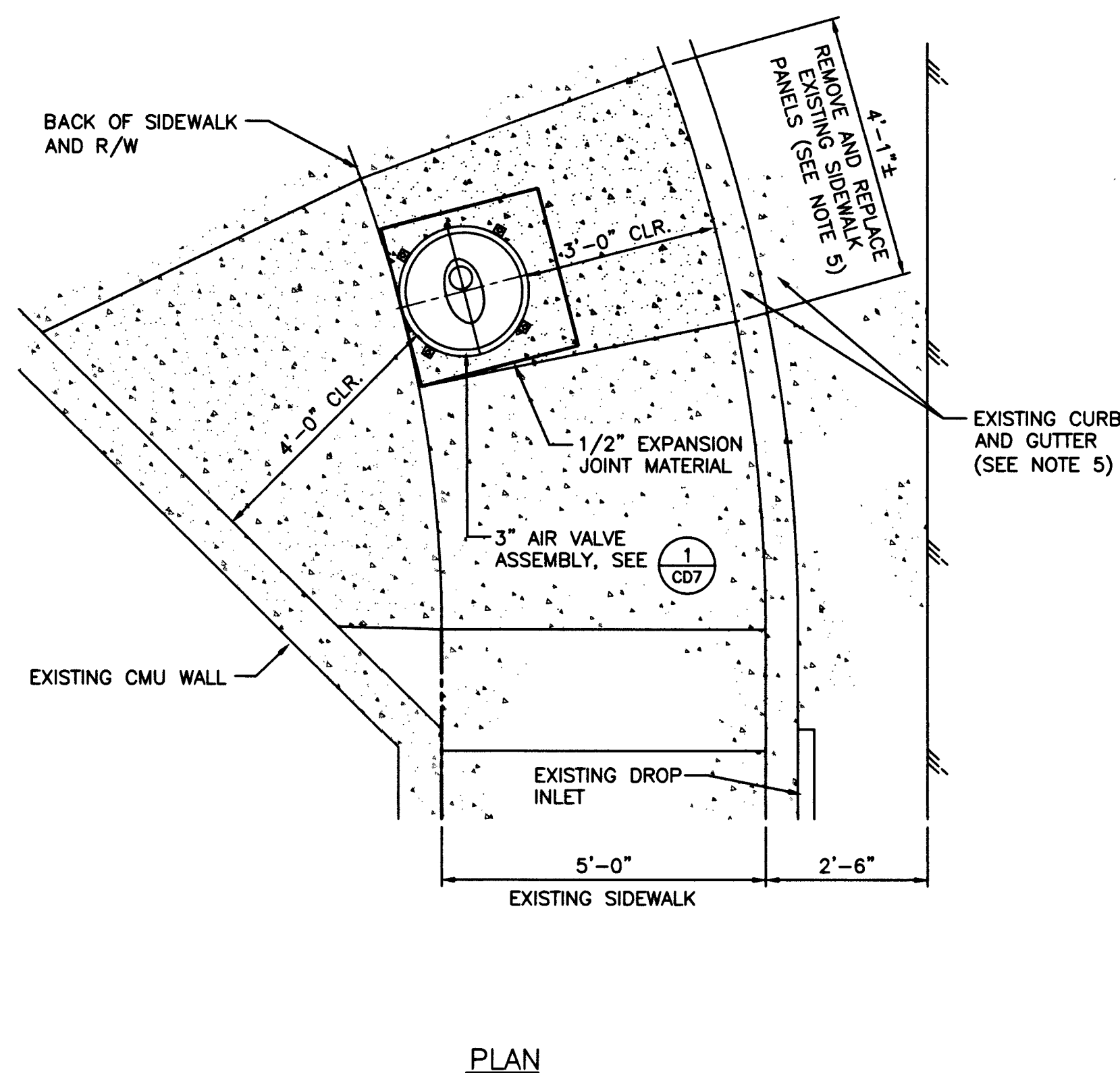
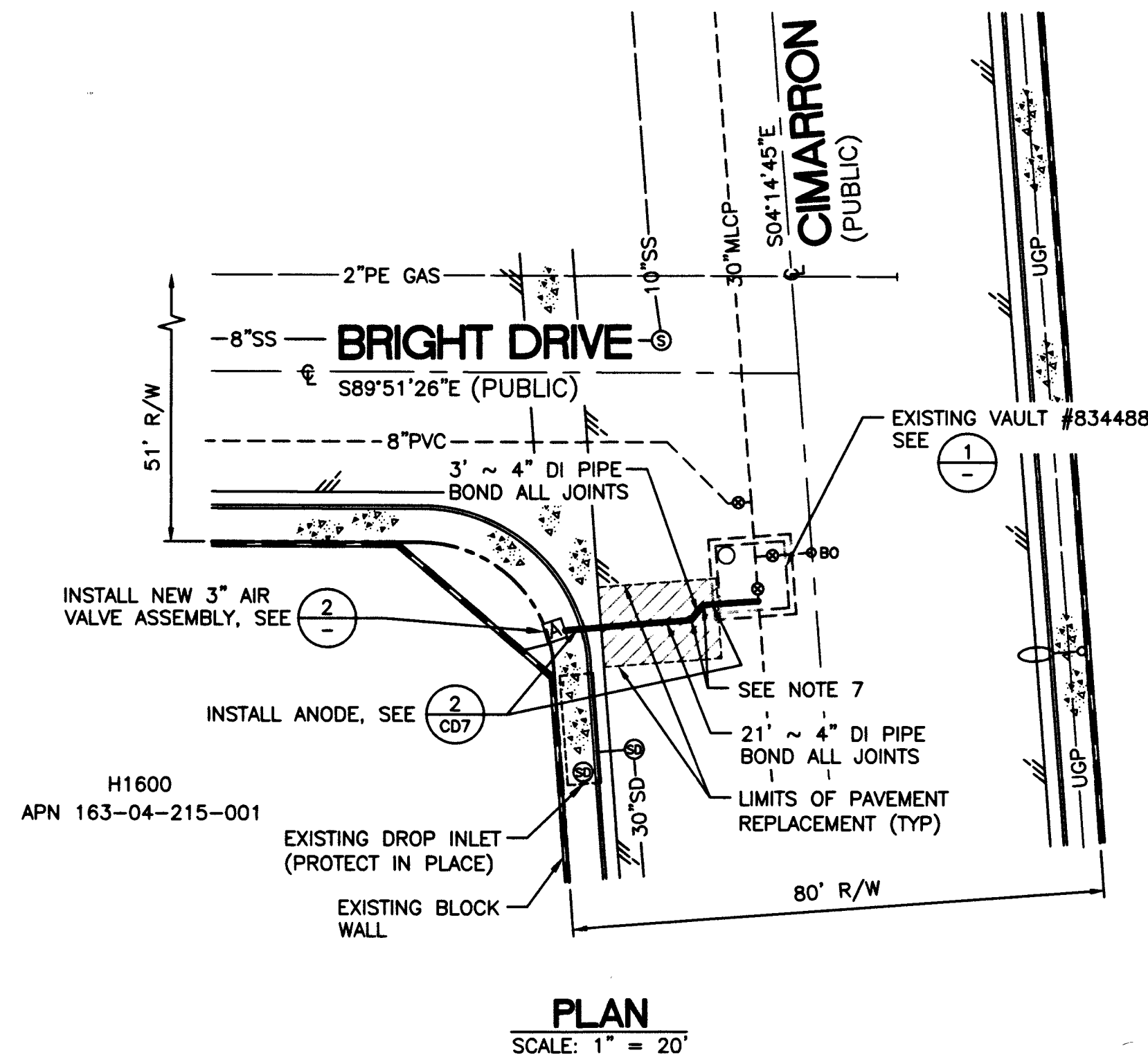
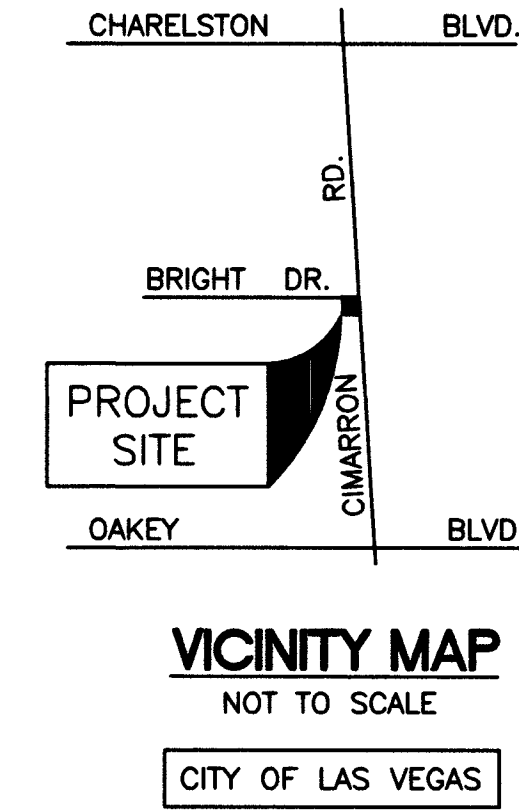
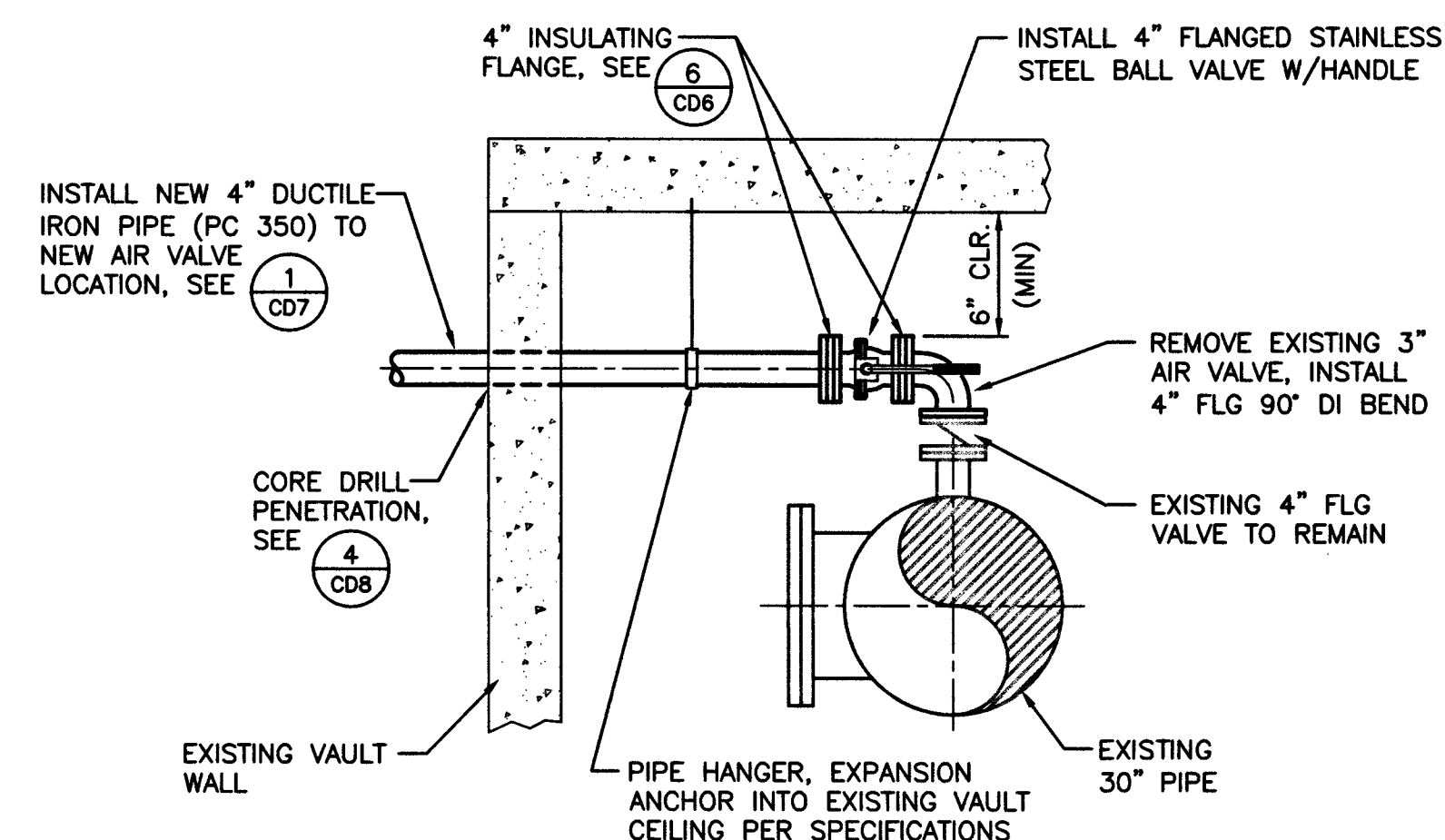
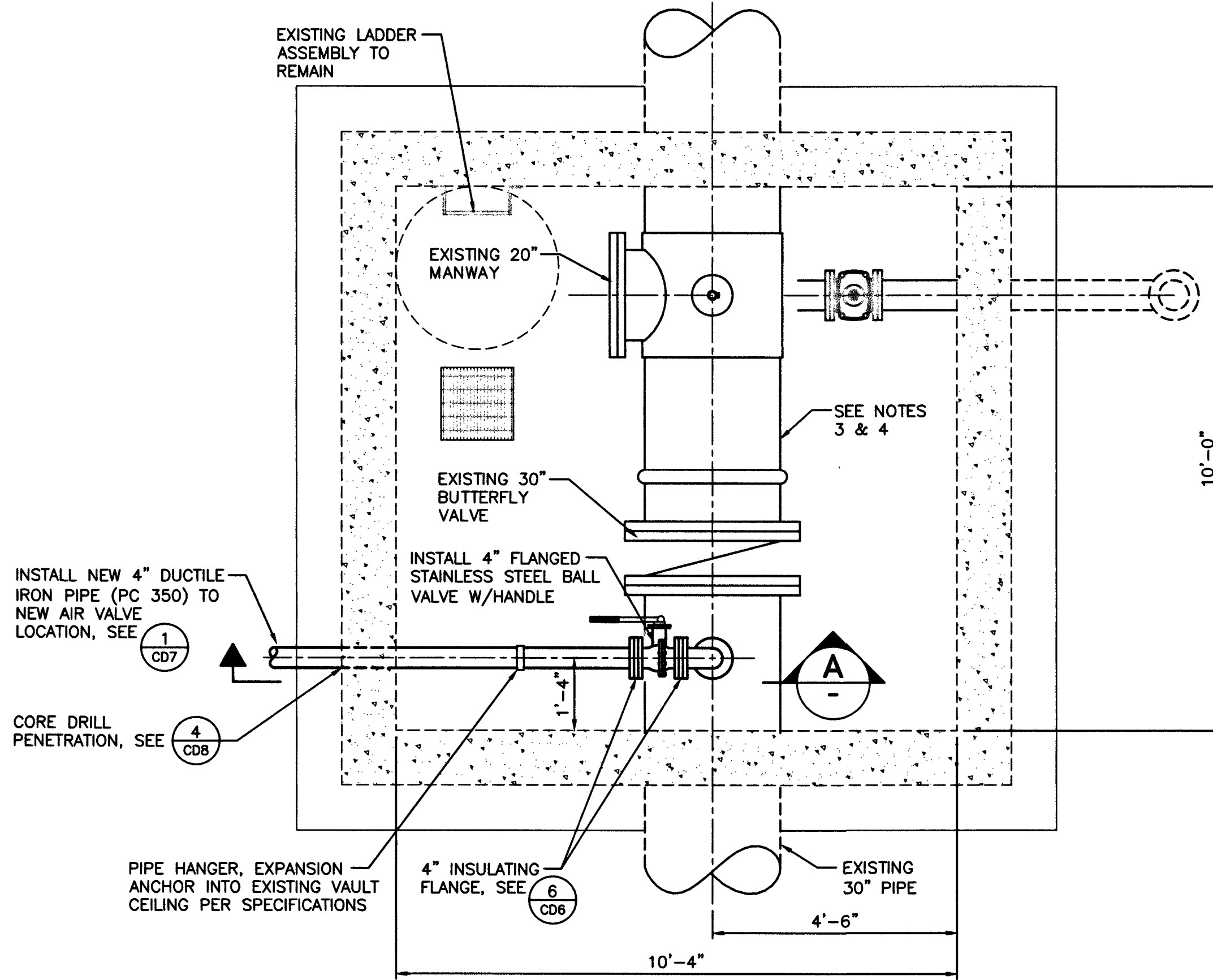


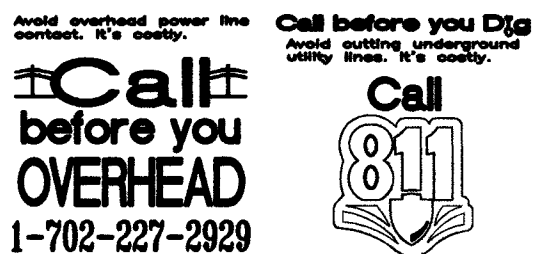


AIR VALVE LOCATION - DETAIL

SCALE: 1/2" = 1'-0"

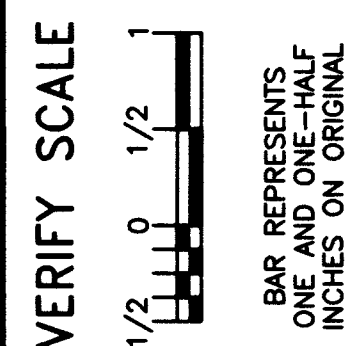


- INSTALLATION NOTES:**
1. REMOVE AND DISPOSE OF EXISTING PIPING/EQUIPMENT AS INDICATED.
 2. CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACING ANY AND ALL DAMAGED OR DISTURBED EXISTING LANDSCAPING AND IRRIGATION FACILITIES, IN AND ADJACENT TO PROJECT SITE, DURING CONSTRUCTION OPERATIONS.
 3. PRIOR TO ABRASIVE BLASTING, CONTRACTOR SHALL RETRIEVE A SAMPLE OF EXISTING PAINT AND HAVE SAMPLE TESTED BY A CERTIFIED LAB TO DETERMINE PRESENCE OF LEAD BASED PAINT. DISTRICT WILL PAY FOR ABATEMENT IF TEST IS POSITIVE.
 4. ABRASIVE BLAST AND RE-COAT ALL EXISTING EXPOSED FERROUS METAL PIPE AND FITTINGS IN VAULT PER SPEC SEC. 09 96 00. NEW PIPING TO BE COATED PER SPEC SEC. 09 96 00.
 5. REMOVE AND REPLACE EXISTING SIDEWALK AND CURB TO NEAREST WEAKENED PLANE JOINT AS REQUIRED.
 6. ALL AIR VALVE PIPING TO BE RESTRAINED (TYP).
 7. INSTALL 4"-45" DI BEND WITH CONCRETE THRUST BLOCK AND LOCATOR BALL.



11# 67687 565-503
CLV DWG #

LAS VEGAS VALLEY WATER DISTRICT
1001 S. VALLEY VIEW BOULEVARD
LAS VEGAS, NEVADA 89153
(702) 878-3111

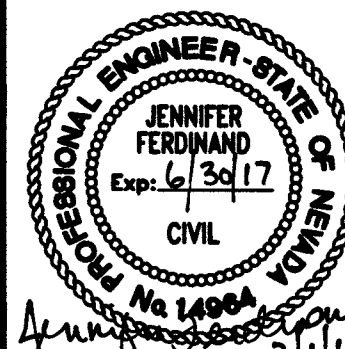


MISCELLANEOUS VAULTS, RECONSTRUCTION AND REPAIR, PHASE XX

VAULT #834488 - 1607 SOUTH CIMARRON ROAD

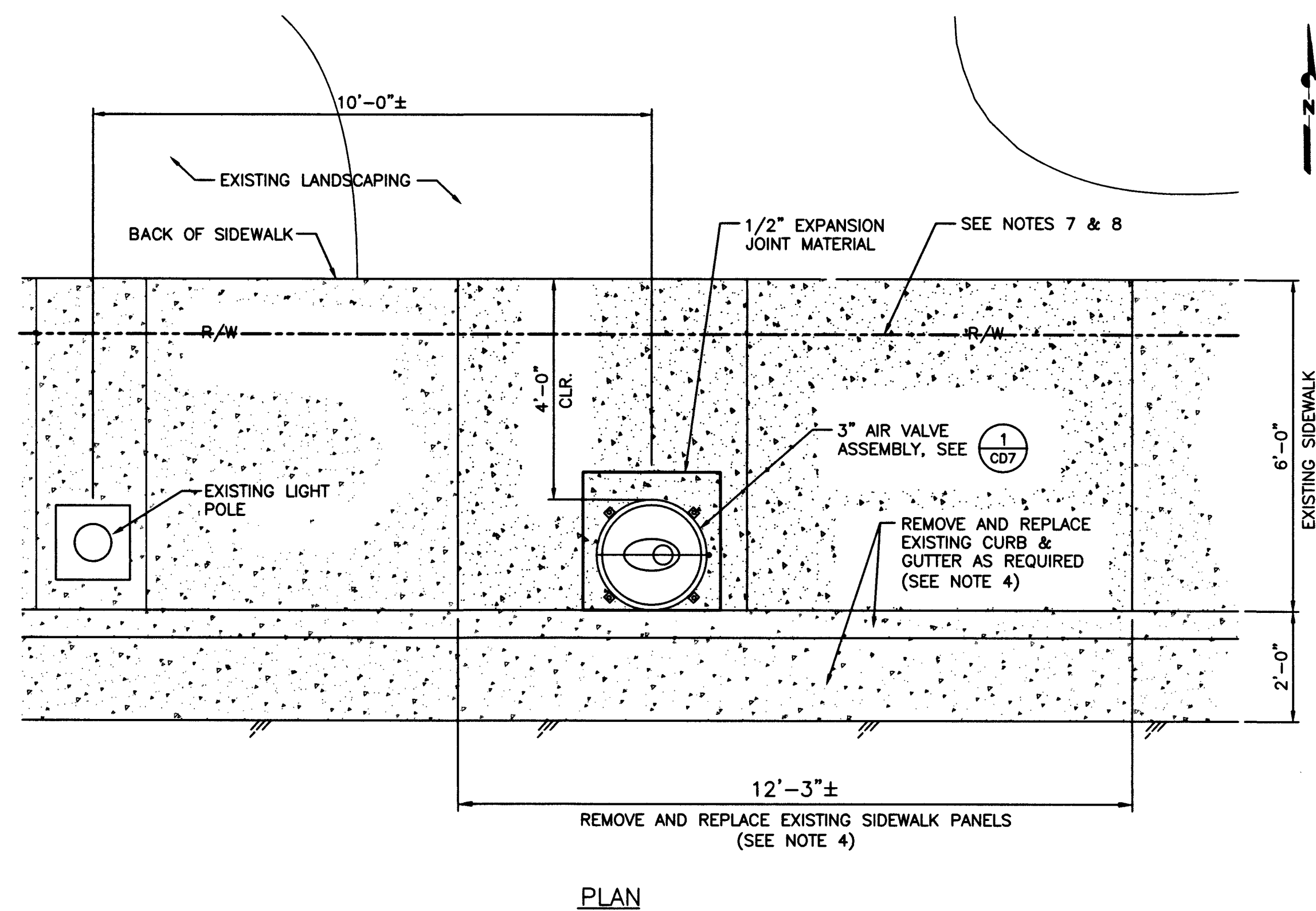
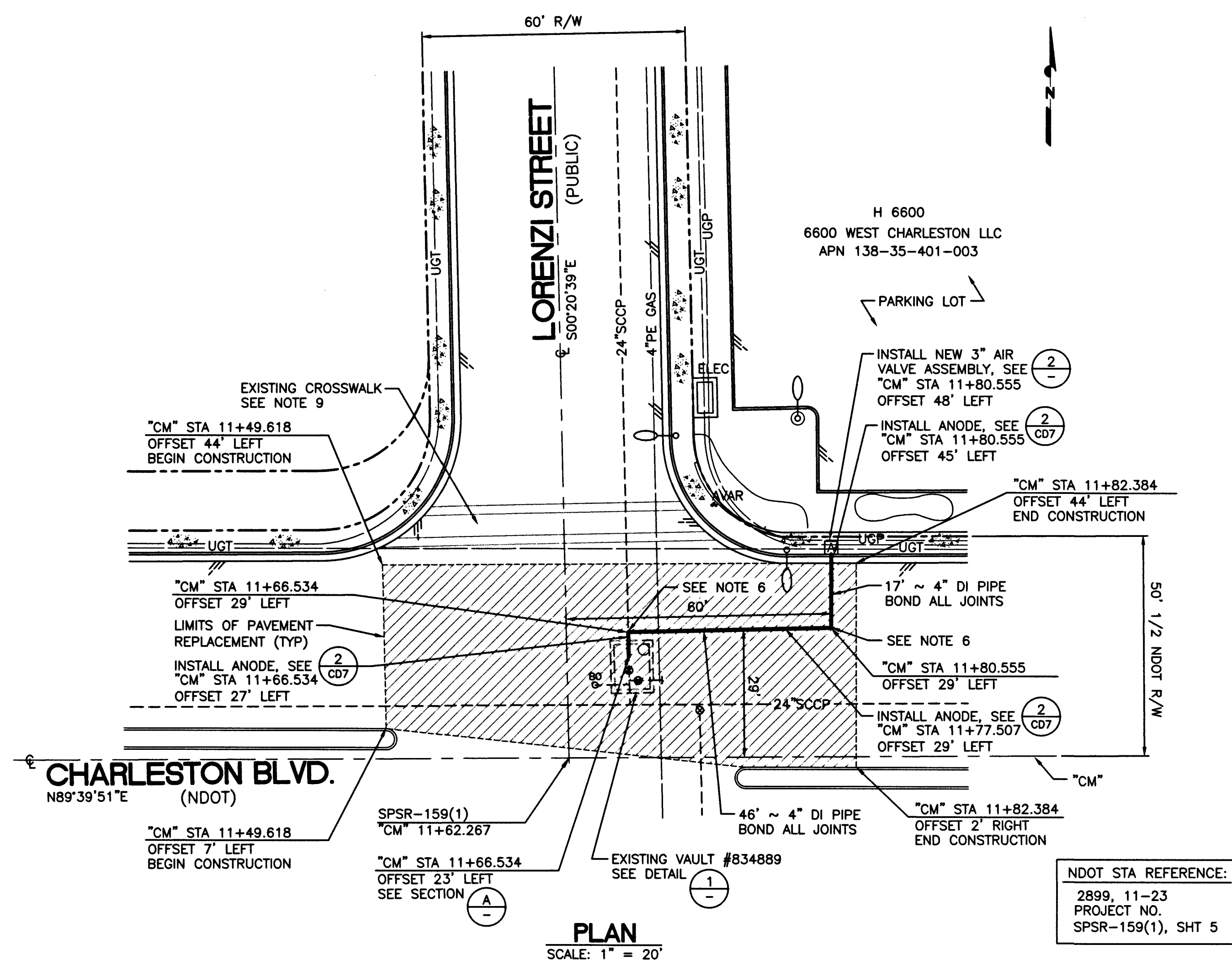
DRAWN BY: CHRISTOPHER BLANK
CHECKED BY: JENNIFER FERDINAND
RECOMMENDED BY: CHRISTOPHER M. LUQUETTE
ACCEPTED BY: RYAN C. PEARSON

DATE: 9/08/2015
DATE: 9/10/2015
DATE: _____
DATE: _____



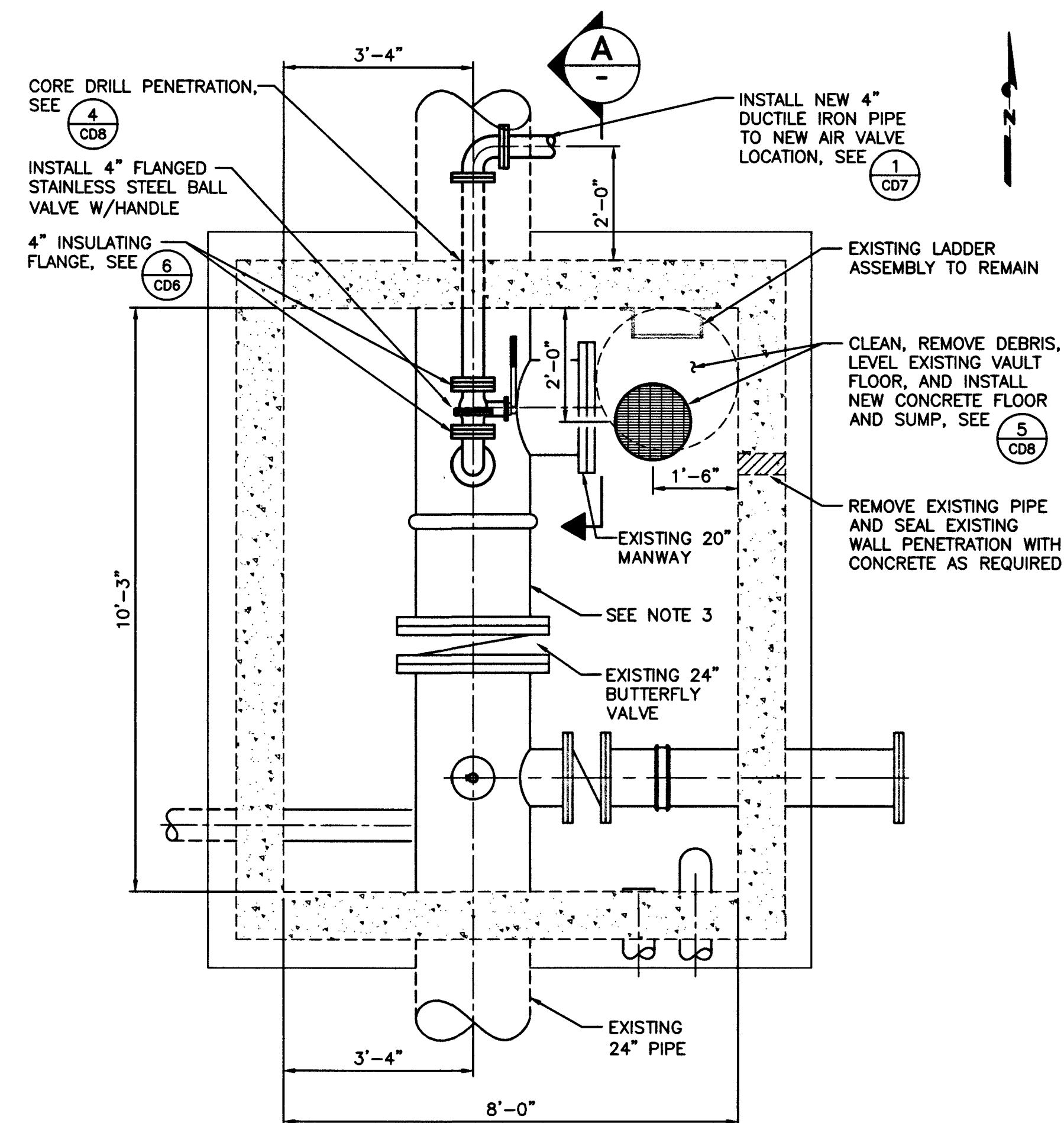
CONTRACT NUMBER
C1435
DRAWING NUMBER C13
SHEET 18 OF 31

REVISIONS:

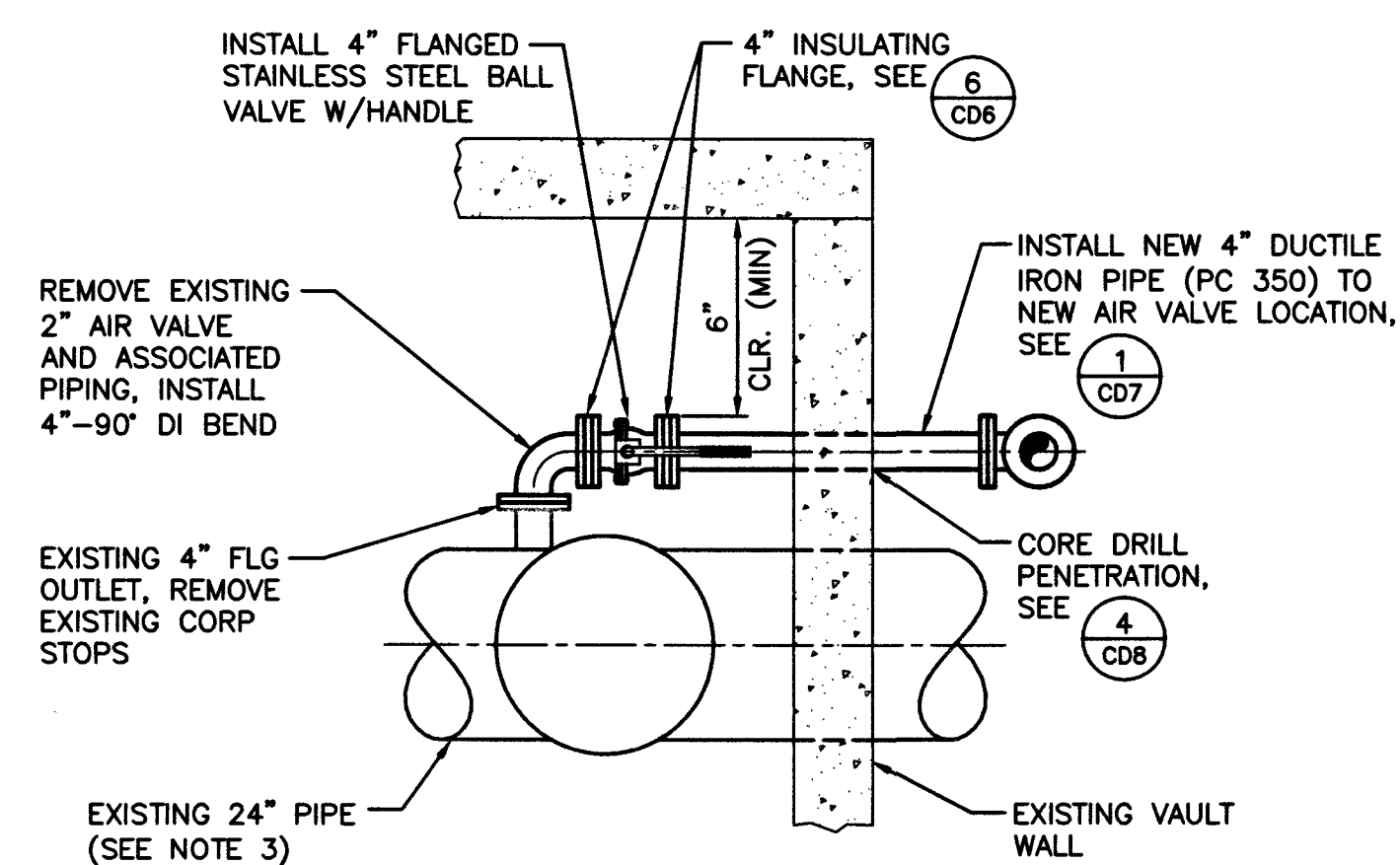


AIR VALVE LOCATION - DETAIL

SCALE: $1/2" = 1'-0"$

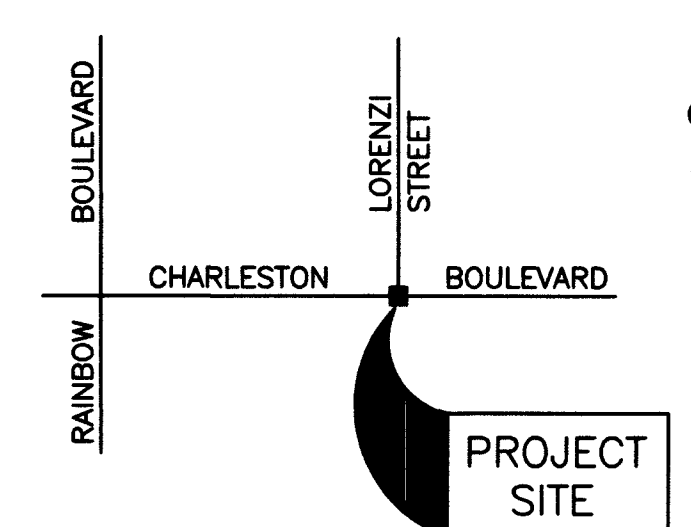
**VAULT #834889 - PLAN**

SCALE: 1/2" = 1'-0"



SECTION

SCALE: 1/2" = 1'-0"



VICINITY MAP
NOT TO SCALE

CITY OF LAS VEGAS

NDOT

NOTE:
NDOT PERMIT REQUIRED FOR ALL WORK
WITHIN NDOT R/W
SEE SPEC SECTION 01 41 26 FOR
NDOT PERMIT NO. 205591-2016

- INSTALLATION NOTES:

1. REMOVE AND DISPOSE OF EXISTING PIPING/EQUIPMENT AS INDICATED.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACING ANY AND ALL DAMAGED OR DISTURBED EXISTING LANDSCAPING AND IRRIGATION FACILITIES, IN AND ADJACENT TO PROJECT SITE, DURING CONSTRUCTION OPERATIONS.
3. EXISTING PIPE RECENTLY COATED. NEW PIPING TO BE COATED PER SPEC SEC. 09 96 00.
4. REMOVE AND REPLACE EXISTING SIDEWALK AND CURB TO NEAREST WEAKENED PLANE JOINT AS REQUIRED.
5. ALL AIR VALVE PIPING TO BE RESTRAINED (TYP).
6. INSTALL 4"-90" DI BEND WITH CONCRETE THRUST BLOCK AND LOCATOR BALL.
7. CONTRACTOR TO HAVE NEVADA LICENSED PROFESSIONAL LAND SURVEYOR LOCATE RIGHT-OF-WAY PRIOR TO CONSTRUCTION.
8. ALL WORK TO BE PERFORMED IN DEDICATED RIGHT-OF-WAY.
9. REPLACE EXISTING CROSSWALK STRIPING AS NECESSARY.

**MISCELLANEOUS VAULTS, RECONSTRUCTION
AND REPAIR, PHASE XX**

VAULT #834889 - 1097 LORENZI STREET

DRAWN BY: _____
CHECKED BY: _____
DATE: _____

CHRISTOPHER BLANK	9/08/2015
CHECKED BY:	
JENNIFER FERDINAND	9/10/2015

RECOMMENDED BY: _____

CHRISTOPHER M. LUQUETTE DATE

DRAWN BY: _____
CHECKED BY: _____
DATE: _____

CHRISTOPHER BLANK	9/08/2015
CHECKED BY:	
JENNIFER FERDINAND	9/10/2015

RECOMMENDED BY: _____

CHRISTOPHER M. LUQUETTE DATE

Professional Engineer - State of Nevada
 JENNIFER FERDINAND
 Exp. 6/30/17
 CIVIL
 No. 14084
 Jennifer Ferdinand
 2/1/17

CONTRACT NUMBER

C1435

DRAWING NUMBER C14
SHEET 19 OF 31

REVISIONS:

Avoid overhead power line contact. It's costly.

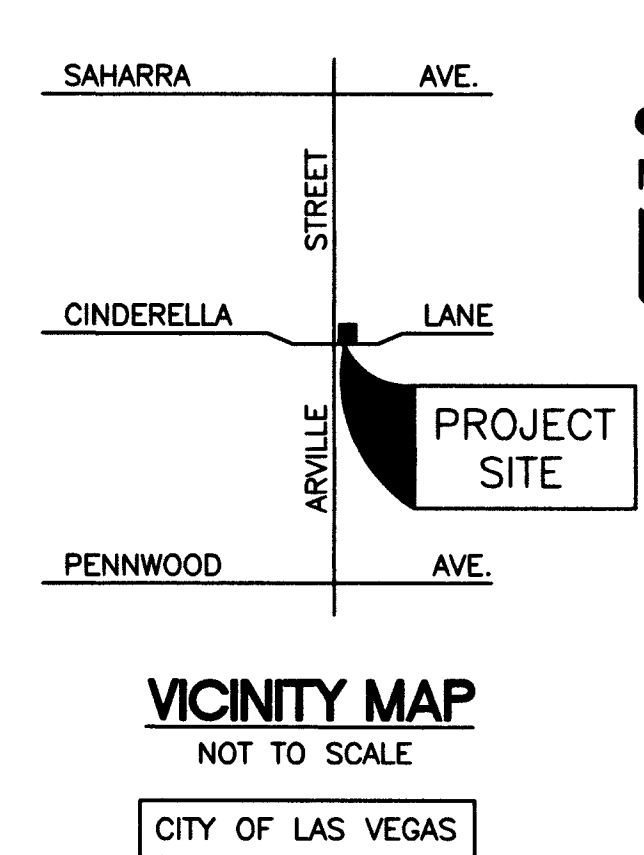
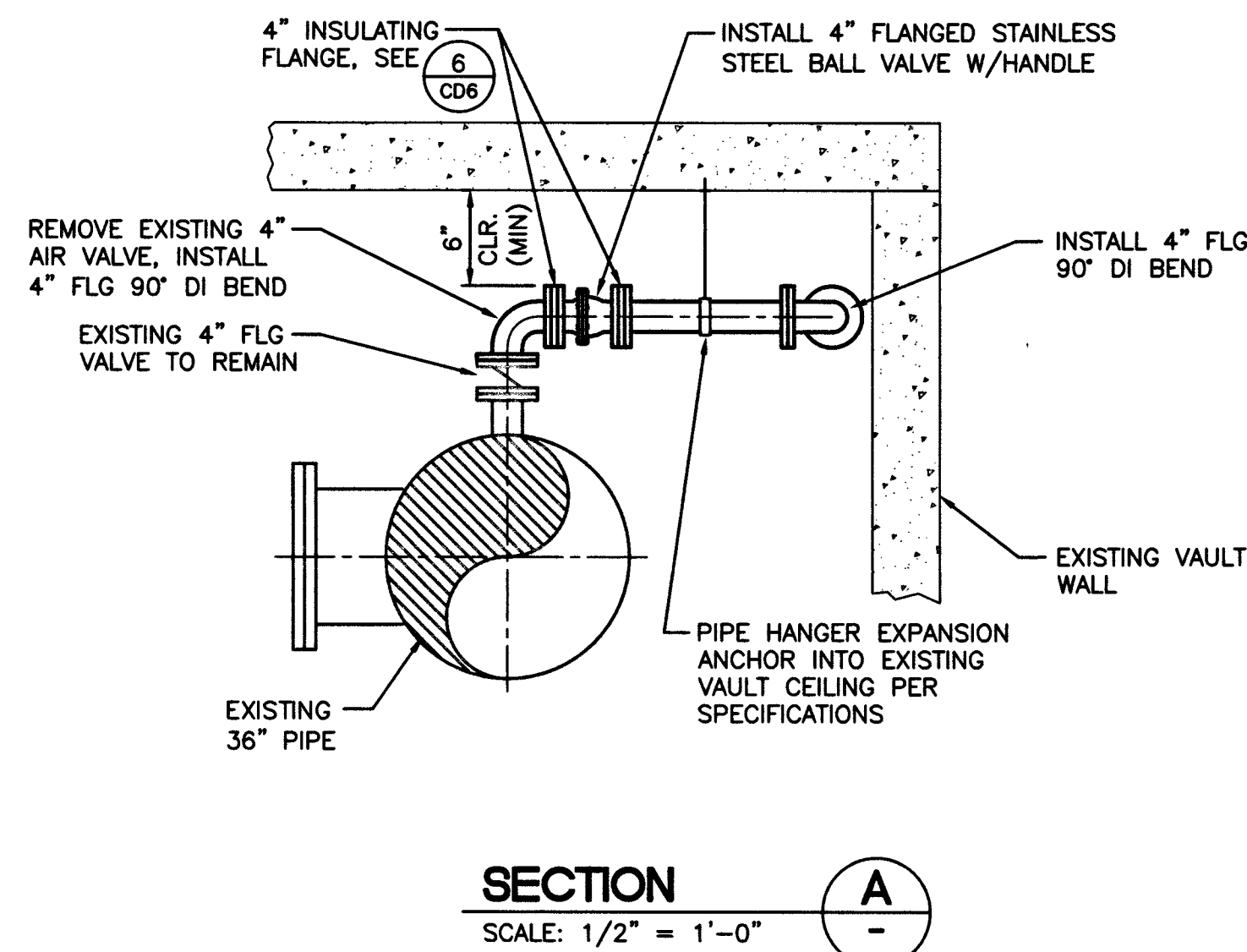
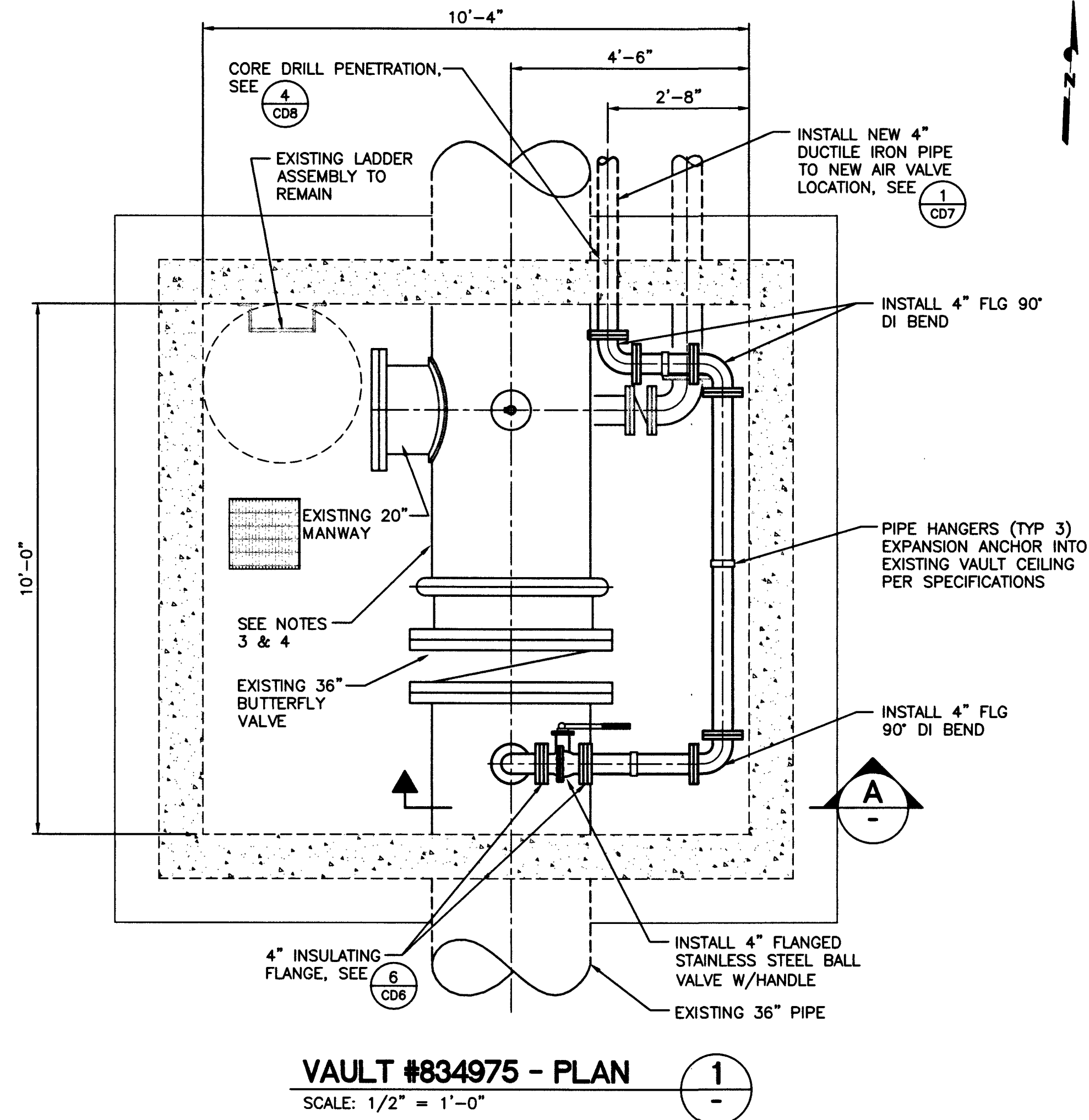
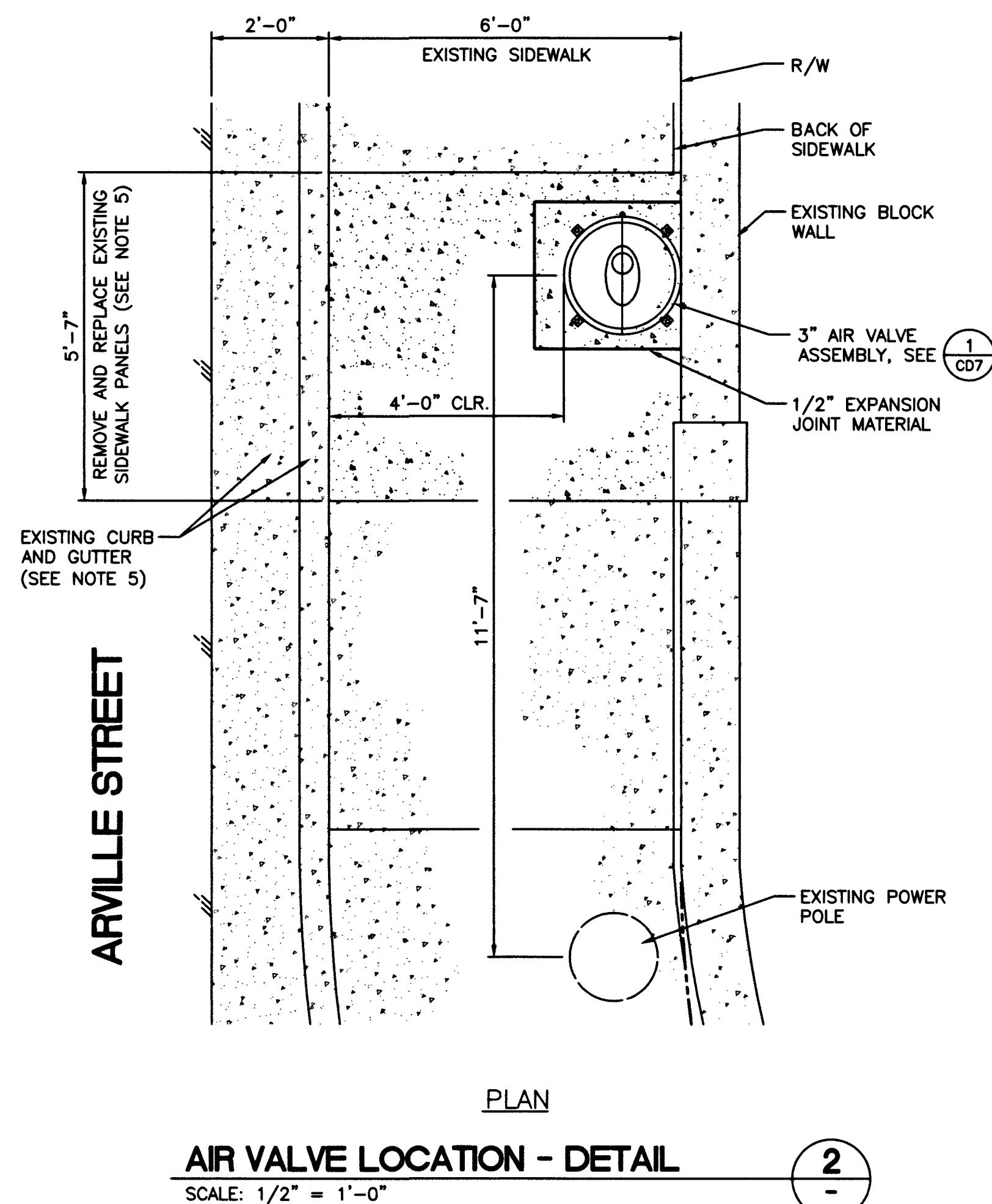
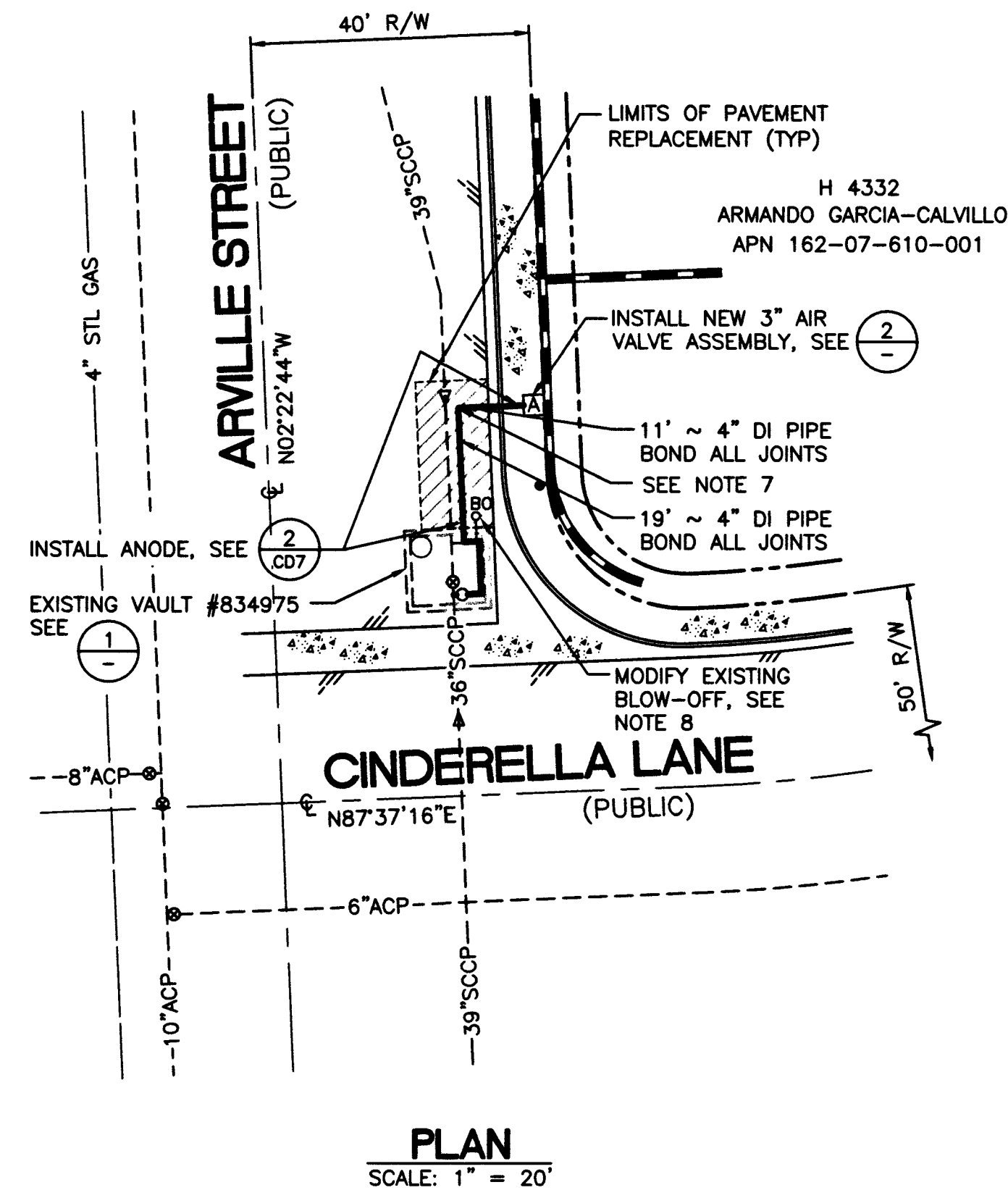
Call
before you
OVERHEAD
1-702-227-2929

Call before you Dig
Avoid cutting underground utility lines. It's costly.

Call
811

A logo for the 'Call 811' campaign. It features the word 'Call' in a bold, sans-serif font above the large number '811'. Below the number is a stylized graphic of a shovel with its handle and blade, integrated into the design of the digits.

1467687
CLV DWG # 565-503

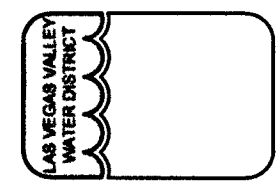


- INSTALLATION NOTES:**
1. REMOVE AND DISPOSE OF EXISTING PIPING/EQUIPMENT AS INDICATED.
 2. CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACING ANY AND ALL DAMAGED OR DISTURBED EXISTING LANDSCAPING AND IRRIGATION FACILITIES, IN AND ADJACENT TO PROJECT SITE, DURING CONSTRUCTION OPERATIONS.
 3. PRIOR TO ABRASIVE BLASTING, CONTRACTOR SHALL RETRIEVE A SAMPLE OF EXISTING PAINT AND HAVE SAMPLE TESTED BY A CERTIFIED LAB TO DETERMINE PRESENCE OF LEAD BASED PAINT. DISTRICT WILL PAY FOR ABATEMENT IF TEST IS POSITIVE.
 4. ABRASIVE BLAST AND RE-COAT ALL EXISTING EXPOSED FERROUS METAL PIPE AND FITTINGS IN VAULT PER SPEC SEC. 09 96 00. NEW PIPING TO BE COATED PER SPEC SEC. 09 96 00.
 5. REMOVE AND REPLACE EXISTING SIDEWALK AND CURB TO NEAREST WEAKENED PLANE JOINT AS REQUIRED.
 6. ALL AIR VALVE PIPING TO BE RESTRAINED (TYP).
 7. INSTALL 4"-90° DI BEND WITH CONCRETE THRUST BLOCK AND LOCATOR BALL.
 8. REMOVE TOP 2' OF EXISTING BLOW OFF PIPING AND ASSOCIATED COLLAR, BOXES, AND LIDS. RECONSTRUCT PER UDACS PLATE NO. 37.



H# 67607
CLV DWG # 565-503

LAS VEGAS VALLEY WATER DISTRICT
1001 S. VALLEY VIEW BOULEVARD
LAS VEGAS, NEVADA 89153
(702) 876-3911

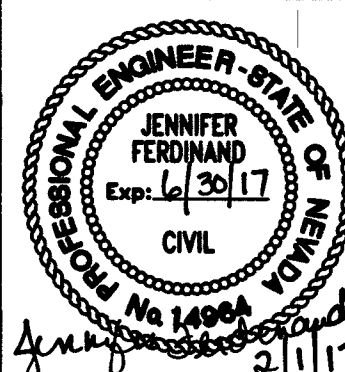


VERIFY SCALE
1/2" = 0' 1/2"
BARS REPRESENTS ONE AND ONE-HALF INCHES ON ORIGINAL

MISCELLANEOUS VAULTS, RECONSTRUCTION AND REPAIR, PHASE XX

VAULT #834975 - 2729 ARVILLE STREET

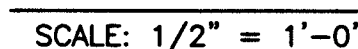
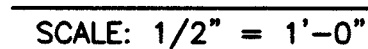
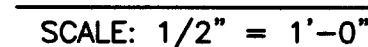
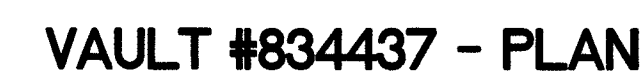
DRAWN BY: JENNIFER BLANK
CHECKED BY: JENNIFER FERDINAND
RECOMMENDED BY: CHRISTOPHER M. LUQUETTE
ACCEPTED BY: RYAN C. PEARSON
DATE: 9/08/2015
DATE: 9/10/2015
DATE: _____
DATE: _____



CONTRACT NUMBER

C1435
DRAWING NUMBER C15
SHEET 20 OF 31

REVISIONS:



- INSTALLATION NOTES:**

1. REMOVE AND DISPOSE OF EXISTING PIPING/EQUIPMENT AS INDICATED.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACING ANY AND ALL DAMAGED OR DISTURBED EXISTING LANDSCAPING AND IRRIGATION FACILITIES, IN AND ADJACENT TO PROJECT SITE, DURING CONSTRUCTION OPERATIONS.
3. PIPE RECENTLY RECOATED. DO NOT PAINT EXISTING PIPING. PROTECT IN PLACE
4. REMOVE AND REPLACE EXISTING SIDEWALK AND CURB TO NEAREST WEAKENED PLANE JOINT AS REQUIRED.
5. ALL AIR VALVE PIPING TO BE RESTRAINED (TYP).
6. REPLACE EXISTING CROSSWALK STRIPING AS NECESSARY.
7. INSTALL 4"-90° DI BEND WITH CONCRETE THRUST BLOCK AND LOCATOR BALL.
8. CONTRACTOR TO HAVE NEVADA LICENSED PROFESSIONAL LAND SURVEYOR LOCATE LVWWD EASEMENT PRIOR TO CONSTRUCTION.
9. SEE SPEC SECTION 01 14 23 FOR LEGAL DESCRIPTION OF LVWWD EASEMENT.
10. REMOVE TOP 2' OF EXISTING BLOW OFF PIPING AND ASSOCIATED COLLAR, BOXES, AND LIDS. RECONSTRUCT PER UDACS PLATE NO. 37.
11. INSTALL 4"-45° DI BEND WITH CONCRETE THRUST BLOCK AND LOCATOR BALL.



H# 67687
CLV DWG # 565-503

REVISIONS:

CONTRACT NUMBER
C1435
DRAWING NUMBER C16
SHEET 21 OF 31

DRAWING NUMBER C16
SHEET 21 OF 31

**MISCELLANEOUS VAULTS, RECONSTRUCTION
AND REPAIR, PHASE XX**

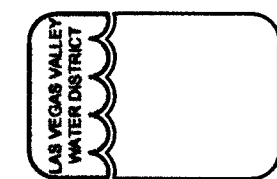
VAULT #834437 - 302 MARION DRIVE

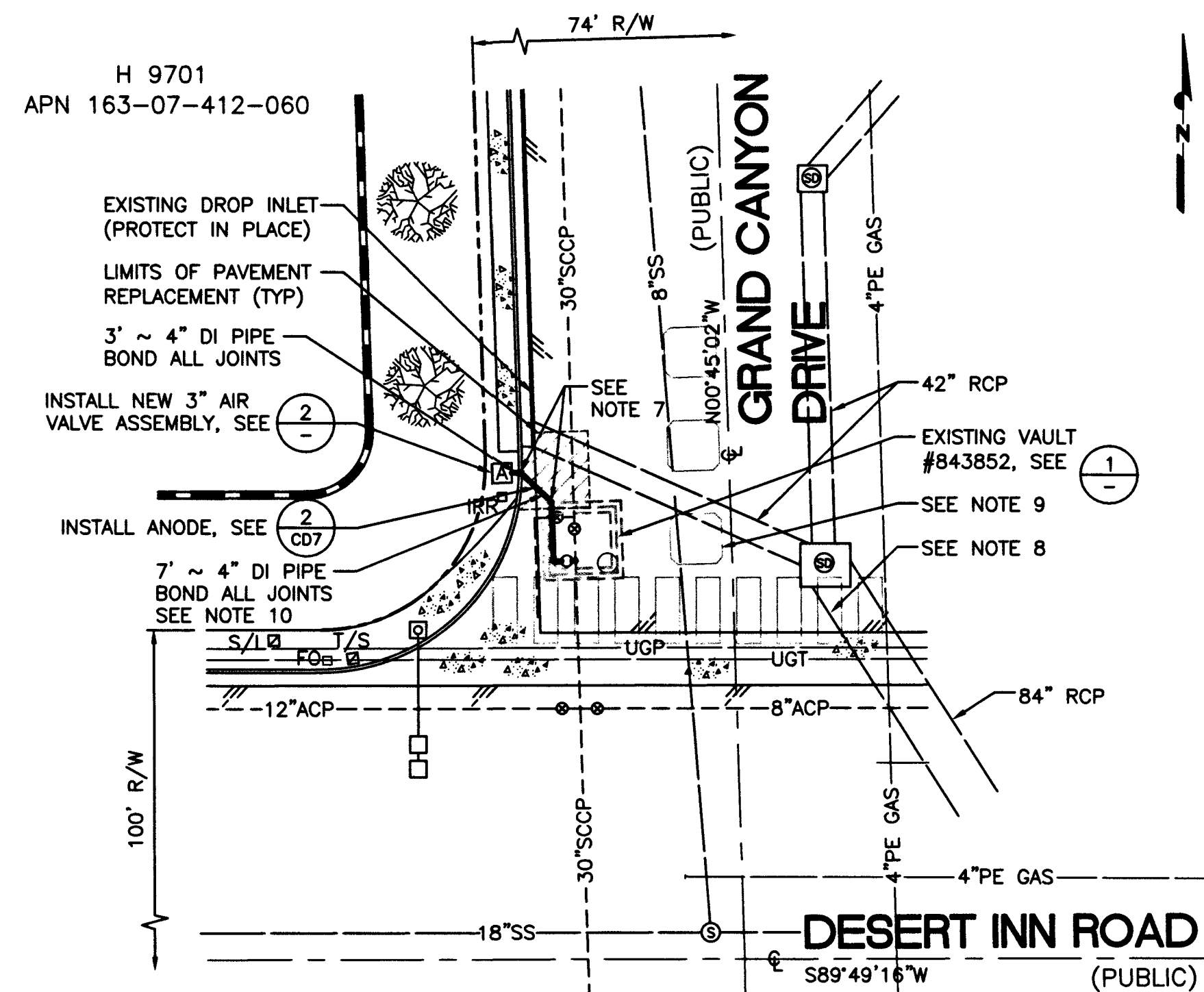
SCALE

VERIFY SCALE

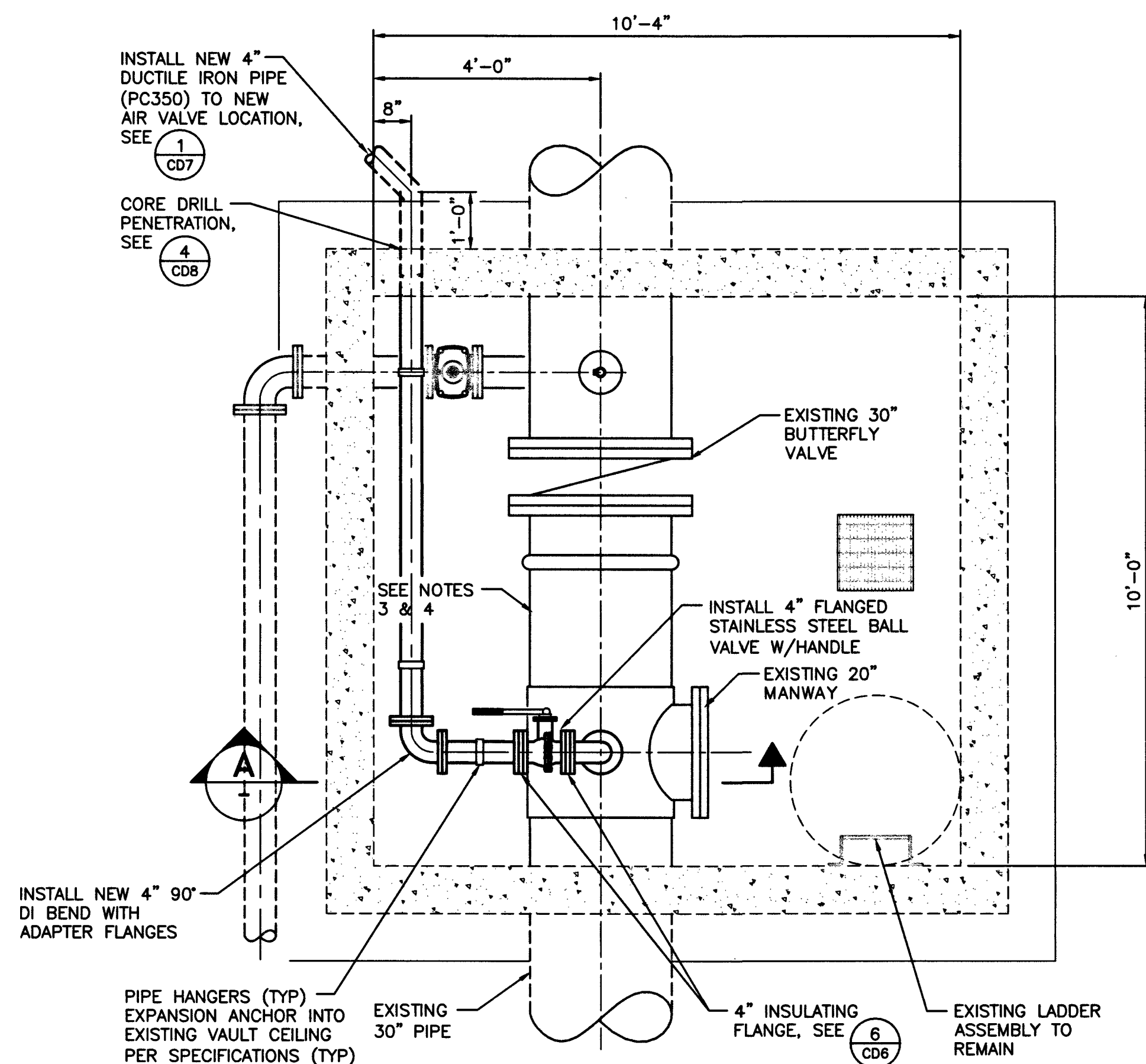
BAR REPRESENTS ONE AND ONE-HALF INCHES ON ORIGINAL

**LAS VEGAS VALLEY
WATER DISTRICT**
**1001 S. VALLEY VIEW BOULEVARD
LAS VEGAS, NEVADA 89153**
(702) 878-2811

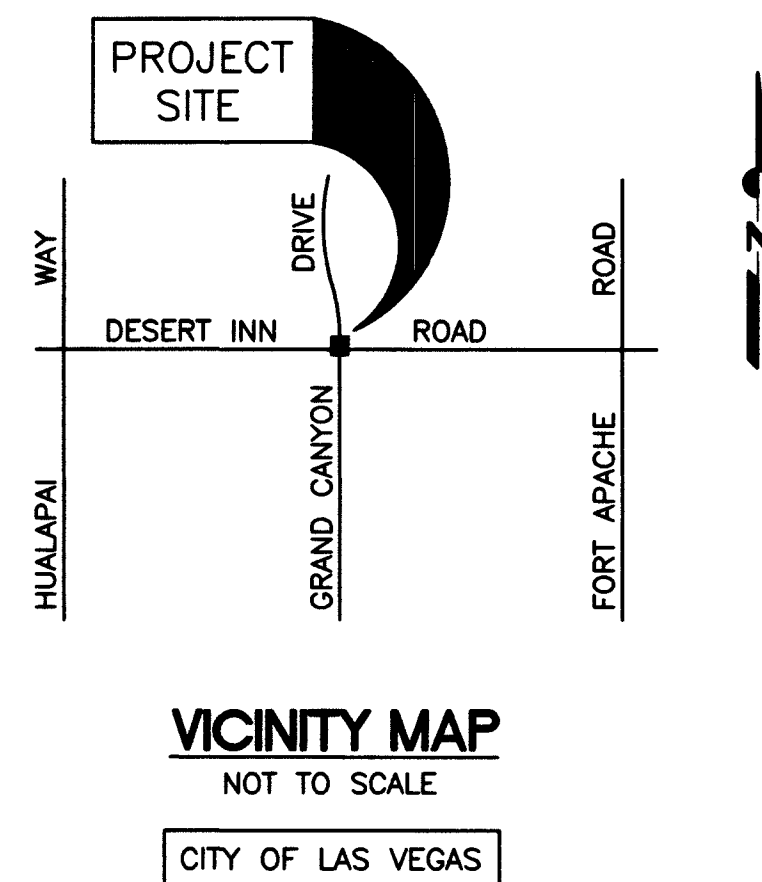




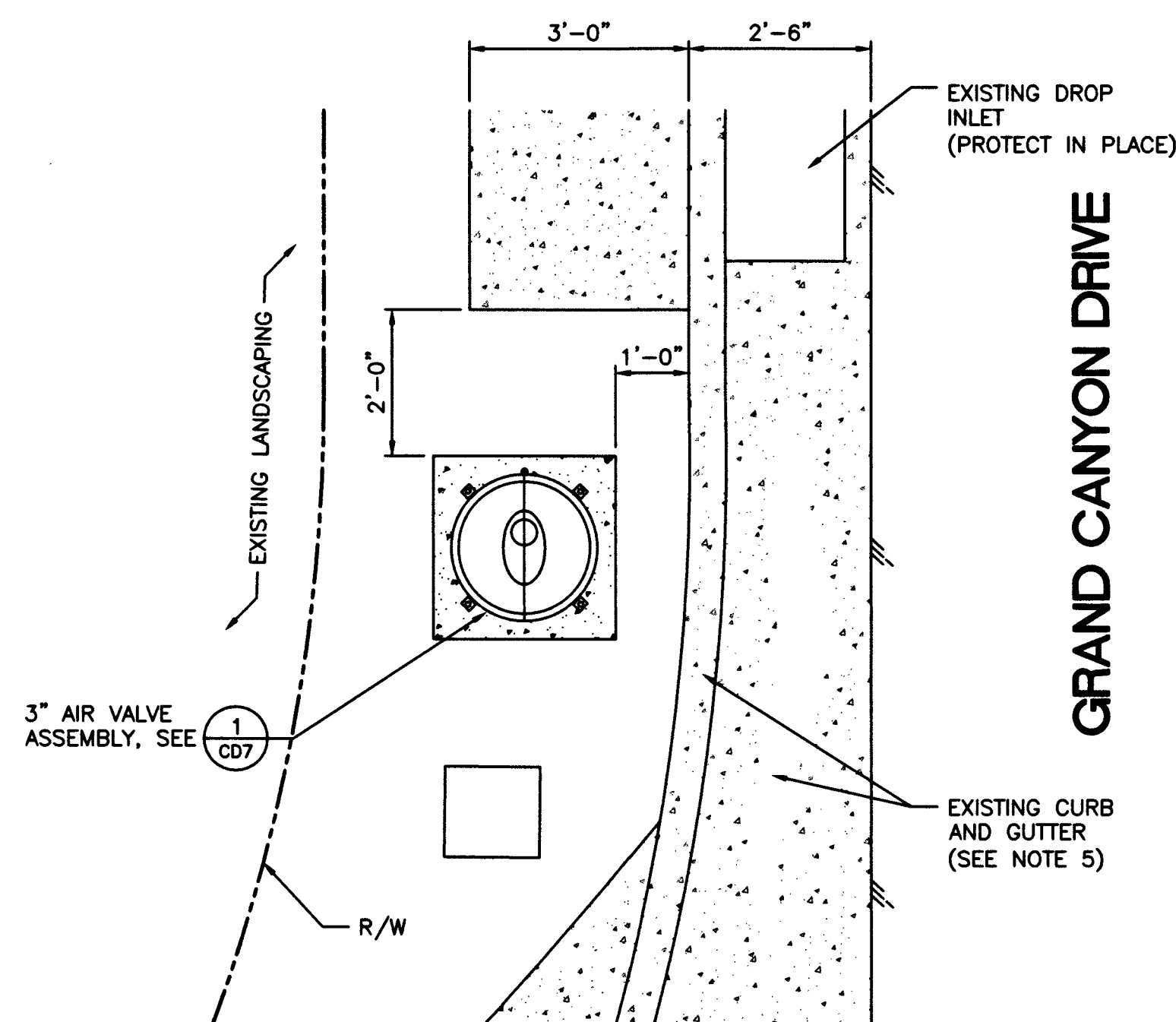
PLAN
SCALE: 1" = 20'



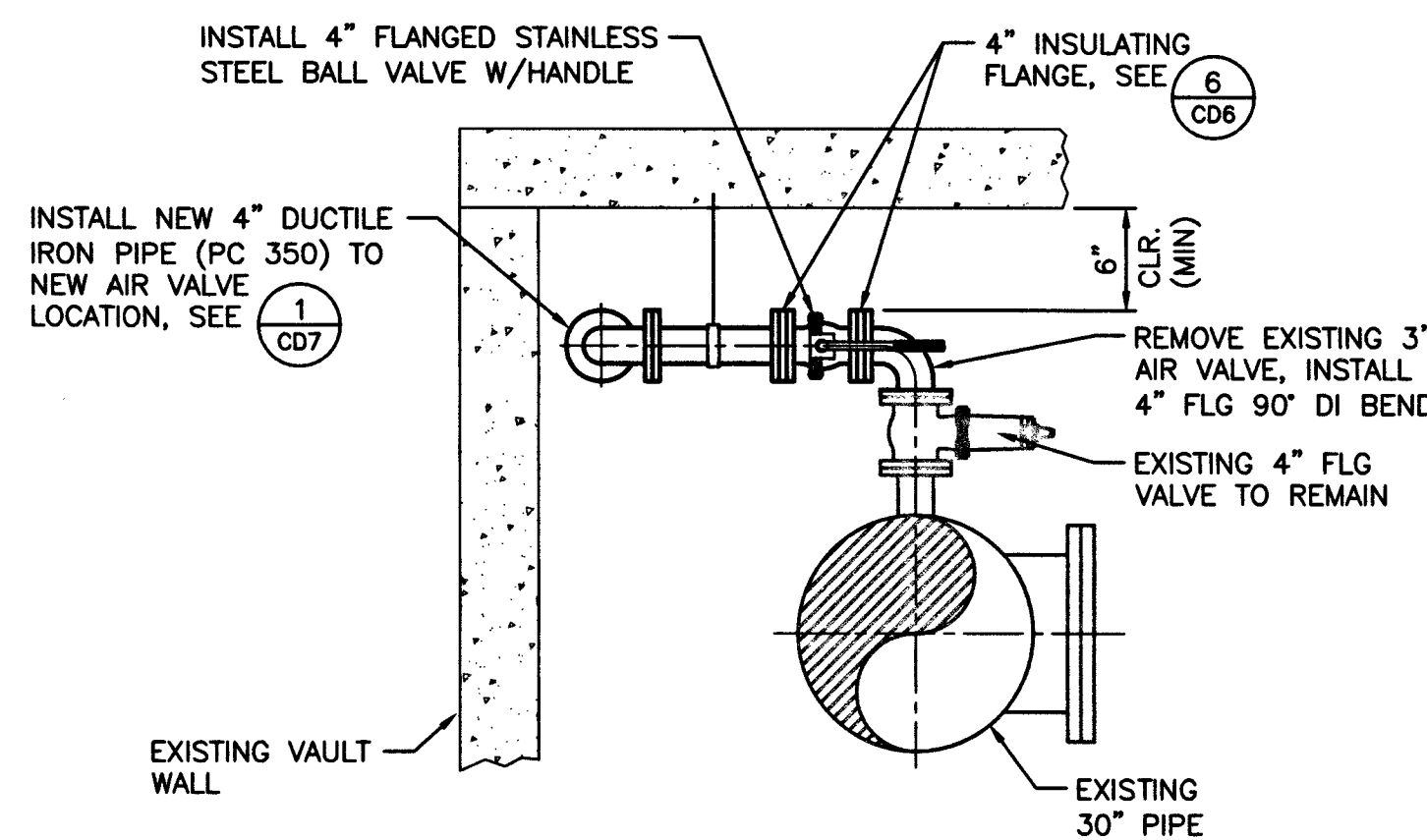
VAULT #834852 - PLAN
SCALE: 1/2" = 1'-0"



VICINITY MAP
NOT TO SCALE
CITY OF LAS VEGAS



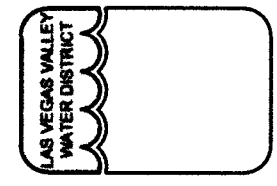
AIR VALVE LOCATION - DETAIL
SCALE: 1/2" = 1'-0"



SECTION A-A
SCALE: 1/2" = 1'-0"

- INSTALLATION NOTES:**
1. REMOVE AND DISPOSE OF EXISTING PIPING/EQUIPMENT AS INDICATED.
 2. CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACING ANY AND ALL DAMAGED OR DISTURBED EXISTING LANDSCAPING AND IRRIGATION FACILITIES, IN AND ADJACENT TO PROJECT SITE, DURING CONSTRUCTION OPERATIONS.
 3. PRIOR TO ABRASIVE BLASTING, CONTRACTOR SHALL RETRIEVE A SAMPLE OF EXISTING PAINT, AND HAVE SAMPLE TESTED BY A CERTIFIED LAB TO DETERMINE PRESENCE OF LEAD BASED PAINT. DISTRICT WILL PAY FOR ABATEMENT IF TEST IS POSITIVE.
 4. ABRASIVE BLAST AND RE-COAT ALL EXISTING EXPOSED FERROUS METAL PIPE AND FITTINGS IN VAULT PER SPEC. SEC. 09 96 00. NEW PIPING TO BE COATED PER SPEC. SEC. 09 96 00.
 5. REMOVE AND REPLACE EXISTING SIDEWALK AND CURB TO NEAREST WEAKENED PLANE JOINT AS REQUIRED.
 6. ALL AIR VALVE PIPING TO BE RESTRAINED (TYP).
 7. INSTALL 4"-45" DI BEND WITH CONCRETE THRUST BLOCK AND LOCATOR BALL.
 8. REPLACE EXISTING CROSSWALK STRIPING AS NECESSARY.
 9. REPLACE EXISTING LOOP DETECTORS DAMAGED BY CONSTRUCTION ACTIVITIES.
 10. USE CLSM IN PIPE TRENCH.

**LAS VEGAS VALLEY
WATER DISTRICT**
1001 S. VALLEY VIEW BOULEVARD
LAS VEGAS, NEVADA 89153
(702) 878-3911

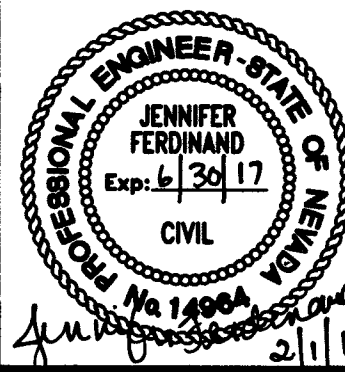


VERIFY SCALE
1/2" 0 1/2"
BAR REPRESENTS
ONE AND ONE-HALF
INCHES ON ORIGINAL

**MISCELLANEOUS VAULTS, RECONSTRUCTION
AND REPAIR, PHASE XX**

**VAULT #834852 - 3337 SOUTH
GRAND CANYON DRIVE**

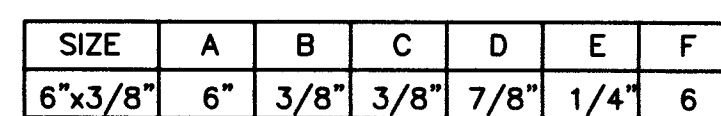
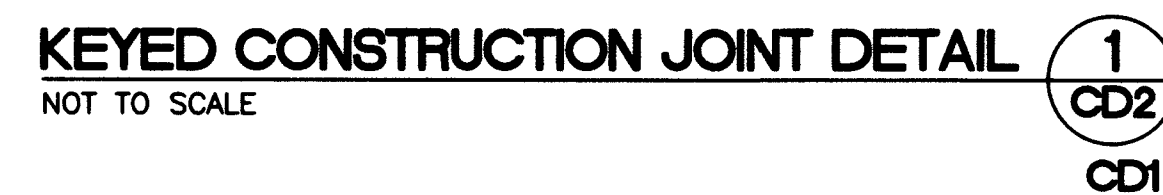
DRAWN BY: CHRISTOPHER BLANK
CHECKED BY: JENNIFER FERDINAND
RECOMMENDED BY: CHRISTOPHER M. LUQUETTE
ACCEPTED BY: RYAN C. PEARSON
DATE: 9/08/2015
DATE: 9/10/2015
DATE: _____
DATE: _____



CONTRACT NUMBER
C1435
DRAWING NUMBER C17
SHEET 22 OF 31

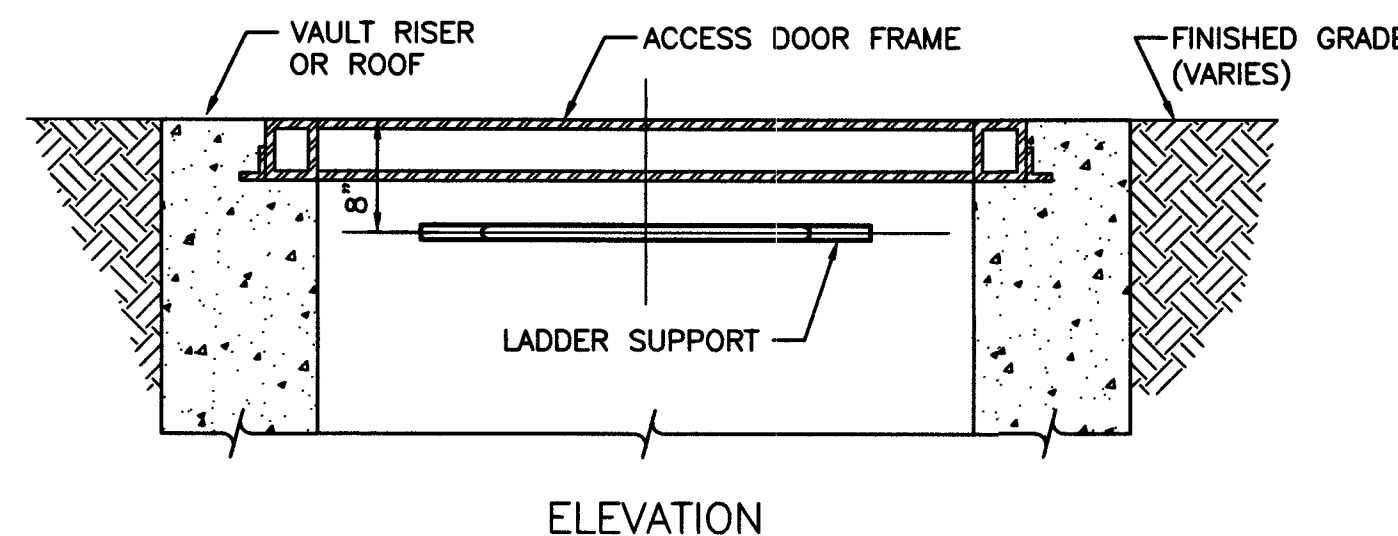
Call before you Dig
1-800-4-A-HEAD
1-702-227-2929

467687
CLV DWG # 565-503

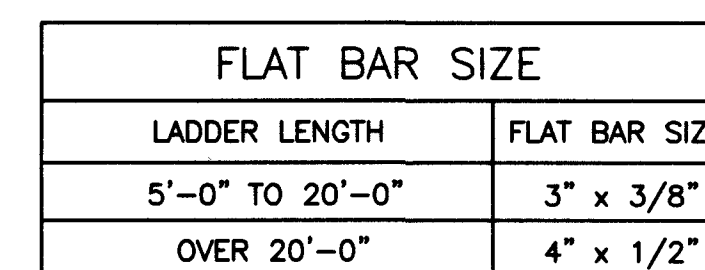
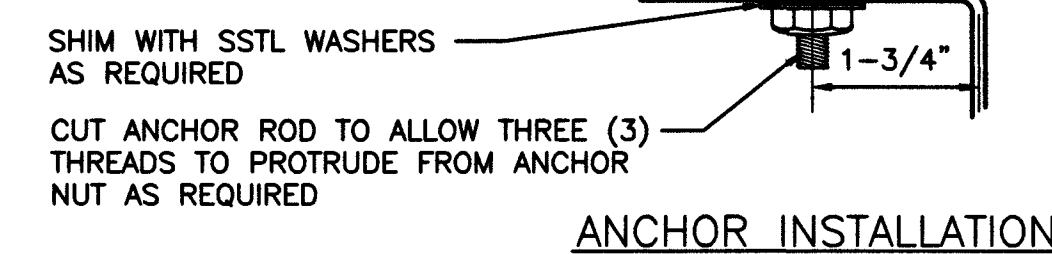


1. MATERIAL QUALITY PER SECTION 03 30 00 OF SPECIFICATIONS.
2. DIMENSION REQUIREMENTS INDICATED SHOULD BE GIVEN TO SUPPLIERS PRIOR TO PLACING ORDERS.
3. NON-ROUND CENTER BULBS SHALL HAVE A MIN OUTSIDE DIMENSION OF "D".

WATERSTOP DETAIL **2**
NOT TO SCALE -



LADDER SUPPORT DETAIL
NOT TO SCALE



1. ALL FIXED LADDERS (OVER 20 FEET IN LENGTH) SHALL BE INSTALLED WITH A FALL PROTECTION RAIL AS SHOWN ABOVE.
2. APPROVAL OF THE ENGINEER REQUIRED FOR ANY BRACKET SPACING OVER 5'-0" OC
3. LADDER SHALL BE MADE OF MILD CARBON STEEL WITH 3/4" DIA SMOOTH BAR RUNGS PLUG WELDED TO RUNNERS.
4. GALVANIZE LADDER ASSEMBLY AFTER WELDING.

LADDER INSTALLATION DETAILS
NOT TO SCALE

**Call before you
OVERHEAD**
1-702-227-2929

1167687
CLV DWG # 565-503

**LAS VEGAS VALLEY
WATER DISTRICT**
1001 S. VALLEY VIEW BOULEVARD
LAS VEGAS, NEVADA 89153
(702) 870-2011

LAS VEGAS VALLEY
WATER DISTRICT

VERIFY SCALE

BAR REPRESENTS
ONE AND ONE-HALF
INCHES ON ORIGINAL

SCALE

**MISCELLANEOUS VAULTS, RECONSTRUCTION
AND REPAIR, PHASE XX**

STANDARD DETAILS II

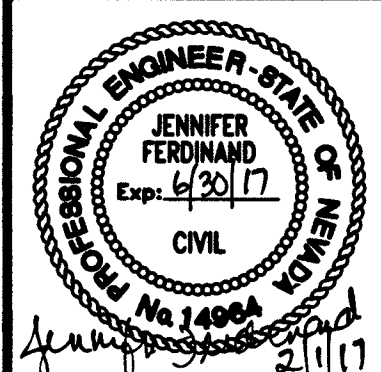
DRAWN BY: CHRISTOPHER BLANK
10/29/2015

CHECKED BY: JENNIFER FERDINAND 10/30/2015

CHRISTOPHER M. LUQUETTE DATE

RYAN C. PEARSON

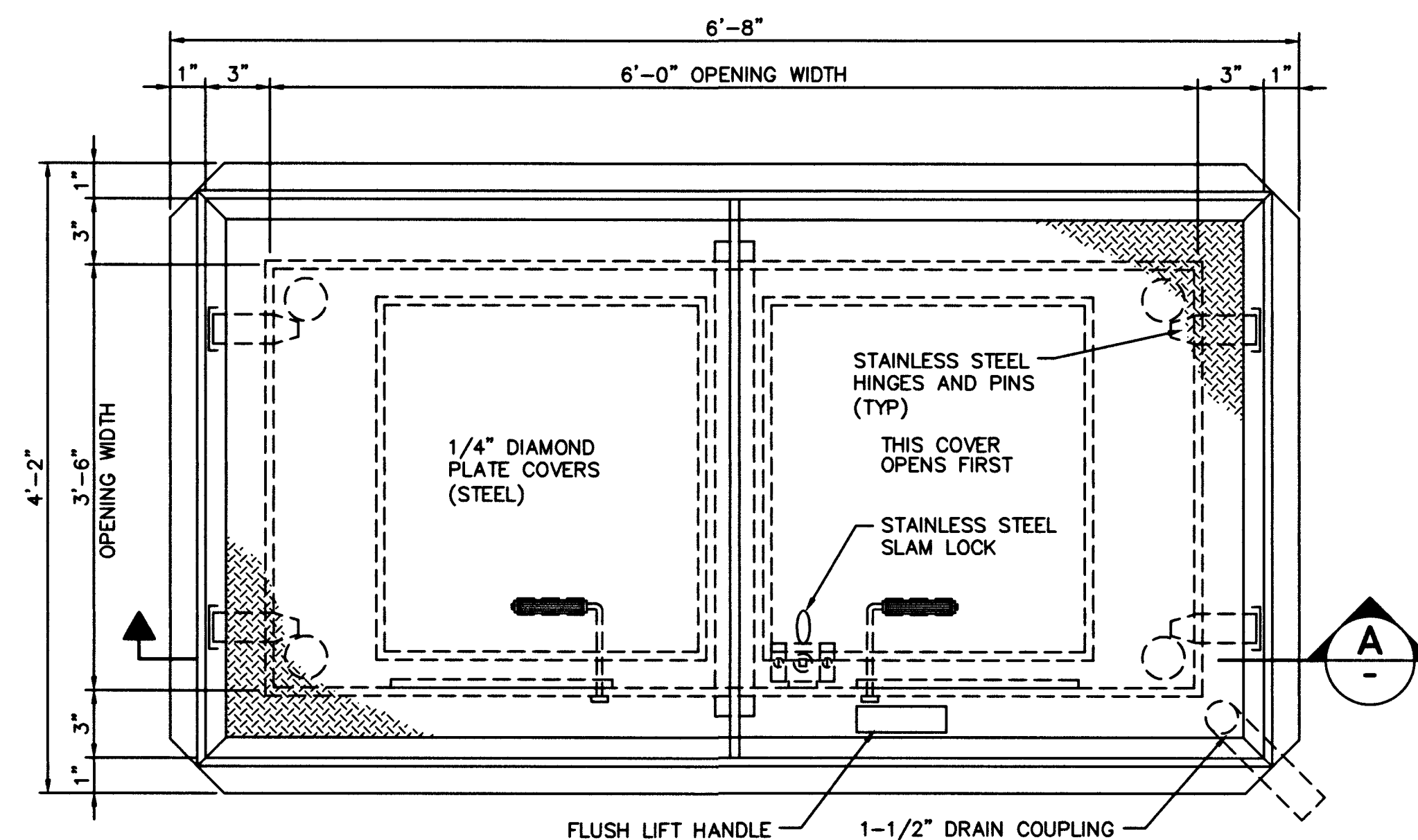
DATE



CONTRACT NUMBER

REVISIONS.

C1435
DRAWING NUMBER CD2
SHEET 24 OF 31



1
CD3

ACCESS HATCH SHALL NOT BE BOLTED DOWN

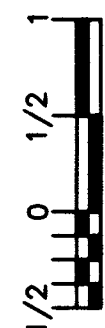


2
CD3

C1, C2, C3, C4, C5



LAS VEGAS VALLEY
WATER DISTRICT

VERIFY SCALE

BAR REPRESENTS
ONE AND ONE-HALF
INCHES ON ORIGINAL

MISCELLANEOUS VAULTS, RECONSTRUCTION
AND REPAIR, PHASE XX

STANDARD DETAILS III

SCALE

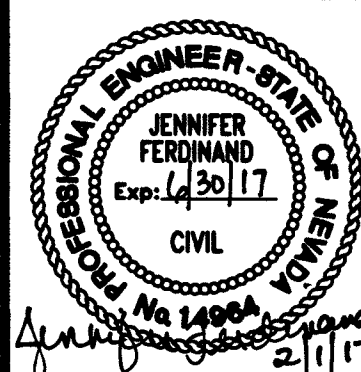
DRAWN BY: CHRISTOPHER BLANK
CHECKED BY: 10/29/2015

CHRISTOPHER BLANK	10/29/2015
CHECKED BY:	
JENNIFER FERDINAND	10/30/2015

RECOMMENDED BY: _____ 10/07/2010

CHRISTOPHER M. LUQUETTE _____ DATE _____

ACCEPTED BY: RYAN C. BEADSON DATE



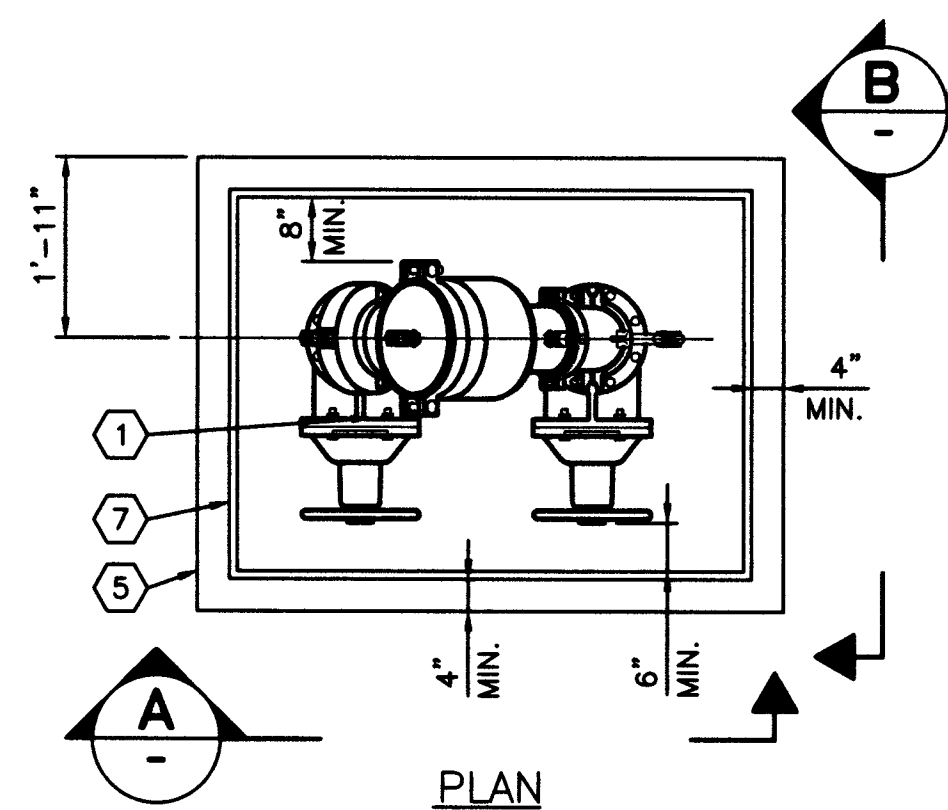
CONTRACT NUMBER

C1435
DRAWING NUMBER CD3
SHEET 25 OF 31

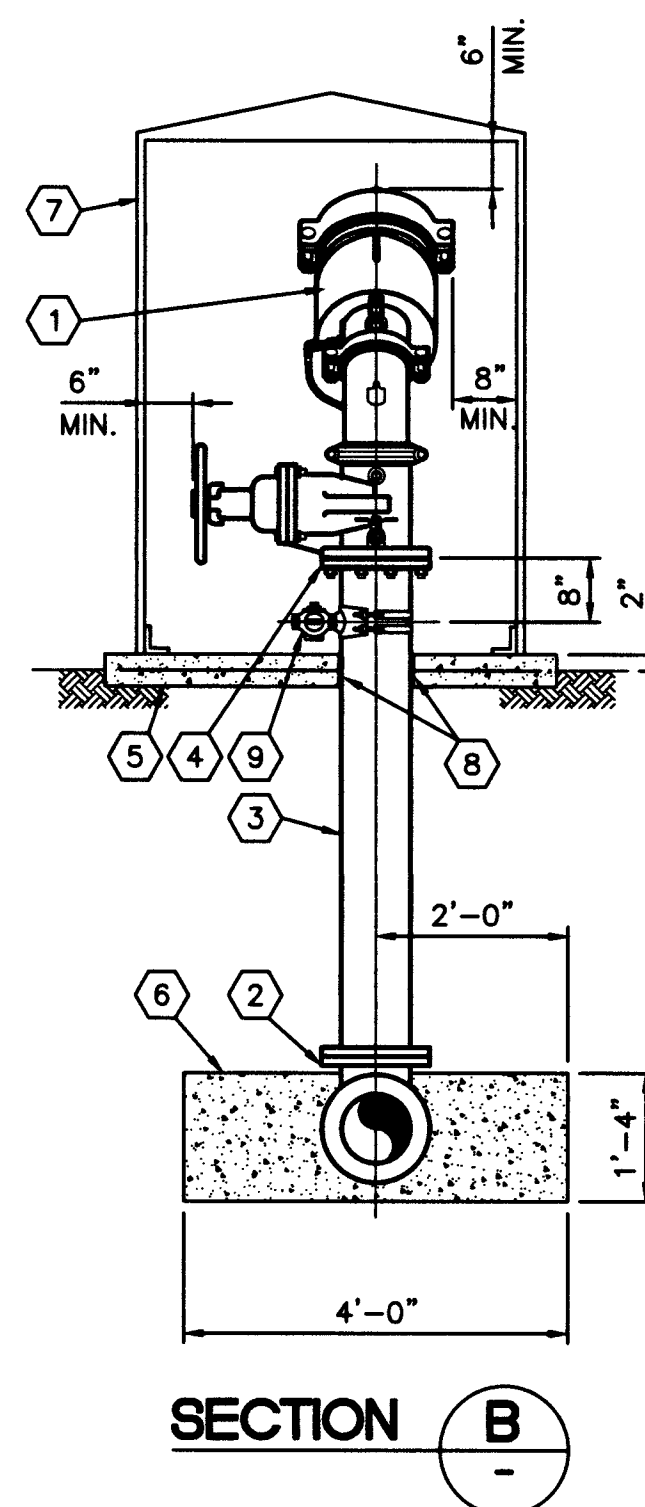
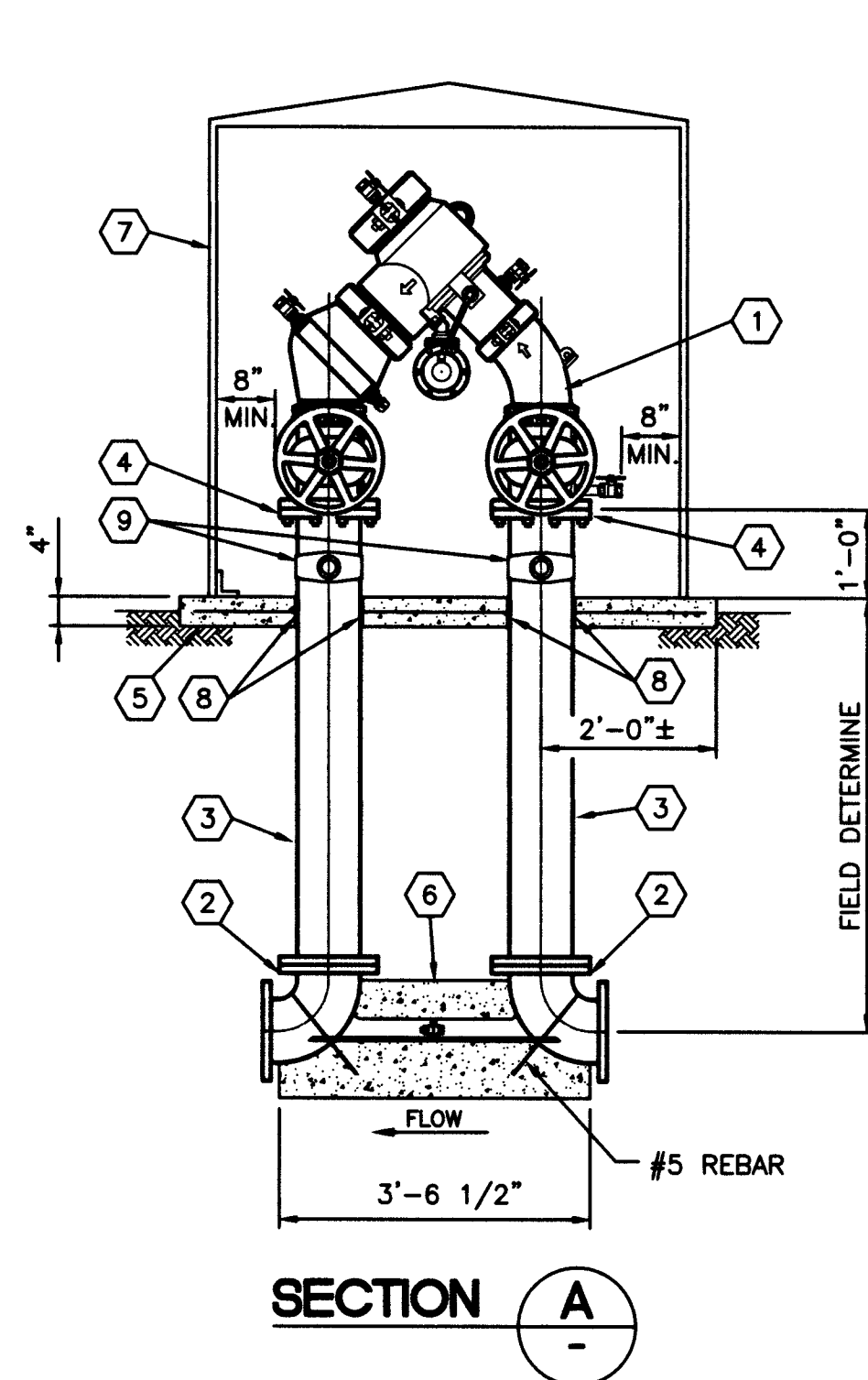
REVISIONS:

**Call before you
OVERHEAD**
1-702-227-2929

H# 67687
CLV DWG # 565-503

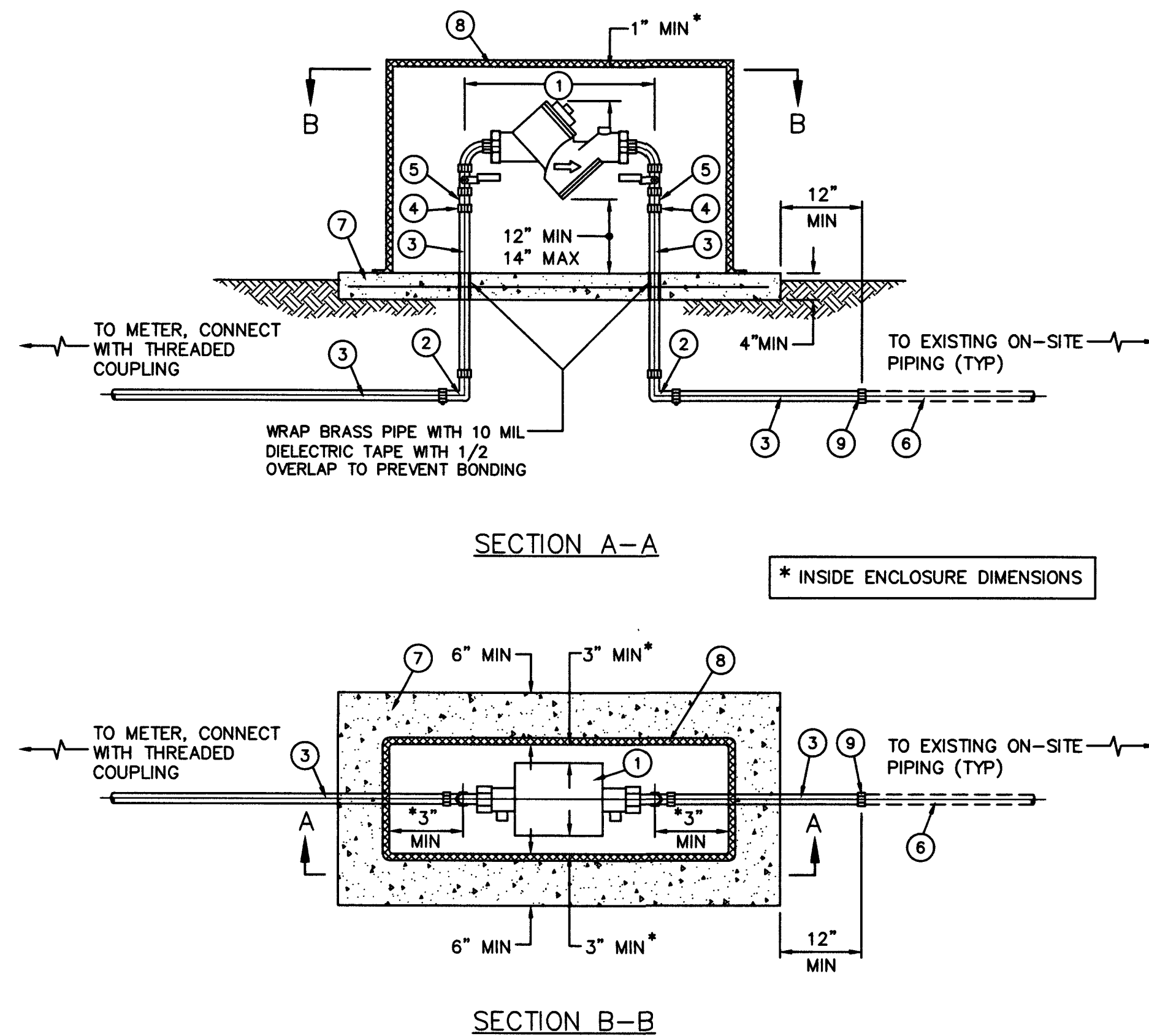


- MATERIAL LIST**
- 1 APPROVED 8" REDUCED PRESSURE PRINCIPLE (RPPA) BACKFLOW ASSEMBLY
 - 2 PIPE SETTER, 90° FLG BEND
 - 3 8" FLG x PE DUCTILE IRON PIPE, PC 350 (CUT TO FIT)
 - 4 8" ADAPTER FLANGE (RESTRAINED)
 - 5 CONCRETE SLAB (4" THK) WITH WELDED WIRE FABRIC, 4 x 4 - W1.4 x W1.4
 - 6 CONCRETE THRUST/ANCHOR BLOCK
 - 7 APPROVED ENCLOSURE (CONTRACTOR TO SUBMIT SHOP DRAWINGS)
 - 8 1/2" EXPANSION JOINT MATERIAL
 - 9 2" SERVICE SADDLE AND 2" CORP. STOP



8" REDUCED PRESSURE PRINCIPLE ASSEMBLY DETAIL
SCALE: 1/2" = 1'-0"
(USE NRS GATE VALVES ONLY)

1
CD4
C2, C5



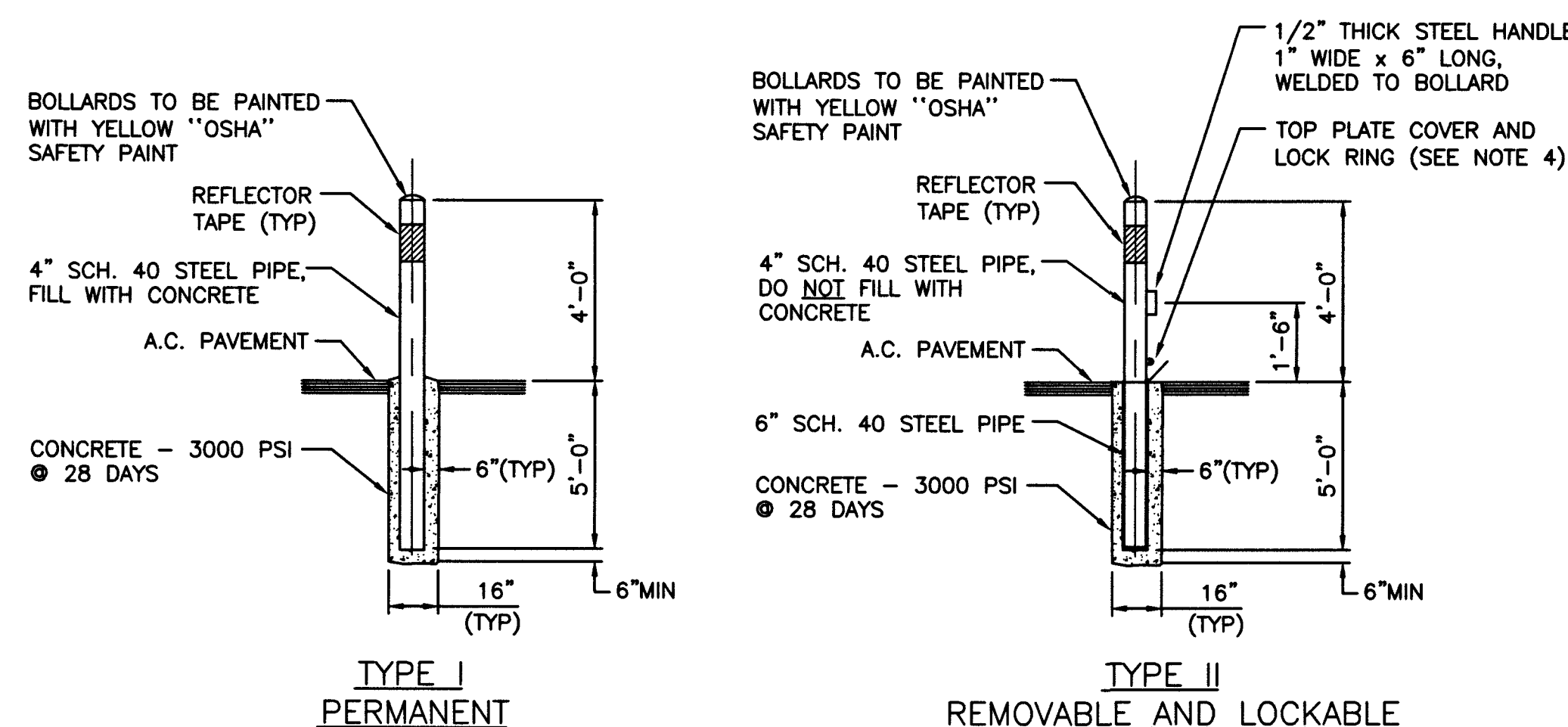
- LEGEND:**
- 1 APPROVED 1" COMPACT REDUCED PRESSURE PRINCIPLE ASSEMBLY
 - 2 BRASS 90° BEND - (IPF x IPF)
 - 3 BRASS PIPE (TBE, LENGTH AS REQUIRED), SIZE TO MATCH METER (1" MIN)
 - 4 BRASS UNION - IRON PIPE THREAD (IPF x IPF) (IF NOT PROVIDED WITH ASSEMBLY)
 - 5 BRASS CLOSE NIPPLE (TBE)
 - 6 EXISTING ON-SITE PIPE (MATERIAL UNKNOWN)
 - 7 CONCRETE PAD - 3000 PSI WITH WELDED WIRE FABRIC, 4 x 4 - W1.4 x W1.4
 - 8 APPROVED ENCLOSURE, ANCHOR TO CONCRETE PAD PER MANUFACTURERS REQUIREMENTS.
 - 9 COUPLING FOR CONNECTION TO EXISTING ON-SITE PIPING (SIZE AS REQUIRED)
- (IPF = IRON PIPE FEMALE, TBE = THREADED BOTH ENDS)

NOTE:
BACKFLOW PREVENTION DEVICE INCLUDING ABOVE GRADE PIPING NOT TO BE PAINTED.

ABOVE GRADE BACKFLOW PREVENTION ASSEMBLY INSTALLATION

NOT TO SCALE UDACS PLATE No. 8

2
CD4
C2



- NOTES:**
1. BOLLARDS ON SIDES NOT ACCESSIBLE TO VEHICLES MAY BE OMITTED BY ENGINEER.
 2. PLACE 6" WIDE, YELLOW CLASS 4 REFLECTIVE TAPE (PER STANDARD SPECIFICATIONS, SECTION 716), 4" DOWN FROM TOP, FOR FULL DIAMETER ON ALL BOLLARDS.
 3. CONTRACTOR TO ASSURE THAT BOLLARDS ARE PLACED TO ALLOW FULL ACCESS TO THE PROTECTED FACILITY.
 4. INSTALL LVWD PROVIDED LOCK AFTER INSTALLATION IS COMPLETE. (TYPE II INSTALLATIONS ONLY)
 5. TYPE II - REMOVABLE BOLLARDS MANUFACTURER: ATEC DIVERSIFIED, MODEL 102 OR APPROVED EQUAL.

VEHICULAR PROTECTION BOLLARD

NOT TO SCALE

3
CD4
C4, C12

BACKFLOW ASSEMBLY INSTALLATION NOTES:

1. ENCLOSURE SIZE AND CONCRETE PAD TO BE DETERMINED USING MINIMUM CLEARANCES SHOWN.
2. IN ORDER TO ALLOW FOR ACCESS AND MAINTENANCE OF BACKFLOW ASSEMBLIES, A MINIMUM OF THREE (3) FEET ADJACENT TO BACKFLOW ASSEMBLY PAD SHALL BE LEVEL AND FREE OF SHRUBBERY AND OBSTRUCTIONS (TYP).
3. FOR ADDITIONAL REQUIREMENTS REFER TO REFERENCED UDACS PLATES.

Call before you OVERHEAD
1-702-227-2929

Call before you Dig
Call before you dig
Call before you dig
Call before you dig

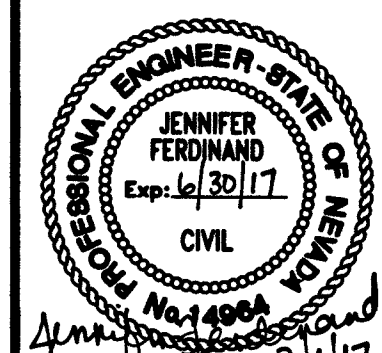
67687
CLV DWG # 565-503

MISCELLANEOUS VAULTS, RECONSTRUCTION AND REPAIR, PHASE XX

STANDARD DETAILS IV

DRAWN BY: CHRISTOPHER M. LUQUETTE
CHECKED BY: JENNIFER FERDINAND
RECOMMENDED BY: JENNIFER FERDINAND
DATE: 10/30/2015

ACCEPTED BY: RYAN C. PEARSON
DATE: 10/29/2015



CONTRACT NUMBER

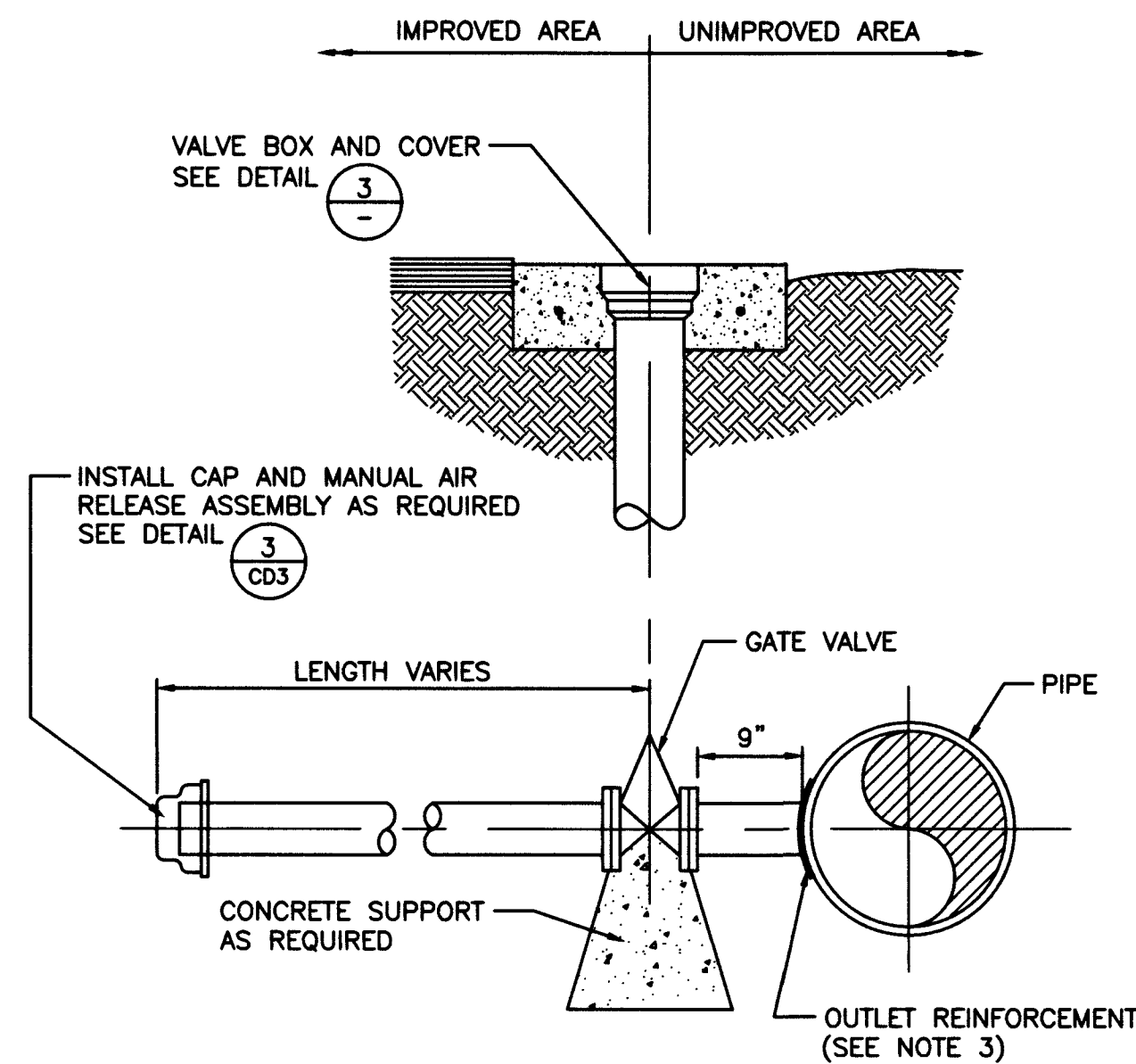
C1435

DRAWING NUMBER CD4
SHEET 26 OF 31

VERIFY SCALE
1/2" = 1'-0"
1/2" = 1'-0"
1/2" = 1'-0"

BAR REPRESENTS ONE AND ONE-HALF INCHES ON ORIGINAL

LAS VEGAS VALLEY WATER DISTRICT
1001 S. VALLEY VIEW BOULEVARD
LAS VEGAS, NEVADA 89153
(702) 875-3011

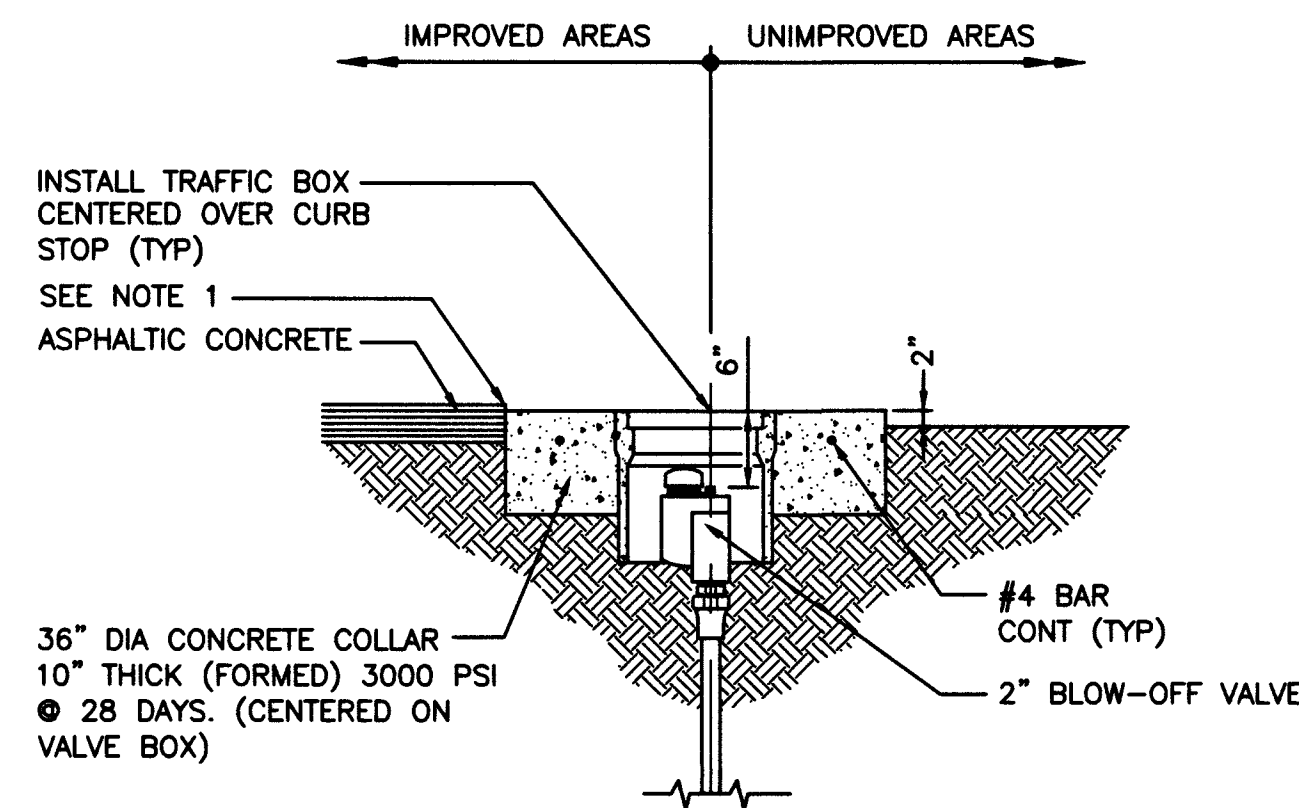


NOTES:

1. INSTALL VALVES CLOSED AND OPEN DURING TEST.
2. COAT AND WRAP OUTLET, VALVE AND PLUG. SEE SPECS SEC 33 05 13 AND 09 96 00.
3. OUTLET REINFORCEMENT SHALL BE DETERMINED PER AWWA M11 DESIGN METHOD.

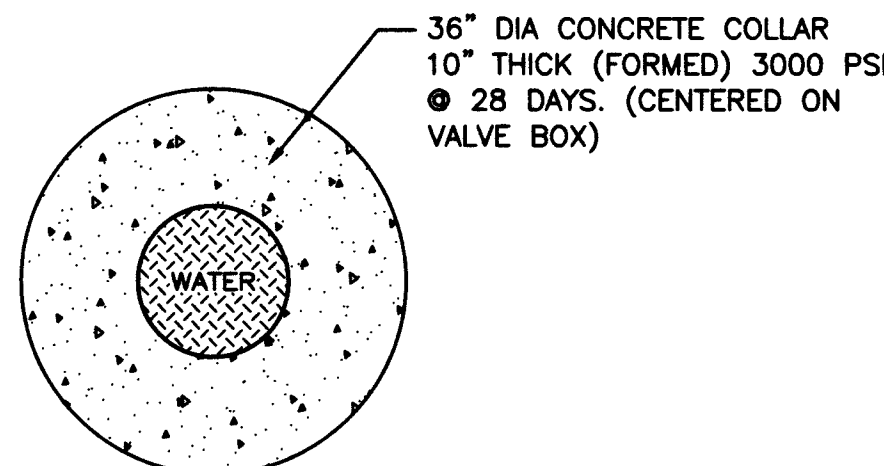
VALVED OUTLET DETAIL
NOT TO SCALE

1
-



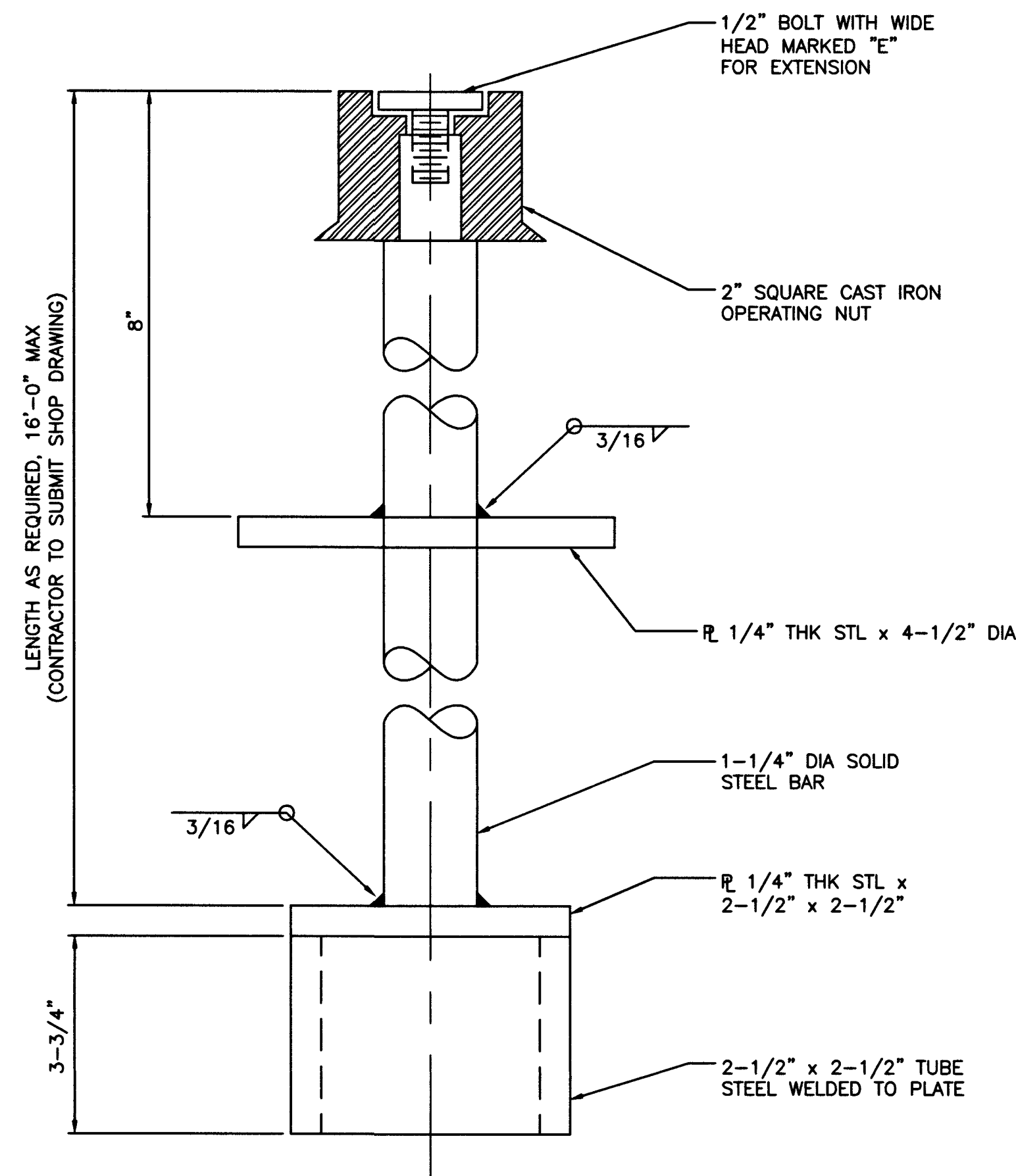
NOTES:

1. FINAL RIM ELEVATION TO BE 1/8" TO 1/4" BELOW FINAL STREET GRADE.
2. MORE STRINGENT INSTALLATION REQUIREMENTS MAY BE IMPOSED BY THE ENTITY HAVING THE JURISDICTION OVER THE TRAFFIC BOX INSTALLATION LOCATION.
3. CONTRACTOR TO FORM CONCRETE COLLAR IN UNIMPROVED AREAS WITH SONOTUBE AND REMOVE PRIOR TO BACKFILL INSTALLATION (TYP).
4. SEE SPECIFICATIONS FOR ALL APPROVED PRODUCTS.



TRAFFIC BOX INSTALLATION
NOT TO SCALE

4
-



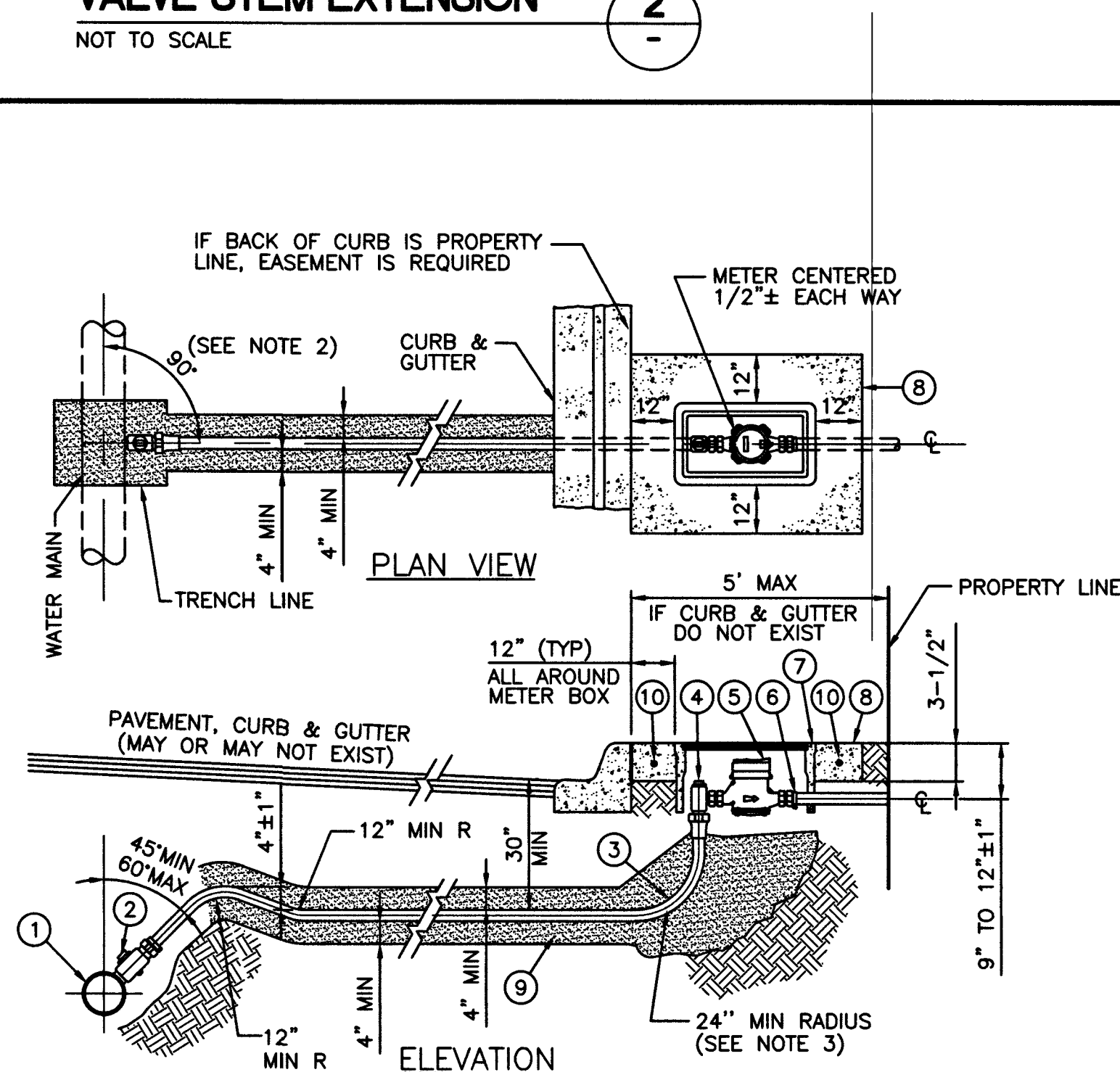
STEM EXTENSIONS 16' AND LESS

NOTES:

1. HOT DIP GALVANIZE AFTER FABRICATION.
2. CONTRACTOR TO SUBMIT SHOP DRAWINGS (TYP)

VALVE STEM EXTENSION
NOT TO SCALE

2
-

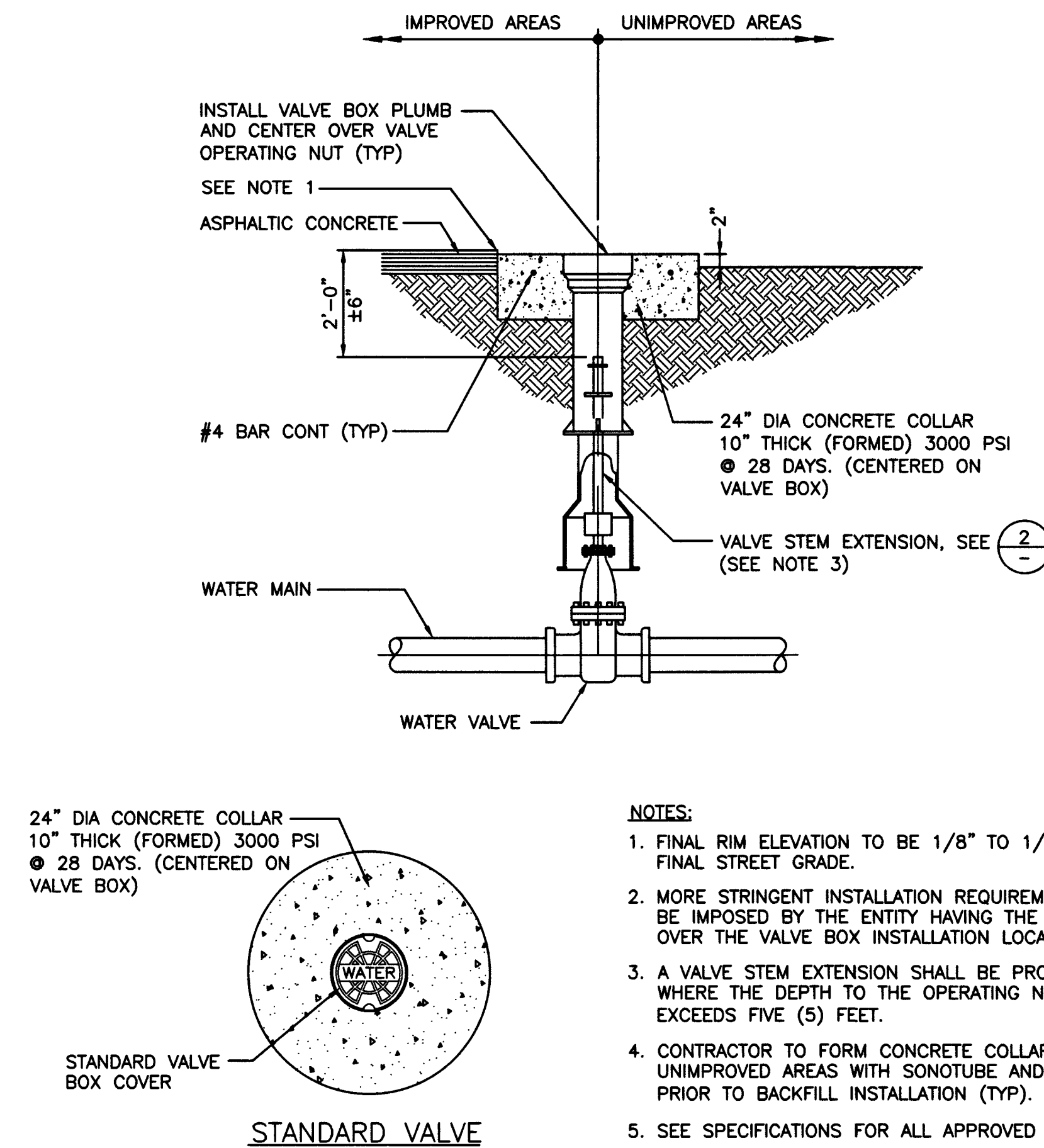


SERVICE INSTALLATION FOR COMMERCIAL AND RESIDENTIAL GREATER THAN 1/4 ACRE GROSS 5/8", 3/4", 1", 1-1/2" AND 2" METER SIZES

NOT TO SCALE

UDACS PLATE No. 4

5
CD5
C2



VALVE BOX INSTALLATION
NOT TO SCALE

3
CD5

NOTES:

1. FINAL RIM ELEVATION TO BE 1/8" TO 1/4" BELOW FINAL STREET GRADE.
2. MORE STRINGENT INSTALLATION REQUIREMENTS MAY BE IMPOSED BY THE ENTITY HAVING THE JURISDICTION OVER THE VALVE BOX INSTALLATION LOCATION.
3. A VALVE STEM EXTENSION SHALL BE PROVIDED WHERE THE DEPTH TO THE OPERATING NUT EXCEEDS FIVE (5) FEET.
4. CONTRACTOR TO FORM CONCRETE COLLAR IN UNIMPROVED AREAS WITH SONOTUBE AND REMOVE PRIOR TO BACKFILL INSTALLATION (TYP).
5. SEE SPECIFICATIONS FOR ALL APPROVED PRODUCTS.

LEGEND

- ① SERVICE SADDLE
- ② CORPORATION STOP
- ③ SERVICE LATERAL. SIZE TO MATCH METER (1" MIN.)
- ④ BALL ANGLE METER STOP TO MATCH METER SIZE (1" x 1" MIN) WITH LOCK WING AND WITHOUT LEVER HANDLE. FOR ALL 5/8" AND 3/4" METERS USE A 1" x 3/4" ADAPTOR.
- ⑤ EXISTING WATER METER (RELOCATED)
- ⑥ TAIL PIECE COUPLING. (EXTEND TO PROPERTY LINE)
- ⑦ METER BOX INSTALLED AS NEAR TO FUTURE FINAL GRADE POSSIBLE. (1" TYPICAL MINIMUM)
- ⑧ FORMED CONCRETE COLLAR. 12" AROUND IF NO SIDEWALK.
- ⑨ SAND BACKFILL FULL WIDTH OF TRENCH.
- ⑩ #4 REBAR IN CONCRETE COLLAR IF NO SIDEWALK.

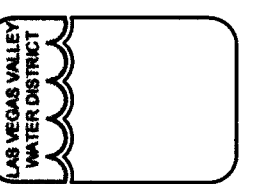
NOTES

1. ONE ADDITIONAL FLARED COUPLING, OR COMPRESSION COUPLING IS ALLOWED BETWEEN THE CORPORATION STOP, AND THE ANGLE METER STOP IF THE TOTAL LATERAL LENGTH IS GREATER THAN 40'.
2. CUL-DE-SAC SERVICE LATERALS MUST FOLLOW THE MOST DIRECT ROUTE POSSIBLE BETWEEN SERVICE SADDLE AND ANGLE METER STOP. HORIZONTAL BENDING RADIUS ALLOWED FOR 1" TUBING IS 12" MIN. AND 24" MIN. FOR 1-1/2" AND 2" TUBING. MAXIMUM DEFLECTION ANGLE ALLOWED IS 90'.
3. IF A 24" MIN. RADIUS CAN NOT BE MAINTAINED AN APPROPRIATE SIZE 90° COMPRESSION OR FLARED CONNECTION SHOULD BE USED.
4. FLUSH LATERAL PRIOR TO SETTING METER.
5. ALL METERS SHALL BE LOCATED IN EXISTING OR FUTURE SIDEWALK AREA.
6. INSTALL SAND BACKFILL AROUND WATER SERVICE LATERAL PRIOR TO INSTALLATION OF TRENCH BACKFILL WHEN CLSM OPTION IS USED OR REQUIRED.
7. ALL COPPER TUBING SHALL BE WRAPPED WITH TWO LAYERS OF SIX (6) MIL POLYETHYLENE AND BACKFILLED ALL AROUND WITH 4" MINIMUM OF SAND.

Call before you dig
1-800-4-A- Dig
Call before you dig
1-800-4-A- Dig

H# 67687
CLV DWG # 565-503

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1001 S. VALLEY VIEW BOULEVARD
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(702) 676-3011

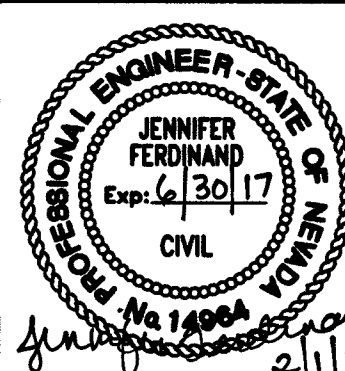


VERIFY SCALE
1/2" = 1'
0 1/2 1
BAR REPRESENTS ONE AND ONE-HALF INCHES ON ORIGINAL

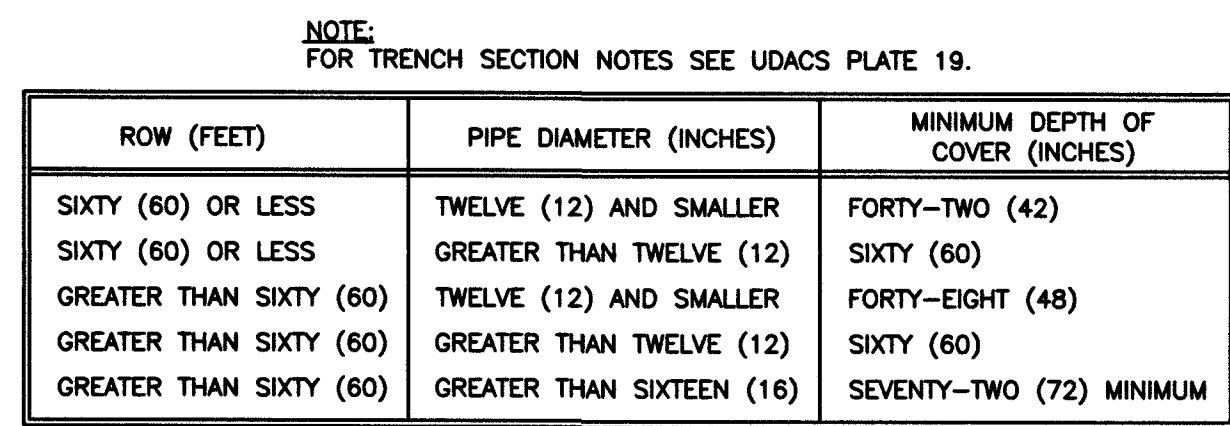
MISCELLANEOUS VAULTS, RECONSTRUCTION AND REPAIR, PHASE XX

STANDARD DETAILS V

DRAWN BY: CHRISTOPHER BLANK
CHECKED BY: JENNIFER FERDINAND
RECOMMENDED BY: CHRISTOPHER M. LUQUETTE
ACCEPTED BY: RYAN C. PEARSON
DATE: 10/29/2015
DATE: 10/30/2015



CONTRACT NUMBER
C1435
DRAWING NUMBER CD5
SHEET 27 OF 31

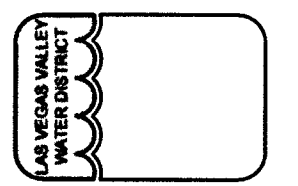


TRENCH BACKFILL - PAVED AREAS
NOT TO SCALE UDACS PLATE No. 17

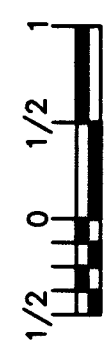


TRENCH BACKFILL - (NDOT R/W)
PAVED AND UNPAVED AREAS
NOT TO SCALE

- LAS VEGAS VALLEY
WATER DISTRICT**
1001 S. VALLEY VIEW BOULEVARD
LAS VEGAS, NEVADA 89153
(702) 870-2011



VERIFY SCALE

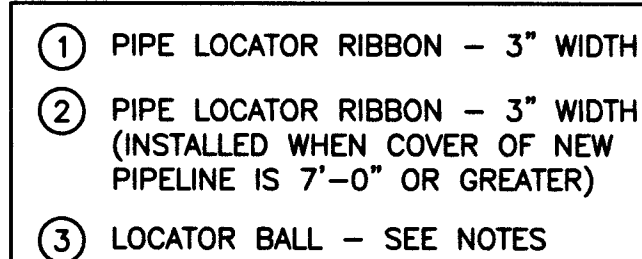


BAR REPRESENTS
ONE AND ONE-HALF
INCHES ON ORIGINAL

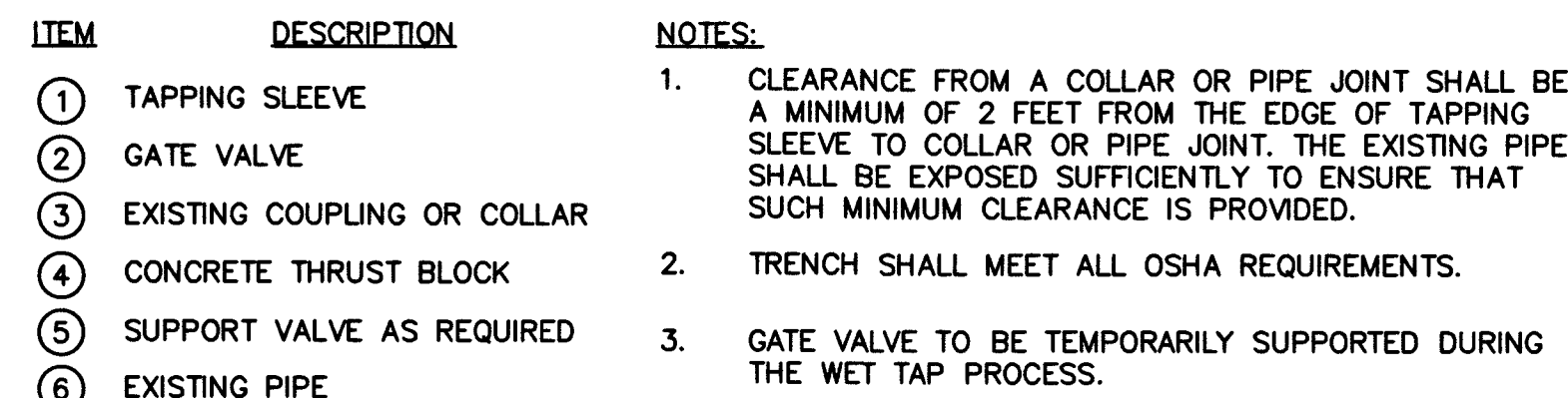
**MISCELLANEOUS VAULTS, RECONSTRUCTION
AND REPAIR, PHASE XX**

STANDARD DETAILS VI

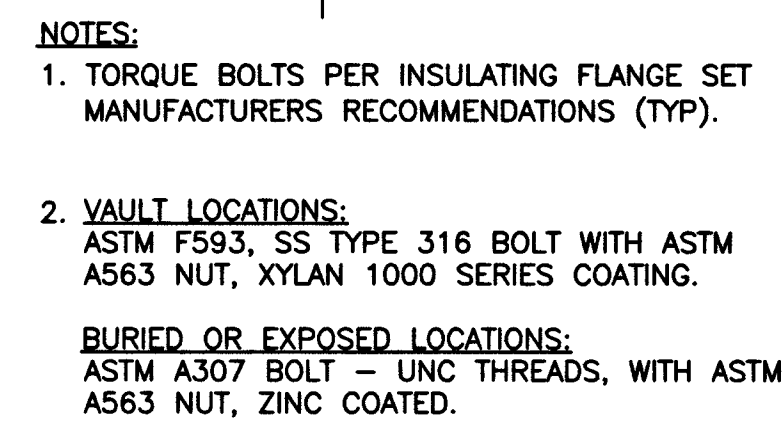
SCALE



- # PIPE LOCATOR RIBBON AND LOCATOR BALL INSTALLATION
- NOT TO SCALE UDACS PLATE No. 15



EXCAVATION FOR WET TAPS
NOT TO SCALE UDACS PLATE No. 34



INSULATING FLANGE SET DETAIL
NOT TO SCALE UDACS PLATE No. 73

6
CDE

C6, C8, C9, C10, C11,
C12, C13, C14, C15, C16,
C17

Call before you Dig
Avoid cutting underground utility lines. It's costly.

Call before you OVERHEAD
Avoid overhead power line contact. It's costly.

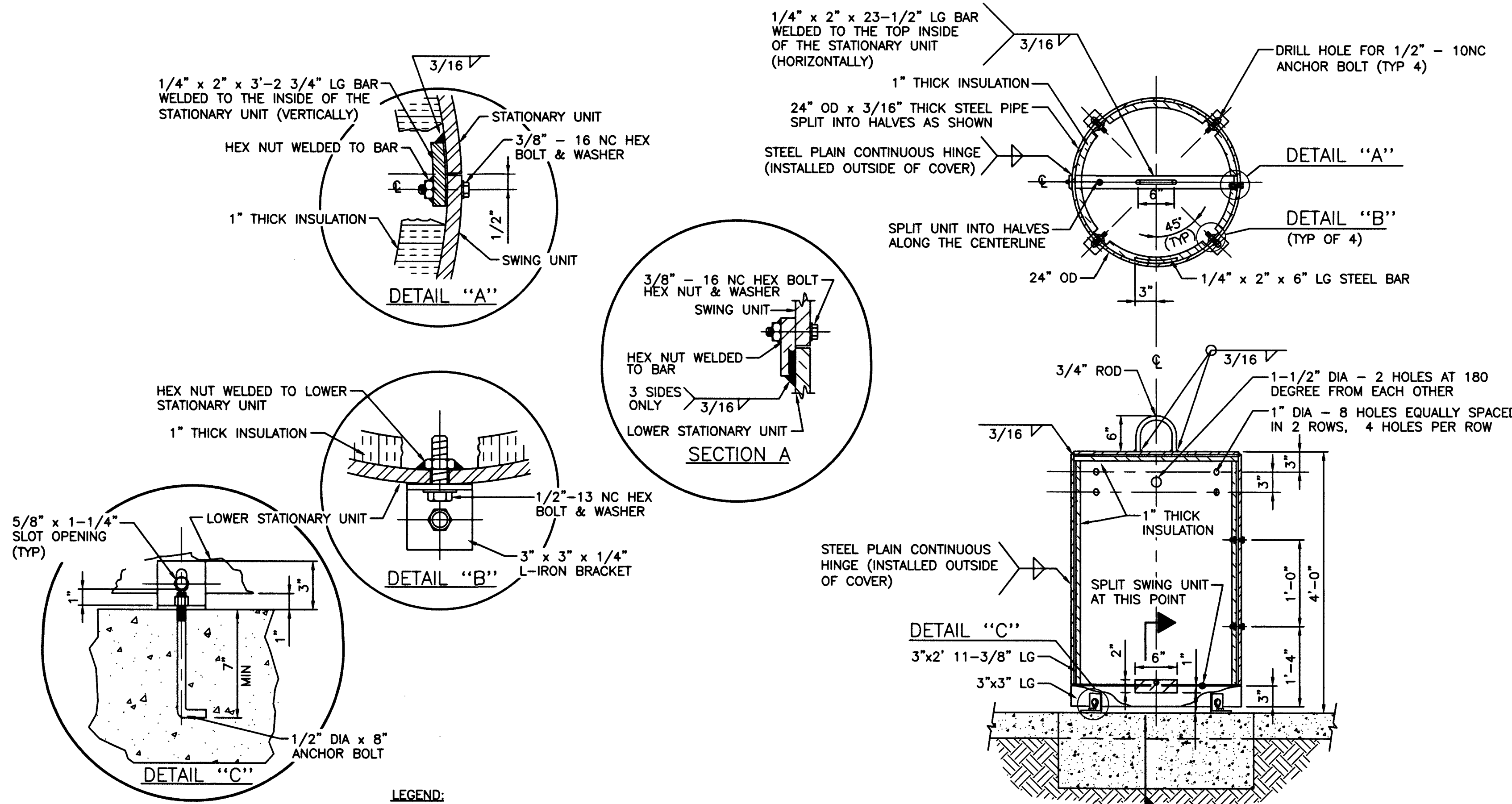
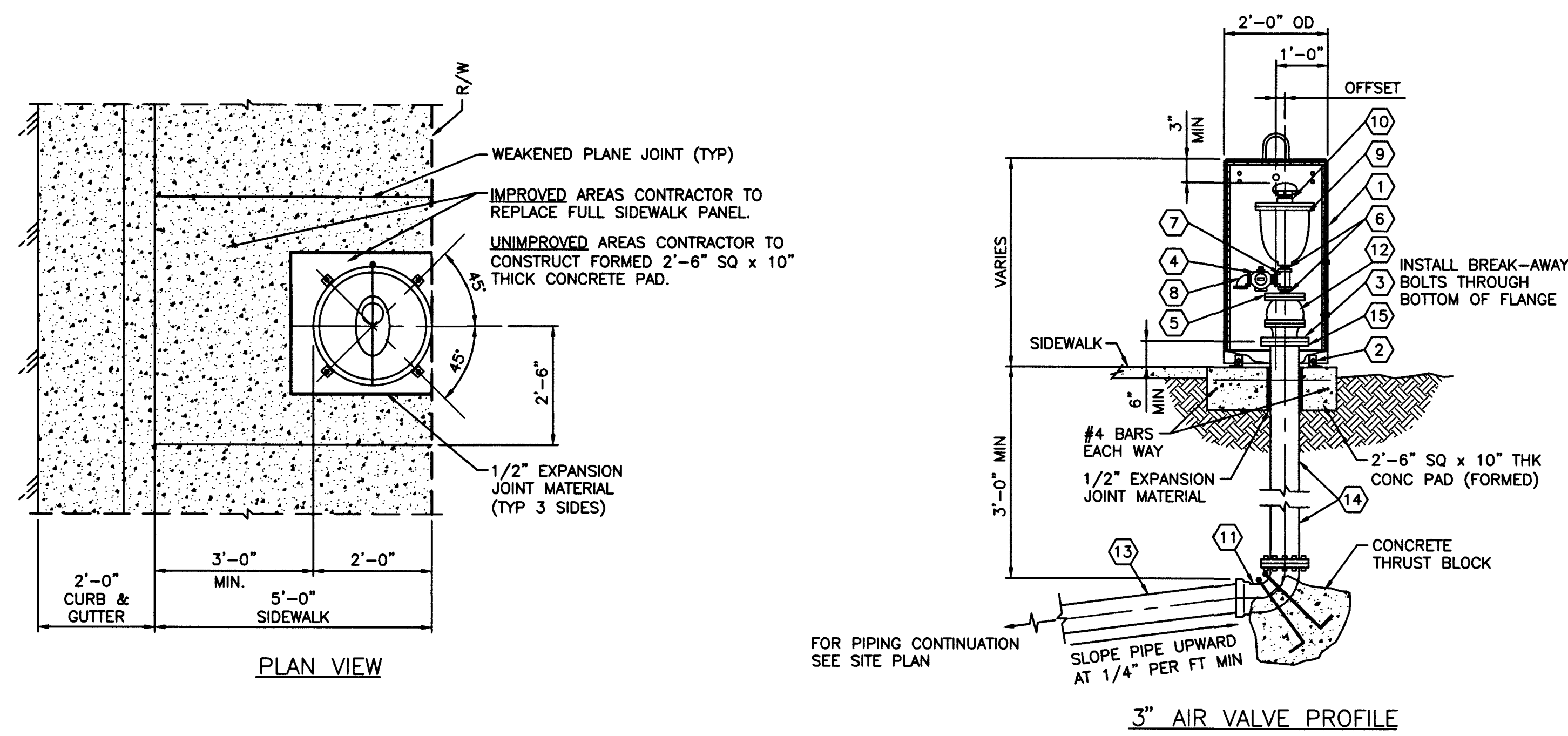
Call 811
1-702-227-2929

H 67687
CLV DWG # 565-503

REVISIONS:

CONTRACT NUMBER

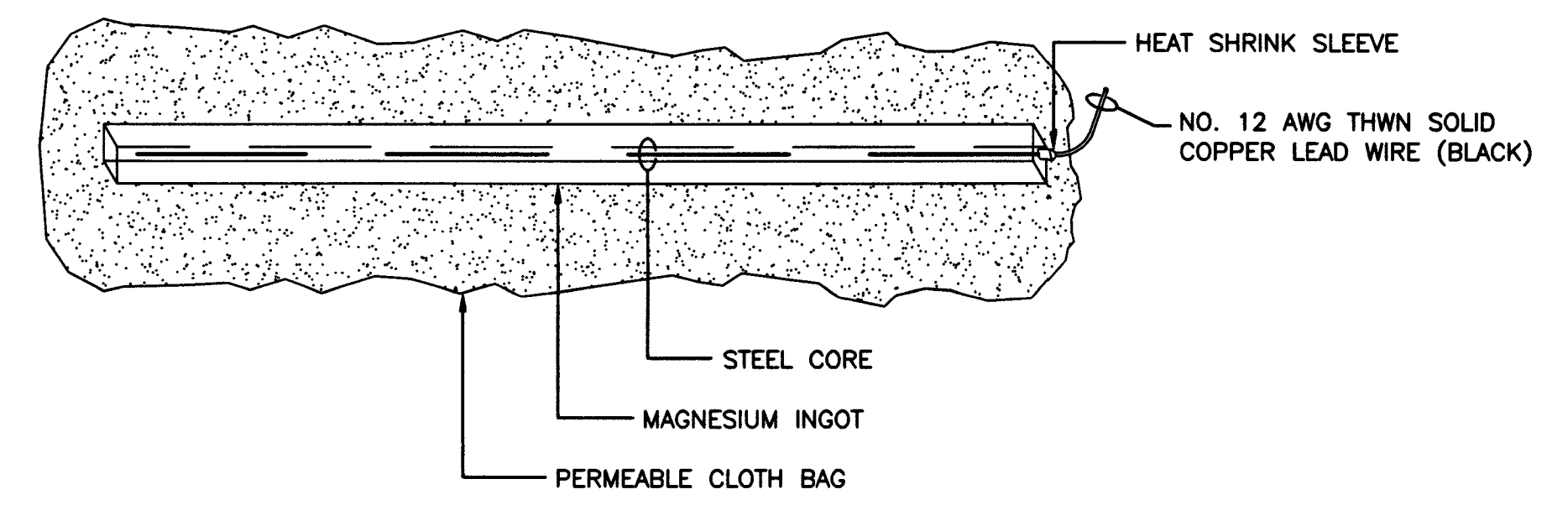
C1435
DRAWING NUMBER CD6
SHEET 28 OF 31



- LEGEND:**
- ① 2'-0" OD x 4'-0" HIGH STEEL ENCLOSURE (SUBMIT SHOP DRAWING)
 - ② 1/2" DIA x 8" ANCHOR BOLT
 - ③ 5/8"-11NC BREAK-AWAY ZINC PLATED HEX HD BOLT, HEX NUT AND LOCKWASHER
 - ④ 2" CORP STOP, THREADED BOTH ENDS
 - ⑤ 4" x 3" THREADED STEEL REDUCING FLANGE
 - ⑥ 3" BRASS PIPE, THREADED
 - ⑦ 3" x 2" BRASS TEE, THREADED INLETS
 - ⑧ 2" 90° ELBOW, THREADED
 - ⑨ 3" AIR VALVE, THREADED INLET
 - ⑩ 3" MUSHROOM VENT CAP
 - ⑪ 4" 90° FLG x PO OR FLG x MJ DI BEND
 - ⑫ 4" FLG STAINLESS STEEL BALL VALVE - QUARTER TURN
 - ⑬ 4" DUCTILE IRON PIPE, PC350
 - ⑭ 4" DUCTILE IRON PIPE, PC350, FLG x PE (CUT TO FIT)
 - ⑮ 4" DUCTILE IRON FLANGE ADAPTER (RESTRAINED)
- NOTES:**
- AIR VALVE ASSEMBLY AND STEEL ENCLOSURE TO BE PAINTED PER SPECS SEC 09 96 00.
 - SEE SPECIFICATIONS FOR ALL APPROVED PRODUCTS.
 - ALL THREADED CONNECTIONS TO BE TEFLON TAPE WRAPPED (TYP).

AIR VALVE ASSEMBLY FOR 3' VALVES (STEEL ENCLOSURE)
NOT TO SCALE

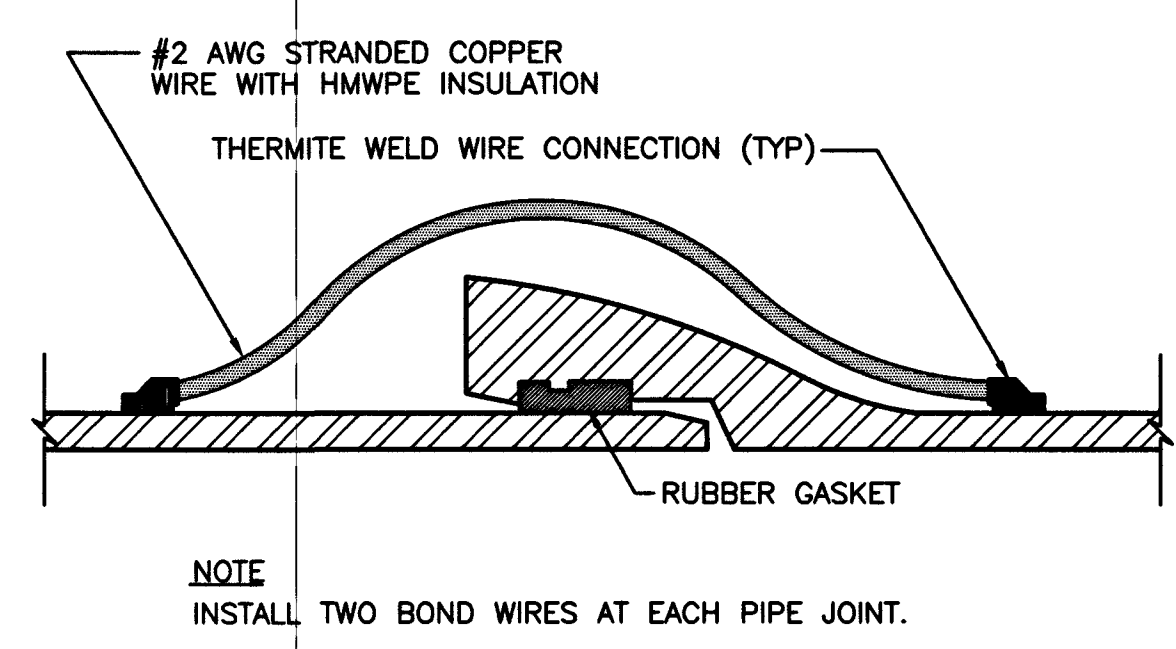
1
CD7
C6,C7,C8,C9,C10,C11,C12,C13,
C14,C15,C16,C17



NOTE:
ANODE SOAKING REQUIREMENTS: PLACE ANODE IN HOLE OR TRENCH, ADD 5 GALLONS OF WATER, ALLOW TO SOAK FOR 30 MINUTES. BACKFILL TO TOP OF ANODE. ADD AN ADDITIONAL 5 GALLONS OF WATER TO COMPLETELY SATURATE THE SOIL SURROUNDING ANODE. LET SOAK FOR 15 MINUTES, COMPLETE BACKFILLING PROCESS PER STANDARD SPECIFICATION SECTION.

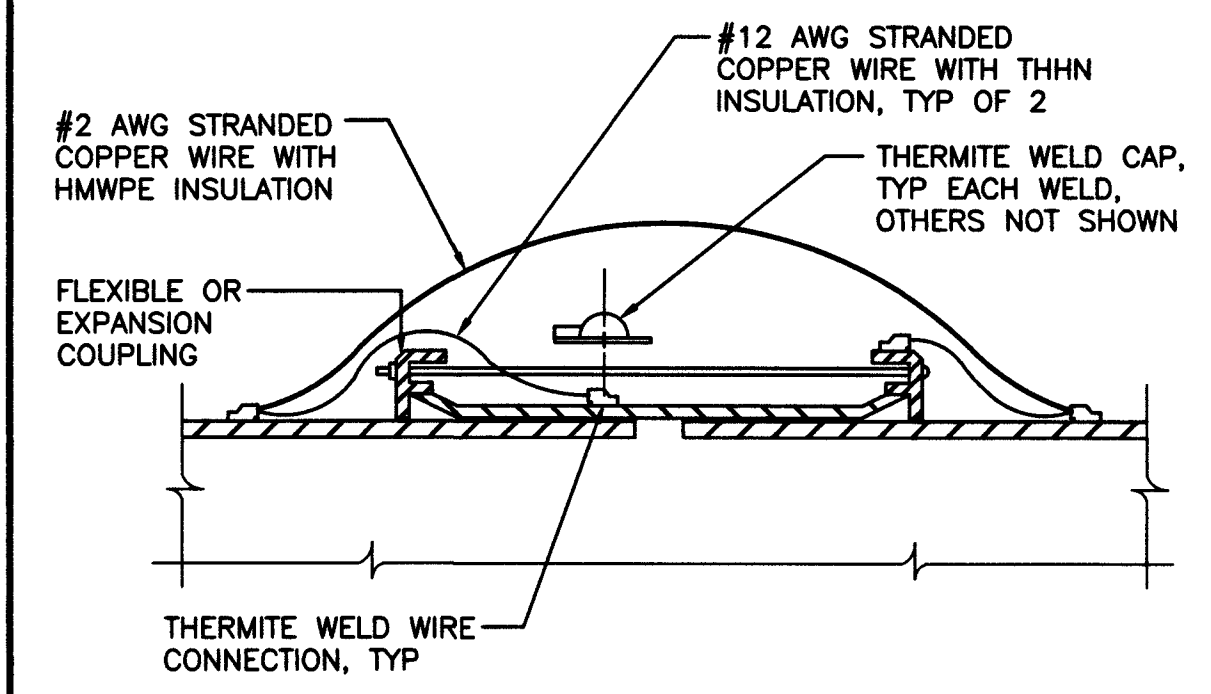
MAGNESIUM ANODE DETAIL
NOT TO SCALE

2
CD7
C6,C7,C8,C9,C10,C11,C12,C13,
C14,C15,C16,C17



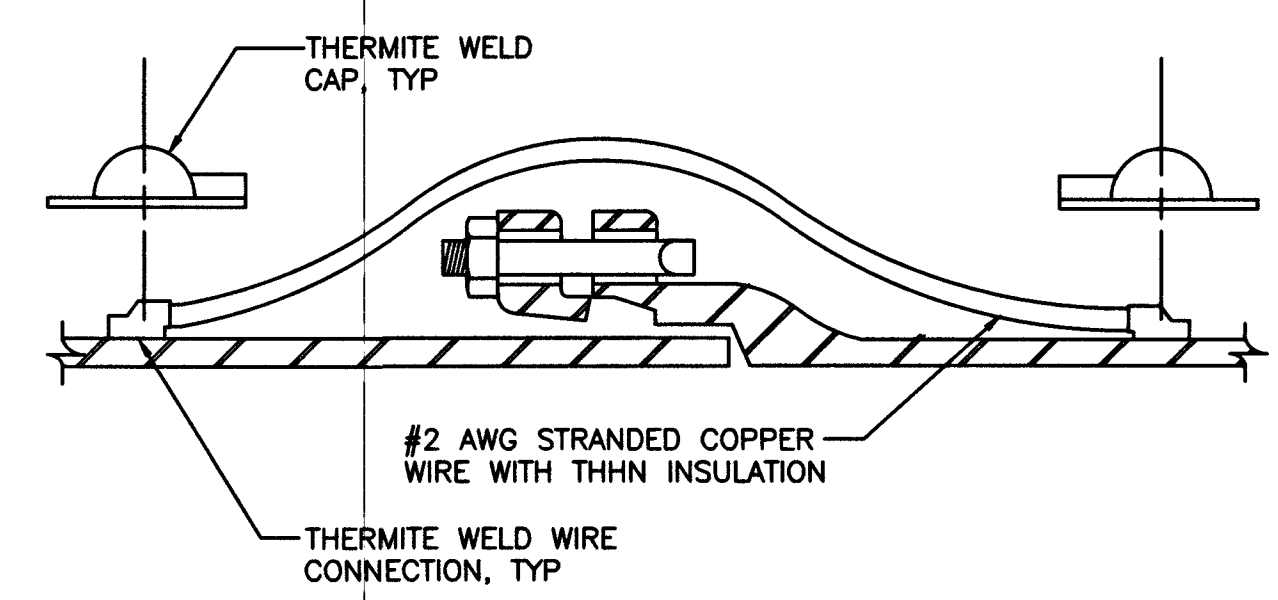
**PUSH-ON JOINT BOND DETAIL
DUCTILE IRON PIPE**
NOT TO SCALE

3
-



FLEXIBLE JOINT BOND
NOT TO SCALE

5
-



MECHANICAL JOINT BOND
NOT TO SCALE

4
-

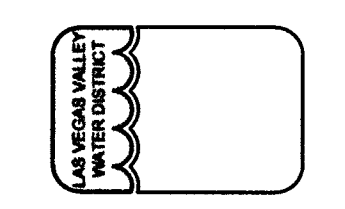
- CATHODIC PROTECTION NOTES:**
- ALL ANODE LEADS SHALL BE ATTACHED TO THE PIPE BY MEANS OF A "CADWELD" EXOTHERMIC WELD.
 - ALL ANODE LEADS SHALL BE ATTACHED TO EITHER THE PIPELINES BELL END, SPIGOT END OR PLAIN END AS SHOWN ON THE DRAWINGS.
 - ALL EXPOSED PORTIONS OF THE EXOTHERMIC WELD, PIPE AND COPPER CABLE CONDUCTORS SHALL BE COATED WITH SCOTCHKOTE 206P THERMOPLASTIC PATCH MELT STICK COATING.
 - ALL ANODE LEADS SHALL HAVE A MINIMUM OF 4' OF SLACK NEAR THE PIPE JOINT TO PREVENT DAMAGE DURING BACKFILL OPERATION.
 - ALL ANODE LEADS SHALL BE PLACED ALONG THE SIDE AND BELOW THE SPRINGLINE OF THE PIPE.
 - INSTALL ANODES IN PIPE TRENCH APPROXIMATELY 2 FEET FROM THE PIPE JOINT, BUT NO CLOSER THAN 12-INCHES FROM THE PIPE JOINT.
 - PRE-PACKAGED ANODES SHALL HAVE 6" LIFT OF COMPACTED NATIVE BACKFILL. AFTER BACKFILL IS IN PLACE, SATURATE THE AREA WITH TEN (10) GALLONS MINIMUM OF WATER. AFTER WATER HAS BEEN ABSORBED, CONTINUE BACKFILLING.

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**LAS VEGAS VALLEY
WATER DISTRICT**
1001 S. VALLEY VIEW BOULEVARD
LAS VEGAS, NEVADA 89153
(702) 875-3911



VERIFY SCALE
1/2" = 1'
0 1/2
BARS REPRESENTS
ONE AND ONE-HALF
INCHES ON ORIGINAL

**MISCELLANEOUS VAULTS, RECONSTRUCTION
AND REPAIR, PHASE XX**

STANDARD DETAILS VII

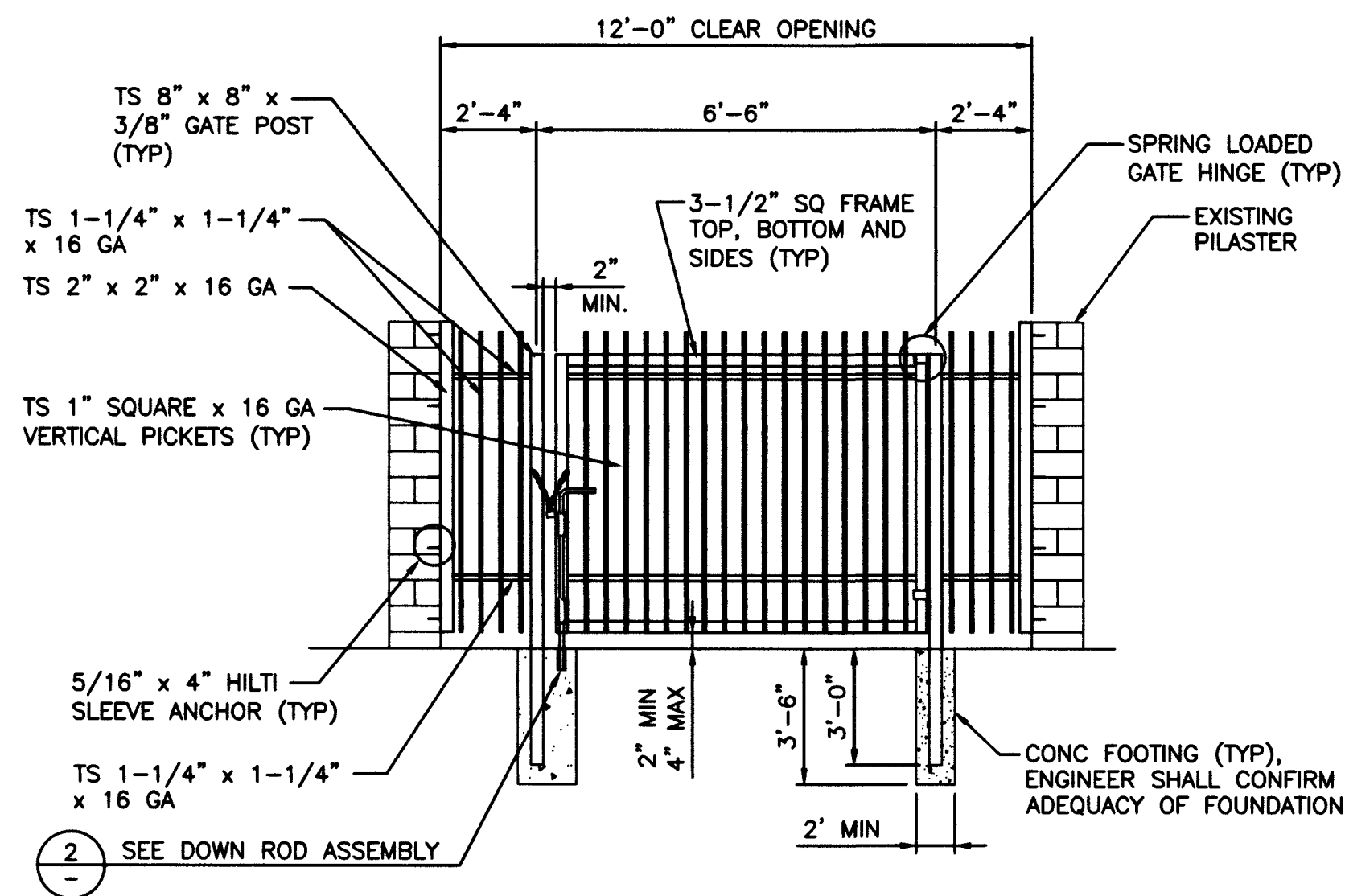
DRAWN BY: JENNIFER BLANK
CHECKED BY: JENNIFER FERNAND
RECOMMENDED BY: CHRISTOPHER M. LUQUETTE
ACCEPTED BY: RYAN C. PEARSON

DATE: 10/29/2015
DATE: 10/30/2015
DATE: _____
DATE: _____

PROFESSIONAL ENGINEER STATE OF NEVADA
JENNIFER FERNAND
Exp. 12/31/17
CIVIL
No. 14984

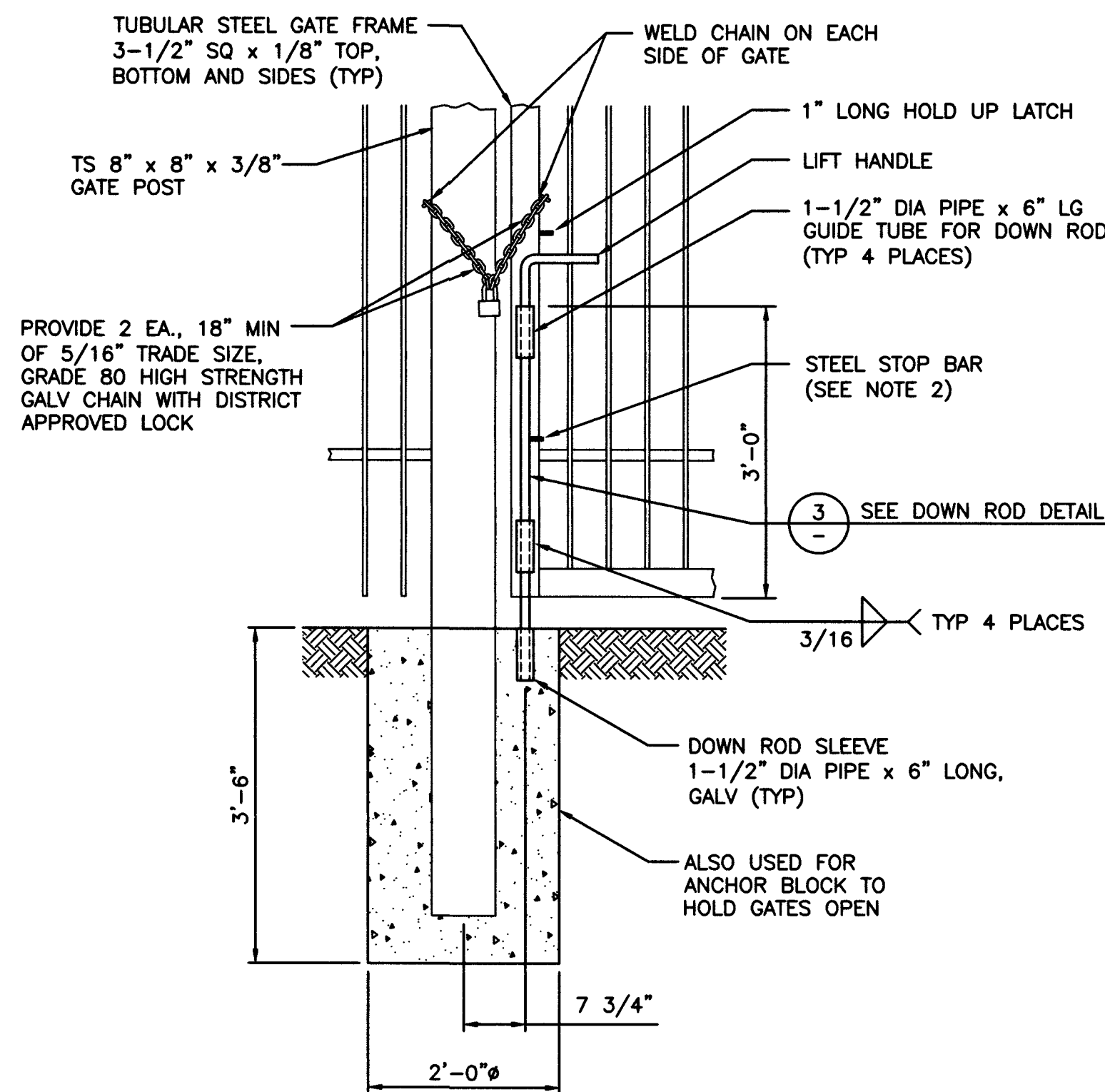
CONTRACT NUMBER
C1435

REVISIONS:
DRAWING NUMBER CD7
SHEET 29 OF 31



GATE DETAIL
NOT TO SCALE

1
CD8
C1

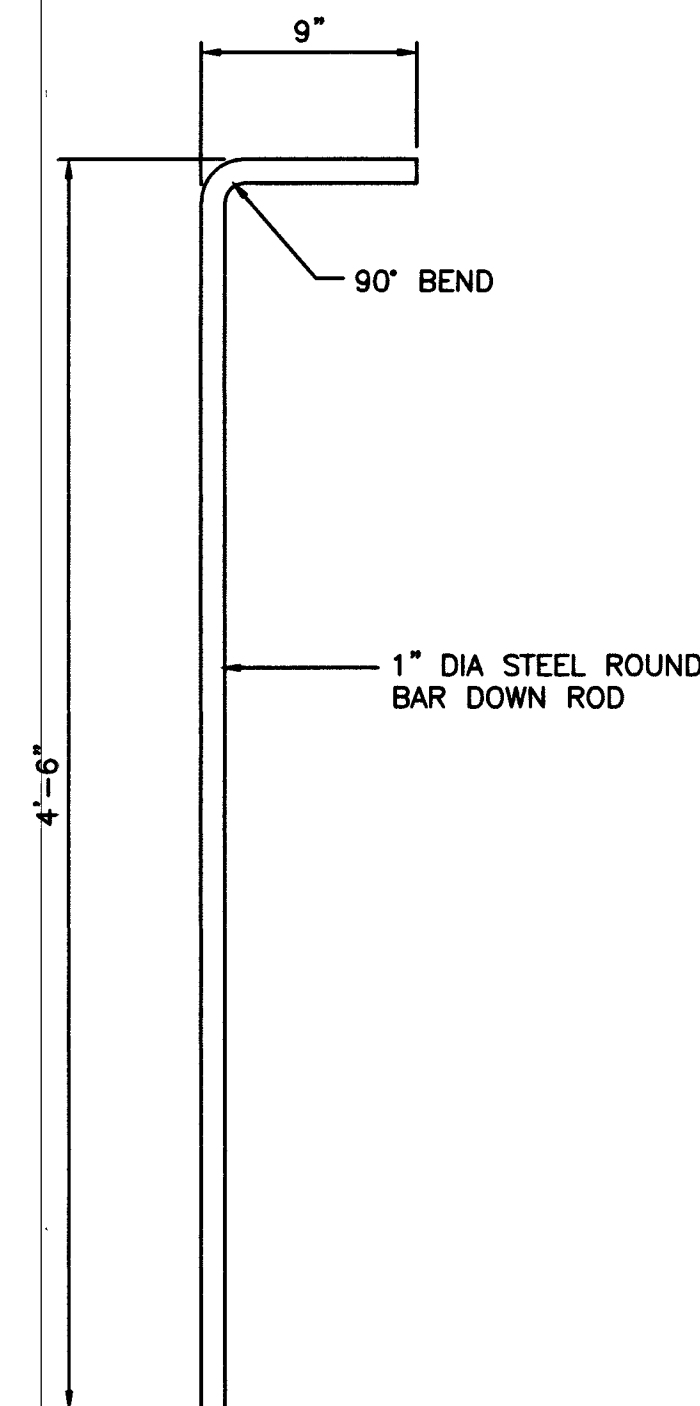


NOTES:

1. LIFT HANDLE AND DOWN ROD ARE TO BE MOUNTED ON THE EXTERIOR OF GATE (TYP).
2. WELD STEEL STOP BAR TO DOWN RODS AS REQUIRED TO PREVENT FULL REMOVAL.

DOWN ROD ASSEMBLY
NOT TO SCALE

2
-

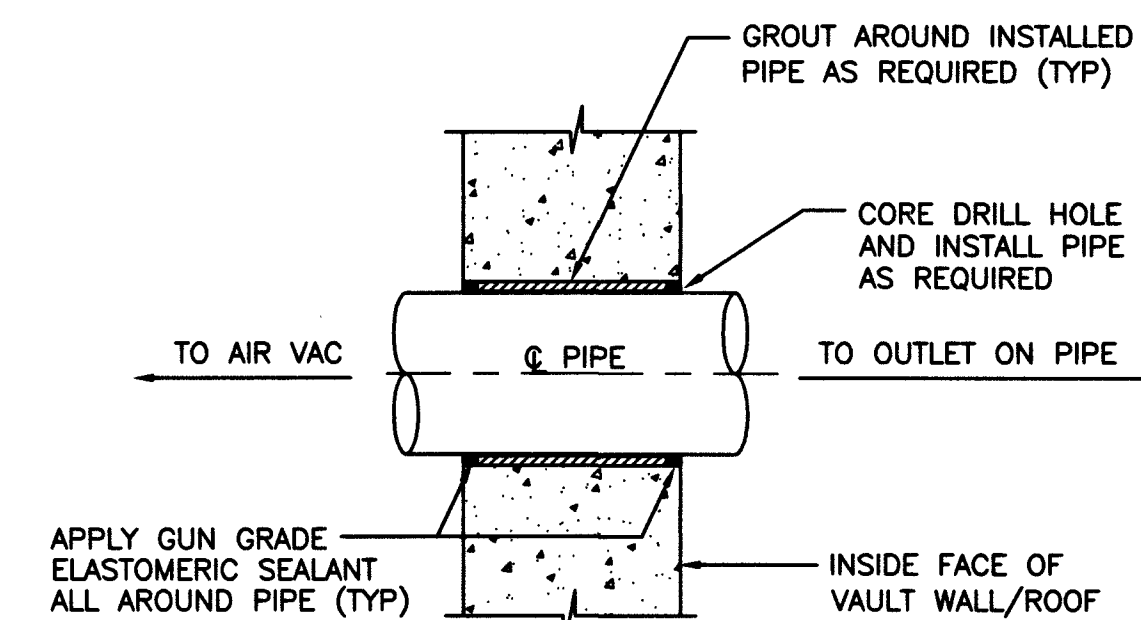


NOTES:

1. ALL BARS SHALL BE GROUND SMOOTH AND SHALL BE FREE OF BURRS.
2. THE DOWN ROD BAR SHALL BE STRAIGHT AND FREE OF TWISTS.
3. THE DOWN ROD SHALL BE PAINTED PER THE SPECIFICATIONS.

DOWN ROD DETAIL
NOT TO SCALE

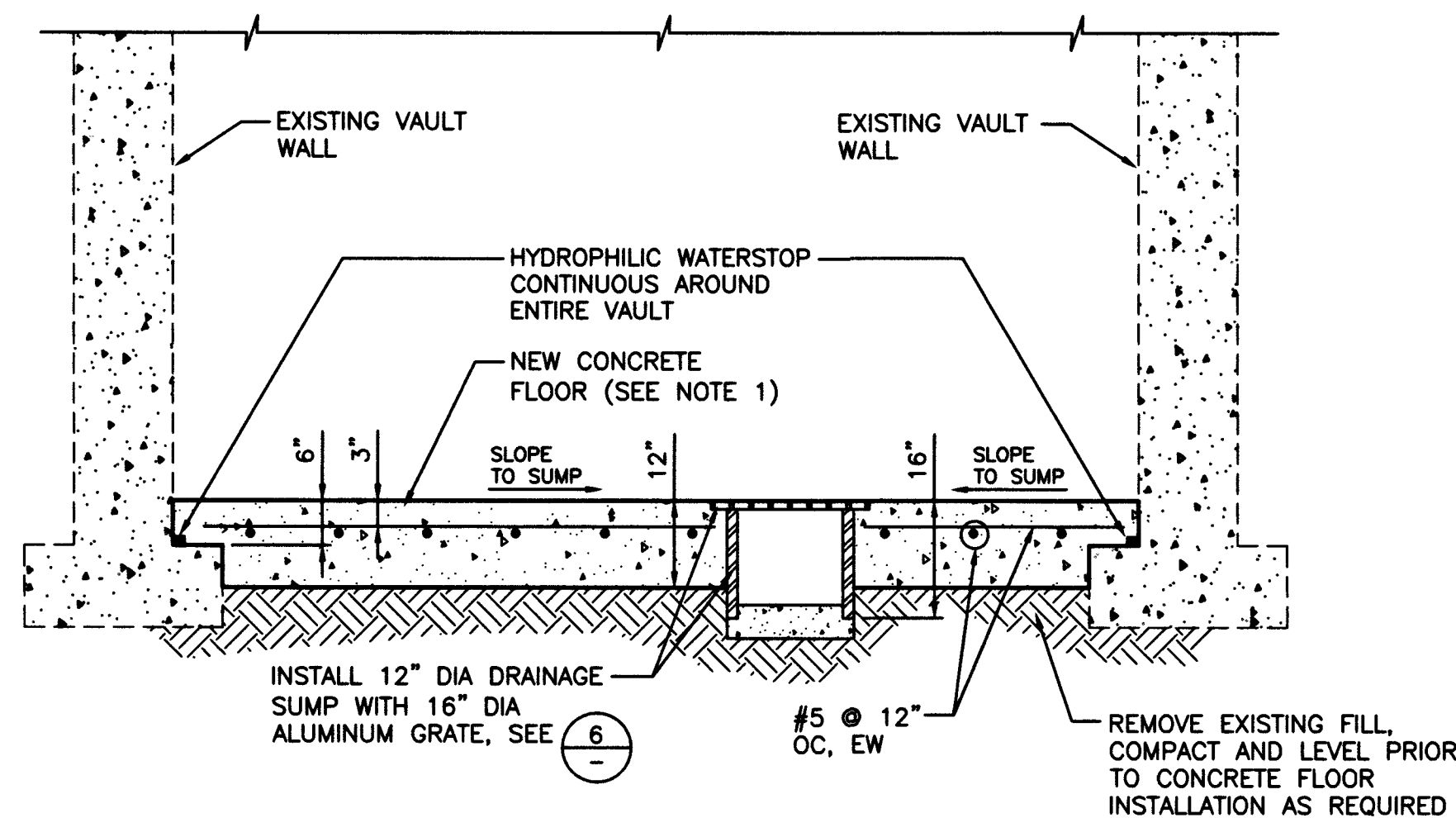
3
-



CORE DRILL PENETRATION DETAIL
NOT TO SCALE

4
CD8

C6,C7,C8,C9,C10,C11,C12,C13,
C14,C15,C16,C17

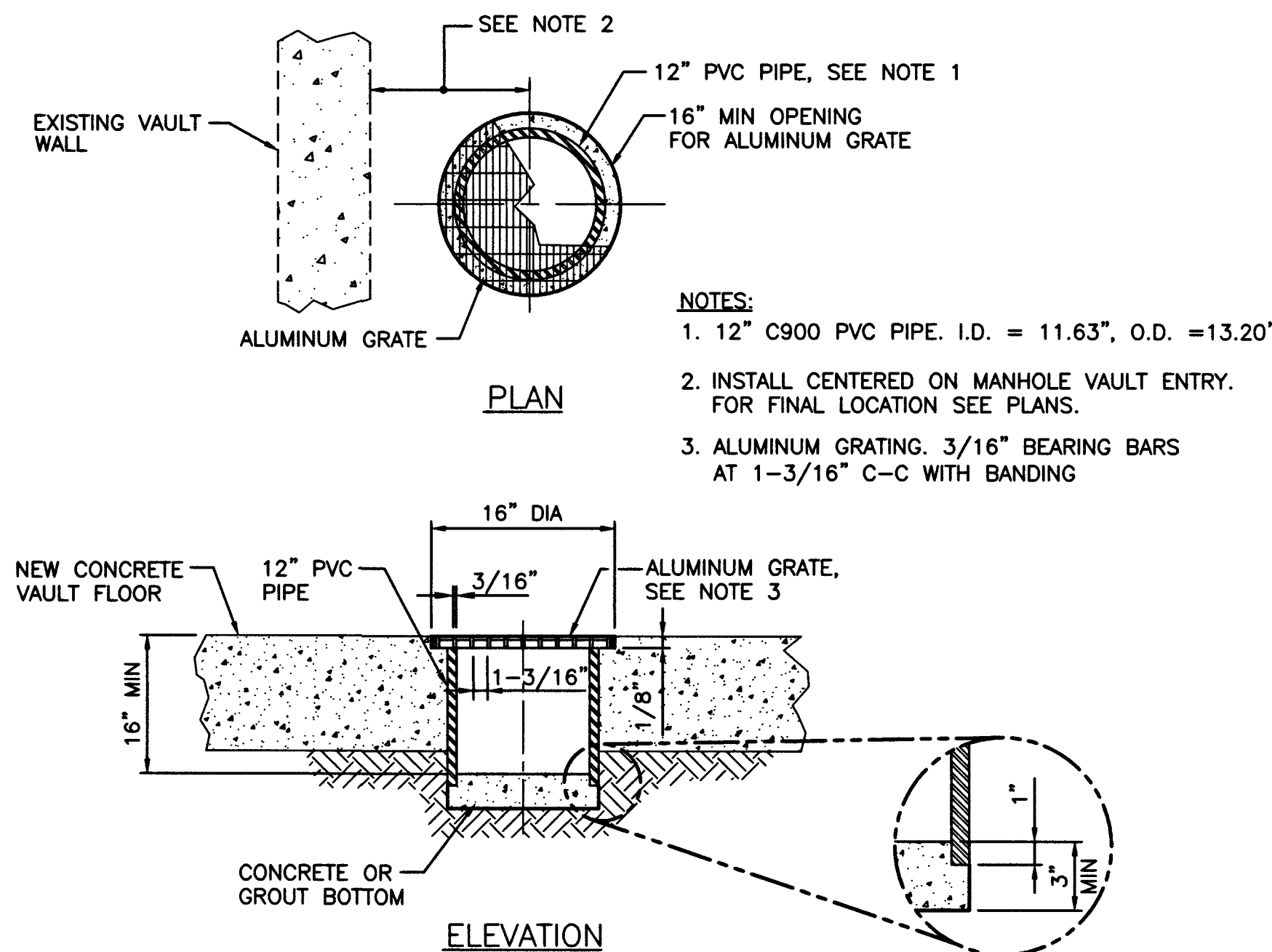


NOTES:

1. CONTRACTOR TO VERIFY EXISTING VAULT PIPING DOES NOT CONFLICT WITH LEVEL OF NEW CONCRETE FLOOR.

NEW VAULT FLOOR DETAIL WITH DRAINAGE SUMP
NOT TO SCALE

5
CD8
C7,C14



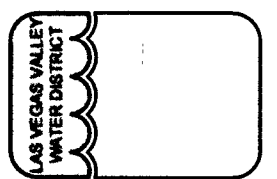
NOTES:

1. 12" C900 PVC PIPE. I.D. = 11.63", O.D. = 13.20"
2. INSTALL CENTERED ON MANHOLE VAULT ENTRY. FOR FINAL LOCATION SEE PLANS.
3. ALUMINUM GRATING. 3/16" BEARING BARS AT 1-3/16" C-C WITH BANDING

DRAINAGE SUMP INSTALLATION DETAIL
NOT TO SCALE

6
-

**LAS VEGAS VALLEY
WATER DISTRICT**
1001 S. VALLEY VIEW BOULEVARD
LAS VEGAS, NEVADA 89153
(702) 770-3911



VERIFY SCALE
1/2" = 0' 1/2"

BAR REPRESENTS
ONE AND ONE-HALF
INCHES ON ORIGINAL

MISCELLANEOUS VAULTS, RECONSTRUCTION
AND REPAIR, PHASE XX

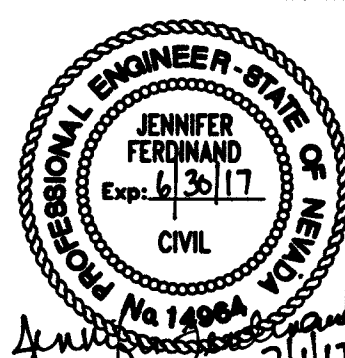
STANDARD DETAILS VIII

SCALE
AS SHOWN

DRAWN BY: CHRISTOPHER BLANK
CHECKED BY: JENNIFER FERDINAND
RECOMMENDED BY: CHRISTOPHER M. LUQUETTE
ACCEPTED BY: RYAN C. PEARSON

10/29/2015
10/30/2015

DATE
DATE
DATE
DATE

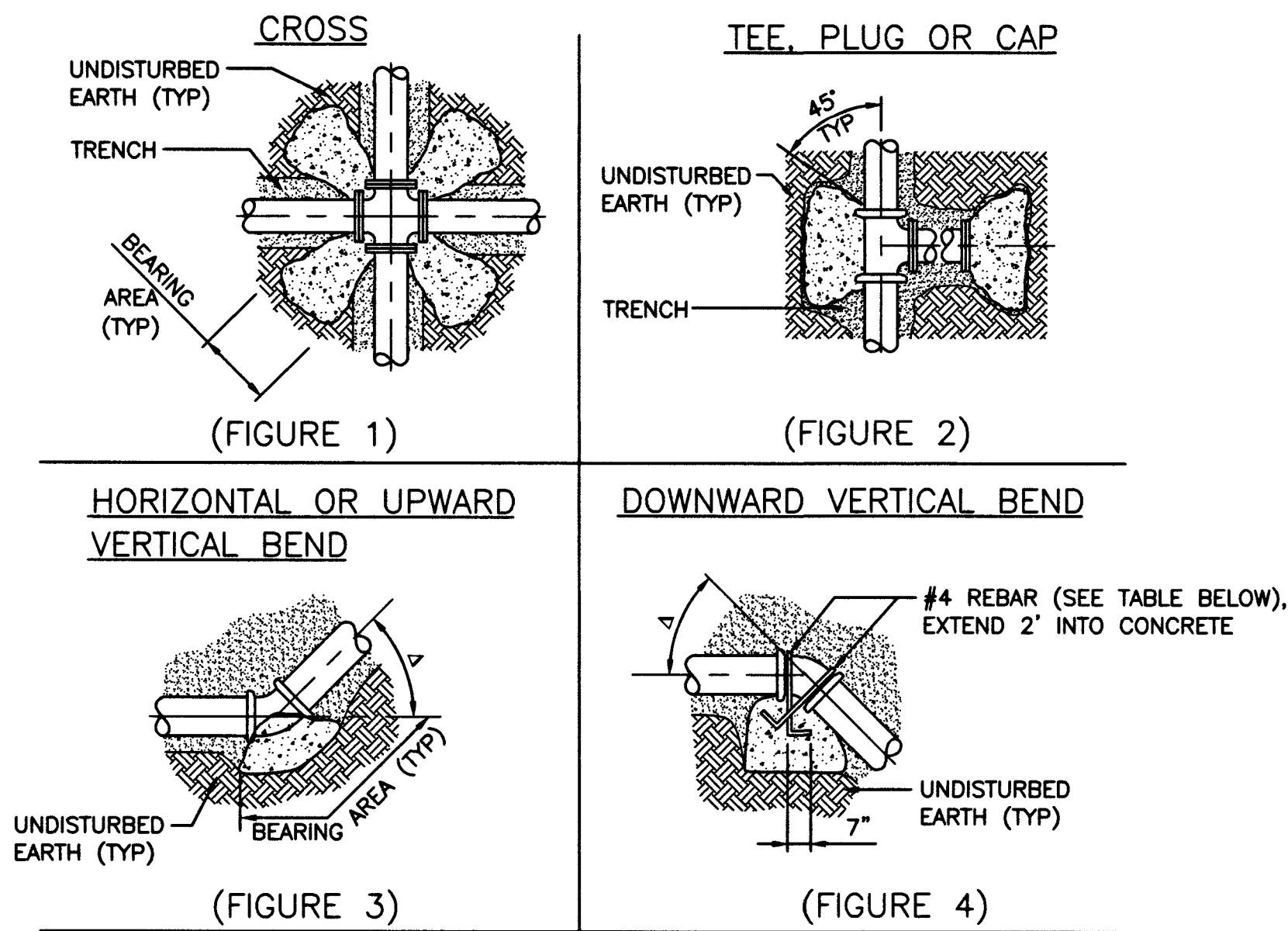


CONTRACT NUMBER

C1435

DRAWING NUMBER CD8
SHEET 30 OF 31

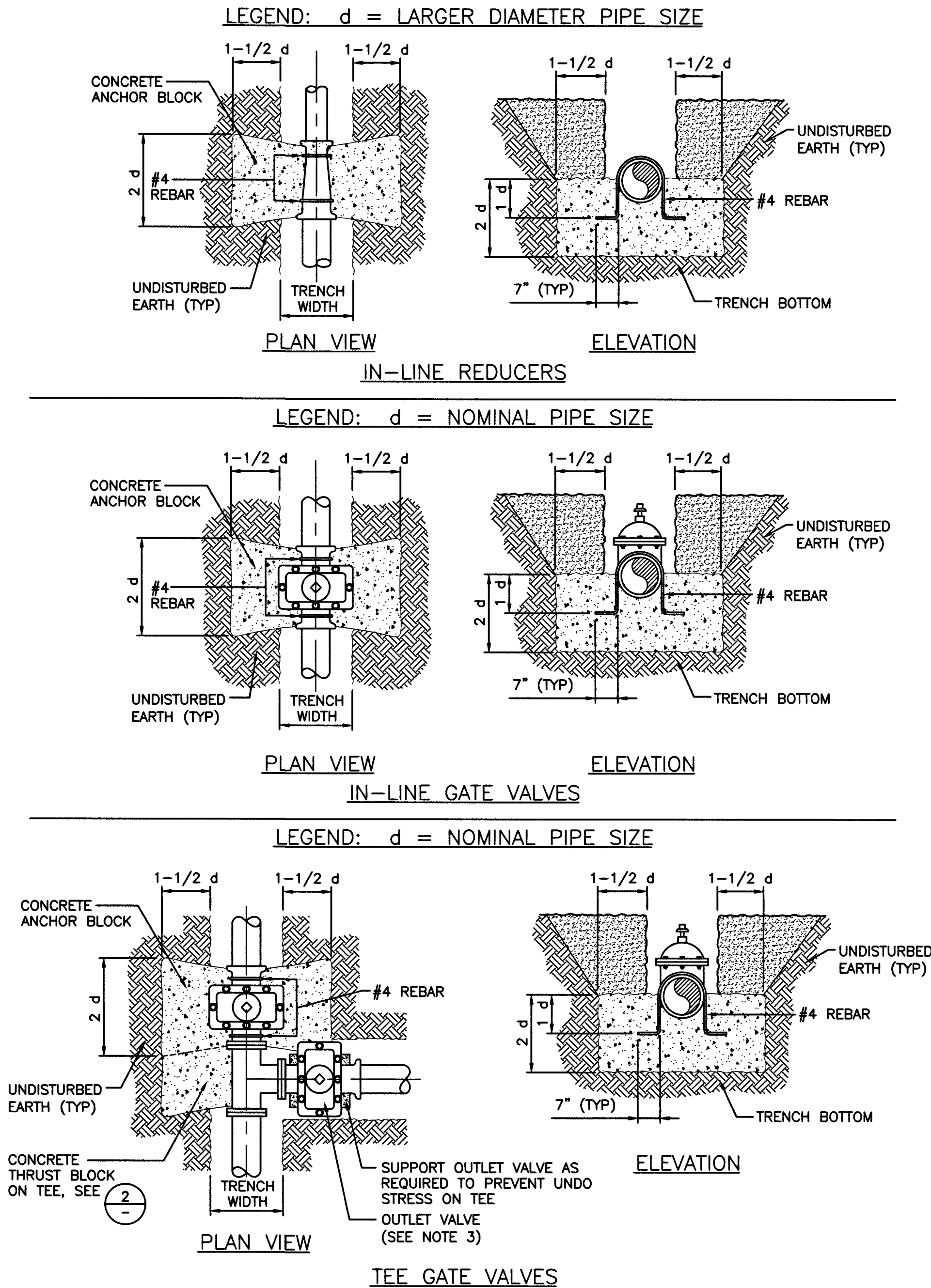
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H# 67687
CLV DWG # 565-503



NOTE:
COAT AND WRAP ALL METAL SURFACES IN ACCORDANCE WITH SECTION 09 96 00 OF THE SPECIFICATIONS. ALL CONCRETE SHALL BE 3000 PSI MINIMUM, 28 DAYS COMPRESSIVE STRENGTH. CONCRETE IS TO BE PLACED AGAINST UNDISTURBED EARTH. TABLE BELOW DENOTES MINIMUM BEARING AREA OR VOLUME OF THRUST BLOCK. SPECIAL DESIGN CALCULATIONS ARE TO BE SUBMITTED TO LVWD FOR APPROVAL IF ALLOWABLE SOIL BEARING CAPACITY IS LESS THAN 3000 PSF. ALL VERTICAL SURFACES NOT BEARING AGAINST UNDISTURBED EARTH SHALL BE FORMED.

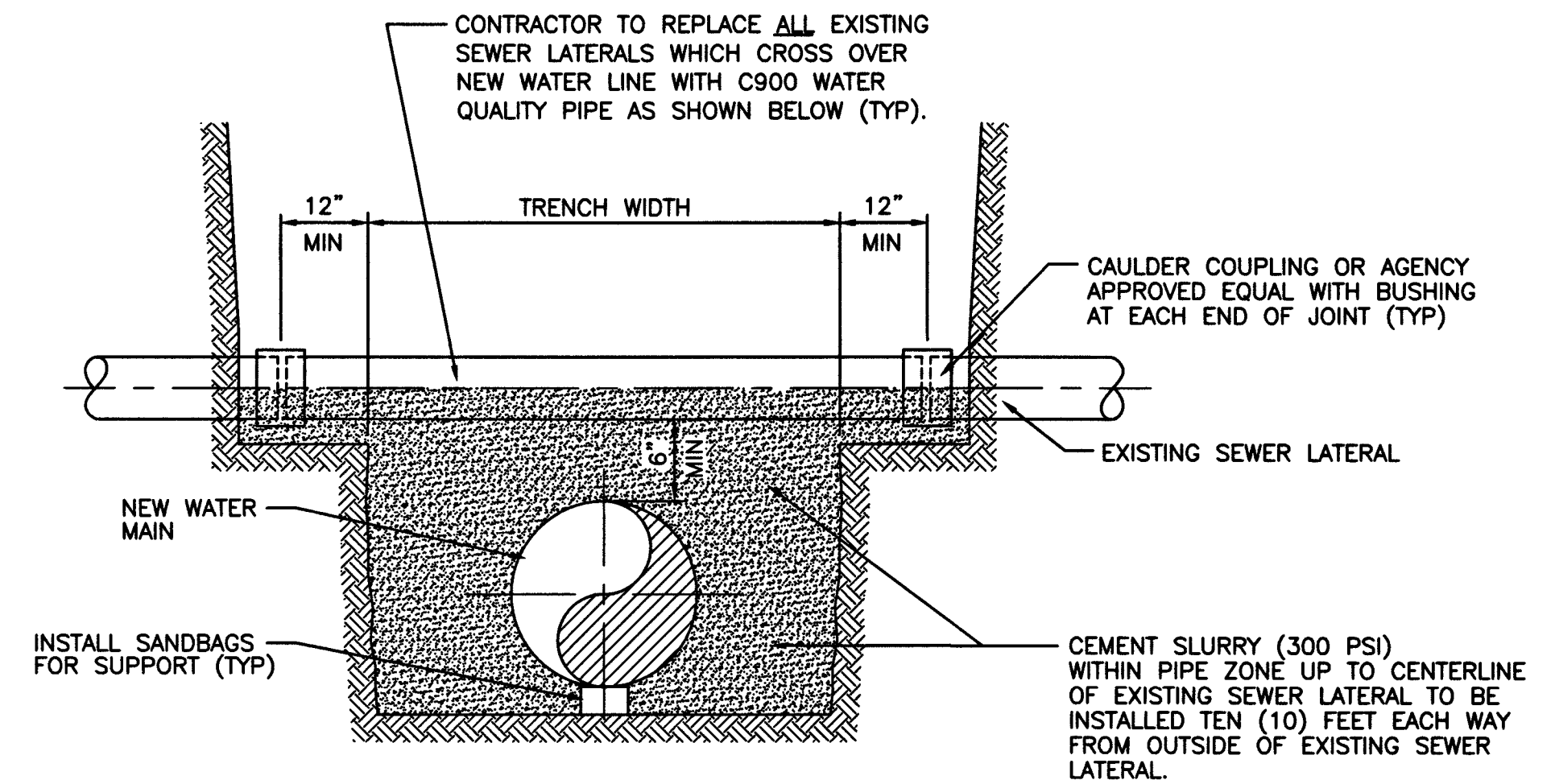
PIPE ID	BEARING AREA IN SQ FT						CONC/CU YDS		
	FIGURE 1	FIGURE 2	FIGURE 3, Δ				FIGURE 4, Δ		
4"	1	2	90"	45"	22 1/2"	11 1/2"	45"	22 1/2"	11 1/2"
6"	2	2	2	2	1	1	1.0	0.5	0.5
8"	2	3	4	2	1	1	1.5	1.0	0.5
10"	3	5	7	4	2	1	3.0	1.5	1.0
12"	4	8	11	6	3	2	4.0	2.5	1.5
16"	6	11	15	8	4	2	6.0	3.0	1.5
18"	10	20	28	15	8	4	10.5 *	6.0	3.0
20"	13	25	35	19	10	5	13.5 *	7.5	3.5
24"	16	31	44	24	12	6	16.0 **	9.0	4.5
	22	44	63	34	17	9	23.5 **	12.5 *	6.5

* #5 REBAR ** #6 REBAR

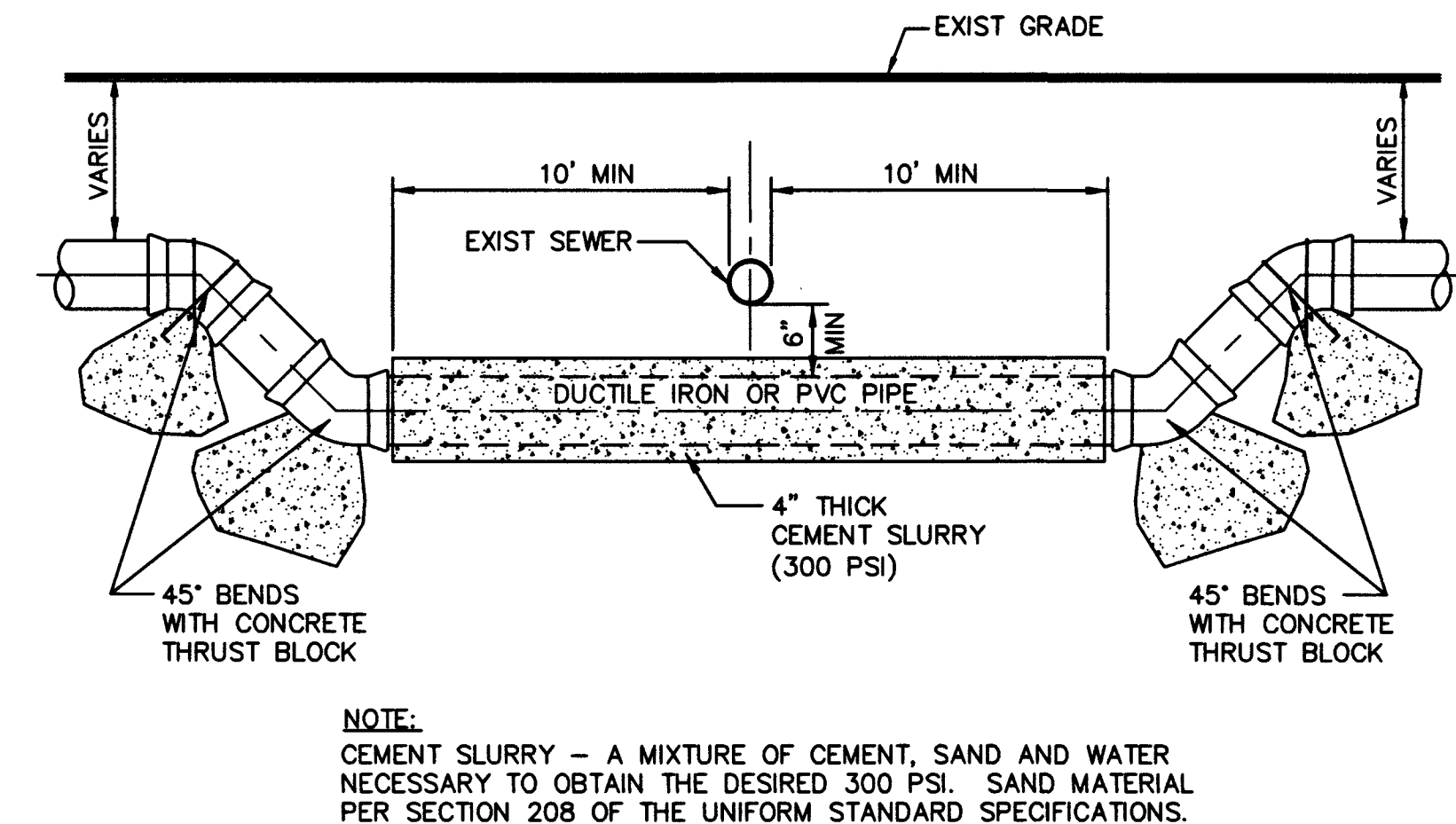


- NOTES:
- ALL CONCRETE SHALL BE 3000 PSI MINIMUM 28 DAYS COMPRESSIVE STRENGTH
 - ALL VALVES AND EXPOSED REBAR TO BE COATED AND WRAPPED IN ACCORDANCE WITH SECTION 09 96 00 OF THE LVWD SPECS, PROTECTIVE COATINGS.
 - WHEN PIPE IS INSTALLED BETWEEN TEE AND OUTLET VALVE AN ADDITIONAL CONCRETE ANCHOR BLOCK WILL BE REQUIRED ON THE OUTLET VALVE.

ANCHOR BLOCK DETAILS FOR REDUCERS AND GATE VALVES 2
NOT TO SCALE UDAC PLATE NO. 30 MODIFIED

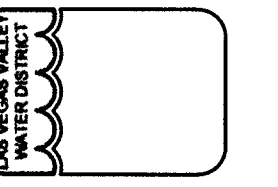


- NOTES:
- CONTRACTOR SHALL MAINTAIN CONTINUOUS SEWER SERVICE TO CUSTOMERS. SEWER LATERALS CUT/DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED IMMEDIATELY BY THE CONTRACTOR AT HIS EXPENSE PER DESIGN AND CONSTRUCTION STANDARDS OF THE AGENCY HAVING JURISDICTION.



Call before you dig
1-800-4-A- Dig
Call before you dig
1-800-4-A- Dig

**LAS VEGAS VALLEY
WATER DISTRICT**
1001 S. VALLEY VIEW BOULEVARD
LAS VEGAS, NEVADA 89153
(702) 775-3011



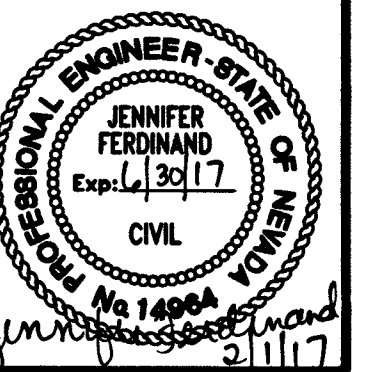
VERIFY SCALE
1/2" = 1'-0"
1/4" = 1'-0"
1/8" = 1'-0"
1/16" = 1'-0"
1/32" = 1'-0"
1/64" = 1'-0"

**MISCELLANEOUS VAULTS, RECONSTRUCTION
AND REPAIR, PHASE XX**

STANDARD DETAILS IX

DRAWN BY: CHRISTOPHER BLANK
CHECKED BY: JENNIFER FERDINAND
RECOMMENDED BY: CHRISTOPHER M. LUQUETTE
ACCEPTED BY: RYAN C. PEARSON

DATE: 10/29/2015
DATE: 10/30/2015
DATE: 10/30/2015
DATE: 10/30/2015



CONTRACT NUMBER
C1435
DRAWING NUMBER CD9
SHEET 31 OF 31