

## STANDARD PRECAST MANHOLE

2021 Details

### NOTES:

1. HEAT SHRINK WRAP ALL CONCRETE JOINTS WITH CANUSA-CPS WRAPIDSEAL OR APPROVED EQUAL MATERIAL. THIS INCLUDES THE ADJUSTMENT RING(S) AND CASTING.
2. ALL MANHOLES SHALL BE VACUUM TESTED.
3. SEAL EXTERIOR SURFACE OF MANHOLE WITH APPROVED MASTIC SEALANT (TWO COATS)



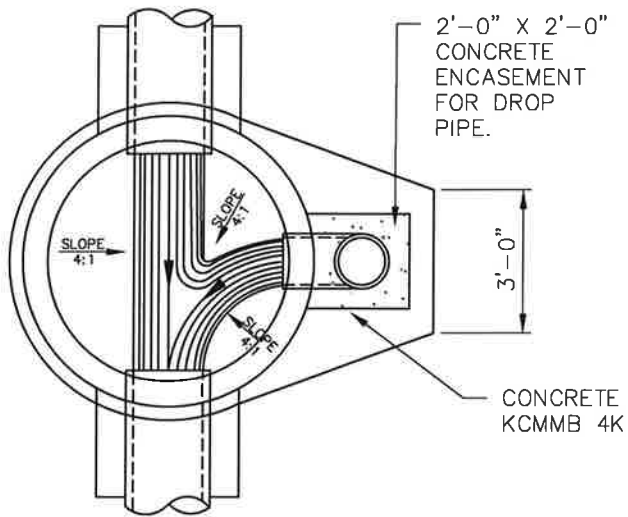
City of  
**BELTON**  
Missouri

**PUBLIC WORKS**

### PRECAST SANITARY MANHOLE

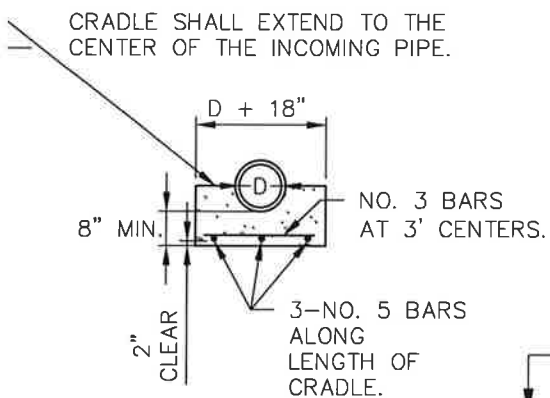
SCALE:	NO SCALE	REV.	3-31-21	GRANULAR HATCH
DETAIL NO:	SAN-001			
DATE:	05-18-21			



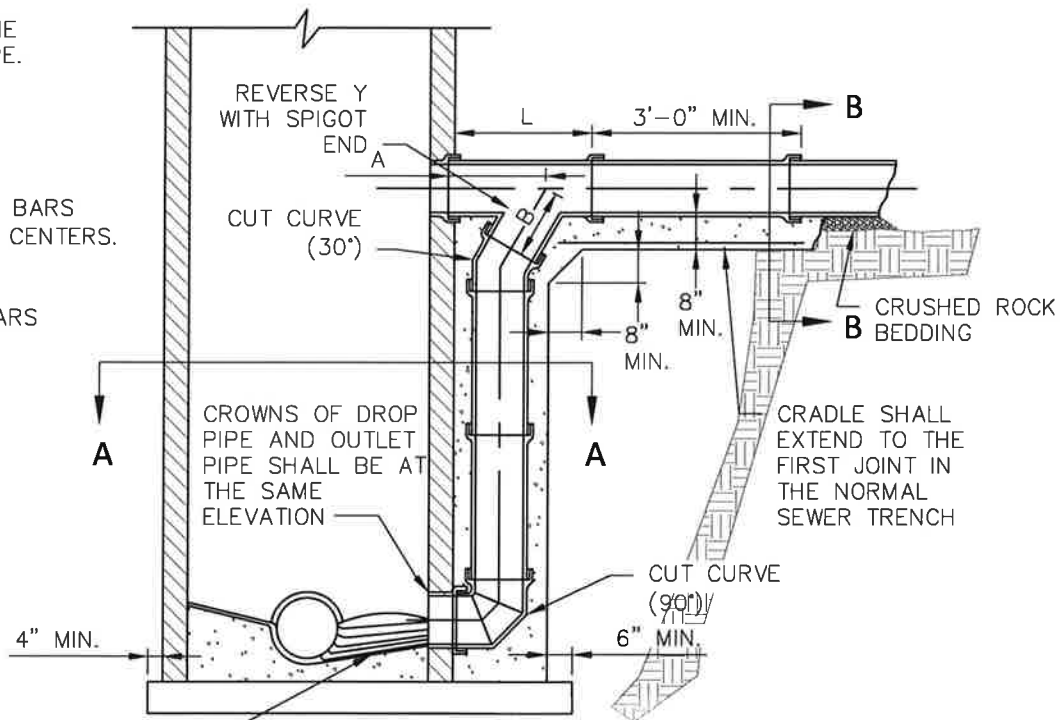


SECTION A-A

SIZE	L	A	B
8" ON 8"	3'-0"	2'-4"	1'-3"
10" ON 10"	3'-0"	2'-3"	1'-5"
12" ON 12"	3'-0"	2'-1"	1'-5"



SECTION B-B

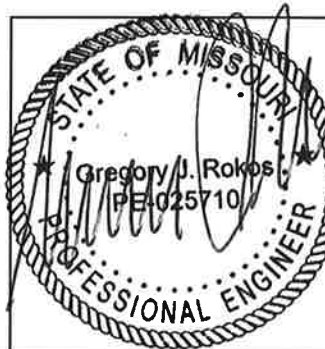


INVERT SECTION SHOWN ALONG FLOWLINE OF INCOMING INVERT

SECTION VIEW

STANDARD DROP MANHOLE

2021 Details



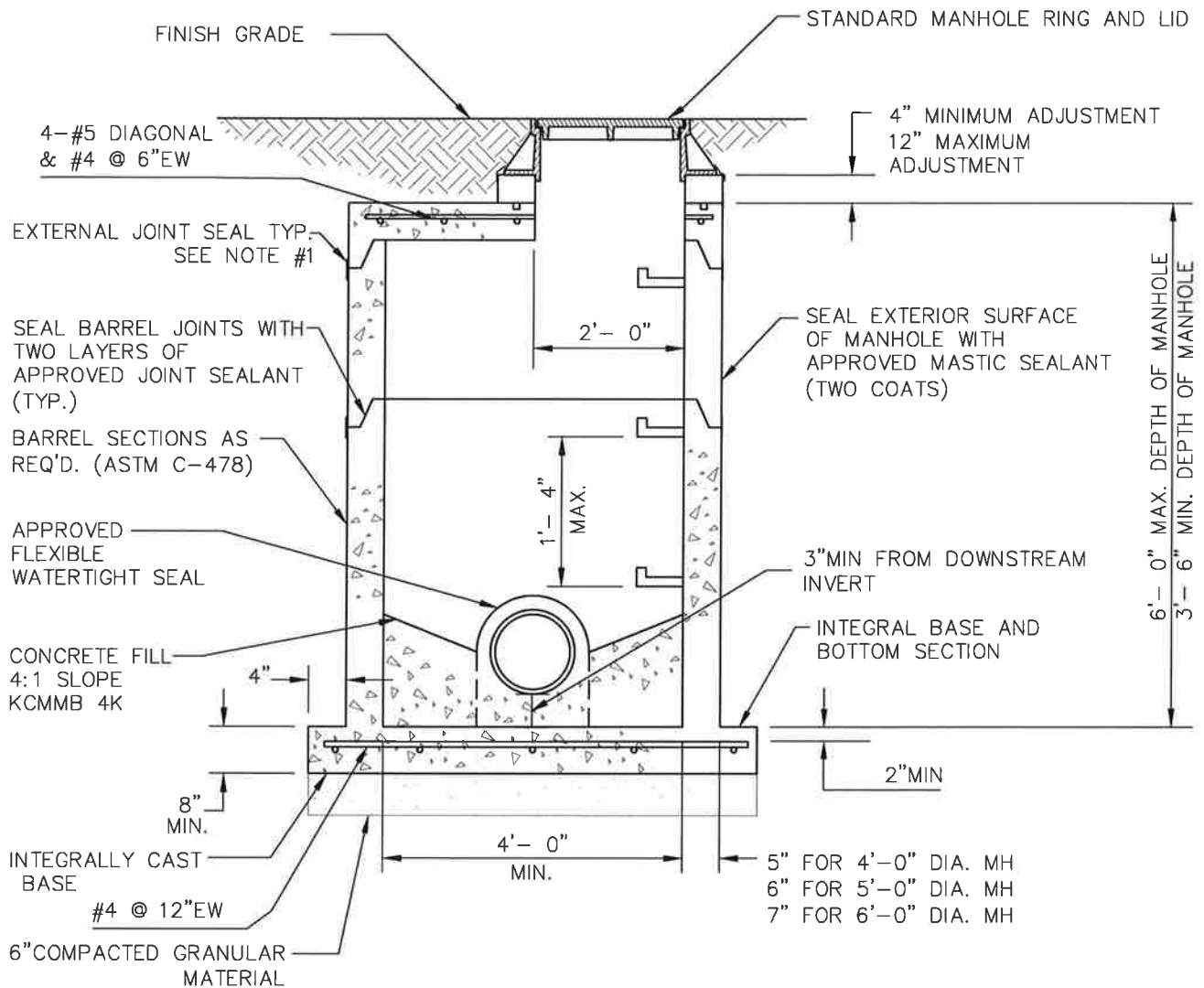
City of  
**BELTON**  
Missouri

**PUBLIC WORKS**

**DROP SANITARY MANHOLE**

SCALE: NO SCALE  
DETAIL NO: SAN-003  
DATE: 05-18-21

REV.

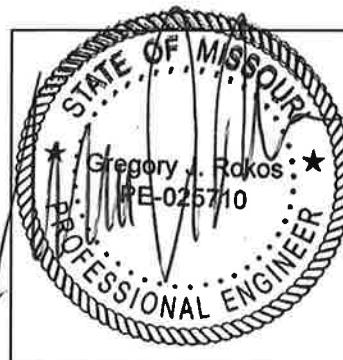


## STANDARD SHALLOW MANHOLE

### NOTES:

1. HEAT SHRINK WRAP ALL CONCRETE JOINTS WITH CANUSA-CPS WRAPIDSEAL OR APPROVED EQUAL MATERIAL. THIS INCLUDES THE ADJUSTMENT RING(S) AND CASTING.
2. ALL MANHOLES SHALL BE VACUUM TESTED.
3. SEAL EXTERIOR SURFACE OF MANHOLE WITH APPROVED MASTIC SEALANT (TWO COATS)

2021 Details



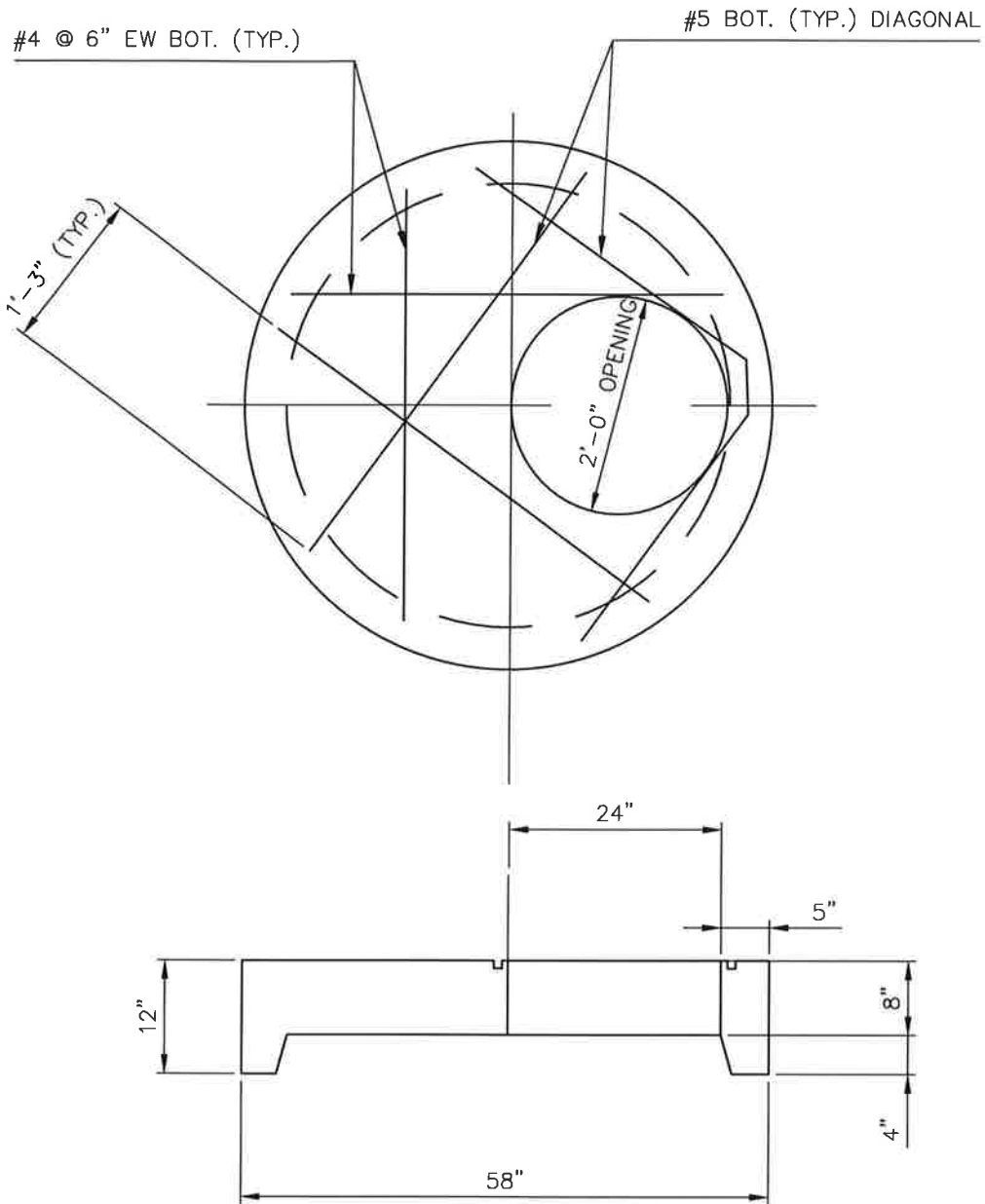
City of  
**BELTON**  
Missouri

**PUBLIC WORKS**

### SHALLOW SANITARY MANHOLE

SCALE: NO SCALE  
DETAIL NO: SAN-004  
DATE: 04-15-2021

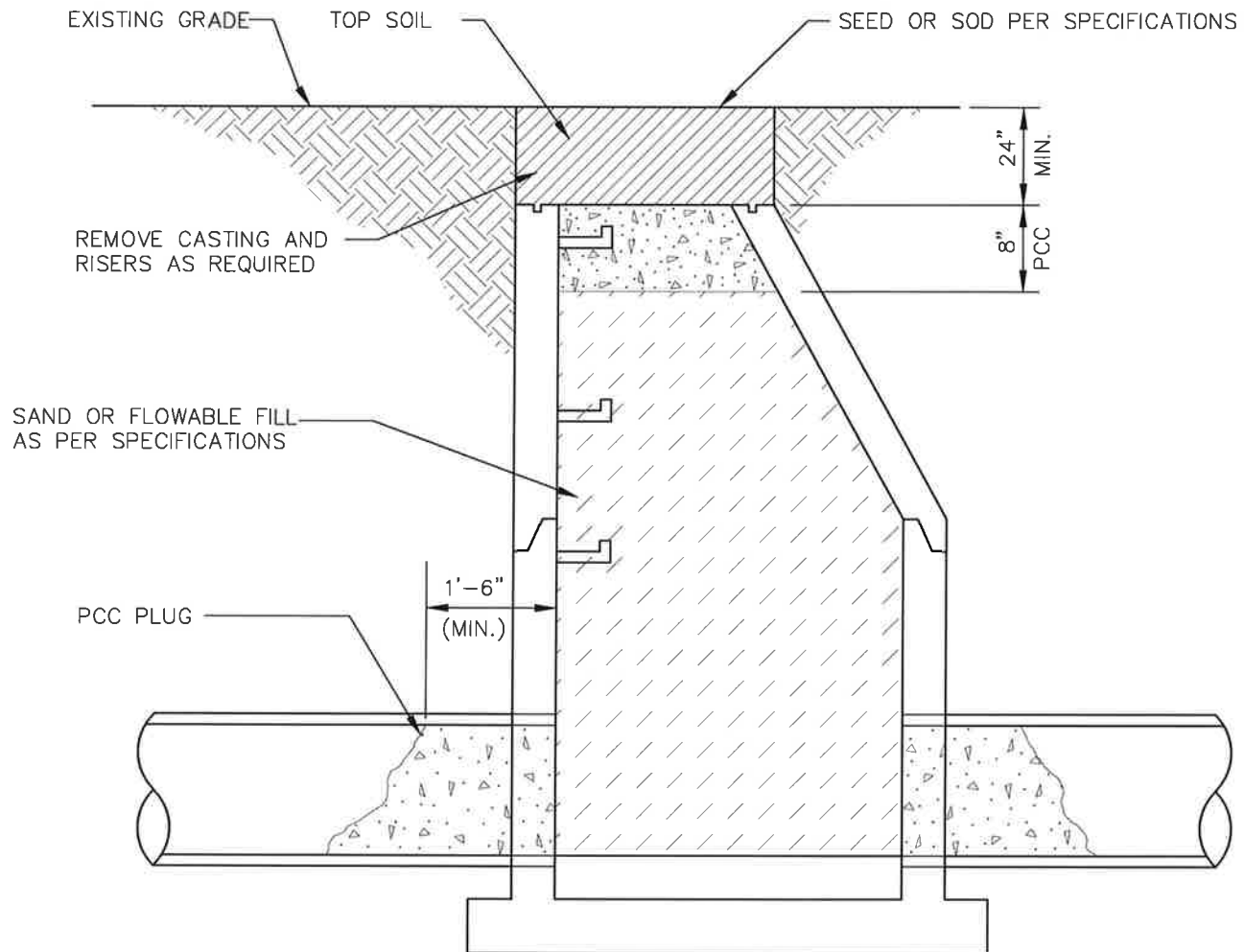
REV.



TOP SLAB FOR 48" STANDARD PRECAST SHALLOW  
TYPE MANHOLE DETAIL

2021 Details

		City of <b>BELTON</b> Missouri	
		<b>PUBLIC WORKS</b>	
		<b>SHALLOW MANHOLE TOP SLAB</b>	
		SCALE: NO SCALE DETAIL NO: SAN-005 DATE: 04-15-2021	REV.



## MANHOLE ABANDONMENT DETAIL

2021 Details

### Notes:

1. If flowable fill is used, pcc pipe plugs and pcc cap may be deleted.



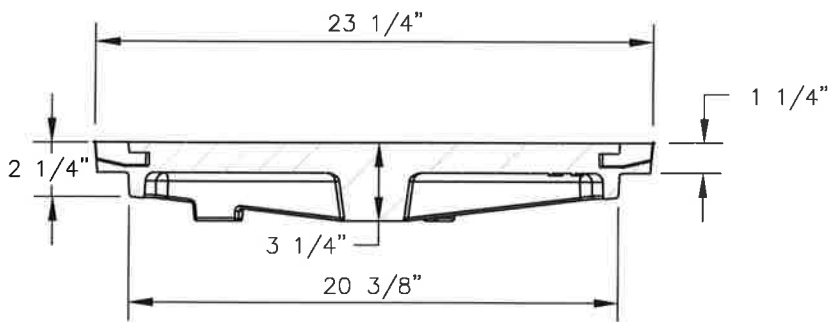
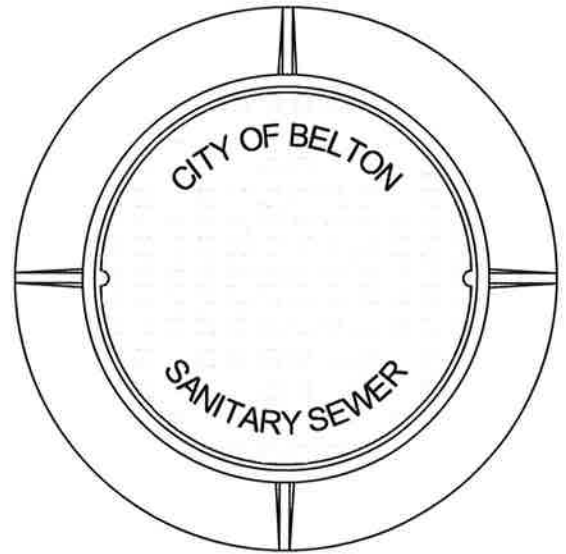
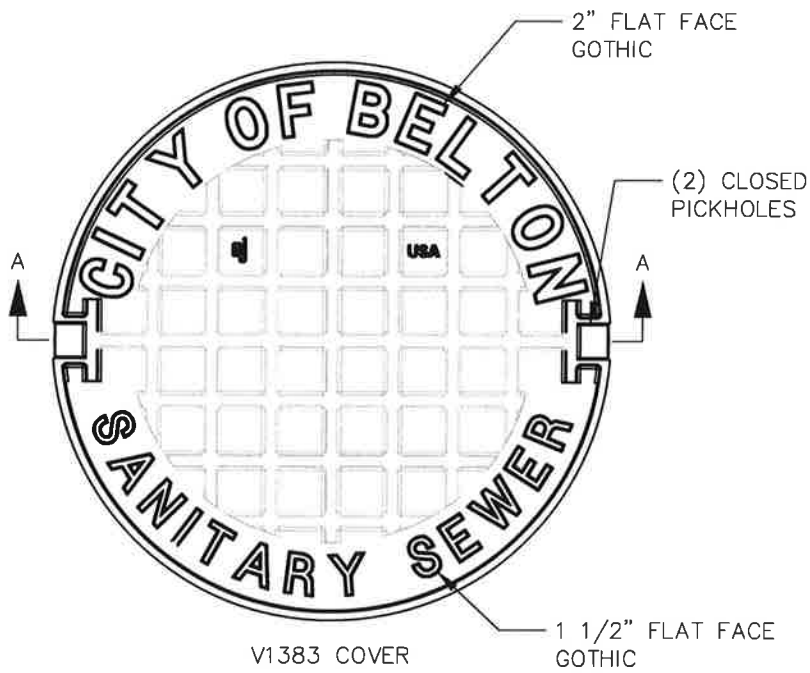
City of  
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**PUBLIC WORKS**

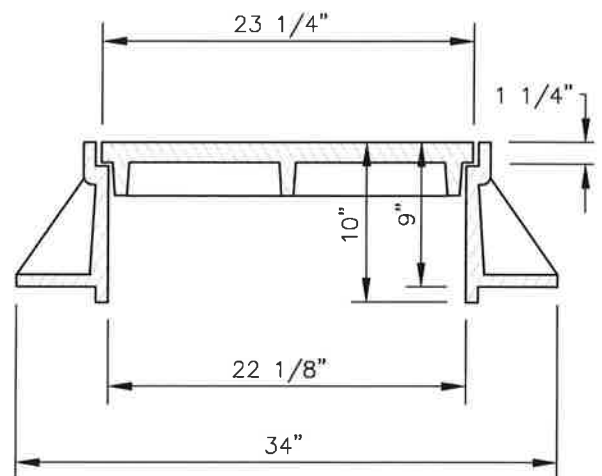
### MANHOLE ABANDONMENT

SCALE: NO SCALE  
DETAIL NO: SAN-006  
DATE: 04-15-2021

REV.



SECTION A-A



NOTE: MINIMUM LID WEIGHT = 135 lb

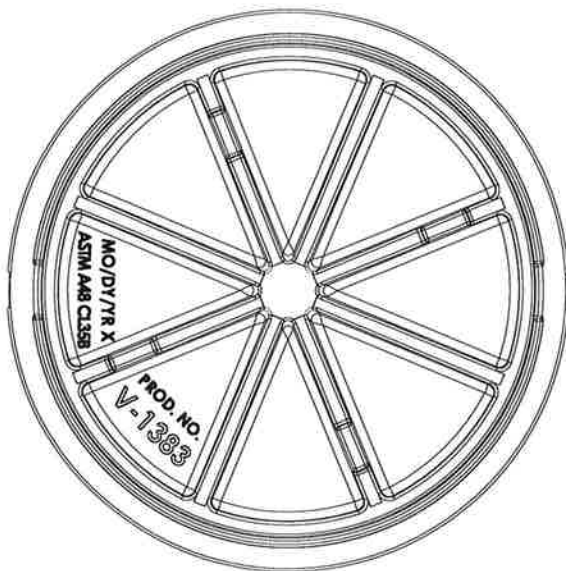
### MANHOLE RING AND LID DETAIL - II

CLAY & BAILEY (2008)

APPROVED RING AND LID

CLAY & BAILEY	2008
EAST JORDAN IRON WORKS	V1383
OR EQUAL APPROVED	
BY CITY ENGINEER	

2021 Details



BOTTOM VIEW

**MANHOLE RING AND LID DETAIL -**  
EAST JORDAN IRON WORKS (V1383)



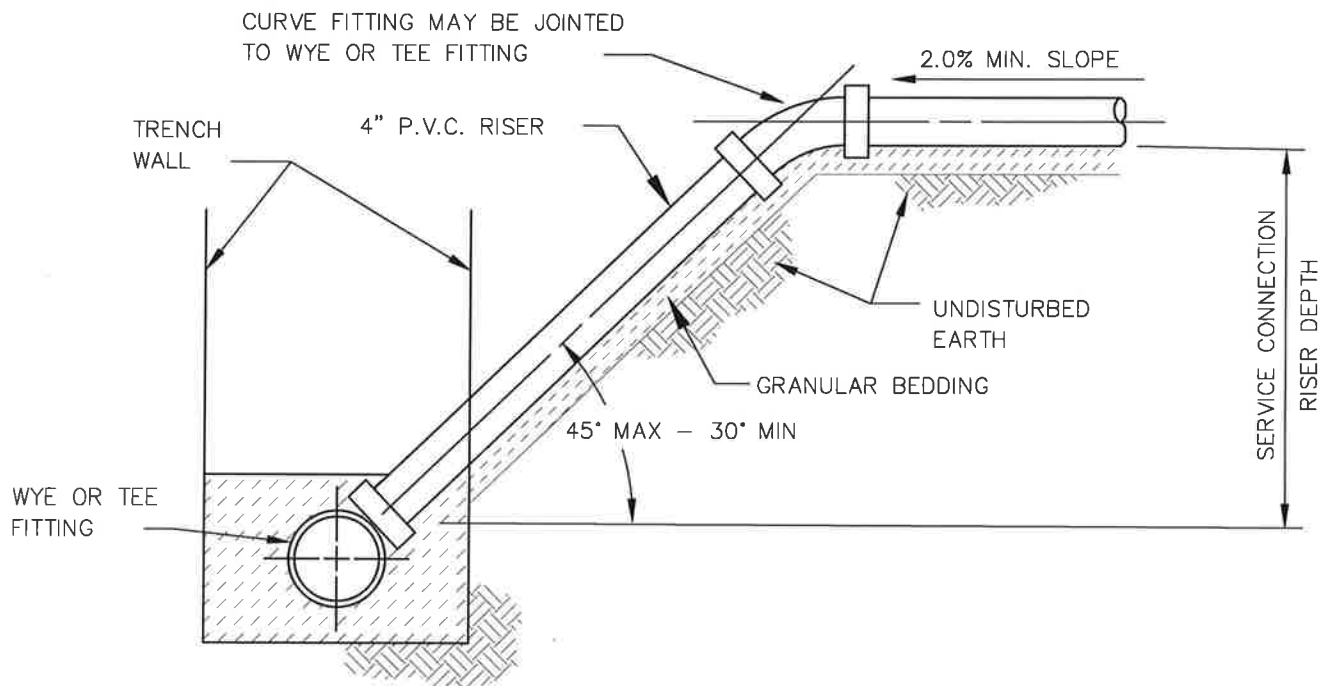
City of  
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Missouri

**PUBLIC WORKS**

**SANITARY RING & LID**

SCALE:	NO SCALE
DETAIL NO:	SAN-007
DATE:	04-15-2021

REV.



## SEWER SERVICE CONNECTION DETAIL

### NOTES:

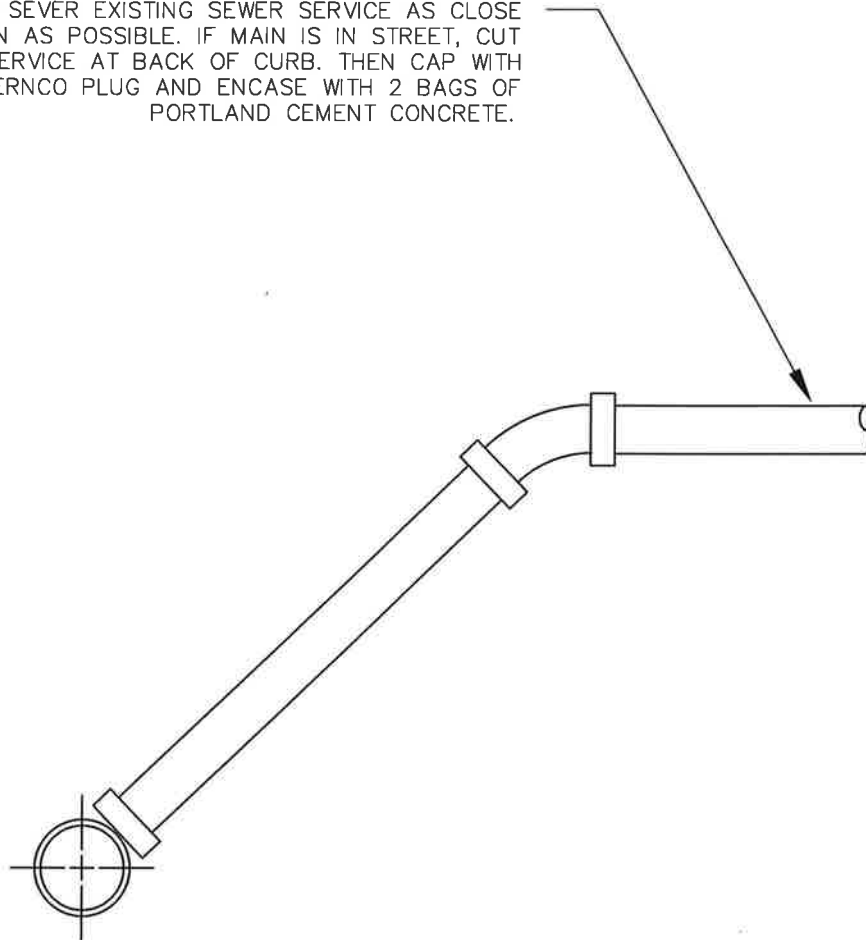
1. SEWER CONNECTIONS REQUIRE PRIOR APPROVAL FROM THE CITY OF BELTON PUBLIC WORKS DEPARTMENT.
2. ALL SEWER CONNECTIONS SHALL USE INSERTA TEE BRAND CONNECTOR INSTALLED USING MANUFACTURERS SPECIFICATIONS OR APPROVED EQUAL.
3. CITY STAFF IN THE PUBLIC WORKS DEPARTMENT MUST BE ON SITE DURING CORING AND INSTALLATION OF THE SEWER CONNECTION. STAFF MUST BE NOTIFIED 24 HOURS IN ADVANCE.
4. WHEN MORE THAN ONE SERVICE CONNECTION IS NEEDED WITHIN A TWENTY FOOT SECTION OF SEWER MAIN, CONNECTIONS MUST BE SPACED A MINIMUM OF 2 FEET APART. NO CONNECTIONS ALLOWED WITHIN 2 FEET OF THE PIPE JOINT.

2021 Details

		City of <b>BELTON</b> Missouri	
		<b>PUBLIC WORKS</b>	
		<b>SANITARY SEWER SERVICE</b>	
		SCALE: NO SCALE DETAIL NO: SAN-008 DATE: 04-15-2021	REV 03-31-21 NOTES



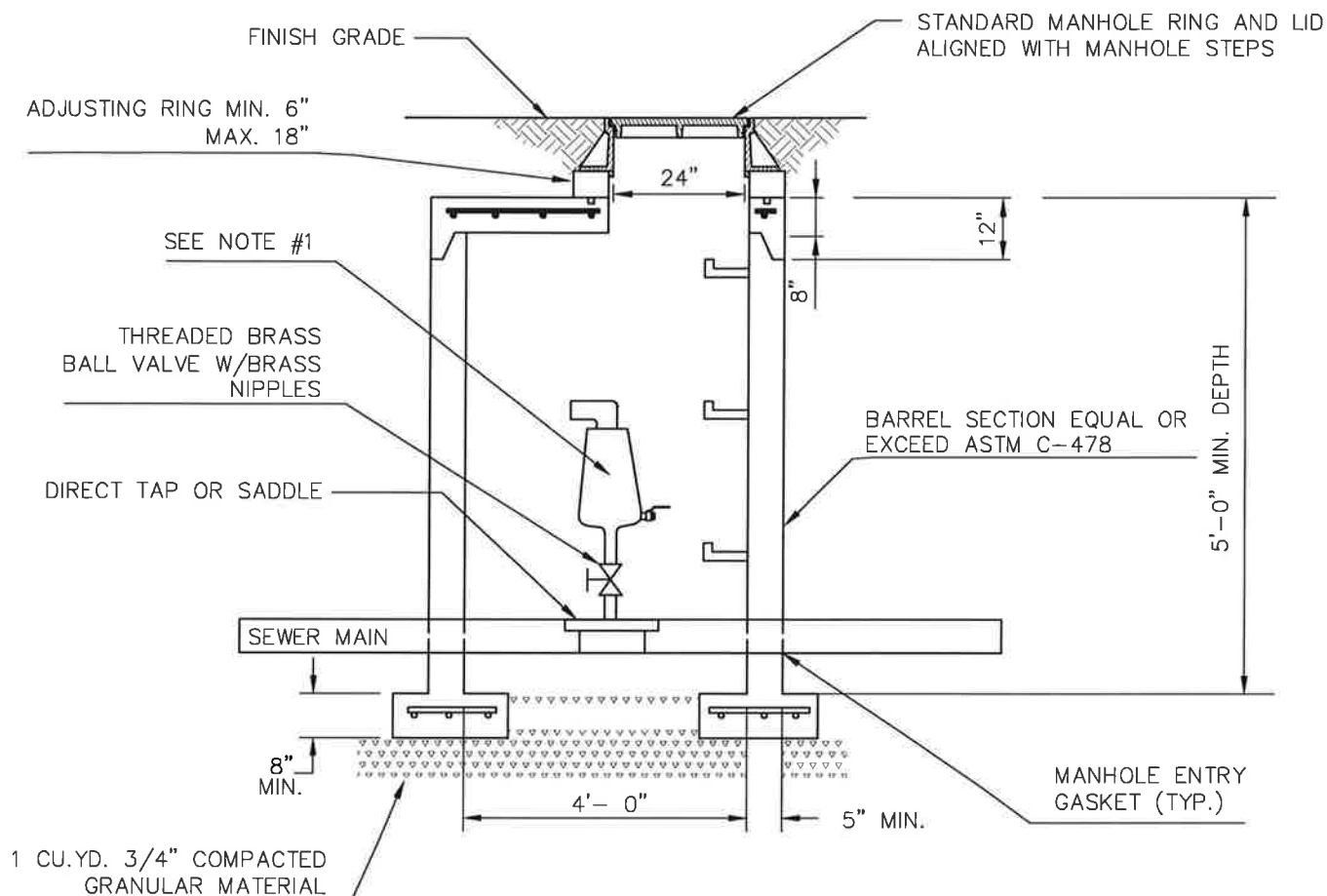
CUT OR SEVER EXISTING SEWER SERVICE AS CLOSE TO MAIN AS POSSIBLE. IF MAIN IS IN STREET, CUT SERVICE AT BACK OF CURB. THEN CAP WITH FERNCO PLUG AND ENCASE WITH 2 BAGS OF PORTLAND CEMENT CONCRETE.



**SANITARY SEWER SERVICE**  
**DEMOLITION DETAIL**

2021 Details

		City of <b>BELTON</b> Missouri	
		<b>PUBLIC WORKS</b>	
		<b>SANITARY SERVICE LINE DEMOLITION</b>	
		SCALE: NO SCALE DETAIL NO: SAN-009 DATE: 04-15-2021	REV:

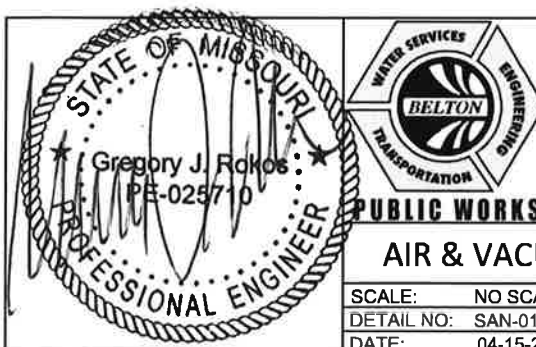


## SEWER COMBINATION AIR/VACUUM VALVE ASSEMBLY

### NOTES:

1. COMBINATION AIR & VACUUM VALVE ASSEMBLY - A.R.I. D-025 FOR 150 PSI AND BELOW, A.R.I. D-020 ABOVE 150 PSI, OR NSF RATED APPROVED EQUAL.
2. VAULT SHALL BE STANDARD PRECAST SHALLOW TYPE MANHOLE.

2021 Details

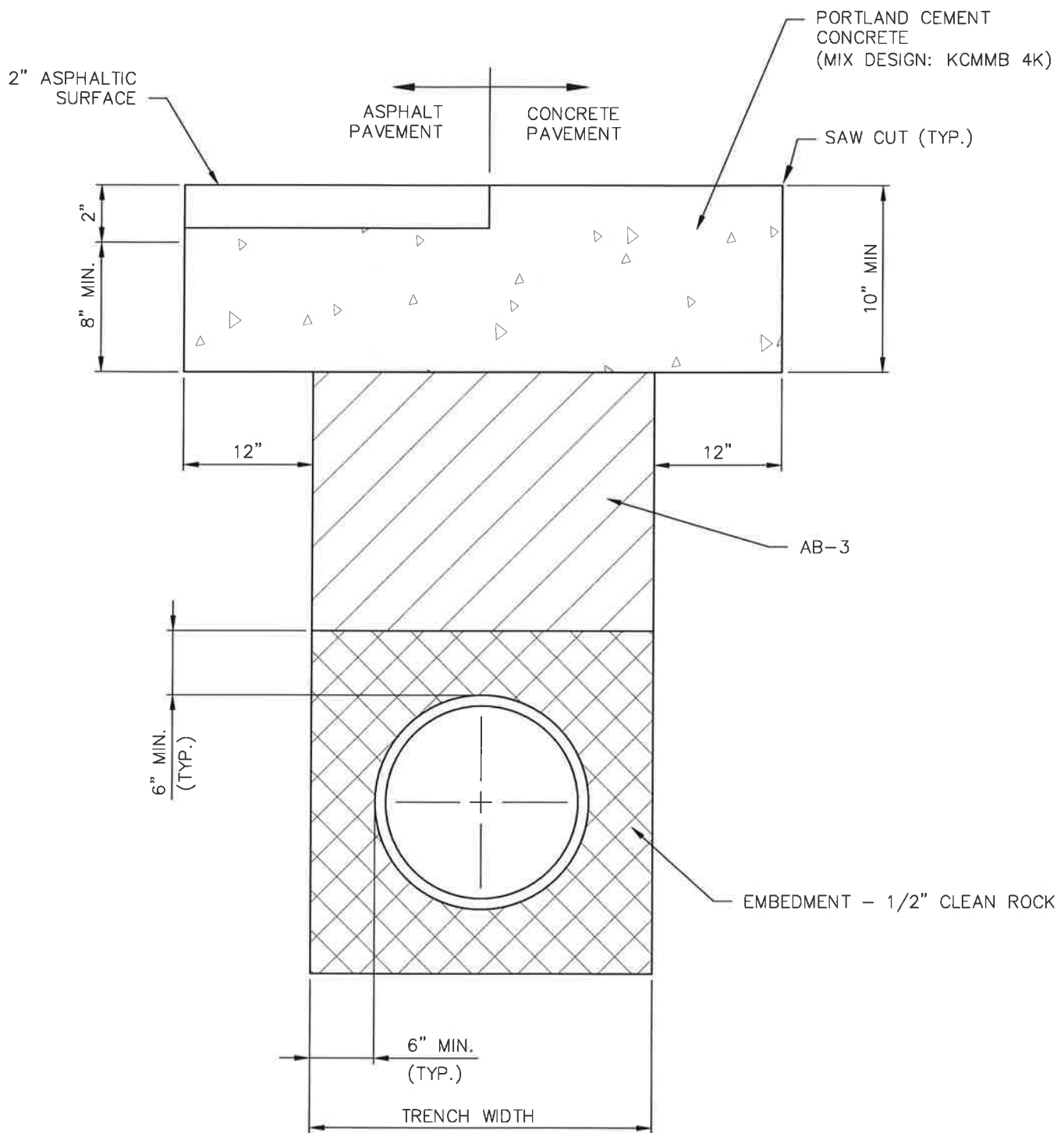


City of  
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Missouri

### AIR & VACUUM VALVE ASSEMBLY

SCALE: NO SCALE  
DETAIL NO: SAN-010  
DATE: 04-15-2021

REV.

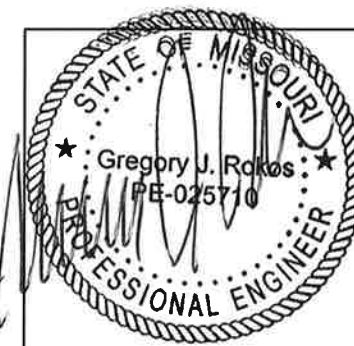


## PIPE EMBEDMENT - BACKFILL UNDER PAVED AREAS

### NOTES:

- IF THE TRENCH WIDTH IS LESS THAN OR EQUAL TO 24-INCHES, IT SHALL BE BACKFILLED WITH FLOWABLE FILL. FLOWABLE FILL MIX DESIGN TO BE APPROVED BY THE CITY PRIOR TO PLACEMENT.
- AB-3 MUST BE COMPACTED TO A MINIMUM OF 95 PERCENT PROCTOR DENSITY UNLESS OTHERWISE SPECIFIED BY THE CITY ENGINEER.

2021 Details



City of  
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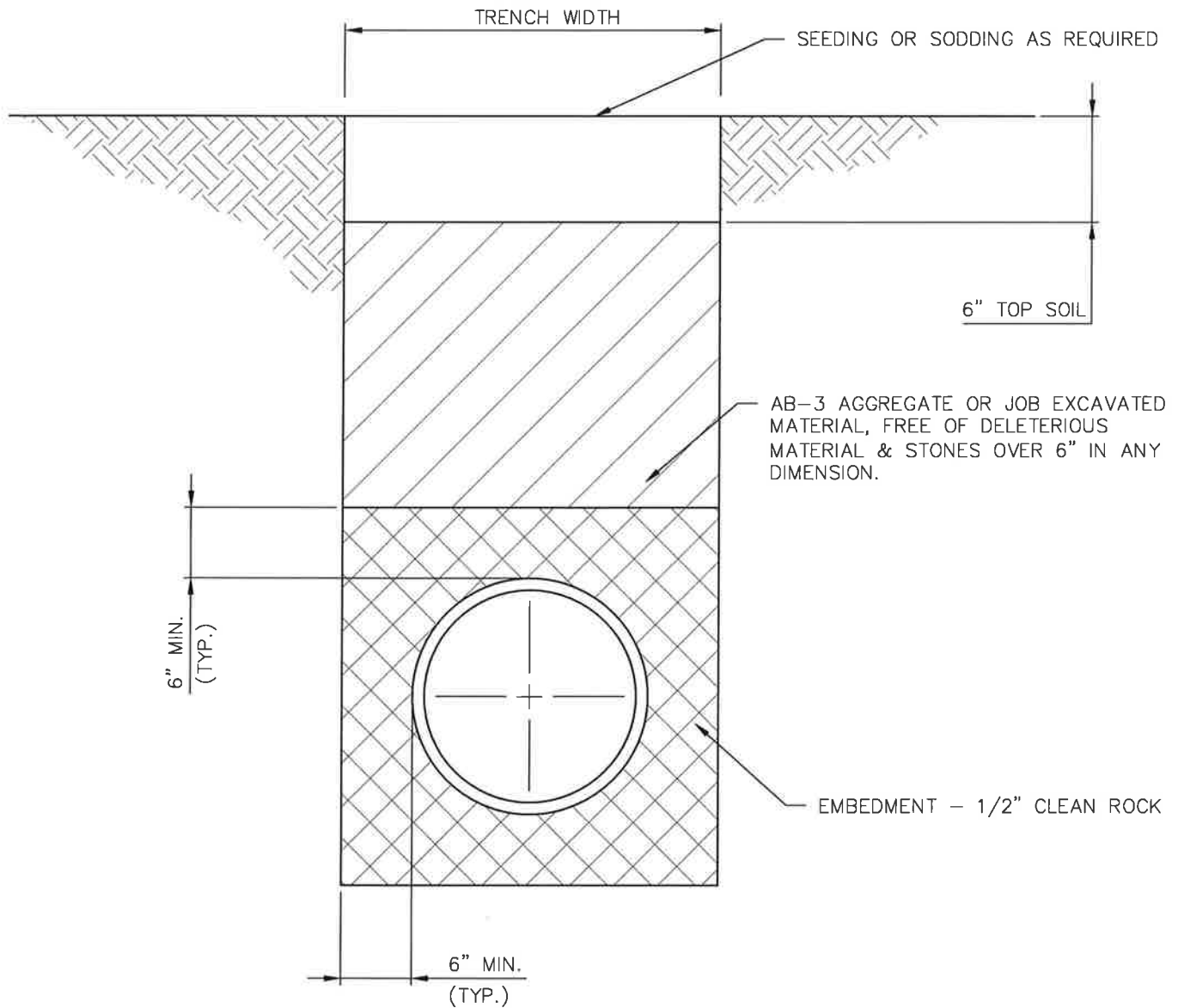
TRENCH BACKFILL & EMBEDMENT UNDER PAVEMENT

SCALE: NO SCALE

DETAIL NO: SAN-011

DATE: 04-15-2021

REV.



### PIPE EMBEDMENT - BACKFILL UNDER NON-PAVED AREAS

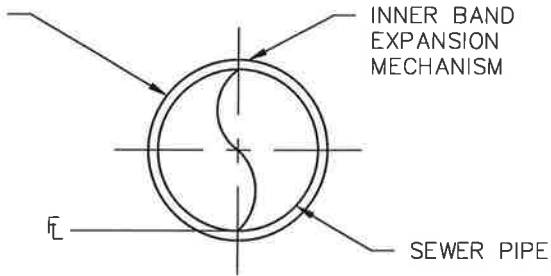
#### NOTES:

1. AB-3 MUST BE COMPACTED TO A MINIMUM OF 95 PERCENT STANDARD PROCTOR DENSITY UNLESS OTHERWISE SPECIFIED BY THE CITY ENGINEER.

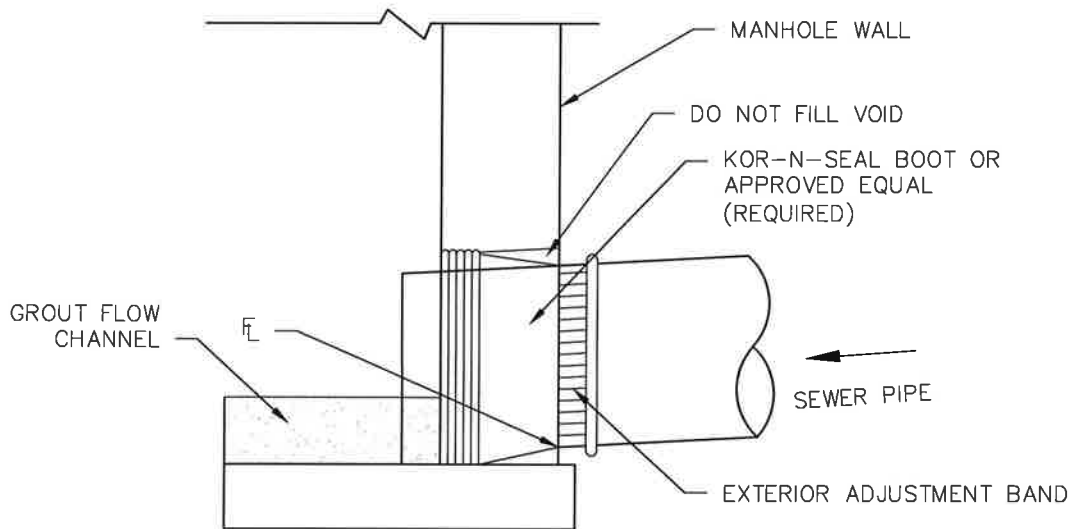
2021 Details

		<b>City of BELTON Missouri</b>	
		<b>PUBLIC WORKS</b>	
		<b>TRENCH BACKFILL &amp; EMBEDMENT UNDER NON-PAVED AREAS</b>	
		SCALE: NO SCALE DETAIL NO: SAN-012 DATE: 04-15-2021	REV.

KOR-N-SEAL  
BOOT OR APPROVED  
EQUAL (REQUIRED).



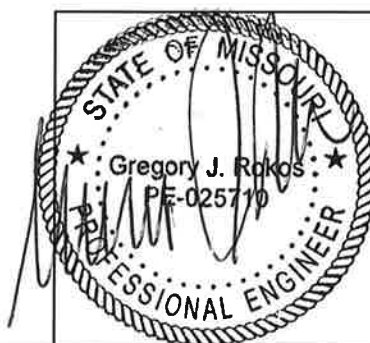
INTERIOR VIEW



SECTION

TYPICAL CONNECTION TO EXISTING MANHOLE

2021 Details



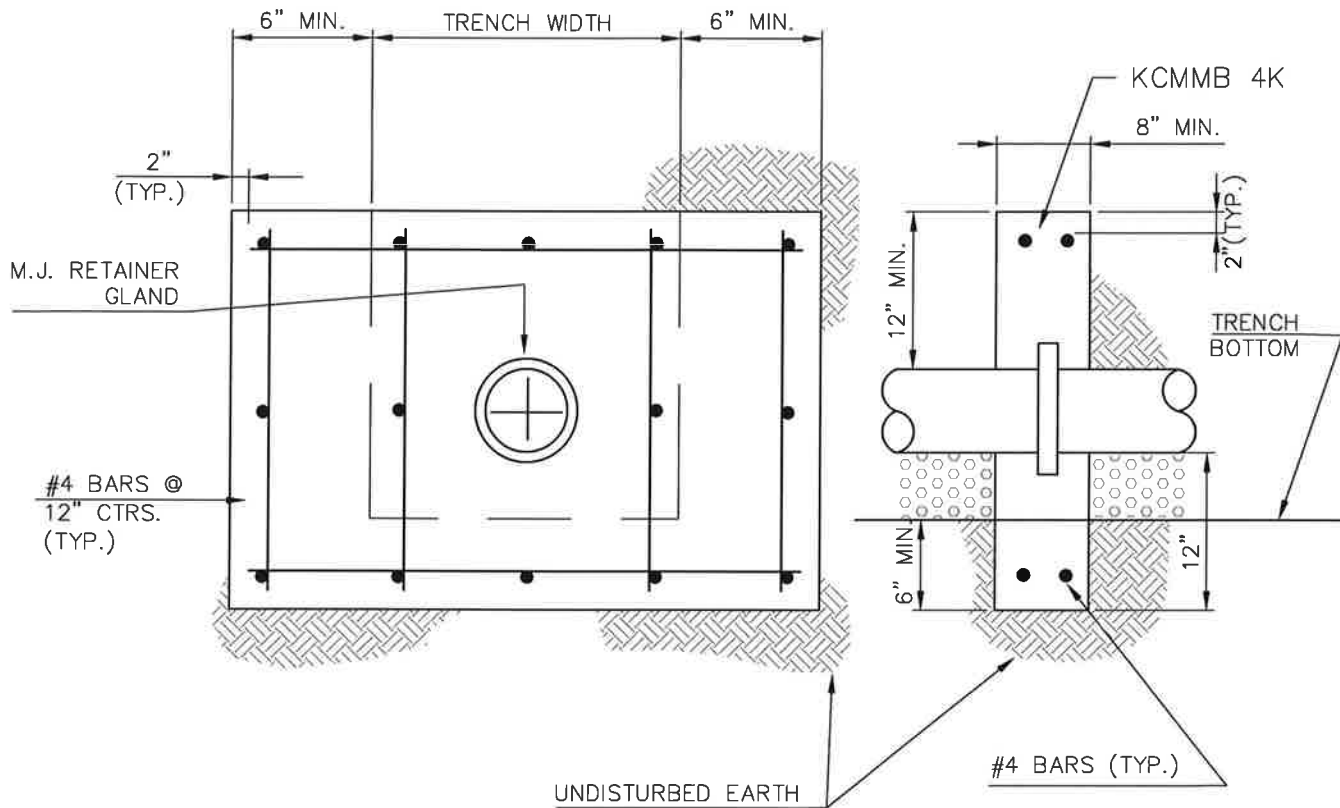
City of  
**BELTON**  
Missouri

**PUBLIC WORKS**

**SANITARY BOOT DETAIL**

SCALE: NO SCALE  
DETAIL NO: SAN-013  
DATE: 04-15-2021

REV.

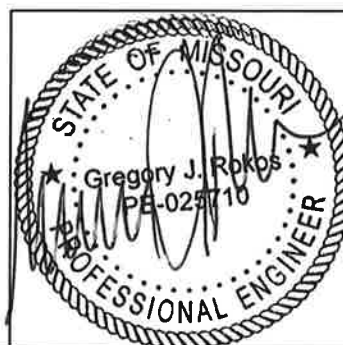



**NOTE:**

CONCRETE THRUST COLLAR TO BE INSTALLED ON GRAVITY SEWER LINES LAID AT 20% SLOPES OR GREATER, AT INTERVALS INDICATED ON SEWER PROFILE DRAWINGS.

**CONCRETE THRUST COLLAR DETAIL**

2021 Details



City of  
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Missouri

**PUBLIC WORKS**

**CONCRETE THRUST COLLAR**

SCALE: NO SCALE  
DETAIL NO: SAN-015  
DATE: 04-15-2021

REV.		