ARKANSAS DEPARTMENT OF TRANSPORTATION MAINTENANCE PLANS

ARKANSAS RIVER PIER PROTECTION REPAIRS (S)

CONWAY, FRANKLIN & PULASKI COUNTIES

ROUTES 30, 9, & 23 SECTIONS 23, 7, & 6

JOB 012357

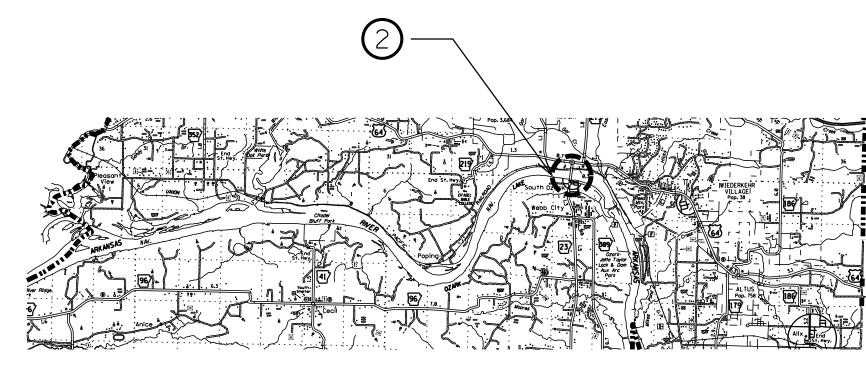
FED. AID PROJ. STPAC-0076(123)

Asset Name/ Latitude Longitude Str. Number 34° 45′ 1″ N 92° 15′ 46″ W Ø2768 35° 28′ 59″ N 93° 49′ 57″ W A121Ø 35° 7′ 34″ N 92° 43′ 59″ W 05050

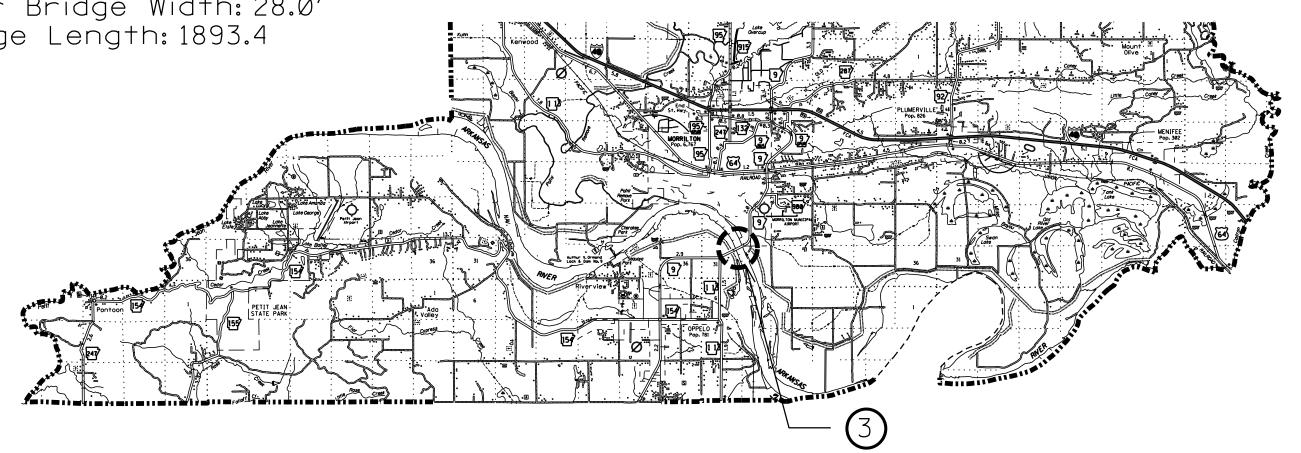
Bridge Information

- Bridge No. Ø2768 Log Mile: 140.41 Clear Bridge Width: 95.1' Bridge Length: 3040.0'
- Bridge No. A1210 Log Mile: 12.04 Clear Bridge Width: 28.0' Bridge Length: 1537.0'

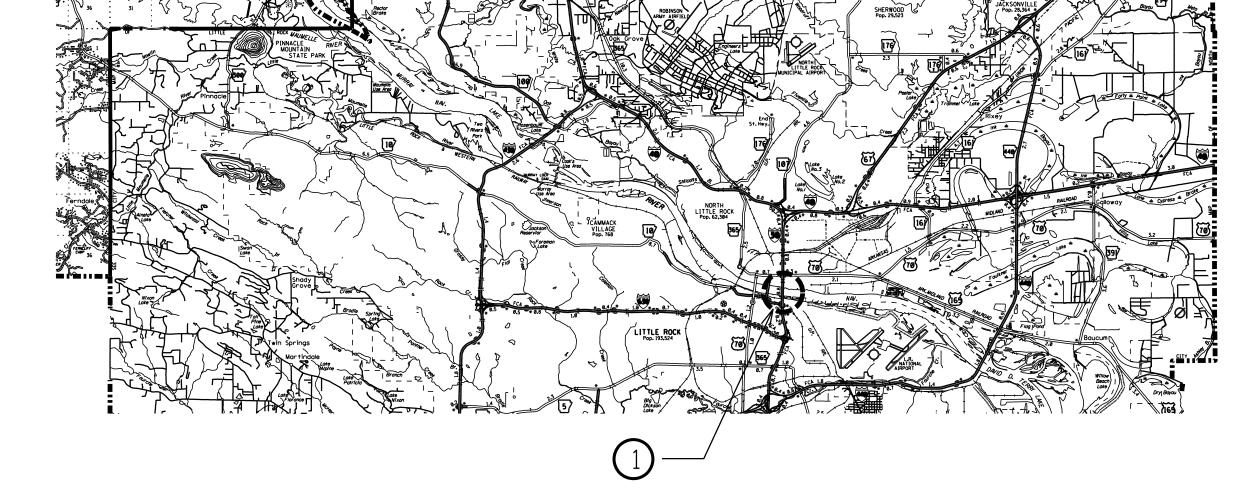
Bridge No. 05050 Log Mile: 5.24 Clear Bridge Width: 28.0' Bridge Length: 1893.4



FRANKLIN COUNTY



CONWAY COUNTY



DATE REVISED

DATE FILMED

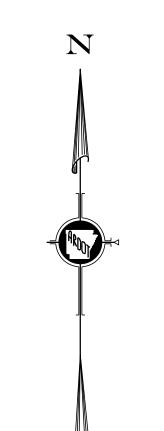
DATE REVISED

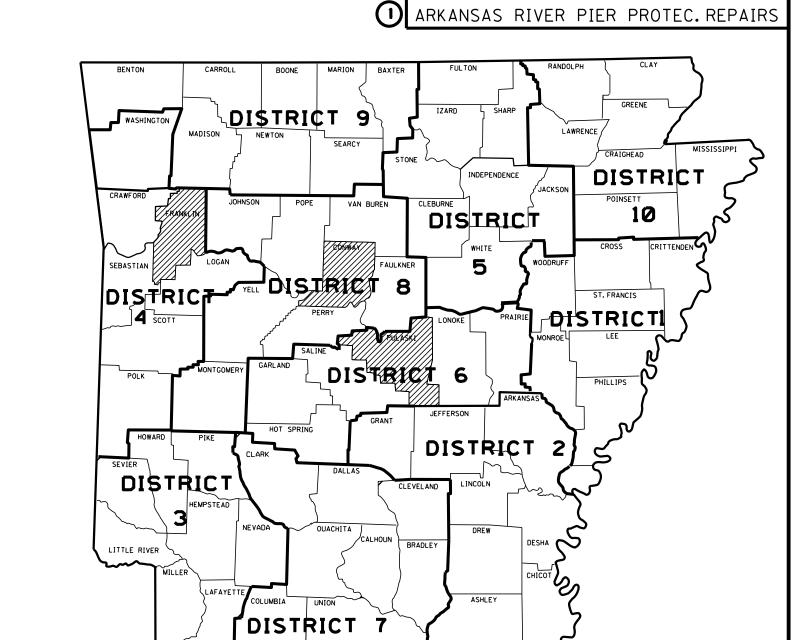
DATE FILMED

PULASKI COUNTY

VICINITY MAPS







ARKANSAS HIGHWAY DIST. 4, 6 & 8



This job does not impact vehicular traffic, so a TMP is not required.

SCOPE OF WORK - Site 1, I-30 Bridge over Arkansas River in Little Rock

- 1. Remove and replace existing pier protection cellon west side of Pier 21.
- 2. Place new cell mounted navigation light on west side of Pier 21.

SCOPE OF WORK - Site 2, SH 23 Bridge over Arkansas River in Ozark

1. Refillexisting pier protection cells on east side of Pier 2 and east side of Pier 4 with riprap.

3. Refill existing pier protection cells on west side of Pier 20 and east side of Pier 21 with riprap.

SCOPE OF WORK - Site 3, SH 9 Bridge over Arkansas River in Morrilton

1. Refillexisting pier protection cells on north side of Pier 11 and north side of Pier 12 with riprap.

DESIGN SPECIFICATIONS:

AASHTO LRFD Bridge Design Specifications, 7th Edition, with 2016 Interim Revisions. AASHTO Guide Specifications and Commentary for VesselCollision of Highway Bridges, 2nd Edition, with 2010 Interim Revisions. ANSI/AASHTO/AWS Bridge Welding Code D1.5-2010.

CONSTRUCTION SPECIFICATIONS:

Arkansas State Highway and Transportation Department Standard Specifications for Highway Construction, 2014, with applicable supplemental specifications and special provisions. Unless otherwise noted, references to section and subsection numbers in the plans refer to the Construction Specifications.

DATUM:

All elevations are in feet, based on the North American Vertical Datum (NAVD), 1988 adjustment, except as noted. Horizontal- NAD 83 (1997) Arkansas North Zone.

DIMENSIONS, LOCATIONS, AND PIER NUMBERING:

Dimensions and locations provided are based on existing as-built plans. Dimensions not provided shall be determined in the field with the aid of the as-built plans. Pier numbering, unless otherwise noted on the plans, is taken from the as-built plans.

DESIGN LOADS:

VesselImpact Loads:		
NormalOperation Design Force	2,800	Kips
Drifting Empty Barge Design Force	1,440	Kips
NormalOperation Design Speed	5.9	Ft./Sec.
Drifting Empty Barge Design Speed	2.9	Ft./Sec.
NormalOperating Design Water Surface Elevation	231.0	Ft.
Drifting Empty Barge Design Water Surface Elevation	247.2	F+.

ENVIRONMENTAL COMPLIANCE:

Prior to the commencement of any work, the Contractor shallobtain a copy of the Environmental Clearance Document as well as copies of all Permits and Agreements obtained by ArDOT. The Contractor shall thoroughly comply with all requirements set forth in those documents. This project is covered under a Nationwide 3 Section 404 Permit. Refer to Section 110 of the Standard Specifications, Edition of 2014, for permit requirements.

MATERIALS:

Except as specifically stated otherwise in the contract documents, the Contractor shall provide all materials necessary for the completion of the contract. All materials of every description furnished by the Contractor for permanent installation on this project, shall be new and in pristine condition when installed.

STRUCTURAL STEEL:

Except as noted below, all steel shall be structural carbon steel conforming to ASTM A709, Grade 36. Any necessary material substitutions shall require prior approval from the Engineer. All steel may be uncoated.

Sheet Piles: All sheet piles for new pier protection cell shall be ASTM 572 Grade 50.

Bolted Connections: Unless noted otherwise in the plans, all bolts connections shall be made using ASTM F3125, Grade A325 high-strength bolts. Nuts shall be ASTM A563, Grade DH and washers shall be ASTM F436. All bolts, nuts, and washers shall be Type 1.

SUBMITTALS:

Shop Drawings and other Submittals shallbe in accordance with ArDOT's Standard Specifications for Highway Construction. All submittals shall be subject to review and subsequent approvalor rejection by the Engineer. Approval of submittals shall not be construed by the Contractor in any way to relieve himself of any liability or responsibility as set forth in the contract documents. At a minimum, the Contractor shall provide the following submittals prior to construction:

Fabrication Details of New Pier Protection Cell Cell-Mounted Navigation Light Components and Hardware Riprap Gradation Certification from the Material Source

WELDING:

Allwelding shall conform to the requirements set forth in the ArDOT Standard Specification for Highway Construction. All welds shall be continuous. Shop welds shall only be as shown in the shop drawings and are subject to review and approval by the Engineer. Field welding (including tack welding) shall only be allowed as permitted by the plans.

MAINTENANCE OF MARINE TRAFFIC AND COAST GUARD NAVIGATION:

For all general communication, the Contractor shall coordinate with the U.S. Coast Guard (USCG) through the Engineer. In cases of emergency, the Contractor shallimmediately notify the USCG using the contact information below, then notify the Engineer.

The Contractor shall conduct his operations in such manner as to minimize impact to marine traffic.

At least thirty (30) days prior to commencement of construction activity at the site, the Contractor shall submit to the Engineer a workplan that details the anticipated dates, times, and impacts on navigation, including waterway closures, obstructions to navigation, and any reductions to horizontal and vertical clearance. USCG approval will be required for any temporary closures or obstructions to navigation. The Contractor shall not install any devices, platforms, etc. that reduce horizontal or vertical clearances or obstruct the waterway without prior approvalfrom the USCG.

In addition to any obstruction lighting that may be required by the USCG, allexisting navigation lighting, beacons, etc. shall be maintained at all times for the period of time the Contractor is mobilized at for each site.

USCG Emergency Contact Information:

David Orzechowski Address 1222 Spruce Street, Room 2.102D

St. Louis, MO 63103-2832 (314)269-2382 Phone david.a.orzechowski@uscg.mil

REMOVAL OF EXISTING PIER PROTECTION CELL:

Contractor will be required to remove all components of existing pier protection cell to the satisfaction of the Engineer and in accordance with Job SpecialProvision "Removaland Disposalof Pier Protection" (Waterway)". Remove riprap as required to not interfere with driving of new sheet pile. All removed materials shall become property of the Contractor and shall be disposed of beyond the limits of the right of way. All materials, equipment, labor, and incidentals necessary to complete the work shall be included in the "Removal and Disposal of Pier Protection (Waterway)" pay item.

RIPRAP:

Riprap to be used to fillpier protection cells shallbe as per the Dumped Riprap SpecialProvision. Contractor shall submit a Riprap Gradation Certification to the Engineer for review and approval. Riprap shall be placed in all pier protection cells called out in the plans until stone is flush with the top of each cell. All materials, equipment, labor, and incidentals necessary to place riprap shall be included in the "Dumped Riprap" pay item.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.ROAD DIST.NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
04-16-2020				6	ARK.			
				JOB N	0.	Ø12357	2	9

(1) GENERAL NOTES, INDEX & SPECIFICATIONS 61438

INDEX OF SHEETS

SHEET NO.	TITLE	BRIDGE NO.	DRAWING NO.	DATE
1	TITLE SHEET			
2	GENERAL NOTES, INDEX OF SHEETS & GOVERNING SPECIFICATIONS	Ø2768 A121Ø Ø5Ø5Ø	61438	
3	SCHEDULE OF BRIDGE QUANTITIES	Ø2768 A121Ø Ø5Ø5Ø	61439	
4	SUMMARY OF QUANTITIES & REVISIONS	Ø2768 A121Ø Ø5Ø5Ø	61440	
5	I-30 BRIDGE GENERAL PLAN (SITE 1)	Ø2768	61441	
6	I-30 BRIDGE CELL REPLACEMENT DETAILS	Ø2768	61442	
7	NAVIGATIONAL LIGHTING DETAILS	Ø2768	61443	
8	OZARK BRIDGE GENERAL PLAN (SITE 2)	A121Ø	61444	
9	MORRILTON BRIDGE GENERAL PLAN (SITE 3)	05050	61445	

GOVERNING SPECIFICATIONS ARKANSAS STATE HIGHWAY COMMISSION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, EDITION OF 2014, AND THE FOLLOWING SPECIAL PROVISIONS AND SUPPLEMENTAL SPECIFICATIONS.

	SPECIAL PROVISIONS AND SUPPLEMENTAL SPECIFICATIONS.
NUMBER	TITLE
ERRATA	ERRATA FOR THE BOOK OF STANDARD SPECIFICATIONS
FHWA-1273	REQUIRED CONTRACT PROVISIONS FEDERAL-AID CONSTRUCTION CONTRACTS
FHWA-1273	SUPPLEMENT-EQUAL EMPLOYMENT OPPORTUNITY-NOTICE TO CONTRACTORS
FHWA-1273	SUPPLEMENT-SPECIFIC EQUAL EMPLOYMENT OPPORTUNITY RESPONSIBILITIES (23 U.S.C. 140)
FHWA-1273	SUPPLEMENT-EQUAL EMPLOYMENT OPPORTUNITY-GOALS AND TIMETABLES
FHWA-1273	SUPPLEMENT-EQUAL EMPLOYMENT OPPORTUNITY-FEDERAL STANDARDS
FHWA-1273	SUPPLEMENT-POSTERS AND NOTICES REQUIRED FOR FEDERAL-AID PROJECTS
FHWA-1273	SUPPLEMENT-WAGE RATE DETERMINATION
100-3	CONTRACTOR'S LICENSE
100-4	DEPARTMENT NAME CHANGE
102-2	ISSUANCE OF PROPOSALS
108-1	LIQUIDATED DAMAGES
108-2	WORK ALLOWED PRIOR TO ISSUANCE OF WORK ORDER
306-1	QUALITY CONTROL AND ACCEPTANCE
800-1	STRUCTURES
807-2	STEEL STRUCTURES
JOB Ø12357	BIDDING REQUIREMENTS AND CONDITIONS
JOB Ø12357	BRIDGE WORK IN NAVIGABLE WATERS
JOB Ø12357	CARGO PREFERENCE ACT REQUIREMENTS
JOB Ø12357	CONSTRUCTION IN SPECIAL FLOOD HAZARD AREAS
JOB Ø12357	DOCUMENTATION OF PAYMENTS MADE TO DISADVANTAGED BUSINESS ENTERPRISES
JOB Ø12357	DUMPED RIPRAP
JOB Ø12357	MANDATORY ELECTRONIC CONTRACT
JOB Ø12357	MANDATORY ELECTRONIC DOCUMENT SUBMITTAL
JOB Ø12357	NAVIGATION LIGHTING SYSTEM
JOB Ø12357	REMOVAL AND DISPOSAL OF PIER PROTECTION (WATERWAY)
JOB Ø12357	REQUIREMENTS OF U.S. COAST GUARD
JOB Ø12357	VALUE ENGINEERING
JOB Ø12357	ZEBRA MUSCLE CONTAINMENT



GENERAL NOTES, INDEX OF SHEETS, AND GOVERNING SPECIFICATIONS

ROUTES: I-3Ø, SH-9, & SH-23

ARKANSAS STATE HIGHWAY COMMISSION LITTLE ROCK, ARK.

DRAWN BY: ____BAG DATE: 1/24/20 FILENAME: Notes_Quantities CHECKED BY: TDB DATE: 1/24/20 SCALE: NA DESIGNED BY: TDB DATE: 1/24/20 BRIDGE NO. 02768, A1210, DRAWING NO. 61438 & Ø5Ø5Ø

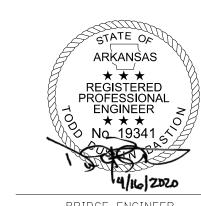
BRIDGE ENGINEER

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.ROAD DIST.NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
04-16-2020				6	ARK.			
				JOB N	0.	Ø12357	3	9
			1	SCHEDUL	E OF (QUANTITIES		61439

Ø2768, A121Ø, & Ø5Ø5Ø

SCHEDULE OF BRIDGE QUANTITIES - JOB NO. Ø12357

		ITEM NO.	SP & 202	SS & 807	811	SP & 816	SP JOB Ø12357
BRIDGE NO.	SITE	ITEM	REMOVAL AND DISPOSAL OF PIER PROTECTION (WATERWAY)	STRUCTURAL STEEL IN BEAM SPANS (A7Ø9, GR.36)	SHEET PILES (PS31)	DUMPED RIPRAP	NAVIGATION LIGHTING SYSTEM
		UNIT	EACH	POUND	LIN. FT.	CU. YD.	LUMP SUM
02768	SITE 1 (I-30 BF	RIDGE)	1	10,065	5,137	3,139	1.00
A121Ø	SITE 2 (OZARK	BRIDGE)				643	
05050	SITE 3 (MORRIL	TON BRIDGE)				744	
	TOTAL FOR JOE	NO. Ø12357	1	10,065	5,137	4,526	1.00



SCHEDULE OF BRIDGE QUANTITIES

ROUTES: I-30, SH-9, & SH-23

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: BAG DATE: 1/24/20 FILENAME: Notes_Quantities
CHECKED BY: TDB DATE: 1/24/20 SCALE: NA
DESIGNED BY: TDB DATE: 1/24/20
BRIDGE NO. 02768, A1210, DRAWING NO. 61439

BRIDGE ENGINEER

	DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
-	04-16-2020				6	ARK.			
					JOB N	0.	Ø12357	4	9

1 SUMMARY OF QUANTITIES & REVISIONS 61440

Ø2768, A121Ø, & Ø5Ø5Ø

SUMMARY OF QUANTITIES

ITEM NUMBER	ITEM	QUANTITY	UNIT
SP & 202	REMOVAL AND DISPOSAL OF PIER PROTECTION (WATERWAY)	1	EACH
601	MOBILIZATION	1.00	LUMP SUM
SS & 807	STRUCTURAL STEEL IN BEAM SPANS (A709, GR.36)	10,065	POUND
811	SHEET PILES (PS31)	5,137	LIN. FT.
SP & 816	DUMPED RIPRAP	4,526	CU. YD.
SP	NAVIGATION LIGHTING SYSTEM	1.00	LUMP SUM

REVISIONS

DATE	REVISION	SHEET NUMBER
Ø4-16-2Ø	REVISED FAP NUMBER. REMOVED "DISADVANTAGED BUSINESS ENTERPRISE BIDDER'S RESPONSIBILITIES" AND "GOALS FOR DISADVANTAGED BUSINESS ENTERPRISE PARTICIPATION" SPECIAL PROVISIONS. ADDED "DOCUMENTATION OF PAYMENTS MADE TO DISADVANTAGED BUSINESS ENTERPRISES" SPECIAL PROVISION.	1, 2, 3, 4, 5, 6, 7, 8, & 9

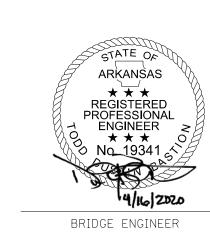
SUMMARY OF QUANTITIES AND REVISIONS

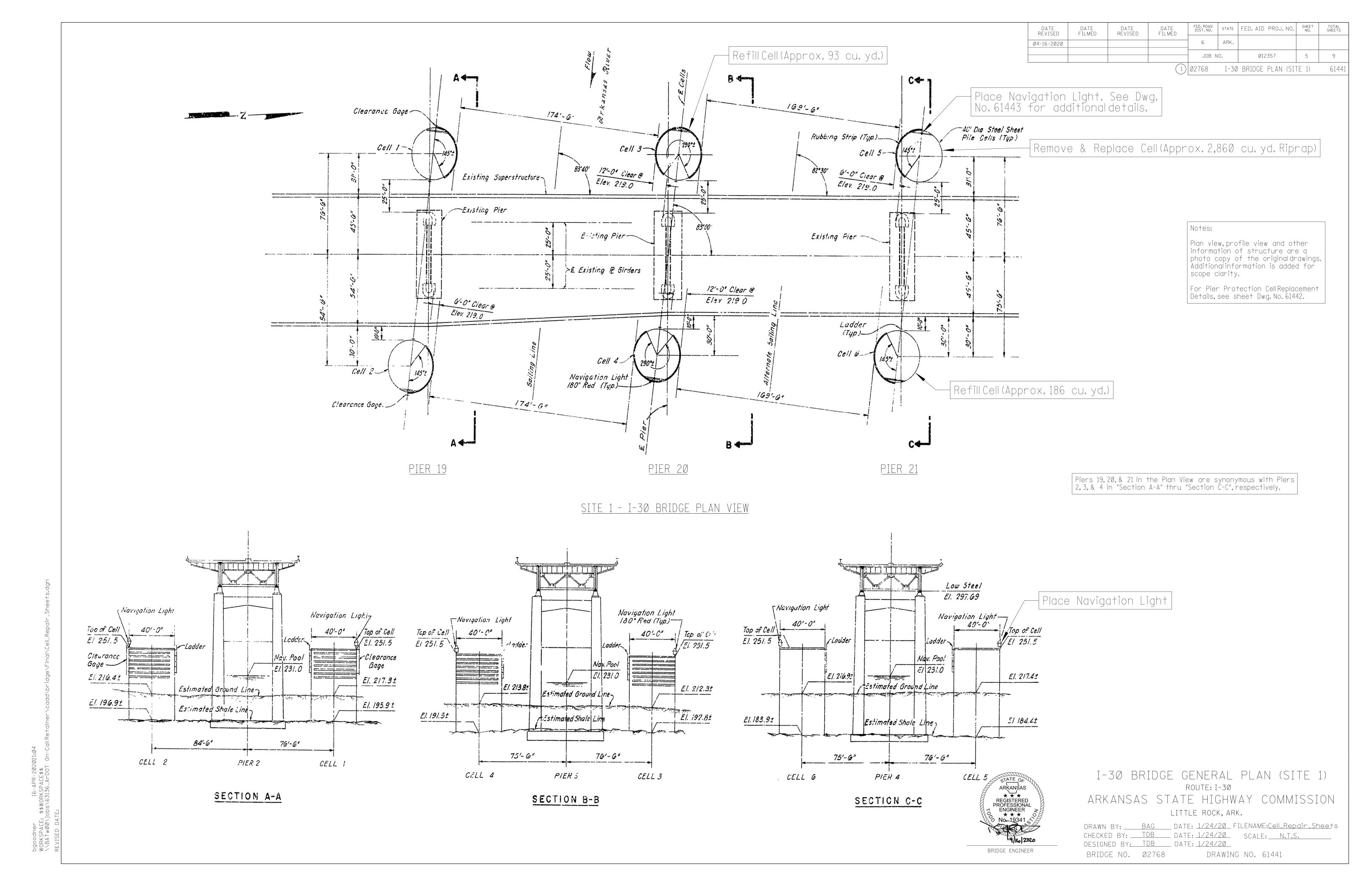
ROUTES: I-3Ø, SH-9, & SH-23

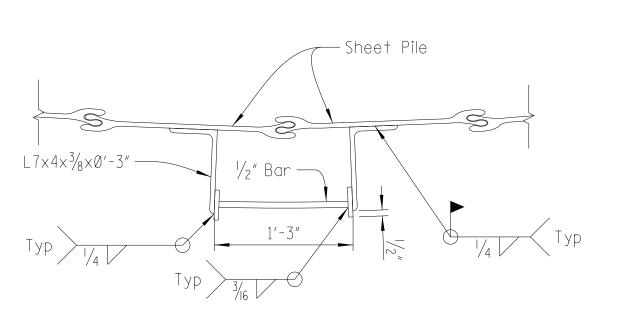
ARKANSAS STATE HIGHWAY COMMISSION LITTLE ROCK, ARK.

DRAWN BY: <u>BAG</u> DATE: <u>1/24/20</u> FILENAME: <u>Notes_Quantities</u>
CHECKED BY: <u>TDB</u> DATE: <u>1/24/20</u> SCALE: <u>NA</u>
DESIGNED BY: <u>TDB</u> DATE: <u>1/24/20</u>

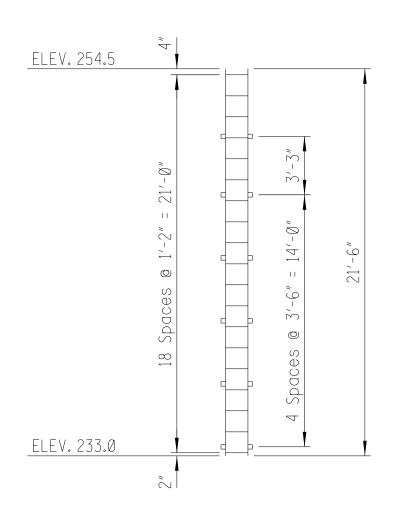
BRIDGE NO. 02768, A1210, DRAWING NO. 61440



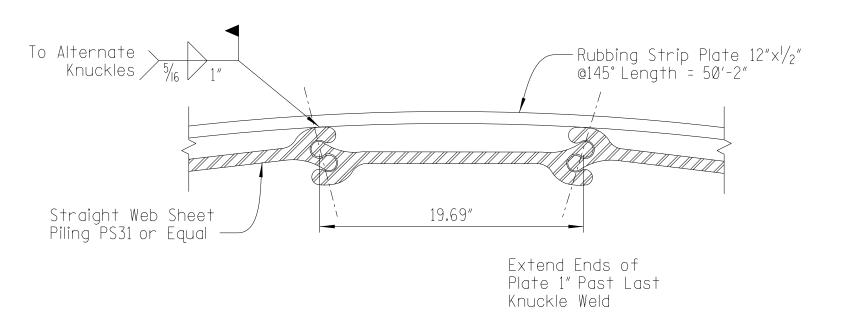




LADDER PLAN



LADDER ELEVATION



RUBBING STRIP CONNECTION DETAIL

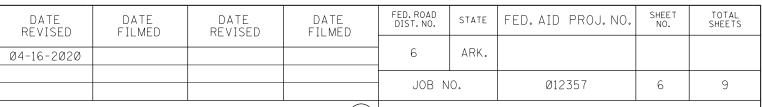
Notes:

Drawings show general features of design only. Shop drawings showing details shall be prepared in accordance with specifications, submitted and approval secured before fabrication is begun.

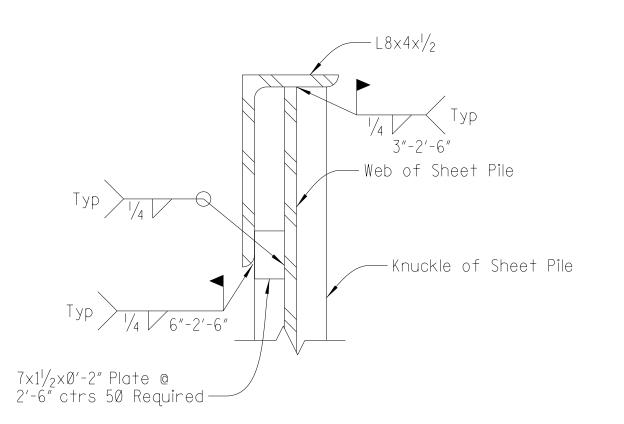
Straight Web Sheet Piles and all related work including all materials, equipment, labor, and incidentals shall be paid for under the "Sheet Pile (PS31)" pay item, per linear foot of sheet pile.

All Structural Steel and all related work including materials, equipment, labor, and incidentals shall be paid for under the "Structural Steel in Beam Spans (A709, GR.36)" pay item, per pound.

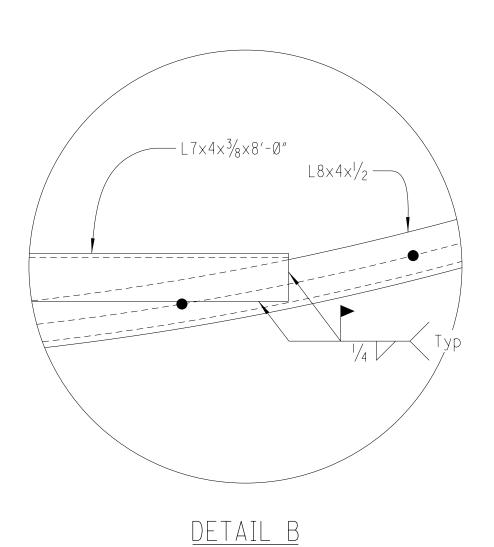
Riprap and all related work including all materials, equipment, labor, and incidentals shall be paid for under the "Dumped Riprap" pay item, per cubic yard.



1) 02768 I-30 CELL REPLACEMENT DETAILS 61442



SECTION A-A ANGLE CONNECTION DETAIL



SUGGESTED SEQUENCE OF WORK - New Pier Protection Cell

- Remove existing pier protection cell
- 2. Drive new sheet piles into final configuration
- Partially fillprotection cellwith riprap for stability
- Install steel angles, ladder, and rubbing strips Completely fill protection cell with riprap
- Place new cell-mounted navigation light



I-30 BRIDGE CELL REPLACEMENT DETAILS ROUTE: I-3Ø

ARKANSAS STATE HIGHWAY COMMISSION

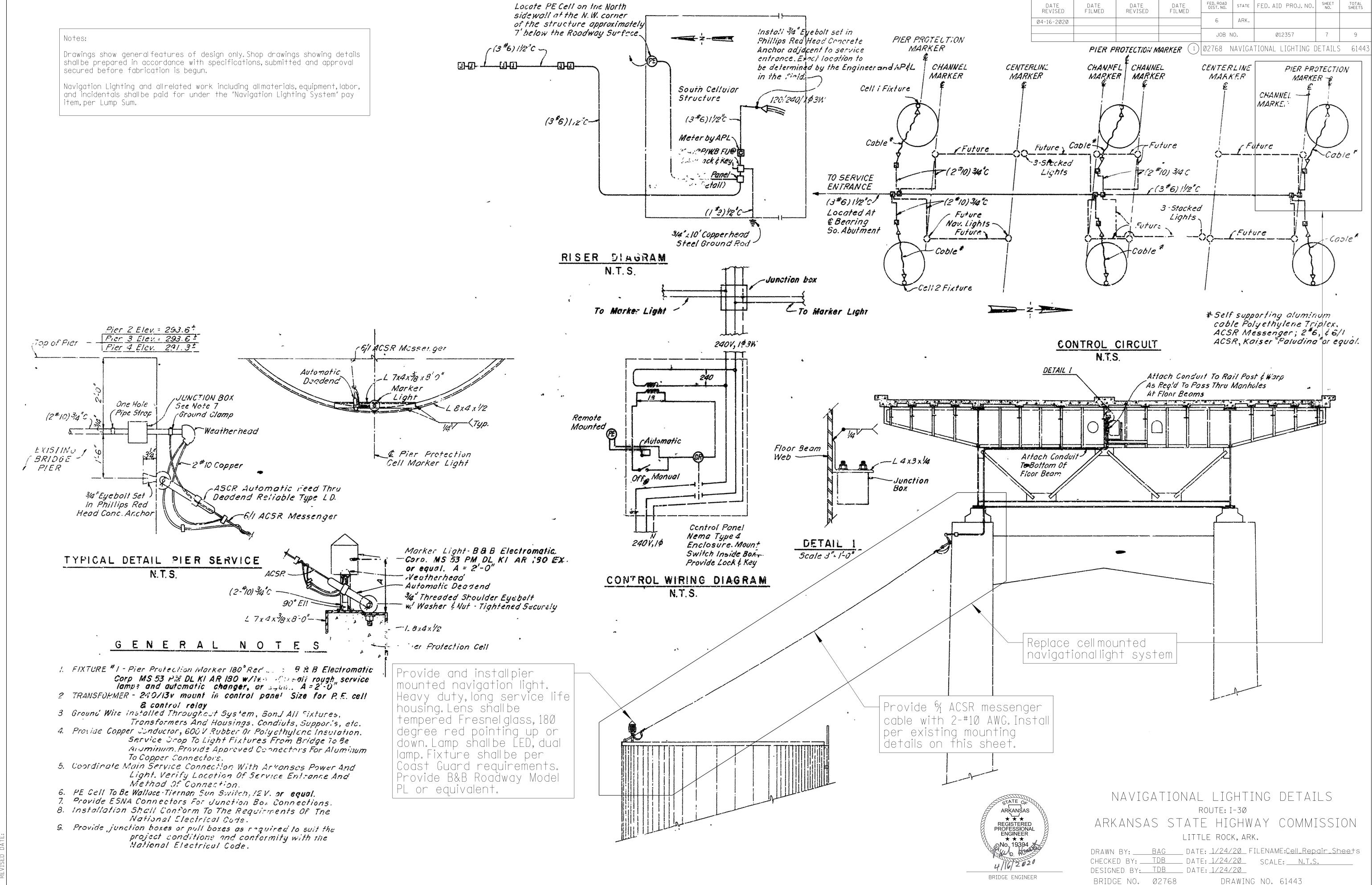
LITTLE ROCK, ARK. DRAWN BY: <u>BAG</u> DATE: <u>1/24/20</u> FILENAME:<u>Cell_Repair_Shee</u>ts

CHECKED BY: ____TDB____ DATE: <u>1/24/20</u> SCALE: ___N.T.S. DESIGNED BY: TDB DATE: 1/24/20 BRIDGE NO. Ø2768

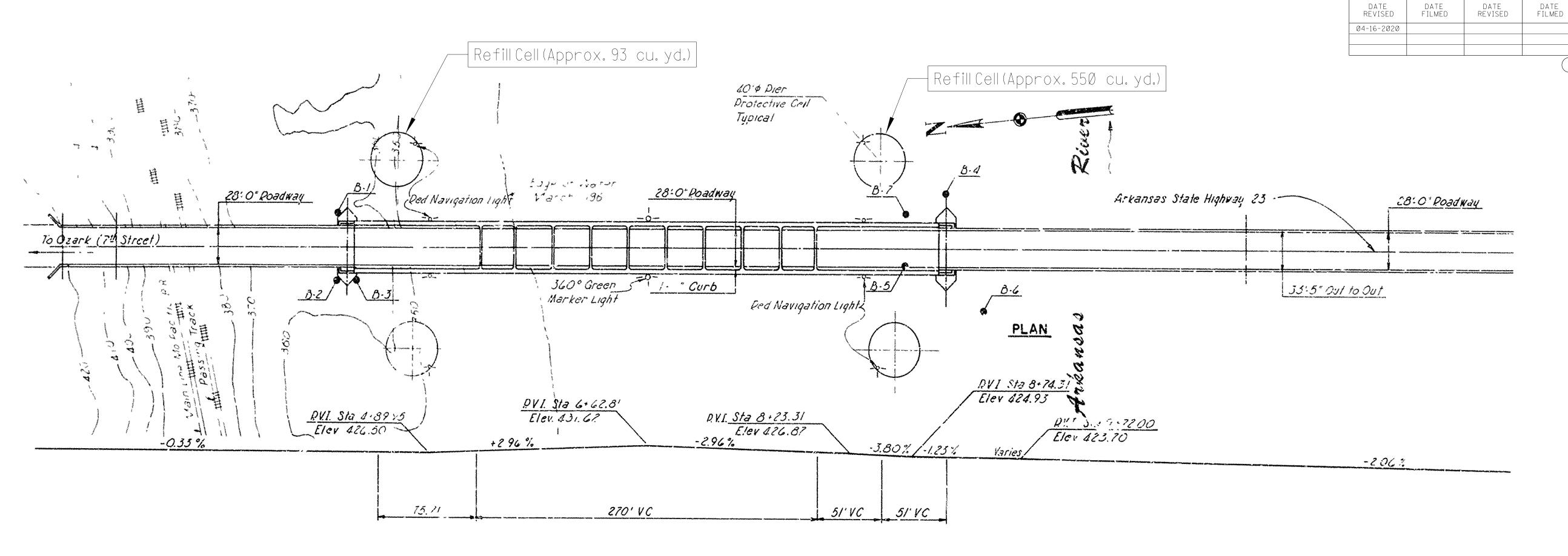
DRAWING NO. 61442

bgoodner 16-APR-202021:09 WORKSPACE: \$\$WORKSPACE\$\$ \\BATw00\jobs\63136_ArDOT On-Call

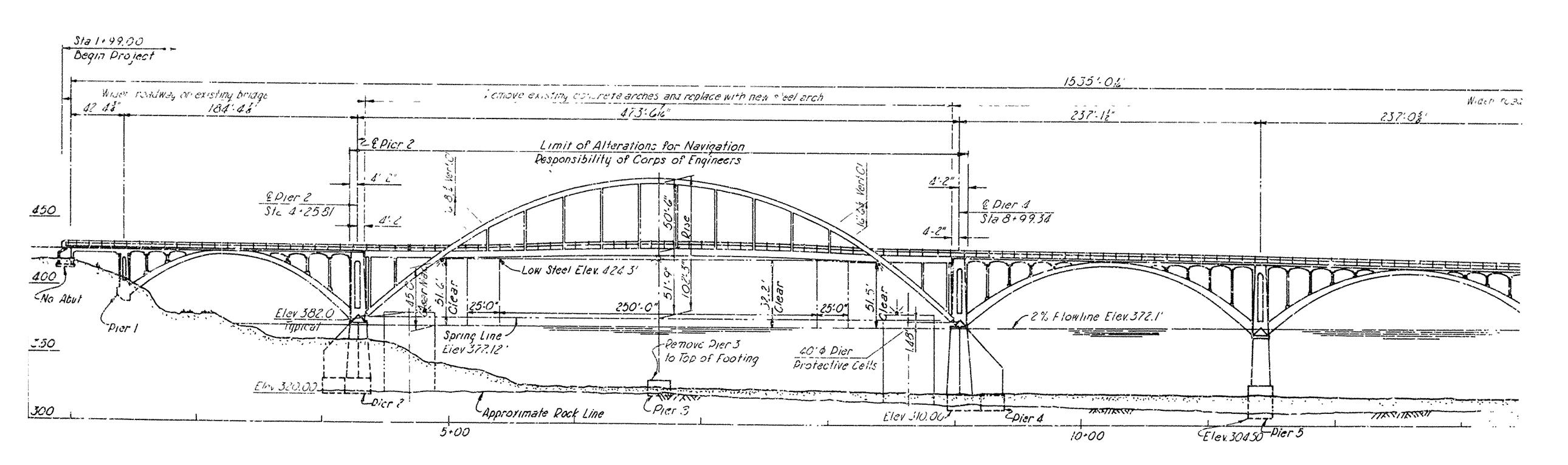
BRIDGE ENGINEER



bgoodner WORKSPACE: \$\$WORKSPACE\$\$ \\BATw@Vjobs\63136_ArDOT On-CallRetainer\cadd\bridge\Final\Cell_Repair_Sheet



SITE 2 - OZARK BRIDGE PLAN VIEW



<u>SITE 2 - OZARK BRIDGE PROFILE VIEW</u>



OZARK BRIDGE GENERAL PLAN (SITE 2)
ROUTE: SH-23

ARKANSAS STATE HIGHWAY COMMISSION LITTLE ROCK, ARK.

FED. ROAD DIST. NO. STATE FED. AID PROJ. NO. SHEET NO. SHEETS

Ø12357

1 A1210 OZARK BRIDGE PLAN (SITE 2) 61444

Plan view, profile view and other information of structure are a photo copy of the original drawings. Additional information is added for

ARK.

Notes:

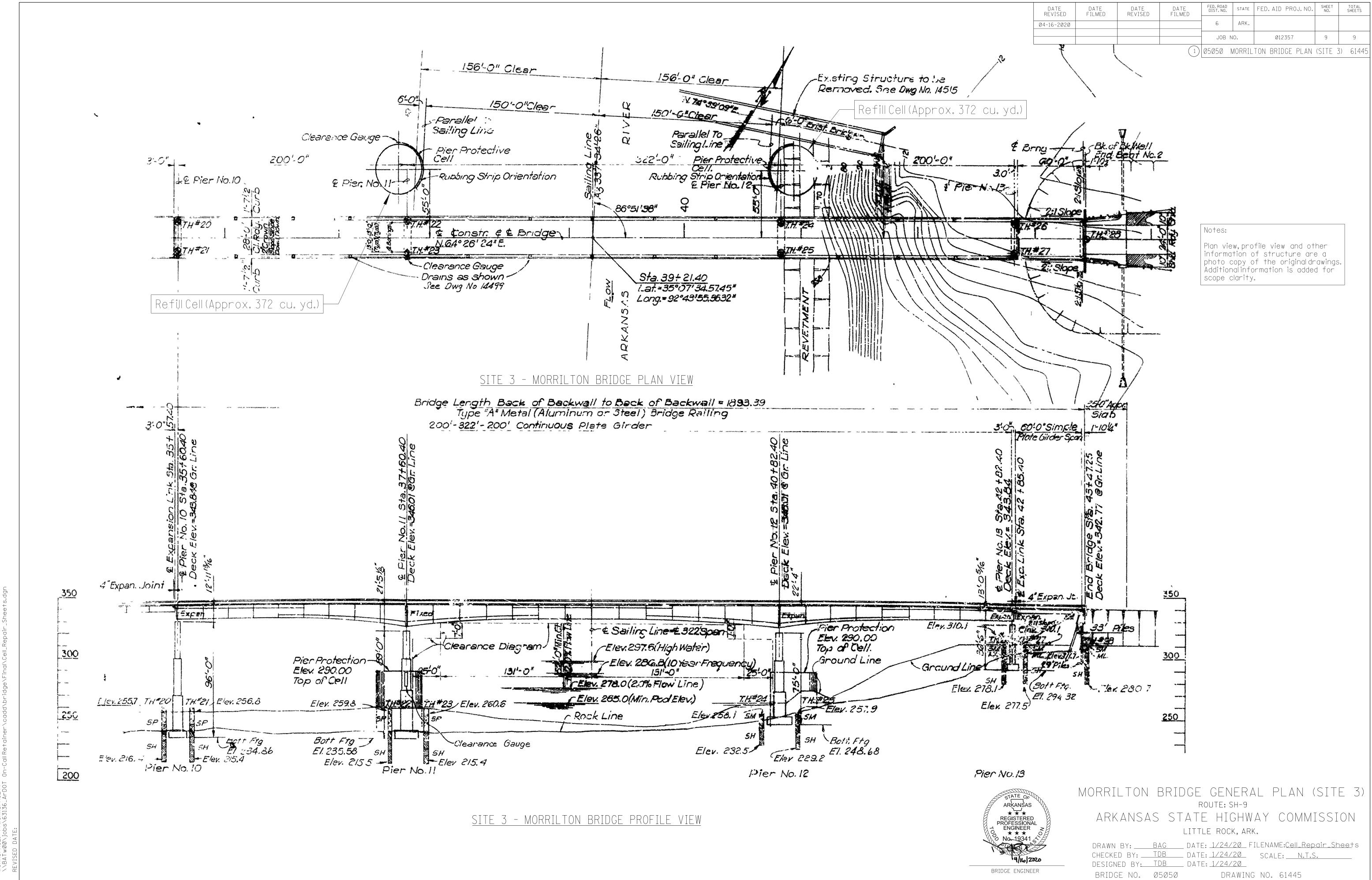
scope clarity.

DRAWN BY: BAG DATE: 1/24/20 FILENAME:Cell_Repair_Sheets
CHECKED BY: TDB DATE: 1/24/20 SCALE: N.T.S.

DESIGNED BY: TDB DATE: 1/24/20

BRIDGE NO. A1210 DRAWING NO. 61444

bgoodner workspace: \$\$workspace\$\$ \\Batw@@\jobs\63136_arDoT On-CallRetainer\cadd\bridge\Fir



bgoodner WORKSPACE: \$\$WORKSPACE\$\$ \\BATw@Vjobs\63136_ArDOT On-CallRetainer\cadd\bridge\Finc