

SHELBY FORREST SUBDIVISION SANITARY SEWER IMPROVEMENTS CARDIN ROAD BENTON COUNTY, ARKANSAS

CONSTRUCTION NOTES

1. CONTRACTOR SHALL RETAIN A FULL SET OF THE LATEST APPROVED CONSTRUCTION PLANS ON SITE DURING CONSTRUCTION ACTIVITIES.
2. COORDINATE START-UP AND ALL CONSTRUCTION ACTIVITIES WITH THE DEVELOPER'S REPRESENTATIVE.
3. CONSTRUCTION METHODS AND MATERIALS NOT SPECIFIED IN THESE PLANS ARE TO MEET OR EXCEED THE SITEMARK SPECIFICATIONS PROVIDED BY EXPEDIENT CIVIL ENGINEERING, PLLC OR AS SPECIFIED BY THE DEVELOPER'S RESIDENT REPRESENTATIVE.
4. ALL CONSTRUCTION WORK AND UTILITY WORK OUTSIDE OF PROPERTY BOUNDARIES SHALL BE PERFORMED IN COOPERATION WITH AND ACCORDANCE WITH REGULATIONS OF THE AUTHORITIES CONCERNED.
5. **PUBLIC CONVENIENCE AND SAFETY.**

THE CONTRACTOR SHALL CONDUCT THE WORK IN A MANNER THAT WILL ENSURE, AS FAR AS PRACTICABLE, THE LEAST OBSTRUCTION TO TRAFFIC AND SHALL PROVIDE FOR THE CONVENIENCE AND SAFETY OF THE GENERAL PUBLIC AND RESIDENTS ALONG AND ADJACENT TO HIGHWAYS IN THE CONSTRUCTION AREA IN AN ADEQUATE AND SATISFACTORY MANNER IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) FOR STREETS AND HIGHWAYS AND THE ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, LATEST EDITION.

6. GRADING NOTES:

- A. THE CONSTRUCTION AREA SHALL BE CLEARED, GRUBBED, AND STRIPPED OF TOPSOIL AND ORGANIC MATTER FROM ALL AREAS TO BE OCCUPIED BY BUILDING AND PAVING. TOPSOIL FOR REPLACEMENT ON SLOPES MAY BE STOCKPILED ON SITE. EXCESS TOPSOIL MAY BE WASTED IN FILL SLOPES EXCEPT THAT NO TOPSOIL WILL BE WASTED WITHIN 10 FEET OF THE EDGE OF THE BUILDING OR PAVED AREA. BURNING OF TIMBER AND DEBRIS WILL NOT BE PERMITTED UNLESS APPROVAL IS OBTAINED FROM GOVERNING OFFICIALS.
- B. AREAS TO RECEIVE FILL SHALL BE SCARIFIED AND THE TOP 8-INCH DEPTH COMPACTED TO 95% OF THE MAXIMUM DRY DENSITY PER ASTM D1557. ANY UNSUITABLE AREAS SHALL BE UNDERCUT AND REPLACED WITH SUITABLE MATERIAL BEFORE ANY FILL MATERIAL CAN BE APPLIED.
- C. OFF-SITE FILL MATERIAL (SANDY CLAY, CLAYEY SAND, GRAVELLY CLAY, OR CLAYEY GRAVEL), SHALL HAVE A PLASTICITY INDEX OF 15 OR LESS, A LIQUID LIMIT OF 40 OR LESS, A CBR VALUE GREATER THAN 8, AND CONTAIN NO ROCK LARGER THAN 4 INCHES. OFF-SITE FILL MATERIAL SHALL BE APPROVED BY THE DEVELOPER'S REPRESENTATIVE PRIOR TO BRINGING ON SITE.
- D. AREAS THAT ARE TO BE CUT TO SUBGRADE LEVELS SHALL BE PROOF ROLLED WITH A FULLY LOADED TANDEM-AXLE DUMP TRUCK OR SIMILAR APPROVED CONSTRUCTION EQUIPMENT TO DETECT UNSUITABLE SOILS. CUT AREAS ARE TO BE SCARIFIED AND RECOMPACTED TO 95% MAXIMUM DRY DENSITY PER ASTM D698 AND TESTED BY A GEOTECHNICAL ENGINEER PRIOR TO PLACEMENT OF BASE MATERIAL.
- E. IN ALL AREAS OF EXCAVATION, IF UNSUITABLE SOILS ARE ENCOUNTERED, A QUALIFIED GEOTECHNICAL ENGINEER SHALL RECOMMEND TO THE DEVELOPER'S CONSTRUCTION DIVISION ON THE METHODS OF UNDERCUTTING AND REPLACEMENT OF PROPERLY COMPACTED, APPROVED FILL MATERIAL. ALL PROOF ROLLING AND UNDERCUTTING SHALL BE PERFORMED DURING A SUFFICIENT DURATION OF DRY WEATHER PERIOD.
- F. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONTROL OF DUST AND DIRT RISING AND SCATTERING IN THE AIR DURING CONSTRUCTION AND SHALL PROVIDE WATER SPRINKLING OR OTHER SUITABLE METHODS OF CONTROL. THE CONTRACTOR SHALL COMPLY WITH ALL GOVERNING REGULATIONS PERTAINING TO ENVIRONMENTAL PROTECTION.
- G. AN INDEPENDENT TESTING LABORATORY, SELECTED AND PAID BY THE CONTRACTOR, APPROVED BY THE DEVELOPER, SHALL BE RETAINED TO PERFORM CONSTRUCTION TESTING OF THE SUBGRADE FOR COMPLIANCE WITH THE MINIMUM REQUIREMENTS OF SUBGRADE COMPACTION. FOR BASE COURSE AND ASPHALT PAVING.
- H. ALL SLOPES ARE TO BE 3:1 OR FLATTER UNLESS OTHERWISE INDICATED. SLOPES STEEPER THAN 3:1, BUT FLATTER THAN 2:1 SHALL BE STABILIZED BY AN APPROVED VEGETATIVE LAYER OR OTHER APPROVED METHODS.
- I. ALL SLOPES EXCEEDING 2:1 SHALL BE PROTECTED BY RIP-RAP, CONCRETE PAVING, OR OTHER METHODS INDICATED ON THESE PLANS THAT WILL PREVENT EROSION, AND PLACED SUCH THAT THE SURFACE IS FLUSH WITH SURROUNDING GROUND AND SHAPED TO CHANNEL WATER IN DIRECTIONS INDICATED.

- J. CONTRACTOR SHALL REFER TO THE STORMWATER POLLUTION PREVENTION PLAN AND REPORT FOR STORMWATER QUALITY CONTROL INCLUDING EROSION AND SEDIMENT CONTROL. PROPER MEASURES SHALL BE PRACTICED TO PREVENT EROSION ALONG THE EDGE OF PROPERTY, TOE OF SLOPE, AND ALONG DITCHES. MUD AND DEBRIS ARE NOT ALLOWED TO FLOW ONTO ADJACENT PROPERTIES.
- K. CONTRACTOR IS TO REMOVE AND DISPOSE OF ALL DEBRIS, RUBBISH AND OTHER MATERIALS RESULTING FROM PREVIOUS AND CURRENT DEMOLITION OPERATIONS.

7. PAVING NOTES:

- A. ASPHALT CONCRETE SURFACE AND BASE COURSE MATERIALS SHOULD MEET OR EXCEED THE REQUIREMENTS SPECIFIED IN THE ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, LATEST EDITION.
- B. AN INDEPENDENT TESTING LABORATORY, SELECTED AND PAID BY THE CONTRACTOR, APPROVED BY THE DEVELOPER, SHALL BE RETAINED TO PERFORM CONSTRUCTION TESTING OF IN-PLACE ASPHALT CONCRETE COURSES FOR COMPLIANCE WITH REQUIREMENTS FOR THICKNESS AND SURFACE SMOOTHNESS REQUIREMENTS AS SPECIFIED IN THE CONSTRUCTION SPECIFICATIONS.

8. CONCRETE NOTES:

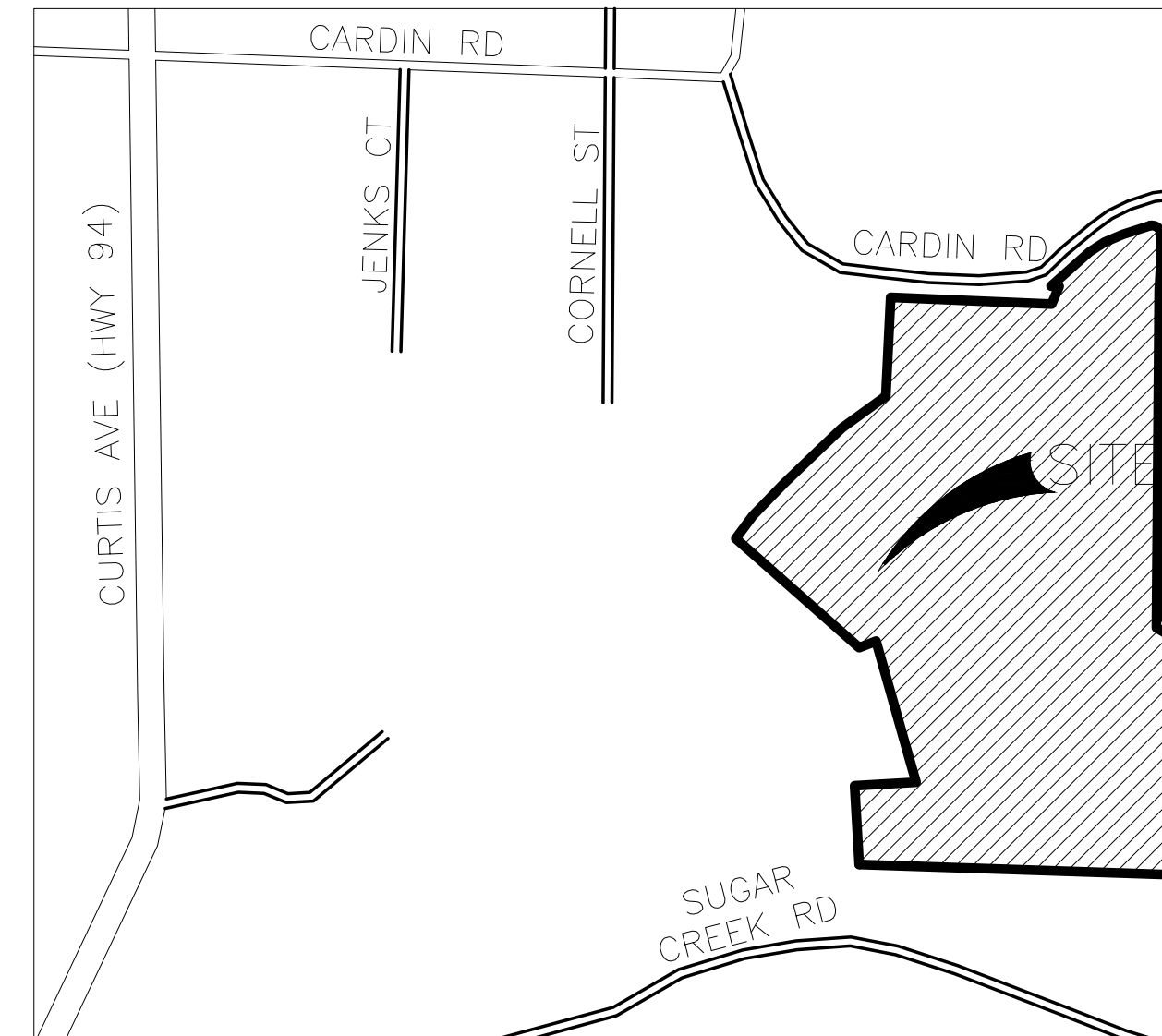
- A. CONCRETE PAVING AND STRUCTURES SHOULD CONFORM TO THE ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, LATEST EDITION.
- B. AN INDEPENDENT TESTING LABORATORY, SELECTED AND PAID BY THE CONTRACTOR, APPROVED BY THE DEVELOPER, SHALL BE RETAINED TO PERFORM CONSTRUCTION TESTING OF CONCRETE FOR COMPLIANCE WITH CONCRETE STRENGTH REQUIREMENTS AS SPECIFIED IN THE CONSTRUCTION SPECIFICATIONS.
- C. VERTICAL CONCRETE SURFACES EXPOSED TO THE GENERAL PUBLIC SHALL BE WET-RUBBED TO A SMOOTH FINISH AFTER FORMS HAVE BEEN REMOVED. HORIZONTAL SURFACES SHALL BE BROOMED AS REQUIRED IN THE CONSTRUCTION PROJECT SPECIFICATIONS.
- D. CONTRACTOR IS TO PROVIDE WEAKENED-PLANE (CONSTRUCTION) JOINTS, SECTIONING CONCRETE INTO AREAS AT 10-FOOT ON CENTERS, MAXIMUM EACH WAY. CONSTRUCT WEAKENED-PLANE JOINTS FOR A DEPTH EQUAL TO AT LEAST 1/4" CONCRETE THICKNESS. CONTRACTOR IS TO FURNISH JOINT FILLERS APPROVED BY THE DEVELOPER'S CONSTRUCTION DIVISION OR AS DETAILED ON PLANS.

9. UTILITY NOTES:

- A. CONSTRUCTION SHALL NOT START ON ANY PUBLIC UTILITY SYSTEM UNTIL WRITTEN APPROVAL HAS BEEN RECEIVED FROM THE APPROPRIATE UTILITY AUTHORITIES AND THE CITY OF PEA RIDGE, AND THE CONTRACTOR HAS BEEN NOTIFIED BY EXPEDIENT CIVIL ENGINEERING, PLLC.
- B. CONTRACTOR SHALL NOT OPEN, TURN OFF, INTERFERE WITH, OR ATTACH ANY PIPE OR HOSE TO OR TAP ANY WATER MAIN BELONGING TO PEA RIDGE WATER UTILITIES (PRWU) UNLESS DULY AUTHORIZED TO DO SO BY PRWU. ANY ADVERSE CONSEQUENCES OF ANY SCHEDULED OR UNSCHEDULED DISRUPTIONS OF SERVICE TO THE PUBLIC ARE TO BE THE LIABILITY OF THE CONTRACTOR. EXPEDIENT CIVIL ENGINEERING, PLLC AND THE DEVELOPER ARE TO BE HELD HARMLESS.
- C. DISINFECTION AND PRESSURE TESTING OF WATER LINES SHALL BE PERFORMED AND PAID FOR BY THE CONTRACTOR UNDER SUPERVISION OF A REPRESENTATIVE OF PRWU AND A REPRESENTATIVE OF EXPEDIENT CIVIL ENGINEERING, PLLC. CONTRACTOR SHALL NOTIFY EXPEDIENT CIVIL ENGINEERING, PLLC AT LEAST ONE WEEK IN ADVANCE, PRIOR TO ANY TESTING.
- D. ALL WATER AND SEWER MAINS THAT ARE TO BE PUBLIC LINES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE LATEST PEA RIDGE WATER UTILITIES (PRWU) STANDARD SPECIFICATIONS, DATED JULY 2015, AND SHALL BE INSPECTED BY THE UTILITY INSPECTOR & EXPEDIENT CIVIL ENGINEERING, PLLC.

10. BLASTING AND EXPLOSIVE MATERIALS:

- A. THE CONTRACTOR IS SUBJECT TO ALL FEDERAL, STATE AND LOCAL REGULATIONS GOVERNING THE USE AND STORAGE OF EXPLOSIVE MATERIALS AND IS RESPONSIBLE FOR OBTAINING ALL REQUIRED PERMITS AND LICENSES.
- B. EXPEDIENT CIVIL ENGINEERING, PLLC ACCEPTS NO RESPONSIBILITY OR LIABILITY PERTAINING TO STORAGE, USE, METHODS, PROCEDURES, SAFETY PRECAUTIONS, TECHNICAL SPECIFICATIONS, CONCERNING BLASTING AND EXPLOSIVE MATERIALS. THE CONTRACTOR SHALL HOLD THE OWNER, ENGINEER, AND THEIR ASSOCIATES HARMLESS WITH REGARD TO BLASTING AND EXPLOSIVE MATERIALS.



VICINITY MAP
NOT TO SCALE

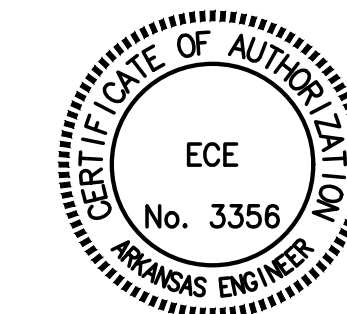
RESOURCE LIST

NAME	ADDRESS	TELEPHONE
DEVELOPER SHELBY FORREST, LLC	708 ROCHELLE COURT ROGERS, ARKANSAS 72757	
BLACK HILLS ENERGY MR. JOSHUA KNIGHT	1301 FEDERAL WAY LOWELL, ARKANSAS 72745	(479) 333-7005
CENTURYTEL PHONE CO. MR. MIKE EDWARDS	2601 WAUKESHA ROAD SILOAM SPRINGS, ARKANSAS 72761	(479) 442-1963
PEA RIDGE WATER UTILITIES MR. KEN HAYES	885 N. CURTIS AVE. PEA RIDGE, ARKANSAS 72751	(479) 451-1109
CITY OF PEA RIDGE BUILDING MR. TONY TOWNSEND	P.O. BOX 10 PEA RIDGE, ARKANSAS 72751	(479) 451-1122
CITY OF PEA RIDGE (FIRE CHIEF) MR. JAMIE BAGGETT	293 S. CURTIS AVE. PEA RIDGE, ARKANSAS 72751	(479) 451-1111
CARROLL ELECTRIC MR. DEREK THURMAN	707 SE WALTON BLVD BENTONVILLE, ARKANSAS 72712	(479) 273-2421
COX COMMUNICATIONS MR. KIP SMITH	4901 S. 48TH STREET SPRINGDALE, ARKANSAS 72763	(479) 274-0995
UTILITY LOCATIONS ARKANSAS ONE-CALL SYSTEM, INC.		1-800-482-8998

SHEET INDEX

No.	DESCRIPTION	PLOT DATE	
		No.	DATE
C1.0	COVER SHEET	2	8/23/2018
C2.0	EXISTING CONDITIONS	2	8/23/2018
C3.0	UTILITY PLAN	2	8/23/2018
C4.0	SANITARY SEWER LINE A PLAN & PROFILE	2	8/23/2018
C5.0	SANITARY SEWER LINE B & C PLAN & PROFILE	2	8/23/2018
C6.0	DETAILS	2	8/23/2018

NOTE TO CONTRACTOR:
THE CONTRACTOR SHALL NOT TAKE ANY ADVANTAGE OF ANY APPARENT ERROR OR OMISSION IN THE PLANS OR SPECIFICATIONS. IN THE EVENT THE CONTRACTOR DISCOVERS SUCH AN ERROR OR OMISSION, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER. THE ENGINEER WILL THEN MAKE SUCH CORRECTIONS AND INTERPRETATIONS AS MAY BE DEEMED NECESSARY FOR FULFILLING THE INTENT OF THE PLANS AND SPECIFICATIONS.

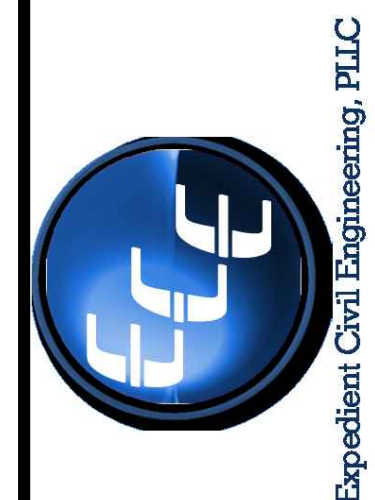


8/23/2018

Date	Comments
8/8/2018	PER CITY COMMENTS
8/23/2018	PER ADH COMMENTS

SHELBY FORREST SUBDIVISION
CARDIN ROAD
BENTON COUNTY, ARKANSAS
SHELBY FORREST, LLC
ROGERS, AR 72756

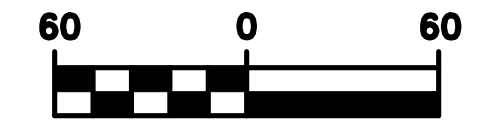
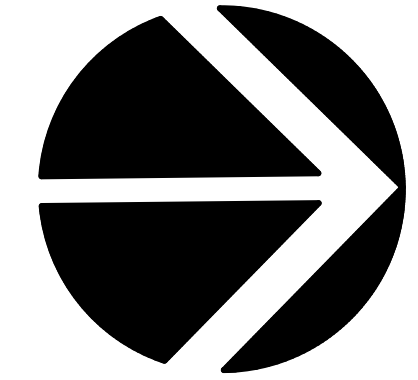
11 NEWHAM LANE
BELLA VISTA, AR 72714
EMAIL: jason@ecelc.com



DRAWN BY:
JEI
CHECKED BY:
JEI
DATE
7/23/2018
JOB NUMBER
18-1020
SHEET NAME

COVER SHEET

File No.
18-1020.dwg
C1.0



SCALE 1" = 60'



8/23/2018

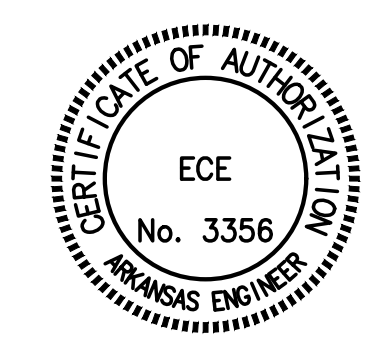
Rev	Comments	Date
1	PER CITY COMMENTS	8/8/2018
2	PER ADH COMMENTS	8/23/2018

SHELBY FORREST SUBDIVISION
 CARDIN ROAD BENTON COUNTY, ARKANSAS
 SHELBY FORREST, LLC
 ROGERS, AR 72756

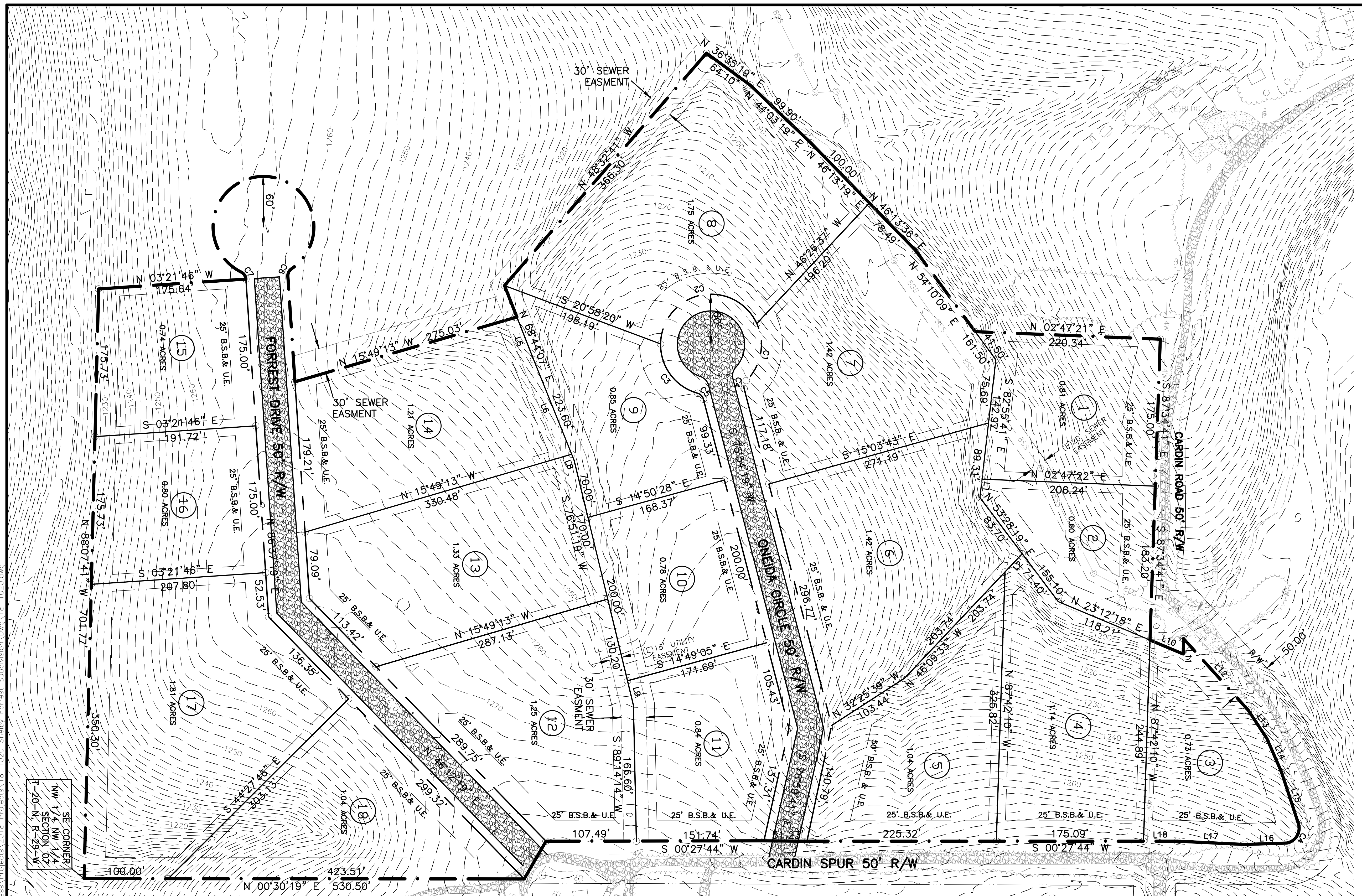
11 NEWHAM LANE
 BELLA VISTA, AR 72714
 EMAIL: jason@eeec.com



DRAWN BY: JEI
CHECKED BY: JEI
DATE 7/23/2018
JOB NUMBER 18-1020
SHEET NAME EXISTING CONDITIONS
File No. 18-1020.dwg
C2.0



Know what's below.
 Call before you dig.



CURVE TABLE

CURVE	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING	DELTA ANGLE
C1	60.00'	73.49'	68.98'	N 79°10'57" W	70°10'31"
C2	60.00'	181.77'	117.04'	S 11°30'31" E	154°28'37"
C3	60.00'	78.90'	73.34'	N 53°34'45" E	75°20'52"
C4	10.00'	10.47'	10.00'	S 74°05'41" E	80°00'00"
C5	10.00'	10.47'	10.00'	S 45°54'19" W	80°00'00"
C6	10.00'	10.47'	10.00'	S 63°22'41" E	80°00'00"
C7	10.00'	10.47'	10.00'	S 56°37'19" W	80°00'00"

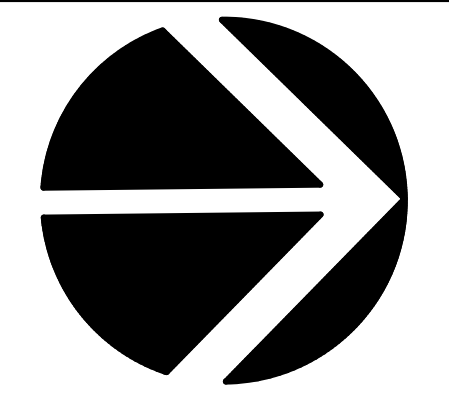
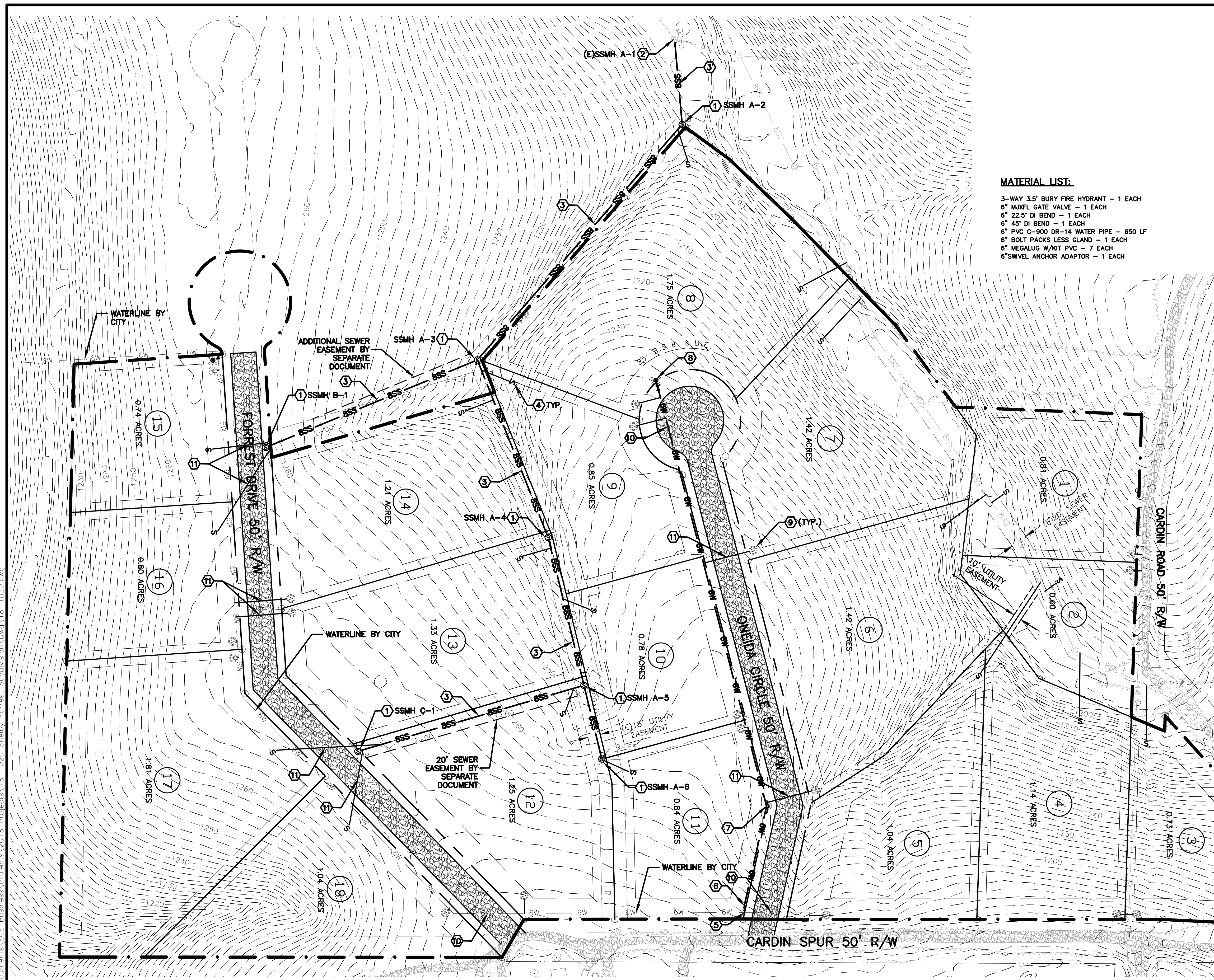
LINE TABLE

LINE	BEARING	DISTANCE	L11	S 87°42'10" E	18.15'
L1	N 82°55'41" W	22.03'	L12	S 48°22'16" W	114.88'
L2	N 46°09'33" W	29.87'	L13	S 57°04'04" W	39.92'
L3	N 69°00'14" E	54.54'	L14	S 66°58'47" W	43.59'
L4	S 68°32'19" W	121.27'	L15	S 72°17'07" W	63.88'
L5	N 68°32'19" E	7.63'	L16	N 01°28'06" W	50.43'
L6	S 76°51'19" W	30.20'	L17	N 03°15'21" E	80.22'
L7	S 23°12'18" W	42.82'	L18	S 00°27'44" W	40.02'

C:\Users\member\Documents\Projects\18-1020 Shelby Forrest Subdivision\Draw\18-1020.dwg

SE CORNER
 NW 1/4 NW 1/4
 SECTION 07
 T-20-N, R-29-W

C:\Users\member\Documents\Projects\2018\Projects\18-1020 Shelby Forrest Subdivision\Draw\18-1020.dwg



MATERIAL LIST:

- 3-WAY 3.5" BURY FIRE HYDRANT - 1 EACH
- 6" MIXEL GATE VALVE - 1 EACH
- 6" 22.5" DI BEND - 1 EACH
- 6" 45" DI BEND - 1 EACH
- 6" PVC C-900 DR-14 WATER PIPE - 650 LF
- 6" BOLT PACKS LESS GLAND - 1 EACH
- 6" MEGALUG W/KIT PVC - 7 EACH
- 6" SWVEL ANCHOR ADAPTOR - 1 EACH

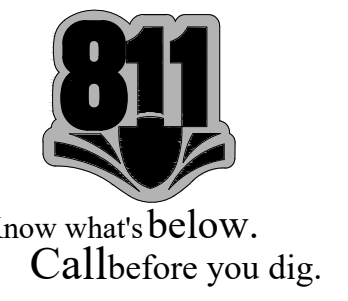
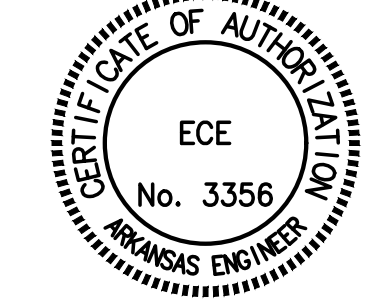
- LEGEND**
- SET IRON PIN ○
 - LOT LINE ————
 - EXISTING CONTOUR ———— 1360 ————
 - EXISTING 4" WATER MAIN ———— 4W ———— 4W ————
 - CENTERLINE OF ROAD ————
 - RIGHT OF WAY ————
 - EXISTING EASEMENT ————
 - PROPOSED EASEMENT ————
 - PROPOSED 8" SANITARY SEWER MAIN ———— 8SS ———— 8SS ————
 - PROPOSED SANITARY SEWER MANHOLE ⊙
 - PROPOSED 4" SANITARY SEWER SERVICE ———— s ————
 - PROPOSED GRAVEL ————
 - PROPOSED 6" WATER MAIN ———— 6W ———— 6W ————
 - PROPOSED 6" WATER BY CITY ———— 6W ———— 6W ————
 - PROPOSED FIRE HYDRANT ————
 - PROPOSED WATER VALVE ————
 - PROPOSED WATER METER ————

- KEYNOTES:**
- ① 4" ID SANITARY SEWER MANHOLE. SEE DETAIL S6&S9/C6.0.
 - ② CORE BORE EXISTING SANITARY SEWER MANHOLE TO ACCEPT NEW MAIN. COORDINATE WITH PEA RIDGE WATER UTILITIES.
 - ③ 8" PVC SDR-26 SANITARY SEWER MAIN. EMBED PIPE PER DETAIL 1/C6.0.
 - ④ 4" SANITARY SEWER SERVICE PER DETAIL S11/C6.0.
 - ⑤ 6"x6" TEE, 6" GATE VALVE, & CONCRETE THRUST BLOCKING PER CITY OF PEA RIDGE STANDARD DETAILS W2,W10,&W17/C6.0 & 2/C6.0. INSTALLED BY THE CITY OF PEA RIDGE.
 - ⑥ 6" DI 22.5" BEND WITH CONCRETE THRUST BLOCKING PER CITY OF PEA RIDGE STANDARD DETAIL W2&W10/C6.0.
 - ⑦ 6" DI 45" BEND WITH CONCRETE THRUST BLOCKING PER CITY OF PEA RIDGE STANDARD DETAIL W2&W10/C6.0.
 - ⑧ FIRE HYDRANT & 6" GATE VALVE PER CITY OF PEA RIDGE STANDARD DETAIL W14&W17/C6.0 & 2/C6.0.
 - ⑨ PROPOSED 1" WATER METER AND SERVICE PER CITY OF PEA RIDGE STANDARD DETAIL W12/C6.0.
 - ⑩ EMBED WATER MAIN PER CITY OF PEA RIDGE STANDARD DETAIL 1/C6.0.
 - ⑪ EMBED WATER AND SANITARY SEWER SERVICES PER CITY OF PEA RIDGE STANDARD DETAIL W07/C6.0.

- UTILITY NOTES:**
- A. CONSTRUCTION SHALL NOT START ON ANY PUBLIC UTILITY SYSTEM UNTIL WRITTEN APPROVAL HAS BEEN RECEIVED FROM THE APPROPRIATE UTILITY AUTHORITIES AND PEA RIDGE WATER UTILITIES (PRWU) AND CONTRACTOR HAS BEEN NOTIFIED BY EXPEDIENT CIVIL ENGINEERING, PLLC.
 - B. DISINFECTION AND PRESSURE TESTING OF WATER LINES SHALL BE PERFORMED AND PAID FOR BY THE CONTRACTOR UNDER SUPERVISION OF A REPRESENTATIVE OF PRWU AND EXPEDIENT CIVIL ENGINEERING, PLLC.
 - C. ALL WATER AND SEWER MAINS THAT ARE TO BE PUBLIC LINES SHALL BE CONSTRUCTED IN ACCORDANCE WITH SPECIFICATIONS PREVIOUSLY APPROVED BY PRWU AND THE ARKANSAS STATE HEALTH DEPARTMENT AND SHALL BE INSPECTED BY PRWU INSPECTOR & EXPEDIENT CIVIL ENGINEERING, PLLC.
 - D. ALL WATER MAINS SHALL BE PVC, C-900, DR-14, SANITARY SEWER MAINS SHALL BE PVC, SDR-26 AND ALL SANITARY SEWER MANHOLES ARE 4' DIAMETER UNLESS NOTED.
 - E. ALL FILL UNDER UTILITY LINES SHALL BE COMPACTED IN 6 INCH LIFTS COMPACTED TO 95% MODIFIED PROCTOR DENSITY.
 - F. ALL DENSITY TESTING REPORTS ARE TO BE FORWARDED TO PRWU, EXPEDIENT CIVIL ENGINEERING, PLLC, AND THE CONTRACTOR.
 - G. EVERY SANITARY SEWER MANHOLE SHOULD BE VACUUM TESTED AS WORK PROGRESSES.
 - H. WATER MAINS AND SANITARY SEWERS SHALL BE CONSTRUCTED AS FAR APART AS PRACTICABLE, AND SHALL BE SEPARATED BY UNDISTURBED AND COMPACTED EARTH. A MINIMUM HORIZONTAL DISTANCE OF 10 FEET SHOULD BE MAINTAINED BETWEEN WATER LINES AND SEWER LINES OR OTHER SOURCES OF CONTAMINATION. WATER LINES AND SEWERS SHALL NOT BE LAID IN THE SAME TRENCH EXCEPT ON THE WRITTEN APPROVAL OF THE ARKANSAS DEPARTMENT OF HEALTH. WATER MAINS NECESSARILY IN CLOSE PROXIMITY TO SEWERS MUST BE PLACED SO THAT THE BOTTOM OF THE WATER LINE WILL BE AT LEAST 18 INCHES ABOVE THE TOP OF THE SEWER LINE AT ITS HIGHEST POINT. IF THIS DISTANCE MUST UNAVOIDABLY BE REDUCED, THE WATER LINE OR THE SEWER LINE MUST BE ENCASED IN WATERTIGHT PIPE WITH SEALED WATERTIGHT ENDS EXTENDING AT LEAST TEN FEET EITHER SIDE OF THE CROSSING. ANY JOINT IN THE ENCASEMENT PIPE IS TO BE MECHANICALLY RESTRAINED. THE ENCASEMENT PIPE MAY BE VENTED TO THE SURFACE IF CARRYING WATER OR SEWER UNDER PRESSURE. WHERE A WATER LINE MUST UNAVOIDABLY PASS BENEATH THE SEWER LINE, AT LEAST 18 INCHES OF SEPARATION MUST BE MAINTAINED BETWEEN THE OUTSIDE OF THE TWO PIPES IN ADDITION TO THE PRECEDING ENCASEMENT REQUIREMENT. EXCEPTIONS TO THIS MUST BE APPROVED IN WRITING BY THE ARKANSAS DEPARTMENT OF HEALTH.

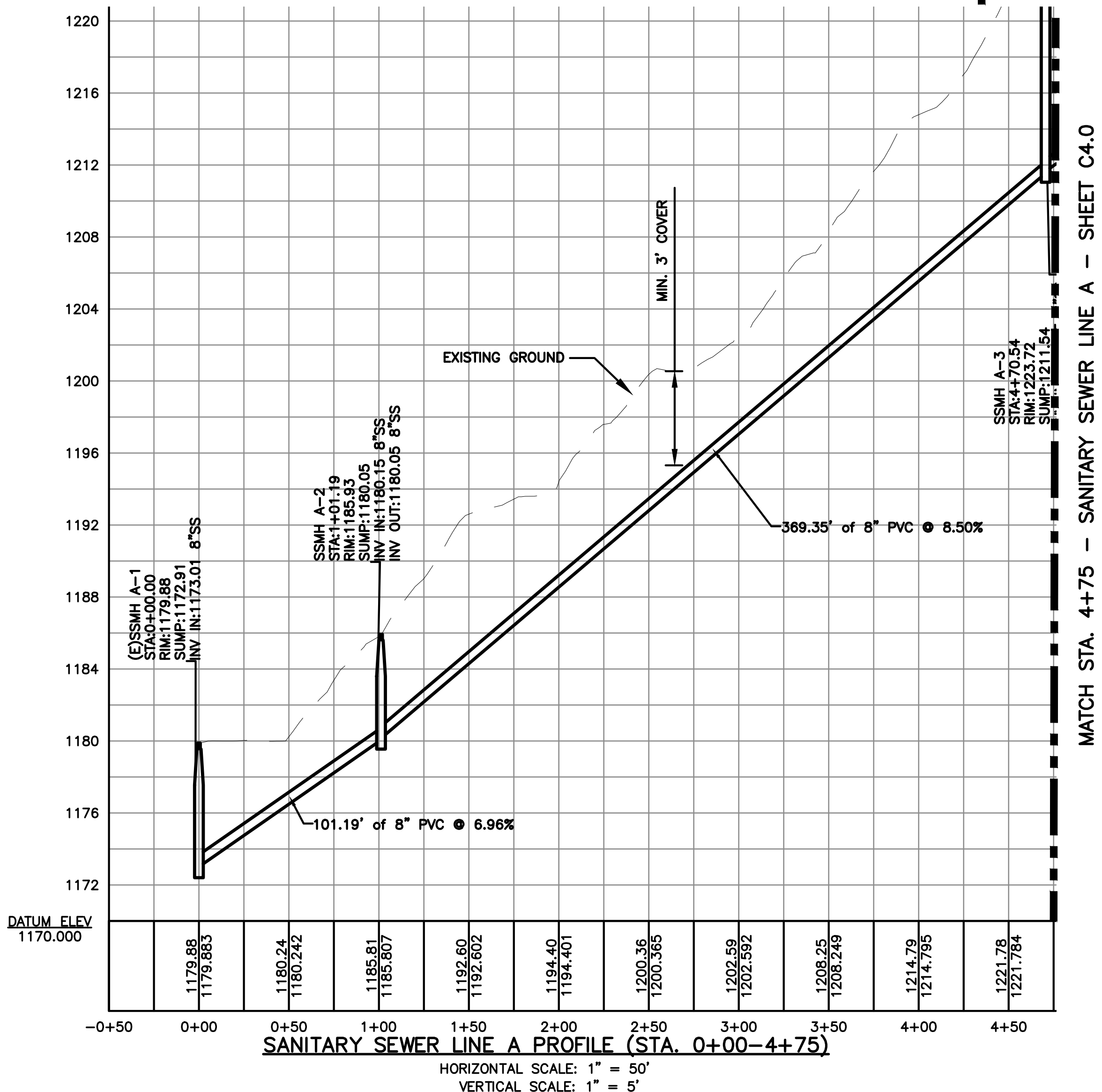
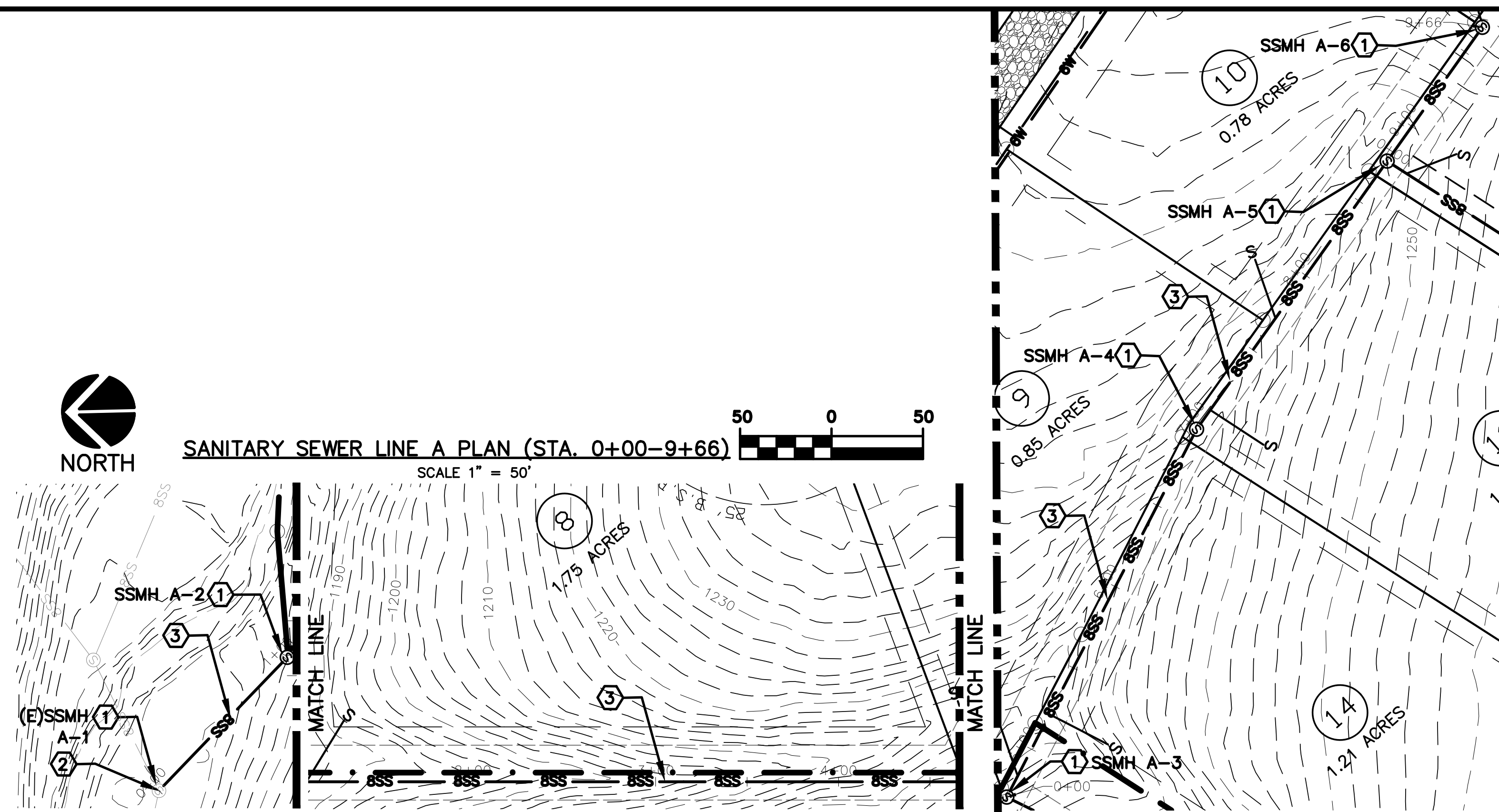
- NOTES:**
1. TOPOGRAPHIC CONTOURS SHOWN ARE 2' INTERVALS AND ARE BASED ON AN AERIAL SURVEY COMPLETED IN 2005.
 2. CONTRACTOR SHALL VERIFY EXISTING GROUND ELEVATIONS IN THE FIELD. IF THERE IS A DISCREPANCY FOUND, CONTRACTOR SHALL NOTIFY ENGINEER SO THAT CORRECTIONS CAN BE MADE PRIOR TO CONSTRUCTION.

NOTE:
ALL MATERIALS AND METHODS USED TO CONSTRUCT PUBLIC WATER AND SEWER MAINS SHALL CONFORM TO PRWU STANDARD DETAILS AND STANDARD SPECIFICATIONS DATED JULY 2015.

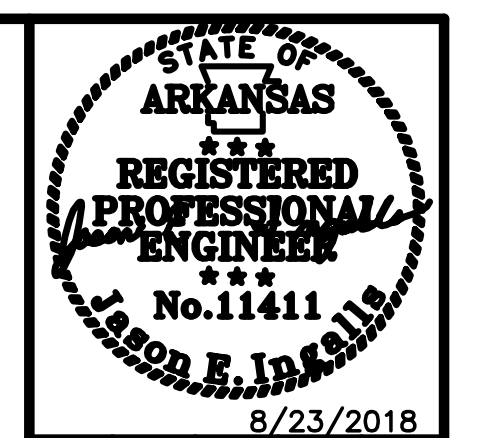
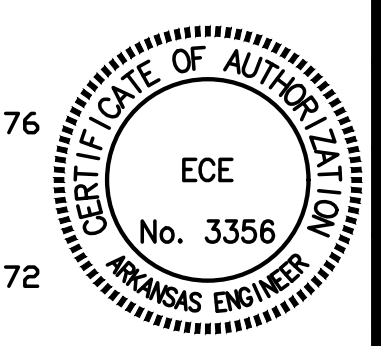
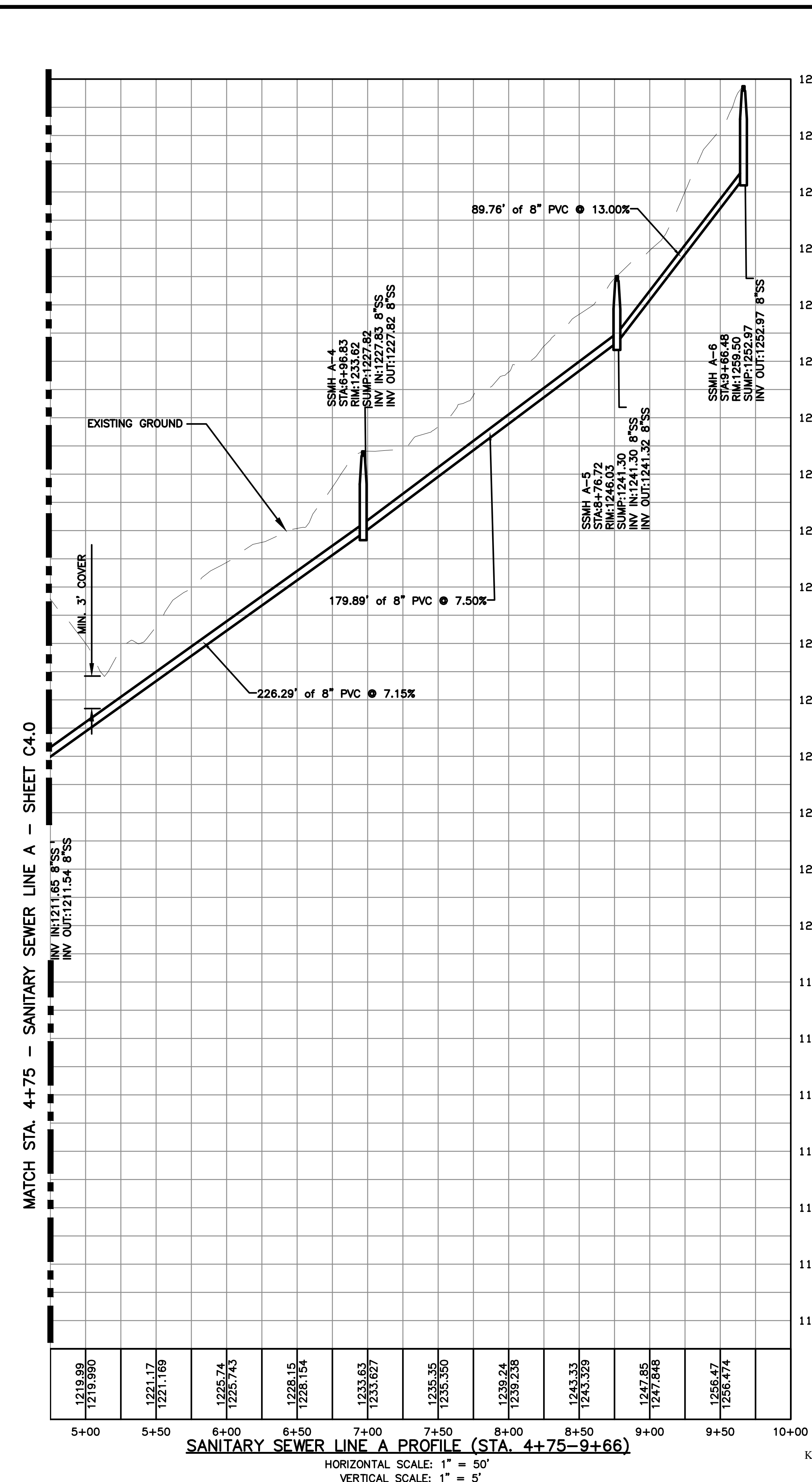


Date	8/8/2018
Comments	PER CITY COMMENTS
Rev	1
Comments	PER ADH COMMENTS
Rev	2
SHELBY FORREST SUBDIVISION BENTON COUNTY, ARKANSAS CARDIN ROAD SHELBY FORREST, LLC ROGERS, AR 72756	
11 NEWHAM LANE BELLA VISTA, AR 72714 EMAIL: jason@ece-llc.com	
DRAWN BY: JEI	
CHECKED BY: JEI	
DATE: 7/23/2018	
JOB NUMBER: 18-1020	
SHEET NAME: UTILITY PLAN	
File No.: 18-1020.dwg	
C3.0	

C:\Users\member\Documents\ECE Business\Projects\18-1020 Shelby Forrest Subdivision\18-1020.dwg



- KEYNOTES:**
- ① 4" ID SANITARY SEWER MANHOLE. SEE DETAIL S6&S9/C6.0.
 - ② CORE BORE EXISTING SANITARY SEWER MANHOLE TO ACCEPT NEW MAIN. COORDINATE WITH PEA RIDGE WATER DEPARTMENT.
 - ③ 8" PVC SDR-26 SANITARY SEWER MAIN. EMBED PIPE PER DETAIL 1/C6.0.



Rev	Comments	Date
1	PER CITY COMMENTS	8/8/2018
2	PER ADH COMMENTS	8/23/2018

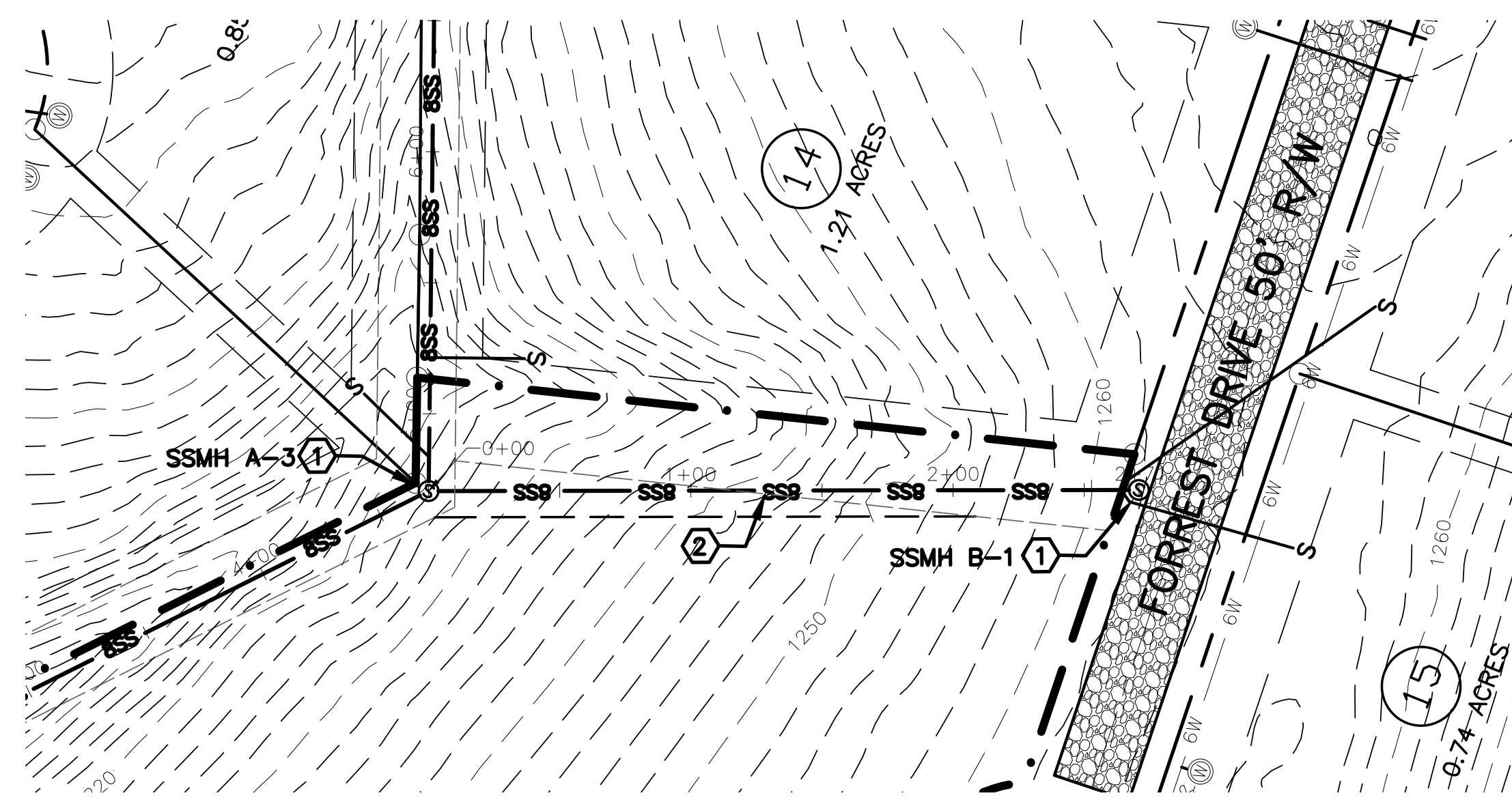
SHELBY FORREST SUBDIVISION
 CARDIN ROAD
 BENTON COUNTY, ARKANSAS
SHELBY FORREST, LLC
 ROGERS, AR 72756

11 NEWHAM LANE
 BELLA VISTA, AR 72714
 EMAIL: jason@ece-ar.com

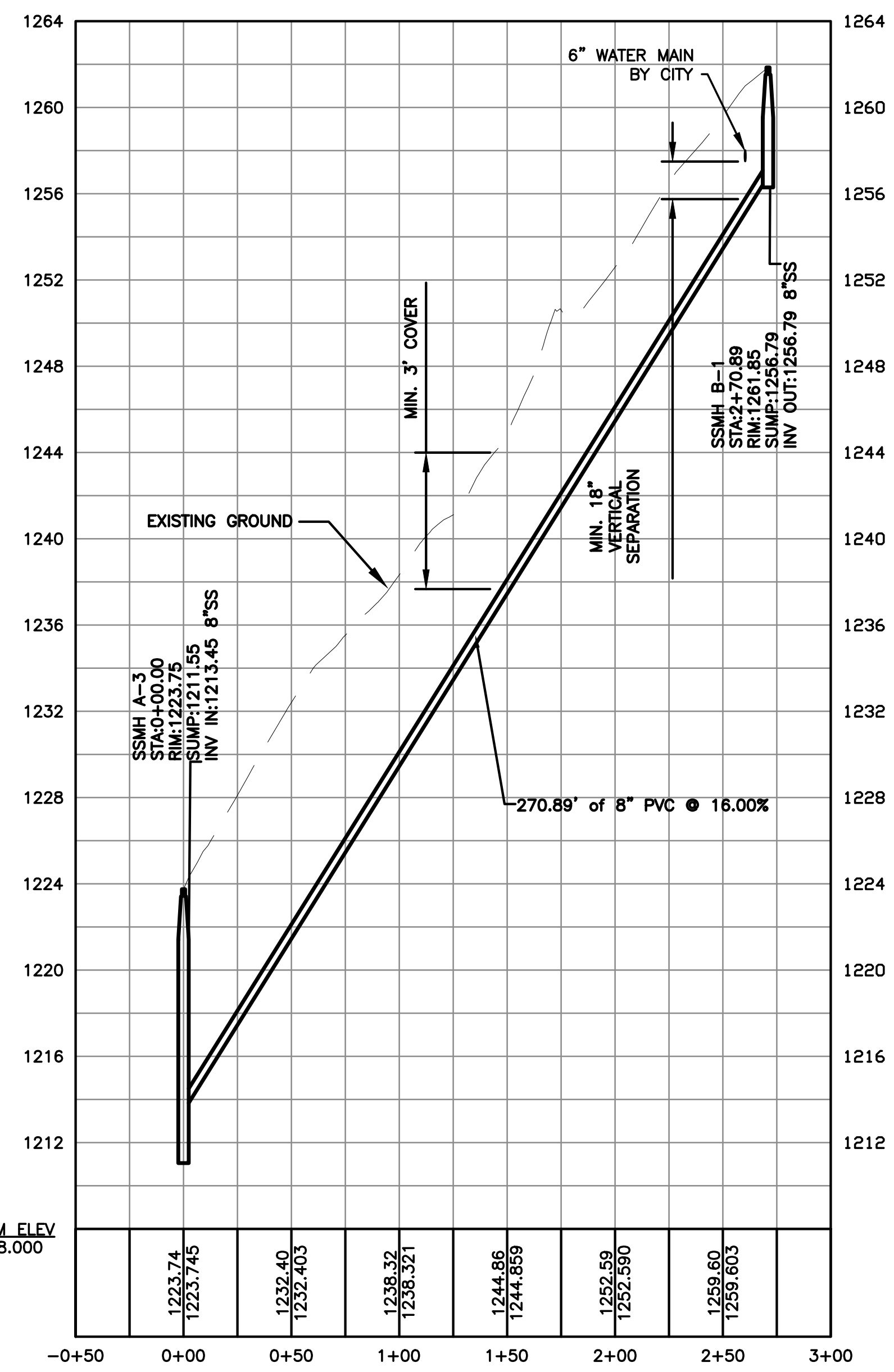


DRAWN BY: JEI
CHECKED BY: JEI
DATE 7/23/2018
JOB NUMBER 18-1020
SHEET NAME SANITARY SEWER LINE A PLAN & PROFILE
File No. 18-1020.dwg
C4.0

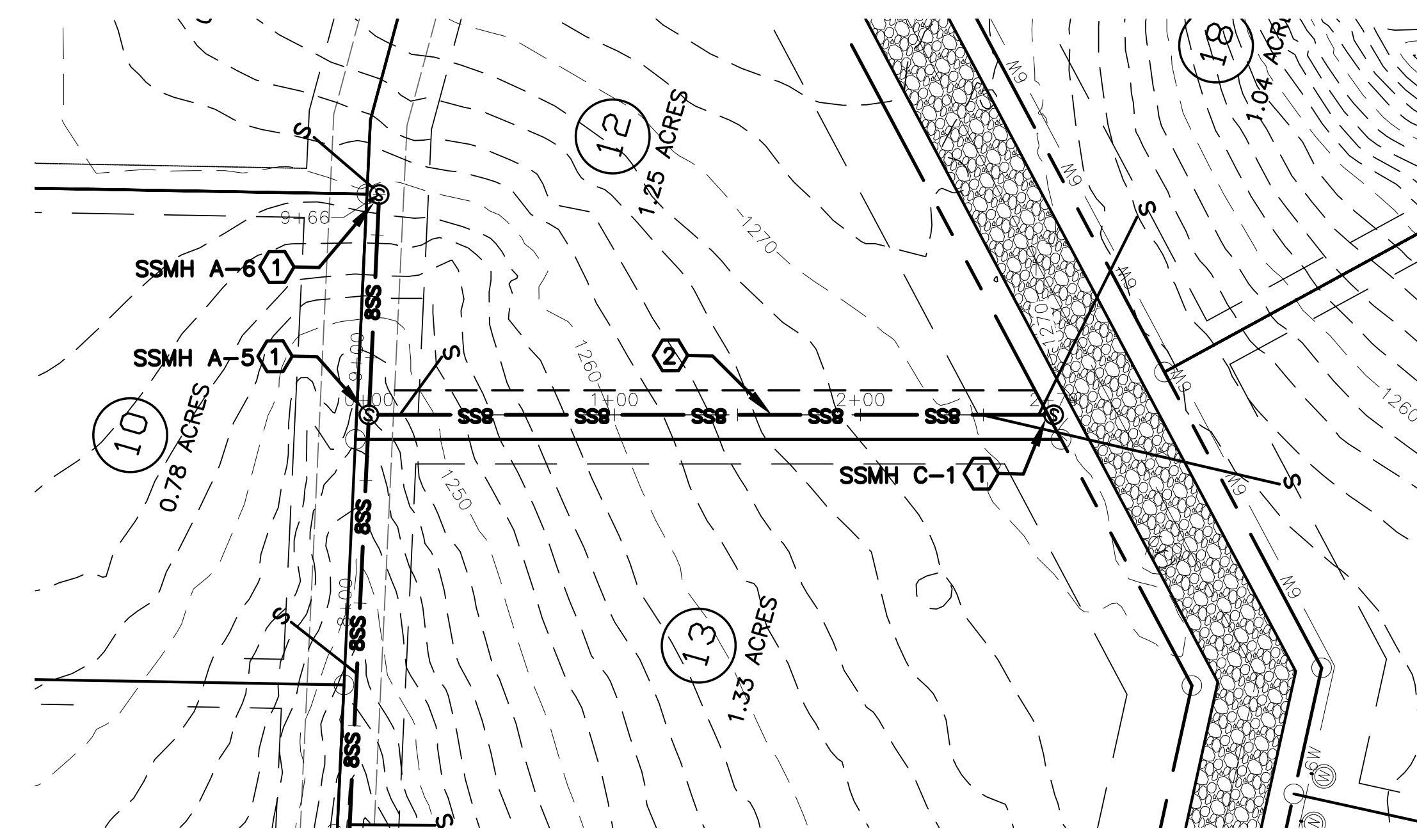
C:\Users\member\Documents\ECE\Business\Projects\18-1020_Shelby_Forest_Subdivision\18-1020.dwg



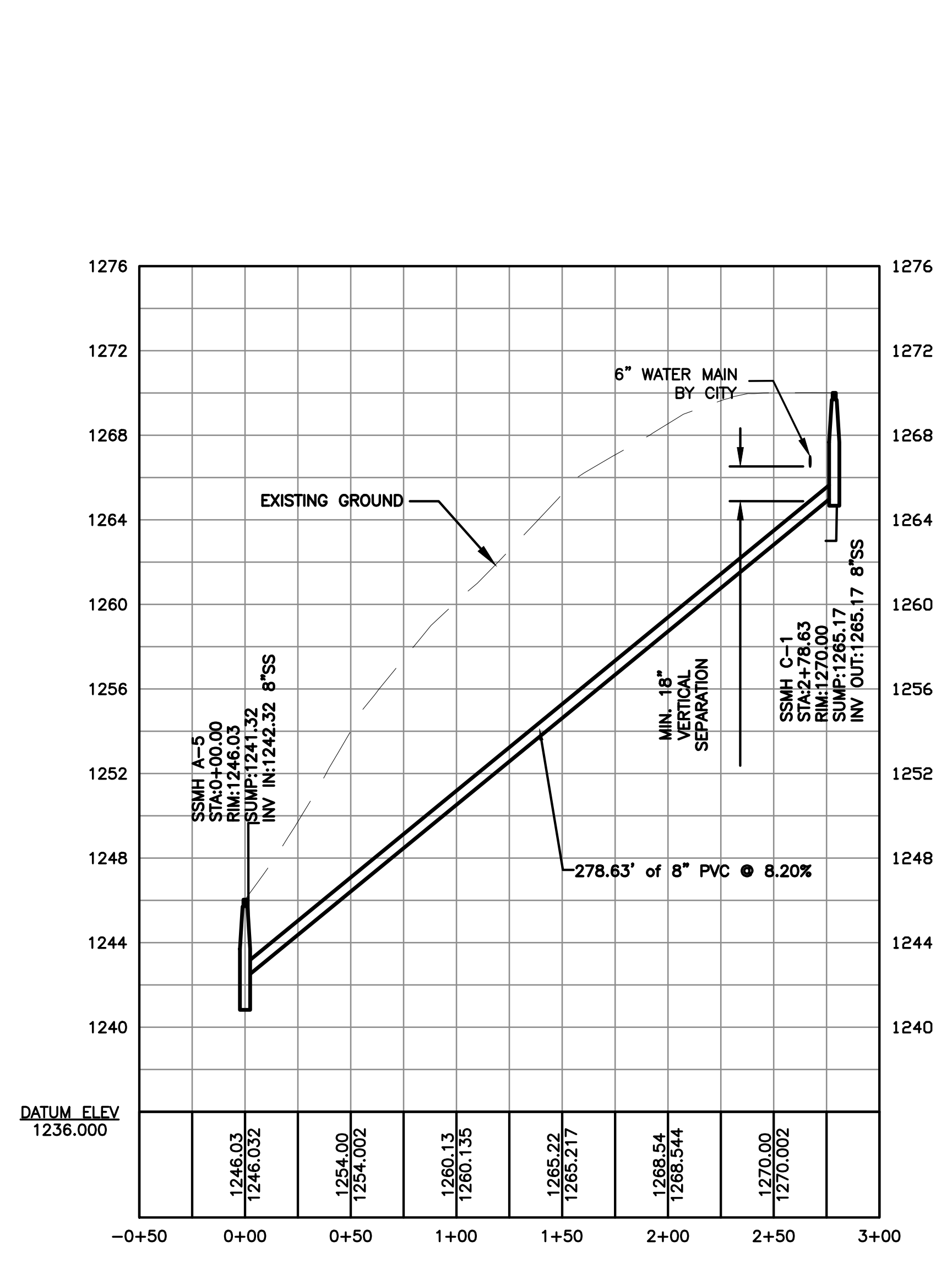
SANITARY SEWER LINE B PLAN
SCALE 1" = 50'



SANITARY SEWER LINE B PROFILE
HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1" = 5'

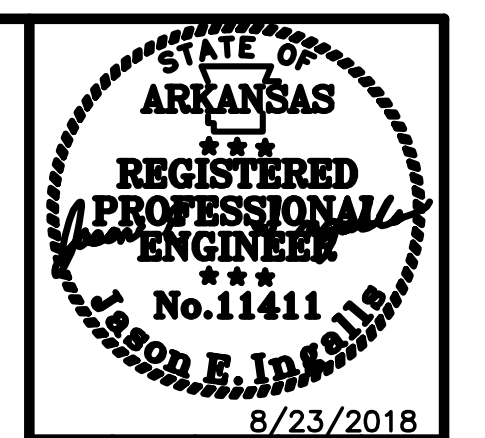
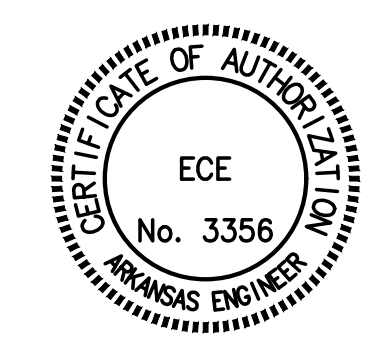


SANITARY SEWER LINE C PLAN
SCALE 1" = 50'



SANITARY SEWER LINE C PROFILE
HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1" = 5'

- KEYNOTES:**
- ① 4" ID SANITARY SEWER MANHOLE. SEE DETAIL S6&S9/C6.0.
 - ② 8" PVC SDR-26 SANITARY SEWER MAIN. EMBED PIPE PER DETAIL 1/C6.0.



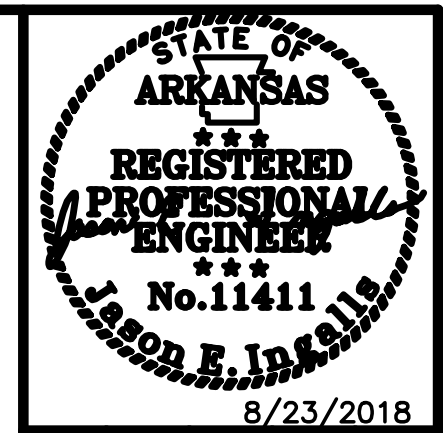
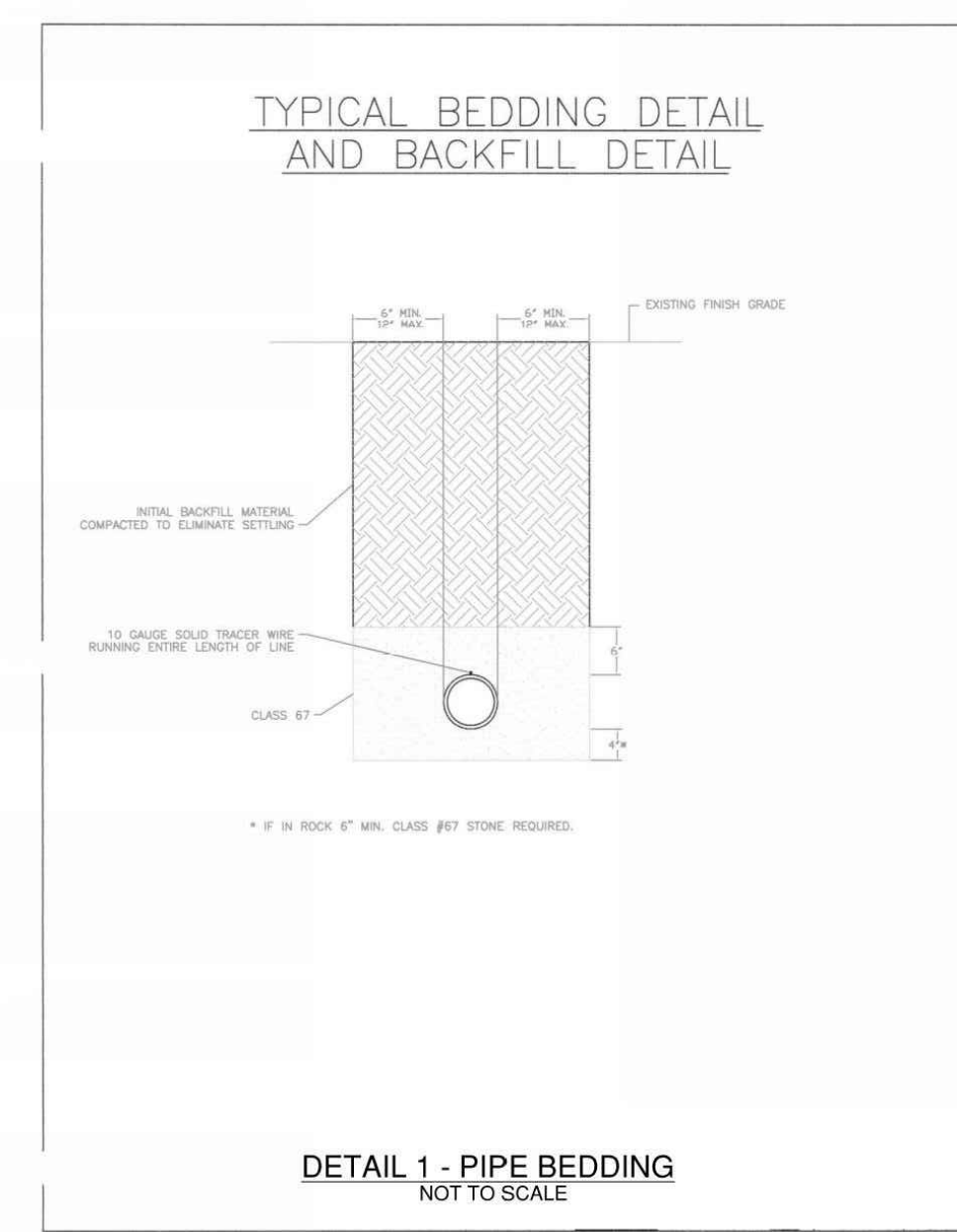
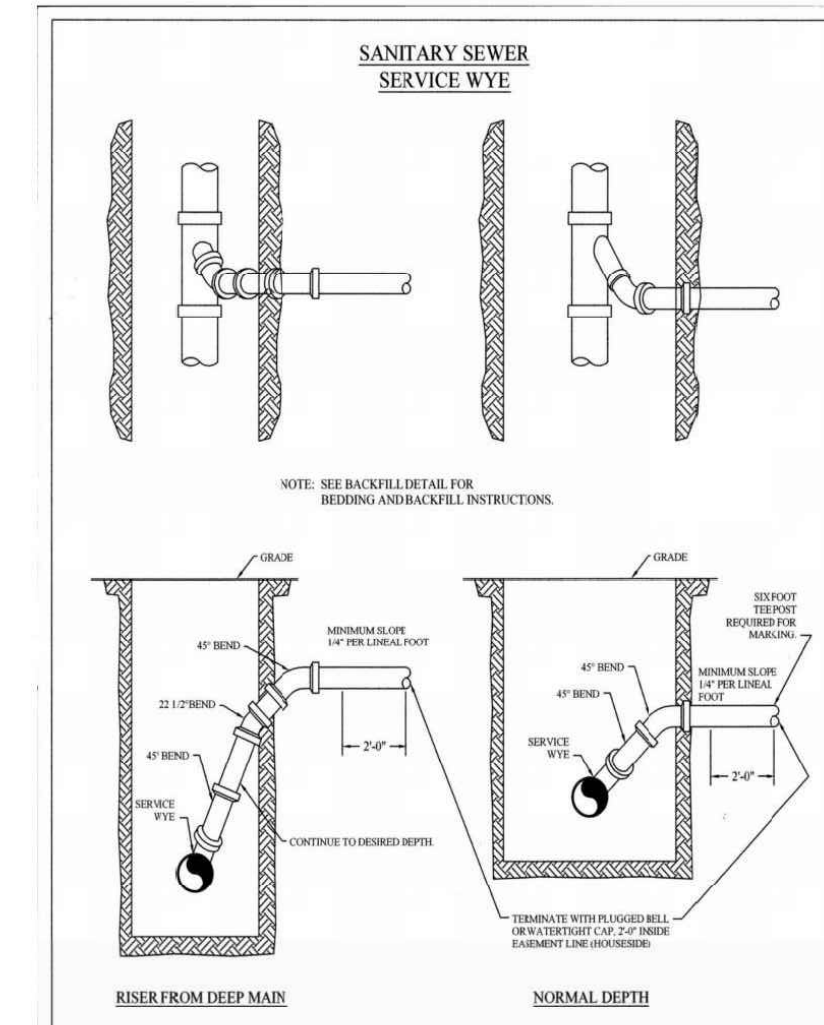
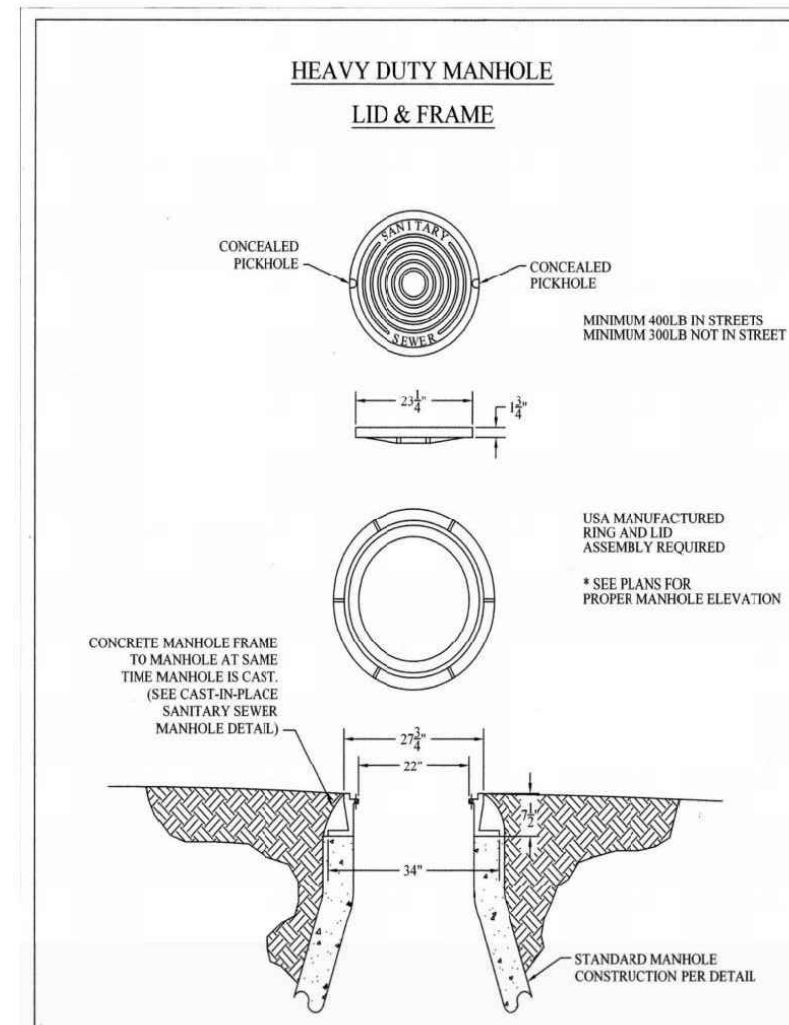
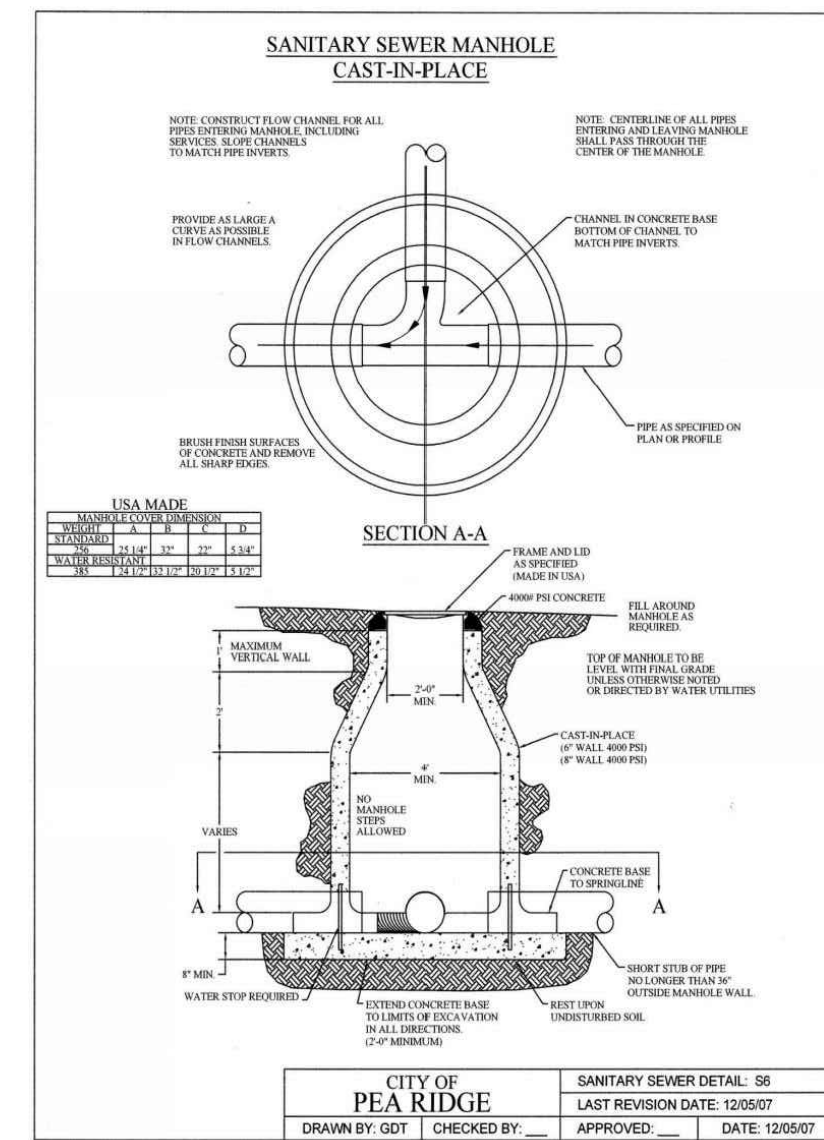
Rev	Comments	Date
1	PER CITY COMMENTS	8/8/2018
2	PER ADH COMMENTS	8/23/2018

SHELBY FOREST SUBDIVISION
CARDIN ROAD
BENTON COUNTY, ARKANSAS
SHELBY FOREST, LLC
ROGERS, AR 72756

11 NEWHAM LANE
BELLA VISTA, AR 72714
TEL: 479-253-8888
EMAIL: jason@ece-ar.com

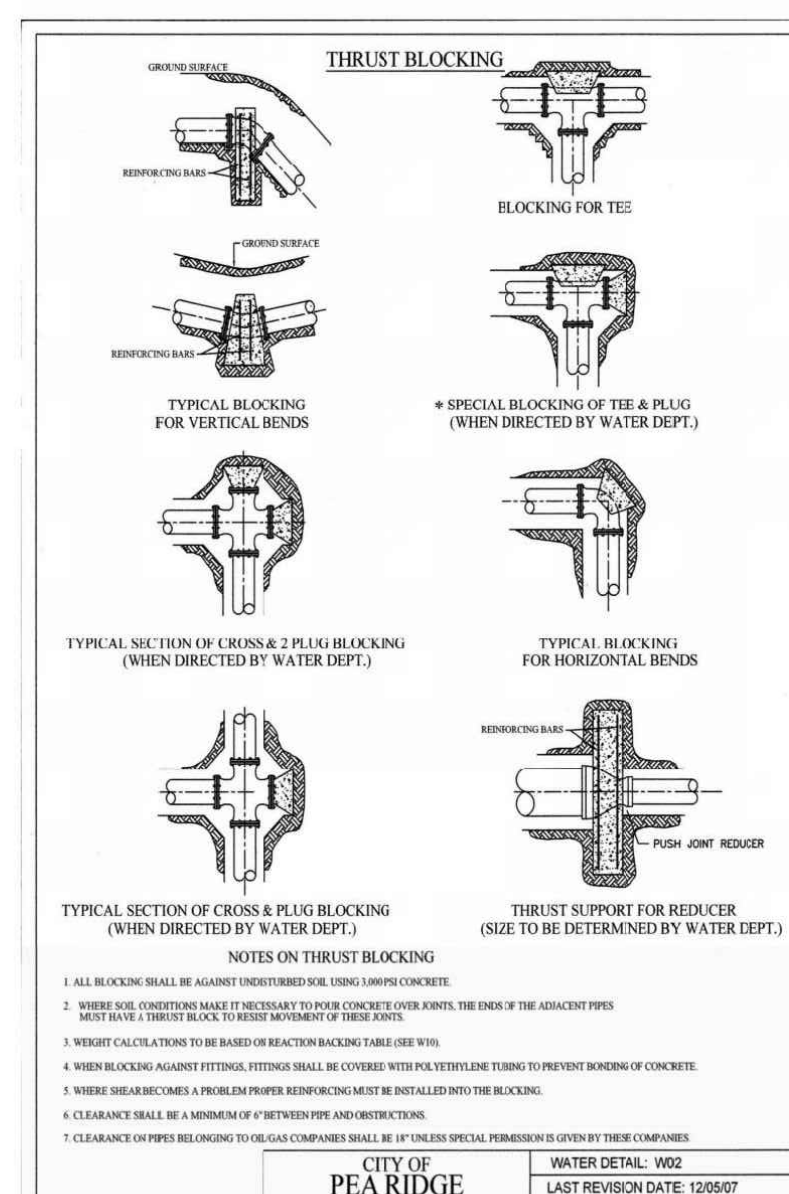
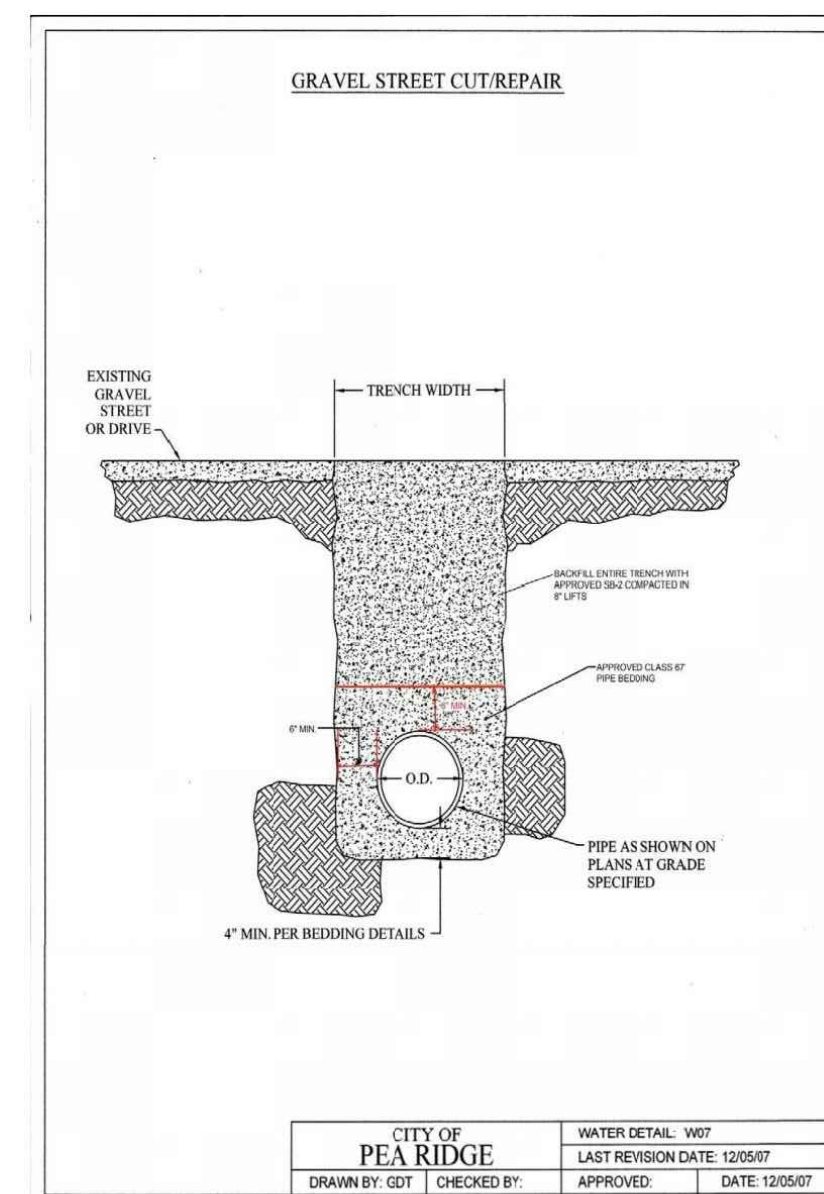


DRAWN BY: JEI
CHECKED BY: JEI
DATE 7/23/2018
JOB NUMBER 18-1020
SHEET NAME SANITARY SEWER LINE B & C PLAN & PROFILE
File No. 18-1020.dwg
C5.0



Rev	Comments	Date
1	PER CITY COMMENTS	8/8/2018
2	PER ADH COMMENTS	8/23/2018

SHELBY FORREST SUBDIVISION
CARDIN ROAD
BENTON COUNTY, ARKANSAS
SHELBY FORREST, LLC
ROGERS, AR 72756

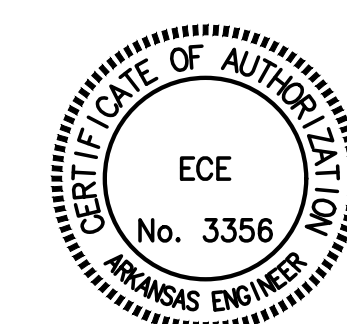
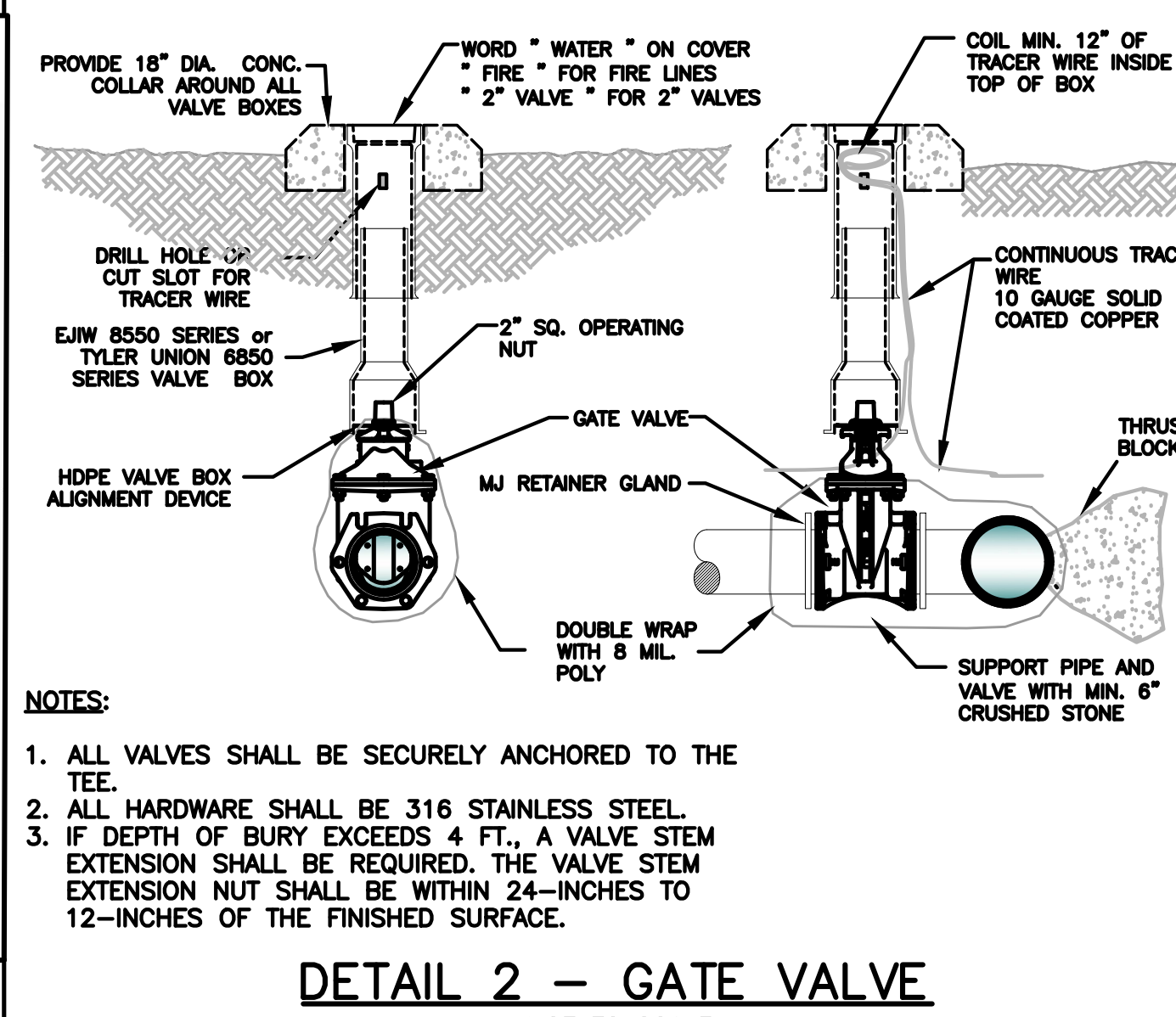
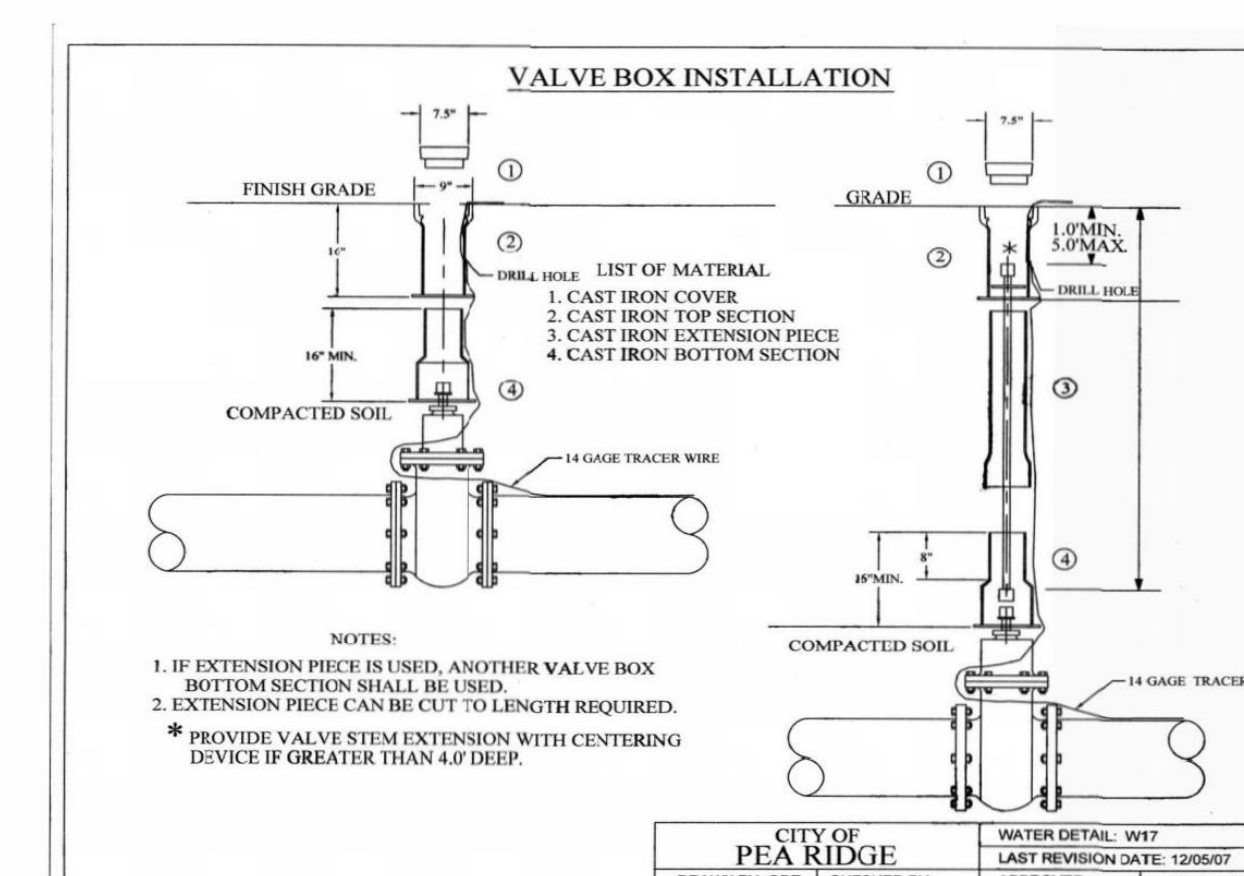
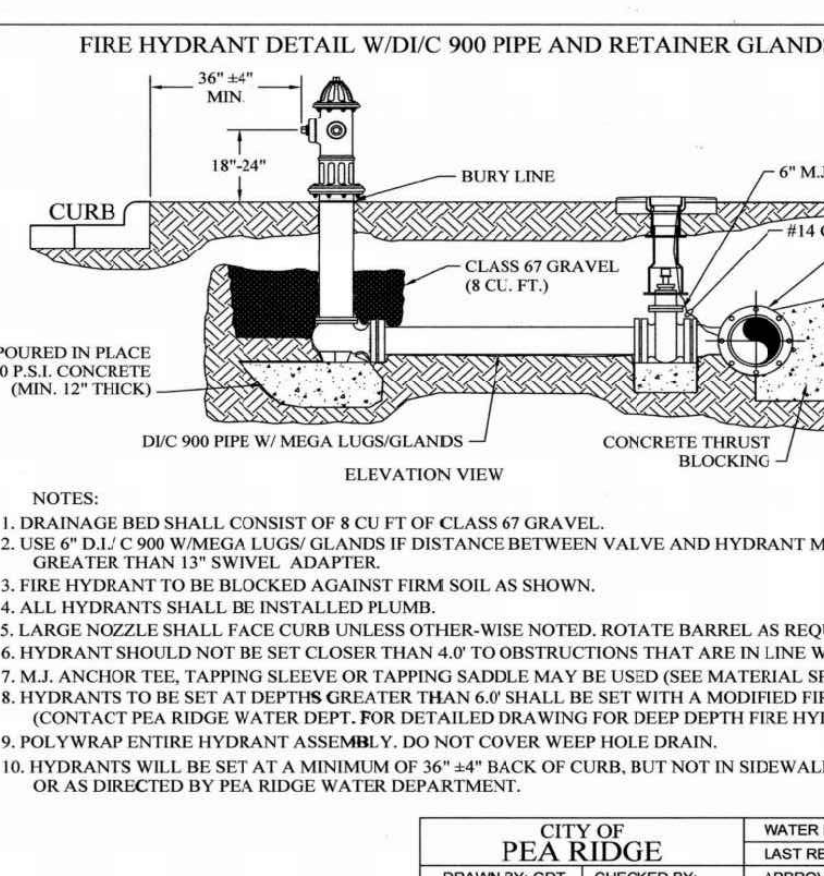
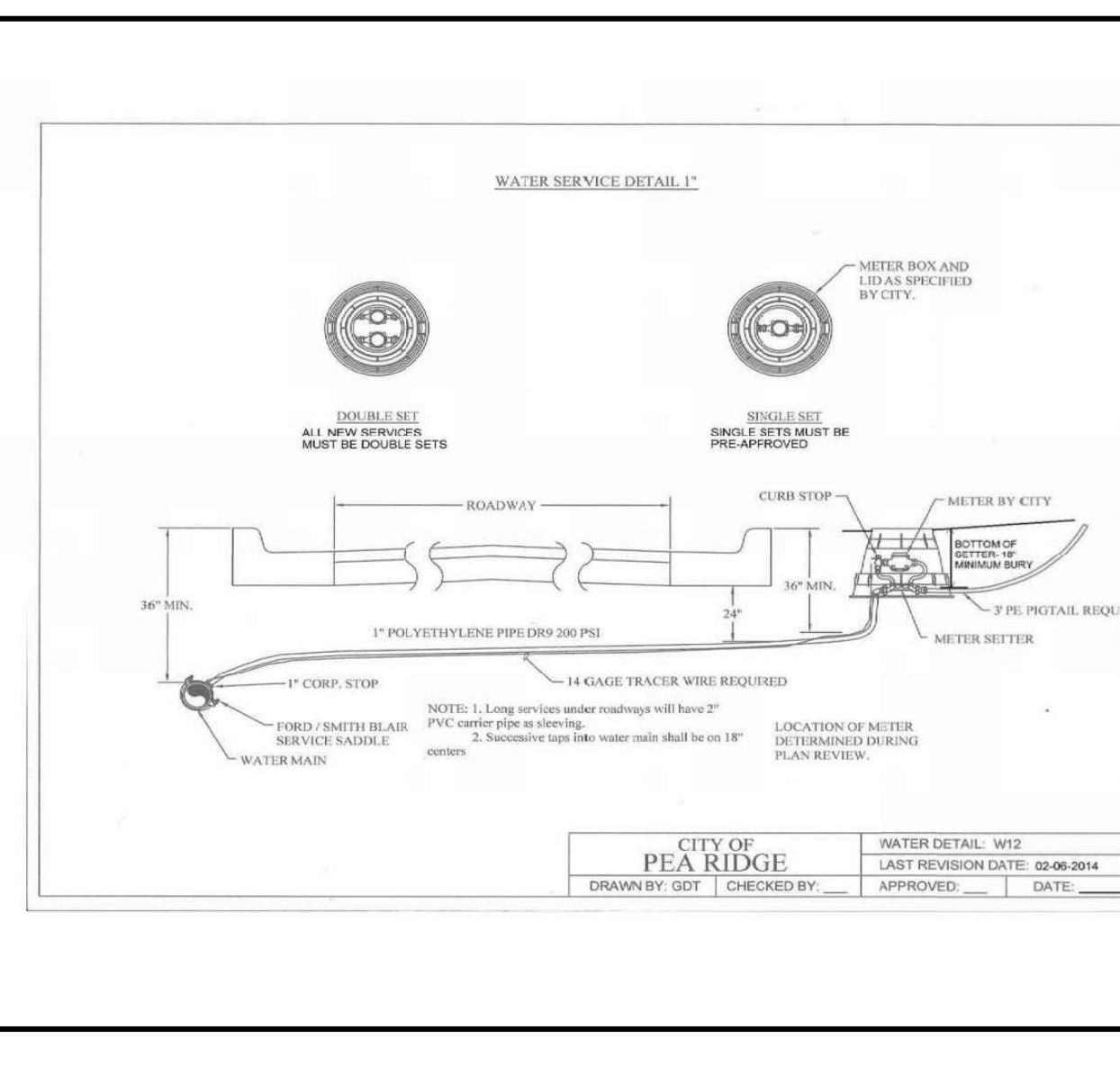


REACTION BACKING TABLE

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

NOTE: 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 PEA RIDGE
WATER DETAIL: W10
LAST REVISION DATE: 12/05/07
DRAWN BY: GDT | CHECKED BY: [] APPROVED: [] DATE: 12/05/07



EXPEDIENT CIVIL ENGINEERING, PLLC

DRAWN BY: JEI
CHECKED BY: JEI
DATE: 7/23/2018
JOB NUMBER: 18-1020
SHEET NAME: DETAILS
File No.: 18-1020.dwg
C6.0

C:\Users\member\Documents\ECE_Business\Projects\2018 Projects\18-1020 Shelby Forrest_Subdivision\18-1020.dwg