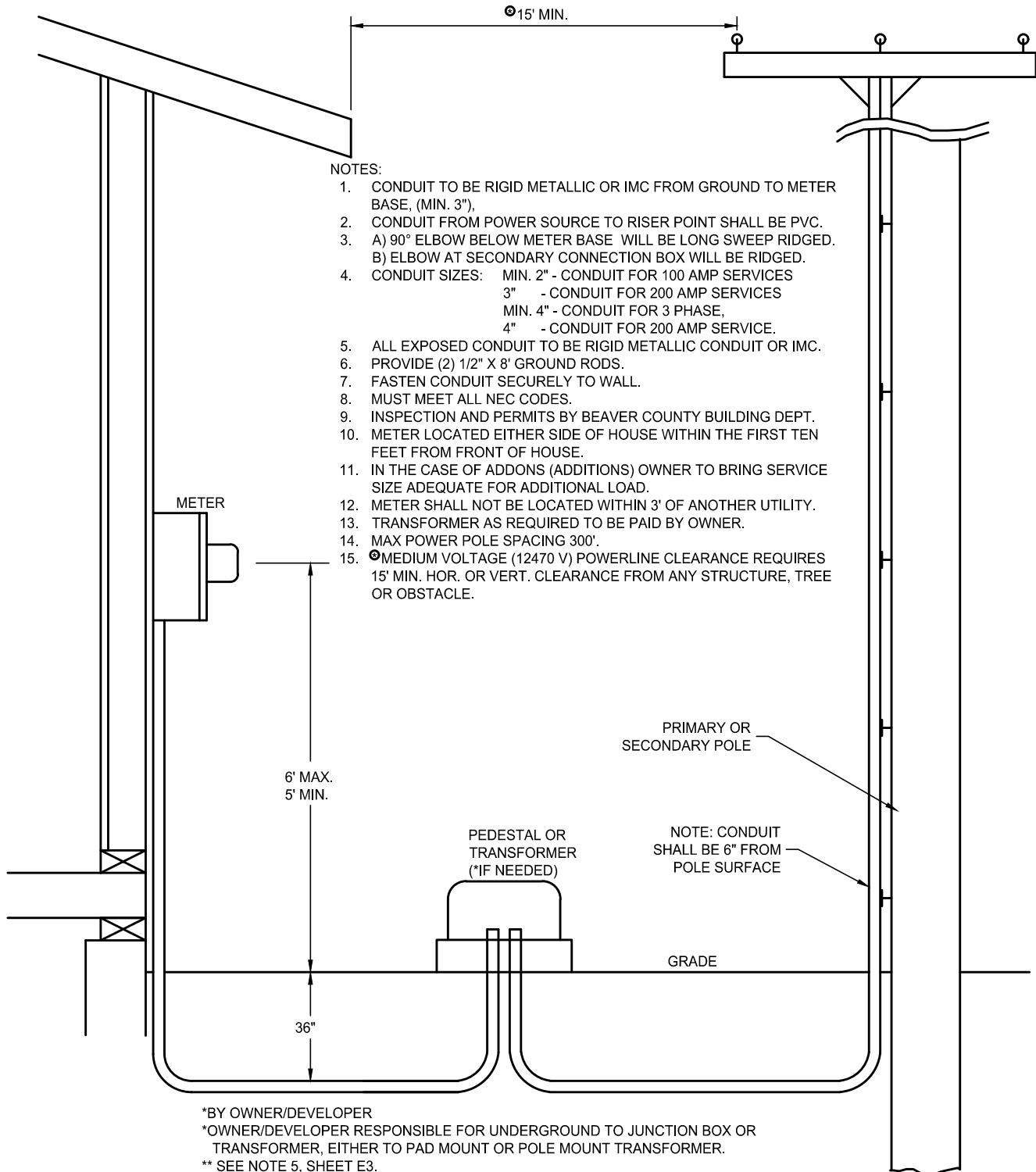
UPDATED: 3/31/2022

PROJECT: 1705-381

PLOTTED: 3/31/2022

SHEET:

E17



PREPARED BY:

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## CONSTRUCTION STANDARDS

## ELECTRICAL

## BURIED SECONDARY ELECTRICAL SERVICE

SCALE:

NONE

DRAWN: SJ 08/17

CHECK: - -

FILE: STND\_ELEC\_DET\_2

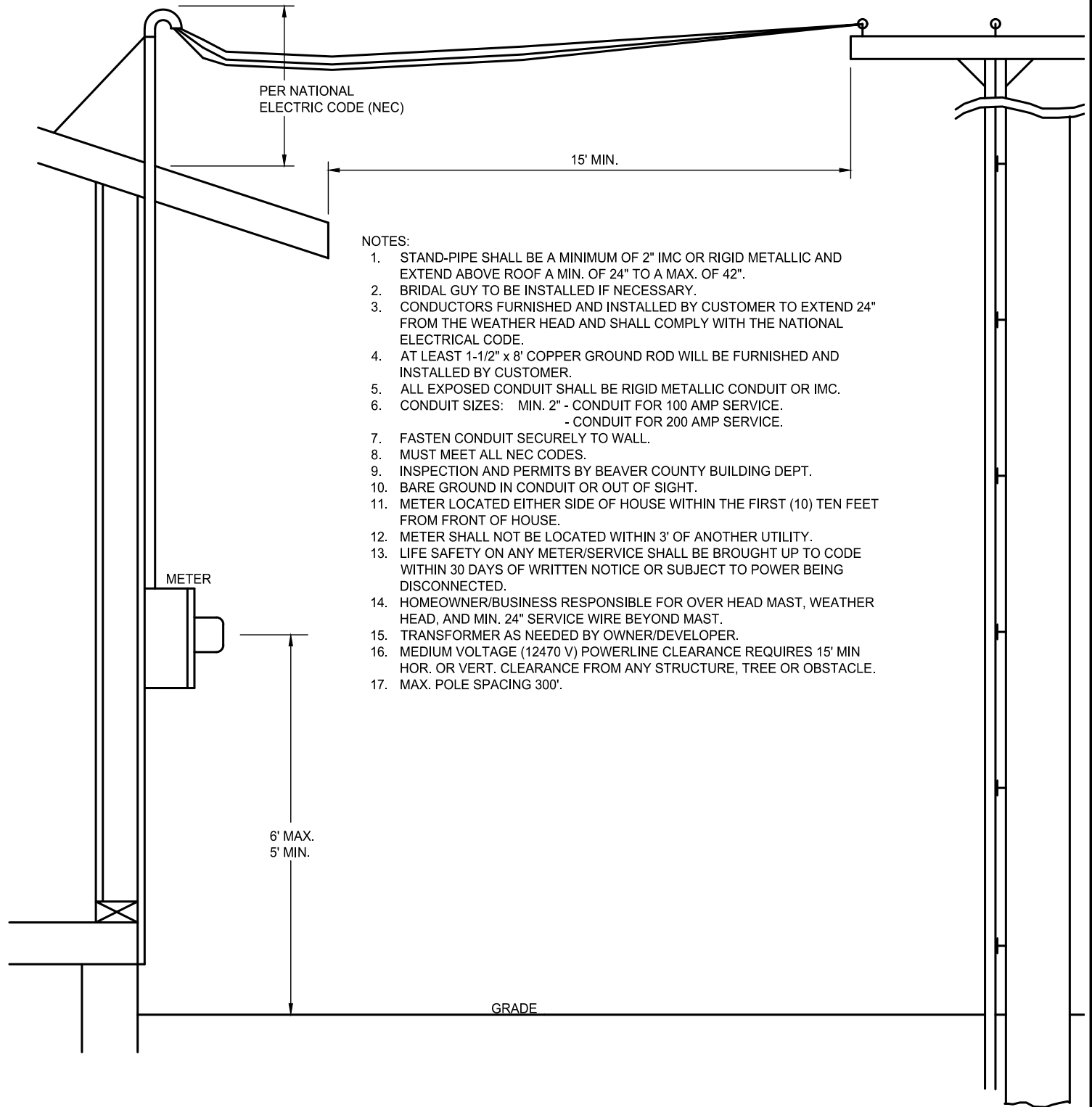
UPDATED: 3/31/2022

PROJECT: 1705-381

PLOTTED: 3/31/2022

SHEET:

E18



NOTES:

1. STAND-PIPE SHALL BE A MINIMUM OF 2" IMC OR RIGID METALLIC AND EXTEND ABOVE ROOF A MIN. OF 24" TO A MAX. OF 42".
2. BRIDAL GUY TO BE INSTALLED IF NECESSARY.
3. CONDUCTORS FURNISHED AND INSTALLED BY CUSTOMER TO EXTEND 24" FROM THE WEATHER HEAD AND SHALL COMPLY WITH THE NATIONAL ELECTRICAL CODE.
4. AT LEAST 1-1/2" x 8' COPPER GROUND ROD WILL BE FURNISHED AND INSTALLED BY CUSTOMER.
5. ALL EXPOSED CONDUIT SHALL BE RIGID METALLIC CONDUIT OR IMC.
6. CONDUIT SIZES: MIN. 2" - CONDUIT FOR 100 AMP SERVICE.  
- CONDUIT FOR 200 AMP SERVICE.
7. FASTEN CONDUIT SECURELY TO WALL.
8. MUST MEET ALL NEC CODES.
9. INSPECTION AND PERMITS BY BEAVER COUNTY BUILDING DEPT.
10. BARE GROUND IN CONDUIT OR OUT OF SIGHT.
11. METER LOCATED EITHER SIDE OF HOUSE WITHIN THE FIRST (10) TEN FEET FROM FRONT OF HOUSE.
12. METER SHALL NOT BE LOCATED WITHIN 3' OF ANOTHER UTILITY.
13. LIFE SAFETY ON ANY METER/SERVICE SHALL BE BROUGHT UP TO CODE WITHIN 30 DAYS OF WRITTEN NOTICE OR SUBJECT TO POWER BEING DISCONNECTED.
14. HOMEOWNER/BUSINESS RESPONSIBLE FOR OVER HEAD MAST, WEATHER HEAD, AND MIN. 24" SERVICE WIRE BEYOND MAST.
15. TRANSFORMER AS NEEDED BY OWNER/DEVELOPER.
16. MEDIUM VOLTAGE (12470 V) POWERLINE CLEARANCE REQUIRES 15' MIN HOR. OR VERT. CLEARANCE FROM ANY STRUCTURE, TREE OR OBSTACLE.
17. MAX. POLE SPACING 300'.



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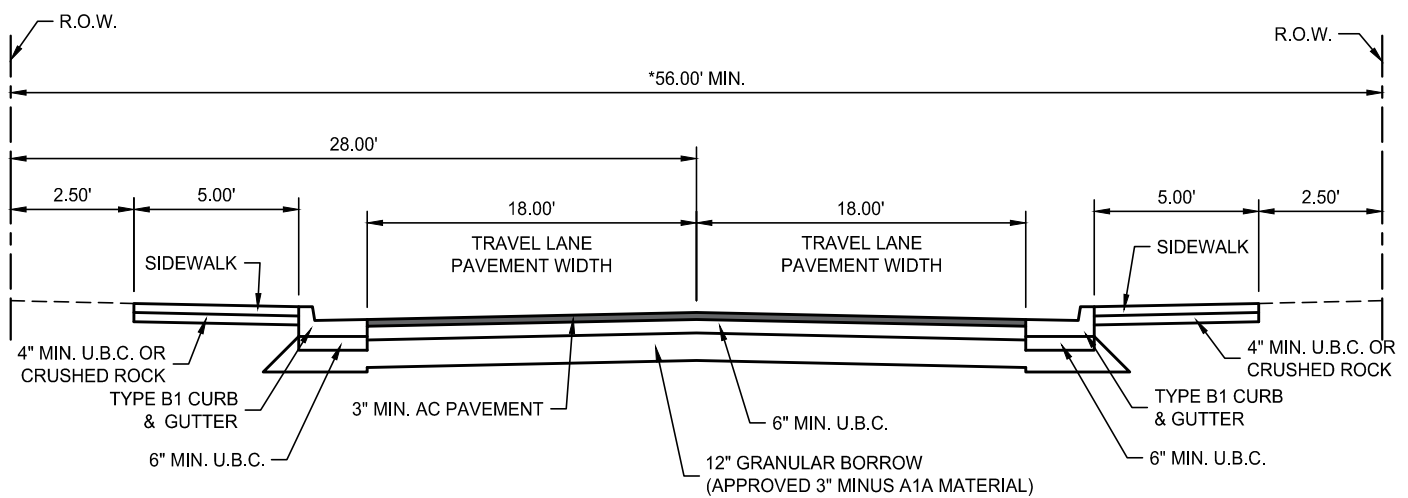


CONSTRUCTION STANDARDS

ELECTRICAL

OVERHEAD SECONDARY ELECTRICAL SERVICE

SCALE:	DRAWN: SJ 08/17	FILE: STND_ELEC_DET_08	PROJECT: 1705-381	SHEET:
NONE	CHECK: . .	UPDATED: 3/31/2022	PLOTTED: 4/11/2022	E19



NOTES:

1. SEE BEAVER CITY AGGREGATE BASE COURSE AND ASPHALT PAVING SPECIFICATIONS.
2. SEE BEAVER CITY CONCRETE SPECIFICATIONS.
3. SEE PAVEMENT EDGE DETAIL ON R12.
4. \*RIGHT-OF-WAY WIDTH VARIES.
5. GEOGRID MAY BE REQ'D (BEAVER CITY TO DETERMINE LOCATION)



PREPARED BY:

Jones & DeMille Engineering, Inc.



CONSTRUCTION STANDARDS

ROAD CONSTRUCTION

TYPICAL ROADWAY SECTION W/ CURB, GUTTER & SIDEWALK

SCALE:

NONE

DRAWN: SJ 08/17

CHECK: . .

FILE: STND\_DET5\_2022

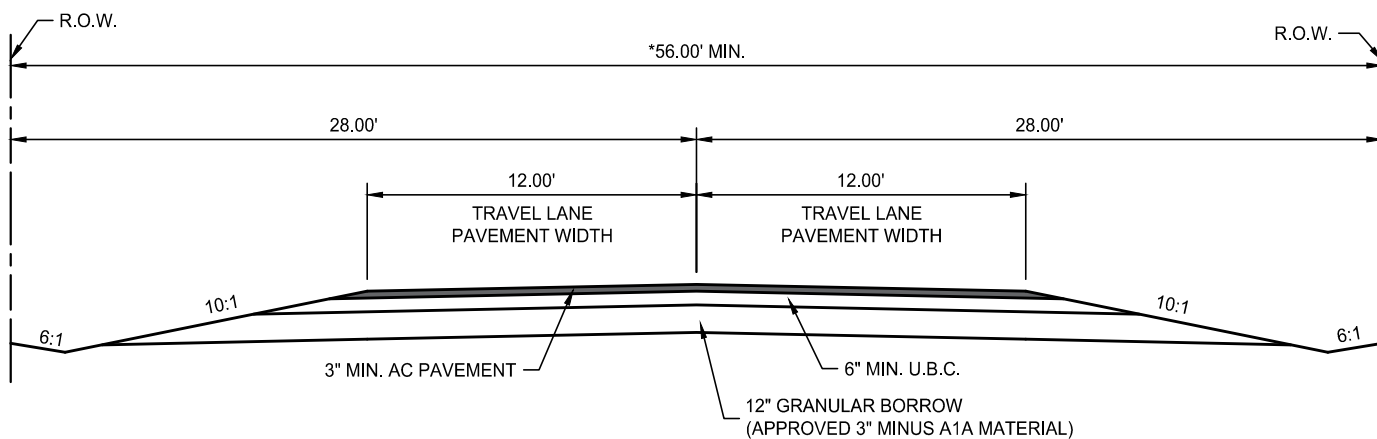
UPDATED: 3/31/2022

PROJECT: 1705-381

PLOTTED: 3/31/2022

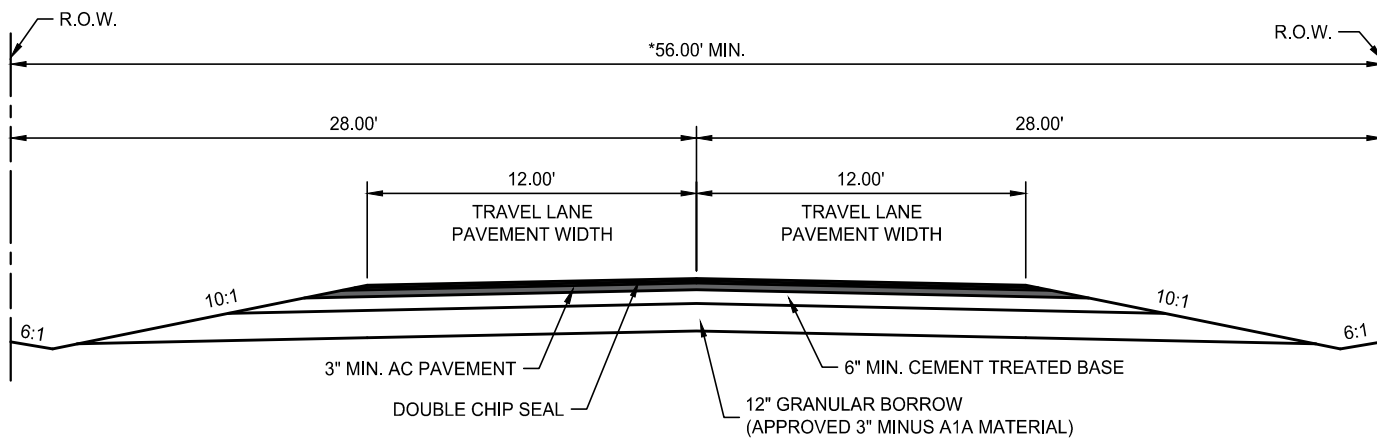
SHEET:

R1



NOTE:

1. SEE BEAVER CITY AGGREGATE BASE COURSE AND ASPHALT PAVING SPECIFICATIONS.
2. \*RIGHT-OF-WAY WIDTH VARIES
3. GEOGRID MAY BE REQ'D (BEAVER CITY TO DETERMINE LOCATION)



NOTE:

1. CEMENT TREATED BASE WILL NEED TO MEET 300 TO 400 PSI.
2. \*RIGHT-OF-WAY WIDTH VARIES
3. GEOGRID MAY BE REQ'D (BEAVER CITY TO DETERMINE LOCATION)



PREPARED BY:

Jones & DeMille Engineering, Inc.



CONSTRUCTION STANDARDS

ROAD CONSTRUCTION

TYPICAL ROADWAY SECTION W/OUT CURB, GUTTER & SIDEWALK

SCALE:

NONE

DRAWN: SJ 08/17

CHECK:

FILE: STND\_DET\_2022

UPDATED: 3/31/2022

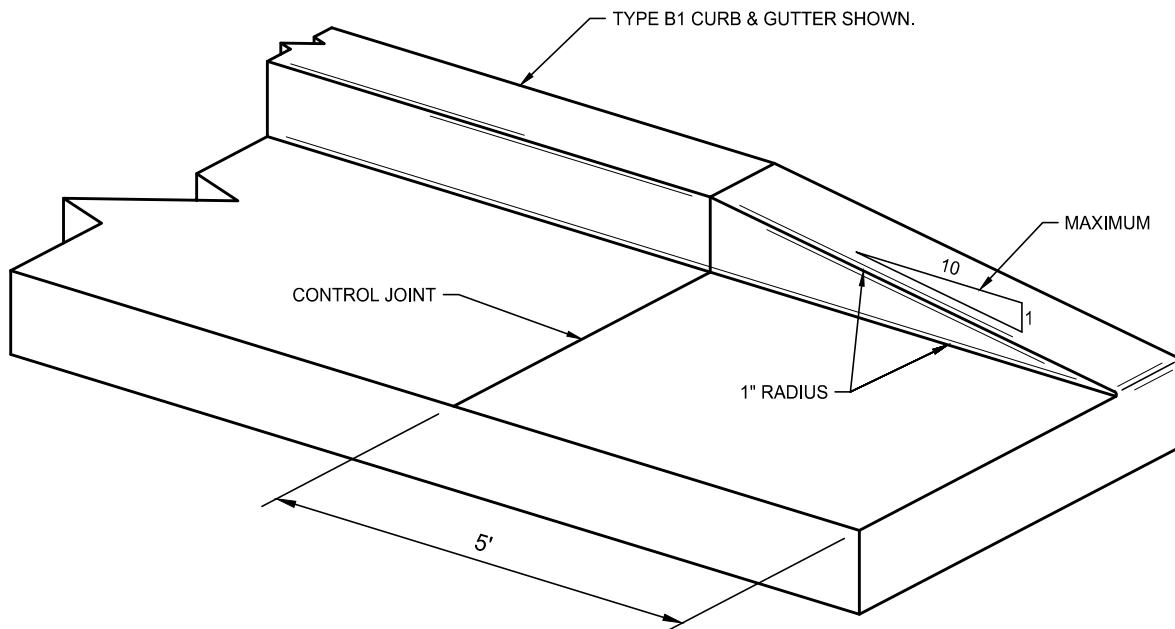
PROJECT: 1705-381

PLOTTED: 3/31/2022

SHEET:

R2





PREPARED BY:

Jones & DeMille Engineering, Inc.



## CONSTRUCTION STANDARDS

### ROAD CONSTRUCTION

#### CURB & GUTTER - TAPERED END

SCALE:

NONE

DRAWN: SJ 08/17

CHECK:

FILE: STND\_DET5\_2022

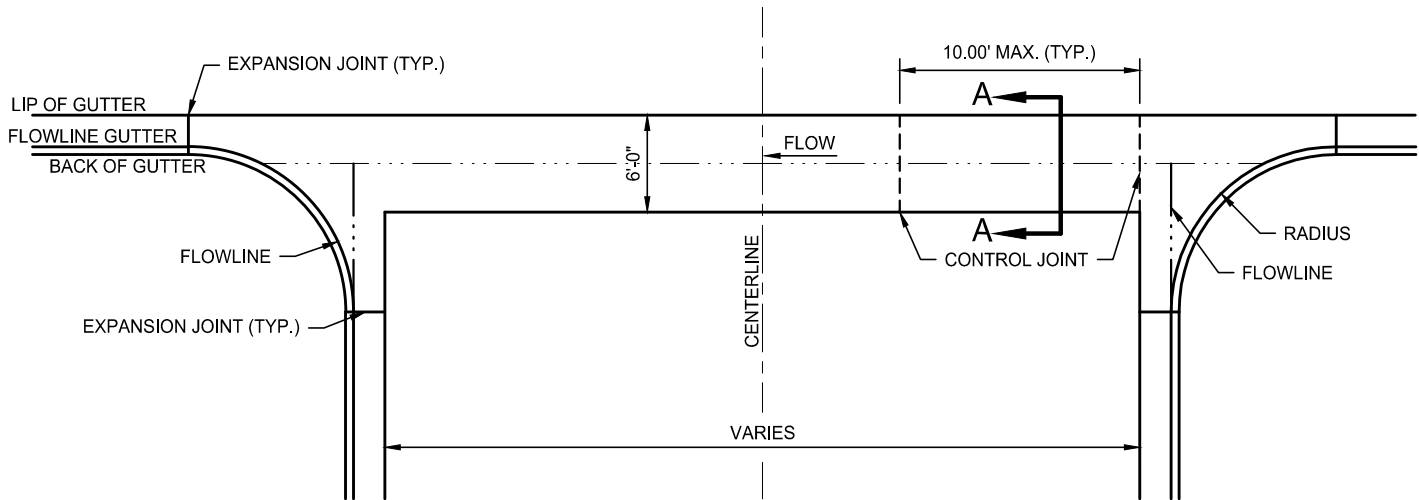
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PROJECT: 1705-381

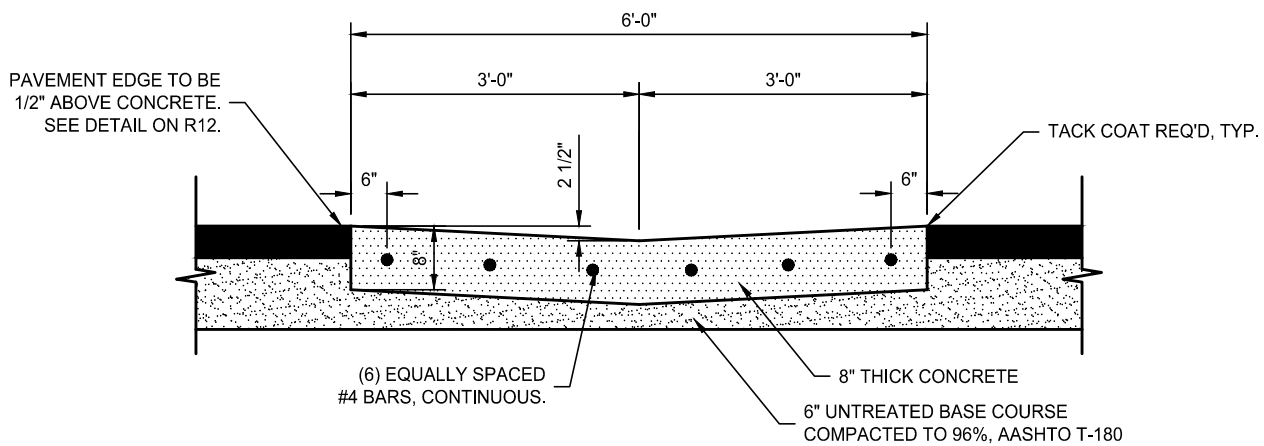
PLOTTED: 3/31/2022

SHEET:

R4



**PLAN**



**SECTION A-A**

**NOTES:**

1. CONSTRUCT CROSS GUTTER TO DRAIN WITHOUT PONDING
2. SEE STANDARD CONCRETE JOINTS ON R11.
3. SEE BEAVER CITY CONCRETE SPECIFICATIONS.



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CONSTRUCTION STANDARDS

ROAD CONSTRUCTION

6' CONCRETE CROSS GUTTER

SCALE:

NONE

DRAWN: SJ 08/17

CHECK:

FILE: STND\_DET\_2

UPDATED: 3/31/2022

PROJECT: 1705-381

PLOTTED: 3/31/2022

SHEET:

R5



1. CONSTRUCT CROSS GUTTER TO DRAIN WITHOUT PONDING
2. SEE STANDARD CONCRETE JOINTS ON R11.
3. SEE BEAVER CITY CONCRETE SPECIFICATIONS.



PREPARED BY:

Jones & DeMille Engineering, Inc.



## CONSTRUCTION STANDARDS

## ROAD CONSTRUCTION

12' CONCRETE CROSS GUTTER

SCALE:

NONE

DRAWN: SJ 08/17

CHECK:

FILE: STND DETS 2022

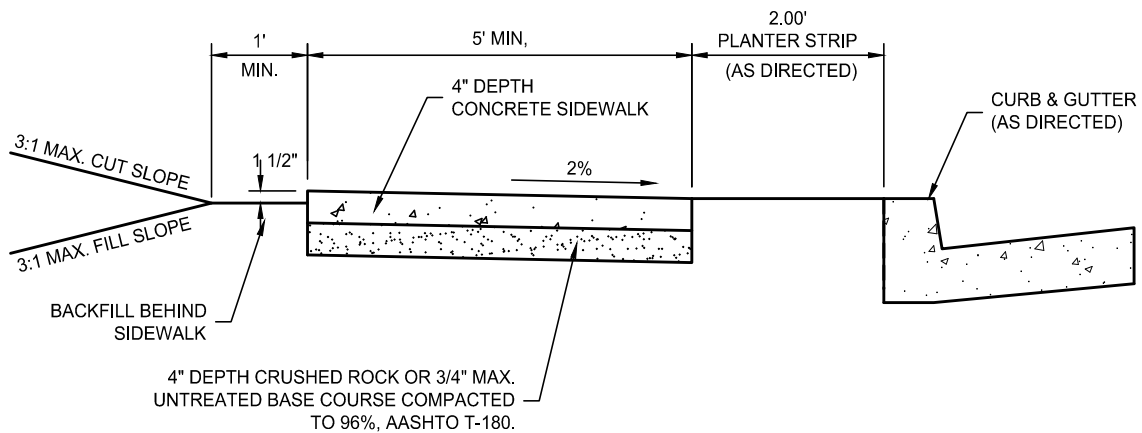
UPDATED: 3/31/2022

PROJECT: 1705-381
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PLOTTED: 3/31/2022

SHEET:

R6



NOTES:

1. AT DRIVEWAYS, CONSTRUCT 6" DEPTH CONCRETE SLAB FOR SIDEWALK THROUGH TRANSITION SECTIONS.
2. SEE STANDARD CONCRETE JOINTS ON R11.
3. SEE BEAVER CITY CONCRETE SPECIFICATIONS.



PREPARED BY:

Jones & DeMille Engineering, Inc.



CONSTRUCTION STANDARDS

ROAD CONSTRUCTION

CONCRETE SIDEWALK WITH PLANTER STRIP

SCALE:

NONE

DRAWN: SJ 08/17

CHECK: . .

FILE: STND\_DET2\_2022

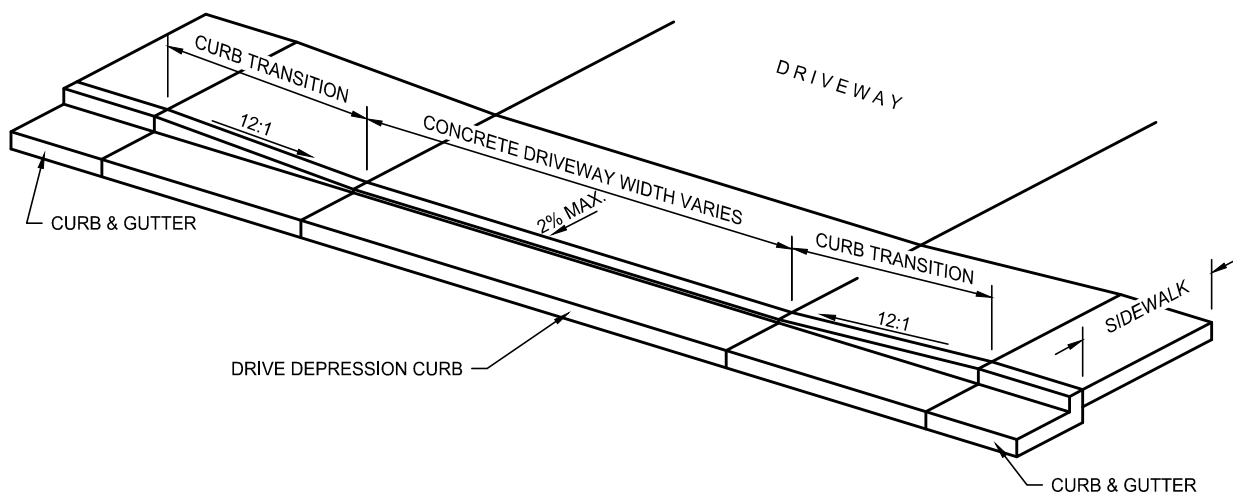
UPDATED: 3/31/2022

PROJECT: 1705-381

PLOTTED: 3/31/2022

SHEET:

R7



NOTES:

1. CURB TRANSITIONS AND DRIVEWAY TO BE MIN. 6" THICK CONCRETE.
2. SEE STANDARD CONCRETE JOINTS ON R11.



PREPARED BY:

Jones & DeMille Engineering, Inc.



CONSTRUCTION STANDARDS

ROAD CONSTRUCTION

DRIVE DEPRESSION & TRANSITION

SCALE:

NONE

DRAWN: SJ 08/17

CHECK: . .

FILE: STND\_DET2\_2022

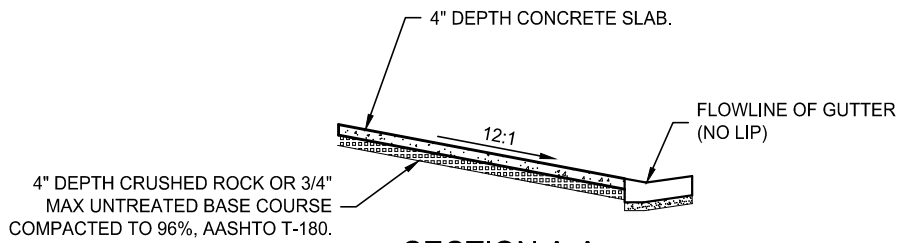
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PROJECT: 1705-381

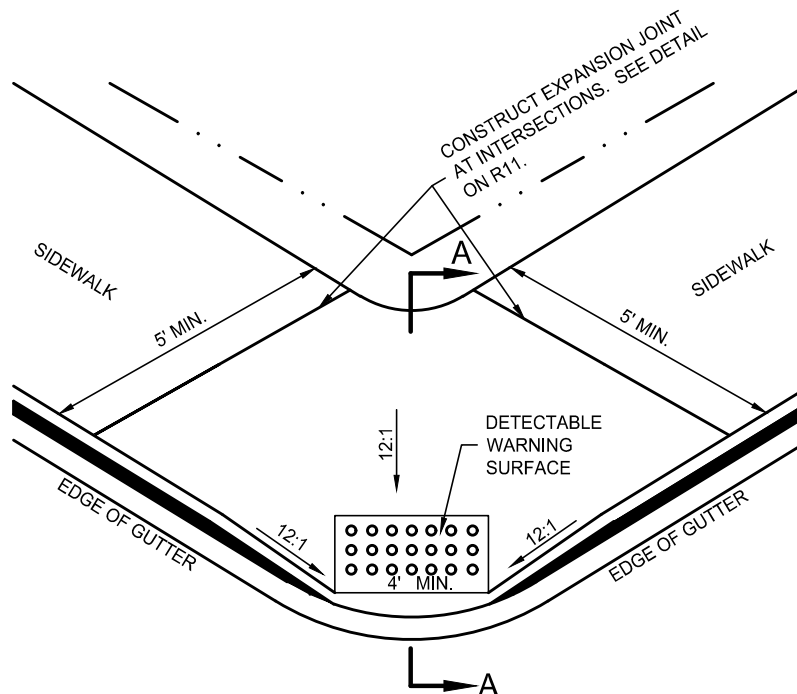
PLOTTED: 3/31/2022

SHEET:

R8



SECTION A-A



PLAN



PREPARED BY:

Jones & DeMille Engineering, Inc.



CONSTRUCTION STANDARDS

ROAD CONSTRUCTION

CURB RAMP

SCALE:

NONE

DRAWN: SJ

08/17

FILE:

STND\_DET\_2

PROJECT: 1705-381

SHEET:

CHECK:

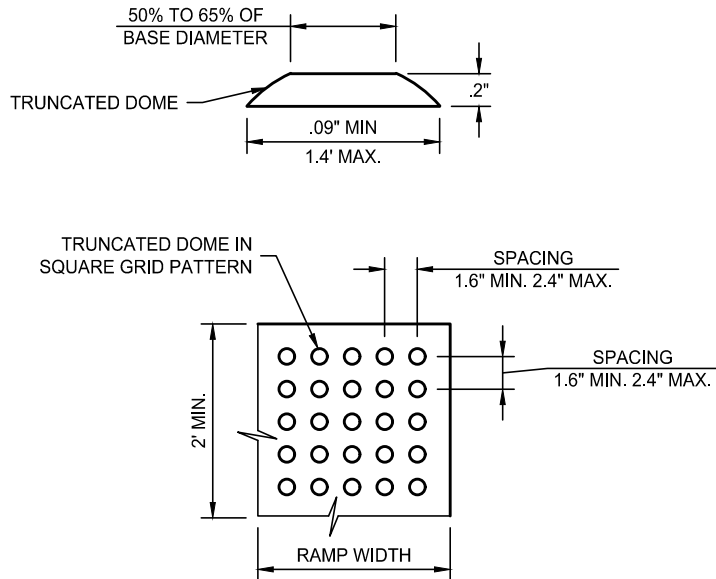
UPDATED:

3/31/2022

PLOTTED:

3/31/2022

R9



CURB RAMP SLOPE TABLE			
	ITEM	MAX. RUNNING SLOPE *	MAX. CROSS SLOPE *
Ⓐ	LANDING	2% (1V:50H)	2% (1V:50H)
Ⓑ	RAMP	8.33% (1V:12H)	2% (1V:50H)
Ⓒ	TRANSITION	5% (1V:20H) (a)	2% (1V:50H)
	SIDEWALK	--	2% (1V:50H)
	FLARE	10% (1V:10H)	--

\* RUNNING SLOPE IS IN THE DIRECTION OF PEDESTRIAN TRAVEL, WHILE CROSS SLOPE IS PERPENDICULAR TO PEDESTRIAN TRAVEL.

(a) TRANSITION RUNNING SLOPE NEEDS TO BE CONSTANT ACROSS ENTIRE CURB CUT. WARP GUTTER PAN TO MEET REQUIRED TRANSITION SLOPE AT CURB CUT.

NOTES:

1. CONFIGURATION OF RAMPS AND LANDINGS MAY VARY TO FIT SITE CONDITIONS, BUT MUST MEET DIMENSION AND SLOPE REQUIREMENTS.
2. PROVIDE DETECTABLE WARNING SURFACE FOR FULL WIDTH OF RAMP. SEE DETAIL FOR DETECTABLE WARNING SURFACE DIMENSIONS.
3. LOCATE DETECTABLE WARNING SURFACE SO THAT THE EDGE NEAREST THE STREET IS 6 OR 8 INCHES FROM THE CURB LINE.
4. PROVIDE DETECTABLE WARNING SURFACE THAT CONTRASTS WITH ADJACENT WALKING SURFACE, EITHER LIGHT-ON-DARK OR DARK-ON-LIGHT. ACCEPTABLE COLORS INCLUDE: RED, BLACK OR YELLOW.
5. CURB RAMPS SHALL COMPLY WITH AMERICANS WITH DISABILITIES ACT (ADA) REQUIREMENTS.



PREPARED BY:

Jones & DeMille Engineering, Inc.



CONSTRUCTION STANDARDS

ROAD CONSTRUCTION

DETECTABLE WARNING SURFACE

SCALE:

NONE

DRAWN: SJ

08/17

FILE: STND\_DET2022

PROJECT: 1705-381

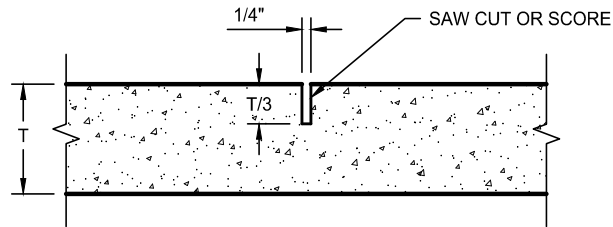
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CHECK:

UPDATED: 3/31/2022

PLOTTED: 3/31/2022

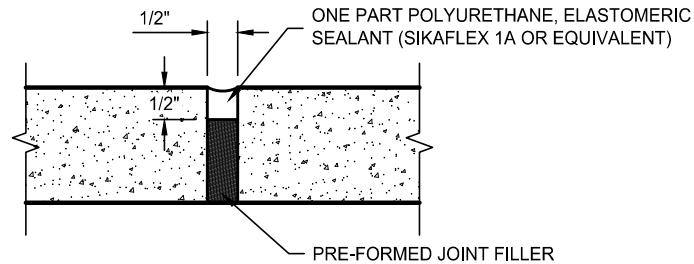
R10



### CONTROL JOINT

**NOTES:**

1. FOR FLATWORK, PLACE AT SPACING EQUAL TO SLAB WIDTH, BUT NOT GREATER THAN 12'.
2. FOR CURB & GUTTER AND CROSS GUTTER PLACE AT 10' INTERVALS.



### EXPANSION JOINT

**NOTES:**

1. FOR FLATWORK, PLACE AT MAX. 50' INTERVALS.
2. FOR CURB & GUTTER, PLACE AT 50' INTERVALS, EXCEPT WHEN USING SLIP FORM MACHINE, PLACE AT BEGINNING & END OF EACH CONTINUOUS RUN.
3. USE FOR CURB & GUTTER CROSS GUTTER, AND SIDEWALK.



PREPARED BY:

Jones & DeMille Engineering, Inc.



#### CONSTRUCTION STANDARDS

#### ROAD CONSTRUCTION

#### STANDARD CONCRETE JOINTS

SCALE:

NONE

DRAWN: SJ 08/17

CHECK: . .

FILE: STND\_DET2\_2022

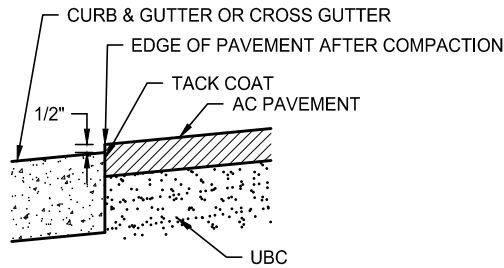
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PROJECT: 1705-381

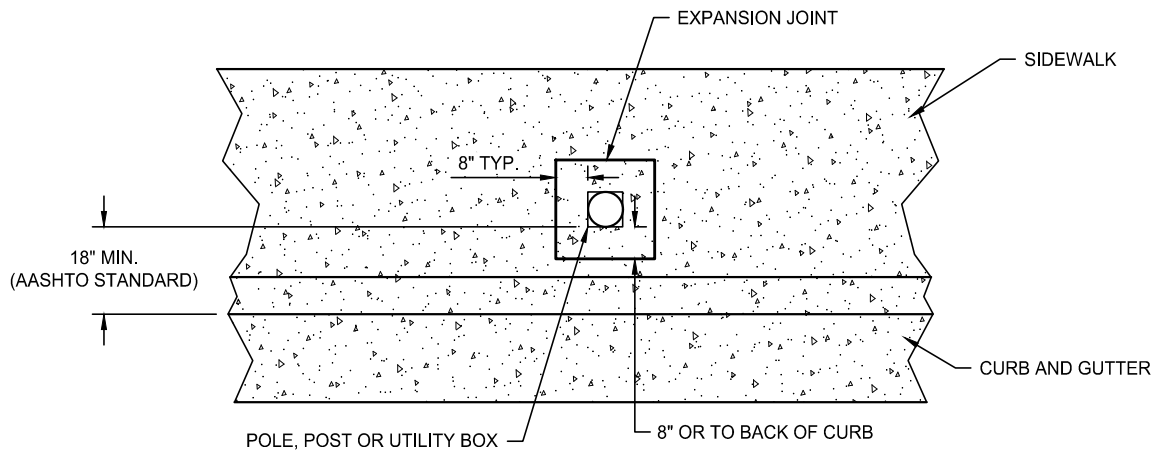
PLOTTED: 3/31/2022

SHEET:

R11



**PAVEMENT EDGE DETAIL**



**TYPICAL EXPANSION JOINT AROUND JOINTS**

NOTE: SEE EXPANSION JOINT DETAIL ON R11.



PREPARED BY:

Jones & DeMille Engineering, Inc.



CONSTRUCTION STANDARDS

ROAD CONSTRUCTION

EXPANSION JOINTS AND PAVEMENT EDGES

SCALE:

NONE

DRAWN: SJ 08/17

CHECK: - -

FILE: STND\_DET2022

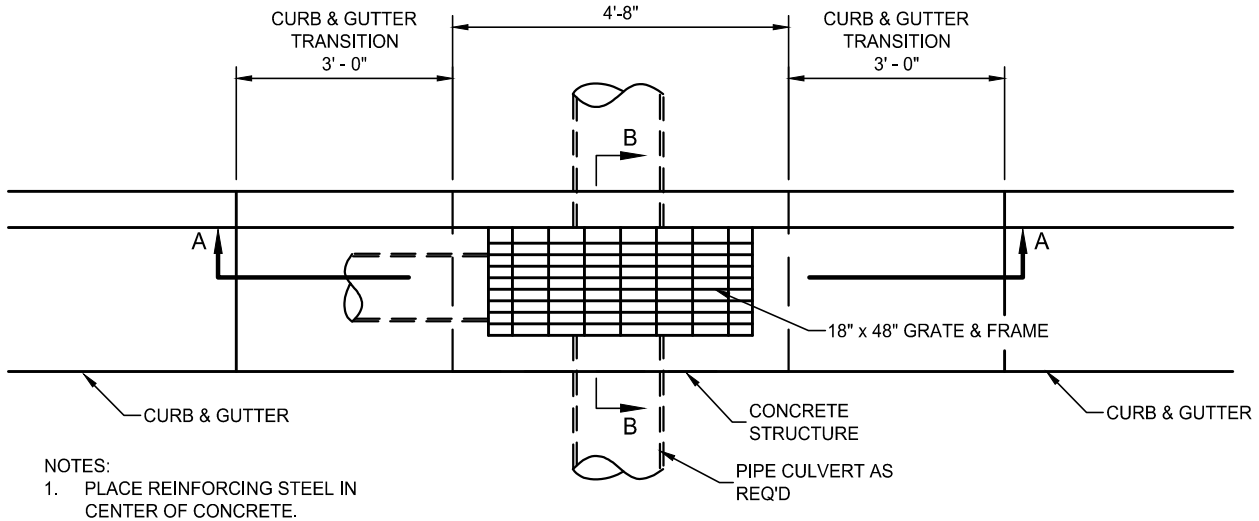
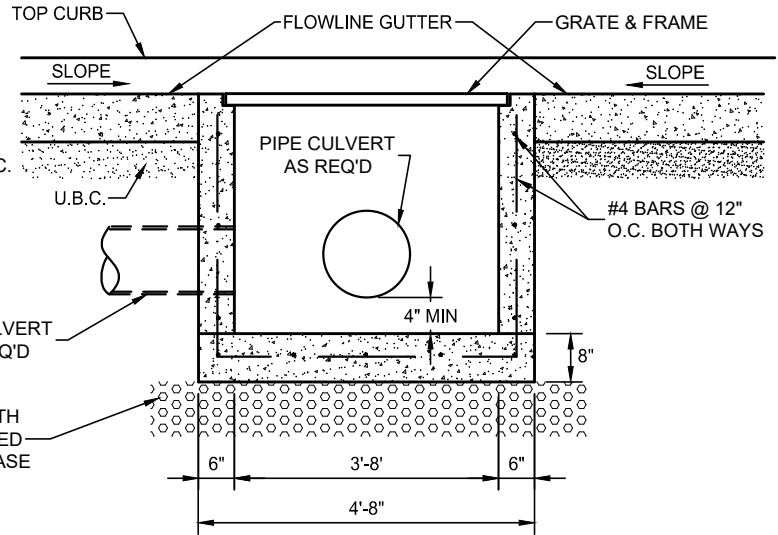
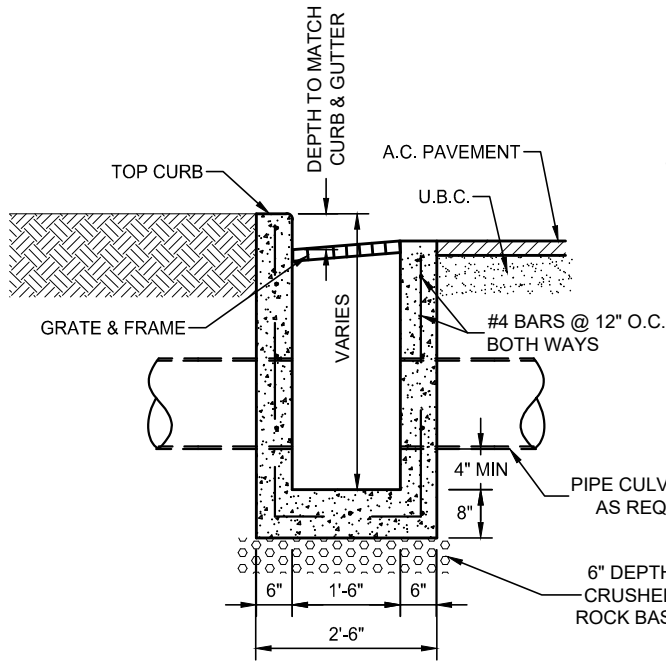
UPDATED: 3/31/2022

PROJECT: 1705-381

PLOTTED: 3/31/2022

SHEET:

R12



- NOTES:
1. PLACE REINFORCING STEEL IN CENTER OF CONCRETE.



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CONSTRUCTION STANDARDS

ROAD CONSTRUCTION

STANDARD CATCH BASIN

SCALE:

NONE

DRAWN: SJ

08/17

FILE: STND\_DET\_2022

PROJECT: 1705-381

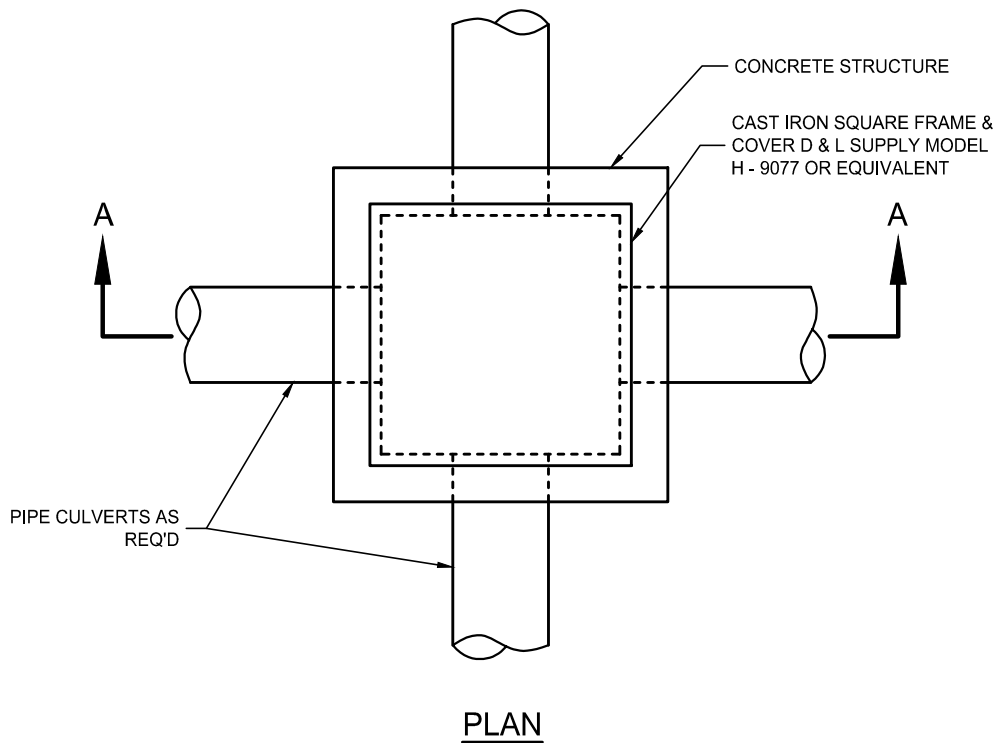
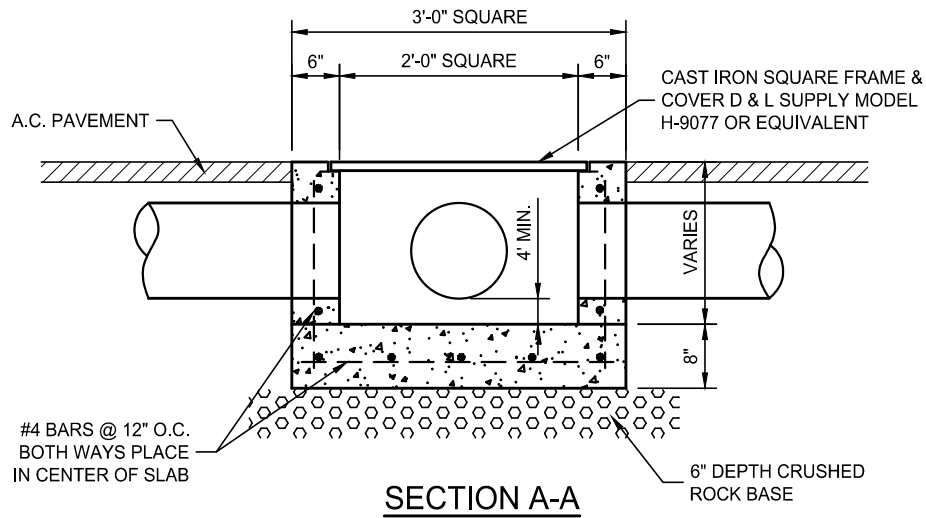
SHEET:

CHECK:

UPDATED: 3/31/2022

PLOTTED: 3/31/2022

R13



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CONSTRUCTION STANDARDS

ROAD CONSTRUCTION

STANDARD JUNCTION BOX

SCALE:

NONE

DRAWN: SJ 08/17

CHECK:

FILE: STND\_DET2\_2022

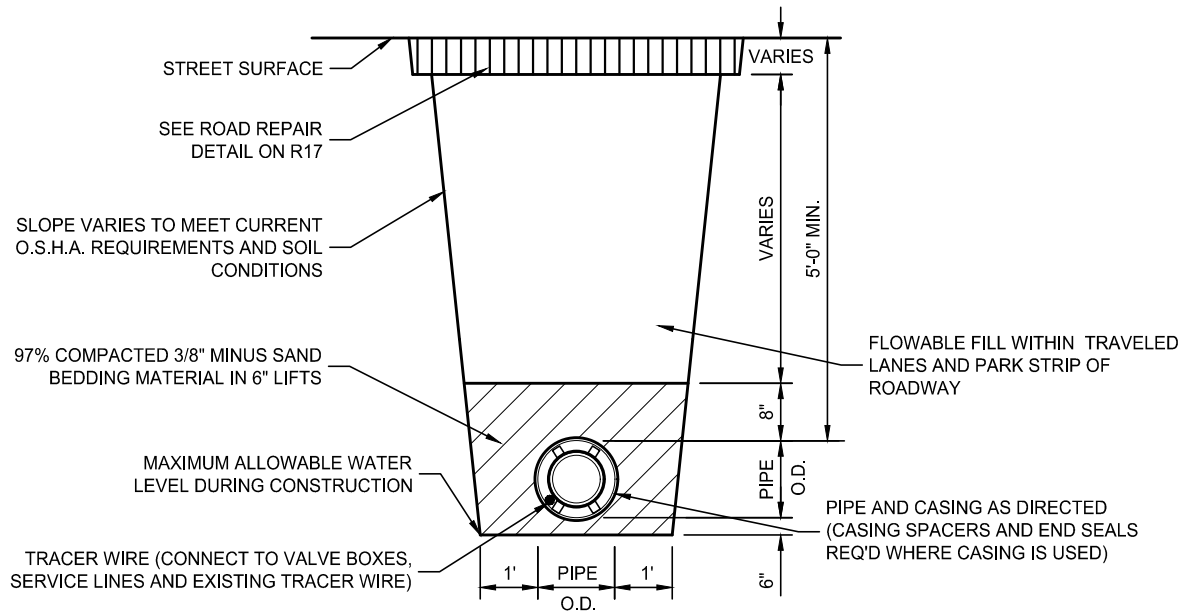
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PROJECT: 1705-381

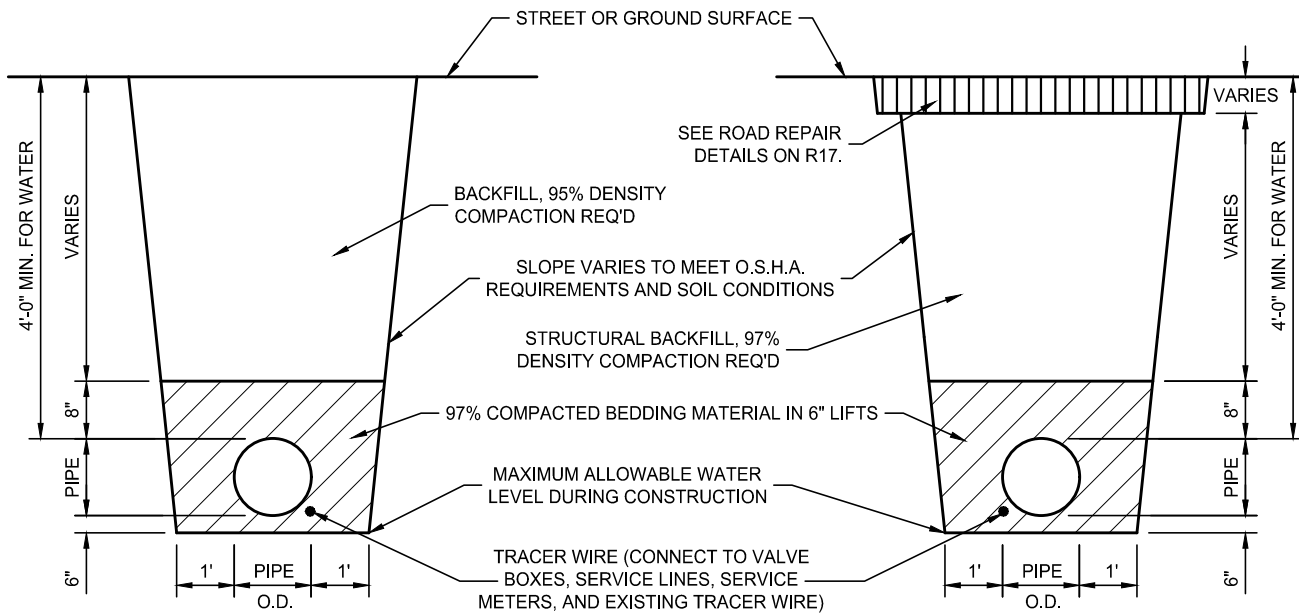
PLOTTED: 3/31/2022

SHEET:

R14



### TRAVELED AREAS (STATE HIGHWAYS)



### NON-TRAVELED AREAS

### TRAVELED AREAS (CITY STREETS)



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#### CONSTRUCTION STANDARDS

#### ROAD CONSTRUCTION

#### UTILITY TRENCH

SCALE:

NONE

DRAWN: SJ

08/17

FILE: STND\_DET2022

PROJECT: 1705-381

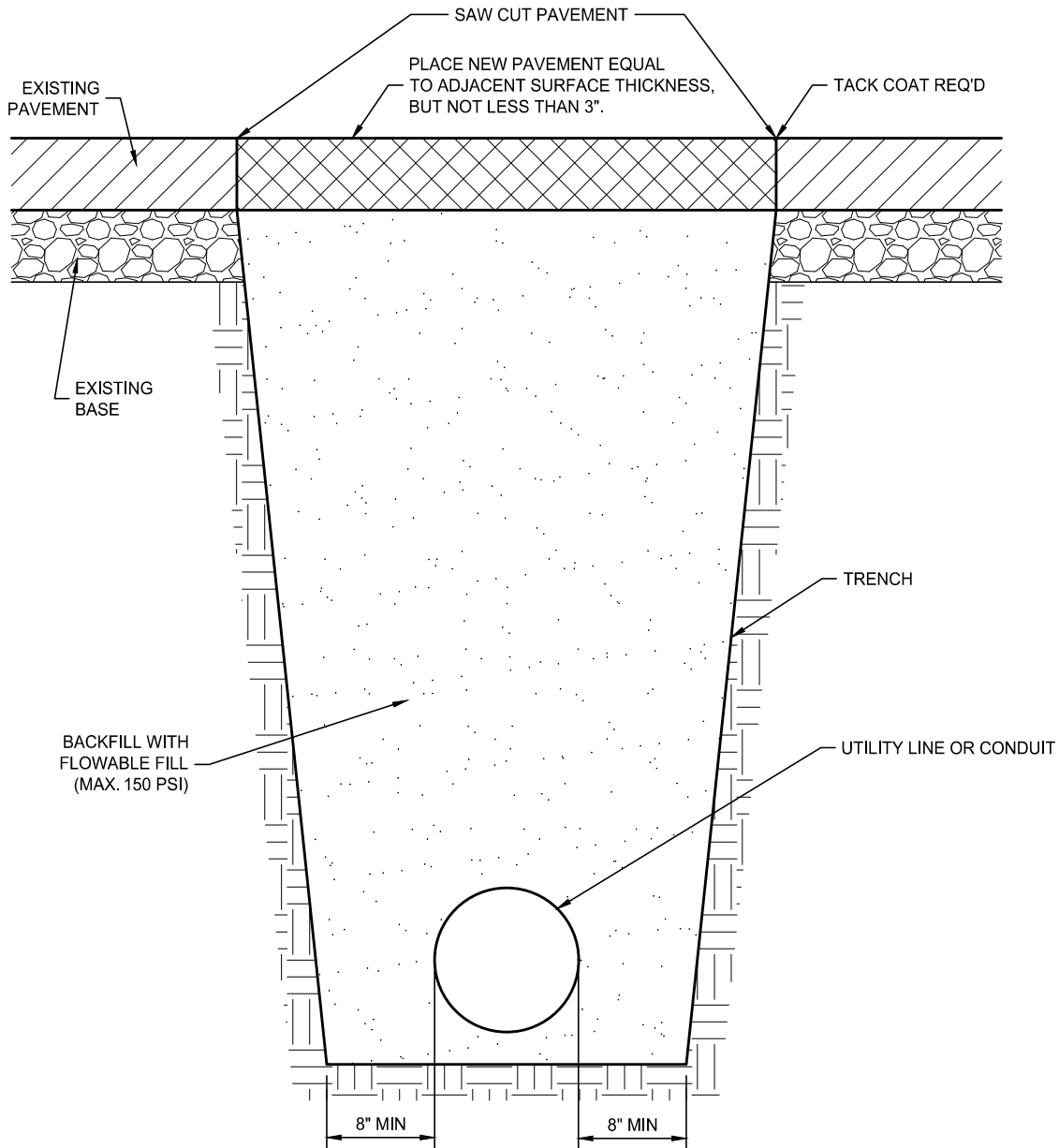
SHEET:

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UPDATED: 3/31/2022

PLOTTED: 3/31/2022

R15



NOTES:

1. DO NOT PLACE NEW PAVEMENT OR PERMIT VEHICULAR TRAFFIC OVER TRENCH FOR AT LEAST 72 HOURS AFTER PLACING FLOWABLE FILL.
2. IF NEW PAVEMENT SURFACE WILL NOT BE PLACED WITHIN 7 DAYS AFTER TRENCHING, BACKFILL WITH FLOWABLE TO MATCH ELEVATION OF EXISTING PAVEMENT. REMOVE FLOWABLE FILL AS REQUIRED TO PLACE NEW PAVEMENT.
3. BEAVER CITY INSPECTION REQ'D. NOTIFY BEAVER CITY MIN. 24 HRS. PRIOR TO PLACING CONCRETE.



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CONSTRUCTION STANDARDS

ROAD CONSTRUCTION

UTILITY TRENCH WITH FLOWABLE FILL

SCALE:

NONE

DRAWN: SJ

08/17

FILE: STND\_DET2022

PROJECT: 1705-381

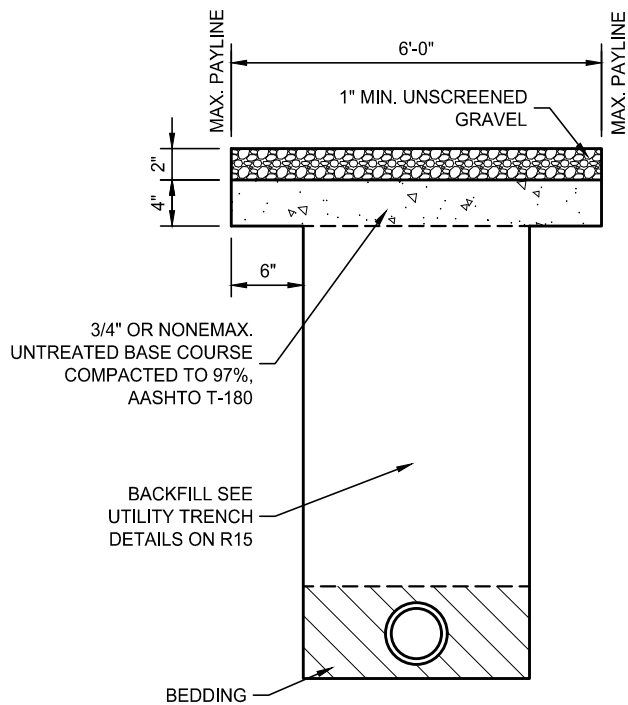
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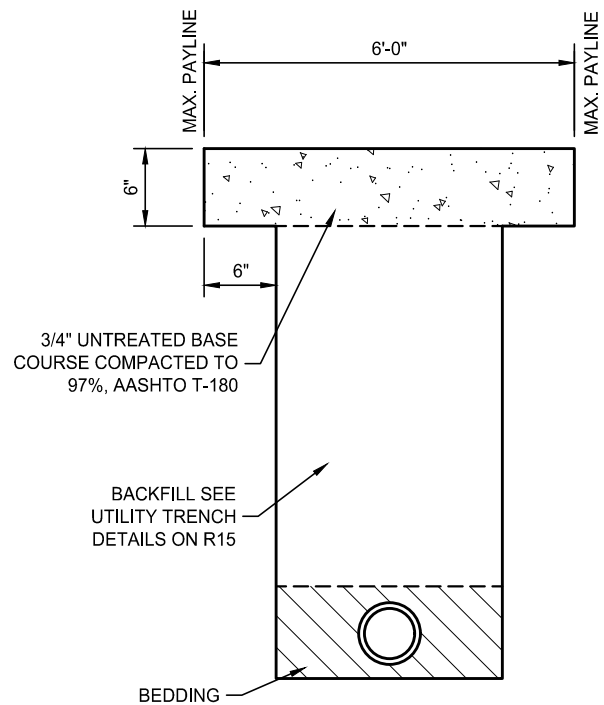
UPDATED: 3/31/2022

PLOTTED: 3/31/2022

R16



**CLASS "C1"**  
**DRIVEWAY SURFACING**



**CLASS "C2"**  
**GRAVEL SURFACING**

**NOTES:**

1. PAYMENT FOR H1 INCLUDES ASPHALT CONCRETE PAVEMENT. FLOWABLE FILL WILL BE PAID SEPERATE.
2. MAXIMUM PAYLINE WIDTH MAY INCREASE FOR BORE PITS.



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**CONSTRUCTION STANDARDS**

**ROAD CONSTRUCTION**

**ROADWAY REPAIR**

SCALE:

NONE

DRAWN: SJ 08/17

CHECK:

FILE: STND\_DET2022

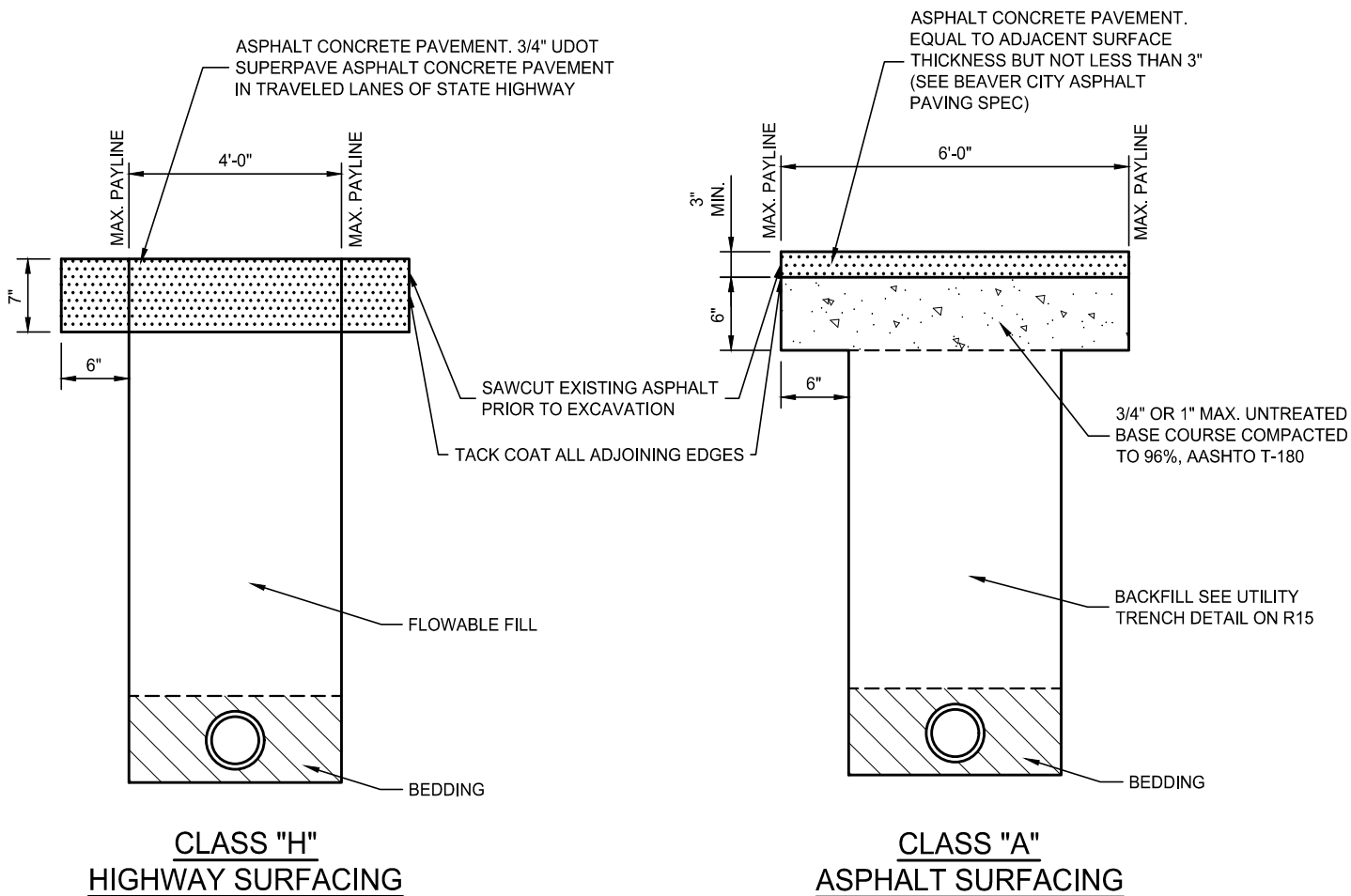
UPDATED: 3/31/2022

PROJECT: 1705-381

PLOTTED: 3/31/2022

SHEET:

R17



**NOTES:**

1. PAYMENT FOR H1 INCLUDES ASPHALT CONCRETE PAVEMENT. FLOWABLE FILL WILL BE PAID SEPERATE.
2. MAXIMUM PAYLINE WIDTH MAY INCREASE FOR BORE PITS.



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**CONSTRUCTION STANDARDS**

**ROAD CONSTRUCTION**

**ROADWAY REPAIR**

SCALE:

NONE

DRAWN: SJ

08/17

FILE: STND\_DET2022

PROJECT: 1705-381

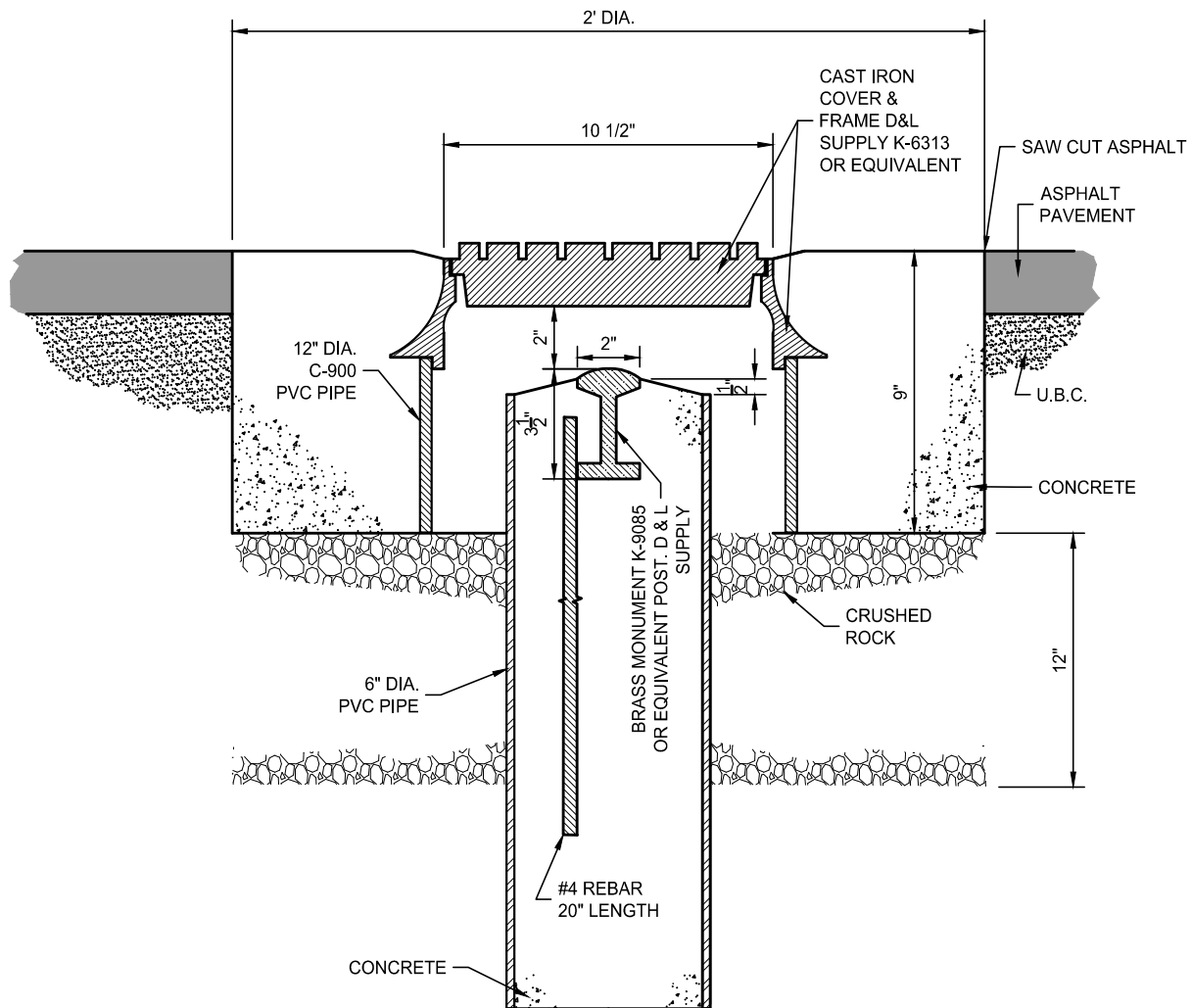
SHEET:

CHECK:

UPDATED: 3/31/2022

PLOTTED: 3/31/2022

R18



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## CONSTRUCTION STANDARDS

## ROAD CONSTRUCTION

## STANDARD STREET MONUMENT

SCALE:

NONE

DRAWN: SJ 08/17

CHECK:

FILE: STND\_DET\_2

UPDATED: 3/31/2022

PROJECT: 1705-381

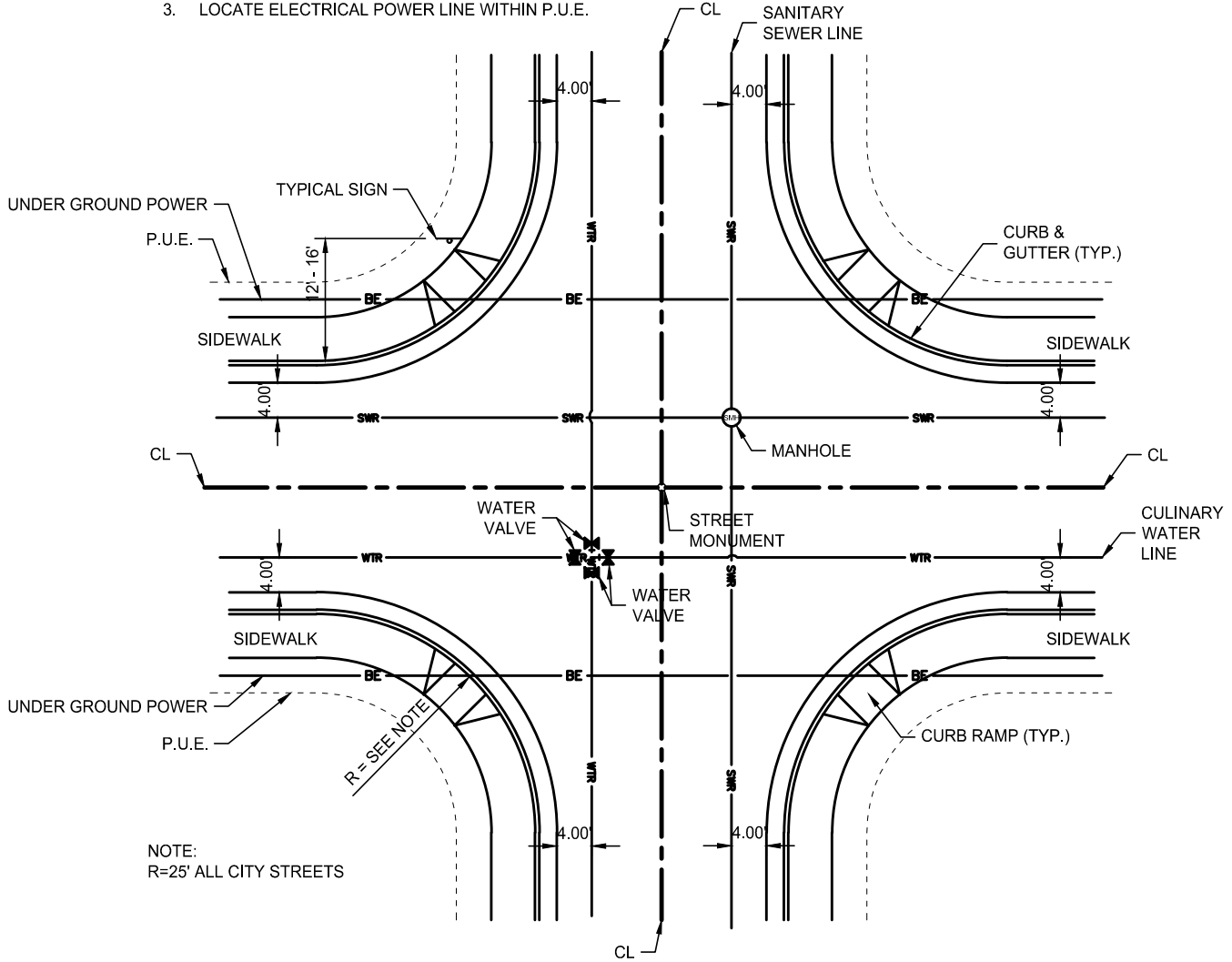
PLOTTED: 3/31/2022

SHEET:

R19

NOTES:

1. LOCATE CULINARY WATER & SANITARY SEWER LINES ON OPPOSITE SIDES OF STREET
2. LOCATE WATER VALVES IN LINE WITH PROPERTY LINES.
3. LOCATE ELECTRICAL POWER LINE WITHIN P.U.E.



NOTE:  
R=25' ALL CITY STREETS



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CONSTRUCTION STANDARDS

ROAD CONSTRUCTION

STREET INTERSECTION & UTILITY LOCATION

SCALE:

NONE

DRAWN: SJ 08/17

CHECK: - -

FILE: STND\_DET25\_2022

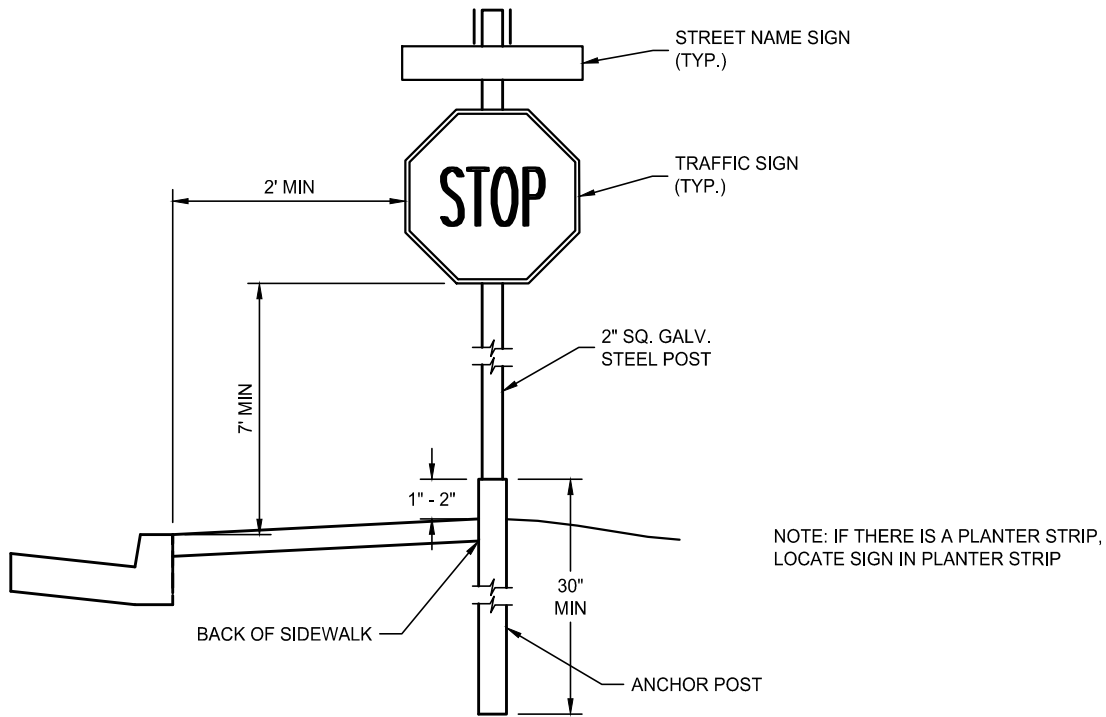
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PROJECT: 1705-381

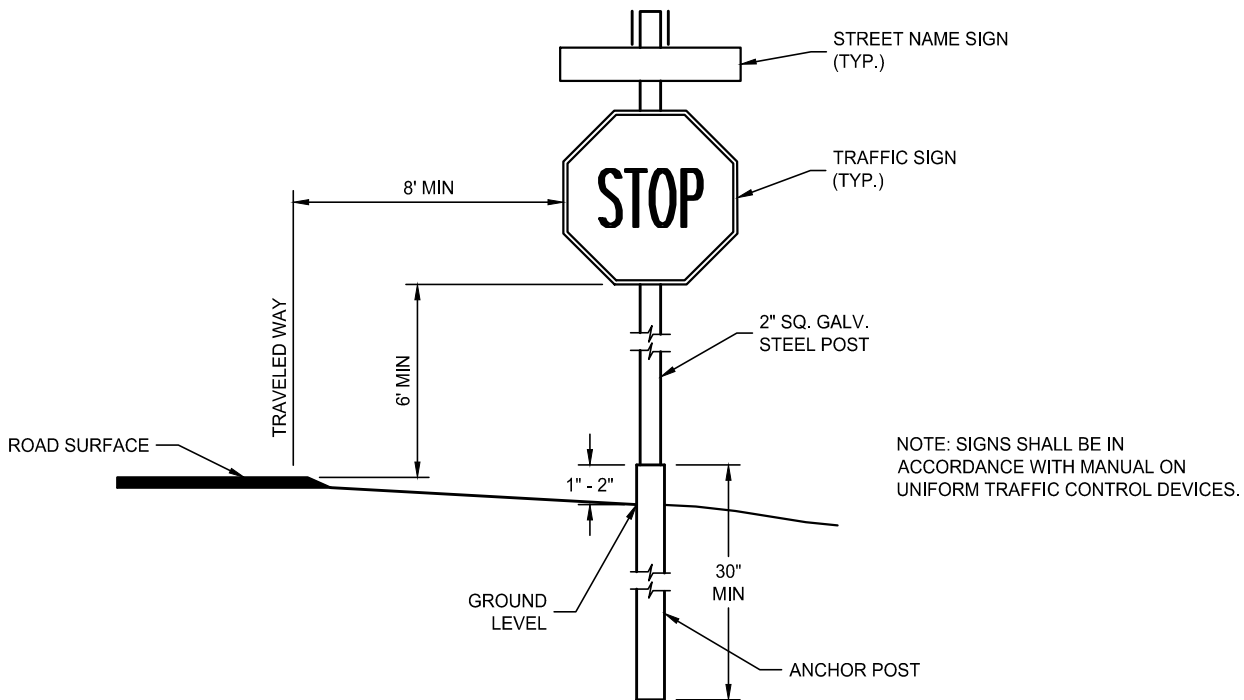
PLOTTED: 3/31/2022

SHEET:

R20



TYPICAL CURB & SIDEWALK INSTALLATION



TYPICAL STREET INSTALLATION



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CONSTRUCTION STANDARDS

ROAD CONSTRUCTION

STANDARD SIGN AND POST

SCALE:

NONE

DRAWN: SJ 08/17

CHECK: - -

FILE: STND\_DET2022

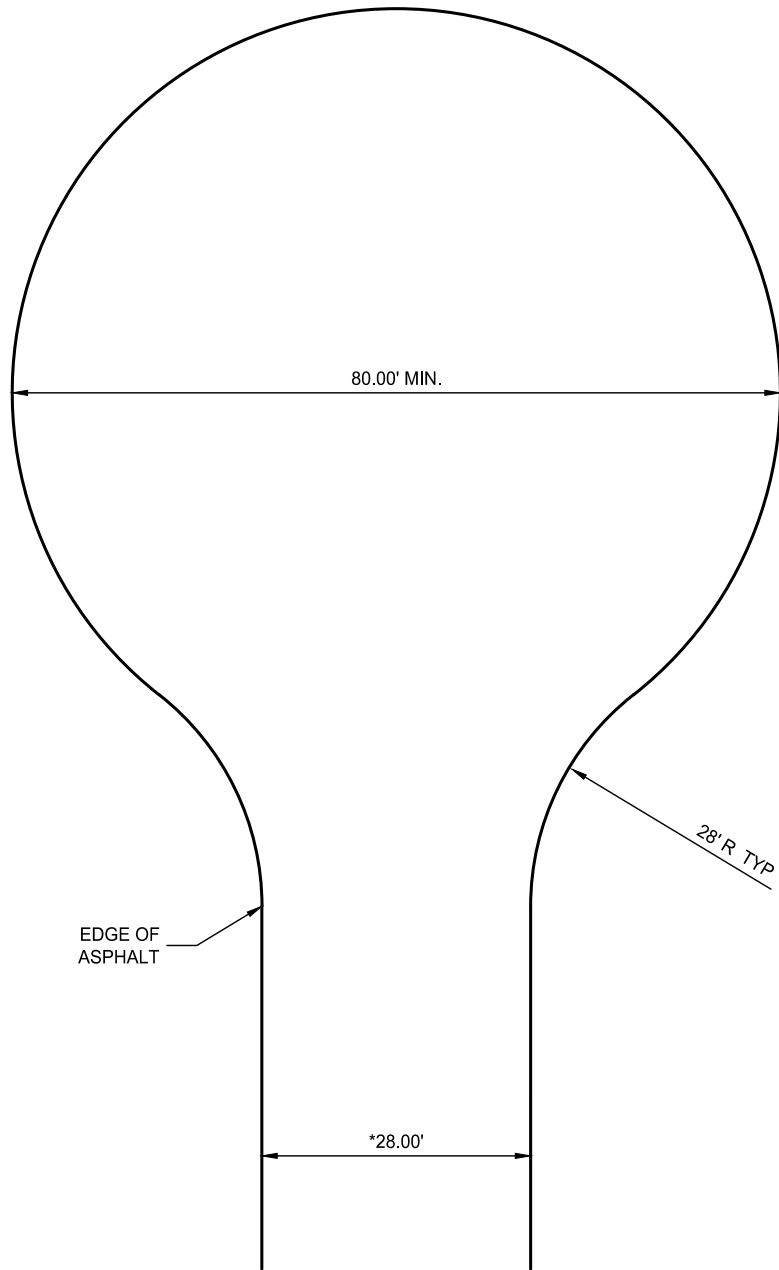
UPDATED: 3/31/2022

PROJECT: 1705-381

PLOTTED: 3/31/2022

SHEET:

R21



\*SEE ROAD WIDTH DETAIL SHEET R1.



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CONSTRUCTION STANDARDS

ROAD CONSTRUCTION

RECOMMENDED TURNAROUND

SCALE:

NONE

DRAWN: SJ 08/17

CHECK: · ·

FILE: STND\_DET2022

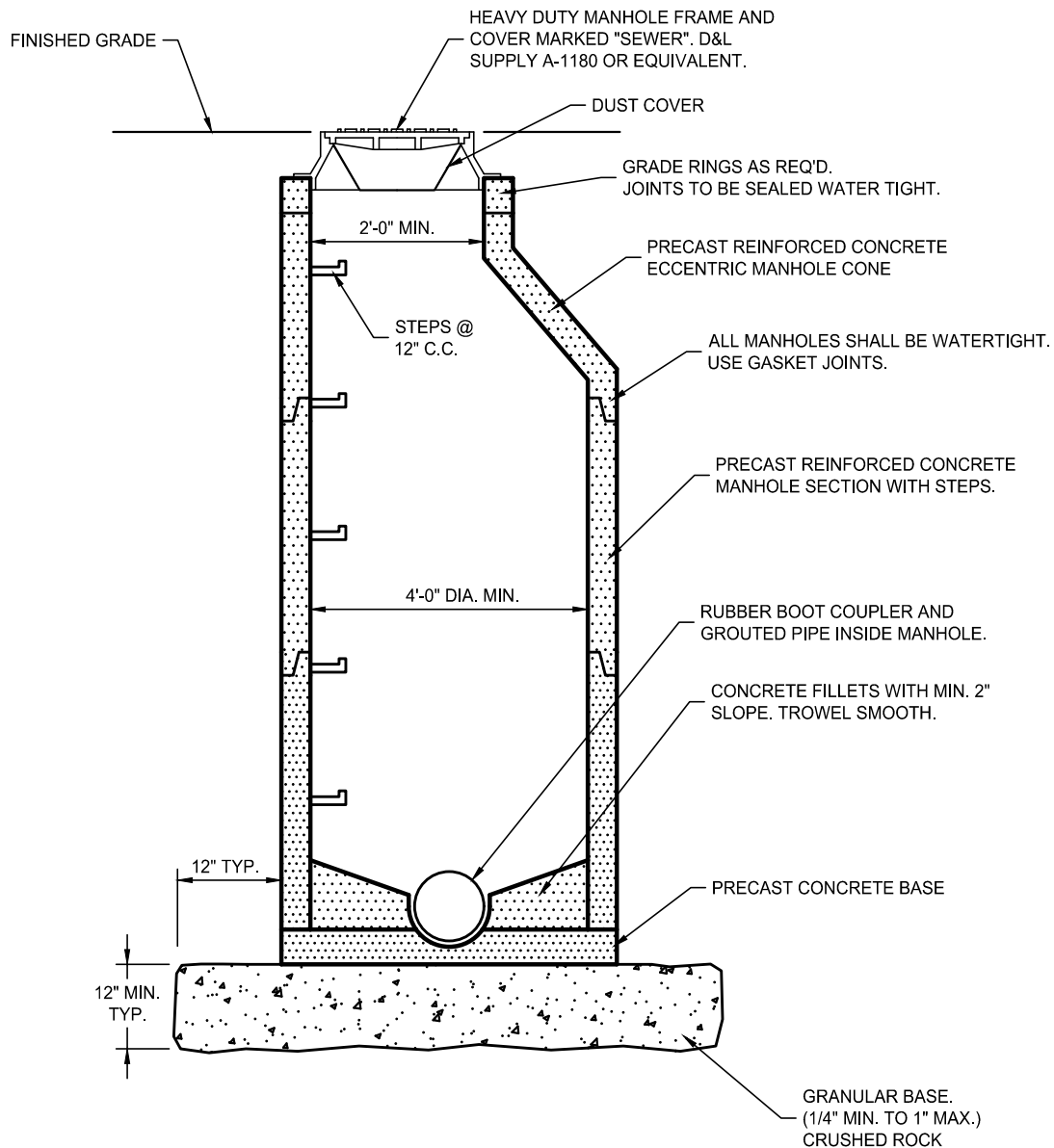
UPDATED: 4/11/2022

PROJECT: 1705-381

PLOTTED: 4/11/2022

SHEET:

R22



NOTE:

1. WHEN MANHOLE IS WITHIN PAVED STREET, CONSTRUCT CONCRETE COLLAR. SEE S3.
2. MAX. DISTANCE BETWEEN MANHOLE IS 480'.
3. MIN. SLOPE ON 8"Ø MAINLINE IS 0.34%. DESIGN 0.5% TO 1.0%. MAX. 4%.



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CONSTRUCTION STANDARDS

SEWER STANDARD DETAILS

SEWER MANHOLE

SCALE:

NONE

DRAWN: LG 08/17

CHECK: - -

FILE: STND\_DET2022

UPDATED: 3/31/2022

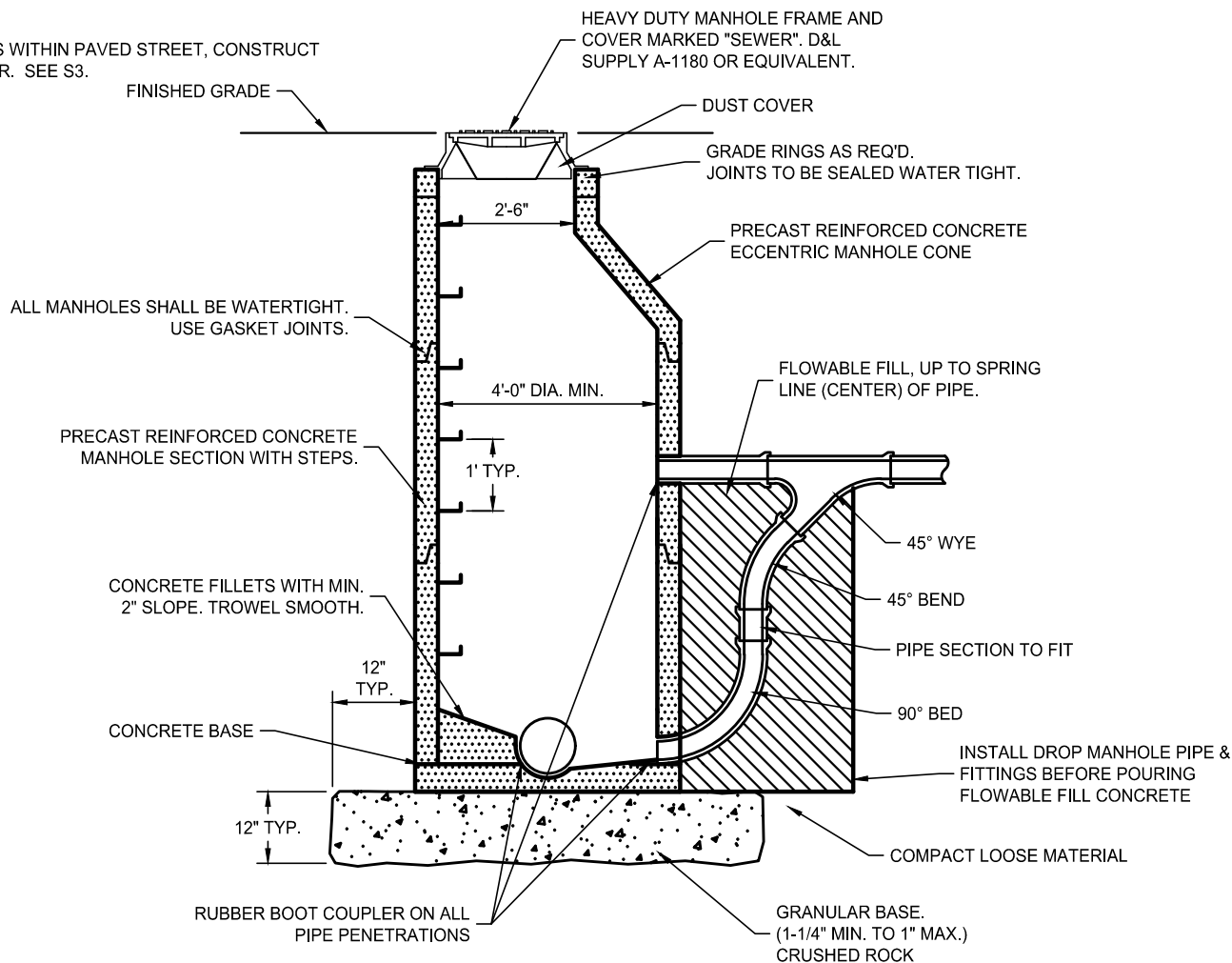
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PLOTTED: 3/31/2022

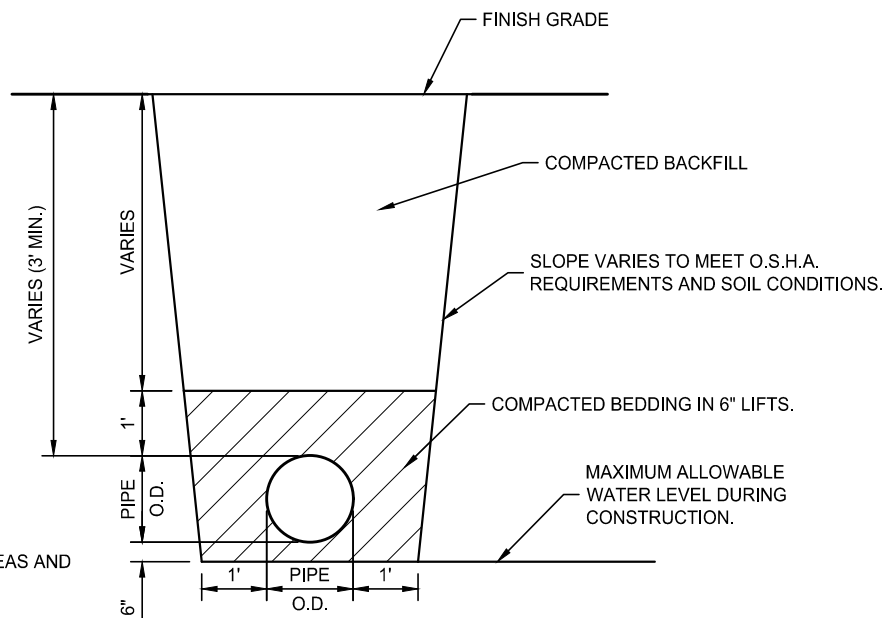
SHEET:

S1

NOTE:  
WHEN MANHOLE IS WITHIN PAVED STREET, CONSTRUCT  
CONCRETE COLLAR. SEE S3.



- NOTES:
1. COMPACT BEDDING TO 97%
  2. COMPACT BACKFILL TO 97% IN TRAVELED AREAS AND TO 95% IN NON-TRAVELED AREAS.
  3. USE ASTM D3034, SDR 35 PVC SEWER PIPE.
  4. BED PIPE WITH 3/4" MAXIMUM GRADATION MATERIAL.



Beaver City

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## CONSTRUCTION STANDARDS

## SEWER STANDARD DETAILS

## SEWER DROP MANHOLE

SCALE:

NONE

DRAWN: LG 08/17

CHECK: . .

FILE: STND\_DET2022

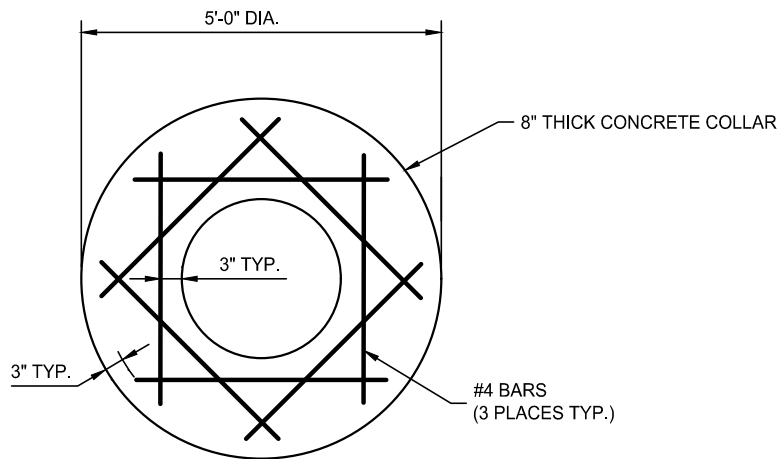
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PROJECT: 1705-381

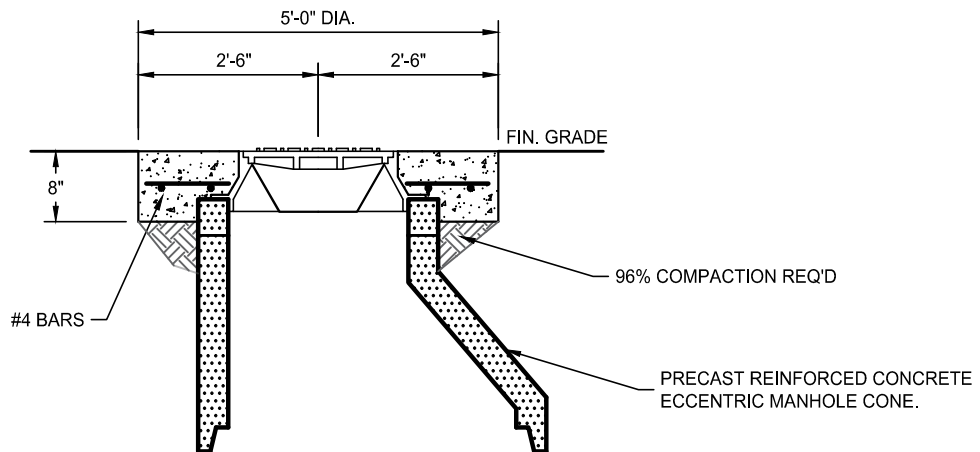
PLOTTED: 3/31/2022

SHEET:

S2



PLAN



SECTION

NOTES:

1. USE GRADE RINGS AS NECESSARY TO ARRIVE AT REQ'D FINISH GRADE.
2. CONCRETE COLLAR REQ'D FOR MANHOLES WITHIN PAVED STREETS.
3. SCRATCH DIRECTION ARROW IN CONCRETE COLLAR.



PREPARED BY:

Jones & DeMille Engineering, Inc.



CONSTRUCTION STANDARDS

SEWER STANDARD DETAILS

MANHOLE CONCRETE COLLAR

SCALE:

NONE

DRAWN: LG 08/17

CHECK: . .

FILE: STND\_DET\_2022

UPDATED: 3/31/2022

PROJECT: 1705-381

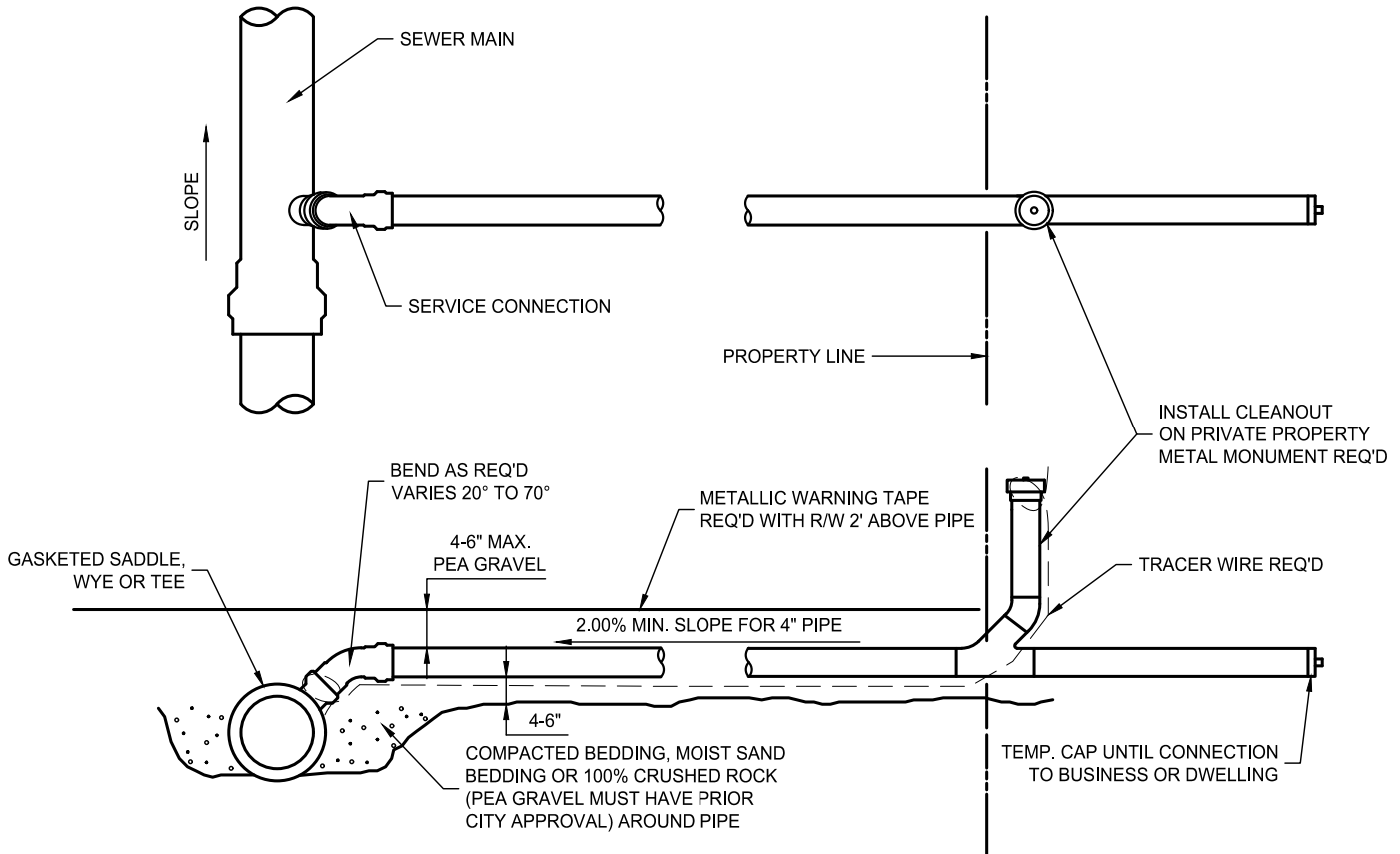
PLOTTED: 3/31/2022

SHEET:

S3

EXISTING SEWER MAINLINE W/ SERVICE LATERAL CONNECTION

1. SUBMIT PROPOSED SADDLE / CONNECTION DETAIL TO BEAVER CITY FOR APPROVAL.
2. CONTRACTOR TO PROVIDE FERNCO SADDLE TO INSERT A TEE TO CONNECT TO EXISTING MAINLINE
  - 2.1. INSERTA TEE REQ'D FOR PVC (OR APPROVED EQUAL)
  - 2.2. FERNCO SADDLE FOR TRANSIT PIPE



NOTES:

1. PRIVATE PROPERTY OWNER RESPONSIBLE FOR INSTALLATION & MAINTENANCE OF SEWER SERVICE TO MAINLINE.
2. BEAVER CITY INSPECTION REQ'D ON CONNECTION TO MAINLINE. (24 HR NOTICE REQ'D.)
3. BACKFILL IN ACCORDANCE TO BEAVER CITY STANDARDS.
4. GREEN LOCATOR TAPE MARKED "BURIED SEWER" TO BE INSTALLED 2' ABOVE SERVICE LINES.
5. (SEE NOTE 2, PAGE 55)
6. TRACER WIRE REQ'D
7. PHOTOS AND MEASUREMENTS TO BE PROVIDED TO BEAVER CITY BEFORE CERTIFICATE OF OCCUPANCY CAN BE ISSUED.
8. LATERAL PIPE WITHIN CITY R/W TO BE CONSISTENT SLOPE. (NO GRADE BREAKS)



PREPARED BY:

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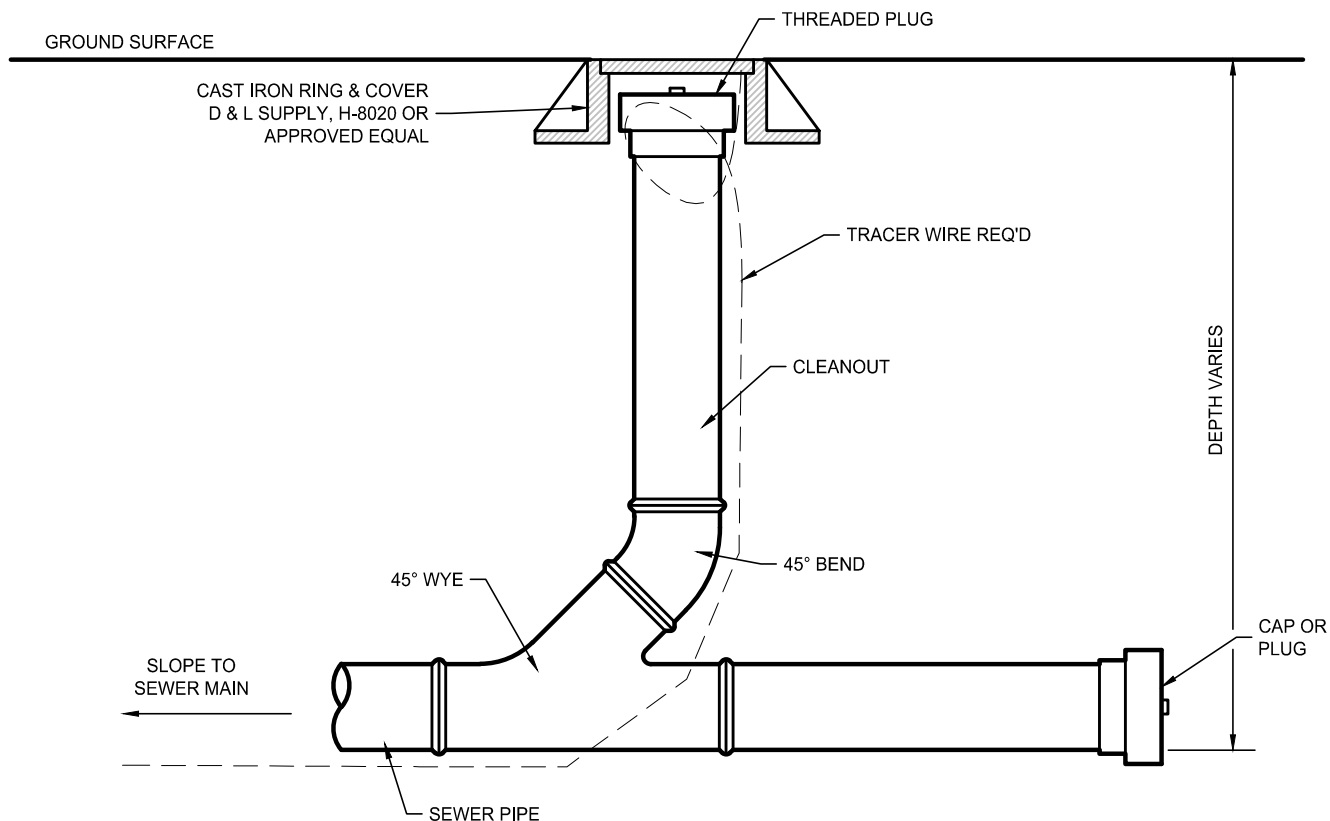


CONSTRUCTION STANDARDS

NEW SEWER STANDARD DETAILS

SEWER SERVICE CONNECTION

SCALE:	DRAWN: LG 08/17	FILE: STND_DET2022	PROJECT: 1705-381	SHEET:
NONE	CHECK: -	UPDATED: 4/11/2022	PLOTTED: 4/11/2022	S4



NOTES:

1. CONCRETE COLLAR REQ'D ON CLEAN OUT WITHIN PAVED STREETS. SEE CONCRETE COLLAR DETAIL ON SHEET CW2.
2. NO SEWER SERVICE LATERAL TO BE INSTALLED OVER EXISTING CULINARY WATERLINES WITHOUT PRIOR APPROVAL OF BEAVER CITY.
3. TRACER WIRE REQ'D



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CONSTRUCTION STANDARDS

SEWER STANDARD DETAILS

SEWER CLEANOUT

SCALE:

NONE

DRAWN: LG 08/17

CHECK: . .

FILE: STND\_DET2\_2022

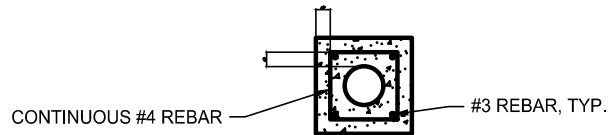
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PROJECT: 1705-381

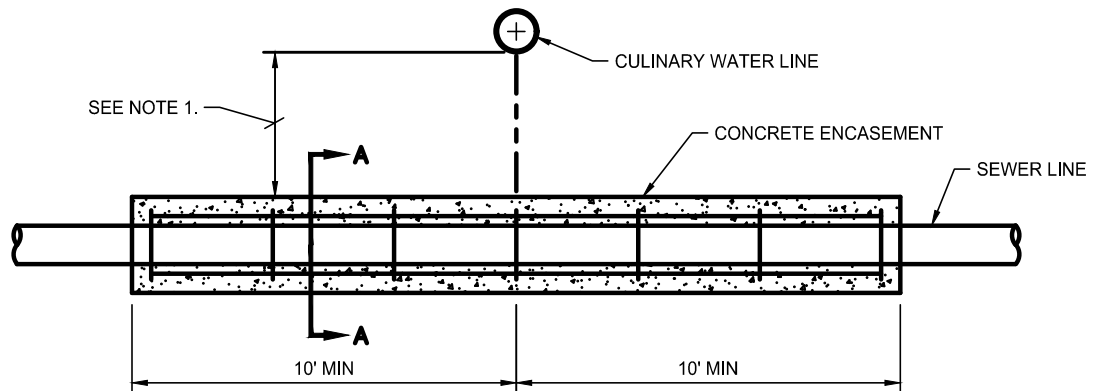
PLOTTED: 3/31/2022

SHEET:

S5



### SECTION A-A



#### NOTES:

1. CONCRETE ENCASEMENT OR DUCTILE IRON PIPE WITH MJ FITTINGS IS REQUIRED WHEN CLEAR VERTICAL DISTANCE IS LESS THAN 18" OR IS LESS THAN 10' BETWEEN PARALLEL LINES.
2. NO SEWER SERVICE LATERAL TO BE INSTALLED OVER EXISTING CULINARY WATERLINES WITHOUT PRIOR APPROVAL OF BEAVER CITY.



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#### CONSTRUCTION STANDARDS

#### SEWER STANDARD DETAILS

#### UTILITY LINE CROSSING

SCALE:

NONE

DRAWN: LG 08/17

CHECK: . .

FILE: STND\_DET\_S\_2022

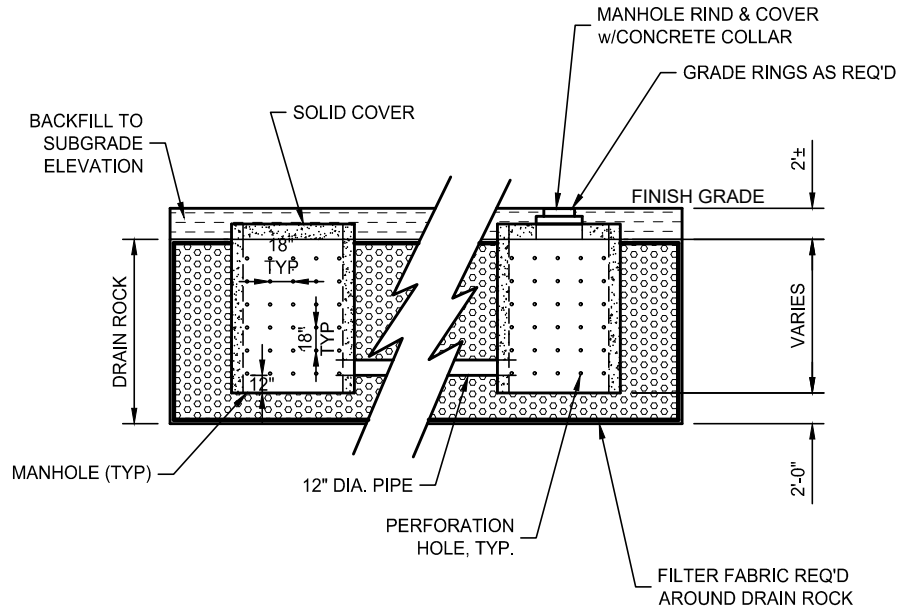
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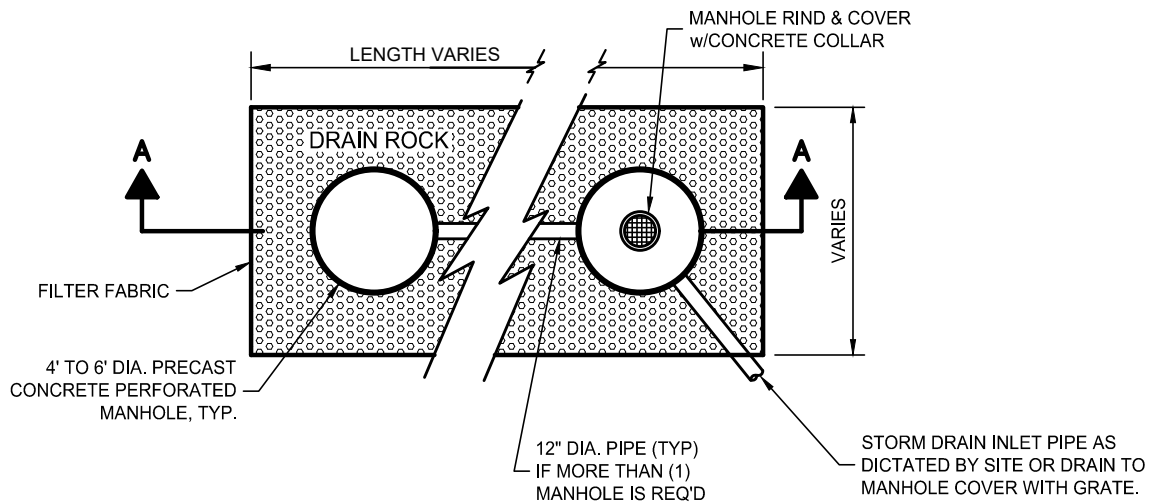
PLOTTED: 3/31/2022

SHEET:

S6



**SECTION A-A**



**PLAN**

**NOTES:**

1. INSTALL RING & COVER ON EACH MANHOLE WITH INLET PIPE.
2. NUMBER OF MANHOLES & SIZE DICTATED BY DRAINAGE AREA.
3. SIZE TO STORE MINIMUM 1 INCH DEPTH OF WATER OVER DRAINAGE AREA. CALCULATION SHOULD INCLUDE APPROPRIATE RUNOFF COEFFICIENT (C). SIZE IS BASED ON 10 YEAR 2 HOUR STORM EVENT.
4. SEE S3 FOR CONCRETE COLLAR DETAILS
5. DRY WELL NOT PERMITTED IN NON-PERMEABLE SOILS OR AREAS WITH HIGH GROUND WATER TABLE.



PREPARED BY:

Jones & DeMille Engineering, Inc.



**CONSTRUCTION STANDARDS**

**STORM DRAINAGE CONSTRUCTION**

**DRY WELL**

SCALE:

NONE

DRAWN: LG 08/17

CHECK: - -

FILE: STND\_DET2\_2022

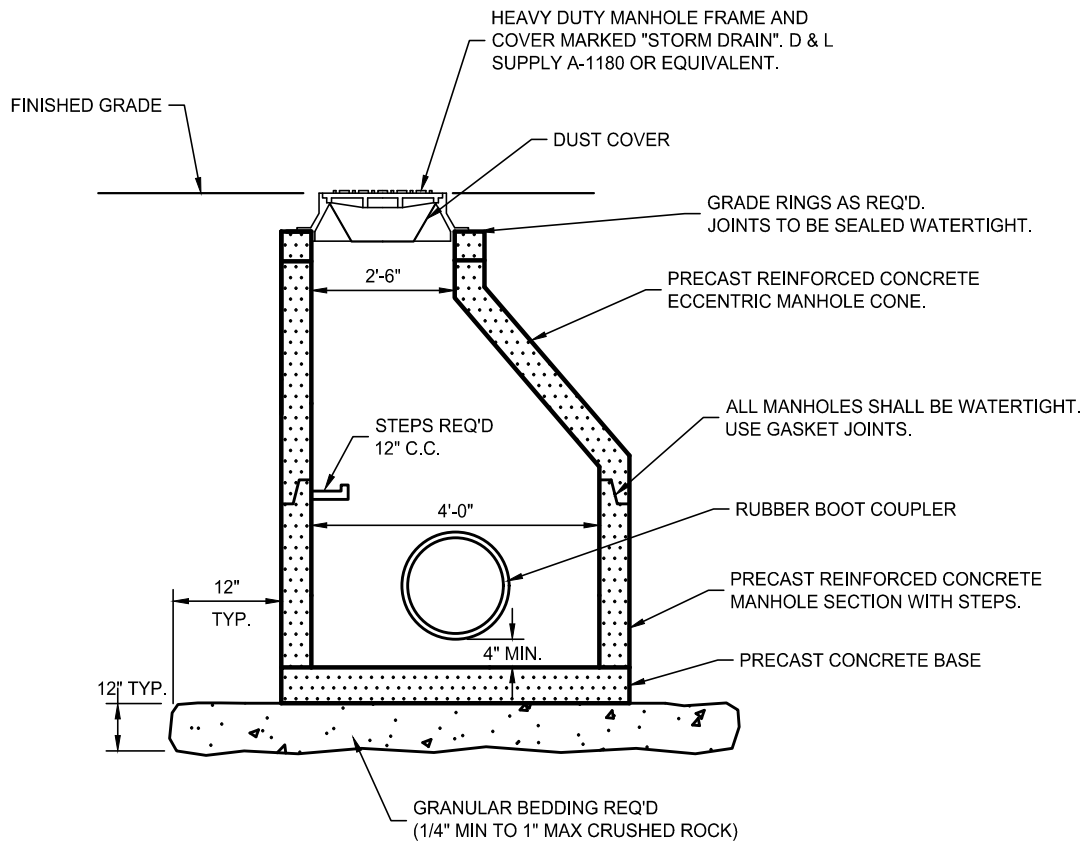
UPDATED: 3/31/2022

PROJECT: 1705-381

PLOTTED: 3/31/2022

SHEET:

SD1



NOTES:

1. FOR SHALLOW MANHOLES, FLAT TOP MAY BE USED IN PLACE OF ECCENTRIC CONE SECTION.
2. WHEN MANHOLE IS WITHIN PAVED STREET, CONSTRUCT CONCRETE COLLAR. SEE S3 FOR DETAILS.



PREPARED BY:

Jones & DeMille Engineering, Inc.



CONSTRUCTION STANDARDS

STORM DRAINAGE CONSTRUCTION

STORM DRAIN MANHOLE

SCALE:

NONE

DRAWN: LG 08/17

CHECK: - -

FILE: STND\_DET2022

UPDATED: 3/31/2022

PROJECT: 1705-381

PLOTTED: 3/31/2022

SHEET:

SD2