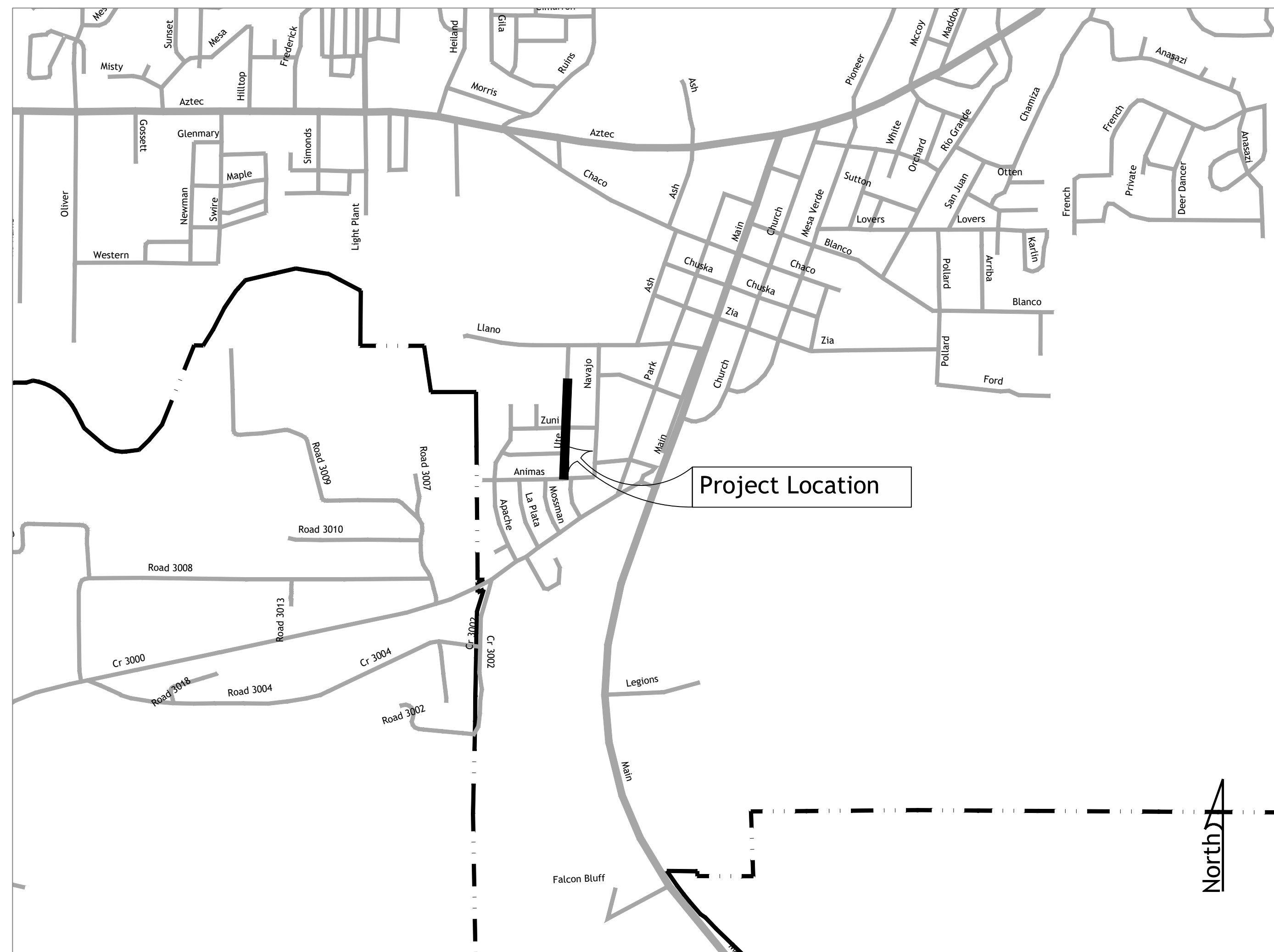
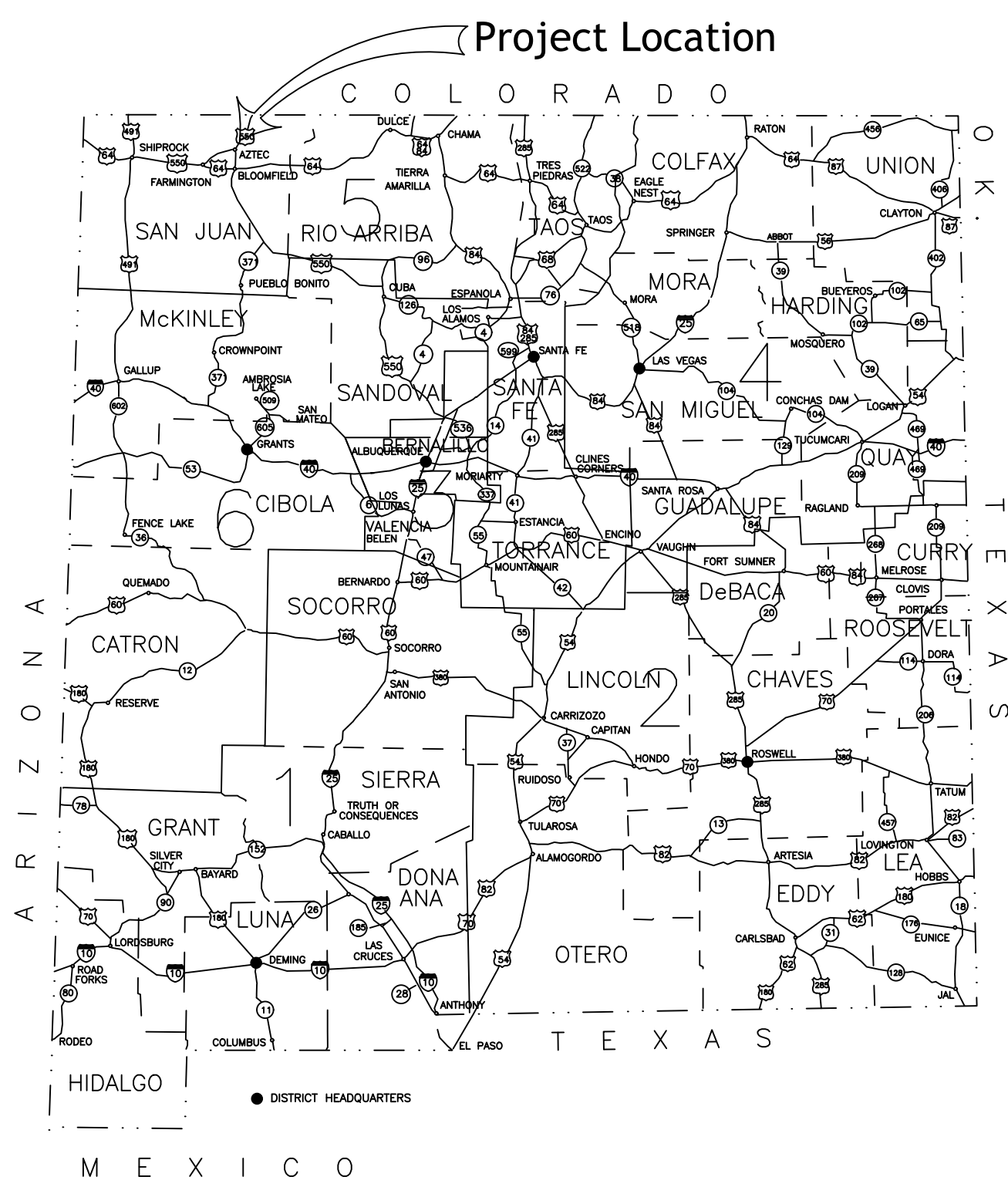


Ute Avenue Sewer Replacement

City of Aztec, New Mexico

San Juan County



Vicinity Map
Scale: 1" = 100'

Know what's below.
Call before you dig.

It's the Law!

New Mexico One Call, Inc.

Professional Resources for Damage Prevention

UTILITY OWNERS

CITY OF AZTEC DEPARTMENT OF PUBLIC WORKS
(505) 334-7660

CITY OF AZTEC ELECTRIC DEVELOPMENT
(505) 334-7660

QWEST (TELEPHONE)
(505) 325-2311

COMCAST CABLE
VICTOR APPLGATE 505-402-0055

PNM (GAS)
505-324-3783

APPROVED FOR CONSTRUCTION:

William Watson, PE
WILLIAM WATSON, PE
PUBLIC WORKS DIRECTOR

9/11/2017
DATE

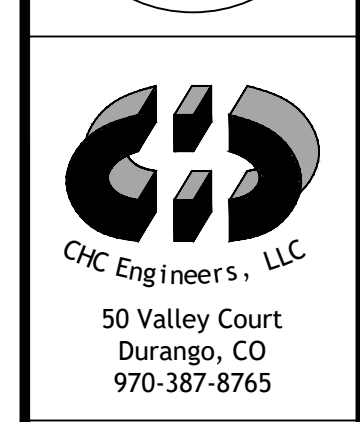
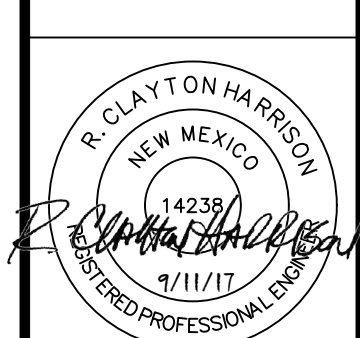
Sheet List Table	
Sheet	Sheet Title
1-1	Cover Sheet
2-1	Project Overview
3-1	Ute Sewer Plan and Profile
3-2	Ute Sewer Plan and Profile
4-1	Sewer Line Construction Details
4-2	Sewer Line Construction Details

Revision Log	
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City of Aztec

Project:
UTE AVENUE SEWER REPLACEMENT

Sheet Description:
COVER SHEET



Project Date:
9/11/17

Proj: 17005



MH#1
STA: 0+00
BUILD 4" ϕ MANHOLE
N:2116165.66
E:2673767.44
TIE EXISTING SEWERLINE
TO NEW MANHOLE

MH#2
STA: 2+87.97
BUILD 4" ϕ MANHOLE
N:2116453.47
E:2673777.31
TIE EXISTING SEWERLINE
TO NEW MANHOLE

MH#3
STA: 5+68.02
BUILD 4" ϕ MANHOLE
N:2116733.32
E:2673787.68

Control Point
N:2116714.38
E:2673817.75
EL:5613.91

MH#4
STA: 5+66.87
BUILD 4" ϕ MANHOLE
N:2116747.42
E:2673800.20
TIE EXISTING SEWERLINE
TO NEW MANHOLE

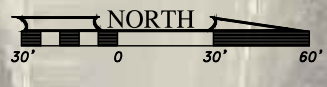
Control Point
N:2116969.09
E:2673819.25
EL:5609.99

MH#5
STA: 8+30.28
BUILD 4" ϕ MANHOLE
N:2116990.53
E:2673812.22

Control Point
N:2117034.28
E:2673827.86
EL:5608.06

Ute Sewer, STA: 12+58.55, 14.61 L
Remove Existing Manhole

MH#6
STA: 11+42.05
BUILD 4" ϕ MANHOLE
N:2117301.71
E:2673831.45
TIE EXISTING SEWERLINE
TO NEW MANHOLE

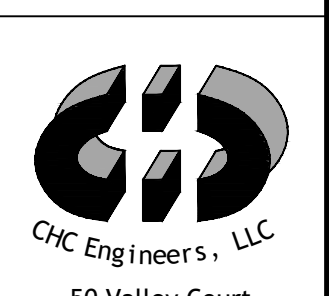
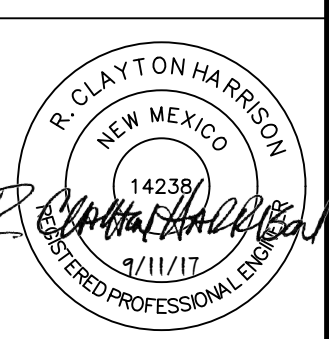


Revision Log	
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Owner:
City of Aztec

Project:
UTE AVENUE SEWER REPLACEMENT

Sheet Description:
PROJECT OVERVIEW



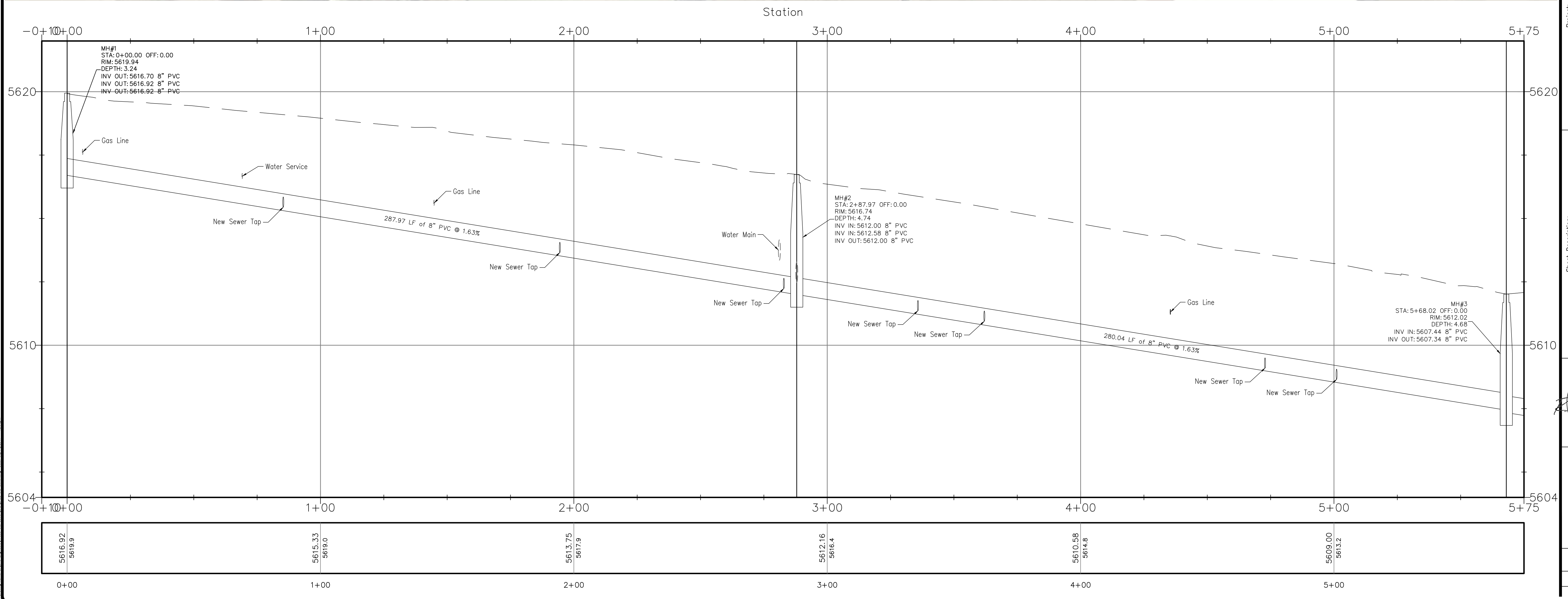
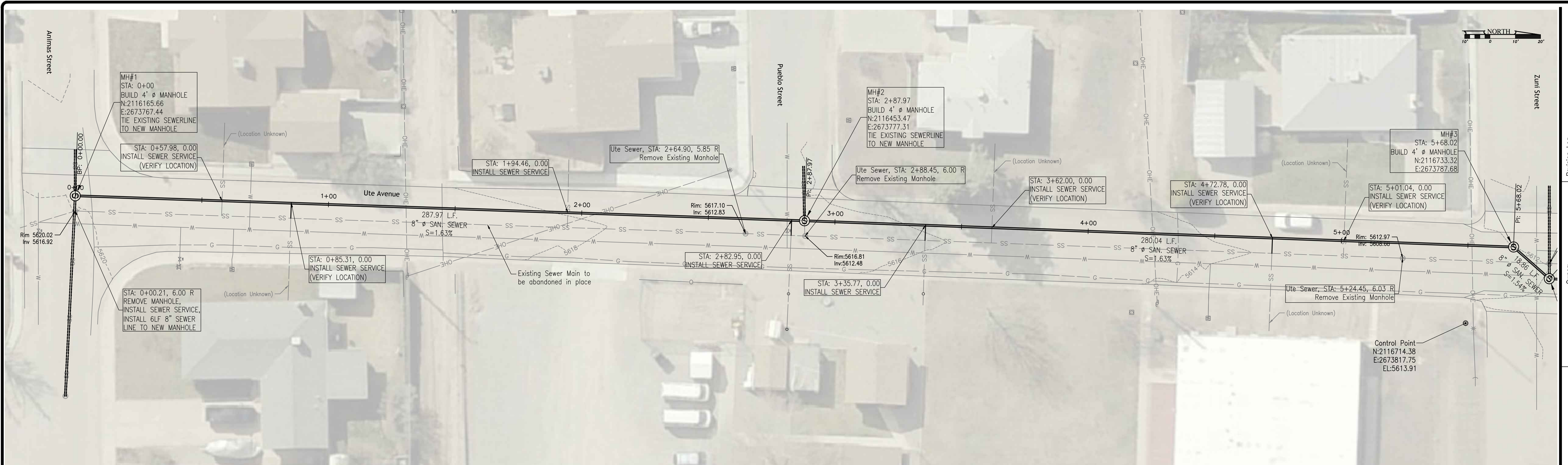
50 Valley Court
Durango, CO
970-387-8765

Project Date:
9/11/17
Proj: 17005

The Topographic Survey for this project was performed by Johnson Mapping and Surveying LLC

JMAS
JOHNSON MAPPING AND SURVEYING, LLC
PO BOX 2174
FARMINGTON, NM 87499-2174
505-360-8029
ALEX@JOHNSONMAPPING.BZ

Drawing created by JMAS using AutoCAD 2010. The drawing was created on 09/11/2017 at 12:30pm.



Revision Log

1	
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Plot Date: 09/11/2017 - 12:30pm

Owner: City of Aztec

Project: UTE AVENUE SEWER REPLACEMENT

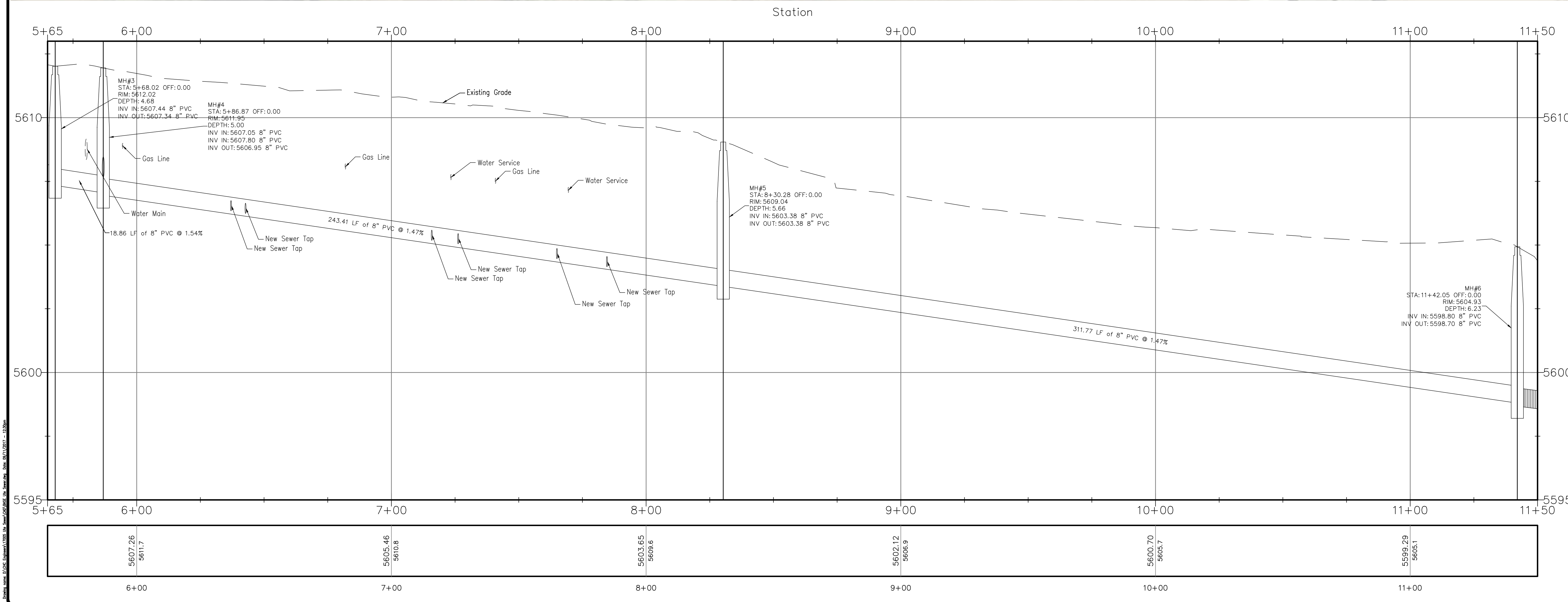
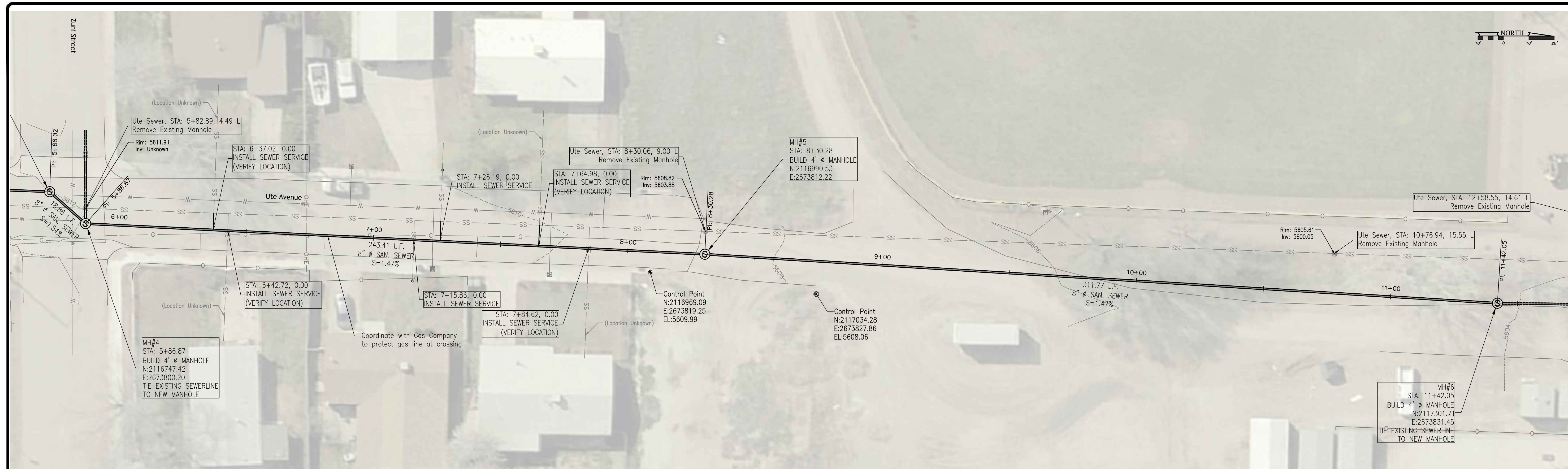
Sheet Description: UTE SEWER PLAN AND PROFILE

R. CLAYTON HARRISON
NEW MEXICO
REGISTERED PROFESSIONAL ENGINEER
1/11/17

CHC Engineers, LLC
50 Valley Court
Durango, CO
970-387-8765

Project Date: 9/11/17
Proj: 17005

3-1



Revision Log

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2	
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5	
6	

Owner: City of Aztec

Project: UTE AVENUE SEWER REPLACEMENT

Sheet Description: UTE SEWER PLAN AND PROFILE

Professional Engineer Seal: R. CLAYTON HARRISON, NEW MEXICO, 14238, 4/11/17

CHC Engineers, LLC
50 Valley Court
Durango, CO
970-387-8765

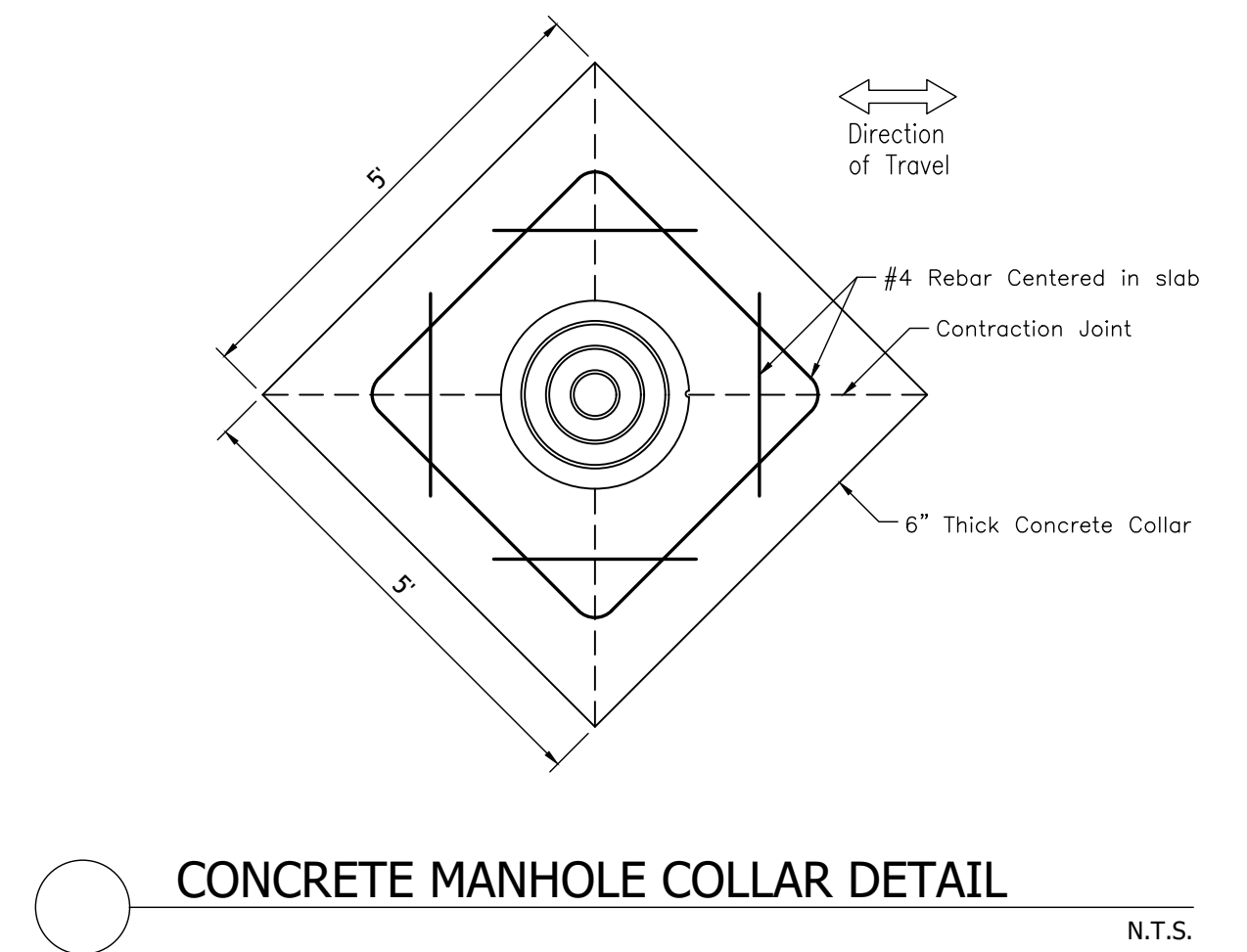
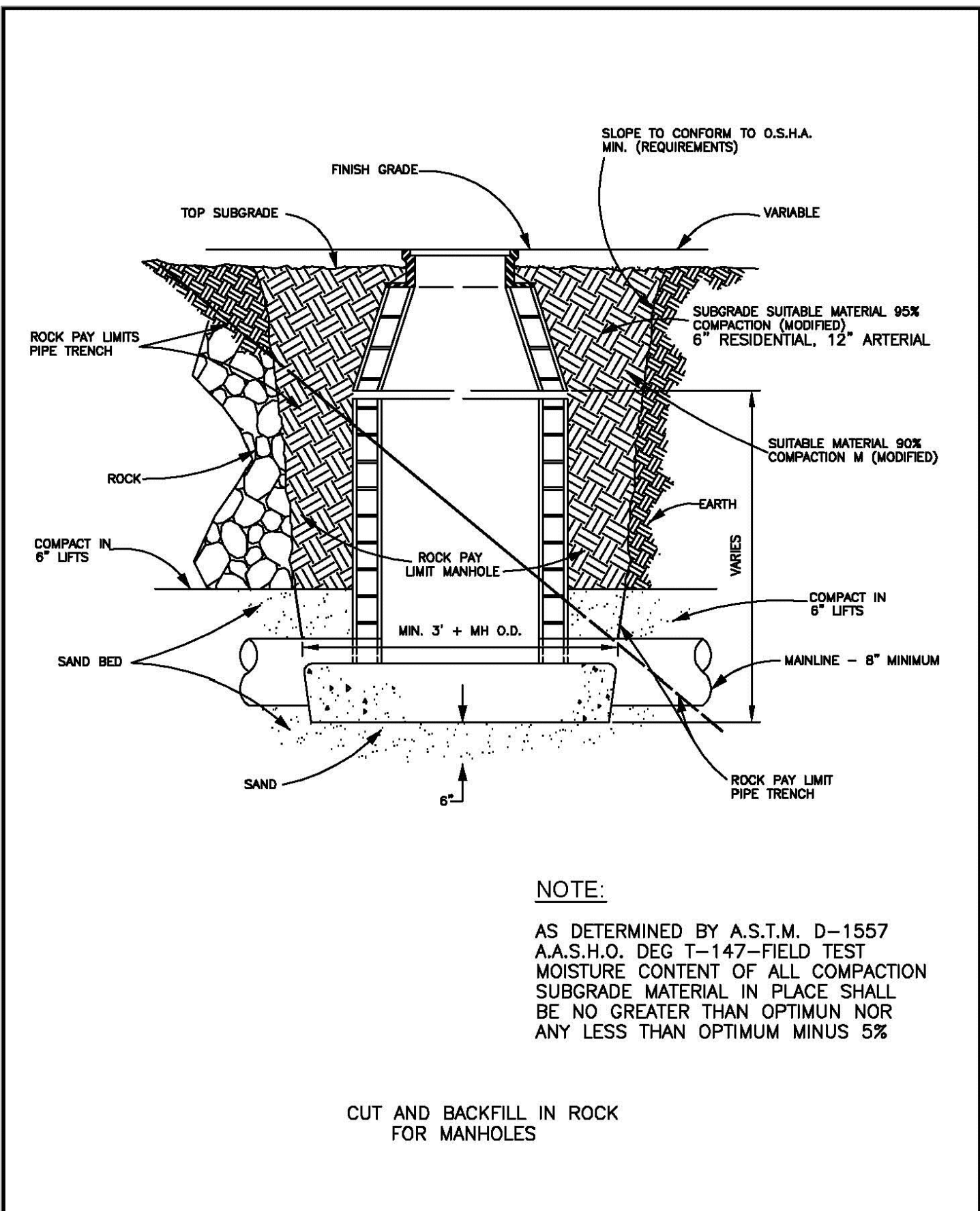
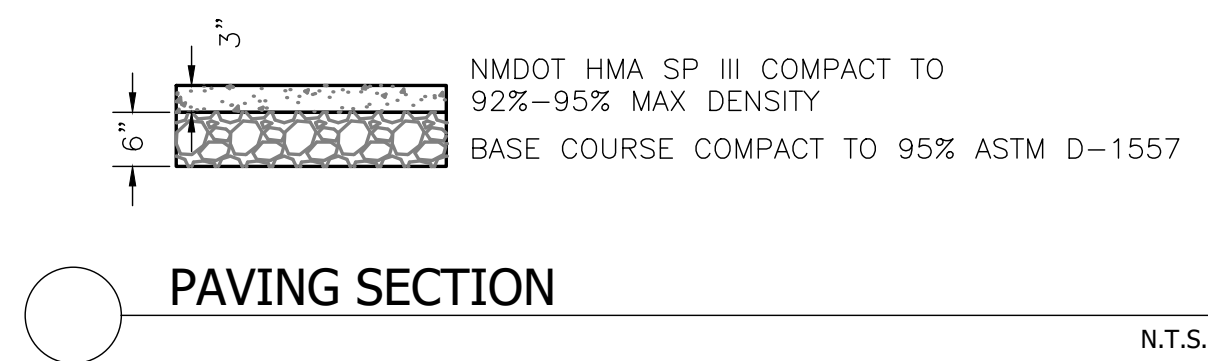
Project Date: 9/11/17
Proj: 17005

Plot Date: 09/11/2017 - 12:30pm

Drawing name: U:\CS\Engineer\17005_Ute Avenue\CHC\17005_Ute Avenue.dwg, Date: 09/11/2017 - 12:30pm

GENERAL NOTES

- Contractor shall follow 2006 New Mexico APWA standards for construction of all infrastructure in this plan.
- Contractor to field verify exact location and depth of existing utility lines. (incidental to project)
- Contractor to coordinate with the city and all appropriate utility owners as required, prior to construction. Three weeks notice to be given to utilities (main line, laterals, and utility poles) set for relocation.
- Protect all existing utility lines during construction to maintain services to existing properties.
- Compact all fill slopes to 95% of max density within 3% of optimum moisture.
- Bottom of trench is to be excavated to a smooth, uniform grade and hand leveled, if necessary, to secure an even bearing surface for the pipe.
- All materials shall be new, unused, and of the best standard quality available.
- Backfill shall be taken from spoil bank, if free of rubble and organic material, and compacted to 95% maximum density per ASTM D-698.
- Provide 3' minimum cover over pipe unless otherwise noted on plan sheet.
- All fitting and joint restraints shall be considered as incidental to the utility pipe item.
- Export material to be removed off the project site, incidental to project.
- Demo all existing manhole rings and lids to city public works yard at 610 Western Dr. Aztec, NM
- The contractor shall pick up city-supplied materials at the public works yard at 610 Western Drive, Aztec, NM.
- All open trenches shall be protected with wooden snow fence when construction activity is suspended or the trench is not supervised to assure public safety.
- Permanent existing survey pins, fencing, and other appurtenances affected by construction to be removed, relocated and adjusted to finished grade by contractor, incidental to project.



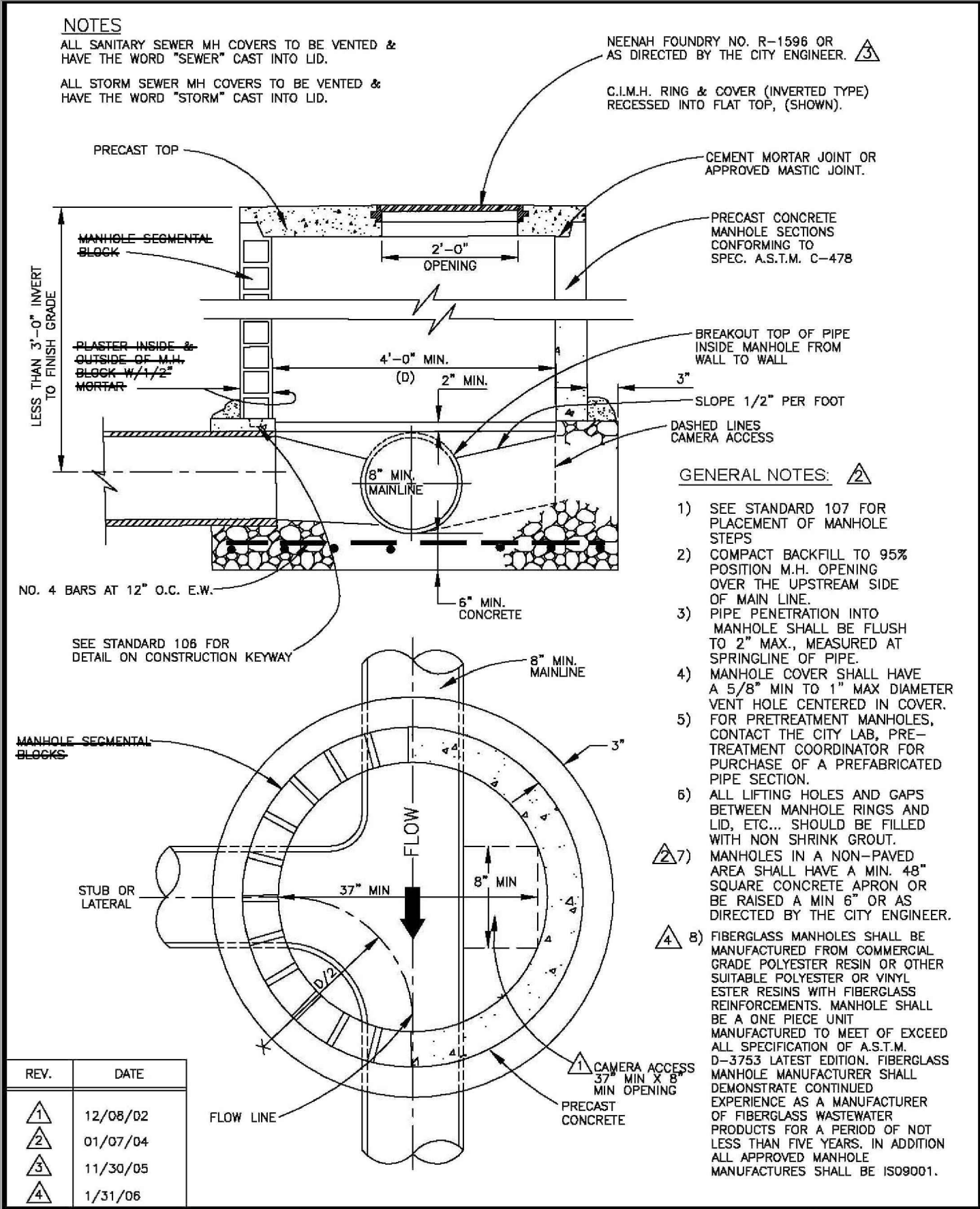
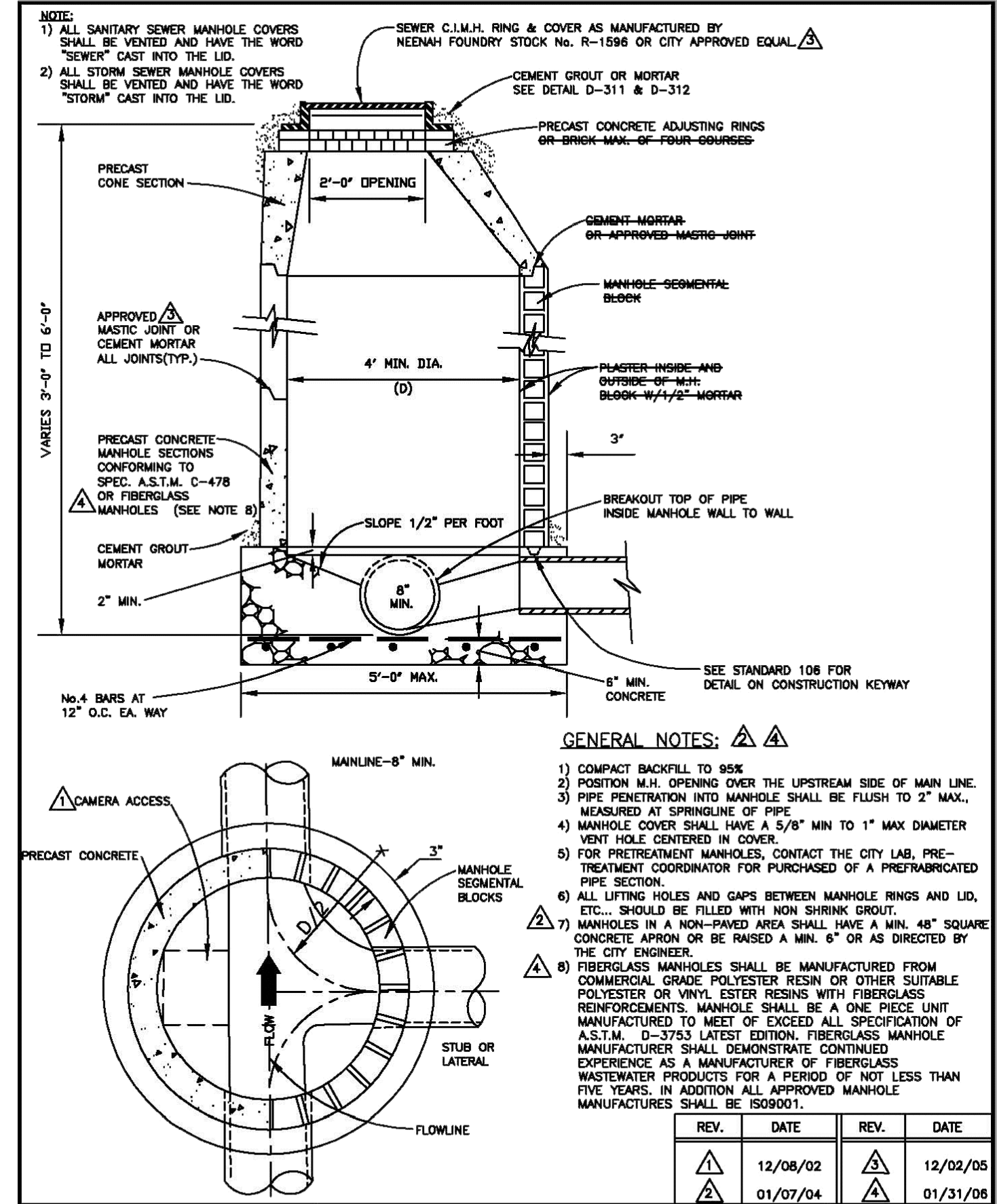
CONSTRUCTION STANDARDS

TRENCH CUTS (MANHOLES) TRENCH WIDTHS

STANDARD No. D-111 SHEET 1 OF 1

CITY OF AZTEC

PUBLIC WORKS DEPARTMENT



CONSTRUCTION STANDARDS

SHALLOW MANHOLE TYPE "B"

STANDARD NO. D-102 SHEET 1 OF 1

CITY OF AZTEC

PUBLIC WORKS DEPARTMENT

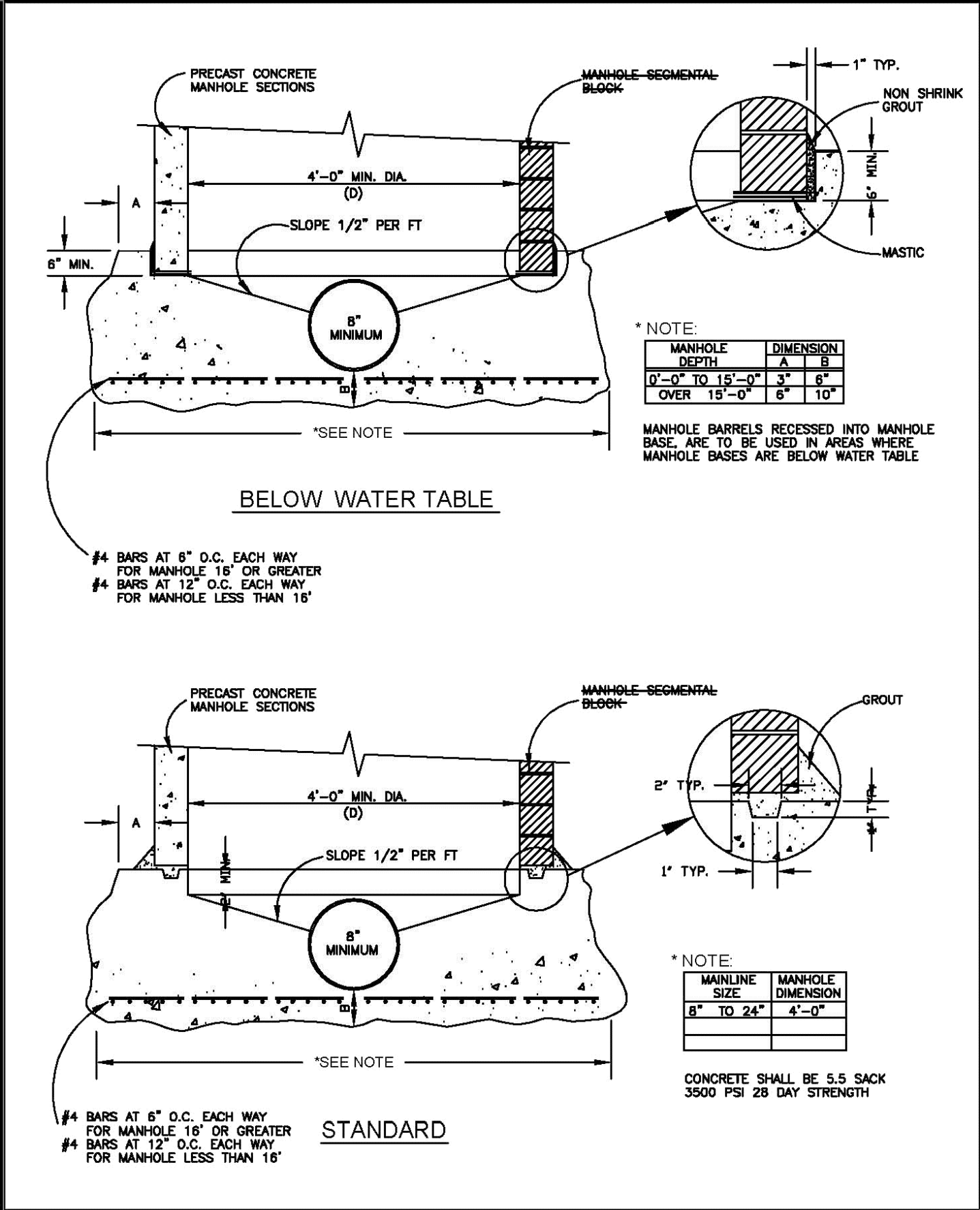
CONSTRUCTION STANDARDS

SHALLOW MANHOLE TYPE "A"

STANDARD NO. D-101 SHEET 1 OF 1

CITY OF AZTEC

PUBLIC WORKS DEPARTMENT



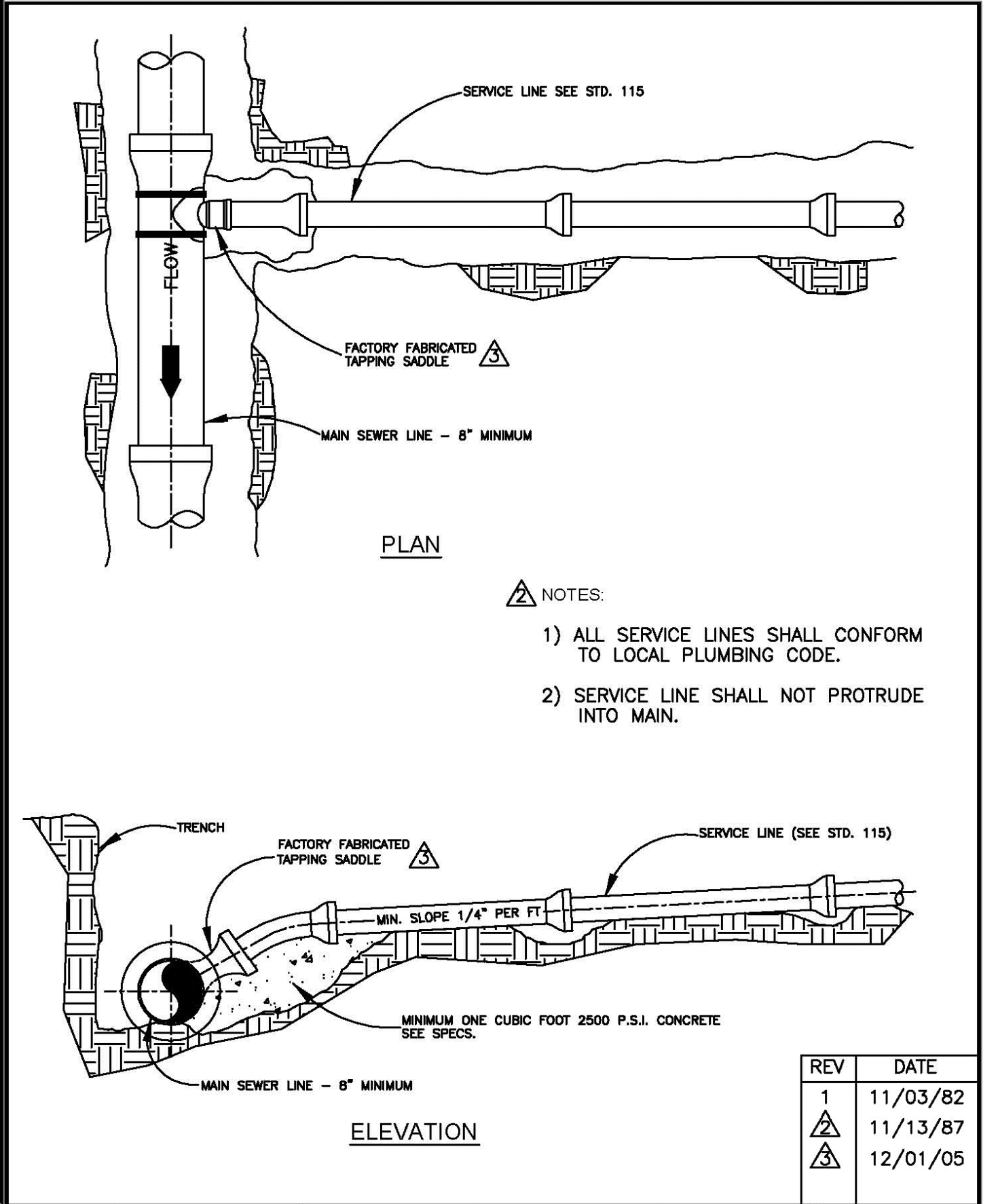
CONSTRUCTION STANDARDS

MANHOLE BASES

STANDARD No. D-106 SHEET 1 OF 1

CITY OF AZTEC

PUBLIC WORKS DEPARTMENT



CONSTRUCTION STANDARDS

TAP SADDLE CONNECTION

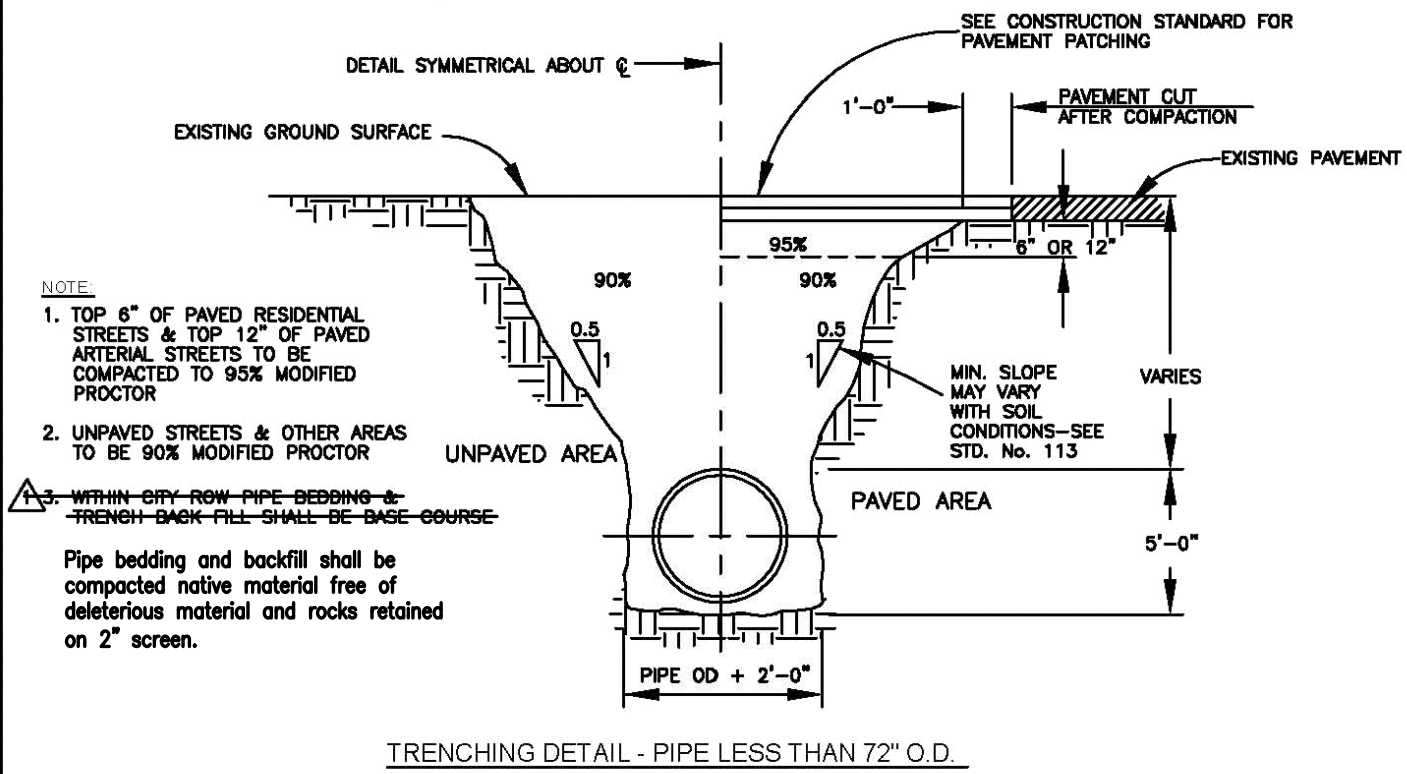
STANDARD No. D-109 SHEET 1 OF 1

CITY OF AZTEC

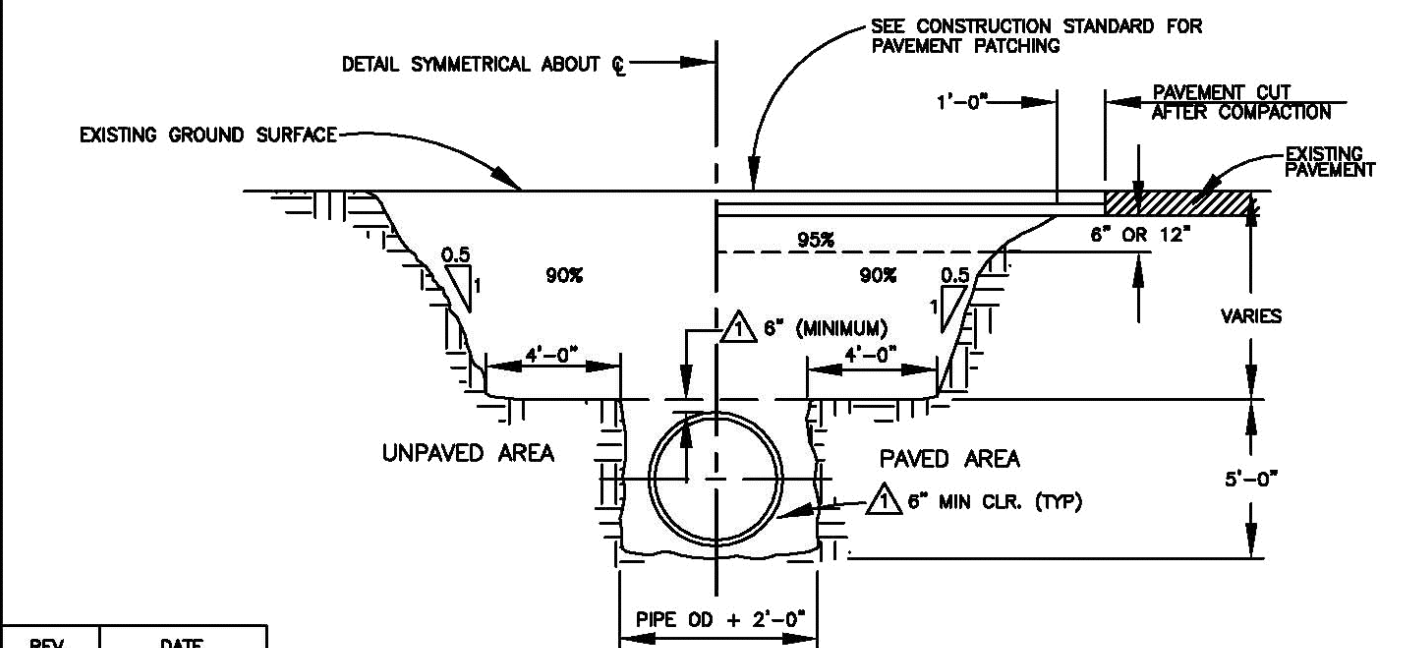
PUBLIC WORKS DEPARTMENT

Revision Log	1	2	3	4	5	6
Owner:	City of Aztec					
Project:	UTE AVENUE SEWER REPLACEMENT					
Sheet Description:	SEWER LINE CONSTRUCTION DETAILS					
Professional Engineer						
Company						
Address	50 Valley Court, Durango, CO 970-387-8765					
Project Date:	9/11/17					
Proj:	17005					
Page	4-1					

PIPE DIA.	TRENCH WIDTH	PIPE DIA.	TRENCH WIDTH
6"	2'-6"	30"	6'-6"
10"	2'-8"	36"	7'-0"
12"	3'-0"	42"	8'-0"
15"	3'-0"	48"	8'-6"
18"	4'-0"	54"	10'-0"
21"	4'-6"	60"	13'-0"
24"	5'-6"	72"	14'-0"



TRENCHING DETAIL - PIPE LESS THAN 72" O.D.



TRENCHING DETAIL - PIPE OVER 72" O.D.

REV.	DATE
1	12/08/02

CONSTRUCTION STANDARDS

TRENCH DETAILS

STANDARD No. D-112 SHEET 1 OF 3

CONSTRUCTION STANDARDS

TRENCH DETAILS

CITY OF AZTEC
PUBLIC WORKS DEPARTMENT

TRENCH SHORING-MINIMUM REQUIREMENTS

DEPTH OF TRENCH	CONDITION OR KIND OF EARTH	SIZE & SPACING OF MEMBERS										
		UPRIGHTS		STRINGERS		CROSS BRACES—SEE NOTE 1						
		MINIMUM DIMENSION	MAXIMUM SPACING	MINIMUM DIMENSION	MAXIMUM SPACING	WIDTH OF TRENCH				MAXIMUM SPACING		
FEET		INCHES	FEET	INCHES	FEET	INCHES	INCHES	INCHES	INCHES	FEET	FEET	
5' TO 10'	HARD, COMPACT.	3X4 OR 2X6	6	2X6	4X4	4X6	6X6	6X6	6X6	6X6	4	6
		3X4 OR 2X6	3	4X6	4	2X6	4X4	4X6	6X6	6X6	4	6
10' TO 15'	SOFT, SANDY, OR FILLED.	CLOSE SHEETING	4X6	4	4X4	4X6	6X6	6X6	6X6	6X6	4	6
		HYDROSTATIC PRESSURE.	3X4 OR 2X6	6X8	4	4X4	4X6	6X6	6X6	6X6	4	6
15' TO 20'	HARD.	3X4 OR 2X6	4	4X6	4	4X4	4X6	6X6	6X6	6X6	4	6
		LIKELY TO CRACK.	3X4 OR 2X6	2	4X6	4	4X4	4X6	6X6	6X6	6X6	4
OVER 20'	ALL KINDS OR CONDITIONS.	CLOSE SHEETING	4X12	4	4X12	6X6	6X6	8X10	10X10	10X10	4	6
		HYDROSTATIC PRESSURE.	3X8	6X8	4	4X12	6X6	6X6	8X10	10X10	4	6

NOTES: 1) TRENCH JACKS MAY BE USED IN LIEU OF, OR IN COMBINATION WITH, CROSS BRACES. SHORING IS NOT REQUIRED IN SOLID ROCK, HARD SHALE, OR HARD SLAG. WHERE DESIRABLE, SHEET STEEL PILING AND BRACING OF EQUAL STRENGTH MAY BE SUBSTITUTED FOR WOOD.

PIPE SIZE	TRENCH PAY WIDTH									
	3'	4'	6'	8'	10'	12'	14'	16'	18'	20'
4	5.00	5.00	7.00	9.00	11.00	13.00	15.00	17.00	19.00	21.00
6	5.00	5.00	7.00	9.00	11.00	13.00	15.00	17.00	19.00	21.00
8	5.00	5.00	7.00	9.00	11.00	13.00	15.00	17.00	19.00	21.00
10	5.50	5.50	7.50	9.50	11.50	13.50	15.50	17.50	19.50	21.50
12	5.50	5.50	7.50	9.50	11.50	13.50	15.50	17.50	19.50	21.50
14	5.75	5.75	7.75	9.75	11.75	13.75	15.75	17.75	19.75	21.75
15	5.75	5.75	7.75	9.75	11.75	13.75	15.75	17.75	19.75	21.75
16	5.75	5.75	7.75	9.75	11.75	13.75	15.75	17.75	19.75	21.75
18	6.00	6.00	8.00	10.00	12.00	14.00	16.00	18.00	20.00	22.00
20	6.25	6.25	8.25	10.25	12.25	14.25	16.25	18.25	20.25	22.25
21	6.25	6.25	8.25	10.25	12.25	14.25	16.25	18.25	20.25	22.25
24	6.50	6.50	8.50	10.50	12.50	14.50	16.50	18.50	20.50	22.50
27	6.75	6.75	8.75	10.75	12.75	14.75	16.75	18.75	20.75	22.75
30	7.00	7.00	9.00	11.00	13.00	15.00	17.00	19.00	21.00	23.00
36	7.50	7.50	9.50	11.50	13.50	15.50	17.50	19.50	21.50	23.50
42	8.00	8.00	10.00	12.00	14.00	16.00	18.00	20.00	22.00	24.00
48	8.50	8.50	10.50	12.50	14.50	16.50	18.50	20.50	22.50	24.50
54	9.00	9.00	11.00	13.00	15.00	17.00	19.00	21.00	23.00	25.00
60	9.50	9.50	11.50	13.50	15.50	17.50	19.50	21.50	23.50	25.50
66	10.00	10.00	12.00	14.00	16.00	18.00	20.00	22.00	24.00	26.00
72	10.50	10.50	12.50	14.50	16.50	18.50	20.50	22.50	24.50	26.50
78	11.00	11.00	13.00	15.00	17.00	19.00	21.00	23.00	25.00	27.00
84	11.50	11.50	13.50	15.50	17.50	19.50	21.50	23.50	25.50	27.50
90	12.00	12.00	14.00	16.00	18.00	20.00	22.00	24.00	26.00	28.00
96	12.50	12.50	14.50	16.50	18.50	20.50	22.50	24.50	26.50	28.50
102	13.00	13.00	15.00	17.00	19.00	21.00	23.00	25.00	27.00	29.00
108	13.50	13.50	15.50	17.50	19.50	21.50	23.50	25.50	27.50	29.50

- NOTE:
 1. PAYMENT FOR PAVEMENT REMOVAL AND REPLACEMENT SHALL BE DETERMINED ON THESE WIDTHS REGARDLESS OF THE AMOUNT OF PAVEMENT ACTUALLY REMOVED EXCEPT THAT IF AN ENTIRE STREET IS REMOVED PAYMENT SHALL BE LIMITED TO THE STREET PAVEMENT WIDTH.
 2. IN THE EVENT A LINE IS LOCATED SUCH THAT REMOVAL OF CURB, GUTTER AND SIDEWALK IS REQUIRED PAVEMENT WIDTH SHALL BE LIMITED TO 1/2 THE PAY WIDTH PLUS THE DISTANCE FROM THE CENTERLINE OF THE PIPE TO GUTTER. PAYMENT FOR REMOVAL AND REPLACEMENT OF CURB AND SIDEWALK SHALL BE AS MEASURED IN THE FIELD.
 3. THE ADDITIONAL 1' PAVEMENT CUT BACK SHALL BE MADE AFTER BACKFILLING AND TESTING IS COMPLETE. THIS CUT SHALL BE REMOVED TO A NEAT LINE. IF THE CONTRACTOR'S OPERATION PRODUCES A JAGGED EDGE HE SHALL BE REQUIRED TO REMOVE ADDITIONAL PAVING UNTIL A NEAT STRAIGHT LINE IS OBTAINED.

CONSTRUCTION STANDARDS

TRENCH PAY WIDTH

STANDARD No. D-112 SHEET 2 OF 3

CITY OF AZTEC
PUBLIC WORKS DEPARTMENT

Revision Log

Owner:

Project:

Sheet Description:



Project Date: 9/11/17
Proj: 17005

Drawn: [Name] (V) [Title] (E) [Date] (12/11/2017) - 13:30pm