

SURVEY CONTROL DATA

1. HORIZONTAL DATUM IS THE OKLAHOMA STATE PLANE COORDINATE SYSTEM, N.A.D. 83(2011) LAMBERT PROJECTION, NORTH ZONE ADJUSTED TO N.G.S. STATE PLANE COORDINATES, UTILIZING OPUS.

A. ACCURACY - 3RD ORDER OR BETTER

2. BEARINGS:

THE BEARINGS SHOWN HEREIN OR HEREON ARE GRID BEARINGS DERIVED FROM THE USC & GS OKLAHOMA PLANE COORDINATE SYSTEM AND ARE NOT ASTRONOMICAL.

3. VERTICAL CONTROLS:

A. LEVEL DATUM IS NGS, NAVD 88, TAKEN FROM ADJUSTED PRIMARY CONTROL UTILIZING DIFFERENTIAL LEVELING TECHNIQUES.
B. ACCURACY - 3RD ORDER OR BETTER

LATITUDE 36° 00' 53"
LONGITUDE 94° 32' 53"

DESIGN DATA

ADT 2017 - 100
ADT 2037 - 149
V - 45 M.P.H.
Flex. ESALs - 0.11M

SCALES

PLAN 1:50
PROFILE HOR. 1:50
VER. 1:5
LAYOUT MAP 1" = 5280'

CONVENTIONAL SIGNS

- PROPOSED ROADS
- SECTION LINES
- QUARTER SECTION LINES
- FENCES
- EXISTING GRADE
- EXISTING ROADS
- BASE LINE
- PROPOSED GRADE
- COMMUNICATION LINES (EXISTING)
- POWER LINES (EXISTING)
- GAS LINE (EXISTING)
- SANITARY SEWER LINES (EXISTING)
- WATER LINES (EXISTING)
- COMMUNICATION LINES (PROPOSED)
- POWER LINES (PROPOSED)
- GAS LINE (PROPOSED)
- SANITARY SEWER LINES (PROPOSED)
- WATER LINES (PROPOSED)
- BUILDINGS
- DRAINAGE STRUCTURES (EXISTING)
- DRAINAGE STRUCTURES (PROPOSED)
- RIGHT-OF-WAY LINES (EXISTING)
- RIGHT-OF-WAY LINES (PROPOSED)
- RIGHT-OF-WAY FENCE
- FLOWLINE (EXISTING)
- FLOWLINE (PROPOSED)
- TOE OF SLOPE (EXISTING)
- TOE OF SLOPE (PROPOSED)
- CITY LIMITS
- LANDSCAPE



STATE OF OKLAHOMA
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED
COUNTY BRIDGE

BRIDGE AND APPROACH PLANS

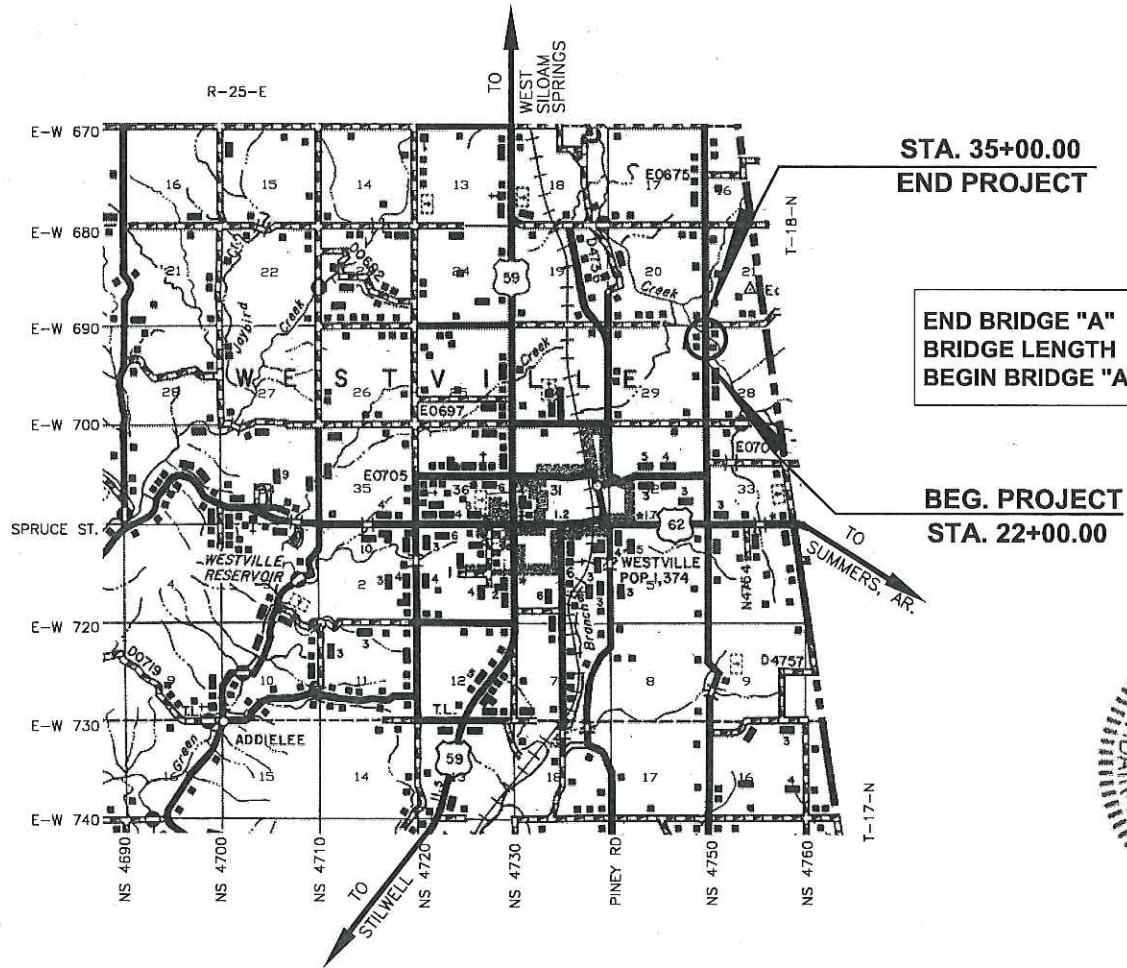
**BALLARD CREEK
ADAIR COUNTY**

PROJECT NO. STP-201C(032)CI

STATE JOB NO. 29823(04)

LOCATION: 01N4750E0690001

REMOVE NBI NO. 10065 CONSTRUCT NBI NO. 31971



END BRIDGE "A" 29+31.55
BRIDGE LENGTH 116.50'
BEGIN BRIDGE "A" 28+15.05

BEG. PROJECT STA. 22+00.00



DESCRIPTION	REVISIONS	DATE
TITLE BLOCK UPDATED		10/11/17

INDEX OF SHEETS

SHEET NO.	DESCRIPTION
0001.	TITLE SHEET
0002.	TYPICAL SECTION AND MISCELLANEOUS DETAILS
AR01.-AR02.	SUMMARY OF PAY QUANTITIES AND GENERAL NOTES
B001.	BRIDGE "A" GENERAL PLAN & ELEVATION
B002.	BRIDGE "A" GEOTECHNICAL INFORMATION
B003.	ABUTMENT DETAILS
B004.	SUBSTRUCTURE EXCAVATION & PIPE ASSEMBLY DETAILS
R001.	STORM WATER MANAGEMENT PLAN
R002.	EROSION CONTROL PLAN
R003.-R004.	PLAN AND PROFILE, CRL
R005.	PLAN AND PROFILE, SHOOFLY
X001.-X012.	X - SECTIONS

THE FOLLOWING STANDARDS WILL BE REQUIRED FOR THIS PROJECT.

ROADWAY 2009	TRAFFIC 2009	2009 COUNTY BRIDGE
SSS-1-1	GRAU1-1-00	CB26-I-SKO-ABUT-PC5-01E
TSC2-3-2	GRH1-1-00	CB26-I-SKO-XSECT-PC5-01E
TSB-2-0	GRH2-1-00	CB26-I-SKO-LSECT-PCB-01E
TRFD-1-2	TCS1-1-01	CB26-I-SKO-DKSLB-BLIST-PCB-01E
PSE-1-0	TCS2-1-00	CB26-I-SKO-PCB-J-115-1-01E
PCES-4-1	TCS4-1-01	CB26-I-SKO-PCB-J-115-2-01E
SPI-4-1	TCS5-1-00	CB26-I-SKO-DIA-INTPR-PCB-01E
SPB-1-4	TCS6-1-02	CB26-I-SKO-BRG-PC5-01E
FHTMPP-1-0	TCS7-1-02	CB26-I-SKO-SPR-QUAN-PCB-1-01E
FHTCP-3-1	TCS8-1-00	CB26-I-SKO-AS-01E
PUD-3-2	TCS9-1-01	CB26..32-I-SKO-WING-PC5-01E
RDI-3-1	TCS10-1-00	CB26..32-C.I-SKO..30-PCB-DTL-1-01E
		CB26..32-C.I-SKO..30-PCB-DTL-2-01E
		CB26..32-C.I-SKO..30-GRAU-BC-00E

2009 STATE BRIDGE
TR3-2-01E
HP1-2-01E

APPROVED
ADAIR COUNTY BOARD OF COMMISSIONERS

John Sandridge
DISTRICT NO. 1
DATE: 4/17/17

Kathy Davis
DISTRICT NO. 2
DATE: 4-24-17

Keith Harrison
DISTRICT NO. 3
DATE: 4-24-17

PREPARED BY:
CEC CORPORATION
CA32 PE/LS 6/30/2018
OKLAHOMA CITY, OKLAHOMA

Aaron Finley
AARON FINLEY
OKLA. REG. NO. 24264

10/11/17
DATE

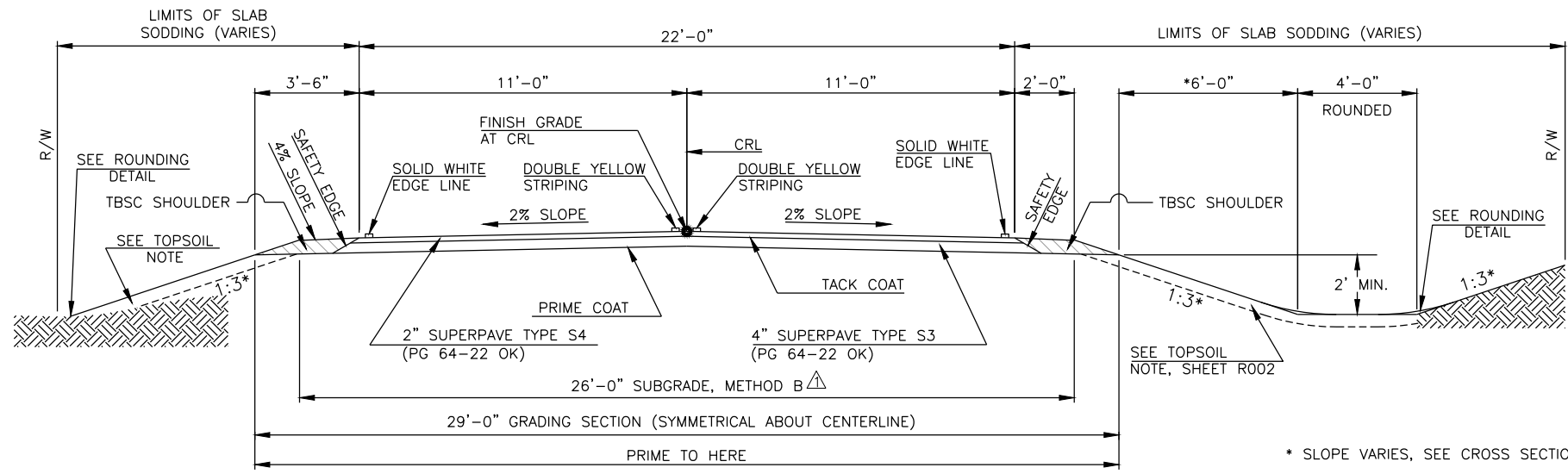
OKLAHOMA DEPARTMENT OF TRANSPORTATION	DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION
DATE APPROVED	DATE APPROVED
BY	BY
CHIEF ENGINEER	DIVISION ADMINISTRATOR
PROJECT NO. STP-201C(032)CI	SHEET NO. 0001

PROJECT LENGTH BASED ON C.R.L.
ROADWAY LENGTH: ... 1,183.50 FT.... 0.224 MILES
BRIDGE "A" LENGTH: ... 116.50 FT.... 0.022 MILES
PROJECT LENGTH: 0.246 MILES
EQUATIONS: NONE
EXCEPTIONS: NONE

KEITH DAVIS, DISTRICT NO. 3, COMMISSIONER, ADAIR COUNTY
 CAREY HARRISON, LOCAL GOVERNMENT DIVISION, OKLAHOMA DEPARTMENT OF TRANSPORTATION, P.E. NO. 29823(01)

2009 OKLAHOMA STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION GOVERN, APPROVED BY THE U.S. DEPARTMENT OF TRANSPORTATION, FEDERAL HIGHWAY ADMINISTRATION, JANUARY 4, 2010.

DESCRIPTION	REVISIONS	DATE
△ ADDED SUBGRADE, METHOD B		10/11/17
△ SPACING UPDATED TO 3'-4"		10/11/17



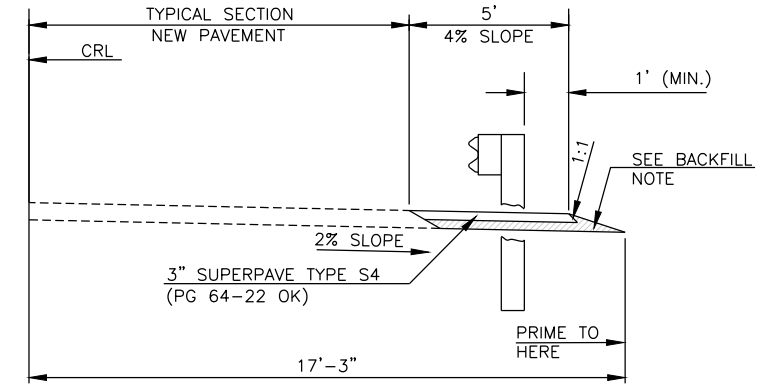
CRL TYPICAL SECTION

* SLOPE VARIES, SEE CROSS SECTIONS.

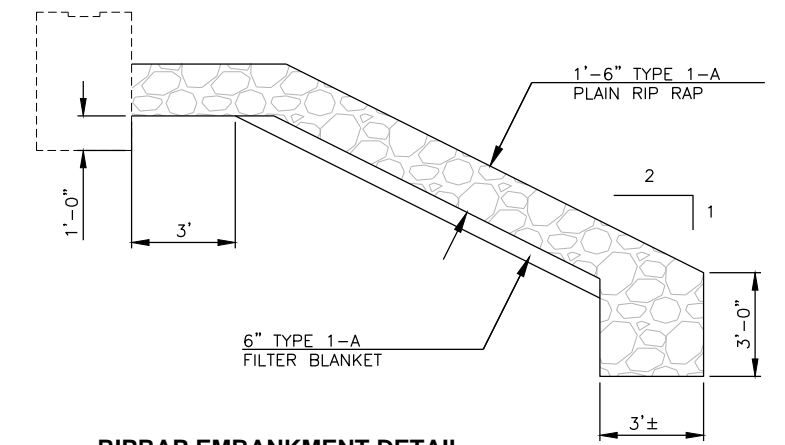
EROSION CONTROL AND CONSTRUCTION NOTES

SEE EROSION CONTROL PLAN, SHEET NO. R002, FOR EROSION CONTROL, CONSTRUCTION AND TOPSOIL NOTES.

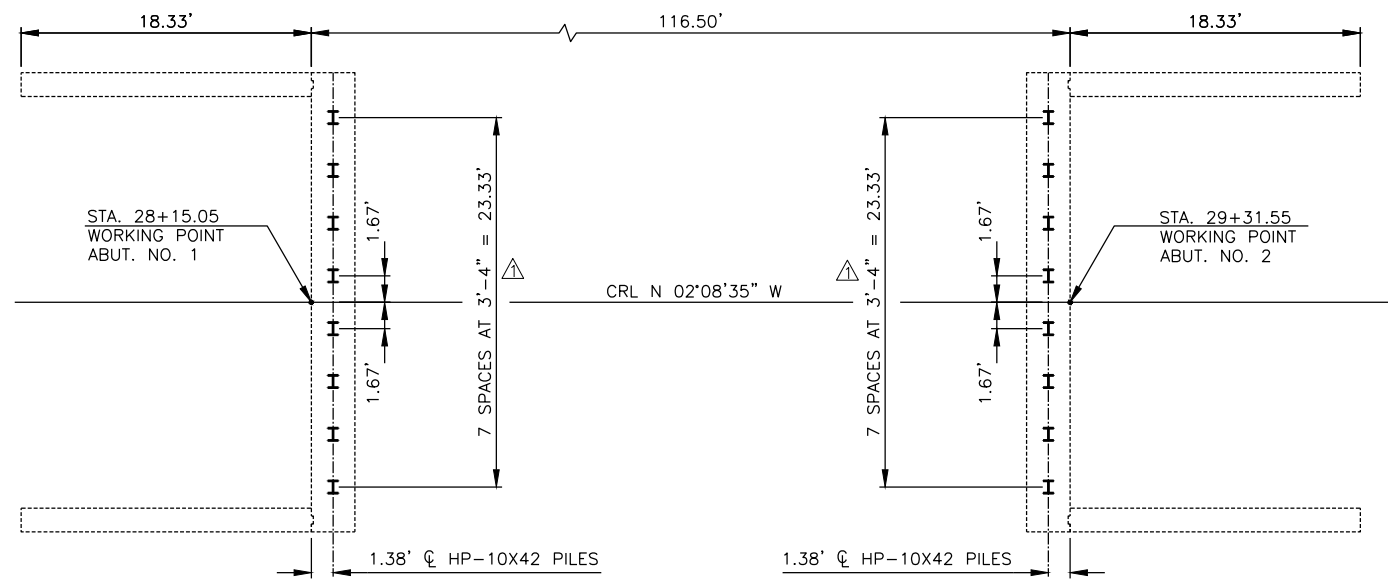
BACK FILL NOTE: SHOULDERS SHALL BE BACK FILLED WITH TBSC AND COMPACTED AS PART OF THE FINISHING OPERATION. REQUIRED AMOUNT OF TBSC FOR CRL TYPICAL SECTION IS 0.17 TONS/LF.



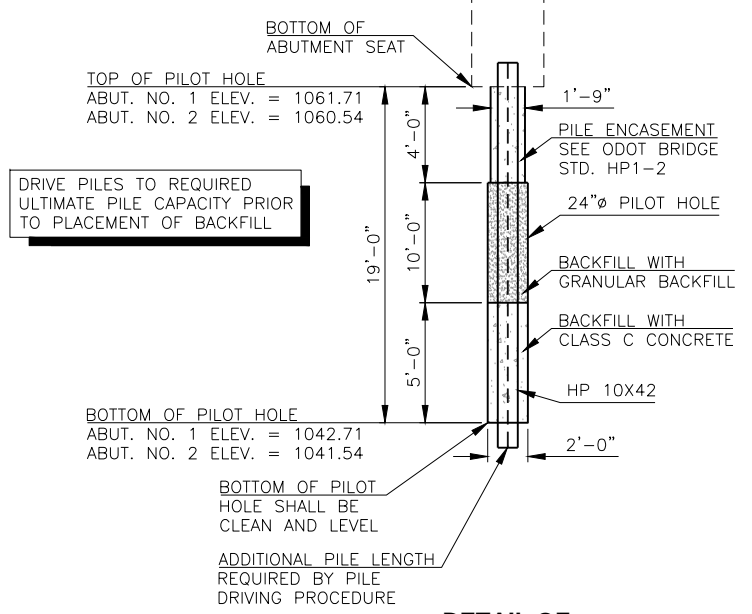
GUARDRAIL WIDENING DETAIL



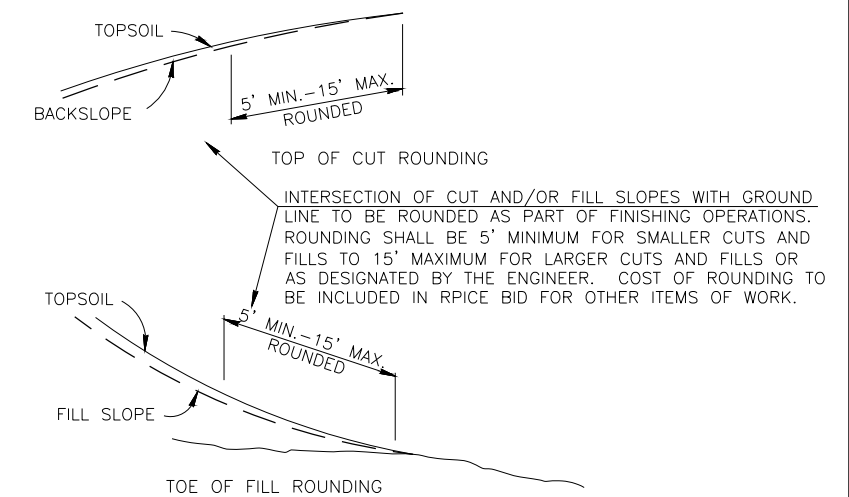
RIPRAP EMBANKMENT DETAIL



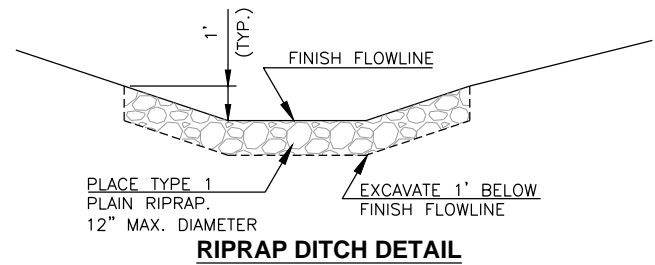
STAKING DIAGRAM



DETAIL OF PILOT HOLE



ROUNDING DETAIL



RIPRAP DITCH DETAIL

DESCRIPTION	REVISIONS	DATE
△ ADDED SUBGRADE. METHOD B. ROCK EX. AND UNCLASSIFIED EX.		10/12/17
△ REVISED QTIES: TYPE 1 RIPRAP, CLSM, TBSC, PILOT HOLES, AND SUPERPAVE...S4		10/12/17
△ UPDATED PAY ITEM NUMBER - UNCLASS. BORROW		10/12/17
△ ADDED COLUMN FOR ASPHALT DRIVES		10/12/17

0100 - ROADWAY ROADWAY PAY QUANTITIES				
ITEM		DESCRIPTION	UNITS	QUANTITY
201(A)	0102	CLEARING AND GRUBBING (R-1)	LSUM	1.00
202(A)	0183	UNCLASSIFIED EXCAVATION (7)	CY	3,474.00
202(C)	0182	ROCK EXCAVATION (18)	CY	1,000.00
202(D)	0184	UNCLASSIFIED BORROW (8)(15)(19)	CY	6,764.00
221(C)	2801	TEMPORARY SILT FENCE (9)	LF	2,000.00
221(F)	0100	TEMPORARY SILT DIKE (9)	LF	300.00
221(G)	0151	TEMPORARY ROCK FILTER DAM TYPE 2 (9)	CY	20.00
230(A)	2806	SOLID SLAB SODDING (R-7)(R-8)	SY	20,581.00
233(A)	2817	VEGETATIVE MULCHING (R-11)(17)	AC	8.50
310(B)	0149	SUBGRADE, METHOD B	SY	3,421.00
402(E)	0225	TRAFFIC BOUND SURFACE COURSE TYPE E (10)(14)	TON	706.00
411(B)	5945	SUPERPAVE, TYPE S3 (PG 64-22 OK) (R-31)(R-32)	TON	684.00
411(C)	5960	SUPERPAVE, TYPE S4 (PG 64-22 OK) (R-30)(R-32)(11)	TON	447.00
509(D)	0325	CLASS C CONCRETE (R-41)	CY	10.00
601(A)	0297	TYPE I PLAIN RIPRAP (1)(12)	TON	475.00
613(A)	4438	88" X 54" R.C.PIPE ARCH CLASS A-III	LF	64.00
613(B)	0694	48" CORR. GALV. STEEL PIPE	LF	200.00
613(B)	4528	28" X 20" CORR. GALV. STEEL PIPE ARCH	LF	130.00
613(B)	4529	35" X 24" CORR. GALV. STEEL PIPE ARCH	LF	86.00
613(L)	4516	28" X 20" PREFAB. CULVERT END SECTION, ARCH	EA	6.00
613(L)	4522	35" X 24" PREFAB. CULVERT END SECTION, ARCH	EA	6.00
613(L)	4569	88" X 54" PREFAB. CULVERT END SECTION, ARCH	EA	2.00
619(A)	0920	REMOVAL OF STRUCTURES & OBSTRUCTIONS (R-48)(R-49)	LSUM	1.00
856(A)	8530	TRAFFIC STRIPE (MULTI-POLYMER) (4" WIDE) (13)	LF	5,200.00

0200 - BRIDGE BRIDGE "A" PAY QUANTITIES				
115' X 26' CLEAR ROADWAY INTEGRAL PCB SPAN ZERO DEGREE SKEW				
ITEM		DESCRIPTION	UNITS	QUANTITY
501(B)	1307	SUBSTRUCTURE EXCAVATION COMMON (R-1)	CY	120.00
501(G)	6309	CLSM BACKFILL (R-1)	CY	104.00
503(A)	6290	PRESTRESSED CONCRETE BEAMS (TYPE J BT) (R-1)	LF	344.00
504(A)	1304	APPROACH SLAB (B1)	SY	115.00
504(B)	1305	SAW-CUT GROOVING (R-1)	SY	371.20
504(D)	6239	CONCRETE RAIL (TR3) (R-1)	LF	306.60
506(A)	1322	STRUCTURAL STEEL (R-1)	LB	820.00
507(A)	6172	WEATHERING STEEL FIXED BEARING ASSEMBLY	EA	6.00
509(A)	1326	CLASS AA CONCRETE (R-1)	CY	129.00
509(B)	1328	CLASS A CONCRETE (R-1)	CY	48.20
509(D)	1331	CLASS C CONCRETE	CY	9.30
511(A)	1332	REINFORCING STEEL (R-1)	LB	29,390.00
514(A)	6010	PILES, FURNISHED (HP 10X42)	LF	416.00
514(B)	6292	PILES, DRIVEN (HP 10X42)	LF	80.00
514(K)	6260	(PL)PILOT HOLES (B2)	LF	304.00
514(L)	6220	PILE SPLICE, H-PILE (NON-BIDDABLE)	EA	1.00
601(B)	1353	TYPE I-A PLAIN RIPRAP (1)	TON	944.00
601(C)	1355	TYPE I-A FILTER BLANKET (2)	TON	239.00
613(H)	6204	6" PERFORATED PIPE UNDERDRAIN ROUND (B3)	LF	52.00
613(I)	6207	6" NON-PERF.PIPE UNDERDRAIN RND. (B4)	LF	50.00
619(D)	1397	REMOVAL OF EXISTING BRIDGE STRUCTURE (R-49)(3)	LSUM	1.00
623(F)	5686	GUARDRAIL ANCHOR UNIT (TYPE D-BF)	EA	4.00
623(F)	6029	GUARDRAIL ANCHOR UNIT (TYPE A) (4)	EA	4.00
880(J)	8905	CONSTRUCTION TRAFFIC CONTROL (5)	LSUM	1.00

0640 - CONSTRUCTION PAY QUANTITIES				
220	2800	SWPPP DOCUMENTATION AND MANAGEMENT	LSUM	1.00
641	1399	MOBILIZATION	LSUM	1.00

0600 - STAKING PAY QUANTITIES				
642(B)	0096	CONSTRUCTION STAKING LEVEL II (6)(16)	LSUM	1.00

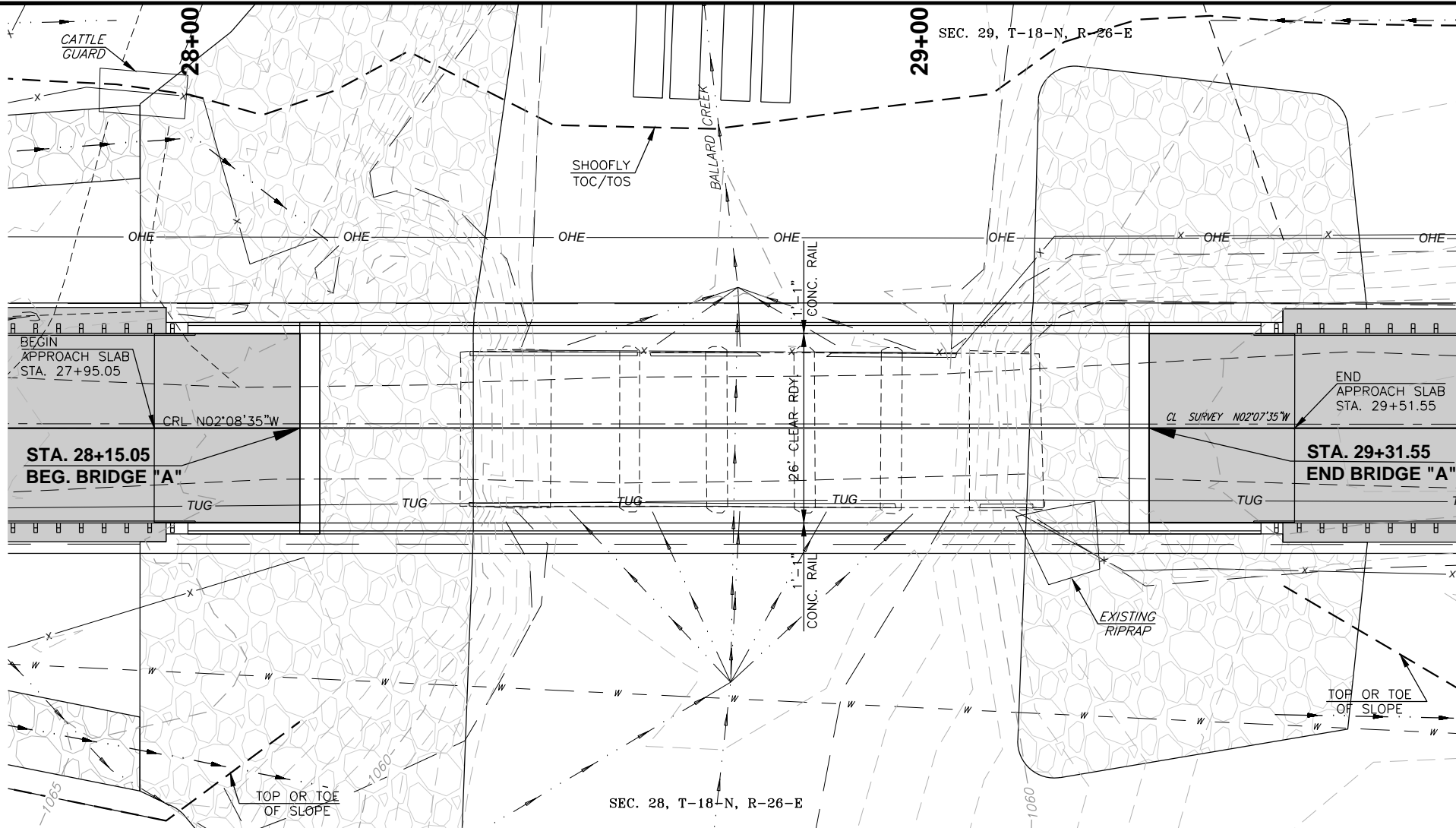
SUMMARY OF DRAINAGE STRUCTURES									
STR. NO.	STATION	DESCRIPTION	CGSP	CGSPA		RCPA	PCES		
			48" (FEET)	28"X20" (FEET)	35"X24" (FEET)	88"X54" (FEET)	28"X20" (EACH)	35"X24" (EACH)	88"X54" (EACH)
1	23+75.00 LT	CGSP SIDE DRAIN		30				2	
2	24+54.00 RT	CGSP SIDE DRAIN		38				2	
3	26+50.00 RT	CGSP SIDE DRAIN			30				2
4	26+74.00 LT	CGSP SIDE DRAIN			28				2
5	27+88.00 LT	CGSP SIDE DRAIN		32				2	
6	28+16.00 LT	TEMPORARY		30					
7	28+82.30 LT	TEMPORARY	200						
8	30+35 X-ING	RCPA CROSS DRAIN				64			2
9	32+00.00 RT	CGSP SIDE DRAIN			28			2	
			200	130	86	64	6	6	2

SUMMARY OF DRIVES				
STATION	DESCRIPTION	SIZE	TBSC (TON)	AC (TON)
23+75.00 LT	RURAL DRIVE	10' X 35'		17.00
24+54.00 RT	RURAL DRIVE	18' X 34'		27.00
26+50.00 RT	RURAL DRIVE	12' X 26'	14.00	
26+74.00 LT	RURAL DRIVE	12' X 207'	77.00	13.00
32+00.00 RT	RURAL DRIVE	12' X 25'	14.00	
TOTALS			105.00	57.00

CONSTRUCT ALL DRIVES PER STD. RDI-3, LATEST REVISION.

SUMMARY OF GUARDRAILS					
STATION TO STATION	LT.	RT.	TYPE D-BF (EACH)	TYPE A (EACH)	LENGTH INCLUDING ANCHOR UNITS (FEET)
26+97.72 - 27+97.72	X		1	1	100.00
26+97.72 - 27+97.72		X	1	1	100.00
29+48.88 - 30+48.88	X		1	1	100.00
29+48.88 - 30+48.88		X	1	1	100.00
TOTALS			4	4	400.00

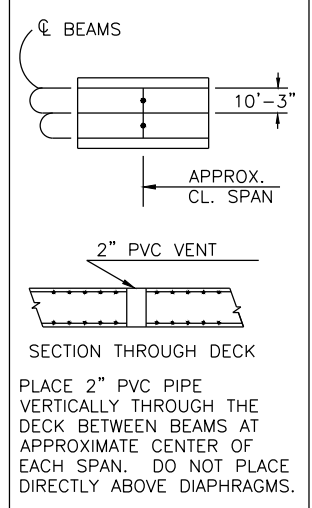
SUMMARY OF RIPRAP DITCHES			
STATION TO STATION	LT.	RT.	TYPE 1 RIPRAP (TON)
26+00 - 26+54	X		3
26+00 - 26+31		X	2
26+67 - 27+94		X	7
26+91 - 27+94	X		6
31+50 - 34+00	X		14
31+50 - 31+82		X	2
32+18 - 34+00		X	10
TOTALS			44



APPROX. LIMITS OF RIPRAP: 75 FEET LEFT, 72 FEET RIGHT CARRY RIPRAP TO SECOND GUARDRAIL POST AT EACH WING WALL ABUTMENT NO. 1 AND FOURTH GUARDRAIL POST AT ABUTMENT NO. 2.

DESCRIPTION	REVISIONS	DATE
CLSM BACKFILL QUANTITY UPDATED		10/11/17

AIR VENT DETAILS



HYDRAULIC DATA

D.A. = 25.9 SQ. MI.

Q2 = 2,760 CFS	Q25 = 10,900 CFS
V2 = 4.59 FPS	V25 = 10.16 FPS
CHW = 1063.02 FT	CHW = 1068.96 FT
Q5 = 5,120 CFS	Q50 = 13,100 CFS
V5 = 6.39 FPS	V50 = 11.84 FPS
CHW = 1065.11 FT	CHW = 1070.69 FT
Q10 = 7,310 CFS	Q100 = 15,600 CFS
V10 = 7.57 FPS	V100 = 13.17 FPS
CHW = 1066.68 FT	CHW = 1071.74 FT

Qot = Q39

LOAD AND RESISTANCE FACTOR DESIGN DATA

CONCRETE CLASS AA $f'_c = 4$ KSI
 CONCRETE CLASS A $f'_c = 3$ KSI
 REINF. STEEL $f_y = 60$ KSI
 STRUCTURAL STEEL M270 (GRADE 50W) $F_y = 50$ KSI

LFD OPERATING RATING: HS 47.2
 LOADING: HL-93
 20 P.S.F. FUTURE WEARING SURFACE.
 5 P.S.F. STAY-IN-PLACE FORMS

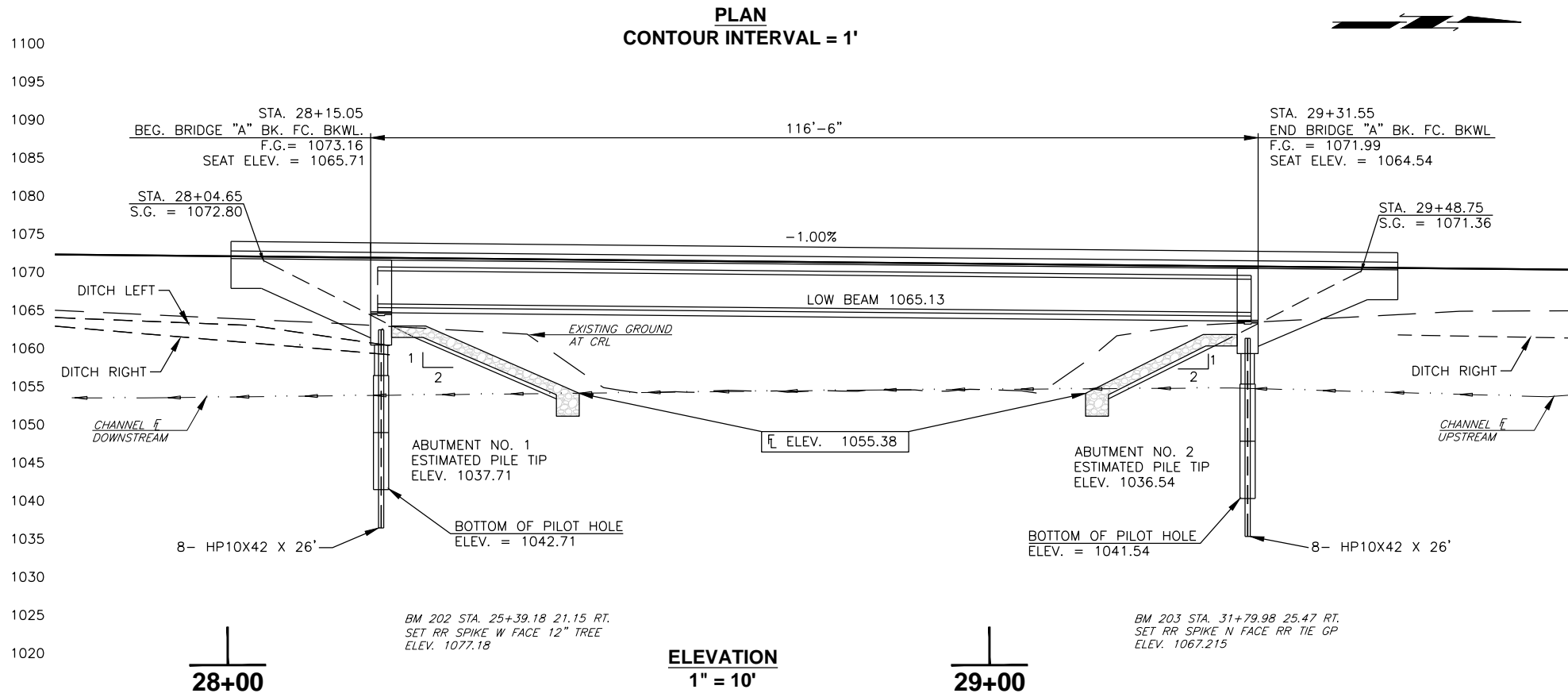
DESIGN: AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 5TH EDITION WITH 2010 INTERIMS, EXCEPT AS MODIFIED BY CURRENT ODOT BRIDGE DIVISION DESIGN POLICIES. ANSI/AASHTO/AWS D1.5 BRIDGE WELDING CODE.

ABUTMENT FOUNDATION DATA

ABUTMENTS: HP 10X42 PILING
 REQUIRED ULTIMATE PILE CAPACITY 73.7 TON/PILE

ABUTMENTS NO. 1 & 2

PILE CAPACITY SHALL BE VERIFIED USING THE ODOT MODIFIED GATES EQUATION SHOWN ON SHEET AR02. PILOT HOLES MUST BE DRILLED TO THE DEPTH SHOWN IN THE PLANS. ALL ABUTMENT PILING SHALL BE PLACED IN PILOT HOLES AND DRIVEN THROUGH ROCK TO POINT BEARING ON SOLID FOUNDATION MATERIAL. CONTRACTOR SHALL TEST PILING TO ENSURE THE MINIMUM REQUIRED ULTIMATE PILE CAPACITY IS OBTAINED. IF THE REQUIRED ULTIMATE PILE CAPACITY IS OBTAINED, DRIVING SHALL CONTINUE UNTIL THE REQUIRED ULTIMATE PILE CAPACITY IS OBTAINED. THE LENGTH OF STEEL PILING SHOWN ON THE PLANS IS FOR ESTIMATING PURPOSES ONLY.



BRIDGE "A" PAY QUANTITIES

115' X 26' CLEAR ROADWAY INTEGRAL PCB SPAN ZERO DEGREE SKEW

ITEM	DESCRIPTION	UNITS	ABUTS.	SUPSTR.	APPROACH	TOTALS
501(B)	SUBSTRUCTURE EXCAVATION COMMON	CY	120.00			120.00
501(G)	CLSM BACKFILL	CY	104.00			104.00
503(A)	PRESTRESSED CONCRETE BEAMS (TYPE J BT)	LF		344.00		344.00
504(A)	APPROACH SLAB	SY			115.00	115.00
504(B)	SAW-CUT GROOVING	SY		282.40	88.80	371.20
504(D)	CONCRETE RAIL (TR3)	LF	73.60	233.00		306.60
506(A)	STRUCTURAL STEEL	LB		600.00	220.00	820.00
507(A)	WEATHERING STEEL FIXED BEARING ASSEMBLY	EA		6.00		6.00
509(A)	CLASS AA CONCRETE	CY		129.00		129.00
509(B)	CLASS A CONCRETE	CY	48.20			48.20
509(D)	CLASS C CONCRETE	CY	9.30			9.30
511(A)	REINFORCING STEEL	LB	7,600.00	21,790.00		29,390.00
* 514(A)	PILES, FURNISHED (HP 10X42)	LF	416.00			416.00
** 514(B)	PILES, DRIVEN (HP 10X42)	LF	80.00			80.00
514(K)	(PL)PILOT HOLES	LF	304.00			304.00
514(L)	PILE SPLICE, H-PILE (NON-BIDDABLE)	EA	1.00			1.00
601(B)	TYPE I-A PLAIN RIPRAP	TON	944.00			944.00
601(C)	TYPE I-A FILTER BLANKET	TON	239.00			239.00
613(H)	6" PERFORATED PIPE UNDERDRAIN ROUND	LF	52.00			52.00
613(I)	6" NON-PERF. PIPE UNDERDRAIN RND.	LF	50.00			50.00
619(D)	REMOVAL OF EXISTING BRIDGE STRUCTURE	LSUM	1.00			1.00
623(F)	GUARDRAIL ANCHOR UNIT (TYPE D-BF)	EA	4.00			4.00
623(F)	GUARDRAIL ANCHOR UNIT (TYPE A)	EA	4.00			4.00
880(J)	CONSTRUCTION TRAFFIC CONTROL	LSUM	1.00			1.00

*PILES FURNISHED BASED ON ESTIMATED QUANTITY OF 21 L.F. PLUS ADDITIONAL 5 L.F. PER PILE THAT MAY BE REQUIRED IN ORDER TO MEET ULTIMATE PILE CAPACITY.
 **PILES DRIVEN BASED ON ESTIMATED 5 L.F. PER PILE.

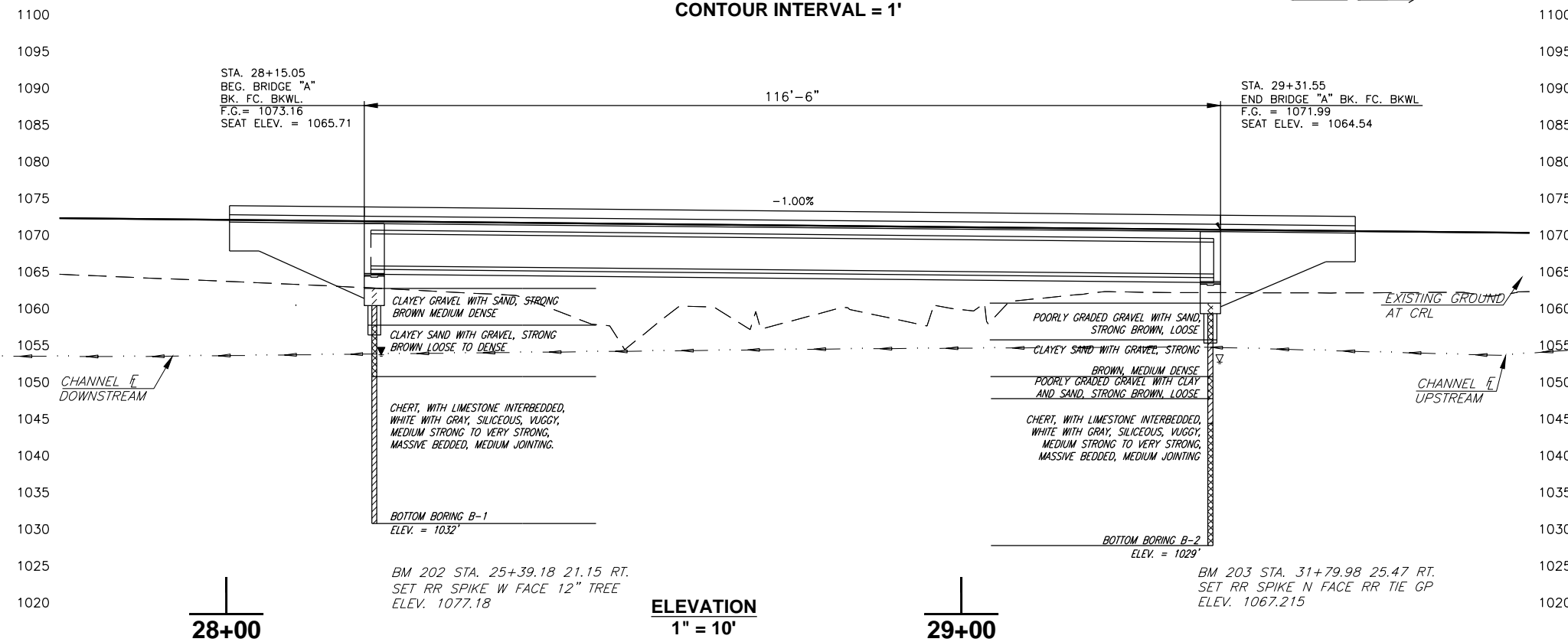
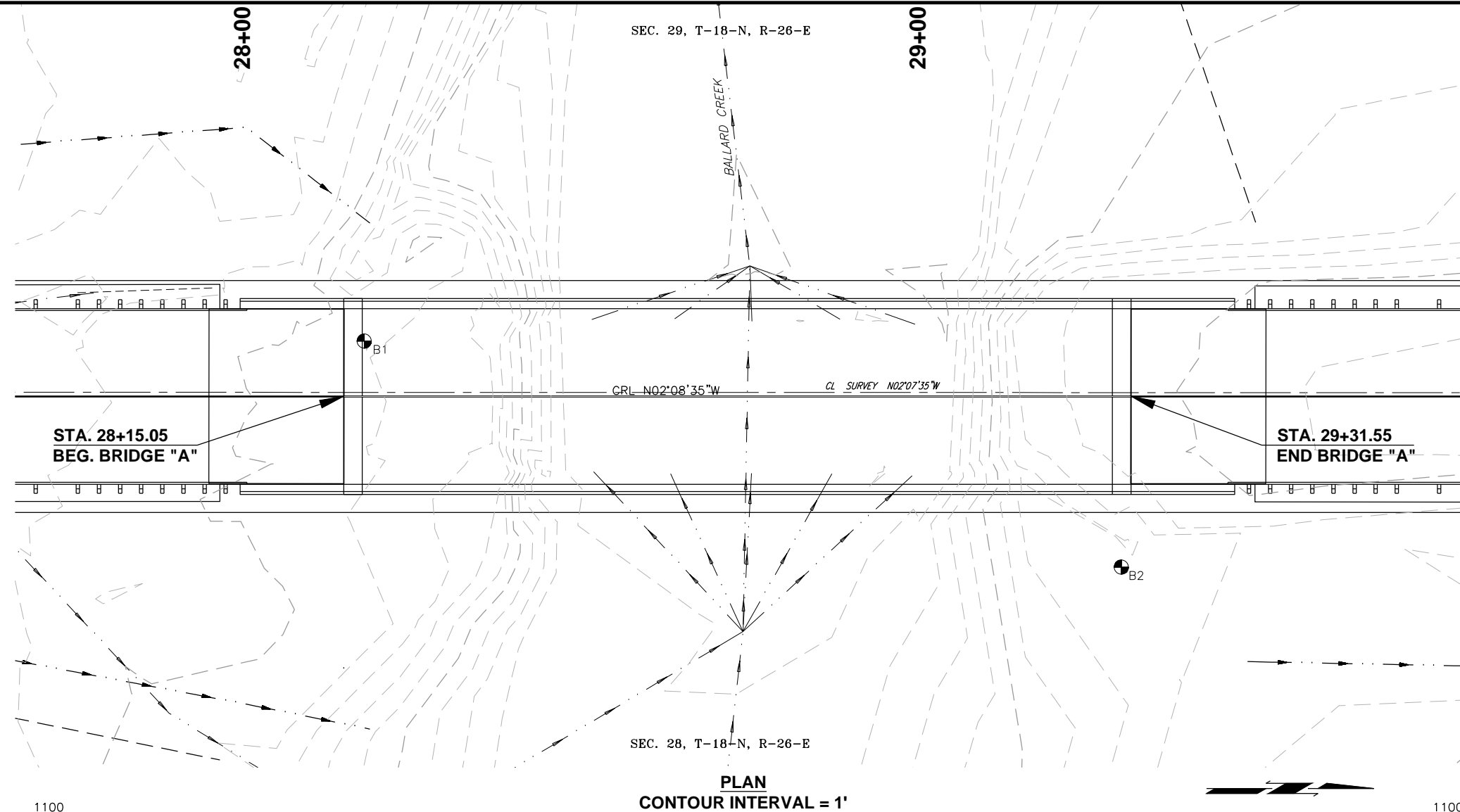
BRIDGE "A" - 115' X 26' CLEAR ROADWAY INTEGRAL PCB SPAN SKEWED ZERO DEGREES WITH TR-3 CONCRETE RAILS. CENTERLINE STATION 28+73.30.

EXISTING STRUCTURE - 5-10' CONCRETE SLAB SPAN BRIDGE. (REMOVE)

BALLARD CREEK ADAIR COUNTY

BRIDGE "A" GENERAL PLAN AND ELEVATION

JOB PIECE NO. 29823(04) SHEET NO. B001



WATER LEVELS
 ▽ DURING DRILLING
 ▼ AFTER COMPLETION

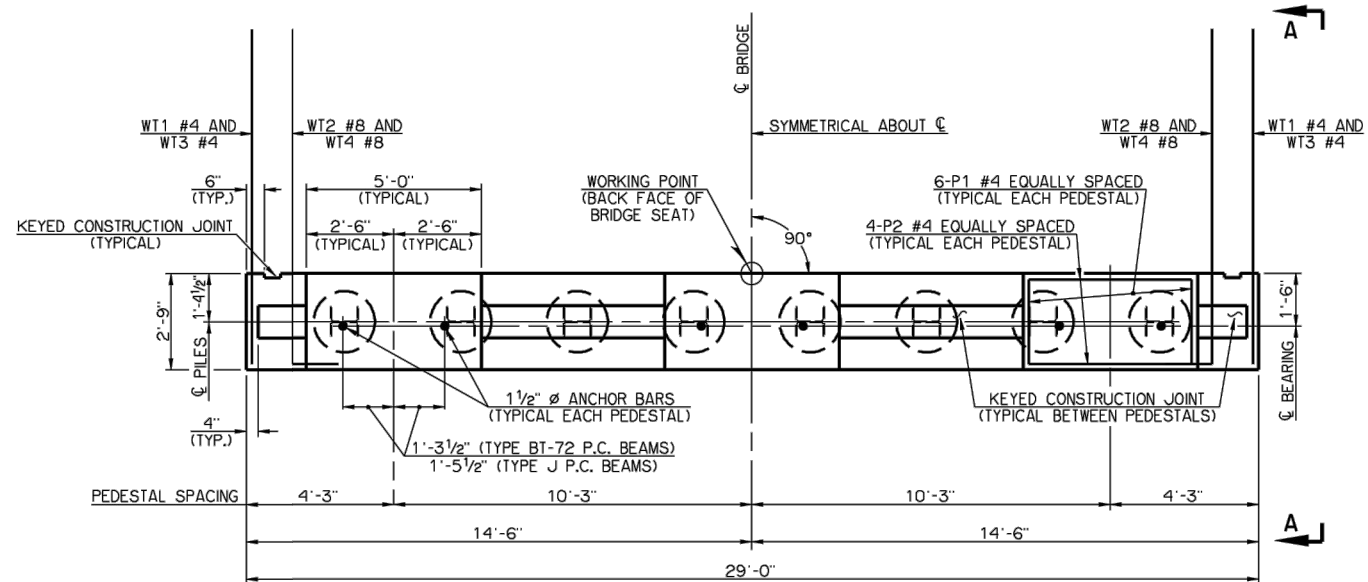
BRIDGE "A" - 115' X 26' CLEAR ROADWAY
 INTEGRAL PCB SPAN SKEWED ZERO DEGREES WITH TR-3 CONCRETE RAILS.
 CENTERLINE STATION 28+73.30.

EXISTING STRUCTURE - 5-10' CONCRETE SLAB SPAN BRIDGE. (REMOVE)

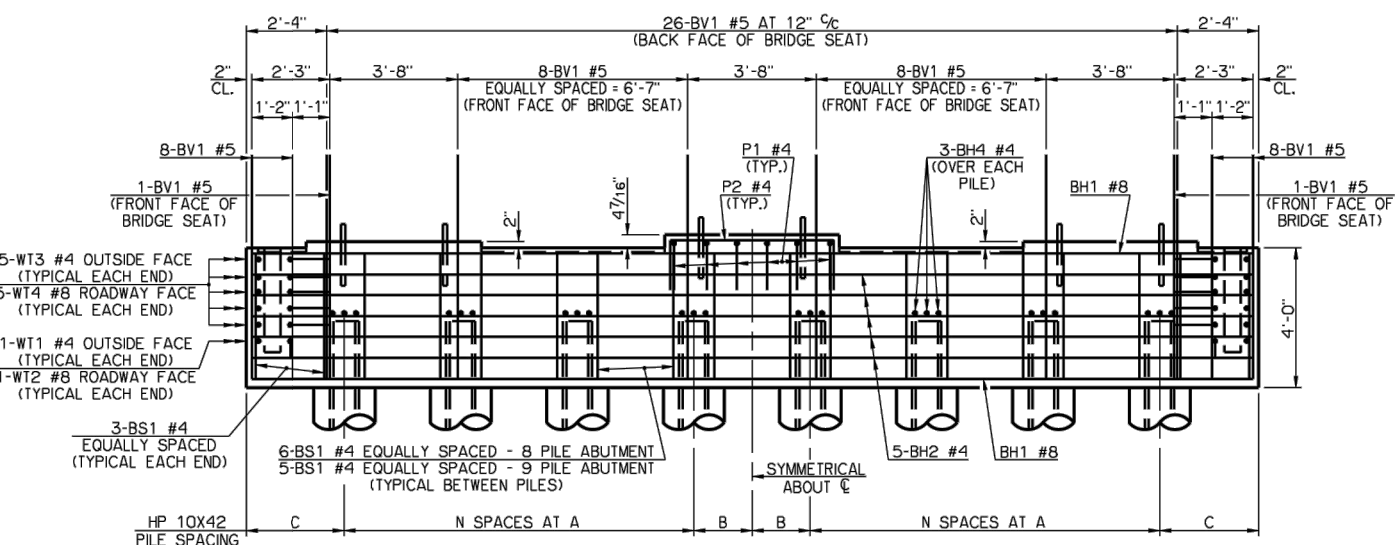
BALLARD CREEK ADAIR COUNTY

BRIDGE "A" GEOTECHNICAL INFORMATION

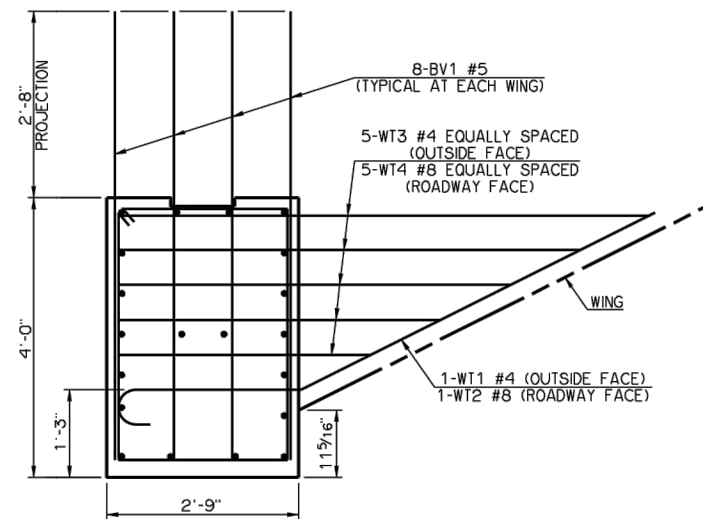
JOB PIECE NO. 29823(04) SHEET NO. B002



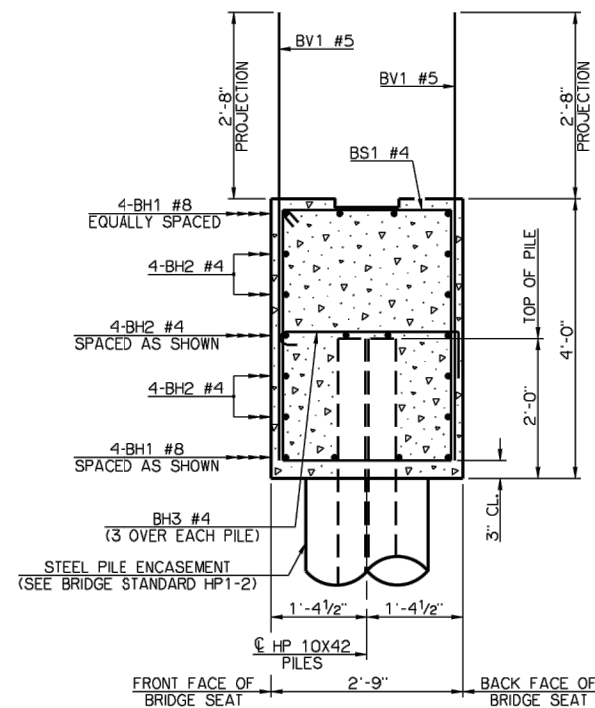
PLAN



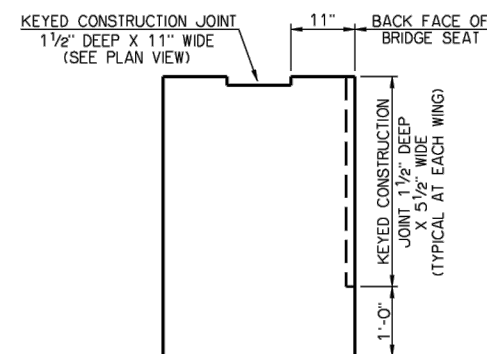
ELEVATION



VIEW A-A



TYPICAL SECTION THRU BRIDGE SEAT



DETAIL OF CONSTRUCTION JOINTS

PILE SCHEDULE						
SPAN	TOTAL NUMBER OF PILES	N SPACES	A	B	C	MAXIMUM FACTORED PILE LOAD
110'	8	3	3'-4"	1'-8"	2'-10"	71.9 TON
115'	8	3	3'-4"	1'-8"	2'-10"	73.7 TON
120'	8	3	3'-4"	1'-8"	2'-10"	75.4 TON
125'	9	4	3'-0"	0'-0"	2'-6"	68.6 TON
130'	9	4	3'-0"	0'-0"	2'-6"	70.1 TON
135'	9	4	3'-0"	0'-0"	2'-6"	71.6 TON

BAR LIST - ONE ABUTMENT					
MARK	NO.	SIZE	FORM	LENGTH	LENGTH VARIATION
BH1	8	#8	STR.	28'-8"	-
BH2	12	#4	STR.	28'-8"	-
BV1	60	#5	STR.	6'-5"	-
P1	18	#4	BNT.	4'-11"	-
P2	12	#4	BNT.	7'-2"	-
WT1	2	#4	BNT.	5'-2"	-
WT2	2	#8	BNT.	11'-2"	-
WT3	10	#4	STR.	5'-7" AVG.	3'-7" TO 7'-7"
WT4	10	#8	BNT.	6'-11" AVG.	4'-11" TO 8'-11"
ADDITIONAL BARS TO BE USED WITH 8 PILE ABUTMENTS					
BH3	24	#4	BNT.	3'-7"	-
BS1	48	#4	BNT.	12'-9"	-
ADDITIONAL BARS TO BE USED WITH 9 PILE ABUTMENTS					
BH3	27	#4	BNT.	3'-7"	-
BS1	46	#4	BNT.	12'-9"	-

① NO. INCLUDES TWO SETS OF 5 BARS

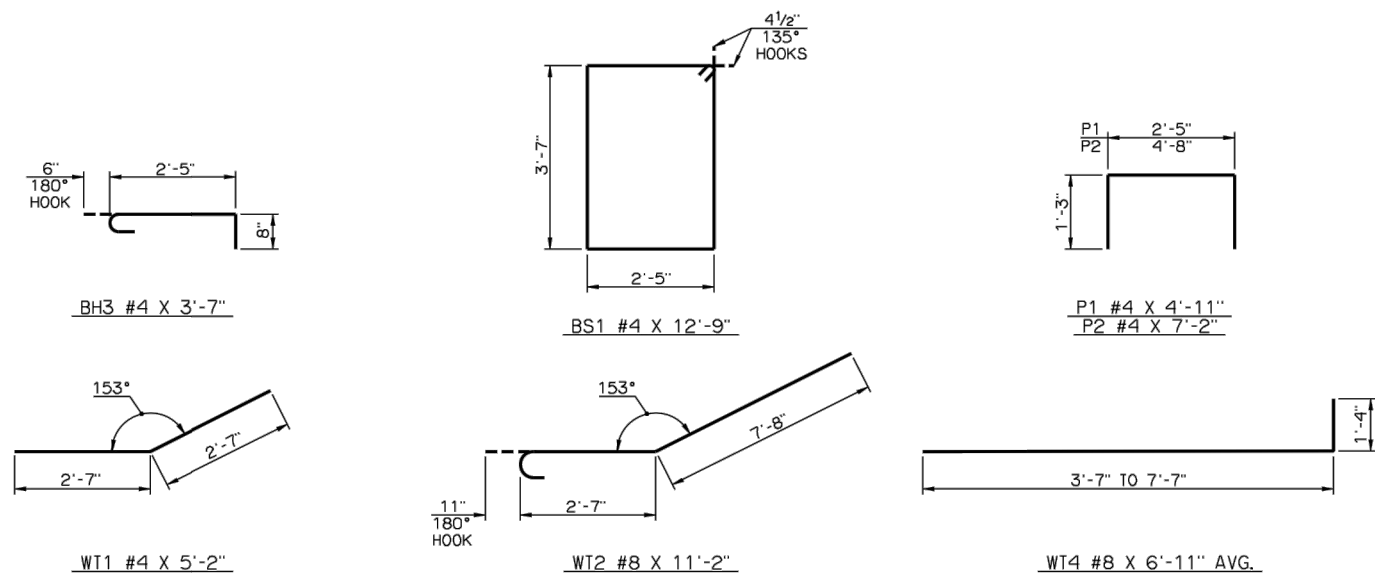
SUMMARY OF QUANTITIES - ONE ABUTMENT ②			
ITEM	UNIT	TOTAL	
SUBSTRUCTURE EXCAVATION, COMMON	CY	30.00	
CLSM BACKFILL	CY	52.00	
CLASS A CONCRETE	CY	12.10	
REINFORCING STEEL	LB	2,120.00	
PILES, FURNISHED (HP 10X42)	LF	-	
PILES, DRIVEN (HP 10X42)	LF	-	
6" PERFORATED PIPE UNDERDRAIN	LF	26.00	
6" NON-PERFORATED PIPE UNDERDRAIN	LF	-	

② EXCLUDES WINGS

NOTES

ABUTMENT WING CONCRETE SHALL NOT BE POURED UNTIL THE ABUTMENT DIAPHRAGMS OF THE SUPERSTRUCTURE AND THE DECK SLAB CONCRETE HAVE ATTAINED A STRENGTH OF 3,000 PSI.

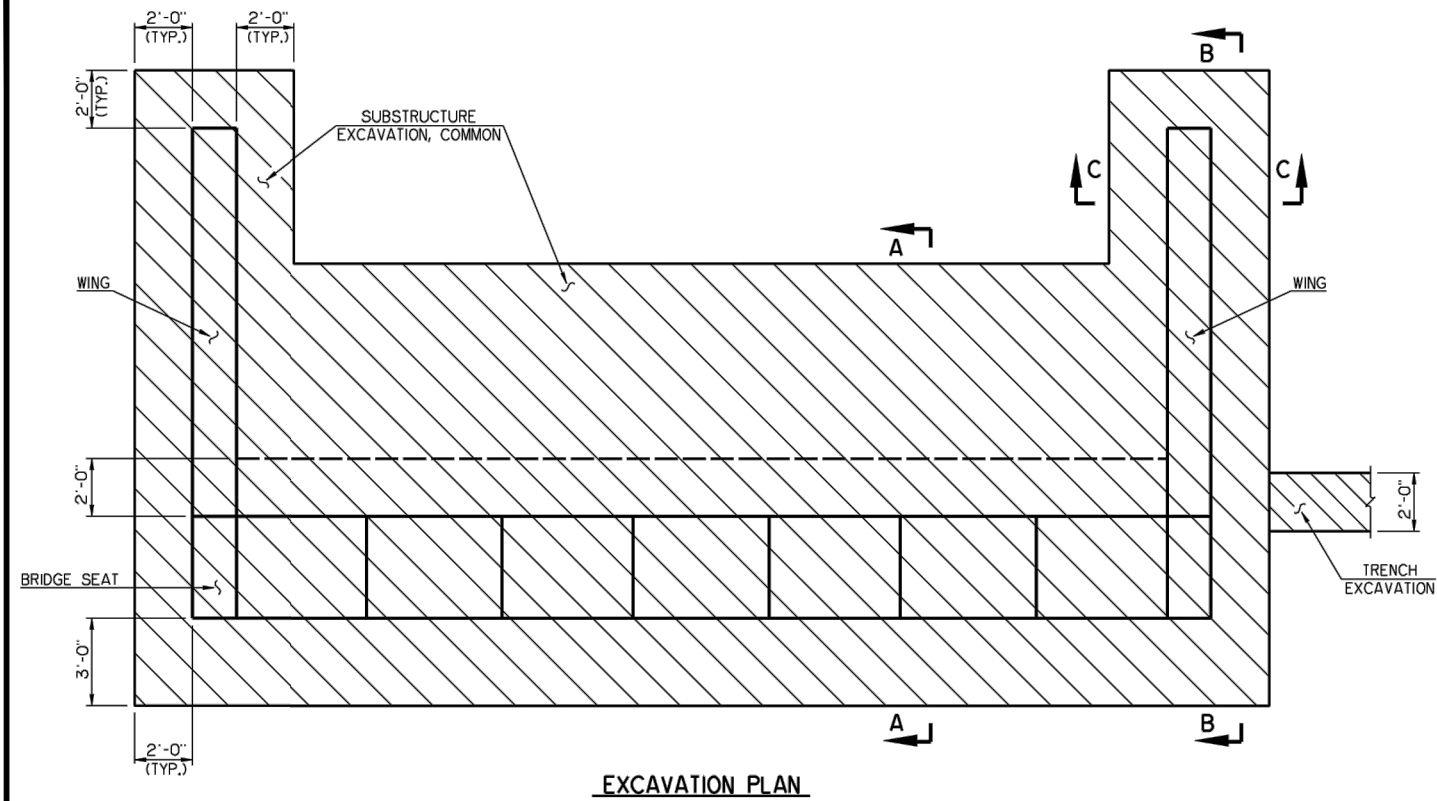
ALL WT WING REINFORCING STEEL TIED TO BRIDGE SEAT REINFORCING STEEL MUST BE IN PLACE PRIOR TO POURING THE BRIDGE SEAT CONCRETE.



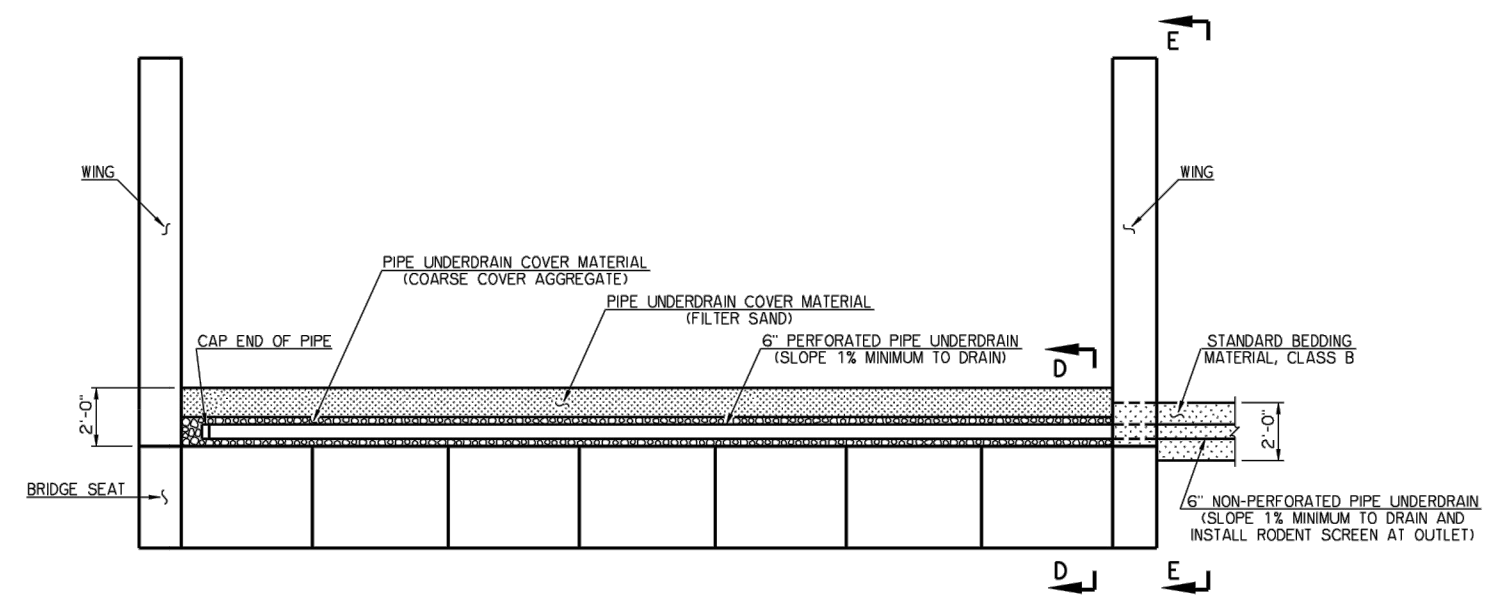
DETAILS OF BENT REINFORCING STEEL

BALLARD CREEK ADAIR COUNTY

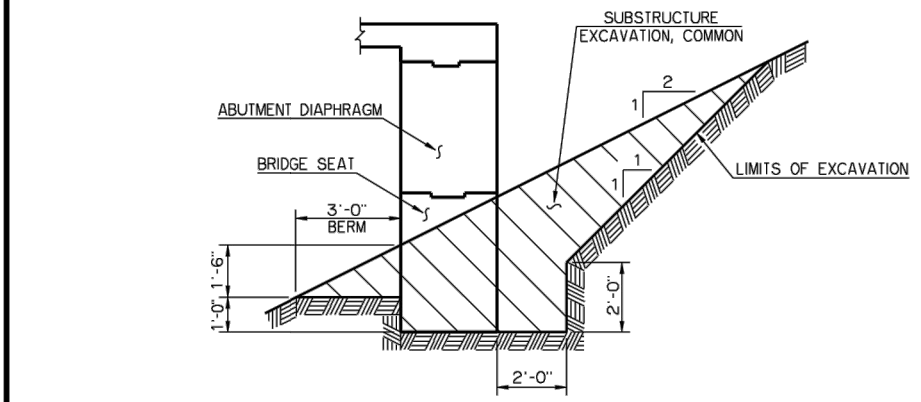
ABUTMENT DETAILS



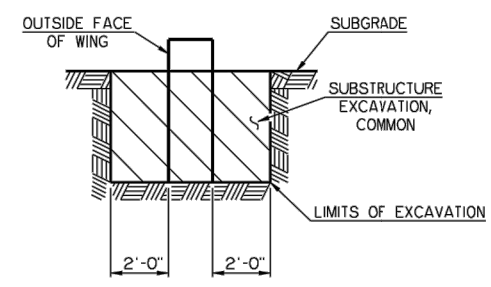
EXCAVATION PLAN



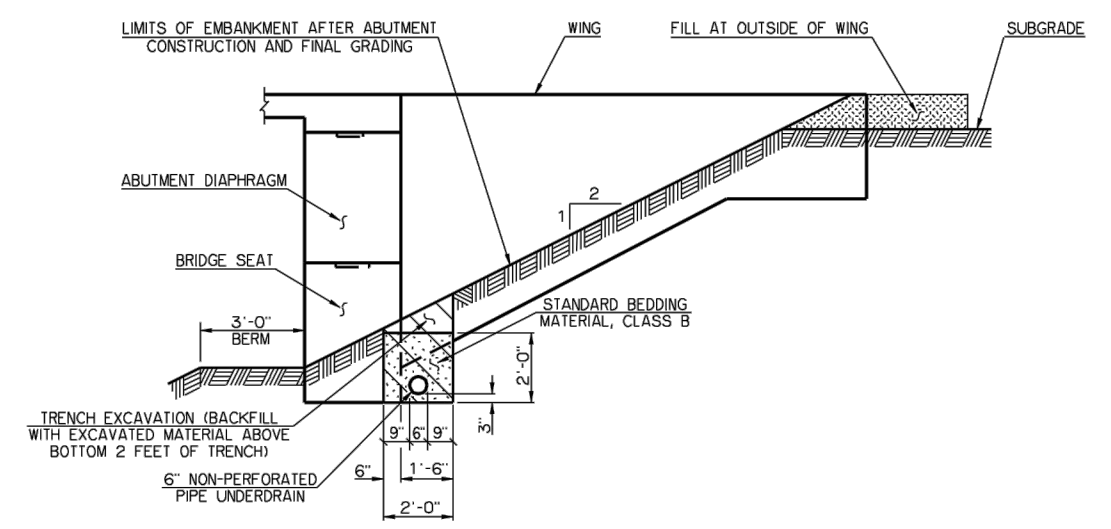
PIPE UNDERDRAIN PLAN



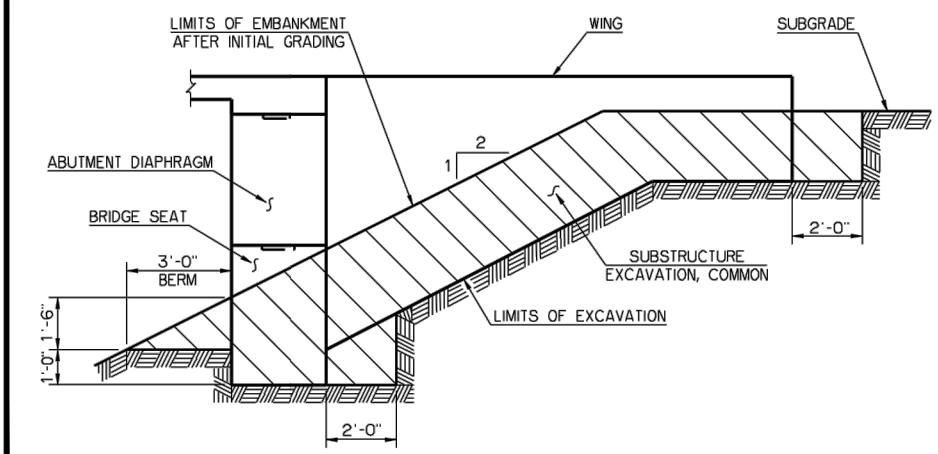
SECTION A-A



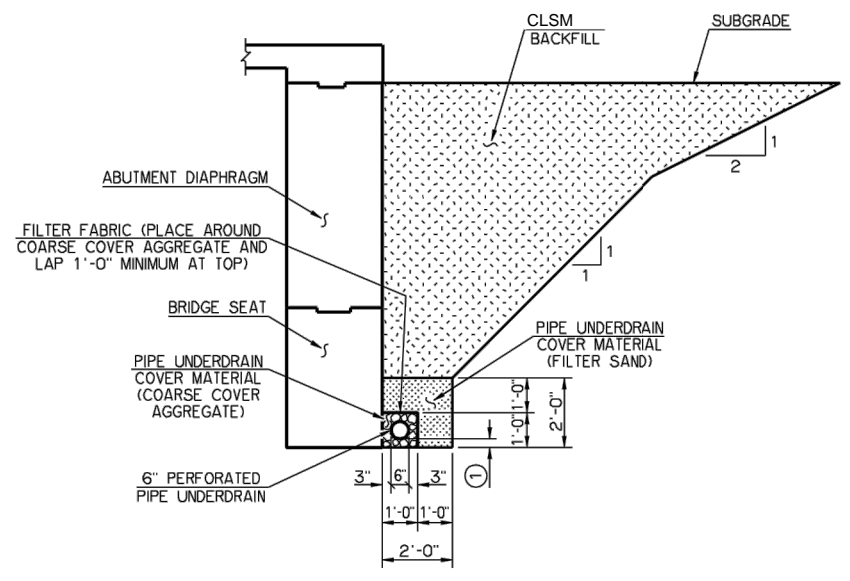
SECTION C-C



SECTION E-E



SECTION B-B



SECTION D-D

NOTES

CONCRETE MAY BE PLACED AGAINST THE LIMITS OF EXCAVATION IF THE MATERIAL IS EXCAVATED TO THE NEAT LINES OF THE ABUTMENT AND APPROVED BY THE ENGINEER. IF NECESSARY, FORMS SHALL BE USED ON THE BACK VERTICAL FACE OF THE ABUTMENT AND REMOVED AFTER THE CONCRETE HAS SET. THE MEASUREMENT AND PAYMENT FOR "SUBSTRUCTURE EXCAVATION, COMMON" AT THE ABUTMENTS SHALL BE IN ACCORDANCE WITH THE DETAILS SHOWN IN THE PLANS.

CLSM BACKFILL SHALL NOT BE PLACED UNTIL THE CONCRETE IN THE ABUTMENT WINGS HAS ATTAINED A STRENGTH OF 3,000 PSI.

INSTALLATION OF THE PIPE UNDERDRAIN SHALL BE AS SHOWN IN THE PLANS AND ON ROADWAY STANDARD DRAWING PUD-3. THE EXTENT, LOCATION AND DEPTH OF THE 6" NON-PERFORATED PIPE UNDERDRAIN MAY BE ADJUSTED BY THE ENGINEER DURING CONSTRUCTION. ALL COST OF THE PERFORATED AND NON-PERFORATED PIPE, PIPE UNDERDRAIN COVER MATERIAL, FILTER FABRIC, TRENCH EXCAVATION, STANDARD BEDDING MATERIAL, PIPE CAPS, RODENT SCREENS, BACKFILLING OF TRENCH EXCAVATION, MATERIAL, LABOR, EQUIPMENT AND INCIDENTALS SHALL BE INCLUDED IN THE UNIT PRICE BID PER LINEAR FOOT OF "6" PERFORATED PIPE UNDERDRAIN" AND "6" NON-PERFORATED PIPE UNDERDRAIN."

① SET PIPE AT 3" ABOVE THE BOTTOM OF THE ABUTMENT AT THE LOW END.

STORM WATER MANAGEMENT PLAN Δ

DESCRIPTION	REVISIONS	DATE
<small>Δ</small> SWMP SHEET UPDATED TO NEW FORMAT		10/11/17

SITE DESCRIPTION

PROJECT LIMITS:
 PROJECT LIES ALONG N-S SECTION LINE 475 WITHIN SECTIONS 28 AND 29, T-18-N, R-26-E, ADAIR COUNTY, OKLAHOMA.

PROJECT DESCRIPTION:
 CONSTRUCTION OF A 115' PCB SPAN AND APPROACH ROADWAYS.

SUGGESTED SEQUENCE OF EROSION CONTROL ACTIVITIES:

- INSTALL PERIMETER EROSION CONTROL DEVICES.
- VEGETATIVE STRIPPING, UNDERCUT AND STOCKPILE TOPSOIL.
- ROADWAY EXCAVATION AND EMBANKMENT.
- INSTALL SILT FENCE, DIKES WITHIN PROJECT LIMITS.
- ABUTMENT CONSTRUCTION.
- PLACE CHANNEL RIPRAP.
- COMPLETE BRIDGE CONSTRUCTION.
- CULVERT TRENCHING AND CONSTRUCTION.
- VEGETATIVE MULCHING.
- CONST. FINISHED ROADWAY PAVING.
- SPREAD TOPSOIL.
- INSTALL SOLID SLAB SOD.

SOIL TYPE: BOONE UNIT

TOTAL AREA OF THE CONSTRUCTION SITE: 4.25 AC

ESTIMATED AREA TO BE DISTURBED: 4.25 AC

OFFSITE AREA TO BE DISTURBED: (FOR CONTRACTOR USE)

TOTAL IMPERVIOUS AREA PRE-CONSTRUCTION: 0.54 AC

TOTAL IMPERVIOUS AREA POST-CONSTRUCTION: 0.66 AC

POST-CONSTRUCTION RUNOFF COEFFICIENT OF THE SITE: 0.44

LATITUDE & LONGITUDE OF CENTER OF PROJECT: 36° 00' 53" N 94° 32' 53" W

PROJECT WILL DISCHARGE TO:

NAME OF RECEIVING WATERS: BALLARD CREEK

SENSITIVE WATERS OR WATERSHEDS: YES NO

303(d) IMPAIRED WATERS: YES NO

IF YES, LIST IMPAIRMENT: ENTEROCOCCUS

LOCATED IN A TMDL: YES NO

LAKE THUNDERBIRD TMDL: YES NO

MS4 ENTITY: YES NO

IF YES, LOCATION:

NOTE:
 THIS SHEET SHOULD BE USED IN CONJUNCTION WITH A DRAINAGE MAP THAT ILLUSTRATES THE DRAINAGE PATTERNS/PATHWAYS AND RECEIVING WATERS FOR THIS PROJECT. THIS SHEET SHOULD ALSO BE USED WITH THE EROSION CONTROL SUMMARIES, PAY ITEMS, & NOTES.

EROSION AND SEDIMENT CONTROLS

SOIL STABILIZATION PRACTICES:

- TEMPORARY SEEDING
- PERMANENT SODDING, SPRIGGING OR SEEDING
- VEGETATIVE MULCHING
- SOIL RETENTION BLANKET
- PRESERVATION OF EXISTING VEGETATION

NOTE: TEMPORARY EROSION CONTROL METHODS MUST BE USED ON ALL DISTURBED AREAS WHERE CONSTRUCTION ACTIVITIES HAVE CEASED FOR OVER 14 DAYS. METHODS USED WILL BE AS SHOWN ON PLANS, OR AS DIRECTED BY THE ENGINEER.

STRUCTURAL PRACTICES:

- STABILIZED CONSTRUCTION EXIT
- TEMPORARY SILT FENCE
- TEMPORARY SILT DIKES
- TEMPORARY FIBER LOG
- DIVERSION, INTERCEPTOR OR PERIMETER DIKES
- DIVERSION, INTERCEPTOR OR PERIMETER SWALES
- ROCK FILTER DAMS
- TEMPORARY SLOPE DRAIN
- PAVED DITCH W/ DITCH LINER PROTECTION
- TEMPORARY DIVERSION CHANNELS
- TEMPORARY SEDIMENT BASINS
- TEMPORARY SEDIMENT TRAPS
- TEMPORARY SEDIMENT FILTERS
- TEMPORARY SEDIMENT REMOVAL
- RIP RAP
- INLET SEDIMENT FILTER
- TEMPORARY BRUSH SEDIMENT BARRIERS
- SANDBAG BERMS
- TEMPORARY STREAM CROSSINGS

OFFSITE VEHICLE TRACKING:

- HAUL ROADS DAMPENED FOR DUST CONTROL
- LOADED HAUL TRUCKS TO BE COVERED WITH TARPULIN
- EXCESS DIRT ON ROAD REMOVED DAILY

NOTES:

THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR THE FOLLOWING:

MAINTENANCE AND INSPECTION:

ALL EROSION AND SEDIMENT CONTROLS WILL BE MAINTAINED IN GOOD WORKING ORDER FROM THE BEGINNING OF CONSTRUCTION UNTIL AN ACCEPTABLE VEGETATIVE COVER IS ESTABLISHED. INSPECTION BY THE CONTRACTOR AND ANY NECESSARY REPAIRS SHALL BE PERFORMED ONCE EVERY 7 CALENDAR DAYS AND WITHIN 24 HOURS AFTER ANY STORM EVENT GREATER THAN 0.5 INCH AS RECORDED BY A NON-FREEZING RAIN GAUGE TO BE LOCATED ON SITE. POTENTIALLY ERODIBLE AREAS, DRAINAGEWAYS, MATERIAL STORAGE, STRUCTURAL DEVICES, CONSTRUCTION ENTRANCES AND EXITS ALONG WITH EROSION AND SEDIMENT CONTROL LOCATIONS ARE EXAMPLES OF SITES THAT NEED TO BE INSPECTED.

WASTE MATERIALS:

PROPER MANAGEMENT AND DISPOSAL OF CONSTRUCTION WASTE MATERIAL IS REQUIRED BY THE CONTRACTOR. MATERIALS INCLUDE STOCKPILES, SURPLUS, DEBRIS AND ALL OTHER BY-PRODUCTS FROM THE CONSTRUCTION PROCESS. PRACTICES INCLUDE DISPOSAL, PROPER MATERIALS HANDLING, SPILL PREVENTION AND CLEANUP MEASURES. CONTROLS AND PRACTICES SHALL MEET THE REQUIREMENTS OF ALL FEDERAL, STATE AND LOCAL AGENCIES.

HAZARDOUS MATERIALS:

PROPER MANAGEMENT AND DISPOSAL OF HAZARDOUS WASTE MATERIAL IS REQUIRED. THE CONTRACTOR IS RESPONSIBLE FOR FOLLOWING MANUFACTURER'S RECOMMENDATIONS, STATE AND FEDERAL REGULATIONS TO ENSURE CORRECT HANDLING, DISPOSAL, SPILL PREVENTION AND CLEANUP MEASURES. EXAMPLES INCLUDE BUT ARE NOT LIMITED TO: PAINTS, ACIDS, CLEANING SOLVENTS, CHEMICAL ADDITIVES, CONCRETE CURING COMPOUNDS AND CONTAMINATED SOILS.

GENERAL NOTES:

A STORM WATER POLLUTION PREVENTION PLAN (SWPPP) IS REQUIRED TO COMPLY WITH THE OKLAHOMA POLLUTION DISCHARGE ELIMINATION SYSTEM (OPDES) REGULATIONS. THIS PLAN IS INITIATED DURING THE DESIGN PHASE, CONFIRMED IN THE PRE-WORK MEETINGS AND AVAILABLE ON THE JOB SITE ALONG WITH COPIES OF THE NOTICE OF INTENT (NOI) FORM AND PERMIT CERTIFICATE THAT HAVE BEEN FILED WITH THE OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY (ODEQ). THE PLAN MUST BE KEPT CURRENT WITH UP-TO-DATE AMENDMENTS DURING THE PROGRESSION OF THE PROJECT. ALL CONTRACTOR OFF-SITE OPERATIONS ASSOCIATED WITH THE PROJECT MUST BE DOCUMENTED IN THE SWPPP, I.E., BORROW PITS, WORK ROADS, DISPOSAL SITES, ASPHALT/CONCRETE PLANTS, ETC. THE BASIC GOAL OF STORM WATER MANAGEMENT IS TO IMPROVE WATER QUALITY BY REDUCING POLLUTANTS IN STORM WATER DISCHARGES. RUNOFF FROM CONSTRUCTION SITES HAS A POTENTIAL FOR POLLUTION DUE TO EXPOSED SOILS AND THE PRESENCE OF HAZARDOUS MATERIALS USED IN THE CONSTRUCTION PROCESS. THE PREVENTION OF SOIL EROSION, CONTAINMENT OF HAZARDOUS MATERIALS AND/OR THE INTERCEPTION OF THESE POLLUTANTS BEFORE LEAVING THE CONSTRUCTION SITE ARE THE BEST PRACTICES FOR CONTROLLING STORM WATER POLLUTION.

THE FOLLOWING SECTIONS OF THE 2009 ODOT STANDARD SPECIFICATIONS SHOULD BE NOTED:

- 103.05 BONDING REQUIREMENTS
- 104.10 FINAL CLEANING UP
- 104.12 CONTRACTOR'S RESPONSIBILITY FOR WORK
- 104.13 ENVIRONMENTAL PROTECTION
- 106.08 STORAGE AND HANDLING OF MATERIAL
- 107.01 LAWS, RULES AND REGULATIONS TO BE OBSERVED
- 107.20 STORM WATER MANAGEMENT
- 220 MANAGEMENT OF EROSION, SEDIMENTATION AND STORM WATER POLLUTION PREVENTION AND CONTROL
- 221 TEMPORARY SEDIMENT CONTROL

IN ADDITION:

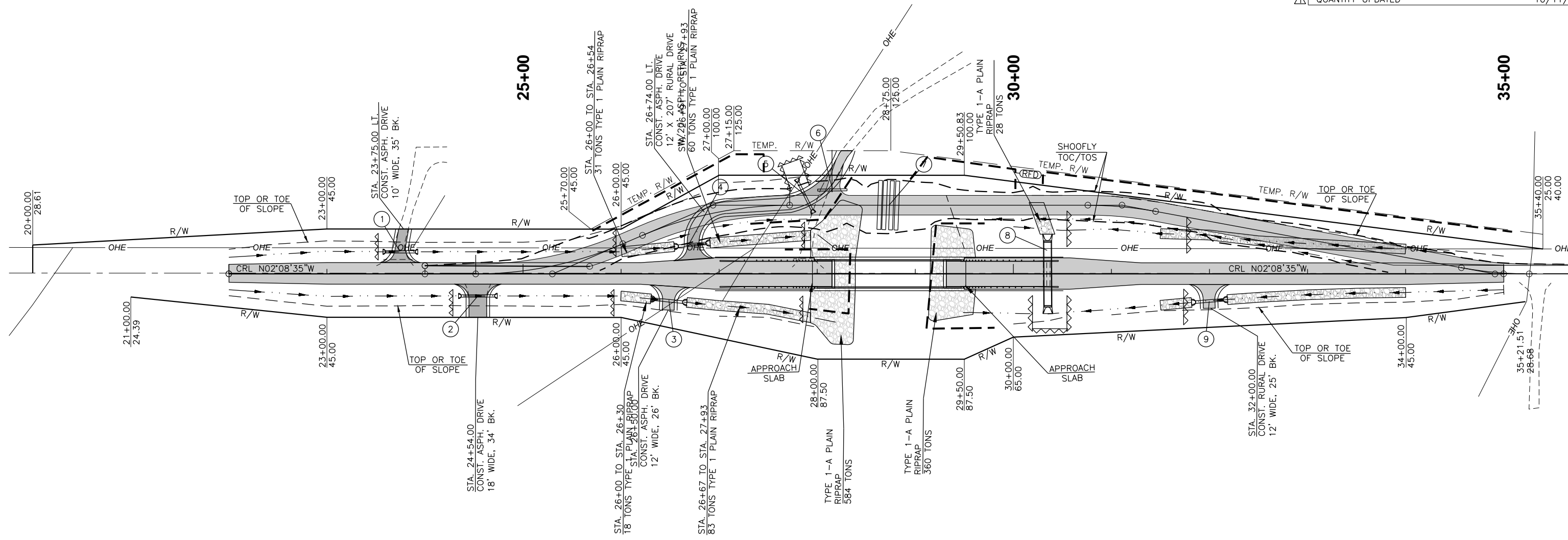
"ODEQ GENERAL PERMIT (OKR10) FOR STORM WATER DISCHARGES FROM CONSTRUCTION ACTIVITIES WITHIN THE STATE OF OKLAHOMA." ODEQ, WATER QUALITY DIVISION, SEPTEMBER 13, 2017.

BALLARD CREEK ADAIR COUNTY

STORM WATER MANAGEMENT PLAN

JOB PIECE NO. 29823(04) SHEET NO. R001

DESCRIPTION	REVISIONS	DATE
△ QUANTITY UPDATED		10/11/17



EROSION CONTROL AND CONSTRUCTION NOTES

SOLID SLAB SODDING SHALL BE PLACED ON ALL DISTURBED AREAS.

THE PLANTING OF SOLID SLAB SOD SHALL BE RESTRICTED TO THE PERIOD FROM MARCH 1 TO AUGUST 31.

AT THE BEGINNING OF TURFING OPERATIONS, ANY AREAS INCLUDED IN PLANNED QUANTITIES THAT HAVE GROWN A SATISFACTORY VOLUNTEER TURF OF PERENNIAL GRASS, AS DETERMINED BY THE ENGINEER, SHALL BE FERTILIZED AND WATERED AS CALLED FOR ON THE PLANS, BUT SHALL NOT BE SEEDED, SODDED OR SPRIGGED.

VEGETATIVE MULCHING: THE VEGETATIVE MULCH SHALL BE ANCHORED IN ACCORDANCE WITH THE "MULCHING-TILLER METHOD", AS SPECIFIED IN 233.04B(2) OF THE STANDARD SPECIFICATIONS.

TOPSOIL NOTE:
RESERVED TOPSOIL SHALL BE SPREAD APPROX. 5 INCHES THICK FIRST ON COMPLETED FORE SLOPES OF FILL SECTIONS AND THE REMAINDER ON COMPLETED CUT SLOPES OR OTHER PRIORITY AREAS LOCATED BY THE ENGINEER.

AREAS ON WHICH SALVAGED TOPSOIL IS TO BE REPLACED SHALL HAVE 18-46-0 FERTILIZER APPLIED AT THE RATE OF 150 POUNDS PER ACRE JUST PRIOR TO THE REPLACEMENT OF SALVAGED TOPSOIL.

EROSION CONTROL QUANTITIES			
DESCRIPTION	UNITS	QUANTITY	
TEMPORARY SILT FENCE (1)	LF	2,000.00	
TEMPORARY SILT DIKE (1)	LF	300.00	
SOLID SLAB SODDING	SY	20,581.00	
VEGETATIVE MULCHING (2)	AC	8.50	
ROCK FILTER DAM (TYPE 2) (1)	CY	20.00	
CLASS C CONCRETE (3)	CY	10.00	
TYPE 1 PLAIN RIPRAP	TON	475.00	△
TYPE 1-A PLAIN RIPRAP	TON	944.00	
TYPE 1-A FILTER BLANKET	TON	239.00	

- (1) ESTIMATED QUANTITY FOR USE IN CONJUNCTION WITH THIS SHEET AND AS DIRECTED BY THE ENGINEER.
- (2) QUANTITY BASED ON 4.25 ACRES AT TWO APPLICATIONS.
- (3) QUANTITY INCLUDES 10 C.Y. FOR USE AS DIRECTED BY THE ENGINEER.

LEGEND	
TEMPORARY SILT FENCE	---
TEMPORARY SILT DIKE	▲▲▲▲
SOLID SLAB SOD DITCH	→ · · · →
RIPRAP	▨
ROCK FILTER DAM (TYPE 2)	(RFD)

EROSION CONTROL PLAN

NOTE: ALL DISTANCES SHOWN TO RIGHTS-OF-WAY, FENCES, UTILITIES AND OTHER EXISTING OBJECTS ARE FROM CENTERLINE OF SURVEY.

CONTRACTOR TO MEET AND MATCH EXISTING ROADWAY STA. 22+00. SHAPE TO DRAIN STA. 21+75± TO STA. 22+00.

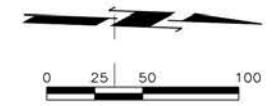
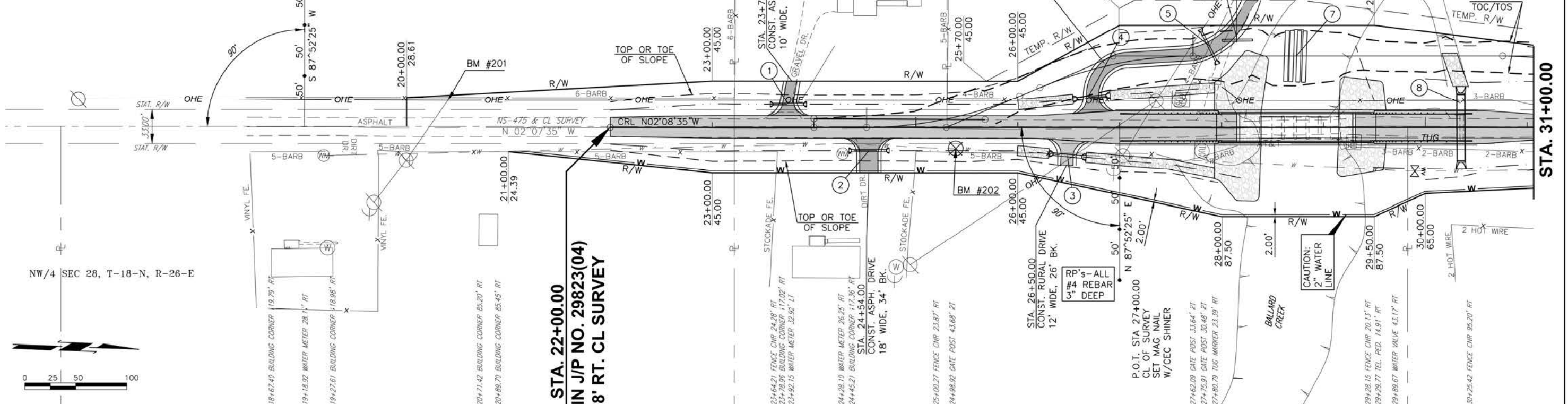
DESCRIPTION	REVISIONS	DATE

NE/4 SEC 29, T-18-N, R-26-E

NW/4 SEC 28, T-18-N, R-26-E

RP'S-ALL #4 REBAR 3" DEEP

P.O.T. STA 19+00.00
CL OF SURVEY
SET MAG NAIL
W/CEC SHINER



SHOOFLY - SUMMARY OF GRADING QUANTITIES

EXC.	1,072 C.Y.
EMB.+20%	996 C.Y.
EXCESS EXC.	76 C.Y.

CRL - SUMMARY OF GRADING QUANTITIES

EXC.	2,402 C.Y.
EMB.+20%	5,268 C.Y.
BORROW	2,866 C.Y.

HYDRAULIC DATA

DRAINAGE AREA = 25.9 SQ. MI.

Q2 = 2,760 CFS	Q25 = 10,900 CFS
V2 = 4.59 FPS	V25 = 10.16 FPS
CHW = 1063.02 FT	CHW = 1068.96 FT
Q5 = 5,120 CFS	Q50 = 13,100 CFS
V5 = 6.39 FPS	V50 = 11.84 FPS
CHW = 1065.11 FT	CHW = 1070.69 FT
Q10 = 7,310 CFS	Q100 = 15,600 CFS
V10 = 7.57 FPS	V100 = 13.17 FPS
CHW = 1066.68 FT	CHW = 1071.74 FT

Qot = Q39

BM 201 STA. 20+40.72 25.90 LT.
SET RR SPIKE E FACE PP ELEV. 1079.65'

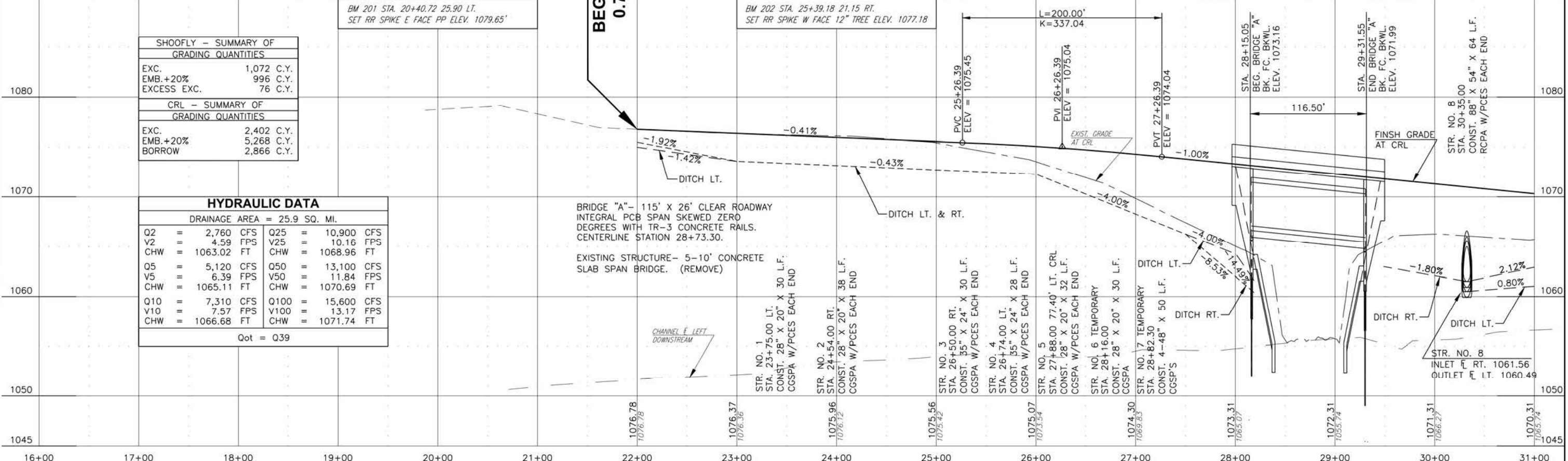
BM 202 STA. 25+39.18 21.15 RT.
SET RR SPIKE W FACE 12" TREE ELEV. 1077.18

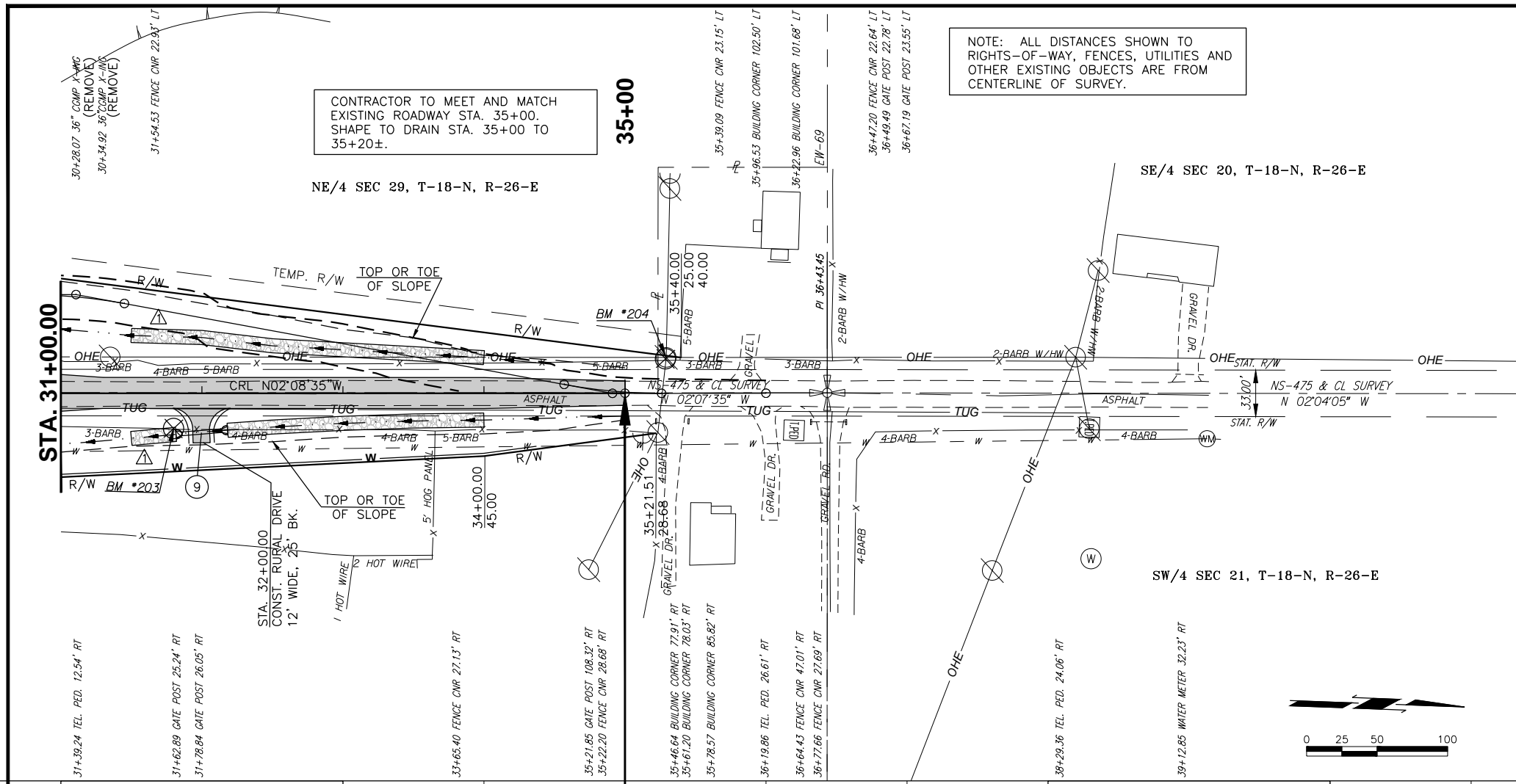
**STA. 22+00.00
BEGIN J/P NO. 29823(04)
0.78' RT. CL SURVEY**

BRIDGE "A" - 115' X 26' CLEAR ROADWAY
INTEGRAL PCB SPAN SKEWED ZERO
DEGREES WITH TR-3 CONCRETE RAILS.
CENTERLINE STATION 28+73.30.

EXISTING STRUCTURE - 5-10' CONCRETE
SLAB SPAN BRIDGE. (REMOVE)

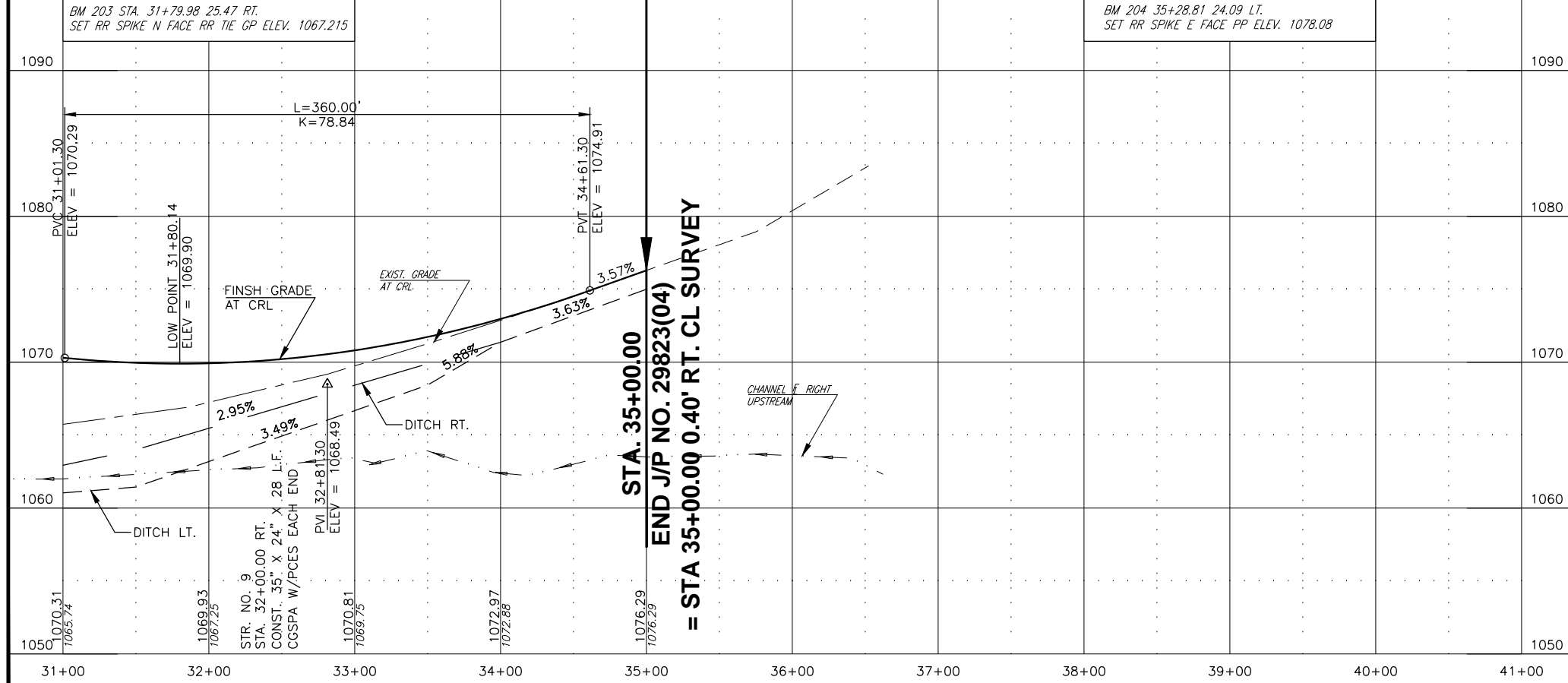
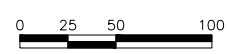
CHANNEL E LEFT
DOWNSTREAM



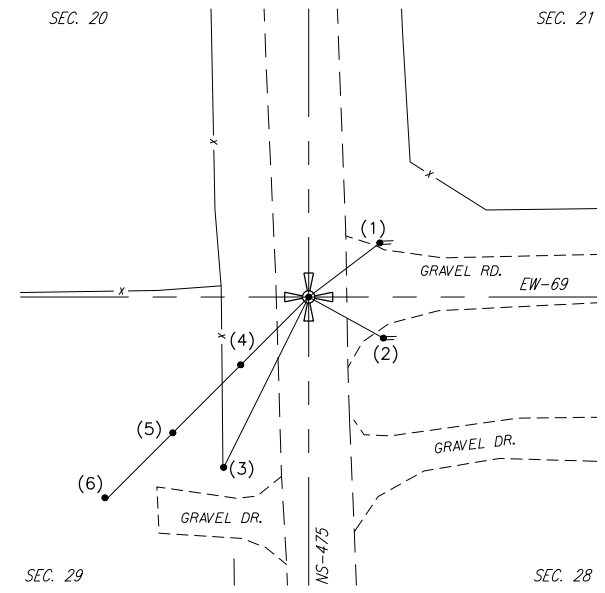


NOTE: ALL DISTANCES SHOWN TO RIGHTS-OF-WAY, FENCES, UTILITIES AND OTHER EXISTING OBJECTS ARE FROM CENTERLINE OF SURVEY.

CONTRACTOR TO MEET AND MATCH EXISTING ROADWAY STA. 35+00. SHAPE TO DRAIN STA. 35+00 TO 35+20±.

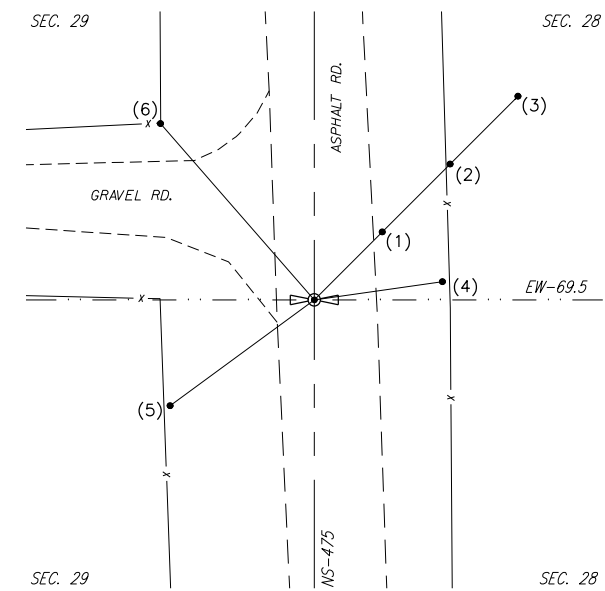


DESCRIPTION	REVISIONS	DATE
ADDED RIPRAP DITCH STA. 31+50 - 34+00		10/11/17



STA. 36+43.45
SW COR. SEC 21, T-18-N, R-26-E
FOUND 80D NAIL WITH SHINER

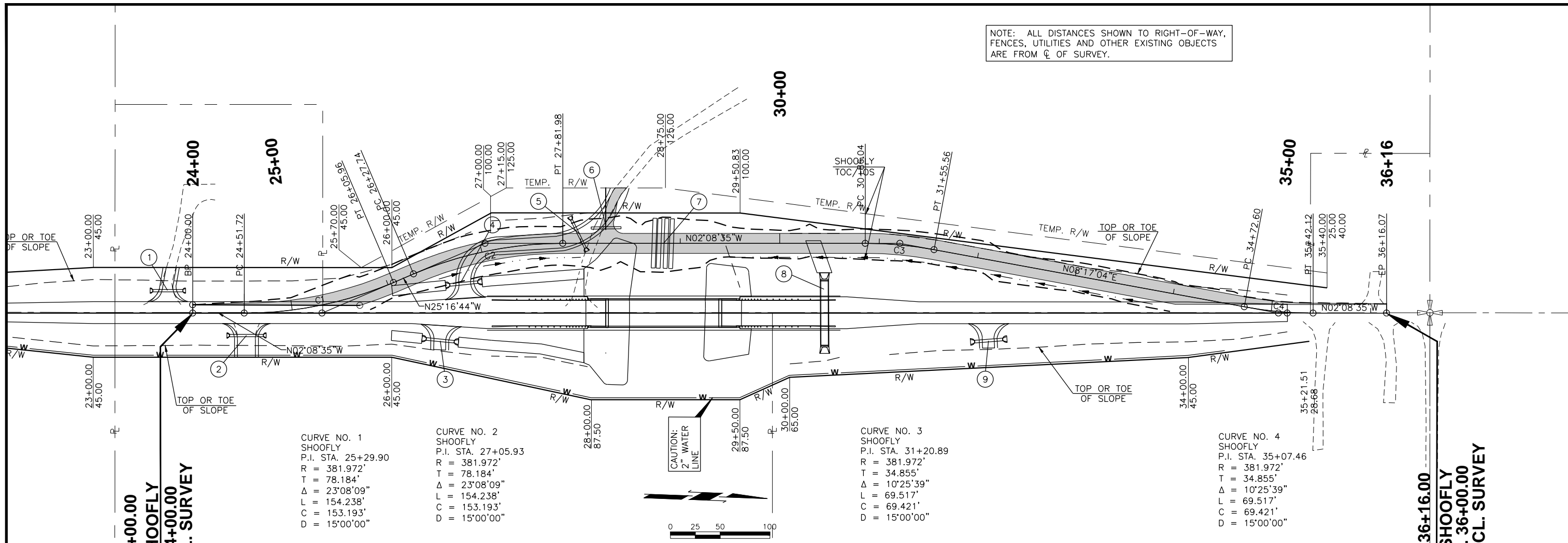
- (1) CUT "X" IN HEADWALL 23.35' AT N 52°45'26" E
- (2) CUT "X" IN HEADWALL 22.16' AT S 61°11'30" E
- (3) FOUND NAIL WITH TAG 49.76' AT S 26°29'50" W
- (4) SET 1/2" IRON PIN 3" DEEP 50.00' AT S 45°00'00" W
- (5) SET 1/2" IRON PIN 3" DEEP 100.00' AT S 45°00'00" W
- (6) SET 1/2" IRON PIN 3" DEEP 150.00' AT S 45°00'00" W



STA. 10+00.00
W4 COR. SEC 28, T-18-N, R-26-E
SET MAG NAIL WITH SHINER

- (1) SET 1/2" IRON PIN 3" DEEP 50.00' AT N 45°00'00" E
- (2) SET 1/2" IRON PIN 3" DEEP 100.00' AT N 45°00'00" E
- (3) SET 1/2" IRON PIN 3" DEEP 150.00' AT N 45°00'00" E
- (4) SET MAG NAIL WEST SIDE 6" WOOD CORNER POST 23.55' AT N 81°55'17" E
- (5) SET MAG NAIL EAST SIDE RAILROAD TIE BRACE POST 31.80' AT S 53°42'55" W
- (6) SET MAG NAIL SOUTH SIDE 8" WOOD CORNER POST 40.65' AT N 41°07'07" W

NOTE: ALL DISTANCES SHOWN TO RIGHT-OF-WAY, FENCES, UTILITIES AND OTHER EXISTING OBJECTS ARE FROM CL. OF SURVEY.

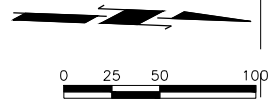


CURVE NO. 1
SHOOFLY
P.I. STA. 25+29.90
R = 381.972'
T = 78.184'
Δ = 23°08'09"
L = 154.238'
C = 153.193'
D = 15°00'00"

CURVE NO. 2
SHOOFLY
P.I. STA. 27+05.93
R = 381.972'
T = 78.184'
Δ = 23°08'09"
L = 154.238'
C = 153.193'
D = 15°00'00"

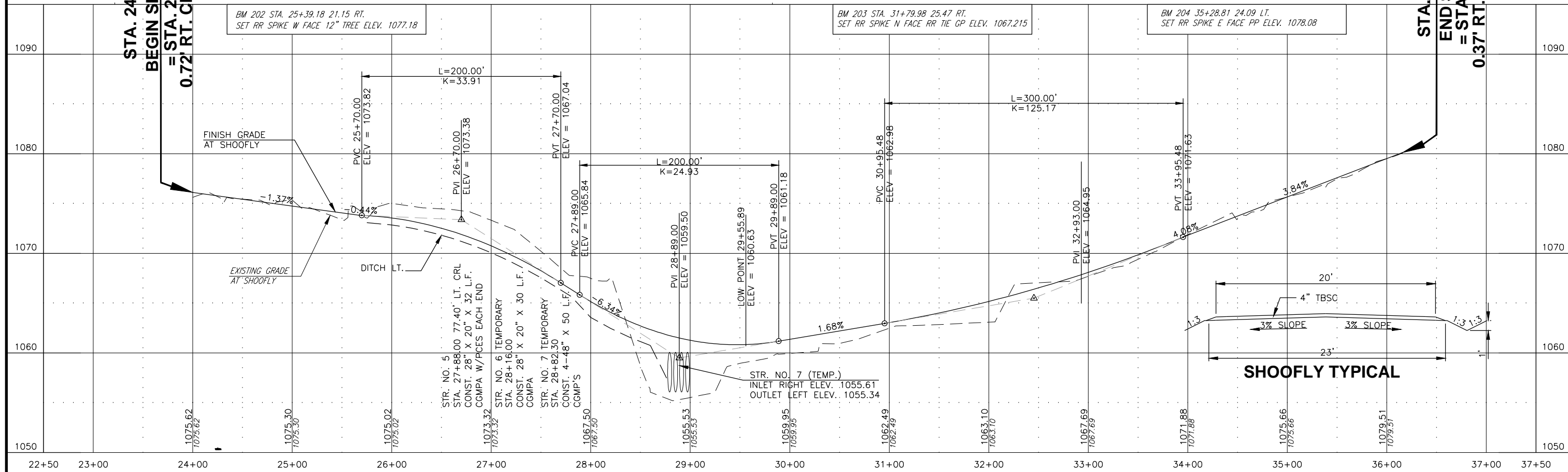
CURVE NO. 3
SHOOFLY
P.I. STA. 31+20.89
R = 381.972'
T = 34.855'
Δ = 10°25'39"
L = 69.517'
C = 69.421'
D = 15°00'00"

CURVE NO. 4
SHOOFLY
P.I. STA. 35+07.46
R = 381.972'
T = 34.855'
Δ = 10°25'39"
L = 69.517'
C = 69.421'
D = 15°00'00"

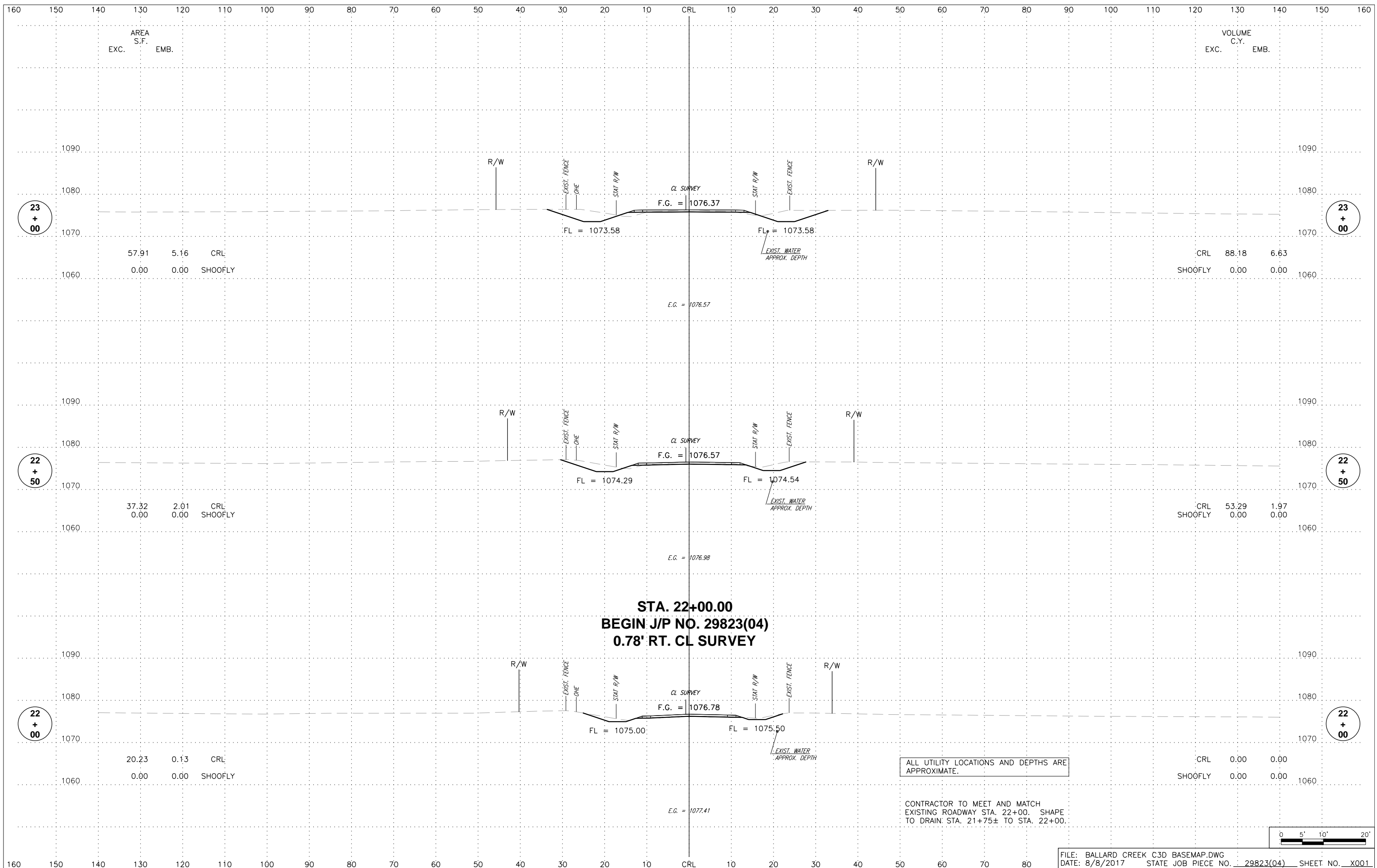


STA. 24+00.00
BEGIN SHOOFLY
= STA. 24+00.00
0.72' RT. CL. SURVEY

STA. 36+16.00
END SHOOFLY
= STA. 36+00.00
0.37' RT. CL. SURVEY



SHOOFLY TYPICAL



AREA
S.F.
EXC. EMB.

VOLUME
C.Y.
EXC. EMB.

23
+
00

23
+
00

22
+
50

22
+
50

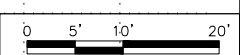
22
+
00

22
+
00

**STA. 22+00.00
BEGIN J/P NO. 29823(04)
0.78' RT. CL SURVEY**

ALL UTILITY LOCATIONS AND DEPTHS ARE APPROXIMATE.

CONTRACTOR TO MEET AND MATCH EXISTING ROADWAY STA. 22+00. SHAPE TO DRAIN STA. 21+75± TO STA. 22+00.



57.91 5.16 CRL
0.00 0.00 SHOOFLY

CRL 88.18 6.63
SHOOFLY 0.00 0.00

37.32 2.01 CRL
0.00 0.00 SHOOFLY

CRL 53.29 1.97
SHOOFLY 0.00 0.00

20.23 0.13 CRL
0.00 0.00 SHOOFLY

CRL 0.00 0.00
SHOOFLY 0.00 0.00

CL SURVEY
F.G. = 1076.37

E.G. = 1076.57

CL SURVEY
F.G. = 1076.57

E.G. = 1076.98

CL SURVEY
F.G. = 1076.78

E.G. = 1077.41

FL = 1073.58

FL = 1073.58

FL = 1074.29

FL = 1074.54

FL = 1075.00

FL = 1075.50

EXIST. WATER
APPROX. DEPTH

EXIST. WATER
APPROX. DEPTH

EXIST. WATER
APPROX. DEPTH

R/W

R/W

R/W

R/W

R/W

R/W

EXIST. FENCE

EXIST. FENCE

EXIST. FENCE

EXIST. FENCE

EXIST. FENCE

EXIST. FENCE

OH

OH

OH

OH

OH

OH

STAT. R/W

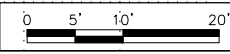
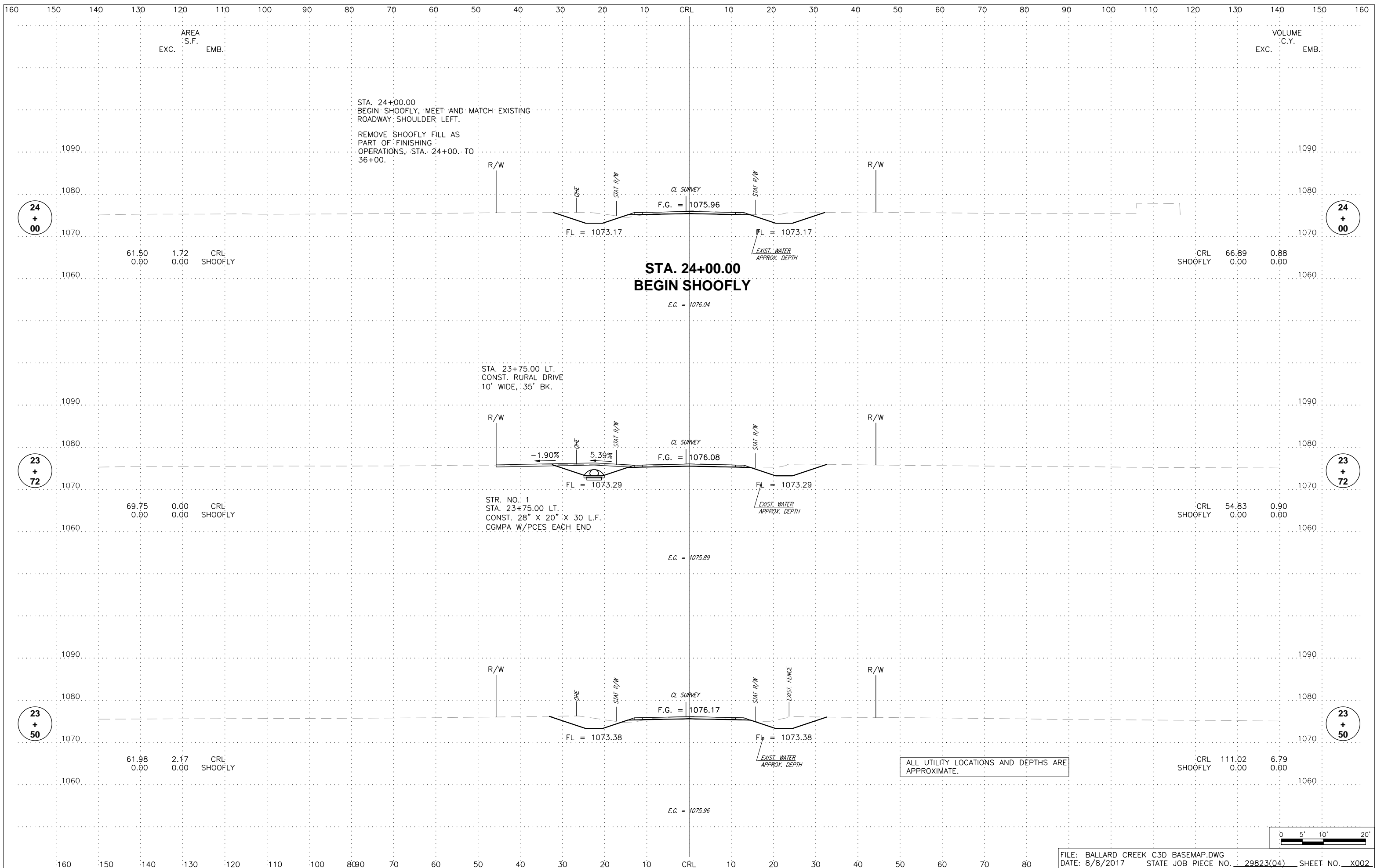
STAT. R/W

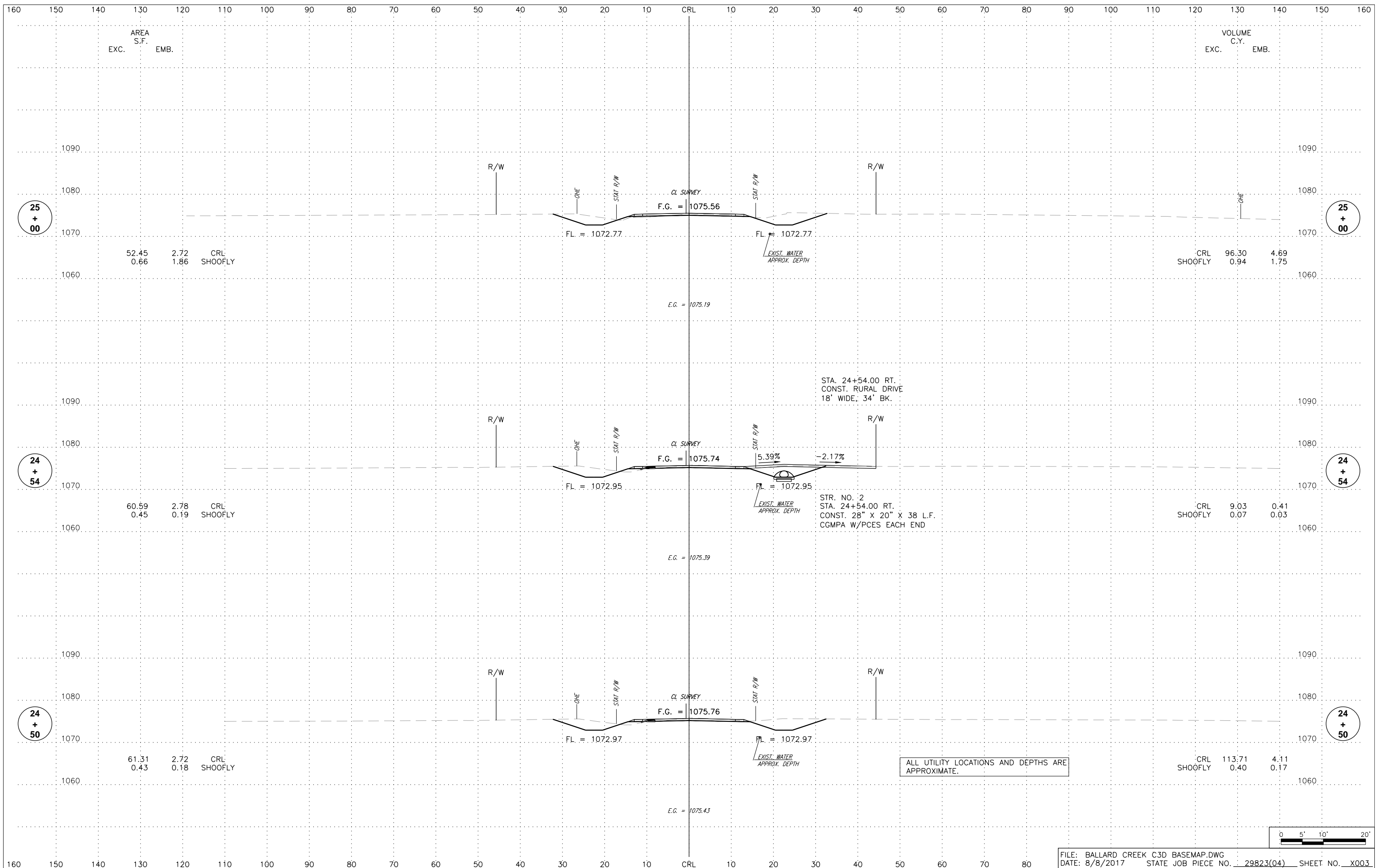
STAT. R/W

STAT. R/W

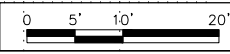
STAT. R/W

STAT. R/W





ALL UTILITY LOCATIONS AND DEPTHS ARE APPROXIMATE.



DESCRIPTION	REVISIONS	DATE
△	PIPE SIZE UPDATED	10/11/17

VOLUME
C.Y.
EXC. EMB.

26
+
50

26
+
50

26
+
00

26
+
00

25
+
50

25
+
50

AREA
S.F.
EXC. EMB.

70.30 122.31
90.17 0.00
CRL SHOOFLY

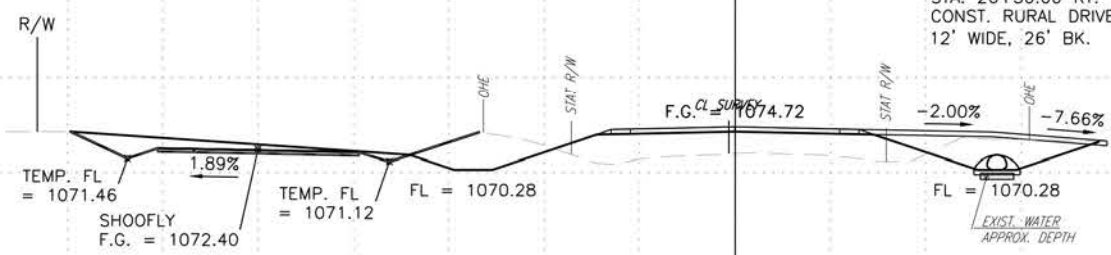
CRL 81.97 167.49
SHOOFLY 126.33 0.06

18.23 58.57
46.28 0.07
CRL SHOOFLY

CRL 42.37 74.46
SHOOFLY 63.73 1.72

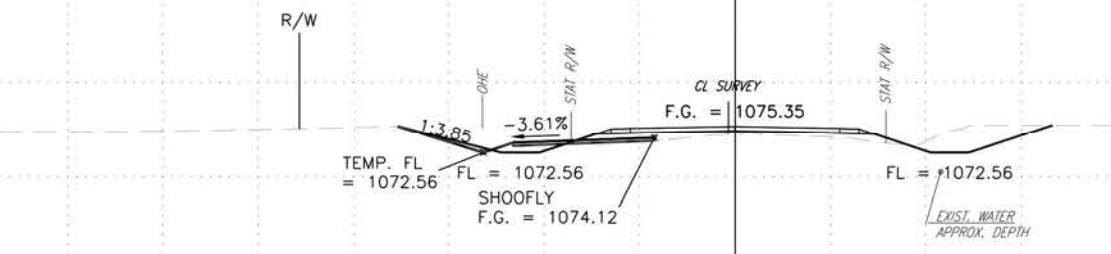
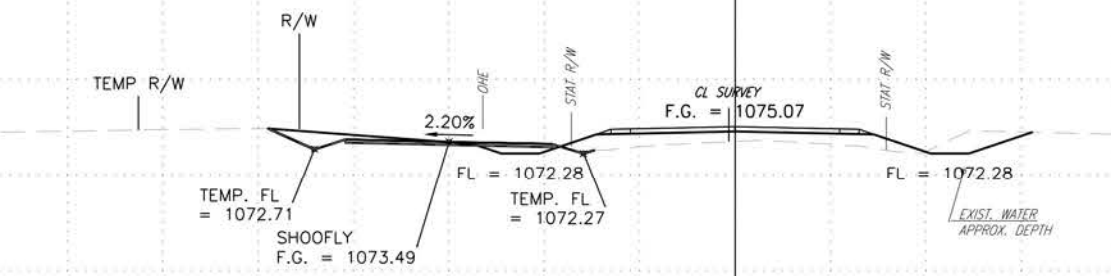
27.52 21.85
22.55 1.79
CRL SHOOFLY

CRL 74.05 22.75
SHOOFLY 21.49 3.39

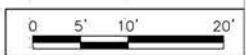


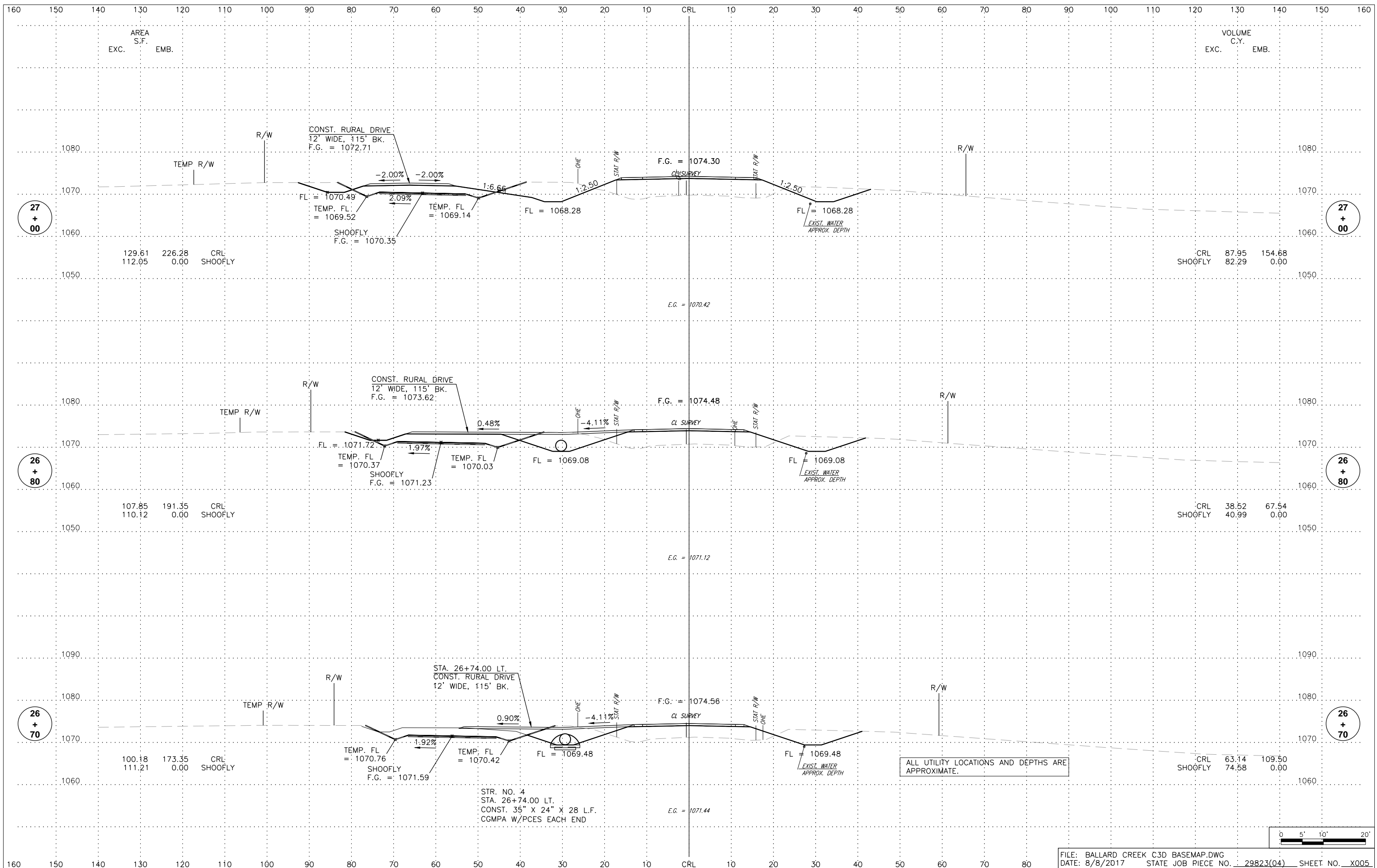
STA. 26+50.00 RT.
CONST. RURAL DRIVE
12' WIDE, 26' BK.

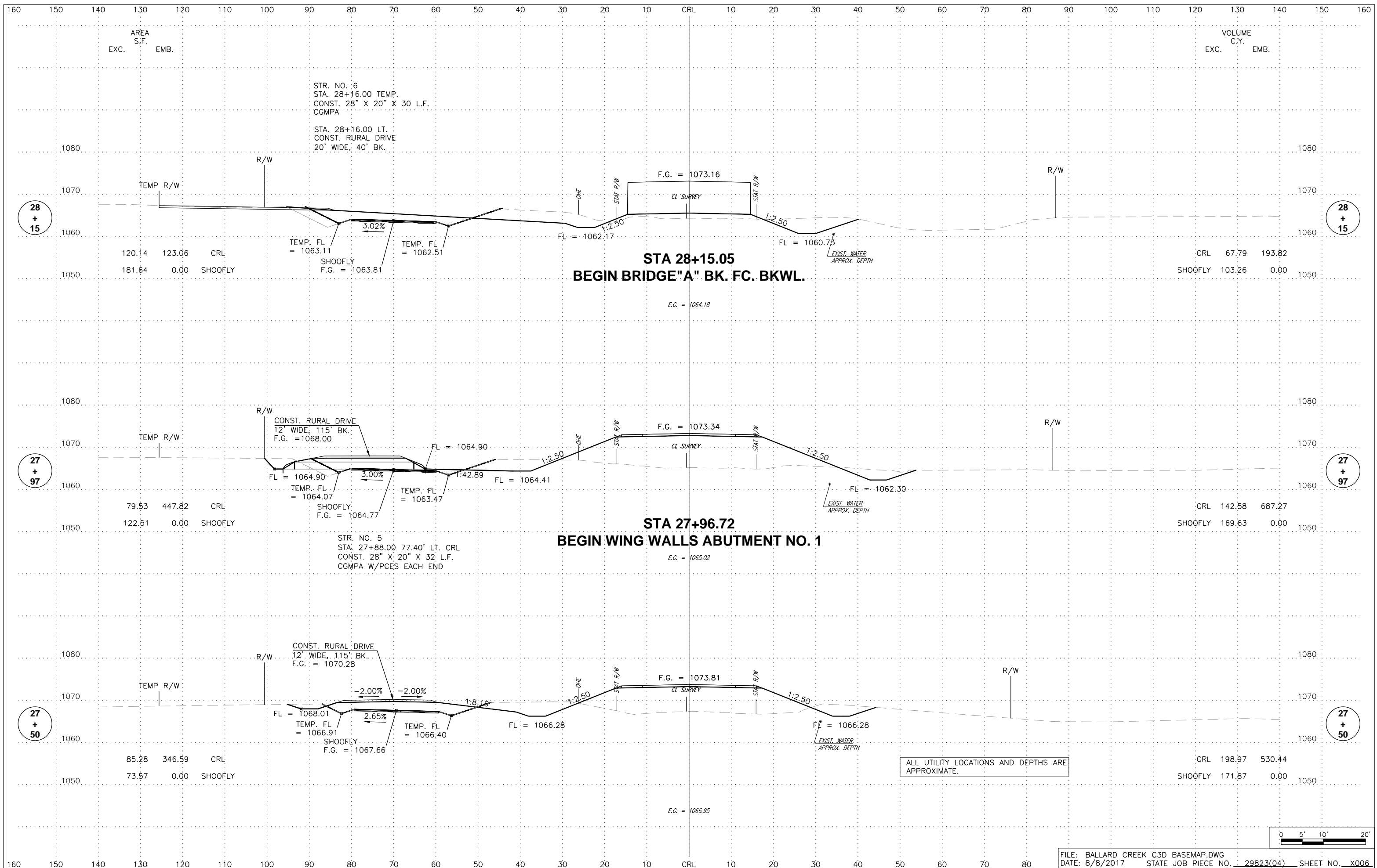
STR. NO. 3
STA. 26+50.00 RT.
CONST. 35 X 24" X 30 L.F.
CGSPA W/PCES EACH END



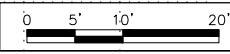
ALL UTILITY LOCATIONS AND DEPTHS ARE APPROXIMATE.

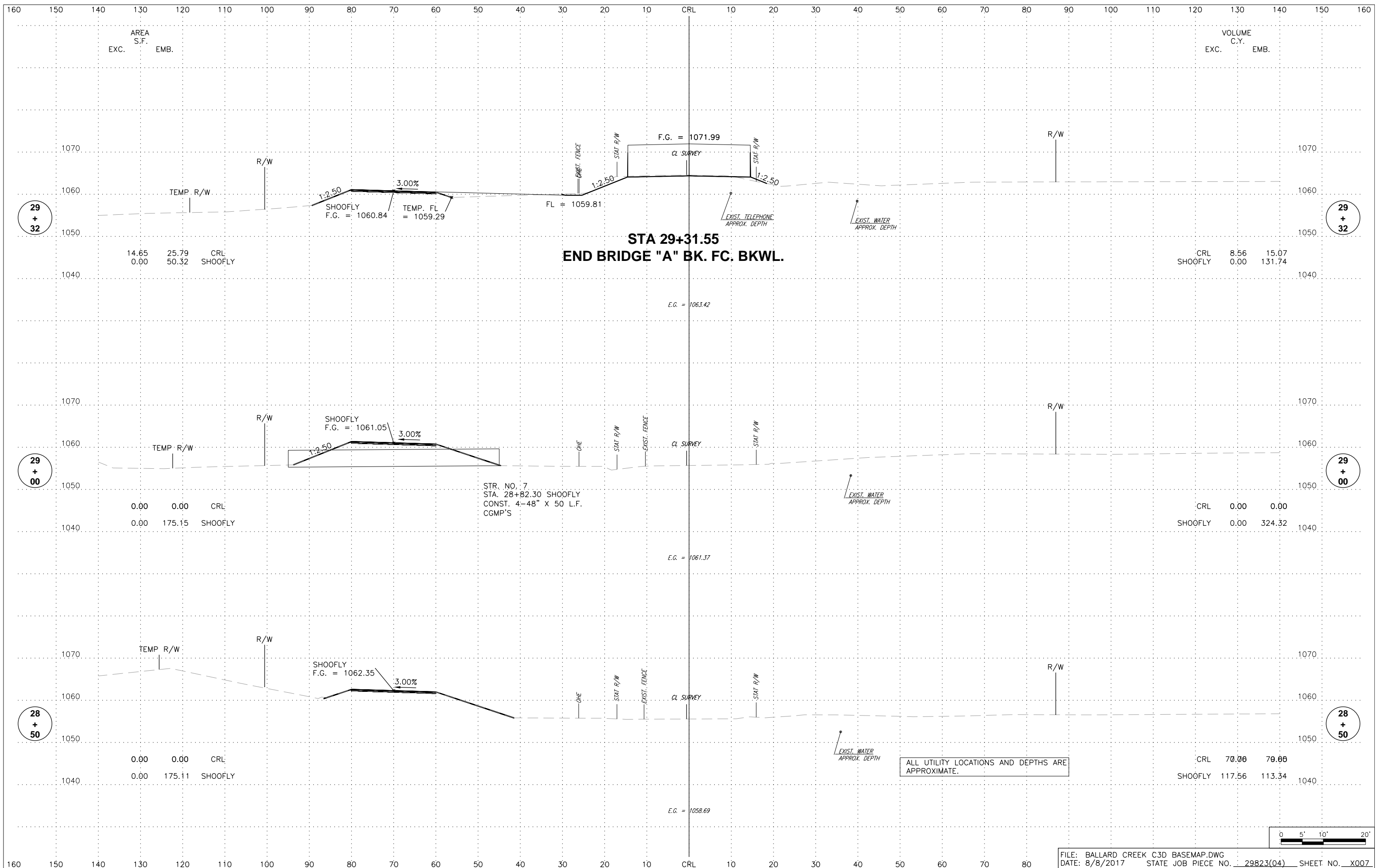






ALL UTILITY LOCATIONS AND DEPTHS ARE APPROXIMATE.





AREA
S.F.
EXC. EMB.

VOLUME
C.Y.
EXC. EMB.

29
+
32

29
+
32

29
+
00

29
+
00

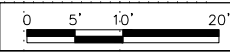
28
+
50

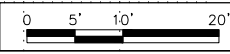
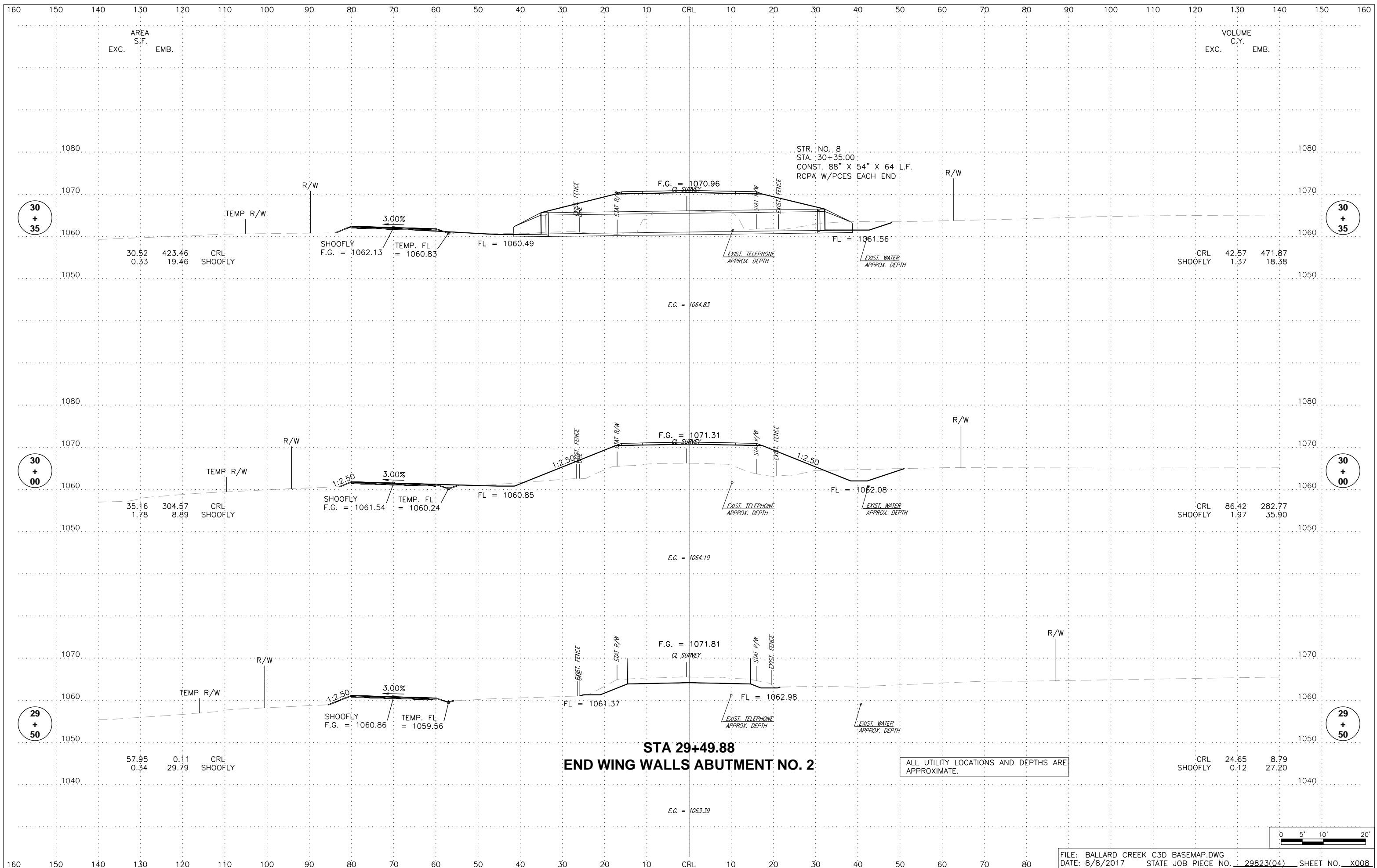
28
+
50

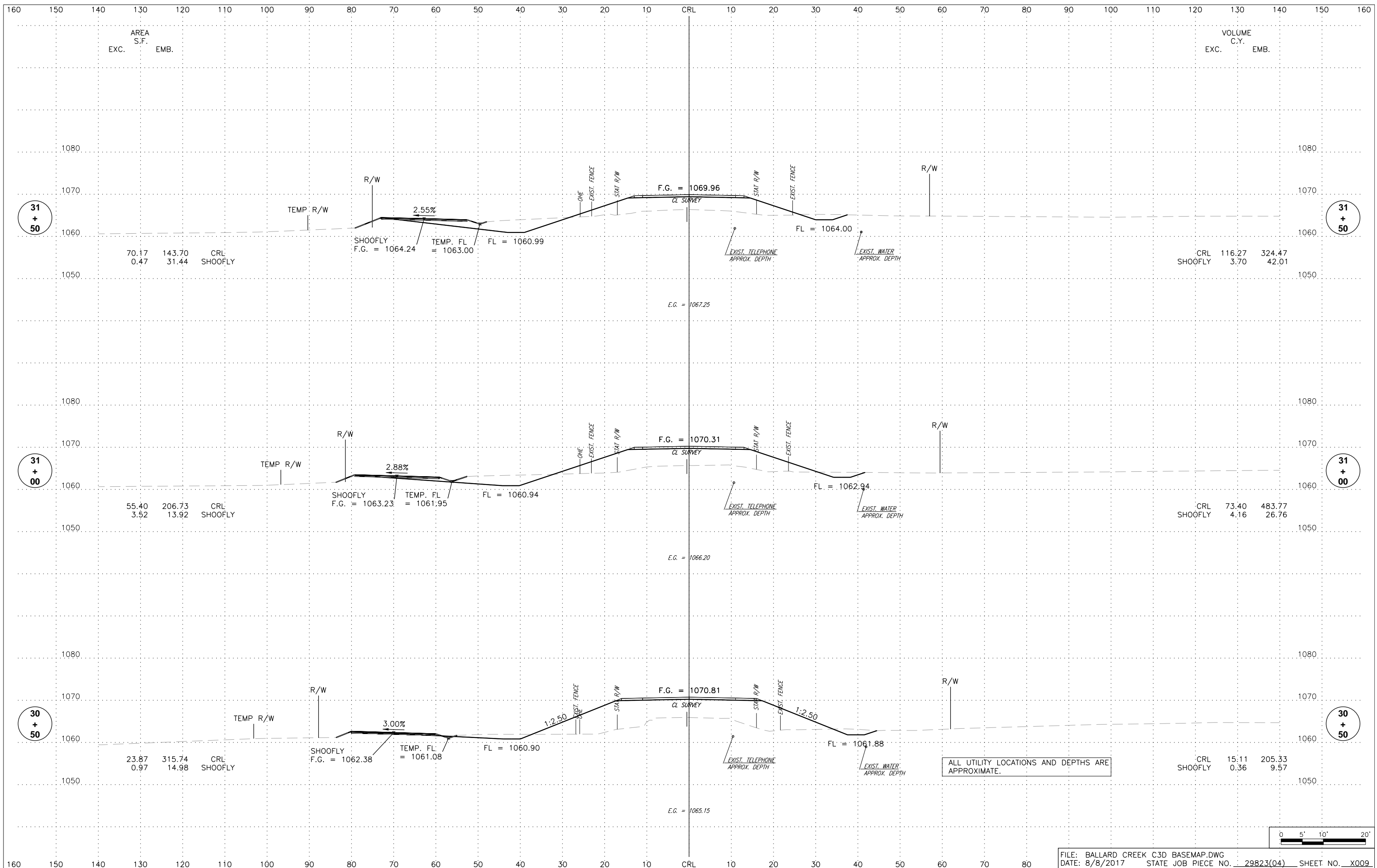
**STA 29+31.55
END BRIDGE "A" BK. FC. BKWL.**

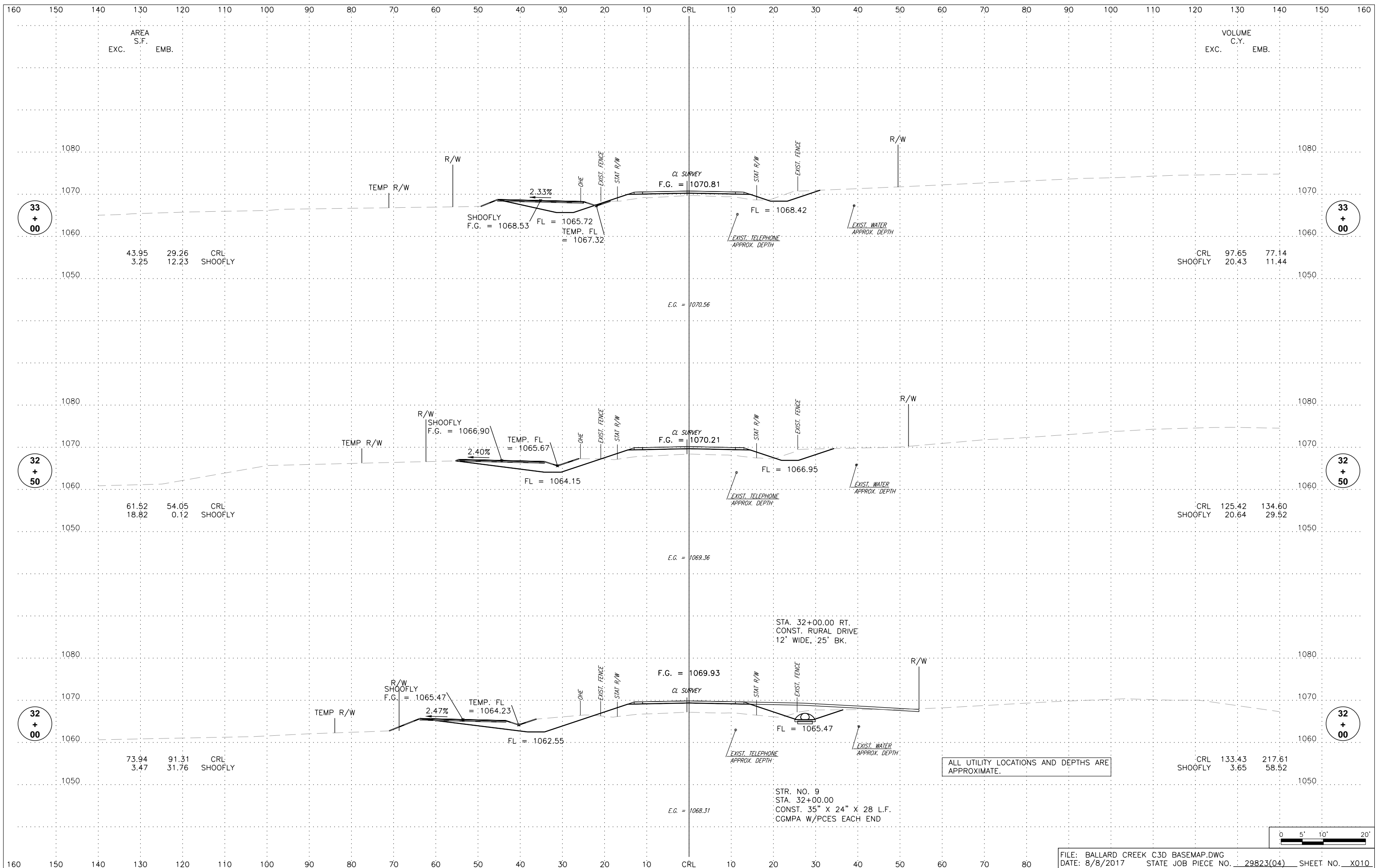
STR. NO. 7
STA. 28+82.30 SHOOFLY
CONST. 4'-48" X 50 L.F.
CGMP'S

ALL UTILITY LOCATIONS AND DEPTHS ARE APPROXIMATE.









33
+
00

33
+
00

32
+
50

32
+
50

32
+
00

32
+
00

AREA
S.F.
EXC. EMB.

VOLUME
C.Y.
EXC. EMB.

43.95 29.26
3.25 12.23
CRL SHOOFLY

97.65 77.14
20.43 11.44
CRL SHOOFLY

61.52 54.05
18.82 0.12
CRL SHOOFLY

125.42 134.60
20.64 29.52
CRL SHOOFLY

73.94 91.31
3.47 31.76
CRL SHOOFLY

133.43 217.61
3.65 58.52
CRL SHOOFLY

CL SURVEY
F.G. = 1070.81

CL SURVEY
F.G. = 1070.21

CL SURVEY
F.G. = 1069.93

E.G. = 1070.56

E.G. = 1069.36

E.G. = 1068.31

SHOOFLY
F.G. = 1068.53
FL = 1065.72
TEMP. FL = 1067.32

SHOOFLY
F.G. = 1066.90
TEMP. FL = 1065.67
FL = 1064.15

SHOOFLY
F.G. = 1065.47
TEMP. FL = 1064.23
FL = 1062.55

EXIST. TELEPHONE
APPROX. DEPTH

EXIST. TELEPHONE
APPROX. DEPTH

EXIST. TELEPHONE
APPROX. DEPTH

EXIST. WATER
APPROX. DEPTH

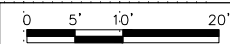
EXIST. WATER
APPROX. DEPTH

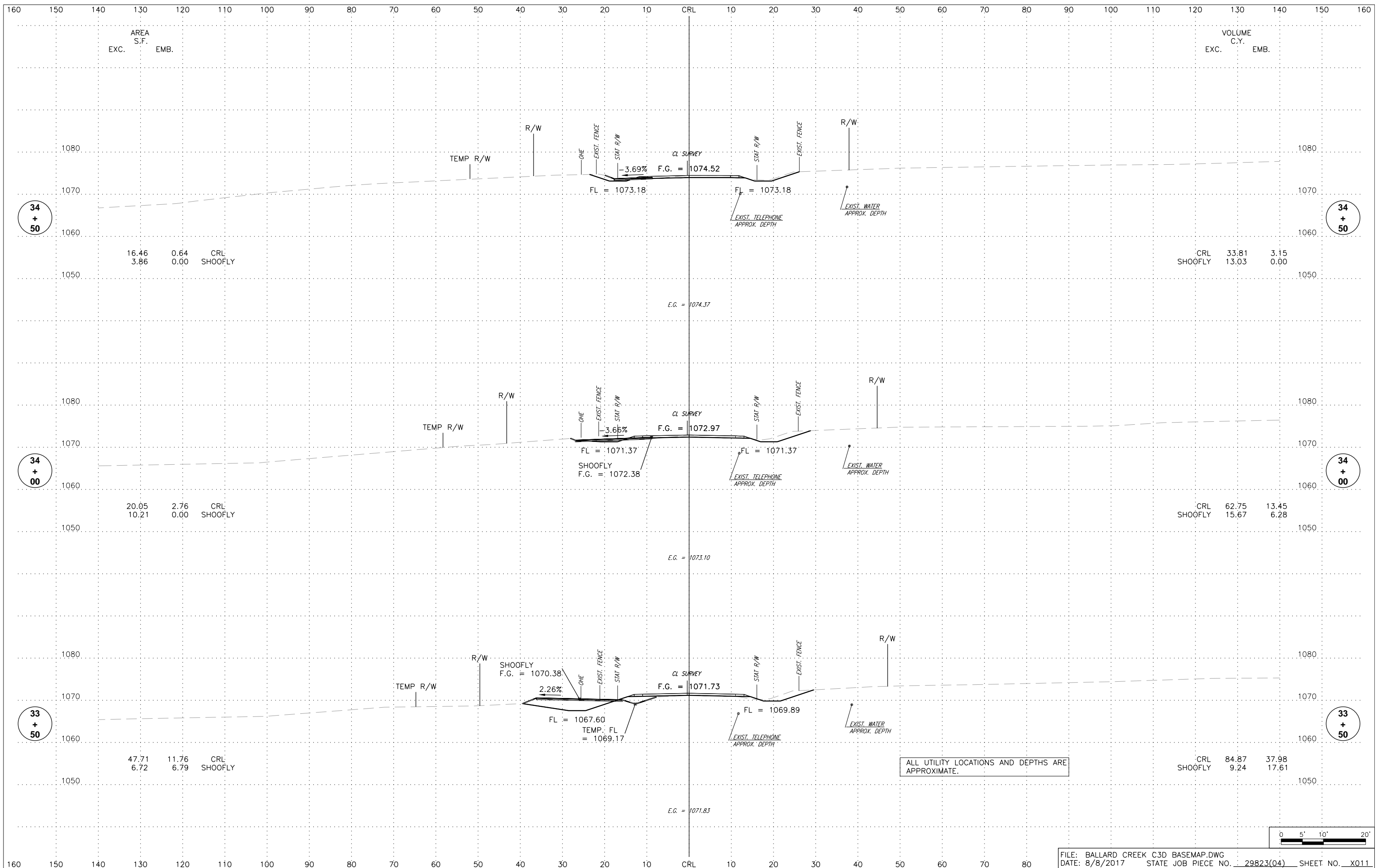
EXIST. WATER
APPROX. DEPTH

STA. 32+00.00 RT.
CONST. RURAL DRIVE
12' WIDE, 25' BK.

STR. NO. 9
STA. 32+00.00
CONST. 35" X 24" X 28 L.F.
CGMPA W/PCES EACH END

ALL UTILITY LOCATIONS AND DEPTHS ARE APPROXIMATE.





34
+
50

34
+
50

34
+
00

34
+
00

33
+
50

33
+
50

ALL UTILITY LOCATIONS AND DEPTHS ARE APPROXIMATE.

