PRELIMINARY PLAT

TO SERVE

WESTBROOK SUBDIVISION PHASE 2

IN THE CITY OF

TONTITOWN, ARKANSAS

CABLE COMPANY:	COX COMMUNICATION CONTACT: MICHAEL MOORE 4901 SOUTH 48TH STREET SPRINGDALE, AR 72762 PH: 479–717–3730 FAX: 479–872–0174 EMAIL: MICHAEL.MOORE3@COX.COM
TELEPHONE COMPANY:	AT&T CONTACT: JOHN HILL PH. 479–442–1963 EMAIL: JH7313@ATT.COM
GAS COMPANY:	BLACK HILLS ENERGY CONTACT: BRANDON STOKES PH. 479–225–3726
ELECTRIC COMPANY:	OZARKS ELECTRIC CONTACT: MIKE PHIPPS PH. 479–521–2900 EMAIL: MPHIPPS@OZARKSECC.COM
WATER /SEWER DEPARTMENT:	TONTITOWN WATER UTILITIES 201 E HENRI DE TONTI BLVD TONTITOWN, AR 72770 PH. 479–361–2996 FAX: 501–421–8774
PLANNING DEPARTMENT:	PLANNING AND ZONING DEPARTMENT 235 E. HENRI DE TONTI TONTITOWN, AR 72770 PH. 479–361–9702 FAX 501–421–0012
BUILDING DEPARTMENT:	CITY OF TONTITOWN'S BUILDING DEPT. 235 E. HENRI DE TONTI TONTITOWN, AR 72770 PH. 479–361–9702 FAX 501–421–0012

ARKANSAS ONE CALL SYSTEM, INC.
1-800-482-8998
STOP-CALL BEFORE YOU DIG!

INDEX OF SHEETS

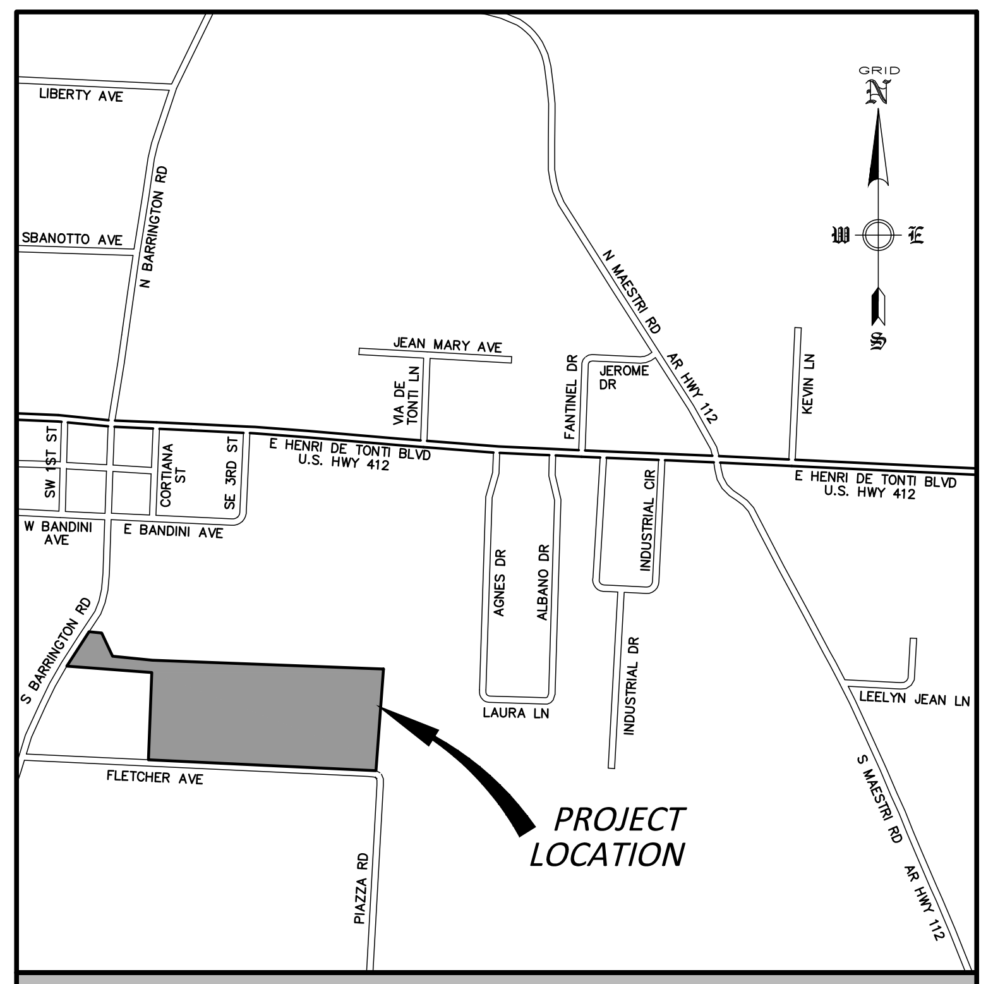
SHEET No.	DESCRIPTION
1	PRELIMINARY PLAT
2	PRELIMINARY PLAT NOTES
3	STREET AND STORM DRAINAGE PLAN
4–6	STREET PROFILES
7–9	STORM DRAINAGE PROFILES
10	UTILITY PLAN
11–19	SANITARY SEWER PLAN & PROFILE
20–21	TYPICAL DETAILS
22–24	WATER & SEWER DETAILS
25	STORM WATER POLLUTION PREVENTION PLAN
26	STORM WATER POLLUTION PREVENTION DETAILS
27–35	STREET CROSS SECTIONS

November 21, 2017

BY
ENGINEERING SERVICES INC.

esi

CONSULTING ENGINEERS
SPRINGDALE, ARKANSAS
PHONE: 479-751-8733
FAX: 479-751-8746
WWW.ENGINEERINGSERVICES.COM


LIBERTY AVE
SBANOTTO AVE
N BARRINGTON RD
JEAN MARY AVE
VIA DE TONTI LN
FANTINEL DR
JEROME DR
N MAESTRI RD AR HWY 112
KEVIN LN
GRID
N
W
E
S
SW 1ST ST
CORTIANA ST
SE 3RD ST
E HENRI DE TONTI BLVD U.S. HWY 412
E HENRI DE TONTI BLVD U.S. HWY 412
W BANDINI AVE
E BANDINI AVE
AGNES DR
ALBANO DR
INDUSTRIAL CIR
INDUSTRIAL DR
S BARRINGTON RD
LAURA LN
LEELYN JEAN LN
FLETCHER AVE
PIAZZA RD
S MAESTRI RD AR HWY 112
PROJECT LOCATION

VICINITY MAP
N.T.S.

No. 13828
THOMAS JASON APPEL

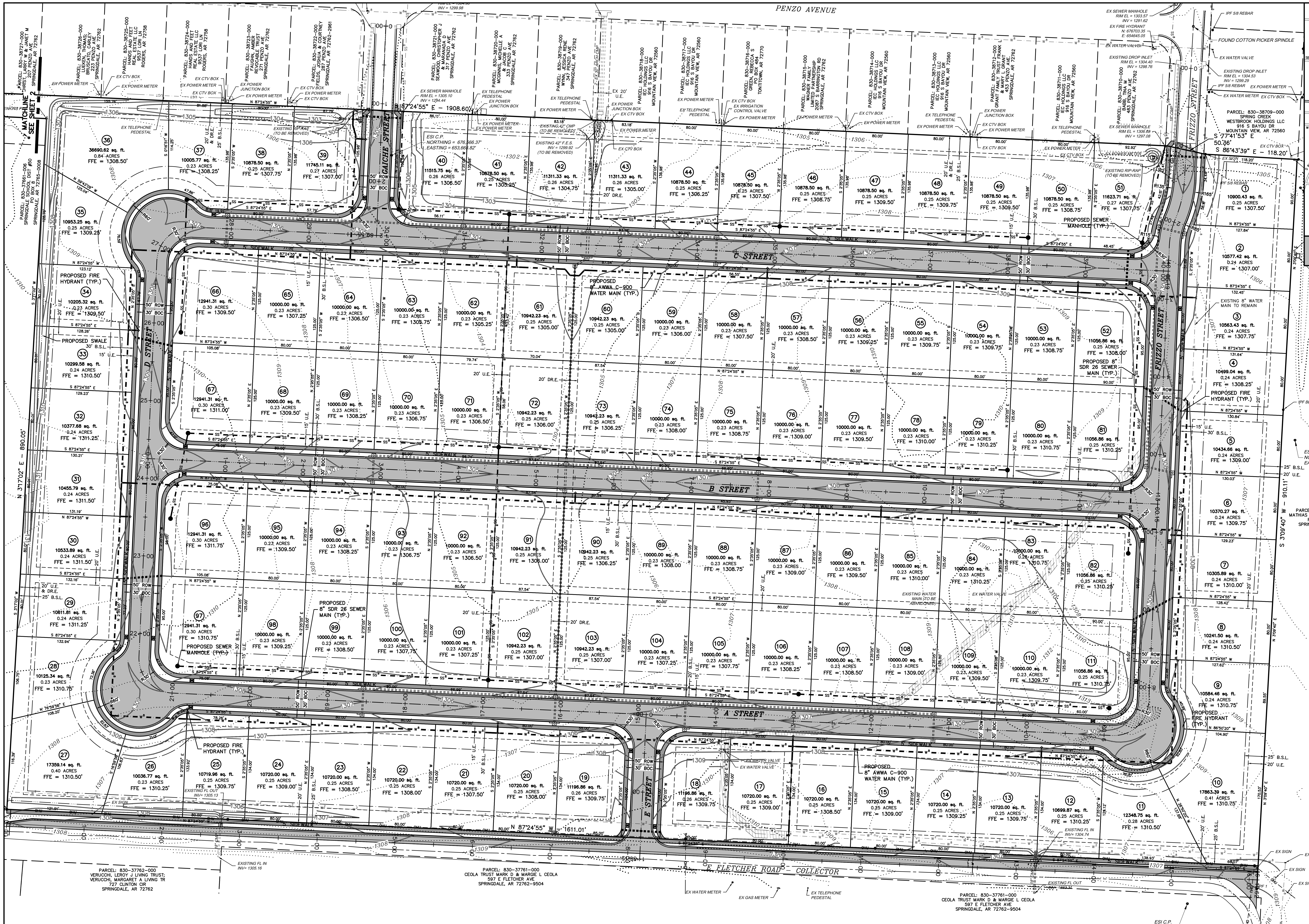
131

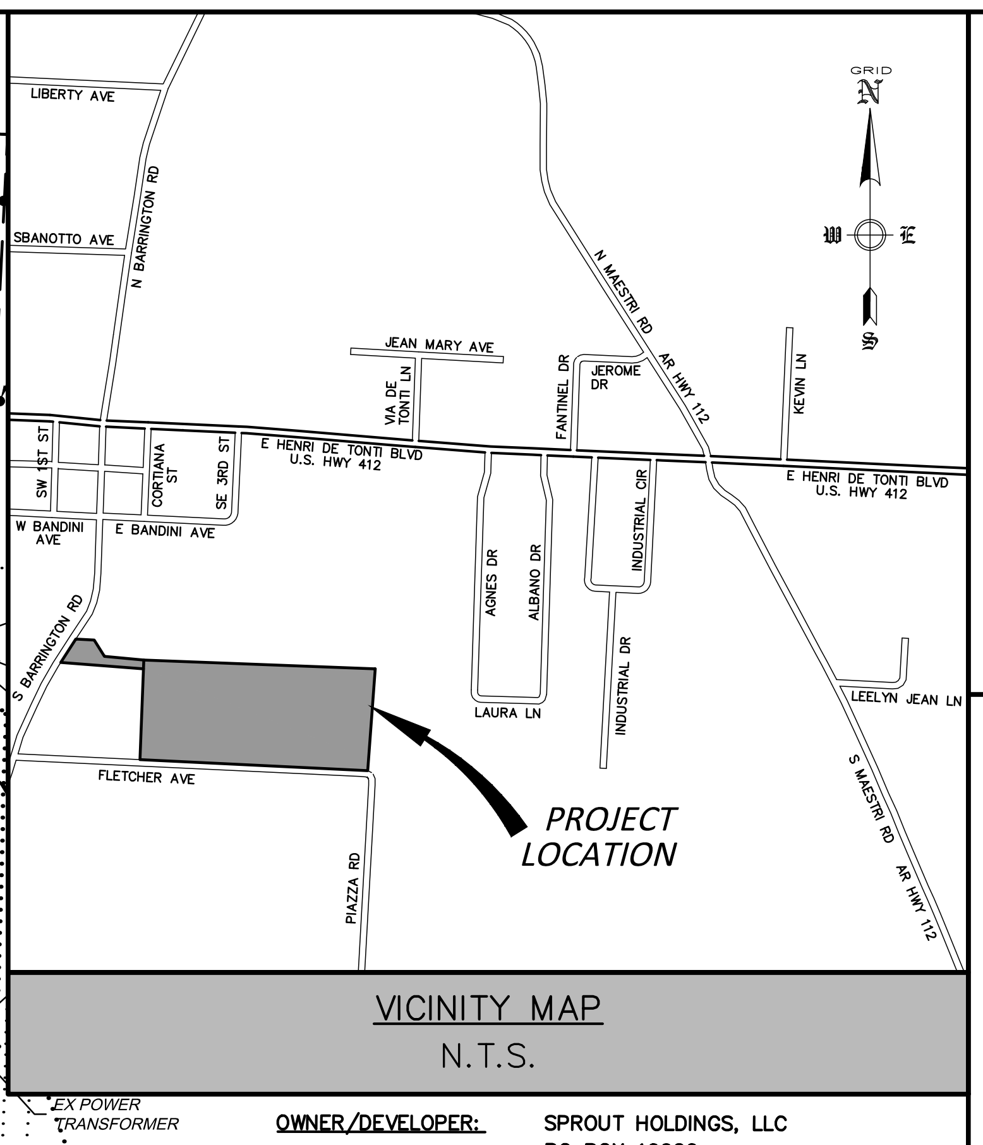
THOMAS J. APPEL, P.E. No. 13828
ENGINEERING SERVICES, INC.

NOTES :

ALL STREET AND DRAINAGE CONSTRUCTION MUST COMPLY WITH THE REQUIREMENTS OF THE CITY OF TONTITOWN, ARKANSAS.

ALL WATER AND SEWER CONSTRUCTION MUST COMPLY WITH THE SPECIFICATION REQUIREMENTS (ORDINANCE 2013–06–429, ADOPTED JUNE 4, 2013, REVISED APRIL 5, 2016) FOR THE CONSTRUCTION OF WATER AND SEWER FACILITIES OF THE CITY OF TONTITOWN WATER UTILITIES.


PENZO AVENUE
C STREET
B STREET
A STREET
D STREET
E STREET
GAICHE STREET
FRIZZO STREET
E FLETCHER ROAD - COLLECTOR
MATCHLINE SEE SHEET 2
N 87°24'55" E - 1908.60'
N 87°24'55" W - 1611.01'
N 3°17'02" E - 890.05'
S 3°09'40" W - 910.11'
PROPOSED FIRE HYDRANT (TYP.)
PROPOSED SEWER MANHOLE (TYP.)
PROPOSED 8" SDR 26 SEWER MAIN (TYP.)
PROPOSED 8" AWWA C-900 WATER MAIN (TYP.)
PROPOSED SWALE
EXISTING WATER MAIN (TO BE ABANDONED)
ESI C.P. NORTHING = 676,199.90' EASTING = 654,827.79'
ESI C.P. NORTHING = 675,603.60' EASTING = 654,689.36'
PARCEL: 830-37611-002 MATHIAS SHOPPING CENTER INC P O BOX 6485 SPRINGDALE, AR 72766
PARCEL: 830-37762-000 VERUCCHI, LEROY J LIVING TRUST; VERUCCHI, MARGARET A LIVING TR 727 CLINTON CIR SPRINGDALE, AR 72762
PARCEL: 830-37761-000 CEOLA TRUST MARK D & MARGIE L CEOLA 597 E FLETCHER AVE SPRINGDALE, AR 72762-9504
PARCEL: 830-37761-000 CEOLA TRUST MARK D & MARGIE L CEOLA 597 E FLETCHER AVE SPRINGDALE, AR 72762-9504
EX WATER METER
EX GAS METER
EX TELEPHONE PEDESTAL
GRID
N
S
E
W
GRAPHIC REPRESENTATION ONLY
SCALE 1" = 60'
0
30'
60'
120'


PROJECT LOCATION
GRID
N
S
E
W

VICINITY MAP

N.T.S.

OWNER/DEVELOPER:

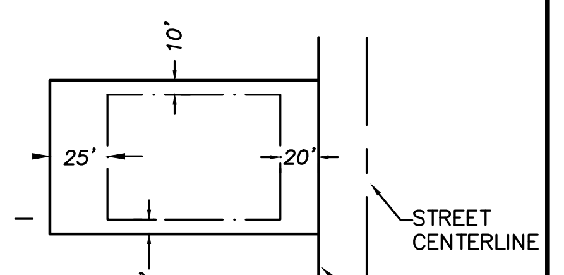
SPROUT HOLDINGS, LLC
PO BOX 10620
FAYETTEVILLE, AR 72703

SURVEYOR/ENGINEER:

ENGINEERING SERVICES, INC.
1207 SOUTH OLD MISSOURI ROAD
P.O. BOX 282
SPRINGDALE, AR 72764
PHONE (479) 751-8733
FAX (479) 751-8746
EMAIL: jappel@engineeringservices.com

ACREAGE:	33.97 ACRES
PROPOSED USE:	RESIDENTIAL SUBDIVISION
NO. OF LOTS:	112
ZONING:	R-3

BUILDING SETBACKS	
FRONT	30'*
REAR	25'*
REAR NEXT TO STREET	25'*
SIDE	7'*
EASEMENT IS GREATER *UNLESS A UTILITY	


10'
25'
20'
10'
STREET CENTERLINE
R.O.W.

TYPICAL SETBACK DETAIL

NOTE:

1.) DISTANCE SHOWN WILL YIELD TO UTILITY EASEMENTS.

GRAPHIC REPRESENTATION ONLY

SCALE 1" = 60'

LEGEND

●	IRON PIN FOUND
○	IRON PIN SET
———	PROPERTY LINE
— R/W —	EX RIGHT-OF-WAY
– – – –	EASEMENT LINE
—— – ——	EX. ROAD CENTERLINE
····1300····	EX. CONTOUR
—1300—	PROPOSED CONTOUR
— X — X —	EX. FENCE LINE
— OHP/C —	EX. OVERHEAD POWER AND CABLE LINE
— OHP/T —	EX. OVERHEAD POWER AND TEL. LINE
— SS8 — SS8 —	EX. 8" SEWER LINE
=========	EX. STORM DRAIN LINE
— W — W —	EX. WATER LINE
	EX. FIRE HYDRANT
◎	EX. SEWER MANHOLE
◉	EX. POWER POLE
	EX. GAS METER
	EX. LIGHT POLE
	PROP. LIGHT POLE
	PROP. FIRE HYDRANT ASSEMBLY
	PROP. SEWER SERVICE
	PROP. DOUBLE WATER METER
●	PROP. MANHOLE
— SS8 — SS8 —	PROP. SEWER MAIN
— W8 — W8 —	PROP. WATER MAIN
▣	PROP. STORM STRUCTURE
=========	PROP. STORM PIPE

(1) CERTIFICATE OF PRELIMINARY SURVEY ACCURACY.

I,____________________, HEREBY CERTIFY THAT THIS PLAT CORRECTLY REPRESENTS A BOUNDARY SURVEY MADE BY ME AND ALL MONUMENTS SHOWN HEREON ACTUALLY EXIST AND THEIR LOCATION, SIZE, TYPE AND MATERIAL ARE CORRECTLY SHOWN.

DATE OF EXECUTION:________________

____
REGISTERED LAND SURVEYOR

STATE OF ARKANSAS REGISTRATION NO.____________

(2) CERTIFICATE OF PRELIMINARY ENGINEERING ACCURACY. EACH SET OF STREET AND DRAINAGE PLANS MUST BE SUBMITTED IN ACCORDANCE WITH APPLICABLE STATE STATUTES AND ANY PLANS AND SPECIFICATIONS REQUIRED.

I,____________________________, HEREBY CERTIFY THAT THIS PLAN CORRECTLY REPRESENTS A PLAN MADE UNDER MY DIRECTION AND ENGINEERING REQUIREMENTS OF THE TONTITOWN SUBDIVISION REGULATIONS HAVE BEEN COMPLIED WITH.

DATE OF EXECUTION:____________________

____
REGISTERED ENGINEER

STATE OF ARKANSAS REGISTRATION NO.

(3) THIS PLAT HAS BEEN GIVEN PRELIMINARY PLAT APPROVAL ONLY AND HAS NOT BEEN APPROVED FOR RECORDING PURPOSES AS A PUBLIC RECORD. THIS CERTIFICATE SHALL EXPIRE ON____________ (DATE).

PURSUANT TO THE TONTITOWN SUBDIVISION REGULATIONS AND ALL OTHER CONDITIONS AND APPROVAL HAVING BEEN COMPLETED, THIS DOCUMENT IS HEREBY ACCEPTED. THIS CERTIFICATE IS HEREBY EXECUTED UNDER THE AUTHORITY OF THE SAID RULES AND REGULATIONS.

DATE OF EXECUTION:____________________

SIGNED: ____________________
TONTITOWN PLANNING COMMISSION CHAIRMAN

SIGNED: ____________________
MAYOR, CITY OF TONTITOWN

SIGNED: ____________________
RECORDER/TREASURER, CITY OF TONTITOWN

FLOOD ZONE NOTE:

THIS PROPERTY IS NOT WITHIN THE 100 YEAR FLOOD ZONE AS SHOWN ON THE NATIONAL FLOOD INSURANCE PROGRAM RATE MAP OF WASHINGTON COUNTY AND INCORPORATED AREAS, PANEL 05143C0065 F, DATED MAY 16, 2008.

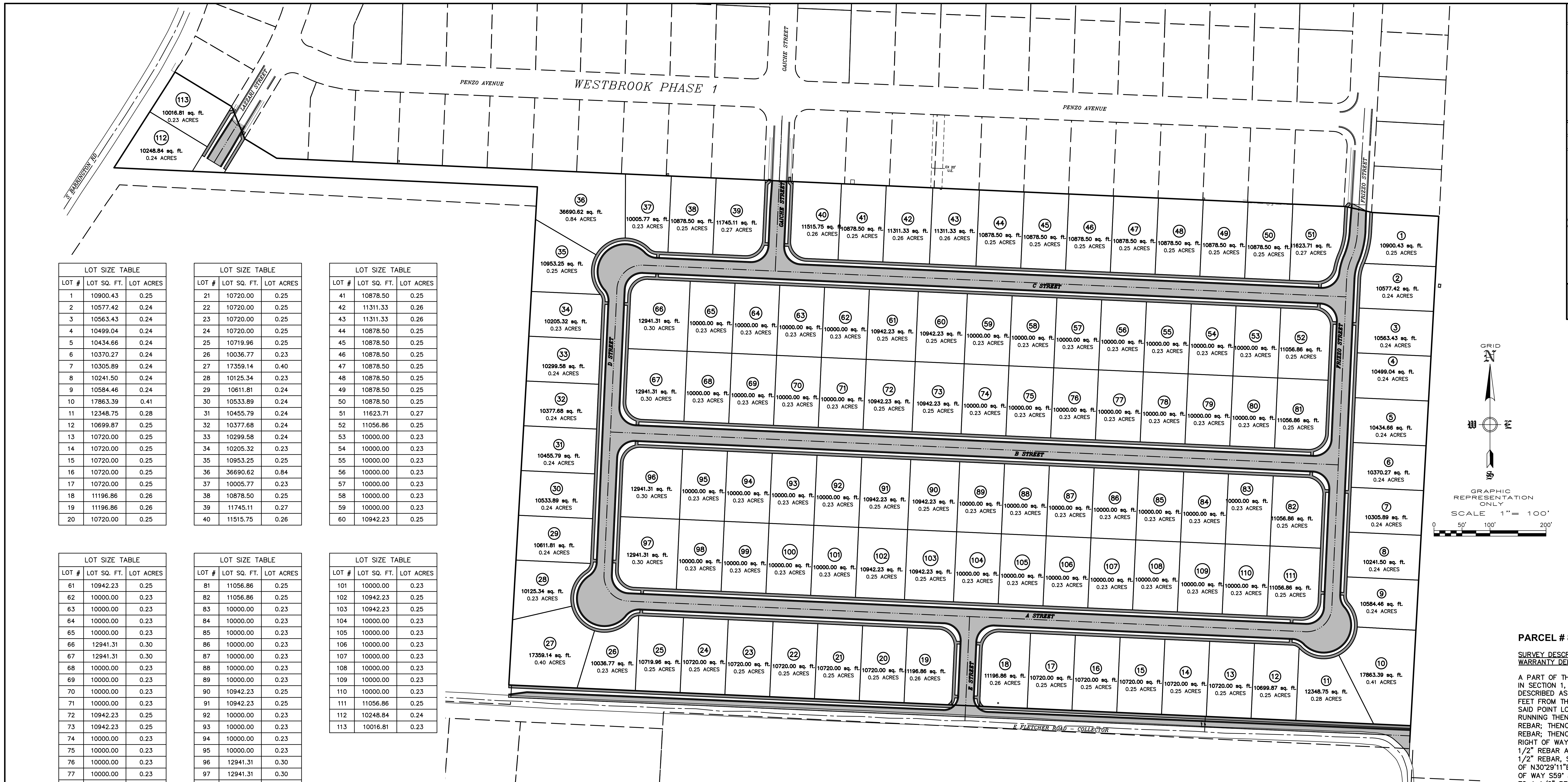
ESI
ENGINEERING SERVICES INC.
1207 SOUTH OLD MISSOURI RD.
SPRINGDALE, ARKANSAS 72764

PRELIMINARY PLAT
WESTBROOK SUBDIVISON - PHASE 2
TONTITOWN, ARKANSAS

REVISION	DATE	DESCRIPTION

Z:\SUBD\17963 - WESTBROOK SUBD\17963 - PRELIMINARY PLAT.dwg

SCALE:	1"=60'
DATE:	Nov 22, 2017
ENGINEER:	TJA
DRAWN BY:	JRC
W.O. #:	17963


WESTBROOK PHASE 1
PENZO AVENUE
GAUCHE STREET
PIZZEO STREET
LAZZARI STREET
S BARRINGTON RD
C STREET
B STREET
A STREET
D STREET
E STREET
E FLETCHER ROAD - COLLECTOR
GRID
GRAPHIC REPRESENTATION ONLY
SCALE 1"= 100'
0 50' 100' 200'

LOT SIZE TABLE		
LOT #	LOT SQ. FT.	LOT ACRES
1	10900.43	0.25
2	10577.42	0.24
3	10563.43	0.24
4	10499.04	0.24
5	10434.66	0.24
6	10370.27	0.24
7	10305.89	0.24
8	10241.50	0.24
9	10584.46	0.24
10	17863.39	0.41
11	12348.75	0.28
12	10699.87	0.25
13	10720.00	0.25
14	10720.00	0.25
15	10720.00	0.25
16	10720.00	0.25
17	10720.00	0.25
18	11196.86	0.26
19	11196.86	0.26
20	10720.00	0.25

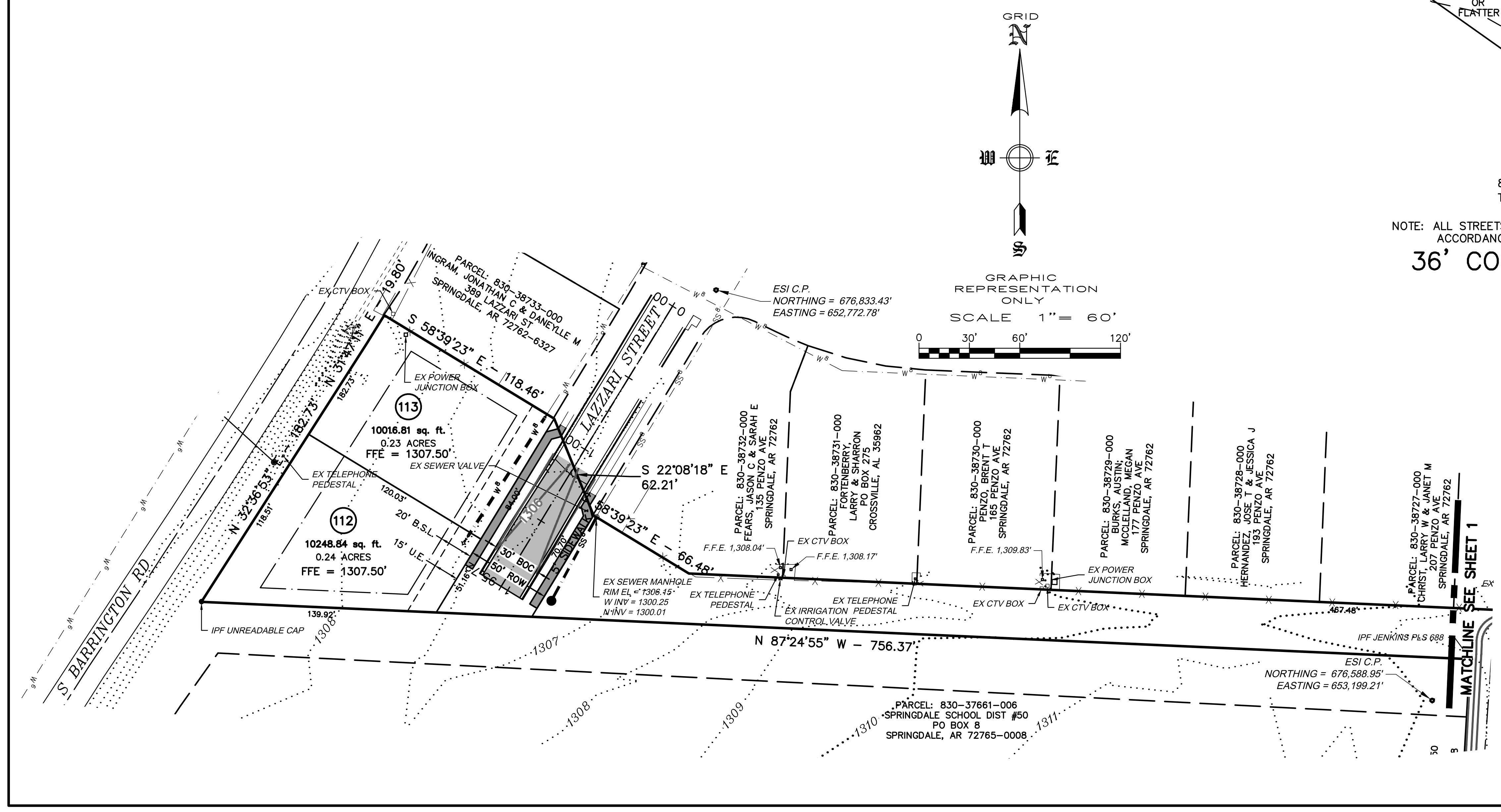
LOT SIZE TABLE		
LOT #	LOT SQ. FT.	LOT ACRES
21	10720.00	0.25
22	10720.00	0.25
23	10720.00	0.25
24	10720.00	0.25
25	10719.96	0.25
26	10036.77	0.23
27	17359.14	0.40
28	10125.34	0.23
29	10611.81	0.24
30	10533.89	0.24
31	10455.79	0.24
32	10377.68	0.24
33	10299.58	0.24
34	10205.32	0.23
35	10953.25	0.25
36	36690.62	0.84
37	10005.77	0.23
38	10878.50	0.25
39	11745.11	0.27
40	11515.75	0.26

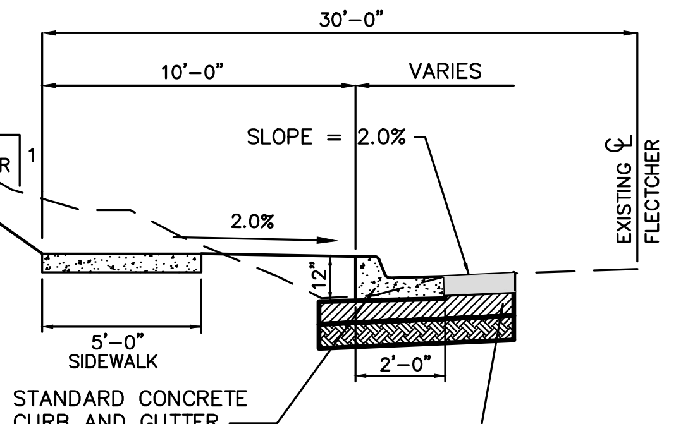
LOT SIZE TABLE		
LOT #	LOT SQ. FT.	LOT ACRES
41	10878.50	0.25
42	11311.33	0.26
43	11311.33	0.26
44	10878.50	0.25
45	10878.50	0.25
46	10878.50	0.25
47	10878.50	0.25
48	10878.50	0.25
49	10878.50	0.25
50	10878.50	0.25
51	11623.71	0.27
52	11056.86	0.25
53	10000.00	0.23
54	10000.00	0.23
55	10000.00	0.23
56	10000.00	0.23
57	10000.00	0.23
58	10000.00	0.23
59	10000.00	0.23
60	10942.23	0.25

LOT SIZE TABLE		
LOT #	LOT SQ. FT.	LOT ACRES
61	10942.23	0.25
62	10000.00	0.23
63	10000.00	0.23
64	10000.00	0.23
65	10000.00	0.23
66	12941.31	0.30
67	12941.31	0.30
68	10000.00	0.23
69	10000.00	0.23
70	10000.00	0.23
71	10000.00	0.23
72	10942.23	0.25
73	10942.23	0.25
74	10000.00	0.23
75	10000.00	0.23
76	10000.00	0.23
77	10000.00	0.23
78	10000.00	0.23
79	10000.00	0.23
80	10000.00	0.23

LOT SIZE TABLE		
LOT #	LOT SQ. FT.	LOT ACRES
81	11056.86	0.25
82	11056.86	0.25
83	10000.00	0.23
84	10000.00	0.23
85	10000.00	0.23
86	10000.00	0.23
87	10000.00	0.23
88	10000.00	0.23
89	10000.00	0.23
90	10942.23	0.25
91	10942.23	0.25
92	10000.00	0.23
93	10000.00	0.23
94	10000.00	0.23
95	10000.00	0.23
96	12941.31	0.30
97	12941.31	0.30
98	10000.00	0.23
99	10000.00	0.23
100	10000.00	0.23

LOT SIZE TABLE		
LOT #	LOT SQ. FT.	LOT ACRES
101	10000.00	0.23
102	10942.23	0.25
103	10942.23	0.25
104	10000.00	0.23
105	10000.00	0.23
106	10000.00	0.23
107	10000.00	0.23
108	10000.00	0.23
109	10000.00	0.23
110	10000.00	0.23
111	11056.86	0.25
112	10248.84	0.24
113	10016.81	0.23

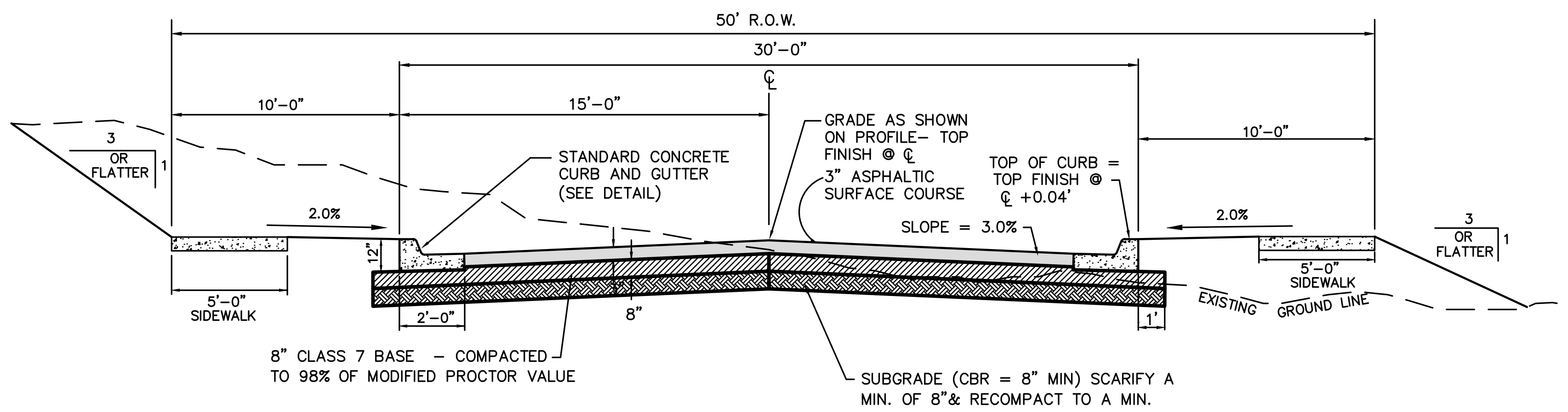

GRID
GRAPHIC REPRESENTATION ONLY
SCALE 1"= 60'
0 30' 60' 120'
ESI C.P.
NORTHING = 676,833.43'
EASTING = 652,772.78'
S 58°39'23" E - 118.46'
S 22°08'18" E
62.21'
N 87°24'55" W - 756.37'
113
10016.81 sq. ft.
0.23 ACRES
FFE = 1307.50'
112
10248.84 sq. ft.
0.24 ACRES
FFE = 1307.50'
S. BARRINGTON RD.
LAZZARI STREET
MATCHLINE SEE SHEET 1
ESI C.P.
NORTHING = 676,588.95'
EASTING = 653,199.21'
PARCEL: 830-37661-006
SPRINGDALE SCHOOL DIST #50
PO BOX 8
SPRINGDALE, AR 72765-0008


30'-0"
10'-0"
VARIES
3
OR FLATTER
1
SLOPE = 2.0%
2.0%
12"
EXISTING ℄ FLECTCHER
5'-0"
SIDEWALK
2'-0"
STANDARD CONCRETE CURB AND GUTTER (SEE DETAIL)
8" CLASS 7 BASE - COMPACTED TO 98% OF MODIFIED PROCTOR VALUE

NOTE: ALL STREETS AND SIDEWALKS SHALL BE DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH CODE SECTION 90 – STREETS AND SIDEWALKS.

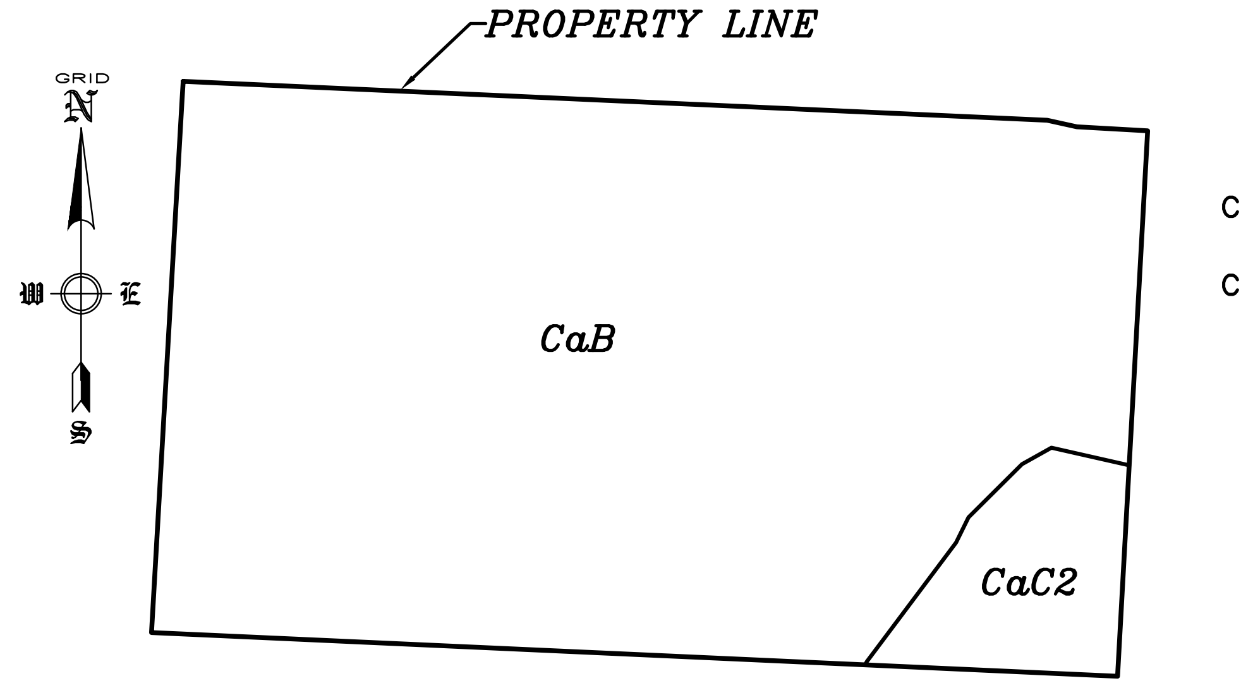
36' COLLECTOR STREET SECTION

60' R.O.W.


50' R.O.W.
30'-0"
℄
10'-0"
15'-0"
10'-0"
3
OR FLATTER
1
2.0%
STANDARD CONCRETE CURB AND GUTTER (SEE DETAIL)
GRADE AS SHOWN ON PROFILE- TOP FINISH @ ℄
3" ASPHALTIC SURFACE COURSE
TOP OF CURB = TOP FINISH @ ℄ +0.04'
SLOPE = 3.0%
12"
8"
2'-0"
1'
5'-0"
SIDEWALK
EXISTING GROUND LINE
8" CLASS 7 BASE - COMPACTED TO 98% OF MODIFIED PROCTOR VALUE
SUBGRADE (CBR = 8" MIN) SCARIFY A MIN. OF 8"& RECOMPACT TO A MIN. OF 95% STANDARD PROCTOR DENSITY

NOTE: ALL STREETS AND SIDEWALKS SHALL BE DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH CODE SECTION 90 – STREETS AND SIDEWALKS.

TYPICAL 30' STREET SECTION


PROPERTY LINE
GRID
CaB
CaC2

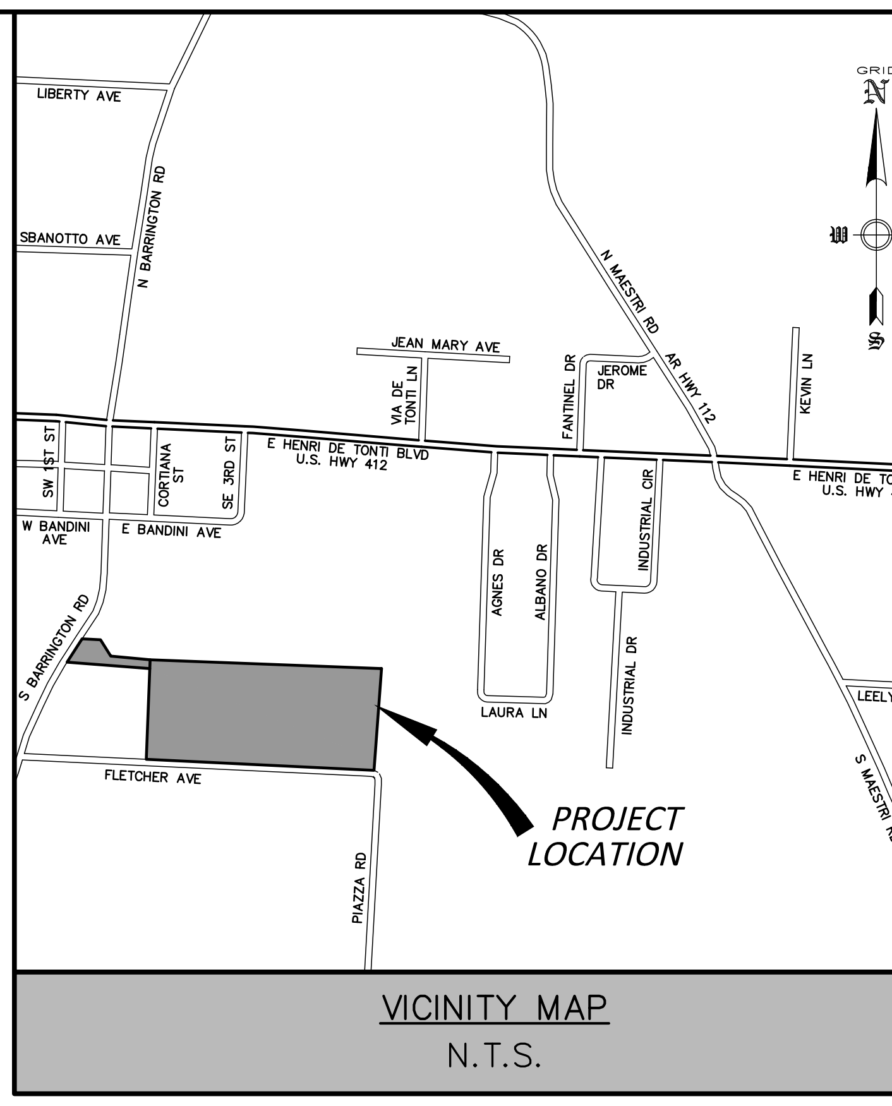
LEGEND		ACRES IN AOI
CaB	= Captina silt loam, 1 to 3 percent slopes	= 31.6
CaC2	= Captina silt loams, 3 to 6 percent slopes, eroded	= 2.4

SOIL SURVEY MAP

U.S. DEPT. OF AGRICULTURE

LIBERTY SUBDIVISION PH II

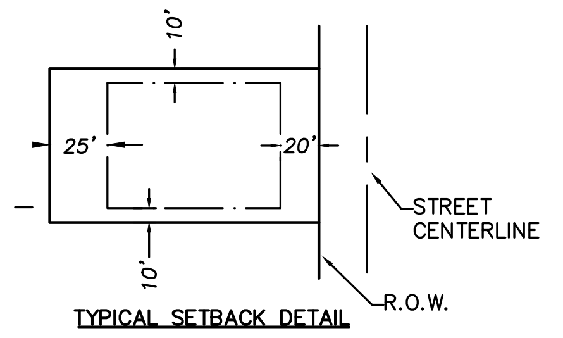
TONTITOWN, ARKANSAS


GRID
LIBERTY AVE
SBANOTTO AVE
JEAN MARY AVE
E HENRI DE TONTI BLVD
U.S. HWY 412
W BANDINI AVE
FLETCHER AVE
PIAZZA RD
LAURA LN
LEELYN JEAN LN
S MAESTRI RD
AR HWY 112
PROJECT LOCATION

VICINITY MAP

N.T.S.

OWNER/DEVELOPER:	SPROUT HOLDINGS, LLC PO BOX 10620 FAYETTEVILLE, AR 72703
SURVEYOR/ENGINEER:	ENGINEERING SERVICES, INC. 1207 SOUTH OLD MISSOURI ROAD P.O. BOX 282 SPRINGDALE, AR 72764 PHONE (479) 751-8733 FAX (479) 751-8746 EMAIL: jappel@engineeringservices.com
ACREAGE:	34.99 ACRES
PROPOSED USE:	RESIDENTIAL SUBDIVISION
NO. OF LOTS:	112
ZONING:	R-3


10'
25'
20'
10'
STREET CENTERLINE
R.O.W.

TYPICAL SETBACK DETAIL

NOTE:

1.) DISTANCE SHOWN WILL YIELD TO UTILITY EASEMENTS.

PARCEL # 830-37661-003, 830-37661-005, & 830-37661-000

SURVEY DESCRIPTION FROM
WARRANTY DEED FILE # 2014-00008981

A PART OF THE S1/2 OF THE SE1/4 AND A PART OF THE SE1/4 OF THE SW1/4 ALL IN SECTION 1, TOWNSHIP 17 NORTH, RANGE 31 WEST AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS: BEGINNING AT A 1/2" REBAR THAT IS N01°59'02"W 30.00 FEET FROM THE SOUTHEAST CORNER OF THE S1/2 OF THE SE1/4 OF SAID SECTION 1, SAID POINT LOCATED ON THE NORTH RIGHT OF WAY LINE OF FLETCHER AVENUE AND RUNNING THENCE N88°42'55"W 1611.13 FEET ALONG SAID RIGHT OF WAY TO A 1/2" REBAR; THENCE LEAVING SAID RIGHT OF WAY N01°59'02"E 890.05 FEET TO A 1/2" REBAR; THENCE N88°42'55"W 756.37 FEET TO A 1/2" REBAR LOCATED ON THE EAST RIGHT OF WAY LINE OF BARRINGTON ROAD, THENCE N31°18'53"E 182.73 FEET TO A 1/2" REBAR AND NORTHWESTERLY ALONG A CURVE TO THE LEFT 19.81 FEET TO A 1/2" REBAR, SAID CURVE HAVING A RADIUS OF 685.00 FEET AND A CHORD BEARING OF N30°29'11"E 19.80 FEET ALONG SAID RIGHT OF WAY; THENCE LEAVING SAID RIGHT OF WAY S59° 57'23"E 118.46 FEET TO A 1/2" REBAR; THENCE S23°26'18"E 62.21 FEET TO A 1/2" REBAR; THENCE S59°57'23"E 66.48 FEET TO A 1/2" REBAR; THENCE S88°42'55"E 1908.60 FEET TO A 1/2" REBAR; THENCE S78°59'53"E 50.63 FEET TO A 1/2" REBAR; THENCE S88°00'58"E 120.00 FEET TO A 1/2" REBAR; THENCE S01°59'02"W 910.04 FEET TO THE POINT OF BEGINNING, CONTAINING 34.99 ACRES, MORE OR LESS, CITY OF TONTITOWN, WASHINGTON COUNTY, ARKANSAS.

NOTES :

1. STREET LIGHTS IN SUBDIVISION TO BE A MINIMUM OF 6800 LUMENS.
2. ALL LOT CORNER RADII ARE 30' UNLESS OTHERWISE NOTED.
3. ALL STREET RIGHTS-OF-WAY WITHIN SUBDIVISION ARE 50' IN WIDTH.
4. ANY DAMAGE OR RELOCATION OF EXISTING UTILITIES SHALL BE AT THE DEVELOPER'S EXPENSE.
5. STREET NAMES MUST BE APPROVED BY THE CITY OF TONTITOWN 911 ADDRESS COORDINATOR
6. ALL CONDUITS PLACED BY DEVELOPER MUST HAVE 48 INCH COVER AT FINAL GRADE. (6-4" CONDUITS FOR ROAD CROSSINGS, ETC.)
7. THERE ARE NO KNOWN WETLANDS ON THIS PROPERTY
8. NO KNOWN EROSION PROBLEMS EXIST ON THIS SITE
9. ALL STORM DRAIN UNDER STREET SHALL BE R.C.P. ALL STORM DRAIN OUTSIDE OF STREET SHALL BE H.D.P.E.
10. LOT NUMBERS 10-27 SHALL NOT HAVE ACCESS OFF OF FLETCHER.
11. LOTS 112 & 113 SHALL NOT HAVE ACCESS OFF OF BARRINGTON.

FLOOD ZONE NOTE:

THIS PROPERTY IS NOT WITHIN THE 100 YEAR FLOOD ZONE AS SHOWN ON THE NATIONAL FLOOD INSURANCE PROGRAM RATE MAP OF WASHINGTON COUNTY AND INCORPORATED AREAS, PANEL 05143C0065 F, DATED MAY 16, 2008.

ENGINEERING SERVICES INC.
1207 SOUTH OLD MISSOURI RD.
SPRINGDALE, ARKANSAS 72764

PRELIMINARY PLAT NOTES
WESTBROOK SUBDIVISON – PHASE 2
TONTITOWN, ARKANSAS

REVISION	DATE	DESCRIPTION

Z:\SUBD\17963 - WESTBROOK SUBD\17963 - PRELIMINARY PLAT.DWG

SCALE: 1"=100'
DATE: Nov 22, 2017
ENGINEER: TJA
DRAWN BY: JRC
W.O. #: 17963

PENZO AVENUE
GRID N
GRAPHIC REPRESENTATION ONLY
SCALE 1" = 50'
0 25' 50' 100'
Sta. 9+22.19, LINE 1
EXISTING DROP INLET
RIM EL: 1300.63
INV IN: 1296.33, SEG. 1I
Sta. 7+95.35, LINE 1
INSTALL EX JUNCTION BOX 9
RIM EL: 1302.09
INV IN: 1297.10, SEG. 1H
INV OUT: 1297.10, SEG. 1I
Sta. 7+80.69, LINE 1
INSTALL AREA INLET 8
RIM EL: 1302.96
INV IN: 1297.19, SEG. 1G
INV OUT: 1297.19, SEG. 1H
STA. 1+08.57, BEGIN STREET IMPROVEMENTS
N 87°24'55" E - 1908.60'
STA. 9+06.95, LINE 14
SWALE @ LOT 38
STA. 6+00.00, LINE 14
PVI ELEV: 1306.05
STA. 7+45.39, LINE 14
SWALE @ LOT 36
STA. 5+22.84, LINE 14
SWALE @ LOT 35
EXISTING RIP-RAP (TO BE REMOVED)
EXISTING 42" CMP (TO BE REMOVED)
EXISTING 42" F.E.S. INV = 1299.92 (TO BE REMOVED)
Sta. 0+34.00, LINE 2
INSTALL DROP INLET 11
RIM EL: 1306.83
INV IN: 1302.30, SEG. 2A
INV OUT: 1302.30, SEG. 2B
Sta. 3+38.03, LINE 2
INSTALL DROP INLET 12
RIM EL: 1304.26
INV IN: 1299.50, SEG. 2B
INV OUT: 1299.50, SEG. 2C
Sta. 6+41.76, LINE 1
INSTALL DROP INLET 7
RIM EL: 1303.48
INV IN: 1298.04, SEG. 1F
INV IN: 1298.04, SEG. 1G
INV IN: 1298.04, SEG. 2C
INV IN: 1299.50, SEG. 4B
Sta. 0+34.00, LINE 4
INSTALL DROP INLET 15
RIM EL: 1305.76
INV IN: 1301.30, SEG. 4A
INV OUT: 1301.30, SEG. 4B
STA. 4+31.05, LINE 10
INSTALL JUNCTION BOX 29
RIM EL: 1306.43
INV IN: 1300.23, SEG. 10C
INV IN: 1302.14, SEG. 12A
INV OUT: 1299.50, SEG. RCP
STA. 0+96.77, BEGIN STREET IMPROVEMENTS
S 2°41'53" E 50.36'
S 86°43'39" E - 118.2
EXISTING DROP INLET RIM EL = 1304.40 INV = 1298.76
EXISTING DROP INLET RIM EL = 1304.53 INV = 1299.29
FOUND COTTON PICKER SPINDLE
IPF 5/8 REBAR
EXISTING RIP-RAP (TO BE REMOVED)
Sta. 3+43.76, LINE 10
INSTALL DROP INLET 28
RIM EL: 1305.70
INV IN: 1301.40, SEG. 10B
INV OUT: 1300.88, SEG. 10C
INV OUT: 1301.25, SEG. 11A
STA. 0+00.00, LINE 11
INSTALL DROP INLET 30
RIM EL: 1305.69
INV OUT: 1301.70, SEG. 11A
GAICHE STREET
C STREET
B STREET
A STREET
D STREET
E STREET
FRIZZO STREET
E. FLETCHER ROAD COLLECTOR
Sta. 0+00.00, LINE 2
INSTALL DROP INLET 10
RIM EL: 1306.82
INV OUT: 1302.50, SEG. 2A
Sta. 0+00.00, LINE 3
INSTALL DROP INLET 13
RIM EL: 1304.36
INV OUT: 1300.77, SEG. 3A
Sta. 5+89.51, LINE 1
INSTALL JUNCTION BOX 5
RIM EL: 1303.77
INV IN: 1298.36, SEG. 1D
INV IN: 1298.36, SEG. 1E
Sta. 6+07.76, LINE 1
INSTALL DROP INLET 6
RIM EL: 1303.48
INV IN: 1298.25, SEG. 1E
INV OUT: 1298.25, SEG. 1F
Sta. 0+00.00, LINE 4
INSTALL DROP INLET 14
RIM EL: 1305.76
INV OUT: 1301.50, SEG. 4A
EXISTING 8" WATER MAIN TO REMAIN
STA. 3+20.14, LINE 14
SWALE @ LOT 33
Sta. 0+33.85, LINE 5
INSTALL DROP INLET 17
RIM EL: 1306.31
INV IN: 1301.70, SEG. 5A
INV OUT: 1301.70, SEG. 5B
Sta. 0+34.00, LINE 6
INSTALL DROP INLET 19
RIM EL: 1307.72
INV IN: 1302.00, SEG. 6A
INV OUT: 1302.00, SEG. RCP
Sta. 0+34.97, LINE 10
INSTALL DROP INLET 27
RIM EL: 1308.35
INV IN: 1303.73, SEG. 10A
INV OUT: 1303.69, SEG. 10B
Sta. 3+34.00, LINE 1
INSTALL DROP INLET 4
RIM EL: 1304.66
INV IN: 1299.91, SEG. 1C
INV OUT: 1299.91, SEG. 1D
INV IN: 1299.91, SEG. 5B
INV IN: 1299.91, SEG. RCP
INTERSECTION
STA. 24+25.35, FRIZZO-A-D-C STREET
STA. 0+00.00, B STREET
STA. 0+00.00, LINE 10
INSTALL DROP INLET 26
RIM EL: 1308.39
INV OUT: 1303.98, SEG. 10A
N 3°17' ... 890.05'
STA. 0+80.13, LINE 14
SWALE @ LOT 30
STA. 0+00.00, LINE 14
BEGIN SWALE
Sta. 0+00.00, LINE 5
INSTALL DROP INLET 16
RIM EL: 1306.31
INV OUT: 1302.00, SEG. 5A
Sta. 3+00.01, LINE 1
INSTALL DROP INLET 3
RIM EL: 1304.61
INV IN: 1300.12, SEG. 1B
INV OUT: 1300.12, SEG. 1C
Sta. 0+00.00, LINE 6
INSTALL DROP INLET 18
RIM EL: 1307.72
INV OUT: 1302.50, SEG. 6A
EXISTING WATER MAIN (TO BE ABANDONED)
Sta. 0+34.05, LINE 7
INSTALL DROP INLET 21
RIM EL: 1307.09
INV IN: 1303.15, SEG. 7A
INV OUT: 1303.15, SEG. 7B
Sta. 0+34.00, LINE 1
INSTALL DROP INLET 2
RIM EL: 1305.67
INV IN: 1301.90, SEG. 1A
INV OUT: 1301.90, SEG. 1B
INV IN: 1301.90, SEG. 7B
INV IN: 1301.90, SEG. RCP
Sta. 3+54.06, LINE 8
INSTALL DROP INLET 25
RIM EL: 1306.46
INV IN: 1302.74, SEG. 8B
INV OUT: 1302.74, SEG. RCP
INV IN: 1302.74, SEG. 9A
Sta. 0+34.06, LINE 8
INSTALL DROP INLET 23
RIM EL: 1308.12
INV IN: 1304.38, SEG. RCP
INV OUT: 1304.38, SEG. 8B
STA. 2+85.38, LINE 15
INSTALL F.E.S. No. 35A
RIM EL: 1307.04
INV OUT: 1305.33, SEG. 15B
Sta. 0+00.00, LINE 7
INSTALL DROP INLET 20
RIM EL: 1307.09
INV OUT: 1303.32, SEG. 7A
Sta. 0+00.00, LINE 1
INSTALL DROP INLET 1
RIM EL: 1305.63
INV OUT: 1302.07, SEG. 1A
Sta. 0+00.00, LINE 9
INSTALL DROP INLET 24
RIM EL: 1306.46
INV OUT: 1302.91, SEG. 9A
Sta. 0+00.00, LINE 8
INSTALL DROP INLET 22
RIM EL: 1308.12
STA. 1+24.12, LINE 15
SWALE @ LOT 27
STA. 2+26.32, LINE 15
SWALE @ LOT 26
STA. 0+00.00, LINE 15
BEGIN SWALE
Sta. 2+94.25, LINE 15
INSTALL DROP INLET NO. 35
RIM EL: 1308.00
INV OUT: 1305.29, SEG. 15A
INV IN: 1305.29, SEG. 15B
EXISTING FL OUT INV= 1305.13
EXISTING FL IN INV= 1305.16
N 87°24'55" W - 1611.01'
Sta. 0+13.34, LINE 13
INSTALL DROP INLET 33
RIM EL: 1307.16
INV OUT: 1303.57, SEG. 13B
INV IN: 1304.95, SEG. 13A
Sta. 0+08.06, LINE 13
INSTALL 18" F.E.S. 32
RIM EL: 1306.73
INV OUT: 1305.02, SEG. 13A
EXISTING FL IN INV= 1304.74
EXISTING FL OUT
18" RCP
18" HDPE
24" HDPE
36" HDPE
20' U.E.
15' U.E.
20' DR.E.

STREET & STORM DRAINAGE PLAN
WESTBROOK SUBDIVISON – PHASE 2
TONTITOWN, ARKANSAS

ESI
ENGINEERING SERVICES INC.
1207 SOUTH OLD MISSOURI RD.
SPRINGDALE, ARKANSAS 72764

REVISION	DATE	DESCRIPTION

Z:\SUBD\17963 - WESTBROOK SUBD\17963 - STREETS.DWG

SCALE: 1"=50'

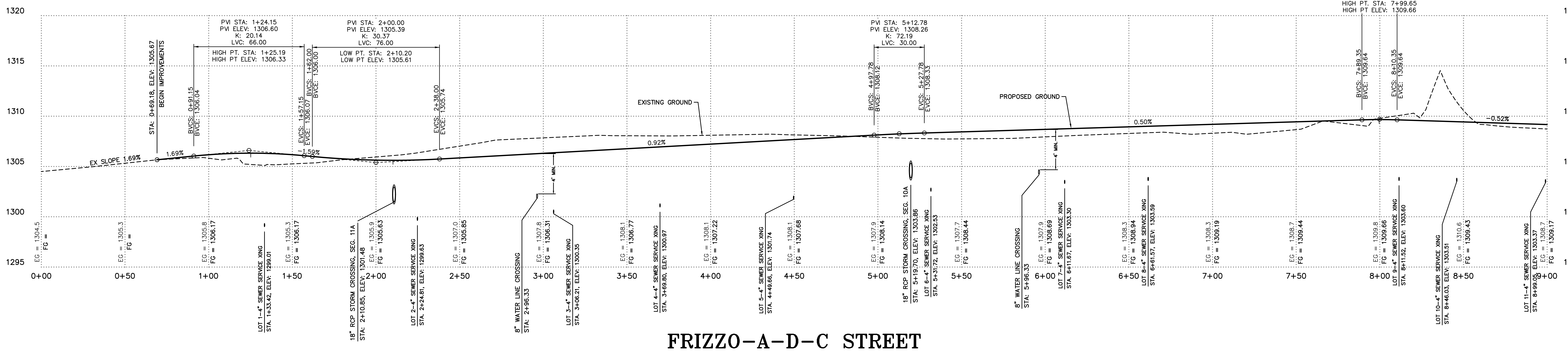
DATE: Nov 22, 2017

ENGINEER: TJA
DRAWN BY: DLB

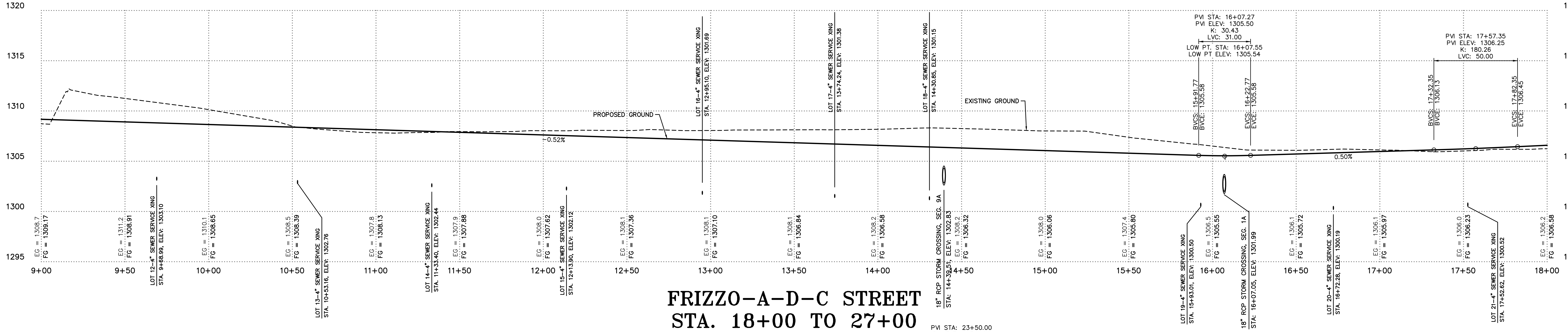
W.O. #: 17963

25 MPH DESIGN CRITERIA
MIN. K (CREST) 20
MIN. K (SAG) 30

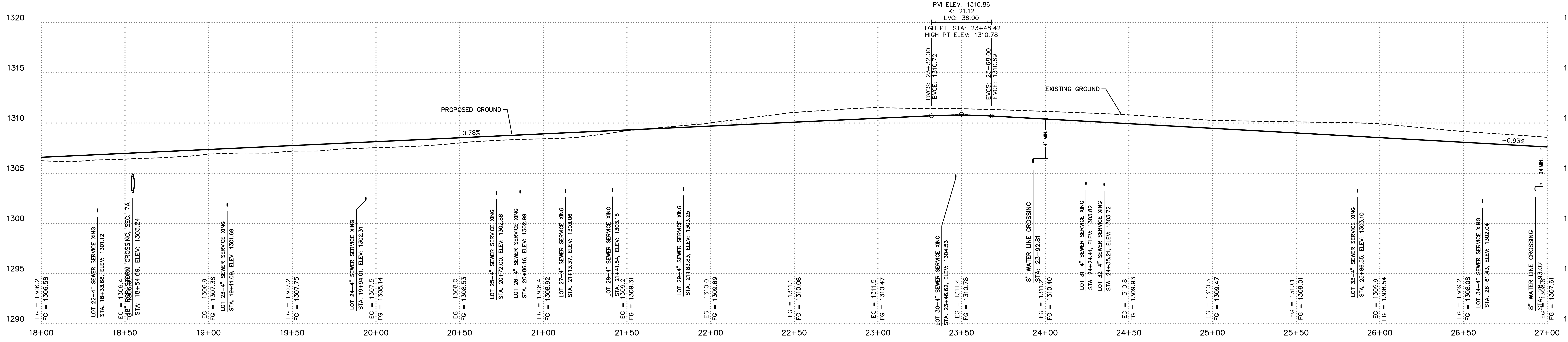
FRIZZO-A-D-C STREET
STA. 0+00 TO 9+00


EXISTING GROUND
PROPOSED GROUND
EX SLOPE 1.69%
1.69%
-1.59%
0.92%
0.50%
-0.52%
STA: 0+69.18, ELEV: 1305.67 BEGIN IMPROVEMENTS
PVI STA: 1+24.15 PVI ELEV: 1306.60 K: 20.14 LVC: 66.00
HIGH PT. STA: 1+25.19 HIGH PT ELEV: 1306.33
PVI STA: 2+00.00 PVI ELEV: 1305.39 K: 30.37 LVC: 76.00
LOW PT. STA: 2+10.20 LOW PT ELEV: 1305.61
PVI STA: 5+12.78 PVI ELEV: 1308.26 K: 72.19 LVC: 30.00
PVI STA: 7+99.85 PVI ELEV: 1309.69 K: 20.61 LVC: 21.00
HIGH PT. STA: 7+99.65 HIGH PT ELEV: 1309.66
18" RCP STORM CROSSING, SEG. 11A STA: 2+10.85, ELEV: 1301.48
8" WATER LINE CROSSING STA: 2+96.33
18" RCP STORM CROSSING, SEG. 10A STA: 5+19.70, ELEV: 1303.86
8" WATER LINE CROSSING STA: 5+96.33
4' MIN.
1320
1315
1310
1305
1300
1295
0+00
0+50
1+00
1+50
2+00
2+50
3+00
3+50
4+00
4+50
5+00
5+50
6+00
6+50
7+00
7+50
8+00
8+50
9+00

FRIZZO-A-D-C STREET
STA. 9+00 TO 18+00


EXISTING GROUND
PROPOSED GROUND
-0.52%
0.50%
PVI STA: 16+07.27 PVI ELEV: 1305.50 K: 30.43 LVC: 31.00
LOW PT. STA: 16+07.55 LOW PT ELEV: 1305.54
PVI STA: 17+57.35 PVI ELEV: 1306.25 K: 180.26 LVC: 50.00
18" RCP STORM CROSSING, SEG. 9A STA: 14+39.51, ELEV: 1302.83
18" RCP STORM CROSSING, SEG. 1A STA: 16+07.05, ELEV: 1301.99
1320
1315
1310
1305
1300
1295
9+00
9+50
10+00
10+50
11+00
11+50
12+00
12+50
13+00
13+50
14+00
14+50
15+00
15+50
16+00
16+50
17+00
17+50
18+00

FRIZZO-A-D-C STREET
STA. 18+00 TO 27+00


EXISTING GROUND
PROPOSED GROUND
0.78%
-0.93%
PVI STA: 23+50.00 PVI ELEV: 1310.86 K: 21.12 LVC: 36.00
HIGH PT. STA: 23+48.42 HIGH PT ELEV: 1310.78
18" RCP STORM CROSSING, SEG. 7A STA: 18+54.69, ELEV: 1303.24
8" WATER LINE CROSSING STA: 23+92.81
8" WATER LINE CROSSING STA: 26+93.02
4' MIN.
1320
1315
1310
1305
1300
1295
1290
18+00
18+50
19+00
19+50
20+00
20+50
21+00
21+50
22+00
22+50
23+00
23+50
24+00
24+50
25+00
25+50
26+00
26+50
27+00

ESI
ENGINEERING SERVICES INC.
1207 SOUTH OLD MISSOURI RD.
SPRINGDALE, ARKANSAS 72764

STREET PROFILES
WESTBROOK SUBDIVISON – PHASE 2
TONTITOWN, ARKANSAS

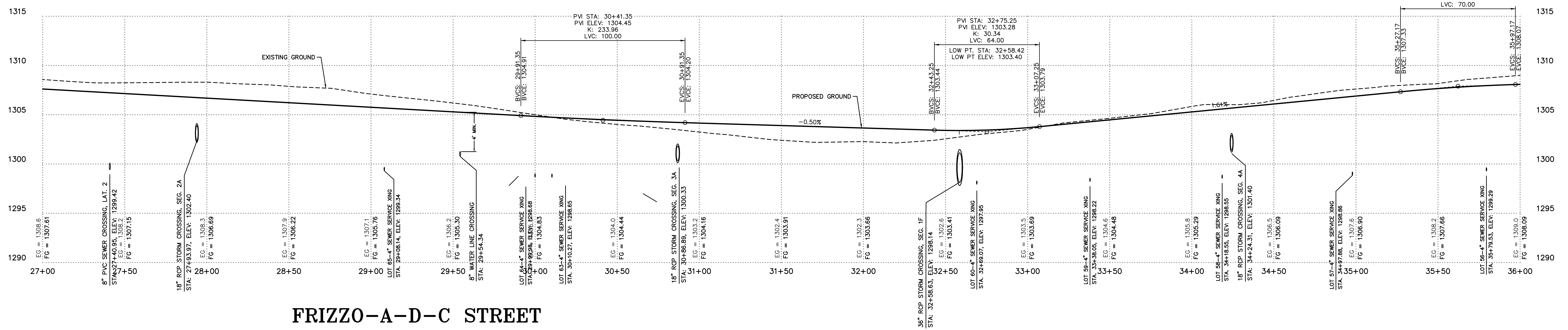
REVISION	DATE	DESCRIPTION

SCALE: 1"=30'
DATE: Nov 22, 2017
ENGINEER: TJA
DRAWN BY: JRC
W.O. #: 17963

4

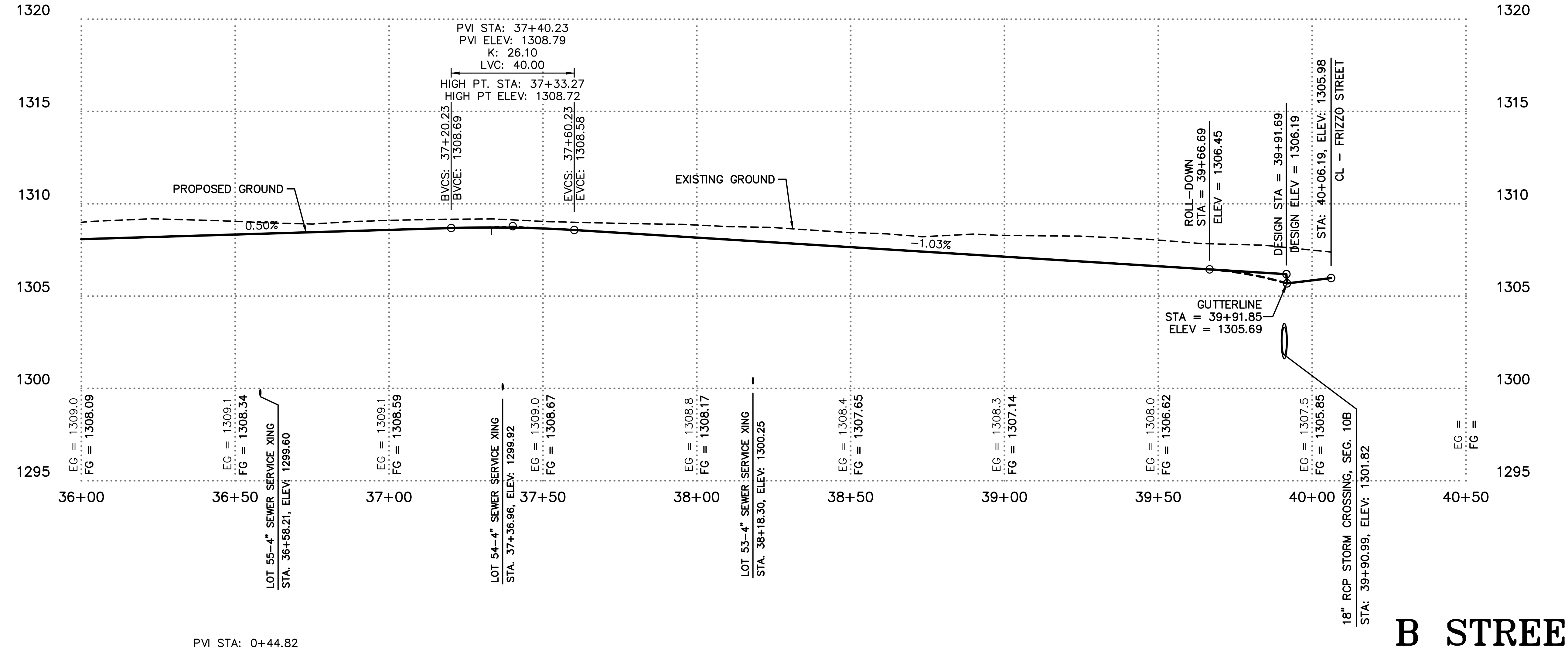
FRIZZO-A-D-C STREET
STA. 27+00 TO 36+00

25 MPH DESIGN CRITERIA
MIN. K (CREST) 20
MIN. K (SAG) 30



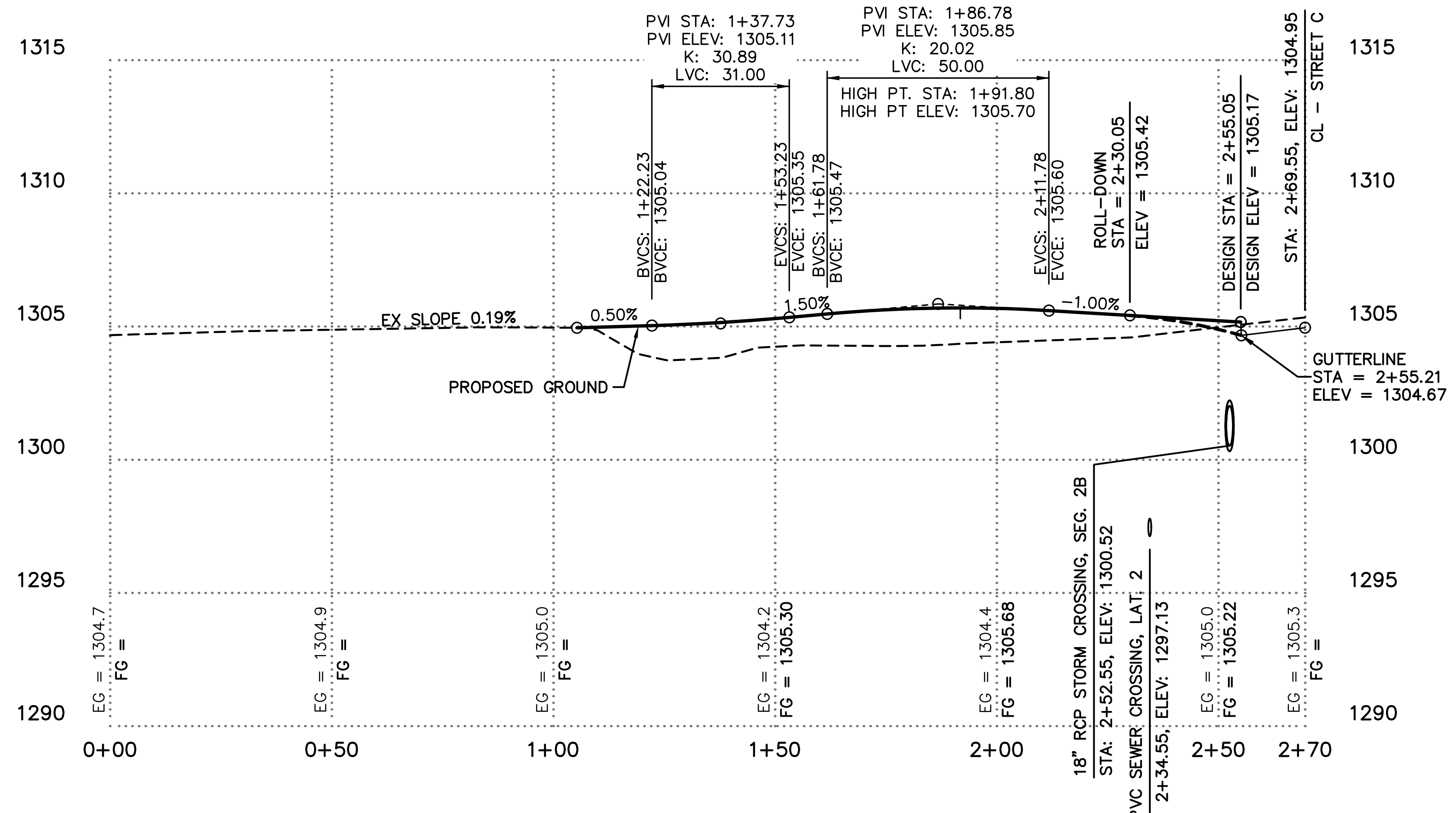
PVI STA: 30+41.35
PVI ELEV: 1304.45
K: 233.96
LVC: 100.00
BVCS: 29+91.35
BVCE: 1304.91
EVCS: 30+91.35
EVCE: 1304.20
PVI STA: 32+75.25
PVI ELEV: 1303.28
K: 30.34
LVC: 64.00
LOW PT. STA: 32+58.42
LOW PT ELEV: 1303.40
BVCS: 32+43.25
BVCE: 1303.44
EVCS: 33+07.25
EVCE: 1303.79
PVI STA: 35+62.17
PVI ELEV: 1307.90
K: 63.09
LVC: 70.00
BVCS: 35+27.17
BVCE: 1307.33
EVCS: 35+97.17
EVCE: 1308.07
EXISTING GROUND
PROPOSED GROUND
-0.50%
1.61%
4" MIN.
1315
1310
1305
1300
1295
1290
27+00
27+50
28+00
28+50
29+00
29+50
30+00
30+50
31+00
31+50
32+00
32+50
33+00
33+50
34+00
34+50
35+00
35+50
36+00
8" PVC SEWER CROSSING, LAT. 2
STA: 27+40.95, ELEV: 1299.42
18" RCP STORM CROSSING, SEG. 2A
STA: 27+93.97, ELEV: 1302.40
LOT 65-4" SEWER SERVICE XING
STA: 29+08.14, ELEV: 1299.34
8" WATER LINE CROSSING
STA: 29+54.34
LOT 64-4" SEWER SERVICE XING
LOT 63-4" SEWER SERVICE XING
STA: 30+10.27, ELEV: 1298.65
18" RCP STORM CROSSING, SEG. 3A
STA: 30+86.89, ELEV: 1300.33
36" RCP STORM CROSSING, SEG. 1F
STA: 32+58.63, ELEV: 1298.14
LOT 60-4" SEWER SERVICE XING
STA: 32+69.07, ELEV: 1297.95
LOT 59-4" SEWER SERVICE XING
STA: 33+38.05, ELEV: 1298.22
LOT 58-4" SEWER SERVICE XING
STA: 34+18.55, ELEV: 1298.55
18" RCP STORM CROSSING, SEG. 4A
STA: 34+24.31, ELEV: 1301.40
LOT 57-4" SEWER SERVICE XING
STA: 34+97.88, ELEV: 1298.86
LOT 56-4" SEWER SERVICE XING
STA: 35+79.53, ELEV: 1299.29
EG = 1308.6
FG = 1307.61
EG = 1308.2
FG = 1307.15
EG = 1308.3
FG = 1306.69
EG = 1307.9
FG = 1306.22
EG = 1307.1
FG = 1305.76
EG = 1306.2
FG = 1305.30
FG = 1304.83
EG = 1304.0
FG = 1304.44
EG = 1303.2
FG = 1304.16
EG = 1302.4
FG = 1303.91
EG = 1302.3
FG = 1303.66
EG = 1302.6
FG = 1303.41
EG = 1303.5
FG = 1303.69
EG = 1304.6
FG = 1304.48
EG = 1305.8
FG = 1305.29
EG = 1306.5
FG = 1306.09
EG = 1307.6
FG = 1306.90
EG = 1308.2
FG = 1307.66
EG = 1309.0
FG = 1308.09

FRIZZO-A-D-C STREET
STA. 36+00 TO 40+50



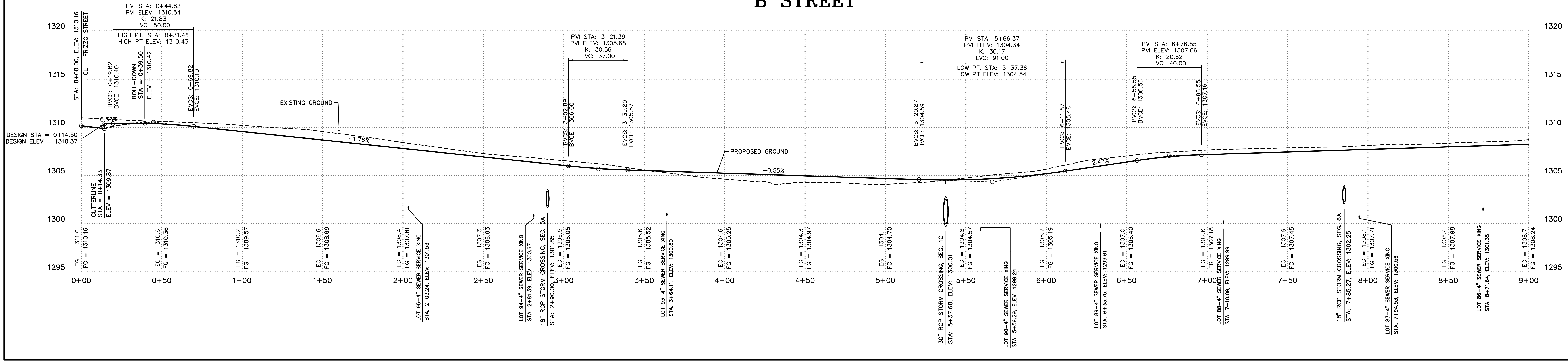
PVI STA: 37+40.23
PVI ELEV: 1308.79
K: 26.10
LVC: 40.00
HIGH PT. STA: 37+33.27
HIGH PT ELEV: 1308.72
BVCS: 37+20.23
BVCE: 1308.69
EVCS: 37+60.23
EVCE: 1308.58
PROPOSED GROUND
EXISTING GROUND
0.50%
-1.03%
ROLL-DOWN
STA = 39+66.69
ELEV = 1306.45
DESIGN STA = 39+91.69
DESIGN ELEV = 1306.19
STA: 40+06.19, ELEV: 1305.98
CL - FRIZZO STREET
GUTTERLINE
STA = 39+91.85
ELEV = 1305.69
1320
1315
1310
1305
1300
1295
36+00
36+50
37+00
37+50
38+00
38+50
39+00
39+50
40+00
40+50
LOT 55-4" SEWER SERVICE XING
STA: 36+58.21, ELEV: 1299.60
LOT 54-4" SEWER SERVICE XING
STA: 37+36.96, ELEV: 1299.92
LOT 53-4" SEWER SERVICE XING
STA: 38+18.30, ELEV: 1300.25
18" RCP STORM CROSSING, SEG. 10B
STA: 39+90.99, ELEV: 1301.82
EG = 1309.0
FG = 1308.09
EG = 1309.1
FG = 1308.34
EG = 1309.1
FG = 1308.59
EG = 1309.0
FG = 1308.67
EG = 1308.8
FG = 1308.17
EG = 1308.4
FG = 1307.65
EG = 1308.3
FG = 1307.14
EG = 1308.0
FG = 1306.62
EG = 1307.5
FG = 1305.85
EG =
FG =

GAICHE STREET



PVI STA: 1+37.73
PVI ELEV: 1305.11
K: 30.89
LVC: 31.00
PVI STA: 1+86.78
PVI ELEV: 1305.85
K: 20.02
LVC: 50.00
HIGH PT. STA: 1+91.80
HIGH PT ELEV: 1305.70
BVCS: 1+22.23
BVCE: 1305.04
EVCS: 1+53.23
EVCE: 1305.35
BVCS: 1+61.78
BVCE: 1305.47
EVCS: 2+11.78
EVCE: 1305.60
ROLL-DOWN
STA = 2+30.05
ELEV = 1305.42
DESIGN STA = 2+55.05
DESIGN ELEV = 1305.17
STA: 2+69.55, ELEV: 1304.95
CL - STREET C
EX SLOPE 0.19%
0.50%
1.50%
-1.00%
PROPOSED GROUND
GUTTERLINE
STA = 2+55.21
ELEV = 1304.67
1315
1310
1305
1300
1295
1290
0+00
0+50
1+00
1+50
2+00
2+50
2+70
18" RCP STORM CROSSING, SEG. 2B
STA: 2+52.55, ELEV: 1300.52
8" PVC SEWER CROSSING, LAT. 2
STA: 2+34.55, ELEV: 1297.13
EG = 1304.7
FG =
EG = 1304.9
FG =
EG = 1305.0
FG =
EG = 1304.2
FG = 1305.30
EG = 1304.4
FG = 1305.68
EG = 1305.0
FG = 1305.22
EG = 1305.3
FG =

B STREET



STA: 0+00.00, ELEV: 1310.16
CL - FRIZZO STREET
PVI STA: 0+44.82
PVI ELEV: 1310.54
K: 21.83
LVC: 50.00
HIGH PT. STA: 0+31.46
HIGH PT ELEV: 1310.43
BVCS: 0+19.82
BVCE: 1310.40
ROLL-DOWN
STA = 0+39.50
ELEV = 1310.42
EVCS: 0+69.82
EVCE: 1310.10
DESIGN STA = 0+14.50
DESIGN ELEV = 1310.37
GUTTERLINE
STA = 0+14.33
ELEV = 1309.87
EXISTING GROUND
-1.76%
PVI STA: 3+21.39
PVI ELEV: 1305.68
K: 30.56
LVC: 37.00
BVCS: 3+02.89
BVCE: 1306.00
EVCS: 3+39.89
EVCE: 1305.57
PROPOSED GROUND
-0.55%
PVI STA: 5+66.37
PVI ELEV: 1304.34
K: 30.17
LVC: 91.00
LOW PT. STA: 5+37.36
LOW PT ELEV: 1304.54
BVCS: 5+20.87
BVCE: 1304.59
EVCS: 6+11.87
EVCE: 1305.46
2.47%
PVI STA: 6+76.55
PVI ELEV: 1307.06
K: 20.62
LVC: 40.00
BVCS: 6+56.55
BVCE: 1306.56
EVCS: 6+96.55
EVCE: 1307.16
1320
1315
1310
1305
1300
1295
0+00
0+50
1+00
1+50
2+00
2+50
3+00
3+50
4+00
4+50
5+00
5+50
6+00
6+50
7+00
7+50
8+00
8+50
9+00
LOT 95-4" SEWER SERVICE XING
STA: 2+03.24, ELEV: 1301.53
LOT 94-4" SEWER SERVICE XING
STA: 2+81.39, ELEV: 1300.67
18" RCP STORM CROSSING, SEG. 5A
STA: 2+90.00, ELEV: 1301.65
LOT 93-4" SEWER SERVICE XING
STA: 3+64.11, ELEV: 1300.80
30" RCP STORM CROSSING, SEG. 1C
STA: 5+37.60, ELEV: 1300.01
LOT 90-4" SEWER SERVICE XING
STA: 5+59.29, ELEV: 1299.24
LOT 89-4" SEWER SERVICE XING
STA: 6+33.75, ELEV: 1299.61
LOT 88-4" SEWER SERVICE XING
STA: 7+10.09, ELEV: 1299.99
18" RCP STORM CROSSING, SEG. 6A
STA: 7+85.27, ELEV: 1302.25
LOT 87-4" SEWER SERVICE XING
STA: 7+94.53, ELEV: 1300.56
LOT 86-4" SEWER SERVICE XING
STA: 8+71.64, ELEV: 1301.35
EG = 1311.0
FG = 1310.16
EG = 1310.6
FG = 1310.36
EG = 1310.2
FG = 1309.57
EG = 1309.6
FG = 1308.69
EG = 1308.4
FG = 1307.81
EG = 1307.3
FG = 1306.93
EG = 1306.5
FG = 1306.05
EG = 1305.6
FG = 1305.52
EG = 1304.6
FG = 1305.25
EG = 1304.3
FG = 1304.97
EG = 1304.1
FG = 1304.70
EG = 1304.8
FG = 1304.57
EG = 1305.7
FG = 1305.19
EG = 1307.0
FG = 1306.40
EG = 1307.6
FG = 1307.18
EG = 1307.9
FG = 1307.45
EG = 1308.1
FG = 1307.71
EG = 1308.4
FG = 1307.98
EG = 1308.7
FG = 1308.24

ENGINEERING SERVICES INC.
1207 SOUTH OLD MISSOURI RD.
SPRINGDALE, ARKANSAS 72764

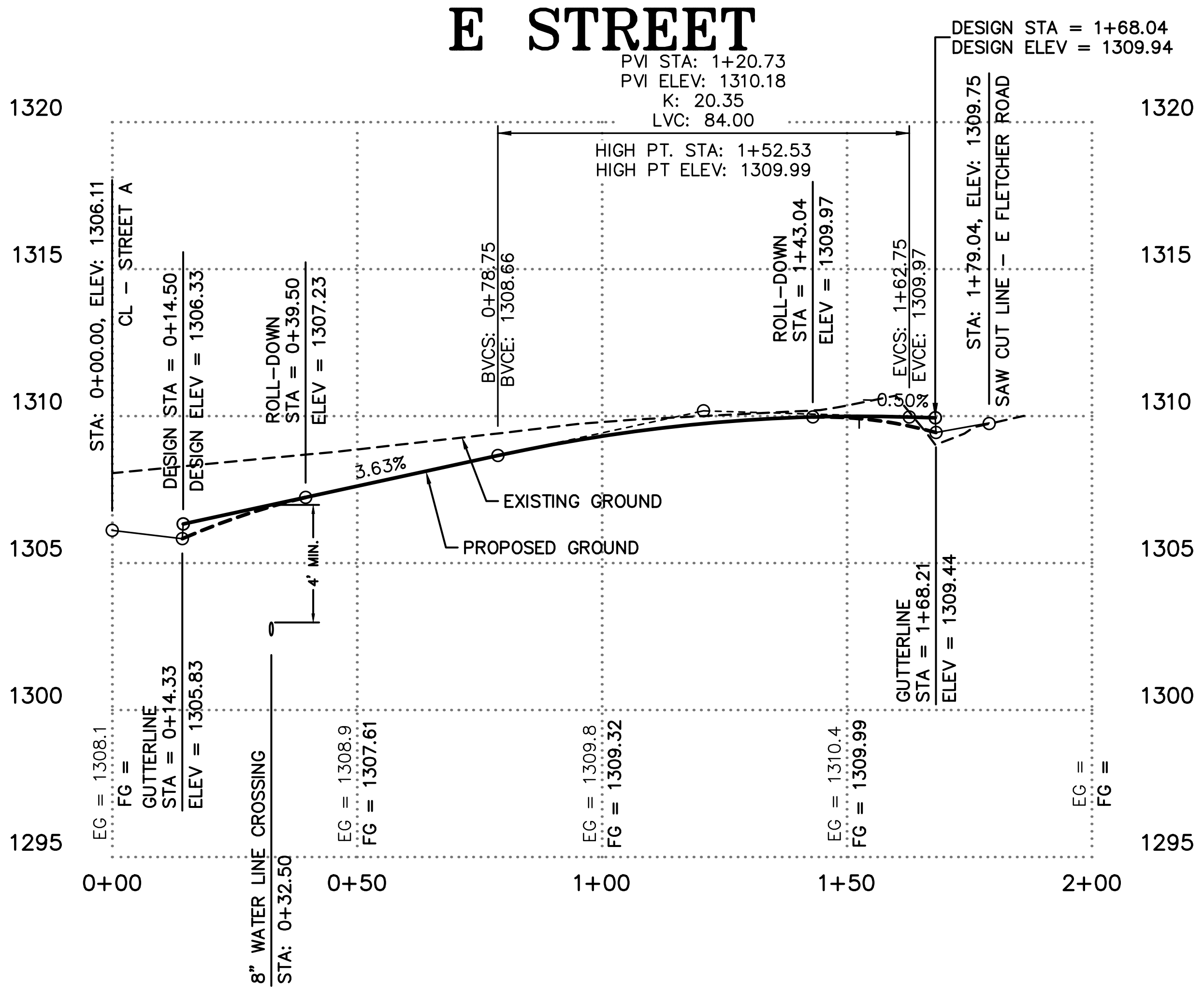
STREET PROFILES
WESTBROOK SUBDIVISON - PHASE 2
TONTITOWN, ARKANSAS

REVISION	DATE	DESCRIPTION

SCALE: 1"=30'
DATE: Nov 22, 2017
ENGINEER: TJA
DRAWN BY: DLB
W.O. #: 17963

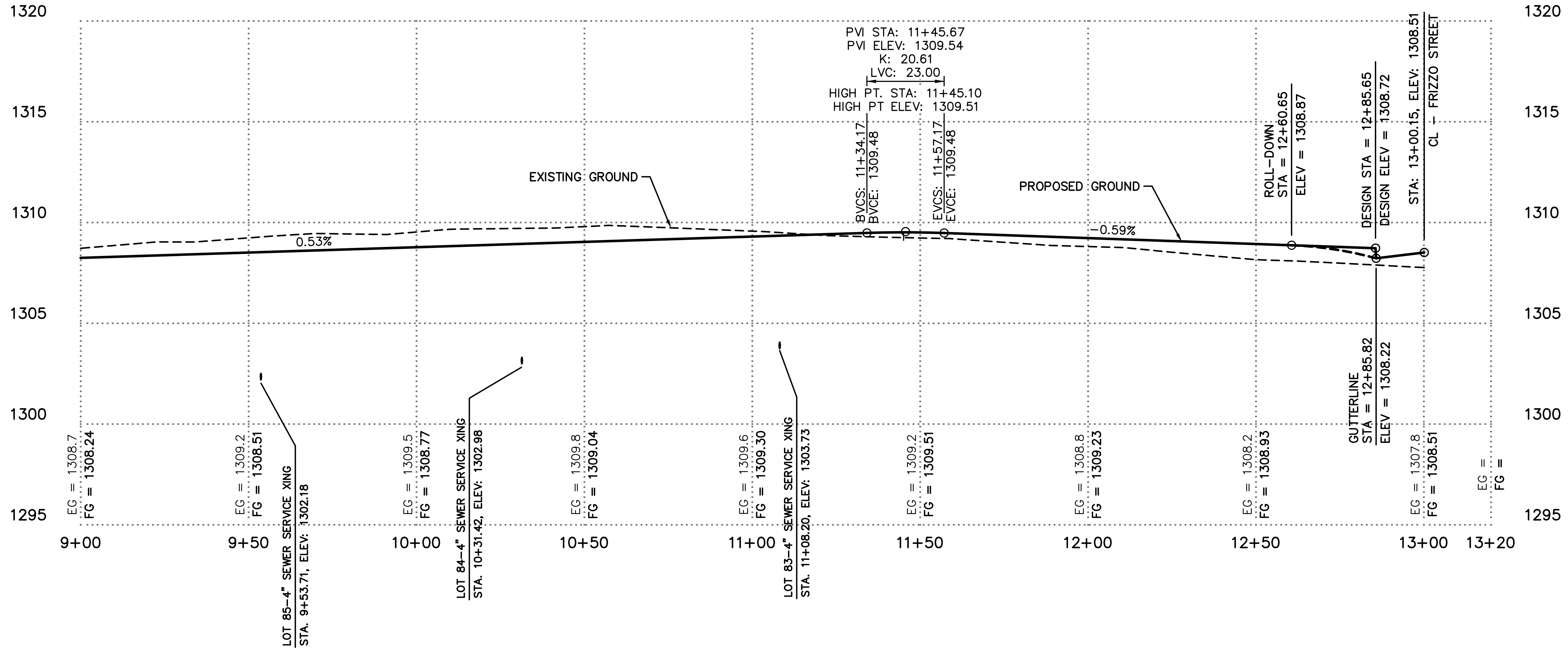
Z:\SUBD\17963 - WESTBROOK SUBD\17963 - STREETS.DWG

E STREET

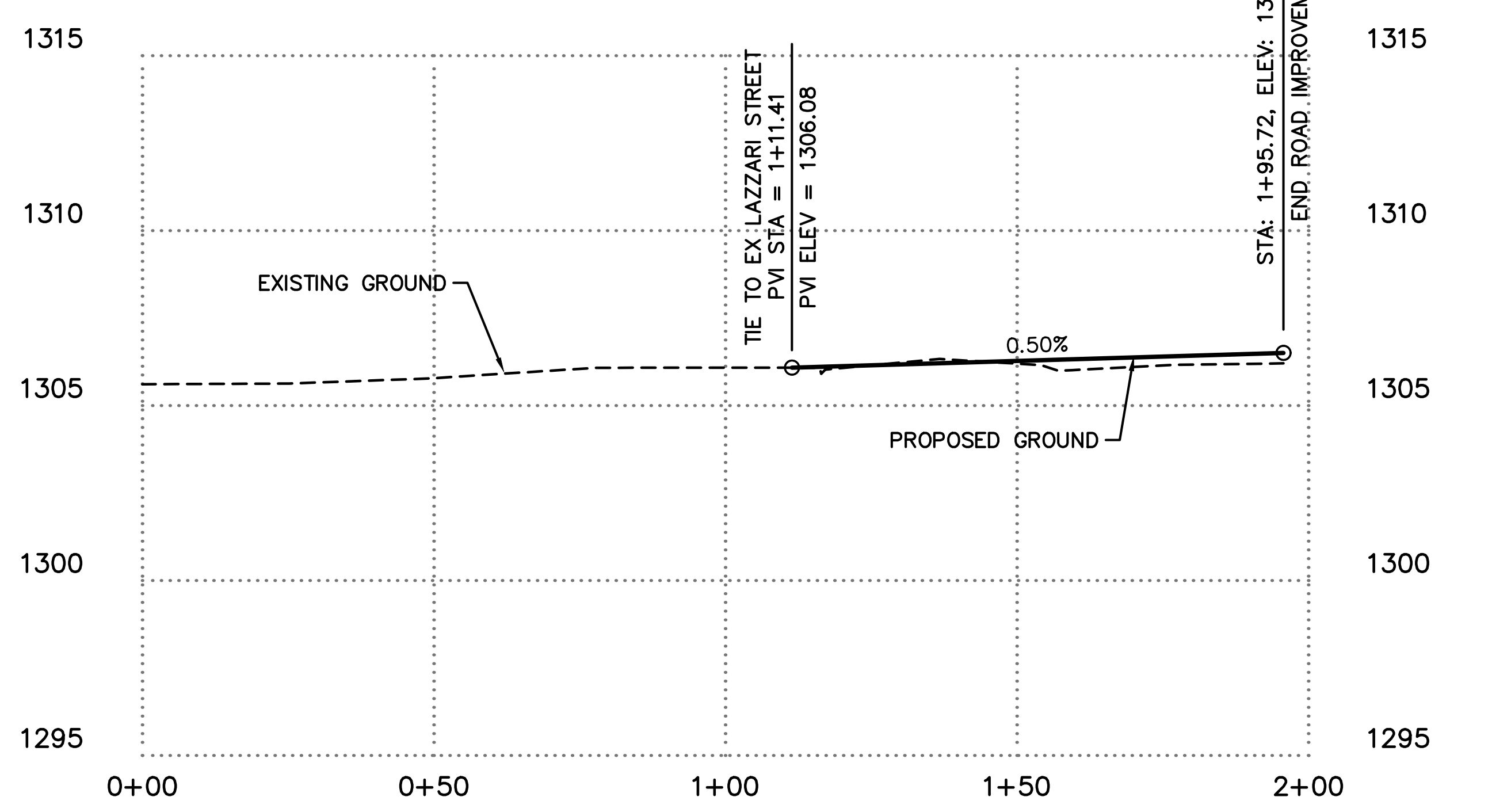

DESIGN STA = 1+68.04
DESIGN ELEV = 1309.94
PVI STA: 1+20.73
PVI ELEV: 1310.18
K: 20.35
LVC: 84.00
HIGH PT. STA: 1+52.53
HIGH PT ELEV: 1309.99
STA: 0+00.00, ELEV: 1306.11
CL - STREET A
DESIGN STA = 0+14.50
DESIGN ELEV = 1306.33
ROLL-DOWN
STA = 0+39.50
ELEV = 1307.23
BVCS: 0+78.75
BVCE: 1308.66
ROLL-DOWN
STA = 1+43.04
ELEV = 1309.97
EVCS: 1+62.75
EVCE: 1309.97
STA: 1+79.04, ELEV: 1309.75
SAW CUT LINE - E FLETCHER ROAD
3.63%
0.50%
EXISTING GROUND
PROPOSED GROUND
4' MIN.
GUTTERLINE
STA = 0+14.33
ELEV = 1305.83
GUTTERLINE
STA = 1+68.21
ELEV = 1309.44
8" WATER LINE CROSSING
STA: 0+32.50
EG = 1308.1
FG =
EG = 1308.9
FG = 1307.61
EG = 1309.8
FG = 1309.32
EG = 1310.4
FG = 1309.99
EG =
FG =
1320
1315
1310
1305
1300
1295
0+00
0+50
1+00
1+50
2+00

B STREET

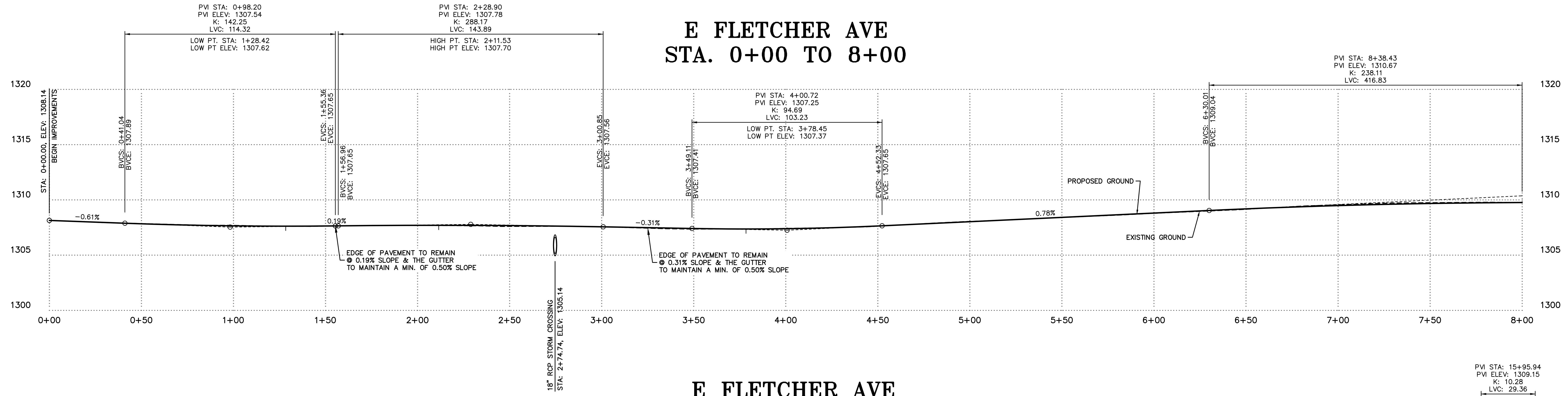
25 MPH DESIGN CRITERIA
MIN. K (CREST) 20
MIN. K (SAG) 30


PVI STA: 11+45.67
PVI ELEV: 1309.54
K: 20.61
LVC: 23.00
HIGH PT. STA: 11+45.10
HIGH PT ELEV: 1309.51
BVCS: 11+34.17
BVCE: 1309.48
EVCS: 11+57.17
EVCE: 1309.48
ROLL-DOWN
STA = 12+60.65
ELEV = 1308.87
DESIGN STA = 12+85.65
DESIGN ELEV = 1308.72
STA: 13+00.15, ELEV: 1308.51
CL - FRIZZO STREET
EXISTING GROUND
PROPOSED GROUND
0.53%
-0.59%
GUTTERLINE
STA = 12+85.82
ELEV = 1308.22
EG = 1308.7
FG = 1308.24
EG = 1309.2
FG = 1308.51
LOT 85-4" SEWER SERVICE XING
STA. 9+53.71, ELEV: 1302.18
EG = 1309.5
FG = 1308.77
LOT 84-4" SEWER SERVICE XING
STA. 10+31.42, ELEV: 1302.98
EG = 1309.8
FG = 1309.04
EG = 1309.6
FG = 1309.30
LOT 83-4" SEWER SERVICE XING
STA. 11+08.20, ELEV: 1303.73
EG = 1309.2
FG = 1309.51
EG = 1308.8
FG = 1309.23
EG = 1308.2
FG = 1308.93
EG = 1307.8
FG = 1308.51
EG =
FG =
1320
1315
1310
1305
1300
1295
9+00
9+50
10+00
10+50
11+00
11+50
12+00
12+50
13+00
13+20

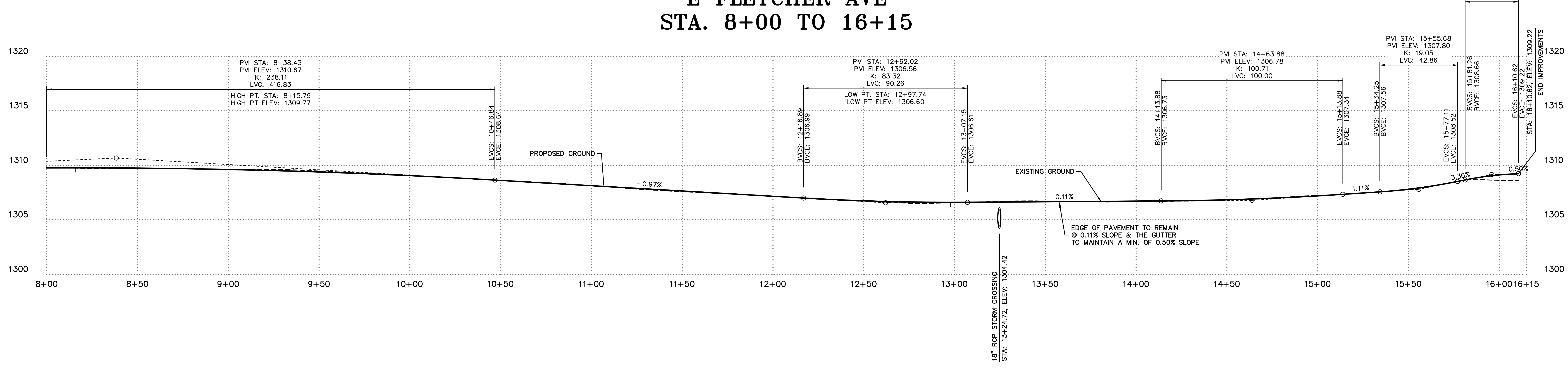
LAZZARI STREET


TIE TO EX LAZZARI STREET
PVI STA = 1+11.41
PVI ELEV = 1306.08
STA: 1+95.72, ELEV: 1306.50
END ROAD IMPROVEMENTS
EXISTING GROUND
PROPOSED GROUND
0.50%
1315
1310
1305
1300
1295
0+00
0+50
1+00
1+50
2+00

E FLETCHER AVE
STA. 0+00 TO 8+00


PVI STA: 0+98.20
PVI ELEV: 1307.54
K: 142.25
LVC: 114.32
LOW PT. STA: 1+28.42
LOW PT ELEV: 1307.62
PVI STA: 2+28.90
PVI ELEV: 1307.78
K: 288.17
LVC: 143.89
HIGH PT. STA: 2+11.53
HIGH PT ELEV: 1307.70
PVI STA: 4+00.72
PVI ELEV: 1307.25
K: 94.69
LVC: 103.23
LOW PT. STA: 3+78.45
LOW PT ELEV: 1307.37
PVI STA: 8+38.43
PVI ELEV: 1310.67
K: 238.11
LVC: 416.83
STA: 0+00.00, ELEV: 1308.14
BEGIN IMPROVEMENTS
BVCS: 0+41.04
BVCE: 1307.89
EVCS: 1+55.36
EVCE: 1307.65
BVCS: 1+56.96
BVCE: 1307.65
EVCS: 3+00.85
EVCE: 1307.56
BVCS: 3+49.11
BVCE: 1307.41
EVCS: 4+52.33
EVCE: 1307.65
BVCS: 6+30.01
BVCE: 1309.04
-0.61%
0.19%
-0.31%
0.78%
PROPOSED GROUND
EXISTING GROUND
EDGE OF PAVEMENT TO REMAIN
@ 0.19% SLOPE & THE GUTTER
TO MAINTAIN A MIN. OF 0.50% SLOPE
EDGE OF PAVEMENT TO REMAIN
@ 0.31% SLOPE & THE GUTTER
TO MAINTAIN A MIN. OF 0.50% SLOPE
18" RCP STORM CROSSING
STA: 2+74.74, ELEV: 1305.14
1320
1315
1310
1305
1300
0+00
0+50
1+00
1+50
2+00
2+50
3+00
3+50
4+00
4+50
5+00
5+50
6+00
6+50
7+00
7+50
8+00

E FLETCHER AVE
STA. 8+00 TO 16+15


PVI STA: 15+95.94
PVI ELEV: 1309.15
K: 10.28
LVC: 29.36
PVI STA: 8+38.43
PVI ELEV: 1310.67
K: 238.11
LVC: 416.83
HIGH PT. STA: 8+15.79
HIGH PT ELEV: 1309.77
PVI STA: 12+62.02
PVI ELEV: 1306.56
K: 83.32
LVC: 90.26
LOW PT. STA: 12+97.74
LOW PT ELEV: 1306.60
PVI STA: 14+63.88
PVI ELEV: 1306.78
K: 100.71
LVC: 100.00
PVI STA: 15+55.68
PVI ELEV: 1307.80
K: 19.05
LVC: 42.86
EVCS: 10+46.84
EVCE: 1308.64
BVCS: 12+16.89
BVCE: 1306.99
EVCS: 13+07.15
EVCE: 1306.61
BVCS: 14+13.88
BVCE: 1306.73
EVCS: 15+13.88
EVCE: 1307.34
BVCS: 15+34.25
BVCE: 1307.56
EVCS: 15+77.11
EVCE: 1308.52
BVCS: 15+81.26
BVCE: 1308.66
EVCS: 16+10.62
EVCE: 1309.22
STA: 16+10.62, ELEV: 1309.22
END IMPROVEMENTS
PROPOSED GROUND
EXISTING GROUND
-0.97%
0.11%
1.11%
3.36%
0.50%
EDGE OF PAVEMENT TO REMAIN
@ 0.11% SLOPE & THE GUTTER
TO MAINTAIN A MIN. OF 0.50% SLOPE
18" RCP STORM CROSSING
STA: 13+24.72, ELEV: 1304.42
1320
1315
1310
1305
1300
8+00
8+50
9+00
9+50
10+00
10+50
11+00
11+50
12+00
12+50
13+00
13+50
14+00
14+50
15+00
15+50
16+00
16+15

ENGINEERING SERVICES INC.
1207 SOUTH OLD MISSOURI RD.
SPRINGDALE, ARKANSAS 72764

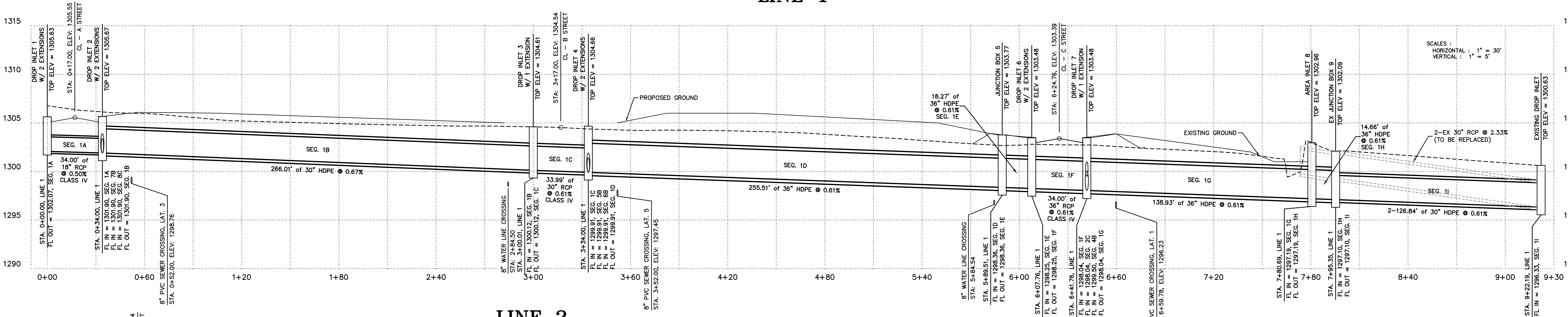
STREET PROFILES
WESTBROOK SUBDIVISON - PHASE 2
TONTITOWN, ARKANSAS

REVISION	DATE	DESCRIPTION

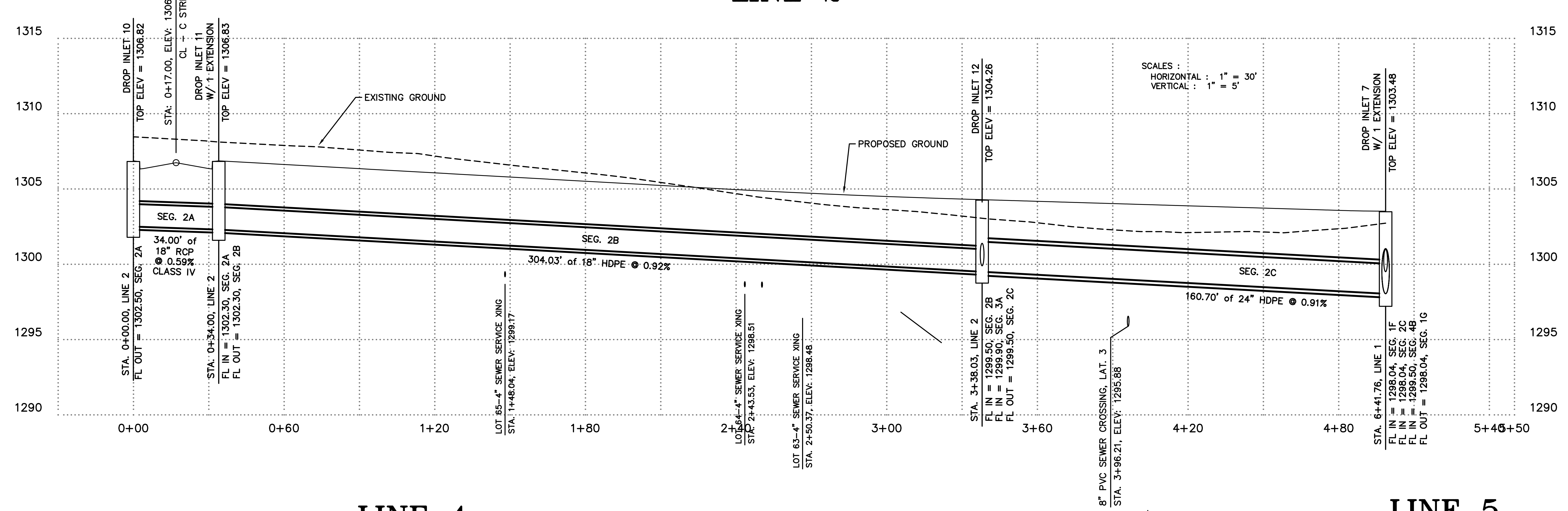
Z:\SUBD\17963 - WESTBROOK SUBD\17963 - STREETS.DWG

SCALE: 1"=30'
DATE: Nov 22, 2017
ENGINEER: TJA
DRAWN BY: JRC
W.O. #: 17963

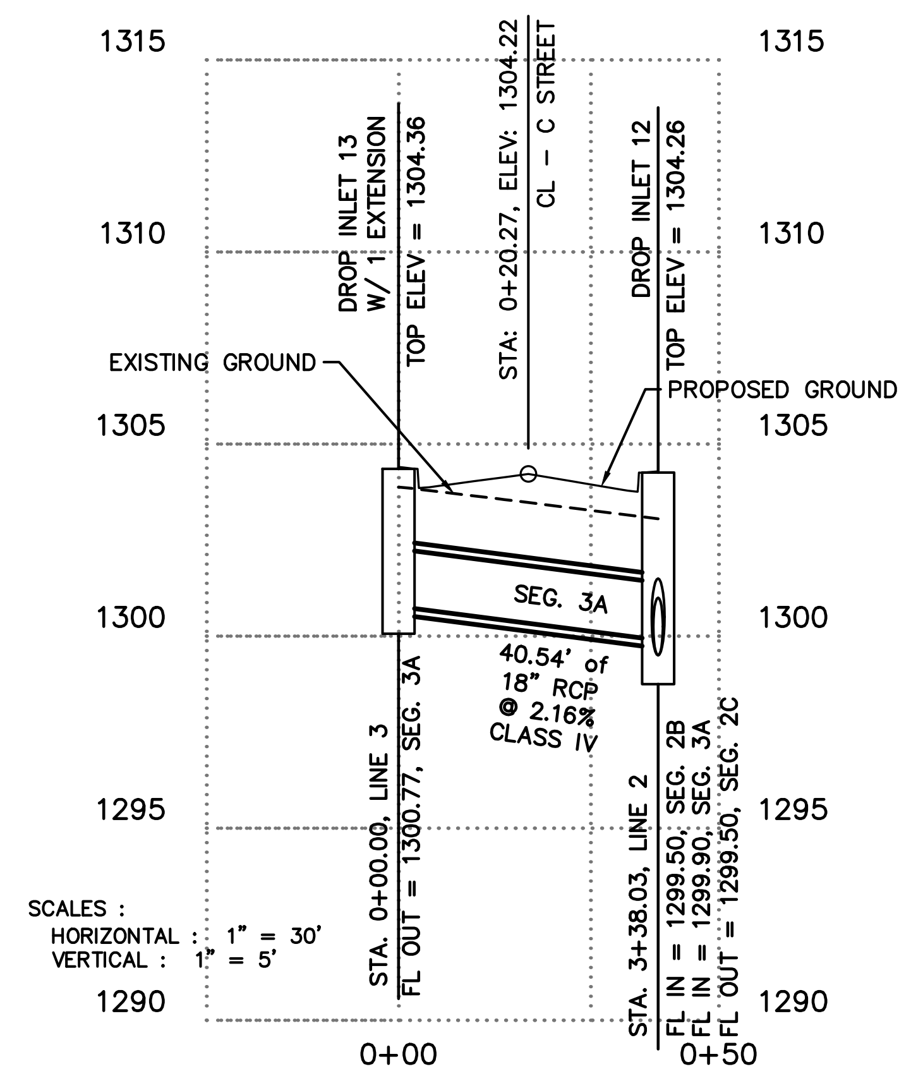
LINE 1


SCALES :
HORIZONTAL : 1" = 30'
VERTICAL : 1" = 5'
1315
1310
1305
1300
1295
1290
0+00
0+60
1+20
1+80
2+40
3+00
3+60
4+20
4+80
5+40
6+00
6+60
7+20
7+80
8+40
9+00
9+30
DROP INLET 1 W/ 2 EXTENSIONS TOP ELEV = 1305.63
STA: 0+17.00, ELEV: 1305.55 CL – A STREET
DROP INLET 2 W/ 2 EXTENSIONS TOP ELEV = 1305.67
DROP INLET 3 W/ 1 EXTENSION TOP ELEV = 1304.61
STA: 3+17.00, ELEV: 1304.54 CL – B STREET
DROP INLET 4 W/ 2 EXTENSIONS TOP ELEV = 1304.66
PROPOSED GROUND
18.27' of 36" HDPE @ 0.61% SEG. 1E
JUNCTION BOX 5 TOP ELEV = 1303.77
DROP INLET 6 W/ 2 EXTENSIONS TOP ELEV = 1303.48
STA: 6+24.76, ELEV: 1303.39 CL – C STREET
DROP INLET 7 W/ 1 EXTENSION TOP ELEV = 1303.48
EXISTING GROUND
AREA INLET 8 TOP ELEV = 1302.96
EX JUNCTION BOX 9 TOP ELEV = 1302.09
14.66' of 36" HDPE @ 0.61% SEG. 1H
2–EX 30" RCP @ 2.33% (TO BE REPLACED)
EXISTING DROP INLET TOP ELEV = 1300.63
SEG. 1A
34.00' of 18" RCP @ 0.50% CLASS IV
SEG. 1B
266.01' of 30" HDPE @ 0.67%
SEG. 1C
33.99' of 30" RCP @ 0.61% CLASS IV
SEG. 1D
255.51' of 36" HDPE @ 0.61%
SEG. 1F
34.00' of 36" RCP @ 0.61% CLASS IV
SEG. 1G
138.93' of 36" HDPE @ 0.61%
SEG. 1I
2–126.84' of 30" HDPE @ 0.61%
STA. 0+00.00, LINE 1 FL OUT = 1302.07, SEG. 1A
STA. 0+34.00, LINE 1 FL IN = 1301.90, SEG. 1A FL IN = 1301.90, SEG. 7B FL IN = 1301.90, SEG. 8C FL OUT = 1301.90, SEG. 1B
8" PVC SEWER CROSSING, LAT. 3 STA. 0+52.00, ELEV: 1298.76
8" WATER LINE CROSSING STA: 2+84.50
STA. 3+00.01, LINE 1 FL IN = 1300.12, SEG. 1B FL OUT = 1300.12, SEG. 1C
STA. 3+34.00, LINE 1 FL IN = 1299.91, SEG. 1C FL IN = 1299.91, SEG. 5B FL IN = 1299.91, SEG. 6B FL OUT = 1299.91, SEG. 1D
8" PVC SEWER CROSSING, LAT. 5 STA. 3+52.00, ELEV: 1297.45
8" WATER LINE CROSSING STA: 5+84.54
STA. 5+89.51, LINE 1 FL IN = 1298.36, SEG. 1D FL OUT = 1298.36, SEG. 1E
STA. 6+07.76, LINE 1 FL IN = 1298.25, SEG. 1E FL OUT = 1298.25, SEG. 1F
STA. 6+41.76, LINE 1 FL IN = 1298.04, SEG. 1F FL IN = 1298.04, SEG. 2C FL IN = 1299.50, SEG. 4B FL OUT = 1298.04, SEG. 1G
8" PVC SEWER CROSSING, LAT. 1 STA. 6+59.78, ELEV: 1296.23
STA. 7+80.69, LINE 1 FL IN = 1297.19, SEG. 1G FL OUT = 1297.19, SEG. 1H
STA. 7+95.35, LINE 1 FL IN = 1297.10, SEG. 1H FL OUT = 1297.10, SEG. 1I
STA. 9+22.19, LINE 1 FL IN = 1296.33, SEG. 1I

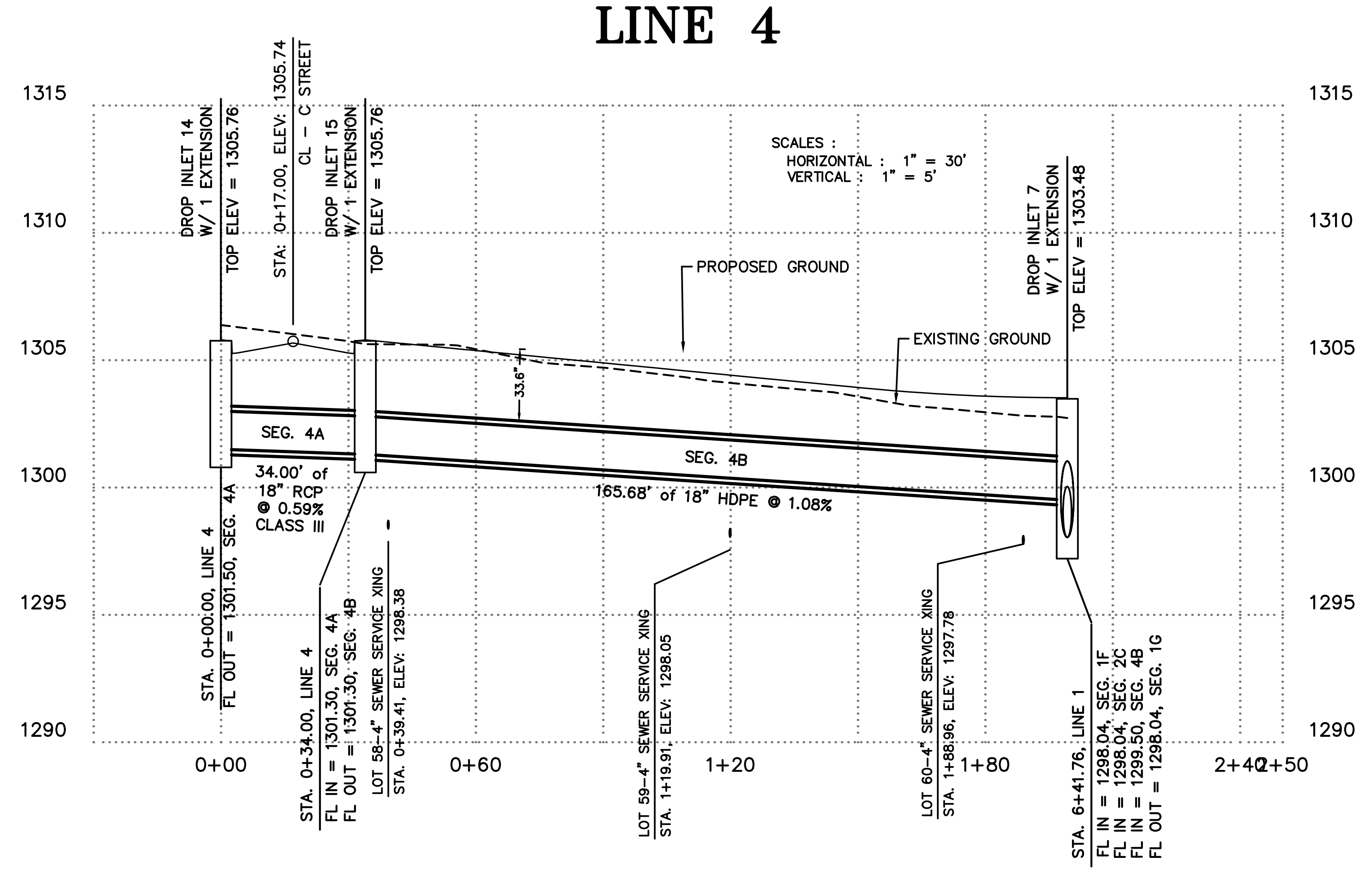
LINE 2


SCALES :
HORIZONTAL : 1" = 30'
VERTICAL : 1" = 5'
1315
1310
1305
1300
1295
1290
0+00
0+60
1+20
1+80
2+40
3+00
3+60
4+20
4+80
5+40
5+50
DROP INLET 10 TOP ELEV = 1306.82
STA: 0+17.00, ELEV: 1306.74 CL – C STREET
DROP INLET 11 W/ 1 EXTENSION TOP ELEV = 1306.83
EXISTING GROUND
PROPOSED GROUND
DROP INLET 12 TOP ELEV = 1304.26
DROP INLET 7 W/ 1 EXTENSION TOP ELEV = 1303.48
SEG. 2A
34.00' of 18" RCP @ 0.59% CLASS IV
SEG. 2B
304.03' of 18" HDPE @ 0.92%
SEG. 2C
160.70' of 24" HDPE @ 0.91%
STA. 0+00.00, LINE 2 FL OUT = 1302.50, SEG. 2A
STA. 0+34.00, LINE 2 FL IN = 1302.30, SEG. 2A FL OUT = 1302.30, SEG. 2B
LOT 65–4" SEWER SERVICE XING STA. 1+48.04, ELEV: 1299.17
LOT 64–4" SEWER SERVICE XING STA. 2+43.53, ELEV: 1298.51
LOT 63–4" SEWER SERVICE XING STA. 2+50.37, ELEV: 1298.48
STA. 3+38.03, LINE 2 FL IN = 1299.50, SEG. 2B FL IN = 1299.90, SEG. 3A FL OUT = 1299.50, SEG. 2C
8" PVC SEWER CROSSING, LAT. 3 STA. 3+96.21, ELEV: 1295.88
STA. 6+41.76, LINE 1 FL IN = 1298.04, SEG. 1F FL IN = 1298.04, SEG. 2C FL IN = 1299.50, SEG. 4B FL OUT = 1298.04, SEG. 1G

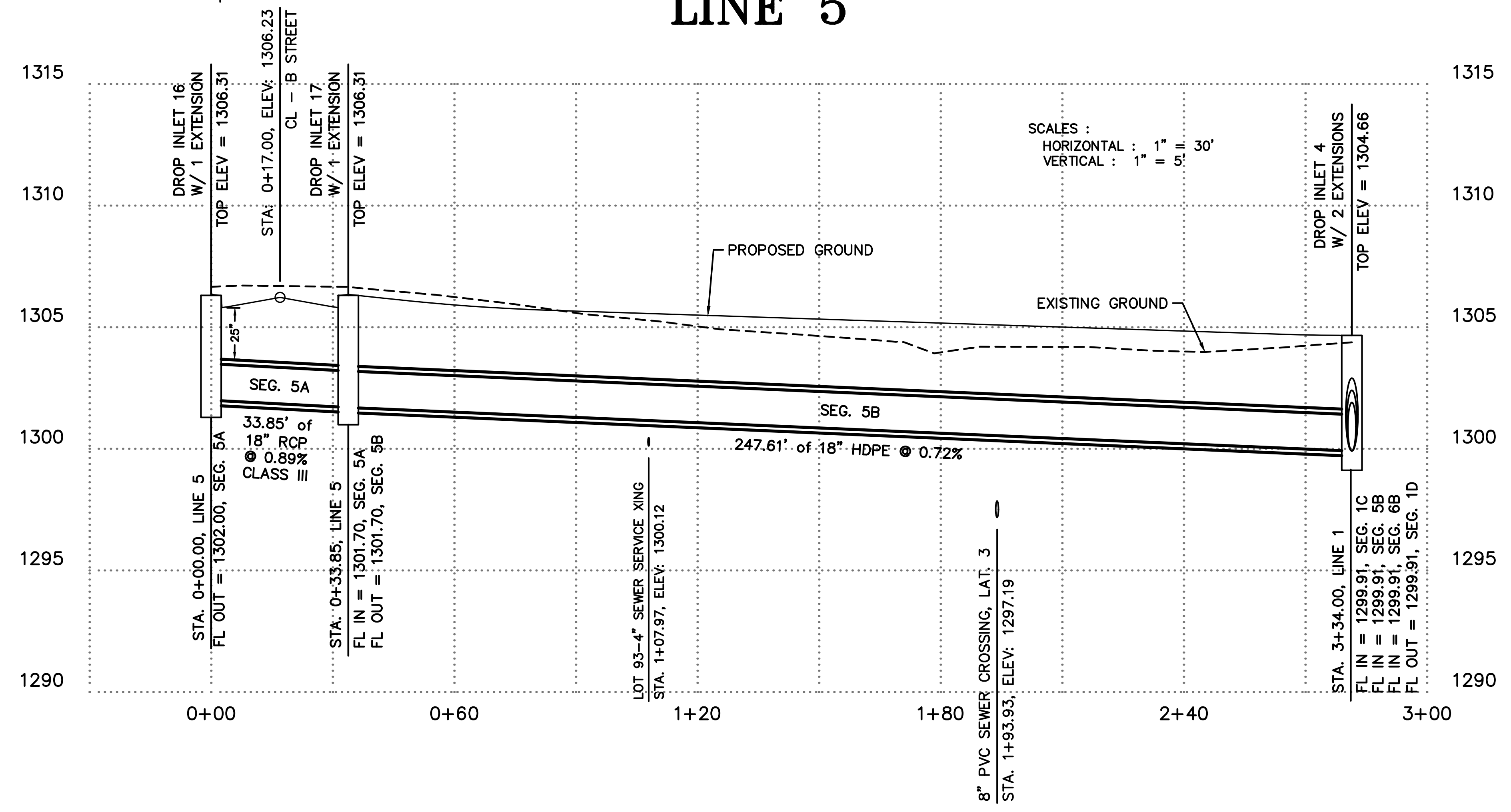
LINE 3


1315
1310
1305
1300
1295
1290
0+00
0+50
DROP INLET 13 W/ 1 EXTENSION TOP ELEV = 1304.36
STA: 0+20.27, ELEV: 1304.22 CL – C STREET
DROP INLET 12 TOP ELEV = 1304.26
EXISTING GROUND
PROPOSED GROUND
SEG. 3A
40.54' of 18" RCP @ 2.16% CLASS IV
STA. 0+00.00, LINE 3 FL OUT = 1300.77, SEG. 3A
STA. 3+38.03, LINE 2 FL IN = 1299.50, SEG. 2B FL IN = 1299.90, SEG. 3A FL OUT = 1299.50, SEG. 2C
SCALES :
HORIZONTAL : 1" = 30'
VERTICAL : 1" = 5'

LINE 4


SCALES :
HORIZONTAL : 1" = 30'
VERTICAL : 1" = 5'
1315
1310
1305
1300
1295
1290
0+00
0+60
1+20
1+80
2+40
2+50
DROP INLET 14 W/ 1 EXTENSION TOP ELEV = 1305.76
STA: 0+17.00, ELEV: 1305.74 CL – C STREET
DROP INLET 15 W/ 1 EXTENSION TOP ELEV = 1305.76
PROPOSED GROUND
EXISTING GROUND
DROP INLET 7 W/ 1 EXTENSION TOP ELEV = 1303.48
33.6"
SEG. 4A
34.00' of 18" RCP @ 0.59% CLASS III
SEG. 4B
165.68' of 18" HDPE @ 1.08%
STA. 0+00.00, LINE 4 FL OUT = 1301.50, SEG. 4A
STA. 0+34.00, LINE 4 FL IN = 1301.30, SEG. 4A FL OUT = 1301.30, SEG. 4B
LOT 58–4" SEWER SERVICE XING STA. 0+39.41, ELEV: 1298.38
LOT 59–4" SEWER SERVICE XING STA. 1+19.91, ELEV: 1298.05
LOT 60–4" SEWER SERVICE XING STA. 1+88.96, ELEV: 1297.78
STA. 6+41.76, LINE 1 FL IN = 1298.04, SEG. 1F FL IN = 1298.04, SEG. 2C FL IN = 1299.50, SEG. 4B FL OUT = 1298.04, SEG. 1G

LINE 5


SCALES :
HORIZONTAL : 1" = 30'
VERTICAL : 1" = 5'
1315
1310
1305
1300
1295
1290
0+00
0+60
1+20
1+80
2+40
3+00
DROP INLET 16 W/ 1 EXTENSION TOP ELEV = 1306.31
STA: 0+17.00, ELEV: 1306.23 CL – B STREET
DROP INLET 17 W/ 1 EXTENSION TOP ELEV = 1306.31
PROPOSED GROUND
EXISTING GROUND
DROP INLET 4 W/ 2 EXTENSIONS TOP ELEV = 1304.66
25"
SEG. 5A
33.85' of 18" RCP @ 0.89% CLASS III
SEG. 5B
247.61' of 18" HDPE @ 0.72%
STA. 0+00.00, LINE 5 FL OUT = 1302.00, SEG. 5A
STA. 0+33.85, LINE 5 FL IN = 1301.70, SEG. 5A FL OUT = 1301.70, SEG. 5B
LOT 93–4" SEWER SERVICE XING STA. 1+07.97, ELEV: 1300.12
8" PVC SEWER CROSSING, LAT. 3 STA. 1+93.93, ELEV: 1297.19
STA. 3+34.00, LINE 1 FL IN = 1299.91, SEG. 1C FL IN = 1299.91, SEG. 5B FL IN = 1299.91, SEG. 6B FL OUT = 1299.91, SEG. 1D

ENGINEERING SERVICES INC.
1207 SOUTH OLD MISSOURI RD.
SPRINGDALE, ARKANSAS 72764

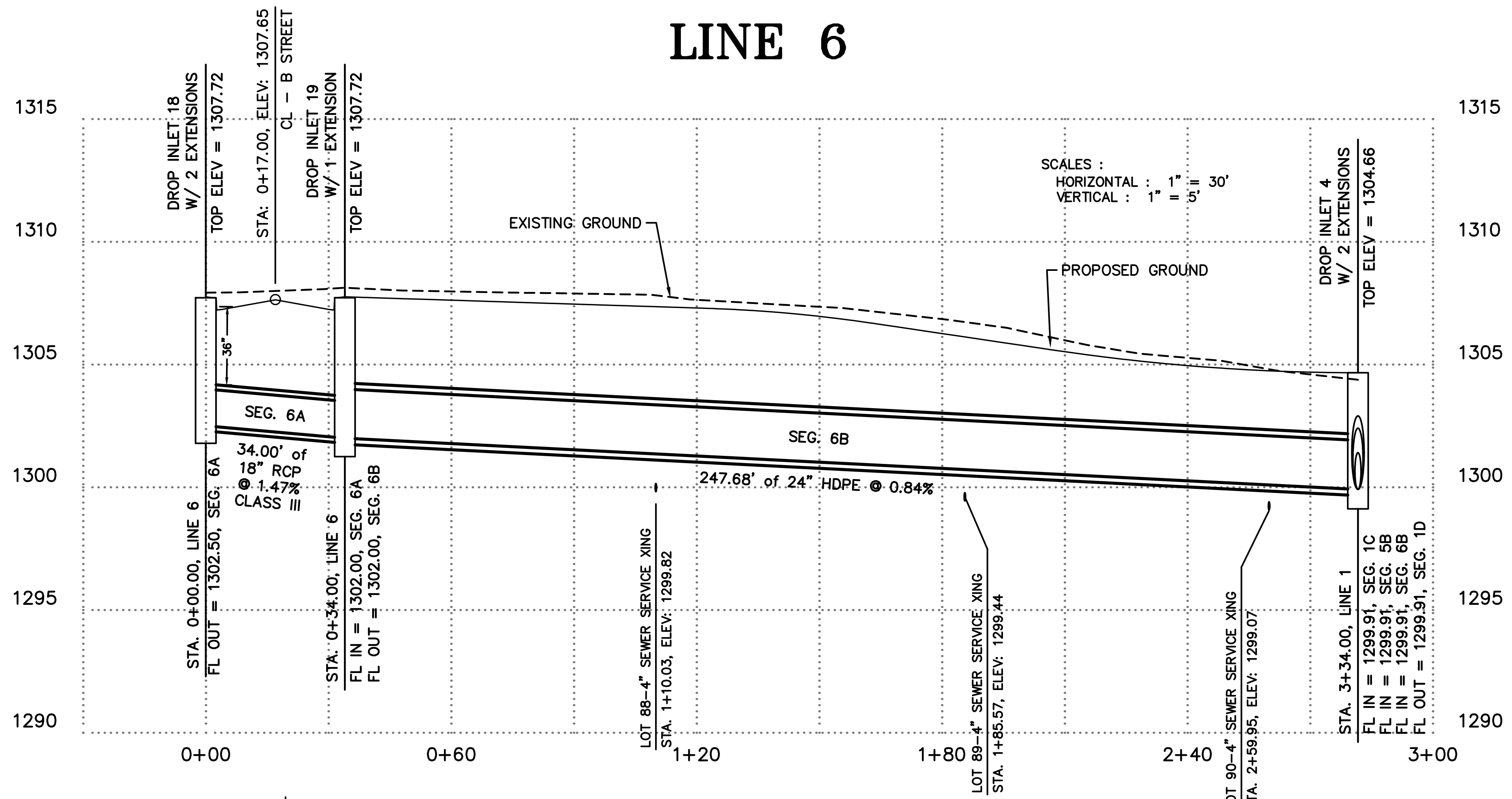
STORM DRAINAGE PROFILES
WESTBROOK SUBDIVISON – PHASE 2
TONTITOWN, ARKANSAS

REVISION	DATE	DESCRIPTION

Z:\SUBD\17963 - WESTBROOK SUBD\17963 - STORM.DWG

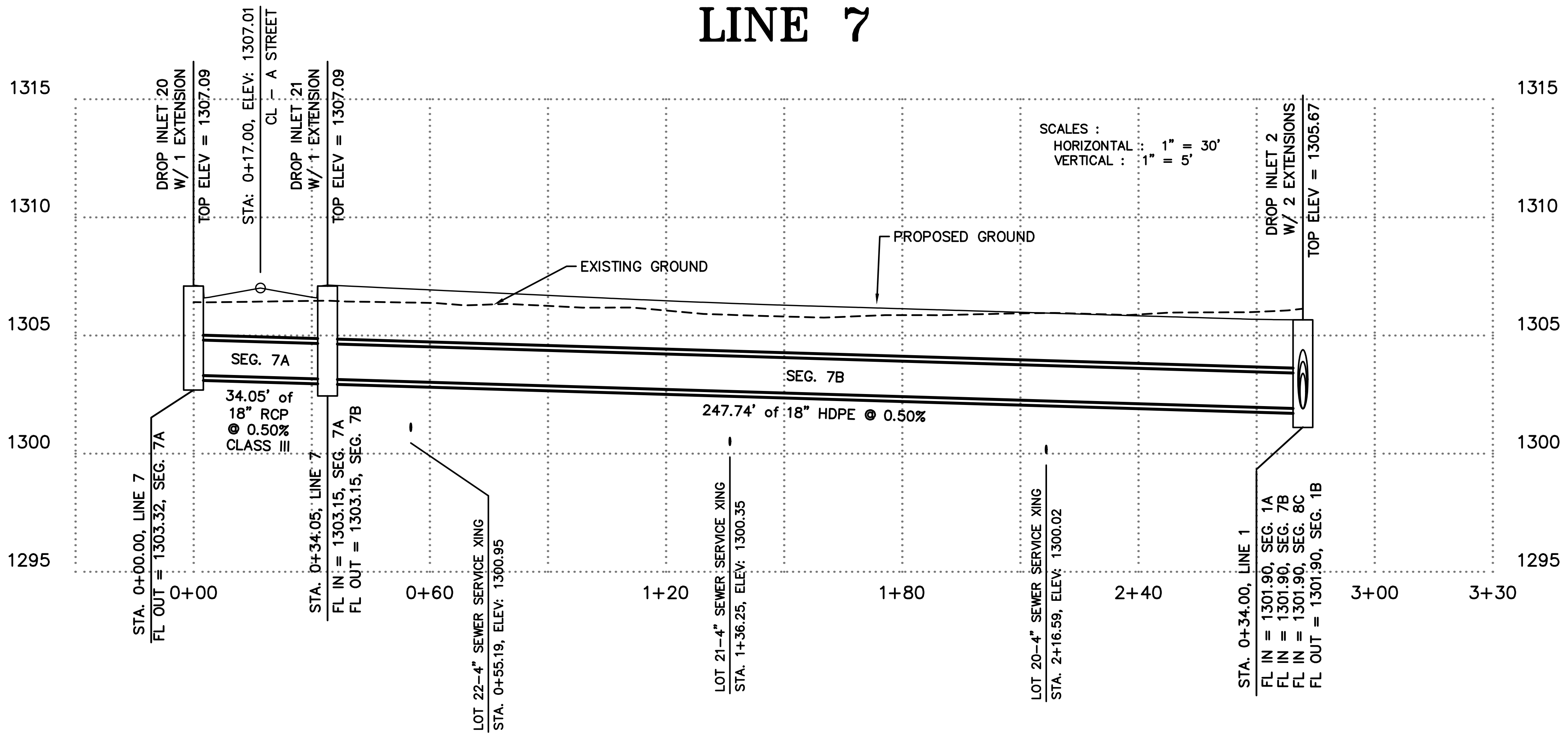
SCALE: 1"=30'
DATE: Nov 22, 2017
ENGINEER: TJA
DRAWN BY: JRC
W.O. #: 17963

LINE 6



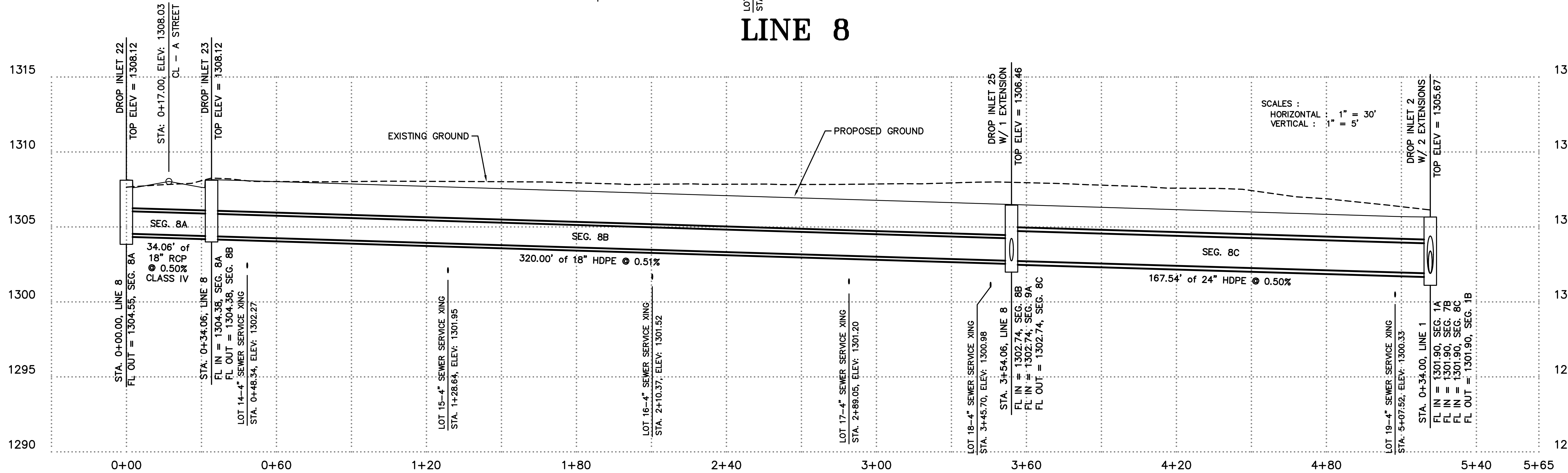
DROP INLET 18 W/ 2 EXTENSIONS
TOP ELEV = 1307.72
STA: 0+17.00, ELEV: 1307.65
CL - B STREET
DROP INLET 19 W/1 EXTENSION
TOP ELEV = 1307.72
DROP INLET 4 W/ 2 EXTENSIONS
TOP ELEV = 1304.66
SCALES : HORIZONTAL : 1" = 30' VERTICAL : 1" = 5'
EXISTING GROUND
PROPOSED GROUND
SEG. 6A
SEG. 6B
34.00' of 18" RCP @ 1.47% CLASS III
247.68' of 24" HDPE @ 0.84%
STA. 0+00.00, LINE 6 FL OUT = 1302.50, SEG. 6A
STA. 0+34.00, LINE 6 FL IN = 1302.00, SEG. 6A FL OUT = 1302.00, SEG. 6B
LOT 88-4" SEWER SERVICE XING STA. 1+10.03, ELEV: 1299.82
LOT 89-4" SEWER SERVICE XING STA. 1+85.57, ELEV: 1299.44
LOT 90-4" SEWER SERVICE XING STA. 2+59.95, ELEV: 1299.07
STA. 3+34.00, LINE 1 FL IN = 1299.91, SEG. 1C FL IN = 1299.91, SEG. 5B FL IN = 1299.91, SEG. 6B FL OUT = 1299.91, SEG. 1D
1315
1310
1305
1300
1295
1290
0+00
0+60
1+20
1+80
2+40
3+00

LINE 7



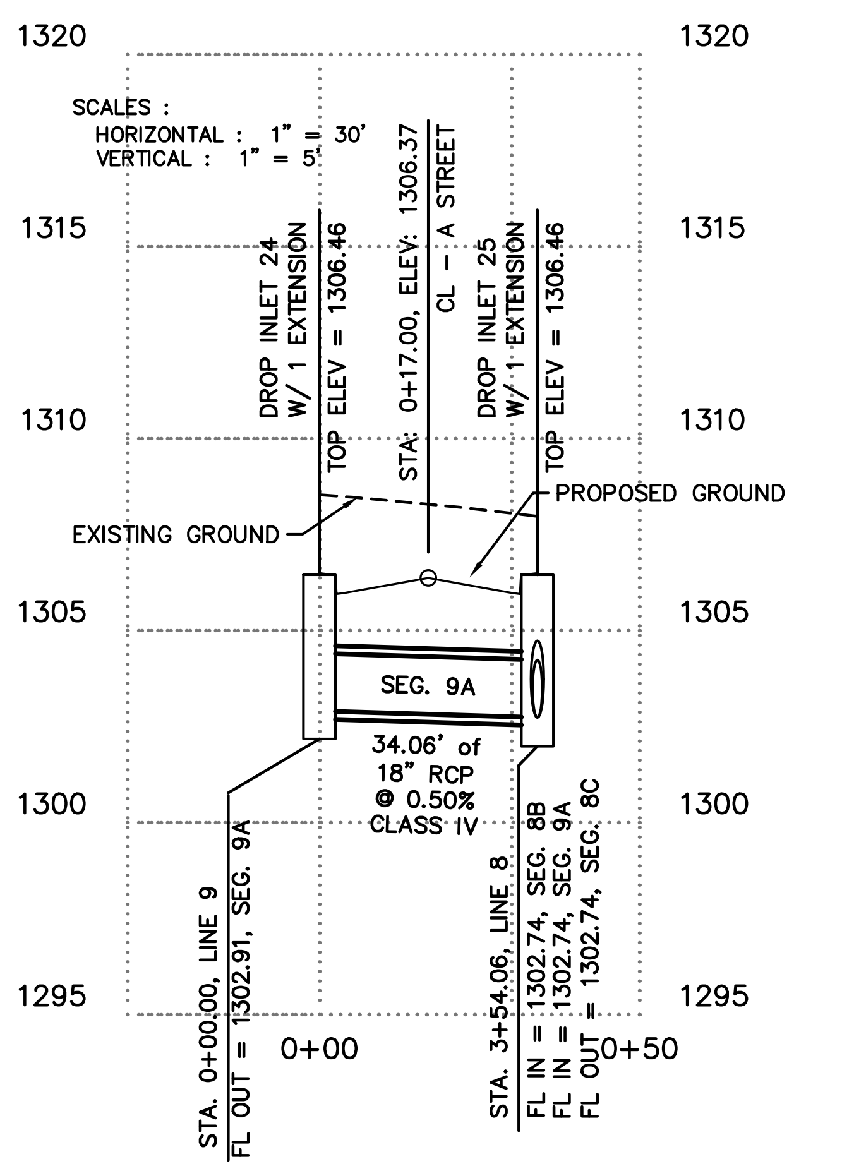
DROP INLET 20 W/1 EXTENSION
TOP ELEV = 1307.09
STA: 0+17.00, ELEV: 1307.01
CL - A STREET
DROP INLET 21 W/1 EXTENSION
TOP ELEV = 1307.09
DROP INLET 2 W/ 2 EXTENSIONS
TOP ELEV = 1305.67
SCALES : HORIZONTAL : 1" = 30' VERTICAL : 1" = 5'
EXISTING GROUND
PROPOSED GROUND
SEG. 7A
SEG. 7B
34.05' of 18" RCP @ 0.50% CLASS III
247.74' of 18" HDPE @ 0.50%
STA. 0+00.00, LINE 7 FL OUT = 1303.32, SEG. 7A
STA. 0+34.05, LINE 7 FL IN = 1303.15, SEG. 7A FL OUT = 1303.15, SEG. 7B
LOT 22-4" SEWER SERVICE XING STA. 0+55.19, ELEV: 1300.65
LOT 21-4" SEWER SERVICE XING STA. 1+36.25, ELEV: 1300.35
LOT 20-4" SEWER SERVICE XING STA. 2+16.59, ELEV: 1300.02
STA. 0+34.00, LINE 1 FL IN = 1301.90, SEG. 1A FL IN = 1301.90, SEG. 7B FL IN = 1301.90, SEG. 8C FL OUT = 1301.90, SEG. 1B
1315
1310
1305
1300
1295
0+00
0+60
1+20
1+80
2+40
3+00
3+30

LINE 8



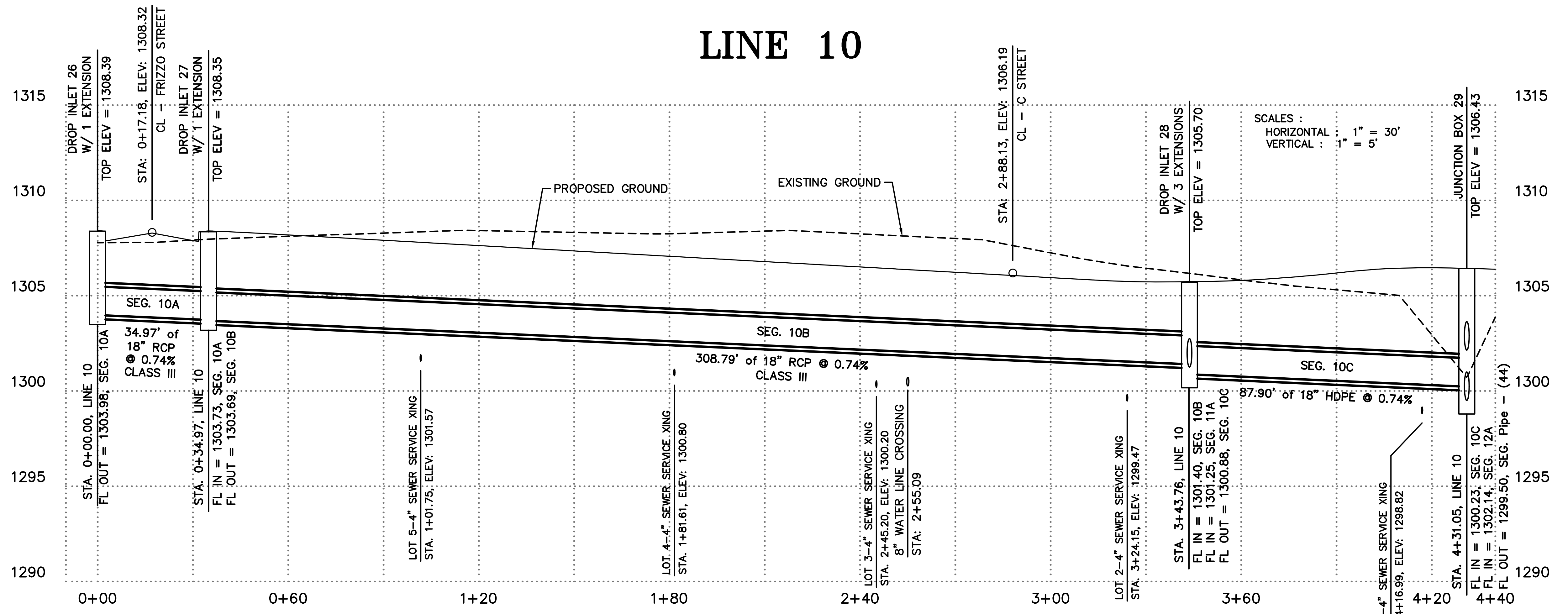
DROP INLET 22
TOP ELEV = 1308.12
STA: 0+17.00, ELEV: 1308.03
CL - A STREET
DROP INLET 23
TOP ELEV = 1308.12
DROP INLET 25 W/1 EXTENSION
TOP ELEV = 1306.46
DROP INLET 2 W/ 2 EXTENSIONS
TOP ELEV = 1305.67
SCALES : HORIZONTAL : 1" = 30' VERTICAL : 1" = 5'
EXISTING GROUND
PROPOSED GROUND
SEG. 8A
SEG. 8B
SEG. 8C
34.06' of 18" RCP @ 0.50% CLASS IV
320.00' of 18" HDPE @ 0.51%
167.54' of 24" HDPE @ 0.50%
STA. 0+00.00, LINE 8 FL OUT = 1304.55, SEG. 8A
STA. 0+34.06, LINE 8 FL IN = 1304.38, SEG. 8A FL OUT = 1304.38, SEG. 8B
LOT 14-4" SEWER SERVICE XING STA. 0+48.34, ELEV: 1302.27
LOT 15-4" SEWER SERVICE XING STA. 1+28.64, ELEV: 1301.95
LOT 16-4" SEWER SERVICE XING STA. 2+10.37, ELEV: 1301.52
LOT 17-4" SEWER SERVICE XING STA. 2+89.05, ELEV: 1301.20
LOT 18-4" SEWER SERVICE XING STA. 3+45.70, ELEV: 1300.98
STA. 3+54.06, LINE 8 FL IN = 1302.74, SEG. 8B FL IN = 1302.74, SEG. 9A FL OUT = 1302.74, SEG. 8C
LOT 19-4" SEWER SERVICE XING STA. 5+07.52, ELEV: 1300.33
STA. 0+34.00, LINE 1 FL IN = 1301.90, SEG. 1A FL IN = 1301.90, SEG. 7B FL IN = 1301.90, SEG. 8C FL OUT = 1301.90, SEG. 1B
1315
1310
1305
1300
1295
1290
0+00
0+60
1+20
1+80
2+40
3+00
3+60
4+20
4+80
5+40
5+65

LINE 9



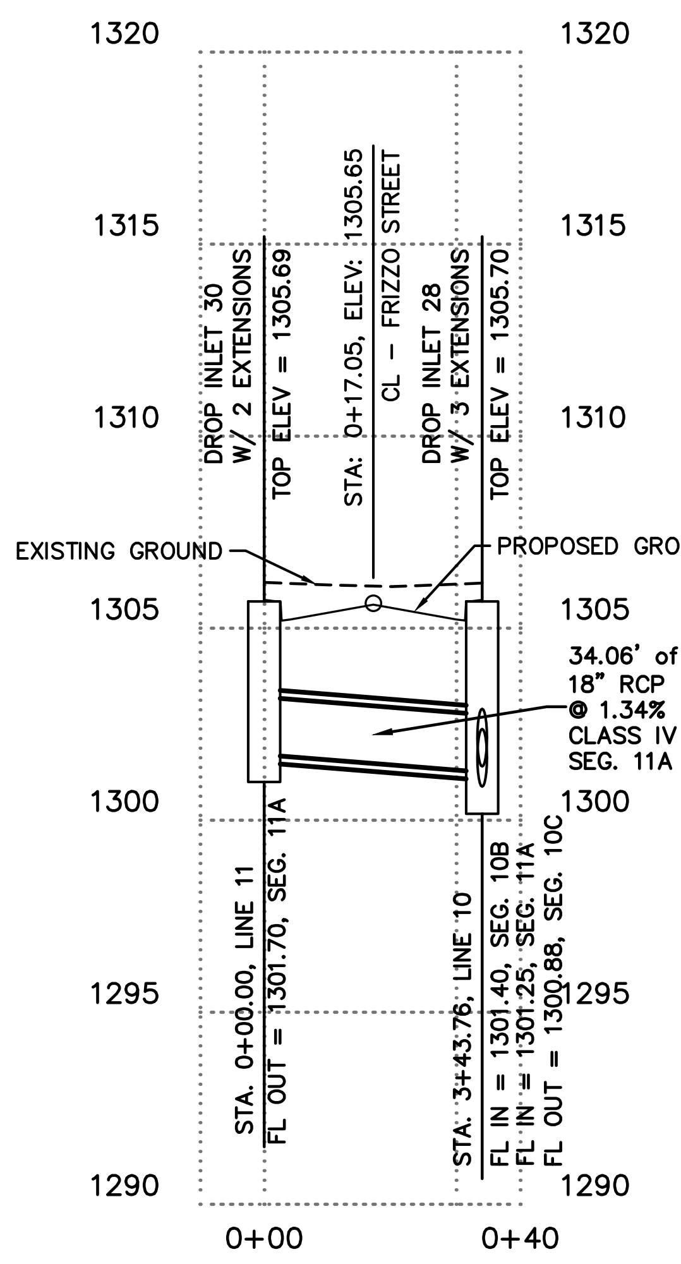
SCALES : HORIZONTAL : 1" = 30' VERTICAL : 1" = 5'
DROP INLET 24 W/1 EXTENSION
TOP ELEV = 1306.46
STA: 0+17.00, ELEV: 1306.37
CL - A STREET
DROP INLET 25 W/1 EXTENSION
TOP ELEV = 1306.46
EXISTING GROUND
PROPOSED GROUND
SEG. 9A
34.06' of 18" RCP @ 0.50% CLASS IV
STA. 0+00.00, LINE 9 FL OUT = 1302.91, SEG. 9A
STA. 3+54.06, LINE 8 FL IN = 1302.74, SEG. 8B FL IN = 1302.74, SEG. 9A FL OUT = 1302.74, SEG. 8C
1320
1315
1310
1305
1300
1295
0+00
0+50

LINE 10



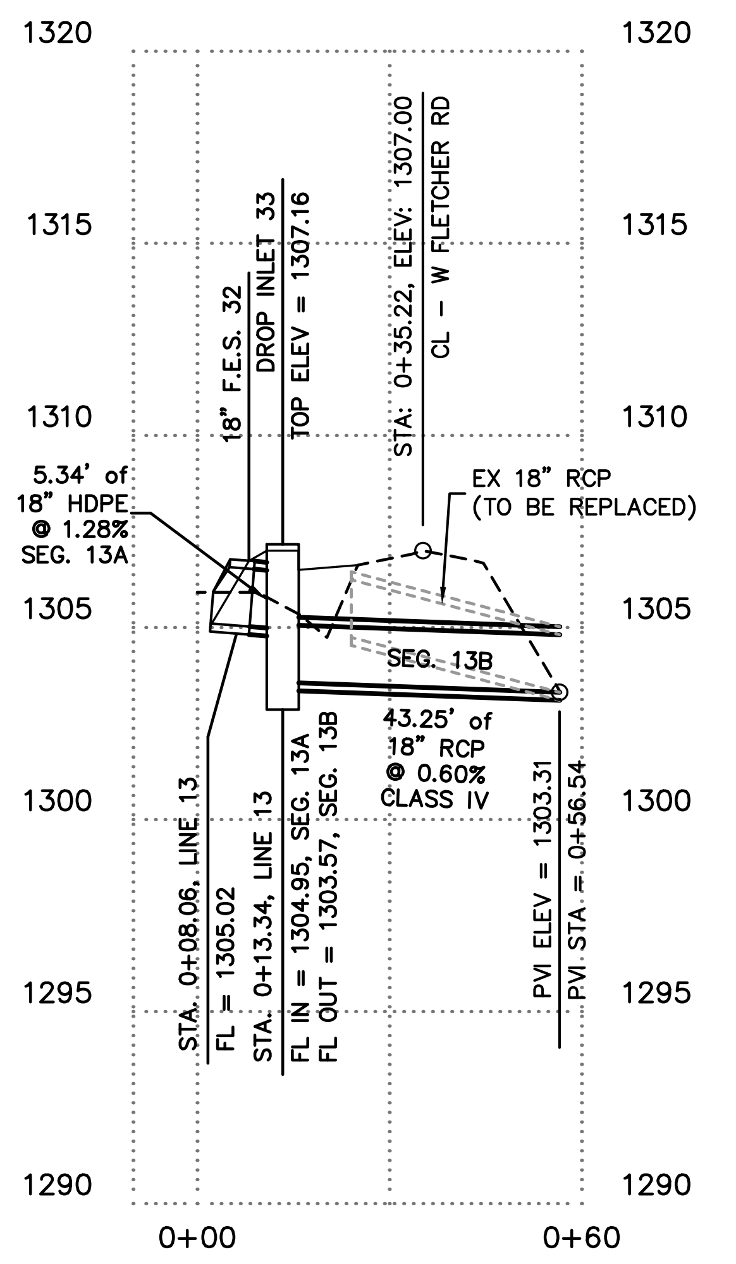
DROP INLET 26 W/1 EXTENSION
TOP ELEV = 1308.39
STA: 0+17.18, ELEV: 1308.32
CL - FRIZZO STREET
DROP INLET 27 W/1 EXTENSION
TOP ELEV = 1308.35
STA: 2+88.13, ELEV: 1306.19
CL - C STREET
DROP INLET 28 W/ 3 EXTENSIONS
TOP ELEV = 1305.70
JUNCTION BOX 29
TOP ELEV = 1306.43
SCALES : HORIZONTAL : 1" = 30' VERTICAL : 1" = 5'
PROPOSED GROUND
EXISTING GROUND
SEG. 10A
SEG. 10B
SEG. 10C
34.97' of 18" RCP @ 0.74% CLASS III
308.79' of 18" RCP @ 0.74% CLASS III
87.90' of 18" HDPE @ 0.74%
STA. 0+00.00, LINE 10 FL OUT = 1303.98, SEG. 10A
STA. 0+34.97, LINE 10 FL IN = 1303.73, SEG. 10A FL OUT = 1303.69, SEG. 10B
LOT 5-4" SEWER SERVICE XING STA. 1+01.75, ELEV: 1301.57
LOT 4-4" SEWER SERVICE XING STA. 1+81.61, ELEV: 1300.60
LOT 3-4" SEWER SERVICE XING STA. 2+45.20, ELEV: 1300.20
8" WATER LINE CROSSING STA: 2+55.09
LOT 2-4" SEWER SERVICE XING STA. 3+24.15, ELEV: 1299.47
STA. 3+43.76, LINE 10 FL IN = 1301.40, SEG. 10B FL IN = 1301.25, SEG. 11A FL OUT = 1300.88, SEG. 10C
LOT 1-4" SEWER SERVICE XING STA. 4+16.99, ELEV: 1298.82
STA. 4+31.05, LINE 10 FL IN = 1300.23, SEG. 10C FL IN = 1302.14, SEG. 12A FL OUT = 1299.50, SEG. Pipe - (44)
1315
1310
1305
1300
1295
1290
0+00
0+60
1+20
1+80
2+40
3+00
3+60
4+20
4+40

LINE 11



DROP INLET 30 W/ 2 EXTENSIONS
TOP ELEV = 1305.69
STA: 0+17.05, ELEV: 1305.65
CL - FRIZZO STREET
DROP INLET 28 W/ 3 EXTENSIONS
TOP ELEV = 1305.70
EXISTING GROUND
PROPOSED GROUND
34.06' of 18" RCP @ 1.34% CLASS IV SEG. 11A
STA. 0+00.00, LINE 11 FL OUT = 1301.70, SEG. 11A
STA. 3+43.76, LINE 10 FL IN = 1301.40, SEG. 10B FL IN = 1301.25, SEG. 11A FL OUT = 1300.88, SEG. 10C
1320
1315
1310
1305
1300
1295
1290
0+00
0+40

LINE 13



18" F.E.S. 32
DROP INLET 33
TOP ELEV = 1307.16
STA: 0+35.22, ELEV: 1307.00
CL - W FLETCHER RD
5.34' of 18" HDPE @ 1.28% SEG. 13A
EX 18" RCP (TO BE REPLACED)
SEG. 13B
43.25' of 18" RCP @ 0.60% CLASS IV
STA. 0+08.06, LINE 13 FL = 1305.02
STA. 0+13.34, LINE 13 FL IN = 1304.95, SEG. 13A FL OUT = 1303.57, SEG. 13B
PVI ELEV = 1303.31 PVI STA = 0+56.54
1320
1315
1310
1305
1300
1295
1290
0+00
0+60

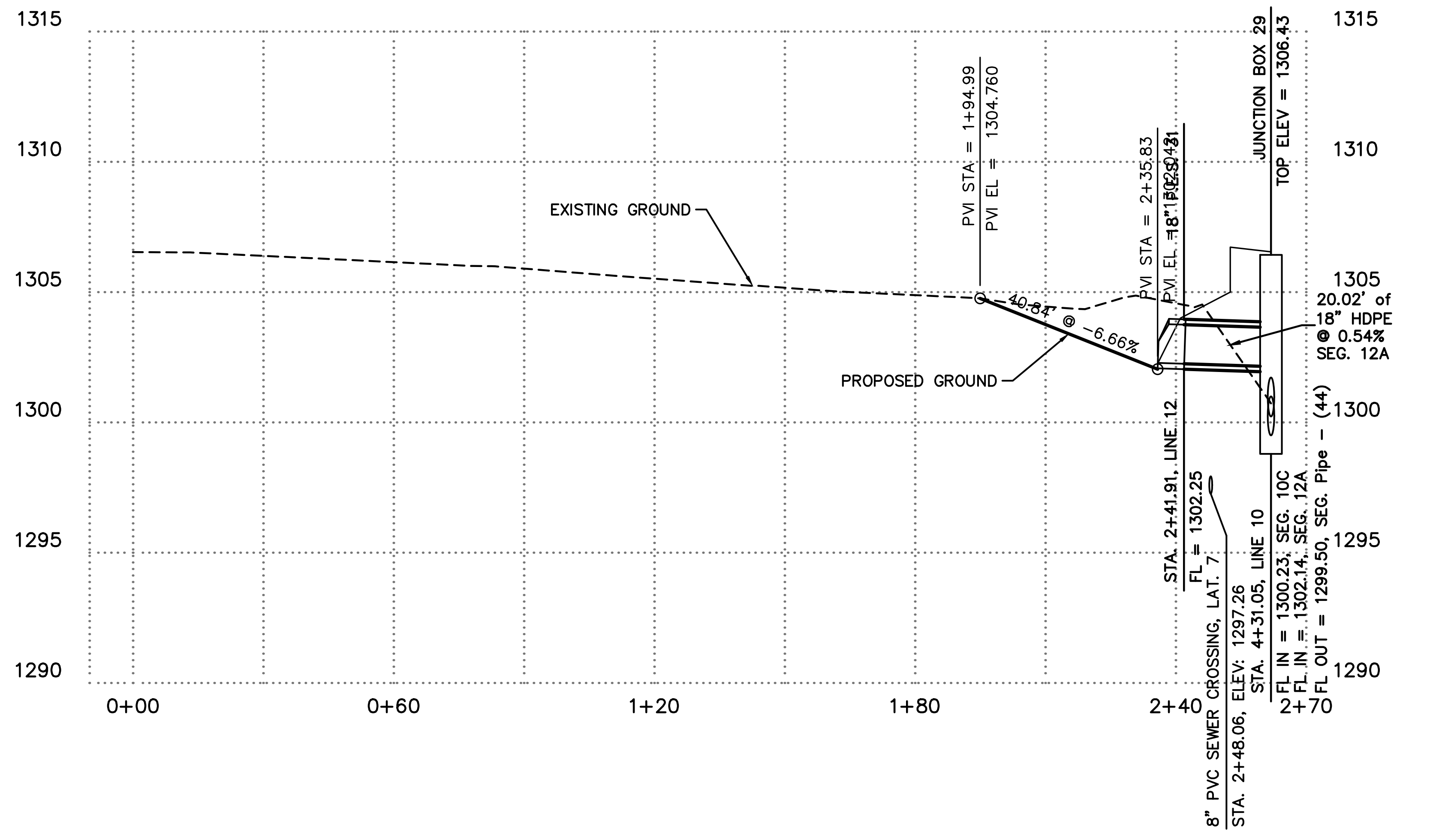
ENGINEERING SERVICES INC.
1207 SOUTH OLD MISSOURI RD.
SPRINGDALE, ARKANSAS 72764

STORM DRAINAGE PROFILES
WESTBROOK SUBDIVISON – PHASE 2
TONTITOWN, ARKANSAS

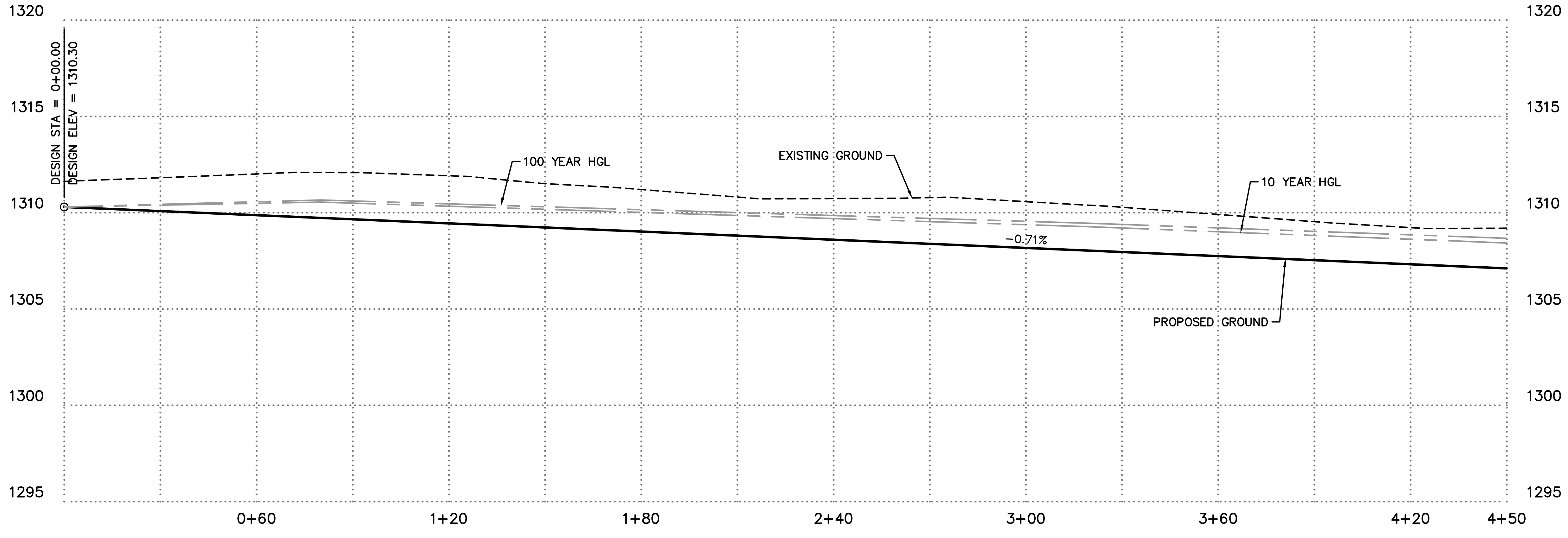
REVISION	DATE	DESCRIPTION

SCALE: 1"=30'
DATE: Nov 22, 2017
ENGINEER: TJA
DRAWN BY: JRC
W.O. #: 17963

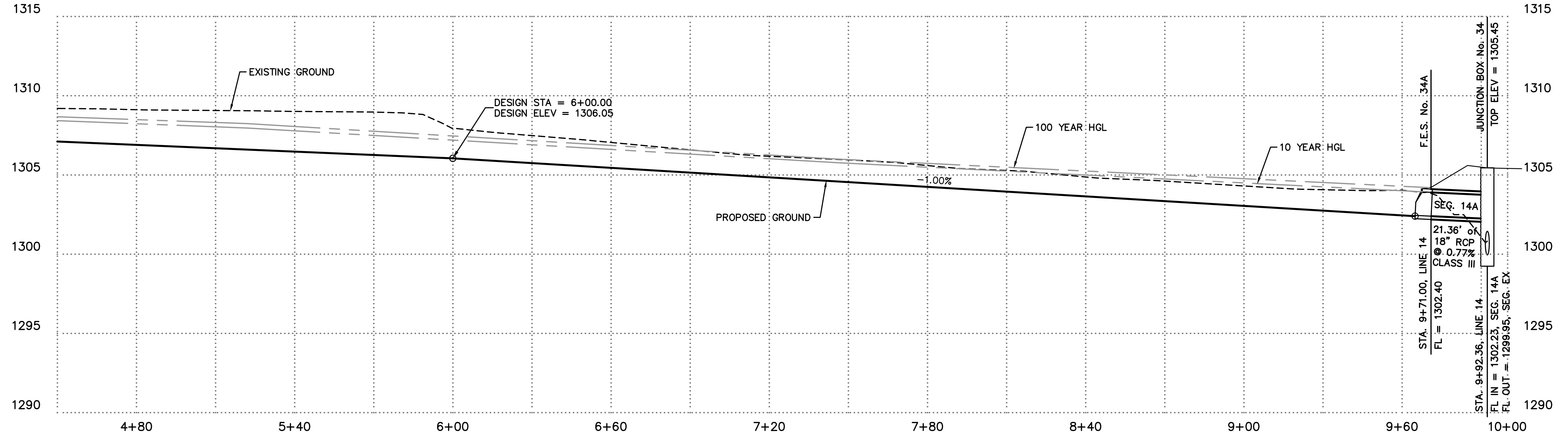
LINE 12


1315
1310
1305
1300
1295
1290
0+00
0+60
1+20
1+80
2+40
2+70
EXISTING GROUND
PROPOSED GROUND
PVI STA = 1+94.99
PVI EL = 1304.760
40.84' @ -6.66%
PVI STA = 2+35.83
PVI EL = 1302.043
18" F.E.S. 31
JUNCTION BOX 29
TOP ELEV = 1306.43
20.02' of
18" HDPE
@ 0.54%
SEG. 12A
STA. 2+41.91, LINE 12
FL = 1302.25
8" PVC SEWER CROSSING, LAT. 7
STA. 2+48.06, ELEV: 1297.26
STA. 4+31.05, LINE 10
FL IN = 1300.23, SEG. 10C
FL IN = 1302.14, SEG. 12A
FL OUT = 1299.50, SEG. Pipe - (44)

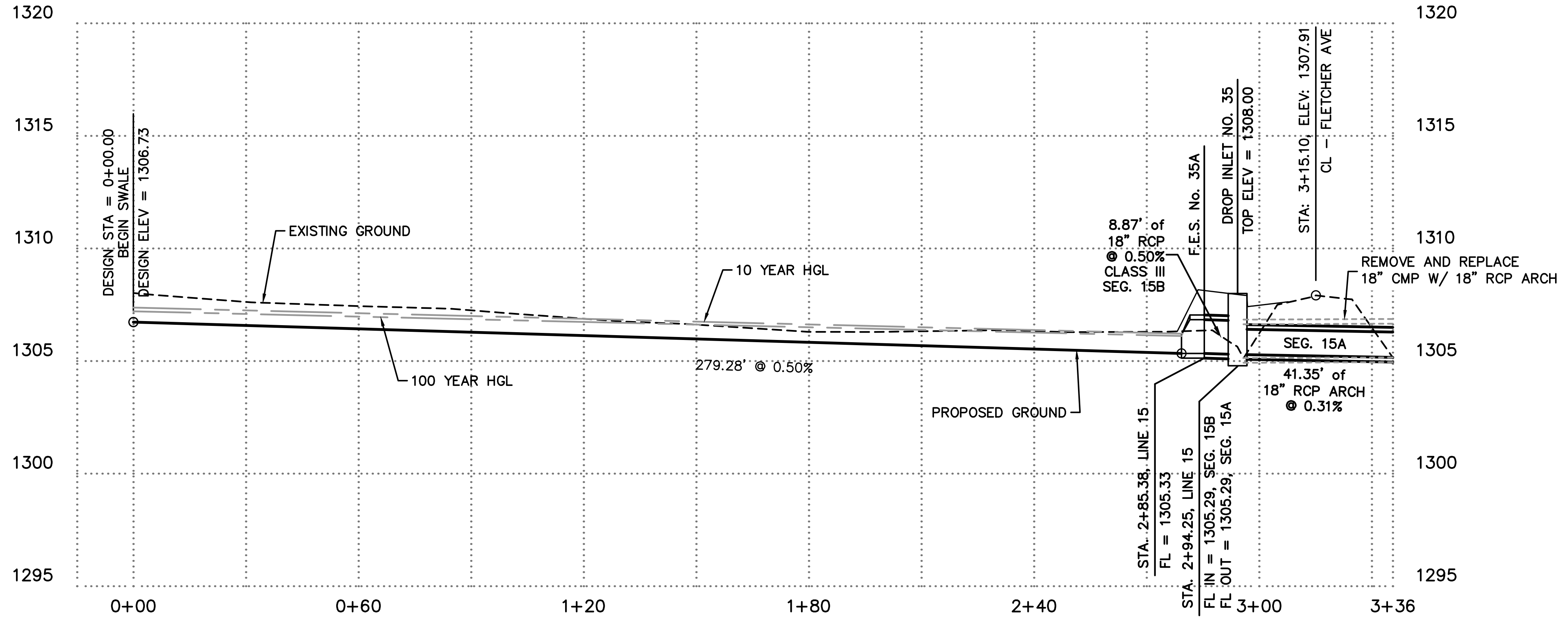
LINE 14


1320
1315
1310
1305
1300
1295
0+60
1+20
1+80
2+40
3+00
3+60
4+20
4+50
DESIGN STA = 0+00.00
DESIGN ELEV = 1310.30
100 YEAR HGL
EXISTING GROUND
10 YEAR HGL
-0.71%
PROPOSED GROUND

LINE 14


1315
1310
1305
1300
1295
1290
4+80
5+40
6+00
6+60
7+20
7+80
8+40
9+00
9+60
10+00
EXISTING GROUND
DESIGN STA = 6+00.00
DESIGN ELEV = 1306.05
100 YEAR HGL
10 YEAR HGL
-1.00%
PROPOSED GROUND
F.E.S. No. 34A
JUNCTION BOX No. 34
TOP ELEV = 1305.45
SEG. 14A
21.36' of
18" RCP
@ 0.77%
CLASS III
STA. 9+71.00, LINE 14
FL = 1302.40
STA. 9+92.36, LINE 14
FL IN = 1302.23, SEG. 14A
FL OUT = 1299.95, SEG. EX

LINE 15


1320
1315
1310
1305
1300
1295
0+00
0+60
1+20
1+80
2+40
3+00
3+36
DESIGN STA = 0+00.00
BEGIN SWALE
DESIGN ELEV = 1306.73
EXISTING GROUND
10 YEAR HGL
100 YEAR HGL
279.28' @ 0.50%
PROPOSED GROUND
8.87' of
18" RCP
@ 0.50%
CLASS III
SEG. 15B
F.E.S. No. 35A
DROP INLET NO. 35
TOP ELEV = 1308.00
STA: 3+15.10, ELEV: 1307.91
CL - FLETCHER AVE
REMOVE AND REPLACE
18" CMP W/ 18" RCP ARCH
SEG. 15A
41.35' of
18" RCP ARCH
@ 0.31%
STA. 2+85.38, LINE 15
FL = 1305.33
STA. 2+94.25, LINE 15
FL IN = 1305.29, SEG. 15B
FL OUT = 1305.29, SEG. 15A

ENGINEERING SERVICES INC.
1207 SOUTH OLD MISSOURI RD.
SPRINGDALE, ARKANSAS 72764

STORM DRAINAGE PROFILES
WESTBROOK SUBDIVISON - PHASE 2
TONTITOWN, ARKANSAS

REVISION	DATE	DESCRIPTION

Z:\SUBD\17963 - WESTBROOK SUBD\17963 - STORM.DWG

SCALE: 1"=30'
DATE: Nov 22, 2017
ENGINEER: TJA
DRAWN BY: JRC
W.O. #: 17963

PHASE 1
PENZO AVENUE
GAICHE STREET
FRIZZO STREET
C STREET
B STREET
A STREET
D STREET
E STREET
LAZZARI STREET
E FLETCHER ROAD - COLLECTOR
Sta. 0+00.00, LATERAL 8
CORE BORE TO EX. MANHOLE
STA. 0+00.00, LINE 4
TIE TO 8" WATER MAIN
INSTALL 8" GATE VALVE,
BEGIN LINE 4
STA. 0+91.40, LINE 4
INSTALL 8"X 6"REDUCER;
6" FIRE HYDRANT ASSEMBLY
END LINE 4
Sta. 0+56.81, LATERAL 8
INSTALL MANHOLE No. 18
STA. 0+00.00, LINE 1
TIE TO 8" WATER MAIN
INSTALL 8" TEE,
8" GATE VALVE,
8" 90° BEND
BEGIN LINE 1
STA. 0+23.61, LINE 1
INSTALL 8" 11.25° BEND
STA. 0+37.52, LINE 1
INSTALL 8" 11.25° BEND
STA. 0+41.67, LINE 1
INSTALL 8"X6" TEE,
8" GATE VALVE &
FIRE HYDRANT ASSEMBLY
N: 676587.72
E: 653619.44
Sta. 0+00.00, LATERAL 1
CORE BORE TO EX MANHOLE
Sta. 2+72.87, LATERAL 2
INSTALL MANHOLE No. 5
Sta. 1+25.89, LATERAL 1
Sta. 0+00.00, LATERAL 2
INSTALL MANHOLE No. 1
Sta. 2+68.10, LATERAL 1
Sta. 0+00.00, LATERAL 3
INSTALL MANHOLE No. 2
Sta. 6+16.30, LATERAL 1
INSTALL MANHOLE No. 3
Sta. 9+36.30, LATERAL 1
INSTALL MANHOLE No. 4
Sta. 1+27.65, LATERAL 7
INSTALL MANHOLE No. 16
Sta. 0+00.00, LATERAL 7
TIE TO EX MANHOLE
STA. 2+80.72, LINE 2
INSTALL 8" 90° BEND
STA. 3+84.18, LINE 2
INSTALL 8"X6" TEE,
8" GATE VALVE &
FIRE HYDRANT ASSEMBLY
N: 676341.64
E: 653327.24
STA. 4+11.47, LINE 1
INSTALL 8"X6" TEE,
8" GATE VALVE &
FIRE HYDRANT ASSEMBLY
N: 676422.60
E: 653826.38
STA. 4+74.10, LINE 1
INSTALL 8" 11.25° BEND
STA. 4+84.03, LINE 1
INSTALL 8" 11.25° BEND
STA. 5+05.95, LINE 1
INSTALL 8" 11.25° BEND
STA. 4+96.03, LINE 1
INSTALL 8" 11.25° BEND
STA. 7+40.99, LINE 1
INSTALL 8"X6" TEE,
8" GATE VALVE &
FIRE HYDRANT ASSEMBLY
N: 676406.59
E: 654148.65
STA. 11+40.99, LINE 1
INSTALL 8"X6" TEE,
8" GATE VALVE &
FIRE HYDRANT ASSEMBLY
N: 676390.01
E: 654548.31
STA. 12+88.49, LINE 1
INSTALL 8" TEE
END LINE 2
STA. 12+99.34, LINE 1
INSTALL 8" TAPPING
SLEEVE AND VALVE
END LINE 1
EXISTING 8" WATER
MAIN TO REMAIN
ACTIVE AND IN PLACE
STA. 12+85.04, LINE 1
INSTALL 8" TAPPING
SLEEVE AND VALVE,
45° BEND, &
PLUG & BLOCK
Sta. 4+43.75, LATERAL 2
Sta. 0+00.00, LAREAL 3
INSTALL MANHOLE No. 6
STA. 1+97.29, LINE 1
STA. 0+00.00, LINE 2
INSTALL 8" TEE
BEGIN LINE 2
Sta. 4+00.00, LATERAL 4
INSTALL MANHOLE No. 11
Sta. 3+00.00, LATERAL 3
Sta. 0+00.00, LATERAL 4
Sta. 0+00.00, LATERAL 5
INSTALL MANHOLE No. 7
LATERAL 5
Sta. 3+35.08, LATERAL 5
INSTALL MANHOLE No. 13
Sta. 6+55.08, LATERAL 5
INSTALL MANHOLE No. 14
STA. 5+80.80, LINE 2
STA. 0+00.20, LINE 3
INSTALL 8" TEE
BEGIN LINE 3
Sta. 5+12.27, LATERAL 4
INSTALL MANHOLE No. 12
STA. 2+42.58, LINE 3
INSTALL 8"X6" TEE,
8" GATE VALVE &
FIRE HYDRANT ASSEMBLY
N: 676134.29
E: 653560.70
PROPOSED
ENCASEMENT
LATERAL 3
STA. 6+24.18, LINE 2
INSTALL 8"X6" TEE,
8" GATE VALVE &
FIRE HYDRANT ASSEMBLY
N: 676101.95
E: 653314.96
STA. 5+83.84, LINE 3
INSTALL 8"X6" TEE,
8" GATE VALVE &
FIRE HYDRANT ASSEMBLY
N: 676118.90
E: 653901.61
STA. 9+77.65, LINE 3
INSTALL 8"X6" TEE,
8" GATE VALVE &
FIRE HYDRANT ASSEMBLY
N: 676101.14
E: 654295.03
STA. 25+45.95, LINE 2
STA. 13+65.15, LINE 3
INSTALL 8" TEE
STA. 13+65.15 END LINE 3
STA. 25+39.52, LINE 2
INSTALL 8"X6" TEE,
8" GATE VALVE &
FIRE HYDRANT ASSEMBLY
N: 676077.24
E: 654681.84
Sta. 5+27.65, LATERAL 7
INSTALL MANHOLE No. 17
Sta. 4+00.00, LATERAL 6
INSTALL MANHOLE No. 15
LATERAL 6
Sta. 6+00.00, LATERAL 3
Sta. 0+00.00, LATERAL 6
INSTALL MANHOLE No. 8
Sta. 9+99.62, LATERAL 3
INSTALL MANHOLE No. 9
Sta. 13+99.62, LATERAL 3
INSTALL MANHOLE No. 10
STA. 8+80.80, LINE 2
INSTALL 8" 90° BEND
STA. 9+78.45, LINE 2
INSTALL 8"X6" TEE,
8" GATE VALVE &
FIRE HYDRANT ASSEMBLY
N: 675839.67
E: 653402.33
STA. 13+78.45, LINE 2
INSTALL 8"X6" TEE,
8" GATE VALVE &
FIRE HYDRANT ASSEMBLY
N: 675823.09
E: 653801.99
EXISTING WATER MAIN
(TO BE ABANDONED)
STA. 17+58.45, LINE 2
INSTALL 8"X6" - 4-WAY,
8" GATE VALVE &
FIRE HYDRANT ASSEMBLY
N: 675805.95
E: 654181.60
STA. 20+78.45, LINE 2
INSTALL 8"X6" - TEE,
8" GATE VALVE &
FIRE HYDRANT ASSEMBLY
N: 675791.52
E: 654501.27
STA. 22+45.93, LINE 2
INSTALL 8" 90° BEND
8" PVC
4% SLOPE
3.50% SLOPE
ESI C.P.
NORTHING = 676,663.57'
EASTING = 654,864.52'
ESI C.P.
NORTHING = 676,524.53'
EASTING = 654,834.83'
ESI C.P.
NORTHING = 676,199.90'
EASTING = 654,827.79'
ESI C.P.
NORTHING = 675,748.05'
EASTING = 653,017.62'
ESI C.P.
NORTHING = 675,603.60'
EASTING = 654,689.36'
ESI C.P.
NORTHING = 676,833.4
EASTING = 652,772.78'
ESI C.P.
NORTHING = 676,566.37'
EASTING = 653,663.82'
GRID
N
GRAPHIC
REPRESENTATION
ONLY
SCALE 1" = 60'
0
30'
60'
120'

NOTES :

1. ALL WATER AND SEWER MAIN LINE EXTENSIONS AND SERVICES SHALL BE DESIGNED AND CONSTRUCTED IN COMPLIANCE WITH THE CITY OF TONTITOWN STANDARD SPECIFICATIONS (ORDINANCE 2013–06–429, ADOPTED JUNE 4, 2013, REVISED APRIL 5, 2016) FOR WATER AND SEWER CONSTRUCTION.

2. CONSTRUCTION PLANS AND SPECIFICATIONS WILL NEED TO BE SUBMITTED AND APPROVED BY THE TONTITOWN WATER AND SEWER DEPARTMENT AND THE ARKANSAS DEPARTMENT OF HEALTH PRIOR TO BEGINNING ANY WATER AND SEWER CONSTRUCTION.

3. A PRE–CONSTRUCTION MEETING IS TO BE HELD WITH THE WATER AND SEWER CONTRACTOR AND THE TONTITOWN WATER AND SEWER DEPARTMENT PRIOR TO BEGINNING ANY CONSTRUCTION.

4. FIRE HYDRANT SHALL BE COLOR CODED PER NFPA (SECTION 8.4.1, TONTITOWN STANDARD WATER AND SEWER SPECIFICATION)

5. ALL WATER MAIN SHALL BE AWWA C–900 PVC DR–14

6. ALL SEWER MAIN SHALL BE SDR 26 HEAVY WALL SEWER PIPE

7. ALL LOT LINES SHALL BE STAKED IN ADVANCE OF WATER AND SANITARY SEWER CONSTRUCTION PER SECTION 7.1 WATER AND SEWER STANDARDS SPECIFICATIONS.

8. CONTRACTOR SHALL CONTACT TONTITOWN WATER AND SEWER DEPARTMENT PRIOR TO PERFORMING WORK.

9. TONTITOWN WATER AND SEWER STAFF SHALL BE PRESENT DAY OF TAPPING, DISINFECTION AND FLUSHING.

10. TONTITOWN WATER AND SEWER SHALL PERFORM AND BE PRESENT FOR ALL TAPS TO EXISTING SYSTEM

11. ALL SEWER SERVICES SHALL HAVE A 1% SLOPE UNLESS OTHERWISE NOTED.

12. WHERE SEWER SERVICES ARE ABOVE WATER MAIN, THEY SHALL BE ENCASED.

13. EXISTING 8" SHALL REMAIN IN PLACE AND ACTIVE UNTIL NEW SYSTEM IS APPROVED BY THE ENGINEER AND CITY OF TONTITOWN.

LEGEND

⊸○	PROPOSED WATER SERVICE
⅄	PROPOSED SEWER SERVICE

ESI
ENGINEERING SERVICES INC.
1207 SOUTH OLD MISSOURI RD.
SPRINGDALE, ARKANSAS 72764

UTILITY PLAN
WESTBROOK SUBDIVISON – PHASE 2
TONTITOWN, ARKANSAS

REVISION	DATE	DESCRIPTION

Z:\SUBD\17963 - WESTBROOK SUBD\17963 - WATER & SEWER.dwg

SCALE: 1"=60'

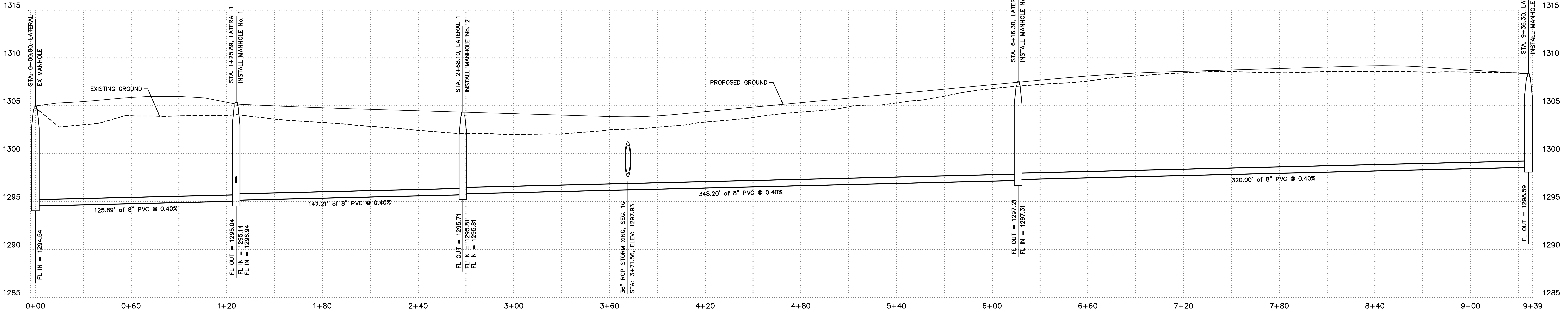
DATE: Nov 22, 2017

ENGINEER: TJA
DRAWN BY: JRC

W.O. #: 17963

GRID
N
GRAPHIC REPRESENTATION ONLY
SCALE 1" = 30'
0 15' 30' 60'
STA. 0+00.00, LINE 1
TIE TO 8" WATER MAIN
INSTALL 8" TEE,
8" GATE VALVE,
8" 90° BEND
BEGIN LINE 1
STA. 0+23.61, LINE 1
INSTALL 8" 11.25° BEND
STA. 0+37.52, LINE 1
INSTALL 8" 11.25° BEND
STA. 0+41.67, LINE 1
INSTALL 8"X6" TEE,
8" GATE VALVE &
FIRE HYDRANT ASSEMBLY
N: 676587.72
E: 653619.44
Sta. 0+00.00, LATERAL 1
CORE BORE TO EX MANHOLE
EX SEWER MANHOLE
RIM EL = 1305.10
INV = 1294.44
ESI C.P.
NORTHING = 676,566.37'
EASTING = 653,665.82'
GAICHE STREET
C STREET
Sta. 1+25.89, LATERAL 1
Sta. 0+00.00, LATERAL 2
INSTALL MANHOLE No. 1
Sta. 2+68.10, LATERAL 1
Sta. 0+00.00, LATERAL 3
INSTALL MANHOLE No. 2
Sta. 6+16.30, LATERAL 1
INSTALL MANHOLE No. 3
Sta. 9+36.30, LATERAL 1
INSTALL MANHOLE No. 4
STA. 4+11.47, LINE 1
INSTALL 8"X6" TEE,
8" GATE VALVE &
FIRE HYDRANT ASSEMBLY
N: 676422.60
E: 653826.38
STA. 4+74.10, LINE 1
INSTALL 8" 11.25° BEND
STA. 5+05.95, LINE 1
INSTALL 8" 11.25° BEND
STA. 4+96.03, LINE 1
INSTALL 8" 11.25° BEND
STA. 7+40.99, LINE 1
INSTALL 8"X6" TEE,
8" GATE VALVE &
FIRE HYDRANT ASSEMBLY
N: 676406.59
E: 654148.65
EX 20' U.E.
20' DR.E.
20' U.E. & DR.E.
25' B.S.L.
15' U.E.
30' B.S.L.
50' ROW
30' BOC
8" PVC
39
40
41
42
43
44
45
46
47
48
49
54
55
56
57
59
62
63
64
65

LATERAL 1
STA. −0+03 TO 9+39


1315
1310
1305
1300
1295
1290
1285
STA. 0+00.00, LATERAL 1
EX MANHOLE
STA. 1+25.89, LATERAL 1
INSTALL MANHOLE No. 1
STA. 2+68.10, LATERAL 1
INSTALL MANHOLE No. 2
STA. 6+16.30, LATERAL 1
INSTALL MANHOLE No. 3
STA. 9+36.30, LATERAL 1
INSTALL MANHOLE No. 4
EXISTING GROUND
PROPOSED GROUND
125.89' of 8" PVC @ 0.40%
142.21' of 8" PVC @ 0.40%
348.20' of 8" PVC @ 0.40%
320.00' of 8" PVC @ 0.40%
FL IN = 1294.54
FL OUT = 1295.04
FL IN = 1295.14
FL IN = 1296.94
FL OUT = 1295.71
FL IN = 1295.81
FL IN = 1295.81
36" RCP STORM XING, SEG. 1G
STA: 3+71.56, ELEV: 1297.93
FL OUT = 1297.21
FL IN = 1297.31
FL OUT = 1298.59
0+00
0+60
1+20
1+80
2+40
3+00
3+60
4+20
4+80
5+40
6+00
6+60
7+20
7+80
8+40
9+00
9+39

ENGINEERING SERVICES INC.
1207 SOUTH OLD MISSOURI RD.
SPRINGDALE, ARKANSAS 72764

SANITARY SEWER PLAN AND PROFILE
WESTBROOK SUBDIVISON – PHASE 2
TONTITOWN, ARKANSAS

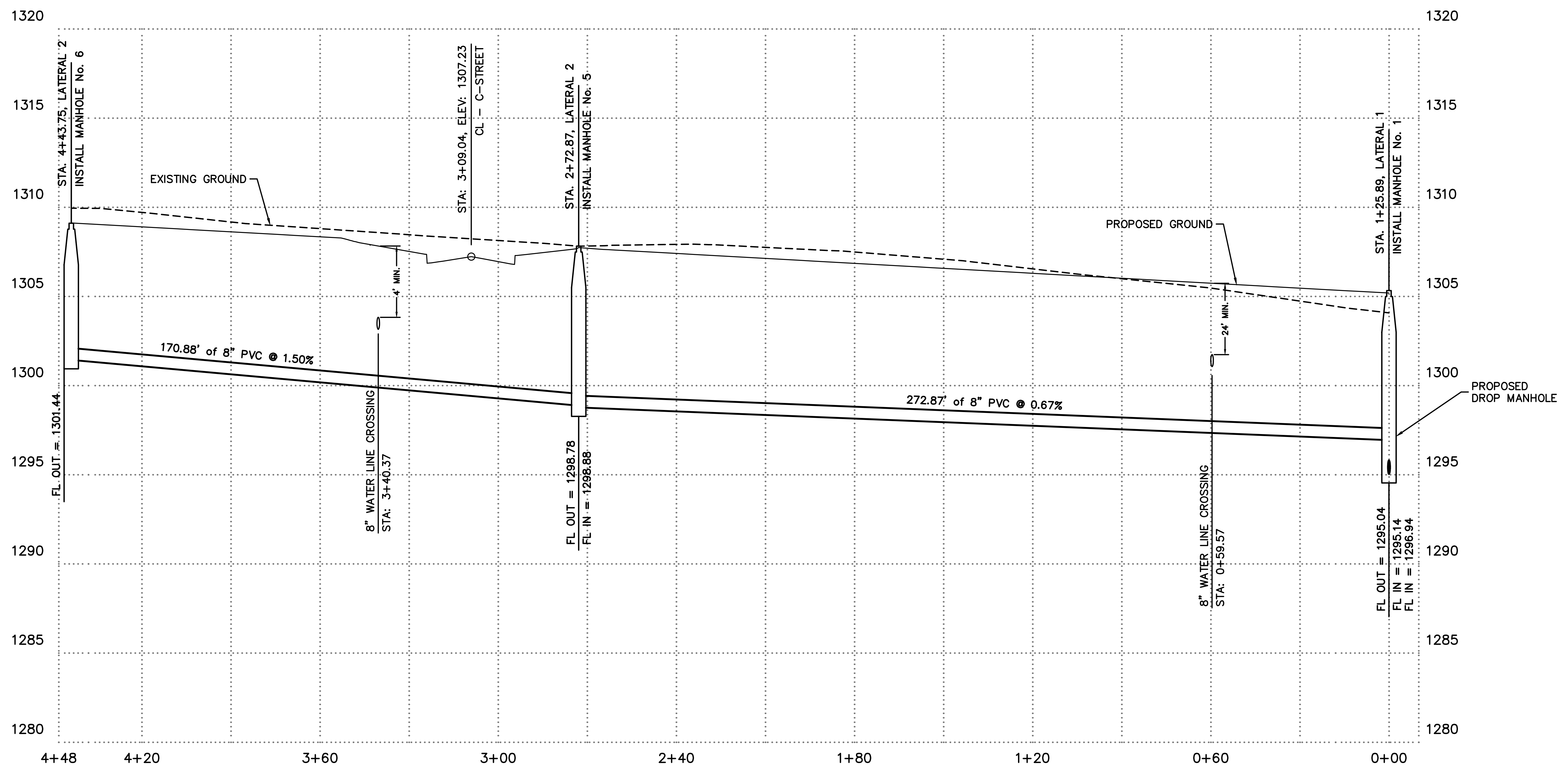
REVISION	DATE	DESCRIPTION

Z:\SUBD\17963 - WESTBROOK SUBD\17963 - WATER & SEWER.dwg

SCALE: 1"=30'
DATE: Nov 22, 2017
ENGINEER: TJA
DRAWN BY: DLB
W.O. #: 17963

STA. 0+23.61, LINE 1
INSTALL 8" 11.25° BEND
STA. 0+37.52, LINE 1
INSTALL 8" 11.25° BEND
Sta. 0+00.00, LATERAL 1
CORE BORE TO EX MANHOLE
EX SEWER MANHOLE
RIM EL = 1305.10
INV = 1294.44
ESI C.P.
NORTHING = 676,588.95'
EASTING = 653,199.21'
ESI C.P.
NORTHING = 676,566.37'
EASTING = 653,665.82'
IPF JENKINS PLS 688
EX TELEPHONE PEDESTAL
EX POWER METER
EX CTV BOX
EX POWER JUNCTION BOX
Sta. 2+72.87, LATERAL 2
INSTALL MANHOLE No. 5
STA. 0+41.67, LINE 1
INSTALL 8"X6" TEE,
8" GATE VALVE &
FIRE HYDRANT ASSEMBLY
N: 676587.72
E: 653619.44
Sta. 1+25.89, LATERAL 1
Sta. 0+00.00, LATERAL 2
INSTALL MANHOLE No. 1
Sta. 2+68.10, LATERAL 1
Sta. 0+00.00, LATERAL 3
INSTALL MANHOLE No. 2
STA. 2+80.72, LINE 2
INSTALL 8" 90° BEND
STA. 3+84.18, LINE 2
INSTALL 8"X6" TEE,
8" GATE VALVE &
FIRE HYDRANT ASSEMBLY
N: 676341.64
E: 653327.24
Sta. 4+43.75, LATERAL 2
Sta. 0+00.00, LAREAL 3
INSTALL MANHOLE No. 6
STA. 1+97.29, LINE 1
STA. 0+00.00, LINE 2
INSTALL 8" TEE
BEGIN LINE 2
STA. 4+11.47, LINE 1
INSTALL 8"X6" TEE,
8" GATE VALVE &
FIRE HYDRANT ASSEMBLY
N: 676422.60
E: 653826.38
STA. 4+74.10, LINE 1
INSTALL 8" 11.25° BEND
STA. 4+84.03, LINE 1
INSTALL 8" 11.25° BEND
STA. 5+05.95, LINE 1
INSTALL 8" 11.25° BEND
STA. 4+96.03, LINE 1
INSTALL 8" 11.25° BEND
GAICHE STREET
C STREET
D STREET
8" PVC
50' ROW
30' BOC
20' U.E. & DR.E.
25' B.S.L.
20' DR.E.
15' U.E.
30' B.S.L.
20' U.E.
PARCEL: 830-37661-006
SPRINGDALE SCHOOL DIST #50
PO BOX 8
SPRINGDALE, AR 72765-0008
33
35
36
37
38
39
40
41
42
59
62
63
64
65
66
GRID N
GRAPHIC REPRESENTATION ONLY
SCALE 1" = 30'
0 15' 30' 60'

LATERAL 2
STA. 4+48 TO -0+10



ENGINEERING SERVICES INC.
1207 SOUTH OLD MISSOURI RD.
SPRINGDALE, ARKANSAS 72764

SANITARY SEWER PLAN AND PROFILE
WESTBROOK SUBDIVISON - PHASE 2
TONTITOWN, ARKANSAS

REVISION	DATE	DESCRIPTION

Z:\SUBD\17963 - WESTBROOK SUBD\17963 - WATER & SEWER.DWG

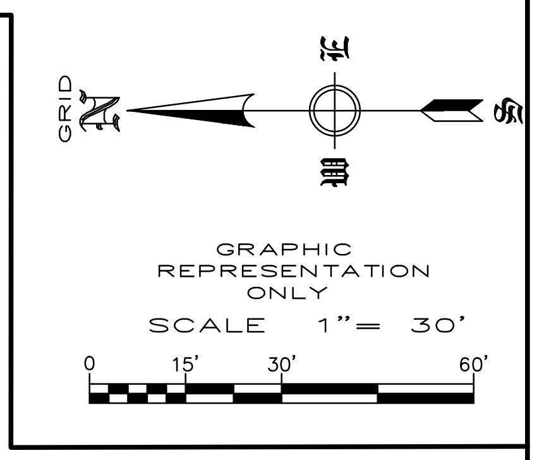
SCALE: 1"=30'

DATE: Nov 22, 2017

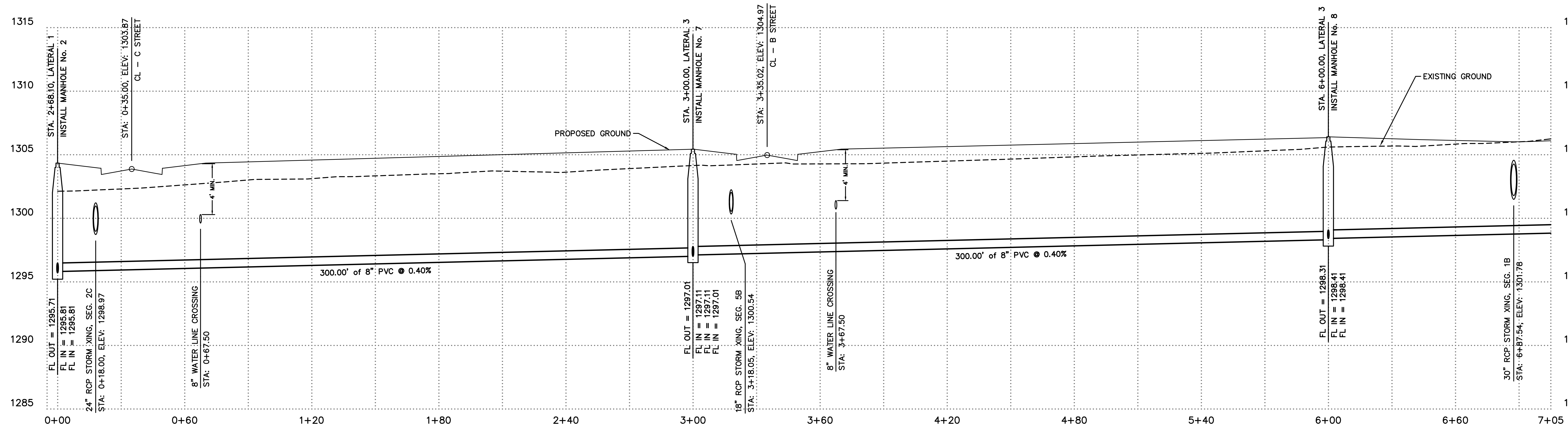
ENGINEER: TJA
DRAWN BY: DLB

W.O. #: 17963

C STREET
B STREET
A STREET
E STREET
LATERAL 3
LATERAL 5
LATERAL 6
Sta. 2+68.10, LATERAL 1
Sta. 0+00.00, LATERAL 3
INSTALL MANHOLE No. 2
STA. 5+05.95, LINE 1
INSTALL 8" 11.25° BEND
STA. 4+96.03, LINE 1
INSTALL 8" 11.25° BEND
STA. 4+74.10, LINE 1
INSTALL 8" 11.25° BEND
STA. 4+84.03, LINE 1
INSTALL 8" 11.25° BEND
STA. 4+11.47, LINE 1
INSTALL 8"X6" TEE,
8" GATE VALVE &
FIRE HYDRANT ASSEMBLY
N: 676422.60
E: 653826.38
Sta. 3+00.00, LATERAL 3
Sta. 0+00.00, LATERAL 4
Sta. 0+00.00, LATERAL 5
INSTALL MANHOLE No. 7
PROPOSED ENCASEMENT
STA. 5+83.84, LINE 3
INSTALL 8"X6" TEE,
8" GATE VALVE &
FIRE HYDRANT ASSEMBLY
N: 676118.90
E: 653901.61
Sta. 6+00.00, LATERAL 3
Sta. 0+00.00 LATERAL 6
INSTALL MANHOLE No. 8
STA. 13+78.45, LINE 2
INSTALL 8"X6" TEE,
8" GATE VALVE &
FIRE HYDRANT ASSEMBLY
N: 675823.09
E: 653801.99
8" PVC
EX POWER METER
EX CTV BOX
EXISTING 42" F.E.S.
INV = 1299.92
(TO BE REMOVED)
20' DR.E.
20' U.E.
30' BOC
50' ROW
30' B.S.L.
15' U.E.
R30'
125.00'
N 2°35'05" E
S 2°35'05" W
135.98'
134.00'
123.42'
58.06'
87.54'
70.04'
79.74'
80.00'
85.00'
34+00
33+00
32+00
31+00
7+00
6+00
5+00
4+00
16+00
17+00
18+00
9+00
8+00
1303
1304
1305
1306
1307
1308
1309
18
19
20
21
41
42
43
44
59
60
61
62
71
72
73
74
89
90
91
92
101
102
103
104
PARCEL: 830-37761-000
CEOLA TRUST MARK D & MARGIE L CEOLA
597 E FLETCHER AVE
SPRINGDALE, AR 72762-9504


GRID N
GRAPHIC REPRESENTATION ONLY
SCALE 1" = 30'
0
15'
30'
60'

LATERAL 3
STA. -0+05 TO 7+05


1315
1310
1305
1300
1295
1290
1285
0+00
0+60
1+20
1+80
2+40
3+00
3+60
4+20
4+80
5+40
6+00
6+60
7+05
STA. 2+68.10, LATERAL 1
INSTALL MANHOLE No. 2
STA: 0+35.00, ELEV: 1303.87
CL - C STREET
PROPOSED GROUND
STA. 3+00.00, LATERAL 3
INSTALL MANHOLE No. 7
STA: 3+35.02, ELEV: 1304.97
CL - B STREET
STA. 6+00.00, LATERAL 3
INSTALL MANHOLE No. 8
EXISTING GROUND
4' MIN.
300.00' of 8" PVC @ 0.40%
300.00' of 8" PVC @ 0.40%
FL OUT = 1295.71
FL IN = 1295.81
FL IN = 1295.81
24" RCP STORM XING, SEG. 2C
STA: 0+18.00, ELEV: 1298.97
8" WATER LINE CROSSING
STA: 0+67.50
FL OUT = 1297.01
FL IN = 1297.11
FL IN = 1297.11
FL IN = 1297.01
18" RCP STORM XING, SEG. 5B
STA: 3+18.05, ELEV: 1300.54
8" WATER LINE CROSSING
STA: 3+67.50
FL OUT = 1298.31
FL IN = 1298.41
FL IN = 1298.41
30" RCP STORM XING, SEG. 1B
STA: 6+87.54, ELEV: 1301.78

ENGINEERING SERVICES INC.
1207 SOUTH OLD MISSOURI RD.
SPRINGDALE, ARKANSAS 72764

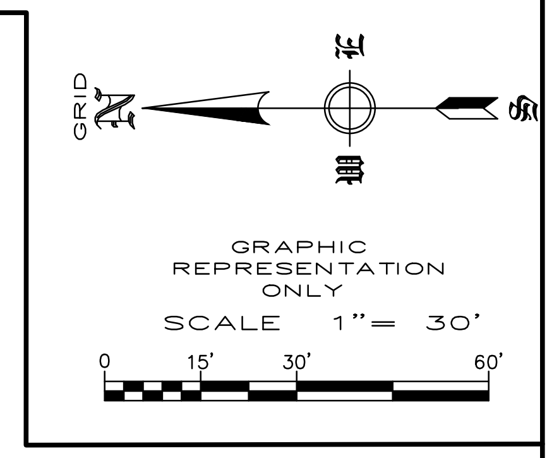
SANITARY SEWER PLAN AND PROFILE
WESTBROOK SUBDIVISON - PHASE 2
TONTITOWN, ARKANSAS

REVISION	DATE	DESCRIPTION

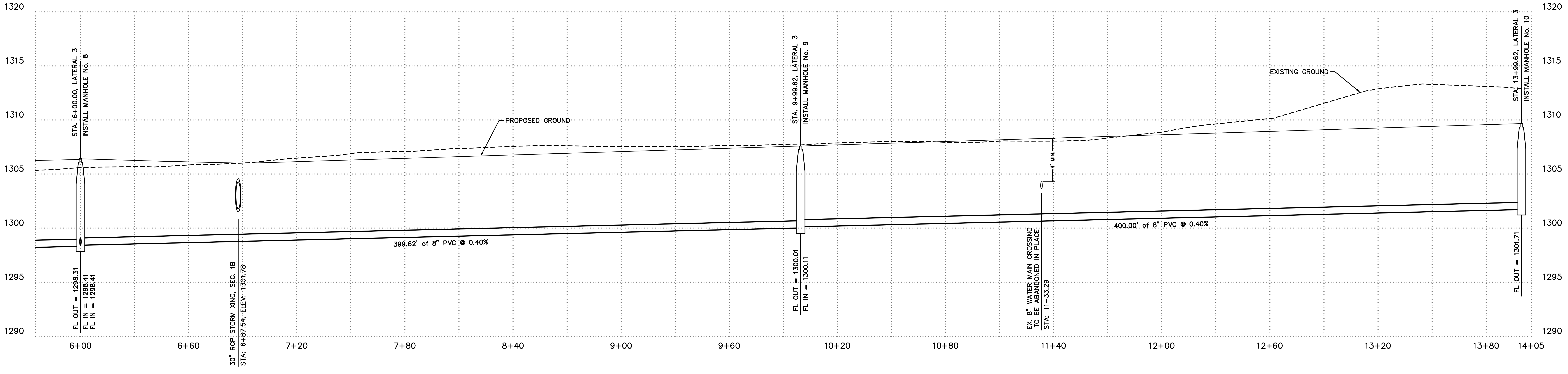
Z:\SUBD\17963 - WESTBROOK SUBD\17963 - WATER & SEWER.dwg

SCALE: 1"=30'
DATE: Nov 22, 2017
ENGINEER: TJA
DRAWN BY: DLB
W.O. #: 17963

20' DR.E.
102
103
104
105
106
107
108
109
110
111
8
9
10
11
13
14
15
17
18
19
8" PVC
Sta. 6+00.00, LATERAL 3
Sta. 0+00.00 LATERAL 6
INSTALL MANHOLE No. 8
LATERAL 3
Sta. 9+99.62, LATERAL 3
INSTALL MANHOLE No. 9
Sta. 13+99.62, LATERAL 3
INSTALL MANHOLE No. 10
A STREET
E STREET
50' ROW
30' BOC
20' B.S.L.
15' U.E.
30' B.S.L.
R30'
R60'
3.50% SLOPE
4" PVC
1306
1307
1308
1309
1310
EX WATER VALVE
STA. 13+78.45, LINE 2
INSTALL 8"X6" TEE,
8" GATE VALVE &
FIRE HYDRANT ASSEMBLY
N: 675823.09
E: 653801.99
STA. 17+58.45, LINE 2
INSTALL 8"X6" - 4-WAY,
8" GATE VALVE &
FIRE HYDRANT ASSEMBLY
N: 675805.95
E: 654181.60
EXISTING WATER MAIN
(TO BE ABANDONED)
STA. 20+78.45, LINE 2
INSTALL 8"X6" - TEE,
8" GATE VALVE &
FIRE HYDRANT ASSEMBLY
N: 675791.52
E: 654501.27
STA. 22+45.93, LINE 2
INSTALL 8" 90° BEND
17+00
16+00
15+00
14+00
13+00
12+00
11+00
10+00
9+00
00+8
80.00'
N 87°24'55" W


GRID N
GRAPHIC REPRESENTATION ONLY
SCALE 1" = 30'
0
15'
30'
60'

LATERAL 3
STA. 5+75 TO 14+05


1320
1315
1310
1305
1300
1295
1290
STA. 6+00.00, LATERAL 3
INSTALL MANHOLE No. 8
FL OUT = 1298.31
FL IN = 1298.41
FL IN = 1298.41
30" RCP STORM XING, SEG. 1B
STA: 6+87.54, ELEV: 1301.78
PROPOSED GROUND
399.62' of 8" PVC @ 0.40%
STA. 9+99.62, LATERAL 3
INSTALL MANHOLE No. 9
FL OUT = 1300.01
FL IN = 1300.11
4" MIN.
EX. 8" WATER MAIN CROSSING
TO BE ABANDONED IN PLACE
STA: 11+33.29
400.00' of 8" PVC @ 0.40%
EXISTING GROUND
STA. 13+99.62, LATERAL 3
INSTALL MANHOLE No. 10
FL OUT = 1301.71
6+00
6+60
7+20
7+80
8+40
9+00
9+60
10+20
10+80
11+40
12+00
12+60
13+20
13+80
14+05

ESI
ENGINEERING SERVICES INC.
1207 SOUTH OLD MISSOURI RD.
SPRINGDALE, ARKANSAS 72764

SANITARY SEWER PLAN AND PROFILE
WESTBROOK SUBDIVISON - PHASE 2
TONTITOWN, ARKANSAS

REVISION	DATE	DESCRIPTION

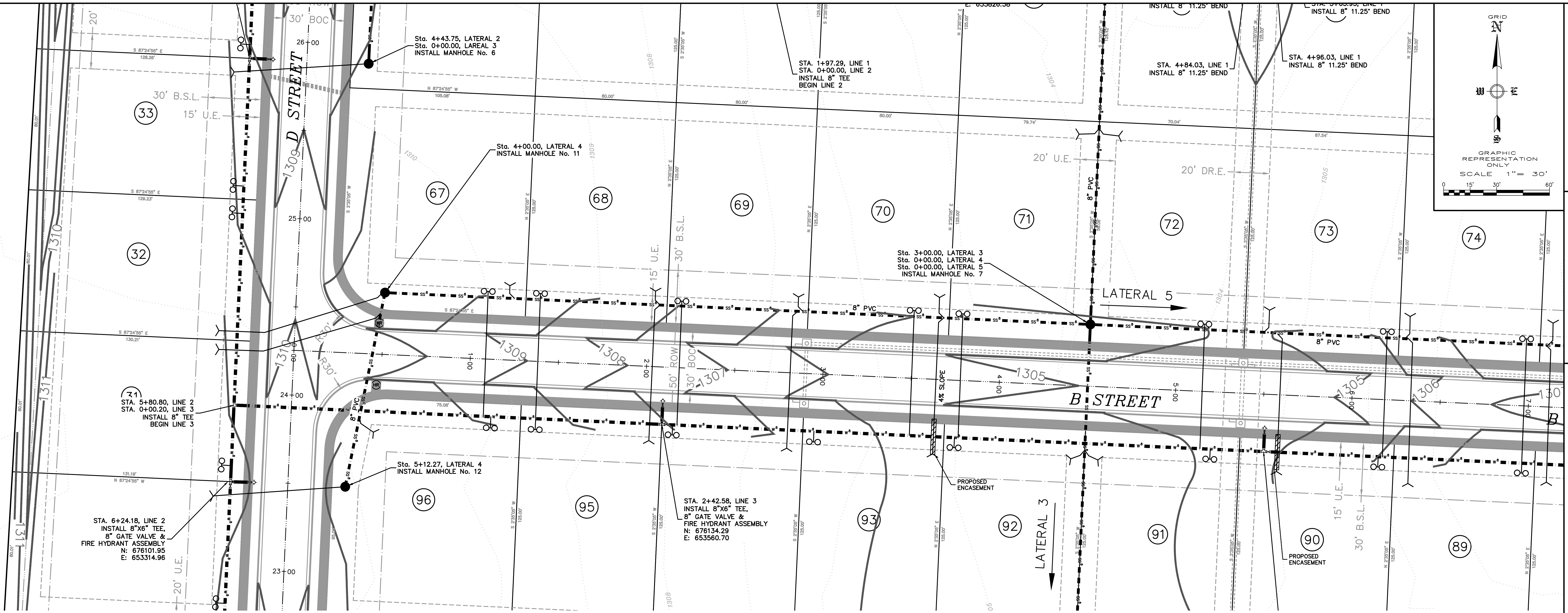
Z:\SUBD\17963 - WESTBROOK SUBD\17963 - WATER & SEWER.DWG

SCALE: 1"=30'

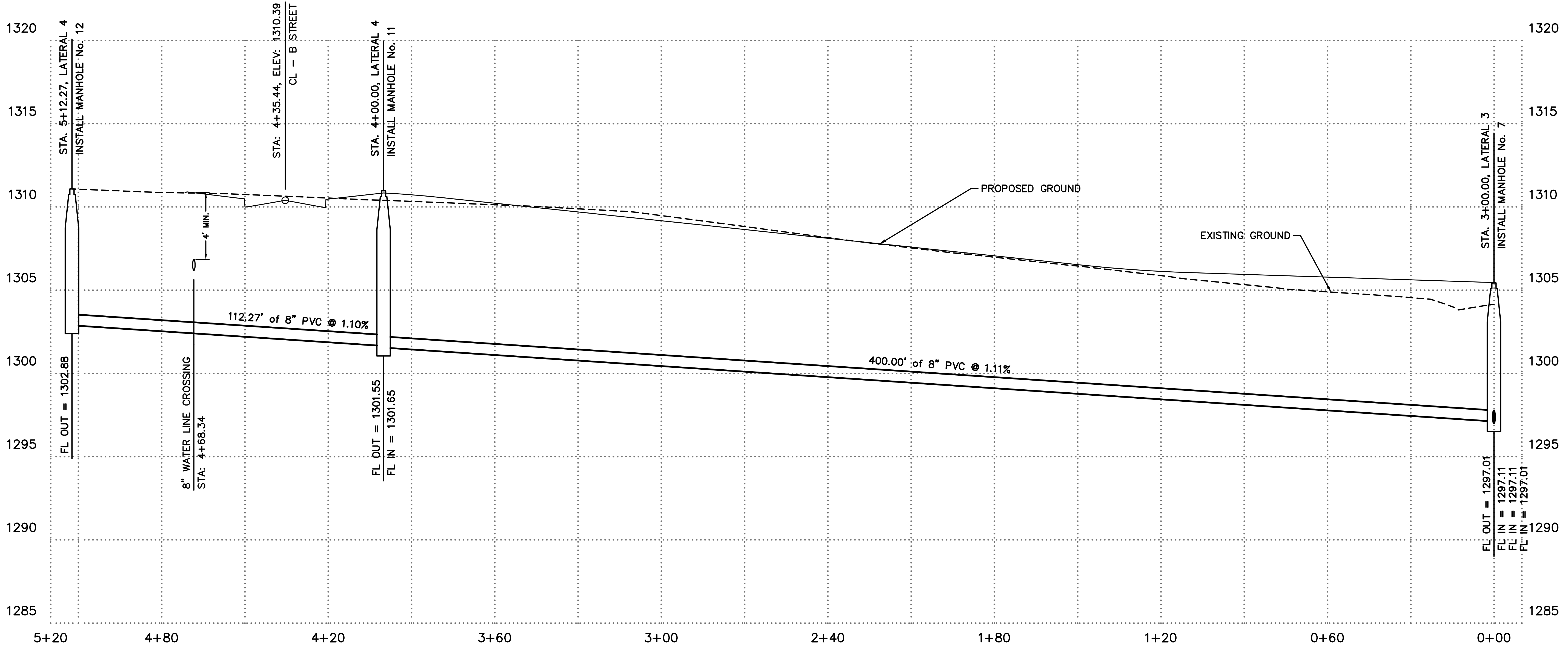
DATE: Nov 22, 2017

ENGINEER: TJA
DRAWN BY: DLB

W.O. #: 17963


Sta. 4+43.75, LATERAL 2
Sta. 0+00.00, LAREAL 3
INSTALL MANHOLE No. 6
STA. 1+97.29, LINE 1
STA. 0+00.00, LINE 2
INSTALL 8" TEE
BEGIN LINE 2
STA. 4+84.03, LINE 1
INSTALL 8" 11.25° BEND
STA. 4+96.03, LINE 1
INSTALL 8" 11.25° BEND
INSTALL 8" 11.25° BEND
30' BOC
D STREET
30' B.S.L.
15' U.E.
20' U.E.
20' DR.E.
8" PVC
Sta. 4+00.00, LATERAL 4
INSTALL MANHOLE No. 11
Sta. 3+00.00, LATERAL 3
Sta. 0+00.00, LATERAL 4
Sta. 0+00.00, LATERAL 5
INSTALL MANHOLE No. 7
LATERAL 5
STA. 5+80.80, LINE 2
STA. 0+00.20, LINE 3
INSTALL 8" TEE
BEGIN LINE 3
B STREET
50' ROW
30' BOC
4% SLOPE
PROPOSED ENCASEMENT
Sta. 5+12.27, LATERAL 4
INSTALL MANHOLE No. 12
STA. 6+24.18, LINE 2
INSTALL 8"X6" TEE,
8" GATE VALVE &
FIRE HYDRANT ASSEMBLY
N: 676101.95
E: 653314.96
STA. 2+42.58, LINE 3
INSTALL 8"X6" TEE,
8" GATE VALVE &
FIRE HYDRANT ASSEMBLY
N: 676134.29
E: 653560.70
LATERAL 3
33
32
31
67
68
69
70
71
72
73
74
96
95
93
92
91
90
89
GRID
N
W
E
S
GRAPHIC REPRESENTATION ONLY
SCALE 1"= 30'
0
15'
30'
60'

LATERAL 4
STA. 5+20 TO -0+10


1320
1315
1310
1305
1300
1295
1290
1285
STA. 5+12.27, LATERAL 4
INSTALL MANHOLE No. 12
STA. 4+35.44, ELEV: 1310.39
CL - B STREET
STA. 4+00.00, LATERAL 4
INSTALL MANHOLE No. 11
STA. 3+00.00, LATERAL 3
INSTALL MANHOLE No. 7
PROPOSED GROUND
EXISTING GROUND
1' MIN.
112.27' of 8" PVC @ 1.10%
400.00' of 8" PVC @ 1.11%
FL OUT = 1302.88
8" WATER LINE CROSSING
STA: 4+68.34
FL OUT = 1301.55
FL IN = 1301.65
FL OUT = 1297.01
FL IN = 1297.11
FL IN = 1297.11
FL IN = 1297.01
5+20
4+80
4+20
3+60
3+00
2+40
1+80
1+20
0+60
0+00

ENGINEERING SERVICES INC.
1207 SOUTH OLD MISSOURI RD.
SPRINGDALE, ARKANSAS 72764

SANITARY SEWER PLAN AND PROFILE
WESTBROOK SUBDIVISON - PHASE 2
TONTITOWN, ARKANSAS

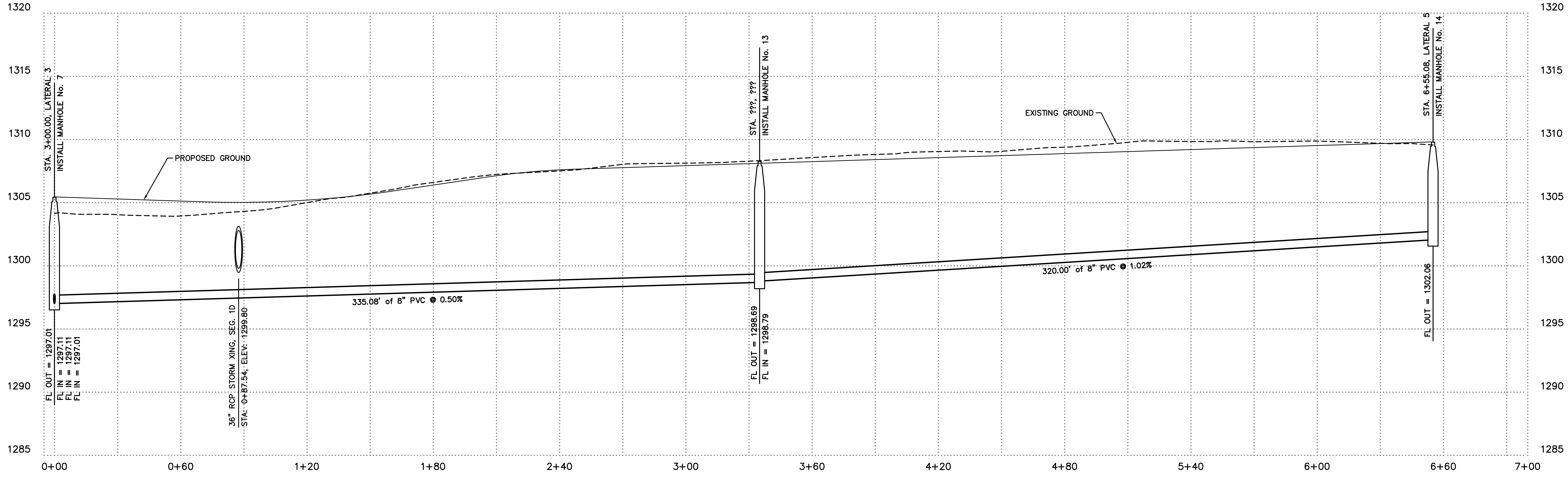
REVISION	DATE	DESCRIPTION

Z:\SUBD\17963 - WESTBROOK SUBD\17963 - WATER & SEWER.dwg

SCALE: 1"=30'
DATE: Nov 22, 2017
ENGINEER: TJA
DRAWN BY: DLB
W.O. #: 17963

GRID
N
GRAPHIC REPRESENTATION ONLY
SCALE 1" = 30'
0 15' 30' 60'
LATERAL 5
LATERAL 3
B STREET
8" PVC
4% SLOPE
Sta. 3+00.00, LATERAL 3
Sta. 0+00.00, LATERAL 4
Sta. 0+00.00, LATERAL 5
INSTALL MANHOLE No. 7
Sta. 3+35.08, LATERAL 5
INSTALL MANHOLE No. 13
Sta. 6+55.08, LATERAL 5
INSTALL MANHOLE No. 14
PROPOSED ENCASEMENT
STA. 5+83.84, LINE 3
INSTALL 8"X6" TEE,
8" GATE VALVE &
FIRE HYDRANT ASSEMBLY
N: 676118.90
E: 653901.61
STA. 9+77.65, LINE 3
INSTALL 8"X6" TEE,
8" GATE VALVE &
FIRE HYDRANT ASSEMBLY
N: 676101.14
E: 654295.03
Sta. 9+99.62, LATERAL 3
INSTALL MANHOLE No. 9
Sta. 5+27.65, LATERAL 7
INSTALL MANHOLE No. 17
EX WATER VALVE
EXISTING WATER MAIN (TO BE ABANDONED)
15' U.E.
30' B.S.L.
20' U.E.
20' DR.E.
50' ROW
30' BOC
R30'
1305
1306
1307
1308
1309
1310
70
71
72
73
74
75
76
77
78
79
80
82
83
84
85
87
88
89
90
91
92
93
100
101
102
103
104
105
106
107
108

LATERAL 5
STA. -0+05 TO 7+00



SANITARY SEWER PLAN AND PROFILE
WESTBROOK SUBDIVISON – PHASE 2
TONTITOWN, ARKANSAS

ESI
ENGINEERING SERVICES INC.
1207 SOUTH OLD MISSOURI RD.
SPRINGDALE, ARKANSAS 72764

REVISION	DATE	DESCRIPTION

Z:\SUBD\17963 - WESTBROOK SUBD\17963 - WATER & SEWER.DWG

SCALE: 1"=30'

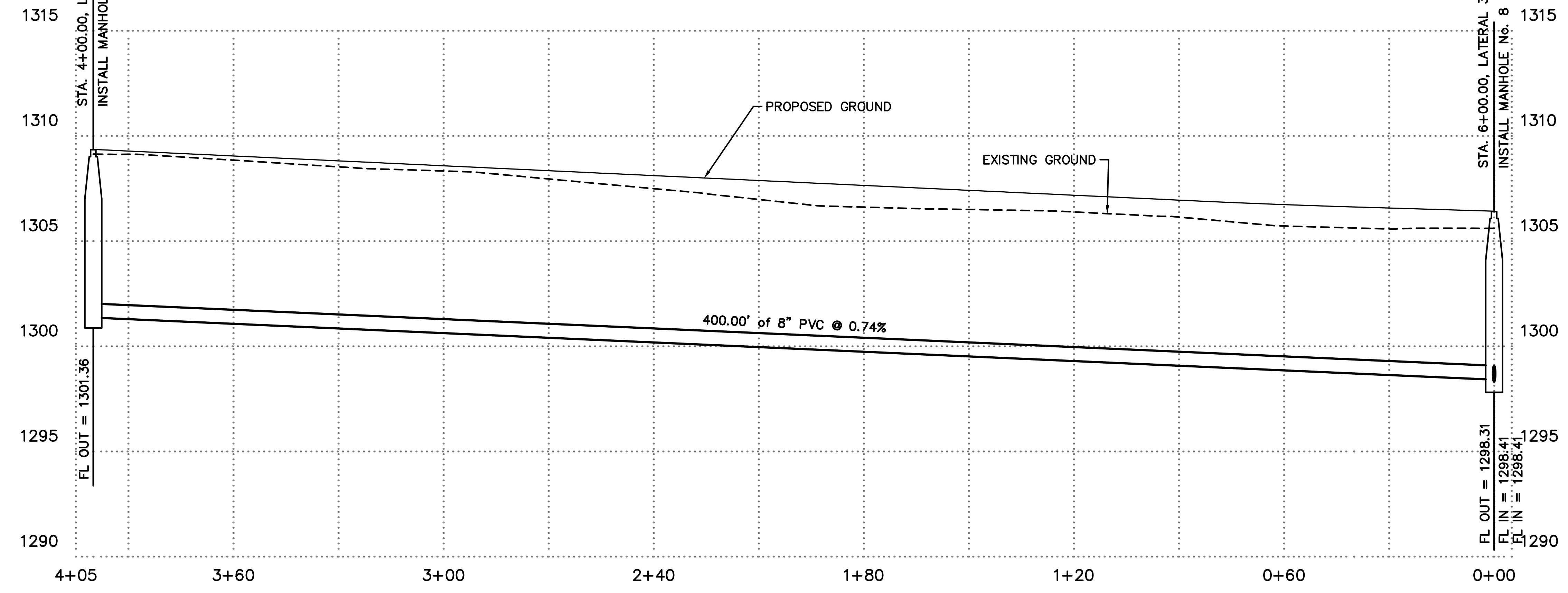
DATE: Nov 22, 2017

ENGINEER: TJA
DRAWN BY: JRC

W.O. #: 17963

GRID
N
GRAPHIC REPRESENTATION ONLY
SCALE 1"= 30'
0
15'
30'
60'
STA. 5+83.84, LINE 3
INSTALL 8"X6" TEE,
8" GATE VALVE &
FIRE HYDRANT ASSEMBLY
N: 676118.90
E: 653901.61
Sta. 4+00.00, LATERAL 6
INSTALL MANHOLE No. 15
Sta. 6+00.00, LATERAL 3
Sta. 0+00.00 LATERAL 6
INSTALL MANHOLE No. 8
LATERAL 6
LATERAL 3
8" PVC
8" PVC
A STREET
A STREET
E STREET
STA. 8+80.80, LINE 2
INSTALL 8" 90° BEND
STA. 9+78.45, LINE 2
INSTALL 8"X6" TEE,
8" GATE VALVE &
FIRE HYDRANT ASSEMBLY
N: 675839.67
E: 653402.33
STA. 13+78.45, LINE 2
INSTALL 8"X6" TEE,
8" GATE VALVE &
FIRE HYDRANT ASSEMBLY
N: 675823.09
E: 653801.99
IPF JENKINS PLS 688
EX SIGN
20' U.E.
& DR.E.
25' B.S.L.
50' ROW
30' BOC
20' U.E.
20' DR.E.
15' U.E.
30' B.S.L.
20' B.S.L.
15' U.E.
25' B.S.L.
R60'
R30
R30
22+00
21+00
20+00
19+00
18+00
17+00
16+00
15+00
14+00
1305
1306
1307
1308
1309
1310
1311
1312
29
28
27
26
24
23
22
21
20
19
18
97
98
99
100
101
102
103
104

LATERAL 6
STA. 4+05 TO -0+05



ENGINEERING SERVICES INC.
1207 SOUTH OLD MISSOURI RD.
SPRINGDALE, ARKANSAS 72764

SANITARY SEWER PLAN AND PROFILE
WESTBROOK SUBDIVISON - PHASE 2
TONTITOWN, ARKANSAS

REVISION	DATE	DESCRIPTION

Z:\SUBD\17963 - WESTBROOK SUBD\17963 - WATER & SEWER.DWG

SCALE: 1"=30'

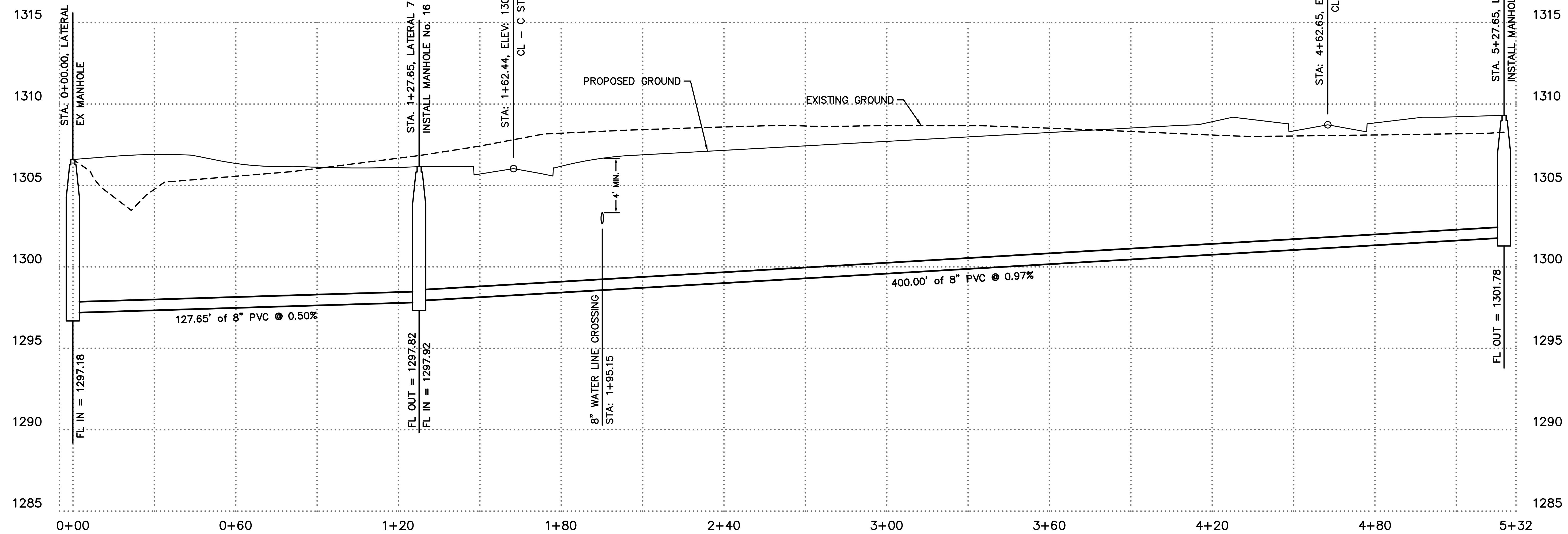
DATE: Nov 22, 2017

ENGINEER: TJA
DRAWN BY: DLB

W.O. #: 17963

GRAPHIC REPRESENTATION ONLY
SCALE 1" = 30'
0 15' 30' 60'
FRIZZO STREET
STA. 12+88.49, LINE 1 INSTALL 8" TEE END LINE 2
STA. 12+99.34, LINE 1 INSTALL 8" TAPPING SLEEVE AND VALVE END LINE 1
STA. 12+85.04, LINE 1 INSTALL 8" TAPPING SLEEVE AND VALVE, 45° BEND, & PLUG & BLOCK
EXISTING 8" WATER MAIN TO REMAIN ACTIVE AND IN PLACE
EXISTING 8" WATER MAIN TO REMAIN
STA. 25+45.95, LINE 2 STA. 13+65.15, LINE 3 INSTALL 8" TEE STA. 13+65.15 END LINE 3
STA. 25+39.52, LINE 2 INSTALL 8"X6" TEE, 8" GATE VALVE & FIRE HYDRANT ASSEMBLY N: 676077.24 E: 654681.84
Sta. 0+00.00, LATERAL 7 TIE TO EX MANHOLE
Sta. 1+27.65, LATERAL 7 INSTALL MANHOLE No. 16
Sta. 5+27.65, LATERAL 7 INSTALL MANHOLE No. 17
Sta. 13+99.62, LATERAL 3 INSTALL MANHOLE No. 10
STA. 11+40.99, LINE 1 INSTALL 8"X6" TEE, 8" GATE VALVE & FIRE HYDRANT ASSEMBLY N: 676390.01 E: 654548.31
EX SEWER MANHOLE RIM EL = 1306.68 INV = 1297.08
PARCEL: 830-38709-000 SPRING CREEK WESTBROOK HOLDINGS LLC 916 S BAYOU DR MOUNTAIN VIEW, AR 72560
PARCEL: 830-38710-000 BABB, TINA M 483 PENZO AVE SPRINGDALE, AR 72762
PARCEL: 830-38711-000 IEC HOLDINGS LLC 916 S BAYOU DR MOUNTAIN VIEW, AR 72560
EX POWER METER
EX CTV BOX
EX WATER METER
EX SIGN
EX TELEPHONE PEDESTAL
8" PVC
4" PVC
20' U.E.
15' U.E.
25' B.S.L.
30' B.S.L.
50' ROW
30' BOC
① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪ ⑫ (50) (51) (52) (53) (80) (81) (82) (111)

LATERAL 7
STA. -0+05 TO 5+32



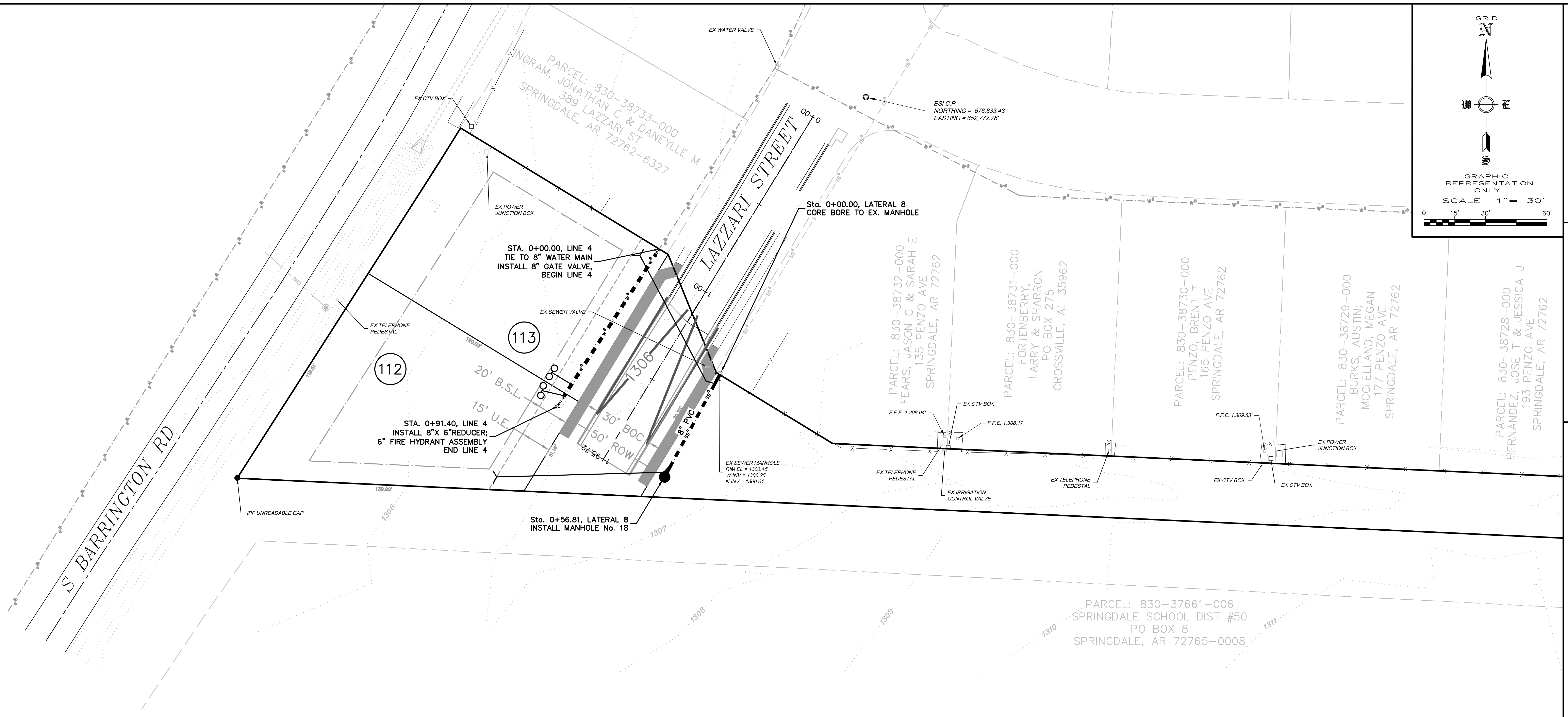
1315 1310 1305 1300 1295 1290 1285
0+00 0+60 1+20 1+80 2+40 3+00 3+60 4+20 4+80 5+32
STA. 0+00.00, LATERAL 7 EX MANHOLE
STA. 1+27.65, LATERAL 7 INSTALL MANHOLE No. 16
STA. 1+62.44, ELEV: 1306.03 CL - C STREET
STA. 4+62.65, ELEV: 1308.72 CL - C STREET
STA. 5+27.65, LATERAL 7 INSTALL MANHOLE No. 17
PROPOSED GROUND
EXISTING GROUND
4' MIN.
127.65' of 8" PVC @ 0.50%
400.00' of 8" PVC @ 0.97%
FL IN = 1297.18
FL OUT = 1297.82
FL IN = 1297.92
8" WATER LINE CROSSING STA: 1+95.15
FL OUT = 1301.78

ENGINEERING SERVICES INC.
1207 SOUTH OLD MISSOURI RD.
SPRINGDALE, ARKANSAS 72764

SANITARY SEWER PLAN AND PROFILE
WESTBROOK SUBDIVISON - PHASE 2
TONTITOWN, ARKANSAS

REVISION	DATE	DESCRIPTION

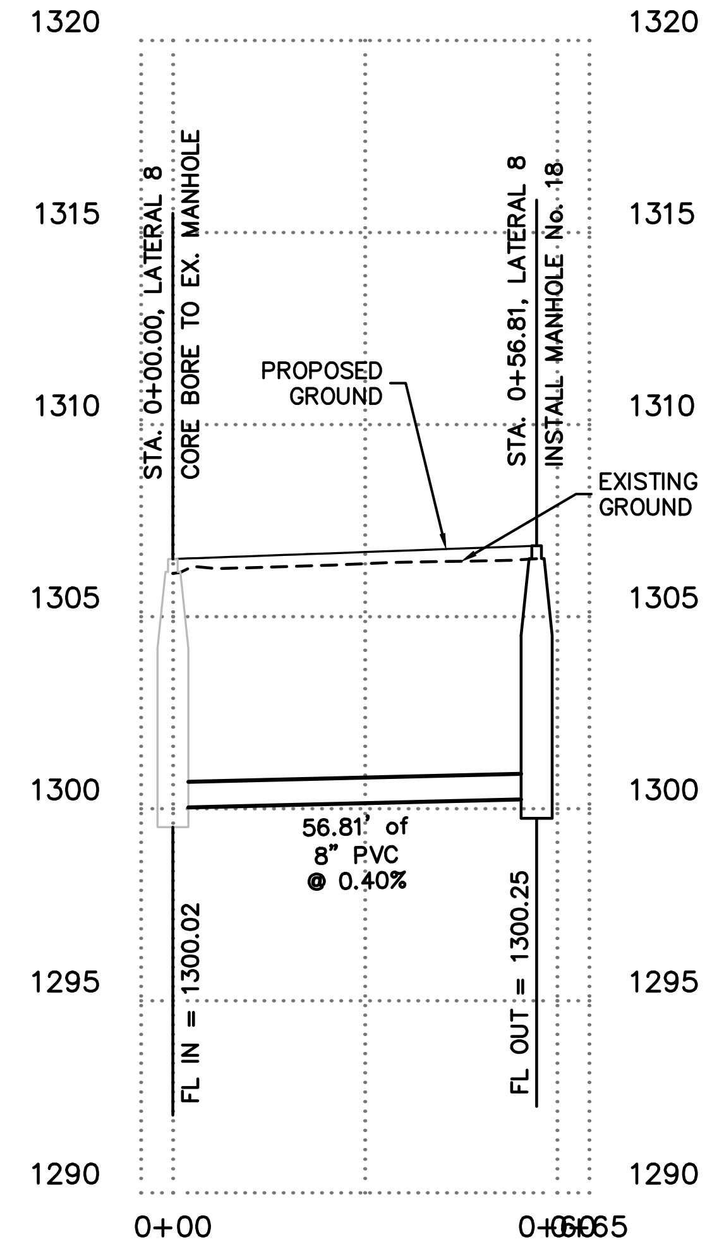
SCALE: 1"=30'
DATE: Nov 22, 2017
ENGINEER: TJA
DRAWN BY: DLB
W.O. #: 17963


S BARRINGTON RD
LAZZARI STREET
PARCEL: 830-38733-000
INGRAM, JONATHAN C & DANEYLLE M
389 LAZZARI ST
SPRINGDALE, AR 72762-6327
EX CTV BOX
EX WATER VALVE
ESI C.P.
NORTHING = 676,833.43'
EASTING = 652,772.78'
0+00
1+00
EX POWER JUNCTION BOX
EX TELEPHONE PEDESTAL
STA. 0+00.00, LINE 4
TIE TO 8" WATER MAIN
INSTALL 8" GATE VALVE,
BEGIN LINE 4
EX SEWER VALVE
113
112
120.03'
118.51'
20' B.S.L.
15' U.E.
51.18'
30' BOC
50' ROW
1306
1+95.72
70.70'
8" PVC
STA. 0+91.40, LINE 4
INSTALL 8"X 6"REDUCER;
6" FIRE HYDRANT ASSEMBLY
END LINE 4
Sta. 0+00.00, LATERAL 8
CORE BORE TO EX. MANHOLE
EX SEWER MANHOLE
RIM EL = 1306.15
W INV = 1300.25
N INV = 1300.01
Sta. 0+56.81, LATERAL 8
INSTALL MANHOLE No. 18
139.92'
IPF UNREADABLE CAP
1307
1308
1309
1310
1311
PARCEL: 830-38732-000
FEARS, JASON C & SARAH E
135 PENZO AVE
SPRINGDALE, AR 72762
PARCEL: 830-38731-000
FORTENBERRY,
LARRY & SHARRON
PO BOX 275
CROSSVILLE, AL 35962
PARCEL: 830-38730-000
PENZO, BRENT T
165 PENZO AVE
SPRINGDALE, AR 72762
PARCEL: 830-38729-000
BURKS, AUSTIN;
MCCLELLAND, MEGAN
177 PENZO AVE
SPRINGDALE, AR 72762
PARCEL: 830-38728-000
HERNANDEZ, JOSE T & JESSICA J
193 PENZO AVE
SPRINGDALE, AR 72762
F.F.E. 1,308.04'
F.F.E. 1,308.17'
F.F.E. 1,309.83'
EX CTV BOX
EX TELEPHONE PEDESTAL
EX IRRIGATION CONTROL VALVE
EX POWER JUNCTION BOX
PARCEL: 830-37661-006
SPRINGDALE SCHOOL DIST #50
PO BOX 8
SPRINGDALE, AR 72765-0008

GRID
N
W E
S
GRAPHIC REPRESENTATION ONLY
SCALE 1"= 30'
0 15' 30' 60'

ENGINEERING SERVICES INC.
1207 SOUTH OLD MISSOURI RD.
SPRINGDALE, ARKANSAS 72764

LATERAL 8
STA. -0+05 TO 0+65



SANITARY SEWER PLAN AND PROFILE
WESTBROOK SUBDIVISON – PHASE 2
TONTITOWN, ARKANSAS

REVISION	DATE	DESCRIPTION

@ COPYRIGHT 2015, ENGINEERING SERVICES, INC. 10-27-17, 01:29 PM

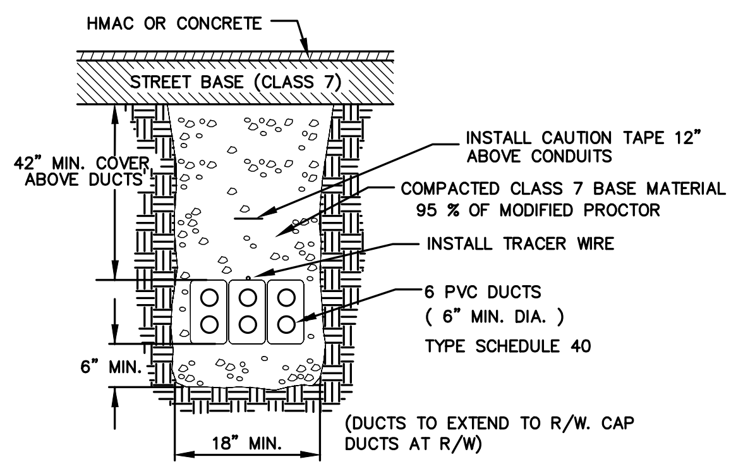
Z:\SUBD\17963 - WESTBROOK SUBD\17963 - WATER & SEWER.DWG

SCALE: 1"=30'

DATE: Nov 22, 2017

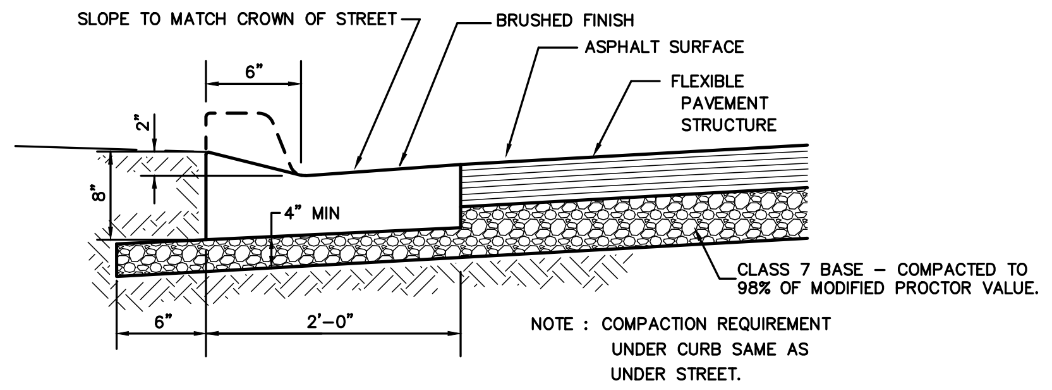
ENGINEER: TJA
DRAWN BY: JRC

W.O. #: 17963


HMAC OR CONCRETE
STREET BASE (CLASS 7)
42" MIN. COVER ABOVE DUCTS
INSTALL CAUTION TAPE 12" ABOVE CONDUITS
COMPACTED CLASS 7 BASE MATERIAL 95 % OF MODIFIED PROCTOR
INSTALL TRACER WIRE
6 PVC DUCTS (6" MIN. DIA.)
TYPE SCHEDULE 40
6" MIN.
18" MIN.
(DUCTS TO EXTEND TO R/W. CAP DUCTS AT R/W)

TYPICAL SECTION 6–6" UTILITY DUCTS

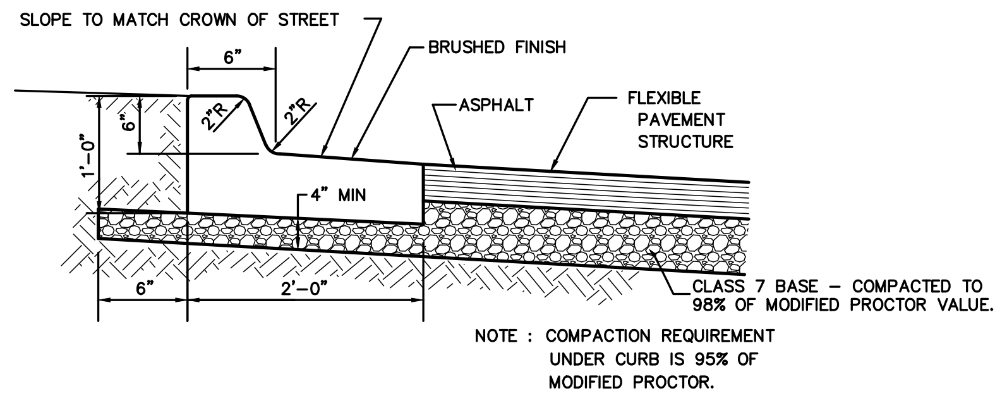
NOT TO SCALE


SLOPE TO MATCH CROWN OF STREET
BRUSHED FINISH
ASPHALT SURFACE
FLEXIBLE PAVEMENT STRUCTURE
6"
2"
8"
4" MIN
6"
2'–0"
CLASS 7 BASE – COMPACTED TO 98% OF MODIFIED PROCTOR VALUE.

NOTE : COMPACTION REQUIREMENT UNDER CURB SAME AS UNDER STREET.

MODIFIED CONCRETE CURB & GUTTER

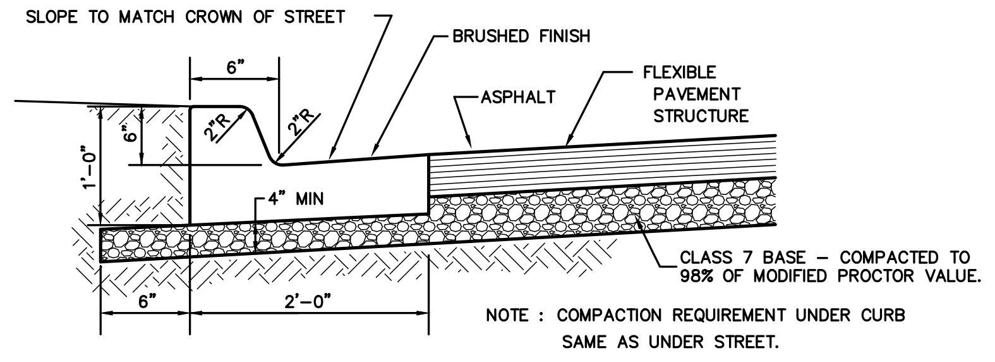
NOT TO SCALE


SLOPE TO MATCH CROWN OF STREET
BRUSHED FINISH
ASPHALT
FLEXIBLE PAVEMENT STRUCTURE
6"
2"R
2"R
1'–0"
6"
4" MIN
6"
2'–0"
CLASS 7 BASE – COMPACTED TO 98% OF MODIFIED PROCTOR VALUE.

NOTE : COMPACTION REQUIREMENT UNDER CURB IS 95% OF MODIFIED PROCTOR.

STANDARD 6" CONCRETE SPILL CURB & GUTTER

NOT TO SCALE

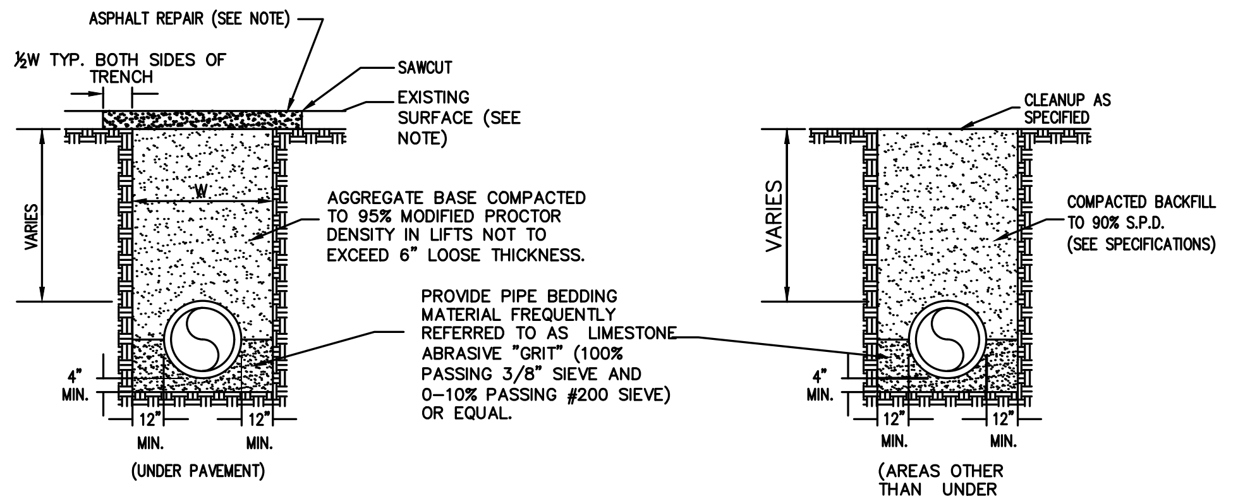

SLOPE TO MATCH CROWN OF STREET
BRUSHED FINISH
ASPHALT
FLEXIBLE PAVEMENT STRUCTURE
6"
2"R
2"R
1'–0"
6"
4" MIN
6"
2'–0"
CLASS 7 BASE – COMPACTED TO 98% OF MODIFIED PROCTOR VALUE.

NOTE : COMPACTION REQUIREMENT UNDER CURB SAME AS UNDER STREET.

STANDARD 6" CONCRETE CURB & GUTTER

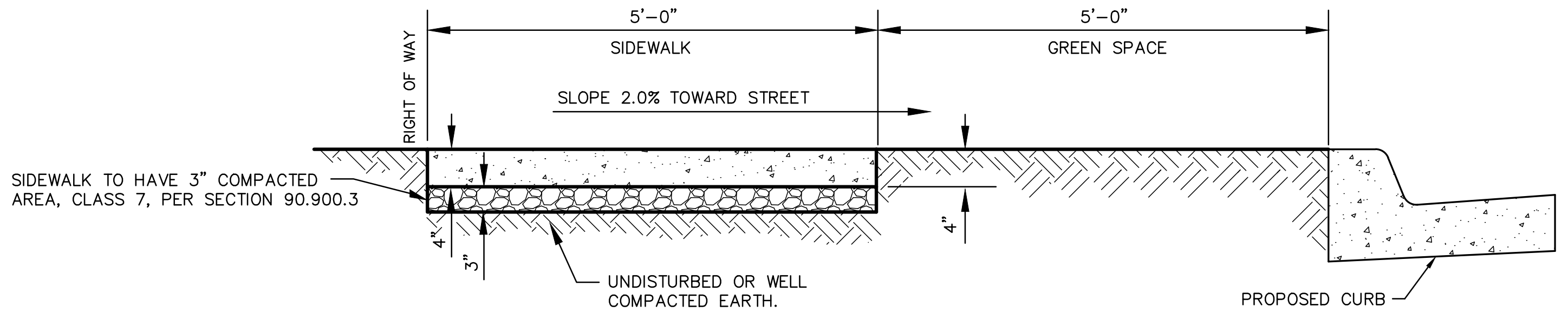
NOT TO SCALE

NOTE; ALL STORM SEWER TRENCHES RECEIVING PERMANENT PAVEMENT REPAIR SHALL BE REPAIRED WITH PAVEMENT TO A THICKNESS EQUALING THE GREATER OF 6" OR 1 1/2 TIMES THE THICKNESS OF THE EXISTING PAVEMENT. TEMPORARY STREET REPAIRS MAY BE MADE WITH COLD MIX ASPHALT.


ASPHALT REPAIR (SEE NOTE)
½W TYP. BOTH SIDES OF TRENCH
SAWCUT
EXISTING SURFACE (SEE NOTE)
W
VARIES
AGGREGATE BASE COMPACTED TO 95% MODIFIED PROCTOR DENSITY IN LIFTS NOT TO EXCEED 6" LOOSE THICKNESS.
PROVIDE PIPE BEDDING MATERIAL FREQUENTLY REFERRED TO AS LIMESTONE ABRASIVE "GRIT" (100% PASSING 3/8" SIEVE AND 0–10% PASSING #200 SIEVE) OR EQUAL.
4" MIN.
12" MIN.
12" MIN.
(UNDER PAVEMENT)
CLEANUP AS SPECIFIED
VARIES
COMPACTED BACKFILL TO 90% S.P.D. (SEE SPECIFICATIONS)
4" MIN.
12" MIN.
12" MIN.
(AREAS OTHER THAN UNDER PAVEMENT)

STORM SEWER BEDDING AND BACKFILL

NOT TO SCALE


RIGHT OF WAY
5'–0"
SIDEWALK
5'–0"
GREEN SPACE
SLOPE 2.0% TOWARD STREET
SIDEWALK TO HAVE 3" COMPACTED AREA, CLASS 7, PER SECTION 90.900.3
4"
3"
4"
UNDISTURBED OR WELL COMPACTED EARTH.
PROPOSED CURB

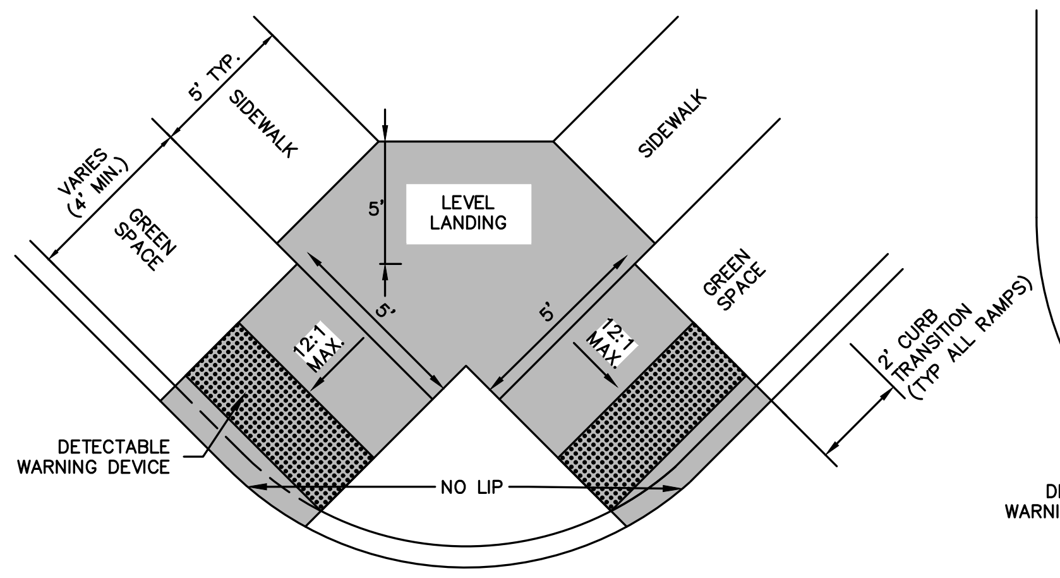
NOTE: PROVIDE EXPANSION JOINTS AT EACH STRUCTURE, CURB, AND A MINIMUM INTERVAL OF 200 FOOT.

NOTE: TRANSVERSE JOINTS BETWEEN EXPANSION JOINTS TO BE SCORED AT 5 FOOT INTERVALS.

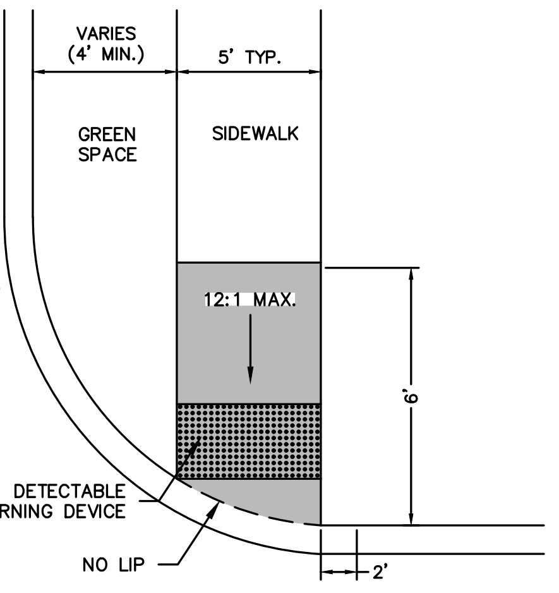
NOTE: CONCRETE COMPRESSIVE STRENGTH = 3,500 PSI, SHALL MEET ADA W/6% AE ± 2 %.

NOTE: ALL STREETS AND SIDEWALKS SHALL BE DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH CODE SECTION 90 – STREETS AND SIDEWALKS.

SIDEWALK DETAIL


5' TYP.
SIDEWALK
VARIES (4' MIN.)
GREEN SPACE
LEVEL LANDING
5'
5'
5'
12:1 MAX.
12:1 MAX.
SIDEWALK
GREEN SPACE
2' CURB TRANSITION (TYP ALL RAMPS)
DETECTABLE WARNING DEVICE
NO LIP

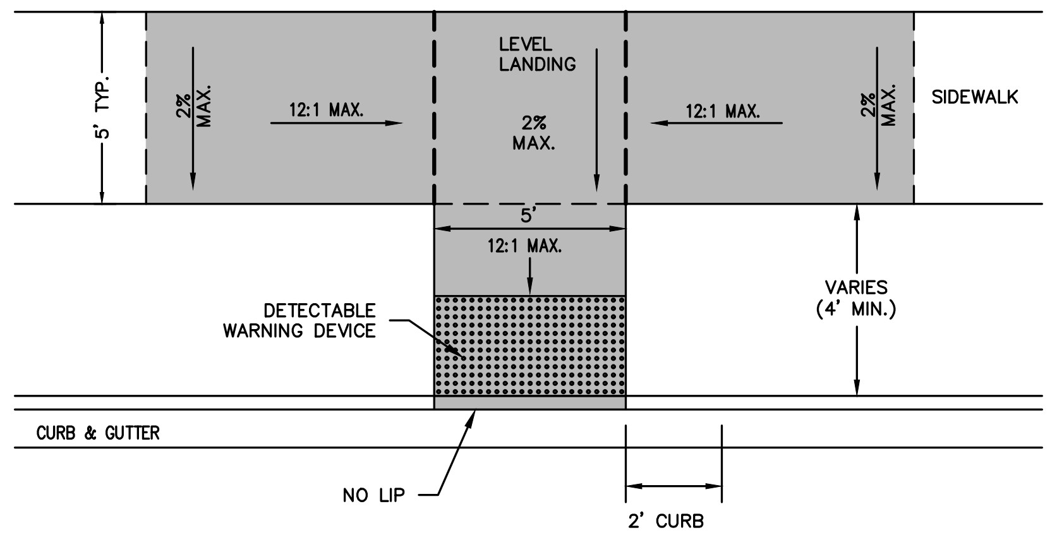
TYPE 1 RAMP


VARIES (4' MIN.)
5' TYP.
GREEN SPACE
SIDEWALK
12:1 MAX.
6'
DETECTABLE WARNING DEVICE
NO LIP
2'

TYPE 2 RAMP

NOTES:

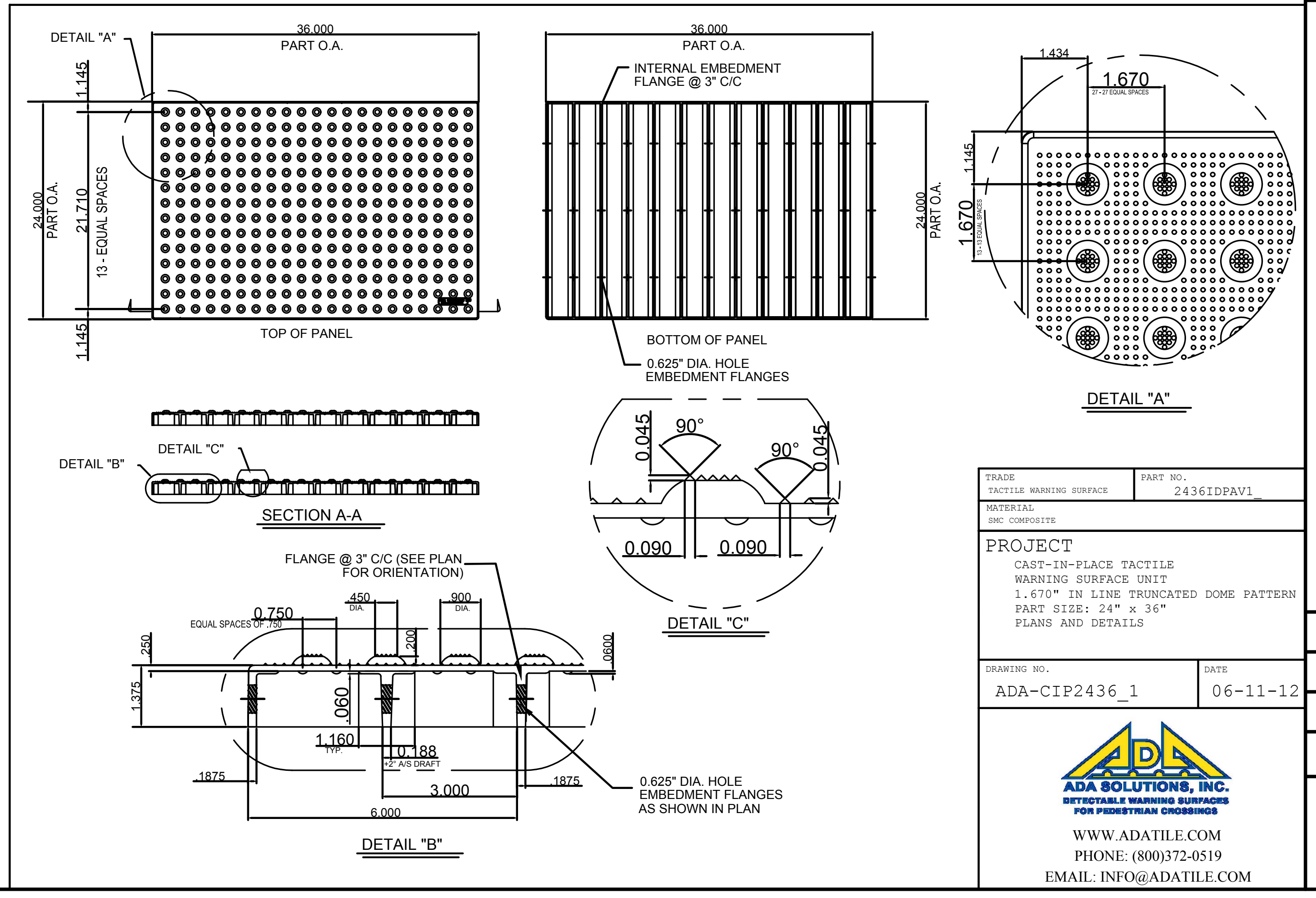
1) THE LENGTH OF THE RAMP SHALL BE SUCH THAT THE SLOPE DOES NOT EXCEED 12:1.
2) THE NORMAL GUTTER SHALL BE MAINTAINED THROUGH THE AREA OF THE RAMP.
3) THE MINIMUM THICKNESS FOR THE RAMP, WALK, & LANDING SHALL BE 4".
4) DETECTABLE WARNING DEVICES SHALL BE PLACED AT THE LOCATIONS WHERE RAMPS CROSS A CURB.


5' TYP.
2% MAX.
12:1 MAX.
LEVEL LANDING
2% MAX.
12:1 MAX.
2% MAX.
SIDEWALK
5'
12:1 MAX.
DETECTABLE WARNING DEVICE
VARIES (4' MIN.)
CURB & GUTTER
NO LIP
2' CURB TRANSITION

MID-BLOCK RAMP

HANDICAP RAMP DETAILS

NOT TO SCALE


DETAIL "A"
36.000
PART O.A.
1.145
24.000 PART O.A.
21.710
13 - EQUAL SPACES
1.145
TOP OF PANEL
36.000
PART O.A.
INTERNAL EMBEDMENT FLANGE @ 3" C/C
24.000 PART O.A.
BOTTOM OF PANEL
0.625" DIA. HOLE EMBEDMENT FLANGES
1.434
1.670
27 - 27 EQUAL SPACES
1.145
1.670
13 - 13 EQUAL SPACES
DETAIL "A"
DETAIL "C"
DETAIL "B"
SECTION A-A
0.045
90°
90°
0.045
0.090
0.090
DETAIL "C"
FLANGE @ 3" C/C (SEE PLAN FOR ORIENTATION)
.450 DIA.
.900 DIA.
0.750
EQUAL SPACES OF .750
.250
.200
.0600
1.375
.060
1.160 TYP.
0.188
+2° A/S DRAFT
.1875
.1875
3.000
6.000
0.625" DIA. HOLE EMBEDMENT FLANGES AS SHOWN IN PLAN
DETAIL "B"

TRADE
TACTILE WARNING SURFACE

PART NO.
2436IDPAV1_

MATERIAL
SMC COMPOSITE

PROJECT
CAST-IN-PLACE TACTILE
WARNING SURFACE UNIT
1.670" IN LINE TRUNCATED DOME PATTERN
PART SIZE: 24" x 36"
PLANS AND DETAILS

DRAWING NO.
ADA-CIP2436_1

DATE
06-11-12

ADA SOLUTIONS, INC.
DETECTABLE WARNING SURFACES FOR PEDESTRIAN CROSSINGS
WWW.ADATILE.COM
PHONE: (800)372-0519
EMAIL: INFO@ADATILE.COM

ENGINEERING SERVICES INC.
1207 SOUTH OLD MISSOURI RD.
SPRINGDALE, ARKANSAS 72764

TYPICAL DETAILS
WESTBROOK SUBDIVISON – PHASE 2
TONTITOWN, ARKANSAS

REVISION	DATE	DESCRIPTION

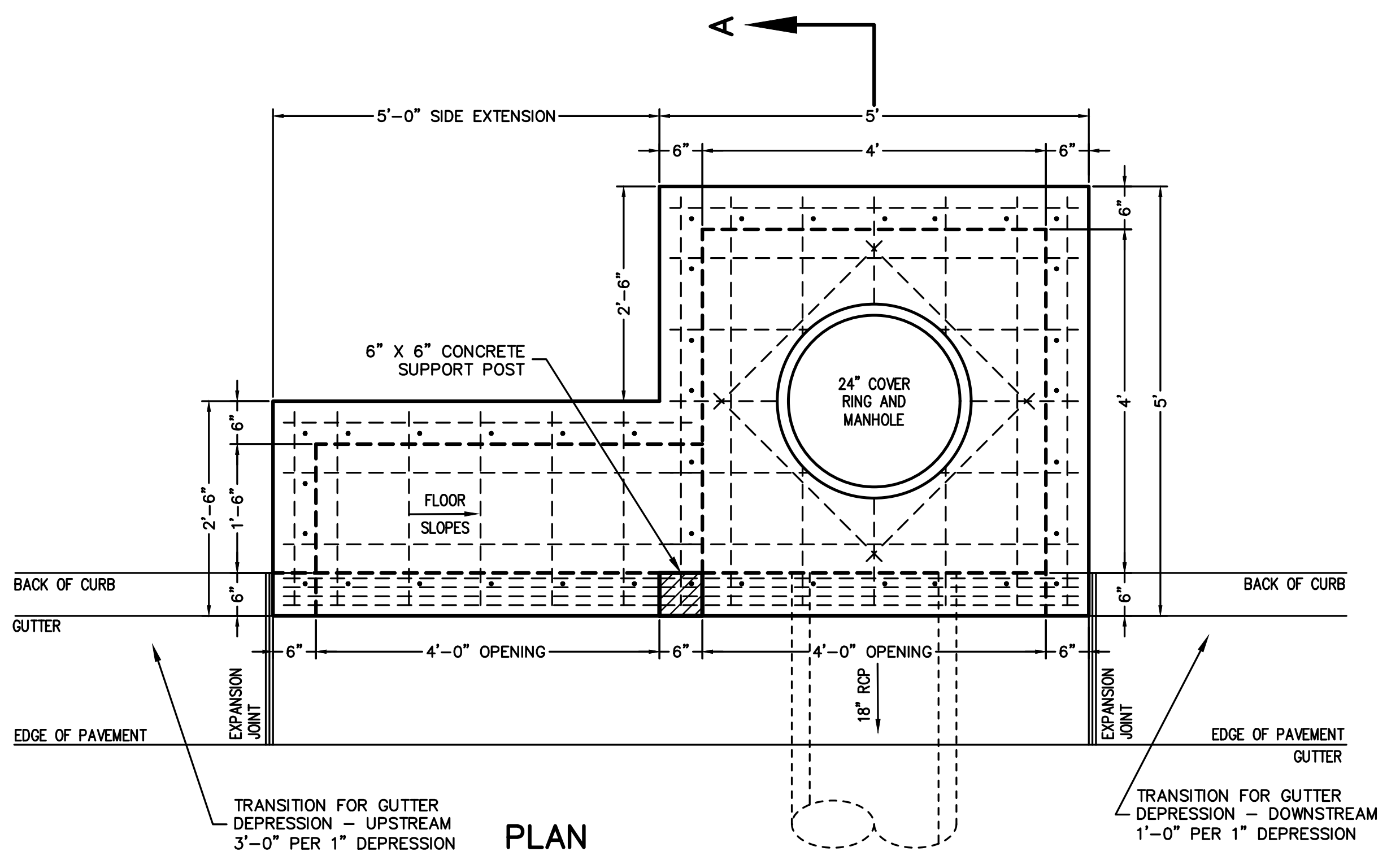
Z:\SUBD\17963 - WESTBROOK SUBD\17963 - TYPICAL DETAILS.DWG

SCALE: N.T.S

DATE: NOV, 2017

ENGINEER: TJA
DRAWN BY: JRC

W.O. #: 17963

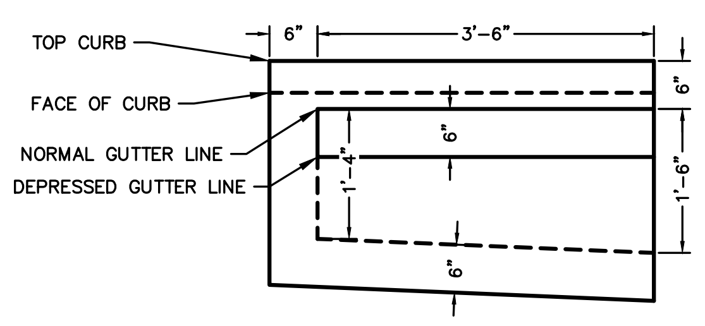

A
5'-0" SIDE EXTENSION
5'
6"
4'
2'-6"
6" X 6" CONCRETE SUPPORT POST
24" COVER RING AND MANHOLE
FLOOR SLOPES
BACK OF CURB
GUTTER
EDGE OF PAVEMENT
EXPANSION JOINT
4'-0" OPENING
18" RCP
TRANSITION FOR GUTTER DEPRESSION – UPSTREAM 3'-0" PER 1" DEPRESSION
TRANSITION FOR GUTTER DEPRESSION – DOWNSTREAM 1'-0" PER 1" DEPRESSION

PLAN

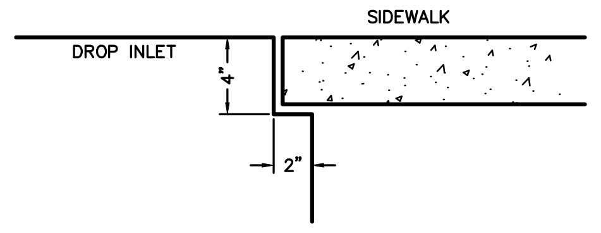
NOTES:

1. ALL EXPOSED CORNERS TO HAVE 3/4" CHAMFER.
2. ALL REINFORCEMENT BARS SHALL BE GRADE 60 AND SHALL HAVE A MINIMUM 1–1/2" COVER UNLESS OTHERWISE NOTED.
3. CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3500 p.s.i.
   –TOP 18" SHALL BE CAST–IN–PLACE.
4. CURB INLET BACK OPENING LOCATIONS SHALL BE DETERMINED IN THE FIELD BY THE ENGINEER.
5. WHEN AN INLET IS PLACED ADJACENT TO CONCRETE PAVEMENT, THE GUTTER DEPRESSION SHALL BE FORMED IN CONCRETE PAVEMENT.
6. PIPES MAY ENTER BOX FROM ANY ANGLE OF ELEVATION AS DIRECTED BY THE ENGINEER. REINFORCING BARS SHALL BE CUT TO CLEAR PIPE BY 1–1/2".
7. THE EXPANSION JOINT SHALL HAVE A THICKNESS OF 1–1/2" AND CONFORM TO AASHTO M213.
8. REFER TO CURB AND GUTTER DETAILS FOR APPROPRIATE CURB CONFIGURATION AND GUTTER DIMMENSIONS.
9. REFER TO PLAN AND PROFILE SHEETS TO DETERMINE EXTENSIONS AND SIZE (IF ANY) ACCOMPANYING DROP INLETS.
10. PRIOR TO AND DURING PLACEMENT OF PAVEMENT IN FRONT OF INLETS, THE CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE AT ALL TIMES. THE METHODS USED FOR THIS WORK SHALL BE APPROVED BY THE ENGINEER.
11. LIMIT DEFLECTION TO 60 DEGREES. IF GREATER, USE NEXT LARGER MANHOLE DIAMETER/SIZE.
12. EXTENSIONS WITH LENGTHS DESIGNATED ON THE PLANS EXCEEDING 8'–0" SHALL HAVE THE SAME INSIDE DEPTH DIMENSIONS AS STATED ON DETAILS UNLESS OTHERWISE NOTED.
13. CONCRETE FOR RECTANGULAR DROP INLETS SHALL BE CLASS A, 3000 PSI, 5.5 BAG MIX WITH 4–7% AIR ENTRAINMENT.
14. ALL REINFORCING TO BE #5 BAR GRID @ 10" O.C., E.W. EXCEPT WHERE ALLOWANCES MUST BE MADE FOR PIPES, OPENING, OR MANHOLE RING.
15. NEOPRENE–COATED STEEL STEPS ARE TO BE INSTALLED IN ALL DROP INLETS AND JUNCTION BOXES WITH A DEPTH OF 4'–0" OR GREATER. STEP SPACING TO BE 12".
16. BOTTOM OF DRAINAGE BOX TO BE AT 0.5% MINIMUM SLOPE FROM INLET TO OUTLET.

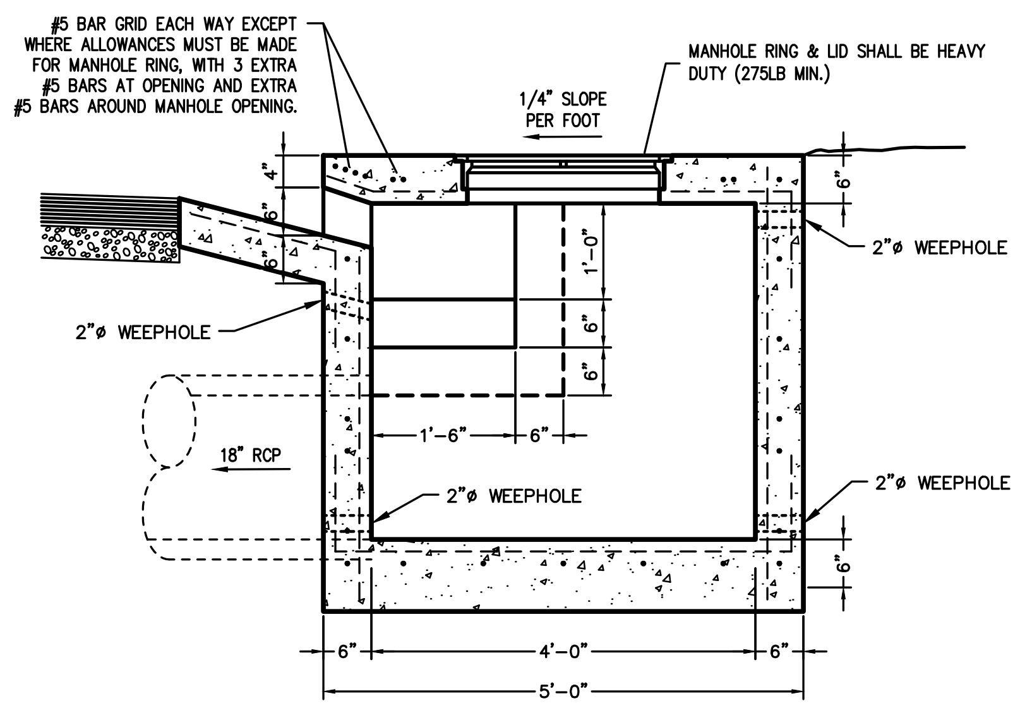
STRUCTURE SIZE TABLE	
INSIDE DIMENSION OF INLET	PIPE DIAMETER
4 FEET	18"
5 FEET	21" TO 42"
6 FEET	60" OR GREATER


TOP CURB
FACE OF CURB
NORMAL GUTTER LINE
DEPRESSED GUTTER LINE
6"
3'-6"
1'-4"
1'-6"

4'–0" EXTENSION


DROP INLET
SIDEWALK
2"

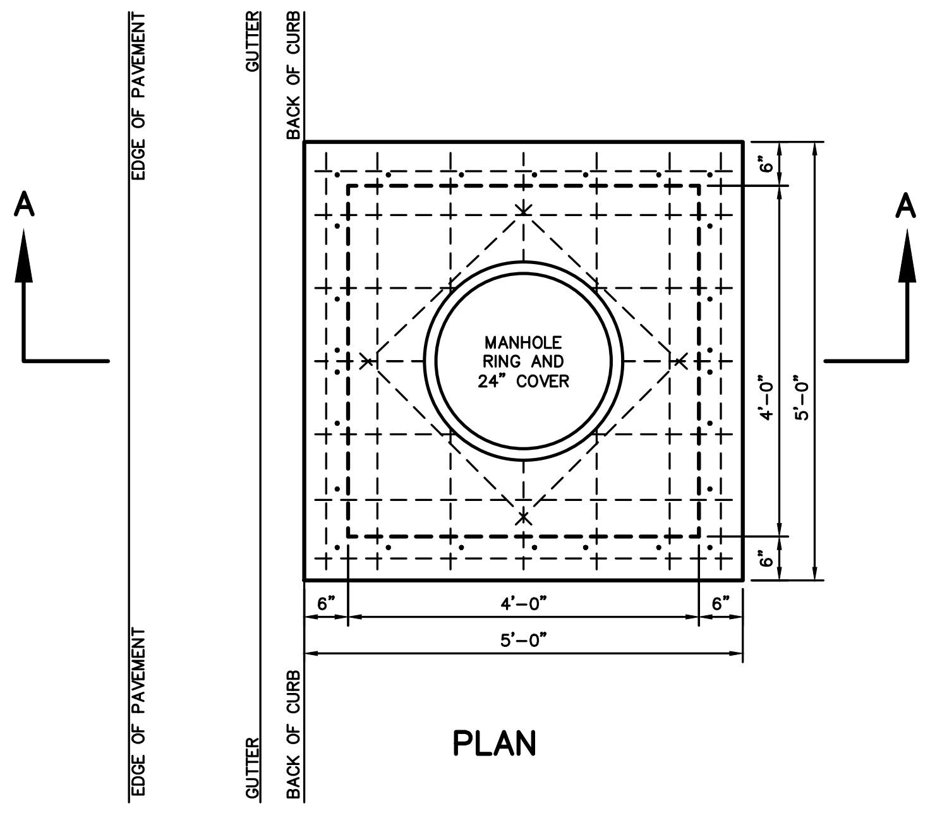
NOTCH FOR SIDEWALKS


#5 BAR GRID EACH WAY EXCEPT WHERE ALLOWANCES MUST BE MADE FOR MANHOLE RING, WITH 3 EXTRA #5 BARS AT OPENING AND EXTRA #5 BARS AROUND MANHOLE OPENING.
1/4" SLOPE PER FOOT
MANHOLE RING & LID SHALL BE HEAVY DUTY (275LB MIN.)
2"Ø WEEPHOLE
18" RCP
1'-6"
6"
4'-0"
5'-0"

SECTION A–A

TYPICAL DROP INLET

NOT TO SCALE


A
EDGE OF PAVEMENT
GUTTER
BACK OF CURB
MANHOLE RING AND 24" COVER
6"
4'-0"
5'-0"

PLAN

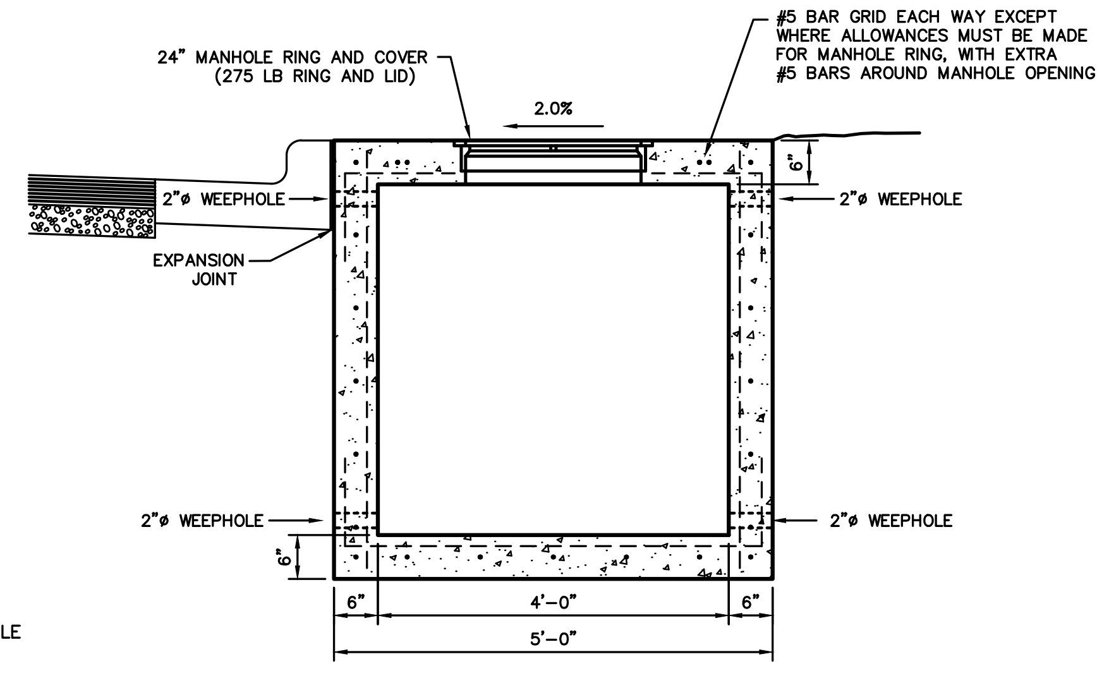
NOTES:

ALL REINFORCING TO BE #5 BAR GRID @ 10" O.C., E.W. EXCEPT WHERE ALLOWANCES MUST BE MADE FOR PIPES, OPENING, OR MANHOLE RING.

NEOPRENE–COATED STEEL STEPS ARE TO BE INSTALLED IN ALL DROP INLETS AND JUNCTION BOXES WITH A DEPTH OF 4'–0" OR GREATER. STEP SPACING TO BE 12".

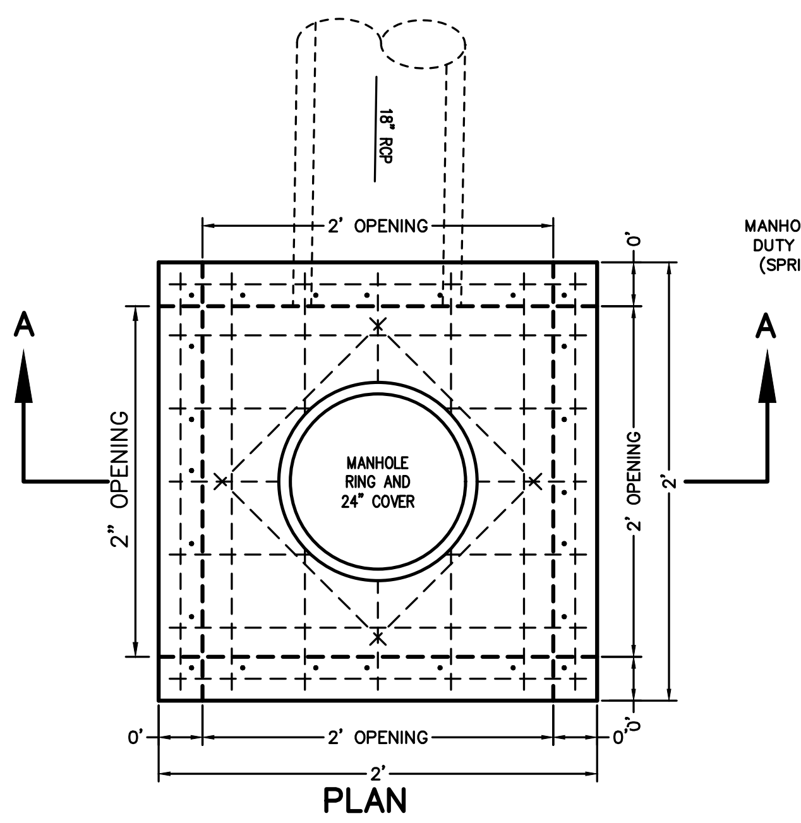
ALL EDGES TO HAVE 3/4" CHAMFER, UNLESS ADJACENT TO PERMANENT STRUCTURE.

ALL CONCRETE SHALL BE PLACED PER CITY STANDARDS.


24" MANHOLE RING AND COVER (275 LB RING AND LID)
#5 BAR GRID EACH WAY EXCEPT WHERE ALLOWANCES MUST BE MADE FOR MANHOLE RING, WITH EXTRA #5 BARS AROUND MANHOLE OPENING
2.0%
2"Ø WEEPHOLE
EXPANSION JOINT
6"
4'-0"
5'-0"

SECTION A–A

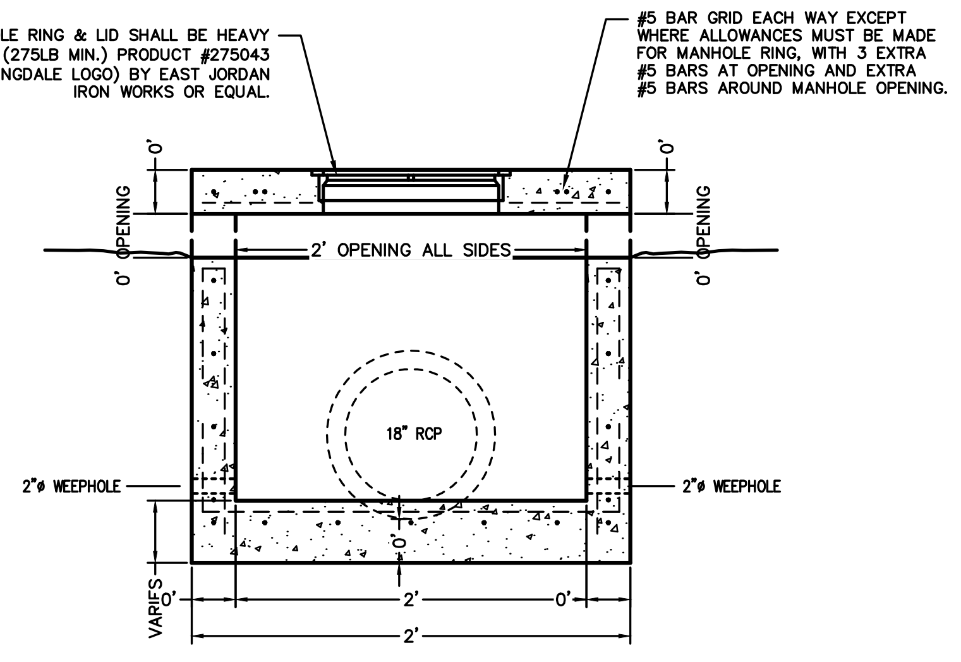
TYPICAL JUNCTION BOX


A
18" RCP
2' OPENING
MANHOLE RING AND 24" COVER
0'
2'

PLAN

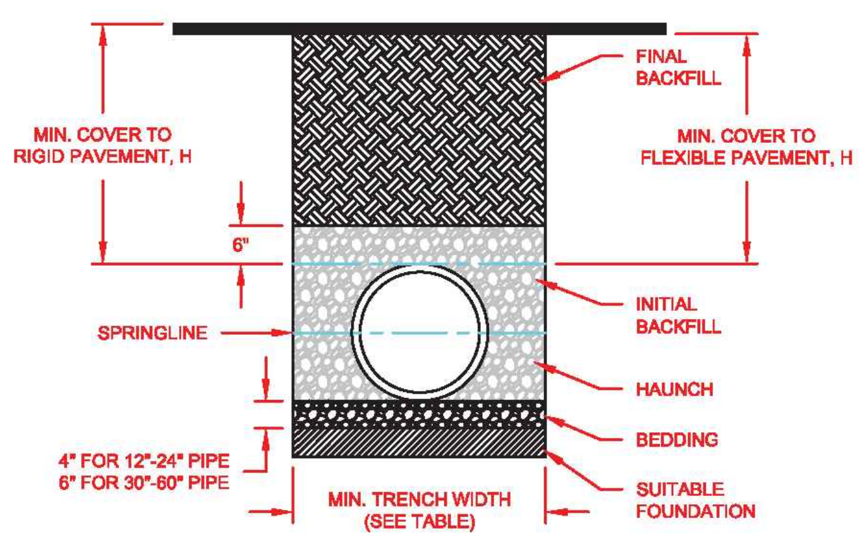
NOTES:

1. ALL EXPOSED CORNERS TO HAVE 3/4" CHAMFER.
2. ALL REINFORCEMENT BARS SHALL BE GRADE 60 AND SHALL HAVE A MINIMUM 1–1/2" COVER UNLESS OTHERWISE NOTED.
3. CURB INLET BACK OPENING LOCATIONS SHALL BE DETERMINED IN THE FIELD BY THE ENGINEER.
4. WHEN AN INLET IS PLACED ADJACENT TO CONCRETE PAVEMENT, THE GUTTER DEPRESSION SHALL BE FORMED IN CONCRETE PAVEMENT.
5. PIPES MAY ENTER BOX FROM ANY ANGLE OF ELEVATION AS DIRECTED BY THE ENGINEER. REINFORCING BARS SHALL BE CUT TO CLEAR PIPE BY 1–1/2".
6. THE EXPANSION JOINT SHALL HAVE A THICKNESS OF 1–1/2" AND CONFORM TO AASHTO M213.
7. REFER TO PLAN AND PROFILE SHEETS TO DETERMINE EXTENSIONS AND SIZE (IF ANY) ACCOMPANYING DROP INLETS.
8. EXTENSIONS WITH LENGTHS DESIGNATED ON THE PLANS EXCEEDING 8'–0" SHALL HAVE THE SAME INSIDE DEPTH DIMENSIONS AS STATED ON DETAILS UNLESS OTHERWISE NOTED.
9. CONCRETE FOR RECTANGULAR DROP INLETS SHALL BE CLASS A, 3000 PSI, 5.5 BAG MIX WITH 4–7% AIR ENTRAINMENT.
10. ALL REINFORCING TO BE #5 BAR GRID @ 10" O.C., E.W. EXCEPT WHERE ALLOWANCES MUST BE MADE FOR PIPES, OPENING, OR MANHOLE RING.
11. NEOPRENE–COATED STEEL STEPS ARE TO BE INSTALLED IN ALL DROP INLETS AND JUNCTION BOXES WITH A DEPTH OF 4'–0" OR GREATER. STEP SPACING TO BE 12".
12. BOTTOM OF DRAINAGE BOX TO BE AT 0.5% MINIMUM SLOPE FROM INLET TO OUTLET.


MANHOLE RING & LID SHALL BE HEAVY DUTY (275LB MIN.) PRODUCT #275043 (SPRINGDALE LOGO) BY EAST JORDAN IRON WORKS OR EQUAL.
#5 BAR GRID EACH WAY EXCEPT WHERE ALLOWANCES MUST BE MADE FOR MANHOLE RING, WITH 3 EXTRA #5 BARS AT OPENING AND EXTRA #5 BARS AROUND MANHOLE OPENING.
0' OPENING
2' OPENING ALL SIDES
18" RCP
2"Ø WEEPHOLE
VARIFS
0'
2'

SECTION A–A

AREA INLET


MIN. COVER TO RIGID PAVEMENT, H
FINAL BACKFILL
MIN. COVER TO FLEXIBLE PAVEMENT, H
6"
SPRINGLINE
INITIAL BACKFILL
HAUNCH
BEDDING
SUITABLE FOUNDATION
4" FOR 12"-24" PIPE
6" FOR 30"-60" PIPE
MIN. TRENCH WIDTH (SEE TABLE)

RECOMMENDED MINIMUM TRENCH WIDTHS

PIPE DIAM.	MIN. TRENCH WIDTH
4" (100mm)	21" (533mm)
6" (150mm)	23" (584mm)
8" (200mm)	26" (660mm)
10" (250mm)	28" (711mm)
12" (300mm)	30" (762mm)
15" (375mm)	34" (864mm)
18" (450mm)	39" (991mm)
24" (600mm)	48" (1219mm)
30" (750mm)	56" (1422mm)
36" (900mm)	64" (1626mm)
42" (1050mm)	72" (1829mm)
48" (1200mm)	80" (2032mm)
60" (1500mm)	96" (2438mm)

MINIMUM RECOMMENDED COVER BASED ON VEHICLE LOADING CONDITIONS**

PIPE DIAM.	SURFACE LIVE LOADING CONDITION	
	H-25	HEAVY CONSTRUCTION (75T AXLE LAOD) *
12" - 48" (300mm - 1200mm)	12" (305mm)	48" (1219mm)
60" (1500mm)	24" (610mm)	60" (1524mm)

* VEHICLES IN EXCESS OF 75T MAY REQUIRE ADDITIONAL COVER
**SEE BACKFILL REQUIREMENTS IN NOTE 6.

MAXIMUM RECOMMENDED COVER BASED ON VECHICLE LOADING CONDITIONS

PIPE DIAM.	CLASS I		CLASS II		CLASS III
	COMPACTED	DUMPED	95%	90%	95%
4" (100mm)	34 (10.4m)	16 (4.9m)	23 (7.0m)	16 (4.9m)	17 (5.2m)
6" (150mm)	40 (12.2m)	19 (5.8m)	27 (8.2m)	19 (5.8m)	20 (6.1m)
8" (200mm)	30 (9.1m)	14 (4.3m)	21 (6.4m)	14 (4.3m)	15 (4.6m)
10" (250mm)	34 (10.4m)	16 (4.9m)	23 (7.0m)	16 (4.9m)	17 (5.2m)
12" (300mm)	35 (10.7m)	17 (5.2m)	24 (7.3m)	17 (5.2m)	18 (5.5m)
15" (375mm)	37 (11.3m)	18 (5.5m)	25 (7.6m)	18 (5.5m)	19 (5.8m)
18" (450mm)	32 (9.8m)	15 (4.6m)	22 (6.7m)	15 (4.6m)	16 (4.9m)
24" (600mm)	27 (8.2m)	13 (4.0m)	19 (5.8m)	13 (4.0m)	14 (4.3m)
30" (750mm)	22 (6.7m)	11 (3.4m)	16 (4.9m)	11 (3.4m)	11 (3.4m)
36" (900mm)	26 (7.9m)	12 (3.7m)	18 (5.5m)	12 (3.7m)	13 (4.0m)
42" (1050mm)	24 (7.3m)	11 (3.4m)	17 (5.2m)	11 (3.4m)	12 (3.7m)
48" (1200mm)	23 (7.0m)	11 (3.4m)	16 (4.9m)	11 (3.4m)	12 (3.7m)
60" (1500mm)	26 (7.9m)	12 (3.7m)	18 (5.5m)	12 (3.7m)	13 (4.0m)

FILL HEIGHT TABLE GENERATED USING AASHTO SECTION 12, LOAD RESISTANCE FACTOR DESIGN (LRFD) PROCEDURE WITH THE FOLLOWING ASSUMPTIONS:
NO HYDROSTATIC PRESSURE,
UNIT WEIGHT OF SOIL (Ys) = 120 PCF

NOTES:

1. ALL PIPE SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH ASTM D2321, "STANDARD PRACTICE FOR UNDERGROUND INSTALLATION OF THERMOPLASTIC PIPE FOR SEWERS AND OTHER GRAVITY FLOW APPLICATIONS", LATEST ADDITION

2. MEASURES SHOULD BE TAKEN TO PREVENT MIGRATION OF NATIVE FINES INTO BACKFILL MATERIAL, WHEN REQUIRED.

3. FOUNDATION: WHERE THE TRENCH BOTTOM IS UNSTABLE, THE CONTRACTOR SHALL EXCAVATE TO A DEPTH REQUIRED BY THE ENGINEER AND REPLACE WITH SUITABLE MATERIAL AS SPECIFIED BY THE ENGINEER. AS AN ALTERNATIVE AND AT THE DISCRETION OF THE DESIGN ENGINEER, THE TRENCH BOTTOM MAY BE STABILIZED USING A GEOTEXTILE MATERIAL.

4. BEDDING: SUITABLE MATERIAL SHALL BE CLASS I, II OR III. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. UNLESS OTHERWISE NOTED BY THE ENGINEER, MINIMUM BEDDING THICKNESS SHALL BE 4" (100mm) FOR 4"-24" (100mm-600mm); 6" (150mm) FOR 30"-60" (750mm-1500mm).

5. INITIAL BACKFILL: SUITABLE MATERIAL SHALL BE CLASS I, II OR III IN THE PIPE ZONE EXTENDING NOT LESS THAN 6" ABOVE CROWN OF PIPE. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. MATERIAL SHALL BE INSTALLED AS REQUIRED IN ASTM D2321, LATEST EDITION.

6. MINIMUM COVER: MINIMUM COVER, H, IN NON-TRAFFIC APPLICATIONS (GRASS OR LANDSCAPE AREAS) IS 12" FROM THE TOP OF PIPE TO GROUND SURFACE. ADDITIONAL COVER MAY BE REQUIRED TO PREVENT FLOTATION. FOR TRAFFIC APPLICATIONS, MINIMUM COVER, H, IS 12" UP TO 48" DIAMETER PIPE AND 24" OF COVER FOR 60" DIAMETER PIPE, MEASURED FROM TOP OF PIPE TO BOTTOM OF FLEXIBLE PAVEMENT OR TO TOP OF RIGID PAVEMENT. FOR TRAFFIC APPLICATIONS WITH LESS THAN FOUR FEET OF COVER, EMBEDMENT OF THE PIPE SHALL BE USING ONLY A CLASS I OR CLASS II BACKFILL.

© 2016 ADS, INC.

ADVANCED DRAINAGE SYSTEMS, INC. ("ADS") HAS PREPARED THIS DETAIL BASED ON INFORMATION PROVIDED TO ADS. THIS DRAWING IS INTENDED TO DEPICT THE COMPONENTS AS REQUESTED. ADS HAS NOT PERFORMED ANY ENGINEERING OR DESIGN SERVICES FOR THIS PROJECT, NOR HAS ADS INDEPENDENTLY VERIFIED THE INFORMATION SUPPLIED. THE INSTALLATION DETAILS PROVIDED HEREIN ARE GENERAL RECOMMENDATIONS AND ARE NOT SPECIFIC FOR THIS PROJECT. THE DESIGN ENGINEER SHALL REVIEW THESE DETAILS PRIOR TO CONSTRUCTION. IT IS THE DESIGN ENGINEERS RESPONSIBILITY TO ENSURE THE DETAILS PROVIDED HEREIN MEETS OR EXCEEDS THE APPLICABLE NATIONAL, STATE, OR LOCAL REQUIREMENTS AND TO ENSURE THAT THE DETAILS PROVIDED HEREIN ARE ACCEPTABLE FOR THIS PROJECT.

REV.	DESCRIPTION	BY	MM/DD/YY	CHK'D
4	ADDED CLASS 3 MAX COVER COLUMN	RJS	01/27/17	

TRENCH INSTALLATION DETAIL (ASTM F2648)
DRAWING NUMBER: STD-101A

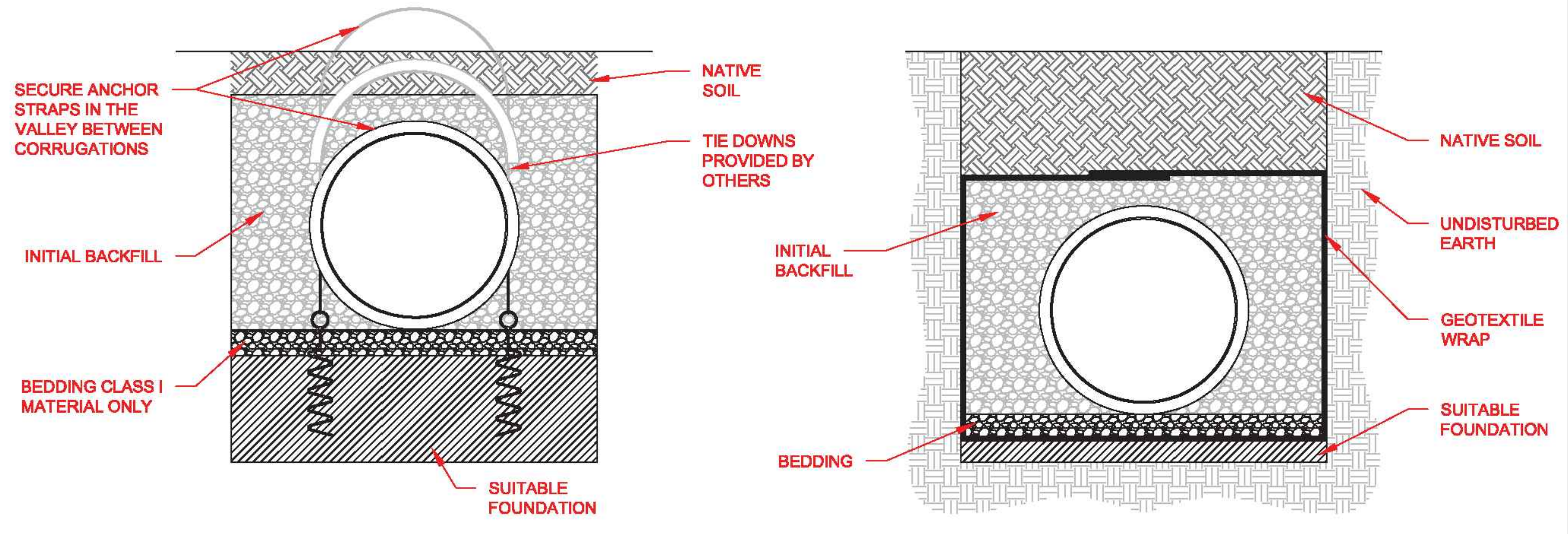
ADVANCED DRAINAGE SYSTEMS, INC.
4640 TRUEMAN BLVD
HILLIARD, OHIO 43026

JLE
8/15/13
NTS
1 OF 1

NOTES:

1. ANCHORING METHOD, DESIGN AND PLACEMENT TO BE DETERMINED BY THE PROJECT DESIGN ENGINEER

2. SEE STANDARD DETAIL 101 FOR PIPE INSTALLATION RECOMMENDATIONS


SECURE ANCHOR STRAPS IN THE VALLEY BETWEEN CORRUGATIONS
NATIVE SOIL
TIE DOWNS PROVIDED BY OTHERS
INITIAL BACKFILL
BEDDING CLASS I MATERIAL ONLY
SUITABLE FOUNDATION
NATIVE SOIL
UNDISTURBED EARTH
INITIAL BACKFILL
GEOTEXTILE WRAP
BEDDING
SUITABLE FOUNDATION

© 2016 ADS, INC.

ADVANCED DRAINAGE SYSTEMS, INC. ("ADS") HAS PREPARED THIS DETAIL BASED ON INFORMATION PROVIDED TO ADS. THIS DRAWING IS INTENDED TO DEPICT THE COMPONENTS AS REQUESTED. ADS HAS NOT PERFORMED ANY ENGINEERING OR DESIGN SERVICES FOR THIS PROJECT, NOR HAS ADS INDEPENDENTLY VERIFIED THE INFORMATION SUPPLIED. THE INSTALLATION DETAILS PROVIDED HEREIN ARE GENERAL RECOMMENDATIONS AND ARE NOT SPECIFIC FOR THIS PROJECT. THE DESIGN ENGINEER SHALL REVIEW THESE DETAILS PRIOR TO CONSTRUCTION. IT IS THE DESIGN ENGINEERS RESPONSIBILITY TO ENSURE THE DETAILS PROVIDED HEREIN MEETS OR EXCEEDS THE APPLICABLE NATIONAL, STATE, OR LOCAL REQUIREMENTS AND TO ENSURE THAT THE DETAILS PROVIDED HEREIN ARE ACCEPTABLE FOR THIS PROJECT.

REV.	DESCRIPTION	BY	MM/DD/YY	CHK'D
1	REV. DRAWING NAME OR NUMBER	TJR	01/28/16	

PIPE ANCHORING DETAIL
DRAWING NUMBER: STD–104

ADVANCED DRAINAGE SYSTEMS, INC.
4640 TRUEMAN BLVD
HILLIARD, OHIO 43026

TJR/CKS
10/18/06
NTS
1 OF 1

ENGINEERING SERVICES INC.
1207 SOUTH OLD MISSOURI RD.
SPRINGDALE, ARKANSAS 72764

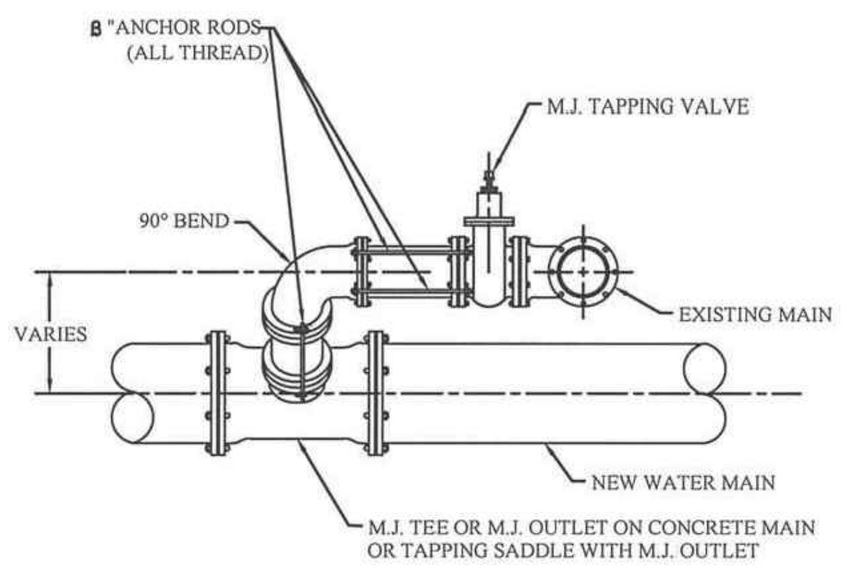
TYPICAL DETAILS
WESTBROOK SUBDIVISON – PHASE 2
TONTITOWN, ARKANSAS

REVISION	DATE	DESCRIPTION

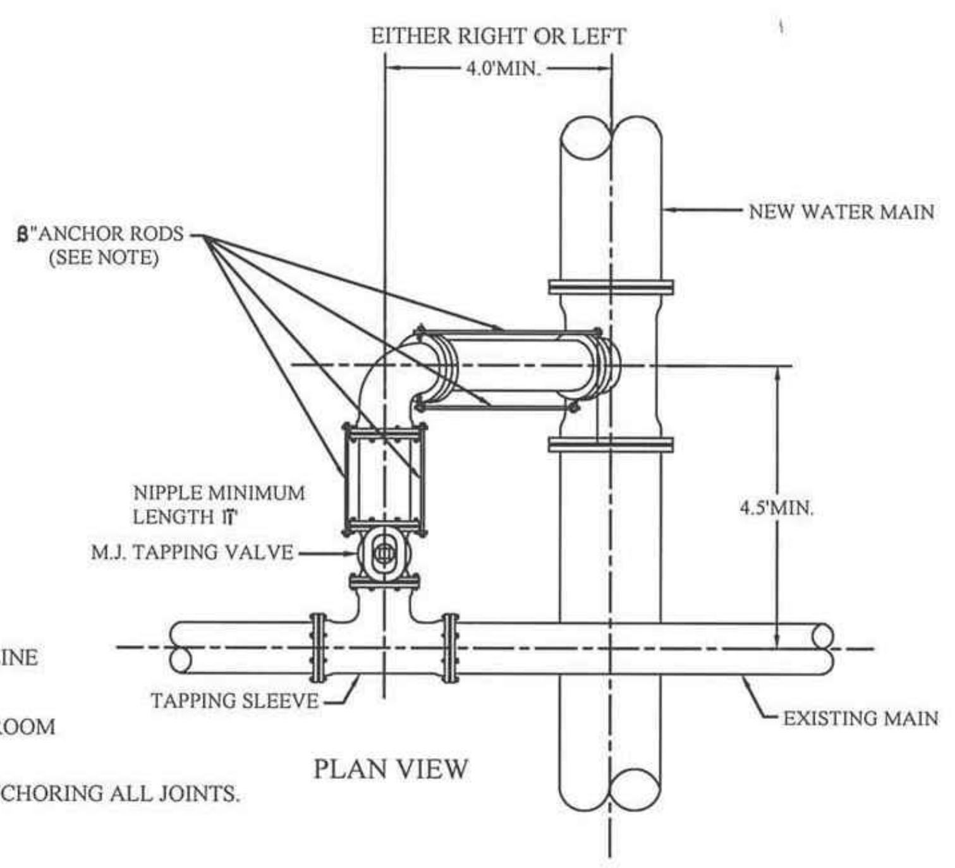
Z:\SUBD\17963 - WESTBROOK SUBD\17963 - TYPICAL DETAILS.DWG

SCALE: N.T.S.
DATE: NOV, 2017
ENGINEER: TJA
DRAWN BY: JRC
W.O. #: 17963

SWING CONNECTION - NEW MAIN TO EXISTING MAIN


β "ANCHOR RODS (ALL THREAD)
M.J. TAPPING VALVE
90° BEND
VARIES
EXISTING MAIN
NEW WATER MAIN
M.J. TEE OR M.J. OUTLET ON CONCRETE MAIN OR TAPPING SADDLE WITH M.J. OUTLET

SECTION VIEW


EITHER RIGHT OR LEFT
4.0'MIN.
NEW WATER MAIN
β"ANCHOR RODS (SEE NOTE)
NIPPLE MINIMUM LENGTH ḯ'
M.J. TAPPING VALVE
4.5'MIN.
TAPPING SLEEVE
EXISTING MAIN

PLAN VIEW

NOTES:

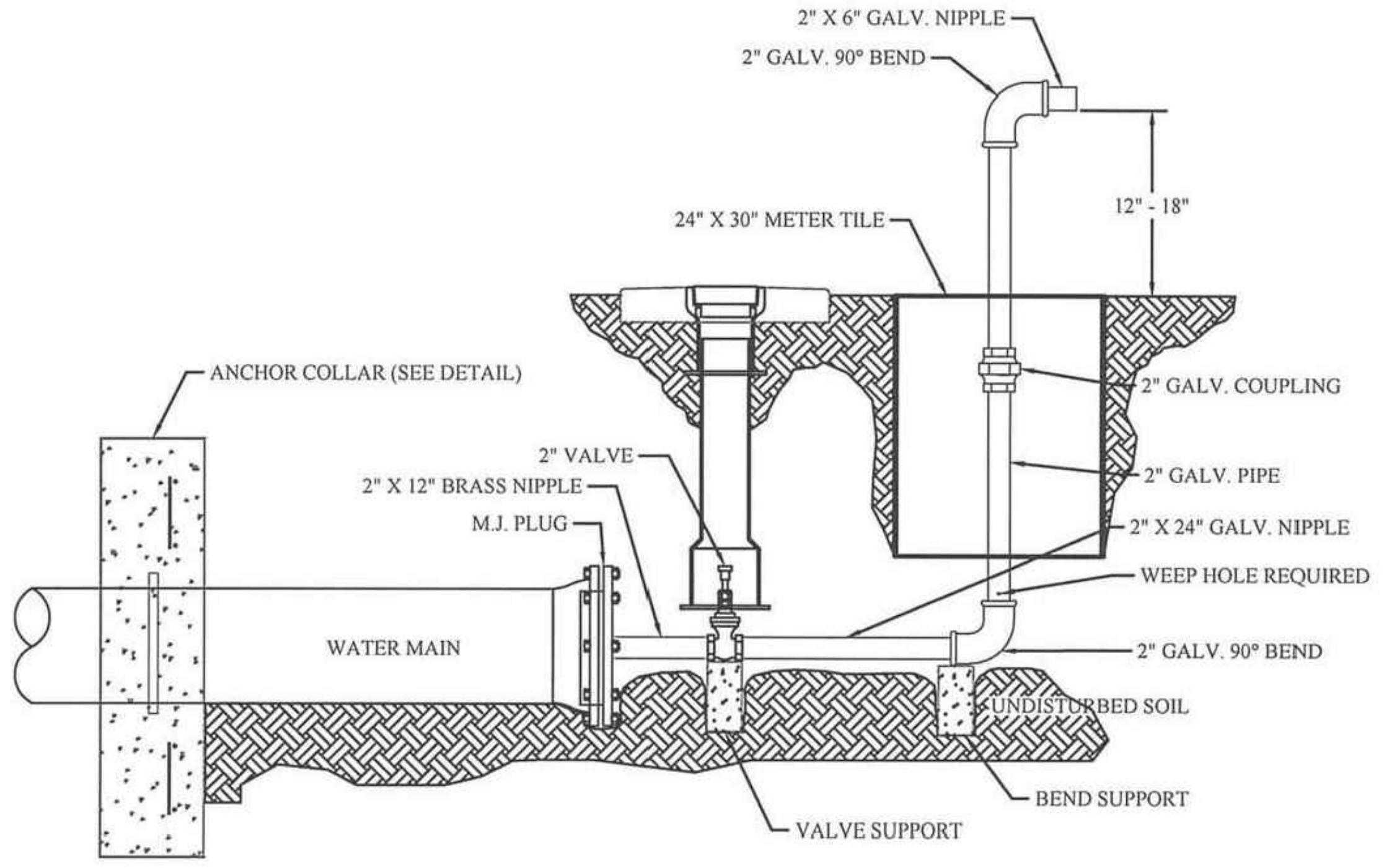
1. CONTRACTOR SHALL LOCATE EXISTING MAIN IN ADVANCE OF LAYING NEW LINE IN ORDER TO ASSURE ADEQUATE LENGTH TO ADJUST DEPTH OF NEW MAIN.
2. DIMENSIONS SHOWN ARE RECOMENDED MINIMUNS TO PROVIDE ADEQUATE ROOM FOR TIGHTENING BOLTS ON JOINTS. (OTHER DIMENSIONS MAY BE USED)
3. PROVIDE STAINLESS STEEL "ALL THREAD" TIE RODS WITH EYE BOLTS FOR ANCHORING ALL JOINTS.
4. RODS SHALL BE FIELD CUT TO FIT & SHALL BE PROTECTED WITH POLYWRAP.
5. ROTATE TEE UP & ELBOW DOWN AS REQUIRED TO MATCH.
6. USE TYPICAL CONCRETE BLOCKING REQUIRED.
7. SINGLE #14 GAUGE TYPE INSULATED COPPER TRACER WIRE IS REQUIRED ON ALL MAINS, PE WATER SERVICES OR OTHER APPURTENANCES

THRUST BLOCKING REQUIRED AT TEES AND ELBOWS.

PIPE SIZE	6"	8"	12"
RODS PER NIPPLE	2	2	4

CITY OF TONTITOWN		WATER DETAIL: W13	
		LAST REVISION DATE: 08/29/02	
DRAWN BY: CRB	CHECKED BY: ___	APPROVED: ___	DATE: 09/01/05

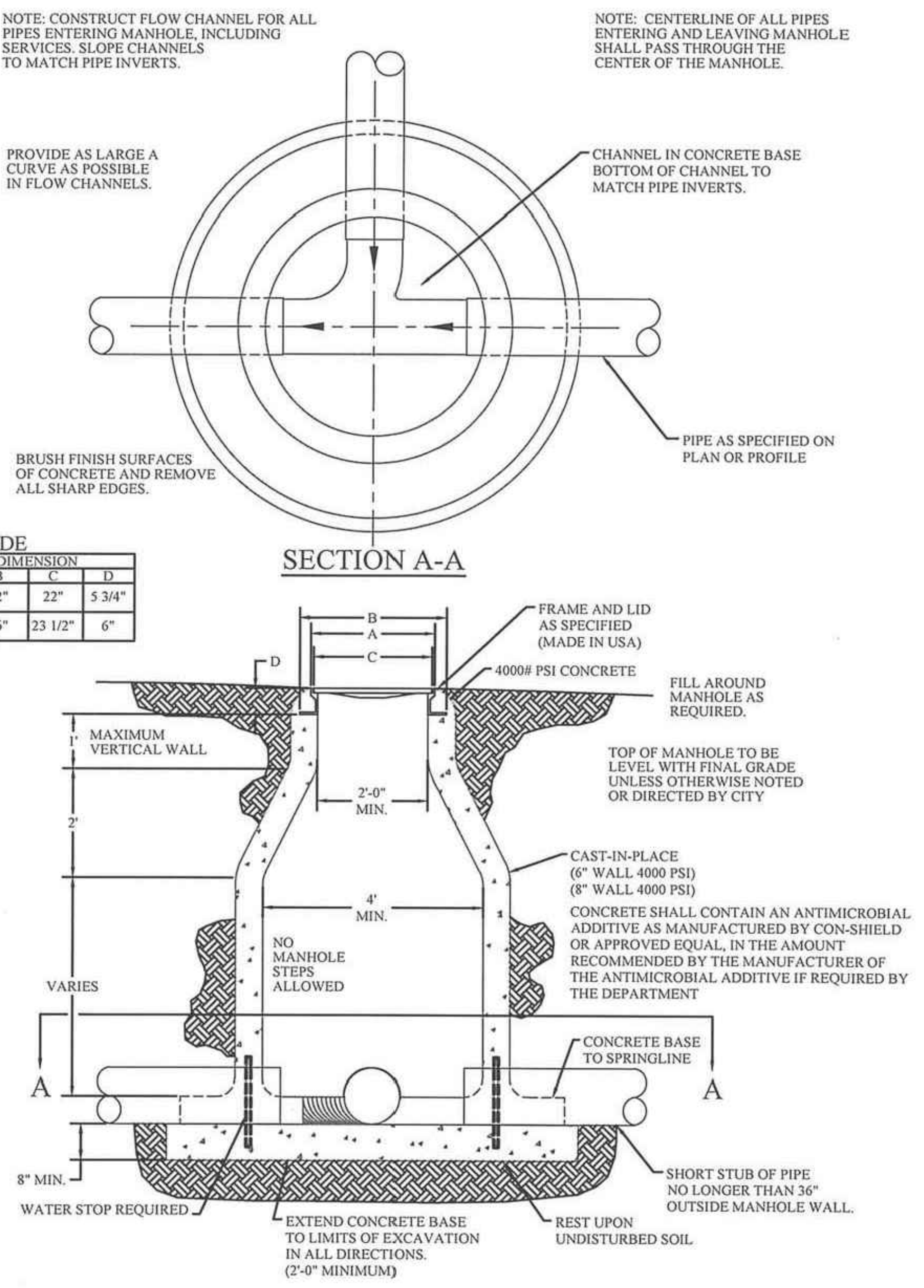
2" END BLOW OFF ASSEMBLY


2" X 6" GALV. NIPPLE
2" GALV. 90° BEND
12" - 18"
24" X 30" METER TILE
ANCHOR COLLAR (SEE DETAIL)
2" GALV. COUPLING
2" VALVE
2" X 12" BRASS NIPPLE
M.J. PLUG
2" GALV. PIPE
2" X 24" GALV. NIPPLE
WEEP HOLE REQUIRED
WATER MAIN
2" GALV. 90° BEND
UNDISTURBED SOIL
BEND SUPPORT
VALVE SUPPORT

NOTES:
1. END BLOW OFF'S TO BE INSTALLED AS REQUIRED BY THE PLANS.
2. ALL THREADED OUTLETS SHALL HAVE A DOUBLE WRAP OF TEFLON TAPE ON THREADS.
3. VALVE BOXES SHALL BE INSTALLED ON ALL BLOW OFF VALVES.
4. SINGLE #14 GAUGE TYPE INSULATED COPPER TRACER WIRE IS REQUIRED ON ALL MAINS, PE WATER SERVICES, OR OTHER APPURTENANCES.

CITY OF TONTITOWN		WATER DETAIL: W08	
		LAST REVISION DATE: 08/29/02	
DRAWN BY: CRB	CHECKED BY: ___	APPROVED: ___	DATE: 09/01/05

SANITARY SEWER MANHOLE CAST-IN-PLACE


NOTE: CONSTRUCT FLOW CHANNEL FOR ALL PIPES ENTERING MANHOLE, INCLUDING SERVICES. SLOPE CHANNELS TO MATCH PIPE INVERTS.
NOTE: CENTERLINE OF ALL PIPES ENTERING AND LEAVING MANHOLE SHALL PASS THROUGH THE CENTER OF THE MANHOLE.
PROVIDE AS LARGE A CURVE AS POSSIBLE IN FLOW CHANNELS.
CHANNEL IN CONCRETE BASE BOTTOM OF CHANNEL TO MATCH PIPE INVERTS.
PIPE AS SPECIFIED ON PLAN OR PROFILE
BRUSH FINISH SURFACES OF CONCRETE AND REMOVE ALL SHARP EDGES.
SECTION A-A
B
A
C
D
FRAME AND LID AS SPECIFIED (MADE IN USA)
4000# PSI CONCRETE
FILL AROUND MANHOLE AS REQUIRED.
1'
MAXIMUM VERTICAL WALL
TOP OF MANHOLE TO BE LEVEL WITH FINAL GRADE UNLESS OTHERWISE NOTED OR DIRECTED BY CITY
2'-0" MIN.
2'
CAST-IN-PLACE (6" WALL 4000 PSI) (8" WALL 4000 PSI)
4' MIN.
CONCRETE SHALL CONTAIN AN ANTIMICROBIAL ADDITIVE AS MANUFACTURED BY CON-SHIELD OR APPROVED EQUAL, IN THE AMOUNT RECOMMENDED BY THE MANUFACTURER OF THE ANTIMICROBIAL ADDITIVE IF REQUIRED BY THE DEPARTMENT
NO MANHOLE STEPS ALLOWED
VARIES
CONCRETE BASE TO SPRINGLINE
A
A
8" MIN.
WATER STOP REQUIRED
EXTEND CONCRETE BASE TO LIMITS OF EXCAVATION IN ALL DIRECTIONS. (2'-0" MINIMUM)
REST UPON UNDISTURBED SOIL
SHORT STUB OF PIPE NO LONGER THAN 36" OUTSIDE MANHOLE WALL.

USA MADE

MANHOLE COVER DIMENSION				
WEIGHT	A	B	C	D
STANDARD 256	25"	32"	22"	5 3/4"
WATER TIGHT 385	26 1/2"	36"	23 1/2"	6"

ALL MANHOLES CONSTRUCTED SHALL BE CAST-IN-PLACE IN ACCORDANCE WITH THE METHODS OUTLINED IN SECTION 17. THE USE OF PRE-CAST MANHOLES IS EXPRESSLY PROHIBITED UNLESS APPROVED ON A CASE BY CASE BASIS BY THE DEPARTMENT.

CITY OF TONTITOWN		SANITARY SEWER DETAIL: SS01	
		LAST REVISION DATE: 03/18/16	
DRAWN BY: FCN	CHECKED BY: TWC	APPROVED: ___	DATE: 09/01/05

REACTION BACKING TABLE

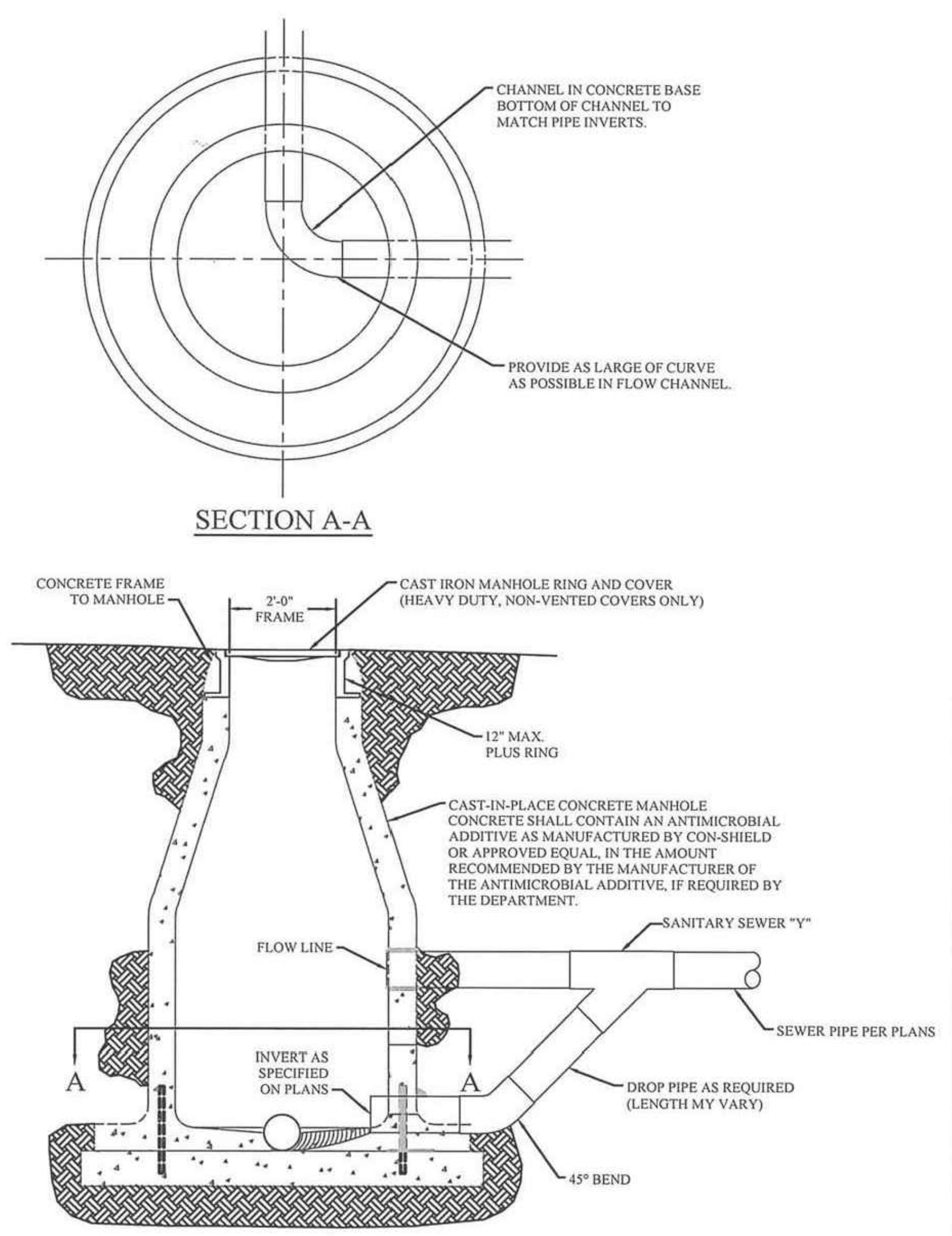
SIZE	REQUIRED SQ. FT. OF UNDISTURBED EARTHWALL FOR REACTION BACKING					
	TYPE OF FITTINGS					
	TEE	90°	45°	22 1/2°	11 1/4°	PLUG
2"	1	1	1	1	1	1
3"	1	1	1	1	1	1
4"	1	2	1	1	1	2
6"	3	3	2	1	1	3
8"	4	6	3	2	1	4
10"	6	8	5	3	1	6
12"	8	12	6	3	2	8
14"	11	16	9	4	2	11
16"	14	20	11	6	3	14
18"	18	25	14	7	4	18
20"	22	31	17	9	4	22
24"	32	45	24	12	6	32
30"	48	68	37	19	10	48
36"	69	98	53	27	14	69

NOTES:

1. ALL FITTINGS SHALL BE MECHANICAL JOINTS.
2. DO NOT COVER BELLS OR FLANGES WITH CONCRETE.
3. WRAP ALL FITTINGS WITH POLY WRAP.
4. BACK ALL TEES ACCORDING TO SIZE OF BRANCH.
5. BACKING FUTURE LINE EXTENSIONS SHALL BE SUCH THAT LATER REMOVAL IS POSSIBLE.
6. ALL BENDS WHERE FITTINGS ARE USED, BOTH HORIZONTAL OR VERTICAL, SHALL BE BACKED.
7. REACTION BACKING TABLE IS BASED ON 150 PSI AND SOIL BEARING PRESSURE OF 2,000 LB/SQ. FT. ADDITIONAL BACKING MAY BE REQUIRED IN SOME AREAS AS REQUIRED BY CITY WATER DEPARTMENT.

CITY OF TONTITOWN		GEN. WATER/SEWER DETAIL: GWS10	
		LAST REVISION DATE: 08/29/02	
DRAWN BY: CRB	CHECKED BY: ___	APPROVED: ___	DATE: 09/01/05

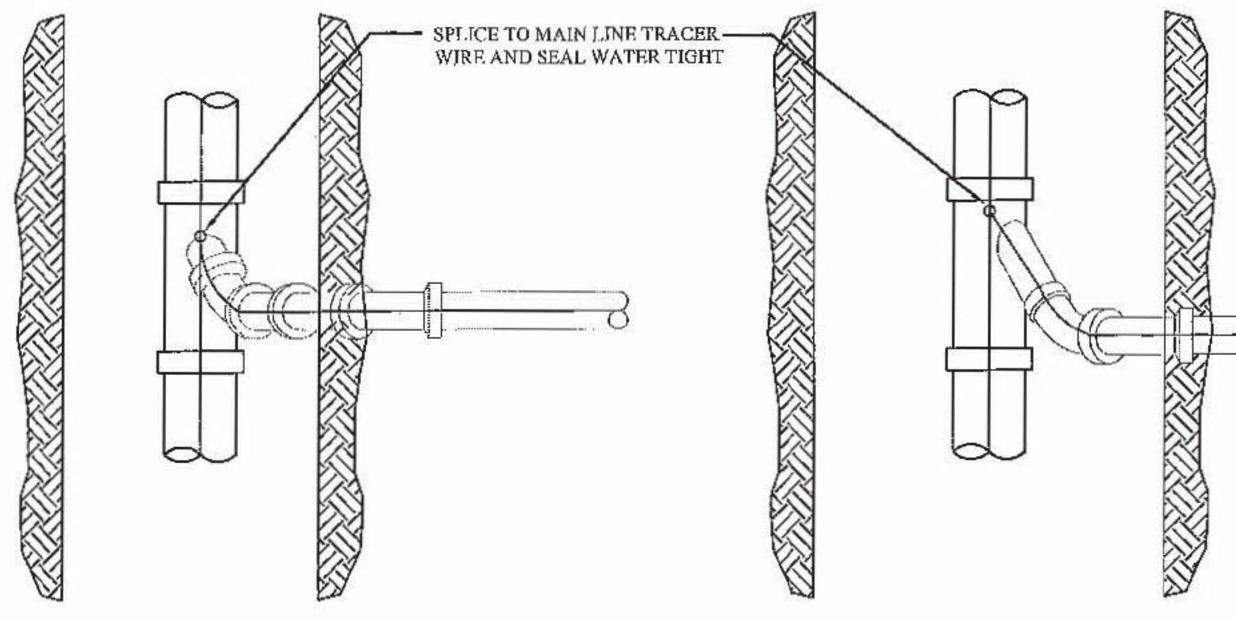
SANITARY SEWER EXTERIOR DROP MANHOLE


CHANNEL IN CONCRETE BASE BOTTOM OF CHANNEL TO MATCH PIPE INVERTS.
PROVIDE AS LARGE OF CURVE AS POSSIBLE IN FLOW CHANNEL.
SECTION A-A
CONCRETE FRAME TO MANHOLE
2'-0" FRAME
CAST IRON MANHOLE RING AND COVER (HEAVY DUTY, NON-VENTED COVERS ONLY)
12" MAX. PLUS RING
CAST-IN-PLACE CONCRETE MANHOLE CONCRETE SHALL CONTAIN AN ANTIMICROBIAL ADDITIVE AS MANUFACTURED BY CON-SHIELD OR APPROVED EQUAL, IN THE AMOUNT RECOMMENDED BY THE MANUFACTURER OF THE ANTIMICROBIAL ADDITIVE, IF REQUIRED BY THE DEPARTMENT.
SANITARY SEWER "Y"
FLOW LINE
SEWER PIPE PER PLANS
INVERT AS SPECIFIED ON PLANS
A
A
DROP PIPE AS REQUIRED (LENGTH MY VARY)
45° BEND

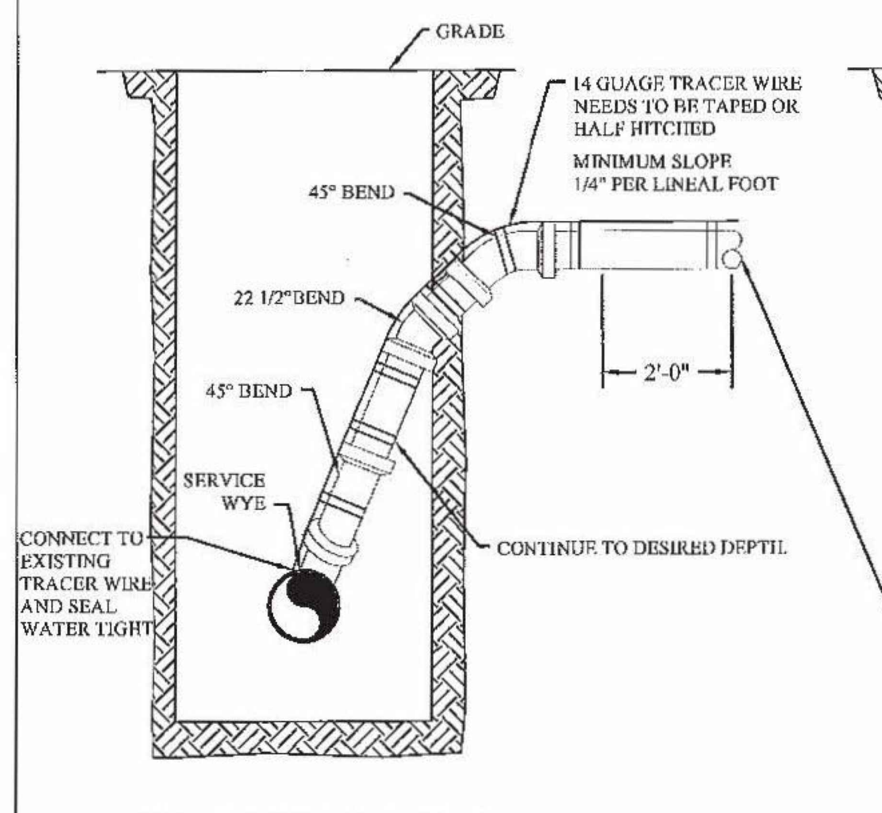
ALL MANHOLES CONSTRUCTED SHALL BE CAST-IN-PLACE IN ACCORDANCE WITH THE METHODS OUTLINED IN SECTION 17. THE USE OF PRE-CAST MANHOLES IS EXPRESSLY PROHIBITED UNLESS APPROVED ON A CASE BY CASE BASIS BY THE DEPARTMENT.

CITY OF TONTITOWN		SANITARY SEWER DETAIL: SS03	
		LAST REVISION DATE: 03/18/16	
DRAWN BY: CRB	CHECKED BY: TWC	APPROVED: ___	DATE: 09/01/05

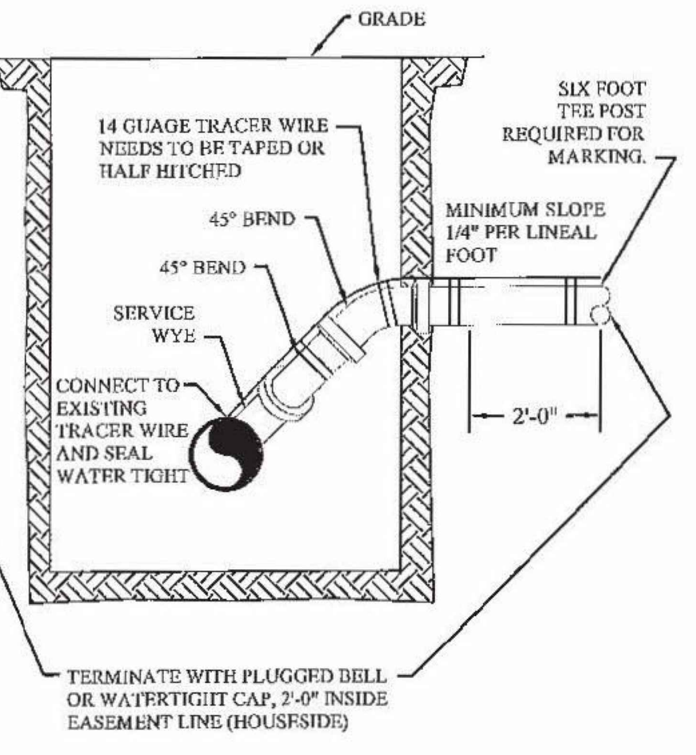
SANITARY SEWER SERVICE WYE


SPLICE TO MAIN LINE TRACER WIRE AND SEAL WATER TIGHT

NOTE: SEE BACKFILL DETAIL FOR BEDDING AND BACKFILL INSTRUCTIONS.


GRADE
14 GUAGE TRACER WIRE NEEDS TO BE TAPED OR HALF HITCHED
MINIMUM SLOPE 1/4" PER LINEAL FOOT
45° BEND
22 1/2°BEND
2'-0"
45° BEND
SERVICE WYE
CONNECT TO EXISTING TRACER WIRE AND SEAL WATER TIGHT
CONTINUE TO DESIRED DEPTH

RISER FROM DEEP MAIN


GRADE
14 GUAGE TRACER WIRE NEEDS TO BE TAPED OR HALF HITCHED
SIX FOOT TEE POST REQUIRED FOR MARKING.
45° BEND
MINIMUM SLOPE 1/4" PER LINEAL FOOT
45° BEND
SERVICE WYE
CONNECT TO EXISTING TRACER WIRE AND SEAL WATER TIGHT
2'-0"
TERMINATE WITH PLUGGED BELL OR WATERTIGHT CAP, 2'-0" INSIDE EASEMENT LINE (HOUSESIDE)

NORMAL DEPTH

NOTE: SEE PLANS FOR PIPE SIZES

CITY OF TONTITOWN		SANITARY SEWER DETAIL: SS06	
		LAST REVISION DATE: 09/01/05	
DRAWN BY: FCN	CHECKED BY: ___	APPROVED: ___	DATE: 09/21/07

ENGINEERING SERVICES INC.
1207 SOUTH OLD MISSOURI RD.
SPRINGDALE, ARKANSAS 72764

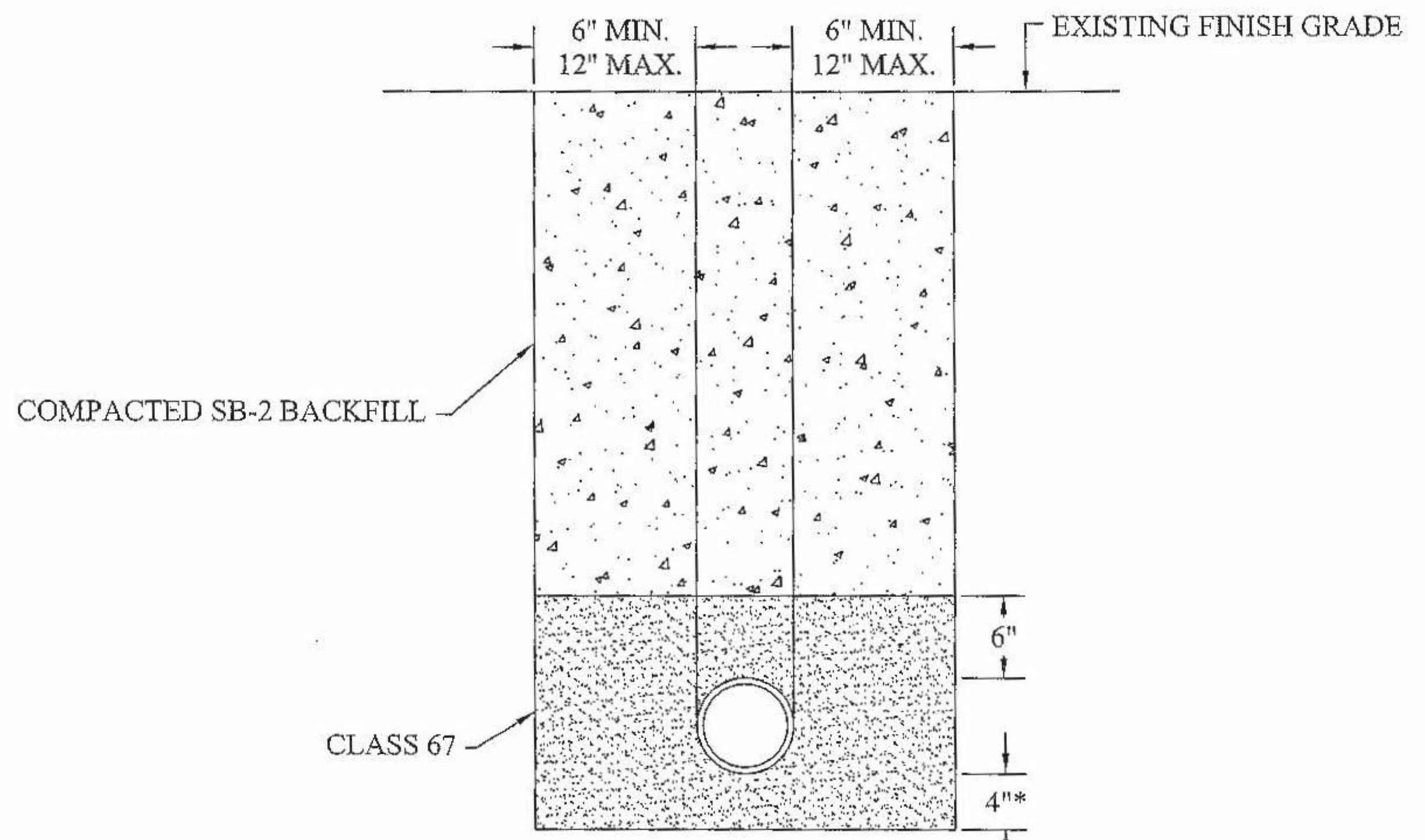
WATER & SEWER DETAILS
WESTBROOK SUBDIVISON – PHASE 2
TONTITOWN, ARKANSAS

REVISION	DATE	DESCRIPTION

Z:\SUBD\17963 - WESTBROOK SUBD\17963 - W&S DETAILS.DWG

SCALE: N.T.S.
DATE: NOV, 2017
ENGINEER: TJA
DRAWN BY: JRC
W.O. #: 17963

UNIMPROVED ROADS & DRIVEWAYS-PRIVATE DRIVEWAYS & PARKING AREAS

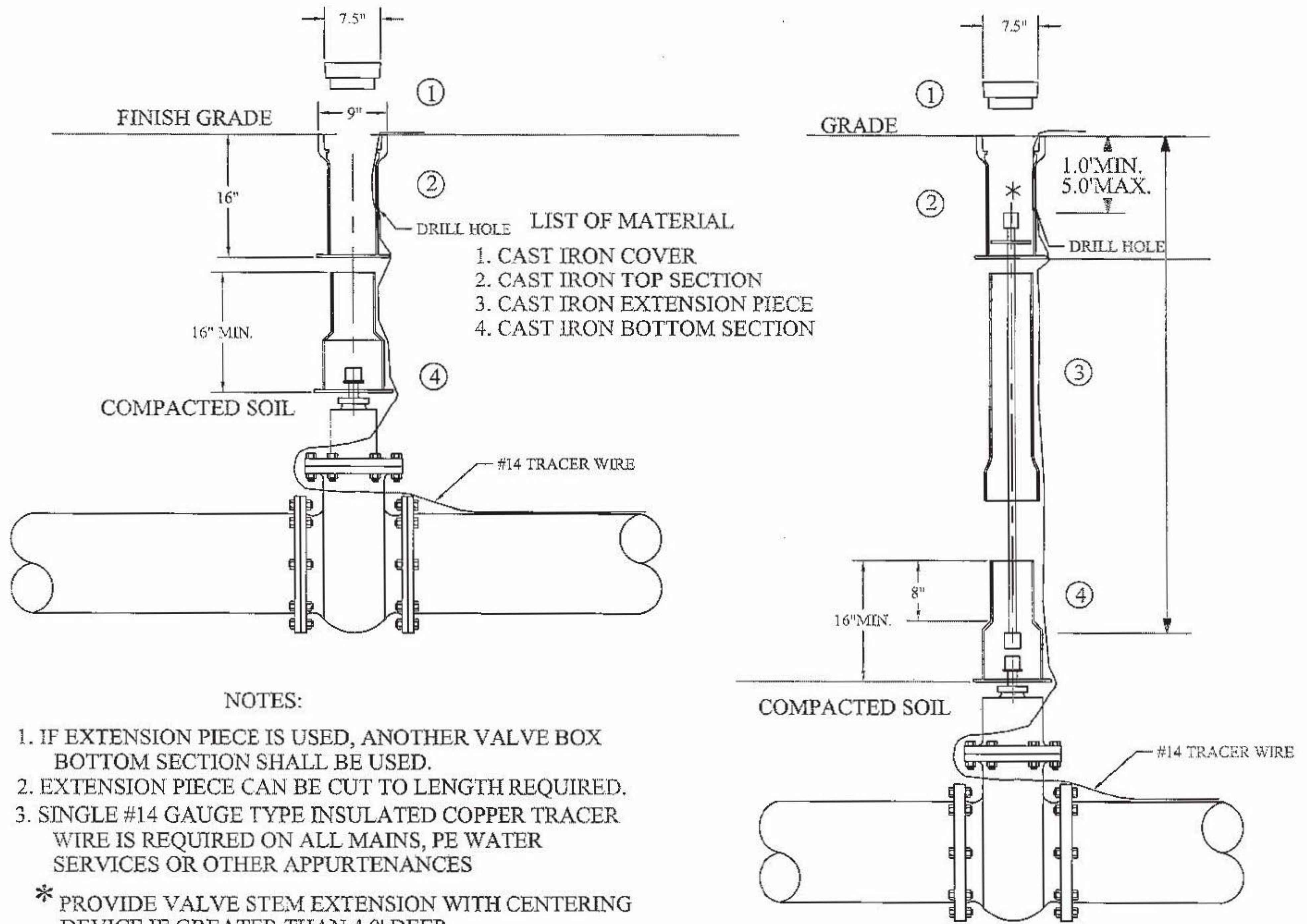

6" MIN.
12" MAX.
6" MIN.
12" MAX.
EXISTING FINISH GRADE
COMPACTED SB-2 BACKFILL
6"
CLASS 67
4"*

* IF IN ROCK 6" MIN. CLASS #67 STONE REQUIRED. **AND SHALL COMPLY WITH AWWA C-605**
** IMPROVED PRIVATE DRIVEWAYS AND PARKING AREAS BACKFILLED AS SHOWN ABOVE.
SUBSURFACE MATERIAL TO EQUAL OR EXCEED EXISTING SURFACE.
ASPHALTIC CONCRETE WALKS - MINIMUM THICKNESS 4"
CONCRETE DRIVES OR PARKING AREAS - MINIMUM THICKNESS 6".

NOTE: PRIVATE PARKING AREAS, DRIVEWAYS & WALKS-SEE UNIMPROVED ROADS

CITY OF TONTITOWN		GEN. WATER/SEWER DETAIL: GWS09	
		LAST REVISION DATE: 08/29/02	
DRAWN BY: CRB	CHECKED BY: ___	APPROVED: ___	DATE: 09/01/05

VALVE BOX INSTALLATION


7.5"
①
FINISH GRADE
9"
16"
②
DRILL HOLE
16" MIN.
④
COMPACTED SOIL
#14 TRACER WIRE
7.5"
①
GRADE
②
*
1.0'MIN.
5.0'MAX.
DRILL HOLE
③
8"
16"MIN.
④
COMPACTED SOIL
#14 TRACER WIRE

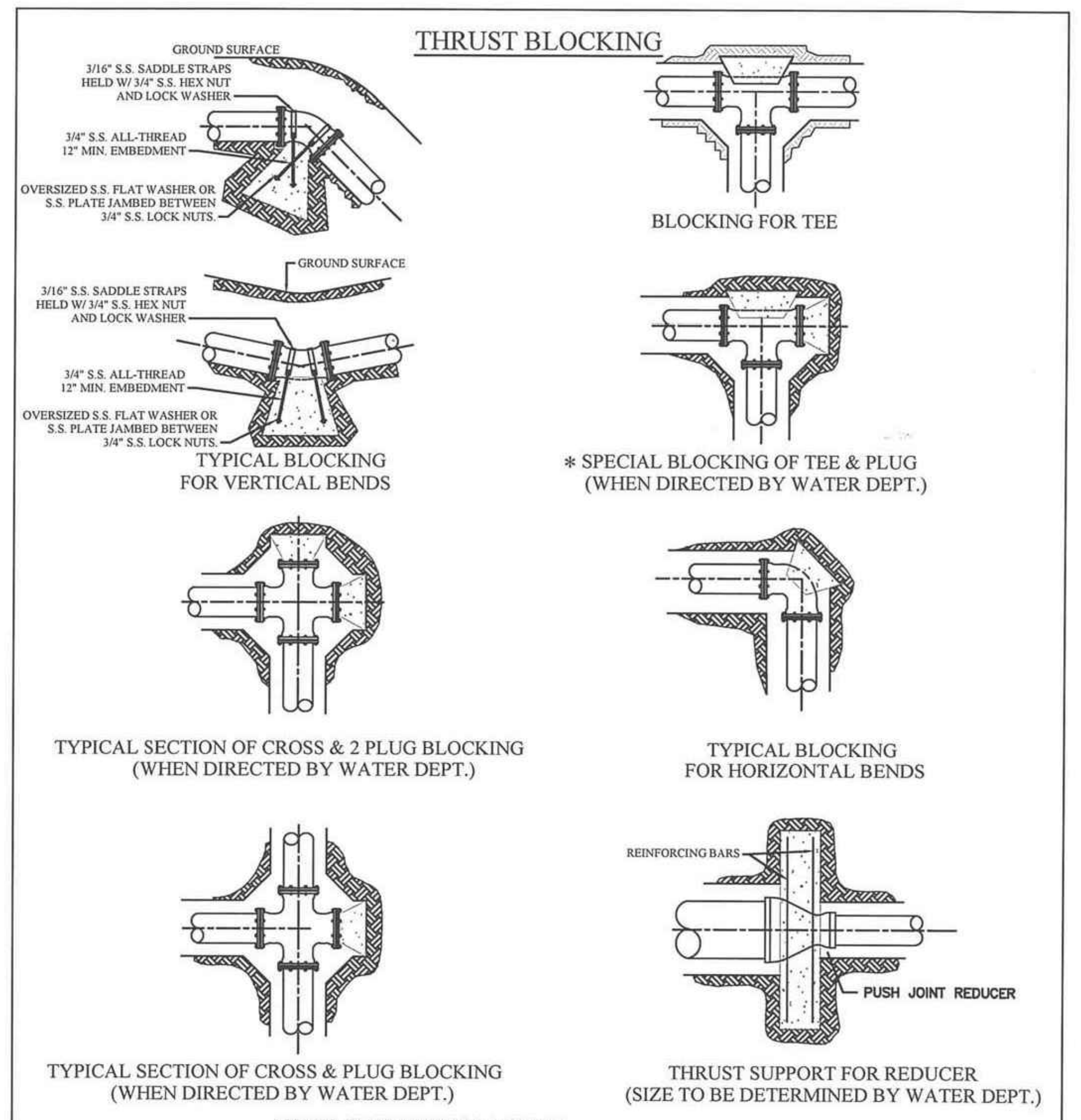
LIST OF MATERIAL
1. CAST IRON COVER
2. CAST IRON TOP SECTION
3. CAST IRON EXTENSION PIECE
4. CAST IRON BOTTOM SECTION

NOTES:
1. IF EXTENSION PIECE IS USED, ANOTHER VALVE BOX BOTTOM SECTION SHALL BE USED.
2. EXTENSION PIECE CAN BE CUT TO LENGTH REQUIRED.
3. SINGLE #14 GAUGE TYPE INSULATED COPPER TRACER WIRE IS REQUIRED ON ALL MAINS, PE WATER SERVICES OR OTHER APPURTENANCES

* PROVIDE VALVE STEM EXTENSION WITH CENTERING DEVICE IF GREATER THAN 4.0' DEEP.

CITY OF TONTITOWN		WATER DETAIL: W07	
		LAST REVISION DATE: 08/29/02	
DRAWN BY: CRB	CHECKED BY: ___	APPROVED: ___	DATE: 09/01/05

THRUST BLOCKING

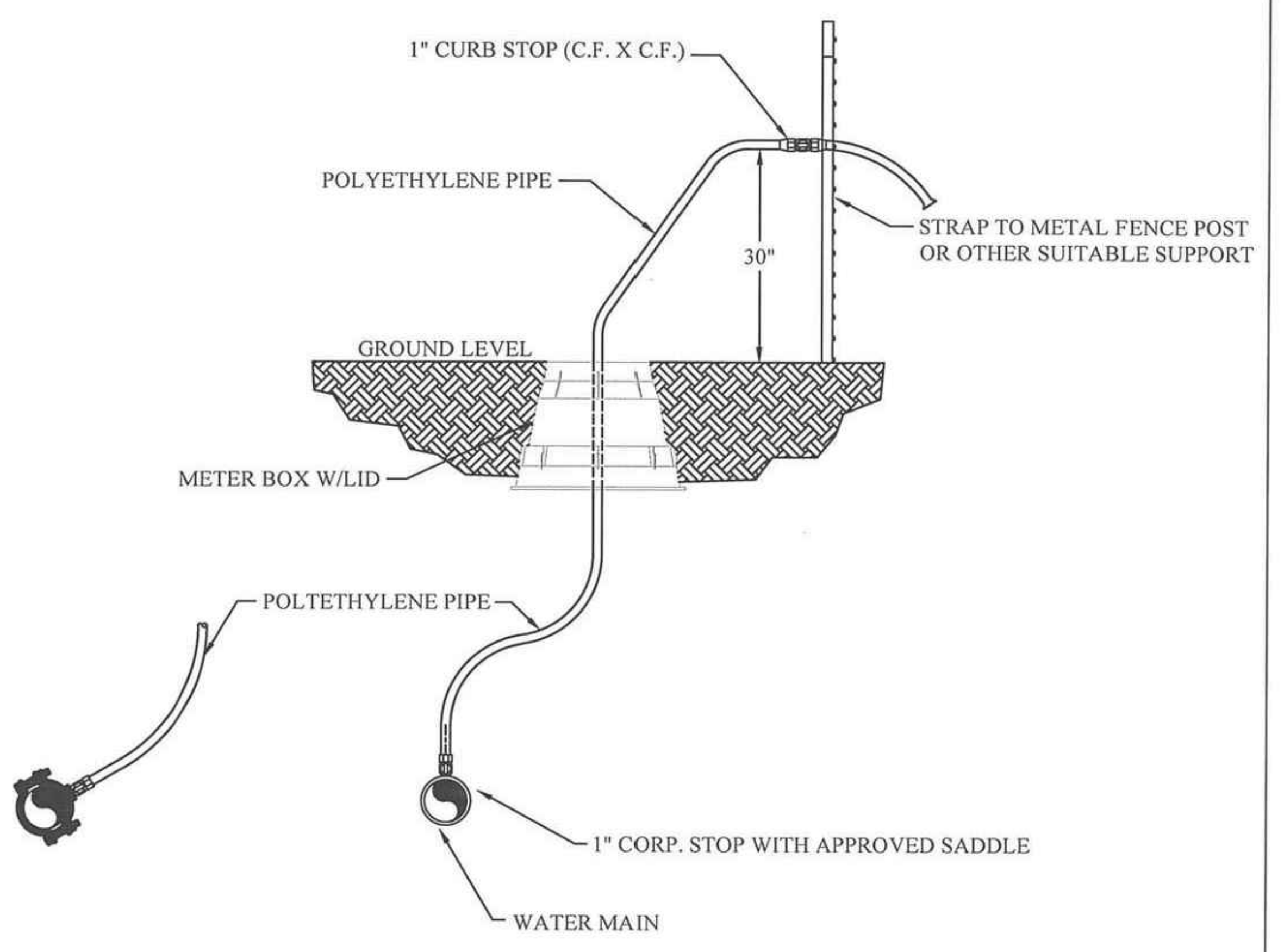

GROUND SURFACE
3/16" S.S. SADDLE STRAPS HELD W/ 3/4" S.S. HEX NUT AND LOCK WASHER
3/4" S.S. ALL-THREAD 12" MIN. EMBEDMENT
OVERSIZED S.S. FLAT WASHER OR S.S. PLATE JAMBED BETWEEN 3/4" S.S. LOCK NUTS.
BLOCKING FOR TEE
GROUND SURFACE
3/16" S.S. SADDLE STRAPS HELD W/ 3/4" S.S. HEX NUT AND LOCK WASHER
3/4" S.S. ALL-THREAD 12" MIN. EMBEDMENT
OVERSIZED S.S. FLAT WASHER OR S.S. PLATE JAMBED BETWEEN 3/4" S.S. LOCK NUTS.
TYPICAL BLOCKING FOR VERTICAL BENDS
* SPECIAL BLOCKING OF TEE & PLUG (WHEN DIRECTED BY WATER DEPT.)
TYPICAL SECTION OF CROSS & 2 PLUG BLOCKING (WHEN DIRECTED BY WATER DEPT.)
TYPICAL BLOCKING FOR HORIZONTAL BENDS
REINFORCING BARS
PUSH JOINT REDUCER
TYPICAL SECTION OF CROSS & PLUG BLOCKING (WHEN DIRECTED BY WATER DEPT.)
THRUST SUPPORT FOR REDUCER (SIZE TO BE DETERMINED BY WATER DEPT.)

NOTES ON THRUST BLOCKING

1. ALL BLOCKING SHALL BE AGAINST UNDISTURBED SOIL USING 3,000 PSI CONCRETE.
2. WHERE SOIL CONDITIONS MAKE IT NECESSARY TO POUR CONCRETE OVER JOINTS, THE ENDS OF THE ADJACENT PIPES MUST HAVE A THRUST BLOCK TO RESIST MOVEMENT OF THESE JOINTS.
3. WEIGHT CALCULATIONS TO BE BASED ON REACTION BACKING TABLE (SEE GWS10).
4. WHEN BLOCKING AGAINST FITTINGS, FITTINGS SHALL BE COVERED WITH POLYETHYLENE TUBING TO PREVENT BONDING OF CONCRETE.
5. WHERE SHEAR BECOMES A PROBLEM PROPER REINFORCING MUST BE INSTALLED INTO THE BLOCKING.
6. CLEARANCE SHALL BE A MINIMUM OF 6" BETWEEN PIPE AND OBSTRUCTIONS.
7. CLEARANCE ON PIPES BELONGING TO OIL/GAS COMPANIES SHALL BE 18" UNLESS SPECIAL PERMISSION IS GIVEN BY THESE COMPANIES.

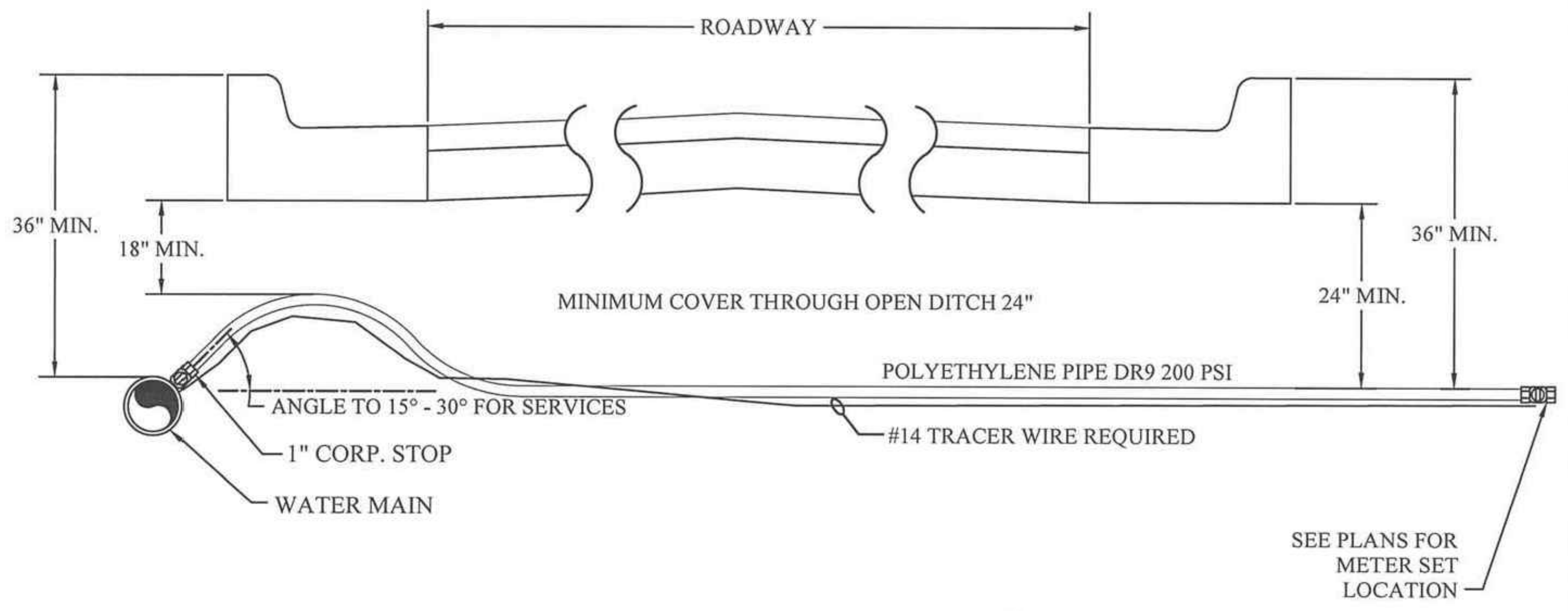
CITY OF TONTITOWN		GEN. WATER/SEWER DETAIL: GWS02	
		LAST REVISION DATE: 08/29/02	
DRAWN BY: CRB	CHECKED BY: ___	APPROVED: ___	DATE: 09/01/05

TEMPORARY 1" BLOW OFF ASSEMBLY / SAMPLE POINTS


1" CURB STOP (C.F. X C.F.)
POLYETHYLENE PIPE
30"
STRAP TO METAL FENCE POST OR OTHER SUITABLE SUPPORT
GROUND LEVEL
METER BOX W/LID
POLTETHYLENE PIPE
1" CORP. STOP WITH APPROVED SADDLE
WATER MAIN

CITY OF TONTITOWN		WATER DETAIL: W01	
		LAST REVISION DATE: 08/29/02	
DRAWN BY: CRB	CHECKED BY: ___	APPROVED: ___	DATE: 09/01/05

1" SERVICE CONNECTIONS

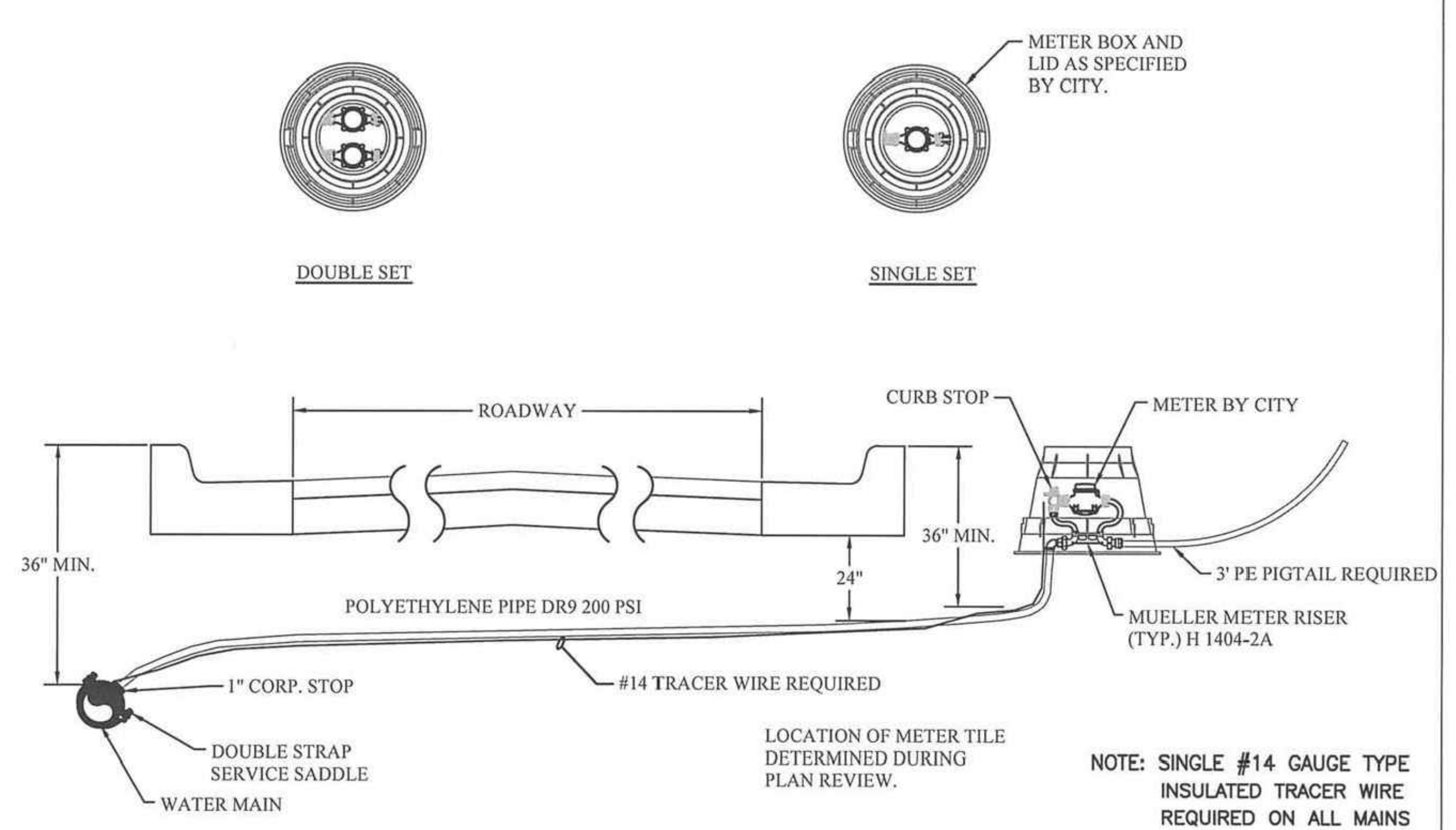

ROADWAY
36" MIN.
18" MIN.
MINIMUM COVER THROUGH OPEN DITCH 24"
24" MIN.
36" MIN.
POLYETHYLENE PIPE DR9 200 PSI
ANGLE TO 15° - 30° FOR SERVICES
1" CORP. STOP
#14 TRACER WIRE REQUIRED
WATER MAIN
SEE PLANS FOR METER SET LOCATION

NOTE: SERVICE CROSSINGS UNDER STREETS AND ROADWAYS MUST BE ENCASED IN A 2" PVC OR PE PIPE.

NOTE: SINGLE #14 GAUGE TYPE INSULATED TRACER WIRE REQUIRED ON ALL MAINS PE WATER SERVICES OR OTHER APPURTENANCES

CITY OF TONTITOWN		WATER DETAIL: W03	
		LAST REVISION DATE: 03/18/16	
DRAWN BY: CRB	CHECKED BY: ___	APPROVED: ___	DATE: 09/01/05

WATER SERVICE DETAIL 1"


METER BOX AND LID AS SPECIFIED BY CITY.
DOUBLE SET
SINGLE SET
ROADWAY
CURB STOP
METER BY CITY
36" MIN.
36" MIN.
24"
3' PE PIGTAIL REQUIRED
POLYETHYLENE PIPE DR9 200 PSI
MUELLER METER RISER (TYP.) H 1404-2A
1" CORP. STOP
#14 TRACER WIRE REQUIRED
DOUBLE STRAP SERVICE SADDLE
WATER MAIN

LOCATION OF METER TILE DETERMINED DURING PLAN REVIEW.

NOTE: SINGLE #14 GAUGE TYPE INSULATED TRACER WIRE REQUIRED ON ALL MAINS PE WATER SERVICES OR OTHER APPURTENANCES

NOTE: SERVICE CROSSINGS UNDER STREETS AND ROADWAYS MUST BE ENCASED IN A 2" PVC OR PE PIPE.

CITY OF TONTITOWN		WATER DETAIL: W02	
		LAST REVISION DATE: 03/18/16	
DRAWN BY: CRB	CHECKED BY: ___	APPROVED: ___	DATE: 09/01/05

ENGINEERING SERVICES INC.
1207 SOUTH OLD MISSOURI RD.
SPRINGDALE, ARKANSAS 72764

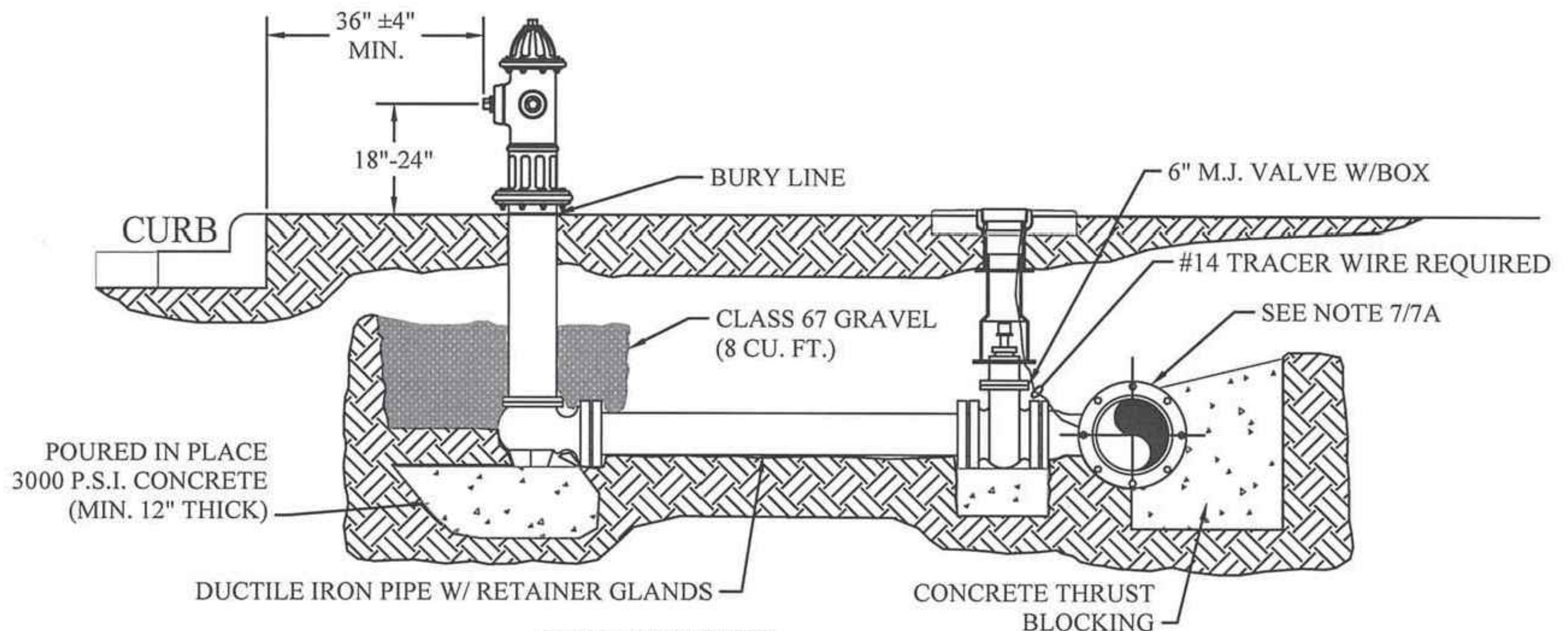
WATER & SEWER DETAILS
WESTBROOK SUBDIVISON – PHASE 2
TONTITOWN, ARKANSAS

REVISION	DATE	DESCRIPTION

Z:\SUBD\17963 - WESTBROOK SUBD\17963 - W&S DETAILS.DWG

SCALE: N.T.S.
DATE: NOV, 2017
ENGINEER: TJA
DRAWN BY: JRC
W.O. #: 17963

FIRE HYDRANT DETAIL W/DUCTILE IRON PIPE AND RETAINER GLANDS


36" ±4"
MIN.
18"-24"
CURB
BURY LINE
6" M.J. VALVE W/BOX
#14 TRACER WIRE REQUIRED
SEE NOTE 7/7A
CLASS 67 GRAVEL
(8 CU. FT.)
POURED IN PLACE
3000 P.S.I. CONCRETE
(MIN. 12" THICK)
DUCTILE IRON PIPE W/ RETAINER GLANDS
CONCRETE THRUST
BLOCKING

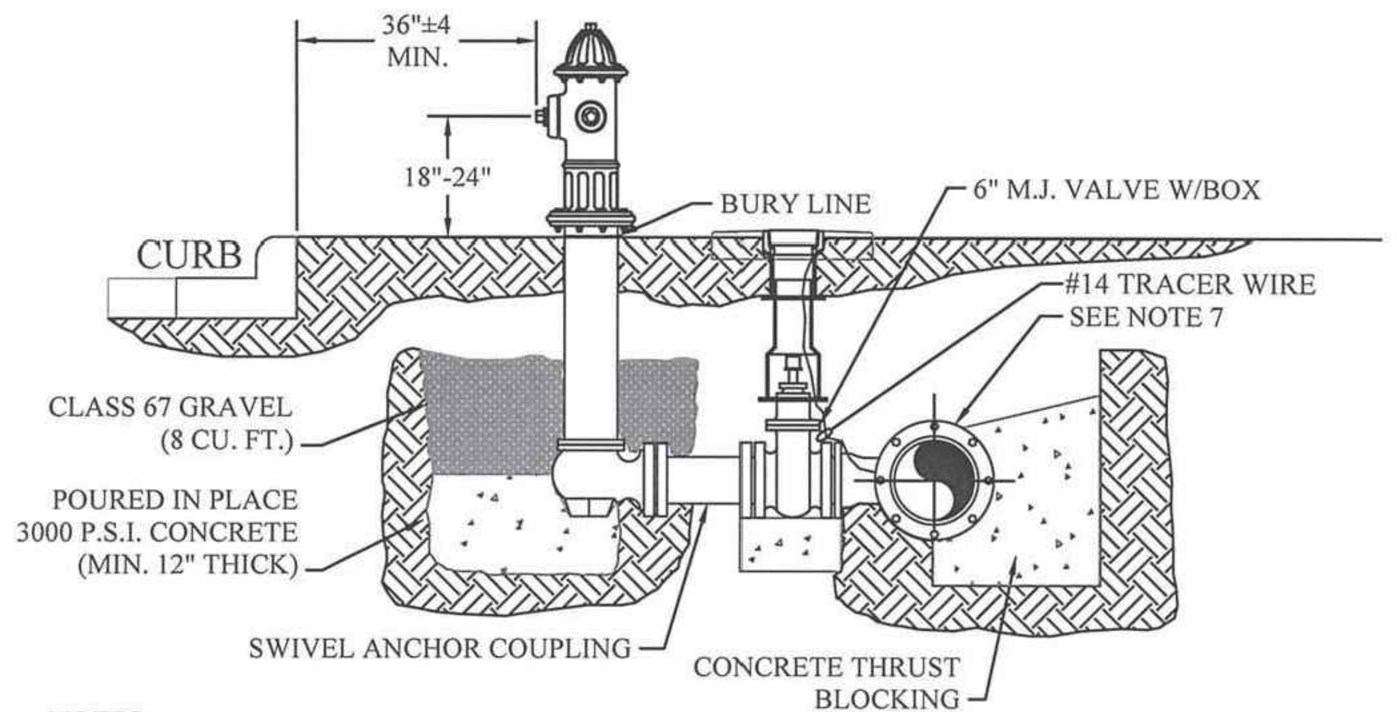
ELEVATION VIEW

NOTES:

1. DRAINAGE BED SHALL CONSIST OF 8 CU FT OF CLASS 67 GRAVEL. **AND SHALL COMPLY WITH AWWA C-605**
2. USE 6" D.I. NIPPLE WITH M.J. RETAINER GLANDS IF DISTANCE BETWEEN VALVE AND HYDRANT MUST BE GREATER THAN 13" SWIVEL ADAPTER.
3. FIRE HYDRANT TO BE BLOCKED AGAINST FIRM SOIL AS SHOWN.
4. ALL HYDRANTS SHALL BE INSTALLED PLUMB.
5. LARGE NOZZLE SHALL FACE CURB UNLESS OTHER-WISE NOTED. ROTATE BARREL AS REQUIRED.
6. HYDRANT SHOULD NOT BE SET CLOSER THAN 4.0' TO OBSTRUCTIONS THAT ARE IN LINE WITH NOZZLE.
7. M.J. ANCHOR TEE, TAPPING SLEEVE OR TAPPING SADDLE MAY BE USED (SEE MATERIAL SPECIFICATIONS)
8. HYDRANTS TO BE SET AT DEPTHS GREATER THAN 6.0' SHALL BE SET WITH A MODIFIED FIRE HYDRANT SETTING. (CONTACT TONTITOWN WATER DEPT. FOR DETAILED DRAWING FOR DEEP DEPTH FIRE HYDRANT SETTINGS).
9. POLYWRAP ENTIRE HYDRANT ASSEMBLY. DO NOT COVER WEEP HOLE DRAIN.
10. HYDRANTS WILL BE SET AT A MINIMUM OF 36" ±4" BACK OF CURB, BUT NOT IN SIDEWALK, OR AS DIRECTED BY CITY.
11. SINGLE #14 GAUGE TYPE INSULATED TRACER WIRE IS REQUIRED ON ALL MAINS, PE WATER SERVICES OR OTHER APPURTENANCES.

CITY OF TONTITOWN		WATER DETAIL: W04	
		LAST REVISION DATE: 08/29/02	
DRAWN BY: CRB	CHECKED BY: ___	APPROVED: ___	DATE: 09/01/05

FIRE HYDRANT DETAIL W/SWIVEL ANCHOR COUPLING


36"±4
MIN.
18"-24"
CURB
BURY LINE
6" M.J. VALVE W/BOX
#14 TRACER WIRE
SEE NOTE 7
CLASS 67 GRAVEL
(8 CU. FT.)
POURED IN PLACE
3000 P.S.I. CONCRETE
(MIN. 12" THICK)
SWIVEL ANCHOR COUPLING
CONCRETE THRUST
BLOCKING

ELEVATION VIEW

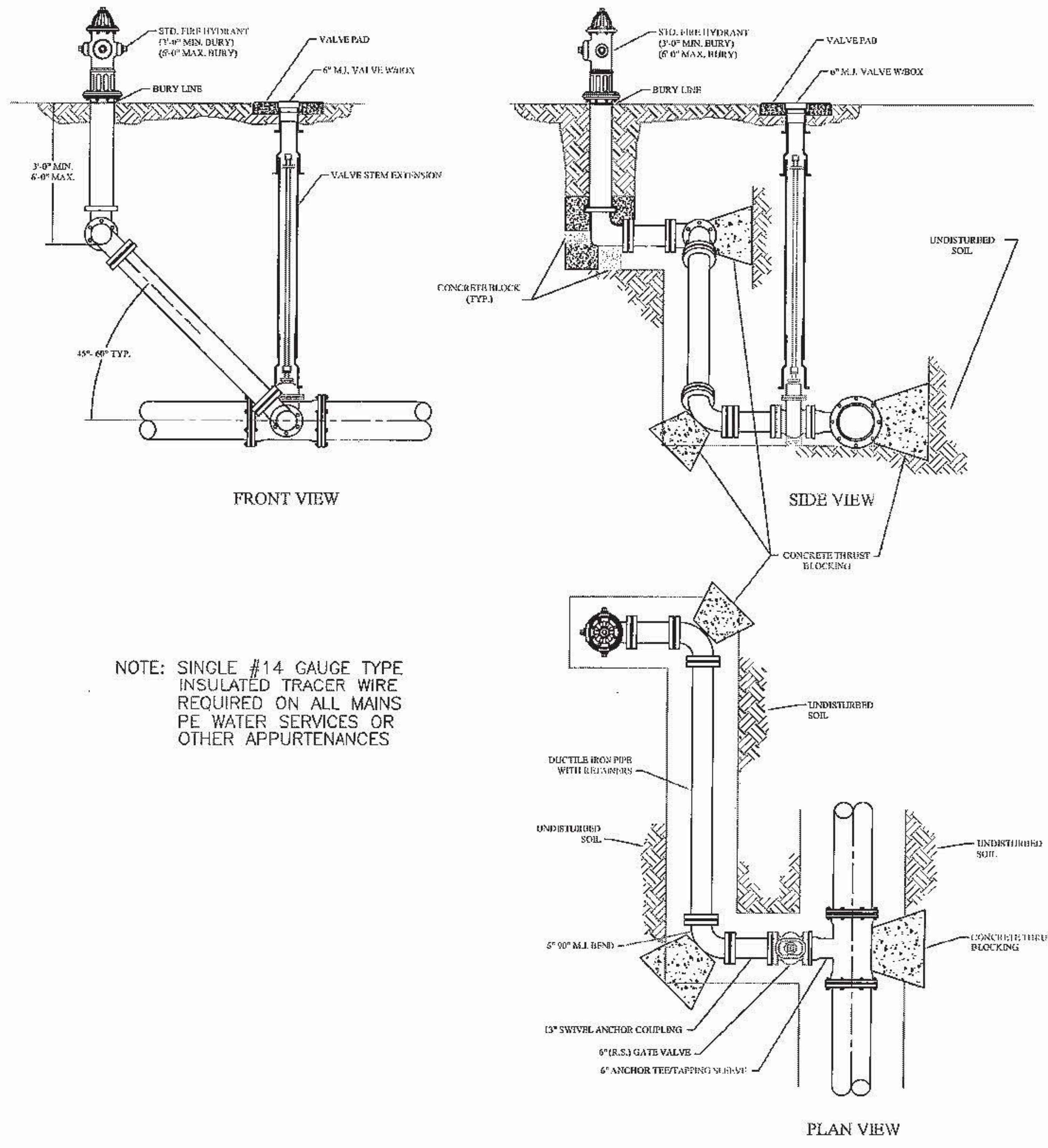
NOTES:

1. DRAINAGE BED SHALL CONSIST OF 8 CU FT OF CLASS 67 GRAVEL. **AND SHALL COMPLY WITH AWWA C-605**
2. USE 6" D.I. NIPPLE WITH M.J. RETAINER GLANDS IF DISTANCE BETWEEN VALVE AND HYDRANT MUST BE GREATER THAN 13" SWIVEL ADAPTER.
3. FIRE HYDRANT TO BE BLOCKED AGAINST FIRM SOIL AS SHOWN.
4. ALL HYDRANTS SHALL BE INSTALLED PLUMB.
5. LARGE NOZZLE SHALL FACE CURB UNLESS OTHER-WISE NOTED. ROTATE BARREL AS REQUIRED.
6. HYDRANT SHOULD NOT BE SET CLOSER THAN 4.0' TO OBSTRUCTIONS THAT ARE IN LINE WITH NOZZLE.
7. M.J. ANCHOR TEE, TAPPING SLEEVE OR TAPPING SADDLE MAY BE USED (SEE MATERIAL SPECIFICATIONS)
8. HYDRANTS TO BE SET AT DEPTHS GREATER THAN 6.0' SHALL BE SET WITH A MODIFIED FIRE HYDRANT SETTING. (CONTACT TONTITOWN WATER DEPT. FOR DETAILED DRAWING FOR DEEP DEPTH FIRE HYDRANT SETTINGS).
9. POLYWRAP ENTIRE HYDRANT ASSEMBLY. DO NOT COVER WEEP HOLE DRAIN.
10. HYDRANTS WILL BE SET AT A MINIMUM OF 36" ±4 BACK OF CURB, BUT NOT IN SIDEWALK, OR AS DIRECTED BY CITY.
11. SINGLE #14 GAUGE TYPE INSULATED TRACER WIRE IS REQUIRED ON ALL MAINS, PE WATER SERVICES OR OTHER APPURTENANCES.

CITY OF TONTITOWN		WATER DETAIL: W05	
		LAST REVISION DATE: 08/29/02	
DRAWN BY: CRB	CHECKED BY: ___	APPROVED: ___	DATE: 09/01/05

DEEP BURY FIRE HYDRANTS

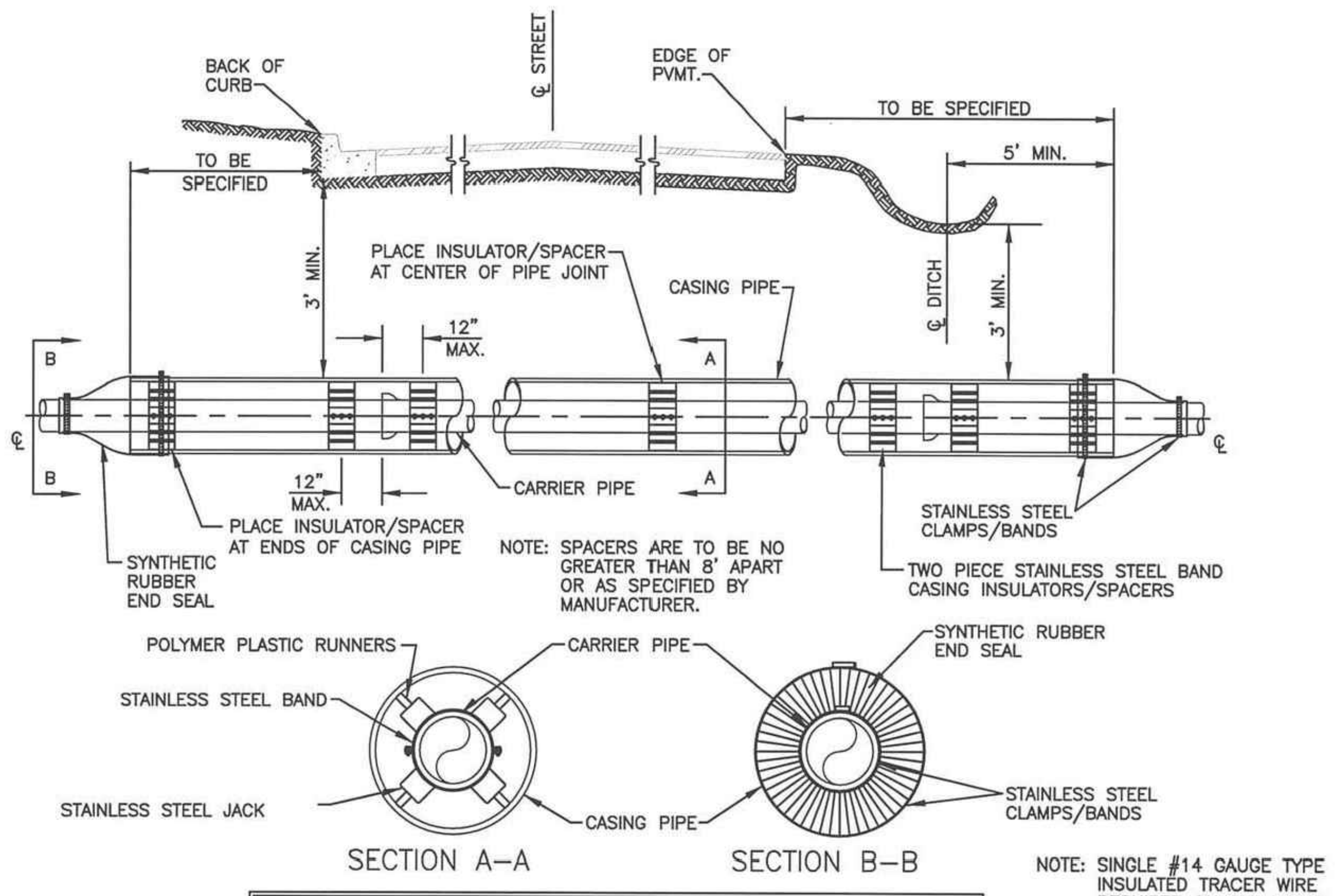
(BURY DEEPER THAN 6'-0")


STD. FIRE HYDRANT
(3'-0" MIN. BURY)
(6'-0" MAX. BURY)
VALVE PAD
6" M.J. VALVE W/BOX
BURY LINE
3'-0" MIN.
6'-0" MAX.
VALVE STEM EXTENSION
45°- 60° TYP.
FRONT VIEW
CONCRETE BLOCK
(TYP.)
UNDISTURBED
SOIL
SIDE VIEW
CONCRETE THRUST
BLOCKING
UNDISTURBED
SOIL
DUCTILE IRON PIPE
WITH RETAINERS
UNDISTURBED
SOIL
UNDISTURBED
SOIL
CONCRETE THRUST
BLOCKING
6" 90" M.J. BEND
13" SWIVEL ANCHOR COUPLING
6"(R.S.) GATE VALVE
6" ANCHOR TEE/TAPPING SLEEVE
PLAN VIEW

NOTE: SINGLE #14 GAUGE TYPE INSULATED TRACER WIRE REQUIRED ON ALL MAINS PE WATER SERVICES OR OTHER APPURTENANCES

CITY OF TONTITOWN		WATER DETAIL: W06	
		LAST REVISION DATE: 08/29/02	
DRAWN BY: CRB	CHECKED BY: ___	APPROVED: ___	DATE: 09/01/05

ENCASEMENT DETAIL


BACK OF
CURB
℄ STREET
EDGE OF
PVMT.
TO BE SPECIFIED
TO BE
SPECIFIED
5' MIN.
3' MIN.
℄ DITCH
3' MIN.
PLACE INSULATOR/SPACER
AT CENTER OF PIPE JOINT
CASING PIPE
12"
MAX.
B
B
A
A
℄
℄
12"
MAX.
CARRIER PIPE
PLACE INSULATOR/SPACER
AT ENDS OF CASING PIPE
SYNTHETIC
RUBBER
END SEAL
STAINLESS STEEL
CLAMPS/BANDS
TWO PIECE STAINLESS STEEL BAND
CASING INSULATORS/SPACERS
POLYMER PLASTIC RUNNERS
CARRIER PIPE
SYNTHETIC RUBBER
END SEAL
STAINLESS STEEL BAND
STAINLESS STEEL JACK
CASING PIPE
STAINLESS STEEL
CLAMPS/BANDS
SECTION A–A
SECTION B–B

NOTE: SPACERS ARE TO BE NO GREATER THAN 8' APART OR AS SPECIFIED BY MANUFACTURER.

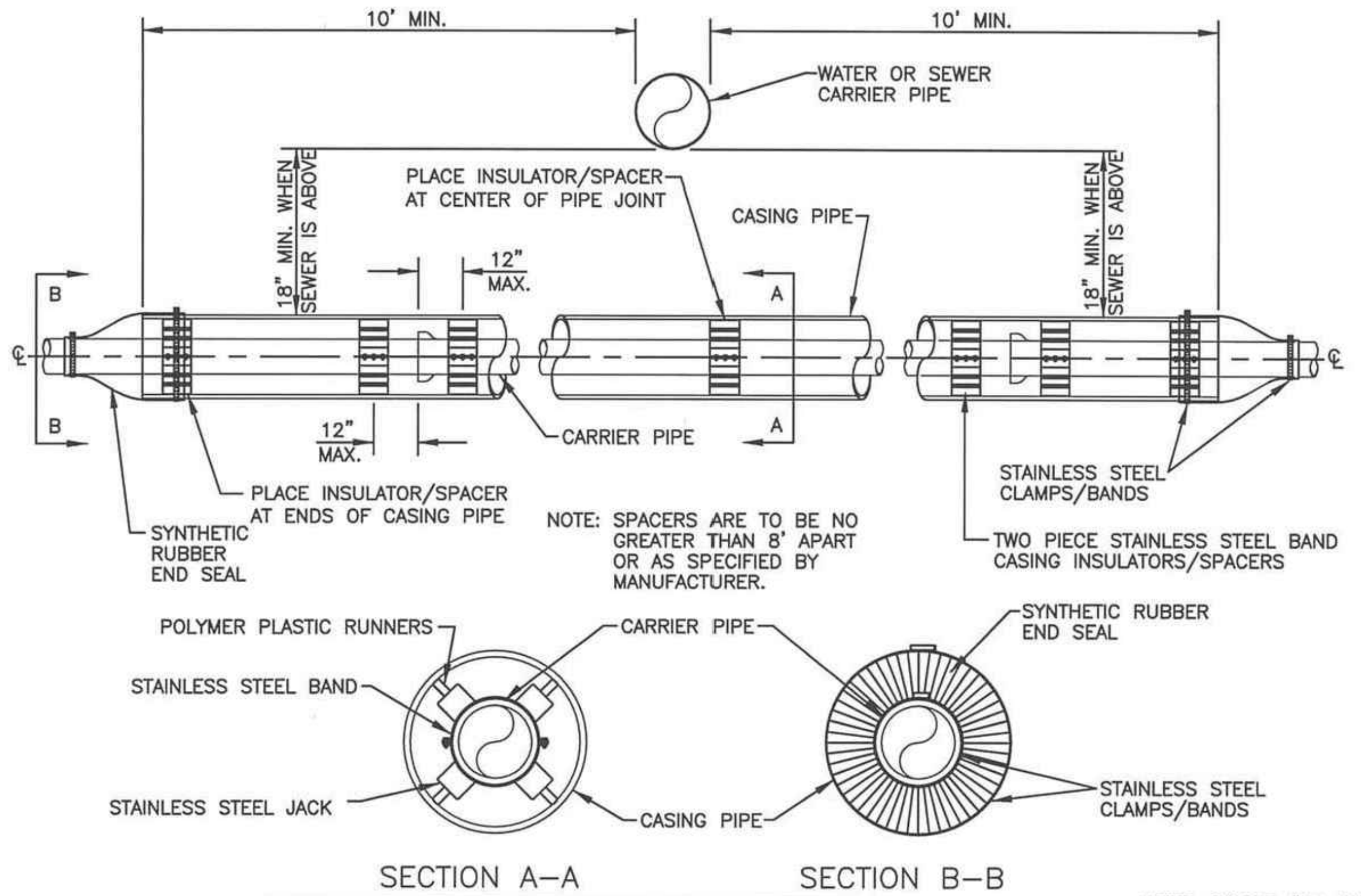
CARRIER & CASING SIZES									
CARRIER	4"	6"	8"	10"	12"	14"	16"	18"	20"
CASING	16"	16"	16"	18"	20"	24"	30"	30"	36"
CASING/WALL THICKNESS	.219	.219	.219	.250	.281	.344	.406	.406	.500

NOTE: SINGLE #14 GAUGE TYPE INSULATED TRACER WIRE REQUIRED ON ALL MAINS PE WATER SERVICES OR OTHER APPURTENANCES

NOTE: DUCTILE IRON, OR PVC PIPE REQUIRED FOR WATER, OR SEWER.

CITY OF TONTITOWN		GEN. WATER/SEWER DETAIL: GWS01	
		LAST REVISION DATE: 08/29/02	
DRAWN BY: CRB	CHECKED BY: ___	APPROVED: ___	DATE: 09/01/05

ENCASEMENT CROSSING DETAIL


10' MIN.
10' MIN.
WATER OR SEWER
CARRIER PIPE
18" MIN. WHEN
SEWER IS ABOVE
18" MIN. WHEN
SEWER IS ABOVE
PLACE INSULATOR/SPACER
AT CENTER OF PIPE JOINT
CASING PIPE
12"
MAX.
B
B
A
A
℄
℄
12"
MAX.
CARRIER PIPE
PLACE INSULATOR/SPACER
AT ENDS OF CASING PIPE
SYNTHETIC
RUBBER
END SEAL
STAINLESS STEEL
CLAMPS/BANDS
TWO PIECE STAINLESS STEEL BAND
CASING INSULATORS/SPACERS
POLYMER PLASTIC RUNNERS
CARRIER PIPE
SYNTHETIC RUBBER
END SEAL
STAINLESS STEEL BAND
STAINLESS STEEL JACK
CASING PIPE
STAINLESS STEEL
CLAMPS/BANDS
SECTION A–A
SECTION B–B

NOTE: SPACERS ARE TO BE NO GREATER THAN 8' APART OR AS SPECIFIED BY MANUFACTURER.

CARRIER & CASING SIZES									
CARRIER	4"	6"	8"	10"	12"	14"	16"	18"	20"
CASING	16"	16"	16"	18"	20"	24"	30"	30"	36"
CASING/WALL THICKNESS	.219	.219	.219	.250	.281	.344	.406	.406	.500

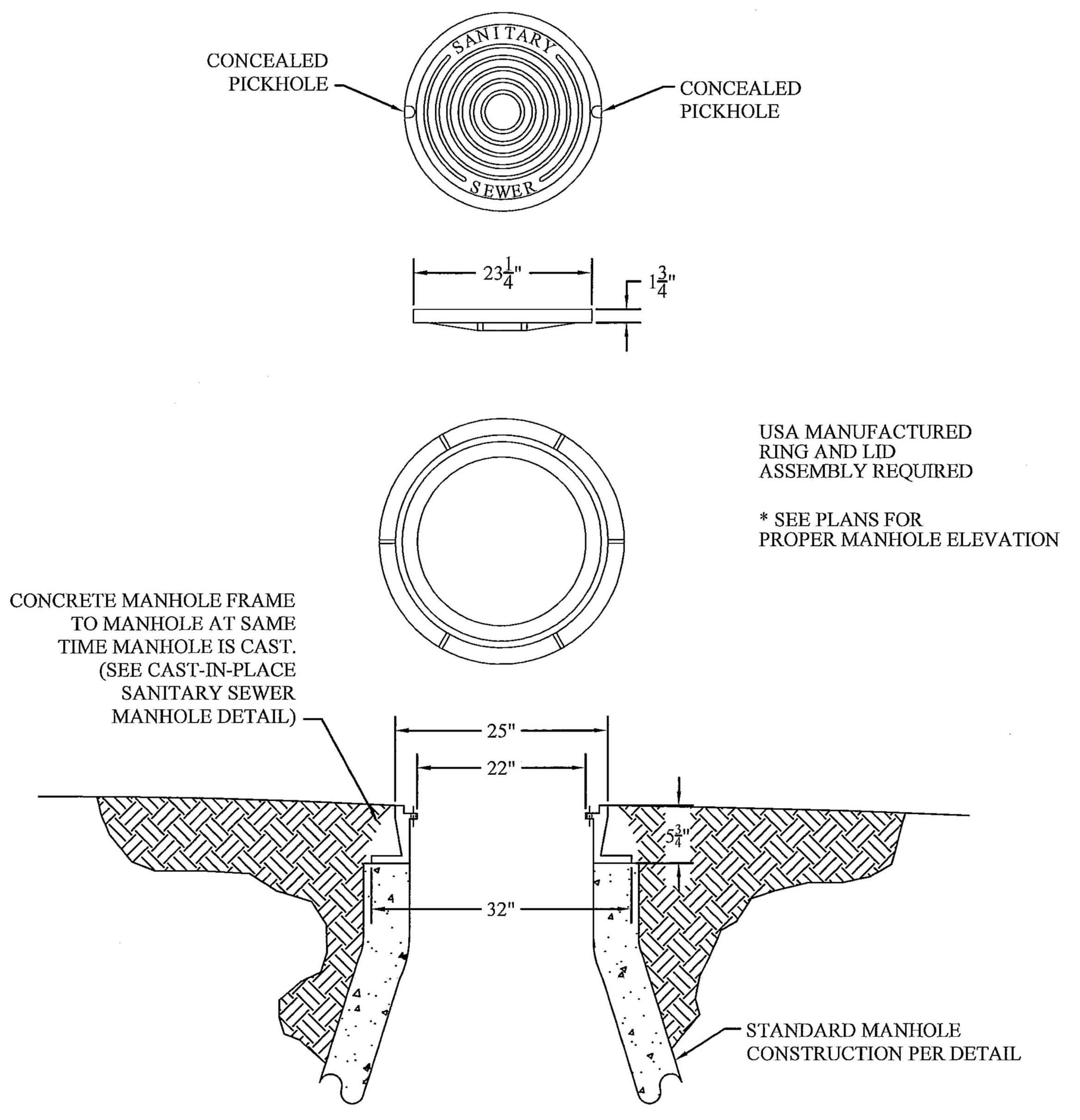
NOTE: SINGLE #14 GAUGE TYPE INSULATED TRACER WIRE REQUIRED ON ALL MAINS PE WATER SERVICES OR OTHER APPURTENANCES

NOTE: DUCTILE IRON, OR PVC PIPE REQUIRED FOR WATER, OR SEWER.

CITY OF TONTITOWN		GEN. WATER/SEWER DETAIL: GWS04	
		LAST REVISION DATE: 08/29/02	
DRAWN BY: CRB	CHECKED BY: ___	APPROVED: ___	DATE: 09/01/05

HEAVY DUTY MANHOLE

LID & FRAME


CONCEALED
PICKHOLE
SANITARY
SEWER
CONCEALED
PICKHOLE
23 1/4"
1 3/4"
CONCRETE MANHOLE FRAME
TO MANHOLE AT SAME
TIME MANHOLE IS CAST.
(SEE CAST-IN-PLACE
SANITARY SEWER
MANHOLE DETAIL)
25"
22"
5 3/4"
32"
STANDARD MANHOLE
CONSTRUCTION PER DETAIL

USA MANUFACTURED RING AND LID ASSEMBLY REQUIRED

* SEE PLANS FOR PROPER MANHOLE ELEVATION

CITY OF TONTITOWN		SANITARY SEWER DETAIL: SS04	
		LAST REVISION DATE: 03/27/13	
DRAWN BY: FCN	CHECKED BY: TWC	APPROVED: ___	DATE: 09/01/05

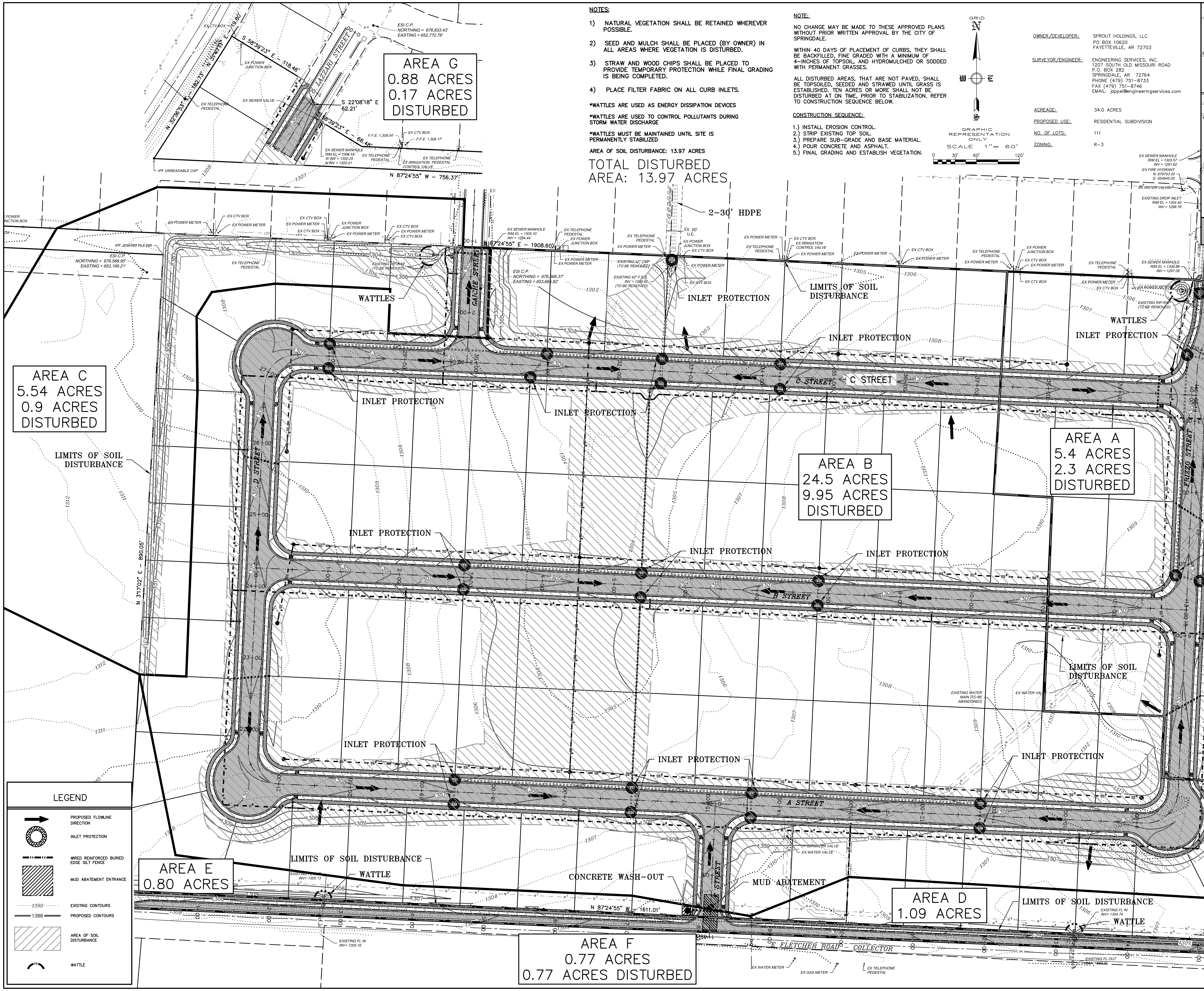
ENGINEERING SERVICES INC.
1207 SOUTH OLD MISSOURI RD.
SPRINGDALE, ARKANSAS 72764

WATER & SEWER DETAILS
WESTBROOK SUBDIVISON – PHASE 2
TONTITOWN, ARKANSAS

REVISION	DATE	DESCRIPTION

Z:\SUBD\17963 - WESTBROOK SUBD\17963 - W&S DETAILS.DWG

SCALE: N.T.S.
DATE: NOV, 2017
ENGINEER: TJA
DRAWN BY: JRC
W.O. #: 17963


AREA G
0.88 ACRES
0.17 ACRES
DISTURBED
AREA C
5.54 ACRES
0.9 ACRES
DISTURBED
AREA B
24.5 ACRES
9.95 ACRES
DISTURBED
AREA A
5.4 ACRES
2.3 ACRES
DISTURBED
AREA E
0.80 ACRES
AREA D
1.09 ACRES
AREA F
0.77 ACRES
0.77 ACRES DISTURBED
2-30' HDPE
INLET PROTECTION
WATTLES
WATTLE
LIMITS OF SOIL DISTURBANCE
CONCRETE WASH-OUT
MUD ABATEMENT
C STREET
B STREET
A STREET
D STREET
GAUCHE STREET
FRIZZO STREET
LAZZARI STREET
E. FLETCHER ROAD - COLLECTOR
N 87°24'55" W - 756.37'
N 87°24'55" W - 1611.01'
S 87°24'55" E - 1908.60'
S 86°43'39" E - 118.20'
S 77°41'53" E 50.36'
S 3°09'40" W - 910.11'
N 3°17'02" E - 890.05'
EX SEWER MANHOLE
RIM EL = 1303.57
INV = 1291.62
EX FIRE HYDRANT
N: 676703.35
E: 654645.05
EX WATER VALVE
EXISTING DROP INLET
RIM EL = 1304.40
INV = 1298.76

NOTES:

1) NATURAL VEGETATION SHALL BE RETAINED WHEREVER POSSIBLE.

2) SEED AND MULCH SHALL BE PLACED (BY OWNER) IN ALL AREAS WHERE VEGETATION IS DISTURBED.

3) STRAW AND WOOD CHIPS SHALL BE PLACED TO PROVIDE TEMPORARY PROTECTION WHILE FINAL GRADING IS BEING COMPLETED.

4) PLACE FILTER FABRIC ON ALL CURB INLETS.

*WATTLES ARE USED AS ENERGY DISSIPATION DEVICES

*WATTLES ARE USED TO CONTROL POLLUTANTS DURING STORM WATER DISCHARGE

*WATTLES MUST BE MAINTAINED UNTIL SITE IS PERMANENTLY STABILIZED

AREA OF SOIL DISTURBANCE: 13.97 ACRES

TOTAL DISTURBED AREA: 13.97 ACRES

NOTE:

NO CHANGE MAY BE MADE TO THESE APPROVED PLANS WITHOUT PRIOR WRITTEN APPROVAL BY THE CITY OF SPRINGDALE.

WITHIN 40 DAYS OF PLACEMENT OF CURBS, THEY SHALL BE BACKFILLED, FINE GRADED WITH A MINIMUM OF 4-INCHES OF TOPSOIL, AND HYDROMULCHED OR SODDED WITH PERMANENT GRASSES.

ALL DISTURBED AREAS, THAT ARE NOT PAVED, SHALL BE TOPSOILED, SEEDED AND STRAWED UNTIL GRASS IS ESTABLISHED. TEN ACRES OR MORE SHALL NOT BE DISTURBED AT ON TIME, PRIOR TO STABILIZATION. REFER TO CONSTRUCTION SEQUENCE BELOW.

CONSTRUCTION SEQUENCE:

1.) INSTALL EROSION CONTROL.
2.) STRIP EXISTING TOP SOIL.
3.) PREPARE SUB-GRADE AND BASE MATERIAL.
4.) POUR CONCRETE AND ASPHALT.
5.) FINAL GRADING AND ESTABLISH VEGETATION.

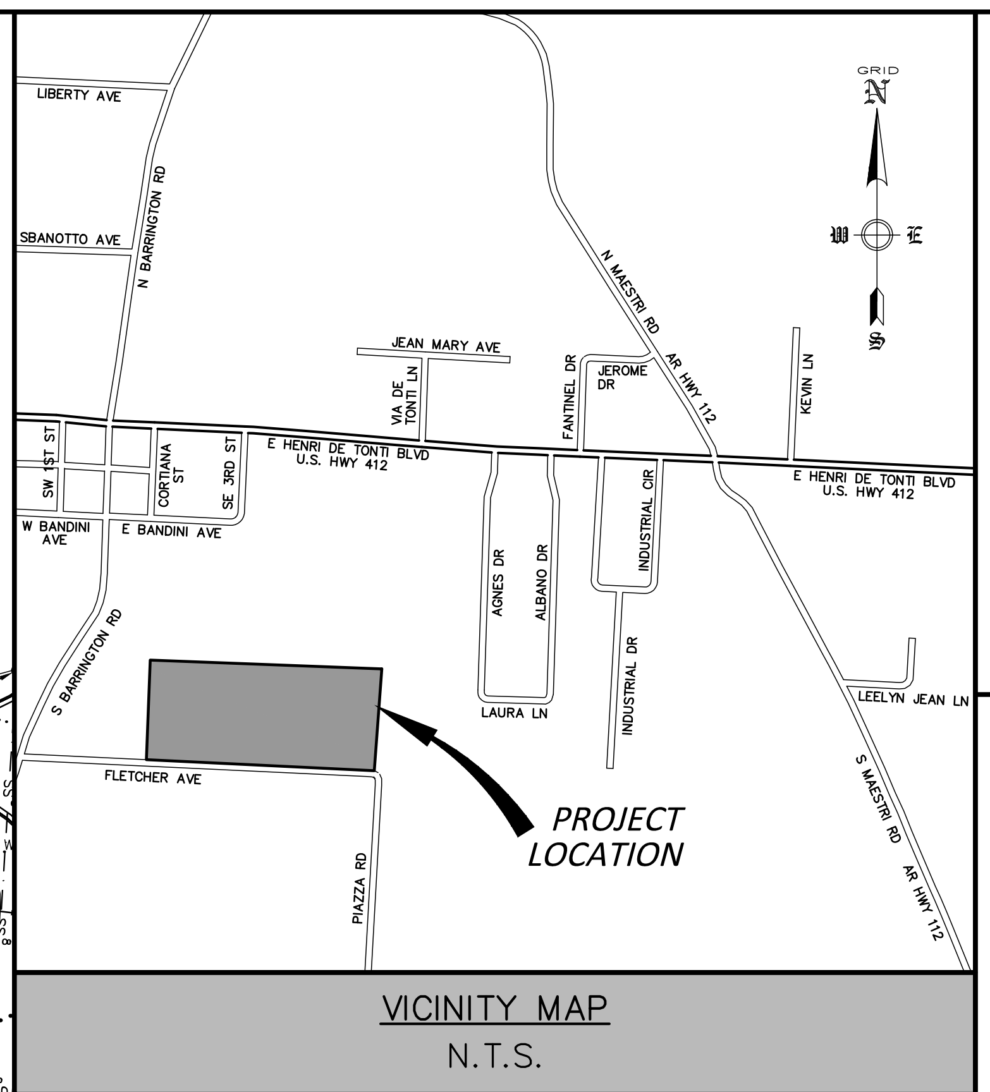
GRID
N
W E
S

GRAPHIC REPRESENTATION ONLY
SCALE 1"= 60'
0 30' 60' 120'

OWNER/DEVELOPER:	SPROUT HOLDINGS, LLC PO BOX 10620 FAYETTEVILLE, AR 72703
SURVEYOR/ENGINEER:	ENGINEERING SERVICES, INC. 1207 SOUTH OLD MISSOURI ROAD P.O. BOX 282 SPRINGDALE, AR 72764 PHONE (479) 751-8733 FAX (479) 751-8746 EMAIL: jappel@engineeringservices.com
ACREAGE:	34.0 ACRES
PROPOSED USE:	RESIDENTIAL SUBDIVISION
NO. OF LOTS:	111
ZONING:	R-3

LEGEND

➡	PROPOSED FLOWLINE DIRECTION
◎	INLET PROTECTION
▬ ▪▪ ▬	WIRED REINFORCED BURIED EDGE SILT FENCE
▨	MUD ABATEMENT ENTRANCE
·····1390·····	EXISTING CONTOURS
——1388——	PROPOSED CONTOURS
▨	AREA OF SOIL DISTURBANCE
⌒	WATTLE


LIBERTY AVE
SBANOTTO AVE
N BARRINGTON RD
JEAN MARY AVE
E HENRI DE TONTI BLVD U.S. HWY 412
W BANDINI AVE
E BANDINI AVE
SW 1ST ST
S BARRINGTON RD
FLETCHER AVE
PIAZZA RD
LAURA LN
INDUSTRIAL DR
LEELYN JEAN LN
S MAESTRI RD AR HWY 112
PROJECT LOCATION

VICINITY MAP
N.T.S.

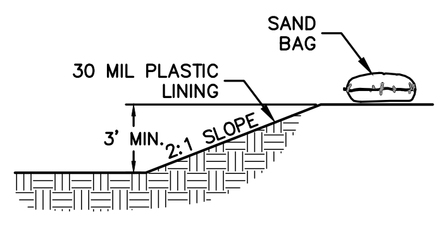
ENGINEERING SERVICES INC.
1207 SOUTH OLD MISSOURI RD.
SPRINGDALE, ARKANSAS 72764

STORM WATER POLLUTION PREVENTION PLAN
WESTBROOK SUBDIVISON - PHASE 2
TONTITOWN, ARKANSAS

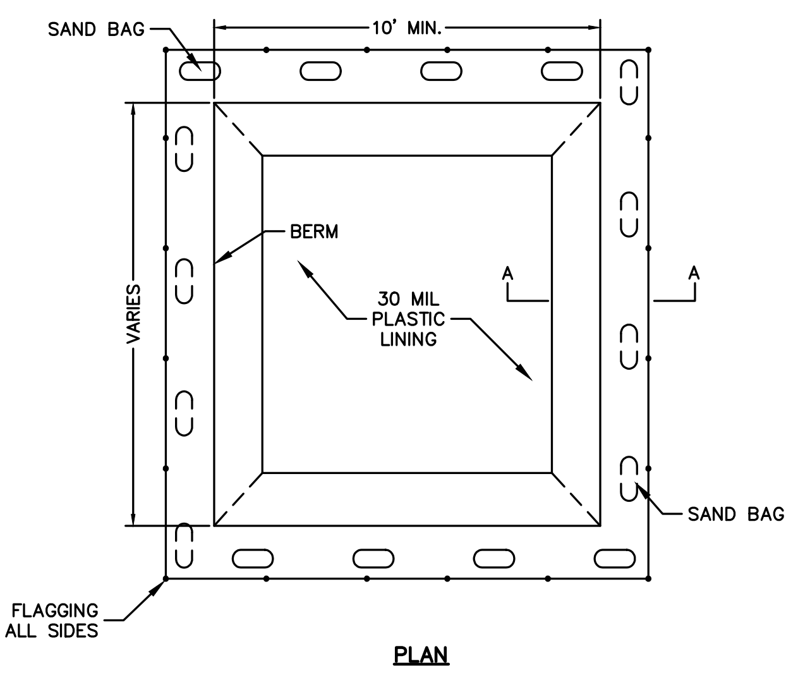
REVISION	DATE	DESCRIPTION

Z:\SUBD\17963 - WESTBROOK SUBD\17963 - SWPPP.DWG

SCALE: 1"=60'
DATE: Nov 22, 2017
ENGINEER: TJA
DRAWN BY: JRC
W.O. #: 17963



SECTION A – A



PLAN

NOTES:

1) LATH AND FLAGGING SHOULD BE COMMERCIAL TYPE.

2) PLASTIC LINING MATERIAL SHOULD BE A MINIMUM OF 30 MIL POLYETHYLENE SHEETING AND SHOULD BE FREE OF HOLES, TEARS, OR OTHER DEFECTS THAT COMPROMISE THE IMPERMEABILITY OF THE MATERIAL.

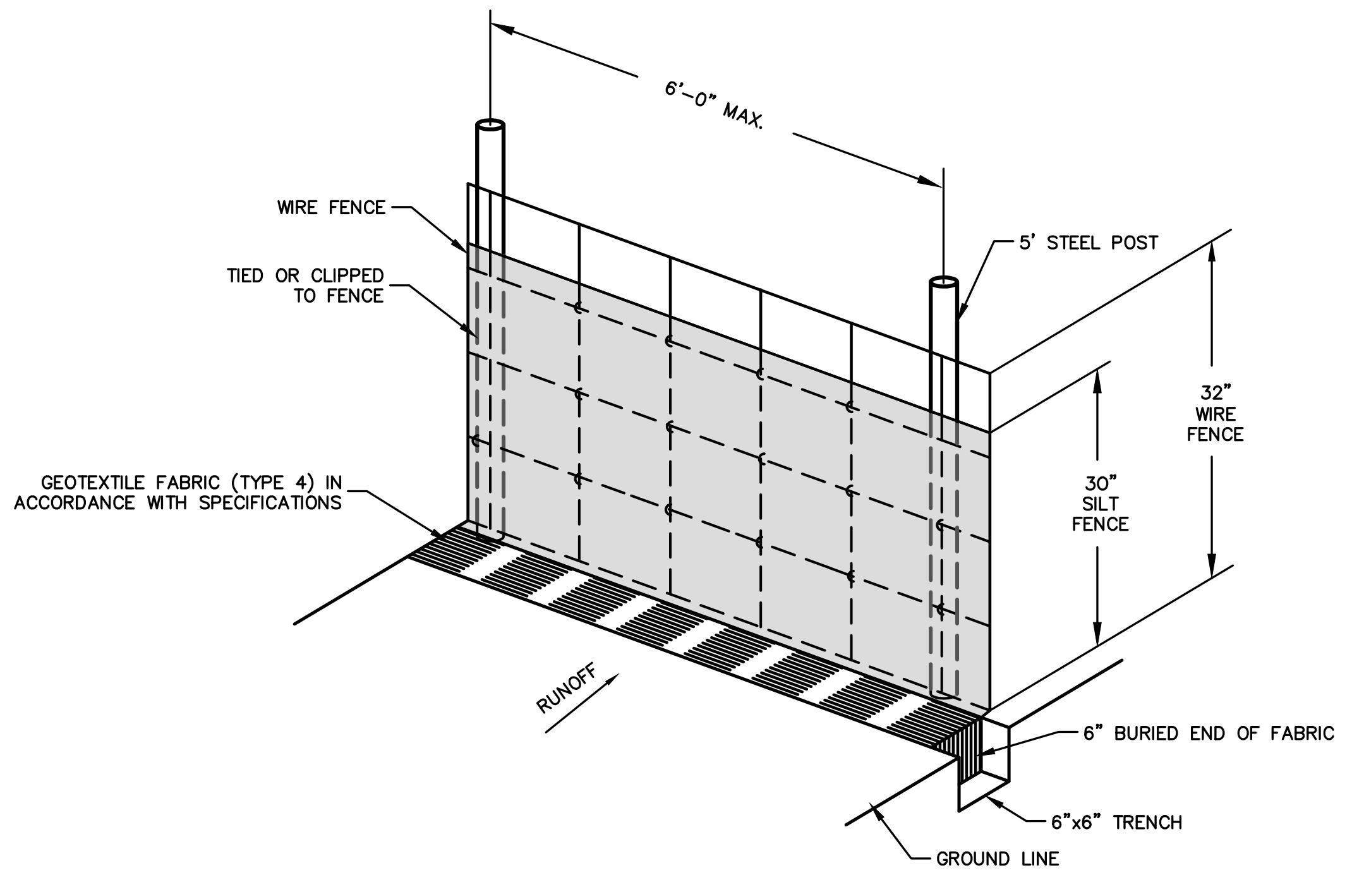
CONCRETE WASH–OUT AREA

NOT TO SCALE

Maximum Slope Length for Silt Fence		
Slope – Percent	Maximum Slope Length (ft) Above Fence	
	Standard (18" High) Silt Fence	Reinforced (30" High) Silt Fence
2 (or less)	150	250
5	100	250
10	50	150
15	35	100
20	25	70
25	20	55
30	15	45
35	15	40
40	15	35
45	10	30
50	10	25

NOTES:

1. THE SLOPE LENGTH SHOWN IS THE DISTANCE FROM THE FENCE TO THE DRAINAGE DIVIDE OR THE NEAREST UPSLOPE CHANNEL.
2. SLOPE LENGTH CANNOT BE ADDRESSED BY USE OF MULTIPLE ROWS OF SILT FENCE.



SILT FENCE NOTES

1. POSTS WHICH SUPPORT THE SILT FENCE SHALL BE INSTALLED ON A SLIGHT ANGLE TOWARD THE ANTICIPATED RUNOFF SOURCE. POST MUST BE EMBEDDED A MINIMUM OF ONE FOOT.

2. THE TOE OF THE SILT FENCE SHALL BE TRENCHED IN WITH A SPADE OR MECHANICAL TRENCHER, SO THAT THE DOWNSLOPE FACE OF THE TRENCH IS FLAT AND PERPENDICULAR TO THE LINE OF FLOW. HERE FENCE CANNOT BE TRENCHED IN (e.g.PAVEMENT), WEIGHT FABRIC FLAP WITH ROCK ON UPHILL SIDE TO PREVENT FLOW FROM SEEPING UNDER FENCE.

3. THE TRENCH MUST BE A MINIMUM OF 6 INCHES DEEP AND 6 INCHES WIDE TO ALLOW FOR THE SILT FENCE FABRIC TO BE LAID IN THE GROUND AND BACKFILLED WITH COMPACTED MATERIAL.

4. SILT FENCE SHOULD BE SECURELY FASTENED TO EACH SUPPORT POST OR TO WOVEN WIRE, WHICH IN TURN IS ATTACHED TO THE FENCE POST. THERE SHALL BE A 3 FOOT OVERLAP, SECURELY FASTENED WHERE ENDS OF FABRIC MEET.

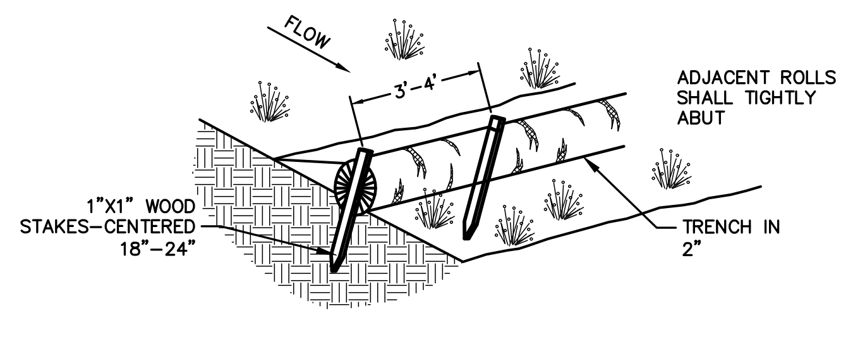
5. REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.

6. SILT FENCE SHALL BE REMOVED WHEN THE SITE IS COMPLETELY STABILIZED SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.

7. ACCUMULATED SILT SHALL BE REMOVED WHEN IT REACHES A DEPTH OF HALF THE HEIGHT OF THE FENCE. THE SILT SHALL BE DISPOSED OF AT AN APPROVED SITE AND IN SUCH A MANNER AS TO NOT CONTRIBUTE TO ADDITIONAL SILTATION.

WIRED REINFORCED BURIED EDGE SILT FENCE

NOT TO SCALE


FLOW
3'–4'
ADJACENT ROLLS SHALL TIGHTLY ABUT
1"X1" WOOD STAKES–CENTERED 18"–24"
TRENCH IN 2"

INSTALLATION NOTES:

1) WATTLES SHALL CONSIST OF STRAW, COMPOST, EXCELSIOR, OR COCONUT FIBER.

2) NOT FOR USE IN CONCENTRATED FLOW AREAS.

3) THE WATTLES SHALL BE TRENCHED INTO THE GROUND A MINIMUM OF TWO (2) INCHES.

4) WATTLES SHALL BE INSTALLED PER MANUFACTURERS SPECIFICATIONS.

5) ON SLOPES, WATTLES SHOULD BE INSTALLED ON CONTOUR WITH A SLIGHT UPWARD CURVE AT THE END OF THE ROW IN ORDER TO CREATE PONDING.

6) RUNNING LENGTHS OF WATTLES SHOULD BE ABUTTED FIRMLY TO ENSURE NO LEAKAGE AT THE ABUTMENTS.

7) WHEN INSTALLING RUNNING LENGTHS OF WATTLES, BUTT THE SECOND WATTLE TIGHTLY AGAINST THE FIRST, DO NOT OVERLAP THE ENDS. STAKE THE WATTLES AT EACH END AND FOUR FOOT ON CENTER.

8) STAKES SHOULD BE DRIVEN THROUGH THE MIDDLE OF THE WATTLE. LEAVING 2–3 INCHES OF THE STAKE PROTRUDING ABOVE THE WATTLE. WHEN INSTALLING WATTLES ON SLOPES, DRIVE THE STAKES PERPENDICULAR TO THE SLOPE.

9) DRIVE THE FIRST END STAKE OF THE SECOND WATTLE AT AN ANGLE TOWARD THE FIRST WATTLE IN ORDER TO HELP ABUT THEM TIGHTLY TOGETHER.

10) STAKING: THE CITY RECOMMENDS USING WOOD STAKES TO SECURE THE WATTLES. 1/2"
TO 5/8" REBAR IS ALSO ACCEPTABLE WITH A SAFETY CAP. BE SURE TO USE A STAKE THAT IS LONG ENOUGH TO PROTRUDE SEVERAL INCHES ABOVE THE WATTLE.

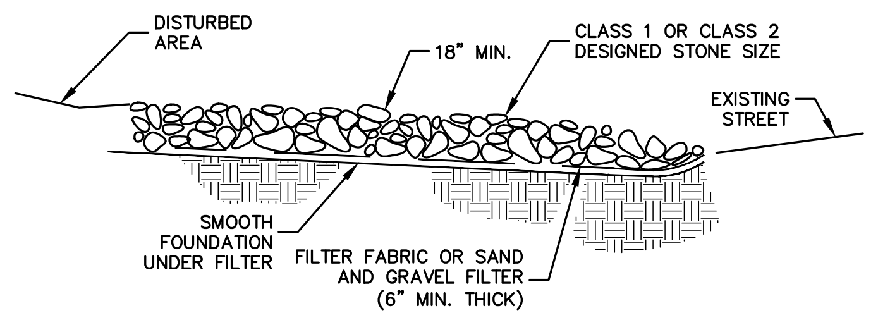
11) THE CONTRACTOR SHALL INSPECT WATTLES EVERY TWO WEEKS AND AFTER ANY SIGNIFICANT STORM EVENT AND MAKE SURE REPAIRS OR REMOVE SEDIMENT ACCUMULATED BEHIND WATTLE AS NECESSARY.

12) SEDIMENT ACCUMULATED BEHIND WATTLE SHALL BE REMOVED WHEN THE SEDIMENT HAS ACCUMULATED TO ONE HALF THE DIAMETER OF THE WATTLE.

13) WATTLES SHALL REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS STABILIZED AND IS ACCEPTED BY THE CITY.

WATTLE DETAIL

NOT TO SCALE


DISTURBED AREA
18" MIN.
CLASS 1 OR CLASS 2 DESIGNED STONE SIZE
EXISTING STREET
SMOOTH FOUNDATION UNDER FILTER
FILTER FABRIC OR SAND AND GRAVEL FILTER (6" MIN. THICK)

TYPICAL SECTION

NOTES:

1) MINIMUM THICKNESS SHALL BE 18". THE STONE DIAMETER, NEVER LESS THAN 6".

2) MINIMUM LENGTH SHALL BE 50'

MUD ABATEMENT ENTRANCE

NOT TO SCALE

NOTES:

1.) ALL DISTURBED AREAS SHALL RECEIVE 4 INCHES OF TOP SOIL AND RE–VEGETATED PER SECTION 169.06 OF THE UDC. VEGETATION MUST BE ESTABLISHED TO MINIMIZE EROSION PRIOR TO ISSUANCE OF CERTIFICATE OF OCCUPANCY.

2.) WHEN SILT FENCE OR WATTLES ARE NOT PLACED AT A CONSTANT ELEVATION FOLLOWING CONTOURS ON STEEP SLOPES, THE "J" HOOP METHOD SHOULD BE USED (AT 50 FT INTERVALS) TO CREATE PONDING AND PREVENT EROSION OF THE TRENCH BACKFILL OF SILT FENCE INSTALLATION.

3.) ALL GRADED AND OTHERWISE DISTURBED AREAS SHALL BE STABILIZED WITHIN 15 DAYS IMMEDIATELY AFTER GRADING OR DISTURBANCE HAS CEASED.

4.) PERMANENT IMPROVEMENTS SUCH AS STREETS, STORM SEWERS, CURB AND GUTTERS, AND OTHER FEATURES FOR CONTROL OF RUNOFF SHALL BE SCHEDULED COINCIDENTAL TO REMOVING VEGETATIVE COVER FROM THE AREA SO THAT LARGE AREAS ARE NOT LEFT EXPOSED BEYOND THE CAPACITY OF TEMPORARY CONTROL MEASURES.

5.) TOP SOIL OR OTHER SOIL IS TO BE STOCKPILED FOR MORE THAN 30 DAYS, A TEMPORARY COVER OF ANNUAL RYE OR OTHER SUITABLE GRASS SHALL BE PLANTED.

6.) RE–VEGETATION. RE–VEGETATION SHALL BE REQUIRED TO MEET THE FOLLOWING PERFORMANCE STANDARDS (SEDIMENT CONTROLS SHALL REMAIN IN PLACE UNTIL RE–VEGETATION IS ESTABLISHED) UNLESS OTHERWISE ALLOWED BY THE CITY ENGINEER:
  - TOPSOIL. A MINIMUM OF 4 INCHES OF TOPSOIL SHALL BE REQUIRED TO BE EITHER EXISTING OR INSTALLED IN AREAS TO BE REVEGETATED AS SET FORTH IN$_H$169.06(F)(6) BELOW. ANY APPLICATION OF TOPSOIL AND SEEDING UNDER THE DRIP LINE OF A TREE SHOULD BE MINIMIZED TO 3 INCHES SO AS NOT TO DAMAGE THE TREES ROOT SYSTEM.
  - ZERO TO 10% GRADE: RE–VEGETATION SHALL BE A MINIMUM OF SEEDING AND MULCHING. SAID SEEDING SHALL PROVIDE COMPLETE AND UNIFORM COVERAGE THAT MINIMIZES EROSION AND RUNOFF.
  - 10:1 UP TO 4:1 GRADE: RE–VEGETATION SHALL BE A MINIMUM OF HYDRO–SEEDING WITH MULCH AND FERTILIZER, SOD, OR GROUNDCOVER. SAID PLANTING SHALL PROVIDE COMPLETE AND UNIFORM COVERAGE THAT MINIMIZES EROSION AND RUNOFF.
  - 4:1 TO 3:1 GRADE: THE SLOPE SHALL BE COVERED WITH LANDSCAPE FABRIC AND HYDRO–SEEDED WITH MULCH AND FERTILIZER, OR STAKED SOD, OR GROUNDCOVER. SAID PLANTING SHALL PROVIDE COMPLETE AND UNIFORM COVERAGE THAT MINIMIZES EROSION AND RUNOFF
  - MORE THAN 3:1 GRADE: ANY FINISH GRADE OVER 3:1 SHALL BE STABILIZED WITH ONE OR MORE OF THE FOLLOWING:
    - RETAINING WALLS; CRIBBING WITH LANDSCAPE FABRIC; TERRACING WITH GROUNDCOVER; RIPRAP; STAKED SOD (UP TO 2:1 SLOPE)
    - IF CRIBBING, TERRACING, OR RIPRAP IS USED, THE SLOPE'S STABILITY AND ERODIBILITY MUST BE EQUIVALENT TO OR BETTER THAN ITS PREDEVELOPMENT STATE.

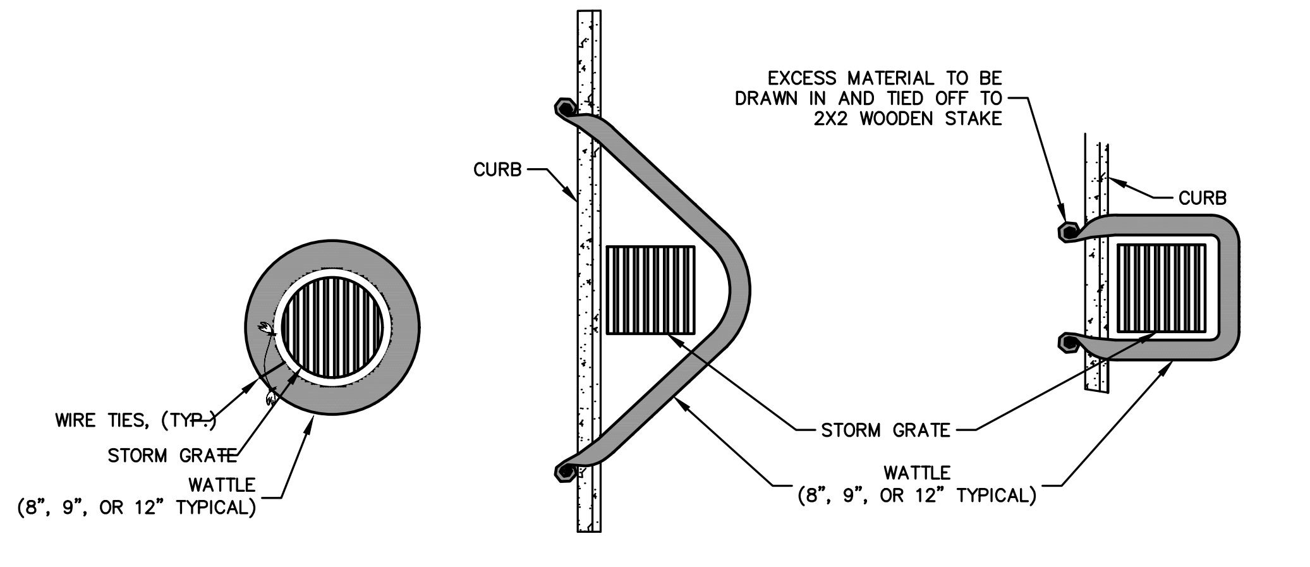
7.) PERMANENT EROSION CONTROL. THE DEVELOPER SHALL INCORPORATE PERMANENT EROSION CONTROL FEATURES AT THE EARLIEST PRACTICAL TIME. TEMPORARY EROSION CONTROL MEASURES WILL BE USED TO CORRECT CONDITIONS THAT DEVELOP DURING CONSTRUCTION THAT WERE UNFORESEEN DURING THE DESIGN STAGE, THAT ARE NEEDED PRIOR TO INSTALLATION OF PERMANENT EROSION CONTROL FEATURES, OR THAT ARE NEEDED TEMPORARILY TO CONTROL EROSION THAT DEVELOPS DURING NORMAL CONSTRUCTION PROJECTS, BUT ARE NOT ASSOCIATED WITH PERMANENT CONTROL FEATURES ON THE PROJECT.

8.) DUST. WHERE EXCESSIVE DUST MAY BECOME A PROBLEM, A PLAN FOR SPRAYING WATER ON HEAVILY TRAVELED DIRT AREAS SHALL BE ADDRESSED.

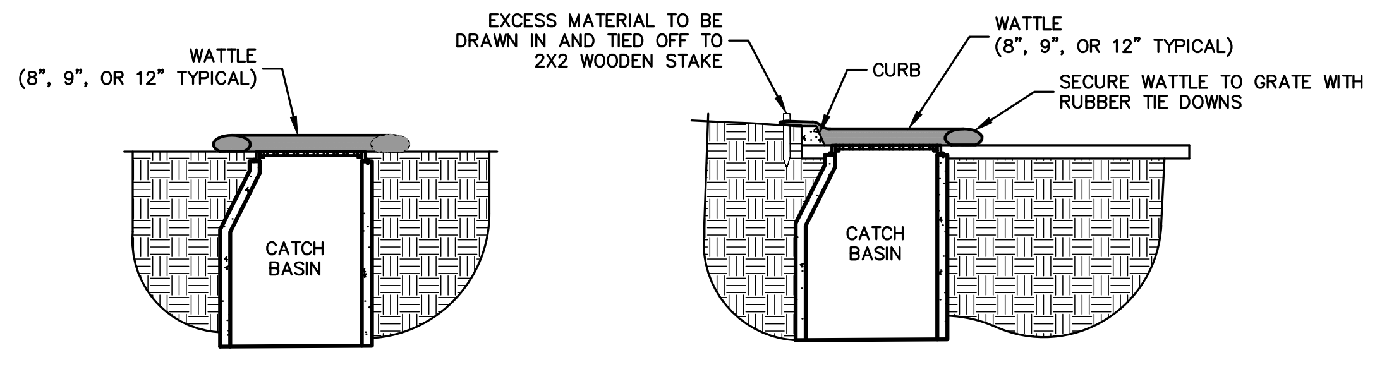
9.) CONSTRUCTION EXITS. A STABILIZED ROCK EXIT IS REQUIRED ON CONSTRUCTION SITES. ROCK EXITS MUST BE AT LEAST 20' WIDE BY 50' LONG BY 6$_8$ THICK STABILIZED ROCK HAVING A MINIMUM AVERAGE DIAMETER OF 3$_8$. IF THERE IS AN EXISTING CURB, LOOSE MATERIAL SUCH AS FILL DIRT OR GRAVEL SHALL NOT BE USED TO RAMP UP TO IT FROM THE STREET. TEMPORARY WOODEN RAMPS IN FRONT OF CURBS ARE ACCEPTABLE.

10.) DEBRIS, MUD, AND SOIL IN PUBLIC STREETS. DEBRIS, MUD AND SOIL SHALL NOT BE ALLOWED ON PUBLIC STREETS BUT IF ANY DEBRIS, MUD, OR SOIL FROM DEVELOPMENT SITES REACHES THE PUBLIC STREET IT SHALL BE IMMEDIATELY REMOVED VIA SWEEPING OR OTHER METHODS OF PHYSICAL REMOVAL. DEBRIS, MUD, OR SOIL IN THE STREET MAY NOT BE WASHED OFF THE STREET OR WASHED INTO THE STORM DRAINAGE SYSTEM. STORM DRAINAGE SYSTEMS DOWNSTREAM OF A DEVELOPMENT SITE SHOULD BE PROTECTED FROM DEBRIS, MUD, OR SOIL IN THE EVENT THAT DEBRIS, MUD, OR SOIL REACHES THE DRAINAGE SYSTEM.

11.) FRANCHISE AND PRIVATE UTILITIES. THE PROPERTY OWNER OR MAIN CONTRACTOR ONSITE WILL BE RESPONSIBLE FOR RESTORING ALL EROSION AND SEDIMENT CONTROL SYSTEMS AND PUBLIC INFRASTRUCTURE DAMAGED OR DISTURBED BY UNDERGROUND PRIVATE OR FRANCHISE UTILITY CONSTRUCTION SUCH AS WATER AND SEWER SERVICE LEADS, TELEPHONE, GAS, CABLE, ETC. EROSION AND SEDIMENT CONTROL SYSTEMS MUST BE IMMEDIATELY RESTORED AFTER EACH UTILITY CONSTRUCTION.


WIRE TIES, (TYP.)
STORM GRATE
WATTLE (8", 9", OR 12" TYPICAL)
CURB
EXCESS MATERIAL TO BE DRAWN IN AND TIED OFF TO 2X2 WOODEN STAKE
CURB
STORM GRATE
WATTLE (8", 9", OR 12" TYPICAL)

DRAIN INLET PLAN **CURBSIDDE OPTION "A" PLAN** **CURBSIDDE OPTION "B" PLAN**


WATTLE (8", 9", OR 12" TYPICAL)
CATCH BASIN
EXCESS MATERIAL TO BE DRAWN IN AND TIED OFF TO 2X2 WOODEN STAKE
CURB
WATTLE (8", 9", OR 12" TYPICAL)
SECURE WATTLE TO GRATE WITH RUBBER TIE DOWNS
CATCH BASIN

DRAIN INLET SECTION **CURBSIDE SECTION**

NOTES:

1) ALL MATERIAL TO MEET SPECIFICATIONS.
2) WATTLE FILL TO MEET APPLICATION REQUIREMENTS.
3) COMPOST MATERIAL TO BE DISPERSED ON SITE, AS DETERMINED BY ENGINEER.

INLET PROTECTION

NOT TO SCALE

ENGINEERING SERVICES INC.
1207 SOUTH OLD MISSOURI RD.
SPRINGDALE, ARKANSAS 72764

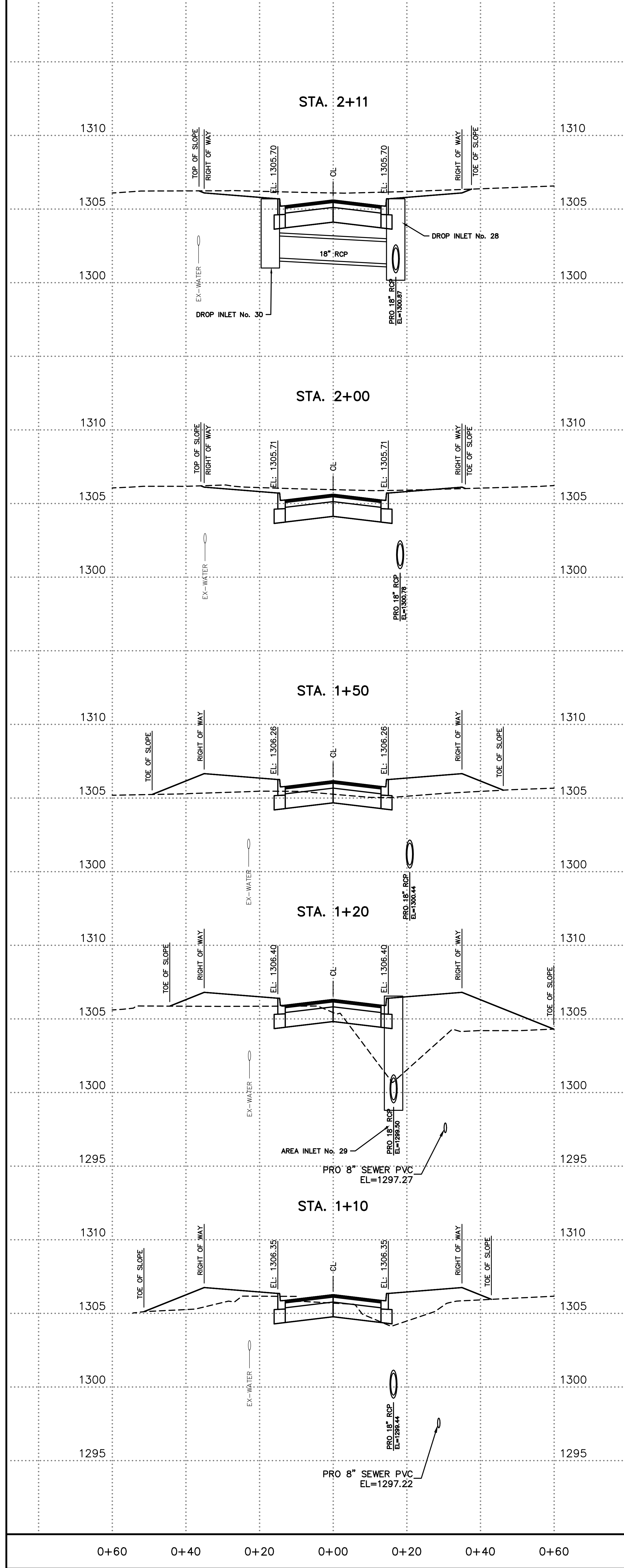
STORM WATER POLLUTION PREVENTION DETAILS
WESTBROOK SUBDIVISON – PHASE 2
TONTITOWN, ARKANSAS

REVISION	DATE	DESCRIPTION

Z:\SUBD\17963 - WESTBROOK SUBD\17963 - SWPP DETAILS.DWG

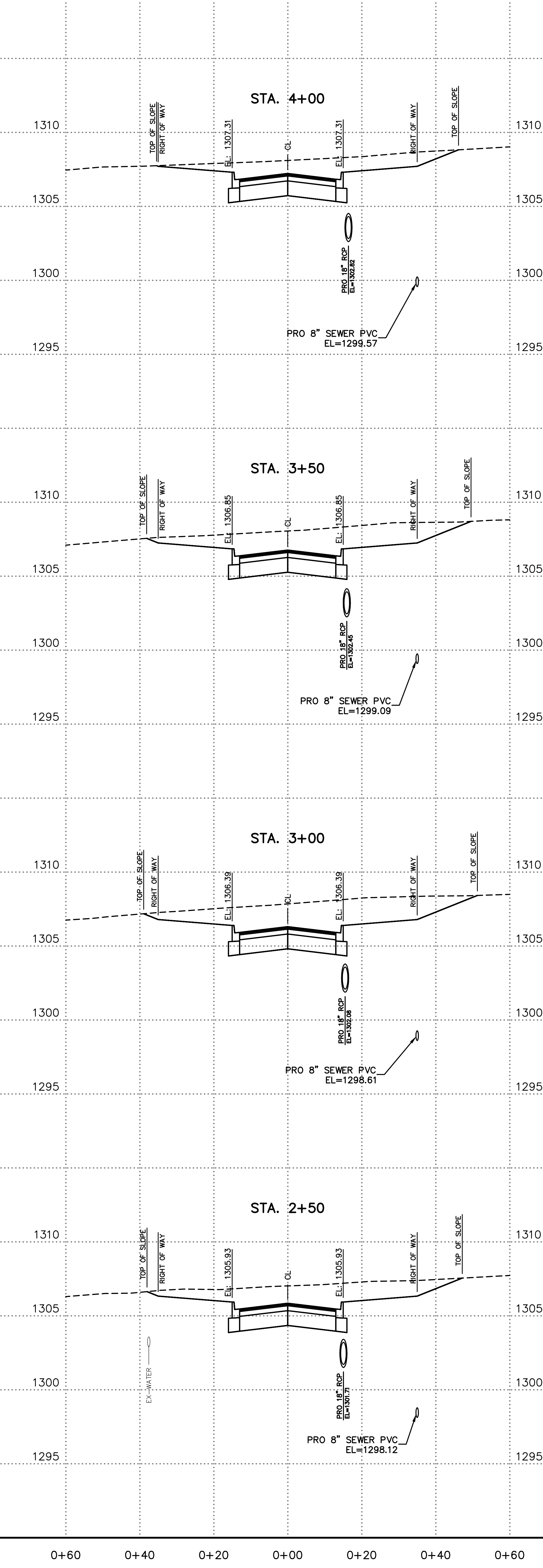
SCALE: AS SHOWN
DATE: Nov 21, 2017
ENGINEER: TJA
DRAWN BY: XXX
W.O. #: 17963

FRIZZO STREET



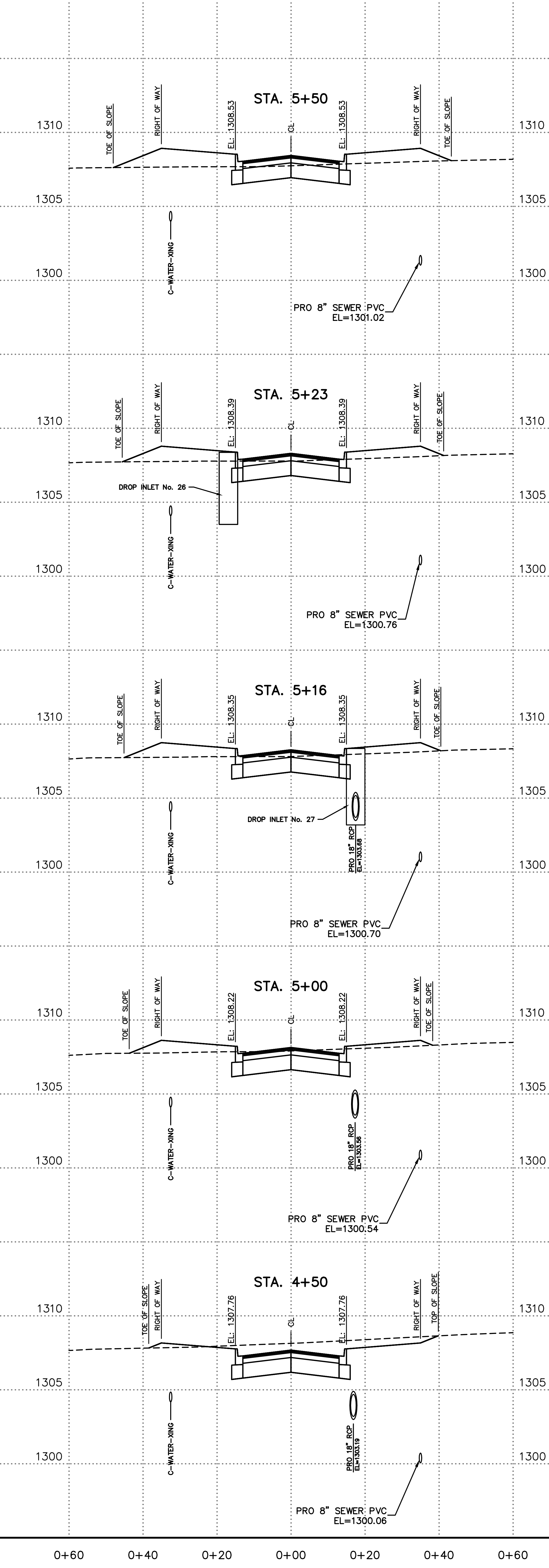
0+60 0+40 0+20 0+00 0+20 0+40 0+60
STA. 2+11
STA. 2+00
STA. 1+50
STA. 1+20
STA. 1+10
TOP OF SLOPE
TOE OF SLOPE
RIGHT OF WAY
CL
EL: 1305.70
EL: 1305.71
EL: 1306.26
EL: 1306.40
EL: 1306.35
18" RCP
DROP INLET No. 28
DROP INLET No. 30
AREA INLET No. 29
EX-WATER
PRO 18" RCP
PRO 8" SEWER PVC EL=1297.27
PRO 8" SEWER PVC EL=1297.22
1310
1305
1300
1295

FRIZZO STREET



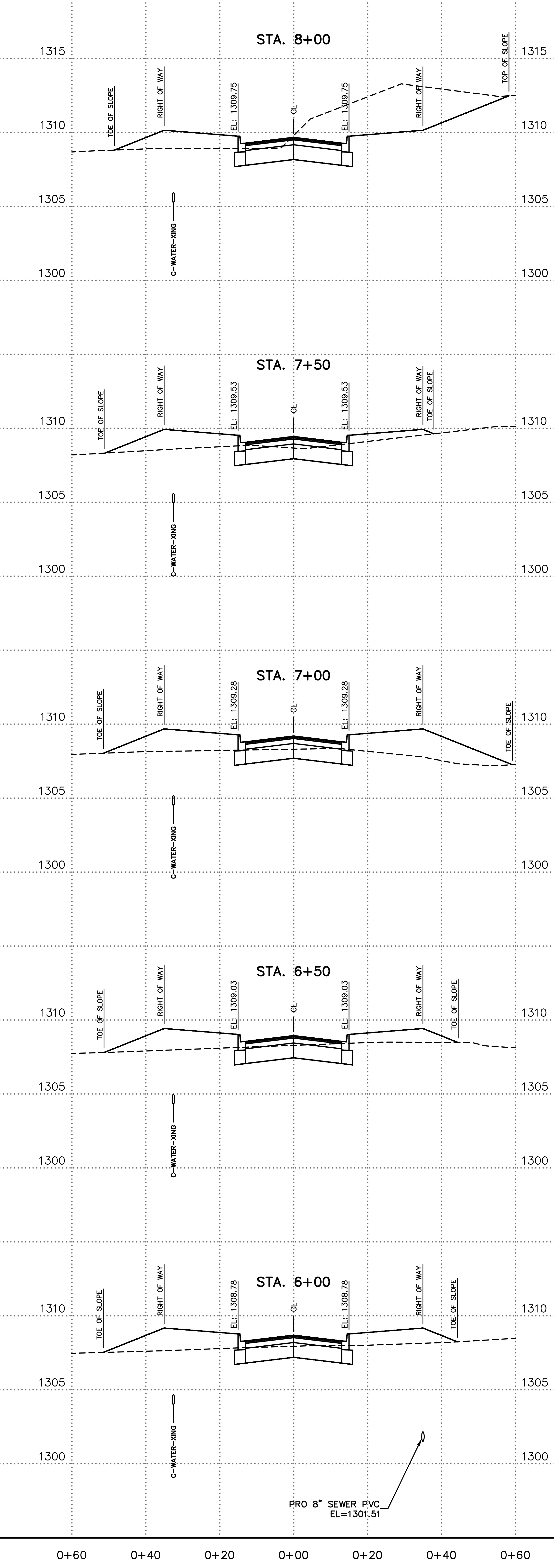
0+60 0+40 0+20 0+00 0+20 0+40 0+60
STA. 4+00
STA. 3+50
STA. 3+00
STA. 2+50
TOP OF SLOPE
RIGHT OF WAY
CL
EL: 1307.31
EL: 1306.85
EL: 1306.39
EL: 1305.93
PRO 18" RCP
EX-WATER
PRO 8" SEWER PVC EL=1299.57
PRO 8" SEWER PVC EL=1299.09
PRO 8" SEWER PVC EL=1298.61
PRO 8" SEWER PVC EL=1298.12
1310
1305
1300
1295

FRIZZO STREET



0+60 0+40 0+20 0+00 0+20 0+40 0+60
STA. 5+50
STA. 5+23
STA. 5+16
STA. 5+00
STA. 4+50
TOE OF SLOPE
RIGHT OF WAY
CL
EL: 1308.53
EL: 1308.39
EL: 1308.35
EL: 1308.22
EL: 1307.76
DROP INLET No. 26
DROP INLET No. 27
C-WATER-XING
PRO 18" RCP
PRO 8" SEWER PVC EL=1301.02
PRO 8" SEWER PVC EL=1300.76
PRO 8" SEWER PVC EL=1300.70
PRO 8" SEWER PVC EL=1300.54
PRO 8" SEWER PVC EL=1300.06
1310
1305
1300

FRIZZO STREET



0+60 0+40 0+20 0+00 0+20 0+40 0+60
STA. 8+00
STA. 7+50
STA. 7+00
STA. 6+50
STA. 6+00
TOE OF SLOPE
TOP OF SLOPE
RIGHT OF WAY
CL
EL: 1309.75
EL: 1309.53
EL: 1309.28
EL: 1309.03
EL: 1308.78
C-WATER-XING
PRO 8" SEWER PVC EL=1301.51
1315
1310
1305
1300

ENGINEERING SERVICES INC.
1207 SOUTH OLD MISSOURI RD.
SPRINGDALE, ARKANSAS 72764

CROSS SECTIONS
WESTBROOK SUBDIVISON – PHASE 2
TONTITOWN, ARKANSAS

REVISION	DATE	DESCRIPTION

Z:\SUBD\17963 - WESTBROOK SUBD\17963 - X SECTIONS.dwg

SCALE: 1"=20'
DATE: Nov 22, 2017
ENGINEER: TJA
DRAWN BY: XXX
W.O. #: 17963

FRIZZO STREET
FRIZZO STREET
FRIZZO STREET
FRIZZO STREET
0+60
0+40
0+20
0+00
0+20
0+40
0+60
1315
1310
1305
1300
STA. 10+00
TOE OF SLOPE
RIGHT OF WAY
EL: 1308.74
CL
C-WATER-XING
PRO 8" SEWER PVC
EL=1301.29
STA. 9+50
TOP OF SLOPE
EL: 1309.00
PRO 8" SEWER PVC
EL=1301.49
STA. 9+00
EL: 1309.26
PRO 8" SEWER PVC
EL=1301.69
STA. 8+50
EL: 1309.51
STA. 11+20
EL: 1308.12
DROP INLET No. 23
PRO 18" RCP
PRO 8" SEWER PVC
EL=1300.81
STA. 11+00
EL: 1308.22
PRO 8" SEWER PVC
EL=1300.89
STA. 10+60
EL: 1308.43
DROP INLET No. 22
PRO 8" SEWER PVC
EL=1301.05
STA. 10+50
EL: 1308.48
PRO 8" SEWER PVC
EL=1301.09
STA. 13+50
EL: 1306.92
PRO 8" SEWER PVC
EL=1299.79
STA. 13+00
EL: 1307.18
PRO 8" SEWER PVC
EL=1299.99
STA. 12+50
EL: 1307.44
PRO 8" SEWER PVC
EL=1300.29
STA. 12+00
EL: 1307.70
PRO 8" SEWER PVC
EL=1300.49
STA. 11+50
EL: 1307.96
PRO 8" SEWER PVC
EL=1300.69
STA. 15+50
EL: 1305.88
PRO 24" RCP
STA. 15+00
EL: 1306.14
STA. 14+50
EL: 1306.40
STA. 14+40
EL: 1306.46
18" RCP
DROP INLET No. 25
DROP INLET No. 24
STA. 14+00
EL: 1306.66
PRO 18" RCP

ENGINEERING SERVICES INC.
1207 SOUTH OLD MISSOURI RD.
SPRINGDALE, ARKANSAS 72764

CROSS SECTIONS
WESTBROOK SUBDIVISON – PHASE 2
TONTITOWN, ARKANSAS

REVISION	DATE	DESCRIPTION

Z:\SUBD\17963 - WESTBROOK SUBD\17963 - X SECTIONS.DWG

SCALE: 1"=20'
DATE: Nov 22, 2017
ENGINEER: TJA
DRAWN BY: XXX
W.O. #: 17963

FRIZZO STREET
FRIZZO STREET
FRIZZO STREET
FRIZZO STREET
0+60 0+40 0+20 0+00 0+20 0+40 0+60
1310
1305
1300
1295
STA. 17+50
STA. 17+00
STA. 16+50
STA. 16+07
STA. 16+00
STA. 19+00
STA. 18+55
STA. 18+50
STA. 18+00
STA. 20+50
STA. 20+00
STA. 19+50
STA. 19+20
STA. 22+50
STA. 22+00
STA. 21+50
STA. 21+00
TOE OF SLOPE
TOP OF SLOPE
RIGHT OF WAY
CL
EL: 1306.31
EL: 1306.05
EL: 1305.80
EL: 1305.63
EL: 1307.45
EL: 1307.09
EL: 1307.06
EL: 1306.67
EL: 1308.61
EL: 1308.22
EL: 1307.83
EL: 1307.60
EL: 1310.17
EL: 1309.78
EL: 1309.39
EL: 1309.00
C-WATER-XING
PRO 18" RCP
PRO 24" RCP
18" RCP
DROP INLET No. 1
DROP INLET No. 2
DROP INLET No. 20
DROP INLET No. 21
PRO 8" SEWER PVC EL=1299.93
PRO 8" SEWER PVC EL=1301.04
PRO 8" SEWER PVC EL=1300.67
PRO 8" SEWER PVC EL=1300.30
PRO 8" SEWER PVC EL=1300.07

ENGINEERING SERVICES INC.
1207 SOUTH OLD MISSOURI RD.
SPRINGDALE, ARKANSAS 72764

CROSS SECTIONS
WESTBROOK SUBDIVISON – PHASE 2
TONTITOWN, ARKANSAS

REVISION	DATE	DESCRIPTION

SCALE: 1"=20'

DATE: Nov 22, 2017

ENGINEER: TJA
DRAWN BY: XXX

W.O. #: 17963

Z:\SUBD\17963 - WESTBROOK SUBD\17963 - X SECTIONS.DWG

0+60 0+40 0+20 0+00 0+20 0+40 0+60
FRIZZO STREET
STA. 24+00
EL: 1310.48
PRO 8" SEWER PVC
EL=1302.32
STA. 23+50
EL: 1310.87
STA. 23+49.47, FRIZZO-A-D-C STREET
INSTALL MANHOLE No. 12
STA. 23+00
EL: 1310.55
STA. 26+00
EL: 1308.63
PRO 8" SEWER PVC
EL=1301.28
STA. 25+50
EL: 1309.09
STA. 25+00
EL: 1309.55
STA. 24+50
EL: 1310.02
PRO 8" SEWER PVC
EL=1301.76
STA. 27+54
EL: 1307.20
PRO 8" SEWER PVC
EL=1298.69
STA. 27+50
EL: 1307.23
PRO 8" SEWER PVC
EL=1298.72
STA. 27+00
EL: 1307.70
PRO 8" SEWER PVC
EL=1300.01
STA. 26+50
EL: 1308.16
PRO 8" SEWER PVC
EL=1300.53
STA. 29+00
EL: 1305.84
PRO 18" RCP
EL=1301.32
PRO 8" SEWER PVC
EL=1297.71
STA. 28+50
EL: 1306.31
PRO 18" RCP
EL=1301.78
PRO 8" SEWER PVC
EL=1298.05
STA. 28+00
EL: 1306.77
PRO 18" RCP
EL=1302.24
PRO 8" SEWER PVC
EL=1298.38
STA. 27+94
EL: 1306.83
DROP INLET No. 11
PRO 18" RCP
EL=1302.30
PRO 8" SEWER PVC
EL=1298.42
TOP OF SLOPE
RIGHT OF WAY
TOE OF SLOPE
CL
C-WATER-XING
1315
1310
1305
1300
1295

ENGINEERING SERVICES INC.
1207 SOUTH OLD MISSOURI RD.
SPRINGDALE, ARKANSAS 72764

CROSS SECTIONS
WESTBROOK SUBDIVISON – PHASE 2
TONTITOWN, ARKANSAS

REVISION	DATE	DESCRIPTION

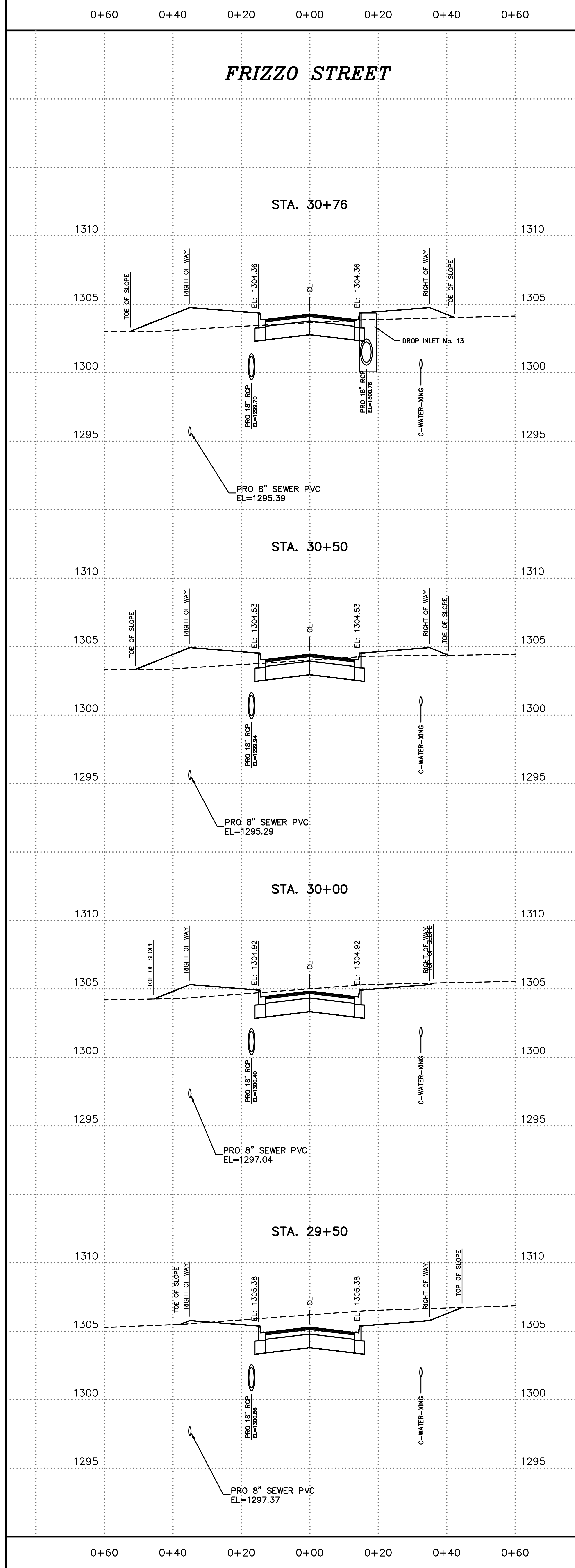
Z:\SUBD\17963 - WESTBROOK SUBD\17963 - X SECTIONS.DWG

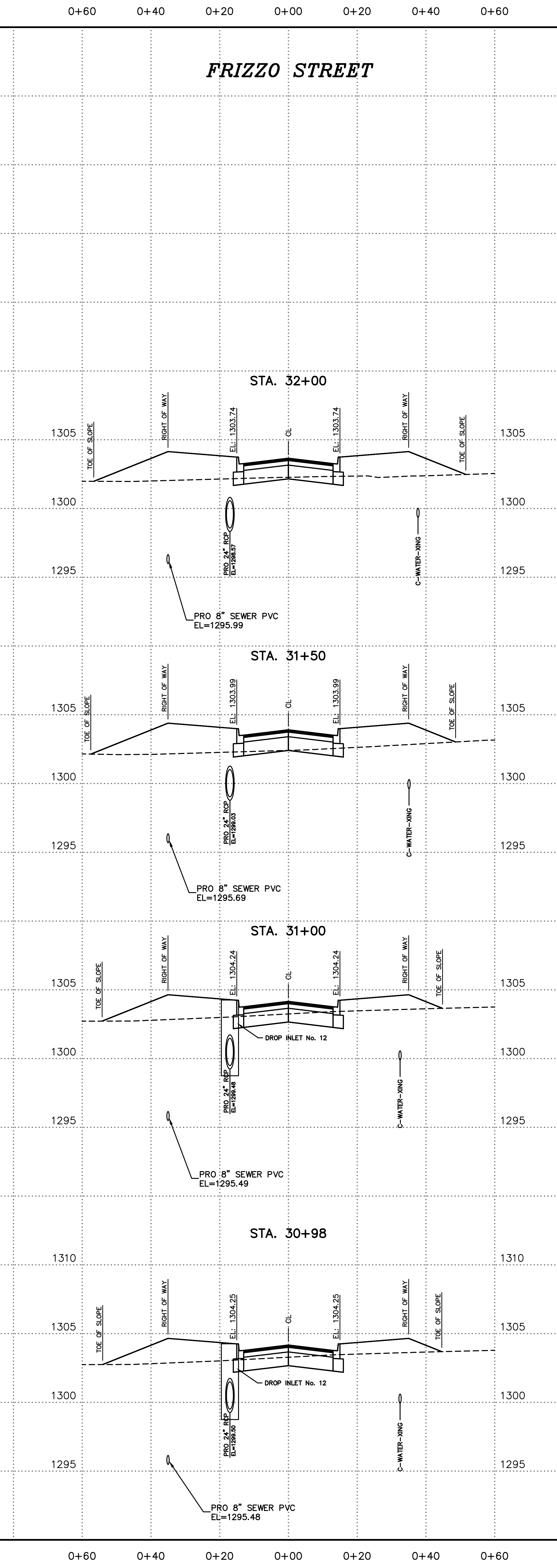
SCALE: 1"=20'

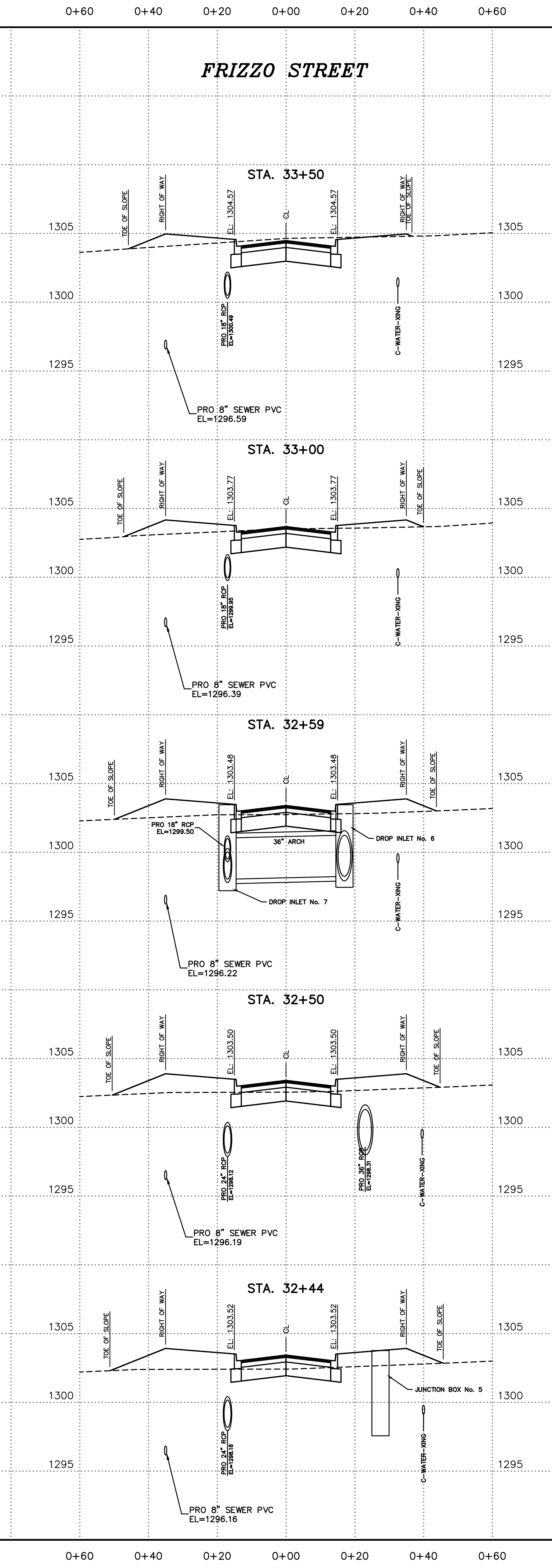
DATE: Nov 22, 2017

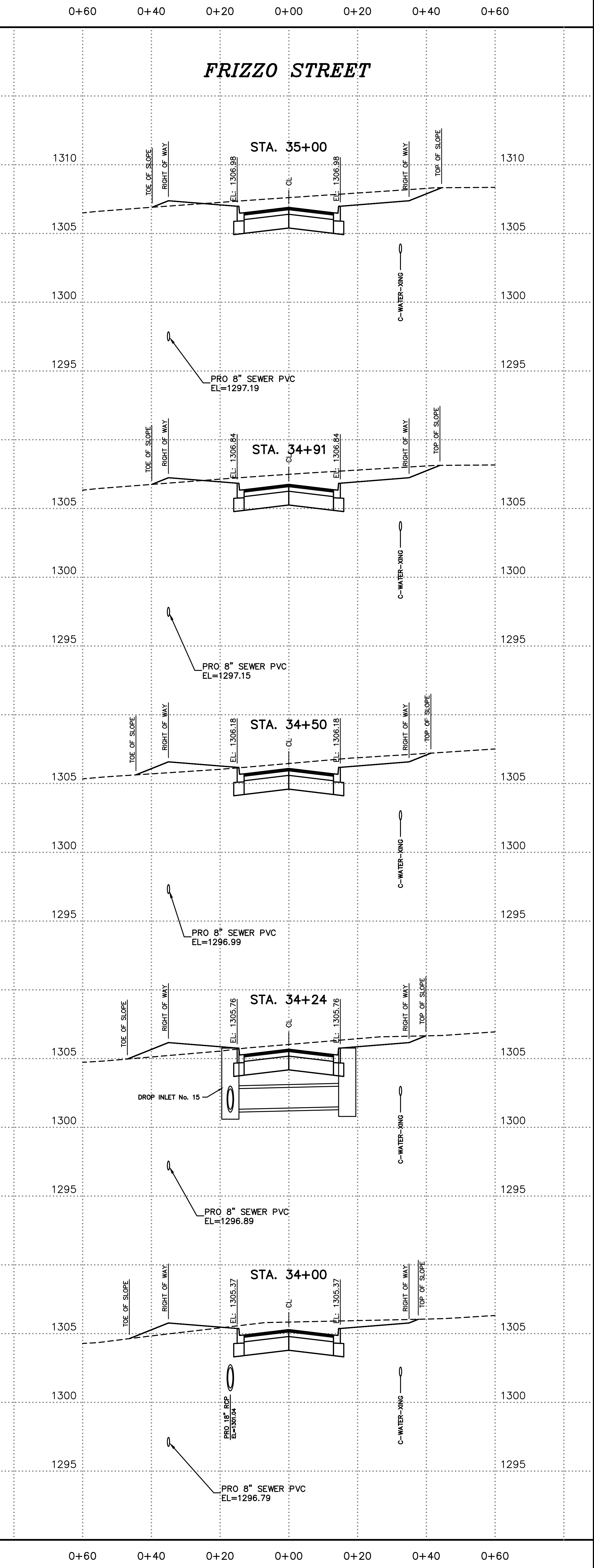
ENGINEER: TJA
DRAWN BY: XXX

W.O. #: 17963


0+60
0+40
0+20
0+00
0+20
0+40
0+60
FRIZZO STREET
STA. 30+76
TOE OF SLOPE
RIGHT OF WAY
EL: 1304.36
CL
EL: 1304.36
RIGHT OF WAY
TOP OF SLOPE
DROP INLET No. 13
PRO 18" RCP
PRO 18" RCP
C-WATER-XING
PRO 8" SEWER PVC
EL=1295.39
STA. 30+50
TOE OF SLOPE
RIGHT OF WAY
EL: 1304.53
CL
EL: 1304.53
RIGHT OF WAY
TOE OF SLOPE
PRO 18" RCP
C-WATER-XING
PRO 8" SEWER PVC
EL=1295.29
STA. 30+00
TOE OF SLOPE
RIGHT OF WAY
EL: 1304.92
CL
EL: 1304.92
RIGHT OF WAY
PRO 18" RCP
C-WATER-XING
PRO 8" SEWER PVC
EL=1297.04
STA. 29+50
TOE OF SLOPE
RIGHT OF WAY
EL: 1305.38
CL
EL: 1305.38
RIGHT OF WAY
TOP OF SLOPE
PRO 18" RCP
C-WATER-XING
PRO 8" SEWER PVC
EL=1297.37
1310
1305
1300
1295


0+60
0+40
0+20
0+00
0+20
0+40
0+60
FRIZZO STREET
STA. 32+00
TOE OF SLOPE
RIGHT OF WAY
EL: 1303.74
CL
EL: 1303.74
RIGHT OF WAY
TOE OF SLOPE
PRO 24" RCP
C-WATER-XING
PRO 8" SEWER PVC
EL=1295.99
STA. 31+50
TOE OF SLOPE
RIGHT OF WAY
EL: 1303.99
CL
EL: 1303.99
RIGHT OF WAY
TOE OF SLOPE
PRO 24" RCP
C-WATER-XING
PRO 8" SEWER PVC
EL=1295.69
STA. 31+00
TOE OF SLOPE
RIGHT OF WAY
EL: 1304.24
CL
EL: 1304.24
RIGHT OF WAY
TOE OF SLOPE
DROP INLET No. 12
PRO 24" RCP
C-WATER-XING
PRO 8" SEWER PVC
EL=1295.49
STA. 30+98
TOE OF SLOPE
RIGHT OF WAY
EL: 1304.25
CL
EL: 1304.25
RIGHT OF WAY
TOE OF SLOPE
DROP INLET No. 12
PRO 24" RCP
C-WATER-XING
PRO 8" SEWER PVC
EL=1295.48
1310
1305
1300
1295


0+60
0+40
0+20
0+00
0+20
0+40
0+60
FRIZZO STREET
STA. 33+50
TOE OF SLOPE
RIGHT OF WAY
EL: 1304.57
CL
EL: 1304.57
RIGHT OF WAY
TOP OF SLOPE
PRO 18" RCP
C-WATER-XING
PRO 8" SEWER PVC
EL=1296.59
STA. 33+00
TOE OF SLOPE
RIGHT OF WAY
EL: 1303.77
CL
EL: 1303.77
RIGHT OF WAY
TOE OF SLOPE
PRO 18" RCP
C-WATER-XING
PRO 8" SEWER PVC
EL=1296.39
STA. 32+59
TOE OF SLOPE
RIGHT OF WAY
EL: 1303.48
CL
EL: 1303.48
RIGHT OF WAY
TOE OF SLOPE
PRO 18" RCP
EL=1299.50
36" ARCH
DROP INLET No. 6
DROP INLET No. 7
C-WATER-XING
PRO 8" SEWER PVC
EL=1296.22
STA. 32+50
TOE OF SLOPE
RIGHT OF WAY
EL: 1303.50
CL
EL: 1303.50
RIGHT OF WAY
TOE OF SLOPE
PRO 24" RCP
PRO 36" RCP
C-WATER-XING
PRO 8" SEWER PVC
EL=1296.19
STA. 32+44
TOE OF SLOPE
RIGHT OF WAY
EL: 1303.52
CL
EL: 1303.52
RIGHT OF WAY
TOE OF SLOPE
JUNCTION BOX No. 5
PRO 24" RCP
C-WATER-XING
PRO 8" SEWER PVC
EL=1296.16
1305
1300
1295


0+60
0+40
0+20
0+00
0+20
0+40
0+60
FRIZZO STREET
STA. 35+00
TOE OF SLOPE
RIGHT OF WAY
EL: 1306.98
CL
EL: 1306.98
RIGHT OF WAY
TOP OF SLOPE
C-WATER-XING
PRO 8" SEWER PVC
EL=1297.19
STA. 34+91
TOE OF SLOPE
RIGHT OF WAY
EL: 1306.84
CL
EL: 1306.84
RIGHT OF WAY
TOP OF SLOPE
C-WATER-XING
PRO 8" SEWER PVC
EL=1297.15
STA. 34+50
TOE OF SLOPE
RIGHT OF WAY
EL: 1306.18
CL
EL: 1306.18
RIGHT OF WAY
TOP OF SLOPE
C-WATER-XING
PRO 8" SEWER PVC
EL=1296.99
STA. 34+24
TOE OF SLOPE
RIGHT OF WAY
EL: 1305.76
CL
EL: 1305.76
RIGHT OF WAY
TOP OF SLOPE
DROP INLET No. 15
C-WATER-XING
PRO 8" SEWER PVC
EL=1296.89
STA. 34+00
TOE OF SLOPE
RIGHT OF WAY
EL: 1305.37
CL
EL: 1305.37
RIGHT OF WAY
TOP OF SLOPE
PRO 18" RCP
C-WATER-XING
PRO 8" SEWER PVC
EL=1296.79
1310
1305
1300
1295

ENGINEERING SERVICES INC.
1207 SOUTH OLD MISSOURI RD.
SPRINGDALE, ARKANSAS 72764

CROSS SECTIONS
WESTBROOK SUBDIVISON – PHASE 2
TONTITOWN, ARKANSAS

REVISION	DATE	DESCRIPTION

Z:\SUBD\17963 - WESTBROOK SUBD\17963 - X SECTIONS.DWG

SCALE: 1"=20'

DATE: Nov 22, 2017

ENGINEER: TJA
DRAWN BY: XXX

W.O. #: 17963

0+60 0+40 0+20 0+00 0+20 0+40 0+60
FRIZZO STREET
FRIZZO STREET
B STREET
B STREET
1310
1305
1300
1295
STA. 37+00
EL. 1308.67
TOE OF SLOPE
RIGHT OF WAY
CL
TOP OF SLOPE
C-WATER-XING
PRO 8" SEWER PVC
EL=1298.09
STA. 36+50
EL. 1308.42
PRO 8" SEWER PVC
EL=1297.89
STA. 36+00
EL. 1308.17
PRO 8" SEWER PVC
EL=1297.69
STA. 35+50
EL. 1307.74
PRO 8" SEWER PVC
EL=1297.49
STA. 39+00
EL. 1307.22
STA. 38+50
EL. 1307.74
STA. 38+00
EL. 1308.25
PRO 8" SEWER PVC
EL=1298.49
STA. 37+50
EL. 1308.75
PRO 8" SEWER PVC
EL=1298.29
STA. 2+00
EL. 1307.89
PRO 8" SEWER PVC
EL=1299.89
STA. 1+50
EL. 1308.77
PRO 8" SEWER PVC
EL=1300.44
STA. 1+00
EL. 1309.65
PRO 8" SEWER PVC
EL=1300.99
STA. 0+50
EL. 1310.44
STA. 0+50.08, B STREET
INSTALL MANHOLE No. 11
STA. 3+50
EL. 1305.60
PRO 18" RCP
PRO 8" SEWER PVC
EL=1298.22
STA. 3+00
EL. 1306.14
PRO 18" RCP
PRO 8" SEWER PVC
EL=1298.78
STA. 2+90
EL. 1306.31
18" RCP
DROP INLET No. 17
DROP INLET No. 16
PRO 18" RCP
PRO 8" SEWER PVC
EL=1298.89
STA. 2+50
EL. 1307.01
PRO 8" SEWER PVC
EL=1299.33

ENGINEERING SERVICES INC.
1207 SOUTH OLD MISSOURI RD.
SPRINGDALE, ARKANSAS 72764

CROSS SECTIONS
WESTBROOK SUBDIVISON - PHASE 2
TONTITOWN, ARKANSAS

REVISION	DATE	DESCRIPTION

Z:\SUBD\17963 - WESTBROOK SUBD\17963 - X SECTIONS.DWG

SCALE: 1"=20'

DATE: Nov 22, 2017

ENGINEER: TJA
DRAWN BY: XXX

W.O. #: 17963

0+60 0+40 0+20 0+00 0+20 0+40 0+60
B STREET
STA. 5+50
TOE OF SLOPE
RIGHT OF WAY
EL: 1304.65
CL
RIGHT OF WAY
TOE OF SLOPE
PRO 24" RCP EL=1300.01
STA. 5+38
EL: 1304.62
DROP INLET No. 4
24" ARCH
DROP INLET No. 3
PRO 24" RCP EL=1299.91
PRO 8" SEWER PVC EL=1297.45
STA. 5+00
EL: 1304.78
PRO 18" RCP EL=1300.18
STA. 4+50
EL: 1305.06
PRO 18" RCP EL=1300.54
STA. 4+50.08, B STREET
INSTALL MANHOLE No. 7
STA. 4+00
EL: 1305.33
PRO 18" RCP EL=1300.90
PRO 8" SEWER PVC EL=1297.67
STA. 7+85
TOP OF SLOPE
EL: 1307.72
DROP INLET No. 19
18" RCP
DROP INLET No. 18
PRO 24" RCP EL=1302.00
STA. 7+85.15, B STREET
INSTALL MANHOLE No. 13
STA. 7+50
EL: 1307.53
PRO 24" RCP EL=1301.70
STA. 7+00
EL: 1307.27
PRO 24" RCP EL=1301.28
STA. 6+50
EL: 1306.49
PRO 24" RCP EL=1300.86
STA. 6+00
EL: 1305.27
PRO 24" RCP EL=1300.44
STA. 10+00
EL: 1308.86
PRO 8" SEWER PVC EL=1300.98
STA. 9+50
EL: 1308.59
PRO 8" SEWER PVC EL=1300.47
STA. 9+00
EL: 1308.33
PRO 8" SEWER PVC EL=1299.96
STA. 8+50
EL: 1308.06
STA. 8+00
EL: 1307.80
STA. 12+50
EL: 1309.02
STA. 12+00
EL: 1309.31
STA. 11+50
EL: 1309.59
STA. 11+00
EL: 1309.39
PRO 8" SEWER PVC EL=1302.01
STA. 10+50
EL: 1309.12
PRO 8" SEWER PVC EL=1301.50
1295 1300 1305 1310

ENGINEERING SERVICES INC.
1207 SOUTH OLD MISSOURI RD.
SPRINGDALE, ARKANSAS 72764

CROSS SECTIONS
WESTBROOK SUBDIVISON – PHASE 2
TONTITOWN, ARKANSAS

REVISION	DATE	DESCRIPTION

SCALE: 1"=20'

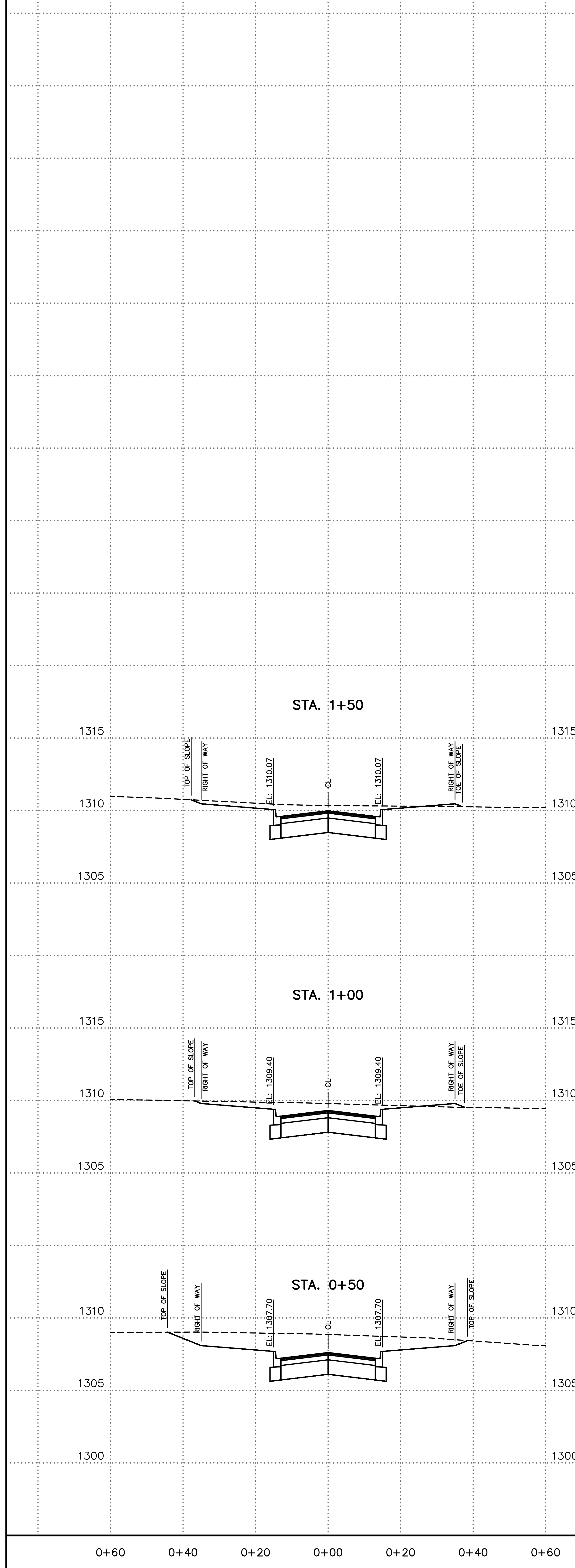
DATE: Nov 22, 2017

ENGINEER: TJA
DRAWN BY: XXX

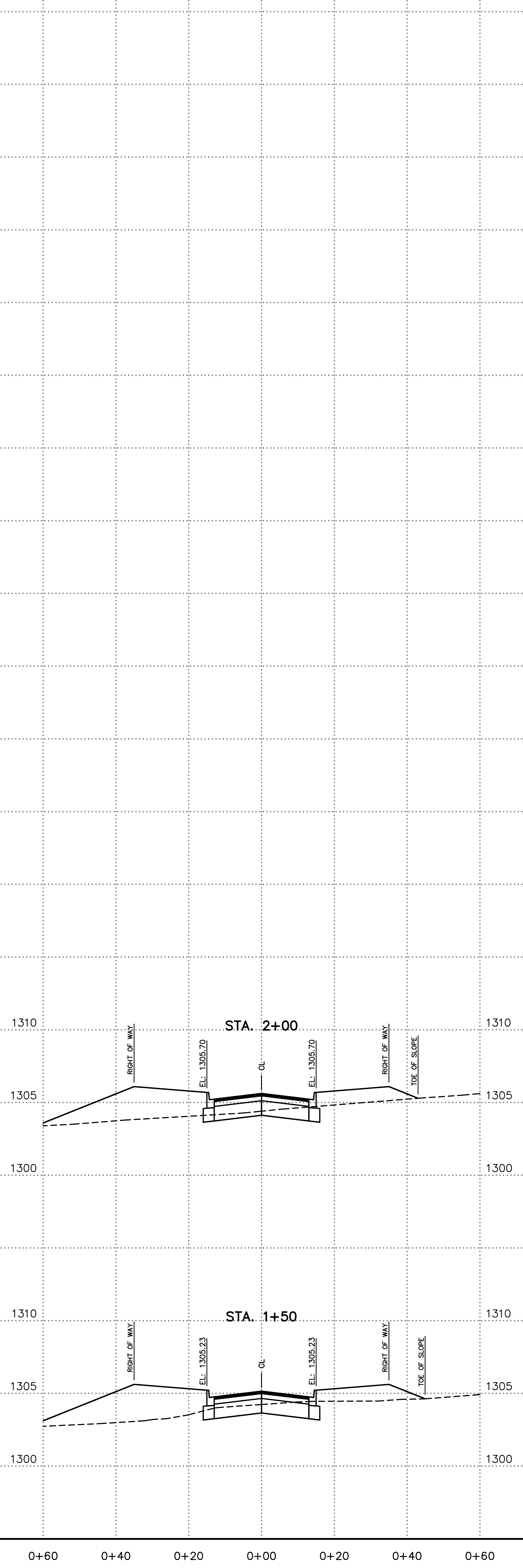
W.O. #: 17963

Z:\SUBD\17963 - WESTBROOK SUBD\17963 - X SECTIONS.DWG

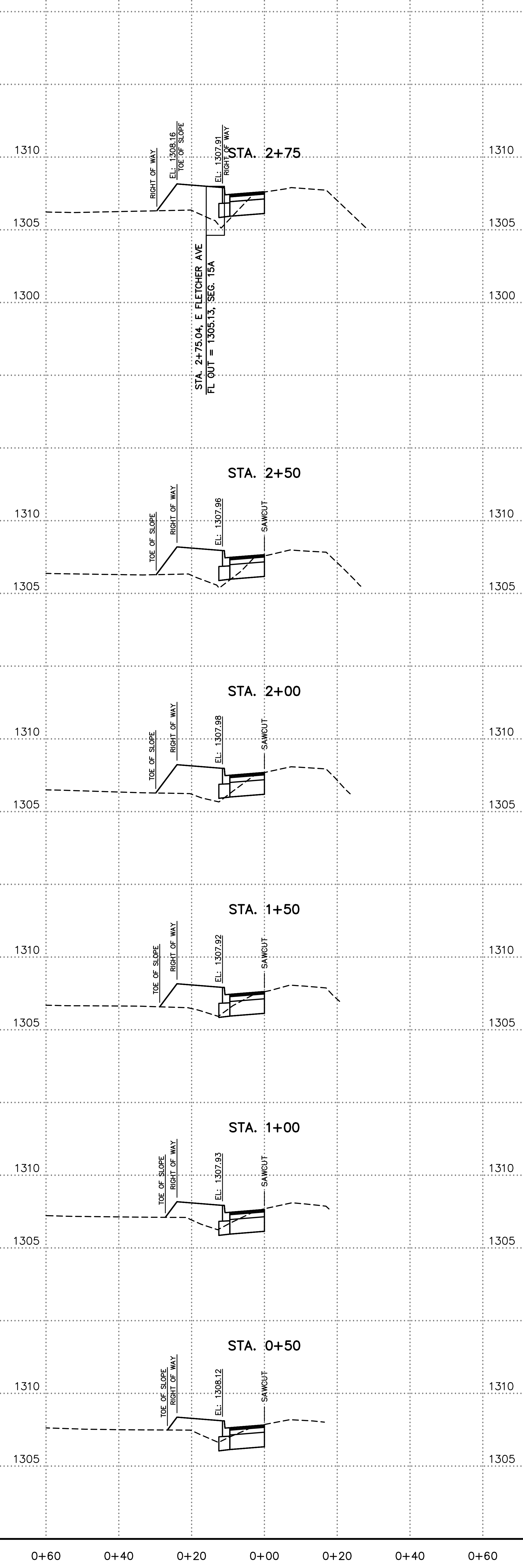
E STREET


STA. 1+50
1315
1310
1305
TOP OF SLOPE
RIGHT OF WAY
EL: 1310.07
CL
EL: 1310.07
RIGHT OF WAY
TOE OF SLOPE
STA. 1+00
1315
1310
1305
TOP OF SLOPE
RIGHT OF WAY
EL: 1309.40
CL
EL: 1309.40
RIGHT OF WAY
TOE OF SLOPE
STA. 0+50
1310
1305
1300
TOP OF SLOPE
RIGHT OF WAY
EL: 1307.70
CL
EL: 1307.70
RIGHT OF WAY
TOP OF SLOPE
0+60
0+40
0+20
0+00
0+20
0+40
0+60

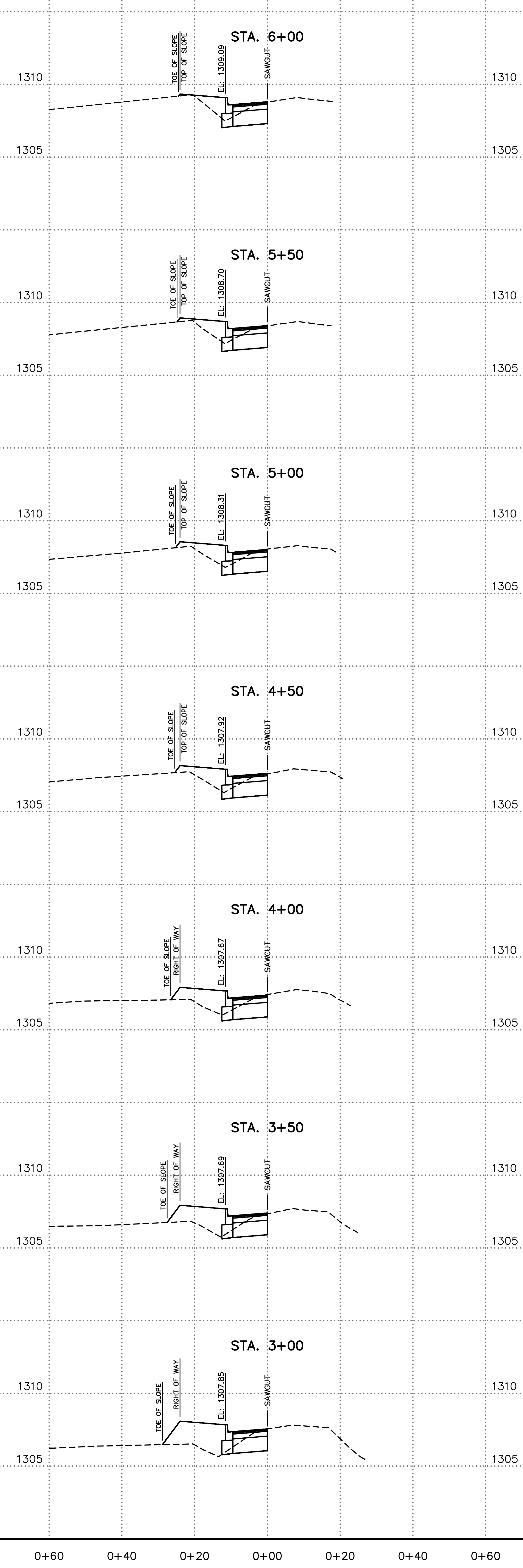
GAICHE STREET


STA. 2+00
1310
1305
1300
RIGHT OF WAY
EL: 1305.70
CL
EL: 1305.70
RIGHT OF WAY
TOE OF SLOPE
STA. 1+50
1310
1305
1300
RIGHT OF WAY
EL: 1305.23
CL
EL: 1305.23
RIGHT OF WAY
TOE OF SLOPE
0+60
0+40
0+20
0+00
0+20
0+40
0+60

FLETCHER AVENUE


STA. 2+75
1310
1305
1300
RIGHT OF WAY
EL: 1308.16
TOE OF SLOPE
EL: 1307.91
RIGHT OF WAY
STA. 2+75.04, E FLETCHER AVE
FL OUT = 1305.13, SEG. 15A
STA. 2+50
TOE OF SLOPE
RIGHT OF WAY
EL: 1307.96
SAWCUT
STA. 2+00
TOE OF SLOPE
RIGHT OF WAY
EL: 1307.98
SAWCUT
STA. 1+50
TOE OF SLOPE
RIGHT OF WAY
EL: 1307.92
SAWCUT
STA. 1+00
TOE OF SLOPE
RIGHT OF WAY
EL: 1307.93
SAWCUT
STA. 0+50
TOE OF SLOPE
RIGHT OF WAY
EL: 1308.12
SAWCUT
0+60
0+40
0+20
0+00
0+20
0+40
0+60

FLETCHER AVENUE


STA. 6+00
1310
1305
TOE OF SLOPE
TOP OF SLOPE
EL: 1309.09
SAWCUT
STA. 5+50
TOE OF SLOPE
TOP OF SLOPE
EL: 1308.70
SAWCUT
STA. 5+00
TOE OF SLOPE
TOP OF SLOPE
EL: 1308.31
SAWCUT
STA. 4+50
TOE OF SLOPE
TOP OF SLOPE
EL: 1307.92
SAWCUT
STA. 4+00
TOE OF SLOPE
RIGHT OF WAY
EL: 1307.67
SAWCUT
STA. 3+50
TOE OF SLOPE
RIGHT OF WAY
EL: 1307.69
SAWCUT
STA. 3+00
TOE OF SLOPE
RIGHT OF WAY
EL: 1307.85
SAWCUT
0+60
0+40
0+20
0+00
0+20
0+40
0+60

ENGINEERING SERVICES INC.
1207 SOUTH OLD MISSOURI RD.
SPRINGDALE, ARKANSAS 72764

CROSS SECTIONS
WESTBROOK SUBDIVISON – PHASE 2
TONTITOWN, ARKANSAS

REVISION	DATE	DESCRIPTION

11-20-17, 04:22 PM

Z:\SUBD\17963 - WESTBROOK SUBD\17963 - X SECTIONS.DWG

SCALE: 1"=20'

DATE: Nov 22, 2017

ENGINEER: TJA
DRAWN BY: XXX

W.O. #: 17963

0+60 0+40 0+20 0+00 0+20 0+40 0+60
FLETCHER AVENUE
STA. 9+50
TOP OF SLOPE
TOP OF SLOPE
EL: 1309.67
SAWCUT
STA. 9+00
TOP OF SLOPE
TOP OF SLOPE
EL: 1309.90
SAWCUT
STA. 8+50
TOP OF SLOPE
TOP OF SLOPE
EL: 1310.02
SAWCUT
STA. 8+00
TOP OF SLOPE
TOP OF SLOPE
EL: 1310.04
SAWCUT
STA. 7+50
TOP OF SLOPE
TOP OF SLOPE
EL: 1309.96
SAWCUT
STA. 7+00
TOE OF SLOPE
TOP OF SLOPE
EL: 1309.77
SAWCUT
STA. 6+50
TOE OF SLOPE
TOP OF SLOPE
EL: 1309.47
SAWCUT
1310
1305
FLETCHER AVENUE
STA. 13+00
TOE OF SLOPE
RIGHT OF WAY
EL: 1306.89
SAWCUT
STA. 12+50
TOE OF SLOPE
RIGHT OF WAY
EL: 1307.02
SAWCUT
STA. 12+00
TOE OF SLOPE
RIGHT OF WAY
EL: 1307.44
SAWCUT
STA. 11+50
TOE OF SLOPE
RIGHT OF WAY
EL: 1307.93
SAWCUT
STA. 11+00
TOE OF SLOPE
TOP OF SLOPE
EL: 1308.41
SAWCUT
STA. 10+50
TOE OF SLOPE
TOP OF SLOPE
EL: 1308.90
SAWCUT
STA. 10+00
TOE OF SLOPE
TOP OF SLOPE
EL: 1309.34
SAWCUT
1300
FLETCHER AVENUE
STA. 15+00
TOP OF SLOPE
RIGHT OF WAY
EL: 1307.48
SAWCUT
STA. 14+50
TOE OF SLOPE
TOP OF SLOPE
EL: 1307.12
SAWCUT
STA. 14+00
TOE OF SLOPE
RIGHT OF WAY
EL: 1307.00
SAWCUT
STA. 13+50
TOE OF SLOPE
RIGHT OF WAY
EL: 1306.94
SAWCUT
STA. 13+25
RIGHT OF WAY
EL: 1307.16
TOE OF SLOPE
EL: 1306.91
RIGHT OF WAY
STA. 13+24.70, E FLETCHER AVE
FL IN = 1304.95, SEG. 13A
FL OUT = 1303.57, SEG. 13B

ENGINEERING SERVICES INC.
1207 SOUTH OLD MISSOURI RD.
SPRINGDALE, ARKANSAS 72764

CROSS SECTIONS
WESTBROOK SUBDIVISON – PHASE 2
TONTITOWN, ARKANSAS

REVISION	DATE	DESCRIPTION

@ COPYRIGHT 2015, ENGINEERING SERVICES, INC. 11-20-17, 04:23 PM

Z:\SUBD\17963 - WESTBROOK SUBD\17963 - X SECTIONS.DWG

SCALE: 1"=20'

DATE: Nov 22, 2017

ENGINEER: TJA
DRAWN BY: XXX

W.O. #: 17963