POE & ASSOCIATES, OKLAHOMA CITY, OK.						
FED. DIST.	ROAD NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6		OKLA.				

DESCRIPTION	REVISIONS	DATE
		5/27/2022

FOR SURVEY CONTROL DATA
SEE SURVEY DATA SHEETS

BRIDGE LENGTHS

BRIDGE A: STA. 73+14.51 — 433′–0″ — STA. 77+47.51

BRIDGE B: STA. 411+52.76 — 1,652′–11¾″ — STA. 428+05.74

BRIDGE D: STA. 426+61.33 — 320′–6″ — STA. 429+81.83

BRIDGE J: STA. 82+84.90 — 450′–9″ — STA. 87+35.66

BRIDGE M: STA. 420+49.33 — 518′–9″ — STA. 425+68.08

DESIGN DATA

EXPRESSWAY	= 55 MPH
SERVICE ROADS	= 40 MPH
CROSS STREETS	= 40 MPH
RAMPS (DIRECT)	= 50 MPH
RAMPS (LOOPS)	= 25 MPH
RAMPS (SEMI-DIRECT)	= 45 MPH

STATE OF OKLAHOMA
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED

STATE HIGHWAY

FEDERAL AID PROJECT NO. ~~NHPPI-0035-3(125)121~~

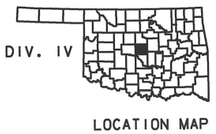
GRADING, DRAINAGE, SURFACING, BRIDGE, & EROSION CONTROL PLANS
INTERSTATE HIGHWAY NO. I-240 & I-35

OKLAHOMA COUNTY

CONTROL SECTION NO. 35-55-15
STATE JOB NO. 09032(06)
PHASE 2

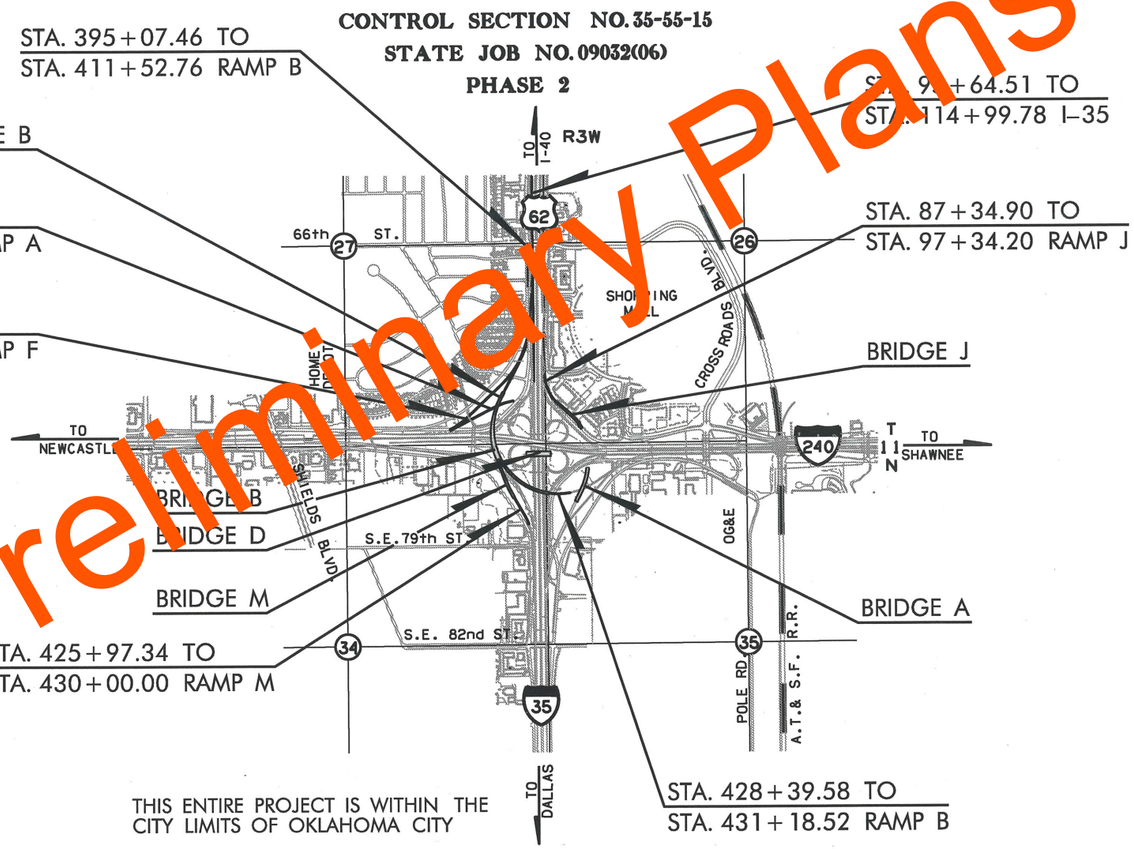
INDEX OF SHEETS

SHEET NO.	DESCRIPTION
1.	TITLE SHEET
2.	INDEX OF SHEETS



LOCATION MAP

DESIGN EXCEPTION INCLUDE:
SHOULDER WIDTH
STOPPING SIGHT DISTANCE
(HORIZ.)



Preliminary Plans

THIS ENTIRE PROJECT IS WITHIN THE CITY LIMITS OF OKLAHOMA CITY

ROADWAY LENGTH	7,545.73 FT.	1.429 MILES
BRIDGE LENGTH	3,375.97 FT.	0.639 MILES
PROJECT LENGTH	10,921.70 FT.	2.068 MILES

EQUATION: SEE GEOMETRIC SHEETS

EXCEPTIONS:

1000′ 0 1000′ 2000′

SCALE
PLAN 1"= 50′
PROFILE HOR. 1"= 50′
VER. SEE SHEETS
LAYOUT MAP 1"= 1000′

CONVENTIONAL SIGNS

- INTERSTATE HIGHWAY
- U.S. HIGHWAY
- STATE HIGHWAY
- PROPOSED ROAD
- RAILROADS
- RANGE & TOWNSHIP LINES
- SECTION LINES
- QUARTER SECTION LINES
- FENCES
- GROUND LINE
- EXISTING ROADS
- BASE LINE
- GRADE LINES
- TELEPHONE & TELEGRAPH
- POWER LINES
- OIL WELLS
- BUILDINGS
- DRAINAGE STRUCTURES-IN-PLACE
- DRAINAGE STRUCTURES-NEW
- RIGHT-OF-WAY LINES-EXISTING
- RIGHT-OF-WAY LINES-NEW
- RIGHT-OF-WAY MARKERS-IN PLACE
- RIGHT-OF-WAY MARKERS-REMOVE & RESET
- RIGHT-OF-WAY MARKERS-NEW
- CONTROLLED ACCESS
- SS — EXISTING SANITARY SEWERS
- G — EXISTING GAS LINES
- W — EXISTING WATER LINES
- TUG — EXISTING TELEPHONE CABLES UNDERGROUND

2019 OKLAHOMA STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION - ENGLISH GOVERN, APPROVED BY THE U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION, DECEMBER 18, 2019.

PREPARED AND SUBMITTED BY:

POE & ASSOCIATES INC.
Oklahoma City, Oklahoma
CA NO. 541

THOMAS S. EVANS, P.E.
OKLA. REG. NO. 25204
DATE 6-1-2022

REGISTERED PROFESSIONAL ENGINEER — THOMAS S. EVANS 25204 — OKLAHOMA

OKLAHOMA Transportation

MICHAEL S. LETTNER , P.E., S.E.
OKLA. REG. NO. 24224
DATE 6/1/2022

PROFESSIONAL STRUCTURAL ENGINEER — MICHAEL S. LETTNER 24224 — OKLAHOMA

OKLAHOMA DEPARTMENT OF TRANSPORTATION	DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION
DATE APPROVED	DATE APPROVED
BY	BY
CHIEF ENGINEER	DIVISION ADMINISTRATOR

SWO 2923(1) FEDERAL AID PROJECT NO. ~~NHPPI-0035-3(125)121~~ SHEET NO. 0001

9:46:01 AM
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AE01 ENVIROMENTAL NOTES
AR01-AR02 SUMMARY OF PAY QUANTITIES & NOTES (ROADWAY)
AR03-AR09 SUMMARIES (ROADWAY)
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R029-R042 PLAN AND PROFILE SHEETS
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R065-R068 SPOT ELEVATIONS
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R070 TEMPORARY INLET SEDIMENT FILTER
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R086 C.I.P. RETAINING WALL 'P' PLAN & ELEVATION
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X034-X049 CROSS SECTIONS - RAMP A
X050-X080 CROSS SECTIONS - RAMP B
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X128-X132 CROSS SECTIONS - N.W. SERVICE R.

Preliminary Plans

THE FOLLOWING ODOT STANDARDS WILL BE REQUIED:

ROADWAY: (2019)

SSS-2-0, TSC2-4-0, TSD-3-0, TFL-2-0, TRFD-2-0, ASCD-6-0, CSCD-6-1, LECS-5-1, LTU-5-0, CRCPI-4-0, PR-4-0, PED-4-0, PSE-2-0, WCR-4-1, TWD-2-1, PSMD-2-1, PCI-1-0, PCES-5-0, CDIP-2-1, SMD-4-1, SSCD-4-0, CI-2-1, SSIF-5-0, CIG-4-0, MFC-5-0, MJB-4-1, PRM-1-1, PSM-1-1, PMD-1-0, SPI-5-1, SPB-2-1, FHTCP-4-0, PUD-4-0, CLB-2-1, PDT-2-0, SUEL1-4-0, SUEL2-4-0, SUEL3-4-0, SUEL4-4-0

TRAFFIC OPERATIONS: (2009)

TCS1-1-01, TCS2-1-00, TCS3-1-01, TCS4-1-01, TCS5-1-00, TCS6-1-02, TCS7-1-02, TCS8-1-00, TCS9-1-01, TCS10-1-00, TCS11-1-01, TCS13-1-00, TCS14-1-00, TCS15-1-00, TCS16-1-00, TCS17-1-00, TCS18-1-01, TCS19-1-01, TCS20-1-00, TCS21-1-02, TCS22-1-00, TCS23-1-00, TCS24-1-02

SIGNING & STRIPING: (2009)

PM1-1-03, PM2-1-01, PM3-1-02, PM4-1-02, PM5-1-00, PM6-1-00, DU1-1-00, DU2-1-00, RSD1-1-00, WSD1-1-00, SIS3-1-01, SIS4-1-00, SIS5-1-00, SBS1-1-00, SBS2-1-00, SBS4-1-00, GMS1-1-00, GMS2-1-00, SSP1-1-02, SSA1-1-00, SSA2-1-00, FGS1-1-00, FGS2-1-01, SPA1-1-00, IA1-1-00, APC1-1-00

BRIDGE: (2009)

TR4-2-00E
FSHP-42-2-00E
EJ-SQ-04E
EJ-SK-04E
EJ-DTL-02E
HP1-2-01E

POE & ASSOCIATES, OKLAHOMA CITY, OK.

FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.				

DESCRIPTION	REVISIONS	DATE
		5/31/2022

DESIGN	-	-
DRAWN	-	-
CHECKED	-	-
APPROVED	-	-
SQUAD	POE	

PHASE 2 — OKLAHOMA COUNTY

INDEX OF SHEETS

STATE JOB NO. 09032(06) SHEET NO. 0002

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POE & ASSOCIATES, OKLAHOMA CITY, OK.

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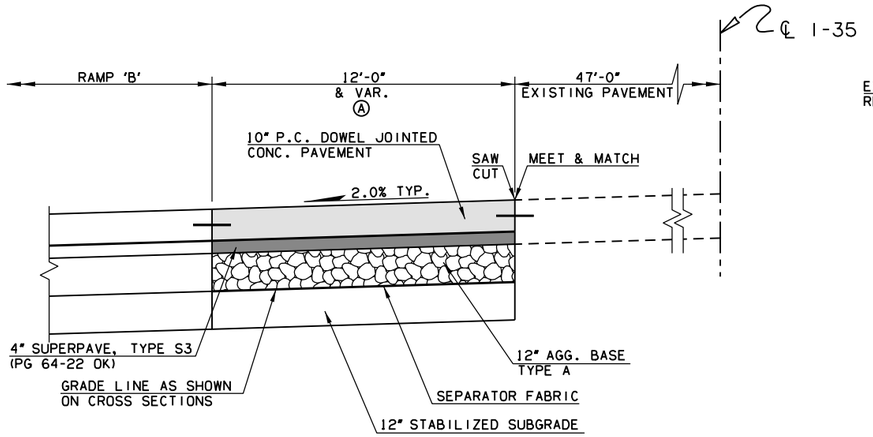
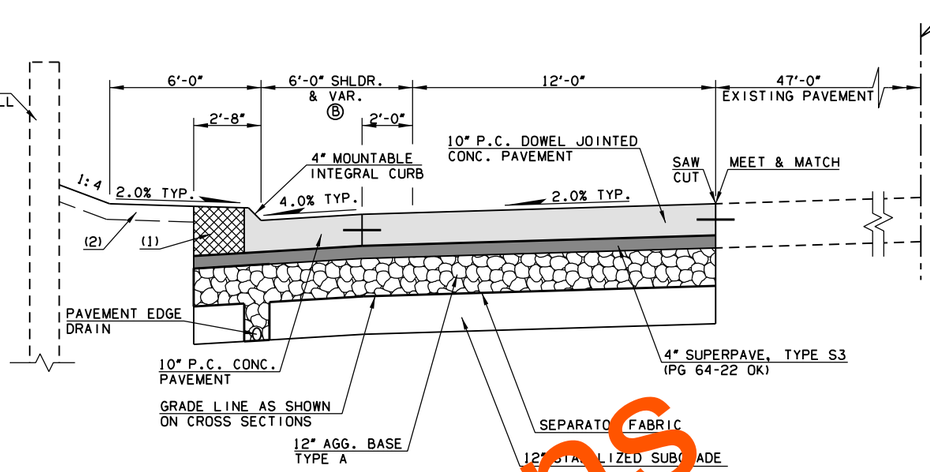
DESCRIPTION	REVISIONS	DATE
	5/27/2022	



1 TYPICAL SECTION
I-35 WIDENING
STA. 95+64.51 TO STA. 102+00.01



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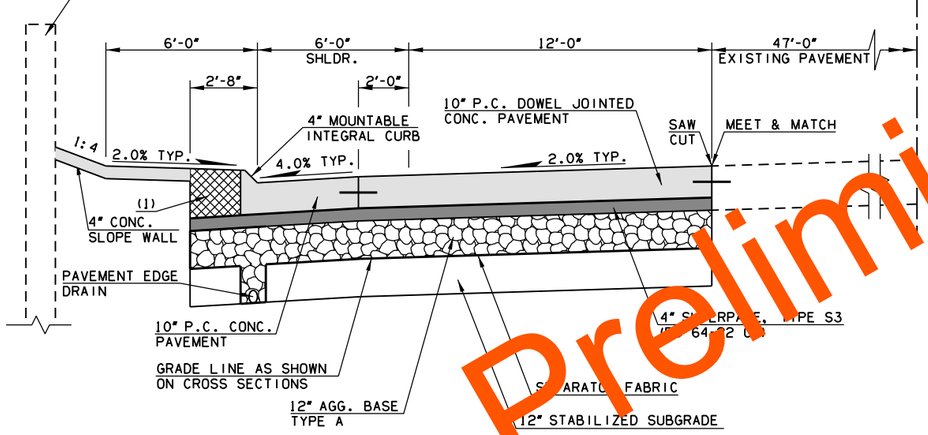
I-35 WIDENING
STA. 102+00.01 TO STA. 105+29.10
STA. 107+12.39 TO STA. 111+88.87



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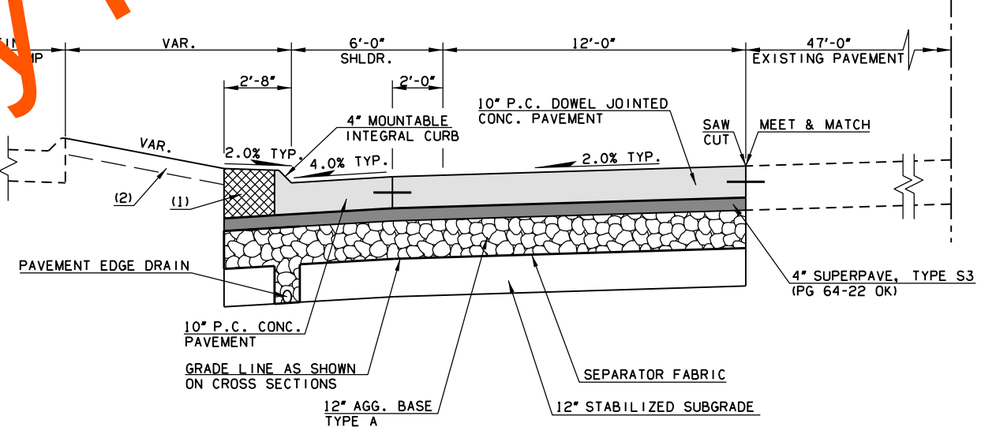
I-35 WIDENING
STA. 105+29.10 TO STA. 107+12.39



4 TYPICAL SECTION
I-35 WIDENING
STA. 111+88.87 TO STA. 114+99.78

Preliminary Plans

SEGMENT	VARIABLE WIDTH	STATION EXTENTS
A	11'-2" TO 12'-0"	95+64.51 TO 96+23.84
A	12'-0"	96+23.84 TO 102+00.01
B	0'-0" TO 10'-0"	102+00.01 TO 102+00.67
B	10'-0" TO 6'-0"	102+00.67 TO 103+00.01
B	6'-0"	103+00.01 TO 111+88.87

NOTE: VAR. NOT SHOWN SEE PLANS/DETAILS FOR MORE INFORMATION

(1) TO BE BACKFILLED AND COMPACTED AS PART OF FINISHING OPERATIONS. QUANTITY IS MEASURED IN UNCLASSIFIED BORROW.

(2) TOPSOIL NOTE:
THE CONTRACTOR SHALL STRIP ALL OF THE AVAILABLE TOPSOIL, STOCKPILE IT, AND PLACE IT BACK ON THE SECTION IN ACCORDANCE WITH SECTION 205 OF THE STANDARD SPECIFICATIONS. RESERVED TOPSOIL SHALL BE SPREAD FIRST ON THE COMPLETED SLOPES OF THE CUT SECTIONS AND THE REMAINDER ON COMPLETED FILL SLOPES OR OTHER PRIORITY AREAS LOCATED BY THE ENGINEER. ALL ADDITIONAL COSTS ASSOCIATED WITH OPERATION SHALL BE INCLUDED IN THE PAY ITEM FOR SALVAGED TOPSOIL, LUMP SUM.

(3) INTERSECTION OF CUT AND/OR FILL SLOPES WITH GROUND LINE TO BE ROUNDED AS PART OF FINISHING OPERATIONS. ROUNDING SHALL BE 5' MIN. FOR SMALLER CUTS AND FILLS, TO 15' MAX. FOR LARGER CUTS AND FILLS, OR AS DESIGNATED BY THE ENGINEER. COST OF ROUNDING TO BE INCLUDED IN PRICE BID FOR OTHER ITEMS OF WORK. SEE ROUNDING DETAIL ON OTHER TYPICAL SHEETS.

DESIGN	-	-
DRAWN	-	-
CHECKED	-	-
APPROVED	-	-
SQUAD	POE	

PHASE 2 OKLAHOMA COUNTY

TYPICAL SECTIONS
(I-35 WIDENING)

STATE JOB NO. 09032(06) SHEET NO. 0003

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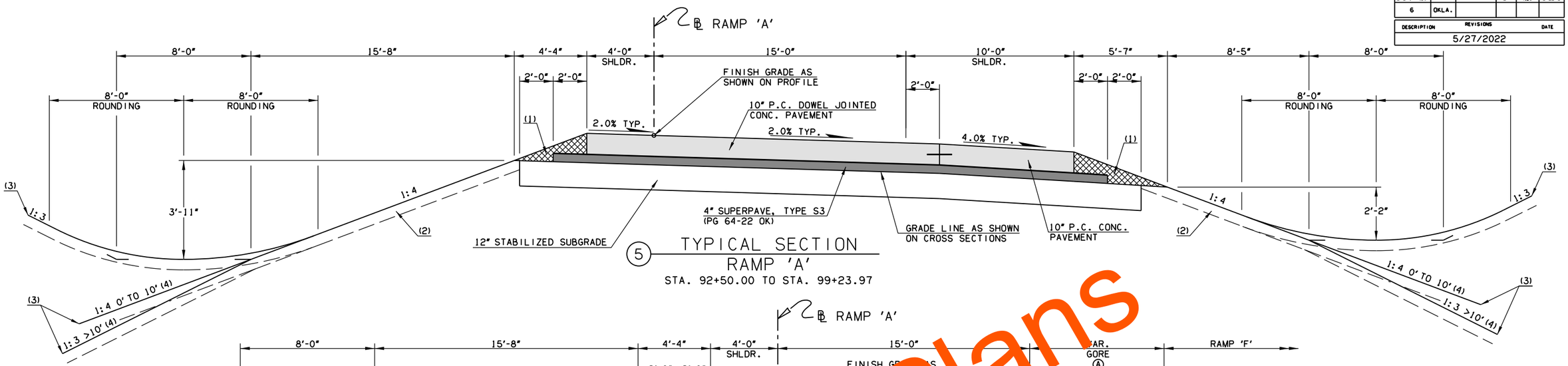
POE & ASSOCIATES, OKLAHOMA CITY, OK.

FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.				

DESCRIPTION	REVISIONS	DATE
		5/27/2022



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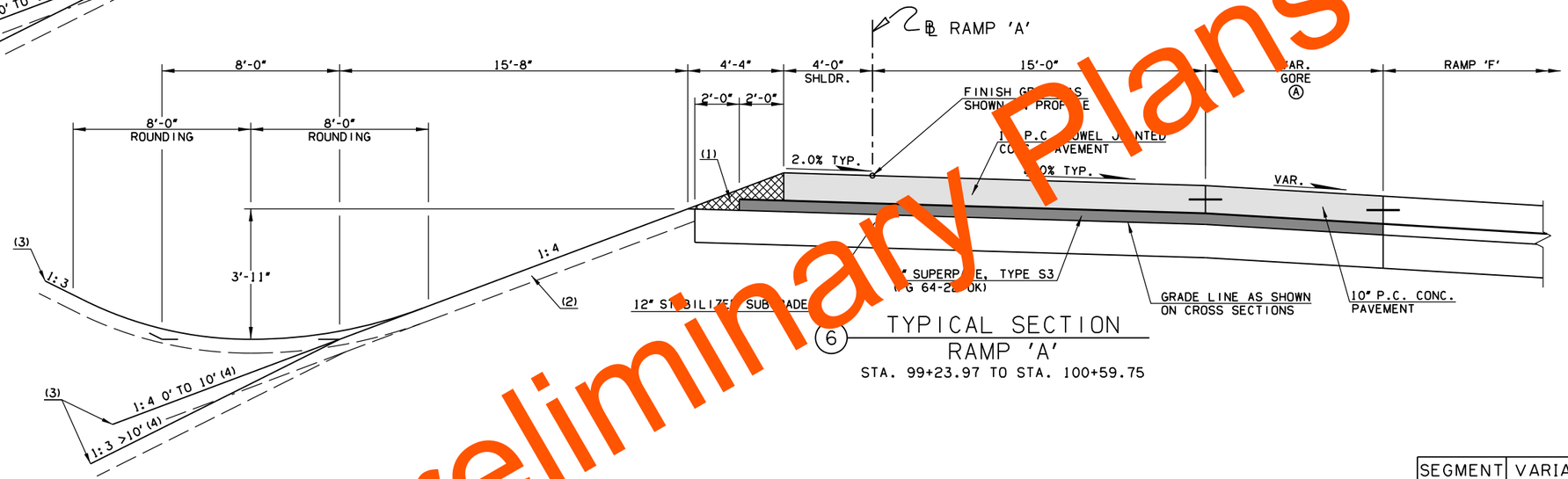
RAMP 'A'
STA. 92+50.00 TO STA. 99+23.97



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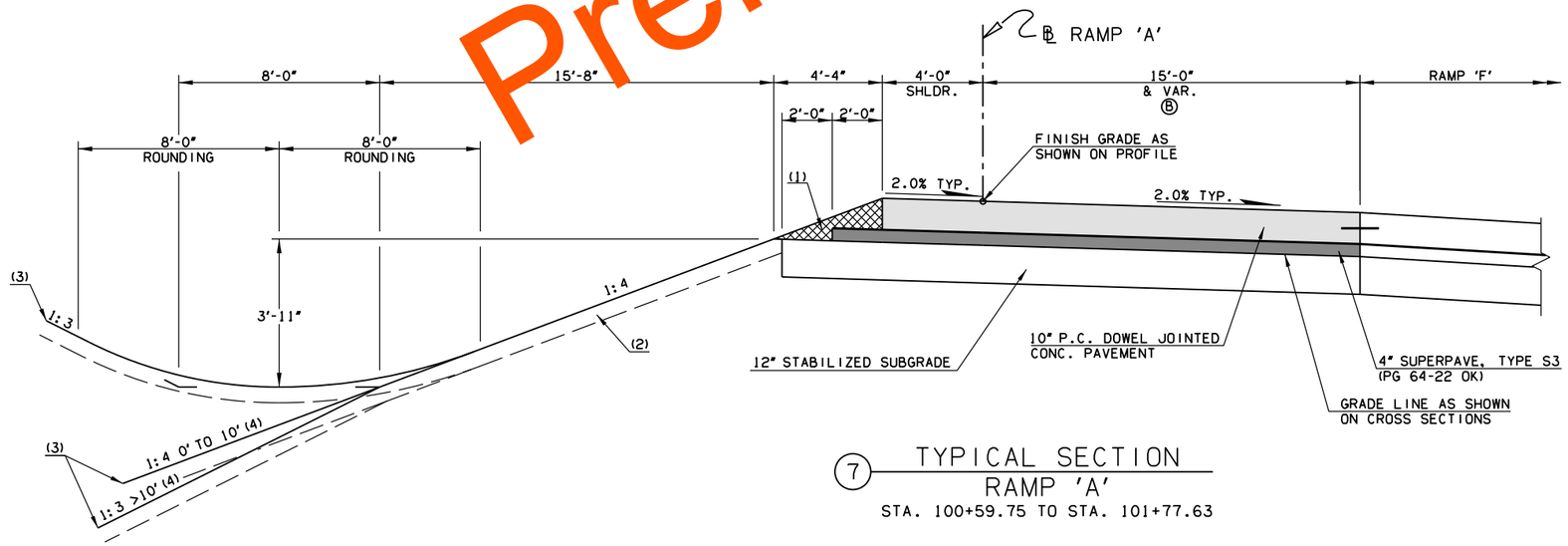

7 TYPICAL SECTION
RAMP 'A'
STA. 100+59.75 TO STA. 101+77.63

Preliminary Plans

SEGMENT	VARIABLE WIDTH	STATION EXTENTS
A	22'-0" TO 0'-0"	99+23.97 TO 100+59.75
B	15'-0" TO 12'-0"	100+59.75 TO 101+77.63

NOTE: VAR. NOT SHOWN SEE PLANS/DETAILS FOR MORE INFORMATION

(1) TO BE BACKFILLED AND COMPACTED AS PART OF FINISHING OPERATIONS. QUANTITY IS MEASURED IN UNCLASSIFIED BORROW.

(2) TOPSOIL NOTE:
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(3) INTERSECTION OF CUT AND/OR FILL SLOPES WITH GROUND LINE TO BE ROUNDED AS PART OF FINISHING OPERATIONS. ROUNDING SHALL BE 5' MIN. FOR SMALLER CUTS AND FILLS, TO 15' MAX. FOR LARGER CUTS AND FILLS, OR AS DESIGNATED BY THE ENGINEER. COST OF ROUNDING TO BE INCLUDED IN PRICE BID FOR OTHER ITEMS OF WORK. SEE ROUNDING DETAIL ON OTHER TYPICAL SHEETS.

DESIGN	-	-
DRAWN	-	-
CHECKED	-	-
APPROVED	-	-
SQUAD	POE	

PHASE 2 OKLAHOMA COUNTY

TYPICAL SECTIONS (RAMP 'A')

STATE JOB NO. 09032(06) SHEET NO. 0004

5/27/2022 9:46:47 AM
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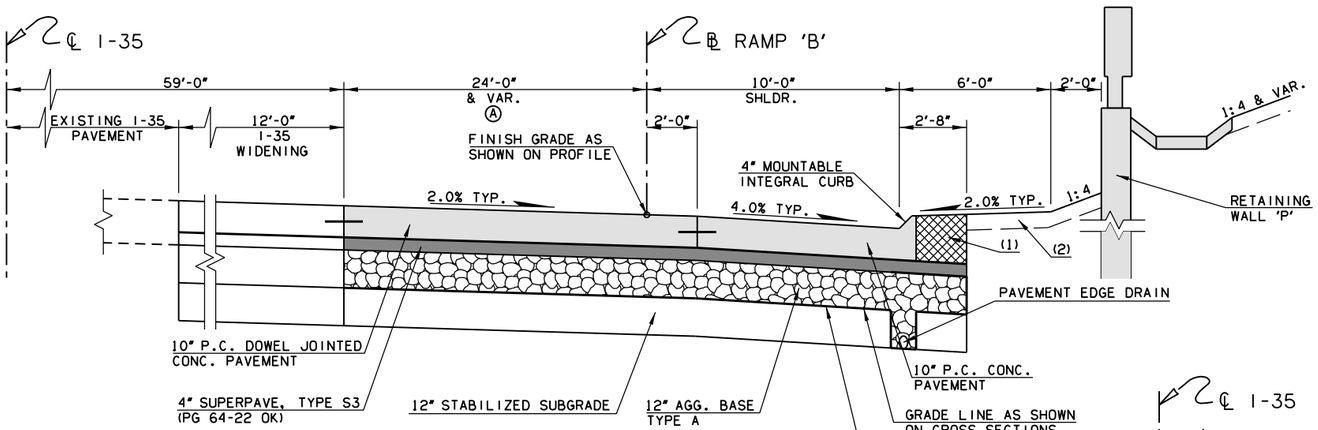
POE & ASSOCIATES, OKLAHOMA CITY, OK.

FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.				

DESCRIPTION	REVISIONS	DATE
		5/27/2022



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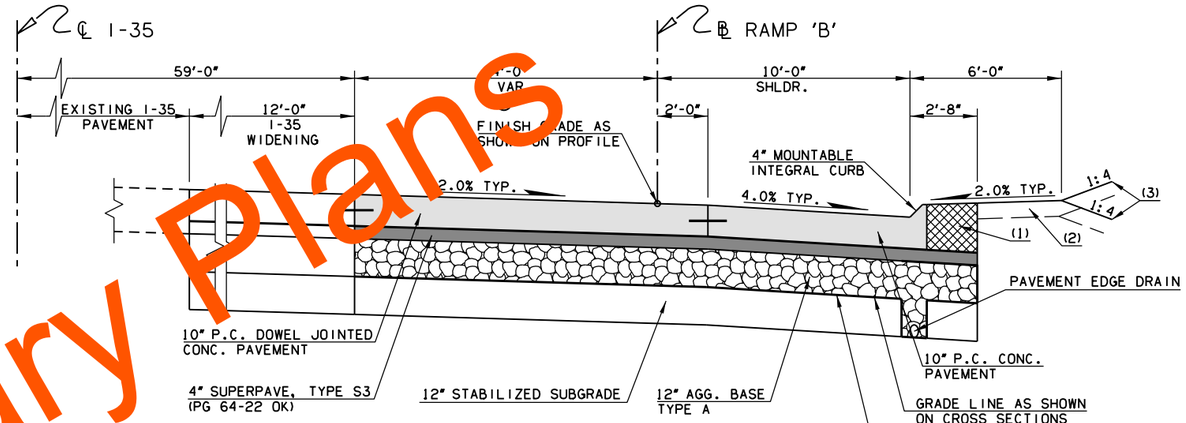
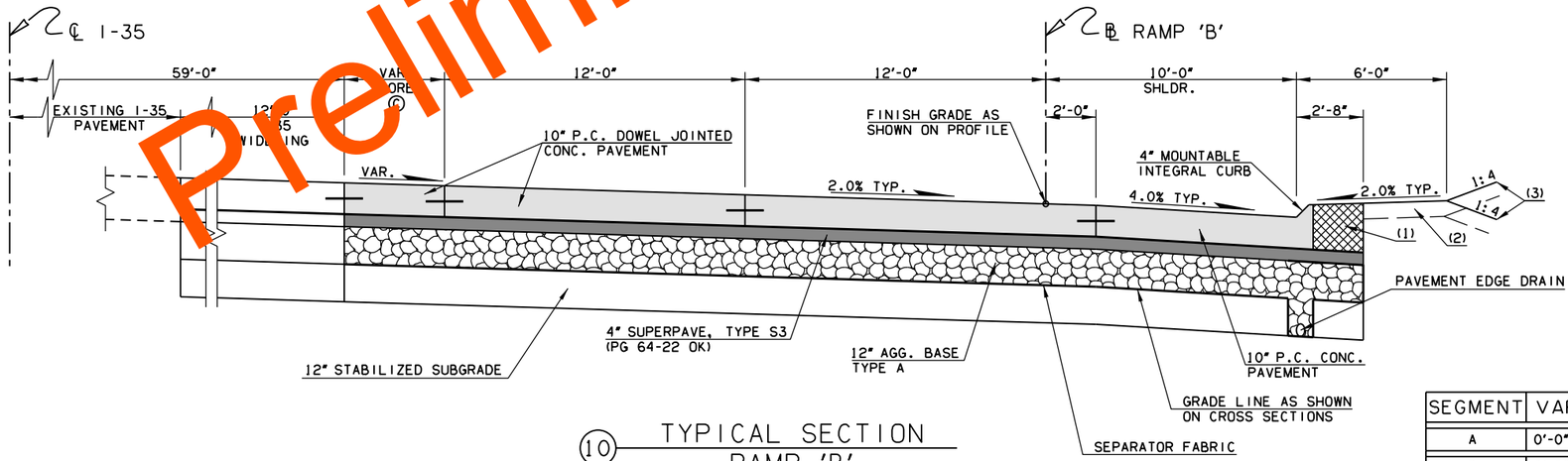
STA. 395+07.46 TO STA. 396+40.00



(9) TYPICAL SECTION RAMP 'B'

STA. 396+40.00 TO STA. 398+70.77



(10) TYPICAL SECTION RAMP 'B'

STA. 398+70.77 TO STA. 401+41.59

SEGMENT	VARIABLE WIDTH	STATION EXTENTS
A	0'-0" TO 8'-9"	395+07.46 TO 396+40.00
B	8'-9" TO 24'-0"	396+40.00 TO 398+70.77
C	0'-0" TO 20'-0"	398+70.77 TO 401+41.59

NOTE: VAR. NOT SHOWN SEE PLANS/DETAILS FOR MORE INFORMATION

(1) TO BE BACKFILLED AND COMPACTED AS PART OF FINISHING OPERATIONS. QUANTITY IS MEASURED IN UNCLASSIFIED BORROW.

(2) TOPSOIL NOTE:
THE CONTRACTOR SHALL STRIP ALL OF THE AVAILABLE TOPSOIL, STOCKPILE IT, AND PLACE IT BACK ON THE SECTION IN ACCORDANCE WITH SECTION 205 OF THE STANDARD SPECIFICATIONS. RESERVED TOPSOIL SHALL BE SPREAD FIRST ON THE COMPLETED SLOPES OF THE CUT SECTIONS AND THE REMAINDER ON COMPLETED FILL SLOPES OR OTHER PRIORITY AREAS LOCATED BY THE ENGINEER. ALL ADDITIONAL COSTS ASSOCIATED WITH OPERATION SHALL BE INCLUDED IN THE PAY ITEM FOR SALVAGED TOPSOIL, LUMP SUM.

(3) INTERSECTION OF CUT AND/OR FILL SLOPES WITH GROUND LINE TO BE ROUNDED AS PART OF FINISHING OPERATIONS. ROUNDING SHALL BE 5' MIN. FOR SMALLER CUTS AND FILLS, TO 15' MAX. FOR LARGER CUTS AND FILLS, OR AS DESIGNATED BY THE ENGINEER. COST OF ROUNDING TO BE INCLUDED IN PRICE BID FOR OTHER ITEMS OF WORK. SEE ROUNDING DETAIL ON OTHER TYPICAL SHEETS.

DESIGN	-	-
DRAWN	-	-
CHECKED	-	-
APPROVED	-	-
SQUAD	POE	

PHASE 2 OKLAHOMA COUNTY

TYPICAL SECTIONS (RAMP 'B')

STATE JOB NO. 09032(06) SHEET NO. 0005

Preliminary Plans

5/27/2022 9:47:23 AM
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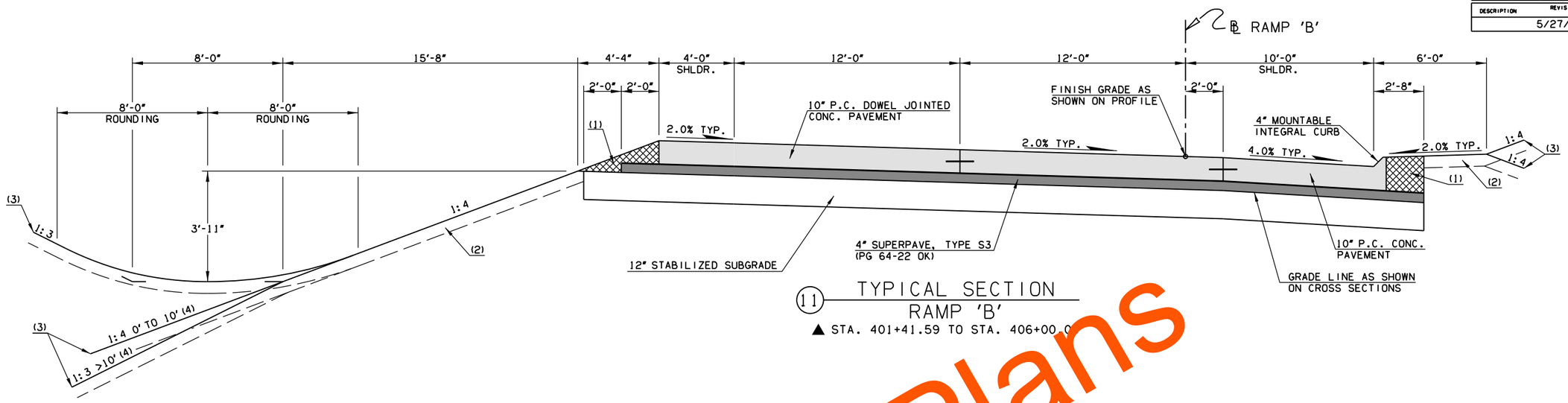
POE & ASSOCIATES, OKLAHOMA CITY, OK.

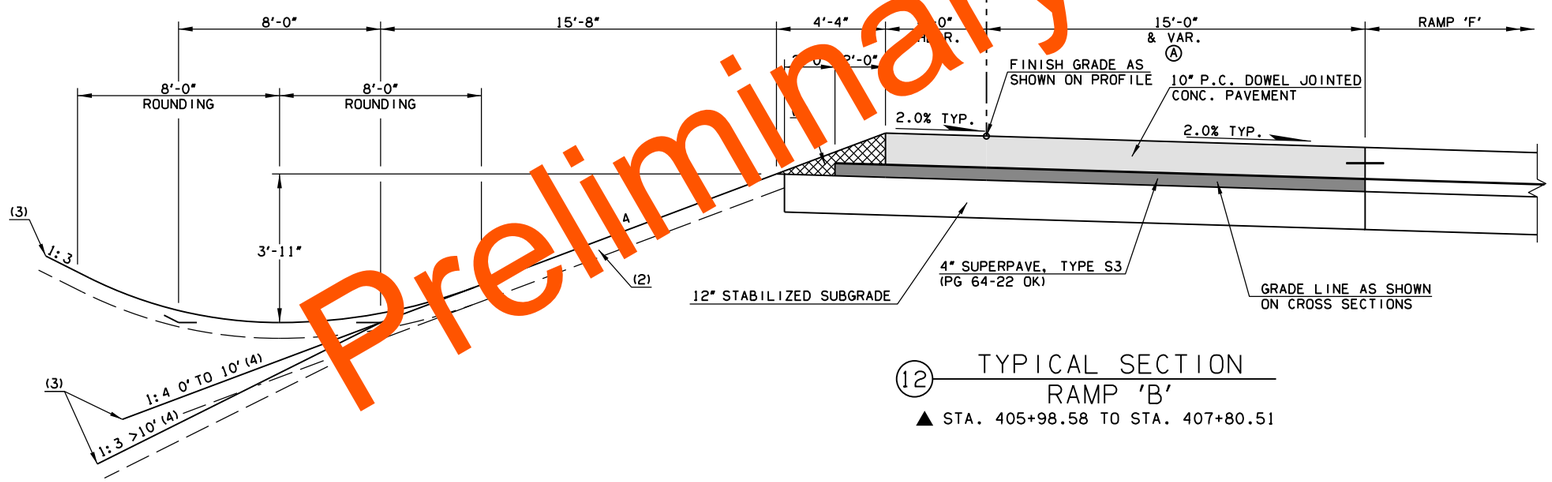
FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.				

DESCRIPTION	REVISIONS	DATE
		5/27/2022



(11) TYPICAL SECTION
RAMP 'B'
▲ STA. 401+41.59 TO STA. 406+00.0

▲ ℄ SHIFT EQUATION
STA. 406+00.00 ~ ℄ RAMP "B" BK=
STA. 405+98.58 ~ ℄ RAMP "B" AHD



(12) TYPICAL SECTION
RAMP 'B'
▲ STA. 405+98.58 TO STA. 407+80.51

Preliminary Plans

SEGMENT	VARIABLE WIDTH	STATION EXTENTS
A	12'-0"	405+98.58 TO 406+84.52
A	12'-0" TO 15'-0"	406+84.52 TO 407+80.51

NOTE: VAR. NOT SHOWN SEE PLANS/DETAILS FOR MORE INFORMATION

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(2) TOPSOIL NOTE:
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DESIGN	-	-
DRAWN	-	-
CHECKED	-	-
APPROVED	-	-
SQUAD	POE	

PHASE 2 OKLAHOMA COUNTY

TYPICAL SECTIONS (RAMP 'B')

STATE JOB NO. 09032(06) SHEET NO. 0006

5/27/2022 9:47:24 AM
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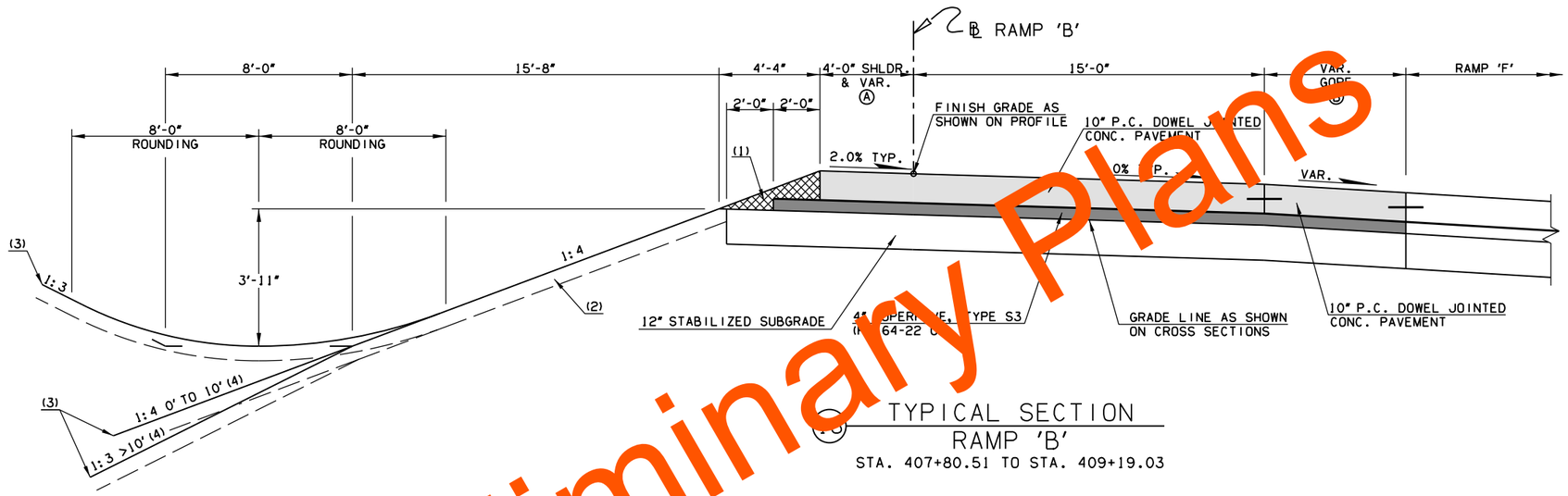
POE & ASSOCIATES, OKLAHOMA CITY, OK.					
FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.				

REVISIONS	
DESCRIPTION	DATE
	5/27/2022

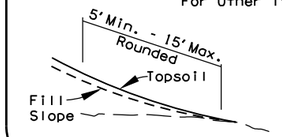


TYPICAL SECTION
RAMP 'B'
STA. 407+80.51 TO STA. 409+19.03

Preliminary Plans

ROUNDING DETAIL

Intersection Of Cut And/Or Fill Slopes With Ground Line To Be Rounded As Part Of Finishing Operations. Rounding Shall Be 5' Minimum For Smaller Cuts And Fills To 15' Maximum For Larger Cuts And Fills Or As Designated By The Engineer. Cost Of Rounding To Be Included In Price Bid For Other Items Of Work.



TOE OF FILL ROUNDING

TOP OF CUT ROUNDING

SEGMENT	VARIABLE WIDTH	STATION EXTENTS
A	4'-0" TO 4'-3"	409+13.00 TO 409+19.03
B	0'-0" TO 22'-0"	407+80.51 TO 409+19.03

NOTE: VAR. NOT SHOWN SEE PLANS/DETAILS FOR MORE INFORMATION

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DESIGN	-	-
DRAWN	-	-
CHECKED	-	-
APPROVED	-	-
SQUAD	POE	

PHASE 2 OKLAHOMA COUNTY

TYPICAL SECTIONS (RAMP 'B')

STATE JOB NO. 09032(06) SHEET NO. 0007

5/27/2022 9:47:25 AM
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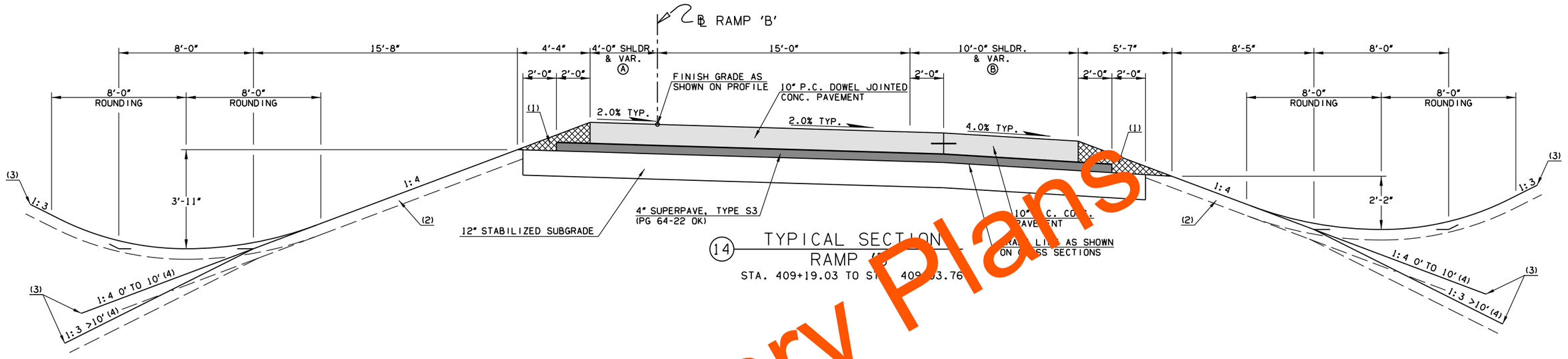
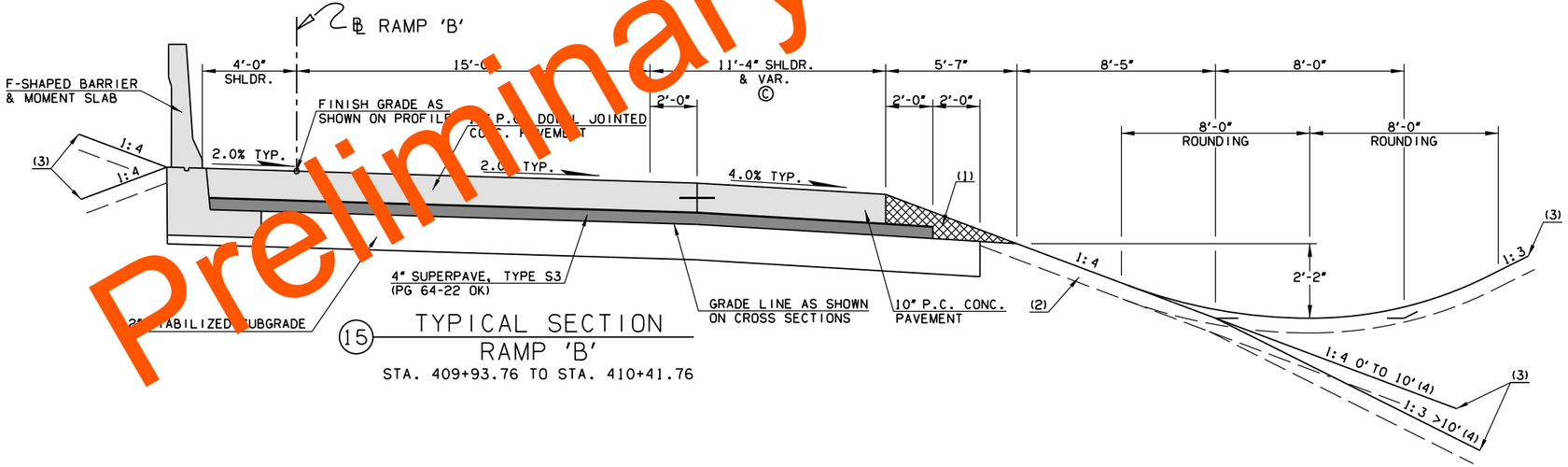
POE & ASSOCIATES, OKLAHOMA CITY, OK.

FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.				

REVISIONS	
DESCRIPTION	DATE
	5/27/2022



14 TYPICAL SECTION
RAMP 'B'
STA. 409+19.03 TO STA. 409+63.76



15 TYPICAL SECTION
RAMP 'B'
STA. 409+93.76 TO STA. 410+41.76

SEGMENT	VARIABLE WIDTH	STATION EXTENTS
A	4'-3" TO 6'-0"	409+19.03 TO 409+63.00
A	6'-0"	409+63.00 TO 409+93.76
B	10'-0" TO 11'-4"	409+61.00 TO 409+93.76
C	11'-4" TO 12'-0"	409+93.76 TO 410+11.00
C	12'-0"	410+11.00 TO 410+41.76

NOTE: VAR. NOT SHOWN SEE PLANS/DETAILS FOR MORE INFORMATION

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DESIGN	-	-
DRAWN	-	-
CHECKED	-	-
APPROVED	-	-
SQUAD	POE	

PHASE 2 OKLAHOMA COUNTY

TYPICAL SECTIONS (RAMP 'B')

STATE JOB NO. 09032(06) SHEET NO. 0008

Preliminary Plans

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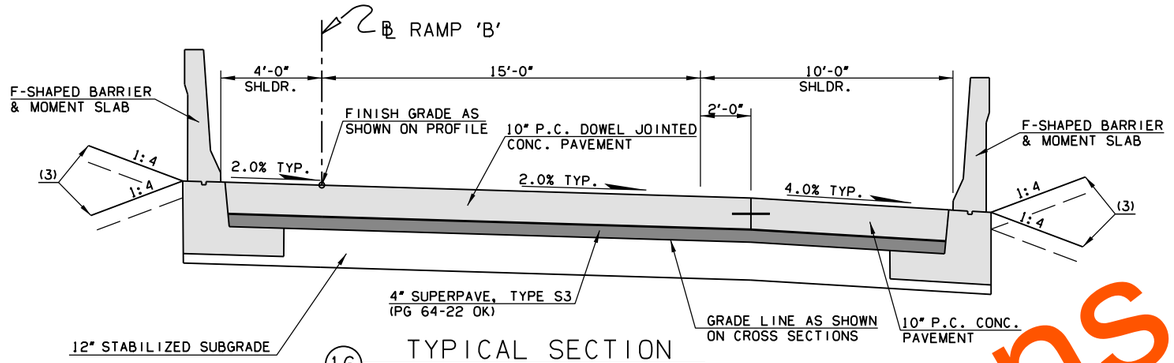
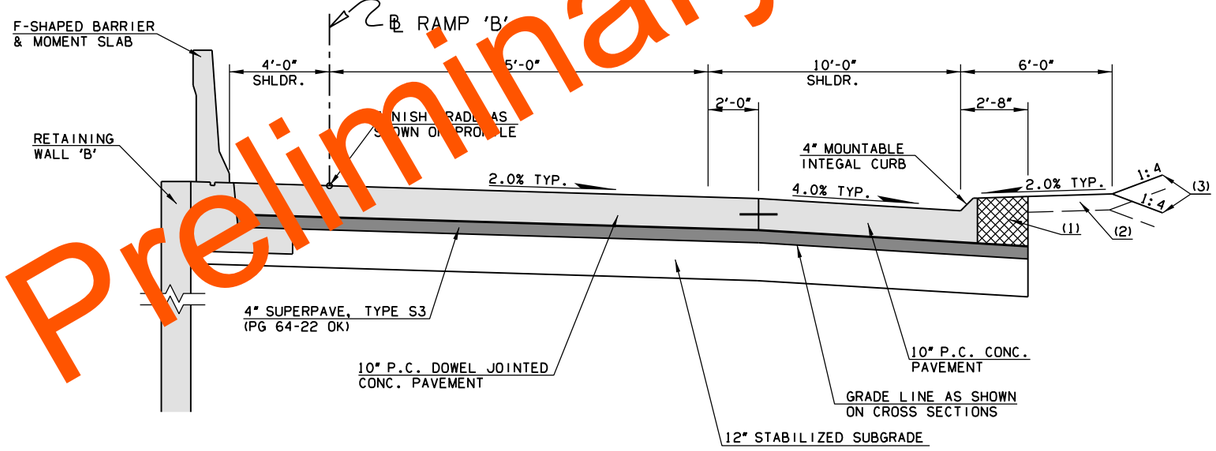
POE & ASSOCIATES, OKLAHOMA CITY, OK.					
FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.				

REVISIONS	
DESCRIPTION	DATE
	5/27/2022



16 TYPICAL SECTION
RAMP 'B'
STA. 410+41.76 TO STA. 411+22.76



17 TYPICAL SECTION
RAMP 'B'
STA. 428+39.58 TO STA. 431+18.52

Preliminary

(1) TO BE BACKFILLED AND COMPACTED AS PART OF FINISHING OPERATIONS. QUANTITY IS MEASURED IN UNCLASSIFIED BORROW.

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DESIGN	-	-
DRAWN	-	-
CHECKED	-	-
APPROVED	-	-
SQUAD	POE	

PHASE 2 OKLAHOMA COUNTY

TYPICAL SECTIONS
(RAMP 'B')

STATE JOB NO. 09032(06) SHEET NO. 0009

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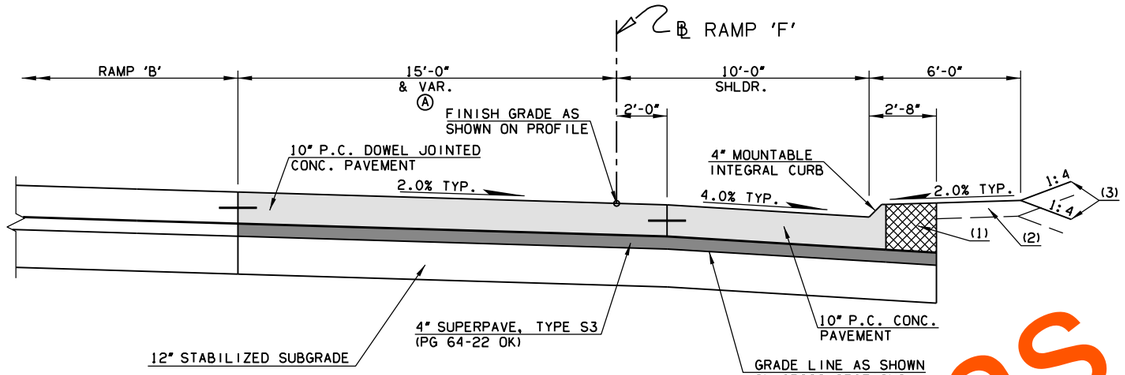
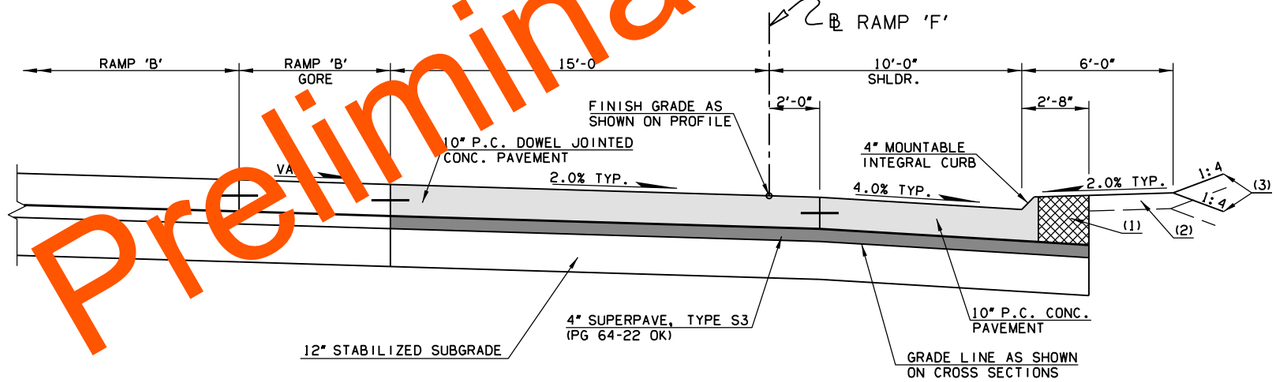
POE & ASSOCIATES, OKLAHOMA CITY, OK.					
FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.				

REVISIONS	
DESCRIPTION	DATE
	5/27/2022



18 TYPICAL SECTION
RAMP 'F'
STA. 406+00.00 TO STA. 407+79.22



19 TYPICAL SECTION
RAMP 'F'
STA. 407+79.22 TO STA. 409+17.32

Preliminary Plans

SEGMENT	VARIABLE WIDTH	STATION EXTENTS
A	12'-0" TO 15'-0"	406+00.00 TO 407+79.22

NOTE: VAR. NOT SHOWN SEE PLANS/DETAILS FOR MORE INFORMATION

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DESIGN	-	-
DRAWN	-	-
CHECKED	-	-
APPROVED	-	-
SQUAD	POE	

PHASE 2 OKLAHOMA COUNTY

TYPICAL SECTIONS (RAMP 'F')

STATE JOB NO. 09032(06) SHEET NO. 0010

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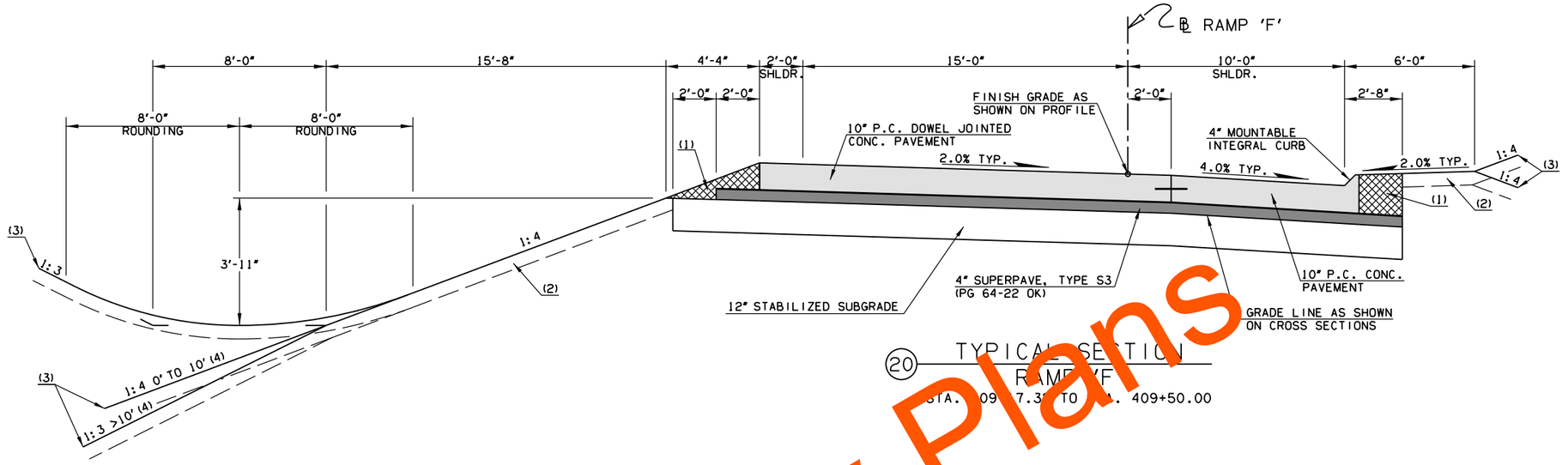
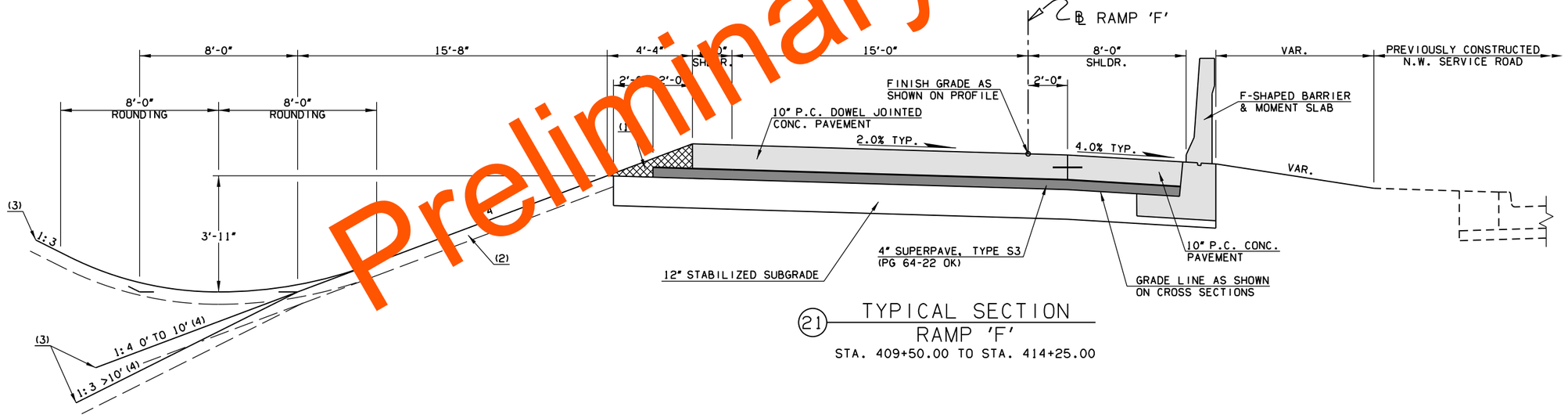
POE & ASSOCIATES, OKLAHOMA CITY, OK.

FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.				

DESCRIPTION	REVISIONS	DATE
		5/27/2022



20 TYPICAL SECTION
RAMP 'F'
STA. 409+7.3[illegible] TO STA. 409+50.00



21 TYPICAL SECTION
RAMP 'F'
STA. 409+50.00 TO STA. 414+25.00

Preliminary Plans

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DESIGN	-	-
DRAWN	-	-
CHECKED	-	-
APPROVED	-	-
SQUAD	POE	

PHASE 2 OKLAHOMA COUNTY

TYPICAL SECTIONS
(RAMP 'F')

STATE JOB NO. 09032(06) SHEET NO. 0011

5/27/2022 9:47:30 AM
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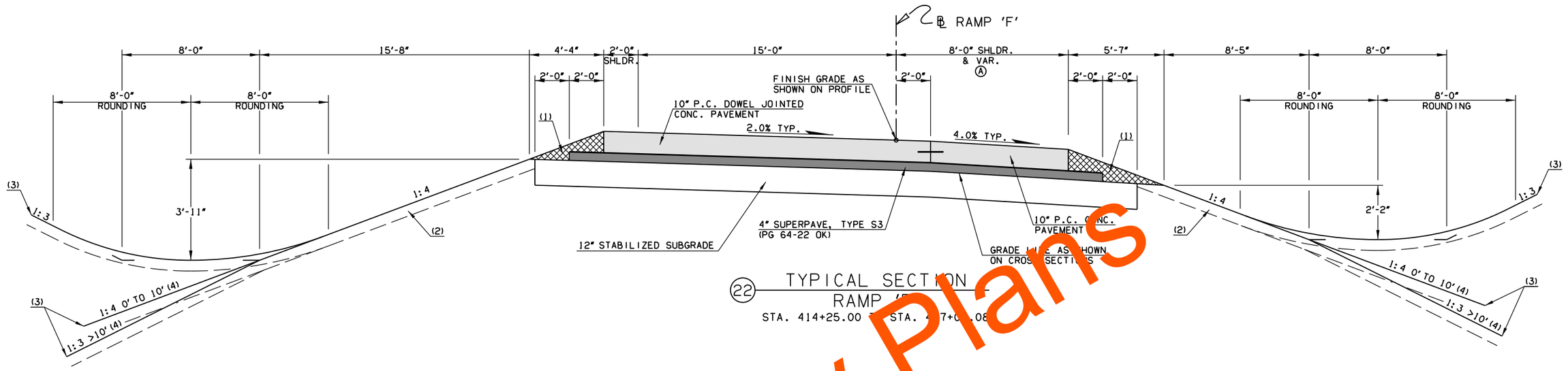
POE & ASSOCIATES, OKLAHOMA CITY, OK.

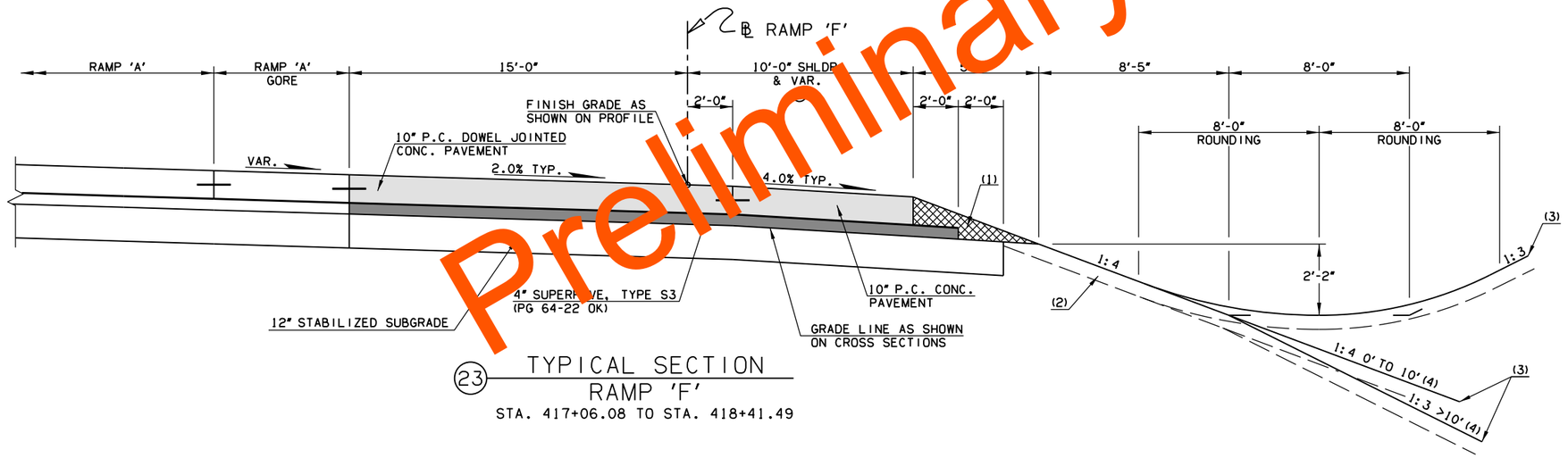
FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.				

REVISIONS	
DESCRIPTION	DATE
	5/27/2022



(22) TYPICAL SECTION RAMP 'F'

STA. 414+25.00 TO STA. 417+06.08



(23) TYPICAL SECTION RAMP 'F'

STA. 417+06.08 TO STA. 418+41.49

Preliminary Plans

SEGMENT	VARIABLE WIDTH	STATION EXTENTS
A	8'-0"	414+25.00 TO 416+30.00
A	8'-0" TO 9'-4"	416+30.00 TO 417+06.08
B	9'-4" TO 10'-0"	417+06.08 TO 417+40.00
B	10'-0"	417+40.00 TO 418+41.49

NOTE: VAR. NOT SHOWN SEE PLANS/DETAILS FOR MORE INFORMATION

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DESIGN	-	-
DRAWN	-	-
CHECKED	-	-
APPROVED	-	-
SQUAD	POE	

PHASE 2 OKLAHOMA COUNTY

TYPICAL SECTIONS (RAMP 'F')

STATE JOB NO. 09032(06) SHEET NO. 0012

5/27/2022 9:47:32 AM
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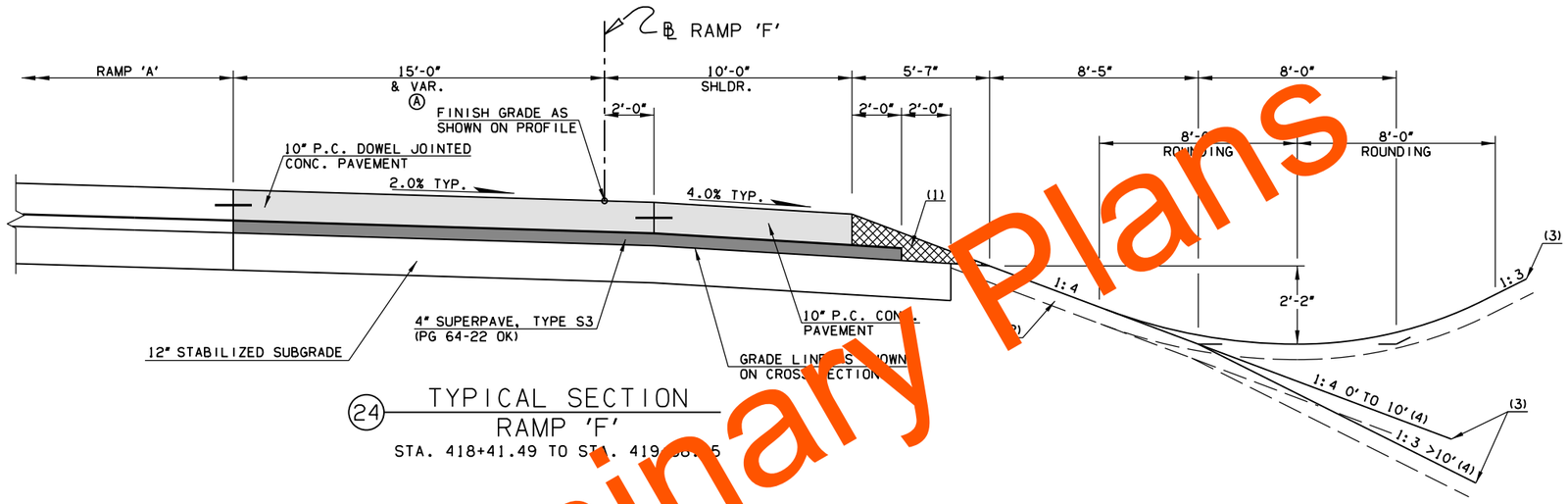
POE & ASSOCIATES, OKLAHOMA CITY, OK.					
FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.				

REVISIONS	
DESCRIPTION	DATE
	5/27/2022



(24) TYPICAL SECTION
RAMP 'F'

STA. 418+41.49 TO STA. 419+58.05

Preliminary Plans

SEGMENT	VARIABLE WIDTH	STATION EXTENTS
A	15'-0" TO 12'-0"	418+41.49 TO 419+58.05

NOTE: VAR. NOT SHOWN SEE PLANS/DETAILS FOR MORE INFORMATION

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DESIGN	-	-
DRAWN	-	-
CHECKED	-	-
APPROVED	-	-
SQUAD	POE	

PHASE 2 — OKLAHOMA COUNTY

TYPICAL SECTIONS (RAMP 'F')

STATE JOB NO. 09032(06) SHEET NO. 0013

5/27/2022 9:47:33 AM
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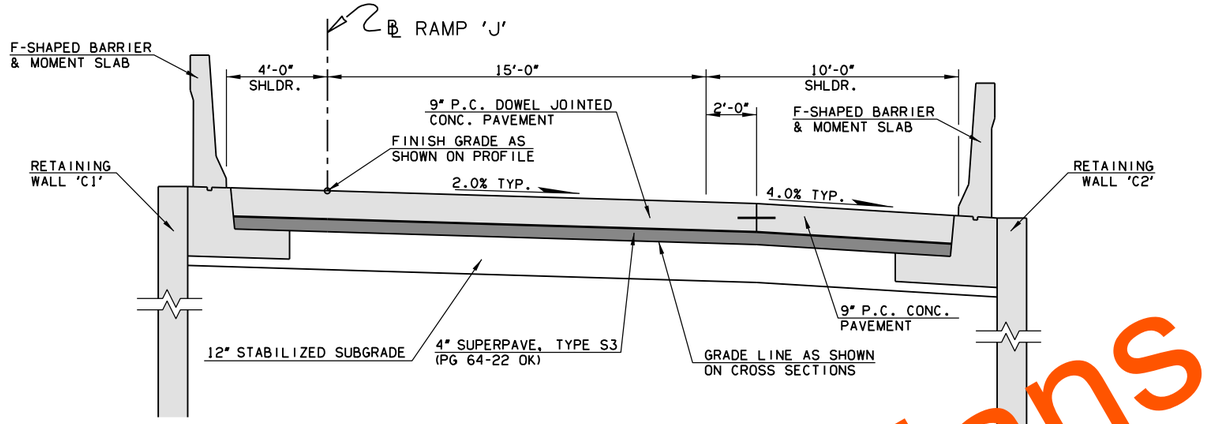
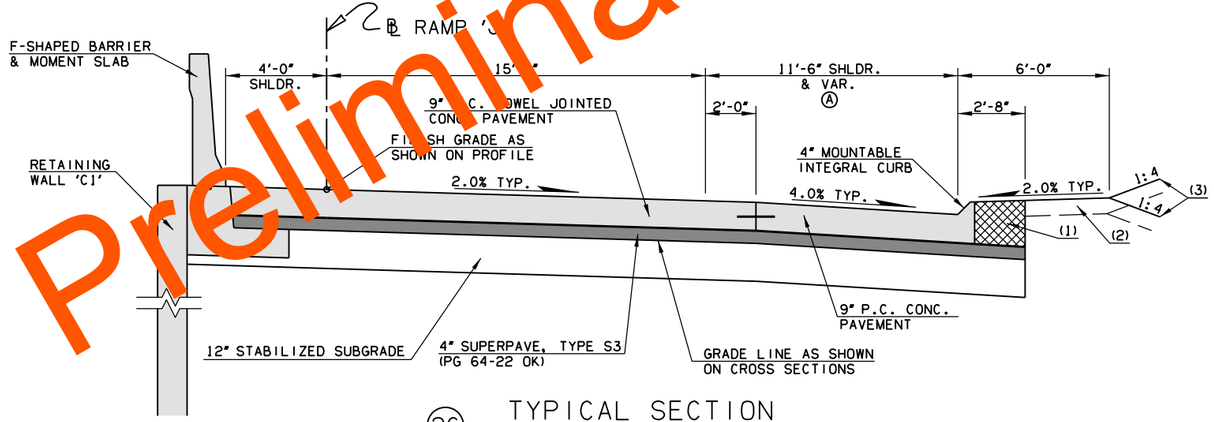
POE & ASSOCIATES, OKLAHOMA CITY, OK.					
FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.				

REVISIONS	
DESCRIPTION	DATE
	5/27/2022



(25) TYPICAL SECTION
RAMP 'J'
STA. 87+64.90 TO STA. 91+00.00



(26) TYPICAL SECTION
RAMP 'J'
STA. 91+00.00 TO STA. 91+88.49

Preliminary Plans

SEGMENT	VARIABLE WIDTH	STATION EXTENTS
A	11'-6"	91+00.00 TO 91+20.38
A	11'-6" TO 0'-0"	91+20.38 TO 91+88.49

NOTE: VAR. NOT SHOWN SEE PLANS/DETAILS FOR MORE INFORMATION

(1) TO BE BACKFILLED AND COMPACTED AS PART OF FINISHING OPERATIONS. QUANTITY IS MEASURED IN UNCLASSIFIED BORROW.

(2) TOPSOIL NOTE:
THE CONTRACTOR SHALL STRIP ALL OF THE AVAILABLE TOPSOIL, STOCKPILE IT, AND PLACE IT BACK ON THE SECTION IN ACCORDANCE WITH SECTION 205 OF THE STANDARD SPECIFICATIONS. RESERVED TOPSOIL SHALL BE SPREAD FIRST ON THE COMPLETED SLOPES OF THE CUT SECTIONS AND THE REMAINDER ON COMPLETED FILL SLOPES OR OTHER PRIORITY AREAS LOCATED BY THE ENGINEER. ALL ADDITIONAL COSTS ASSOCIATED WITH OPERATION SHALL BE INCLUDED IN THE PAY ITEM FOR SALVAGED TOPSOIL, LUMP SUM.

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DESIGN	-	-
DRAWN	-	-
CHECKED	-	-
APPROVED	-	-
SQUAD	POE	

PHASE 2 OKLAHOMA COUNTY

TYPICAL SECTIONS
(RAMP 'J')

STATE JOB NO. 09032(06) SHEET NO. 0014

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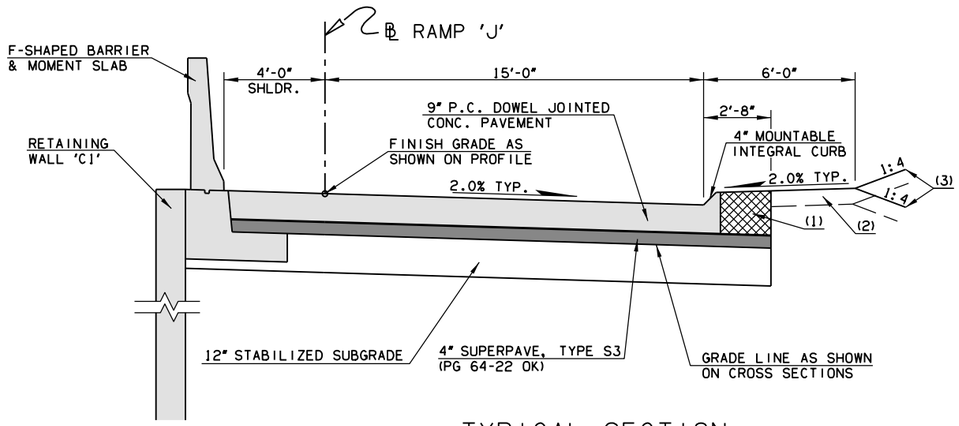
POE & ASSOCIATES, OKLAHOMA CITY, OK.

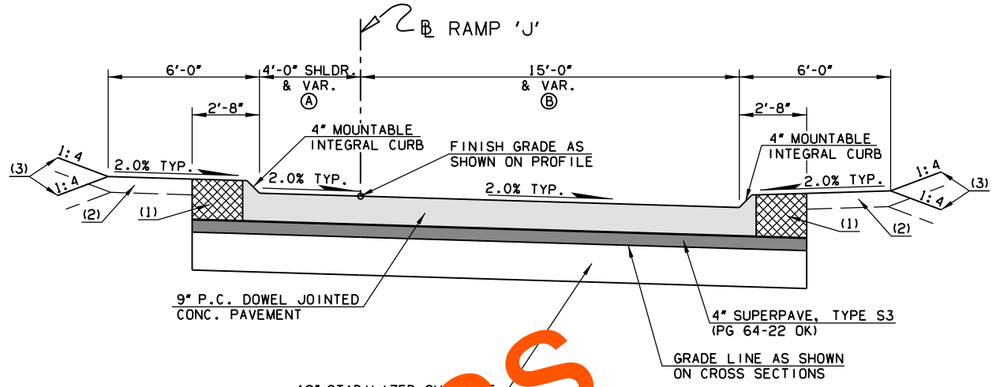
FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.				

REVISIONS

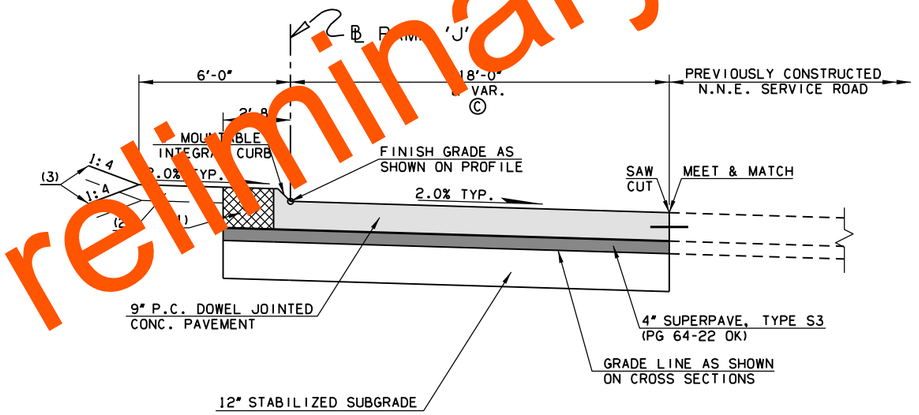
DESCRIPTION	DATE
	5/27/2022



(27) TYPICAL SECTION
RAMP 'J'
STA. 91+88.49 TO STA. 94+00.00



(28) TYPICAL SECTION
RAMP 'J'
STA. 94+00.00 TO STA. 95+41.45



(29) TYPICAL SECTION
RAMP 'J'
STA. 95+41.45 TO STA. 97+34.20

Preliminary

SEGMENT	VARIABLE WIDTH	STATION EXTENTS
A	4'-0"	94+00.00 TO 94+05.00
A	4'-0" TO 0'-0"	94+05.00 TO 94+32.50
A	0'-0"	94+32.50 TO 95+41.45
B	15'-0" TO 14'-0"	94+90.67 TO 95+41.45
C	18'-0" TO 13'-0"	95+41.45 TO 97+34.20

NOTE: VAR. NOT SHOWN SEE PLANS/DETAILS FOR MORE INFORMATION

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DESIGN	-	-
DRAWN	-	-
CHECKED	-	-
APPROVED	-	-
SQUAD	POE	

PHASE 2 OKLAHOMA COUNTY

TYPICAL SECTIONS
(RAMP 'J')

STATE JOB NO. 09032(06) SHEET NO. 0015

5/27/2022 9:47:36 AM
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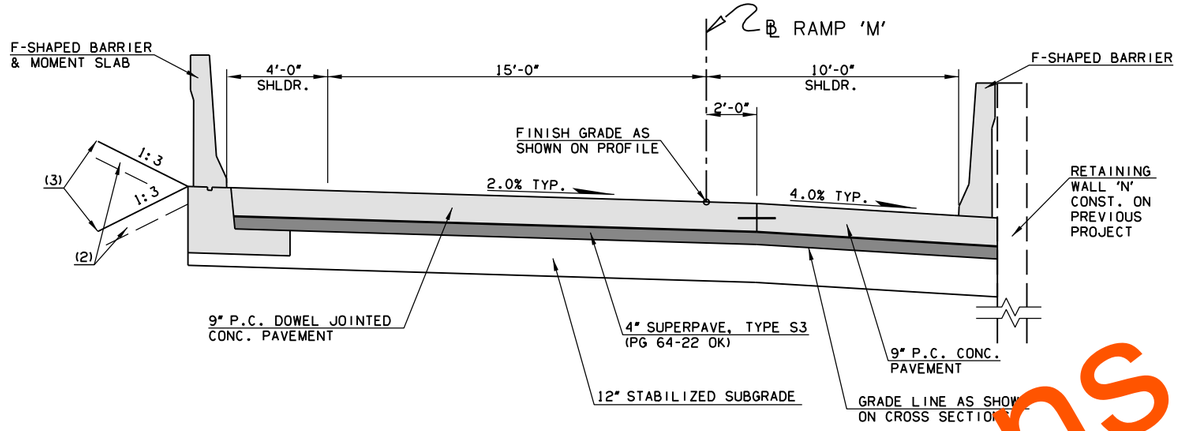
POE & ASSOCIATES, OKLAHOMA CITY, OK.					
FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.				

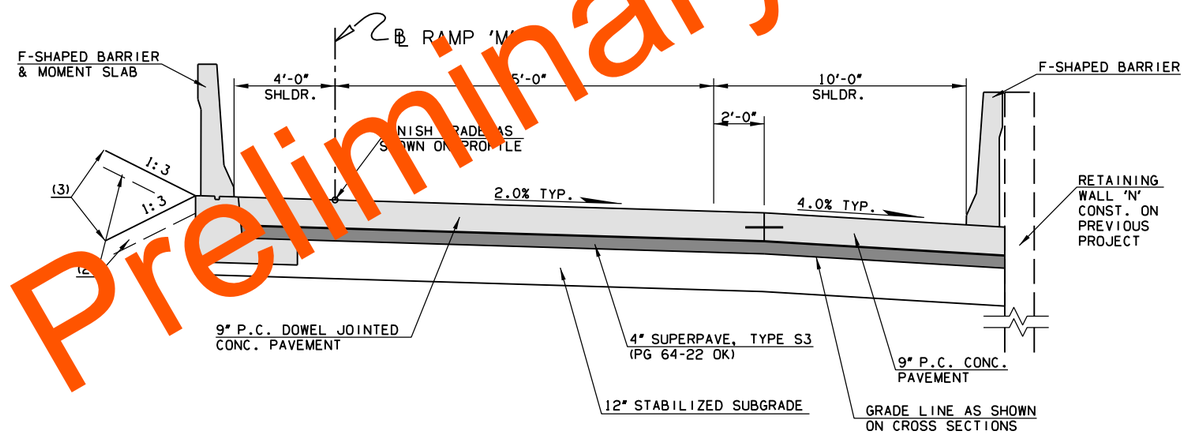
REVISIONS	
DESCRIPTION	DATE
	5/27/2022



(30) TYPICAL SECTION
RAMP 'M'

▲ STA. 425+97.34 TO STA. 426+70.07

▲ ℄ SHIFT EQUATION
STA. 426+70.07 ~ ℄ RAMP "M" BK=
STA. 426+70.07 ~ ℄ RAMP "M" AHD



(31) TYPICAL SECTION
RAMP 'M'

▲ STA. 426+70.07 TO STA. 427+00.00

Preliminary Plans

(1) TO BE BACKFILLED AND COMPACTED AS PART OF FINISHING OPERATIONS. QUANTITY IS MEASURED IN UNCLASSIFIED BORROW.

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DESIGN	-	-
DRAWN	-	-
CHECKED	-	-
APPROVED	-	-
SQUAD	POE	

PHASE 2 OKLAHOMA COUNTY

TYPICAL SECTIONS
(RAMP 'M')

STATE JOB NO. 09032(06) SHEET NO. 0016

5/27/2022 9:47:37 AM
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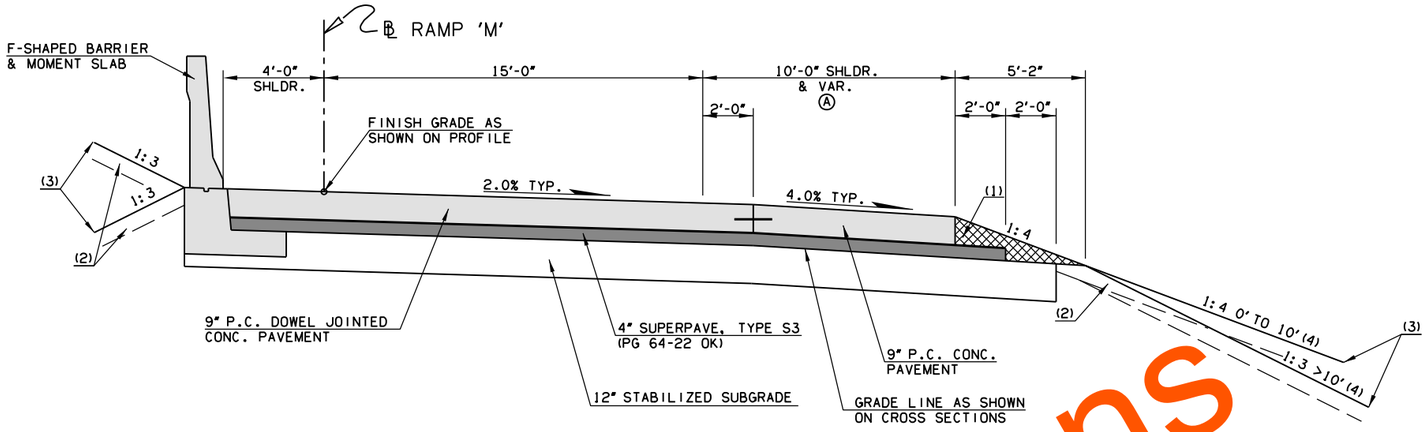
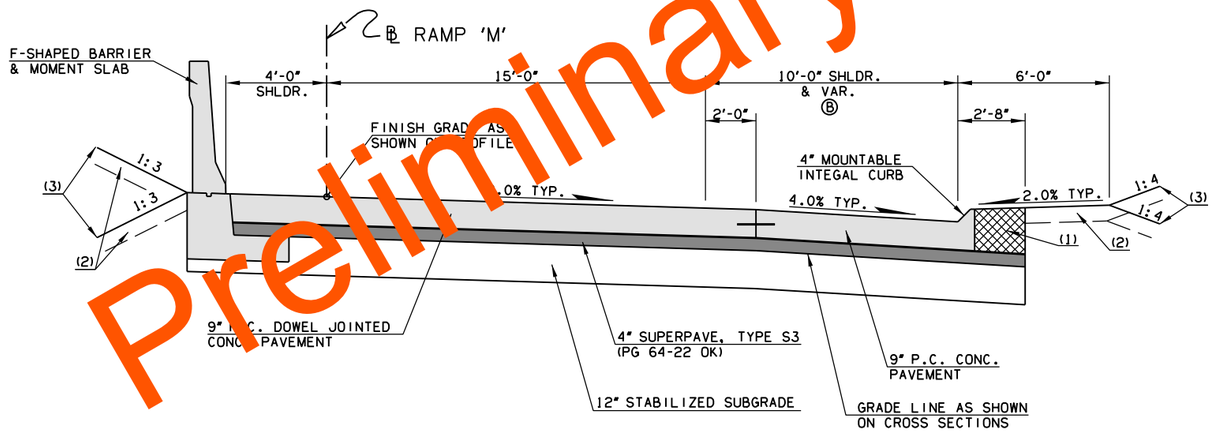
POE & ASSOCIATES, OKLAHOMA CITY, OK.					
FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.				

REVISIONS	
DESCRIPTION	DATE
	5/27/2022



(32) TYPICAL SECTION
RAMP 'M'
STA. 427+00.00 TO STA. 428+16.98



(33) TYPICAL SECTION
RAMP 'M'
STA. 428+16.98 TO STA. 428+66.98

Preliminary

SEGMENT	VARIABLE WIDTH	STATION EXTENTS
A	11'-6" TO 10'-0"	427+00.00 TO 427+07.50
B	10'-0" TO 0'-0"	428+16.98 TO 428+66.98

NOTE: VAR. NOT SHOWN SEE PLANS/DETAILS FOR MORE INFORMATION

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DESIGN	-	-
DRAWN	-	-
CHECKED	-	-
APPROVED	-	-
SQUAD	POE	

PHASE 2 OKLAHOMA COUNTY

TYPICAL SECTIONS (RAMP 'M')

STATE JOB NO. 09032(06) SHEET NO. 0017

5/27/2022 9:47:38 AM
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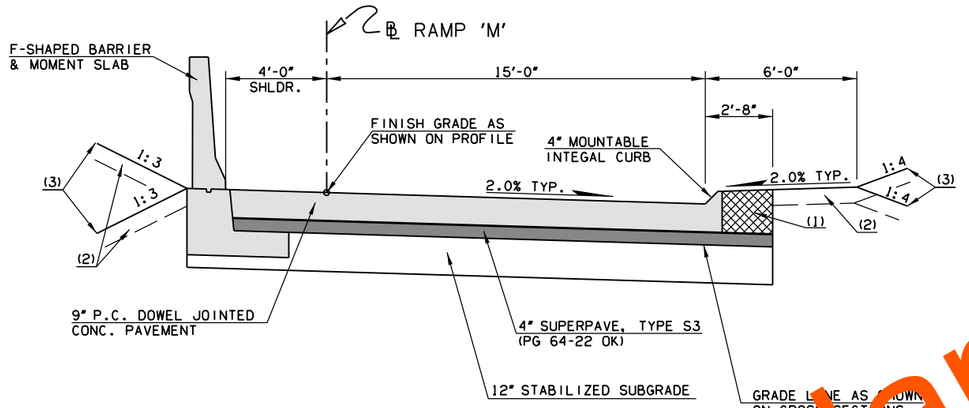
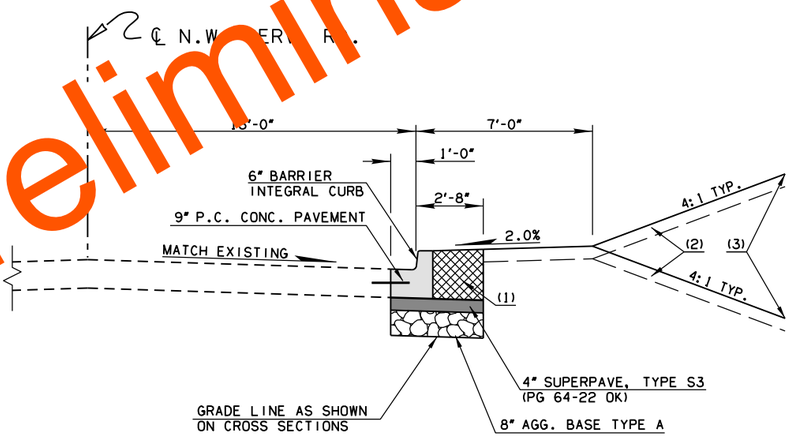
POE & ASSOCIATES, OKLAHOMA CITY, OK.					
FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.				

REVISIONS	
DESCRIPTION	DATE
	5/27/2022



(34) TYPICAL SECTION
RAMP 'M'
STA. 428+66.98 TO STA. 430+00.00



(35) TYPICAL SECTION
N.W. SERVICE ROAD
STA. 100+52.14 TO STA. 105+80.00

Preliminary Plans

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DESIGN	-	-
DRAWN	-	-
CHECKED	-	-
APPROVED	-	-
SQUAD	POE	

PHASE 2 OKLAHOMA COUNTY

TYPICAL SECTIONS
(RAMP 'M' & N.W. SERV. RD.)

STATE JOB NO. 09032(06) SHEET NO. 0018

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REVISIONS		
DESCRIPTION		DATE

(BR-1) PAYMENT FOR THIS ITEM WILL BE BASED ON PLAN QUANTITY. SEE THE 2019 OKLAHOMA STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION - "PLAN QUANTITIES". SECTION 109.01.B.

(BR-2) THE ESTIMATED TOTAL OF STRUCTURAL STEEL FOR EACH STAINLESS STEEL BEARING ASSEMBLY IS PROVED IN THE FOLLOWING TABLE BY LOCATION, SPAN AND TYPE.

LOCATION:	ABUT 1	PIER 1		PIER 2		PIER 3	PIER 4
SPAN:	1	1	2	2	3	3 OR 4	4
TYPE:	FIX	EXP.	EXP.	EXP.	EXP.	FIX	EXP.
WEIGHT:	213 LBS	213 LBS	279 LBS	279 LBS	240 LBS	290 LBS	240 LBS

(BR-3) THIS ITEM CONTAINS AN ESTIMATED TOTAL OF 49.4 CY OF CLASS AA CONCRETE AND 7830 LBS. OF EPOXY COATED REINFORCING STEEL.

(BR-4) PRICE BID FOR THESE ITEMS SHALL INCLUDE THE COST OF INSTALLING FORM LINERS AND STAINING SURFACES AS STATED IN THE SPECIAL PROVISION "CONCRETE, MISC.: AESTHETIC TREATMENTS".

(BR-5) STEEL PILES SHALL CONFORM TO AASHTO M270 (ASTM A709) GRADE 50.

(BR-6) QUANTITY SHOWN FOR SEALER RESIN IS ESTIMATED AT 0.011 GALLONS PER FOOT OF JOINT.

(BR-7) THIS ITEM INCLUDES 42 FT. OF PERFORATED PIPE AND 7 CY OF PIPE UNDERDRAIN COVER MATERIAL FOR THE ABUTMENTS.

(BR-8) THIS ITEM INCLUDES 20 FT. OF NON-PERFORATED PIPE AND 5 CY OF TRENCH UNDERDRAIN EXCAVATION AND 5 CY OF STANDARD BEDDING MATERIAL FOR THE ABUTMENTS.

J/P NO. 09032(06)
0200 BRIDGE "A"

PAY QUANTITIES

OKLAHOMA COUNTY

RAMP "A" AT I-35 & I-240 INTERCHANGE
STEEL GIRDER SPANS; CURVED
VARIABLE CLEAR ROADWAY WITH 42" F-SHAPED PARAPET

ITEM NO.		ITEM		UNIT	TOTAL
501(B)	1300	SUBSTRUCTURE EXCAVATION COMMON	(BR-1)	C.Y.	265
501(C)	1400	SUBSTRUCTURE EXCAVATION ROCK		C.Y.	2
501(G)	1800	CLSM BACKFILL	(BR-1)	C.Y.	97.3
504(A)	5200	APPROACH SLAB	(BR-1)((BR-3)	S.Y.	136.7
504(B)	5300	SAW CUT GROOVING	(BR-1)	S.Y.	1968
504(E)	5520	42" F-SHAPED PARAPET	(BR-1)(BR-4)	L.F.	937
506(A)	0325	STRUCTURAL STEEL M270 GRADE 50W	(BR-1)	LB.	891,850
507(A)	8210	STAINLESS STEEL FIXED BEARING ASSEMBLY	(BR-2)	EA.	10
507(	8300	STAINLESS STEEL EXP. BEARING ASSEMBLY	(BR-2)	EA.	25
509	0120	ELASTOMERIC COATING	(BR-1)	S.F.	967
5(A)	0210	CLASS AA CONCRETE	(BR-1)(BR-4)	C.Y.	523
5(	0320	CLASS A CONCRETE	(BR-1)(BR-4)	C.Y.	339.7
510(C)	1450	SLOPE WALL (5")		S.Y.	247
510(D)	1500	GRAFFITI TREATMENT		S.F.	9765
511(A)	2210	REINFORCING STEEL	(BR-1)	LB.	1960
511(B)	2310	EPOXY COATED REINFORCING STEEL	(BR-1)	LB.	200,590
514(A)	5210	PILES, FURNISHED (HP 10X42)	(BR-5)	L.F.	46
514(A)	5220	PILES, FURNISHED (HP 12X53)	(BR-5)	L.F.	147
514(B)	5310	PILES, DRIVEN (HP 10X42)		L.F.	46
514(B)	5320	PILES, DRIVEN (HP 12X53)		L.F.	147
514(L)	6300	PILE SPLICE H-PILE (NON-BIDDABLE)		EA.	1
515(A)	7200	WATER REPELLENT (VISUALLY INSPECTED)	(BR-1)	S.Y.	1482
516(A)	8250	DRILLED SHAFTS 72" DIAMETER		L.F.	138
516(C)	8400	CROSSHOLE SONIC LOGGING		EA.	2
518(B)	0300	SEALED EXPANSION JOINTS		L.F.	81.3
523(A)	3200	SEALER CRACK PREPARATION	(BR-1)	L.F.	123
523(B)	3300	SEALER RESIN	(BR-1)(BR-6)	GAL.	1.4
613(H)	6205	6" PERFORATED PIPE UNDERDRAIN ROUND	(BR-7)(BR-1)	L.F.	97
613(I)	6310	6" NON-PERF.PIPE UNDERDRAIN RND.	(BR-8)	L.F.	40

Preliminary Plans

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 OKLAHOMA COUNTY
BRIDGE "A" RAMP "A" AT I-35 & I-240 INTERCHANGE

SUMMARY OF PAY QUANTITIES
(BRIDGE "A")

STATE JOB NO. 09032(06) SHEET NO. AB01

5/31/2022 2:13:33 PM
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GENERAL BRIDGE NOTES

REVISIONS	
DESCRIPTION	DATE

SPECIFICATIONS:
COMPLY WITH THE REQUIREMENTS OF THE 2019 OKLAHOMA STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, EXCEPT AS MODIFIED BY THE PLANS AND SPECIAL PROVISIONS.

VERIFICATION OF EXISTING CONDITIONS:
THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS NECESSARY TO COMPLETE THE WORK AS SHOWN AND SHALL BE SOLELY RESPONSIBLE FOR THE ACCURACY THEREOF.
BIDDERS SHALL FULLY INFORM THEMSELVES OF THE NATURE OF THE WORK AND CONDITION UNDER WHICH IT WILL BE PERFORMED. THE CONTRACTOR SHALL ADOPT METHODS CONSISTENT WITH GOOD CONSTRUCTION PRACTICE AND SHALL TAKE ALL NECESSARY PRECAUTIONS TO PREVENT DAMAGE TO THE BRIDGE OR ATTACHMENTS. ANY DAMAGE TO THE BRIDGE STRUCTURE OR ROADWAY DUE TO THE CONTRACTOR'S NEGLIGENCE SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE, TO THE SATISFACTION OF THE ENGINEER.

REMOVAL OF MATERIAL:
ALL MATERIAL REMOVED DURING THIS PROJECT SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF ACCORDING TO SECTION 619 OF THE STANDARD SPECIFICATIONS AND IN A MANNER APPROVED BY THE ENGINEER.

ABUTMENT PILING CAPACITY:
THE FACTORED REACTION FOR EACH PILE AT ABUTMENT NO. 1 IS 86.4 TONS.
RESISTANCE SHALL BE DETERMINED IN ACCORDANCE WITH SECTION 514.04.E(2) OF THE 2019 STANDARD SPECIFICATIONS.

PILE DRIVING EQUIPMENT:
USE A PILE DRIVING HAMMER OF THE SIZE AND TYPE CAPABLE OF CONSISTENTLY DELIVERING THE EFFECTIVE DYNAMIC ENERGY SUFFICIENT TO DRIVE THE PILES TO THE REQUIRED TIP ELEVATION AND TO ACHIEVE THE AXIAL LOAD RESISTANCE WITHOUT EXCEEDING THE LIMITATIONS SET ON THE ALLOWABLE DRIVING STRESS IN ACCORDANCE WITH SECTION 514.03.A(2).

CROSSHOLE SONIC LOGGING TUBES AND TESTING:
INSTALL CSL ACCESS TUBES AT ALL SHAFT LOCATIONS PER SECTION 516.04.C(4)(b) OF THE STANDARD SPECIFICATION. PERFORM NONDESTRUCTIVE CROSSHOLE SONIC LOGGING (CSL) TESTING AS DIRECTED BY THE ENGINEER PER SECTION 516.04.C(9)(c) OF THE STANDARD SPECIFICATION.

CONCRETE:
CONCRETE FOR DRILLED SHAFTS, APPROACH SLABS, DECK SLAB AND TRAFFIC RAILS SHALL BE CLASS AA, F'c = 4,000 PSI MINIMUM STRENGTH AT 28 DAYS. CONCRETE FOR ABUTMENTS AND PIERS SHALL BE CLASS A, F'c = 3,000 PSI MINIMUM STRENGTH AT 28 DAYS.
EQUIP CONCRETE VIBRATORS WITH A SHEATH DESIGNED TO PREVENT DAMAGE TO EPOXY COATINGS WHEN VIBRATING CONCRETE CONTAINING EPOXY COATED REINFORCING STEEL.

PIER AND ABUTMENT CHAMFER REQUIREMENT:
ALL EXPOSED CONCRETE EDGES (EXCLUDING PEDESTAL EDGES WHICH SHALL HAVE ¾" CHAMFER) SHALL HAVE 1½" CHAMFER UNLESS OTHERWISE NOTED. ALL CHAMFER STRIPS SHALL BE SIZED LUMBER.

REINFORCING STEEL:
ALL REINFORCING STEEL SHALL HAVE 2" CLEARANCE UNLESS OTHERWISE SHOWN OR NOTED.
ALL REINFORCING STEEL SHALL BE AASHTO M31 (ASTM A615) GRADE 60.

STRUCTURAL STEEL:
ALL STRUCTURAL STEEL USED ON THIS PROJECT SHALL CONFORM TO AASHTO M270 (ASTM A709) GRADE 50W. (WEATHERING STEEL CHARPY V-NOTCH TESTING NOT REQUIRED). NUTS, WASHERS AND WELDING SHALL HAVE WEATHERING CHARACTERISTICS.

STEEL GIRDER FABRICATION AND ERECTION:
THE CONTRACTOR SHALL ANALYZE THE STRUCTURAL BEHAVIOR OF STEEL GIRDERS AND COMPONENTS FOR EACH STAGE THAT MAY BE CRITICAL DURING FABRICATION, HANDLING, TRANSPORTATION, AND ERECTION OF THE BRIDGE. BASED ON THE PROPOSED ERECTION SEQUENCE, THE CONTRACTOR SHALL DETERMINE THE LIFTING AND SUPPORT REQUIREMENTS INCLUDING STRESSES OF THE STEEL GIRDERS AND COMPONENTS. THE CONTRACTOR SHALL DETERMINE NEED AND EXTENTS FOR TEMPORARY SUPPORT OR SHORING DURING FABRICATION, HANDLING, TRANSPORTATION, AND ERECTION. THE CONTRACTOR SHALL SUBMIT THE ERECTION PLAN TO THE BRIDGE ENGINEER FOR APPROVAL INCLUDING THE PLAN FOR HANDLING THE GIRDERS AND COMPONENTS DURING FABRICATION, TRANSPORTATION, AND ERECTION. INCLUDE ALL COSTS ASSOCIATED WITH THE ENGINEERING SERVICES AND LABOR FOR FABRICATION, HANDLING, TRANSPORTATION, AND ERECTION AS WELL AS THE COSTS ASSOCIATED WITH THE ENGINEERING SERVICES NECESSARY TO DESIGN, DRAFT, INSPECT, OR CERTIFY THE FABRICATION, HANDLING, TRANSPORTATION, AND ERECTION IN THE PRICE BID FOR STRUCTURAL STEEL. ALL DOCUMENTS, INCLUDING BUT NOT LIMITED TO, DESIGN CALCULATIONS, MATERIAL LISTS, CONSTRUCTION SEQUENCE (FABRICATION, HANDLING, TRANSPORTATION, AND ERECTION SEQUENCE), AND ERECTION DRAWINGS MUST BE SIGNED AND SEALED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF OKLAHOMA. INCLUDE ALL COSTS IN THE PRICE BID PER POUND FOR STRUCTURAL STEEL.
ALL STEEL GIRDERS PLACED SHALL BE SECURELY TIED AND/OR BRACED TO PREVENT OVERTURNING IMMEDIATELY AFTER ERECTION, AND UNTIL DIAPHRAGMS OR CROSS FRAMES ARE PERMANENTLY IN PLACE. ERECTED GIRDERS SHALL HAVE ALL CROSS-FRAME CONNECTIONS COMPLETED PRIOR TO LEAVING JOB SITE AT THE END OF EACH DAY. THE METHODS TO BE USED SHALL BE SUBMITED ON THE ERECTION DRAWINGS. WHEN ROADWAY TRAFFIC MUST BE MAINTAINED BENEATH GIRDERS ALREADY PLACED, TRAFFIC SHALL BE PROTECTED AGAINST FALLING OBJECTS DURING FINAL BOLTING. THE PROTECTION SHALL CONSIST OF NETS AND/OR FLOORING WITH NO LARGER THAN 1-INCH OPENINGS.
THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE STABILITY OF THE STRUCTURE DURING ALL PHASES OF CONSTRUCTION. INSTALLATION OF ALL COMPONENTS INTEGRAL TO THE NON-COMPOSITE STABILITY OF THE STEEL GIRDERS AND SQUARING FOR FIELD SPLICES SHALL BE IN PLACE, TIGHTENED AND INSPECTED FOR DAMAGE BEFORE ANY FALSEWORK OR LIFTING DEVICES ARE REMOVED. IF ANY OF THE BRACES ARE DAMAGED DURING ERECTION OR CONSTRUCTION, THE BRACE SHALL BE REPLACED WHILE GIRDERS ARE SUPPORTED BY FALSEWORK OR LIFTING DEVICES.

PLATE GIRDER BRACING FOR DECK SLAB PLACEMENT:
SELECT A TEMPORARY BRACING SYSTEM IN ACCORDANCE WITH SECTION 502 OF SPECIFICATIONS CAPABLE OF PROVIDING A CONTINUOUS LOAD PATH FOR ALL ANTICIPATED LOADS DURING DECK SLAB CONCRETE PLACEMENT FOR BRIDGE. BRACING SYSTEM MUST ALSO PREVENT SIGNIFICANT LOCALIZED AND/OR GLOBAL DISTORTION OF THE STEEL GIRDERS THAT COULD CAUSE INSTABILITY OR COMPROMISE THE INTENDED FIT CONDITION. PROVIDE RESTRAINT AT BEARING ASSEMBLIES IF UPLIFT OF THE GIRDER IS ANTICIPATED OR ENCOUNTERED. THE BRACING SYSTEM SHOWN IN THE PLANS IS FOR ILLUSTRATION PURPOSES ONLY AND ALTERNATIVE SYSTEMS MAY BE CONSIDERED.
PLACE ALL BEARING MEMBERS PERPENDICULAR TO GIRDERS. PROVIDE A BRACING MEMBER AT THE OPPOSITE SIDE OF THE GIRDER WEB FOR EACH BRACING, FALSEWORK, OR FORMWORK MEMBER BEARING ON THE GIRDER WEB. LOCATE ALL MEMBERS BEARING ON THE GIRDER WEB NOT MORE THAN 6 INCHES FROM THE FLANGE. NO WELDING TO THE GIRDER WEB OR FLANGES IS PERMITTED. EPOXY-COAT OR GALVANIZE ALL COMPONENTS TO REMAIN IN PLACE AND CAST INSIDE THE DECK SLAB. USE DECK SLAB OVERHANG FORMWORK CAPABLE OF ADJUSTMENT DURING THE PLACEMENT OF CONCRETE IN ORDER TO MAINTAIN PROPER GRADES AT THE OVERHANG.
SUBMIT DESIGN DRAWINGS AND CALCULATIONS OF THE PROPOSED BRACING SYSTEM TO THE ENGINEER OF RECORD FOR APPROVAL. DESIGN DRAWINGS AND CALCULATIONS MUST BE SIGNED AND SEALED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF OKLAHOMA. IF INCLUDED IN THE CHOSEN SYSTEM, INCLUDE WITH THE DESIGN CALCULATIONS METHODS TO PREDICT CRUSH AND SETTLEMENT OF SHIMS USED FOR ADJUSTMENT. DO NOT BEGIN BRACING INSTALLATION OR DECK SLAB PLACEMENT UNTIL APPROVAL OF THE DESIGN CALCULATIONS AND DRAWINGS BY THE ENGINEER OF RECORD IS RECEIVED. ALLOW 2 WEEKS FOR REVIEW AND APPROVAL.
INCLUDE ALL COSTS ASSOCIATED WITH FALSEWORK/BRACING, INCLUDING LABOR, MATERIALS, AND PROFESSIONAL SERVICES, IN THE CONTRACT UNIT PRICE OF "ENGINEERED FALSEWORK". INCLUDE THE INSTALLATION OF ALL OTHER FALSEWORK, BRACING, AND RELATED PROFESSIONAL SERVICES IN OTHER ITEMS OF WORK.

BRIDGE DECK CONSTRUCTION METHODS:
ANY STEEL USED BY CONTRACTOR TO FACILITATE DECK CONSTRUCTION, SUCH AS INSERT WELD ANCHORS, TY-BAR CLIPS, FORM HANGERS OR OTHER APPURTENANCES, THAT REMAIN IN PLACE IN THE BRIDGE DECK, MUST BE EPOXY COATED OR GALVANIZED. EPOXY COAT IN ACCORDANCE WITH AASHTO M 284 AND OR GALVANIZE IN ACCORDANCE WITH AASHTO M 111.

STAY-IN-PLACE DECK FORMS:
STAY-IN-PLACE STEEL DECK FORMS MAY BE USED IF THE MINIMUM DECK SLAB THICKNESS OF 8" IS OBTAINED BY MEASURING FROM THE TOP OF THE DECK SLAB TO THE TOP PORTION OF THE STEEL CORRUGATION. NO ADDITIONAL CONCRETE WEIGHT OF THE DECK SLAB IS PERMITTED. ADDITIONAL STEEL OF THE DECK FORMS SHALL NOT EXCEED 5 P.S.F.
PREFORMED STYROFOAM OR ANY OTHER FILLER MATERIAL MUST BE BONDED TO THE STEEL STAY-IN-PLACE FORMS.
STAY-IN-PLACE PRESTRESSED CONCRETE DECK FORMS MAY BE USED IF THE FOLLOWING CONDITIONS ARE MET:
1) SHOP DRAWINGS AND STRUCTURAL CALCULATIONS FOR THE FORMS ARE SUBMITTED TO THE BRIDGE ENGINEER FOR APPROVAL.
2) A NEW STRUCTURAL DESIGN, STRUCTURAL CALCULATIONS, AND A NEW REINFORCING SCHEDULE FOR THE DECK SLAB IS SUBMITTED TO THE BRIDGE ENGINEER FOR APPROVAL.
3) SHOP DRAWINGS, NEW DECK SLAB REINFORCING SCHEDULE, STRUCTURAL DESIGNS, AND CALCULATIONS SHALL BE PREPARED BY AND SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF OKLAHOMA.

ALL COST ASSOCIATED WITH THE USE OF STAY-IN-PLACE FORMS INCLUDING ALL MATERIALS, LABOR, EQUIPMENT, INCIDENTALS, AND PROFESSIONAL SERVICES SHALL BE AT THE CONTRACTOR'S EXPENSE. FOR ADDITIONAL INFORMATION CONCERNING THE USE OF STAY-IN-PLACE FORMS, SEE SECTION 502 OF THE 2019 STANDARD SPECIFICATIONS.

PENETRATING WATER REPELLENT SURFACE TREATMENT:
A PENETRATING WATER REPELLENT SURFACE TREATMENT SHALL BE APPLIED TO THE FOLLOWING CONCRETE SURFACES OF THE BRIDGE:
A) EDGES AND UNDERSIDE CANTILEVER PORTION OF THE DECK SLAB.
B) THE ROADWAY FACE AND TOP OF THE PARAPETS ON THE BRIDGE DECK
C) TOP AND SIDES OF PIER CAPS NOT COVERED WITH ELASTOMERIC COATING. ALSO THE ENDS AND BOTTOM OF THE OUTSIDE CANTILEVER OF PIER CAPS.
D) THE FACE AND ENDS OF THE BACKWALL. THE EXPOSED FRONT FACE AND ENDS OF THE BRIDGE SEAT OF THE ABUTMENTS.
E) THE ROADWAY FACE AND TOP OF PARAPETS ON APPROACH SLABS.

SEALING BRIDGE DECK CONSTRUCTION JOINTS:
THE APPROACH SLAB/DECK SLAB CONSTRUCTION JOINTS SHALL BE SAWED AND SEALED. THE LONGITUDINAL JOINTS FORMED DURING THE CONSTRUCTION OF THE BRIDGE DECK AND APPROACH SLABS AND THE CONSTRUCTION JOINT OVER PIER 1 SHALL BE SEALED USING HIGH MOLECULAR WEIGHT METHACRYLATE IN ACCORDANCE WITH SECTION 523 OF THE 2019 OKLAHOMA STANDARD SPECIFICATIONS.

ELASTOMERIC COATING:
THE ELASTOMERIC COATING SHALL BE A LIQUID APPLIED URETHANE COATING SUCH AS CIM 1000 AS MANUFACTURED BY CIM INDUSTRIES, INC., POLYCOAT-PC-IM 129 SYSTEM AS MANUFACTURED BY POLYCOAT PRODUCTS, OR AN APPROVED EQUAL.
THE ELASTOMERIC COATING SHALL BE APPLIED TO THE AREAS SHOWN IN THE PLANS. THE COATING SHALL BE NEAT STRAIGHT LINES FOR APPROVAL.
THE EQUIPMENT AND METHODS OF APPLYING THE URETHANE COATING SHALL BE IN ACCORDANCE WITH THE PRODUCT COATING PROFILE AND INSTRUCTION GUIDES FOR APPLICATION TO CONCRETE. PRECAUTIONARY MEASURES SHALL BE IN ACCORDANCE WITH THE MATERIAL SAFETY DATA SHEETS AS PROVIDED BY THE MANUFACTURER.
THE COATING SHALL BE 60 MILS DRY THICKNESS AND 68 MILS WET THICKNESS. IN ADDITION TO APPLYING THE COATING TO THE CONCRETE SUBSTRUCTURE UNITS AS SHOWN IN THE PLANS, THE COATING SHALL RETURN UP THE VERTICAL SURFACES OF THE PIER AND ABUTMENT BEARING PADS TO PROVIDE A WATER TIGHT SEAL WITH THE CONCRETE PEDESTALS. SURFACE PREPARATION AND PRODUCT MIXING SHALL BE PER THE MANUFACTURERS RECOMMENDATIONS AND ALL NEW CONCRETE SHALL HAVE A MINIMUM STRENGTH OF 3000 PSI AT THE TIME OF APPLICATION. PRIMER SHALL BE APPLIED TO THE CONCRETE SURFACES PRIOR TO APPLYING THE COATING. ALL CONCRETE WORK SHALL BE COMPLETED PRIOR TO THE APPLICATION OF THE ELASTOMERIC COATING.
WATER REPELLANT WILL NOT BE REQUIRED ON SURFACES THAT ARE COATED WITH ELASTOMERIC COATING.
ALL COSTS ASSOCIATED WITH USE OF ELASTOMERIC COATING INCLUDING THE COST OF MATERIAL, LABOR, EQUIPMENT, AND INCIDENTALS NEEDED TO COMPLETE THE WORK AS SPECIFIED IN THE PLANS SHALL BE INCLUDED IN THE PRICE BID PER SQUARE FOOT OF "ELASTOMERIC COATING".

ARCHITECTURAL TREATMENT:
FOR ARCHITECTURAL TREATMENT OF BRIDGE ITEMS, SEE ARCHITECTURAL TREATMENT DETAIL SHEETS.

ANTI-GRAFFITI COATING SYSTEM:
AN ANTI-GRAFFITI COATING SYSTEM SHALL BE APPLIED IN ACCORDANCE WITH SECTION 737.04 OF THE 2019 OKLAHOMA STANDARD SPECIFICATIONS. THE FINISH SHALL USE THE COLORS THAT HAVE BEEN PRE-APPROVED BY THE ENGINEER FOR THE AESTHETIC THEME OF THE PROJECT. THE COATING SYSTEM SHALL BE APPLIED TO THE FOLLOWING EXPOSED CONCRETE SURFACES:
(A) F-SHAPED PARAPETS (ALL SIDES)
(B) ABUTMENT (FRONT FACES OF ABUTMENT AND WING WALLS)
(C) SLOPE WALLS
(D) PIERS (SIDES AND BOTTOMS, ALL FACES OF COLUMNS)

FOR THE FRONT FACE OF THE ABUTMENT, WING WALLS AND ALL FACES OF THE PIER COLUMNS, THE ANTI-GRAFFITI COATING QUANTITY WAS CALCULATED STARTING 2'-6" FROM THE TOP OF THE FOOTINGS.
WHERE PENETRATING WATER REPELLANT SURFACE TREATMENT IS TO BE APPLIED, THE WATER REPELLANT SHALL BE APPLIED PRIOR TO THE APPLICATION OF THE ANTI-GRAFFITI COATING.
THE ANTI-GRAFFITI FINISH AND ALL COSTS ASSOCIATED WITH THIS SHALL BE INCLUDED IN THE BID PER SQUARE FOOT OF "GRAFFITI TREATMENT".

TYPICAL FORMLINER AND CONCRETE FINISH NOTES:
THE EXPOSED CONCRETE SURFACE OF THE ABUTMENT, F-SHAPED PARAPETS, AND PIERS SHALL HAVE THE TEXTURED SURFACE TREATMENT THAT HAS BE PRE-APPROVED BY THE ENGINEER FOR THE AESTHETIC THEME OF THE PROJECT.
ALL EXPOSED SURFACES SHALL BE FINISHED WITH A CLASS 7 PAINT FINISH IN ACCORDANCE WITH SECTION 709 OF THE STANDARD SPECIFICATIONS. APPLY ANTI-GRAFFITI COATING TO THE SURFACE REQUIRED IN THE PLANS (SEE ANTI-GRAFFITI COATING SYSTEM NOTE). THE CLASS 7 PAINT FINISH SHALL BE OF THE COLOR THAT THE ENGINEER HAS PRE-APPROVED FOR THE AESTHETIC THEME OF THE PROJECT.
THE CONTRACTOR SHALL SUBMIT THE MANUFACTURER'S INSTALLATION INSTRUCTION AND PRODUCT DATA FOR THE TEXTURED SURFACE TREATMENTS. SHOP DRAWINGS SHALL INDICATE FORMLINER LAYOUT, RUSTICATION, REVEAL, AND CHAMFER STRIPS. LOCATION OF THE JOINTS AND FORM TIES SHALL BE INCLUDED.
THE TEXTURED FORMLINER PATTERNS SHALL STAY A DISTANCE OF 1'-0" TYPICAL FROM ALL EDGES OF CONCRETE. THIS INCLUDES JOINT AND CONCRETE ENDS. THESE EDGE DISTANCES SHALL BE SHOWN IN THE SUBMITTED WORK FOR APPROVAL.
THE CONTRACTOR SHALL PROVIDE THE ENGINEER, FOR HIS/HER APPROVAL, A SAMPLE PANEL OF THE TEXTURED SURFACE TREATMENTS. THE SAMPLE PANEL SHALL BE AN 18" X 18" PANEL WITH SURFACE TREATMENTS. FOLLOWING THE APPROVAL OF THE SMALL PANEL, THE CONTRACTOR SHALL PROVIDE ONE FULL SCALE MOCK-UP PANEL OF EACH SURFACE TREATMENT USING PROPOSED MATERIAL, METHODS AND WORKMANSHIP. THE PANEL SHALL BE APPROVED BY THE ENGINEER ON THE SITE. THE MOCK-UP PANELS SHALL BE A MINIMUM OF 50 SQUARE FEET IN SIZE.
THE MOCKUP PANEL SHALL INCORPORATE THE PROPOSED CONCRETE MIX, FORM WORK, TIES, FORMLINER, FORM RELEASE AGENTS, PLACEMENT RATE, FORM PRESSURES, JOINT SEALER, VIBRATING, AND FORM STRIPPING PRACTICES.
THE MOCK-UP SHALL BE ACCEPTED BY THE ENGINEER PRIOR TO BEGINNING FORM WORK FOR THE PROJECT. THE ACCEPTED MOCK-UPS WILL BE THE STANDARD FOR TECHNICAL AND AESTHETIC MERIT. FOLLOWING ACCEPTANCE OF THE MOCK-UP PANELS FOR FORMLINER AND REPAIR WORK, ALL PORTIONS OF THE PANELS SHALL HAVE THE ODOT CLASS 7 PAINT FINISH AS REQUIRED ABOVE. THE COLOR AND FINISH SHALL BE SUBJECT TO APPROVAL BY THE ENGINEER.
FORM WORK SHALL BE DESIGNED BY THE CONTRACTOR TO COMPLY WITH ALL REQUIREMENTS BY THE FORMLINER MANUFACTURER. IN ADDITION, ALL REQUIREMENTS OF THE FORMLINER MANUFACTURER FOR HANDLING AND INSTALLATION OF THE FORMLINERS, APPLICATION OF RELEASE AGENTS, PLACEMENT OF CONCRETE, VIBRATING OF CONCRETE, AND REMOVAL OF FORMS SHALL BE FOLLOWED. FORMLINER BUTT JOINTS SHALL BE CAREFULLY LINED UP TO PROVIDE A SURFACE FREE FROM VISIBLE SEAM LINES.
PRIOR TO THE PLACEMENT OF CAST-IN-PLACE CONCRETE, THE ENGINEER SHALL VERIFY THE LINES AND FORMLINER PANEL PATTERNS. AFTER STRIPPING OF THE FORMS, THE PRE-APPROVED COLOR AND FINISH SHALL BE APPLIED TO MATCH THE APPROVED COLOR AND FINISHES FROM THE MOCK-UP PANEL. IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.

PROTECTION OF AREAS UNDER BRIDGES:
THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE AREAS UNDER THE BRIDGES FROM FALLING DEBRIS AND BE SOLELY RESPONSIBLE FOR SAFEGUARDING THESE AREAS.

UTILITIES:
(CAUTION) THE LOCATION OF ALL UTILITIES AS SHOWN ARE APPROXIMATE DUE TO RELOCATION PLANNED OR PRESENTLY UNDER CONSTRUCTION. ALL UTILITIES THAT WOULD INTERFERE WITH CONSTRUCTION OF NEW BRIDGE SHOULD BE RELOCATED BY THE UTILITY OWNERS PRIOR TO START OF CONSTRUCTION. THERE ARE SOME UTILITIES THAT WILL BE RELOCATED AND NOT SHOWN ON THESE PLANS. THE CONTRACTOR SHALL VERIFY THAT THE UTILITIES HAVE BEEN RELOCATED PRIOR TO STARTING CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO ALL UTILITIES.
NO PAYMENT WILL BE MADE FOR REMOVAL OF ABANDONED UTILITY PIPE LINES THAT INTERFERE WITH CONSTRUCTION. ALL COST TO BE INCLUDED IN OTHER ITEMS.

OKLAHOMA ONE-CALL SYSTEM:
IN ACCORDANCE WITH THE OKLAHOMA UNDERGROUND FACILITIES DAMAGE PREVENTION ACT THE CONTRACTOR SHALL NOTIFY THE OKLAHOMA ONE-CALL SYSTEM, INC. 48 HOURS PRIOR TO BEGINNING EXCAVATION. OKLAHOMA ONE-CALL SYSTEM, INC. "CALL OKIE" 1-800-522-6543 OR 811.

Preliminary Plans

DESIGN		
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SQUAD	POE	

PHASE 2 — OKLAHOMA COUNTY
BRIDGE "A" — RAMP "A" AT I-35 & I-240 INTERCHANGE

GENERAL NOTES
(BRIDGE "A")

STATE JOB NO. 09032(06) SHEET NO. AB02

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DESCRIPTION	REVISIONS	DATE

(BR-1) PAYMENT FOR THIS ITEM WILL BE BASED ON PLAN QUANTITY. SEE THE 2019 OKLAHOMA STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION - "PLAN QUANTITIES". SECTION 109.01.B.

(BR-2) THE ESTIMATED TOTAL OF STRUCTURAL STEEL FOR EACH STAINLESS STEEL BEARING ASSEMBLY IS PROVED IN THE FOLLOWING TABLE BY LOCATION. SPAN AND TYPE.

LOCATION:	ABUT 1	PIER 1	PIER 2		PIER 3	PIER 4		PIER 5		PIER 6		PIER 7	
SPAN:	1	1 OR 2	2	3	3 OR 4	4	5	5	6	6	7	7	8
TYPE:	FIX	EXP.	EXP.	EXP.	FIX	EXP.	FIX	EXP.	EXP.	EXP.	EXP.	FIX	EXP.
WEIGHT:	240 LBS	279 LBS	245 LBS	232 LBS	280 LBS	232 LBS	232 LBS	232 LBS	232 LBS	232 LBS	269 LBS	269 LBS	232 LBS

LOCATION:	PIER 8		PIER 9	PIER 10		PIER 11	PIER 12		PIER 13	PIER 14		ABUT 2
SPAN:	8	9	9 OR 10	10	11	11 OR 12	12	13	13 OR 14	14	15	15
TYPE:	FIX	EXP.	FIX	EXP.	EXP	FIX	EXP.	EXP.	FIX	EXP.	EXP.	FIX
WEIGHT:	232 LBS	240 LBS	331 LBS	240 LBS	240 LBS	331 LBS	240 LBS	240 LBS	331 LBS	240 LBS	240 LBS	240 LBS

(BR-3) THIS ITEM CONTAINS AN ESTIMATED TOTAL OF 80.0 CY OF CLASS AA CONCRETE AND 15,350 LBS. OF EPOXY COATED REINFORCING STEEL.

(BR-4) PRICE BID FOR THESE ITEMS SHALL INCLUDE THE COST OF INSTALLING FORM LINERS AND STAINING SURFACES AS STATED IN THE SPECIAL PROVISION "CONCRETE. MISC.: AESTHETIC TREATMENTS".

(BR-5) STEEL PILES SHALL CONFORM TO AASHTO M270 (ASTM A709) GRADE 50.

(BR-6) QUANTITY SHOWN FOR SEALER RESIN IS ESTIMATED AT 0.011 GALLONS PER FOOT OF JOINT.

(BR-7) THIS ITEM INCLUDES 70 FT. OF PERFORATED PIPE AND 10 CY OF PIPE UNDERDRAIN COVER MATERIAL FOR THE ABUTMENTS.

(BR-8) THIS ITEM INCLUDES 40 FT. OF NON-PERFORATED PIPE AND 11 CY OF TRENCH UNDERDRAIN EXCAVATION AND 11 CY OF STANDARD BEDDING MATERIAL FOR THE ABUTMENTS.

J/P NO. 09032(06)
0201 BRIDGE "B"

PAY QUANTITIES

RAMP "B" AT I-35 & I-240 INTERCHANGE
STEEL GIRDER SPANS; CURVED
VARIABLE CLEAR ROADWAY WITH 42" F-SHAPED PARAPET

OKLAHOMA COUNTY

ITEM NO.		ITEM		UNIT	TOTAL
501(B)	1300	SUBSTRUCTURE EXCAVATION COMMON	(BR-1)	C.Y.	1700
501(G)	1800	CLSM BACKFILL	(BR-1)	C.Y.	156.8
504(A)	5200	APPROACH SLAB	(BR-1)(BR-3)	S.Y.	221.3
504(B)	5300	SAW-CUT GROOVING	(BR-1)	S.Y.	6901
504(E)	5520	42" F-SHAPED PARAPET	(BR-1)(BR-4)	L.F.	3429
506(A)	7225	STRUCTURAL STEEL M270 GRADE 50W	(BR-1)	LB.	3,207,700
507(A)	8200	STAINLESS STEEL FIXED BEARING ASSEMBLY	(BR-2)	EA.	51
507(B)	8300	STAINLESS STEEL EXP. BEARING ASSEMBLY	(BR-2)	EA.	72
509	0120	ELASTOMERIC COAT	(BR-1)	S.F.	3812
509(A)	0210	CLASS AA CONCRETE	(BR-1)(BR-4)	C.Y.	1920.5
509(B)	0320	CLASS A CONCRETE	(BR-1)(BR-4)	C.Y.	1734
510(C)	[illegible]	SLOPE WALL (")		S.Y.	511
510(D)	1500	GRAFFITI TREATMENT		S.F.	43,450
511(A)	0110	REINFORCING STEEL	(BR-1)	LB.	3170
511(B)	0310	EPOXY COATED REINFORCING STEEL	(BR-1)	LB.	846,460
514(	5210	PILES, FURNISHED (HP 10X42)	(BR-5)	L.F.	96
514(A)	5220	PILES, FURNISHED (HP 12X53)	(BR-5)	L.F.	210
514(B)	5310	PILES, DRIVEN (HP 10X42)		L.F.	96
514(B)	5320	PILES, DRIVEN (HP 12X53)		L.F.	210
514(L)	6300	PILE SPLICE H-PILE (NON-BIDDABLE)		EA.	1
515(A)	7200	WATER REPELLENT (VISUALLY INSPECTED)	(BR-1)	S.Y.	5,437
516(A)	8250	DRILLED SHAFTS 72" DIAMETER		L.F.	275
516(A)	8255	DRILLED SHAFTS 84" DIAMETER		L.F.	158
516(C)	8400	CROSSHOLE SONIC LOGGING	(BR-1)	EA.	11
518(B)	0300	SEALED EXPANSION JOINTS	(BR-1)	L.F.	343.9
523(A)	3200	SEALER CRACK PREPARATION	(BR-1)	L.F.	383
523(B)	3300	SEALER RESIN	(BR-1)(BR-6)	GAL.	4.2
613(H)	6205	6" PERFORATED PIPE UNDERDRAIN ROUND	(BR-1)(BR-7)	L.F.	208
613(I)	6310	6" NON-PERF.PIPE UNDERDRAIN RND.	(BR-8)	L.F.	80

Preliminary Plans

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 OKLAHOMA COUNTY
BRIDGE "B" RAMP "B" AT I-35 & I-240 INTERCHANGE

SUMMARY OF PAY QUANTITIES
(BRIDGE "B")

STATE JOB NO. 09032(06) SHEET NO. AB03

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GENERAL BRIDGE NOTES

REVISIONS		
DESCRIPTION		DATE

SPECIFICATIONS:
COMPLY WITH THE REQUIREMENTS OF THE 2019 OKLAHOMA STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, EXCEPT AS MODIFIED BY THE PLANS AND SPECIAL PROVISIONS.

VERIFICATION OF EXISTING CONDITIONS:
THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS NECESSARY TO COMPLETE THE WORK AS SHOWN AND SHALL BE SOLELY RESPONSIBLE FOR THE ACCURACY THEREOF.
BIDDERS SHALL FULLY INFORM THEMSELVES OF THE NATURE OF THE WORK AND CONDITION UNDER WHICH IT WILL BE PERFORMED. THE CONTRACTOR SHALL ADOPT METHODS CONSISTENT WITH GOOD CONSTRUCTION PRACTICE AND SHALL TAKE ALL NECESSARY PRECAUTIONS TO PREVENT DAMAGE TO THE BRIDGE OR ATTACHMENTS. ANY DAMAGE TO THE BRIDGE STRUCTURE OR ROADWAY DUE TO THE CONTRACTOR'S NEGLIGENCE SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE, TO THE SATISFACTION OF THE ENGINEER.

REMOVAL OF MATERIAL:
ALL MATERIAL REMOVED DURING THIS PROJECT SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF ACCORDING TO SECTION 619 OF THE STANDARD SPECIFICATIONS AND IN A MANNER APPROVED BY THE ENGINEER.

ABUTMENT PILING CAPACITY:
THE FACTORED REACTION FOR EACH PILE AT ABUTMENT NO. 1 IS 103.82 TONS.
ABUTMENT NO. 2 IS 123.80 TONS.
RESISTANCE SHALL BE DETERMINED IN ACCORDANCE WITH SECTION 514.04.E(2) OF THE 2019 STANDARD SPECIFICATIONS.

PILE DRIVING EQUIPMENT:
USE A PILE DRIVING HAMMER OF THE SIZE AND TYPE CAPABLE OF CONSISTENTLY DELIVERING THE EFFECTIVE DYNAMIC ENERGY SUFFICIENT TO DRIVE THE PILES TO THE REQUIRED TIP ELEVATION AND TO ACHIEVE THE AXIAL LOAD RESISTANCE WITHOUT EXCEEDING THE LIMITATIONS SET ON THE ALLOWABLE DRIVING STRESS IN ACCORDANCE WITH SECTION 514.03.A(2).

CROSSHOLE SONIC LOGGING TUBES AND TESTING:
INSTALL CSL ACCESS TUBES AT ALL SHAFT LOCATIONS PER SECTION 516.04.C(4)(b) OF THE STANDARD SPECIFICATION. PERFORM NONDESTRUCTIVE CROSSHOLE SONIC LOGGING (CSL) TESTING AS DIRECTED BY THE ENGINEER IN ONE DRILLED SHAFT AT EACH SINGLE COLUMN PIER AND TWO TESTS TOTAL FOR PIERS NO. 4 THRU 8 PER SECTION 516.04.C(9)(c) OF THE STANDARD SPECIFICATION.

CONCRETE:
CONCRETE FOR DRILLED SHAFTS, APPROACH SLABS, DECK SLAB AND TRAFFIC RAILS SHALL BE CLASS AA, F'c = 4,000 PSI MINIMUM STRENGTH AT 28 DAYS. CONCRETE FOR ABUTMENTS AND PIERS SHALL BE CLASS A, F'c = 3,000 PSI MINIMUM STRENGTH AT 28 DAYS.
EQUIP CONCRETE VIBRATORS WITH A SHEATH DESIGNED TO PREVENT DAMAGE TO EPOXY COATINGS WHEN VIBRATING CONCRETE CONTAINING EPOXY COATED REINFORCING STEEL.

PIER AND ABUTMENT CHAMFER REQUIREMENT:
ALL EXPOSED CONCRETE EDGES (EXCLUDING PEDESTAL EDGES WHICH SHALL HAVE ¾" CHAMFER) SHALL HAVE 1½" CHAMFER UNLESS OTHERWISE NOTED. ALL CHAMFER STRIPS SHALL BE SIZED LUMBER.

REINFORCING STEEL:
ALL REINFORCING STEEL SHALL HAVE 2" CLEARANCE UNLESS OTHERWISE SHOWN OR NOTED.
ALL REINFORCING STEEL SHALL BE AASHTO M31 (ASTM A615) GRADE 60.

STRUCTURAL STEEL:
ALL STRUCTURAL STEEL USED ON THIS PROJECT SHALL CONFORM TO AASHTO M270 (ASTM A709) GRADE 50W. (WEATHERING STEEL CHARPY V-NOTCH TESTING NOT REQUIRED). NUTS, WASHERS AND WELDING SHALL HAVE WEATHERING CHARACTERISTICS.

STEEL GIRDER FABRICATION AND ERECTION:
THE CONTRACTOR SHALL ANALYZE THE STRUCTURAL BEHAVIOR OF STEEL GIRDERS AND COMPONENTS FOR EACH STAGE THAT MAY BE CRITICAL DURING FABRICATION, HANDLING, TRANSPORTATION, AND ERECTION OF THE BRIDGE. BASED ON THE PROPOSED ERECTION SEQUENCE, THE CONTRACTOR SHALL DETERMINE THE LIFTING AND SUPPORT REQUIREMENTS INCLUDING STRESSES OF THE STEEL GIRDERS AND COMPONENTS. THE CONTRACTOR SHALL DETERMINE NEED AND EXTENTS FOR TEMPORARY SUPPORT OR SHORING DURING FABRICATION, HANDLING, TRANSPORTATION, AND ERECTION. THE CONTRACTOR SHALL SUBMIT THE ERECTION PLAN TO THE BRIDGE ENGINEER FOR APPROVAL, INCLUDING THE PLAN FOR HANDLING THE GIRDERS AND COMPONENTS DURING FABRICATION, TRANSPORTATION, AND ERECTION. INCLUDE ALL COSTS ASSOCIATED WITH MATERIALS AND LABOR FOR FABRICATION, HANDLING, TRANSPORTATION, AND ERECTION AS WELL AS THE COSTS ASSOCIATED WITH THE ENGINEERING SERVICES NECESSARY TO DESIGN, DRAFT, INSPECT, OR CERTIFY THE FABRICATION, HANDLING, TRANSPORTATION, AND ERECTION IN THE PRICE BID FOR STRUCTURAL STEEL. ALL DOCUMENTS, INCLUDING BUT NOT LIMITED TO, DESIGN CALCULATIONS, MATERIAL LISTS, CONSTRUCTION SEQUENCE (FABRICATION, HANDLING, TRANSPORTATION, AND ERECTION SEQUENCE), AND ERECTION DRAWINGS MUST BE SIGNED AND SEALED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF OKLAHOMA. INCLUDE ALL COSTS IN THE PRICE BID PER POUND FOR STRUCTURAL STEEL.
ALL STEEL GIRDERS PLACED SHALL BE SECURELY TIED AND/OR BRACED TO PREVENT OVERTURNING IMMEDIATELY AFTER ERECTION, AND UNTIL DIAPHRAGMS OR CROSS FRAMES ARE PERMANENTLY IN PLACE. ERECTED GIRDERS SHALL HAVE ALL CROSS-FRAME CONNECTIONS COMPLETED PRIOR TO LEAVING JOB SITE AT THE END OF EACH DAY. THE METHODS TO BE USED SHALL BE SUBMITTED ON THE ERECTION DRAWINGS. WHEN ROADWAY TRAFFIC MUST BE MAINTAINED BENEATH GIRDERS ALREADY PLACED, TRAFFIC SHALL BE PROTECTED AGAINST FALLING OBJECTS DURING FINAL BOLTING. THE PROTECTION SHALL CONSIST OF NETS AND/OR FLOORING WITH NO LARGER THAN 1-INCH OPENINGS.
THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE STABILITY OF THE STRUCTURE DURING ALL PHASES OF CONSTRUCTION. INSTALLATION OF ALL COMPONENTS INTEGRAL TO THE NON-COMPOSITE STABILITY OF THE STEEL GIRDERS AND SQUARING FOR FIELD SPLICES SHALL BE IN PLACE, TIGHTENED AND INSPECTED FOR DAMAGE BEFORE ANY FALSEWORK OR LIFTING DEVICES ARE REMOVED. IF ANY OF THE BRACES ARE DAMAGED DURING ERECTION OR CONSTRUCTION, THE BRACE SHALL BE REPLACED WHILE GIRDERS ARE SUPPORTED BY FALSEWORK OR LIFTING DEVICES.

PLATE GIRDER BRACING FOR DECK SLAB PLACEMENT:
SELECT A TEMPORARY BRACING SYSTEM IN ACCORDANCE WITH SECTION 502 OF SPECIFICATIONS CAPABLE OF PROVIDING A CONTINUOUS LOAD PATH FOR ALL ANTICIPATED LOADS DURING DECK SLAB CONCRETE PLACEMENT FOR BRIDGE. BRACING SYSTEM MUST ALSO PREVENT SIGNIFICANT LOCALIZED AND/OR GLOBAL DISTORTION OF THE STEEL GIRDERS THAT COULD CAUSE INSTABILITY OR COMPROMISE THE INTENDED FIT CONDITION. PROVIDE RESTRAINT AT BEARING ASSEMBLIES IF UPLIFT OF THE GIRDER IS ANTICIPATED OR ENCOUNTERED. THE BRACING SYSTEM SHOWN IN THE PLANS IS FOR ILLUSTRATION PURPOSES ONLY AND ALTERNATIVE SYSTEMS MAY BE CONSIDERED.
PLACE ALL BEARING MEMBERS PERPENDICULAR TO GIRDERS. PROVIDE A BRACING MEMBER AT THE OPPOSITE SIDE OF THE GIRDER WEB FOR EACH BRACING, FALSEWORK, OR FORMWORK MEMBER BEARING ON THE GIRDER WEB. LOCATE ALL MEMBERS BEARING ON THE GIRDER WEB NOT MORE THAN 6 INCHES FROM THE FLANGE. NO WELDING TO THE GIRDER WEB OR FLANGES IS PERMITTED. EPOXY-COAT OR GALVANIZE ALL COMPONENTS TO REMAIN IN PLACE AND CAST INSIDE THE DECK SLAB. USE DECK SLAB OVERHANG FORMWORK CAPABLE OF ADJUSTMENT DURING THE PLACEMENT OF CONCRETE IN ORDER TO MAINTAIN PROPER GRADES AT THE OVERHANG.
SUBMIT DESIGN DRAWINGS AND CALCULATIONS OF THE PROPOSED BRACING SYSTEM TO THE ENGINEER OF RECORD FOR APPROVAL. DESIGN DRAWINGS AND CALCULATIONS MUST BE SIGNED AND SEALED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF OKLAHOMA. IF INCLUDED IN THE CHOSEN SYSTEM, INCLUDE WITH THE DESIGN CALCULATIONS METHODS TO PREDICT CRUSH AND SETTLEMENT OF SHIMS USED FOR ADJUSTMENT. DO NOT BEGIN BRACING INSTALLATION OR DECK SLAB PLACEMENT UNTIL APPROVAL OF THE DESIGN CALCULATIONS AND DRAWINGS BY THE ENGINEER OF RECORD IS RECEIVED. ALLOW 2 WEEKS FOR REVIEW AND APPROVAL.
INCLUDE ALL COSTS ASSOCIATED WITH FALSEWORK/BRACING, INCLUDING LABOR, MATERIALS, AND PROFESSIONAL SERVICES, IN THE CONTRACT UNIT PRICE OF "ENGINEERED FALSEWORK". INCLUDE THE INSTALLATION OF ALL OTHER FALSEWORK, BRACING, AND RELATED PROFESSIONAL SERVICES IN OTHER ITEMS OF WORK.

BRIDGE DECK CONSTRUCTION METHODS:
ANY STEEL USED BY CONTRACTOR TO FACILITATE DECK CONSTRUCTION, SUCH AS INSERT WELD ANCHORS, TY-BAR CLIPS, FORM HANGERS OR OTHER APPURTENANCES, THAT REMAIN IN PLACE IN THE BRIDGE DECK, MUST BE EPOXY COATED OR GALVANIZED. EPOXY COAT IN ACCORDANCE WITH AASHTO M 284 AND OR GALVANIZE IN ACCORDANCE WITH AASHTO M 111.

STAY-IN-PLACE DECK FORMS:
STAY-IN-PLACE STEEL DECK FORMS MAY BE USED IF THE MINIMUM DECK SLAB THICKNESS OF 8" IS OBTAINED BY MEASURING FROM THE TOP OF THE DECK SLAB TO THE TOP PORTION OF THE STEEL CORRUGATION. NO ADDITIONAL CONCRETE WEIGHT OF THE DECK SLAB IS PERMITTED ADDITIONAL STEEL OF THE DECK FORMS SHALL NOT EXCEED 5 P.S.F.
PREFORMED STYROFOAM OR ANY OTHER FILLER MATERIAL MUST BE BONDED TO THE STEEL STAY-IN-PLACE FORMS.
STAY-IN-PLACE PRESTRESSED CONCRETE DECK FORMS MAY BE USED IF THE FOLLOWING CONDITIONS ARE MET:
1) SHOP DRAWINGS AND STRUCTURAL CALCULATIONS FOR THE FORMS ARE SUBMITTED TO THE BRIDGE ENGINEER FOR APPROVAL.
2) A NEW STRUCTURAL DESIGN, STRUCTURAL CALCULATIONS, AND A NEW REINFORCING SCHEDULE FOR THE DECK SLAB IS SUBMITTED TO THE BRIDGE ENGINEER FOR APPROVAL.
3) SHOP DRAWINGS, NEW DECK SLAB REINFORCING SCHEDULE, STRUCTURAL DESIGNS, AND CALCULATIONS SHALL BE PREPARED AND SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF OKLAHOMA.

ALL COST ASSOCIATED WITH THE USE OF STAY-IN-PLACE FORMS INCLUDING ALL MATERIALS, LABOR, EQUIPMENT, INCIDENTALS, AND PROFESSIONAL SERVICES SHALL BE AT THE CONTRACTOR'S EXPENSE. FOR ADDITIONAL INFORMATION CONCERNING THE USE OF STAY-IN-PLACE FORMS, SEE SECTION 502 OF THE 2019 STANDARD SPECIFICATIONS.

PENETRATING WATER REPELLENT SURFACE TREATMENT:
PENETRATING WATER REPELLENT SURFACE TREATMENT SHALL BE APPLIED TO THE FOLLOWING CONCRETE SURFACES OF THE BRIDGE:
A) EDGE AND UNDERSIDE CANTILEVER PORTION OF THE DECK SLAB.
B) THE ROADWAY FACE AND TOP OF THE PARAPETS ON THE BRIDGE DECK
C) TOP AND SIDES OF PIER CAPS NOT COVERED WITH ELASTOMERIC COATING, ALSO THE ENDS AND BOTTOM OF THE OUTSIDE CANTILEVER OF PIER CAPS.
D) THE FACE AND ENDS OF THE BACKWALL, THE EXPOSED FRONT FACE AND ENDS OF THE BRIDGE SEAT OF THE ABUTMENTS.
E) THE ROADWAY FACE AND TOP OF PARAPETS ON APPROACH SLABS.

SEALING BRIDGE DECK CONSTRUCTION JOINTS:
THE APPROACH SLAB/DECK SLAB CONSTRUCTION JOINTS SHALL BE SAWED AND SEALED. THE LONGITUDINAL JOINTS FORMED DURING THE CONSTRUCTION OF THE BRIDGE DECK AND APPROACH SLABS AND THE CONSTRUCTION JOINT OVER PIER 1 SHALL BE SEALED USING HIGH MOLECULAR WEIGHT METHACRYLATE IN ACCORDANCE WITH SECTION 523 OF THE 2019 OKLAHOMA STANDARD SPECIFICATIONS.

ELASTOMERIC COATING:
THE ELASTOMERIC COATING SHALL BE A LIQUID APPLIED URETHANE COATING SUCH AS CIM 1000 AS MANUFACTURED BY CIM INDUSTRIES, INC., POLYCOAT-PC-IM 129 SYSTEM AS MANUFACTURED BY POLYCOAT PRODUCTS, OR AN APPROVED EQUAL.
THE ELASTOMERIC COATING SHALL BE APPLIED TO THE AREAS SHOWN IN THE PLANS. THE COATING SHALL BE NEAT STRAIGHT LINES FOR APPROVAL.
THE EQUIPMENT AND METHODS OF APPLYING THE URETHANE COATING SHALL BE IN ACCORDANCE WITH THE PRODUCT COATING PROFILE AND INSTRUCTION GUIDES FOR APPLICATION TO CONCRETE. PRECAUTIONARY MEASURES SHALL BE IN ACCORDANCE WITH THE MATERIAL SAFETY DATA SHEETS AS PROVIDED BY THE MANUFACTURER.
THE COATING SHALL BE 60 MILS DRY THICKNESS AND 68 MILS WET THICKNESS. IN ADDITION TO APPLYING THE COATING TO THE CONCRETE SUBSTRUCTURE UNITS AS SHOWN IN THE PLANS, THE COATING SHALL RETURN UP THE VERTICAL SURFACES OF THE PIER AND ABUTMENT BEARING PADS TO PROVIDE A WATER TIGHT SEAL WITH THE CONCRETE PEDESTALS. SURFACE PREPARATION AND PRODUCT MIXING SHALL BE PER THE MANUFACTURERS RECOMMENDATIONS AND ALL NEW CONCRETE SHALL HAVE A MINIMUM STRENGTH OF 3000 PSI AT THE TIME OF APPLICATION. PRIMER SHALL BE APPLIED TO THE CONCRETE SURFACES PRIOR TO APPLYING THE COATING. ALL CONCRETE WORK SHALL BE COMPLETED PRIOR TO THE APPLICATION OF THE ELASTOMERIC COATING.
WATER REPELLANT WILL NOT BE REQUIRED ON SURFACES THAT ARE COATED WITH ELASTOMERIC COATING.
ALL COSTS ASSOCIATED WITH USE OF ELASTOMERIC COATING INCLUDING THE COST OF MATERIAL, LABOR, EQUIPMENT, AND INCIDENTALS NEEDED TO COMPLETE THE WORK AS SPECIFIED IN THE PLANS SHALL BE INCLUDED IN THE PRICE BID PER SQUARE FOOT OF "ELASTOMERIC COATING".

ARCHITECTURAL TREATMENT:
FOR ARCHITECTURAL TREATMENT OF BRIDGE ITEMS, SEE ARCHITECTURAL TREATMENT DETAIL SHEETS.

ANTI-GRAFFITI COATING SYSTEM:
AN ANTI-GRAFFITI COATING SYSTEM SHALL BE APPLIED IN ACCORDANCE WITH SECTION 737.04 OF THE 2019 OKLAHOMA STANDARD SPECIFICATIONS. THE FINISH SHALL USE THE COLORS THAT HAVE BEEN PRE-APPROVED BY THE ENGINEER FOR THE AESTHETIC THEME OF THE PROJECT. THE COATING SYSTEM SHALL BE APPLIED TO THE FOLLOWING EXPOSED CONCRETE SURFACES:
(A) F-SHAPED PARAPETS (ALL SIDES)
(B) ABUTMENTS (FRONT FACES OF ABUTMENTS AND WING WALLS)
(C) SLOPE WALLS
(D) PIERS (SIDES AND BOTTOMS, ALL FACES OF COLUMNS)

FOR THE FRONT FACE OF THE ABUTMENTS, WING WALLS AND ALL FACES OF THE PIER COLUMNS, THE ANTI-GRAFFITI COATING QUANTITY WAS CALCULATED STARTING 2'-6" FROM THE TOP OF THE FOOTINGS.
WHERE PENETRATING WATER REPELLANT SURFACE TREATMENT IS TO BE APPLIED, THE WATER REPELLANT SHALL BE APPLIED PRIOR TO THE APPLICATION OF THE ANTI-GRAFFITI COATING.
THE ANTI-GRAFFITI FINISH AND ALL COSTS ASSOCIATED WITH THIS SHALL BE INCLUDED IN THE BID PER SQUARE FOOT OF "GRAFFITI TREATMENT".

TYPICAL FORMLINER AND CONCRETE FINISH NOTES:
THE EXPOSED CONCRETE SURFACE OF THE ABUTMENTS, F-SHAPED PARAPETS, AND PIERS SHALL HAVE THE TEXTURED SURFACE TREATMENT THAT HAS BE PRE-APPROVED BY THE ENGINEER FOR THE AESTHETIC THEME OF THE PROJECT.
ALL EXPOSED SURFACES SHALL BE FINISHED WITH A CLASS 7 PAINT FINISH IN ACCORDANCE WITH SECTION 509 OF THE STANDARD SPECIFICATIONS. APPLY ANTI-GRAFFITI COATING TO THE SURFACE WHERE SHOWN ON THE PLANS (SEE ANTI-GRAFFITI COATING SYSTEM NOTE). THE CLASS 7 PAINT FINISH SHALL BE OF THE COLOR THAT THE ENGINEER HAS PRE-APPROVED FOR THE AESTHETIC THEME OF THE PROJECT.
THE CONTRACTOR SHALL SUBMIT THE MANUFACTURER'S INSTALLATION INSTRUCTION AND PRODUCT DATA FOR THE TEXTURED SURFACE TREATMENTS. SHOP DRAWINGS SHALL INDICATE FORMLINER LAYOUT, RUSTICATION, REVEAL, AND CHAMFER STRIPS. LOCATION OF THE JOINTS AND FORM TIES SHALL BE INCLUDED.
THE TEXTURED FORMLINER PATTERNS SHALL STAY A DISTANCE OF 1'-0" TYPICAL FROM ALL EDGES OF CONCRETE. THIS INCLUDES JOINT AND CONCRETE ENDS. THESE EDGE DISTANCES SHALL BE SHOWN IN THE SUBMITTED WORK FOR APPROVAL.
THE CONTRACTOR SHALL PROVIDE THE ENGINEER, FOR HIS/HER APPROVAL, A SAMPLE PANEL OF THE TEXTURED SURFACE TREATMENTS. THE SAMPLE PANEL SHALL BE AN 18" X 18" PANEL WITH SURFACE TREATMENTS. FOLLOWING THE APPROVAL OF THE SMALL PANEL, THE CONTRACTOR SHALL PROVIDE ONE FULL SCALE MOCK-UP PANEL OF EACH SURFACE TREATMENT USING PROPOSED MATERIAL, METHODS AND WORKMANSHIP. THE PANEL SHALL BE APPROVED BY THE ENGINEER ON THE SITE. THE MOCK-UP PANELS SHALL BE A MINIMUM OF 50 SQUARE FEET IN SIZE.
THE MOCKUP PANEL SHALL INCORPORATE THE PROPOSED CONCRETE MIX, FORM WORK, TIES, FORMLINER, FORM RELEASE AGENTS, PLACEMENT RATE, FORM PRESSURES, JOINT SEALER, VIBRATING, AND FORM STRIPPING PRACTICES.
THE MOCK-UP SHALL BE ACCEPTED BY THE ENGINEER PRIOR TO BEGINNING FORM WORK FOR THE PROJECT. THE ACCEPTED MOCK-UPS WILL BE THE STANDARD FOR TECHNICAL AND AESTHETIC MERIT. FOLLOWING ACCEPTANCE OF THE MOCK-UP PANELS FOR FORMLINER AND REPAIR WORK, ALL PORTIONS OF THE PANELS SHALL HAVE THE ODOT CLASS 7 PAINT FINISH AS REQUIRED ABOVE. THE COLOR AND FINISH SHALL BE SUBJECT TO APPROVAL BY THE ENGINEER.
FORM WORK SHALL BE DESIGNED BY THE CONTRACTOR TO COMPLY WITH ALL REQUIREMENTS BY THE FORMLINER MANUFACTURER. IN ADDITION, ALL REQUIREMENTS OF THE FORMLINER MANUFACTURER FOR HANDLING AND INSTALLATION OF THE FORMLINERS, APPLICATION OF RELEASE AGENTS, PLACEMENT OF CONCRETE, VIBRATING OF CONCRETE, AND REMOVAL OF FORMS SHALL BE FOLLOWED. FORMLINER BUTT JOINTS SHALL BE CAREFULLY LINED UP TO PROVIDE A SURFACE FREE FROM VISIBLE SEAM LINES.
PRIOR TO THE PLACEMENT OF CAST-IN-PLACE CONCRETE, THE ENGINEER SHALL VERIFY THE LINES AND FORMLINER PANEL PATTERNS, AFTER STRIPPING OF THE FORMS, THE PRE-APPROVED COLOR AND FINISH SHALL BE APPLIED TO MATCH THE APPROVED COLOR AND FINISHES FROM THE MOCK-UP PANEL, IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.

PROTECTION OF AREAS UNDER BRIDGES:
THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE AREAS UNDER THE BRIDGES FROM FALLING DEBRIS AND BE SOLELY RESPONSIBLE FOR SAFEGUARDING THESE AREAS.

UTILITIES:
(CAUTION) THE LOCATION OF ALL UTILITIES AS SHOWN ARE APPROXIMATE DUE TO RELOCATION PLANNED OR PRESENTLY UNDER CONSTRUCTION. ALL UTILITIES THAT WOULD INTERFERE WITH CONSTRUCTION OF NEW BRIDGE SHOULD BE RELOCATED BY THE UTILITY OWNERS PRIOR TO START OF CONSTRUCTION. THERE ARE SOME UTILITIES THAT WILL BE RELOCATED AND NOT SHOWN ON THESE PLANS. THE CONTRACTOR SHALL VERIFY THAT THE UTILITIES HAVE BEEN RELOCATED PRIOR TO STARTING CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO ALL UTILITIES.
NO PAYMENT WILL BE MADE FOR REMOVAL OF ABANDONED UTILITY PIPE LINES THAT INTERFERE WITH CONSTRUCTION. ALL COST TO BE INCLUDED IN OTHER ITEMS.

OKLAHOMA ONE-CALL SYSTEM:
IN ACCORDANCE WITH THE OKLAHOMA UNDERGROUND FACILITIES DAMAGE PREVENTION ACT THE CONTRACTOR SHALL NOTIFY THE OKLAHOMA ONE-CALL SYSTEM, INC. 48 HOURS PRIOR TO BEGINNING EXCAVATION. OKLAHOMA ONE-CALL SYSTEM, INC. "CALL OKIE" 1-800-522-6543 OR 811.

Preliminary Plans

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SQUAD	POE	

PHASE 2 — OKLAHOMA COUNTY
BRIDGE "B" — RAMP "B" AT I-35 & I-240 INTERCHANGE

GENERAL NOTES
(BRIDGE "B")

STATE JOB NO. 09032(106) SHEET NO. AB04

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DESCRIPTION	REVISIONS	DATE

PAY ITEM NOTES

(BR-1) PAYMENT FOR THIS ITEM WILL BE BASED ON PLAN QUANTITIES. SEE SECTION 109.01.B OF THE STANDARD SPECIFICATIONS.

(BR-2) THE APPROACH SLABS CONTAIN AN ESTIMATED TOTAL OF 135.8 CY OF CLASS AA CONCRETE AND 25,130 LBS. OF EPOXY COATED REINFORCING STEEL.

(BR-3) THE FIXED BEARING ASSEMBLIES CONTAIN AN ESTIMATED TOTAL OF 1,420 LBS. OF WEATHERING STEEL. THE DEPARTMENT INCLUDES THE COSTS OF ANCHOR BARS, ANCHOR PLATES, BOLTS, NUTS AND WASHERS IN THE CONTRACT UNIT PRICE OF "WEATHERING STEEL FIXED BEARING ASSEMBLY".

(BR-4) THE EXPANSION BEARING ASSEMBLIES CONTAIN AN ESTIMATED TOTAL OF 10,120 LBS. OF STAINLESS STEEL. THE DEPARTMENT INCLUDES THE COSTS OF ELASTOMERIC PADS, ANCHOR BOLTS, ANCHOR PLATES, BOLTS, NUTS AND WASHERS IN THE CONTRACT UNIT PRICE OF "STAINLESS STEEL EXPANSION BEARING ASSEMBLY".

(BR-5) PROVIDE AND INSTALL ELASTOMERIC PADS BETWEEN THE TOP SURFACE OF BEAMS AND THE BOTTOM SURFACE OF THE DECK SLAB. THE ELASTOMERIC PADS ARE TO BE OF THE SIZE AND SHAPE AS DETAILED IN THE PLANS AND LOCATED AT EACH BEAM ABOVE THE PIERS. INCLUDE ALL COSTS ASSOCIATED WITH PROVIDING AND INSTALLING THE ELASTOMERIC PADS ABOVE THE BEAMS, INCLUDING ALL MATERIAL, LABOR, EQUIPMENT, AND INCIDENTALS NECESSARY TO COMPLETE THE WORK AS SHOWN IN THE PLANS, IN THE PRICE BID PER EACH OF "ELASTOMERIC BEARING PADS".

(BR-6) STEEL PILES SHALL CONFORM TO AASHTO M270 (ASTM A709) GRADE 50. PAYMENT TO THE CONTRACTOR WILL BE BASED ON PLAN QUANTITIES UNLESS ADDITIONAL PILING LENGTH IS REQUIRED. ADDITIONAL PILES FURNISHED, AS AUTHORIZED BY THE ENGINEER WILL BE PAID AT THE CONTRACT UNIT PRICE.

(BR-7) QUANTITY SHOWN FOR SEALER RESIN IS ESTIMATED AT 0.011 GALLONS PER FOOT OF CONSTRUCTION JOINT.

(BR-8) THIS ITEM INCLUDES 150 FT. OF PERFORATED PIPE AND 22.5 CY OF PIPE UNDERDRAIN COVER MATERIAL FOR THE ABUTMENTS.

(BR-9) THIS ITEM INCLUDES 52 FT. OF NON-PERFORATED PIPE AND 8.0 CY OF TRENCH UNDERDRAIN EXCAVATION AND 8.0 CY OF STANDARD BEDDING MATERIAL FOR THE ABUTMENTS.

J/P NO. 09032(06)
0202 BRIDGE "D"

PAY QUANTITIES

OKLAHOMA COUNTY

RAMP "D" I-240 OVER I-35
60'-100'-100'-60' P.C. BEAM SPANS, 0° SKEW
68' AND 56' CLEAR ROADWAY WITH 42" F-SHAPED PARAPET

ITEM NO.		ITEM		UNIT	TOTAL
501(B)	1300	SUBSTRUCTURE EXCAVATION COMMON	(BR-1)	C.Y.	460
501(F)	1700	GRANULAR BACKFILL		C.Y.	48
501(G)	1800	CLSM BACKFILL	(BR-1)	C.Y.	417.3
503(A)	4240	PRESTRESSED CONCRETE BEAMS (TYPE IV)	(BR-1)	L.F.	2549.34
504(A)	5200	APPROACH SLAB	(BR-1)(BR-2)	S.Y.	376
504(B)	5300	SAW-CUT GROOVING	(BR-1)	S.Y.	2788
504(E)	5520	42" F-SHAPED PARAPET	(BR-1)	L.F.	368.5
506(A)	7200	STRUCTURAL STEEL	(BR-1)	LB.	2940
507(A)	[illegible]	WEATHERING STEEL FIXED BEARING ASSEMBLY	(BR-3)	EA.	16
507(	8300	STAINLESS STEEL EXP. BEARING ASSEMBLY	(BR-1)	EA.	48
507(C)	8400	ELASTOMERIC BEARING PADS	(BR-4)	EA.	48
5[illegible](A)	0210	CLASS AA CONCRETE	(BR-5)	C.Y.	686.2
509[illegible]	0320	CLASS A CONCRETE	(BR-1)	C.Y.	586.9
510(C)	1450	SLOPE WALL (5")		S.Y.	871
511(A)	2210	REINFORCING STEEL	(BR-1)	LB.	2,970
511(B)	2310	EPOXY COATED REINFORCING STEEL	(BR-1)	LB.	276,170
514(A)	5210	PILES, FURNISHED (HP 10X42)	(BR-6)	L.F.	624
514(B)	5310	PILES, DRIVEN (HP 10X42)		L.F.	624
514(L)	6300	PILE SPLICE H-PILE (NON-BIDDABLE)		EA.	1
515(A)	7200	WATER REPELLENT (VISUALLY INSPECTED)	(BR-1)	S.Y.	1276
516(A)	8250	DRILLED SHAFTS 72" DIAMETER		L.F.	224
516(C)	8400	CROSSHOLE SONIC LOGGING		EA.	2
523(A)	3200	SEALER CRACK PREPARATION	(BR-1)	L.F.	423
523(B)	3300	SEALER RESIN	(BR-1)(BR-7)	GAL.	4.7
613(H)	6205	6" PERFORATED PIPE UNDERDRAIN ROUND	(BR-1)(BR-8)	L.F.	306
613(I)	6310	6" NON-PERF. PIPE UNDERDRAIN RND.	(BR-9)	L.F.	92

Preliminary Plans

PHASE 2 OKLAHOMA COUNTY

DESIGN		
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SQUAD	POE	

BRIDGE "D" I-240 OVER I-35

SUMMARY OF PAY QUANTITIES
(BRIDGE "D")

STATE JOB NO. 09032(06) SHEET NO. AB05

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REVISIONS		
DESCRIPTION		DATE

GENERAL BRIDGE NOTES

SPECIFICATIONS:
COMPLY WITH THE REQUIREMENTS OF THE 2019 OKLAHOMA STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, EXCEPT AS MODIFIED BY THE PLANS AND SPECIAL PROVISIONS.

VERIFICATION OF EXISTING CONDITIONS:
THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS NECESSARY TO COMPLETE THE WORK AS SHOWN AND SHALL BE SOLELY RESPONSIBLE FOR THE ACCURACY THEREOF.
BIDDERS SHALL FULLY INFORM THEMSELVES OF THE NATURE OF THE WORK AND CONDITION UNDER WHICH IT WILL BE PERFORMED. THE CONTRACTOR SHALL ADOPT METHODS CONSISTENT WITH GOOD CONSTRUCTION PRACTICE AND SHALL TAKE ALL NECESSARY PRECAUTIONS TO PREVENT DAMAGE TO THE BRIDGE OR ATTACHMENTS. ANY DAMAGE TO THE BRIDGE STRUCTURE OR ROADWAY DUE TO THE CONTRACTOR'S NEGLIGENCE SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE, TO THE SATISFACTION OF THE ENGINEER.

REMOVAL OF MATERIAL:
ALL MATERIAL REMOVED DURING THIS PROJECT SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF ACCORDING TO SECTION 619 OF THE STANDARD SPECIFICATIONS AND IN A MANNER APPROVED BY THE ENGINEER.

TEMPORARY RETAINING STRUCTURES
TEMPORARY RETAINING STRUCTURES WILL NOT BE MEASURED FOR PAYMENT AND SHALL BE INCLUDED IN OTHER ITEMS OF WORK IN ACCORDANCE WITH SUBSECTION 502.06 OF THE SPECIFICATIONS. LOCATIONS AND LIMITS OF TEMPORARY RETAINING STRUCTURES SHALL BE DETERMINED BY THE CONTRACTOR.
TEMPORARY RETAINING STRUCTURES SHALL BE DESIGNED IN ACCORDANCE WITH SUBSECTION 502.04 OF THE SPECIFICATIONS BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF OKLAHOMA. SUBMIT TEMPORARY RETAINING STRUCTURE DESIGN CALCULATIONS AND DRAWINGS TO THE BRIDGE ENGINEER FOR APPROVAL. DO NOT BEGIN INSTALLATION UNTIL APPROVAL OF THE DESIGN CALCULATIONS AND DRAWINGS BY THE ENGINEER IS RECEIVED.

CONCRETE
PROVIDE ALL EXPOSED PEDESTAL CONCRETE EDGES WITH A ¾" CHAMFER. PROVIDE ALL OTHER EXPOSED CONCRETE EDGES OF THE SUBSTRUCTURE WITH A 1½" CHAMFER UNLESS OTHERWISE SHOWN OR NOTED. PROVIDE ALL EXPOSED CONCRETE EDGES OF THE SUPERSTRUCTURE WITH A ¾" CHAMFER UNLESS OTHERWISE SHOWN OR NOTED. USE SIZED LUMBER FOR ALL CHAMFER STRIPS.
EQUIP CONCRETE VIBRATORS WITH A SHEATH DESIGNED TO PREVENT DAMAGE TO EPOXY COATINGS WHEN VIBRATING CONCRETE CONTAINING EPOXY COATED REINFORCING STEEL.
PROVIDE FORM LINERS AS DETAILED IN THE PLANS. SUBMIT A 12" X 18" SAMPLE PANEL TO THE BRIDGE ENGINEER FOR APPROVAL. FURNISH SAMPLE PANELS WITH THE APPROPRIATE CONCRETE SURFACE FINISH. PROVIDE FORM LINING MATERIAL OF FULL SIZED COMMERCIAL PANELS AND LINE UP JOINTS AS CLOSE AS PRACTICAL. NO SCRAP OR ODD SIZED PIECES WILL BE ALLOWED. MAKE PROVISIONS IN THE ADJUSTMENT OF FORMS TO CORRECT ANY DEFORMATIONS. SEAL FORM LINERS AT ALL ENDS, EDGE JOINTS, AND TIE HOLES TO PREVENT DISCOLORATION. SAND STREAKING AND FINS ON CONCRETE SURFACES. OIL ALL CHAMFER STRIPS FOR V-GROOVES TO FACILITATE STRIPPING AS SOON AS FORMS ARE REMOVED. DRESS ANY DISCONTINUITY OF RELIEF PATTERN, PARTICULARLY AT PANEL BUTT JOINTS. IN A MANNER APPROVED BY THE ENGINEER. INCLUDE ALL COST OF FORM LINERS, LABOR, MATERIALS, TOOLS AND INCIDENTALS NECESSARY TO COMPLETE THE WORK AS SPECIFIED IN OTHER ITEMS OF WORK.

REINFORCING:
ALL REINFORCING STEEL SHALL HAVE 2" CLEARANCE UNLESS SHOWN OR NOTED OTHERWISE. ALL REINFORCING STEEL SHALL BE DEFORMED BARS, COLD BENT WITH NO WELDS. BAR BEND DIMENSIONS ARE OUT TO OUT, UNLESS NOTED OTHERWISE. UNLESS OTHERWISE SPECIFIED IN THE CONTRACT DOCUMENTS, ALL REINFORCING STEEL SHALL CONFORM TO AASHTO M31 (ASTM A615), GRADE 60.
FIELD WELDING OF CROSS REINFORCING BARS SHALL NOT BE PERMITTED. TACK WELDING OF REINFORCING BARS SHALL BE PROHIBITED IN ALL CASES.
ALL LONGITUDINAL TOP REINFORCING IN THE BRIDGE SLAB SHALL BE SUPPORTED ON APPROVED CONTINUOUS METAL HIGH CHAIRS SPACED AT 4'-0" MAXIMUM ON CENTERS AND THE BOTTOM LAYER OF REINFORCING STEEL SHALL BE SUPPORTED ON APPROVED METAL SLAB BOLSTERS SPACED AT 4'-0" MAXIMUM ON CENTERS.

PILE DRIVING EQUIPMENT:
USE A PILE DRIVING HAMMER OF THE SIZE AND TYPE CAPABLE OF CONSISTENTLY DELIVERING AN EFFECTIVE DYNAMIC ENERGY SUFFICIENT TO DRIVE THE PILES TO THE REQUIRED TIP ELEVATION AND TO ACHIEVE THE AXIAL LOAD RESISTANCE WITHOUT EXCEEDING THE LIMITATIONS SET ON THE ALLOWABLE DRIVING STRESS IN ACCORDANCE WITH SECTION 514.03.A(2).

ABUTMENT PILING:
PROVIDE STRUCTURAL STEEL CONFORMING TO AASHTO M270 (GRADE 50) FOR STEEL PILING.

ABUTMENT PILING CAPACITY:
THE FACTORED REACTION FOR EACH PILE AT THE ABUTMENTS IS 76.0 TONS.
RESISTANCE SHALL BE DETERMINED IN ACCORDANCE WITH SECTION 514.04.E(2) OF THE 2019 STANDARD SPECIFICATIONS.

CROSSHOLE SONIC LOGGING TUBES AND TESTING:
INSTALL CSL ACCESS TUBES AT ALL SHAFT LOCATIONS PER SECTION 516.04C(4)(b) OF THE STANDARD SPECIFICATION. PERFORM NONDESTRUCTIVE CROSSHOLE SONIC LOGGING (CSL) TESTING AS DIRECTED BY THE ENGINEER PER SECTION 516.04.C(9)(c) OF THE STANDARD SPECIFICATION.

STRUCTURAL STEEL
PROVIDE STRUCTURAL STEEL FOR DIAPHRAGM BOLTS, PLATE WASHERS, AND BEVELED SPACERS IN ACCORDANCE WITH AASHTO M270 (ASTM A 709), GRADE 50W (WEATHERING STEEL, CHARPY V-NOTCH TESTING NOT REQUIRED). THE CONTRACTOR MAY SUBSTITUTE A #10 REINFORCING BAR IN ACCORDANCE WITH AASHTO M31, GRADE 60, AND THREADED AT ENDS AS SHOWN IN THE PLANS AT NO ADDITIONAL COST TO THE DEPARTMENT. PROVIDE HEX NUTS IN ACCORDANCE WITH AASHTO M291 (ASTM A563).
PAINT EXPOSED DIAPHRAGM BOLTS, PLATE WASHERS, BEVELED SPACERS AND HEX NUTS WITH TWO (2) COATS OF ZINC-RICH PAINT (6 MIL MINIMUM THICKNESS) AFTER ASSEMBLY. INCLUDE ALL COST OF DIAPHRAGM BOLTS, PLATE WASHERS, BEVELED SPACERS AND HEX NUTS IN THE CONTRACT UNIT PRICE FOR STRUCTURAL STEEL.
PROVIDE STRUCTURAL STEEL FOR ANCHOR PLATES, PLATE WASHERS, AND BUILT-UP CONTACT ANGLES IN ACCORDANCE WITH ASTM A240 (AUSTENTIC STAINLESS STEEL, TYPE 316, CHARPY V-NOTCH TESTING NOT REQUIRED) AT EXPANSION BEARINGS. FOR ANCHOR BOLTS, PROVIDE CONTINUOUSLY THREADED BARS IN ACCORDANCE WITH ASTM A320, CLASS 2, GRADE B8M (AUSTENITIC STAINLESS STEEL, TYPE 316, CHARPY V-NOTCH TESTING NOT REQUIRED). USE AUSTENITIC STAINLESS STEEL NUTS AND WASHERS CONFORMING TO ASTM A194, GRADE 8M AND ASTM A320, RESPECTIVELY. PERFORM ALL WELDING CONSISTENT WITH PROCEDURES FOR STAINLESS STEEL.
PROVIDE STRUCTURAL STEEL FOR ANCHOR PLATES IN ACCORDANCE WITH AASHTO M270 (ASTM A709), GRADE 50W (WEATHERING STEEL, CHARPY V-NOTCH TESTING NOT REQUIRED) AT FIXED BEARINGS. FOR ANCHOR BARS, PROVIDE A REINFORCING BAR IN ACCORDANCE WITH AASHTO M31, GRADE 60.

DECK SLAB
EPOXY-COAT OR GALVANIZE STEEL ITEMS USED TO FACILITATE CONSTRUCTION, SUCH AS DECK FORM HANGERS, TY-BAR CLIPS, INSERT WELD ANCHORS, OR OTHER APPURTENANCES, THAT WILL REMAIN IN PLACE IN THE DECK SLAB. EPOXY-COAT IN ACCORDANCE WITH AASHTO M284 OR GALVANIZE IN ACCORDANCE WITH AASHTO M111.
PLACE THE DECK SLAB CONCRETE ONE SECTION AT A TIME CONSISTENT WITH THE DECK SLAB POURING SEQUENCE DIAGRAM SHOWN IN THE PLANS. IN THE EVENT OF AN EMERGENCY, HALT THE PLACEMENT OF CONCRETE BY FORMING A CONSTRUCTION JOINT MADE PERPENDICULAR TO THE DIRECTION OF TRAFFIC OR AS DIRECTED BY THE ENGINEER. DO NOT PLACE ANY HEAVY EQUIPMENT ON THE FINISHED DECK SLAB WITHIN 5 FEET OF ANY CONSTRUCTION JOINT UNTILCONCRETE IS IN PLACE ON BOTH SIDES OF THE RESPECTIVE JOINT AND AT LEAST 48 HOURS HAS ELASPSED SINCE CONCRETE PLACEMENT.
SEAL ALL DECK SLAB CONSTRUCTION JOINTS WITH HIGH MOLECULAR WEIGHT METHACRYLATE IN ACCORDANCE WITH SECTION 523 OF THE SPECIFICATIONS. INCLUDE THE COST OF EQUIPMENT AND LABOR FOR THE INSTALLATION OF THE HIGH MOLECULAR WEIGHT METHACRYLATE SEALER IN THE CONTRACT UNIT PRICE OF "SEALER CRACK PREPARATION". INCLUDE ALL COST OF THE HIGH MOLECULAR WEIGHT METHACRYLATE SEALER IN THE CONTRACT UNIT PRICE OF "SEALER RESIN". THE DEPARTMENT WILL NOT MEASURE THE PREPARATION AND SEALER OF EMERGENCY CONSTRUCTION JOINTS FOR PAYMENT.

STAY-IN-PLACE DECK FORMS
STAY-IN-PLACE DECK FORMS MAY BE USED IF THE MINIMUM DECK SLAB THICKNESS SHOWN IN THE PLANS IS OBTAINED BY MEASURING FROM THE TOP OF THE DECK SLAB TO THE TOP PORTION OF THE STEEL CORRUGATION. PREFORMED CORRUGATION FILLER, COMPOSED OF POLYSTYRENE OR OTHER MATERIAL, MAY BE USED IF BONDED TO THE DECK FORM AND NO ADDITIONAL CONCRETE WEIGHT OF THE DECK SLAB IS PERMITTED. THE TOTAL ADDITIONAL WEIGHT OF THE DECK FORM AND FILLER SHALL NOT EXCEED 5 P.S.F. THE DEPARTMENT CONSIDERS ALL COSTS OF STAY-IN-PLACE STEEL DECK FORMS TO BE INCLUDED IN THE CONTRACT UNIT PRICE FOR CLASS AA CONCRETE.
THE CONTRACTOR MAY SUBSTITUTE STAY-IN-PLACE PRESTRESSED CONCRETE DECK FORMS, AT NO ADDITIONAL COST TO THE DEPARTMENT, IF THE FOLLOWING CONDITIONS ARE MET:
(1) THE BRIDGE ENGINEER APPROVES SHOP DRAWINGS AND STRUCTURAL CALCULATIONS FOR THE FORMS SUBMITTED BY THE CONTRACTOR.
(2) THE BRIDGE ENGINEER APPROVES A NEW STRUCTURAL DESIGN, STRUCTURAL CALCULATIONS, AND NEW REINFORCING SCHEDULE FOR THE DECK SLAB SUBMITTED BY THE CONTRACTOR.
(3) SHOP DRAWINGS, NEW DECK SLAB REINFORCING SCHEDULE, STRUCTURAL DESIGNS, AND CALCULATIONS ARE PREPARED AND SEALED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF OKLAHOMA.

WATER REPELLENT TREATMENT
APPLY WATER REPELLENT TREATMENT TO THE BRIDGE IN MANNER CONSISTENT WITH THE DETAILS SHOWN IN THE PLANS.

CONCRETE INTERMEDIATE DIAPHRAGMS:
ONCE THE CONCRETE HAS BEEN PLACED FOR THE CONCRETE INTERMEDIATE DIAPHRAGMS, WAIT A MINIMUM OF 24 HOURS BEFORE REMOVING THE SIDE FORMS. DO NOT REMOVE THE BOTTOM FORM FOR A MINIMUM OF 3 DAYS, OR AT THE DISCRETION OF THE ENGINEER. THIS TIME CAN BE SHORTENED IF THE CONCRETE HAS ATTAINED 80% OF THE SPECIFIED COMPRESSIVE STRENGTH. DO NOT PLACE THE CONCRETE FOR THE DECK SLAB OR APPLY OTHER MASSIVE LOADS TO THE BEAMS OR DIAPHRAGMS UNTIL THE CONCRETE IN THE DIAPHRAGMS HAVE BEEN IN PLACE FOR A MINIMUM OF 10 DAYS, OR AT THE DISCRETION OF THE ENGINEER. THIS TIME MAY BE SHORTENED IF THE CONCRETE HAS ATTAINED 80% OF THE SPECIFIED COMPRESSION STRENGTH.

ANTI-GRAFFITI COATING SYSTEM:
AN ANTI-GRAFFITI COATING SYSTEM SHALL BE APPLIED IN ACCORDANCE WITH SECTION 737.04. THE FINISH SHALL USE THE COLORS THAT HAVE BEEN PRE-APPROVED BY THE ENGINEER FOR THE AESTHETIC THEME OF THE PROJECT. THE COATING SYSTEM SHALL BE APPLIED TO THE FOLLOWING EXPOSED CONCRETE SURFACES:

A) F-SHAPED PARAPETS (BACK SIDE)
B) ABUTMENT (FRONT FACE OF ABUTMENT AND WINGWALL)
C) SLOPE WALLS
D) PIERS (SIDES AND BOTTOMS, ALL FACES OF COLUMNS)
E) BEAMS (EXTERIOR FACE AND BOTTOM SIDE OF EXTERIOR BEAMS)

FOR THE FRONT FACE OF THE ABUTMENT AND WINGWALL AND ALL FACES OF THE PIER COLUMNS, THE ANTI-GRAFFITI COATING QUANTITY WAS CALCULATED STARTING 2'-6" FROM THE TOP OF THE FOOTINGS.
WHERE PENETRATING WATER REPELLENT SURFACE TREATMENT IS TO BE APPLIED, THE WATER REPELLENT SHALL BE APPLIED PRIOR TO THE APPLICATION OF THE ANTI-GRAFFITI COATING.
THE ANTI-GRAFFITI FINISH AND ALL COSTS ASSOCIATED WITH THIS SHALL BE INCLUDED IN THE BID PER SQUARE FOOT OF "GRAFFITI TREATMENT".

PROTECTION OF AREAS UNDER BRIDGES:
THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE AREAS UNDER THE BRIDGES FROM FALLING DEBRIS AND BE SOLELY RESPONSIBLE FOR SAFEGUARDING THESE AREAS.

UTILITIES:
(CAUTION) THE LOCATION OF ALL UTILITIES AS SHOWN ARE APPROXIMATE DUE TO RELOCATION PLANNED OR PRESENTLY UNDER CONSTRUCTION. ALL UTILITIES THAT WOULD INTERFERE WITH CONSTRUCTION OF NEW BRIDGE SHOULD BE RELOCATED BY THE UTILITY OWNERS PRIOR TO START OF CONSTRUCTION. THERE ARE SOME UTILITIES THAT WILL BE RELOCATED AND NOT SHOWN ON THESE PLANS. THE CONTRACTOR SHALL VERIFY THAT THE UTILITIES HAVE BEEN RELOCATED PRIOR TO STARTING CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO ALL UTILITIES.
NO PAYMENT WILL BE MADE FOR REMOVAL OF ABANDONED UTILITY PIPE LINES THAT INTERFERE WITH CONSTRUCTION. ALL COST TO BE INCLUDED IN OTHER ITEMS.

OKLAHOMA ONE-CALL SYSTEM:
IN ACCORDANCE WITH THE OKLAHOMA UNDERGROUND FACILITIES DAMAGE PREVENTION ACT THE CONTRACTOR SHALL NOTIFY THE OKLAHOMA ONE-CALL SYSTEM, INC. 48 HOURS PRIOR TO BEGINNING EXCAVATION. OKLAHOMA ONE-CALL SYSTEM, INC. "CALL OKIE" 1-800-522-6543 OR 811.

Preliminary Plans

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 — OKLAHOMA COUNTY
BRIDGE "D" — I-240 OVER I-35

GENERAL NOTES (BRIDGE "D")

STATE JOB NO. 09032(06) SHEET NO. AB06

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REVISIONS		
DESCRIPTION		DATE

(BR-1) PAYMENT FOR THIS ITEM WILL BE BASED ON PLAN QUANTITY. SEE THE 2019 OKLAHOMA STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION - "PLAN QUANTITIES". SECTION 109.01.B.

(BR-2) THE ESTIMATED TOTAL OF STRUCTURAL STEEL FOR EACH STAINLESS STEEL BEARING ASSEMBLY IS PROVED IN THE FOLLOWING TABLE BY LOCATION. SPAN AND TYPE.

LOCATION:	PIER 1	PIER 2	PIER 3		ABUT	BRIDGE J
SPAN:	1	1 OR 2	2	3	3	
TYPE:	EXP	FIX	EXP	EXP	FIX	PHASE 2
WEIGHT:	270 LBS	360 LBS	270 LBS	270 LBS	270 LBS	

(BR-3) THE APPROACH SLABS CONTAIN AN ESTIMATED TOTAL OF 110.7 CY OF CLASS AA CONCRETE AND 6,950 LBS. OF EPOXY COATED REINFORCING STEEL.

(BR-4) PRICE BID FOR THESE ITEMS SHALL INCLUDE THE COST OF INSTALLING FORM LINERS AND STAINING SURFACES AS STATED IN THE SPECIAL PROVISION "CONCRETE, MISC.: AESTHETIC TREATMENTS".

(BR-5) QUANTITY SHOWN FOR SEALER RESIN IS ESTIMATED AT 0.011 GALLONS PER FOOT OF JOINT.

(BR-6) STEEL PILES SHALL CONFORM TO AASHTO M270 (ASTM A709) GRADE 50.

(BR-7) THIS ITEM INCLUDES 32 FT. OF PERFORATED PIPE AND 3.5 CY OF PIPE UNDERDRAIN COVER MATERIAL FOR THE ABUTMENTS.

(BR-8) THIS ITEM INCLUDES 5 FT. OF NON-PERFORATED PIPE.

J/P NO. 09032(06)
0203 BRIDGE "J"

PAY QUANTITIES

RAMP "J" AT I-35 & I-240 INTERCHANGE
STEEL GIRDER SPANS; CURVED
29' CLEAR ROADWAY WITH 42" F-SHAPED PARAPET

OKLAHOMA COUNTY

ITEM NO.		ITEM		UNIT	TOTAL
501(B)	1300	SUBSTRUCTURE EXCAVATION COMMON	(BR-1)	C.Y.	574
501(C)	1400	SUBSTRUCTURE EXCAVATION ROCK	(BR-1)	C.Y.	15
501(F)	1700	GRANULAR BACKFILL	(BR-1)	C.Y.	279
504(A)	5200	APPROACH SLAB	(BR-1)	S.Y.	102.2
504(B)	5300	SAW-CUT GROOVING	(BR-1)	S.Y.	1546.6
504(E)	5520	42" F-SHAPED PARAPET	(BR-1)(BR-4)	L.F.	955.1
506(A)	7200	STRUCTURAL STEEL	(BR-1)	LB.	995,380
507(A)	8200	STAINLESS STEEL FIXED BEARING ASSEMBLY	(BR-2)	EA.	8
507(B)	8300	STAINLESS STEEL EXP. BEARING ASSEMBLY	(BR-2)	EA.	12
509	0120	ELASTOMERIC COATING	(BR-1)	S.F.	935
509(A)	0210	CLASS AA CONCRETE	(BR-1)(BR-4)	C.Y.	419.5
509(B)	0220	CLASS A CONCRETE	(BR-1)(BR-4)	C.Y.	599.1
510(D)	1500	GRAFFITI TREATMENT		S.F.	7019
511(B)	2310	EPOXY COATED REINFORCING STEEL	(BR-1)	LB.	211,430
514(A)	5240	PILES, FURNISHED (HP 14X73)	(BR-6)	L.F.	378
514(B)	5340	PILES, DRIVEN (HP 14X73)		L.F.	378
514(K)	6200	(PL) PILOT HOLES		L.F.	329
514(L)	6300	PILE SPLICE, H-PILE (NON-BIDDABLE)		EA.	1
515(A)	7200	WATER REPELLENT (VISUALLY INSPECTED)	(BR-1)	S.Y.	1463
516(A)	8250	DRILLED SHAFTS 72" DIAMETER		L.F.	76
516(A)	8255	DRILLED SHAFTS 84" DIAMETER		L.F.	30
516(C)	8400	CROSSHOLE SONIC LOGGING	(BR-3)	EA.	3
518(B)	0300	SEALED EXPANSION JOINTS	(BR-1)	L.F.	63
523(A)	3200	SEALER CRACK PREPARATION	(BR-1)	L.F.	64
523(B)	3300	SEALER RESIN	(BR-1)(BR-5)	GAL.	0.7
613(H)	6205	6" PERFORATED PIPE UNDERDRAIN ROUND	(BR-1)(BR-7)	L.F.	32
613(I)	6310	6" NON-PERF.PIPE UNDERDRAIN RND.	(BR-8)	L.F.	5

Preliminary Plans

OKLAHOMA ONE-CALL SYSTEM:
IN ACCORDANCE WITH THE OKLAHOMA UNDERGROUND FACILITIES DAMAGE PREVENTION ACT THE CONTRACTOR SHALL NOTIFY THE OKLAHOMA ONE-CALL SYSTEM, INC. 48 HOURS PRIOR TO BEGINNING EXCAVATION. OKLAHOMA ONE-CALL SYSTEM, INC. "CALL OKIE" 1-800-522-6543 OR 811.

PHASE 2 OKLAHOMA COUNTY

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

BRIDGE "J" RAMP "J" AT I-35 & I-240 INTERCHANGE

SUMMARY OF PAY QUANTITIES
(BRIDGE "J")

STATE JOB NO. 09032(06) SHEET NO. AB07

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GENERAL BRIDGE NOTES

REVISIONS		
DESCRIPTION		DATE

SPECIFICATIONS:
COMPLY WITH THE REQUIREMENTS OF THE 2019 OKLAHOMA STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, EXCEPT AS MODIFIED BY THE PLANS AND SPECIAL PROVISIONS.

VERIFICATION OF EXISTING CONDITIONS:
THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS NECESSARY TO COMPLETE THE WORK AS SHOWN AND SHALL BE SOLELY RESPONSIBLE FOR THE ACCURACY THEREOF.
BIDDERS SHALL FULLY INFORM THEMSELVES OF THE NATURE OF THE WORK AND CONDITION UNDER WHICH IT WILL BE PERFORMED. THE CONTRACTOR SHALL ADOPT METHODS CONSISTENT WITH GOOD CONSTRUCTION PRACTICE AND SHALL TAKE ALL NECESSARY PRECAUTIONS TO PREVENT DAMAGE TO THE BRIDGE OR ATTACHMENTS. ANY DAMAGE TO THE BRIDGE STRUCTURE OR ROADWAY DUE TO THE CONTRACTOR'S NEGLIGENCE SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE, TO THE SATISFACTION OF THE ENGINEER.

REMOVAL OF MATERIAL:
ALL MATERIAL REMOVED DURING THIS PROJECT SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF ACCORDING TO SECTION 619 OF THE STANDARD SPECIFICATIONS AND IN A MANNER APPROVED BY THE ENGINEER.

ABUTMENT PILING CAPACITY
THE FACTORED REACTION FOR EACH PILE AT THE ABUTMENT IS 139 TONS.
RESISTANCE SHALL BE DETERMINED IN ACCORDANCE WITH SECTION 514.04.E(2) OF THE 2019 STANDARD SPECIFICATIONS.

PILE DRIVING EQUIPMENT:
USE A PILE DRIVING HAMMER OF THE SIZE AND TYPE CAPABLE OF CONSISTENTLY DELIVERING THE EFFECTIVE DYNAMIC ENERGY SUFFICIENT TO DRIVE THE PILES TO THE REQUIRED TIP ELEVATION AND TO ACHIEVE THE AXIAL LOAD RESISTANCE WITHOUT EXCEEDING THE LIMITATIONS SET ON THE ALLOWABLE DRIVING STRESS IN ACCORDANCE WITH SECTION 514.03.A(2).

CROSSHOLE SONIC LOGGING TUBES AND TESTING:
INSTALL CSL ACCESS TUBES AT ALL SHAFT LOCATIONS PER SECTION 516.04.C(4)(b) OF THE STANDARD SPECIFICATION. PERFORM NONDESTRUCTIVE CROSSHOLE SONIC LOGGING (CSL) TESTING AS DIRECTED BY THE ENGINEER AT PIER NO. 1 AND ONE AT EACH SINGLE SHAFT PIER PER SECTION 516.04.C(9)(c) OF THE STANDARD SPECIFICATION.

CONCRETE:
CONCRETE FOR DRILLED SHAFTS, APPROACH SLABS, DECK SLAB AND TRAFFIC RAILS SHALL BE CLASS AA, F'c = 4,000 PSI MINIMUM STRENGTH AT 28 DAYS. CONCRETE FOR ABUTMENTS AND PIERS SHALL BE CLASS A, F'c = 3,000 PSI MINIMUM STRENGTH AT 28 DAYS.
EQUIP CONCRETE VIBRATORS WITH A SHEATH DESIGNED TO PREVENT DAMAGE TO EPOXY COATINGS WHEN VIBRATING CONCRETE CONTAINING EPOXY COATED REINFORCING STEEL.

PIER AND ABUTMENT CHAMFER REQUIREMENT:
ALL EXPOSED CONCRETE EDGES (EXCLUDING PEDESTAL EDGES WHICH SHALL HAVE ¾" CHAMFER) SHALL HAVE 1½" CHAMFER UNLESS OTHERWISE NOTED. ALL CHAMFER STRIPS SHALL BE SIZED LUMBER.

REINFORCING STEEL:
ALL REINFORCING STEEL SHALL HAVE 2" CLEARANCE UNLESS OTHERWISE SHOWN OR NOTED.
ALL REINFORCING STEEL SHALL BE AASHTO M31 (ASTM A615) GRADE 60.

STRUCTURAL STEEL:
ALL STRUCTURAL STEEL USED ON THIS PROJECT SHALL CONFORM TO AASHTO M270 (ASTM A709) GRADE 50W. (WEATHERING STEEL CHARPY V-NOTCH TESTING NOT REQUIRED). NUTS, WASHERS AND WELDING SHALL HAVE WEATHERING CHARACTERISTICS.

STEEL GIRDER FABRICATION AND ERECTION:
THE CONTRACTOR SHALL ANALYZE THE STRUCTURAL BEHAVIOR OF STEEL GIRDERS AND COMPONENTS FOR EACH STAGE THAT MAY BE CRITICAL DURING FABRICATION, HANDLING, TRANSPORTATION, AND ERECTION OF THE BRIDGE. BASED ON THE PROPOSED ERECTION SEQUENCE, THE CONTRACTOR SHALL DETERMINE THE LIFTING AND SUPPORT REQUIREMENTS INCLUDING STRESSES OF THE STEEL GIRDERS AND COMPONENTS. THE CONTRACTOR SHALL DETERMINE NEED AND EXTENTS FOR TEMPORARY SUPPORT OR SHORING DURING FABRICATION, HANDLING, TRANSPORTATION, AND ERECTION. THE CONTRACTOR SHALL SUBMIT THE ERECTION PLAN TO THE BRIDGE ENGINEER FOR APPROVAL INCLUDING THE PLAN FOR HANDLING THE GIRDERS AND COMPONENTS DURING FABRICATION, TRANSPORTATION, AND ERECTION. INCLUDE ALL COSTS ASSOCIATED WITH THE MATERIALS AND LABOR FOR FABRICATION, HANDLING, TRANSPORTATION, AND ERECTION AS WELL AS THE COSTS ASSOCIATED WITH THE ENGINEERING SERVICES NECESSARY TO DESIGN, DRAFT, INSPECT, AND CERTIFY THE FABRICATION, HANDLING, TRANSPORTATION, AND ERECTION IN THE PRICE BID FOR STRUCTURAL STEEL. ALL DOCUMENTS, INCLUDING BUT NOT LIMITED TO, DESIGN CALCULATIONS, MATERIAL LISTS, CONSTRUCTION SEQUENCE (FABRICATION, HANDLING, TRANSPORTATION, AND ERECTION SEQUENCE), AND ERECTION DRAWINGS MUST BE SIGNED AND SEALED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF OKLAHOMA. INCLUDE ALL COSTS IN THE PRICE BID PER POUND FOR STRUCTURAL STEEL.
ALL STEEL GIRDERS PLACED SHALL BE SECURELY TIED AND/OR BRACED TO PREVENT OVERTURNING IMMEDIATELY AFTER ERECTION, AND UNTIL DIAPHRAGMS OR CROSS FRAMES ARE PERMANENTLY IN PLACE. ERECTED GIRDERS SHALL HAVE ALL CROSS-FRAME CONNECTIONS COMPLETED PRIOR TO LEAVING JOB SITE AT THE END OF EACH DAY. THE METHODS TO BE USED SHALL BE SUBMITED ON THE ERECTION DRAWINGS. WHEN ROADWAY TRAFFIC MUST BE MAINTAINED BENEATH GIRDERS ALREADY PLACED, TRAFFIC SHALL BE PROTECTED AGAINST FALLING OBJECTS DURING FINAL BOLTING. THE PROTECTION SHALL CONSIST OF NETS AND/OR FLOORING WITH NO LARGER THAN 1-INCH OPENINGS.
THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE STABILITY OF THE STRUCTURE DURING ALL PHASES OF CONSTRUCTION. INSTALLATION OF ALL COMPONENTS INTEGRAL TO THE NON-COMPOSITE STABILITY OF THE STEEL GIRDERS AND SQUARING FOR FIELD SPLICES SHALL BE IN PLACE, TIGHTENED AND INSPECTED FOR DAMAGE BEFORE ANY FALSEWORK OR LIFTING DEVICES ARE REMOVED. IF ANY OF THE BRACES ARE DAMAGED DURING ERECTION OR CONSTRUCTION, THE BRACE SHALL BE REPLACED WHILE GIRDERS ARE SUPPORTED BY FALSEWORK OR LIFTING DEVICES.

PLATE GIRDER BRACING FOR DECK SLAB PLACEMENT:
SELECT A TEMPORARY BRACING SYSTEM IN ACCORDANCE WITH SECTION 502 OF SPECIFICATIONS CAPABLE OF PROVIDING A CONTINUOUS LOAD PATH FOR ALL ANTICIPATED LOADS DURING DECK SLAB CONCRETE PLACEMENT FOR BRIDGE. BRACING SYSTEM MUST ALSO PREVENT SIGNIFICANT LOCALIZED AND/OR GLOBAL DISTORTION OF THE STEEL GIRDERS THAT COULD CAUSE INSTABILITY OR COMPROMISE THE INTENDED FIT CONDITION. PROVIDE RESTRAINT AT BEARING ASSEMBLIES IF UPLIFT OF THE GIRDER IS ANTICIPATED OR ENCOUNTERED. THE BRACING SYSTEM SHOWN IN THE PLANS IS FOR ILLUSTRATION PURPOSES ONLY AND ALTERNATIVE SYSTEMS MAY BE CONSIDERED.
PLACE ALL BEARING MEMBERS PERPENDICULAR TO GIRDERS. PROVIDE A BRACING MEMBER AT THE OPPOSITE SIDE OF THE GIRDER WEB FOR EACH BRACING, FALSEWORK, OR FORMWORK MEMBER BEARING ON THE GIRDER WEB. LOCATE ALL MEMBERS BEARING ON THE GIRDER WEB NOT MORE THAN 6 INCHES FROM THE FLANGE. NO WELDING TO THE GIRDER WEB OR FLANGES IS PERMITTED. EPOXY-COAT OR GALVANIZE ALL COMPONENTS TO REMAIN IN PLACE AND CAST INSIDE THE DECK SLAB. USE DECK SLAB OVERHANG FORMWORK CAPABLE OF ADJUSTMENT DURING THE PLACEMENT OF CONCRETE IN ORDER TO MAINTAIN PROPER GRADES AT THE OVERHANG.
SUBMIT DESIGN DRAWINGS AND CALCULATIONS OF THE PROPOSED BRACING SYSTEM TO THE ENGINEER OF RECORD FOR APPROVAL. DESIGN DRAWINGS AND CALCULATIONS MUST BE SIGNED AND SEALED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF OKLAHOMA. IF INCLUDED IN THE CHOSEN SYSTEM, INCLUDE WITH THE DESIGN CALCULATIONS METHODS TO PREDICT CRUSH AND SETTLEMENT OF SHIMS USED FOR ADJUSTMENT. DO NOT BEGIN BRACING INSTALLATION OR DECK SLAB PLACEMENT UNTIL APPROVAL OF THE DESIGN CALCULATIONS AND DRAWINGS BY THE ENGINEER OF RECORD IS RECEIVED. ALLOW 2 WEEKS FOR REVIEW AND APPROVAL.
INCLUDE ALL COSTS ASSOCIATED WITH FALSEWORK/BRACING, INCLUDING LABOR, MATERIALS, AND PROFESSIONAL SERVICES, IN THE CONTRACT UNIT PRICE OF "ENGINEERED FALSEWORK". INCLUDE THE INSTALLATION OF ALL OTHER FALSEWORK, BRACING, AND RELATED PROFESSIONAL SERVICES IN OTHER ITEMS OF WORK.

BRIDGE DECK CONSTRUCTION METHODS:
ANY STEEL USED BY CONTRACTOR TO FACILITATE DECK CONSTRUCTION, SUCH AS INSERT WELD ANCHORS, TY-BAR CLIPS, FORM HANGERS OR OTHER APPURTENANCES, THAT REMAIN IN PLACE IN THE BRIDGE DECK, MUST BE EPOXY COATED OR GALVANIZED. EPOXY COAT IN ACCORDANCE WITH AASHTO M 284 AND OR GALVANIZE IN ACCORDANCE WITH AASHTO M 111.

STAY-IN-PLACE DECK FORMS:
STAY-IN-PLACE STEEL DECK FORMS MAY BE USED IF THE MINIMUM DECK SLAB THICKNESS OF 8" IS OBTAINED BY MEASURING FROM THE TOP OF THE DECK SLAB TO THE TOP PORTION OF THE STEEL CORRUGATION. NO ADDITIONAL CONCRETE WEIGHT OF THE DECK SLAB IS PERMITTED. ADDITIONAL STEEL OF THE DECK FORMS SHALL NOT EXCEED 5 P.S.F.
PREFORMED STYROFOAM OR ANY OTHER FILLER MATERIAL MUST BE BONDED TO THE STEEL STAY-IN-PLACE FORMS.
STAY-IN-PLACE PRESTRESSED CONCRETE DECK FORMS MAY BE USED IF THE FOLLOWING CONDITIONS ARE MET:
1) SHOP DRAWINGS AND STRUCTURAL CALCULATIONS FOR THE FORMS ARE SUBMITTED TO THE BRIDGE ENGINEER FOR APPROVAL.
2) A NEW STRUCTURAL DESIGN, STRUCTURAL CALCULATIONS, AND A NEW REINFORCING SCHEDULE FOR THE DECK SLAB IS SUBMITTED TO THE BRIDGE ENGINEER FOR APPROVAL.
3) SHOP DRAWINGS, NEW DECK SLAB REINFORCING SCHEDULE, STRUCTURAL DESIGNS, AND CALCULATIONS SHALL BE PREPARED AND SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF OKLAHOMA.

ALL COST ASSOCIATED WITH THE USE OF STAY-IN-PLACE FORMS INCLUDING ALL MATERIALS, LABOR, EQUIPMENT, INCIDENTALS, AND PROFESSIONAL SERVICES SHALL BE AT THE CONTRACTOR'S EXPENSE. FOR ADDITIONAL INFORMATION CONCERNING THE USE OF STAY-IN-PLACE FORMS, SEE SECTION 502 OF THE 2019 STANDARD SPECIFICATIONS.

PENETRATING WATER REPELLENT SURFACE TREATMENT:
PENETRATING WATER REPELLENT SURFACE TREATMENT SHALL BE APPLIED TO THE FOLLOWING CONCRETE SURFACES OF THE BRIDGE:
A) EDGE AND UNDERSIDE CANTILEVER PORTION OF THE DECK SLAB.
B) THE ROADWAY FACE AND TOP OF THE PARAPETS ON THE BRIDGE DECK
C) TOP AND SIDES OF PIER CAPS NOT COVERED WITH ELASTOMERIC COATING, ALSO THE ENDS AND BOTTOM OF THE OUTSIDE CANTILEVER OF PIER CAPS.
D) THE FACE AND ENDS OF THE BACKWALL, THE EXPOSED FRONT FACE AND ENDS OF THE BRIDGE SEAT OF THE ABUTMENTS.
E) THE ROADWAY FACE AND TOP OF PARAPETS ON APPROACH SLABS.

SEALING BRIDGE DECK CONSTRUCTION JOINTS:
THE APPROACH SLAB/DECK SLAB CONSTRUCTION JOINTS SHALL BE SAWED AND SEALED. THE LONGITUDINAL JOINTS FORMED DURING THE CONSTRUCTION OF THE BRIDGE DECK AND APPROACH SLABS AND THE CONSTRUCTION JOINT OVER PIER 1 SHALL BE SEALED USING HIGH MOLECULAR WEIGHT METHACRYLATE IN ACCORDANCE WITH SECTION 523 OF THE 2019 OKLAHOMA STANDARD SPECIFICATIONS.

ELASTOMERIC COATING:
THE ELASTOMERIC COATING SHALL BE A LIQUID APPLIED URETHANE COATING SUCH AS CIM 1000 AS MANUFACTURED BY CIM INDUSTRIES, INC., POLYCOAT-PC-IM 129 SYSTEM AS MANUFACTURED BY POLYCOAT PRODUCTS, OR AN APPROVED EQUAL.
THE ELASTOMERIC COATING SHALL BE APPLIED TO THE AREAS SHOWN IN THE PLANS. THE COATING SHALL BE NEAT STRAIGHT LINES FOR APPROVAL.
THE EQUIPMENT AND METHODS OF APPLYING THE URETHANE COATING SHALL BE IN ACCORDANCE WITH THE PRODUCT COATING PROFILE AND INSTRUCTION GUIDES FOR APPLICATION TO CONCRETE. PRECAUTIONARY MEASURES SHALL BE IN ACCORDANCE WITH THE MATERIAL SAFETY DATA SHEETS AS PROVIDED BY THE MANUFACTURER.
THE COATING SHALL BE 60 MILS DRY THICKNESS AND 68 MILS WET THICKNESS. IN ADDITION TO APPLYING THE COATING TO THE CONCRETE SUBSTRUCTURE UNITS AS SHOWN IN THE PLANS, THE COATING SHALL RETURN UP THE VERTICAL SURFACES OF THE PIER AND ABUTMENT BEARING PADS TO PROVIDE A WATER TIGHT SEAL WITH THE CONCRETE PEDESTALS. SURFACE PREPARATION AND PRODUCT MIXING SHALL BE PER THE MANUFACTURERS RECOMMENDATIONS AND ALL NEW CONCRETE SHALL HAVE A MINIMUM STRENGTH OF 3000 PSI AT THE TIME OF APPLICATION. PRIMER SHALL BE APPLIED TO THE CONCRETE SURFACES PRIOR TO APPLYING THE COATING. ALL CONCRETE WORK SHALL BE COMPLETED PRIOR TO THE APPLICATION OF THE ELASTOMERIC COATING.
WATER REPELLANT WILL NOT BE REQUIRED ON SURFACES THAT ARE COATED WITH ELASTOMERIC COATING.
ALL COSTS ASSOCIATED WITH USE OF ELASTOMERIC COATING INCLUDING THE COST OF MATERIAL, LABOR, EQUIPMENT, AND INCIDENTALS NEEDED TO COMPLETE THE WORK AS SPECIFIED IN THE PLANS SHALL BE INCLUDED IN THE PRICE BID PER SQUARE FOOT OF "ELASTOMERIC COATING".

ARCHITECTURAL TREATMENT:
FOR ARCHITECTURAL TREATMENT OF BRIDGE ITEMS, SEE ARCHITECTURAL TREATMENT DETAIL SHEETS.

ANTI-GRAFFITI COATING SYSTEM:
AN ANTI-GRAFFITI COATING SYSTEM SHALL BE APPLIED IN ACCORDANCE WITH SECTION 737.04 OF THE 2019 OKLAHOMA STANDARD SPECIFICATIONS. THE FINISH SHALL USE THE COLORS THAT HAVE BEEN PRE-APPROVED BY THE ENGINEER FOR THE AESTHETIC THEME OF THE PROJECT. THE COATING SYSTEM SHALL BE APPLIED TO THE FOLLOWING EXPOSED CONCRETE SURFACES:
(A) F-SHAPED PARAPETS (ALL SIDES)
(B) ABUTMENT (FRONT FACES OF ABUTMENT AND WING WALLS)
(C) SLOPE WALLS
(D) PIERS (SIDES AND BOTTOMS, ALL FACES OF COLUMNS)

FOR THE FRONT FACE OF THE ABUTMENT, WING WALLS AND ALL FACES OF THE PIER COLUMNS, THE ANTI-GRAFFITI COATING QUANTITY WAS CALCULATED STARTING 2'-6" FROM THE TOP OF THE FOOTINGS.
WHERE PENETRATING WATER REPELLANT SURFACE TREATMENT IS TO BE APPLIED, THE WATER REPELLANT SHALL BE APPLIED PRIOR TO THE APPLICATION OF THE ANTI-GRAFFITI COATING.
THE ANTI-GRAFFITI FINISH AND ALL COSTS ASSOCIATED WITH THIS SHALL BE INCLUDED IN THE BID PER SQUARE FOOT OF "GRAFFITI TREATMENT".

TYPICAL FORMLINER AND CONCRETE FINISH NOTES:
THE EXPOSED CONCRETE SURFACE OF THE ABUTMENT, F-SHAPED PARAPETS, AND PIERS SHALL HAVE THE TEXTURED SURFACE TREATMENT THAT HAS BE PRE-APPROVED BY THE ENGINEER FOR THE AESTHETIC THEME OF THE PROJECT.
ALL EXPOSED SURFACES SHALL BE FINISHED WITH A CLASS 7 PAINT FINISH IN ACCORDANCE WITH SECTION 509 OF THE STANDARD SPECIFICATIONS. APPLY ANTI-GRAFFITI COATING TO THE SURFACE WHERE SHOWN ON THE PLANS (SEE ANTI-GRAFFITI COATING SYSTEM NOTE). THE CLASS 7 PAINT FINISH SHALL BE OF THE COLOR THAT THE ENGINEER HAS PRE-APPROVED FOR THE AESTHETIC THEME OF THE PROJECT.
THE CONTRACTOR SHALL SUBMIT THE MANUFACTURER'S INSTALLATION INSTRUCTION AND PRODUCT DATA FOR THE TEXTURED SURFACE TREATMENTS. SHOP DRAWINGS SHALL INDICATE FORMLINER LAYOUT, RUSTICATION, REVEAL, AND CHAMFER STRIPS. LOCATION OF THE JOINTS AND FORM TIES SHALL BE INCLUDED.
THE TEXTURED FORMLINER PATTERNS SHALL STAY A DISTANCE OF 1'-0" TYPICAL FROM ALL EDGES OF CONCRETE. THIS INCLUDES JOINT AND CONCRETE ENDS. THESE EDGE DISTANCES SHALL BE SHOWN IN THE SUBMITTED WORK FOR APPROVAL.
THE CONTRACTOR SHALL PROVIDE THE ENGINEER, FOR HIS/HER APPROVAL, A SAMPLE PANEL OF THE TEXTURED SURFACE TREATMENTS. THE SAMPLE PANEL SHALL BE AN 18" X 18" PANEL WITH SURFACE TREATMENTS. FOLLOWING THE APPROVAL OF THE SMALL PANEL, THE CONTRACTOR SHALL PROVIDE ONE FULL SCALE MOCK-UP PANEL OF EACH SURFACE TREATMENT USING PROPOSED MATERIAL, METHODS AND WORKMANSHIP. THE PANEL SHALL BE APPROVED BY THE ENGINEER ON THE SITE. THE MOCK-UP PANELS SHALL BE A MINIMUM OF 50 SQUARE FEET IN SIZE.
THE MOCKUP PANEL SHALL INCORPORATE THE PROPOSED CONCRETE MIX, FORM WORK, TIES, FORMLINER, FORM RELEASE AGENTS, PLACEMENT RATE, FORM PRESSURES, JOINT SEALER, VIBRATING, AND FORM STRIPPING PRACTICES.
THE MOCK-UP SHALL BE ACCEPTED BY THE ENGINEER PRIOR TO BEGINNING FORM WORK FOR THE PROJECT. THE ACCEPTED MOCK-UPS WILL BE THE STANDARD FOR TECHNICAL AND AESTHETIC MERIT. FOLLOWING ACCEPTANCE OF THE MOCK-UP PANELS FOR FORMLINER AND REPAIR WORK, ALL PORTIONS OF THE PANELS SHALL HAVE THE ODOT CLASS 7 PAINT FINISH AS REQUIRED ABOVE. THE COLOR AND FINISH SHALL BE SUBJECT TO APPROVAL BY THE ENGINEER.
FORM WORK SHALL BE DESIGNED BY THE CONTRACTOR TO COMPLY WITH ALL REQUIREMENTS BY THE FORMLINER MANUFACTURER. IN ADDITION, ALL REQUIREMENTS OF THE FORMLINER MANUFACTURER FOR HANDLING AND INSTALLATION OF THE FORMLINERS, APPLICATION OF RELEASE AGENTS, PLACEMENT OF CONCRETE, VIBRATING OF CONCRETE, AND REMOVAL OF FORMS SHALL BE FOLLOWED. FORMLINER BUTT JOINTS SHALL BE CAREFULLY LINED UP TO PROVIDE A SURFACE FREE FROM VISIBLE SEAM LINES.
PRIOR TO THE PLACEMENT OF CAST-IN-PLACE CONCRETE, THE ENGINEER SHALL VERIFY THE LINES AND FORMLINER PANEL PATTERNS. AFTER STRIPPING OF THE FORMS, THE PRE-APPROVED COLOR AND FINISH SHALL BE APPLIED TO MATCH THE APPROVED COLOR AND FINISHES FROM THE MOCK-UP PANEL, IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.

PROTECTION OF AREAS UNDER BRIDGES:
THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE AREAS UNDER THE BRIDGES FROM FALLING DEBRIS AND BE SOLELY RESPONSIBLE FOR SAFEGUARDING THESE AREAS.

UTILITIES:
(CAUTION) THE LOCATION OF ALL UTILITIES AS SHOWN ARE APPROXIMATE DUE TO RELOCATION PLANNED OR PRESENTLY UNDER CONSTRUCTION. ALL UTILITIES THAT WOULD INTERFERE WITH CONSTRUCTION OF NEW BRIDGE SHOULD BE RELOCATED BY THE UTILITY OWNERS PRIOR TO START OF CONSTRUCTION. THERE ARE SOME UTILITIES THAT WILL BE RELOCATED AND NOT SHOWN ON THESE PLANS. THE CONTRACTOR SHALL VERIFY THAT THE UTILITIES HAVE BEEN RELOCATED PRIOR TO STARTING CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO ALL UTILITIES.
NO PAYMENT WILL BE MADE FOR REMOVAL OF ABANDONED UTILITY PIPE LINES THAT INTERFERE WITH CONSTRUCTION. ALL COST TO BE INCLUDED IN OTHER ITEMS.

OKLAHOMA ONE-CALL SYSTEM:
IN ACCORDANCE WITH THE OKLAHOMA UNDERGROUND FACILITIES DAMAGE PREVENTION ACT THE CONTRACTOR SHALL NOTIFY THE OKLAHOMA ONE-CALL SYSTEM, INC. 48 HOURS PRIOR TO BEGINNING EXCAVATION. OKLAHOMA ONE-CALL SYSTEM, INC. "CALL OKIE" 1-800-522-6543 OR 811.

Preliminary Plans

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 — OKLAHOMA COUNTY
BRIDGE "J" — RAMP "J" AT I-35 & I-240 INTERCHANGE

GENERAL NOTES
(BRIDGE "J")

STATE JOB NO. 09032(06) SHEET NO. AB08

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DESCRIPTION	REVISIONS	DATE

(BR-1) PAYMENT FOR THIS ITEM WILL BE BASED ON PLAN QUANTITY. SEE THE 2019 OKLAHOMA STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION - "PLAN QUANTITIES". SECTION 109.01.B.

(BR-2) THE ESTIMATED TOTAL OF STRUCTURAL STEEL FOR EACH STAINLESS STEEL BEARING ASSEMBLY IS PROVED IN THE FOLLOWING TABLE BY LOCATION. SPAN AND TYPE.

LOCATION:	PIER 1	PIER 2	PIER 3		PIER 4	ABUT 1	BRIDGE M
SPAN:	1	1 OR 2	2	3	3 OR 4	4	
TYPE:	EXP.	FIX	EXP.	EXP.	EXP.	FIX	PHASE 2
WEIGHT:	260 LBS	310 LBS	260 LBS	280 LBS	320 LBS	260 LBS	

(BR-3) THIS ITEM CONTAINS AN ESTIMATED TOTAL OF 37.6 CY OF CLASS AA CONCRETE AND 7,120 LBS. OF EPOXY COATED REINFORCING STEEL.

(BR-4) PRICE BID FOR THESE ITEMS SHALL INCLUDE THE COST OF INSTALLING FORM LINERS AND STAINING SURFACES AS STATED IN THE SPECIAL PROVISION "CONCRETE, MISC.: AESTHETIC TREATMENTS".

(BR-5) STEEL PILES SHALL CONFORM TO AASHTO M270 (ASTM A709) GRADE 50.

(BR-6) QUANTITY SHOWN FOR SEALER RESIN IS ESTIMATED AT 0.011 GALLONS PER FOOT OF JOINT.

(BR-7) THIS ITEM INCLUDES 32 FT. OF PERFORATED PIPE AND 5 CY OF PIPE UNDERDRAIN COVER MATERIAL FOR THE ABUTMENT.

(BR-8) THIS ITEM INCLUDES 18 FT. OF NON-PERFORATED PIPE AND 4 CY OF TRENCH UNDERDRAIN EXCAVATION AND 4 CY OF STANDARD BEDDING MATERIAL FOR THE ABUTMENTS.

Preliminary Plans

J/P NO. 09032(06)
0204 BRIDGE "M"

PAY QUANTITIES

OKLAHOMA COUNTY

RAMP "M" AT I-35 & I-240 INTERCHANGE
STEEL GIRDER SPANS; CURVED
29' CLEAR ROADWAY WITH 42" F-SHAPED PARAPET

ITEM NO.		ITEM		UNIT	TOTAL
501(B)	1300	SUBSTRUCTURE EXCAVATION COMMON	(BR-1)	C.Y.	210
501(G)	1800	CLSM BACKFILL	(BR-1)	C.Y.	83.8
504(A)	5200	APPROACH SLAB	(BR-1)(BR-3)	S.Y.	104.0
504(B)	5300	[illegible] GROOVING	(BR-1)	S.Y.	1767.4
504(	[illegible]20	42" F-SHAPED PARAPET	(BR-1)(BR-4)	L.F.	1092.2
50[illegible]A)	72[illegible]	[illegible]URAL STEEL	(BR-1)	LB.	887,980
507(	820[illegible]	STAINLESS STEEL FIXED BEARING ASSEMBLY	(BR-2)	EA.	8
507(B)	8300	STAINLESS STEEL EXP. BEARING ASSEMBLY	(BR-2)	EA.	16
[illegible]	0120	ELASTOMERIC COATING	(BR-1)	S.F.	674
509(A)	0210	CLASS AA CONCRETE	(BR-1)(BR-4)	C.Y.	486.1
509(B)	0320	CLASS A CONCRETE	(BR-1)(BR-4)	C.Y.	309.8
510(C)	1450	SLOPE WALL (5")		S.Y.	210
510(D)	1500	GRAFFITI TREATMENT		S.F.	9236
511(B)	2310	EPOXY COATED REINFORCING STEEL	(BR-1)	LB.	184,500
514(A)	5210	PILES, FURNISHED (HP 10X42)	(BR-5)	L.F.	26
514(A)	5220	PILES, FURNISHED (HP 12X53)	(BR-5)	L.F.	110
514(B)	5310	PILES, DRIVEN (HP 10X42)		L.F.	26
514(B)	5320	PILES, DRIVEN (HP 12X53)		L.F.	110
514(L)	6300	PILE SPLICE H-PILE (NON-BIDDABLE)		EA.	1
515(A)	7200	WATER REPELLENT (VISUALLY INSPECTED)	(BR-1)	S.Y.	1615
516(A)	8255	DRILLED SHAFTS 84" DIAMETER		L.F.	71
516(C)	8400	CROSSHOLE SONIC LOGGING		EA.	3
518(B)	0300	SEALED EXPANSION JOINTS	(BR-1)	L.F.	61.7
523(A)	3200	SEALER CRACK PREPARATION	(BR-1)	L.F.	128
523(B)	3300	SEALER RESIN	(BR-1)(BR-6)	GAL.	1.4
613(H)	6205	6" PERFORATED PIPE UNDERDRAIN ROUND	(BR-1)(BR-7)	L.F.	72
613(I)	6310	6" NON-PERF. PIPE UNDERDRAIN RND.	(BR-8)	L.F.	78

PHASE 2 OKLAHOMA COUNTY

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

BRIDGE "M" RAMP "M" AT I-35 & I-240 INTERCHANGE

SUMMARY OF PAY QUANTITIES (BRIDGE "M")

STATE JOB NO. 09032(06) SHEET NO. AB09

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GENERAL BRIDGE NOTES

REVISIONS		
DESCRIPTION		DATE

SPECIFICATIONS:
COMPLY WITH THE REQUIREMENTS OF THE 2019 OKLAHOMA STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, EXCEPT AS MODIFIED BY THE PLANS AND SPECIAL PROVISIONS.

VERIFICATION OF EXISTING CONDITIONS:
THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS NECESSARY TO COMPLETE THE WORK AS SHOWN AND SHALL BE SOLELY RESPONSIBLE FOR THE ACCURACY THEREOF.
BIDDERS SHALL FULLY INFORM THEMSELVES OF THE NATURE OF THE WORK AND CONDITION UNDER WHICH IT WILL BE PERFORMED. THE CONTRACTOR SHALL ADOPT METHODS CONSISTENT WITH GOOD CONSTRUCTION PRACTICE AND SHALL TAKE ALL NECESSARY PRECAUTIONS TO PREVENT DAMAGE TO THE BRIDGE OR ATTACHMENTS. ANY DAMAGE TO THE BRIDGE STRUCTURE OR ROADWAY DUE TO THE CONTRACTOR'S NEGLIGENCE SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE, TO THE SATISFACTION OF THE ENGINEER.

REMOVAL OF MATERIAL:
ALL MATERIAL REMOVED DURING THIS PROJECT SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF ACCORDING TO SECTION 619 OF THE STANDARD SPECIFICATIONS AND IN A MANNER APPROVED BY THE ENGINEER.

ABUTMENT PILING CAPACITY:
THE FACTORED REACTION FOR EACH PILE AT EACH ABUTMENT IS 101.0 TONS.
RESISTANCE SHALL BE DETERMINED IN ACCORDANCE WITH SECTION 514.04.E(2) OF THE 2019 STANDARD SPECIFICATIONS.

PILE DRIVING EQUIPMENT:
USE A PILE DRIVING HAMMER OF THE SIZE AND TYPE CAPABLE OF CONSISTENTLY DELIVERING THE EFFECTIVE DYNAMIC ENERGY SUFFICIENT TO DRIVE THE PILES TO THE REQUIRED TIP ELEVATION AND TO ACHIEVE THE AXIAL LOAD RESISTANCE WITHOUT EXCEEDING THE LIMITATIONS SET ON THE ALLOWABLE DRIVING STRESS IN ACCORDANCE WITH SECTION 514.03.A(2).

CROSSHOLE SONIC LOGGING TUBES AND TESTING:
INSTALL CSL ACCESS TUBES AT ALL SHAFT LOCATIONS PER SECTION 516.04.C(4)(b) OF THE STANDARD SPECIFICATION. PERFORM NONDESTRUCTIVE CROSSHOLE SONIC LOGGING (CSL) TESTING AS DIRECTED BY THE ENGINEER AT EACH SINGLE SHAFT PIER PER SECTION 516.04.C(9)(c) OF THE STANDARD SPECIFICATION.

CONCRETE:
CONCRETE FOR DRILLED SHAFTS, APPROACH SLABS, DECK SLAB AND TRAFFIC RAILS SHALL BE CLASS AA, F'c = 4,000 PSI MINIMUM STRENGTH AT 28 DAYS. CONCRETE FOR ABUTMENTS AND PIERS SHALL BE CLASS A, F'c = 3,000 PSI MINIMUM STRENGTH AT 28 DAYS.
EQUIP CONCRETE VIBRATORS WITH A SHEATH DESIGNED TO PREVENT DAMAGE TO EPOXY COATINGS WHEN VIBRATING CONCRETE CONTAINING EPOXY COATED REINFORCING STEEL.

PIER AND ABUTMENT CHAMFER REQUIREMENT:
ALL EXPOSED CONCRETE EDGES (EXCLUDING PEDESTAL EDGES WHICH SHALL HAVE ¾" CHAMFER) SHALL HAVE 1½" CHAMFER UNLESS OTHERWISE NOTED. ALL CHAMFER STRIPS SHALL BE SIZED LUMBER.

REINFORCING STEEL:
ALL REINFORCING STEEL SHALL HAVE 2" CLEARANCE UNLESS OTHERWISE SHOWN OR NOTED.
ALL REINFORCING STEEL SHALL BE AASHTO M31 (ASTM A615) GRADE 60.

STRUCTURAL STEEL:
ALL STRUCTURAL STEEL USED ON THIS PROJECT SHALL CONFORM TO AASHTO M270 (ASTM A709) GRADE 50W. (WEATHERING STEEL CHARPY V-NOTCH TESTING NOT REQUIRED). NUTS, WASHERS AND WELDING SHALL HAVE WEATHERING CHARACTERISTICS.

STEEL GIRDER FABRICATION AND ERECTION:
THE CONTRACTOR SHALL ANALYZE THE STRUCTURAL BEHAVIOR OF STEEL GIRDERS AND COMPONENTS FOR EACH STAGE THAT MAY BE CRITICAL DURING FABRICATION, HANDLING, TRANSPORTATION, AND ERECTION OF THE BRIDGE. BASED ON THE PROPOSED ERECTION SEQUENCE, THE CONTRACTOR SHALL DETERMINE THE LIFTING AND SUPPORT REQUIREMENTS INCLUDING STRESSES OF THE STEEL GIRDERS AND COMPONENTS. THE CONTRACTOR SHALL DETERMINE NEED AND EXTENTS FOR TEMPORARY SUPPORT OR SHORING DURING FABRICATION, HANDLING, TRANSPORTATION, AND ERECTION. THE CONTRACTOR SHALL SUBMIT THE ERECTION PLAN TO THE BRIDGE ENGINEER FOR APPROVAL INCLUDING THE PLAN FOR HANDLING THE GIRDERS AND COMPONENTS DURING FABRICATION, TRANSPORTATION, AND ERECTION. INCLUDE ALL COSTS ASSOCIATED WITH THE MATERIALS AND LABOR FOR FABRICATION, HANDLING, TRANSPORTATION, AND ERECTION AS WELL AS THE COSTS ASSOCIATED WITH THE ENGINEERING SERVICES NECESSARY TO DESIGN, DRAFT, INSPECT, AND CERTIFY THE FABRICATION, HANDLING, TRANSPORTATION, AND ERECTION IN THE PRICE BID FOR STRUCTURAL STEEL. ALL DOCUMENTS, INCLUDING BUT NOT LIMITED TO, DESIGN CALCULATIONS, MATERIAL LISTS, CONSTRUCTION SEQUENCE (FABRICATION, HANDLING, TRANSPORTATION, AND ERECTION SEQUENCE), AND ERECTION DRAWINGS MUST BE SIGNED AND SEALED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF OKLAHOMA. INCLUDE ALL COSTS IN THE PRICE BID PER POUND FOR STRUCTURAL STEEL.
ALL STEEL GIRDERS PLACED SHALL BE SECURELY TIED AND/OR BRACED TO PREVENT OVERTURNING IMMEDIATELY AFTER ERECTION, AND UNTIL DIAPHRAGMS OR CROSS FRAMES ARE PERMANENTLY IN PLACE. ERECTED GIRDERS SHALL HAVE ALL CROSS-FRAME CONNECTIONS COMPLETED PRIOR TO LEAVING JOB SITE AT THE END OF EACH DAY. THE METHODS TO BE USED SHALL BE SUBMITED ON THE ERECTION DRAWINGS. WHEN ROADWAY TRAFFIC MUST BE MAINTAINED BENEATH GIRDERS ALREADY PLACED, TRAFFIC SHALL BE PROTECTED AGAINST FALLING OBJECTS DURING FINAL BOLTING. THE PROTECTION SHALL CONSIST OF NETS AND/OR FLOORING WITH NO LARGER THAN 1-INCH OPENINGS.
THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE STABILITY OF THE STRUCTURE DURING ALL PHASES OF CONSTRUCTION. INSTALLATION OF ALL COMPONENTS INTEGRAL TO THE NON-COMPOSITE STABILITY OF THE STEEL GIRDERS AND SQUARING FOR FIELD SPLICES SHALL BE IN PLACE. TIGHTENED AND INSPECTED FOR DAMAGE BEFORE ANY FALSEWORK OR LIFTING DEVICES ARE REMOVED. IF ANY OF THE BRACES ARE DAMAGED DURING ERECTION OR CONSTRUCTION, THE BRACE SHALL BE REPLACED WHILE GIRDERS ARE SUPPORTED BY FALSEWORK OR LIFTING DEVICES.

PLATE GIRDER BRACING FOR DECK SLAB PLACEMENT:
SELECT A TEMPORARY BRACING SYSTEM IN ACCORDANCE WITH SECTION 502 OF SPECIFICATIONS CAPABLE OF PROVIDING A CONTINUOUS LOAD PATH FOR ALL ANTICIPATED LOADS DURING DECK SLAB CONCRETE PLACEMENT FOR BRIDGE. BRACING SYSTEM MUST ALSO PREVENT SIGNIFICANT LOCALIZED AND/OR GLOBAL DISTORTION OF THE STEEL GIRDERS THAT COULD CAUSE INSTABILITY OR COMPROMISE THE INTENDED FIT CONDITION. PROVIDE RESTRAINT AT BEARING ASSEMBLIES IF UPLIFT OF THE GIRDER IS ANTICIPATED OR ENCOUNTERED. THE BRACING SYSTEM SHOWN IN THE PLANS IS FOR ILLUSTRATION PURPOSES ONLY AND ALTERNATIVE SYSTEMS MAY BE CONSIDERED.
PLACE ALL BEARING MEMBERS PERPENDICULAR TO GIRDERS. PROVIDE A BRACING MEMBER AT THE OPPOSITE SIDE OF THE GIRDER WEB FOR EACH BRACING, FALSEWORK, OR FORMWORK MEMBER BEARING ON THE GIRDER WEB. LOCATE ALL MEMBERS BEARING ON THE GIRDER WEB NOT MORE THAN 6 INCHES FROM THE FLANGE. NO WELDING TO THE GIRDER WEB OR FLANGES IS PERMITTED. EPOXY-COAT OR GALVANIZE ALL COMPONENTS TO REMAIN IN PLACE AND CAST INSIDE THE DECK SLAB. USE DECK SLAB OVERHANG FORMWORK CAPABLE OF ADJUSTMENT DURING THE PLACEMENT OF CONCRETE IN ORDER TO MAINTAIN PROPER GRADES AT THE OVERHANG.
SUBMIT DESIGN DRAWINGS AND CALCULATIONS OF THE PROPOSED BRACING SYSTEM TO THE ENGINEER OF RECORD FOR APPROVAL. DESIGN DRAWINGS AND CALCULATIONS MUST BE SIGNED AND SEALED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF OKLAHOMA. IF INCLUDED IN THE CHOSEN SYSTEM, INCLUDE WITH THE DESIGN CALCULATIONS METHODS TO PREDICT CRUSH AND SETTLEMENT OF SHIMS USED FOR ADJUSTMENT. DO NOT BEGIN BRACING INSTALLATION OR DECK SLAB PLACEMENT UNTIL APPROVAL OF THE DESIGN CALCULATIONS AND DRAWINGS BY THE ENGINEER OF RECORD IS RECEIVED. ALLOW 2 WEEKS FOR REVIEW AND APPROVAL.
INCLUDE ALL COSTS ASSOCIATED WITH FALSEWORK/BRACING, INCLUDING LABOR, MATERIALS, AND PROFESSIONAL SERVICES, IN THE CONTRACT UNIT PRICE OF "ENGINEERED FALSEWORK". INCLUDE THE INSTALLATION OF ALL OTHER FALSEWORK, BRACING, AND RELATED PROFESSIONAL SERVICES IN OTHER ITEMS OF WORK.

BRIDGE DECK CONSTRUCTION METHODS:
ANY STEEL USED BY CONTRACTOR TO FACILITATE DECK CONSTRUCTION, SUCH AS INSERT WELD ANCHORS, TY-BAR CLIPS, FORM HANGERS OR OTHER APPURTENANCES, THAT REMAIN IN PLACE IN THE BRIDGE DECK, MUST BE EPOXY COATED OR GALVANIZED. EPOXY COAT IN ACCORDANCE WITH AASHTO M 284 AND OR GALVANIZE IN ACCORDANCE WITH AASHTO M 111.

STAY-IN-PLACE DECK FORMS:
STAY-IN-PLACE STEEL DECK FORMS MAY BE USED IF THE MINIMUM DECK SLAB THICKNESS OF 8" IS OBTAINED BY MEASURING FROM THE TOP OF THE DECK SLAB TO THE TOP PORTION OF THE STEEL CORRUGATION. NO ADDITIONAL CONCRETE WEIGHT OF THE DECK SLAB IS PERMITTED. ADDITIONAL STEEL OF THE DECK FORMS SHALL NOT EXCEED 5 P.S.F.
PREFORMED STYROFOAM OR ANY OTHER FILLER MATERIAL MUST BE BONDED TO THE STEEL STAY-IN-PLACE FORMS.
STAY-IN-PLACE PRESTRESSED CONCRETE DECK FORMS MAY BE USED IF THE FOLLOWING CONDITIONS ARE MET:
1) SHOP DRAWINGS AND STRUCTURAL CALCULATIONS FOR THE FORMS ARE SUBMITTED TO THE BRIDGE ENGINEER FOR APPROVAL.
2) A NEW STRUCTURAL DESIGN, STRUCTURAL CALCULATIONS, AND A NEW REINFORCING SCHEDULE FOR THE DECK SLAB IS SUBMITTED TO THE BRIDGE ENGINEER FOR APPROVAL.
3) SHOP DRAWINGS, NEW DECK SLAB REINFORCING SCHEDULE, STRUCTURAL DESIGNS, AND CALCULATIONS SHALL BE PREPARED AND SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF OKLAHOMA.

ALL COST ASSOCIATED WITH THE USE OF STAY-IN-PLACE FORMS INCLUDING ALL MATERIALS, LABOR, EQUIPMENT, INCIDENTALS, AND PROFESSIONAL SERVICES SHALL BE AT THE CONTRACTOR'S EXPENSE. FOR ADDITIONAL INFORMATION CONCERNING THE USE OF STAY-IN-PLACE FORMS, SEE SECTION 502 OF THE 2019 STANDARD SPECIFICATIONS.

PENETRATING WATER REPELLENT SURFACE TREATMENT:
PENETRATING WATER REPELLENT SURFACE TREATMENT SHALL BE APPLIED TO THE FOLLOWING CONCRETE SURFACES OF THE BRIDGE:
A) EDGE AND UNDERSIDE CANTILEVER PORTION OF THE DECK SLAB.
B) THE ROADWAY FACE AND TOP OF THE PARAPETS ON THE BRIDGE DECK
C) TOP AND SIDES OF PIER CAPS NOT COVERED WITH ELASTOMERIC COATING. ALSO THE ENDS AND BOTTOM OF THE OUTSIDE CANTILEVER OF PIER CAPS.
D) THE FACE AND ENDS OF THE BACKWALL. THE EXPOSED FRONT FACE AND ENDS OF THE BRIDGE SEAT OF THE ABUTMENTS.
E) THE ROADWAY FACE AND TOP OF PARAPETS ON APPROACH SLABS.

SEALING BRIDGE DECK CONSTRUCTION JOINTS:
THE APPROACH SLAB/DECK SLAB CONSTRUCTION JOINTS SHALL BE SAWED AND SEALED. THE LONGITUDINAL JOINTS FORMED DURING THE CONSTRUCTION OF THE BRIDGE DECK AND APPROACH SLABS AND THE CONSTRUCTION JOINT OVER PIER 1 SHALL BE SEALED USING HIGH MOLECULAR WEIGHT METHACRYLATE IN ACCORDANCE WITH SECTION 523 OF THE 2019 OKLAHOMA STANDARD SPECIFICATIONS.

ELASTOMERIC COATING:
THE ELASTOMERIC COATING SHALL BE A LIQUID APPLIED URETHANE COATING SUCH AS CIM 1000 AS MANUFACTURED BY CIM INDUSTRIES, INC., POLYCOAT-PC-IM 129 SYSTEM AS MANUFACTURED BY POLYCOAT PRODUCTS, OR AN APPROVED EQUAL.
THE ELASTOMERIC COATING SHALL BE APPLIED TO THE AREAS SHOWN IN THE PLANS. THE COATING SHALL BE NEAT STRAIGHT LINES FOR APPROVAL.
THE EQUIPMENT AND METHODS OF APPLYING THE URETHANE COATING SHALL BE IN ACCORDANCE WITH THE PRODUCT COATING PROFILE AND INSTRUCTION GUIDES FOR APPLICATION TO CONCRETE. PRECAUTIONARY MEASURES SHALL BE IN ACCORDANCE WITH THE MATERIAL SAFETY DATA SHEETS AS PROVIDED BY THE MANUFACTURER.
THE COATING SHALL BE 60 MILS DRY THICKNESS AND 68 MILS WET THICKNESS. IN ADDITION TO APPLYING THE COATING TO THE CONCRETE SUBSTRUCTURE UNITS AS SHOWN IN THE PLANS, THE COATING SHALL RETURN UP THE VERTICAL SURFACES OF THE PIER AND ABUTMENT BEARING PADS TO PROVIDE A WATER TIGHT SEAL WITH THE CONCRETE PEDESTALS. SURFACE PREPARATION AND PRODUCT MIXING SHALL BE PER THE MANUFACTURERS RECOMMENDATIONS AND ALL NEW CONCRETE SHALL HAVE A MINIMUM STRENGTH OF 3000 PSI AT THE TIME OF APPLICATION. PRIMER SHALL BE APPLIED TO THE CONCRETE SURFACES PRIOR TO APPLYING THE COATING. ALL CONCRETE WORK SHALL BE COMPLETED PRIOR TO THE APPLICATION OF THE ELASTOMERIC COATING.
WATER REPELLANT WILL NOT BE REQUIRED ON SURFACES THAT ARE COATED WITH ELASTOMERIC COATING.
ALL COSTS ASSOCIATED WITH USE OF ELASTOMERIC COATING INCLUDING THE COST OF MATERIAL, LABOR, EQUIPMENT, AND INCIDENTALS NEEDED TO COMPLETE THE WORK AS SPECIFIED IN THE PLANS SHALL BE INCLUDED IN THE PRICE BID PER SQUARE FOOT OF "ELASTOMERIC COATING".

ARCHITECTURAL TREATMENT:
FOR ARCHITECTURAL TREATMENT OF BRIDGE ITEMS, SEE ARCHITECTURAL TREATMENT DETAIL SHEETS.

ANTI-GRAFFITI COATING SYSTEM:
AN ANTI-GRAFFITI COATING SYSTEM SHALL BE APPLIED IN ACCORDANCE WITH SECTION 737.04 OF THE 2019 OKLAHOMA STANDARD SPECIFICATIONS. THE FINISH SHALL USE THE COLORS THAT HAVE BEEN PRE-APPROVED BY THE ENGINEER FOR THE AESTHETIC THEME OF THE PROJECT. THE COATING SYSTEM SHALL BE APPLIED TO THE FOLLOWING EXPOSED CONCRETE SURFACES:
(A) F-SHAPED PARAPETS (ALL SIDES)
(B) ABUTMENT (FRONT FACES OF ABUTMENT AND WING WALL)
(C) SLOPE WALLS
(D) PIERS (SIDES AND BOTTOMS, ALL FACES OF COLUMNS)

FOR THE FRONT FACE OF THE ABUTMENT, WING WALL AND ALL FACES OF THE PIER COLUMNS, THE ANTI-GRAFFITI COATING QUANTITY WAS CALCULATED STARTING 2'-6" FROM THE TOP OF THE FOOTINGS.
WHERE PENETRATING WATER REPELLANT SURFACE TREATMENT IS TO BE APPLIED, THE WATER REPELLANT SHALL BE APPLIED PRIOR TO THE APPLICATION OF THE ANTI-GRAFFITI COATING.
THE ANTI-GRAFFITI FINISH AND ALL COSTS ASSOCIATED WITH THIS SHALL BE INCLUDED IN THE BID PER SQUARE FOOT OF "GRAFFITI TREATMENT".

TYPICAL FORMLINER AND CONCRETE FINISH NOTES:
THE EXPOSED CONCRETE SURFACE OF THE ABUTMENT, F-SHAPED PARAPETS, AND PIERS SHALL HAVE THE TEXTURED SURFACE TREATMENT THAT HAS BE PRE-APPROVED BY THE ENGINEER FOR THE AESTHETIC THEME OF THE PROJECT.
ALL EXPOSED SURFACES SHALL BE FINISHED WITH A CLASS 7 PAINT FINISH IN ACCORDANCE WITH SECTION 509 OF THE STANDARD SPECIFICATIONS. APPLY ANTI-GRAFFITI COATING TO THE SURFACE WHERE SHOWN IN THE PLANS (SEE ANTI-GRAFFITI COATING SYSTEM NOTE). THE CLASS 7 PAINT FINISH SHALL BE OF THE COLOR THAT THE ENGINEER HAS PRE-APPROVED FOR THE AESTHETIC THEME OF THE PROJECT.
THE CONTRACTOR SHALL SUBMIT THE MANUFACTURER'S INSTALLATION INSTRUCTION AND PRODUCT DATA FOR THE TEXTURED SURFACE TREATMENTS. SHOP DRAWINGS SHALL INDICATE FORMLINER LAYOUT, RUSTICATION, REVEAL, AND CHAMFER STRIPS. LOCATION OF THE JOINTS AND FORM TIES SHALL BE INCLUDED.
THE TEXTURED FORMLINER PATTERNS SHALL STAY A DISTANCE OF 1'-0" TYPICAL FROM ALL EDGES OF CONCRETE. THIS INCLUDES JOINT AND CONCRETE ENDS. THESE EDGE DISTANCES SHALL BE SHOWN IN THE SUBMITTED WORK FOR APPROVAL.
THE CONTRACTOR SHALL PROVIDE THE ENGINEER, FOR HIS/HER APPROVAL, A SAMPLE PANEL OF THE TEXTURED SURFACE TREATMENTS. THE SAMPLE PANEL SHALL BE AN 18" X 18" PANEL WITH SURFACE TREATMENTS. FOLLOWING THE APPROVAL OF THE SMALL PANEL, THE CONTRACTOR SHALL PROVIDE ONE FULL SCALE MOCK-UP PANEL OF EACH SURFACE TREATMENT USING PROPOSED MATERIAL, METHODS AND WORKMANSHIP. THE PANEL SHALL BE APPROVED BY THE ENGINEER ON THE SITE. THE MOCK-UP PANELS SHALL BE A MINIMUM OF 50 SQUARE FEET IN SIZE.
THE MOCKUP PANEL SHALL INCORPORATE THE PROPOSED CONCRETE MIX, FORM WORK, TIES, FORMLINER, FORM RELEASE AGENTS, PLACEMENT RATE, FORM PRESSURES, JOINT SEALER, VIBRATING, AND FORM STRIPPING PRACTICES.
THE MOCK-UP SHALL BE ACCEPTED BY THE ENGINEER PRIOR TO BEGINNING FORM WORK FOR THE PROJECT. THE ACCEPTED MOCK-UPS WILL BE THE STANDARD FOR TECHNICAL AND AESTHETIC MERIT. FOLLOWING ACCEPTANCE OF THE MOCK-UP PANELS FOR FORMLINER AND REPAIR WORK, ALL PORTIONS OF THE PANELS SHALL HAVE THE ODOT CLASS 7 PAINT FINISH AS REQUIRED ABOVE. THE COLOR AND FINISH SHALL BE SUBJECT TO APPROVAL BY THE ENGINEER.
FORM WORK SHALL BE DESIGNED BY THE CONTRACTOR TO COMPLY WITH ALL REQUIREMENTS BY THE FORMLINER MANUFACTURER. IN ADDITION, ALL REQUIREMENTS OF THE FORMLINER MANUFACTURER FOR HANDLING AND INSTALLATION OF THE FORMLINERS, APPLICATION OF RELEASE AGENTS, PLACEMENT OF CONCRETE, VIBRATING OF CONCRETE, AND REMOVAL OF FORMS SHALL BE FOLLOWED. FORMLINER BUTT JOINTS SHALL BE CAREFULLY LINED UP TO PROVIDE A SURFACE FREE FROM VISIBLE SEAM LINES.
PRIOR TO THE PLACEMENT OF CAST-IN-PLACE CONCRETE, THE ENGINEER SHALL VERIFY THE LINES AND FORMLINER PANEL PATTERNS. AFTER STRIPPING OF THE FORMS, THE PRE-APPROVED COLOR AND FINISH SHALL BE APPLIED TO MATCH THE APPROVED COLOR AND FINISHES FROM THE MOCK-UP PANEL. IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.

PROTECTION OF AREAS UNDER BRIDGES:
THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE AREAS UNDER THE BRIDGES FROM FALLING DEBRIS AND BE SOLELY RESPONSIBLE FOR SAFEGUARDING THESE AREAS.

UTILITIES:
(CAUTION) THE LOCATION OF ALL UTILITIES AS SHOWN ARE APPROXIMATE DUE TO RELOCATION PLANNED OR PRESENTLY UNDER CONSTRUCTION. ALL UTILITIES THAT WOULD INTERFERE WITH CONSTRUCTION OF NEW BRIDGE SHOULD BE RELOCATED BY THE UTILITY OWNERS PRIOR TO START OF CONSTRUCTION. THERE ARE SOME UTILITIES THAT WILL BE RELOCATED AND NOT SHOWN ON THESE PLANS. THE CONTRACTOR SHALL VERIFY THAT THE UTILITIES HAVE BEEN RELOCATED PRIOR TO STARTING CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO ALL UTILITIES.
NO PAYMENT WILL BE MADE FOR REMOVAL OF ABANDONED UTILITY PIPE LINES THAT INTERFERE WITH CONSTRUCTION. ALL COST TO BE INCLUDED IN OTHER ITEMS.

OKLAHOMA ONE-CALL SYSTEM:
IN ACCORDANCE WITH THE OKLAHOMA UNDERGROUND FACILITIES DAMAGE PREVENTION ACT THE CONTRACTOR SHALL NOTIFY THE OKLAHOMA ONE-CALL SYSTEM, INC. 48 HOURS PRIOR TO BEGINNING EXCAVATION. OKLAHOMA ONE-CALL SYSTEM, INC. "CALL OKIE" 1-800-522-6543 OR 811.

Preliminary Plans

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 — OKLAHOMA COUNTY
BRIDGE "M" — RAMP "M" AT I-35 & I-240 INTERCHANGE

GENERAL NOTES
(BRIDGE "M")

STATE JOB NO. 09032(06) SHEET NO. AB10

5/31/2022 3:29:52 PM
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PAY QUANTITY NOTES

(R-1) PAYMENT FOR THIS ITEM WILL BE BASED ON PLAN QUANTITY ONLY. SEE SECTION 109.01B OF THE STANDARD SPECIFICATIONS.

(R-4) AN ESTIMATED QUANTITY OF 14,658 C.Y. TOPSOIL TO BE RESERVED FOR REPLACEMENT OF APPROXIMATELY 5" ON COMPLETED FORESLOPES, DITCHES, AND BACKSLOPES. THIS QUANTITY IS INCLUDED IN THE EARTHWORK BALANCE. ANY ADDITIONAL EXCAVATION REQUIRED IN CUT SECTIONS TO ALLOW FOR PLACEMENT OF TOPSOIL TO FINAL GRADE, SHALL BE INCLUDED IN THE PRICE BID.

(R-6) FOR TYPE -A- SALVAGED TOPSOIL PRICE BID TO INCLUDE COST OF 18-46-0 FERTILIZER, ESTIMATED AT 150 POUNDS PER ACRE.
FOR SOLID SLAB SODDING PRICE BID TO INCLUDE COST OF 10-20-10 FERTILIZER, ESTIMATED AT 200 POUNDS PER 1,000 SY.

(R-7) FOR SOLID SLAB SODDING PRICE BID TO INCLUDE COST OF WATERING, ESTIMATED AT 40 GALLONS PER SY.

(R-8) PRICE BID TO INCLUDE COST OF ALL NECESSARY MAINTENANCE, MAINTAINING DEVICE IN PROPER UPRIGHT POSTION, REMOVAL OF DEVICE, AND REMOVAL OF SEDIMENT WHEN IT REACHES HALF THE HEIGHT OF THE DEVICE.

(R-11) THE QUANTITIES ESTIMATED FOR TEMPORARY EROSION AND SEDIMENT CONTROL IS 7.36 ACRES.

(R-15) QUANTITY BASED ON TWO APPLICATIONS.

(R-18) ESTIMATED AT 120 LBS. PER CU. FT.

(R-24) ESTIMATED AT 112 LBS. PER SQ. YD. PER 1" THICK.

(R-31) QUANTITY INCLUDES AN ESTIMATED 120 C.Y. TO BE USED AS DIRECTED BY THE ENGINEER.

(R-32) PRICE BID TO INCLUDE COST OF 48 - 4" MOUNTABLE CURB HOODS, 0 - 6" MOUNTABLE CURB HOODS, 2 - 6" BARRIER CURB HOODS, 0 - 8" BARRIER CURB HOODS.

(R-33) THE PRECAST CONCRETE OPTION MAY BE USED INSTEAD, PER DIRECTION OF THE ENGINEER.

(R-35) ANY DRAINAGE STRUCTURE DESCRIBED AS TEMPORARY, SHALL AFTER COMPLETION OF THE PROJECT, BE REMOVED BY AND BECOME THE PROPERTY OF THE CONTRACTOR.

(R-37) INCLUDES REMOVAL OF ALL EXISTING ROADWAY DRAINAGE STRUCTURES, HEADWALLS (UNLESS OTHERWISE SPECIFIED), INLETS, FENCES, AND OTHER STRUCTURES WITHIN THE RIGHT OF WAY.

(R-38) TO BECOME THE PROPERTY OF AND BE DISPOSED OF BY THE CONTRACTOR IN A MANNER APPROVED BY THE ENGINEER.

(R-39) MATERIALS REMOVED SHALL NOT BE MEASURED FOR PAYMENT UNDER SECTION 202.06 UNCLASSIFIED EXCAVATION.

(1) THIS IS AN ESTIMATED QUANTITY. LOCATION, IF AND WHERE REQUIRED, TO BE DETERMINED BY THE ENGINEER.

(2) PRICE BID FOR CLEARING AND GRUBBING SHALL INCLUDE THE REMOVAL OF TREES, VEGITATIVE DEBRIS, AND ANY OTHER ORGANIC ITEMS NOT SPECIFICALLY PAID FOR AS REMOVAL ITEMS.

(3) ANY WASTE EXCAVATION OR OTHER MATERIAL EXISTING ABOVE THE NATURAL GROUND LINE WILL BE REMOVED AS PART OF THE CLEARING AND GRUBBING ITEM AND WILL NOT BE PAID FOR AS UNCLASSIFIED EXCAVATION.

(4) QUANTITY INCLUDES 1500 C.Y. TO BE USED IF AND AS DIRECTED BY THE ENGINEER.

(5) STABILIZED SUBGRADE WILL BE PAID FOR BY THE SQUARE YARD WITH THE COST TO INCLUDE THE CHEMICAL ADDITIVE AT THE RATE SPECIFIED FOR THE APPROPRIATE SOIL CLASSIFICATION AS SPECIFIED IN THE MOST CURRENT ODOT MATERIALS DIVISION MD L-50. THE SOILS IN THE TOP 24 INCHES OF THE GRADING SECTION SHALL BE RESTRICTED TO A-3, A-2-4, OR A6 SOILS AS CLASSIFIED ACCORDING TO AASHTO M-145. THESE SOILS SHALL BE FURTHER RESTRICTED TO A MAXIMUM PLASTICITY INDEX OF 18.

(6) SEPARATOR FABRIC SUITED FOR SUBSURFACE DRAINAGE AND SEPARATOR APPLICATIONS SHALL BE "CONTECH C-7ONW" OR COMPARABLE FABRIC MANUFACTURED BY "TENAX", "MIRAFI" OR APPROVED EQUAL.

(7) QUANTITY INCLUDES 100 TONS TO BE USED IF AND AS DIRECTED BY THE ENGINEER.

(8) TEMPORARY EARTH RETAINAGE (SHEETING AND SHORING) SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE DESIGNED BY A REGISTERED PROFESSIONAL ENGINEER IN THE STATE OF OKLAHOMA. DESIGN CALCULATIONS AND DRAWINGS SHALL BE SUBMITTED TO ODOT BRIDGE DIVISION FOR APPROVAL, PRIOR TO CONSTRUCTION. THE LIMITS OF THE SHEETING AND SHORING ARE TO BE DETERMINED BY THE CONTRACTOR. SEE SECTION 502.04.D OF THE 2019 STANDARD SPECIFICATIONS.

(9) TO BE CONSTRUCTED ON TOP OF MSE WALLS AS A SOLID TR4 RAIL. CONNECTION TO THE COPING SHALL BE PROVIDED BY THE WALL MANUFACTURER AN PROVIDED IN THE SHOP DRAWINGS.

(10) SLIP FORMING WILL NOT BE AN ALLOWED CONSTRUCTION METHOD.

(11) INCLUDES 3,370 C.Y. TO CONSTRUCT MOMENT SLAB FOR F-SHAPED BARRIER.

(12) PAYMENT FOR THIS ITEM WILL BE BASED ON PLAN QUANTITY. SEE THE 2019 OKLAHOMA STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION - "PLAN QUANTITIES". SECTION 109.01B.

(13) ALL COST OF CONCRETE WALL TREATMENT INLUDING FINISHING, FORM LINERS, LABOR, MATERIALS, TOOLS, AND INCIDENTALS NECESSARY TO COMPLETE THE WORK AS SPECIFIED SHALL BE INLUDED IN THE PRICE BID FOR SQUARE YARDS OF WALL.

PAY QUANTITES

0600 STAKING — JP 09032(06)

ITEM NO.		DESCRIPTION	UNIT	QUANTITY
642(B)	3300	CONSTRUCTION STAKING LEVEL II	LSUM	1.00

PAY QUANTITES

0640 CONSTRUCTION — JP 090325(06)

ITEM NO.		DESCRIPTION		UNIT	QUANTITY
220	1100	SWPPP DOCUMENTATION AND MANAGEMENT		LSUM	1.00
640(A)	1210	FIELD OFFICE	(24)	EA	1.00
641	2110	MOBILIZATION		LSUM	1.00

(14) MECHANICAL STABILIZED EARTH (M.S.E.) WALLS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE DESIGNED BY A REGISTERED PROFESSIONAL ENGINEER IN THE STATE OF OKLAHOMA. DESIGN CALCULATIONS AND DRAWINGS SHALL BE SUBMITTED TO ODOT BRIDGE DIVISION FOR APPROVAL PRIOR TO CONSTRUCTION. SEE M.S.E. WALL PLAN AND ELEVATION SHEETS FOR LOCATIONS AND LIMITS, INCLUDING LIMITS OF FORMLINER. SEE SECTION 510.04(E) , SECTION 2 OF THE 2019 STANDARD SPECIFICATIONS. ALL COSTS ASSOCIATED IN THE DESIGN AND CONSTRUCTION, AND ANY INCIDENTAL ITEMS FOR M.S.E. WALLS SHALL BE INCLUDED IN THIS PAY ITEM.

(15) INLUDES 19,380 S.Y. FOR F-SHAPED PARAPET AND 102 S.Y. FOR TR4 RAIL ON RETAINING WALL P

(16) PRICE BID SHALL INCLUDE THE COST OF ANY ADDITIONAL DEPTH AS SHOWN ON THE SUMMARY OF DRAINAGE STRUCTURES.

(17) JUNCTION BOX RISERS AND MANHOLES WITHIN PAVED MEDIANS AND SHOULDERS SHALL BE CONSTRUCTED FLUSH AND AT THE SAME CROSS SLOPE AS THE FINISH PAVEMENT. COVERS SHALL BE THE LOCKING TYPE AS APPROVED BY THE ENGINEER.

(18) INCLUDES 0 TYPE 'A', 26 TYPE 'B', AND 24 TYPE 'C' FRAMES AND GRATES (SEE STANDARD SSIF-3).

(19) PRICE BID FOR THIS ITEM SHALL INCLUDE COST TO ADJUST TO GRADE (COMPLETE INCLUDING MANHOLE FRAMES AND COVERS (TYPE R), OF THE SIZE SHOWN ON DRAINAGE STRUCTURE & DETAIL SHEETS.

(20) PRICE BID SHALL INCLUDE THE COST OF TRENCH EXCAVATION AND STANDARD BEDDING MATERIAL AS SHOWN ON THE SUMMARY OF DRAINAGE STRUCTURES.

(21) THIS IS AN ESTIMATED QUANTITY TO BE USED AS DIRECTED BY THE ENGINEER. THIS PAY ITEM IS FOR VIDEO INSPECTION OF DRAINAGE CONDUIT AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL USE A VIDEO SOURCE WITH ADEQUATE LIGHTING TO ENSURE PIPE HAS BEEN CLEANED AND IS UNDAMAGED. THE VIDEO INSPECTION SHALL INCLUDE EITHER AUDIO OR TEXT INFORMATION ON SCREEN TO DEFINE STRUCTURE LOCATIONS. FORMAT TO BE APPROVED BY THE ENGINEER.

(22) PRICE BID SHALL ALSO INCLUDE, BUT IS NOT LIMITED TO, THE REMOVAL OF CONCRETE DITCH LINER, CONCRETE FLUMES, STRUCTURES, STORM SEWERS, PIPLINES, SAWING PAVEMENT, CONC. CURB & GUTTER, GUARD RAIL, PAVEMENT MARKINGS, FENCING, FOOTINGS, POLES, OVERHEAD AND CANTILEVER SIGN STRUCTURES, GROUND MOUNTED SIGN STRUCTURES AND SHEET METAL SIGNS TO BE PERMANENTLY REMOVED AND ANY OTHER NON-ORGANIC ITEM NOT SPECIFICALLY VERIFIED AS TO THE EXISTING CONDITION AND POSSIBLE NON-STANDARD REMOVAL OPERATIONS THAT MAY BE REQUIRED.

(23) IMPACT ATTENUATORS SHALL BE QUADGUARD ELITE. SCI-100 (SMART CUSHION). OR APPROVED EQUAL WITHIN THE SAME CATEGORY. IMPACT ATTENUATORS SHALL MEET ALL NCHRP-350 TL-3 REQUIREMENTS AND OKLAHOMA DEPARTMENT OF TRANSPORTATION IMPACT ATTENUATORS GUIDELINES MATRIX.

(24) FIELD OFFICE IS TO BE EQUIPPED WITH TWO TELECOMMUNICATION PHONE LINES, BOTH LONG DISTANCE RESTRICTED. ONE LINE SHALL BE FOR AN OPERATIONAL TELEPHONE AND THE OTHER SHALL BE DEDICATED TO THE USE OF A FAX MACHINE AND (SITE MANAGER STAND ALONE USE). IN ADDITION , THE FIELD OFFICE IS TO BE EQUIPPED WITH WIRELESS INTERNET CONNECTION AND THE CONTRACTOR IS TO PROVIDE THE PROJECT INSPECTOR A CURRENT YEAR MODEL CELLULAR PHONE. ALL COST ASSOCIATED WITH THESE ITEMS INCLUDING MONTHLY CHARGES AND ANY ADDITIONAL FEES OR TELECOMMUNICATIONS RELATED CONTRACT EXPENSES SHALL BE INCLUDED IN THE PRICE BID FOR FIELD OFFICE.

PAY QUANTITES

0100 ROADWAY — JP 09032(06)

ITEM NO.		DESCRIPTION		UNIT	QUANTITY
201(A)	1200	CLEARING AND GRUBBING	(2)(3)	LSUM	1.00
202(A)	2200	UNCLASSIFIED EXCAVATION		CY	9,765.00
202(D)	2500	UNCLASSIFIED BORROW	(4)	CY	84,054.00
205(A)	6200	TYPE A-SALVAGED TOPSOIL	(R-4)(R-6)	LSUM	1.00
221(B)	2300	TEMPORARY SILT FENCE	(R-8)	LF	5,992.00
221(H)	2900	(PL)TEMPORARY INLET SEDIMENT FILTER	(R-8)	EA	78.00
221(E)	2600	TEMPORARY SILT DIKE	(R-8)	LF	441.00
221(G)	2800	TEMPORARY FIBER LOG	(R-8)	LF	140.00
230(A)	7200	SOLID SLAB SODDING	(R-6)(R-7)	SY	35,591.00
233(A)	0200	VEGETATIVE MULCHING	(R-11)	AC	7.36
241	3100	MOWING	(R-15)	AC	14.72
303(A)	1200	AGGREGATE BASE TYPE A	(R-1)	CY	2,127.00
307(K)	4200	STABILIZED SUBGRADE	(5)	SY	22,964.00
325	0100	SEPARATOR FABRIC	(6)	SY	7,746.00
402(A)	2200	TRAFFIC BOUND SURFACE COURSE TYPE A	(7)(R-18)	TON	100.00
411(B)	1330	SUPERPAVE, TYPE S3 (PG 64-22 OK)	(R-24)	TON	4,994.00
414(A)	5200	P.C. CONCRETE PAVEMENT(PLACEMENT)	(R-1)	SY	4,564.00
414(B)	5300	DOWEL JOINTED P.C.C.PAVT.(PLACEMENT)	(R-1)	SY	15,827.00
414(G)	5800	P.C. CONCRETE FOR PAVEMENT	(R-1)	CY	5,564.00
502	3100	TEMPORARY EARTH RETAINAGE	(8)	LSUM	1.00
504(D)	5420	CONCRETE RAIL (TR4)	(9)(R-1)	LF	132.00
504(E)	5520	42" F-SHAPED PARAPET	(10)	LF	2,440.00
509(B)	0300	CLASS A CONCRETE	(11)	CY	3,370.00
509(C)	0400	CLASS A CONCRETE, STRUCTURES		CY	4.00
509(D)	0500	CLASS C CONCRETE	(R-31)	CY	126.90
510(A)	1200	RETAINING WALL	(12)(13)	SY	135.50
510(C)	1420	SOLID WALL (14")		SY	226.00
510(I)	1510	MSE RETAINING WALL	(12)(13)(14)	SY	2,388.20
511(B)	2300	EPOXY COATED REINFORCING STEEL		LB	73,049.01
5[illegible](A)	4200	WATER REPELLENT (VISUALLY INSPECTED)	(15)	SY	19,482.00
60[illegible](A)	4200	CONC CURB(4" MNTBLE-INTEGRAL)		LF	3,984.00
[illegible](A)	4200	CONC CURB(6" BARRIER-INTEGRAL)		LF	553.00
610(A)	5200	4" CONCRETE SIDEWALK		SY	31.00
610(C)	5400	4" CONCRETE DIVIDING STRIP		SY	37.00
610(I)	6000	TACTILE WARNING DEVICE-NEW		SF	12.00
611(A)	7210	MANHOLE (4' DIA.)	(16)(17)(R-33)	EA	12.00
611(G)	0144	INLET W/LRG. JCT. BOX, CI, DES.2	(16)(18)(R-32)(R-33)	EA	3.00
611(G)	0172	INLET W/LRG. JCT. BOX, CI, DES.3	(16)(18)(R-32)(R-33)	EA	4.00
611(G)	0354	INLET (SMD-TYPE 2)	(16)(R-33)	EA	3.00
611(G)	7754	INLET CI DES. 2 (STD)	(16)(18)(R-32)(R-33)	EA	1.00
611(G)	7758	INLET CI DES. 2 (B)	(16)(18)(R-32)(R-33)	EA	2.00
611(G)	7786	INLET CI DES. 3 (STD)	(16)(18)(R-32)(R-33)	EA	2.00
611(G)	7790	INLET CI DES. 3 (B)	(16)(18)(R-32)(R-33)	EA	1.00
611(G)	8150	INLET - LONG. BARRIER - TYPE I,DES.1	(20)	EA	1.00
611(G)	9012	INLET CDI RCP DES. 4	(16)(R-33)	EA	1.00
611(L)	1600	JUNCTION BOXES		CF	145.00
612(A)	3200	MANHOLES ADJUST TO GRADE	(17)(19)	EA	5.00
613(A)	5208	18" R.C. PIPE CLASS III	(20)(R-35)	LF	1,842.00
613(A)	5216	24" R.C. PIPE CLASS III	(20)(R-35)	LF	712.00
613(A)	5220	30" R.C. PIPE CLASS III	(20)	LF	9.00
613(A)	5358	28" X 18" R.C.PIPE ARCH CLASS A-III	(20)	LF	203.00
613(A)	5378	58" X 36" R.C.PIPE ARCH CLASS A-III	(20)	LF	283.00
613(H)	6210	8" PERFORATED PIPE UNDERDRAIN ROUND	(1)	LF	536.00
613(I)	6315	8" NON-PERF. PIPE UNDERDRAIN RND.	(1)	LF	179.00
613(J)	6400	EDGE DRAIN CONDUIT-PERFORATED		LF	1,934.00
613(K)	6500	EDGE DRAIN OUTLET LATERAL-NONPERFORATED		LF	189.00
613(L)	6664	58" X 36" PREFAB. CULVERT END SEC., ARCH		EA	1.00
613(L)	6708	18" PREFAB. CULVERT END SEC., ROUND		EA	1.00
613(L)	6716	24" PREFAB. CULVERT END SEC., ROUND		EA	2.00
613(Q)	7500	OUTLET LATERAL HEADWALL	(1)	EA	3.00
613(Y)	8300	(PL)VIDEO INSPECTION OF CONDUIT	(21)	LF	100.00
619(A)	6200	REMOVAL OF STRUCTURES & OBSTRUCTIONS	(22)(R-37)(R-38)	LSUM	1.00
619(B)	6360	REMOVAL OF CONCRETE PAVEMENT	(R-38)(R-39)	SY	4,170.00
619(B)	6364	REMOVAL OF ASPHALT PAVEMENT	(R-38)(R-39)	SY	1,701.00
871(A)	2210	(PL) IMPACT ATTENUATOR	(23)	EA	3.00

Preliminary Plans

POE & ASSOCIATES, OKLAHOMA CITY, OK.

FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.				

REVISIONS

DESCRIPTION	DATE
	5/27/2022

DESIGN	-	-
DRAWN	-	-
CHECKED	-	-
APPROVED	-	-
SQUAD	POE	

PHASE 2 — OKLAHOMA COUNTY

SUMMARY OF PAY QUANTITIES & NOTES (ROADWAY)

STATE JOB NO. 09032(06) SHEET NO. AR01

5/27/2022 9:47:46 AM
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POE & ASSOCIATES, OKLAHOMA CITY, OK.

FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.				

DESCRIPTION	REVISIONS	DATE
	5/27/2022	

GENERAL CONSTRUCTION NOTES

IN ACCORDANCE WITH THE OKLAHOMA UNDERGROUND FACILITIES DAMAGE PREVENTION ACT THE CONTRACTOR SHALL NOTIFY THE OKLAHOMA ONE-CALL SYSTEM, INC. 48 HOURS PRIOR TO BEGINNING EXCAVATION. OKLAHOMA ONE-CALL SYSTEM, INC. "CALL OKIE" 1-800-522-6543 OR 811.

THIS PROJECT SHALL BE CONSTRUCTED WITHOUT CLOSING THE EXISTING ROAD TO LOCAL AND THROUGH TRAFFIC. SEE STANDARD SPECIFICATIONS FOR MAINTENANCE OF LOCAL AND THROUGH TRAFFIC.

MAINTENANCE OF THROUGH TRAFFIC INCLUDES THE MAINTENANCE OF THE EXISTING ROAD IN CLOSE PROXIMITY TO THE NEW CONSTRUCTION AS SHOWN ON THE PLANS.

FOR PROJECTS THAT INCLUDE WIDENING AND/OR RESURFACING, THE CONTRACTOR SHALL SCHEDULE OPERATIONS TO MINIMIZE POTENTIAL DROP-OFF HAZARDS AND SHALL SUBMIT A SEQUENCE OF CONSTRUCTION OPERATIONS TO THE RESIDENT ENGINEER FOR APPROVAL BEFORE OPERATIONS BEGIN. ANY PORTION OF THE CONSTRUCTION OPERATIONS, SUCH AS SUPERPAVE LAYING OPERATIONS, EXCAVATION FOR PAVEMENT WIDENING, OR EXTENSION OF ROADWAY STRUCTURES, SHALL BE LIMITED TO ONE SIDE AT A TIME, AND THE PROCEDURES OUTLINED IN THE PAVEMENT DROP-OFF TREATMENT STANDARD PDT-2 (LATEST REVISION) SHALL BE IMPLEMENTED. ONLY THAT AMOUNT OF OPEN TRENCH WILL BE ALLOWED THAT CAN BE SURFACED IN 1 (ONE) DAY'S TIME WITHOUT APPROVAL BY THE ENGINEER. LIGHTS, SIGNS AND BARRICADES SHALL BE MOVED AS WORK PROGRESSES.

ALL TREES, BRUSH, AND OTHER DEBRIS THAT MIGHT INTERFERE WITH THE FLOW OF WATER SHALL BE CLEANED OUT TO THE RIGHT-OF-WAY LINE, AT EACH STRUCTURE AND BRIDGE, IN A MANNER APPROVED BY THE ENGINEER. ALL COST TO BE INCLUDED IN OTHER ITEMS OF WORK.

THE CONTRACTOR SHALL PROVIDE ALL TEMPORARY RIGHT-OF-WAY FENCE AS REQUIRED. WHEN THE PORTION OF THE PROJECT THAT REQUIRED THIS FENCE IS COMPLETED, THE TEMPORARY FENCE SHALL BE REMOVED, AND PERMANENT RIGHT-OF-WAY FENCING SHALL BE RESTORED OR INSTALLED IN A MANNER APPROVED BY THE ENGINEER. ALL COST OF TEMPORARY FENCING SHALL BE INCLUDED IN OTHER ITEMS OF WORK.

ALL FLOWLINES THAT ARE TO BE FILLED SHALL BE THOROUGHLY TAMPED BEFORE CONSTRUCTION OR EXTENSION OF DRAINAGE STRUCTURES. ALL COST TO BE INCLUDED IN OTHER ITEMS OF WORK.

IN ORDER TO ALLEVIATE DUST CONDITIONS DURING GRADING OPERATIONS AND BEFORE PAVEMENT WORK IS COMPLETED, THE CONTRACTOR SHALL SPRINKLE GRADING AT INTERVALS APPROVED BY THE ENGINEER. ALL COST TO BE INCLUDED IN OTHER ITEMS OF WORK.

THE CONTRACTOR SHALL NOT WASTE ANY EXCESS EXCAVATION UNTIL ALL PLANNED EMBANKMENTS AND BACKFILLS ARE COMPLETED. EXCESS UNCLASSIFIED EXCAVATION MATERIAL DETERMINED BY THE ENGINEER TO BE SUITABLE FOR BACKFILL SHALL BE USED TO REDUCE ANY UNCLASSIFIED BORROW NEEDED. COST OF SECOND HANDLING SHALL BE INCLUDED IN OTHER ITEMS OF WORK. ANY REMAINING EXCESS EXCAVATION SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND BE DISPOSED OF IN A MANNER APPROVED BY THE ENGINEER.

THE CONTRACTOR SHALL KEEP THE OPEN TRENCH DRAINED. COST TO BE INCLUDED IN OTHER ITEMS OF WORK.

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.

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.

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 MULCHED AS CALLED FOR ON THE PLANS, BUT SHALL NOT BE SEEDED, SODDED, OR SPRIGGED.

PIPE UNDERDRAIN QUANTITIES ESTIMATED ONLY. LOCATION, IF AND WHERE REQUIRED, TO BE DETERMINED BY THE ENGINEER.

T.B.S.C. SURFACES SHALL BE SPRINKLED WITH WATER AND ROLLED WITH A PNEUMATIC ROLLER IN A MANNER APPROVED BY THE ENGINEER.

THE ENGINEER SHALL CHECK GRADES AT RAMP TERMINALS, AND MAKE ANY ADJUSTMENTS OF THE GRADES AND SUPERELEVATIONS, WHICH ARE REQUIRED TO OBTAIN SMOOTH PROFILES FOR BOTH EDGES OF THE RAMP PAVEMENT. CROSS SLOPE BREAKOVER SHALL NOT EXCEED 5%(FIVE PERCENT).

ONLY THE SILICONE SEALANT OPTIONS, FROM STANDARD LECS-5, WILL BE ALLOWED ON THIS PROJECT.

PRIOR TO FINAL ACCEPTANCE, ALL EXPOSED CURB SURFACES SHALL BE CLEANED OF ALL DISCOLORATION SUCH AS ASPHALT STAIN, TIRE MARKS, OR OTHER DISFIGUREMENT.

EXCESS ASPHALT AT JOINTS AND CRACKS IN EXISTING PAVEMENT SHALL BE REMOVED FLUSH TO TOP OF PAVING IN A MANNER APPROVED BY THE ENGINEER.

ALL FEATURES OF THIS PROJECT INCLUDING, BUT NOT LIMITED TO, PATHS, SIDEWALKS, CURB RAMPS, AND CROSSWALK MARKINGS WILL COMPLY WITH PUBLIC RIGHTS-OF-WAY ACCESSIBILITY GUIDELINES (PROWAG), PUBLISHED JULY 26, 2011. WHERE SPECIAL LIMITATIONS OF EXISTING FEATURES WITHIN THE LIMITS OF THE PROJECT PREVENT FULL COMPLIANCE WITH PROWAG, THE CONTRACTOR WILL IMMEDIATELY NOTIFY THE ENGINEER UPON DISCOVERY OF SUCH FEATURES. THE CONTRACTOR WILL NOT PROCEED WITH ANY OF THE WORK, WHICH IS NOT IN FULL COMPLIANCE WITH PROWAG, WITHOUT PROIR WRITTEN APPROVAL FROM THE ENGINEER. ANY WORK WHICH IS NOT PERFORMED WITHIN THE GUIDELINES OF PROWAG FOR WHICH THE CONTRACTOR DOES NOT HAVE WRITTEN APPROVAL WILL BE CORRECTED AT THE CONTRACTOR'S EXPENSE.

THE CROSS SLOPE FOR PATHS, SIDEWALKS AND RAMPS WITHIN THE LIMITS OF AN ACCESIBLE ROUTE WILL NOT EXCEED 1:50 OR 2%.

RAMP LONGITUDINAL SLOPES WILL NOT EXCEES 1:12 OR 8.33%.

THE CONTINUOUS PATH'S CROSS SLOPE WILL NOT EXCEED 2% THROUGH DRIVEWAYS. SEE DRIVEWAY DETAIL ON ODOT ROADWAY STANDARD WCR-4 AND SPECIAL DRIVEWAY DETAILS.

SIDEWALK AND RAMP LOCATIONS HAVE BEEN DEPICTED WITHOUT KNOWLEDGE OF ULTIMATE UTILITY STRUCTURE LOCATIONS. LOCATIONS WILL BE ADJUSTED TO AVOID ABOVE GRADE UTILITY STRUCTURES SUCH AS UTILITY POLES, RISERS, GUY ANCHORS, AND OTHER ABOVE GRADE APPURTENANCES. NO SUCH STRUCTURES WILL BE ALLOWED WITH THE 'PEDESTRIAN ACCESS ROUTE' AS DEFINED BY PROWAG.

CONSTRUCTION NOTES

ALL WORK AND/OR MATERIALS NOT CLASSIFIED AS A "CONTRACT PAY ITEM" SHALL BE CONSIDERED INCIDENTAL AND THE COST THEREOF SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEMS WHICH ARE CLASSIFIED FOR PAYMENT.

(CAUTION) THE LOCATION OF ALL UTILITIES AS SHOWN ARE APPROXIMATE. DUE TO RELOCATIONS PLANNED OR PRESENTLY UNDER CONSTRUCTION THERE ARE SOME UTILITIES THAT WILL BE RELOCATED AND NOT SHOWN ON THESE PLANS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO ALL UTILITIES.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE HE MAY INFLICT TO THE EXISTING UNDERGROUND UTILITIES WITHIN THE PROJECT AREA AS A RESULT OF HIS DIGGING, TRENCHING, BORING, ETC,. PRIOR TO DIGGING NEAR THE UTILITIES, THE CONTRACTOR SHALL CALL FOR A LIST OF ALL UNDER GROUND FACILITIES REGISTERED IN THE AREA OF CONSTRUCTION LISTED WITH THE FOLLOWING AGENCIES:
THE OKIE NOTIFICATION CENTER (405) 840-5021 OR 1-800-522-6543

THE OWNERS OF UTILITIES LOCATED WITHIN THE LIMITS OF THIS PROJECT ARE:

OG&E
321 N. HARVEY
OKLA. CITY, OK 73102
(405)272-1010

ODOT
200 N.E. 21ST STREET
OKLA. CITY, OK 7310[illegible]
(405)521-2661

THE CITY OF OKLAHOMA CITY
4[illegible] W. M[illegible] ST., SUITE 500
OKLA. CITY, [illegible] 73102
(405)[illegible]97-35[illegible]8

ONG
401 N. HARVEY
OKLA. CITY, OK 73102
(405)551-400[illegible]

AT&T
7001 NW 23[illegible] ST.
OKLA. CITY, OK 73008
(405)291-[illegible]29

INDIAN NATIONS FIBER OPTICS
1[illegible]4 WEST VINITA
SULPHUR, OK 73086
(580)622-4050

DEPTH AND LOCATION OF EXISTING UTILITIES SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION.

ALL EXISTING MANHOLES, VALVES, FIRE HYDRANTS AND METERS, WHICH ARE NOT BEING RELOCATED OR REMOVED, SHALL BE RESET TO PROPOSED CONDITIONS. ALL ITEMS THAT ARE TO BE REMOVED AND/OR RESET SHALL BE HANDLED WITH CARE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE OCCURRING DURING THESE OPERATIONS.

IN THE EVENT THE EXISTING SECTION LINE ROADS OR PUBLIC ROAD ARE IN ANY WAY DISTURBED AS A RESULT OF THE CONTRACTORS EFFORTS, IT SHALL BE THE RESPONSIBILITY OF SAID CONTRACTOR TO RETURN THE AREA TO ITS ORIGINAL CONDITION WITH NO ADDITIONAL COMPENSATION AS DIRECTED AND TO THE SATISFACTION OF THE ENGINEER.

A CONTRACTOR'S PROGRESS SCHEDULE SHALL BE PREPARED IN ACCORDANCE WITH SECTION 108.03 OF THE 2019 STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION.

TEMPORARY EARTH RETAINAGE (SHEETING AND SHORING) SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE DESIGNED BY A REGISTERED PROFESSIONAL ENGINEER IN THE STATE OF OKLAHOMA. DESIGN CALCULATIONS AND DRAWINGS SHALL BE SUBMITTED TO ODOT BRIDGE DIVISION FOR APPROVAL, PRIOR TO CONSTRUCTION. THE LIMITS OF THE SHEETING AND SHORING ARE TO BE DETERMINED BY THE CONTRACTOR. SEE SECTION 502.04.D OF THE 2019 STANDARD SPECIFICATIONS.

THE CONTRACTOR IS RESPONSIBLE FOR THE PROMPT REPLACEMENT AND/OR REPAIR OF ALL TRAFFIC CONTROL DEVICES AND APPURTENANCES DAMAGED OR DISTURBED DUE TO CONSTRUCTION.

A WORK ZONE PERMIT MUST BE OBTAINED FROM THE TRAFFIC MANAGEMENT DIVISION AT LEAST TWO (2) WORKING DAYS PRIOR TO THE START OF WORK AND/OR PLACING OR REMOVING ANY BARRICADES OR MODIFYING EXISTING TRAFFIC CONTROL DEVICES. CALL (405) 297-2531 TO OBTAIN AN APPLICATION.

THE CONTRACTOR IS RESPONSIBLE FOR THE REMOVAL OF ALL PAVEMENT MARKINGS THAT WILL BE IN CONFLICT WITH THE PROPOSED WORK.

AT ANY JOINTS IN A CONCRETE STRUCTURE, THE CENTER OF THE FIRST REINFORCING BAR PARALLEL TO THAT JOINT SHALL BE A MAXIMUM OF TWO INCHES FROM THE EDGE OF THE CONCRETE.

REMOVED MATERIAL TO BECOME THE PROPERTY OF THE CONTRACTOR AND IT SHALL BE DISPOSED OF IN A MANNER APPROVED BY THE ENGINEER.

ALL BROKEN CONCRETE INCLUDING OLD SIGN FOOTINGS WITH STUBS, WASTE MATERIAL AND DEBRIS SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED FROM THE LIMITS OF THE PROJECT AND DISPOSED OF IN AN AREA APPROVED BY THE ENGINEER. NO PAYMENT SHALL BE MADE FOR THE DISPOSAL OF THIS MATERIAL.

EXISTING GRADE LINES AND CROSS SLOPES SHALL BE FIELD VERIFIED. MODIFICATIONS TO THE GRADE LINES AND CROSS SLOPES AS SHOWN ON THE PLANS TO OBTAIN POSITIVE DRAINAGE WILL BE SUBJECT TO THE APPROVAL OF THE ENGINEER.

THE USGS 7.5 MINUTES QUADRANGLE SHEETS INDICATE THE "WATERS OF THE UNITED STATES" AND "WETLANDS" EXIST WITHIN THIS PROJECT AREA. THE ISSUE OF "WATERS OF THE UNITED STATES" AND "WETLANDS" FALLS UNDER THE CORP OF ENGINEERS (COE) TULSA DISTRICT REGULATORY DIVISION, BUT THE CITY IS OBLIGATED TO INSURE THAT ALL NECESSARY STATE AND FEDERAL PERMITS HAVE BEEN OBTAINED, PURSUIT TO 44 CFR 60.3. THEREFORE, THE APPLICANT IS REQUIRED TO SUBMIT DOCUMENTATION FROM THE COE SHOWING COE APPROVAL FOR THE PROPOSED WORK.

CONSTRUCTION ACTIVITIES THAT RESULT IN LAND DISTURBANCE OF EQUAL TO OR GREATER THAN ONE (1) ACRE, OR LESS THAN ONE (1) ACRE IF THEY ARE PART OF A LARGER COMMON PLAN OF DEVELOPMENT OR SALE THAT TOTALS AT LEAST ONE (1) ACRE MUST OBTAIN A PERMIT FROM ODEQ (FORM 605-002A) FOR STORM WATER DISCHARGES FROM CONSTRUCTION ACTIVITIES.

A COPY OF THE EROSION CONTROL SITE PLAN MUST BE ON SITE AT ALL TIMES AND MADE AVAILABLE TO THE INSPECTOR UPON REQUEST.

ANY AREA WITHIN THE PROJECT LIMITS DISTURBED BY THE CONTRACTORS CONSTRUCTION ACTIVITIES NOT SPECIFICALLY SHOWN ON THE PLANS i.e. (STAGING AREAS, STORAGE AREAS, HAUL ROADS, ETC.) SHALL BE RESTORED TO ORIGINAL CONDITION AS DIRECTED BY THE ENGINEER. ALL COST TO BE INCLUDED IN OTHER ITEMS OF WORK.

Preliminary Plans

UNLESS OTHERWISE NOTED ON THE PLANS. HORIZONTAL LOCATIONS OF EX. UTILITIES ARE APPROXIMATE & VERTICAL LOCATIONS OF EX. UTILITIES ARE UNKNOWN.

DESIGN	-	-
DRAWN	-	-
CHECKED	-	-
APPROVED	-	-
SQUAD	POE	

PHASE 2 — OKLAHOMA COUNTY

SUMMARY OF PAY QUANTITIES & NOTES (ROADWAY)

STATE JOB NO. 09032(06) SHEET NO. AR02

5/27/2022 9:47:54 AM
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POE & ASSOCIATES, OKLAHOMA CITY, OK.

FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.				

REVISIONS	
DESCRIPTION	DATE
	5/27/2022

SUMMARY OF SURFACING QUANTITIES

STATION TO STATION	UNCLASSIFIED BORROW 202(D)	AGGREGATE BASE TYPE 'A' 303(A)	STABILIZED SUBGRADE 307(K)	SEPARATOR FABRIC 325	SUPERPAVE TYPE S3 (PG 64-22 OK) 411(B)	9" P.C. CONC. PAVT. (PLACEMENT) 414(A)	10" P.C. CONC. PAVT. (PLACEMENT) 414(A)	9" DOWEL JOINTED P.C. CONC. PAVT. (PLACEMENT) 414(B)	10" DOWEL JOINTED P.C. CONC. PAVT. (PLACEMENT) 414(B)	9" P.C. CONC. PAVT. FOR PAVEMENT 414(G)	10" P.C. CONC. PAVT. FOR PAVEMENT 414(G)	SLOPE WALL (4") 510(C)	CONC. CURB. (4" MNTBLE-INTEGRAL) 609(A)	CONC. CURB. (6" BARRIER-INTEGRAL) 609(A)	4" CONCRETE SIDEWALK 610(A)	4" CONCRETE DIVIDING STRIP 610(C)
	CY	CY	SY	SY	TON	SY	SY	SY	SY	CY	CY	SY	LF	LF	SY	SY
I-35 WIDENING																
95+64.51 TO 101+00.00		237.07	711.20	711.20	159.32				711.20		197.57					
101+00.00 TO 114+99+78	132.54	1,047.95	3,143.84	4,011.35	704.25		696.82		2,157.87		793.03	225.67	1301.26			36.75
RAMP A																
92+50.00 TO 101+77.63	128.01		3,544.72		714.01		604.70		2,225.39		786.20					
RAMP B																
395+07.46 TO 410+00.00	179.59	791.98	5,934.00	2,798.40	1,282.22		1,125.23		4,147.00		1,464.62		1088.93			
410+00.00 TO 411+22.76	3.98		423.08		92.70		118.13		286.39		112.38					
428+39.58 TO 431+18.52	29.89		995.07		222.91		275.36		655.74		258.66		287.16			
RAMP F																
406+00.00 TO 419+58.05	130.02		4,414.00		922.98		1,066.00		2,683.52		1,041.62		346.[illegible]			
RAMP J																
87+64.90 TO 88+00.00			110.86		24.83	29.96		80.89		27.71						
88+00.00 TO 97+34.20	76.32		2,444.43		547.58	310.90		1,961.41		568.08			[illegible]7.61			
RAMP M																
425+97.34 TO 429+00.00	17.42		1,003.72		219.01	233.75		700.38		233.[illegible]			83.32			
429+00.00 TO 430+00.00	9.61		238.24		53.37			216.55		54.1[illegible]			97.91			
N.W. SERV. RD.																
100+52.14 TO 105+80.00	54.24	49.91		224.61	50.32	102.38				25.60				552.63	30.87	
TOTALS	**761.62**	**2,126.91**	**22,963.16**	**7,745.56**	**4,993.50**	**676.99**	**3,886.24**	**2,959.23**	**[illegible],867.[illegible]**	**909.06**	**4,654.08**	**225.67**	**3,983.13**	**552.63**	**30.87**	**36.75**

SUMMARY OF WHEELCHAIR RAMPS

LOCATION	NUMBER	TYPE	TACTILE WARNING DEVICE-NEW 610(I)	REMARKS
			SF	
N.W. SERV. RD				
105+72.00	1.00	B	12.00	RT OF ALIGNMENT
TOTALS:			**12.00**	

SUMMARY OF EROSION CONTROL

LOCATION STATION TO STATION	SOD SLAB SODDING 230(A)	VEGETATIVE MULCHING 233(A)	FERTILIZING (10-20-10) (1)	FERTILIZING (18-46-0) (1)	WATERING (1)	MOWING 241
	S.Y.	ACRE	TON	TON	K-GAL.	AC.
I-35						
101+00.00 TO 114+99.78	1840.05	0.38	0.18	0.03	73.60	0.38
RAMP A						
92+50.00 TO 101+77.63	7648.84	1.58	0.76	0.12	305.95	1.58
RAMP B						
395+07.46 TO 410+00.00	7481.83	1.55	0.75	0.12	299.27	1.55
410+00.00 TO 411+22.76	1639.10	0.34	0.16	0.03	65.56	0.34
428+39.58 TO 431+18.52	1498.30	0.31	0.15	0.02	59.93	0.31
RAMP F						
406+00.00 TO 419+58.05	11652.38	2.41	1.17	0.18	466.10	2.41
RAMP J						
91+00.00 TO 97+34.20	860.90	0.18	0.09	0.01	34.44	0.18
RAMP M						
425+97.34 TO 429+00.00	147.54	0.03	0.01	0.00	5.90	0.03
429+00.00 TO 430+00.00	84.18	0.02	0.01	0.00	3.37	0.02
N.W. SERV. RD	0.00	0.00	0.00	0.00	0.00	0.00
100+52.14 TO 105+50.00	792.32	0.16	0.08	0.01	31.69	0.16
EXISTING PAVEMENT	1944.98	0.40	0.19	0.03	77.80	0.40
TOTALS	**35,590.42**	**7.36**	**3.55**	**0.55**	**1,423.61**	**7.36**

(1) FOR INFORMATION ONLY

SUMMARY OF TEMPORARY SEDIMENT CONTROL

LOCATION STATION TO STATION	TEMPORARY SILT FENCE 221(B)	(PL)TEMPORARY INLET SEDIMENT FILTER 221(H)	TEMPORARY SILT DIKE 221(E)	TEMPORARY FIBER LOG 221(G)
	L.F.	EA.	LF	LF
I-35				
86+00.00 TO 101+00.00				
101+00.00 TO 116+00.00	1,203.00	24.00		
Ramp A				
92+00.00 TO 107+00.00	1,082.00		126.00	84.00
Ramp B				
395+07.46 TO 410+00.00	1,063.00	24.00	147.00	28.00
410+00.00 TO 421+00.00			42.00	
425+00.00 TO 440+00.00	334.00	10.00	21.00	28.00
Ramp F				
406+00.00 TO 419+58.05	809.00		105.00	
Ramp J				
77+07.36 TO 88+00.00				
88+00.00 TO 97+34.20	818.00	14.00		
Ramp M				
414+39.37 TO 429+00.00	209.00			
429+00.00 TO 435+39.70	103.00	4.00		
NW Serv. Rd.				
100+00.00 TO 106+20.18	371.00	2.00		
TOTALS	**5,992.00**	**78.00**	**441.00**	**140.00**

Preliminary Plans

DESIGN	-	-
DRAWN	-	-
CHECKED	-	-
APPROVED	-	-
SQUAD	POE	

PHASE 2 OKLAHOMA COUNTY

SUMMARY SHEET
(SHEET 1 OF 7)

STATE JOB NO. 09032(06) SHEET NO. AR03

5/27/2022 9:48:05 AM
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POE & ASSOCIATES, OKLAHOMA CITY, OK.					
FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.				

REVISIONS	
DESCRIPTION	DATE
	5/27/2022

SUMMARY OF BARRIER

LOCATION	LOCATION	42" F-SHAPED PARAPET 504(E)	CLASS A CONC 509(B)	EPOXY COATED REINF. STEEL 511(B)	WATER REPELLENT (VISUALLY INSPECTED) 515(A)	IMPACT ATTENUATOR 871(A)	DESIGN							
							1	2	3	4	5	6	7	8
							1	1A	FSB	FSB	TS	L.P. SUP	O.H. SIGN SUP	FSB R.W.P.
		LF	CY	LB	SY	EA								
RAMP 'B'														
409+93.76 TO 411+22.76	LT.	129.00	197.37	4,002.87	1,024.80	1.00				X				
410+41.76 TO 411+22.76	RT.	81.00	123.93	2,513.43	643.48	1.00				X				
428+39.58 TO 431+18.52	LT.	278.94	426.78	8,655.51	2,215.95					X				
RAMP 'F'														
409+50.00 TO 414+25.00	RT.	475.00	726.75	14,739.25	3,773.48	1.00				X				
RAMP 'J'														
87+64.90 TO 94+00.00	LT.	635.10	876.44	19,592.84	5,045.34					X				
87+64.90 TO 91+00.00	RT.	335.10	462.44	10,337.84	2,662.09					X				
RAMP 'M'														
425+97.34 TO 430+00.00	LT.	402.66	555.67	12,422.06	3,198.80					X				
425+97.34 TO 427+00.00	RT.	102.66		785.21	815.55				X					X
TOTALS:		**2,439.46**	**3,369.38**	**73,049.01**	**19,379.49**	**3.00**								

1 DESIGN 1 LONGITUDINAL BARRIER - SEE ODOT STANDARD DRAWING CLB-2

2 DESIGN 1A LONGITUDINAL BARRIER - SEE ODOT STANDARD DRAWING CLB-2

3 F-SHAPED PARAPET - SEE DETAIL THIS SHEET

4 F-SHAPED PARAPET WITH MOMENT SLAB - SEE DETAIL SHEET

5 MEDIAN BARRIER TRANSITION - SEE ODOT STANDARD DRAWING

6 MEDIAN BARRIER LIGHT POLE SUPPORT

7 MEDIAN BARRIER OVERHEAD SIGN STRUCTURE SUPPORT

8 F-SHAPED PARAPET - RETAINING WALL PROTECTION

SUMMARY OF RETAINING WALLS

LOCATION	CONCRETE RAIL (TR4) 504(D)	CLASS C CONC. 509(D)	RETAINING WALL 520(A)	MSE RETAINING WALL 510(D)	WATER REPELLENT (VISUALLY INSPECTED) 515(A)
	LF	C	SY	Y	SY
WALL 'B'				453.90	
WALL 'C1'				1274.69	
WALL 'C2'				659.70	
WALL 'P'	132.00	6.90	135.50		102.00
TOTALS:	**132.00**	**6.90**	**135.50**	**2388.29**	**102.00**

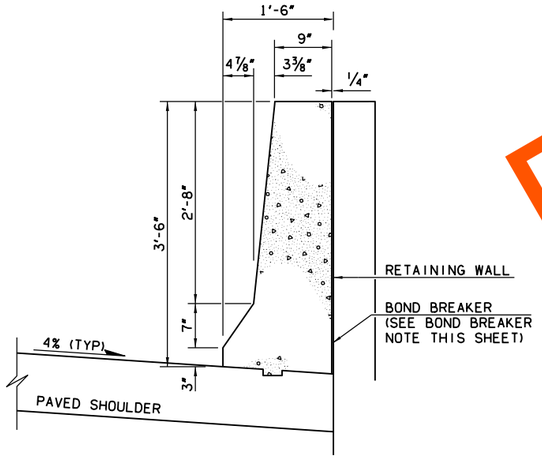
SUMMARY OF EARTHWORK

STATION TO STATION	UNCLASSIFIED EXCAVATION 202(A)	EMBANKMENT +/-15%	EXCESS EXCAVATION (1)	UNCLASSIFIED BORROW 202(D)
	C.Y.	C.Y.	C.Y.	C.Y.
RAMP 'A'				
STA. 92+[illegible] TO STA. 101+77.63	861.00	23,675.00		22,814.00
RAMP 'B'				
STA. 405+07.46 TO STA. 411+22.76	4,606.00	18,116.00		13,510.00
STA. 428+39.58 TO STA. 431+18.52	0.00	6,109.00		6,109.00
RAMP 'C'				
STA. 95+[illegible].51 TO STA. 114+99.78	3,579.00	0.00	3,579.00	
RAMP 'F'				
STA. 406+00.00 TO STA. 419+58.05	194.00	34,494.00		34,300.00
RAMP 'J'				
STA. 87+64.90 TO STA. 97+34.20	312.00	8,871.00		8,559.00
RAMP 'M'				
STA. 425+97.34 TO STA. 430+00.00	166.00	21.00	145.00	
N.W. SERVICE ROAD				
STA. 100+52.14 TO STA. 105+80.00	47.00	271.00		224.00
TOTALS	**9,765.00**	**91,557.00**	**0.00**	**81,792.00**

(1) 3,724 CY OF EXCESS EXCAVATION WAS USED TO REDUCE UNCLASSIFIED BORROW. ANY REMAINING QUANTITY WILL BECOME WASTE AND BE DISPOSED OF BY THE CONTRACTOR IN A MANNER APPROVED BY THE ENGINEER

SUMMARY OF PAVEMENT EDGE DRAIN

STATION TO STATION	LOCATION LEFT	LOCATION RIGHT	EDGE DRAIN CONDUIT-PERFORATED 613(J)	EDGE DRAIN OUTLET LATERAL-NONPERFORATED 613(K)	OUTLET LATERAL HEADWALL 613(Q)	REMARKS
			LF	LF	EA	
I-35						
102+00.01 TO 103+00.50	X		100.49			STUB INTO STR B11
103+00.50 TO 104+15.00	X		114.50			STUB INTO STR B9
104+15.00 TO 105+00.00	X		85.00			STUB INTO STR B8
105+00.00 TO 106+28.75	X		128.75			STUB INTO STR B7
106+28.75 TO 107+50.00	X		121.25			STUB INTO STR B7
107+50.00 TO 108+67.00	X		117.00			STUB INTO STR B5
108+67.00 TO 109+84.00	X		117.00			STUB INTO STR B3
109+84.00 TO 114+99.78	X		515.78			STUB INTO STR B1
RAMP B						
395+07.46 TO 395+20.00		X	12.54			TIE TO I-35 EDGE DRAIN
395+20.00 TO 400+50.00		X	530.00			STUB INTO STR B12
400+50.00 TO 401+41.59		X	91.59	189.00		STUB INTO STR B13
TOTALS:			**1933.90**	**189.00**	**0.00**	



BOND BREAKER:
POLYETHYLENE SHEETING 6 MILS THICK OR 2 SHEETS 4 MILS THICK TO ACT AS A BOND BREAKER. COST TO BE INCLUDED IN OTHER ITEMS OF WORK.

TYPICAL SECTION AT WALL "N" ON PAVED SHOULDER

THIS BARRIER BID AS: 42" F-SHAPED PARAPET LF.
SHEET STD. FSHP-42-2(LATEST REVISION)
REINFORCING NOT SHOWN FOR CLARITY.

Preliminary Plans

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DESIGN	-	-
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CHECKED	-	-
APPROVED	-	-
SQUAD	POE	

PHASE 2 OKLAHOMA COUNTY

SUMMARY SHEET
(SHEET 2 OF 7)

STATE JOB NO. 09032(06) SHEET NO. AR04

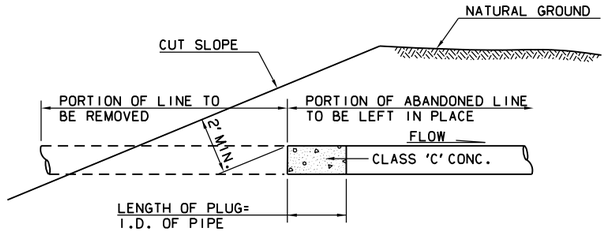
POE & ASSOCIATES, OKLAHOMA CITY, OK.					
FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.				

REVISIONS	
DESCRIPTION	DATE
	5/27/2022

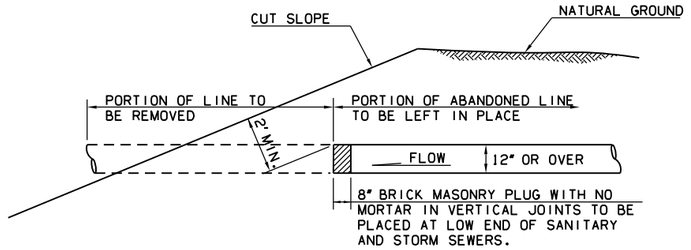
SUMMARY OF REMOVALS

STATION LOCATION	REMOVAL OF CURB AND GUTTER (1)	REMOVAL OF CONCRETE PAVEMENT 619(B)	REMOVAL OF ASPHALT PAVEMENT 619(B)	REMOVAL OF SIDEWALK (1)	REMOVAL OF CONCRETE SLOPE PROTECTION (1)	REMOVAL OF EX. RETAINING WALL (1)	REMOVAL OF CONCRETE DIVIDING STRIP (1)	SAWING PAVEMENT (1)
	L.F.	S.Y.	S.Y.	S.Y.	S.Y.	L.F.	S.Y.	L.F.
CL I-35								
70+00.00 TO 85+00.00	1,443.23		1,700.20					136.39
85+00.00 TO 100+00.00	192.88	1,113.32					6.20	831.34
100+00.00 TO 115+00.00		3,055.90		17.49	387.52		181.81	2,090.32
TOTALS	**1,636.11**	**4,169.22**	**1,700.20**	**17.49**	**387.52**	**0.00**	**188.01**	**3,058.05**

(1) QUANTITY SHOWN IS FOR INFORMATION PURPOSES ONLY.
SEE GENERAL NOTE 3 THIS SHEET

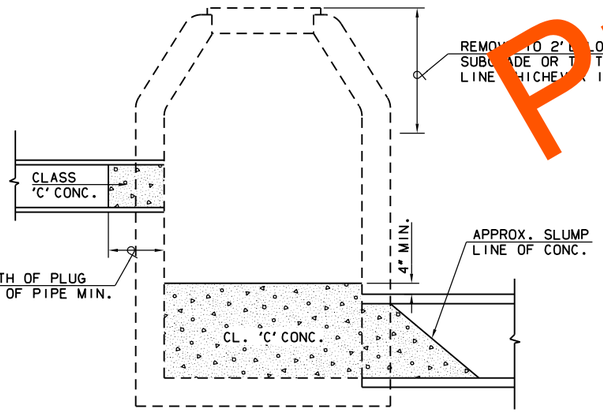


NOTE:
ALL PIPE LINES ABANDONED AND LEFT IN PLACE BY OTHERS AND STORM SEWERS, SANITARY SEWERS AND WATER LINES WHICH ARE ABANDONED UNDER THIS CONTRACT, SHALL BE REMOVED TO THE LIMITS OF CONSTRUCTION IN EXCAVATION SECTIONS AND PLUGGED AS SHOWN. IN EMBANKMENT SECTIONS "ABANDONED" SANITARY SEWER LINES (UNLESS OTHERWISE NOTED ON PLANS) AND WATER LINES "PLACED OUT OF SERVICE" SHALL BE PLUGGED AT BOTH ENDS. STORM SEWER, A PART OF WHICH WILL REMAIN IN SERVICE, SHALL BE PLUGGED AT THE R/W LINE. WHERE NOTED, THE EXISTING ABANDONED SANITARY SEWER LINES SHALL BE COMPLETELY FILLED WITH CLSM.

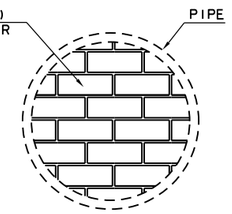


METHOD OF PLUGGING ABANDONED PIPE LINES

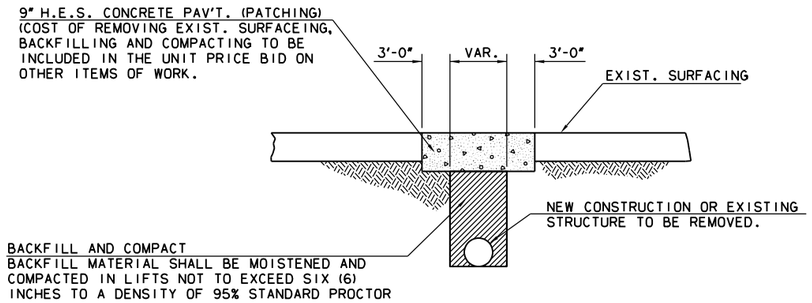
(COST OF PLUGGING SHALL BE INCLUDED IN THE UNIT PRICE BID ON OTHER ITEMS OF WORK.)



DETAIL OF REMOVAL OF MANHOLES, JUNCTION BOXES & INLETS



DETAIL OF TEMPORARY PIPE PLUG



PATCHING DETAIL

(WHERE IT IS NECESSARY TO CUT EXISTING SURFACING FOR REMOVAL OR CONSTRUCTION OF AN UNDERGROUND FACILITY)

GENERAL NOTES

1. ALL MATERIALS REMOVED SHALL BECOME THE PROPERTY OF THE CONTRACTOR, UNLESS SPECIFICALLY NOTED OTHERWISE.
2. CLASS 'C' CONCRETE SHALL BE PLACED IN THE BOTTOM OF EACH MANHOLE AS SHOWN. MANHOLE THEN SHALL BE REMOVED TO DEPTH SPECIFIED AND BACK-FILLED IN ACCORDANCE WITH SEC. 619, OR FILLED WITH BRICK, BROKEN CONCRETE AND LOOSE SAND IN A MANNER TO ELIMINATE ALL VOIDS IN A MANNER APPROVED BY THE ENGINEER. COST TO BE INCLUDED IN PRICE BID FOR CLASS 'C' CONCRETE.
3. PRICE BID SHALL INCLUDE, BUT IS NOT LIMITED TO, THE REMOVAL OF CURB, CURB & GUTTER, SIDEWALK, DRIVEWAYS, PAVEMENT SAWING, CONCRETE DITCH LINER, CONCRETE FLUMES, CONCRETE RUBBLE, CONCRETE DIVIDING STRIP, FOOTINGS, FOUNDATIONS, PITS, WING WALLS, STRUCTURES, STORM SEWERS, MANHOLES, PIPELINES, LIGHT POLES, FENCES, GUARDRAIL, POLES, SHEET METAL SIGNS, ETC., AND ANY OTHER NON-ORGANIC ITEM NOT SPECIFICALLY LISTED AS A REMOVAL PAY ITEM SHALL BE INCLUDED IN PRICE BID FOR REMOVAL OF STRUCTURES AND OBSTRUCTIONS.
4. INTEGRAL CURB REMOVED W/CONCRETE PAVING SHALL BE INCLUDED IN THE PRICE BID FOR REMOVAL OF CONCRETE PAVING S.Y.
5. ALL SALVAGE MATERIALS BELONGING TO THE CITY OF OKLAHOMA CITY SHALL BE DELIVERED TO THE OKC TRAFFIC OPERATIONS YARD, 1400 S. SHARTEL, OKLA. CITY, OK 405-297-2648
6. CONCRETE RAIL REMOVED WITH EXISTING RETAINING WALL SHALL BE INCLUDED IN THE PRICE BID FOR REMOVAL OF RETAINING WALL L.F..

DESIGN	-	-
DRAWN	-	-
CHECKED	-	-
APPROVED	-	-
SQUAD	POE	

PHASE 2 OKLAHOMA COUNTY

SUMMARY SHEET
(SHEET 3 OF 7)

STATE JOB NO. 09032(06) SHEET NO. AR05

Preliminary Plans

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POE & ASSOCIATES, OKLAHOMA CITY, OK.

FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.				

REVISIONS

DESCRIPTION	DATE
	5/27/2022

SUMMARY OF STORM SEWERS AND DRAINAGE STRUCTURES

STR NO.	STATION	OFFSET	DESCRIPTION	ROADWAY STANDARDS	CLASS A CONCRETE, SMALL STRUCTURES	MANHOLE	ADD'L. DEPTH MANHOLE	INLET SMD	ADD'L DEPTH INLET SMD	INLET CDI	ADD'L DEPTH INLET CDI	INLET LONG. BARRIER	ADD'L DEPTH INLET LONG. BARRIER	INLET CI DES.				ADD'L DEPTH IN INLET				INLET W/ LRG. JCT. BOX CI DES.		ADD'L DEPTH IN INLET W/ LRG. JCT. BOX CI DES.	
						611(A)		611(G)		611(G)		611(G) TYPE 1		611(G)								611(G)			
					509(C)	4'	4'	TYPE 2	TYPE 2	DES 4	DES 4	DES 1	TYPE 1	2(STD.)	2(B)	3(STD.)	3(B)	2(STD.)	2(B)	3(STD.)	3(B)	2(STD.)	3(STD.)	2(STD.)	3(STD.)
					CY	EA	VF	EA	VF	EA	VF	EA	VF	EA	EA	EA	EA	VF	VF	VF	VF	EA	EA	VF	VF
A14	BL RAMP A STA. 92+73.77	86.93' RT.	CONST. 24" X 156.65' LG. RCP W/ PCES EACH END	SPI-5, SPB-2, PCES-5, FHTCP-4																					
A15	BL RAMP A STA. 96+67.00	62.74' RT.	CONST. CDI RCP DES. 4 W/ 24" X 170.36' LG. RCP TO STR. A16	CDIP-2, SPI-5, SPB-2, FHTCP-4						1	1.02														
A16	BL RAMP A STA. 98+39.00	37.50' RT.	CONST. 4.0' DIA. MH W/ 24" X 16.80' LG. RCP TO STR. CD5	MJB-4, MFC-5, SPI-5, SPB-2, FHTCP-4		1	7.17																		
A17	BL RAMP A STA. 100+50.00	33.38' LT.	CONST. SMD TYPE 2 W/ 18" X 4.64' LG. RCP TO STR. A18	SMD-4, SPI-5, SPB-2, FHTCP-4				1	0.54																
A18	BL RAMP A STA. 100+50.00	25.50' LT.	CONST. 4.0' DIA. MH W/ 24" X 156.30' LG. RCP TO STR. CD5 @ STA. 98+92.00, 35.15' LT.	MJB-4, MFC-5, SPI-5, SPB-2, FHTCP-4		1	0.74																		
A19	BL RAMP A STA. 102+00.00	40.00' LT.	CONST. 4.0' DIA. MH W/ 24" X 147.09' LG. RCP TO STR. A18	MJB-4, MFC-5, SPI-5, SPB-2, FHTCP-4		1	1.73																		
A20	BL RAMP A STA. 102+00.00	27.68' RT.	CONST. SMD TYPE 2 W/ 24" X 64.35' LG. RCP TO STR. A19	SMD-4, SPI-5, SPB-2, FHTCP-4				1	0.54																
B1	CL I-35 STA. 109+84.00	65.00' LT.	CONST. CI DES. 2(B) W/ 18" X 3.84' LG. RCP TO STR. B2	CI-2, SPI-5, SPB-2, FHTCP-4											1				0.34						
B2	CL I-35 STA. 109+84.00	71.50' LT.	CONST. 4.0' DIA. MH W/ 18" X 113.00' LG. RCP TO STR. B4	MJB-4, MFC-5, SPI-5, SPB-2, FHTCP-4		1	0.54																		
B3	CL I-35 STA. 108+67.00	65.00' LT.	CONST. CI DES. 3(STD) W/ 18" X 3.84' LG. RCP TO STR. B4	CI-2, SPI-5, SPB-2, FHTCP-4												1				2.16					
				SHEET TOTAL:		4	10.18	2	1.08		1.02				1	1			0.34	2.16					
							(1)		(1)		(1)		(1)					(1)	(1)	(1)	(1)			(1)	(1)

SUMMARY OF STORM SEWERS AND DRAINAGE STRUCTURES

STR NO.	INLET FRAME & GRATE TYPE B	INLET FRAME & GRATE TYPE C	CAST IRON HOODS 4" MOUNT	CAST IRON HOODS 6" BAR	JUNCTION BOXES 611(L)	REINFORCED CONCRETE PIPE CLASS III 613(A) 18"	24"	30"	R.C. PIPE ARCH CLASS III 613(A) 28" X 18"	58" X 36"	PREFAB. CULVERT END SEC., ROUND 613(L) 18"	24"	PREFAB. CULVERT END SEC., ARCH 613(L) 18" X 36"	STANDARD BEDDING MATERIAL, B	STANDARD BEDDING MATERIAL, C	TRENCH EXCAVATION
	EA	EA	EA	EA	CF	LF	LF	LF	LF	LF	EA	EA	EA	CY	CY	CY
A14							156.65					2			60.5	79.6
A15							170.36								65.8	95.7
A16							16.80								6.5	8.9
A17						4.64									1.3	1.8
A18							156.30								82.5	178.3
A19							147.09								77.7	145.7
A20							64.35								34.0	76.4
B1	2	2	4			3.84								1.1		1.6
B2						113									44.5	95.1
B3	2	2	4			3.84								1.1		1.6
	4	4	8			125.32	711.55					2		2.2	372.8	684.7
	(1)	(1)	(1)	(1)										(1)	(1)	(1)

Preliminary Plans

(1) QUANTITIES SHOWN ARE FOR INFORMATIONAL PURPOSES ONLY. COST OF THESE ITEMS ARE INCLUDED IN OTHER ITEMS BID.

DESIGN	-	-
DRAWN	-	-
CHECKED	-	-
APPROVED	-	-
SQUAD	POE	

PHASE 2 OKLAHOMA COUNTY

SUMMARY SHEET
(SHEET 4 OF 7)

STATE JOB NO. 09032(06) SHEET NO. AR06

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POE & ASSOCIATES, OKLAHOMA CITY, OK.

FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.				

REVISIONS	
DESCRIPTION	DATE
	5/27/2022

SUMMARY OF STORM SEWERS AND DRAINAGE STRUCTURES

STR NO.	STATION	OFFSET	DESCRIPTION	ROADWAY STANDARDS	CLASS A CONCRETE, SMALL STRUCTURES	MANHOLE	ADD'L. DEPTH MANHOLE	INLET SMD	ADD'L DEPTH INLET SMD	INLET CDI	ADD'L DEPTH INLET CDI	INLET LONG. BARRIER	ADD'L DEPTH INLET LONG. BARRIER	INLET CI DES.				ADD'L DEPTH IN INLET				INLET W/ LRG. JCT. BOX CI DES.		ADD'L DEPTH IN INLET W/ LRG. JCT. BOX CI DES.	
												611(G)		611(G)										611(G)			
					509(C)	4'	4'	TYPE 2	TYPE 2	DES 4	DES 4	DES 1	TYPE 1	2(STD.)	2(B)	3(STD.)	3(B)	2(STD.)	2(B)	3(STD.)	3(B)	2(STD.)	3(STD.)	2(STD.)	3(STD.)
					CY	EA	VF	EA	VF	EA	VF	EA	VF	EA	EA	EA	EA	VF	VF	VF	VF	EA	EA	VF	VF
B4	CL I-35 STA. 108+67.00	71.50' LT.	CONST. 4.0' DIA. MH W/ 18" X 112.37' LG. RCP TO STR. B5	MJB-4, MFC-5, SPI-5, SPB-2, FHTCP-4		1	0.51																		
B5	CL I-35 STA. 107+50.00	65.00' LT.	CONST. CI DES. 2(STD) W/ LARGE JUNCT. BOX W/ 18" X 115.85' LG. RCP TO STR. B7	CI-2, MJB-4, MFC-5, SPI-5, SPB-2, FHTCP-4																		1		1.5	
B6	CL I-35 STA. 107+49.44	80.85' LT.	CONST. 18" X 8.26' LG. RCP FROM EXIST. MH TO STR. B5	SPI-5, SPB-2, FHTCP-4																					
B7	CL I-35 STA. 106+28.75	65.00' LT.	CONST. CI DES. 3(B) W/ 30" X 8.05' LG. RCP TO EXIST. RCP	CI-2, SPI-5, SPB-2, FHTCP-4													1				2.36				
B8	CL I-35 STA. 105+00.00	65.00' LT.	CONST. CI DES. 2(STD) W/ LARGE JUNCT. BOX W/ 28" X 18" X 123.43' LG. RCPA TO STR. B7	CI-2, MJB-4, MFC-5, SPI-5, SPB-2, FHTCP-4																		1		1.30	
B9	CL I-35 STA. 104+15.00	65.00' LT.	CONST. CI DES. 2(STD) W/ LARGE JUNCT. BOX W/ 28" X 18" X 79.56' LG. RCPA TO STR. B8	CI-2, MJB-4, MFC-5, SPI-5, SPB-2, FHTCP-4																		1		2.04	
B10	CL I-35 STA. 104+13.57	88.06' LT.	CONST. 18" X 15.77' LG. RCP FROM EXIST. MH TO STR. B9	SPI-5, SPB-2, FHTCP-4																					
B11	CL I-35 STA. 103+00.50	65.00' LT.	CONST. CI DES. 3(STD) W/ LARGE JUNCT. BOX W/ 18" X 109.13' LG. RCP TO STR. B9	CI-2, MJB-4, MFC-5, SPI-5, SPB-2, FHTCP-4																			1		2.16
B12	BL RAMP B STA. 395+20.00	10.00' RT.	CONST. CI DES. 3(STD) W/ 18" X 104.32' LG. RCP TO STR. B11	CI-2, SPI-5, SPB-2, FHTCP-4																			1		2.16
B13	BL RAMP B STA. 403+30.00	10.00' RT.	CONST. CI DES. 3(STD) W/ 18" X 91.96' LG. RCP TO STR. B15	CI-2, SPI-5, SPB-2, FHTCP-4																			1		2.16
	SHEET TOTAL:					1	0.51 (1)		(1)		(1)		(1)				1		(1)	(1)	(1)	2.36 (1)	3	3	4.84 (1)	6.48 (1)

SUMMARY OF STORM SEWERS AND DRAINAGE STRUCTURES

STR NO.	INLET FRAME & GRATE		CAST IRON HOODS		JUNCTION BOXES	R.C. PIPE CLASS III			R.C. PIPE ARCH CLASS III		PREFAB. CULVERT END SEC., ROUND		PREFAB. CULVERT END SEC., ARCH	STANDARD BEDDING MATERIAL, B	STANDARD BEDDING MATERIAL, C	TRENCH EXCAVATION
	TYPE		4"	6"		613(A)			613(A)		613(L)		613(L)			
	B	C	MOUNT	BAR	611(L)	18"	24"	30"	28" X 18"	58" X 36"	18"	24"	36" X 36"			
	EA	EA	EA	EA	CF	LF	LF	LF	LF	LF	EA	EA	EA	CY	CY	CY
B4						112.37									30.8	65.4
B5	1	1	2			115.85								5.6		116.6
B6						8.26									3.3	11.2
B7	2	2	6					8.05						3.8		6.5
B8	1	1	2						3.43					46.2		95.1
B9	1	1	2						79.[illegible]					29.8		61.7
B10						15.77									6.2	26.0
B11	2	2	4			109.13								43.0		87.5
B12	2	2	4			104.32								28.6		42.9
B13	2	2	4			91.96								25.2		29.7
	11 (1)	11 (1)	24 (1)	(1)		557.66		8.05	202.99					234.2 (1)	40.3 (1)	542.6 (1)

Preliminary Plans

(1) QUANTITIES SHOWN ARE FOR INFORMATIONAL PURPOSES ONLY. COST OF THESE ITEMS ARE INCLUDED IN OTHER ITEMS BID.

DESIGN	-	-
DRAWN	-	-
CHECKED	-	-
APPROVED	-	-
SQUAD	POE	

PHASE 2 OKLAHOMA COUNTY

SUMMARY SHEET
(SHEET 5 OF 7)

STATE JOB NO. 09032(06) SHEET NO. AR07

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POE & ASSOCIATES, OKLAHOMA CITY, OK.

FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.				

REVISIONS

DESCRIPTION	DATE
	5/27/2022

SUMMARY OF STORM SEWERS AND DRAINAGE STRUCTURES

STR NO.	STATION	OFFSET	DESCRIPTION	ROADWAY STANDARDS	CLASS A CONCRETE, SMALL STRUCTURES	MANHOLE	ADD'L. DEPTH MANHOLE	INLET SMD	ADD'L DEPTH INLET SMD	INLET CDI	ADD'L DEPTH INLET CDI	INLET LONG. BARRIER	ADD'L DEPTH INLET LONG. BARRIER	INLET CI DES.				ADD'L DEPTH IN INLET				INLET W/ LRG. JCT. BOX CI DES.		ADD'L DEPTH IN INLET W/ LRG. JCT. BOX CI DES.	
												611(G)		611(G)										611(G)			
					509(C)	611(A)		611(G)		611(G)		TYPE 1															
						4'	4'	TYPE 2	TYPE 2	DES 4	DES 4	DES 2	TYPE 1	2(STD.)	2(B)	3(STD.)	3(B)	2(STD.)	2(B)	3(STD.)	3(B)	2(STD.)	3(STD.)	2(STD.)	3(STD.)
					CY	EA	VF	EA	VF	EA	VF	EA	VF	EA	EA	EA	EA	VF	VF	VF	VF	EA	EA	VF	VF
B14	BL RAMP B STA. 404+30.00	10.00' RT.	CONST. CI DES. 3(STD) W/ 18" X 3.84' LG. RCP	CI-2, SPI-5, SPB-2, FHTCP-4																			1		2.16
			TO STR. B15																						
B15	BL RAMP B STA. 404+30.00	16.50' RT.	CONST. 4.0' DIA. MH W/ 18" X 55.30' LG. RCP	MJB-4, MFC-5, SPI-5, SPB-2, FHTCP-4		1	0.36																		
			TO STR. B16																						
B16	BL RAMP B STA. 404+90.00	16.50' RT.	CONST. 4.0' DIA. MH W/ 18" X 26.20' LG. RCP	MJB-4, MFC-5, SPI-5, SPB-2, FHTCP-4		1	4.18																		
			TO EXIST. MH																						
B17	BL RAMP B STA. 405+85.00	10.00' RT.	CONST. CI DES. 2(B) W/ 18" X 3.84' LG. RCP	CI-2, SPI-5, SPB-2, FHTCP-4											1				2.16					
			TO STR. B18																						
B18	BL RAMP B STA. 405+85.00	16.50' RT.	CONST. 4.0' DIA. MH W/ 18" X 89.89' LG. RCP	MJB-4, MFC-5, SPI-5, SPB-2, FHTCP-4		1	0.36																		
			TO STR. B16																						
B19	BL RAMP B STA. 430+04.00	4.00' LT.	CONST. ILB TYPE 1 DES 2 W/ 18" X 62.06' LG. RCP	CLB-2, SPI-5, SPB-2, PCES-5, FHTCP-4								1	1.99												
			W/ PCES TO OUTLET																						
B25	BL RAMP B STA. 395+20.00	25.00' RT.	CONST. 4.0' DIA. MH W/ 18" X 12.34' LG. RCP	MJB-4, MFC-5, SPI-5, SPB-2, FHTCP-4				1	0																
			TO STR. B12																						
B26	BL RAMP B STA. 396+36.00	21.00' RT.	CONST. SMD TYPE 2 W/ 18" X 112.74' LG. RCP	SMD-4, SPI-5, SPB-2, FHTCP-4																					
			TO STR. B25																						
NW32	CL NWSR STA. 102+77.00	13.00' RT.	CONST. CI DES. 2(STD) W/ 18" X 3.84' LG. RCP	CI-2, SPI-5, SPB-2, FHTCP-4										1				2.08							
			TO STR. NW33																						
NW33	CL NWSR STA. 102+77.00	19.50' RT.	CONST. 4.0' DIA. MH W/ 18" X 133.29' LG. RCP	MJB-4, MFC-5, SPI-5, SPB-2, FHTCP-4		1	2.01																		
			TO STR. NW34																						
			SHEET TOTAL:			4	6.91	1	0			1	1.99	1	1			2.08	2.16				1		2.16
							(1)		(1)		(1)		(1)					(1)	(1)	(1)	(1)			(1)	(1)

SUMMARY OF STORM SEWERS AND DRAINAGE STRUCTURES

STR NO.	INLET FRAME & GRATE		CAST IRON HOODS		JUNCTION BOXES	R.C. PIPE CLASS III			R.C. PIPE ARCH CLASS III		PREFAB. CULVERT END SEC., ROUND		PREFAB. CULVERT END SEC., ARCH	STANDARD BEDDING MATERIAL, B	STANDARD BEDDING MATERIAL, C	TRENCH EXCAVATION
	TYPE		4"	6"		613(A)			613(A)		613(L)		613(L)			
	B	C	MOUNT	BAR	611(L)	18"	24"	30"	28" X 18"	58" X 36"	18"	24"	53" X 36"			
	EA	EA	EA	EA	CF	LF	LF	LF	LF	LF	EA	EA	EA	CY	CY	CY
B14	2	2	4			3.84								1.1		1.2
B15						55.3									15.2	14.0
B16						26.2									10.3	21.8
B17	2	2	4			3.84								1.1		0.9
B18						89.89									24.6	19.0
B19	2					62.06					1			17		27.3
B25						12.34								4.9		11.7
B26						112.74								30.9		54.0
NW32	1	1		2		3.84								1.1		2.2
NW33						133.29								52.5		180.7
	7	5	8	2		503.34					1			108.6	50.1	332.8
	(1)	(1)	(1)	(1)										(1)	(1)	(1)

Preliminary Plans

(1) QUANTITIES SHOWN ARE FOR INFORMATIONAL PURPOSES ONLY. COST OF THESE ITEMS ARE INCLUDED IN OTHER ITEMS BID.

DESIGN	-	-
DRAWN	-	-
CHECKED	-	-
APPROVED	-	-
SQUAD	POE	

PHASE 2 — OKLAHOMA COUNTY

SUMMARY SHEET
(SHEET 6 OF 7)

STATE JOB NO. 09032(06) SHEET NO. AR08

5/27/2022 9:48:33 AM
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POE & ASSOCIATES, OKLAHOMA CITY, OK.

FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.				

REVISIONS

DESCRIPTION	DATE
	5/27/2022

SUMMARY OF STORM SEWERS AND DRAINAGE STRUCTURES

STR NO.	STATION	OFFSET	DESCRIPTION	ROADWAY STANDARDS	CLASS A CONCRETE, SMALL STRUCTURES	MANHOLE	ADD'L. DEPTH MANHOLE	INLET SMD	ADD'L DEPTH INLET SMD	INLET CDI	ADD'L DEPTH INLET CDI	INLET LONG. BARRIER	ADD'L DEPTH INLET LONG. BARRIER	INLET CI DES.				ADD'L DEPTH IN INLET				INLET W/ LRG. JCT. BOX CI DES.		ADD'L DEPTH IN INLET W/ LRG. JCT. BOX CI DES.	
						611(A)		611(G)		611(G)		611(G) TYPE 1		611(G)								611(G)			
					509(C)	4'	4'	TYPE 2	TYPE 2	DES 4	DES 4	DES 1	TYPE 1	2(STD.)	2(B)	3(STD.)	3(B)	2(STD.)	2(B)	3(STD.)	3(B)	2(STD.)	3(STD.)	2(STD.)	3(STD.)
					CY	EA	VF	EA	VF	EA	VF	EA	VF	EA	EA	EA	EA	VF	VF	VF	VF	EA	EA	VF	VF
NW34	CL NWSR STA. 104+14.00	19.50' RT.	CONST. 4.0' DIA. MH W/ 18" X 15.73' LG. RCP TO EXISTING MH	MJB-4, MFC-5, SPI-5, SPB-2, FHTCP-4		1	5.55																		
J1	BL RAMP J STA. 88+83.00	46.37' RT.	CONST. 9.0' X 6.0' JUNCT. BOX W/ 58" X 36" X 282.58' LG. RCPA W/ PCES TO OUTLET	MJB-4, MFC-5, SPI-5, SPB-2, FHTCP-4	3.98																				
J2	BL RAMP J STA. 92+02.00	15.00' RT.	CONST. CI DES. 3(STD) W/ 18" X 270.25' LG. RCP TO STR. J3	CI-2, SPI-5, SPB-2, FHTCP-4																					
J3	BL RAMP J STA. 94+83.00	15.00' RT.	CONST. CI DES. 3(STD) W/ 18" X 23.08' LG. RCP TO STR. T1	CI-2, SPI-5, SPB-2, FHTCP-4												1				2.05					
T1	BL RAMP J STA. 94+83.00	11.50' LT.	CONST 4.0' DIA. MH W/ 18" X 277.61' LG. RCP TO STR. T3	MJB-4, MFC-5, SPI-5, SPB-2, FHTCP-4		1	0.08																		
T2	BL RAMP J STA. 95+20.26	18.63' LT.	CONST. 18" X 35.83' LG. RCP TO STR. T1	SPI-5, SPB-2, FHTCP-4																					
T3	BL RAMP J STA. 92+02.00	30.00' LT.	CONST 4.0' DIA. MH W/ 18" X 32.56' LG. RCP TO EXIST. MH	MJB-4, MFC-5, SPI-5, SPB-2, FHTCP-4		1	0.34																		
SHEET TOTAL:					3.98	3	5.97									1				2.05					
GRAND TOTAL:					3.98	12	23.57	3	1	1	1.02		1.99	1	2	2	1	2.08	2.5	4.21	2.36	3	4	4.84	8.64
							(1)		(1)		(1)		(1)					(1)	(1)	(1)	(1)			(1)	(1)

SUMMARY OF STORM SEWERS AND DRAINAGE STRUCTURES

STR NO.	INLET FRAME & GRATE		CAST IRON HOODS		JUNCTION BOXES	R.C. PIPE CLASS III			R.C. PIPE ARCH CLASS III		PREFAB. CULVERT END SEC., ROUND		PREFAB. CULVERT END SEC., ARCH	STANDARD BEDDING MATERIAL, B	STANDARD BEDDING MATERIAL, C	TRENCH EXCAVATION
	TYPE		4"	6"		613(A)			613(A)		613(L)		613(L)			
	B	C	MOUNT	BAR	611(L)	18"	24"	30"	28" X 18"	58" X 36"	18"	24"	58" X 36"			
	EA	EA	EA	EA	CF	LF	LF	LF	LF	LF	EA	EA	EA	CY	CY	
NW34						15.73									6.2	22.
J1					144.9					282.58			1		38.	71.8
J2	2	2	4			270.25								74		80.6
J3	2	2	4			23.08								3		11.5
T1						277.61								109.4		226.8
T2						35.83									9.8	16.8
T3						32.56									12.8	26.7
4	4	8		144.9	655.06				282.58				1	189.7	417.6	1256.9
26	24	48	2	144.9	1841.38	711.55	8.05	202.	282.58	1	2	1		534.7	880.8	2817
(1)	(1)	(1)	(1)											(1)	(1)	(1)

Preliminary Plans

(1) QUANTITIES SHOWN ARE FOR INFORMATIONAL PURPOSES ONLY. COST OF THESE ITEMS ARE INCLUDED IN OTHER ITEMS BID.

DESIGN	-	-
DRAWN	-	-
CHECKED	-	-
APPROVED	-	-
SQUAD	POE	

PHASE 2 — OKLAHOMA COUNTY

SUMMARY SHEET
(SHEET 7 OF 7)

STATE JOB NO. 09032(06) SHEET NO. AR09

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POE & ASSOCIATES, OKLAHOMA CITY, OK.					
FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.				

REVISIONS	
DESCRIPTION	DATE
	5/27/2022

PAY QUANTITIES NOTES

(TC-1) THE CONTRACTOR SHALL FURNISH AND INSTALL SUCH LIGHTS, SIGNS, BARRICADES, AND PROVIDE FLAGGERS NECESSARY FOR THE CONTROL, SAFETY, AND MAINTENANCE OF TRAFFIC WHEN INSTALLING, RELOCATING OR DELIVERING PORTABLE LONGITUDINAL BARRIER.

(TC-2) QUANTITY INCLUDES SUFFICIENT LENGTH OF PORTABLE LONGITUDINAL BARRIER TO PROVIDE FOR THE LONGEST SECTION SHOWN ON THE PLANS. THIS SAME BARRIER WILL BE USED ON OTHER DETOUR PHASES.

(TC-17) INCLUDES AN ESTIMATED 93718 L.F. (PAINT) (4" WIDE) WHITE 15166 L.F. (PAINT)(4" WIDE) YELLOW STRIPE.

(TC-19) THIS ITEM INCLUDES AN ESTIMATED 1500 L.F. (4" WIDE) WHITE AND 1500 L.F. (4" WIDE) YELLOW STRIPE. THE CONTRACTOR SHALL PROVIDE AND INSTALL AN O.D.O.T. APPROVED REMOVABLE PAVEMENT MARKING TAPE. COST FOR REMOVAL OF THIS TAPE SHALL BE INCLUDED IN THE PRICE BID FOR THIS ITEM. NON-REMOVABLE MARKING TAPE (FOIL BACK) SHALL NOT BE CONSIDERED AN APPROVED EQUAL FOR THIS ITEM.

(TC-20) ALL STRIPING TO BE PLACED ON TEMPORARY SURFACES OR ON SURFACES SCHEDULED TO BE REMOVED SHALL BE DONE WITH PAINT UNLESS OTHERWISE NOTED ON THE PLANS OR STANDARD DRAWINGS. TEMPORARY PAVEMENT MARKINGS PLACED ON FINISHED PAVEMENT OR EXISTING PAVEMENT TO REMAIN IN PLACE SHALL USE ONE OF
THE FOLLOWING METHODS:
- REMOVABLE PAVEMENT MARKING TAPE
- CLASS A PAVEMENT MARKERS

(TC-22) AMOUNT SHOWN IS AN APPROXIMATION AND THE ACTUAL AMOUNT OF REMOVAL, IF NECESSARY, SHALL BE DETERMINED BY THE ENGINEER. PRICE BID FOR PAVEMENT MARKING REMOVAL SHALL INCLUDE THE COST OF REMOVING STRIPE, ARROWS, WORDS AND SYMBOLS, AS SHOWN IN THE PLANS. THESE ITEMS MAY CONSIST OF PLASTIC, PAINT OR NON-REMOVABLE MARKING TAPE.

(TC-26) ALL CONSTRUCTION TRAFFIC CONTROL WILL BE IMPLEMENTED ACCORDING TO CONSTRUCTION PLANS, AND INSTALLED IN A MANNER APPROVED BY THE ENGINEER, IN ACCORDANCE WITH CHAPTER VI OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, (CURRENT EDITION), AND COMPLIANT WITH APPLICABLE O.D.O.T. STANDARD DRAWINGS. PRICE BID FOR THIS ITEM SHALL BE PAYMENT IN FULL FOR THE INSTALLATION, MAINTENANCE AND SUBSEQUENT REMOVAL OF ALL NECESSARY CONSTRUCTION TRAFFIC CONTROL DEVICES REQUIRED FOR COMPLETION OF THE PROJECT.

ALL SIGNS AND BARRICADES WHICH ARE SHOWN WITH TYPE 'A' LIGHTS IN THE STANDARD DRAWINGS SHALL HAVE THE CORRESPONDING LIGHT ATTACHED DURING NON-DAYLIGHT HOURS.

(TC-28) INCLUDED IN THIS ITEM ARE ALL S.C.S. (SPECIAL CONSTRUCTION SIGNING) SIGNS WHICH ARE BETWEEN 0.00 S.F. AND 6.25 S.F. ALSO INCLUDED IN THIS ITEM SHALL BE THE COST OF INSTALLATION, MAINTENANCE, AND REMOVAL OF THESE SIGNS.

(TC-29) INCLUDED IN THIS ITEM ARE ALL S.C.S. (SPECIAL CONSTRUCTION SIGNING) SIGNS WHICH ARE BETWEEN 6.26 S.F. AND 15.99 S.F. ALSO INCLUDED IN THIS ITEM SHALL BE THE COST OF INSTALLATION, MAINTENANCE, AND REMOVAL OF THESE SIGNS.

(TC-30) INCLUDED IN THIS ITEM ARE ALL S.C.S. (SPECIAL CONSTRUCTION SIGNING) SIGNS WHICH ARE BETWEEN 16.00 S.F. AND 32.99 S.F. ALSO INCLUDED IN THIS ITEM SHALL BE THE COST OF INSTALLATION, MAINTENANCE, AND REMOVAL OF THESE SIGNS.

(TC-31) INCLUDED IN THIS ITEM ARE ALL S.C.S. (SPECIAL CONSTRUCTION SIGNING) SIGNS WHICH ARE 33.0 S.F. AND OVER. ALSO INCLUDED IN THIS ITEM SHALL BE THE COST OF INSTALLATION, MAINTENANCE, AND REMOVAL OF THESE SIGNS.

(TC-33) ALL CONSTRUCTION WORK ZONE SIGNS SHALL HAVE FLUORESCENT SHEETING. THE FLUORESCENT SHEETING SHALL MEET THE REQUIREMENTS OF ASTM D4956 (LATEST REVISION)

THE MANUFACTURER SHALL FURNISH A TYPE 'D' CERTIFICATION IN ACCORDANCE WITH O.D.O.T. STANDARD SPECIFICATIONS (CURRENT EDITION) SUBSECTION 106.04. THE CERTIFICATION SHALL INCLUDE TEST RESULTS ON MATERIAL SUBMITTED FOR APPROVAL.

(TC-52) ANY USED CHANGEABLE MESSAGE SIGNS AND CONSTRUCTION ZONE IMPACT ATTENUATORS TO BE PLACED ON THIS PROJECT SHALL BE SUBJECT TO INSPECTION AND APPROVAL BY THE OKLAHOMA DEPARTMENT OF TRANSPORTATION, TO ASSURE THAT THEY ARE IN GOOD WORKING CONDITION, PRIOR TO PLACEMENT ON THE PROJECT.

(TC-61) ANY DAMAGE TO A FINISHED OR EXISTING SURFACE RESULTING FROM THE CONTRACTORS NEGLIGENCE IN THE REMOVAL OF CONSTRUCTION ZONE PAVEMENT MARKERS OR CHANNELIZING DEVICES AND THE BITUMINOUS ADHESIVE USED IN THEIR INSTALLATION, SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE AND TO THE SATISFACTION OF THE ENGINEER.

(TC-65) THE PRICE BID FOR THIS ITEM SHALL INCLUDE THE FOLLOWING:

A. ONE OFFICIALLY MARKED OKLAHOMA HIGHWAY PATROL CAR (WHEN PROJECTINVOLVES A STATE OR FEDERAL HIGHWAY). IF AN OKLAHOMA HIGHWAY PATROL CAR IS NOT AVAILABLE, THEN A LOCAL CITY OR COUNTY LAW ENFORCEMENT VEHICLE IS TO BE USED. PRICE BID FOR THIS ITEM SHALL BE PAID ON A PER UNIT PER HOUR BASIS.

B. ONE OKLAHOMA HIGHWAY LAW ENFORCEMENT OFFICER WITH JURISDICTIONAL AUTHORITY TO WRITE AND ISSUE TRAFFIC CITATIONS. IF AN OKLAHOMA HIGHWAY PATROL LAW OFFICER IS NOT AVAILABLE, THEN A LOCAL CITY OR COUNTY LAW ENFORCEMENT OFFICER IS TO BE USED. THE LAW ENFORCEMENT OFFICER SHALL BE INSURED, LICENSED AND BONDED, IF REQUIRED, BY THE CONTRACTOR. THIS OFFICER SHALL BE SPECIFICALLY APPROVED AND ASSIGNED TO THIS WORK ACTIVITY.

C. THE CONTRACTOR SHALL MAKE ALL THE NECESSARY ARRANGEMENTS WITH THE OKLAHOMA HIGHWAY PATROL OR THE LAW ENFORCEMENT AGENCY TO PROVIDE THE REQUIRED LAW ENFORCEMENT ON THIS PROJECT.

D. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING HIS ANTICIPATED WEEKLY SCHEDULE TO THE OKLAHOMA HIGHWAY PATROL OR THE LOCAL LAW AGENCY TWO WEEKS IN ADVANCE OF THE WORK. THE WORK SCHEDULE WILL BE SUBJECT TO THE APPROVAL OF THE ENGINEER.

E. THE OKLAHOMA HIGHWAY PATROL OR THE LOCAL LAW ENFORCEMENT AGENCY WILL BE PAID FOR A MAXIMUM OF ONE (1) HOUR, PER WORK PERIOD, TO ALLOW FOR TRAVEL TO AND FROM THE OFFICER'S PERMANENT DUTY STATION AND THE WORK SITE. THIS WILL BE PAID ONE (1) TIME PER WORK PERIOD AS DEFINED BY THE CONTRACTOR IN AGREEMENT WITH THE ENGINEER.

PAY QUANTITIES NOTES CON'T

(TC-70) THIS ITEM IS AN ESTIMATED QUANTITY TO BE USED AS DEEMED NECESSARY BY THE ENGINEER.

(TC-73) QUANTITY SHOWN INCLUDES 5000 EA. (WHITE) AND 5000 EA. (YELLOW) CONSTRUCTION ZONE PAVEMENT MARKERS (FLEX TABS). THESE CONSTRUCTION ZONE PAVEMENT MARKERS SHALL BE EITHER "DAVIDSON PLASTICS: MODEL TOM", OR AN APPROVED EQUAL. PRICE BID FOR THIS ITEM SHALL INCLUDE THE INITIAL PLACEMENT, SUBSEQUENT REPLACEMENT, AND REMOVAL. THE CONSTRUCTION ZONE PAVEMENT MARKERS (FLEX TABS) SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AND AS SHOWN ON STANDARD DRAWING TCS21-1-(LATEST REVISION).

(TC-75) TEMPORARY PAVEMENT MARKINGS SHALL BE IN PLACE THE SAME DAY THAT EXISTING PAVEMENT MARKINGS ARE REMOVED FROM ANY ROADWAY OPEN TO TRAFFIC. ALSO, ALL TEMPORARY PAVEMENT MARKINGS SHALL BE REMOVED PRIOR TO THE INSTALLATION OF FINAL STRIPING.

(TC-84) 420 CONSTRUCTION CALENDAR DAYS WERE USED TO COMPUTE THE SIGN DAY PAY ITEMS. THE AMOUNT OF CALENDAR DAYS USED TO COMPUTE THE SIGN DAY PAY ITEMS IS AN ESTIMATED QUANTITY ONLY, BASED ON THE CURRENT O.D.O.T. STANDARDS AND SUGGESTED CONSTRUCTION SEQUENCE FOR THIS PROJECT. THESE ESTIMATED SIGN DAY QUANTITIES MAY CHANGE AS THE PROJECT'S CONSTRUCTION TRAFFIC CONTROL IS MODIFIED DURING CONSTRUCTION.

(TC-85) THESE SIGNS MUST BE ON THE OKLAHOMA DEPARTMENT OF TRANSPORTATION LIST OF APPROVED CHANGEABLE MESSAGE SIGNS. FOR A LIST OF THE APPROVED SIGNS GO TO THE OKLAHOMA DEPARTMENT OF TRANSPORTATION WEBSITE AT:

http://www.okladot.state.ok.us/traffic/qpl/index.php

PAY ITEM NOTES (TRAFFIC CONTROL)

(1) 795 TOTAL CONSTRUCTION CALENDAR DAYS WERE USED TO COMPUTE THE SIGN DAY PAY ITEMS. THE TOTAL CALENDER DAYS ARE BROKEN DOWN BY PHASE TO CALCULATE THE SIGN DAYS PAY ITEMS PER PHASE. THE AMOUNT OF CALENDAR DAYS USED TO COMPUTE THE SIGN DAY PAY ITEMS IS AN ESTIMATED QUANTITY ONLY. BASED ON THE CURRENT O.D.O.T. STANDARDS AND SUGGESTED CONSTRUCTION SEQUENCE FOR THIS PROJECT. THESE ESTIMATED SIGN DAY QUANTITIES MAY CHANGE AS THE PROJECTS CONSTRUCTION TRAFFIC CONTROL IS MODIFIED DURING CONSTRUCTION. THE CALENDAR DAYS PER PHASE ON THIS PROJECT ARE AS FOLLOWS:

PHASE 1: 300 DAYS
PHASE 2: 120 DAYS
TOTAL: 420 DAYS

(2) INCLUDES 1383 L.F. PORTABLE LONGITUDINAL BARRIER SHALL REMAIN AS SHOWN IN PHASE 4 STEP 2 UPON COMPLETETION OF THIS PROJECT

(3) CONSTRUCTION ZONE PAVEMENT MARKERS SHALL BE USED IN CONJUNCTION WITH CONSTRUCTION STRIPING PAINT

TRAFFIC CONTROL PAY QUANTITES

0303 TRAFFIC CONTROL — JP 23310(04)

ITEM NO.		DESCRIPTION		UNIT	QUANTITY
857(A)	9200	CONSTRUCTION TRAFFIC STRIPE(PAINT)(4" WIDE)	(TC-17)(TC-20, 70, 75)	LF	108,884.00
857(B)	9300	CONSTRUCTION TRAFFIC STRIPE(PAINT)(ARROWS)		EA	3.00
857(C)	9400	REMOVABLE PAVEMENT MARKING TAPE(4" WIDE)	(TC-19, 70, 75)	LF	10,000.00
857(E)	9620	(PL)CONSTRUCTION ZONE PAVEMENT MARKERS(FLEX TAB)TYPE2-1	(TC-61, 70, 73,75)	EA	10,000.00
857(F)	9700	PAVEMENT MARKING REMOVAL(TRAF.STRP)	(TC-22, 70)	LF	120,000.00
858(A)	0224	PAVE.MARKERS CLASS A TYPE 2-C	(TC-61, 75)(3)	EA	5,368.00
858(A)	0228	PAVE.MARKERS CLASS A TYPE 2-D	(TC-61, 75)(3)	EA	6,575.00
871(B)	2300	CONST.ZONE IMPACT ATTEN.	(TC-52, 84)(1)	SD	2,884.00
871(C)	2410	RELOCATION OF IMPACT ATTENUATOR		EA	3.00
877(B)	4300	DELIVERY OF PORTABLE LONGITUDINAL BARRIER	(TC-1, 2)(2)	LF	6,412.50
877(C)	4400	RELOCATION OF POR. LONGITUDINAL BARRIER	(TC-1, 2)	LF	4,487.50
880(B)	[illegible]	CONSTRUCTION SIGNS 0 TO 6.25 SF	TC-26, 28, 33, 84)(1, 4)	SD	19,656.00
880(B)	6310	CONSTRUCTION SIGNS 6.26 SF TO 15.99 SF	TC-26, 29, 33, 84)(1, 4)	SD	16,268.00
880(B)	6320	CONSTRUCTION SIGNS 16.0 SF TO 32.99 SF	TC-26, 30, 33, 84)(1, 4)	SD	17,468.00
880(B)	6330	CONSTRUCTION SIGNS 33.0 SF & OVER	TC-26, 31, 33, 84)(1, 4)	SD	1,684.00
880(C)	6110	CONSTRUCTION BARRICADES(TYPE III)	(TC-26, 84)(1, 4)	SD	5,040.00
880(D)	6640	VARIABLE SPEED LIMIT SIGN	(TC-84)(1, 4)	SD	1,680.00
880(E)	6600	WARNING LIGHTS(TYPE A)	(TC-26, 84)(1, 4)	SD	16,380.00
880(F)	6700	DRUMS	(TC-26, 84)(1, 4)	SD	48,920.00
880(G)	6800	TUBE CHANNELIZERS	(TC-26,70,84)(1, 4)	SD	21,050.00
880(G)	6805	CHANNELIZER CONES	(TC-26,70,84)	SD	8,400.00
880(L)	7310	TRAFFIC SURVEILLANCE, OHP (Non Biddable)	(T-65, 70)	HR	5,000.00
882	8100	(SP) SMART WORK ZONE SYSTEM	(TC-84)(1, 4)	SD	837.00
882	8105	(SP) SMART WORK ZONE SYS-PORT.CHNG.MSG.SN	(TC-84)(1, 4)	SD	30,132.00
882	8110	(SP) SMART WORK ZONE SYS.-PORT.TRAF.SENSOR	(TC-84)(1, 4)	SD	20,925.00
882	8115	(SP) SMART WORK ZONE SYS.-PAN-TILT-ZOOM CMRA	(TC-84)(1, 4)	SD	1,674.00
882	8120	(SP) SMART WORK ZONE SYS.-WEBSITE SYSTEM	(TC-84)(1, 4)	SD	837.00
882	8125	(PL)SMART WORK ZONE SYSTEM SETUP		EA	1.00
882(A)	8210	PORT.CHANGEABLE MESSAGE SIGN	(TC-52, 70, 84, 85)(4)	SD	6,696.00

GENERAL CONSTRUCTION NOTES

(C-1) ANY SIGNS AND/OR DELINEATORS WHICH ARE TO BE REMOVED DURING THIS PROJECT WILL BE STORED IN A PROTECTED AREA DESIGNATED BY THE RESIDENT ENGINEER, UNTIL SUCH A TIME THAT THEY ARE TO BE RESET BY THE CONTRACTOR. COST OF THIS WORK TO BE INCLUDED IN OTHER ITEMS OF WORK.

(C-2) EXISTING ROADWAY SHALL REMAIN OPEN DURING CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROPER BARRICADES, LIGHTS, AND SIGNING WITHIN THE LIMITS OF CONSTRUCTION. ALL CONSTRUCTION SIGNING WILL BE IMPLEMENTED ACCORDING TO CONSTRUCTION PLANS. CONSTRUCTION TRAFFIC CONTROL WILL BE INSTALLED IN A MANNER APPROVED BY THE ENGINEER, IN ACCORDANCE WITH CHAPTER VI OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, (CURRENT EDITION), AND COMPLIANT WITH APPLICABLE O.D.O.T. STANDARD DRAWINGS.

(C-155) THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE HE MAY INFLICT TO THE EXISTING UNDERGROUND UTILITIES WITHIN THE PROJECT AREA AS A RESULT OF HIS DIGGING, TRENCHING, BORING, ETC.... PRIOR TO DIGGING NEAR THE UTILITIES, THE CONTRACTOR SHALL CALL FOR A LIST OF ALL UNDERGROUND FACILITIES REGISTERED IN THE AREA OF CONSTRUCTION LISTED WITH THE FOLLOWING AGENCIES: THE "OKIE" NOTIFICATION CENTER 811 OR 1-800-522-6543 OR WWW.CALLOKIE .COM OR THE LOCAL COUNTY CLERK'S OFFICE.

DEPTH OF EXISTING UTILITIES SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION.

Preliminary Plans

DESIGN	-	-
DRAWN	-	-
CHECKED	-	-
APPROVED	-	-
SQUAD	POE	

PHASE 2 — OKLAHOMA COUNTY

SUMMARY OF PAY QUANTITIES (TRAFFIC OPERATIONS)

STATE JOB NO. 09032(06) SHEET NO. AT01

5/27/2022 11:53:09 PM
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REVISIONS		
NO.	DESCRIPTION	DATE

GENERAL CONSTRUCTION NOTES

ANY SIGNS AND/OR DELINEATORS WHICH ARE TO BE REMOVED DURING THIS PROJECT WILL BE STORED IN A PROTECTED AREA DESIGNATED BY THE RESIDENT ENGINEER UNTIL SUCH A TIME THAT THEY ARE TO BE RESET BY THE CONTRACTOR. COST OF THIS WORK TO BE INCLUDED IN OTHER ITEMS OF WORK.

EXISTING ROADWAY SHALL REMAIN OPEN DURING CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROPER BARRICADES, LIGHTS, AND SIGNING WITHIN THE LIMITS OF CONSTRUCTION. ALL CONSTRUCTION SIGNING WILL BE IMPLEMENTED ACCORDING TO CONSTRUCTION PLANS. CONSTRUCTION TRAFFIC CONTROL WILL BE INSTALLED IN A MANNER APPROVED BY THE ENGINEER, IN ACCORDANCE WITH CHAPTER VI OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, (CURRENT EDITION), AND COMPLIANT WITH APPLICABLE O.D.O.T. STANDARD DRAWINGS.

ALL BROKEN CONCRETE INCLUDING OLD SIGN FOOTINGS WITH STUBS, WASTE MATERIAL AND DEBRIS SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED FROM THE LIMITS OF THE PROJECT AND DISPOSED OF IN AN AREA APPROVED BY THE ENGINEER. NO PAYMENT SHALL BE MADE FOR THE DISPOSAL OF THIS MATERIAL. ANY PIPE POST OR WIDE FLANGE POST ABOVE THE OLD SIGN FOOTINGS SHALL BE CUT AND HANDLED AS PROPERTY OF THE STATE AND SHALL BE NEATLY STACKED ON THE JOB SITE, AS DESIGNATED BY THE ENGINEER UNTIL SUCH TIME AS DISTRICT PERSONNEL CAN REMOVE THE MATERIAL FROM THE JOB SITE.

NO SPLICES SHALL BE PERMITTED IN ANY PIPE OR WIDE FLANGE SIGN POSTS.

ALL ANCHOR BOLTS SHALL BE GRADE A-36 STEEL.

THE LOCATIONS OF THE SIGN PLACEMENT, AS SHOWN ON THE PLAN SHEETS, ARE APPROXIMATE. EXACT LOCATIONS SHALL BE DETERMINED BY THE CONTRACTOR SO THAT THE SIGN IS INSTALLED IN ACCORDANCE WITH DEPARTMENT STANDARDS AND THE MUTCD IN ORDER TO PROVIDE OPTIMUM VISIBILITY TO THE ONCOMING/APPROACHING MOTORIST. IF A PROPOSED LOCATION CONFLICTS WITH OTHER SIGNS, UTILITIES OR OTHER ROADWAY FEATURES, THE ENGINEER SHALL BE NOTIFIED.

POST LENGTHS SHOWN ON SIGN SUMMARY ARE APPROXIMATE, EXACT LENGTH SHALL BE DETERMINED BY FIELD SURVEY BY THE CONTRACTOR.

ALL EXISTING AND NEW BREAKAWAY SIGN POST, PIPE AND WIDE FLANGE BEAMS SHALL HAVE SHEET METAL BOLT RETAINER PLATES AS SPECIFIED IN O.D.O.T. STD. FGS1-1-(LATEST REVISION). REPLACEMENT COST OF MISSING OR DAMAGED BOLT RETAINER PLATES AND ALL ASSOCIATED HARDWARE AND LABOR SHALL BE INCLUDED IN OTHER ITEMS OF WORK.

ALL REMOVED SIGNS, SIGN POSTS, BOLTS, MISCELLANEOUS HARDWARE, AND DELINEATORS SHALL REMAIN THE PROPERTY OF THE STATE. THE CONTRACTOR SHALL NEATLY STACK SUCH REMOVED MATERIAL AT A LOCATION ON THE JOB SITE AS DESIGNATED BY THE ENGINEER UNTIL SUCH TIME AS DISTRICT PERSONNEL CAN REMOVE THE MATERIAL FROM THE JOB SITE.

ALL SIGNS SHALL BE REMOVED FROM THE POSTS IN A SALVAGEABLE MANNER FOR REUSE. CARE SHALL BE TAKEN DURING REMOVAL AND TRANSPORTING TO ALLEVIATE DAMAGE OF MATERIALS. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE CAUSED DURING REMOVAL OF SIGNS, AND SIGN POSTS.

FOR NEW OR EXISTING GROUND MOUNTED SIGNS MAXIMUM STUB POST PROJECTION ABOVE FOOTING/GROUND LINE SHALL BE 1 3/4" + 1/4" MAXIMUM FOOTING PROJECTION ABOVE GROUND LINE SHALL BE NO MORE THAN 2". SHOULD ADDITIONAL SOIL BE REQUIRED, THE ENGINEER WILL DESIGNATE AN AREA TO OBTAIN ADDITIONAL SOIL. ALL ASSOCIATED COSTS SHALL BE INCLUDED IN OTHER ITEMS OF WORK.

DETAILS FOR MOUNTING SIGNS TO OVERHEAD STRUCTURES SHALL BE APPROVED BY THE ENGINEER AND SUBMITTED WITH SHOP DRAWINGS FOR OVERHEAD STRUCTURES. NO MOUNTING HOLES SHALL BE PERMITTED IN OVERHEAD STRUCTURES UPRIGHT MEMBERS.

CONTRACTOR SHALL PROVIDE THE ENGINEER A MINIMUM OF SEVEN (7) DAYS ADVANCE NOTICE FOR INSTALLATION OF OVERHEAD SIGN STRUCTURES AND OVERHEAD SIGNS. INSTALLATION SHOULD PREFERABLY BE ACCOMPLISHED ON SUNDAY BETWEEN 7:00 A.M. AND 10:00 A.M.

SYMBOLS AND LEGENDS ARE DIAGRAMMATIC ONLY AND LOCATIONS SHALL BE ADJUSTED FOR EXISTING FIELD CONDITIONS, BUT NO MAJOR ALTERATIONS OR RELOCATIONS WILL BE MADE WITHOUT FIRST CONSULTING WITH THE TRAFFIC ENGINEERING DIVISION AT (405)521-2861.

THIS PROJECT SHALL BE CONSTRUCTED WITHOUT CLOSING THE EXISTING ROAD TO LOCAL AND THROUGH TRAFFIC. SEE STANDARD SPECIFICATIONS FOR MAINTENANCE OF LOCAL AND THROUGH TRAFFIC.

ALL BROKEN CONCRETE, WASTE MATERIAL, AND DEBRIS SHALL BECOME THE PROPERTY OF THE CONTRACTOR, AND SHALL BE REMOVED FROM THE LIMITS OF THE PROJECT AND DISPOSED OF IN AN AREA APPROVED BY THE ENGINEER. NO PAYMENT WILL BE MADE FOR THE DISPOSAL OF THIS MATERIAL.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE HE MAY INFLICT TO THE EXISTING UNDERGROUND UTILITIES WITHIN THE PROJECT AREA AS A RESULT OF HIS DIGGING, TRENCHING, BORING, ETC.... PRIOR TO DIGGING NEAR THE UTILITIES, THE CONTRACTOR SHALL CALL FOR A LIST OF ALL UNDERGROUND FACILITIES REGISTERED IN THE AREA OF CONSTRUCTION LISTED WITH THE FOLLOWING AGENCIES:
THE "OKIE" NOTIFICATION CENTER 811 OR (405)522-6543 OR WWW.CALLOKIE.COM OR THE LOCAL COUNTY CLERK'S OFFICE.

PAY QUANTITY NOTES

(1) PAY ITEM IS FOR THE COMPLETE INSTALLATION OF 3 IMPACT ATTENUATOR PADS FOR 70 MPH DESIGN VELOCITY IN ACCORDANCE WITH ODOT STANDARD DRAWING IA1-1-00. THE QUANTITES PER PAD ARE 6.83 CY OF CLASS "C" CONCRETE, 281 LBS. OF REINFORCING STEEL AND 19 SAND FILLED IMPACT ATTENUATOR MODULES.

(2) PAY ITEM IS FOR THE INSTALLATION OF FOOTINGS FOR 3 TYPE B AND 1 TYPE C NEW MONOTUBE OVERHEAD SIGN STRUCTURES AS SHOWN IN THE PLANS. THE FOOTINGS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE M1 -M7 DETAIL SHEETS INCLUDED IN THE PLANS.

(3) PAY ITEM IS FOR THE REMOVAL OF SEVEN (7) OVERHEAD PANEL SIGNS AS DIRECTED IN THE PLANS.

(4) PAY ITEM IS FOR THE REMOVAL AND REPLACEMENT OF ONE (1) MILE MARKER SIGN AS DIRECTED IN THE PLANS.

(5) PAY ITEM IS FOR THE REMOVAL AND RESETTING OF ONE (1) GROUND MOUNTED PANEL SIGN AS DIRECTED IN THE PLANS.

(6) PAY ITEM IS FOR THE INSTALLATION OF ONE (1) 45' TYPE B MONOTUBE OVERHEAD SIGN STRUCTURE AS DIRECTED IN THE PLANS.

(7) PAY ITEM IS FOR THE INSTALLATION OF ONE (1) 60' TYPE B OVERHEAD SIGN STRUCTURE AS DIRECTED IN THE PLANS.

(8) THE QUANTITY FOR THIS PAY ITEM IS AN ESTIMATED QUANTITY AND IS TO BE USED ON THIS PROJECT AS DIRECTED BY THE ENGINEER.

(TP-1) PAYMENT FOR THIS ITEM WILL BE BASED ON PLAN QUANTITY. SEE THE 2019 SPECIFICATIONS FOR HIGHWAY CONSTRUCTION.

(TS-25) QUANTITY SHOWN INCLUDES 9,135 L.F. TRAFFIC STRIPE (MULTI-POLYMER) (WHITE) AND 5,2[illegible] L.F. TRAFFIC STRIPE (MULTI-POLYMER) (YELLOW) AND 890 L.F. TRAFFIC STRIPE (MULTI-POLYMER) (BLACK) AND WILL BE MEASURED BY THE LINEAR FOOT OF SIX INCH (6") WIDE TRAFFIC STRIPE.

(TS-26) QUANTITY SHOWN INCLUDES 2,165 L.F. TRAFFIC STRIPE (MULTI-POLYMER) (WHITE) AND 0 L.F. TRAFFIC STRIPE (MULTI-POLYMER) (YELLOW) AND WILL BE MEASURED BY THE LINEAR FOOT OF EIGHT INCH (8")WIDE TRAFFIC STRIPE.

(TS-27) QUANTITY SHOWN INCLUDES 1,250 L.F. TRAFFIC STRIPE (MULTI-POLYMER) (WHITE) AND 0 L.F. TRAFFIC STRIPE (MULTI-POLYMER) (YELLOW) AND WILL BE MEASURED BY THE LINEAR FOOT OF TWELVE INCH (12")WIDE TRAFFIC STRIPE.

(TS-33) INCLUDED IN THIS PAY ITEM IS ALL HARDWARE ASSOCIATED WITH PROPERLY ANCHORING AND MOUNTING THE HIGHWAY SIGN IN ACCORDANCE WITH O.D.O.T. PLANS AND STANDARD DRAWINGS SSA1-1 AND SSP1-1- (LATEST REVISION).

(TS-36) PRICE BID FOR SAND FILLED IMPACT ATTENUATOR(S) SHALL INCLUDE THE COST FOR OM1-1 OR OM1-3 SIGN(S) WITH TYPE VII SHEETING AND THE REMOVAL OF ANY OM-3 OR OM-3E SIGN(S), POST(S) AND FOOTING(S), IF PRESENT, AND ALL OTHER INCIDENTALS NECESSARY TO COMPLETE THE INSTALLATION ACCORDING TO PERTINENT O.D.O.T. STANDARD DRAWINGS.

PAY QUANTITIES

JP #09032(06)
0300 TRAFFIC SIGNING & STRIPING

ITEM	DESCRIPTION		UNIT	TOTAL
509(D) 0500	CLASS C CONCRETE	(1)	CY	20.49
511(A) 2200	REINFORCING STEEL	(1)	LB	843.00
516(A) 8240	DRILLED SHAFT 60" DIAMETER	(2)	LF	210.00
804(A) 2200	STRUCTURAL CONCRETE	(TP-1)	CY	1.24
804(B) 2300	REINFORCING STEEL	(TP-1)	LB	206.00
805(A) 3252	(PL)REMOVAL OF EXISTING SIGNS	(3)	EA	7.00
805(D) 3528	(PL)REMOVE & RESET EXISTING SIGNS	(4)	EA	1.00
805(D) 3536	(PL)REMOVE & RESET GROUND MOUNTED SIGN	(5)	EA	1.00
[illegible] 1200	SHEET ALUMINUM SIGNS		SF	165.50
850(B) 1310	EXTRUDED ALUMINUM PANEL SIGNS		SF	93.00
850[illegible]	EXTR.ALUM.PAN.SGN.(OVRHD SIGNS)		SF	2,261.75
851(A) 2200	4"@13 GALV.STL.WD.FLANGE BM.POST		LF	75.00
851(B) 2320	3 1/2"@9.11 GALV.STL.PIPE POST		LF	40.00
851(C) 2415	2" SQUARE TUBE POST	(TS-33)	LF	267.00
852(D) 3500	OVHD.SN.STR., MONOTUBE TYPE B 50'	(6)	EA	1.00
852(D) 3508	OVHD.SN.STR., MONOTUBE TYPE B 65'	(7)	EA	1.00
852(D) 3520	OVHD.SN.STR., MONOTUBE TYPE B 80'		EA	1.00
852(E) 3600	OVHD.SN.STR., MONOTUBE TYPE C		EA	1.00
853 5130	DELINEATORS (TYPE 1, CODE 1, FLEXIBLE)	(8)	EA	75.00
853 5135	DELINEATORS (TYPE 1, CODE 2, FLEXIBLE)	(8)	EA	75.00
856(A) 8204	TRAFFIC STRIPE (MULTI-POLY.)(6" WIDE)	(TS-25)	LF	15,315.00
856(A) 8208	TRAFFIC STRIPE (MULTI-POLY.)(8" WIDE)	(TS-26)	LF	2,165.00
856(A) 8212	TRAFFIC STRIPE (MULTI-POLY)(12" WIDE)	(TS-27)	LF	1,250.00
856(B) 8304	TRAFFIC STRIPE (MULTI-POLY.)(ARROWS)		EA	2.00
870(A) 1100	SAND FILLED IMPACT ATTEN.MODULE	(TS-36)(1)	EA	57.00

Preliminary Plans

Design	RWR	05-24-22
Drawn	SB	05-24-22

TEC A CLEAR DIRECTION

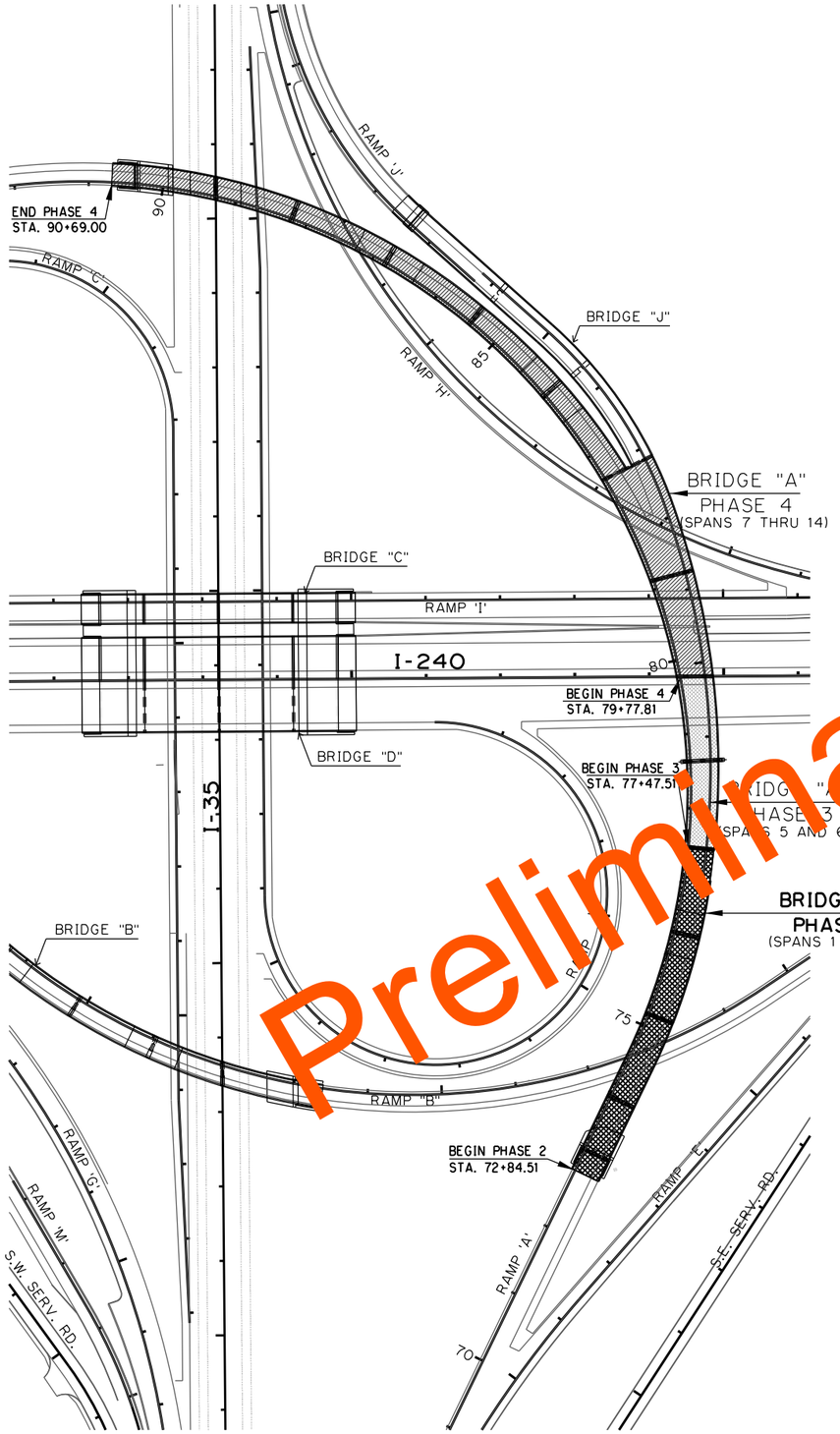
SIGNING & STRIPING
PAY QUANTITIES & NOTES

State Job No. 09032(06) Sheet No. AT02

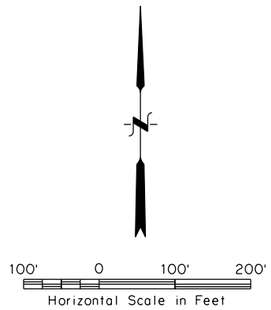
OKLAHOMA COUNTY

05-24-22 G:\OKProjects\1-245TC Design,I-240-I-35 Phase II - OKC\CAD\AT02-0903206-QUANT SS.dgn

DESCRIPTION	REVISIONS	DATE



BRIDGE "A"
CONSTRUCTION PHASES



BRIDGE "A" PHASE 2 INDEX OF SHEETS

SHEET NO.	DESCRIPTION
AB01	SUMMARY OF PAY QUANTITIES (BRIDGE "A")
AB02	GENERAL NOTES (BRIDGE "A")
B001	BRIDGE "A" SEQUENCE MAP AND SHEET INDEX
B002	GENERAL PLAN & ELEVATION
B003	DESIGN DATA AND SUMMARY OF QUANTITIES
B004 - B006	FOUNDATION REPORT
B007	SUBSTRUCTURE LAYOUT
B[illegible]	EXCAVATION DIAGRAMS AND UNDERDRAIN DETAILS
B00[illegible] - B010	ABUTMENT DETAILS
B01[illegible] - B019	PIER DETAILS
B020 - B022	SUPERSTRUCTURE DETAILS
B02[illegible]	LONGITUDINAL SECTION AND SLAB POURING SEQUENCE
B02[illegible] - B025	PARAPET LAYOUT
B026	GIRDER BRACING DETAILS
B027 - B031	PLATE GIRDER DETAILS
B032	FRAMING PLAN AND DIAPHRAGM DETAILS
B033	BEARING ASSEMBLY DETAILS
B034 - B035	APPROACH SLAB DETAILS
B036 - B037	SLOPEWALL DETAILS

2009 BRIDGE STANDARDS

STD.	FSHP-42-2
STD.	EJ-SQ
STD.	EJ-DTL
STD.	HP1-2

2019 ROADWAY STANDARDS

STD.	LECS-5
STD.	LTU-5
STD.	SPI-5
STD.	PUD-4

Preliminary Plans

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 OKLAHOMA COUNTY
BRIDGE "A" RAMP "A" AT I-35 & I-240 INTERCHANGE

BRIDGE "A" SEQUENCE MAP AND SHEET INDEX

STATE JOB NO. 09032(06) SHEET NO. B001

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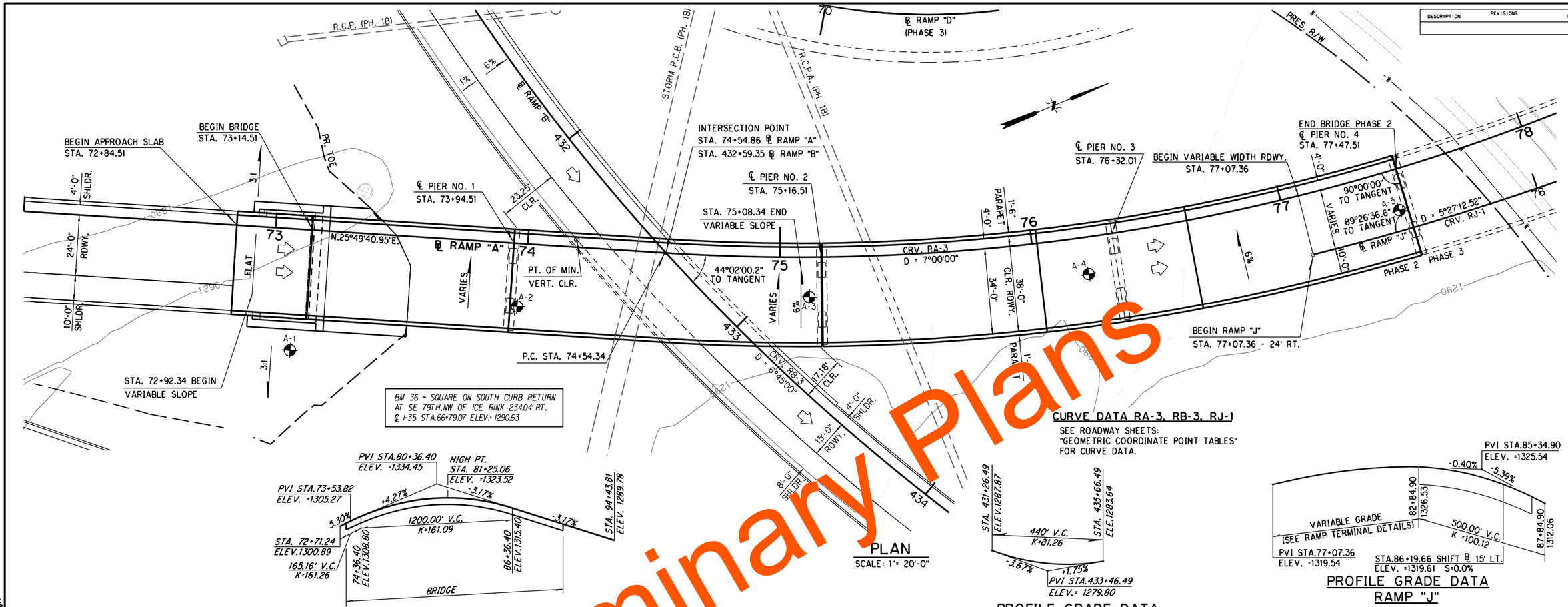
DESCRIPTION	REVISIONS	DATE



PLAN

SCALE: 1"= 20'-0"

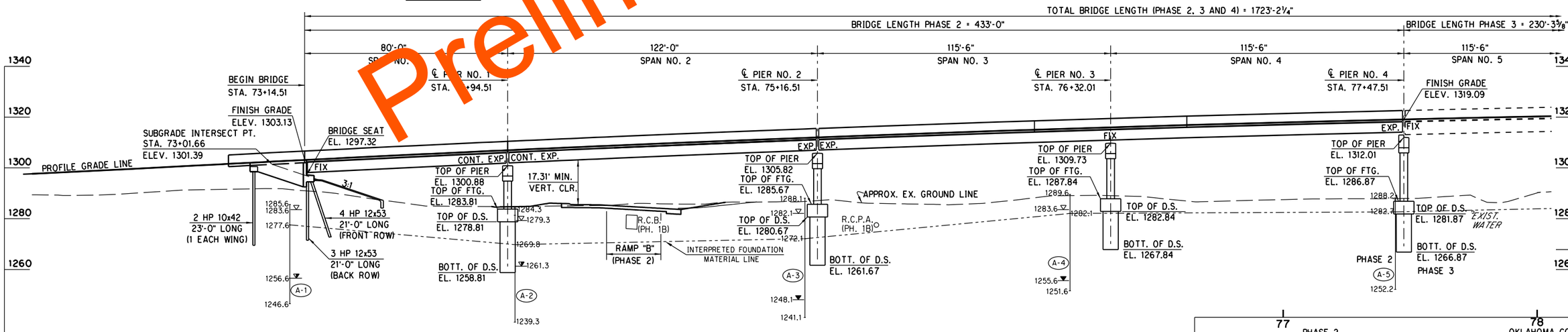
CURVE DATA RA-3, RB-3, RJ-1

SEE ROADWAY SHEETS:
"GEOMETRIC COORDINATE POINT TABLES"
FOR CURVE DATA.

PROFILE GRADE DATA
RAMP "A"

PROFILE GRADE DATA
RAMP "B"

PROFILE GRADE DATA
RAMP "J"



ELEVATION

SCALE: 1"= 20'-0"

▽ - WATER LEVEL WHILE DRILLING
▼ - WATER LEVEL UPON COMPLETION
▽ - WATER LEVEL AFTER DELAY

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 — OKLAHOMA COUNTY

BRIDGE "A" — RAMP "A" AT I-35 & I-240 INTERCHANGE

GENERAL PLAN & ELEVATION

℄ STA. 81+76.11 ℄ RAMP "A"

CONSTRUCT 80', 122', (115'-115') CONT., 115', 114', 134', 151', 2(139'-139'), (106'-110') CONT., PLATE GIRDER SPANS
VARIABLE CLEAR ROADWAY W/ 42" F-SHAPED PARAPET

STATE JOB NO. 09032(06) SHEET NO. B002

Preliminary Plans

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REVISIONS		
DESCRIPTION		DATE

DESIGN DATA

DESIGN SPECIFICATIONS:

AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 9TH EDITION
ANSI/AASHTO/AWS D1.5 BRIDGE WELDING CODE
ANSI/AWS D1.6 STRUCTURAL WELDING CODE STAINLESS STEEL

UNIT STRESSES:

CLASS AA CONCRETE	F'c = 4,000 PSI
CLASS A CONCRETE	F'c = 3,000 PSI
REINFORCING STEEL (GRADE 60)	Fy = 60,000 PSI
STRUCTURAL STEEL M270 (GRADE 50)	Fy = 50,000 PSI
STAINLESS STEEL A240 (TYPE 316)	Fy = 30,000 PSI

LOADING:

HL-93 OR OKLAHOMA OVERLOAD
20 PSF FUTURE WEARING SURFACE
5 PSF SIP STEEL DECK FORM ALLOWANCE

LRFR OF HL-93 LOADING:

INVENTORY RATING FACTOR = 1.36
OPERATING RATING FACTOR = 1.46

FOUNDATION CAPACITIES

ABUTMENT

MAXIMUM FACTORED PILE REACTION = 86.4 TONS PER PILE

ALL ABUTMENT PILING SHALL BE DRIVEN THROUGH COMPACTED FILL. PILING SHALL BE DRIVEN TO POINT BEARING ON SOLID FOUNDATION MATERIAL AT THE APPROXIMATE ELEVATION SHOWN ON THE PLANS. IF THE AXIAL LOAD RESISTANCE IS NOT OBTAINED AT THIS ELEVATION, DRIVING SHALL CONTINUE UNTIL THE AXIAL LOAD RESISTANCE IS OBTAINED. THE LENGTH OF THE STEEL PILING SHOWN ON THE PLANS IS FOR ESTIMATING PURPOSES ONLY.

PIERS	PIER 1	PIER 2	PIER 3	PIER 4
DRILLED SHAFT DIAMETER =	72"	72"	72"	72"
DRILLED SHAFT MINIMUM DEPTH INTO ROCK =	11'-0"	10'-0"	14'-0"	15'-0"
FACTORED REACTION =	669 TONS	718 TONS	899 TONS	7[illegible] TONS
NOMINAL UNIT BEARING RESISTANCE =	54.00 TSF	60.00 TSF	60.00 TSF	60.[illegible] TSF
BEARING RESISTANCE FACTOR =	0.70	0.70	0.70	0.7[illegible]
FACTORED BEARING RESISTANCE =	1068 TONS	1187 TONS	1187 TONS	1187 TONS
NOMINAL UNIT FRICTION RESISTANCE =	4.40 TSF	6.80 TSF	8.70 TSF	8.70 TSF
FRICTION RESISTANCE FACTOR =	0.45	0.45	0.45	0.45
FACTORED FRICTION RESISTANCE =	223 TONS	313 TONS	382 TONS	739 TONS
DEPTH OF ROCK NEGLECTED FOR FRICTION =	5 FT.	5 FT.	5 FT.	5 FT.
TOTAL FACTORED RESISTANCE =	1291 TONS	1500 TONS	1869 TONS	1926 TONS

Preliminary Plans

SUMMARY OF BRIDGE QUANTITIES

ITEM	UNIT	ABUT.	PIERS	SUPER STR.	APPR. SLAB	SLOPE WALL	TOTAL
SUBSTRUCTURE EXCAVATION COMMON	C.Y.	95	170	--	--	--	265
SUBSTRUCTURE EXCAVATION ROCK	C.Y.	--	2	--	--	--	2
CLSM BACKFILL	C.Y.	97.3	--	--	--	--	97.3
APPROACH SLAB	S.Y.	--	--	--	136.7	--	136.7
SAW-CUT GROOVING	S.Y.	--	--	1840	128	--	1968
42" F-SHAPED PARAPET	L.F.	--	--	877	60	--	937
STRUCTURAL STEEL M270 GRADE 50W	LB.	--	--	891,850	--	--	891,850
STAINLESS STEEL FIXED BEARING ASSEMBLY	EA.	--	--	10	--	--	10
STAINLESS STEEL EXP. BEARING ASSEMBLY	EA.	--	--	25	--	--	25
ELASTOMERIC COATING	S.F.	151	816	--	--	--	967
CLASS AA CONCRETE	C.Y.	--	--	523.0	--	--	523.0
CLASS A CONCRETE	C.Y.	47.1	292.6	--	--	--	339.7
SLOPE WALL (5")	S.Y.	--	--	--	--	247	247
GRAFFITI TREATMENT	S.F.	--	--	--	--	--	9765
REINFORCING STEEL	LB.	--	1960	--	--	--	1960
EPOXY COATED REINFORCING STEEL	LB.	5800	69,150	125,640	--	--	200,590
PILES, FURNISHED (HP 10X42)	L.F.	46	--	--	--	--	46
PILES, FURNISHED (HP 12X53)	L.F.	147	--	--	--	--	147
PILES, DRIVEN (HP 10X42)	L.F.	46	--	--	--	--	46
PILES, DRIVEN (HP 12X53)	L.F.	147	--	--	--	--	147
PILE SPLICE H-PILE (NON-BIDDABLE)	EA.	1	--	--	--	--	1
WATER REPELLENT (VISUALLY INSPECTED)	S.Y.	35	274	1143	30	--	1482
DRILLED SHAFTS 72" DIAMETER	L.F.	--	138	--	--	--	138
CROSSHOLE SONIC LOGGING	EA.	--	2	--	--	--	2
SEALED EXPANSION JOINTS	L.F.	--	--	81.3	--	--	81.3
SEALER CRACK PREPARATION	L.F.	--	--	123	--	--	123
SEALER RESIN	GAL.	--	--	1.4	--	--	1.4
6" PERFORATED PIPE UNDERDRAIN ROUND	L.F.	42	--	--	--	55	97
6" NON-PERF.PIPE UNDERDRAIN RND.	L.F.	20	--	--	--	20	40

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 OKLAHOMA COUNTY
BRIDGE "A" RAMP "A" AT I-35 & I-240 INTERCHANGE

DESIGN DATA
AND
SUMMARY OF QUANTITIES

STATE JOB NO. 09032(061) SHEET NO. B003

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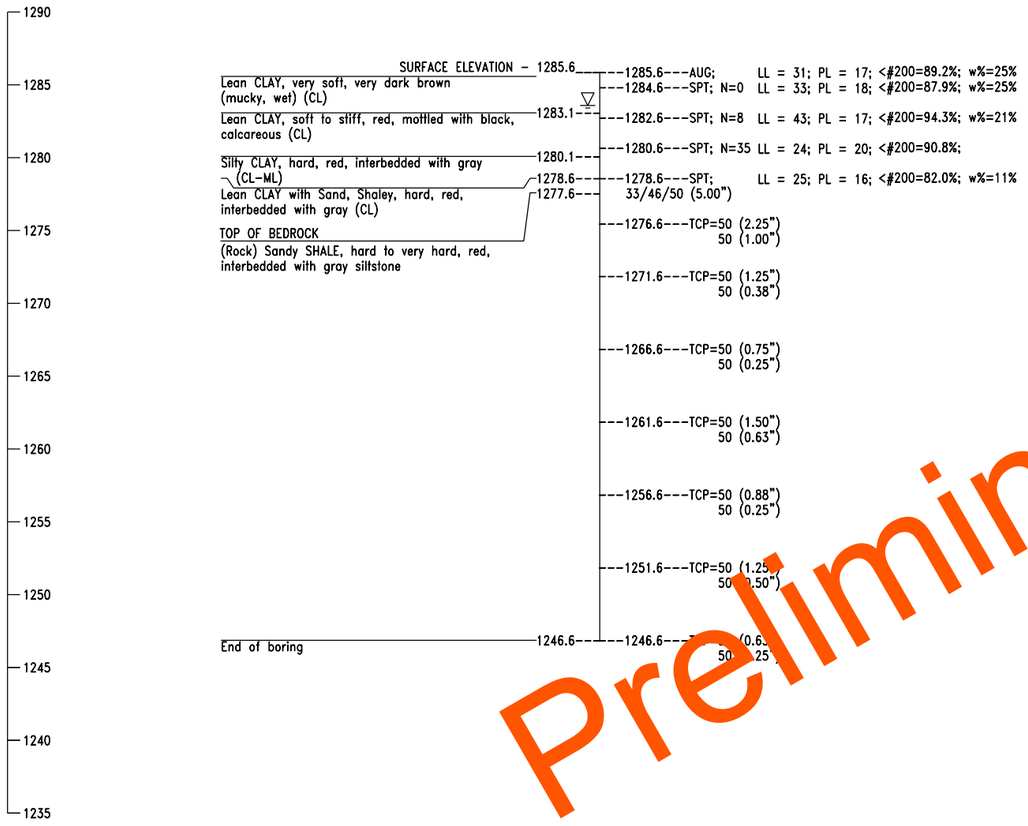
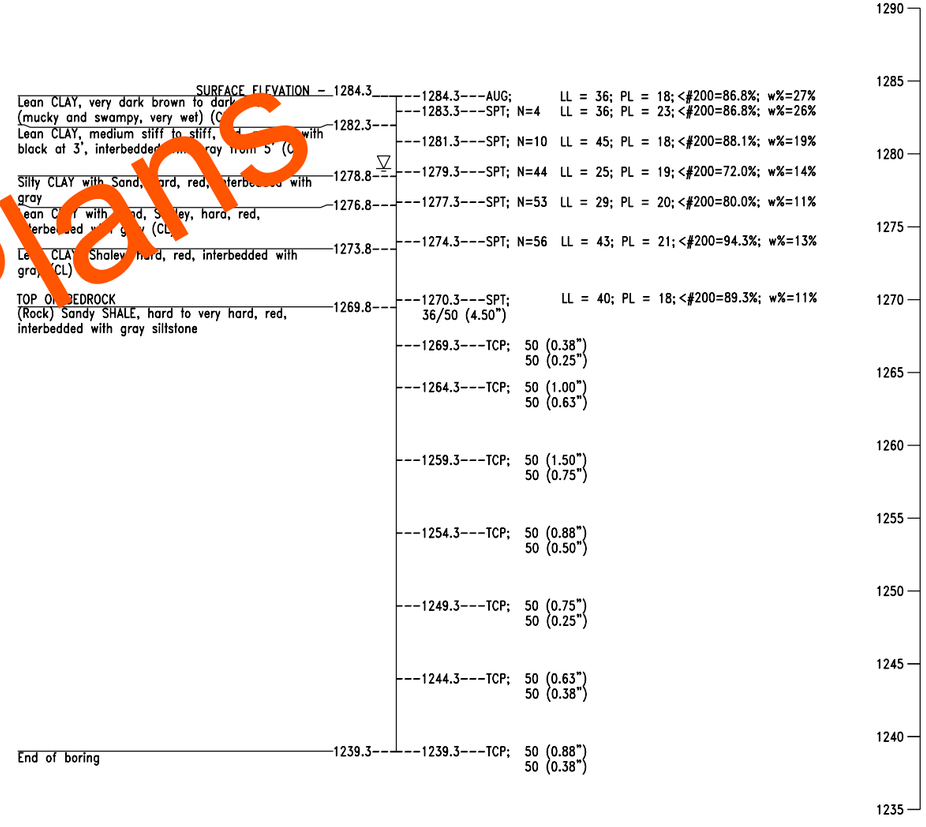
DESCRIPTION	REVISIONS	DATE

02/01/2022

Boring Number A-01
Northing: 142241.74
Easting: 2151358.24
Date Drilled: 5/27/2017
BL RAMP "A" STA. 73+08.71
OFFSET 48.23' RT.



Boring Number A-02
Northing: 142331.63
Easting: 2151375.99
Date Drilled: 5/26/2017
BL RAMP "A" STA. 73+97.36
OFFSET 25.04' RT.



Preliminary Plans

GEOLOGIC STATEMENT

"Division Four" of the "Engineering Classification of Geological Materials", published by the Oklahoma Department of Transportation (ODOT) indicates that the site is underlain by the Hennessey Unit (Phy). The geologic unit is described below.

This unit consists of red platy to blocky clay shales and mudstone. The mudstones are hard and appear blocky. The red clay shale of the Hennessey Unit is characterized by numerous bands of streaks of white or light green color ranging from a few inches to four feet in thickness.

The total thickness of the unit is about 400 feet.

The Hennessey Unit outcrops in a 5- to 15-mile north-south band across Grant, Garfield, Kingfisher, Logan, Canadian, and Oklahoma Counties in Division Four. Topographically, the unit is near level to gently rolling and is generally grass covered or cultivated.

GEOTECHNICAL REPORT

All geotechnical information contained on this sheet is covered by the engineering seal affixed to an original geotechnical engineering report that has been stamped and sealed by a professional engineer licensed in Oklahoma. To obtain a copy of the complete report, contact the ODOT office engineer at (405) 521-2625. The contractor should be fully aware of the site conditions prior to beginning work. Any additional geotechnical information which may be desired is the responsibility of the contractor.

Note: Water level elevations shown were obtained at the time the borings were drilled and may fluctuate throughout the year.

NOTE: SPT - Split Spoon Sampling
TCP - Texas Cone Penetrator Test
AUG - Augur Cutting Sample
LL - Liquid Limit
PL - Plastic Limit

<#200 - Percent passing #200 sieve
w% - Moisture content
N - Number of blows per 12 inches
▽ Denotes depth to observed groundwater

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	PSI	

PHASE 2 OKLAHOMA COUNTY
BRIDGE "A" RAMP "A" AT I-35 & I-240 INTERCHANGE

FOUNDATION REPORT
(SHEET 1 OF 3)

STATE JOB NO. 09032(06) SHEET NO. B004

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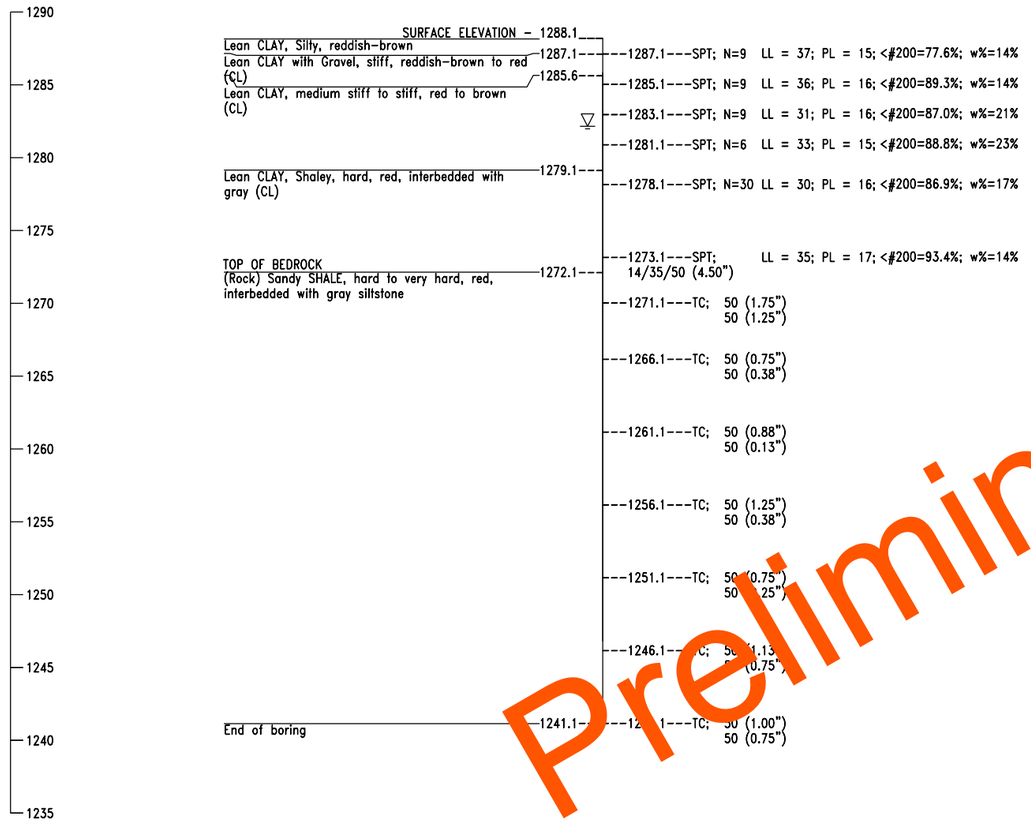
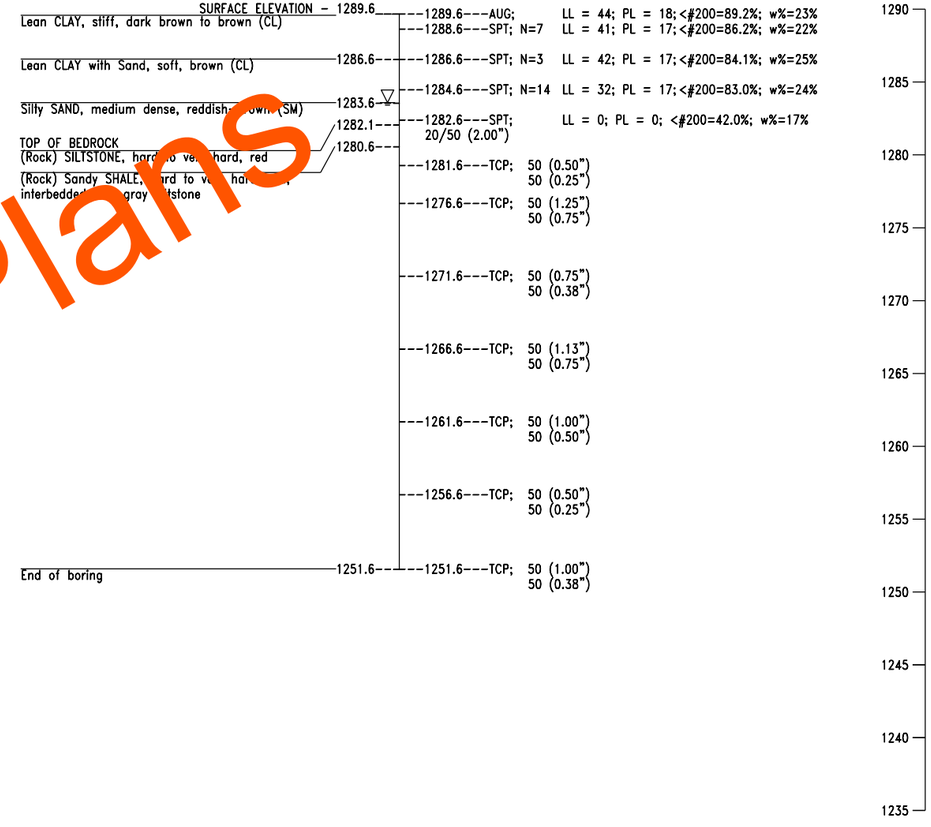
REVISIONS		
DESCRIPTION		DATE

Boring Number A-03
Northing: 142440.29
Easting: 2151416.07
Date Drilled: 5/26/2017
BL RAMP "A" STA. 75+11.56
OFFSET 15.82' RT.



Boring Number A-04
Northing: 142546.29
Easting: 2151449.29
Date Drilled: 5/26/2017
BL RAMP "A" STA. 76+20.69
OFFSET 14.66' RT.



Preliminary Plans

GEOLOGIC STATEMENT

"Division Four" of the "Engineering Classification of Geological Materials", published by the Oklahoma Department of Transportation (ODOT) indicates that the site is underlain by the Hennessey Unit (Phy). The geologic unit is described below.

This unit consists of red platy to blocky clay shales and mudstone. The mudstones are hard and appear blocky. The red clay shale of the Hennessey Unit is characterized by numerous bands of streaks of white or light green color ranging from a few inches to four feet in thickness.

The total thickness of the unit is about 400 feet.

The Hennessey Unit outcrops in a 5- to 15-mile north-south band across Grant, Garfield, Kingfisher, Logan, Canadian, and Oklahoma Counties in Division Four. Topographically, the unit is near level to gently rolling and is generally grass covered or cultivated.

GEOTECHNICAL REPORT

All geotechnical information contained on this sheet is covered by the engineering seal affixed to an original geotechnical engineering report that has been stamped and sealed by a professional engineer licensed in Oklahoma. To obtain a copy of the complete report, contact the ODOT office engineer at (405) 521-2625. The contractor should be fully aware of the site conditions prior to beginning work. Any additional geotechnical information which may be desired is the responsibility of the contractor.

Note: Water level elevations shown were obtained at the time the borings were drilled and may fluctuate throughout the year.

NOTE: SPT - Split Spoon Sampling
TCP - Texas Cone Penetrator Test
AUG - Augur Cutting Sample
LL - Liquid Limit
PL - Plastic Limit

<#200 - Percent passing #200 sieve
w% - Moisture content
N - Number of blows per 12 inches
▽ Denotes depth to observed groundwater

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	PSI	

PHASE 2 OKLAHOMA COUNTY
BRIDGE "A" RAMP "A" AT I-35 & I-240 INTERCHANGE

FOUNDATION REPORT

(SHEET 2 OF 3)

STATE JOB NO. 09032(06) SHEET NO. B005

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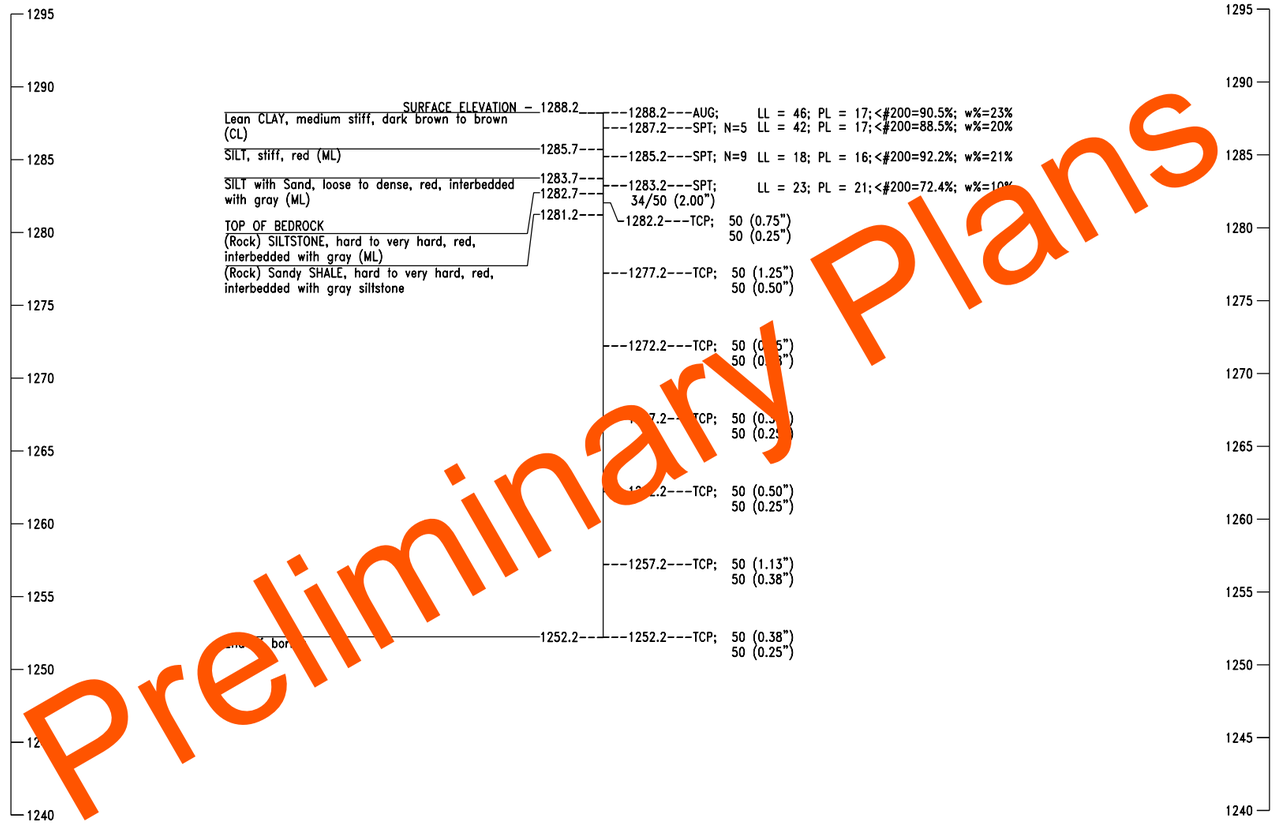
REVISIONS		
DESCRIPTION		DATE

Boring Number A-05
Northing: 142669.85
Easting: 2151472.15
Date Drilled: 5/26/2017
BL RAMP "A" STA. 77+44.14
Date Drilled: 5/26/2017



Preliminary Plans

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N - Number of blows per 12 inches
▽ Denotes depth to observed groundwater

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	PSI	

PHASE 2 OKLAHOMA COUNTY
BRIDGE "A" RAMP "A" AT I-35 & I-240 INTERCHANGE

FOUNDATION REPORT
(SHEET 3 OF 3)

STATE JOB NO. 09032(106) SHEET NO. B006

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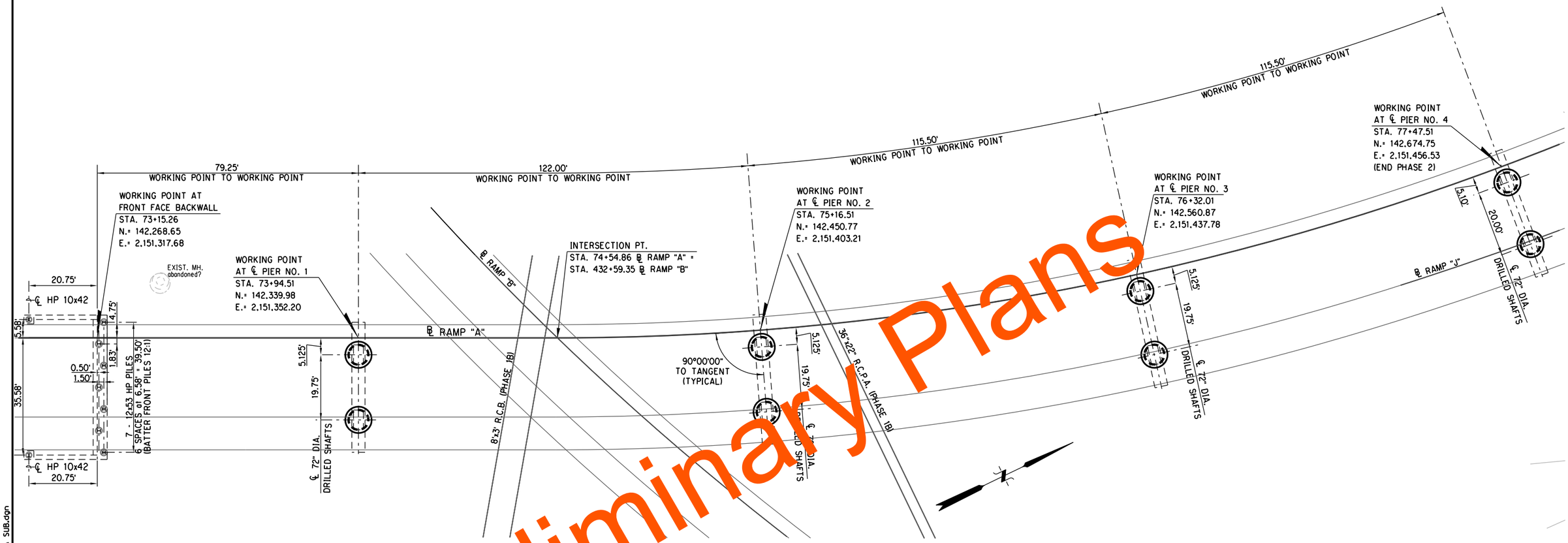
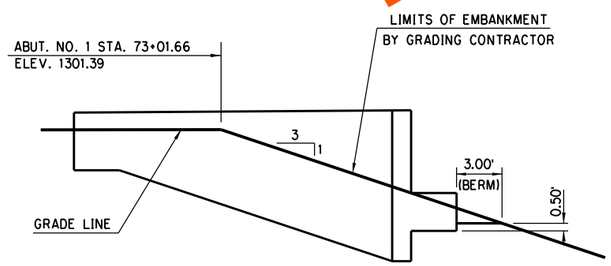
DESCRIPTION	REVISIONS	DATE



TOP OF PILE ELEVATIONS	
ABUTMENT PILE	1295.66
WING PILE	1299.66

SUBSTRUCTURE STAKING DIAGRAM



DETAIL OF GRADING AT ABUTMENT NO. 1

UTILITIES:

(CAUTION) THE LOCATION OF ALL UTILITIES AS SHOWN ARE APPROXIMATE DUE TO RELOCATION PLANNED OR PRESENTLY UNDER CONSTRUCTION. THERE ARE SOME UTILITIES THAT WILL BE RELOCATED AND NOT SHOWN ON THESE PLANS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO ALL UTILITIES.

NO PAYMENT WILL BE MADE FOR REMOVAL OF ABANDONED UTILITY PIPE LINES THAT INTERFERE WITH CONSTRUCTION. ALL COST TO BE INCLUDED IN OTHER ITEMS.

OKLAHOMA ONE-CALL SYSTEM:

IN ACCORDANCE WITH THE OKLAHOMA UNDERGROUND FACILITIES DAMAGE PREVENTION ACT THE CONTRACTOR SHALL NOTIFY THE OKLAHOMA ONE-CALL SYSTEM, INC. 48 HOURS PRIOR TO BEGINNING EXCAVATION. OKLAHOMA ONE-CALL SYSTEM, INC. "CALL OKIE" 1-800-522-6543 OR 811.

Preliminary Plans

PHASE 2 OKLAHOMA COUNTY

BRIDGE "A" RAMP "A" AT I-35 & I-240 INTERCHANGE

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

SUBSTRUCTURE LAYOUT

STATE JOB NO. 09032(106) SHEET NO. B007

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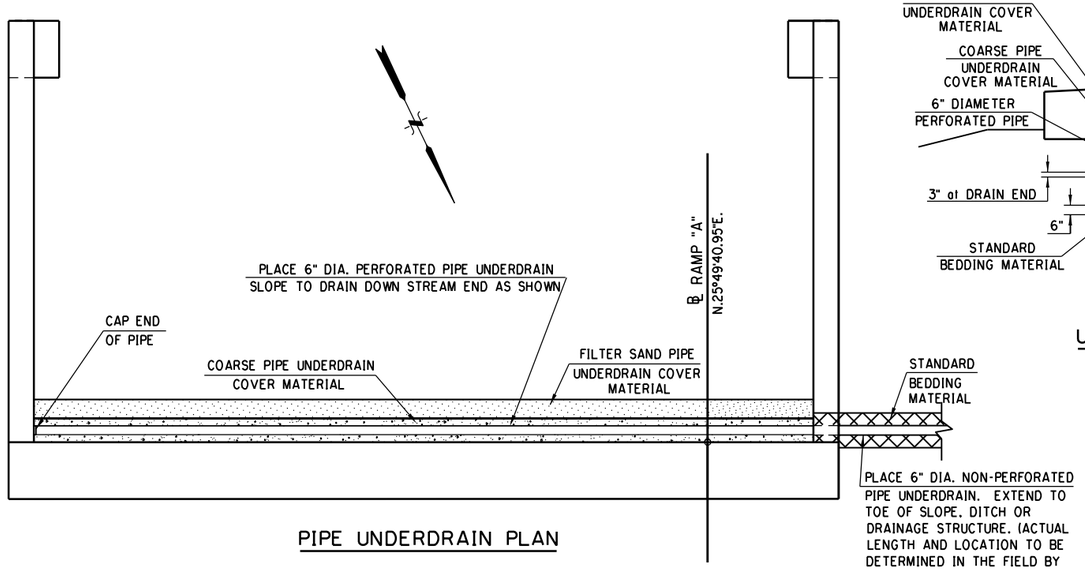
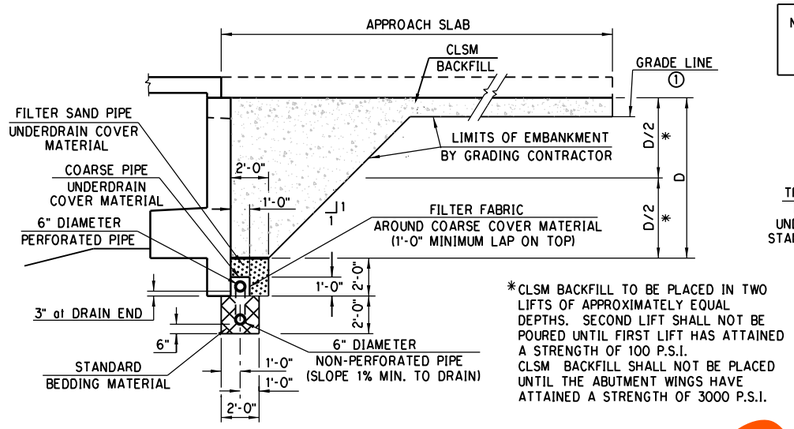
REVISIONS		
DESCRIPTION		DATE

NOTE:
EXTENT, LOCATION AND DEPTH OF 6" NON-PERFORATED PIPE UNDERDRAIN MAY BE ADJUSTED BY THE ENGINEER DURING CONSTRUCTION.
ALL COST OF PIPE UNDERDRAIN COVER MATERIAL (BOTH FINE AND COARSE), FILTER FABRIC, TRENCH EXCAVATION, STANDARD BEDDING MATERIAL, AND EQUIPMENT AND LABOR FOR THEIR INSTALLATION SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE OF "6" PERFORATED PIPE UNDERDRAIN ROUND" AND "6" NON-PERF. PIPE UNDERDRAIN ROUND". INSTALLATION SHALL BE AS SHOWN ON THE PLANS AND ON STD. PUD-4.



PIPE UNDERDRAIN PLAN

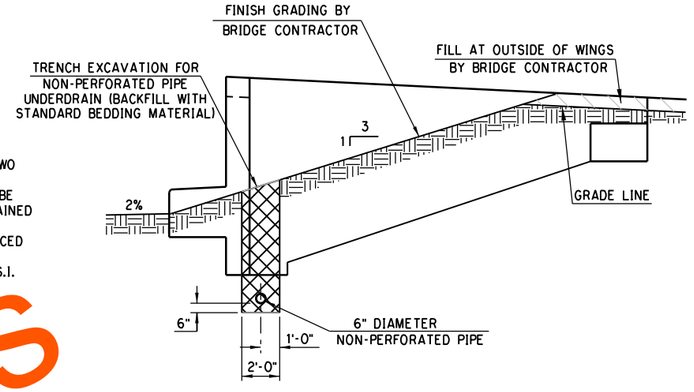


UNDERDRAIN INSTALLATION DETAIL

*CLSM BACKFILL TO BE PLACED IN TWO LIFTS OF APPROXIMATELY EQUAL DEPTHS. SECOND LIFT SHALL NOT BE POURED UNTIL FIRST LIFT HAS ATTAINED A STRENGTH OF 100 P.S.I. CLSM BACKFILL SHALL NOT BE PLACED UNTIL THE ABUTMENT WINGS HAVE ATTAINED A STRENGTH OF 3000 P.S.I.

① GRADE LINE SHOWN IS ASSUMED TO BE LOCATED 12" BELOW BOTTOM OF APPROACH SLAB FOR COMPUTING CLSM BACKFILL QUANTITY SHOWN ON THE PLANS. THE DEPARTMENT WILL PAY FOR CLSM BACKFILL IN ACCORDANCE WITH THE PLAN QUANTITY AND NO ADJUSTMENT WILL BE MADE FOR ACTUAL LOCATION OF GRADE LINE.

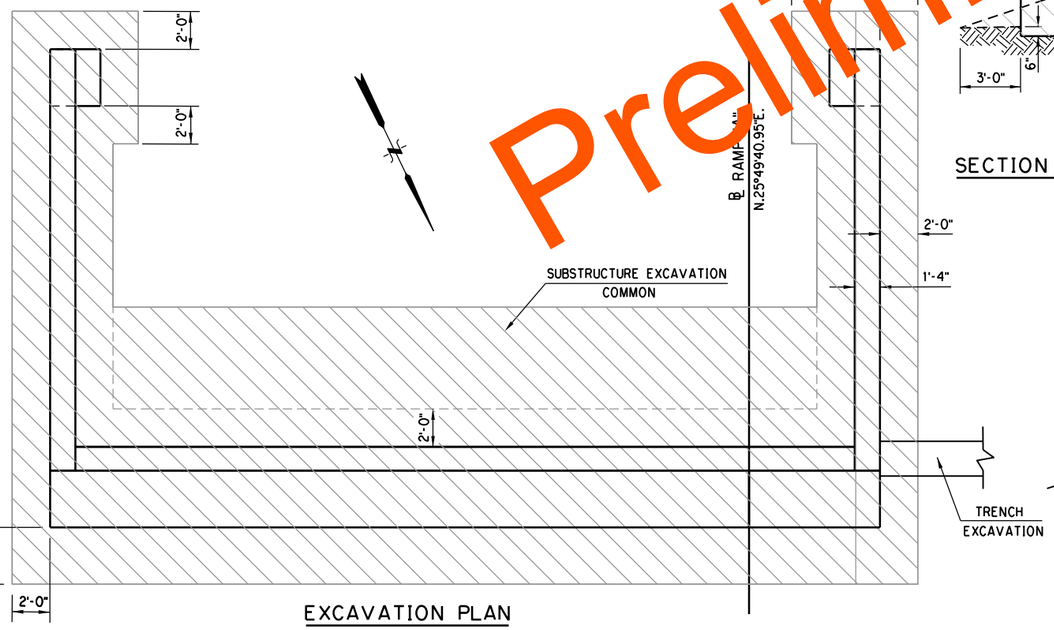
NOTE: FOR ADDITIONAL DETAILS AND GENERAL NOTES FOR PIPE UNDERDRAIN INSTALLATION, SEE ODOT STDS. PUD-4 AND SPI-5



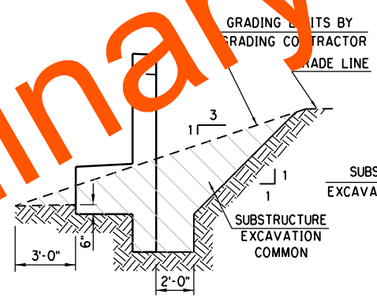
BACKFILL DETAIL OUTSIDE OF WING

ABUTMENT NO. 1 UNDERDRAIN DETAILS

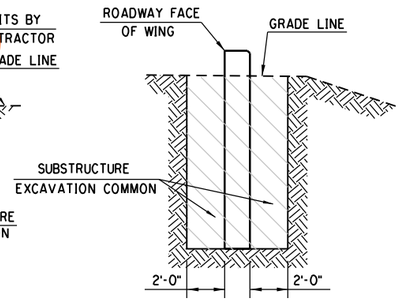
NOTE:
CONCRETE MAY BE PLACED AGAINST THE LIMITS OF EXCAVATION IF THE MATERIAL IS EXCAVATED TO THE NEAT LINES OF THE ABUTMENT AND APPROVED BY THE ENGINEER. IF NECESSARY, FORMS SHALL BE USED ON THE BACK VERTICAL FACE OF THE ABUTMENT AND REMOVED AFTER CONCRETE IS SET.
MEASUREMENT AND PAYMENT FOR SUBSTRUCTURE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



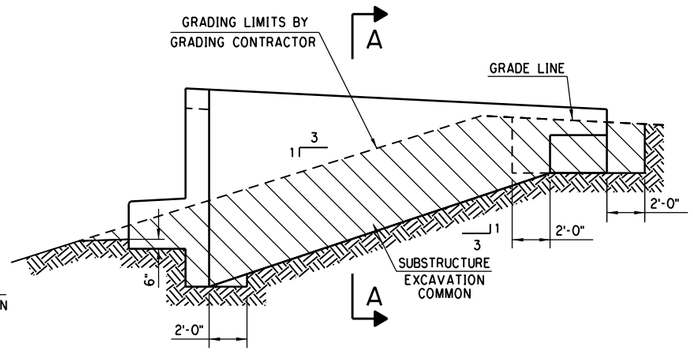
EXCAVATION PLAN



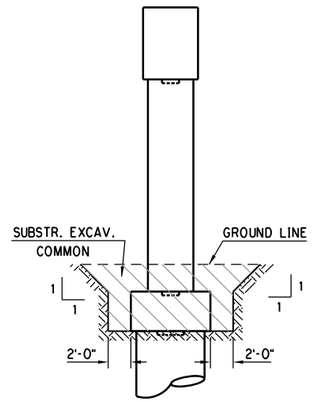
SECTION THRU BRIDGE SEAT



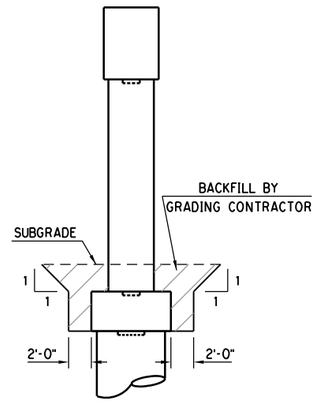
SECTION A-A
SECTION THRU WING



WING ELEVATION



PIER EXCAVATION DIAGRAM
(TYPICAL)



PIER BACKFILL DIAGRAM
(TYPICAL)

ABUTMENT NO. 1 EXCAVATION DIAGRAMS

CONSTRUCTION NOTES

1. CLSM BACKFILL SHALL NOT BE PLACED UNTIL THE SUPERSTRUCTURE IS IN PLACE AND THE ABUTMENT WING CONCRETE HAS ATTAINED A STRENGTH OF 3000 P.S.I..
2. THE EXTENT, LOCATION, AND DEPTH OF DRAINS MAY BE ADJUSTED BY THE ENGINEER TO SUIT CONDITIONS FOUND DURING CONSTRUCTION.
3. COST OF ALL FITTINGS TO BE INCLUDED IN PRICE BID PER LINEAR FOOT OF PIPE UNDERDRAIN.
4. ALL CONSTRUCTION AND MATERIAL REQUIREMENTS SHALL BE IN ACCORDANCE WITH THE CURRENT SPECIFICATIONS.

PHASE 2 — OKLAHOMA COUNTY
BRIDGE "A" — RAMP "A" AT I-35 & I-240 INTERCHANGE

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

EXCAVATION DIAGRAMS AND UNDERDRAIN DETAILS

STATE JOB NO. 09032(06) SHEET NO. B008

Preliminary Plans

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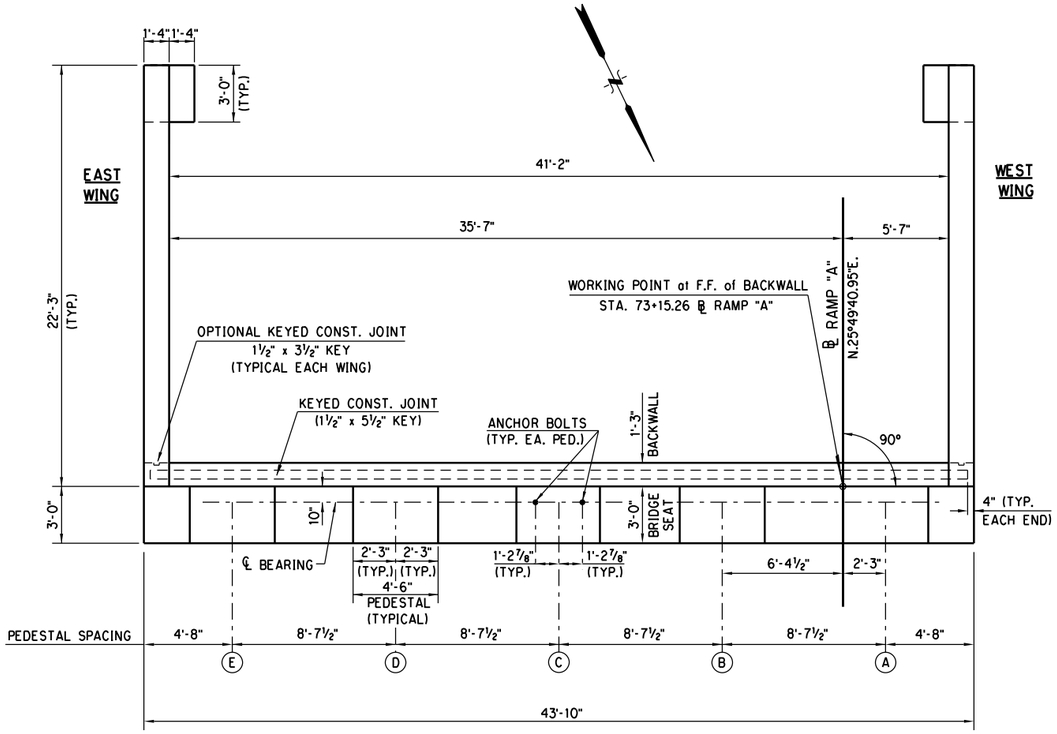
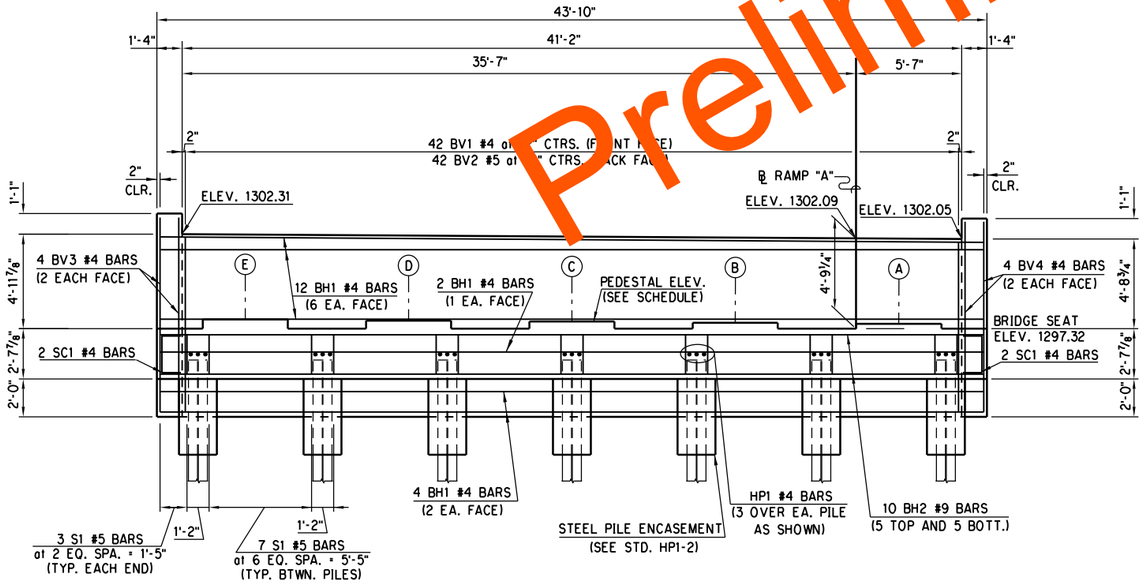
Preliminary Plans

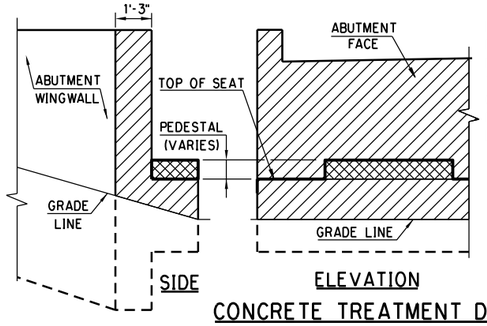
REVISIONS		
DESCRIPTION		DATE



PLAN



ELEVATION



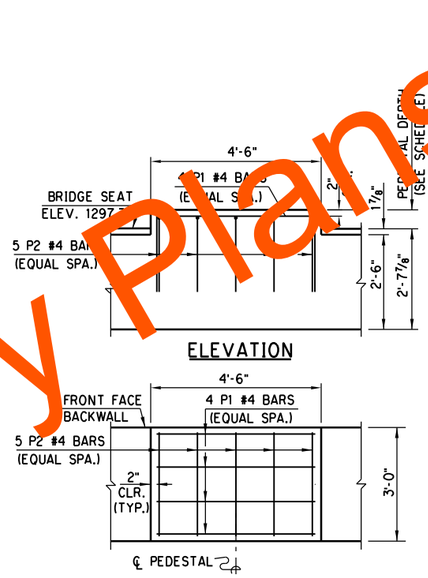
ELEVATION

NOTE:
MASK FACE AND ENDS OF SEAT TO PROVIDE A CLEAN STRAIGHT FINISH AT THE BOTTOM EDGE OF ELASTOMERIC COATING APPLICATION.
MASK OUT TOPS OF PEDESTALS WHERE BEARING PADS SIT.

ELASTOMERIC COATING (CROSS-HATCHING AND HEAVY LINE)

WATER REPELLENT (HATCHING)

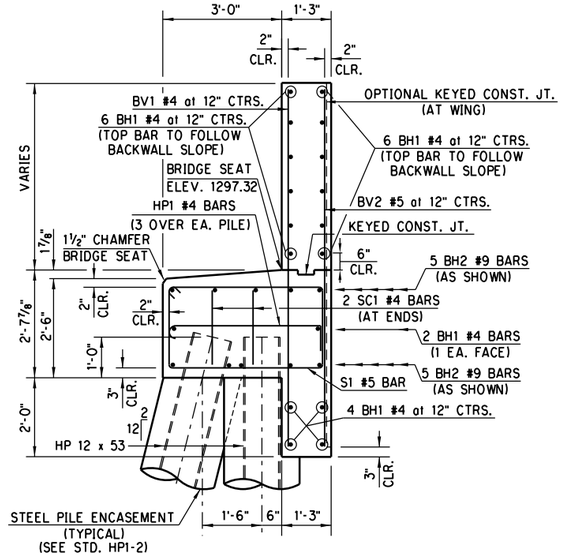
CONCRETE TREATMENT DETAILS



PLAN

PEDESTAL REINFORCING

(TYPICAL)



TYPICAL SECTION THRU BRIDGE SEAT

(PEDESTAL NOT SHOWN)

PEDESTAL ELEVATION SCHEDULE - ABUTMENT NO. 1

PEDESTAL	A	B	C	D	E
ELEVATION	1297.57	1297.63	1297.69	1297.74	1297.80
DEPTH	3"	3 3/4"	4 1/2"	5 1/8"	5 13/16"

ABUTMENT NO. 1 QUANTITIES

ITEM	UNIT	TOTAL
SUBSTRUCTURE EXCAVATION COMMON	C.Y.	95
CLSM BACKFILL	C.Y.	97.3
ELASTOMERIC COATING	S.F.	151
CLASS A CONCRETE	C.Y.	47.1
EPOXY COATED REINFORCING STEEL	LB.	5800
PILES, FURNISHED (HP 10X42)	L.F.	46
PILES, FURNISHED (HP 12X53)	L.F.	147
PILES, DRIVEN (HP 10X42)	L.F.	46
PILES, DRIVEN (HP 12X53)	L.F.	147
WATERREPELLENT (VISUALLY INSPECTED)	S.Y.	35
6" PERFORATED PIPE UNDERDRAIN, ROUND	L.F.	42
6" PERF. PIPE UNDERDRAIN, ROUND	L.F.	20

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 — OKLAHOMA COUNTY
BRIDGE "A" — RAMP "A" AT I-35 & I-240 INTERCHANGE

ABUTMENT DETAILS
ABUTMENT NO. 1
(SHEET 1 OF 2)

STATE JOB NO. 09032(106) SHEET NO. B009

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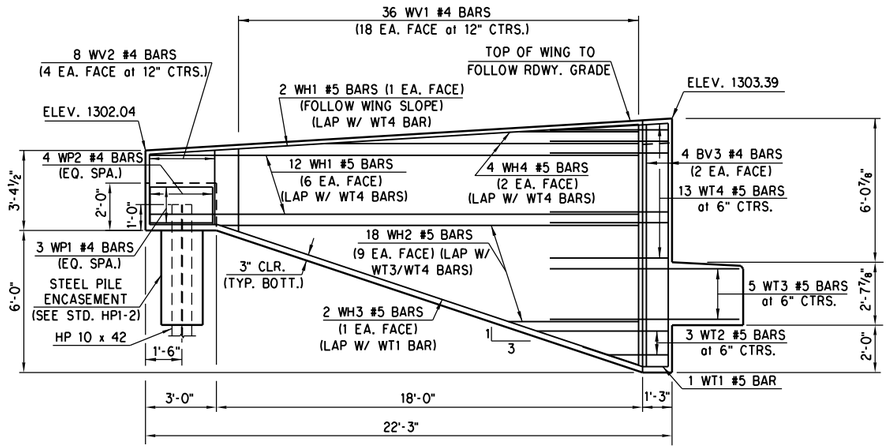
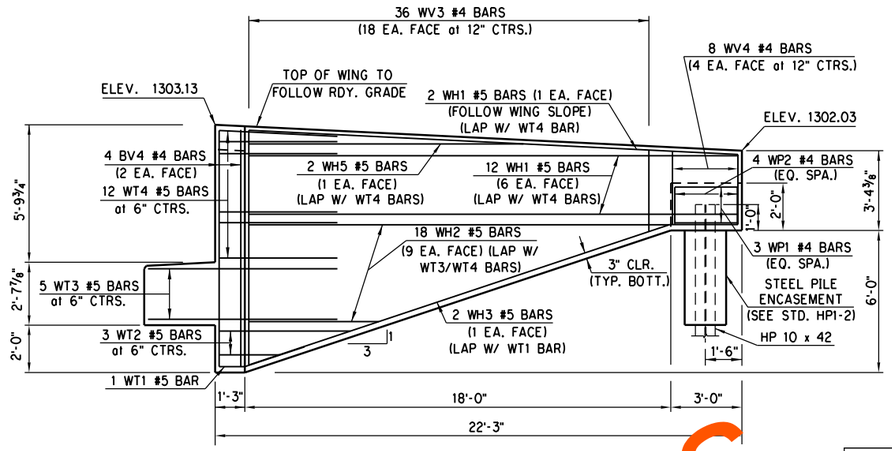
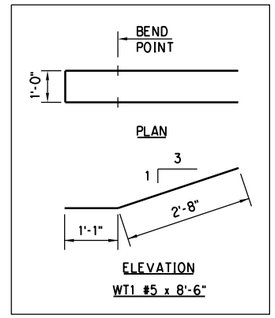
DESCRIPTION	REVISIONS	DATE

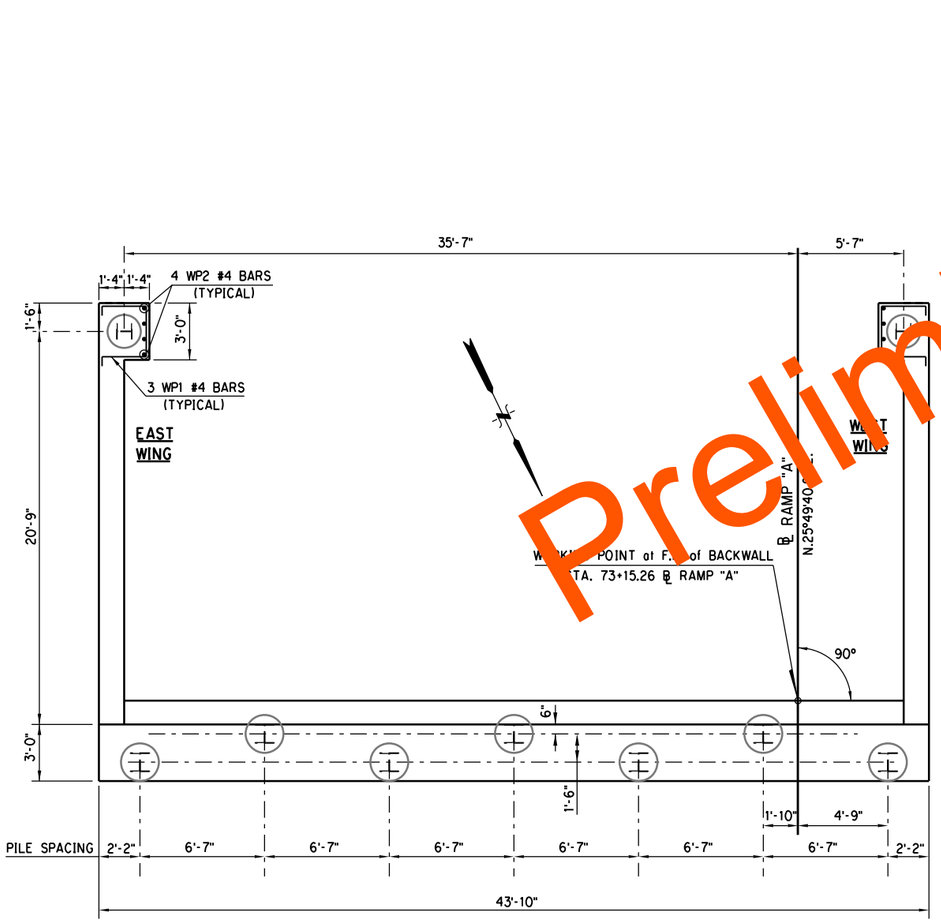


EAST WING ELEVATION



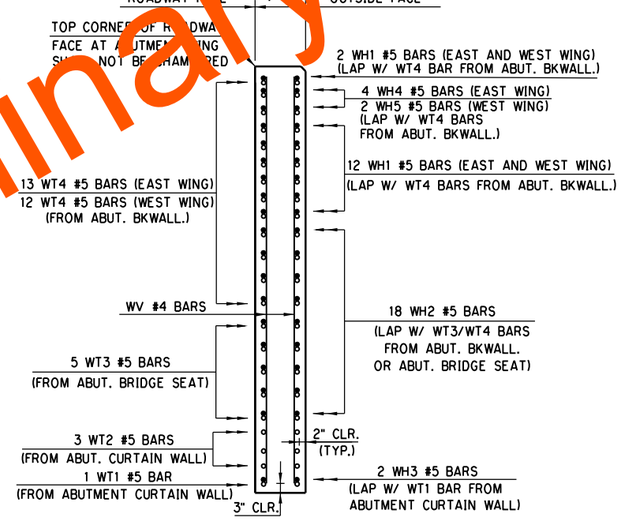
WEST WING ELEVATION



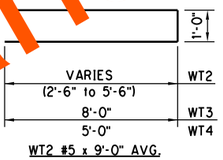


PILE SPACING DIAGRAM

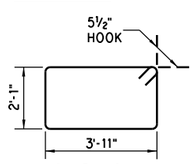
NOTE: BR. SEAT PILES ARE HP 12 x 53. WING PILES ARE HP 10 x 42
(BATTER FRONT ROW IN BR. SEAT 2:12)



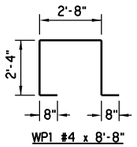
SECTION THRU WING AT
BACK FACE OF ABUTMENT SEAT
(EAST WING SHOWN)



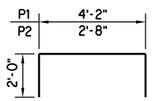
WT2 #5 x 9'-0" AVG.
(6'-0" to 12'-0")
WT3 #5 x 17'-0"
WT4 #5 x 11'-0"



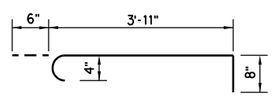
S1 #5 x 12'-11"



WP1 #4 x 8'-8"

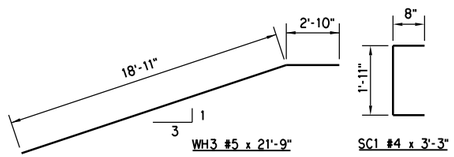


P1 #4 x 8'-2"
P2 #4 x 6'-8"



HP1 #4 x 5'-1"

NOTE: ALL BENT BAR DIMENSIONS ARE OUT TO OUT.



WH3 #5 x 21'-9"
SC1 #4 x 3'-3"

ABUTMENT NO. 1 BAR LIST
(EPOXY COATED)

MARK	NO.	SIZE	FORM	SPACING	LENGTH	LENGTH VARIATION
BH1	18	#4	STR.	12"C/C	43'-6"	--
BH2	10	#9	STR.	AS SHOWN	43'-6"	--
BV1	42	#4	STR.	12"C/C	9'-1" AVG.	8'-11" TO 9'-3"
BV2	42	#5	STR.	12"C/C	9'-1" AVG.	8'-11" TO 9'-3"
BV3	4	#4	STR.	AS SHOWN	10'-3"	--
BV4	4	#4	STR.	AS SHOWN	10'-0"	--
HP1	21	#4	BENT	AS SHOWN	5'-1"	--
P1	20	#4	BENT	EQUAL	8'-2"	--
P2	25	#4	BENT	EQUAL	6'-8"	--
S1	48	#5	BENT	EQUAL	12'-11"	--
SC1	4	#4	BENT	AS SHOWN	3'-3"	--
WT1	2	#5	BENT	AS SHOWN	8'-6'	--
WT2	6	#5	BENT	6" C/C	9'-0" AVG.	6'-0" TO 12'-0"
WT3	10	#5	BENT	6" C/C	17'-0"	--
WT4	25	#5	BENT	6" C/C	11'-0"	--
WH1	28	#5	STR.	6" C/C	20'-8"	--
WH2	36	#5	STR.	6" C/C	11'-9" AVG.	5'-9" TO 17'-9"
WH3	4	#5	BENT	AS SHOWN	21'-9"	--
WH4	4	#5	STR.	6" C/C	9'-1" AVG	5'-0" TO 13'-2"
WH5	2	#5	STR.	AS SHOWN	11'-8"	--
WP1	6	#4	BENT	EQUAL	8'-8"	--
WP2	8	#4	STR.	EQUAL	1'-7"	--
WV1	36	#4	STR.	12" C/C	6'-10" AVG.	3'-6" TO 10'-2"
WV2	8	#4	STR.	12" C/C	3'-1" AVG.	3'-0" TO 3'-2"
WV3	36	#4	STR.	12" C/C	6'-8" AVG.	3'-5" TO 9'-11"
WV4	8	#4	STR.	12" C/C	3'-0" AVG.	2'-11" TO 3'-1"

Preliminary Plans

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 — OKLAHOMA COUNTY
BRIDGE "A" — RAMP "A" AT I-35 & I-240 INTERCHANGE

ABUTMENT DETAILS
ABUTMENT NO. 1
(SHEET 2 OF 2)

STATE JOB NO. 09032(106) SHEET NO. B010

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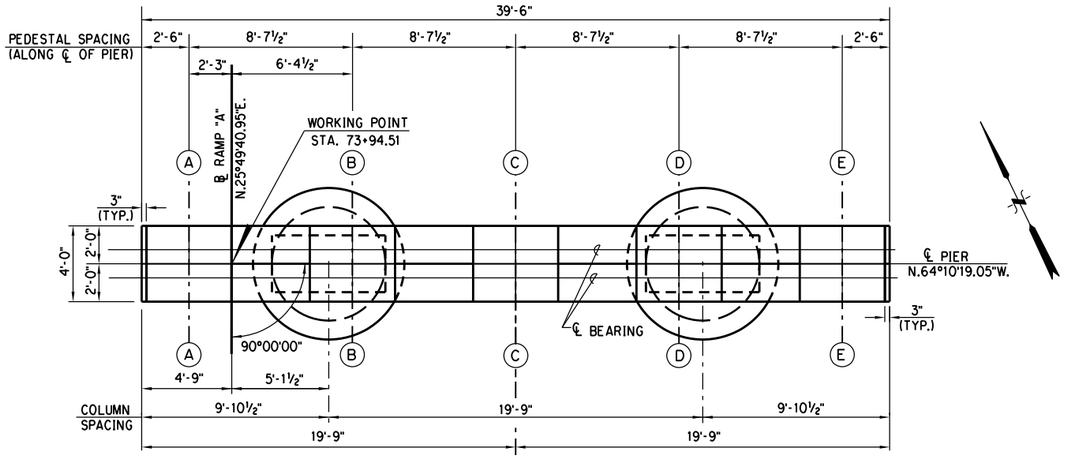
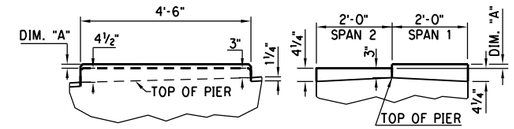
DESCRIPTION	REVISIONS	DATE



PLAN

(SEE SHEET 3 OF 3 FOR ANCHOR BOLT LAYOUTS)

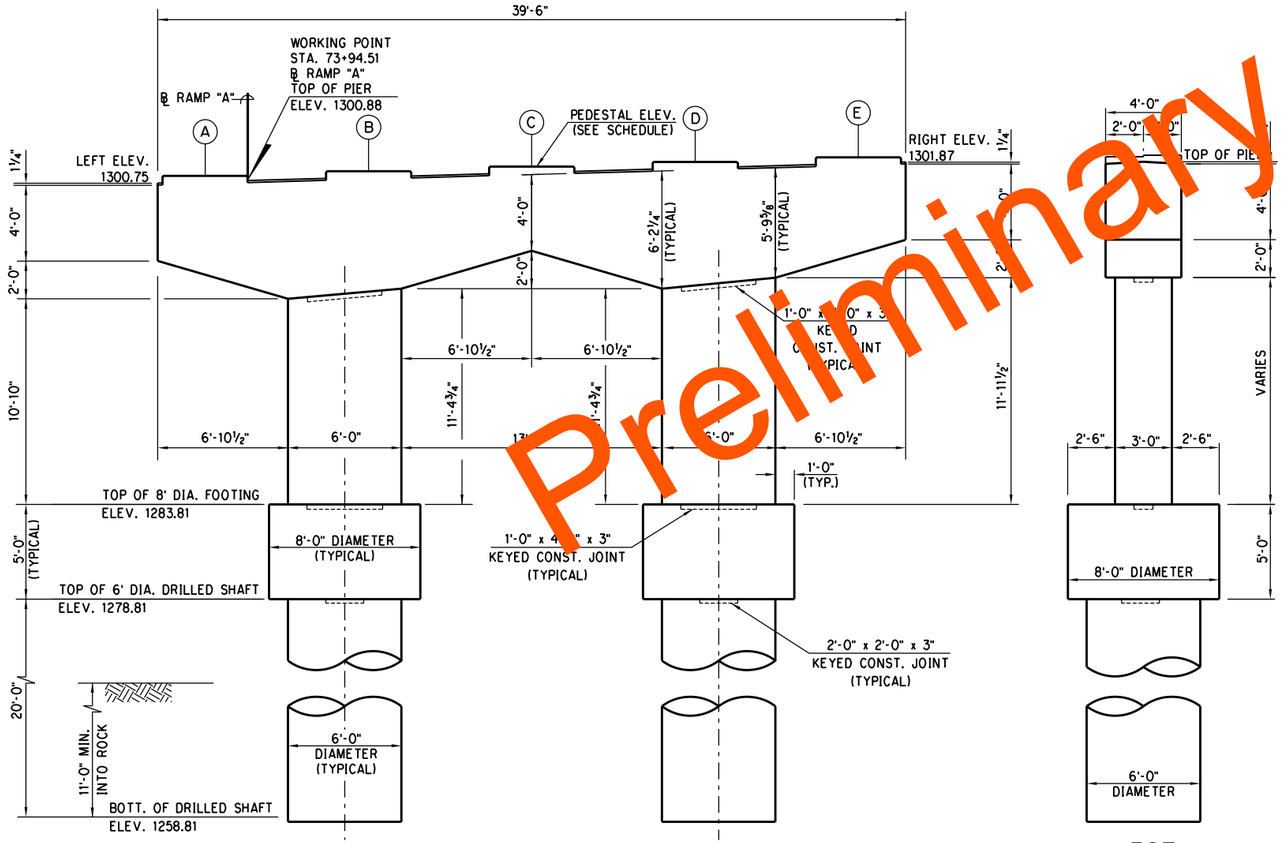


SOUTH ELEVATION WEST END VIEW

PEDESTAL DETAIL

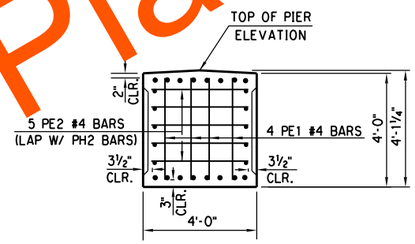
(SEE SCHEDULE)

PEDESTAL ELEVATION SCHEDULE - PIER NO. 1					
PEDESTAL	A	B	C	D	E
SPAN 1 ELEVATION	1301.23	1301.47	1301.71	1301.95	1302.19
DIM. "A"	1¼"	1⅛"	1⅛"	1"	1"
SPAN 2 ELEVATION	1301.13	1301.38	1301.62	1301.87	1302.11



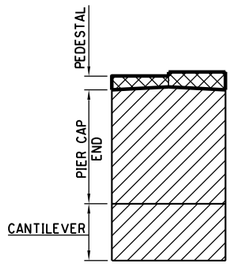
ELEVATION

WEST END VIEW



CAP END REINFORCING DETAIL

(PEDESTALS AND S BARS OMITTED FOR CLARITY)



NOTE:
MASK SIDES AND ENDS OF PIER CAP TO PROVIDE A CLEAN STRAIGHT FINISH AT THE BOTTOM EDGE OF ELASTOMERIC COATING APPLICATION.
MASK OUT TOPS OF PEDESTALS WHERE BEARING PADS SIT.

ELASTOMERIC COATING (CROSS-HATCHING AND HEAVY LINE)

WATER REPELLENT (HATCHING)

CONCRETE TREATMENT DETAILS

PIER NO. 1 QUANTITIES		
ITEM	UNIT	TOTAL
SUBSTRUCTURE EXCAVATION COMMON	C.Y.	40
* ELASTOMERIC COATING	S.F.	191
CLASS A CONCRETE	C.Y.	66.7
REINFORCING STEEL	LB.	490
EPOXY COATED REINFORCING STEEL	LB.	15,840
≠ WATER REPELLENT (VISUALLY INSPECTED)	S.Y.	67
DRILLED SHAFTS 72" DIAMETER	L.F.	40

* TOP OF PIER CAP. TOP AND SIDES OF PEDESTALS.

≠ ENDS AND SIDES OF PIER CAP. BOTTOM OF CANTILEVERS.

Preliminary Plans

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 — OKLAHOMA COUNTY

BRIDGE "A" — RAMP "A" AT I-35 & I-240 INTERCHANGE

PIER DETAILS
PIER NO. 1
(SHEET 1 OF 3)

STATE JOB NO. 09032(106) SHEET NO. B011

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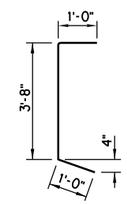
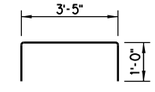
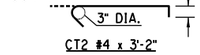
DESCRIPTION	REVISIONS	DATE



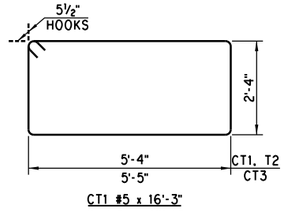
PE1 #4 x 5'-8"



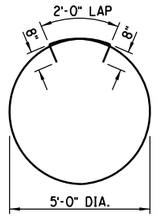
PE2 #4 x 5'-5"



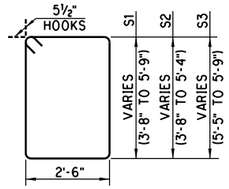
CT2 #4 x 3'-2"



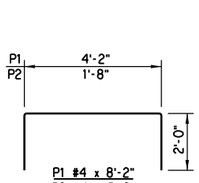
CT1 #5 x 16'-3"
CT3 #5 x 16'-5"
T2 #5 x 16'-3"



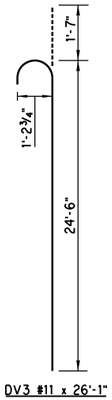
T1 #4 x 19'-0"



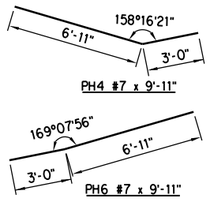
S1 #5 x 15'-4" AVG.
(13'-3" TO 17'-5")
S2 #5 x 14'-11" AVG.
(13'-3" TO 16'-7")
S3 #5 x 17'-1" AVG.
(16'-9" TO 17'-5")



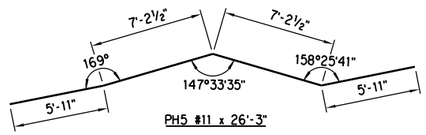
P1 #4 x 8'-2"
P2 #4 x 5'-8"



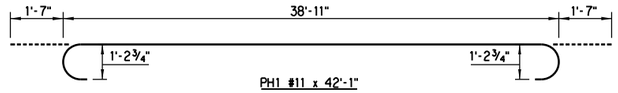
DV3 #11 x 26'-1"



PH4 #7 x 9'-11"



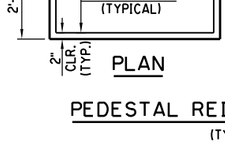
PH5 #11 x 26'-3"



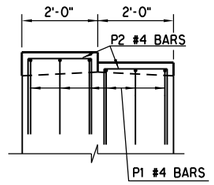
PH1 #11 x 42'-1"

PH6 #7 x 9'-11"

ALL BENT BAR DIMENSIONS ARE OUT TO OUT.

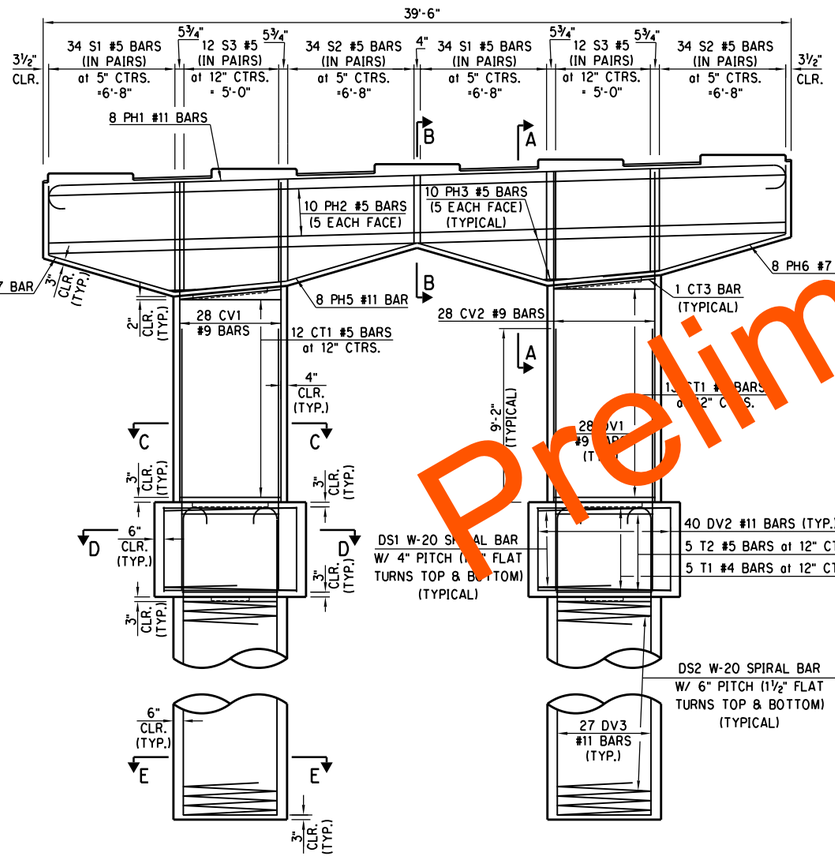


PLAN

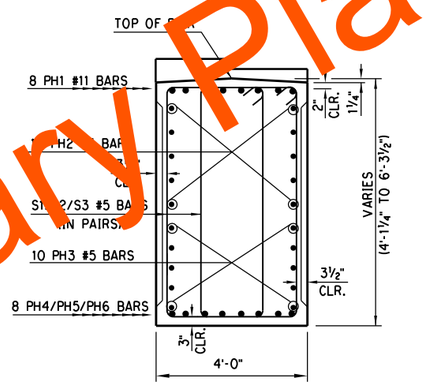


SECTION

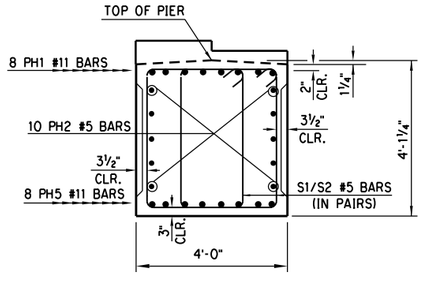
PEDESTAL REINFORCING DETAIL
(TYPICAL)



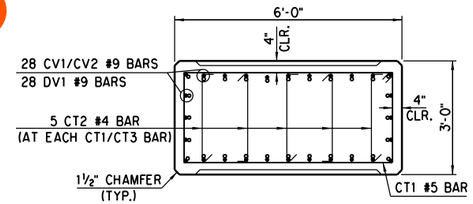
REINFORCING ELEVATION



SECTION A-A

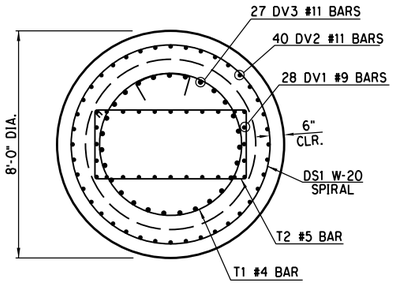


SECTION B-B



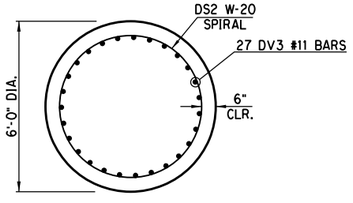
NOTE: ALTERNATE CT2 #4 BARS END TO END FOR EACH SUCCESSIVE ROW.

SECTION C-C



NOTE: ROTATE BARS T1 AND T2 180 DEGREES FOR EACH SUCCESSIVE ROW.

SECTION D-D



SECTION E-E

Preliminary Plans

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DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 — OKLAHOMA COUNTY
BRIDGE "A" — RAMP "A" AT I-35 & I-240 INTERCHANGE

PIER DETAILS
PIER NO. 1
(SHEET 2 OF 3)

STATE JOB NO. 09032(106) SHEET NO. B012

DESCRIPTION	REVISIONS	DATE

BAR LIST - PIER NO. 1
(EPOXY COATED)

	MARK	NO.	SIZE	FORM	SPACING	LENGTH	LENGTH VARIATION
	CT1	25	#5	BENT	12" C/C	16'-3"	--
	CT2	135	#4	BENT	AS SHOWN	3'-2"	--
	CT3	2	#5	BENT	AS SHOWN	16'-5"	--
	CV1	28	#9	STR.	AS SHOWN	16'-11'	--
	CV2	28	#9	STR.	AS SHOWN	17'-6"	--
▲①	DS1	2	W-20	BENT	4" PITCH	362'-11"	--
	DV1	56	#9	STR.	AS SHOWN	13'-11"	--
	DV2	80	#11	STR.	AS SHOWN	4'-6"	--
	P1	30	#4	BENT	EQUAL	8'-2"	--
	P2	60	#4	BENT	EQUAL	5'-8"	--
	PE1	8	#4	BENT	AS SHOWN	5'-8"	--
	PE2	10	#4	BENT	AS SHOWN	5'-5"	--
	PH1	8	#11	BENT	AS SHOWN	42'-1"	--
	PH2	10	#5	STR.	EQUAL	38'-11"	--
	PH3	20	#5	STR.	EQUAL	10'-3" AVG.	1'-3" TO 19'-5"
	PH4	8	#7	BENT	AS SHOWN	9'-11"	--
	PH5	8	#11	BENT	AS SHOWN	26'-3"	--
	PH6	8	#7	BENT	AS SHOWN	9'-11"	--
	S1	68	#5	BENT	5" C/C	15'-4" AVG.	13'-3" TO 17'-5"
	S2	68	#5	BENT	5" C/C	15'-0" AVG.	13'-3" TO 16'-[illegible]
	S3	24	#5	BENT	12" C/C	17'-2" AVG.	16'-9" TO 17'-7[illegible]
②	T1	10	#4	BENT	12" C/C	19'-0"	--
	T2	10	#5	BENT	12" C/C	16'-3"	--

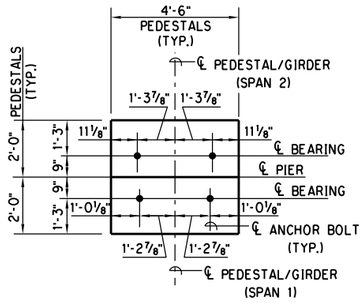
BAR LIST - 72" DRILLED SHAFT

▲①	DS2	2	W-20	BENT	6" PITCH	660[illegible]	
▲	DV3	54	#11	BENT	AS SHOWN	26'-1[illegible]	

① LENGTH SHOWN DOES NOT INCLUDE ANY LAPS FOR SPLICES. CONTRACTOR MAY PROVIDE ADDITIONAL SPLICES AS NECESSARY, BUT PAYMENT WILL NOT BE MADE FOR EXTRA LENGTH REQUIRED. ADD 3'-8" FOR EACH SPLI[illegible]

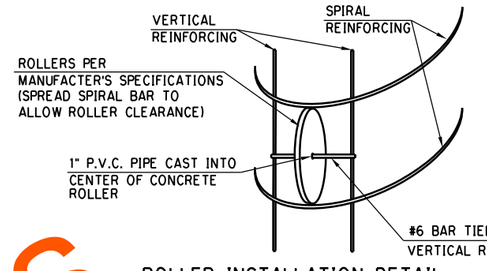
② LENGTH SHOWN INCLU[illegible] LAP:
T1 - 1 at 2'-0"

NON-EPOX[illegible] COATED

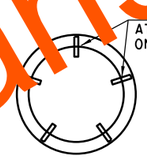


ANCHOR BOLT LAYOUT
PIER NO. 1
(TYPICAL)

NOTE: DIMENSIONS SHOWN ARE PERPENDICULAR TO PEDESTALS.
FOR FURTHER INFORMATION SEE BEARING ASSEMBLY DETAIL SHEET.

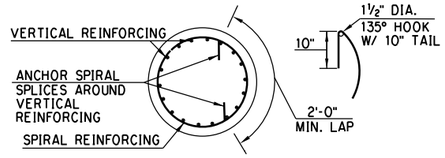


ROLLER INSTALLATION DETAIL



[illegible]ERS LOCATED
AT ONE-FIFTH POINTS
ON 10'-0" CTRS.

ROLLER PLACEMENT



SPIRAL REINFORCING SPLICE DETAILS

NOTE: SPIRAL BARS SHALL CONFORM TO AASHTO M-32. SPIRAL BAR LENGTHS DO NOT INCLUDE LAP. IF LAP IS REQUIRED, THE LENGTH OF THE LAP SHALL BE AS SHOWN.

ROLLER DETAILS

NOTE: REINFORCING CAGE CENTERING DEVICES SHALL CONSIST OF ROLLERS PLACED AT SPACING AS SHOWN AND HAVE THE CHARACTERISTICS AS INDICATED IN THE MANUFACTURER'S SPECIFICATIONS. SLAB BOLSTERS AND HIGH CHAIRS WILL BE ALLOWED BY THE DEPARTMENT.

Preliminary Plans

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 — OKLAHOMA COUNTY
BRIDGE "A" — RAMP "A" AT I-35 & I-240 INTERCHANGE

PIER DETAILS
PIER NO. 1
(SHEET 3 OF 3)

STATE JOB NO. 09032(106) SHEET NO. B013

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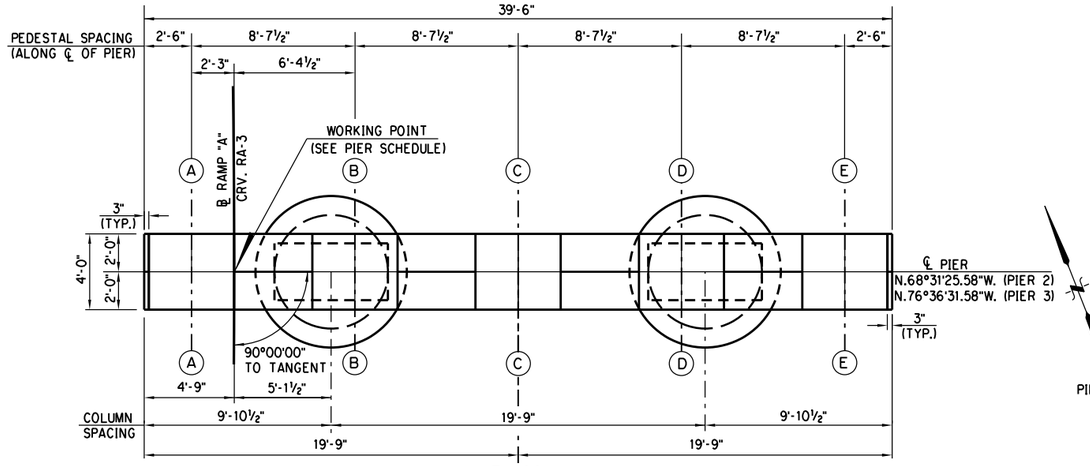
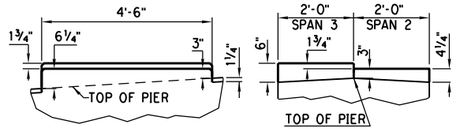


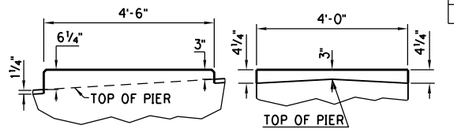
PLAN

(PIER NO. 3 PEDESTALS SHOWN. (SEE SHEET 3 OF 3 FOR ANCHOR BOLT LAYOUTS)



SOUTH ELEVATION WEST END VIEW

PIER NO. 2
PEDESTAL DETAIL
(TYPICAL)

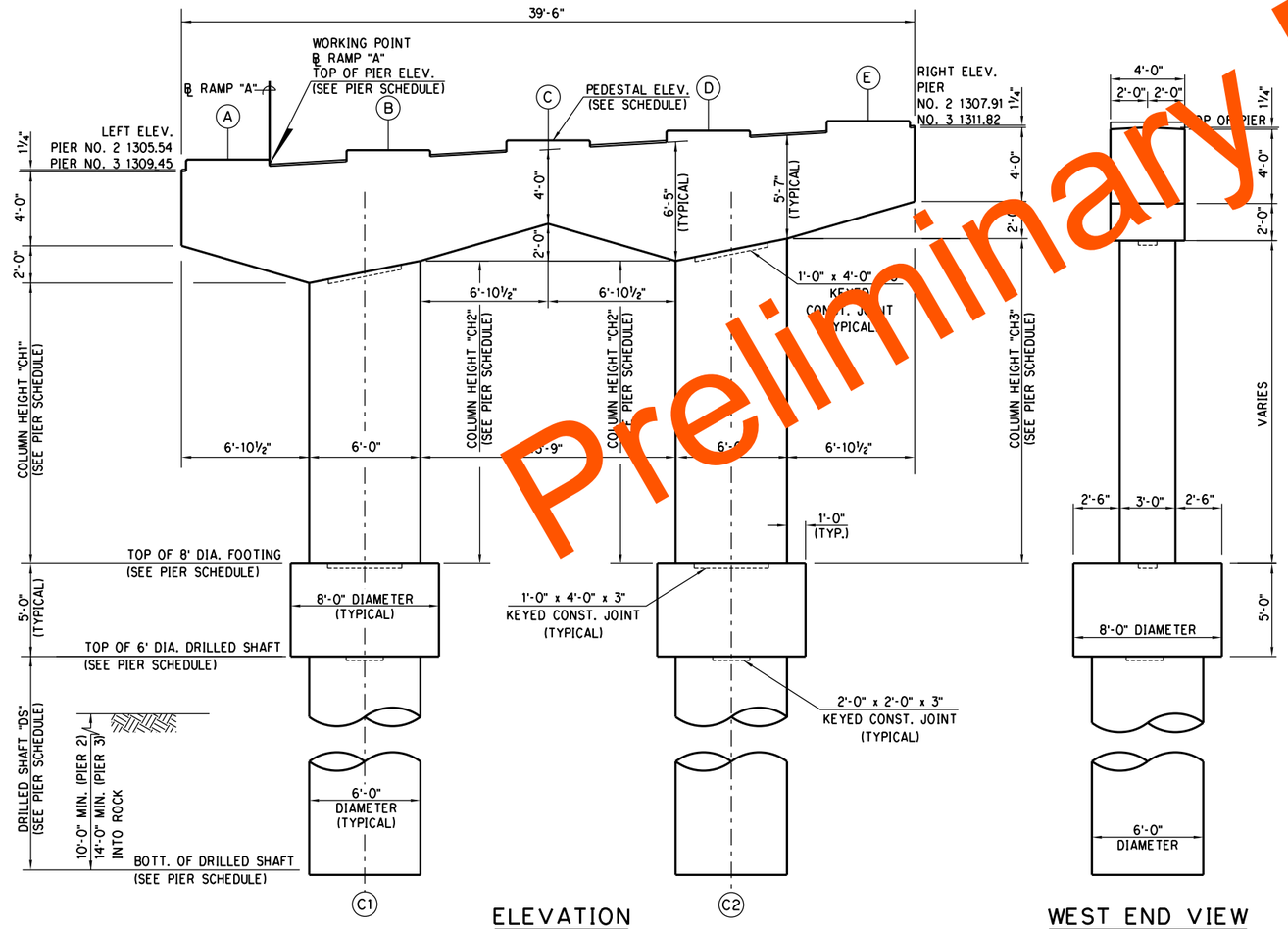


ELEVATION END VIEW

PIER NO. 3
PEDESTAL DETAIL
(TYPICAL)

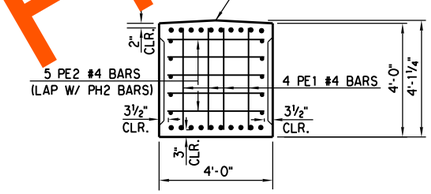
PEDESTAL ELEVATION SCHEDULE - PIER NO. 2					
PEDESTAL	A	B	C	D	E
SPAN 2 ELEVATION	1306.07	1306.59	1307.11	1307.62	1308.14
SPAN 3 ELEVATION	1306.22	1306.74	1307.26	1307.77	1308.29

PEDESTAL ELEVATION SCHEDULE - PIER NO. 3					
PEDESTAL	A	B	C	D	E
SPAN 3-4 ELEV.	1309.98	1310.[illegible]	1311.02	1311.53	1312.05

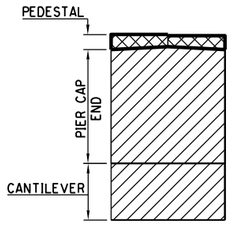


ELEVATION

WEST END VIEW
(PIER NO. 3 SHOWN)



CAP END
REINFORCING DETAIL
(PEDESTALS AND S BARS OMITTED FOR CLARITY)



NOTE:
MASK SIDES AND ENDS OF PIER TO PROVIDE A CLEAN STRAIGHT FINISH AT THE BOTTOM EDGE OF ELASTOMERIC COATING APPLICATION.
MASK OUT TOPS OF PEDESTALS WHERE BEARING PADS SIT.

ELASTOMERIC COATING (CROSS-HATCHING AND HEAVY LINE)

WATER REPELLENT (HATCHING)

CONCRETE TREATMENT DETAILS

PIER SCHEDULE									
PIER	WORKING POINT STA.	TOP OF PIER ELEVATION	DIM. "CH1"	DIM. "CH2"	DIM. "CH3"	DIM. "DS"	TOP OF FTG. ELEVATION	TOP OF D.S. ELEVATION	BOTT. OF D.S. ELEVATION
PIER NO. 2	75+16.51	1305.82	13'-9¼"	14'-11½"	16'-1⅝ "	19'-0"	1285.67	1280.67	1261.67
PIER NO. 3	76+32.01	1309.73	15'-6⅛"	16'-8⅛"	17'-10½"	15'-0"	1287.84	1282.84	1267.84

	PIER QUANTITIES			
	ITEM	UNIT	PIER NO. 2	PIER NO. 3
	SUBSTRUCTURE EXCAVATION COMMON	C.Y.	50	45
*	ELASTOMERIC COATING	S.F.	200	191
	CLASS A CONCRETE	C.Y.	71.7	73.7
	REINFORCING STEEL	LB.	490	490
	EPOXY COATED REINFORCING STEEL	LB.	17,360	17,880
≠	WATER REPELLENT (VISUALLY INSPECTED)	S.Y.	67	67
	DRILLED SHAFTS 72" DIAMETER	L.F.	38	30

* TOP OF PIER CAP. TOP AND SIDES OF PEDESTALS.

≠ ENDS AND SIDES OF PIER CAP. BOTTOM OF CANTILEVERS.

Preliminary Plans

REVISIONS		
DESCRIPTION		DATE

PHASE 2 OKLAHOMA COUNTY
BRIDGE "A" RAMP "A" AT I-35 & I-240 INTERCHANGE

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PIER DETAILS
PIERS NO. 2 AND 3
(SHEET 1 OF 3)

STATE JOB NO. 09032(06) SHEET NO. B014

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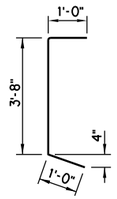
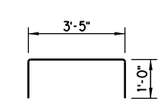
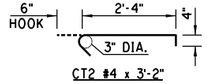
DESCRIPTION	REVISIONS	DATE



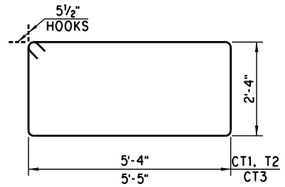
PE1 #4 x 5'-8"



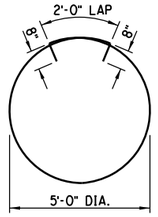
PE2 #4 x 5'-5"



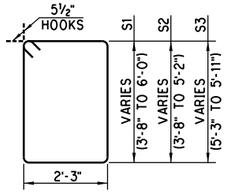
CT2 #4 x 3'-2"



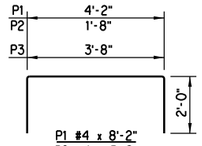
CT1 #5 x 16'-3"
CT3 #5 x 16'-5"
T2 #5 x 16'-3"



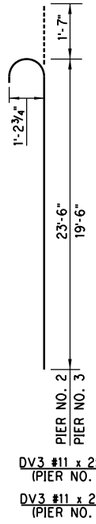
T1 #4 x 19'-0"



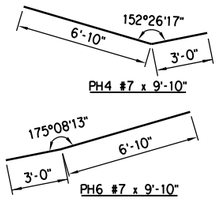
S1 #5 x 15'-1" AVG.
(12'-9" TO 17'-5")
S2 #5 x 14'-3" AVG.
(12'-9" TO 15'-9")
S3 #5 x 16'-7" AVG.
(15'-11" TO 17'-3")



P1 #4 x 8'-2"
P2 #4 x 5'-8"
P3 #4 x 7'-8"

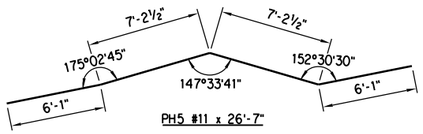


DV3 #11 x 25'-1"
(PIER NO. 2)
DV3 #11 x 21'-1"
(PIER NO. 3)

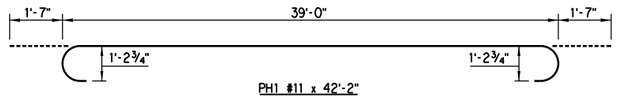


PH4 #7 x 9'-10"

PH6 #7 x 9'-10"

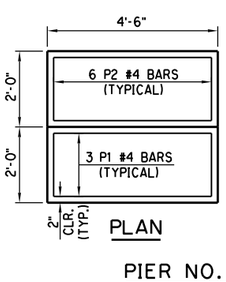


PH5 #11 x 26'-7"

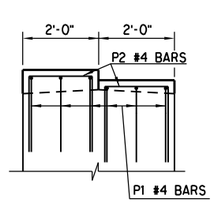


PH1 #11 x 42'-2"

ALL BENT BAR DIMENSIONS ARE OUT TO OUT.

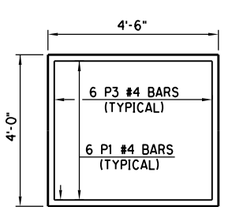


PLAN

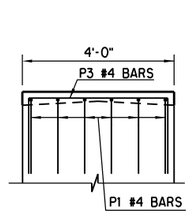


SECTION

PIER NO. 2 PEDESTAL REINFORCING DETAIL
(TYPICAL)

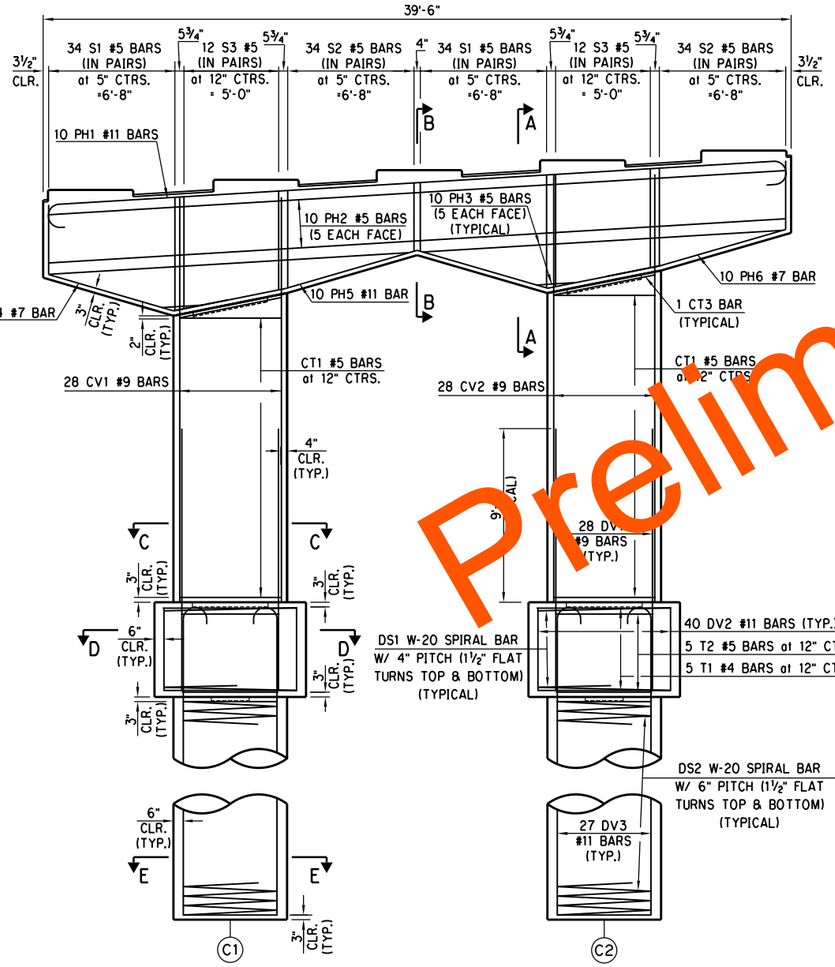


PLAN

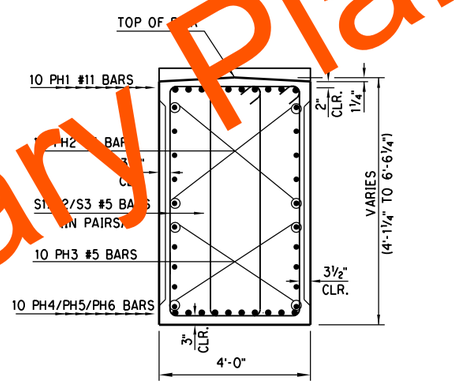


SECTION

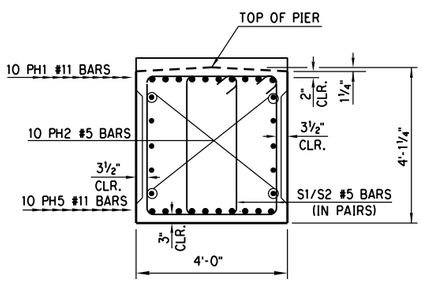
PIER NO. 3 PEDESTAL REINFORCING DETAIL
(TYPICAL)



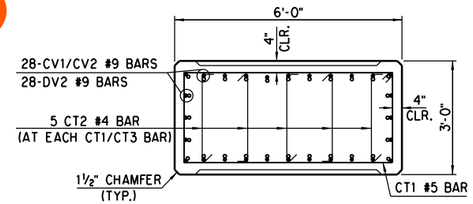
REINFORCING ELEVATION



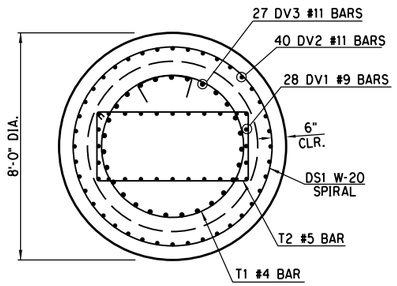
SECTION A-A
(PIER NO. 3 SHOWN)



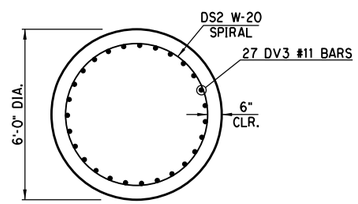
SECTION B-B
(PIER NO. 3 SHOWN)



NOTE: ALTERNATE CT2 #4 BARS END TO END FOR EACH SUCCESSIVE ROW.
SECTION C-C



NOTE: ROTATE BARS T1 AND T2 180 DEGREES FOR EACH SUCCESSIVE ROW.
SECTION D-D



SECTION E-E

Preliminary Plans

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 — OKLAHOMA COUNTY
BRIDGE "A" — RAMP "A" AT I-35 & I-240 INTERCHANGE

PIER DETAILS
PIERS NO. 2 AND 3
(SHEET 2 OF 3)

STATE JOB NO. 09032(106) SHEET NO. B015

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DESCRIPTION	REVISIONS	DATE

BAR LIST - PIER NO. 2
(EPOXY COATED)

	MARK	NO.	SIZE	FORM	SPACING	LENGTH	LENGTH VARIATION
	CT1	③	#5	BENT	12" C/C	16'-3"	--
	CT2	170	#4	BENT	AS SHOWN	3'-2"	--
	CT3	2	#5	BENT	AS SHOWN	16'-5"	--
	CV1	28	#9	STR.	AS SHOWN	20'-0"	--
	CV2	28	#9	STR.	AS SHOWN	21'-2"	--
▲①	DS1	2	W-20	BENT	4" PITCH	362'-11"	--
	DV1	56	#9	STR.	AS SHOWN	13'-11"	--
	DV2	80	#11	STR.	AS SHOWN	4'-6"	--
	P1	30	#4	BENT	EQUAL	8'-2"	--
	P2	60	#4	BENT	EQUAL	5'-8"	--
	PE1	8	#4	BENT	AS SHOWN	5'-8"	--
	PE2	10	#4	BENT	AS SHOWN	5'-5"	--
	PH1	10	#11	BENT	AS SHOWN	42'-2"	--
	PH2	10	#5	STR.	EQUAL	39'-0"	--
	PH3	20	#5	STR.	EQUAL	10'-7 1/2" AVG.	2'-2" TO 19'-1"
	PH4	10	#7	BENT	AS SHOWN	9'-10"	--
	PH5	10	#11	BENT	AS SHOWN	26'-7"	--
	PH6	10	#7	BENT	AS SHOWN	9'-10"	--
	S1	68	#5	BENT	5" C/C	15'-1" AVG.	12-9" TO 17'-5"
	S2	68	#5	BENT	5" C/C	14'-3" AVG.	12'-9" TO 15'-9"
	S3	24	#5	BENT	12" C/C	16'-7" AVG.	15'-11" TO 17'-3"
②	T1	10	#4	BENT	12" C/C	19'-0"	--
	T2	10	#5	BENT	12" C/C	16'-3"	--
	BAR LIST - 72" DRILLED SHAFT						
▲①	DS2	2	W-20	BENT	6" PITCH	628'-8"	--
▲	DV3	54	#11	BENT	AS SHOWN	25'-1"	--

① LENGTH SHOWN DOES NOT INCLUDE ANY LAPS FOR SPLICES. CONTRACTOR MAY PROVIDE ADDITIONAL SPLICES AS NECESSARY, BUT PAYMENT WILL NOT BE MADE FOR EXTRA LENGTH REQUIRED. ADD 3'-8" FOR EACH SPLICE.

② LENGTH SHOWN INCLUDES LAP:
T1 - 1 at 2'-0"

③ NUMBER OF CT1 BARS PER COLUMN:
COLUMN C1 = 15
COLUMN C2 = 17

▲ NON-EPOXY COATED

BAR LIST - PIER NO. 3
(EPOXY COATED)

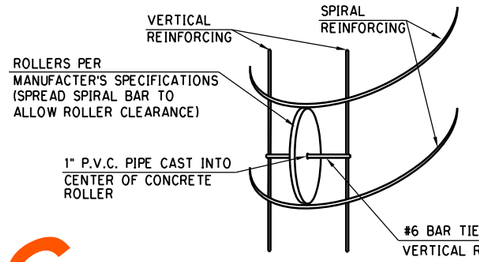
	MARK	NO.	SIZE	FORM	SPACING	LENGTH	LENGTH VARIATION
	CT1	③	#5	BENT	12" C/C	16'-3"	--
	CT2	190	#4	BENT	AS SHOWN	3'-2"	--
	CT3	2	#5	BENT	AS SHOWN	16'-5"	--
	CV1	28	#9	STR.	AS SHOWN	21'-9"	--
	CV2	28	#9	STR.	AS SHOWN	22'-11"	--
▲①	DS1	2	W-20	BENT	4" PITCH	362'-11"	--
	DV1	56	#9	STR.	AS SHOWN	13'-11"	--
	DV2	80	#11	STR.	AS SHOWN	4'-6"	--
	P1	30	#4	BENT	EQUAL	8'-2"	--
	P3	30	#4	BENT	EQUAL	7'-8"	--
	PE1	8	#4	BENT	AS SHOWN	5'-8"	--
	PE2	10	#4	BENT	AS SHOWN	5'-5"	--
	PH1	10	#11	BENT	AS SHOWN	42'-2"	--
	PH2	10	#5	STR.	EQUAL	39'-0"	--
	PH3	20	#5	STR.	EQUAL	10'-7 1/2" AVG.	2'-2" TO 19'-1"
	PH4	10	#7	BENT	AS SHOWN	9'-10"	--
	PH5	10	#11	BENT	AS SHOWN	26'-7"	--
	PH6	10	#7	BENT	AS SHOWN	9'-10"	--
	S1	68	#5	BENT	5" C/C	15'-1" AVG.	[illegible]
	S2	68	#5	BENT	5" C/C	14'-3" AVG.	12'-9" TO [illegible]'-9"
	S3	24	#5	BENT	12" C/C	16'-7" AVG.	[illegible]'-11" TO [illegible]'-3"
②	T1	10	#4	BENT	12" C/C	19'-0"	--
	T2	10	#5	BENT	12" C/C	1[illegible]'-3"	--
	BAR LIST - 72" DRILLED SHAFT						
▲①	DS2	2	W-20	BENT	6" [illegible]CH	[illegible]'-8"	--
▲	DV3	54	#11	BENT	[illegible]S SHOWN	2[illegible]'-1"	--

① LENGTH SHOWN DOES NOT INCLUDE ANY LAPS FOR SPLICES. CONTRACTOR MAY PROVIDE ADDITIONAL SPLICES AS NECESSARY, BUT PAYMENT WILL NOT BE MADE FOR EXTRA LENGTH REQUIRED. ADD 3'-8" FOR EACH SPLICE.

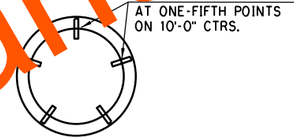
② LENGTH SHOWN INCLUDES LAP:
T1 - 1 at 2'-0"

③ NUMBER OF CT1 BARS PER COLUMN:
COLUMN C1 = 22
COLUMN C2 = 23

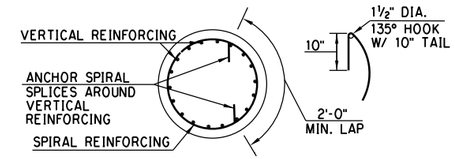
▲ NON-EPOXY COATED



ROLLER INSTALLATION DETAIL



ROLLER PLACEMENT

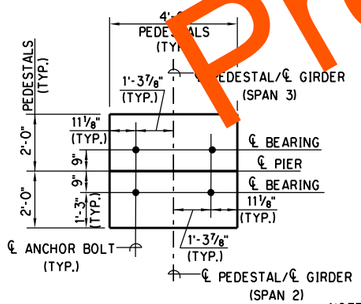


SPIRAL REINFORCING SPLICE DETAILS

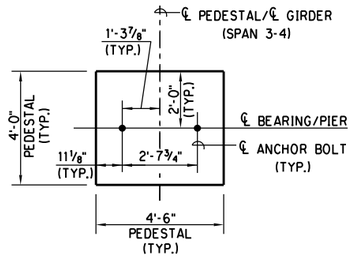
NOTE: SPIRAL BARS SHALL CONFORM TO AASHTO M-32. SPIRAL BAR LENGTHS DO NOT INCLUDE LAP. IF LAP IS REQUIRED, THE LENGTH OF THE LAP SHALL BE AS SHOWN.

ROLLER DETAILS

NOTE: REINFORCING CAGE CENTERING DEVICES SHALL CONSIST OF ROLLERS PLACED AT SPACING AS SHOWN AND HAVE THE CHARACTERISTICS AS INDICATED IN THE MANUFACTURER'S SPECIFICATIONS. SLAB BOLSTERS AND HIGH CHAIRS WILL BE ALLOWED BY THE DEPARTMENT.



ANCHOR BOLT LAYOUT
PIER NO 2
(TYPICAL)



ANCHOR BOLT LAYOUT
PIER NO. 3
(TYPICAL)

NOTE: GIRDER ℄ AT PIERS NO. 2 AND 3 ARE ARCS.
EACH PEDESTAL ℄ IS CONGRUENT WITH ITS GIRDER ℄ AT THE PIER ℄.

NOTE: DIMENSIONS SHOWN ARE PERPENDICULAR TO PEDESTALS.
FOR FURTHER INFORMATION SEE BEARING ASSEMBLY DETAIL SHEET.

Preliminary Plans

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 — OKLAHOMA COUNTY
BRIDGE "A" — RAMP "A" AT I-35 & I-240 INTERCHANGE

PIER DETAILS
PIERS NO. 2 AND 3
(SHEET 3 OF 3)

STATE JOB NO. 09032(106) SHEET NO. B016

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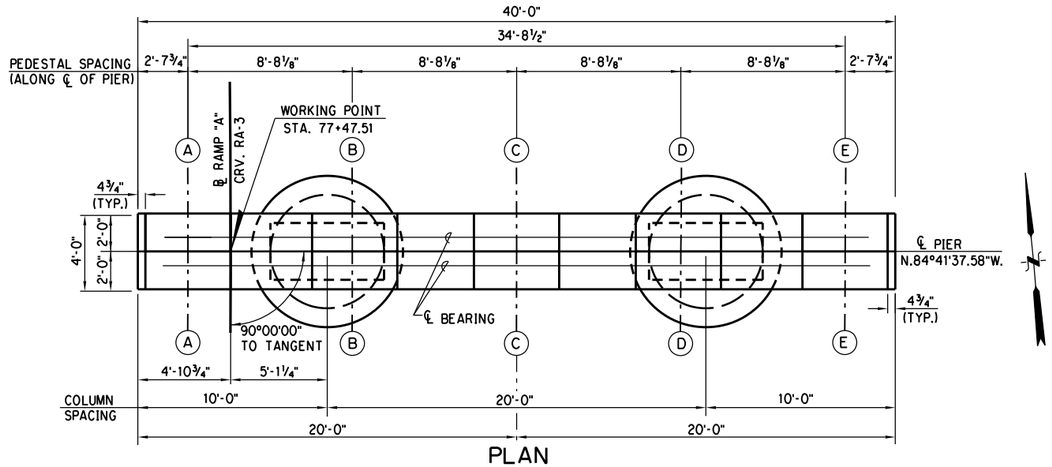
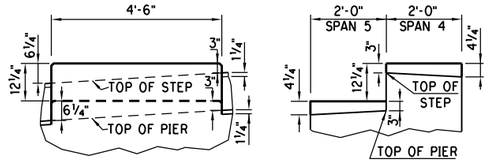
DESCRIPTION	REVISIONS	DATE



PLAN

(SEE SHEET 3 OF 3 FOR ANCHOR BOLT LAYOUTS)

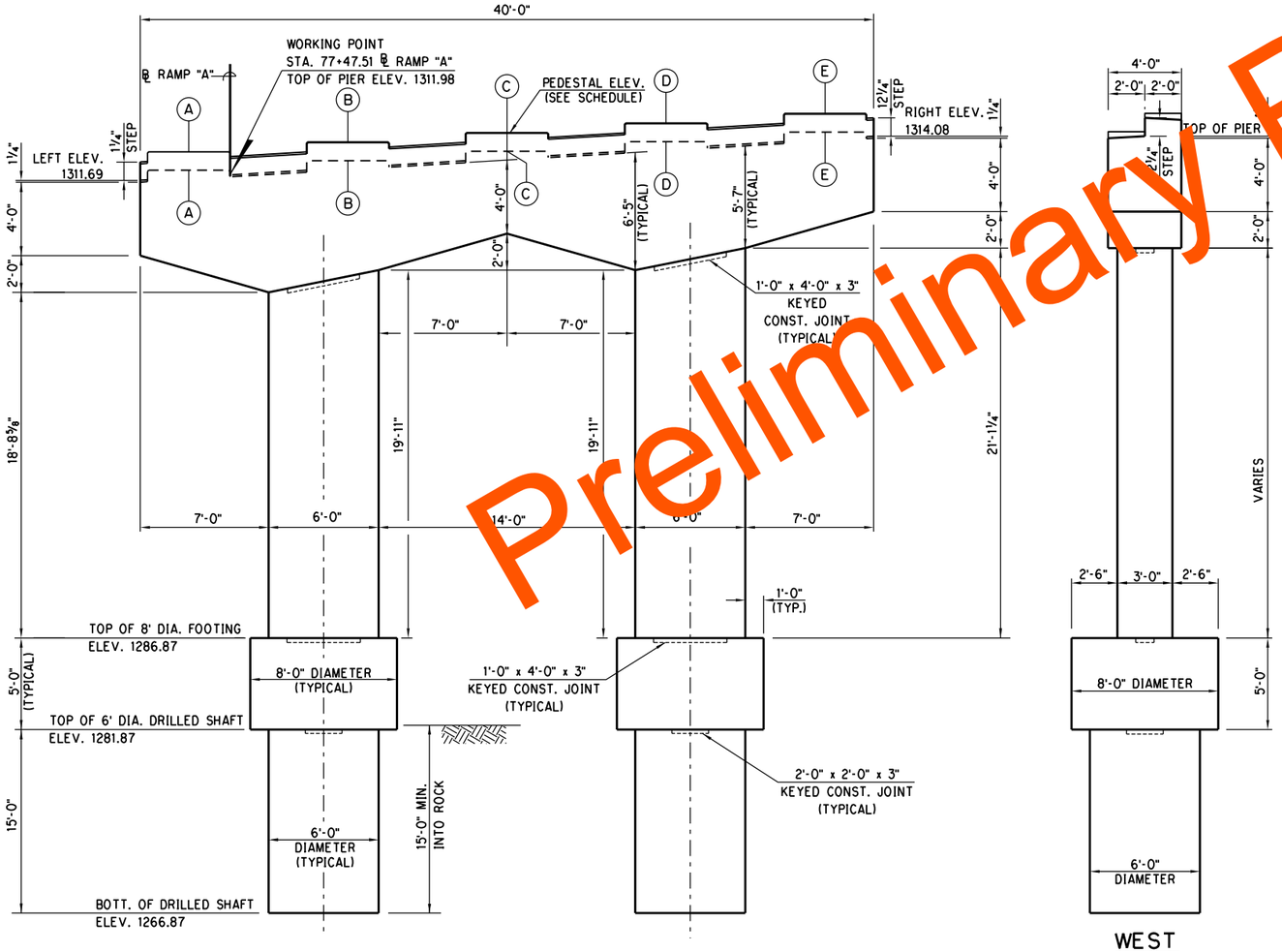


SOUTH ELEVATION WEST END VIEW

PEDESTAL DETAIL

(TYPICAL)

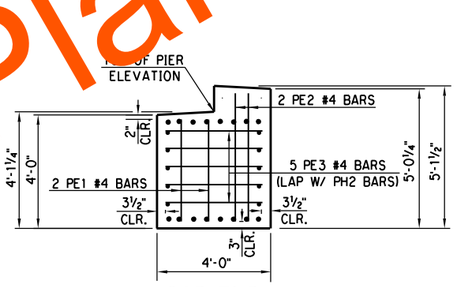
PEDESTAL ELEVATION SCHEDULE - PIER NO. 4					
PEDESTAL	A	B	C	D	E
SPAN 4 ELEVATION	1313.25	1313.78	1314.29	1314.80	1315.33
SPAN 5 ELEVATION	1312.23	1312.76	1313.27	1312.78	1314.31



ELEVATION

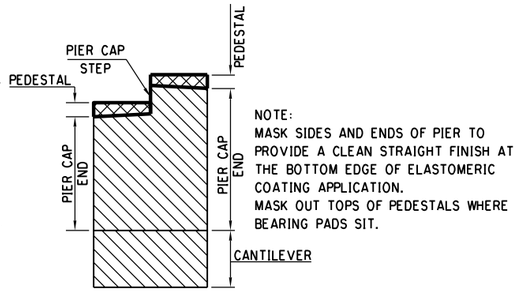
WEST END VIEW

NOTE:
THIS PIER IS AT THE END OF PHASE 2 BRIDGE "A". THE SPAN 5 PORTION OF THE PIER CAP, INCLUDING ANCHOR BOLTS, WILL BE COMPLETED IN PHASE 2 THOUGH UTILIZED IN PHASE 3.



CAP END REINFORCING DETAIL

(PEDESTALS AND S. SC BARS OMITTED FOR CLARITY)



CONCRETE TREATMENT DETAILS

	PIER NO. 4 QUANTITIES		
	ITEM	UNIT	TOTAL
	SUBSTRUCTURE EXCAVATION COMMON	C.Y.	35
	SUBSTRUCTURE EXCAVATION ROCK	C.Y.	2
*	ELASTOMERIC COATING	S.F.	234
	CLASS A CONCRETE	C.Y.	80.5
	REINFORCING STEEL	LB.	490
	EPOXY COATED REINFORCING STEEL	LB.	18,070
≠	WATER REPELLENT (VISUALLY INSPECTED)	S.Y.	73
	DRILLED SHAFTS 72" DIAMETER	L.F.	30

* TOP OF PIER CAP, INCLUDING STEP. TOP AND SIDES OF PEDESTALS.

≠ ENDS AND SIDES OF PIER CAP. BOTTOM OF CANTILEVERS.

Preliminary Plans

DESIGN			
DRAWN			
CHECKED			
APPROVED			
SQUAD	POE		

PHASE 2 — OKLAHOMA COUNTY

BRIDGE "A" — RAMP "A" AT I-35 & I-240 INTERCHANGE

PIER DETAILS
PIER NO. 4
(SHEET 1 OF 3)

STATE JOB NO. 09032(106) SHEET NO. B017

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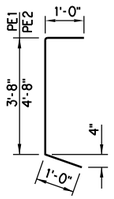
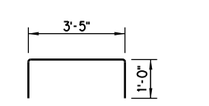
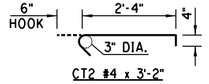
REVISIONS		
DESCRIPTION		DATE



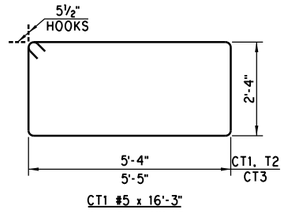
PE1 #4 x 5'-8"
PE2 #4 x 6'-8"



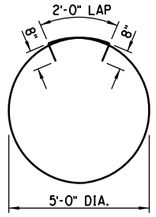
PE3 #4 x 5'-5"



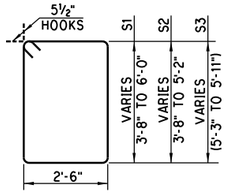
CT2 #4 x 3'-2"



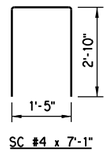
CT1 #5 x 16'-3"
CT3 #5 x 16'-5"
T2 #5 x 16'-3"



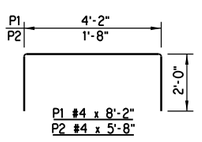
T1 #4 x 19'-0"



S1 #5 x 15'-7" AVG.
(13'-3" TO 17'-11")
S2 #5 x 14'-9" AVG.
(13'-3" TO 16'-3")
S3 #5 x 17'-1" AVG.
(16'-5" TO 17'-9")

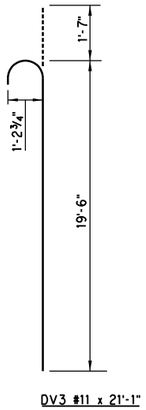


SC #4 x 7'-1"

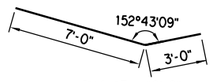


P1 #4 x 8'-2"
P2 #4 x 5'-8"

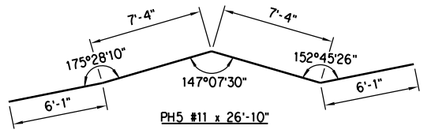
ALL BENT BAR DIMENSIONS ARE OUT TO OUT.



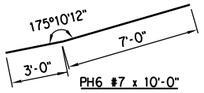
DV3 #11 x 21'-1"



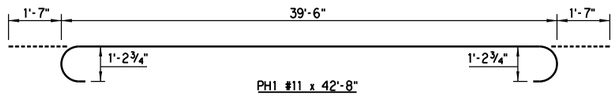
PH4 #7 x 10'-0"



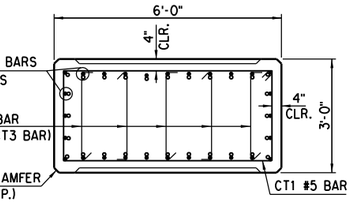
PH5 #11 x 26'-10"



PH6 #7 x 10'-0"

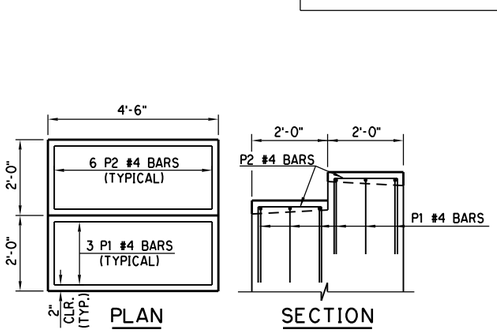


PH1 #11 x 42'-8"



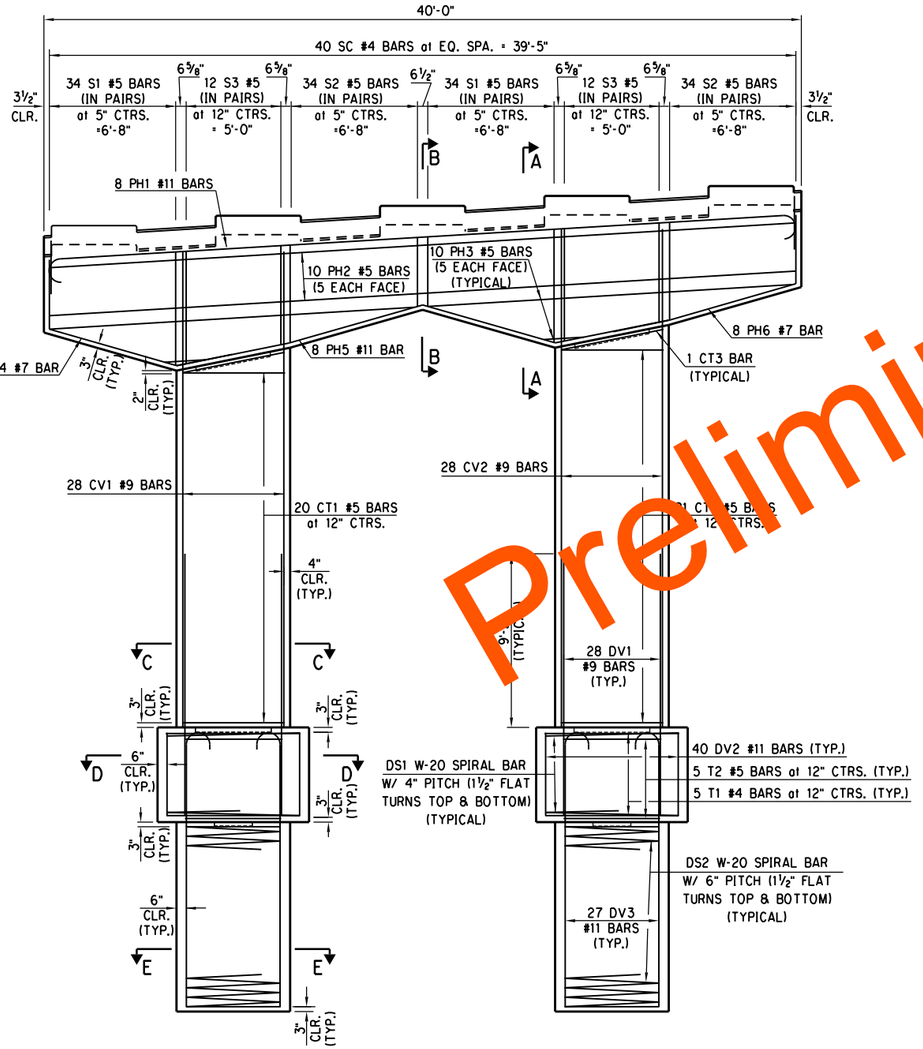
NOTE: ALTERNATE CT2 #4 BARS END TO END FOR EACH SUCCESSIVE ROW.

SECTION C-C

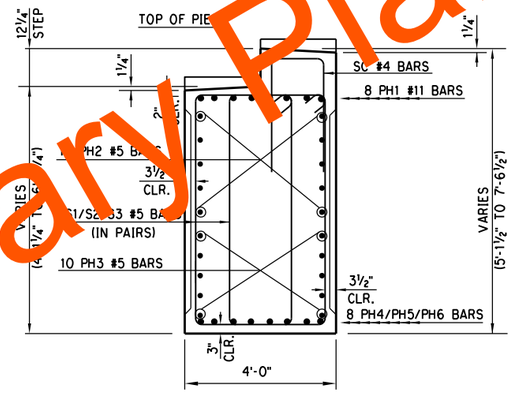


PLAN SECTION

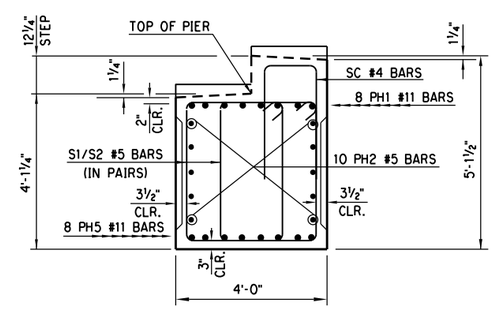
PEDESTAL REINFORCING DETAIL
(TYPICAL)



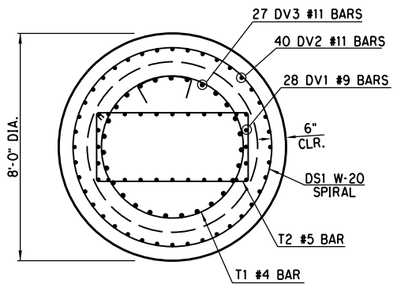
REINFORCING ELEVATION



SECTION A-A

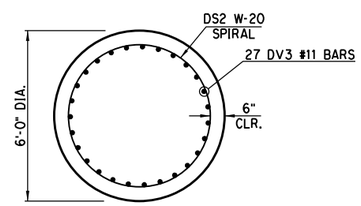


SECTION B-B



NOTE: ROTATE BARS T1 AND T2 180 DEGREES FOR EACH SUCCESSIVE ROW.

SECTION D-D



SECTION E-E

Preliminary Plans

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 — OKLAHOMA COUNTY
BRIDGE "A" — RAMP "A" AT I-35 & I-240 INTERCHANGE

PIER DETAILS
PIER NO. 4
(SHEET 2 OF 3)

STATE JOB NO. 09032(106) SHEET NO. B018

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DESCRIPTION	REVISIONS	DATE

BAR LIST - PIER NO. 4
(EPOXY COATED)

	MARK	NO.	SIZE	FORM	SPACING	LENGTH	LENGTH VARIATION
	CT1	41	#5	BENT	12" C/C	16'-3"	--
	CT2	215	#4	BENT	AS SHOWN	3'-2"	--
	CT3	2	#5	BENT	AS SHOWN	16'-5"	--
	CV1	28	#9	STR.	AS SHOWN	25'-0"	--
	CV2	28	#9	STR.	AS SHOWN	26'-2"	--
▲①	DS1	2	W-20	BENT	4" PITCH	362'-11"	--
	DV1	56	#9	STR.	AS SHOWN	13'-11"	--
	DV2	80	#11	STR.	AS SHOWN	4'-6"	--
	P1	30	#4	BENT	EQUAL	8'-2"	--
	P2	60	#4	BENT	EQUAL	5'-8"	--
	PE1	4	#4	BENT	AS SHOWN	5'-8"	--
	PE2	4	#4	BENT	AS SHOWN	6'-8"	--
	PE3	10	#4	BENT	AS SHOWN	5'-5"	--
	PH1	8	#11	BENT	AS SHOWN	42'-8"	--
	PH2	10	#5	STR.	EQUAL	39'-6"	--
	PH3	20	#5	STR.	EQUAL	10'-9" AVG.	2'-3" TO 19'-3"
	PH4	8	#7	BENT	AS SHOWN	10'-0"	--
	PH5	8	#11	BENT	AS SHOWN	26'-10"	--
	PH6	8	#7	BENT	AS SHOWN	10'-0"	--
	S1	68	#5	BENT	5" C/C	15'-7" AVG.	13'-3" TO 17'-11"
	S2	68	#5	BENT	5" C/C	14'-9" AVG.	13'-3" TO 16'-9"
	S3	24	#5	BENT	12" C/C	17'-1" AVG.	16'-5" TO 17'-9"
	SC	40	#4	BENT	EQUAL	7'-1"	--
②	T1	10	#4	BENT	12" C/C	19'-0"	--
	T2	10	#5	BENT	12" C/C	16'-3"	--

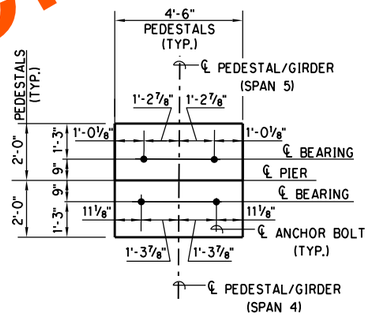
BAR LIST - 72" DRILLED SHAFT

▲①	DS2	2	W-20	BENT	6" PITCH	5[illegible]'-11"	--
▲	DV3	54	#11	BENT	AS SHOWN	2[illegible]'-1"	--

① LENGTH SHOWN DOES NOT INCLUDE ANY LAPS FOR SPLICES. CONTRACTOR MAY PROVIDE ADDITIONAL SPLICES AS NECESSARY, BUT PAYMENT WILL NOT BE MADE FOR EXTRA LENGTH REQUIRED. ADD 3'-8" FOR EACH SPLICE.

② LENGTH SHOWN INCLUDES LAP FOR SPLICES AT 2'-0" CTRS.
T1 - 1 at 2'-0"

▲ NON-EPOXY COATED

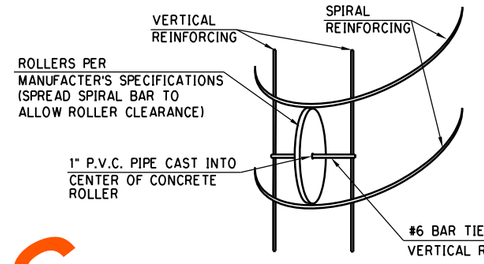


NOTE:
THERE ARE APPROXIMATELY 130 LBS. OF STRUCTURAL STEEL (2 BOLTS AND 6 NUTS PER BEARING) FOR BRIDGE "A", PHASE 3, BEARINGS. ALL COSTS OF BOLTS, NUTS, AND BOLT INSTALLATION SHALL BE INCLUDED IN "CLASS A CONCRETE". THE NUTS AND WASHERS FOR BRIDGE "A" PHASE 3 SHALL BE PROTECTED IF LEFT IN PLACE, OR AS DIRECTED BY ODOT.

NOTE: GIRDER ℄ ARE ARCS.
EACH PEDESTAL ℄ IS CONGRUENT WITH ITS GIRDER ℄ AT THE PIER ℄.

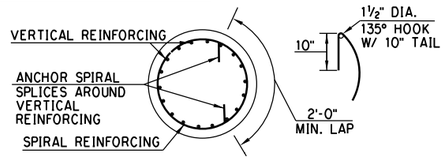
ANCHOR BOLT LAYOUT
PIER NO. 4
(TYPICAL)

NOTE: DIMENSIONS SHOWN ARE PERPENDICULAR TO PEDESTALS.
FOR FURTHER INFORMATION SEE BEARING ASSEMBLY DETAILS SHEET.



ROLLER INSTALLATION DETAIL

ROLLER PLACEMENT



SPIRAL REINFORCING SPLICE DETAILS

NOTE: SPIRAL BARS SHALL CONFORM TO AASHTO M-32. SPIRAL BAR LENGTHS DO NOT INCLUDE LAP. IF LAP IS REQUIRED, THE LENGTH OF THE LAP SHALL BE AS SHOWN.

ROLLER DETAILS

NOTE: REINFORCING CAGE CENTERING DEVICES SHALL CONSIST OF ROLLERS PLACED AT SPACING AS SHOWN AND HAVE THE CHARACTERISTICS AS INDICATED IN THE MANUFACTURER'S SPECIFICATIONS. SLAB BOLSTERS AND HIGH CHAIRS WILL BE ALLOWED BY THE DEPARTMENT.

Preliminary Plans

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 — OKLAHOMA COUNTY
BRIDGE "A" — RAMP "A" AT I-35 & I-240 INTERCHANGE

PIER DETAILS
PIER NO. 4
(SHEET 3 OF 3)

STATE JOB NO. 09032(106) SHEET NO. B019

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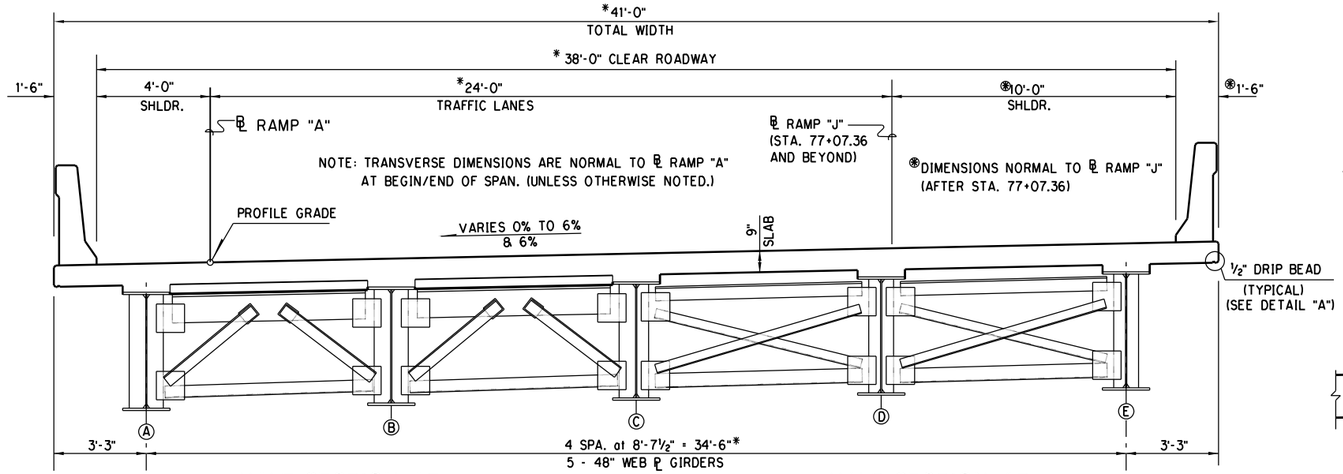
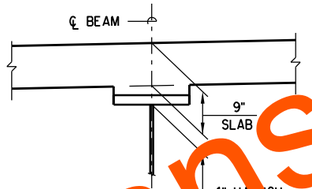
DESCRIPTION	REVISIONS	DATE



HALF SECTION AT
END DIAPHRAGMS

HALF SECTION AT
INTERMEDIATE DIAPHRAGMS

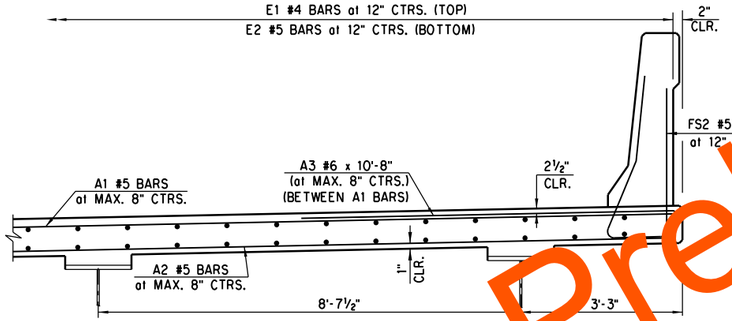
DETAIL "A"



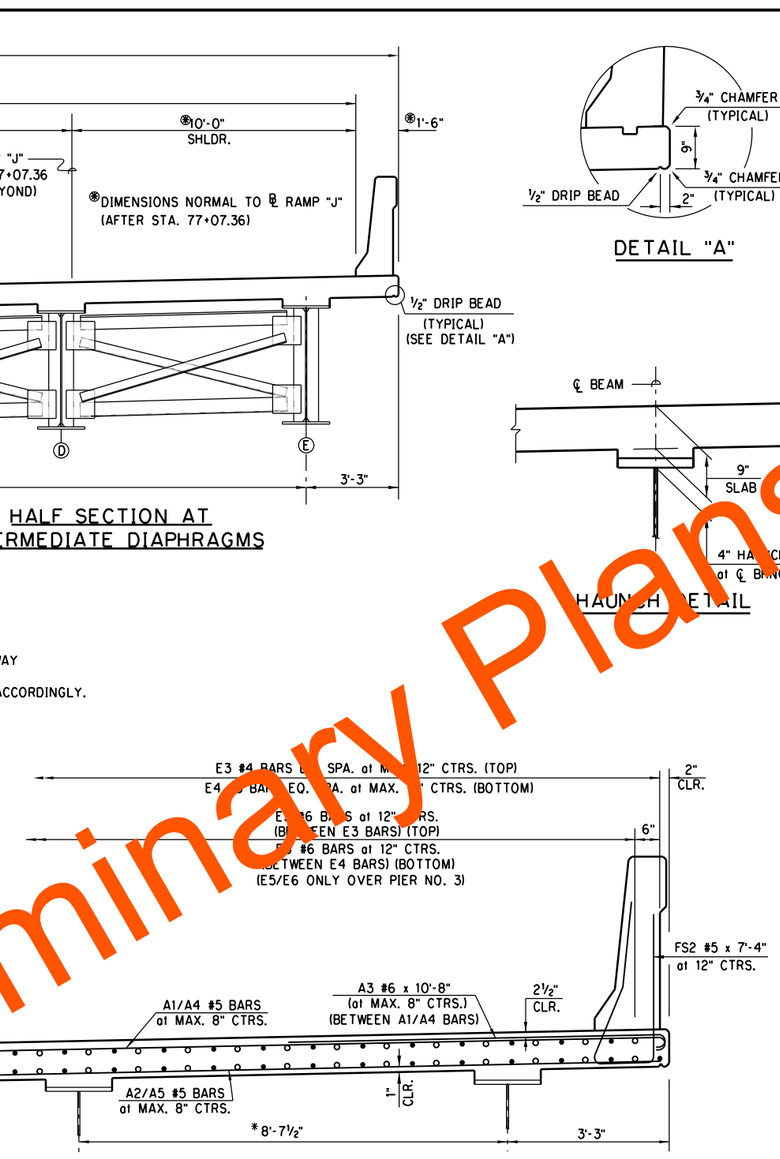
HAUNCH DETAIL

TYPICAL BRIDGE SECTION
(SPANS 1 THRU 4)

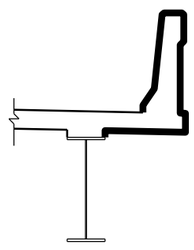
*NOTE: THESE DIMENSIONS VARY ON SPAN 4
BEGINNING AT STA. 77+07.36. THE CLEAR ROADWAY
VARIES FROM 38'-0" TO 38'-2 7/16" AT END SPAN.
TRAFFIC LANE AND GIRDER SPACING WILL VARY ACCORDINGLY.



TYPICAL BRIDGE REINFORCING SECTION
(SPANS 1 AND 2)



TYPICAL BRIDGE REINFORCING SECTION
(SPANS 3 AND 4)



WATER REPELLENT
SURFACE TREATMENT

SURFACES INDICATED WITH HEAVY LINES
SHALL BE TREATED WITH A PENETRATING
WATER REPELLENT SURFACE TREATMENT.

NOTE: FOR BENT BAR DETAILS
SEE SHEET 2 OF 3.

BAR LIST - SUPERSTRUCTURE
EPOXY COATED

	MARK	NO.	SIZE	FORM	SPACING	LENGTH	LENGTH VARIATION
①	A1	606	#5	BNT.	VARIES	41'-10"	--
①	A2	606	#5	STR.	VARIES	40'-8"	--
	A3	1330	#6	BNT.	AS SHOWN	10'-8"	--
②	A4	62	#5	BNT.	7⅝" C/C	41'-11" AVG.	41'-10" TO 42'-0"
②	A5	62	#5	STR.	7⅝" C/C	40'-9" AVG.	40'-8" TO 40'-10"
	AT1	14	#4	STR.	AS SHOWN	40'-8"	--
	AT2	7	#4	STR.	AS SHOWN	36'-6"	--
	AT3	4	#4	STR.	AS SHOWN	40'-10"	--
	AH1	38	#4	BNT.	AS SHOWN	4'-4"	--
	AH2	4	#4	BNT.	AS SHOWN	3'-2"	--
	AS1	42	#4	BNT.	12" C/C	5'-1"	--
③	E1	42	#4	STR.	12" C/C	208'-7½" AVG.	207'-1" TO 210'-2"
③	E2	42	#5	STR.	12" C/C	210'-1½" AVG.	208'-7" TO 211'-8"
③	E3	42	#4	STR.	EQUAL SPA.	242'-7" AVG.	236'-10" TO 248'-4"
③	E4	42	#5	STR.	EQUAL SPA.	244'-7" AVG.	238'-10" TO 250'-4"
③	E5	41	#6	STR.	EQUAL SPA.	82'-1" AVG.	80'-2" TO 84'-0"
③	E6	41	#4	STR.	EQUAL SPA.	81'-1" AVG.	79'-2" TO 83'-0"
	EPH	126	#4	BNT.	AS SHOWN	3'-2"	--
	FPH	38	#4	BNT.	AS SHOWN	4'-8"	--
	FS2	802	#5	BNT.	SEE STD.	7'-4"	--
	L	92	#4	BNT.	SEE STD.	1'-3"	--

① BEFORE STA. 74+54.34: BAR SPACING IS 8" C/C
AFTER STA. 75+54.34: BARS ARE ALIGNED RADIALLY ALONG BASELINE OF RAMP "A"
SPACING IS 7⅝" C/C ALONG BASELINE, MAXIMUM END SPACING IS 8" C/C

② BARS ARE ALIGNED RADIALLY ALONG BASELINE OF RAMP "A", SPACING LISTED IS ALONG BASELINE. MAXIMUM END SPACING IS 8" C/C

③ LENGTH SHOWN INCLUDES LAP: E1 = 3 at 2'-0" E5 = 1 at 3'-0"
E2 = 3 at 2'-6" E6 = 1 at 2'-0"
E3 = 4 at 2'-0"
E4 = 4 at 2'-6"

SUPERSTRUCTURE QUANTITIES

	ITEM	UNIT	TOTAL
	SAW-CUT GROOVING	S.Y.	1840
	42" F-SHAPED PARAPET	L.F.	877.0
	STRUCTURAL STEEL M270 GRADE 50	LB.	891,850
	STAINLESS STEEL FIXED BEARING ASSEMBLY	EA.	10
	STAINLESS STEEL EXP. BEARING ASSEMBLY	EA.	25
**	CLASS AA CONCRETE	C.Y.	523.0
	EPOXY COATED REINFORCING STEEL	LB.	125,640
	WATER REPELLENT (VISUALLY INSPECTED)	S.Y.	1,143
	SEALED EXPANSION JOINTS	L.F.	81.3
	SEALER CRACK PREPARATION	L.F.	123
	SEALER RESIN	GAL.	1.4

** PLAN QUANTITY FOR CLASS "AA" CONCRETE INCLUDES 19.6 C.Y. FOR HAUNCHES OVER GIRDERS. THE HAUNCH HEIGHTS WILL BE SET AFTER ERECTION OF GIRDERS TO PROVIDE FOR DEAD LOAD DEFLECTION AND GRADE ADJUSTMENT, BUT THE PAY QUANTITY FOR HAUNCHES WILL BE AS SHOWN ABOVE.

Preliminary Plans

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 OKLAHOMA COUNTY
BRIDGE "A" RAMP "A" AT I-35 & I-240 INTERCHANGE

SUPERSTRUCTURE DETAILS SECTIONS, QUANTITIES AND BAR LIST
(SHEET 1 OF 3)

STATE JOB NO. 09032(06) SHEET NO. B020

5/31/2022 2:42:22 PM
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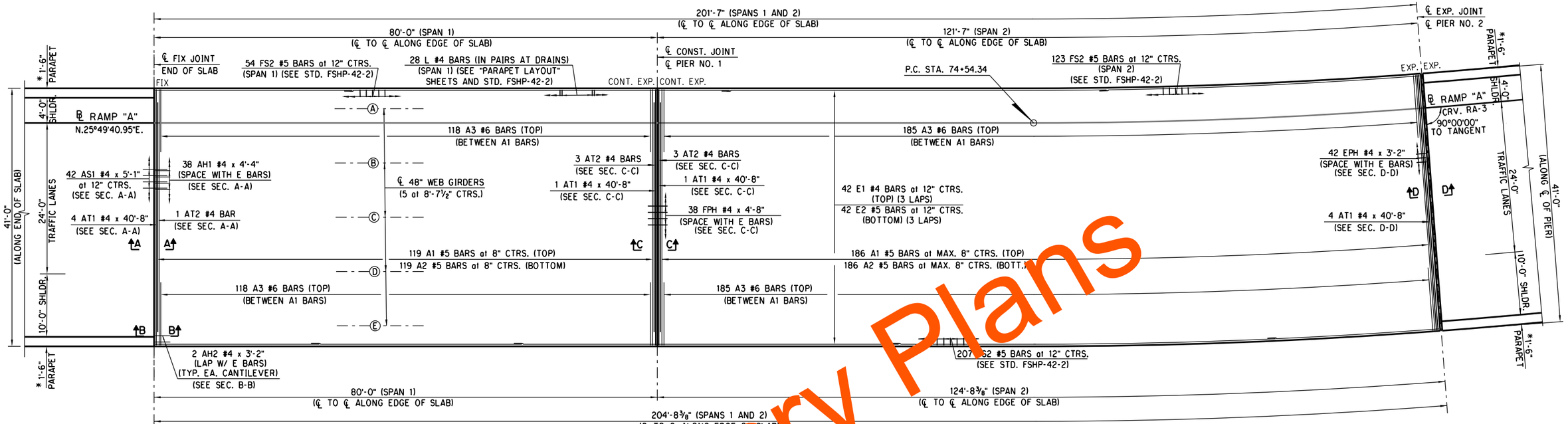
*NOTE: CONCRETE PARAPET OMITTED FROM SLAB FOR CLARITY.
(SEE "PARAPET LAYOUT" SHEETS AND STD. FSHP-42-2 FOR PARAPET DETAILS)

CURVE DATA RA-3
SEE ROADWAY SHEETS:
"GEOMETRIC COORDINATE POINT TABLES"
FOR CURVE DATA.

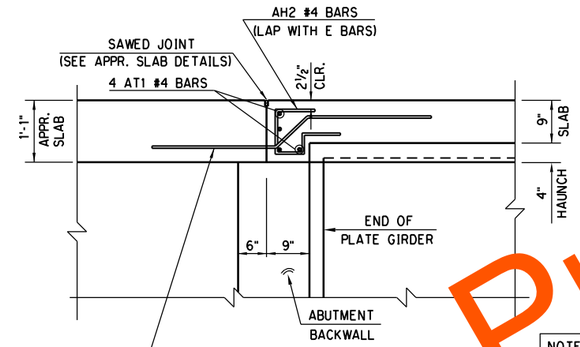
DESCRIPTION	REVISIONS	DATE



SLAB REINFORCING LAYOUT
SPANS 1 AND 2

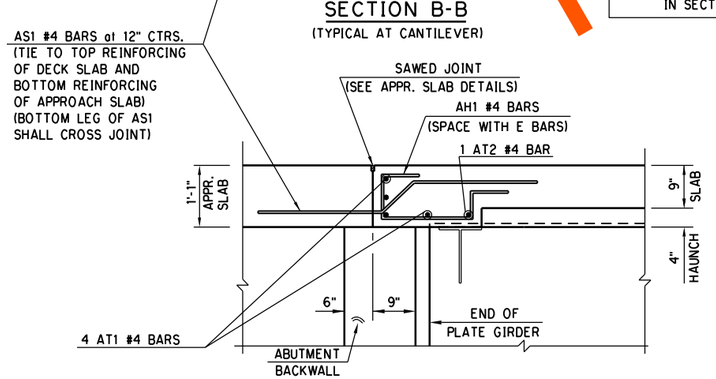
NOTE: FOR SECTION D-D. SEE SHEET 3 OF 3

NOTE: STAGGER ALL E1/E2 BAR LAPS.
NO BAR LAPS WITHIN 10 FEET
OF CONST. JT. AT ℄ PIER NO. 1.

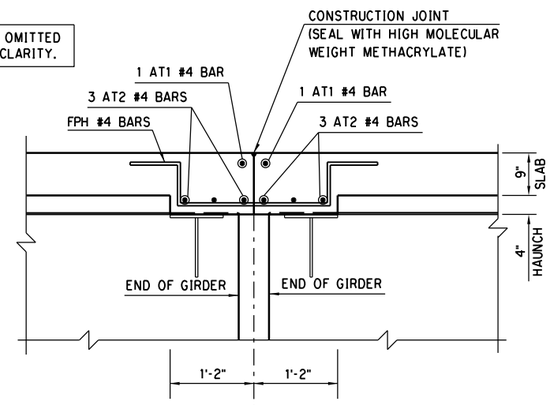


SECTION B-B
(TYPICAL AT CANTILEVER)

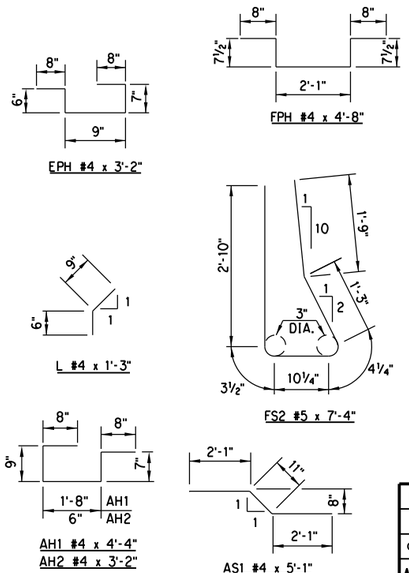
NOTE: SLAB REINFORCING OMITTED IN SECTIONS FOR CLARITY.



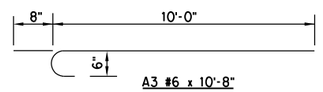
SECTION A-A



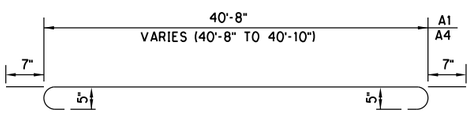
SECTION C-C



ALL BENT BAR DIMENSIONS ARE OUT TO OUT



A3 #6 x 10'-8"



A1 #5 x 41'-10"

A4 #5 x 41'-11" AVG.
(41'-10" TO 42'-0")

Preliminary Plans

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 — OKLAHOMA COUNTY
BRIDGE "A" — RAMP "A" AT I-35 & I-240 INTERCHANGE

SUPERSTRUCTURE DETAILS
SPANS 1 AND 2
(SHEET 2 OF 3)

STATE JOB NO. 09032(106) SHEET NO. B021

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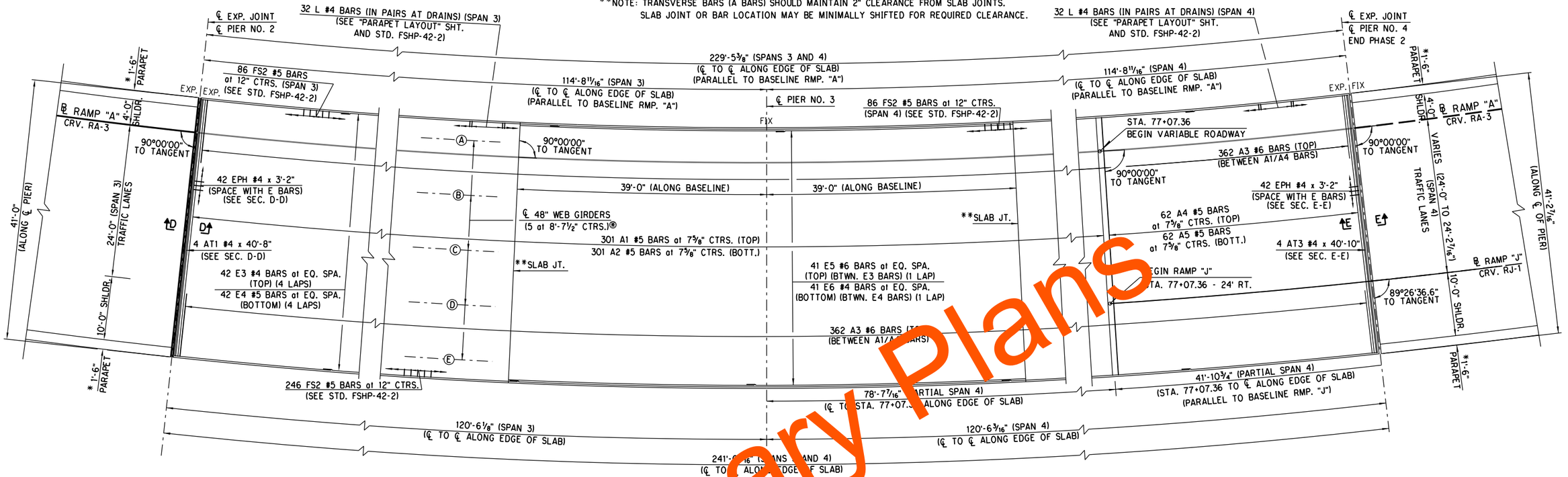
DESCRIPTION	REVISIONS	DATE

*NOTE: CONCRETE PARAPET OMITTED FROM SLAB FOR CLARITY.
(SEE "PARAPET LAYOUT" SHEETS AND STD. FSHP-42-2 FOR PARAPET DETAILS)

**NOTE: TRANSVERSE BARS (A BARS) SHOULD MAINTAIN 2" CLEARANCE FROM SLAB JOINTS. SLAB JOINT OR BAR LOCATION MAY BE MINIMALLY SHIFTED FOR REQUIRED CLEARANCE.

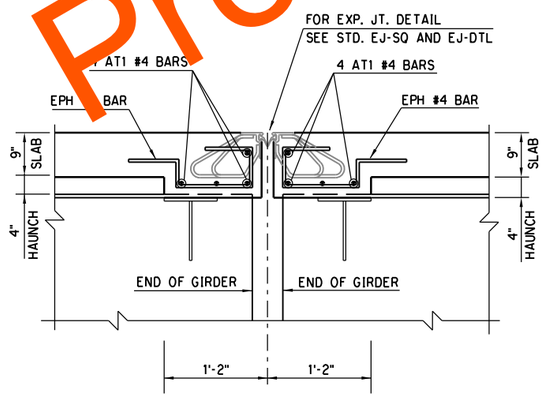
CURVE DATA RA-3, RJ-1
SEE ROADWAY SHEETS:
"GEOMETRIC COORDINATE POINT TABLES"
FOR CURVE DATA.



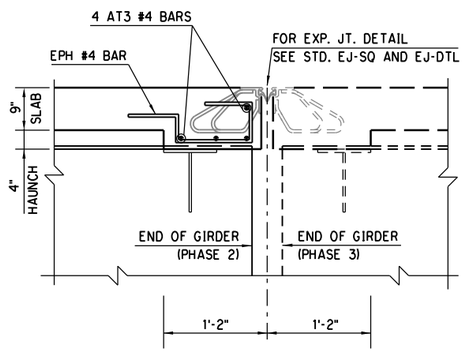
NOTE: STAGGER ALL E3/E4 AND E5/E6 BAR LAPS

®NOTE: THIS DIMENSION VARIES ON SPAN 4 BEGINNING AT STA. 77+07.36. THE CLEAR ROADWAY VARIES FROM 38'-0" TO 38'-1⁷⁄₁₆" AT END SPAN. SPACING WILL VARY ACCORDINGLY.

SLAB REINFORCING LAYOUT
SPANS 3 AND 4



SECTION D-D



SECTION E-E

NOTE: SLAB REINFORCING OMITTED IN SECTIONS FOR CLARITY.

Preliminary Plans

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 — OKLAHOMA COUNTY
BRIDGE "A" — RAMP "A" AT I-35 & I-240 INTERCHANGE

SUPERSTRUCTURE DETAILS
SPANS 3 AND 4
(SHEET 3 OF 3)

STATE JOB NO. 09032(106) SHEET NO. B022

5/31/2022 2:14:24 PM
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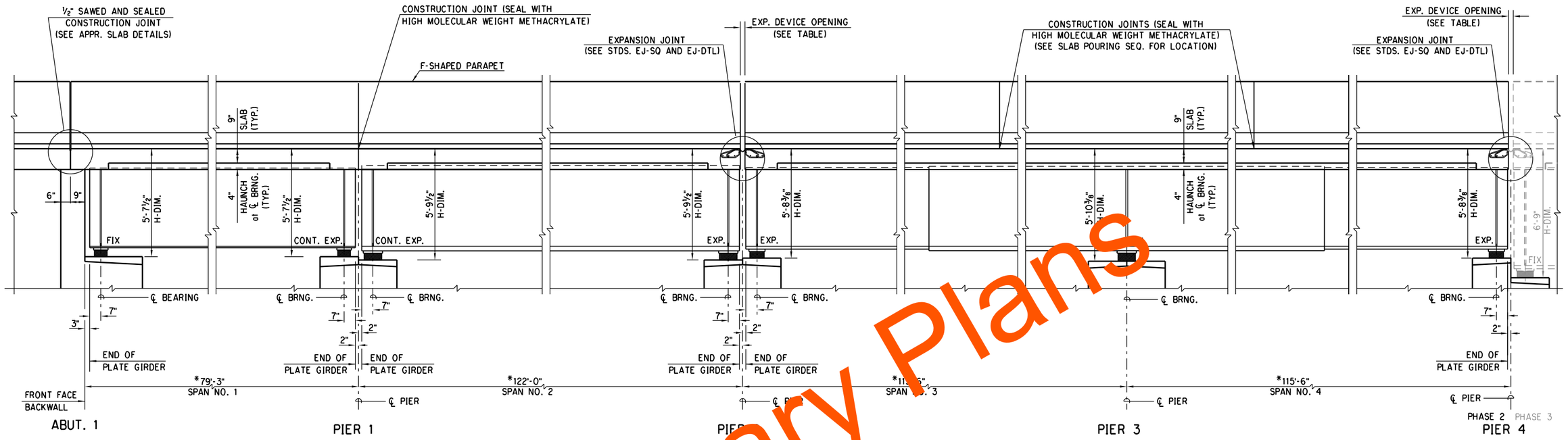
DESCRIPTION	REVISIONS	DATE

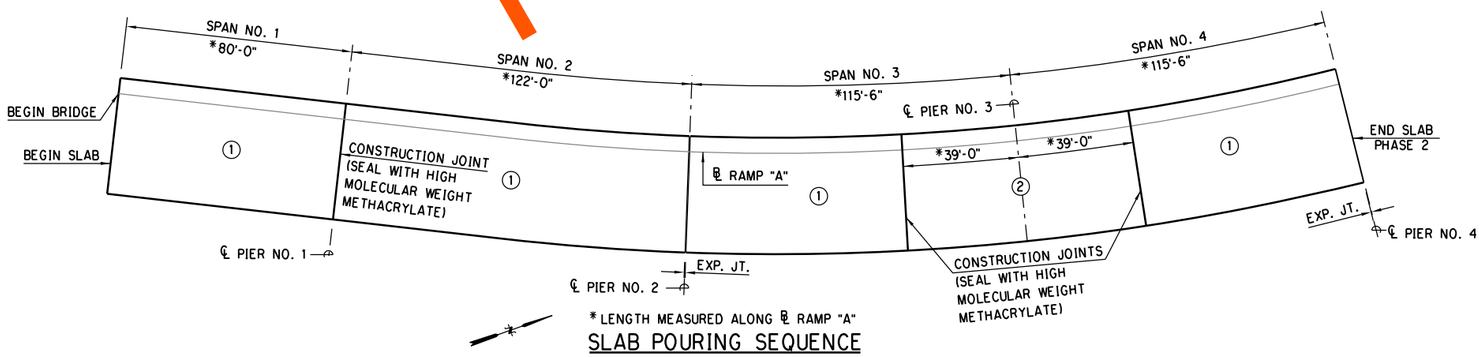
NOTE:
H-DIMENSION SHOWN IS MEASURED FROM TOP OF SLAB TO BOTTOM OF BEARING ASSEMBLY AT ℄ BEARING.



LONGITUDINAL SECTION

*LENGTH MEASURED ALONG ℄ RAMP "A"

TABLE OF EXPANSION DEVICE SETTINGS															
PIER NO. 2	TEMPERATURE	35°	40°	45°	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
	OPENING	2 5/8"	2 1/2"	2 3/8"	2 1/4"	2 1/8"	2"	1 7/8"	1 3/4"	1 5/8"	1 1/2"	1 3/8"	1 1/4"	1 1/8"	1"	0 7/8"
PIER NO. 4	TEMPERATURE	--	--	40°	33°	47°	60°	73°	87°	100°	--	--	--	--	--	--
	OPENING	--	--	2 3/8"	2 1/4"	2 1/8"	2"	1 7/8"	1 3/4"	1 5/8"	--	--	--	--	--	--



*LENGTH MEASURED ALONG ℄ RAMP "A"

SLAB POURING SEQUENCE
SPANS NO. 1 THRU 4

SLAB POURING SEQUENCE:
THE POURING SEQUENCE SHALL BE IN THE NUMERICAL SEQUENCE INDICATED. ALL POURS WITH THE SAME NUMBER MAY BE POURED EITHER SEPARATELY OR SIMULTANEOUSLY, BUT ALL POURS WITH THE SAME NUMBER SHALL BE COMPLETED BEFORE BEGINNING WITH THE NEXT POUR NUMBER. THERE SHALL BE A LAPSE OF AT LEAST 24 HOURS BETWEEN POURS OR WHEN THE PREVIOUS POUR REACHES A STRENGTH OF 3000 PSI. EACH POUR SHALL BE AT A MINIMUM RATE OF 25 L.F. PER HOUR.

CONSTRUCTION JOINTS AT THE CLOSURE POURS IN THE DECK SLAB SHALL NOT BE KEYED. IN THE EVENT OF AN EMERGENCY, POURING OF DECK SLAB MAY BE HALTED WITH A KEYED CONSTRUCTION JOINT MADE PERPENDICULAR TO THE DIRECTION OF TRAFFIC AS DIRECTED BY THE ENGINEER. PRIMARY LONGITUDINAL REINFORCING SHALL BE CONTINUOUS THRU ALL CONSTRUCTION JOINTS. ADDITIONAL LONGITUDINAL REINFORCING WITHIN CLOSURE POURS SHALL BE CONTINUOUS THROUGH EMERGENCY CONSTRUCTION JOINTS. UNTIL THE SLAB IS IN PLACE ON BOTH SIDES OF THE CONSTRUCTION JOINT AND AT LEAST 48 HOURS HAS ELAPSED SINCE CONCRETE PLACEMENT. NO HEAVY EQUIPMENT WILL BE PERMITTED ON THE FINISHED DECK SLAB WITHIN 6 FEET OF ANY CONSTRUCTION JOINT.

ALL CONSTRUCTION JOINTS WITHIN THE DECK SLAB SHALL BE SEALED USING HIGH MOLECULAR WEIGHT METHACRYLATE IN ACCORDANCE WITH SECTION 523 OF THE STANDARD SPECIFICATIONS. ALL COST OF THE HIGH MOLECULAR WEIGHT METHACRYLATE SEALER SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE OF "SEALER RESIN". ALL COST FOR EQUIPMENT AND LABOR FOR THE INSTALLATION OF THE HIGH MOLECULAR WEIGHT METHACRYLATE SEALER SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE OF "SEALER CRACK PREPARATION".

Preliminary Plans

PHASE 2 OKLAHOMA COUNTY

BRIDGE "A" RAMP "A" AT I-35 & I-240 INTERCHANGE

LONGITUDINAL SECTION AND SLAB POURING SEQUENCE

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

STATE JOB NO. 09032(106) SHEET NO. B023

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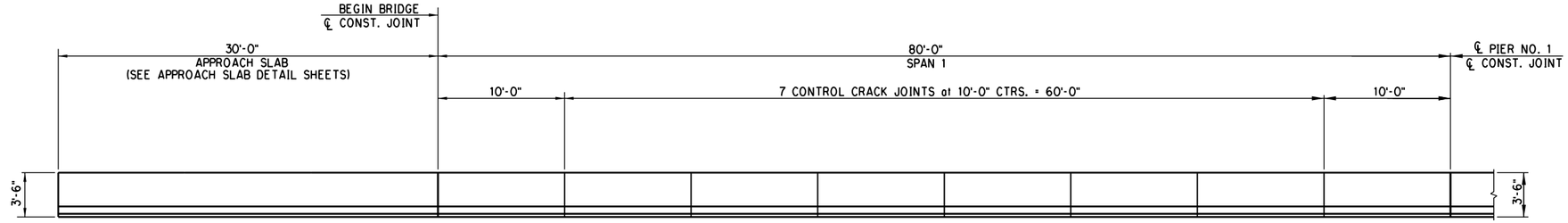
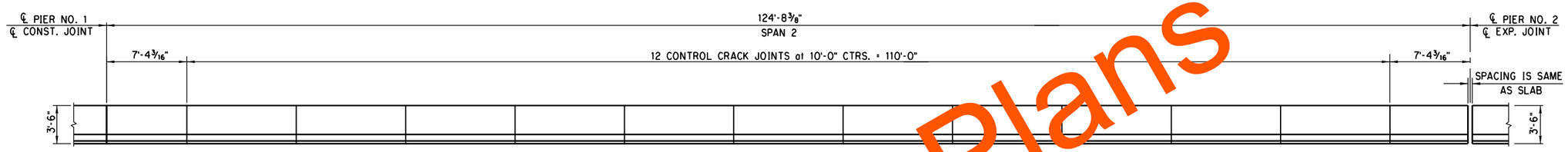
DESCRIPTION	REVISIONS	DATE

02/01/2022



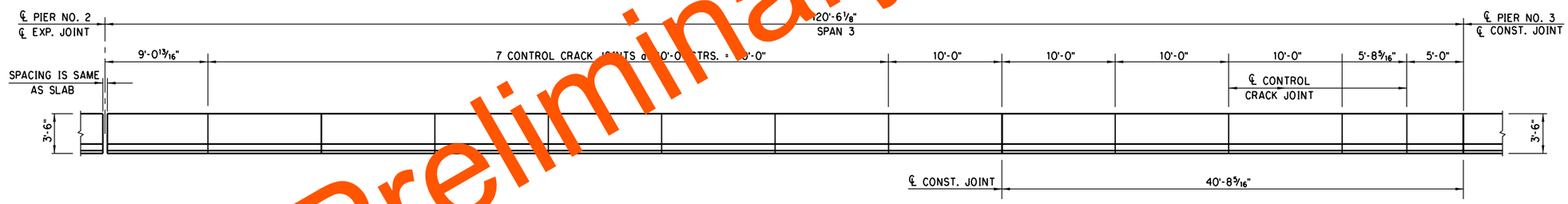
EAST PARAPET JOINT SPACING
SPAN NO. 1

(DIMENSIONS SHOWN ARE ALONG OUTSIDE EDGE OF SLAB)



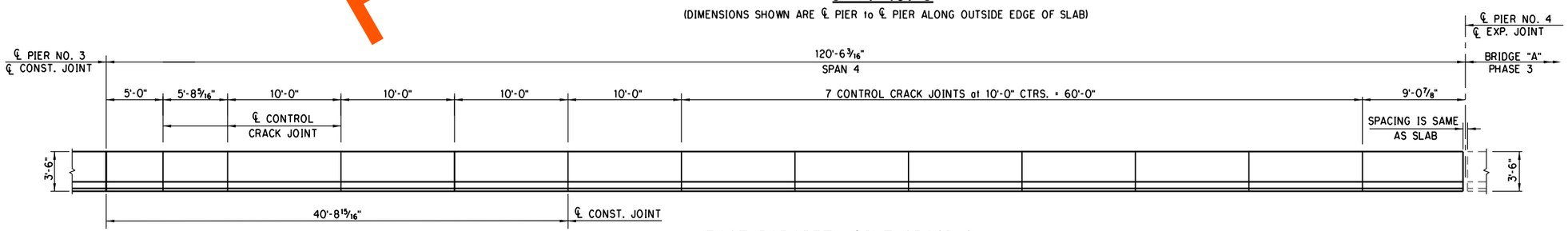
EAST PARAPET JOINT SPACING
SPAN NO. 2

(DIMENSIONS SHOWN ARE ℄ PIER to ℄ PIER ALONG OUTSIDE EDGE OF SLAB)



EAST PARAPET JOINT SPACING
SPAN NO. 3

(DIMENSIONS SHOWN ARE ℄ PIER to ℄ PIER ALONG OUTSIDE EDGE OF SLAB)



EAST PARAPET JOINT SPACING
SPAN NO. 4

(DIMENSIONS SHOWN ARE ℄ PIER to ℄ PIER ALONG OUTSIDE EDGE OF SLAB)

NOTE: FOR ADDITIONAL DETAILS.
SEE STD. FSHP-42-2.

Preliminary Plans

PHASE 2 — OKLAHOMA COUNTY

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

BRIDGE "A" — RAMP "A" AT I-35 & I-240 INTERCHANGE

PARAPET LAYOUT
(SHEET 1 OF 2)

STATE JOB NO. 09032(06) SHEET NO. B024

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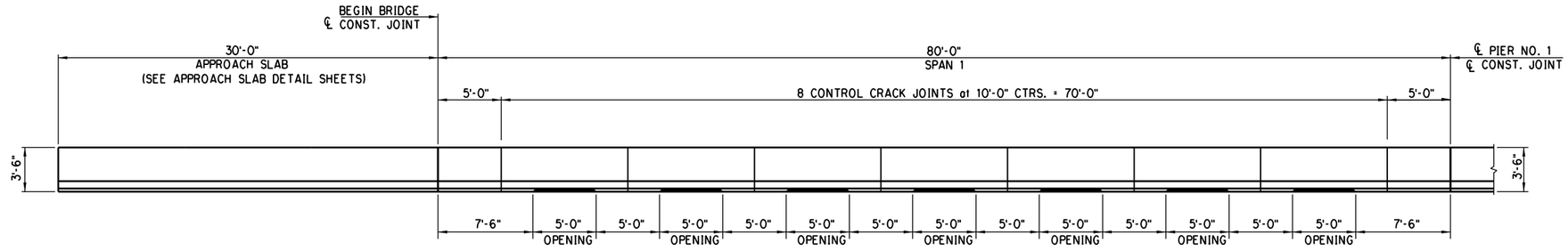
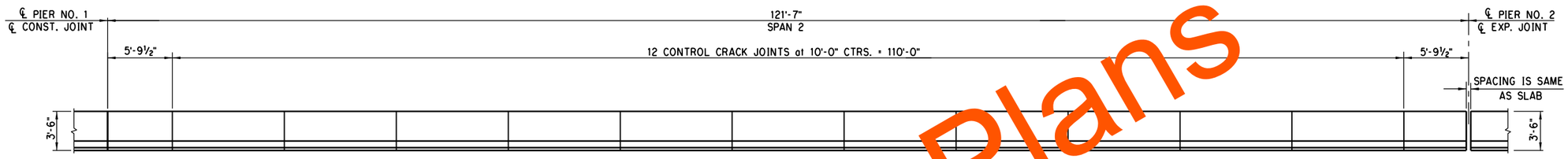
DESCRIPTION	REVISIONS	DATE

02/01/2022

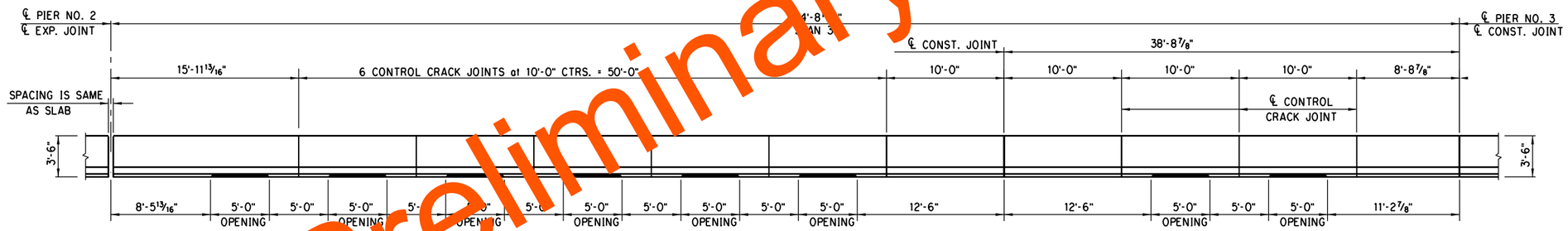


WEST PARAPET OPENING AND JOINT SPACING
SPAN NO. 1



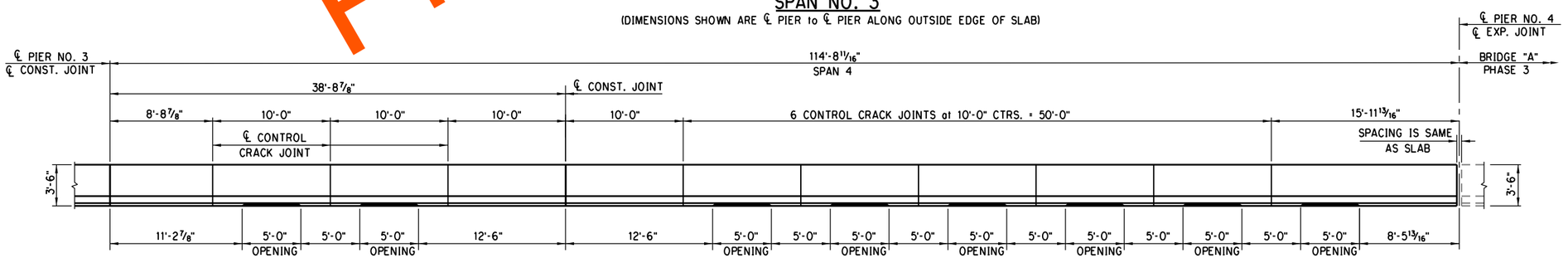
WEST PARAPET JOINT SPACING
SPAN NO. 2

(DIMENSIONS SHOWN ARE ℄ PIER to ℄ PIER ALONG OUTSIDE EDGE OF SLAB)



WEST PARAPET OPENING AND JOINT SPACING
SPAN NO. 3

(DIMENSIONS SHOWN ARE ℄ PIER to ℄ PIER ALONG OUTSIDE EDGE OF SLAB)



WEST PARAPET OPENING AND JOINT SPACING
SPAN NO. 4

(DIMENSIONS SHOWN ARE ℄ PIER to ℄ PIER ALONG OUTSIDE EDGE OF SLAB)

NOTE: FOR ADDITIONAL DETAILS.
SEE STD. FSHP-42-2.

Preliminary Plans

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 — OKLAHOMA COUNTY

BRIDGE "A" — RAMP "A" AT I-35 & I-240 INTERCHANGE

PARAPET LAYOUT
(SHEET 2 OF 2)

STATE JOB NO. 09032(06) SHEET NO. B025

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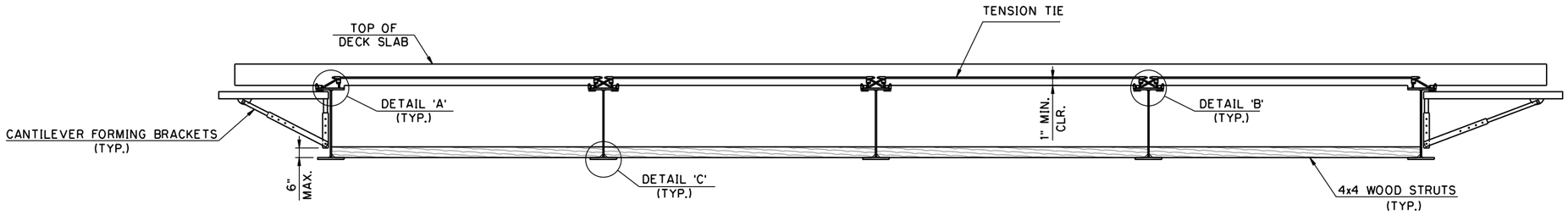
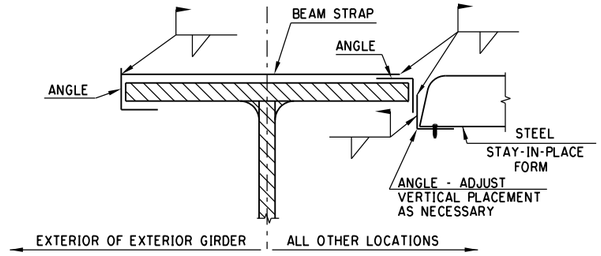
DESCRIPTION	REVISIONS	DATE

NOTE:
SPACING OF FORMING BRACES, TENSION TIES, AND HARDWOOD STRUTS TO BE DETERMINED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF OKLAHOMA FOR THE LOADS ANTICIPATED DURING CONSTRUCTION. SEE GENERAL NOTES FOR ADDITIONAL DETAILS.

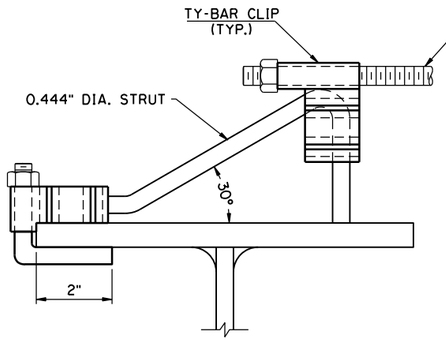


GIRDER BRACING FOR DECK SLAB PLACEMENT

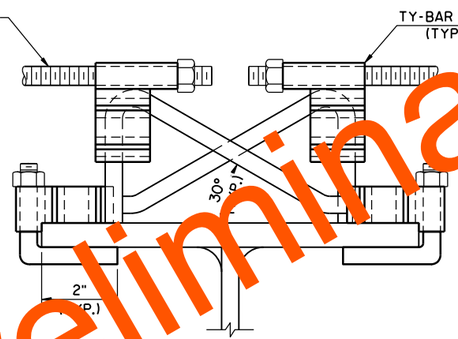


STEEL STAY-IN-PLACE FORMS FLANGE CONNECTION DETAIL

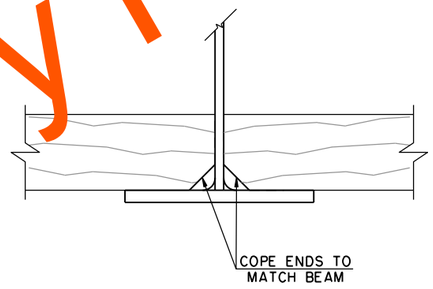
REPORT ANY ARC STRIKE, WELD SPLATTER OR WELDING ON TOP FLANGE TO BRIDGE ENGINEER IMMEDIATELY.



DETAIL 'A'



DETAIL 'B'



DETAIL 'C'

BRACING NOTES

SUBMIT DRAWINGS OF THE BRACING SYSTEM TO THE BRIDGE ENGINEER FOR APPROVAL. BRACING SYSTEMS OTHER THAN THAT SHOWN MAY BE USED IF DESIGN CALCULATIONS AND DRAWINGS OF THE PROPOSED BRACING SYSTEM ARE SUBMITTED TO AND APPROVED BY THE BRIDGE ENGINEER. DRAWINGS AND CALCULATIONS OF THE PROPOSED SYSTEM SHALL BE SIGNED AND SEALED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF OKLAHOMA. DO NOT PLACE SLAB CONCRETE UNTIL BRACING SYSTEM IS APPROVED. THE DEPARTMENT CONSIDERS ALL COST FOR BRACING TO BE INCLUDED IN OTHER ITEMS OF WORK.

USE ADJUSTABLE CANTILEVER FORMING BRACKETS AT EXTERIOR BEAMS CAPABLE OF BEING ADJUSTED DURING THE PLACEMENT OF DECK SLAB CONCRETE IN ORDER TO MAINTAIN PROPER GRADES AT THE DECK OVERHANG. IF SHIMS ARE TO BE USED TO ADJUST THE FORMING BRACKETS, PROVIDE THE BRIDGE ENGINEER A METHOD TO PREDICT CRUSH AND SETTLEMENT OF SHIMS. BEAR THE LEG BRACE OF THE BRACKETS ON THE BEAM WEB WITHIN 6 INCHES OF THE BOTTOM FLANGE.

TENSION TIES SHALL BE A MINIMUM #4 EPOXY-COATED REINFORCING STEEL BARS WITH THREADED ENDS OR ½" DIA. GALVANIZED ALL-THREAD, FURNISHED BY THE CONTRACTOR. THE TENSION TIES SHALL BE PLACED PERPENDICULAR TO THE GIRDERS. TENSION TIES SHALL BE ATTACHED TO THE TOP FLANGE OF GIRDERS BY MEANS OF TY-BAR CLIPS AS SHOWN ON THE DETAILS. WELDING OF CLIPS TO THE TOP FLANGE OF GIRDERS WILL NOT BE PERMITTED.

WOOD STRUTS SHALL BE HARDWOOD OR OF AN EQUIVALENT STRENGTH MATERIAL. WEDGE STRUTS BETWEEN GIRDER WEBS WITHIN 6" OF THE BOTTOM FLANGE OF EACH GIRDER. LOCATE WOOD STRUTS WHERE THE TOP OF THE GIRDERS ARE TIED TOGETHER WITH TENSION TIES.

BRACING SYSTEM SHOWN FOR ILLUSTRATION PURPOSES ONLY. ALTERNATIVE SYSTEMS MAY BE CONSIDERED. SEE GENERAL NOTES FOR DESIGN REQUIREMENTS AND LIMITATIONS.

Preliminary Plans

PHASE 2 OKLAHOMA COUNTY
BRIDGE "A" RAMP "A" AT I-35 & I-240 INTERCHANGE

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

GIRDER BRACING DETAILS

STATE JOB NO. 09032(06) SHEET NO. B026

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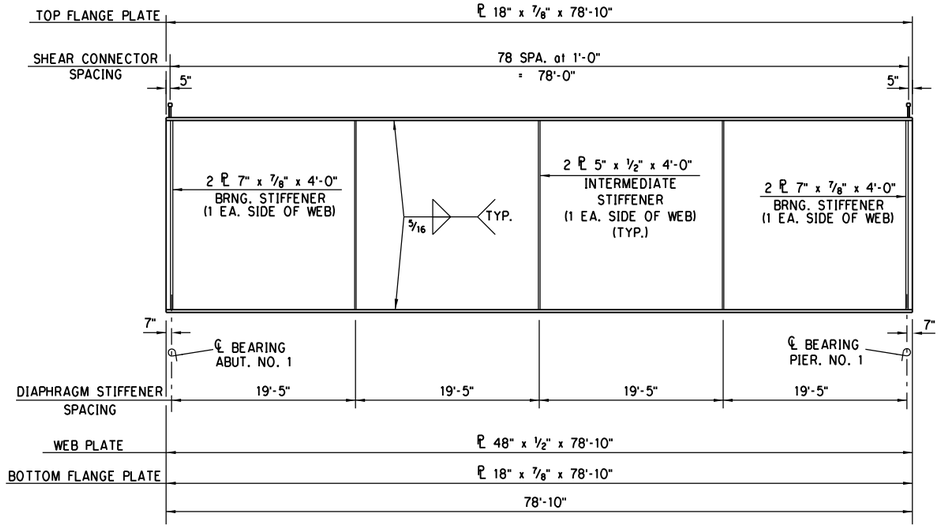
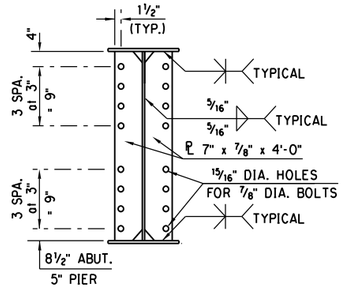
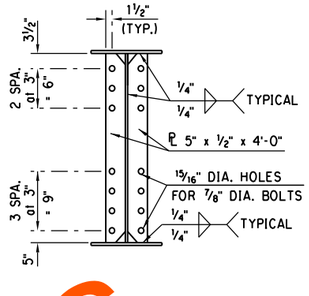


PLATE GIRDER ELEVATION SPAN 1



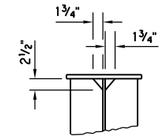
BEARING STIFFENER
ABUT. NO. 1 AND PIER NO. 1



INTERMEDIATE STIFFENER

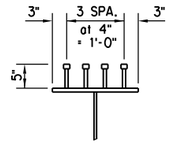
NOTE: SEE PLATE GIRDER ELEVATION ON THIS SHEET AND "FRAMING PLAN AND DIAPHRAGM DETAILS" SHEET FOR LOCATIONS OF STIFFENERS.

OMIT BOLT HOLES IN EXTERIOR STIFFENERS ON EXTERIOR GIRDERS.

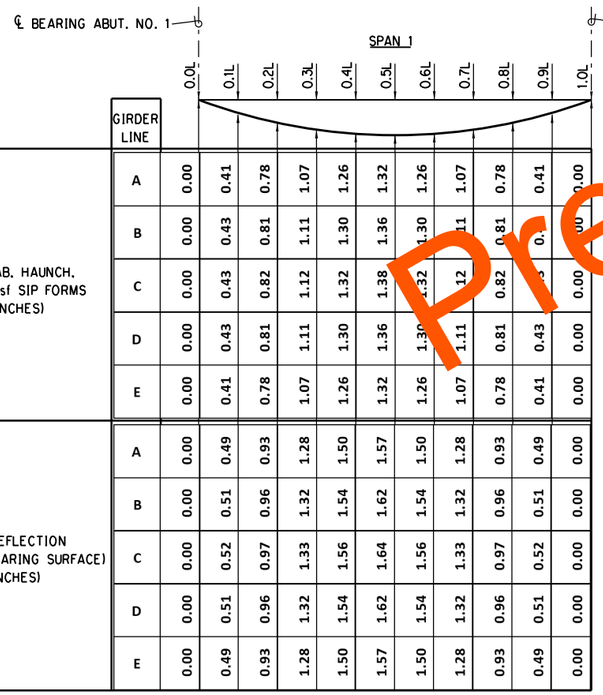


TYP. CORNER CLIP
(ALL STIFFENERS TOP AND BOTTOM)

NOTE: TERMINATE FILLET WELDS 3/8" FROM THE EDGE OF CLIPPED CORNERS OF ALL STIFFENER PLATES AND NON-CLIPPED CORNERS OF INTERMEDIATE DIAPHRAGM STIFFENERS. WRAP FILLET WELDS AROUND NON-CLIPPED CORNERS OF BEARING STIFFENERS.



STUD
SHEAR CONNECTORS
(4 - 7/8" DIA. x 5" STUDS)



	GIRDER LINE	0.0L	0.1L	0.2L	0.3L	0.4L	0.5L	0.6L	0.7L	0.8L	0.9L	1.0L
DECK SLAB, HAUNCH, RAIL & 5 psf SIP FORMS (IN INCHES)	A	0.00	0.41	0.78	1.07	1.26	1.32	1.26	1.07	0.78	0.41	0.00
	B	0.00	0.43	0.81	1.11	1.30	1.36	1.30	1.11	0.81	0.43	0.00
	C	0.00	0.43	0.82	1.12	1.32	1.38	1.32	1.12	0.82	0.43	0.00
	D	0.00	0.43	0.81	1.11	1.30	1.36	1.30	1.11	0.81	0.43	0.00
	E	0.00	0.41	0.78	1.07	1.26	1.32	1.26	1.07	0.78	0.41	0.00
TOTAL DEFLECTION (NO FUTURE WEARING SURFACE) (IN INCHES)	A	0.00	0.49	0.93	1.28	1.50	1.57	1.50	1.28	0.93	0.49	0.00
	B	0.00	0.51	0.96	1.32	1.54	1.62	1.54	1.32	0.96	0.51	0.00
	C	0.00	0.52	0.97	1.33	1.56	1.64	1.56	1.33	0.97	0.52	0.00
	D	0.00	0.51	0.96	1.32	1.54	1.62	1.54	1.32	0.96	0.51	0.00
	E	0.00	0.49	0.93	1.28	1.50	1.57	1.50	1.28	0.93	0.49	0.00

DEAD LOAD DEFLECTION DIAGRAM AND DEFLECTION SCHEDULE

GIRDER	DECK SLAB ELEVATION SCHEDULE AT 10TH POINTS										
	SPAN 1										
	ABUT. BRNG.	0.1L	0.2L	0.3L	0.4L	0.5L	0.6L	0.7L	0.8L	0.9L	PIER 1 BRNG.
A	1303.19	1303.58	1303.96	1304.33	1304.70	1305.07	1305.44	1305.80	1306.15	1306.51	1306.86
B	1303.25	1303.65	1304.05	1304.44	1304.83	1305.22	1305.60	1305.98	1306.35	1306.73	1307.10
C	1303.30	1303.72	1304.14	1304.55	1304.96	1305.37	1305.77	1306.17	1306.56	1306.95	1307.34
D	1303.35	1303.79	1304.23	1304.66	1305.09	1305.51	1305.93	1306.35	1306.76	1307.17	1307.58
E	1303.40	1303.86	1304.32	1304.77	1305.21	1305.66	1306.10	1306.53	1306.97	1307.39	1307.82

NOTES:

ALL GIRDER AND STIFFENER SHALL BE AASHTO M270. (ASTM A709) GRADE 50W.

ALL GIRDER AND STIFFENER SHALL CONFORM TO THE NON-FRACTURE CRITICAL CHARPY V-NOTCH TESTED FOR ZONE 2.

USE SHEAR CONNECTORS CONFORMING TO AASHTO M169 (ASTM A108) GRADE 1015, 1018, 1020.

PROVIDE WELDING WITH WEATHERING CHARACTERISTICS.

ALL BOLTS SHALL BE 7/8" DIA. ASTM A325 TYPE 3 WITH HEAVY HEX NUTS. HARDENED CIRCULAR WASHERS, AND 15/16" DIA. HOLES, UNLESS OTHERWISE NOTED.

NO FIELD WELDING TO GIRDERS WILL BE ALLOWED EXCEPT AS SHOWN ON PLANS.

GIRDERS ARE SHOWN AND DIMENSIONED WITH TOP FLANGE IN THE HORIZONTAL POSITION. VERTICAL CURVATURE AND EFFECTS OF DEAD LOAD DEFLECTION HAVE NOT BEEN TAKEN INTO CONSIDERATION. SHOP DRAWINGS SHALL INCLUDE BLOCKING DIAGRAM FOR EACH GIRDER SHOWING ALL ADJUSTMENTS NECESSARY FOR DEAD LOAD DEFLECTION AND VERTICAL CURVATURE. THE WEB PLATES SHALL BE FABRICATED WITH CAMBER FOR DEAD LOAD DEFLECTION AND VERTICAL CURVATURE.

Preliminary Plans

PHASE 2 OKLAHOMA COUNTY

BRIDGE "A" RAMP "A" AT I-35 & I-240 INTERCHANGE

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PLATE GIRDER DETAILS SPAN 1

STATE JOB NO. 09032(106) SHEET NO. B027

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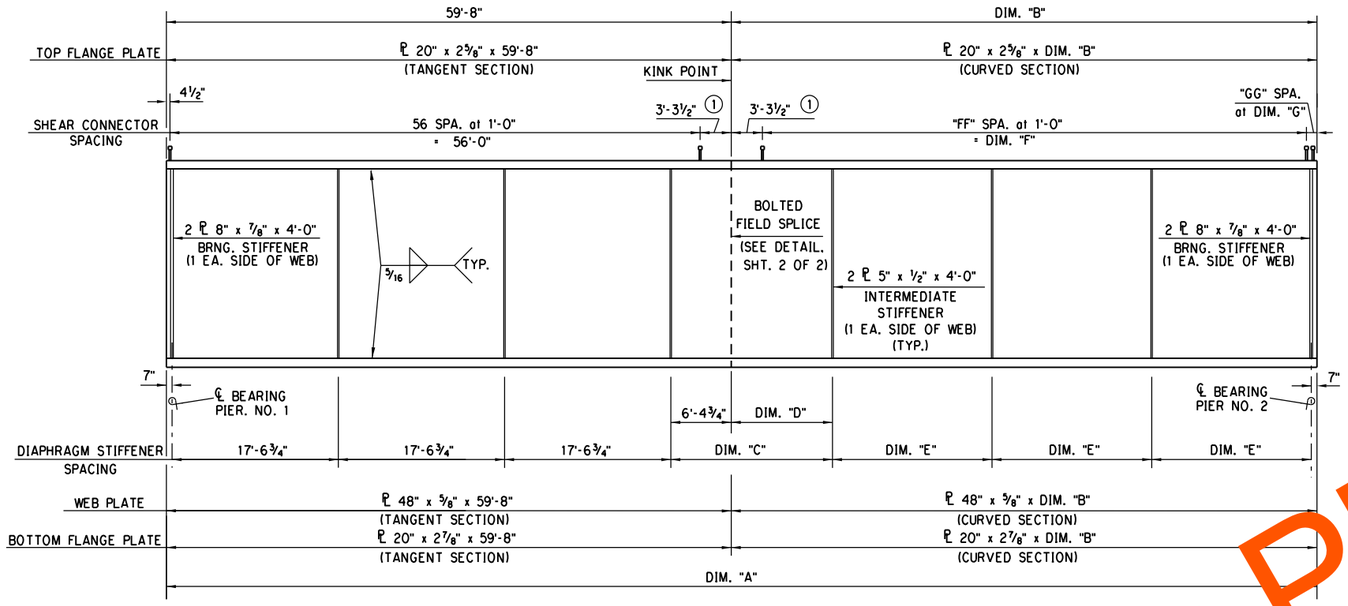
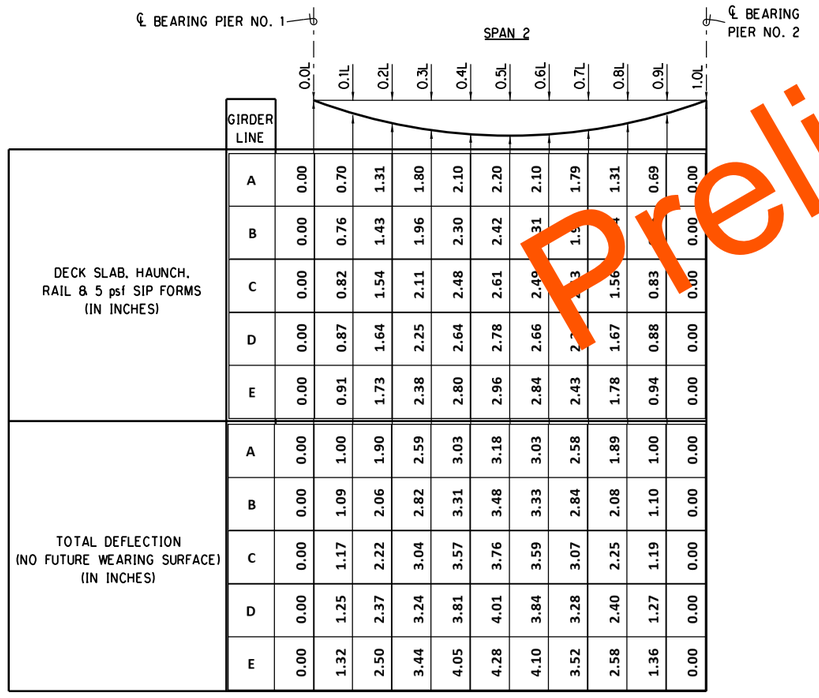


PLATE GIRDER ELEVATION SPAN 2

① STUD SPACING THROUGH FIELD SPLICE
(SEE DETAIL SHEET 2 OF 2)

NOTE: GIRDER DIMENSIONS ARE ALONG ℄ ARC OF WEB IN CURVED SECTION OF GIRDER.

GIRDER	SPAN 2 GIRDER DIMENSION SCHEDULE									
	DIM "A"	DIM "B"	DIM "C"	DIM "D"	DIM "E"	"FF"	DIM "F"	"GG"	DIM "G"	CURVE RADIUS
A	121 [illegible]"	61'-10"	17'-1"	10'-8 1/4"	16'-10 1/4"	58	58'-0"	1	6 1/2"	816.26'
B	12[illegible]-1 7/8"	62'-5 7/8"	17'-2 1/2"	10'-9 3/4"	17'-0 3/8"	58	58'-0"	2	7 3/16"	824.89'
C	122'-9 3/4"	63'-1 3/4"	17'-4"	10'-11 1/4"	17'-2 1/2"	59	59'-0"	2	5 1/8"	833.51'
D	123'-5 5/8"	63'-9 5/8"	17'-5 1/2"	11'-0 3/4"	17'-4 5/8"	60	60'-0"	1	6 1/8"	842.14'
E	124'-1 1/4"	64'-5 1/4"	17'-6 3/4"	11'-2"	17'-6 3/4"	60	60'-0"	2	6 7/8"	850.76'



	GIRDER LINE	0.0L	0.1L	0.2L	0.3L	0.4L	0.5L	0.6L	0.7L	0.8L	0.9L	1.0L
DECK SLAB, HAUNCH, RAIL & 5 psf SIP FORMS (IN INCHES)	A	0.00	0.70	1.31	1.80	2.10	2.20	2.10	1.79	1.31	0.69	0.00
	B	0.00	0.76	1.43	1.96	2.30	2.42	2.31	1.9[illegible]	[illegible]	[illegible]	0.00
	C	0.00	0.82	1.54	2.11	2.48	2.61	2.49	[illegible]	1.56	0.83	0.00
	D	0.00	0.87	1.64	2.25	2.64	2.78	2.66	[illegible]	1.67	0.88	0.00
	E	0.00	0.91	1.73	2.38	2.80	2.96	2.84	2.43	1.78	0.94	0.00
TOTAL DEFLECTION (NO FUTURE WEARING SURFACE) (IN INCHES)	A	0.00	1.00	1.90	2.59	3.03	3.18	3.03	2.58	1.89	1.00	0.00
	B	0.00	1.09	2.06	2.82	3.31	3.48	3.33	2.84	2.08	1.10	0.00
	C	0.00	1.17	2.22	3.04	3.57	3.76	3.59	3.07	2.25	1.19	0.00
	D	0.00	1.25	2.37	3.24	3.81	4.01	3.84	3.28	2.40	1.27	0.00
	E	0.00	1.32	2.50	3.44	4.05	4.28	4.10	3.52	2.58	1.36	0.00

DEAD LOAD DEFLECTION DIAGRAM AND DEFLECTION SCHEDULE

GIRDER	DECK SLAB ELEVATION SCHEDULE AT 10TH POINTS										
	SPAN 2										
	PIER 1 BRNG.	0.1L	0.2L	0.3L	0.4L	0.5L	0.6L	0.7L	0.8L	0.9L	PIER 2 BRNG.
A	1306.92	1307.46	1307.98	1308.49	1309.00	1309.50	1309.99	1310.47	1310.94	1311.40	1311.86
B	1307.17	1307.73	1308.29	1308.83	1309.38	1309.90	1310.42	1310.93	1311.42	1311.91	1312.38
C	1307.41	1308.01	1308.60	1309.17	1309.75	1310.31	1310.85	1311.38	1311.91	1312.42	1312.90
D	1307.66	1308.29	1308.91	1309.52	1310.12	1310.71	1311.28	1311.84	1312.39	1312.93	1313.41
E	1307.90	1308.56	1309.22	1309.86	1310.50	1311.12	1311.71	1312.30	1312.87	1313.44	1313.93

Preliminary Plans

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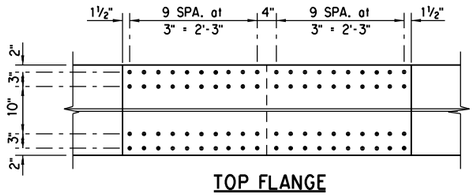
DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

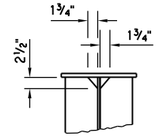
PHASE 2 OKLAHOMA COUNTY
BRIDGE "A" RAMP "A" AT I-35 & I-240 INTERCHANGE

PLATE GIRDER DETAILS
SPAN 2
(SHEET 1 OF 2)

STATE JOB NO. 09032(06) SHEET NO. B028



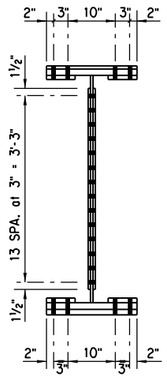
TOP FLANGE



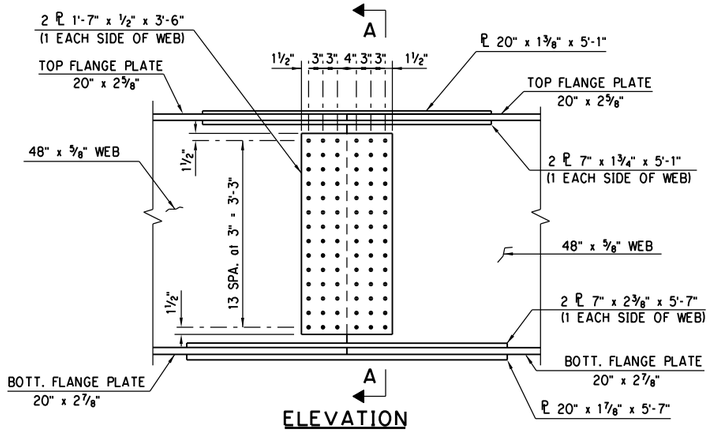
TYP. CORNER CLIP

(ALL STIFFENERS TOP AND BOTTOM)

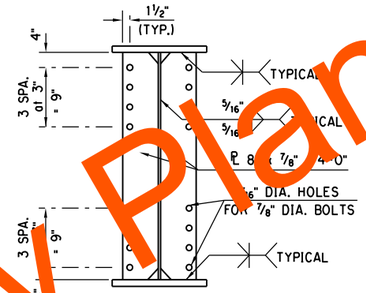
NOTE: TERMINATE FILLET WELDS ⅜" FROM THE EDGE OF CLIPPED CORNERS OF ALL STIFFENER PLATES AND NON-CLIPPED CORNERS OF INTERMEDIATE DIAPHRAGM STIFFENERS. WRAP FILLET WELDS AROUND NON-CLIPPED CORNERS OF BEARING STIFFENERS.



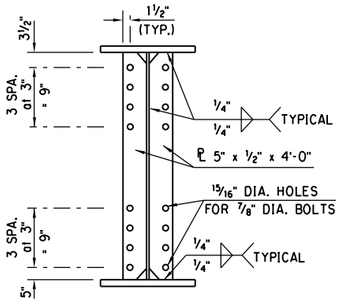
SECTION A-A



ELEVATION



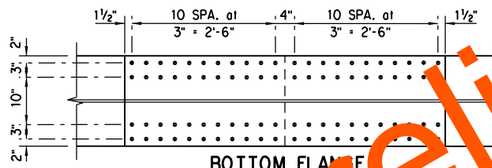
BEARING STIFFENER
PIERS NO. 1 AND 2



INTERMEDIATE STIFFENER

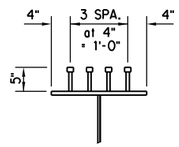
NOTE: SEE PLATE GIRDER ELEVATION, SHEET 1 OF 2 AND "FRAMING PLAN AND DIAPHRAGM DETAILS" SHEET FOR LOCATIONS OF STIFFENERS.

OMIT BOLT HOLES ON EXTERIOR STIFFENERS ON EXTERIOR GIRDERS.



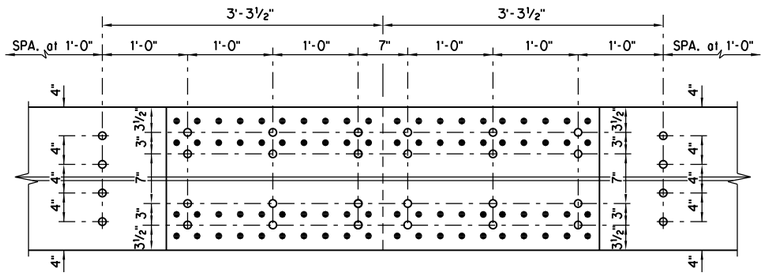
BOTTOM FLANGE

BOLTED FIELD SPLICE DETAIL



STUD
SHEAR CONNECTORS

(4 - ⅞" DIA. x 5" STUDS)



STUD SPACING THROUGH FIELD SPLICE

Preliminary Plans

NOTES:

ALL GIRDER, STIFFENER AND SPLICE PLATES SHALL BE AASHTO M270. (ASTM A709) GRADE 50WT2.

ALL GIRDER, STIFFENER AND SPLICE PLATES SHALL CONFORM TO THE NON-FRACTURE CRITICAL CHARPY V-NOTCH TESTED FOR ZONE 2.

USE SHEAR CONNECTORS CONFORMING TO AASHTO M169 (ASTM A108), GRADE 1015, 1018, 1020.

PROVIDE WELDING WITH WEATHERING CHARACTERISTICS.

ALL HIGH STRENGTH BOLTS SHALL BE ⅞" DIA. CONFORMING TO AASHTO M164 (ASTM A325) TYPE 3 (WEATHERING) WITH HEAVY HEX NUTS, CONFORMING TO AASHTO M291 (ASTM A563), PROPERTY CLASS 8S3 OR 10S3, AND HARDENED CIRCULAR WASHERS, CONFORMING TO AASHTO M293 (ASTM F436) TYPE 3 (WEATHERING) WITH 15/16" DIA. HOLES, UNLESS OTHERWISE NOTED.

SPLICE BOLTS SHALL BE PLACED WITH HEADS ON THE OUTSIDE FACE OF EXTERIOR GIRDERS AND ON BOTTOM OF GIRDER FLANGES.

BOLT THREADS MUST BE EXCLUDED FROM FIELD SPLICE SHEAR PLANES.

NO FIELD WELDING TO GIRDERS WILL BE ALLOWED EXCEPT AS SHOWN ON PLANS.

GIRDERS ARE SHOWN AND DIMENSIONED WITH TOP FLANGE IN THE HORIZONTAL POSITION. VERTICAL CURVATURE AND EFFECTS OF DEAD LOAD DEFLECTION HAVE NOT BEEN TAKEN INTO CONSIDERATION. SHOP DRAWINGS SHALL INCLUDE BLOCKING DIAGRAM FOR EACH GIRDER SHOWING ALL ADJUSTMENTS NECESSARY FOR DEAD LOAD DEFLECTION AND VERTICAL CURVATURE. THE WEB PLATES SHALL BE FABRICATED WITH CAMBER FOR DEAD LOAD DEFLECTION AND VERTICAL CURVATURE.

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 — OKLAHOMA COUNTY

BRIDGE "A" — RAMP "A" AT I-35 & I-240 INTERCHANGE

PLATE GIRDER DETAILS SPAN 2

(SHEET 2 OF 2)

STATE JOB NO. 09032(106) SHEET NO. B029

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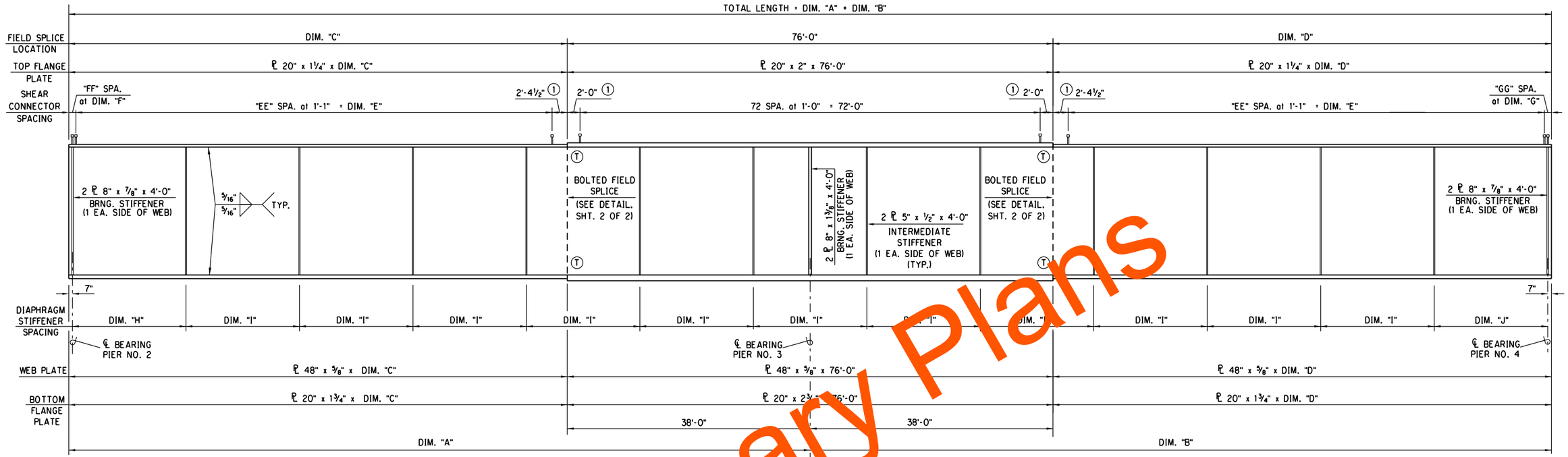
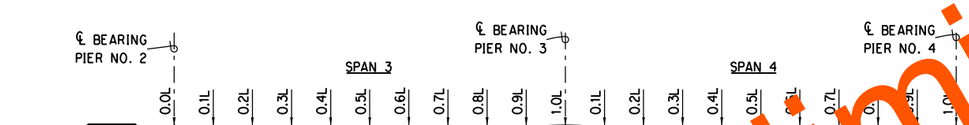


PLATE GIRDER ELEVATION SPANS 3 AND 4

Ⓣ FIELD SPLICE

Ⓢ STUD SPACING THROUGH FIELD SPLICE (SEE DETAIL, SHEET 2 OF 2)

NOTE: GIRDER DIMENSIONS ARE ALONG ℄ ARC OF WEB.



	GIRDER LINE	0.0L	0.1L	0.2L	0.3L	0.4L	0.5L	0.6L	0.7L	0.8L	0.9L	1.0L	0.1L	0.2L	0.3L	0.4L	0.5L	0.6L	0.7L	0.8L	0.9L	1.0L
DECK SLAB, HAUNCH, RAIL & 5 psf SIP FORMS (IN INCHES)	A	0.00	0.49	0.90	1.17	1.27	1.20	0.99	0.69	0.37	0.11	0.00	0.12	0.38	0.70	1.02	1.22	1.29	1.18	0.91	0.50	0.00
	B	0.00	0.55	1.01	1.30	1.42	1.34	1.10	0.76	0.41	0.12	0.00	0.13	0.41	0.77	1.13	1.35	1.43	1.31	1.01	0.55	0.00
	C	0.00	0.60	1.09	1.42	1.54	1.45	1.19	0.83	0.44	0.14	0.00	0.14	0.44	0.83	1.19	1.45	1.54	1.42	1.09	0.60	0.00
	D	0.00	0.64	1.17	1.51	1.64	1.55	1.27	0.88	0.47	0.14	0.00	0.14	0.47	0.87	1.27	1.54	1.64	1.51	1.16	0.64	0.00
	E	0.00	0.68	1.24	1.61	1.75	1.65	1.34	0.92	0.49	0.15	0.00	0.14	0.49	0.91	1.33	1.63	1.73	1.60	1.23	0.67	0.00
TOTAL DEFLECTION (NO FUTURE WEARING SURFACE) (IN INCHES)	A	0.00	0.64	1.17	1.51	1.65	1.56	1.29	0.90	0.49	0.15	0.00	0.15	0.46	0.91	1.30	1.58	1.66	1.53	1.17	0.64	0.00
	B	0.00	0.71	1.30	1.68	1.83	1.73	1.43	0.99	0.53	0.16	0.00	0.17	0.54	0.99	1.43	1.74	1.84	1.69	1.30	0.71	0.00
	C	0.00	0.77	1.41	1.82	1.98	1.88	1.54	1.07	0.58	0.18	0.00	0.18	0.58	1.07	1.54	1.88	1.99	1.83	1.41	0.77	0.00
	D	0.00	0.82	1.50	1.95	2.12	2.00	1.65	1.14	0.61	0.19	0.00	0.19	0.61	1.13	1.64	2.00	2.11	1.95	1.50	0.82	0.00
	E	0.00	0.88	1.60	2.08	2.26	2.13	1.74	1.20	0.64	0.19	0.00	0.19	0.63	1.19	1.73	2.11	2.24	2.07	1.59	0.87	0.00

DEAD LOAD DEFLECTION DIAGRAM AND DEFLECTION SCHEDULE

SPAN 3 & 4 GIRDER DIMENSION SCHEDULE

GIRDER	TOTAL LENGTH	DIM "A"	DIM "B"	DIM "C"	DIM "D"	"EE"	DIM "E"	"FF"	DIM "F"	"GG"	DIM "G"	DIM "H"	DIM "I"	DIM "J"	CURVE RADIUS
A	230'-0 3/8"	115'-0 3/16"	115'-0 3/16"	77'-0 3/16"	77'-0 3/16"	68	73'-8"	2	5 7/8"	2	5 7/8"	17'-6 3/4"	17'-7 7/16"	17'-5 13/16"	816.26'
B	232'-5 5/8"	116'-2 13/16"	116'-3 7/8"	78'-2 13/16"	78'-2 7/8"	69	74'-9"	2	6 5/8"	2	6 11/16"	17'-9 1/8"	17'-9 5/8"	17'-8 5/8"	827.70'
C	234'-10 7/8"	117'-5 3/8"	117'-5 1/2"	79'-5 3/8"	79'-5 1/2"	70	75'-10"	2	7 7/16"	2	7 1/2"	17'-11 5/8"	17'-11 13/16"	17'-11 5/16"	838.48'
D	237'-4 1/8"	118'-8"	118'-8 1/8"	80'-8"	80'-8 1/8"	72	78'-0"	1	3 1/2"	1	3 5/8"	18'-1 7/8"	18'-2 1/16"	18'-1 9/16"	849.60'
E	239'-9 1/4"	119'-10 5/8"	119'-10 5/8"	81'-10 5/8"	81'-10 5/8"	73	79'-1"	1	5 1/8"	1	5 1/8"	18'-4 1/4"	18'-4 1/4"	18'-4 1/4"	860.74'

DECK SLAB ELEVATION SCHEDULE AT 10TH POINTS

GIRDER	SPAN 3										SPAN 4									
	PIER 2 BRNG.	0.1L	0.2L	0.3L	0.4L	0.5L	0.6L	0.7L	0.8L	0.9L	PIER 3 BRNG.	0.1L	0.2L	0.3L	0.4L	0.5L	0.6L	0.7L	0.8L	0.9L	PIER 4 BRNG.
A	1311.92	1312.35	1312.77	1313.18	1313.59	1313.98	1314.37	1314.75	1315.12	1315.48	1315.84	1316.19	1316.53	1316.86	1317.18	1317.49	1317.80	1318.10	1318.39	1318.67	1318.94
B	1312.44	1312.86	1313.29	1313.70	1314.10	1314.50	1314.89	1315.27	1315.64	1316.00	1316.36	1316.70	1317.04	1317.37	1317.70	1318.01	1318.32	1318.62	1318.91	1319.19	1319.46
C	1312.95	1313.38	1313.80	1314.22	1314.62	1315.02	1315.40	1315.78	1316.16	1316.52	1316.87	1317.22	1317.56	1317.89	1318.22	1318.53	1318.84	1319.14	1319.43	1319.71	1319.98
D	1313.47	1313.90	1314.32	1314.73	1315.14	1315.53	1315.92	1316.30	1316.67	1317.04	1317.39	1317.74	1318.08	1318.41	1318.73	1319.05	1319.36	1319.66	1319.95	1320.23	1320.50
E	1313.99	1314.42	1314.84	1315.25	1315.65	1316.05	1316.44	1316.82	1317.19	1317.55	1317.91	1318.26	1318.60	1318.93	1319.25	1319.57	1319.88	1320.18	1320.47	1320.75	1321.03

Preliminary Plans

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 — OKLAHOMA COUNTY

BRIDGE "A" — RAMP "A" AT I-35 & I-240 INTERCHANGE

PLATE GIRDER DETAILS SPANS 3 AND 4

(SHEET 1 OF 2)

STATE JOB NO. 09032(106) SHEET NO. B030

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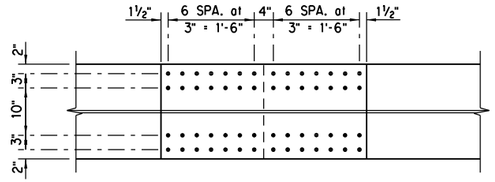
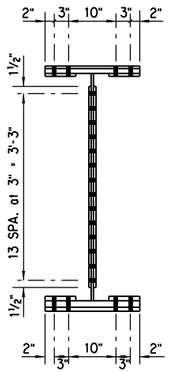
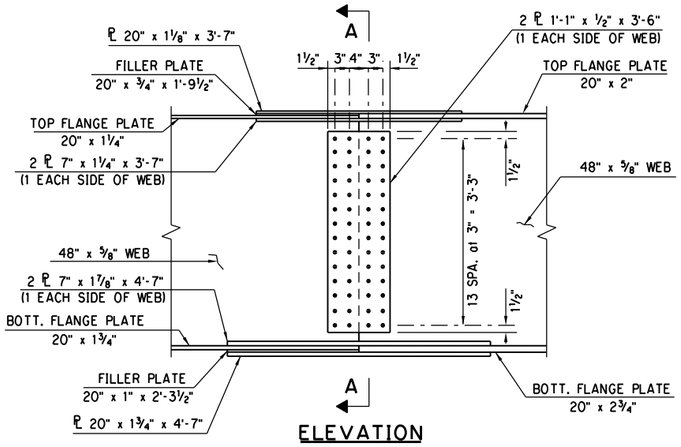


TOP FLANGE



SECTION A-A



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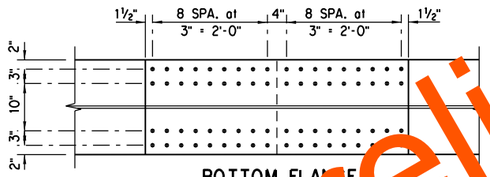
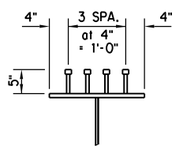


BOTTOM FLANGE

BOLTED FIELD SPLICE DETAIL

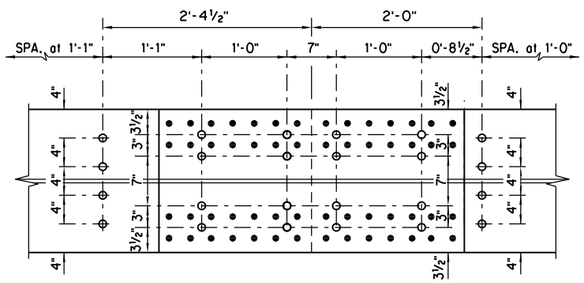
(LEFT SPLICE SHOWN, RIGHT OPPOSITE HAND)



STUD

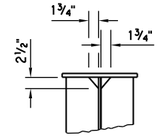
SHEAR CONNECTORS

(4 - ⅞" DIA. x 5" STUDS)



STUD SPACING THROUGH FIELD SPLICE

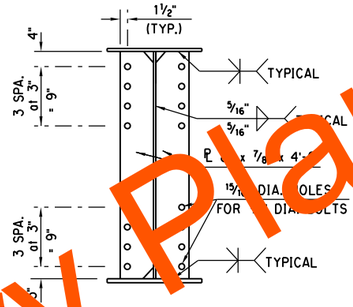
(LEFT SPLICE SHOWN, RIGHT OPPOSITE HAND)



TYP. CORNER CLIP

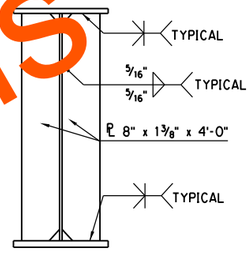
(ALL STIFFENERS TOP AND BOTTOM)

NOTE: TERMINATE FILLET WELDS ⅜" FROM THE EDGE OF CLIPPED CORNERS OF ALL STIFFENER PLATES AND NON-CLIPPED CORNERS OF INTERMEDIATE DIAPHRAGM STIFFENERS. WRAP FILLET WELDS AROUND NON-CLIPPED CORNERS OF BEARING STIFFENERS.



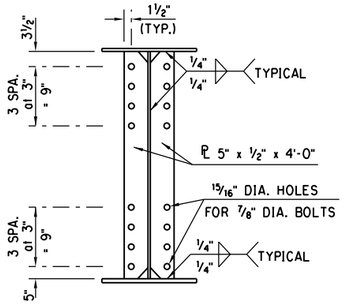
EARING STIFFENER

ERS NO. 2 AND 4



BEARING STIFFENER

PIER NO. 3



INTERMEDIATE STIFFENER

NOTE: SEE PLATE GIRDER ELEVATION, SHEET 1 OF 2 AND "FRAMING PLAN AND DIAPHRAGM DETAILS" SHEET FOR LOCATIONS OF STIFFENERS.

OMIT BOLT HOLES ON EXTERIOR STIFFENERS ON EXTERIOR GIRDERS.

NOTES:

ALL GIRDER, STIFFENER AND SPLICE PLATES SHALL BE AASHTO M270, (ASTM A709) GRADE 50WT2.

ALL GIRDER, STIFFENER AND SPLICE PLATES SHALL CONFORM TO THE NON-FRACTURE CRITICAL CHARPY V-NOTCH TESTED FOR ZONE 2.

USE SHEAR CONNECTORS CONFORMING TO AASHTO M169 (ASTM A108), GRADE 1015, 1018, 1020.

PROVIDE WELDING WITH WEATHERING CHARACTERISTICS.

ALL HIGH STRENGTH BOLTS SHALL BE ⅞" DIA. CONFORMING TO AASHTO M164 (ASTM A325) TYPE 3 (WEATHERING) WITH HEAVY HEX NUTS, CONFORMING TO AASHTO M291 (ASTM A563), PROPERTY CLASS 8S3 OR 10S3, AND HARDENED CIRCULAR WASHERS, CONFORMING TO AASHTO M293 (ASTM F436) TYPE 3 (WEATHERING) WITH 15/16" DIA. HOLES, UNLESS OTHERWISE NOTED.

SPLICE BOLTS SHALL BE PLACED WITH HEADS ON THE OUTSIDE FACE OF EXTERIOR GIRDERS AND ON BOTTOM OF GIRDER FLANGES.

BOLT THREADS MUST BE EXCLUDED FROM FIELD SPLICE SHEAR PLANES.

NO FIELD WELDING TO GIRDERS WILL BE ALLOWED EXCEPT AS SHOWN ON PLANS.

GIRDERS ARE SHOWN AND DIMENSIONED WITH TOP FLANGE IN THE HORIZONTAL POSITION. VERTICAL CURVATURE AND EFFECTS OF DEAD LOAD DEFLECTION HAVE NOT BEEN TAKEN INTO CONSIDERATION. SHOP DRAWINGS SHALL INCLUDE BLOCKING DIAGRAM FOR EACH GIRDER SHOWING ALL ADJUSTMENTS NECESSARY FOR DEAD LOAD DEFLECTION AND VERTICAL CURVATURE. THE WEB PLATES SHALL BE FABRICATED WITH CAMBER FOR DEAD LOAD DEFLECTION AND VERTICAL CURVATURE.

Preliminary Plans

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 OKLAHOMA COUNTY

BRIDGE "A" RAMP "A" AT I-35 & I-240 INTERCHANGE

PLATE GIRDER DETAILS SPANS 3 AND 4

(SHEET 2 OF 2)

STATE JOB NO. 09032(106) SHEET NO. B031

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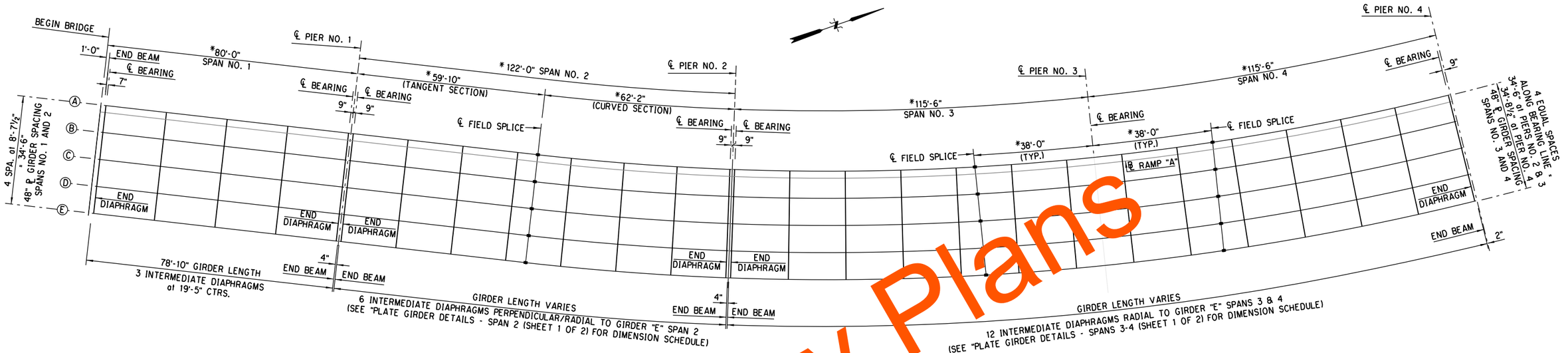
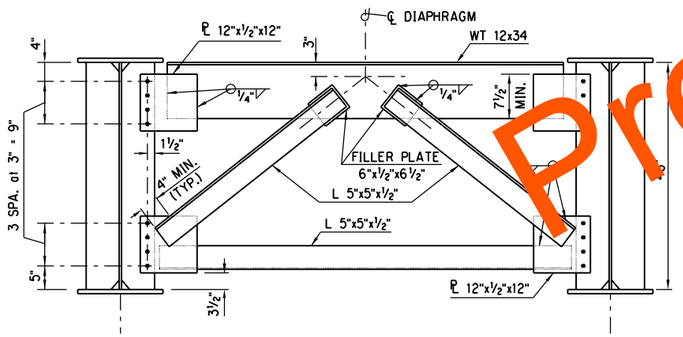
DESCRIPTION	REVISIONS	DATE

*NOTE: LENGTH MEASURED ALONG ℄ RAMP "A"

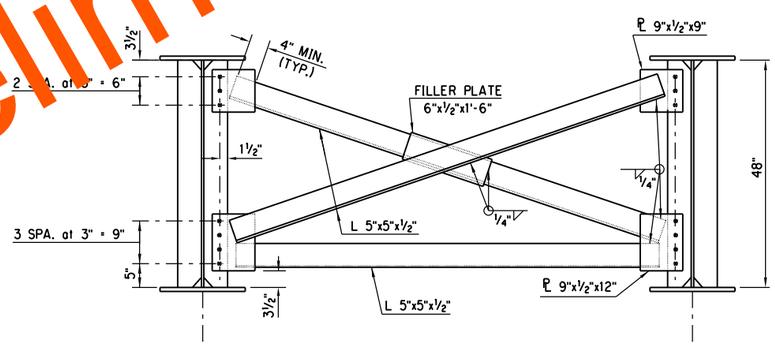


FRAMING PLAN
SPANS 1 THRU 4

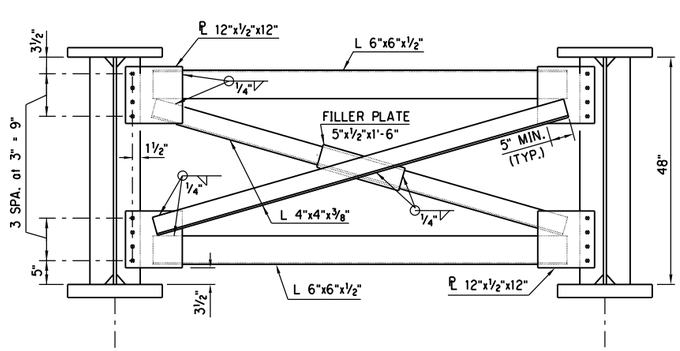
Preliminary Plans



SPANS NO. 1 THRU 4 END DIAPHRAGMS
(ABUTMENT NO. 1 AND PIERS NO. 1, 2 & 4)
(M270 GRADE 50W STEEL)



SPAN NO. 1 INTERMEDIATE DIAPHRAGMS
(M270 GRADE 50W STEEL)



SPANS NO. 2, 3 AND 4 INTERMEDIATE DIAPHRAGMS
(M270 GRADE 50W STEEL)

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 — OKLAHOMA COUNTY
BRIDGE "A" — RAMP "A" AT I-35 & I-240 INTERCHANGE

FRAMING PLAN AND DIAPHRAGM DETAILS

STATE JOB NO. 09032(106) SHEET NO. B032

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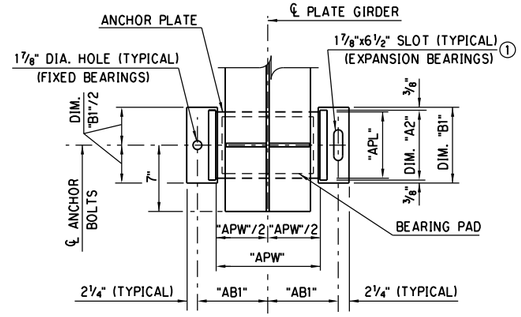
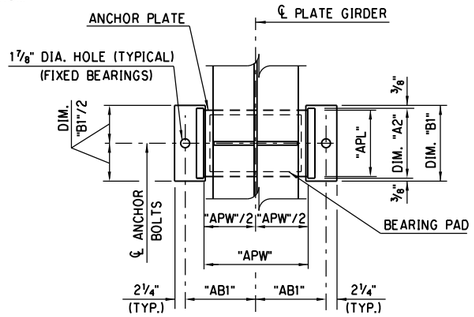
NOTE: ANCHOR BOLTS OMITTED FROM PLAN VIEW FOR CLARITY.

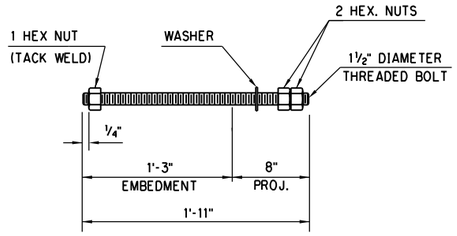
DESCRIPTION	REVISIONS	DATE



PLAN

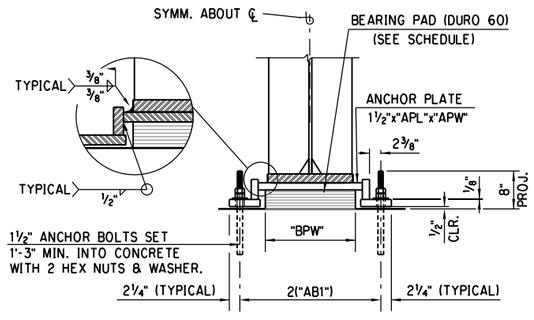


PLAN

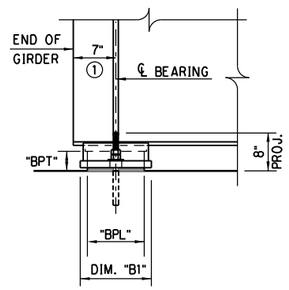


DETAIL OF BEARING ANCHOR BOLT

(SEE SEC. 724.05 OF THE STANDARD SPECIFICATIONS.)



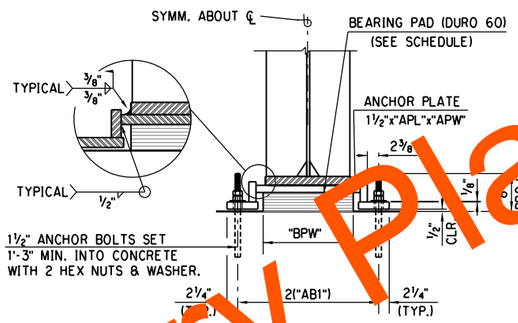
ELEVATION



SIDE VIEW

(SEE SCHEDULE FOR DIMENSIONS)

DETAILS OF END BEARING ASSEMBLY



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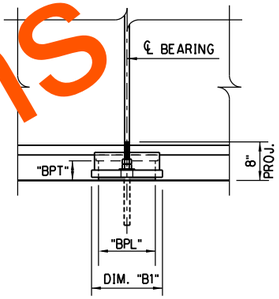
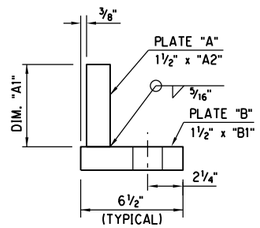


SIDE VIEW

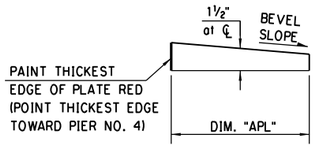
(SEE SCHEDULE FOR DIMENSIONS)

DETAILS OF CONTINUOUS BEARING ASSEMBLY



(SEE SCHEDULE FOR DIMENSIONS)

BUILT-UP CONTACT ANGLE DETAIL



(SEE SCHEDULE FOR DIMENSIONS)

BEVELED ANCHOR PLATE DETAILS

① ANCHOR BOLTS SHALL BE CENTERED IN SLOTS DURING SETTING OF BEAMS. DIMENSION MAY VARY DEPENDING ON TEMPERATURE AT THE TIME OF BEAM SETTING.

BEARING PAD AND ANCHOR ASSEMBLY SCHEDULE

LOCATION		50 DUROMETER BEARING PAD									1 1/2" ANCHOR PLATE			1 1/2" BUILT-UP CONTACT ANGLE			
SPAN	POSITION	THICKNESS	LENGTH	WIDTH	COVER		INNER		LAMINATES		LENGTH	WIDTH	BEVEL	PLATE "A"		PLATE "B"	
		"BPT"	"BPL"	"BPW"	NO.	THICK	NO.	THICK	NO.	THICK	"APL"	"APW"	SLOPE	DIM "A1"	DIM "A2"	DIM "B1"	"AB1"
1	ABUT 1	4 1/8"	8"	1'-3"	2	1/4"	7	3/8"	8	1/8"	9"	1'-10"	3.50%	4 1/4"	10 1/4"	11"	1'-2 7/8"
	PIER 1	4 1/8"	8"	1'-3"	2	1/4"	7	3/8"	8	1/8"	9"	1'-10"	3.50%	4 1/4"	10 1/4"	11"	1'-2 7/8"
2	PIER 1	4 1/8"	11"	1'-3"	2	1/4"	7	3/8"	8	1/8"	1'-0"	2'-0"	3.50%	4 1/4"	11 1/4"	1'-2"	1'-3 7/8"
	PIER 2	4 1/8"	11"	1'-3"	2	1/4"	7	3/8"	8	1/8"	1'-0"	2'-0"	3.50%	4 1/4"	11 1/4"	1'-2"	1'-3 7/8"
3 & 4	PIER 2	4 1/8"	9"	1'-3"	2	1/4"	7	3/8"	8	1/8"	10"	2'-0"	2.50%	4 1/4"	11 1/4"	1'-0"	1'-3 7/8"
	PIER 3	5 1/8"	11"	1'-6"	2	1/4"	9	3/8"	10	1/8"	1'-0"	2'-0"	2.50%	5 1/4"	11 1/4"	1'-2"	1'-3 7/8"
	PIER 4	4 1/8"	9"	1'-3"	2	1/4"	7	3/8"	8	1/8"	10"	2'-0"	2.50%	4 1/4"	11 1/4"	1'-0"	1'-3 7/8"

BEARING ASSEMBLY NOTES:

PROVIDE STRUCTURAL STEEL ANCHOR PLATES AND BUILT-UP CONTACT ANGLES IN ACCORDANCE WITH ASTM A240 (AUSTENITIC STAINLESS STEEL TYPE 316, CHARPY V-NOTCH TESTING NOT REQUIRED). FOR ANCHOR BOLTS, PROVIDE CONTINUOUSLY THREADED BARS IN ACCORDANCE WITH ASTM A320, CLASS 2, GRADE B8M (AUSTENITIC STAINLESS STEEL, TYPE 316, CHARPY V-NOTCH TESTING NOT REQUIRED). USE AUSTENITIC STAINLESS STEEL NUTS AND WASHERS CONFORMING TO ASTM A194, GRADE 8M AND ASTM A320, RESPECTIVELY. PERFORM ALL WELDING CONSISTENT WITH PROCEDURES FOR STAINLESS STEEL. SEE SEC 724.05 OF THE STANDARD SPECIFICATIONS.

Preliminary Plans

5/3/2022 2:44:40 PM
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PHASE 2 OKLAHOMA COUNTY

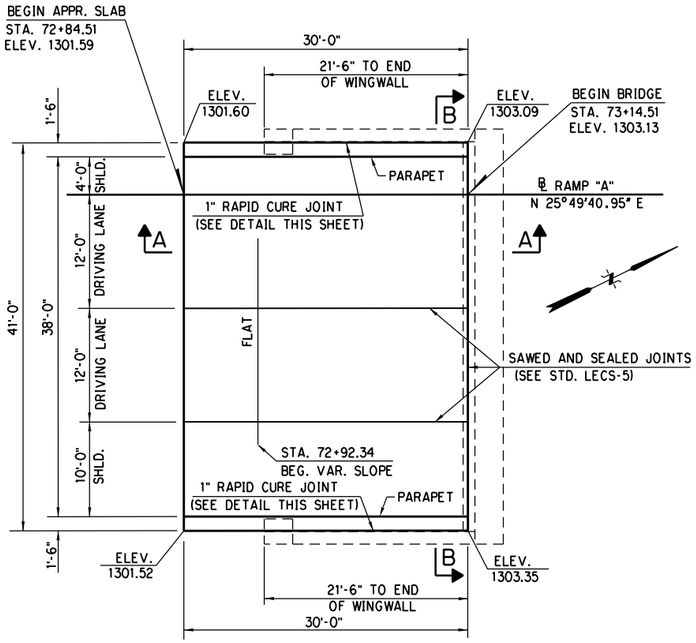
DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

BRIDGE "A" RAMP "A" AT I-35 & I-240 INTERCHANGE

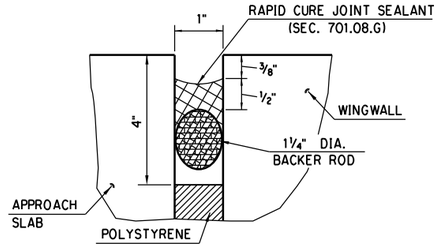
BEARING ASSEMBLY DETAILS

STATE JOB NO. 09032(106) SHEET NO. B033

DESCRIPTION	REVISIONS	DATE

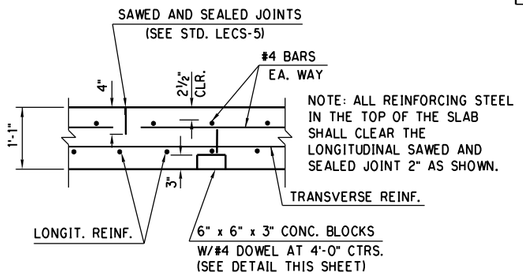


APPROACH SLAB PLAN

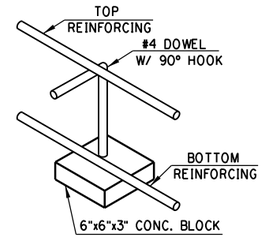


DETAIL OF RAPID CURE JOINT AT ABUT WING

NOTE: FOR BACKER ROD AND JOINT SEALER GENERAL NOTES REFER TO STD. LECS-5.

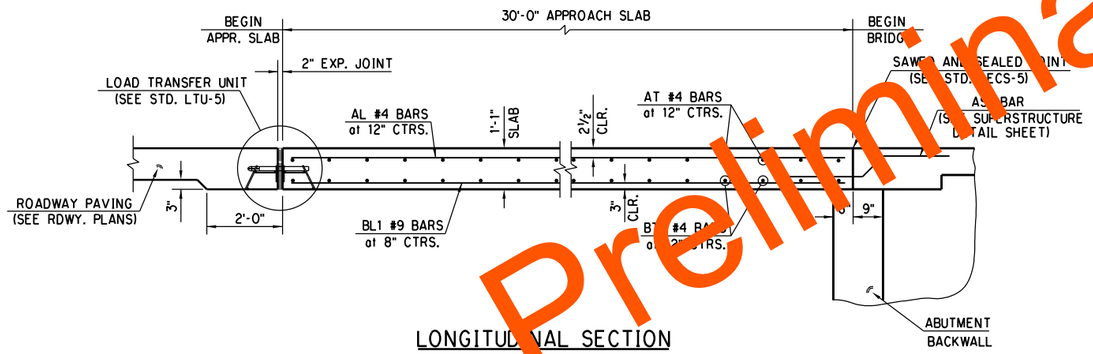


DETAIL OF SAWED JOINT AND DOWEL BLOCK

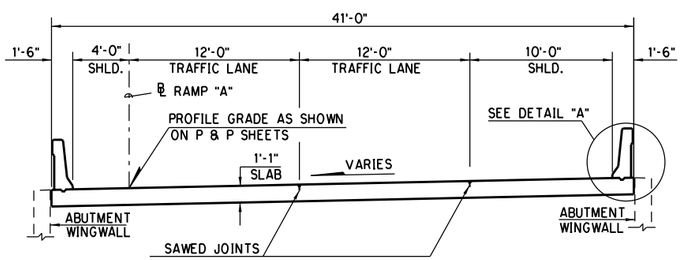


DOWEL BLOCK

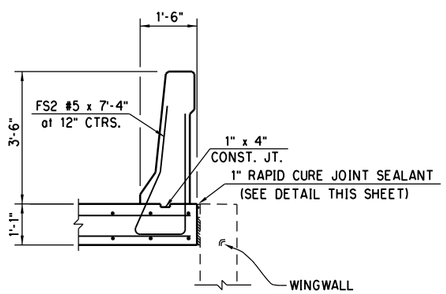
NOTE: CONTRACTOR MAY USE APPROVED HIGH CHAIRS WITH SAND PLATES (HCP) AND 6"x6"x3" PLAIN CONCRETE BLOCKS IN LIEU OF DOWEL BLOCKS SHOWN. SPACING SHALL BE 4'-0" MAX. ON CTRS.



LONGITUDINAL SECTION
SECTION A - A

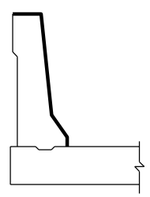


TYPICAL SECTION
SECTION B - B



DETAIL "A"

NOTE: FOR DETAILS OF PARAPET SEE ODOT STD. FSHP-42-2



WATER REPELLENT SURFACE TREATMENT

SURFACES INDICATED WITH HEAVY LINES SHALL BE TREATED WITH A PENETRATING WATER REPELLENT SURFACE TREATMENT.

QUANTITIES		
ITEM	UNIT	TOTAL
APPROACH SLAB	S.Y.	136.7
SAW-CUT GROOVING	S.Y.	128
42" F-SHAPED PARAPET	L.F.	60
WATER REPELLENT (VISUALLY INSPECTED)	S.Y.	30

NOTES:

CONCRETE FOR APPROACH SLABS SHALL BE CLASS AA. REINFORCING STEEL SHALL BE GRADE 60.

ALL COST OF MATERIALS, LABOR, AND INCIDENTALS NECESSARY TO COMPLETE THE WORK AS SHOWN SHALL BE INCLUDED IN THE UNIT PRICE BID PER SQUARE YARD OF "APPROACH SLAB". THIS PRICE BID SHALL INCLUDE THE COST OF LOAD TRANSFER UNIT, POLYSTYRENE, RAPID CURE JOINT SEALANT, BACKER RODS, SAWING, DOWEL BLOCKS, CLASS AA CONCRETE AND EPOXY COATED REINFORCING STEEL (INCLUDING FS2 PARAPET BARS).

ALL COST OF PARAPET SHALL BE INCLUDED IN PRICE BID PER LINEAR FOOT OF "42" F-SHAPED PARAPET". THIS PRICE SHALL INCLUDE COST OF ALL FS1, FH1 AND FH2 EPOXY COATED REINFORCING STEEL. PARAPET SHALL BE FULL HEIGHT FOR THE LENGTH OF THE APPROACH SLAB.

Preliminary Plans

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 — OKLAHOMA COUNTY
BRIDGE "A" — RAMP "A" AT I-35 & I-240 INTERCHANGE

APPROACH SLAB DETAILS
(SHEET 1 OF 2)

STATE JOB NO. 09032(106) SHEET NO. B034

5/31/2022 2:44:41 PM
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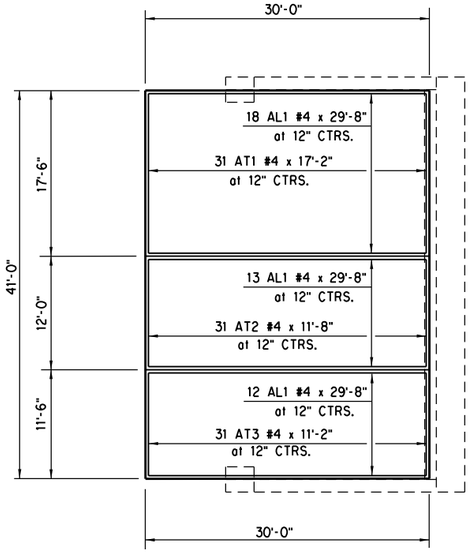
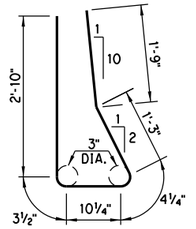
REVISIONS		
DESCRIPTION		DATE



TOP MAT REINFORCING PLAN

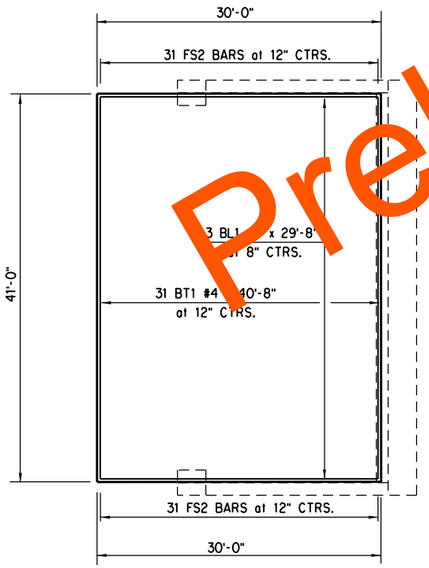


FS2 #5 x 7'-4"

NOTE: FS2 BARS SHALL BE TIED IN PLACE BEFORE POURING THE CONCRETE FOR THE APPROACH SLAB

NOTE: ALL BENT BAR DIMENSIONS ARE OUT TO OUT.

Preliminary Plans



BOTTOM MAT REINFORCING PLAN

BAR LIST - EPOXY COATED
(FOR INFORMATION ONLY)

MARK	NO.	SIZE	FORM	SPACING	LENGTH
AL1	43	#4	STR.	12" C/C	29'-8"
AT1	31	#4	STR.	12" C/C	17'-2"
AT2	31	#4	STR.	12" C/C	11'-8"
AT3	31	#4	STR.	12" C/C	11'-2"
BL1	63	#9	STR.	8" C/C	29'-8"
BT1	31	#4	STR.	12" C/C	40'-8"
FS2	62	#5	BNT.	12 C/C	7'-4"

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 OKLAHOMA COUNTY
BRIDGE "A" RAMP "A" AT I-35 & I-240 INTERCHANGE

APPROACH SLAB DETAILS
(SHEET 2 OF 2)

STATE JOB NO. 09032(106) SHEET NO. B035

5/31/2022 2:44:42 PM
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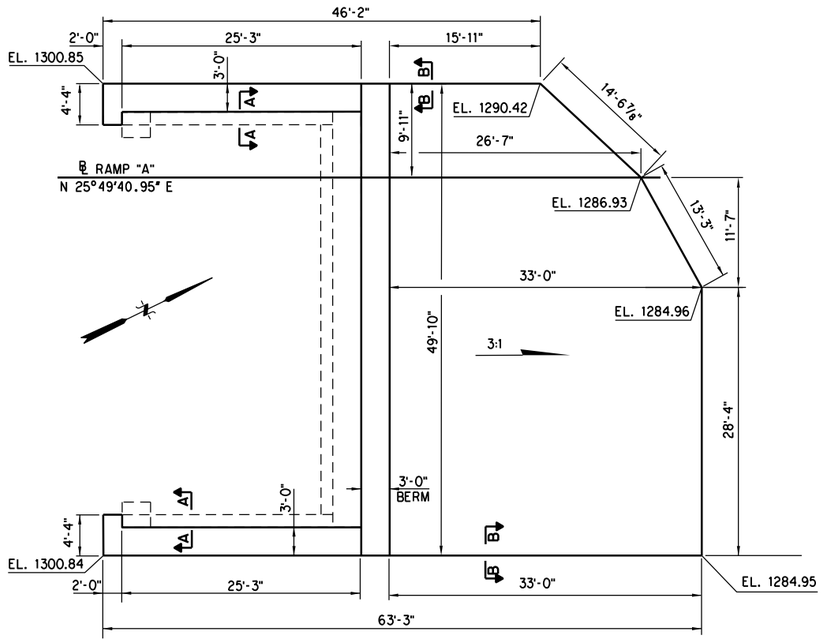
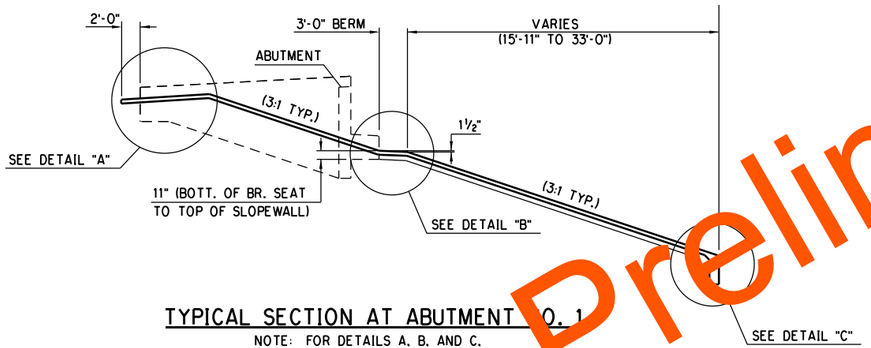
DESCRIPTION	REVISIONS	DATE

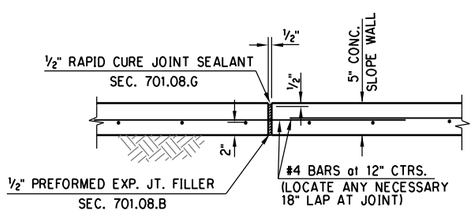


PLAN AT ABUTMENT NO. 1

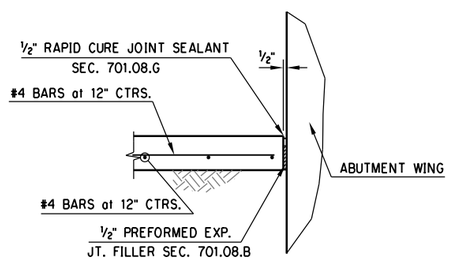


TYPICAL SECTION AT ABUTMENT NO. 1

NOTE: FOR DETAILS A, B, AND C.
SEE SHEET 2 OF 2

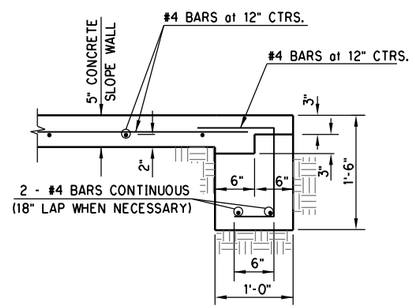


VERTICAL CONSTRUCTION JOINT DETAIL



SECTION A-A

(TYPICAL AT WINGWALLS)



SECTION B-B

(TYPICAL)

ITEM	UNIT	ABUT. 1
SLOPE WALL (5")	S.Y.	247
6" PERFORATED PIPE UNDERDRAIN ROUND	L.F.	55
① 6" NON-PERF. PIPE UNDERDRAIN RND.	L.F.	20

QUANTITIES

① NON-PERFORATED PIPE SHALL BE CONNECTED TO PERFORATED PIPE AND EXTENDED OUTSIDE THE GROUND LINE TO DRAIN, AS DIRECTED IN THE FIELD BY THE ENGINEER. PLACE A RODENT SCREEN AT OUTLET END OF PIPE, IN ACCORDANCE WITH PUD-4.

SLOPE WALL NOTES

1. ALL CONCRETE IN THE SLOPE WALL SHALL BE CLASS A CONCRETE AND SHALL BE POURED IN THE DRY. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH SECTIONS 509 AND 610 OF THE STANDARD SPECIFICATIONS.

2. NO HORIZONTAL CONSTRUCTION JOINTS WILL BE PERMITTED IN THE SLOPE WALL. FINAL NUMBER AND LOCATION OF VERTICAL CONSTRUCTION JOINTS WILL BE DETERMINED IN THE FIELD BY THE ENGINEER.

3. SURFACE AREA OF TOE WALL EDGE OF SLOPE WALL INCLUDED IN PAY QUANTITY SHOWN.

4. ALL COSTS OF THE JOINT SEALER AND FILLER, REINFORCING STEEL, CONCRETE, EXCAVATION, FILTER SOCK, COARSE UNDERDRAIN COVER MATERIAL, LABOR, FORMS AND INCIDENTALS NECESSARY TO COMPLETE THE WORK AS SHOWN, SHALL BE INCLUDED IN THE CONTRACT PRICE BID OF "SLOPE WALL (5")".

Preliminary Plans

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 — OKLAHOMA COUNTY

BRIDGE "A" — RAMP "A" AT I-35 & I-240 INTERCHANGE

SLOPE WALL DETAILS

(SHEET 1 OF 2)

STATE JOB NO. 09032(106) SHEET NO. B036

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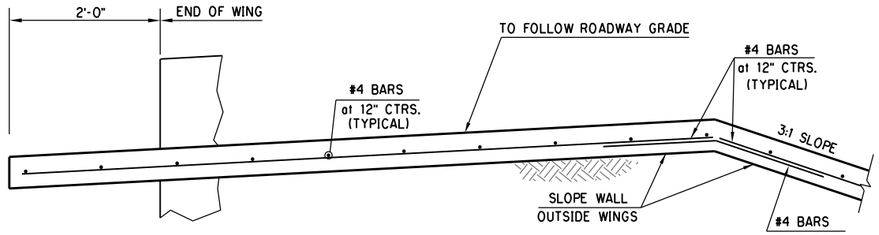
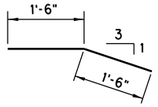
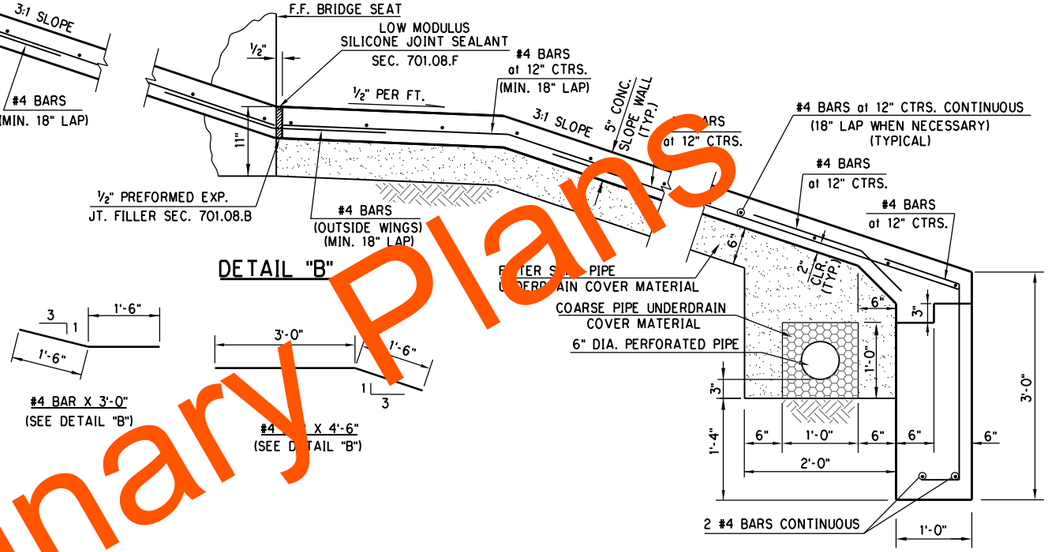
REVISIONS		
DESCRIPTION		DATE



DETAIL "A"



#4 BAR X 3'-0"
(SEE DETAIL "A")

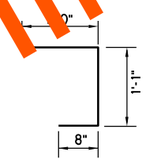


DETAIL "B"

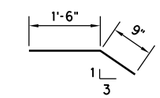
#4 BAR X 3'-0"
(SEE DETAIL "B")

#4 BAR X 4'-6"
(SEE DETAIL "B")

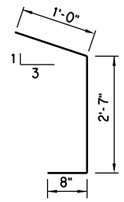
NOTE: ALL BENT BAR DIMENSIONS ARE OUT TO OUT.



#4 BAR X 2'-9"
(SEE SECTION B-B)



#4 BAR X 2'-3"
(SEE DETAIL "C")



#4 BAR X 4'-3"
(SEE DETAIL "C")

DETAIL "C"

Preliminary Plans

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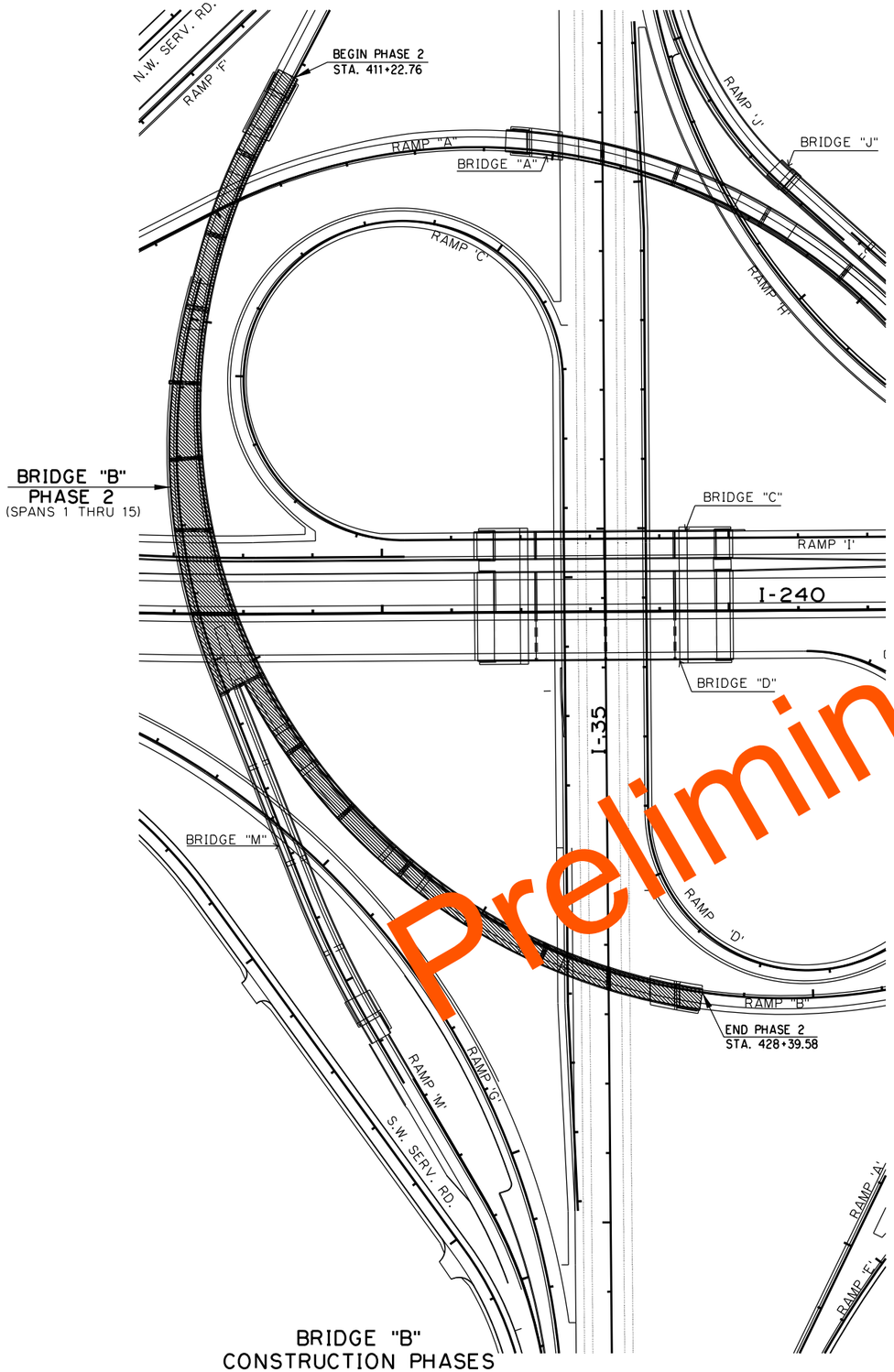
DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 — OKLAHOMA COUNTY
BRIDGE "A" — RAMP "A" AT I-35 & I-240 INTERCHANGE

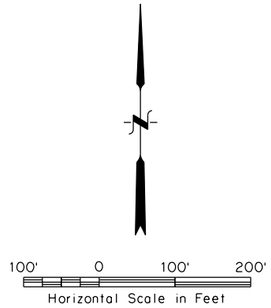
SLOPE WALL DETAILS
(SHEET 2 OF 2)

STATE JOB NO. 09032(06) SHEET NO. B037

DESCRIPTION	REVISIONS	DATE



BRIDGE "B"
CONSTRUCTION PHASES



BRIDGE "B" PHASE 2 INDEX OF SHEETS

SHEET NO.	DESCRIPTION
AB03	SUMMARY OF PAY QUANTITIES (BRIDGE "B")
AB04	GENERAL NOTES (BRIDGE "B")
B038	BRIDGE "B" SEQUENCE MAP AND SHEET INDEX
B039 - B042	GENERAL PLAN & ELEVATION
B043	DESIGN DATA AND SUMMARY OF QUANTITIES
B044 - B053	FOUNDATION REPORT
B054 - B056	SUBSTRUCTURE LAYOUT
B057 - B058	EXCAVATION DIAGRAMS AND UNDERDRAIN DETAILS
B059 - B062	ABUTMENT DETAILS
B063 - B095	PIER DETAILS
B096 - B098	PIER PROTECTION DETAILS
B099 - B111	SUPERSTRUCTURE DETAILS
B112 - B115	LONGITUDINAL SECTION AND SLAB POURING SEQUENCE
B116 - B123	PARAPET LAYOUT
B124	END BARRIER DETAILS
B125	GIRDER BRACING DETAILS
B126 - B145	PLATE GIRDER DETAILS
B146 - B151	FRAMING PLAN AND DIAPHRAGM DETAILS
B152 - B153	BEARING ASSEMBLY DETAILS
B154 - B155	APPROACH SLAB DETAILS
B156 - B159	SLOPEWALL DETAILS

2009 BRIDGE STANDARDS

STD.	FSHP-42-2
STD.	EJ-SQ
STD.	EJ-SK
STD.	EJ-DTL
STD.	HP1-2

2019 ROADWAY STANDARDS

STD.	LECS-5
STD.	LTU-5
STD.	SPI-5
STD.	PUD-4

Preliminary Plans

		PHASE 2	OKLAHOMA COUNTY
DESIGN		BRIDGE "B"	RAMP "B" AT I-35 & I-240 INTERCHANGE
DRAWN		BRIDGE "B" LAYOUT MAP AND SHEET INDEX	
CHECKED		STATE JOB NO. 09032(106)	SHEET NO. B038
APPROVED			
SQUAD	POE		

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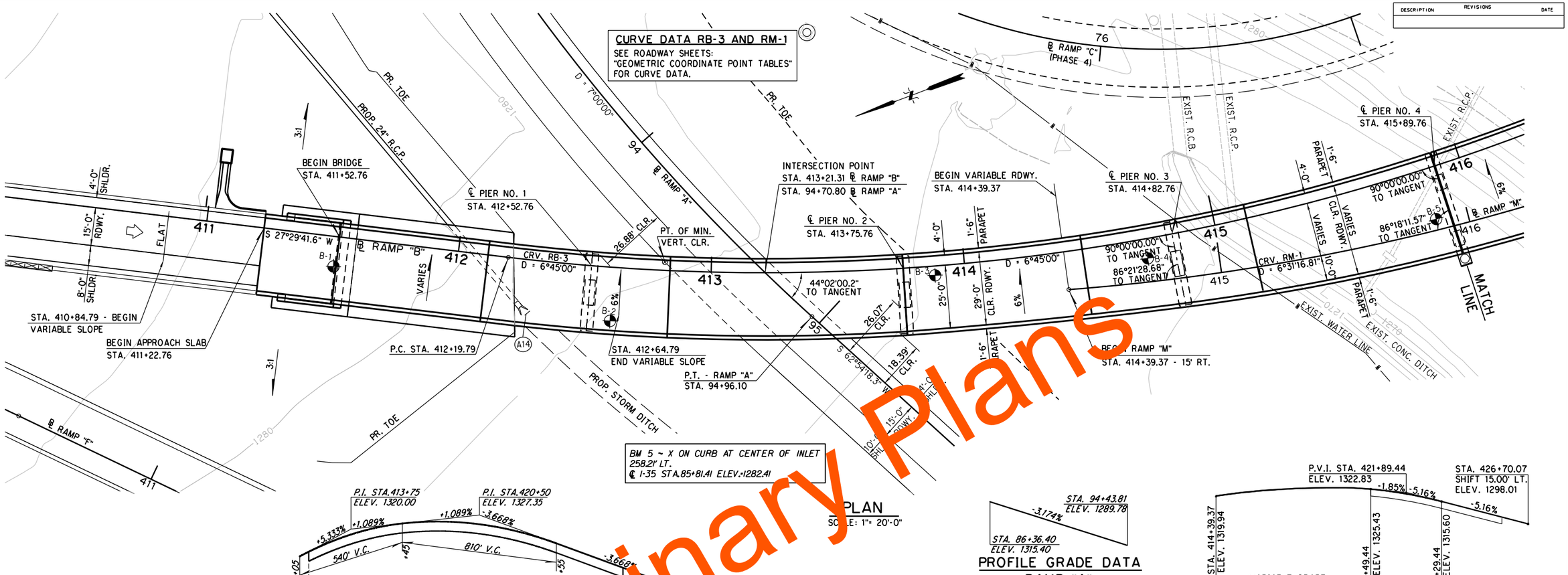
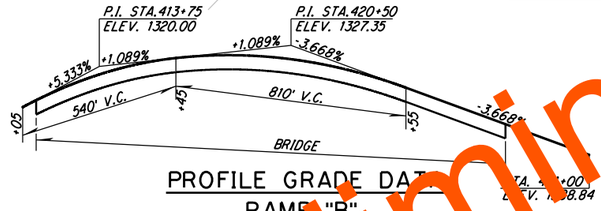
DESCRIPTION	REVISIONS	DATE



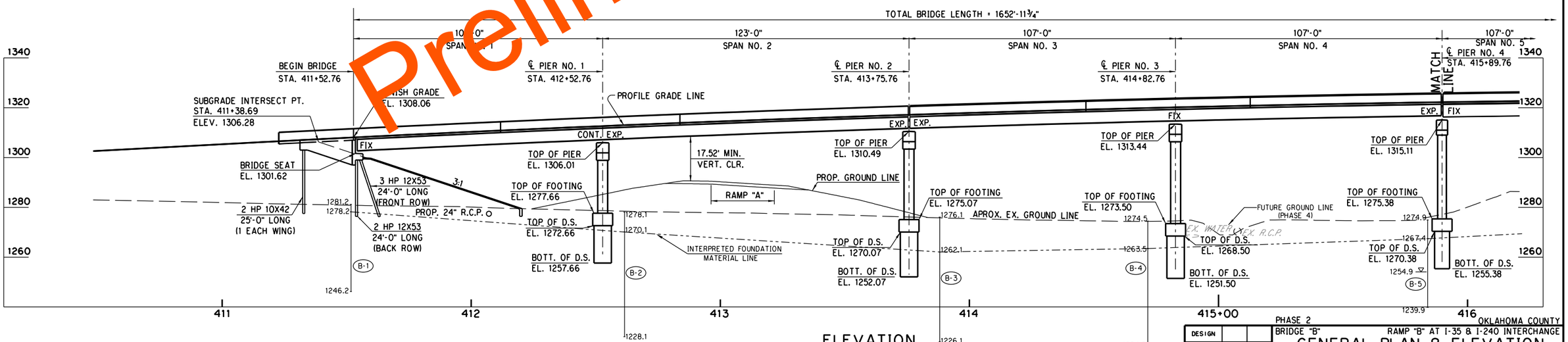
PLAN
SCALE: 1"= 20'-0"



PROFILE GRADE DATA
RAMP "B"

PROFILE GRADE DATA
RAMP "A"

PROFILE GRADE DATA
RAMP "M"



ELEVATION
SCALE: 1"= 20'-0"

▽ - WATER LEVEL WHILE DRILLING
▼ - WATER LEVEL UPON COMPLETION
▼ - WATER LEVEL AFTER DELAY

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2
OKLAHOMA COUNTY
BRIDGE "B" RAMP "B" AT I-35 & I-240 INTERCHANGE

GENERAL PLAN & ELEVATION

℄ STA. 419+79.25 ℄ RAMP "B"
CONSTRUCT (100'-123'), (107'-107'), (107'-105') CONT., 126', 96', 2(116'-116'), (116'-96') CONT., AND 105', PLATE GIRDER SPANS. VARIABLE CLEAR ROADWAY W/ 42" F-SHAPED PARAPET

STATE JOB NO. 09032(106) SHEET NO. B039

Preliminary Plans

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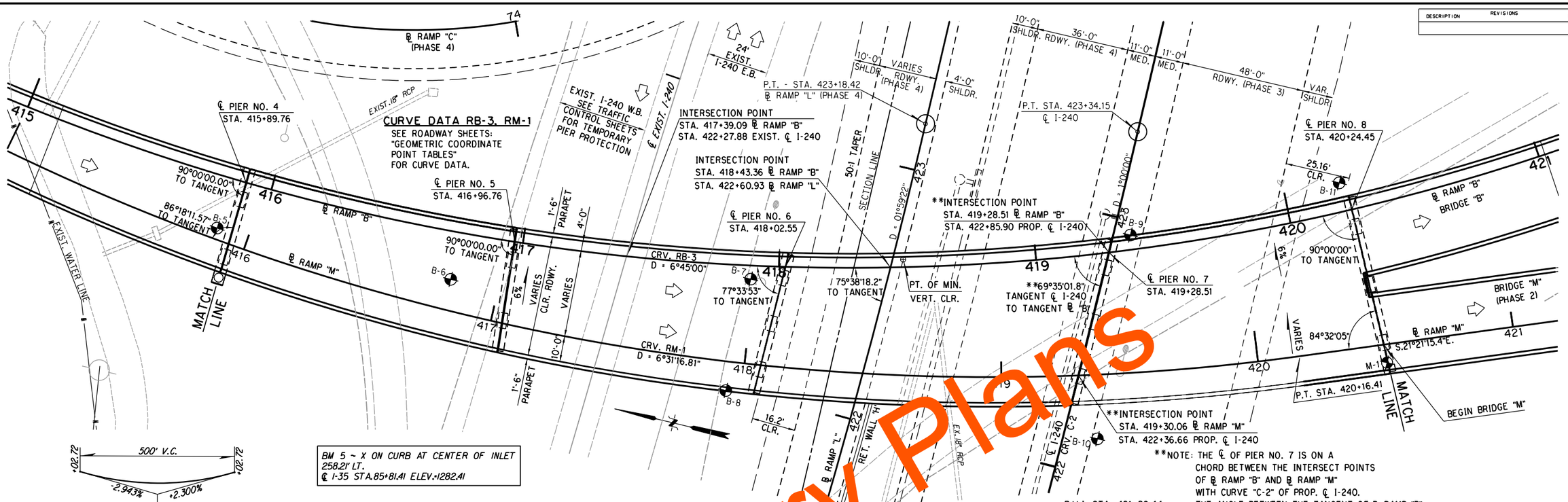
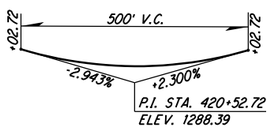
DESCRIPTION	REVISIONS	DATE

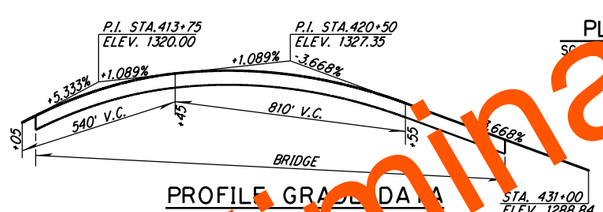


**NOTE: THE ℄ OF PIER NO. 7 IS ON A CHORD BETWEEN THE INTERSECT POINTS OF ℄ RAMP "B" AND ℄ RAMP "M" WITH CURVE "C-2" OF PROP. ℄ I-240. THE ANGLE BETWEEN THE TANGENT OF ℄ RAMP "B" AND THE ℄ OF PIER IS 69°20'15.5".

BM 5 ~ X ON CURB AT CENTER OF INLET
258.21' LT.
℄ I-35 STA.85+81.41 ELEV.=1282.41



PROFILE GRADE DATA
RAMP "L"
(PHASE 4)



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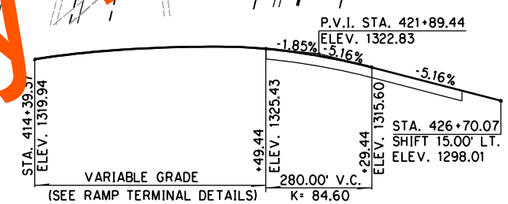
RAMP "B"



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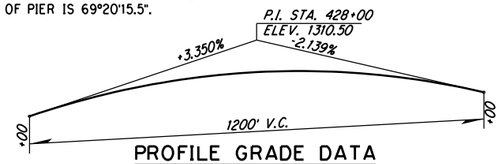
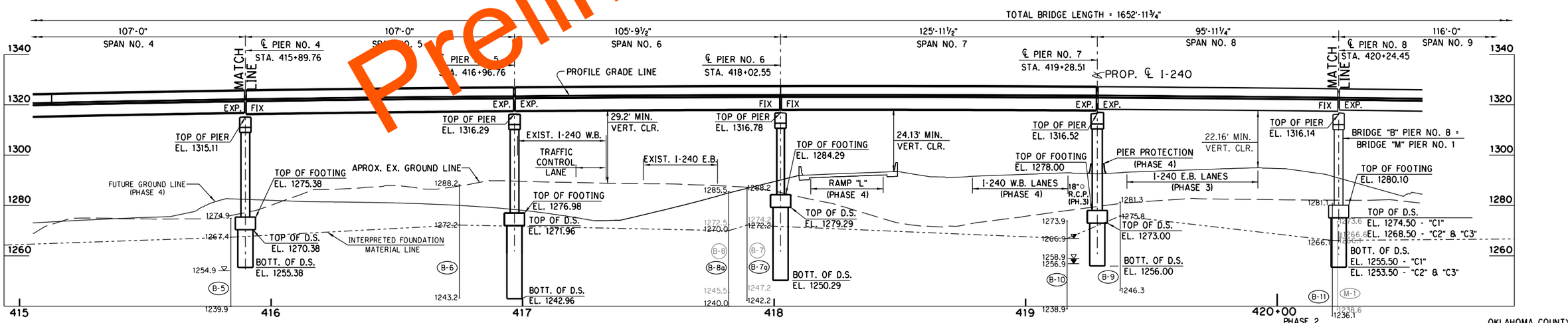
RAMP "M"



PROFILE GRADE DATA
I-240
(PHASE 3 & 4)



ELEVATION
SCALE: 1"= 20'-0"

▽ - WATER LEVEL WHILE DRILLING
▼ - WATER LEVEL UPON COMPLETION
▽ - WATER LEVEL AFTER DELAY

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

OKLAHOMA COUNTY
BRIDGE "B" RAMP "B" AT I-35 & I-240 INTERCHANGE

GENERAL PLAN & ELEVATION

℄ STA. 419+79.25 ℄ RAMP "B"

CONSTRUCT (100'-123'), (107'-107'), (107'-105') CONT., 126', 96', 2(116'-116'), (116'-96') CONT., AND 105', PLATE GIRDER SPANS, VARIABLE CLEAR ROADWAY W/ 42" F-SHAPED PARAPET

STATE JOB NO. 09032(06) SHEET NO. B040

Preliminary Plans

6/1/2022 11:05:46 AM
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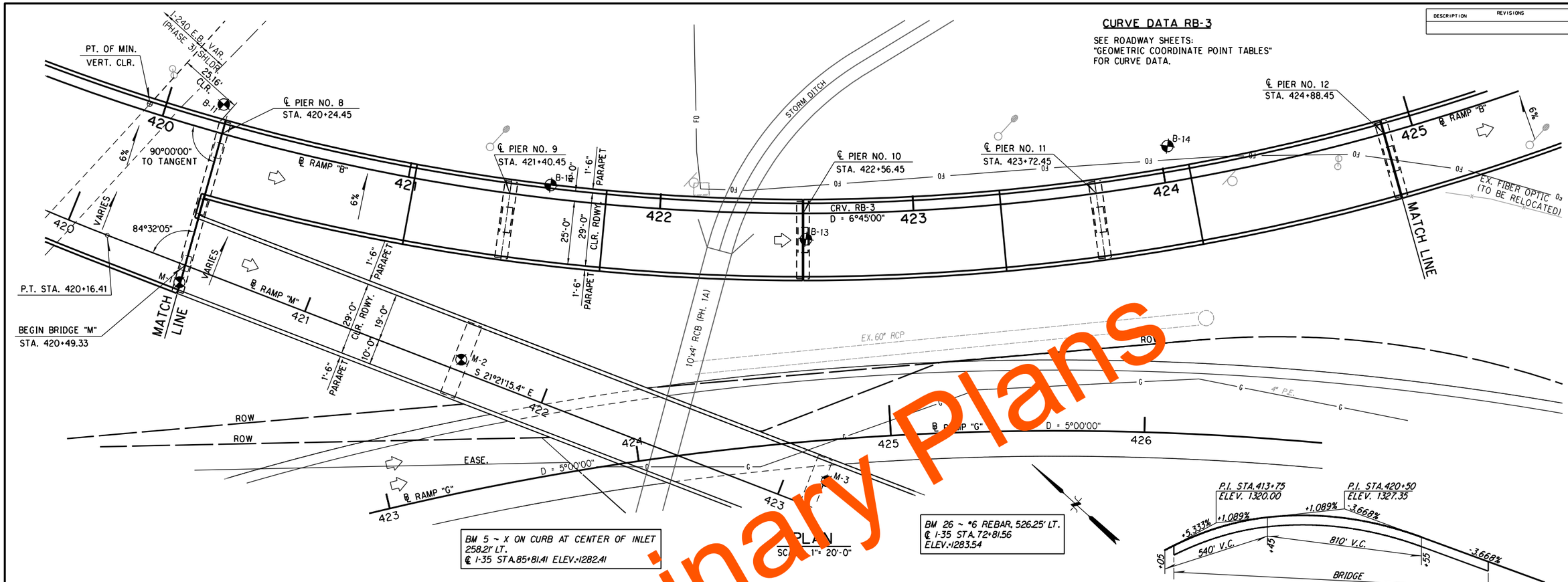
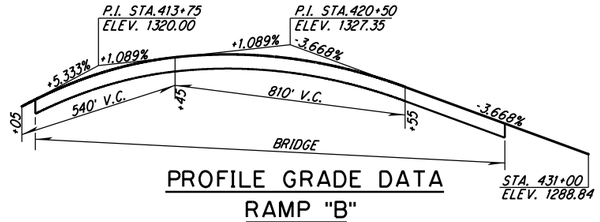
REVISIONS		
DESCRIPTION		DATE

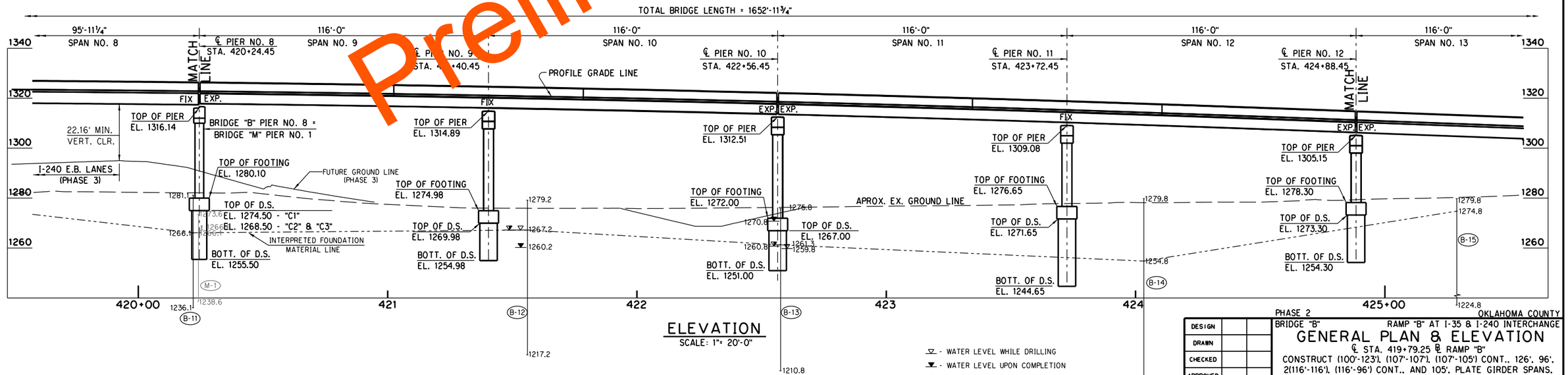
CURVE DATA RB-3

SEE ROADWAY SHEETS:
"GEOMETRIC COORDINATE POINT TABLES"
FOR CURVE DATA.





PROFILE GRADE DATA
RAMP "B"



ELEVATION
SCALE: 1"= 20'-0"

▽ - WATER LEVEL WHILE DRILLING
▼ - WATER LEVEL UPON COMPLETION
▼ - WATER LEVEL AFTER DELAY

PHASE 2 OKLAHOMA COUNTY

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

BRIDGE "B" RAMP "B" AT I-35 & I-240 INTERCHANGE

GENERAL PLAN & ELEVATION

℄ STA. 419+79.25 ℄ RAMP "B"
CONSTRUCT (100'-123'), (107'-107'), (107'-105') CONT., 126', 96', 2(116'-116'), (116'-96') CONT., AND 105', PLATE GIRDER SPANS, VARIABLE CLEAR ROADWAY W/ 42" F-SHAPED PARAPET

STATE JOB NO. 09032(06) SHEET NO. B041

Preliminary Plans

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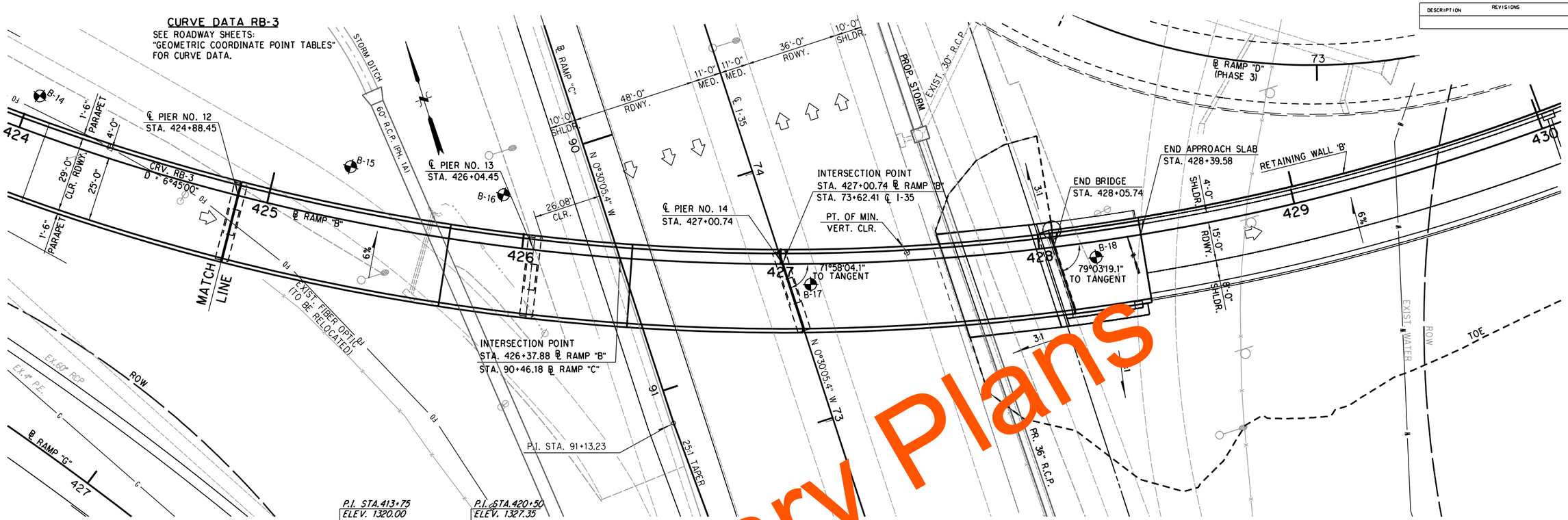
REVISIONS		
DESCRIPTION		DATE

CURVE DATA RB-3

SEE ROADWAY SHEETS:
"GEOMETRIC COORDINATE POINT TABLES"
FOR CURVE DATA.

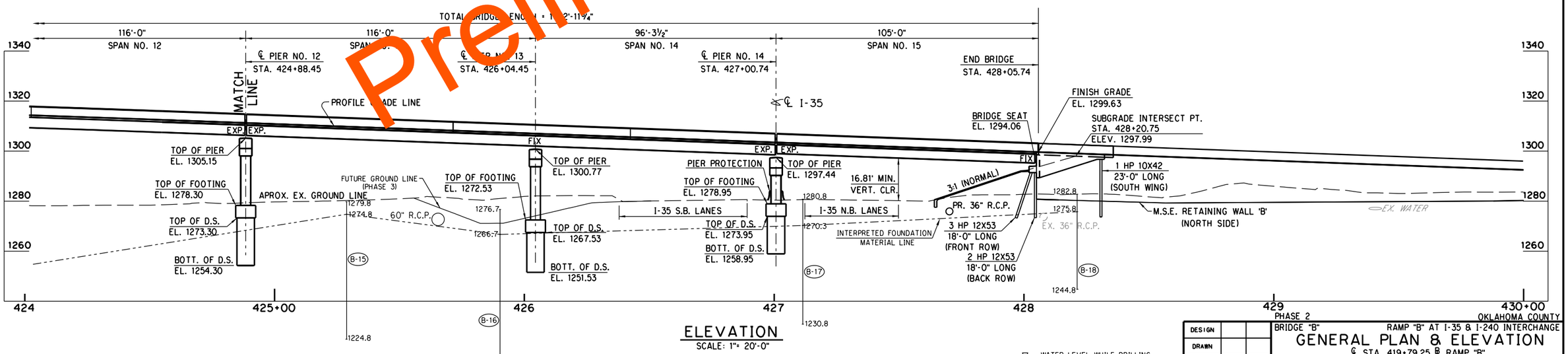


PROFILE GRADE DATA
RAMP "B"

BM 26 *6 REBAR, 526.25' LT.
℄ I-35 STA. 72+81.56
ELEV.=1283.54

STA. 78+50.00
ELEV. 1278.13
-0.553%
STA. 71+00.00
ELEV. 1282.28

PROFILE GRADE DATA
I-35



ELEVATION
SCALE: 1"= 20'-0"

▽ - WATER LEVEL WHILE DRILLING
▼ - WATER LEVEL UPON COMPLETION
▽ - WATER LEVEL AFTER DELAY

PHASE 2
OKLAHOMA COUNTY

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

BRIDGE "B" RAMP "B" AT I-35 & I-240 INTERCHANGE

GENERAL PLAN & ELEVATION

℄ STA. 419+79.25 ℄ RAMP "B"

CONSTRUCT (100'-123'), (107'-107'), (107'-105') CONT., 126', 96', 2(116'-116'), (116'-96') CONT., AND 105', PLATE GIRDER SPANS, VARIABLE CLEAR ROADWAY W/ 42" F-SHAPED PARAPET

STATE JOB NO. 09032(06) SHEET NO. B042

Preliminary Plans

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REVISIONS		
DESCRIPTION		DATE

DESIGN DATA

DESIGN SPECIFICATIONS:

AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 9TH EDITION
ANSI/AASHTO/AWS D1.5 BRIDGE WELDING CODE
ANSI/AWS D1.6 STRUCTURAL WELDING CODE STAINLESS STEEL

UNIT STRESSES:

CLASS AA CONCRETE	F'c = 4,000 PSI
CLASS A CONCRETE	F'c = 3,000 PSI
REINFORCING STEEL (GRADE 60)	Fy = 60,000 PSI
STRUCTURAL STEEL M270 (GRADE 50)	Fy = 50,000 PSI
STAINLESS STEEL A240 (TYPE 316)	Fy = 30,000 PSI

LOADING:

HL-93 OR OKLAHOMA OVERLOAD
20 PSF FUTURE WEARING SURFACE
5 PSF SIP STEEL DECK FORM ALLOWANCE

LRFR OF HL-93 LOADING:

INVENTORY RATING FACTOR = 1.35
OPERATING RATING FACTOR = 1.31

FOUNDATION CAPACITIES

ABUTMENT

MAXIMUM FACTORED PILE REACTION = ABUTMENT NO. 1: 103.8 TONS PER PILE
ABUTMENT NO. 2: 123.8 TONS PER PILE

ALL ABUTMENT PILING SHALL BE DRIVEN THROUGH COMPACTED FILL. PILING SHALL BE DRIVEN TO POINT BEARING ON SOLID FOUNDATION MATERIAL AT THE APPROXIMATE ELEVATION SHOWN ON THE PLANS. IF THE AXIAL LOAD RESISTANCE IS NOT OBTAINED AT THIS ELEVATION, DRIVING SHALL CONTINUE UNTIL THE AXIAL LOAD RESISTANCE IS OBTAINED. THE LENGTH OF THE STEEL PILING SHOWN ON THE PLANS IS FOR ESTIMATING PURPOSES ONLY.

PIERS	PIER 1	PIER 2	PIER 3	PIER 4	PIER 5	PIER 6	PIER 7
DRILLED SHAFT DIAMETER =	84"	84"	84"	72"	72"	72"	72"
DRILLED SHAFT MINIMUM DEPTH INTO ROCK =	12'-0"	10'-0"	12'-0"	12'-0"	10'-0"	20'-0"	10'-0"
FACTORED REACTION =	1238 TONS	949 TONS	1400 TONS	8 TONS	2 TONS	760 TONS	815 TONS
NOMINAL UNIT BEARING RESISTANCE =	60.00 TSF	60.00 TSF	60.00 TSF	28.0 TSF	60.00 TSF	12.00 TSF	54.00 TSF
BEARING RESISTANCE FACTOR =	0.56	0.56	0.56	0.70	0.70	0.70	0.70
FACTORED BEARING RESISTANCE =	1293 TONS	1293 TONS	TONS	554 NS	1187 TONS	237 TONS	1068 TONS
NOMINAL UNIT FRICTION RESISTANCE =	6.30 TSF	5.70 TSF	7.10	6.50 TSF	2.70 TSF	4.70 TSF	3.50 TSF
FRICTION RESISTANCE FACTOR =	0.36	0.36	0	0.45	0.45	0.45	0.45
FACTORED FRICTION RESISTANCE =	371 TONS	9 S	393 TONS	387 TONS	555 TONS	606 TONS	172 TONS
DEPTH OF ROCK NEGLECTED FOR FRICTION =	5 FT.	5 FT	5	5 FT.	5 FT.	5 FT.	5 FT.
TOTAL FACTORED RESISTANCE =	1664 TONS	2 TONS	1686 TONS	941 TONS	1742 TONS	843 TONS	1240 TONS

	PIER 8	PIER 9	PIER 10	PIER 11	PIER 12	PIER 13	PIER 14
DRILLED SHAFT DIAMETER =	72"	84"	84"	84"	84"	84"	84"
DRILLED SHAFT MINIMUM DEPTH INTO ROCK =	10'-0"	12'-0"	10'-0"	10'-0"	13'-0"	15'-0"	11'-0"
FACTORED REACTION =	719 TONS	1314 TONS	940 TONS	1330 TONS	900 TONS	1214 TONS	853 TONS
NOMINAL UNIT BEARING RESISTANCE =	60.00 TSF	60.00 TSF	60.00 TSF	60.00 TSF	60.00 TSF	60.00 TSF	60.00 TSF
BEARING RESISTANCE FACTOR =	0.70	0.56	0.56	0.56	0.56	0.56	0.56
FACTORED BEARING RESISTANCE =	1187 TONS	1293 TONS	1293 TONS	1293 TONS	1293 TONS	1293 TONS	1293 TONS
NOMINAL UNIT FRICTION RESISTANCE =	3.00 TSF	8.60 TSF	6.80 TSF	8.50 TSF	2.50 TSF	3.50 TSF	7.10 TSF
FRICTION RESISTANCE FACTOR =	0.45	0.36	0.36	0.36	0.36	0.36	0.36
FACTORED FRICTION RESISTANCE =	142 TONS	491 TONS	285 TONS	346 TONS	172 TONS	284 TONS	356 TONS
DEPTH OF ROCK NEGLECTED FOR FRICTION =	5 FT.	5 FT.	5 FT.	5 FT.	5 FT.	5 FT.	5 FT.
TOTAL FACTORED RESISTANCE =	1329 TONS	1784 TONS	1578 TONS	1639 TONS	1465 TONS	1577 TONS	1649 TONS

SUMMARY OF BRIDGE QUANTITIES

ITEM	UNIT	ABUTS	PIERS	PIER PROTECT	SUPER STR.	APPR. SLABS	SLOPE WALLS	TOTAL
SUBSTRUCTURE EXCAVATION COMMON	C.Y.	105	1595		--	--	--	1700
CLSM BACKFILL	C.Y.	156.8	--		--	--	--	156.8
APPROACH SLAB	S.Y.	--	--			221.3	--	221.3
SAW-CUT GROOVING	S.Y.	--	--		6700	201	--	6901
42" F-SHAPED PARAPET	L.F.	--	--		3364.5	64.5	--	3429
STRUCTURAL STEEL M270 GRADE 50W	LB.	--	--		3,207,700	--	--	3,207,700
STAINLESS STEEL FIXED BEARING ASSEMBLY	EA.	--	--		51	--	--	51
STAINLESS STEEL EXP. BEARING ASSEMBLY	EA.	--	--		72	--	--	72
ELASTOMERIC COATING	S.F.	271	3541			--	--	3812
CLASS AA CONCRETE	C.Y.	--	--		1920.5	--	--	1920.5
CLASS A CONCRETE	C.Y.	80.1	1612.3	41.6	--	--	--	1734
SLOPE WALL (5")	S.Y.	--	--		--	--	511	511
GRAFFITI TREATMENT	S.F.	--	--		--	--	43,450	43,450
REINFORCING STEEL	LB.	--	3170		--	--	--	3170
EPOXY COATED REINFORCING STEEL	LB.	9300	353,720	3470	479,970	--	--	846,460
PILES, FURNISHED (HP 10X42)	L.F.	96	--		--	--	--	96
PILES, FURNISHED (HP 12X53)	L.F.	210	--		--	--	--	210
PILES, DRIVEN (HP 10X42)	L.F.	96	--		--	--	--	96
PILES, DRIVEN (HP 12X53)	L.F.	210	--		--	--	--	210
PILE SPLICE (PILE ATION ADDARE)	EA.	--	--		--	--	--	1
WATER REPELLENT (USUAL INSPECTED)	S.Y.	71	923		4,381	62	--	5,437
DRILLED SHAFTS 72" DIAMETER	L.F.	--	275		--	--	--	275
DRILLED SHAFTS 84" DIAMETER	L.F.	--	158		--	--	--	158
CROSS HOLE SONIC LOGGING	EA.	--	11		--	--	--	11
SEALER EXPANSION JOINTS	L.F.	--	--		343.9	--	--	343.9
SEALER CRACK PREPARATION	L.F.	--	--		383	--	--	383
SEALER RESIN	GAL.	--	--		4.2	--	--	4.2
6" PERFORATED PIPE UNDERDRAIN ROUND	L.F.	70	--	54	--	--	84	208
6" NON-PERF.PIPE UNDERDRAIN RND.	L.F.	40	--		--	--	40	80

Preliminary Plans

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PHASE 2 OKLAHOMA COUNTY

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

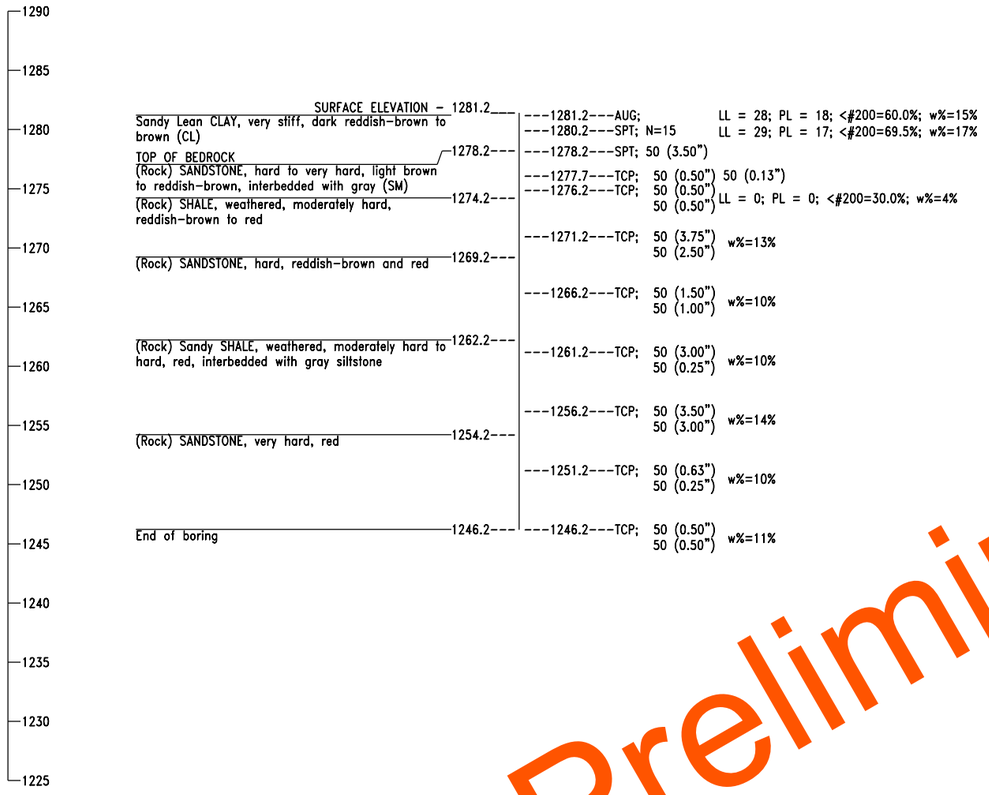
BRIDGE "B" RAMP "B" AT I-35 & I-240 INTERCHANGE

DESIGN DATA AND SUMMARY OF QUANTITIES

STATE JOB NO. 09032(061) SHEET NO. B043

REVISIONS		
DESCRIPTION		DATE

Boring Number B-01
Northing: 143648.76
Easting: 2150353.71
Date Drilled: 4/6/17
BL "B" RAMP STA. 411+51.74
OFFSET 11.84' RT.



Boring Number B-02
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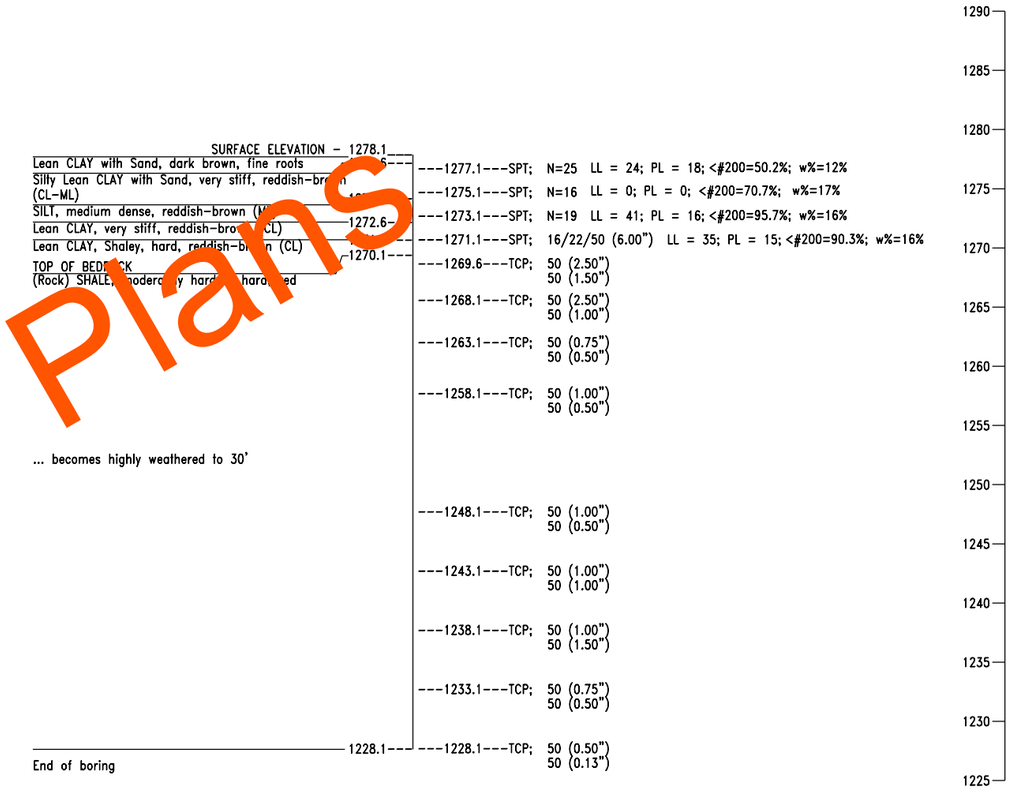
Easting: 2150295.21
Date Drilled: 9/19/17
BL "B" RAMP STA. 412+61.55
OFFSET 21.15' RT.



Preliminary Plans

GEOLOGIC STATEMENT

"Division Four" of the "Engineering Classification of Geological Materials", published by the Oklahoma Department of Transportation (ODOT) indicates that the site is underlain by the Hennessey Unit (Phy). The geologic unit is described below.

This unit consists of red platy to blocky clay shales and mudstone. The mudstones are hard and appear blocky. The red clay shale of the Hennessey Unit is characterized by numerous bands of streaks of white or light green color ranging from a few inches to four feet in thickness.

The total thickness of the unit is about 400 feet.

The Hennessey Unit outcrops in a 5- to 15-mile north-south band across Grant, Garfield, Kingfisher, Logan, Canadian, and Oklahoma Counties in Division Four. Topographically, the unit is near level to gently rolling and is generally grass covered or cultivated.

GEOTECHNICAL REPORT

All geotechnical information contained on this sheet is covered by the engineering seal affixed to an original geotechnical engineering report that has been stamped and sealed by a professional engineer licensed in Oklahoma. To obtain a copy of the complete report, contact the ODOT office engineer at (405) 521-2625. The contractor should be fully aware of the site conditions prior to beginning work. Any additional geotechnical information which may be desired is the responsibility of the contractor.

Note: Water level elevations shown were obtained at the time the borings were drilled and may fluctuate throughout the year.

NOTE: SPT - Split Spoon Sampling
TCP - Texas Cone Penetrator Test
AUG - Augur Cutting Sample
LL - Liquid Limit
PL - Plastic Limit

<#200 - Percent passing #200 sieve
w% - Moisture content
N - Number of blows per 12 inches
▽ Denotes depth to observed groundwater

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	PSI	

PHASE 2 OKLAHOMA COUNTY
BRIDGE "B" RAMP "B" AT I-35 & I-240 INTERCHANGE

FOUNDATION REPORT

(SHEET 1 OF 10)

STATE JOB NO. 09032(06) SHEET NO. B044

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REVISIONS		
DESCRIPTION		DATE

Boring Number B-03
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Easting: 2150266.81
Date Drilled: 6/20/17
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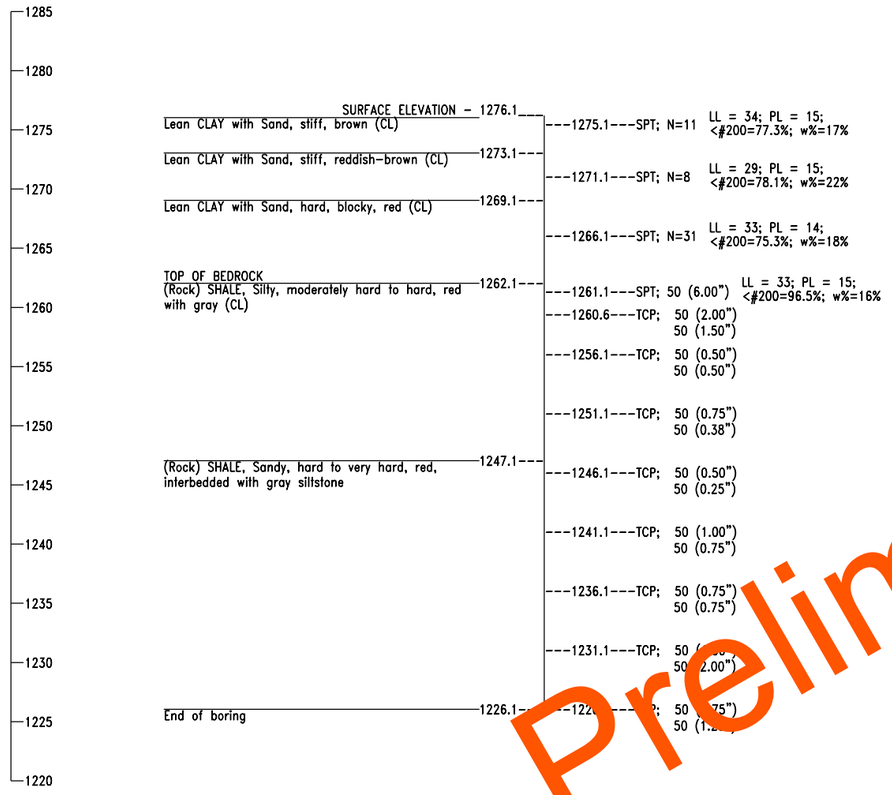
OFFSET 03.68' RT.



Boring Number B-04
Northing: 143347.08
Easting: 2150243.54
Date Drilled: 6/21/17
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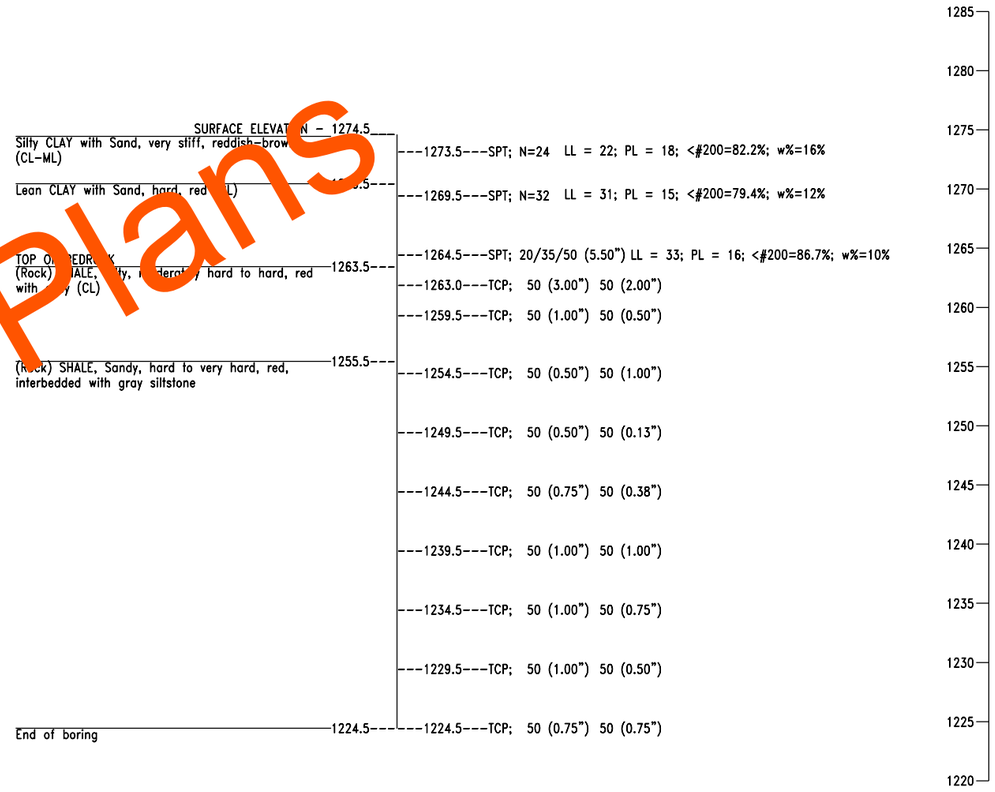
OFFSET 07.72' RT.



Preliminary Plans

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DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	PSI	

PHASE 2 OKLAHOMA COUNTY
BRIDGE "B" RAMP "B" AT I-35 & I-240 INTERCHANGE

FOUNDATION REPORT
(SHEET 2 OF 10)

STATE JOB NO. 09032(106) SHEET NO. B045

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REVISIONS		
DESCRIPTION		DATE

Boring Number B-05
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Easting: 2150217.91
Date Drilled: 9/14/17
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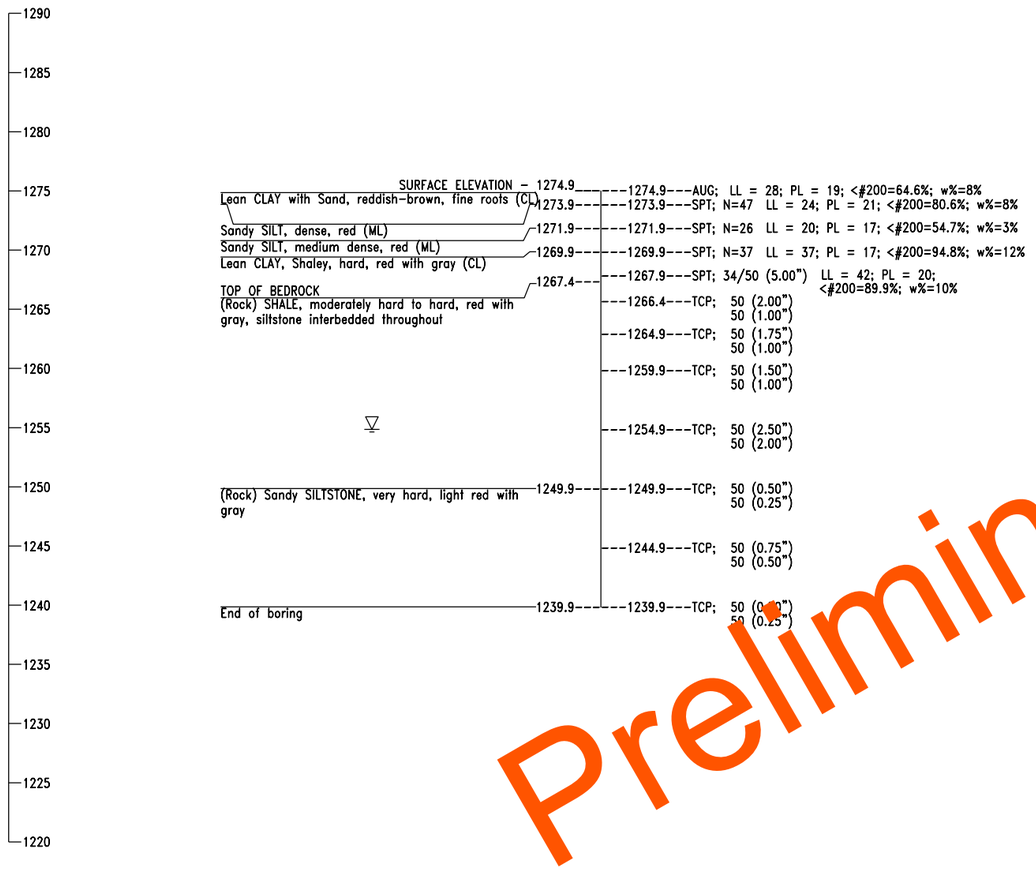
OFFSET 20.13' RT.



Boring Number B-06
Northing: 143142.27
Easting: 2150219.79
Date Drilled: 4/6/17
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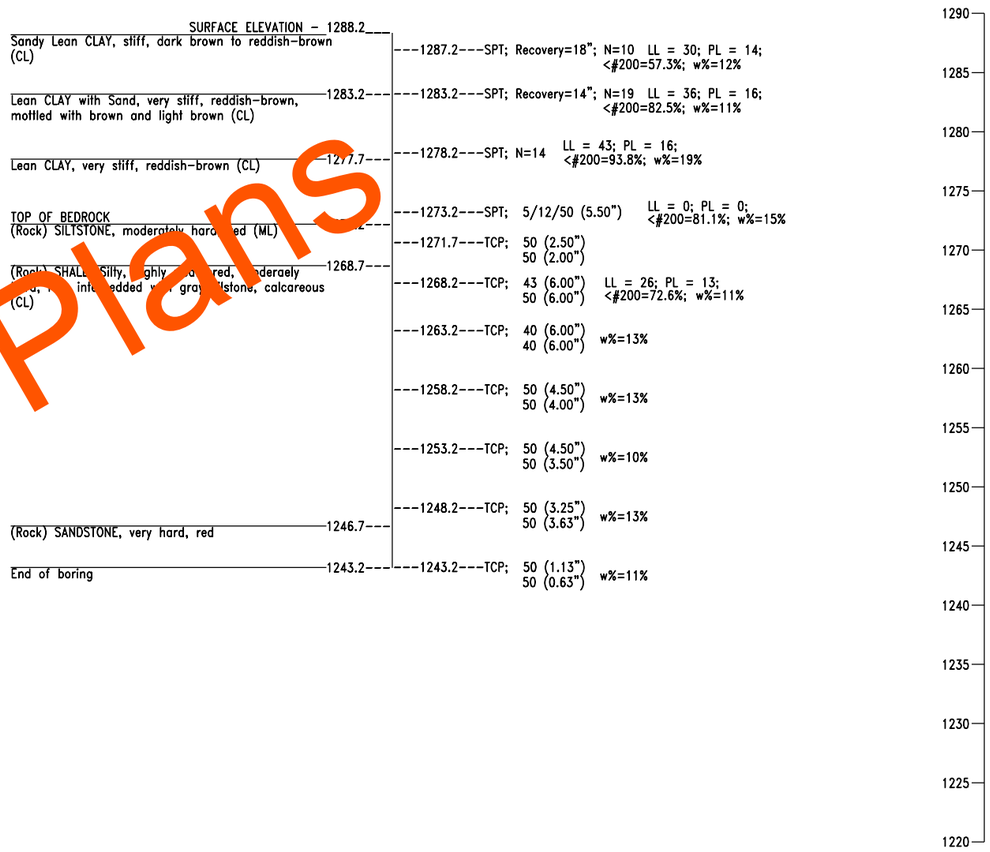
OFFSSET 18.50' RT.



Preliminary Plans

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DESIGN		
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APPROVED		
SQUAD	PSI	

PHASE 2 OKLAHOMA COUNTY
BRIDGE "B" RAMP "B" AT I-35 & I-240 INTERCHANGE

FOUNDATION REPORT
(SHEET 3 OF 10)

STATE JOB NO. 09032(06) SHEET NO. B046

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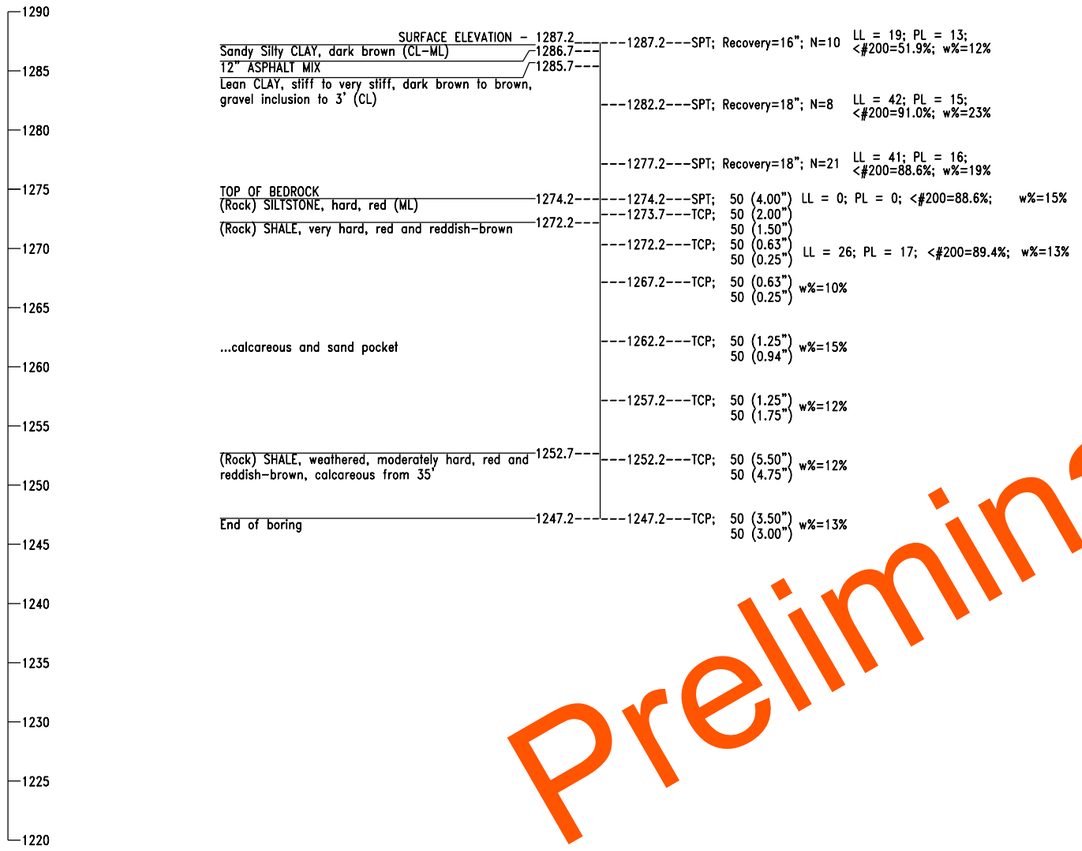
REVISIONS		
DESCRIPTION		DATE

Boring Number B-07
Northing: 143028.93
Easting: 2150247.19
Date Drilled: 5/4/17
BL "B" RAMP STA. 417+89.23
OFFSET 05.26' RT.



Boring Number B-07A
Location: Same as B-07
Date Drilled: 3/26/18
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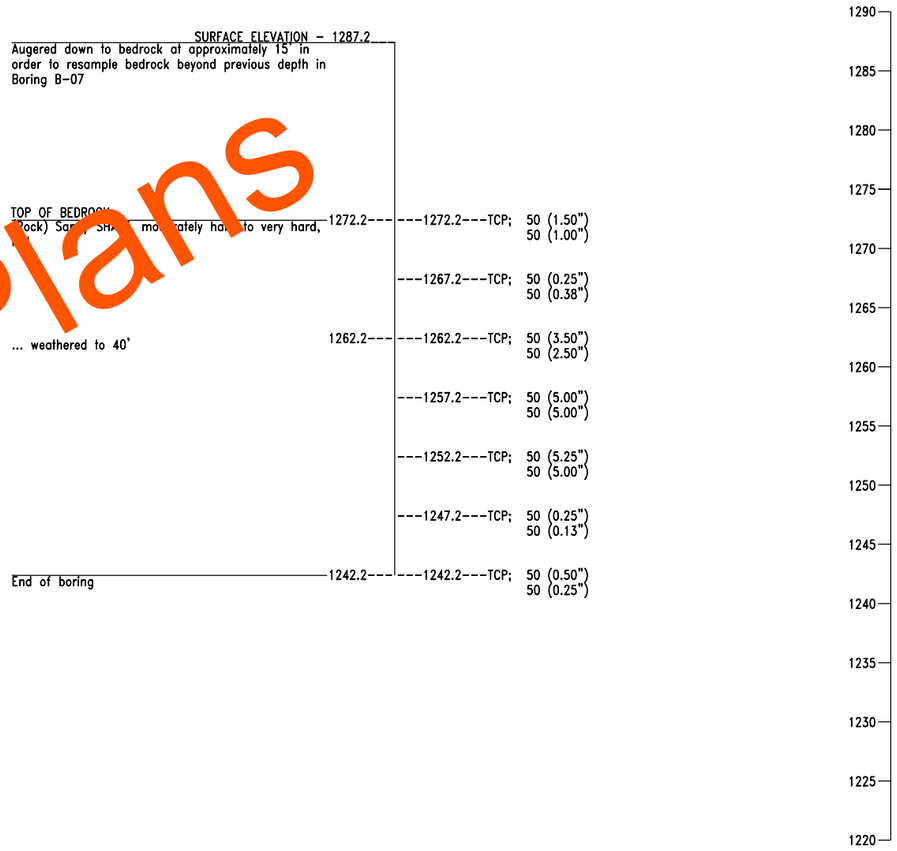
OFFSET 05.26' RT.



Preliminary

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▽ Denotes depth to observed groundwater

DESIGN		
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APPROVED		
SQUAD	PSI	

PHASE 2 OKLAHOMA COUNTY
BRIDGE "B" RAMP "B" AT I-35 & I-240 INTERCHANGE

FOUNDATION REPORT

(SHEET 4 OF 10)

STATE JOB NO. 09032(106) SHEET NO. B047

6/1/2022 11:05:25 AM
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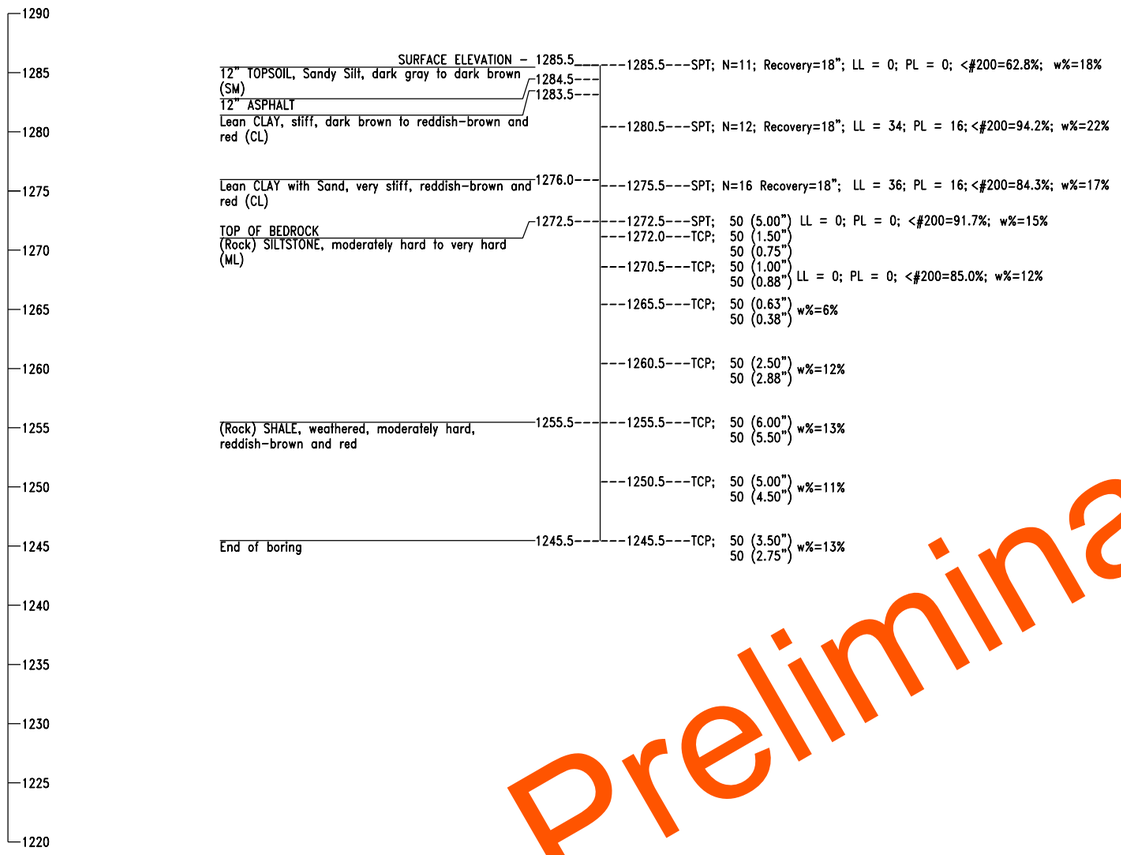
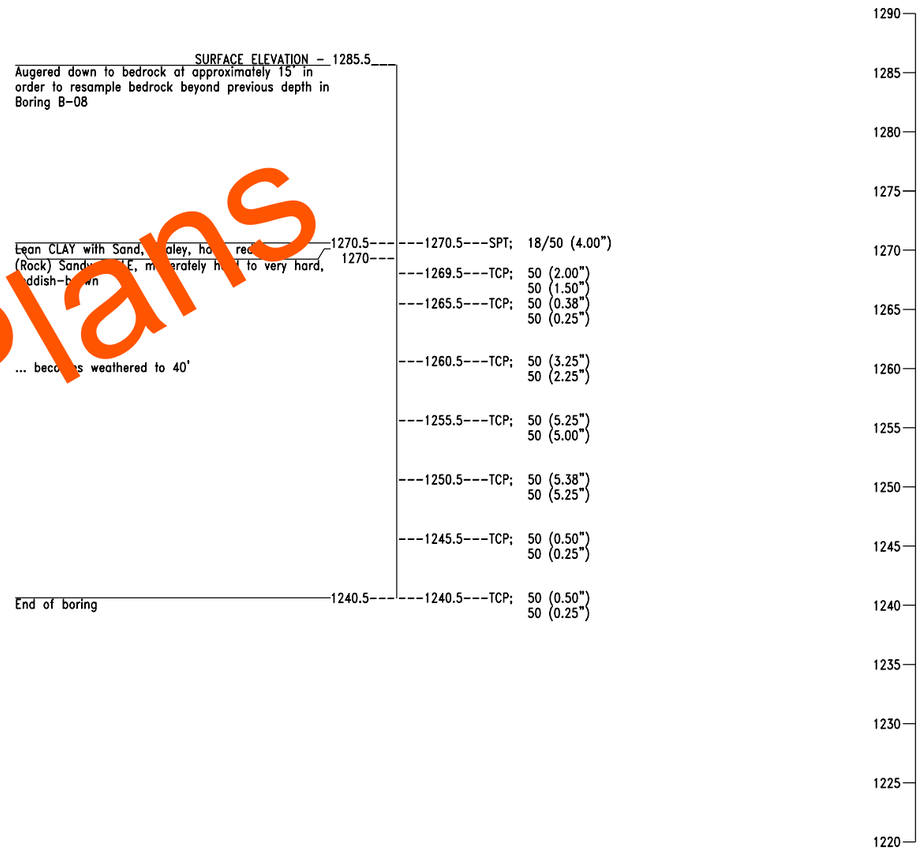
REVISIONS		
DESCRIPTION		DATE

Boring Number B-08
Northing: 143028.19
Easting: 2150202.82
Date Drilled: 5/4/17
BL "B" RAMP STA. 417+81.96
OFFSET 48.99' RT.



Boring Number B-08A
Location: Same as B-08
Date Drilled: 3/26/18
BL "B" RAMP STA. 417+81.96
OFFSET 48.99' RT.



Preliminary Plans

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DESIGN		
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APPROVED		
SQUAD	PSI	

PHASE 2 OKLAHOMA COUNTY
BRIDGE "B" RAMP "B" AT I-35 & I-240 INTERCHANGE

FOUNDATION REPORT
(SHEET 5 OF 10)

STATE JOB NO. 09032(106) SHEET NO. B048

6/1/2022 11:05:26 AM
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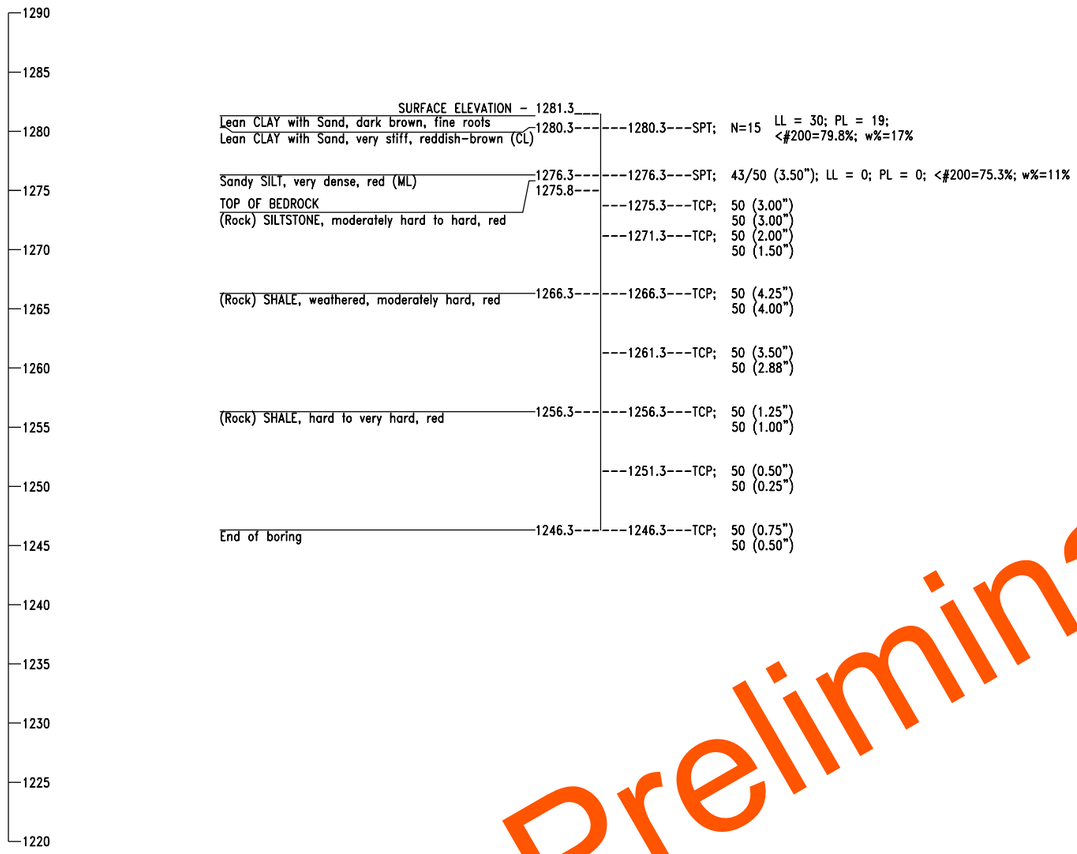
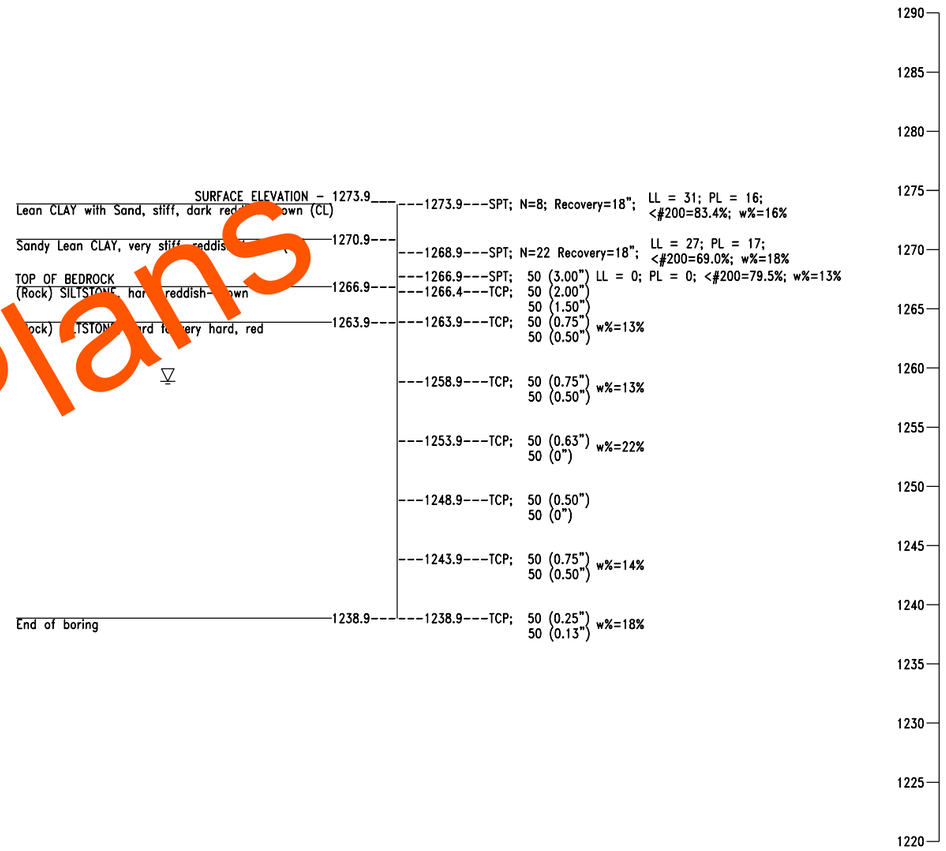
REVISIONS		
DESCRIPTION		DATE

Boring Number B-09
Northing: 142889.48
Easting: 2150298.40
Date Drilled: 3/26/18
BL "B" RAMP STA. 419+37.61
OFFSET 05.70' LT.



Boring Number B-10
Northing: 142883.37
Easting: 2150218.42
Date Drilled: 4/27/17
BL "B" RAMP STA. 419+16.48
OFFSET 71.46' RT.



Preliminary Plans

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DESIGN		
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CHECKED		
APPROVED		
SQUAD	PSI	

PHASE 2 OKLAHOMA COUNTY
BRIDGE "B" RAMP "B" AT I-35 & I-240 INTERCHANGE

FOUNDATION REPORT

(SHEET 6 OF 10)

STATE JOB NO. 09032(06) SHEET NO. B049

6/1/2022 11:05:26 AM
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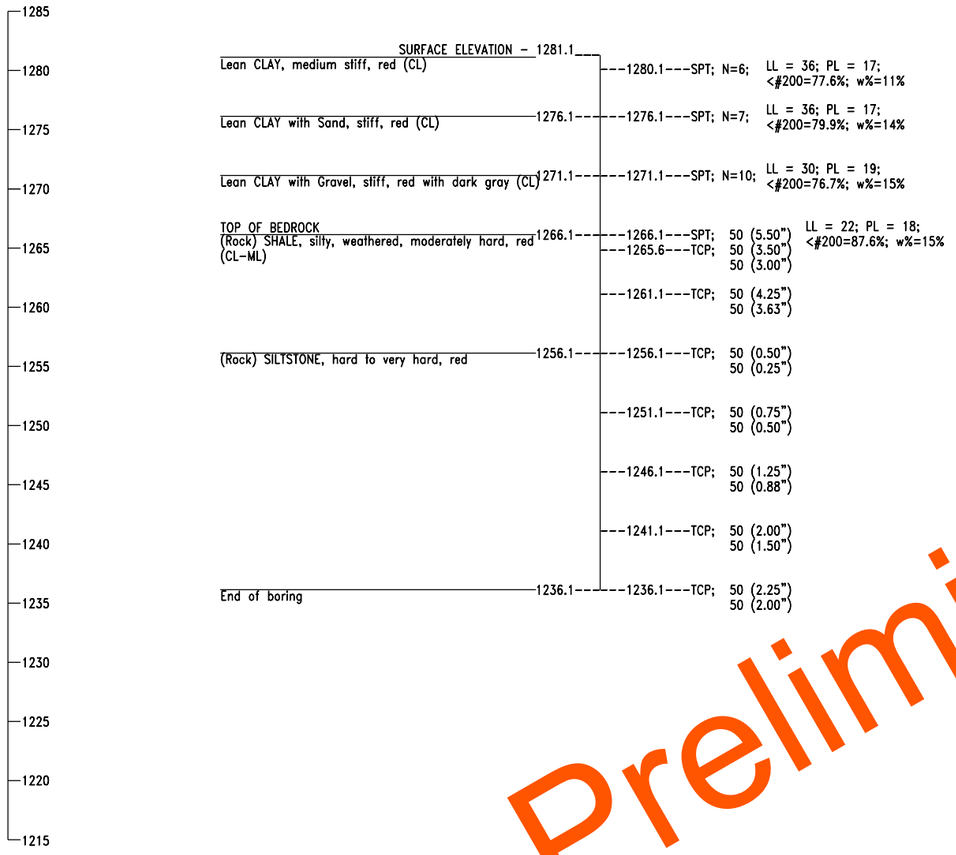
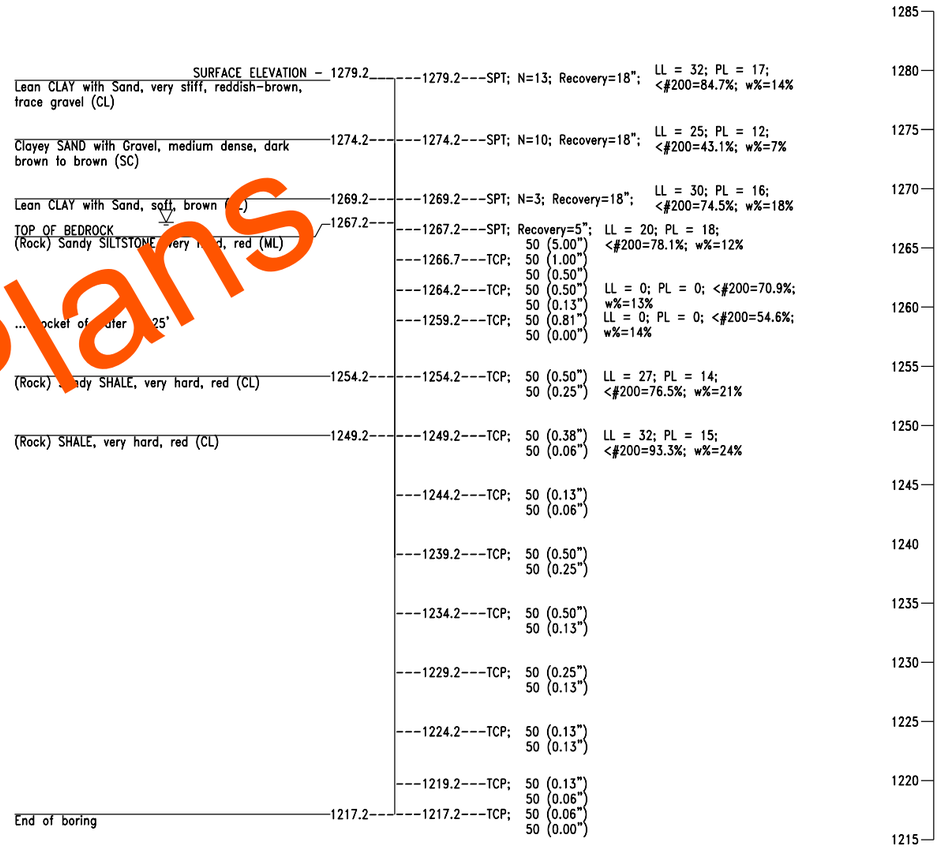
REVISIONS		
DESCRIPTION		DATE

Boring Number B-11
Northing: 142815.34
Easting: 2150337.14
Date Drilled: 3/26/18
BL "B" RAMP STA. 420+21.96
OFFSET 11.23' LT.



Boring Number B-12
Northing: 142698.79
Easting: 2150400.76
Date Drilled: 5/7/18
BL "B" RAMP STA. 421+56.05
OFFSET 05.31' LT.



Preliminary Plans

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DESIGN		
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APPROVED		
SQUAD	PSI	

PHASE 2 OKLAHOMA COUNTY
BRIDGE "B" RAMP "B" AT I-35 & I-240 INTERCHANGE

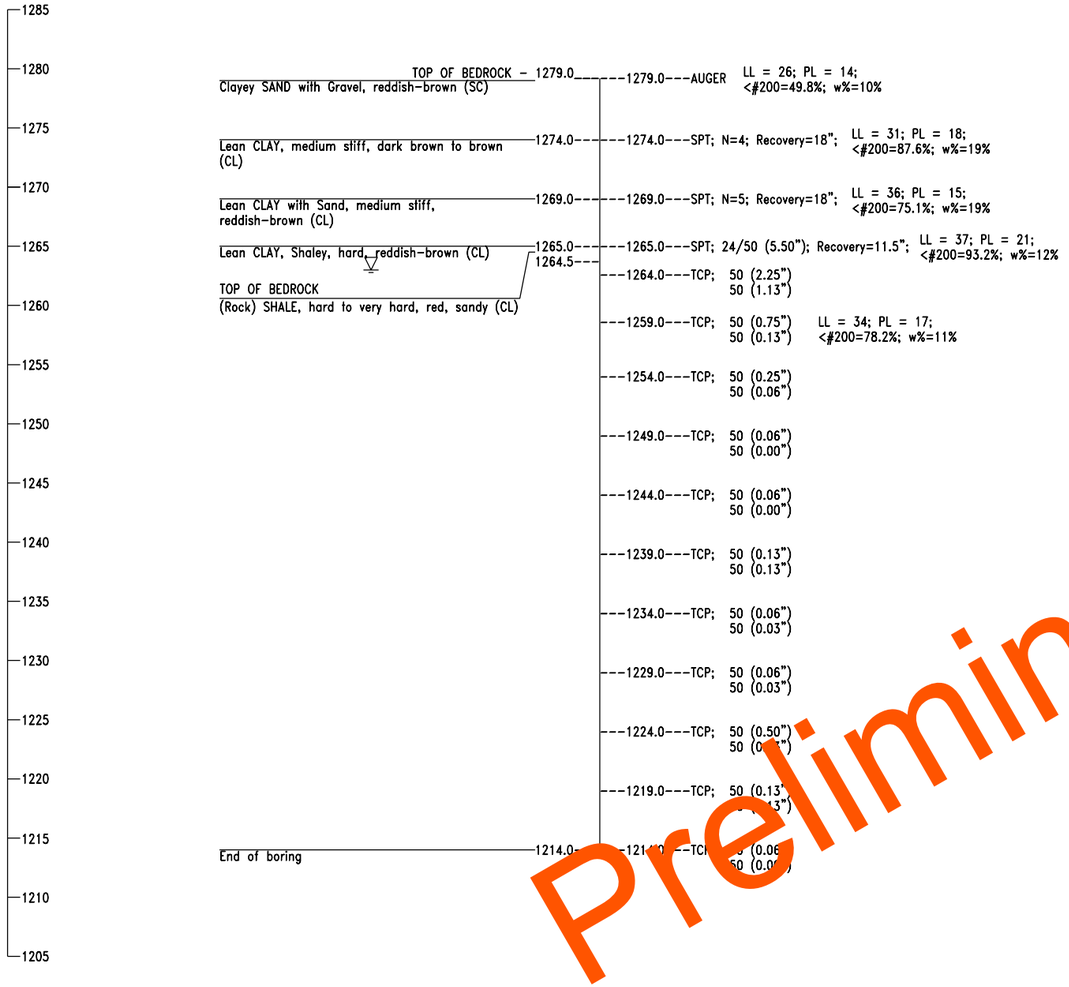
FOUNDATION REPORT
(SHEET 7 OF 10)

STATE JOB NO. 09032(06) SHEET NO. B050

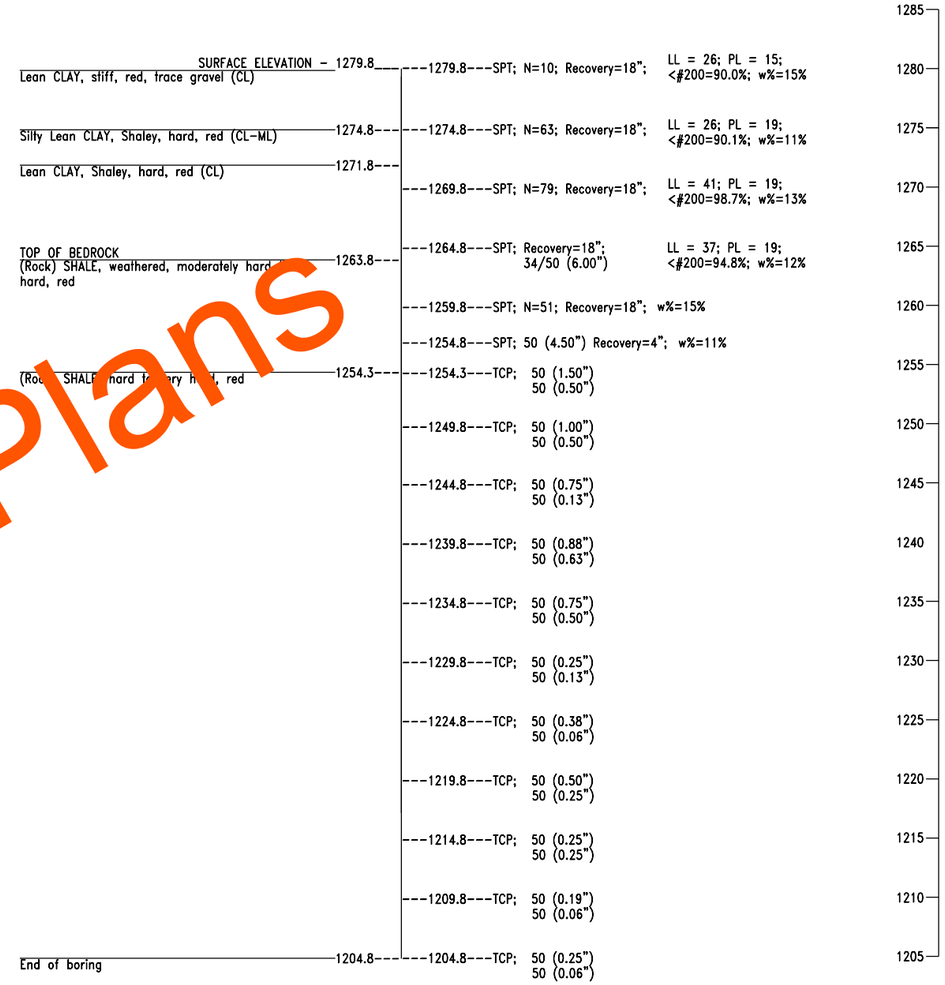
6/1/2022 11:05:27 AM
H:\PROJECTS\2789.CrossRoads.Phase.2\Bridge\Drawings\Ph2 Bridges\BRIDGE B\0903206 P2 Bridge B FR-bores.dgn

REVISIONS		
DESCRIPTION		DATE

Boring Number B-13
Northing: 142815.34
Easting: 2150337.14
Date Drilled: 5/9/18
BL "B" RAMP STA. 422+57.59
OFFSET 10.18' RT.



Boring Number B-14
Northing: 142529.77
Easting: 2150576.37
Date Drilled: 7/19/18
BL "B" RAMP STA. 424+03.32
OFFSET 14.11' LT.



Preliminary Plans

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DESIGN		
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APPROVED		
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PHASE 2 OKLAHOMA COUNTY
BRIDGE "B" RAMP "B" AT I-35 & I-240 INTERCHANGE

FOUNDATION REPORT
(SHEET 8 OF 10)

STATE JOB NO. 09032(06) SHEET NO. B051

6/1/2022 10:05:28 AM
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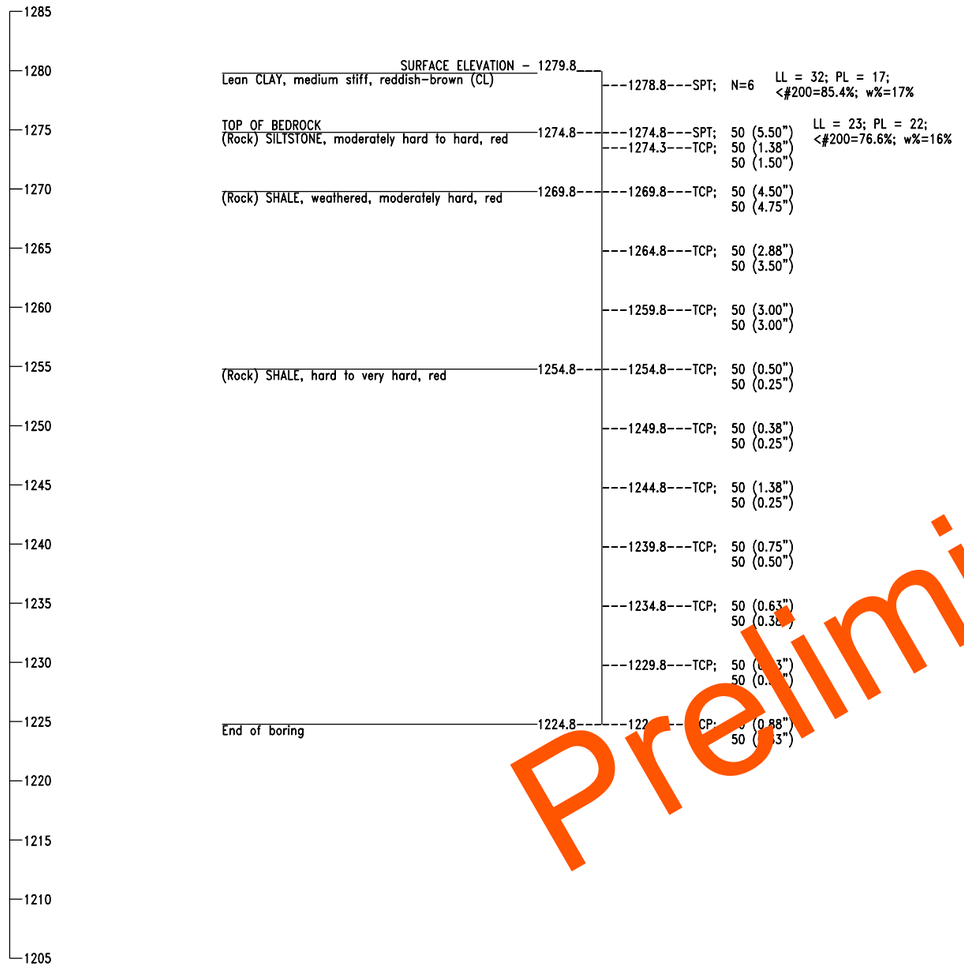
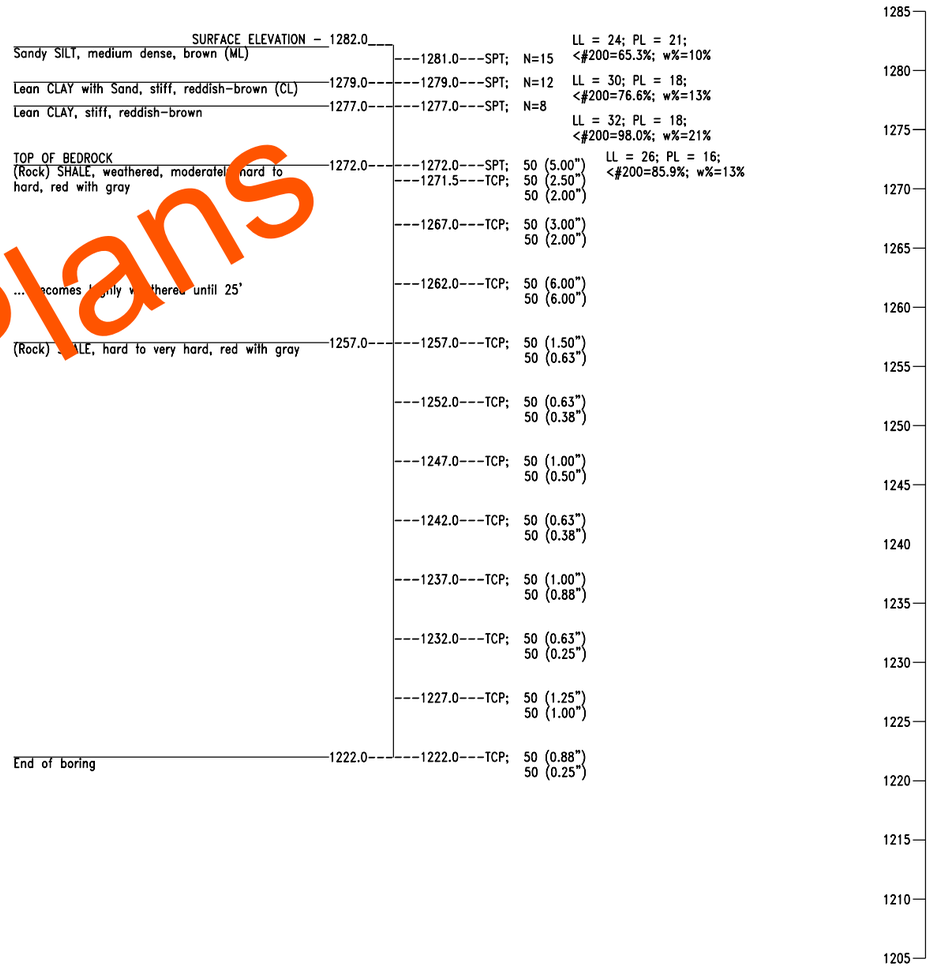
REVISIONS		
DESCRIPTION		DATE

Boring Number B-15
Northing: 142467.62
Easting: 2150682.51
Date Drilled: 4/4/18
BL "B" RAMP STA. 425+28.83
OFFSET 20.61' LT



Boring Number B-16
Northing: 142439.57
Easting: 2150735.46
Date Drilled: 2/19/18
BL "B" RAMP STA. 425+90.21
OFFSET 19.71' LT.



Preliminary Plans

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DESIGN		
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APPROVED		
SQUAD	PSI	

PHASE 2 OKLAHOMA COUNTY
BRIDGE "B" RAMP "B" AT I-35 & I-240 INTERCHANGE

FOUNDATION REPORT
(SHEET 9 OF 10)

STATE JOB NO. 09032(061) SHEET NO. B052

6/1/2022 11:05:28 AM
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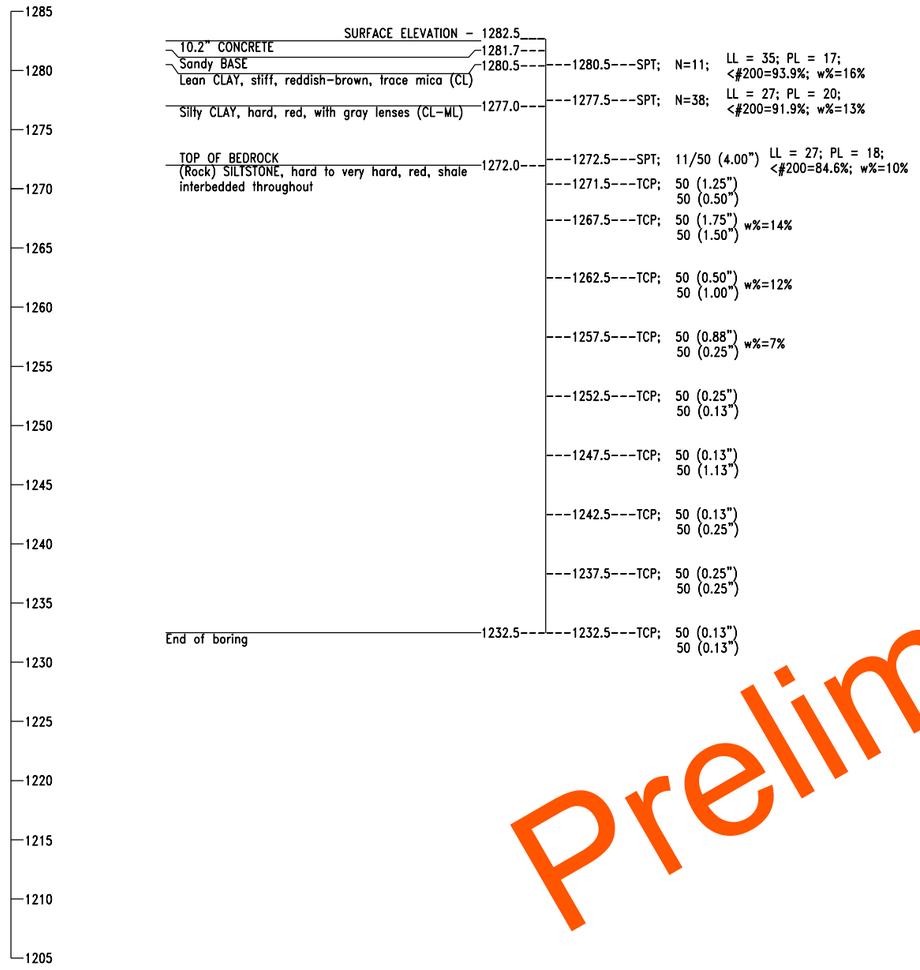
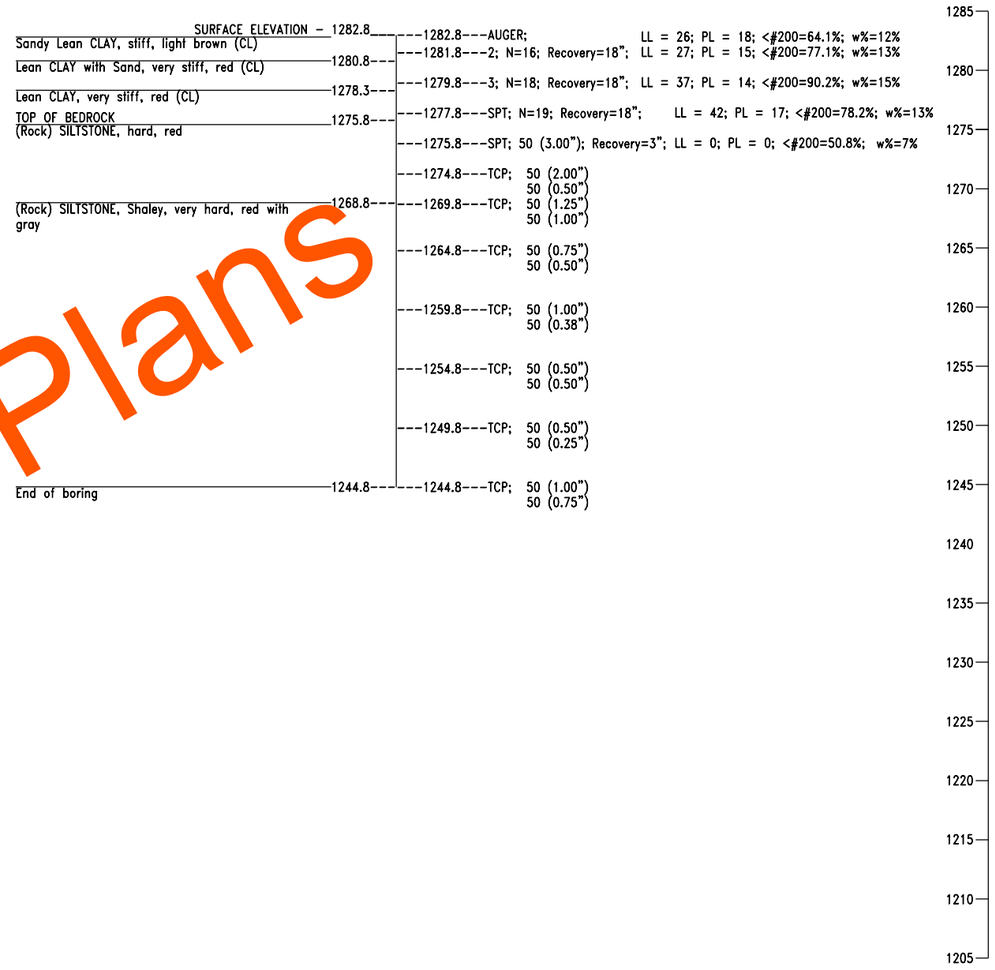
DESCRIPTION	REVISIONS	DATE

Boring Number B-17
Northing: 142370.87
Easting: 2150838.02
Date Drilled: 6/3/18
BL "B" RAMP STA. 427+11.47
OFFSET 07.95' RT.



Boring Number B-18
Northing: 142347.72
Easting: 2150946.21
Date Drilled: 5/24/17
BL "B" RAMP STA. 428+21.27
OFFSET 05.97' RT.



Preliminary Plans

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DESIGN		
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PHASE 2 OKLAHOMA COUNTY
BRIDGE "B" RAMP "B" AT I-35 & I-240 INTERCHANGE

FOUNDATION REPORT
(SHEET 10 OF 10)

STATE JOB NO. 09032(06) SHEET NO. B053

6/1/2022 11:05:29 AM
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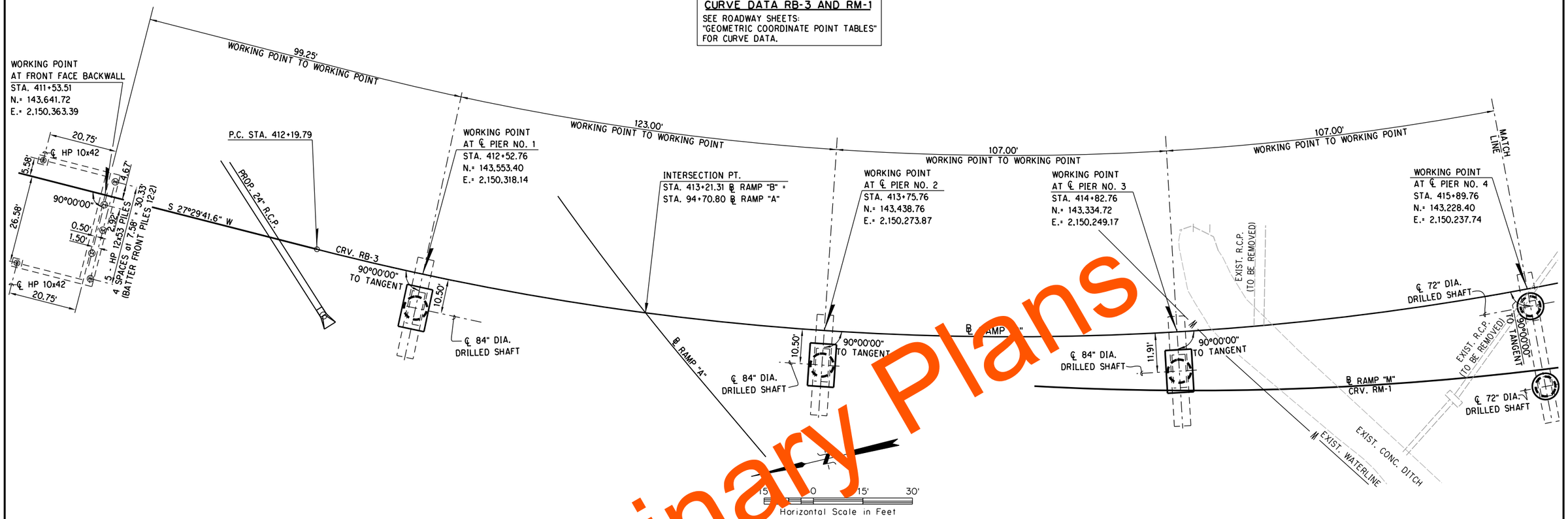
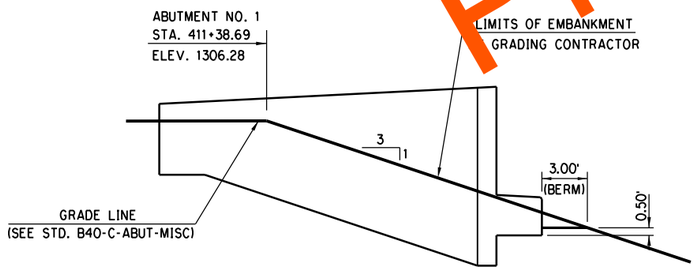
DESCRIPTION	REVISIONS	DATE

CURVE DATA RB-3 AND RM-1

SEE ROADWAY SHEETS:
"GEOMETRIC COORDINATE POINT TABLES"
FOR CURVE DATA.



SUBSTRUCTURE STAKING DIAGRAM



DETAIL OF GRADING AT ABUTMENT

Preliminary Plans

UTILITIES:
(CAUTION) THE LOCATION OF ALL UTILITIES AS SHOWN ARE APPROXIMATE DUE TO RELOCATION PLANNED OR PRESENTLY UNDER CONSTRUCTION. THERE ARE SOME UTILITIES THAT WILL BE RELOCATED AND NOT SHOWN ON THESE PLANS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO ALL UTILITIES.

NO PAYMENT WILL BE MADE FOR REMOVAL OF ABANDONED UTILITY PIPE LINES THAT INTERFERE WITH CONSTRUCTION. ALL COST TO BE INCLUDED IN OTHER ITEMS.

OKLAHOMA ONE-CALL SYSTEM:
IN ACCORDANCE WITH THE OKLAHOMA UNDERGROUND FACILITIES DAMAGE PREVENTION ACT THE CONTRACTOR SHALL NOTIFY THE OKLAHOMA ONE-CALL SYSTEM, INC. 48 HOURS PRIOR TO BEGINNING EXCAVATION. OKLAHOMA ONE-CALL SYSTEM, INC. "CALL OKIE" 1-800-522-6543 OR 811.

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 — OKLAHOMA COUNTY
BRIDGE "B" — RAMP "B" AT I-35 & I-240 INTERCHANGE

SUBSTRUCTURE LAYOUT
(SHEET 1 OF 3)

STATE JOB NO. 09032(106) SHEET NO. B054

6/1/2022 11:05:31 AM
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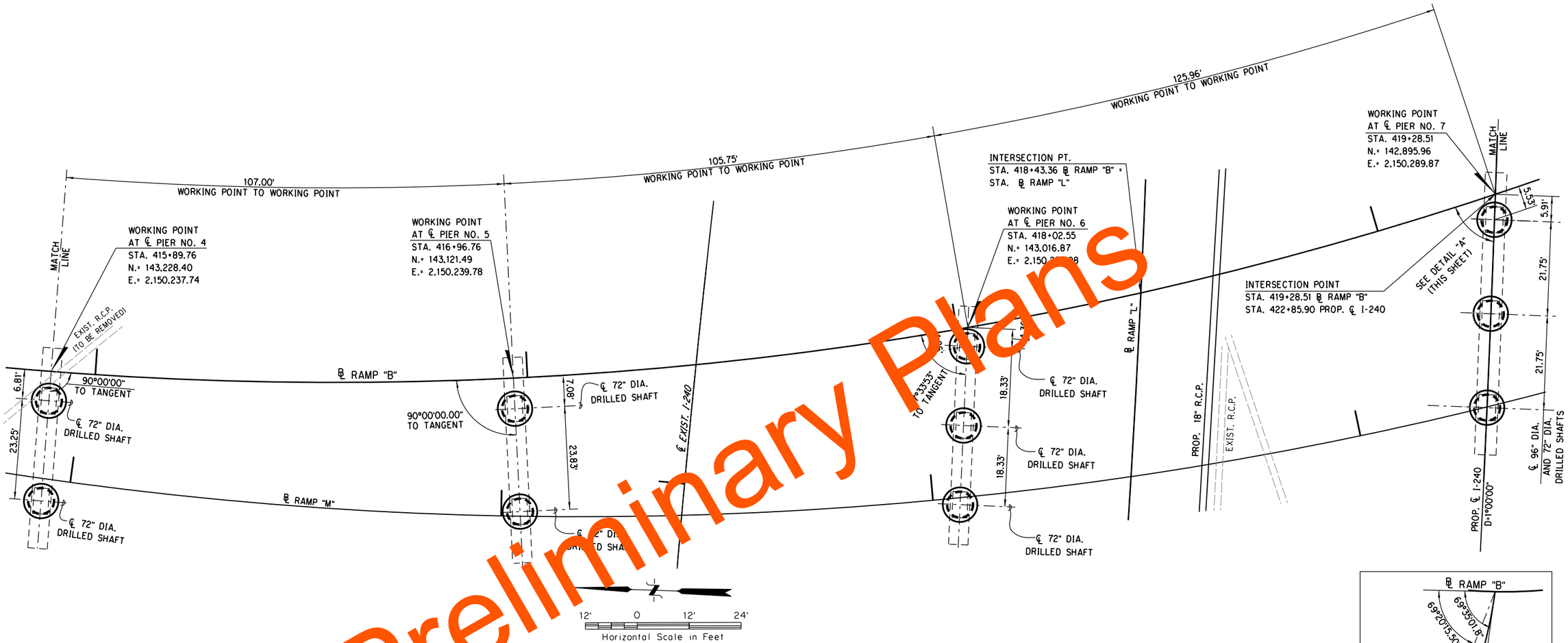
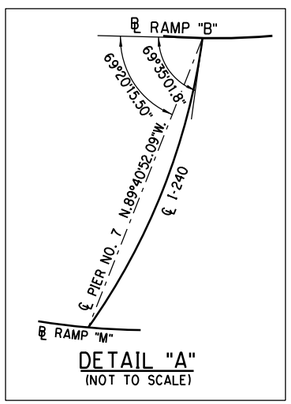
DESCRIPTION	REVISIONS	DATE



SUBSTRUCTURE STAKING DIAGRAM



DETAIL "A"
(NOT TO SCALE)

Preliminary Plans

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CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 — OKLAHOMA COUNTY
BRIDGE "B" — RAMP "B" AT I-35 & I-240 INTERCHANGE

SUBSTRUCTURE LAYOUT
(SHEET 2 OF 3)

STATE JOB NO. 09032(106) SHEET NO. B055

6/1/2022 11:05:32 AM
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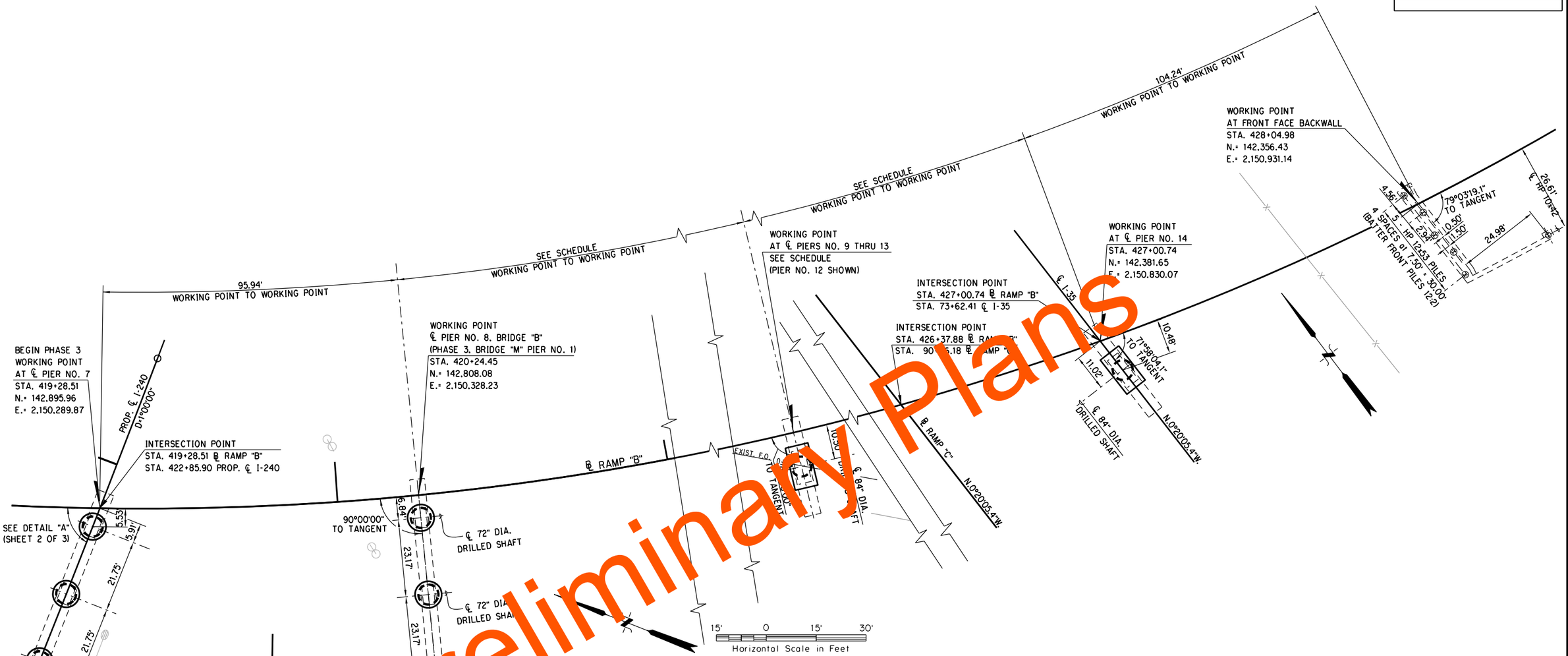
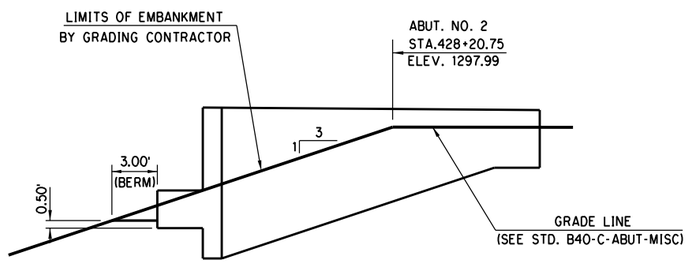
DESCRIPTION	REVISIONS	DATE



SUBSTRUCTURE STAKING DIAGRAM



DETAIL OF GRADING AT ABUTMENT

PIER LOCATION SCHEDULE

LOCATION	WORKING POINT STA.	NORTHING	EASTING
PIER NO. 9	421+40.45	142,708.45	2,150,387.46
PIER NO. 10	422+56.45	142,617.82	2,150,459.72
PIER NO. 11	423+72.45	142,537.87	2,150,543.65
PIER NO. 12	424+88.45	142,470.11	2,150,637.69
PIER NO. 13	426+04.45	142,415.79	2,150,740.09

WORKING PT. TO WORKING PT. SCHEDULE

LOCATION	WP. TO W.P. DISTANCE
PIER NO. 8 TO PIER NO. 9	116.00'
PIER NO. 9 TO PIER NO. 10	116.00'
PIER NO. 10 TO PIER NO. 11	116.00'
PIER NO. 11 TO PIER NO. 12	116.00'
PIER NO. 12 TO PIER NO. 13	116.00'
PIER NO. 13 TO PIER NO. 14	96.29'

Preliminary Plans

6/1/2022 11:05:33 AM
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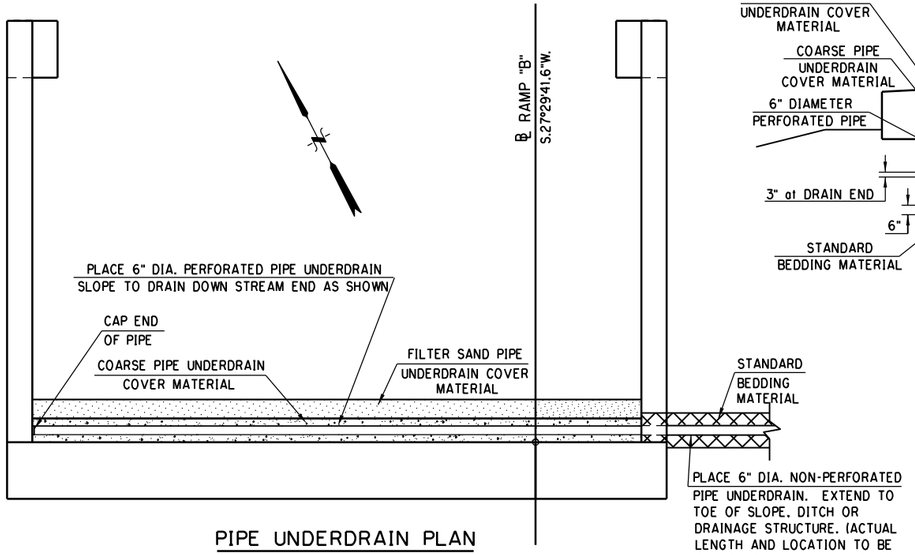
DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 OKLAHOMA COUNTY
BRIDGE "B" RAMP "B" AT I-35 & I-240 INTERCHANGE

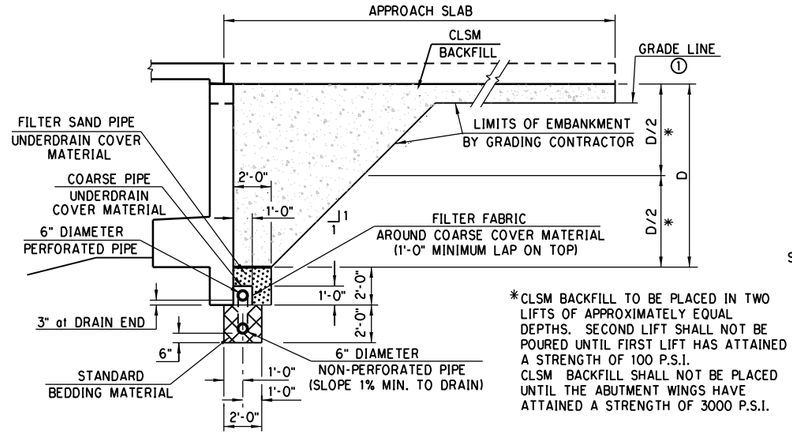
SUBSTRUCTURE LAYOUT
(SHEET 3 OF 3)

STATE JOB NO. 09032(106) SHEET NO. B056

NOTE:
EXTENT, LOCATION AND DEPTH OF 6" NON-PERFORATED PIPE UNDERDRAIN MAY BE ADJUSTED BY THE ENGINEER DURING CONSTRUCTION.
ALL COST OF PIPE UNDERDRAIN COVER MATERIAL (BOTH FINE AND COARSE), FILTER FABRIC, TRENCH EXCAVATION, STANDARD BEDDING MATERIAL, AND EQUIPMENT AND LABOR FOR THEIR INSTALLATION SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE OF "6" PERFORATED PIPE UNDERDRAIN ROUND" AND "6" NON-PERF. PIPE UNDERDRAIN ROUND". INSTALLATION SHALL BE AS SHOWN ON THE PLANS AND ON STD. PUD-4.



PIPE UNDERDRAIN PLAN



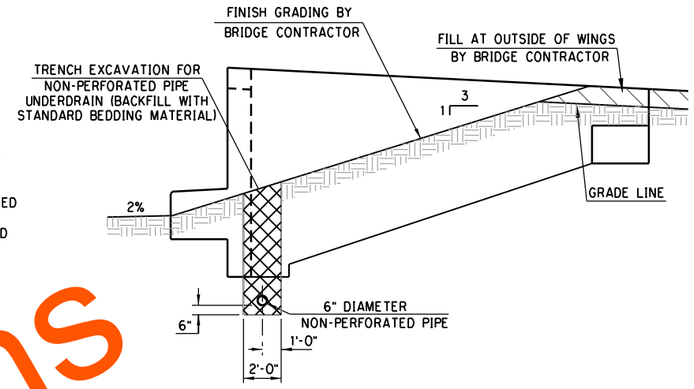
*CLSM BACKFILL TO BE PLACED IN TWO LIFTS OF APPROXIMATELY EQUAL DEPTHS. SECOND LIFT SHALL NOT BE POURED UNTIL FIRST LIFT HAS ATTAINED A STRENGTH OF 100 P.S.I. CLSM BACKFILL SHALL NOT BE PLACED UNTIL THE ABUTMENT WINGS HAVE ATTAINED A STRENGTH OF 3000 P.S.I.

UNDERDRAIN INSTALLATION DETAIL

① GRADE LINE SHOWN IS ASSUMED TO BE LOCATED 12" BELOW BOTTOM OF APPROACH SLAB FOR COMPUTING CLSM BACKFILL QUANTITY SHOWN ON THE PLANS. THE DEPARTMENT WILL PAY FOR CLSM BACKFILL IN ACCORDANCE WITH THE PLAN QUANTITY AND NO ADJUSTMENT WILL BE MADE FOR ACTUAL LOCATION OF GRADE LINE.

NOTE: FOR ADDITIONAL DETAILS AND GENERAL NOTES FOR PIPE UNDERDRAIN INSTALLATION, SEE ODOT STDS. PUD-4 AND SPI-5

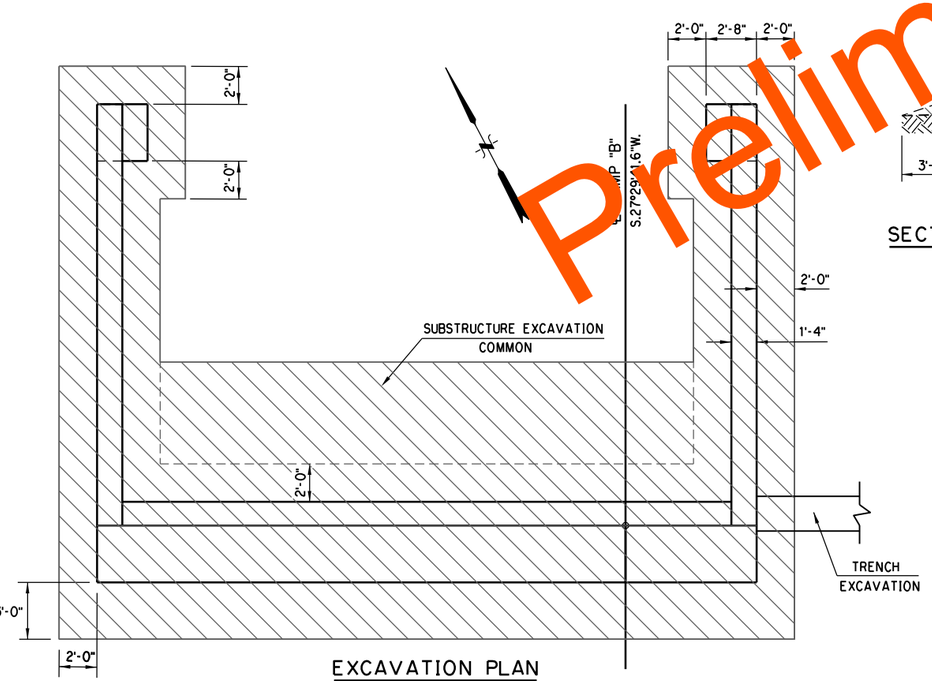
REVISIONS		
DESCRIPTION		DATE



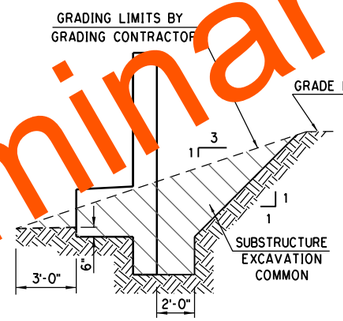
BACKFILL DETAIL OUTSIDE OF WING

ABUTMENT NO. 1 UNDERDRAIN DETAILS

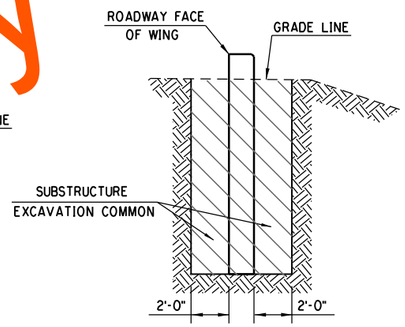
NOTE:
CONCRETE MAY BE PLACED AGAINST THE LIMITS OF EXCAVATION IF THE MATERIAL IS EXCAVATED TO THE NEAT LINES OF THE ABUTMENT AND APPROVED BY THE ENGINEER. IF NECESSARY, FORMS SHALL BE USED ON THE BACK VERTICAL FACE OF THE ABUTMENT AND REMOVED AFTER CONCRETE IS SET.
MEASUREMENT AND PAYMENT FOR SUBSTRUCTURE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



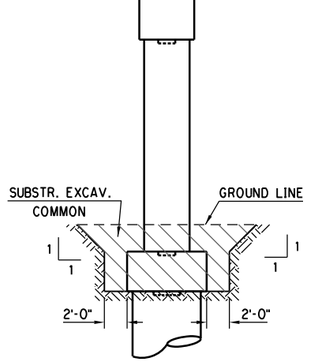
EXCAVATION PLAN



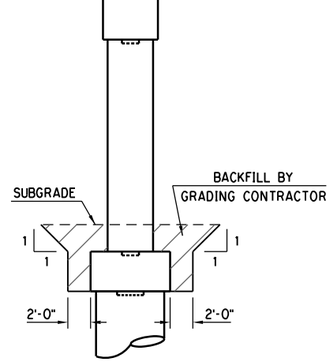
SECTION THRU BRIDGE SEAT



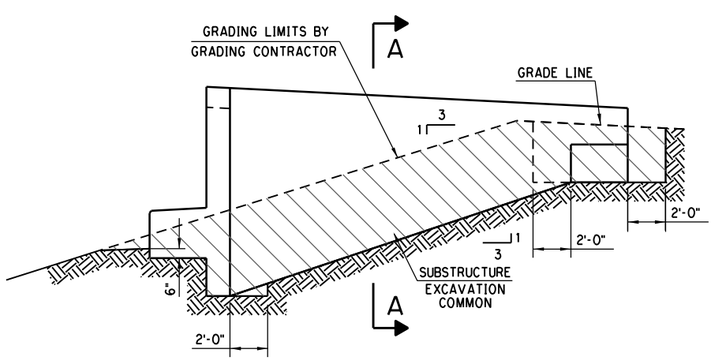
SECTION A-A
SECTION THRU WING



PIER EXCAVATION DIAGRAM
(TYPICAL)



PIER BACKFILL DIAGRAM
(TYPICAL)



WING ELEVATION

ABUTMENT NO. 1 EXCAVATION DIAGRAMS

CONSTRUCTION NOTES

1. CLSM BACKFILL SHALL NOT BE PLACED UNTIL THE SUPERSTRUCTURE IS IN PLACE AND THE ABUTMENT WING CONCRETE HAS ATTAINED A STRENGTH OF 3000 P.S.I..
2. THE EXTENT, LOCATION, AND DEPTH OF DRAINS MAY BE ADJUSTED BY THE ENGINEER TO SUIT CONDITIONS FOUND DURING CONSTRUCTION.
3. COST OF ALL FITTINGS TO BE INCLUDED IN PRICE BID PER LINEAR FOOT OF PIPE UNDERDRAIN.
4. ALL CONSTRUCTION AND MATERIAL REQUIREMENTS SHALL BE IN ACCORDANCE WITH THE CURRENT SPECIFICATIONS.

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 — OKLAHOMA COUNTY
BRIDGE "B" — RAMP "B" AT I-35 & I-240 INTERCHANGE

EXCAVATION DIAGRAMS AND UNDERDRAIN DETAILS
(SHEET 1 OF 2)

STATE JOB NO. 09032(06) SHEET NO. B057

Preliminary Plans

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REVISIONS		
DESCRIPTION		DATE

NOTE:
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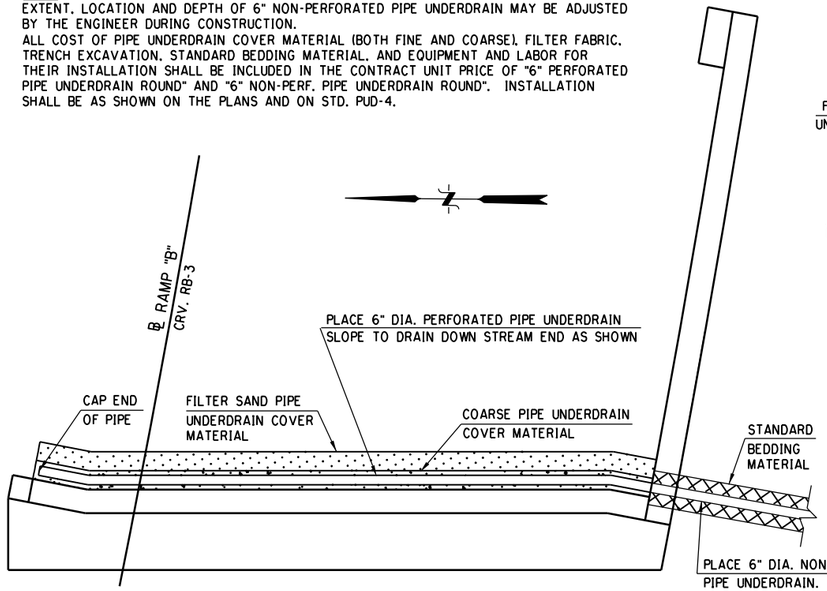
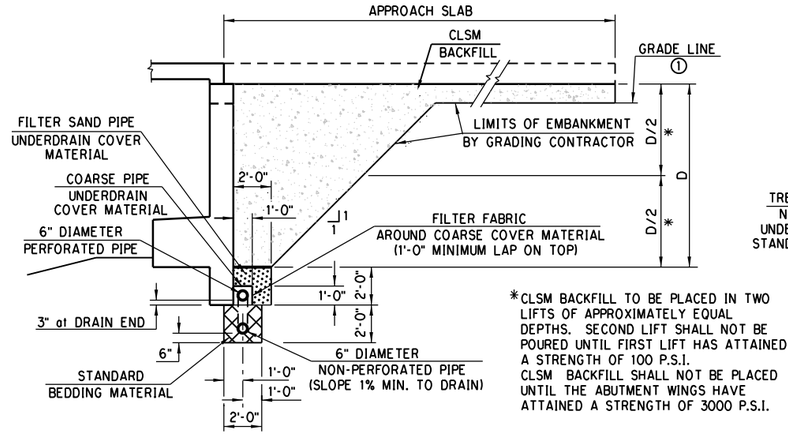


PIPE UNDERDRAIN PLAN



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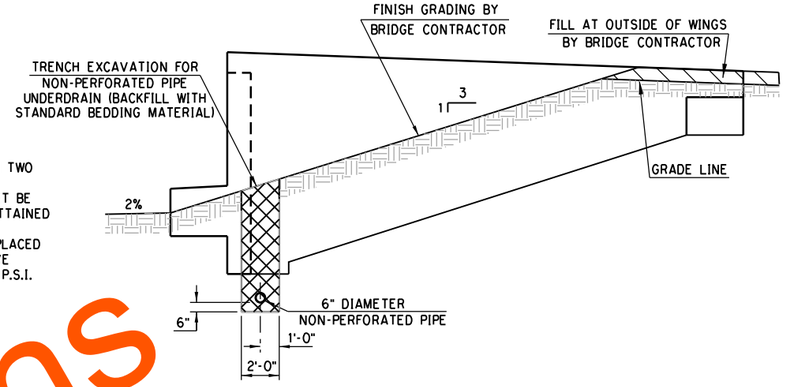

BACKFILL DETAIL OUTSIDE OF WING

ABUTMENT NO. 2 UNDERDRAIN DETAILS

NOTE:
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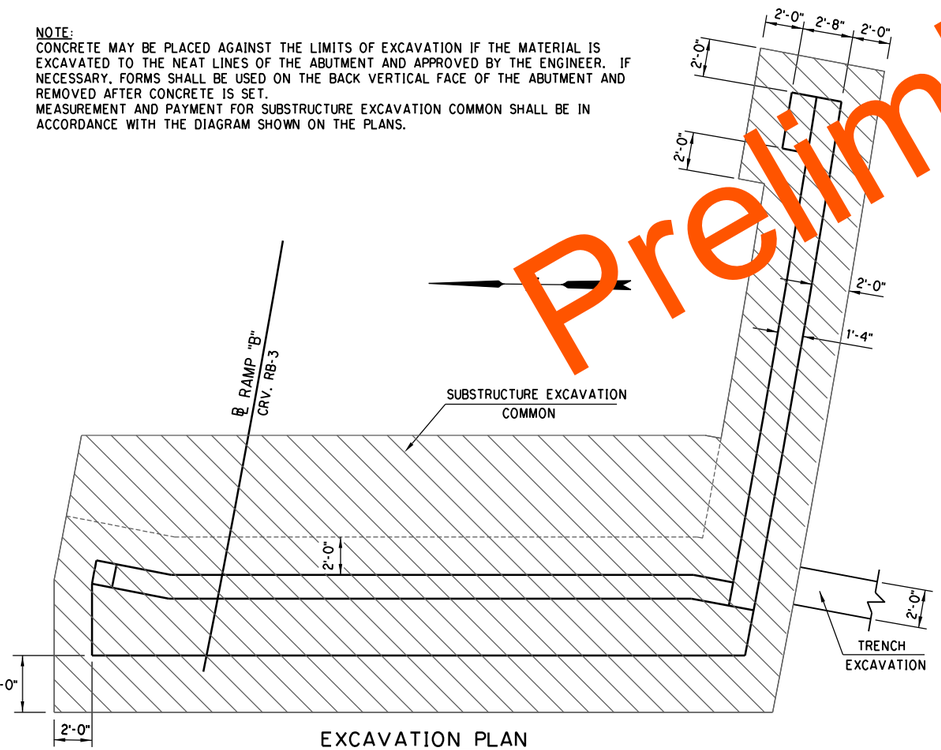
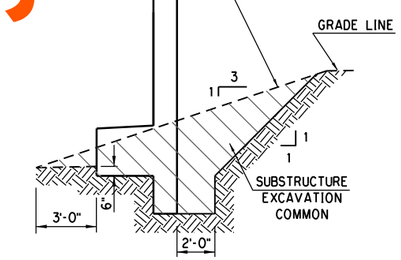
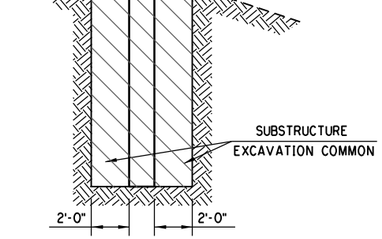


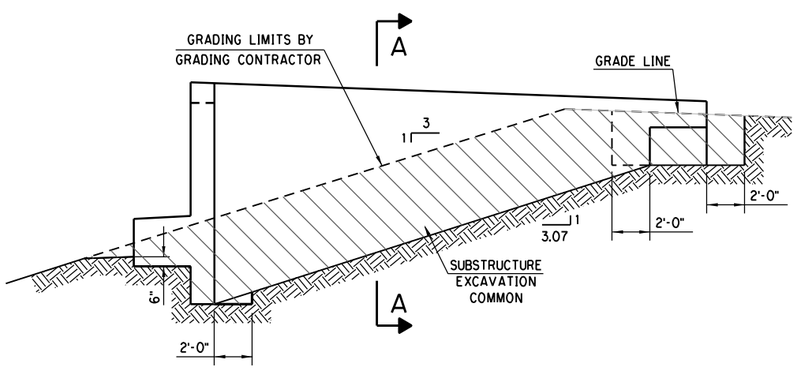
EXCAVATION PLAN



SECTION THRU BRIDGE SEAT



SECTION A-A
SECTION THRU WING



WING ELEVATION

ABUTMENT NO. 2 EXCAVATION DIAGRAMS

CONSTRUCTION NOTES

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DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 — OKLAHOMA COUNTY
BRIDGE "B" — RAMP "B" AT I-35 & I-240 INTERCHANGE

EXCAVATION DIAGRAMS AND UNDERDRAIN DETAILS
(SHEET 2 OF 2)

STATE JOB NO. 09032(06) SHEET NO. B058

Preliminary Plans

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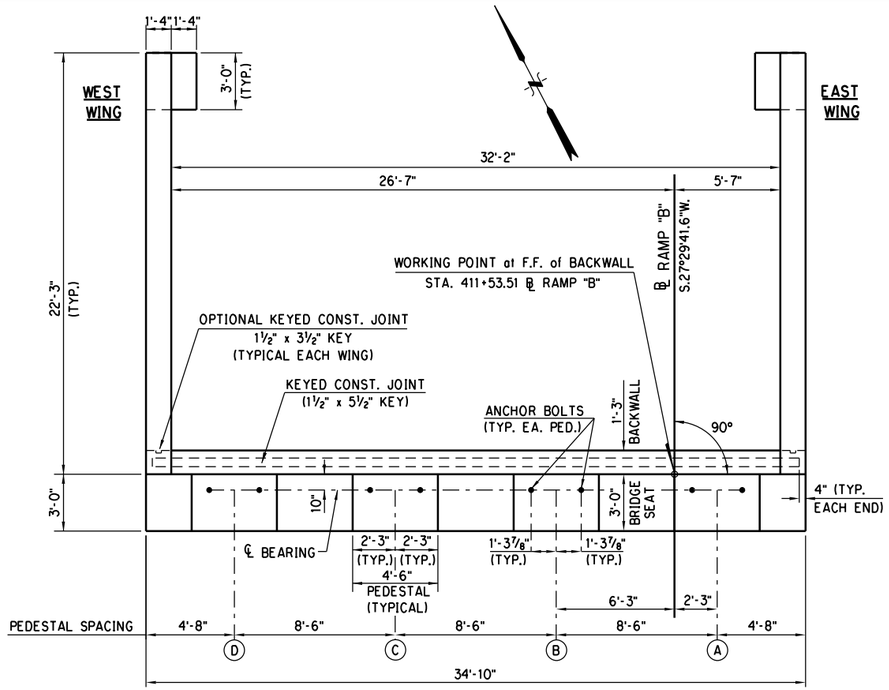
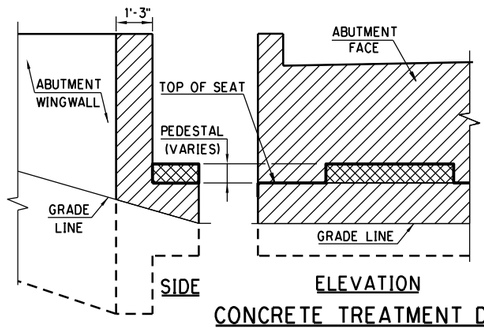


PLAN

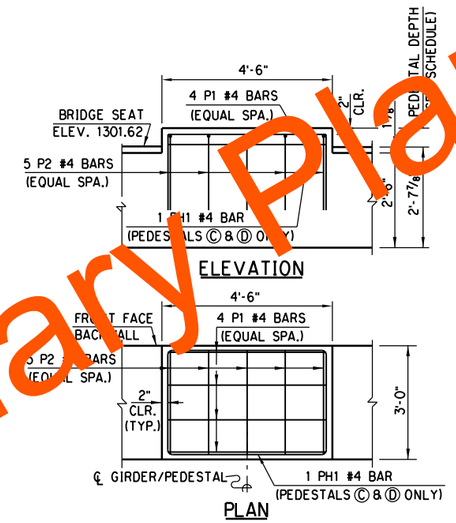


NOTE:
MASK FACE AND ENDS OF SEAT TO PROVIDE A CLEAN STRAIGHT FINISH AT THE BOTTOM EDGE OF ELASTOMERIC COATING APPLICATION.
MASK OUT TOPS OF PEDESTALS WHERE BEARING PADS SIT.

ELASTOMERIC COATING (CROSS-HATCHING AND HEAVY LINE)

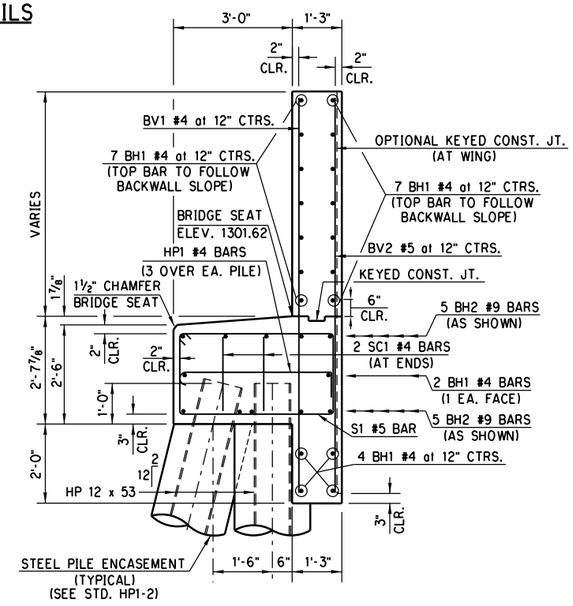
WATER REPELLENT (HATCHING)

CONCRETE TREATMENT DETAILS



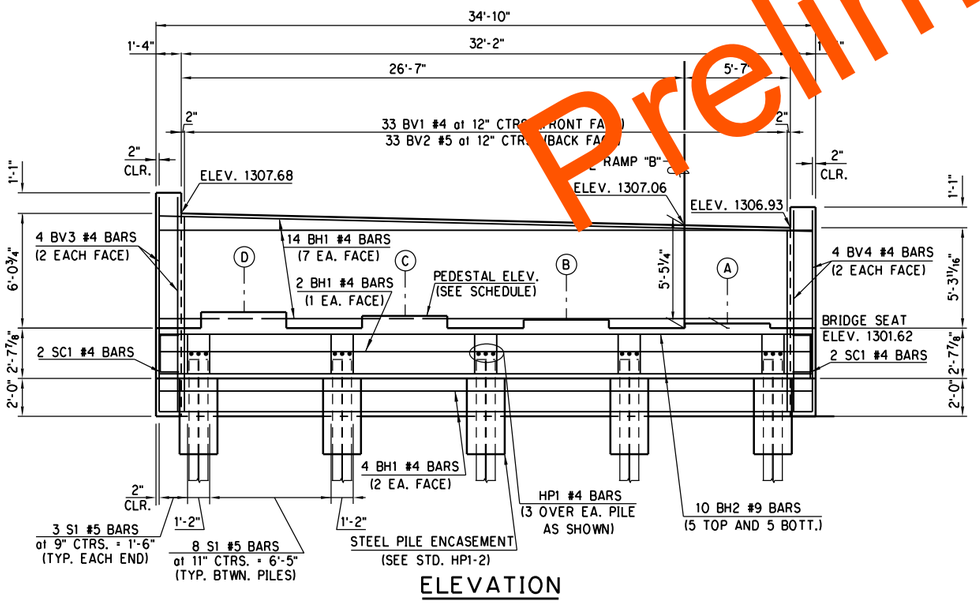
PEDESTAL REINFORCING

(TYPICAL)



TYPICAL SECTION THRU BRIDGE SEAT

(PEDESTAL NOT SHOWN)



ELEVATION

PEDESTAL ELEVATION SCHEDULE - ABUTMENT NO. 1				
PEDESTAL	A	B	C	D
ELEVATION	1301.87	1302.07	1302.27	1302.47
DEPTH	3"	5 7/16"	7 13/16"	10 1/4"

ABUTMENT NO. 1 QUANTITIES

ITEM	UNIT	TOTAL
SUBSTRUCTURE EXCAVATION COMMON	C.Y.	60
CLSM BACKFILL	C.Y.	74.5
ELASTOMERIC COATING	S.F.	128
CLASS A CONCRETE	C.Y.	43.0
EPOXY COATED REINFORCING STEEL	LB.	5470
PILES, FURNISHED (HP 10X42)	L.F.	50
PILES, FURNISHED (HP 12X53)	L.F.	120
PILES, DRIVEN (HP 10X42)	L.F.	50
PILES, DRIVEN (HP 12X53)	L.F.	120
WATER REPELLENT (VISUALLY INSPECTED)	S.Y.	42
6" PERFORATED PIPE UNDERDRAIN, ROUND	L.F.	35
6" NON-PERF. PIPE UNDERDRAIN, ROUND	L.F.	20

Preliminary Plans

REVISIONS		
DESCRIPTION		DATE

PHASE 2 — OKLAHOMA COUNTY

BRIDGE "B" — RAMP "B" AT I-35 & I-240 INTERCHANGE

ABUTMENT DETAILS
ABUTMENT NO. 1
(SHEET 1 OF 2)

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

STATE JOB NO. 09032(06) SHEET NO. B059

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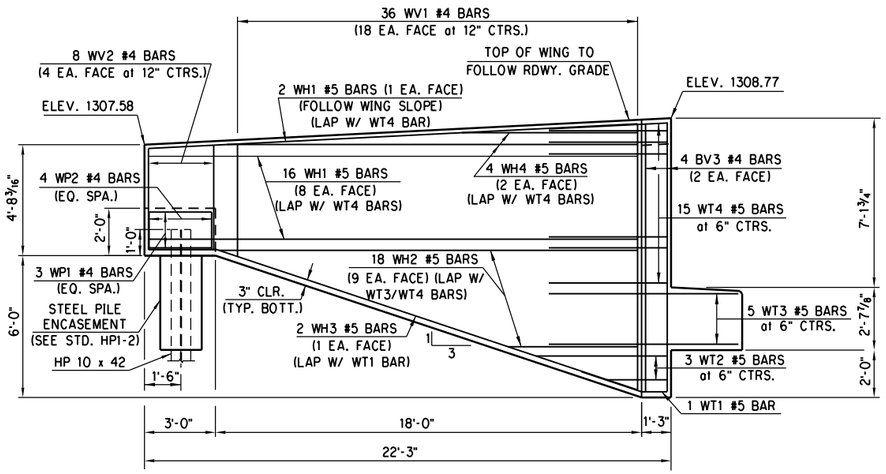
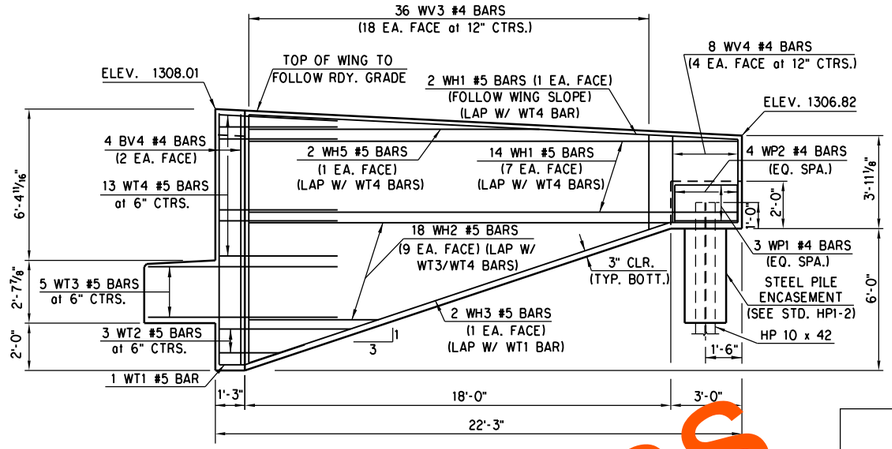
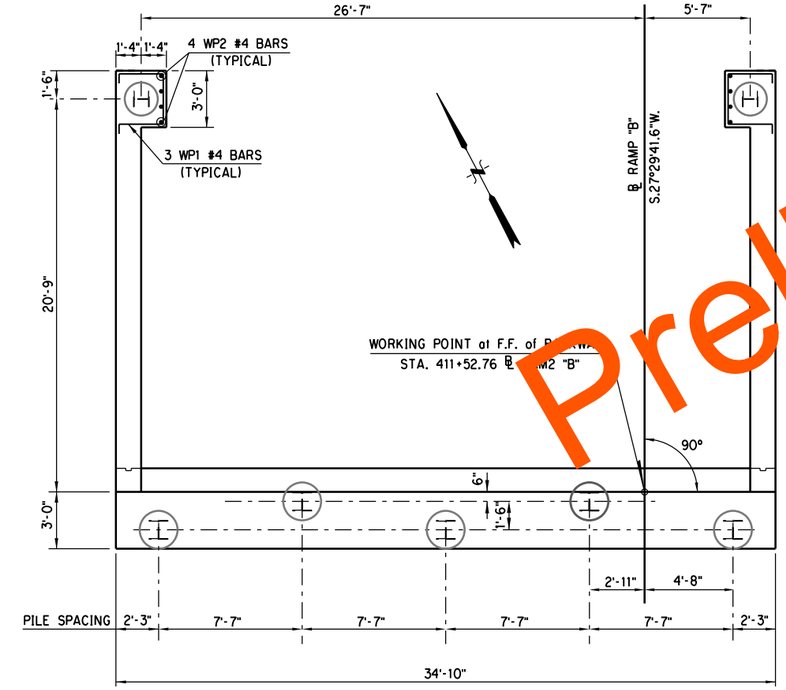
DESCRIPTION	REVISIONS	DATE



WEST WING ELEVATION

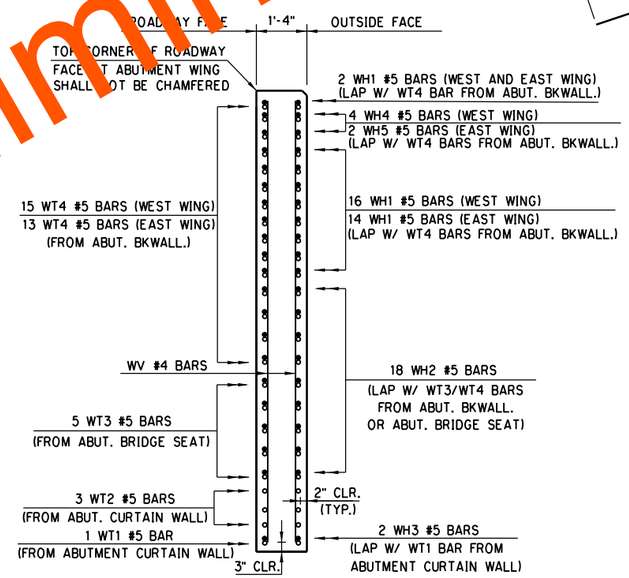


EAST WING ELEVATION

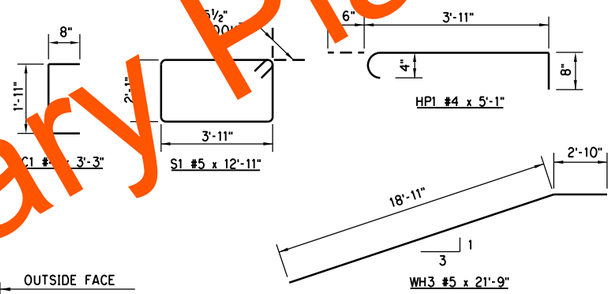


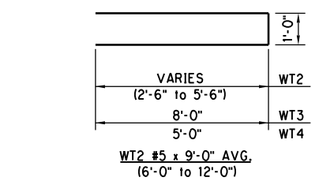
PILE SPACING DIAGRAM

NOTE: BR. SEAT PILES ARE HP 12 x 53. WING PILES ARE HP 10 x 42
(BATTER FRONT ROW IN BR. SEAT 2:12)



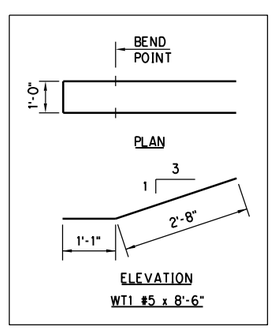
SECTION THRU WING AT
BACK FACE OF ABUTMENT SEAT
(WEST WING SHOWN)





WT2 #5 x 9'-0" AVG.
(6'-0" to 12'-0")
WT3 #5 x 17'-0"
WT4 #5 x 11'-0"

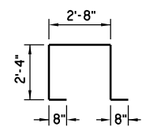
NOTE: ALL BENT BAR DIMENSIONS ARE OUT TO OUT.



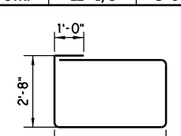
WT1 #5 x 8'-6"

ABUTMENT NO. 1 BAR LIST
(EPOXY COATED)

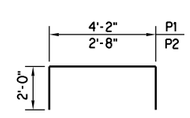
MARK	NO.	SIZE	FORM	SPACING	LENGTH	LENGTH VARIATION
BH1	20	#4	STR.	12"C/C	34'-6"	--
BH2	10	#9	STR.	AS SHOWN	34'-6"	--
BV1	33	#4	STR.	12"C/C	9'-10 1/2" AVG.	9'-6" TO 10'-3"
BV2	33	#5	STR.	12"C/C	9'-10 1/2" AVG.	9'-6" TO 10'-3"
BV3	4	#4	STR.	AS SHOWN	11'-4"	--
BV4	4	#5	STR.	AS SHOWN	10'-7"	--
HP1	15	#4	BENT	AS SHOWN	5'-1"	--
P1	16	#4	BENT	EQUAL	8'-2"	--
P2	20	#4	BENT	EQUAL	6'-8"	--
PH1	2	#4	BENT	AS SHOWN	14'-8"	--
S1	38	#5	BENT	EQUAL	12'-11"	--
SC1	4	#4	BENT	EQUAL	3'-3"	--
WT1	2	#5	BENT	AS SHOWN	8'-6"	--
WT2	6	#5	BENT	6" C/C	9'-0" AVG.	6'-0" TO 12'-0"
WT3	10	#5	BENT	6" C/C	17'-0"	--
WT4	28	#5	BENT	6" C/C	11'-0"	--
WHI	34	#5	STR.	6" C/C	20'-8"	--
WH2	36	#5	STR.	6" C/C	11'-7 1/2" AVG.	5'-6" TO 17'-9"
WH3	4	#5	BENT	AS SHOWN	21'-9"	--
WH4	4	#5	STR.	6" C/C	12'-4 1/2" AVG.	7'-5" TO 17'-4"
WH5	2	#5	STR.	AS SHOWN	12'-3"	--
WP1	6	#4	BENT	EQUAL	8'-8"	--
WP2	8	#4	STR.	EQUAL	1'-7"	--
WV1	36	#4	STR.	12" C/C	7'-11 1/2"	4'-8" TO 11'-3"
WV2	8	#4	STR.	12" C/C	4'-4" AVG.	4'-3" TO 4'-5"
WV3	36	#4	STR.	12" C/C	10'-2 1/2"	3'-11" TO 10'-6"
WV4	8	#4	STR.	12" C/C	3'-6" AVG.	3'-5" TO 3'-7"



WP1 #4 x 8'-8"



PH1 #4 x 14'-8"



P1 #4 x 8'-2"
P2 #4 x 6'-8"

Preliminary Plans

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 OKLAHOMA COUNTY
BRIDGE "B" RAMP "B" AT I-35 & I-240 INTERCHANGE

ABUTMENT DETAILS
ABUTMENT NO. 1
(SHEET 2 OF 2)

STATE JOB NO. 09032(06) SHEET NO. B060

6/1/2022 11:05:37 AM
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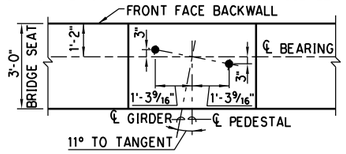
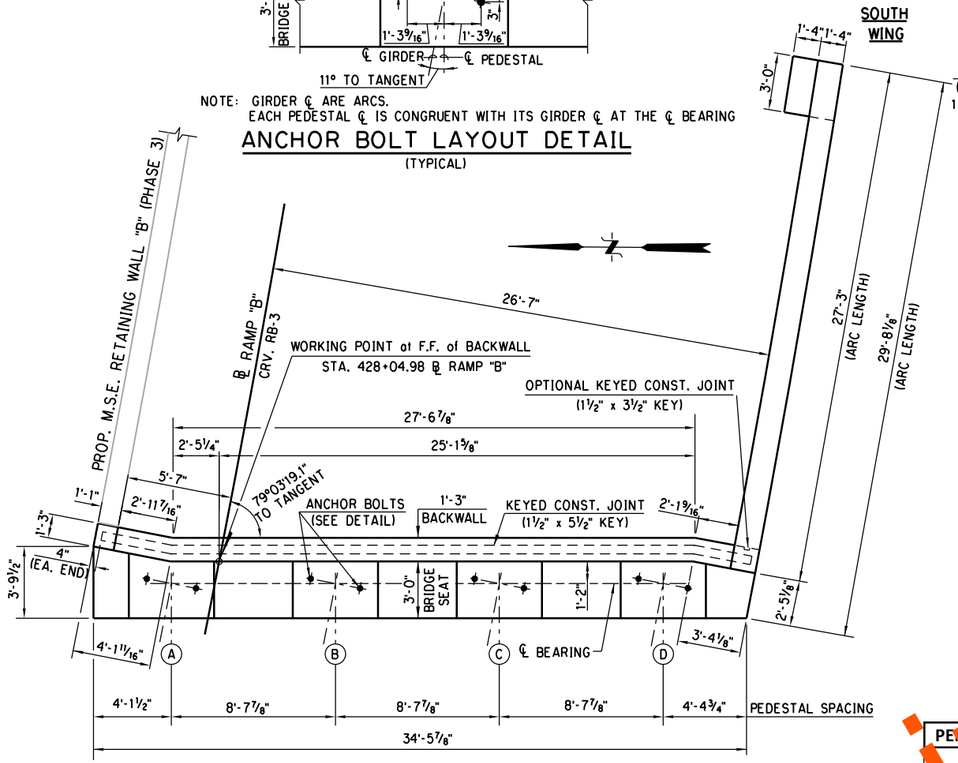
NOTE: DIMENSIONS SHOWN ARE PERPENDICULAR TO PEDESTALS.
FOR FURTHER INFORMATION SEE BEARING ASSEMBLY DETAIL SHEET B-B__



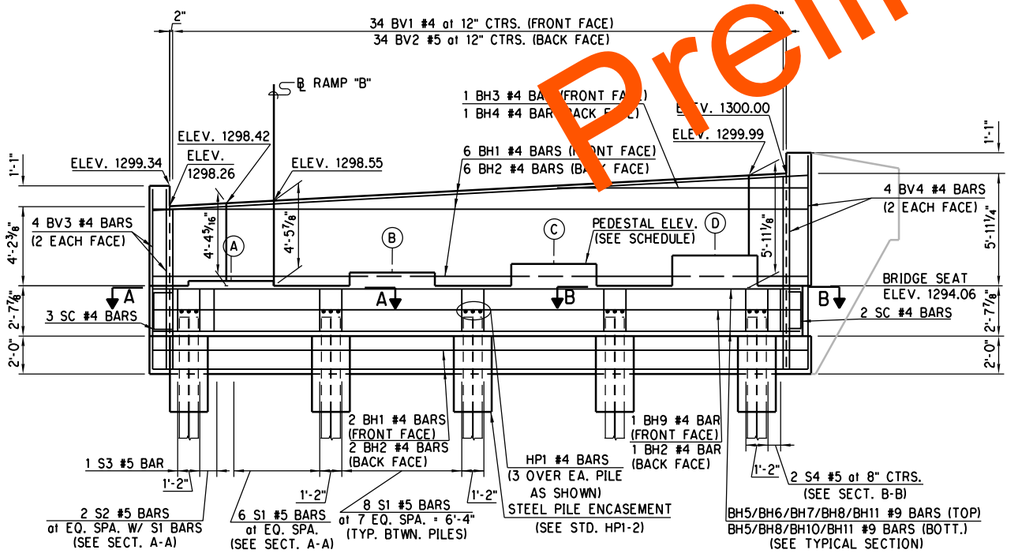
NOTE: GIRDER ℄ ARE ARCS.
EACH PEDESTAL ℄ IS CONGRUENT WITH ITS GIRDER ℄ AT THE ℄ BEARING

ANCHOR BOLT LAYOUT DETAIL
(TYPICAL)

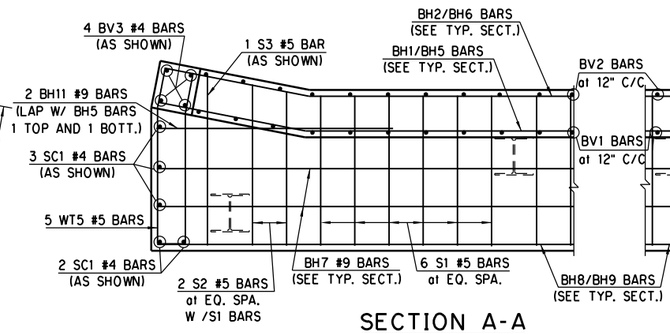


PLAN

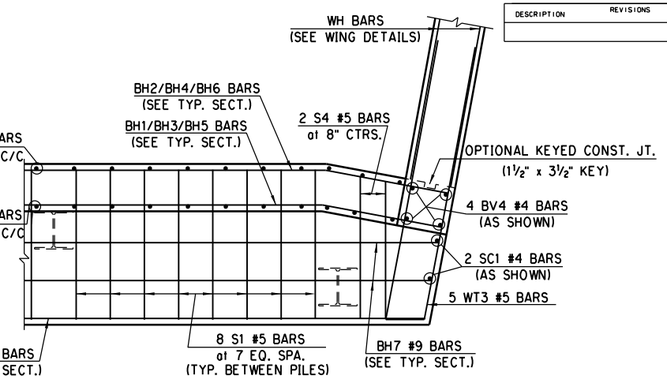
PEDESTAL ELEVATION SCHEDULE - ABUTMENT NO. 2				
PEDESTAL	A	B	C	D
ELEVATION	1294.31	1294.76	1295.21	1295.66
DEPTH	3"	8 3/8"	13 13/16"	19 3/16"



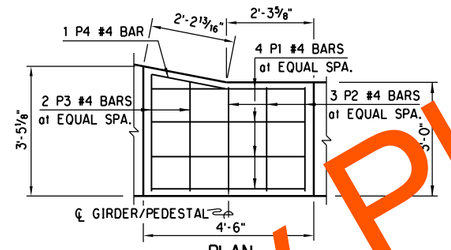
ELEVATION



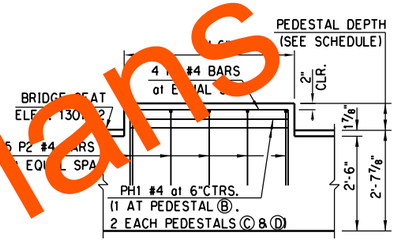
SECTION A-A



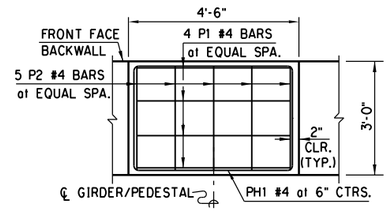
SECTION B-B



PLAN
(PEDESTAL Ⓐ)

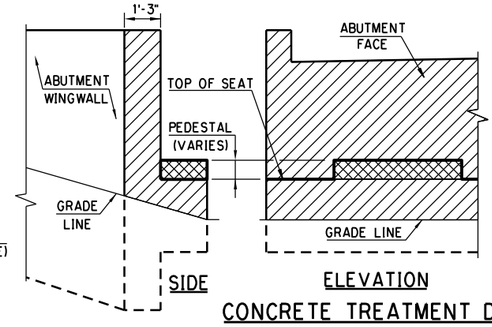


ELEVATION
(TYPICAL)



PLAN
(PEDESTALS Ⓑ. Ⓒ AND Ⓓ)

PEDESTAL REINFORCING DETAILS

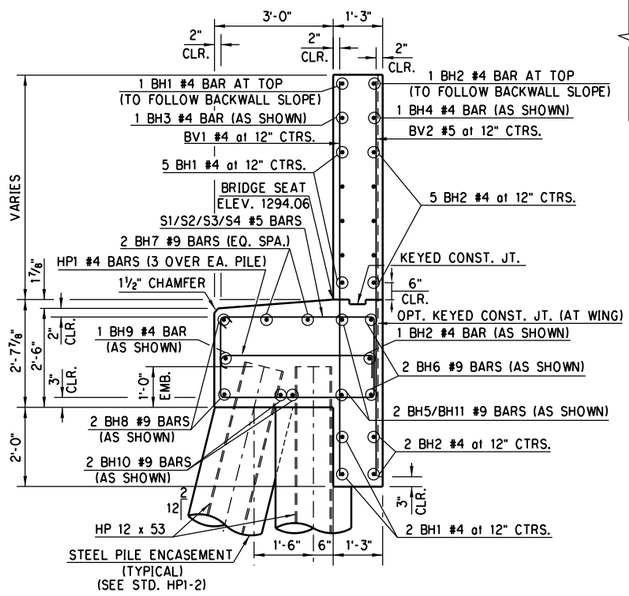


ELEVATION

NOTE:
MASK FACE AND ENDS OF SEAT TO PROVIDE A CLEAN STRAIGHT FINISH AT THE BOTTOM EDGE OF ELASTOMERIC COATING APPLICATION.
MASK OUT TOPS OF PEDESTALS WHERE BEARING PADS SIT.

ELASTOMERIC COATING (CROSS-HATCHING AND HEAVY LINE)
WATER REPELLENT (HATCHING)

CONCRETE TREATMENT DETAILS



TYPICAL SECTION THRU BRIDGE SEAT
(PEDESTAL NOT SHOWN)

ABUTMENT NO. 2 QUANTITIES		
ITEM	UNIT	TOTAL
SUBSTR. EXCAVATION COMMON	C.Y.	45
CLSM BACKFILL	C.Y.	82.3
ELASTOMERIC COATING	S.F.	143
CLASS A CONCRETE	C.Y.	37.1
EPOXY COATED REINFORCING STEEL	LB.	3830
PILES, FURNISHED (HP 10X42)	L.F.	46
PILES, FURNISHED (HP 12X53)	L.F.	90
PILES, DRIVEN (HP 10X42)	L.F.	46
PILES, DRIVEN (HP 12X53)	L.F.	90
WATER REPELLENT (VISUALLY INSPECTED)	S.Y.	29
6" PERFORATED PIPE UNDERDRAIN, ROUND	L.F.	35
6" NON-PERF. PIPE UNDERDRAIN, ROUND	L.F.	20

REVISIONS		
DESCRIPTION		DATE

PHASE 2 — OKLAHOMA COUNTY
BRIDGE "B" — RAMP "B" AT I-35 & I-240 INTERCHANGE

ABUTMENT DETAILS
ABUTMENT NO. 2
(SHEET 1 OF 2)

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

STATE JOB NO. 09032(106) SHEET NO. B061

6/1/2022 11:05:38 AM
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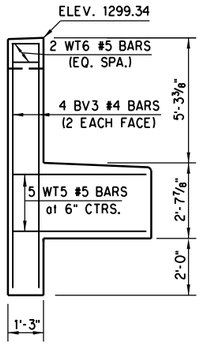
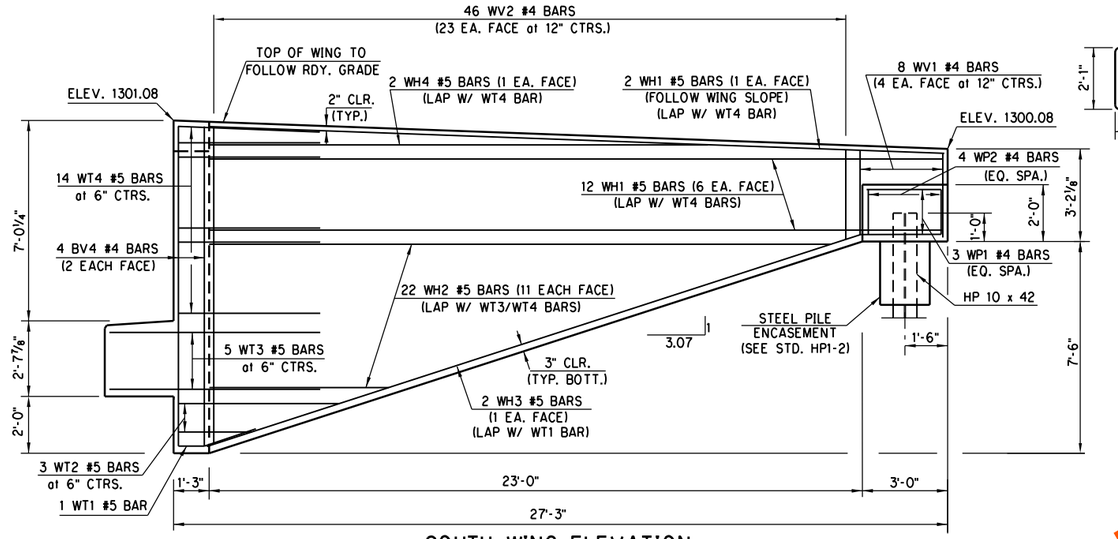
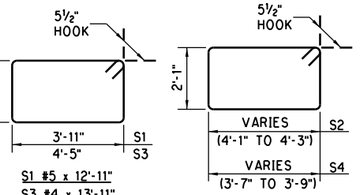
Preliminary Plans

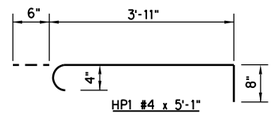


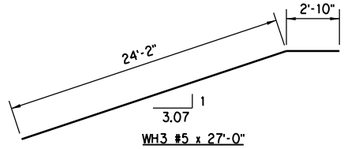
NORTH WING STUB ELEVATION

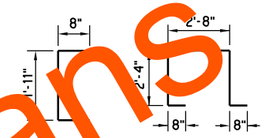


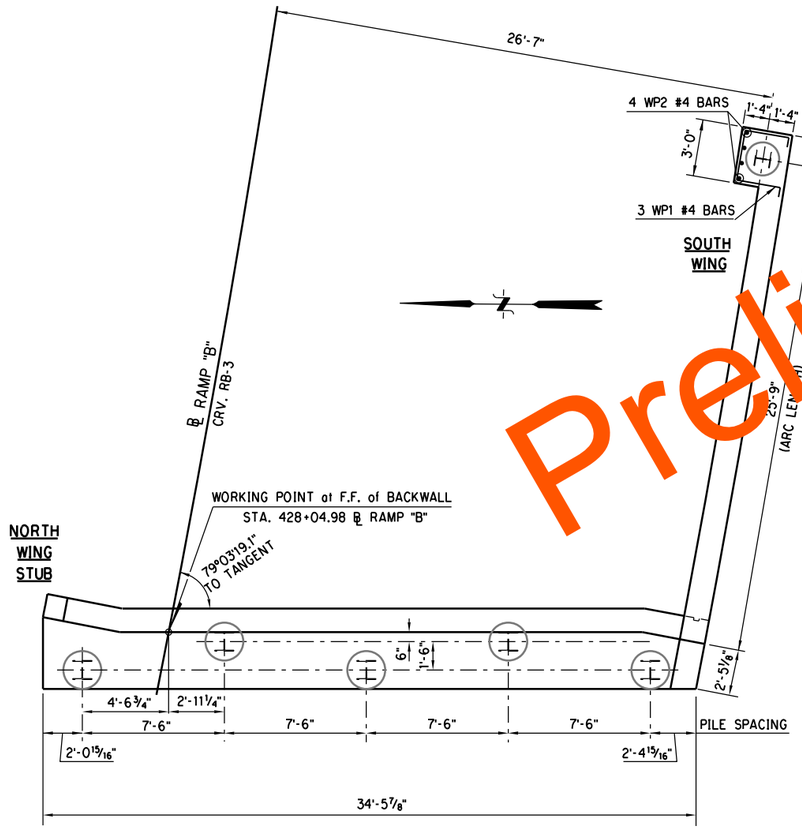
SOUTH WING ELEVATION





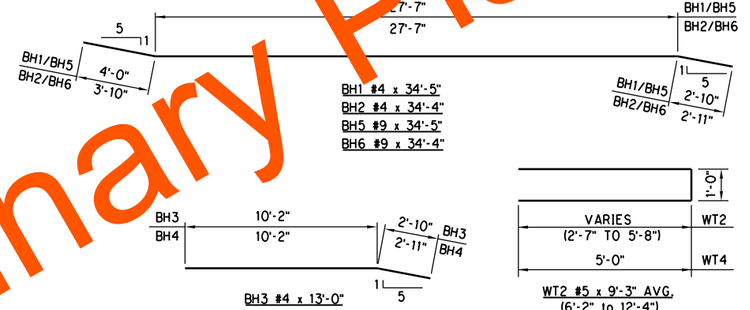


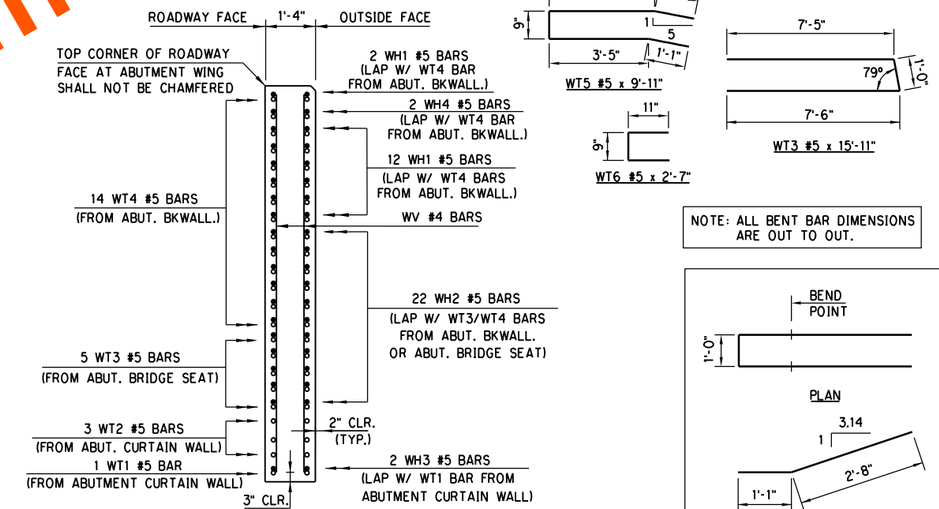




PILE SPACING DIAGRAM

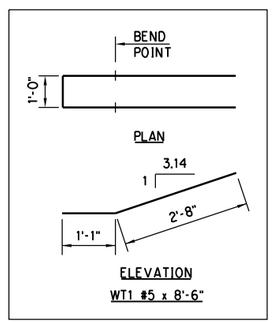
NOTE: BR. SEAT PILES ARE HP 12 x 53. WING PILES ARE HP 10 x 42 (BATTER FRONT ROW IN BR. SEAT 2:12)





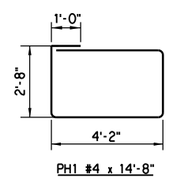
SECTION THRU SOUTH WING AT BACK FACE OF ABUTMENT SEAT

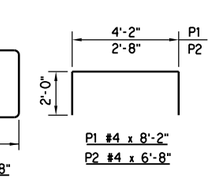
NOTE: ALL BENT BAR DIMENSIONS ARE OUT TO OUT.

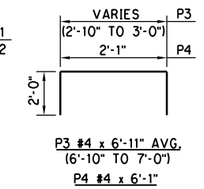


ABUTMENT NO. 2 BAR LIST
(EPOXY COATED)

MARK	NO.	SIZE	FORM	SPACING	LENGTH	LENGTH VARIATION
BH1	8	#4	BENT	12" C/C	34'-5"	--
BH2	9	#4	BENT	12" C/C	34'-4"	--
BH3	1	#4	BENT	AS SHOWN	34'-5"	--
BH4	1	#4	BENT	AS SHOWN	34'-4"	--
BH5	2	#9	BENT	AS SHOWN	13'-0"	--
BH6	2	#9	BENT	AS SHOWN	13'-2"	--
BH7	2	#9	STR.	EQUAL	34'-1 1/2" AVG.	34'-0" TO 34'-3"
BH8	2	#9	STR.	AS SHOWN	33-10"	--
BH9	1	#4	STR.	AS SHOWN	33'-10"	--
BH10	2	#9	STR.	AS SHOWN	34'-1 1/2" AVG.	34'-1" TO 34'-2"
BH11	2	#9	STR.	AS SHOWN	6'-3"	--
BV1	34	#4	STR.	12"C/C	9'-3 1/2" AVG.	8'-5" TO 10'-2"
BV2	34	#5	STR.	12"C/C	9'-3 1/2" AVG.	8'-5" TO 10'-2"
BV3	4	#4	STR.	AS SHOWN	9'-6"	--
BV4	4	#5	STR.	AS SHOWN	11'-3"	--
HP1	15	#4	BENT	AS SHOWN	5'-1"	--
P1	16	#4	BENT	EQUAL	8'-2"	--
P2	18	#4	BENT	EQUAL	6'-8'	--
P3	2	#4	BENT	AS SHOWN	6'-11" AVG.	6'-10" TO 7'-0"
P4	1	#4	BENT	AS SHOWN	6'-1"	--
PH1	3	#4	BENT	AS SHOWN	14'-8"	--
S1	30	#5	BENT	EQUAL	12'-11"	--
S2	2	#5	BENT	EQUAL	13'-5" AVG.	13'-3" TO 13'-7"
S3	1	#5	BENT	AS SHOWN	13'-11"	--
S4	2	#5	BENT	8" C/C	12'-5" AVG.	12'-3" TO 12'-7"
SC1	7	#4	BENT	EQUAL	3'-3"	--
WT1	1	#5	BENT	AS SHOWN	8'-6"	--
WT2	3	#5	BENT	6" C/C	9'-3" AVG.	6'-2" TO 12'-4"
WT3	5	#5	BENT	6" C/C	15'-11"	--
WT4	14	#5	BENT	6" C/C	11'-0"	--
WT5	5	#5	BENT	6" C/C	9'-11"	--
WT6	2	#5	BENT	EQUAL	2'-7"	--
WH1	14	#5	STR.	6" C/C	25'-10"	--
WH2	2	#5	STR.	6" C/C	14'-0" AVG.	6'-3" TO 21'-9"
WH3	2	#5	BENT	AS SHOWN	27'-0"	--
WH4	2	#5	STR.	AS SHOWN	17'-8"	--
WP1	3	#4	BENT	EQUAL	8'-8"	--
WP2	4	#4	STR.	EQUAL	1'-7"	--
WV1	8	#4	STR.	12" C/C	2'-10" AVG.	2'-9" TO 2'-11"
WV2	46	#4	STR.	12" C/C	7'-1" AVG.	3'-1" TO 11'-1"







Preliminary Plans

DESCRIPTION	REVISIONS	DATE

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 — OKLAHOMA COUNTY
BRIDGE "B" — RAMP "B" AT I-35 & I-240 INTERCHANGE

ABUTMENT DETAILS
ABUTMENT NO. 2
(SHEET 2 OF 2)

STATE JOB NO. 09032(106) SHEET NO. B062

6/1/2022 11:05:39 AM
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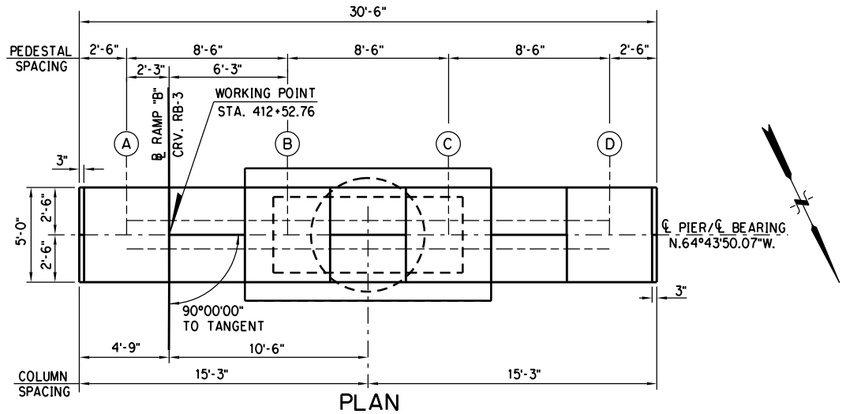
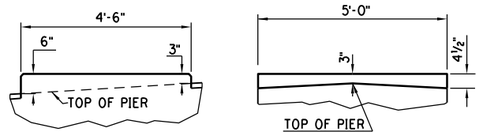
DESCRIPTION	REVISIONS	DATE



PLAN

(SEE SHEET 3 OF 3 FOR ANCHOR BOLT LAYOUT)

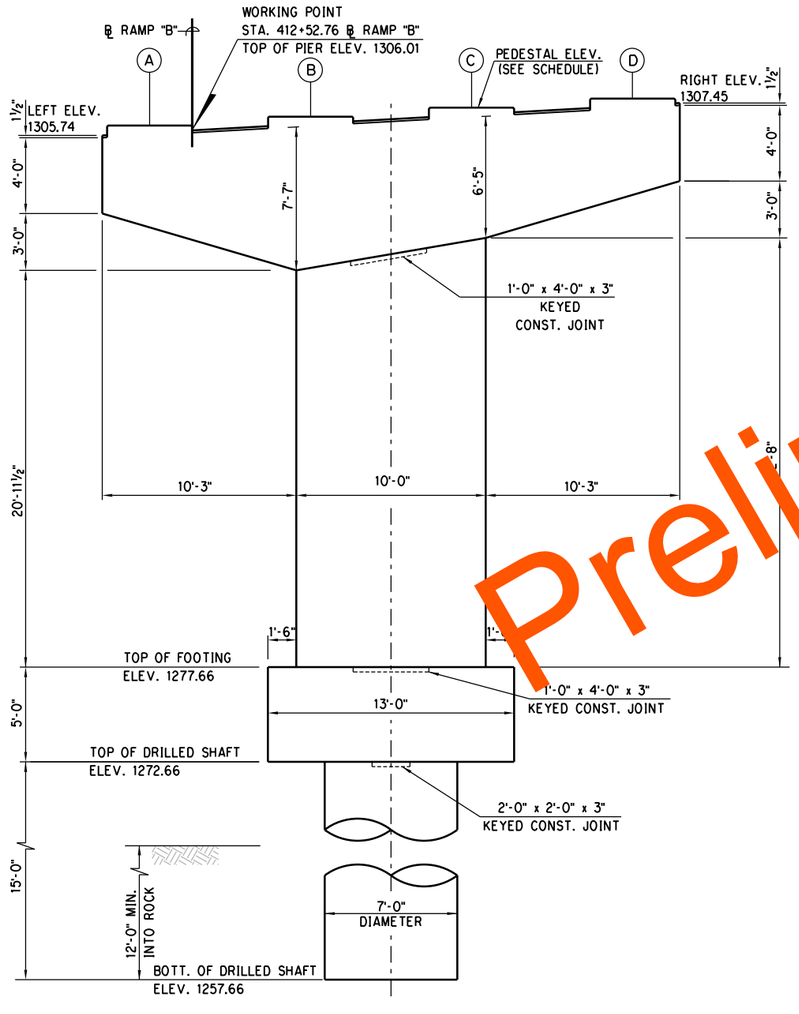


ELEVATION END VIEW

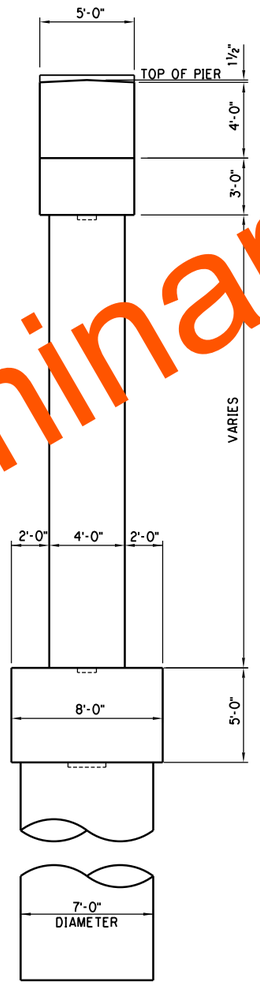
PEDESTAL DETAILS

(TYPICAL)

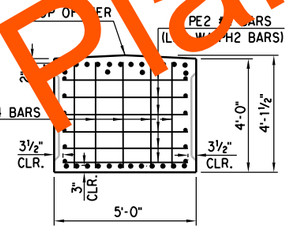
PEDESTAL ELEVATION SCHEDULE - PIER NO. 1				
PEDESTAL	A	B	C	D
SPAN 1-2 ELEVATION	1306.26	1306.73	1307.21	1307.68



ELEVATION

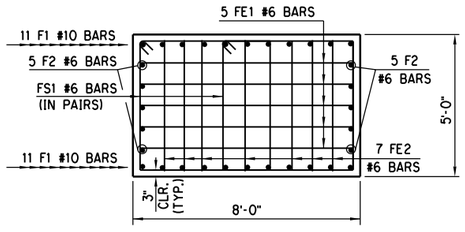


END VIEW

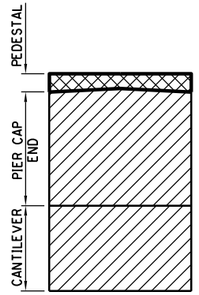


CAP END REINFORCING DETAIL

(PEDESTALS AND S BARS OMITTED FOR CLARITY)



FOOTING END REINFORCING DETAIL



NOTE:
MASK SIDES AND ENDS OF PIER TO PROVIDE A CLEAN STRAIGHT FINISH AT THE BOTTOM EDGE OF ELASTOMERIC COATING APPLICATION. MASK OUT TOPS OF PEDESTALS WHERE BEARING PADS SIT.

ELASTOMERIC COATING (CROSS-HATCHING AND HEAVY LINE)

WATER REPELLENT (HATCHING)

CONCRETE TREATMENT DETAIL

	PIER NO. 1 - QUANTITIES		
	ITEM	UNIT	TOTAL
	SUBSTRUCTURE EXCAVATION COMMON	C.Y.	50
*	ELASTOMERIC COATING	S.F.	191
	CLASS A CONCRETE	C.Y.	87.3
	EPOXY COATED REINFORCING STEEL	LB.	20,160
≠	WATER REPELLENT (VISUALLY INSPECTED)	S.Y.	58
	DRILLED SHAFTS 84" DIAMETER	L.F.	15

* TOP OF PIER CAP. TOP AND SIDES OF PEDESTALS.

≠ ENDS AND SIDES OF PIER CAP. BOTTOM OF CANTILEVERS.

Preliminary Plans

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 — OKLAHOMA COUNTY

BRIDGE "B" — RAMP "B" AT I-35 & I-240 INTERCHANGE

PIER DETAILS
PIER NO. 1
(SHEET 1 OF 3)

STATE JOB NO. 09032(06) SHEET NO. B063

6/1/2022 11:05:46 AM
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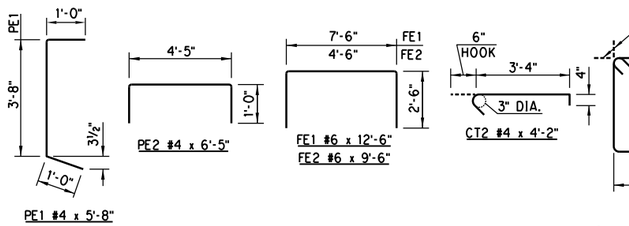
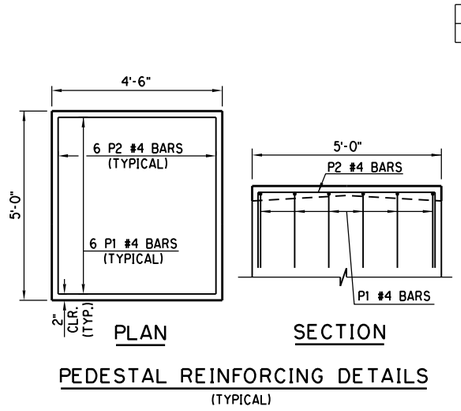
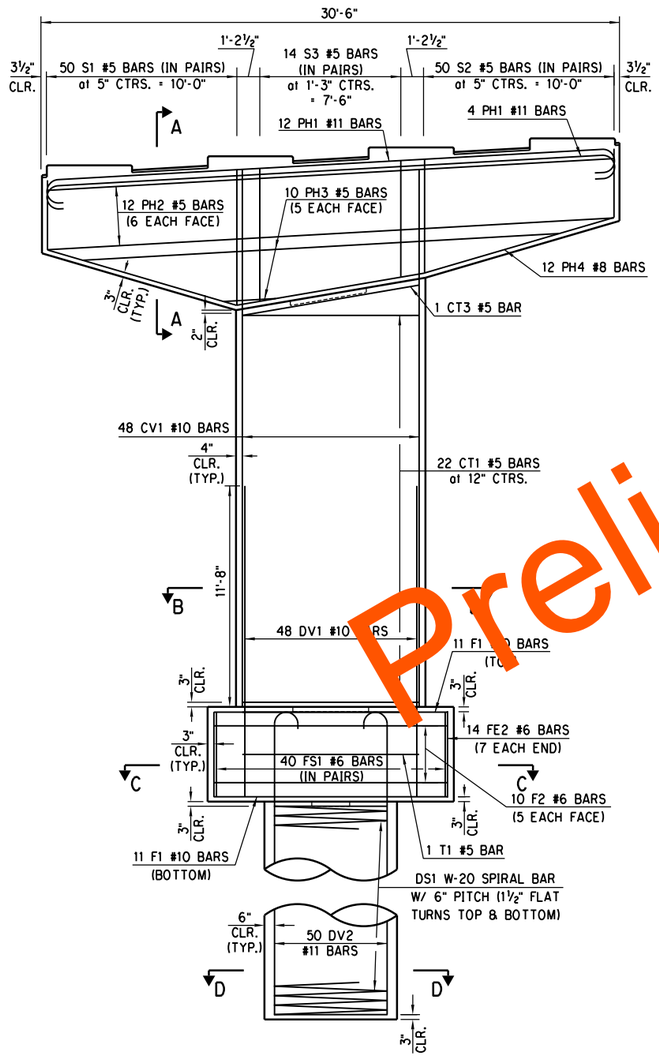
DESCRIPTION	REVISIONS	DATE



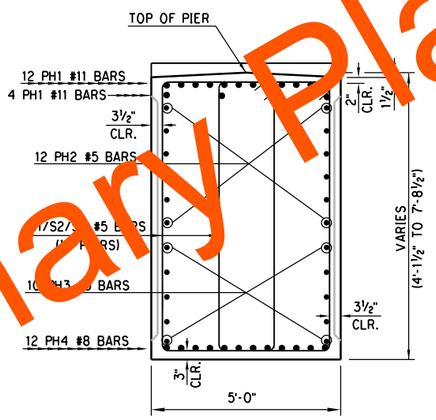


PEDESTAL REINFORCING DETAILS
(TYPICAL)

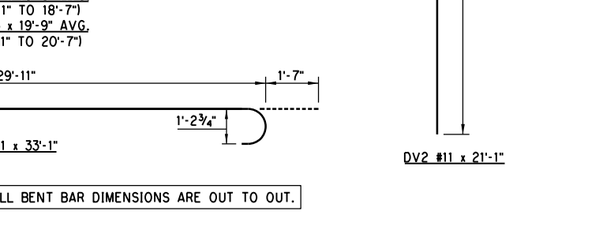
ALL BENT BAR DIMENSIONS ARE OUT TO OUT.



REINFORCING ELEVATION

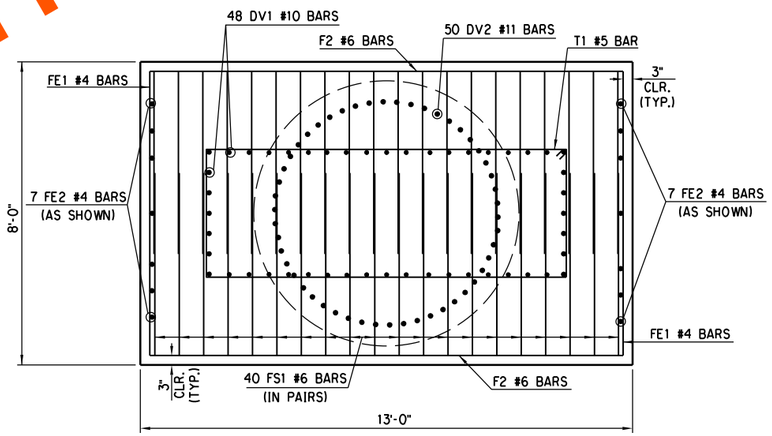


SECTION A-A

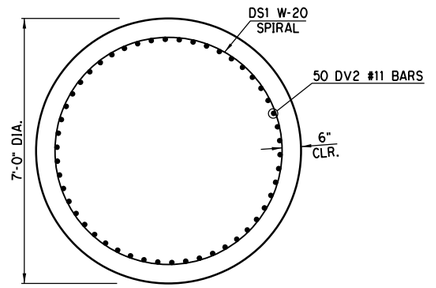


NOTE: ALTERNATE CT2 #4 BARS END TO END FOR EACH SUCCESSIVE ROW.

SECTION B-B



SECTION C-C



SECTION D-D

Preliminary Plans

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 — OKLAHOMA COUNTY
BRIDGE "B" — RAMP "B" AT I-35 & I-240 INTERCHANGE

PIER DETAILS
PIER NO. 1
(SHEET 2 OF 3)

STATE JOB NO. 09032(06) SHEET NO. B064

6/1/2022 11:05:47 AM
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DESCRIPTION	REVISIONS	DATE

BAR LIST - PIER NO. 1
(EPOXY COATED)

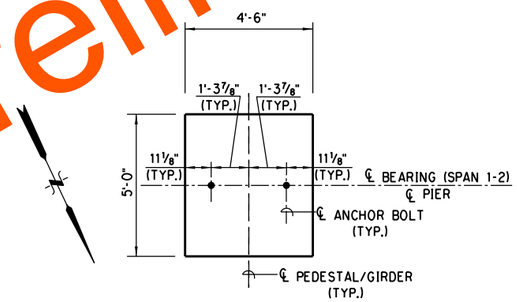
MARK	NO.	SIZE	FORM	SPACING	LENGTH	LENGTH VARIATION
CT1	22	#5	BENT	12" C/C	26'-3"	--
CT2	207	#4	BENT	AS SHOWN	4'-2"	--
CT3	1	#5	BENT	AS SHOWN	26'-5"	
CV1	48	#10	STR.	AS SHOWN	28'-5"	--
DV1	48	#10	STR.	AS SHOWN	16'-5"	--
F1	22	#10	STR.	AS SHOWN	12'-6"	--
F2	10	#6	STR.	AS SHOWN	12'-6"	--
FE1	10	#6	BENT	AS SHOWN	12'-6"	--
FE2	14	#6	BENT	AS SHOWN	9'-6"	--
FS1	40	#6	BENT	EQUAL	19'-6"	--
P1	24	#4	BENT	EQUAL	8'-2"	--
P2	24	#4	BENT	EQUAL	8'-8"	--
PE1	10	#4	BENT	AS SHOWN	5'-8"	--
PE2	12	#4	BENT	AS SHOWN	6'-5"	--
PH1	16	#11	BENT	AS SHOWN	33'-1"	--
PH2	12	#5	STR.	EQUAL	29'-11"	--
PH3	10	#5	STR.	EQUAL	13'-11 1/2" AVG.	2'-9" TO 25'-2"
PH4	12	#8	BENT	AS SHOWN	30'-10"	--
S1	50	#5	BENT	5" C/C	17'-5" AVG.	13'-11" TO 20'-11"
S2	50	#5	BENT	5" C/C	16'-3" AVG.	13'-11" TO 18'-7"
S3	14	#5	BENT	15" C/C	19'-9" AVG.	18'-11" TO 20'-7"
T1	1	#5	BENT	AS SHOWN	26'-3"	--

BAR LIST - 84" DRILLED SHAFT

▲①	DS1	1	W-20	BENT	AS SHOWN	603'-5"	
▲	DV2	50	#11	BENT	AS SHOWN	21'-1"	

① LENGTH SHOWN DOES NOT INCLUDE ANY LAPS FOR SPLICES. CONTRACTOR MAY ADD SPLICES AS NECESSARY, BUT PAYMENT WILL NOT BE MADE FOR EXTRA LENGTH REQUIRED. ADD 3'-8" FOR EACH SPLICE.

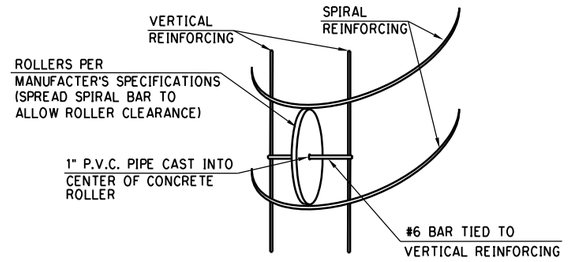
▲ NON-EPOXY COATED



NOTE: GIRDER ℄ ARE ARCS.
EACH PEDESTAL ℄ IS CONGRUENT WITH ITS GIRDER ℄ AT THE PIER ℄.

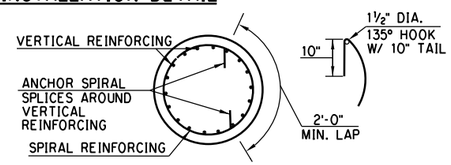
ANCHOR BOLT LAYOUT
PIER NO. 1
(TYPICAL)

NOTE: DIMENSIONS SHOWN ARE PERPENDICULAR TO PEDESTALS.
FOR FURTHER INFORMATION SEE BEARING ASSEMBLY DETAIL SHEET.



ROLLER INSTALLATION DETAIL

ROLLER PLACEMENT



SPIRAL REINFORCING SPLICE DETAILS

NOTE: SPIRAL BARS SHALL CONFORM TO AASHTO M-32.
SPIRAL BAR LENGTHS DO NOT INCLUDE LAP.
IF LAP IS REQUIRED, THE LENGTH OF THE LAP SHALL BE AS SHOWN.

ROLLER DETAILS

NOTE: REINFORCING CAGE CENTERING DEVICES SHALL CONSIST OF ROLLERS PLACED AT SPACING AS SHOWN AND HAVE THE CHARACTERISTICS AS INDICATED IN THE MANUFACTURER'S SPECIFICATIONS. SLAB BOLSTERS AND HIGH CHAIRS WILL BE ALLOWED BY THE DEPARTMENT.

Preliminary Plans

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 — OKLAHOMA COUNTY
BRIDGE "B" — RAMP "B" AT I-35 & I-240 INTERCHANGE

PIER DETAILS
PIER NO. 1
(SHEET 3 OF 3)

STATE JOB NO. 09032(06) SHEET NO. 8065

6/1/2022 10:05:48 AM
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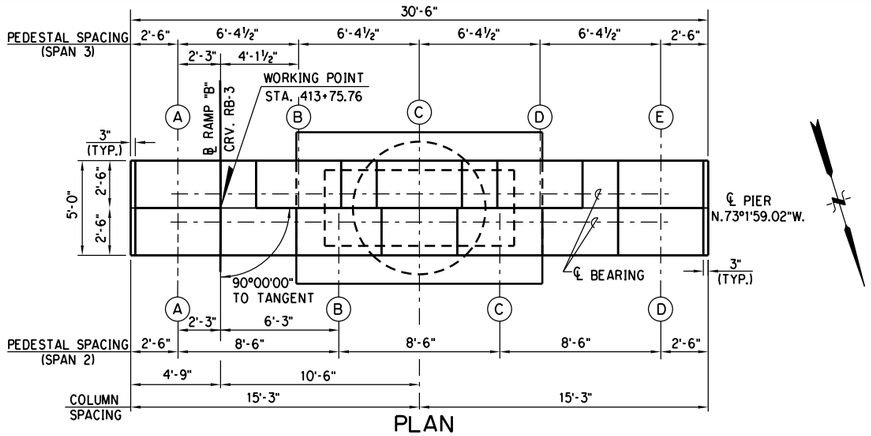
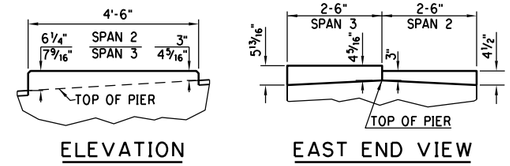
DESCRIPTION	REVISIONS	DATE



PLAN

(SEE SHEET 3 OF 3 FOR ANCHOR BOLT LAYOUT)



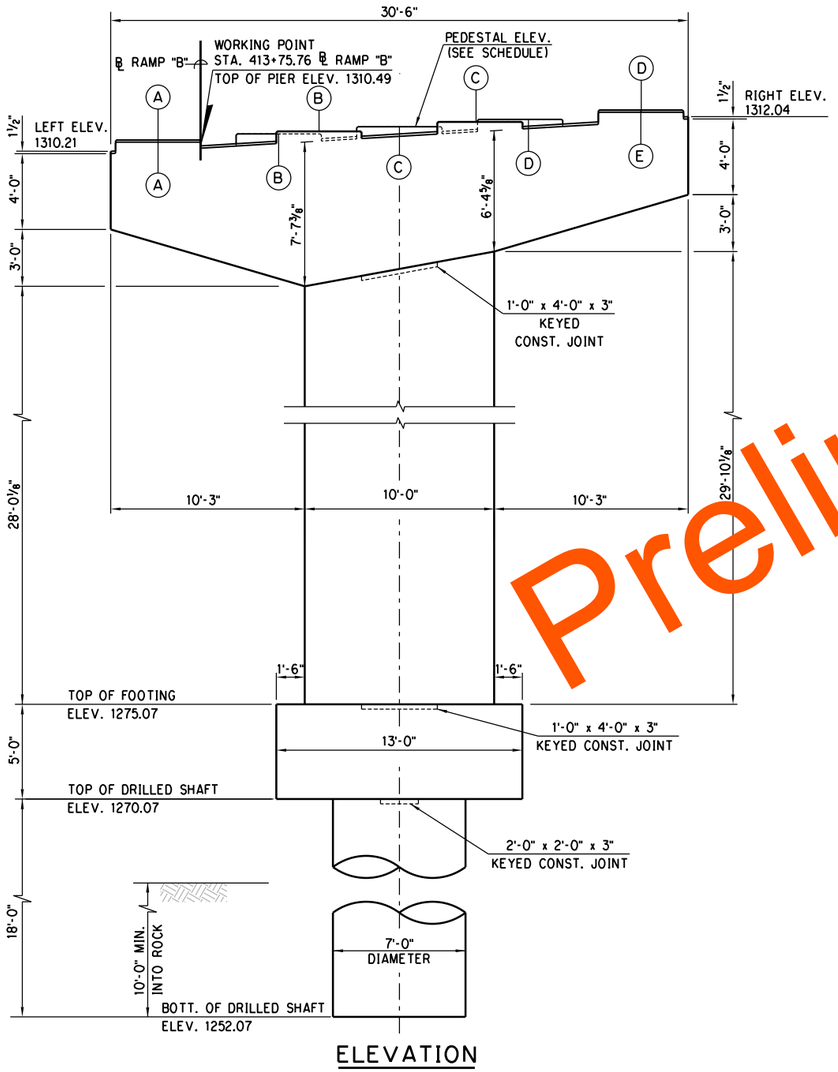
ELEVATION

EAST END VIEW

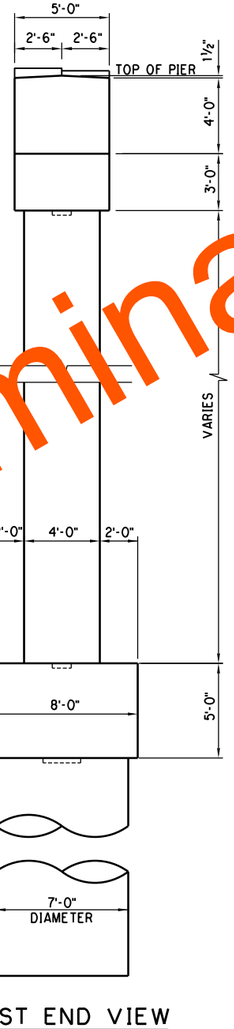
PEDESTAL DETAILS

(TYPICAL)

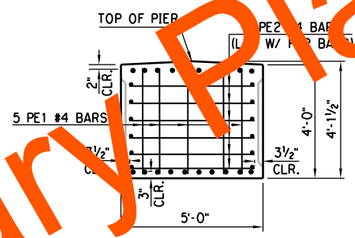
PEDESTAL ELEVATION SCHEDULE - PIER NO. 2					
PEDESTAL	A	B	C	D	E
SPAN 2 ELEVATION	1310.74	1311.25	1311.76	1312.27	--
SPAN 3 ELEVATION	1310.85	1311.23	1311.61	1312.00	1312.38



ELEVATION

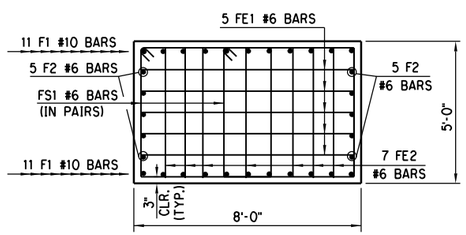


EAST END VIEW

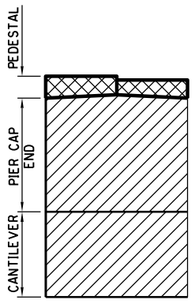


CAP END
REINFORCING DETAIL

(PEDESTALS AND S BARS OMITTED FOR CLARITY)



FOOTING END
REINFORCING DETAIL



NOTE:
MASK SIDES AND ENDS OF PIER TO PROVIDE A CLEAN STRAIGHT FINISH AT THE BOTTOM EDGE OF ELASTOMERIC COATING APPLICATION. MASK OUT TOPS OF PEDESTALS WHERE BEARING PADS SIT.

ELASTOMERIC COATING (CROSS-HATCHING AND HEAVY LINE)

WATER REPELLENT (HATCHING)

CONCRETE TREATMENT DETAIL

PIER NO. 2 - QUANTITIES			
	ITEM	UNIT	TOTAL
*	SUBSTRUCTURE EXCAVATION COMMON	C.Y.	50
*	ELASTOMERIC COATING	S.F.	216
	CLASS A CONCRETE	C.Y.	98.3
	EPOXY COATED REINFORCING STEEL	LB.	20,950
≠	WATER REPELLENT (VISUALLY INSPECTED)	S.Y.	58
	DRILLED SHAFTS 84" DIAMETER	L.F.	18

* TOP OF PIER CAP. TOP AND SIDES OF PEDESTALS.

≠ ENDS AND SIDES OF PIER CAP. BOTTOM OF CANTILEVERS.

Preliminary Plans

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 — OKLAHOMA COUNTY
BRIDGE "B" — RAMP "B" AT I-35 & I-240 INTERCHANGE

PIER DETAILS
PIER NO. 2
(SHEET 1 OF 3)

STATE JOB NO. 09032(06) SHEET NO. B066

6/1/2022 11:05:49 AM
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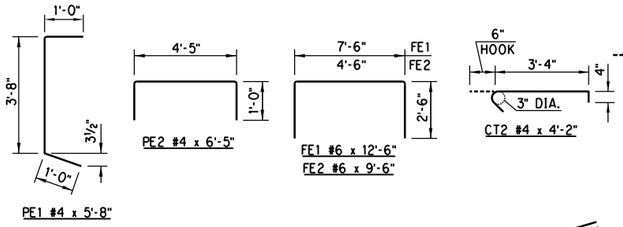
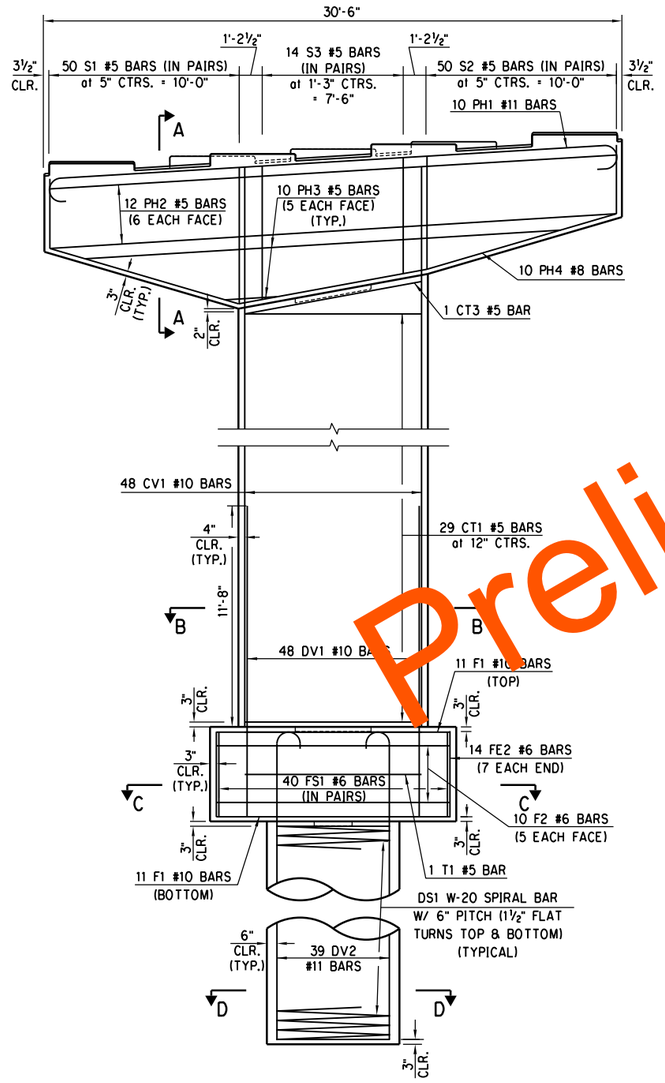


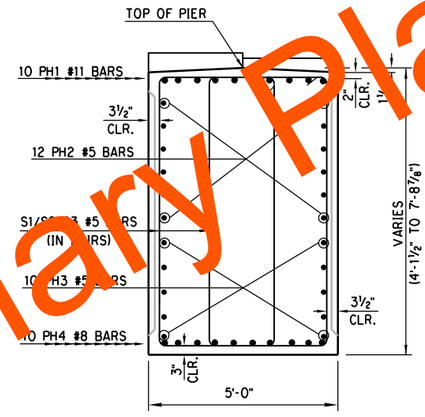
PEDESTAL REINFORCING DETAILS

(EXTERIOR PEDESTALS SHOWN. INTERIOR PEDESTALS WILL NOT ALIGN)

ALL BENT BAR DIMENSIONS ARE OUT TO OUT.

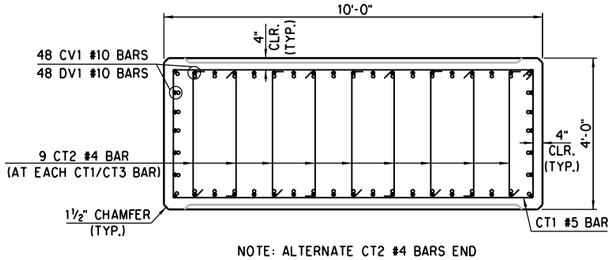


REINFORCING ELEVATION



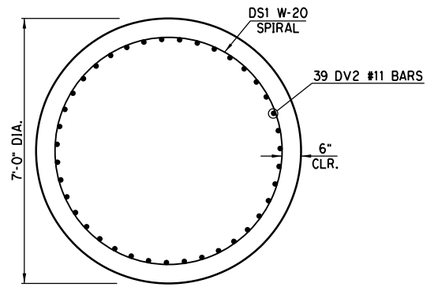
SECTION A-A

SECTION C-C



NOTE: ALTERNATE CT2 #4 BARS END
TO END FOR EACH SUCCESSIVE ROW.

SECTION B-B



SECTION D-D

Preliminary Plans

DESCRIPTION	REVISIONS	DATE

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 — OKLAHOMA COUNTY

BRIDGE "B" — RAMP "B" AT I-35 & I-240 INTERCHANGE

PIER DETAILS
PIER NO. 2
(SHEET 2 OF 3)

STATE JOB NO. 09032(106) SHEET NO. B067

6/1/2022 11:05:50 AM
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REVISIONS		
DESCRIPTION		DATE

BAR LIST - PIER NO. 2
(EPOXY COATED)

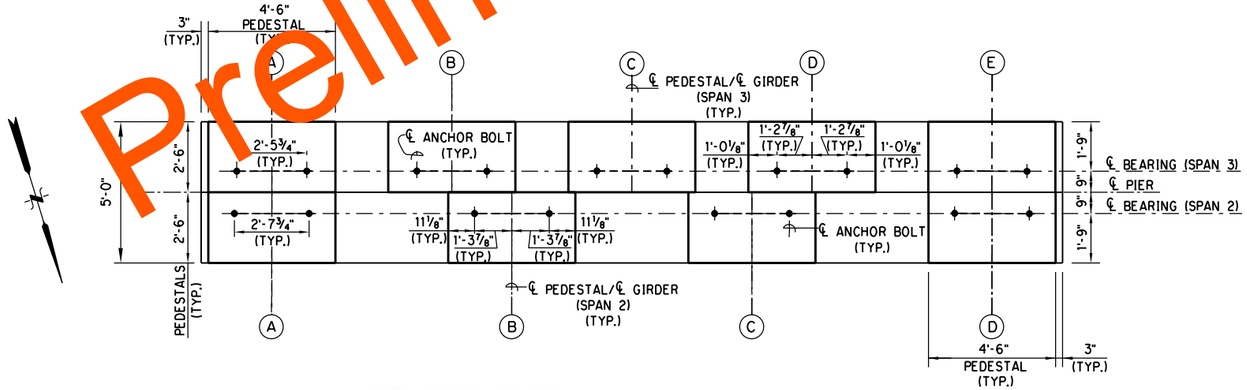
MARK	NO.	SIZE	FORM	SPACING	LENGTH	LENGTH VARIATION
CT1	29	#5	BENT	12" C/C	26'-3"	--
CT2	270	#4	BENT	AS SHOWN	4'-2"	--
CT3	1	#5	BENT	AS SHOWN	26'-5"	
CV1	48	#10	STR.	AS SHOWN	35'-6"	--
DV1	48	#10	STR.	AS SHOWN	16'-5"	--
F1	22	#10	STR.	AS SHOWN	12'-6"	--
F2	10	#6	STR.	AS SHOWN	12'-6"	--
FE1	10	#6	BENT	AS SHOWN	12'-6"	--
FE2	14	#6	BENT	AS SHOWN	9'-6"	--
FS1	40	#6	BENT	EQUAL	19'-6"	--
P1	36	#4	BENT	EQUAL	8'-2"	--
P2	54	#4	BENT	EQUAL	6'-2"	--
PE1	10	#4	BENT	AS SHOWN	5'-8"	--
PE2	12	#4	BENT	AS SHOWN	6'-5"	--
PH1	10	#11	BENT	AS SHOWN	33'-1"	--
PH2	12	#5	STR.	EQUAL	29'-11"	--
PH3	10	#5	STR.	EQUAL	13'-11 1/2" AVG.	2'-9" TO 25'-2"
PH4	10	#8	BENT	AS SHOWN	30'-10"	--
S1	50	#5	BENT	5" C/C	17'-9" AVG.	[illegible]" TO 21'-[illegible]
S2	50	#5	BENT	5" C/C	16'-6" AVG.	1[illegible]" TO 18[illegible]
S3	14	#5	BENT	15" C/C	20'-0" AVG.	19'-[illegible]" TO [illegible]'-11"
T1	1	#5	BENT	AS SHOWN	26'-3"	

BAR LIST - 84" DRILLED SHAFT

▲①	DS1	1	W-20	BENT	AS SHOWN	716[illegible]	--
▲	DV2	39	#11	BENT	[illegible]OWN	24'-1"	--

① LENGTH SHOWN DOES NOT INCLUDE ANY LAP FOR SPLICES. CONTRACTOR MAY ADD SPLICES AS NECESSARY, BUT PAYMENT WILL NOT BE MADE FOR EXTRA LENGTH REQUIRED. ADD 3'-0" FOR EACH SPLICE.

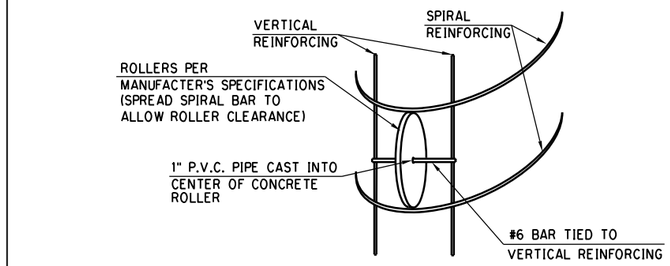
▲ NON-EPOXY COATED



NOTE: GIRDER ℄ ARE ARCS.
EACH PEDESTAL ℄ IS CONGRUENT WITH ITS GIRDER ℄ AT THE PIER ℄.

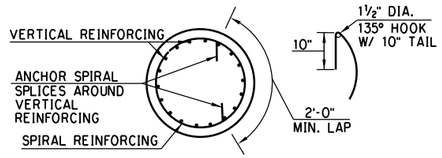
ANCHOR BOLT LAYOUT
PIER NO 2

NOTE: DIMENSIONS SHOWN ARE PERPENDICULAR TO PEDESTALS.
FOR FURTHER INFORMATION SEE BEARING ASSEMBLY DETAIL SHEET.



ROLLER INSTALLATION DETAIL

ROLLER PLACEMENT



SPIRAL REINFORCING SPLICE DETAILS

NOTE: SPIRAL BARS SHALL CONFORM TO AASHTO M-32.
SPIRAL BAR LENGTHS DO NOT INCLUDE LAP.
IF LAP IS REQUIRED. THE LENGTH OF THE LAP SHALL BE AS SHOWN.

ROLLER DETAILS

NOTE: REINFORCING CAGE CENTERING DEVICES SHALL CONSIST OF ROLLERS PLACED AT SPACING AS SHOWN AND HAVE THE CHARACTERISTICS AS INDICATED IN THE MANUFACTURER'S SPECIFICATIONS. SLAB BOLSTERS AND HIGH CHAIRS WILL BE ALLOWED BY THE DEPARTMENT.

Preliminary Plans

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 — OKLAHOMA COUNTY
BRIDGE "B" — RAMP "B" AT I-35 & I-240 INTERCHANGE

PIER DETAILS
PIER NO. 2
(SHEET 3 OF 3)

STATE JOB NO. 09032(106) SHEET NO. B068

5/1/2022 11:05:51 AM
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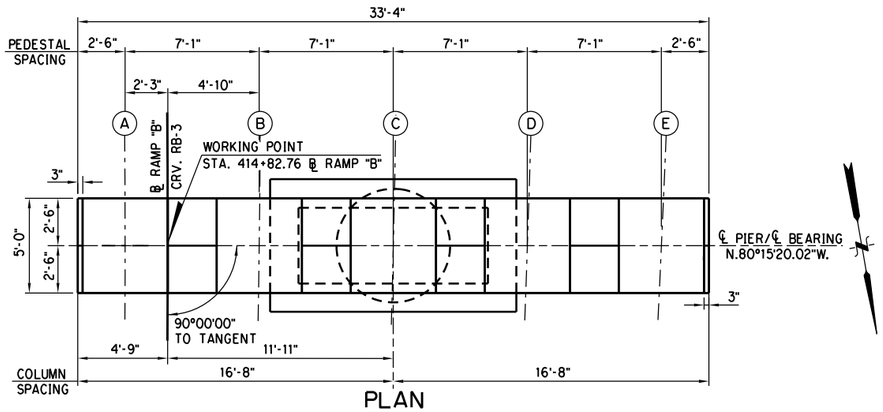
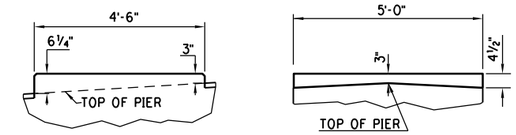
DESCRIPTION	REVISIONS	DATE



PLAN

(SEE SHEET 3 OF 3 FOR ANCHOR BOLT LAYOUT)

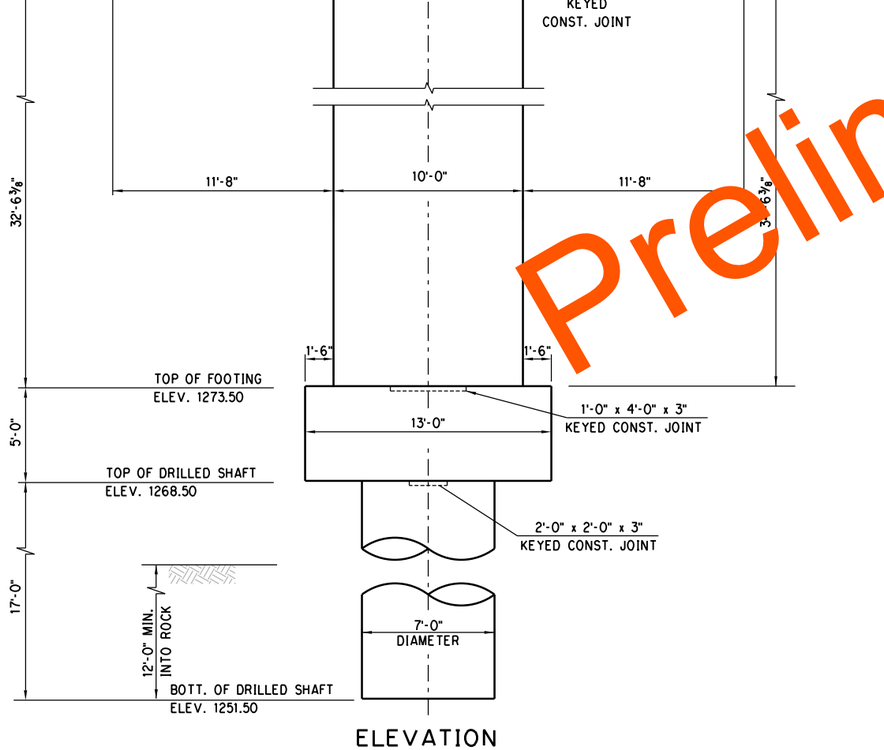


ELEVATION END VIEW

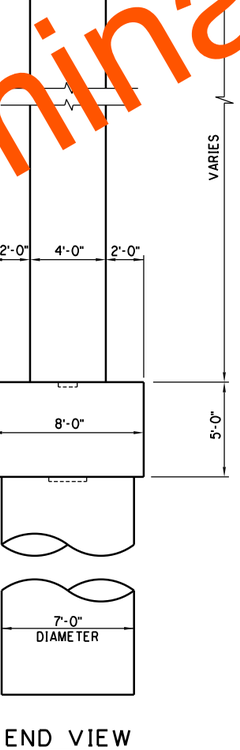
PEDESTAL DETAILS

(TYPICAL)

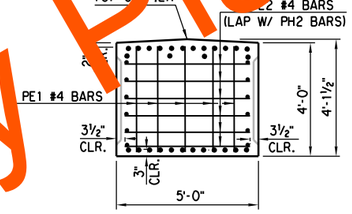
PEDESTAL ELEVATION SCHEDULE - PIER NO. 3					
PEDESTAL	A	B	C	D	E
SPAN 3-4 ELEVEVATION	1313.69	1314.12	1314.54	1314.97	1315.39



ELEVATION

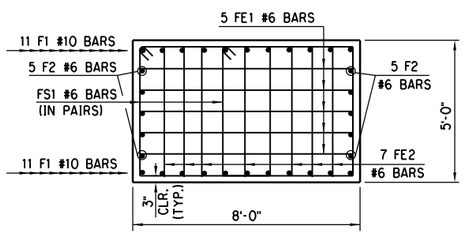


END VIEW

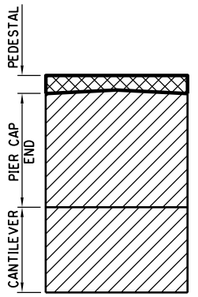


CAP END REINFORCING DETAIL

(PEDESTALS AND S BARS OMITTED FOR CLARITY)



FOOTING END REINFORCING DETAIL



NOTE:
MASK SIDES AND ENDS OF PIER TO PROVIDE A CLEAN STRAIGHT FINISH AT THE BOTTOM EDGE OF ELASTOMERIC COATING APPLICATION. MASK OUT TOPS OF PEDESTALS WHERE BEARING PADS SIT.

ELASTOMERIC COATING
(CROSS-HATCHING AND HEAVY LINE)

WATER REPELLENT
(HATCHING)

CONCRETE TREATMENT DETAIL

PIER NO. 3 - QUANTITIES			
	ITEM	UNIT	TOTAL
*	SUBSTRUCTURE EXCAVATION COMMON	C.Y.	50
*	ELASTOMERIC COATING	S.F.	216
	CLASS A CONCRETE	C.Y.	109.2
	EPOXY COATED REINFORCING STEEL	LB.	23,840
≠	WATER REPELLENT (VISUALLY INSPECTED)	S.Y.	62
	DRILLED SHAFTS 84" DIAMETER	L.F.	17

* TOP OF PIER CAP. TOP AND SIDES OF PEDESTALS.

≠ ENDS AND SIDES OF PIER CAP. BOTTOM OF CANTILEVERS.

Preliminary Plans

DESIGN			
DRAWN			
CHECKED			
APPROVED			
SQUAD	POE		

PHASE 2 OKLAHOMA COUNTY

BRIDGE "B" RAMP "B" AT I-35 & I-240 INTERCHANGE

PIER DETAILS
PIER NO. 3

(SHEET 1 OF 3)

STATE JOB NO. 09032(106) SHEET NO. B069

6/1/2022 11:05:52 AM
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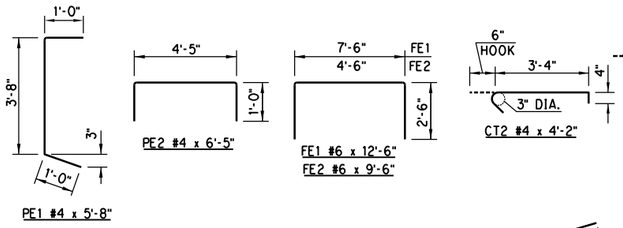
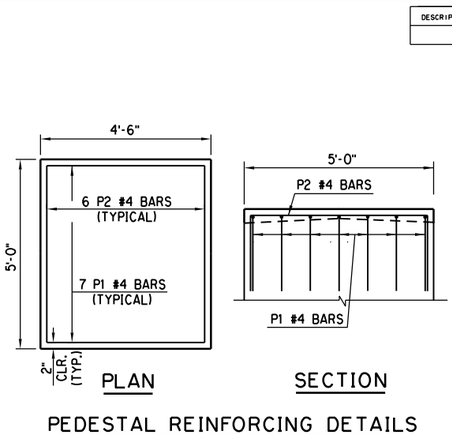
DESCRIPTION	REVISIONS	DATE

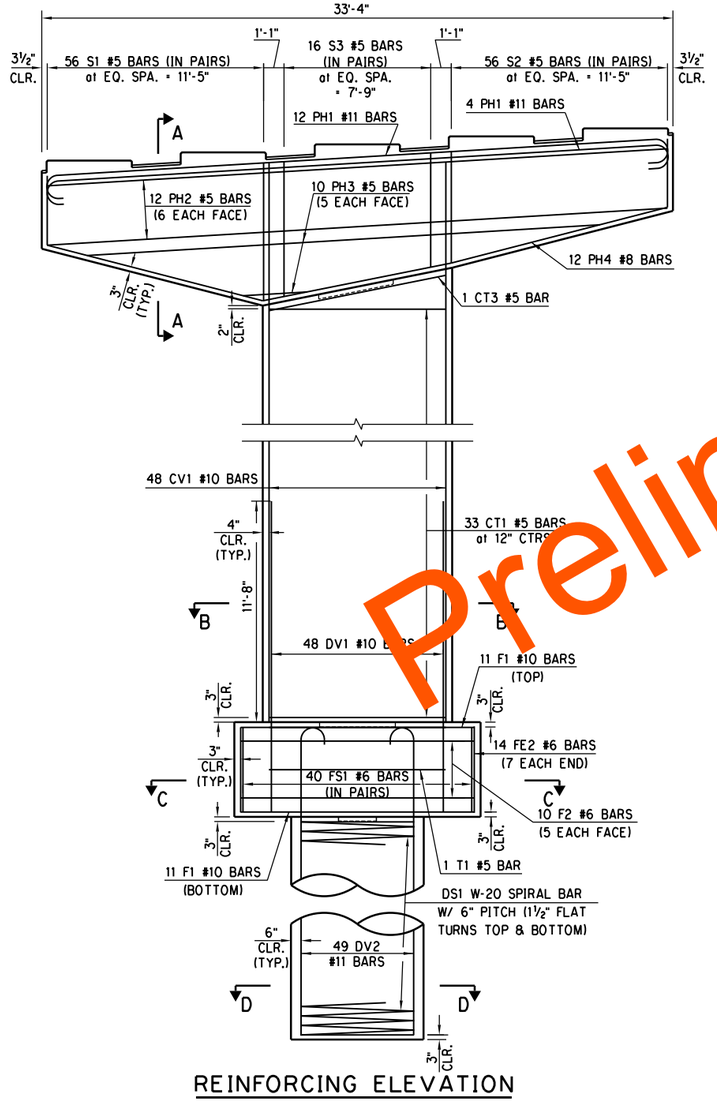


ALL BENT BAR DIMENSIONS ARE OUT TO OUT.

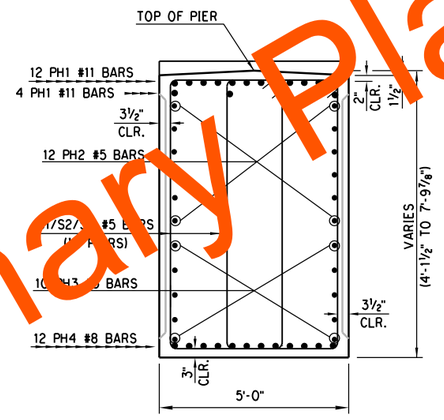


PEDESTAL REINFORCING DETAILS

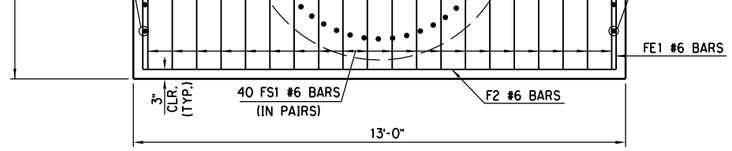
(TYPICAL)



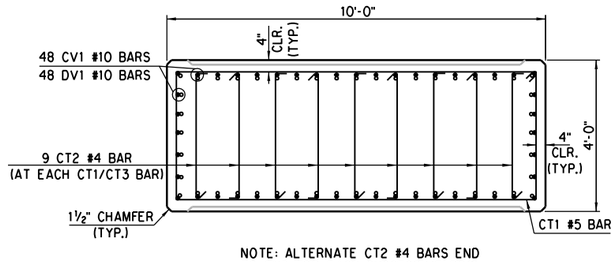
REINFORCING ELEVATION



SECTION A-A

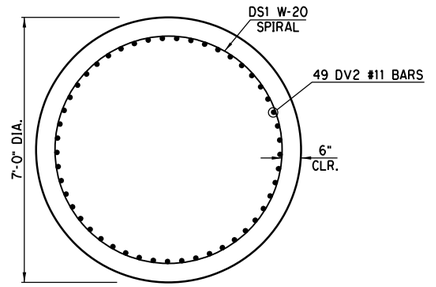


SECTION C-C



NOTE: ALTERNATE CT2 #4 BARS END TO END FOR EACH SUCCESSIVE ROW.

SECTION B-B



SECTION D-D

Preliminary Plans

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 — OKLAHOMA COUNTY

BRIDGE "B" — RAMP "B" AT I-35 & I-240 INTERCHANGE

PIER DETAILS
PIER NO. 3
(SHEET 2 OF 3)

STATE JOB NO. 09032(106) SHEET NO. B070

6/1/2022 11:05:53 AM
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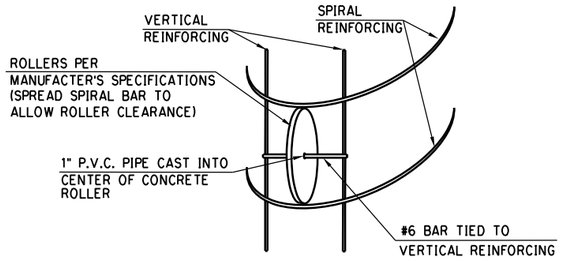
REVISIONS		
DESCRIPTION		DATE

BAR LIST - PIER NO. 3
(EPOXY COATED)

MARK	NO.	SIZE	FORM	SPACING	LENGTH	LENGTH VARIATION
CT1	33	#5	BENT	12" C/C	26'-3"	--
CT2	306	#4	BENT	AS SHOWN	4'-2"	
CT3	1	#5	BENT	AS SHOWN	26'-5"	--
CV1	48	#10	STR.	AS SHOWN	40'-0"	--
DV1	48	#10	STR.	AS SHOWN	16'-5"	--
F1	22	#10	STR.	AS SHOWN	12'-6"	--
F2	10	#6	STR.	AS SHOWN	12'-6"	--
FE1	10	#6	BENT	AS SHOWN	12'-6"	--
FE2	14	#6	BENT	AS SHOWN	9'-6"	--
FS1	40	#6	BENT	EQUAL	19'-6"	--
P1	35	#4	BENT	EQUAL	8'-2"	--
P2	30	#4	BENT	EQUAL	8'-8"	--
PE1	10	#4	BENT	AS SHOWN	5'-8"	--
PE2	12	#4	BENT	AS SHOWN	6'-5"	--
PH1	16	#11	BENT	AS SHOWN	35'-11"	--
PH2	12	#5	STR.	EQUAL	32'-9"	--
PH3	10	#5	STR.	EQUAL	15'-3 1/2" AVG.	3'-5" TO 27'-2"
PH4	12	#8	BENT	AS SHOWN	33'-9"	--
S1	56	#5	BENT	EQUAL	17'-6" AVG.	13'-11" TO 21'-1"
S2	56	#5	BENT	EQUAL	16'-1" AVG.	13'-11" TO 18'-3"
S3	16	#5	BENT	EQUAL	19'-6" AVG.	18'-5" TO 20'-7"
T1	1	#5	BENT	AS SHOWN	26'-3"	--
				"		
▲① DS1	1	W-20	BENT	AS SHOWN	[illegible]10"	--
▲ DV2	49	#11	BENT	AS SHOWN	23'	--

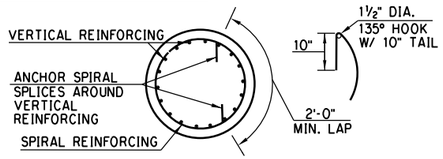
① LENGTH SHOWN DOES NOT INCLUDE ANY LAPS FOR SPLICES. CONTRACTOR MAY ADD SPLICES AS NECESSARY, BUT PAYMENT WILL NOT BE MADE FOR EXTRA LENGTH REQUIRED. ADD 3'-8" FOR EACH SPLICE.

▲ NON-EPOXY COATED



ROLLER INSTALLATION DETAIL

ROLLER PLACEMENT

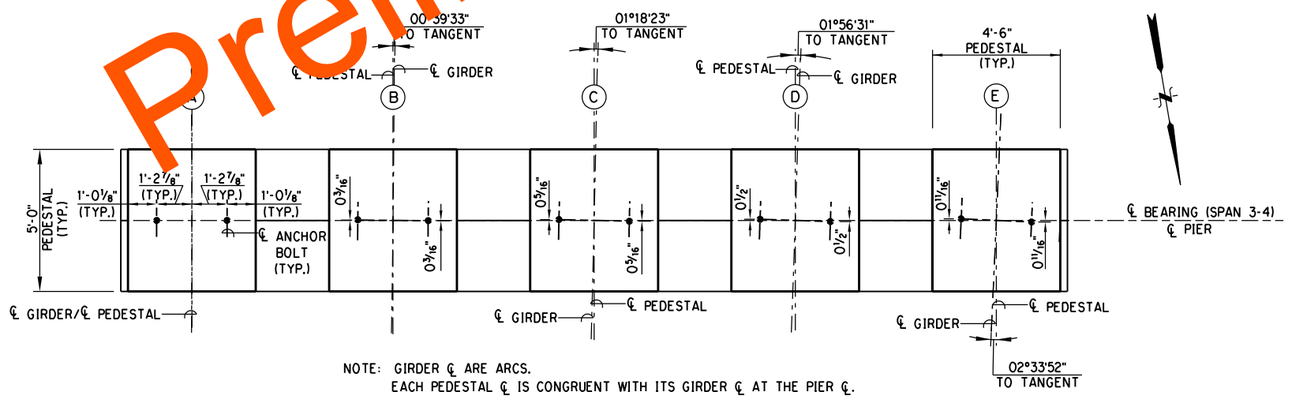


SPIRAL REINFORCING SPLICE DETAILS

NOTE: SPIRAL BARS SHALL CONFORM TO AASHTO M-32. SPIRAL BAR LENGTHS DO NOT INCLUDE LAP. IF LAP IS REQUIRED. THE LENGTH OF THE LAP SHALL BE AS SHOWN.

ROLLER DETAILS

NOTE: REINFORCING CAGE CENTERING DEVICES SHALL CONSIST OF ROLLERS PLACED AT SPACING AS SHOWN AND HAVE THE CHARACTERISTICS AS INDICATED IN THE MANUFACTURER'S SPECIFICATIONS. SLAB BOLSTERS AND HIGH CHAIRS WILL BE ALLOWED BY THE DEPARTMENT.



NOTE: GIRDER ℄ ARE ARCS.
EACH PEDESTAL ℄ IS CONGRUENT WITH ITS GIRDER ℄ AT THE PIER ℄.

ANCHOR BOLT LAYOUT
PIER NO. 3

NOTE: DIMENSIONS SHOWN ARE PERPENDICULAR TO PEDESTALS.
FOR FURTHER INFORMATION SEE BEARING ASSEMBLY DETAIL SHEET.

Preliminary Plans

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 — OKLAHOMA COUNTY
BRIDGE "B" — RAMP "B" AT I-35 & I-240 INTERCHANGE

PIER DETAILS
PIER NO. 3
(SHEET 3 OF 3)

STATE JOB NO. 09032(106) SHEET NO. B071

6/1/2022 11:05:54 AM
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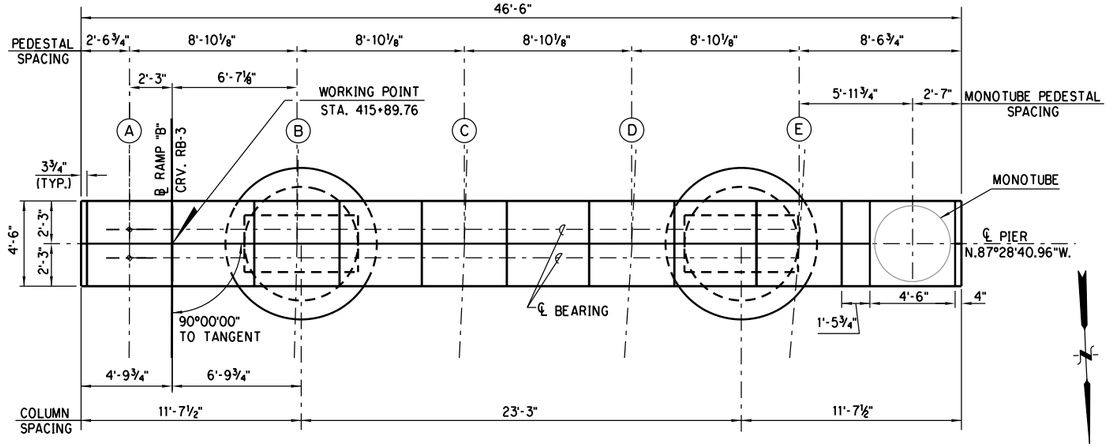
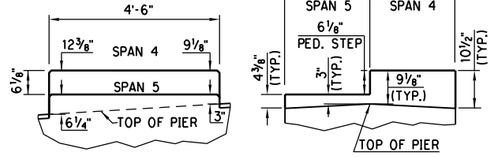
DESCRIPTION	REVISIONS	DATE



PLAN

(SEE SHEET 3 OF 3 FOR ANCHOR BOLT LAYOUT)

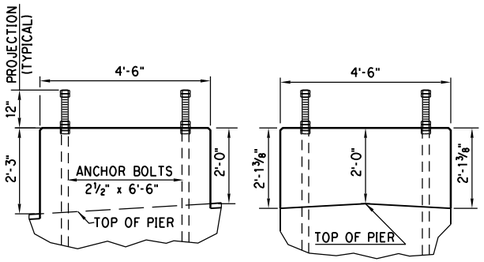


ELEVATION EAST END VIEW

PEDESTAL DETAILS

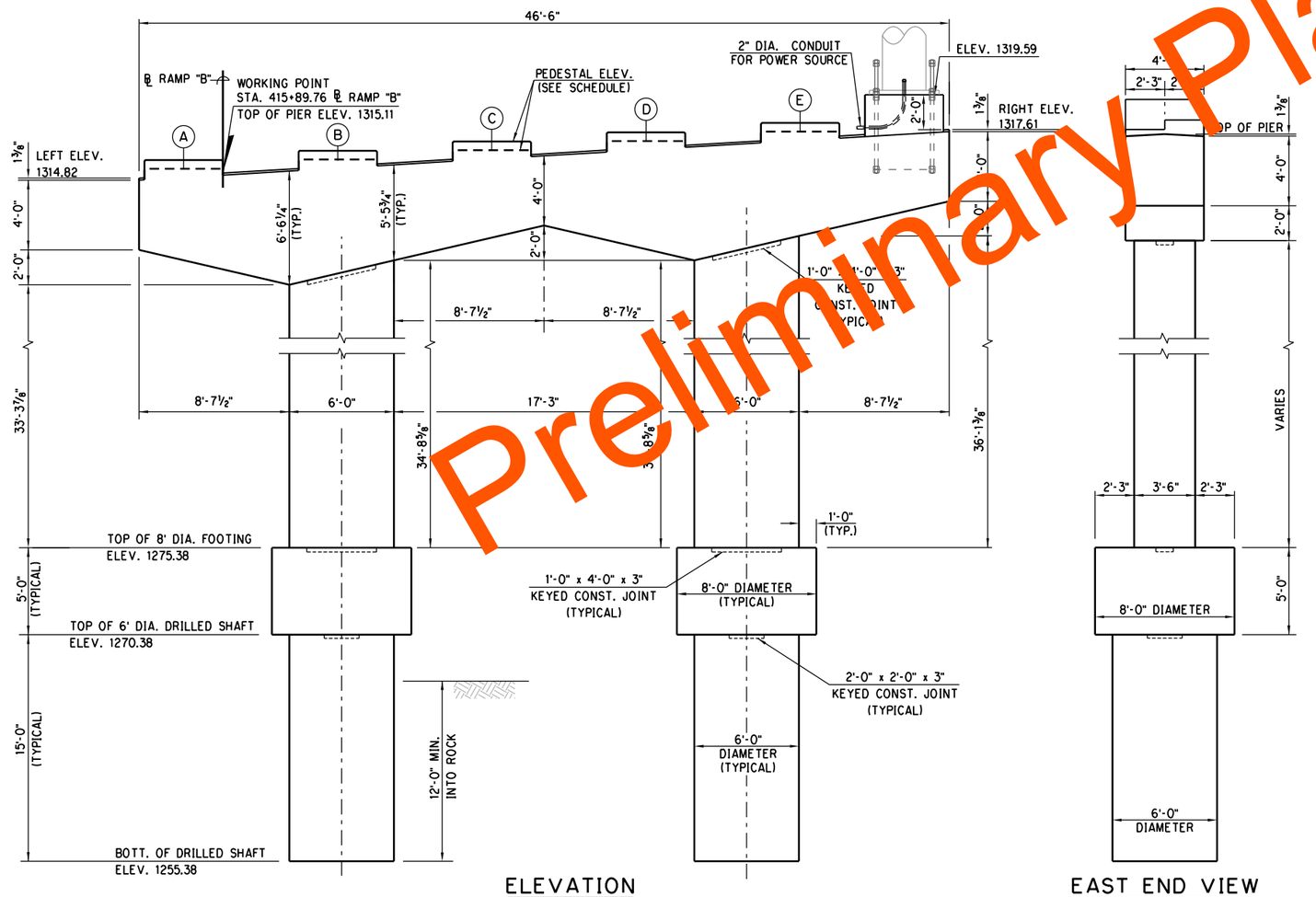
(TYPICAL)

PEDESTAL ELEVATION SCHEDULE - PIER NO. 4					
PEDESTAL	A	B	C	D	E
SPAN 4 ELEVATION	1315.87	1316.40	1316.93	1317.46	1317.99
SPAN 5 ELEVATION	1315.36	1315.89	1316.42	1316.95	1217.48

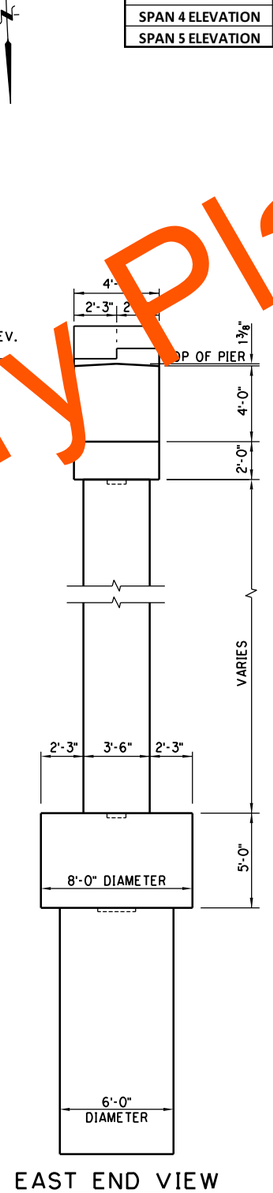


ELEVATION END VIEW

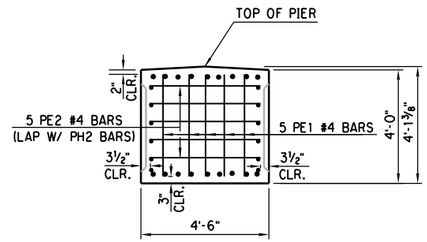
MONOTUBE PEDESTAL DETAILS



ELEVATION

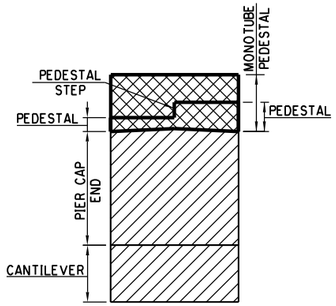


EAST END VIEW



CAP END REINFORCING DETAIL

(PEDESTALS AND S BARS OMITTED FOR CLARITY)



ELASTOMERIC COATING (CROSS-HATCHING AND HEAVY LINE)

WATER REPELLENT (HATCHING)

CONCRETE TREATMENT DETAIL

NOTE:
MASK SIDES AND ENDS OF PIER TO PROVIDE A CLEAN STRAIGHT FINISH AT THE BOTTOM EDGE OF ELASTOMERIC COATING APPLICATION.
MASK OUT TOPS OF PEDESTALS WHERE BEARING PADS SIT.

	PIER NO. 4 - QUANTITIES		
	ITEM	UNIT	TOTAL
*	SUBSTRUCTURE EXCAVATION COMMON	C.Y.	65
*	ELASTOMERIC COATING	S.F.	229
	CLASS A CONCRETE	C.Y.	117
	REINFORCING STEEL	LB.	490
	EPOXY COATED REINFORCING STEEL	LB.	28,530
≠	WATER REPELLENT (VISUALLY INSPECTED)	S.Y.	60
	DRILLED SHAFTS 72" DIAMETER	L.F.	30

* TOP OF PIER CAP. TOP AND SIDES OF PEDESTALS.

≠ ENDS AND SIDES OF PIER CAP. BOTTOM OF CANTILEVERS.

Preliminary Plans

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 OKLAHOMA COUNTY
BRIDGE "B" RAMP "B" AT I-35 & I-240 INTERCHANGE

PIER DETAILS
PIER NO. 4
(SHEET 1 OF 3)

STATE JOB NO. 09032(06) SHEET NO. B072

6/1/2022 10:05:55 AM
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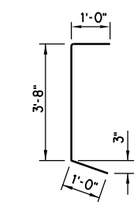
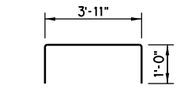
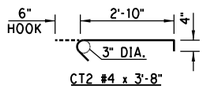
DESCRIPTION	REVISIONS	DATE



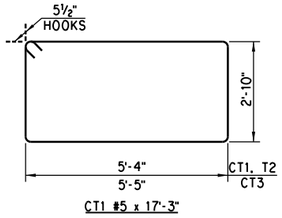
PE1 #4 x 5'-8"



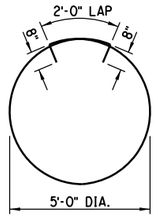
PE3 #4 x 5'-11"



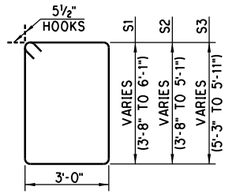
CT2 #4 x 3'-8"



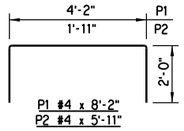
CT1 #5 x 17'-3"
CT3 #5 x 17'-5"
T2 #5 x 17'-3"



T1 #4 x 19'-0"

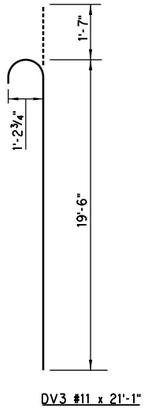


S1 #5 x 16'-7" AVG.
(14'-3" TO 18'-11")
S2 #5 x 15'-9" AVG.
(14'-3" TO 17'-2")
S3 #9 x 18'-1" AVG.
(17'-7" TO 18'-7")

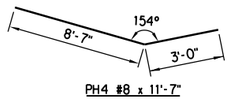


P1 #4 x 8'-2"
P2 #4 x 5'-11"

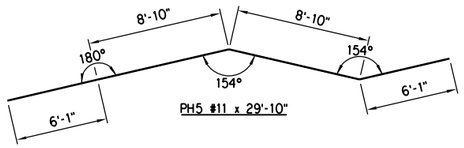
ALL BENT BAR DIMENSIONS ARE OUT TO OUT.



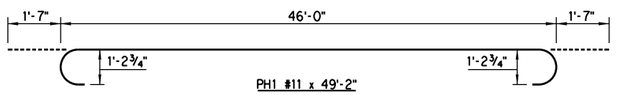
DV3 #11 x 21'-1"



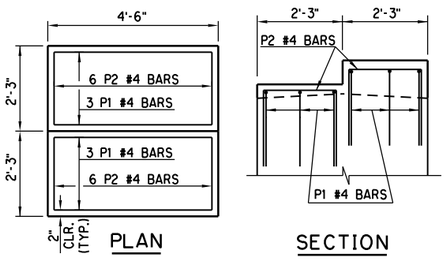
PH4 #8 x 11'-7"



PH5 #11 x 29'-10"



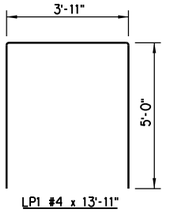
PH1 #11 x 49'-2"



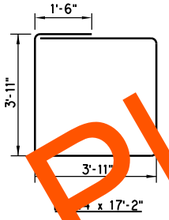
PLAN

SECTION

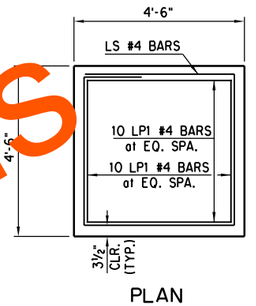
PEDESTAL REINFORCING DETAILS
(TYPICAL)



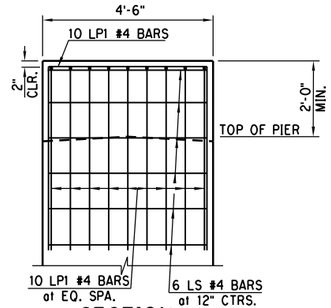
LP1 #4 x 13'-11"



LP2 #4 x 17'-2"

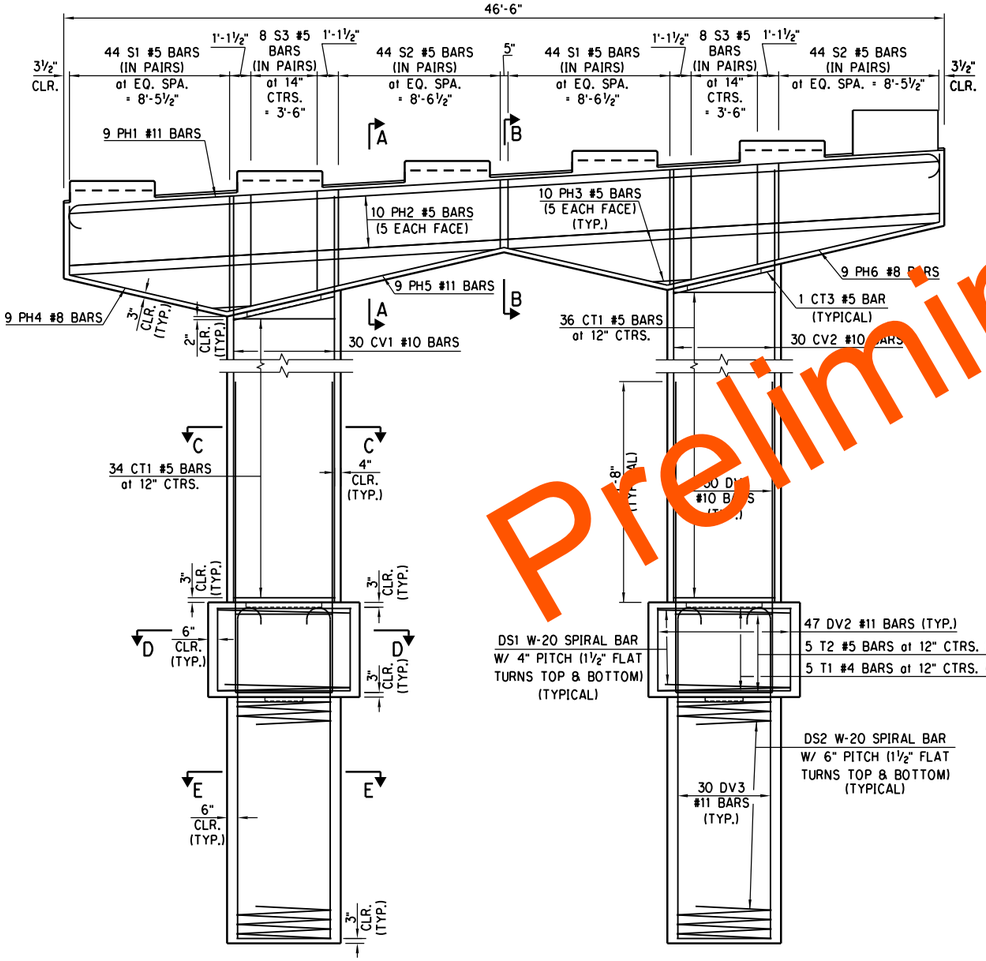


PLAN

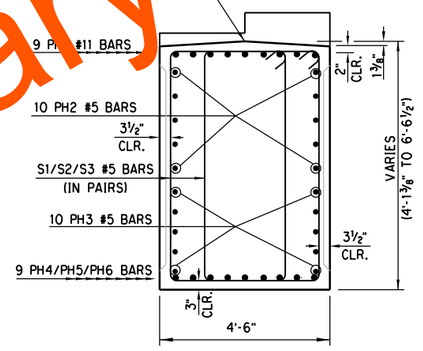


SECTION

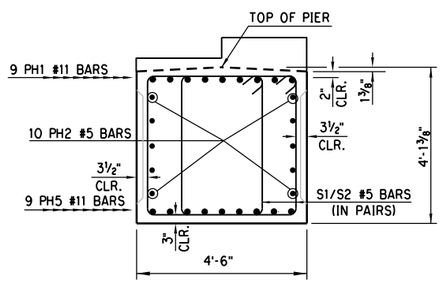
MONOTUBE PEDESTAL REINFORCING DETAIL



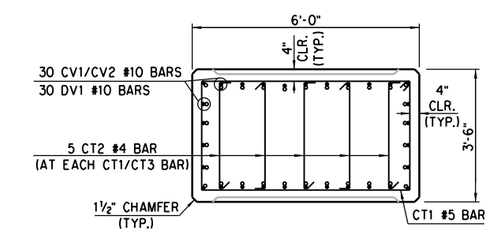
REINFORCING ELEVATION



SECTION A-A

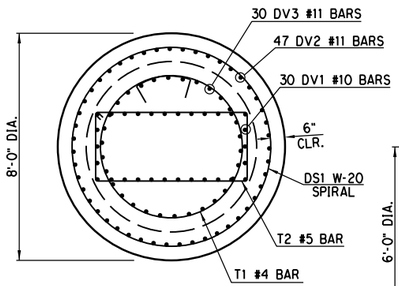


SECTION B-B



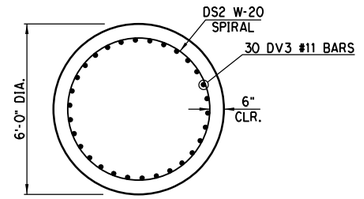
NOTE: ALTERNATE CT2 #4 BARS END TO END FOR EACH SUCCESSIVE ROW.

SECTION C-C



NOTE: ROTATE BARS T1 AND T2 180 DEGREES FOR EACH SUCCESSIVE ROW.

SECTION D-D



SECTION E-E

PHASE 2 — OKLAHOMA COUNTY
BRIDGE "B" — RAMP "B" AT I-35 & I-240 INTERCHANGE

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PIER DETAILS
PIER NO. 4
(SHEET 2 OF 3)

STATE JOB NO. 09032(06) SHEET NO. B073

6/1/2022 11:05:56 AM
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Preliminary Plans

DESCRIPTION	REVISIONS	DATE

BAR LIST - PIER NO. 4
(EPOXY COATED)

MARK	NO.	SIZE	FORM	SPACING	LENGTH	LENGTH VARIATION
CT1	70	#5	BENT	12" C/C	17'-3"	--
CT2	365	#4	BENT	AS SHOWN	3'-8'	--
CT3	2	#5	BENT	AS SHOWN	17'-5"	--
CV1	30	#10	STR.	AS SHOWN	39'-8"	--
CV2	30	#10	STR.	AS SHOWN	41'-1"	--
▲① DS1	2	W-20	BENT	AS SHOWN	362'-11"	--
DV1	60	#10	STR.	AS SHOWN	16'-5"	--
DV2	94	#11	STR.	AS SHOWN	4'-6"	--
LP1	20	#4	BENT	EQUAL	13'-11'	--
LS	6	#4	BENT	12" C/C	17'-2'	--
P1	60	#4	BENT	EQUAL	8'-2"	--
P2	30	#4	BENT	EQUAL	5'-11"	--
PE1	10	#4	BENT	AS SHOWN	5'-8"	--
PE2	10	#4	BENT	AS SHOWN	5'-10"	--
PH1	9	#11	BENT	AS SHOWN	49'-2"	--
PH2	10	#5	STR.	EQUAL	46'-0"	--
PH3	20	#5	STR.	EQUAL	12'-3½" AVG.	2'-1" TO 22'-6"
PH4	9	#8	BENT	AS SHOWN	11'-7"	--
PH5	9	#11	BENT	AS SHOWN	29'-10"	--
PH6	9	#8	STR.	AS SHOWN	11'-7"	--
S1	88	#5	BENT	EQUAL	16'-8" AVG.	14'-3" TO 19'-1"
S2	88	#5	BENT	EQUAL	15'-8" AVG.	14'-3" TO 17'-1"
S3	16	#5	BENT	14" C/C	18'-1" AVG.	17'-5" to 18'-9"
② T1	10	#4	BENT	12" C/C	19'-0"	
T2	10	#5	BENT	12" C/C	17'-3"	--

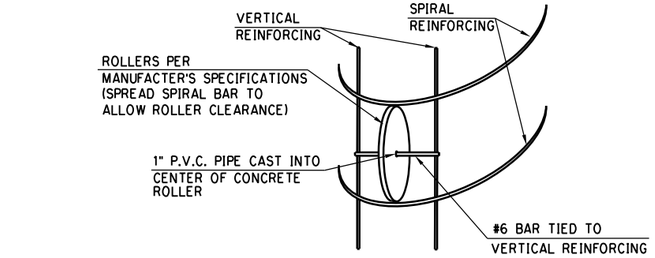
BAR LIST - 72" DRILLED SHAFT

▲① DS2	2	W-20	BENT	AS SHOWN	502'-[illegible]"	
▲ DV3	60	#11	BENT	AS SHOWN	[illegible]'-1"	--

① LENGTH SHOWN DOES NOT INCLUDE ANY LAPS FOR SPLICES. CONTRACTOR MAY ADD SPLICES AS NECESSARY, BUT PAYMENT WILL NOT BE MADE FOR EXTRA LENGTH REQUIRED. ADD 3'-8" FOR EACH SPLICE.

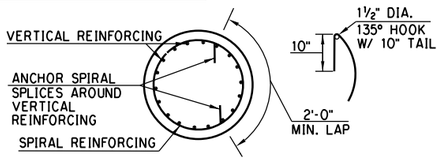
② LENGTH SHOWN INCLUDES LAP:
T1 = 2'-0"

▲ NON-EPOXY COATED



ROLLER INSTALLATION DETAIL

ROLLER PLACEMENT

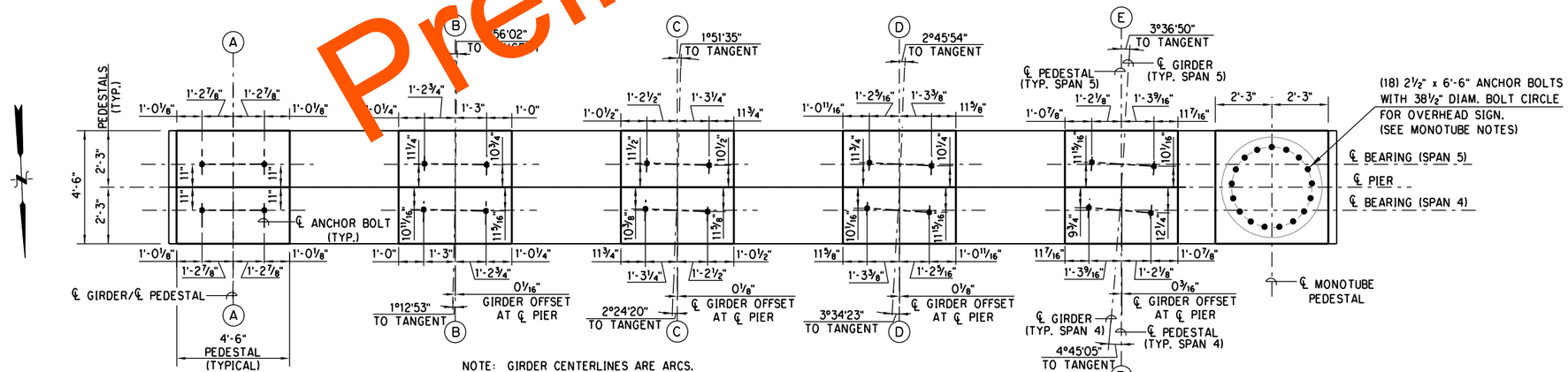


SPIRAL REINFORCING SPLICE DETAILS

NOTE: SPIRAL BARS SHALL CONFORM TO AASHTO M-32. SPIRAL BAR LENGTHS DO NOT INCLUDE LAP. IF LAP IS REQUIRED, THE LENGTH OF THE LAP SHALL BE AS SHOWN.

ROLLER DETAILS

NOTE: REINFORCING CAGE CENTERING DEVICES SHALL CONSIST OF ROLLERS PLACED AT SPACING AS SHOWN AND HAVE THE CHARACTERISTICS AS INDICATED IN THE MANUFACTURER'S SPECIFICATIONS. SLAB BOLSTERS AND HIGH CHAIRS WILL BE ALLOWED BY THE DEPARTMENT.



NOTE: GIRDER CENTERLINES ARE ARCS.
EACH SPAN NO 5 GIRDER ℄ IS CONGRUENT WITH PEDESTAL ℄ AT THE PIER ℄.
SPAN NO. 4 GIRDER CENTERLINES ARE OFFSET TO ℄ PEDESTAL AT ℄ PIER AS SHOWN.

ANCHOR BOLT LAYOUT
PIER NO. 4

NOTE: DIMENSIONS SHOWN ARE PERPENDICULAR TO PEDESTALS.
FOR FURTHER INFORMATION SEE BEARING ASSEMBLY DETAIL SHEET.

Preliminary Plans

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 — OKLAHOMA COUNTY
BRIDGE "B" — RAMP "B" AT I-35 & I-240 INTERCHANGE

PIER DETAILS
PIER NO. 4
(SHEET 3 OF 3)

STATE JOB NO. 09032(106) SHEET NO. B074

6/1/2022 11:05:57 AM
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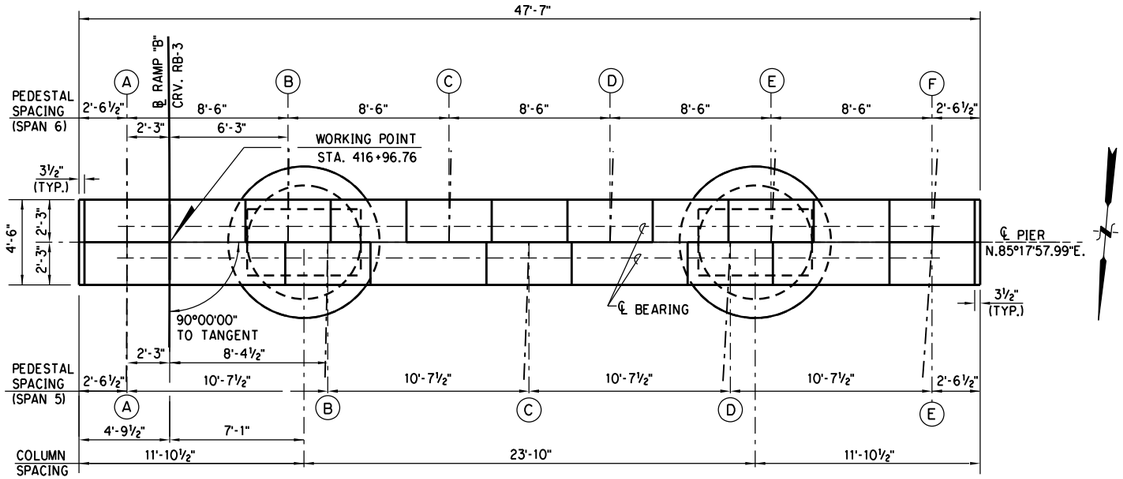
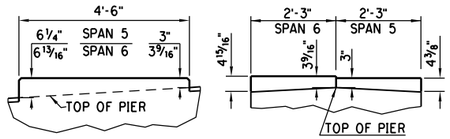
REVISIONS		
DESCRIPTION		DATE



PLAN

(SEE SHEET 3 OF 3 FOR ANCHOR BOLT LAYOUT)

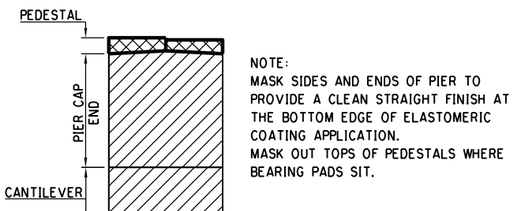


ELEVATION EAST END VIEW

PEDESTAL DETAILS

(TYPICAL)

PEDESTAL ELEVATION SCHEDULE - PIER NO. 5						
PEDESTAL	A	B	C	D	E	F
SPAN 5 ELEVATION	1316.54	1317.18	1317.82	1318.46	1319.09	--
SPAN 6 ELEVATION	1316.59	1317.10	1317.61	1318.12	1318.63	1319.14



CAP END REINFORCING DETAIL

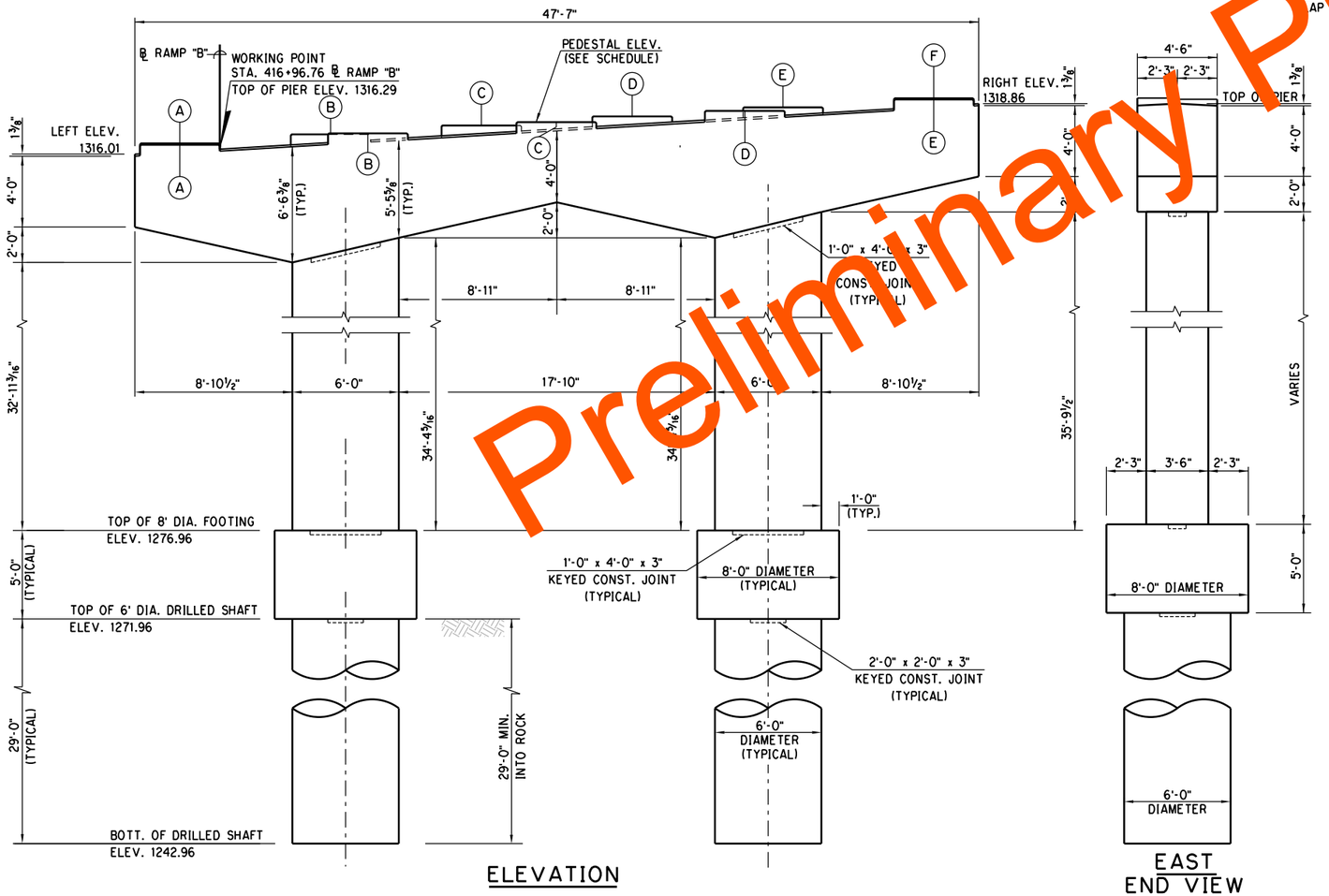
(PEDESTALS AND S BARS OMITTED FOR CLARITY)

NOTE:
MASK SIDES AND ENDS OF PIER TO PROVIDE A CLEAN STRAIGHT FINISH AT THE BOTTOM EDGE OF ELASTOMERIC COATING APPLICATION.
MASK OUT TOPS OF PEDESTALS WHERE BEARING PADS SIT.

ELASTOMERIC COATING (CROSS-HATCHING AND HEAVY LINE)

WATER REPELLENT (HATCHING)

CONCRETE TREATMENT DETAIL



ELEVATION EAST END VIEW

PIER NO. 5 - QUANTITIES		
ITEM	UNIT	TOTAL
SUBSTRUCTURE EXCAVATION COMMON	C.Y.	615
* ELASTOMERIC COATING	S.F.	282
CLASS A CONCRETE	C.Y.	120
REINFORCING STEEL	LB.	490
EPOXY COATED REINFORCING STEEL	LB.	28,920
≠ WATER REPELLENT (VISUALLY INSPECTED)	S.Y.	69
DRILLED SHAFTS 72" DIAMETER	L.F.	58

* TOP OF PIER CAP. TOP AND SIDES OF PEDESTALS.

≠ ENDS AND SIDES OF PIER CAP. BOTTOM OF CANTILEVERS.

Preliminary Plans

DESIGN			
DRAWN			
CHECKED			
APPROVED			
SQUAD	POE		

PHASE 2 OKLAHOMA COUNTY
BRIDGE "B" RAMP "B" AT I-35 & I-240 INTERCHANGE

PIER DETAILS
PIER NO. 5
(SHEET 1 OF 3)

STATE JOB NO. 09032(06) SHEET NO. B075

6/1/2022 11:05:58 AM
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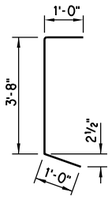
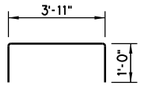
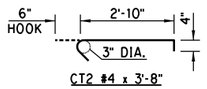
DESCRIPTION	REVISIONS	DATE



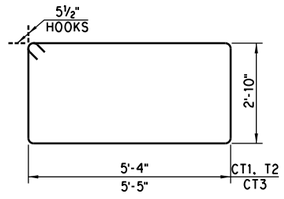
PE1 #4 x 5'-8"



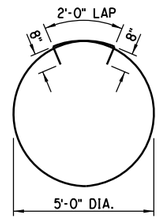
PE2 #4 x 5'-11"



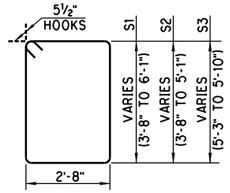
CT2 #4 x 3'-8"



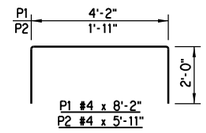
CT1 #5 x 17'-3"
CT3 #5 x 17'-5"
T2 #5 x 17'-3"



T1 #4 x 19'-0"

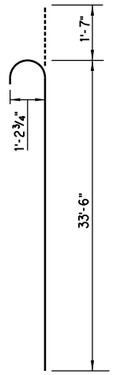


S1 #5 x 16'-0" AVG.
(13'-7" TO 18'-5")
S2 #5 x 15'-0" AVG.
(13'-7" TO 16'-5")
S3 #5 x 17'-4" AVG.
(16'-9" TO 17'-11")

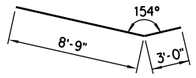


P1 #4 x 8'-2"
P2 #4 x 5'-11"

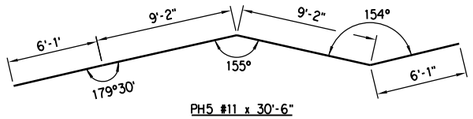
ALL BENT BAR DIMENSIONS ARE OUT TO OUT.



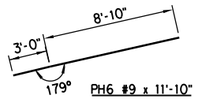
DV3 #11 x 35'-1"



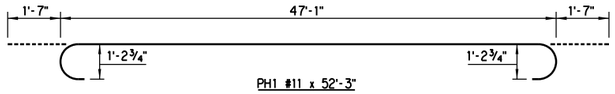
PH4 #9 x 11'-9"



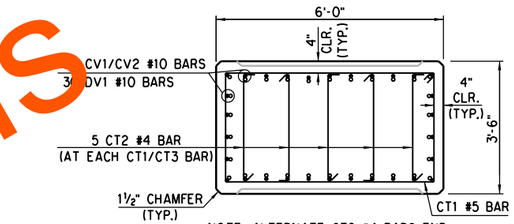
PH5 #11 x 30'-6"



PH6 #9 x 11'-10"

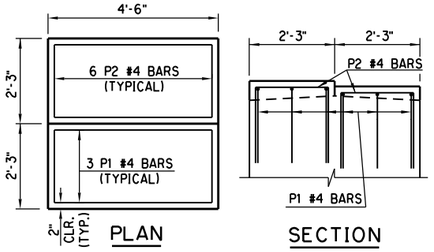


PH1 #11 x 52'-3"



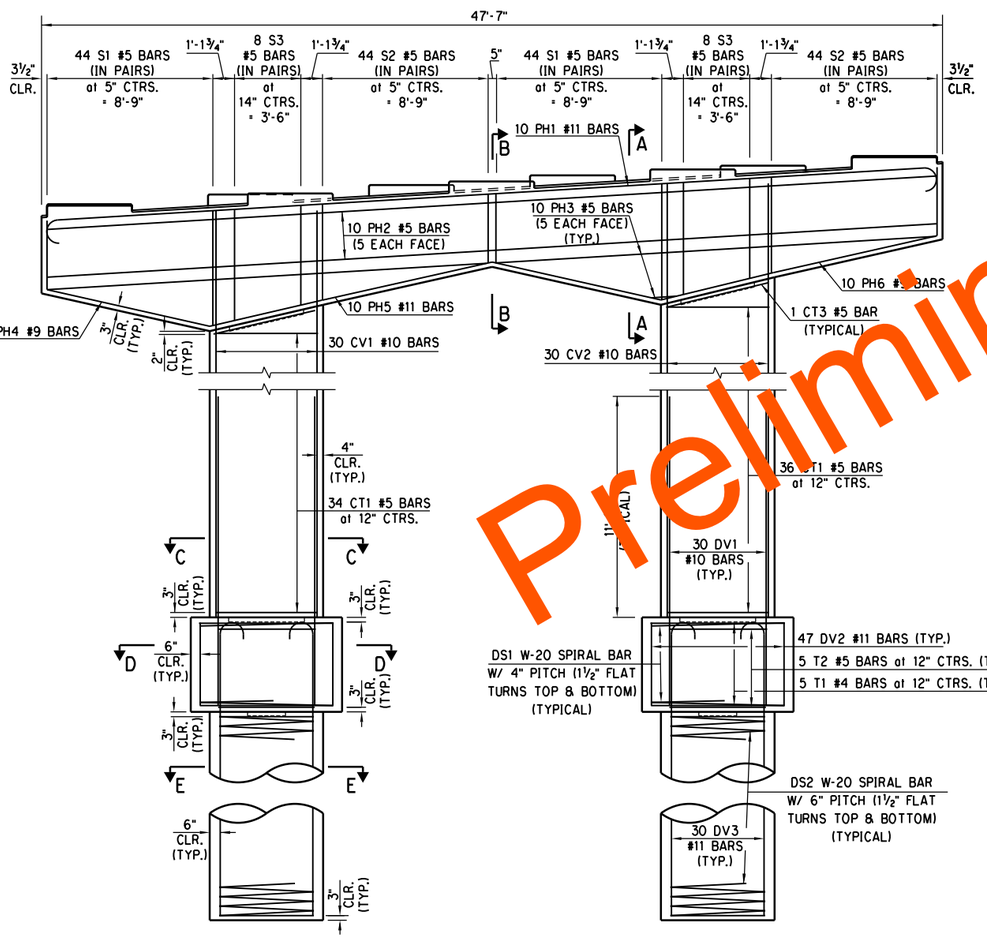
NOTE: ALTERNATE CT2 #4 BARS END TO END FOR EACH SUCCESSIVE ROW.

SECTION C-C

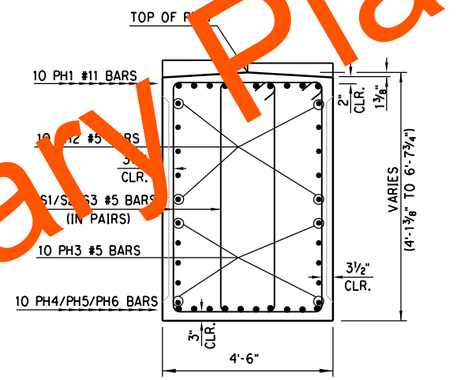


PEDESTAL REINFORCING DETAILS

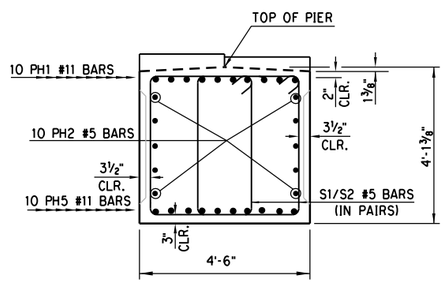
(EXTERIOR PEDESTALS SHOWN. INTERIOR PEDESTALS WILL NOT ALIGN)



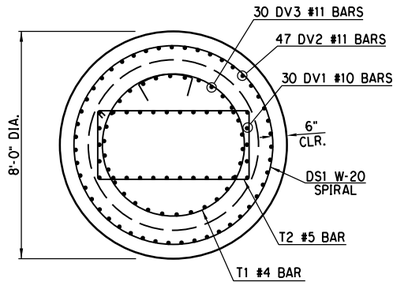
REINFORCING ELEVATION



SECTION A-A

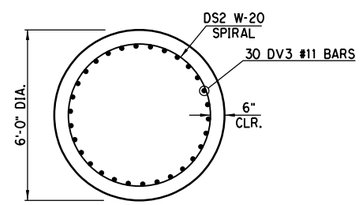


SECTION B-B



NOTE: ROTATE BARS T1 AND T2 180 DEGREES FOR EACH SUCCESSIVE ROW.

SECTION D-D



SECTION E-E

Preliminary Plans

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 — OKLAHOMA COUNTY
BRIDGE "B" — RAMP "B" AT I-35 & I-240 INTERCHANGE

PIER DETAILS
PIER NO. 5
(SHEET 2 OF 3)

STATE JOB NO. 09032(06) SHEET NO. B076

6/1/2022 11:05:59 AM
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DESCRIPTION	REVISIONS	DATE

BAR LIST - PIER NO. 5
(EPOXY COATED)

	MARK	NO.	SIZE	FORM	SPACING	LENGTH	LENGTH VARIATION
	CT1	70	#5	BENT	12" C/C	17'-3"	--
	CT2	360	#4	BENT	AS SHOWN	3'-8"	--
	CT3	2	#5	BENT	AS SHOWN	17'-5"	--
	CV1	30	#10	STR.	AS SHOWN	39'-2"	--
	CV2	30	#10	STR.	AS SHOWN	40'-8"	--
▲①	DS1	2	W-20	BENT	AS SHOWN	362'-11"	--
	DV1	60	#10	STR.	AS SHOWN	16'-5"	--
	DV2	94	#11	STR.	AS SHOWN	4'-6"	--
	P1	66	#4	BENT	EQUAL	8'-2"	--
	P2	33	#4	BENT	EQUAL	5'-11"	--
	PE1	10	#4	BENT	AS SHOWN	5'-8"	--
	PE2	10	#4	BENT	AS SHOWN	5'-11'	--
	PH1	10	#11	BENT	AS SHOWN	52'-3"	--
	PH2	10	#5	STR.	EQUAL	47'-1"	--
	PH3	20	#5	STR.	EQUAL	12'-3 ½" AVG.	1'-4" TO 23'-3"
	PH4	10	#9	BENT	AS SHOWN	11'-9"	--
	PH5	10	#11	BENT	AS SHOWN	30'-5"	--
	PH6	10	#9	BENT	AS SHOWN	11'-10"	--
	S1	88	#5	BENT	5" C/C	16'-0" AVG.	13'-7" TO 18'-5"
	S2	88	#5	BENT	5" C/C	15'-0" AVG.	13'-7" TO 16'-5"
	S3	16	#5	BENT	14" C/C	17'-4" AVG.	16'-9" TO 17'-11"
②	T1	10	#4	BENT	12" C/C	19'-0"	--
	T2	10	#5	BENT	12" C/C	17'-3"	--

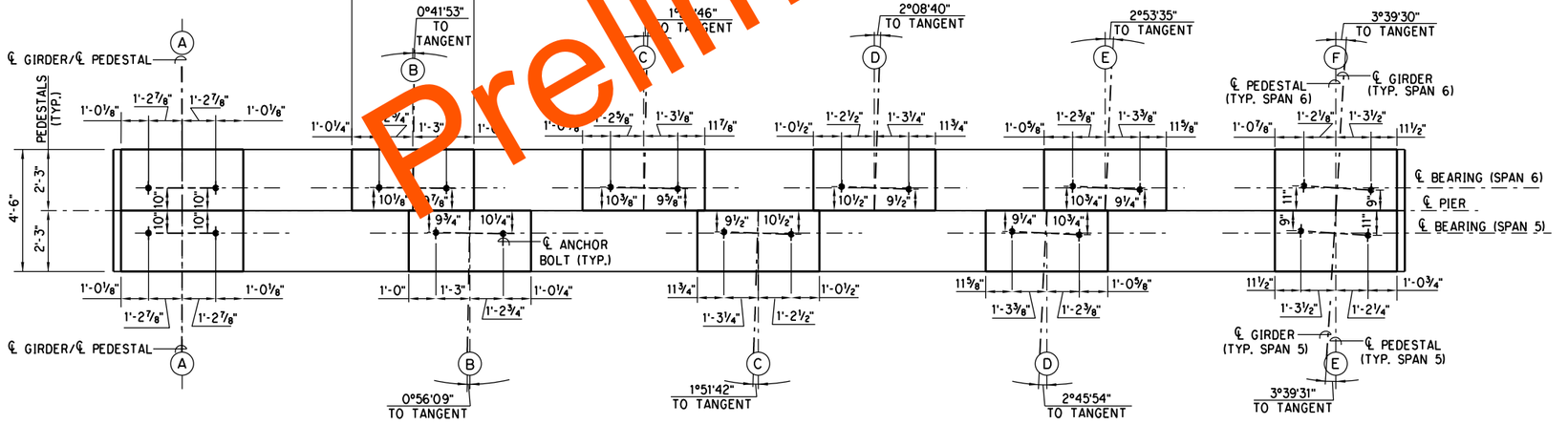
BAR LIST - 72" DRILLED SHAFT

▲①	DS2	2	W-20	BENT	AS SHOWN	946'-7"	--
▲	DV3	60	#11	BENT	AS SHOWN	35'-1"	--

① LENGTH SHOWN INCLUDES 3'-8" LAP FOR ONE SPLICE. EXTRA MAY BE USED FOR MAY ADDITIONAL SPLICES AS NECESSARY, BUT PAYMENT WILL NOT BE MADE FOR EXTRA LENGTH REQUIRED. ADD 3'-8" FOR EACH SPLICE.

② LENGTH SHOWN INCLUDES LAP:
T1 = 2'-0"

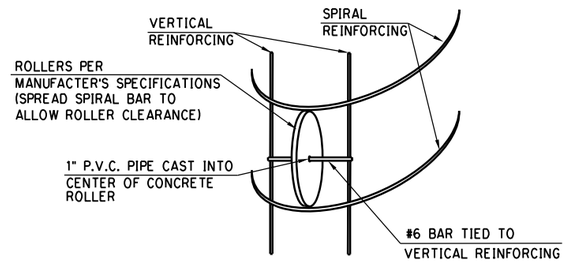
▲ NON-EPOXY COATED



NOTE: GIRDER ℄ ARE ARCS.
EACH PEDESTAL ℄ IS CONGRUENT WITH GIRDER ℄ AT THE PIER ℄.

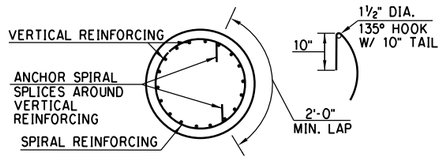
ANCHOR BOLT LAYOUT
PIER NO. 5

NOTE: DIMENSIONS SHOWN ARE PERPENDICULAR TO PEDESTALS.
FOR FURTHER INFORMATION SEE BEARING ASSEMBLY DETAIL SHEET.



ROLLER INSTALLATION DETAIL

ROLLER PLACEMENT



SPIRAL REINFORCING SPLICE DETAILS

NOTE: SPIRAL BARS SHALL CONFORM TO AASHTO M-32.
SPIRAL BAR LENGTHS DO NOT INCLUDE LAP.
IF LAP IS REQUIRED. THE LENGTH OF THE LAP SHALL BE AS SHOWN.

ROLLER DETAILS

NOTE: REINFORCING CAGE CENTERING DEVICES SHALL CONSIST OF ROLLERS PLACED AT SPACING AS SHOWN AND HAVE THE CHARACTERISTICS AS INDICATED IN THE MANUFACTURER'S SPECIFICATIONS. SLAB BOLSTERS AND HIGH CHAIRS WILL BE ALLOWED BY THE DEPARTMENT.

Preliminary Plans

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 — OKLAHOMA COUNTY
BRIDGE "B" — RAMP "B" AT I-35 & I-240 INTERCHANGE

PIER DETAILS
PIER NO. 5
(SHEET 3 OF 3)

STATE JOB NO. 09032(106) SHEET NO. B077

6/1/2022 11:06:00 AM
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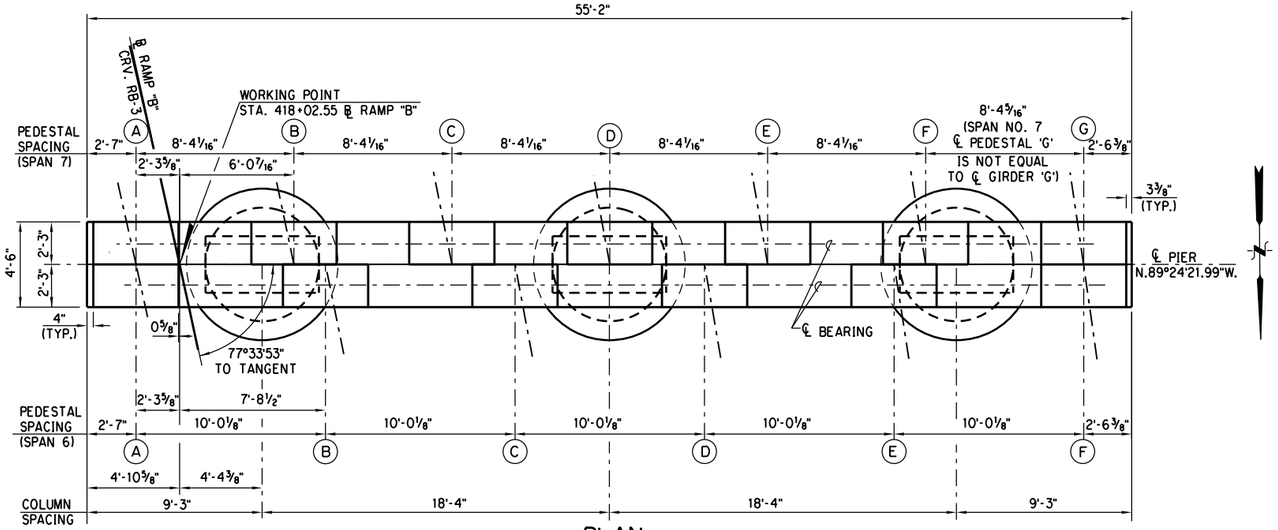
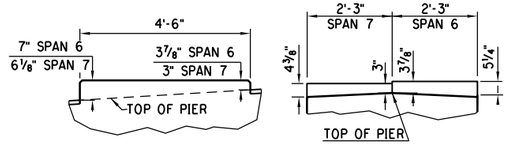
DESCRIPTION	REVISIONS	DATE



PLAN

(SEE SHEET 3 OF 3 FOR ANCHOR BOLT LAYOUT)

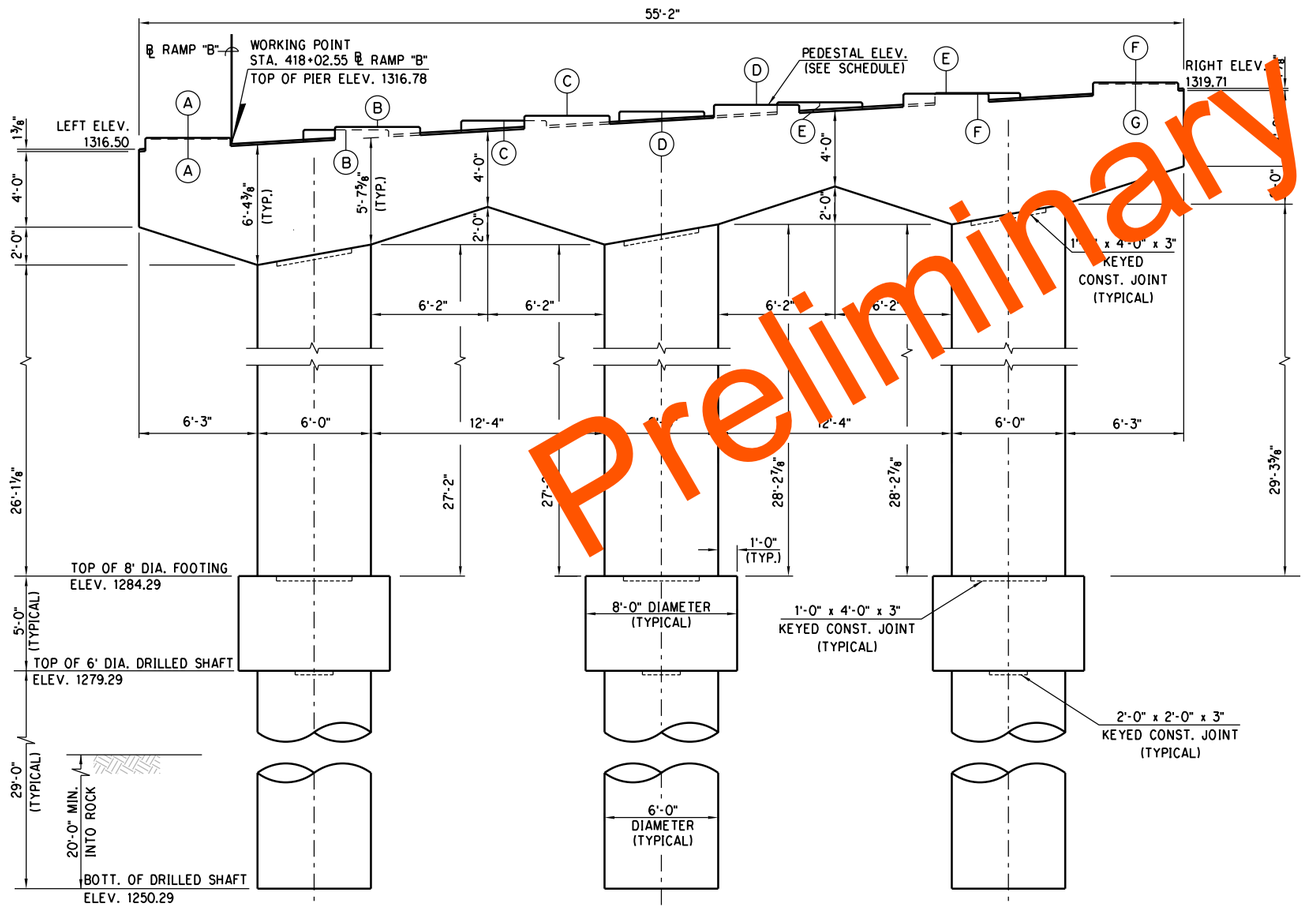


ELEVATION EAST END VIEW

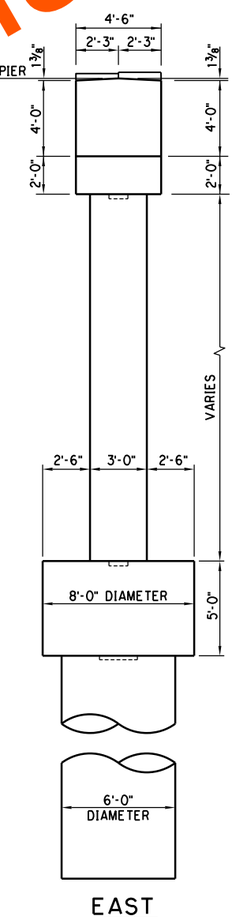
PEDESTAL DETAILS

(TYPICAL)

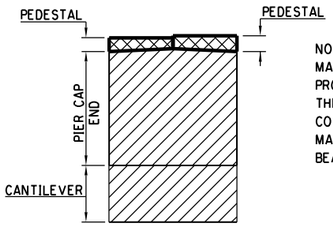
PEDESTAL ELEVATION SCHEDULE - PIER NO. 6							
PEDESTAL	A	B	C	D	E	F	G
SPAN 6 ELEVATION	1317.10	1317.68	1318.27	1318.85	1319.43	1320.01	--
SPAN 7 ELEVATION	1317.03	1317.52	1318.01	1318.49	1318.98	1319.47	1319.94



ELEVATION



EAST END VIEW

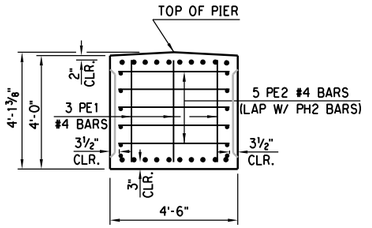


NOTE:
MASK SIDES AND ENDS OF PIER TO PROVIDE A CLEAN STRAIGHT FINISH AT THE BOTTOM EDGE OF ELASTOMERIC COATING APPLICATION.
MASK OUT TOPS OF PEDESTALS WHERE BEARING PADS SIT.

ELASTOMERIC COATING (HATCHING AND HEAVY LINE)

WATER REPELLENT (HATCHING)

CONCRETE TREATMENT DETAIL



CAP END REINFORCING DETAIL

(PEDESTALS AND S BARS OMITTED FOR CLARITY)

PIER NO. 6 - QUANTITIES			
	ITEM	UNIT	TOTAL
	SUBSTRUCTURE EXCAVATION COMMON	C.Y.	80
*	ELASTOMERIC COATING	S.F.	338
	CLASS A CONCRETE	C.Y.	137.7
	REINFORCING STEEL	LB.	730
	EPOXY COATED REINFORCING STEEL	LB.	31,120
≠	WATER REPELLENT (VISUALLY INSPECTED)	S.Y.	76
	DRILLED SHAFTS 72" DIAMETER	L.F.	87

* TOP OF PIER CAP, INCLUDING STEP, TOP AND SIDES OF PEDESTALS.

≠ ENDS AND SIDES OF PIER CAP. BOTTOM OF CANTILEVERS.

Preliminary Plans

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 OKLAHOMA COUNTY
BRIDGE "B" RAMP "B" AT I-35 & I-240 INTERCHANGE

PIER DETAILS
PIER NO. 6
(SHEET 1 OF 3)

STATE JOB NO. 09032(06) SHEET NO. B078

6/1/2022 11:06:02 AM
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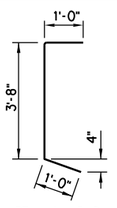
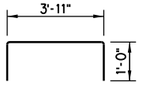
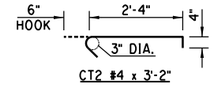
DESCRIPTION	REVISIONS	DATE



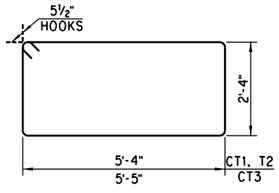
PE1 #4 x 5'-8"



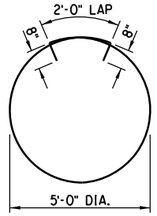
PE2 #4 x 5'-11"



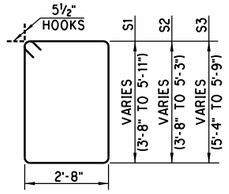
CT2 #4 x 3'-2"



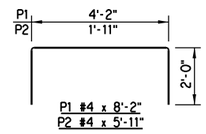
CT1 #5 x 16'-3"
CT3 #5 x 16'-5"
T2 #5 x 16'-3"



T1 #4 x 19'-0"

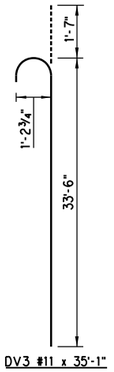


S1 #5 x 15'-10" AVG.
(13'-7" TO 18'-1")
S2 #5 x 15'-2" AVG.
(13'-7" TO 16'-9")
S3 #5 x 17'-4" AVG.
(16'-11" TO 17'-9")

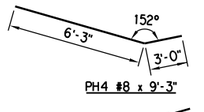


P1 #4 x 8'-2"
P2 #4 x 5'-11"

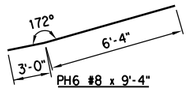
ALL BENT BAR DIMENSIONS ARE OUT TO OUT.



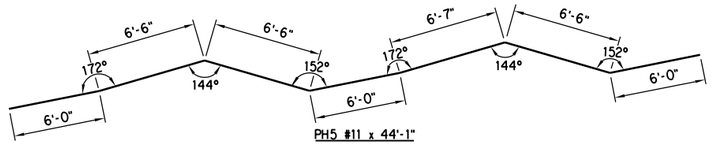
DV3 #11 x 35'-1"



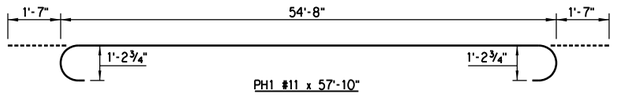
PH4 #8 x 9'-3"



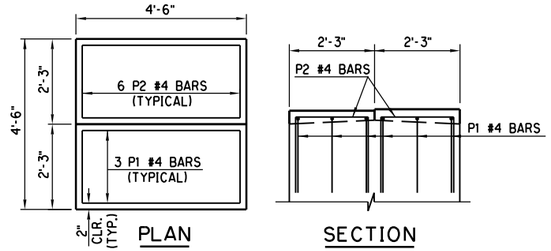
PH6 #8 x 9'-4"



PH5 #11 x 44'-1"

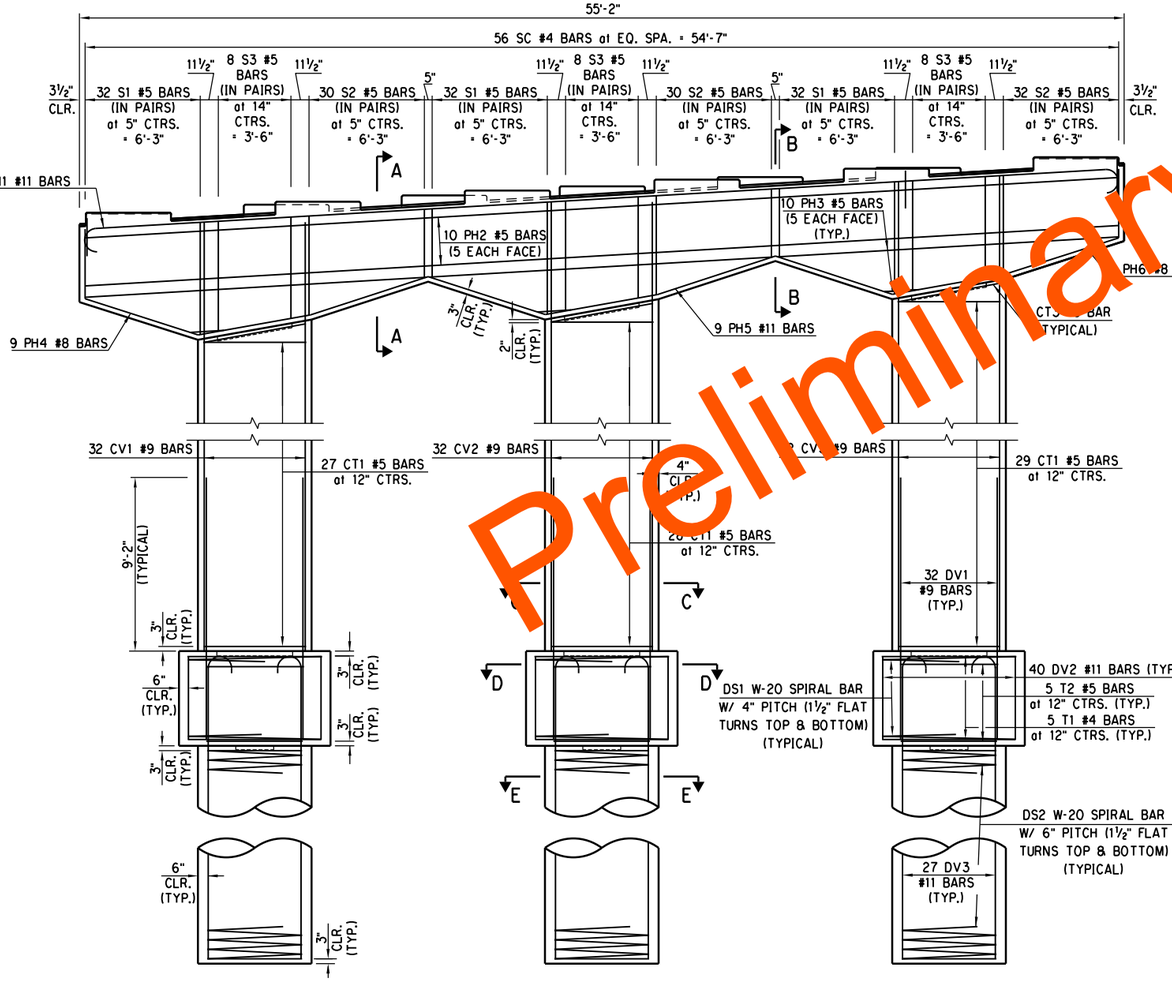


PH1 #11 x 57'-10"

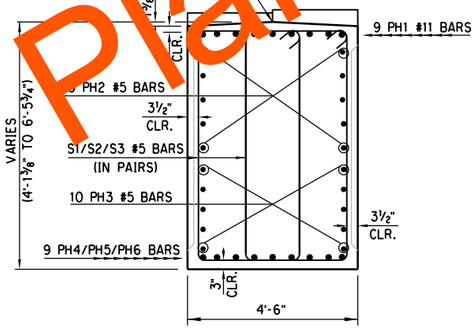


PEDESTAL REINFORCING DETAILS

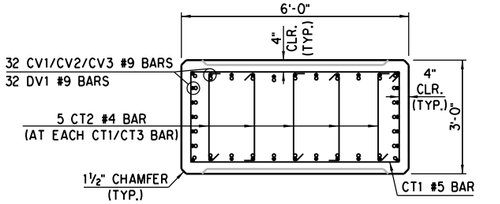
(EXTERIOR PEDESTALS SHOWN. INTERIOR PEDESTALS WILL NOT ALIGN)



REINFORCING ELEVATION

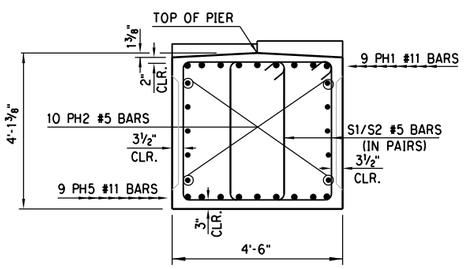


SECTION A-A

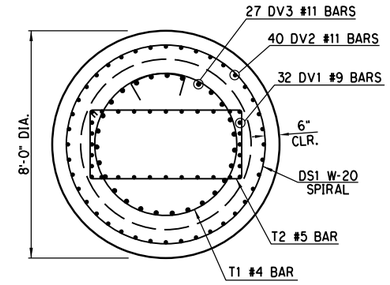


NOTE: ALTERNATE CT2 #4 BARS END TO END FOR EACH SUCCESSIVE ROW.

SECTION C-C

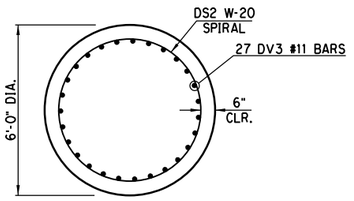


SECTION B-B



NOTE: ROTATE BARS T1 AND T2 180 DEGREES FOR EACH SUCCESSIVE ROW.

SECTION D-D



SECTION E-E

Preliminary Plans

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 — OKLAHOMA COUNTY

BRIDGE "B" — RAMP "B" AT I-35 & I-240 INTERCHANGE

PIER DETAILS
PIER NO. 6
(SHEET 2 OF 3)

STATE JOB NO. 09032(106) SHEET NO. B079

6/1/2022 11:06:03 AM
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REVISIONS		
DESCRIPTION		DATE

BAR LIST - PIER NO. 6
(EPOXY COATED)

MARK	NO.	SIZE	FORM	SPACING	LENGTH	LENGTH VARIATION
CT1	84	#5	BENT	12" C/C	16'-3"	--
CT2	435	#4	BENT	AS SHOWN	3'-2"	--
CT3	3	#5	BENT	AS SHOWN	16'-5"	--
CV1	32	#9	STR.	AS SHOWN	32'-3"	--
CV2	32	#9	STR.	AS SHOWN	33'-4"	--
CV3	32	#9	STR.	AS SHOWN	34'-5"	--
▲① DS1	3	W-20	BENT	AS SHOWN	362'-11"	--
DV1	96	#9	STR.	AS SHOWN	13'-11"	--
DV2	120	#11	STR.	AS SHOWN	4'-6"	--
P1	39	#4	BENT	EQUAL	8'-2"	--
P2	78	#4	BENT	EQUAL	5'-11"	--
PE1	6	#4	BENT	AS SHOWN	5'-8"	--
PE2	10	#4	BENT	AS SHOWN	5'-11"	--
PH1	9	#11	BENT	AS SHOWN	44'-1"	--
PH2	10	#5	STR.	EQUAL	54'-8"	--
PH3	30	#5	STR.	EQUAL	9'-11 1/2" AVG.	1'-10" TO 18'-1"
PH4	9	#8	BENT	AS SHOWN	9'-3"	--
PH5	9	#11	BENT	AS SHOWN	50'-8"	--
PH6	9	#8	BENT	AS SHOWN	9'-4"	--
S1	96	#5	BENT	5" C/C	15'-10" AVG.	13'-7" TO 18'-1"
S2	96	#5	BENT	5" C/C	15'-2" AVG.	13'-7" TO 16'-9"
S3	24	#5	BENT	14" C/C	17'-4" AVG.	16'-11" TO 17'-9"
② T1	15	#4	BENT	12" C/C	19'-0"	--
T2	15	#5	BENT	12" C/C	16'-3"	--

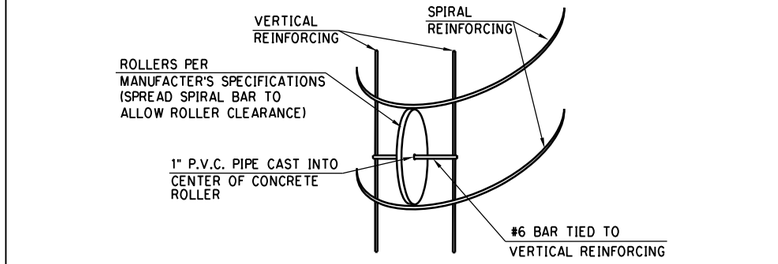
BAR LIST - 72" DRILLED SHAFT

▲①	DS2	3	W-20	BENT	AS SHOWN	946'-7"	--
▲	DV3	81	#11	BENT	AS SHOWN	35'-1	-

① LENGTH SHOWN INCLUDES 3'-8" LAP FOR ONE SPLICE. CONTRACTOR MAY ADD SPLICES AS NECESSARY, BUT PAYMENT WILL NOT BE MADE FOR EXTRA LENGTH REQUIRED. ADD 3'-8" FOR EACH SPLICE

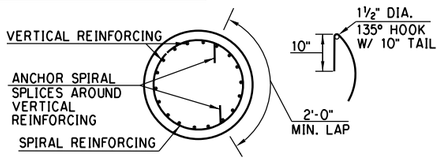
② LENGTH SHOWN INCLUDES LAP:
T1 = 2'-0"

▲ NON-EPOXY COATED



ROLLER INSTALLATION DETAIL

ROLLER PLACEMENT

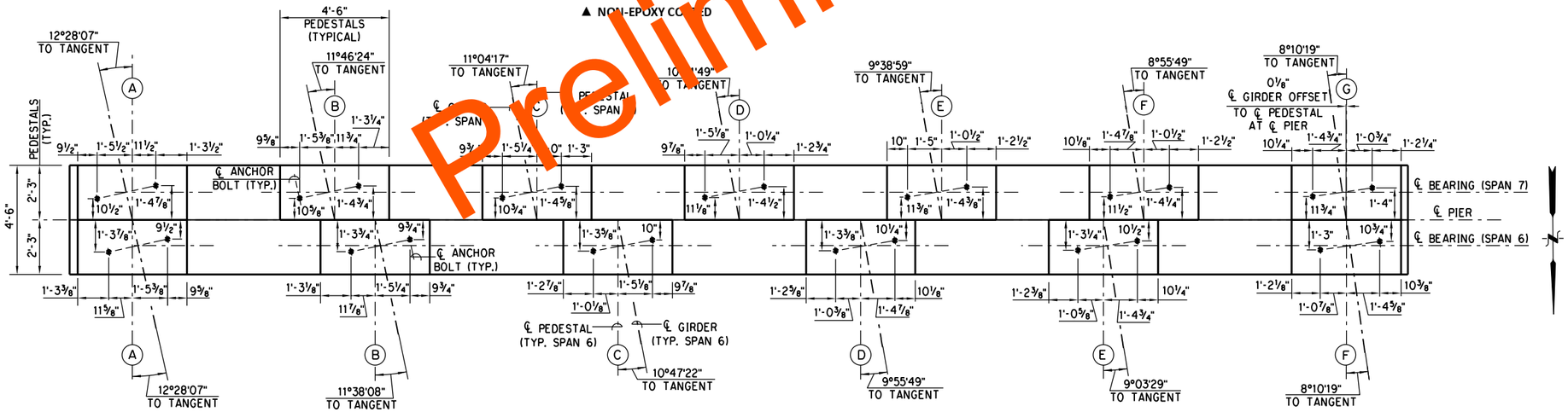


SPIRAL REINFORCING SPLICE DETAILS

NOTE: SPIRAL BARS SHALL CONFORM TO AASHTO M-32. SPIRAL BAR LENGTHS DO NOT INCLUDE LAP. IF LAP IS REQUIRED, THE LENGTH OF THE LAP SHALL BE AS SHOWN.

ROLLER DETAILS

NOTE: REINFORCING CAGE CENTERING DEVICES SHALL CONSIST OF ROLLERS PLACED AT SPACING AS SHOWN AND HAVE THE CHARACTERISTICS AS INDICATED IN THE MANUFACTURER'S SPECIFICATIONS. SLAB BOLSTERS AND HIGH CHAIRS WILL BE ALLOWED BY THE DEPARTMENT.



NOTE: GIRDER ℄ ARE ARCS AND PIER IS SKEWED TO ROADWAY.
EACH PEDESTAL ℄ IS CONGRUENT WITH GIRDER ℄ AT THE PIER ℄.
EXCEPT SPAN 7 GIRDER 'G' ℄ WHICH IS OFFSET TO ℄ PEDESTAL AT ℄ PIER AS SHOWN.

ANCHOR BOLT LAYOUT
PIER NO. 6

NOTE: DIMENSIONS SHOWN ARE PERPENDICULAR TO PEDESTALS.
FOR FURTHER INFORMATION SEE BEARING ASSEMBLY DETAIL SHEET.

Preliminary Plans

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 — OKLAHOMA COUNTY
BRIDGE "B" — RAMP "B" AT I-35 & I-240 INTERCHANGE

PIER DETAILS
PIER NO. 6
(SHEET 3 OF 3)

STATE JOB NO. 09032(106) SHEET NO. B080

6/1/2022 11:06:03 AM
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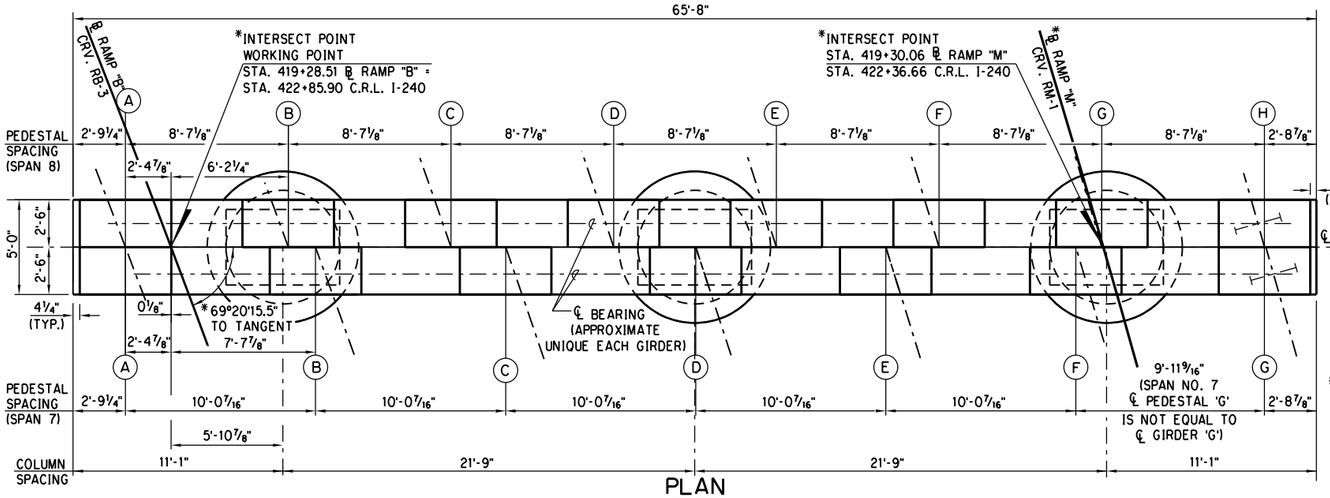
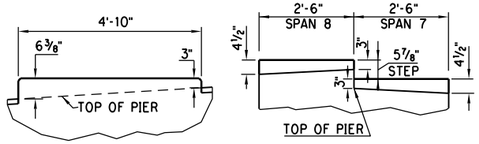
DESCRIPTION	REVISIONS	DATE



PLAN

(SEE SHEET 3 OF 3 FOR ANCHOR BOLT LAYOUT)

*NOTE: THE ℄ OF PIER NO. 7 IS ON A CHORD BETWEEN THE INTERSECT POINTS OF ℄ RAMP "B" AND ℄ RAMP "M" WITH CURVE "C-2" OF PROP. ℄ I-240. THE ANGLE BETWEEN THE TANGENT ℄ ℄ RAMP "B" AND THE ℄ OF PIER IS 69°20'15.5". (THE ANGLE BETWEEN THE TANGENT ℄ I-240 AND TANGENT OF ℄ RAMP "B" IS 6[illegible]

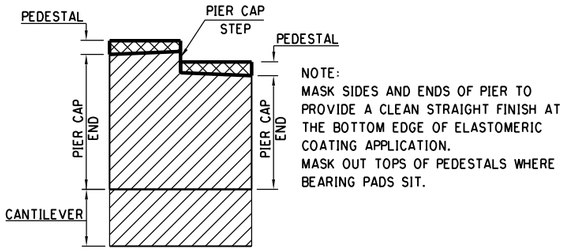


ELEVATION EAST END VIEW

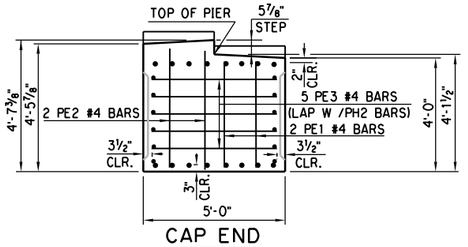
PEDESTAL DETAILS

(TYPICAL)

PEDESTAL ELEVATION SCHEDULE - PIER NO. 7								
PEDESTAL	A	B	C	D	E	F	G	H
SPAN 7 ELEVATION	1316.77	1317.35	1317.94	1318.52	1319.10	1319.68	1320.27	--
SPAN 8 ELEVATION	1317.26	1317.76	1318.26	1318.76	1319.26	1319.76	1320.26	1320.76

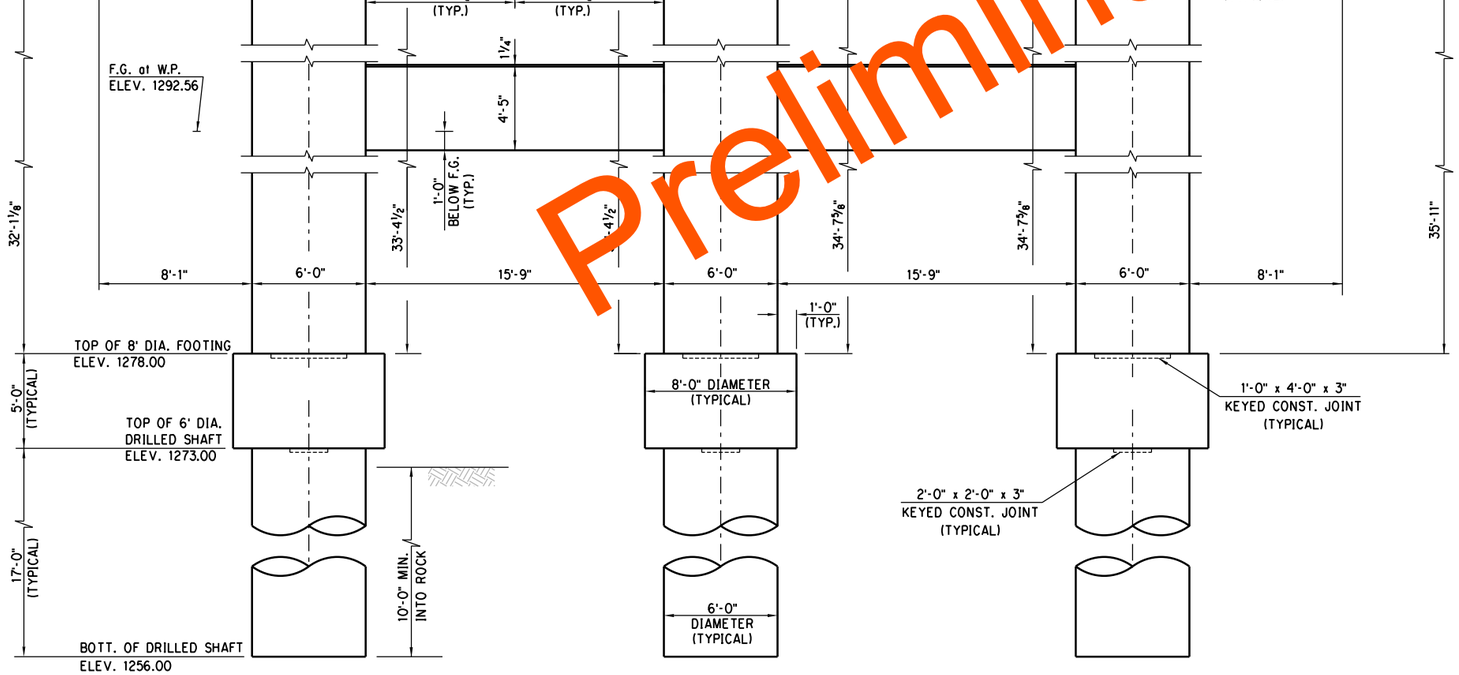


CONCRETE TREATMENT DETAIL

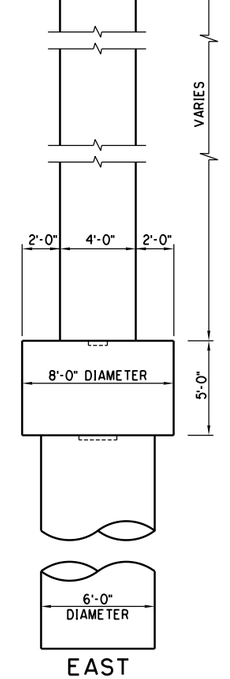


CAP END REINFORCING DETAIL

(PEDESTALS AND S BARS OMITTED FOR CLARITY)



ELEVATION



EAST END VIEW

PIER NO. 7 - QUANTITIES

	ITEM	UNIT	TOTAL
	SUBSTRUCTURE EXCAVATION COMMON	C.Y.	90
*	ELASTOMERIC COATING	S.F.	440
	CLASS A CONCRETE	C.Y.	213.9
	REINFORCING STEEL	LB.	730
	EPOXY COATED REINFORCING STEEL	LB.	40,960
≠	WATER REPELLENT (VISUALLY INSPECTED)	S.Y.	91
	DRILLED SHAFTS 72" DIAMETER	L.F.	51

* TOP OF PIER CAP, INCLUDING STEP. TOP AND SIDES OF PEDESTALS.

≠ ENDS AND SIDES OF PIER CAP. BOTTOM OF CANTILEVERS.

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 — OKLAHOMA COUNTY

BRIDGE "B" — RAMP "B" AT I-35 & I-240 INTERCHANGE

PIER DETAILS
PIER NO. 7

(SHEET 1 OF 3)

STATE JOB NO. 09032(06) SHEET NO. B081

Preliminary Plans

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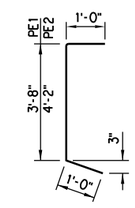
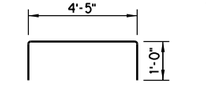
DESCRIPTION	REVISIONS	DATE

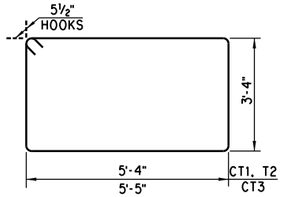


PE1 #4 x 5'-8"
PE2 #4 x 6'-2"

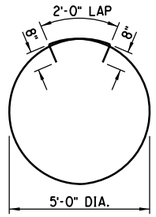


PE3 #4 x 6'-5"

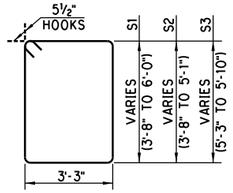
CT2 #4 x 4'-2"



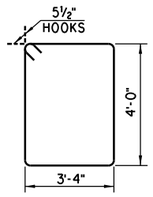
CT1 #5 x 18'-3"
CT3 #5 x 18'-5"
T2 #5 x 18'-3"



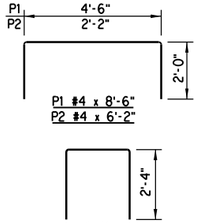
T1 #4 x 19'-0"



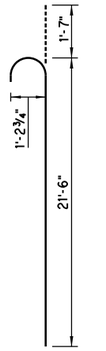
S1 #5 x 17'-1" AVG.
(14'-9" TO 19'-5")
S2 #5 x 16'-2" AVG.
(14'-9" TO 17'-7")
S3 #5 x 18'-6" AVG.
(17'-11" TO 19'-1")



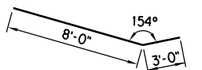
CWS1 #5 x 15'-7"



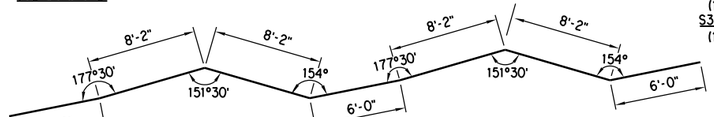
P1 #4 x 8'-6"
P2 #4 x 6'-2"
SC #4 x 6'-7"



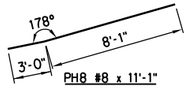
DV3 #11 x 23'-1"



PH6 #8 x 11'-0"

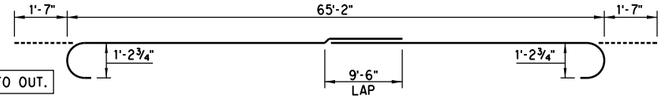


PH7 #11 x 50'-8"

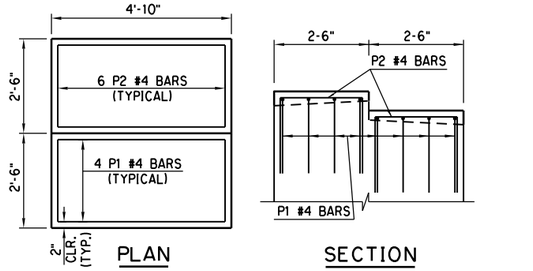


PH8 #8 x 11'-1"

ALL BENT BAR DIMENSIONS ARE OUT TO OUT.

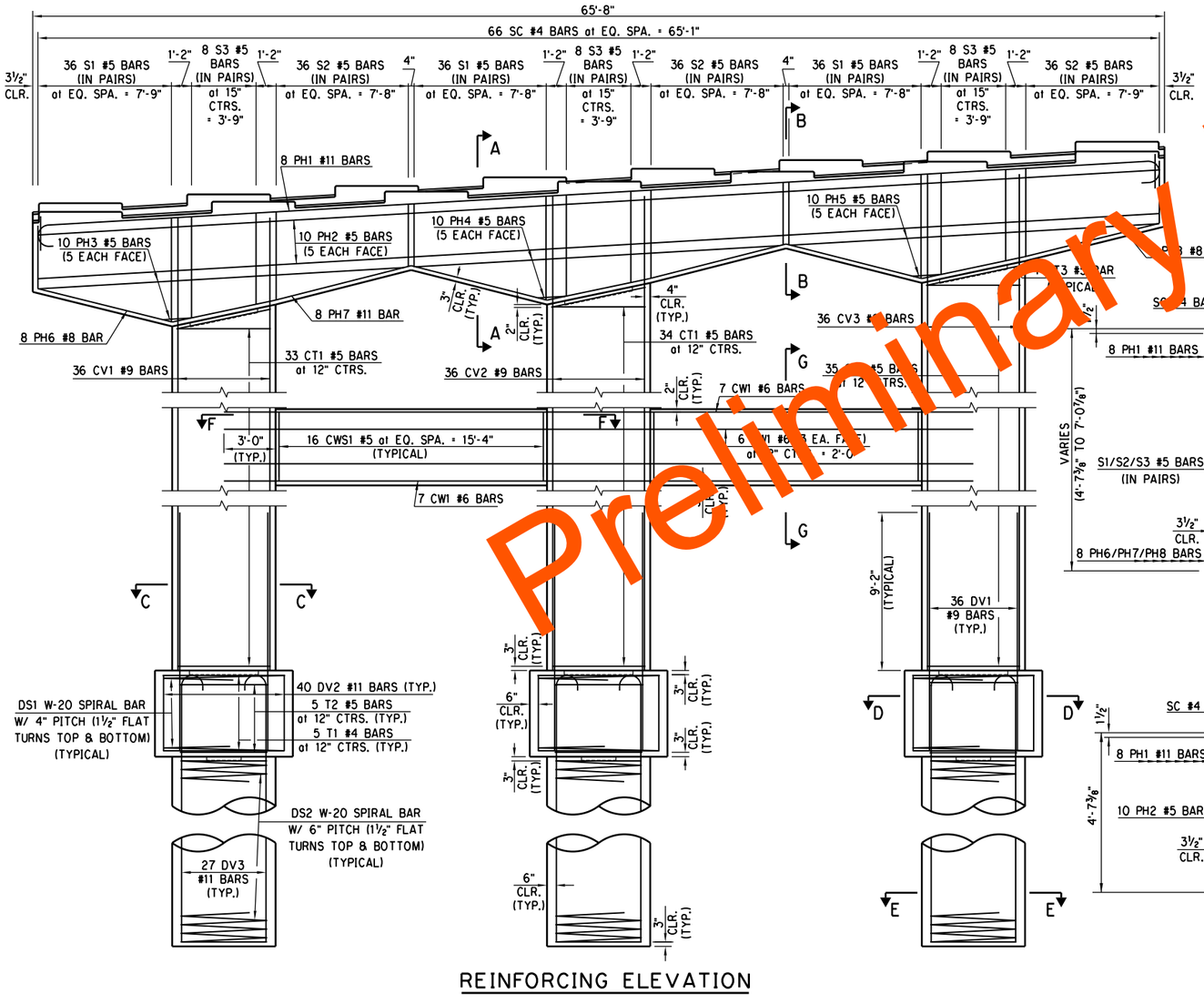


PH1 #11 x 77'-10"

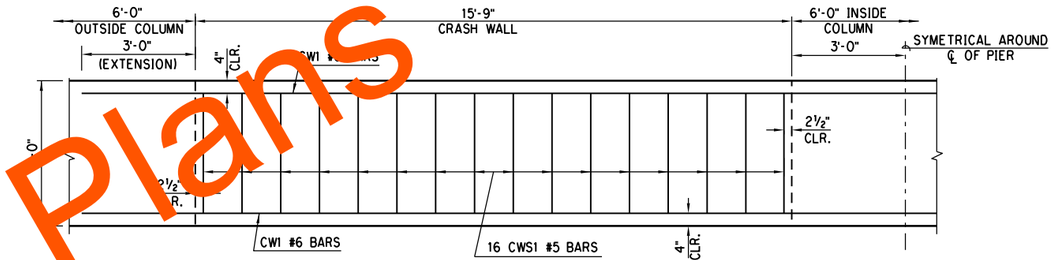


PEDESTAL REINFORCING DETAILS

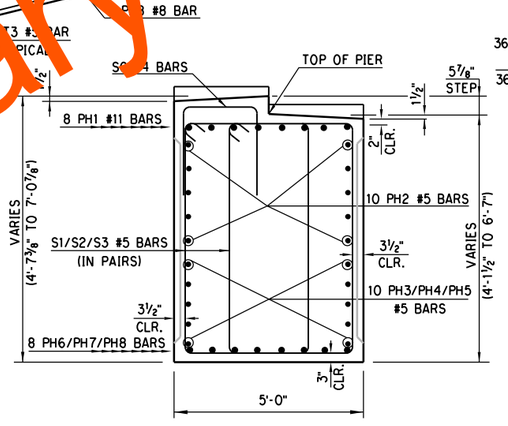
(EXTERIOR PEDESTALS SHOWN. INTERIOR PEDESTALS WILL NOT ALIGN)



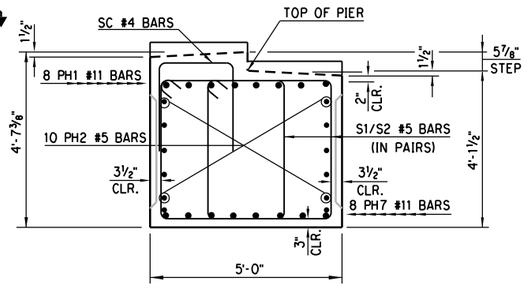
REINFORCING ELEVATION



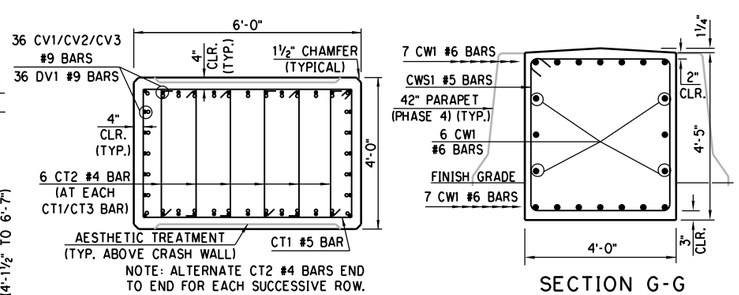
SECTION F-F



SECTION A-A



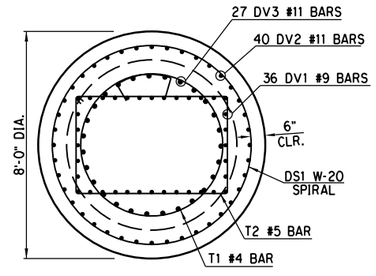
SECTION B-B



NOTE: ALTERNATE CT2 #4 BARS END
TO END FOR EACH SUCCESSIVE ROW.

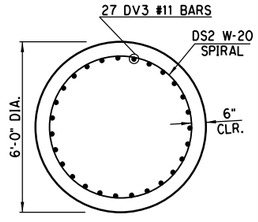
SECTION C-C

SECTION G-G



NOTE: ROTATE BARS T1 AND T2
180 DEGREES FOR EACH SUCCESSIVE ROW.

SECTION D-D



SECTION E-E

Preliminary Plans

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 — OKLAHOMA COUNTY
BRIDGE "B" — RAMP "B" AT I-35 & I-240 INTERCHANGE

PIER DETAILS
PIER NO. 7
(SHEET 2 OF 3)

STATE JOB NO. 09032(106) SHEET NO. B082

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DESCRIPTION	REVISIONS	DATE

BAR LIST - PIER NO. 7
(EPOXY COATED)

MARK	NO.	SIZE	FORM	SPACING	LENGTH	LENGTH VARIATION
CT1	102	#5	BENT	12" C/C	18'-3"	--
CT2	630	#4	BENT	AS SHOWN	4'-2"	--
CT3	3	#5	BENT	AS SHOWN	18'-5"	--
CV1	36	#9	STR.	AS SHOWN	38'-4"	--
CV2	36	#9	STR.	AS SHOWN	39'-7"	--
CV3	36	#9	STR.	AS SHOWN	40'-10"	--
CW1	20	#6	STR.	AS SHOWN	43'-6"	--
CWS1	32	#5	BENT	EQUAL	15'-7"	--
▲① DS1	3	W-20	BENT	AS SHOWN	362'-11"	--
DV1	108	#9	STR.	AS SHOWN	14'-2"	--
DV2	120	#11	STR.	AS SHOWN	4'-6"	--
P1	60	#4	BENT	EQUAL	8'-6"	--
P2	90	#4	BENT	EQUAL	6'-2"	--
PE1	4	#4	BENT	AS SHOWN	5'-8"	--
PE2	4	#4	BENT	AS SHOWN	6'-2"	--
PE3	10	#4	BENT	AS SHOWN	6'-5"	--
② PH1	8	#11	BENT	AS SHOWN	77'-10"	--
② PH2	10	#5	STR.	EQUAL	68'-2"	--
PH3	10	#5	STR.	EQUAL	11'-5" AVG.	1'-7" TO 21'-3"
PH4	10	#5	STR.	EQUAL	11'-4" AVG.	1'-7" TO 21'-1"
PH5	10	#5	STR.	EQUAL	11'-6" AVG.	1'-7" TO 21'-5"
PH6	8	#8	BENT	AS SHOWN	11'-0"	--
PH7	8	#11	BENT	AS SHOWN	50'-10"	--
PH8	8	#8	BENT	AS SHOWN	11'-1"	--
S1	108	#5	BENT	EQUAL	17'-1" AVG.	14'-9" TO 19'-1"
S2	108	#5	BENT	EQUAL	16'-2" AVG.	14'-9" TO 17'-7"
S3	24	#5	BENT	15" C/C	18'-6" AVG.	17'-11" TO 19'-1"
SC	66	#4	BENT	EQUAL	6'-[illegible]	--
② T1	15	#4	BENT	12" C/C	1[illegible]'-0"	--
T2	15	#5	BENT	12" C/C	18'-[illegible]	--

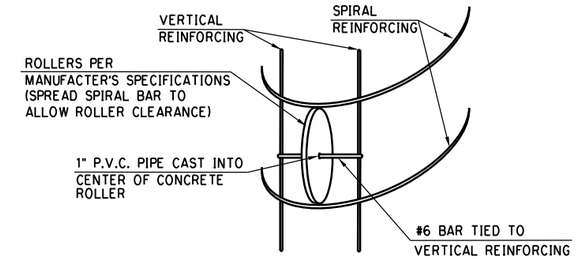
BAR LIST - [illegible]" DRILLED SHAFT

▲① DS2	3	W-20	BENT	AS SHOWN	565'-9"	--
▲ DV3	81	#11	BENT	AS SHOWN	23'-1"	--

① LENGTH SHOWN DOES NOT INCLUDE ANY LAPS FOR SPLICES. CONTRACTOR MAY ALSO SPLICE AS NECESSARY, BUT PAYMENT WILL NOT BE MADE FOR EXTRA LENGTH REQUIRED. ADD 3'-0" FOR EACH SPLICE.

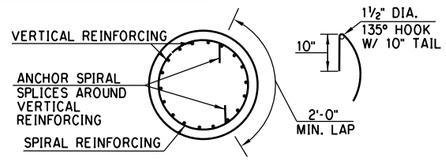
② LENGTH SHOWN INCLUDES LAP:
PH1 - 1 at 6"
PH2 - 1 at 3'-0"
T1 - 1 at 2'-0"

▲ NON-EPOXY COATED



ROLLER INSTALLATION DETAIL

ROLLER PLACEMENT

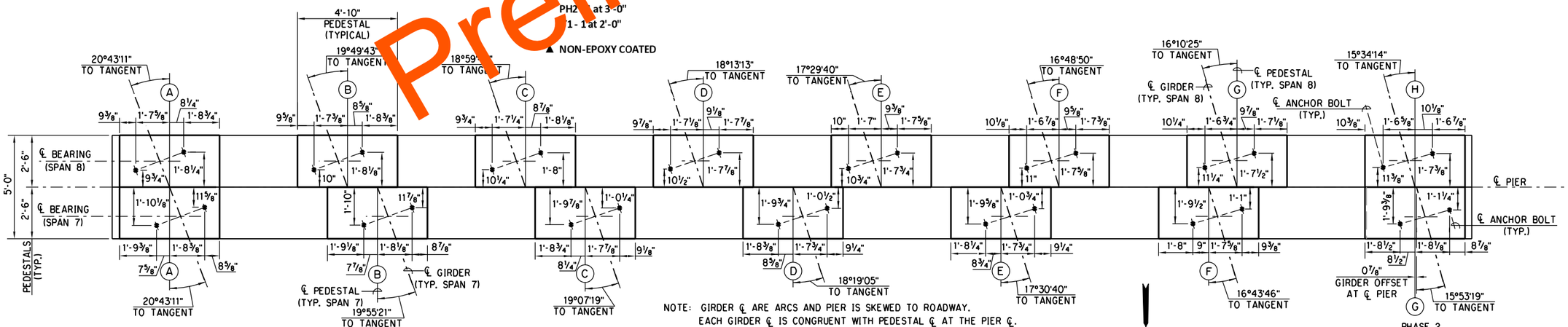


SPIRAL REINFORCING SPLICE DETAILS

NOTE: SPIRAL BARS SHALL CONFORM TO AASHTO M-32. SPIRAL BAR LENGTHS DO NOT INCLUDE LAP. IF LAP IS REQUIRED, THE LENGTH OF THE LAP SHALL BE AS SHOWN.

ROLLER DETAILS

NOTE: REINFORCING CAGE CENTERING DEVICES SHALL CONSIST OF ROLLERS PLACED AT SPACING AS SHOWN AND HAVE THE CHARACTERISTICS AS INDICATED IN THE MANUFACTURER'S SPECIFICATIONS. SLAB BOLSTERS AND HIGH CHAIRS WILL BE ALLOWED BY THE DEPARTMENT.



NOTE: GIRDER ℄ ARE ARCS AND PIER IS SKEWED TO ROADWAY. EACH GIRDER ℄ IS CONGRUENT WITH PEDESTAL ℄ AT THE PIER ℄. EXCEPT SPAN NO. 7 GIRDER "G" ℄ IS OFFSET TO ℄ PEDESTAL AT THE ℄ PIER AS SHOWN.

ANCHOR BOLT LAYOUT
PIER NO. 7

NOTE: DIMENSIONS SHOWN ARE PERPENDICULAR TO PEDESTALS. FOR FURTHER INFORMATION SEE BEARING ASSEMBLY DETAIL SHEET.

Preliminary Plans

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 — OKLAHOMA COUNTY
BRIDGE "B" — RAMP "B" AT I-35 & I-240 INTERCHANGE

PIER DETAILS
PIER NO. 7
(SHEET 3 OF 3)

STATE JOB NO. 09032(061) SHEET NO. B083

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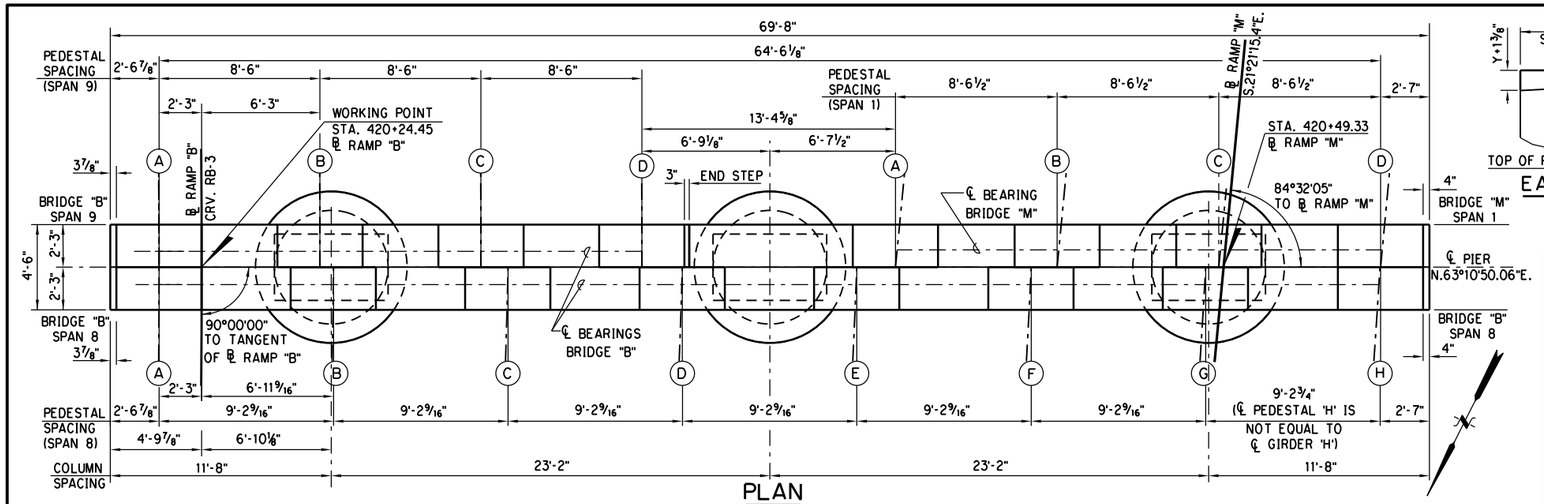
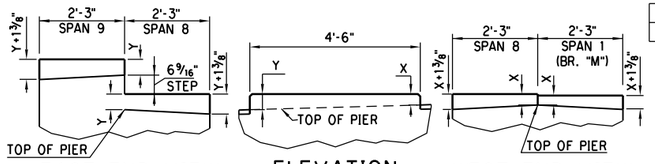


PLAN

(SEE SHEET 3 OF 3 FOR ANCHOR BOLT LAYOUT)



EAST END VIEW

ELEVATION

WEST END VIEW

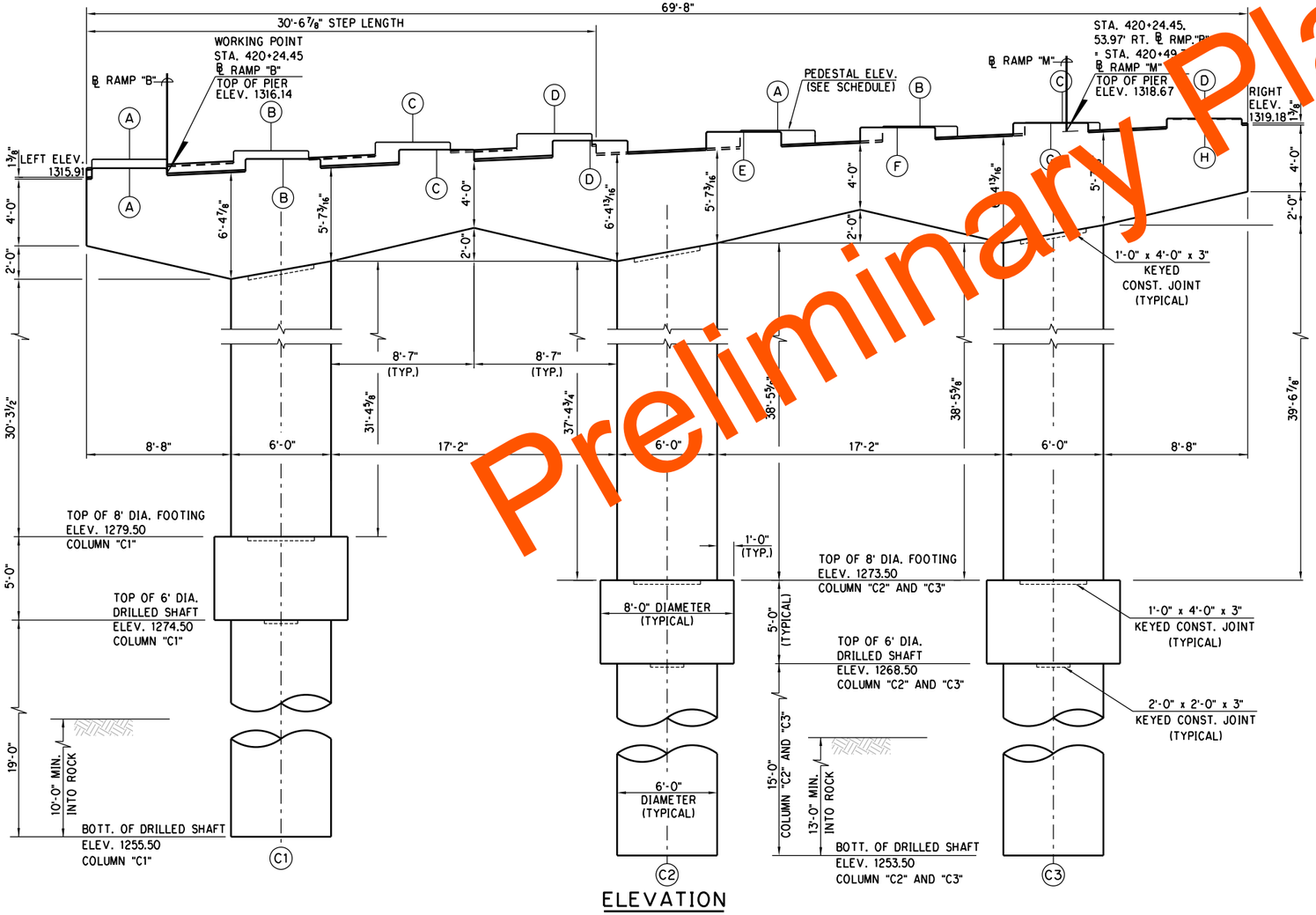
PEDESTAL DETAILS

(SEE SCHEDULE)

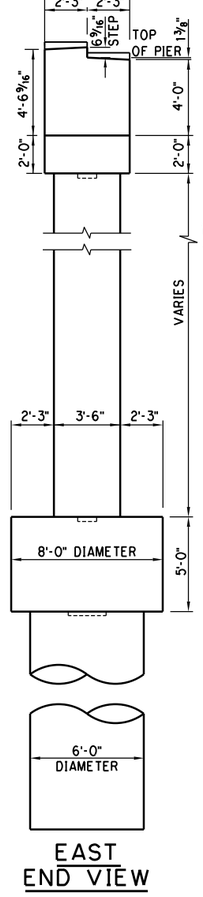
DESCRIPTION	REVISIONS	DATE

PEDESTAL ELEVATION SCHEDULE - PIER NO. 8 BRIDGE "B" (PIER NO. 1 BRIDGE "M")

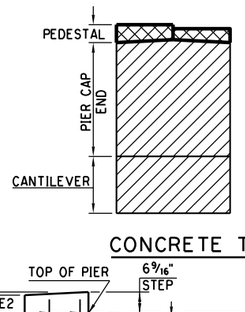
PEDESTAL	A	B	C	D	E	F	G	H
BRIDGE "B" SPAN 8: ELEVATION	1316.46	1317.01	1317.56	1318.11	1318.63	1318.90	1319.16	1319.43
X	3⅜"	5 5⁄16"	6¾"	8 3⁄16"	9⅛"	7 3⁄16"	5⅛"	3 3⁄16"
Y	6¾"	7 13⁄16"	9¼"	10 11⁄16"	11 11⁄16"	9 11⁄16"	7 11⁄16"	5¾"
BRIDGE "B" SPAN 9: ELEVATION	1316.99	1317.50	1318.01	1318.52	--	--	--	--
X	3 11⁄16"	5 1⁄16"	6⅜"	7 11⁄16"	--	--	--	--
Y	6¼"	7 9/16"	8⅞"	10¼"	--	--	--	--
BRIDGE "M" SPAN 1: ELEVATION	1318.72	1318.96	1319.19	1319.42	--	--	--	--
X	9 1⁄16"	7 5⁄16"	5 1⁄16"	3"	--	--	--	--
Y	11⅛"	9¾"	7⅝"	5 9⁄16"	--	--	--	--



ELEVATION



EAST END VIEW

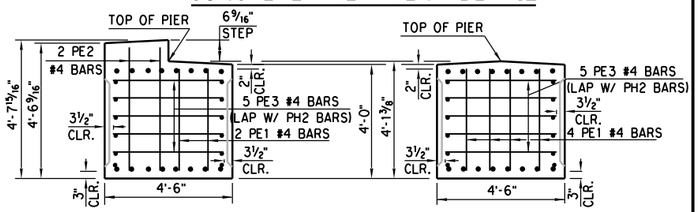


NOTE:
MASK SIDES AND ENDS OF PIER TO PROVIDE A CLEAN STRAIGHT FINISH AT THE BOTTOM EDGE OF ELASTOMERIC COATING APPLICATION.
MASK OUT TOPS OF PEDESTALS WHERE BEARING PADS SIT.

ELASTOMERIC COATING (CROSS-HATCHING AND HEAVY LINE)

WATER REPELLENT (HATCHING)

CONCRETE TREATMENT DETAIL



EAST CAP END REINFORCING DETAIL

(PEDESTALS AND S BARS OMITTED FOR CLARITY)

WEST CAP END REINFORCING DETAIL

(PEDESTALS AND S BARS OMITTED FOR CLARITY)

PIER NO. 8 BRIDGE "B" (PIER NO. 1 BRIDGE "M") QUANTITIES

	ITEM	UNIT	TOTAL
	SUBSTRUCTURE EXCAVATION (COMMON)	C.Y.	100
*	ELASTOMERIC COATING	S.F.	448
	CLASS A CONCRETE	C.Y.	178.3
	REINFORCING STEEL	LB.	730
	EPOXY COATED REINFORCING STEEL	LB.	37,510
≠	WATER REPELLENT (VISUALLY INSPECTED)	S.Y.	97
	DRILLED SHAFTS 72" DIAMETER	L.F.	49

* TOP OF PIER CAP, INCLUDING STEP. TOP AND SIDES OF PEDESTALS.

≠ ENDS AND SIDES OF PIER CAP. BOTTOM OF CANTILEVERS.

PHASE 2 — OKLAHOMA COUNTY

BRIDGE "B" — RAMP "B" AT I-35 & I-240 INTERCHANGE

PIER DETAILS
PIER NO. 8
(SHEET 1 OF 3)

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

STATE JOB NO. 09032(06) SHEET NO. B084

Preliminary Plans

6/1/2022 11:06:08 AM
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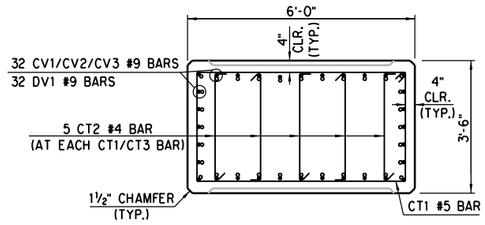
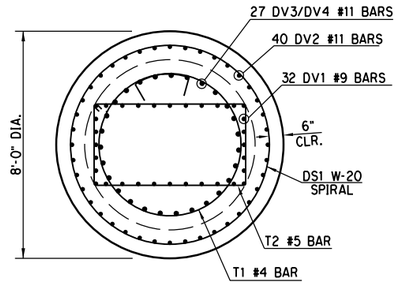
REVISIONS		
DESCRIPTION		DATE



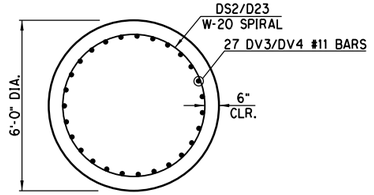
NOTE: ALTERNATE CT2 #4 BARS END TO END FOR EACH SUCCESSIVE ROW.

SECTION C-C

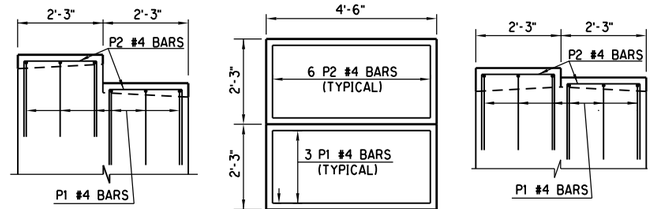


NOTE: ROTATE BARS T1 AND T2 180 DEGREES FOR EACH SUCCESSIVE ROW.

SECTION D-D



SECTION E-E



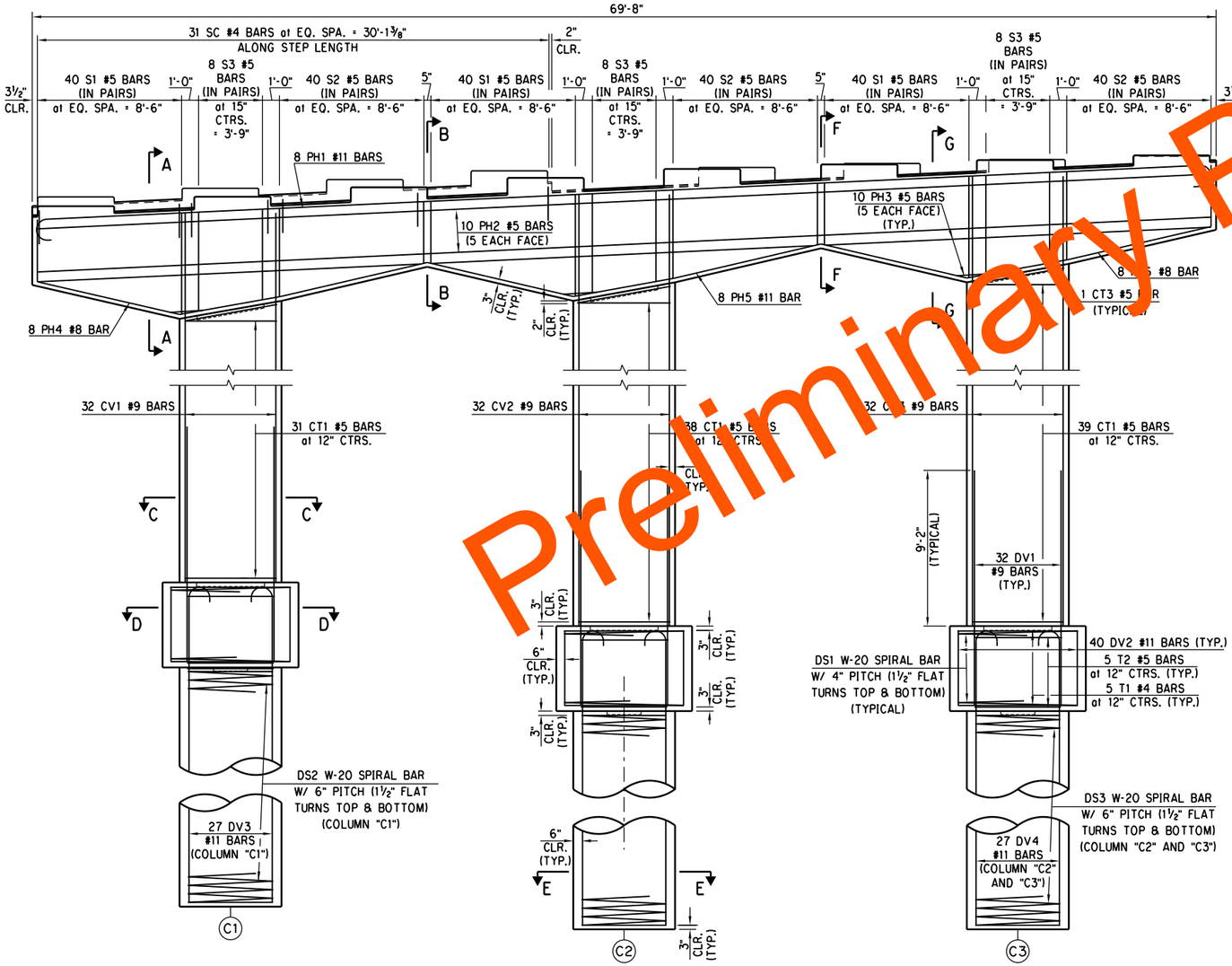
EAST SECTION
(PEDESTALS ADJACENT TO BRIDGE "B" SPAN 9)

PLAN

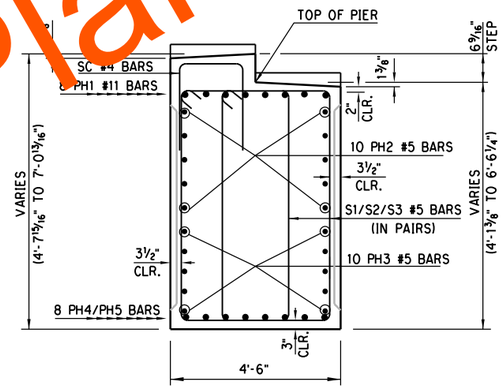
WEST SECTION
(PEDESTALS ADJACENT TO BRIDGE "M" SPAN 1)

PEDESTAL REINFORCING DETAILS

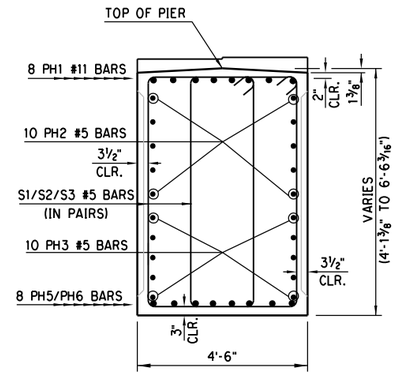
(EXTERIOR PEDESTALS SHOWN. INTERIOR PEDESTALS WILL NOT ALIGN)



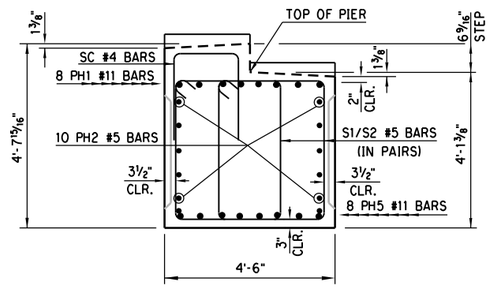
REINFORCING ELEVATION



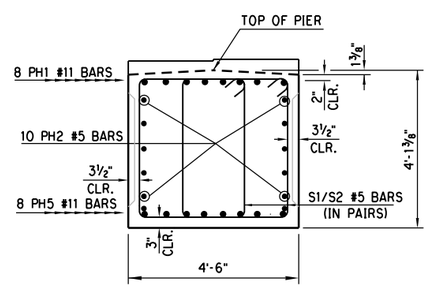
SECTION A-A
(PIER CAP THRU STEP. ADJACENT TO BRIDGE "B" SPAN 9)



SECTION G-G
(PIER CAP ADJACENT TO BRIDGE "M" SPAN 1)



SECTION B-B



SECTION F-F

Preliminary Plans

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 — OKLAHOMA COUNTY
BRIDGE "B" — RAMP "B" AT I-35 & I-240 INTERCHANGE

PIER DETAILS
PIER NO. 8
(SHEET 2 OF 3)

STATE JOB NO. 09032(106) SHEET NO. B085

6/1/2022 11:06:09 AM
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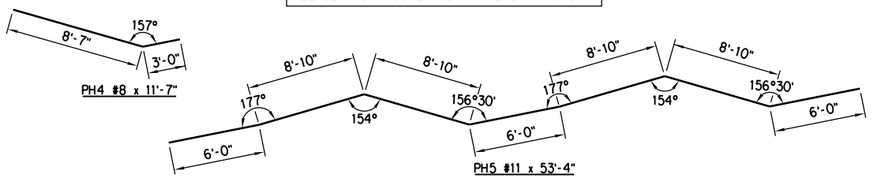
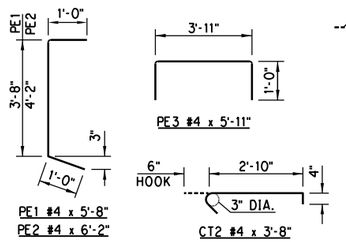
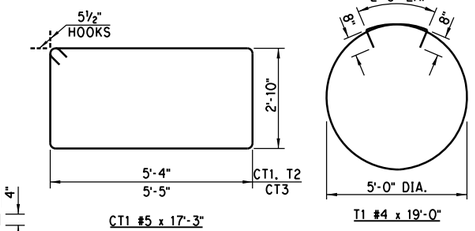
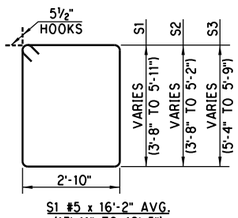
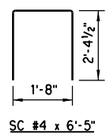
ALL BENT BAR DIMENSIONS ARE OUT TO OUT.

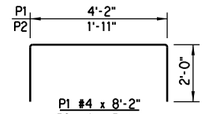


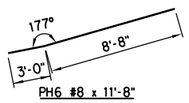


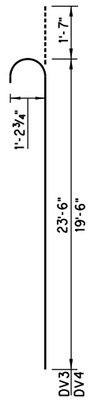


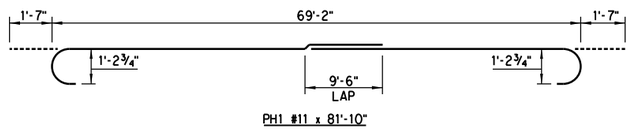












BAR LIST - PIER NO. 8 BRIDGE "B"
(PIER NO. 1 BRIDGE"M")
(EPOXY COATED)

MARK	NO.	SIZE	FORM	SPACING	LENGTH	LENGTH VARIATION
CT1	108	#5	BENT	12" C/C	17'-3"	--
CT2	555	#4	BENT	AS SHOWN	3'-8"	--
CT3	3	#5	BENT	AS SHOWN	17'-5"	--
CV1	32	#9	STR.	AS SHOWN	35'-11"	--
CV2	32	#9	STR.	AS SHOWN	43'-7	--
CV3	32	#9	STR.	AS SHOWN	44'-8"	--
▲① DS1	3	W-20	BENT	AS SHOWN	362'-11"	--
DV1	96	#9	STR.	AS SHOWN	14'-2"	--
DV2	120	#11	STR.	AS SHOWN	4'-6"	--
P1	48	#4	BENT	EQUAL	8'-2"	--
P2	96	#4	BENT	EQUAL	5'-11"	--
PE1	6	#4	BENT	AS SHOWN	5'-8"	--
PE2	2	#4	BENT	AS SHOWN	6'-2"	--
PE3	10	#4	BENT	AS SHOWN	5'-11"	--
② PH1	8	#11	BENT	AS SHOWN	81'-10"	--
② PH2	10	#5	STR.	EQUAL	72'-2"	--
PH3	30	#5	STR.	EQUAL	12'-3 1/2" AVG.	2'-0" TO 22'-7"
PH4	8	#8	BENT	AS SHOWN	11'-7"	--
PH5	8	#11	BENT	AS SHOWN	53'-6"	--
PH6	8	#8	BENT	AS SHOWN	11'-8"	--
S1	120	#5	BENT	EQUAL	16' AVG.	13'-1 TO 1 -5"
S2	120	#5	BENT	EQUAL	15 " AVG.	13'-11" O 16
S3	24	#5	BENT	15" C/C	17'- AVG.	17'-3" 18'-1
SC	31	#4	BENT	EQUAL	6'-	--
② T1	15	#4	BENT	12" C/C	19'-0"	--
T2	15	#5	BENT	C/C	17'-3"	--

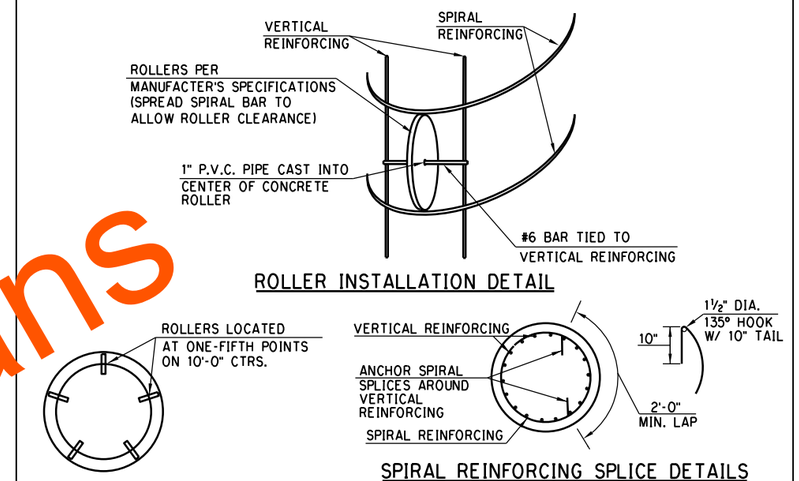
BAR LIS 72" DR ED SHAFT

▲① DS2	1	W 0	BENT	AS SHOWN	625'-1"	--
▲① DS3	2	20	BENT	AS SHOWN	502'-11"	--
▲ V3		#1	B	AS SHOWN	25'-1"	--
▲ DV4	54	#1	BENT	AS SHOWN	21'-1"	--

① LENGTH SHOWN DOES NOT INCLUDE ANY LAPS FOR SPLICES. CONTRACTOR MAY ADD SPLICES AS NECESSARY, BUT PAYMENT WILL NOT BE MADE FOR EXTRA LENGTH REQUIRED. ADD 3'-8" FOR EACH SPLICE.

② LENGTH SHOWN INCLUDES LAP:
PH1 - 1 at 9'-6"
PH2 - 1 at 3'-0"
T1 - 1 at 2'-0"

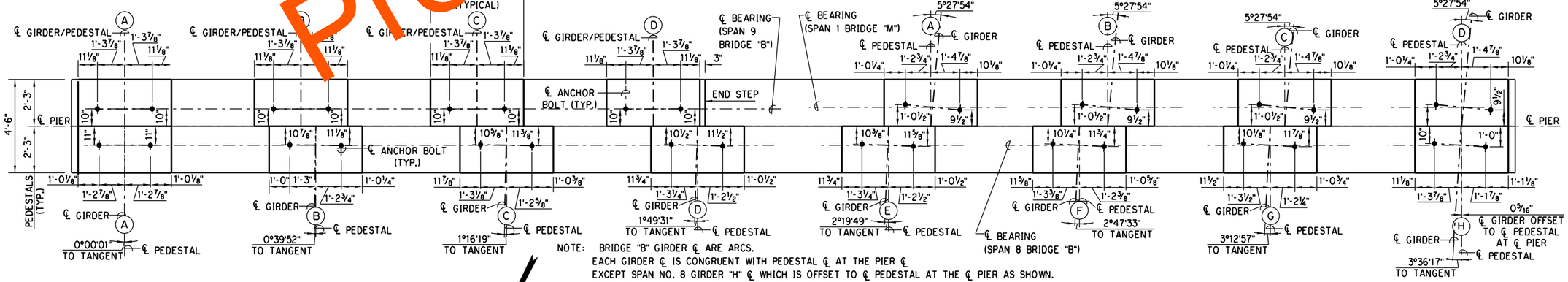
▲ NON-EPOXY COATED



NOTE: SPIRAL BARS SHALL CONFORM TO AASHTO M-32. SPIRAL BAR LENGTHS DO NOT INCLUDE LAP. IF LAP IS REQUIRED, THE LENGTH OF THE LAP SHALL BE AS SHOWN.

ROLLER DETAILS

NOTE: REINFORCING CAGE CENTERING DEVICES SHALL CONSIST OF ROLLERS PLACED AT SPACING AS SHOWN AND HAVE THE CHARACTERISTICS AS INDICATED IN THE MANUFACTURER'S SPECIFICATIONS. SLAB BOLSTERS AND HIGH CHAIRS WILL BE ALLOWED BY THE DEPARTMENT.



NOTE: BRIDGE "B" GIRDER ℄ ARE ARCS.
EACH GIRDER ℄ IS CONGRUENT WITH PEDESTAL ℄ AT THE PIER ℄
EXCEPT SPAN NO. 8 GIRDER "H" ℄ WHICH IS OFFSET TO ℄ PEDESTAL AT THE ℄ PIER AS SHOWN.
BRIDGE "M" GIRDER ℄ ARE SKEWED STRAIGHT LINES.
EACH GIRDER ℄ IS CONGRUENT WITH PEDESTAL ℄ AT THE PIER ℄.

ANCHOR BOLT LAYOUT
PIER NO. 8

NOTE: DIMENSIONS SHOWN ARE PERPENDICULAR TO PEDESTALS.
FOR FURTHER INFORMATION SEE BEARING ASSEMBLY DETAIL SHEET.

REVISIONS		
DESCRIPTION		DATE

PHASE 2 — OKLAHOMA COUNTY
BRIDGE "B" — RAMP "B" AT I-35 & I-240 INTERCHANGE

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PIER DETAILS
PIER NO. 8
(SHEET 3 OF 3)

STATE JOB NO. 09032(06) SHEET NO. B086

Preliminary Plans

6/1/2022 11:06:10 AM
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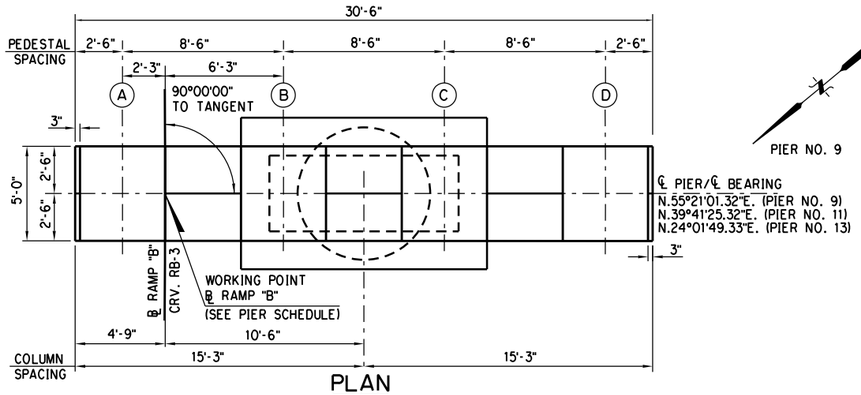
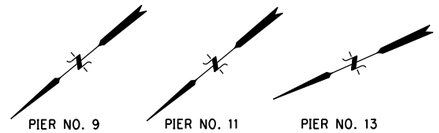
DESCRIPTION	REVISIONS	DATE



PLAN

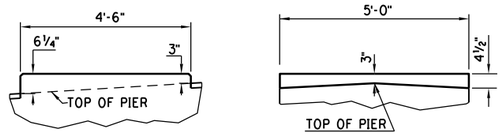
(SEE SHEET 3 OF 3 FOR ANCHOR BOLT LAYOUT)



PEDESTAL ELEVATION SCHEDULE - PIER NO. 9				
PEDESTAL	A	B	C	D
SPAN 9-10 ELEVEVATION	1315.14	1315.65	1316.16	1316.67

PEDESTAL ELEVATION SCHEDULE - PIER NO. 11				
PEDESTAL	A	B	C	D
SPAN 11-12 ELEVATION	1309.33	1309.84	1310.35	1310.86

PEDESTAL ELEVATION SCHEDULE - PIER NO. 13				
PEDESTAL	A	B	C	D
SPAN 13-14 ELEVATION	1301.02	1301.53	1302.04	1302.55

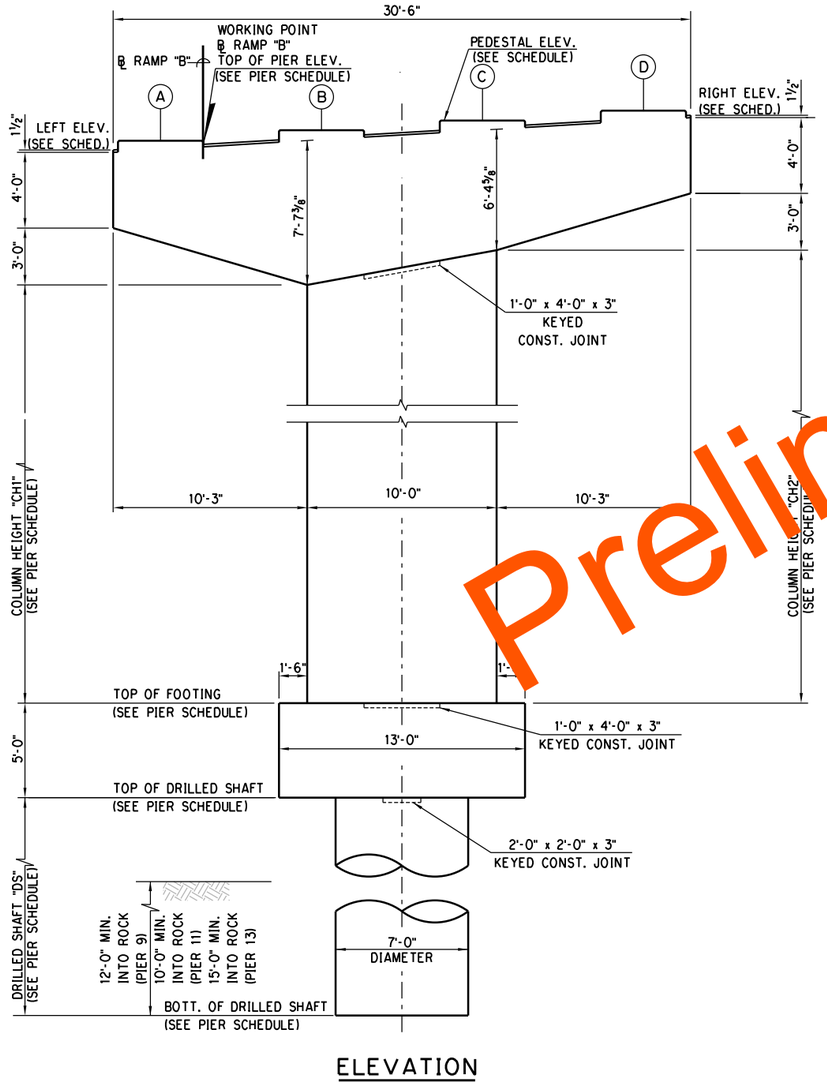


ELEVATION

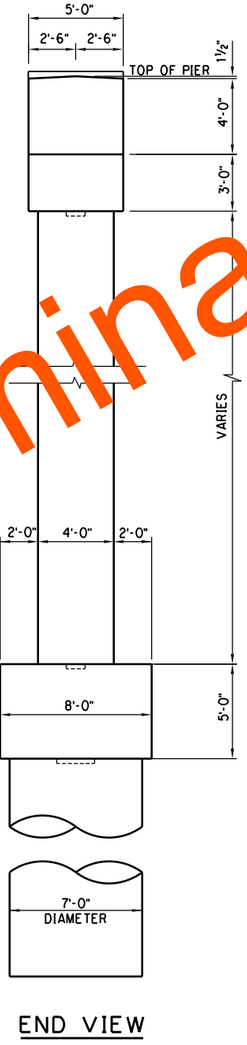
END VIEW

PEDESTAL DETAILS

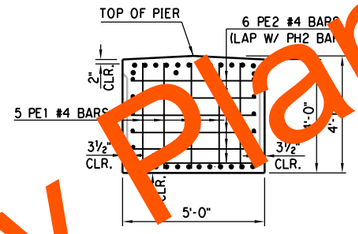
(TYPICAL)



ELEVATION

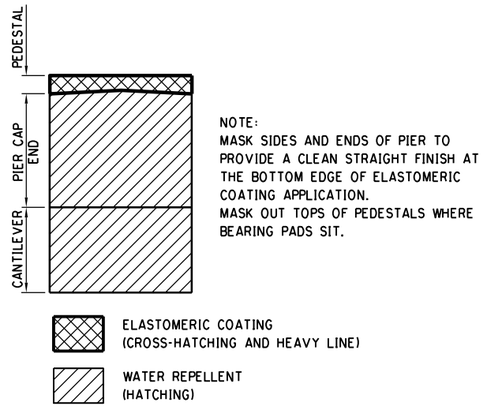


END VIEW



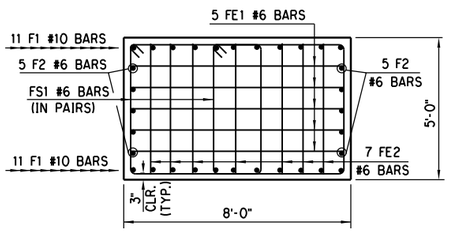
CAP END REINFORCING DETAIL

(PEDESTALS AND S BARS OMITTED FOR CLARITY)



NOTE:
MASK SIDES AND ENDS OF PIER TO PROVIDE A CLEAN STRAIGHT FINISH AT THE BOTTOM EDGE OF ELASTOMERIC COATING APPLICATION.
MASK OUT TOPS OF PEDESTALS WHERE BEARING PADS SIT.

CONCRETE TREATMENT DETAIL



FOOTING END REINFORCING DETAIL

PIER SCHEDULE										
PIER	WORKING POINT STA.	TOP OF PIER ELEVATION	LEFT ELEVATION	RIGHT ELEVATION	DIM. "CH1"	DIM. "CH2"	DIM. "DS"	TOP OF FTG. ELEVATION	TOP OF D.S. ELEVATION	BOTT. OF D.S. ELEVATION
PIER NO. 9	421+40.45	1314.89	1314.60	1316.43	32'-6"	34'-4"	15'-0"	1274.98	1269.98	1254.98
PIER NO. 11	423+72.45	1309.08	1308.80	1310.63	25'-0 1/4"	26'-10 1/4"	27'-0"	1276.65	1271.65	1244.65
PIER NO. 13	426+04.45	1300.77	1300.49	1302.32	20'-10"	22'-8"	16'-0"	1272.53	1267.53	1251.53

PIER QUANTITIES				
	ITEM	UNIT	PIER NO. 9	PIER NO. 11	PIER NO. 13
	SUBSTRUCTURE EXCAVATION (COMMON)	C.Y.	50	50	240
*	ELASTOMERIC COATING	S.F.	192	192	192
	CLASS A CONCRETE	C.Y.	104.5	93.4	87.2
	EPOXY COATED REINFORCING STEEL	LB.	23,380	21,380	20,300
≠	WATER REPELLENT (VISUALLY INSPECTED)	S.Y.	58	58	58
	DRILLED SHAFTS 84" DIAMETER	L.F.	15	27	16

* TOP OF PIER CAP. TOP AND SIDES OF PEDESTALS.

≠ ENDS AND SIDES OF PIER CAP. BOTTOM OF CANTILEVERS.

Preliminary Plans

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 OKLAHOMA COUNTY

BRIDGE "B" RAMP "B" AT I-35 & I-240 INTERCHANGE

PIER DETAILS
PIERS NO. 9, 11 AND 13

(SHEET 1 OF 3)

STATE JOB NO. 09032(106) SHEET NO. B087

6/1/2022 11:06:12 AM
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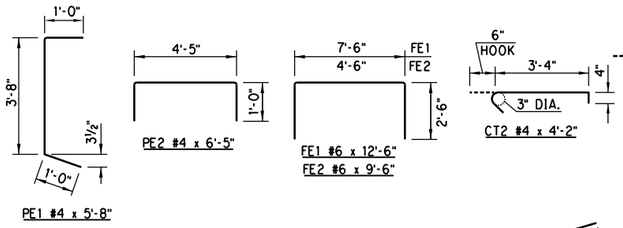
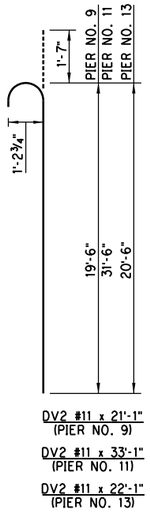
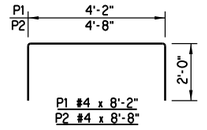
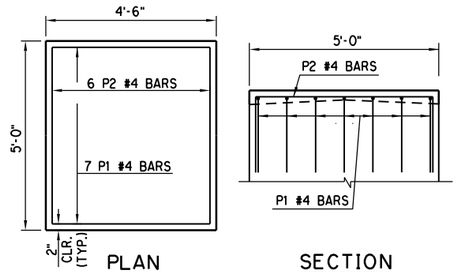
DESCRIPTION	REVISIONS	DATE



ALL BENT BAR DIMENSIONS ARE OUT TO OUT.



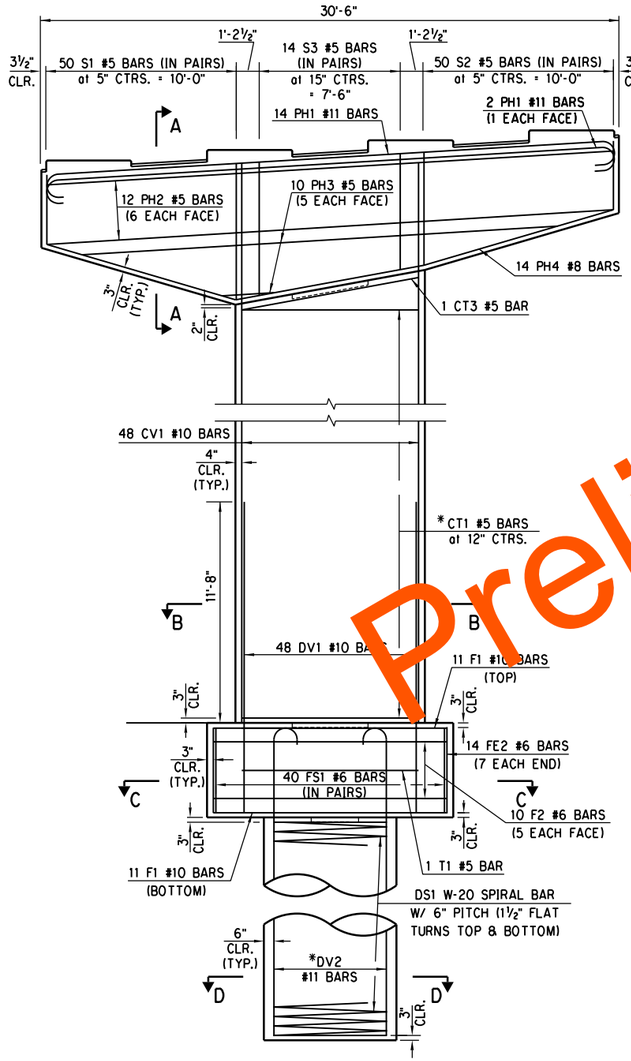




PLAN SECTION

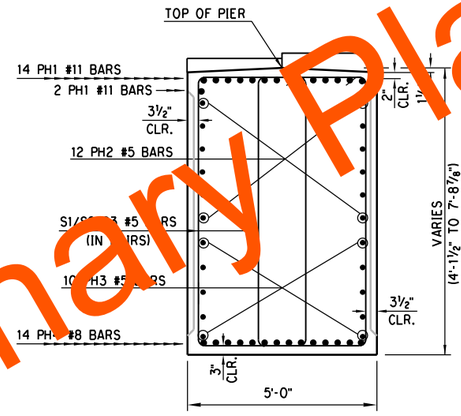
PEDESTAL REINFORCING DETAILS

(TYPICAL)

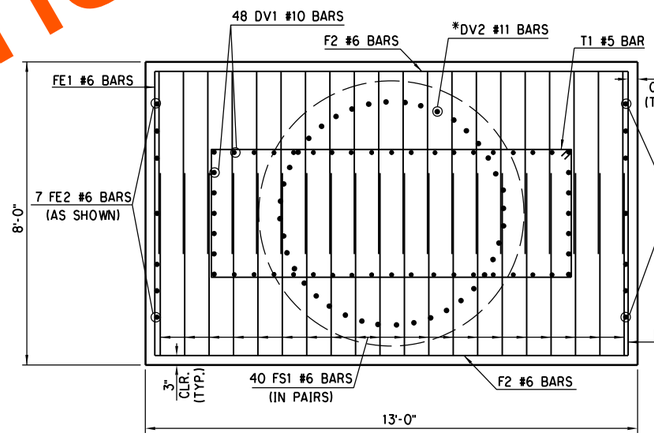


REINFORCING ELEVATION

*SEE BAR LIST. SEE SHEET 3 OF 3

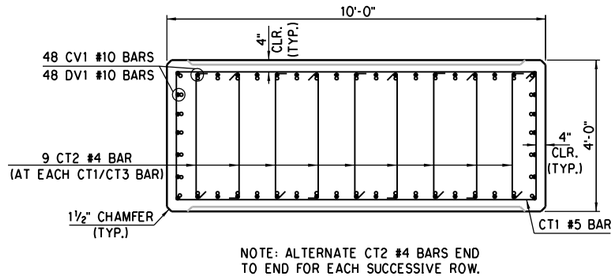


SECTION A-A



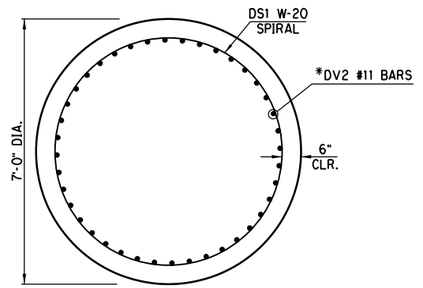
SECTION C-C

*SEE BAR LIST. SEE SHEET 3 OF 3



NOTE: ALTERNATE CT2 #4 BARS END
TO END FOR EACH SUCCESSIVE ROW.

SECTION B-B



SECTION D-D

*SEE BAR LIST. SEE SHEET 3 OF 3

PHASE 2 OKLAHOMA COUNTY

BRIDGE "B" RAMP "B" AT I-35 & I-240 INTERCHANGE

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PIER DETAILS
PIERS NO. 9, 11 AND 13
(SHEET 2 OF 3)

STATE JOB NO. 09032(106) SHEET NO. B088

Preliminary Plans

6/1/2022 11:06:43 AM
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DESCRIPTION	DATE

BAR LIST - PIER NO. 9
(EPOXY COATED)

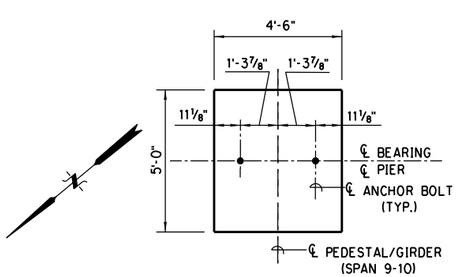
MARK	NO.	SIZE	FORM	SPACING	LENGTH	LENGTH VARIATION
CT1	34	#5	BENT	12" C/C	26'-3"	--
CT2	315	#4	BENT	AS SHOWN	4'-2"	
CT3	1	#5	BENT	AS SHOWN	26'-5"	--
CV1	48	#10	STR.	AS SHOWN	39'-11"	--
DV1	48	#10	STR.	AS SHOWN	16'-5"	--
F1	22	#10	STR.	AS SHOWN	12'-6"	--
F2	10	#6	STR.	AS SHOWN	12'-6"	--
FE1	10	#6	BENT	AS SHOWN	12'-6"	--
FE2	14	#6	BENT	AS SHOWN	9'-6"	--
FS1	40	#6	BENT	EQUAL	19'-6"	--
P1	28	#4	BENT	EQUAL	8'-2"	--
P2	24	#4	BENT	EQUAL	8'-8"	--
PE1	10	#4	BENT	AS SHOWN	5'-8"	--
PE2	12	#4	BENT	AS SHOWN	6'-5"	--
PH1	16	#11	BENT	AS SHOWN	33'-1"	--
PH2	12	#5	STR.	EQUAL	29'-11"	--
PH3	10	#5	STR.	EQUAL	13'-11 1/2" AVG.	2'-9" TO 25'-2"
PH4	14	#8	BENT	AS SHOWN	30'-10"	--
S1	50	#5	BENT	5" C/C	17'-5" AVG.	13'-11" TO 20'-11"
S2	50	#5	BENT	5" C/C	16'-2" AVG.	13'-11" TO 18'-5"
S3	14	#5	BENT	15" C/C	19'-8" AVG.	18'-9" TO 20'-7"
T1	1	#5	BENT	AS SHOWN	26'-3"	--

BAR LIST - 84" DRILLED SHAFT

▲①	DS1	1	W-20	BENT	AS SHOWN	603'-5"	--
▲	DV2	40	#11	BENT	AS SHOWN	21'-1"	--

① LENGTH SHOWN DOES NOT INCLUDE ANY LAPS FOR SPLICES. CONTRACTOR MAY ADD SPLICES AS NECESSARY, BUT PAYMENT WILL NOT BE MADE FOR EXTRA LENGTH REQUIRED. ADD 3'-8" FOR EACH SPLICE.

▲ NON-EPOXY COATED



NOTE: GIRDER ℄ ARE ARCS.
EACH PEDESTAL ℄ IS CONGRUENT WITH ITS GIRDER ℄ AT THE PIER ℄.

ANCHOR BOLT LAYOUT
PIER NO. 9
(TYPICAL)

NOTE: DIMENSIONS SHOWN ARE PERPENDICULAR TO PEDESTALS.
FOR FURTHER INFORMATION
SEE BEARING ASSEMBLY DETAIL SHEET.

BAR LIST - PIER NO. 11
(EPOXY COATED)

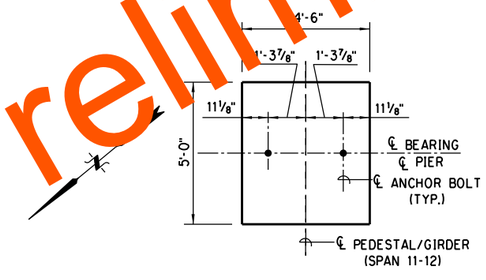
MARK	NO.	SIZE	FORM	SPACING	LENGTH	LENGTH VARIATION
CT1	26	#5	BENT	12" C/C	26'-3"	--
CT2	243	#4	BENT	AS SHOWN	4'-2"	
CT3	1	#5	BENT	AS SHOWN	26'-5"	--
CV1	48	#10	STR.	AS SHOWN	32'-5"	--
DV1	48	#10	STR.	AS SHOWN	16'-5"	--
F1	22	#10	STR.	AS SHOWN	12'-6"	--
F2	10	#6	STR.	AS SHOWN	12'-6"	--
FE1	10	#6	BENT	AS SHOWN	12'-6"	--
FE2	14	#6	BENT	AS SHOWN	9'-6"	--
FS1	40	#6	BENT	EQUAL	19'-6"	--
P1	28	#4	BENT	EQUAL	8'-2"	--
P2	24	#4	BENT	EQUAL	8'-8"	--
PE1	10	#4	BENT	AS SHOWN	5'-8"	--
PE2	12	#4	BENT	AS SHOWN	6'-5"	--
PH1	16	#11	BENT	AS SHOWN	33'-1"	--
PH2	12	#5	STR.	EQUAL	29'-11"	--
PH3	10	#5	STR.	EQUAL	13'-11 1/2" AVG.	2'-9" TO 25'-2"
PH4	14	#8	BENT	AS SHOWN	30'-10"	--
S1	50	#5	BENT	5" C/C	17'-5" AVG.	13'-11" TO 20'-11"
S2	50	#5	BENT	5" C/C	16'-2" AVG.	13'-11" TO 18'-5"
S3	14	#5	BENT	15" C/C	19'-8" AVG.	18'-9" TO 20'-7"
T1	1	#5	BENT	AS SHOWN	26'-3"	--

BAR LIST - 84" DRILLED SHAFT

▲①	DS1	1	W-20	BENT	AS SHOWN	1059'-7"	--
▲	DV2	48	#11	BENT	AS SHOWN	33'-1"	--

① LENGTH SHOWN INCLUDES 3'-8" LAP FOR ONE SPLICE. CONTRACTOR MAY ADD SPLICES AS NECESSARY, BUT PAYMENT WILL NOT BE MADE FOR EXTRA LENGTH REQUIRED. ADD 3'-8" FOR EACH SPLICE.

▲ NON-EPOXY COATED



NOTE: GIRDER ℄ ARE ARCS.
EACH PEDESTAL ℄ IS CONGRUENT WITH ITS GIRDER ℄ AT THE PIER ℄.

ANCHOR BOLT LAYOUT
PIER NO. 11
(TYPICAL)

NOTE: DIMENSIONS SHOWN ARE PERPENDICULAR TO PEDESTALS.
FOR FURTHER INFORMATION
SEE BEARING ASSEMBLY DETAIL SHEET.

BAR LIST - PIER NO. 13
(EPOXY COATED)

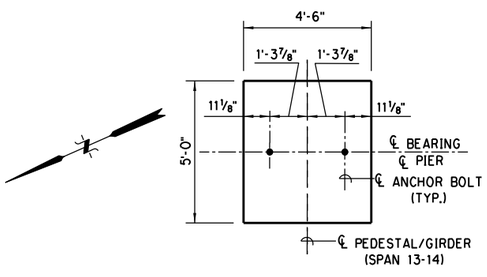
MARK	NO.	SIZE	FORM	SPACING	LENGTH	LENGTH VARIATION
CT1	22	#5	BENT	12" C/C	26'-3"	--
CT2	207	#4	BENT	AS SHOWN	4'-2"	
CT3	1	#5	BENT	AS SHOWN	26'-5"	--
CV1	48	#10	STR.	AS SHOWN	28'-3"	--
DV1	48	#10	STR.	AS SHOWN	16'-5"	--
F1	22	#10	STR.	AS SHOWN	12'-6"	--
F2	10	#6	STR.	AS SHOWN	12'-6"	--
FE1	10	#6	BENT	AS SHOWN	12'-6"	--
FE2	14	#6	BENT	AS SHOWN	9'-6"	--
FS1	40	#6	BENT	EQUAL	19'-6"	--
P1	28	#4	BENT	EQUAL	8'-2"	--
P2	24	#4	BENT	EQUAL	8'-8"	--
PE1	10	#4	BENT	AS SHOWN	5'-8"	--
PE2	12	#4	BENT	AS SHOWN	6'-5"	--
PH1	16	#11	BENT	AS SHOWN	33'-1"	--
PH2	12	#5	STR.	EQUAL	29'-11"	--
PH3	10	#5	STR.	EQUAL	13'-11 1/2" AVG.	2'-9" TO 25'-2"
PH4	14	#8	BENT	AS SHOWN	30'-10"	--
S1	50	#5	BENT	5" C/C	17'-5" AVG.	13'-11" TO 20'-11"
S2	50	#5	BENT	5" C/C	16'-2" AVG.	13'-11" TO 18'-5"
S3	14	#5	BENT	15" C/C	19'-8" AVG.	18'-9" TO 20'-7"
T1	1	#5	BENT	AS SHOWN	26'-3"	--

BAR LIST - 84" DRILLED SHAFT

▲①	DS1	1	W-20	BENT	AS SHOWN	641'-1"	--
▲	DV2	40	#11	BENT	AS SHOWN	22'-1"	--

① LENGTH SHOWN DOES NOT INCLUDE ANY LAPS FOR SPLICES. CONTRACTOR MAY ADD SPLICES AS NECESSARY, BUT PAYMENT WILL NOT BE MADE FOR EXTRA LENGTH REQUIRED. ADD 3'-8" FOR EACH SPLICE.

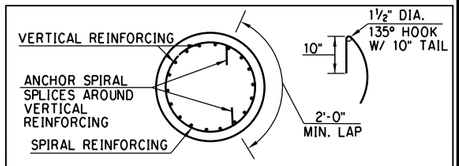
▲ NON-EPOXY COATED



NOTE: GIRDER ℄ ARE ARCS.
EACH PEDESTAL ℄ IS CONGRUENT WITH ITS GIRDER ℄ AT THE PIER ℄.

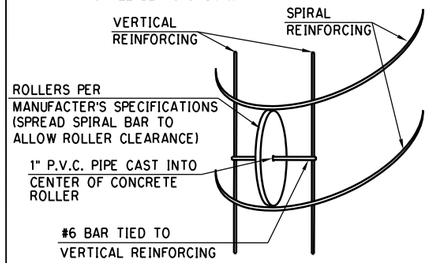
ANCHOR BOLT LAYOUT
PIER NO. 13
(TYPICAL)

NOTE: DIMENSIONS SHOWN ARE PERPENDICULAR TO PEDESTALS.
FOR FURTHER INFORMATION
SEE BEARING ASSEMBLY DETAIL SHEET.

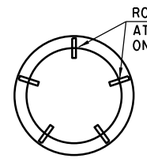


SPIRAL REINFORCING SPLICE DETAILS

NOTE: SPIRAL BARS SHALL CONFORM TO AASHTO M-32.
SPIRAL BAR LENGTHS DO NOT INCLUDE LAP.
IF LAP IS REQUIRED, THE LENGTH OF THE LAP SHALL BE AS SHOWN.



ROLLER INSTALLATION DETAIL



ROLLER PLACEMENT

ROLLER DETAILS

NOTE: REINFORCING CAGE CENTERING DEVICES SHALL CONSIST OF ROLLERS PLACED AT SPACING AS SHOWN AND HAVE THE CHARACTERISTICS AS INDICATED IN THE MANUFACTURER'S SPECIFICATIONS. SLAB BOLSTERS AND HIGH CHAIRS WILL BE ALLOWED BY THE DEPARTMENT.

Preliminary Plans

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 — OKLAHOMA COUNTY
BRIDGE "B" — RAMP "B" AT I-35 & I-240 INTERCHANGE

PIER DETAILS
PIERS NO. 9, 11 AND 13
(SHEET 3 OF 3)

STATE JOB NO. 09032(06) SHEET NO. B089

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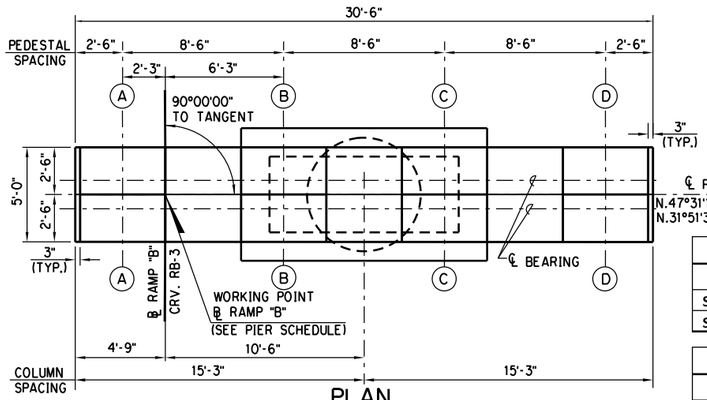
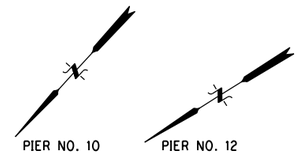
DESCRIPTION	REVISIONS	DATE



PLAN

(SEE SHEET 3 OF 3 FOR ANCHOR BOLT LAYOUT)



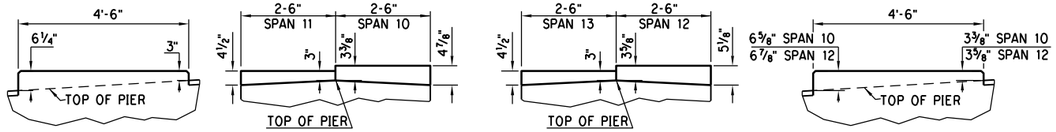
℄ PIER
N.47°31'13.32"E. (PIER NO. 10)
N.31°51'37.33"E. (PIER NO. 12)

PEDESTAL ELEVATION SCHEDULE - PIER NO. 10

PEDESTAL	A	B	C	D
SPAN 10 ELEVATION	1312.79	1313.30	1313.81	1314.32
SPAN 11 ELEVATION	1312.76	1313.27	1313.78	1314.29

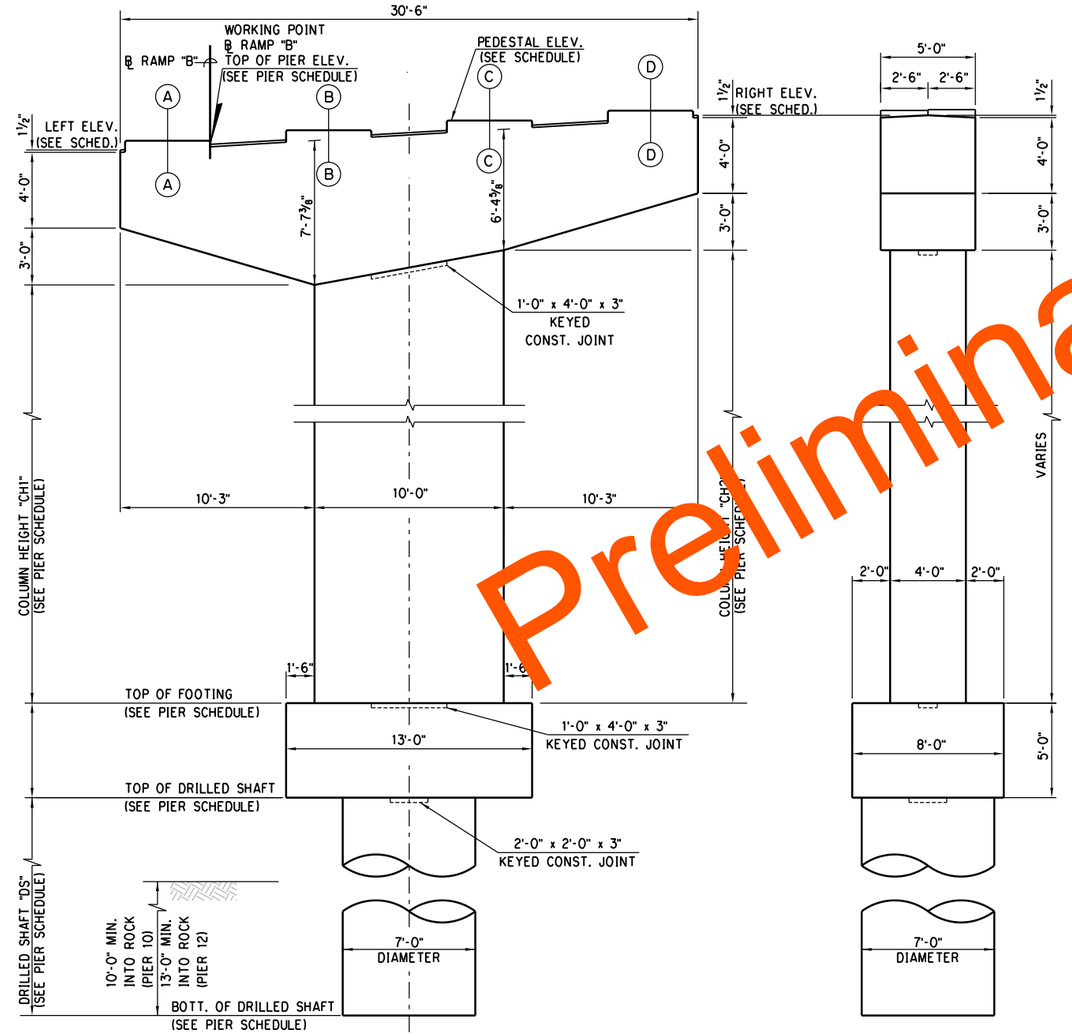
PEDESTAL ELEVATION SCHEDULE - PIER NO. 12

PEDESTAL	A	B	C	D
SPAN 12 ELEVATION	1305.45	1305.96	1306.47	1306.98
SPAN 13 ELEVATION	1305.40	1305.91	1306.42	1306.93



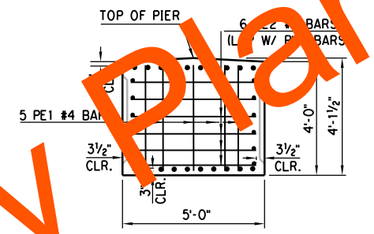
PEDESTAL DETAILS

(TYPICAL)



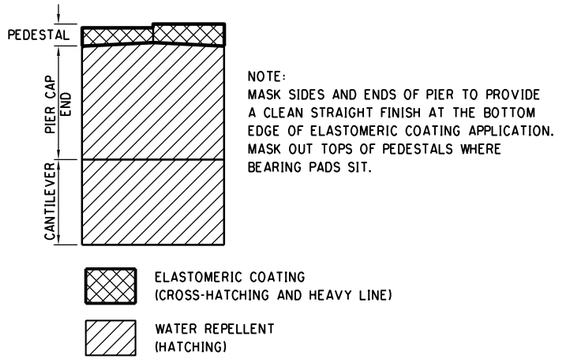
ELEVATION

END VIEW



CAP END
REINFORCING DETAIL

(PEDESTALS AND S BARS OMITTED FOR CLARITY)



NOTE:
MASK SIDES AND ENDS OF PIER TO PROVIDE A CLEAN STRAIGHT FINISH AT THE BOTTOM EDGE OF ELASTOMERIC COATING APPLICATION. MASK OUT TOPS OF PEDESTALS WHERE BEARING PADS SIT.

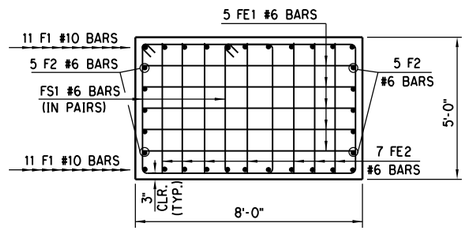
ELASTOMERIC COATING (CROSS-HATCHING AND HEAVY LINE)

WATER REPELLENT (HATCHING)

CONCRETE TREATMENT DETAIL

PIER SCHEDULE

PIER	WORKING POINT STA.	TOP OF PIER ELEVATION	LEFT ELEVATION	RIGHT ELEVATION	DIM. "CH1"	DIM. "CH2"	DIM. "DS"	TOP OF FTG. ELEVATION	TOP OF D.S. ELEVATION	BOTT. OF D.S. ELEVATION
PIER NO. 10	422+56.45	1312.51	1312.22	1314.05	34'-1 1/4"	34'-11 1/8"	16'-0"	1272.00	1267.00	1251.00
PIER NO. 12	424+88.45	1305.15	1304.86	1306.69	19'- 5 1/4"	21'- 3 1/4"	19'-0"	1278.30	1273.30	1254.30



FOOTING END
REINFORCING DETAIL

PIER QUANTITIES

	ITEM	UNIT	PIER NO. 10	PIER NO. 12
	SUBSTRUCTURE EXCAVATION (COMMON)	C.Y.	50	50
*	ELASTOMERIC COATING	S.F.	193	195
	CLASS A CONCRETE	C.Y.	106.2	85.2
	EPOXY COATED REINFORCING STEEL	LB.	23,390	18,570
≠	WATER REPELLENT (VISUALLY INSPECTED)	S.Y.	58	58
	DRILLED SHAFTS 84" DIAMETER	L.F.	16	19

* TOP OF PIER CAP. TOP AND SIDES OF PEDESTALS.

≠ ENDS AND SIDES OF PIER CAP. BOTTOM OF CANTILEVERS.

Preliminary Plans

PHASE 2 — OKLAHOMA COUNTY

BRIDGE "B" — RAMP "B" AT I-35 & I-240 INTERCHANGE

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PIER DETAILS
PIERS NO. 10 AND 12
(SHEET 1 OF 3)

STATE JOB NO. 09032(106) SHEET NO. B090

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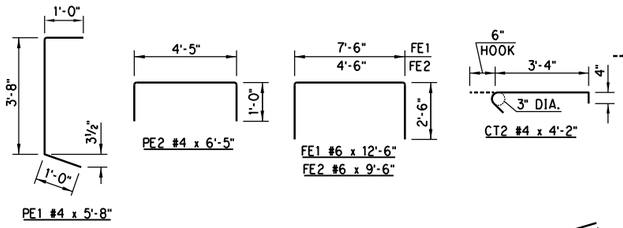
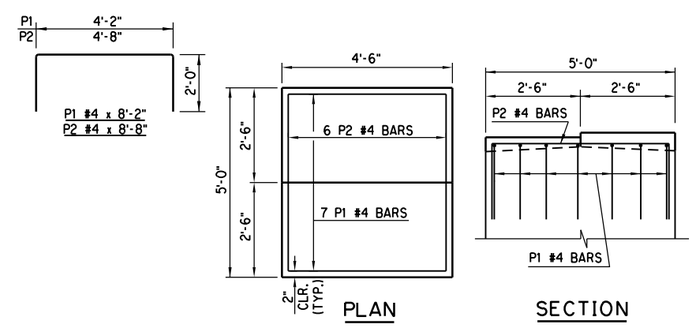
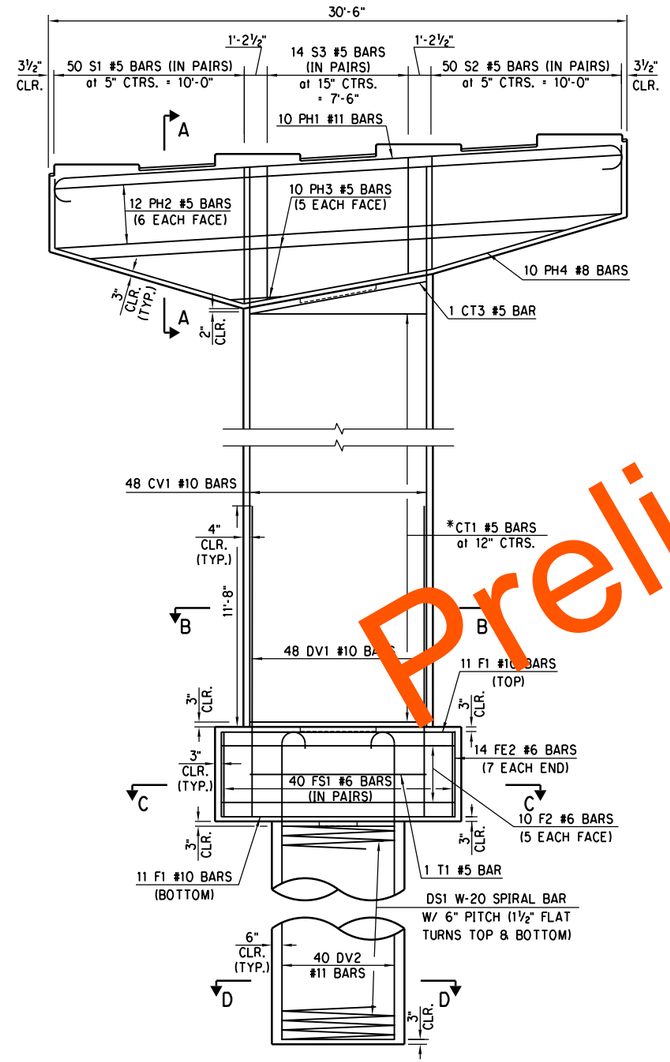
DESCRIPTION	REVISIONS	DATE



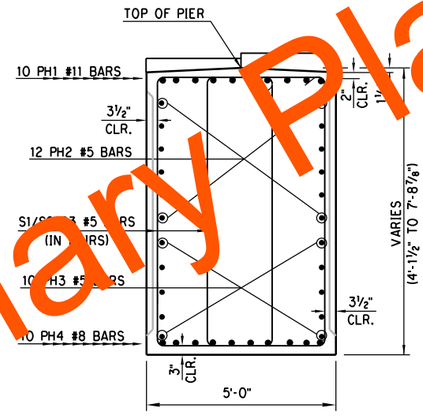
ALL BENT BAR DIMENSIONS ARE OUT TO OUT.



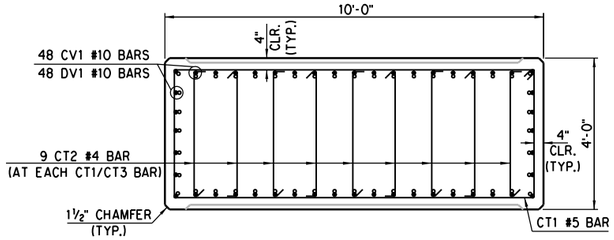
PEDESTAL REINFORCING DETAILS
(TYPICAL)



REINFORCING ELEVATION
*SEE BAR LIST. SEE SHEET 3 OF 3

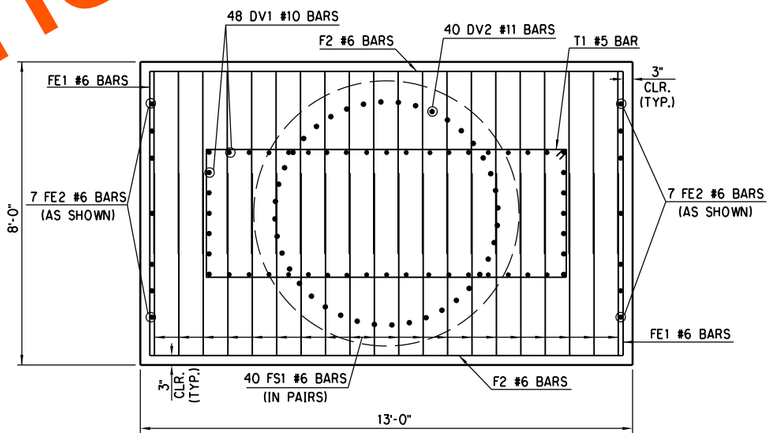


SECTION A-A

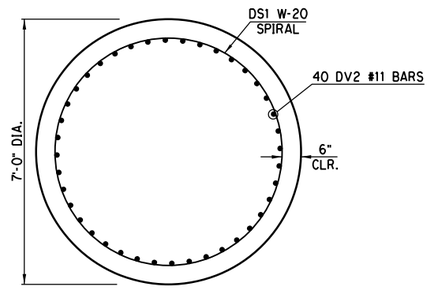


NOTE: ALTERNATE CT2 #4 BARS END TO END FOR EACH SUCCESSIVE ROW.

SECTION B-B



SECTION C-C



SECTION D-D

Preliminary Plans

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 — OKLAHOMA COUNTY
BRIDGE "B" — RAMP "B" AT I-35 & I-240 INTERCHANGE

PIER DETAILS
PIERS NO. 10 AND 12
(SHEET 2 OF 3)

STATE JOB NO. 09032(106) SHEET NO. B091

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DESCRIPTION	REVISIONS	DATE

BAR LIST - PIER NO. 10
(EPOXY COATED)

MARK	NO.	SIZE	FORM	SPACING	LENGTH	LENGTH VARIATION
CT1	35	#5	BENT	12" C/C	26'-3"	--
CT2	324	#4	BENT	AS SHOWN	4'-2"	
CT3	1	#5	BENT	AS SHOWN	26'-5"	--
CV1	48	#10	STR.	AS SHOWN	41'-7"	--
DV1	48	#10	STR.	AS SHOWN	16'-5"	--
F1	22	#10	STR.	AS SHOWN	12'-6"	--
F2	10	#6	STR.	AS SHOWN	12'-6"	--
FE1	10	#6	BENT	AS SHOWN	12'-6"	--
FE2	14	#6	BENT	AS SHOWN	9'-6"	--
FS1	40	#6	BENT	EQUAL	19'-6"	--
P1	28	#4	BENT	EQUAL	8'-2"	--
P2	24	#4	BENT	EQUAL	8'-8"	--
PE1	10	#4	BENT	AS SHOWN	5'-8"	--
PE2	12	#4	BENT	AS SHOWN	6'-5"	--
PH1	10	#11	BENT	AS SHOWN	33'-1"	--
PH2	12	#5	STR.	EQUAL	29'-11"	--
PH3	10	#5	STR.	EQUAL	13'-11 1/2" AVG.	2'-9" TO 25'-2"
PH4	10	#8	BENT	AS SHOWN	30'-10"	--
S1	50	#5	BENT	5" C/C	17'-9" AVG.	14'-3" TO 21'-3"
S2	50	#5	BENT	5" C/C	16'-6" AVG.	14'-3" TO 18'-9"
S3	14	#5	BENT	15" C/C	20'-0" AVG.	19'-1" TO 20'-11"
T1	1	#5	BENT	AS SHOWN	26'-3"	--
BAR LIST - 84" DRILLED SHAFT						
▲① DS1	1	W-20	BENT	AS SHOWN	641'-1"	--
▲ DV2	40	#11	BENT	AS SHOWN	22'-1"	--

① LENGTH SHOWN DOES NOT INCLUDE ANY LAPS FOR SPLICES. CONTRACTOR MAY ADD SPLICES AS NECESSARY, BUT PAYMENT WILL NOT BE MADE FOR EXTRA LENGTH REQUIRED. ADD 3'-8" FOR EACH SPLICE.

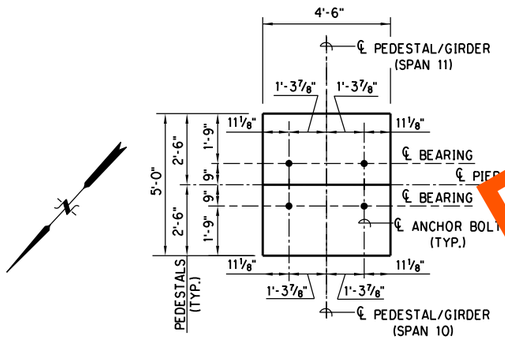
▲ NON-EPOXY COATED

BAR LIST - PIER NO. 12
(EPOXY COATED)

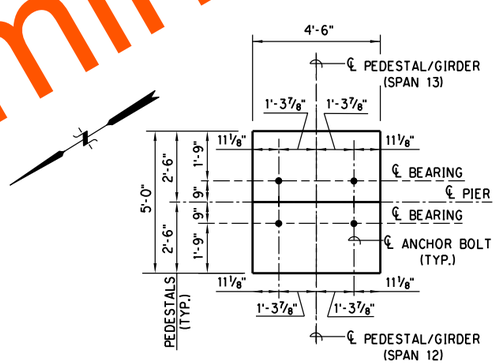
MARK	NO.	SIZE	FORM	SPACING	LENGTH	LENGTH VARIATION
CT1	20	#5	BENT	12" C/C	26'-3"	--
CT2	189	#4	BENT	AS SHOWN	4'-2"	
CT3	1	#5	BENT	AS SHOWN	26'-5"	--
CV1	48	#10	STR.	AS SHOWN	26'-11"	--
DV1	48	#10	STR.	AS SHOWN	16'-5"	--
F1	22	#10	STR.	AS SHOWN	12'-6"	--
F2	10	#6	STR.	AS SHOWN	12'-6"	--
FE1	10	#6	BENT	AS SHOWN	12'-6"	--
FE2	14	#6	BENT	AS SHOWN	9'-6"	--
FS1	40	#6	BENT	EQUAL	19'-6"	--
P1	28	#4	BENT	EQUAL	8'-2"	--
P2	24	#4	BENT	EQUAL	8'-8"	--
PE1	10	#4	BENT	AS SHOWN	5'-8"	--
PE2	12	#4	BENT	AS SHOWN	6'-5"	--
PH1	10	#11	BENT	AS SHOWN	33'-1"	--
PH2	12	#5	STR.	EQUAL	29'-11"	--
PH3	10	#5	STR.	EQUAL	13'-11 1/2" AVG.	2'-9" TO 25'-2"
PH4	10	#8	BENT	AS SHOWN	30'-10"	--
S1	50	#5	BENT	5" C/C	17'-9" AVG.	14'-3" TO 21'-3"
S2	50	#5	BENT	5" C/C	16'-6" AVG.	14'-3" TO 18'-9"
S3	14	#5	BENT	15" C/C	20'-0" AVG.	19'-1" TO 20'-11"
T1	1	#5	BENT	AS SHOWN	26'-3"	--
BAR LIST - 84" DRILLED SHAFT						
▲① DS1	1	W-20	BENT	AS SHOWN	757'-11"	--
▲ DV2	40	#11	BENT	AS SHOWN	25'-1"	--

① LENGTH SHOWN INCLUDES 3'-8" LAP FOR ONE SPLICE. CONTRACTOR MAY ADD SPLICES AS NECESSARY, BUT PAYMENT WILL NOT BE MADE FOR EXTRA LENGTH REQUIRED. ADD 3'-8" FOR EACH SPLICE.

▲ NON-EPOXY COATED



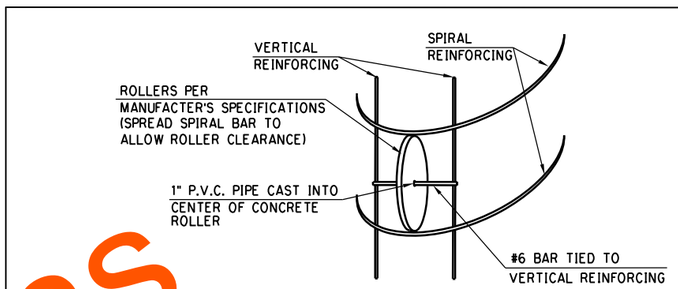
ANCHOR BOLT LAYOUT
PIER NO. 10
(TYPICAL)



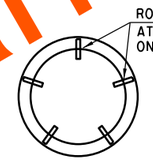
ANCHOR BOLT LAYOUT
PIER NO. 12
(TYPICAL)

NOTE: GIRDER ℄ ARE ARCS.
EACH PEDESTAL ℄ IS CONGRUENT WITH ITS GIRDER ℄ AT THE PIER ℄.

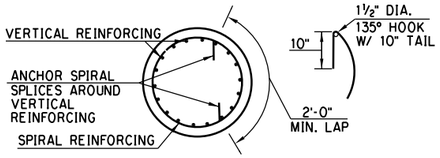
NOTE: DIMENSIONS SHOWN ARE PERPENDICULAR TO PEDESTALS.
FOR FURTHER INFORMATION SEE BEARING ASSEMBLY DETAIL SHEET.



ROLLER INSTALLATION DETAIL



ROLLER PLACEMENT



SPIRAL REINFORCING SPLICE DETAILS

NOTE: SPIRAL BARS SHALL CONFORM TO AASHTO M-32. SPIRAL BAR LENGTHS DO NOT INCLUDE LAP. IF LAP IS REQUIRED, THE LENGTH OF THE LAP SHALL BE AS SHOWN.

ROLLER DETAILS

NOTE: REINFORCING CAGE CENTERING DEVICES SHALL CONSIST OF ROLLERS PLACED AT SPACING AS SHOWN AND HAVE THE CHARACTERISTICS AS INDICATED IN THE MANUFACTURER'S SPECIFICATIONS. SLAB BOLSTERS AND HIGH CHAIRS WILL BE ALLOWED BY THE DEPARTMENT.

Preliminary Plans

6/1/2022 11:06:19 AM
H:\PROJECTS\2789_CrossRoads_Phase_2\Bridge\Drawings\Ph2 Bridges\BRIDGE B\0903206 P2 Bridge B Piers.dgn

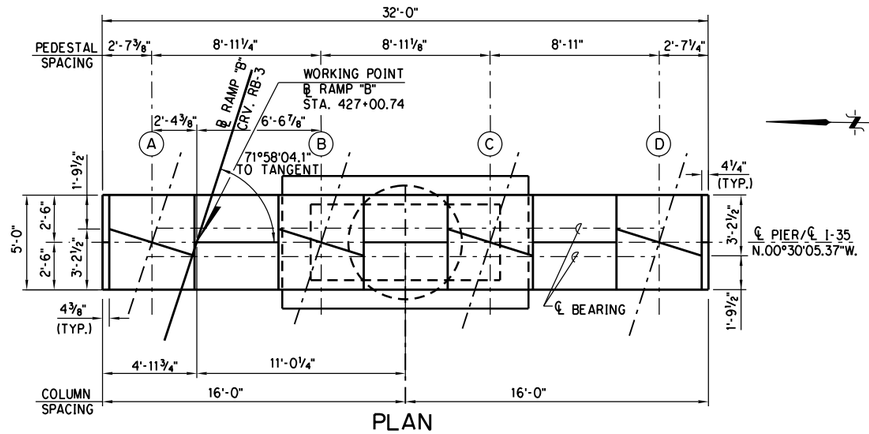
DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 — OKLAHOMA COUNTY
BRIDGE "B" — RAMP "B" AT I-35 & I-240 INTERCHANGE

PIER DETAILS
PIERS NO. 10 AND 12
(SHEET 3 OF 3)

STATE JOB NO. 09032(06) SHEET NO. B092

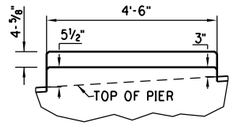
DESCRIPTION	REVISIONS	DATE



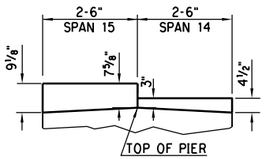
PLAN

(SEE SHEET 3 OF 3 FOR ANCHOR BOLT LAYOUT)

PEDESTAL ELEVATION SCHEDULE - PIER NO. 14				
PEDESTAL	A	B	C	D
SPAN 14 ELEVATION	1297.69	1298.10	1298.51	1298.93
SPAN 15 ELEVATION	1298.08	1298.49	1298.90	1299.32

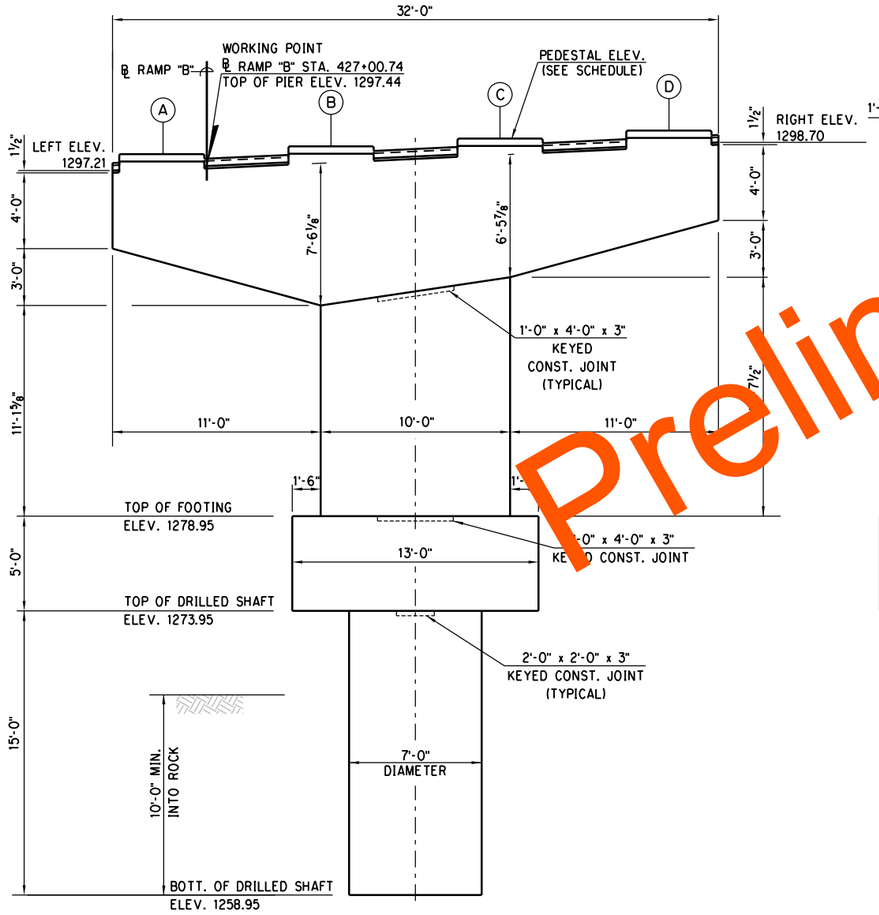


ELEVATION

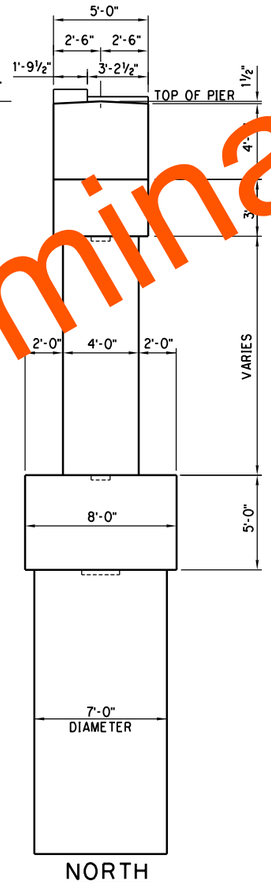


CENTER SECTION

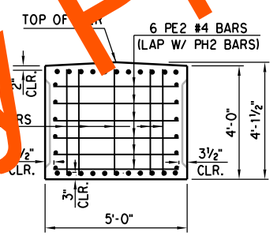
PEDESTAL DETAILS
(TYPICAL)



ELEVATION

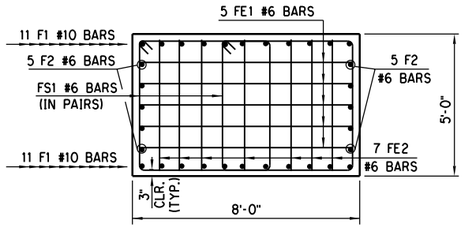


NORTH END VIEW

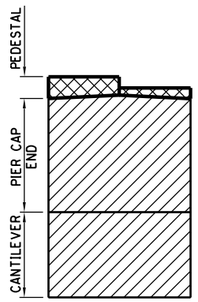


CAP END
REINFORCING DETAIL

(PEDESTALS AND S BARS OMITTED FOR CLARITY)



FOOTING END
REINFORCING DETAIL



NOTE:
MASK SIDES AND ENDS OF PIER TO PROVIDE A CLEAN STRAIGHT FINISH AT THE BOTTOM EDGE OF ELASTOMERIC COATING APPLICATION. MASK OUT TOPS OF PEDESTALS WHERE BEARING PADS SIT.

ELASTOMERIC COATING
(CROSS-HATCHING AND HEAVY LINE)

WATER REPELLENT
(HATCHING)

CONCRETE TREATMENT DETAIL

PIER NO. 14 QUANTITIES			
	ITEM	UNIT	TOTAL
*	SUBSTRUCTURE EXCAVATION (COMMON)	C.Y.	55
*	ELASTOMERIC COATING	S.F.	217
	CLASS A CONCRETE	C.Y.	74.6
	EPOXY COATED REINFORCING STEEL	LB.	14,710
≠	WATER REPELLENT (VISUALLY INSPECTED)	S.Y.	62
	DRILLED SHAFTS 84" DIAMETER	L.F.	15
	CROSSHOLE SONIC LOGGING	EA.	1

* TOP OF PIER CAP. TOP AND SIDES OF PEDESTALS.

≠ ENDS AND SIDES OF PIER CAP. BOTTOM OF CANTILEVERS.

Preliminary Plans

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 — OKLAHOMA COUNTY
BRIDGE "B" — RAMP "B" AT I-35 & I-240 INTERCHANGE

PIER DETAILS
PIER NO. 14
(SHEET 1 OF 3)

STATE JOB NO. 09032(06) SHEET NO. B093

6/1/2022 11:06:22 AM
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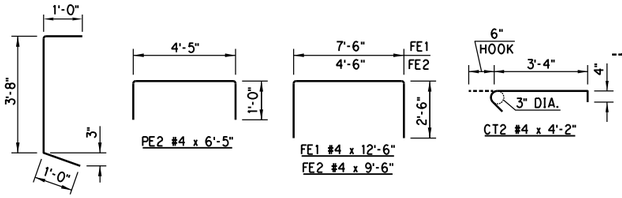
DESCRIPTION	REVISIONS	DATE

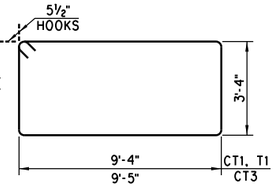


PE1 #4 x 5'-8"

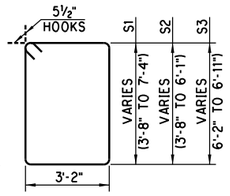
PE2 #4 x 6'-5"

FE1 #4 x 12'-6"
FE2 #4 x 9'-6"

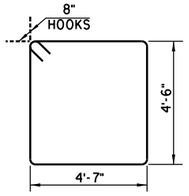
CT2 #4 x 4'-2"



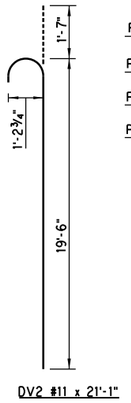
CT1 #5 x 26'-3"
CT3 #5 x 26'-5"
T1 #5 x 26'-3"



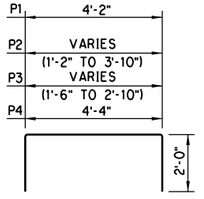
S1 #5 x 18'-0" AVG.
(14'-7" TO 21'-5")
S2 #5 x 17'-0" AVG.
(14'-7" TO 19'-5")
S3 #5 x 20'-3" AVG.
(19'-7" TO 21'-1")



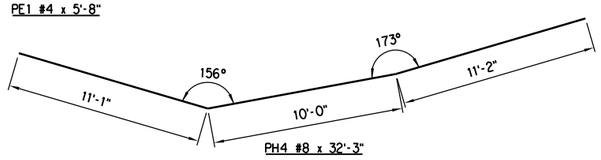
FS1 #6 x 19'-6"



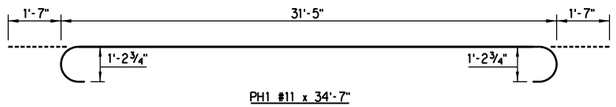
DV2 #11 x 21'-1"



P1 #4 x 8'-2"
P2 #4 x 6'-6" AVG.
(5'-2" TO 7'-10")
P3 #4 x 6'-2" AVG.
(5'-6" TO 6'-10")
P4 #4 x 8'-4"

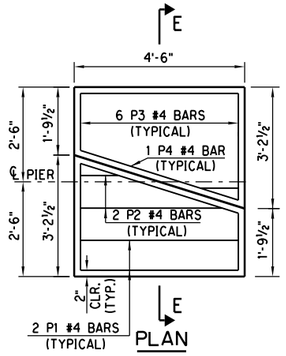


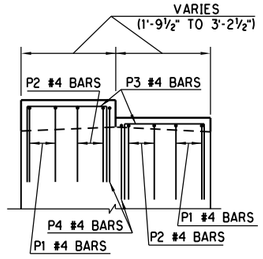
PH4 #8 x 32'-3"



PH1 #11 x 34'-7"

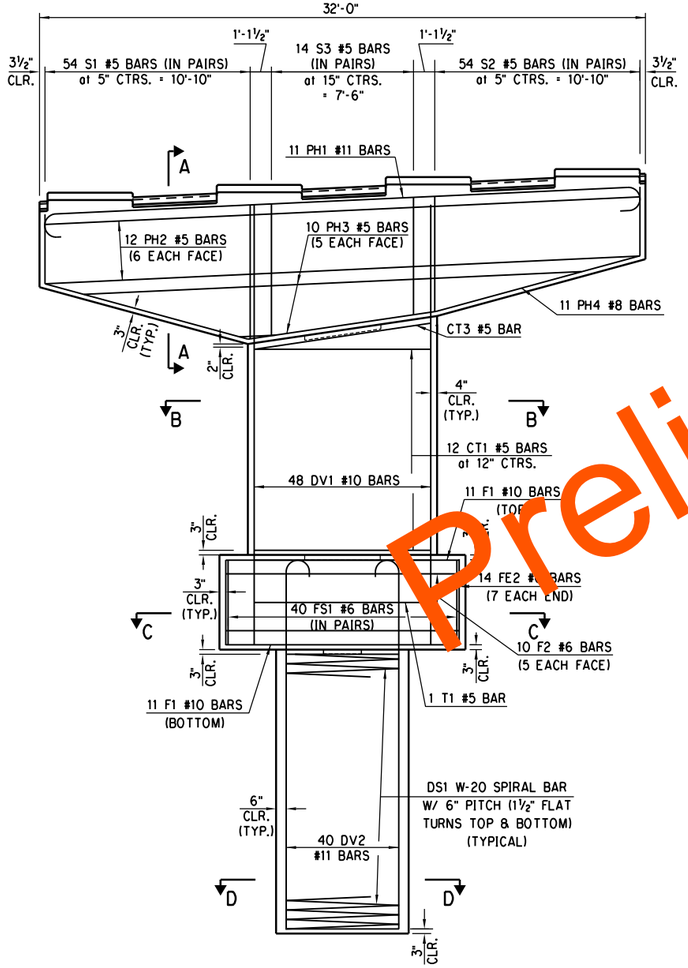
ALL BENT BAR DIMENSIONS ARE OUT TO OUT.



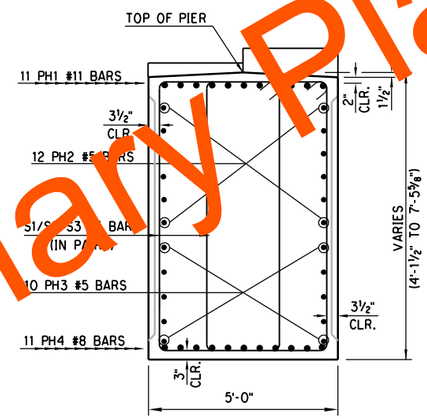


SECTION E-E

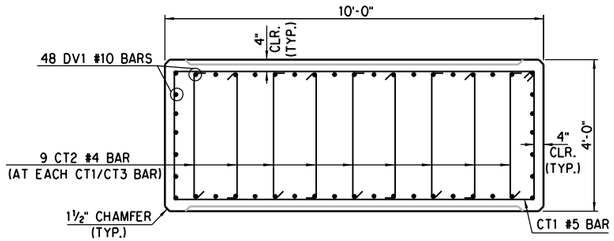
PEDESTAL REINFORCING DETAILS
(TYPICAL)



REINFORCING ELEVATION

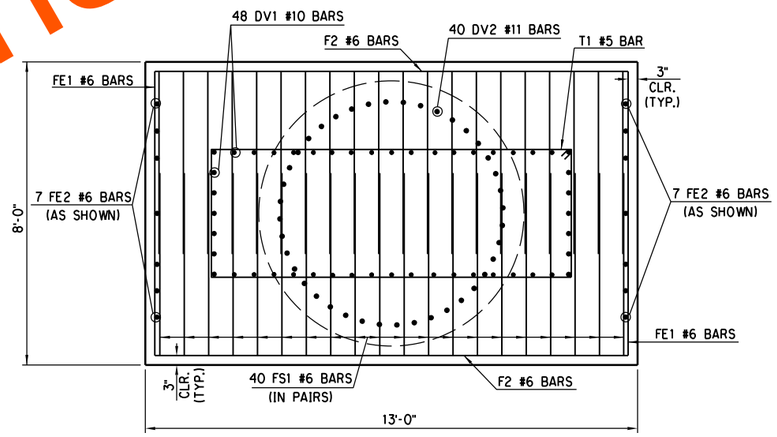


SECTION A-A

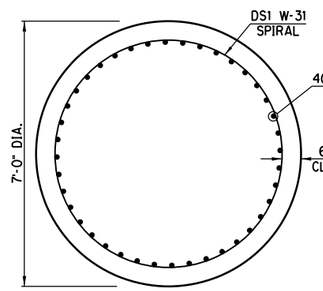


NOTE: ALTERNATE CT2 #4 BARS END
TO END FOR EACH SUCCESSIVE ROW.

SECTION B-B



SECTION C-C



SECTION D-D

Preliminary Plans

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 — OKLAHOMA COUNTY
BRIDGE "B" — RAMP "B" AT I-35 & I-240 INTERCHANGE

PIER DETAILS
PIER NO. 14
(SHEET 2 OF 3)

STATE JOB NO. 09032(106) SHEET NO. B094

6/1/2022 11:06:22 AM
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DESCRIPTION	REVISIONS	DATE

BAR LIST - PIER NO. 14
(EPOXY COATED)

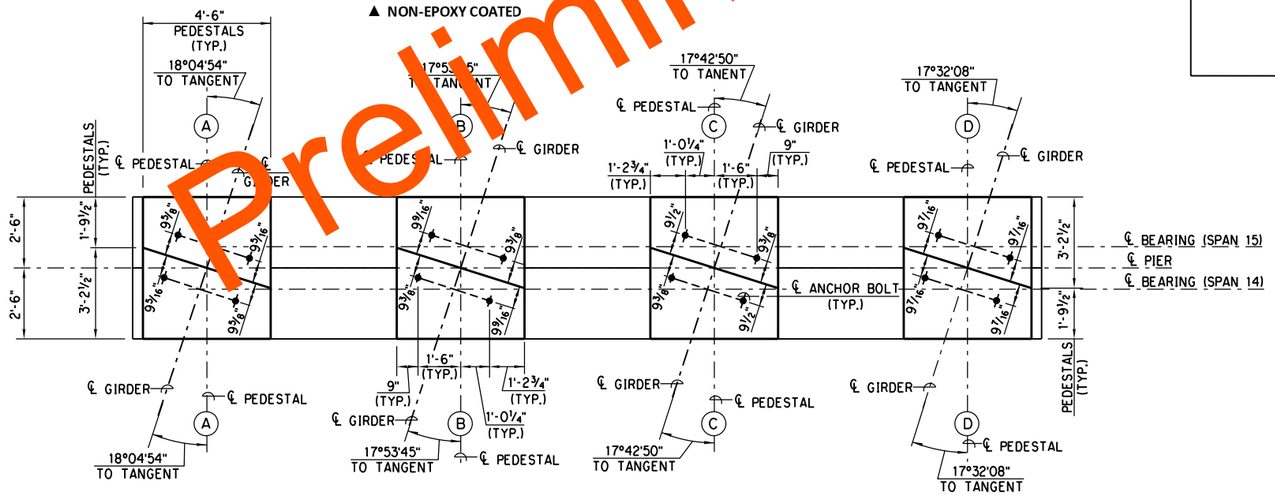
MARK	NO.	SIZE	FORM	SPACING	LENGTH	LENGTH VARIATION
CT1	12	#5	BENT	12" C/C	26'-3"	--
CT2	117	#4	BENT	AS SHOWN	4'-2"	
CT3	1	#5	BENT	AS SHOWN	26'-5"	--
DV1	48	#10	STR.	AS SHOWN	23'-3"	--
F1	22	#10	STR.	AS SHOWN	12'-6"	--
F2	10	#6	STR.	AS SHOWN	12'-6"	--
FE1	10	#6	BENT	AS SHOWN	12'-6"	--
FE2	14	#6	BENT	AS SHOWN	9'-6"	--
FS1	40	#6	BENT	EQUAL	19'-6"	--
P1	16	#4	BENT	EQUAL	8'-2"	--
P2	16	#4	BENT	EQUAL	6'-6" AVG.	5'-2" TO 7'-10"
P3	48	#4	BENT	EQUAL	6'-2" AVG.	5'-6" TO 6'-10"
P4	8	#4	BENT	AS SHOWN	8'-4"	--
PE1	10	#4	BENT	AS SHOWN	5'-8"	--
PE2	12	#4	BENT	AS SHOWN	6'-5"	--
PH1	11	#11	BENT	AS SHOWN	34'-7"	--
PH2	12	#5	STR.	EQUAL	31'-5"	--
PH3	10	#5	STR.	EQUAL	14'-1" AVG.	1'-11" TO 26'-3"
PH4	11	#8	BENT	AS SHOWN	32'-3"	--
S1	54	#5	BENT	5" C/C	18'-0" AVG.	14'-7" TO 21'-5"
S2	54	#5	BENT	5" C/C	17'-0" AVG.	14'-7" TO 19'-5"
S3	14	#5	BENT	15" C/C	20'-3" AVG.	19'-7" TO 21'-1"
T1	1	#5	BENT	AS SHOWN	26'-3"	

BAR LIST - 84" DRILLED SHAFT

▲①	DS1	1	W-20	BENT	AS SHOWN	603'-5"	
▲	DV2	40	#11	BENT	AS SHOWN	[illegible]'-1"	--

① LENGTH SHOWN DOES NOT INCLUDE ANY [illegible]RS FOR S[illegible]LICE[illegible] CONTRACTOR MAY ADD SPLICES AS NECESSARY, BUT PA[illegible]ENT W[illegible]LL N[illegible]T BE [illegible]ADE FOR EXTRA LENGTH REQUIRED. ADD 3'-8"" FOR EAC[illegible] SPL[illegible].

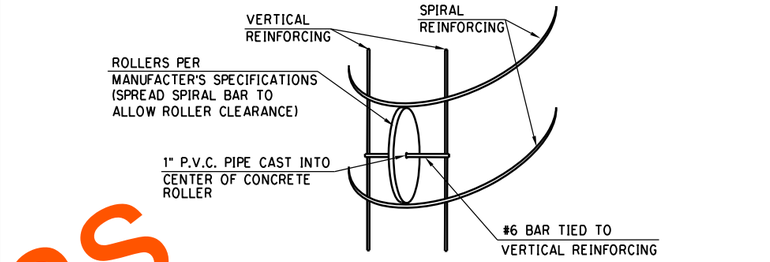
▲ NON-EPOXY COATED



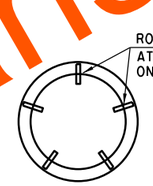
NOTE: GIRDER ℄ ARE ARCS AND PIER IS SKEWED TO ROADWAY.
EACH PEDESTAL ℄ IS CONGRUENT WITH ITS GIRDER ℄ AT THE PIER ℄.

ANCHOR BOLT LAYOUT
PIER NO. 14

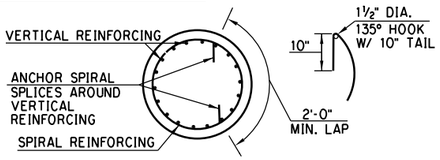
NOTE: DIMENSIONS SHOWN ARE PERPENDICULAR TO PEDESTALS.
FOR FURTHER INFORMATION SEE BEARING ASSEMBLY DETAIL SHEET.



ROLLER INSTALLATION DETAIL



ROLLER PLACEMENT



SPIRAL REINFORCING SPLICE DETAILS

NOTE: SPIRAL BARS SHALL CONFORM TO AASHTO M-32.
SPIRAL BAR LENGTHS DO NOT INCLUDE LAP.
IF LAP IS REQUIRED. THE LENGTH OF THE LAP SHALL BE AS SHOWN.

ROLLER DETAILS

NOTE: REINFORCING CAGE CENTERING DEVICES SHALL CONSIST OF ROLLERS PLACED AT SPACING AS SHOWN AND HAVE THE CHARACTERISTICS AS INDICATED IN THE MANUFACTURER'S SPECIFICATIONS. SLAB BOLSTERS AND HIGH CHAIRS WILL BE ALLOWED BY THE DEPARTMENT.

Preliminary Plans

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 — OKLAHOMA COUNTY
BRIDGE "B" — RAMP "B" AT I-35 & I-240 INTERCHANGE

PIER DETAILS
PIER NO. 14
(SHEET 3 OF 3)

STATE JOB NO. 09032(06) SHEET NO. B095

6/1/2022 11:06:23 AM
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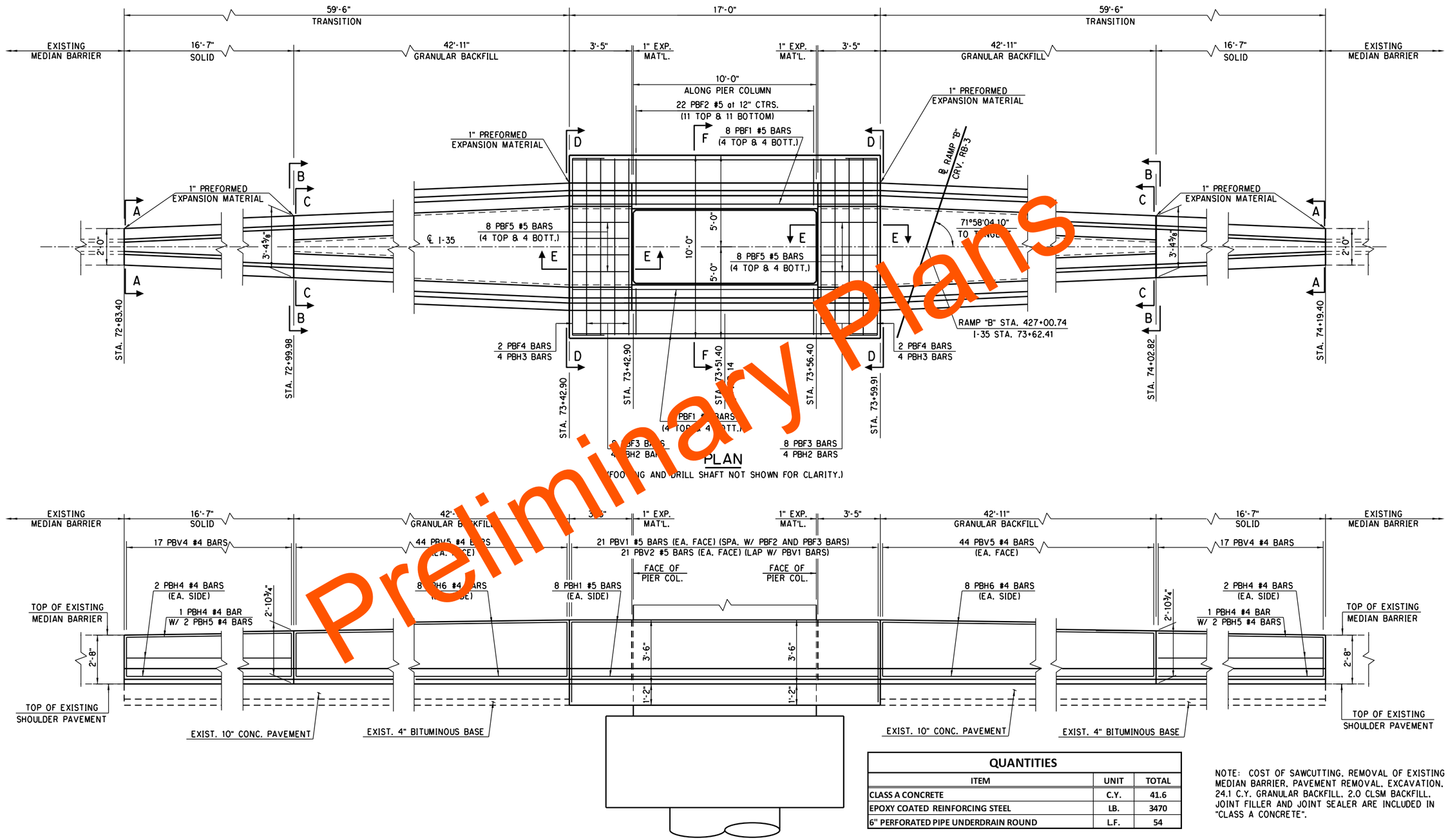
REVISIONS		
DESCRIPTION		DATE



PLAN

(FOOTING AND DRILL SHAFT NOT SHOWN FOR CLARITY.)

ELEVATION

QUANTITIES		
ITEM	UNIT	TOTAL
CLASS A CONCRETE	C.Y.	41.6
EPOXY COATED REINFORCING STEEL	LB.	3470
6" PERFORATED PIPE UNDERDRAIN ROUND	L.F.	54

NOTE: COST OF SAWCUTTING, REMOVAL OF EXISTING MEDIAN BARRIER, PAVEMENT REMOVAL, EXCAVATION, 24.1 C.Y. GRANULAR BACKFILL, 2.0 CLSM BACKFILL, JOINT FILLER AND JOINT SEALER ARE INCLUDED IN "CLASS A CONCRETE".

Preliminary Plans

PHASE 2 OKLAHOMA COUNTY

BRIDGE "B" RAMP "B" AT I-35 & I-240 INTERCHANGE

PIER PROTECTION AND BARRIER TRANSITION DETAILS PIER NO. 14

(SHEET 1 OF 3)

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

STATE JOB NO. 09032(06) SHEET NO. B096

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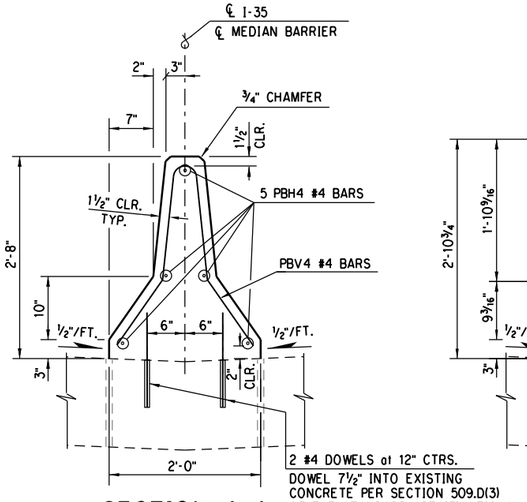
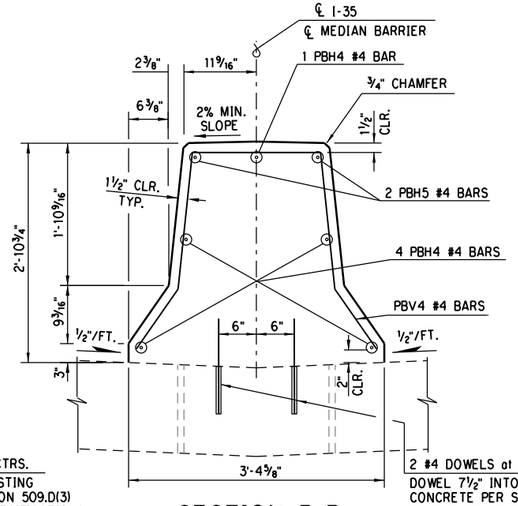
DESCRIPTION	REVISIONS	DATE

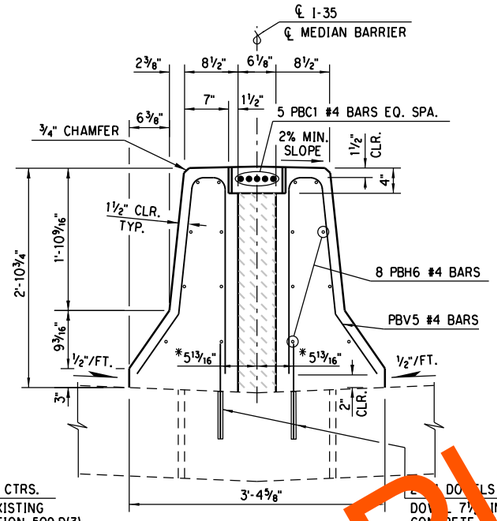
* NOTE: A ROADWAY EXPANSION JOINT IS LOCATED 12" FROM ℄ I-35. WHEN INSTALLING DOWELS IN THE GRANULAR BACKFILLED PORTION OF THE TRANSITION BARRIER MAINTAIN A MINIMUM 6" CLEARANCE BETWEEN THE ROADWAY EXPANSION JOINT AND THE DOWELS.



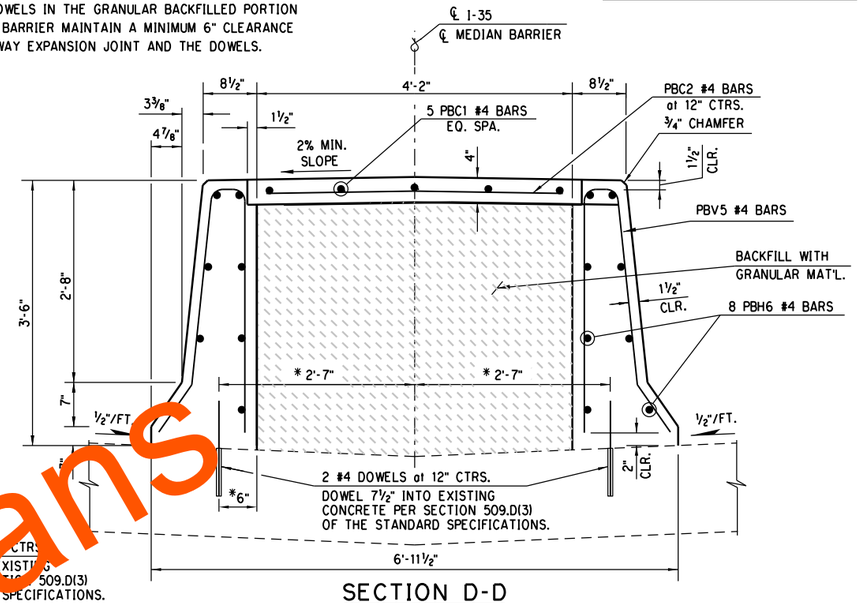
SECTION A-A
SOLID TRANSITION AT EXISTING MEDIAN



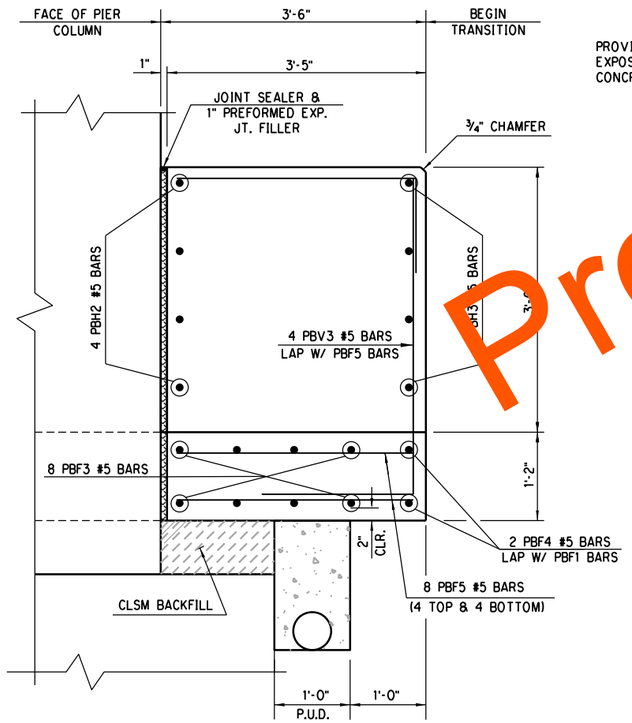
SECTION B-B
SOLID TRANSITION ADJACENT TO GRANULAR BACKFILLED TRANSITION



SECTION C-C
GRANULAR BACKFILLED TRANSITION ADJACENT TO SOLID TRANSITION

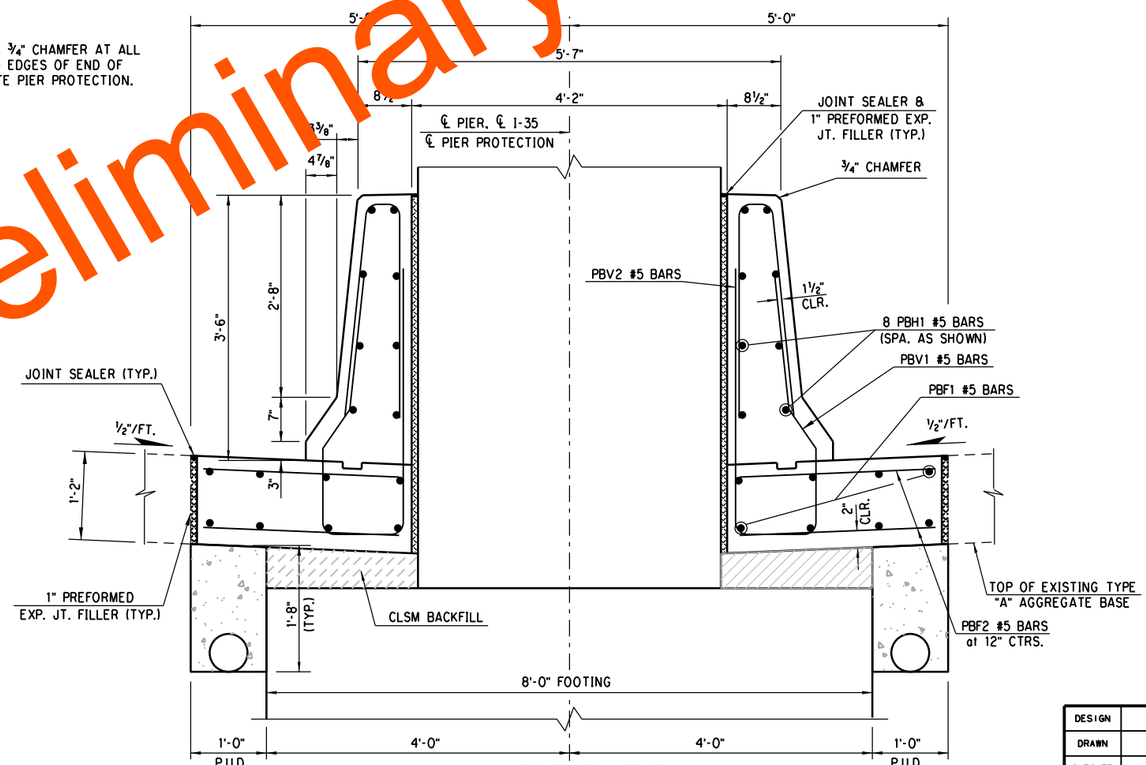


SECTION D-D
GRANULAR BACKFILLED TRANSITION ADJACENT TO PIER PROTECTION



SECTION E-E
AT END PIER COLUMN FACE

PROVIDE ¾" CHAMFER AT ALL EXPOSED EDGES OF END OF CONCRETE PIER PROTECTION.



SECTION F-F
AT PIER COLUMN

Preliminary Plans

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 — OKLAHOMA COUNTY
BRIDGE "B" — RAMP "B" AT I-35 & I-240 INTERCHANGE

PIER PROTECTION AND BARRIER TRANSITION DETAILS PIER NO. 14
(SHEET 2 OF 3)

STATE JOB NO. 09032(06) SHEET NO. B097

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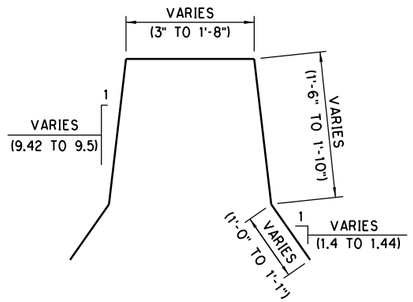
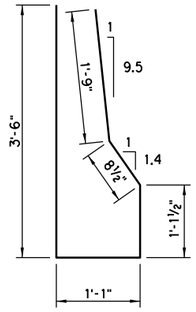
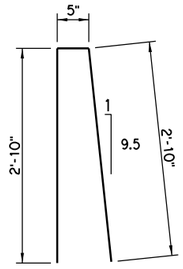
DESCRIPTION	REVISIONS	DATE



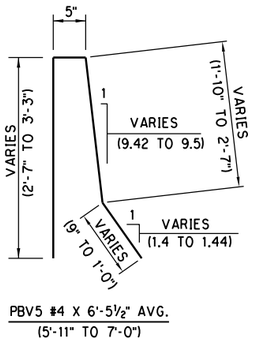
PBV4 #4 X 6'-4½" AVG.
(5'-5" TO 7'-4")



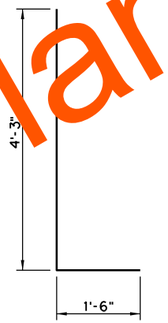
PBV1 #5 X 8'-2"



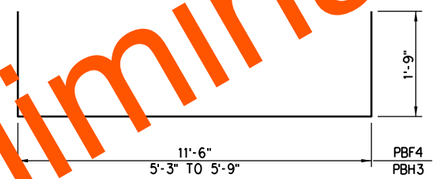
PBV2 #5 X 6'-1"



PBV5 #4 X 6'-5½" AVG.
(5'-11" TO 7'-0")



PBV3 #5 X 5'-9"



PBF4 #5 X 15'-0"
PBH3 #5 X 9'-0" AVG.
(8'-9" TO 9'-3")

BENT BAR DIMENSIONS ARE OUT TO OUT.

BAR LIST
(EPOXY COATED)

MARK	NO.	SIZE	FORM	SPACING	LENGTH	LENGTH VARIATION
PBC1	10	#4	STR.	AS SHOWN	13'-2"	--
PBC2	88	#4	STR.	12" C/C	2'-0½" AVG.	3" TO 3'-10"
PBF1	16	#5	STR.	AS SHOWN	16'-8"	--
PBF2	44	#5	STR.	AS SHOWN	3'-1"	--
PBF3	16	#5	STR.	EQ. SPA.	9'-8"	--
PBF4	4	#5	BNT.	AS SHOWN	15'-0"	--
PBF5	16	#5	STR.	AS SHOWN	3'-1"	--
PBH1	16	#5	STR.	AS SHOWN	16'-8"	--
PBH2	8	#5	STR.	AS SHOWN	5'-6" AVG.	5'-3" TO 5'-9"
PBH3	8	#5	BNT.	AS SHOWN	9'-0" AVG.	8'-9" TO 9'-3"
PBH4	10	#4	STR.	AS SHOWN	16'-2"	--
PBH5	4	#4	STR.	AS SHOWN	8'-3"	--
PBH6	16	#4	STR.	AS SHOWN	42'-6"	--
PBV1	42	#5	BNT.	12" C/C	8'-2"	--
PBV2	42	#5	BNT.	12" C/C	6'-1"	--
PBV3	8	#5	STR.	AS SHOWN	5'-9"	--
PBV4	34	#4	BNT.	AS SHOWN	6'-4½" AVG.	5'-5" TO 7'-4"
PBV5	176	#4	BNT.	AS SHOWN	6'-5½" AVG.	5'-11" TO 7'-0"

Preliminary Plans

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PHASE 2 OKLAHOMA COUNTY

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

BRIDGE "B" RAMP "B" AT I-35 & I-240 INTERCHANGE

PIER PROTECTION AND BARRIER TRANSITION DETAILS PIER NO. 14

(SHEET 3 OF 3)

STATE JOB NO. 09032(06) SHEET NO. B098

BAR LIST - SUPERSTRUCTURE
EPOXY COATED

	MARK	NO.	SIZE	FORM	SPACING	LENGTH	LENGTH
①	A1	1559	#5	BNT.	VARIES	32'-10"	--
①	A2	1559	#5	STR.	VARIES	31'-8"	--
	A3	5759	#6	BNT.	AS SHOWN	10'-8"	--
②	A4	340	#5	BNT.	7⅝" C/C	37'-9" AVG.	32'-10" TO 42'-8"
②	A5	340	#5	STR.	7⅝" C/C	36'-7" AVG.	31'-8" TO 41'-6"
②	A6	168	#5	BNT.	7⅝" C/C	46'-3½" AVG.	42'-9" TO 49'-10"
②	A7	168	#5	STR.	7⅝" C/C	45'-1½" AVG.	41'-7" TO 48'-8"
②	A8	152	#5	BNT.	7½" C/C	53'-0½" AVG.	49'-11" TO 56'-2"
②	A9	152	#5	STR.	7½" C/C	51'-10½" AVG.	48'-9" TO 55'-0"
②	A10	17	#5	BNT.	7½" C/C	29'-9" AVG.	5'-8" TO 53'-10"
②	A11	17	#5	STR.	7½" C/C	29'-2" AVG.	5'-1" TO 53'-3"
	A12	3	#6	BNT.	AS SHOWN	8'-5½" AVG.	7'-0" TO 9'-11"
	A13	2	#6	BNT.	AS SHOWN	7'-2" AVG.	5'-7" TO 8'-9"
②	A14	17	#5	BNT.	7½" C/C	28'-2½" AVG.	3'-11" TO 52'-6"
②	A15	17	#5	STR.	7½" C/C	27'-7½" AVG.	3'-4" TO 51'-11"
②	A16	74	#5	BNT.	7½" C/C	58'-6" AVG.	57'-0" TO 60'-0"
②	A17	104	#5	STR.	7½" C/C	57'-4" AVG.	55'-10" TO 58'-10"
②③	A18	94	#5	BNT.	7½" C/C	64'-5½" AVG.	62'-7" TO 66'-4"
②③	A19	64	#5	STR.	7½" C/C	63'-10½" AVG.	62'-7" TO 65'-2"
②③	A20	1	#5	BNT.	7½" C/C	63'-10"	--
②③	A21	1	#5	STR.	7½" C/C	63'-3"	--
②	A22	32	#5	BNT.	7½" C/C	31'-11½" AVG.	4'-6" TO 59'-5"
②	A23	32	#5	STR.	7½" C/C	31'-4½" AVG.	3'-11" TO 58'-10"
	A24	5	#6	BNT.	AS SHOWN	7'-1" AVG.	3'-9" TO 10'-5"
	A25	4	#6	BNT.	AS SHOWN	6'-0" AVG.	3'-2" TO 8'-10"
②	A26	31	#5	BNT.	7⅝" C/C	30'-8½" AVG.	4'-0" TO 57'-5"
②	A27	32	#5	STR.	7⅝" C/C	30'-11½" AVG.	3'-5" TO 58'-6"
②③	A28	3	#5	BNT.	7¾" C/C	63'-2½" AVG.	61'-7" TO 64'-10"
②③	A29	2	#5	STR.	7⅝" C/C	63'-6" AVG.	62'-8" TO 64'-4"
②③	A30	152	#5	BNT.	7⅝" C/C	70'-11½" AVG.	67'-9" TO 74'-2"
②③	A31	152	#5	STR.	7⅝" C/C	69'-10½" AVG.	66'-8" TO 73'-1"
②	A32	14	#5	BNT.	7¾" C/C	17'-0½" AVG.	3'-10" TO 30'-3"
②	A33	14	#5	STR.	7¾" C/C	16'-5½" AVG.	3'-3" TO 29'-8"
	A34	3	#6	BNT.	AS SHOWN	6'-11" AVG.	4'-10" TO 9'-0"
②	A35	14	#5	BNT.	7¾" C/C	17'-0½" AVG.	3'-9" TO 30'-4"
②	A36	14	#5	STR.	7¾" C/C	16'-5½" AVG.	3'-2" TO 29'-9"
	A37	3	#6	BNT.	AS SHOWN	6'-10" AVG.	4'-10" TO 8'-10"
②	A38	8	#5	BNT.	7¾" C/C	17'-10" AVG.	5'-11" TO 29'-9"
②	A39	8	#5	STR.	7¾" C/C	17'-3" AVG.	5'-4" TO 29'-2"
	A40	2	#6	BNT.	AS SHOWN	6'-0" AVG.	4'-3" TO 7'-9"
	AH1	58	#4	BNT.	AS SHOWN	4'-4"	--
	AH2	8	#4	BNT.	AS SHOWN	3'-2"	--
	AS1	66	#4	BNT.	12" C/C	5'-1"	--
	AT1	32	#4	STR.	AS SHOWN	31'-8"	--
	AT2	1	#4	STR.	AS SHOWN	27'-6"	--
	AT3	8	#4	BNT.	AS SHOWN	41'-6"	--
	AT4	8	#4	BNT.	AS SHOWN	48'-8"	--
	AT5	4	#4	BNT.	AS SHOWN	56'-1"	--
	AT6	4	#4	BNT.	AS SHOWN	56'-2"	--
③	AT7	4	#4	BNT.	AS SHOWN	68'-6"	--
③	AT8	4	#4	BNT.	AS SHOWN	68'-6"	--
③	AT9	4	#4	BNT.	AS SHOWN	72'-7"	--
	AT10	8	#4	BNT.	AS SHOWN	33'-0"	--
	AT11	4	#4	BNT.	AS SHOWN	32'-2"	--
	AT12	1	#4	STR.	AS SHOWN	28'-0"	--

BAR LIST - SUPERSTRUCTURE (CONT.)
EPOXY COATED

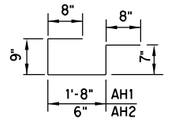
	MARK	NO.	SIZE	FORM	SPACING	LENGTH	LENGTH
③	E1	33	#4	STR.	12" C/C	230'-5" AVG.	227'-6" TO 233'-4"
③	E2	33	#5	STR.	12" C/C	231'-11" AVG.	229'-0" TO 234'-10"
③	E3	32	#6	STR.	12" C/C	75'-6" AVG.	74'-3" TO 76'-9"
③	E4	32	#4	STR.	12" C/C	75'-0" AVG.	73'-9" TO 76'-3"
③	E5	43	#4	STR.	EQUAL	222'-6" AVG.	218'-0" TO 227'-0"
③	E6	43	#5	STR.	EQUAL	224'-0" AVG.	219'-6" TO 228'-6"
③	E7	42	#6	STR.	EQUAL	69'-7" AVG.	68'-3" TO 70'-11"
③	E8	42	#4	STR.	EQUAL	69'-1" AVG.	67'-9" TO 70'-5"
③	E9	50	#4	STR.	EQUAL	110'-7½" AVG.	113'-7" TO 107'-8"
③	E10	50	#5	STR.	EQUAL	111'-1½" AVG.	114'-1" TO 108'-2"
③	E11	65	#4	STR.	EQUAL	233'-8½" C/C	236'-11" TO 230'-6"
③	E12	65	#5	STR.	EQUAL	235'-2½" C/C	238'-5" TO 232'-0"
③	E13	72	#4	STR.	EQUAL	112'-4½" AVG.	97'-4" TO 127'-5"
③	E14	72	#5	STR.	EQUAL	113'-4½" AVG.	98'-4" TO 128'-5"
③	E15	66	#4	STR.	12" C/C	240'-2½" AVG.	231'-11" TO 244'-6"
③	E16	66	#5	STR.	12" C/C	241'-8½" AVG.	237'-5" TO 246'-0"
③	E17	64	#6	STR.	12" C/C	79'-7" AVG.	78'-2" TO 81'-0"
③	E18	64	#4	STR.	12" C/C	79'-1" AVG.	77'-8" TO 80'-6"
③	E19	33	#4	STR.	12" C/C	223'-8" AVG.	215'-2" TO 232'-2"
③	E20	33	#5	STR.	12" C/C	225'-2" AVG.	216'-8" TO 233'-8"
③	E21	32	#6	STR.	12" C/C	74'-6" AVG.	73'-2" TO 75'-10"
③	E22	32	#4	STR.	12" C/C	74'-0" AVG.	72'-8" TO 75'-4"
③	E23	33	#4	STR.	12" C/C	106'-5" AVG.	106'-4" TO 106'-6"
③	E24	33	#5	STR.	12" C/C	106'-11" AVG.	106'-10" TO 107'-0"
	EPH	591	#4	BNT.	AS SHOWN	3'-2"	--
	EPH1	137	#4	BNT.	AS SHOWN	3'-8"	--
	FPH	65	#4	BNT.	AS SHOWN	4'-8"	--
	FS2	3114	#5	BNT.	SEE STD.	7'-4"	--
	L	320	#4	BNT.	SEE STD.	1'-3"	--
	U1	8	#4	BNT.	AS SHOWN	7'-1"	--

① IN STRAIGHT PORTION OF SPAN 1: BAR SPACING IS 8" C/C
IN CURVED PORTION OF SPAN 1 AND SPAN 2: SPACING IS 7⅝" C/C ②
SPAN 9 THRU 15: SPACING IS 7¾" C/C ②

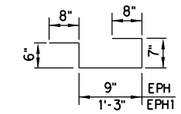
② BARS ARE ALIGNED RADIALLY ALONG BARLINE OF RAMP, SPACING LISTED IS ALONG BASELINE, MAXIMUM END SPACING IS 8" C/C

③ LENGTH SHOWN INCLUDES LAP

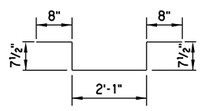
A18 = 1 at 2'-6"	AT7 = 1 at 2'-0"	E5 = 3 at 2'-0"	E13 = 2 at 2'-0"	E21 = 1 at 3'-0"
A19 = 1 at 2'-6"	AT8 = 1 at 2'-0"	E6 = 3 at 2'-6"	E14 = 2 at 2'-6"	E22 = 1 at 2'-0"
A22 = 1 at 2'-6"	AT9 = 1 at 2'-0"	E7=1 at 3'-0"	E15 = 4 at 2'-0"	
A23 = 1 at 2'-6"		E8= 1 at 2'-0"	E16 = 4 at 2'-6"	
A28 = 1 at 2'-6"	E1 = 3 at 2'-0"	E9 = 1 at 2'-0"	E17 = 1 at 3'-0"	
A29 = 1 at 2'-6"	E2 = 3 at 2'-6"	E10 = 1 at 2'-6"	E18 = 1 at 2'-0"	
A30 = 1 at 2'-6"	E3 = 1 at 3'-0"	E11 = 3 at 2'-0"	E19 = 3 at 2'-0"	
A31 = 1 at 2'-6"	E4 = 1 at 2'-0"	E12 = 3 at 2'-6"	E20 = 3' at 2'-6"	



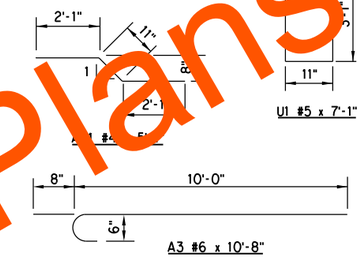
AH1 #4 x 4'-4"
AH2 #4 x 3'-2"



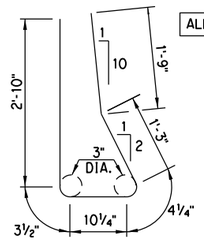
EPH #4 x 3'-2"
EPH1 #4 x 3'-8"



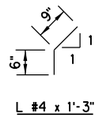
FPH #4 x 4'-8"



A3 #6 x 10'-8"

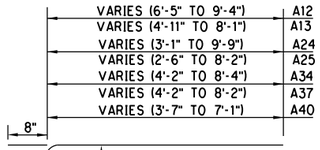


FS2 #5 x 7'-4"

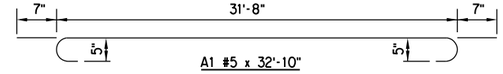


L #4 x 1'-3"

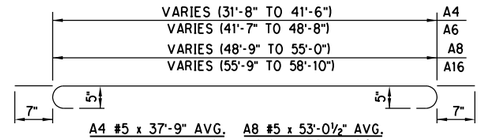
U1 #5 x 7'-1"



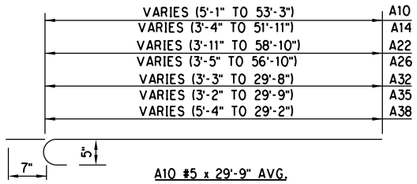
A12 #6 x 8'-5½" AVG. (7'-0" TO 9'-11")
A25 #6 x 6'-0" AVG. (3'-2" TO 8'-10")
A13 #6 x 7'-2" AVG. (5'-7" TO 8'-9")
A34 #6 x 6'-11" AVG. (4'-10" TO 9'-0")
A24 #6 x 7'-1" AVG. (3'-9" TO 10'-5")
A37 #6 x 6'-10" AVG. (4'-10" TO 8'-10")
A40 #6 x 6'-0" AVG. (4'-3" TO 7'-9")



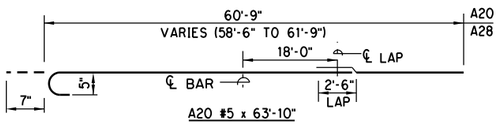
A1 #5 x 32'-10"



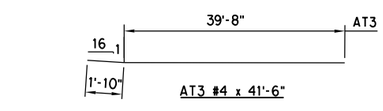
A4 #5 x 37'-9" AVG. (32'-10" TO 42'-8")
A8 #5 x 53'-0½" AVG. (49'-11" TO 56'-2")
A6 #5 x 46'-3½" AVG. (42'-9" TO 49'-10")
A16 #5 x 58'-6" AVG. (57'-0" TO 60'-0")



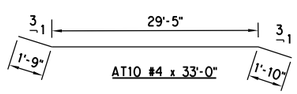
A10 #5 x 29'-9" AVG. (5'-8" TO 53'-10")
A14 #5 x 28'-2½" AVG. (3'-11" TO 52'-6")
A32 #5 x 17'-0½" AVG. (3'-10" TO 30'-3")
A26 #5 x 30'-8½" AVG. (4'-0" TO 57'-5")
A35 #5 x 17'-0½" AVG. (3'-9" TO 30'-4")
A22 #5 x 31'-11½" AVG. (4'-6" TO 59'-5")
A38 #5 x 17'-10" AVG. (5'-11" TO 29'-9")



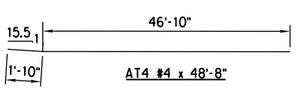
A20 #5 x 63'-10"
A28 #5 x 63'-2½" AVG. (61'-7" TO 64'-10")



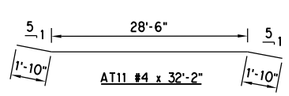
AT3 #4 x 41'-6"



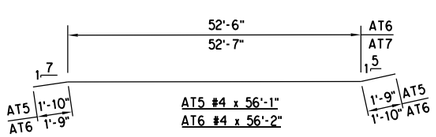
AT10 #4 x 33'-0"



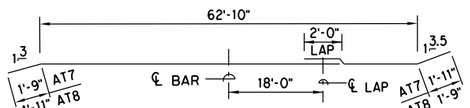
AT4 #4 x 48'-8"



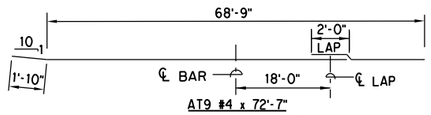
AT11 #4 x 32'-2"



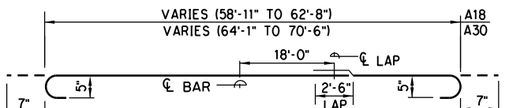
AT5 #4 x 56'-1"
AT6 #4 x 56'-2"



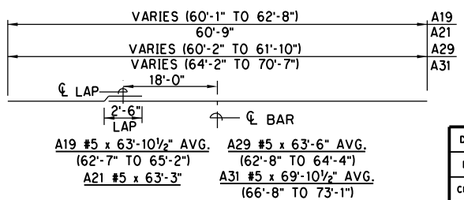
AT7 #4 x 68'-6"
AT8 #4 x 68'-6"
ALTERNATE LAPS ABOUT ℄ OF BAR



AT9 #4 x 72'-7"
ALTERNATE LAPS ABOUT ℄ OF BAR



A18 #5 x 64'-5½" AVG. (62'-7" TO 66'-4")
A30 #5 x 70'-11½" AVG. (67'-9" TO 74'-2")
ALTERNATE LAPS ABOUT ℄ OF BAR



A19 #5 x 63'-10½" AVG. (62'-7" TO 65'-2")
A29 #5 x 63'-6" AVG. (62'-8" TO 64'-4")
A21 #5 x 63'-3"
A31 #5 x 69'-10½" AVG. (66'-8" TO 73'-1")
ALTERNATE LAPS ABOUT ℄ OF BAR

ALL BENT BAR DIMENSIONS ARE OUT TO OUT

DESCRIPTION	REVISIONS	DATE

SUPERSTRUCTURE QUANTITIES

	ITEM	UNIT	TOTAL
	SAW-CUT GROOVING	S.Y.	6740
	42" F-SHAPED PARAPET	L.F.	3364.5
	STRUCTURAL STEEL M270 GRADE 50W	LB.	3,207,700
	STAINLESS STEEL FIXED BEARING ASSEMBLY	EA.	51
	STAINLESS STEEL EXP. BEARING ASSEMBLY	EA.	72
**	CLASS AA CONCRETE	C.Y.	1920.5
	EPOXY COATED REINFORCING STEEL	LB.	479,970
	WATER REPELLENT (VISUALLY INSPECTED)	S.Y.	4381
	SEALED EXPANSION JOINTS	L.F.	343.9
	SEALER CRACK PREPARATION	L.F.	383
	SEALER RESIN	GAL.	4.2

** PLAN QUANTITY FOR CLASS "AA" CONCRETE INCLUDES 91.5 C.Y. FOR HAUNCHES OVER GIRDERS. THE HAUNCH HEIGHTS WILL BE SET AFTER ERECTION OF GIRDERS TO PROVIDE FOR DEAD LOAD DEFLECTION AND GRADE ADJUSTMENT, BUT THE PAY QUANTITY FOR HAUNCHES WILL BE AS SHOWN ABOVE.

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 — OKLAHOMA COUNTY
BRIDGE "B" — RAMP "B" AT I-35 & I-240 INTERCHANGE

SUPERSTRUCTURE DETAILS QUANTITIES, BARLIST AND BAR DETAILS
(SHEET 1 OF 13)

STATE JOB NO. 09032(06) SHEET NO. B099

Preliminary Plans

6/1/2022 10:06:31 AM
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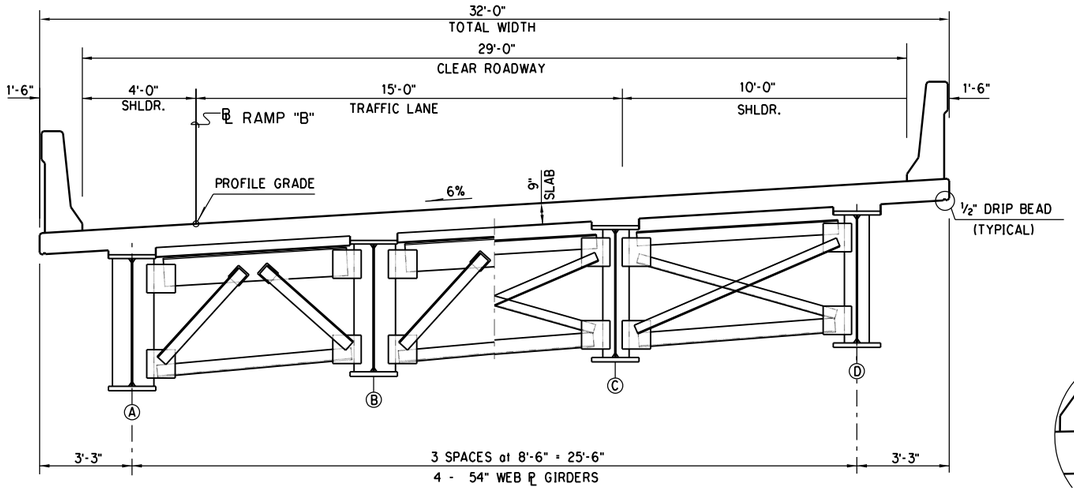
REVISIONS		
DESCRIPTION		DATE

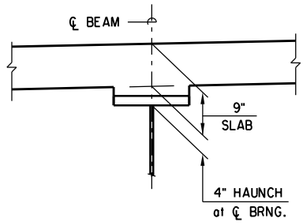
NOTE: TRANSVERSE DIMENSIONS ARE NORMAL TO ℄ RAMP "B" AT BEGIN/END OF SPAN. (UNLESS OTHERWISE NOTED.)



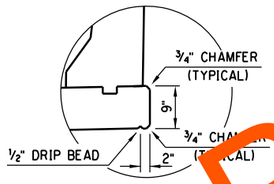
HALF SECTION AT END DIAPHRAGMS

HALF SECTION AT INTERMEDIATE DIAPHRAGMS

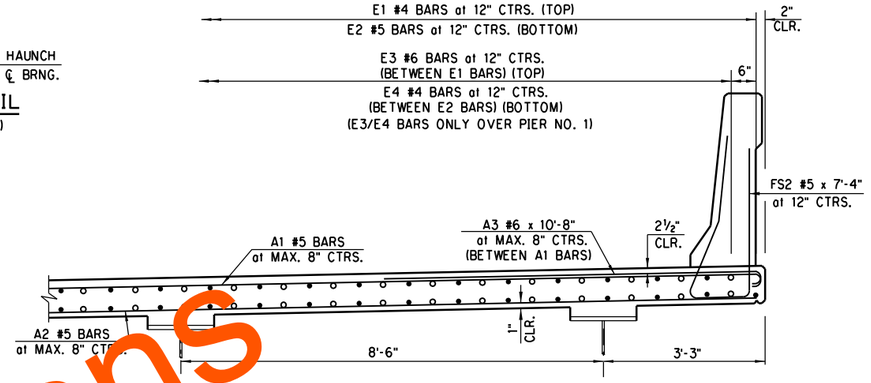
TYPICAL BRIDGE SECTION
(SPANS 1 AND 2)



HAUNCH DETAIL
(TYPICAL, ALL SPANS)

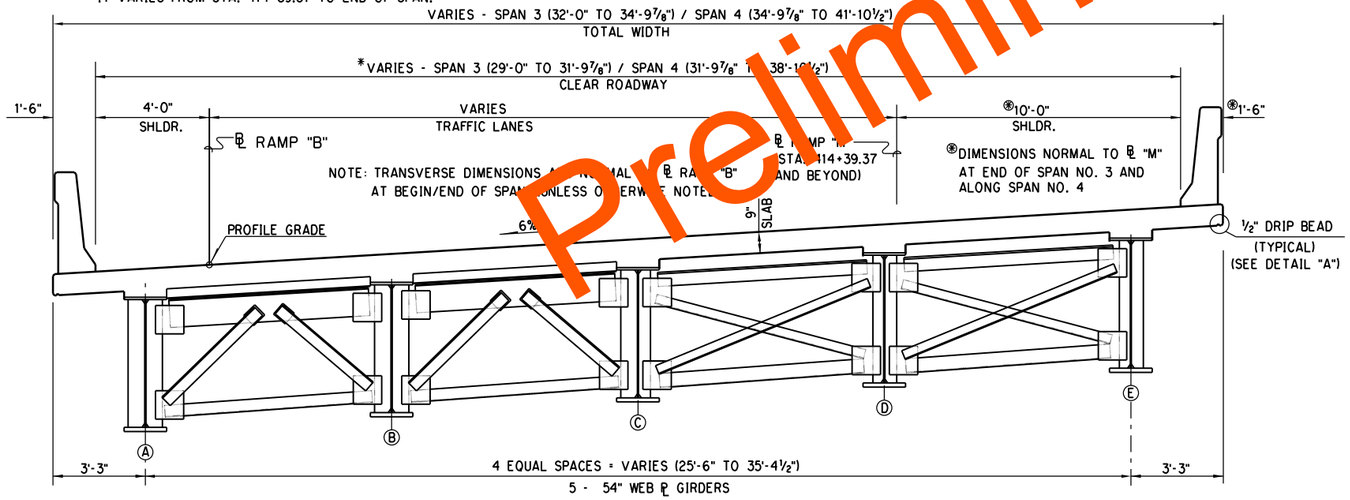


DETAIL "A"
(TYPICAL)



TYPICAL BRIDGE REINFORCING SECTION
(SPANS 1 AND 2)

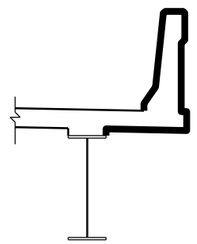
*NOTE: CLEAR ROADWAY ON SPAN NO. 3 IS 29'-0" FROM BEGINNING OF SPAN TO STA. 414+39.37. IT VARIES FROM STA. 414+39.37 TO END OF SPAN.



HALF SECTION AT END DIAPHRAGMS

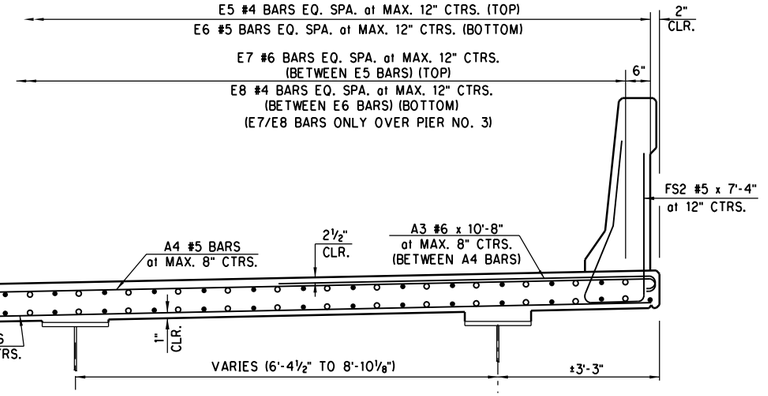
HALF SECTION AT INTERMEDIATE DIAPHRAGMS

TYPICAL BRIDGE SECTION
(SPANS 3 AND 4)



WATER REPELLENT SURFACE TREATMENT

SURFACES INDICATED WITH HEAVY LINES SHALL BE TREATED WITH A PENETRATING WATER REPELLENT SEALER. (TYPICAL, ALL SPANS)



TYPICAL BRIDGE REINFORCING SECTION
(SPANS 3 AND 4)

Preliminary Plans

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 — OKLAHOMA COUNTY
BRIDGE "B" — RAMP "B" AT I-35 & I-240 INTERCHANGE

SUPERSTRUCTURE DETAILS SECTIONS SPANS 1 THRU 4
(SHEET 2 OF 13)

STATE JOB NO. 09032(06) SHEET NO. B100

6/1/2022 11:06:34 AM
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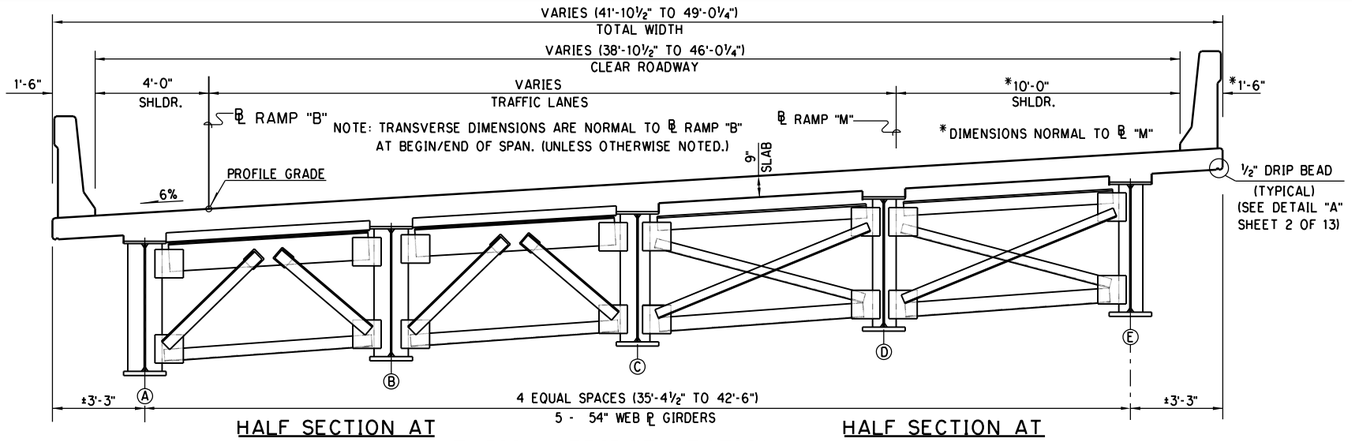
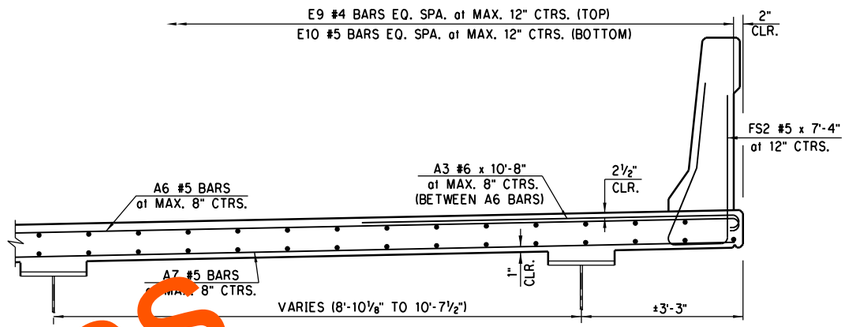


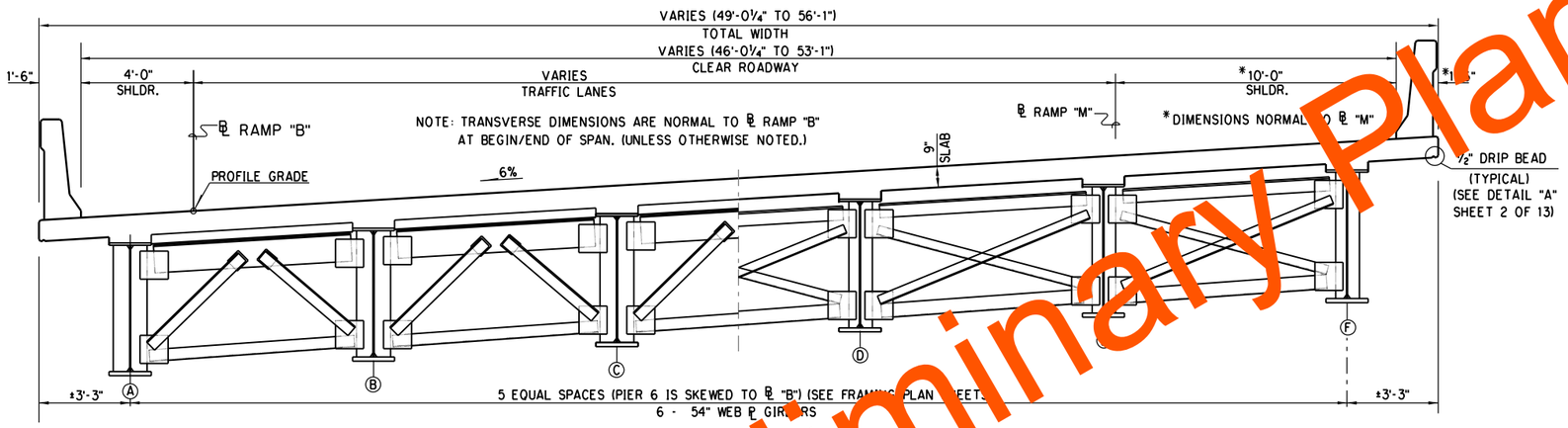
HALF SECTION AT END DIAPHRAGMS

TYPICAL BRIDGE SECTION (SPAN 5)

HALF SECTION AT INTERMEDIATE DIAPHRAGMS



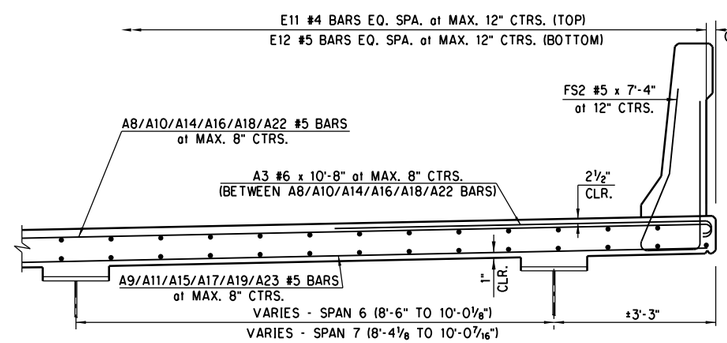
TYPICAL BRIDGE REINFORCING SECTION (SPAN 5)



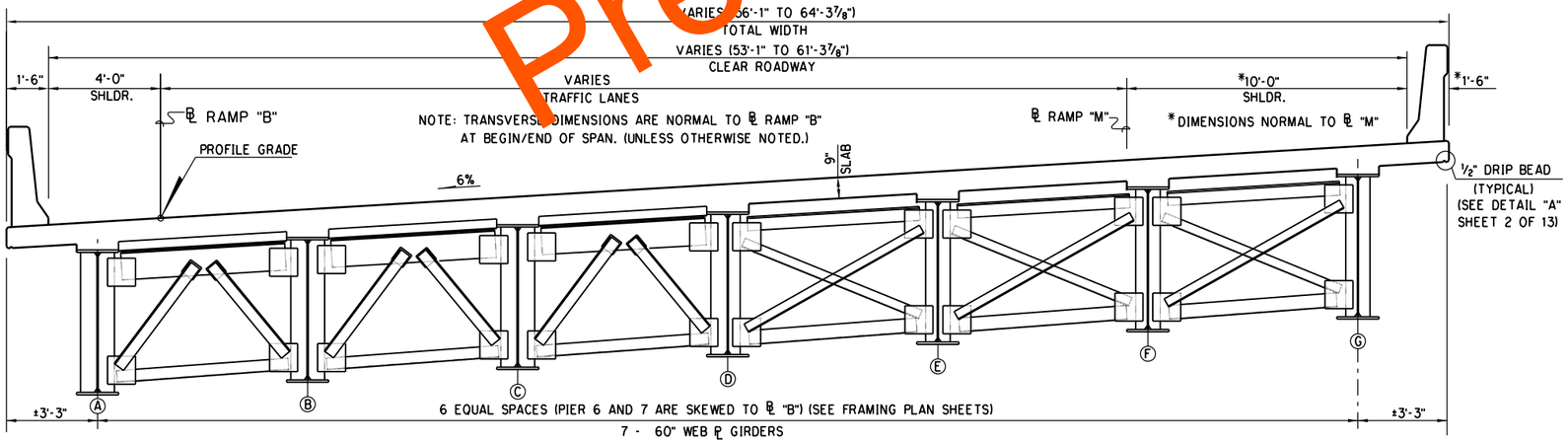
HALF SECTION AT END DIAPHRAGMS

TYPICAL BRIDGE SECTION (SPAN 6)

HALF SECTION AT INTERMEDIATE DIAPHRAGMS



TYPICAL BRIDGE REINFORCING SECTION (SPANS 6 AND 7)



HALF SECTION AT END DIAPHRAGMS

TYPICAL BRIDGE SECTION (SPAN 7)

HALF SECTION AT INTERMEDIATE DIAPHRAGMS

Preliminary Plans

DESCRIPTION	REVISIONS	DATE

PHASE 2 — OKLAHOMA COUNTY

BRIDGE "B" — RAMP "B" AT I-35 & I-240 INTERCHANGE

SUPERSTRUCTURE DETAILS SECTIONS SPANS 5 THRU 7

(SHEET 3 OF 13)

STATE JOB NO. 09032(106) SHEET NO. B101

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

6/1/2022 11:06:35 AM
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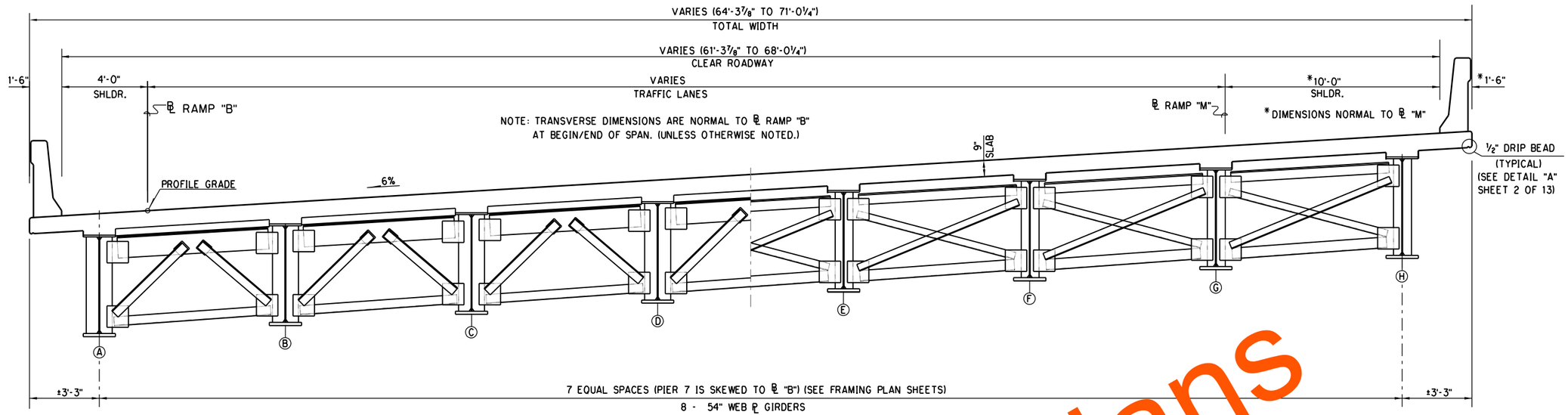
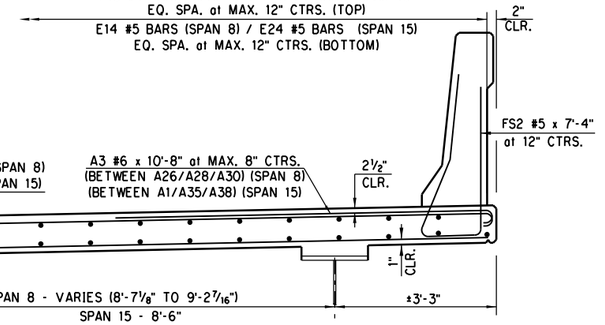
DESCRIPTION	REVISIONS	DATE



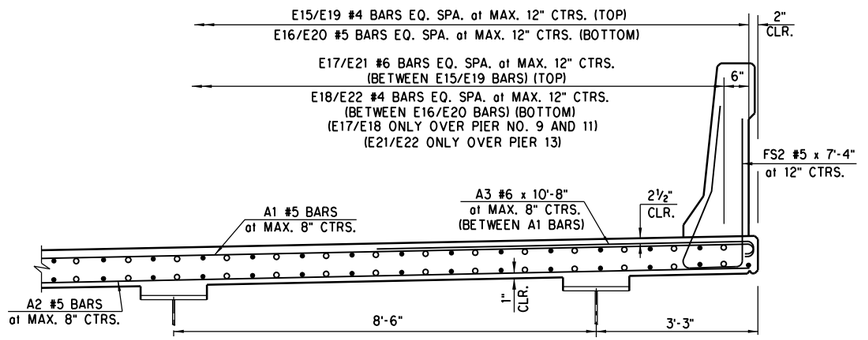
HALF SECTION AT
END DIAPHRAGMS

TYPICAL BRIDGE SECTION
(SPAN 8)

HALF SECTION AT
INTERMEDIATE DIAPHRAGMS

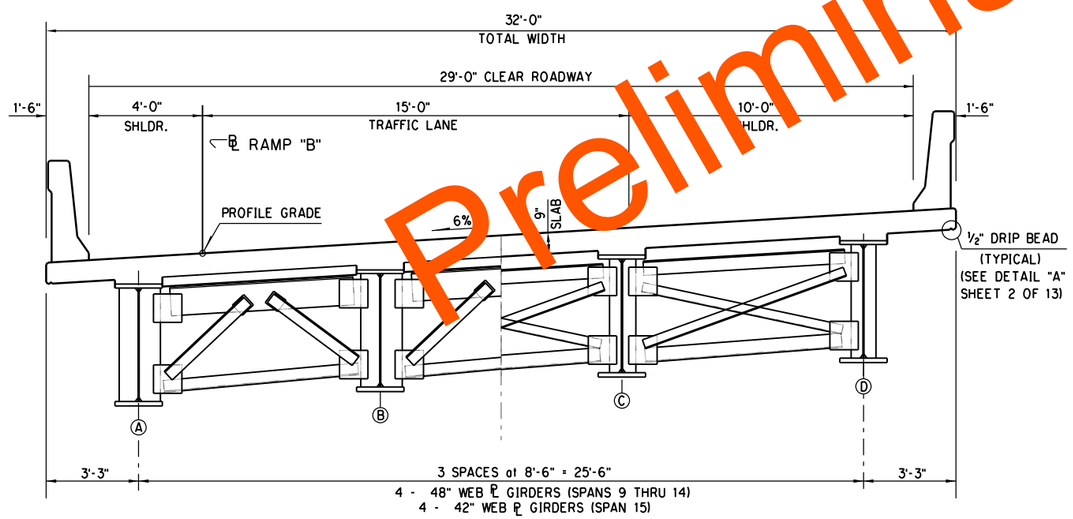


TYPICAL BRIDGE REINFORCING SECTION
(SPAN 8 AND 15)



TYPICAL BRIDGE REINFORCING SECTION
(SPANS 9 THRU 14)

NOTE: TRANSVERSE DIMENSIONS ARE NORMAL TO ℄ RAMP "B"
AT BEGIN/END OF SPAN. (UNLESS OTHERWISE NOTED.)



HALF SECTION AT
END DIAPHRAGMS

HALF SECTION AT
INTERMEDIATE DIAPHRAGMS

TYPICAL BRIDGE SECTION
(SPANS 9 THRU 15)

Preliminary Plans

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 — OKLAHOMA COUNTY
BRIDGE "B" — RAMP "B" AT I-35 & I-240 INTERCHANGE

SUPERSTRUCTURE DETAILS
SECTIONS SPANS 8 THRU 15
(SHEET 4 OF 13)

STATE JOB NO. 09032(06) SHEET NO. B102

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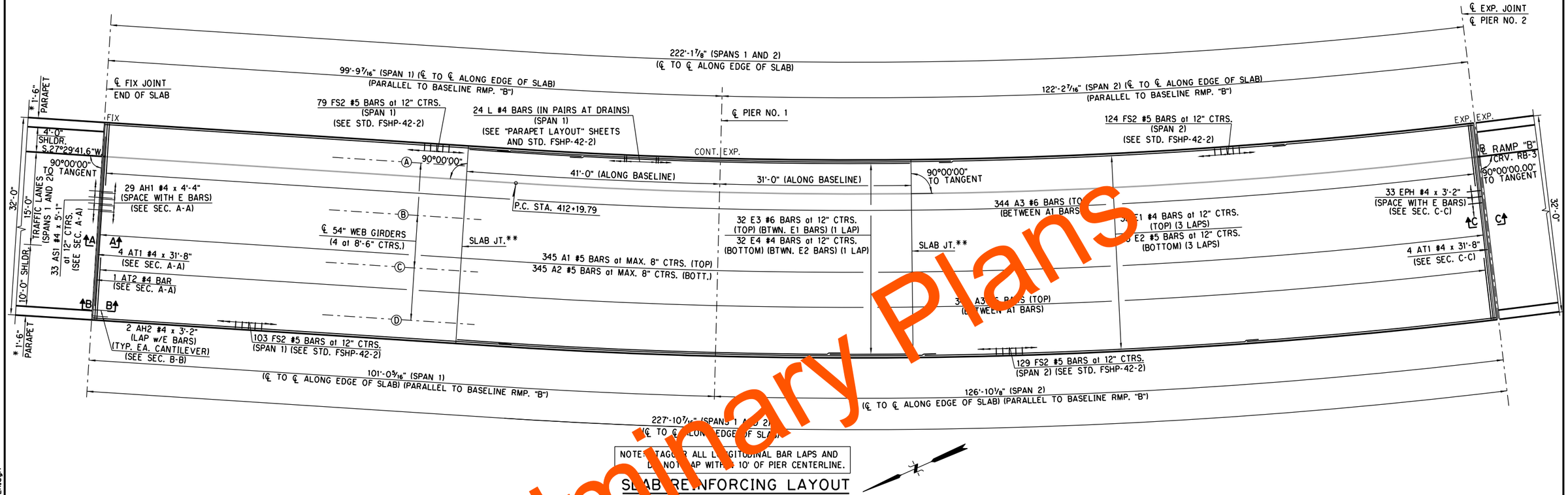
DESCRIPTION	REVISIONS	DATE

*NOTE: CONCRETE PARAPET OMITTED FROM SLAB FOR CLARITY.
(SEE PARAPET LAYOUT AND STD. FSHP-42-2 FOR PARAPET DETAILS)

**NOTE: TRANSVERSE BARS (A BARS) SHOULD MAINTAIN 2" CLEARANCE FROM SLAB JOINTS.
SLAB JOINT OR BAR LOCATION MAY BE MINIMALLY SHIFTED FOR REQUIRED CLEARANCE.

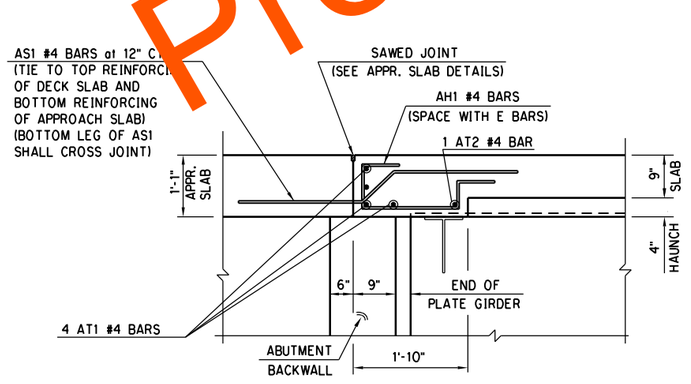
CURVE DATA RB-3
SEE ROADWAY SHEETS:
"GEOMETRIC COORDINATE POINT TABLES"
FOR CURVE DATA.



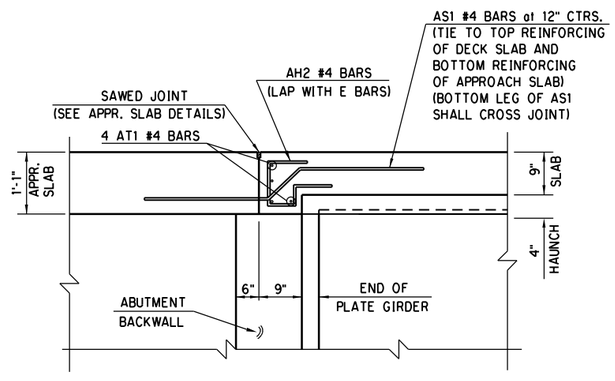
NOTE: STAGGER ALL LONGITUDINAL BAR LAPS AND DO NOT LAP WITHIN 10' OF PIER CENTERLINE.

SLAB REINFORCING LAYOUT
SPANS 1 AND 2

NOTE: FOR SECTION C-C. SEE SHEET 6 OF 13



SECTION A-A



SECTION B-B
(TYPICAL AT CANTILEVER)

NOTE: SLAB REINFORCING OMITTED IN SECTIONS FOR CLARITY.

Preliminary Plans

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 — OKLAHOMA COUNTY
BRIDGE "B" — RAMP "B" AT I-35 & I-240 INTERCHANGE

SUPERSTRUCTURE DETAILS
LAYOUT SPANS 1 AND 2
(SHEET 5 OF 13)

STATE JOB NO. 09032(06) SHEET NO. B103

6/1/2022 11:06:36 AM
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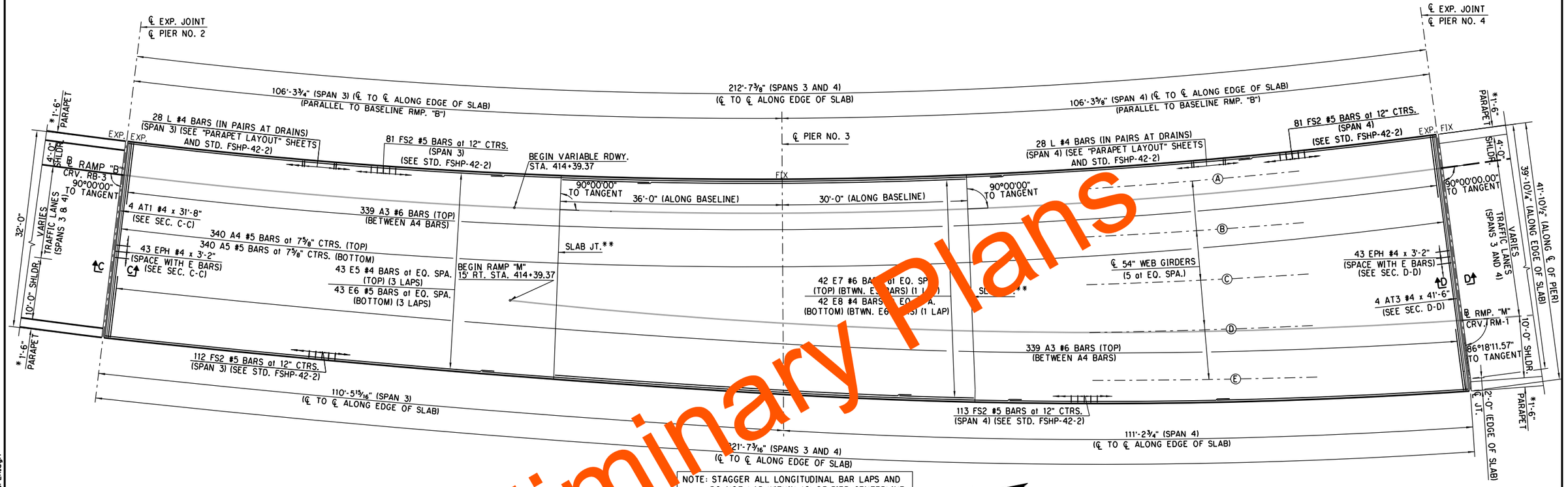
DESCRIPTION	REVISIONS	DATE

*NOTE: CONCRETE PARAPET OMITTED FROM SLAB FOR CLARITY.
(SEE PARAPET LAYOUT AND STD. FSHP-42-2 FOR PARAPET DETAILS)

**NOTE: TRANSVERSE BARS (A BARS) SHOULD MAINTAIN 2" CLEARANCE FROM SLAB JOINTS.
SLAB JOINT OR BAR LOCATION MAY BE MINIMALLY SHIFTED FOR REQUIRED CLEARANCE.

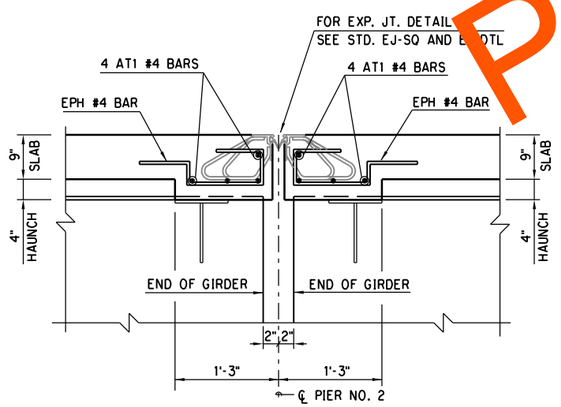
CURVE DATA RB-3, RM-1
SEE ROADWAY SHEETS:
"GEOMETRIC COORDINATE POINT TABLES"
FOR CURVE DATA.



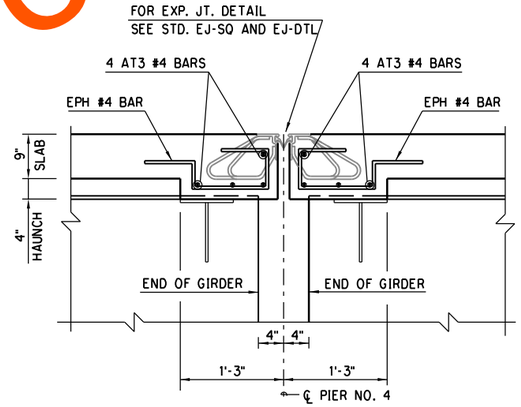
NOTE: STAGGER ALL LONGITUDINAL BAR LAPS AND
DO NOT LAP WITHIN 10' OF PIER CENTERLINE.

SLAB REINFORCING LAYOUT
SPANS 3 AND 4

NOTE: THE EAST EDGE OF THE SLAB IS CONCENTRIC WITH BASLINE "B".
THE WEST EDGE OF THE SLAB TRANSITIONS ALONG THE LENGTH OF SLAB.
FROM CONCENTRIC WITH BASLINE "B" AT THE BEGININING OF SPAN 3
TO CONCENTRIC WITH BASLINE "M" AT THE END OF SPAN 4.



SECTION C-C



SECTION D-D

NOTE: SLAB REINFORCING OMITTED
IN SECTION FOR CLARITY.

Preliminary Plans

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 — OKLAHOMA COUNTY
BRIDGE "B" — RAMP "B" AT I-35 & I-240 INTERCHANGE

SUPERSTRUCTURE DETAILS
LAYOUT SPANS 3 AND 4
(SHEET 6 OF 13)

STATE JOB NO. 09032(06) SHEET NO. B104

6/1/2022 11:06:35 AM
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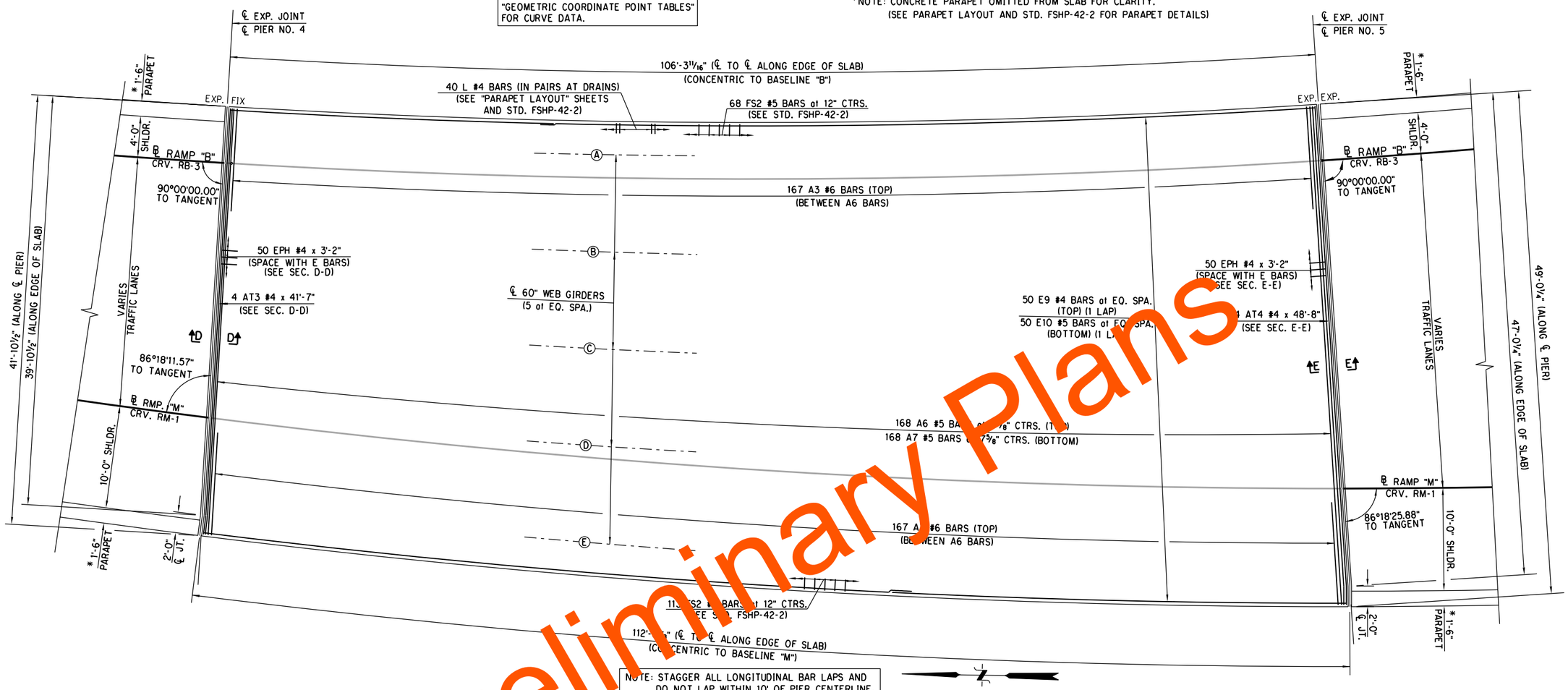
DESCRIPTION	REVISIONS	DATE

CURVE DATA RB-3, RM-1

SEE ROADWAY SHEETS:
"GEOMETRIC COORDINATE POINT TABLES"
FOR CURVE DATA.

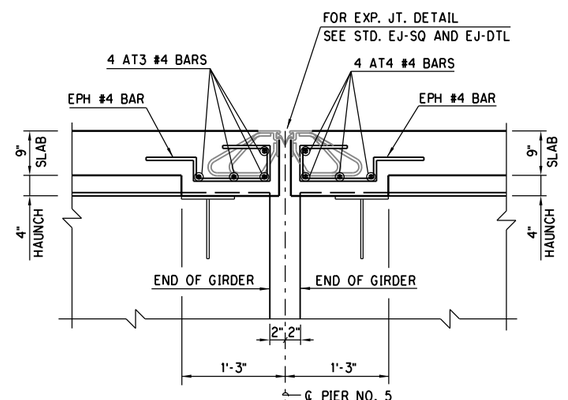
*NOTE: CONCRETE PARAPET OMITTED FROM SLAB FOR CLARITY.
(SEE PARAPET LAYOUT AND STD. FSHP-42-2 FOR PARAPET DETAILS)



NOTE: STAGGER ALL LONGITUDINAL BAR LAPS AND DO NOT LAP WITHIN 10' OF PIER CENTERLINE.

SLAB REINFORCING LAYOUT
SPAN 5

NOTE: FOR SECTION D-D. SEE SHEET 6 OF 13



NOTE: SLAB REINFORCING OMITTED IN SECTION FOR CLARITY.

SECTION E-E

Preliminary Plans

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 — OKLAHOMA COUNTY
BRIDGE "B" — RAMP "B" AT I-35 & I-240 INTERCHANGE

SUPERSTRUCTURE DETAILS
LAYOUT SPAN 5
(SHEET 7 OF 13)

STATE JOB NO. 09032(06) SHEET NO. B105

6/1/2022 11:06:37 AM
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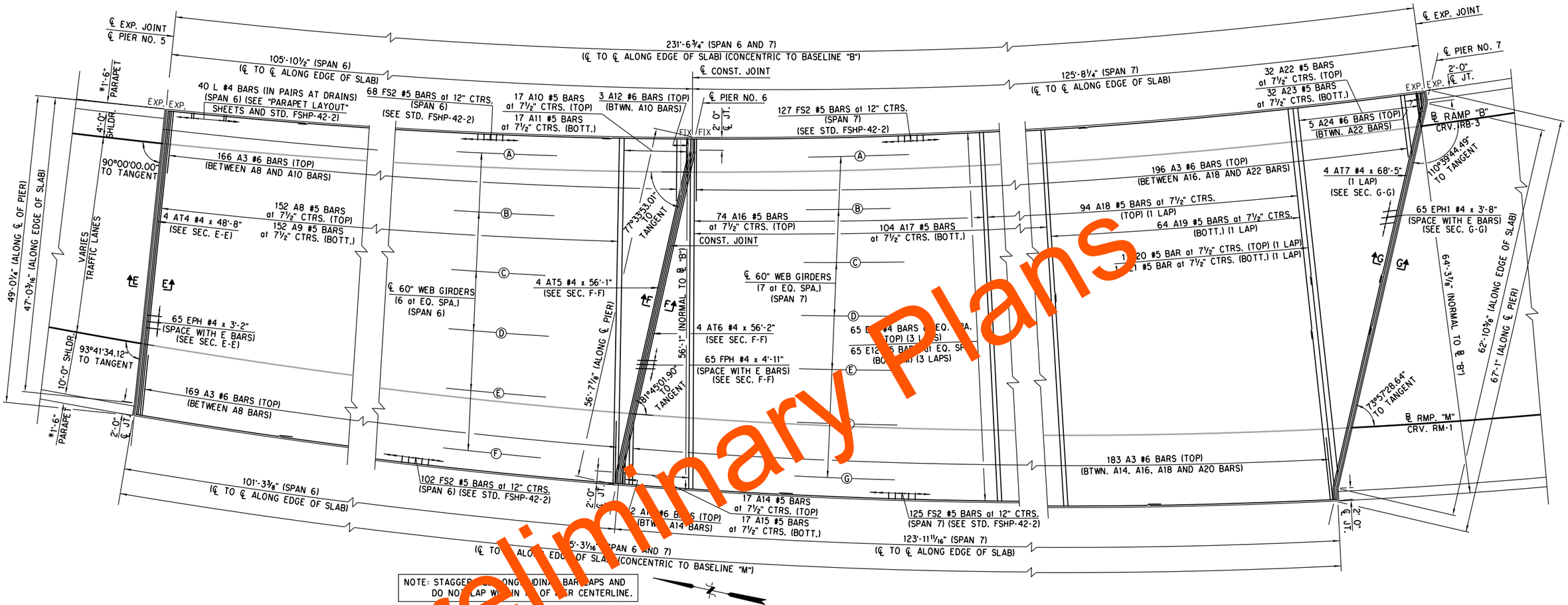
*NOTE: CONCRETE PARAPET OMITTED FROM SLAB FOR CLARITY.
(SEE PARAPET LAYOUT AND STD. FSHP-42-2 FOR PARAPET DETAILS)

NOTE: STAGGER ALL E3/E4 BAR LAPS.
NO BAR LAPS WITHIN 10 FEET
OF CONST. JT. AT ℄ PIER NO. 6

CURVE DATA RB-3, RM-1
SEE ROADWAY SHEETS:
"GEOMETRIC COORDINATE POINT TABLES"
FOR CURVE DATA.

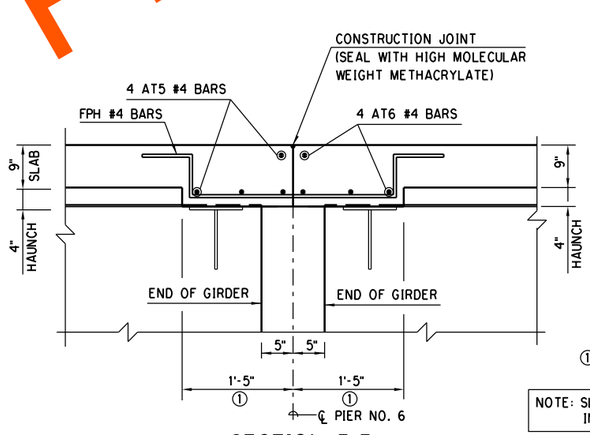
DESCRIPTION	REVISIONS	DATE



NOTE: STAGGER [illegible] LONGITUDINAL BAR LAPS AND
DO NOT LAP WITHIN [illegible] OF PIER CENTERLINE.

SLAB REINFORCING LAYOUT
SPANS 6 AND 7

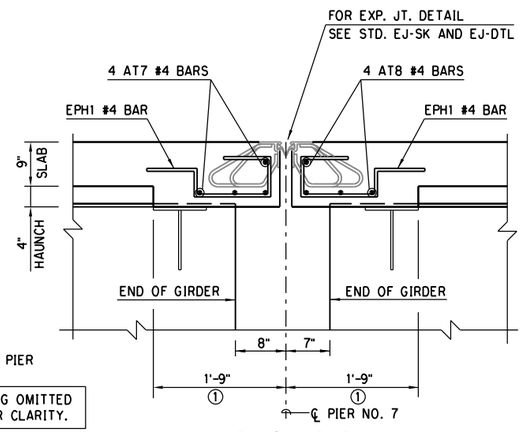
NOTE: FOR SECTION E-E, SEE SHEET 7 OF 13



SECTION F-F

① NORMAL TO ℄ PIER

NOTE: SLAB REINFORCING OMITTED
IN SECTIONS FOR CLARITY.



SECTION G-G

Preliminary Plans

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 — OKLAHOMA COUNTY
BRIDGE "B" — RAMP "B" AT I-35 & I-240 INTERCHANGE

SUPERSTRUCTURE DETAILS
LAYOUT SPANS 6 AND 7
(SHEET 8 OF 13)

STATE JOB NO. 09032(06) SHEET NO. B106

6/1/2022 11:06:37 AM
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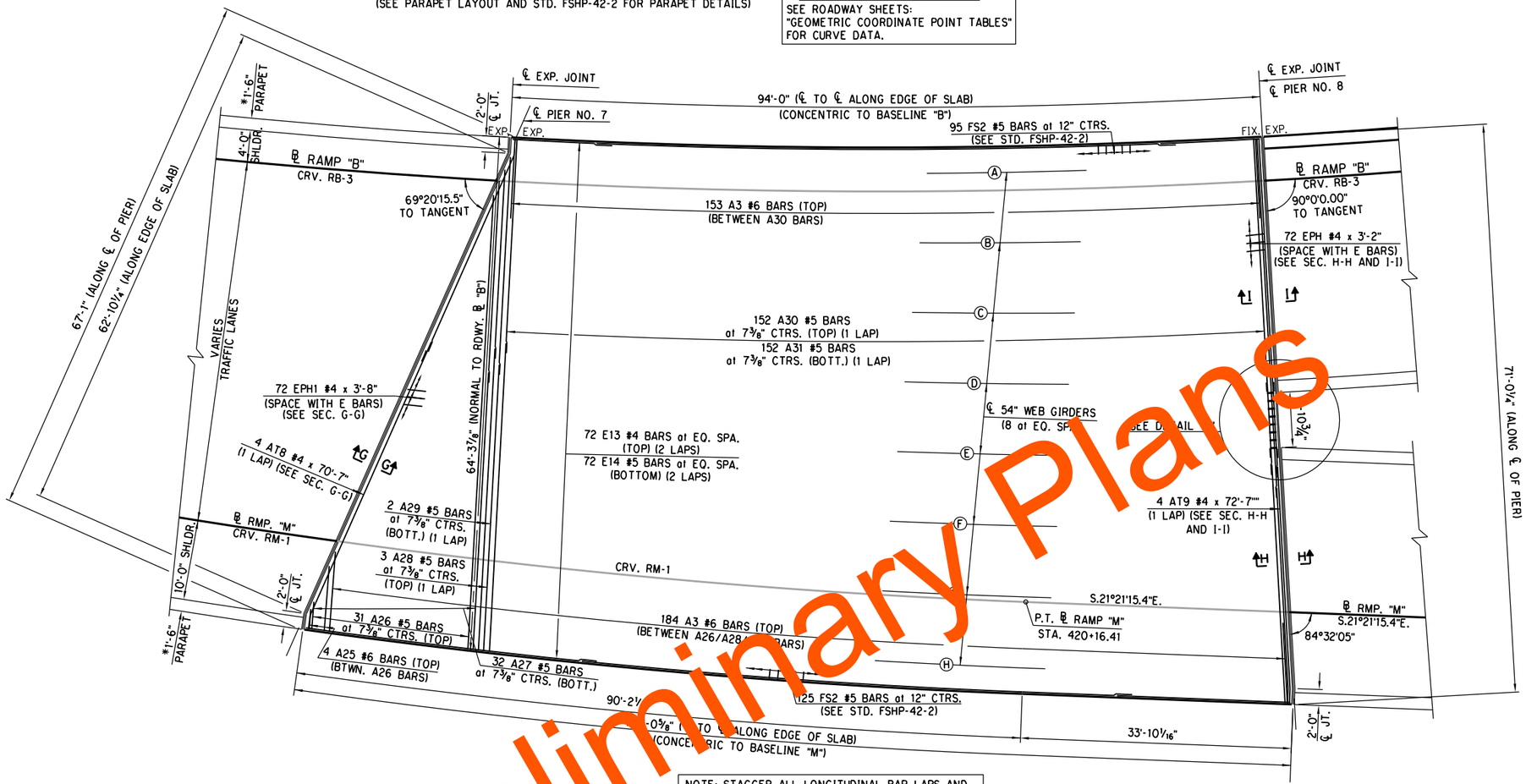
REVISIONS		
DESCRIPTION		DATE

*NOTE: CONCRETE PARAPET OMITTED FROM SLAB FOR CLARITY.
(SEE PARAPET LAYOUT AND STD. FSHP-42-2 FOR PARAPET DETAILS)

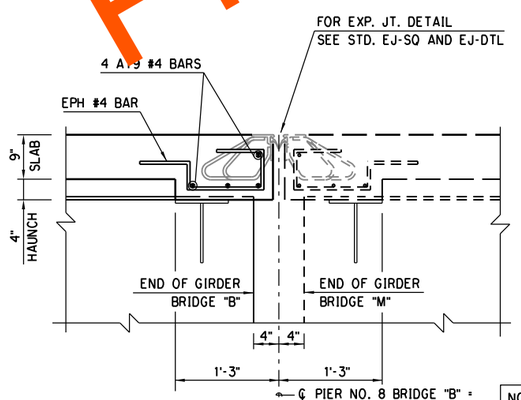
CURVE DATA RB-3, RM-1
SEE ROADWAY SHEETS:
"GEOMETRIC COORDINATE POINT TABLES"
FOR CURVE DATA.



NOTE: STAGGER ALL LONGITUDINAL BAR LAPS AND DO NOT LAP WITHIN 10' OF PIER CENTERLINE.

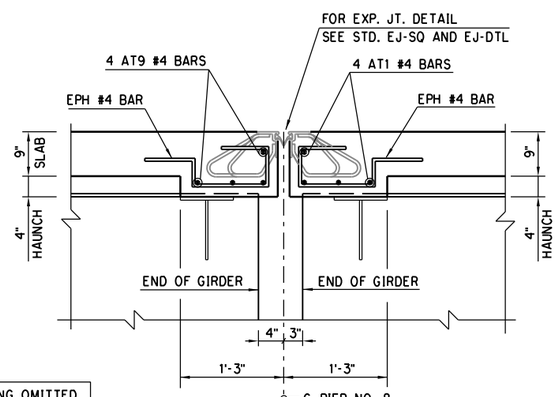
SLAB REINFORCING LAYOUT
SPAN 8

NOTE: FOR SECTION G-G, SEE SHEET 8 OF 13

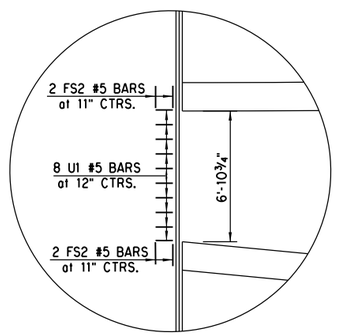


SECTION H-H

NOTE: SLAB REINFORCING OMITTED IN SECTIONS FOR CLARITY.



SECTION I-I



DETAIL "A"

SLAB REINFORCING FOR END BARRIER WALL
(WALL NOT SHOWN FOR CLARITY.
FOR DETAILS ON WALL SEE "END BARRIER
LAYOUT" SHEET

Preliminary Plans

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 — OKLAHOMA COUNTY
BRIDGE "B" — RAMP "B" AT I-35 & I-240 INTERCHANGE

SUPERSTRUCTURE DETAILS
LAYOUT SPAN 8
(SHEET 9 OF 13)

STATE JOB NO. 09032(06) SHEET NO. B107

6/1/2022 11:06:38 AM
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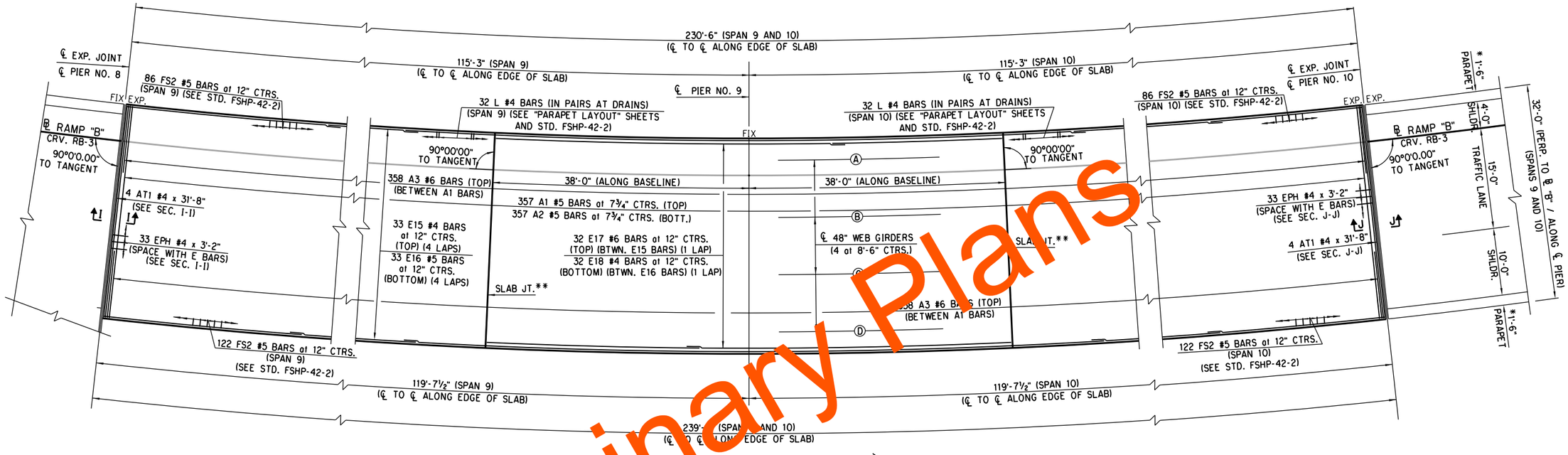
DESCRIPTION	REVISIONS	DATE

*NOTE: CONCRETE PARAPET OMITTED FROM SLAB FOR CLARITY.
(SEE PARAPET LAYOUT AND STD. FSHP-42-2 FOR PARAPET DETAILS)

**NOTE: TRANSVERSE BARS (A BARS) SHOULD MAINTAIN 2" CLEARANCE FROM SLAB JOINTS.
SLAB JOINT OR BAR LOCATION MAY BE MINIMALLY SHIFTED FOR REQUIRED CLEARANCE.

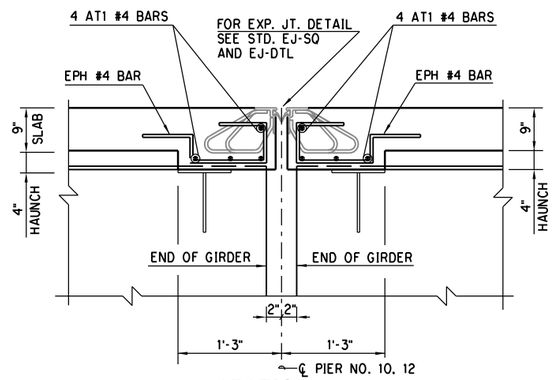
CURVE DATA RB-3
SEE ROADWAY SHEETS:
"GEOMETRIC COORDINATE POINT TABLES"
FOR CURVE DATA.



NOTE: STAGGER ALL LONGITUDINAL BAR LAPS AND DO NOT LAP WITHIN 10' OF PIER CENTERLINE.

SLAB REINFORCING LAYOUT
SPANS 9 AND 10

NOTE: FOR SECTION I-I, SEE SHEET 9 OF 13



SECTION J-J

NOTE: SLAB REINFORCING OMITTED IN SECTIONS FOR CLARITY.

Preliminary Plans

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 — OKLAHOMA COUNTY
BRIDGE "B" — RAMP "B" AT I-35 & I-240 INTERCHANGE

SUPERSTRUCTURE DETAILS
LAYOUT SPANS 9 AND 10
(SHEET 10 OF 13)

STATE JOB NO. 09032(106) SHEET NO. B108

6/1/2022 11:06:38 AM
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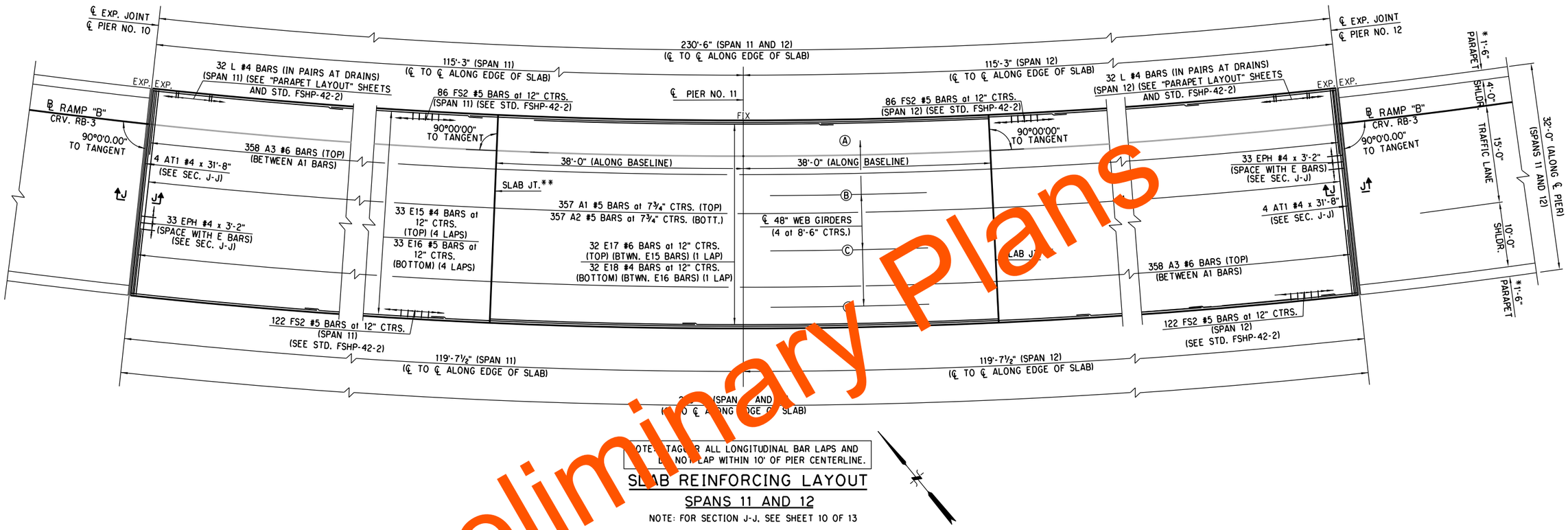
REVISIONS		
DESCRIPTION		DATE

*NOTE: CONCRETE PARAPET OMITTED FROM SLAB FOR CLARITY.
(SEE PARAPET LAYOUT AND STD. FSHP-42-2 FOR PARAPET DETAILS)

**NOTE: TRANSVERSE BARS (A BARS) SHOULD MAINTAIN 2" CLEARANCE FROM SLAB JOINTS.
SLAB JOINT OR BAR LOCATION MAY BE MINIMALLY SHIFTED FOR REQUIRED CLEARANCE.

CURVE DATA RB-3
SEE ROADWAY SHEETS:
"GEOMETRIC COORDINATE POINT TABLES"
FOR CURVE DATA.



NOTE: STAGGER ALL LONGITUDINAL BAR LAPS AND DO NOT LAP WITHIN 10' OF PIER CENTERLINE.

SLAB REINFORCING LAYOUT
SPANS 11 AND 12

NOTE: FOR SECTION J-J, SEE SHEET 10 OF 13

Preliminary Plans

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 — OKLAHOMA COUNTY
BRIDGE "B" — RAMP "B" AT I-35 & I-240 INTERCHANGE

SUPERSTRUCTURE DETAILS
LAYOUT SPANS 11 AND 12
(SHEET 11 OF 13)

STATE JOB NO. 09032(106) SHEET NO. B109

6/1/2022 11:06:39 AM
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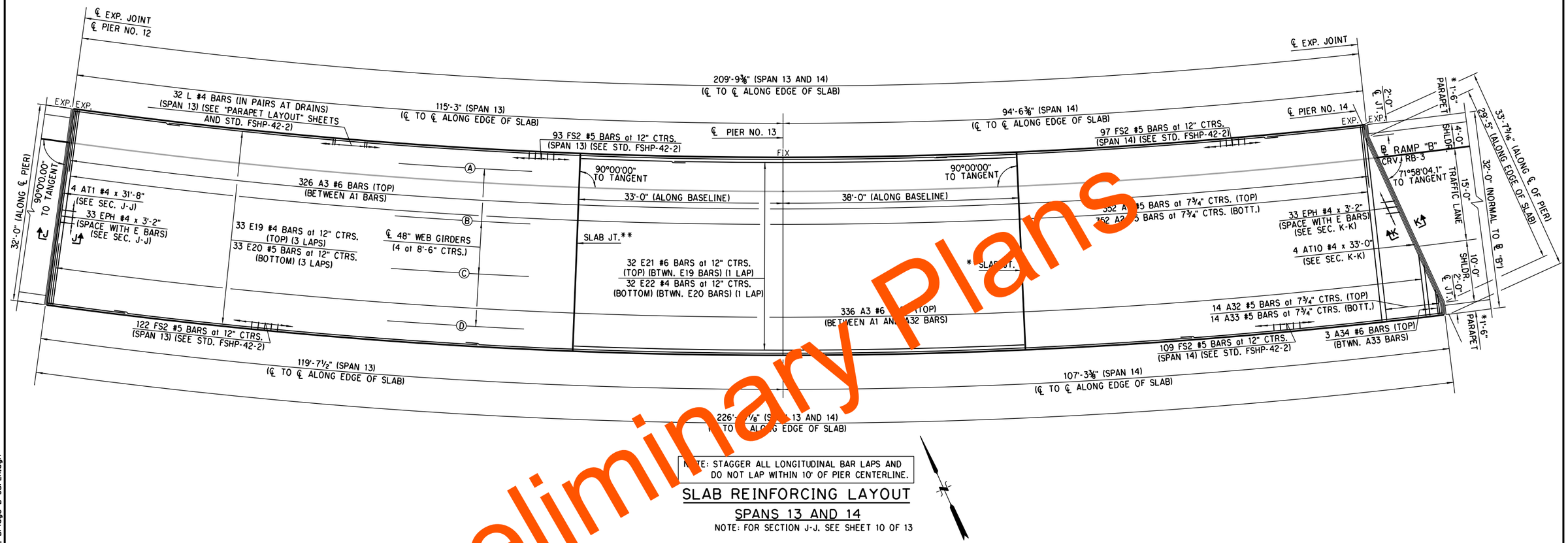
DESCRIPTION	REVISIONS	DATE

*NOTE: CONCRETE PARAPET OMITTED FROM SLAB FOR CLARITY.
(SEE PARAPET LAYOUT AND STD. FSHP-42-2 FOR PARAPET DETAILS)

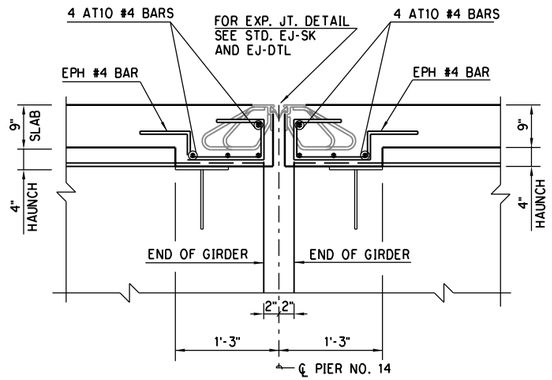
**NOTE: TRANSVERSE BARS (A BARS) SHOULD MAINTAIN 2" CLEARANCE FROM SLAB JOINTS.
SLAB JOINT OR BAR LOCATION MAY BE MINIMALLY SHIFTED FOR REQUIRED CLEARANCE.

CURVE DATA RB-3
SEE ROADWAY SHEETS:
"GEOMETRIC COORDINATE POINT TABLES"
FOR CURVE DATA.



NOTE: STAGGER ALL LONGITUDINAL BAR LAPS AND
DO NOT LAP WITHIN 10' OF PIER CENTERLINE.

SLAB REINFORCING LAYOUT
SPANS 13 AND 14
NOTE: FOR SECTION J-J, SEE SHEET 10 OF 13



SECTION K-K

NOTE: SLAB REINFORCING OMITTED
IN SECTIONS FOR CLARITY.

Preliminary Plans

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 — OKLAHOMA COUNTY
BRIDGE "B" — RAMP "B" AT I-35 & I-240 INTERCHANGE

SUPERSTRUCTURE DETAILS
LAYOUT SPANS 13 AND 14
(SHEET 12 OF 13)

STATE JOB NO. 09032(106) SHEET NO. B110

6/1/2022 11:06:39 AM
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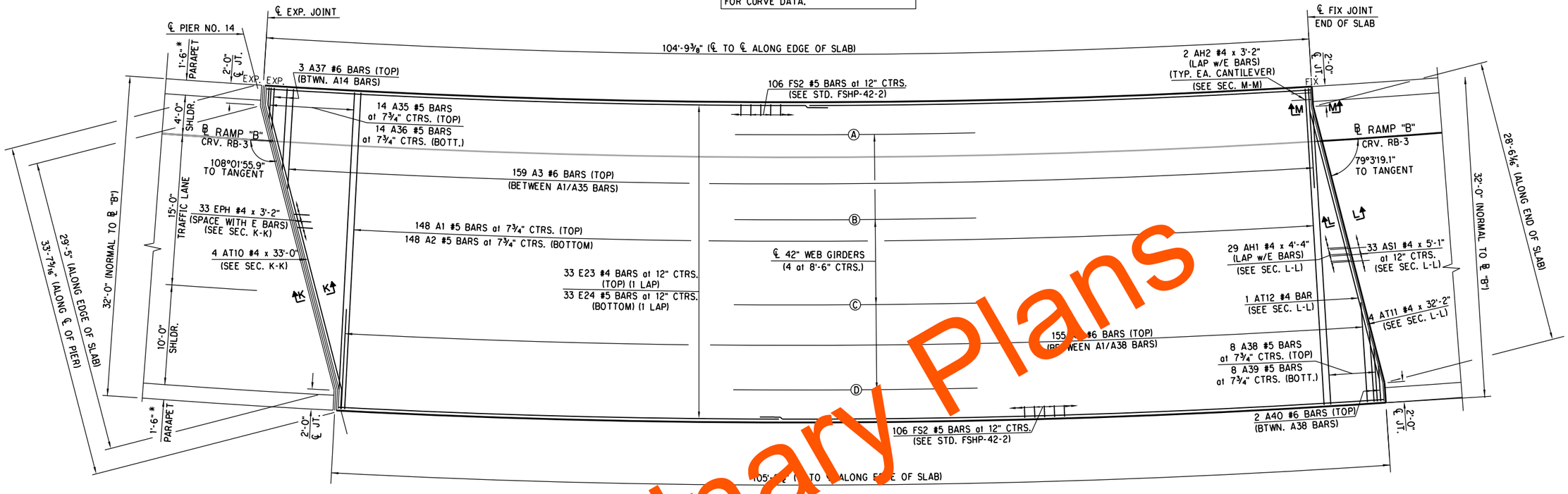
REVISIONS		
DESCRIPTION		DATE

*NOTE: CONCRETE PARAPET OMITTED FROM SLAB FOR CLARITY.
(SEE PARAPET LAYOUT AND STD. FSHP-42-2 FOR PARAPET DETAILS)

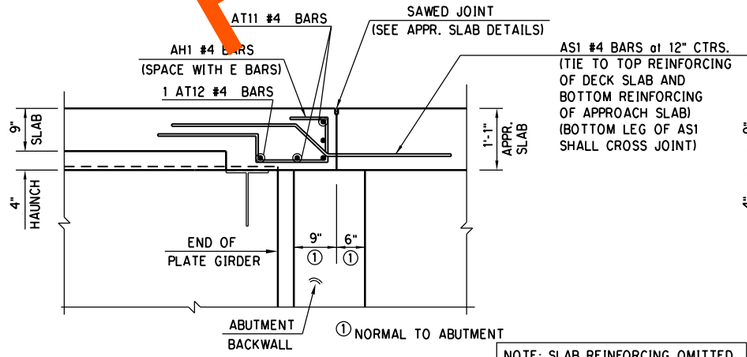
CURVE DATA RB-3
SEE ROADWAY SHEETS:
"GEOMETRIC COORDINATE POINT TABLES"
FOR CURVE DATA.



NOTE: STAGGER ALL LONGITUDINAL BAR LAPS AND DO NOT LAP WITHIN 10' OF PIER CENTERLINE.

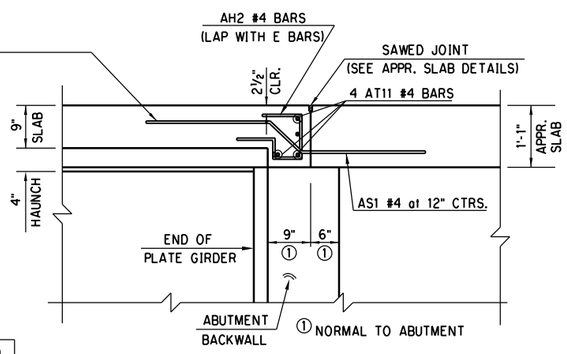
SLAB REINFORCING LAYOUT
SPAN 15

NOTE: FOR SECTION K-K, SEE SHEET 12 OF 13



SECTION L-L

NOTE: SLAB REINFORCING OMITTED IN SECTIONS FOR CLARITY.



SECTION M-M
(TYPICAL AT CANTILEVER)

Preliminary Plans

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 — OKLAHOMA COUNTY
BRIDGE "B" — RAMP "B" AT I-35 & I-240 INTERCHANGE

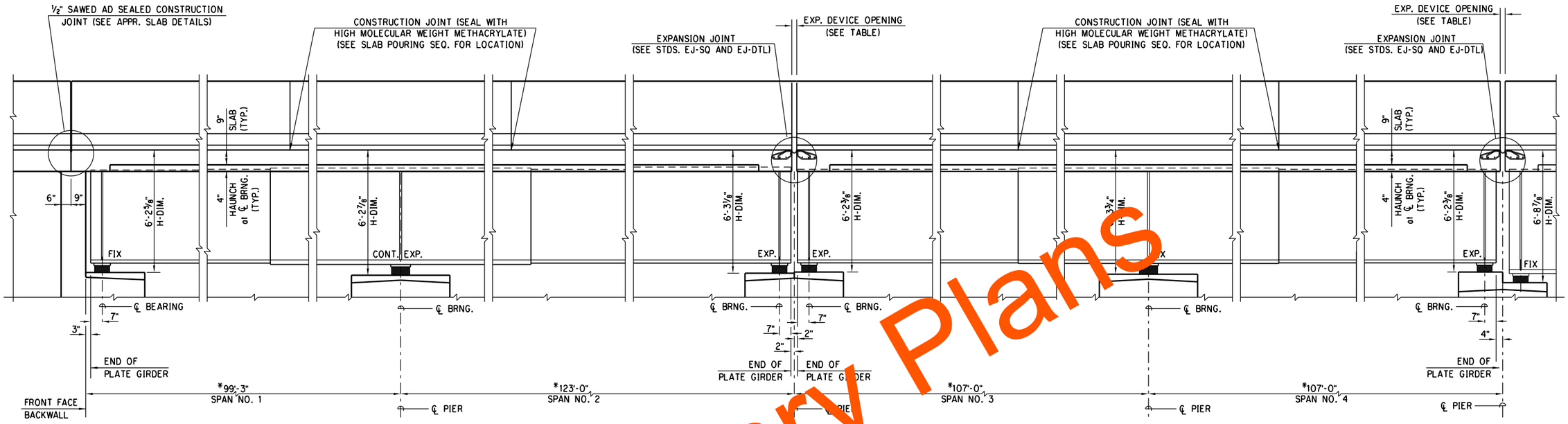
SUPERSTRUCTURE DETAILS
LAYOUT SPAN 15
(SHEET 13 OF 13)

STATE JOB NO. 09032(06) SHEET NO. B111

6/1/2022 11:06:40 AM
H:\PROJECTS\2789.CrossRoads_Phase_2\Bridge\Drawings\Ph2 Bridges\BRIDGE B\0903206 P2 Bridge B SUPER.dgn

DESCRIPTION	REVISIONS	DATE

NOTE:
H-DIMENSION SHOWN IS MEASURED FROM TOP OF SLAB TO BOTTOM OF BEARING ASSEMBLY AT ℄ BEARING.

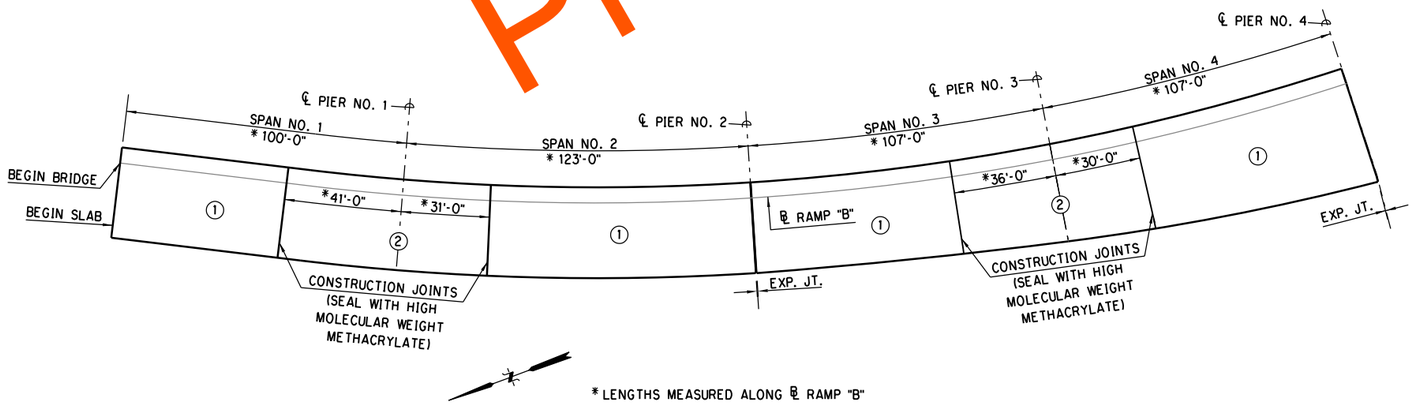


LONGITUDINAL SECTION

* LENGTH MEASURED ALONG ℄ RAMP "B"

TABLE OF EXPANSION DEVICE SETTINGS (SPANS NO. 1 THRU 4)

PIER NO. 2	TEMPERATURE	3[illegible]°	41°	46°	50°	55°	60°	65°	70°	74°	79°	84°	89°	94°	98°	103°
	OPENING	2⅝"	[illegible]"	2⅜"	2¼"	2⅛"	2"	1⅞"	1¾"	1⅝"	1½"	1⅜"	1¼"	1⅛"	1"	0⅝"
PIER NO. 4	TEMPERATURE	[illegible]	--	[illegible]°	31°	45°	60°	79°	89°	104°	--	--	--	--	--	--
	OPENING	[illegible]	--	2⅜"	2¼"	2⅛"	2"	1⅞"	1¾"	1⅝"	--	--	--	--	--	--



* LENGTHS MEASURED ALONG ℄ RAMP "B"

SLAB POURING SEQUENCE
SPANS NO. 1 THRU 4

SLAB POURING SEQUENCE:

THE POURING SEQUENCE SHALL BE IN THE NUMERICAL SEQUENCE INDICATED. ALL POURS WITH THE SAME NUMBER MAY BE POURED EITHER SEPARATELY OR SIMULTANEOUSLY, BUT ALL POURS WITH THE SAME NUMBER SHALL BE COMPLETED BEFORE BEGINNING WITH THE NEXT POUR NUMBER. THERE SHALL BE A LAPSE OF AT LEAST 24 HOURS BETWEEN POURS OR WHEN THE PREVIOUS POUR REACHES A STRENGTH OF 3000 PSI. EACH POUR SHALL BE AT A MINIMUM RATE OF 25 L.F. PER HOUR.

CONSTRUCTION JOINTS AT THE CLOSURE POURS IN THE DECK SLAB SHALL NOT BE KEYED. IN THE EVENT OF AN EMERGENCY, POURING OF DECK SLAB MAY BE HALTED WITH A KEYED CONSTRUCTION JOINT MADE PERPENDICULAR TO THE DIRECTION OF TRAFFIC AS DIRECTED BY THE ENGINEER. PRIMARY LONGITUDINAL REINFORCING SHALL BE CONTINUOUS THRU ALL CONSTRUCTION JOINTS. ADDITIONAL LONGITUDINAL REINFORCING WITHIN CLOSURE POURS SHALL BE CONTINUOUS THROUGH EMERGENCY CONSTRUCTION JOINTS. UNTIL THE SLAB IS IN PLACE ON BOTH SIDES OF THE CONSTRUCTION JOINT AND AT LEAST 48 HOURS HAS ELAPSED SINCE CONCRETE PLACEMENT. NO HEAVY EQUIPMENT WILL BE PERMITTED ON THE FINISHED DECK SLAB WITHIN 6 FEET OF ANY CONSTRUCTION JOINT.

ALL CONSTRUCTION JOINTS WITHIN THE DECK SLAB SHALL BE SEALED USING HIGH MOLECULAR WEIGHT METHACRYLATE IN ACCORDANCE WITH SECTION 523 OF THE STANDARD SPECIFICATIONS. ALL COST OF THE HIGH MOLECULAR WEIGHT METHACRYLATE SEALER SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE OF "SEALER RESIN". ALL COST FOR EQUIPMENT AND LABOR FOR THE INSTALLATION OF THE HIGH MOLECULAR WEIGHT METHACRYLATE SEALER SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE OF "SEALER CRACK PREPARATION".

Preliminary Plans

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

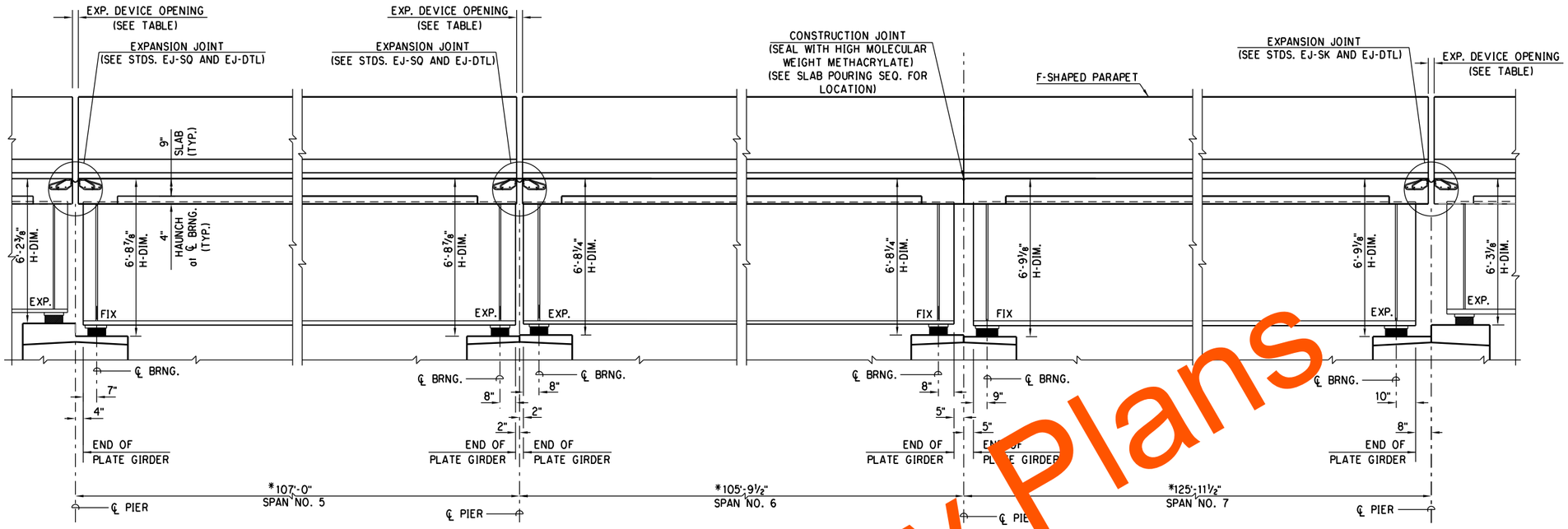
PHASE 2 — OKLAHOMA COUNTY
BRIDGE "B" — RAMP "B" AT I-35 & I-240 INTERCHANGE

LONGITUDINAL SECTION AND SLAB POURING SEQUENCE
(SHEET 1 OF 4)

STATE JOB NO. 09032(06) SHEET NO. B112

6/1/2022 11:06:41 AM
H:\PROJECTS\2789_CrossRoads_Phase_2\Bridge\Drawings\Ph2 Bridges\BRIDGE B\0903206 P2 Bridge B Longi.dgn

DESCRIPTION	REVISIONS	DATE



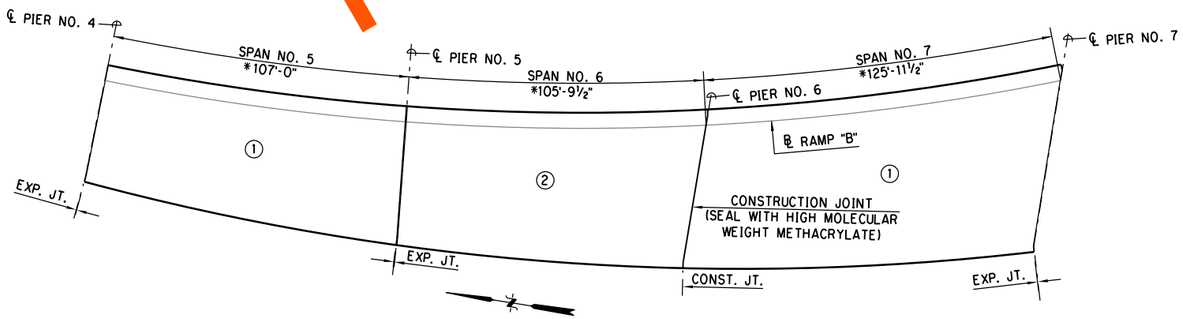
NOTE:
H-DIMENSION SHOWN IS MEASURED FROM TOP OF SLAB TO BOTTOM OF BEARING ASSEMBLY AT ℄ BEARING.

LONGITUDINAL SECTION

*LENGTHS MEASURED ALONG ℄ RAMP "B"

TABLE OF EXPANSION DEVICE SETTINGS (SPANS NO. 5 THRU 7)

PIER NO. 4	TEMPERATURE	--	--	16°	31°	4[illegible]	60°	79°	89°	104°	--	--	--
	OPENING	--	--	2¼"	2⅛"	2"	1⅞"	1¾"	1⅝"	--	--	--	
PIER NO. 5	TEMPERATURE	30°	37°	4[illegible]	[illegible]°	60°	68°	75°	83°	90°	98°	105°	--
	OPENING	2½"	[illegible]"	2¼	2⅛"	2"	1⅞"	1¾"	1⅝"	1½"	1⅜"	1¼"	--
PIER NO. 7	TEMPERATURE	[illegible]°	40	[illegible]°	53°	60°	67°	73°	80°	86°	93°	99°	106°
	OPENING	2½"	2⅜"	2¼"	2⅛"	2"	1⅞"	1¾"	1⅝"	1½"	1⅜"	1¼"	1⅛"



*LENGTHS MEASURED ALONG ℄ RAMP "B"

SLAB POURING SEQUENCE
SPANS NO. 5 THRU 7

SLAB POURING SEQUENCE:

THE POURING SEQUENCE SHALL BE IN THE NUMERICAL SEQUENCE INDICATED. ALL POURS WITH THE SAME NUMBER MAY BE POURED EITHER SEPARATELY OR SIMULTANEOUSLY, BUT ALL POURS WITH THE SAME NUMBER SHALL BE COMPLETED BEFORE BEGINNING WITH THE NEXT POUR NUMBER. THERE SHALL BE A LAPSE OF AT LEAST 24 HOURS BETWEEN POURS OR WHEN THE PREVIOUS POUR REACHES A STRENGTH OF 3000 PSI. EACH POUR SHALL BE AT A MINIMUM RATE OF 25 L.F. PER HOUR.

CONSTRUCTION JOINTS AT THE CLOSURE POURS IN THE DECK SLAB SHALL NOT BE KEYED. IN THE EVENT OF AN EMERGENCY, POURING OF DECK SLAB MAY BE HALTED WITH A KEYED CONSTRUCTION JOINT MADE PERPENDICULAR TO THE DIRECTION OF TRAFFIC AS DIRECTED BY THE ENGINEER. PRIMARY LONGITUDINAL REINFORCING SHALL BE CONTINUOUS THRU ALL CONSTRUCTION JOINTS. ADDITIONAL LONGITUDINAL REINFORCING WITHIN CLOSURE POURS SHALL BE CONTINUOUS THROUGH EMERGENCY CONSTRUCTION JOINTS. UNTIL THE SLAB IS IN PLACE ON BOTH SIDES OF THE CONSTRUCTION JOINT AND AT LEAST 48 HOURS HAS ELAPSED SINCE CONCRETE PLACEMENT, NO HEAVY EQUIPMENT WILL BE PERMITTED ON THE FINISHED DECK SLAB WITHIN 6 FEET OF ANY CONSTRUCTION JOINT.

ALL CONSTRUCTION JOINTS WITHIN THE DECK SLAB SHALL BE SEALED USING HIGH MOLECULAR WEIGHT METHACRYLATE IN ACCORDANCE WITH SECTION 523 OF THE STANDARD SPECIFICATIONS. ALL COST OF THE HIGH MOLECULAR WEIGHT METHACRYLATE SEALER SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE OF "SEALER RESIN". ALL COST FOR EQUIPMENT AND LABOR FOR THE INSTALLATION OF THE HIGH MOLECULAR WEIGHT METHACRYLATE SEALER SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE OF "SEALER CRACK PREPARATION".

Preliminary Plans

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 — OKLAHOMA COUNTY
BRIDGE "B" — RAMP "B" AT I-35 & I-240 INTERCHANGE

LONGITUDINAL SECTION AND SLAB POURING SEQUENCE

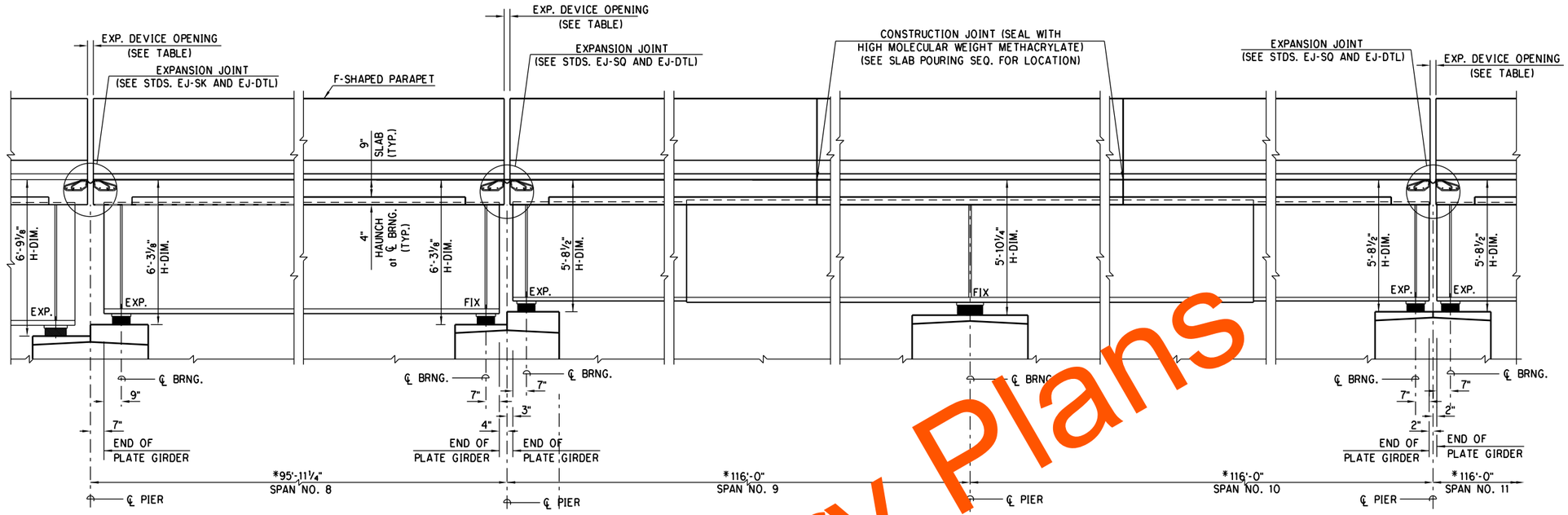
(SHEET 2 OF 4)

STATE JOB NO. 09032(106) SHEET NO. B113

6/1/2022 11:06:42 AM
H:\PROJECTS\2789.CrossRoads.Phase.2\Bridge\Drawings\Ph2 Bridges\BRIDGE B\09032(06) P2 Bridge B Longl.dgn

NOTE:
H-DIMENSION SHOWN IS MEASURED FROM TOP OF SLAB TO BOTTOM OF BEARING ASSEMBLY AT ℄ BEARING.

DESCRIPTION	REVISIONS	DATE

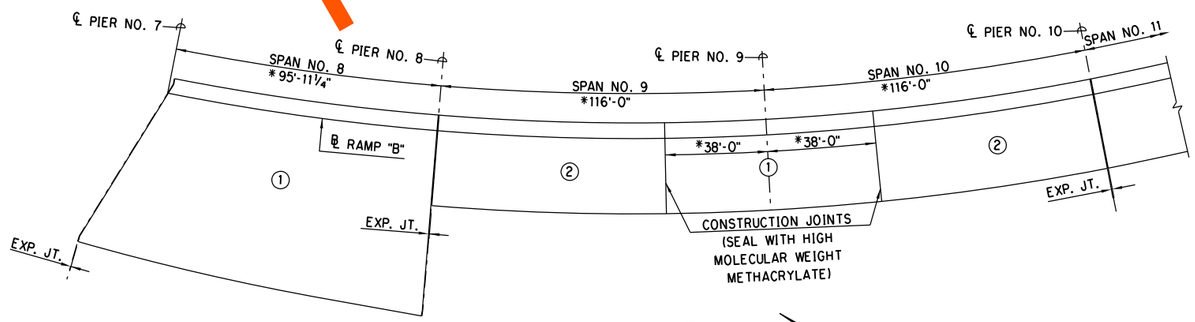


LONGITUDINAL SECTION

*LENGTHS MEASURED ALONG ℄ RAMP "B"

TABLE OF EXPANSION DEVICE SETTINGS (SPANS NO. 8 THRU 10)

PIER NO.	TEMPERATURE	34°	40°	46°	53°	60°	67°	73°	80°	86°	93°	99°	106°
7	OPENING	2½"	2⅜"	2¼"	2⅛"	2"	1⅞"	1¾"	1⅝"	1½"	1⅜"	1¼"	1⅛"
PIER NO.	TEMPERATURE	--	--	32°	40°	60°	74°	87°	101°	--	--	--	--
8	OPENING		--	2¼"	2⅛"	2"	1⅞"	1¾"	1⅝"	--	--	--	--
PIER NO.	TEMPERATURE	32°	39°	46°	53°	60°	67°	74°	81°	88°	95°	101°	--
10	OPENING	2½"	2⅜"	2¼"	2⅛"	2"	1⅞"	1¾"	1⅝"	1½"	1⅜"	1¼"	--



*LENGTHS MEASURED ALONG ℄ RAMP "B"

SLAB POURING SEQUENCE
SPANS NO. 8 THRU 10

SLAB POURING SEQUENCE:

THE POURING SEQUENCE SHALL BE IN THE NUMERICAL SEQUENCE INDICATED. ALL POURS WITH THE SAME NUMBER MAY BE POURED EITHER SEPARATELY OR SIMULTANEOUSLY, BUT ALL POURS WITH THE SAME NUMBER SHALL BE COMPLETED BEFORE BEGINNING WITH THE NEXT POUR NUMBER. THERE SHALL BE A LAPSE OF AT LEAST 24 HOURS BETWEEN POURS OR WHEN THE PREVIOUS POUR REACHES A STRENGTH OF 3000 PSI. EACH POUR SHALL BE AT A MINIMUM RATE OF 25 L.F. PER HOUR.

CONSTRUCTION JOINTS AT THE CLOSURE POURS IN THE DECK SLAB SHALL NOT BE KEYED. IN THE EVENT OF AN EMERGENCY, POURING OF DECK SLAB MAY BE HALTED WITH A KEYED CONSTRUCTION JOINT MADE PERPENDICULAR TO THE DIRECTION OF TRAFFIC AS DIRECTED BY THE ENGINEER. PRIMARY LONGITUDINAL REINFORCING SHALL BE CONTINUOUS THRU ALL CONSTRUCTION JOINTS. ADDITIONAL LONGITUDINAL REINFORCING WITHIN CLOSURE POURS SHALL BE CONTINUOUS THROUGH EMERGENCY CONSTRUCTION JOINTS. UNTIL THE SLAB IS IN PLACE ON BOTH SIDES OF THE CONSTRUCTION JOINT AND AT LEAST 48 HOURS HAS ELAPSED SINCE CONCRETE PLACEMENT. NO HEAVY EQUIPMENT WILL BE PERMITTED ON THE FINISHED DECK SLAB WITHIN 6 FEET OF ANY CONSTRUCTION JOINT.

ALL CONSTRUCTION JOINTS WITHIN THE DECK SLAB SHALL BE SEALED USING HIGH MOLECULAR WEIGHT METHACRYLATE IN ACCORDANCE WITH SECTION 523 OF THE STANDARD SPECIFICATIONS. ALL COST OF THE HIGH MOLECULAR WEIGHT METHACRYLATE SEALER SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE OF "SEALER RESIN". ALL COST FOR EQUIPMENT AND LABOR FOR THE INSTALLATION OF THE HIGH MOLECULAR WEIGHT METHACRYLATE SEALER SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE OF "SEALER CRACK PREPARATION".

Preliminary Plans

PHASE 2 OKLAHOMA COUNTY
BRIDGE "B" RAMP "B" AT I-35 & I-240 INTERCHANGE

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

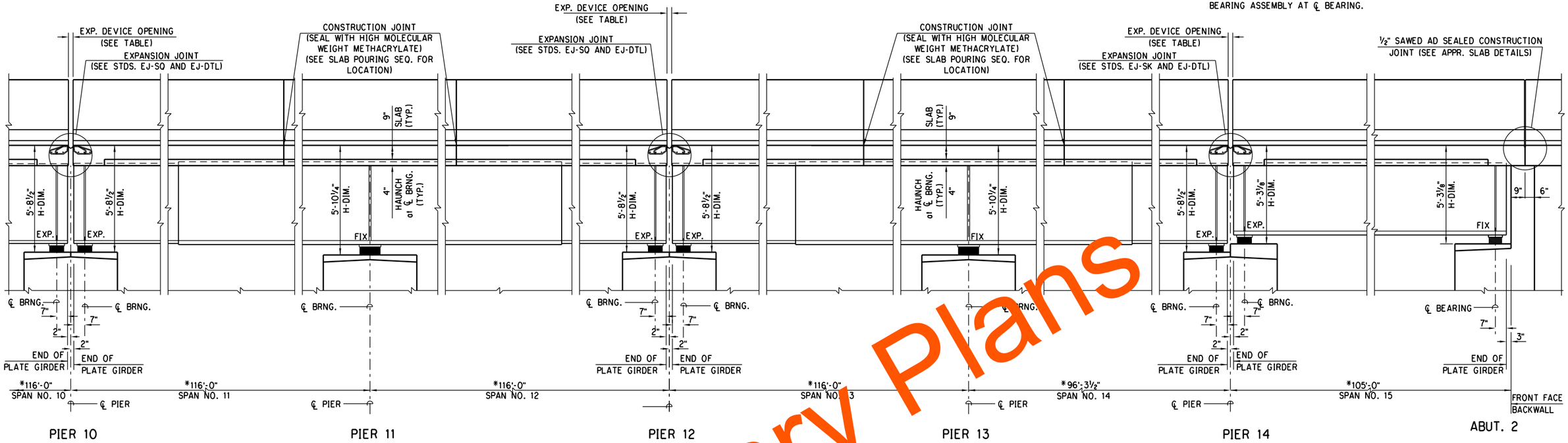
LONGITUDINAL SECTION AND SLAB POURING SEQUENCE
(SHEET 3 OF 4)

STATE JOB NO. 09032(06) SHEET NO. B114

6/1/2022 11:06:43 AM
H:\PROJECTS\2789_CrossRoads_Phase_2\Bridge\Drawings\Ph2 Bridges\BRIDGE B\0903206 P2 Bridge B Longl.dgn

DESCRIPTION	REVISIONS	DATE

NOTE:
H-DIMENSION SHOWN IS MEASURED FROM TOP OF SLAB TO BOTTOM OF BEARING ASSEMBLY AT ℄ BEARING.



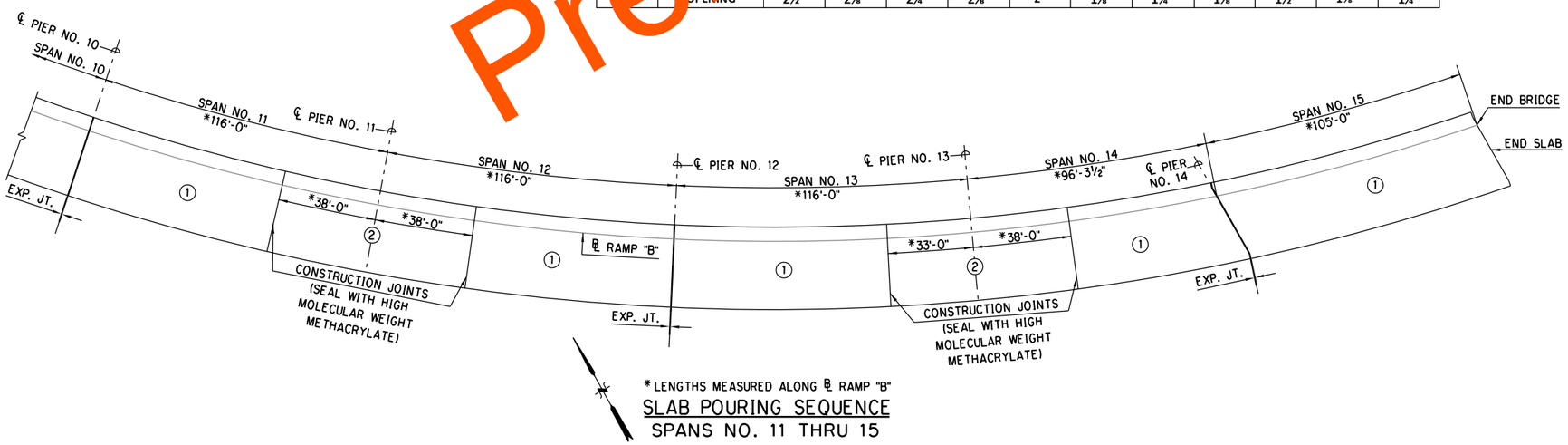
Preliminary Plans

LONGITUDINAL SECTIO

LENGTHS MEASURED ALONG ℄ RAMP "B"

TABLE OF EXPANSION DEVICE SETTINGS (SPANS NO. 11 THRU 15)

PIER NO. 10	TEMPERATURE	[illegible]°	[illegible]°	46°	53°	60°	67°	74°	81°	88°	95°	101°
	OPENING	2½"	2⅜"	2¼"	2⅛"	2"	1⅞"	1¾"	1⅝"	1½"	1⅜"	1¼"
PIER NO. 12	TEMPERATURE	33°	40°	46°	53°	60°	67°	74°	80°	87°	94°	101°
	OPENING	2½"	2 3/8"	2¼"	2⅛"	2"	1⅞"	1¾"	1⅝"	1½"	1⅜"	1¼"
PIER NO. [illegible]	TEMPERATURE	29°	37°	45°	52°	60°	68°	75°	83°	91°	99°	106°
	OPENING	2½"	2⅛"	2¼"	2⅛"	2"	1⅞"	1¾"	1⅝"	1½"	1⅜"	1¼"



*LENGTHS MEASURED ALONG ℄ RAMP "B"

SLAB POURING SEQUENCE
SPANS NO. 11 THRU 15

SLAB POURING SEQUENCE:

THE POURING SEQUENCE SHALL BE IN THE NUMERICAL SEQUENCE INDICATED. ALL POURS WITH THE SAME NUMBER MAY BE POURED EITHER SEPARATELY OR SIMULTANEOUSLY, BUT ALL POURS WITH THE SAME NUMBER SHALL BE COMPLETED BEFORE BEGINNING WITH THE NEXT POUR NUMBER. THERE SHALL BE A LAPSE OF AT LEAST 24 HOURS BETWEEN POURS OR WHEN THE PREVIOUS POUR REACHES A STRENGTH OF 3000 PSI. EACH POUR SHALL BE AT A MINIMUM RATE OF 25 L.F. PER HOUR.

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PHASE 2 — OKLAHOMA COUNTY

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

BRIDGE "B" — RAMP "B" AT I-35 & I-240 INTERCHANGE

LONGITUDINAL SECTION AND SLAB POURING SEQUENCE
(SHEET 4 OF 4)

STATE JOB NO. 09032(06) SHEET NO. B115

6/1/2022 11:06:43 AM
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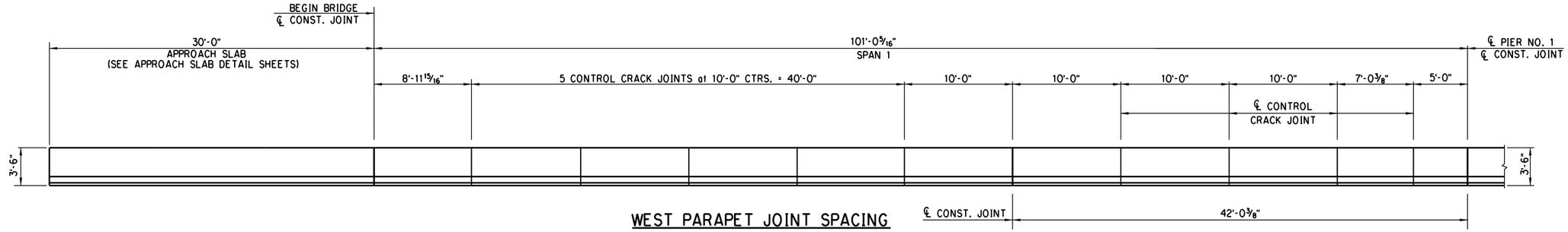
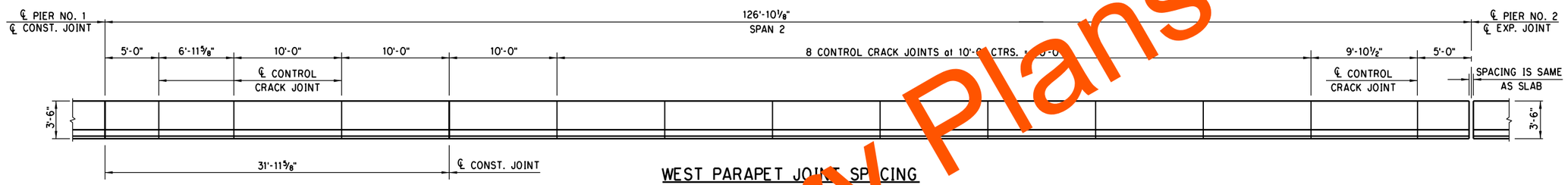
DESCRIPTION	REVISIONS	DATE



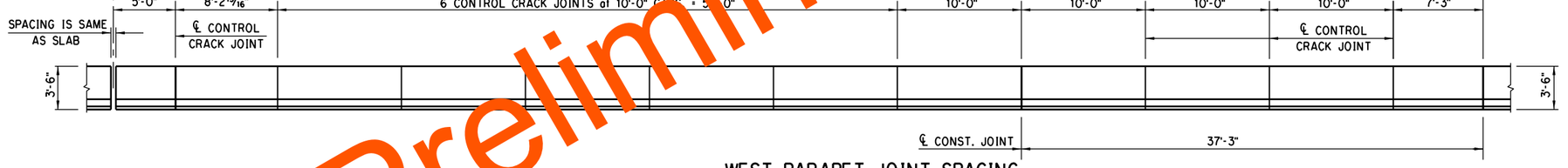
WEST PARAPET JOINT SPACING
SPAN NO. 1

(DIMENSIONS SHOWN ARE ALONG OUTSIDE EDGE OF SLAB)



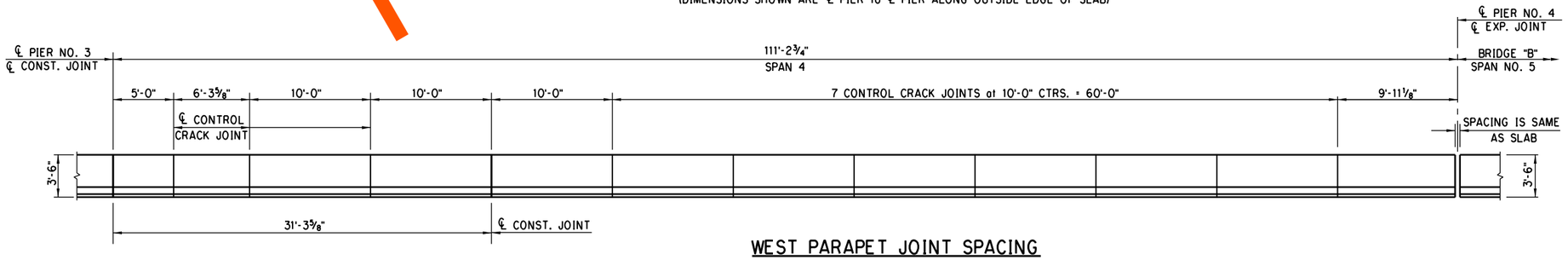
WEST PARAPET JOINT SPACING
SPAN NO. 2

(DIMENSIONS SHOWN ARE ℄ PIER to ℄ PIER ALONG OUTSIDE EDGE OF SLAB)



WEST PARAPET JOINT SPACING
SPAN NO. 3

(DIMENSIONS SHOWN ARE ℄ PIER to ℄ PIER ALONG OUTSIDE EDGE OF SLAB)



WEST PARAPET JOINT SPACING
SPAN NO. 4

(DIMENSIONS SHOWN ARE ℄ PIER to ℄ PIER ALONG OUTSIDE EDGE OF SLAB)

NOTE: FOR ADDITIONAL DETAILS.
SEE STD. FSHP-42-2.

Preliminary Plans

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 — OKLAHOMA COUNTY

BRIDGE "B" — RAMP "B" AT I-35 & I-240 INTERCHANGE

PARAPET LAYOUT
SPANS NO. 1 THRU 4

(SHEET 1 OF 8)

STATE JOB NO. 09032(06) SHEET NO. B116

6/1/2022 11:06:45 AM
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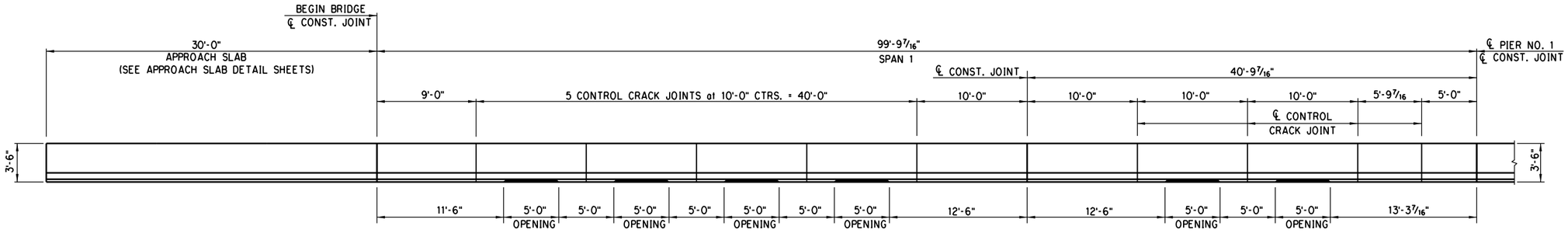
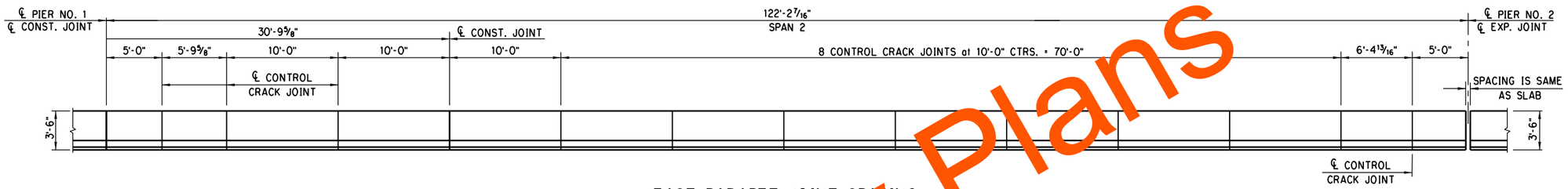
DESCRIPTION	REVISIONS	DATE



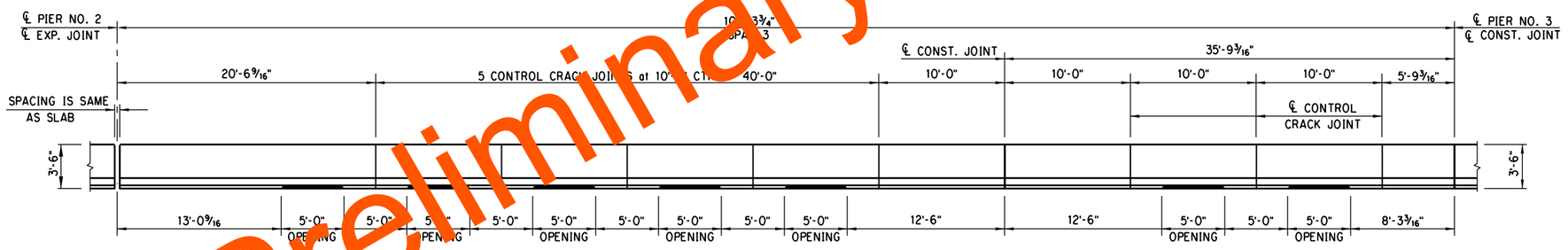
EAST PARAPET OPENING AND JOINT SPACING
SPAN NO. 1

(DIMENSIONS SHOWN ARE ALONG OUTSIDE EDGE OF SLAB)



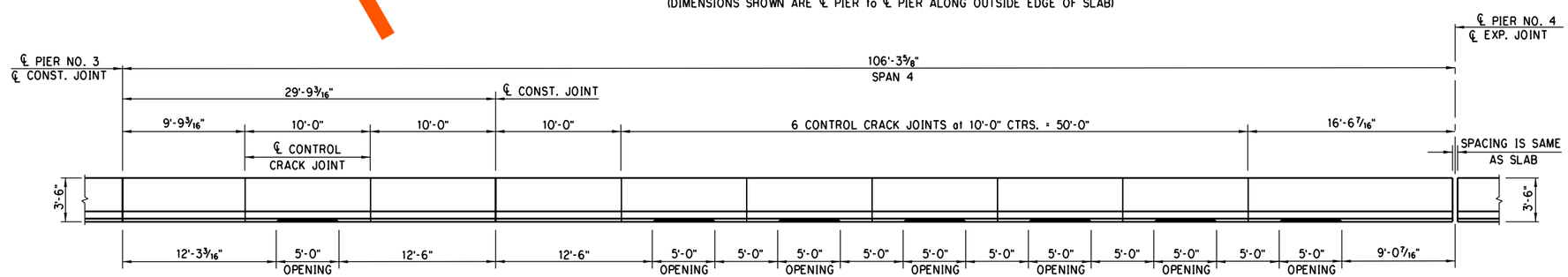
EAST PARAPET JOINT SPACING
SPAN NO. 2

(DIMENSIONS SHOWN ARE ℄ PIER to ℄ PIER ALONG OUTSIDE EDGE OF SLAB)



EAST PARAPET OPENING AND JOINT SPACING
SPAN NO. 3

(DIMENSIONS SHOWN ARE ℄ PIER to ℄ PIER ALONG OUTSIDE EDGE OF SLAB)



NOTE: FOR ADDITIONAL DETAILS,
SEE STD. FSHP-42-2.

EAST PARAPET OPENING AND JOINT SPACING
SPAN NO. 4

(DIMENSIONS SHOWN ARE ℄ PIER to ℄ PIER ALONG OUTSIDE EDGE OF SLAB)

Preliminary Plans

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 — OKLAHOMA COUNTY

BRIDGE "B" — RAMP "B" AT I-35 & I-240 INTERCHANGE

PARAPET LAYOUT
SPANS NO. 1 THRU 4

(SHEET 2 OF 8)

STATE JOB NO. 09032(06) SHEET NO. B117

6/1/2022 11:06:45 AM
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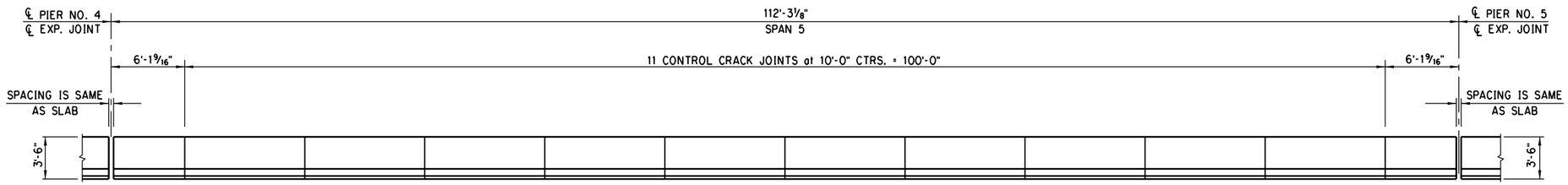
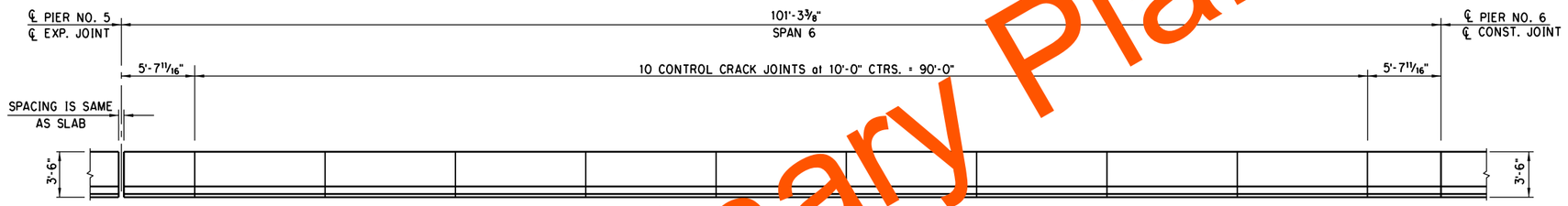
REVISIONS		
DESCRIPTION		DATE



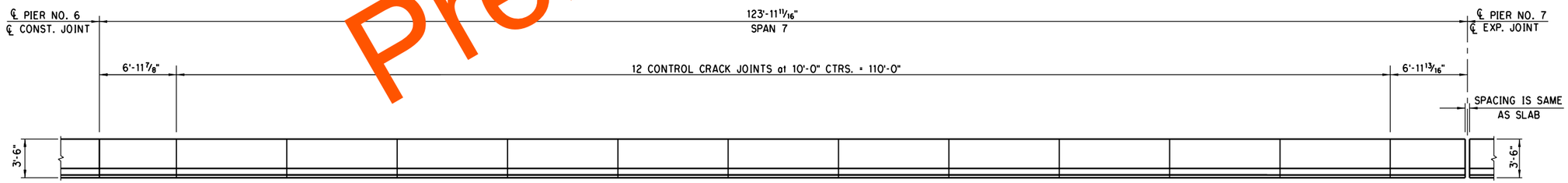
WEST PARAPET JOINT SPACING
SPAN NO. 5

(DIMENSIONS SHOWN ARE ℄ PIER to ℄ PIER ALONG OUTSIDE EDGE OF SLAB)



WEST PARAPET JOINT SPACING
SPAN NO. 6

(DIMENSIONS SHOWN ARE ℄ PIER to ℄ PIER ALONG OUTSIDE EDGE OF SLAB)



WEST PARAPET JOINT SPACING
SPAN NO. 7

(DIMENSIONS SHOWN ARE ℄ PIER to ℄ PIER ALONG OUTSIDE EDGE OF SLAB)

NOTE: FOR ADDITIONAL DETAILS.
SEE STD. FSHP-42-2.

Preliminary Plans

6/1/2022 11:06:45 AM
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DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 OKLAHOMA COUNTY

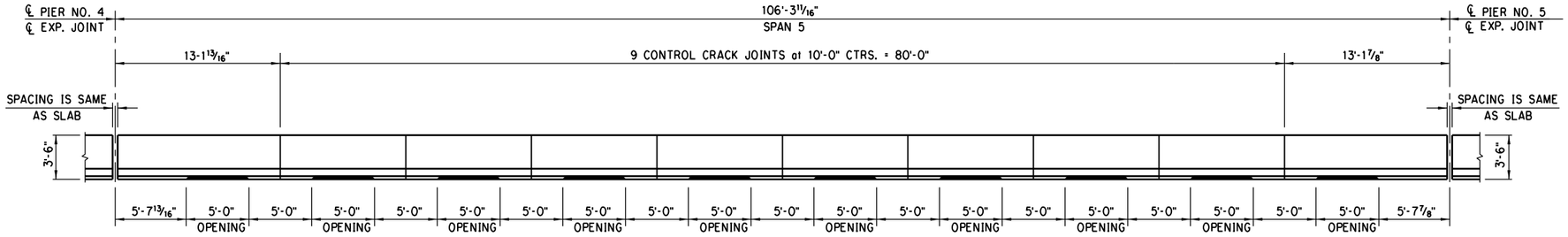
BRIDGE "B" RAMP "B" AT I-35 & I-240 INTERCHANGE

PARAPET LAYOUT
SPANS NO. 5 THRU 7

(SHEET 3 OF 8)

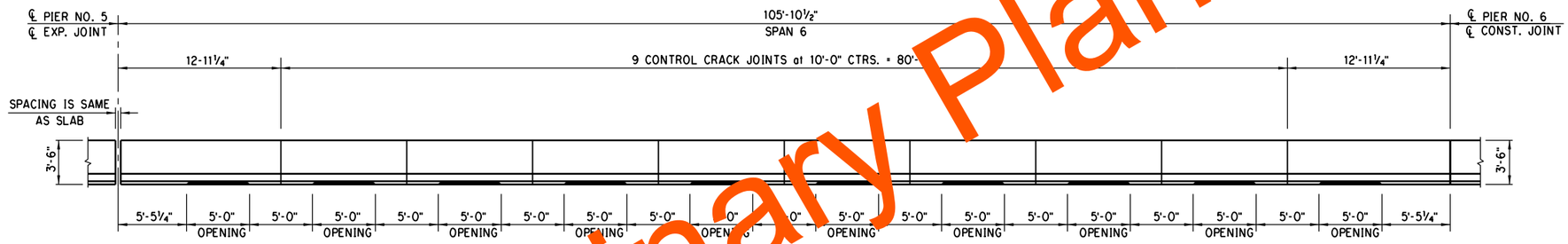
STATE JOB NO. 09032(06) SHEET NO. B118

REVISIONS		
DESCRIPTION		DATE



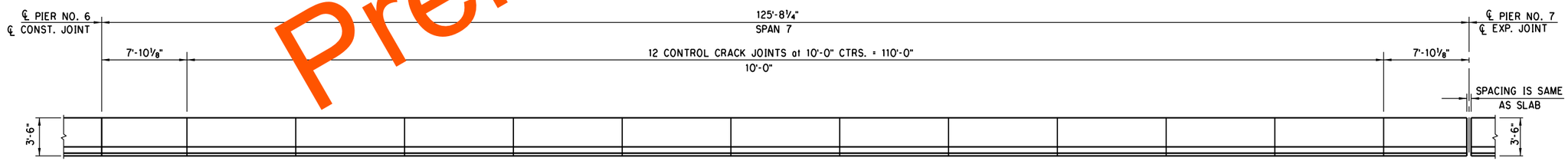
EAST PARAPET OPENINGS AND JOINT SPACING
SPAN NO. 5

(DIMENSIONS SHOWN ARE ℄ PIER to ℄ PIER ALONG OUTSIDE EDGE OF SLAB)



EAST PARAPET OPENINGS AND JOINT SPACING
SPAN NO. 6

(DIMENSIONS SHOWN ARE ℄ PIER to ℄ PIER ALONG OUTSIDE EDGE OF SLAB)



EAST PARAPET JOINT SPACING
SPAN NO. 7

(DIMENSIONS SHOWN ARE ℄ PIER to ℄ PIER ALONG OUTSIDE EDGE OF SLAB)

NOTE: FOR ADDITIONAL DETAILS.
SEE STD. FSHP-42-2.

Preliminary Plans

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 — OKLAHOMA COUNTY

BRIDGE "B" — RAMP "B" AT I-35 & I-240 INTERCHANGE

PARAPET LAYOUT
SPANS NO. 5 THRU 7

(SHEET 4 OF 8)

STATE JOB NO. 09032(06) SHEET NO. B119

6/1/2022 11:06:46 AM
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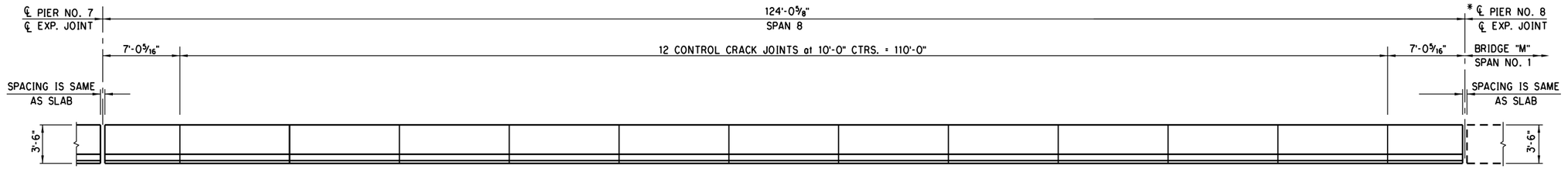
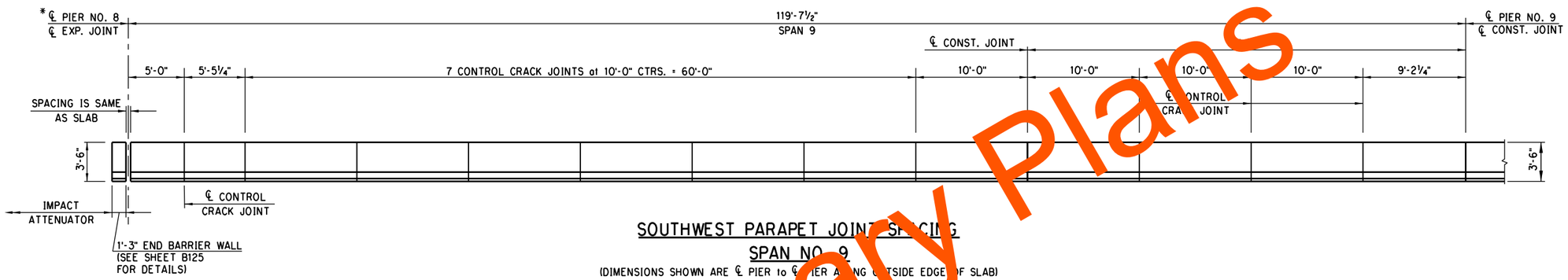
REVISIONS		
DESCRIPTION		DATE

* PIER NO. 8 BRIDGE "B" = PIER NO. 1 BRIDGE "M"



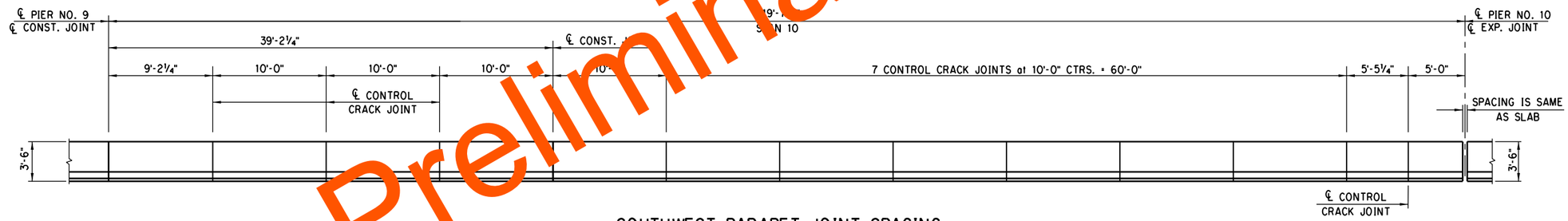
SOUTHWEST PARAPET JOINT SPACING
SPAN NO. 8

(DIMENSIONS SHOWN ARE ℄ PIER to ℄ PIER ALONG OUTSIDE EDGE OF SLAB)



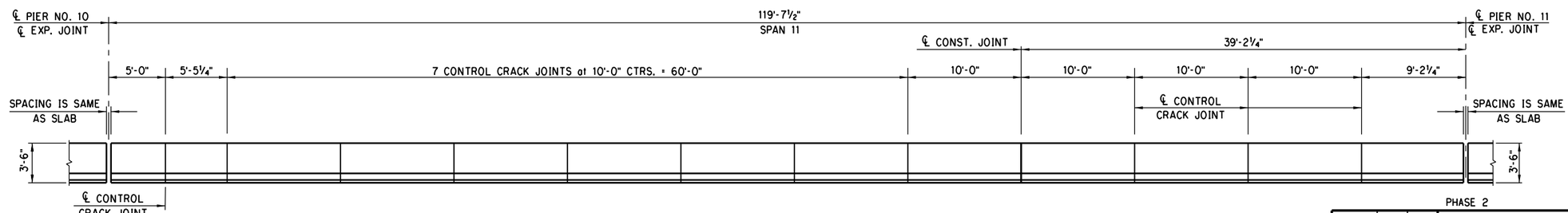
SOUTHWEST PARAPET JOINT SPACING
SPAN NO. 9

(DIMENSIONS SHOWN ARE ℄ PIER to ℄ PIER ALONG OUTSIDE EDGE OF SLAB)



SOUTHWEST PARAPET JOINT SPACING
SPAN NO. 10

(DIMENSIONS SHOWN ARE ℄ PIER to ℄ PIER ALONG OUTSIDE EDGE OF SLAB)



NOTE: FOR ADDITIONAL DETAILS.
SEE STD. FSHP-42-2.

SOUTHWEST PARAPET JOINT SPACING
SPAN NO. 11

(DIMENSIONS SHOWN ARE ℄ PIER to ℄ PIER ALONG OUTSIDE EDGE OF SLAB)

Preliminary Plans

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 — OKLAHOMA COUNTY

BRIDGE "B" — RAMP "B" AT I-35 & I-240 INTERCHANGE

PARAPET LAYOUT
SPANS NO. 8 THRU 11
(SHEET 5 OF 8)

STATE JOB NO. 09032(06) SHEET NO. B120

6/1/2022 11:06:46 AM
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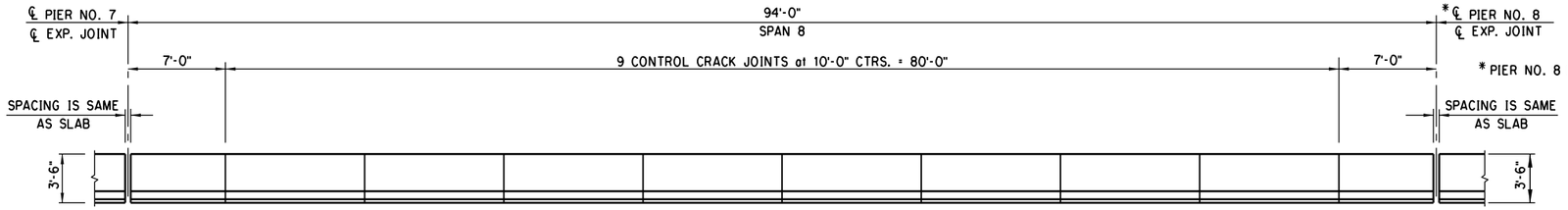
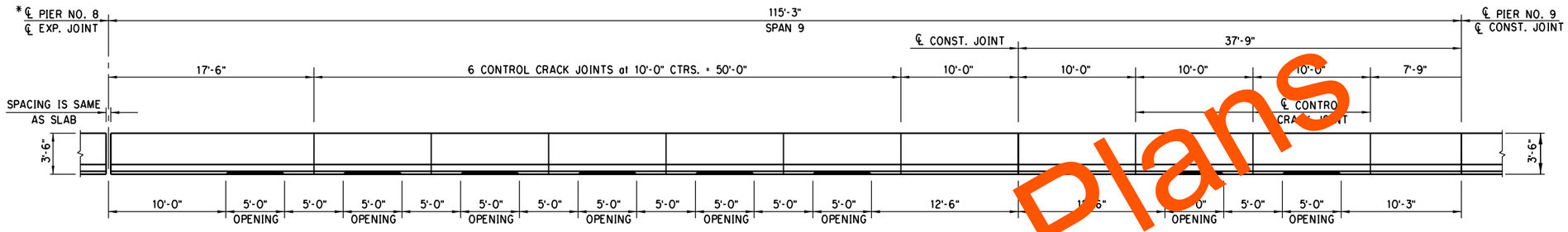
DESCRIPTION	REVISIONS	DATE



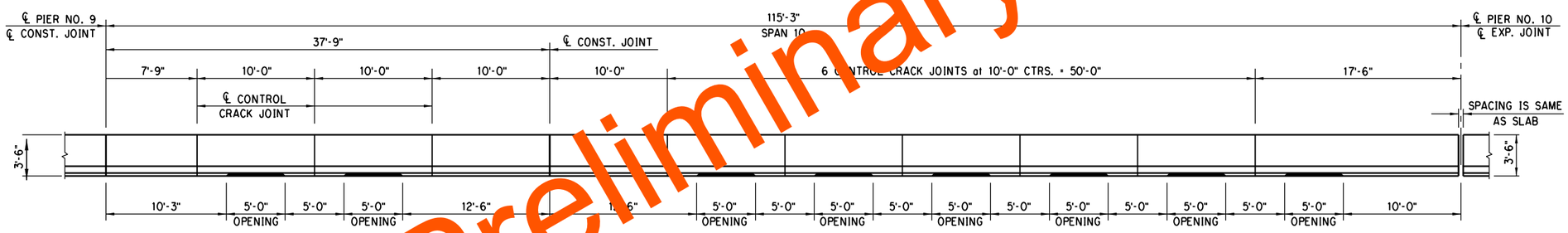
NORTHEAST JOINT SPACING
SPAN NO. 8

(DIMENSIONS SHOWN ARE ℄ PIER to ℄ PIER ALONG OUTSIDE EDGE OF SLAB)



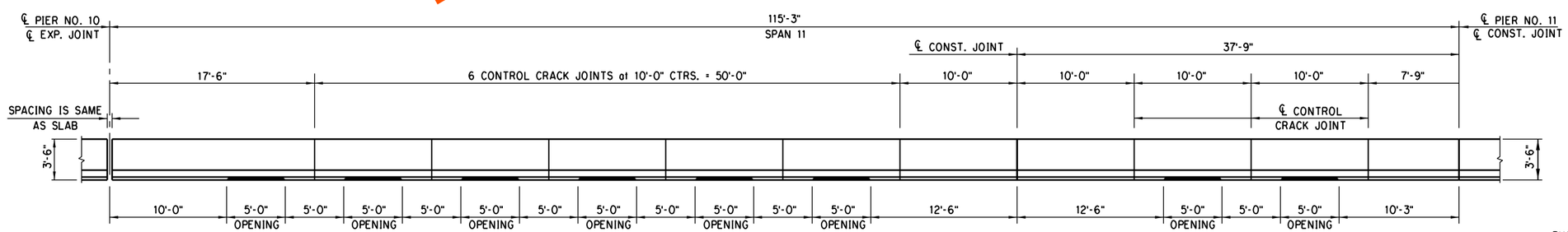
NORTHEAST PARAPET OPENINGS AND JOINT SPACING
SPAN NO. 9

(DIMENSIONS SHOWN ARE ℄ PIER to ℄ PIER ALONG OUTSIDE EDGE OF SLAB)



NORTHEAST PARAPET OPENINGS AND JOINT SPACING
SPAN NO. 10

(DIMENSIONS SHOWN ARE ℄ PIER to ℄ PIER ALONG OUTSIDE EDGE OF SLAB)



NOTE: FOR ADDITIONAL DETAILS, SEE STD. FSHP-42-2.

NORTHEAST PARAPET OPENINGS AND JOINT SPACING
SPAN NO. 11

(DIMENSIONS SHOWN ARE ℄ PIER to ℄ PIER ALONG OUTSIDE EDGE OF SLAB)

Preliminary Plans

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 — OKLAHOMA COUNTY

BRIDGE "B" — RAMP "B" AT I-35 & I-240 INTERCHANGE

PARAPET LAYOUT
SPANS NO. 8 THRU 11
(SHEET 6 OF 8)

STATE JOB NO. 09032(06) SHEET NO. B121

6/1/2022 11:06:46 AM
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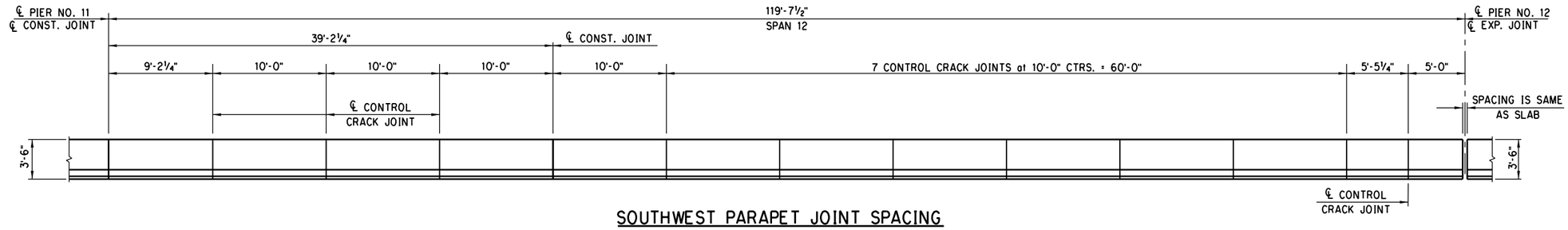
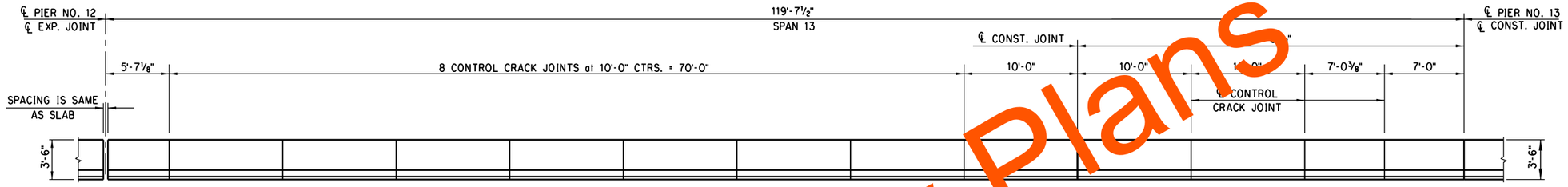
DESCRIPTION	REVISIONS	DATE



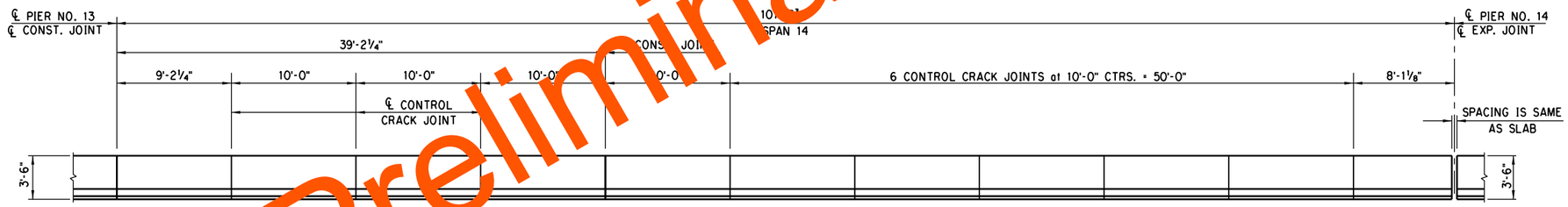
SOUTHWEST PARAPET JOINT SPACING
SPAN NO. 12

(DIMENSIONS SHOWN ARE ℄ PIER to ℄ PIER ALONG OUTSIDE EDGE OF SLAB)



SOUTHWEST PARAPET JOINT SPACING
SPAN NO. 13

(DIMENSIONS SHOWN ARE ℄ PIER to ℄ PIER ALONG OUTSIDE EDGE OF SLAB)



SOUTHWEST PARAPET JOINT SPACING
SPAN NO. 14

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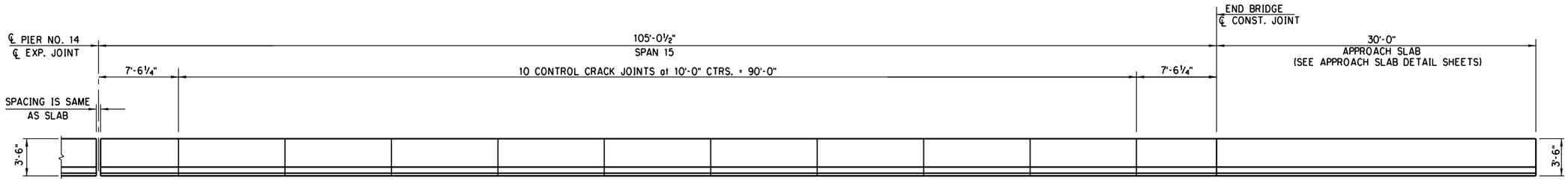

NOTE: FOR ADDITIONAL DETAILS.
SEE STD. FSHP-42-2.

SOUTHWEST PARAPET JOINT SPACING
SPAN NO. 15

(DIMENSIONS SHOWN ARE ℄ PIER to ℄ PIER ALONG OUTSIDE EDGE OF SLAB)

Preliminary Plans

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 — OKLAHOMA COUNTY

BRIDGE "B" — RAMP "B" AT I-35 & I-240 INTERCHANGE

PARAPET LAYOUT
SPANS NO. 12 THRU 15

(SHEET 7 OF 8)

STATE JOB NO. 09032(06) SHEET NO. B122

6/1/2022 11:06:47 AM
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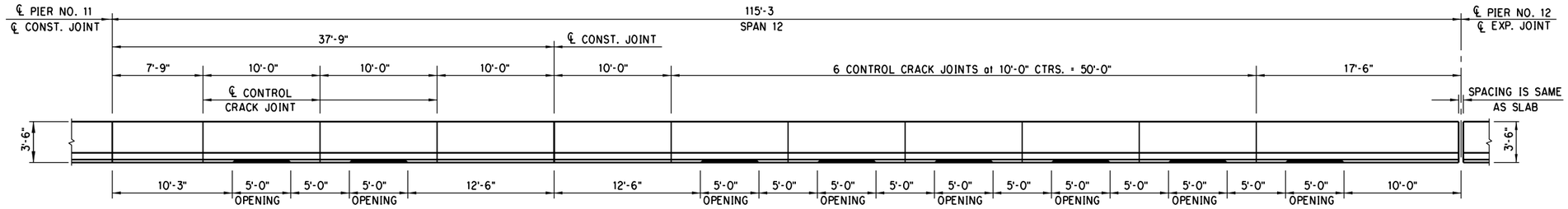
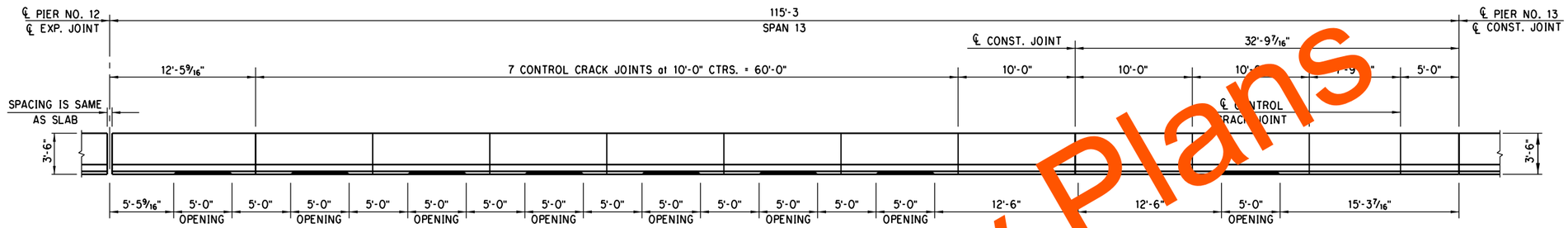
REVISIONS		
DESCRIPTION		DATE



NORTHEAST PARAPET OPENINGS AND JOINT SPACING
SPAN NO. 12

(DIMENSIONS SHOWN ARE ℄ PIER to ℄ PIER ALONG OUTSIDE EDGE OF SLAB)



NORTHEAST PARAPET OPENINGS AND JOINT SPACING
SPAN NO. 13

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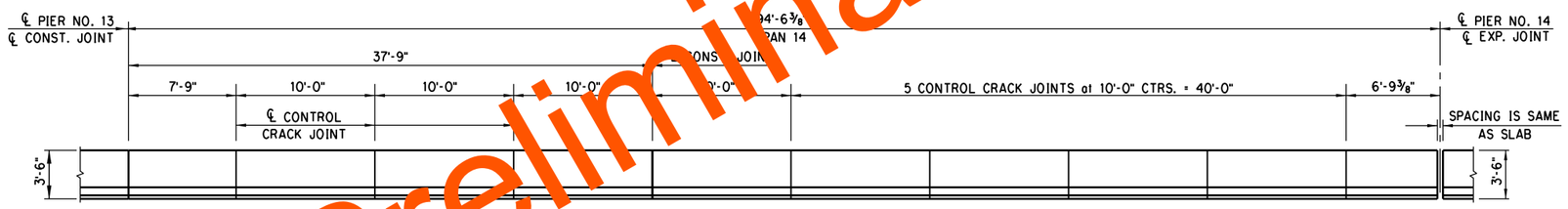

NORTHEAST PARAPET JOINT SPACING
SPAN NO. 14

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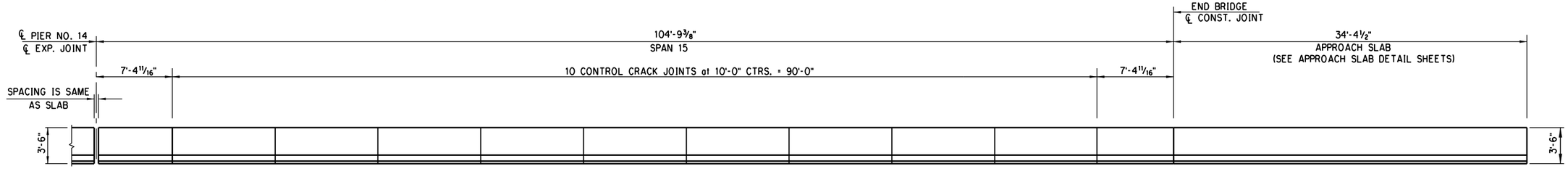

NORTHEAST PARAPET JOINT SPACING
SPAN NO. 15

(DIMENSIONS SHOWN ARE ℄ PIER to ℄ PIER ALONG OUTSIDE EDGE OF SLAB)

NOTE: FOR ADDITIONAL DETAILS.
SEE STD. FSHP-42-2.

Preliminary Plans

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 — OKLAHOMA COUNTY

BRIDGE "B" — RAMP "B" AT I-35 & I-240 INTERCHANGE

PARAPET LAYOUT
SPANS NO. 12 THRU 15

(SHEET 8 OF 8)

STATE JOB NO. 09032(06) SHEET NO. B123

6/1/2022 11:06:47 AM
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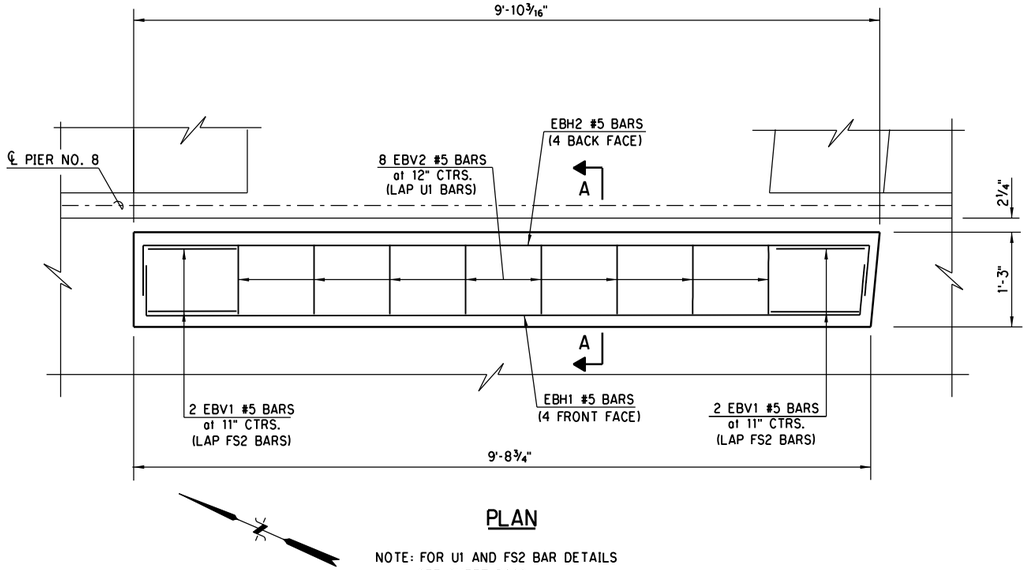
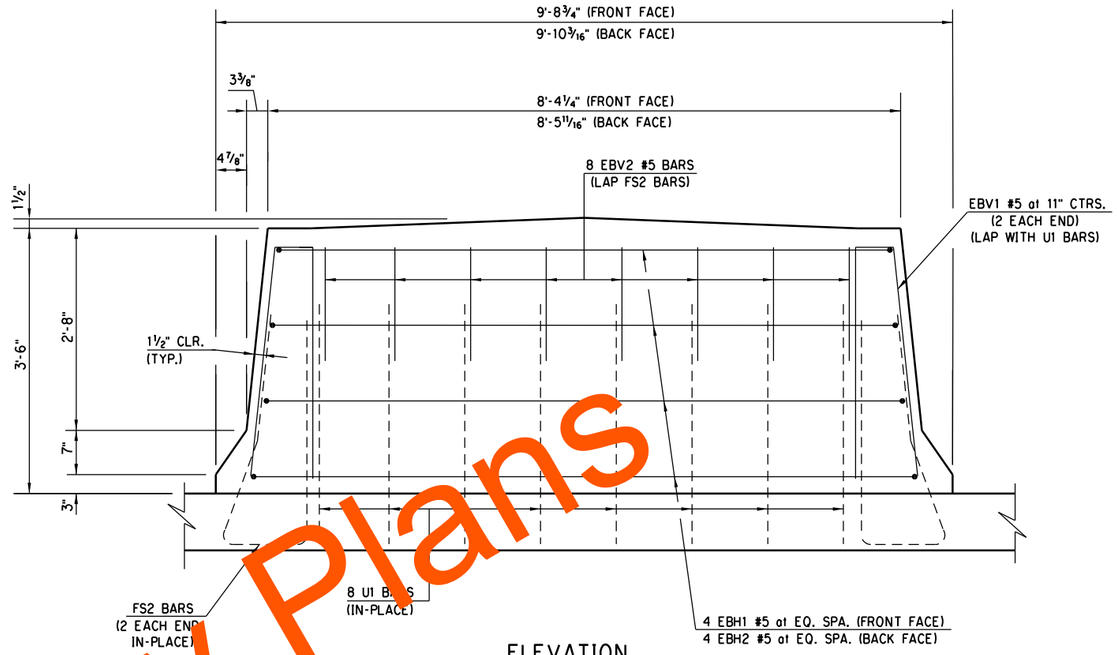
DESCRIPTION	REVISIONS	DATE

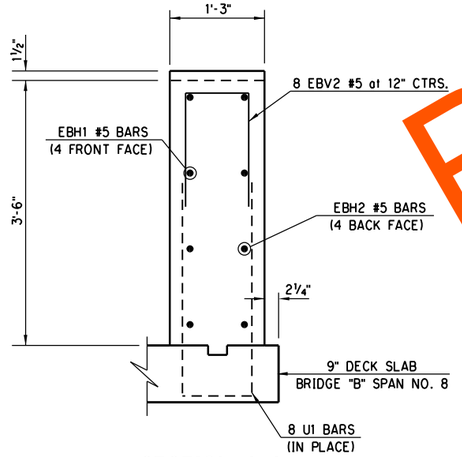


PLAN

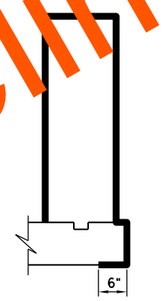
NOTE: FOR U1 AND FS2 BAR DETAILS SEE SHEET B099.



ELEVATION

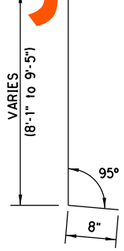


SECTION A-A

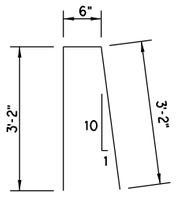


WATER REPELLENT SURFACE TREATMENT

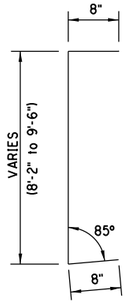
SURFACES INDICATED WITH HEAVY LINES SHALL BE TREATED WITH A PENETRATING WATER REPELLENT SEALER.



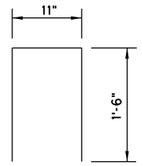
EBH1 #5 x 10'-1" AVG. (9'-5" to 10'-9")



EBV1 #5 x 6'-9"



EBH2 #5 x 10'-2" AVG. (9'-6" to 10'-10")



EBV2 #5 x 3'-11"

END BARRIER BAR LIST (EPOXY COATED)

MARK	NO.	SIZE	FORM	SPACING	LENGTH	LENGTH VARIATION
EBH1	4	#5	BENT	EQUAL	10'-1" AVG.	9'-5" TO 10'-9"
EBH2	4	#5	BENT	EQUAL	10'-2" AVG.	9'-6" TO 10'-10"
EBV1	4	#5	STR.	11"C/C	6'-9"	--
EBV2	8	#5	STR.	12"C/C	3'-11"	--

END BARRIER QUANTITIES

ITEM	UNIT	TOTAL
CLASS AA CONCRETE	C.Y.	1.5
EPOXY COATED REINFORCING STEEL	LB.	150
WATER REPELLENT (VISUALLY INSPECTED)	S.Y.	11

ALL BAR BEND DIMENSIONS ARE OUT TO OUT.

Preliminary Plans

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 — OKLAHOMA COUNTY

BRIDGE "B" — RAMP "B" AT I-35 & I-240 INTERCHANGE

END BARRIER LAYOUT

STATE JOB NO. 09032(06) — SHEET NO. B124

6/1/2022 11:06:48 AM
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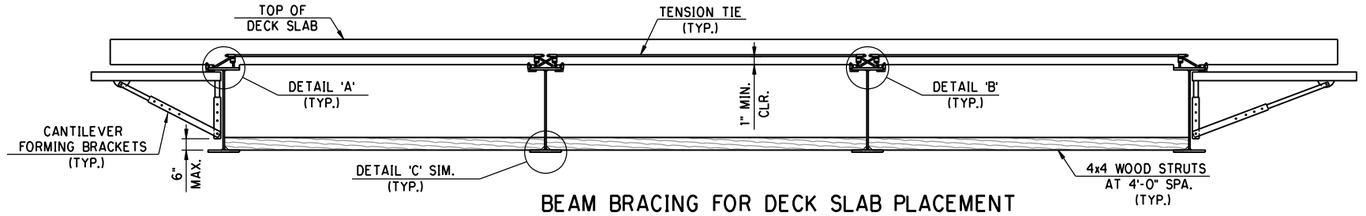
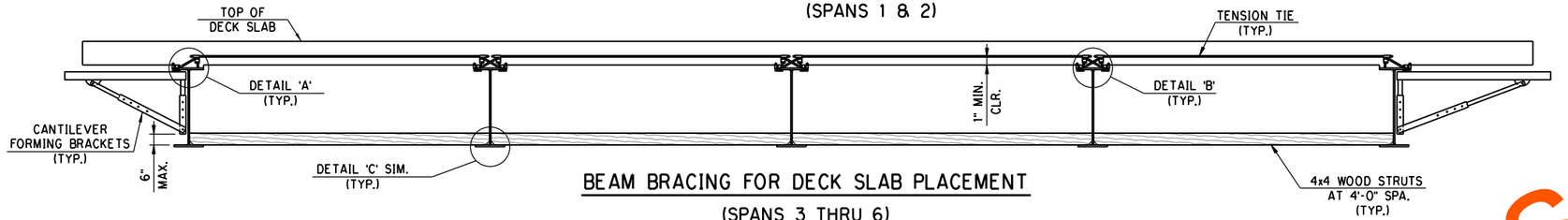
DESCRIPTION	REVISIONS	DATE

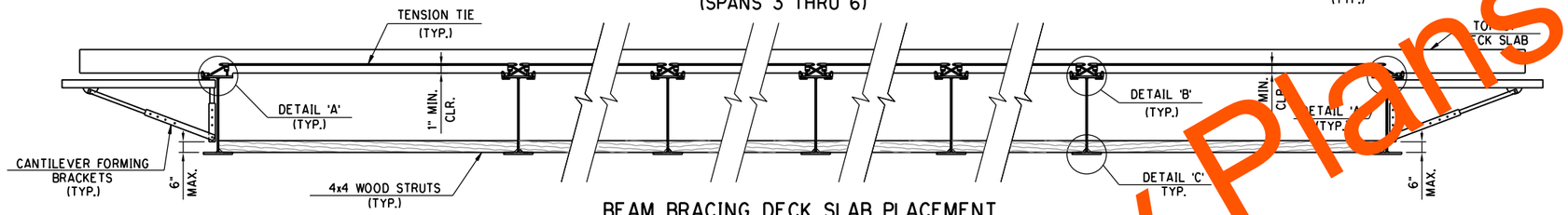
NOTE:
SPACING OF FORMING BRACES, TENSION TIES, AND HARDWOOD STRUTS TO BE DETERMINED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF OKLAHOMA FOR THE LOADS ANTICIPATED DURING CONSTRUCTION. SEE GENERAL NOTES FOR ADDITIONAL DETAILS.



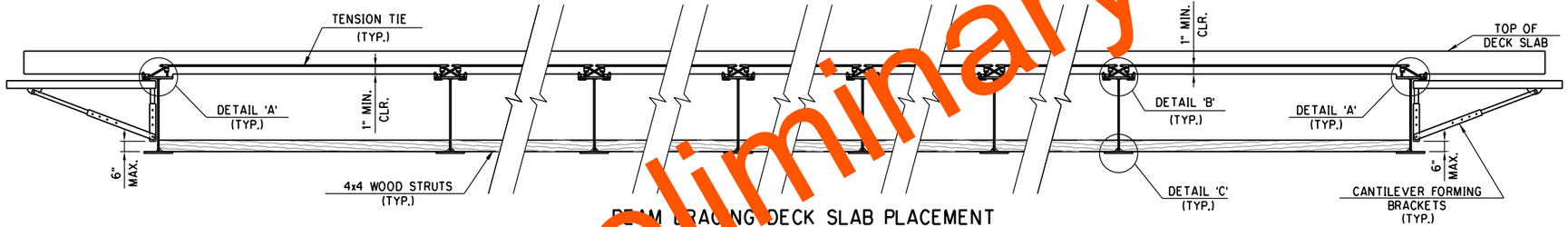
BEAM BRACING FOR DECK SLAB PLACEMENT
(SPANS 1 & 2)



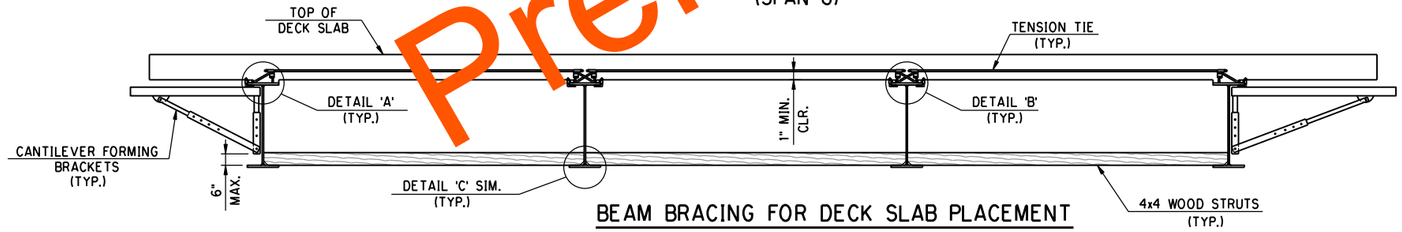
BEAM BRACING FOR DECK SLAB PLACEMENT
(SPANS 3 THRU 6)



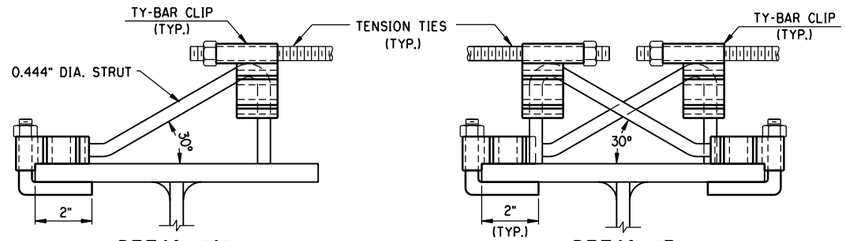
BEAM BRACING DECK SLAB PLACEMENT
(SPAN 7)



BEAM BRACING DECK SLAB PLACEMENT
(SPAN 8)

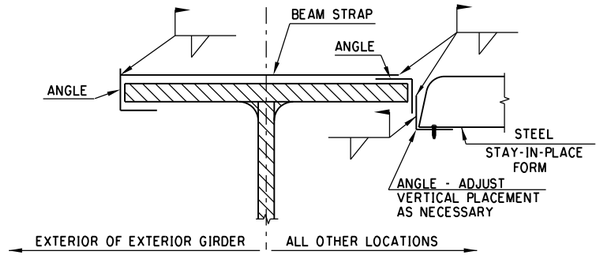


BEAM BRACING FOR DECK SLAB PLACEMENT
(SPANS 9 THRU 15)



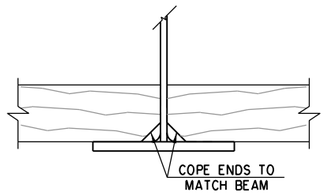
DETAIL 'A'

DETAIL 'B'



STEEL STAY-IN-PLACE FORMS FLANGE CONNECTION DETAIL

REPORT ANY ARC STRIKE, WELD SPLATTER OR WELDING ON TOP FLANGE TO BRIDGE ENGINEER IMMEDIATELY.



DETAIL 'C'

BRACING NOTES

SUBMIT DRAWINGS OF THE BRACING SYSTEM TO THE BRIDGE ENGINEER FOR APPROVAL. BRACING SYSTEMS OTHER THAN THAT SHOWN MAY BE USED IF DESIGN CALCULATIONS AND DRAWINGS OF THE PROPOSED BRACING SYSTEM ARE SUBMITTED TO AND APPROVED BY THE BRIDGE ENGINEER. DRAWINGS AND CALCULATIONS OF THE PROPOSED SYSTEM SHALL BE SIGNED AND SEALED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF OKLAHOMA. DO NOT PLACE SLAB CONCRETE UNTIL BRACING SYSTEM IS APPROVED. THE DEPARTMENT CONSIDERS ALL COST FOR BRACING TO BE INCLUDED IN OTHER ITEMS OF WORK.

USE ADJUSTABLE CANTILEVER FORMING BRACKETS AT EXTERIOR BEAMS CAPABLE OF BEING ADJUSTED DURING THE PLACEMENT OF DECK SLAB CONCRETE IN ORDER TO MAINTAIN PROPER GRADES AT THE DECK OVERHANG. IF SHIMS ARE TO BE USED TO ADJUST THE FORMING BRACKETS, PROVIDE THE BRIDGE ENGINEER A METHOD TO PREDICT CRUSH AND SETTLEMENT OF SHIMS. BEAR THE LEG BRACE OF THE BRACKETS ON THE BEAM WEB WITHIN 6 INCHES OF THE BOTTOM FLANGE.

TENSION TIES SHALL BE A MINIMUM #4 EPOXY-COATED REINFORCING STEEL BARS WITH THREADED ENDS OR ½" DIA. GALVANIZED ALL-THREAD, FURNISHED BY THE CONTRACTOR. THE TENSION TIES SHALL BE PLACED PERPENDICULAR TO THE GIRDERS. TENSION TIES SHALL BE ATTACHED TO THE TOP FLANGE OF GIRDERS BY MEANS OF TY-BAR CLIPS AS SHOWN ON THE DETAILS. WELDING OF CLIPS TO THE TOP FLANGE OF GIRDERS WILL NOT BE PERMITTED.

WOOD STRUTS SHALL BE HARDWOOD OR OF AN EQUIVALENT STRENGTH MATERIAL. WEDGE STRUTS BETWEEN GIRDER WEBS WITHIN 6" OF THE BOTTOM FLANGE OF EACH GIRDER. LOCATE WOOD STRUTS WHERE THE TOP OF THE GIRDERS ARE TIED TOGETHER WITH TENSION TIES.

BRACING SYSTEM SHOWN FOR ILLUSTRATION PURPOSES ONLY. ALTERNATIVE SYSTEMS MAY BE CONSIDERED. SEE GENERAL NOTES FOR DESIGN REQUIREMENTS AND LIMITATIONS.

Preliminary Plans

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 — OKLAHOMA COUNTY
BRIDGE "B" — RAMP "B" AT I-35 & I-240 INTERCHANGE

GIRDER BRACING DETAILS

STATE JOB NO. 09032(106) SHEET NO. B125

6/1/2022 10:06:49 AM
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DESCRIPTION	REVISIONS	DATE

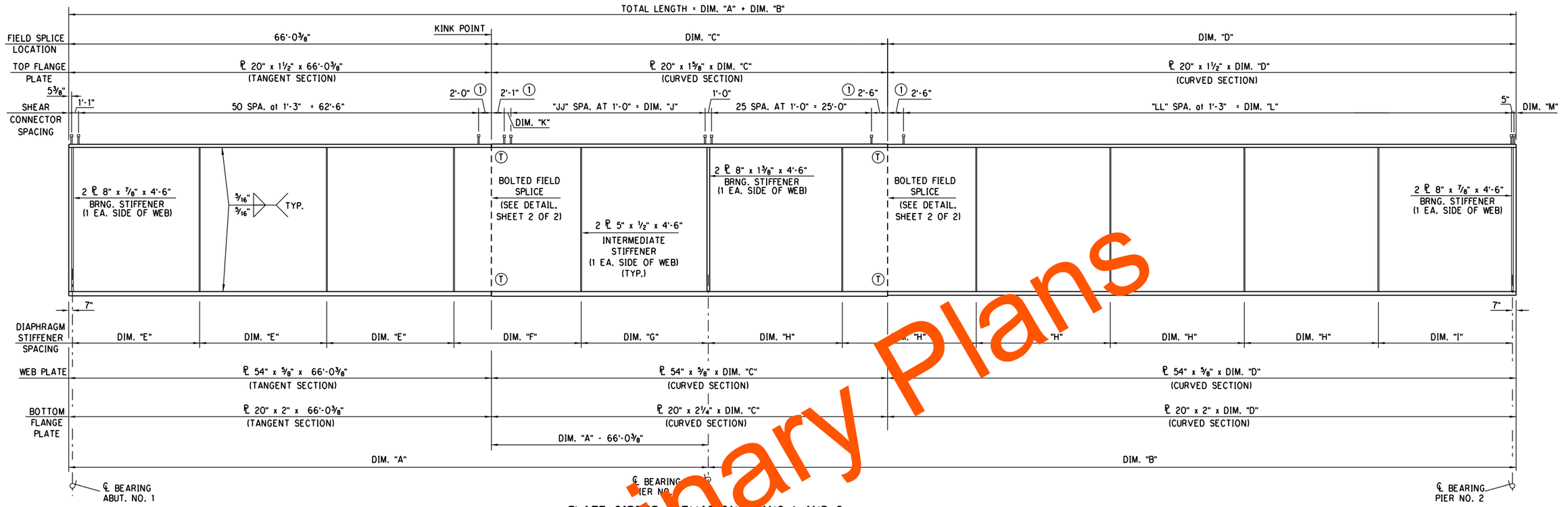
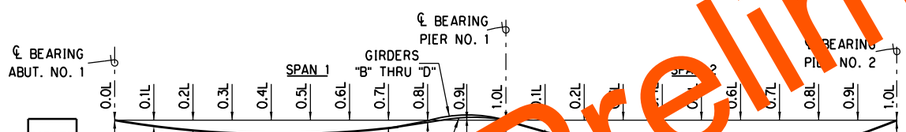


PLATE GIRDER ELEVATION SPANS 1 AND 2

(T) EXPANSION SPLICE

(1) SEE LEFT & RIGHT STUD SPACING THROUGH FIELD SPLICE (SHEET 2 OF 2)

NOTE: GIRDER DIMENSIONS ARE ALONG ℄ OF WEB.



	GIRDER LINE	0.0L	0.1L	0.2L	0.3L	0.4L	0.5L	0.6L	0.7L	0.8L	0.9L	1.0L	1.1L	0.2L	0.3L	0.4L	0.5L	0.6L	0.7L	0.8L	0.9L	1.0L
DECK SLAB, HAUNCH, RAIL & 5 psf SIP FORMS (IN INCHES)	A	0.00	0.16	0.29	0.38	0.40	0.36	0.27	0.16	0.04	0.03	0.00	0.23	0.58	0.94	1.24	1.42	1.44	1.29	0.97	0.52	0.00
	B	0.00	0.15	0.27	0.34	0.35	0.30	0.21	0.10	0.01	0.06	0.00	0.20	0.71	1.14	1.50	1.70	1.72	1.54	1.16	0.63	0.00
	C	0.00	0.13	0.24	0.29	0.29	0.23	0.14	0.03	0.06	0.09	0.00	0.34	0.83	1.33	1.74	1.97	1.99	1.78	1.34	0.72	0.00
	D	0.00	0.11	0.19	0.23	0.22	0.15	0.06	0.05	0.12	0.13	0.00	0.40	0.95	1.52	1.98	2.24	2.26	2.02	1.52	0.82	0.00
TOTAL DEFLECTION (NO FUTURE WEARING SURFACE) (IN INCHES)	A	0.00	0.22	0.39	0.50	0.53	0.48	0.36	0.21	0.06	0.03	0.00	0.30	0.76	1.25	1.65	1.89	1.91	1.71	1.29	0.70	0.00
	B	0.00	0.20	0.36	0.45	0.46	0.40	0.28	0.13	0.01	0.08	0.00	0.38	0.94	1.51	1.99	2.26	2.29	2.04	1.54	0.83	0.00
	C	0.00	0.18	0.31	0.38	0.38	0.31	0.19	0.04	0.08	0.12	0.00	0.46	1.10	1.77	2.31	2.62	2.65	2.36	1.78	0.96	0.00
	D	0.00	0.15	0.26	0.31	0.29	0.21	0.08	0.06	0.16	0.17	0.00	0.53	1.27	2.02	2.63	2.98	3.01	2.68	2.02	1.09	0.00

DEAD LOAD DEFLECTION DIAGRAM AND DEFLECTION SCHEDULE

SPANS 1 & 2 GIRDER DIMENSION SCHEDULE

GIRDER	TOTAL LENGTH	DIM "A"	DIM "B"	DIM "C"	DIM "D"	DIM "E"	DIM "F"	DIM "G"	DIM "H"	DIM "I"	"JJ"	DIM "J"	DIM "K"	"LL"	DIM "L"	DIM "M"	CURVE RADIUS
A	222'-5"	98'-11"	122'-6"	60'-10 5/8"	94'-6"	19'-10 3/8"	19'-5 1/2"	19'-3 3/8"	20'-3 13/16"	20'-3 5/8"	30	30'-0"	3 5/8"	73	91'-3"	4"	846.58'
B	222'-11 7/8"	99'-3"	123'-8 7/8"	61'-2 5/8"	95'-8 7/8"	19'-10 3/8"	19'-7 1/8"	19'-5 3/4"	20'-6 5/16"	20'-6 5/16"	30	30'-0"	7 5/8"	74	92'-6"	3 7/8"	855.08'
C	224'-6 1/2"	99'-6 7/8"	124'-11 5/8"	61'-6 1/2"	96'-11 5/8"	19'-10 3/8"	19'-8 3/4"	19'-8"	20'-8 3/4"	20'-8 1/4"	30	30'-0"	11 1/2"	75	93'-9"	3 5/8"	863.58'
D	226'-1 1/4"	99'-10 7/8"	126'-2 3/8"	61'-10 1/2"	98'-2 3/8"	19'-10 3/8"	19'-10 3/8"	19'-10 3/8"	20'-11 1/4"	20'-11 1/8"	31	31'-0"	3 1/2"	76	95'-0"	3 3/8"	872.08'

DECK SLAB ELEVATION SCHEDULE AT 10TH POINTS

GIRDER	SPAN 1										SPAN 2										
	ABUT. BRNG.	0.1L	0.2L	0.3L	0.4L	0.5L	0.6L	0.7L	0.8L	0.9L	PIER 1 BRNG.	0.1L	0.2L	0.3L	0.4L	0.5L	0.6L	0.7L	0.8L	0.9L	PIER 2 BRNG.
A	1308.09	1308.57	1309.03	1309.49	1309.94	1310.39	1310.82	1311.25	1311.68	1312.09	1312.50	1312.99	1313.48	1313.96	1314.43	1314.89	1315.34	1315.77	1316.19	1316.60	1317.00
B	1308.29	1308.79	1309.29	1309.78	1310.26	1310.73	1311.20	1311.65	1312.10	1312.54	1312.97	1313.50	1313.99	1314.48	1314.94	1315.40	1315.85	1316.28	1316.70	1317.11	1317.51
C	1308.49	1309.02	1309.55	1310.06	1310.58	1311.08	1311.57	1312.06	1312.53	1312.99	1313.45	1314.01	1314.50	1314.99	1315.45	1315.91	1316.36	1316.79	1317.21	1317.62	1318.02
D	1308.69	1309.25	1309.80	1310.35	1310.89	1311.42	1311.95	1312.46	1312.96	1313.44	1313.92	1314.52	1315.01	1315.50	1315.96	1316.42	1316.87	1317.30	1317.72	1318.13	1318.53

Preliminary Plans

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 — OKLAHOMA COUNTY

BRIDGE "B" — RAMP "B" AT I-35 & I-240 INTERCHANGE

PLATE GIRDER DETAILS SPANS 1 AND 2

(SHEET 1 OF 2)

STATE JOB NO. 09032(06) — SHEET NO. B126

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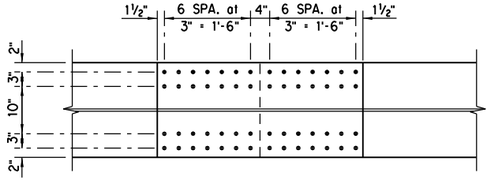
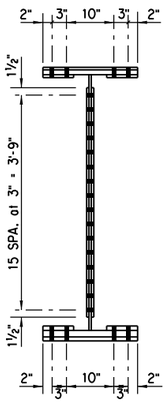
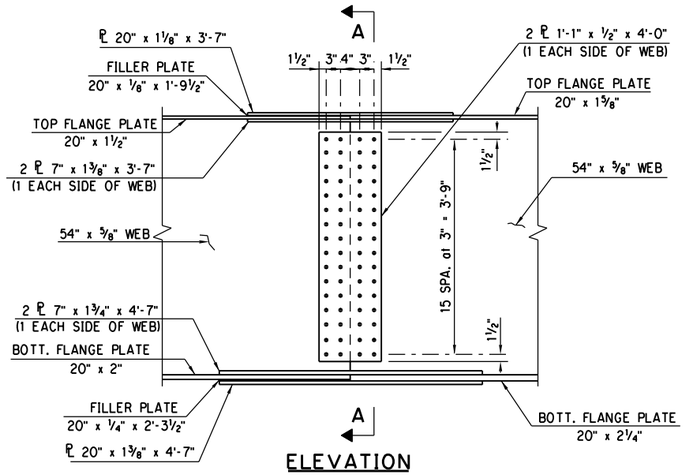


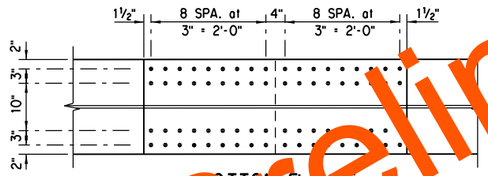
TOP FLANGE



SECTION A-A



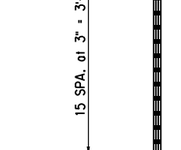
ELEVATION



BOTTOM FLANGE

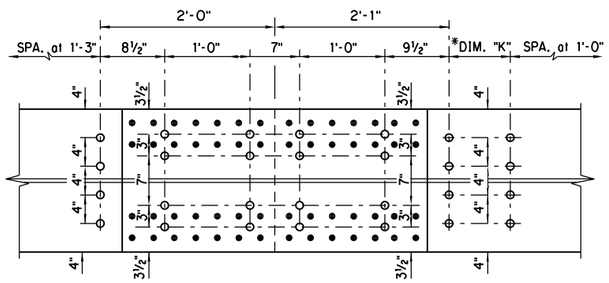
BOLTED FIELD SPLICE DETAIL

(LEFT HAND SHOWN, RIGHT OPPOSITE HAND)



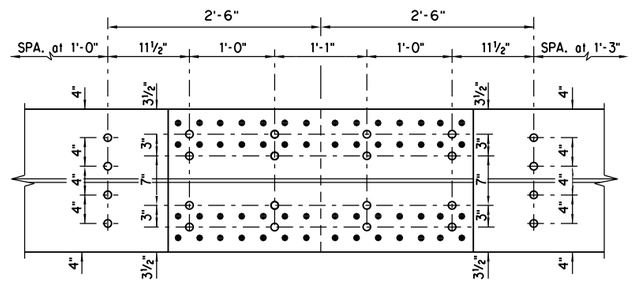
STUD SHEAR CONNECTORS

(4 - ⅞" DIA. x 5" STUDS)

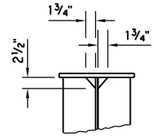


STUD SPACING THROUGH LEFT FIELD SPLICE

*SEE SHEET 1 OF 2 FOR DIMENSION SCHEDULE



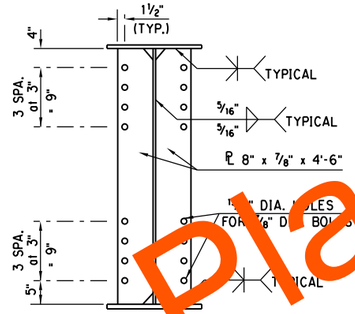
STUD SPACING THROUGH RIGHT FIELD SPLICE



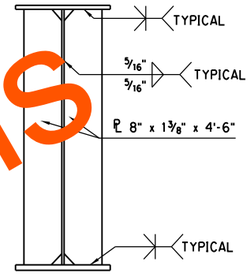
TYP. CORNER CLIP

(ALL STIFFENERS TOP AND BOTTOM)

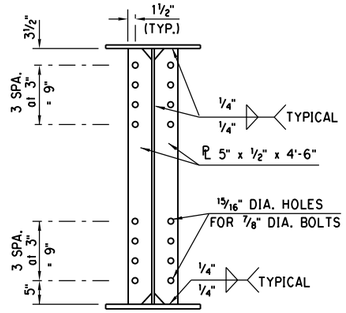
NOTE: TERMINATE FILLET WELDS ⅜" FROM THE EDGE OF CLIPPED CORNERS OF ALL STIFFENER PLATES AND NON-CLIPPED CORNERS OF INTERMEDIATE DIAPHRAGM STIFFENERS. WRAP FILLET WELDS AROUND NON-CLIPPED CORNERS OF BEARING STIFFENERS.



BEARING STIFFENER
ABUT. NO. 1 AND PIER NO. 2



BEARING STIFFENER
PIER NO. 1



INTERMEDIATE STIFFENER

NOTE: SEE PLATE GIRDER ELEVATION, SHEET 1 OF 2 AND 'FRAMING PLAN AND DIAPHRAGM DETAILS' SHEET FOR LOCATIONS OF STIFFENERS.

OMIT BOLT HOLES ON EXTERIOR STIFFENERS ON EXTERIOR GIRDERS.

NOTES:

ALL GIRDER, STIFFENER AND SPLICE PLATES SHALL BE AASHTO M270, (ASTM A709) GRADE 50W.

ALL GIRDER, STIFFENER AND SPLICE PLATES SHALL CONFORM TO THE NON-FRACTURE CRITICAL CHARPY V-NOTCH TESTED FOR ZONE 2.

USE SHEAR CONNECTORS CONFORMING TO AASHTO M169 (ASTM A108), GRADE 1015, 1018, 1020.

PROVIDE WELDING WITH WEATHERING CHARACTERISTICS.

ALL BOLTS SHALL BE ⅞" DIA. ASTM A325 TYPE 3 WITH HEAVY HEX NUTS, HARDENED CIRCULAR WASHERS, AND 15/16" DIA. HOLES, UNLESS OTHERWISE NOTED.

SPLICE BOLTS SHALL BE PLACED WITH HEADS ON THE OUTSIDE FACE OF EXTERIOR GIRDERS AND ON BOTTOM OF GIRDER FLANGES.

BOLT THREADS MUST BE EXCLUDED FROM FIELD SPLICE SHEAR PLANES.

NO FIELD WELDING TO GIRDERS WILL BE ALLOWED EXCEPT AS SHOWN ON PLANS.

GIRDERS ARE SHOWN AND DIMENSIONED WITH TOP FLANGE IN THE HORIZONTAL POSITION. VERTICAL CURVATURE AND EFFECTS OF DEAD LOAD DEFLECTION HAVE NOT BEEN TAKEN INTO CONSIDERATION. SHOP DRAWINGS SHALL INCLUDE BLOCKING DIAGRAM FOR EACH GIRDER SHOWING ALL ADJUSTMENTS NECESSARY FOR DEAD LOAD DEFLECTION AND VERTICAL CURVATURE. THE WEB PLATES SHALL BE FABRICATED WITH CAMBER FOR DEAD LOAD DEFLECTION AND VERTICAL CURVATURE.

REVISIONS		
DESCRIPTION		DATE

PHASE 2 — OKLAHOMA COUNTY

BRIDGE "B" — RAMP "B" AT I-35 & I-240 INTERCHANGE

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PLATE GIRDER DETAILS SPANS 1 AND 2

(SHEET 2 OF 2)

STATE JOB NO. 09032(106) SHEET NO. B127

Preliminary Plans

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DESCRIPTION	REVISIONS	DATE

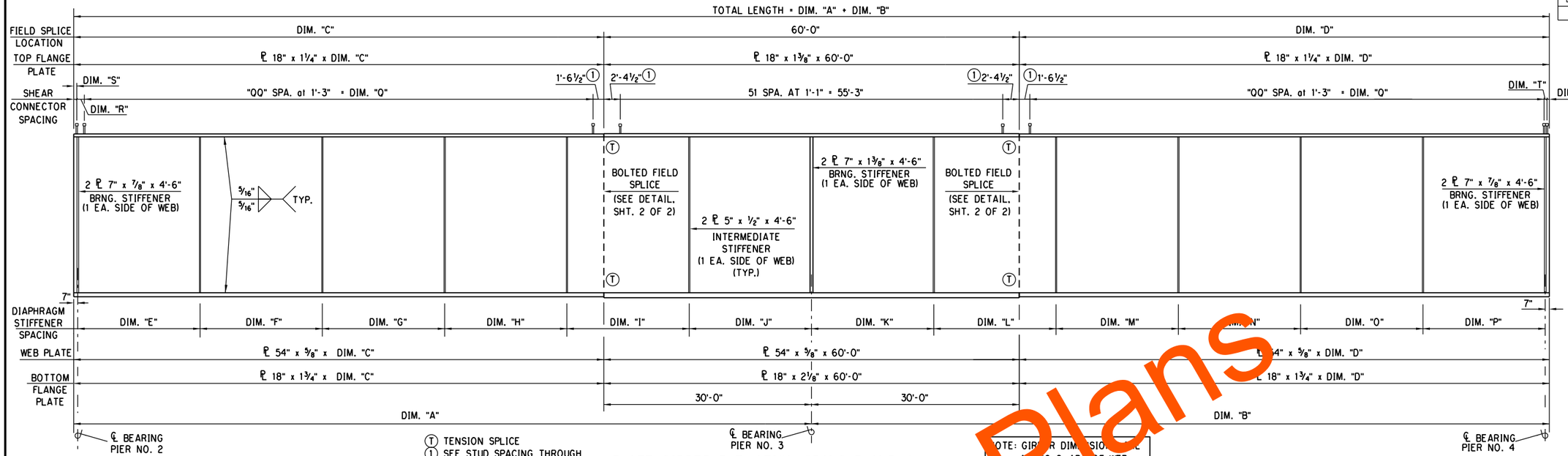
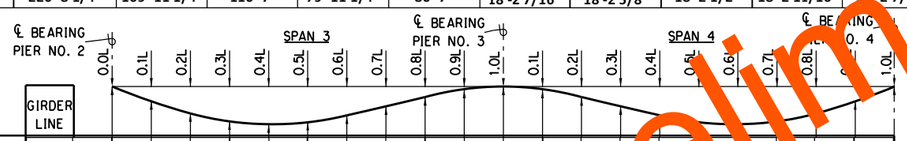


PLATE GIRDER ELEVATION SPANS 3 AND 4

NOTE: GIRDER DIMENSIONS ARE ALONG ℄ ARC OF WEB.

SPANS 3 & 4 GIRDER DIMENSION SCHEDULE

GIRDER	TOTAL LENGTH	DIM "A"	DIM "B"	DIM "C"	DIM "D"	DIM "E"	DIM "F"	DIM "G"	DIM "H"	DIM "I"	DIM "J"	DIM "K"	DIM "L"	DIM "M"	DIM "N"	DIM "O"	DIM "P"	"QQ"	DIM "Q"	DIM "R"	DIM "S"	DIM "T"	DIM "U"	CURVE RADIUS
A	213'-1 1/4"	106'-6 5/8"	106'-4 5/8"	76'-6 5/8"	76'-4 5/8"	17'-7 15/16"	17'-7 15/16"	17'-7 15/16"	17'-7 15/16"	17'-7 15/16"	17'-7 15/16"	17'-7 15/16"	17'-7 15/16"	17'-7 15/16"	17'-7 15/16"	17'-7 15/16"	17'-5 15/16"	59	73-9"	11"	4 1/8"	9"	4 1/8"	846.58'
B	214'-11 3/8"	107'-4 3/4"	107'-4 5/8"	77'-4 3/4"	77'-4 5/8"	17'-9 9/16"	17'-9 5/8"	17'-9 5/8"	17'-9 5/8"	17'-9 5/8"	17'-9 11/16"	17'-9 [illegible]"	17'-9 13/16"	17'-9 7/8"	17'-9 15/16"	17'-10 1/16"	17'-8 1/4"	60	75'-0"	6"	4 1/4"	5"	5 1/8"	925.77'
C	216'-10"	108'-2 7/8"	108'-5 1/8"	78'-2 7/8"	78'-5 1/8"	17'-11 3/16"	17'-11 1/4"	17'-11 1/4"	17'-11 5/16"	17'-11 3/8"	17'-11 [illegible]"	17'-11 5/[illegible]"	17'-11 3/4"	17'-11 7/8"	18'-0"	18'-0 1/4"	17'-10 5/8"	61	76'-3"	--	5 3/8"	4"	3 5/8"	1017.70'
D	218'-8 7/8"	109'-1"	109'-5 7/8"	79'-1"	79'-5 7/8"	18'-0 3/4"	18'-0 13/16"	18'-0 7/8"	18'-1"	18'-1 3/16"	18'-1 3/8"	18'-1 [illegible]"	18'-1 11/16"	18'-1 7/8"	18'-2 5/16"	18'-2 5/8"	18'-0 15/16"	61	76'-3"	10"	5 1/2"	1'-1"	7 3/8"	1125.53'
E	220'-8 1/4"	109'-11 1/4"	110'-7"	79'-11 1/4"	80'-7"	18'-2 7/16"	18'-2 5/8"	18'-2 1/2"	18'-2 11/16"	18'-2 7/[illegible]"	18'-3 1/8"	18'-3 3/8"	18'-3 3/4"	18'-4"	18'-4 7/16"	18'-4 13/16"	18'-3 5/8"	62	77'-6"	6"	4 3/4"	1'-1"	5 1/2"	1253.54'



	GIRDER LINE	0.0L	0.1L	0.2L	0.3L	0.4L	0.5L	0.6L	0.7L	0.8L	0.9L	1.0L	0.1L	0.2L	0.3L	0.4L	0.5L	0.6L	0.7L	0.8L	0.9L	1.0L
DECK SLAB, HAUNCH, RAIL & 5 psf SIP FORMS (IN INCHES)	A	0.00	0.28	0.51	0.67	0.73	0.70	0.58	0.40	0.21	0.05	0.00	[illegible]	0.32	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0.64	0.35	0.00
	B	0.00	0.29	0.54	0.70	0.76	0.72	0.59	0.40	0.20	0.05	[illegible]	[illegible]	0.33	[illegible]	0.85	0.95	1.03	0.93	0.71	0.39	0.00
	C	0.00	0.30	0.55	0.72	0.78	0.74	0.60	0.41	0.20	0.04	0.00	[illegible]	0.39	0.67	0.92	1.08	1.12	1.01	0.77	0.42	0.00
	D	0.00	0.31	0.57	0.74	0.80	0.75	0.61	0.41	0.20	0.04	0.00	0.16	0.43	0.73	1.00	1.17	1.20	1.09	0.83	0.45	0.00
	E	0.00	0.32	0.59	0.76	0.82	0.77	0.62	0.40	0.19	0.03	0.00	0.17	0.46	0.79	1.07	1.25	1.29	1.17	0.89	0.48	0.00
TOTAL DEFLECTION (NO FUTURE WEARING SURFACE) (IN INCHES)	A	0.00	0.37	0.69	0.89	0.98	0.93	0.78	0.54	0.29	0.08	0.00	0.14	0.40	0.70	0.97	1.14	1.18	1.07	0.82	0.44	0.00
	B	0.00	0.39	0.72	0.94	1.02	0.97	0.80	0.55	0.29	0.07	0.00	0.15	0.44	0.78	1.07	1.26	1.30	1.18	0.90	0.49	0.00
	C	0.00	0.41	0.75	0.97	1.06	1.00	0.83	0.57	0.29	0.07	0.00	0.17	0.49	0.84	1.16	1.37	1.41	1.28	0.98	0.53	0.00
	D	0.00	0.42	0.78	1.01	1.10	1.03	0.85	0.57	0.29	0.06	0.00	0.19	0.53	0.91	1.25	1.46	1.51	1.37	1.04	0.57	0.00
	E	0.00	0.44	0.81	1.04	1.13	1.06	0.86	0.58	0.28	0.06	0.00	0.20	0.57	0.98	1.34	1.57	1.62	1.46	1.11	0.60	0.00

DEAD LOAD DEFLECTION DIAGRAM AND DEFLECTION SCHEDULE

DECK SLAB ELEVATION SCHEDULE AT 10TH POINTS

GIRDER	SPAN 3											SPAN 4									
	PIER 2 BRNG.	0.1L	0.2L	0.3L	0.4L	0.5L	0.6L	0.7L	0.8L	0.9L	PIER 3 BRNG.	0.1L	0.2L	0.3L	0.4L	0.5L	0.6L	0.7L	0.8L	0.9L	PIER 4 BRNG.
A	1317.05	1317.38	1317.71	1318.03	1318.34	1318.64	1318.93	1319.21	1319.48	1319.76	1320.00	1320.25	1320.49	1320.72	1320.94	1321.15	1321.35	1321.54	1321.73	1321.91	1322.07
B	1317.43	1317.77	1318.10	1318.42	1318.73	1319.03	1319.33	1319.62	1319.90	1320.17	1320.43	1320.68	1320.93	1321.17	1321.40	1321.62	1321.83	1322.04	1322.23	1322.42	1322.60
C	1317.81	1318.15	1318.48	1318.81	1319.12	1319.43	1319.73	1320.02	1320.31	1320.58	1320.85	1321.12	1321.37	1321.62	1321.86	1322.09	1322.31	1322.53	1322.74	1322.94	1323.13
D	1318.20	1318.54	1318.87	1319.20	1319.51	1319.83	1320.13	1320.43	1320.72	1321.00	1321.28	1321.55	1321.81	1322.07	1322.32	1322.56	1322.79	1323.02	1323.24	1323.46	1323.66
E	1318.58	1318.92	1319.25	1319.58	1319.91	1320.22	1320.53	1320.83	1321.13	1321.42	1321.70	1321.98	1322.25	1322.52	1322.78	1323.03	1323.28	1323.52	1323.75	1323.97	1324.19

Preliminary Plans

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 — OKLAHOMA COUNTY
BRIDGE "B" — RAMP "B" AT I-35 & I-240 INTERCHANGE

PLATE GIRDER DETAILS SPANS 3 AND 4

(SHEET 1 OF 2)

STATE JOB NO. 09032(106) SHEET NO. B128

6/1/2022 11:06:53 AM
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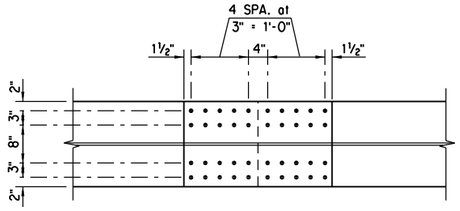
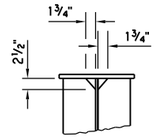
Preliminary Plans

REVISIONS		
DESCRIPTION		DATE



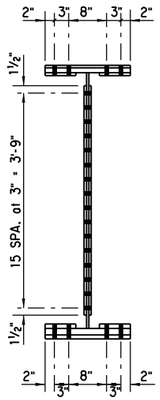
TOP FLANGE



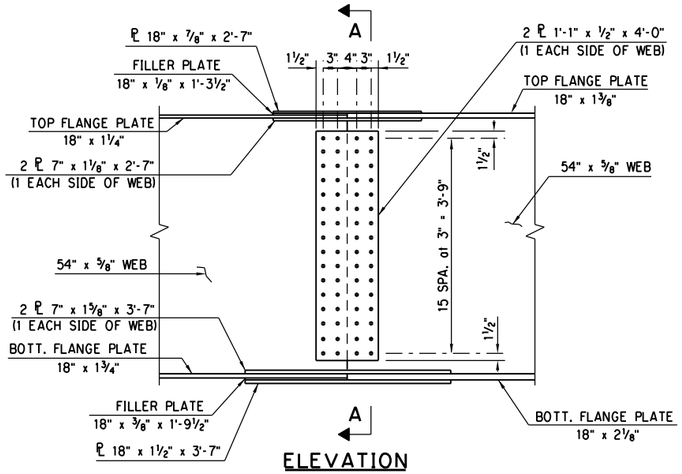
TYP. CORNER CLIP

(ALL STIFFENERS TOP AND BOTTOM)

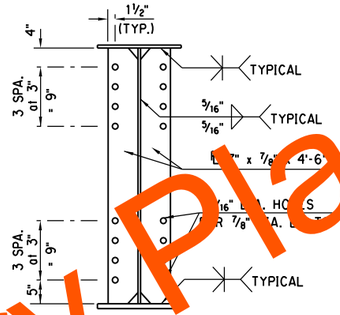
NOTE: TERMINATE FILLET WELDS ⅜" FROM THE EDGE OF CLIPPED CORNERS OF ALL STIFFENER PLATES AND NON-CLIPPED CORNERS OF INTERMEDIATE DIAPHRAGM STIFFENERS. WRAP FILLET WELDS AROUND NON-CLIPPED CORNERS OF BEARING STIFFENERS.



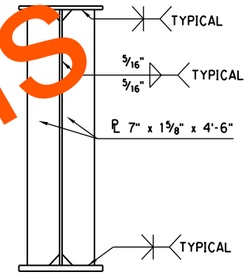
SECTION A-A



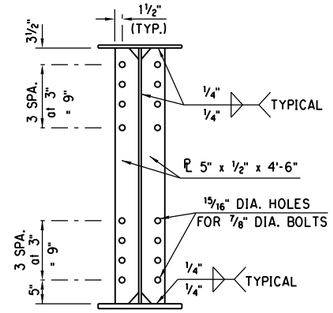
ELEVATION



BEARING STIFFENER
PIER NO. 2 AND PIER NO. 4



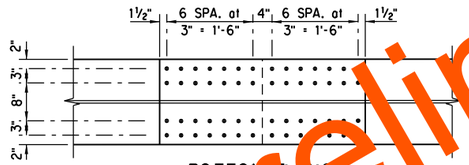
BEARING STIFFENER
PIER NO. 3



INTERMEDIATE STIFFENER

NOTE: SEE PLATE GIRDER ELEVATION, SHEET 1 OF 2 AND 'FRAMING PLAN AND DIAPHRAGM DETAILS' SHEET FOR LOCATIONS OF STIFFENERS.

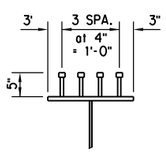
OMIT BOLT HOLES ON EXTERIOR STIFFENERS ON EXTERIOR GIRDERS.



BOTTOM FLANGE

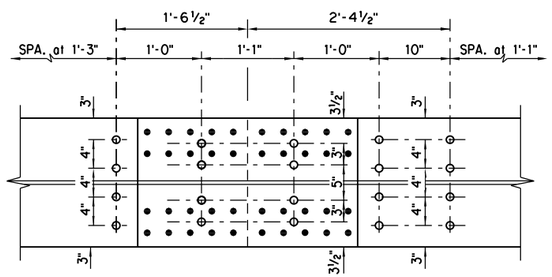
BOLTED FIELD SPLICE DETAIL

(LEFT SPLICE SHOWN, RIGHT OPPOSITE HAND)



STUD
SHEAR CONNECTORS

(4 - ⅞" DIA. x 5" STUDS)



STUD SPACING THROUGH FIELD SPLICE

(LEFT SPLICE SHOWN, RIGHT OPPOSITE HAND)

NOTES:

ALL GIRDER, STIFFENER AND SPLICE PLATES SHALL BE AASHTO M270, (ASTM A709) GRADE 50W.

ALL GIRDER, STIFFENER AND SPLICE PLATES SHALL CONFORM TO THE NON-FRACTURE CRITICAL CHARPY V-NOTCH TESTED FOR ZONE 2.

USE SHEAR CONNECTORS CONFORMING TO AASHTO M169 (ASTM A108), GRADE 1015, 1018, 1020.

PROVIDE WELDING WITH WEATHERING CHARACTERISTICS.

ALL BOLTS SHALL BE ⅞" DIA. ASTM A325 TYPE 3 WITH HEAVY HEX NUTS, HARDENED CIRCULAR WASHERS, AND 15/16" DIA. HOLES, UNLESS OTHERWISE NOTED.

SPLICE BOLTS SHALL BE PLACED WITH HEADS ON THE OUTSIDE FACE OF EXTERIOR GIRDERS AND ON BOTTOM OF GIRDER FLANGES.

BOLT THREADS MUST BE EXCLUDED FROM FIELD SPLICE SHEAR PLANES.

NO FIELD WELDING TO GIRDERS WILL BE ALLOWED EXCEPT AS SHOWN ON PLANS.

GIRDERS ARE SHOWN AND DIMENSIONED WITH TOP FLANGE IN THE HORIZONTAL POSITION. VERTICAL CURVATURE AND EFFECTS OF DEAD LOAD DEFLECTION HAVE NOT BEEN TAKEN INTO CONSIDERATION. SHOP DRAWINGS SHALL INCLUDE BLOCKING DIAGRAM FOR EACH GIRDER SHOWING ALL ADJUSTMENTS NECESSARY FOR DEAD LOAD DEFLECTION AND VERTICAL CURVATURE. THE WEB PLATES SHALL BE FABRICATED WITH CAMBER FOR DEAD LOAD DEFLECTION AND VERTICAL CURVATURE.

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 — OKLAHOMA COUNTY

BRIDGE "B" — RAMP "B" AT I-35 & I-240 INTERCHANGE

PLATE GIRDER DETAILS
SPANS 3 AND 4
(SHEET 2 OF 2)

STATE JOB NO. 09032(106) SHEET NO. B129

6/1/2022 11:06:56 AM
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REVISIONS		
DESCRIPTION		DATE

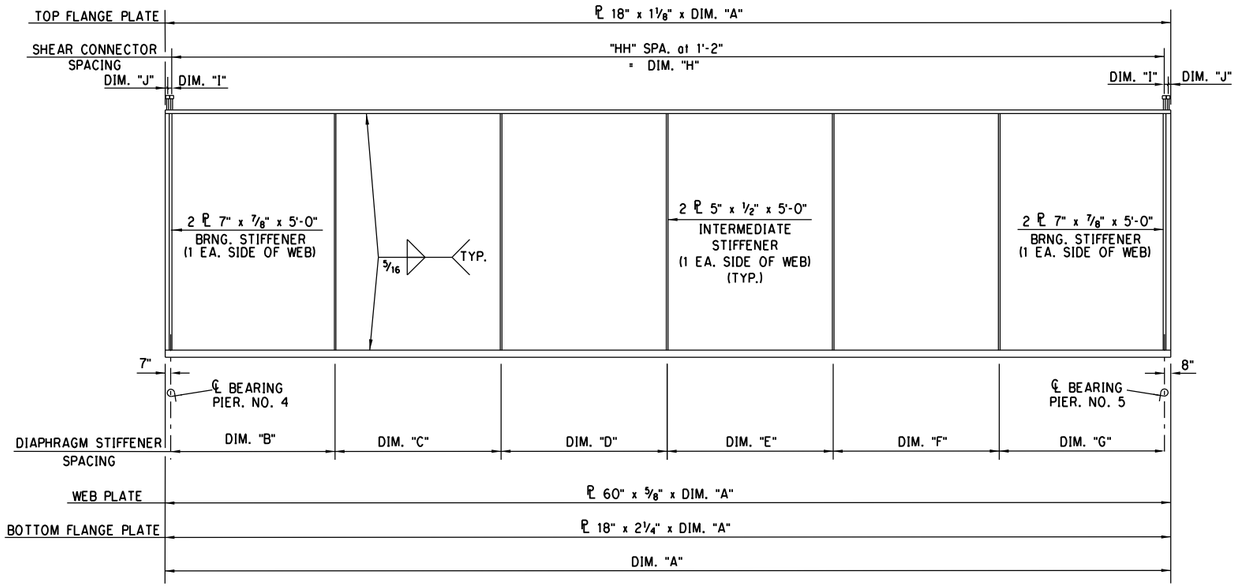

PLATE GIRDER ELEVATION SPAN 5

SPAN 5 GIRDER DIMENSION SCHEDULE

GIRDER	DIM "A"	DIM "B"	DIM "C"	DIM "D"	DIM "E"	DIM "F"	DIM "G"	"HH"	DIM "H"	DIM "I"	DIM "J"	CURVE RADIUS
A	106'-2 5/8"	17'-3 7/16"	17'-6 7/16"	17'-6 7/16"	17'-6 7/16"	17'-6 7/16"	17'-5 7/16"	90	105'-0"	4"	3 5/16"	846.58'
B	107'-5 1/2"	17'-5 13/16"	17'-8 3/4"	17'-8 15/16"	17'-8 15/16"	17'-9"	17'-8 3/16"	91	106'-2"	4"	3 3/4"	856.65'
C	108'-8 3/4"	17'-8 3/16"	17'-11 5/16"	17'-11 5/16"	17'-11 7/16"	17'-11 5/8"	17'-11"	92	107'-4"	4"	4 3/8"	866.71'
D	110'-0 7/16"	17'-10 11/16"	18'-2 5/8"	18'-1 13/16"	18'-2 1/16"	18'-2 1/4"	18'-1 1/16"	93	108'-6"	5"	4 1/8"	876.78'
E	111'-4 1/4"	17'-11 1/4"	18'-5 1/8"	18'-4 7/16"	18'-4 11/16"	18'-5"	18'-4 3/4"	94	109'-8"	5"	5 1/8"	886.84'

	GIRDER LINE	0.0L	0.1L	0.2L	0.3L	0.4L	0.5L	0.6L	0.7L	0.8L	0.9L	1.0L
DECK SLAB, HAUNCH, RAIL & 5 psf SIP FORMS (IN INCHES)	A	0.00	0.52	0.98	1.35	1.58	1.66	1.58	1.35	0.99	0.52	0.00
	B	0.00	0.60	1.14	1.56	1.83	1.92	1.84	1.57	1.[illegible]	0.61	0.00
	C	0.00	0.68	1.28	1.76	2.06	2.16	2.07	1.77	[illegible]	0.69	0.00
	D	0.00	0.75	1.42	1.94	2.28	2.3[illegible]	2.28	1.95	1.43	0.76	0.00
	E	0.00	0.82	1.55	2.13	2.50	2.62	2.50	2.14	1.56	0.83	0.00
TOTAL DEFLECTION (NO FUTURE WEARING SURFACE) (IN INCHES)	A	0.00	0.68	1.29	1.76	2.06	2.17	2.07	1.77	1.29	0.68	0.00
	B	0.00	0.79	1.49	2.04	2.39	2.51	2.39	2.05	1.50	0.79	0.00
	C	0.00	0.88	1.67	2.29	2.69	2.82	2.69	2.30	1.68	0.89	0.00
	D	0.00	0.98	1.85	2.53	2.97	3.12	2.98	2.54	1.86	0.98	0.00
	E	0.00	1.07	2.03	2.78	3.26	3.43	3.27	2.79	2.04	1.08	0.00

DEAD LOAD DEFLECTION DIAGRAM AND DEFLECTION SCHEDULE

DECK SLAB ELEVATION SCHEDULE AT 10TH POINTS

GIRDER	SPAN 5										
	PIER 4 BRNG.	0.1L	0.2L	0.3L	0.4L	0.5L	0.6L	0.7L	0.8L	0.9L	PIER 5 BRNG.
A	1322.10	1322.25	1322.40	1322.54	1322.67	1322.79	1322.90	1323.00	1323.10	1323.20	1323.28
B	1322.63	1322.79	1322.95	1323.10	1323.24	1323.37	1323.49	1323.61	1323.72	1323.82	1323.92
C	1323.16	1323.34	1323.50	1323.66	1323.81	1323.95	1324.09	1324.21	1324.33	1324.45	1324.56
D	1323.69	1323.88	1324.06	1324.23	1324.39	1324.54	1324.68	1324.82	1324.95	1325.08	1325.19
E	1324.22	1324.42	1324.61	1324.79	1324.96	1325.12	1325.28	1325.43	1325.57	1325.70	1325.83

Preliminary Plans

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DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

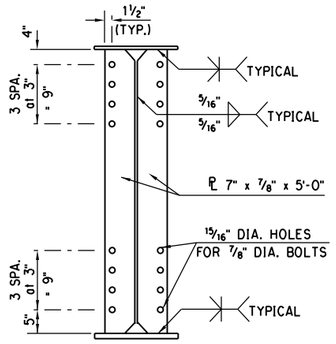
PHASE 2 — OKLAHOMA COUNTY
BRIDGE "B" — RAMP "B" AT I-35 & I-240 INTERCHANGE

PLATE GIRDER DETAILS SPAN 5

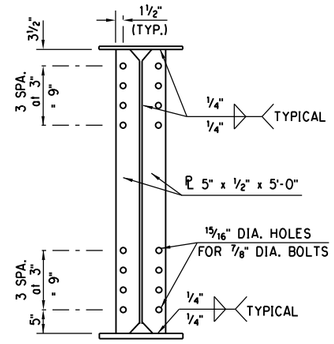
(SHEET 1 OF 2)

STATE JOB NO. 09032(106) SHEET NO. B130

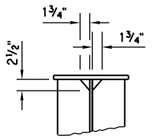
DESCRIPTION	REVISIONS	DATE



BEARING STIFFENER
PIER NO. 4 AND PIER NO. 5



INTERMEDIATE STIFFENER



TYP. CORNER CLIP
(ALL STIFFENERS TOP AND BOTTOM)

NOTE: TERMINATE FILLET WELDS ⅜" FROM THE EDGE OF CLIPPED CORNERS OF ALL STIFFENER PLATES AND NON-CLIPPED CORNERS OF INTERMEDIATE DIAPHRAGM STIFFENERS. WRAP FILLET WELDS AROUND NON-CLIPPED CORNERS OF BEARING STIFFENERS.

NOTE: SEE PLATE GIRDER ELEVATION, SHEET 1 OF 2 AND 'FRAMING PLAN AND DIAPHRAGM DETAILS' SHEET FOR LOCATIONS OF STIFFENERS.

OMIT BOLT HOLES ON EXTERIOR STIFFENERS ON EXTERIOR GIRDERS.

Preliminary Plans

NOTES:

ALL GIRDER, STIFFENER AND SPLICE PLATES SHALL BE AASHTO M270, (ASTM A709) GRADE 50W.

ALL GIRDER, STIFFENER AND SPLICE PLATES SHALL CONFORM TO THE NON-FRACTURE CRITICAL CHARPY V-NOTCH TESTED FOR ZONE 2.

USE SHEAR CONNECTORS CONFORMING TO AASHTO M169 (ASTM A108), GRADE 1015, 1018, 1020.

PROVIDE WELDING WITH WEATHERING CHARACTERISTICS.

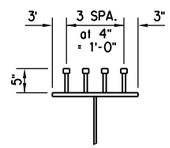
ALL BOLTS SHALL BE 7/8" DIA. ASTM A325 TYPE 3 WITH HEAVY HEX NUTS, HARDENED CIRCULAR WASHERS, AND 15/16" DIA. HOLES, UNLESS OTHERWISE NOTED.

SPLICE BOLTS SHALL BE PLACED WITH HEADS ON THE OUTSIDE FACE OF EXTERIOR GIRDERS AND ON BOTTOM OF GIRDER FLANGES.

BOLT THREADS MUST BE EXCLUDED FROM FIELD SPLICE SHEAR PLANES.

NO FIELD WELDING TO GIRDERS WILL BE ALLOWED EXCEPT AS SHOWN ON PLANS.

GIRDERS ARE SHOWN AND DIMENSIONED WITH TOP FLANGE IN THE HORIZONTAL POSITION. VERTICAL CURVATURE AND EFFECTS OF DEAD LOAD DEFLECTION HAVE NOT BEEN TAKEN INTO CONSIDERATION. SHOP DRAWINGS SHALL INCLUDE BLOCKING DIAGRAM FOR EACH GIRDER SHOWING ALL ADJUSTMENTS NECESSARY FOR DEAD LOAD DEFLECTION AND VERTICAL CURVATURE. THE WEB PLATES SHALL BE FABRICATED WITH CAMBER FOR DEAD LOAD DEFLECTION AND VERTICAL CURVATURE.



STUD
SHEAR CONNECTORS
(4 - 7/8" DIA. x 5" STUDS)

PHASE 2 OKLAHOMA COUNTY
BRIDGE "B" RAMP "B" AT I-35 & I-240 INTERCHANGE

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PLATE GIRDER DETAILS
SPAN 5
(SHEET 2 OF 2)

STATE JOB NO. 09032(106) SHEET NO. B131

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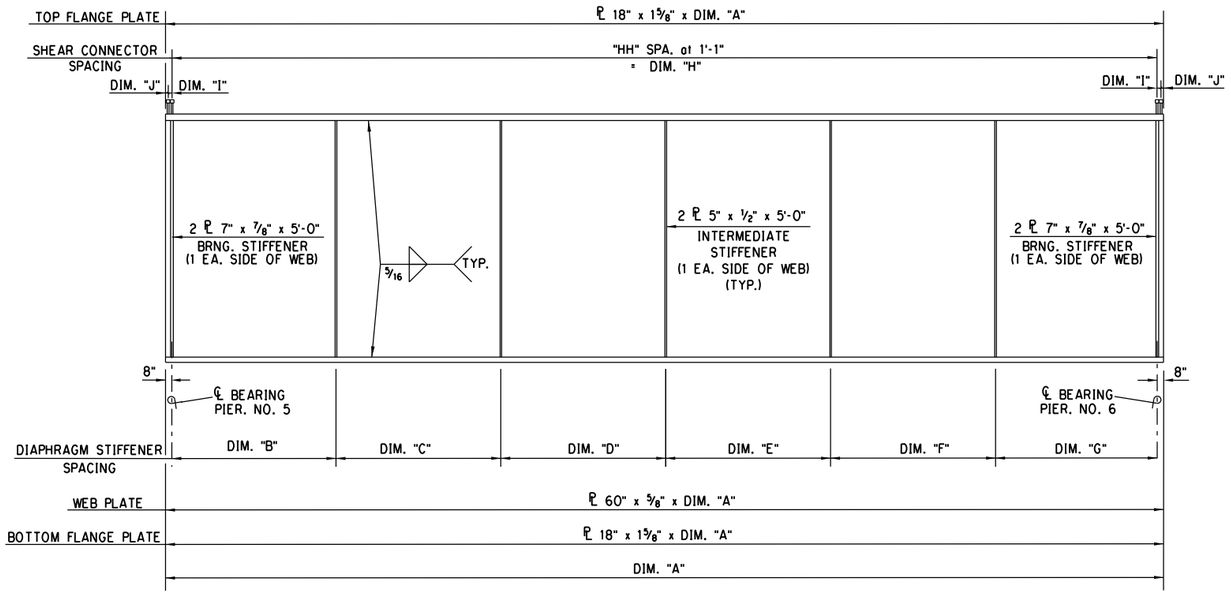
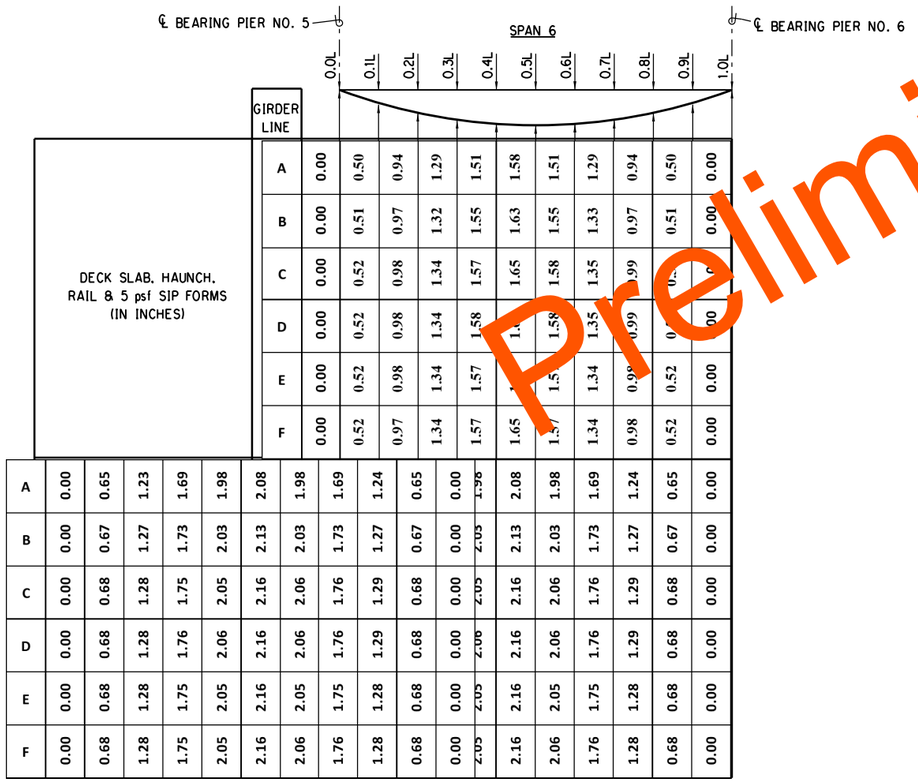


PLATE GIRDER ELEVATION SPAN 6

DESCRIPTION	REVISIONS	DATE

GIRDER	SPAN 6 GIRDER DIMENSION SCHEDULE											
	DIM "A"	DIM "B"	DIM "C"	DIM "D"	DIM "E"	DIM "F"	DIM "G"	"HH"	DIM "H"	DIM "I"	DIM "J"	CURVE RADIUS
A	105'-5"	17'-4"	17'-5"	17'-5"	17'-5"	17'-5"	17'-1"	96	104'-0"	5"	3 1/2"	846.58'
B	104'-4 3/4"	17'-6 3/16"	17'-7 3/16"	17'-7 [illegible]	17'-7 1/4"	17'-7 5/16"	17'-1 9/16"	95	102'-11"	5"	3 7/8"	854.63'
C	103'-5"	17'-8 1/2"	17'-9 3/8"	17'-[illegible]1/2"	17'-9 5/8"	17'-9 3/4"	13'-2 1/4"	94	101'-10"	6"	3 1/2"	862.68'
D	102'-5 3/8"	17'-10 13/16"	17'-11 11/[illegible]	[illegible]11 13/16"	18'-0"	18'-0 3/16"	11'-2 7/8"	93	100'-9"	6"	4 3/16"	870.74'
E	101'-6"	18'-1 1/8"	18'-[illegible]	18'-2 1/[illegible]	18'-2 3/8"	18'-2 11/16"	9'-3 9/16"	92	99'-8"	7"	4"	878.79'
F	100'-7"	18'-3 1/2"	18'-[illegible]4 3/[illegible]	18'-[illegible]5/8"	18'-5"	18'-5 1/4"	7'-4 1/4"	91	98'-7"	7"	5"	889.84'



DEAD LOAD DEFLECTION DIAGRAM AND DEFLECTION SCHEDULE

GIRDER	DECK SLAB ELEVATION SCHEDULE AT 10TH POINTS										
	SPAN 6										
	PIER 5 BRNG.	0.1L	0.2L	0.3L	0.4L	0.5L	0.6L	0.7L	0.8L	0.9L	PIER 6 BRNG.
A	1323.30	1323.37	1323.45	1323.51	1323.57	1323.62	1323.67	1323.71	1323.74	1323.77	1323.79
B	1323.81	1323.89	1323.97	1324.04	1324.11	1324.17	1324.22	1324.27	1324.31	1324.34	1324.37
C	1324.32	1324.41	1324.49	1324.57	1324.64	1324.71	1324.77	1324.83	1324.88	1324.92	1324.96
D	1324.83	1324.92	1325.02	1325.10	1325.18	1325.25	1325.32	1325.39	1325.44	1325.49	1325.54
E	1325.34	1325.44	1325.54	1325.63	1325.72	1325.80	1325.87	1325.94	1326.01	1326.07	1326.12
F	1325.85	1325.96	1326.06	1326.16	1326.26	1326.34	1326.43	1326.50	1326.58	1326.64	1326.70

Preliminary Plans

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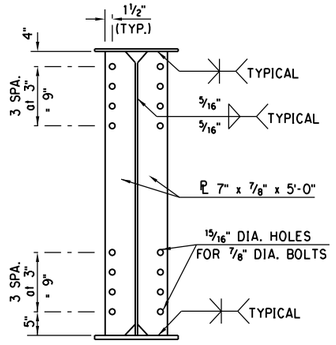
DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 OKLAHOMA COUNTY
BRIDGE "B" RAMP "B" AT I-35 & I-240 INTERCHANGE

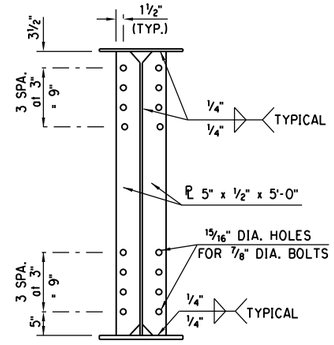
PLATE GIRDER DETAILS
SPAN 6
(SHEET 1 OF 2)

STATE JOB NO. 09032(06) SHEET NO. B132

REVISIONS		
DESCRIPTION		DATE



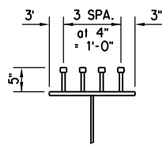
BEARING STIFFENER
PIER NO. 5 AND PIER NO. 6



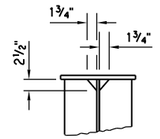
INTERMEDIATE STIFFENER

NOTE: SEE PLATE GIRDER ELEVATION, SHEET 1 OF 2 AND 'FRAMING PLAN AND DIAPHRAGM DETAILS' SHEET FOR LOCATIONS OF STIFFENERS.

OMIT BOLT HOLES ON EXTERIOR STIFFENERS ON EXTERIOR GIRDERS.



STUD
SHEAR CONNECTORS
(4 - 7/8" DIA. x 5" STUDS)



TYP. CORNER CLIP
(ALL STIFFENERS TOP AND BOTTOM)

NOTE: TERMINATE FILLET WELDS 3/8" FROM THE EDGE OF CLIPPED CORNERS OF ALL STIFFENER PLATES AND NON-CLIPPED CORNERS OF INTERMEDIATE DIAPHRAGM STIFFENERS. WRAP FILLET WELDS AROUND NON-CLIPPED CORNERS OF BEARING STIFFENERS.

NOTES:

ALL GIRDER, STIFFENER AND SPLICE PLATES SHALL BE AASHTO M270, (ASTM A709) GRADE 50W.

ALL GIRDER, STIFFENER AND SPLICE PLATES SHALL CONFORM TO THE NON-FRACTURE CRITICAL CHARPY V-NOTCH TESTED FOR ZONE 2.

USE SHEAR CONNECTORS CONFORMING TO AASHTO M169 (ASTM A108), GRADE 1015, 1018, 1020.

PROVIDE WELDING WITH WEATHERING CHARACTERISTICS.

ALL BOLTS SHALL BE 7/8" DIA. ASTM A325 TYPE 3 WITH HEAVY HEX NUTS, HARDENED CIRCULAR WASHERS, AND 15/16" DIA. HOLES, UNLESS OTHERWISE NOTED.

SPLICE BOLTS SHALL BE PLACED WITH HEADS ON THE OUTSIDE FACE OF EXTERIOR GIRDERS AND ON BOTTOM OF GIRDER FLANGES.

BOLT THREADS MUST BE EXCLUDED FROM FIELD SPLICE SHEAR PLANES.

NO FIELD WELDING TO GIRDERS WILL BE ALLOWED EXCEPT AS SHOWN ON PLANS.

GIRDERS ARE SHOWN AND DIMENSIONED WITH TOP FLANGE IN THE HORIZONTAL POSITION. VERTICAL CURVATURE AND EFFECTS OF DEAD LOAD DEFLECTION HAVE NOT BEEN TAKEN INTO CONSIDERATION. SHOP DRAWINGS SHALL INCLUDE BLOCKING DIAGRAM FOR EACH GIRDER SHOWING ALL ADJUSTMENTS NECESSARY FOR DEAD LOAD DEFLECTION AND VERTICAL CURVATURE. THE WEB PLATES SHALL BE FABRICATED WITH CAMBER FOR DEAD LOAD DEFLECTION AND VERTICAL CURVATURE.

Preliminary Plans

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 OKLAHOMA COUNTY
BRIDGE "B" RAMP "B" AT I-35 & I-240 INTERCHANGE

PLATE GIRDER DETAILS
SPAN 6
(SHEET 2 OF 2)

STATE JOB NO. 09032(106) SHEET NO. B133

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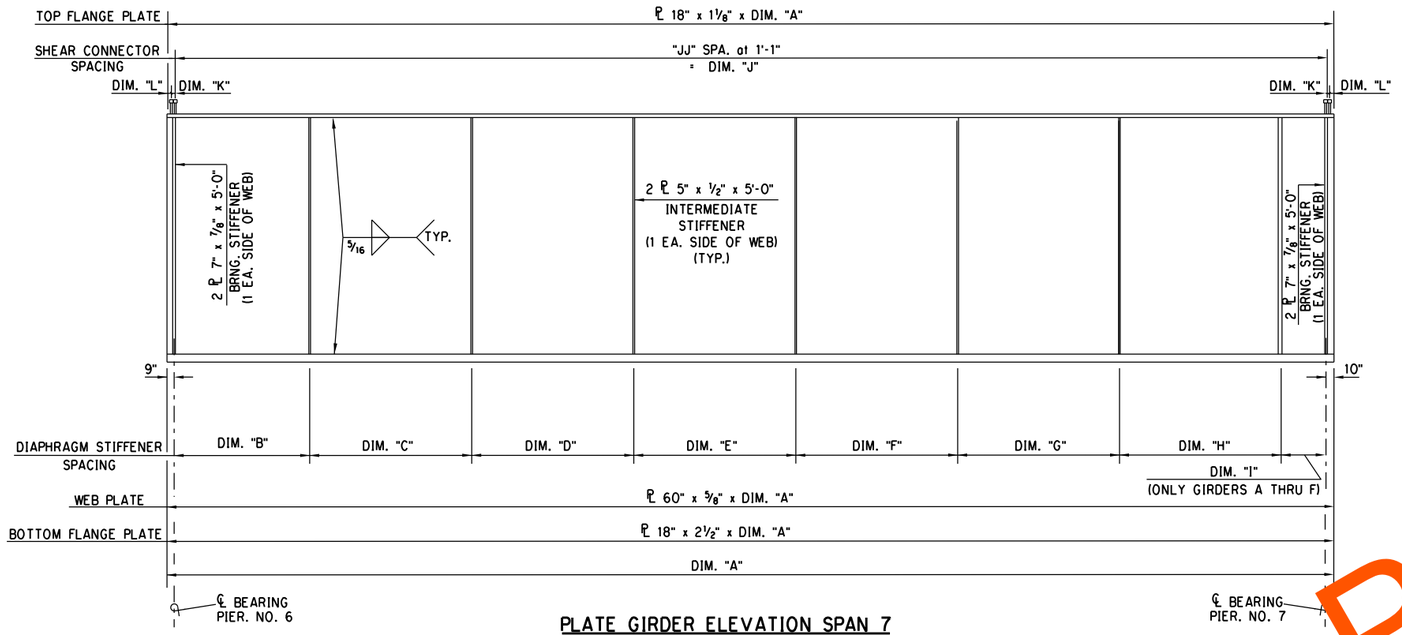

PLATE GIRDER ELEVATION SPAN 7

GIRDER	SPAN 7 GIRDER DIMENSION SCHEDULE													
	DIM "A"	DIM "B"	DIM "C"	DIM "D"	DIM "E"	DIM "F"	DIM "G"	DIM "H"	DIM "I"	"JJ"	DIM "K"	DIM "L"	DIM "L"	CURVE RADIUS
A	124'-9 7/8"	8'-10 15/16"	16'-5 7/8"	16'-5 5/8"	16'-5 3/8"	16'-5 1/8"	16'-4 13/16"	16'-4 9/16"	15'-8 9/16"	114	12'-[illegible]"	[illegible]"	2 15/16"	846.58'
B	124'-4 3/4"	10'-3 3/16"	16'-7 3/4"	16'-7 1/2"	16'-7 1/4"	16'-7"	16'-6 7/8"	16'-6 5/8"	12'-11[illegible]/16"	114	123'-6"	5 3/8"	--	853.29'
C	124'-0"	11'-7 3/8"	16'-9 5/8"	16'-9 7/16"	16'-9 1/4"	16'-9 1/8"	16'-8 7/8"	16'-8 3/4"	[illegible]-2 9/[illegible]"	113	122'-5"	5"	4 1/2"	860.00'
D	123'-7 3/8"	12'-11 5/8"	16'-11 1/2"	16'-11 3/8"	16'-11 1/4"	16'-11 1/8"	16'-11"	16'-[illegible]"	7'-[illegible]1/[illegible]	113	122'-5"	4"	3 3/16"	866.71'
E	123'-3"	14'-3 13/16"	17'-1 7/16"	17'-1 3/8"	17'-1 5/16"	17'-1 3/16"	17'-1 1/16"	17'-1"	4'-8 [illegible]/16"	113	122'-5"	5"	--	873.42'
F	122'-11"	15'-8 3/16"	17'-3 7/16"	17'-3 3/8"	17'-3 5/16"	17'-3 1/4"	17'-3 1/16"	17'-[illegible]1/8"	2'-0 1/8"	112	121'-4"	5"	4 1/2"	880.13'
G	122'-7"	17'-0 7/16"	17'-5 7/16"	17'-5 7/16"	17'-5 3/8"	17'-5 7/16"	17'-5 [illegible]/16"	16'-8 [illegible]/16"	--	112	121'-4"	4"	3 1/2"	886.84'

A	0.00	0.96	1.81	2.47	2.90	3.05	2.91	2.48	1.82	0.96	0.00	
B	0.00	1.01	1.90	2.60	3.05	3.20	3.04	2.60	1.90	1.00	0.00	
C	0.00	1.05	1.98	2.71	3.17	3.33	3.17	2.71	1.97	1.04	0.00	
D	0.00	1.09	2.05	2.81	3.29	3.45	3.28	2.80	2.04	1.08	0.00	
E	0.00	1.12	2.12	2.90	3.40	3.57	3.39	2.90	2.11	1.12	0.00	
F	0.00	1.16	2.19	3.00	3.51	3.69	3.51	3.00	2.19	1.16	0.00	
G	0.00	1.20	2.27	3.11	3.65	3.84	3.66	3.13	2.28	1.21	0.00	
A	0.00	1.27	2.39	3.28	3.84	4.04	3.85	3.29	2.41	1.27	0.00	
B	0.00	1.33	2.52	3.44	4.03	4.23	4.02	3.43	2.51	1.32	0.00	
C	0.00	1.39	2.62	3.58	4.19	4.39	4.18	3.57	2.60	1.37	0.00	
D	0.00	1.43	2.71	3.71	4.34	4.55	4.33	3.69	2.69	1.42	0.00	
E	0.00	1.48	2.80	3.83	4.48	4.70	4.47	3.82	2.78	1.47	0.00	
F	0.00	1.53	2.89	3.96	4.64	4.87	4.63	3.95	2.88	1.52	0.00	
G	0.00	1.58	3.00	4.11	4.82	5.07	4.83	4.12	3.01	1.59	0.00	

DEAD LOAD DEFLECTION DIAGRAM AND DEFLECTION SCHEDULE

GIRDER	DECK SLAB ELEVATION SCHEDULE AT 10TH POINTS										
	SPAN 7										
	BRNG.	0.1[illegible]	0.2L	0.3L	0.4L	0.5L	0.6L	0.7L	0.8L	0.9L	BRNG.
A	1323.79	1323.81	1323.81	1323.81	1323.80	1323.78	1323.75	1323.71	1323.66	1323.60	1323.53
B	1324.28	1324.30	1324.32	1324.32	1324.32	1324.31	1324.29	1324.26	1324.22	1324.17	1324.11
C	1324.77	1324.80	1324.82	1324.84	1324.84	1324.84	1324.83	1324.81	1324.78	1324.74	1324.70
D	1325.25	1325.29	1325.33	1325.35	1325.36	1325.37	1325.37	1325.36	1325.34	1325.31	1325.28
E	1325.74	1325.79	1325.83	1325.86	1325.89	1325.90	1325.91	1325.91	1325.90	1325.88	1325.86
F	1326.23	1326.28	1326.33	1326.38	1326.41	1326.43	1326.45	1326.46	1326.46	1326.46	1326.44
G	1326.71	1326.78	1326.84	1326.89	1326.93	1326.97	1327.00	1327.02	1327.03	1327.03	1327.03

Preliminary Plans

REVISIONS		
DESCRIPTION		DATE

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 — OKLAHOMA COUNTY
BRIDGE "B" — RAMP "B" AT I-35 & I-240 INTERCHANGE

PLATE GIRDER DETAILS
SPAN 7
(SHEET 1 OF 2)

STATE JOB NO. 09032(106) SHEET NO. B134

6/1/2022 11:07:00 AM
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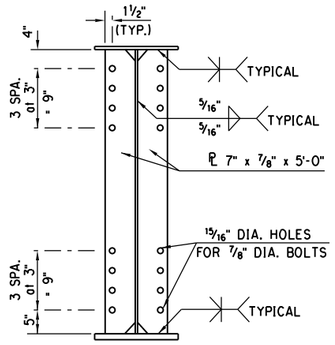
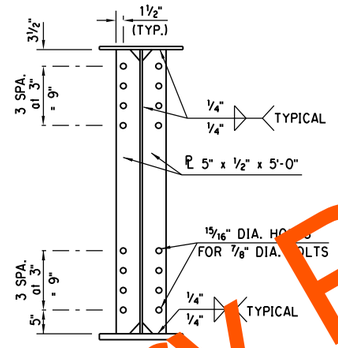
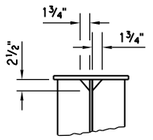
DESCRIPTION	REVISIONS	DATE



BEARING STIFFENER
PIER NO. 6 AND PIER NO. 7



INTERMEDIATE STIFFENER

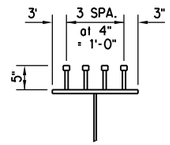


TYP. CORNER CLIP
(ALL STIFFENERS TOP AND BOTTOM)

NOTE: TERMINATE FILLET WELDS ⅜" FROM THE EDGE OF CLIPPED CORNERS OF ALL STIFFENER PLATES AND NON-CLIPPED CORNERS OF INTERMEDIATE DIAPHRAGM STIFFENERS. WRAP FILLET WELDS AROUND NON-CLIPPED CORNERS OF BEARING STIFFENERS.

NOTE: SEE PLATE GIRDER ELEVATION, SHEET 1 OF [illegible] AND 'FRAMING PLAN AND DIAPHRAGM DETAIL' SHEET FOR LOCATIONS OF STIFFENERS.

OMIT BOLT HOLES ON EXTERIOR STIFFENERS ON EXTERIOR GIRDER.



STUD
SHEAR CONNECTORS
(4 - 7/8" DIA. x 5" STUDS)

NOTES:

ALL GIRDER, STIFFENER AND SPLICE PLATES SHALL BE AASHTO M270. (ASTM A709) GRADE 50W.

ALL GIRDER, STIFFENER AND SPLICE PLATES SHALL CONFORM TO THE NON-FRACTURE CRITICAL CHARPY V-NOTCH TESTED FOR ZONE 2.

USE SHEAR CONNECTORS CONFORMING TO AASHTO M169 (ASTM A108). GRADE 1015, 1018, 1020.

PROVIDE WELDING WITH WEATHERING CHARACTERISTICS.

ALL BOLTS SHALL BE 7/8" DIA. ASTM A325 TYPE 3 WITH HEAVY HEX NUTS, HARDENED CIRCULAR WASHERS, AND 15/16" DIA. HOLES, UNLESS OTHERWISE NOTED.

SPLICE BOLTS SHALL BE PLACED WITH HEADS ON THE OUTSIDE FACE OF EXTERIOR GIRDERS AND ON BOTTOM OF GIRDER FLANGES.

BOLT THREADS MUST BE EXCLUDED FROM FIELD SPLICE SHEAR PLANES.

NO FIELD WELDING TO GIRDERS WILL BE ALLOWED EXCEPT AS SHOWN ON PLANS.

GIRDERS ARE SHOWN AND DIMENSIONED WITH TOP FLANGE IN THE HORIZONTAL POSITION. VERTICAL CURVATURE AND EFFECTS OF DEAD LOAD DEFLECTION HAVE NOT BEEN TAKEN INTO CONSIDERATION. SHOP DRAWINGS SHALL INCLUDE BLOCKING DIAGRAM FOR EACH GIRDER SHOWING ALL ADJUSTMENTS NECESSARY FOR DEAD LOAD DEFLECTION AND VERTICAL CURVATURE. THE WEB PLATES SHALL BE FABRICATED WITH CAMBER FOR DEAD LOAD DEFLECTION AND VERTICAL CURVATURE.

Preliminary Plans

PHASE 2 OKLAHOMA COUNTY

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

BRIDGE "B" RAMP "B" AT I-35 & I-240 INTERCHANGE

PLATE GIRDER DETAILS
SPAN 7
(SHEET 2 OF 2)

STATE JOB NO. 09032(106) SHEET NO. B135

6/1/2022 11:07:02 AM
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DESCRIPTION	REVISIONS	DATE

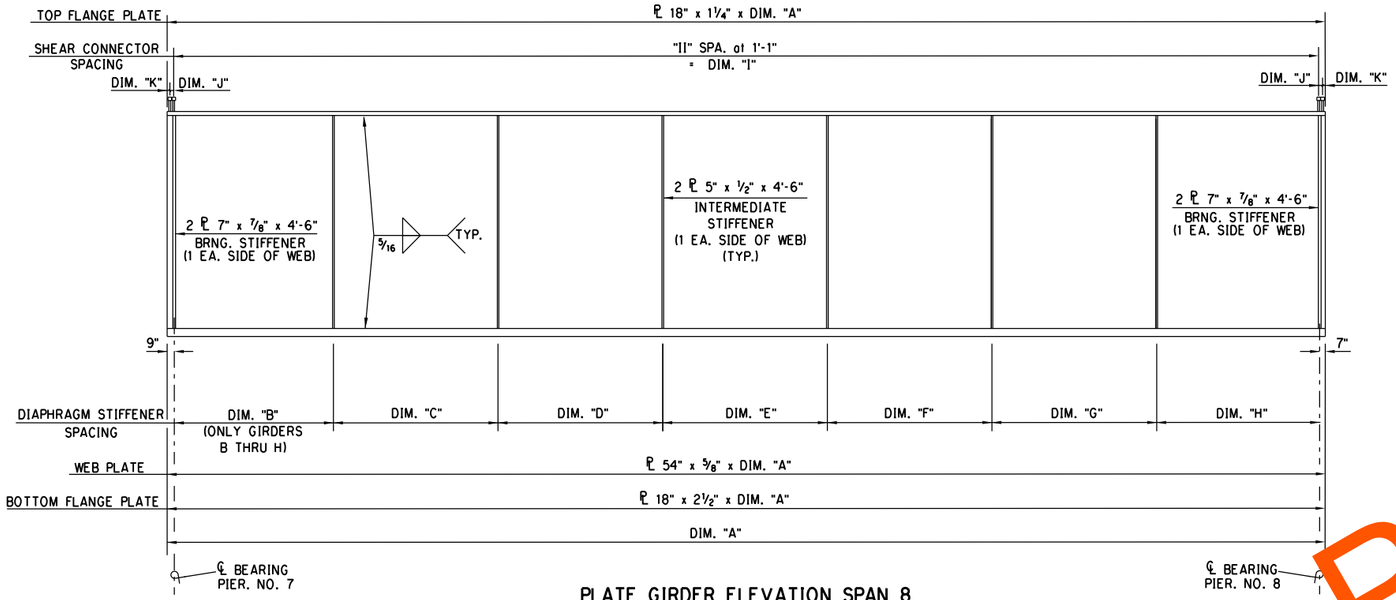
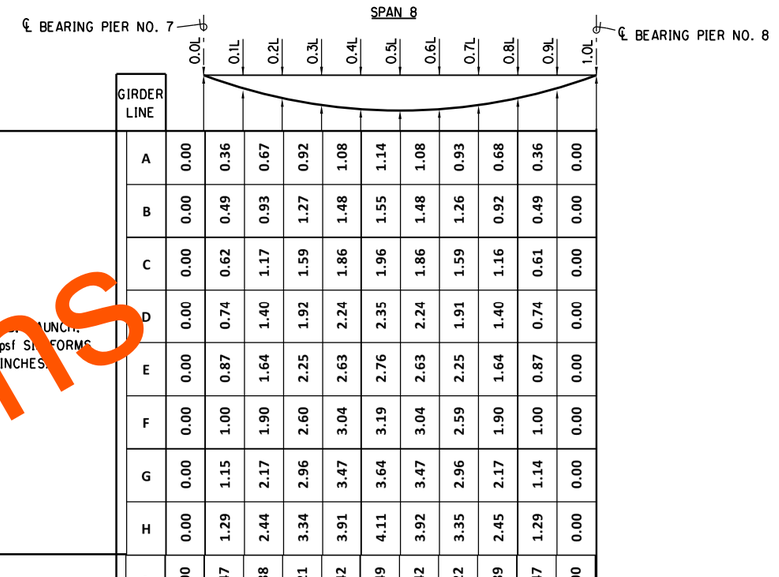


PLATE GIRDER ELEVATION SPAN 8



	GIRDER LINE	0.0L	0.1L	0.2L	0.3L	0.4L	0.5L	0.6L	0.7L	0.8L	0.9L	1.0L
DECK SLAB, DIAPHRAGM, RAIL & 20 psf SIDEWALK FORMS (IN INCHES)	A	0.00	0.36	0.67	0.92	1.08	1.14	1.08	0.93	0.68	0.36	0.00
	B	0.00	0.49	0.93	1.27	1.48	1.55	1.48	1.26	0.92	0.49	0.00
	C	0.00	0.62	1.17	1.59	1.86	1.96	1.86	1.59	1.16	0.61	0.00
	D	0.00	0.74	1.40	1.92	2.24	2.35	2.24	1.91	1.40	0.74	0.00
	E	0.00	0.87	1.64	2.25	2.63	2.76	2.63	2.25	1.64	0.87	0.00
	F	0.00	1.00	1.90	2.60	3.04	3.19	3.04	2.59	1.90	1.00	0.00
	G	0.00	1.15	2.17	2.96	3.47	3.64	3.47	2.96	2.17	1.14	0.00
	H	0.00	1.29	2.44	3.34	3.91	4.11	3.92	3.35	2.45	1.29	0.00
TOTAL DEFLECTION (NO FUTURE WEARING SURFACE) (IN INCHES)	A	0.00	0.47	0.88	1.21	1.42	1.49	1.42	1.22	0.89	0.47	0.00
	B	0.00	0.64	1.21	1.66	1.94	2.03	1.93	1.65	1.21	0.64	0.00
	C	0.00	0.81	1.52	2.08	2.43	2.55	2.43	2.07	1.52	0.80	0.00
	D	0.00	0.97	1.83	2.50	2.92	3.07	2.92	2.49	1.82	0.96	0.00
	E	0.00	1.14	2.15	2.94	3.43	3.61	3.43	2.93	2.14	1.13	0.00
	F	0.00	1.31	2.48	3.40	3.97	4.17	3.97	3.39	2.48	1.31	0.00
	G	0.00	1.50	2.84	3.88	4.54	4.77	4.54	3.88	2.84	1.50	0.00
	H	0.00	1.69	3.20	4.39	5.14	5.41	5.15	4.40	3.21	1.70	0.00

DEAD LOAD DEFLECTION DIAGRAM AND DEFLECTION SCHEDULE

SPAN 8 GIRDER DIMENSION SCHEDULE

GIRDER	DIM "A"	DIM "B"	DIM "C"	DIM "D"	DIM "E"	DIM "F"	DIM "G"	DIM "H"		DIM "I"	DIM "J"	DIM "K"	CURVE RADIUS
A	93'-10 3/8"	--	15'-8 13/16"	16'-3 1/8"	16'-2 7/8"	16'-2 9/16"	16'-2 5/16"	11'-10 11/16"	85	9 1"	6"	4 11/16"	846.58'
B	97'-10 3/4"	1'-11 1/4"	16'-5 3/16"	16'-5"	16'-4 3/4"	16'-4 1/2"	16'-4 5/16"	12'-7 3/	9	96'-	5"	3 7/8"	852.33'
C	101'-11 1/8"	4'-5"	16'-7"	16'-6 7/8"	16'-6 5/8"	16'-6 7/16"	16'-6 5/16"	1 3"	9	00'-9	4"	3 1/16"	858.08'
D	105'-11 3/16"	6'-10 3/4"	16'-8 7/8"	16'-8 3/4"	16'-8 5/8"	16'-8 7/16"	'-8 5/16"	14'-2	96	104'-0"	6"	5 7/8"	863.83'
E	110'-0 1/2"	9'-4 7/16"	16'-10 3/4"	16'-10 11/16"	16'-10 9/16"	16'-10 1/2"	10 3/	11 3/16	100	108'-4"	6"	4 1/4"	869.59'
F	114'-1 1/2"	11'-10 1/4"	17'-0 3/4"	17'-0 5/8"	17'-0 9/16"	17'-0 1/2"	17' 7/16	15 3/8"	104	112'-8"	5"	3 3/4"	875.34'
G	118'-2 1/2"	14'-3 15/16"	17'-2 11/16"	17'-2 5/8"	17'-2 9/16"	'-2 5/16"	16'-5 1/2"	108	117'-0"	4"	3 1/4"	881.09'
H	122'-3 3/4"	16'-9 5/8"	17'-4 11/16"	17'-4 11/16"	17'-4 11/16"	17' 11/	17'-2 11/16	112	121'-4"	5 7/8"	--	886.84'

DECK SLAB ELEVATION SCHEDULE AT 10TH POINTS

GIRDER	SPAN 8										
	PIER 7 BRNG.	0.1L	0.2L	0.3L	0.4L	0.5L	0.6L	0.7L	0.8L	0.9L	PIER 8 BRNG.
A	1323.52	1323.46	1323.40	1323.33	1323.26	1323.18	1323.10	1323.01	1322.92	1322.82	1322.72
B	1324.02	1323.97	1323.92	1323.85	1323.79	1323.72	1323.64	1323.55	1323.46	1323.37	1323.27
C	1324.52	1324.48	1324.43	1324.37	1324.31	1324.25	1324.17	1324.09	1324.01	1323.92	1323.82
D	1325.02	1324.99	1324.94	1324.89	1324.84	1324.78	1324.71	1324.63	1324.55	1324.47	1324.37
E	1325.52	1325.49	1325.46	1325.40	1325.34	1325.28	1325.20	1325.13	1325.05	1324.97	1324.89
F	1326.02	1326.00	1325.97	1325.90	1325.81	1325.71	1325.61	1325.50	1325.39	1325.27	1325.17
G	1326.52	1326.51	1326.48	1326.40	1326.28	1326.16	1326.02	1325.87	1325.72	1325.57	1325.42
H	1327.02	1327.01	1327.00	1326.91	1326.76	1326.59	1326.43	1326.25	1326.06	1325.87	1325.68

Preliminary Plans

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PHASE 2 OKLAHOMA COUNTY
BRIDGE "B" RAMP "B" AT I-35 & I-240 INTERCHANGE

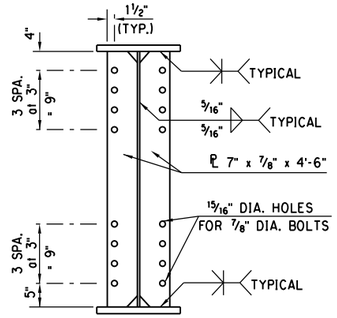
DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PLATE GIRDER DETAILS SPAN 8

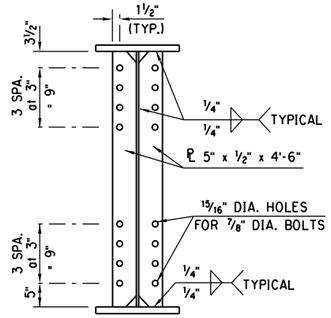
(SHEET 1 OF 2)

STATE JOB NO. 09032(06) SHEET NO. B136

DESCRIPTION	REVISIONS	DATE



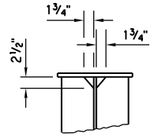
BEARING STIFFENER
PIER NO. 7 AND PIER NO. 8



INTERMEDIATE STIFFENER

NOTE: SEE PLATE GIRDER ELEVATION, SHEET 1 OF 2 AND 'FRAMING PLAN AND DIAPHRAGM DETAILS' SHEET FOR LOCATIONS OF STIFFENERS.

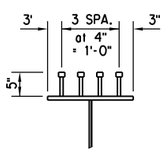
OMIT BOLT HOLES ON EXTERIOR STIFFENERS ON EXTERIOR GIRDERS.



TYP. CORNER CLIP
(ALL STIFFENERS TOP AND BOTTOM)

NOTE: TERMINATE FILLET WELDS 3/8" FROM THE EDGE OF CLIPPED CORNERS OF ALL STIFFENER PLATES AND NON-CLIPPED CORNERS OF INTERMEDIATE DIAPHRAGM STIFFENERS. WRAP FILLET WELDS AROUND NON-CLIPPED CORNERS OF BEARING STIFFENERS.

Preliminary Plans



STUD
SHEAR CONNECTORS
(4 - 7/8" DIA. x 5" STUDS)

NOTES:

ALL GIRDER, STIFFENER AND SPLICE PLATES SHALL BE AASHTO M270, (ASTM A709) GRADE 50W.

ALL GIRDER, STIFFENER AND SPLICE PLATES SHALL CONFORM TO THE NON-FRACTURE CRITICAL CHARPY V-NOTCH TESTED FOR ZONE 2.

USE SHEAR CONNECTORS CONFORMING TO AASHTO M169 (ASTM A108), GRADE 1015, 1018, 1020.

PROVIDE WELDING WITH WEATHERING CHARACTERISTICS.

ALL BOLTS SHALL BE 7/8" DIA. ASTM A325 TYPE 3 WITH HEAVY HEX NUTS, HARDENED CIRCULAR WASHERS, AND 15/16" DIA. HOLES, UNLESS OTHERWISE NOTED.

SPLICE BOLTS SHALL BE PLACED WITH HEADS ON THE OUTSIDE FACE OF EXTERIOR GIRDERS AND ON BOTTOM OF GIRDER FLANGES.

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PHASE 2 — OKLAHOMA COUNTY
BRIDGE "B" — RAMP "B" AT I-35 & I-240 INTERCHANGE

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PLATE GIRDER DETAILS
SPAN 8
(SHEET 2 OF 2)

STATE JOB NO. 09032(106) SHEET NO. B137

DESCRIPTION	REVISIONS	DATE

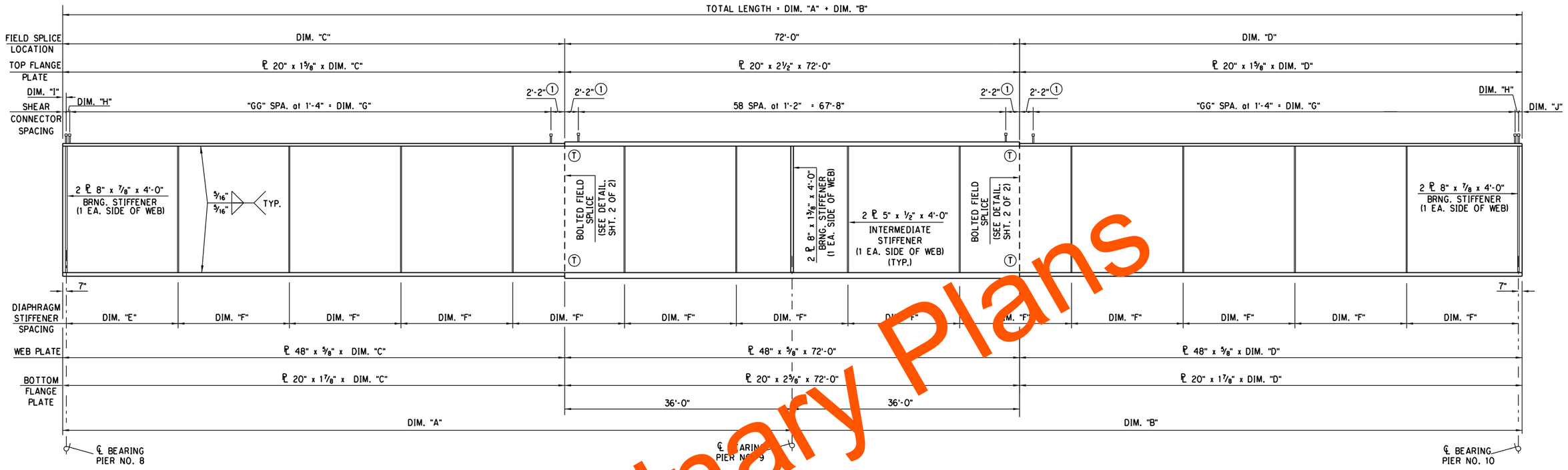
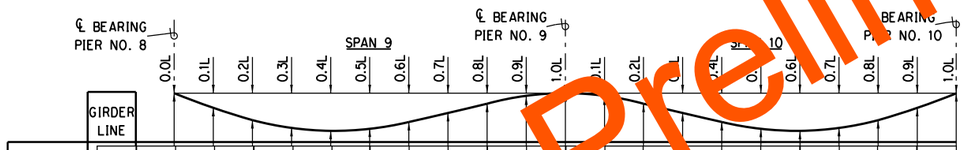


PLATE GIRDER ELEVATION SPANS 9 AND 10

(T) TENSION SPLICE

(1) SHEAR STUD SPACING THROUGH FIELD SPLICE (SHEET 2 OF 2)

NOTE: GIRDER DIMENSIONS ARE ALONG ℄ ARC OF WEB.



	GIRDER LINE	0.0L	0.1L	0.2L	0.3L	0.4L	0.5L	0.6L	0.7L	0.8L	0.9L	1.0L	0.1L	0.2L	0.3L	0.4L	0.5L	0.6L	0.7L	0.8L	0.9L	1.0L
DECK SLAB, HAUNCH, RAIL & 5 psf SIP FORMS (IN INCHES)	A	0.00	0.44	0.81	1.06	1.16	1.11	0.93	0.65	0.36	0.11	0.00	0.11	0.36	0.65	0.93	1.11	1.16	1.06	0.81	0.44	0.00
	B	0.00	0.50	0.92	1.20	1.31	1.25	1.04	0.73	0.40	0.12	0.00	0.12	0.40	0.73	1.04	1.25	1.31	1.20	0.92	0.50	0.00
	C	0.00	0.55	1.02	1.32	1.44	1.37	1.14	0.80	0.43	0.13	0.00	0.13	0.43	0.80	1.14	1.37	1.44	1.32	1.02	0.55	0.00
	D	0.00	0.60	1.11	1.44	1.57	1.49	1.23	0.86	0.46	0.14	0.00	0.14	0.46	0.86	1.23	1.49	1.57	1.44	1.11	0.60	0.00
TOTAL DEFLECTION (NO FUTURE WEARING SURFACE) (IN INCHES)	A	0.00	0.58	1.07	1.40	1.53	1.47	1.22	0.86	0.47	0.15	0.00	0.15	0.47	0.86	1.22	1.47	1.53	1.40	1.07	0.58	0.00
	B	0.00	0.66	1.21	1.58	1.73	1.65	1.37	0.96	0.52	0.16	0.00	0.16	0.52	0.96	1.37	1.65	1.73	1.58	1.21	0.66	0.00
	C	0.00	0.73	1.33	1.74	1.90	1.81	1.50	1.05	0.57	0.18	0.00	0.18	0.57	1.05	1.50	1.81	1.90	1.74	1.33	0.73	0.00
	D	0.00	0.79	1.46	1.90	2.07	1.96	1.63	1.13	0.61	0.19	0.00	0.19	0.61	1.13	1.62	1.96	2.07	1.90	1.46	0.79	0.00

DEAD LOAD DEFLECTION DIAGRAM AND DEFLECTION SCHEDULE

SPANS 9 & 10 GIRDER DIMENSION SCHEDULE

GIRDER	TOTAL LENGTH	DIM "A"	DIM "B"	DIM "C"	DIM "D"	DIM "E"	DIM "F"	"GG"	DIM "G"	DIM "H"	DIM "I"	DIM "J"	CURVE RADIUS
A	231'-0 1/4"	115'-5 5/8"	115'-6 5/8"	79'-5 5/8"	79'-6 5/8"	17'-7 1/4"	17'-8 1/4"	57	76'-0"	11"	4 5/8"	5 5/8"	846.58'
B	233'-3 7/8"	116'-7 7/16"	116'-8 7/16"	80'-7 7/16"	80'-8 7/16"	17'-9 3/8"	17'-10 3/8"	58	77'-4"	9"	4 7/16"	5 7/16"	855.08'
C	235'-7 1/2"	117'-9 1/4"	117'-10 1/4"	81'-9 1/4"	81'-10 1/4"	17'-11 1/2"	18'-0 1/2"	59	78'-8"	7"	4 1/4"	5 1/4"	863.58'
D	237'-11 1/8"	118'-11 1/16"	119'-0 1/16"	82'-11 1/16"	83'-0 1/16"	18'-1 5/8"	18'-2 5/8"	60	80'-0"	5"	4 1/16"	5 1/16"	872.08'

DECK SLAB ELEVATION SCHEDULE AT 10TH POINTS

GIRDER	SPAN 9										SPAN 10										
	PIER 8 BRNG.	0.1L	0.2L	0.3L	0.4L	0.5L	0.6L	0.7L	0.8L	0.9L	PIER 9 BRNG.	0.1L	0.2L	0.3L	0.4L	0.5L	0.6L	0.7L	0.8L	0.9L	PIER 10 BRNG.
A	1322.70	1322.56	1322.42	1322.27	1322.11	1321.94	1321.77	1321.59	1321.40	1321.20	1320.99	1320.78	1320.56	1320.33	1320.09	1319.85	1319.59	1319.33	1319.06	1318.79	1318.50
B	1323.21	1323.07	1322.93	1322.78	1322.62	1322.45	1322.28	1322.10	1321.91	1321.71	1321.50	1321.29	1321.07	1320.84	1320.60	1320.36	1320.10	1319.84	1319.57	1319.30	1319.01
C	1323.72	1323.58	1323.44	1323.29	1323.13	1322.96	1322.79	1322.61	1322.42	1322.22	1322.01	1321.80	1321.58	1321.35	1321.11	1320.87	1320.61	1320.35	1320.08	1319.81	1319.52
D	1324.23	1324.09	1323.95	1323.80	1323.64	1323.47	1323.30	1323.12	1322.93	1322.73	1322.52	1322.31	1322.09	1321.86	1321.62	1321.38	1321.12	1320.86	1320.59	1320.32	1320.03

Preliminary Plans

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 — OKLAHOMA COUNTY

BRIDGE "B" — RAMP "B" AT I-35 & I-240 INTERCHANGE

PLATE GIRDER DETAILS SPANS 9 AND 10

(SHEET 1 OF 2)

STATE JOB NO. 09032(106) SHEET NO. B138

6/1/2022 11:07:11 AM
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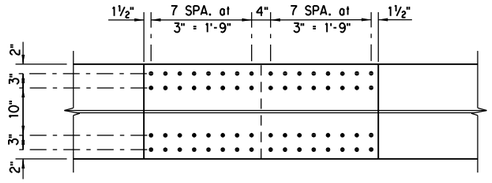
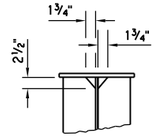
DESCRIPTION	REVISIONS	DATE



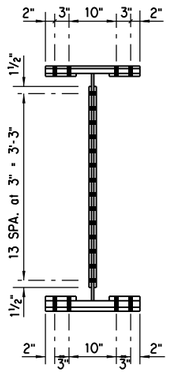
TOP FLANGE



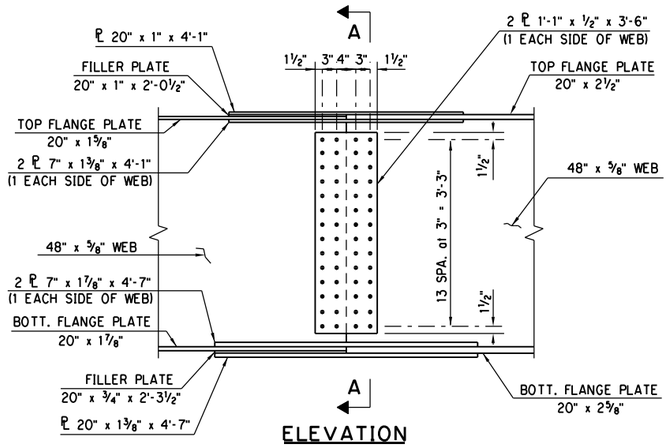
TYP. CORNER CLIP

(ALL STIFFENERS TOP AND BOTTOM)

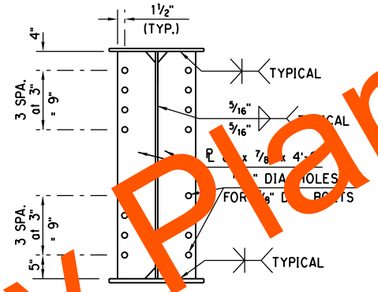
NOTE: TERMINATE FILLET WELDS ⅜" FROM THE EDGE OF CLIPPED CORNERS OF ALL STIFFENER PLATES AND NON-CLIPPED CORNERS OF INTERMEDIATE DIAPHRAGM STIFFENERS. WRAP FILLET WELDS AROUND NON-CLIPPED CORNERS OF BEARING STIFFENERS.



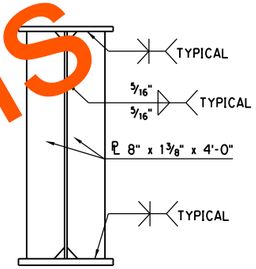
SECTION A-A



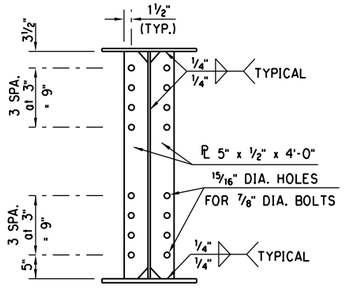
ELEVATION



BEARING STIFFENER PIERS NO. 8 AND 10



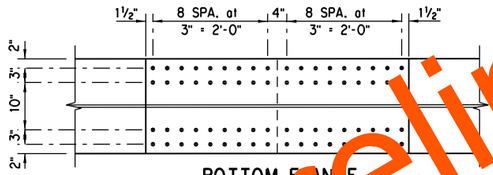
BEARING STIFFENER PIER NO. 9



INTERMEDIATE STIFFENER

NOTE: SEE PLATE GIRDER ELEVATION, SHEET 1 OF 2 AND 'FRAMING PLAN AND DIAPHRAGM DETAILS' SHEET FOR LOCATIONS OF STIFFENERS.

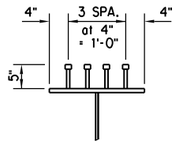
OMIT BOLT HOLES ON EXTERIOR STIFFENERS ON EXTERIOR GIRDERS.



BOTTOM FLANGE

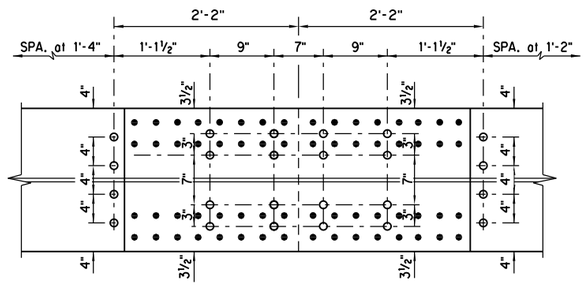
BOLTED FIELD SPLICE DETAIL

(LEFT SPLICE SHOWN, RIGHT OPPOSITE HAND)



STUD SHEAR CONNECTORS

(4 - ⅞" DIA. x 5" STUDS)



STUD SPACING THROUGH FIELD SPLICE

(LEFT SPLICE SHOWN, RIGHT OPPOSITE HAND)

NOTES:

ALL GIRDER, STIFFENER AND SPLICE PLATES SHALL BE AASHTO M270, (ASTM A709) GRADE 50W.

ALL GIRDER, STIFFENER AND SPLICE PLATES SHALL CONFORM TO THE NON-FRACTURE CRITICAL CHARPY V-NOTCH TESTED FOR ZONE 2.

USE SHEAR CONNECTORS CONFORMING TO AASHTO M169 (ASTM A108), GRADE 1015, 1018, 1020.

PROVIDE WELDING WITH WEATHERING CHARACTERISTICS.

ALL BOLTS SHALL BE ⅞" DIA. ASTM A325 TYPE 3 WITH HEAVY HEX NUTS, HARDENED CIRCULAR WASHERS, AND 15/16" DIA. HOLES, UNLESS OTHERWISE NOTED.

SPLICE BOLTS SHALL BE PLACED WITH HEADS ON THE OUTSIDE FACE OF EXTERIOR GIRDERS AND ON BOTTOM OF GIRDER FLANGES.

BOLT THREADS MUST BE EXCLUDED FROM FIELD SPLICE SHEAR PLANES.

NO FIELD WELDING TO GIRDERS WILL BE ALLOWED EXCEPT AS SHOWN ON PLANS.

GIRDERS ARE SHOWN AND DIMENSIONED WITH TOP FLANGE IN THE HORIZONTAL POSITION. VERTICAL CURVATURE AND EFFECTS OF DEAD LOAD DEFLECTION HAVE NOT BEEN TAKEN INTO CONSIDERATION. SHOP DRAWINGS SHALL INCLUDE BLOCKING DIAGRAM FOR EACH GIRDER SHOWING ALL ADJUSTMENTS NECESSARY FOR DEAD LOAD DEFLECTION AND VERTICAL CURVATURE. THE WEB PLATES SHALL BE FABRICATED WITH CAMBER FOR DEAD LOAD DEFLECTION AND VERTICAL CURVATURE.

Preliminary Plans

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 — OKLAHOMA COUNTY

BRIDGE "B" — RAMP "B" AT I-35 & I-240 INTERCHANGE

PLATE GIRDER DETAILS SPANS 9 AND 10

(SHEET 2 OF 2)

STATE JOB NO. 09032(106) SHEET NO. B139

6/1/2022 11:07:14 AM
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DESCRIPTION	REVISIONS	DATE

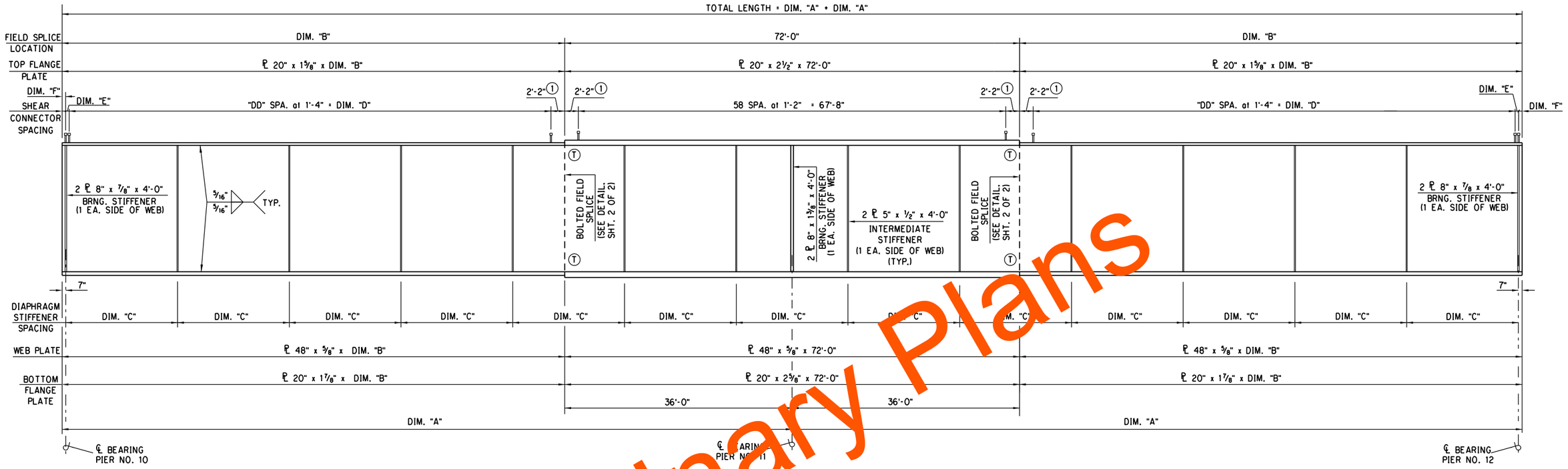
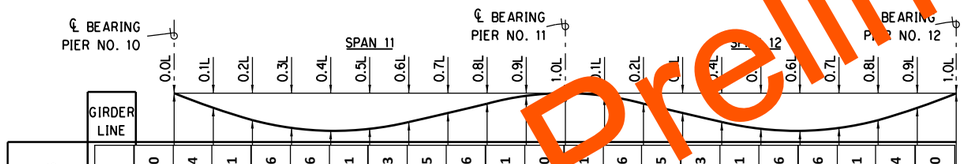


PLATE GIRDER ELEVATION SPANS 11 AND 12

(T) TENSION SPLICE

(1) SEE STUD SPACING THROUGH FIELD SPLICE (SHEET 2 OF 2)

NOTE: GIRDER DIMENSIONS ARE ALONG ℄ ARC OF WEB.



	GIRDER LINE	0.0L	0.1L	0.2L	0.3L	0.4L	0.5L	0.6L	0.7L	0.8L	0.9L	1.0L	1.1L	1.2L	1.3L	1.4L	1.5L	1.6L	1.7L	1.8L	1.9L	2.0L
DECK SLAB HAUNCH, RAIL & 5 psf SIP FORMS (IN INCHES)	A	0.00	0.44	0.81	1.06	1.16	1.11	0.93	0.65	0.36	0.11	0.00	0.11	0.36	0.65	0.93	1.11	1.16	1.06	0.81	0.44	0.00
	B	0.00	0.50	0.92	1.20	1.31	1.25	1.04	0.73	0.40	0.12	0.00	0.11	0.40	0.73	1.04	1.25	1.31	1.20	0.92	0.50	0.00
	C	0.00	0.55	1.02	1.32	1.44	1.37	1.14	0.80	0.43	0.13	0.00	0.13	0.43	0.80	1.14	1.37	1.44	1.32	1.02	0.55	0.00
	D	0.00	0.60	1.11	1.44	1.57	1.49	1.23	0.86	0.46	0.14	0.00	0.14	0.46	0.86	1.23	1.49	1.57	1.44	1.11	0.60	0.00
TOTAL DEFLECTION (NO FUTURE WEARING SURFACE) (IN INCHES)	A	0.00	0.58	1.07	1.40	1.53	1.47	1.22	0.86	0.47	0.15	0.00	0.15	0.47	0.86	1.22	1.47	1.53	1.40	1.07	0.58	0.00
	B	0.00	0.66	1.21	1.58	1.73	1.65	1.37	0.96	0.52	0.16	0.00	0.16	0.52	0.96	1.37	1.65	1.73	1.58	1.21	0.66	0.00
	C	0.00	0.73	1.33	1.74	1.90	1.81	1.50	1.05	0.57	0.18	0.00	0.18	0.57	1.05	1.50	1.81	1.90	1.74	1.33	0.73	0.00
	D	0.00	0.79	1.46	1.90	2.07	1.96	1.63	1.13	0.61	0.19	0.00	0.19	0.61	1.13	1.62	1.96	2.07	1.90	1.46	0.79	0.00

DEAD LOAD DEFLECTION DIAGRAM AND DEFLECTION SCHEDULE

SPANS 11 & 12 GIRDER DIMENSION SCHEDULE

GIRDER	TOTAL LENGTH	DIM "A"	DIM "B"	DIM "C"	"DD"	DIM "D"	DIM "E"	DIM "F"	CURVE RADIUS
A	231'-1 1/4"	115'-6 5/8"	79'-6 5/8"	17'-8 1/4"	57	76'-0"	11"	5 5/8"	846.58'
B	233'-4 7/8"	116'-8 7/16"	80'-8 7/16"	17'-10 3/8"	58	77'-4"	9"	5 7/16"	855.08'
C	235'-8 1/2"	117'-10 1/4"	81'-10 1/4"	18'-0 1/2"	59	78'-8"	7"	5 1/4"	863.58'
D	238'-0 1/8"	119'-0 1/16"	83'-0 1/16"	18'-2 5/8"	60	80'-0"	5"	5 1/16"	872.08'

DECK SLAB ELEVATION SCHEDULE AT 10TH POINTS

GIRDER	SPAN 11										SPAN 12										
	PIER 10 BRNG.	0.1L	0.2L	0.3L	0.4L	0.5L	0.6L	0.7L	0.8L	0.9L	PIER 11 BRNG.	0.1L	0.2L	0.3L	0.4L	0.5L	0.6L	0.7L	0.8L	0.9L	PIER 12 BRNG.
A	1318.47	1318.17	1317.87	1317.56	1317.25	1316.92	1316.59	1316.25	1315.91	1315.55	1315.19	1314.82	1314.44	1314.05	1313.66	1313.26	1312.85	1312.43	1312.01	1311.58	1311.16
B	1318.98	1318.68	1318.38	1318.07	1317.76	1317.43	1317.10	1316.76	1316.42	1316.06	1315.70	1315.33	1314.95	1314.56	1314.17	1313.77	1313.36	1312.94	1312.52	1312.09	1311.67
C	1319.49	1319.19	1318.89	1318.58	1318.27	1317.94	1317.61	1317.27	1316.93	1316.57	1316.21	1315.84	1315.46	1315.07	1314.68	1314.28	1313.87	1313.45	1313.03	1312.60	1312.18
D	1320.00	1319.70	1319.40	1319.09	1318.78	1318.45	1318.12	1317.78	1317.44	1317.08	1316.72	1316.35	1315.97	1315.58	1315.19	1314.79	1314.38	1313.96	1313.53	1313.11	1312.69

Preliminary Plans

PHASE 2 — OKLAHOMA COUNTY

BRIDGE "B" — RAMP "B" AT I-35 & I-240 INTERCHANGE

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PLATE GIRDER DETAILS SPANS 11 AND 12

(SHEET 1 OF 2)

STATE JOB NO. 09032(106) SHEET NO. B140

6/1/2022 11:07:14 AM
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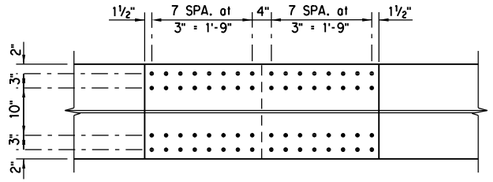
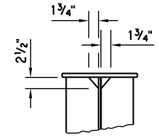
DESCRIPTION	REVISIONS	DATE



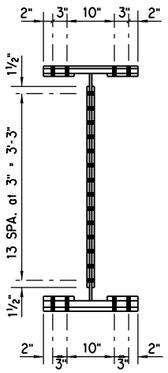
TOP FLANGE



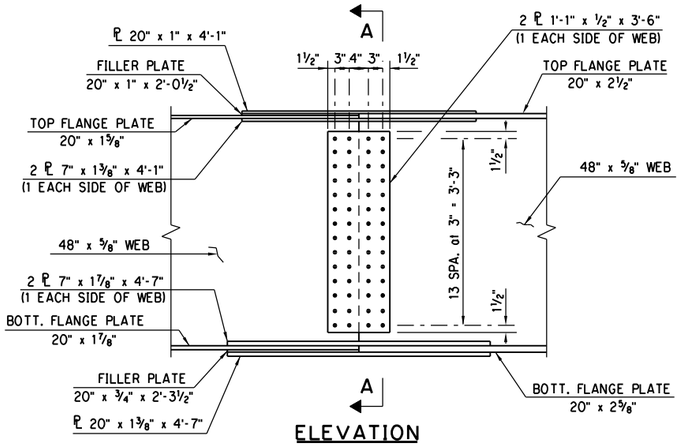
TYP. CORNER CLIP

(ALL STIFFENERS TOP AND BOTTOM)

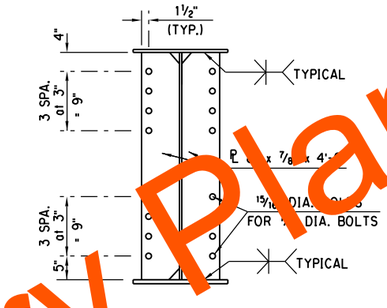
NOTE: TERMINATE FILLET WELDS ⅜" FROM THE EDGE OF CLIPPED CORNERS OF ALL STIFFENER PLATES AND NON-CLIPPED CORNERS OF INTERMEDIATE DIAPHRAGM STIFFENERS. WRAP FILLET WELDS AROUND NON-CLIPPED CORNERS OF BEARING STIFFENERS.



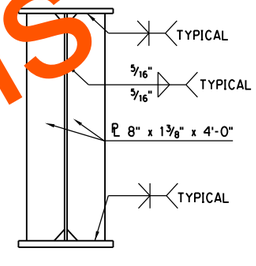
SECTION A-A



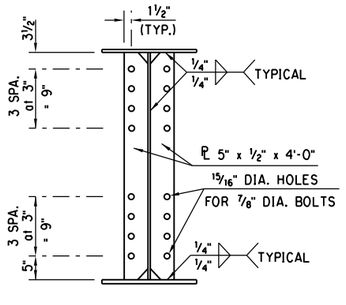
ELEVATION



BEARING STIFFENER PIERS NO. 10 AND 12



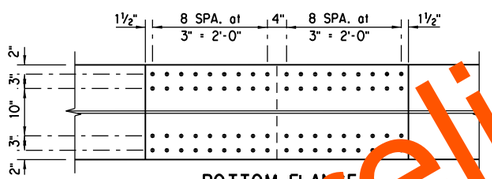
BEARING STIFFENER PIER NO. 11



INTERMEDIATE STIFFENER

NOTE: SEE PLATE GIRDER ELEVATION, SHEET 1 OF 2 AND 'FRAMING PLAN AND DIAPHRAGM DETAILS' SHEET FOR LOCATIONS OF STIFFENERS.

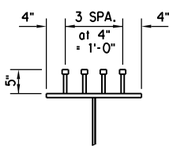
OMIT BOLT HOLES ON EXTERIOR STIFFENERS ON EXTERIOR GIRDERS.



BOTTOM FLANGE

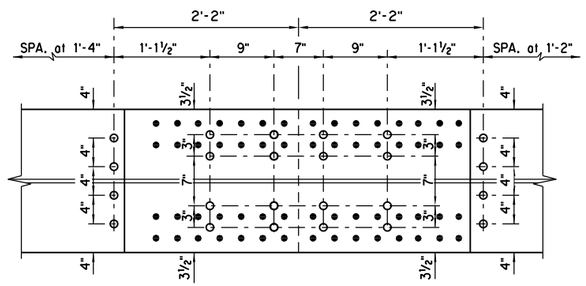
BOLTED FIELD SPLICE DETAIL

(LEFT SPLICE SHOWN, RIGHT OPPOSITE HAND)



STUD SHEAR CONNECTORS

(4 - ⅞" DIA. x 5" STUDS)



STUD SPACING THROUGH FIELD SPLICE

(LEFT SPLICE SHOWN, RIGHT OPPOSITE HAND)

NOTES:

ALL GIRDER, STIFFENER AND SPLICE PLATES SHALL BE AASHTO M270. (ASTM A709) GRADE 50W.

ALL GIRDER, STIFFENER AND SPLICE PLATES SHALL CONFORM TO THE NON-FRACTURE CRITICAL CHARPY V-NOTCH TESTED FOR ZONE 2.

USE SHEAR CONNECTORS CONFORMING TO AASHTO M169 (ASTM A108), GRADE 1015, 1018, 1020.

PROVIDE WELDING WITH WEATHERING CHARACTERISTICS.

ALL BOLTS SHALL BE ⅞" DIA. ASTM A325 TYPE 3 WITH HEAVY HEX NUTS, HARDENED CIRCULAR WASHERS, AND 15/16" DIA. HOLES, UNLESS OTHERWISE NOTED.

SPLICE BOLTS SHALL BE PLACED WITH HEADS ON THE OUTSIDE FACE OF EXTERIOR GIRDERS AND ON BOTTOM OF GIRDER FLANGES.

BOLT THREADS MUST BE EXCLUDED FROM FIELD SPLICE SHEAR PLANES.

NO FIELD WELDING TO GIRDERS WILL BE ALLOWED EXCEPT AS SHOWN ON PLANS.

GIRDERS ARE SHOWN AND DIMENSIONED WITH TOP FLANGE IN THE HORIZONTAL POSITION. VERTICAL CURVATURE AND EFFECTS OF DEAD LOAD DEFLECTION HAVE NOT BEEN TAKEN INTO CONSIDERATION. SHOP DRAWINGS SHALL INCLUDE BLOCKING DIAGRAM FOR EACH GIRDER SHOWING ALL ADJUSTMENTS NECESSARY FOR DEAD LOAD DEFLECTION AND VERTICAL CURVATURE. THE WEB PLATES SHALL BE FABRICATED WITH CAMBER FOR DEAD LOAD DEFLECTION AND VERTICAL CURVATURE.

Preliminary Plans

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 — OKLAHOMA COUNTY

BRIDGE "B" — RAMP "B" AT I-35 & I-240 INTERCHANGE

PLATE GIRDER DETAILS
SPANS 11 AND 12
(SHEET 2 OF 2)

STATE JOB NO. 0903(106) SHEET NO. B141

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DESCRIPTION	REVISIONS	DATE

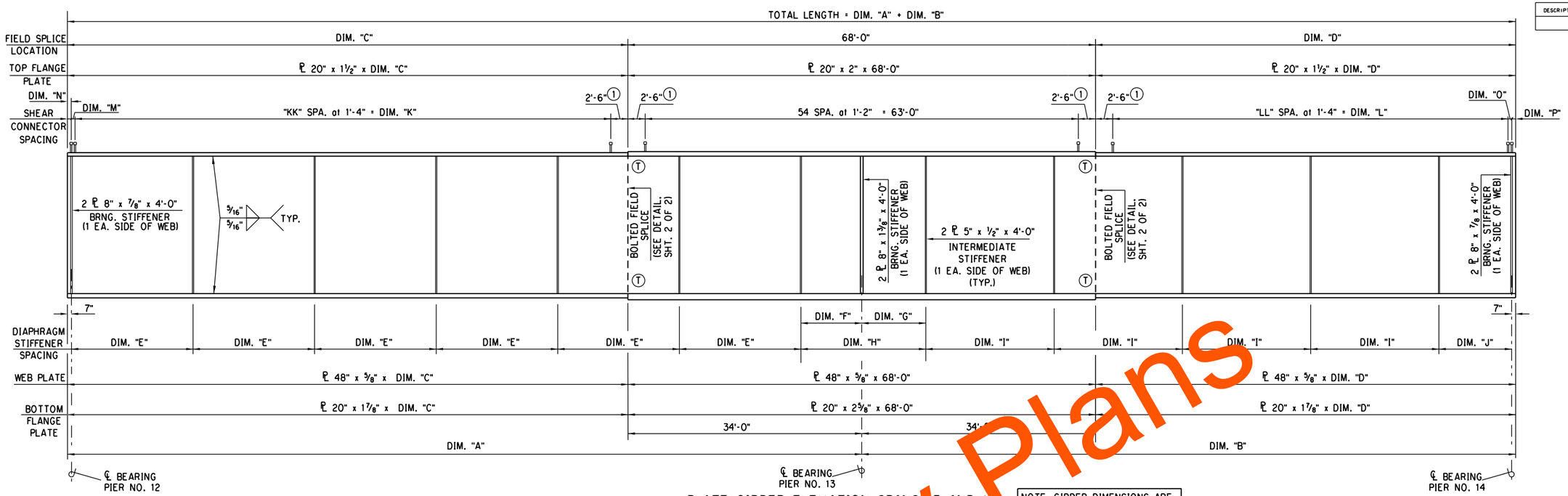


PLATE GIRDER ELEVATION SPANS 13 AND 14

NOTE: GIRDER DIMENSIONS ARE ALONG ℄ ARC OF WEB.

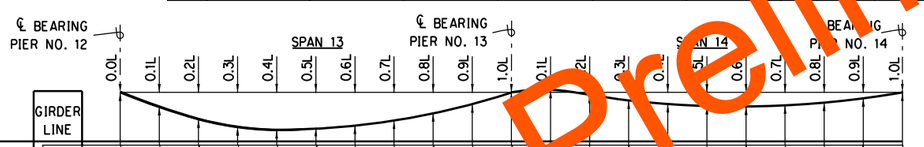
Ⓣ TENSION SPLICE

① SEE STUD SPACING THROUGH FIELD SPLICE (SHEET 2 OF 2)

Preliminary Plans

SPANS 13 & 14 GIRDER DIMENSION SCHEDULE

GIRDER	TOTAL LENGTH	DIM "A"	DIM "B"	DIM "C"	DIM "D"	DIM "E"	DIM "F"	DIM "G"	DIM "H"	DIM "I"	DIM "J"	"KK"	DIM "K"	"LL"	DIM "L"	DIM "M"	DIM "N"	DIM "O"	DIM "P"	CURVE RADIUS
A	210'-7 3/8"	115'-6 1/4"	95'-1 1/8"	81'-6 1/4"	61'-1 1/8"	17'-8 3/16"	8'-10 1/8"	[illegible]	[illegible]	18'-7 7/8"	10'-6 3/4"	59	78'-8"	43	57'-4"	--	4 1/4"	10"	5 1/8"	846.58'
B	215'-6 1/8"	116'-8 1/4"	98'-9 7/8"	82'-8 1/4"	64'-9 7/8"	17'-10 3/8"	8'-11"	9'-5	18'-4"	18'-10 1/8"	13'-5 3/8"	59	78'-8"	46	61'-4"	1'-1"	5 1/4"	6"	5 7/8"	855.08'
C	220'-4 3/4"	117'-10 1/8"	102'-6 5/8"	83'-10 1/8"	68'-6 5/8"	18'-0 1/2"	9'-[illegible]8"	[illegible]'-6 1/8	18'-6 1/4"	19'-0 3/8"	16'-4"	60	80'-0"	49	65'-4"	11"	5 1/8"	5"	3 5/8"	863.58'
D	225'-3 1/2"	119'-0 1/8"	106'-3 3/8"	85'-0 1/8"	72'-3 3/8"	18'-2 5[illegible]	[illegible]'-1 5/[illegible]6"	9'-5 5/16"	18'-8 5/8"	19'-2 5/8"	19'-2 5/8"	61	81'-4"	52	69'-4"	9"	5 1/8"	--	5 3/8"	872.08'



	GIRDER LINE	0.0L	0.1L	0.2L	0.3L	0.4L	0.5L	0.6L	0.7L	0.8L	0.9L	1.0L	0.1L	0.2L	0.3L	0.4L	0.5L	0.6L	0.7L	0.8L	0.9L	1.0L
DECK SLAB HAUNCH. RAIL & 5 psf SIP FORMS (IN INCHES)	A	0.00	0.53	0.98	1.29	1.43	1.40	1.21	0.91	0.55	0.22	0.00	0.03	0.03	0.14	0.26	0.35	0.40	0.38	0.30	0.17	0.00
	B	0.00	0.60	1.11	1.46	1.62	1.58	1.36	1.01	0.61	0.24	0.00	0.03	0.06	0.20	0.35	0.47	0.53	0.50	0.40	0.22	0.00
	C	0.00	0.66	1.22	1.61	1.79	1.74	1.50	1.11	0.67	0.26	0.00	0.02	0.08	0.25	0.43	0.58	0.64	0.61	0.48	0.27	0.00
	D	0.00	0.72	1.34	1.76	1.95	1.90	1.63	1.20	0.72	0.28	0.00	0.02	0.10	0.30	0.51	0.68	0.75	0.72	0.56	0.31	0.00
TOTAL DEFLECTION (NO FUTURE WEARING SURFACE) (IN INCHES)	A	0.00	0.69	1.27	1.67	1.87	1.83	1.58	1.18	0.72	0.29	0.00	0.04	0.05	0.19	0.34	0.46	0.52	0.50	0.40	0.22	0.00
	B	0.00	0.78	1.44	1.89	2.10	2.06	1.77	1.32	0.80	0.31	0.00	0.03	0.08	0.26	0.46	0.61	0.69	0.66	0.52	0.29	0.00
	C	0.00	0.86	1.59	2.09	2.32	2.26	1.95	1.45	0.87	0.34	0.00	0.03	0.11	0.33	0.56	0.75	0.83	0.79	0.63	0.35	0.00
	D	0.00	0.94	1.74	2.29	2.54	2.47	2.12	1.56	0.93	0.36	0.00	0.03	0.13	0.39	0.67	0.88	0.98	0.93	0.73	0.40	0.00

DEAD LOAD DEFLECTION DIAGRAM AND DEFLECTION SCHEDULE

DECK SLAB ELEVATION SCHEDULE AT 10TH POINTS

GIRDER	SPAN 13											SPAN 14									
	PIER 12 BRNG.	0.1L	0.2L	0.3L	0.4L	0.5L	0.6L	0.7L	0.8L	0.9L	PIER 13 BRNG.	0.1L	0.2L	0.3L	0.4L	0.5L	0.6L	0.7L	0.8L	0.9L	PIER 14 BRNG.
A	1311.11	1310.68	1310.26	1309.84	1309.41	1308.99	1308.57	1308.15	1307.72	1307.30	1306.88	1306.53	1306.18	1305.83	1305.49	1305.14	1304.79	1304.44	1304.10	1303.75	1303.40
B	1311.62	1311.19	1310.77	1310.35	1309.92	1309.50	1309.08	1308.66	1308.23	1307.81	1307.39	1307.03	1306.67	1306.31	1305.96	1305.60	1305.24	1304.88	1304.53	1304.17	1303.81
C	1312.13	1311.70	1311.28	1310.86	1310.43	1310.01	1309.59	1309.17	1308.74	1308.32	1307.90	1307.53	1307.16	1306.79	1306.43	1306.06	1305.69	1305.32	1304.96	1304.59	1304.22
D	1312.64	1312.21	1311.79	1311.37	1310.94	1310.52	1310.10	1309.68	1309.25	1308.83	1308.41	1308.03	1307.65	1307.28	1306.90	1306.52	1306.14	1305.77	1305.39	1305.01	1304.63

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PHASE 2 — OKLAHOMA COUNTY
BRIDGE "B" — RAMP "B" AT I-35 & I-240 INTERCHANGE

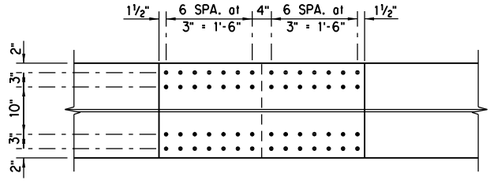
DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PLATE GIRDER DETAILS SPANS 13 AND 14

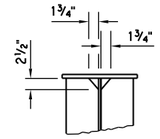
(SHEET 1 OF 2)

STATE JOB NO. 09032(06) SHEET NO. B142

DESCRIPTION	REVISIONS	DATE



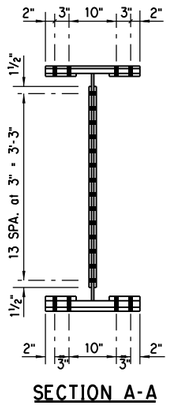
TOP FLANGE



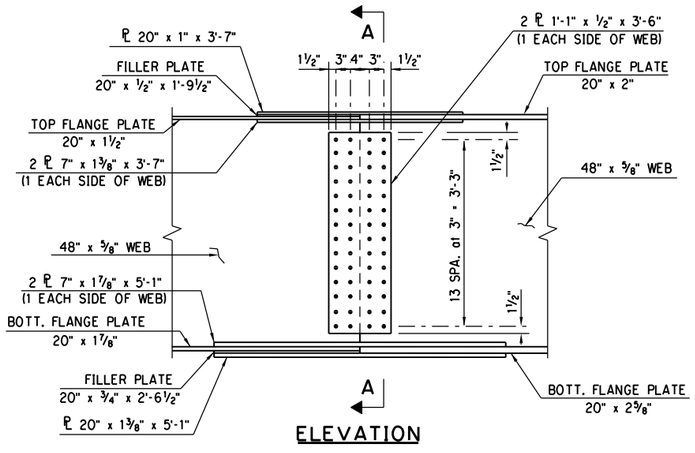
TYP. CORNER CLIP

(ALL STIFFENERS TOP AND BOTTOM)

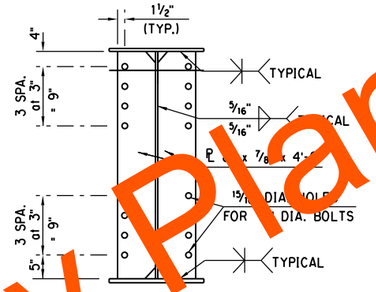
NOTE: TERMINATE FILLET WELDS ⅜" FROM THE EDGE OF CLIPPED CORNERS OF ALL STIFFENER PLATES AND NON-CLIPPED CORNERS OF INTERMEDIATE DIAPHRAGM STIFFENERS. WRAP FILLET WELDS AROUND NON-CLIPPED CORNERS OF BEARING STIFFENERS.



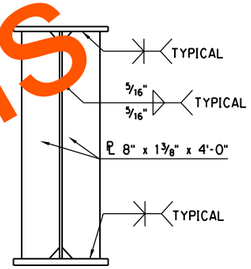
SECTION A-A



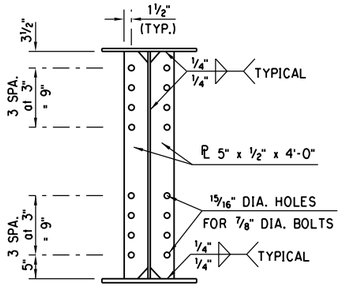
ELEVATION



BEARING STIFFENER PIERS NO. 12 AND 14



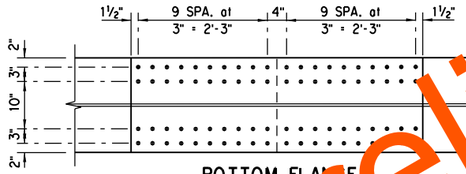
BEARING STIFFENER PIER NO. 13



INTERMEDIATE STIFFENER

NOTE: SEE PLATE GIRDER ELEVATION, SHEET 1 OF 2 AND 'FRAMING PLAN AND DIAPHRAGM DETAILS' SHEET FOR LOCATIONS OF STIFFENERS.

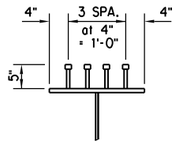
OMIT BOLT HOLES ON EXTERIOR STIFFENERS ON EXTERIOR GIRDERS.



BOTTOM FLANGE

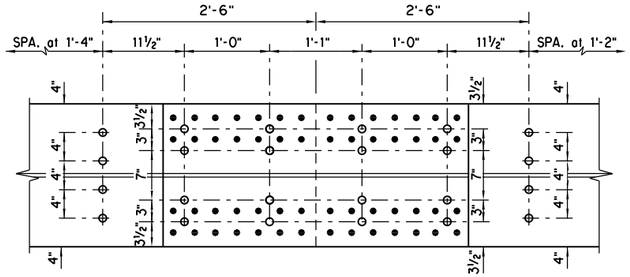
BOLTED FIELD SPLICE DETAIL

(LEFT SPLICE SHOWN, RIGHT OPPOSITE HAND)



STUD SHEAR CONNECTORS

(4 - ⅞" DIA. x 5" STUDS)



STUD SPACING THROUGH FIELD SPLICE

(LEFT SPLICE SHOWN, RIGHT OPPOSITE HAND)

NOTES:

ALL GIRDER, STIFFENER AND SPLICE PLATES SHALL BE AASHTO M270, (ASTM A709) GRADE 50W.

ALL GIRDER, STIFFENER AND SPLICE PLATES SHALL CONFORM TO THE NON-FRACTURE CRITICAL CHARPY V-NOTCH TESTED FOR ZONE 2.

USE SHEAR CONNECTORS CONFORMING TO AASHTO M169 (ASTM A108), GRADE 1015, 1018, 1020.

PROVIDE WELDING WITH WEATHERING CHARACTERISTICS.

ALL BOLTS SHALL BE ⅞" DIA. ASTM A325 TYPE 3 WITH HEAVY HEX NUTS, HARDENED CIRCULAR WASHERS, AND 15/16" DIA. HOLES, UNLESS OTHERWISE NOTED.

SPLICE BOLTS SHALL BE PLACED WITH HEADS ON THE OUTSIDE FACE OF EXTERIOR GIRDERS AND ON BOTTOM OF GIRDER FLANGES.

BOLT THREADS MUST BE EXCLUDED FROM FIELD SPLICE SHEAR PLANES.

NO FIELD WELDING TO GIRDERS WILL BE ALLOWED EXCEPT AS SHOWN ON PLANS.

GIRDERS ARE SHOWN AND DIMENSIONED WITH TOP FLANGE IN THE HORIZONTAL POSITION. VERTICAL CURVATURE AND EFFECTS OF DEAD LOAD DEFLECTION HAVE NOT BEEN TAKEN INTO CONSIDERATION. SHOP DRAWINGS SHALL INCLUDE BLOCKING DIAGRAM FOR EACH GIRDER SHOWING ALL ADJUSTMENTS NECESSARY FOR DEAD LOAD DEFLECTION AND VERTICAL CURVATURE. THE WEB PLATES SHALL BE FABRICATED WITH CAMBER FOR DEAD LOAD DEFLECTION AND VERTICAL CURVATURE.

Preliminary Plans

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 — OKLAHOMA COUNTY

BRIDGE "B" — RAMP "B" AT I-35 & I-240 INTERCHANGE

PLATE GIRDER DETAILS SPANS 13 AND 14

(SHEET 2 OF 2)

STATE JOB NO. 09032(06) SHEET NO. B143

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DESCRIPTION	REVISIONS	DATE

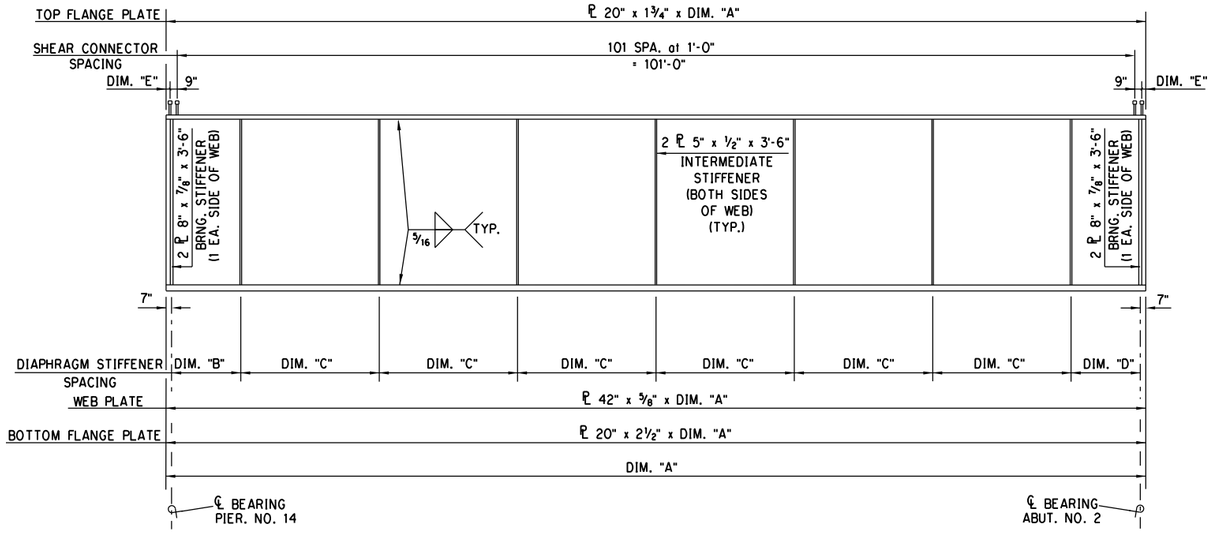
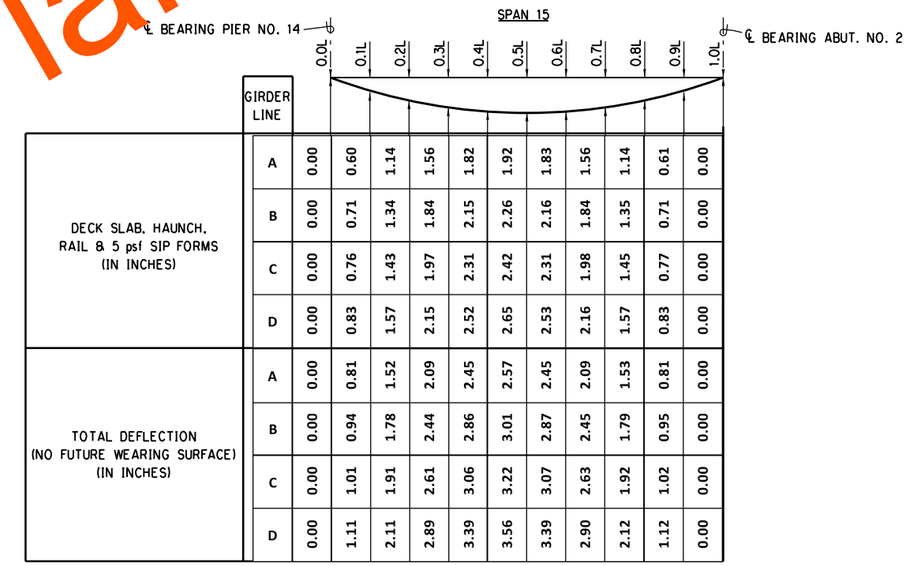


PLATE GIRDER ELEVATION SPAN 15

GIRDER	SPAN 15 GIRDER DIMENSION SCHEDULE					
	DIM "A"	DIM "B"	DIM "C"	DIM "D"	DIM "E"	CURVE RADIUS
A	103'-5 3/8"	15'-1 1/2"	14'-1 7/8"	2'-2 5/8"	5 11/16"	846.58'
B	103'-4 7/8"	12'-6 1/8"	14'-3 5/8"	3'-11"	5 7/16"	855.08'
C	103'-3 1/2"	9'-10 3/4"	14'-5 1/4"	5'-7 1/4"	4 3/4"	863.58'
D	103'-3"	7'-3 1/2"	14'-7"	7'-3 1/2"	4 1/2"	872.08'

Preliminary Plans

GIRDER	DECK SLAB ELEVATION SCHEDULE AT 10TH POINTS — SPAN 15										
	PIER 14 BRNG.	0.1L	0.2L	0.3L	0.4L	0.5L	0.6L	0.7L	0.8L	0.9L	PIER 15 BRNG.
A	1303.34	1302.97	1302.59	1302.21	1301.83	1301.46	1301.08	1300.70	1300.32	1299.95	1299.57
B	1303.75	1303.38	1303.01	1302.63	1302.26	1301.89	1301.51	1301.14	1300.77	1300.39	1300.02
C	1304.16	1303.80	1303.43	1303.06	1302.69	1302.32	1301.95	1301.58	1301.21	1300.84	1300.47
D	1304.58	1304.21	1303.85	1303.48	1303.12	1302.75	1302.38	1302.02	1301.65	1301.29	1300.92



DEAD LOAD DEFLECTION DIAGRAM AND DEFLECTION SCHEDULE

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PHASE 2 — OKLAHOMA COUNTY
BRIDGE "B" — RAMP "B" AT I-35 & I-240 INTERCHANGE

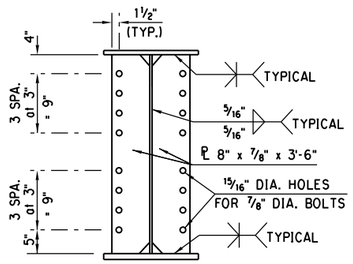
DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PLATE GIRDER DETAILS SPAN 15

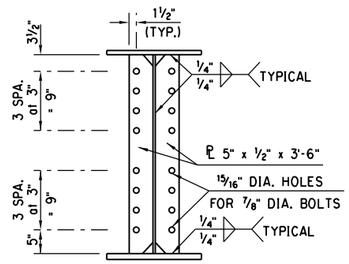
(SHEET 1 OF 2)

STATE JOB NO. 09032(06) SHEET NO. B144

DESCRIPTION	REVISIONS	DATE



BEARING STIFFENER
PIER NO. 14 AND ABUT. NO. 2



INTERMEDIATE STIFFENER

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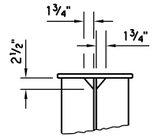
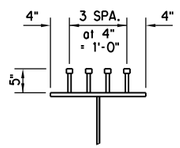
OMIT BOLT HOLES ON EXTERIOR STIFFENERS ON EXTERIOR GIRDERS.



TYP. CORNER CLIP
(ALL STIFFENERS TOP AND BOTTOM)

NOTE: TERMINATE FILLET WELDS 3/8" FROM THE EDGE OF CLIPPED CORNERS OF ALL STIFFENER PLATES AND NON-CLIPPED CORNERS OF INTERMEDIATE DIAPHRAGM STIFFENERS. WRAP FILLET WELDS AROUND NON-CLIPPED CORNERS OF BEARING STIFFENERS.



STUD
SHEAR CONNECTORS
(4 - 7/8" DIA. x 5" STUDS)

NOTES:

ALL GIRDER, STIFFENER AND SPLICE PLATES SHALL BE AASHTO M270, (ASTM A709) GRADE 50W.

ALL GIRDER, STIFFENER AND SPLICE PLATES SHALL CONFORM TO THE NON-FRACTURE CRITICAL CHARPY V-NOTCH TESTED FOR ZONE 2.

USE SHEAR CONNECTORS CONFORMING TO AASHTO M169 (ASTM A108), GRADE 1015, 1018, 1020.

PROVIDE WELDING WITH WEATHERING CHARACTERISTICS.

ALL BOLTS SHALL BE 7/8" DIA. ASTM A325 TYPE 3 WITH HEAVY HEX NUTS, HARDENED CIRCULAR WASHERS, AND 15/16" DIA. HOLES, UNLESS OTHERWISE NOTED.

SPLICE BOLTS SHALL BE PLACED WITH HEADS ON THE OUTSIDE FACE OF EXTERIOR GIRDERS AND ON BOTTOM OF GIRDER FLANGES.

BOLT THREADS MUST BE EXCLUDED FROM FIELD SPLICE SHEAR PLANES.

NO FIELD WELDING TO GIRDERS WILL BE ALLOWED EXCEPT AS SHOWN ON PLANS.

GIRDERS ARE SHOWN AND DIMENSIONED WITH TOP FLANGE IN THE HORIZONTAL POSITION. VERTICAL CURVATURE AND EFFECTS OF DEAD LOAD DEFLECTION HAVE NOT BEEN TAKEN INTO CONSIDERATION. SHOP DRAWINGS SHALL INCLUDE BLOCKING DIAGRAM FOR EACH GIRDER SHOWING ALL ADJUSTMENTS NECESSARY FOR DEAD LOAD DEFLECTION AND VERTICAL CURVATURE. THE WEB PLATES SHALL BE FABRICATED WITH CAMBER FOR DEAD LOAD DEFLECTION AND VERTICAL CURVATURE.

Preliminary Plans

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 OKLAHOMA COUNTY
BRIDGE "B" RAMP "B" AT I-35 & I-240 INTERCHANGE

PLATE GIRDER DETAILS
SPAN 15
(SHEET 2 OF 2)

STATE JOB NO. 09032(106) SHEET NO. B145

6/1/2022 11:07:20 AM
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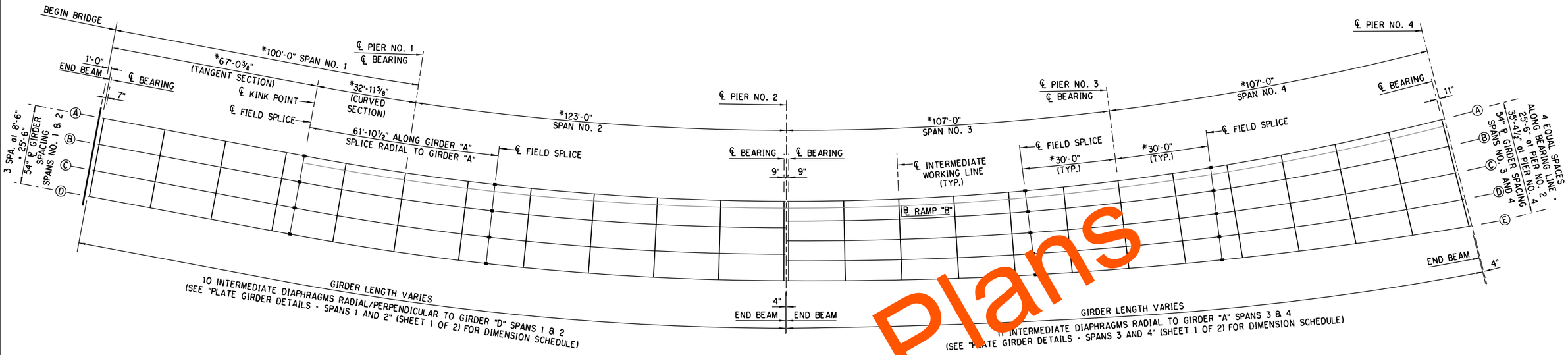
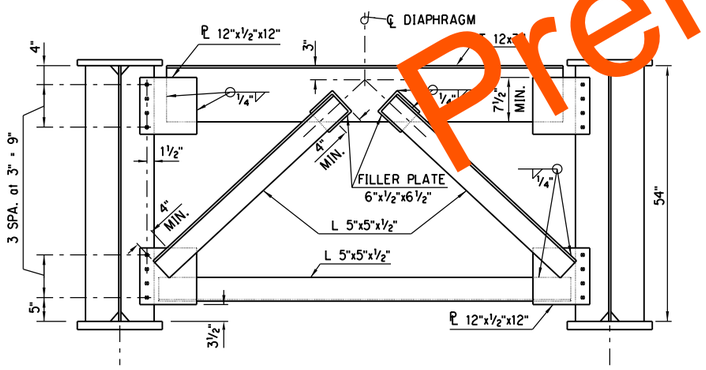
DESCRIPTION	REVISIONS	DATE

*NOTE: LENGTH MEASURED ALONG ℄ RAMP "B"

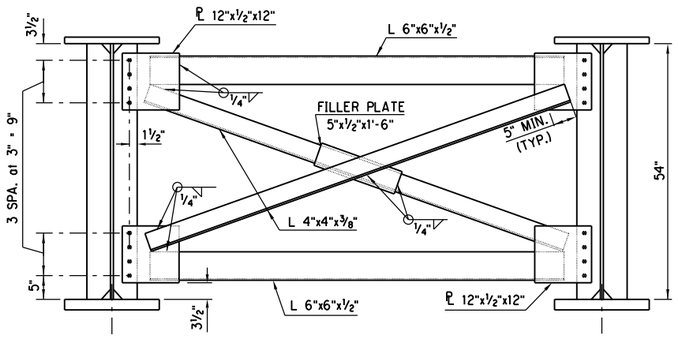


FRAMING PLAN
SPANS 1 THRU 4

Preliminary Plans



SPANS NO. 1 THRU 4 END DIAPHRAGMS
(ABUTMENT AND PIERS NO. 2 & 4)
(M270 GRADE 50W STEEL)



SPANS NO. 1 THRU 4 INTERMEDIATE DIAPHRAGMS
(INCL. PIERS NO. 1 & 3)
(M270 GRADE 50W STEEL)

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 — OKLAHOMA COUNTY
BRIDGE "B" — RAMP "B" AT I-35 & I-240 INTERCHANGE

FRAMING PLAN AND DIAPHRAGM DETAILS

(SHEET 1 OF 6)

STATE JOB NO. 09032(06) SHEET NO. B146

6/1/2022 11:07:25 AM
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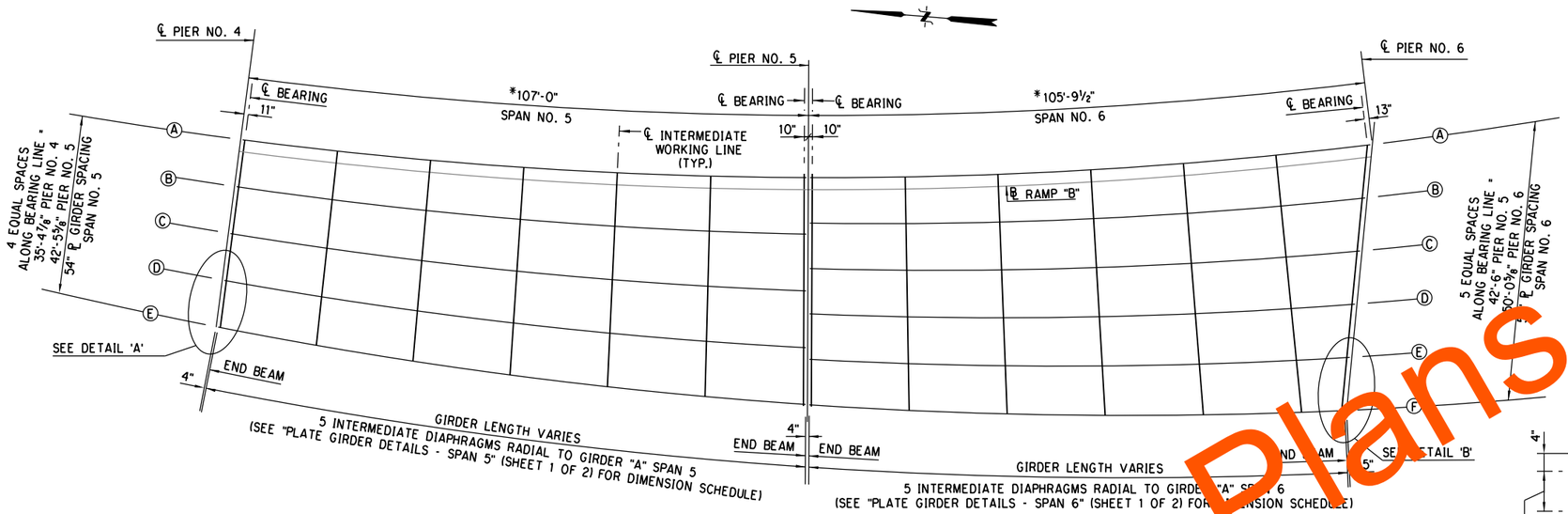
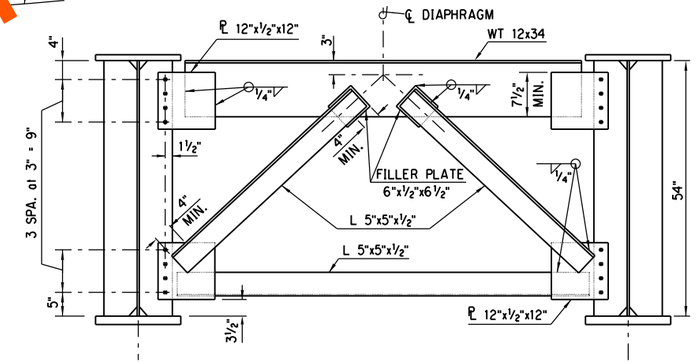
DESCRIPTION	REVISIONS	DATE

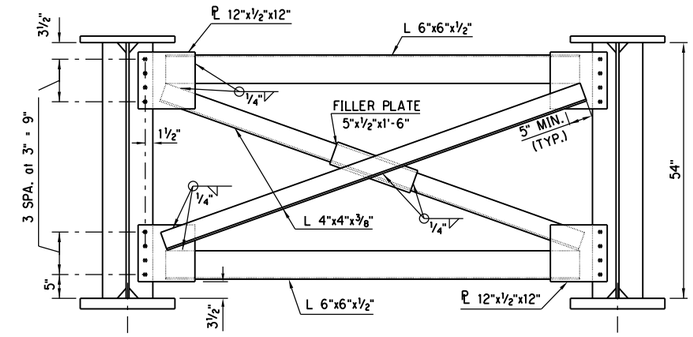
*NOTE: LENGTH MEASURED ALONG ℄ RAMP "B"



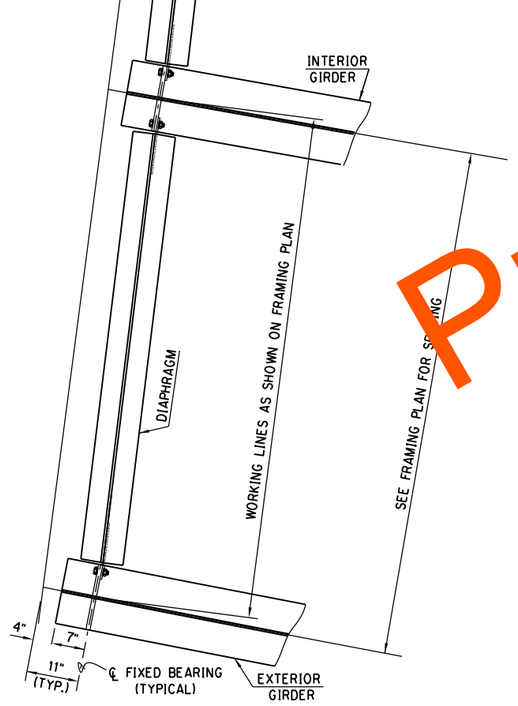
FRAMING PLAN
SPANS NO. 5 AND 6



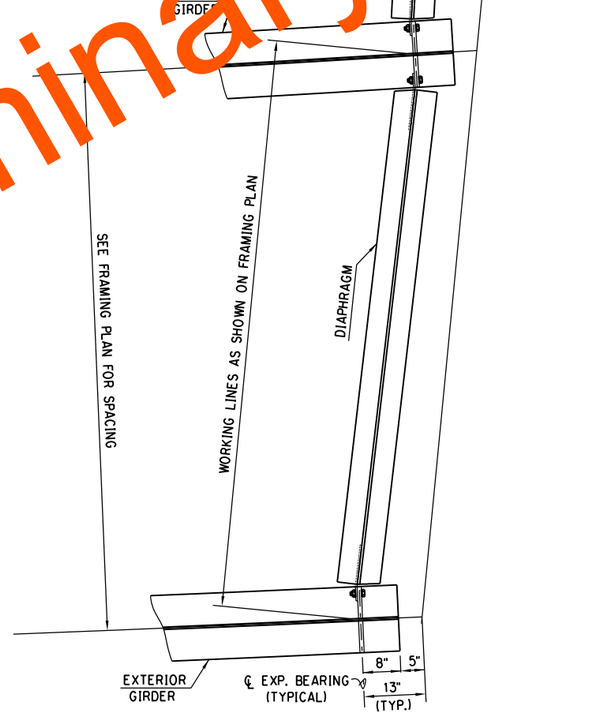
SPANS NO. 5 AND 6 END DIAPHRAGMS
(PIERS NO. 4 THRU 6)
(M270 GRADE 50W STEEL)



SPANS NO. 5 AND 6 INTERMEDIATE DIAPHRAGMS
(M270 GRADE 50W STEEL)



DETAIL 'A'
DETAIL AT PIER NO. 4



DETAIL 'B'
DETAIL AT PIER NO. 6

Preliminary Plans

	PHASE 2	OKLAHOMA COUNTY
DESIGN	BRIDGE "B"	RAMP "B" AT I-35 & I-240 INTERCHANGE
DRAWN	FRAMING PLAN AND DIAPHRAGM DETAILS (SHEET 2 OF 6)	
CHECKED		
APPROVED		
SQUAD POE	STATE JOB NO. 09032(06)	SHEET NO. B147

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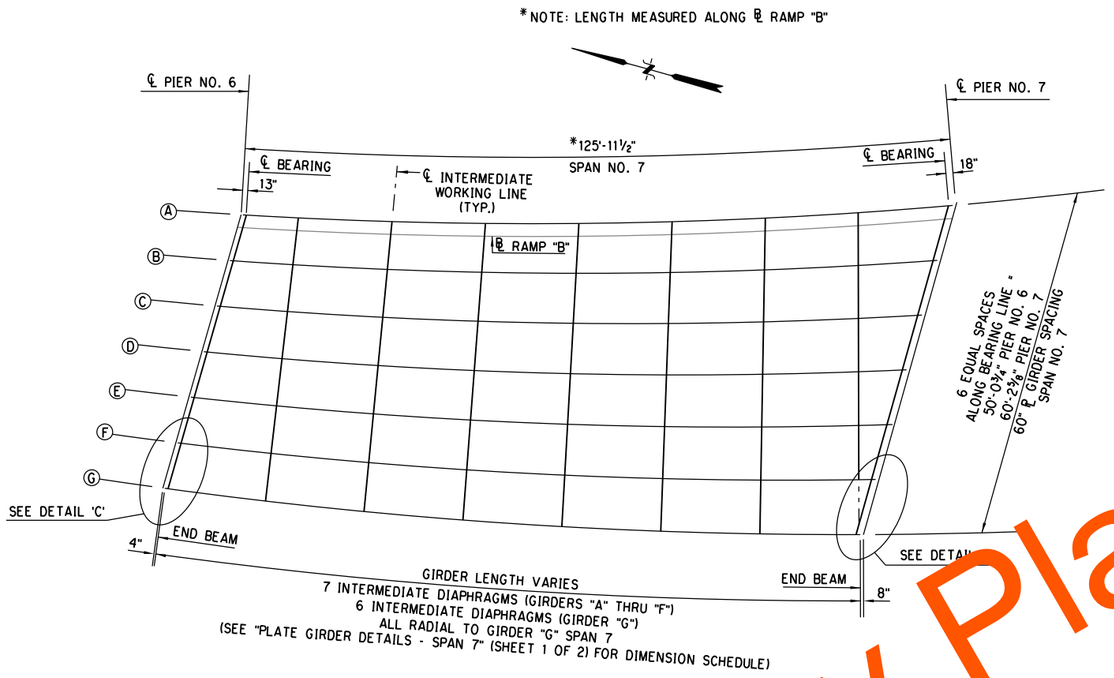
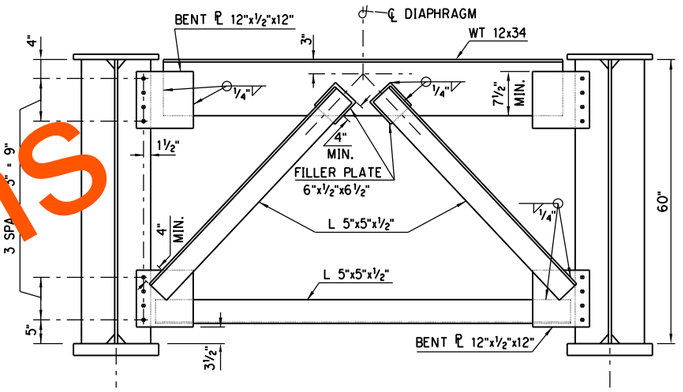
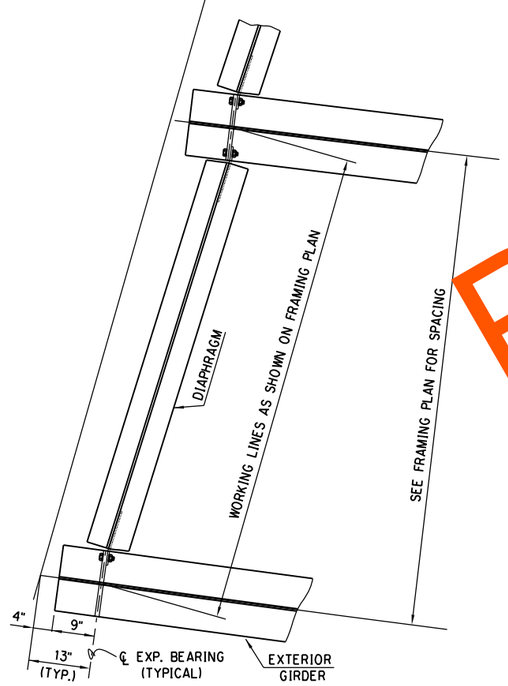
REVISIONS		
DESCRIPTION		DATE



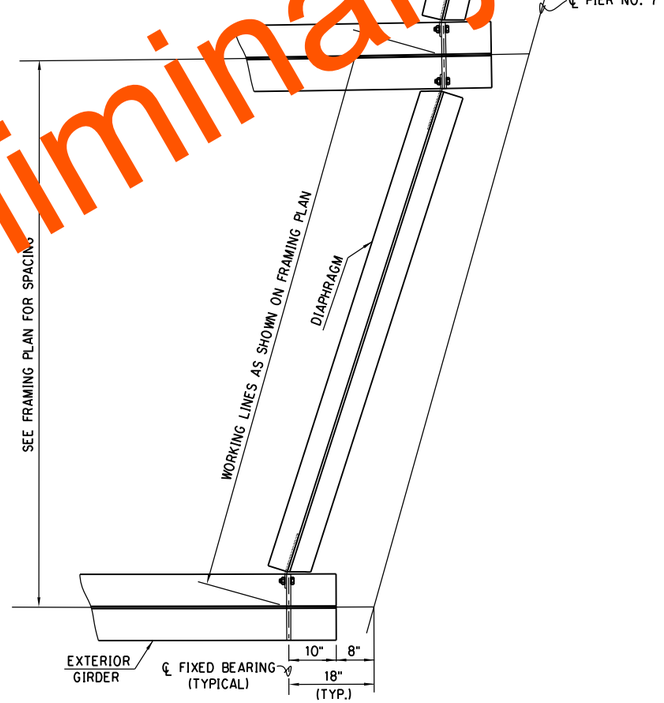
FRAMING PLAN
SPAN NO. 7



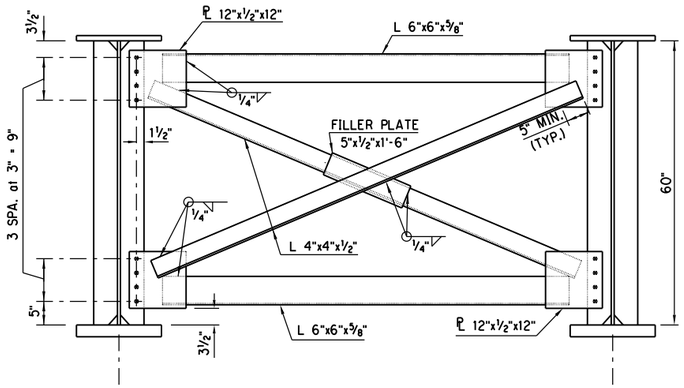
SPAN NO. 7 END DIAPHRAGMS
(PIERS NO. 6 AND 7)
(M270 GRADE 50W STEEL)



DETAIL 'C'
DETAIL AT PIER NO. 6



DETAIL 'D'
DETAIL AT PIER NO. 7



SPAN NO. 7 INTERMEDIATE DIAPHRAGMS
(M270 GRADE 50W STEEL)

Preliminary Plans

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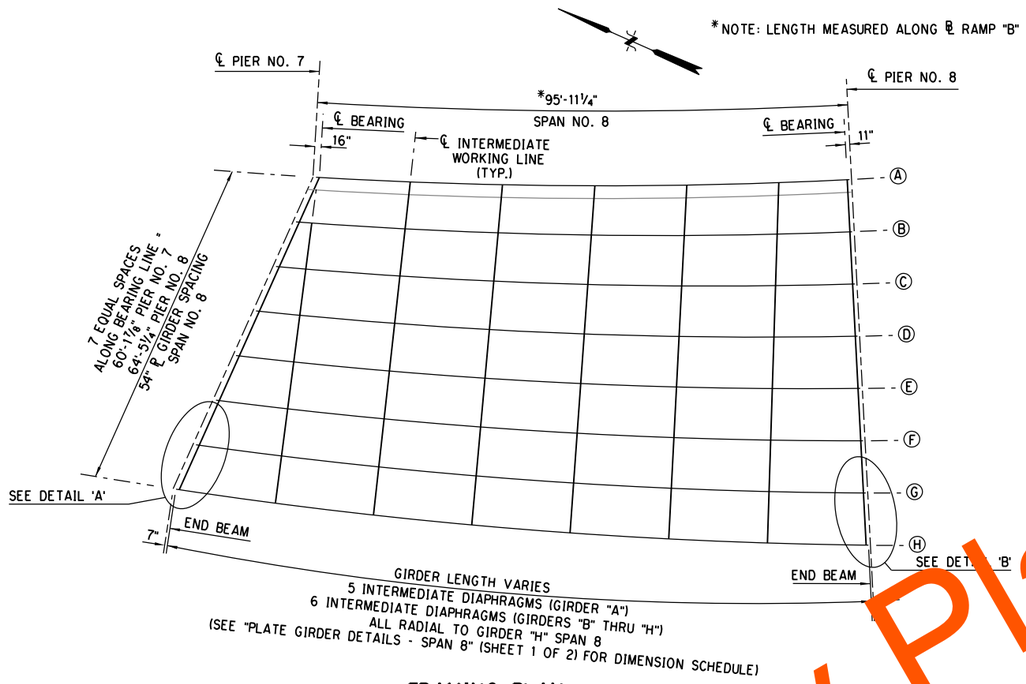
DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 — OKLAHOMA COUNTY
BRIDGE "B" — RAMP "B" AT I-35 & I-240 INTERCHANGE

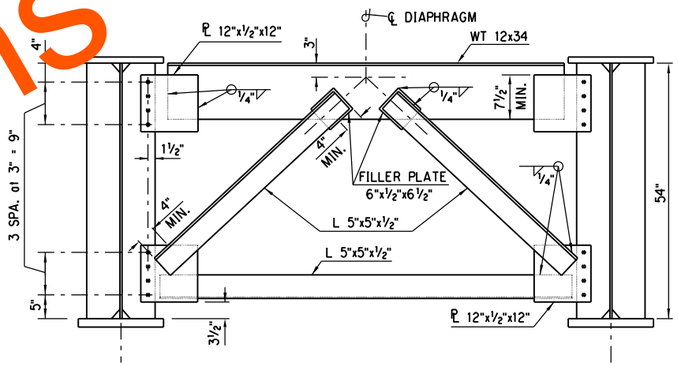
FRAMING PLAN AND DIAPHRAGM DETAILS
(SHEET 3 OF 6)

STATE JOB NO. 09032(106) SHEET NO. B148

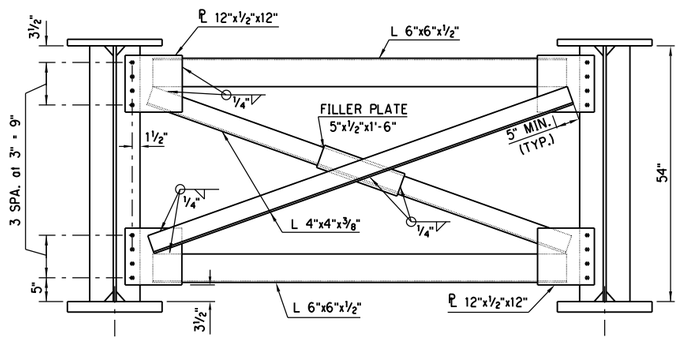
REVISIONS		
DESCRIPTION		DATE



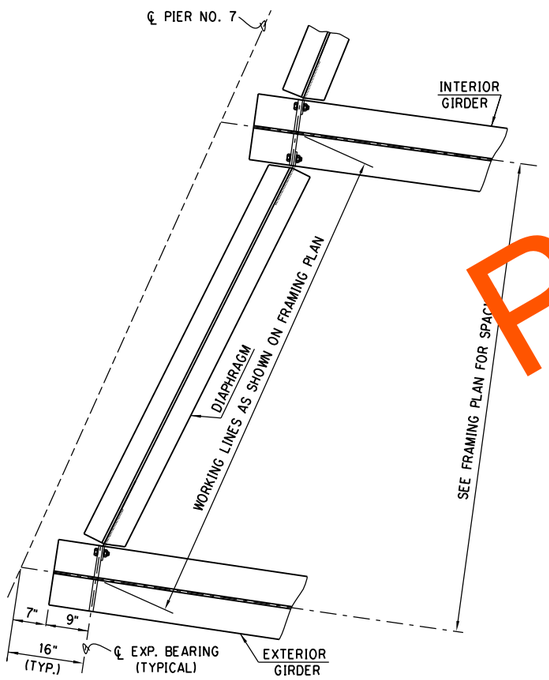
FRAMING PLAN
SPAN NO. 8



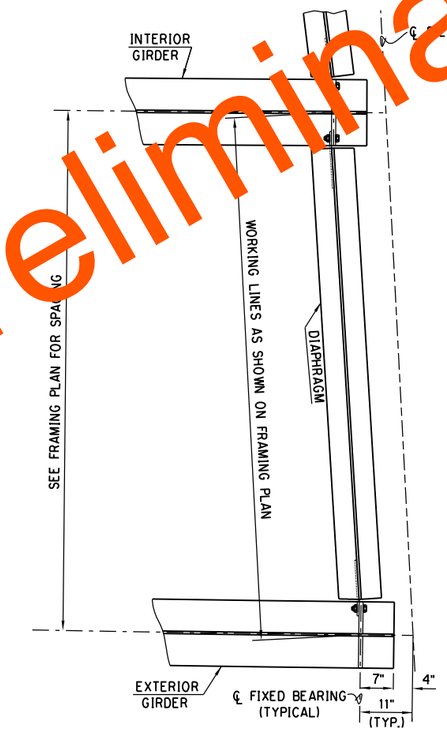
SPAN NO. 8 END DIAPHRAGMS
(PIERS NO. 7 & 8)
(M270 GRADE 50W STEEL)



SPAN NO. 8 INTERMEDIATE DIAPHRAGMS
(M270 GRADE 50W STEEL)



DETAIL 'A'
DETAIL AT PIER NO. 7



DETAIL 'B'
DETAIL AT PIER NO. 8

Preliminary Plans

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 — OKLAHOMA COUNTY
BRIDGE "B" — RAMP "B" AT I-35 & I-240 INTERCHANGE

FRAMING PLAN AND DIAPHRAGM DETAILS
(SHEET 4 OF 6)

STATE JOB NO. 09032(106) SHEET NO. B149

6/1/2022 11:07:27 AM
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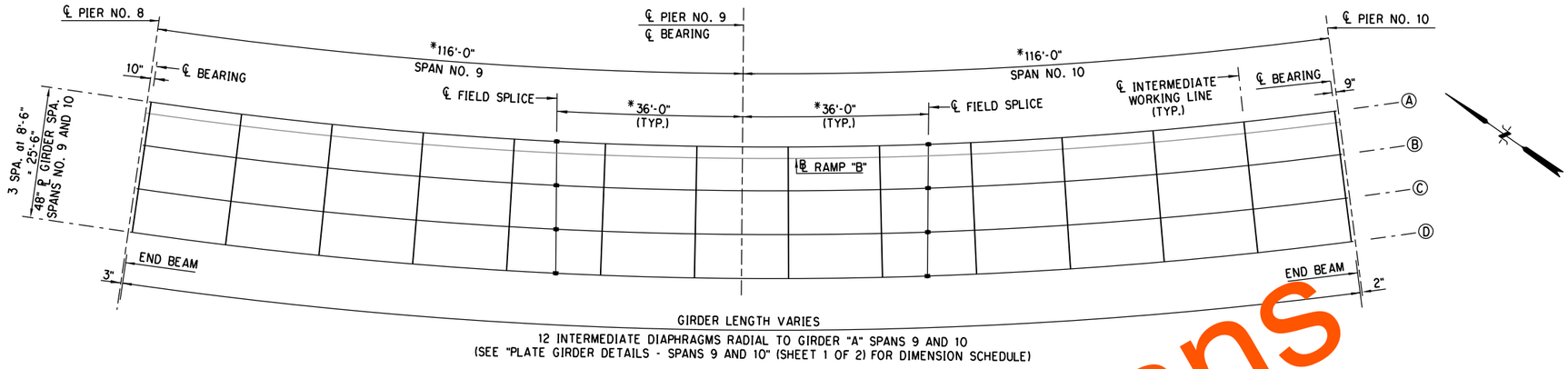
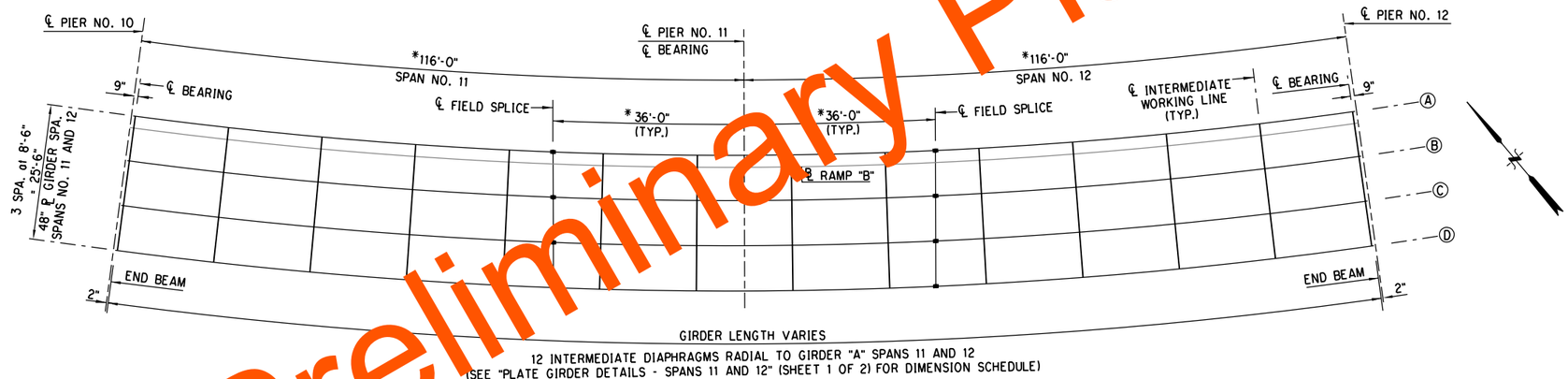
REVISIONS		
DESCRIPTION		DATE

*NOTE: LENGTH MEASURED ALONG ℄ RAMP "B"



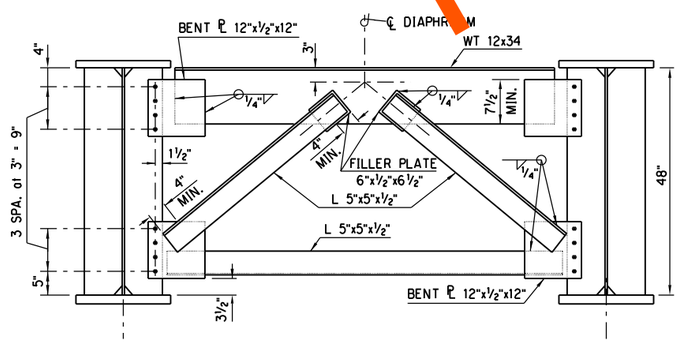
12 INTERMEDIATE DIAPHRAGMS RADIAL TO GIRDER "A" SPANS 9 AND 10
(SEE "PLATE GIRDER DETAILS - SPANS 9 AND 10" (SHEET 1 OF 2) FOR DIMENSION SCHEDULE)

FRAMING PLAN
SPANS NO. 9 AND 10

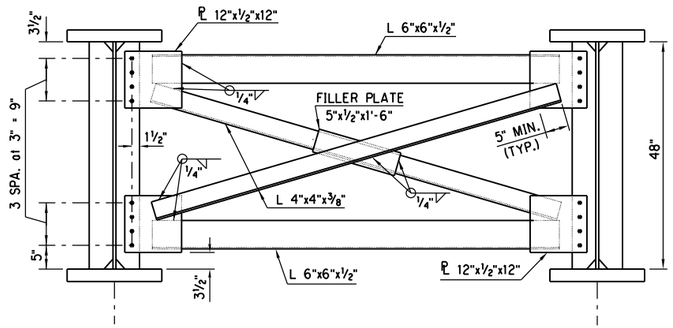


12 INTERMEDIATE DIAPHRAGMS RADIAL TO GIRDER "A" SPANS 11 AND 12
(SEE "PLATE GIRDER DETAILS - SPANS 11 AND 12" (SHEET 1 OF 2) FOR DIMENSION SCHEDULE)

FRAMING PLAN
SPANS NO. 11 AND 12



SPANS NO. 9 THRU 14 END DIAPHRAGMS
(PIERS NO. 8, 10, 12 AND 14)
(M270 GRADE 50W STEEL)



SPANS NO. 9 THRU 14 INTERMEDIATE DIAPHRAGMS
(M270 GRADE 50W STEEL)

Preliminary Plans

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 — OKLAHOMA COUNTY
BRIDGE "B" — RAMP "B" AT I-35 & I-240 INTERCHANGE

FRAMING PLAN AND DIAPHRAGM DETAILS
(SHEET 5 OF 6)

STATE JOB NO. 09032(106) SHEET NO. B150

6/1/2022 11:07:27 AM
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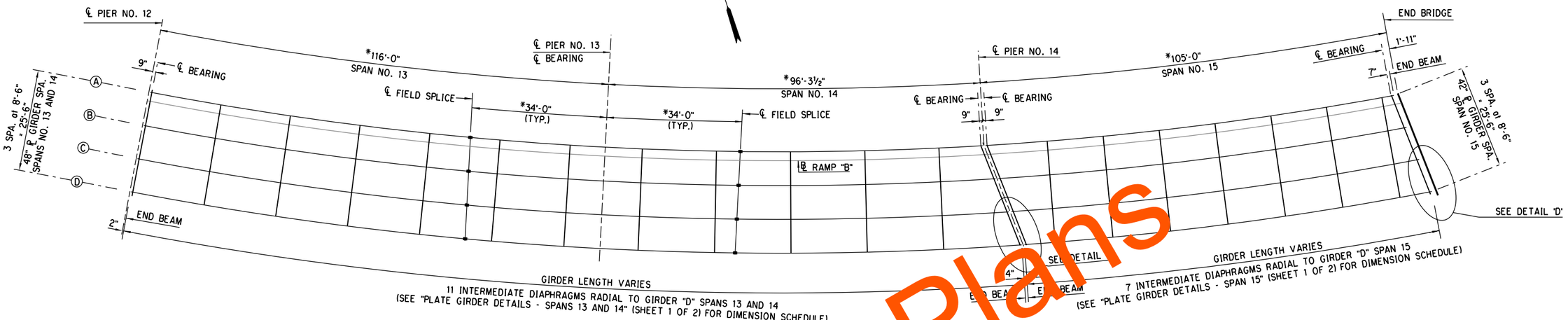
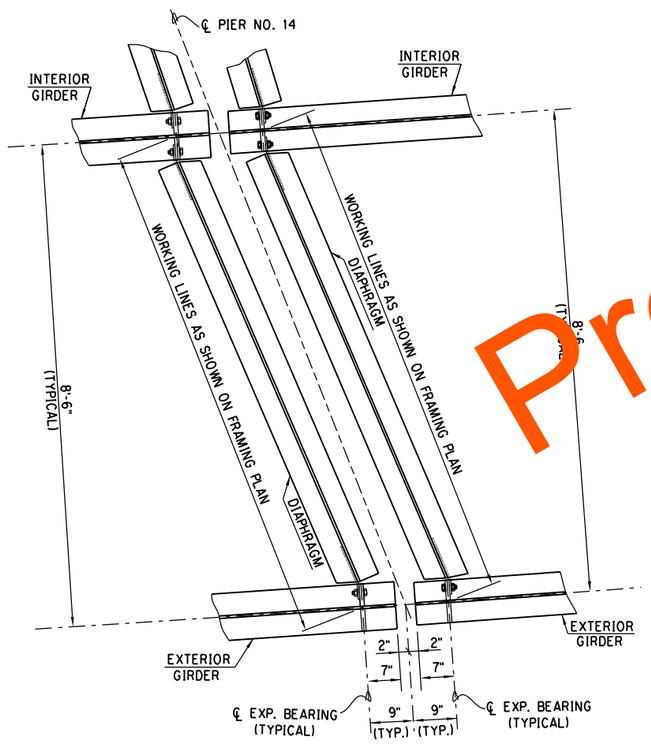
DESCRIPTION	REVISIONS	DATE

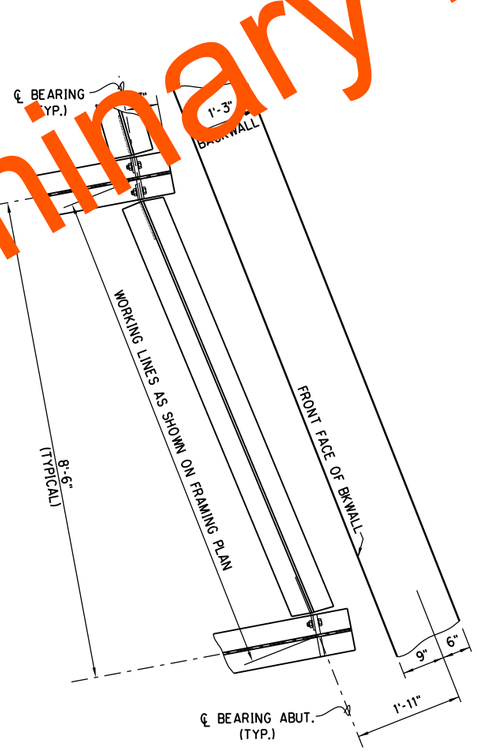
*NOTE: LENGTH MEASURED ALONG ℄ RAMP "B"



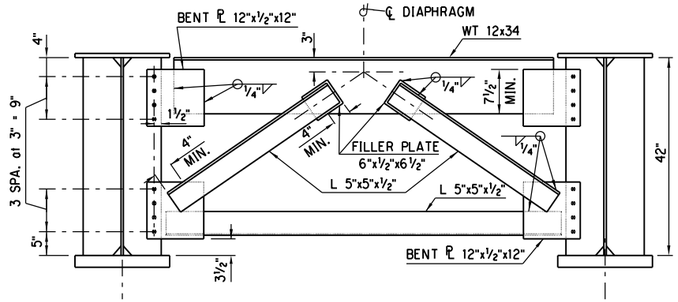
FRAMING PLAN
SPANS NO. 13, 14, AND 15



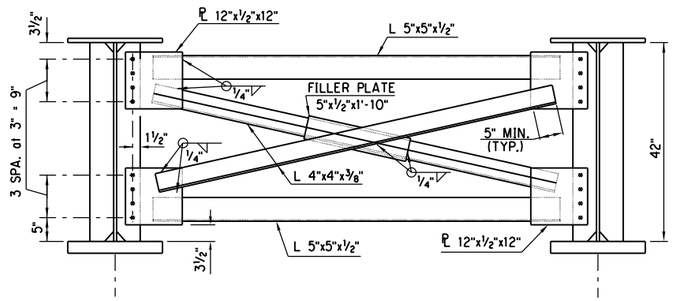
DETAIL 'C'
DETAIL AT PIER NO. 14



DETAIL 'D'
DETAIL AT ABUTMENT



SPAN NO. 15 END DIAPHRAGMS
(PIER NO. 14 AND ABUTMENT)
(M270 GRADE 50W STEEL)



SPAN NO. 15 INTERMEDIATE DIAPHRAGMS
(M270 GRADE 50W STEEL)

	PHASE 2	OKLAHOMA COUNTY
DESIGN		BRIDGE "B" RAMP "B" AT I-35 & I-240 INTERCHANGE
DRAWN		FRAMING PLAN AND DIAPHRAGM DETAILS
CHECKED		(SHEET 6 OF 6)
APPROVED		STATE JOB NO. 09032(106) SHEET NO. B151
SQUAD	POE	

Preliminary Plans

6/1/2022 11:07:28 AM
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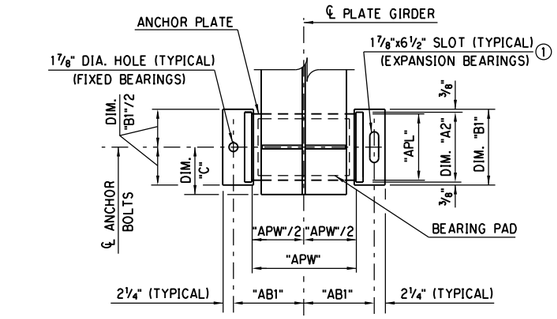
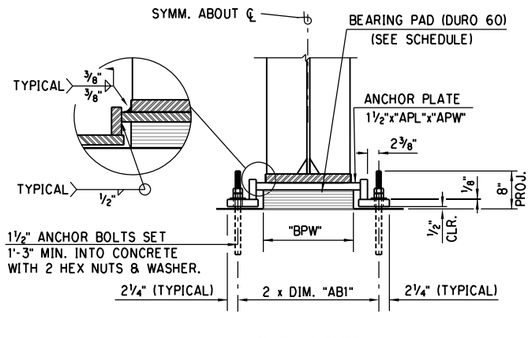
DESCRIPTION	REVISIONS	DATE

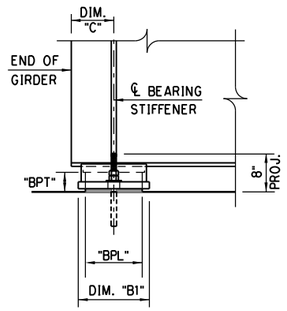
NOTE: ANCHOR BOLTS OMITTED FROM PLAN VIEW FOR CLARITY.



PLAN



ELEVATION

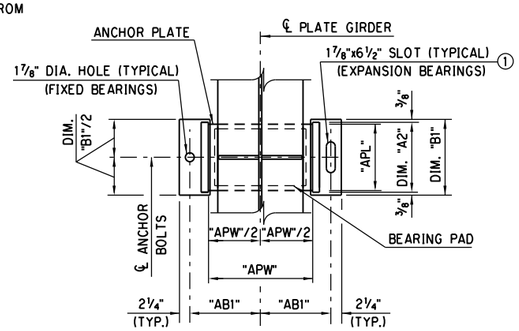


SIDE VIEW

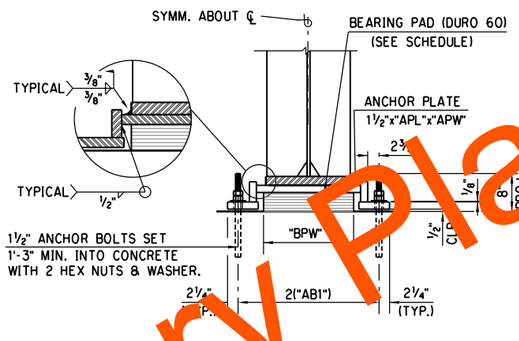
(SEE SCHEDULE FOR DIMENSIONS)

DETAILS OF END BEARING ASSEMBLY

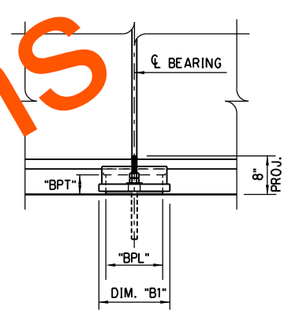
① ANCHOR BOLTS SHALL BE CENTERED IN SLOTS DURING SETTING OF BEAMS. DIMENSION MAY VARY DEPENDING ON TEMPERATURE AT THE TIME OF BEAM SETTING.



PLAN



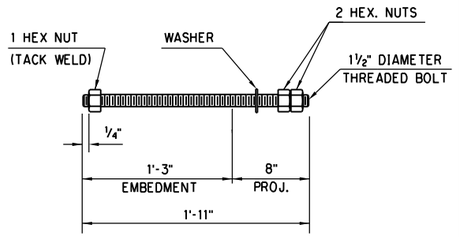
ELEVATION



SIDE VIEW

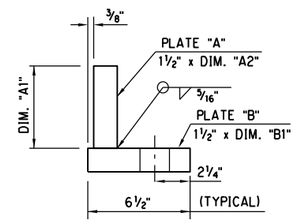
(SEE SCHEDULE FOR DIMENSIONS)

DETAILS OF CONTINUOUS BEARING ASSEMBLY



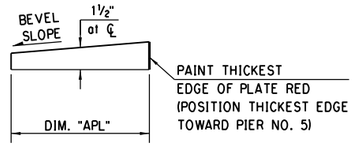
DETAIL OF BEARING ANCHOR BOLT

(SEE SEC. 724.05 OF THE STANDARD SPECIFICATIONS.)



(SEE SCHEDULE FOR DIMENSIONS)

BUILT-UP CONTACT ANGLE DETAIL



(SEE SCHEDULE FOR DIMENSIONS)

BEVELED ANCHOR PLATE DETAILS

BEARING PAD AND ANCHOR ASSEMBLY SCHEDULE

SPAN	LOCATION	60 DUROMETER BEARING PAD THICKNESS "BPT"	LENGTH "BPL"	WIDTH "BPW"	COVER NO.	COVER THICK	INNER NO.	INNER THICK	LAMINATES NO.	LAMINATES THICK	1 1/2" ANCHOR PLATE LENGTH DIM."APL"	WIDTH DIM."APW"	BEVEL SLOPE	1 1/2" BUILT-UP CONTACT ANGLE PLATE "A" DIM "A1"	PLATE "A" DIM "A2"	PLATE "B" DIM "B1"	PLATE "B" DIM "AB1"	STIFFENER OFFSET DIM "C"
1 & 2	ABUT 1	4 1/8"	9"	1'-3"	2	1/4"	7	3/8"	8	1/8"	10"	2'-0"	3.50%	4 1/4"	11 1/4"	1'-0"	1'-3 7/8"	7"
	PIER 1	4 1/8"	11"	1'-3"	2	1/4"	7	3/8"	8	1/8"	1'-0"	2'-0"	3.50%	4 1/4"	1'-1 1/4"	1'-2"	1'-3 7/8"	--
	PIER 2	4 5/8"	9"	1'-3"	2	1/4"	8	3/8"	9	1/8"	10"	2'-0"	3.00%	4 3/4"	11 1/4"	1'-0"	1'-3 7/8"	7"
3 & 4	PIER 2	4 1/8"	9"	1'-3"	2	1/4"	7	3/8"	8	1/8"	10"	1'-10"	2.50%	4 1/4"	11 1/4"	1'-0"	1'-2 7/8"	7"
	PIER 3	5 1/8"	11"	1'-6"	2	1/4"	9	3/8"	10	1/8"	1'-0"	1'-10"	1.50%	5 1/4"	1'-1 1/4"	1'-2"	1'-2 7/8"	--
	PIER 4	4 1/8"	9"	1'-3"	2	1/4"	7	3/8"	8	1/8"	10"	1'-10"	1.00%	4 1/4"	11 1/4"	1'-0"	1'-2 7/8"	7"
5	PIER 4	4 1/8"	9"	1'-3"	2	1/4"	7	3/8"	8	1/8"	10"	1'-10"	1.00%	4 1/4"	11 1/4"	1'-0"	1'-2 7/8"	7"
	PIER 5	4 1/8"	9"	1'-3"	2	1/4"	7	3/8"	8	1/8"	10"	1'-10"	0.00%	4 1/4"	11 1/4"	1'-0"	1'-2 7/8"	8"
6	PIER 5	4 1/8"	9"	1'-3"	2	1/4"	7	3/8"	8	1/8"	10"	1'-10"	0.00%	4 1/4"	11 1/4"	1'-0"	1'-2 7/8"	8"
	PIER 6	4 1/8"	9"	1'-3"	2	1/4"	7	3/8"	8	1/8"	10"	1'-10"	0.00%	4 1/4"	11 1/4"	1'-0"	1'-2 7/8"	8"
7	PIER 6	4 1/8"	11"	1'-3"	2	1/4"	7	3/8"	8	1/8"	1'-0"	1'-10"	0.00%	4 1/4"	1'-1 1/4"	1'-2"	1'-2 7/8"	9"
	PIER 7	4 1/8"	11"	1'-3"	2	1/4"	7	3/8"	8	1/8"	1'-0"	1'-10"	0.00%	4 1/4"	1'-1 1/4"	1'-2"	1'-2 7/8"	10"

BEARING ASSEMBLY NOTES:

PROVIDE STRUCTURAL STEEL ANCHOR PLATES AND BUILT-UP CONTACT ANGLES IN ACCORDANCE WITH ASTM A240 (AUSTENITIC STAINLESS STEEL TYPE 316, CHARPY V-NOTCH TESTING NOT REQUIRED). FOR ANCHOR BOLTS, PROVIDE CONTINUOUSLY THREADED BARS IN ACCORDANCE WITH ASTM A320, CLASS 2, GRADE B8M (AUSTENITIC STAINLESS STEEL, TYPE 316, CHARPY V-NOTCH TESTING NOT REQUIRED). USE AUSTENITIC STAINLESS STEEL NUTS AND WASHERS CONFORMING TO ASTM A194, GRADE 8M AND ASTM A320, RESPECTIVELY. PERFORM ALL WELDING CONSISTENT WITH PROCEDURES FOR STAINLESS STEEL. SEE SEC 724.05 OF THE STANDARD SPECIFICATIONS.

Preliminary Plans

	PHASE 2		OKLAHOMA COUNTY
DESIGN			BRIDGE "B" RAMP "B" AT I-35 & I-240 INTERCHANGE
DRAWN			BEARING ASSEMBLY DETAILS SPANS 1 THRU 7 (SHEET 1 OF 2)
CHECKED			
APPROVED			
SQUAD	POE		STATE JOB NO. 09032(106) SHEET NO. B152

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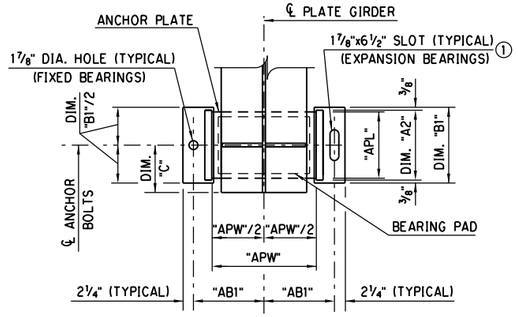
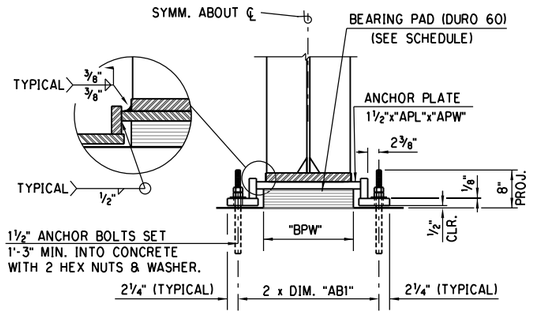
DESCRIPTION	REVISIONS	DATE



PLAN



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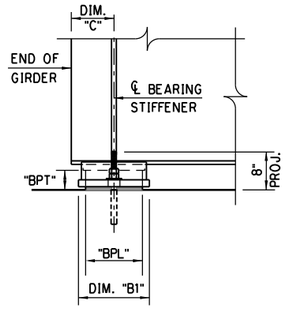


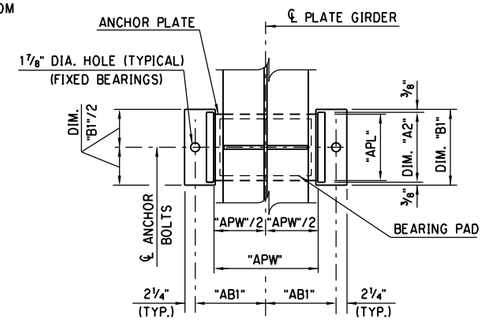
SIDE VIEW

(SEE SCHEDULE FOR DIMENSIONS)

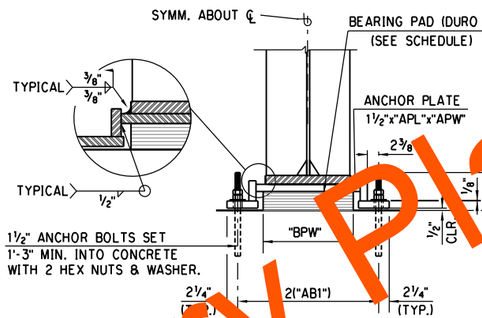
DETAILS OF END BEARING ASSEMBLY

NOTE: ANCHOR BOLTS OMITTED FROM PLAN VIEW FOR CLARITY.

① ANCHOR BOLTS SHALL BE CENTERED IN SLOTS DURING SETTING OF BEAMS. DIMENSION MAY VARY DEPENDING ON TEMPERATURE AT THE TIME OF BEAM SETTING.



PLAN



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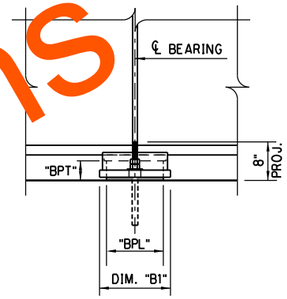
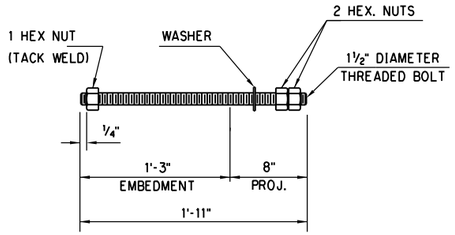


SIDE VIEW

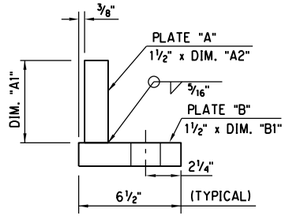
(SEE SCHEDULE FOR DIMENSIONS)

DETAILS OF CONTINUOUS BEARING ASSEMBLY



DETAIL OF BEARING ANCHOR BOLT

(SEE SEC. 724.05 OF THE STANDARD SPECIFICATIONS.)



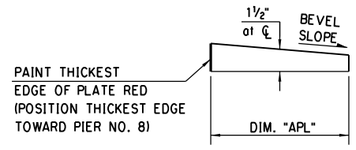
(SEE SCHEDULE FOR DIMENSIONS)

BUILT-UP CONTACT ANGLE DETAIL

Preliminary Plans

BEARING PAD AND ANCHOR ASSEMBLY SCHEDULE

SPAN	LOCATION	60 DUROMETER BEARING PAD									1 1/2" ANCHOR PLATE			1 1/2" BUILT-UP CONTACT ANGLE				STIFFENER OFFSET
		THICKNESS	LENGTH	WIDTH	COVER		INNER		LAMINATES		LENGTH	WIDTH	BEVEL	PLATE "A"		PLATE "B"		
		"BPT"	"BPL"	"BPW"	NO.	THICK	NO.	THICK	NO.	THICK	DIM."APL"	DIM."APW"	SLOPE	DIM "A1"	DIM "A2"	DIM "B1"	DIM "AB1"	DIM "C"
8	PIER 7	4 1/8"	9"	1'-3"	2	1/4"	7	3/8"	8	1/8"	10"	1'-10"	0.00%	4 1/4"	11 1/4"	1'-0"	1'-2 7/8"	9"
	PIER 8	4 1/8"	9"	1'-3"	2	1/4"	7	3/8"	8	1/8"	10"	1'-10"	0.00%	4 1/4"	11 1/4"	1'-0"	1'-2 7/8"	7"
9 & 10	PIER 8	4 1/8"	9"	1'-3"	2	1/4"	7	3/8"	8	1/8"	10"	2'-0"	1.00%	4 1/4"	11 1/4"	1'-0"	1'-3 7/8"	7"
	PIER 9	5 1/8"	1'-1"	1'-6"	2	1/4"	9	3/8"	10	1/8"	1'-2"	2'-0"	1.50%	5 1/4"	1'-3 1/4"	1'-4"	1'-3 7/8"	--
	PIER 10	4 1/8"	9"	1'-3"	2	1/4"	7	3/8"	8	1/8"	10"	2'-0"	2.00%	4 1/4"	11 1/4"	1'-0"	1'-3 7/8"	7"
11 & 12	PIER 10	4 1/8"	9"	1'-3"	2	1/4"	7	3/8"	8	1/8"	10"	2'-0"	2.00%	4 1/4"	11 1/4"	1'-0"	1'-3 7/8"	7"
	PIER 11	5 1/8"	1'-1"	1'-6"	2	1/4"	9	3/8"	10	1/8"	1'-2"	2'-0"	3.00%	5 1/4"	1'-3 1/4"	1'-4"	1'-3 7/8"	--
	PIER 12	4 1/8"	9"	1'-3"	2	1/4"	7	3/8"	8	1/8"	10"	2'-0"	3.50%	4 1/4"	11 1/4"	1'-0"	1'-3 7/8"	7"
13 & 14	PIER 12	4 1/8"	9"	1'-3"	2	1/4"	7	3/8"	8	1/8"	10"	2'-0"	3.50%	4 1/4"	11 1/4"	1'-0"	1'-3 7/8"	7"
	PIER 13	5 1/8"	1'-1"	1'-6"	2	1/4"	9	3/8"	10	1/8"	1'-2"	2'-0"	3.50%	5 1/4"	1'-3 1/4"	1'-4"	1'-3 7/8"	--
	PIER 14	4 1/8"	9"	1'-3"	2	1/4"	7	3/8"	8	1/8"	10"	2'-0"	3.50%	4 1/4"	11 1/4"	1'-0"	1'-3 7/8"	7"
15	PIER 14	4 1/8"	9"	1'-3"	2	1/4"	7	3/8"	8	1/8"	10"	2'-0"	3.50%	4 1/4"	11 1/4"	1'-0"	1'-3 7/8"	7"
	ABUT 2	4 1/8"	9"	1'-3"	2	1/4"	7	3/8"	8	1/8"	10"	2'-0"	3.50%	4 1/4"	11 1/4"	1'-0"	1'-3 7/8"	7"



(SEE SCHEDULE FOR DIMENSIONS)

BEVELED ANCHOR PLATE DETAILS

BEARING ASSEMBLY NOTES:

PROVIDE STRUCTURAL STEEL ANCHOR PLATES AND BUILT-UP CONTACT ANGLES IN ACCORDANCE WITH ASTM A240 (AUSTENITIC STAINLESS STEEL TYPE 316, CHARPY V-NOTCH TESTING NOT REQUIRED). FOR ANCHOR BOLTS, PROVIDE CONTINUOUSLY THREADED BARS IN ACCORDANCE WITH ASTM A320, CLASS 2, GRADE B8M (AUSTENITIC STAINLESS STEEL, TYPE 316, CHARPY V-NOTCH TESTING NOT REQUIRED). USE AUSTENITIC STAINLESS STEEL NUTS AND WASHERS CONFORMING TO ASTM A194, GRADE 8M AND ASTM A320, RESPECTIVELY. PERFORM ALL WELDING CONSISTENT WITH PROCEDURES FOR STAINLESS STEEL. SEE SEC 724.05 OF THE STANDARD SPECIFICATIONS.

PHASE 2 — OKLAHOMA COUNTY

BRIDGE "B" — RAMP "B" AT I-35 & I-240 INTERCHANGE

BEARING ASSEMBLY DETAILS
SPANS 8 THRU 15
(SHEET 2 OF 2)

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

STATE JOB NO. 09032(106) SHEET NO. B153

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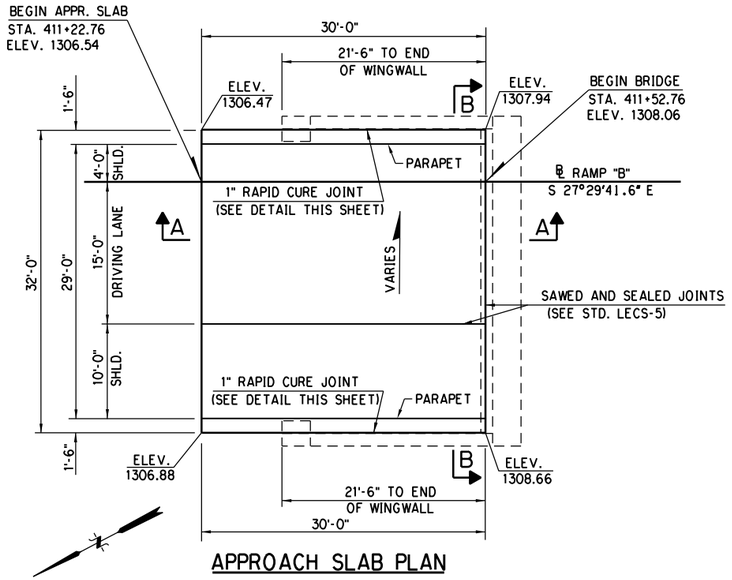
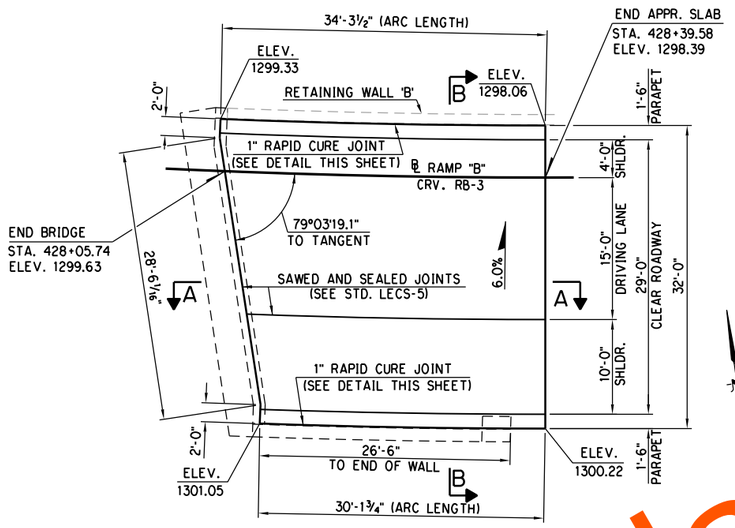
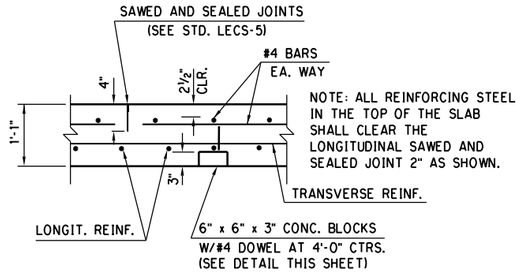
REVISIONS		
DESCRIPTION		DATE



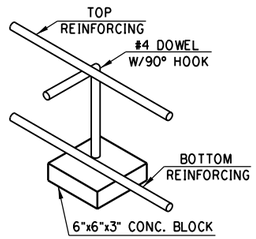
APPROACH SLAB PLAN AT ABUT. NO. 1



APPROACH SLAB PLAN AT ABUT. NO. 2

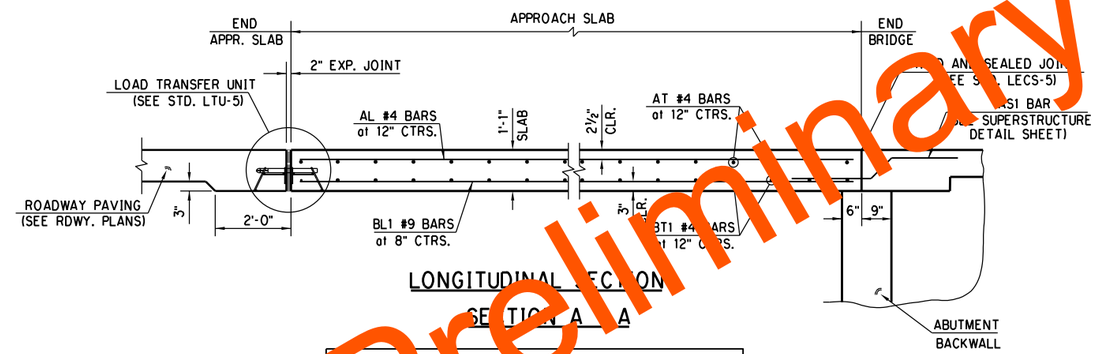


DETAIL OF SAWED JOINT AND DOWEL BLOCK



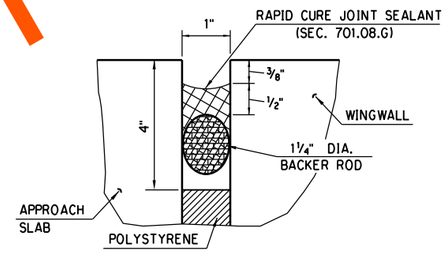
DOWEL BLOCK

NOTE: CONTRACTOR MAY USE APPROVED HIGH CHAIRS WITH SAND PLATES (HCP) AND 6"x6"x3" PLAIN CONCRETE BLOCKS IN LIEU OF DOWEL BLOCKS SHOWN. SPACING SHALL BE 4'-0" MAX. ON CTRS.



LONGITUDINAL SECTION SECTION A - A

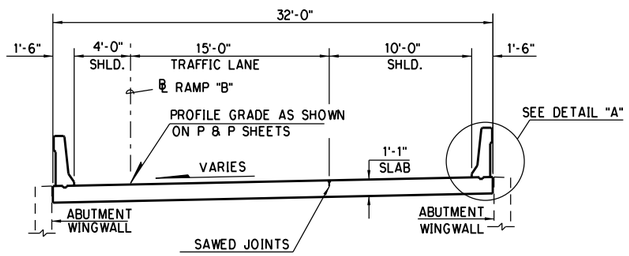
NOTE: DO NOT PLACE WITHIN 3" OF THE JOINT BETWEEN THE APPROACH SLAB AND BRIDGE DECK OR WITHIN 6" OF THE SAWED JOINTS OR THE JOINTS BETWEEN THE APPROACH SLAB AND THE WINGWALLS.



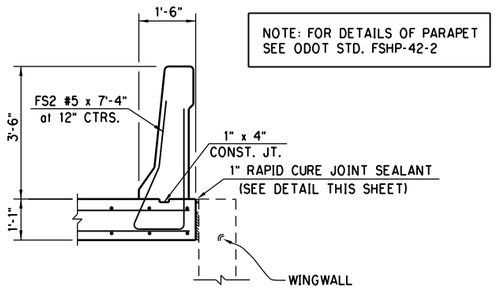
DETAIL OF RAPID CURE JOINT AT ABUT WING

NOTE: FOR BACKER ROD AND JOINT SEALER GENERAL NOTES REFER TO STD. LECS-5.

QUANTITIES			
ITEM	UNIT	ABUT. 1	ABUT. 2
APPROACH SLAB	S.Y.	106.7	114.6
SAW-CUT GROOVING	S.Y.	97	104
42" F-SHAPED PARAPET	L.F.	60	64.5
WATER REPELLENT (VISUALLY INSPECTED)	S.Y.	30	32

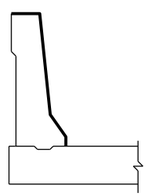


TYPICAL SECTION SECTION B - B



NOTE: FOR DETAILS OF PARAPET SEE ODOT STD. FSHP-42-2

DETAIL "A"



WATER REPELLENT SURFACE TREATMENT

SURFACES INDICATED WITH HEAVY LINES SHALL BE TREATED WITH A PENETRATING WATER REPELLENT SURFACE TREATMENT.

NOTES:

CONCRETE FOR APPROACH SLABS SHALL BE CLASS AA. REINFORCING STEEL SHALL BE GRADE 60.

ALL COST OF MATERIALS, LABOR, AND INCIDENTALS NECESSARY TO COMPLETE THE WORK AS SHOWN SHALL BE INCLUDED IN THE UNIT PRICE BID PER SQUARE YARD OF "APPROACH SLAB". THIS PRICE BID SHALL INCLUDE THE COST OF LOAD TRANSFER UNIT, POLYSTYRENE, RAPID CURE JOINT SEALANT, BACKER RODS, SAWING, DOWEL BLOCKS, CLASS AA CONCRETE AND EPOXY COATED REINFORCING STEEL (INCLUDING FS2 PARAPET BARS).

ALL COST OF PARAPET SHALL BE INCLUDED IN PRICE BID PER LINEAR FOOT OF "42" F-SHAPED PARAPET". THIS PRICE SHALL INCLUDE COST OF ALL FS1, FH1 AND FH2 EPOXY COATED REINFORCING STEEL. PARAPET SHALL BE FULL HEIGHT FOR THE LENGTH OF THE APPROACH SLAB.

Preliminary Plans

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 — OKLAHOMA COUNTY
BRIDGE "B" — RAMP "B" AT I-35 & I-240 INTERCHANGE

APPROACH SLAB DETAILS

(SHEET 1 OF 2)

STATE JOB NO. 09032(106) SHEET NO. B154

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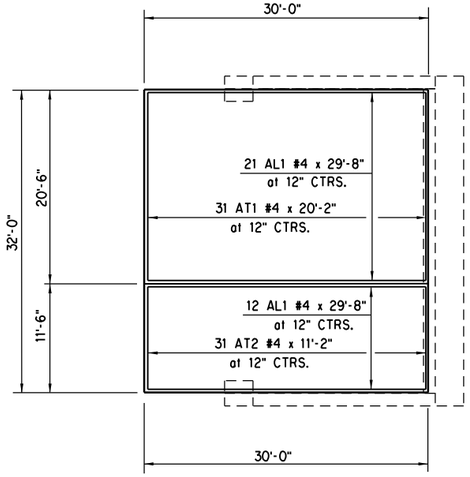
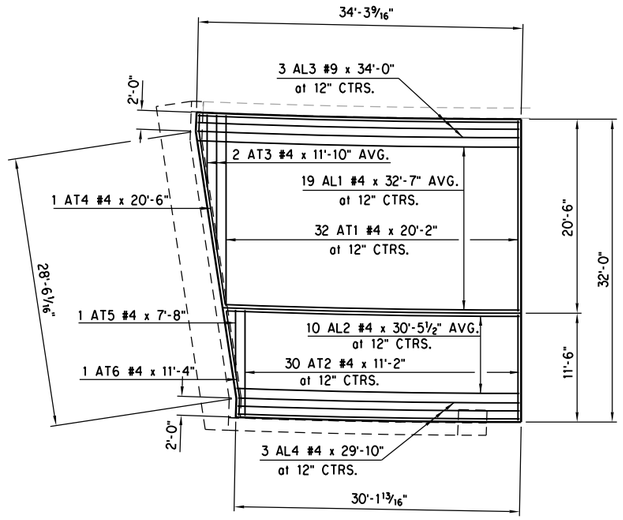
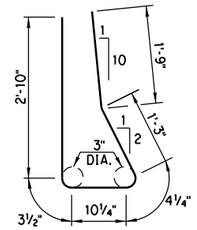
DESCRIPTION	REVISIONS	DATE



TOP MAT REINFORCING PLAN



TOP MAT REINFORCING PLAN



FS2 #5 x 7'-4"

NOTE: FS2 BARS SHALL BE TIED IN PLACE BEFORE POURING THE CONCRETE FOR THE APPROACH SLAB.

BAR LIST - APPROACH SLAB 1

EPOXY COATED

(FOR INFORMATION ONLY)

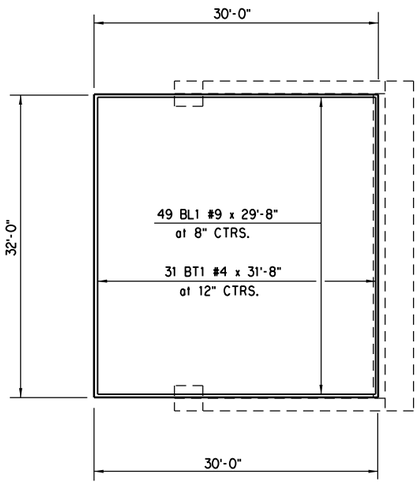
MARK	NO.	SIZE	FORM	SPACING	LENGTH
AL1	33	#4	STR.	12" C/C	29'-8"
AT1	31	#4	STR.	12" C/C	20'-2"
AT2	31	#4	STR.	12" C/C	11'-2"
BL1	49	#9	STR.	8" C/C	29'-8"
BT1	31	#4	STR.	12" C/C	31'-8"
FS2	62	#5	BNT.	12 C/C	7'-4"

BAR LIST - APPROACH SLAB 2

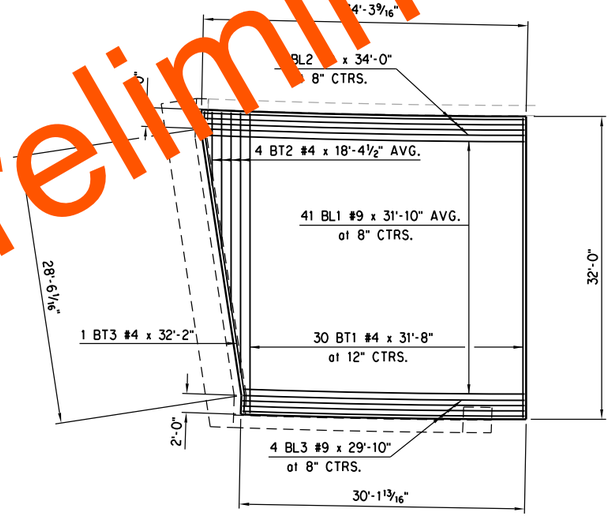
EPOXY COATED

(FOR INFORMATION ONLY)

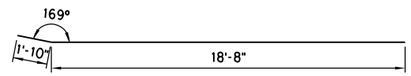
MARK	NO.	SIZE	FORM	SPACING	LENGTH	VARIABLE LENGTH
AL1	19	#4	STR.	12" C/C	32'-7" AVG.	31'-3" TO 33'-11"
AL2	10	#4	STR.	12" C/C	30'-6½" AVG.	29'-11" TO 31'-2"
AL3	3	#4	STR.	12" C/C	34'-0"	--
AL4	3	#4	STR.	12" C/C	29'-10"	--
AT1	32	#4	STR.	12" C/C	20'-2"	--
AT2	30	#4	STR.	12" C/C	11'-2"	--
AT3	2	#4	STR.	AS SHOWN	11'-10" AVG.	8'-7" TO 15'-1"
AT4	1	#4	BNT.	AS SHOWN	20'-6"	--
AT5	1	#4	STR.	AS SHOWN	7'-8"	--
AT6	1	#4	BNT.	AS SHOWN	11'-4"	--
BL1	41	#9	STR.	8" C/C	31'-11" AVG.	29'-11" TO 33'-11"
BL2	4	#9	STR.	8" C/C	34'-0"	--
BL3	4	#9	STR.	8" C/C	29'-10"	--
BT1	30	#4	STR.	12" C/C	31'-8"	--
BT2	4	#4	STR.	AS SHOWN	15'-4½" AVG.	8'-7" TO 28'-2"
BT3	1	#4	BNT.	AS SHOWN	32'-2"	--
FS2	67	#5	BNT.	12 C/C	7'-4"	--



BOTTOM MAT REINFORCING PLAN

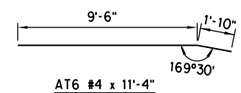


BOTTOM MAT REINFORCING PLAN

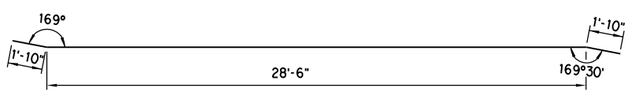


AT4 #4 x 20'-6"

NOTE: ALL BENT BAR DIMENSIONS ARE OUT TO OUT.



AT6 #4 x 11'-4"



BT3 #4 x 32'-2"

Preliminary Plans

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 — OKLAHOMA COUNTY

BRIDGE "B" — RAMP "B" AT I-35 & I-240 INTERCHANGE

APPROACH SLAB DETAILS

(SHEET 2 OF 2)

STATE JOB NO. 09032(06) SHEET NO. B155

6/1/2022 11:07:32 AM
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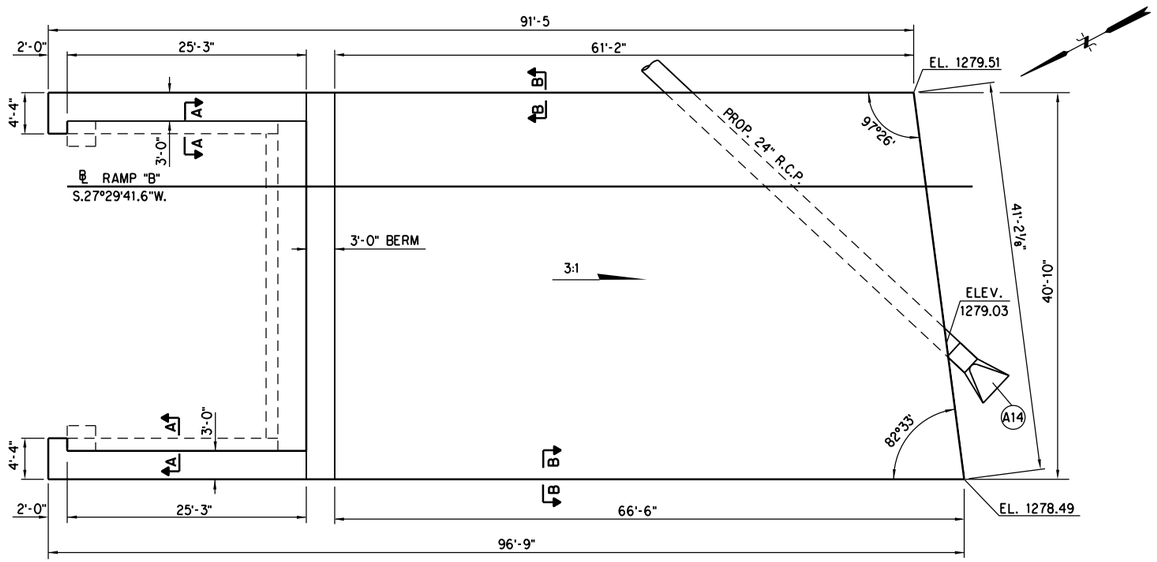
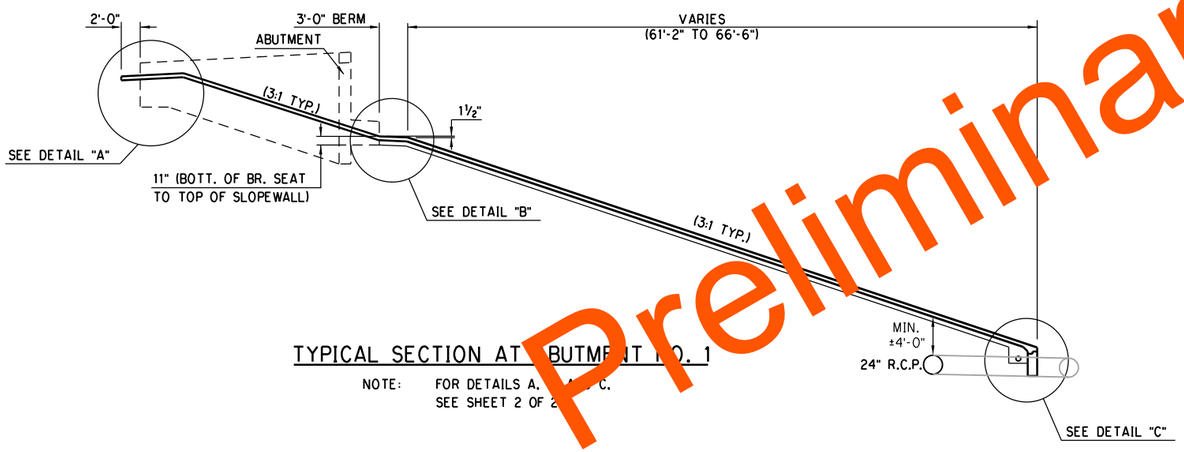
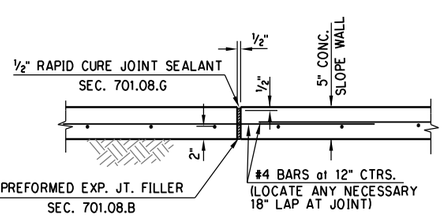


PLAN AT ABUTMENT NO. 1

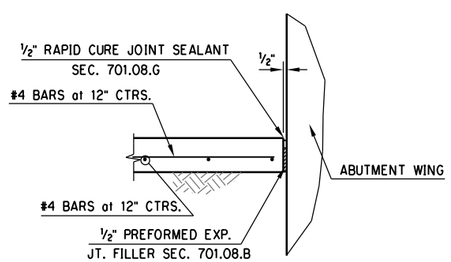


TYPICAL SECTION AT ABUTMENT NO. 1

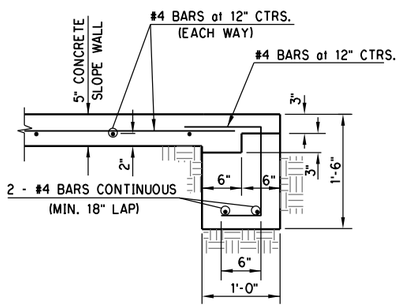
NOTE: FOR DETAILS A, B, & C.
SEE SHEET 2 OF 2



VERTICAL CONSTRUCTION JOINT DETAIL



SECTION A-A
(TYPICAL AT WINGWALLS)



SECTION B-B
(TYPICAL)

QUANTITIES		
ITEM	UNIT	ABUT. 1
SLOPE WALL (5")	S.Y.	322
6" PERFORATED PIPE UNDERDRAIN ROUND	L.F.	42
① 6" NON-PERF. PIPE UNDERDRAIN RND.	L.F.	20

① NON-PERFORATED PIPE SHALL BE CONNECTED TO PERFORATED PIPE AND EXTENDED OUTSIDE THE GROUND LINE TO DRAIN, AS DIRECTED IN THE FIELD BY THE ENGINEER. PLACE A RODENT SCREEN AT OUTLET END OF PIPE IN ACCORDANCE WITH PUD-4.

SLOPE WALL NOTES

1. ALL CONCRETE IN THE SLOPE WALL SHALL BE CLASS A CONCRETE AND SHALL BE POURED IN THE DRY. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH SECTIONS 509 AND 610 OF THE STANDARD SPECIFICATIONS.
2. NO HORIZONTAL CONSTRUCTION JOINTS WILL BE PERMITTED IN THE SLOPE WALL. FINAL NUMBER AND LOCATION OF VERTICAL CONSTRUCTION JOINTS WILL BE DETERMINED IN THE FIELD BY THE ENGINEER.
3. SURFACE AREA OF ENDS AND EDGES OF SLOPE WALL INCLUDED IN PAY QUANTITY SHOWN.
4. ALL COSTS OF THE JOINT SEALER AND FILLER, REINFORCING STEEL, CONCRETE, EXCAVATION, FILTER SAND, COARSE UNDERDRAIN COVER MATERIAL, LABOR, FORMS AND INCIDENTALS NECESSARY TO COMPLETE THE WORK AS SHOWN, SHALL BE INCLUDED IN THE CONTRACT PRICE BID OF "SLOPE WALL (5")".

Preliminary Plans

REVISIONS		
DESCRIPTION		DATE

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 — OKLAHOMA COUNTY
BRIDGE "B" — RAMP "B" AT I-35 & I-240 INTERCHANGE

SLOPE WALL DETAILS AT ABUTMENT NO. 1

(SHEET 1 OF 2)

STATE JOB NO. 09032(106) SHEET NO. B156

6/1/2022 11:07:34 AM
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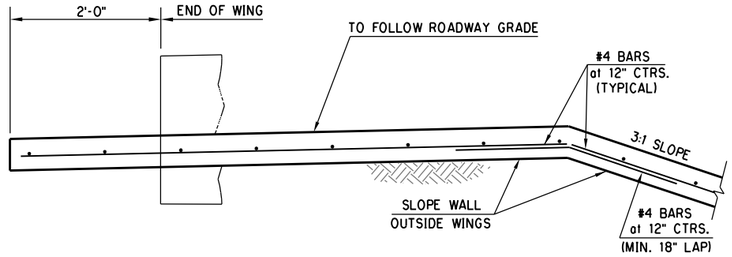
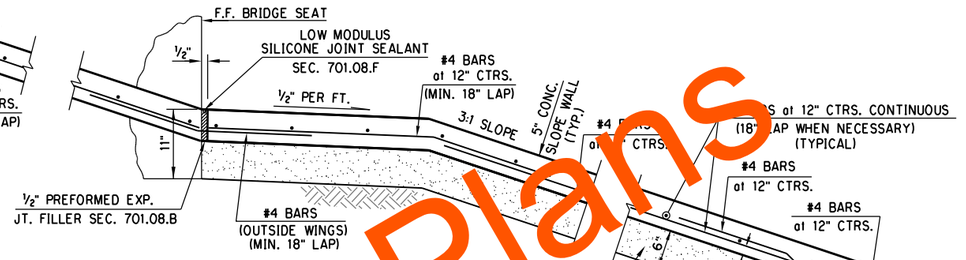
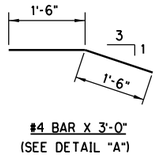
DESCRIPTION	REVISIONS	DATE



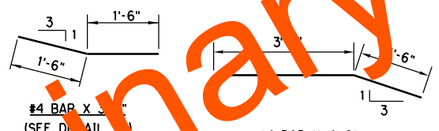
DETAIL "A"



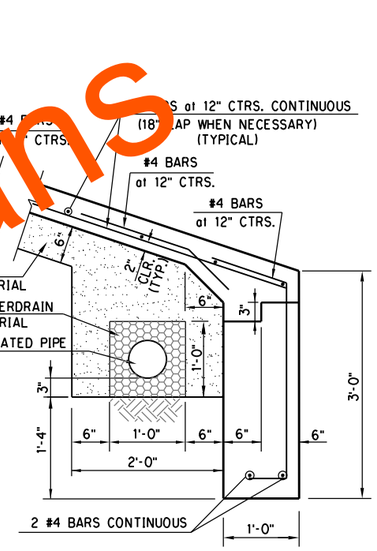
DETAIL "B"



#4 BAR X 3'-0"
(SEE DETAIL "A")

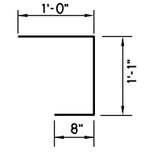


#4 BAR X 4'-6"
(SEE DETAIL "B")

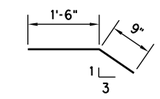


DETAIL "C"

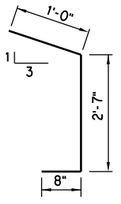
NOTE: ALL BENT BAR DIMENSIONS ARE OUT TO OUT.



#4 BAR X 2'-9"
(SEE SECTION B-B)



#4 BAR X 2'-3"
(SEE DETAIL "C")



#4 BAR X 4'-3"
(SEE DETAIL "C")

Preliminary Plans

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 — OKLAHOMA COUNTY

BRIDGE "B" — RAMP "B" AT I-35 & I-240 INTERCHANGE

SLOPE WALL DETAILS AT ABUTMENT NO. 1

(SHEET 2 OF 2)

STATE JOB NO. 09032(106) SHEET NO. B157

6/1/2022 11:07:34 AM
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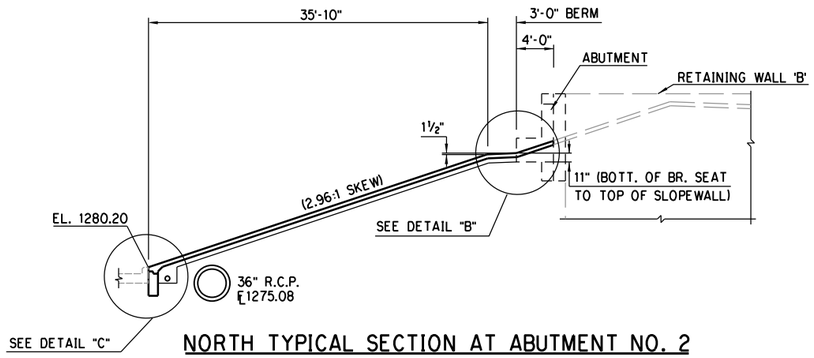
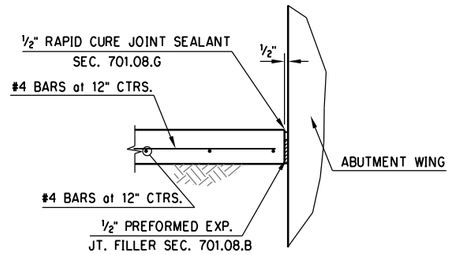


NORTH TYPICAL SECTION AT ABUTMENT NO. 2

NOTE: FOR DETAILS A, B, AND C. SEE SHEET 2 OF 2.



SECTION A-A

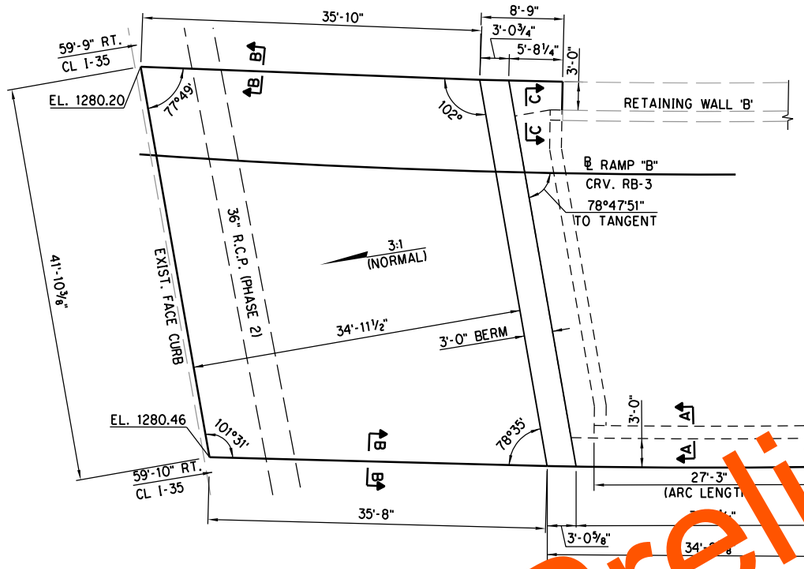
(TYPICAL AT WINGWALLS)

QUANTITIES		
ITEM	UNIT	ABUT. 2
SLOPE WALL (5")	S.Y.	189
6" PERFORATED PIPE UNDERDRAIN ROUND	L.F.	42
① 6" NON-PERF. PIPE UNDERDRAIN RND.	L.F.	20

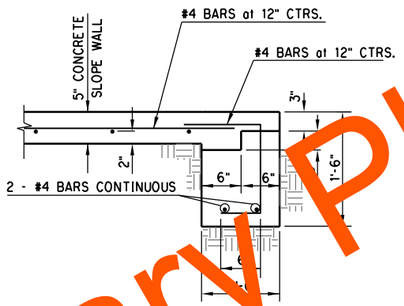
① NON-PERFORATED PIPE SHALL BE CONNECTED TO PERFORATED PIPE AND EXTENDED OUTSIDE THE GROUND LINE TO DRAIN, AS DIRECTED IN THE FIELD BY THE ENGINEER. PLACE A RODENT SCREEN AT OUTLET END OF PIPE IN ACCORDANCE WITH PUD-4.

SLOPE WALL NOTES

1. ALL CONCRETE IN THE SLOPE WALL SHALL BE CLASS A CONCRETE AND SHALL BE POURED IN THE DRY. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH SECTIONS 509 AND 610 OF THE STANDARD SPECIFICATIONS.
2. NO HORIZONTAL CONSTRUCTION JOINTS WILL BE PERMITTED IN THE SLOPE WALL. FINAL NUMBER AND LOCATION OF VERTICAL CONSTRUCTION JOINTS WILL BE DETERMINED IN THE FIELD BY THE ENGINEER.
3. SURFACE AREA OF TOE AND EDGES OF SLOPE WALL INCLUDED IN PAY QUANTITY SHOWN.
4. ALL COSTS OF THE JOINT SEALER AND FILLER, REINFORCING STEEL, CONCRETE, EXCAVATION, FILTER SAND, COARSE UNDERDRAIN COVER MATERIAL, LABOR, FORMS AND INCIDENTALS NECESSARY TO COMPLETE THE WORK AS SHOWN, SHALL BE INCLUDED IN THE CONTRACT PRICE BID OF "SLOPE WALL (5")".

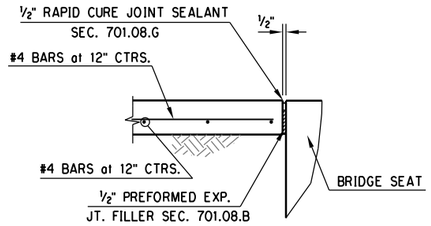


PLAN ABUTMENT NO. 2



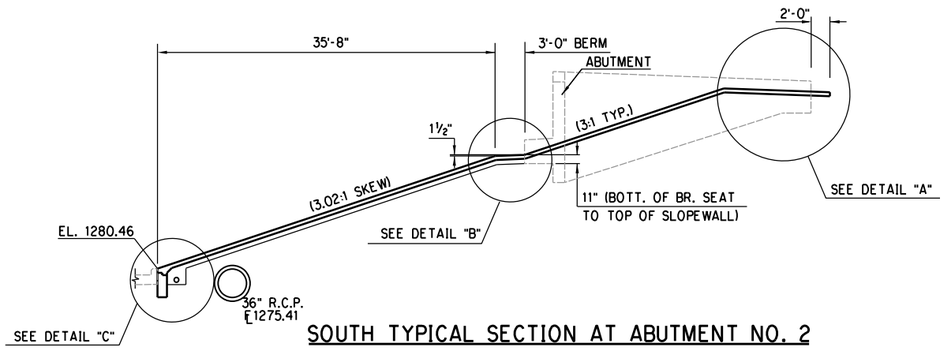
SECTION B-B

(TYPICAL)



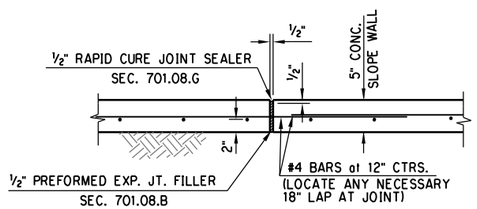
SECTION C-C

(TYPICAL AT WINGWALLS)



SOUTH TYPICAL SECTION AT ABUTMENT NO. 2

NOTE: FOR DETAILS A, B, AND C. SEE SHEET 2 OF 2.



VERTICAL CONSTRUCTION JOINT DETAIL

Preliminary Plans

DESCRIPTION	REVISIONS	DATE

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 — OKLAHOMA COUNTY

BRIDGE "B" — RAMP "B" AT I-35 & I-240 INTERCHANGE

SLOPE WALL DETAILS AT ABUTMENT NO. 2

(SHEET 1 OF 2)

STATE JOB NO. 09032(106) SHEET NO. B158

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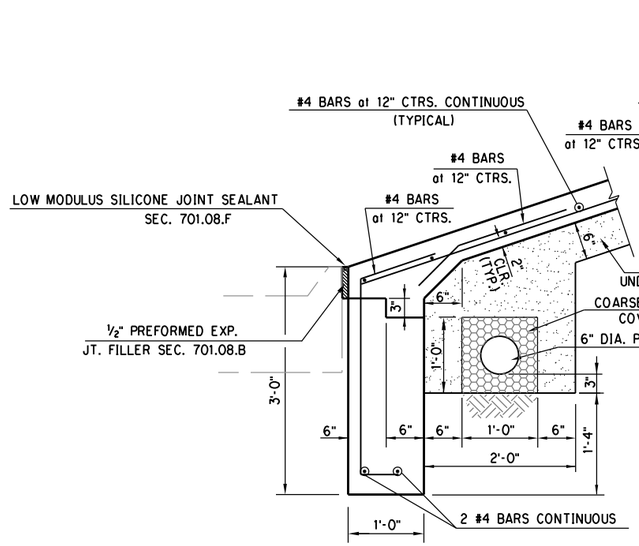
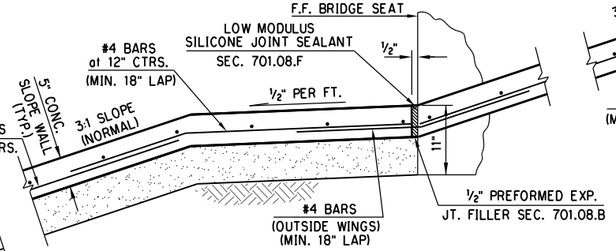
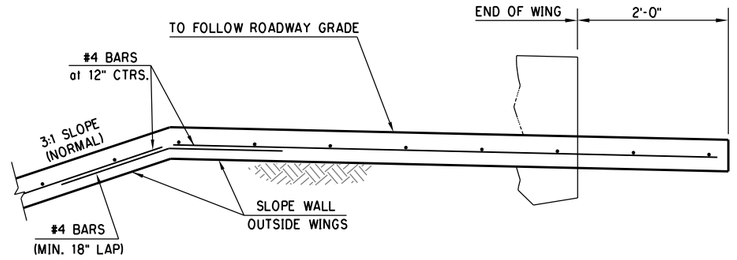
REVISIONS		
DESCRIPTION		DATE



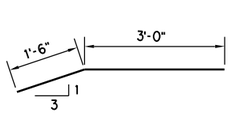
DETAIL "C"



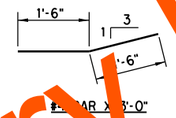
DETAIL "B"



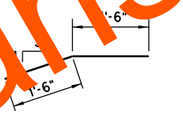
DETAIL "A"



#4 BAR X 4'-6"
(SEE DETAIL "B")

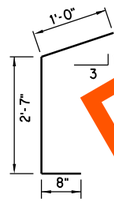


#4 BAR X 3'-0"
(SEE DETAIL "B")



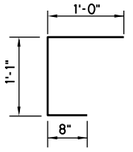
#4 BAR X 3'-0"
(SEE DETAIL "A")

NOTE: ALL BENT BAR DIMENSIONS ARE OUT TO OUT.



#4 BAR X 4'-3"
(SEE DETAIL "C")

#4 BAR X 2'-3"
(SEE DETAIL "C")



#4 BAR X 2'-9"
(SEE SECTION B-B)

Preliminary Plans

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 — OKLAHOMA COUNTY
BRIDGE "B" — RAMP "B" AT I-35 & I-240 INTERCHANGE

SLOPE WALL DETAILS AT ABUTMENT NO. 2

(SHEET 2 OF 2)

STATE JOB NO. 09032(106) SHEET NO. B159

6/1/2022 11:07:35 AM
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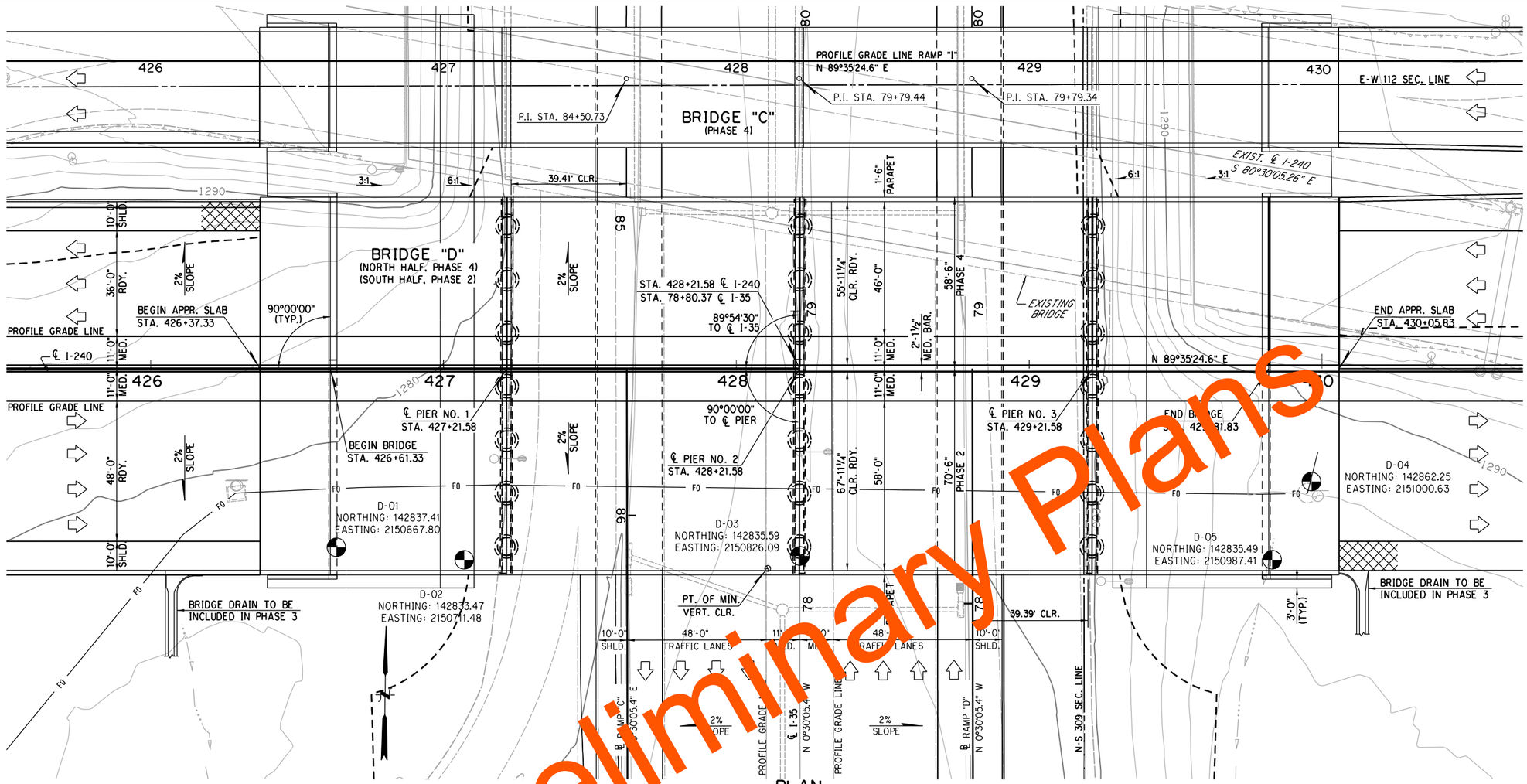
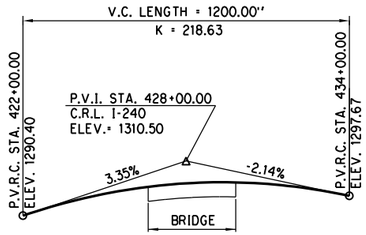
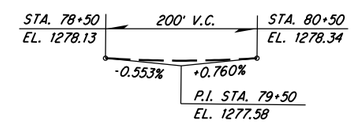
DESCRIPTION	REVISIONS	DATE



PLAN
SCALE: 1" = 20'-0"



PROFILE GRADE DATA
I-240

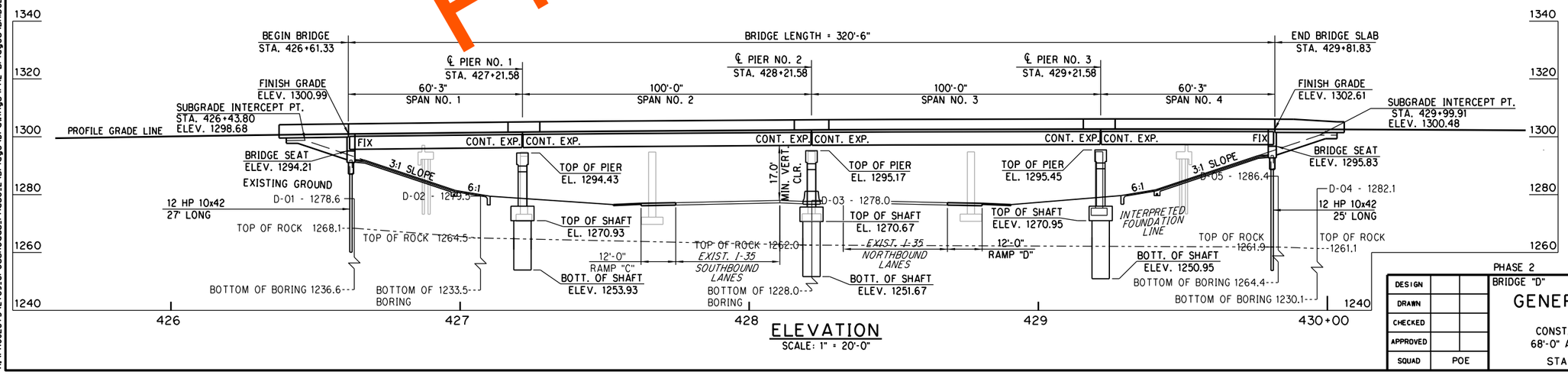


EXISTING PROFILE GRADE
I-35

BM 25 - "6 REBAR
EAST OF CREEK BEND
STA. 421+26.09 ℄ I-240
620.62' RT ELEV. 1287.24

BM 26 - "6 x 30" IRON REBAR
STA. 423+82.37 ℄ I-240
774.34' RT ELEV. 1283.54

BM 54 - "X" ON TOP OF CURB
PARKING LOT TEXAS ROADHOUSE
STA. 439+22.55 ℄ I-240
209.30' RT ELEV. 1300.07



ELEVATION
SCALE: 1" = 20'-0"

Preliminary Plans

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 — OKLAHOMA COUNTY
BRIDGE "D" — I-240 OVER I-35

GENERAL PLAN & ELEVATION

℄ STA. 428+21.58 ℄ I-240
CONST. 60'-100'-100'-60' TYPE IV P.C. BEAM SPANS - 68'-0" AND 56'-0" CLR. RDY. W/42" F-SHAPED PARAPET

STATE JOB NO. 09032(06) SHEET NO. B160

5/31/2022 3:22:31 PM
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DESCRIPTION	REVISIONS	DATE

DESIGN DATA

CONCRETE CLASS AA	f'c = 4 K.S.I.
CONCRETE CLASS A	f'c = 3 K.S.I.
REINFORCING STEEL (GRADE 60)	Fy = 60 K.S.I.
STRUCTURAL STEEL AASHTO M270 GRADE 50W	Fy = 50 K.S.I.
STAINLESS STEEL, ASTM A240 (TYPE 316)	Fy = 30 K.S.I.

LOADING:
- HL-93 OR OKLAHOMA OVERLOAD TRUCK
- 5 PSF SIP STEEL DECK FORM ALLOWANCE
- 20 PSF FUTURE WEARING SURFACE

DESIGN:
- AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 6TH EDITION
- ANSI/AASHTO/AWS D1.5 WELDING CODE

LRFR OF HL-93 LOADING:
- INVENTORY RATING FACTOR = 1.34
- OPERATING RATING FACTOR = 2.07

FOUNDATION DATA

PIERS (72" DIAMETER DRILLED SHAFTS)		PIER NO. 1 & PIER NO. 3	PIER NO. 2
FACTORED REACTION (TONS/SHAFT)	=	574	650
MINIMUM DEPTH INTO ROCK (FEET)	=	10'-0"	10'-0"
NOMINAL UNIT BEARING CAPACITY (TONS/S.F.)	=	38.0	36.5
BEARING RESISTANCE FACTOR	=	0.7	0.7
FACTORED BEARING RESISTANCE (TONS/SHAFT)	=	752	712
NOMINAL UNIT FRICTION RESISTANCE (TONS/S.F.)	=	4.7	4.0
FRICTION RESISTANCE FACTOR	=	0.45	0.45
DEPTH OF ROCK NEGLECTED FOR FRICTION (FT.)	=	5	5
FACTORED FRICTION RESISTANCE (TONS/SHAFT)	=	205	180
TOTAL FACTORED RESISTANCE (TONS/SHAFT)	=	957	892

ABUTMENTS (HP 10X42 PILING)

FACTORED PILE REACTION (TONS/PILE) = 76.0

STEEL PILING:
ABUTMENT PILING SHALL BE DRIVEN THROUGH COMPACTED FILL AND SHALL BE DRIVEN TO A POINT BEARING ON SOLID FOUNDATION MATERIAL AT THE APPROXIMATE ELEVATION SHOWN ON THE PLANS. IF THE AXIAL PILE RESISTANCE IS NOT EQUAL TO OR GREATER THAN THE FACTORED PILE REACTION AT THAT ELEVATION, DRIVING SHALL CONTINUE UNTIL THE AXIAL PILE RESISTANCE IS EQUAL TO OR GREATER THAN THE FACTORED PILE REACTION. THE LENGTH OF STEEL PILING SHOWN ON THE PLANS IS FOR ESTIMATING PURPOSES ONLY.

SUMMARY OF BRIDGE QUANTITIES

ITEM	UNIT	ABUT.	PIERS	SUPER STR.	APPR. SLABS	SLOPE WALL	PIER PROT	TOTAL
SUBSTRUCTURE EXCAVATION COMMON	C.Y.	110	350	--	--	--	--	460
GRANULAR BACKFILL	C.Y.	--	--	--	--	--	48.0	48
CLSM BACKFILL	C.Y.	412.5	--	--	--	--	4.8	417.3
PRESTRESSED CONCRETE BEAMS (TYPE IV)	L.F.	--	--	2549.3	--	--	--	2549.34
APPROACH SLAB	S.Y.	--	--	--	376.0	--	--	376
SAW-CUT GROOVING	S.Y.	--	--	2,420	368	--	--	2788
42" F-SHAPED PARAPET	L.F.	--	--	320.5	48.0	--	--	368.5
STRUCTURAL STEEL	LB.	--	--	2940	--	--	--	2940
WEATHERING STEEL FIXED BEARING ASSEMB	EA.	--	--	16	--	--	--	16
STAINLESS STEEL EXP. BEARING ASSEMBLY	EA.	--	--	48	--	--	--	48
ELASTOMERIC BEARING PADS	EA.	--	--	48	--	--	--	48
CLASS AA CONCRETE	C.Y.	--	--	686.2	--	--	--	686.2
CLASS A CONCRETE	C.Y.	87.1	453.4	--	--	--	46.4	586.9
SLOPE WALL (6")	S.Y.	--	--	--	--	871	--	871
REINFORCING STEEL	LB.	--	2970	--	--	--	--	2970
EPOXY COATED REINFORCING STEEL	LB.	14,050	93,670	160,930	--	--	7520	276,170
PILES, FURNISHED (HP 10X42)	L.F.	624	--	--	--	--	--	624
PILES, DRIVEN (HP 10X42)	L.F.	624	--	--	--	--	--	624
PILE SPLICE H-PILE (NON-BIDDABLE)	EA.	1	--	--	--	--	--	1
WATER REPELLENT (VISUALLY INSPECTED)	S.Y.	178	393	661	44	--	--	1276
DRILLED SHAFTS 72" DIAMETER	L.F.	--	224	--	--	--	--	224
CROSSHOLE SONIC LOGGING	EA.	--	2	--	--	--	--	2
SEALER CRACK PREPARATION	L.F.	--	--	423	--	--	--	423
SEALER RESIN	GAL.	--	--	4.7	--	--	--	4.7
6" PERFORATED PIPE UNDERDRAIN ROUND	L.F.	150	--	--	--	156	--	306
6" NON-PERF. PIPE UNDERDRAIN RND.	L.F.	52	--	--	--	40	--	92

Preliminary Plans

INDEX OF SHEETS

SHEET NO.	DESCRIPTION
AB05	SUMMARY OF PAY QUANTITIES (BRIDGE "D")
AB06	GENERAL NOTES (BRIDGE "D")
B160	GENERAL PLAN & ELEVATION
B161	DESIGN DATA AND SUMMARY OF QUANTITIES
B162	BRIDGE CONSTRUCTION SEQUENCE
B163-B165	FOUNDATION REPORT
B166	SUBSTRUCTURE LAYOUT
B167	EXCAVATION DIAGRAMS AND UNDERDRAIN DETAILS
B168-B170	ABUTMENT DETAILS
B171-B173	PIER DETAILS
B174-B175	PIER PROTECTION DETAILS
B176-B177	BARRIER TRANSITION DETAILS
B178-B181	SUPERSTRUCTURE DETAILS
B182	LONGITUDINAL SECTION AND DIAPHRAGM DETAILS
B183	PARAPET LAYOUT
B184-B185	TYPE IV P.C.B. DETAILS
B186	BEARING ASSEMBLY DETAILS
B187-B188	APPROACH SLAB DETAILS
B189-B190	SLOPEWALL DETAILS

2009 BRIDGE STANDARDS

STD.	FSHP-42-2
STD.	HP1-2

2019 ROADWAY STANDARDS

STD.	LECS-5
STD.	SPI-5
STD.	PUD-4

PHASE 2 — OKLAHOMA COUNTY

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

BRIDGE "D" — I-240 OVER I-35

DESIGN DATA AND SUMMARY OF QUANTITIES

STATE JOB NO. 09032(06) SHEET NO. B161

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REVISIONS		
DESCRIPTION		DATE

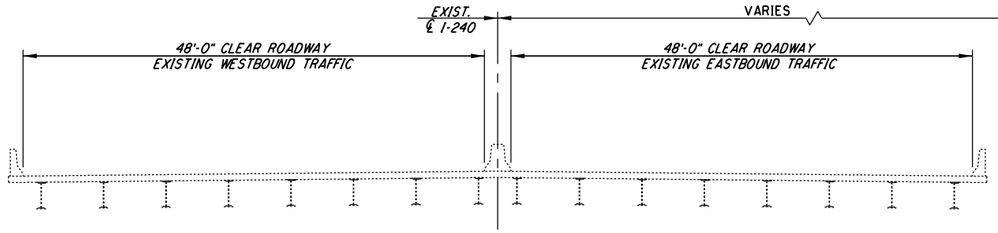
BRIDGE CONSTRUCTION SEQUENCE

PHASE 2

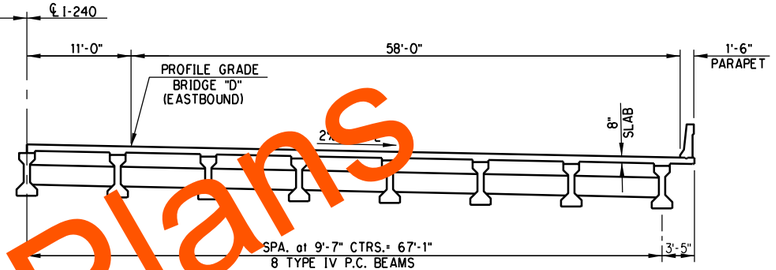
1. CONSTRUCT PORTION OF NEW BRIDGE, SOUTH OF ℄ I-240.

PHASE 4

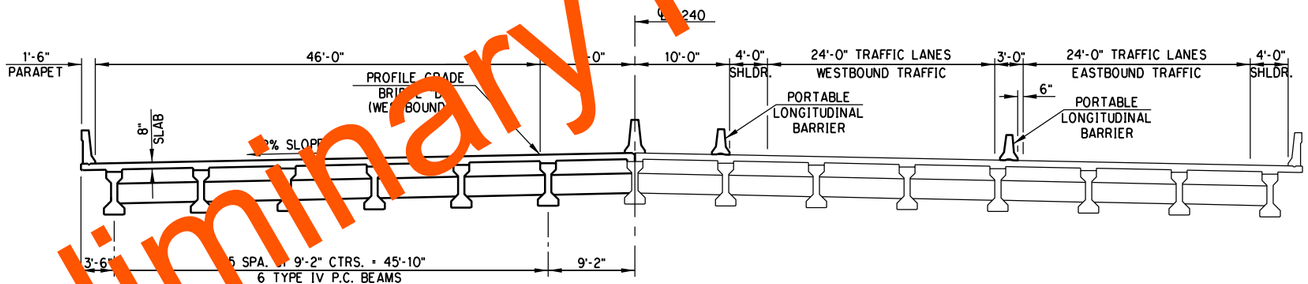
1. INSTALL TEMPORARY BARRIERS ON PORTION OF NEW BRIDGE, SOUTH OF ℄ I-240.
2. DIVERT WESTBOUND AND EASTBOUND TRAFFIC ONTO PORTION OF NEW BRIDGE, SOUTH OF ℄ I-240.
3. REMOVE EXISTING BRIDGE AND CONSTRUCT REMAINING PORTION OF NEW BRIDGE, NORTH OF ℄ I-240.
4. DIVERT WESTBOUND TRAFFIC ONTO THE NORTH SIDE OF ℄ I-240 OF THE NEW BRIDGE AND REMOVE TEMPORARY BARRIERS.



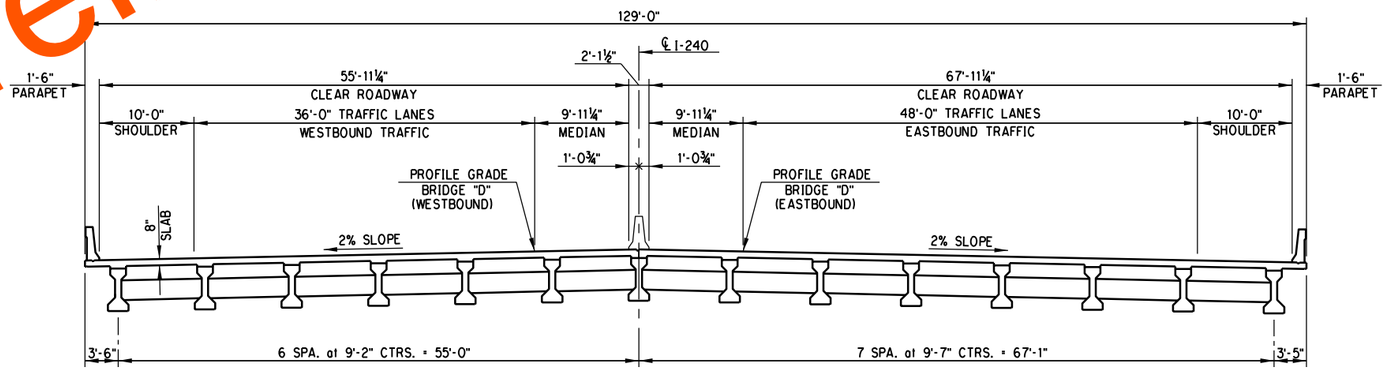
EXISTING BRIDGE



PHASE 2



PHASE 4



FINISHED BRIDGE

Preliminary Plans

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 — OKLAHOMA COUNTY

BRIDGE "D" — I-240 OVER I-35

BRIDGE CONSTRUCTION SEQUENCE

STATE JOB NO. 09032(06) SHEET NO. B162

5/31/2022 3:22:36 PM
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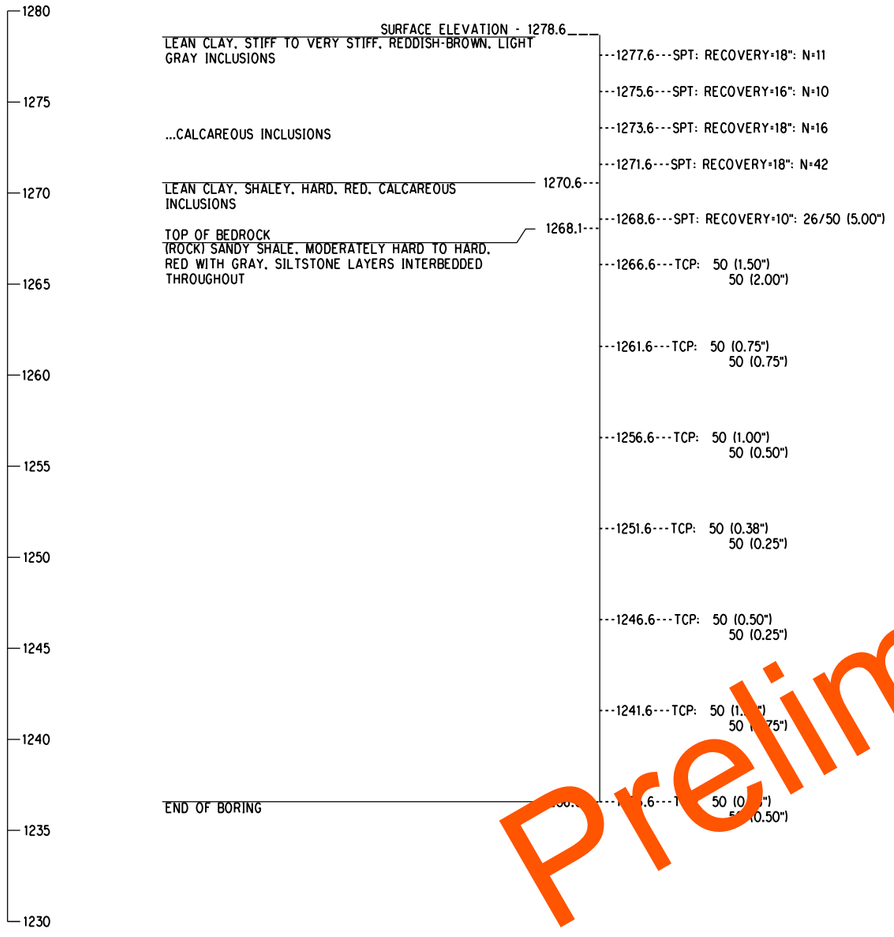
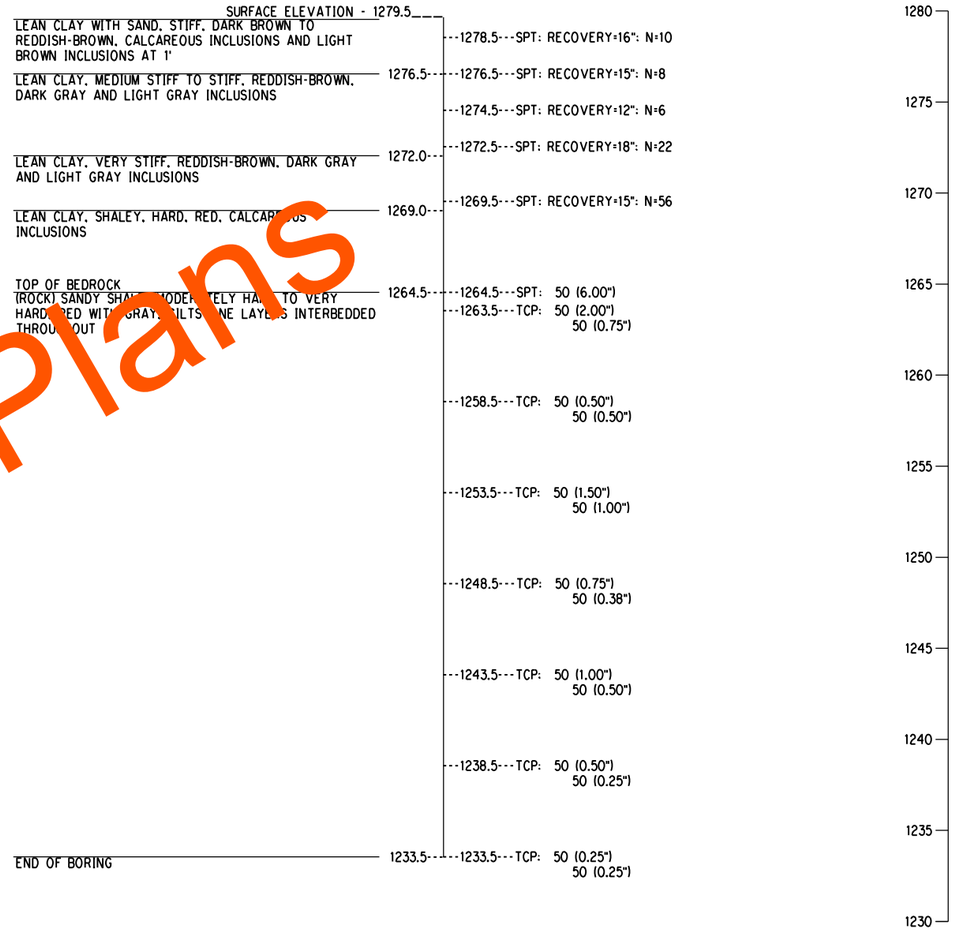
DESCRIPTION	REVISIONS	DATE

BORING NUMBER D-01
NORTHING: 142837.41
EASTING: 2150667.80
DATE DRILLED: 5/16/17
℄ I-240 STA. 426+63.40
OFFSET 61.05' RT.



BORING NUMBER D-02
NORTHING: 142833.47
EASTING: 2150711.48
DATE DRILLED: 5/16/17
℄ I-240 STA. 427+07.06
OFFSET 65.30' RT.



Preliminary Plans

GEOLOGIC STATEMENT

"DIVISION FOUR" OF THE "ENGINEERING CLASSIFICATION OF GEOLOGICAL MATERIALS", PUBLISHED BY THE OKLAHOMA DEPARTMENT OF TRANSPORTATION (ODOT) INDICATES THAT THE SITE IS UNDERLAIN BY THE HENNESSEY UNIT (PHY). THE GEOLOGIC UNIT IS DESCRIBED BELOW.

THIS UNIT CONSISTS OF RED PLATY TO BLOCKY CLAY SHALES AND MUDSTONE. THE MUDSTONES ARE HARD AND APPEAR BLOCKY. THE RED CLAY SHALE OF THE HENNESSEY UNIT IS CHARACTERIZED BY NUMEROUS BANDS OF STREAKS OF WHITE OR LIGHT GREEN COLOR RANGING FROM A FEW INCHES TO FOUR FEET IN THICKNESS.

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GEOTECHNICAL REPORT

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NOTE: WATER LEVEL ELEVATIONS SHOWN WERE OBTAINED AT THE TIME THE BORINGS WERE DRILLED AND MAY FLUCTUATE THROUGHOUT THE YEAR.

NOTE: SPT - SPLIT SPOON SAMPLING
TCP - TEXAS CONE PENETRATOR TEST
AUG - AUGUR CUTTING SAMPLE
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PL - PLASTIC LIMIT

<#200 - PERCENT PASSING #200 SIEVE
W% - MOISTURE CONTENT
N - NUMBER OF BLOWS PER 12 INCHES
▽ DENOTES DEPTH TO OBSERVED GROUNDWATER

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	PSI	

PHASE 2 OKLAHOMA COUNTY
BRIDGE "D" I-240 OVER I-35

FOUNDATION REPORT
(SHEET 1 OF 3)

STATE JOB NO. 09032(06) SHEET NO. B163

5/31/2022 3:22:40 PM
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REVISIONS		
DESCRIPTION		DATE

BORING NUMBER D-03
NORTHING: 142835.59
EASTING: 2150826.09
DATE DRILLED: 6/5/18
℄ I-240 STA. 428+21.68
OFFSET 64.10' RT.

SURFACE ELEVATION - 1278.0

13" CONCRETE	1276.9		
BASE, SANDY	1276.0		
SANDY LEAN CLAY, VERY STIFF, RED (CL)		1275.5 SPT: N=13	LL = 31: PL = 14: <#200=69.7%: W%=12%
SANDY SILTY CLAY, VERY STIFF, RED WITH LIGHT GRAY, TRACE GRAVEL (CL-ML)	1273.0	1273.0 SPT: N=21	LL = 22: PL = 16: <#200=68.8%: W%=14%
LEAN CLAY, SHALEY, HARD, RED WITH LIGHT GRAY, CALCAREOUS INCLUSIONS (CL)	1268.0	1268.0 SPT: N=44	LL = 39: PL = 18: <#200=89.8%: W%=13%
		1263.0 SPT: 20/30/50 (5.00")	LL = 39: PL = 18: <#200=95.2%: W%=12%
TOP OF BEDROCK	1262.0		
(ROCK) SHALE, MODERATELY HARD TO VERY HARD, RED, HIGHLY WEATHERED TO 25'		1261.5 TCP: 50 (3.50") 50 (3.00")	
		1258.0 TCP: 50 (3.00") 50 (2.50")	
		1253.0 TCP: 50 (2.00") 50 (1.50")	
		1248.0 TCP: 50 (1.00") 50 (0.75")	
		1243.0 TCP: 50 (0.50") 50 (0.1[illegible])	
		1238.0 TCP: [illegible].75") 50 (0.7[illegible])	
		1233.0 TCP: 50 (0.50") 50 (0.75")	
END OF BORING	1228.0	1228.0 TCP: 50 (0.50") 50 (0.25")	

BORING NUMBER D-04
NORTHING: 142862.25
EASTING: 2151000.63
DATE DRILLED: 10/16/17
℄ I-240 STA. 429+96.40
OFFSET 38.59' RT.

SURFACE ELEVATION - 1282.1

LEAN CLAY WITH SAND, DARK BROWN (CL)		1282.1 AUG	LL = 30: PL = 18: <#200=76.8%: W%=18%
		1281.1 SPT: N=9	LL = 37: PL = 16: <#200=75.4%: W%=15%
LEAN CLAY, STIFF TO VERY STIFF, REDDISH-BROWN (CL)	1280.1	1279.1 SPT: N=7	LL = 36: PL = 17: <#200=85.2%: W%=14%
		1277.1 SPT: N=13	LL = 41: PL = 16: <#200=94.0%: W%=18%
LEAN CLAY WITH SAND, STIFF TO VERY STIFF, REDDISH-BROWN (CL)	1275.6	1275.1 SPT: N=17	LL = 37: PL = 16: <#200=72.6%: W%=15%
LEAN CLAY, VERY STIFF, RED (CL)	1273.1	1272.1 SPT: N=17	LL = 42: PL = 20: <#200=90.0%: W%=13%
LEAN CLAY, SHALEY, HARD, RED (CL)	1267.1	1267.1 SPT: N=48	LL = 43: PL = 19: <#200=89.7%: W%=13%
		1262.1 SPT: 26/37/50 (4.00")	LL = 45: PL = 21: <#200=92.1%: W%=14%
TOP OF BEDROCK	1261.1		
(ROCK) SAND[illegible] HARD TO VERY HARD, RED WITH GRAY, SHALE LAYERS INTERBEDDED THROUGHOUT		1260.1 TCP: 50 (2.25") 50 (1.25")	
		1255.1 TCP: 50 (0.75") 50 (0.75")	
		1250.1 TCP: 50 (0.50") 50 (0.50")	
		1245.1 TCP: 50 (0.38") 50 (0.25")	
		1240.1 TCP: 50 (0.50") 50 (0.50")	
		1235.1 TCP: 50 (0.50") 50 (0.50")	
END OF BORING	1230.1	1230.1 TCP: 50 (0.50") 50 (0.25")	

Preliminary Plans

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N - NUMBER OF BLOWS PER 12 INCHES
▽ DENOTES DEPTH TO OBSERVED GROUNDWATER

PHASE 2 OKLAHOMA COUNTY

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	PSI	

BRIDGE "D" I-240 OVER I-35

FOUNDATION REPORT (SHEET 2 OF 3)

STATE JOB NO. 09032(06) SHEET NO. B164

5/31/2022 3:22:41 PM
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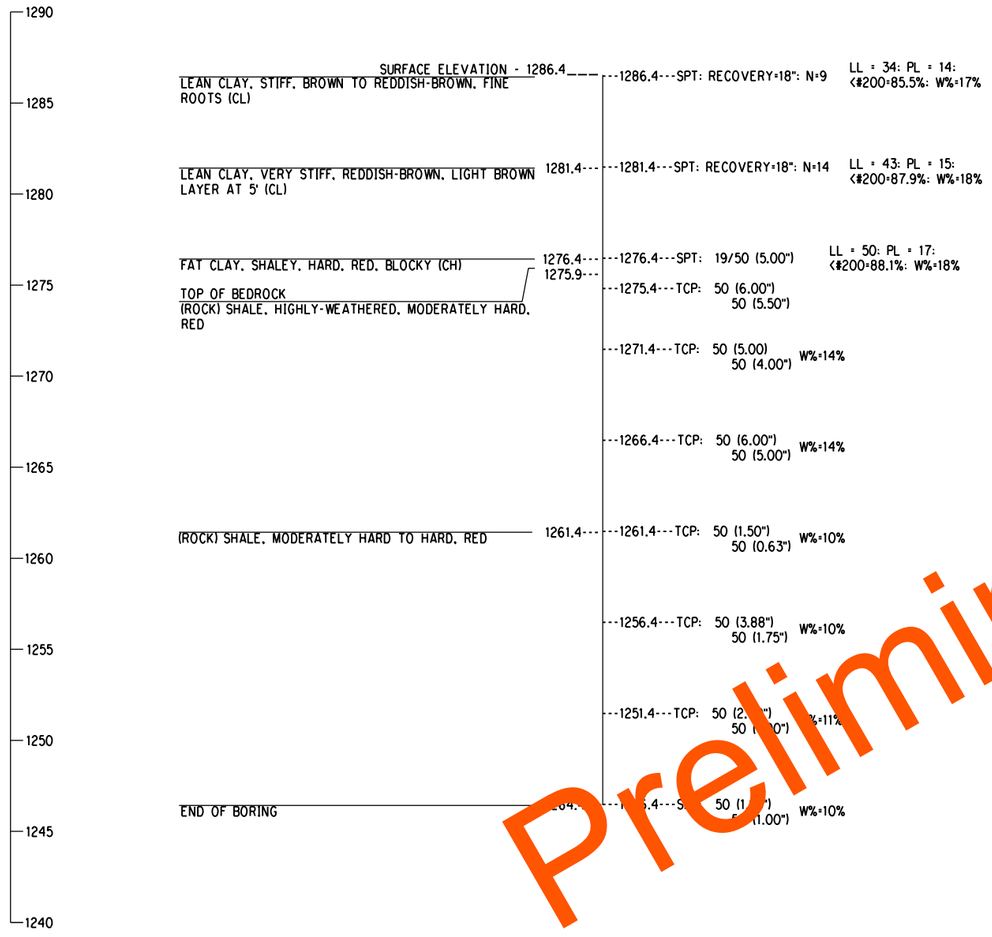
REVISIONS		
DESCRIPTION		DATE

BORING NUMBER D-05
NORTHING: 142835.49
EASTING: 2150987.41
DATE DRILLED: 5/3/17
℄ I-240 STA. 429+83.00
OFFSET 65.30' RT.



Preliminary Plans

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LL - LIQUID LIMIT
PL - PLASTIC LIMIT

<#200 - PERCENT PASSING #200 SIEVE
W% - MOISTURE CONTENT
N - NUMBER OF BLOWS PER 12 INCHES
▽ DENOTES DEPTH TO OBSERVED GROUNDWATER

PHASE 2 OKLAHOMA COUNTY

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	PSI	

BRIDGE "D" I-240 OVER I-35

FOUNDATION REPORT (SHEET 3 OF 3)

STATE JOB NO. 09032(06) SHEET NO. B165

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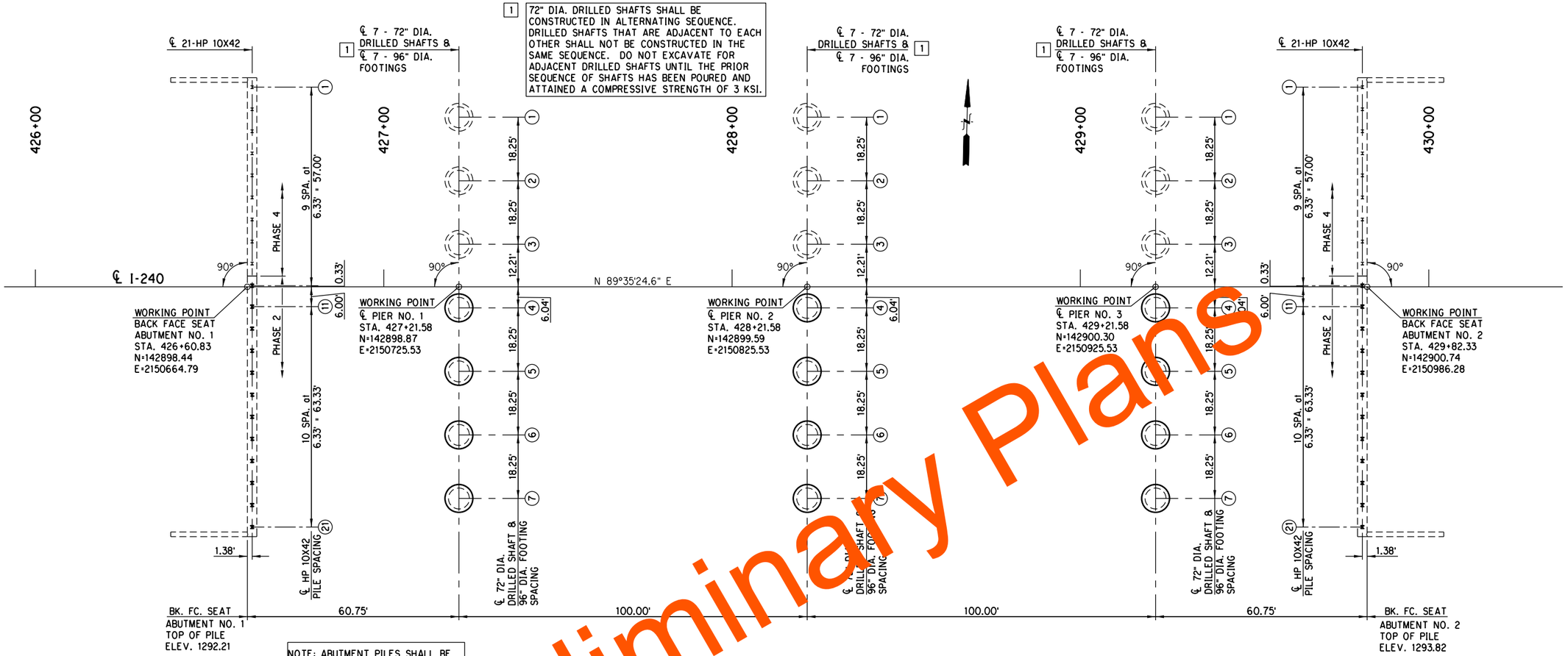
REVISIONS		
DESCRIPTION		DATE

1 72" DIA. DRILLED SHAFTS SHALL BE CONSTRUCTED IN ALTERNATING SEQUENCE. DRILLED SHAFTS THAT ARE ADJACENT TO EACH OTHER SHALL NOT BE CONSTRUCTED IN THE SAME SEQUENCE. DO NOT EXCAVATE FOR ADJACENT DRILLED SHAFTS UNTIL THE PRIOR SEQUENCE OF SHAFTS HAS BEEN POURED AND ATTAINED A COMPRESSIVE STRENGTH OF 3 KSI.



NOTE: ABUTMENT PILES SHALL BE ORIENTED SUCH THAT THE FACE OF THE PILE WEB IS PARALLEL WITH THE FACE OF THE BRIDGE SEAT.

SUBSTRUCTURE STAKING DIAGRAM

Preliminary Plans

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 — OKLAHOMA COUNTY

BRIDGE "D" — I-240 OVER I-35

SUBSTRUCTURE LAYOUT

STATE JOB NO. 09032(06) SHEET NO. B166

5/31/2022 3:22:43 PM
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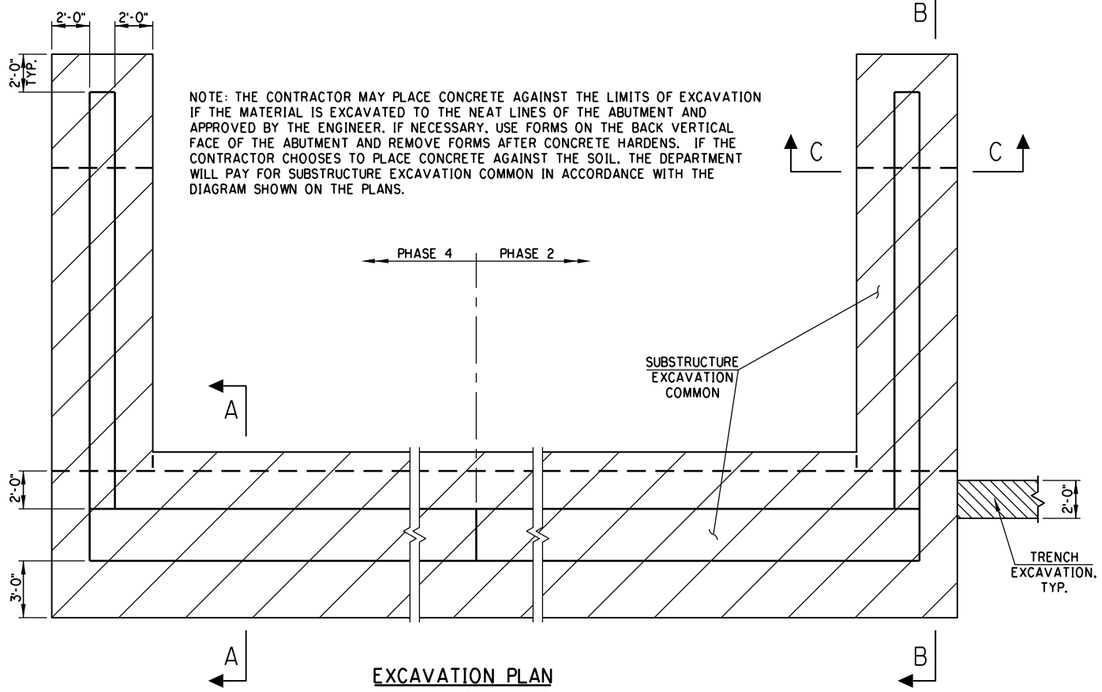
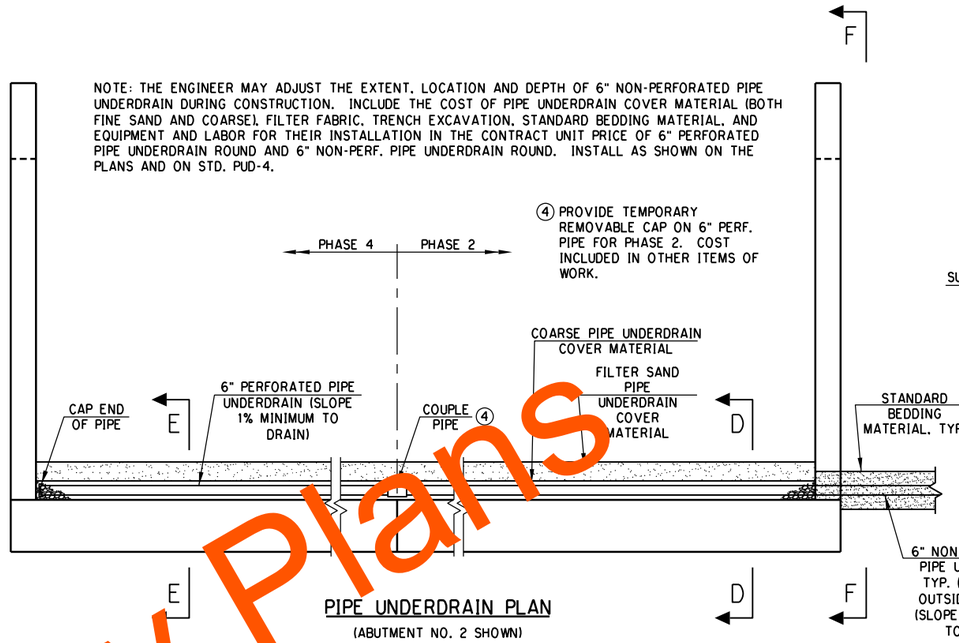
DESCRIPTION	REVISIONS	DATE



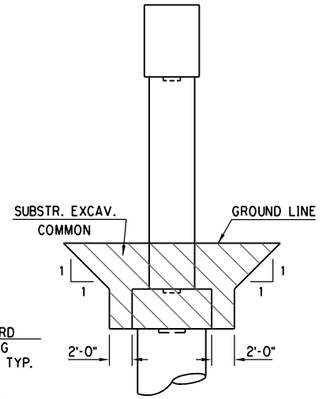
NOTE: THE CONTRACTOR MAY PLACE CONCRETE AGAINST THE LIMITS OF EXCAVATION IF THE MATERIAL IS EXCAVATED TO THE NEAT LINES OF THE ABUTMENT AND APPROVED BY THE ENGINEER. IF NECESSARY, USE FORMS ON THE BACK VERTICAL FACE OF THE ABUTMENT AND REMOVE FORMS AFTER CONCRETE HARDENS. IF THE CONTRACTOR CHOOSES TO PLACE CONCRETE AGAINST THE SOIL, THE DEPARTMENT WILL PAY FOR SUBSTRUCTURE EXCAVATION COMMON IN ACCORDANCE WITH THE DIAGRAM SHOWN ON THE PLANS.

EXCAVATION PLAN
(ABUTMENT NO. 2 SHOWN)

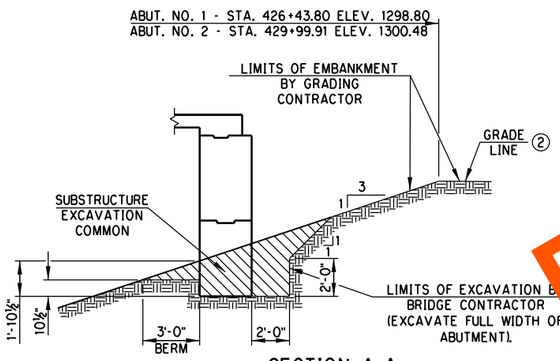


NOTE: THE ENGINEER MAY ADJUST THE EXTENT, LOCATION AND DEPTH OF 6" NON-PERFORATED PIPE UNDERDRAIN DURING CONSTRUCTION. INCLUDE THE COST OF PIPE UNDERDRAIN COVER MATERIAL (BOTH FINE SAND AND COARSE), FILTER FABRIC, TRENCH EXCAVATION, STANDARD BEDDING MATERIAL, AND EQUIPMENT AND LABOR FOR THEIR INSTALLATION IN THE CONTRACT UNIT PRICE OF 6" PERFORATED PIPE UNDERDRAIN ROUND AND 6" NON-PERF. PIPE UNDERDRAIN ROUND. INSTALL AS SHOWN ON THE PLANS AND ON STD. PUD-4.

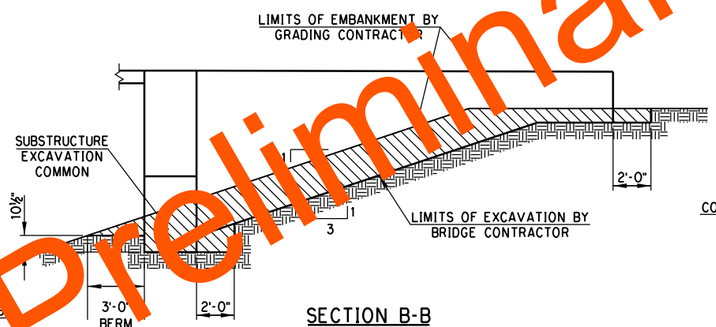
PIPE UNDERDRAIN PLAN
(ABUTMENT NO. 2 SHOWN)



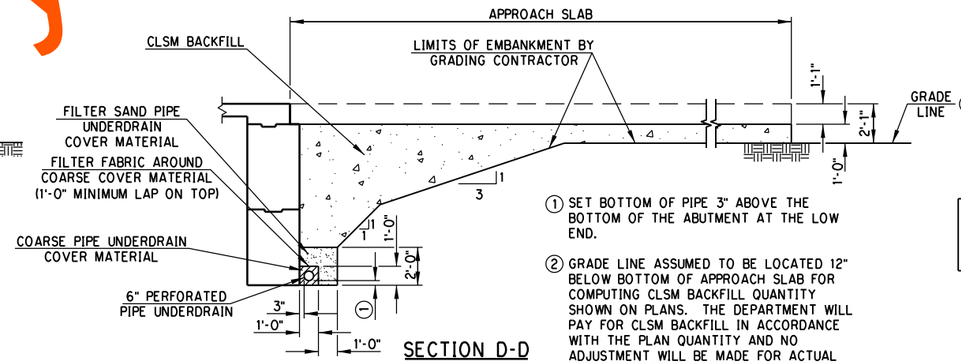
PIER EXCAVATION DIAGRAM



SECTION A-A



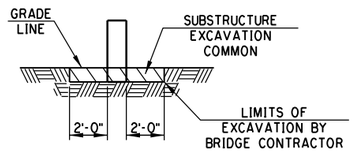
SECTION B-B



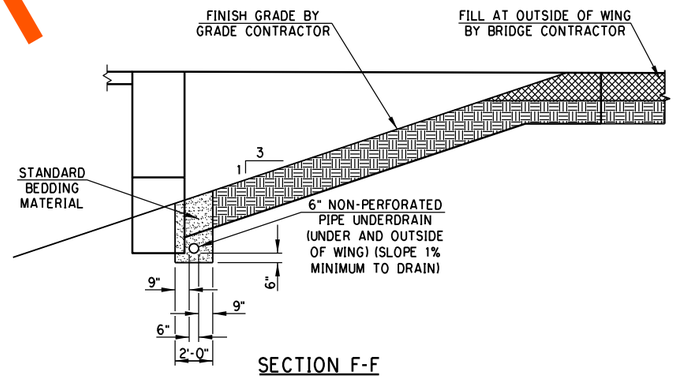
SECTION D-D

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

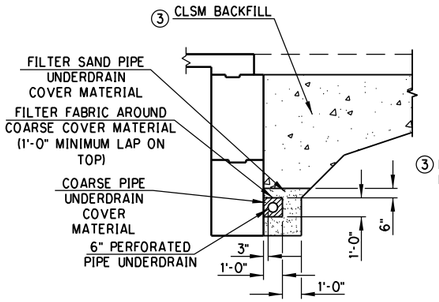
② GRADE LINE ASSUMED TO BE LOCATED 12" BELOW BOTTOM OF APPROACH SLAB FOR COMPUTING CLSM BACKFILL QUANTITY SHOWN ON PLANS. THE DEPARTMENT WILL PAY FOR CLSM BACKFILL IN ACCORDANCE WITH THE PLAN QUANTITY AND NO ADJUSTMENT WILL BE MADE FOR ACTUAL LOCATION OF GRADE LINE.



SECTION C-C



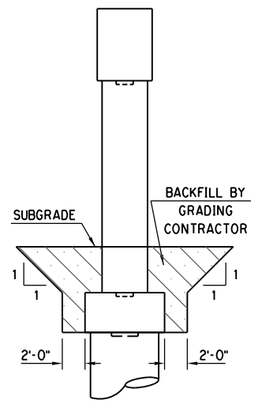
SECTION F-F



SECTION E-E

③ FOR EXTENTS OF CLSM BACKFILL, SEE SECTION D-D.

DO NOT PLACE CLSM BACKFILL UNTIL SUPERSTRUCTURE IS IN PLACE AND THE ABUTMENT WING CONCRETE HAS ATTAINED A STRENGTH OF 3000 P.S.I.



PIER BACKFILL DIAGRAM

Preliminary Plans

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 — OKLAHOMA COUNTY

BRIDGE "D" — I-240 OVER I-35

EXCAVATION DIAGRAMS AND UNDERDRAIN DETAILS

STATE JOB NO. 09032(06) SHEET NO. B167

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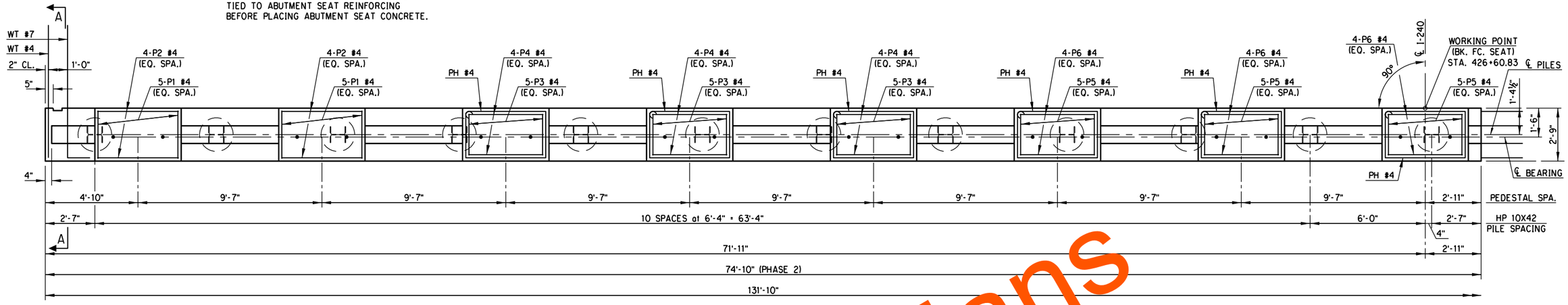
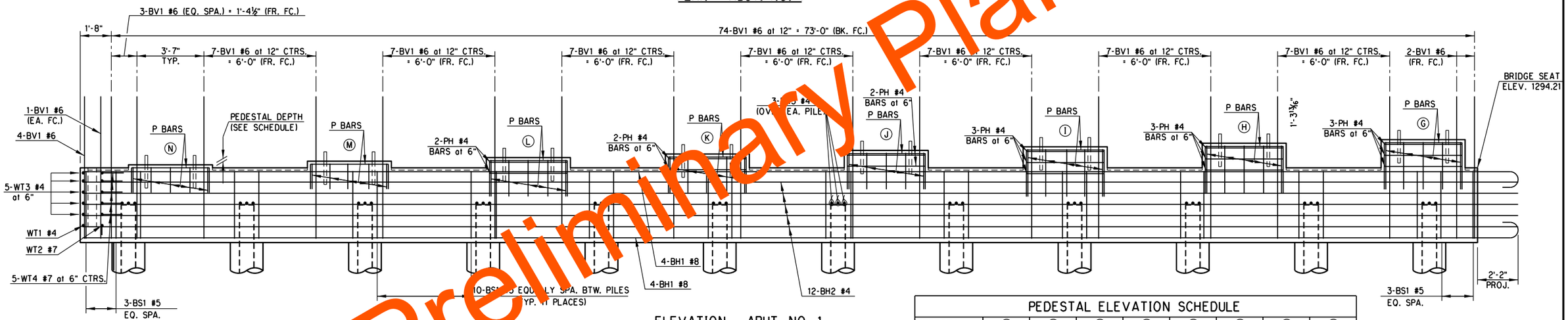
REVISIONS		
DESCRIPTION		DATE

NOTE: PLACE ALL WT WING REINFORCING TIED TO ABUTMENT SEAT REINFORCING BEFORE PLACING ABUTMENT SEAT CONCRETE.

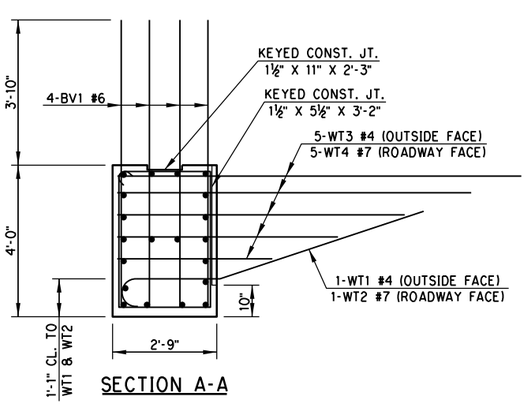


PLAN - ABUT. NO. 1

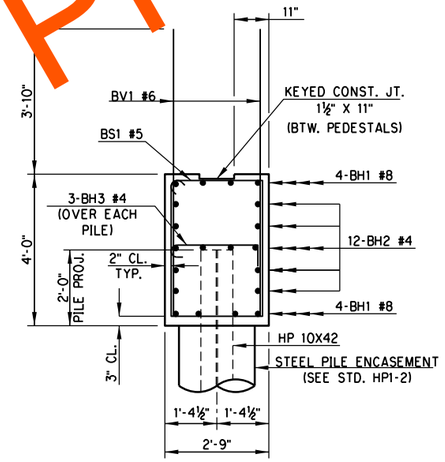


ELEVATION - ABUT. NO. 1

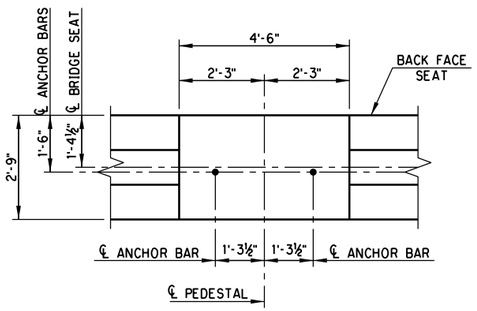
PEDESTAL ELEVATION SCHEDULE								
PEDESTAL	Ⓖ	Ⓗ	Ⓘ	Ⓙ	Ⓚ	Ⓛ	Ⓜ	Ⓝ
ELEVATION	1295.72	1295.53	1295.34	1295.15	1294.95	1294.76	1294.57	1294.38
DEPTH	1'-6⅛"	1'-3¹³⁄₁₆"	1'-1½"	11³⁄₁₆"	8⅞"	6⅝"	4⅜"	2"



SECTION A-A



TYPICAL SECTION THRU SEAT



TYPICAL PEDESTAL & ANCHOR BAR LAYOUT

ABUTMENT QUANTITIES				
ITEM	UNIT	ABUT NO. 1	ABUT NO. 2	TOTAL
SUBSTRUCTURE EXCAVATION COMMON	CY	55	55	110
CLSM BACKFILL	CY	206.3	206.3	412.5
CLASS A CONCRETE	CY	43.5	43.6	87.1
EPOXY COATED REINFORCING STEEL	LB	7,020	7,030	14,050
PILES, FURNISHED (HP 10X42)	LF	324	300	624
PILES, DRIVEN (HP 10X42)	LF	324	300	624
WATER REPELLENT (VISUALLY INSPECTED)	SY	89	89	178
6" PERFORATED PIPE UNDERDRAIN ROUND	LF	75	75	150
6" NON-PERF. PIPE UNDERDRAIN ROUND	LF	26	26	52

NOTE: FOR WATER REPELLENT TREATMENT DETAILS, SEE SHT. B180. FOR BAR LIST, SEE SHEET 3 OF 3.

PHASE 2 — OKLAHOMA COUNTY

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

BRIDGE "D" — I-240 OVER I-35

ABUTMENT DETAILS

(SHEET 1 OF 3)

STATE JOB NO. 09032(06) SHEET NO. B168

Preliminary Plans

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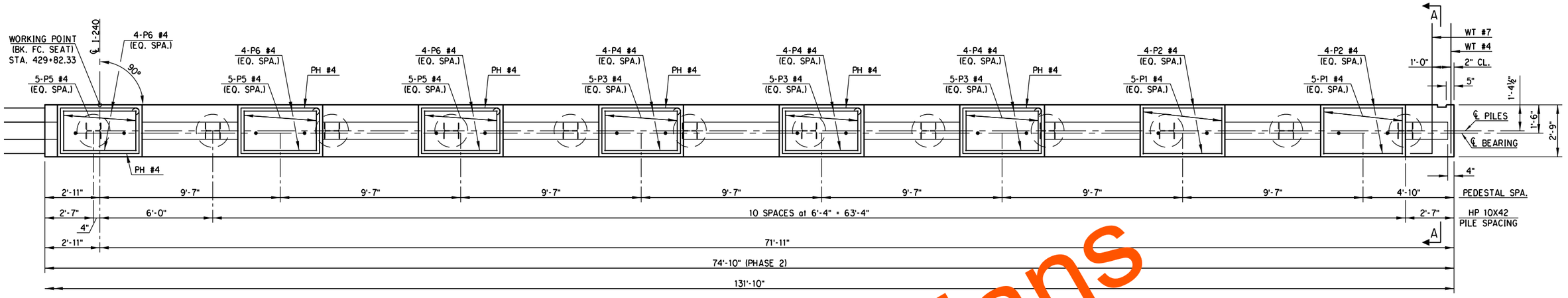
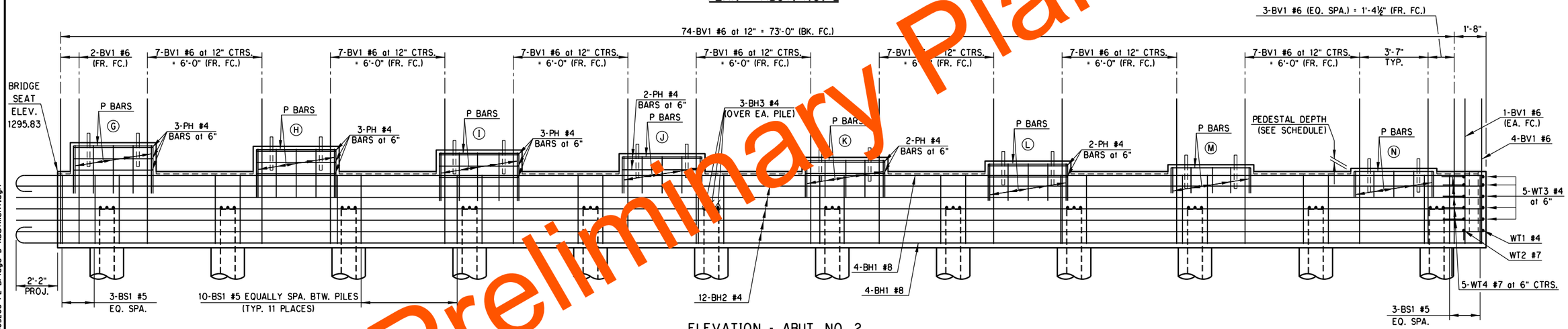
REVISIONS		
DESCRIPTION		DATE

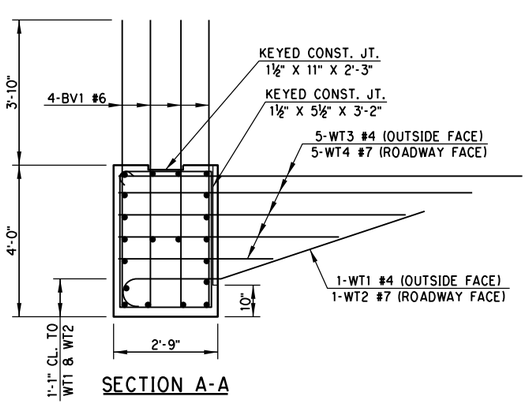
NOTE: PLACE ALL WT WING REINFORCING TIED TO ABUTMENT SEAT REINFORCING BEFORE PLACING ABUTMENT SEAT CONCRETE.



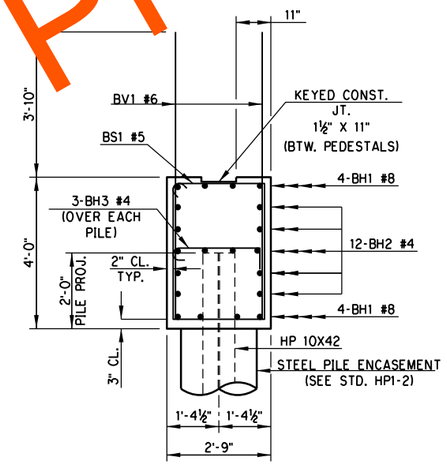
PLAN - ABUT. NO. 2



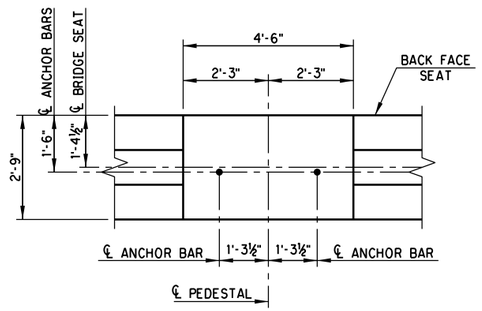
ELEVATION - ABUT. NO. 2



SECTION A-A



TYPICAL SECTION THRU SEAT



TYPICAL PEDESTAL & ANCHOR BAR LAYOUT

PEDESTAL ELEVATION SCHEDULE								
PEDESTAL	Ⓖ	Ⓗ	Ⓘ	Ⓙ	Ⓚ	Ⓛ	Ⓜ	Ⓝ
ELEVATION	1297.34	1297.14	1296.95	1296.76	1296.57	1296.38	1296.19	1295.99
DEPTH	1'-6 1/8"	1'-3 13/16"	1'-1 1/2"	11 3/16"	8 7/8"	6 5/8"	4 5/16"	2"

NOTE: FOR WATER REPELLENT TREATMENT DETAILS, SEE SHT. B180. FOR BAR LIST. SEE SHEET 3 OF 3.

Preliminary Plans

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 — OKLAHOMA COUNTY

BRIDGE "D" — I-240 OVER I-35

ABUTMENT DETAILS

(SHEET 2 OF 3)

STATE JOB NO. 09032(06) SHEET NO. B169

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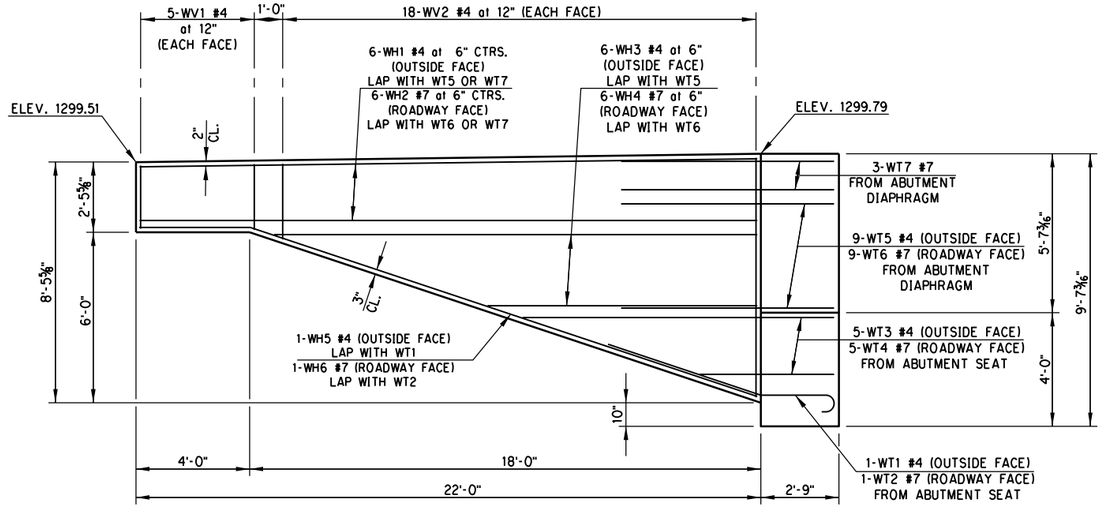
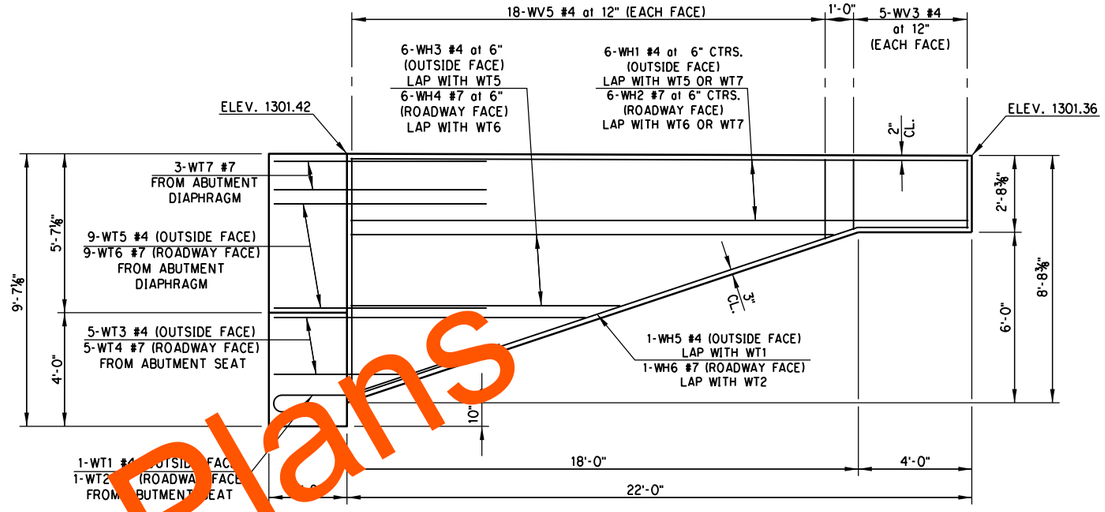
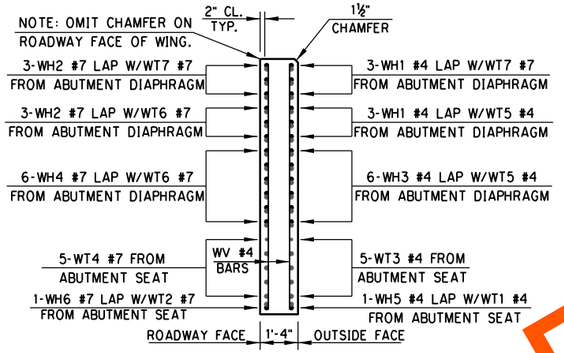
REVISIONS		
DESCRIPTION		DATE



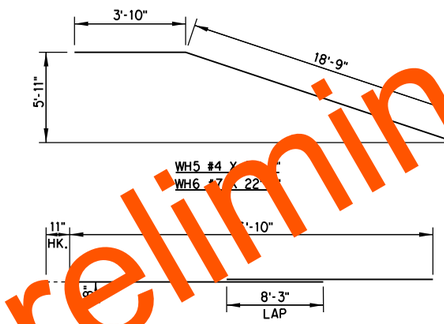
ABUT. NO. 1 SOUTH WING ELEVATION



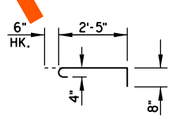
ABUT. NO. 2 SOUTH WING ELEVATION



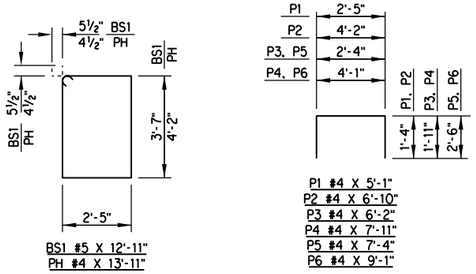
SECTION THROUGH WING at BACK FACE OF ABUTMENT SEAT



BH1 #8 X 86'-0"

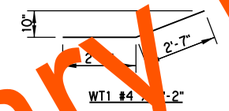


BH3 #4 X 3'-7"

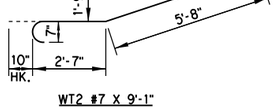


BS1 #5 X 12'-11"
PH #4 X 13'-11"
P1 #4 X 5'-1"
P2 #4 X 6'-10"
P3 #4 X 6'-2"
P4 #4 X 7'-11"
P5 #4 X 7'-4"
P6 #4 X 9'-1"

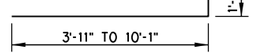
BAR BENDS
(BENT BAR DIMENSIONS ARE OUT TO OUT)



WT1 #4 X 5'-2"



WT2 #7 X 9'-1"



WT4 #7 X 8'-2" AVG.

ABUT. NO. 1 SEAT BAR LIST
(EPOXY COATED REINFORCING)

	MARK	SIZE	NO.	FORM	SPACING	LENGTH	VARIANCE
(1)	BH1	#8	8	BNT.	AS SHOWN	86'-0"	
(2)	BH2	#4	12	STR.	EQ. SPA.	78'-10"	
	BH3	#4	36	BNT.	AS SHOWN	3'-7"	
	BS1	#5	116	BNT.	EQ. SPA.	12'-11"	
	BV1	#6	134	STR.	12" c/c	7'-7"	
	P1	#4	10	BNT.	EQ. SPA.	5'-1"	
	P2	#4	8	BNT.	EQ. SPA.	6'-10"	
	P3	#4	15	BNT.	EQ. SPA.	6'-2"	
	P4	#4	12	BNT.	EQ. SPA.	7'-11"	
	P5	#4	15	BNT.	EQ. SPA.	7'-4"	
	P6	#4	12	BNT.	EQ. SPA.	9'-1"	
	PH	#4	15	BNT.	6" c/c	13'-11"	
	WT1	#4	1	BNT.	AS SHOWN	5'-2"	
	WT2	#7	1	BNT.	AS SHOWN	9'-1"	
	WT3	#4	5	STR.	EQ. SPA.	7'-0" AVG.	3'-11" TO 10'-1"
	WT4	#7	5	BNT.	EQ. SPA.	8'-2" AVG.	5'-1" TO 11'-3"
	WH1	#4	6	STR.	6" c/c	21'-8"	
	WH2	#7	6	STR.	6" c/c	21'-8"	
	WH3	#4	6	STR.	6" c/c	12'-10" AVG.	9'-1" TO 16'-7"
	WH4	#7	6	STR.	6" c/c	12'-10" AVG.	9'-1" TO 16'-7"
	WH5	#4	1	BNT.	AS SHOWN	22'-7"	
	WH6	#7	1	BNT.	AS SHOWN	22'-7"	
	WV1	#4	10	STR.	12" c/c	2'-0"	
(3)	WV2	#4	36	STR.	12" c/c	5'-4" AVG.	2'-5" TO 8'-3"

(1) INCLUDES 1 - 8'-3" MIN. LAP
(2) INCLUDES 1 - 2'-0" MIN. LAP
(3) 2 SETS OF 18.

ABUT. NO. 2 SEAT BAR LIST
(EPOXY COATED REINFORCING)

	MARK	SIZE	NO.	FORM	SPACING	LENGTH	VARIANCE
(1)	BH1	#8	8	BNT.	AS SHOWN	86'-0"	
(2)	BH2	#4	12	STR.	EQ. SPA.	78'-10"	
	BH3	#4	36	BNT.	AS SHOWN	3'-7"	
	BS1	#5	116	BNT.	EQ. SPA.	12'-11"	
	BV1	#6	134	STR.	12" c/c	7'-7"	
	P1	#4	10	BNT.	EQ. SPA.	5'-1"	
	P2	#4	8	BNT.	EQ. SPA.	6'-10"	
	P3	#4	15	BNT.	EQ. SPA.	6'-2"	
	P4	#4	12	BNT.	EQ. SPA.	7'-11"	
	P5	#4	15	BNT.	EQ. SPA.	7'-4"	
	P6	#4	12	BNT.	EQ. SPA.	9'-1"	
	PH	#4	15	BNT.	6" c/c	13'-11"	
	WT1	#4	1	BNT.	AS SHOWN	5'-2"	
	WT2	#7	1	BNT.	AS SHOWN	9'-1"	
	WT3	#4	5	STR.	EQ. SPA.	7'-0" AVG.	3'-11" TO 10'-1"
	WT4	#7	5	BNT.	EQ. SPA.	8'-2" AVG.	5'-1" TO 11'-3"
	WH1	#4	6	BNT.	6" c/c	21'-8"	
	WH2	#7	6	BNT.	6" c/c	21'-8"	
	WH3	#4	6	BNT.	6" c/c	12'-10" AVG.	9'-1" TO 16'-7"
	WH4	#7	6	BNT.	6" c/c	12'-10" AVG.	9'-1" TO 16'-7"
	WH5	#4	1	BNT.	AS SHOWN	22'-7"	
	WH6	#7	1	BNT.	AS SHOWN	22'-7"	
	WV3	#4	10	STR.	12" c/c	2'-3"	
(3)	WV5	#4	36	BNT.	12" c/c	5'-5" AVG.	2'-7" TO 8'-3"

Preliminary Plans

PHASE 2 OKLAHOMA COUNTY

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

BRIDGE "D" I-240 OVER I-35

ABUTMENT DETAILS
(SHEET 3 OF 3)

STATE JOB NO. 09032(06) SHEET NO. B170

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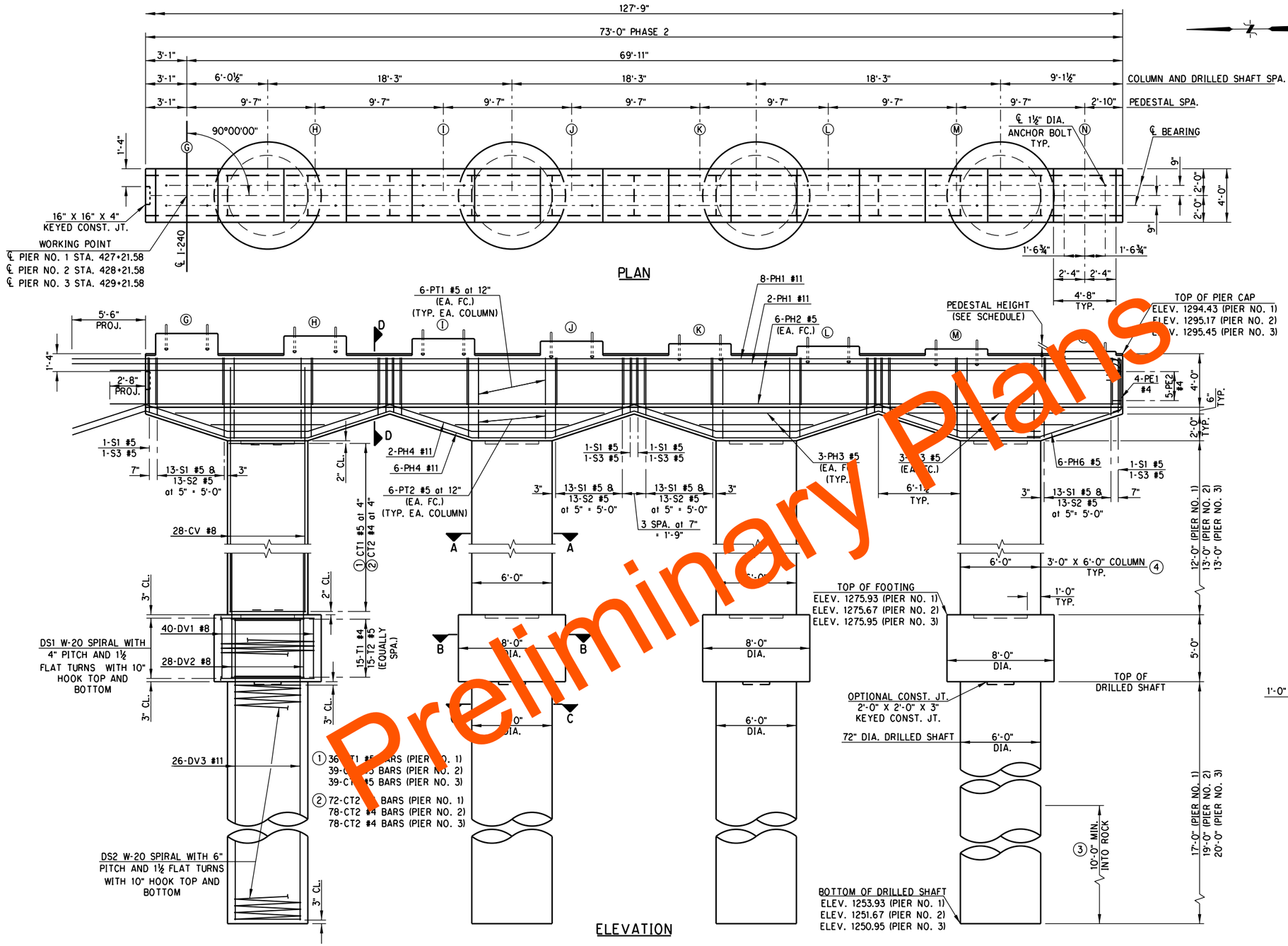
REVISIONS		
DESCRIPTION		DATE



NOTE: FOR PEDESTAL REINFORCING DETAIL SEE SHEET 3 OF 3.

FOR SECTIONS A-A, B-B, C-C & D-D, SEE SHEET B172.

FOR QUANTITIES, BAR BENDS AND BAR LISTS, SEE SHEET 3 OF 3.

72" DIA. DRILLED SHAFTS SHALL BE CONSTRUCTED IN ALTERNATING SEQUENCE. DRILLED SHAFTS THAT ARE ADJACENT TO EACH OTHER SHALL NOT BE CONSTRUCTED IN THE SAME SEQUENCE. DO NOT EXCAVATE FOR ADJACENT DRILLED SHAFTS UNTIL THE PRIOR SEQUENCE OF SHAFTS HAS BEEN POURED AND ATTAINED A COMPRESSIVE STRENGTH OF 3 KSI.

③ DRILLED SHAFT SHALL BE INSTALLED THE SPECIFIED MINIMUM DISTANCE INTO ROCK, BUT IN NO CASE SHALL BE HIGHER THAN THE BOTTOM OF DRILLED SHAFT ELEVATION SHOWN ON PLANS.

PEDESTAL ELEVATION SCHEDULE

	PEDESTAL	Ⓖ	Ⓗ	Ⓘ	Ⓙ	Ⓚ	Ⓛ	Ⓜ	Ⓝ
PIER NO. 1	ELEVATION	1296.02	1295.83	1295.64	1295.45	1295.25	1295.06	1294.87	1294.68
	DEPTH	1'-7⅛"	1'-4 13/16"	1'-2½"	1'-0 3/16"	9⅞"	7⅝"	5 5/16"	3"
PIER NO. 2	ELEVATION	1296.76	1296.57	1296.38	1296.19	1295.99	1295.80	1295.61	1295.42
	DEPTH	1'-7⅛"	1'-4 13/16"	1'-2½"	1'-0 3/16"	9⅞"	7⅝"	5 5/16"	3"
PIER NO. 3	ELEVATION	1297.04	1296.85	1296.66	1296.47	1296.28	1296.08	1295.89	1295.70
	DEPTH	1'-7⅛"	1'-4 13/16"	1'-2½"	1'-0 3/16"	9⅞"	7⅝"	5 5/16"	3"

Preliminary Plans

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 — OKLAHOMA COUNTY

BRIDGE "D" — I-240 OVER I-35

PIER DETAILS
(SHEET 1 OF 3)

STATE JOB NO. 09032(06) SHEET NO. B171

5/31/2022 3:22:47 PM
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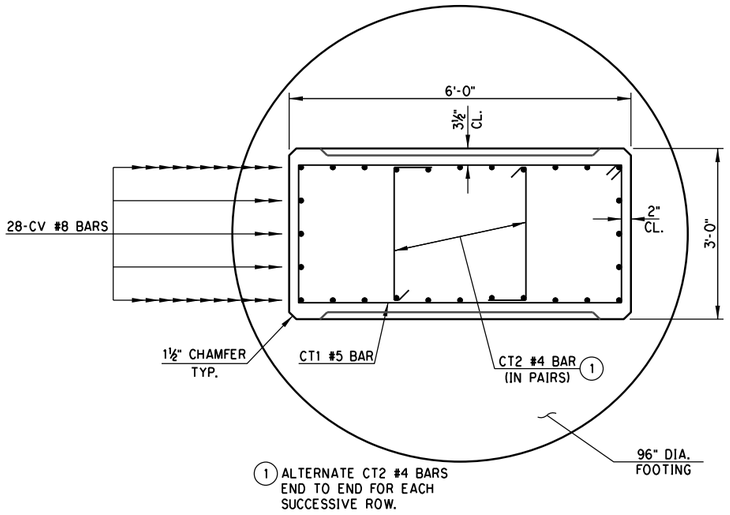
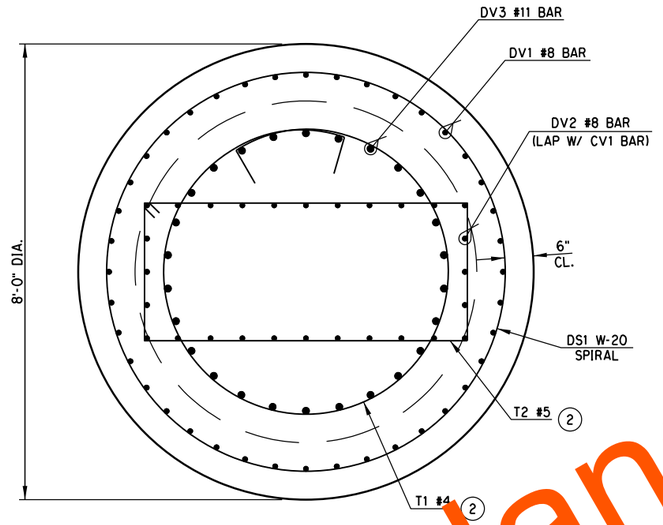
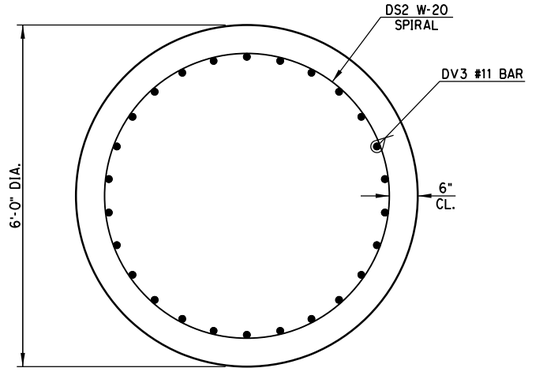
REVISIONS		
DESCRIPTION		DATE



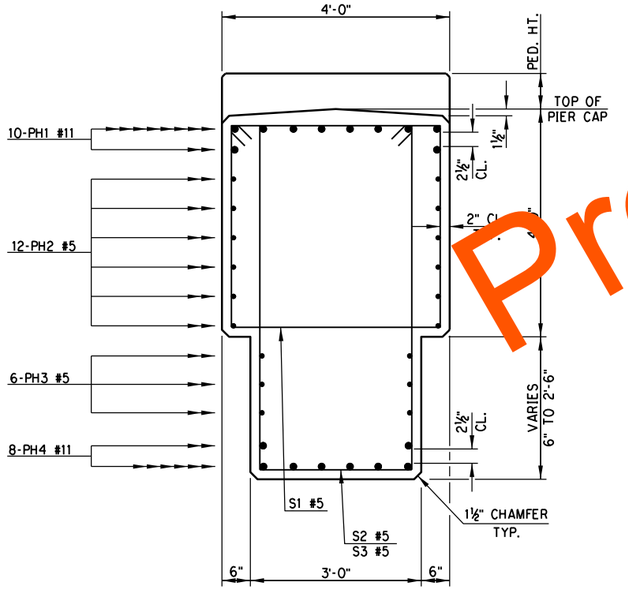
SECTION A-A



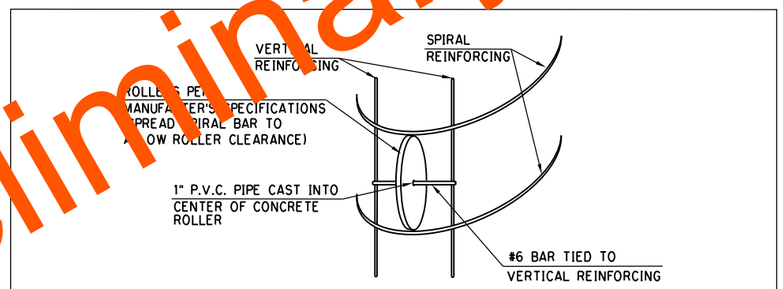
SECTION B-B



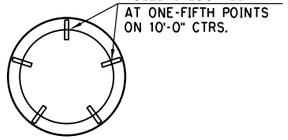
SECTION C-C



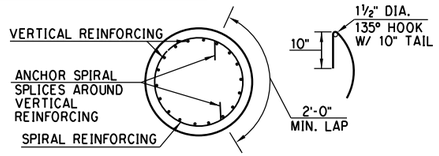
SECTION D-D



ROLLER INSTALLATION DETAIL



ROLLER PLACEMENT



SPIRAL REINFORCING SPLICE DETAILS

NOTE: SPIRAL BARS SHALL CONFORM TO AASHTO M-32. SPIRAL BAR LENGTHS DO NOT INCLUDE LAP. IF LAP IS REQUIRED, THE LENGTH OF THE LAP SHALL BE AS SHOWN.

ROLLER DETAILS

NOTE: REINFORCING CAGE CENTERING DEVICES SHALL CONSIST OF ROLLERS PLACED AT SPACING AS SHOWN AND HAVE THE CHARACTERISTICS AS INDICATED IN THE MANUFACTURER'S SPECIFICATIONS. SLAB BOLSTERS AND HIGH CHAIRS WILL BE ALLOWED BY THE DEPARTMENT.

Preliminary Plans

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 — OKLAHOMA COUNTY

BRIDGE "D" — I-240 OVER I-35

PIER DETAILS

(SHEET 2 OF 3)

STATE JOB NO. 09032(06) SHEET NO. B172

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PIER NO. 1 BAR LIST
(EPOXY COATED)

	MARK	SIZE	NO.	FORM	SPACING	LENGTH	VARIATION
	CT1	#5	144	BNT.	4" c/c	17'-1"	
	CT2	#4	288	BNT.	4" c/c	3'-6"	
	CV1	#8	112	STR.	AS SHOWN	17'-6"	
	DS1	W-20	4	BNT.	AS SHOWN	362'-5"	
	DV1	#8	160	STR.	AS SHOWN	4'-6"	
	DV2	#8	112	STR.	AS SHOWN	12'-6"	
	P1	#4	20	BNT.	EQ. SPA.	8'-1"	
	P2	#4	24	BNT.	EQ. SPA.	7'-5"	
	P3	#4	20	BNT.	EQ. SPA.	9'-7"	
	P4	#4	24	BNT.	EQ. SPA.	8'-11"	
	PE1	#4	4	BNT.	AS SHOWN	5'-11"	
	PE2	#4	5	BNT.	AS SHOWN	5'-6"	
(1)	PH1	#11	10	BNT.	EQ. SPA.	96'-2"	
(2)	PH2	#5	12	STR.	EQ. SPA.	79'-1"	
(3)	PH3	#5	24	STR.	EQ. SPA.	12'-2" AVG.	9'-0" TO 15'-4"
(4)	PH4	#11	8	BNT.	AS SHOWN	87'-1"	
	PH5	#5	6	BNT.	EQ. SPA.	7'-3"	
	PS1	#4	17	BNT.	AS SHOWN	16'-9"	
	PT1	#5	48	STR.	12" c/c	3'-6"	
	PT2	#5	48	STR.	12" c/c	2'-2"	
	S1	#5	112	BNT.	5" c/c	15'-4"	
(5)	S2	#5	104	BNT.	5" c/c	16'-6" AVG.	14'-10" TO 18'-2"
	S3	#5	8	BNT.	5" c/c	14'-6"	
	T1	#4	60	BNT.	12" c/c	19'-0"	
	T2	#5	60	BNT.	12" c/c	17'-1"	
	DRILLED SHAFTS (PLAIN REINFORCING)						
(6) (7)	DS2	W-20	4	BNT.	AS SHOWN	565'-9"	
(6)	DV3	#11	104	STR.	AS SHOWN	21'-6"	

PIER NO. 2 BAR LIST
(EPOXY COATED)

	MARK	SIZE	NO.	FORM	SPACING	LENGTH	VARIATION
	CT1	#5	156	BNT.	4" c/c	17'-1"	
	CT2	#4	312	BNT.	4" c/c	3'-6"	
	CV2	#8	112	STR.	AS SHOWN	18'-6"	
	DS1	W-20	4	BNT.	AS SHOWN	362'-5"	
	DV1	#8	160	STR.	AS SHOWN	4'-6"	
	DV2	#8	112	STR.	AS SHOWN	12'-6"	
	P1	#4	20	BNT.	EQ. SPA.	8'-1"	
	P2	#4	24	BNT.	EQ. SPA.	7'-5"	
	P3	#4	20	BNT.	EQ. SPA.	9'-7"	
	P4	#4	24	BNT.	EQ. SPA.	8'-11"	
	PE1	#4	4	BNT.	AS SHOWN	5'-11"	
	PE2	#4	5	BNT.	AS SHOWN	5'-6"	
(1)	PH1	#11	10	BNT.	EQ. SPA.	96'-2"	
(2)	PH2	#5	12	STR.	EQ. SPA.	79'-1"	
(3)	PH3	#5	24	STR.	EQ. SPA.	12'-2" AVG.	9'-0" TO 15'-4"
(4)	PH4	#11	8	BNT.	AS SHOWN	87'-1"	
	PH5	#5	6	BNT.	EQ. SPA.	7'-3"	
	PS1	#4	17	BNT.	AS SHOWN	16'-9"	
	PT1	#5	48	STR.	12" c/c	3'-6"	
	PT2	#5	48	STR.	12" c/c	2'-2"	
	S1	#5	112	BNT.	5" c/c	15'-4"	
(5)	S2	#5	104	BNT.	5" c/c	16'-6" AVG.	14'-10" TO 18'-2"
	S3	#5	8	BNT.	5" c/c	14'-6"	
	T1	#4	60	BNT.	12" c/c	19'-0"	
	T2	#5	60	BNT.	12" c/c	17'-1"	
	DRILLED SHAFTS (PLAIN REINFORCING)						
(6) (7)	DS2	W-20	4	BNT.	AS SHOWN	628'-8"	
(6)	DV3	#11	104	STR.	AS SHOWN	23'-6"	

PIER NO. 3 BAR LIST
(EPOXY COATED)

	MARK	SIZE	NO.	FORM	SPACING	LENGTH	VARIATION
	CT1	#5	156	BNT.	4" c/c	17'-1"	
	CT2	#4	312	BNT.	4" c/c	3'-6"	
	CV2	#8	112	STR.	AS SHOWN	18'-6"	
	DS1	W-20	4	BNT.	AS SHOWN	362'-5"	
	DV1	#8	160	STR.	AS SHOWN	4'-6"	
	DV2	#8	112	STR.	AS SHOWN	12'-6"	
	P1	#4	20	BNT.	EQ. SPA.	8'-1"	
	P2	#4	24	BNT.	EQ. SPA.	7'-5"	
	P3	#4	20	BNT.	EQ. SPA.	9'-7"	
	P4	#4	24	BNT.	EQ. SPA.	8'-11"	
	PE1	#4	4	BNT.	AS SHOWN	5'-11"	
	PE2	#4	5	BNT.	AS SHOWN	5'-6"	
(1)	PH1	#11	10	BNT.	EQ. SPA.	96'-2"	
(2)	PH2	#5	12	STR.	EQ. SPA.	79'-1"	
(3)	PH3	#5	24	STR.	EQ. SPA.	12'-2" AVG.	9'-0" TO 15'-4"
(4)	PH4	#11	8	BNT.	AS SHOWN	87'-1"	
	PH5	#5	6	BNT.	EQ. SPA.	7'-3"	
	PS1	#4	17	BNT.	AS SHOWN	16'-9"	
	PT1	#5	48	STR.	12" c/c	3'-6"	
	PT2	#5	48	STR.	12" c/c	2'-2"	
	S1	#5	112	BNT.	5" c/c	15'-4"	
(5)	S2	#5	104	BNT.	5" c/c	16'-6" AVG.	14'-10" TO 18'-2"
	S3	#5	8	BNT.	5" c/c	14'-6"	
	T1	#4	60	BNT.	12" c/c	19'-0"	
	T2	#5	60	BNT.	12" c/c	17'-1"	
	DRILLED SHAFTS (PLAIN REINFORCING)						
(6) (7)	DS2	W-20	4	BNT.	AS SHOWN	660'-1"	
(6)	DV3	#11	104	STR.	AS SHOWN	24'-6"	

(1) INCLUDES 1 - 16'-3" MIN. LAP.

(2) INCLUDES 1 - 3'-7" MIN. LAP.

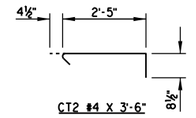
(3) 6 SETS OF 3.

(4) INCLUDES 1 - 12'-0" MIN. LAP.

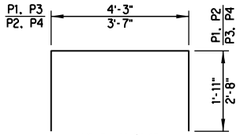
(5) 8 SETS OF 13

(6) INCLUDED IN THE CONTRACT UNIT PRICE OF DRILLED SHAFT.

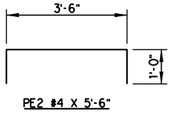
(7) LENGTH SHOWN DOES NOT ACCOUNT FOR SPLICES. CONTRACTOR MAY ADD SPLICES AS NECESSARY, BUT PAYMENT WILL NOT BE MADE FOR EXTRA LENGTH REQUIRED FOR SPLICES.



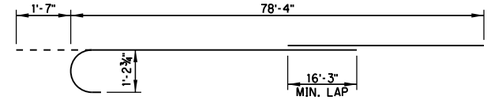
CT2 #4 X 3'-6"



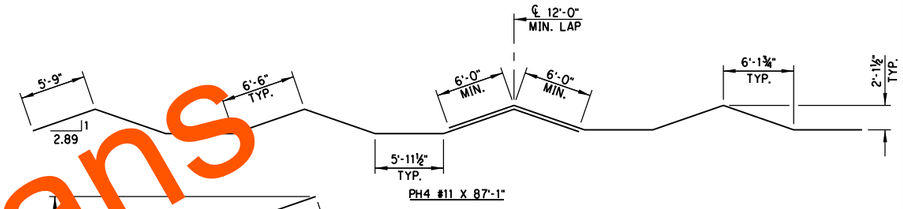
P1 #4 X 8'-1"
P2 #4 X 7'-5"
P3 #4 X 9'-7"
P4 #4 X 8'-11"



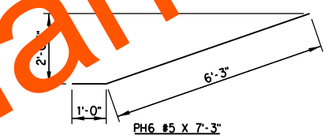
PE2 #4 X 5'-6"



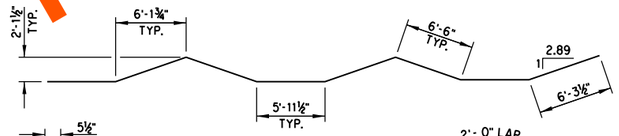
PH1 #11 X 96'-2"



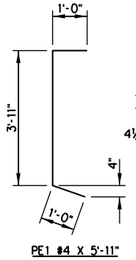
PH4 #11 X 87'-1"



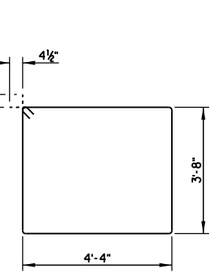
PH6 #5 X 7'-3"



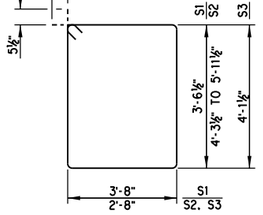
PH9 #11 X 50'-2"



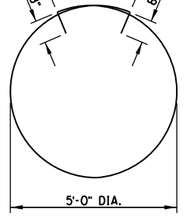
PE1 #4 X 5'-11"



PS1 #4 X 16'-9"

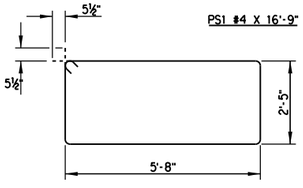


S1 #5 X 15'-4"
S2 #5 X 16'-6" AVG.
S3 #5 X 14'-6"

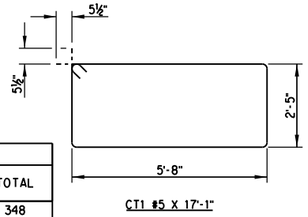


T1 #4 X 19'-0"

BAR BENDS
(BENT BAR DIMENSIONS ARE OUT TO OUT)

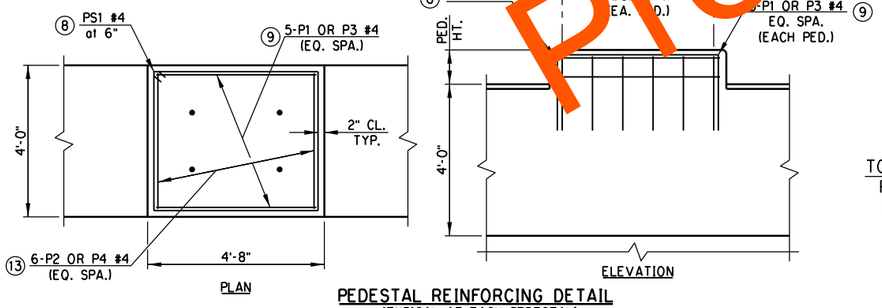


T2 #5 X 17'-1"



CT1 #5 X 17'-1"

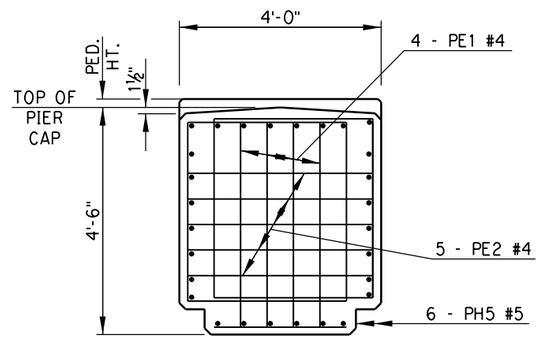
NOTE:
PIER CAP REINFORCEMENT NOT SHOWN FOR CLARITY.



PEDESTAL REINFORCING DETAIL
(TYPICAL AT EACH PEDESTAL)

(8) 3-PS1 #4 BARS REQUIRED FOR PED. HT. GREATER THAN 13".
2-PS1 #4 BARS REQUIRED FOR PED. HTS. BETWEEN 12" AND 6".
1-PS1 #4 BAR REQUIRED FOR PED. HT. LESS THAN 6".

(9) P3 #4 AND P4 #4 BARS REQUIRED FOR PED. HTS. GREATER THAN 10".
P1 #4 AND P2 #4 BARS REQUIRED FOR THE REMAINING PEDESTALS.



CAP END REINFORCING DETAIL
(SOUTH END)

PIER QUANTITIES

	ITEM	UNIT	PIER NO. 1	PIER NO. 2	PIER NO. 3	TOTAL
	SUBSTRUCTURE EXCAV. COMMON	CY	116	116	116	348
	CLASS A CONCRETE	CY	150.0	151.7	151.7	453.4
	REINFORCING STEEL	LB	990	990	990	2970
	EPOXY COATED REINFORCING STEEL	LB	30,850	31,410	31,410	93,670
(11)	WATER REPELLENT (VISUALLY INSPECTED)	SY	131	131	131	393
	DRILLED SHAFTS 72" DIAMETER	LF	68	76	80	224

(11) WATER REPELLENT COVERAGE INCLUDES TOP AND SIDES OF PIER CAP AND PEDESTALS, AND BOTTOM AND END OF PIER CAP EXTERIOR CANTILEVERS.

REVISIONS		
DESCRIPTION		DATE

PHASE 2 — OKLAHOMA COUNTY

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

BRIDGE "D" — I-240 OVER I-35

PIER DETAILS
(SHEET 3 OF 3)

STATE JOB NO. 09032(06) SHEET NO. B173

Preliminary Plans

5/31/2022 3:22:48 PM
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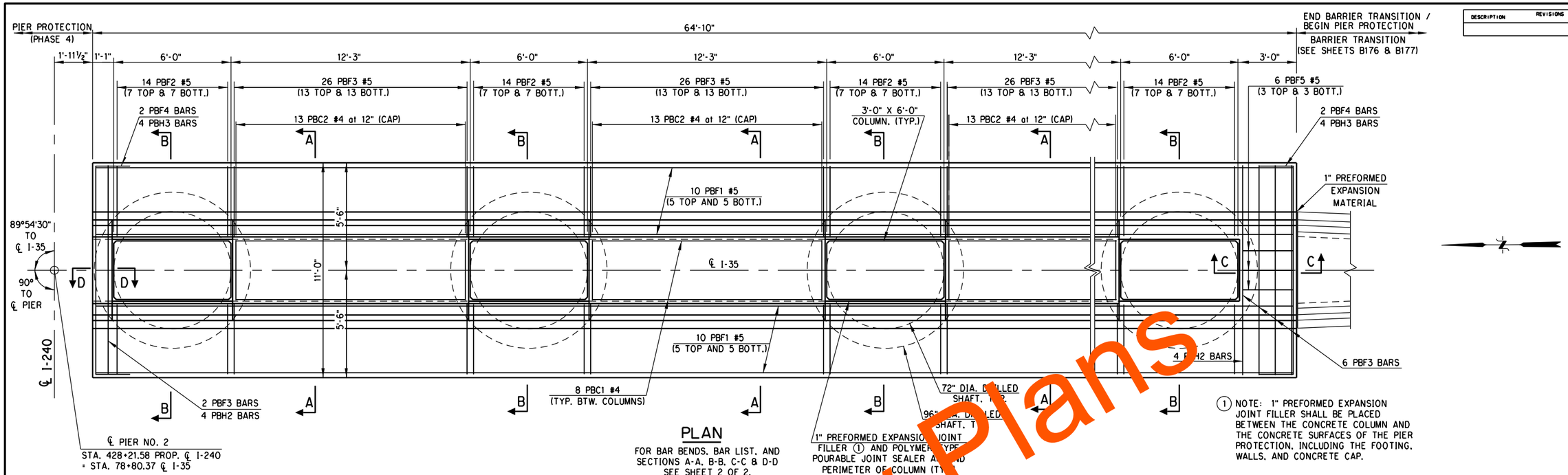
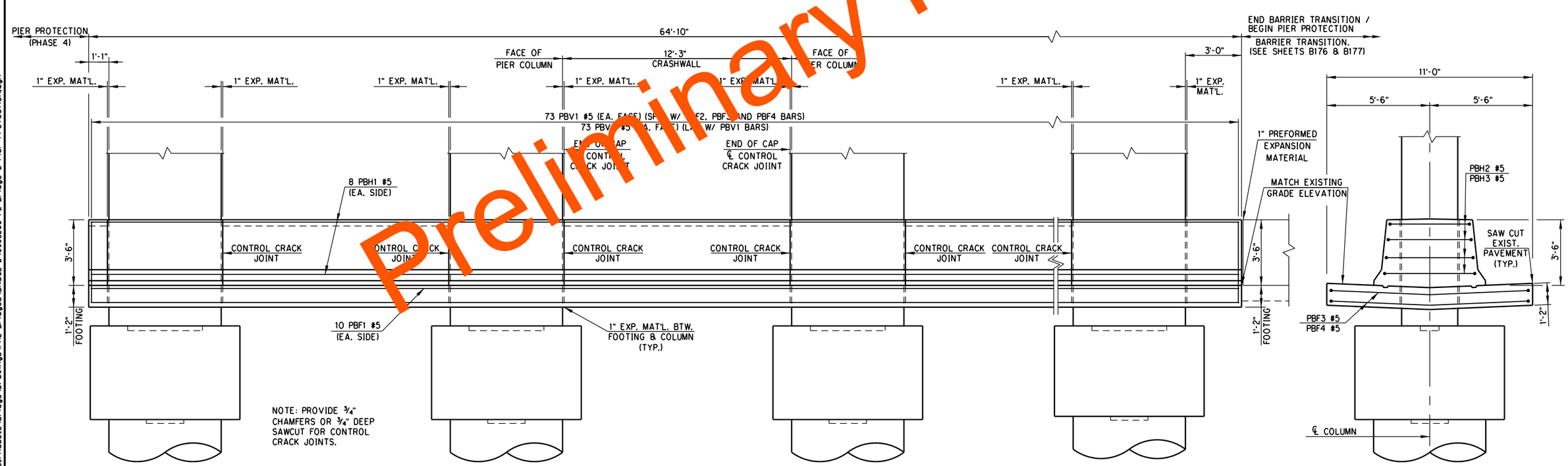
DESCRIPTION	REVISIONS	DATE



PLAN

FOR BAR BENDS, BAR LIST, AND SECTIONS A-A, B-B, C-C & D-D SEE SHEET 2 OF 2.

(1) NOTE: 1" PREFORMED EXPANSION JOINT FILLER SHALL BE PLACED BETWEEN THE CONCRETE COLUMN AND THE CONCRETE SURFACES OF THE PIER PROTECTION, INCLUDING THE FOOTING, WALLS, AND CONCRETE CAP.



END ELEVATION

END ELEVATIONS

Preliminary Plans

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 — OKLAHOMA COUNTY

BRIDGE "D" — I-240 OVER I-35

PIER PROTECTION DETAILS PIER NO. 2

(SHEET 1 OF 2)

STATE JOB NO. 09032(106) SHEET NO. B174

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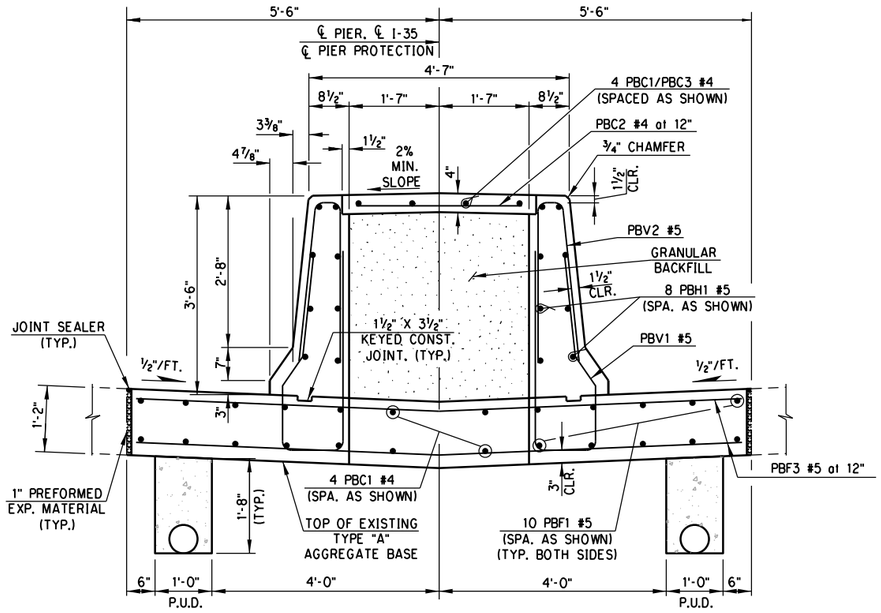
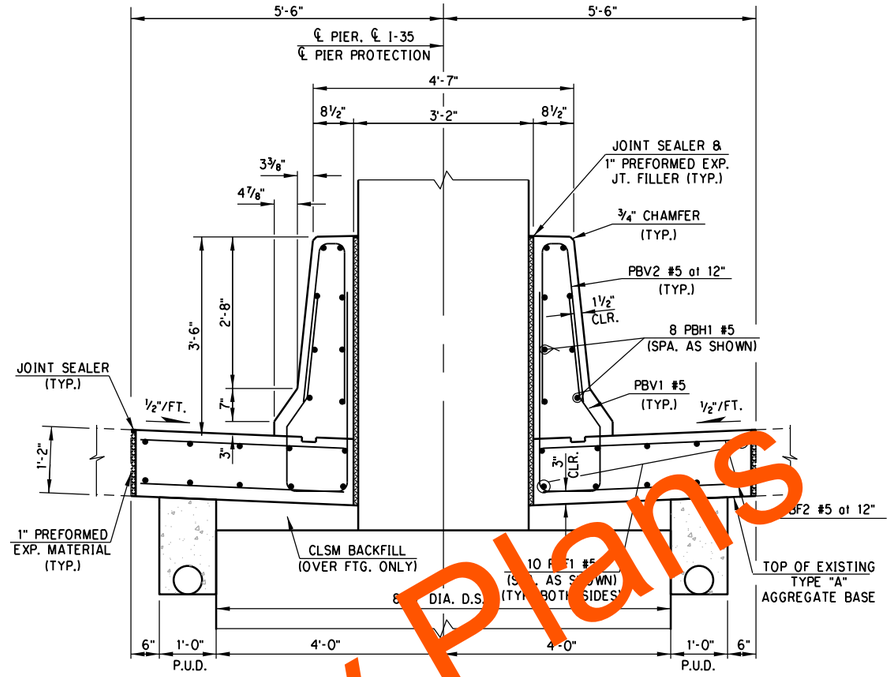
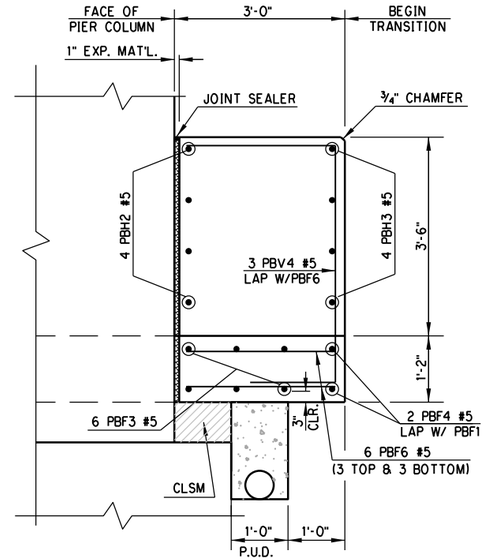


SECTION A-A
AT CRASH WALL

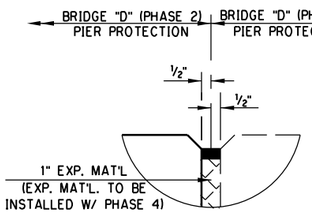


SECTION B-B
PIER COLUMN



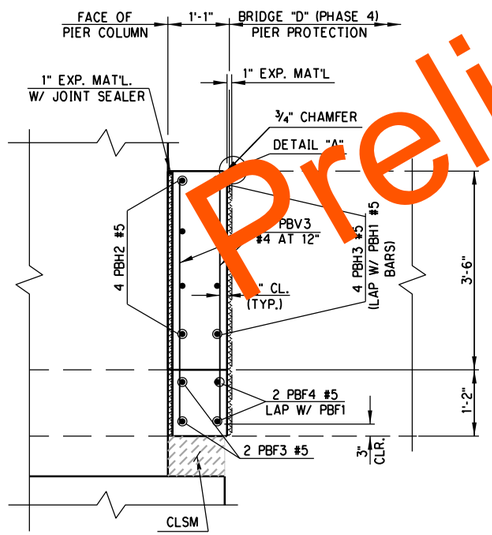
SECTION C-C
AT SOUTH END

NOTE: BARRIER TRANSITION AND COLUMN REINFORCEMENT NOT SHOWN FOR CLARITY.



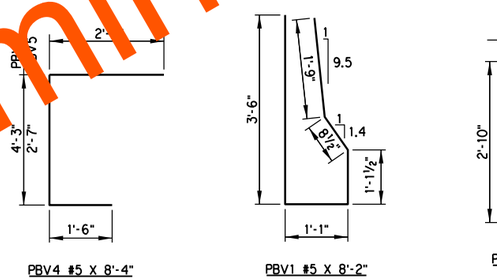
DETAIL "A"

PROVIDE ¾" CHAMFER AT ALL EXPOSED EDGES OF END OF CONCRETE PIER PROTECTION.



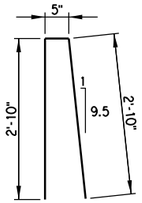
SECTION D-D
AT NORTH END

NOTE: BARRIER TRANSITION AND COLUMN REINFORCEMENT NOT SHOWN FOR CLARITY.

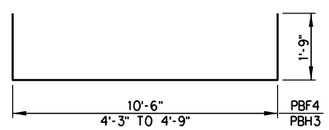


PBV4 #5 X 8'-4"

PBV1 #5 X 8'-2"



PBV2 #5 X 6'-1"



PBF4 #5 X 14'-0"
PBH3 #5 X 8'-0" AVG.

BENT BAR DIMENSIONS ARE OUT TO OUT

BAR LIST
EPOXY COATED

	MARK	NO.	SIZE	FORM	SPACING	LENGTH	LENGTH VARIATION
	PBC1	24	#4	STR.	AS SHOWN	11'-9"	--
	PBC2	39	#4	STR.	12" C/C	3'-2"	--
①	PBF1	20	#5	STR.	AS SHOWN	66'-6"	--
	PBF2	112	#5	STR.	AS SHOWN	3'-6"	--
	PBF3	86	#5	STR.	12" C/C	10'-6"	--
	PBF4	4	#5	BNT.	AS SHOWN	14'-0"	--
	PBF5	6	#5	STR.	AS SHOWN	2'-7"	--
①	PBH1	16	#5	STR.	AS SHOWN	66'-6"	--
	PBH2	8	#5	STR.	AS SHOWN	4'-6" AVG.	4'-3" TO 4'-9"
	PBH3	8	#5	BNT.	AS SHOWN	8'-0" AVG.	7'-9" TO 8'-3"
	PBV1	146	#5	BNT.	AS SHOWN	8'-2"	--
	PBV2	146	#5	BNT.	AS SHOWN	6'-1"	--
	PBV3	6	#4	STR.	AS SHOWN	4'-3"	--
	PBV4	3	#5	BNT.	AS SHOWN	8'-4"	--

① LENGTH SHOWN INCLUDES LAP:
PBF1 - 1 at 2'-0"
PBH1 - 1 at 2'-0"

QUANTITIES

ITEM	UNIT	TOTAL
GRANULAR BACKFILL	C.Y.	41
CLSM BACKFILL	C.Y.	4.8
CLASS A CONCRETE	C.Y.	31.6
EPOXY COATED REINFORCING STEEL	LB.	6,520
6" PERFORATED PIPE UNDERDRAIN ROUND	L.F.	141

NOTE: COST OF SAWCUTTING, REMOVAL OF EXISTING PIER PROTECTION & MEDIAN BARRIER, PAVEMENT REMOVAL, EXCAVATION, GRANULAR BACKFILL, JOINT FILLER AND JOINT SEALER ARE INCLUDED IN OTHER ITEMS OF WORK. INSTALL 6" PERFORATED PIPE UNDERDRAIN ROUND, AS SHOWN IN THE PLANS AND ON STD. PUD-4.

REVISIONS		
DESCRIPTION		DATE

PHASE 2 — OKLAHOMA COUNTY

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

BRIDGE "D" — I-240 OVER I-35

PIER PROTECTION DETAILS
PIER NO. 2
(SHEET 2 OF 2)

STATE JOB NO. 09032(106) SHEET NO. B175

Preliminary Plans

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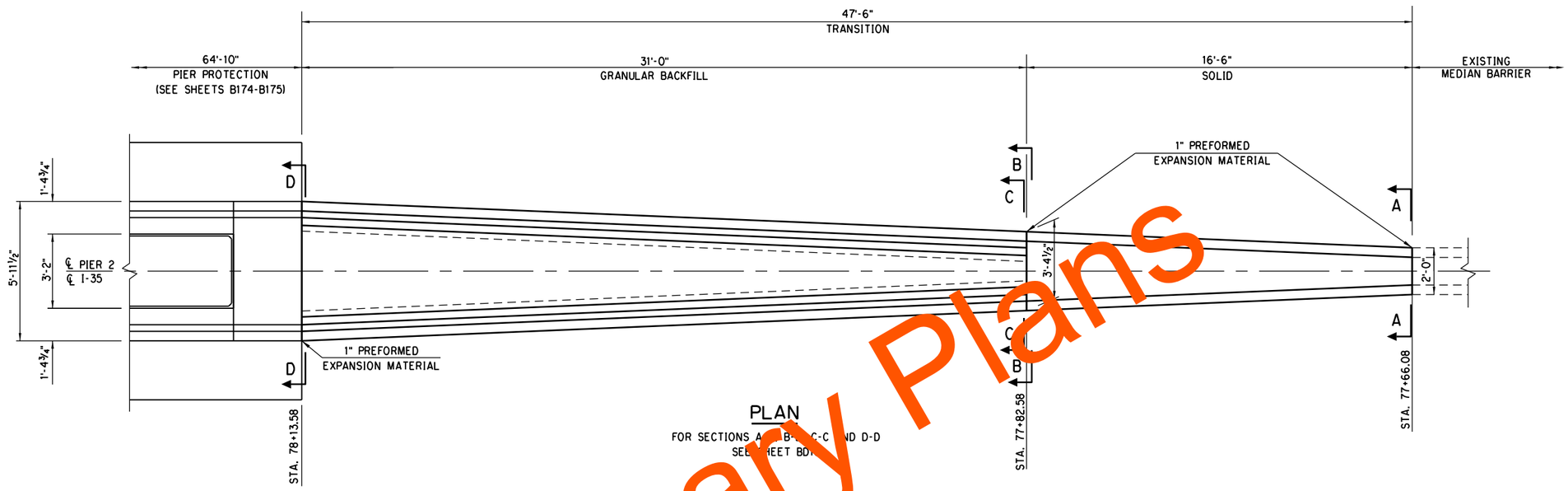
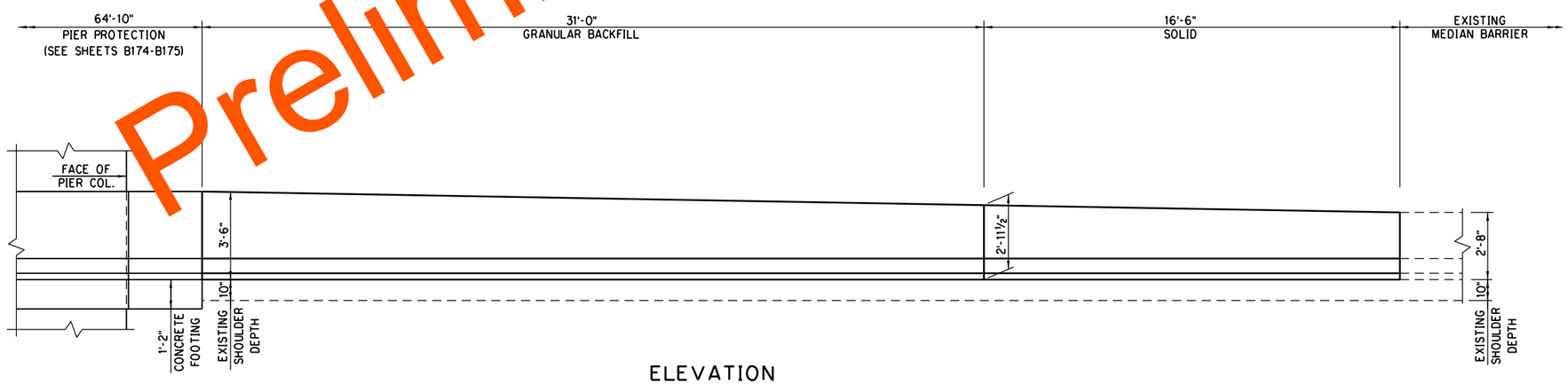
DESCRIPTION	REVISIONS	DATE



PLAN

FOR SECTIONS A-A, B-B, C-C AND D-D
SEE SHEET B0[illegible]



ELEVATION

Preliminary Plans

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 — OKLAHOMA COUNTY
BRIDGE "D" — I-240 OVER I-35

BARRIER TRANSITION DETAILS PIER NO. 2

(SHEET 1 OF 2)

STATE JOB NO. 09032(06) SHEET NO. B176

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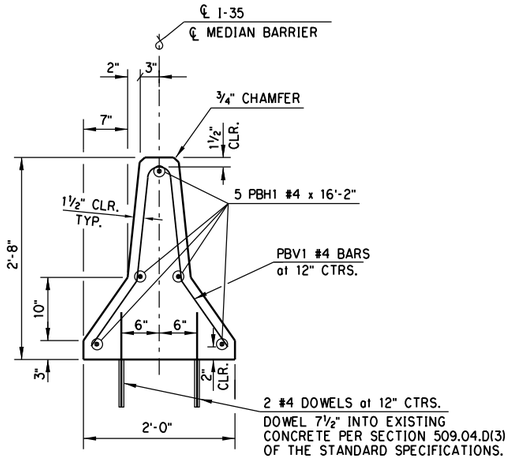
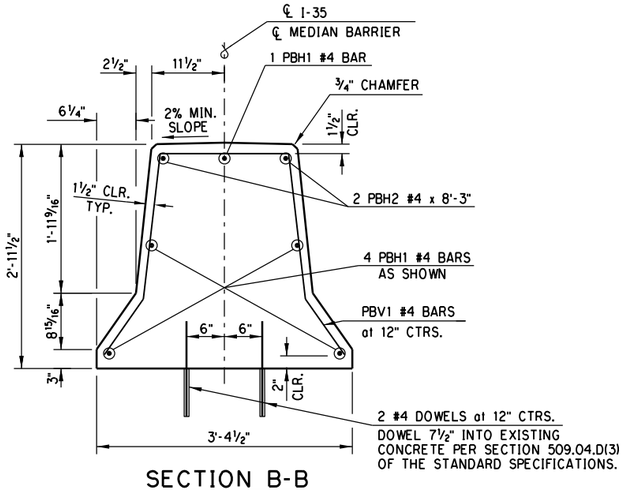
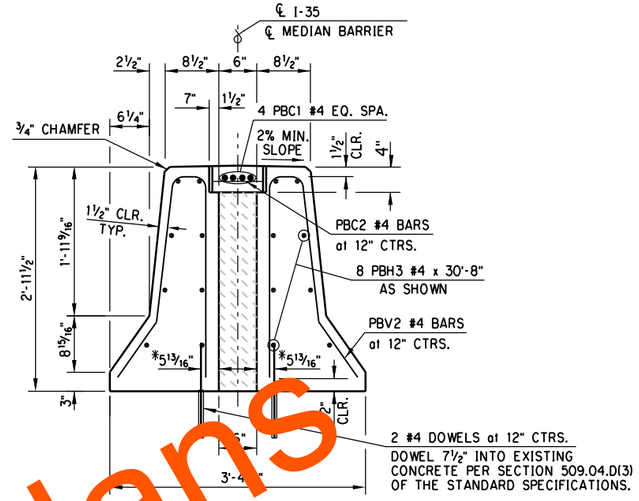
REVISIONS		
DESCRIPTION		DATE



SECTION A-A
AT BEGIN SOLID TRANSITION

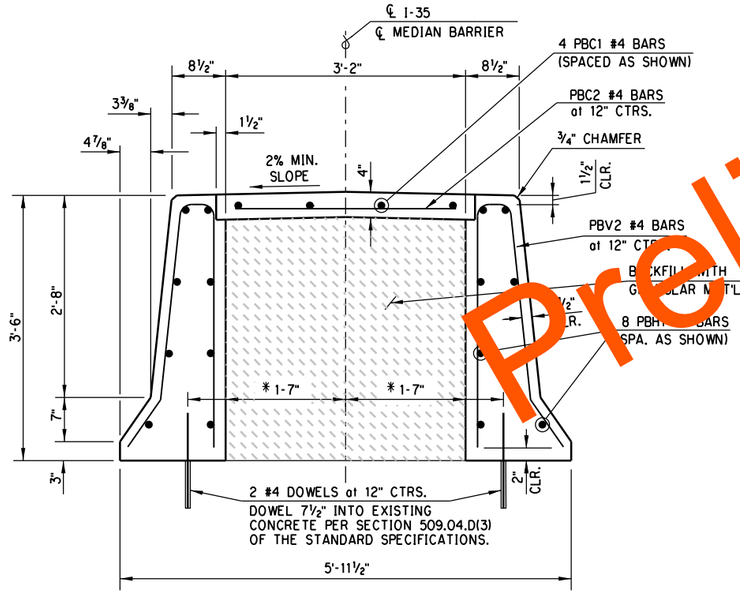


SECTION B-B
AT END SOLID TRANSITION

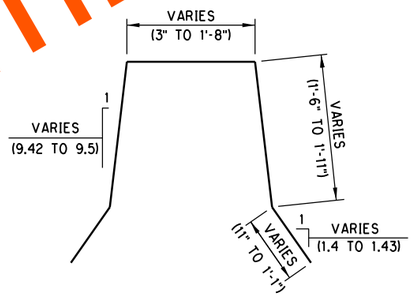


SECTION C-C
AT BEGIN
GRANULAR BACKFILLED TRANSITION

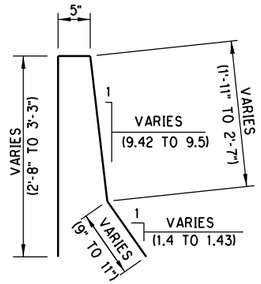
*NOTE: AN EXPANSION JOINT IS LOCATED 12" FROM ℄ I-35.
MAINTAIN 6" CLEARANCE WHEN INSTALLING DOWELS FROM
STATION 77+82.58 TO 78+13.58



SECTION D-D
AT END
GRANULAR BACKFILLED TRANSITION



PBV1 #4 X 6'-4½" AVG.
(5'-5" TO 7'-4")



PBV2 #4 X 6'-5½" AVG.
(5'-11" TO 7'-0")

BENT BAR DIMENSIONS ARE OUT TO OUT

BAR LIST
EPOXY COATED

MARK	NO.	SIZE	FORM	SPACING	LENGTH	LENGTH VARIATION
PBC1	10	#4	STR.	AS SHOWN	13'-2"	--
PBC2	88	#4	STR.	12" C/C	2'-0½" AVG.	3" TO 3'-10"
PBH1	5	#4	STR.	AS SHOWN	16'-2"	--
PBH2	2	#4	STR.	AS SHOWN	8'-3"	--
PBH3	16	#4	STR.	AS SHOWN	42'-8"	--
PBV1	17	#4	BNT.	12" C/C	6'-4½" AVG.	5'-5" TO 7'-4"
PBV2	44	#4	BNT.	12" C/C	6'-5½" AVG.	5'-11" TO 7'-0"

QUANTITIES

ITEM	UNIT	TOTAL
GRANULAR BACKFILL	C.Y.	7
CLASS A CONCRETE	C.Y.	14.8
EPOXY COATED REINFORCING STEEL	LB.	1,000

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 — OKLAHOMA COUNTY
BRIDGE "D" — I-240 OVER I-35

BARRIER TRANSITION DETAILS
PIER NO. 2
(SHEET 2 OF 2)

STATE JOB NO. 09032(06) SHEET NO. B177

Preliminary Plans

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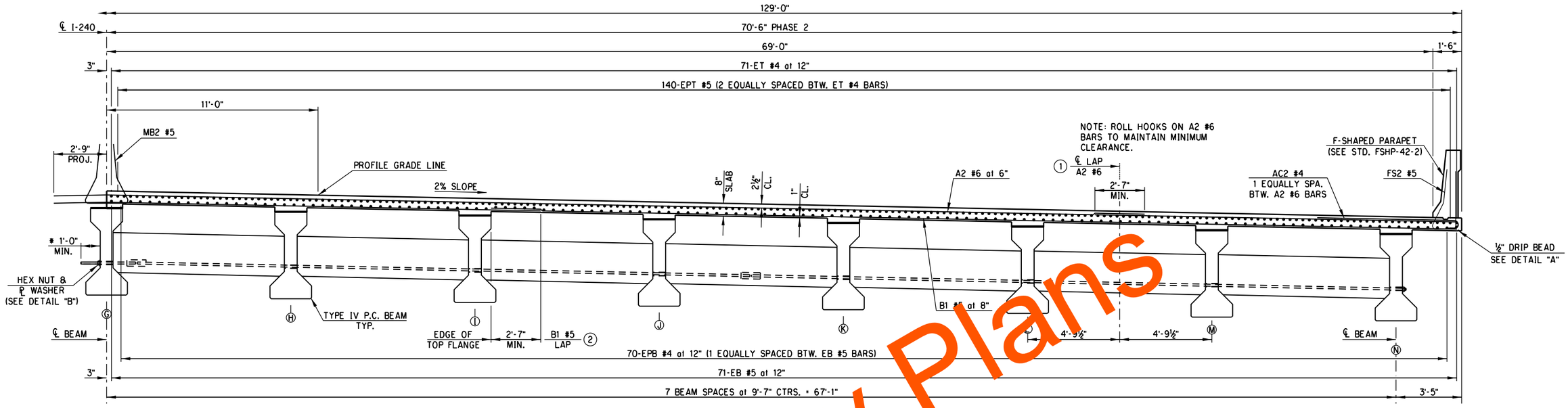
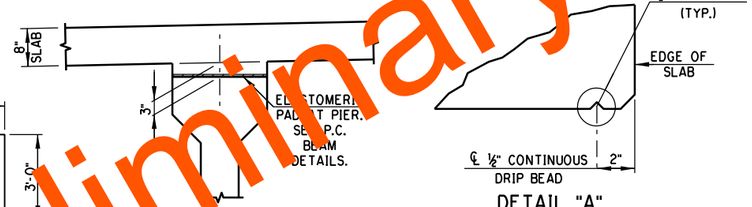
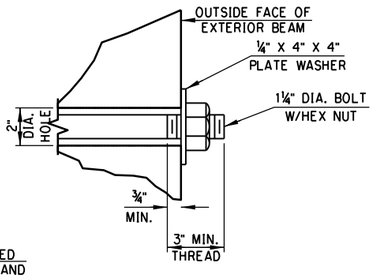
REVISIONS		
DESCRIPTION		DATE



TYPICAL BRIDGE SECTION

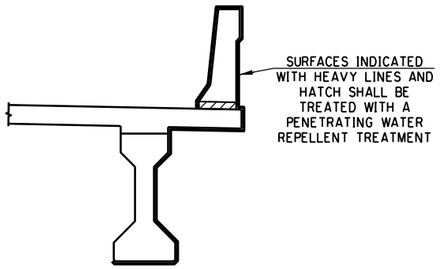


DETAIL "A"
DRIP BEAD



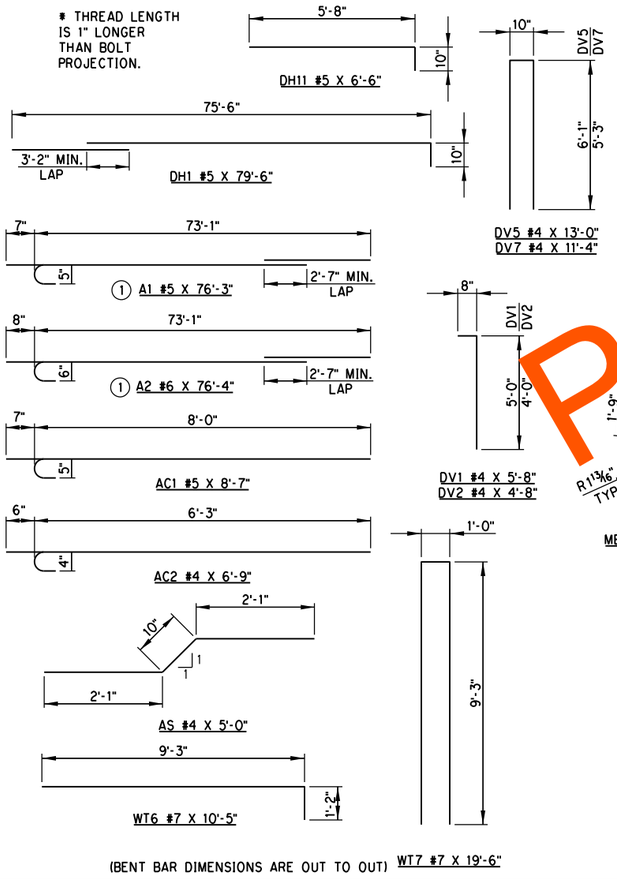
DETAIL "B"

NOTE: PROVIDE STRUCTURAL STEEL FOR DIAPHRAGM BOLTS AND PLATE WASHERS IN ACCORDANCE WITH AASHTO M270 (ASTM A709), GRADE 50W (WEATHERING STEEL. CHARPY V-NOTCH TESTING NOT REQUIRED). THE CONTRACTOR MAY SUBSTITUTE A #10 REINFORCING BAR IN ACCORDANCE WITH AASHTO M31, GRADE 60, AND THREADED AT THE ENDS AS SHOWN FOR THE DIAPHRAGM BOLT AT NO ADDITIONAL COST TO THE DEPARTMENT. PROVIDE HEX NUTS IN ACCORDANCE WITH AASHTO M291 (ASTM A563). PAINT EXPOSED DIAPHRAGM BOLT, PLATE WASHER AND HEX NUT WITH TWO (2) COATS OF ZINC-RICH PAINT (6 MIL MINIMUM THICKNESS) AFTER ASSEMBLY. INCLUDE ALL COST OF DIAPHRAGM BOLT, PLATE WASHER AND HEX NUT IN THE CONTRACT UNIT PRICE FOR STRUCTURAL STEEL.



WATER REPELLENT SURFACE TREATMENT

U1 #4 X 4'-9"



(BENT BAR DIMENSIONS ARE OUT TO OUT)

FOR SLAB LAYOUT SEE SHEET 2 OF 4.
FOR LONGITUDINAL SECTION SEE SHEET B182.

SUPERSTRUCTURE QUANTITIES		
ITEM	UNIT	TOTAL
PRESTRESSED CONCRETE BEAMS (TYPE IV)	LF	2,549.34
SAW-CUT GROOVING	SY	2,420
42" F-SHAPED PARAPET	LF	320.5
STRUCTURAL STEEL	LB	2,940
WEATHERING STEEL FIXED BRG. ASSEMBLY	EA	16
STAINLESS STEEL EXPANSION BRG. ASSEMBLY	EA	48
ELASTOMERIC BEARING PADS	EA	48
CLASS AA CONCRETE	CY	686.2
EPOXY COATED REINFORCING STEEL	LB	160,930
WATER REPELLENT (VISUALLY INSPECTED)	SY	661
SEALER CRACK PREPARATION	LF	423
SEALER RESIN	GAL	4.7

PHASE 2 OKLAHOMA COUNTY

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

BRIDGE "D" RAMP I-240 OVER I-35

SUPERSTRUCTURE DETAILS

(SHEET 1 OF 4)

STATE JOB NO. 09032(06) SHEET NO. B178

Preliminary Plans

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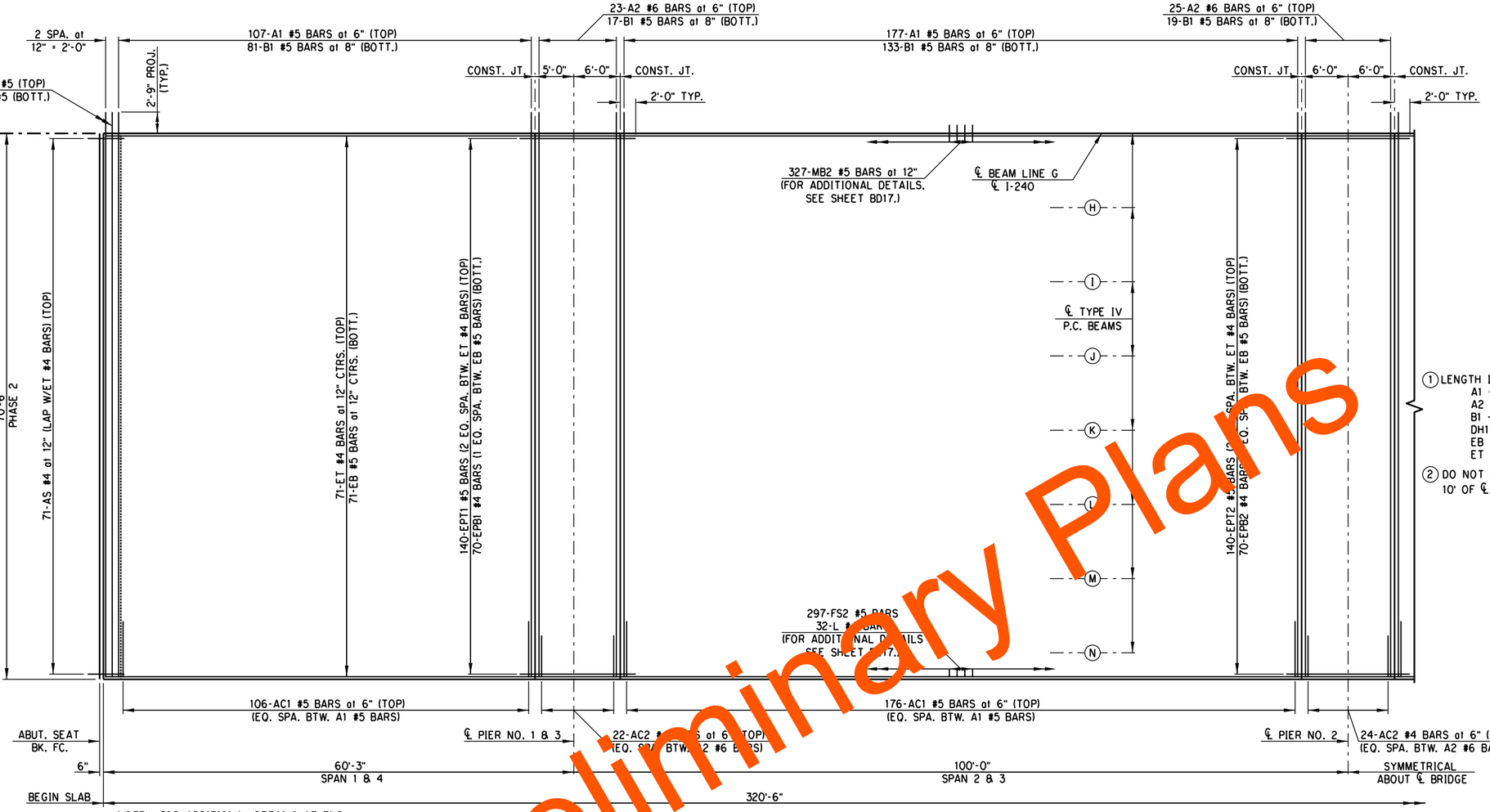
REVISIONS		
DESCRIPTION		DATE



NOTE: FOR ADDITIONAL DETAILS AT END DIAPHRAGM. SEE SHEET 3 OF 4.

① LENGTH INCLUDES LAP:
A1 - 1 at 2'-7"
A2 - 1 at 2'-7"
B1 - 1 at 2'-7"
DH1 - 1 at 3'-2"
EB - 6 at 2'-7"
ET - 6 at 1'-8"

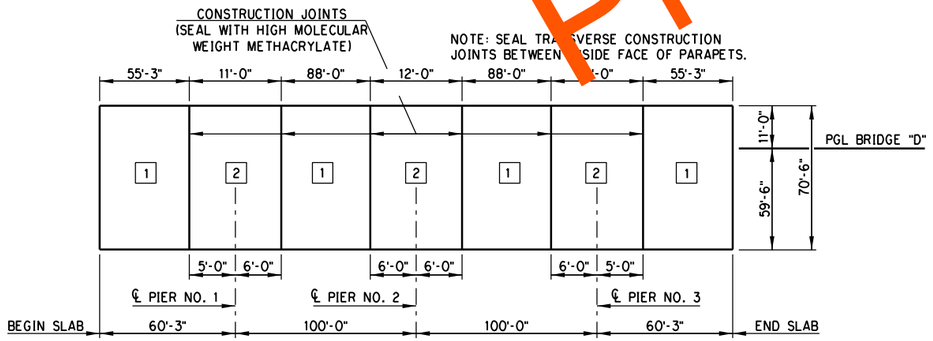
② DO NOT LAP WITHIN 10' OF ℄ PIER

BAR LIST
(EPOXY COATED)

	MARK	SIZE	NO.	FORM	SPACING	LENGTH
①	A1	#5	572	BNT.	6" c/c	76'-3"
①	A2	#6	71	BNT.	6" c/c	76'-4"
	AC1	#5	564	BNT.	6" c/c	8'-7"
	AC2	#4	68	BNT.	6" c/c	6'-9"
	AS	#4	142	BNT.	12" c/c	5'-0"
①	B1	#5	485	STR.	8" c/c	75'-8"
①	DH1	#5	10	BNT.	EQ. SPA.	79'-6"
	DH2	#5	14	STR.	AS SHOWN	7'-7"
	DH3	#5	28	STR.	AS SHOWN	8'-7"
	DH4	#5	14	STR.	AS SHOWN	7'-11"
	DH5	#5	14	STR.	AS SHOWN	7'-1"
	DH6	#5	36	STR.	AS SHOWN	4'-9"
	DH7	#5	2	STR.	AS SHOWN	3'-9"
	DH8	#5	4	STR.	AS SHOWN	4'-3"
	DH9	#5	2	STR.	AS SHOWN	3'-11"
	DH10	#5	2	STR.	AS SHOWN	3'-6"
	DH11	#5	8	BNT.	AS SHOWN	6'-6"
	DV1	#4	134	BNT.	AS SHOWN	5'-8"
	DV2	#4	142	BNT.	12" c/c	4'-8"
	DV3	#4	142	BNT.	12" c/c	6'-0"
	DV4	#4	4	STR.	AS SHOWN	5'-4"
	DV5	#4	6	BNT.	AS SHOWN	11'-6"
①②	EB	#5	71	STR.	12" c/c	335'-10"
	EPB1	#4	140	STR.	AS SHOWN	15'-0"
	EPB2	#4	70	STR.	AS SHOWN	16'-0"
	EPT1	#5	280	STR.	AS SHOWN	15'-0"
	EPT2	#5	140	STR.	AS SHOWN	16'-0"
①②	ET	#4	71	STR.	12" c/c	330'-4"
	F1	#4	420	STR.	AS SHOWN	8'-7"
	FS2	#5	297	BNT.	12" c/c	7'-4"
	L	#4	32	BNT.	AS SHOWN	1'-3"
	MB2	#5	327	BNT.	12" c/c	8'-6¼"
	U1	#4	700	BNT.	AS SHOWN	4'-9"
	WT5	#4	18	STR.	AS SHOWN	5'-9"
	WT6	#7	18	BNT.	AS SHOWN	10'-5"
	WT7	#7	6	BNT.	AS SHOWN	19'-6"

SLAB REINFORCING LAYOUT

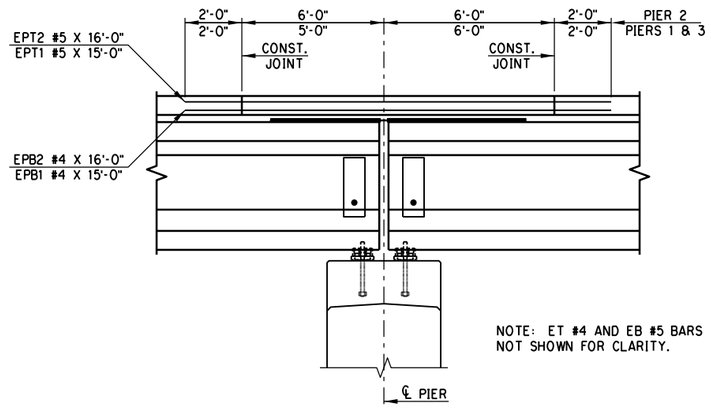
NOTE: CONCRETE PARAPET NOT SHOWN IN LAYOUT FOR CLARITY. FOR DETAILS OF PARAPET SEE STD. FSHP-42-2.



SLAB POURING SEQUENCE

DECK SLAB POURING SEQUENCE DIAGRAM NOTE

THE DECK SLAB IS DIVIDED INTO SECTIONS BETWEEN CONSTRUCTION JOINTS AS SHOWN. THE CONCRETE SHALL BE POURED IN EACH SECTION OF THE DECK SLAB IN THE NUMERICAL SEQUENCE INDICATED. SECTIONS OF THE DECK SLAB WITH THE SAME NUMBER MAY BE POURED IN ANY ORDER. UNDER NO CIRCUMSTANCES WILL SECTION IN SEQUENCE 2 BE POURED BEFORE THE ADJACENT SECTIONS HAVE BEEN IN PLACE FOR AT LEAST 48 HOURS.



NOTE: ET #4 AND EB #5 BARS NOT SHOWN FOR CLARITY.

DETAIL OF LONGITUDINAL BARS OVER PIERS

Preliminary Plans

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 — OKLAHOMA COUNTY
BRIDGE "D" — I-240 OVER I-35

SUPERSTRUCTURE DETAILS
(SHEET 2 OF 4)

STATE JOB NO. 09032(06) SHEET NO. B179

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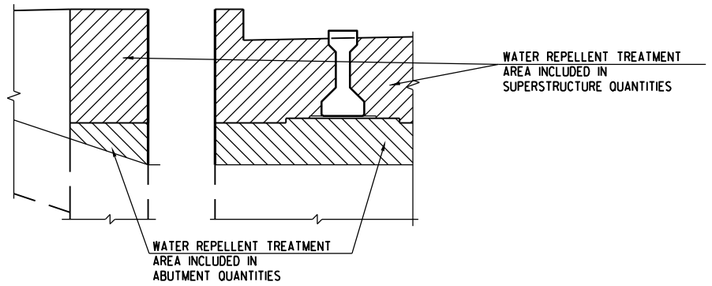
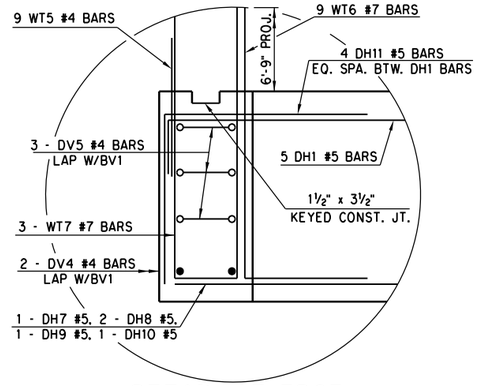


SIDE ELEVATION

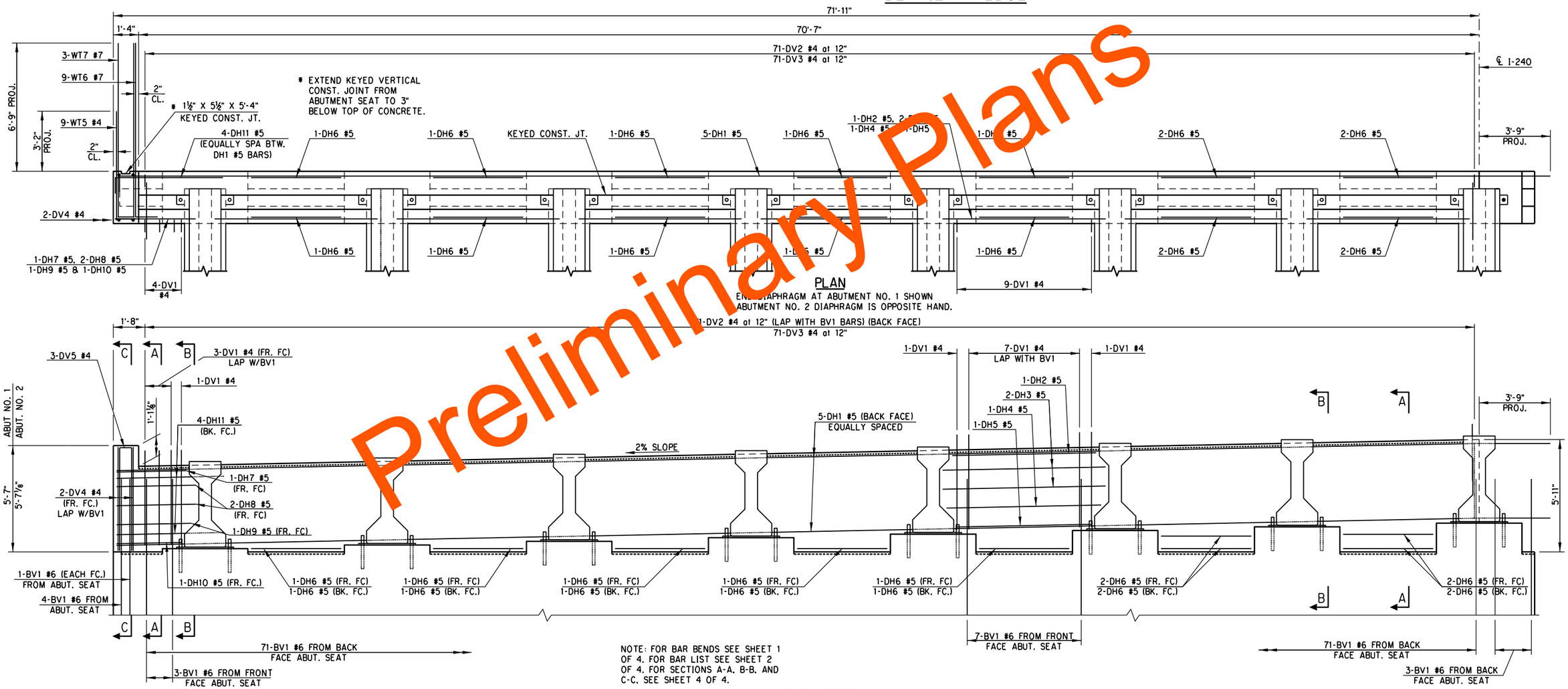
WATER REPELLENT TREATMENT DETAILS

TREAT SURFACES INDICATED BY HEAVY LINE OR HATCH WITH WATER REPELLENT (VISUALLY INSPECTED)



DETAIL AT EDGE

REVISIONS		
DESCRIPTION		DATE



PLAN

END DIAPHRAGM AT ABUTMENT NO. 1 SHOWN
ABUTMENT NO. 2 DIAPHRAGM IS OPPOSITE HAND.

NOTE: FOR BAR BENDS SEE SHEET 1 OF 4. FOR BAR LIST SEE SHEET 2 OF 4. FOR SECTIONS A-A, B-B, AND C-C, SEE SHEET 4 OF 4.

ELEVATION

END DIAPHRAGM AT ABUTMENT NO. 1 SHOWN
ABUTMENT NO. 2 DIAPHRAGM IS OPPOSITE HAND.

Preliminary Plans

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 — OKLAHOMA COUNTY
BRIDGE "D" — I-240 OVER I-35

SUPERSTRUCTURE DETAILS

(SHEET 3 OF 4)

STATE JOB NO. 09032(06) SHEET NO. B180

5/31/2022 3:23:05 PM
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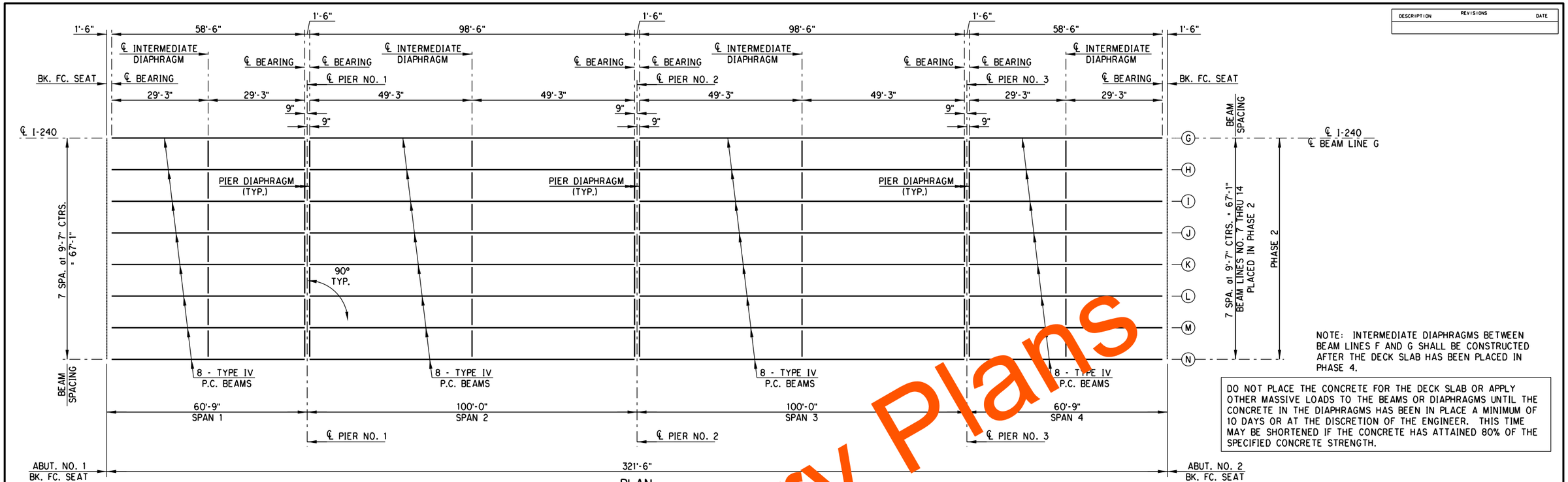
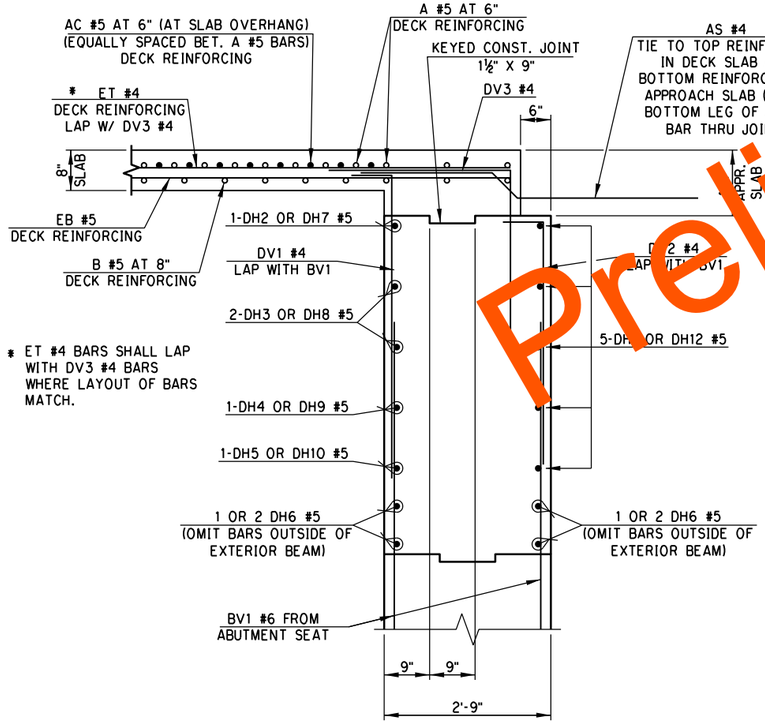
REVISIONS		
DESCRIPTION		DATE



PLAN

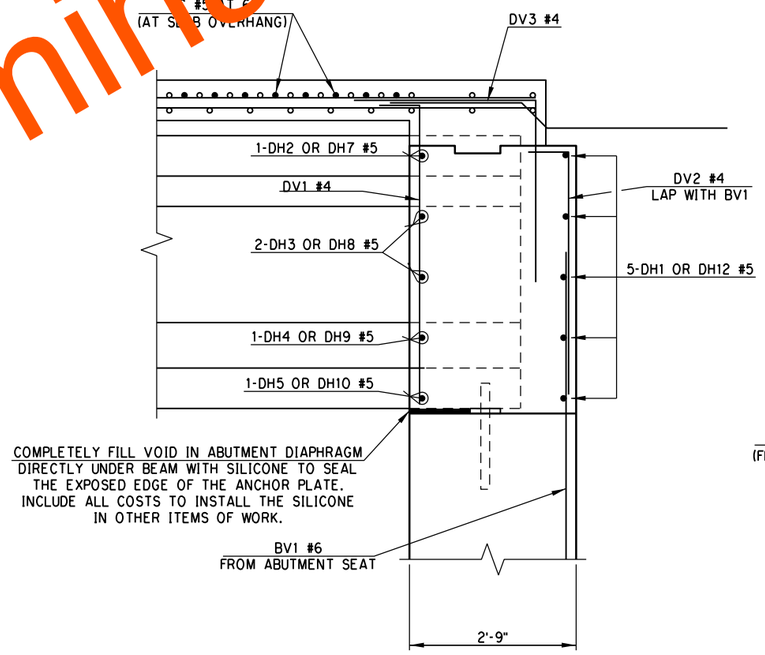
NOTE: INTERMEDIATE DIAPHRAGMS BETWEEN BEAM LINES F AND G SHALL BE CONSTRUCTED AFTER THE DECK SLAB HAS BEEN PLACED IN PHASE 4.

DO NOT PLACE THE CONCRETE FOR THE DECK SLAB OR APPLY OTHER MASSIVE LOADS TO THE BEAMS OR DIAPHRAGMS UNTIL THE CONCRETE IN THE DIAPHRAGMS HAS BEEN IN PLACE A MINIMUM OF 10 DAYS OR AT THE DISCRETION OF THE ENGINEER. THIS TIME MAY BE SHORTENED IF THE CONCRETE HAS ATTAINED 80% OF THE SPECIFIED CONCRETE STRENGTH.

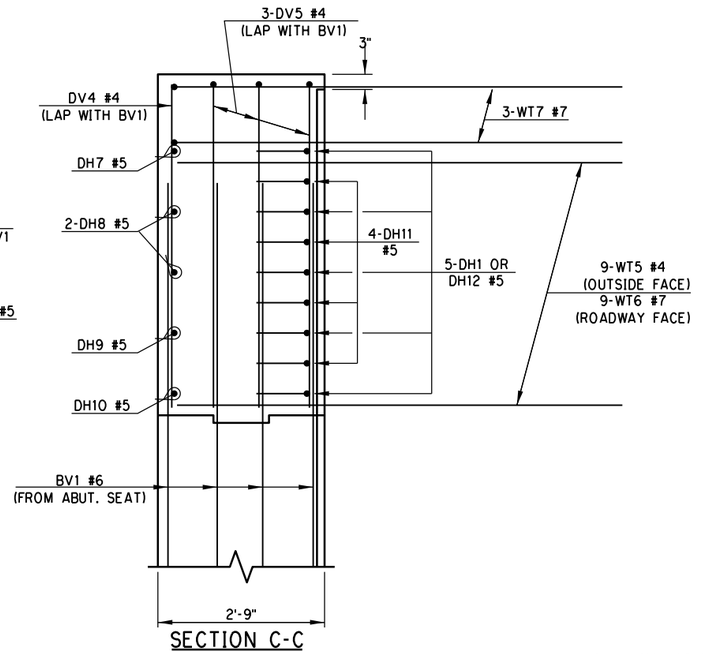


* ET #4 BARS SHALL LAP WITH DV3 #4 BARS WHERE LAYOUT OF BARS MATCH.

SECTION A-A
(SLAB REINFORCEMENT SHOWN FOR INFORMATIONAL PURPOSES)



SECTION B-B
(SLAB REINFORCEMENT SHOWN FOR INFORMATIONAL PURPOSES)



SECTION C-C

PHASE 2 OKLAHOMA COUNTY

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

BRIDGE "D" I-240 OVER I-35

SUPERSTRUCTURE DETAILS

(SHEET 4 OF 4)

STATE JOB NO. 09032(06) SHEET NO. B181

Preliminary Plans

5/31/2022 3:23:03 PM
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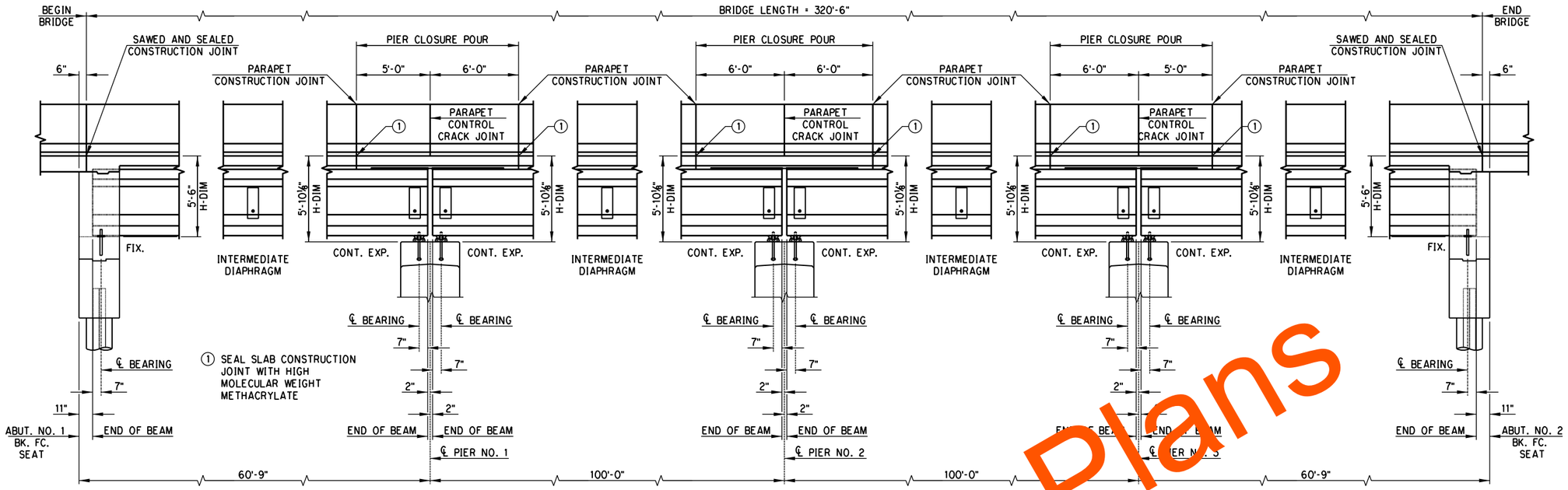
REVISIONS		
DESCRIPTION		DATE



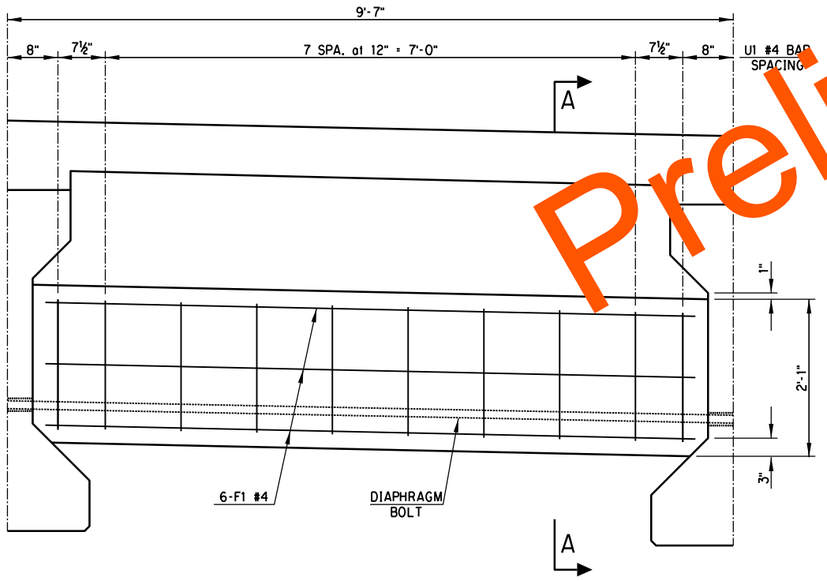
LONGITUDINAL SECTION

NOTE: H-DIMENSION IS FROM TOP OF DECK SLAB TO BOTTOM OF BEARING ASSEMBLY at ℄ BEARING

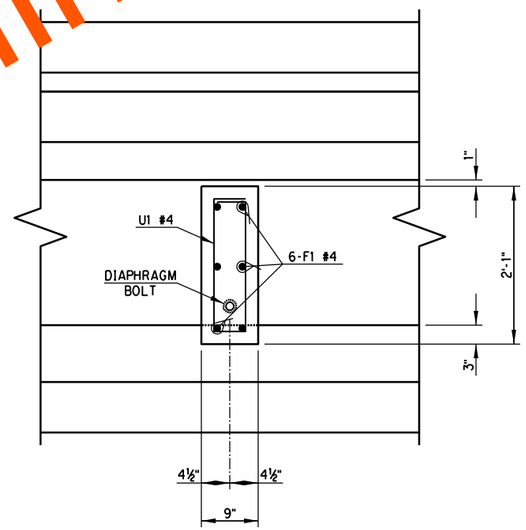
NOTE:
DECK SHALL NOT BE PLACED ON BEAMS YOUNGER THAN 28 DAYS OLD.

DO NOT PLACE THE CONCRETE FOR THE DECK SLAB OR APPLY OTHER MASSIVE LOADS TO THE BEAMS OR DIAPHRAGMS UNTIL THE CONCRETE IN THE DIAPHRAGMS HAS BEEN IN PLACE A MINIMUM OF 10 DAYS OR AT THE DISCRETION OF THE ENGINEER. THIS TIME MAY BE SHORTENED IF THE CONCRETE HAS ATTAINED 80% OF THE SPECIFIED COMPRESSIVE STRENGTH.

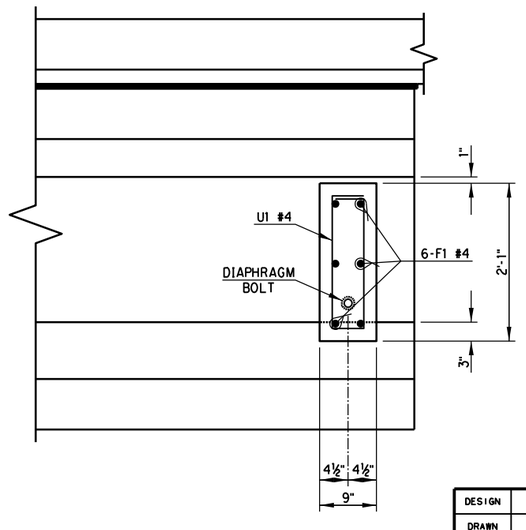
Preliminary Plans



INTERMEDIATE AND PIER DIAPHRAGM



INTERMEDIATE DIAPHRAGM



PIER DIAPHRAGM

SECTION A-A

PHASE 2 — OKLAHOMA COUNTY
BRIDGE "D" — I-240 OVER I-35

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

LONGITUDINAL SECTION AND DIAPHRAGM DETAILS

STATE JOB NO. 09032(06) SHEET NO. B182

5/31/2022 3:23:07 PM
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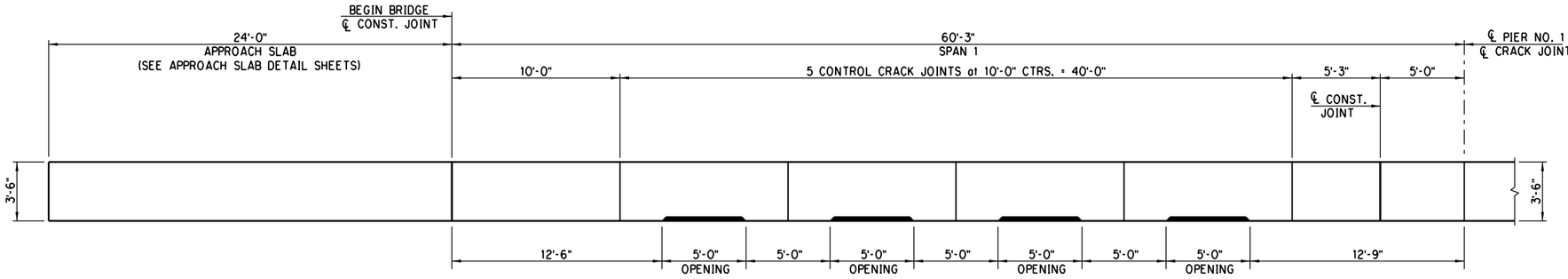
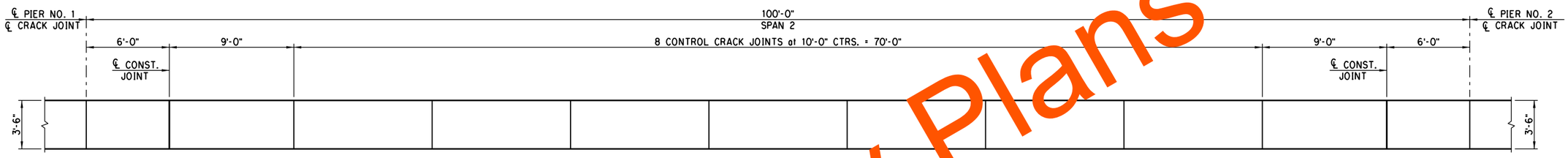
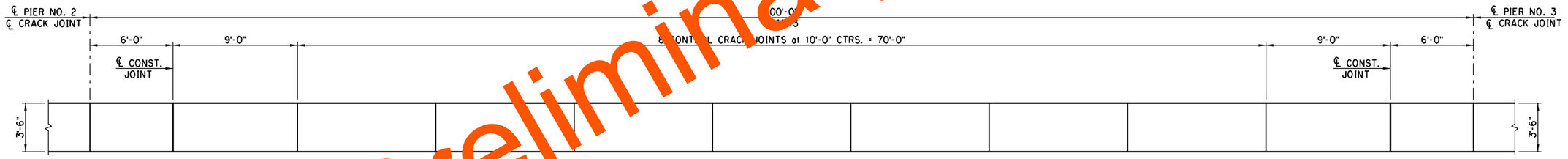
DESCRIPTION	REVISIONS	DATE



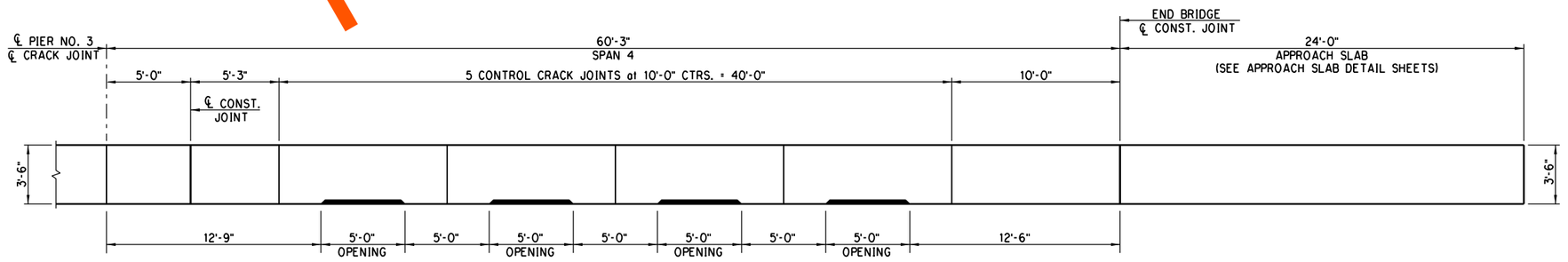
SOUTH PARAPET OPENING AND JOINT SPACING
SPAN NO. 1



SOUTH PARAPET JOINT SPACING
SPAN NO. 2



SOUTH PARAPET JOINT SPACING
SPAN NO. 3



SOUTH PARAPET OPENING AND JOINT SPACING
SPAN NO. 4

NOTE: FOR ADDITIONAL
DETAILS. SEE STD. FSHP-42-2.

Preliminary Plans

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 — OKLAHOMA COUNTY

BRIDGE "D" — I-240 OVER I-35

PARAPET LAYOUT

STATE JOB NO. 09032(06) SHEET NO. B183

5/31/2022 3:23:08 PM
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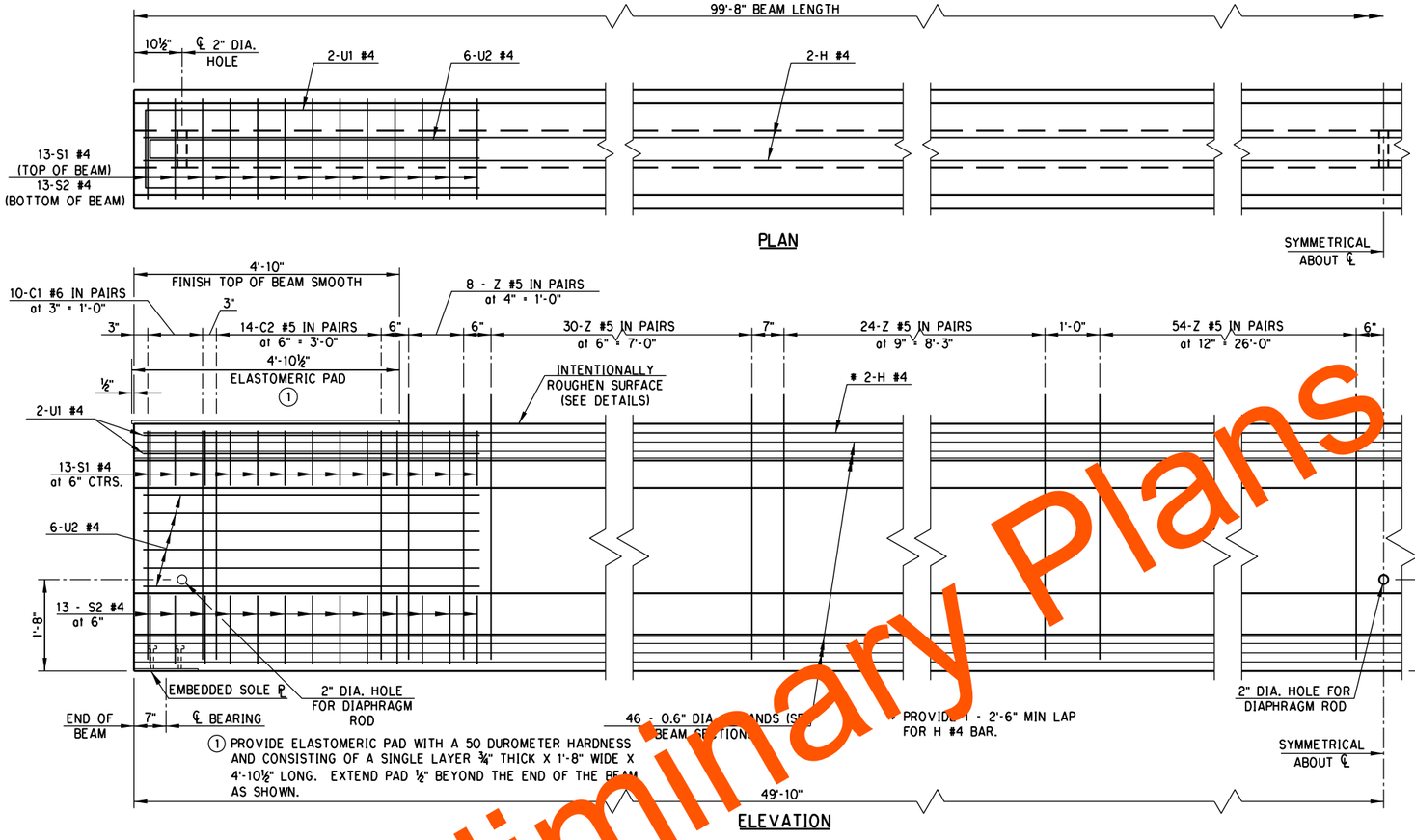
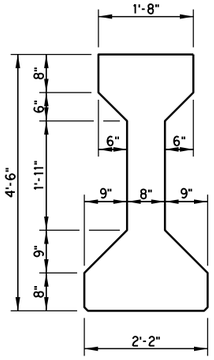
DESCRIPTION	REVISIONS	DATE



PLAN

① PROVIDE ELASTOMERIC PAD WITH A 50 DUROMETER HARDNESS AND CONSISTING OF A SINGLE LAYER ¾" THICK X 1'-8" WIDE X 4'-10½" LONG. EXTEND PAD ½" BEYOND THE END OF THE BEAM AS SHOWN.

ELEVATION

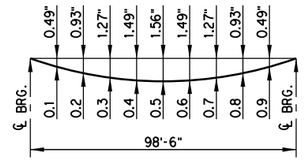


END VIEW
(TYPE IV P.C.B.)

PRESTRESSED CONCRETE BEAM NOTES

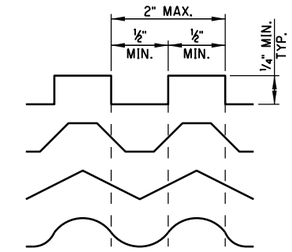
COMPRESSIVE STRENGTH:
PROVIDE CONCRETE WITH A COMPRESSIVE STRENGTH OF 7,000 PSI at TRANSFER OF PRESTRESS AND 10,000 PSI at 28 DAYS.

STRAND TYPE:
PROVIDE LOW-RELAXATION STRANDS HAVING A NOMINAL DIAMETER OF 0.6" WITH ULTIMATE TENSILE STRENGTH OF 270 KSI.



DEAD LOAD DEFLECTION DIAGRAM

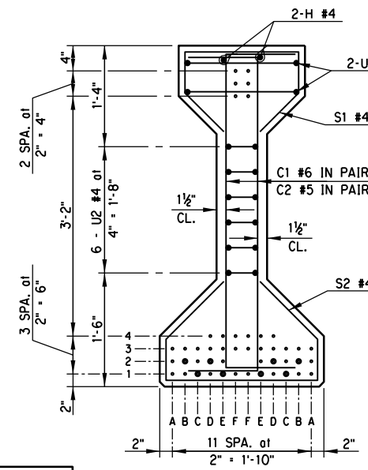
NOTE: THE DEAD LOAD DEFLECTION SHOWN ABOVE at THE TENTH POINTS ARE THE INITIAL DEFLECTIONS DUE TO DECK SLAB + DIAPHRAGMS + HAUNCH + S.I.P. STEEL DECK FORM ALLOWANCE + CONCRETE PARAPET + MEDIAN BARRIER. IT DOES NOT INCLUDE THE BEAM WEIGHT OR FUTURE WEARING SURFACE.



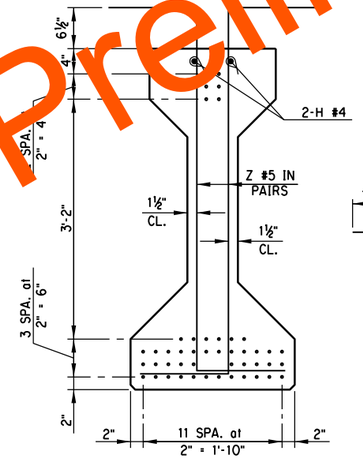
INTENTIONALLY ROUGHENED SURFACE DETAILS

(EXCLUDING END OF BEAM AS NOTED ON ELEVATION)
INTENTIONALLY ROUGHEN THE ENTIRE TOP SURFACE OF P.C. BEAM TO A MINIMUM HEIGHT OF ¼" OVER A MAXIMUM PITCH OF 2" MEASURED LONGITUDINALLY ALONG THE LENGTH OF THE BEAM. PROVIDE A CREST AND TROUGH ASSOCIATED WITH THE HEIGHT OF NOT LESS THAN ½". PRODUCE THE ROUGHENED SURFACE BY USING A SPECIAL TROWEL TO FORM ONE OF THE SURFACES SHOWN IN THE DETAILS. BY CLEANING THE CONCRETE SURFACE WITH A STIFF WIRE BRUSH (OR BLASTING) TO EXPOSE THE AGGREGATE TO A HEIGHT OF ¼". OR BY USING ANOTHER APPROVED METHOD. SUBMIT THE METHOD TO BE USED FOR APPROVAL BY THE ENGINEER. REPAIR ANY DAMAGE TO REINFORCEMENT'S EPOXY COATING BEFORE PLACEMENT OF DECK CONCRETE.

NOTE: FOR EMBEDDED SOLE PLATE DETAILS. SEE SHEET 2 OF 2.

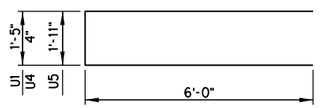


END SECTION

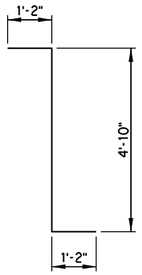


℄ SECTION

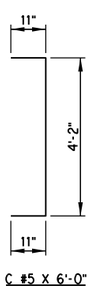
BEAM SECTIONS
(46 - 0.6" DIA. STRANDS)



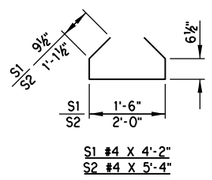
U1 #4 X 13'-5"
U4 #5 X 12'-4"
U5 #7 X 13'-11"



Z #5 X 7'-2"
(EPOXY COATED)

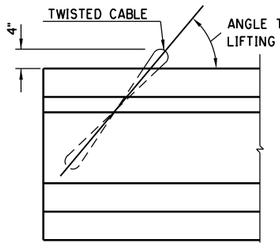


C #5 X 6'-0"



S1 #4 X 4'-2"
S2 #4 X 5'-4"

BAR BEND DETAILS



DETAIL OF LIFTING EYE

NOTE: THE USE OF DIAPHRAGM HOLE FOR LIFTING PURPOSES WILL NOT BE PERMITTED.

DEBOND SCHEDULE	
DEBOND PAIR	DEBOND LENGTH FROM END OF BEAM
C1	16'-0"
E1	8'-0"
B2 & D2	4'-0"

Preliminary Plans

PHASE 2 — OKLAHOMA COUNTY

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

BRIDGE "D" — I-240 OVER I-35

TYPE IV P.C.B. DETAILS
SPANS 2 & 3
(SHEET 1 OF 2)

STATE JOB NO. 09032(06) SHEET NO. B184

5/31/2022 3:23:09 PM
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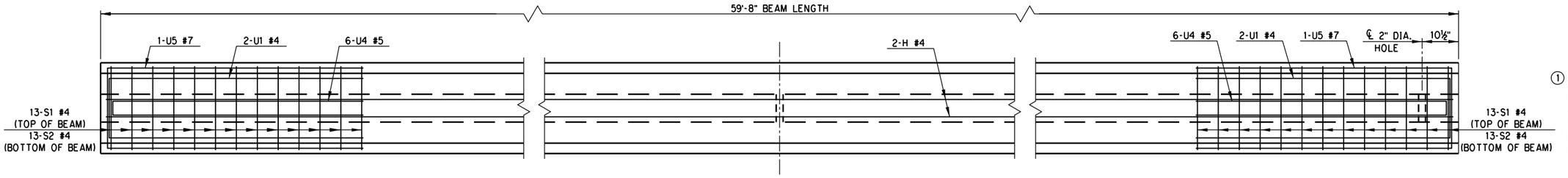
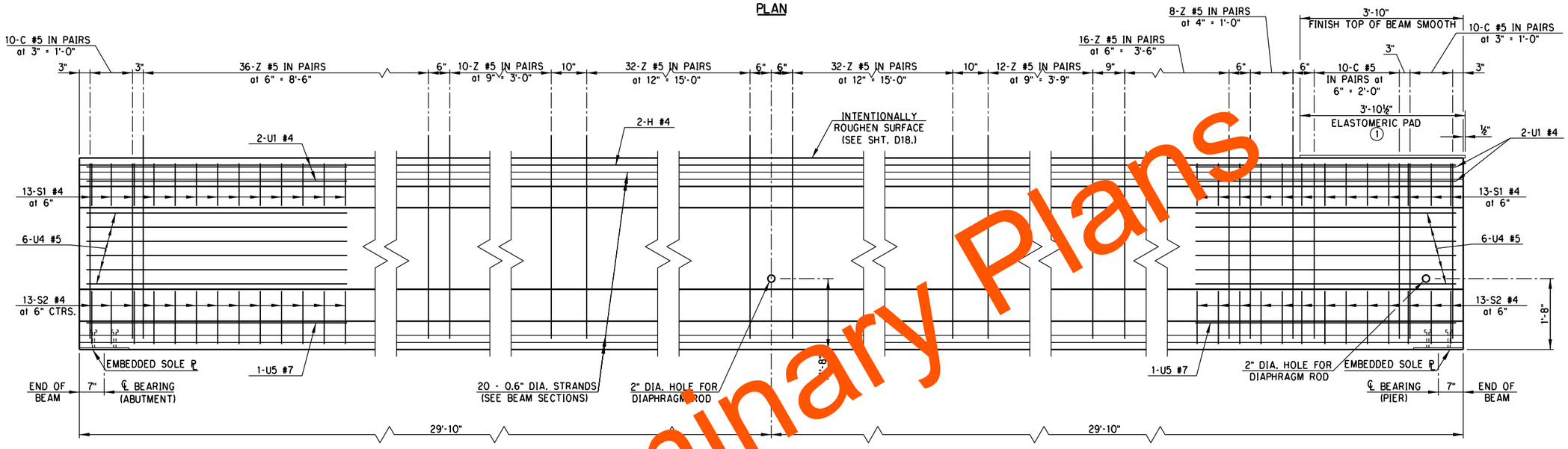
DESCRIPTION	REVISIONS	DATE

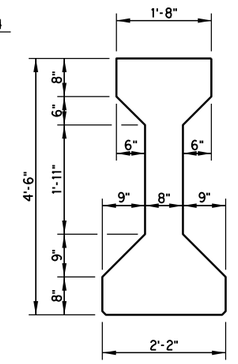


PLAN

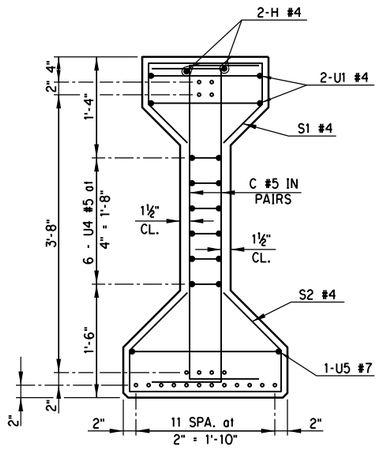
① PROVIDE ELASTOMERIC PAD WITH A 50 DUROMETER HARDNESS AND CONSISTING OF A SINGLE LAYER ¾" THICK X 1'-8" WIDE X 3'-10½" LONG. EXTEND PAD ½" BEYOND THE END OF THE BEAM AS SHOWN.



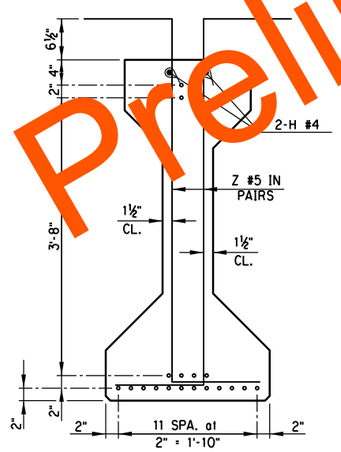
ELEVATION



END VIEW
(TYPE IV P.C.B.)

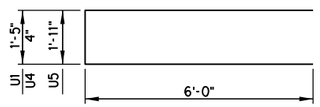


END SECTION

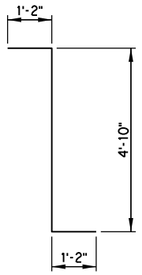


℄ SECTION

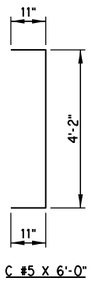
BEAM SECTIONS
(20 - 0.6" DIA. STRANDS)



U1 #4 X 13'-5"
U4 #5 X 12'-4"
U5 #7 X 13'-11"

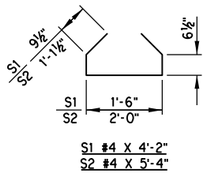


Z #5 X 7'-2"
(EPOXY COATED)

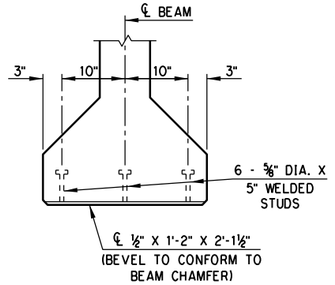


C #5 X 6'-0"

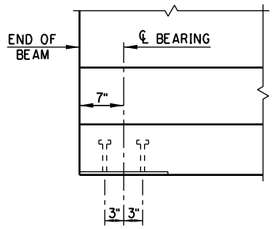
BAR BEND DETAILS



S1 #4 X 4'-2"
S2 #4 X 5'-4"



END VIEW



ELEVATION

EMBEDDED SOLE PLATE DETAILS

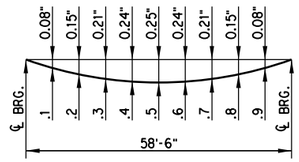
NOTE: PROVIDE AN EMBEDDED SOLE PLATE AT EACH END OF THE BEAM

NOTE: FOR DETAIL OF LIFTING EYE AND INTENTIONALLY ROUGHENED SURFACE DETAILS. SEE SHEET 1 OF 2.

PRESTRESSED CONCRETE BEAM NOTES

COMPRESSIVE STRENGTH:
PROVIDE CONCRETE WITH A COMPRESSIVE STRENGTH OF 7,000 PSI at TRANSFER OF PRESTRESS AND 10,000 PSI at 28 DAYS.

STRAND TYPE:
PROVIDE LOW-RELAXATION STRANDS HAVING A NOMINAL DIAMETER OF 0.6" WITH ULTIMATE TENSILE STRENGTH OF 270 KSI.



DEAD LOAD DEFLECTION DIAGRAM

NOTE: THE DEAD LOAD DEFLECTION SHOWN ABOVE at THE TENTH POINTS ARE THE INITIAL DEFLECTIONS DUE TO DECK SLAB + DIAPHRAGMS + HAUNCH + S.I.P. STEEL DECK FORM ALLOWANCE + CONCRETE PARAPET + MEDIAN BARRIER. IT DOES NOT INCLUDE THE BEAM WEIGHT OR FUTURE WEARING SURFACE.

Preliminary Plans

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 — OKLAHOMA COUNTY

BRIDGE "D" — I-240 OVER I-35

TYPE IV P.C.B. DETAILS
SPANS 1 & 4
(SHEET 2 OF 2)

STATE JOB NO. 09032(06) SHEET NO. B185

5/31/2022 3:23:09 PM
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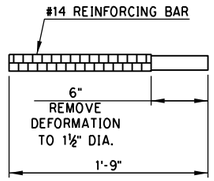
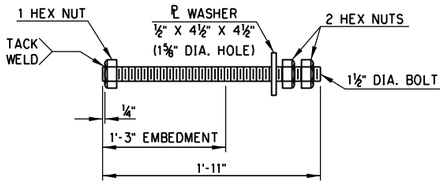
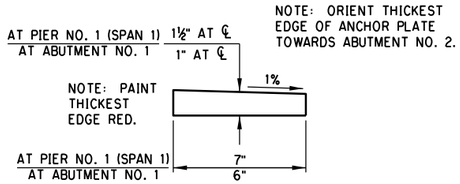
REVISIONS		
DESCRIPTION		DATE



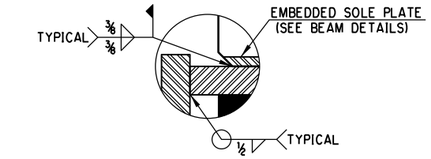
ABUTMENT ANCHOR BAR DETAIL



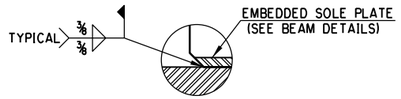
PIER ANCHOR BOLT DETAIL



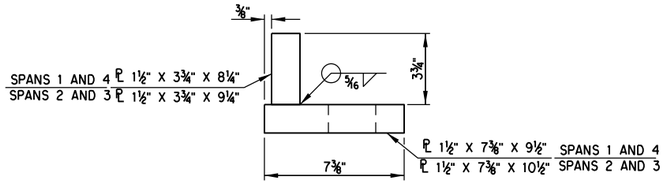
BEVELED ANCHOR PLATE DETAIL



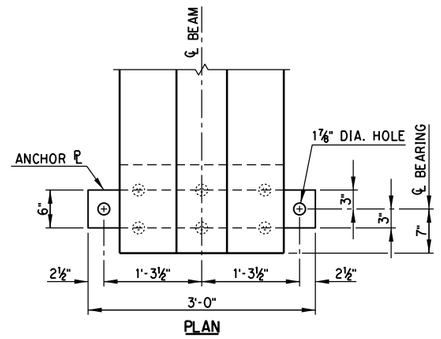
DETAIL "A"



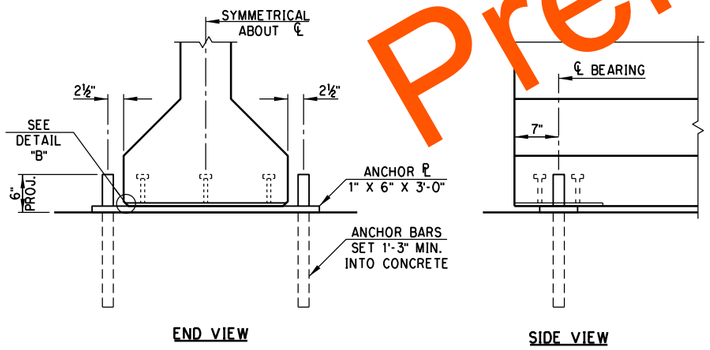
DETAIL "B"



BUILT-UP CONTACT ANGLE DETAIL

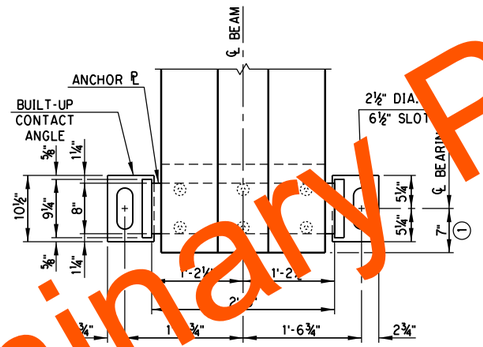


PLAN

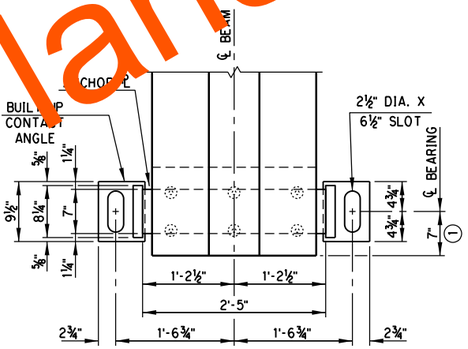


END VIEW SIDE VIEW

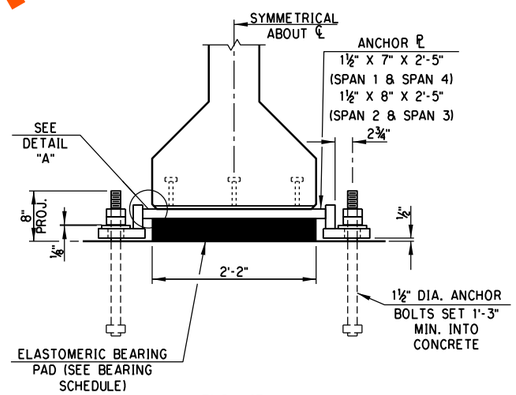
ABUTMENT FIXED BEARING DETAILS



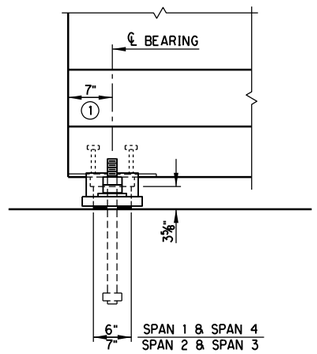
PLAN
(AT BEAMS PLACED IN SPAN 2 & SPAN 3)



PLAN
(AT BEAMS PLACED IN SPAN 1 & SPAN 4)



END VIEW



SIDE VIEW

PIER EXPANSION BEARING DETAILS

(1) CENTER ANCHOR BOLTS IN SLOTS DURING SETTING OF BEAMS. DIMENSION MAY VARY DEPENDING ON TEMPERATURE AT THE TIME OF BEAM SETTING.

ELASTOMERIC BEARING PAD SCHEDULE (DUROMETER 60)				
LOCATION	SIZE (TXLXW)	COVER LAYERS	INTERNAL LAYERS	LAMINATE LAYERS
SPANS 1 & 4	3⅝" X 6" X 2'-2"	2 at ¼"	6 at ⅜"	7 at ⅛"
SPANS 2 & 3	3⅝" X 7" X 2'-2"	2 at ¼"	6 at ⅜"	7 at ⅛"

EXPANSION BEARING ASSEMBLY NOTES

PROVIDE STRUCTURAL STEEL FOR ANCHOR PLATES, WASHER PLATES, AND BUILT-UP CONTACT ANGLES IN ACCORDANCE WITH ASTM A240 (AUSTENITIC STAINLESS STEEL, TYPE 316, CHARPY V-NOTCH TESTING NOT REQUIRED). FOR ANCHOR BOLTS, PROVIDE CONTINUOUSLY THREADED BARS IN ACCORDANCE WITH ASTM A320, CLASS 2, GRADE B8M (AUSTENITIC STAINLESS STEEL, TYPE 316, CHARPY V-NOTCH TESTING NOT REQUIRED). USE AUSTENITIC STAINLESS STEEL NUTS CONFORMING TO ASTM A194, GRADE 8M. PERFORM ALL WELDING CONSISTENT WITH PROCEDURES FOR STAINLESS STEEL.

FIXED BEARING ASSEMBLY NOTES

PROVIDE STRUCTURAL STEEL FOR ANCHOR PLATES IN ACCORDANCE WITH AASHTO M270 (ASTM A709), GRADE 50W (WEATHERING STEEL, CHARPY V-NOTCH TESTING NOT REQUIRED). FOR ANCHOR BARS, PROVIDE A REINFORCING BAR IN ACCORDANCE WITH AASHTO M31, GRADE 60.

Preliminary Plans

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 — OKLAHOMA COUNTY

BRIDGE "D" — I-240 OVER I-35

BEARING ASSEMBLY DETAILS

STATE JOB NO. 09032(06) SHEET NO. B186

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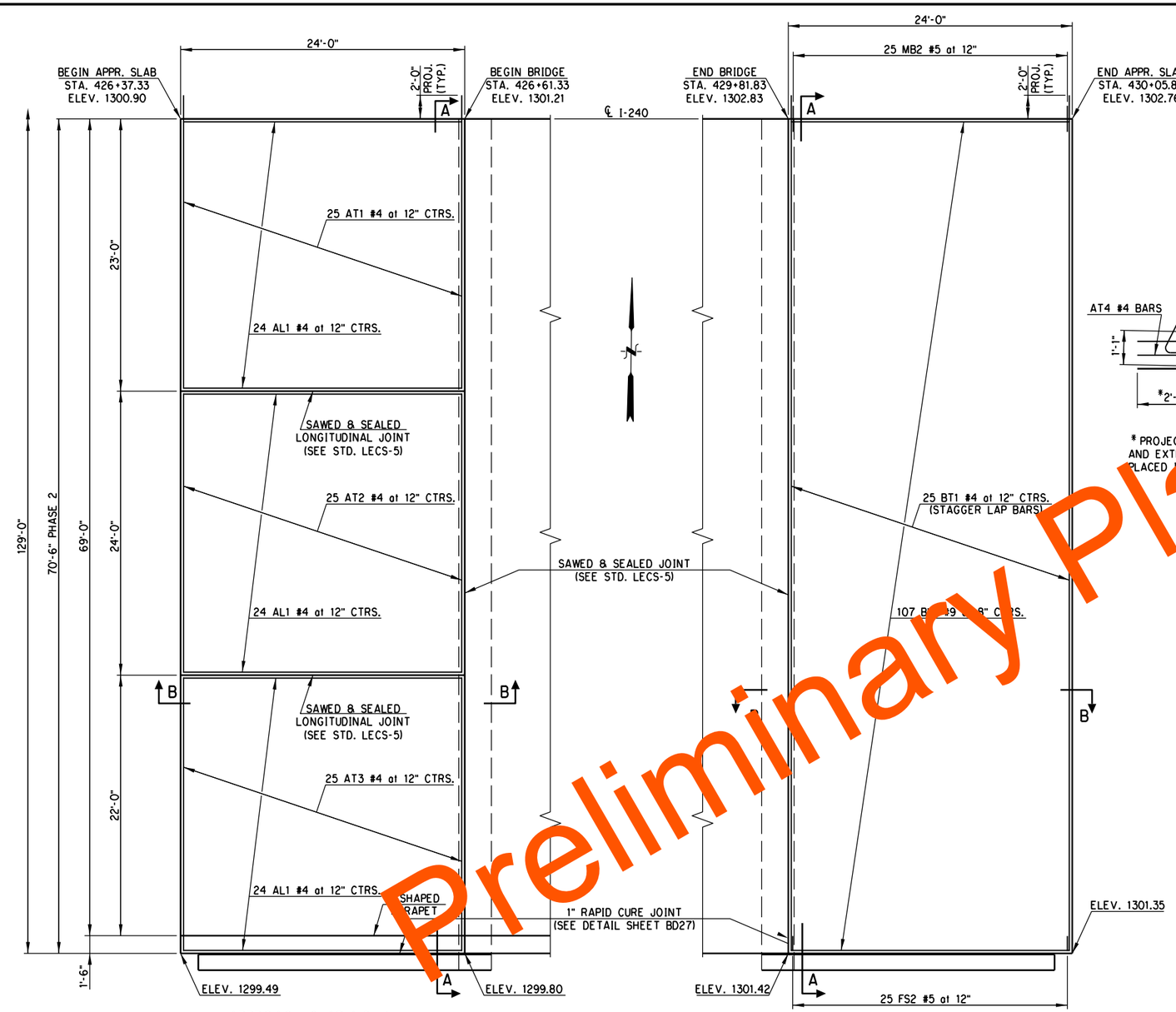


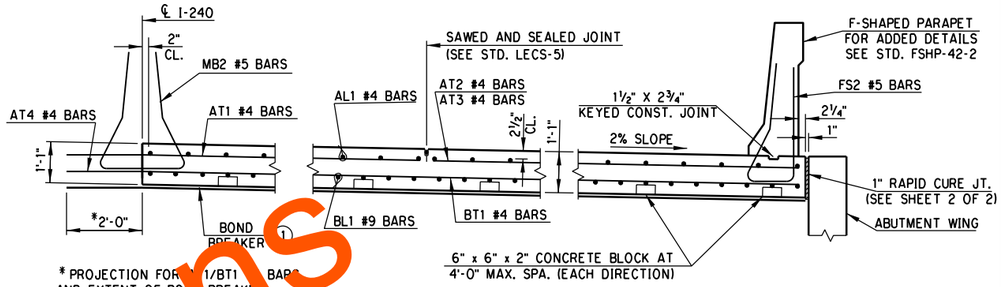
NOTE: FOR ADDITIONAL DETAILS AT ABUTMENT DIAPHRAGM SEE SHEET B180.

APPROACH SLAB NO. 1
TOP REINFORCING MAT DETAILS

APPROACH SLAB NO. 2
BOTTOM REINFORCING MAT DETAILS

PLAN

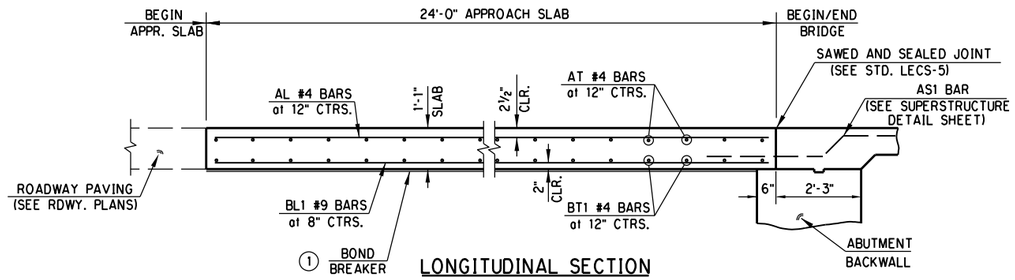
NOTE: PLACE REINFORCING IN THE TOP OF THE APPROACH SLAB 2" FROM EITHER SIDE OF THE SAWED AND SEALED LONGITUDINAL JOINT. FOR ADDITIONAL DETAILS OF LONGITUDINAL JOINT, SEE STANDARD LECS-5.



* PROJECTION FOR AT1/BT1 BARS AND EXTENT OF BOND BREAKER PLACED IN PHASE 2.

SECTION A-A

(1) BOND BREAKER SHALL BE ONE 6 MIL OR TWO 4 MIL POLYETHYLENE SHEETS.



LONGITUDINAL SECTION
SECTION B - B

NOTE: FOR DETAILS OF PARAPET SEE ODOT STD. FSHP-42

QUANTITIES				
ITEM	UNIT	ABUT. 1	ABUT. 2	TOTAL
APPROACH SLAB	S.Y.	188.0	188.0	376.0
SAW-CUT GROOVING	S.Y.	184	184	368
42" F-SHAPED PARAPET	L.F.	24.0	24.0	48.0
WATER REPELLENT (VISUALLY INSPECTED)	S.Y.	22	22	44

NOTES:

CONCRETE FOR APPROACH SLABS SHALL BE CLASS AA. REINFORCING STEEL SHALL BE GRADE 60.

ALL COST OF MATERIALS, LABOR, AND INCIDENTALS NECESSARY TO COMPLETE THE WORK AS SHOWN SHALL BE INCLUDED IN THE UNIT PRICE BID PER SQUARE YARD OF APPROACH SLAB. THIS PRICE BID SHALL INCLUDE THE COST OF LOAD TRANSFER UNIT, POLYSTYRENE, RAPID CURE JOINT SEALANT, BACKER RODS, SAWING, DOWEL BLOCKS, POLYETHYLENE SHEETING, CLASS AA CONCRETE AND EPOXY COATED REINFORCING STEEL (INCLUDING FS2 PARAPET BARS).

ALL COST OF PARAPET SHALL BE INCLUDED IN PRICE BID PER L.F. OF "42" F-SHAPED PARAPET". THIS PRICE SHALL INCLUDE COST OF ALL FS1, FH1 AND FH2 EPOXY COATED REINFORCING STEEL. PARAPET SHALL BE FULL HEIGHT FOR THE LENGTH OF THE APPROACH SLAB.

Preliminary Plans

REVISIONS		
DESCRIPTION		DATE

PHASE 2 — OKLAHOMA COUNTY

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

BRIDGE "D" — I-240 OVER I-35

APPROACH SLAB DETAILS
(SHEET 1 OF 2)

STATE JOB NO. 09032(06) SHEET NO. B187

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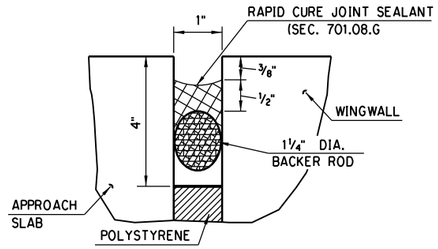
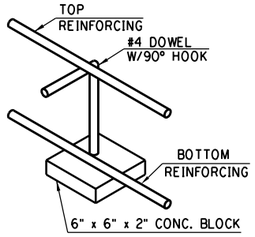
DESCRIPTION	REVISIONS	DATE



DETAIL OF RAPID CURE JOINT AT WINGWALLS

NOTE: FOR BACKER ROD AND JOINT SEALER GENERAL NOTES REFER TO STD. LECS-5.



DOWEL BLOCK

NOTE: CONTRACTOR MAY USE APPROVED HIGH CHAIRS WITH SAND PLATES (HCP) AND 6" x 6" x 2" PLAIN CONCRETE BLOCKS IN LIEU OF DOWEL BLOCKS SHOWN. SPACING SHALL BE 4'-0" MAX. ON CTRS.

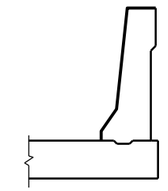
BAR LIST - EPOXY COATED

(FOR INFORMATION ONLY)

	MARK	NO.	SIZE	FORM	SPACING	LENGTH
	AL1	74	#4	STR.	12" C/C	23'-8"
	AT1	25	#4	STR.	12" C/C	24'-10"
	AT2	25	#4	STR.	12" C/C	23'-8"
	AT3	25	#4	STR.	12" C/C	23'-8"
	BL1	107	#9	STR.	8" C/C	23'-8"
①②	BT1	25	#4	STR.	12" C/C	134'-10"
	FS2	25	#5	BNT.	12 C/C	7'-4"
	MB2	25	#5	BNT.	12 C/C	8'-6¼"

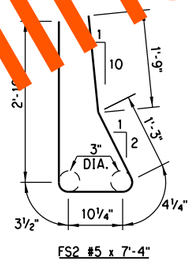
① 2 - 2'-0" LAPS INCLUDED

② INCLUDES 1 - 2'-0" MIN. PROJECTION

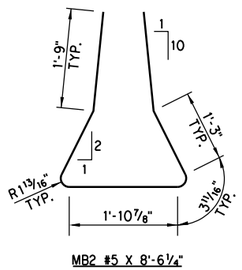


WATER REPELLENT SURFACE TREATMENT

SURFACES INDICATED WITH HEAVY LINES SHALL BE TREATED WITH A PENETRATING WATER REPELLENT SURFACE TREATMENT.



FS2 #5 x 7'-4"



MB2 #5 X 8'-6¼"

NOTE: FS2 AND MB2 BARS SHALL BE TIED IN PLACE BEFORE POURING THE CONCRETE FOR THE APPROACH SLAB.

NOTE: ALL BENT BAR DIMENSIONS ARE OUT TO OUT.

Preliminary Plans

		PHASE 2	OKLAHOMA COUNTY
DESIGN		BRIDGE "D"	I-240 OVER I-35
DRAWN		APPROACH SLAB DETAILS	
CHECKED		(SHEET 2 OF 2)	
APPROVED		STATE JOB NO. 09032(06)	SHEET NO. B188
SQUAD	POE		

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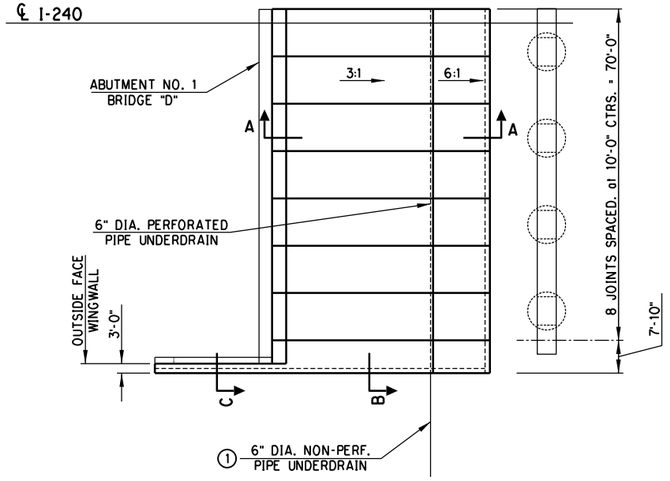
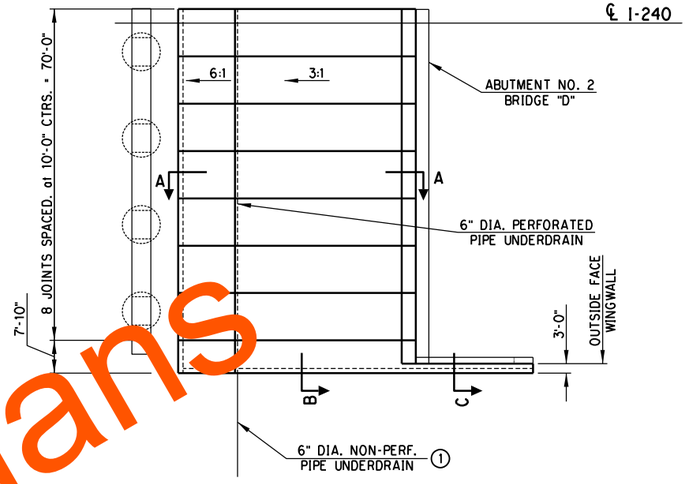


SLOPE WALL PLAN
AT ABUTMENT NO. 1



SLOPE WALL PLAN
AT ABUTMENT NO. 2

(1) ENGINEER MAY ADJUST ALIGNMENT IN THE FIELD. PROVIDE 1% MIN. SLOPE TO DRAIN FOR 6" NON-PERFORATED PIPE.

Preliminary Plans

QUANTITIES				
ITEM	UNIT	ABUT. 1	ABUT. 2	TOTAL
CLASS C CONCRETE	C.Y.	1	1	2
SLOPE WALL (5")	S.Y.	435.5	435.5	871
6" PERFORATED PIPE UNDERDRAIN ROUND	L.F.	78	78	156
(1) 6" NON-PERF. PIPE UNDERDRAIN RND.	L.F.	20	20	40

(1) NON-PEROFRATED PIPE SHALL BE CONNECTED TO PREFORATED PIPE AND EXTENDED OUTSIDE THE GROUND LINE TO DRAIN, AS DIRECTED IN THE FIELD BY THE ENGINEER. PLACE A RODENT SCREEN AT OUTLET END OF PIPE.

FOR SECTION A-A, B-B, AND C-C, SEE SHEET 2 OF 2.

PHASE 2 OKLAHOMA COUNTY

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

BRIDGE "D" I-240 OVER I-35

SLOPEWALL DETAILS
(SHEET 1 OF 2)

STATE JOB NO. 09032(06) SHEET NO. B189

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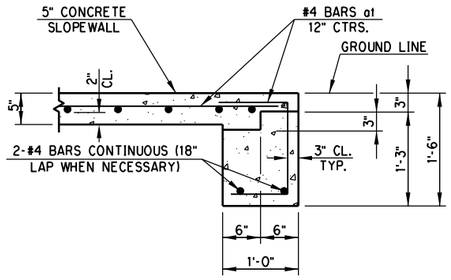
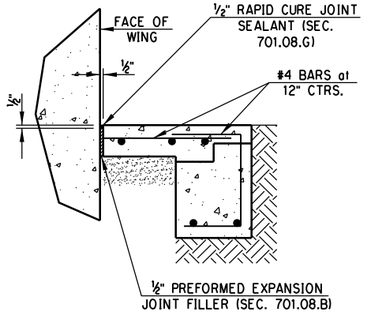
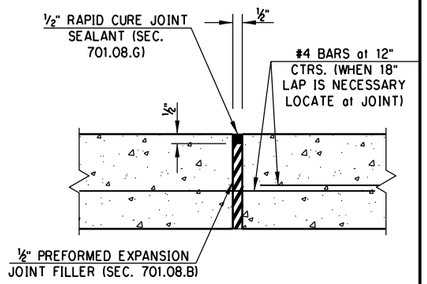
REVISIONS		
DESCRIPTION		DATE



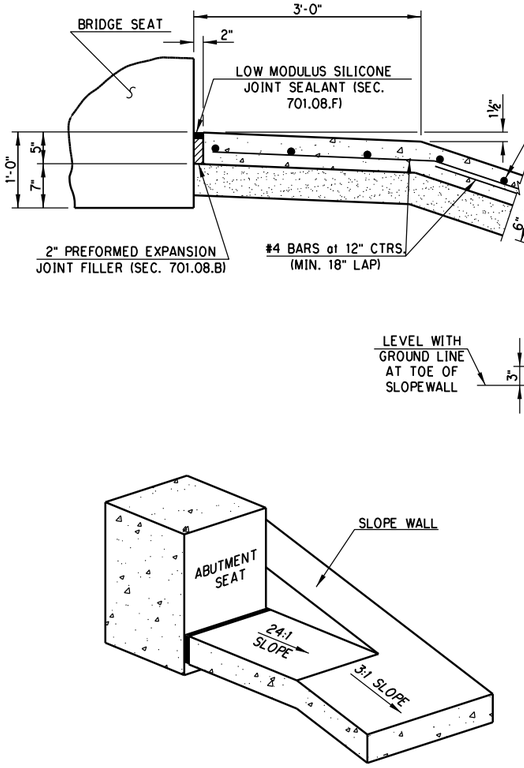
SECTION B



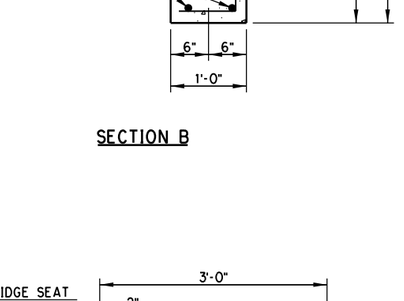
SECTION C



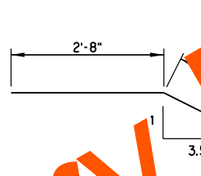
DETAIL OF VERTICAL CONSTRUCTION JOINT



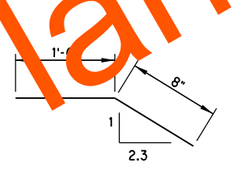
SECTION A-A



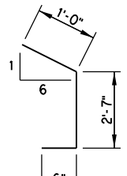
ISOMETRIC VIEW AT END OF ABUTMENTS



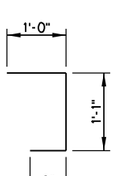
#4 BAR X 2'-2" TOP OF SLOPEWALL



#4 BAR X 2'-2" BOTTOM OF SLOPEWALL



#4 BAR X 4'-1" BAR BEND IN TOE FOOTING



#4 BAR X 2'-7" BAR BEND IN EDGE FOOTING

SLOPEWALL NOTES

1. ALL CONCRETE IN THE SLOPEWALL SHALL BE CLASS A CONCRETE AND SHALL BE POURED IN THE DRY. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH SECTIONS 509 AND 610 OF THE STANDARD SPECIFICATIONS.
2. NO HORIZONTAL CONSTRUCTION JOINTS WILL BE PERMITTED IN THE SLOPEWALL.
3. SURFACE AREA OF TOE OF SLOPE WALL INCLUDED IN PAY QUANTITY SHOWN FOR SLOPE WALL.

BASIS OF PAYMENT:

CONCRETE SLOPEWALL WILL BE MEASURED FROM EDGE TO EDGE AND FROM TOP TO BOTTOM OF THE TOP SURFACE OF THE SLOPEWALL AND FULL FACE OF THE TOE OF THE SLOPEWALL. PAYMENT WILL BE MADE AT THE CONTRACT UNIT PRICE BID FOR:

510(C) SLOPEWALL(5") S.Y.

WHICH SHALL INCLUDE ALL COSTS OF JOINT SEALER AND FILLER, REINFORCING STEEL, CONCRETE, FILTER SAND, EXCAVATION, LABOR, FORMS AND INCIDENTALS NECESSARY TO COMPLETE THE WORK AS SHOWN AND SPECIFIED.

PIPE UNDERDRAIN WILL BE MEASURED BY LENGTH AS SHOWN ON THE PLANS. PAYMENT WILL BE MADE AT THE CONTRACT UNIT PRICE BID FOR:

613(H) 6" PERFORATED PIPE UNDERDRAIN RND. L.F.

613(I) 6" NON-PERF. UNDERDRAIN RND. L.F.

WHICH SHALL INCLUDE ALL COSTS OF FILLER SAND, COARSE MATERIAL, FILTER FABRIC, PERFORATED PIPE, EXCAVATION, LABOR, AND INCIDENTALS NECESSARY TO COMPLETE THE WORK AS SHOWN AND SPECIFIED.

Preliminary Plans

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 OKLAHOMA COUNTY

BRIDGE "D" I-240 OVER I-35

SLOPEWALL DETAILS

(SHEET 2 OF 2)

STATE JOB NO. 09032(06) SHEET NO. B190

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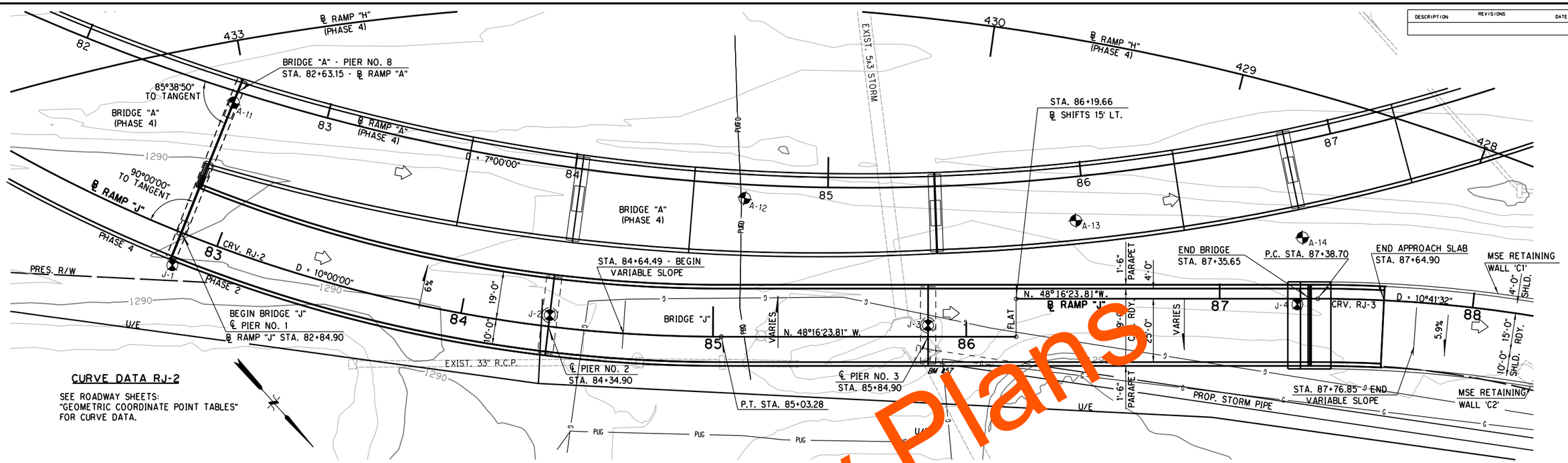
DESCRIPTION	REVISIONS	DATE



CURVE DATA RJ-2

SEE ROADWAY SHEETS:
"GEOMETRIC COORDINATE POINT TABLES"
FOR CURVE DATA.

PVI STA.85+34.90
ELEV. =1325.54

BM 6 ~ CHISELED SQUARE TOP OF EAST SIDE OF DRAINAGE CANAL 406.13' LT.
℄ I-240 STA. 418+91.16 ELEV.= 1265.30

PLAN

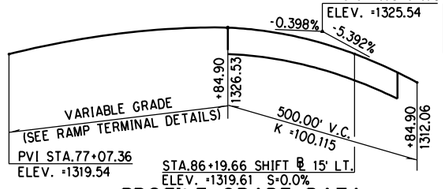
SCALE: 1"= 20'-0"

BM 5 ~ X ON CURB AT CENTER OF INLET 258.21' LT.
℄ I-35 STA. 85+81.47 ELEV.=1282.41

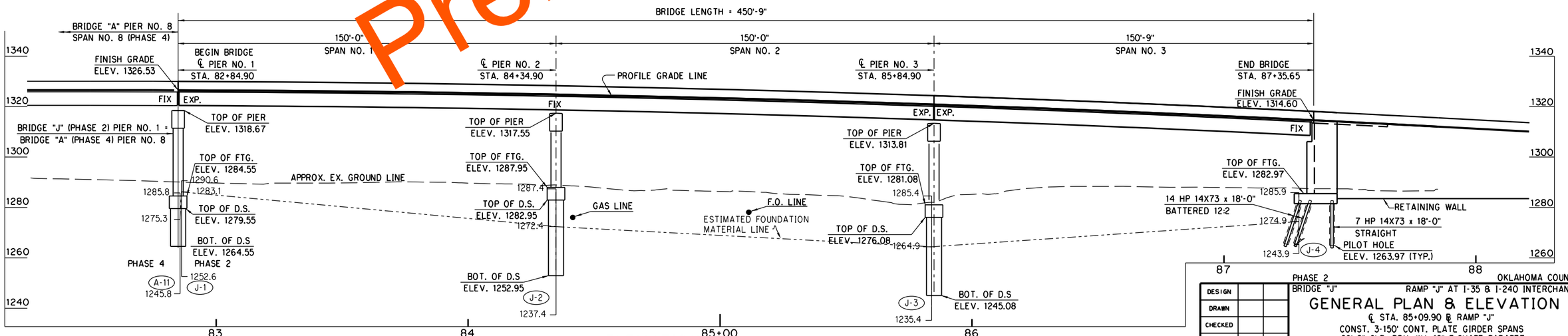
BM 57 ~ SQUARE ON TOP OF HEADWALL 388.69' RT.
℄ I-35 STA. 84+07.16 ELEV.= 1286.09

CURVE DATA RJ-3

SEE ROADWAY SHEETS:
"GEOMETRIC COORDINATE POINT TABLES"
FOR CURVE DATA.



PROFILE GRADE DATA
RAMP "J"



ELEVATION

SCALE: 1"= 20'-0"

PHASE 2
OKLAHOMA COUNTY
BRIDGE "J"
RAMP "J" AT I-35 & I-240 INTERCHANGE

GENERAL PLAN & ELEVATION

℄ STA. 85+09.90 ℄ RAMP "J"
CONST. 3-150' CONT. PLATE GIRDER SPANS
29'-0" CLR. RDY. W/ 42" F-SHAPE PARAPET

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

STATE JOB NO. 09032(06) SHEET NO. B191

Preliminary Plans

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DESCRIPTION	REVISIONS	DATE

DESIGN DATA

DESIGN SPECIFICATIONS:

AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 9TH EDITION
ANSI/AASHTO/AWS D1.5 BRIDGE WELDING CODE
ANSI/AWS D1.6 STRUCTURAL WELDING CODE STAINLESS STEEL

UNIT STRESSES:

CLASS AA CONCRETE	F'c = 4,000 PSI
CLASS A CONCRETE	F'c = 3,000 PSI
REINFORCING STEEL (GRADE 60)	Fy = 60,000 PSI
STRUCTURAL STEEL M270 (GRADE 50)	Fy = 50,000 PSI
STAINLESS STEEL A240 (TYPE 316)	Fy = 30,000 PSI

DESIGN LOADING:
HL-93 OR OKLAHOMA OVERLOAD
20 PSF FUTURE WEARING SURFACE
5 PSF SIP STEEL DECK FORM ALLOWANCE

LRFR OF HL-93 LOADING:

INVENTORY RATING FACTOR =	1.50
OPERATING RATING FACTOR =	1.83

FOUNDATION CAPACITIES

PIERS	PIER 1	PIER 2	PIER 3
DRILLED SHAFT DIAMETER =	72"	84"	72"
DRILLED SHAFT MINIMUM DEPTH INTO ROCK =	10'-0"	19'-0"	19'-0"
FACTORED REACTION =	1098 TONS	1642 TONS	1229 TONS
NOMINAL UNIT BEARING RESISTANCE =	60.00 TSF	60.00 TSF	60.00 TSF
BEARING RESISTANCE FACTOR =	0.70	0.56	0.56
FACTORED BEARING RESISTANCE =	1187 TONS	1293 TONS	950 TONS
NOMINAL UNIT FRICTION RESISTANCE =	4.4 TSF	6.2 TSF	5.7 TSF
FRICTION RESISTANCE FACTOR =	0.45	0.36	0.36
FACTORED FRICTION RESISTANCE =	214 TONS	396 TONS	92 TONS
DEPTH OF ROCK NEGLECTED FOR FRICTION =	5 FT.	5 FT.	5 FT.
TOTAL FACTORED RESISTANCE =	1401 TONS	[illegible] TONS	[illegible] TONS

ABUTMENTS (HP 14X73 PILING)

FACTORED PILE REACTION (TONS/PILE) = 139.0

STEEL PILING:
ABUTMENT PILING SHALL PLACED IN PILOT HOLE AND SHALL BE DRIVEN TO A POINT BEARING ON SOLID FOUNDATION MATERIAL AT THE APPROXIMATE ELEVATION SHOWN ON THE PLANS. IF THE AXIAL PILE RESISTANCE IS NOT EQUAL TO OR GREATER THAN THE FACTORED PILE REACTION AT THAT ELEVATION, DRIVING SHALL CONTINUE UNTIL THE AXIAL PILE RESISTANCE IS EQUAL TO OR GREATER THAN THE FACTORED PILE REACTION. THE LENGTH OF STEEL PILING SHOWN ON THE PLANS IS FOR ESTIMATING PURPOSES ONLY. BACKFILL AS SHOWN ON THE SHEET SUBSTRUCTURE STAKING DIAGRAM.

Preliminary Plans

SUMMARY OF BRIDGE QUANTITIES

ITEM	UNIT	ABUT	PIERS	SUPER STR.	APPR. SLAB	TOTAL
SUBSTRUCTURE EXCAVATION COMMON	C.Y.	305	269	—	—	574
SUBSTRUCTURE EXCAVATION ROCK	C.Y.	—	15	—	—	15
GRANULAR BACKFILL	C.Y.	279	—	—	—	279
APPROACH SLAB	S.Y.	—	—	—	102.2	102.2
SAW-CUT GROOVING	S.Y.	—	—	1453.0	93.6	1546.6
42" F-SHAPED PARAPET	L.F.	—	—	897.6	57.5	955.1
STRUCTURAL STEEL	LB.	—	—	995,380	—	995,380
STAINLESS STEEL FIXED BEARING ASSEMBLY	EA.	—	—	8	—	8
STAINLESS STEEL EXP. BEARING ASSEMBLY	EA.	—	—	12	—	12
ELASTOMERIC COATING	S.F.	112	823	—	—	935
CLASS AA CONCRETE	C.Y.	—	—	419.5	—	419.5
CLASS A CONCRETE	C.Y.	250.7	348.4	—	—	599.1
GRAFFITI TREATMENT	S.F.	—	—	—	—	7019
REINFORCING STEEL	LB.	—	740	—	—	740
EPOXY COATED REINFORCING STEEL	LB.	35,330	79,390	96,710	—	211,430
[illegible] FURNISHED (HP 14X73)	L.F.	378	—	—	—	378
PILES, DRIVEN (HP 14X73)	L.F.	378	—	—	—	378
(PL) PILOT HOLES	L.F.	329	—	—	—	329
PILE SPLICE, H-PILE (NON-BIDDABLE)	EA.	1	—	—	—	1
WATER REPELLENT (VISUALLY INSPECTED)	S.Y.	23	233	1178	29	1463
DRILLED SHAFTS 72" DIAMETER	L.F.	—	760	—	—	76
DRILLED SHAFTS 84" DIAMETER	L.F.	—	30	—	—	30
CROSSHOLE SONIC LOGGING	EA.	—	3	—	—	3
SEALED EXPANSION JOINTS	L.F.	—	—	63.0	—	63.0
SEALER CRACK PREPARATION	L.F.	—	—	64	—	64
SEALER RESIN	GAL.	—	—	0.7	—	0.7
6" PERFORATED PIPE UNDERDRAIN ROUND	L.F.	32	—	—	—	32
6" NON-PERF.PIPE UNDERDRAIN RND.	L.F.	5	—	—	—	5

INDEX OF SHEETS

SHEET NO.	DESCRIPTION
AB07	SUMMARY OF PAY QUANTITIES (BRIDGE "J")
AB08	GENERAL NOTES (BRIDGE "J")
B191	GENERAL PLAN & ELEVATION
B192	DESIGN DATA AND SUMMARY OF QUANTITIES
B193-B194	FOUNDATION REPORT
B195	SUBSTRUCTURE STAKING DIAGRAM
B196	EXCAVATION DIAGRAMS AND UNDERDRAIN DETAILS
B197-B199	ABUTMENT DETAILS
B200-B208	PIER DETAILS
B209-B211	SUPERSTRUCTURE DETAILS
B212	LONGITUDINAL SECTION AND SLAB POURING SEQUENCE
B213-B214	PARAPET LAYOUT DETAILS
B215	GIRDER BRACING DETAILS
B216-B218	PLATE GIRDER DETAILS
B219	FRAMING PLAN AND DIAPHRAGM DETAILS
B220	BEARING ASSEMBLY DETAILS
B221-B222	APPROACH SLAB DETAILS

2009 BRIDGE STANDARDS

STD.	FSHP-42-2
STD.	EJ-SQ
STD.	EJ-DTL
STD.	HP1-2

2019 ROADWAY STANDARDS

STD.	LECS-5
STD.	LTU-5
STD.	SPI-5
STD.	PUD-4

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 — OKLAHOMA COUNTY
BRIDGE "J" — RAMP "J" AT I-35 & I-240 INTERCHANGE

DESIGN DATA AND SUMMARY OF QUANTITIES

STATE JOB NO. 09032(06) SHEET NO. B192

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REVISIONS		
DESCRIPTION		DATE

Boring Number A-11
Northing: 143171.50
Easting: 2151348.68
Date Drilled: 9/21/2017
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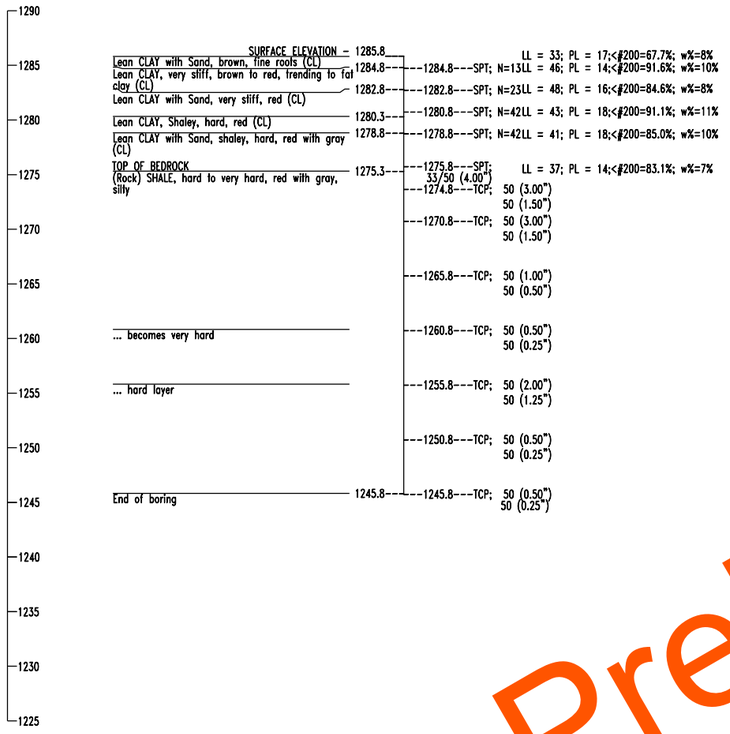
OFFSET 04.50' RT.



Boring Number J-1
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Easting: 2151409.47
Date Drilled: 5/9/2017
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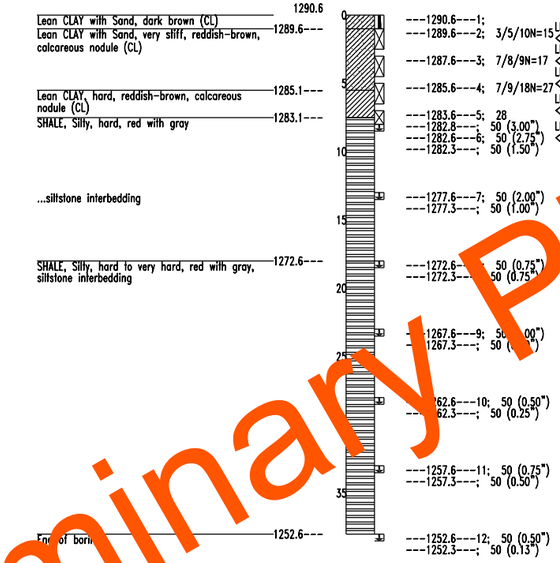
OFFSET 13.31' RT.



Boring Number J-2
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Easting: 2151311.34
Date Drilled: 10/25/2017
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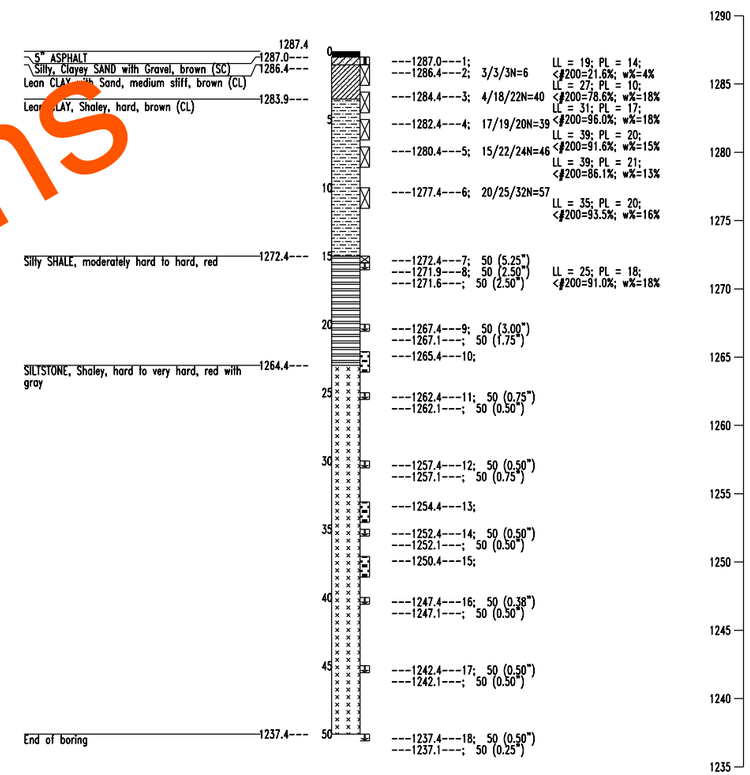
OFFSET 04.50' LT.



Preliminary Plans

GEOLOGIC STATEMENT

"Division Four" of the "Engineering Classification of Geological Materials", published by the Oklahoma Department of Transportation (ODOT) indicates that the site is underlain by the Hennessey Unit (Phy). The geologic unit is described below.

This unit consists of red platy to blocky clay shales and mudstone. The mudstones are hard and appear blocky. The red clay shale of the Hennessey Unit is characterized by numerous bands of streaks of white or light green color ranging from a few inches to four feet in thickness.

The total thickness of the unit is about 400 feet.

The Hennessey Unit outcrops in a 5- to 15-mile north-south band across Grant, Garfield, Kingfisher, Logan, Canadian, and Oklahoma Counties in Division Four. Topographically, the unit is near level to gently rolling and is generally grass covered or cultivated.

GEOTECHNICAL REPORT

All geotechnical information contained on this sheet is covered by the engineering seal affixed to an original geotechnical engineering report that has been stamped and sealed by a professional engineer licensed in Oklahoma. To obtain a copy of the complete report, contact the ODOT office engineer at (405) 521-2625. The contractor should be fully aware of the site conditions prior to beginning work. Any additional geotechnical information which may be desired is the responsibility of the contractor.

Note: Water level elevations shown were obtained at the time the borings were drilled and may fluctuate throughout the year.

NOTE: SPT - Split Spoon Sampling
TCP - Texas Cone Penetrator Test
AUG - Augur Cutting Sample
LL - Liquid Limit
PL - Plastic Limit

<#200 - Percent passing #200 sieve
w% - Moisture content
N - Number of blows per 12 inches
▽ Denotes depth to observed groundwater

DESIGN		
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CHECKED		
APPROVED		
SQUAD	PSI	

PHASE 2 OKLAHOMA COUNTY
BRIDGE "J" RAMP "J" AT I-35 & I-240 INTERCHANGE

FOUNDATION REPORT
(SHEET 1 OF 2)

STATE JOB NO. 09032(106) SHEET NO. B193

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DESCRIPTION	REVISIONS	DATE

Boring Number J-3
Northing: 143419.54
Easting: 2151202.60
Date Drilled: 10/27/2017
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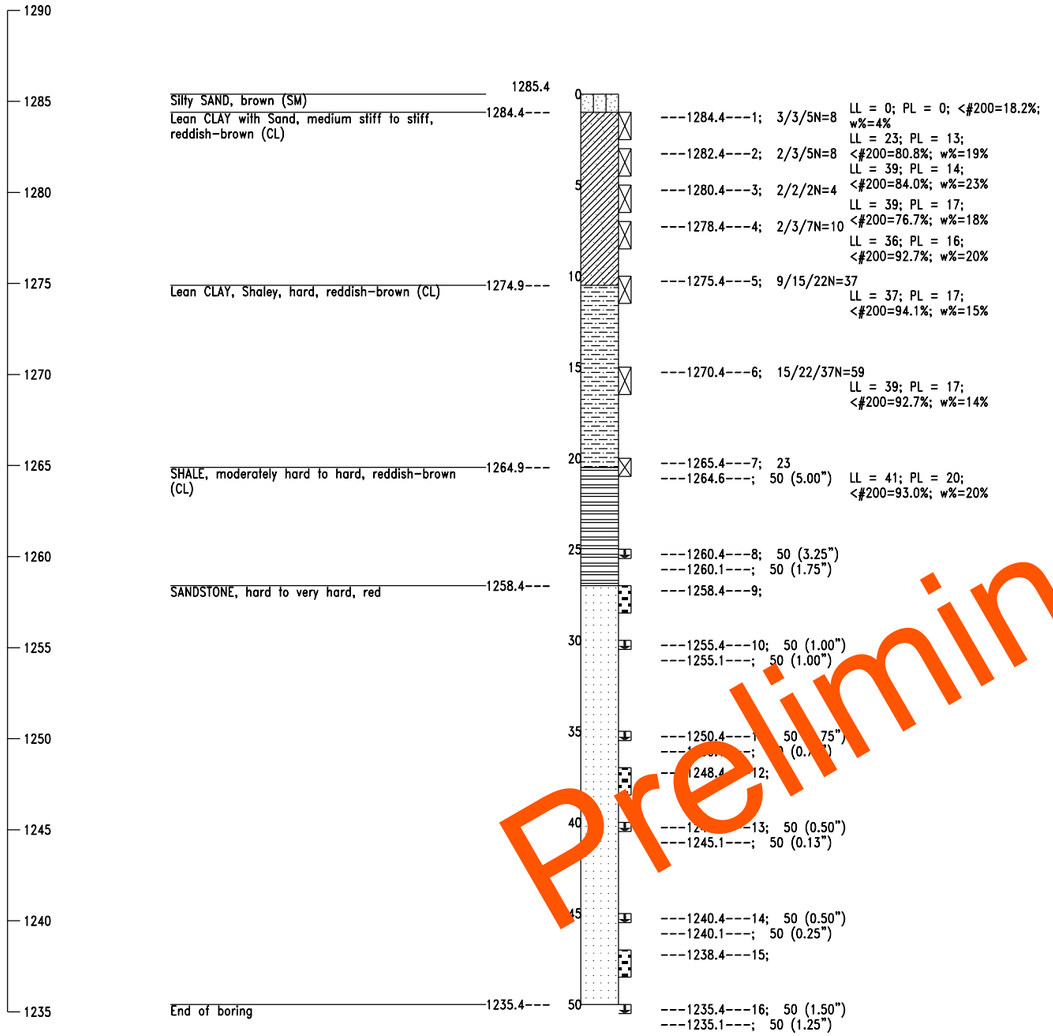
OFFSET 04+50' LT.



Boring Number J-4
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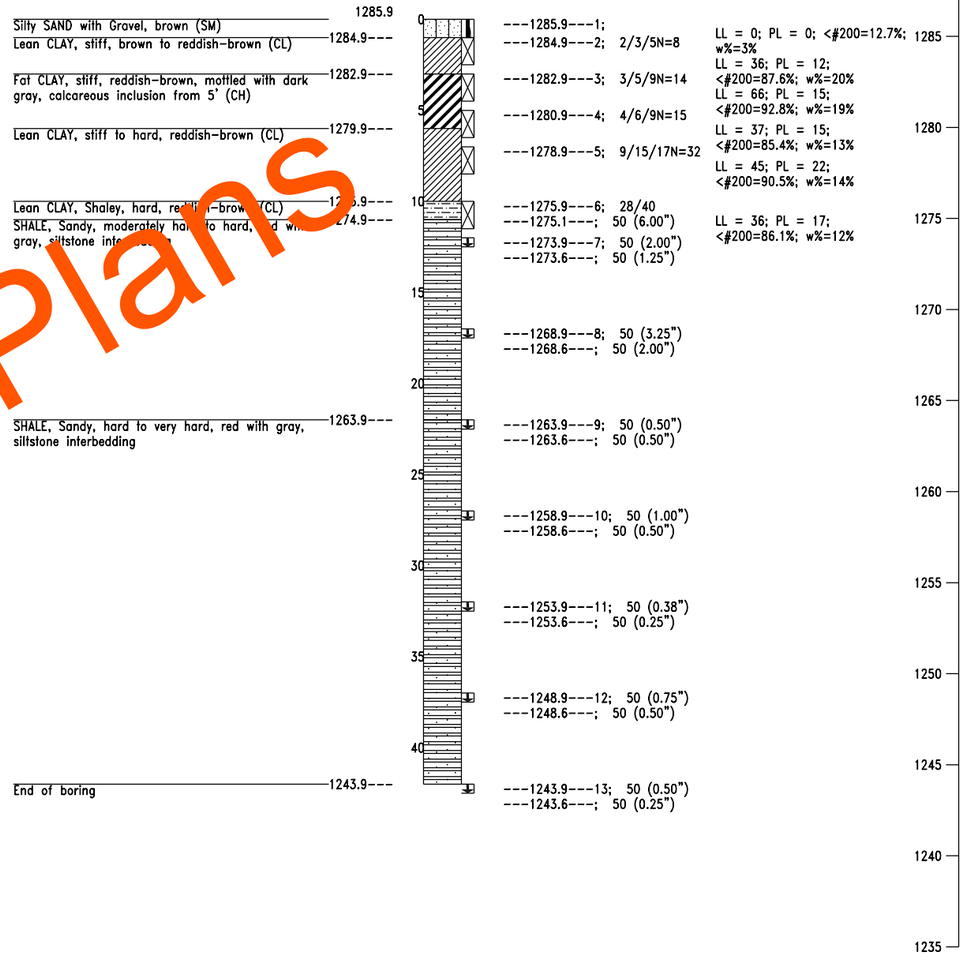

Preliminary Plans

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NOTE: SPT - Split Spoon Sampling
TCP - Texas Cone Penetrator Test
AUG - Augur Cutting Sample
LL - Liquid Limit
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<#200 - Percent passing #200 sieve
w% - Moisture content
N - Number of blows per 12 inches
▽ Denotes depth to observed groundwater

DESIGN		
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SQUAD	PSI	

PHASE 2 OKLAHOMA COUNTY
BRIDGE "J" RAMP "J" AT I-35 & I-240 INTERCHANGE

FOUNDATION REPORT
(SHEET 2 OF 2)

STATE JOB NO. 09032(06) SHEET NO. B194

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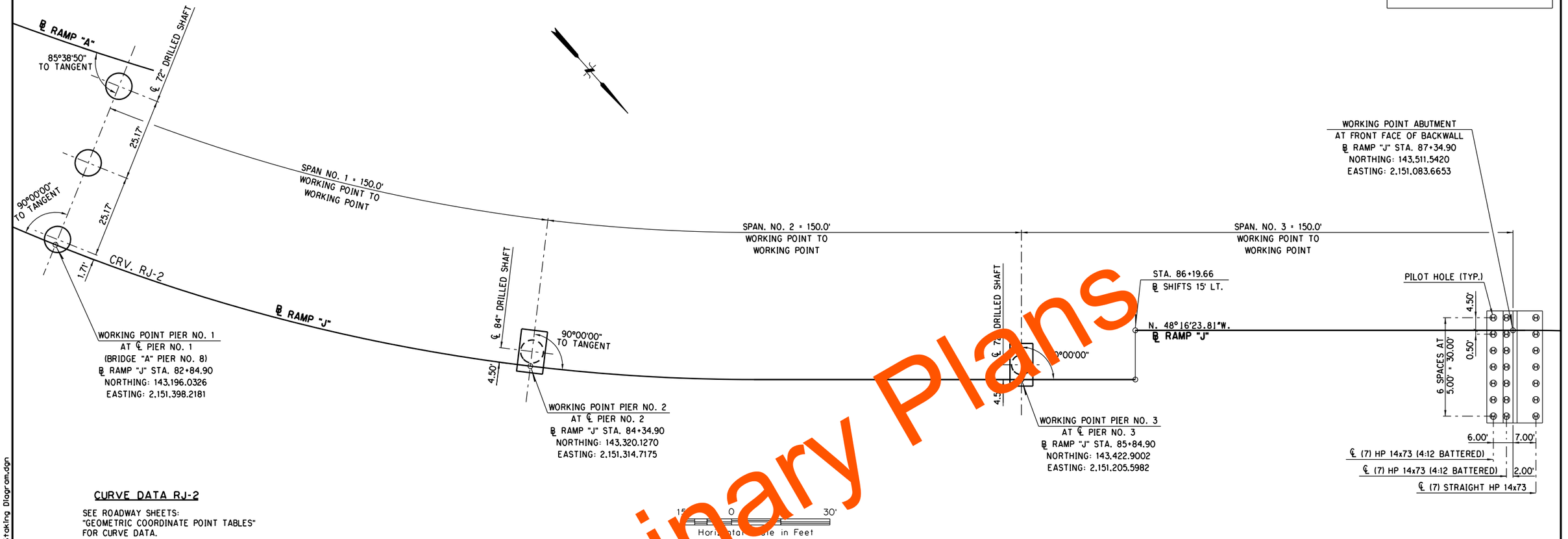
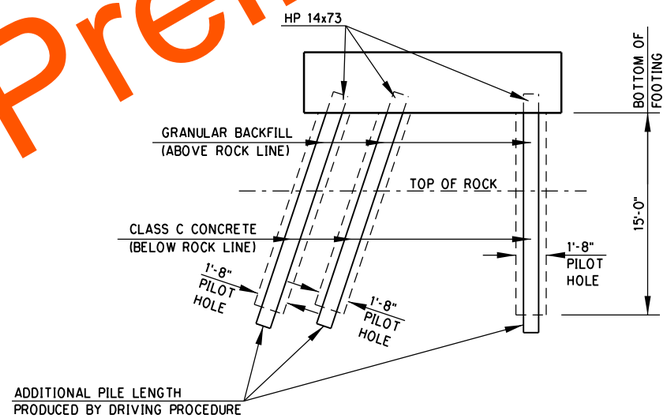


CURVE DATA RJ-2

SEE ROADWAY SHEETS:
"GEOMETRIC COORDINATE POINT TABLES"
FOR CURVE DATA.

SUBSTRUCTURE STAKING DIAGRAM

TOP OF PILE ELEVATION
1284.22



PILOT HOLE:
ALL COSTS FOR DRILLING, EXCAVATION, CASING (IF NECESSARY), GRANULAR BACKFILL, AND CLASS C CONCRETE WITHIN THE PILOT HOLE PAY LENGTH SHOWN, INCLUDING MATERIALS, LABOR, EQUIPMENT, AND INCIDENTALS SHALL BE INCLUDED IN THE UNIT PRICE PER LINEAR FOOT OF "(PL) PILOT HOLES".

UTILITIES:
(CAUTION) THE LOCATION OF ALL UTILITIES AS SHOWN ARE APPROXIMATE DUE TO RELOCATION PLANNED OR PRESENTLY UNDER CONSTRUCTION. ALL UTILITIES THAT WOULD INTERFERE WITH CONSTRUCTION OF NEW BRIDGE SHOULD BE RELOCATED BY THE UTILITY OWNERS PRIOR TO START OF CONSTRUCTION. THERE ARE SOME UTILITIES THAT WILL BE RELOCATED AND NOT SHOWN ON THESE PLANS. THE CONTRACTOR SHALL VERIFY THAT THE UTILITIES HAVE BEEN RELOCATED PRIOR TO STARTING CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO ALL UTILITIES.
NO PAYMENT WILL BE MADE FOR REMOVAL OF ABANDONED UTILITY PIPE LINES THAT INTERFERE WITH CONSTRUCTION. ALL COST TO BE INCLUDED IN OTHER ITEMS.

OKLAHOMA ONE-CALL SYSTEM:
IN ACCORDANCE WITH THE OKLAHOMA UNDERGROUND FACILITIES DAMAGE PREVENTION ACT THE CONTRACTOR SHALL NOTIFY THE OKLAHOMA ONE-CALL SYSTEM, INC. 48 HOURS PRIOR TO BEGINNING EXCAVATION. OKLAHOMA ONE-CALL SYSTEM, INC. "CALL OKIE" 1-800-522-6543 OR 811.

DRILLED SHAFT CONSTRUCTION:
DUE TO THE VERY HARD ROCK ENCOUNTERED AT THIS SITE, DRILLED SHAFT EXCAVATIONS WILL REQUIRE SPECIALIZED ROCK DRILLING EQUIPMENT. THE CONTRACTOR IS RESPONSIBLE FOR BECOMING FAMILIAR WITH THE EXISTING SUBSURFACE CONDITIONS AND THEIR IMPLICATIONS ON THE DRILLING PROCESSES PRIOR TO BEGINNING WORK.

Preliminary Plans

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 — OKLAHOMA COUNTY
BRIDGE "J" — RAMP "J" AT I-35 & I-240 INTERCHANGE

SUBSTRUCTURE STAKING DIAGRAM

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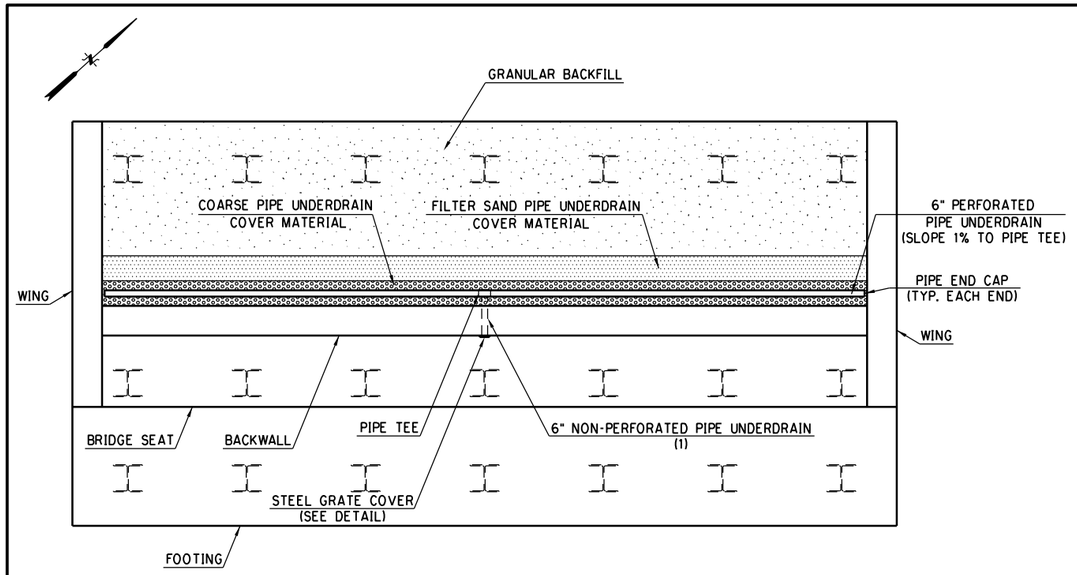
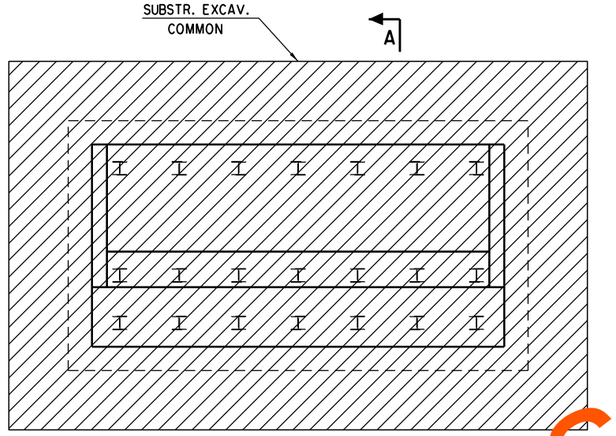
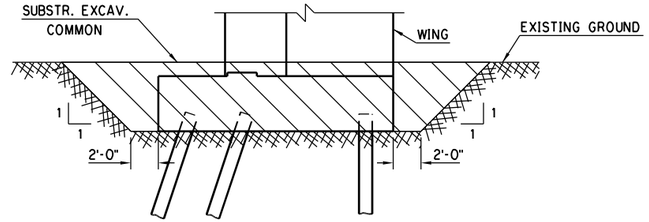


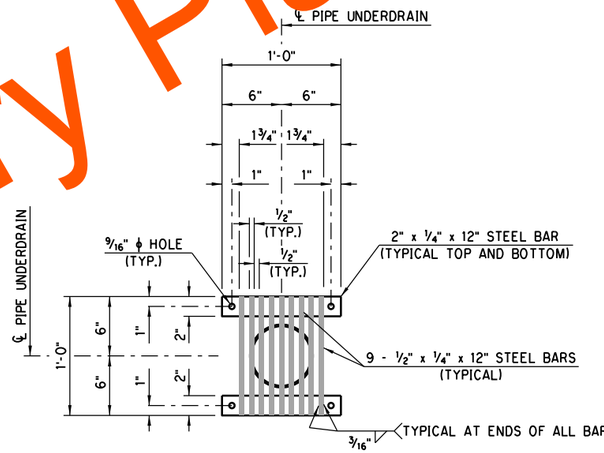
PLAN OF PIPE UNDERDRAIN



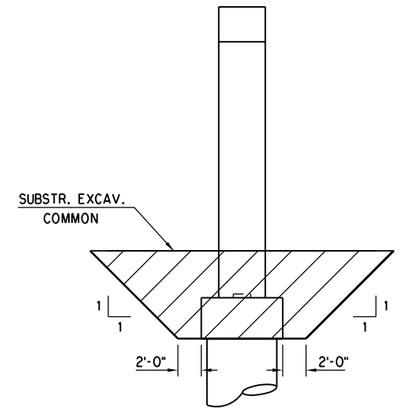
ABUTMENT EXCAVATION DIAGRAM



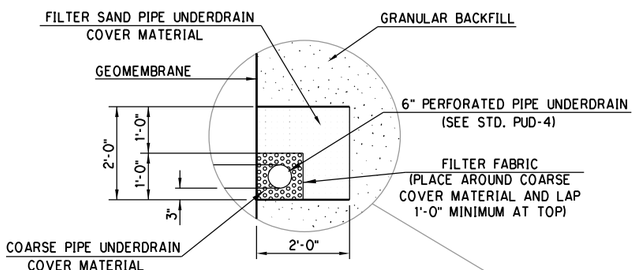
SECTION A-A

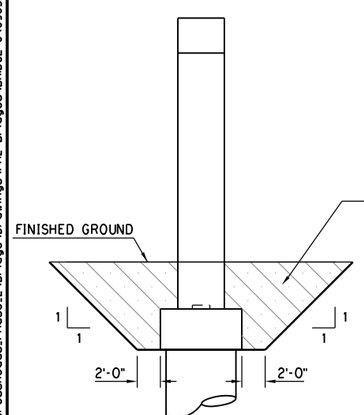


ELEVATION

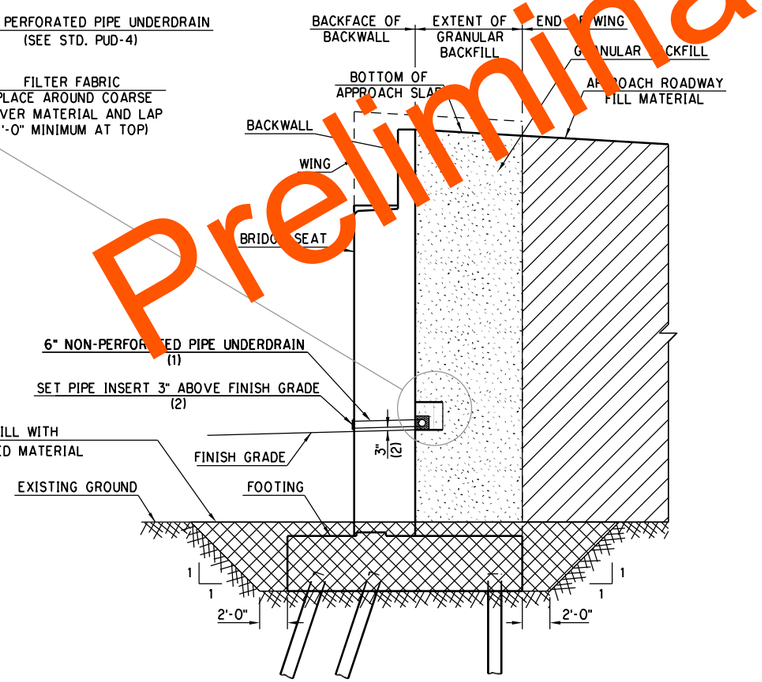


PIER EXCAVATION DIAGRAM





PIER BACKFILL DIAGRAM



ABUTMENT BACKFILL AND UNDERDRAIN INSTALLATION DETAIL

DETAILS OF STEEL GRATE COVER

GRATE COVER SHALL BE FABRICATED FROM STRUCTURAL STEEL CONFORMING TO ASTM-A-36.

COMPLETE GRATE COVER SHALL BE HOT DIP GALVANIZED AND PAINTED TO MATCH COLOR OF FINISHED CONCRETE SURFACE.

GRATE COVER SHALL BE SECURED TO CONCRETE BRIDGE SEAT WITH FOUR ½" ϕ x 5½" LONG ITW RED HEAD TRUBOLT 316 STAINLESS STEEL WEDGE ANCHORS OR APPROVED EQUIVALENT.

NOTES

(1) SEGMENT OF NON-PERFORATED PIPE EXTENDING THROUGH CONCRETE BRIDGE SEAT SHALL BE HOT-DIPPED GALVANIZED SCHEDULE 80 STEEL PIPE.

(2) SEE GENERAL PLAN AND ELEVATION FOR APPROXIMATE FINISH GRADE ELEVATION AT THE FACE OF THE BRIDGE SEAT. ELEVATION SHALL BE VERIFIED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER PRIOR TO PLACING PIPE.

THE MEASUREMENT AND PAYMENT FOR "SUBSTRUCTURE EXCAVATION COMMON" AT THE ABUTMENT SHALL BE IN ACCORDANCE WITH THE DETAILS SHOWN IN THE PLANS.

GRANULAR BACKFILL SHALL NOT BE PLACED UNTIL THE CONCRETE IN THE ABUTMENT WINGS HAS ATTAINED A STRENGTH OF 3000 P.S.I.

INSTALLATION OF THE PIPE UNDERDRAIN SHALL BE AS SHOWN IN THE PLANS AND ON ROADWAY STANDARD PUD-4. THE LOCATION AND DEPTH OF THE 6" NON-PERFORATED PIPE UNDERDRAIN MAY BE ADJUSTED BY THE ENGINEER DURING CONSTRUCTION.

ALL COSTS OF PERFORATED PIPE AND NON-PERFORATED PIPE, STEEL PIPE, PIPE FITTINGS, PIPE END CAPS, STEEL GRATE COVER, PIPE UNDERDRAIN COVER MATERIAL, FILTER FABRIC, BACKFILLING OF EXCAVATED MATERIAL, MATERIAL, LABOR, EQUIPMENT, AND INCIDENTALS SHALL BE INCLUDED IN THE UNIT PRICE BID PER LINEAR FOOT OF "6" PERFORATED PIPE UNDERDRAIN ROUND" AND "6" NON-PERF. PIPE UNDERDRAIN RND.".

Preliminary Plans

DESCRIPTION	REVISIONS	DATE

PHASE 2 — OKLAHOMA COUNTY

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

BRIDGE "J" — RAMP "J" AT I-35 & I-240 INTERCHANGE

EXCAVATION DIAGRAMS AND UNDERDRAIN DETAILS

STATE JOB NO. 09032(06) SHEET NO. B196

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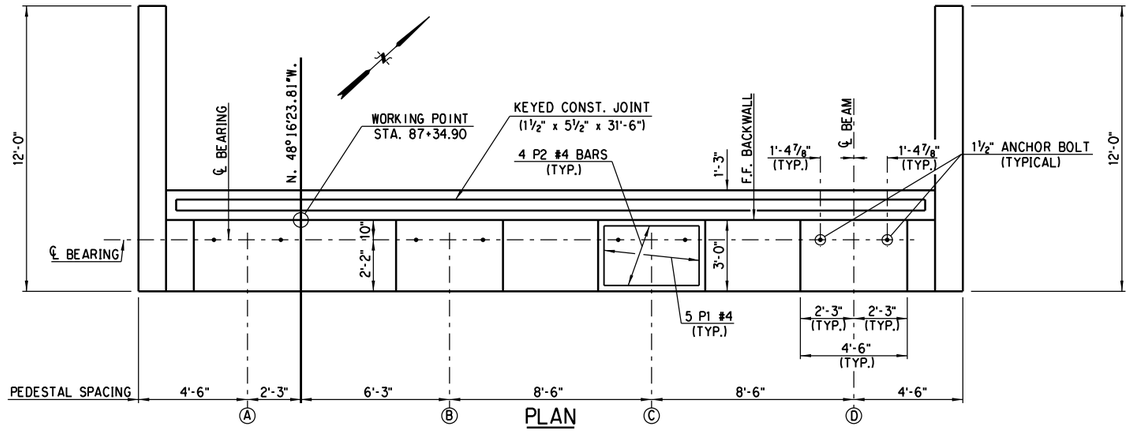
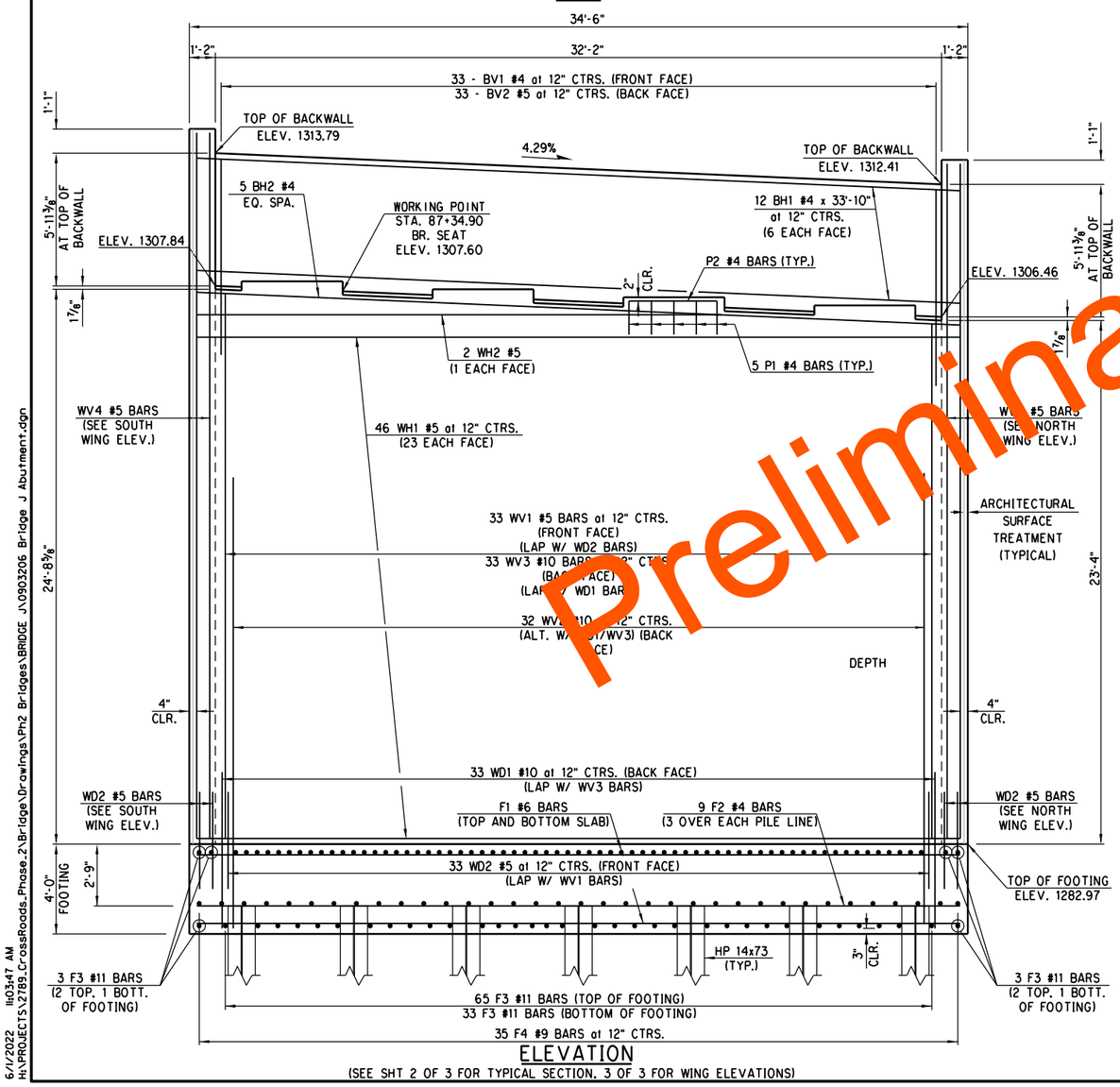
REVISIONS		
DESCRIPTION		DATE

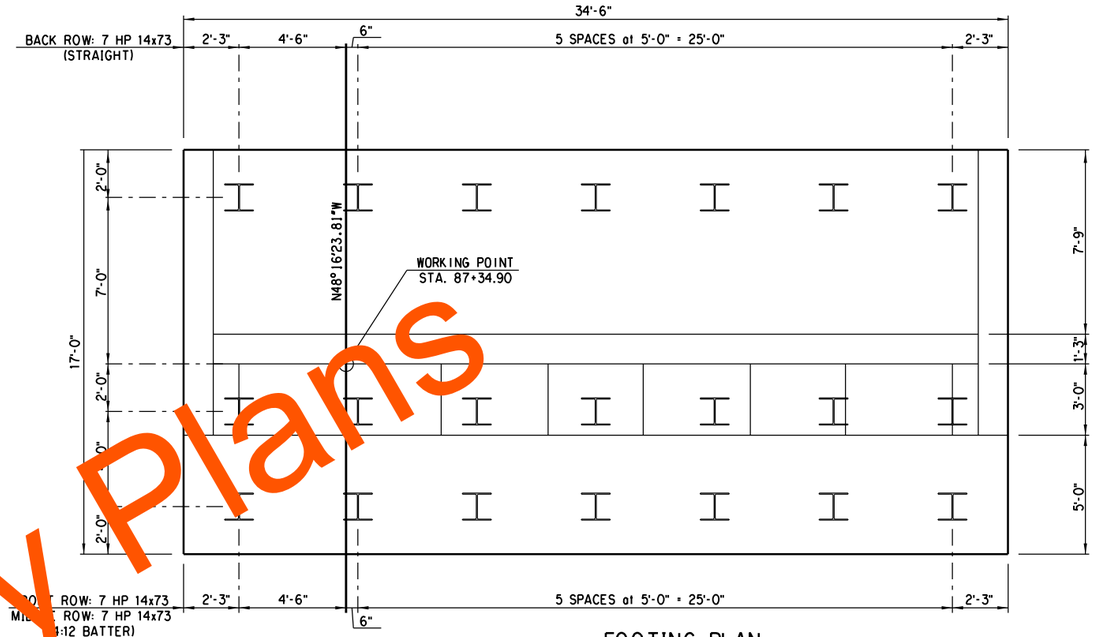


PLAN

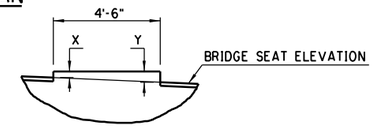


ELEVATION

(SEE SHT 2 OF 3 FOR TYPICAL SECTION, 3 OF 3 FOR WING ELEVATIONS)



FOOTING PLAN



PEDESTAL DETAIL

PEDESTAL ELEVATION SCHEDULE				
PEDESTAL	Ⓐ	Ⓑ	Ⓒ	Ⓓ
ELEVATION	1308.05	1307.69	1307.33	1306.97
X	3"	3⅛"	3⅛"	3³⁄₁₆"
Y	5⁵⁄₁₆"	5⁷⁄₁₆"	5⁷⁄₁₆"	5½"

ABUTMENT QUANTITIES

	ITEM	UNIT	TOTAL
	SUBSTRUCTURE EXCAVATION COMMON	C.Y.	305
	GRANULAR BACKFILL	C.Y.	279
*	ELASTOMERIC COATING	S.F.	112
	CLASS A CONCRETE	C.Y.	250.7
	EPOXY COATED REINFORCING STEEL	LB.	35,330
≠	WATER REPELLENT (VISUALLY INSPECTED)	S.Y.	23
	PILES, FURNISHED (HP 14X73)	L.F.	378
	PILES, DRIVEN (HP 14X73)	L.F.	378
	(PL) PILOT HOLES	L.F.	329
	6" PERFORATED PIPE UNDERDRAIN ROUND	L.F.	32
	6" NON-PERF. PIPE UNDERDRAIN ROUND	L.F.	5

* TOP OF ABUTMENT SEAT, TOP AND SIDES OF PEDESTALS

≠ FACE OF BACKWALL

PHASE 2 OKLAHOMA COUNTY

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

BRIDGE "J" RAMP "J" AT I-35 & I-240 INTERCHANGE

ABUTMENT DETAILS

(SHEET 1 OF 3)

STATE JOB NO. 09032(06) SHEET NO. B197

Preliminary Plans

6/1/2022 11:03:47 AM
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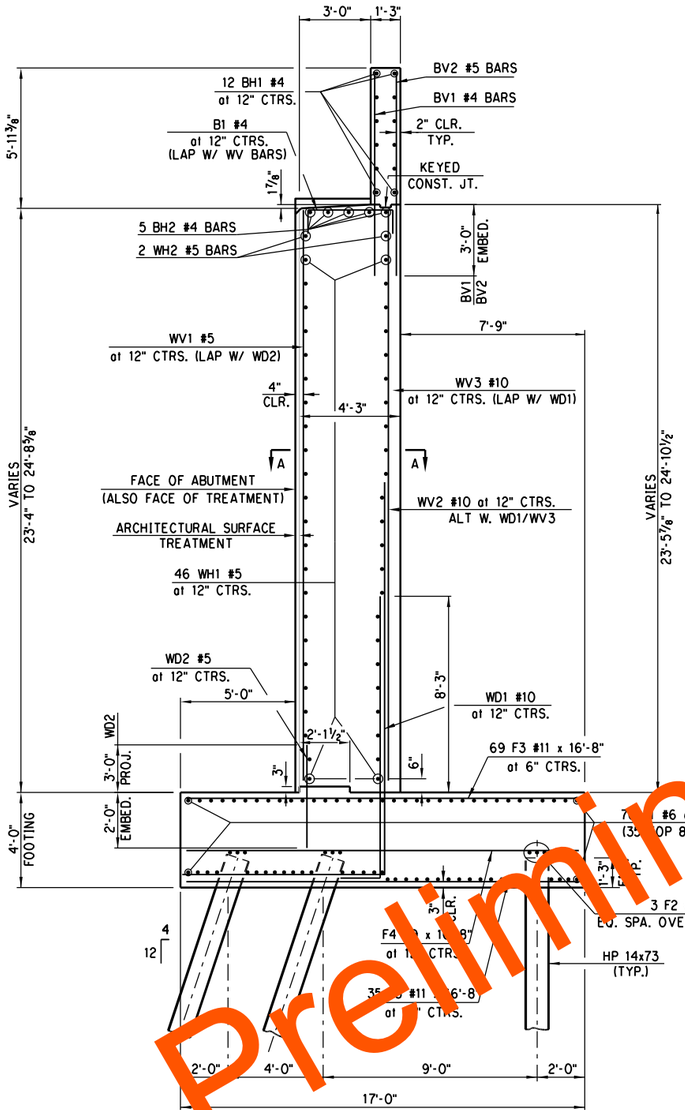
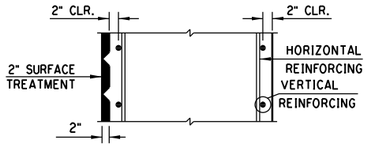
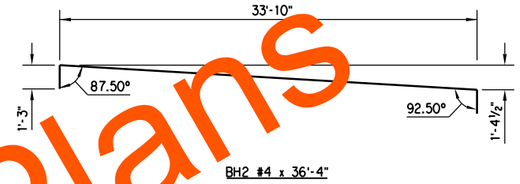
DESCRIPTION	REVISIONS	DATE



TYPICAL SECTION

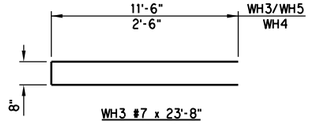


SECTION A-A

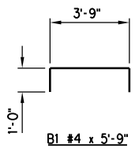


BH2 #4 x 36'-4"

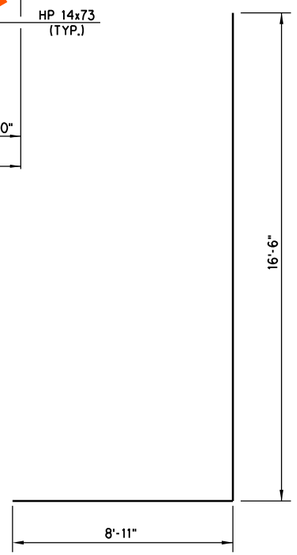
NOTE: ALL EMENT BA DIMENSI S ARE OUT TO OUT.
ALL R RCING STEEL AS 2" CLEAR COVER UNLESS HOWN OTHERWISE.



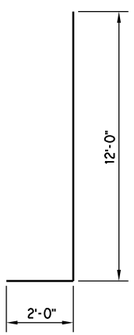
WH3 #7 x 23'-8"
WH4 #5 x 5'-8"
WH5 #5 x 23'-8"



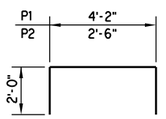
B1 #4 x 5'-9"



WV2 #10 x 25'-5"



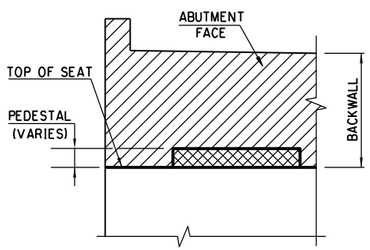
WD1 #10 x 14'-0"



P1 #4 x 8'-2"
P2 #4 x 6'-6"

ABUTMENT BAR LIST
(EPOXY COATED)

MARK	NO.	SIZE	FORM	SPACING	LENGTH	VARIANCE
B1	33	#4	BNT.	12" C/C	5'-9"	
BH1	12	#4	STR.	12" C/C	33'-10"	
BH2	5	#4	BNT.	EQ. SPA.	36'-4"	
BV1	33	#4	STR.	12" C/C	8'-10"	
BV2	33	#5	STR.	12" C/C	8'-10"	
F1	70	#6	STR.	6" C/C	33'-10"	
F2	9	#4	STR.	EQ. SPA.	33'-10"	
F3	104	#11	STR.	AS SHOWN	16'-8"	
F4	36	#9	STR.	12" C/C	16'-8"	
P1	20	#4	BNT.	EQ. SPA.	8'-2"	
P2	16	#4	BNT.	EQ. SPA.	6'-6"	
WH1	46	#5	STR.	12" C/C	33'-10"	
WH2	2	#5	STR.	12" C/C	23'-4"	
WH3	96	#7	BNT.	6" C/C	23'-8"	
WH4	110	#5	BNT.	AS SHOWN	5'-8"	
WH5	14	#5	BNT.	12" C/C	23'-8"	
WD1	33	#10	BNT.	12" C/C	14'-0"	
WD2	85	#5	STR.	12" C/C	5'-0"	
WV1	33	#5	STR.	12" C/C	23'-7" AVG.	22'-11" to 24'-3"
WV2	32	#10	BNT.	12" C/C	25'-5"	
WV3	33	#10	STR.	12" C/C	23'-11" AVG.	23'-3" to 24'-7"
WV4	26	#5	STR.	12" C/C	31'-3" AVG.	31'-0" to 31'-6"
WV5	26	#5	STR.	12" C/C	29'-10" AVG.	29'-6" to 30'-2"



ELEVATION
CONCRETE TREATMENT DETAILS

NOTE:
MASK FACE AND ENDS OF SEAT TO PROVIDE A CLEAN STRAIGHT FINISH AT THE BOTTOM EDGE OF ELASTOMERIC COATING APPLICATION.
MASK OUT TOPS OF PEDESTALS WHERE BEARING PADS SIT.

ELASTOMERIC COATING (CROSS-HATCHING AND HEAVY LINE)

WATER REPELLENT (HATCHING)

PHASE 2 OKLAHOMA COUNTY

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

BRIDGE "J" RAMP "J" AT I-35 & I-240 INTERCHANGE

ABUTMENT DETAILS
(SHEET 2 OF 3)

STATE JOB NO. 09032(06) SHEET NO. B198

Preliminary Plans

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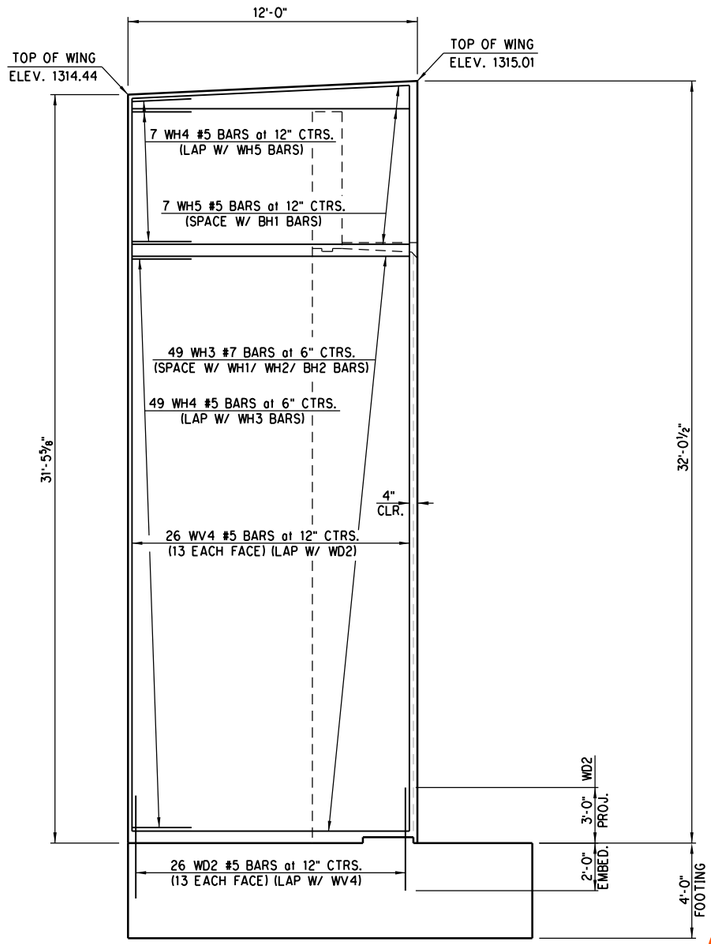
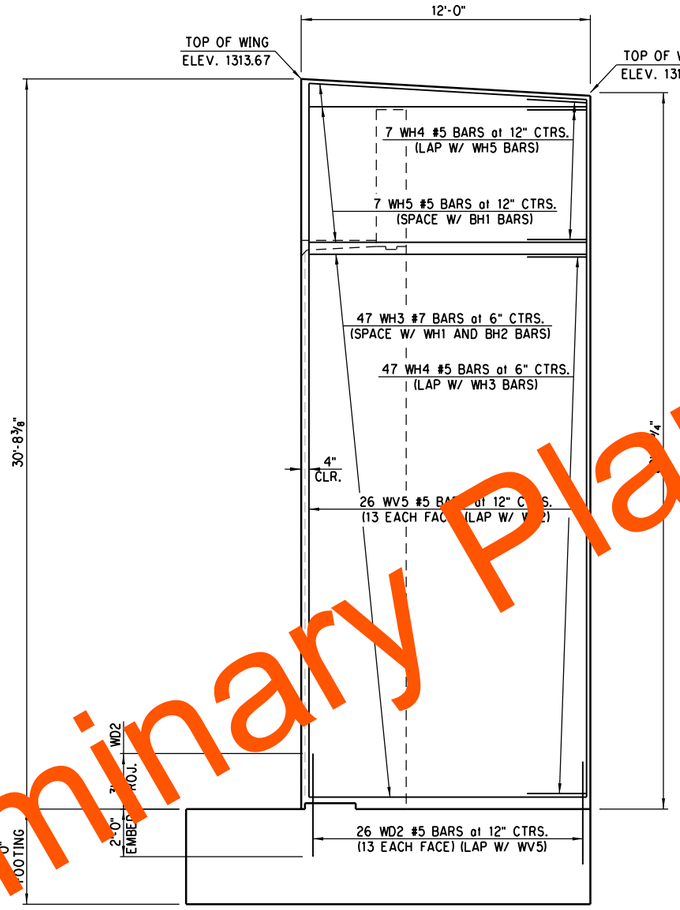
REVISIONS		
DESCRIPTION		DATE



ELEVATION SOUTH WING



ELEVATION NORTH WING

Preliminary Plans

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 OKLAHOMA COUNTY

BRIDGE "J" RAMP "J" AT I-35 & I-240 INTERCHANGE

ABUTMENT DETAILS

(SHEET 3 OF 3)

STATE JOB NO. 09032(06) SHEET NO. B199

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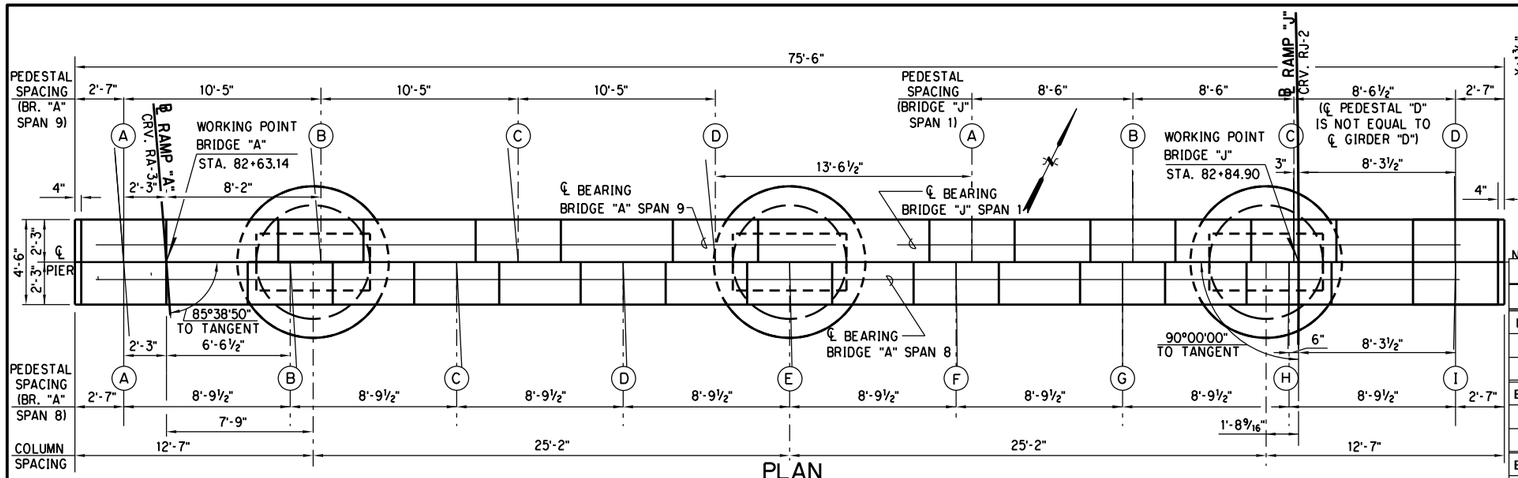
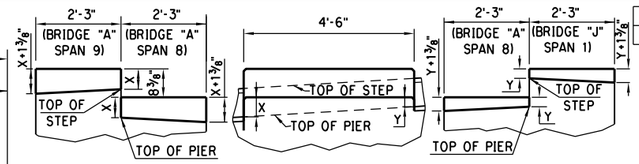


PLAN

(SEE SHEET 3 OF 3 FOR ANCHOR BOLT LAYOUTS)



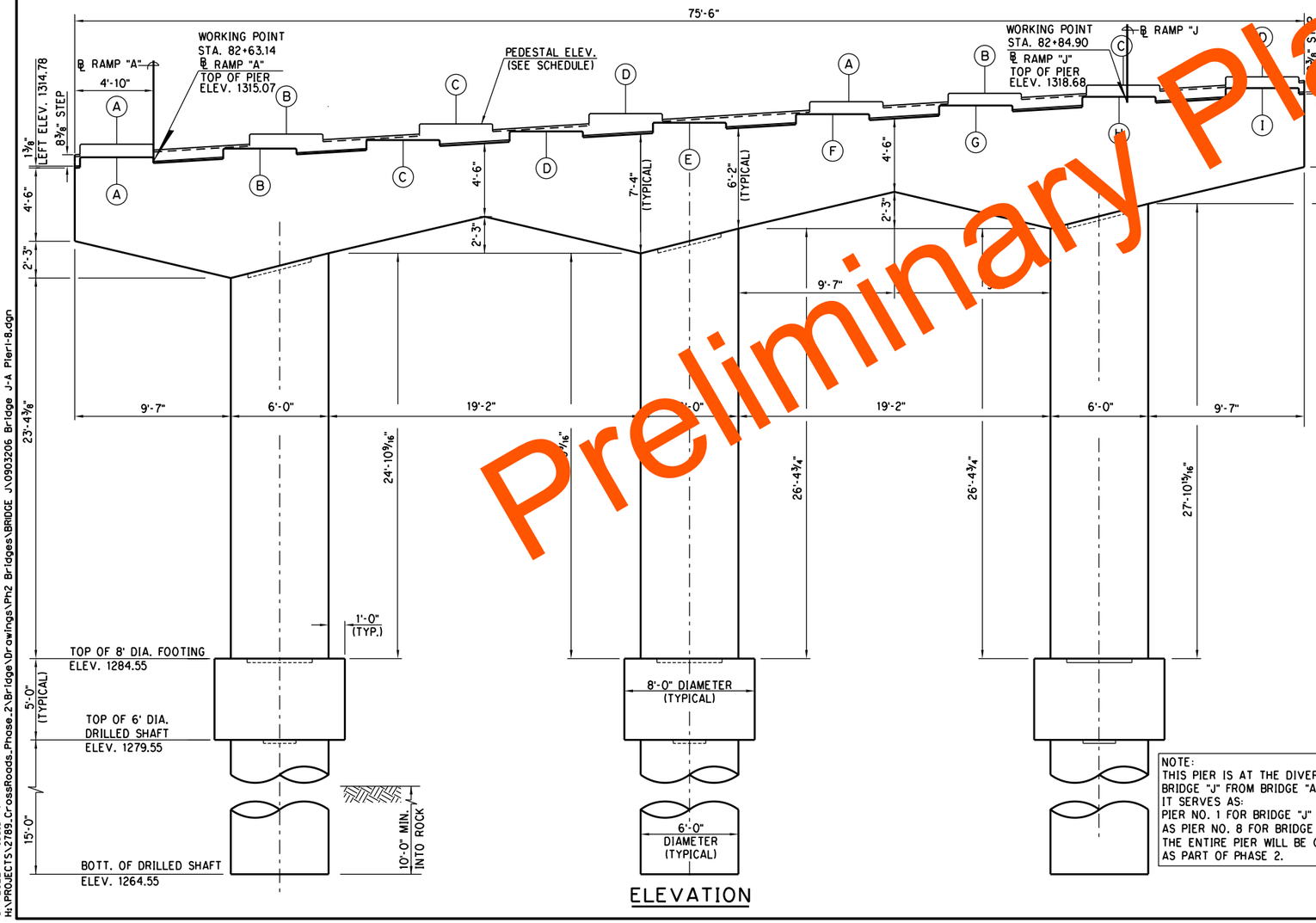
WEST END VIEW SOUTH ELEVATION EAST END VIEW

PEDESTAL DETAIL

(SEE SCHEDULE)

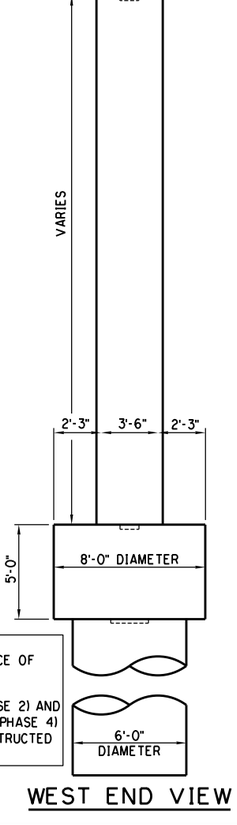
N 63°33'51.06"E

PEDESTAL ELEVATION SCHEDULE - PIER NO. 1 BRIDGE "J" (PIER NO. 8 BRIDGE "A")									
PEDESTAL	A	B	C	D	E	F	G	H	I
BRIDGE "J" SPAN 1: ELEVATION	1318.73	1319.24	1319.75	1320.26	--	--	--	--	--
X	6⅜"	6 5/16"	6 5/16"	6¼"	--	--	--	--	--
Y	3⅛"	3 1/16"	3 1/16"	3"	--	--	--	--	--
BRIDGE "A" SPAN 9: ELEVATION	1316.12	1316.75	1317.38	1318.01	--	--	--	--	--
X	7 9/16"	7 9/16"	7 9/16"	7 7/16"	--	--	--	--	--
Y	4 5/16"	4 5/16"	4 5/16"	4 3/16"	--	--	--	--	--
BRIDGE "A" SPAN 8: ELEV...	1315.32	1315.85	1316.38	1316.91	1317.44	1317.97	1318.50	1319.03	1319.57
X	6¼"	6 5/16"	6 5/16"	6¼"	6¼"	6¼"	6¼"	6¼"	6¼"
Y	3"	3 1/16"	3 1/16"	3"	3"	3"	3"	3"	3"

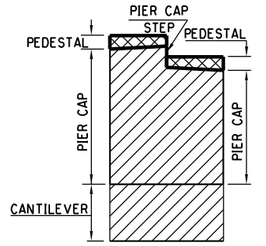


ELEVATION

NOTE:
THIS PIER IS AT THE DIVERGENCE OF BRIDGE "J" FROM BRIDGE "A". IT SERVES AS:
PIER NO. 1 FOR BRIDGE "J" (PHASE 2) AND AS PIER NO. 8 FOR BRIDGE "A" (PHASE 4)
THE ENTIRE PIER WILL BE CONSTRUCTED AS PART OF PHASE 2.



WEST END VIEW

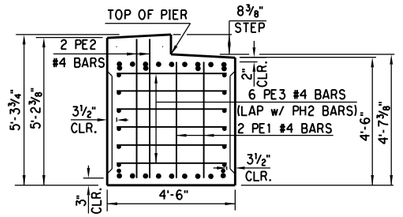


NOTE:
MASK SIDES AND ENDS OF PIER TO PROVIDE A CLEAN STRAIGHT FINISH AT THE BOTTOM EDGE OF ELASTOMERIC COATING APPLICATION.
MASK OUT TOPS OF PEDESTALS WHERE BEARING PADS SIT.

ELASTOMERIC COATING (CROSS-HATCHING AND HEAVY LINE)

WATER REPELLENT (HATCHING)

CONCRETE TREATMENT DETAILS



WEST CAP END REINFORCING DETAIL

(EAST END CAP MIRRORED)
(PEDESTALS AND S BARS OMITTED)

PIER NO. 1 BRIDGE "J" (PIER NO. 8 BRIDGE "A") QUANTITIES			
	ITEM	UNIT	TOTAL
	SUBSTRUCTURE EXCAVATION COMMON	C.Y.	29
	SUBSTRUCTURE EXCAVATION ROCK	C.Y.	15
*	ELASTOMERIC COATING	S.F.	461
	CLASS A CONCRETE	C.Y.	169.9
	REINFORCING STEEL	LB.	740
	EPOXY COATED REINFORCING STEEL	LB.	37,510
≠	WATER REPELLENT (VISUALLY INSPECTED)	S.Y.	114
	DRILLED SHAFTS 72" DIAMETER	L.F.	45

* TOP OF PIER CAP, INCLUDING STEP. TOP AND SIDES OF PEDESTALS

≠ END AND SIDES OF PIER CAP. BOTTOM AND END OF EXTERIOR CANTILEVERS.

PHASE 2 OKLAHOMA COUNTY

BRIDGE "J" RAMP "J" AT I-35 & I-240 INTERCHANGE

PIER DETAILS
PIER NO. 1
(SHEET 1 OF 3)

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

STATE JOB NO. 09032(106) SHEET NO. B200

6/1/2022 11:03:51 AM
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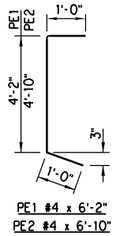
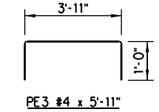
Preliminary Plans

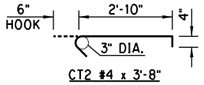
REVISIONS		
DESCRIPTION		DATE



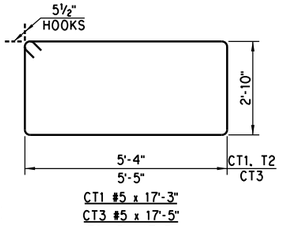
PE1 #4 x 6'-2"
PE2 #4 x 6'-10"



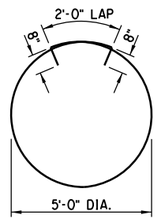
PE3 #4 x 5'-11"



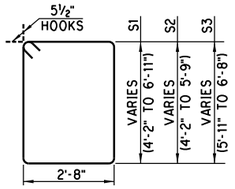
CT2 #4 x 3'-8"



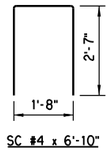
CT1 #5 x 17'-3"
CT3 #5 x 17'-5"
T2 #5 x 17'-3"



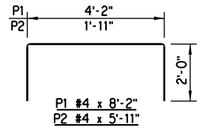
T1 #4 x 19'-0"



S1 #5 x 17'-4" AVG.
(14'-7" TO 20'-1")
S2 #5 x 16'-2" AVG.
(14'-7" TO 17'-9")
S3 #5 x 18'-10" AVG.
(18'-1" TO 19'-7")

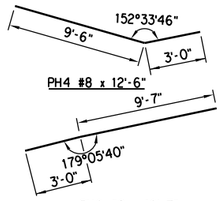


SC #4 x 6'-10"

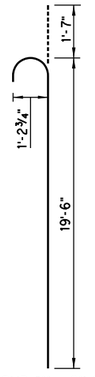


P1 #4 x 8'-2"
P2 #4 x 5'-11"

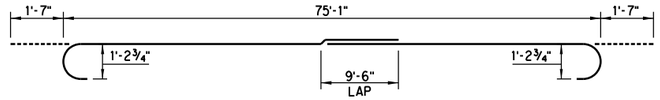
NOTE: ALL BENT BAR DIMENSIONS ARE OUT TO OUT.



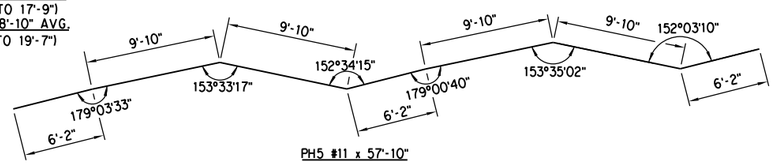
PH6 #8 x 12'-7"



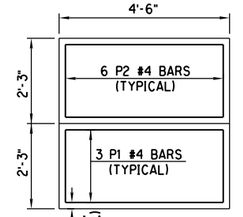
DV3 #11 x 21'-1"



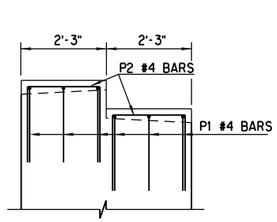
PH1 #11 x 87'-9"



PH5 #11 x 57'-10"



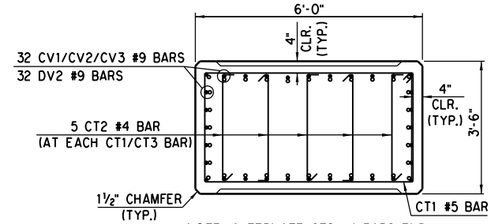
PLAN



SECTION

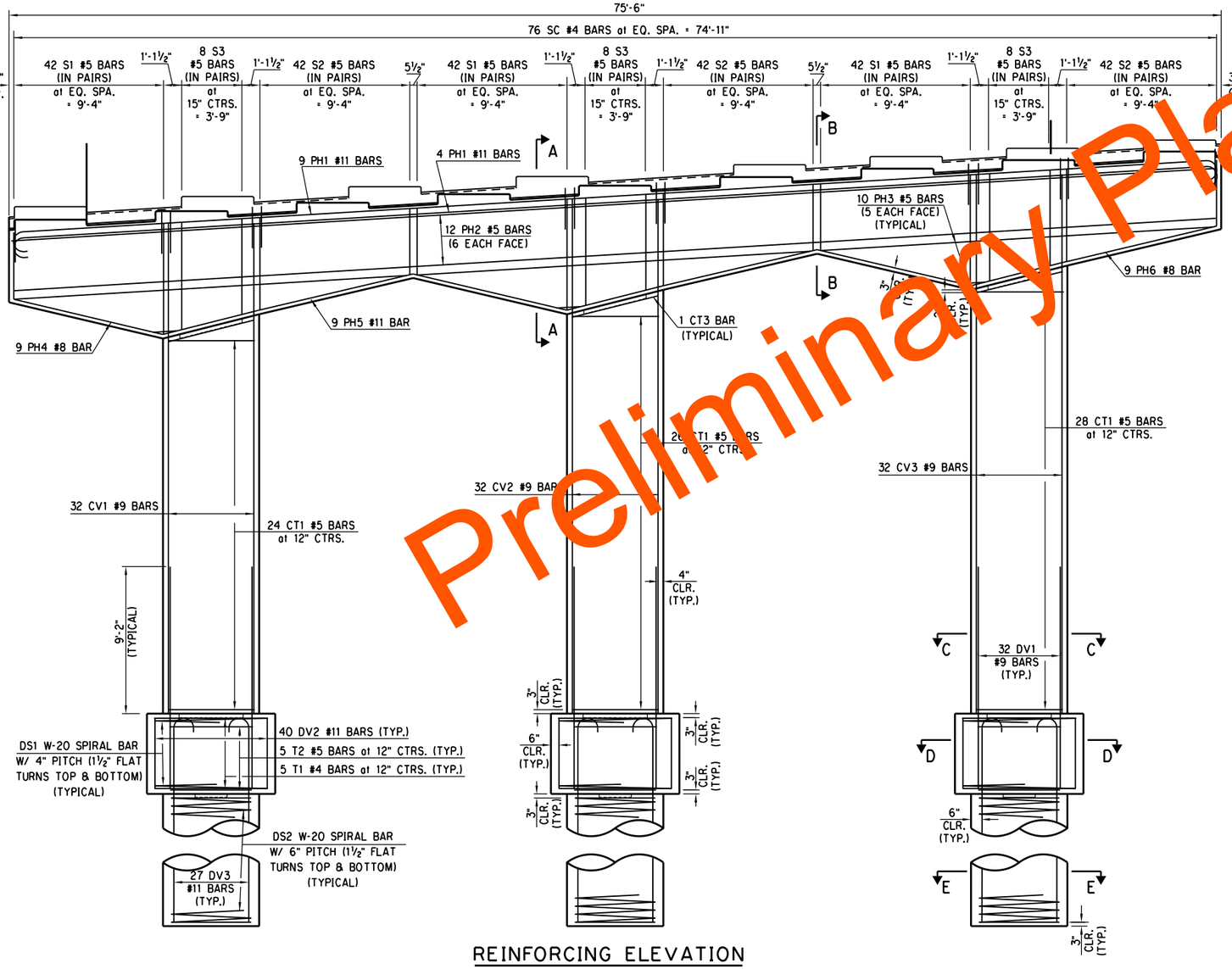
PEDESTAL REINFORCING DETAIL

(EXTERIOR PEDESTALS SHOWN. INTERIOR PEDESTALS WILL NOT ALIGN.)

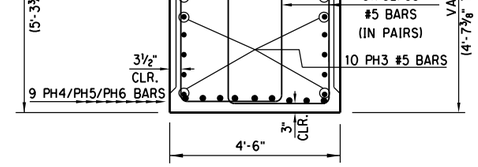


NOTE: ALTERNATE CT2 #4 BARS END TO END FOR EACH SUCCESSIVE ROW.

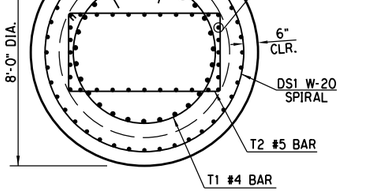
SECTION C-C



REINFORCING ELEVATION

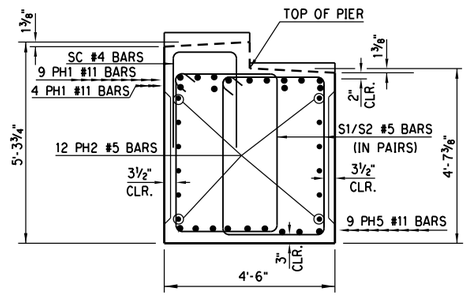


SECTION A-A

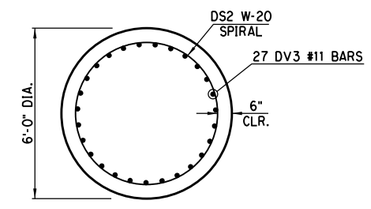


NOTE: ROTATE BARS T1 AND T2 180 DEGREES FOR EACH SUCCESSIVE ROW.

SECTION D-D



SECTION B-B



SECTION E-E

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 — OKLAHOMA COUNTY

BRIDGE "J" — RAMP "J" AT I-35 & I-240 INTERCHANGE

PIER DETAILS
PIER NO. 1
(SHEET 2 OF 3)

STATE JOB NO. 09032(106) SHEET NO. B201

Preliminary Plans

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H:\PROJECTS\2789_CrossRoads_Phase_2\Bridge\Drawings\Ph2 Bridges\BRIDGE J\0903206 Bridge J-A Pier-1.dgn

DESCRIPTION	REVISIONS	DATE

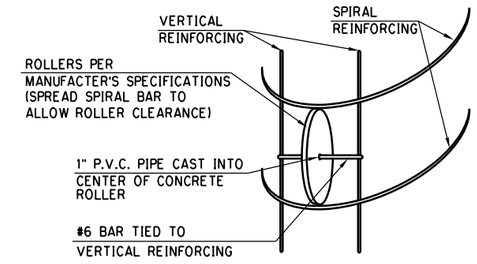
BAR LIST - PIER NO. 1 BRIDGE "J"
(PIER NO. 8 BRIDGE "A")
(EPOXY COATED)

	MARK	NO.	SIZE	FORM	SPACING	LENGTH	LENGTH VARIATION
	CT1	78	#5	BENT	12" C/C	17'-3"	--
	CT2	405	#4	BENT	AS SHOWN	3'-8"	--
	CT3	3	#5	BENT	AS SHOWN	17'-5"	--
	CV1	32	#9	STR.	AS SHOWN	30'-3"	--
	CV2	32	#9	STR.	AS SHOWN	31'-9"	--
	CV3	32	#9	STR.	AS SHOWN	33'-3"	--
▲①	DS1	3	W-20	BENT	AS SHOWN	362'-11"	--
	DV1	96	#9	STR.	AS SHOWN	13'-11"	--
	DV2	120	#11	STR.	AS SHOWN	4'-6"	--
	P1	51	#4	BENT	EQUAL	8'-2"	--
	P2	102	#4	BENT	EQUAL	5'-11"	--
	PE1	4	#4	BENT	AS SHOWN	6'-2"	--
	PE2	4	#4	BENT	AS SHOWN	6'-10"	--
	PE3	12	#4	BENT	AS SHOWN	5'-11"	--
②	PH1	13	#11	BENT	AS SHOWN	87'-9"	--
②	PH2	12	#5	STR.	EQUAL	78'-0"	--
	PH3	30	#5	STR.	EQUAL	13'-0" AVG.	1'-6" TO 24'-6"
	PH4	9	#8	BENT	AS SHOWN	12'-6"	--
	PH5	9	#11	BENT	AS SHOWN	57'-10"	--
	PH6	9	#8	BENT	AS SHOWN	12'-7"	--
	S1	126	#5	BENT	EQUAL	17'-4" AVG.	14'-7" TO 20'-1"
	S2	126	#5	BENT	EQUAL	16'-2" AVG.	14'-7" TO 17'-9"
	S3	24	#5	BENT	15" C/C	18'-10" AVG.	18'-1" TO 19'-7"
	SC	76	#4	BENT	EQUAL	6'-10"	--
②	T1	15	#4	BENT	12" C/C	19'-0"	--
	T2	15	#5	BENT	12" C/C	17'-3"	--
	BAR LIST - 72" DRILLED SHAFT						
▲①	DS2	3	W-20	BENT	AS SHOWN	502'-11"	--
▲	DV3	81	#11	BENT	AS SHOWN	21'-1"	--

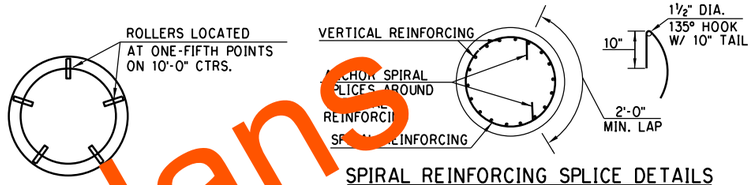
① LENGTH SHOWN DOES NOT INCLUDE ANY LAPS FOR SPLICES. CONTRACTOR MAY PROVIDE ADDITIONAL SPLICES AS NECESSARY, BUT PAYMENT WILL NOT BE MADE FOR EXTRA LENGTH REQUIRED. ADD 3'-8" FOR EACH SPLICE.

② LENGTH SHOWN INCLUDES LAP:
PH1 - 1 at 9'-6"
PH2 - 1 at 3'-0"
T1 - 1 at 2'-0"

▲ NON-EPOXY COATED



ROLLER INSTALLATION DETAIL



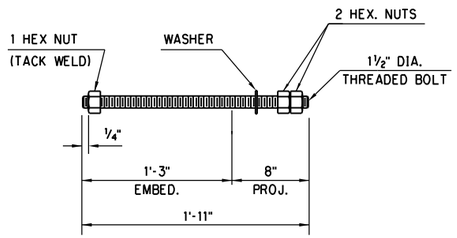
SPIRAL REINFORCING SPLICE DETAILS

NOTE: SPIRAL BARS SHALL CONFORM TO AASHTO M-32. SPIRAL BAR LENGTHS DO NOT INCLUDE LAP. IF LAP IS REQUIRED, THE LENGTH OF THE LAP SHALL BE AS SHOWN.

ROLLER PLACEMENT

ROLLER DETAILS

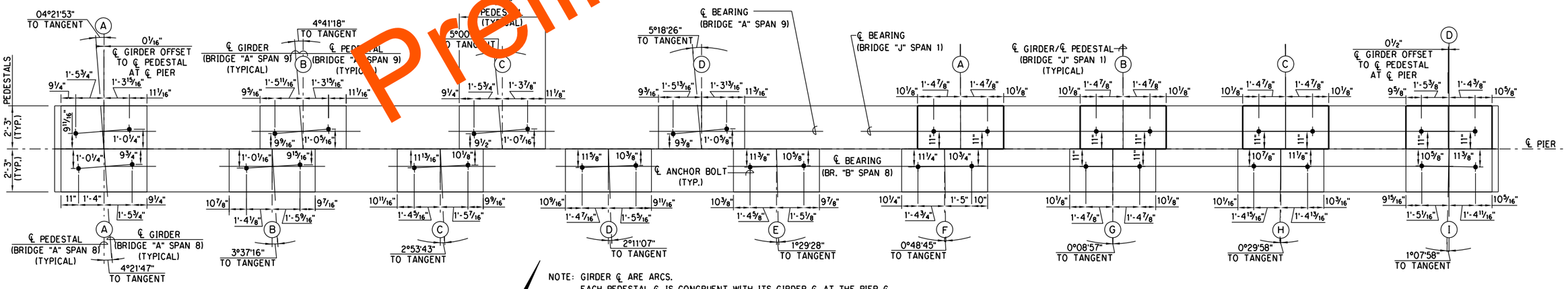
NOTE: REINFORCING CAGE CENTERING DEVICES SHALL CONSIST OF ROLLERS PLACED AT SPACING AS SHOWN AND HAVE THE CHARACTERISTICS AS INDICATED IN THE MANUFACTURER'S SPECIFICATIONS. SLAB BOLSTERS AND HIGH CHAIRS WILL BE ALLOWED BY THE DEPARTMENT.



DETAIL OF BEARING ANCHOR BOLT

(PHASE 4, BRIDGE "A")
PEDESTALS A-I (SPAN 8)
PEDESTALS A-D (SPAN 9)

NOTE: THERE IS APPROXIMATELY 410 LBS. STRUCTURAL STEEL (2 BOLTS AND 6 NUTS PER BEARING) FOR BRIDGE "A", PHASE 4, BEARINGS. ALL COSTS OF BOLTS, NUTS, AND BOLT INSTALLATION SHALL BE INCLUDED IN "CLASS A CONCRETE". THE NUTS AND WASHERS FOR BRIDGE "A" SHALL BE PROTECTED IF LEFT IN PLACE, OR AS DIRECTED BY ODOT. SEE BEARING ASSEMBLY DETAILS FOR ANCHOR BOLT, NUT, AND WASHER MATERIAL NOTES.



NOTE: GIRDER ℄ ARE ARCS.
EACH PEDESTAL ℄ IS CONGRUENT WITH ITS GIRDER ℄ AT THE PIER ℄.
EXCEPT SPAN 9 GIRDER "A" AND SPAN 1 GIRDER "D" ℄ ARE OFFSET FROM PEDESTAL ℄ AS NOTED.

ANCHOR BOLT LAYOUT

PIER NO. 1 (BRIDGE "J") PIER NO. 8 (BRIDGE "A")

NOTE: DIMENSIONS SHOWN ARE PERPENDICULAR TO PEDESTALS.
FOR FURTHER INFORMATION SEE BEARING ASSEMBLY DETAIL SHEET (BRIDGE "J")
(ALL ANCHOR BOLTS INSTALLED WITH ENTIRE PIER IN PHASE 2.
BRIDGE "A" BEARING ASSEMBLIES WILL BE IN PHASE 4).

Preliminary Plans

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 — OKLAHOMA COUNTY
BRIDGE "J" — RAMP "J" AT I-35 & I-240 INTERCHANGE

PIER DETAILS
PIER NO. 1
(SHEET 3 OF 3)

STATE JOB NO. 09032(06) SHEET NO. B202

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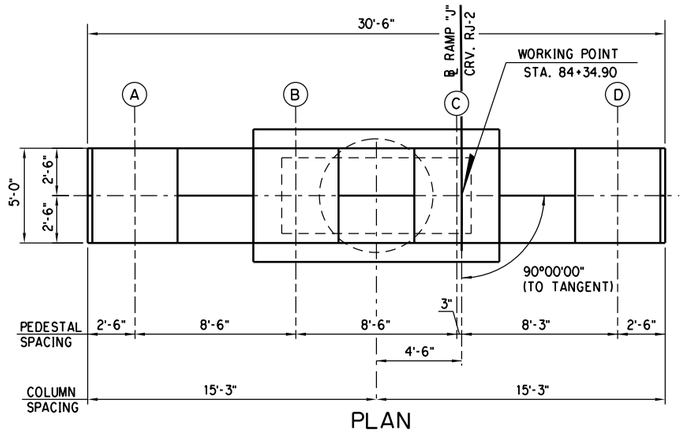
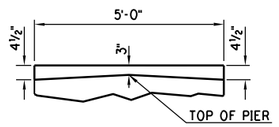
DESCRIPTION	REVISIONS	DATE



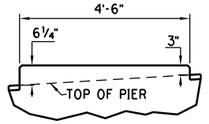
PLAN

(SEE SHEET 3 OF 3 FOR ANCHOR BOLT LAYOUT)

PIER NO. 2



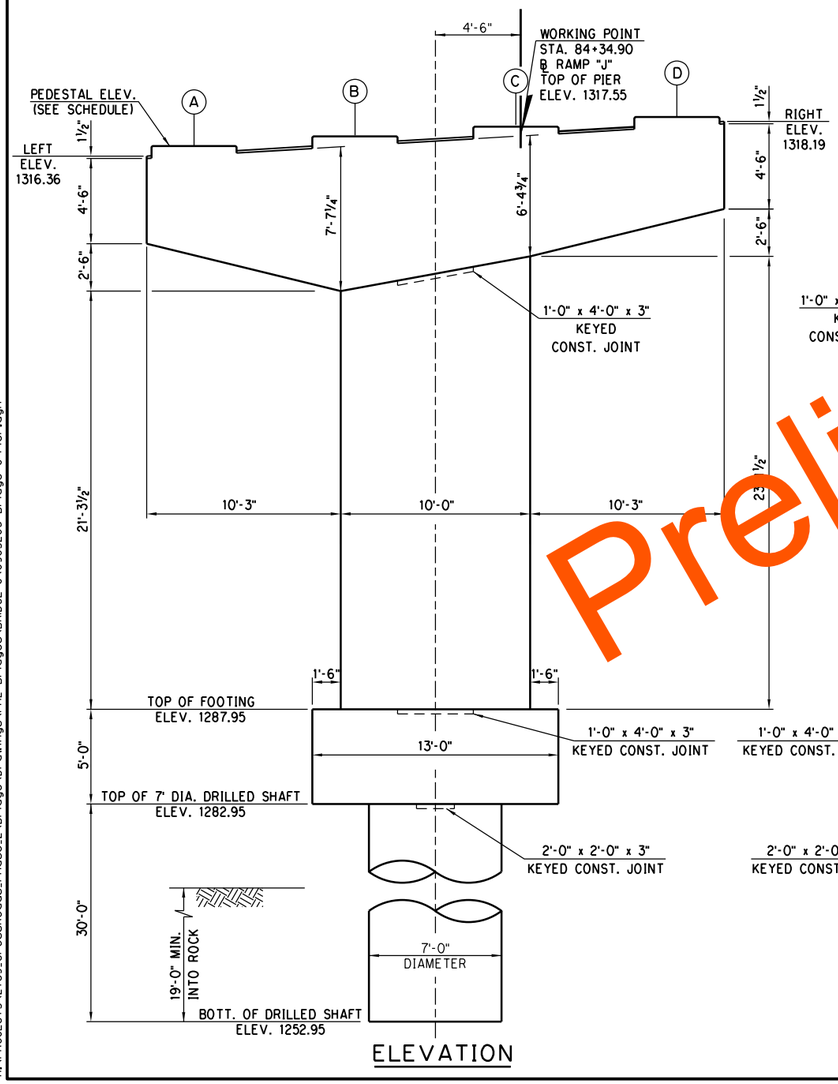
END VIEW



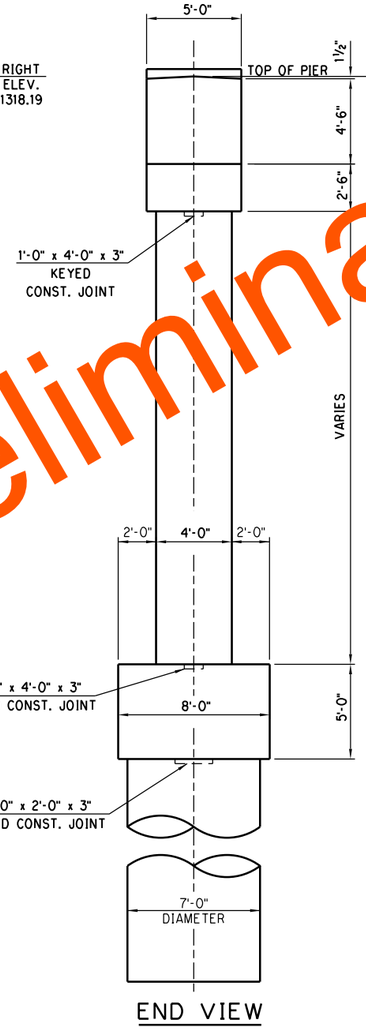
ELEVATION

PEDESTAL DETAIL

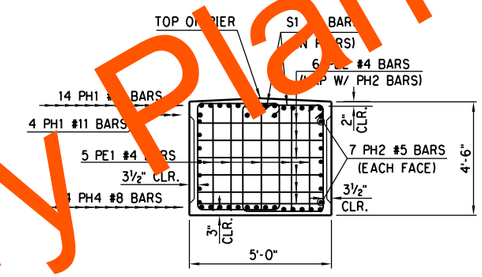
PEDESTAL ELEVATION SCHEDULE - PIER NO. 2				
PEDESTAL	A	B	C	D
SPAN 1-2 ELEV.	1316.89	1317.40	1317.91	1318.42



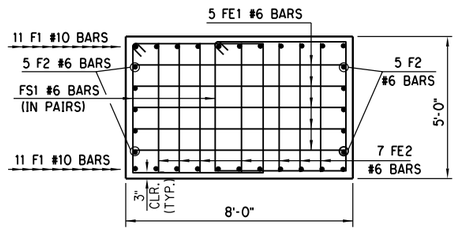
ELEVATION



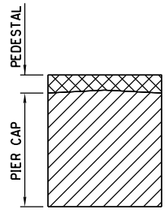
END VIEW



CAP END
REINFORCING DETAIL



FOOTING END
REINFORCING DETAIL



NOTE:
MASK SIDES AND ENDS OF PIER TO PROVIDE A CLEAN STRAIGHT FINISH AT THE BOTTOM EDGE OF ELASTOMERIC COATING APPLICATION. MASK OUT TOPS OF PEDESTALS WHERE BEARING PADS SIT.

ELASTOMERIC COATING
(HATCHING AND HEAVY LINE)

WATER REPELLENT
(HATCHING)

CONCRETE TREATMENT DETAILS

PIER 2 QUANTITIES		
ITEM	UNIT	TOTAL
SUBSTRUCTURE EXCAVATION COMMON	C.Y.	105
* ELASTOMERIC COATING	S.F.	180
CLASS A CONCRETE	C.Y.	88.8
EPOXY COATED REINFORCING STEEL	LB.	21,710
≠ WATER REPELLENT (VISUALLY INSPECTED)	S.Y.	59
DRILLED SHAFTS 84" DIAMETER	L.F.	30

* TOP OF PIER CAP, TOP AND SIDES OF PEDESTALS

≠ ENDS AND SIDES OF PIER CAP. BOTTOM OF CANTILEVERS

PHASE 2 OKLAHOMA COUNTY
BRIDGE "J" RAMP "J" AT I-35 & I-240 INTERCHANGE

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PIER DETAILS
PIER NO. 2
(SHEET 1 OF 3)

STATE JOB NO. 09032(106) SHEET NO. B203

Preliminary Plans

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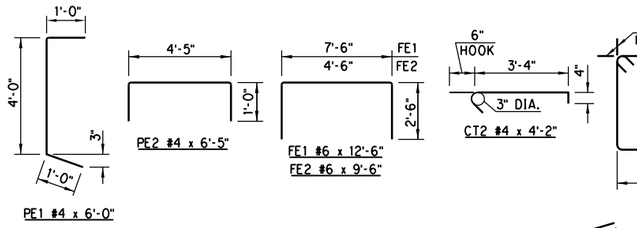
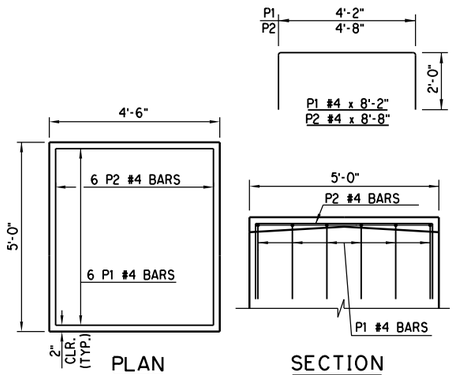
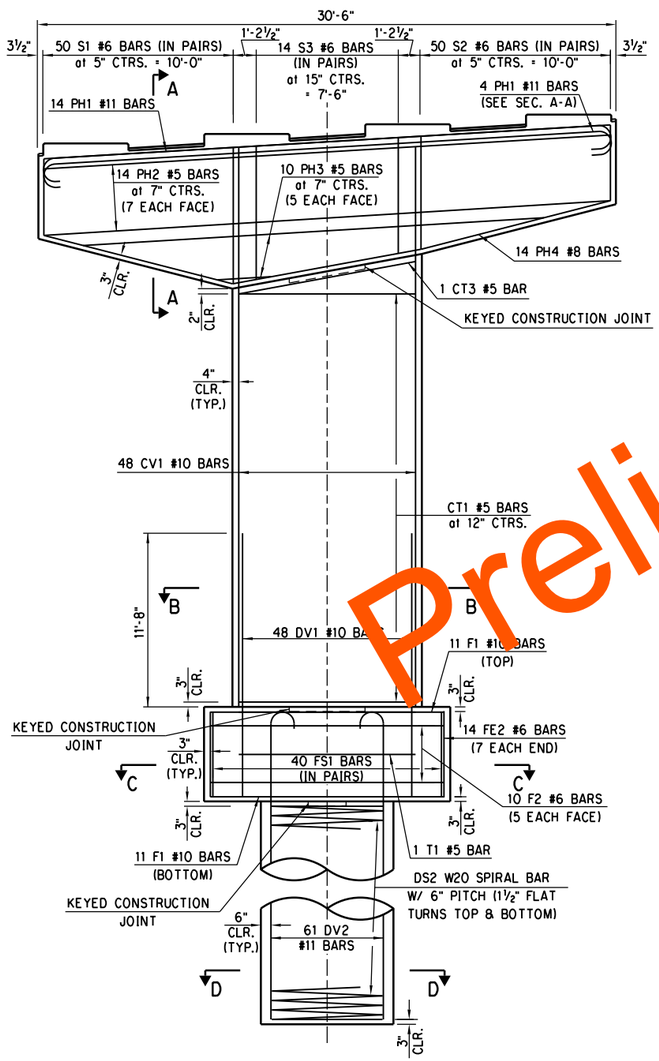
REVISIONS		
DESCRIPTION		DATE



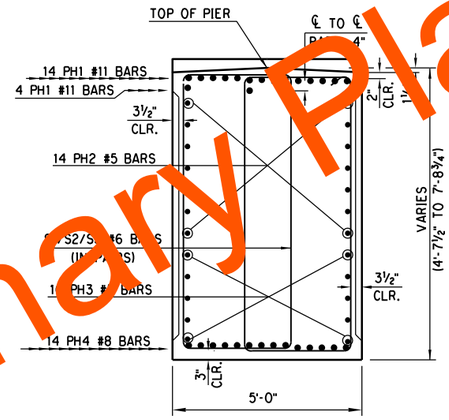


PEDESTAL REINFORCING DETAIL

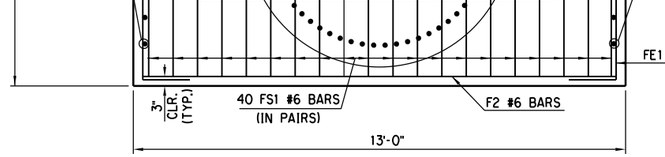


REINFORCING ELEVATION

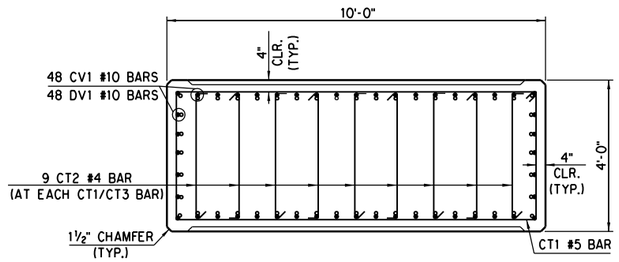
NOTE: ALL BENT BAR DIMENSIONS ARE OUT TO OUT.



SECTION A-A

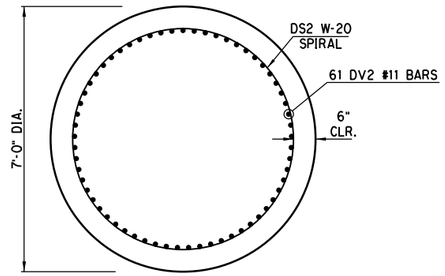


SECTION C-C



NOTE: ALTERNATE CT2 #4 BARS END TO END FOR EACH SUCCESSIVE ROW.

SECTION B-B



SECTION D-D

Preliminary Plans

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 — OKLAHOMA COUNTY

BRIDGE "J" — RAMP "J" AT I-35 & I-240 INTERCHANGE

PIER DETAILS
PIER NO. 2
(SHEET 2 OF 3)

STATE JOB NO. 09032(106) SHEET NO. B204

6/1/2022 11:03:55 AM
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DESCRIPTION	REVISIONS	DATE

BAR LIST - PIER NO. 2
(EPOXY COATED)

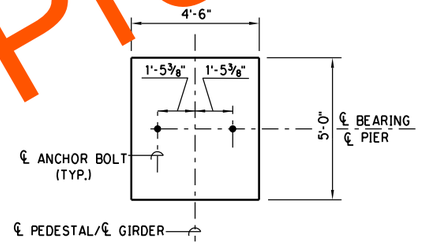
MARK	NO.	SIZE	FORM	SPACING	LENGTH	LENGTH VARIATION
CT1	22	#5	BENT	12" C/C	26'-3"	--
CT2	198	#4	BENT	AS SHOWN	4'-2"	--
CT3	1	#5	BENT	AS SHOWN	26'-5"	
CV1	48	#10	STR.	AS SHOWN	28'-10"	--
DV1	48	#10	STR.	AS SHOWN	16'-5"	--
F1	22	#10	STR.	AS SHOWN	12'-6"	--
F2	10	#6	STR.	AS SHOWN	12'-6"	--
FE1	10	#6	BENT	AS SHOWN	12'-6"	--
FE2	14	#6	BENT	AS SHOWN	9'-6"	--
FS1	40	#6	BENT	EQUAL	19'-6"	--
P1	24	#4	BENT	EQUAL	8'-2"	--
P2	24	#4	BENT	EQUAL	8'-8"	--
PE1	10	#4	BENT	AS SHOWN	6'-0"	--
PE2	12	#4	BENT	AS SHOWN	6'-5"	--
PH1	18	#11	BENT	AS SHOWN	33'-1"	--
PH2	14	#5	STR.	7" C/C	29'-11"	--
PH3	10	#5	STR.	7" C/C	13'-6" AVG.	2'-0" TO 25'-0"
PH4	14	#8	BENT	AS SHOWN	30'-8"	--
S1	50	#6	BENT	5" C/C	18'-3" AVG.	15'-2" TO 21'-4"
S2	50	#6	BENT	5" C/C	17'-0" AVG.	15'-2" TO 18'-10"
S3	14	#6	BENT	15" C/C	20'-1" AVG.	19'-2" TO 21'-0"
T1	1	#5	BENT	AS SHOWN	26'-3"	--

BAR LIST - 84" DRILLED SHAFT

▲①	DS2	1	W-20	BENT	AS SHOWN	1172'-9"	--
▲	DV2	61	#11	BENT	AS SHOWN	36'-1"	--

① LENGTH SHOWN INCLUDES 3'-8" FOR ONE LAP SPLICE. CONTRACTOR MAY ADD SPLICES AS NECESSARY, BUT PAYMENT WILL NOT BE MADE FOR EXTRA LENGTH REQUIRED. ADD 3'-8" FOR EACH SPLICE.

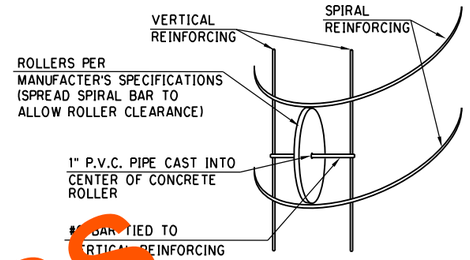
▲ NON-EPOXY COATED



ANCHOR BOLT LAYOUT
PIER NO. 2

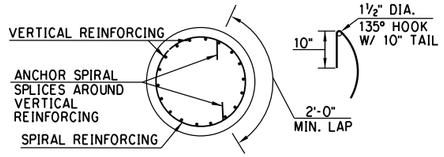
NOTE: FOR FURTHER INFORMATION SEE BEARING ASSEMBLY DETAILS SHEET.

NOTE: GIRDER ℄ ARE ARCS. EACH PEDESTAL ℄ IS CONGRUENT WITH ITS GIRDER ℄ AT PIER ℄.



ROLLER INSTALLATION DETAIL

ROLLER PLACEMENT



SPIRAL REINFORCING SPLICE DETAILS

NOTE: SPIRAL BARS SHALL CONFORM TO AASHTO M-32. SPIRAL BAR LENGTHS DO NOT INCLUDE LAP. IF LAP IS REQUIRED. THE LENGTH OF THE LAP SHALL BE AS SHOWN.

ROLLER DETAILS

NOTE: REINFORCING CAGE CENTERING DEVICES SHALL CONSIST OF ROLLERS PLACED AT SPACING AS SHOWN AND HAVE THE CHARACTERISTICS AS INDICATED IN THE MANUFACTURER'S SPECIFICATIONS. SLAB BOLSTERS AND HIGH CHAIRS WILL BE ALLOWED BY THE DEPARTMENT.

Preliminary Plans

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 — OKLAHOMA COUNTY
BRIDGE "J" — RAMP "J" AT I-35 & I-240 INTERCHANGE

PIER DETAILS
PIER NO. 2
(SHEET 3 OF 3)

STATE JOB NO. 09032(106) SHEET NO. B205

6/1/2022 11:03:56 AM
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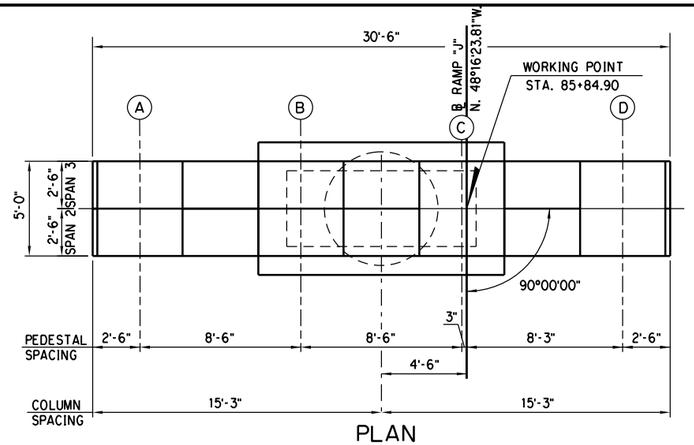
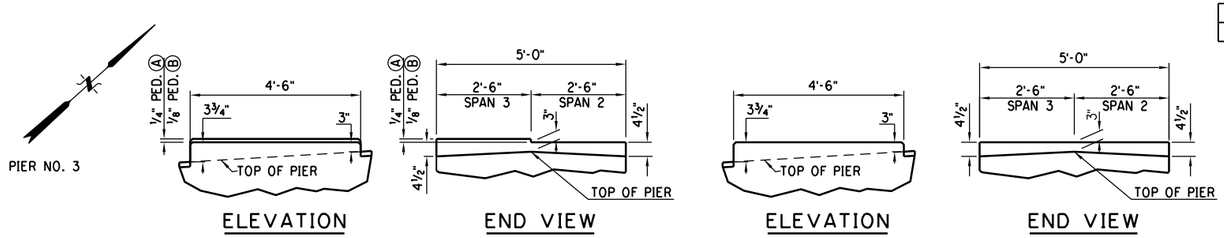
DESCRIPTION	REVISIONS	DATE



PLAN

(SEE SHEET 3 OF 3 FOR ANCHOR BOLT LAYOUT)



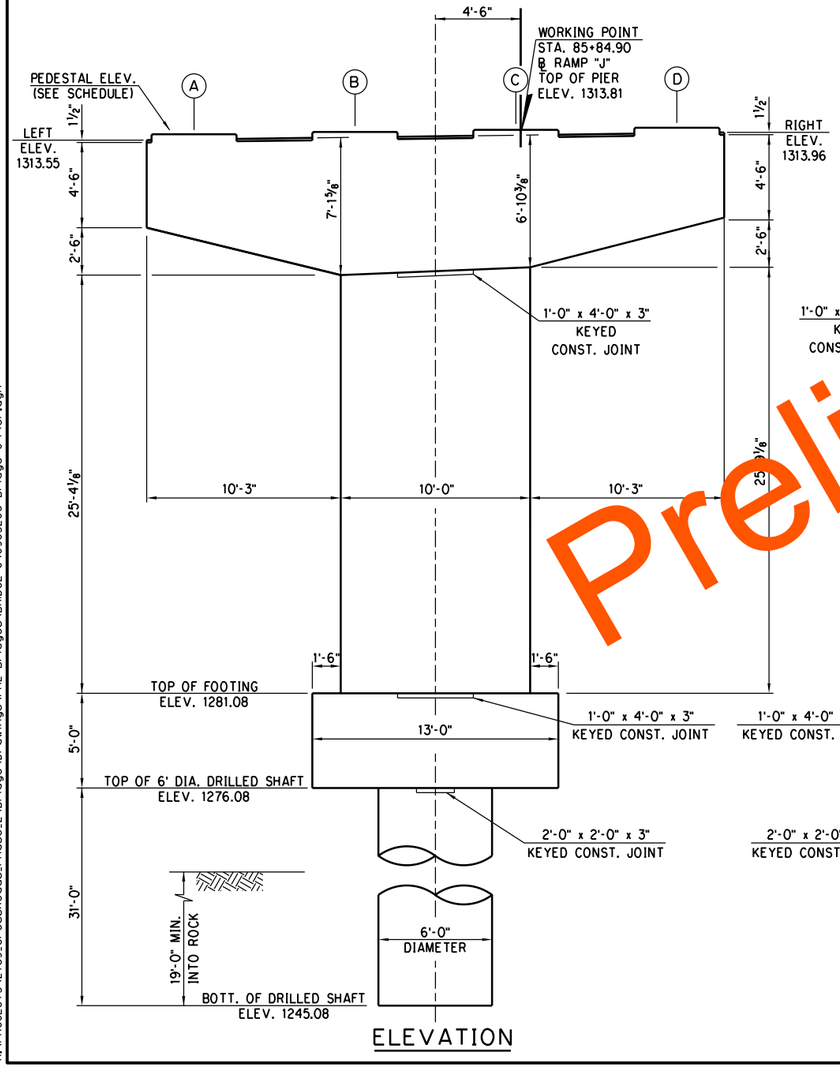
PEDESTALS (A) AND (B) DETAIL

PEDESTALS (C) AND (D) DETAIL

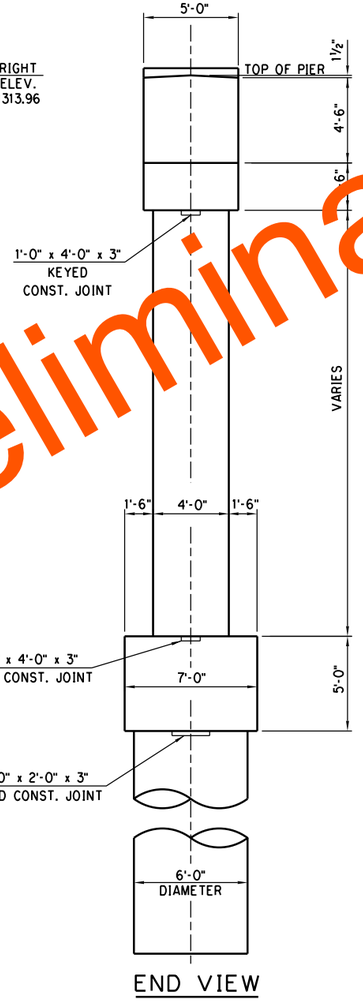
PEDESTAL DETAIL

PEDESTAL ELEVATION SCHEDULE - PIER NO. 3

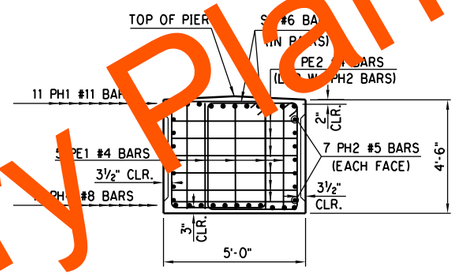
PEDESTAL	A	B	C	D
SPAN 2 ELEVATION	1313.86	1313.98	1314.10	1314.21
SPAN 3 ELEVATION	1313.88	1313.99	1314.10	1314.21



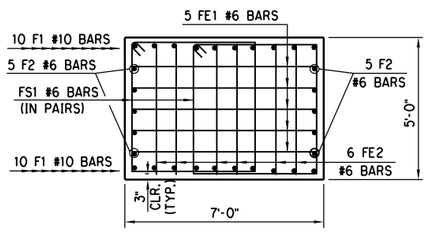
ELEVATION



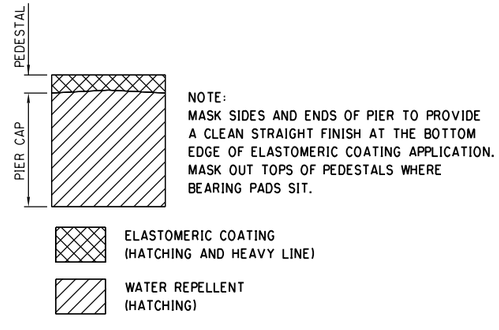
END VIEW



CAP END REINFORCING DETAIL



FOOTING END REINFORCING DETAIL



CONCRETE TREATMENT DETAILS

PIER 3 QUANTITIES

	ITEM	UNIT	TOTAL
	SUBSTRUCTURE EXCAVATION COMMON	C.Y.	135
	ELASTOMERIC COATING	S.F.	182
*	CLASS A CONCRETE	C.Y.	89.7
	EPOXY COATED REINFORCING STEEL	LB.	20,170
≠	WATER REPELLENT (VISUALLY INSPECTED)	S.Y.	60
	DRILLED SHAFTS 72" DIAMETER	L.F.	31

* TOP OF PIER CAP, TOP AND SIDES OF PEDESTALS

≠ ENDS AND SIDES OF PIER CAP. BOTTOM OF CANTILEVERS

Preliminary Plans

6/1/2022 11:03:58 AM
H:\PROJECTS\2789_CrossRoads_Phase_2\Bridge\Drawings\Ph2 Bridges\BRIDGE J\0903206 Bridge J Pier.dgn

PHASE 2 — OKLAHOMA COUNTY

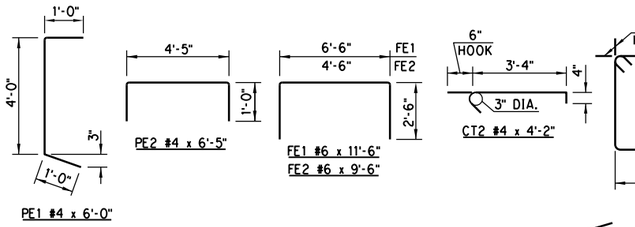
BRIDGE "J" — RAMP "J" AT I-35 & I-240 INTERCHANGE

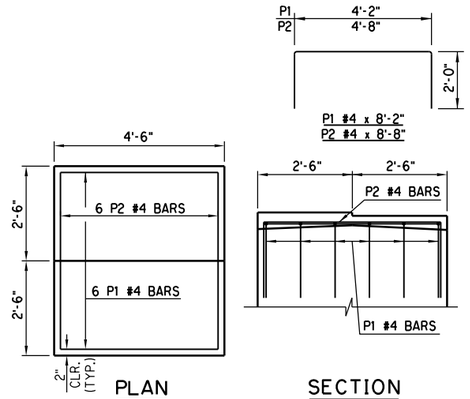
DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

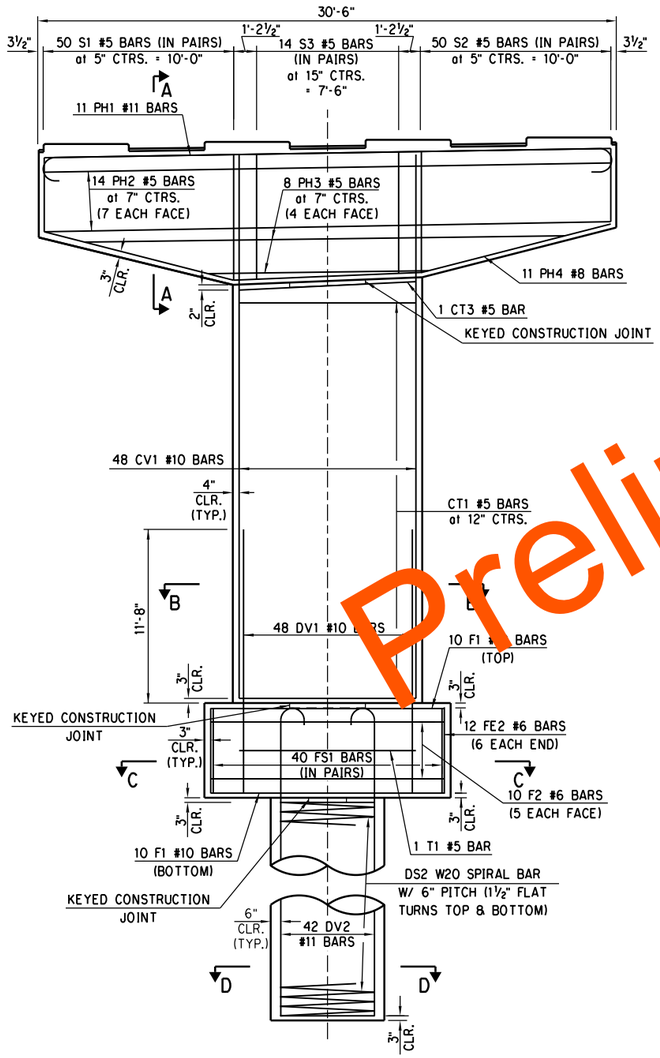
PIER DETAILS
PIER NO. 3
(SHEET 1 OF 3)

STATE JOB NO. 09032(106) SHEET NO. B206

REVISIONS		
DESCRIPTION		DATE

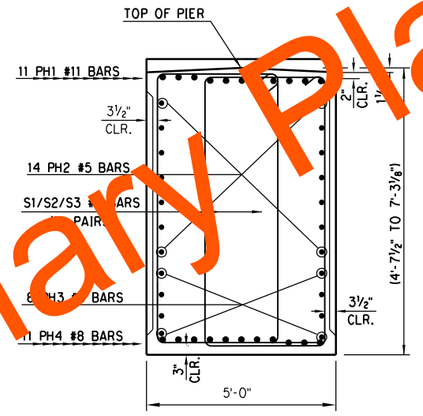




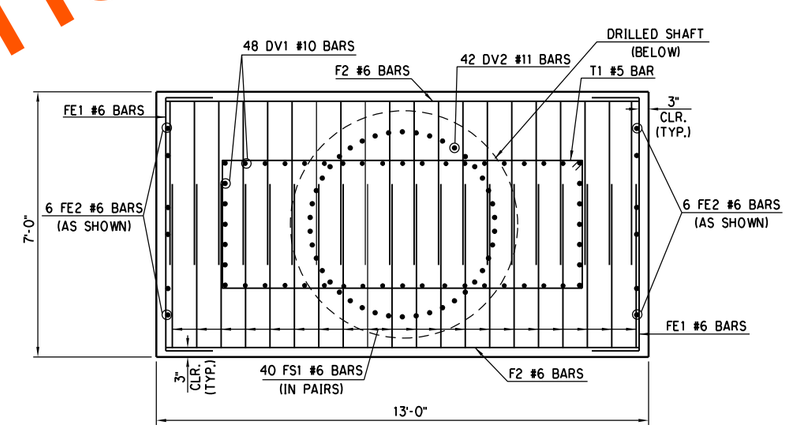


REINFORCING ELEVATION

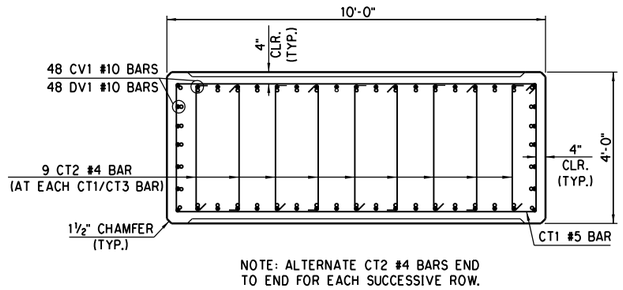
NOTE: ALL BENT BAR DIMENSIONS ARE OUT TO OUT.



SECTION A-A

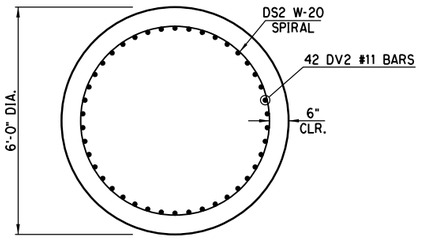


SECTION C-C



NOTE: ALTERNATE CT2 #4 BARS END TO END FOR EACH SUCCESSIVE ROW.

SECTION B-B



SECTION D-D

Preliminary Plans

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 — OKLAHOMA COUNTY

BRIDGE "J" — RAMP "J" AT I-35 & I-240 INTERCHANGE

PIER DETAILS
PIER NO. 3
(SHEET 2 OF 3)

STATE JOB NO. 09032(106) SHEET NO. B207

6/1/2022 11:03:59 AM
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DESCRIPTION	REVISIONS	DATE

BAR LIST - PIER NO. 3
(EPOXY COATED)

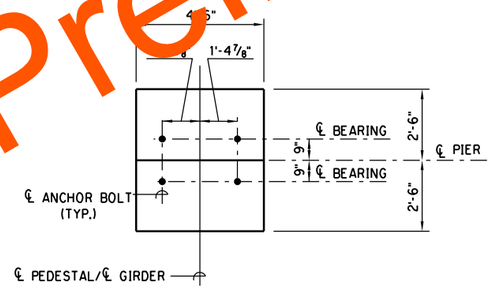
MARK	NO.	SIZE	FORM	SPACING	LENGTH	LENGTH VARIATION
CT1	26	#5	BENT	12" C/C	26'-3"	--
CT2	234	#4	BENT	AS SHOWN	4'-2"	--
CT3	1	#5	BENT	AS SHOWN	26'-5"	--
CV1	48	#10	STR.	AS SHOWN	32'-4"	--
DV1	48	#10	STR.	AS SHOWN	16'-5"	--
F1	20	#10	STR.	AS SHOWN	12'-6"	--
F2	10	#6	STR.	AS SHOWN	12'-6"	--
FE1	10	#6	BENT	AS SHOWN	11'-6"	--
FE2	12	#6	BENT	AS SHOWN	9'-6"	--
FS1	40	#6	BENT	EQUAL	19'-0"	--
P1	24	#4	BENT	EQUAL	8'-2"	--
P2	24	#4	BENT	EQUAL	8'-8"	--
PE1	10	#4	BENT	AS SHOWN	6'-0"	--
PE2	12	#4	BENT	AS SHOWN	6'-5"	--
PH1	11	#11	BENT	AS SHOWN	33'-1"	--
PH2	14	#5	STR.	7" C/C	29'-11"	--
PH3	8	#5	STR.	7" C/C	18'-5" AVG.	11'-7" TO 25'-3"
PH4	11	#8	BENT	AS SHOWN	30'-5"	--
S1	50	#5	BENT	5" C/C	17'-10" AVG.	15'-3" TO 20'-5"
S2	50	#5	BENT	5" C/C	17'-7" AVG.	15'-3" TO 19'-11"
S3	14	#5	BENT	15" C/C	20'-3" AVG.	20'-1" TO 20'-5"
T1	1	#5	BENT	AS SHOWN	26'-3"	--

BAR LIST - 72" DRILLED SHAFT

MARK	NO.	SIZE	FORM	SPACING	LENGTH	LENGTH VARIATION
▲① DS2	1	W-20	BENT	AS SHOWN	1009'-6"	--
▲ DV2	42	#11	BENT	AS SHOWN	37'-1"	--

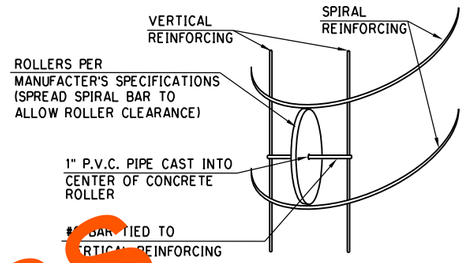
① LENGTH SHOWN INCLUDES 3'-8" FOR ONE LAP SPLICE. CONTRACTOR MAY ADD SPLICES AS NECESSARY, BUT PAYMENT WILL NOT BE MADE FOR EXTRA LENGTH REQUIRED. ADD 3'-8" FOR EACH SPLICE.

▲ NON-EPOXY COATED

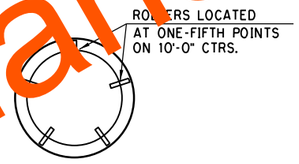


ANCHOR BOLT LAYOUT

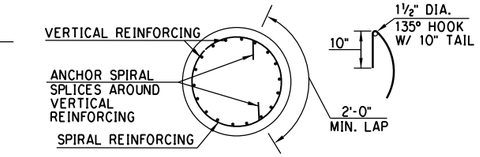
NOTE: FOR FURTHER INFORMATION SEE BEARING ASSEMBLY DETAILS SHEET.



ROLLER INSTALLATION DETAIL



ROLLER PLACEMENT



SPIRAL REINFORCING SPLICE DETAILS

NOTE: SPIRAL BARS SHALL CONFORM TO AASHTO M-32. SPIRAL BAR LENGTHS DO NOT INCLUDE LAP. IF LAP IS REQUIRED, THE LENGTH OF THE LAP SHALL BE AS SHOWN.

ROLLER DETAILS

NOTE: REINFORCING CAGE CENTERING DEVICES SHALL CONSIST OF ROLLERS PLACED AT SPACING AS SHOWN AND HAVE THE CHARACTERISTICS AS INDICATED IN THE MANUFACTURER'S SPECIFICATIONS. SLAB BOLSTERS AND HIGH CHAIRS WILL BE ALLOWED BY THE DEPARTMENT.

Preliminary Plans

6/1/2022 11:03:59 AM
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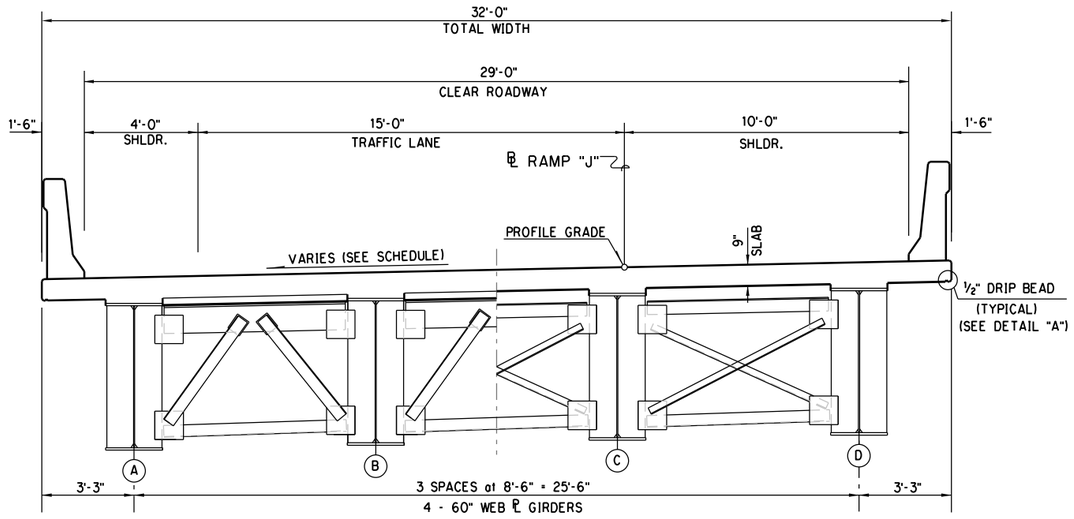
PHASE 2 OKLAHOMA COUNTY
BRIDGE "J" RAMP "J" AT I-35 & I-240 INTERCHANGE

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PIER DETAILS
PIER NO. 3
(SHEET 3 OF 3)

STATE JOB NO. 09032(106) SHEET NO. B208

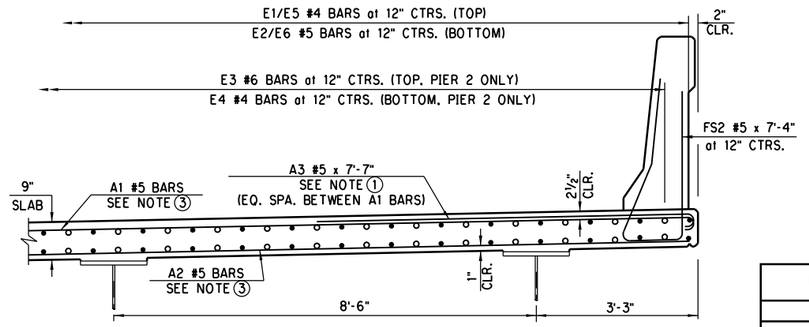
DESCRIPTION	REVISIONS	DATE



HALF SECTION AT
END DIAPHRAGMS

HALF SECTION AT
INTERMEDIATE DIAPHRAGMS

TYPICAL BRIDGE SECTION
(STA. 82+84.90 to 86+19.66)

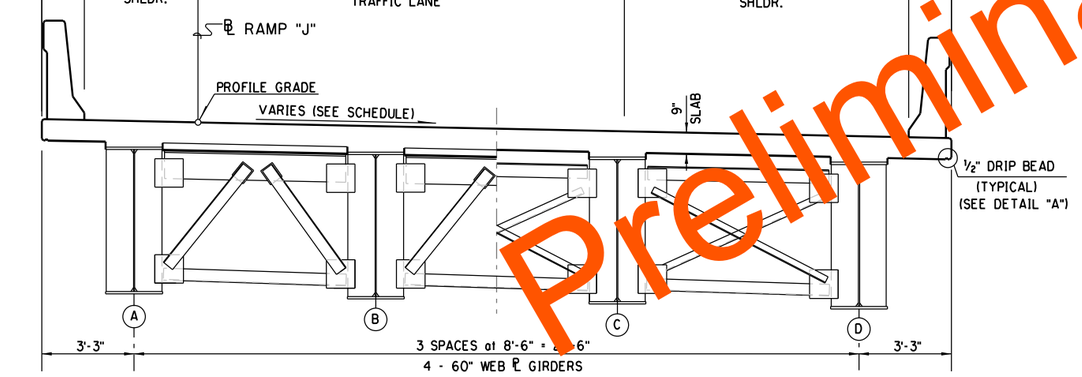


TYPICAL BRIDGE REINFORCING SECTION

SUPERSTRUCTURE QUANTITIES

	ITEM	UNIT	TOTAL
	SAW-CUT GROOVING	S.Y.	1,453.0
	42" F-SHAPED PARAPET	L.F.	897.6
	STRUCTURAL STEEL	LB.	995,380
	STAINLESS STEEL FIXED BEARING ASSEMBLY	FA.	8
	STAINLESS STEEL EXP. BEARING ASSEMBLY	EA.	12
**	CLASS AA CONCRETE	C.Y.	419.5
**	EPOXY COATED REINFORCING STEEL	LB.	96,710
	WATER REPELLENT (VISUALLY INSPECTED)	S.Y.	1,178
	SEALED EXPANSION JOINTS	L.F.	63.0
	SEALER CRACK PREPARATION	L.F.	64
	SEALER RESIN	GAL.	0.7

**NOTE:
PLAN QUANTITY FOR CLASS "AA" CONCRETE INCLUDES 17.1 C.Y. FOR HAUNCHES OVER GIRDERS. THE HAUNCH HEIGHTS WILL BE SET AFTER ERECTION OF GIRDERS TO PROVIDE FOR DEAD LOAD DEFLECTION AND GRADE ADJUSTMENT, BUT THE PAY QUANTITY FOR HAUNCHES WILL BE AS SHOWN ABOVE.



HALF SECTION AT
END DIAPHRAGMS

HALF SECTION AT
INTERMEDIATE DIAPHRAGMS

TYPICAL BRIDGE SECTION
(STA. 86+19.66 to 87+35.65)

82+84.90 to 86+19.66 CROSS-SLOPE SCHEDULE			
STATION RANGE			CROSS-SLOPE
82+84.90	TO	84+64.49	6%
84+64.49	TO	85+67.93	6% to 2%
85+67.93	TO	86+19.66	2% to 0%

86+19.66 to87+35.65* CROSS-SLOPE SCHEDULE			
STATION RANGE			CROSS-SLOPE
86+19.66	TO	86+71.38	0% to 2%
86+71.38	TO	86+75.98	2%
86+75.98	TO	87+35.65	2% to 4.31%

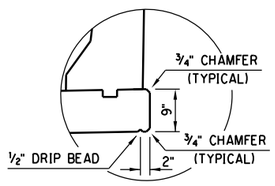
* END BRIDGE

BAR LIST - SUPERSTRUCTURE
EPOXY COATED

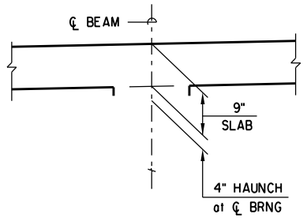
	MARK	NO.	SIZE	FORM	SPACING	LENGTH	LENGTH VARIATION
	A1	691	#5	BNT.	①	32'-10"	--
	A2	691	#5	STR.	①	31'-8"	--
	A3	1380	#5	BNT.	AS SHOWN	7'-7"	--
	AH1	27	#4	BNT.	AS SHOWN	3'-11"	--
	AH2	6	#4	BNT.	AS SHOWN	3'-0"	--
	AS1	33	#4	BNT.	12" C/C	5'-1"	--
	AT1	16	#4	STR.	AS SHOWN	31'-8"	--
	AT2	1	#4	STR.	AS SHOWN	27'-4"	--
②	E1	33	#4	STR.	12" C/C	307'-10" AVG.	301'-10" TO 313'-10"
②	E2	33	#5	STR.	12" C/C	312'-0" AVG.	306'-10" TO 318'-10"
②	E3	32	#6	STR.	12" C/C	91'-11" AVG.	89'-6" TO 94'-4"
②	E4	32	#4	STR.	12" C/C	90'-11" AVG.	88'-6" TO 93'-4"
②	E5	33	#4	STR.	12" C/C	154'-4"	--
②	E6	33	#5	STR.	12" C/C	156'-4"	--
	EPH1	33	#4	BNT.	AS SHOWN	3'-1"	
	EPH2	66	#4	BNT.	AS SHOWN	2'-11"	--
	FS2	739	#5	BNT.	SEE STD.	7'-4"	--
	L	152	#4	BNT.	SEE STD.	1'-3"	--

① RADIAL SPACING OF 7¾" WITH RESPECT TO > RAMP "J" STA. 82+84.90 TO STA. 85+03.28, 8" C/C SPACING STA. 85+03.28 TO STA. 87+35.65.

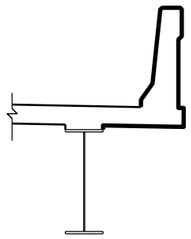
② LENGTH SHOWN INCLUDES LAP: E1 = 5 at 3'-0" E3 = 1 at 3'-0" E5 = 2 at 2'-0"
E2 = 5 at 3'-0" E4 = 1 at 2'-0" E6 = 2 at 3'-0"



DETAIL "A"



HAUNCH DETAIL



WATER REPELLENT
SURFACE TREATMENT

SURFACES INDICATED WITH HEAVY LINES SHALL BE TREATED WITH A PENETRATING WATER REPELLENT SURFACE TREATMENT.

Preliminary Plans

6/1/2022 10:04:01 AM
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PHASE 2 OKLAHOMA COUNTY

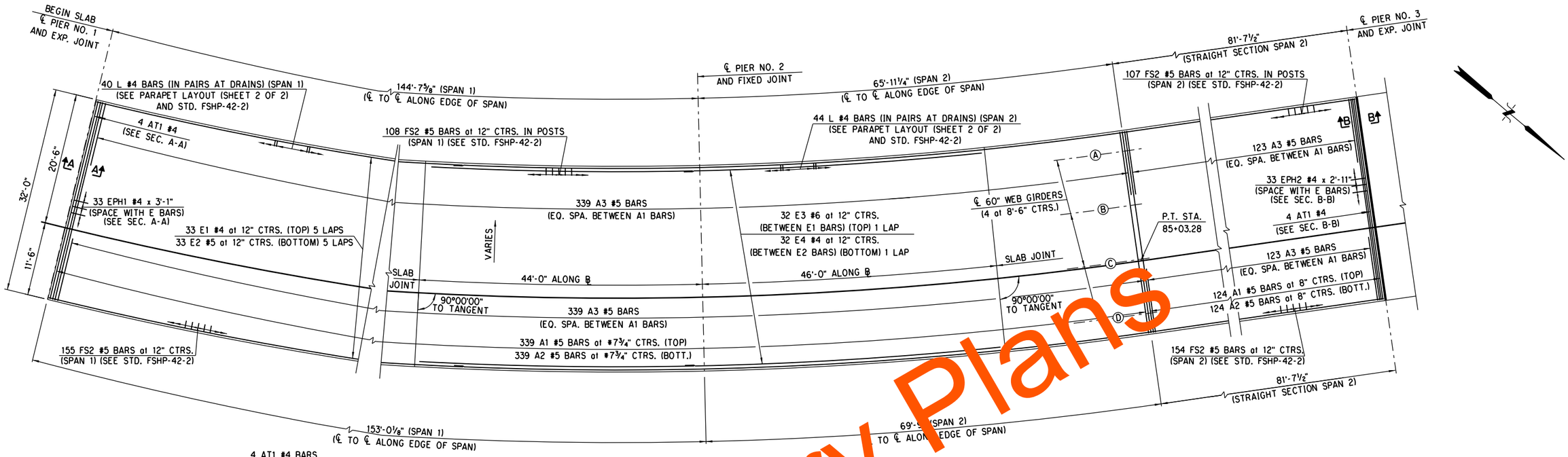
DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

BRIDGE "J" RAMP "J" AT I-35 & I-240 INTERCHANGE

SUPERSTRUCTURE DETAILS
(SHEET 1 OF 3)

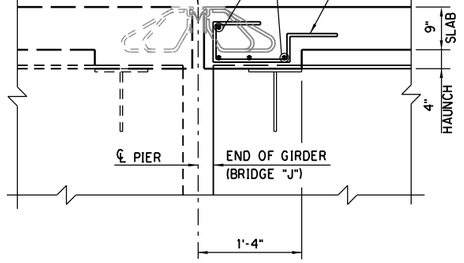
STATE JOB NO. 09032(106) SHEET NO. B209

DESCRIPTION	REVISIONS	DATE

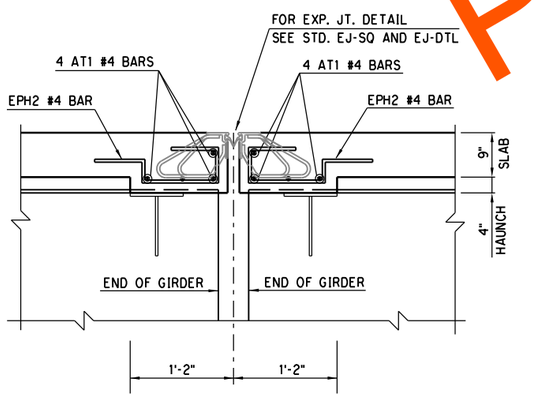


SLAB REINFORCING LAYOUT
SPANS 1 & 2

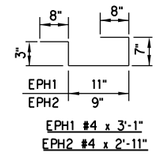
* RADIAL SPACE WITH RESPECT TO ℄ R "J"
(SEE ℄ ON SHEET 1 OF 3)



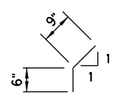
SECTION A-A



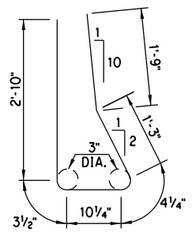
SECTION B-B



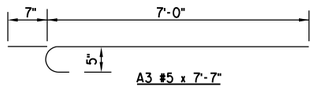
EPH1 #4 x 3'-1"
EPH2 #4 x 2'-11"



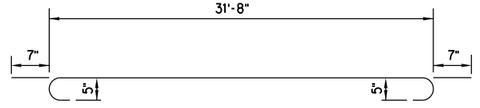
L #4 x 1'-3"



FS2 #5 x 7'-4"

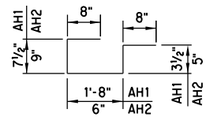


A3 #5 x 7'-7"

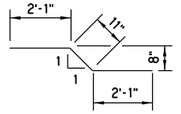


A1 #5 x 32'-10"

NOTE: ALL BAR BEND DIMENSIONS ARE OUT TO OUT



AH1 #4 x 3'-11"
AH2 #4 x 3'-0"



AS1 #4 x 5'-1"

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 — OKLAHOMA COUNTY
BRIDGE "J" — RAMP "J" AT I-35 & I-240 INTERCHANGE

SUPERSTRUCTURE DETAILS
SPANS 1 AND 2
(SHEET 2 OF 3)

STATE JOB NO. 09032(061) SHEET NO. B210

Preliminary Plans

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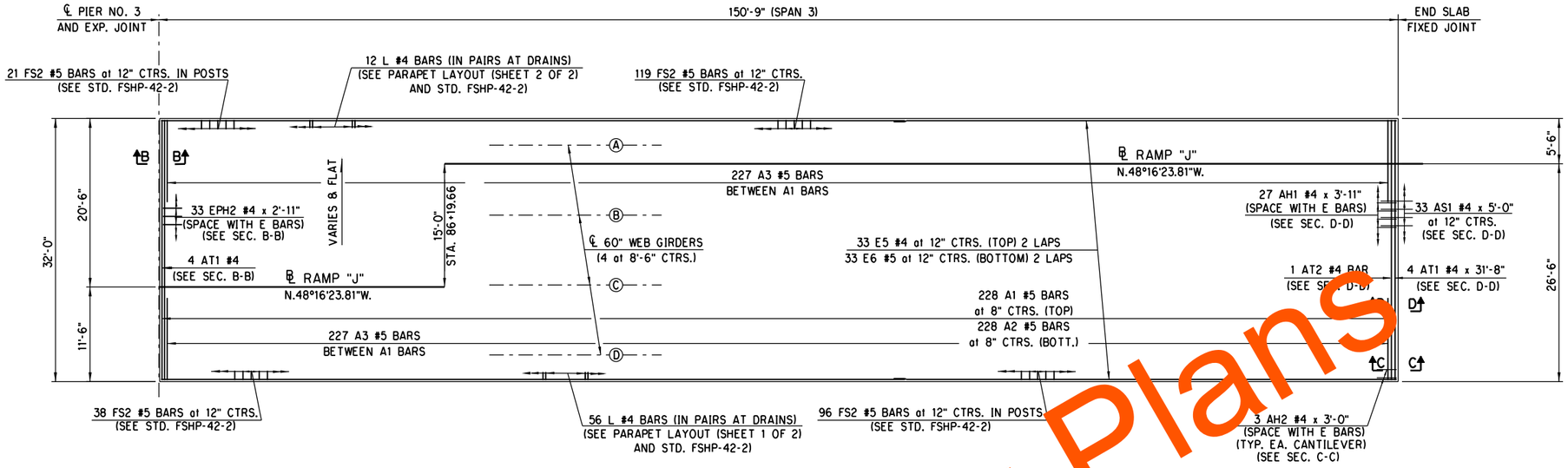
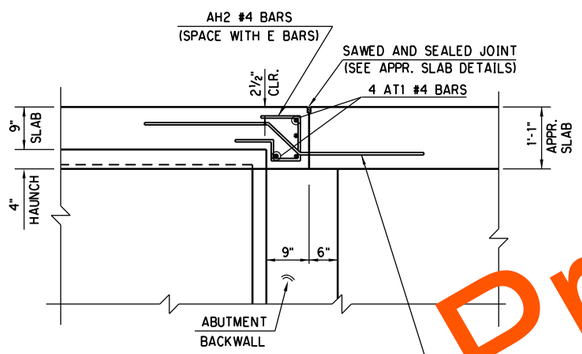
DESCRIPTION	REVISIONS	DATE



SLAB REINFORCING LAYOUT

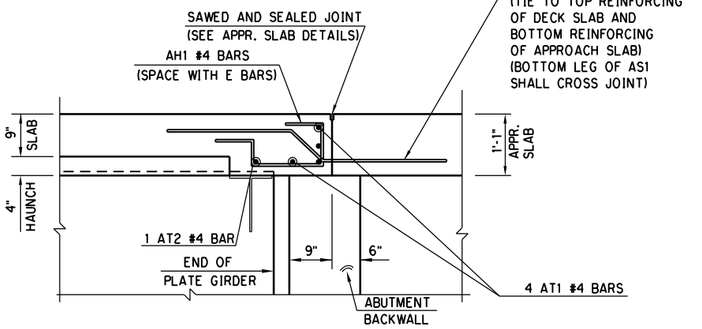
SPAN 3

NOTE: FOR SECTION B-B, SEE SHEET 1 OF 3



SECTION C-C

(TYPICAL AT CANTILEVER)



SECTION D-D

Preliminary Plans

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 OKLAHOMA COUNTY

BRIDGE "J" RAMP "J" AT I-35 & I-240 INTERCHANGE

SUPERSTRUCTURE DETAILS
SPAN 3
(SHEET 3 OF 3)

STATE JOB NO. 09032(106) SHEET NO. B211

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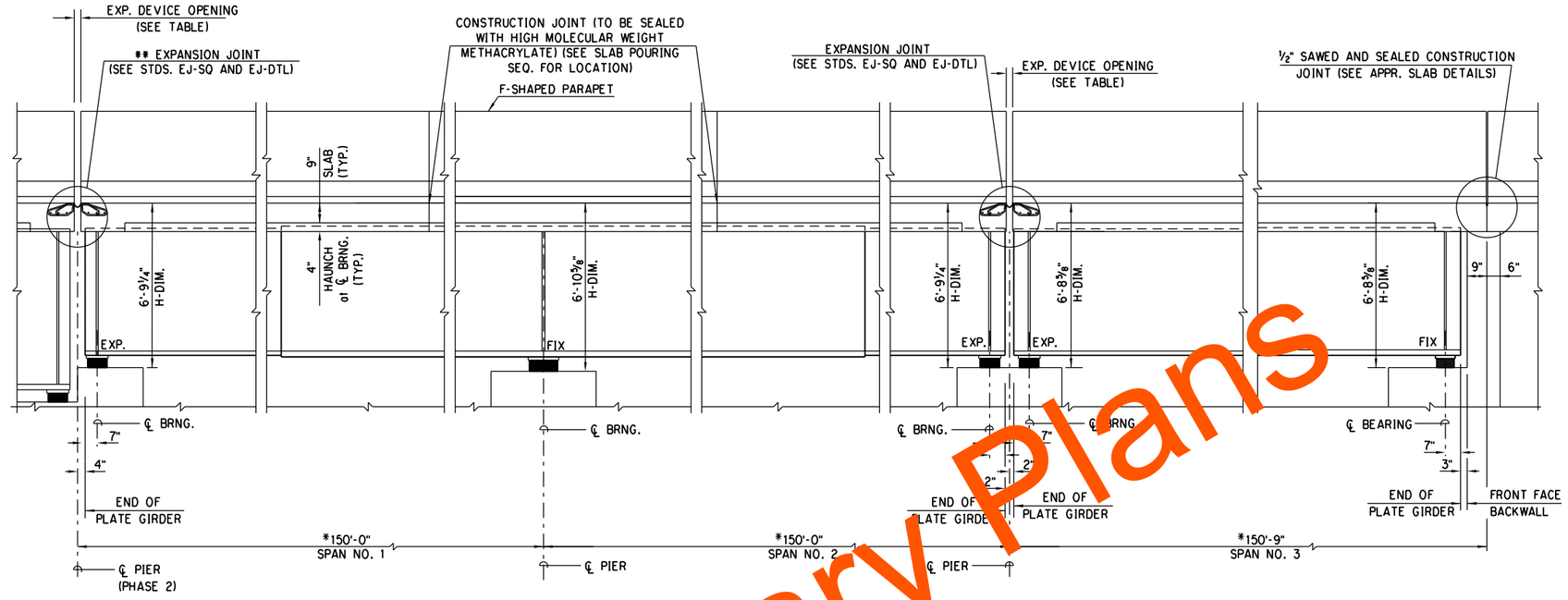
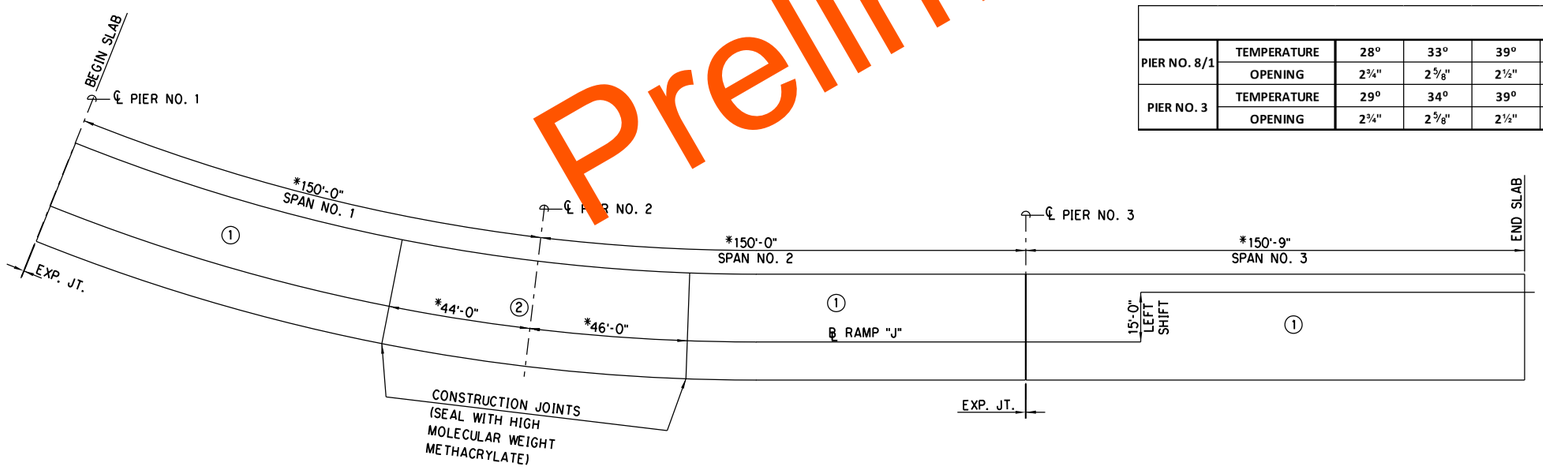
** COMPLETE JOINT SHOWN. LEFT RECEPTOR AND GLAND TO BE INSTALLED WITH BRIDGE "A". PHASE 4.

NOTE:
H-DIMENSION SHOWN IS MEASURED FROM TOP OF SLAB TO BOTTOM OF BEARING ASSEMBLY AT ℄ BEARING.

DESCRIPTION	REVISIONS	DATE



LONGITUDINAL SECTION
*LENGTHS MEASURED ALONG ℄ RAMP "J"



SLAB POURING SEQUENCE
*LENGTHS MEASURED ALONG ℄ RAMP "J"

TABLE OF EXPANSION DEVICE SETTINGS

PIER NO. 8/1	TEMPERATURE	28°	33°	39°	44°	49°	55°	60°	65°	71°	76°	81°	87°	92°	103°
	OPENING	2¾"	2⅝"	2½"	2⅜"	2¼"	2⅛"	2"	1⅞"	1¾"	1⅝"	1½"	1⅜"	1¼"	1⅛"	1"
PIER NO. 3	TEMPERATURE	29°	34°	39°	45°	50°	55°	60°	65°	70°	75°	81°	86°	91°	96°	101°
	OPENING	2¾"	2⅝"	2½"	2⅜"	2¼"	2⅛"	2"	1⅞"	1¾"	1⅝"	1½"	1⅜"	1¼"	1⅛"	1"

SLAB POURING SEQUENCE:

THE POURING SEQUENCE SHALL BE IN THE NUMERICAL SEQUENCE INDICATED. ALL POURS WITH THE SAME NUMBER MAY BE POURED EITHER SEPARATELY OR SIMULTANEOUSLY. BUT ALL POURS WITH THE SAME NUMBER SHALL BE COMPLETED BEFORE BEGINNING WITH THE NEXT POUR NUMBER. THERE SHALL BE A LAPSE OF AT LEAST 24 HOURS BETWEEN POURS OR WHEN THE PREVIOUS POUR REACHES A STRENGTH OF 3000 PSI. EACH POUR SHALL BE AT A MINIMUM RATE OF 25 L.F. PER HOUR.

CONSTRUCTION JOINTS AT THE CLOSURE POURS IN THE DECK SLAB SHALL NOT BE KEYED. IN THE EVENT OF AN EMERGENCY, POURING OF DECK SLAB MAY BE HALTED WITH A KEYED CONSTRUCTION JOINT MADE PERPENDICULAR TO THE DIRECTION OF TRAFFIC AS DIRECTED BY THE ENGINEER. PRIMARY LONGITUDINAL REINFORCING SHALL BE CONTINUOUS THRU ALL CONSTRUCTION JOINTS. ADDITIONAL LONGITUDINAL REINFORCING WITHIN CLOSURE POURS SHALL BE CONTINUOUS THROUGH EMERGENCY CONSTRUCTION JOINTS. UNTIL THE SLAB IS IN PLACE ON BOTH SIDES OF THE CONSTRUCTION JOINT AND AT LEAST 48 HOURS HAS ELAPSED SINCE CONCRETE PLACEMENT, NO HEAVY EQUIPMENT WILL BE PERMITTED ON THE FINISHED DECK SLAB WITHIN 6 FEET OF ANY CONSTRUCTION JOINT.

ALL CONSTRUCTION JOINTS WITHIN THE DECK SLAB SHALL BE SEALED USING HIGH MOLECULAR WEIGHT METHACRYLATE IN ACCORDANCE WITH SECTION 523 OF THE STANDARD SPECIFICATIONS. ALL COST OF THE HIGH MOLECULAR WEIGHT METHACRYLATE SEALER SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE OF "SEALER RESIN". ALL COST FOR EQUIPMENT AND LABOR FOR THE INSTALLATION OF THE HIGH MOLECULAR WEIGHT METHACRYLATE SEALER SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE OF "SEALER CRACK PREPARATION".

Preliminary Plans

PHASE 2 — OKLAHOMA COUNTY

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

BRIDGE "J" — RAMP "J" AT I-35 & I-240 INTERCHANGE

LONGITUDINAL SECTION AND SLAB POURING SEQUENCE

STATE JOB NO. 09032(106) SHEET NO. B212

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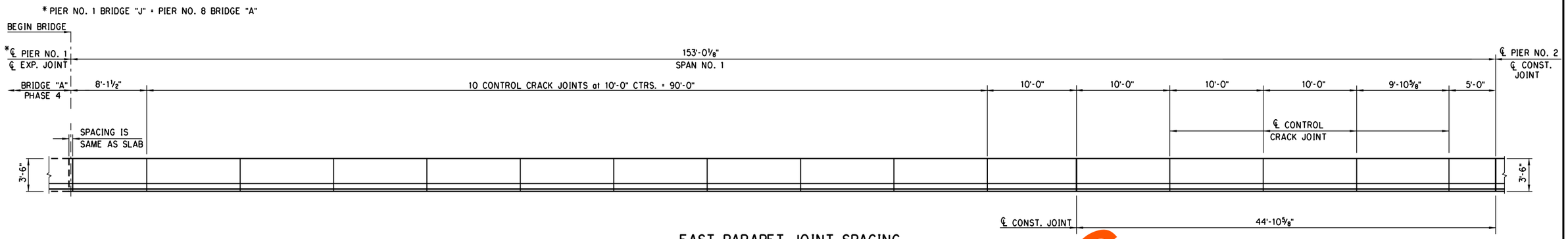
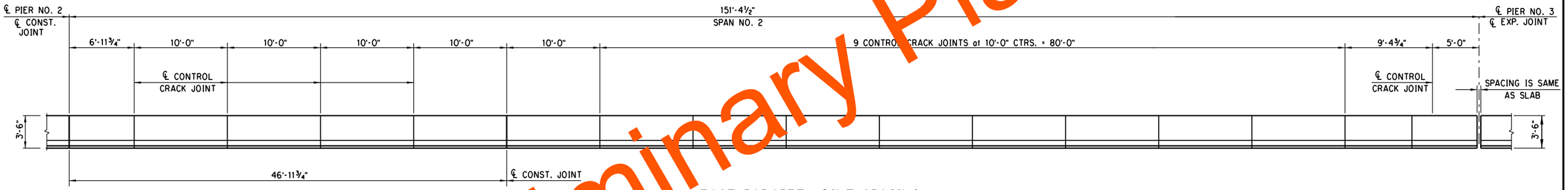
DESCRIPTION	REVISIONS	DATE



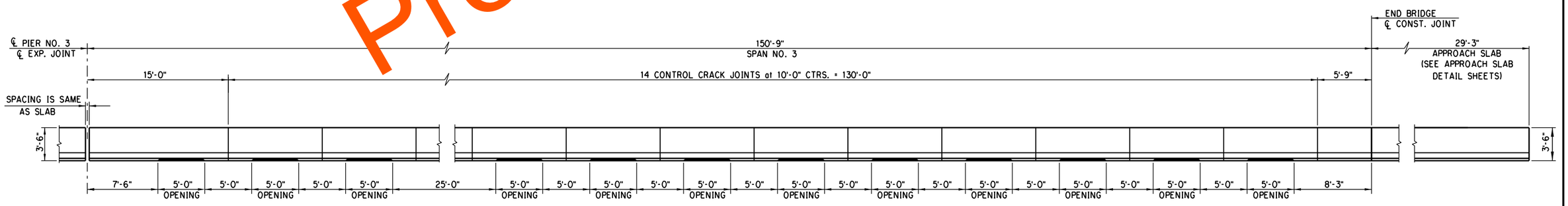
EAST PARAPET JOINT SPACING
SPAN NO. 1

(DIMENSIONS SHOWN ARE ℄ PIER to ℄ PIER ALONG OUTSIDE EDGE OF SLAB)



EAST PARAPET JOINT SPACING
SPAN NO. 2

(DIMENSIONS SHOWN ARE ℄ PIER to ℄ PIER ALONG OUTSIDE EDGE OF SLAB)



EAST PARAPET OPENING AND JOINT SPACING
SPAN NO. 3

NOTE: FOR ADDITIONAL DETAILS,
SEE STD. FSHP-42-2.

Preliminary Plans

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 — OKLAHOMA COUNTY

BRIDGE "J" — RAMP "J" AT I-35 & I-240 INTERCHANGE

PARAPET LAYOUT
(SHEET 1 OF 2)

STATE JOB NO. 09032(06) SHEET NO. B213

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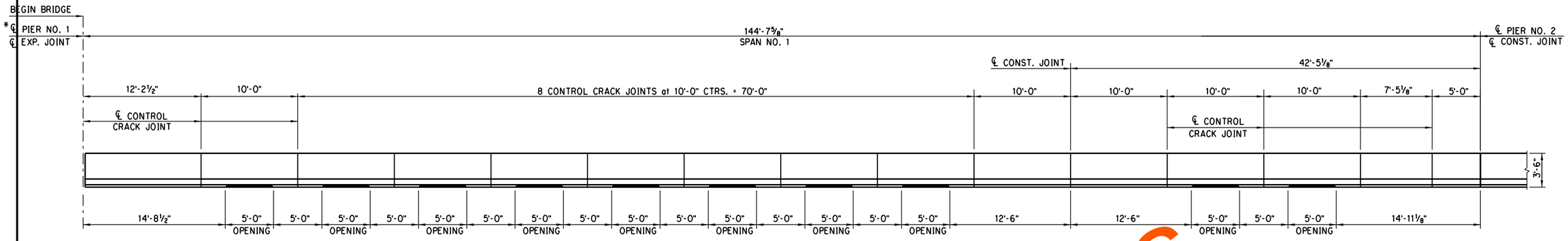
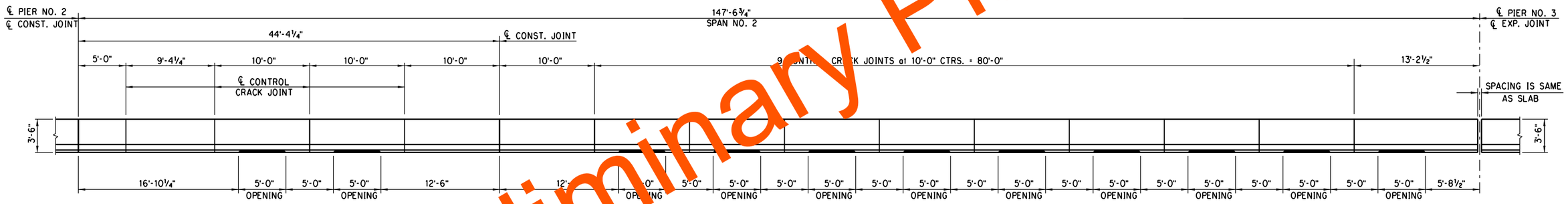
REVISIONS		
DESCRIPTION		DATE

* PIER NO. 1 BRIDGE "J" = PIER NO. 8 BRIDGE "A"



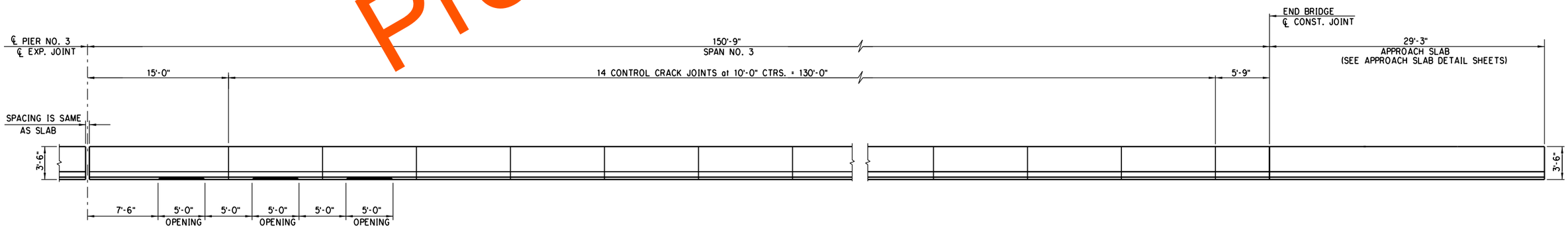
WEST PARAPET OPENING AND JOINT SPACING
SPAN NO. 1

(DIMENSIONS SHOWN ARE ℄ PIER to ℄ PIER ALONG OUTSIDE EDGE OF SLAB)



WEST PARAPET OPENING AND JOINT SPACING
SPAN NO. 2

(DIMENSIONS SHOWN ARE ℄ PIER to ℄ PIER ALONG OUTSIDE EDGE OF SLAB)



WEST PARAPET OPENING AND JOINT SPACING
SPAN NO. 3

NOTE: FOR ADDITIONAL DETAILS, SEE STD. FSHP-42-2.

Preliminary Plans

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 — OKLAHOMA COUNTY

BRIDGE "J" — RAMP "J" AT I-35 & I-240 INTERCHANGE

PARAPET LAYOUT
(SHEET 2 OF 2)

STATE JOB NO. 09032(06) SHEET NO. B214

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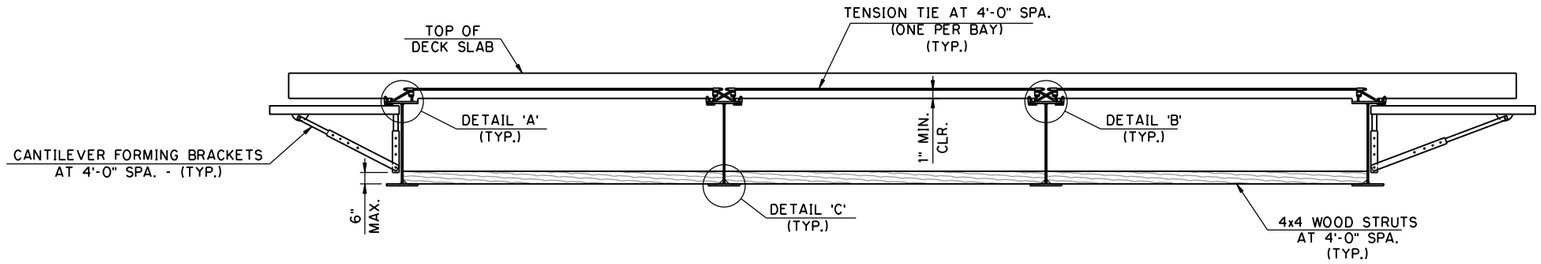
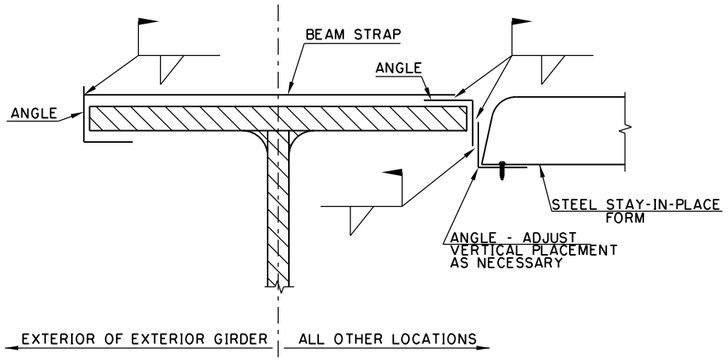
DESCRIPTION		DATE



GIRDER BRACING FOR DECK SLAB PLACEMENT

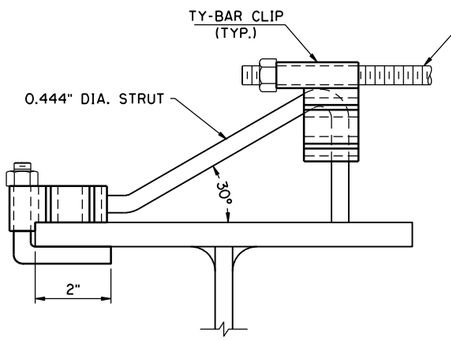
BRACING SYSTEM SHOWN FOR ILLUSTRATION PURPOSES ONLY. ALTERNATIVE SYSTEMS MAY BE CONSIDERED. SEE GENERAL NOTES FOR DESIGN REQUIREMENTS AND LIMITATIONS.

NOTE: SPACING OF FORMING BRACES, TENSION TIES, AND HARDWOOD STRUTS TO BE DETERMINED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF OKLAHOMA FOR THE LOADS ANTICIPATED DURING CONSTRUCTION. SEE GENERAL NOTES FOR ADDITIONAL DETAILS.

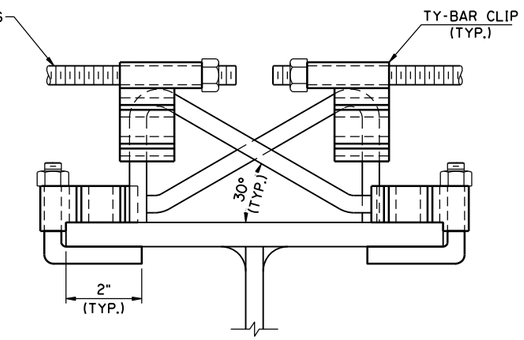


STEEL STAY-IN-PLACE FORMS FLANGE CONNECTION DETAIL

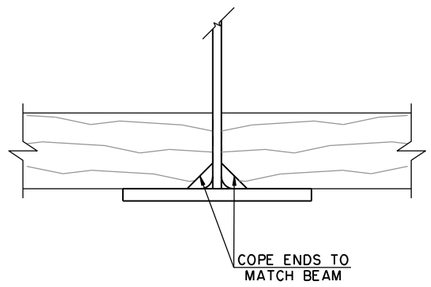
REPORT ANY ARC STRIKE, WELD SPLATTER OR WELDING ON TOP FLANGE TO BRIDGE ENGINEER IMMEDIATELY.



DETAIL 'A'



DETAIL 'B'



DETAIL 'C'

Preliminary Plans

BRACING NOTES

SUBMIT DRAWINGS OF THE BRACING SYSTEM TO THE BRIDGE ENGINEER FOR APPROVAL. BRACING SYSTEMS OTHER THAN THAT SHOWN MAY BE USED IF DESIGN CALCULATIONS AND DRAWINGS OF THE PROPOSED BRACING SYSTEM ARE SUBMITTED TO AND APPROVED BY THE BRIDGE ENGINEER. DRAWINGS AND CALCULATIONS OF THE PROPOSED SYSTEM SHALL BE SIGNED AND SEALED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF OKLAHOMA. DO NOT PLACE SLAB CONCRETE UNTIL BRACING SYSTEM IS APPROVED. THE DEPARTMENT CONSIDERS ALL COST FOR BRACING TO BE INCLUDED IN OTHER ITEMS OF WORK.

USE ADJUSTABLE CANTILEVER FORMING BRACKETS AT EXTERIOR BEAMS CAPABLE OF BEING ADJUSTED DURING THE PLACEMENT OF DECK SLAB CONCRETE IN ORDER TO MAINTAIN PROPER GRADES AT THE DECK OVERHANG. IF SHIMS ARE TO BE USED TO ADJUST THE FORMING BRACKETS, PROVIDE THE BRIDGE ENGINEER A METHOD TO PREDICT CRUSH AND SETTLEMENT OF SHIMS. BEAR THE LEG BRACE OF THE BRACKETS ON THE BEAM WEB WITHIN 6 INCHES OF THE BOTTOM FLANGE.

TENSION TIES SHALL BE A MINIMUM #4 EPOXY-COATED REINFORCING STEEL BARS WITH THREADED ENDS OR ½" DIA. GALVANIZED ALL-THREAD, FURNISHED BY THE CONTRACTOR. THE TENSION TIES SHALL BE PLACED PERPENDICULAR TO THE GIRDERS. TENSION TIES SHALL BE ATTACHED TO THE TOP FLANGE OF GIRDERS BY MEANS OF TY-BAR CLIPS AS SHOWN ON THE DETAILS. WELDING OF CLIPS TO THE TOP FLANGE OF GIRDERS WILL NOT BE PERMITTED.

WOOD STRUTS SHALL BE HARDWOOD OR OF AN EQUIVALENT STRENGTH MATERIAL. WEDGE STRUTS BETWEEN GIRDER WEBS WITHIN 6" OF THE BOTTOM FLANGE OF EACH GIRDER. LOCATE WOOD STRUTS WHERE THE TOP OF THE GIRDERS ARE TIED TOGETHER WITH TENSION TIES.

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 — OKLAHOMA COUNTY

BRIDGE "J" — RAMP "J" AT I-35 & I-240 INTERCHANGE

GIRDER BRACING DETAILS

STATE JOB NO. 09032(106) SHEET NO. B215

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DESCRIPTION	REVISIONS	DATE

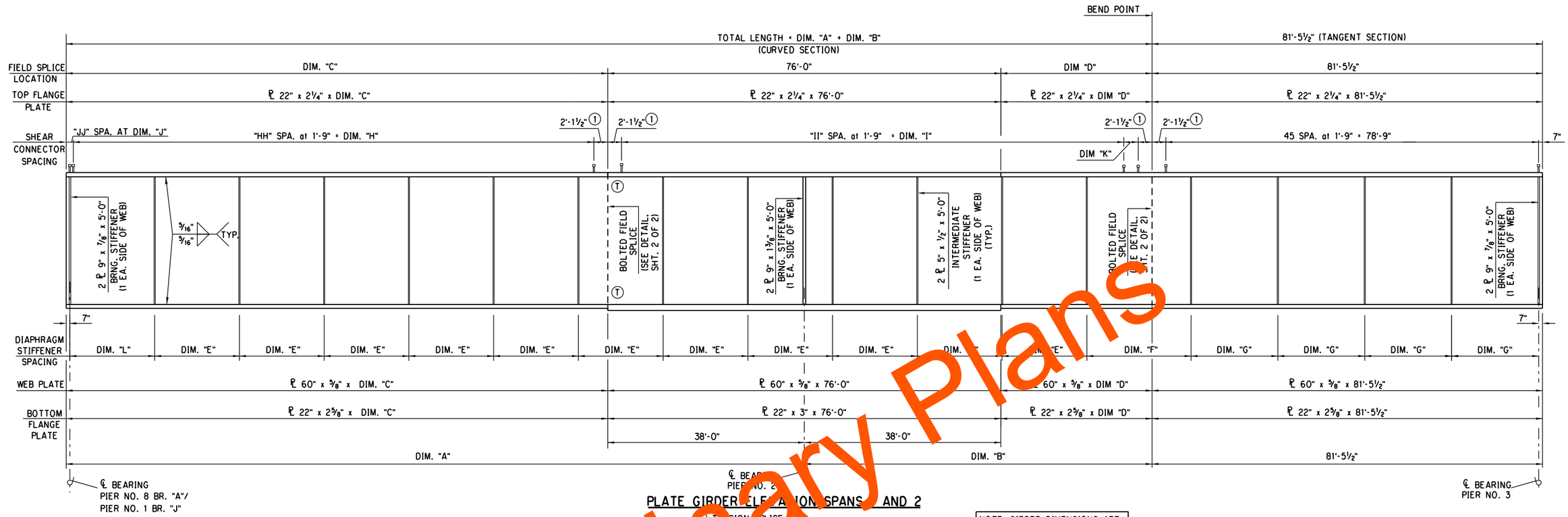
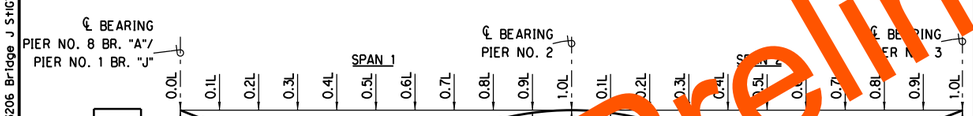


PLATE GIRDER ELEVATION, SPANS 1 AND 2

(1) TENSION SPLICE

(1) SEE STUD SPACING THROUGH FIELD SPLICE (SHEET 2 OF 2)

NOTE: GIRDER DIMENSIONS ARE ALONG ℄ ARC OF WEB.



	GIRDER LINE	0.0L	0.1L	0.2L	0.3L	0.4L	0.5L	0.6L	0.7L	0.8L	0.9L	1.0L	0.1L	0.2L	0.3L	0.4L	0.5L	0.6L	0.7L	0.8L	0.9L	1.0L
DECK SLAB, HAUNCH, RAIL & 5 psf SIP FORMS (IN INCHES)	A	0.00	0.44	0.81	1.06	1.16	1.10	0.92	0.64	0.33	0.08	0.00	0.[illegible]	0.[illegible]	0.60	1.03	1.38	1.61	1.65	1.48	1.13	0.61	0.00
	B	0.00	0.63	1.16	1.52	1.67	1.61	1.37	0.98	0.55	0.18	0.00	0.16	0.52	0.94	1.31	1.55	1.60	1.45	1.11	0.60	0.00
	C	0.00	0.81	1.50	1.97	2.18	2.12	1.81	1.33	0.77	0.28	0.00	0.10	0.43	0.84	1.22	1.48	1.55	1.42	1.09	0.59	0.00
	D	0.00	1.00	1.85	2.45	2.71	2.64	2.27	1.67	0.99	0.37	0.00	0.03	0.33	0.74	1.13	1.40	1.49	1.38	1.06	0.58	0.00
TOTAL DEFLECTION (NO FUTURE WEARING SURFACE) (IN INCHES)	A	0.00	0.64	1.17	1.53	1.67	1.60	1.33	0.93	0.48	0.11	0.00	0.32	0.87	1.49	2.01	2.33	2.39	2.15	1.63	0.88	0.00
	B	0.00	0.91	1.67	2.20	2.42	2.34	1.98	1.43	0.80	0.26	0.00	0.23	0.75	1.36	1.90	2.24	2.32	2.10	1.60	0.87	0.00
	C	0.00	1.18	2.17	2.86	3.17	3.08	2.63	1.93	1.12	0.40	0.00	0.14	0.62	1.22	1.77	2.14	2.24	2.05	1.57	0.85	0.00
	D	0.00	1.45	2.69	3.55	3.94	3.83	3.29	2.43	1.44	0.54	0.00	0.05	0.48	1.07	1.64	2.03	2.16	1.99	1.53	0.84	0.00

DEAD LOAD DEFLECTION DIAGRAM AND DEFLECTION SCHEDULE

SPANS 1 & 2 GIRDER DIMENSION SCHEDULE

GIRDER	DIM. "A"	DIM. "B"	DIM. "C"	DIM. "D"	DIM. "E"	DIM. "F"	DIM. "G"	"HH"	DIM. "H"	"II"	DIM. "I"	"JJ"	DIM. "J"	DIM. "K"	DIM. "L"	Curved Sect. Radius
A	145'-2"	66'-3 7/8"	107'-2"	28'-3 7/8"	17'-0 3/8"	17'-3 1/8"	17'-6 15/16"	59	103'-3"	57	99'-9"	2	10 3/4"	3 7/8"	16'-10 3/8"	555.71
B	147'-4 5/8"	67'-4"	109'-4 5/8"	29'-4"	17'-3 1/2"	17'-4 3/8"	17'-6 15/16"	61	106'-9"	57	99'-9"	1	6 1/8"	1'-4"	17'-1 1/2"	564.21
C	149'-7 1/4"	68'-4 1/8"	111'-7 1/4"	30'-4 1/8"	17'-6 5/8"	17'-5 5/8"	17'-6 15/16"	62	108'-6"	58	101'-6"	2	5 7/8"	7 3/16"	17'-4 5/8"	572.71
D	151'-9 7/8"	69'-4 3/8"	113'-9 7/8"	31'-4 3/8"	17'-9 3/4"	17'-7"	17'-6 15/16"	63	110'-3"	58	101'-6"	2	8 11/16"	1'-7 3/8"	17'-7 3/4"	581.21

DECK SLAB ELEVATION SCHEDULE AT 10TH POINTS

GIRDER	BRNG.	0.1L	0.2L	0.3L	0.4L	0.5L	0.6L	0.7L	0.8L	0.9L	BRNG.
	SPAN 1										
A	1325.50	1325.43	1325.33	1325.22	1325.08	1324.92	1324.73	1324.53	1324.30	1324.05	1323.78
B	1326.01	1325.94	1325.84	1325.73	1325.59	1325.43	1325.24	1325.04	1324.81	1324.56	1324.29
C	1326.52	1326.45	1326.35	1326.24	1326.10	1325.94	1325.75	1325.55	1325.32	1325.07	1324.80
D	1327.03	1326.96	1326.86	1326.75	1326.61	1326.45	1326.26	1326.06	1325.83	1325.58	1325.31
	SPAN 2										
A	1323.78	1323.49	1323.17	1322.93	1322.67	1322.39	1322.08	1321.75	1321.40	1321.03	1320.64
B	1324.29	1324.00	1323.68	1323.39	1323.08	1322.75	1322.39	1322.02	1321.62	1321.20	1320.75
C	1324.80	1324.51	1324.19	1323.85	1323.49	1323.11	1322.71	1322.28	1321.83	1321.36	1320.87
D	1325.31	1325.02	1324.70	1324.31	1323.90	1323.47	1323.02	1322.54	1322.05	1321.53	1320.99

Preliminary Plans

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 — OKLAHOMA COUNTY

BRIDGE "J" — RAMP "J" AT I-35 & I-240 INTERCHANGE

PLATE GIRDER DETAILS
SPANS 1 AND 2
(SHEET 1 OF 2)

STATE JOB NO. 09032(106) SHEET NO. B216

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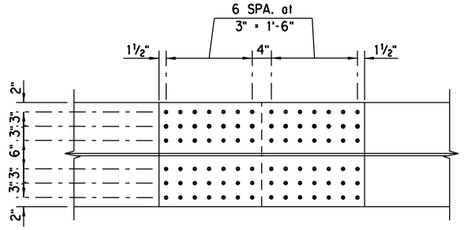
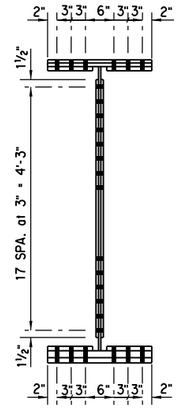
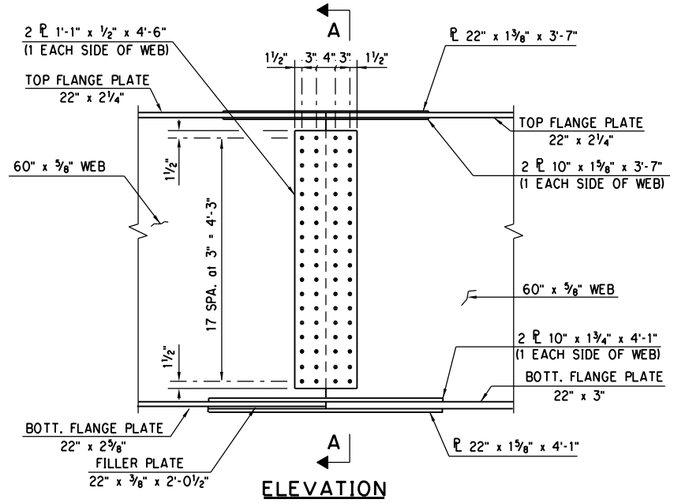


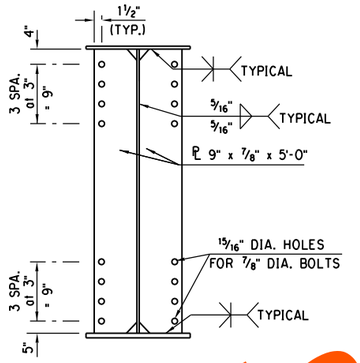
TOP FLANGE



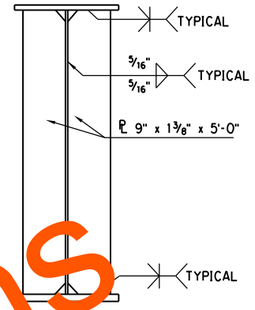
SECTION A-A



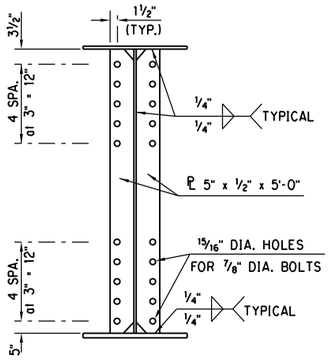
ELEVATION



BEARING STIFFENER
PIERS NO. 1 AND 3



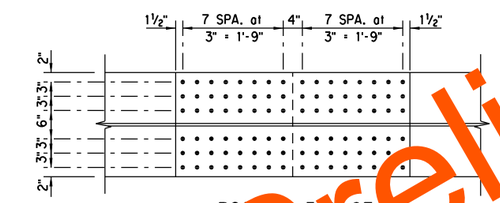
BEARING STIFFENER
PIER NO. 2



INTERMEDIATE STIFFENER

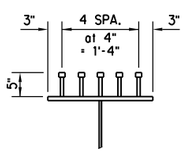
NOTE: SEE PLATE GIRDER ELEVATION ON SHEET 1 OF 2 AND FRAMING PLAN AND DIAPHRAGM DETAILS SHEET FOR LOCATIONS OF STIFFENERS.

OMIT BOLT HOLES ON EXTERIOR STIFFENERS ON EXTERIOR GIRDERS.

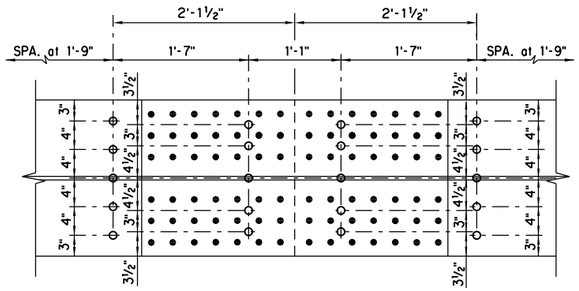


BOLTED FLANGE

BOLTED FLANGE SPLICE DETAIL
(LEFT SPLICE SHOWN, RIGHT OPPOSITE HAND)



STUD
SHEAR CONNECTORS
(5 - ⅞" DIA. x 5" STUDS)



STUD SPACING THROUGH FIELD SPLICE
(LEFT SPLICE SHOWN, RIGHT OPPOSITE HAND)

NOTES:

ALL GIRDER, STIFFENER AND SPLICE PLATES SHALL BE AASHTO M270, (ASTM A709) GRADE 50W.

ALL GIRDER, STIFFENER AND SPLICE PLATES SHALL CONFORM TO THE NON-FRACTURE CRITICAL CHARPY V-NOTCH TESTED FOR ZONE 2.

USE SHEAR CONNECTORS CONFORMING TO AASHTO M169 (ASTM A108), GRADE 1015, 1018, 1020.

PROVIDE WELDING WITH WEATHERING CHARACTERISTICS.

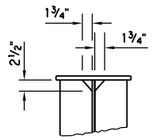
ALL BOLTS SHALL BE ⅞" DIA. ASTM A325 TYPE 3 WITH HEAVY HEX NUTS, HARDENED CIRCULAR WASHERS, AND 15/16" DIA. HOLES, UNLESS OTHERWISE NOTED.

SPLICE BOLTS SHALL BE PLACED WITH HEADS ON THE OUTSIDE FACE OF EXTERIOR GIRDERS AND ON BOTTOM OF GIRDER FLANGES.

BOLT THREADS MUST BE EXCLUDED FROM FIELD SPLICE SHEAR PLANES.

NO FIELD WELDING TO GIRDERS WILL BE ALLOWED EXCEPT AS SHOWN ON PLANS.

GIRDERS ARE SHOWN AND DIMENSIONED WITH TOP FLANGE IN THE HORIZONTAL POSITION. VERTICAL CURVATURE AND EFFECTS OF DEAD LOAD DEFLECTION HAVE NOT BEEN TAKEN INTO CONSIDERATION. SHOP DRAWINGS SHALL INCLUDE BLOCKING DIAGRAM FOR EACH GIRDER SHOWING ALL ADJUSTMENTS NECESSARY FOR DEAD LOAD DEFLECTION AND VERTICAL CURVATURE. THE WEB PLATES SHALL BE FABRICATED WITH CAMBER FOR DEAD LOAD DEFLECTION AND VERTICAL CURVATURE.



TYP. CORNER CLIP
(ALL STIFFENERS TOP AND BOTTOM)

NOTE: TERMINATE FILLET WELDS ⅜" FROM THE EDGE OF CLIPPED CORNERS OF ALL STIFFENER PLATES AND NON-CLIPPED CORNERS OF INTERMEDIATE DIAPHRAGM STIFFENERS. WRAP FILLET WELDS AROUND NON-CLIPPED CORNERS OF BEARING STIFFENERS.

DESCRIPTION	REVISIONS	DATE

PHASE 2 — OKLAHOMA COUNTY
BRIDGE "J" — RAMP "J" AT I-35 & I-240 INTERCHANGE

PLATE GIRDER DETAILS
SPANS 1 AND 2
(SHEET 2 OF 2)

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

STATE JOB NO. 09032(08) SHEET NO. B217

6/1/2022 11:04:09 AM
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Preliminary Plans

REVISIONS		
DESCRIPTION		DATE

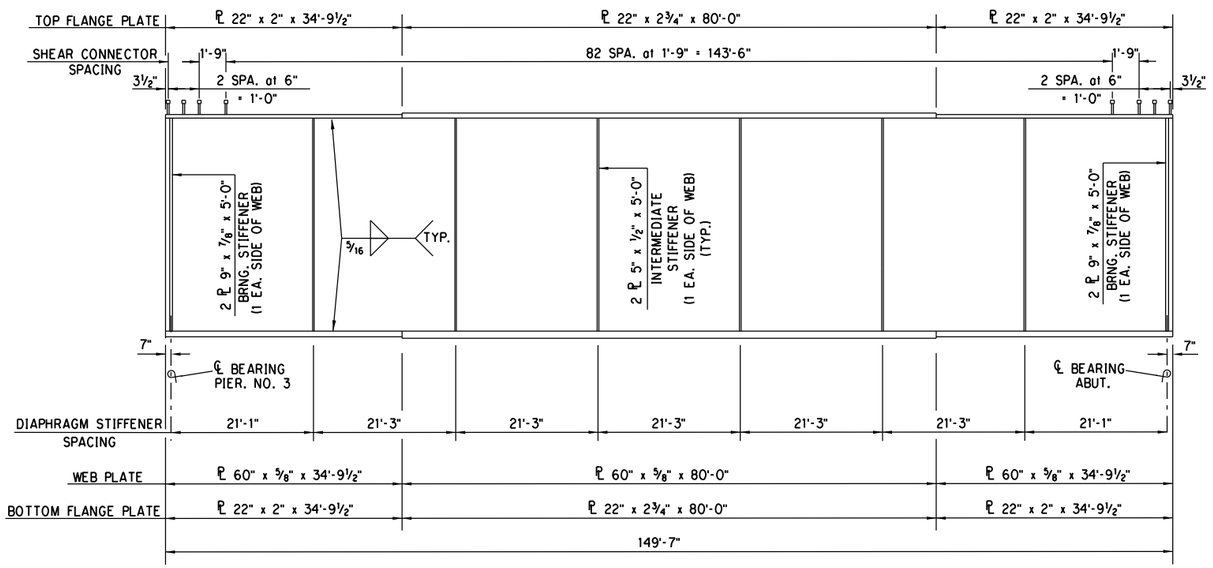
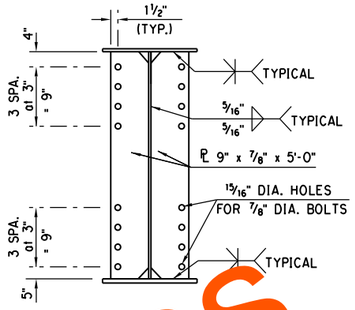
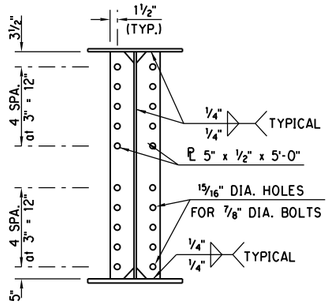


PLATE GIRDER ELEVATION SPAN 3



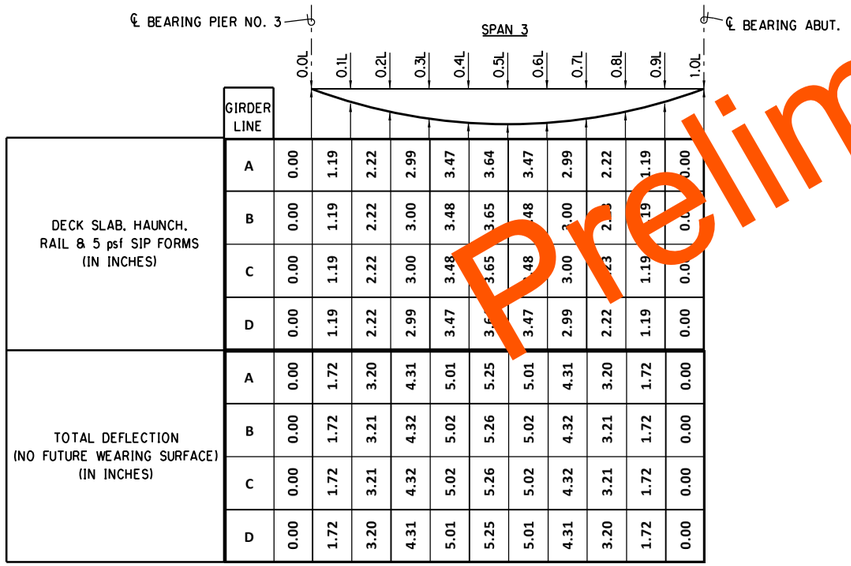
BEARING STIFFENER
PIER NO. 3 AND ABUT.



INTERMEDIATE STIFFENER

NOTE: SEE PLATE GIRDER ELEVATION, THIS SHEET AND FRAMING PLAN AND DIAPHRAGM DETAILS SHEET FOR LOCATIONS OF STIFFENERS.

OMIT BOLT HOLES ON EXTERIOR STIFFENERS ON EXTERIOR GIRDERS.



	GIRDER LINE	0.0L	0.1L	0.2L	0.3L	0.4L	0.5L	0.6L	0.7L	0.8L	0.9L	1.0L
DECK SLAB, HAUNCH, RAIL & 5 psf SIP FORMS (IN INCHES)	A	0.00	1.19	2.22	2.99	3.47	3.64	3.47	2.99	2.22	1.19	0.00
	B	0.00	1.19	2.22	3.00	3.48	3.65	3.48	3.00	2.23	1.19	0.00
	C	0.00	1.19	2.22	3.00	3.48	3.65	3.48	3.00	2.23	1.19	0.00
	D	0.00	1.19	2.22	2.99	3.47	3.64	3.47	2.99	2.22	1.19	0.00
TOTAL DEFLECTION (NO FUTURE WEARING SURFACE) (IN INCHES)	A	0.00	1.72	3.20	4.31	5.01	5.25	5.01	4.31	3.20	1.72	0.00
	B	0.00	1.72	3.21	4.32	5.02	5.26	5.02	4.32	3.21	1.72	0.00
	C	0.00	1.72	3.21	4.32	5.02	5.26	5.02	4.32	3.21	1.72	0.00
	D	0.00	1.72	3.20	4.31	5.01	5.25	5.01	4.31	3.20	1.72	0.00

DEAD LOAD DEFLECTION DIAGRAM AND DEFLECTION SCHEDULE

GIRDER	DECK SLAB ELEVATION SCHEDULE AT 10TH POINTS										
	BRNG.	0.1L	0.2L	0.3L	0.4L	0.5L	0.6L	0.7L	0.8L	0.9L	BRNG.
	SPAN 3										
A	1320.59	1320.17	1319.73	1319.21	1318.63	1318.04	1317.42	1316.78	1316.12	1315.43	1314.76
B	1320.71	1320.24	1319.75	1319.17	1318.55	1317.91	1317.25	1316.56	1315.85	1315.12	1314.40
C	1320.82	1320.30	1319.76	1319.14	1318.47	1317.77	1317.08	1316.35	1315.59	1314.80	1314.04
D	1320.93	1320.36	1319.77	1319.10	1318.38	1317.64	1316.91	1316.13	1315.32	1314.49	1313.68

NOTES:

ALL GIRDER AND STIFFENER PLATES SHALL BE AASHTO M270. (ASTM A709) GRADE 50W.

ALL GIRDER AND STIFFENER PLATES SHALL CONFORM TO THE NON-FRACTURE CRITICAL CHARPY V-NOTCH TESTED FOR ZONE 2.

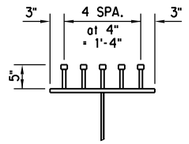
USE SHEAR CONNECTORS CONFORMING TO AASHTO M169 (ASTM A108). GRADE 1015, 1018, 1020.

PROVIDE WELDING WITH WEATHERING CHARACTERISTICS.

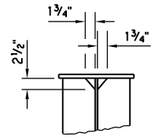
ALL BOLTS SHALL BE 7/8" DIA. ASTM A325 TYPE 3 WITH HEAVY HEX NUTS, HARDENED CIRCULAR WASHERS, AND 15/16" DIA. HOLES, UNLESS OTHERWISE NOTED.

NO FIELD WELDING TO GIRDERS WILL BE ALLOWED EXCEPT AS SHOWN ON PLANS.

GIRDERS ARE SHOWN AND DIMENSIONED WITH TOP FLANGE IN THE HORIZONTAL POSITION. VERTICAL CURVATURE AND EFFECTS OF DEAD LOAD DEFLECTION HAVE NOT BEEN TAKEN INTO CONSIDERATION. SHOP DRAWINGS SHALL INCLUDE BLOCKING DIAGRAM FOR EACH GIRDER SHOWING ALL ADJUSTMENTS NECESSARY FOR DEAD LOAD DEFLECTION AND VERTICAL CURVATURE. THE WEB PLATES SHALL BE FABRICATED WITH CAMBER FOR DEAD LOAD DEFLECTION AND VERTICAL CURVATURE.



STUD SHEAR CONNECTORS
(5 - 7/8" DIA. x 5" STUDS)



TYP. CORNER CLIP
(ALL STIFFENERS TOP AND BOTTOM)

NOTE: TERMINATE FILLET WELDS ⅜" FROM THE EDGE OF CLIPPED CORNERS OF ALL STIFFENER PLATES AND NON-CLIPPED CORNERS OF INTERMEDIATE DIAPHRAGM STIFFENERS. WRAP FILLET WELDS AROUND NON-CLIPPED CORNERS OF BEARING STIFFENERS.

Preliminary

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 — OKLAHOMA COUNTY
BRIDGE "J" — RAMP "J" AT I-35 & I-240 INTERCHANGE

PLATE GIRDER DETAILS SPAN 3

STATE JOB NO. 09032(106) SHEET NO. B218

6/1/2022 11:04:40 AM
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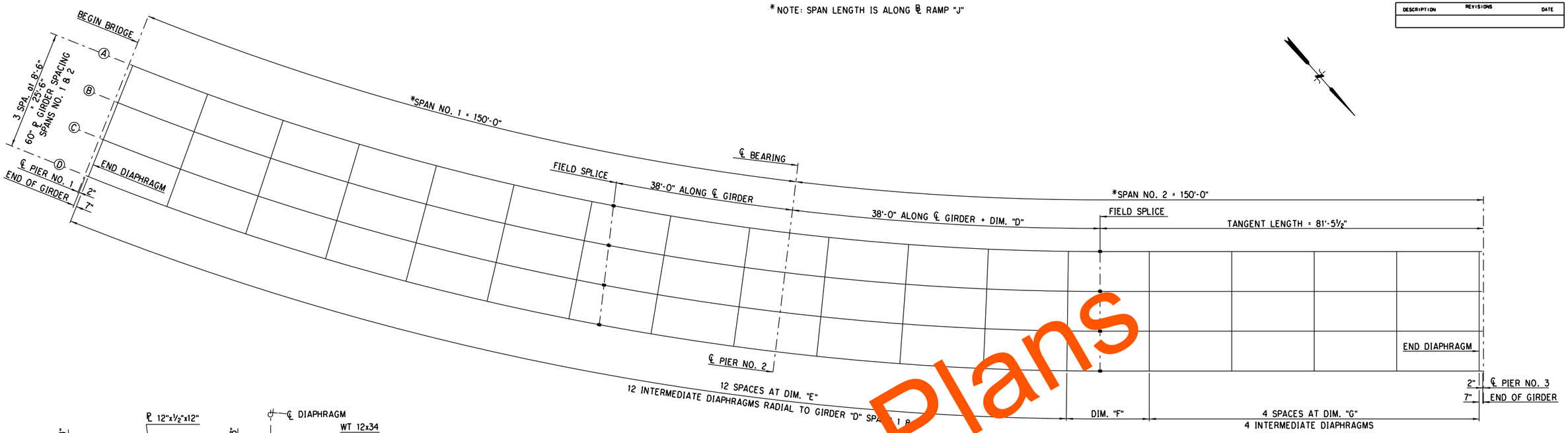
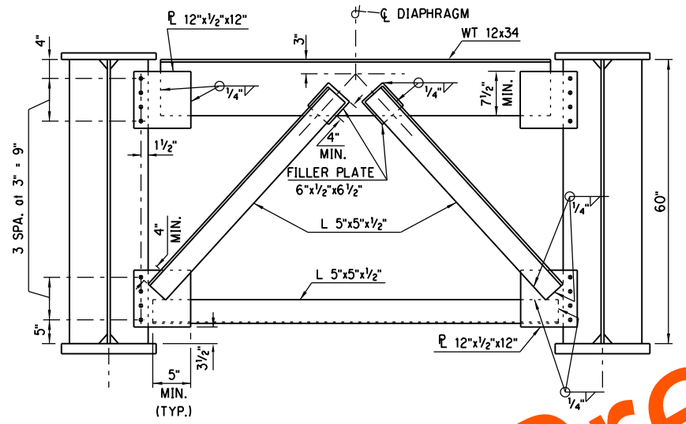
DESCRIPTION	REVISIONS	DATE

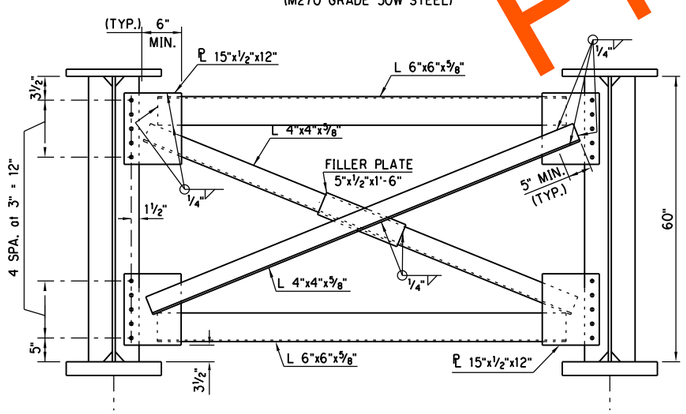
*NOTE: SPAN LENGTH IS ALONG ℄ RAMP "J"



FRAMING PLAN SPANS NO. 1 & 2

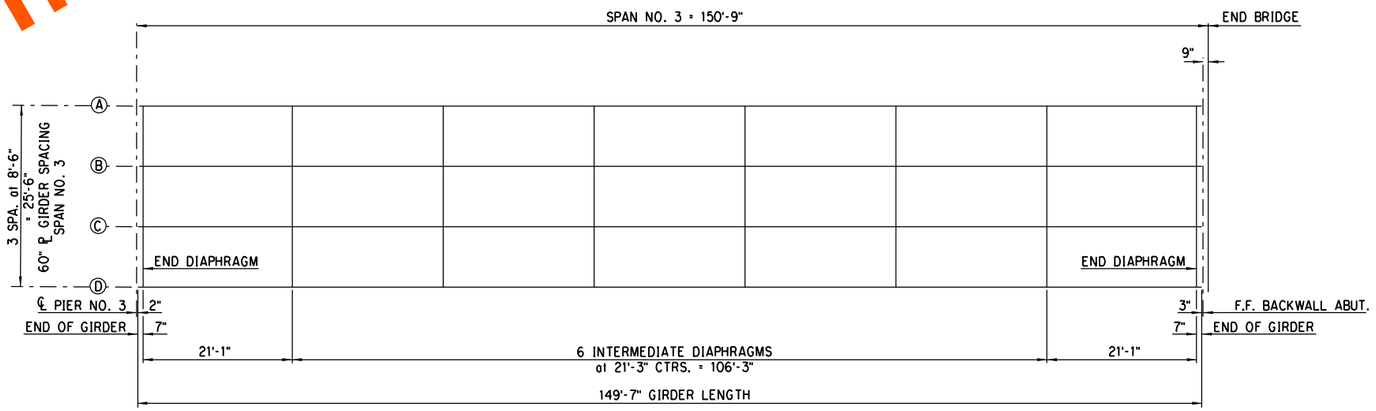


END DIAPHRAGMS
(ABUTMENT AND PIERS 1 & 3)
(M270 GRADE 50W STEEL)



INTERMEDIATE DIAPHRAGMS
(M270 GRADE 50W STEEL)

GIRDER	DIMENSION SCHEDULE			
	DIM. "D"	DIM. "E"	DIM. "F"	DIM. "G"
A	28'-3 7/8"	17'-0 3/8"	17'-3 1/8"	17'-6 15/16"
B	29'-4"	17'-3 1/2"	17'-4 3/8"	17'-6 15/16"
C	30'-4 1/8"	17'-6 5/8"	17'-5 5/8"	17'-6 15/16"
D	31'-4 3/8"	17'-9 3/4"	17'-7"	17'-6 15/16"



FRAMING PLAN SPAN NO. 3

Preliminary Plans

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 — OKLAHOMA COUNTY
BRIDGE "J" — RAMP "J" AT I-35 & I-240 INTERCHANGE

FRAMING PLAN AND DIAPHRAGM DETAILS

STATE JOB NO. 09032(061) SHEET NO. B219

6/1/2022 11:04:11 AM
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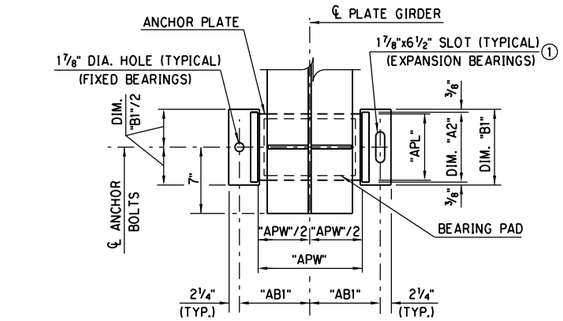
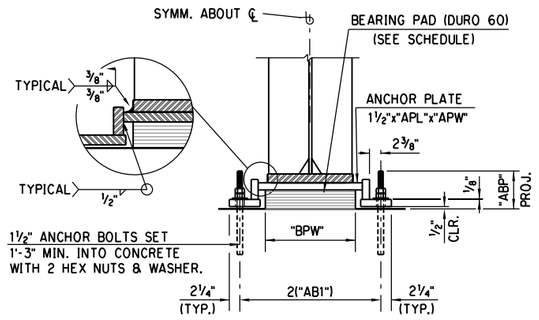
NOTE: ANCHOR BOLTS OMITTED FROM PLAN VIEW FOR CLARITY.

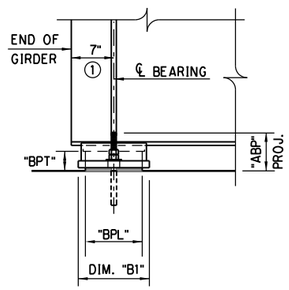
DESCRIPTION	REVISIONS	DATE



PLAN



ELEVATION

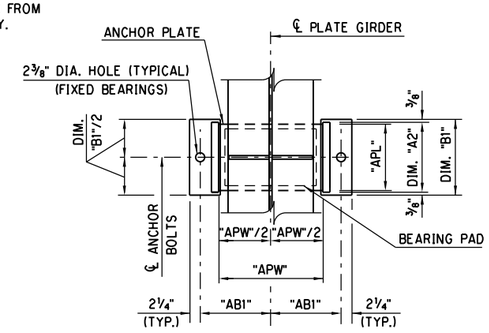


SIDE VIEW

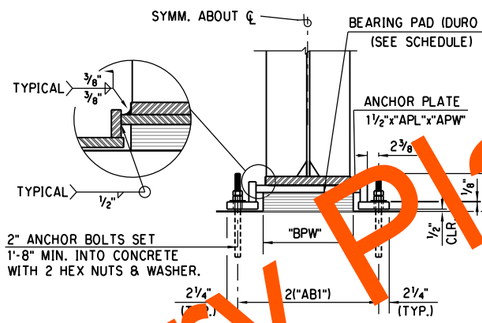
(SEE SCHEDULE FOR DIMENSIONS)

DETAILS OF END BEARING ASSEMBLY

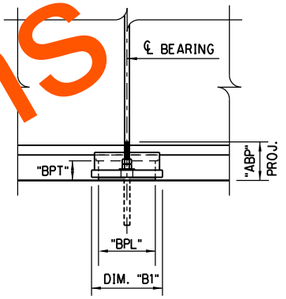
① ANCHOR BOLTS SHALL BE CENTERED IN SLOTS DURING SETTING OF BEAMS. DIMENSION MAY VARY DEPENDING ON TEMPERATURE AT THE TIME OF BEAM SETTING.



PLAN



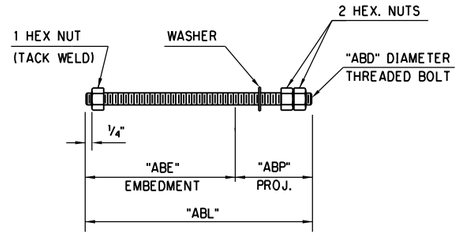
ELEVATION



SIDE VIEW

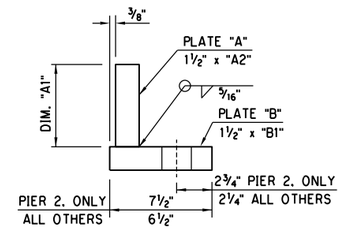
(SEE SCHEDULE FOR DIMENSIONS)

DETAILS OF CONTINUOUS BEARING ASSEMBLY



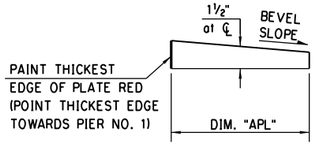
DETAIL OF BEARING ANCHOR BOLT

(SEE SEC. 724.05 OF THE STANDARD SPECIFICATIONS.)



(SEE SCHEDULE FOR DIMENSIONS)

BUILT-UP CONTACT ANGLE DETAIL



(SEE SCHEDULE FOR DIMENSIONS)

BEVELED ANCHOR PLATE DETAILS

BEARING PAD, ANCHOR ASSEMBLY AND ANCHOR BOLT SCHEDULE

LOCATION		60 DUROMETER BEARING PAD								1 1/2" ANCHOR PLATE			1 1/2" BUILT-UP CONTACT ANGLE				ANCHOR BOLT			
SPAN	POSITION	THICKNESS	LENGTH	WIDTH	COVER		INNER		LAMINATES	LENGTH	WIDTH	BEVEL	PLATE "A"		PLATE "B"		"ABD"	"ABL"	"ABE"	"ABP"
		"BPT"	"BPL"	"BPW"	NO.	THICK	NO.	THICK	NO. THICK	"APL"	"APW"	SLOPE	DIM. "A1"	DIM. "A2"	DIM. "B1"	DIM. "AB1"				
1&2	**PIER 1	4 1/8"	10"	1'-3"	2	1/4"	7	3/8"	8 1/8"	11"	2'-2"	0.00%	4 1/4"	1'-0 1/4"	1'-1"	1'-4 7/8"	1 1/2"	1'-11"	1'-3"	8"
	PIER 2	5 1/8"	1'-0"	1'-6"	2	1/4"	9	3/8"	10 1/8"	1'-1"	2'-2"	1.50%	5 1/4"	1'-2 1/4"	1'-3"	1'-5 3/8"	2"	2'-5"	1'-8"	9"
	PIER 3	4 1/8"	10"	1'-3"	2	1/4"	7	3/8"	8 1/8"	11"	2'-2"	3.00%	4 1/4"	1'-0 1/4"	1'-1"	1'-4 7/8"	1 1/2"	1'-11"	1'-3"	8"
3	PIER 3	4 1/8"	10"	1'-3"	2	1/4"	7	3/8"	8 1/8"	11"	2'-2"	3.00%	4 1/4"	1'-0 1/4"	1'-1"	1'-4 7/8"	1 1/2"	1'-11"	1'-3"	8"
	ABUT.	4 1/8"	10"	1'-3"	2	1/4"	7	3/8"	8 1/8"	11"	2'-2"	3.50%	4 1/4"	1'-0 1/4"	1'-1"	1'-4 7/8"	1 1/2"	1'-11"	1'-3"	8"

** Pier 1 is Pier 8, Bridge "A"

BEARING ASSEMBLY NOTES:

PROVIDE STRUCTURAL STEEL ANCHOR PLATES AND BUILT-UP CONTACT ANGLES IN ACCORDANCE WITH ASTM A240 (AUSTENITIC STAINLESS STEEL TYPE 316, CHARPY V-NOTCH TESTING NOT REQUIRED). FOR ANCHOR BOLTS, PROVIDE CONTINUOUSLY THREADED BARS IN ACCORDANCE WITH ASTM A320, CLASS 2, GRADE B8M (AUSTENITIC STAINLESS STEEL, TYPE 316, CHARPY V-NOTCH TESTING NOT REQUIRED). USE AUSTENITIC STAINLESS STEEL NUTS AND WASHERS CONFORMING TO ASTM A194, GRADE 8M AND ASTM A320, RESPECTIVELY. PERFORM ALL WELDING CONSISTENT WITH PROCEDURES FOR STAINLESS STEEL. SEE SEC 724.05 OF THE STANDARD SPECIFICATIONS.

Preliminary Plans

6/1/2022 11:04:2 AM
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PHASE 2 — OKLAHOMA COUNTY

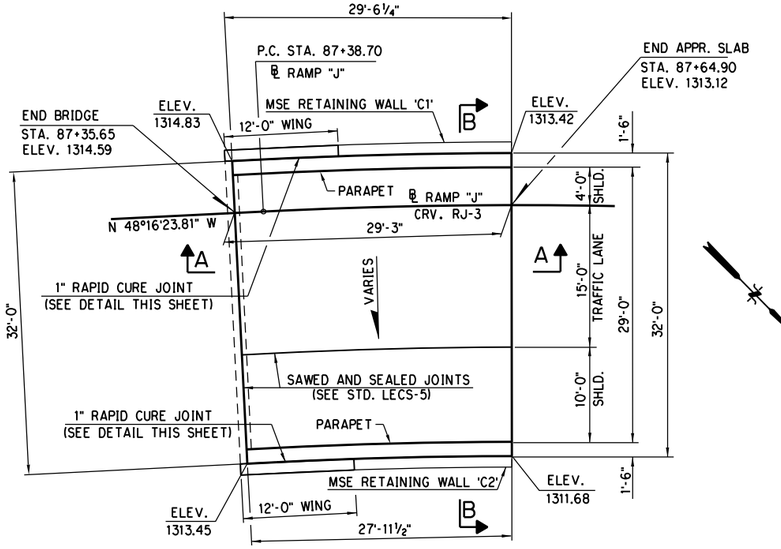
DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

BRIDGE "J" — RAMP "J" AT I-35 & I-240 INTERCHANGE

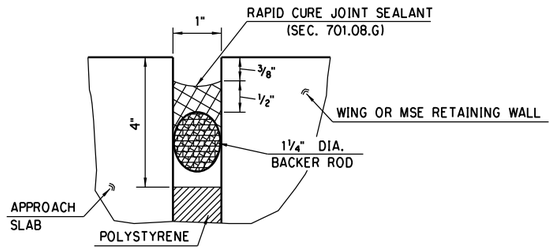
BEARING ASSEMBLY DETAILS

STATE JOB NO. 09032(06) SHEET NO. B220

DESCRIPTION	REVISIONS	DATE

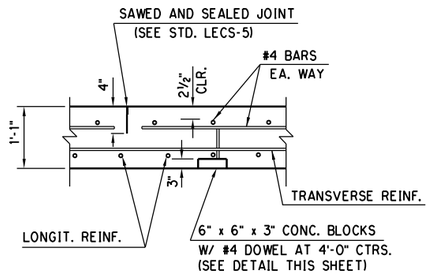


APPROACH SLAB PLAN

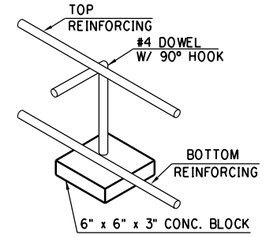


DETAIL OF RAPID CURE JOINT
AT WING AND MSE RETAINING WALL

NOTE: FOR BACKER ROD AND JOINT SEALER GENERAL NOTES REFER TO STD. LECS-5.

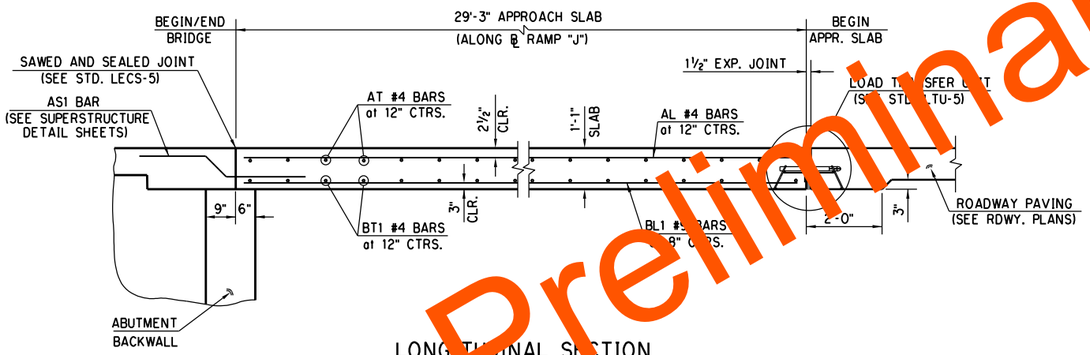


DETAIL OF SAWED
JOINT AND DOWEL BLOCK

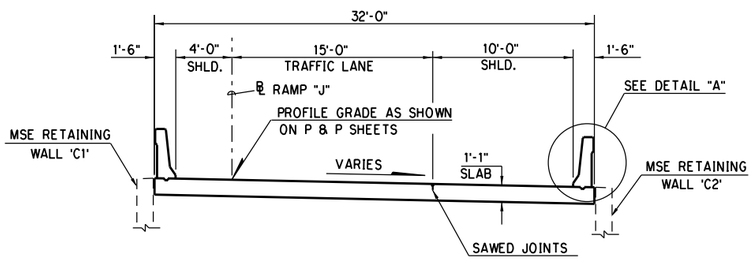


DOWEL BLOCK

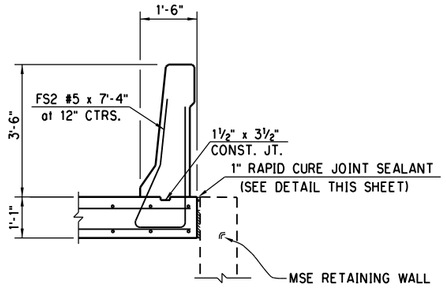
NOTE: CONTRACTOR MAY USE APPROVED HIGH CHAIRS WITH SAND PLATES (HCP) AND 6" x 6" x 3" PLAIN CONCRETE BLOCKS IN LIEU OF DOWEL BLOCKS SHOWN. SPACING SHALL BE 4'-0" MAX. ON CTRS.



LONGITUDINAL SECTION
SECTION A - A

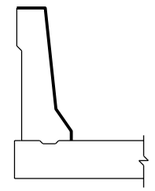


TYPICAL SECTION
SECTION B - B



DETAIL "A"

NOTE: FOR DETAILS OF PARAPET SEE ODOT STD. FSHP-42-2



WATER REPELLENT
SURFACE TREATMENT

SURFACES INDICATED WITH HEAVY LINES SHALL BE TREATED WITH A PENETRATING WATER REPELLENT SURFACE TREATMENT.

QUANTITIES		
ITEM	UNIT	TOTAL
APPROACH SLAB	S.Y.	102.2
SAW-CUT GROOVING	S.Y.	93.6
42" F-SHAPED PARAPET	L.F.	57.5
WATER REPELLENT (VISUALLY INSPECTED)	S.Y.	29

NOTES:

CONCRETE FOR APPROACH SLABS SHALL BE CLASS AA. REINFORCING STEEL SHALL BE GRADE 60.

ALL COST OF MATERIALS, LABOR, AND INCIDENTALS NECESSARY TO COMPLETE THE WORK AS SHOWN SHALL BE INCLUDED IN THE UNIT PRICE BID PER SQUARE YARD OF "APPROACH SLAB". THIS PRICE BID SHALL INCLUDE THE COST OF LOAD TRANSFER UNIT, POLYSTYRENE, RAPID CURE JOINT SEALANT, BACKER RODS, SAWING, DOWEL BLOCKS, CLASS AA CONCRETE AND EPOXY COATED REINFORCING STEEL (INCLUDING FS2 PARAPET BARS).

ALL COST OF PARAPET SHALL BE INCLUDED IN PRICE BID PER LINEAR FOOT OF "42" F-SHAPED PARAPET". THIS PRICE SHALL INCLUDE COST OF ALL FS1, FH1 AND FH2 EPOXY COATED REINFORCING STEEL. PARAPET SHALL BE FULL HEIGHT FOR THE LENGTH OF THE APPROACH SLAB.

Preliminary Plans

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 — OKLAHOMA COUNTY
BRIDGE "J" — RAMP "J" AT I-35 & I-240 INTERCHANGE

APPROACH SLAB DETAILS
(SHEET 1 OF 2)

STATE JOB NO. 09032(106) SHEET NO. B221

6/1/2022 11:04:44 AM
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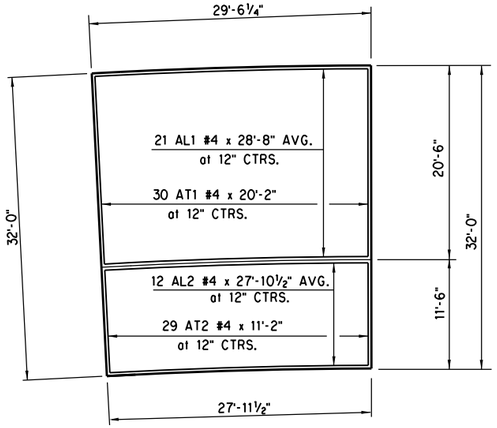
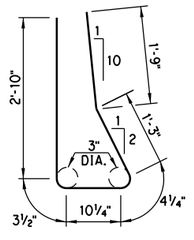
REVISIONS		
DESCRIPTION		DATE



TOP MAT REINFORCING PLAN



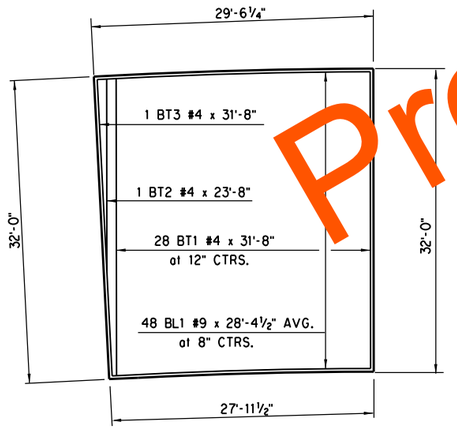
FS2 #5 x 7'-4"

NOTE: FS2 BARS SHALL BE TIED IN PLACE BEFORE POURING THE CONCRETE FOR THE APPROACH SLAB.

NOTE: ALL BENT BAR DIMENSIONS ARE OUT TO OUT.

Preliminary Plans

BAR LIST - EPOXY COATED (FOR INFORMATION ONLY)						
MARK	NO.	SIZE	FORM	SPACING	LENGTH	VARIABLE LENGTH
AL1	21	#4	STR.	12" C/C	28'-8" AVG.	28'-2" TO 29'-2"
AL2	12	#4	STR.	12" C/C	27'-10½" AVG.	27'-7" TO 28'-2"
AT1	30	#4	STR.	12" C/C	20'-2"	--
AT2	29	#4	STR.	12" C/C	11'-2"	--
BL1	48	#9	STR.	8" C/C	28'-4½" AVG.	27'-7" TO 29'-2"
BT1	28	#4	STR.	12" C/C	31'-8"	--
BT2	1	#4	STR.	AS SHOWN	23'-8"	--
BT3	1	#4	STR.	AS SHOWN	31'-8"	--
FS2	59	#5	BNT.	12 C/C	7'-4"	--



BOTTOM MAT REINFORCING PLAN

NOTE: FS2 BARS NOT SHOWN FOR CLARITY. FS2 BARS SPACED WITH BT BARS.

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 OKLAHOMA COUNTY

BRIDGE "J" RAMP "J" AT I-35 & I-240 INTERCHANGE

APPROACH SLAB DETAILS

(SHEET 2 OF 2)

STATE JOB NO. 09032(106) SHEET NO. B222

6/1/2022 11:04:15 AM
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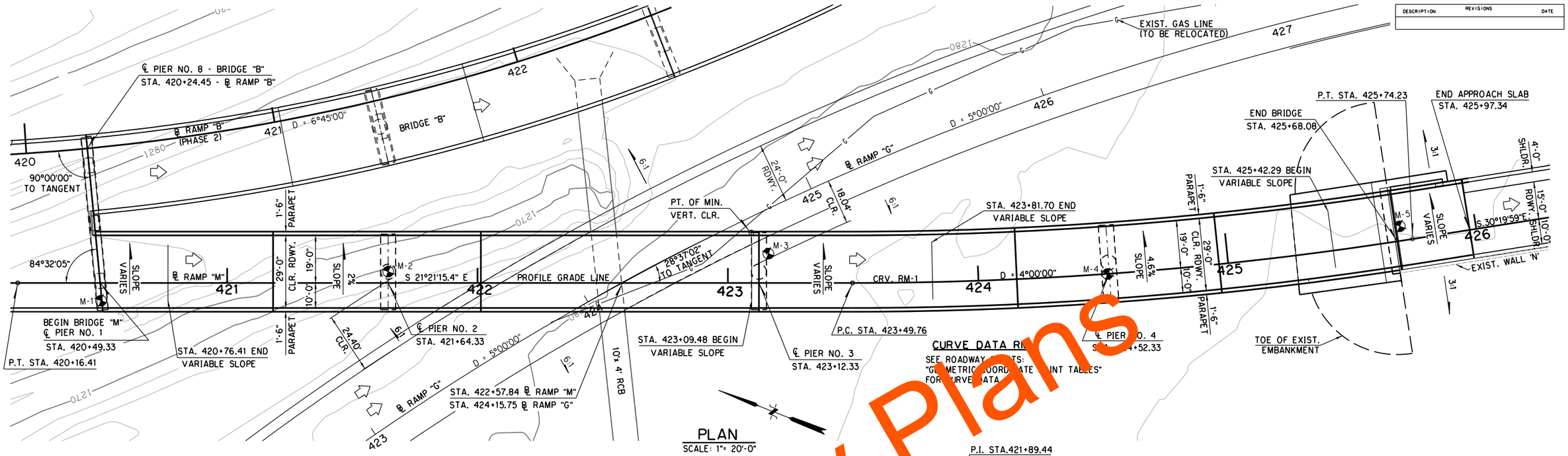
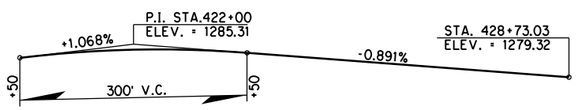
DESCRIPTION	REVISIONS	DATE



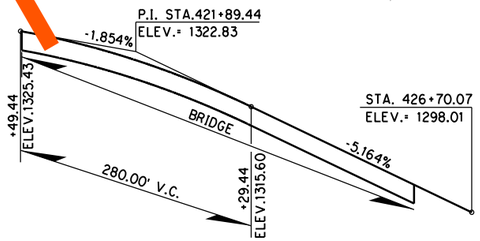
PLAN
SCALE: 1"= 20'-0"



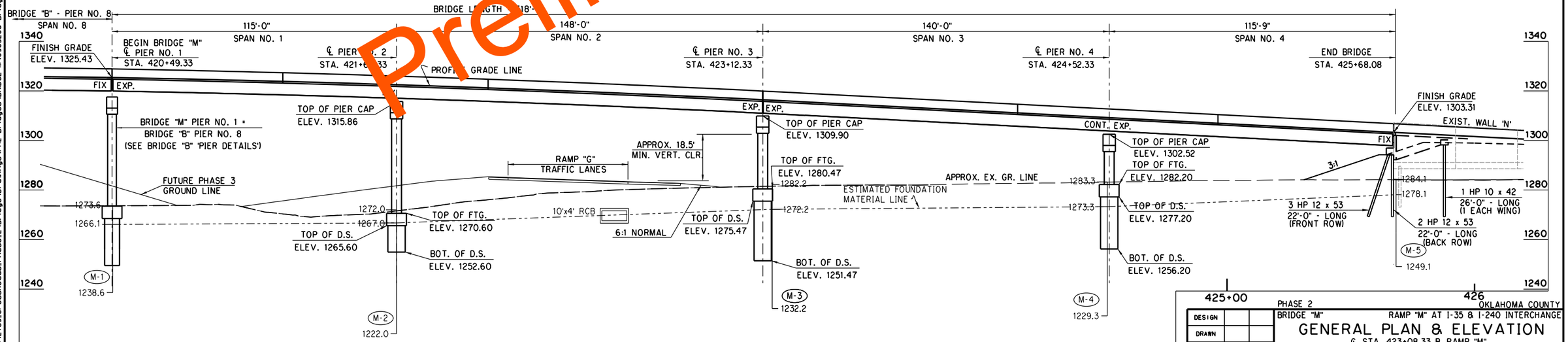
PROFILE GRADE DATA RAMP "G"

BM 5 ~ X ON CURB AT CENTER OF INLET 258.21' LT. ℄ I-35 STA.85+81.41 ELEV.=1282.41

BM 26 ~ #6 REBAR, 526.25' LT. ℄ I-35 STA.72+81.56 ELEV.=1283.54



PROFILE GRADE DATA RAMP "M"



ELEVATION
SCALE: 1"= 20'-0"

PHASE 2 — OKLAHOMA COUNTY

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

BRIDGE "M" — RAMP "M" AT I-35 & I-240 INTERCHANGE

GENERAL PLAN & ELEVATION

℄ STA. 423+08.33 ℄ RAMP "M"

CONST. 115'-148'-140'-115' PLATE GIRDER SPANS
29'-0" CLR. RDWY. W/ 42" F-SHAPED PARAPET

STATE JOB NO. 09032(06) SHEET NO. B223

Preliminary Plans

5/31/2022 3:29:55 PM
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REVISIONS		
DESCRIPTION		DATE

DESIGN DATA

DESIGN SPECIFICATIONS:

AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 9TH EDITION
ANSI/AASHTO/AWS D1.5 BRIDGE WELDING CODE
ANSI/AWS D1.6 STRUCTURAL WELDING CODE STAINLESS STEEL

UNIT STRESSES:

CLASS AA CONCRETE	F'c = 4,000 PSI
CLASS A CONCRETE	F'c = 3,000 PSI
REINFORCING STEEL (GRADE 60)	Fy = 60,000 PSI
STRUCTURAL STEEL M270 (GRADE 50)	Fy = 50,000 PSI
STAINLESS STEEL A240 (TYPE 316)	Fy = 30,000 PSI

DESIGN LOADING:

HL-93
OKLAHOMA OVERLOAD
20 PSF FUTURE WEARING SURFACE
5 PSF SIP STEEL DECK FORM ALLOWANCE

LRFR OF HL-93 LOADING:

INVENTORY RATING FACTOR = 1.30
OPERATING RATING FACTOR = 1.47

FOUNDATION CAPACITIES

ABUTMENT

MAXIMUM FACTORED PILE REACTION = 101.0 TONS PER PILE

ALL ABUTMENT PILING SHALL BE DRIVEN THROUGH COMPACTED FILL. PILING SHALL BE DRIVEN TO POINT BEARING ON SOLID FOUNDATION MATERIAL AT THE APPROXIMATE ELEVATION SHOWN ON THE PLANS. IF THE AXIAL LOAD RESISTANCE IS NOT OBTAINED AT THIS ELEVATION, DRIVING SHALL CONTINUE UNTIL THE AXIAL LOAD RESISTANCE IS OBTAINED. THE LENGTH OF THE STEEL PILING SHOWN ON THE PLANS IS FOR ESTIMATING PURPOSES ONLY.

PIERS	PIER 2	PIER 3	PIER 4
DRILLED SHAFT DIAMETER =	84"	84"	84"
DRILLED SHAFT MINIMUM DEPTH INTO ROCK =	13'-0"	20'-0"	17'-0"
FACTORED REACTION =	1475 TONS	1089 TONS	1400 TONS
NOMINAL UNIT BEARING RESISTANCE =	60.00 TSF	60.00 TSF	38.00 TSF
BEARING RESISTANCE FACTOR =	0.56	0.56	0.56
FACTORED BEARING RESISTANCE =	1293 TONS	1293 TONS	818 TONS
NOMINAL UNIT FRICTION RESISTANCE =	5.00 TSF	4.60 TSF	6.50 TSF
FRICTION RESISTANCE FACTOR =	0.36	0.36	0.[illegible]
FACTORED FRICTION RESISTANCE =	609 TONS	572 TONS	976 TONS
DEPTH OF ROCK NEGLECTED FOR FRICTION =	5 FT	5	5
TOTAL FACTORED RESISTANCE =	1902 TONS	1865 TONS	1794 TONS

Preliminary Plans

SUMMARY OF BRIDGE QUANTITIES

ITEM	UNIT	ABUT.	PIERS	SUPER STR.	APPR. SLABS	SLOPE WALL	TOTAL
SUBSTRUCTURE EXCAVATION COMMON	C.Y.	60	150	--	--	--	210
CLSM BACKFILL	C.Y.	83.8	--	--	--	--	83.8
APPROACH SLAB	S.Y.	--	--	--	104.0	--	104.0
SAW-CUT GROOVING	S.Y.	--	--	1673.1	94.3	--	1767.4
42" F-SHAPED PARAPET	L.F.	--	--	1033.7	58.5	--	1092.2
STRUCTURAL STEEL	LB.	--	--	887,980	--	--	887,980
STAINLESS STEEL FIXED BEARING ASSEMBLY	EA.	--	--	8	--	--	8
STAINLESS STEEL EXP. BEARING ASSEMBLY	EA.	--	--	16	--	--	16
ELASTOMERIC COATING	S.F.	135	539	--	--	--	674
CLASS AA CONCRETE	C.Y.	--	--	486.1	--	--	486.1
CLASS A CONCRETE	C.Y.	35.7	274.1	--	--	--	309.8
SLOPE WALL (5")	S.Y.	--	--	--	--	210	210
GRAFFITI TREATMENT	S.F.	--	--	--	--	--	9236
EPOXY COATED REINFORCING STEEL	LB.	4060	65,550	114,890	--	--	184,500
PILES, FURNISHED (HP 10X42)	L.F.	26	--	--	--	--	26
PILES, FURNISHED (HP 12X53)	L.F.	110	--	--	--	--	110
PILES, DRIVEN (HP 10X42)	L.F.	26	--	--	--	--	26
PILES, DRIVEN (HP 12X53)	L.F.	110	--	--	--	--	110
PILE SPLICE H-PILE (NON-BIDDABLE)	EA.	1	--	--	--	--	1
WATER REPELLENT (VISUALLY INSPECTED)	S.Y.	28	205	1353	29	--	1615
DRILLED SHAFTS 84" DIAMETER	L.F.	--	71	--	--	--	71
CROSSHOLE SONIC LOGGING	EA.	--	3	--	--	--	3
SEALED EXPANSION JOINTS	L.F.	--	--	61.7	--	--	61.7
SEALER CRACK PREPARATION	L.F.	--	--	128	--	--	128
SEALER RESIN	GAL.	--	--	1.4	--	--	1.4
6" PERFORATED PIPE UNDERDRAIN ROUND	L.F.	32	--	--	--	40	72
6" NON-PERF. PIPE UNDERDRAIN RND.	L.F.	18	--	--	--	60	78

INDEX OF SHEETS

SHEET NO.	DESCRIPTION
AB09	SUMMARY OF PAY QUANTITIES (BRIDGE "M")
AB10	GENERAL NOTES (BRIDGE "M")
B223	GENERAL PLAN & ELEVATION
B224	DESIGN DATA AND SUMMARY OF QUANTITIES
B225-B227	FOUNDATION REPORT
B228	SUBSTRUCTURE LAYOUT
B229	EXCAVATION DIAGRAM AND UNDERDRAIN DETAILS
B230-B231	ABUTMENT DETAILS
B232-B237	PIER DETAILS
B238-B240	SUPERSTRUCTURE DETAILS
B241	LONGITUDINAL SECTION AND SLAB POURING SEQUENCE
B242-B243	PARAPET LAYOUT
B244-B247	PLATE GIRDER DETAILS
B248	FRAMING PLAN AND DIAPHRAGM DETAILS
B249	GIRDER BRACING DETAILS
B250	BEARING ASSEMBLY DETAILS
B251-B252	APPROACH SLAB DETAILS
B253-B254	SLOPEWALL DETAILS
	2009 BRIDGE STANDARDS
STD.	FSHP-42-2
STD.	EJ-SQ
STD.	EJ-SK
STD.	EJ-DTL
STD.	HP1-2
	2019 ROADWAY STANDARDS
STD.	LECS-5
STD.	LTU-5
STD.	SPI-5
STD.	PUD-4

PHASE 2 OKLAHOMA COUNTY

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

BRIDGE "M" RAMP "M" AT I-35 & I-240 INTERCHANGE

DESIGN DATA AND SUMMARY OF QUANTITIES

STATE JOB NO. 09032(106) SHEET NO. B224

5/31/2022 3:29:57 PM
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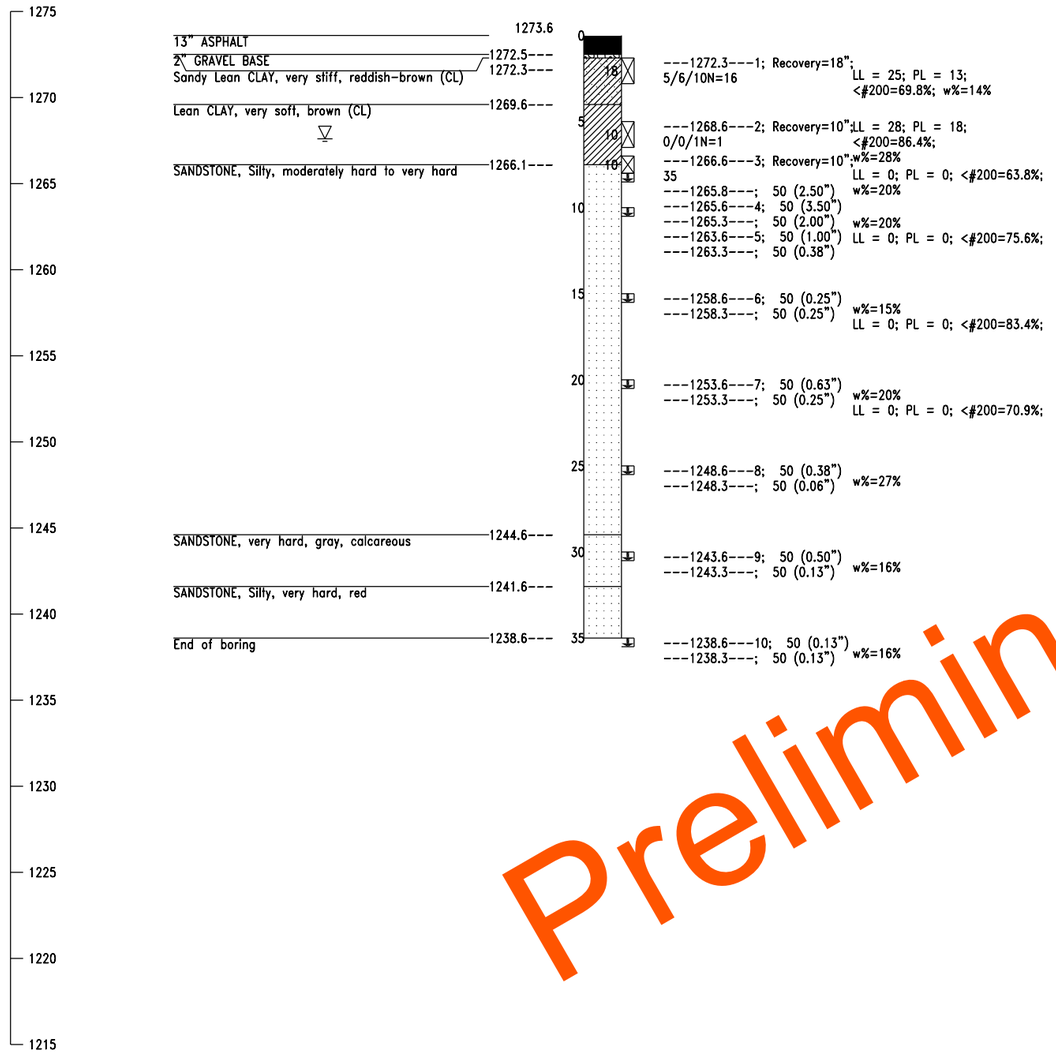
REVISIONS		
DESCRIPTION		DATE

Boring Number M-1
Northing: 142780.8642
Easting: 2150273.5713
Date Drilled: 4/27/2017
℄ RAMP "M" STA. 420+49.65
OFFSET 7.09' RT.



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---1243.6---9; 50 (0.50")
---1243.3---; 50 (0.13") w%=16%

---1238.6---10; 50 (0.13")
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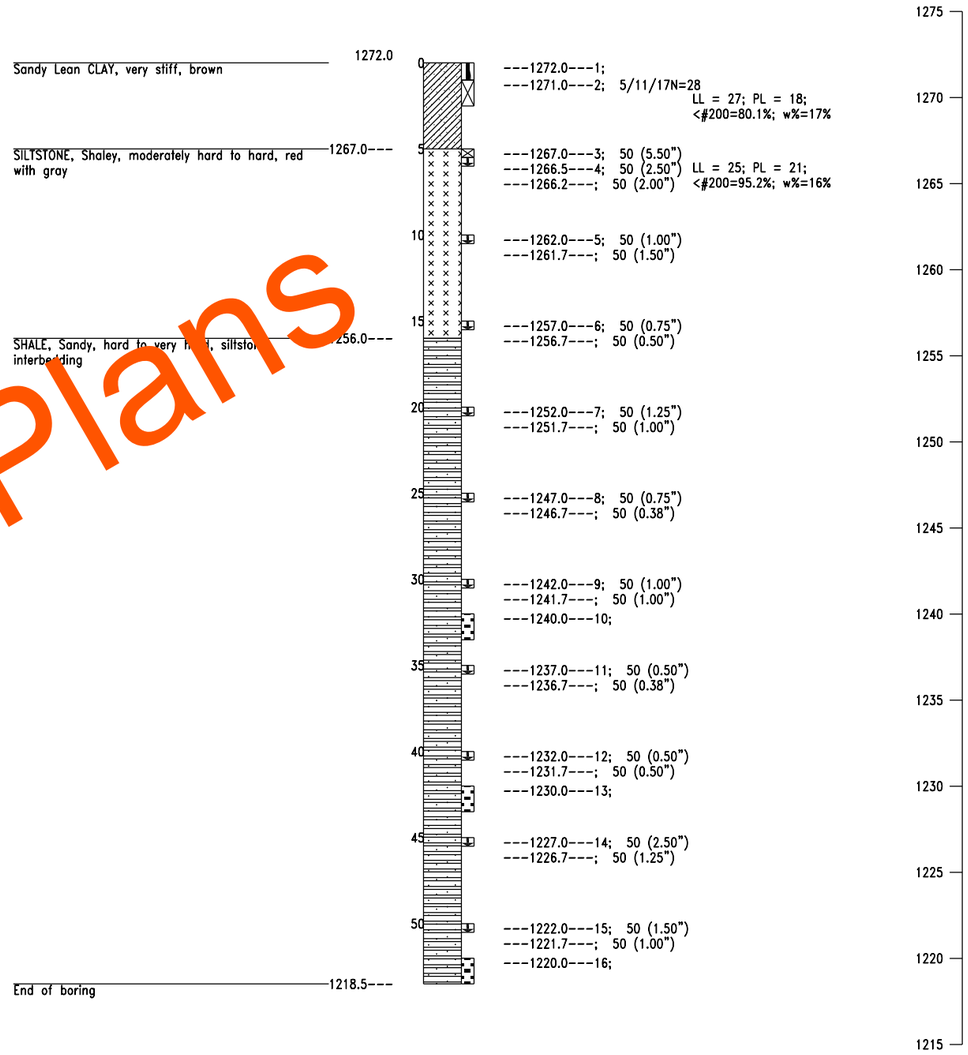
Boring Number M-2
Northing: 142678.26
Easting: 2150326.13
6/22/17
℄ RAMP "M" STA. 421+65.40
OFFSET 4.50' LT.



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---1262.0---5; 50 (1.00")
---1261.7---; 50 (1.50")

---1257.0---6; 50 (0.75")
---1256.7---; 50 (0.50")

---1252.0---7; 50 (1.25")
---1251.7---; 50 (1.00")

---1247.0---8; 50 (0.75")
---1246.7---; 50 (0.38")

---1242.0---9; 50 (1.00")
---1241.7---; 50 (1.00")
---1240.0---10;

---1237.0---11; 50 (0.50")
---1236.7---; 50 (0.38")

---1232.0---12; 50 (0.50")
---1231.7---; 50 (0.50")
---1230.0---13;

---1227.0---14; 50 (2.50")
---1226.7---; 50 (1.25")

---1222.0---15; 50 (1.50")
---1221.7---; 50 (1.00")
---1220.0---16;

Preliminary Plans

GEOLOGIC STATEMENT

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The total thickness of the unit is about 400 feet.

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GEOTECHNICAL REPORT

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Note: Water level elevations shown were obtained at the time the borings were drilled and may fluctuate throughout the year.

NOTE: SPT - Split Spoon Sampling
TCP - Texas Cone Penetrator Test
AUG - Augur Cutting Sample
LL - Liquid Limit
PL - Plastic Limit

<#200 - Percent passing #200 sieve
w% - Moisture content
N - Number of blows per 12 inches
▽ Denotes depth to observed groundwater

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	PSI	

PHASE 2 OKLAHOMA COUNTY
BRIDGE "M" RAMP "M" AT I-35 & I-240 INTERCHANGE

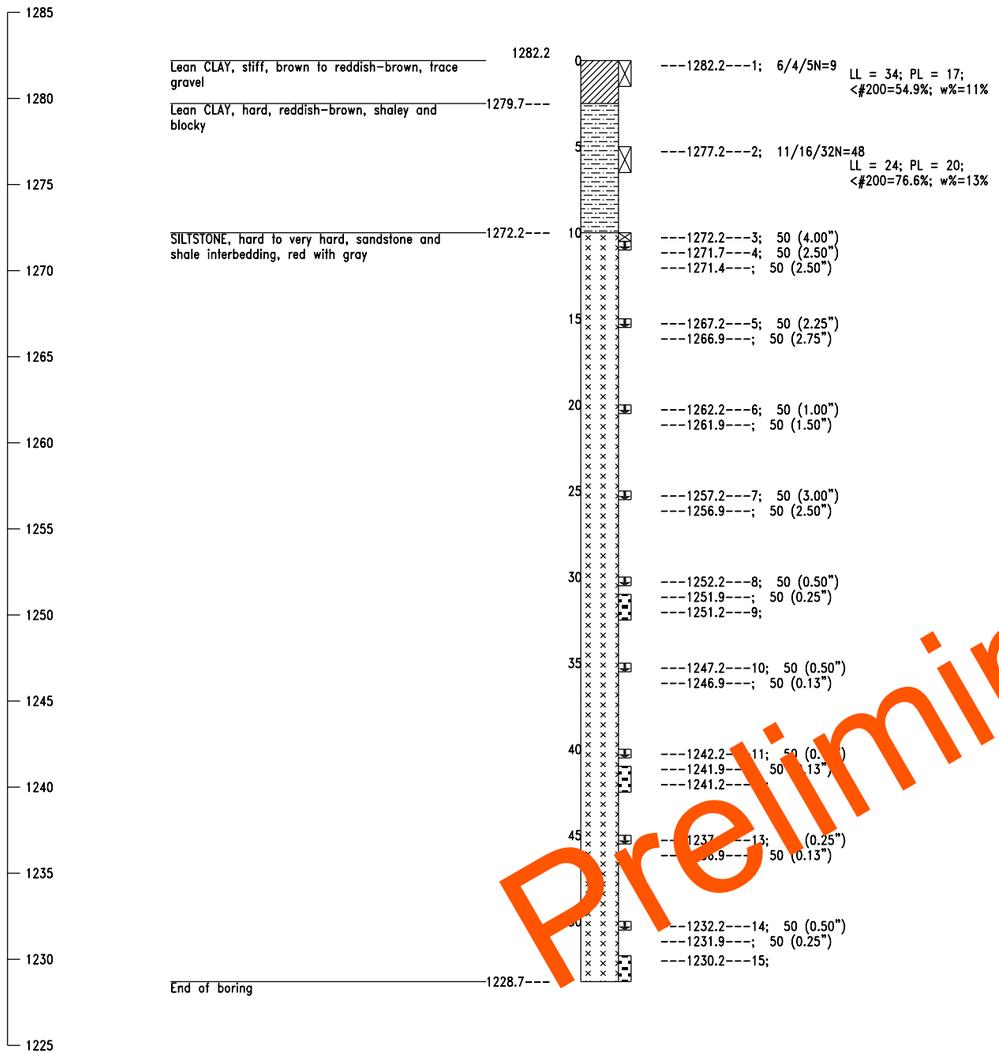
FOUNDATION REPORT
(SHEET 1 OF 3)

STATE JOB NO. 09032(061) SHEET NO. B225

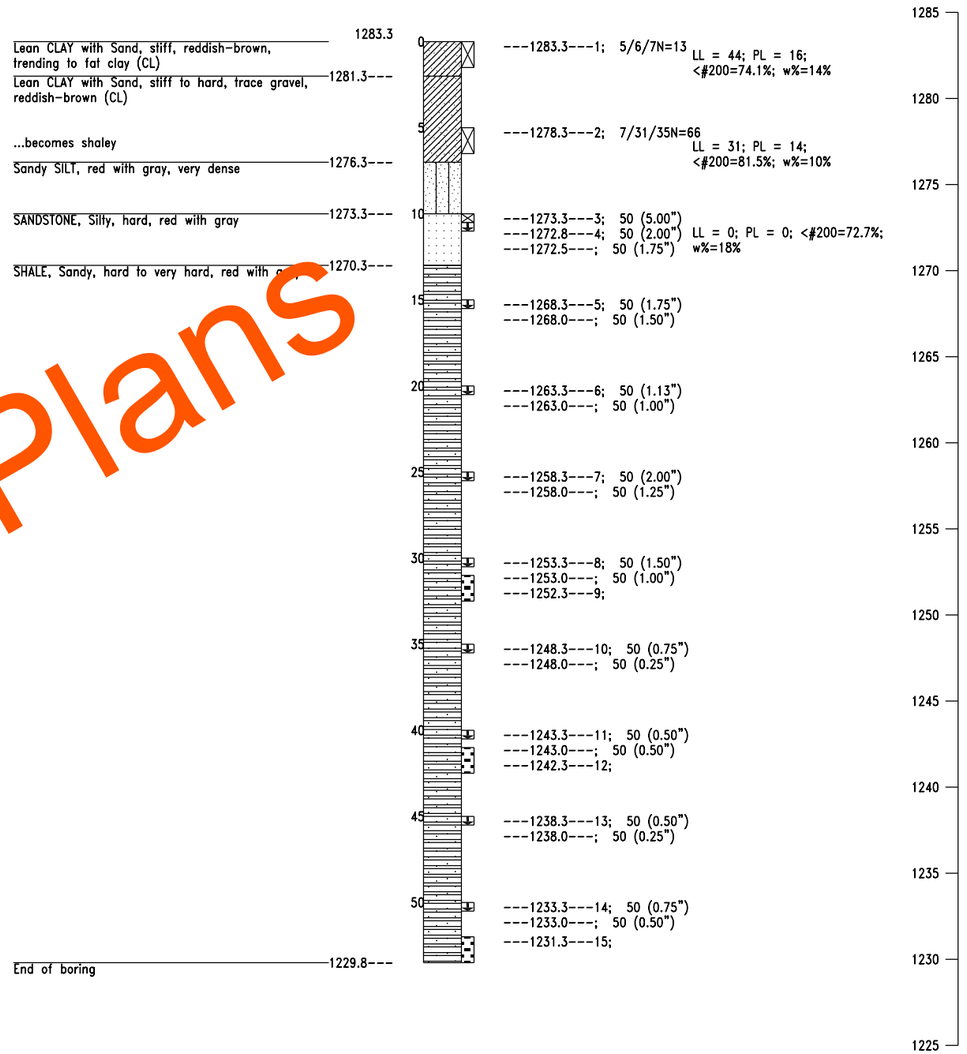
5/31/2022 3:30:04 PM
H:\PROJECTS\2789_CrossRoads_Phase_2\Bridge\Drawings\Ph2 Bridges\BRIDGE M\0903206 Bridge M FR-bores.dgn

DESCRIPTION	REVISIONS	DATE

Boring Number M-3
Northing: 142539.5069
Easting: 2150388.1174
Date Drilled: 4/18/2017
℄ RAMP "M" STA. 423+16.15
OFFSET 11.70' LT.



Boring Number M-4
Northing: 142410.4117
Easting: 2150429.8786
Date Drilled: 5/3/2017
132 RAMP "M" STA. 424+51.67
OFFSET 0.00'



Preliminary Plans

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<#200 - Percent passing #200 sieve
w% - Moisture content
N - Number of blows per 12 inches
▽ Denotes depth to observed groundwater

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	PSI	

PHASE 2 — OKLAHOMA COUNTY
BRIDGE "M" — RAMP "M" AT I-35 & I-240 INTERCHANGE

FOUNDATION REPORT
(SHEET 2 OF 3)

STATE JOB NO. 09032(06) SHEET NO. B226

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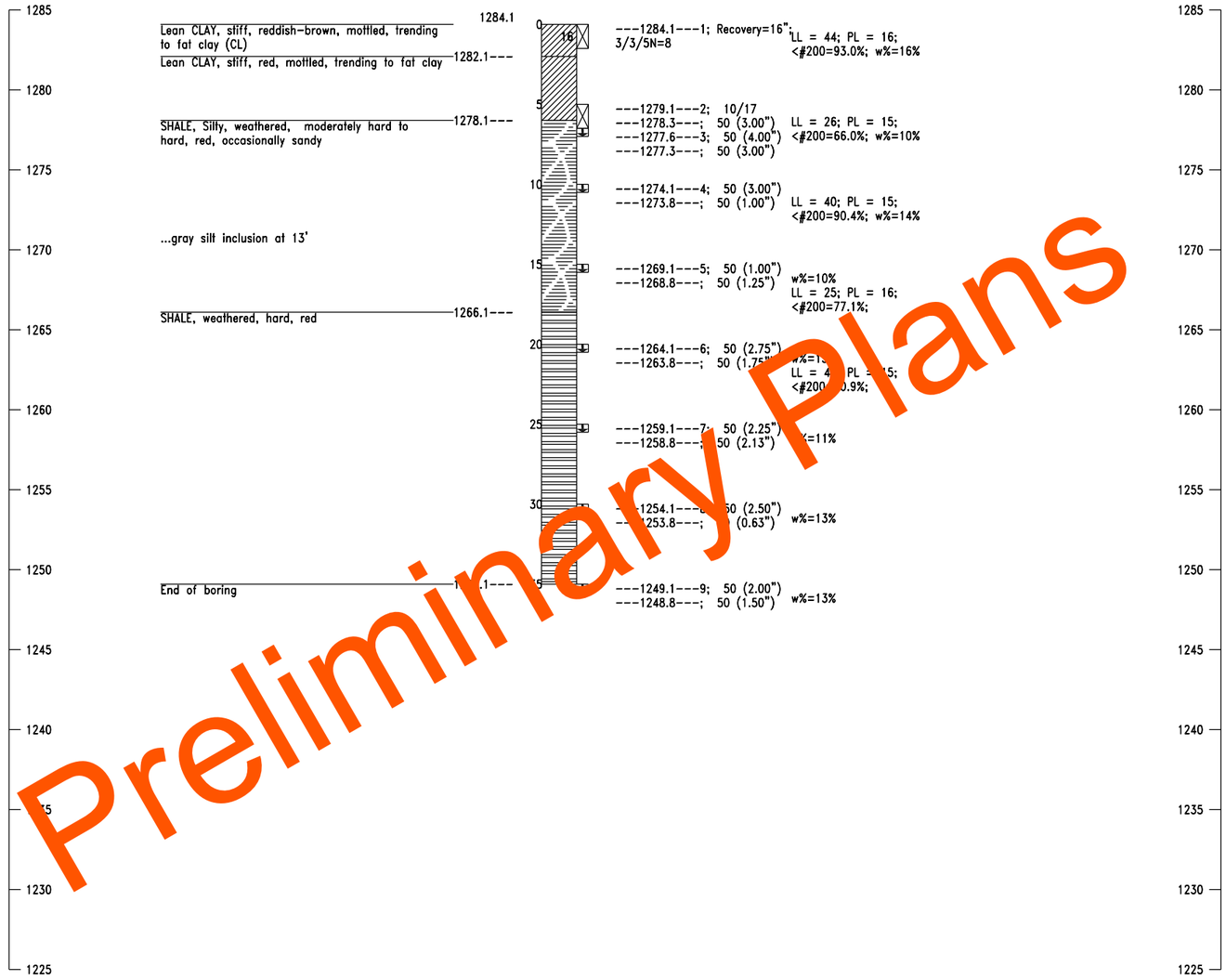
REVISIONS		
DESCRIPTION		DATE

Boring Number M-5
Northing: 142308.6795
Easting: 2150490.0913
Date Drilled: 4/27/17
℄ RAMP "M" STA. 425+70.01
OFFSET 5.80' LT.



Preliminary Plans

GEOLOGIC STATEMENT

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<#200 - Percent passing #200 sieve
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DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	PSI	

PHASE 2 OKLAHOMA COUNTY
BRIDGE "M" RAMP "M" AT I-35 & I-240 INTERCHANGE

FOUNDATION REPORT

(SHEET 3 OF 3)

STATE JOB NO. 09032(106) SHEET NO. B227

5/31/2022 3:30:15 PM
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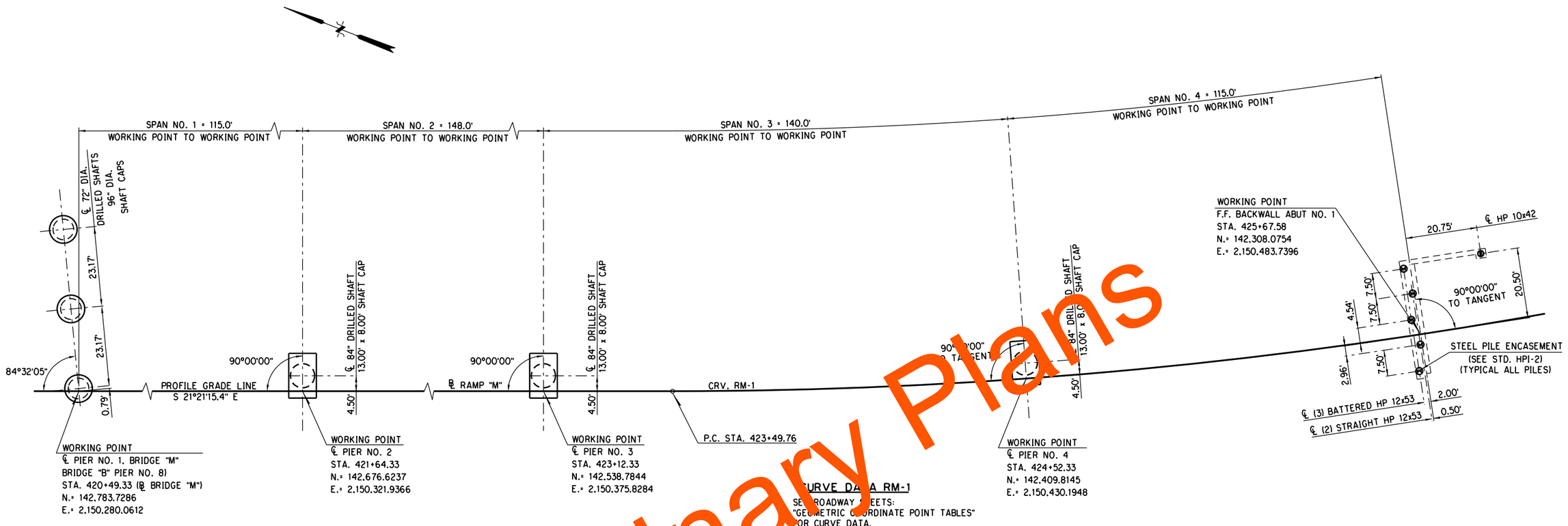
DESCRIPTION	REVISIONS	DATE

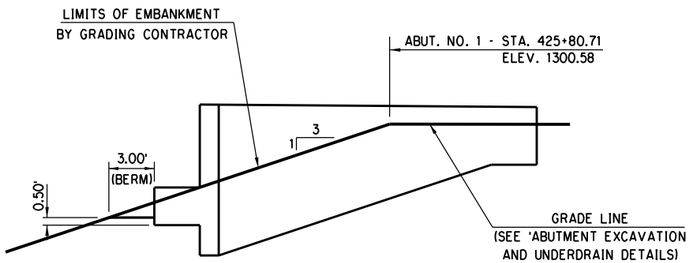


CURVE DATA RM-1

SEE ROADWAY SHEETS:
"GEOMETRIC COORDINATE POINT TABLES"
FOR CURVE DATA.

PLAN
SCALE: 1"=15'-0"

TOP OF PILE ELEVATIONS	
ABUTMENT PILES	1294.61
WING PILE	1298.61



DETAIL OF GRADING AT ABUTMENT

UTILITIES:
(CAUTION) THE LOCATION OF ALL UTILITIES AS SHOWN ARE APPROXIMATE DUE TO RELOCATION PLANNED OR PRESENTLY UNDER CONSTRUCTION. ALL UTILITIES THAT WOULD INTERFERE WITH CONSTRUCTION OF NEW BRIDGE SHOULD BE RELOCATED BY THE UTILITY OWNERS PRIOR TO START OF CONSTRUCTION. THERE ARE SOME UTILITIES THAT WILL BE RELOCATED AND NOT SHOWN ON THESE PLANS. THE CONTRACTOR SHALL VERIFY THAT THE UTILITIES HAVE BEEN RELOCATED PRIOR TO STARTING CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO ALL UTILITIES.
NO PAYMENT WILL BE MADE FOR REMOVAL OF ABANDONED UTILITY PIPE LINES THAT INTERFERE WITH CONSTRUCTION. ALL COST TO BE INCLUDED IN OTHER ITEMS.

OKLAHOMA ONE-CALL SYSTEM:
IN ACCORDANCE WITH THE OKLAHOMA UNDERGROUND FACILITIES DAMAGE PREVENTION ACT THE CONTRACTOR SHALL NOTIFY THE OKLAHOMA ONE-CALL SYSTEM, INC. 48 HOURS PRIOR TO BEGINNING EXCAVATION. OKLAHOMA ONE-CALL SYSTEM, INC. "CALL OKIE" 1-800-522-6543 OR 811.

DRILLED SHAFT CONSTRUCTION:
DUE TO THE VERY HARD ROCK ENCOUNTERED AT THIS SITE, DRILLED SHAFT EXCAVATIONS WILL REQUIRE SPECIALIZED ROCK DRILLING EQUIPMENT. THE CONTRACTOR IS RESPONSIBLE FOR BECOMING FAMILIAR WITH THE EXISTING SUBSURFACE CONDITIONS AND THEIR IMPLICATIONS ON THE DRILLING PROCESSES PRIOR TO BEGINNING WORK.

PHASE 2 — OKLAHOMA COUNTY

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

BRIDGE "M" — RAMP "M" AT I-35 & I-240 INTERCHANGE

SUBSTRUCTURE LAYOUT

STATE JOB NO. 09032(106) SHEET NO. B228

Preliminary Plans

5/31/2022 3:30:16 PM
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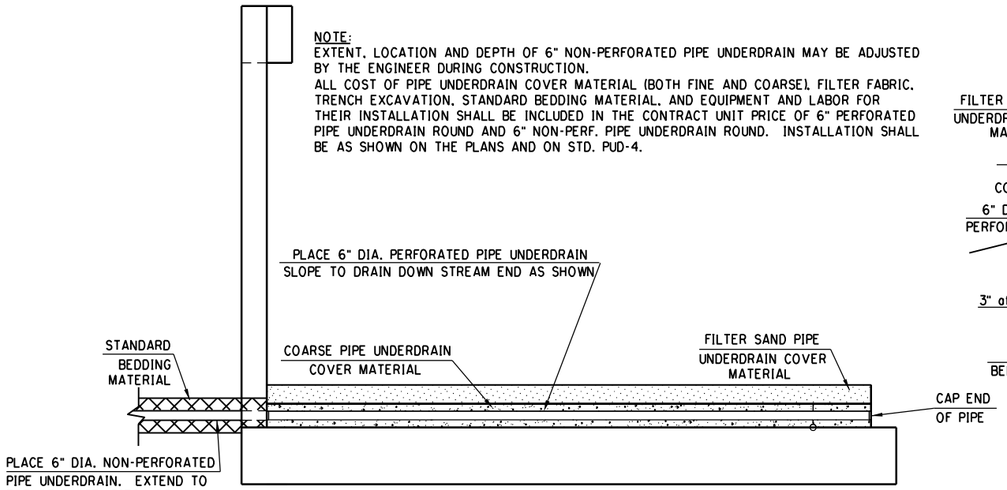
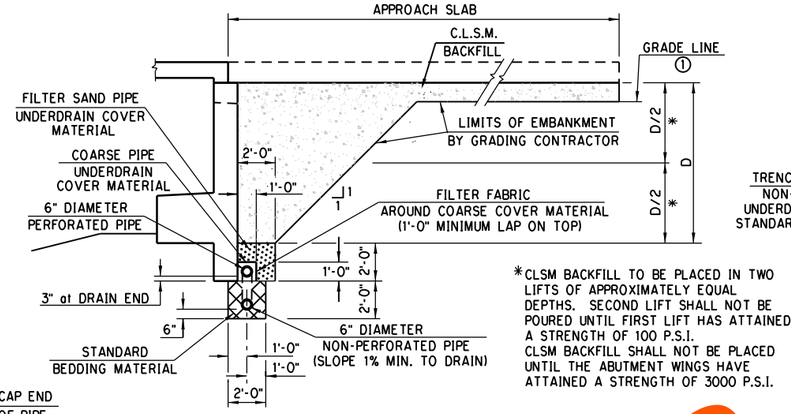
DESCRIPTION	REVISIONS	DATE

NOTE:
EXTENT, LOCATION AND DEPTH OF 6" NON-PERFORATED PIPE UNDERDRAIN MAY BE ADJUSTED BY THE ENGINEER DURING CONSTRUCTION.
ALL COST OF PIPE UNDERDRAIN COVER MATERIAL (BOTH FINE AND COARSE), FILTER FABRIC, TRENCH EXCAVATION, STANDARD BEDDING MATERIAL, AND EQUIPMENT AND LABOR FOR THEIR INSTALLATION SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE OF 6" PERFORATED PIPE UNDERDRAIN ROUND AND 6" NON-PERF. PIPE UNDERDRAIN ROUND. INSTALLATION SHALL BE AS SHOWN ON THE PLANS AND ON STD. PUD-4.



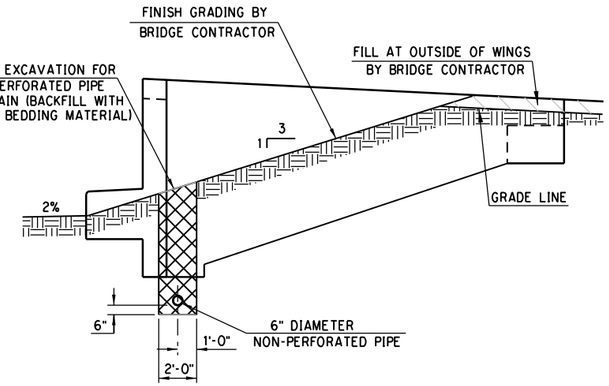
PIPE UNDERDRAIN PLAN



*CLSM BACKFILL TO BE PLACED IN TWO LIFTS OF APPROXIMATELY EQUAL DEPTHS. SECOND LIFT SHALL NOT BE POURED UNTIL FIRST LIFT HAS ATTAINED A STRENGTH OF 100 P.S.I. CLSM BACKFILL SHALL NOT BE PLACED UNTIL THE ABUTMENT WINGS HAVE ATTAINED A STRENGTH OF 3000 P.S.I.

UNDERDRAIN INSTALLATION DETAIL

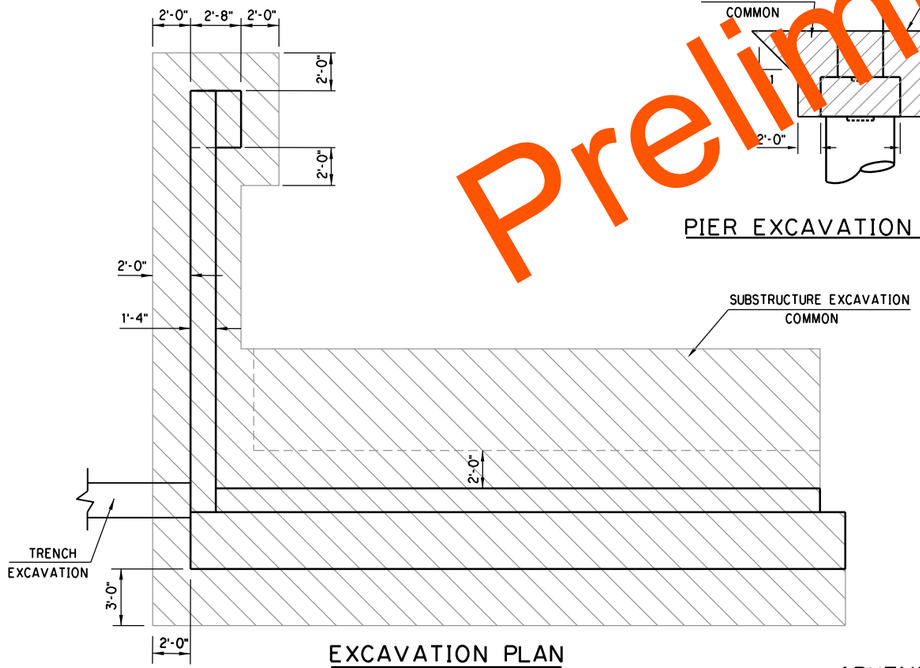
① GRADE LINE SHOWN IS ASSUMED TO BE LOCATED 12" BELOW BOTTOM OF APPROACH SLAB FOR COMPUTING CLSM BACKFILL QUANTITY SHOWN ON THE PLANS. THE DEPARTMENT WILL PAY FOR CLSM BACKFILL IN ACCORDANCE WITH THE PLAN QUANTITY AND NO ADJUSTMENT WILL BE MADE FOR ACTUAL LOCATION OF GRADE LINE.



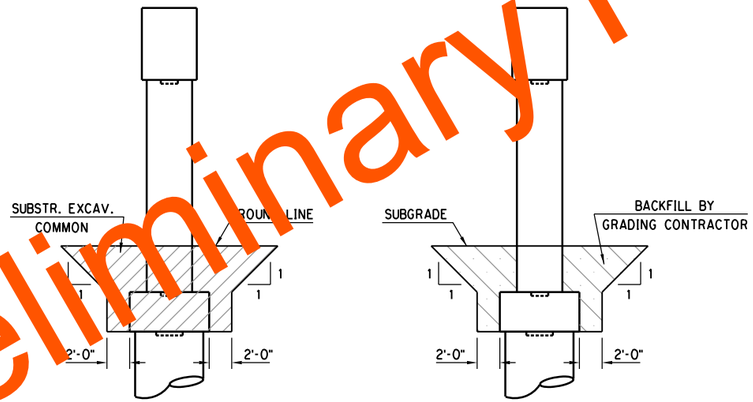
BACKFILL DETAIL OUTSIDE OF WING

ABUTMENT UNDERDRAIN DETAILS

NOTE:
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 CONCRETE IS SET.
MEASUREMENT AND PAYMENT FOR SUBSTRUCTURE EXCAVATION COMMON SHALL BE ACCORDANCE WITH THE DIAGRAM SHOWN ON THE PLANS.

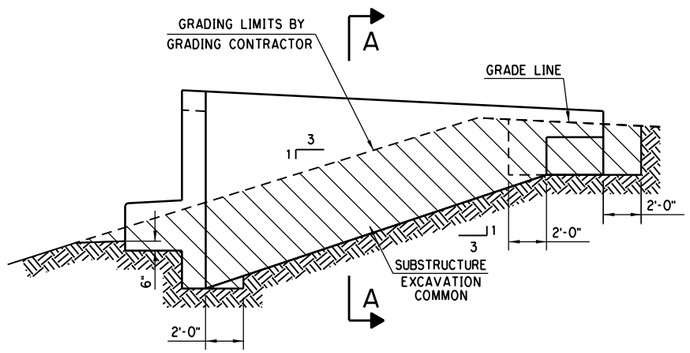


EXCAVATION PLAN



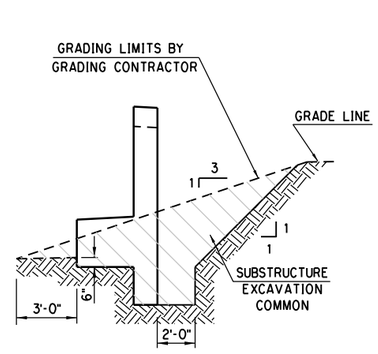
PIER EXCAVATION DIAGRAM

PIER BACKFILL DIAGRAM

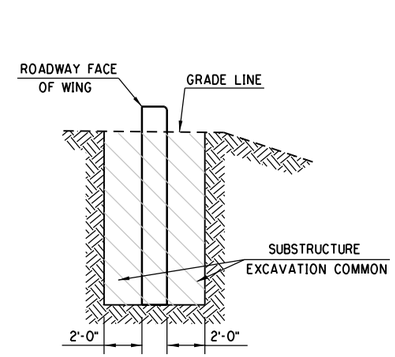


WING ELEVATION

ABUTMENT EXCAVATION DIAGRAMS



SECTION THRU BRIDGE SEAT



SECTION A-A
SECTION THRU WING

NOTE: FOR ADDITIONAL DETAILS AND GENERAL NOTES FOR PIPE UNDERDRAIN INSTALLATION, SEE ODOT STDS. PUD-4 AND SPI-5

CONSTRUCTION NOTES

1. CLSM BACKFILL SHALL NOT BE PLACED UNTIL THE SUPERSTRUCTURE IS IN PLACE AND THE ABUTMENT WING CONCRETE HAS ATTAINED A STRENGTH OF 3000 P.S.I..
2. THE EXTENT, LOCATION, AND DEPTH OF DRAINS MAY BE ADJUSTED BY THE ENGINEER TO SUIT CONDITIONS FOUND DURING CONSTRUCTION.
3. COST OF ALL FITTINGS TO BE INCLUDED IN PRICE BID PER LINEAR FOOT OF PIPE UNDERDRAIN.
4. ALL CONSTRUCTION AND MATERIAL REQUIREMENTS SHALL BE IN ACCORDANCE WITH THE CURRENT SPECIFICATIONS.

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 — OKLAHOMA COUNTY
BRIDGE "M" — RAMP "M" AT I-35 & I-240 INTERCHANGE

EXCAVATION DIAGRAM AND UNDERDRAIN DETAILS

STATE JOB NO. 09032(106) SHEET NO. B229

Preliminary Plans

5/31/2022 3:30:17 PM
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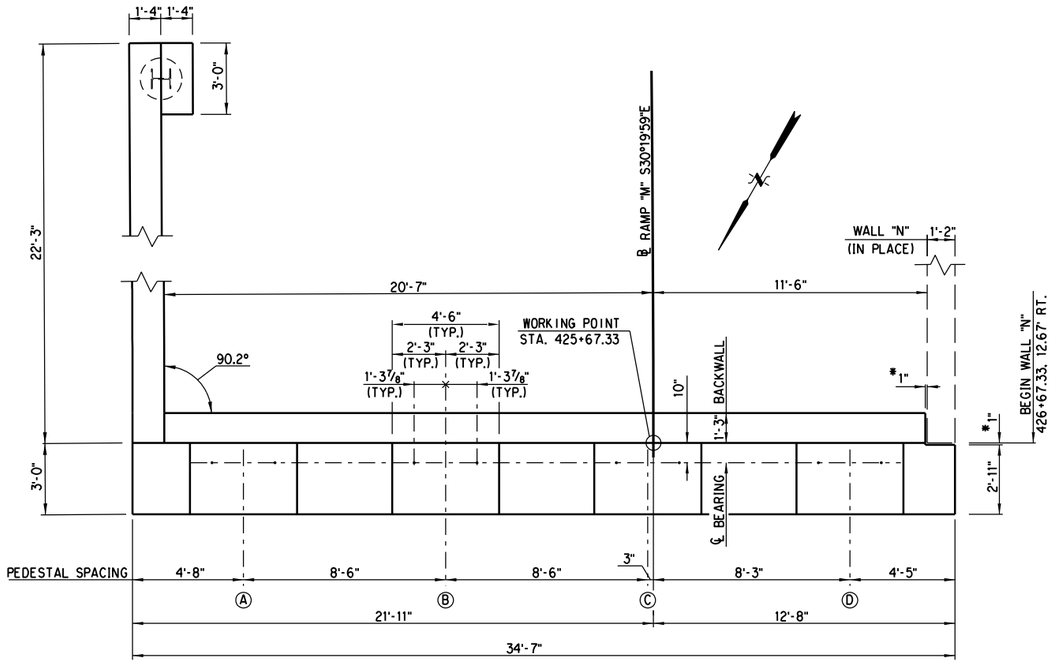
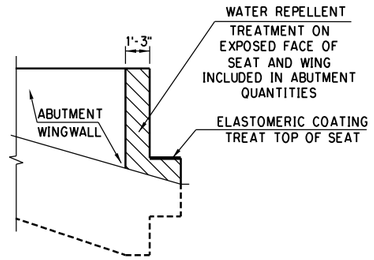
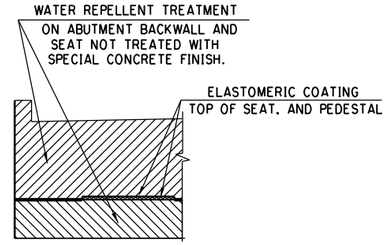


PLAN

*PROVIDE 1" FILLER MATERIAL BETWEEN WALL "N" AND ABUTMENT



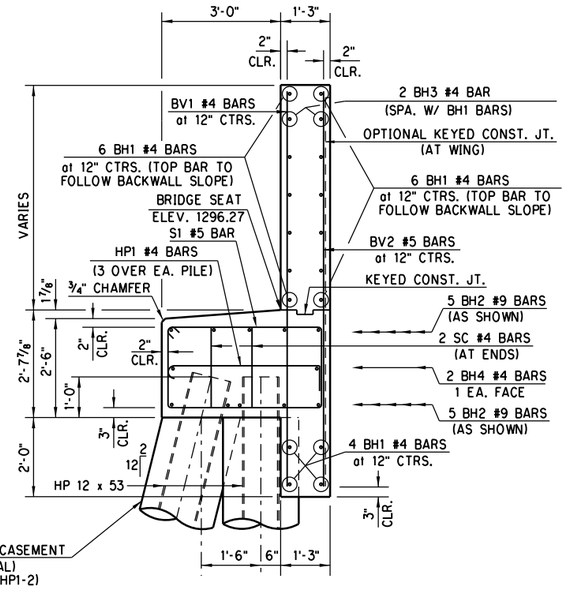
SIDE



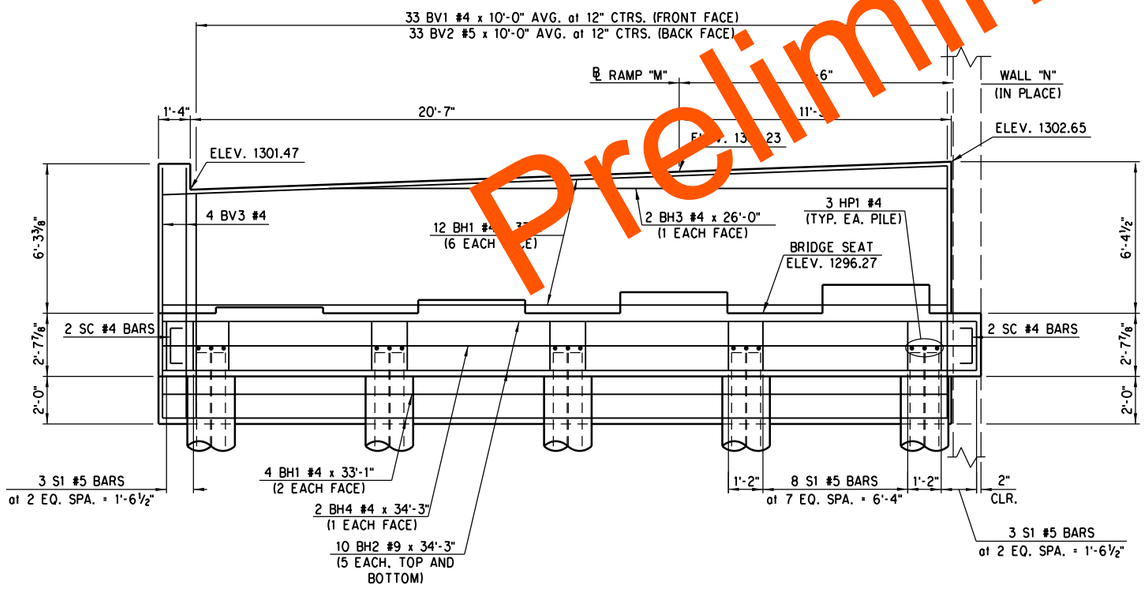
ELEVATION

WATER REPELLENT TREATMENT AND ELASTOMERIC COATING DETAILS

DESCRIPTION	REVISIONS	DATE

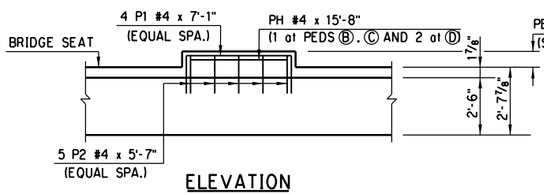


TYPICAL SECTION THRU BR. SEAT

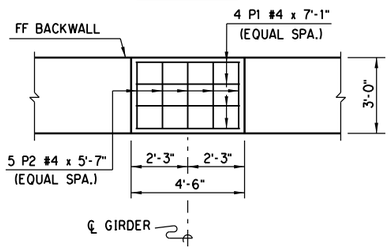


ELEVATION

PEDESTAL ELEVATION & HEIGHT SCHEDULE				
PEDESTAL	A	B	C	D
ELEVATION	1296.52	1296.83	1297.15	1297.47
HEIGHT	3"	6¾"	10⅝"	1'-2⅜"



ELEVATION



PLAN

PEDESTAL REINFORCING

ABUTMENT QUANTITIES		
ITEM	UNIT	TOTAL
SUBSTRUCTURE EXCAVATION COMMON	C.Y.	60
CLSM BACKFILL	C.Y.	83.8
ELASTOMERIC COATING	S.F.	135
CLASS A CONCRETE	C.Y.	35.7
EPOXY COATED REINFORCING STEEL	LB.	4,060
PILES, FURNISHED (HP 10X42)	L.F.	26
PILES, FURNISHED (HP 12X53)	L.F.	110
PILES, DRIVEN (HP 10X42)	L.F.	26
PILES, DRIVEN (HP 12X53)	L.F.	110
WATER REPELLENT (VISUALLY INSPECTED)	S.Y.	28
6" PERFORATED PIPE UNDERDRAIN ROUND	L.F.	32
6" NON-PERF. PIPE UNDERDRAIN RND.	L.F.	18

Preliminary Plans

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 OKLAHOMA COUNTY

BRIDGE "M" RAMP "M" AT I-35 & I-240 INTERCHANGE

ABUTMENT DETAILS

(SHEET 1 OF 2)

STATE JOB NO. 09032(06) SHEET NO. B230

5/31/2022 3:30:20 PM
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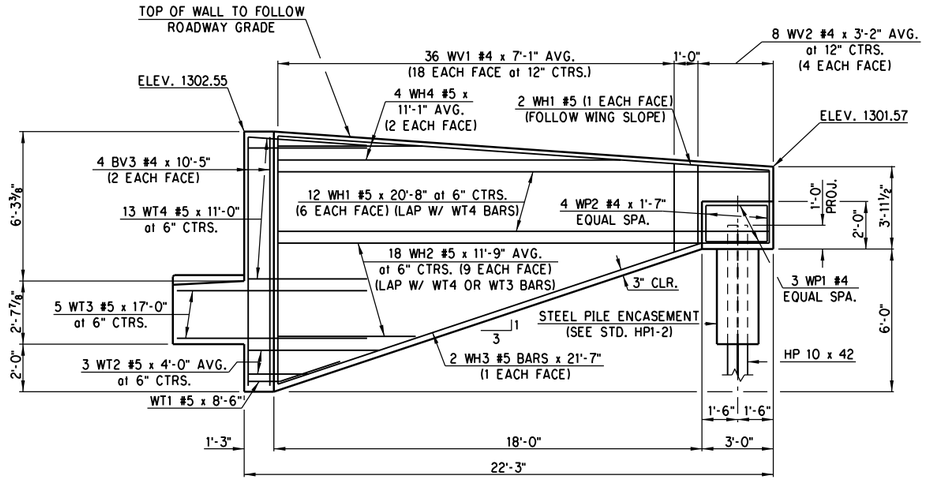
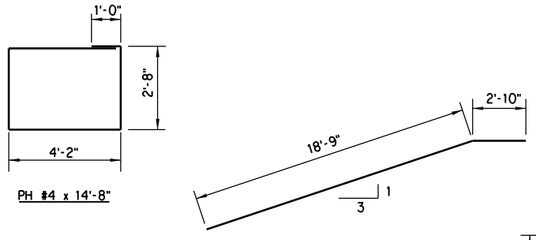
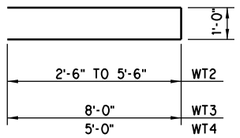
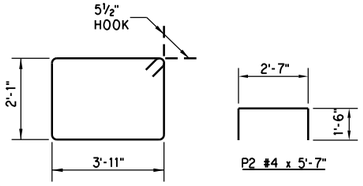


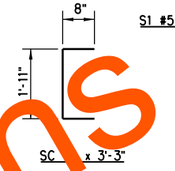
EAST WING ELEVATION

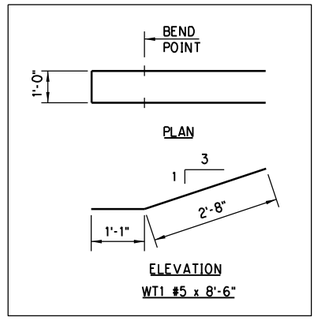


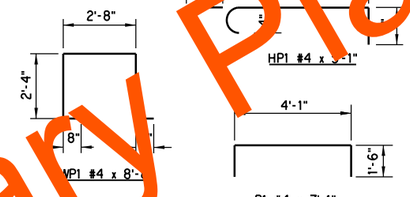


WT2 #5 x 9'-0" AVG. (6'-0" to 12'-0")
WT3 #5 x 17'-0"
WT4 #5 x 11'-0"

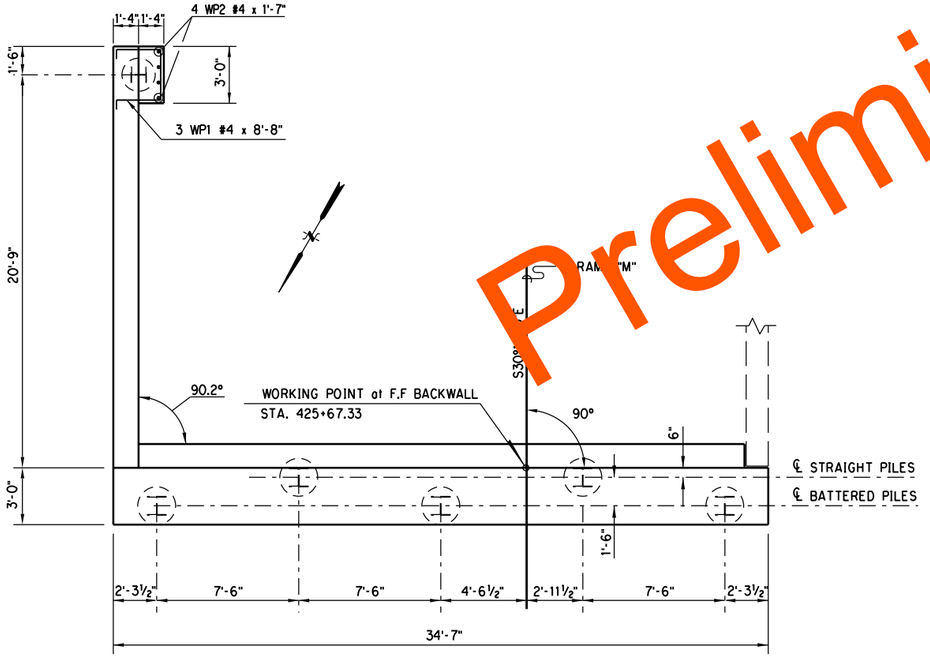






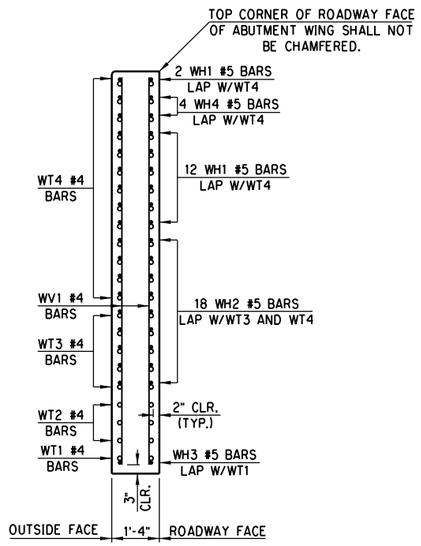


ALL BENT BAR DIMENSIONS ARE OUT TO OUT.



PILE SPACING DIAGRAM

NOTE: BR. SEAT PILES ARE HP 12 x 53. WING PILE IS HP 10 x 42 (BATTER FRONT ROW IN BR. SEAT 2:12)



SECTION THRU WING AT BACK FACE OF ABUTMENT SEAT

BAR LIST (EPOXY COATED)

MARK	NO.	SIZE	FORM	SPACING	LENGTH	VARIANCE
BH1	16	#4	STR.	12" C/C	33'-1"	--
BH2	10	#9	STR.	AS SHOWN	34'-3"	--
BH3	2	#4	STR.	AS SHOWN	26'-0"	--
BH4	2	#4	STR.	AS SHOWN	34'-3"	--
BV1	33	#4	STR.	12" C/C	10'-0" AVG.	9'-5" TO 10'-7"
BV2	33	#5	STR.	12" C/C	10'-0" AVG.	9'-5" TO 10'-7"
BV3	2	#4	STR.	AS SHOWN	10'-5"	--
HP1	15	#4	BNT.	AS SHOWN	5'-1"	--
P1	16	#4	BNT.	EQ. SPA.	7'-1"	--
P2	20	#4	BNT.	EQ. SPA.	5'-7"	--
PH	4	#4	BNT.	AS SHOWN	14'-8"	--
S1	38	#5	BNT.	AS SHOWN	12'-11"	--
SC	4	#4	BNT.	EQ. SPA.	3'-3"	--
WT1	1	#5	BNT.	AS SHOWN	8'-6"	--
WT2	3	#5	BNT.	6" C/C	9'-0" AVG.	6'-0" TO 12'-0"
WT3	5	#5	BNT.	6" C/C	17'-0"	--
WT4	13	#5	BNT.	6" C/C	11'-0"	--
WH1	14	#5	STR.	6" C/C	20'-8"	--
WH2	18	#5	STR.	6" C/C	11'-9" AVG.	5'-9" TO 17'-9"
WH3	2	#5	BNT.	AS SHOWN	21'-7"	--
WH4	4	#5	STR.	6" C/C	14'-9" AVG.	9'-5" TO 20'-1"
WP1	3	#4	BNT.	EQ. SPA.	8'-8"	--
WP2	4	#4	STR.	EQ. SPA.	1'-7"	--
WV1	36	#4	STR.	12" C/C	7'-1" AVG.	3'-9" TO 10'-5"
WV2	8	#4	STR.	12" C/C	3'-2" AVG.	3'-1" TO 3'-3"

NOTE: FOR DETAILS OF BEARING AND ANCHOR BOLTS SEE 'BEARING ASSEMBLY DETAILS'.

Preliminary Plans

REVISIONS		
DESCRIPTION		DATE

PHASE 2 — OKLAHOMA COUNTY

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

BRIDGE "M" — RAMP "M" AT I-35 & I-240 INTERCHANGE

ABUTMENT DETAILS

(SHEET 2 OF 2)

STATE JOB NO. 09032(06) SHEET NO. B231

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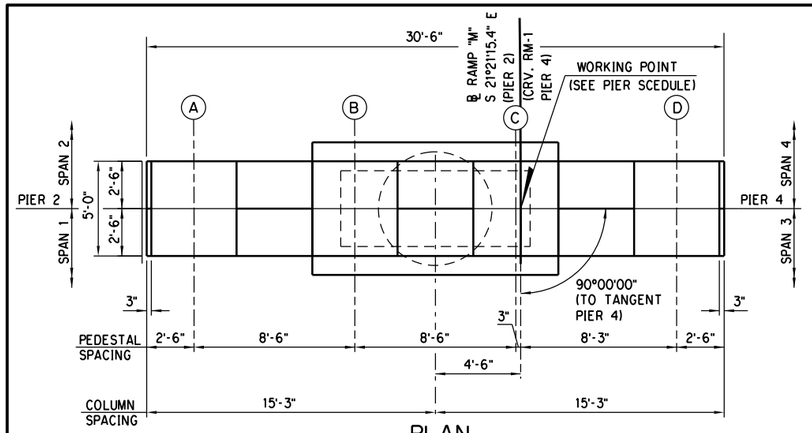
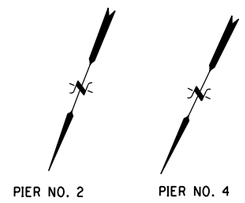
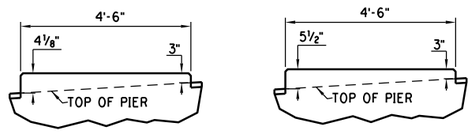
DESCRIPTION	REVISIONS	DATE



PLAN

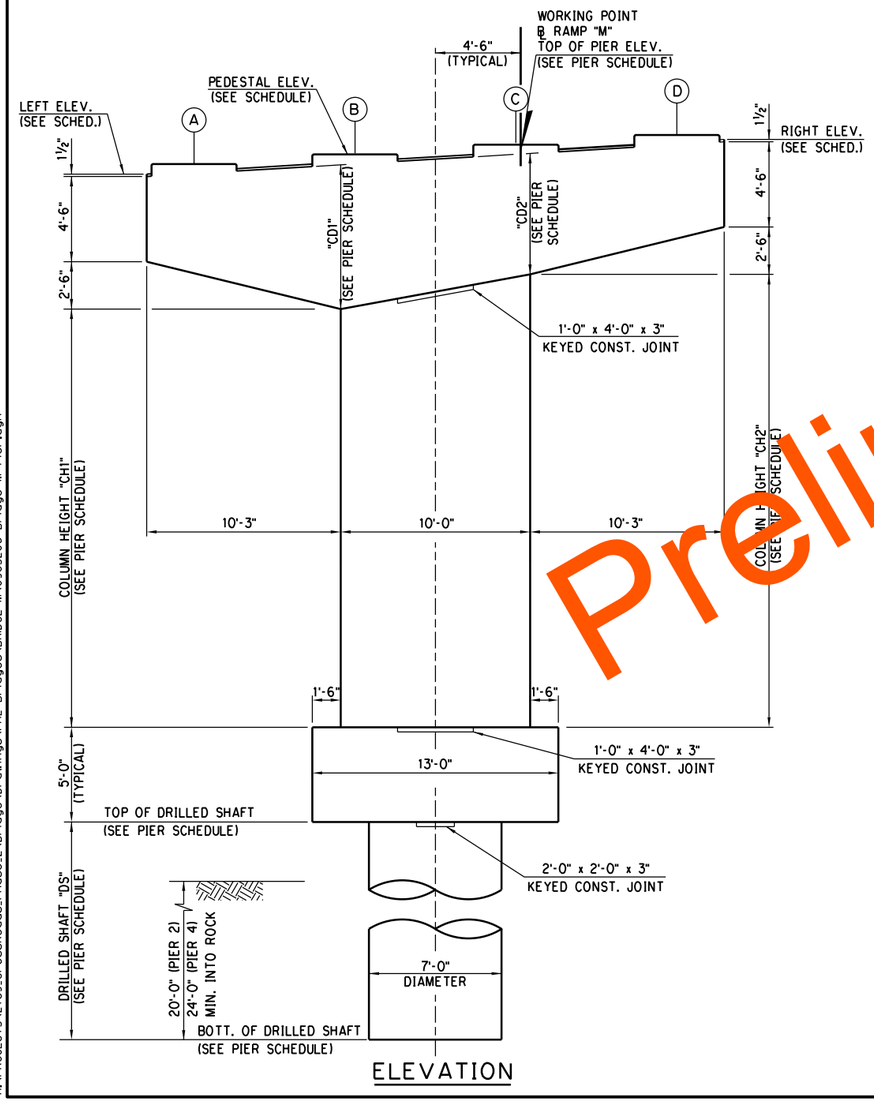
(PIER NO. 2 PEDESTALS SHOWN.
SEE 'BEARING ASSEMBLY DETAILS'
FOR ANCHOR BOLT LAYOUT)



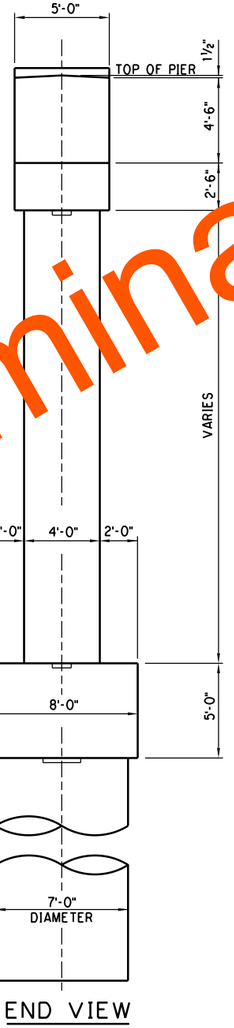


PEDESTAL ELEVATION DETAIL

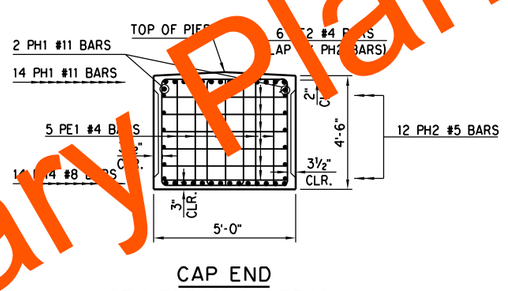
PEDESTAL ELEVATION SCHEDULE				
PEDESTAL	A	B	C	D
PIER 2, SPAN 1-2 ELEV.	1315.80	1315.97	1316.14	1316.31
PIER 4, SPAN 3-4 ELEV.	1302.05	1302.45	1302.84	1303.23



ELEVATION

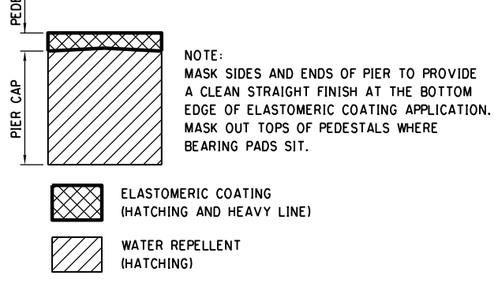


END VIEW



CAP END REINFORCING DETAIL

(PEDESTALS AND S BARS OMITTED)



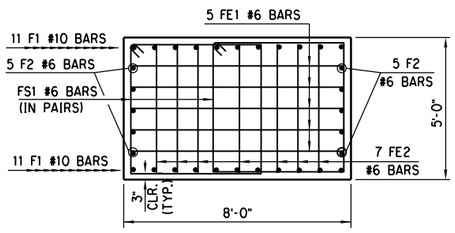
NOTE:
MASK SIDES AND ENDS OF PIER TO PROVIDE A CLEAN STRAIGHT FINISH AT THE BOTTOM EDGE OF ELASTOMERIC COATING APPLICATION. MASK OUT TOPS OF PEDESTALS WHERE BEARING PADS SIT.

ELASTOMERIC COATING
(HATCHING AND HEAVY LINE)

WATER REPELLENT
(HATCHING)

CONCRETE TREATMENT DETAILS

PIER SCHEDULE												
PIER	WORKING POINT STA.	TOP OF PIER ELEVATION	LEFT ELEVATION	RIGHT ELEVATION	DIM. "CD1"	DIM. "CD2"	DIM. "CH1"	DIM. "CH2"	DIM. "DS"	TOP OF FTG. ELEVATION	TOP OF D.S. ELEVATION	BOTT. OF D.S. ELEVATION
PIER NO. 2	421+64.33	1315.85	1315.45	1316.06	7'-2⅜"	6'-9½"	37'-8¾"	38'-4"	19'-0"	1270.60	1265.60	1246.60
PIER NO. 4	424+52.33	1302.49	1301.59	1302.99	7'-5⅝"	6'-6⅝"	12'-3⅛"	13'-8"	28'-0"	1282.20	1277.20	1249.20



FOOTING END REINFORCING DETAIL

PIER QUANTITIES				
ITEM	UNIT	PIER 2	PIER 4	TOTAL
SUBSTRUCTURE EXCAVATION COMMON	C.Y.	50	50	100
* ELASTOMERIC COATING	S.F.	176	180	356
CLASS A CONCRETE	C.Y.	111.4	74.3	185.7
EPOXY COATED REINFORCING STEEL	LB.	24,670	21,350	46,020
≠ WATER REPELLENT (VISUALLY INSPECTED)	S.Y.	59	59	118
DRILLED SHAFTS 84" DIAMETER	L.F.	19	28	47

* TOP OF PIER CAP, TOP AND SIDES OF PEDESTALS

≠ ENDS AND SIDES OF PIER CAP. BOTTOM OF CANTILEVERS

Preliminary Plans

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 — OKLAHOMA COUNTY
BRIDGE "M" — RAMP "M" AT I-35 & I-240 INTERCHANGE

PIER DETAILS
PIERS NO. 2 AND 4
(SHEET 1 OF 3)

STATE JOB NO. 09032(106) SHEET NO. B232

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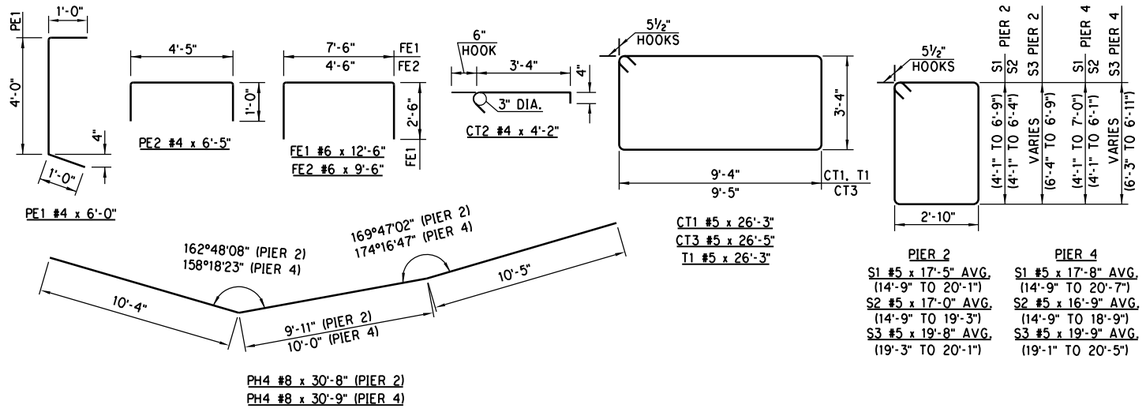
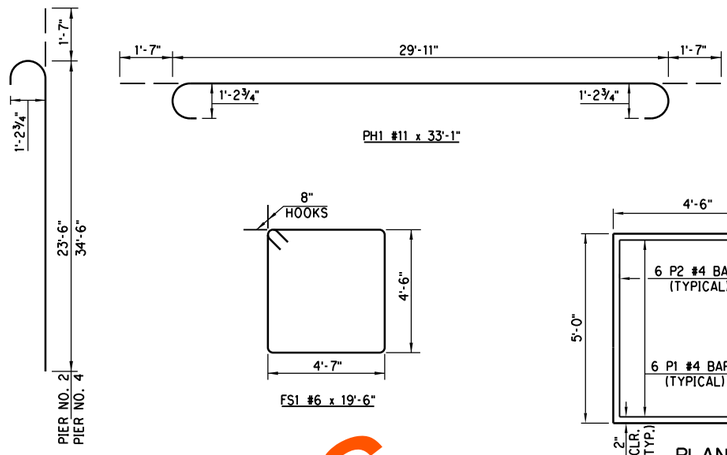
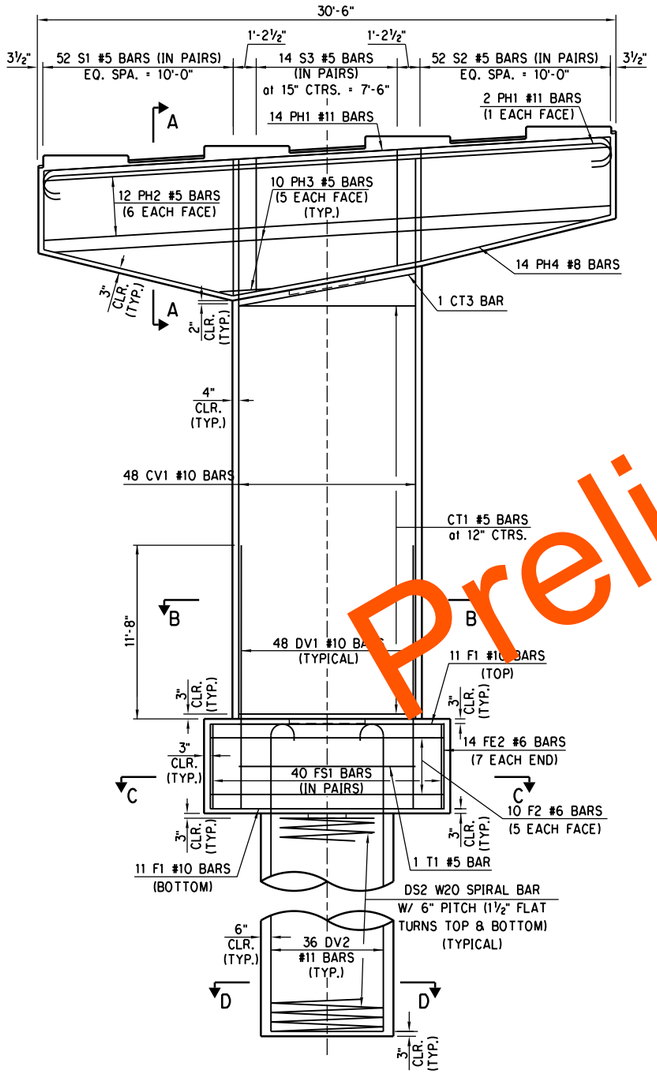


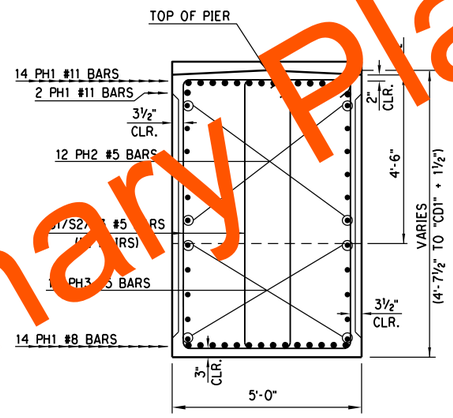


PEDESTAL REINFORCING DETAIL

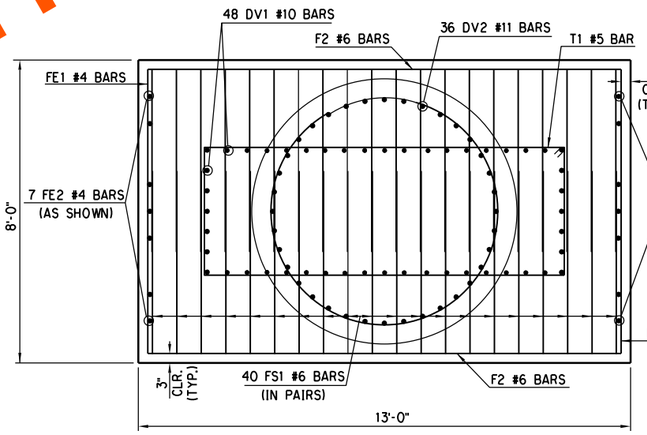
NOTE: ALL BENT BAR DIMENSIONS ARE OUT TO OUT.



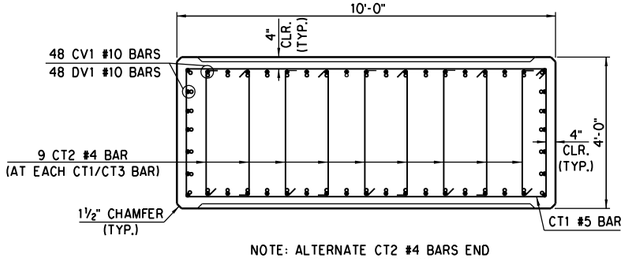
REINFORCING ELEVATION



SECTION A-A

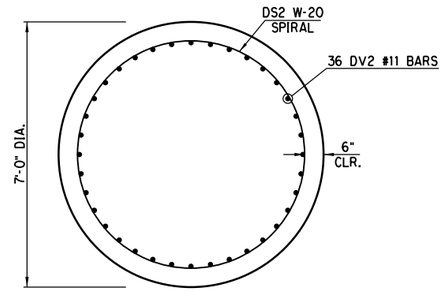


SECTION C-C



NOTE: ALTERNATE CT2 #4 BARS END
TO END FOR EACH SUCCESSIVE ROW.

SECTION B-B



SECTION D-D

DESCRIPTION	REVISIONS	DATE

PHASE 2 — OKLAHOMA COUNTY

BRIDGE "M" — RAMP "M" AT I-35 & I-240 INTERCHANGE

PIER DETAILS
PIERS NO. 2 AND 4
(SHEET 2 OF 3)

STATE JOB NO. 09032(06) SHEET NO. B233

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

Preliminary Plans

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DESCRIPTION	REVISIONS	DATE

BAR LIST - PIER NO. 2
(EPOXY COATED)

MARK	NO.	SIZE	FORM	SPACING	LENGTH	LENGTH VARIATION
CT1	39	#5	BENT	12" C/C	26'-3"	--
CT2	351	#4	BENT	AS SHOWN	4'-2"	--
CT3	1	#5	BENT	AS SHOWN	26'-5"	--
CV1	48	#10	STR.	AS SHOWN	44'-6"	--
DV1	48	#10	STR.	AS SHOWN	16'-5"	--
F1	22	#10	STR.	AS SHOWN	12'-6"	--
F2	10	#6	STR.	AS SHOWN	12'-6"	--
FE1	10	#6	BENT	AS SHOWN	12'-6"	--
FE2	14	#6	BENT	AS SHOWN	9'-6"	--
FS1	40	#6	BENT	EQUAL	19'-6"	--
P1	24	#4	BENT	EQUAL	8'-2"	--
P2	24	#4	BENT	EQUAL	8'-8"	--
PE1	10	#4	BENT	AS SHOWN	6'-0"	--
PE2	12	#4	BENT	AS SHOWN	6'-5"	--
PH1	16	#11	BENT	AS SHOWN	33'-1"	--
PH2	12	#5	STR.	EQUAL	30'-6"	--
PH3	10	#5	STR.	EQUAL	19'-1" AVG.	9'-0" TO 29'-2"
PH4	14	#8	BENT	AS SHOWN	30'-8"	--
S1	52	#5	BENT	EQUAL	17'-5" AVG.	14'-9" TO 20'-1"
S2	52	#5	BENT	EQUAL	17'-0" AVG.	14'-9" TO 19'-3"
S3	14	#5	BENT	15" C/C	19'-8" AVG.	19'-3" TO 20'-1"
T1	1	#4	BENT	AS SHOWN	26'-3"	--

BAR LIST - 84" DRILLED SHAFT

▲①	DS1	1	W-20	BENT	AS SHOWN	757'-11"	--
▲	DV2	36	#11	BENT	AS SHOWN	25'-1"	--

① LENGTH SHOWN INCLUDES 3'-8" FOR ONE LAP SPLICE. CONTRACTOR MAY ADD SPLICES AS NECESSARY, BUT PAYMENT WILL NOT BE MADE FOR EXTRA LENGTH REQUIRED. ADD 3'-8" FOR EACH SPLICE.

▲ NON-EPOXY COATED

BAR LIST - PIER NO. 4
(EPOXY COATED)

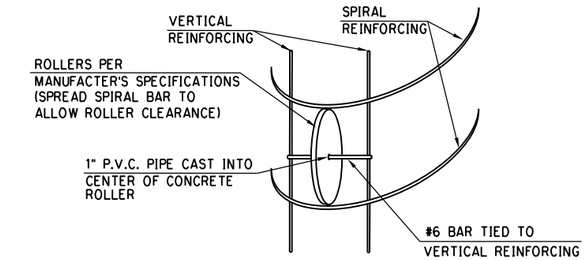
MARK	NO.	SIZE	FORM	SPACING	LENGTH	LENGTH VARIATION
CT1	26	#5	BENT	12" C/C	26'-3"	--
CT2	234	#4	BENT	AS SHOWN	4'-2"	--
CT3	1	#5	BENT	AS SHOWN	26'-5"	--
CV1	48	#10	STR.	AS SHOWN	31'-10"	--
DV1	48	#10	STR.	AS SHOWN	16'-5"	--
F1	22	#10	STR.	AS SHOWN	12'-6"	--
F2	10	#6	STR.	AS SHOWN	12'-6"	--
FE1	10	#6	BENT	AS SHOWN	12'-6"	--
FE2	14	#6	BENT	AS SHOWN	9'-6"	--
FS1	40	#6	BENT	EQUAL	19'-6"	--
P1	24	#4	BENT	EQUAL	8'-2"	--
P2	24	#4	BENT	EQUAL	8'-8"	--
PE1	10	#4	BENT	AS SHOWN	6'-0"	--
PE2	12	#4	BENT	AS SHOWN	6'-5"	--
PH1	16	#11	BENT	AS SHOWN	33'-1"	--
PH2	12	#5	STR.	EQUAL	30'-0"	--
PH3	10	#5	STR.	EQUAL	17'-1" AVG.	5'-1" TO 29'-1"
PH4	14	#8	BENT	AS SHOWN	30'-9"	--
S1	52	#5	BENT	EQUAL	17'-8" AVG.	14'-9" TO 20'-1"
S2	52	#5	BENT	EQUAL	16'-9" AVG.	14'-9" TO 18'-9"
S3	14	#5	BENT	15" C/C	19'-9" AVG.	14'-1" TO 20'-5"
T1	1	#4	BENT	AS SHOWN	26'-3"	--

BAR LIST - 84" DRILLED SHAFT

▲①	DS1	1	W-20	BENT	AS SHOWN	1097'-4"	--
▲	DV2	36	#11	BENT	AS SHOWN	36'-1"	--

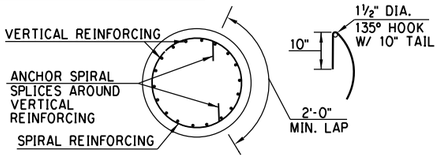
① LENGTH SHOWN INCLUDES 3'-8" FOR ONE LAP SPLICE. CONTRACTOR MAY ADD SPLICES AS NECESSARY, BUT PAYMENT WILL NOT BE MADE FOR EXTRA LENGTH REQUIRED. ADD 3'-8" FOR EACH SPLICE.

▲ NON-EPOXY COATED



ROLLER INSTALLATION DETAIL

ROLLER PLACEMENT

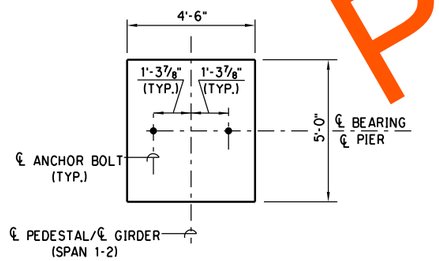


SPIRAL REINFORCING SPLICE DETAILS

NOTE: SPIRAL BARS SHALL CONFORM TO AASHTO M-32. SPIRAL BAR LENGTHS DO NOT INCLUDE LAP. IF LAP IS REQUIRED, THE LENGTH OF THE LAP SHALL BE AS SHOWN.

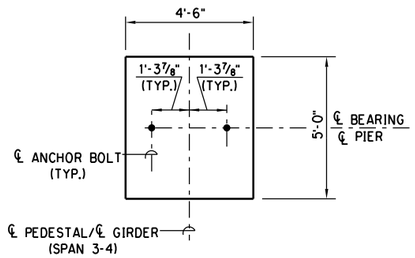
ROLLER DETAILS

NOTE: REINFORCING CAGE CENTERING DEVICES SHALL CONSIST OF ROLLERS PLACED AT SPACING AS SHOWN AND HAVE THE CHARACTERISTICS AS INDICATED IN THE MANUFACTURER'S SPECIFICATIONS. SLAB BOLSTERS AND HIGH CHAIRS WILL BE ALLOWED BY THE DEPARTMENT.



ANCHOR BOLT LAYOUT
PIER NO. 2

NOTE: FOR FURTHER INFORMATION SEE 'BEARING ASSEMBLY DETAILS'.



ANCHOR BOLT LAYOUT
PIER NO. 4

NOTE: FOR FURTHER INFORMATION SEE 'BEARING ASSEMBLY DETAILS'.

NOTE: GIRDER ℄ ARE ARCS. EACH PEDESTAL ℄ IS CONGRUENT WITH ITS GIRDER ℄ AT PIER ℄.

Preliminary Plans

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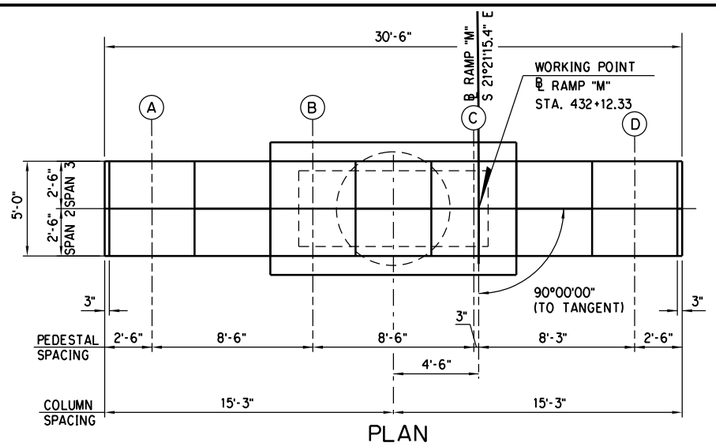
DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 — OKLAHOMA COUNTY
BRIDGE "M" — RAMP "M" AT I-35 & I-240 INTERCHANGE

PIER DETAILS
PIERS NO. 2 AND 4
(SHEET 3 OF 3)

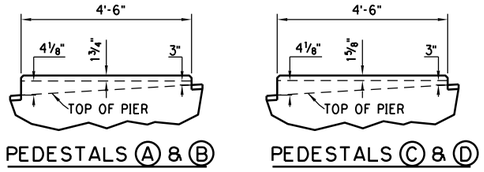
STATE JOB NO. 09032(06) SHEET NO. B234

REVISIONS		
DESCRIPTION		DATE



PLAN

(SEE 'BEARING ASSEMBLY DETAILS' FOR ANCHOR BOLT LAYOUT)

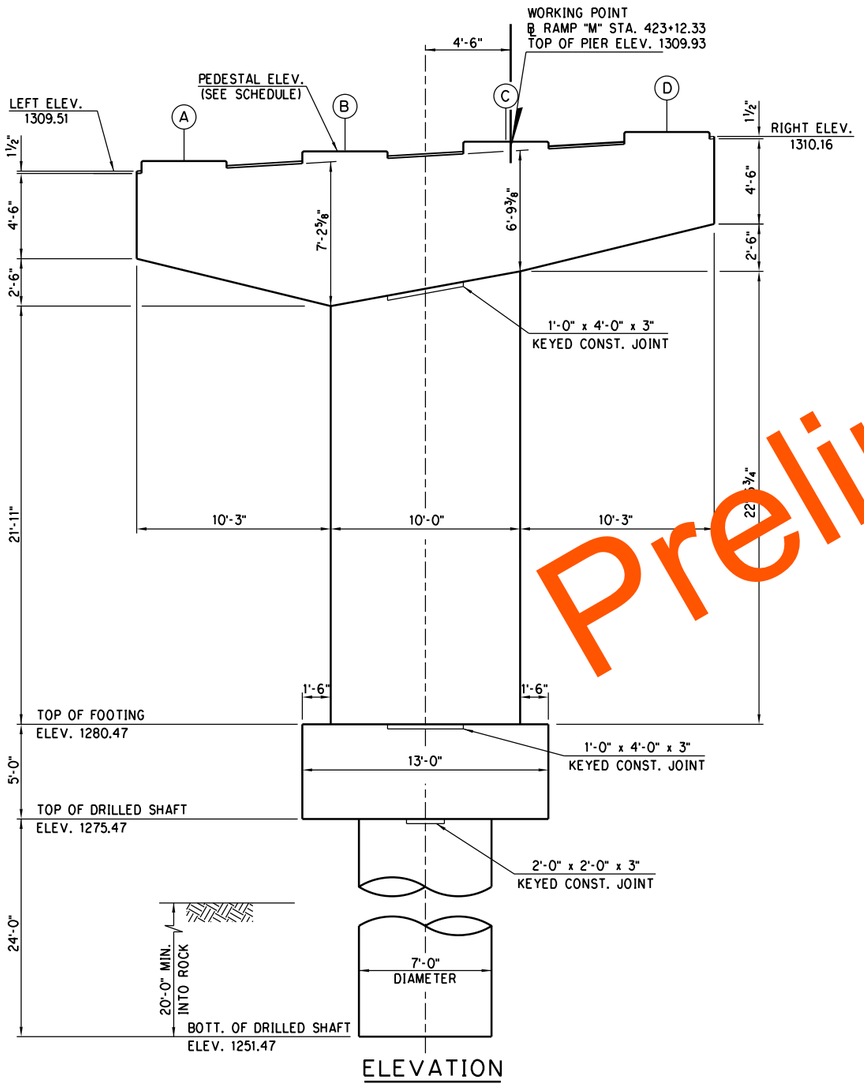


PEDESTALS Ⓐ & Ⓑ

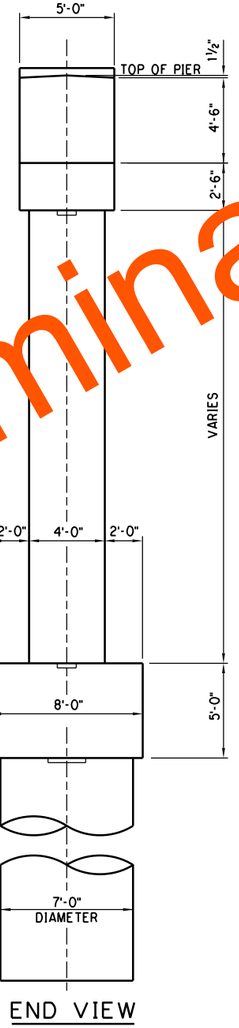
PEDESTALS Ⓒ & Ⓓ

PEDESTAL ELEVATION DETAIL

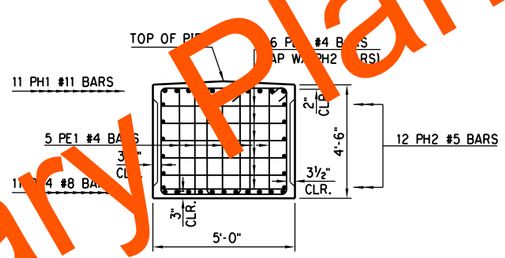
PEDESTAL ELEVATION SCHEDULE - PIER NO. 3				
PEDESTAL	A	B	C	D
SPAN 2 ELEVATION	1309.93	1310.10	1310.28	1310.46
SPAN 3 ELEVATION	1309.78	1309.96	[illegible]	1310.32



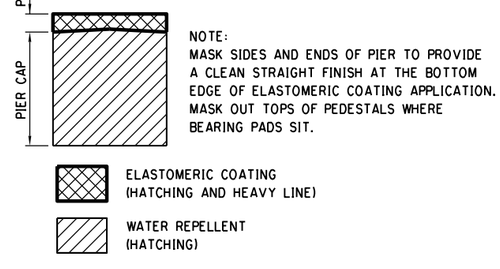
ELEVATION



END VIEW



CAP END
REINFORCING DETAIL
(PEDESTALS AND S BARS OMITTED)

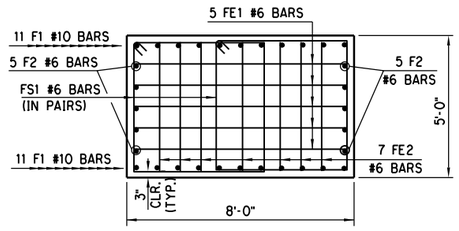


NOTE:
MASK SIDES AND ENDS OF PIER TO PROVIDE A CLEAN STRAIGHT FINISH AT THE BOTTOM EDGE OF ELASTOMERIC COATING APPLICATION. MASK OUT TOPS OF PEDESTALS WHERE BEARING PADS SIT.

ELASTOMERIC COATING
(HATCHING AND HEAVY LINE)

WATER REPELLENT
(HATCHING)

CONCRETE TREATMENT DETAILS



FOOTING END
REINFORCING DETAIL

PIER QUANTITIES		
ITEM	UNIT	TOTAL
SUBSTRUCTURE EXCAVATION COMMON	C.Y.	50
* ELASTOMERIC COATING	S.F.	183
CLASS A CONCRETE	C.Y.	88.4
EPOXY COATED REINFORCING STEEL	LB.	19,530
≠ WATER REPELLENT (VISUALLY INSPECTED)	S.Y.	59
DRILLED SHAFTS 84" DIAMETER	L.F.	24

* TOP OF PIER CAP, TOP AND SIDES OF PEDESTALS

≠ ENDS AND SIDES OF PIER CAP. BOTTOM OF CANTILEVERS

Preliminary Plans

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 — OKLAHOMA COUNTY

BRIDGE "M" — RAMP "M" AT I-35 & I-240 INTERCHANGE

PIER DETAILS
PIER NO. 3
(SHEET 1 OF 3)

STATE JOB NO. 09032(106) SHEET NO. B235

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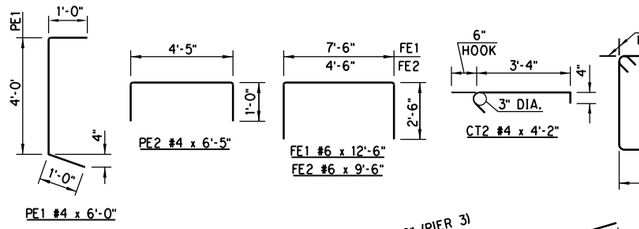
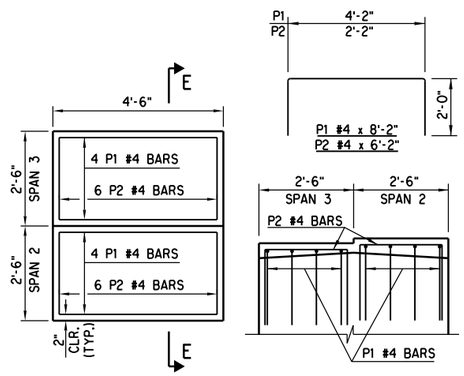
DESCRIPTION	REVISIONS	DATE

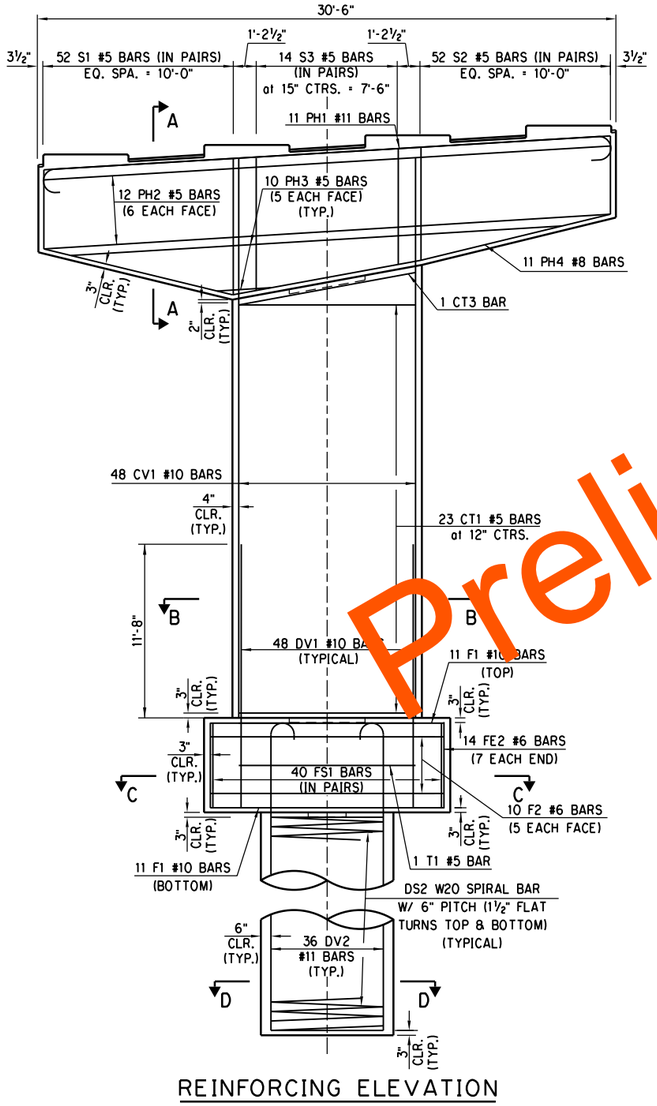


NOTE: ALL BENT BAR DIMENSIONS ARE OUT TO OUT.

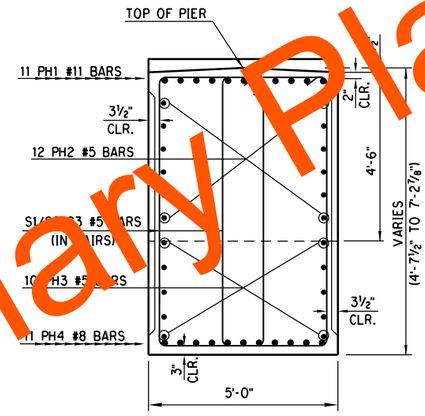


PLAN SECTION E-E

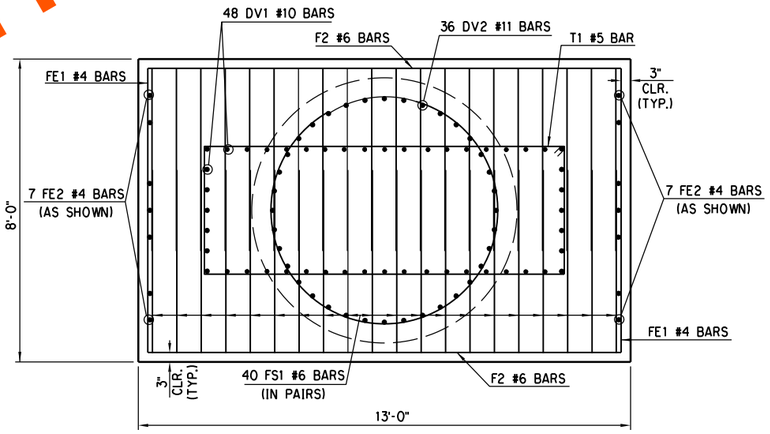
TYPICAL PEDESTAL REINFORCING DETAIL



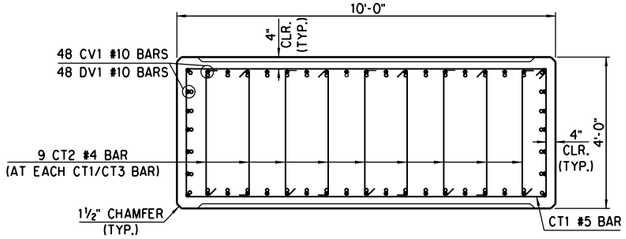
REINFORCING ELEVATION



SECTION A-A

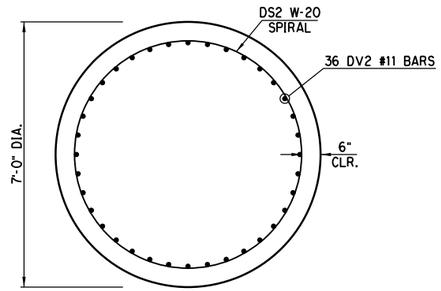


SECTION C-C



NOTE: ALTERNATE CT2 #4 BARS END TO END FOR EACH SUCCESSIVE ROW.

SECTION B-B



SECTION D-D

Preliminary Plans

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 — OKLAHOMA COUNTY

BRIDGE "M" — RAMP "M" AT I-35 & I-240 INTERCHANGE

PIER DETAILS
PIER NO. 3
(SHEET 2 OF 3)

STATE JOB NO. 09032(06) SHEET NO. B236

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DESCRIPTION	REVISIONS	DATE

BAR LIST - PIER NO. 3
(EPOXY COATED)

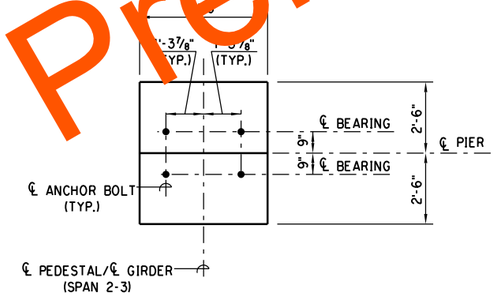
MARK	NO.	SIZE	FORM	SPACING	LENGTH	LENGTH VARIATION
CT1	23	#5	BENT	12" C/C	26'-3"	--
CT2	207	#4	BENT	AS SHOWN	4'-2"	
CT3	1	#5	BENT	AS SHOWN	26'-5"	
CV1	48	#10	STR.	AS SHOWN	28'-8"	--
DV1	48	#10	STR.	AS SHOWN	16'-5"	--
F1	22	#10	STR.	AS SHOWN	12'-6"	--
F2	10	#6	STR.	AS SHOWN	12'-6"	--
FE1	10	#4	BENT	AS SHOWN	12'-6"	--
FE2	14	#6	BENT	AS SHOWN	9'-6"	--
FS1	40	#6	BENT	EQUAL	19'-6"	--
P1	32	#4	BENT	EQUAL	8'-2"	--
P2	48	#4	BENT	EQUAL	6'-2"	--
PE1	10	#4	BENT	AS SHOWN	6'-0"	--
PE2	12	#4	BENT	AS SHOWN	6'-5"	--
PH1	11	#11	BENT	AS SHOWN	33'-1"	--
PH2	12	#5	STR.	EQUAL	30'-0"	--
PH3	10	#5	STR.	EQUAL	16'-7" AVG.	7'-0" TO 26'-2"
PH4	11	#8	BENT	AS SHOWN	30'-8"	--
S1	52	#5	BENT	EQ. SPA.	17'-9" AVG.	15'-1" TO 20'-5"
S2	52	#5	BENT	EQ. SPA.	17'-4" AVG.	15'-1" TO 19'-9"
S3	14	#5	BENT	15" C/C	19'-3" AVG.	18'-1" TO 20'-5"
T1	1	#4	BENT	12" C/C	26'-3"	--

BAR LIST - 84" DRILLED SHAFT

▲①	DS1	1	W-20	BENT	AS SHOWN	946'-5"	--
▲	DV2	36	#11	BENT	AS SHOWN	30'-1"	--

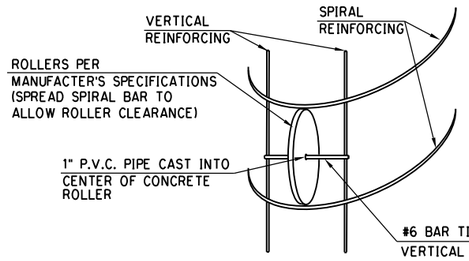
① LENGTH SHOWN INCLUDES 3'-8" FOR ONE LAP SPLICE. CONTRACTOR MAY ADD SPLICES AS NECESSARY, BUT PAYMENT WILL NOT BE MADE FOR EXTRA LENGTH REQUIRED. ADD 3'-8" FOR EACH SPLICE.

▲ NON-EPOXY COATED



ANCHOR BOLT LAYOUT
PIER NO. 3

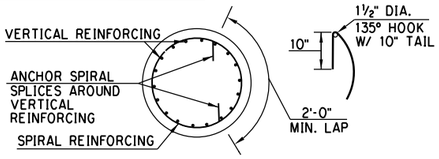
NOTE: FOR FURTHER INFORMATION SEE 'BEARING ASSEMBLY DETAILS'



ROLLER INSTALLATION DETAIL

ROLLERS LOCATED ONE-FIFTH POINTS N 10'-0" CTRS.

ROLLER PLACEMENT



SPIRAL REINFORCING SPLICE DETAILS

NOTE: SPIRAL BARS SHALL CONFORM TO AASHTO M-32. SPIRAL BAR LENGTHS DO NOT INCLUDE LAP. IF LAP IS REQUIRED. THE LENGTH OF THE LAP SHALL BE AS SHOWN.

ROLLER DETAILS

NOTE: REINFORCING CAGE CENTERING DEVICES SHALL CONSIST OF ROLLERS PLACED AT SPACING AS SHOWN AND HAVE THE CHARACTERISTICS AS INDICATED IN THE MANUFACTURER'S SPECIFICATIONS. SLAB BOLSTERS AND HIGH CHAIRS WILL BE ALLOWED BY THE DEPARTMENT.

Preliminary Plans

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 OKLAHOMA COUNTY
BRIDGE "M" RAMP "M" AT I-35 & I-240 INTERCHANGE

PIER DETAILS
PIER NO. 3
(SHEET 3 OF 3)

STATE JOB NO. 09032(106) SHEET NO. B237

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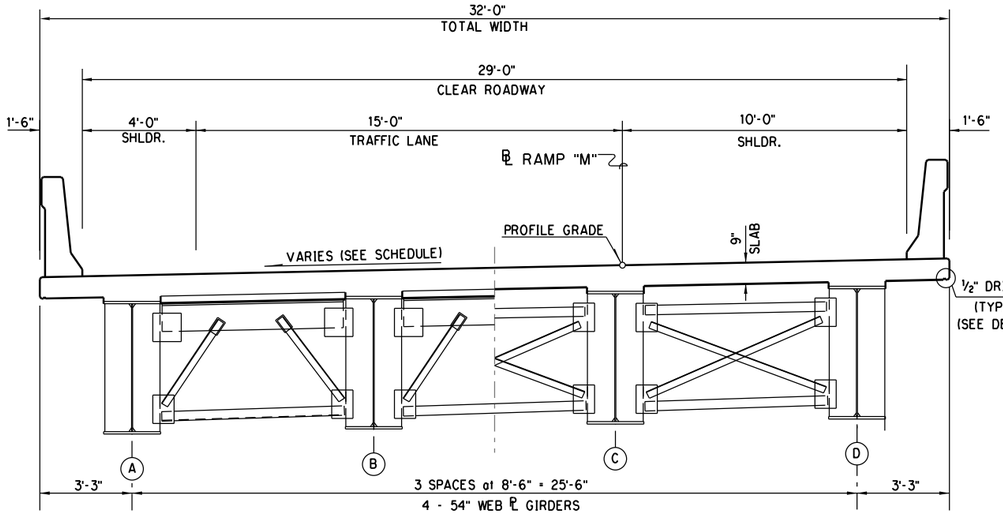
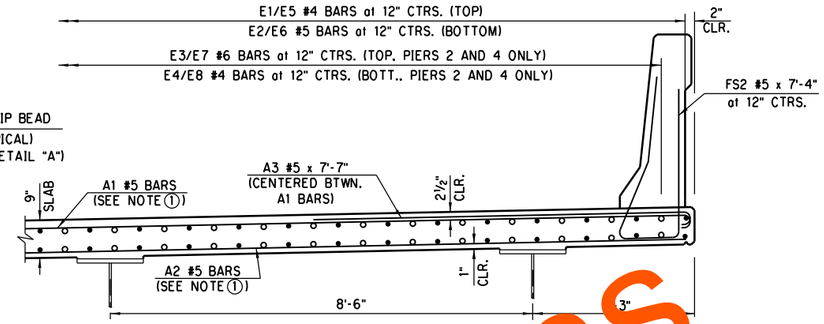


HALF SECTION AT END DIAPHRAGMS

HALF SECTION AT INTERMEDIATE DIAPHRAGMS

TYPICAL BRIDGE SECTION

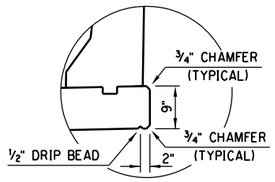


TYPICAL BRIDGE REINFORCING SECTION

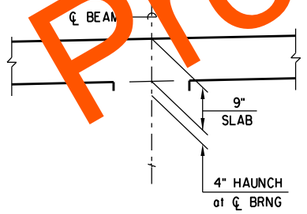
CROSS-SLOPE SCHEDULE	
STATION RANGE	CROSS-SLOPE
420+49.33 TO 420+76.41	2.926% TO 2%
420+76.41 TO 423+09.48	2%
423+09.48 TO 423+81.70	2% TO 4.6%
423+81.70 TO 425+42.29	4.6%
425+42.29 TO 425+68.08	4.6% TO 3.672%

	SUPERSTRUCTURE QUANTITIES		
	ITEM	UNIT	TOTAL
	SAW-CUT GROOVING	S.Y.	1,673.1
	42" F-SHAPED PARAPET	L.F.	1,033.7
	STRUCTURAL STEEL	LB.	887,980
	STAINLESS STEEL FIXED BEARING ASSEMBLY	EA.	8
	STAINLESS STEEL EXP. BEARING ASSEMBLY	EA.	16
**	CLASS AA CONCRETE	C.Y.	486.1
	EPOXY COATED REINFORCING STEEL	LB.	114,890
	WATER REPELLENT (VISUALLY INSPECTED)	S.Y.	1,353
	SEALED EXPANSION JOINTS	L.F.	61.7
	SEALER CRACK PREPARATION	L.F.	128
	SEALER RESIN	GAL.	1.4

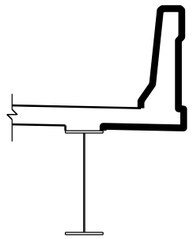
**NOTE:
PLAN QUANTITY FOR CLASS "AA" CONCRETE INCLUDES 22.5 C.Y. FOR HAUNCHES OVER GIRDERS. THE HAUNCH HEIGHTS WILL BE SET AFTER ERECTION OF GIRDERS TO PROVIDE FOR DEAD LOAD DEFLECTION AND GRADE ADJUSTMENT, BUT THE PAY QUANTITY FOR HAUNCHES WILL BE AS SHOWN ABOVE.



DETAIL "A"



HAUNCH DETAIL



WATER REPELLENT SURFACE TREATMENT

SURFACES INDICATED WITH HEAVY LINES SHALL BE TREATED WITH A PENETRATING WATER REPELLENT SEALER.

BAR LIST - SUPERSTRUCTURE (EPOXY COATED)

	MARK	NO.	SIZE	FORM	SPACING	LENGTH	LENGTH VARIATION
①	A1	775	#5	BENT	VARIES	32'-10"	--
①	A2	775	#5	STR.	VARIES	31'-8"	--
②	A3	5	#5	BENT	VARIES	18'-2½" AVG.	4'-3" TO 32'-2"
②	A4	5	#5	STR.	VARIES	17'-6½" AVG.	3'-7" TO 31'-6"
	A5	1551	#5	BENT	AS SHOWN	7'-7"	--
	AH1	27	#4	BENT	AS SHOWN	4'-10"	--
	AH2	6	#4	BENT	AS SHOWN	4'-0"	--
	AS1	33	#4	BENT	12" C/C	5'-1"	--
	AT1	16	#4	STR.	AS SHOWN	31'-8"	--
	AT2	1	#4	STR.	AS SHOWN	27'-4"	
③	E1	33	#4	STR.	12" C/C	270'-11½" AVG.	269'-5" TO 272'-6"
③	E2	33	#5	STR.	12" C/C	272'-11½" AVG.	271'-5" TO 274'-6"
③	E3	32	#6	STR.	12" C/C	85'-8"	--
③	E4	32	#4	STR.	12" C/C	84'-8"	--
③	E5	33	#4	STR.	12" C/C	262'-7½" AVG.	260'-3" TO 265'-0"
③	E6	33	#5	STR.	12" C/C	264'-7½" AVG.	262'-3" TO 267'-0"
③	E7	32	#6	STR.	12" C/C	83'-8½" AVG.	82'-10" TO 84'-7"
③	E8	32	#4	STR.	12" C/C	82'-8½" AVG.	81'-10" TO 83'-7"
	EPH1	33	#4	BENT	AS SHOWN	3'-7"	--
	EPH2	66	#4	BENT	AS SHOWN	3'-5"	--
	FS2	958	#5	BENT	SEE STD.	7'-4"	--
	L	100	#4	BENT	SEE STD.	1'-3"	--

① 8" C/C SPACING STATION 420+99.33 TO STA. 423+49.76, RADIAL SPACING OF 7¾" WITH RESPECT TO BASELINE RAMP "M" STA. 423+49.76 TO STA. 425+68.08.

② 8" C/C SPACING STATION 420+99.33 TO STA. 423+49.76, EQUAL SPACING BETWEEN A1 BARS STA. 423+49.76 TO STA. 425+68.08

③ LENGTH INCLUDES LAP NOTE: STAGGER ALL BAR LAPS
E1 - 4 at 2'-0" E5 - 4 at 2'-0"
E2 - 4 at 2'-6" E6 - 4 at 2'-6"
E3 - 1 at 3'-0" E7 - 1 at 3'-0"
E4 - 1 at 2'-0" E8 - 1 at 2'-0"

DESCRIPTION	REVISIONS	DATE

Preliminary Plans

PHASE 2 OKLAHOMA COUNTY
BRIDGE "M" RAMP "M" AT I-35 & I-240 INTERCHANGE

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

SUPERSTRUCTURE DETAILS
(SHEET 1 OF 3)

STATE JOB NO. 09032(106) SHEET NO. B238

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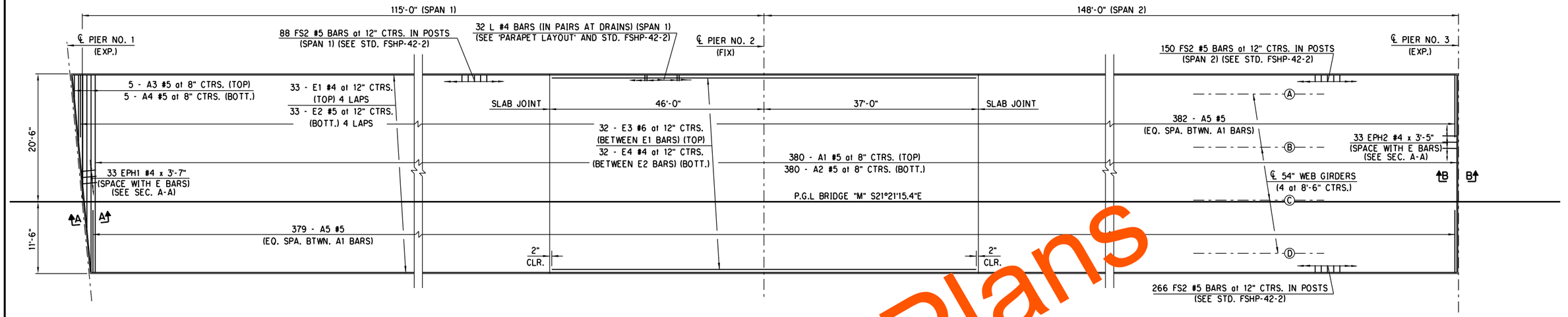
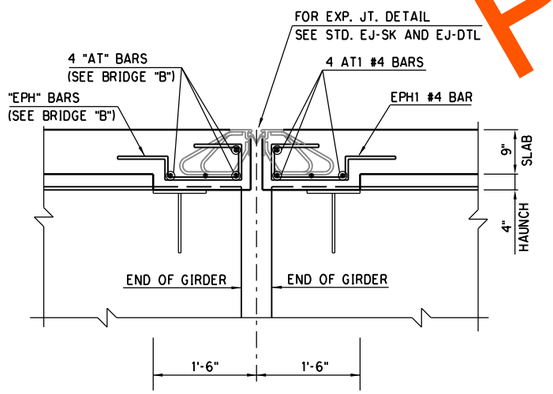
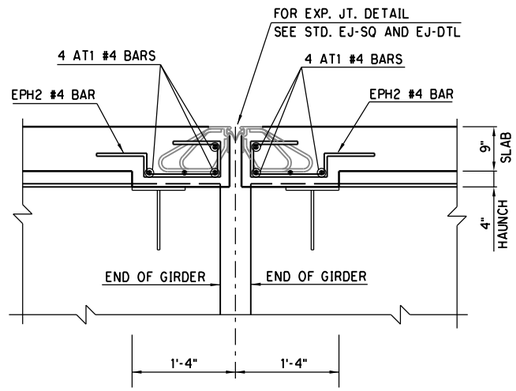
DESCRIPTION	REVISIONS	DATE



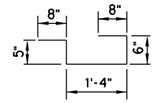
Preliminary Plans



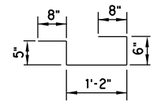
SECTION A-A
(PERPENDICULAR TO ℄ JOINT)



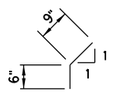
SECTION B-B
(PERPENDICULAR TO ℄ JOINT)



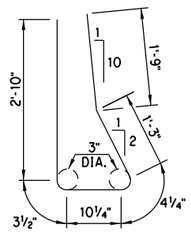
EPH1 #4 x 3'-7"



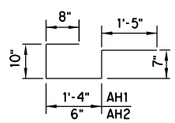
EPH2 #4 x 3'-5"



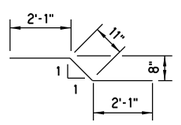
L #4 x 1'-3"



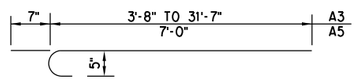
FS2 #5 x 7'-4"



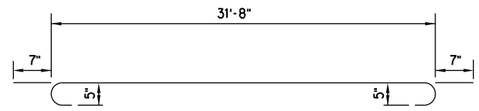
AH1 #4 x 4'-10"
AH2 #4 x 4'-0"



AS1 #4 x 5'-1"



A3 #5 x 18'-2½" AVG. (4'-3" TO 32'-2")
A5 #5 x 7'-7"



A1 #5 x 32'-10"

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 — OKLAHOMA COUNTY
BRIDGE "M" — RAMP "M" AT I-35 & I-240 INTERCHANGE

SUPERSTRUCTURE DETAILS SPANS 1 AND 2

(SHEET 2 OF 3)

STATE JOB NO. 09032(106) SHEET NO. B239

5/31/2022 3:30:34 PM
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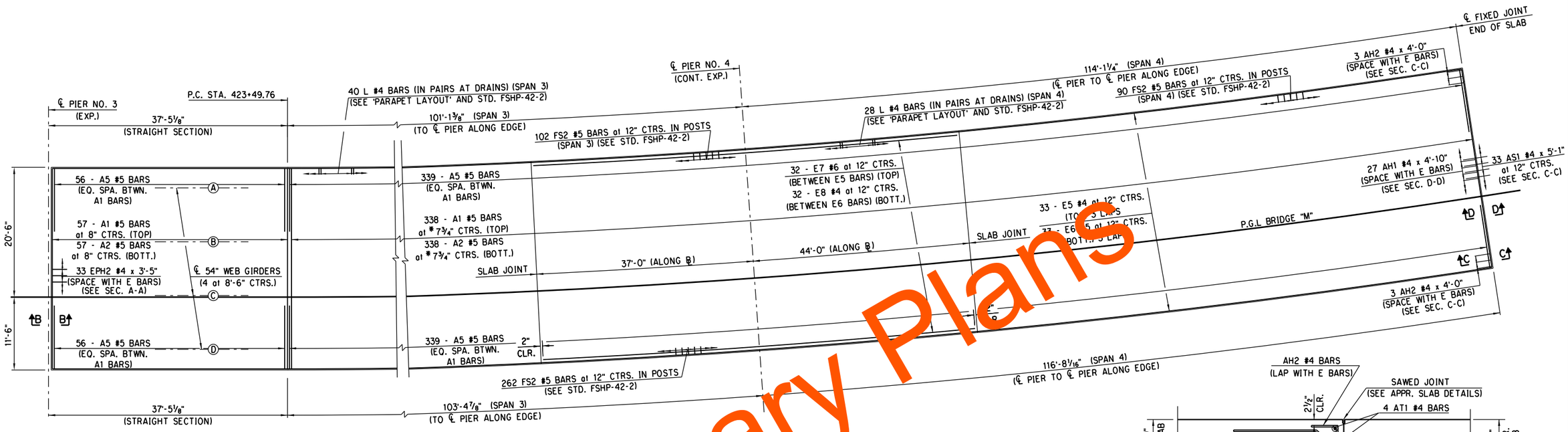
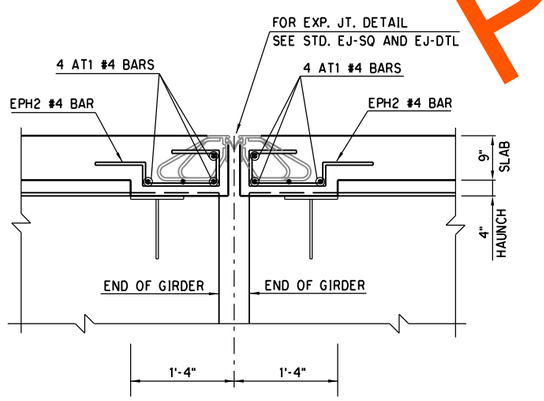
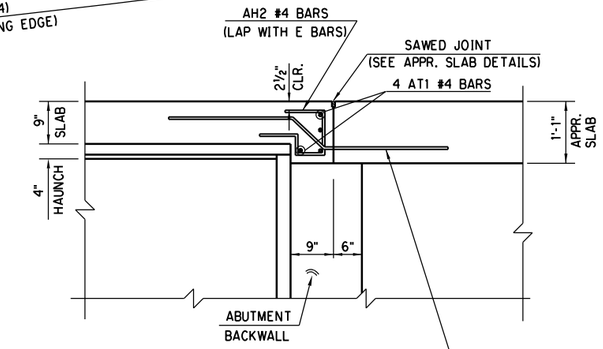
DESCRIPTION	REVISIONS	DATE



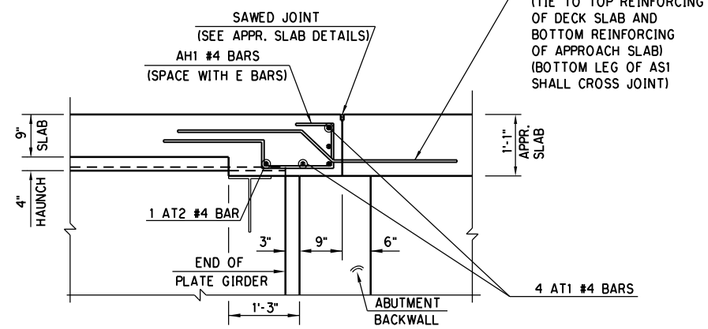
*RADIAL SPACING WITH RESPECT TO ℄ RAMP "M".



SECTION B-B
(PERPENDICULAR TO ℄ JOINT)



SECTION C-C
(TYPICAL AT CANTILEVER)



SECTION D-D

Preliminary Plans

PHASE 2 — OKLAHOMA COUNTY
BRIDGE "M" — RAMP "M" AT I-35 & I-240 INTERCHANGE

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

SUPERSTRUCTURE DETAILS
SPANS 3 & 4
(SHEET 3 OF 3)

STATE JOB NO. 09032(06) SHEET NO. B240

5/31/2022 3:30:35 PM
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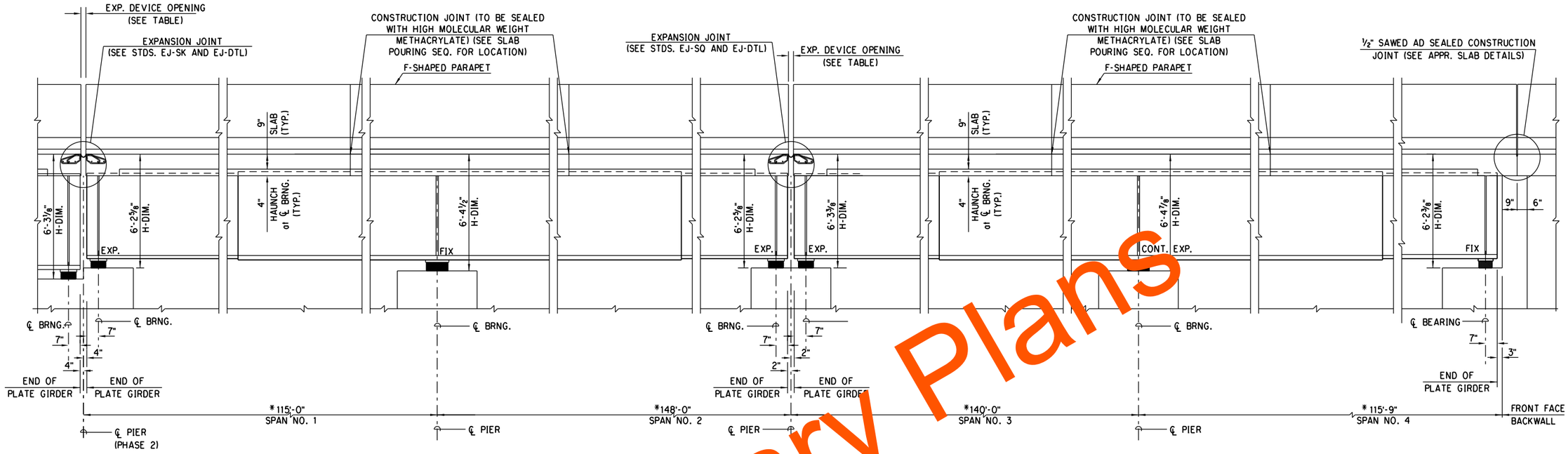
REVISIONS		
DESCRIPTION		DATE

NOTE:
H-DIMENSION SHOWN IS MEASURED FROM TOP OF SLAB TO BOTTOM OF BEARING ASSEMBLY AT ℄ BEARING.



PIER 8 BRIDGE "B"
PIER 1 BRIDGE "M"

PIER 2

PIER 4

ABUT. 2

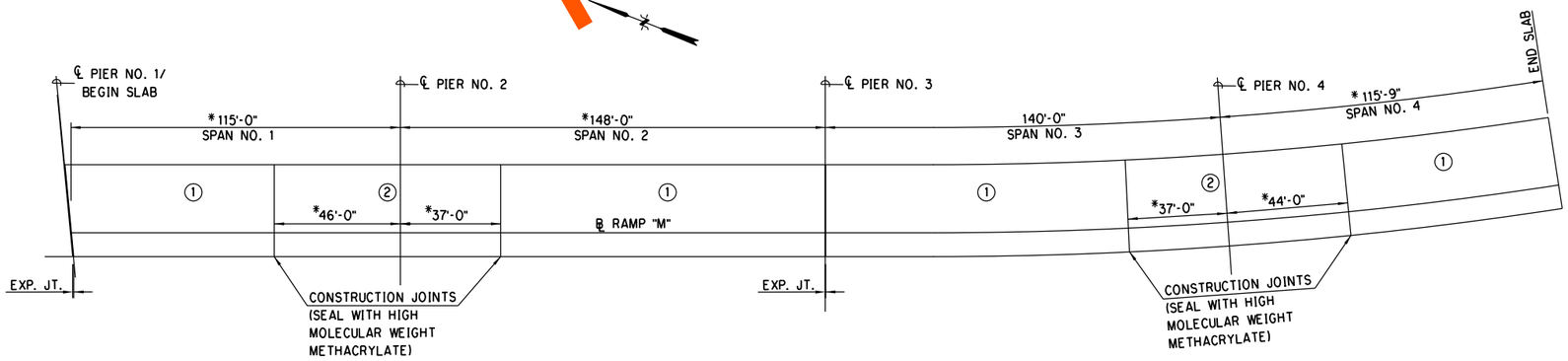
LONGITUDINAL SECTION

* SPAN LENGTH MEASURED ALONG ℄ RAMP "M"

Preliminary Plans

TABLE OF EXPANSION DEVICE SETTINGS

PIER NO. 1	TEMPERATURE	--	27°	33°	40°	47°	53°	60°	67°	73°	80°	87°	93°	100°	107°	--
	OPENING	--	2⅝"	2½"	2⅜"	2¼"	2⅛"	2"	1⅞"	1¾"	1⅝"	1½"	1⅜"	1¼"	1⅛"	--
PIER NO. 3	TEMPERATURE	36°	40°	44°	48°	52°	56°	60°	64°	68°	72°	76°	80°	84°	88°	92°
	OPENING	2¼"	2⅛"	2"	1⅞"	1¾"	1⅝"	1½"	1⅜"	1¼"	1⅛"	1"	⅞"	¾"	⅝"	½"



SLAB POURING SEQUENCE

* ALONG ℄ RAMP "M"

SLAB POURING SEQUENCE:

THE POURING SEQUENCE SHALL BE IN THE NUMERICAL SEQUENCE INDICATED. ALL POURS WITH THE SAME NUMBER MAY BE POURED EITHER SEPARATELY OR SIMULTANEOUSLY, BUT ALL POURS WITH THE SAME NUMBER SHALL BE COMPLETED BEFORE BEGINNING WITH THE NEXT POUR NUMBER. THERE SHALL BE A LAPSE OF AT LEAST 24 HOURS BETWEEN POURS OR WHEN THE PREVIOUS POUR REACHES A STRENGTH OF 3000 PSI. EACH POUR SHALL BE AT A MINIMUM RATE OF 25 L.F. PER HOUR.

CONSTRUCTION JOINTS AT THE CLOSURE POURS IN THE DECK SLAB SHALL NOT BE KEYED. IN THE EVENT OF AN EMERGENCY, POURING OF DECK SLAB MAY BE HALTED WITH A KEYED CONSTRUCTION JOINT MADE PERPENDICULAR TO THE DIRECTION OF TRAFFIC AS DIRECTED BY THE ENGINEER. PRIMARY LONGITUDINAL REINFORCING SHALL BE CONTINUOUS THRU ALL CONSTRUCTION JOINTS. ADDITIONAL LONGITUDINAL REINFORCING WITHIN CLOSURE POURS SHALL BE CONTINUOUS THROUGH EMERGENCY CONSTRUCTION JOINTS. UNTIL THE SLAB IS IN PLACE ON BOTH SIDES OF THE CONSTRUCTION JOINT AND AT LEAST 48 HOURS HAS ELAPSED SINCE CONCRETE PLACEMENT, NO HEAVY EQUIPMENT WILL BE PERMITTED ON THE FINISHED DECK SLAB WITHIN 6 FEET OF ANY CONSTRUCTION JOINT.

ALL CONSTRUCTION JOINTS WITHIN THE DECK SLAB SHALL BE SEALED USING HIGH MOLECULAR WEIGHT METHACRYLATE IN ACCORDANCE WITH SECTION 523 OF THE STANDARD SPECIFICATIONS. ALL COST OF THE HIGH MOLECULAR WEIGHT METHACRYLATE SEALER SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE OF "SEALER RESIN". ALL COST FOR EQUIPMENT AND LABOR FOR THE INSTALLATION OF THE HIGH MOLECULAR WEIGHT METHACRYLATE SEALER SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE OF "SEALER CRACK PREPARATION".

PHASE 2 OKLAHOMA COUNTY

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

BRIDGE "M" RAMP "M" AT I-35 & I-240 INTERCHANGE

LONGITUDINAL SECTION AND SLAB POURING SEQUENCE

STATE JOB NO. 09032(06) SHEET NO. B241

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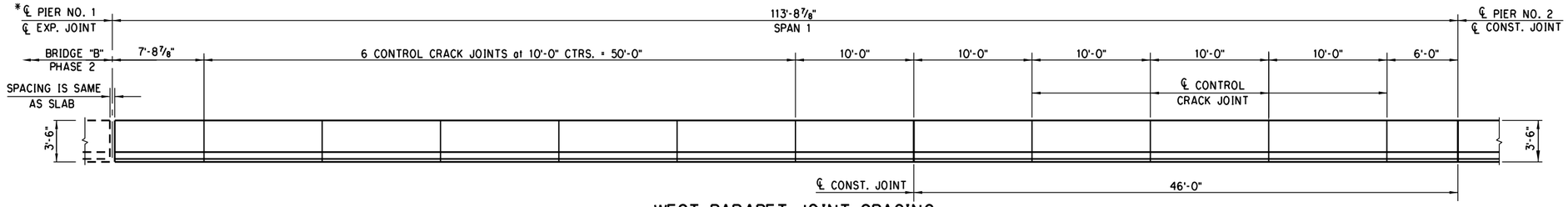
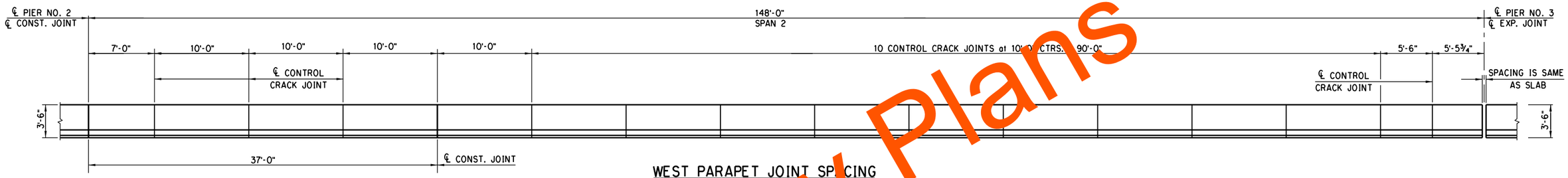
REVISIONS		
DESCRIPTION		DATE

* PIER NO. 1 BRIDGE "M" = PIER NO. 8 BRIDGE "B"

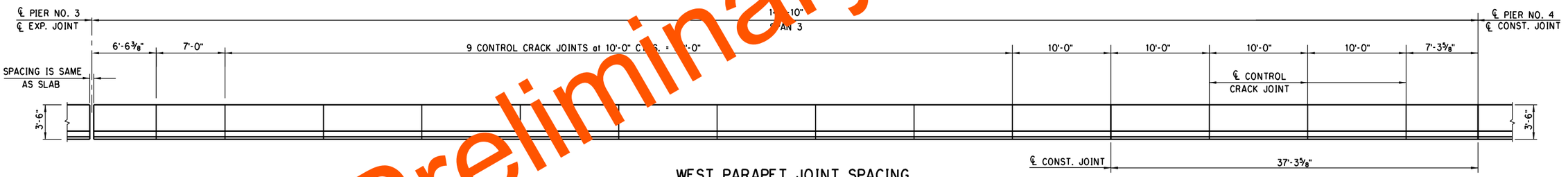


WEST PARAPET JOINT SPACING
SPAN NO. 1

(DIMENSIONS SHOWN ARE ℄ PIER to ℄ PIER ALONG OUTSIDE EDGE OF SLAB)

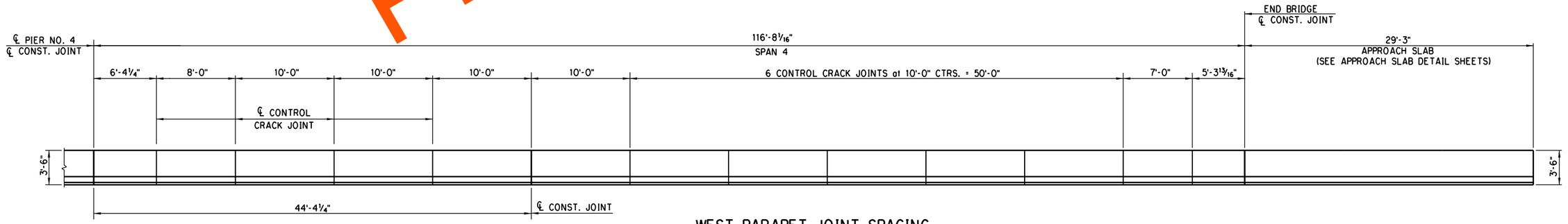


WEST PARAPET JOINT SPACING
SPAN NO. 2



WEST PARAPET JOINT SPACING
SPAN NO. 3

(DIMENSIONS SHOWN ARE ℄ PIER to ℄ PIER ALONG OUTSIDE EDGE OF SLAB)



WEST PARAPET JOINT SPACING
SPAN NO. 4

(DIMENSIONS SHOWN ARE ALONG OUTSIDE EDGE OF SLAB)

NOTE: FOR ADDITIONAL DETAILS,
SEE STD. FSHP-42-2.

Preliminary Plans

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 — OKLAHOMA COUNTY

BRIDGE "M" — RAMP "M" AT I-35 & I-240 INTERCHANGE

PARAPET LAYOUT

(SHEET 1 OF 2)

STATE JOB NO. 09032(06) SHEET NO. B242

5/31/2022 3:30:37 PM
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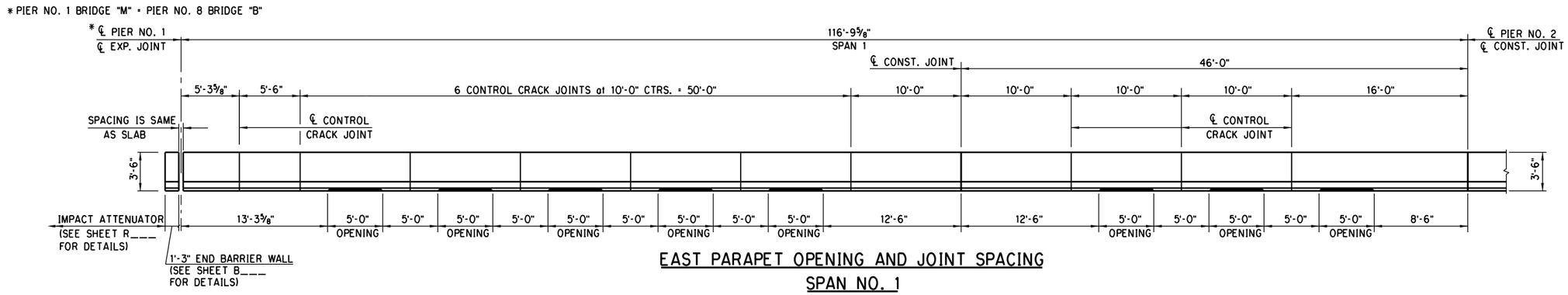
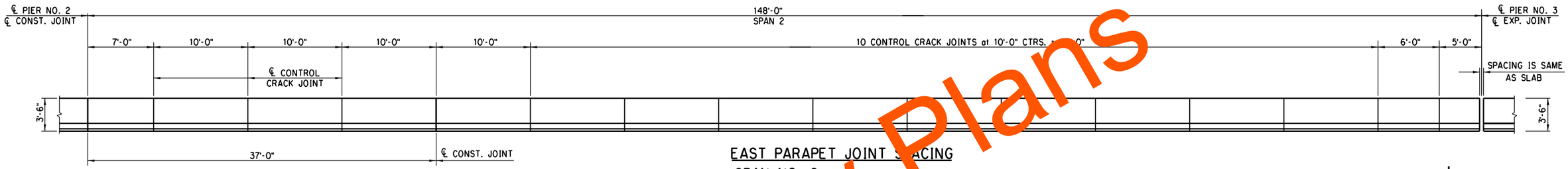
DESCRIPTION	REVISIONS	DATE

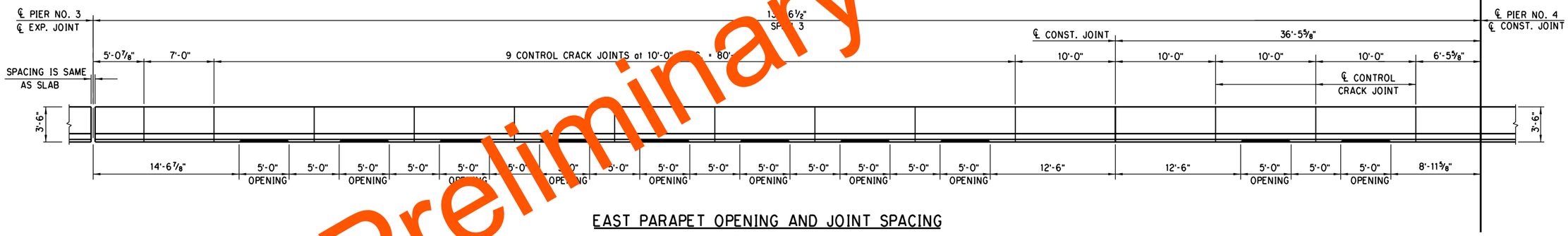


EAST PARAPET OPENING AND JOINT SPACING
SPAN NO. 1

(DIMENSIONS SHOWN ARE ℄ PIER to ℄ PIER ALONG OUTSIDE EDGE OF SLAB)

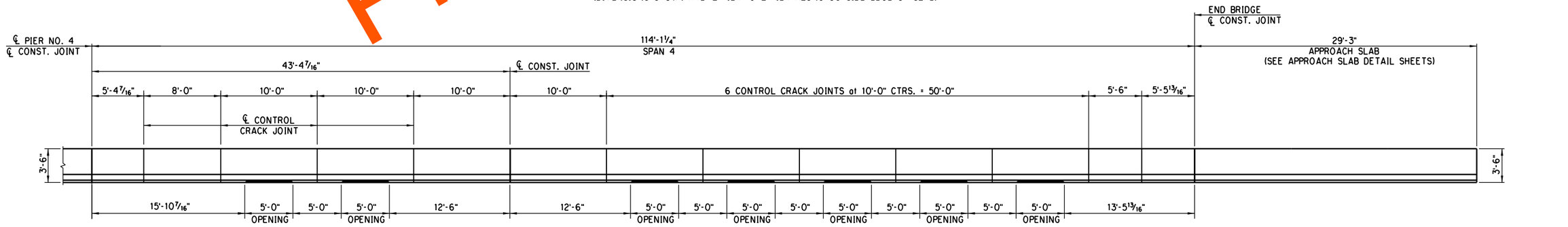


EAST PARAPET JOINT SPACING
SPAN NO. 2



EAST PARAPET OPENING AND JOINT SPACING
SPAN NO. 3

(DIMENSIONS SHOWN ARE ℄ PIER to ℄ PIER ALONG OUTSIDE EDGE OF SLAB)



EAST PARAPET OPENING AND JOINT SPACING
SPAN NO. 4

(DIMENSIONS SHOWN ARE ALONG OUTSIDE EDGE OF SLAB)

NOTE: FOR ADDITIONAL DETAILS, SEE STD. FSHP-42-2.

Preliminary Plans

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 OKLAHOMA COUNTY

BRIDGE "M" RAMP "M" AT I-35 & I-240 INTERCHANGE

PARAPET LAYOUT

(SHEET 2 OF 2)

STATE JOB NO. 09032(06) SHEET NO. B243

5/31/2022 3:30:38 PM
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DESCRIPTION	REVISIONS	DATE

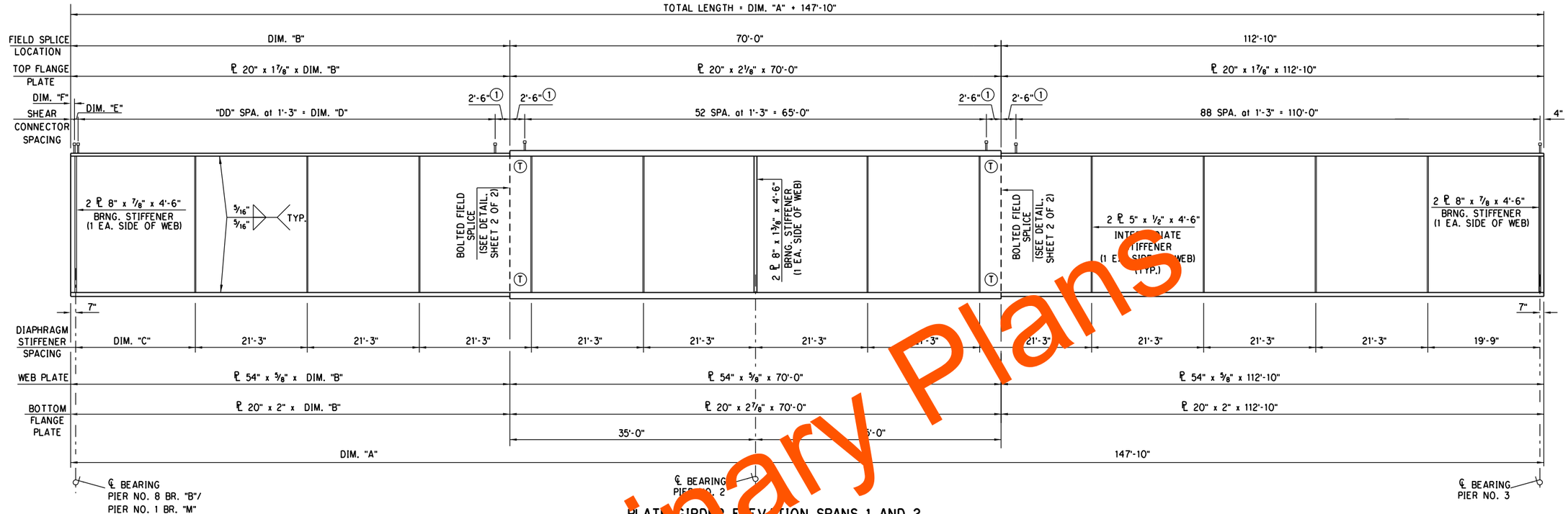
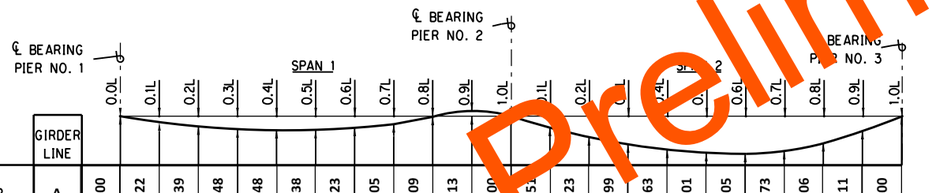


PLATE GIRDER ELEVATION SPANS 1 AND 2

(T) TENSION SPLICE

(1) SEE STUD SPACING THROUGH FIELD SPLICE (SHEET 2 OF 2)

NOTE: GIRDER DIMENSIONS ARE ALONG ℄ ARC OF WEB.



	GIRDER LINE	0.0L	0.1L	0.2L	0.3L	0.4L	0.5L	0.6L	0.7L	0.8L	0.9L	1.0L	0.1L	0.2L	0.3L	0.4L	0.5L	0.6L	0.7L	0.8L	0.9L	1.0L
DECK SLAB, HAUNCH, RAIL & 5 psf SIP FORMS (IN INCHES)	A	0.00	0.22	0.39	0.48	0.48	0.38	0.23	0.05	0.09	0.13	0.00	0.53	1.23	1.99	2.63	3.01	3.05	2.73	2.06	1.11	0.00
	B	0.00	0.22	0.38	0.47	0.47	0.37	0.22	0.05	0.09	0.13	0.00	0.53	1.25	2.02	2.66	3.04	3.08	2.76	2.08	1.12	0.00
	C	0.00	0.21	0.36	0.45	0.44	0.35	0.20	0.03	0.10	0.14	0.00	0.52	1.26	2.03	2.67	3.05	3.09	2.77	2.09	1.13	0.00
	D	0.00	0.19	0.33	0.40	0.39	0.30	0.15	0.00	0.12	0.14	0.00	0.52	1.26	2.02	2.66	3.04	3.08	2.75	2.08	1.12	0.00
TOTAL DEFLECTION (NO FUTURE WEARING SURFACE) (IN INCHES)	A	0.00	0.29	0.52	0.64	0.64	0.52	0.31	0.08	0.11	0.17	0.00	0.67	1.63	2.64	3.47	3.98	4.03	3.61	2.72	1.47	0.00
	B	0.00	0.29	0.51	0.63	0.62	0.50	0.30	0.07	0.11	0.17	0.00	0.68	1.65	2.67	3.51	4.01	4.07	3.64	2.75	1.48	0.00
	C	0.00	0.27	0.48	0.59	0.58	0.46	0.26	0.04	0.13	0.18	0.00	0.69	1.66	2.68	3.53	4.03	4.08	3.65	2.76	1.49	0.00
	D	0.00	0.25	0.44	0.54	0.52	0.40	0.21	0.01	0.15	0.19	0.00	0.69	1.66	2.68	3.52	4.02	4.07	3.64	2.75	1.48	0.00

DEAD LOAD DEFLECTION DIAGRAM AND DEFLECTION SCHEDULE

GIRDER	SPANS 1 & 2 GIRDER DIMENSION SCHEDULE						
	DIM "A"	DIM "B"	DIM "C"	"DD"	DIM "D"	DIM "E"	DIM "F"
A	116'-3 13/16"	81'-3 13/16"	9'-5 13/16"	62	77'-6"	10"	5 13/16"
B	115'-6 1/16"	80'-6 1/16"	8'-8 1/16"	62	77'-6"	-------	6 1/16"
C	114'-8 1/4"	79'-8 1/4"	7'-10 1/4"	61	76'-3"	6"	5 1/4"
D	113'-10 1/2"	78'-10 1/2"	7'-0 1/2"	60	75'-0"	10"	6 1/2"

GIRDER	DECK SLAB ELEVATION SCHEDULE AT 10TH POINTS										
	BRNG.	0.1L	0.2L	0.3L	0.4L	0.5L	0.6L	0.7L	0.8L	0.9L	BRNG.
	SPAN 1										
A	1326.04	1326.03	1326.00	1325.90	1325.76	1325.60	1325.42	1325.22	1324.99	1324.74	1324.47
B	1326.28	1326.24	1326.18	1326.07	1325.93	1325.77	1325.59	1325.39	1325.16	1324.91	1324.64
C	1326.52	1326.45	1326.36	1326.24	1326.10	1325.94	1325.76	1325.56	1325.33	1325.08	1324.81
D	1326.77	1326.66	1326.54	1326.41	1326.27	1326.11	1325.93	1325.73	1325.50	1325.25	1324.98
	SPAN 2										
A	1324.47	1324.17	1323.86	1323.52	1323.16	1322.77	1322.37	1321.94	1321.49	1321.02	1320.51
B	1324.64	1324.34	1324.03	1323.69	1323.33	1322.94	1322.54	1322.11	1321.66	1321.19	1320.69
C	1324.81	1324.51	1324.20	1323.86	1323.50	1323.11	1322.71	1322.28	1321.83	1321.36	1320.87
D	1324.98	1324.68	1324.37	1324.03	1323.67	1323.28	1322.88	1322.45	1322.00	1321.53	1321.04

* NOTE: INCLUDES ALLOWANCE FOR GRADE AND DEAD LOAD DEFLECTIONS.

Preliminary Plans

PHASE 2 OKLAHOMA COUNTY

BRIDGE "M" RAMP "M" AT I-35 & I-240 INTERCHANGE

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PLATE GIRDER DETAILS SPANS 1 AND 2

(SHEET 1 OF 2)

STATE JOB NO. 09032(06) SHEET NO. B244

5/31/2022 3:30:39 PM
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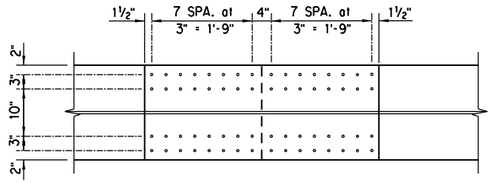
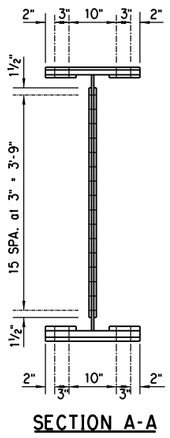
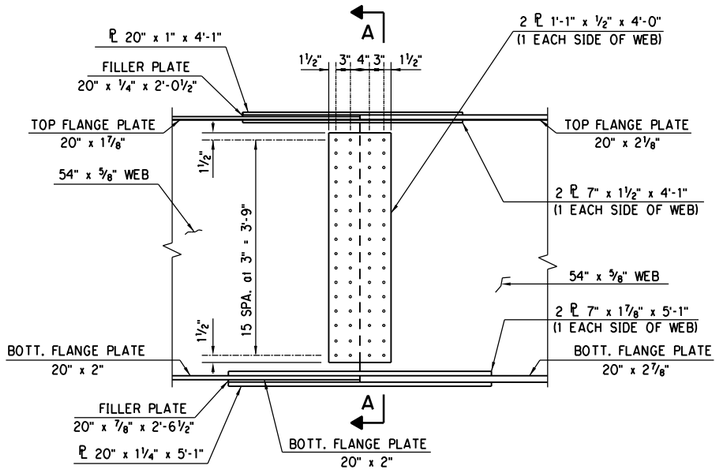
REVISIONS		
DESCRIPTION		DATE



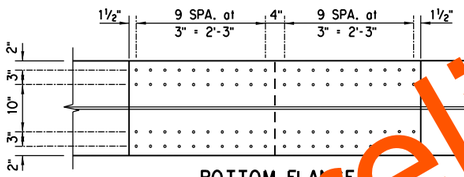
TOP FLANGE



SECTION A-A



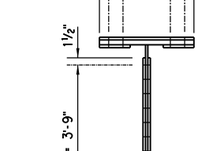
ELEVATION



BOTTOM FLANGE

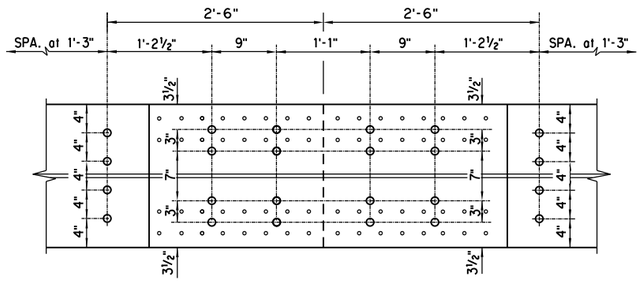
BOLTED FIELD SPLICE DETAIL

(LEFT SPLICE SHOWN, RIGHT OPPOSITE HAND)



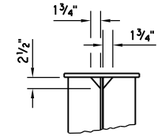
STUD
SHEAR CONNECTORS

(4 - ⅞" DIA. x 5" STUDS)



STUD SPACING THROUGH FIELD SPLICE

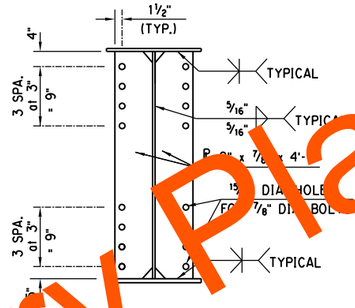
(TYPICAL)



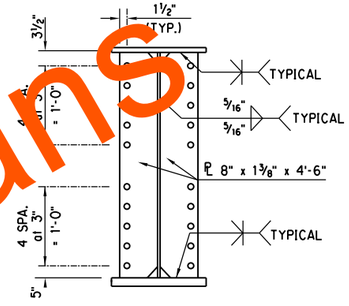
TYP. CORNER CLIP

(ALL STIFFENERS TOP AND BOTTOM)

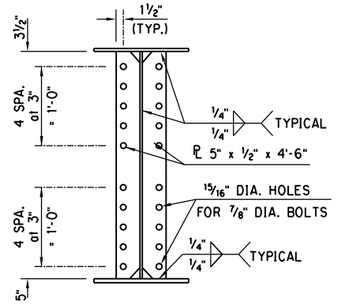
NOTE: TERMINATE FILLET WELDS ⅜" FROM THE EDGE OF CLIPPED CORNERS OF ALL STIFFENER PLATES AND NON-CLIPPED CORNERS OF INTERMEDIATE DIAPHRAGM STIFFENERS. WRAP FILLET WELDS AROUND NON-CLIPPED CORNERS OF BEARING STIFFENERS.



BEARING STIFFENER
PIERS NO. 1 AND 3



BEARING STIFFENER
PIER NO. 2



INTERMEDIATE STIFFENER

NOTE: SEE PLATE GIRDER ELEVATION, SHEET 1 OF 2 AND 'FRAMING PLAN AND DIAPHRAGM DETAILS' SHEET FOR LOCATIONS OF STIFFENERS.

OMIT BOLT HOLES ON EXTERIOR STIFFENERS ON EXTERIOR GIRDERS.

NOTES:

ALL GIRDER, STIFFENER AND SPLICE PLATES SHALL BE AASHTO M270, (ASTM A709) GRADE 50W.

ALL GIRDER, STIFFENER AND SPLICE PLATES SHALL CONFORM TO THE NON-FRACTURE CRITICAL CHARPY V-NOTCH TESTED FOR ZONE 2.

USE SHEAR CONNECTORS CONFORMING TO AASHTO M169 (ASTM A108), GRADE 1015, 1018, 1020.

PROVIDE WELDING WITH WEATHERING CHARACTERISTICS.

ALL BOLTS SHALL BE ⅞" DIA. ASTM A325 TYPE 3 WITH HEAVY HEX NUTS, HARDENED CIRCULAR WASHERS, AND 15/16" DIA. HOLES, UNLESS OTHERWISE NOTED.

SPLICE BOLTS SHALL BE PLACED WITH HEADS ON THE OUTSIDE FACE OF EXTERIOR GIRDERS AND ON BOTTOM OF GIRDER FLANGES.

BOLT THREADS MUST BE EXCLUDED FROM FIELD SPLICE SHEAR PLANES.

NO FIELD WELDING TO GIRDERS WILL BE ALLOWED EXCEPT AS SHOWN ON PLANS.

GIRDERS ARE SHOWN AND DIMENSIONED WITH TOP FLANGE IN THE HORIZONTAL POSITION. VERTICAL CURVATURE AND EFFECTS OF DEAD LOAD DEFLECTION HAVE NOT BEEN TAKEN INTO CONSIDERATION. SHOP DRAWINGS SHALL INCLUDE BLOCKING DIAGRAM FOR EACH GIRDER SHOWING ALL ADJUSTMENTS NECESSARY FOR DEAD LOAD DEFLECTION AND VERTICAL CURVATURE. THE WEB PLATES SHALL BE FABRICATED WITH CAMBER FOR DEAD LOAD DEFLECTION AND VERTICAL CURVATURE.

Preliminary Plans

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 OKLAHOMA COUNTY

BRIDGE "M" RAMP "M" AT I-35 & I-240 INTERCHANGE

PLATE GIRDER DETAILS
SPANS 1 AND 2
(SHEET 2 OF 2)

STATE JOB NO. 09032(106) SHEET NO. B245

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DESCRIPTION	REVISIONS	DATE

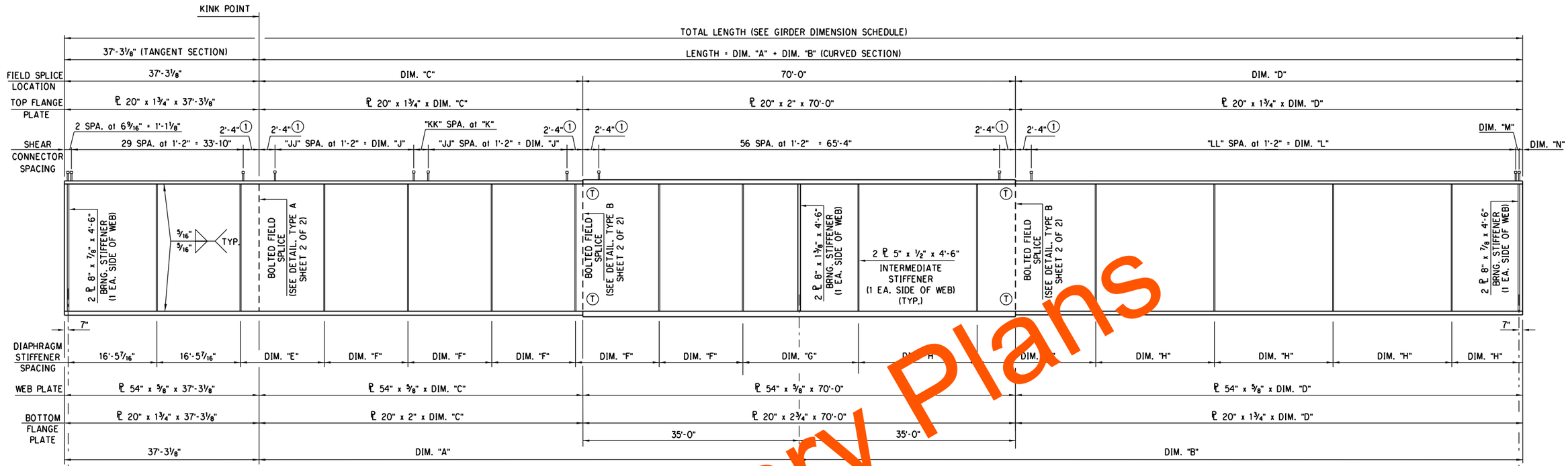


PLATE GIRDER ELEVATION SPANS 3 AND 4

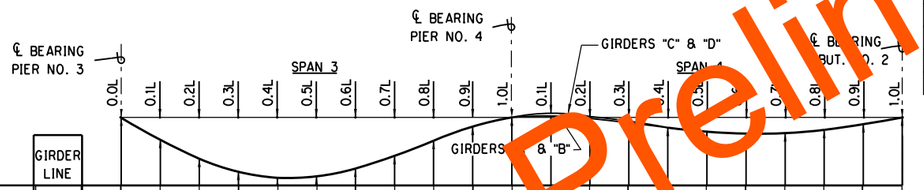
(T) TENSION SPLICE

(1) SEE STUD SPACING THROUGH FIELD SPLICE (SHEET 2 OF 2)

NOTE: GIRDER DIMENSIONS ARE ALONG ℄ ARC OF WEB.

SPANS 3 & 4 GIRDER DIMENSION SCHEDULE

GIRDER	TOTAL LENGTH	DIM "A"	DIM "B"	DIM "C"	DIM "D"	DIM "E"	DIM "F"	DIM "G"	DIM "H"	"JJ"	DIM "J"	"KK"	DIM "K"	"LL"	DIM "L"	DIM "M"	DIM "N"	Curved Sect. Rad.
A	251'-11 11/16"	101' -4 1/16"	113'-4 1/2"	66' -4 1/16"	78'-4 1/2"	16'-2 3/4"	16'-1 7/8"	16'-9 3/16"	17'-4 1/4"	26	30'-4"	1	1'-0 1/16"	64	74'-8"	11"	5 1/2"	1415.14
B	253'-3 3/16"	101'-11 3/8"	114'-0 11/16"	66'-11 3/8"	79'-0 11/16"	16'-3 5/8"	16'-3 1/16"	16'-10 3/8"	17'-5 1/2"	26	30'-4"	2	9 11/16"	65	75-10"	6"	4 11/16"	1423.64
C	254'-6 9/16"	102'-6 5/8"	114'-8 13/16"	67'-6 5/8"	79'-8 13/16"	16'-4 1/2"	16'-4 1/4"	16'-11 7/16"	17'-6 3/4"	26	30'-4"	2	1'-1 5/16"	66	77-0"	-------	4 13/16"	1432.14
D	255'-10 1/16"	103'-2"	115'-4 15/16	68'-2"	80'-4 15/16	16'-5 7/16"	16'-5 7/16"	17'-0 9/16"	17'-8"	27	31'-6"	1	6"	66	77-0"	8"	4 15/16"	1440.64



	GIRDER LINE	0.0L	0.1L	0.2L	0.3L	0.4L	0.5L	0.6L	0.7L	0.8L	0.9L	1.0L	0.1L	0.2L	0.3L	0.4L	0.5L	0.6L	0.7L	0.8L	0.9L	1.0L
DECK SLAB, HAUNCH, RAIL & 5 psf SIP FORMS (IN INCHES)	A	0.00	0.82	1.52	2.00	2.22	2.17	1.88	1.42	0.86	0.34	0.00	0.05	0.04	0.20	0.38	0.53	0.60	0.58	0.46	0.25	0.00
	B	0.00	0.89	1.65	2.17	2.42	2.37	2.06	1.55	0.95	0.38	0.00	0.07	0.02	0.19	0.38	0.54	0.62	0.60	0.47	0.26	0.00
	C	0.00	0.96	1.77	2.34	2.60	2.56	2.22	1.68	1.03	0.42	0.00	0.08	0.00	0.17	0.36	0.53	0.62	0.60	0.48	0.27	0.00
	D	0.00	1.02	1.89	2.50	2.79	2.74	2.38	1.80	1.10	0.45	0.00	0.10	0.03	0.14	0.34	0.51	0.61	0.60	0.48	0.27	0.00
TOTAL DEFLECTION (NO FUTURE WEARING SURFACE) (IN INCHES)	A	0.00	1.09	2.01	2.64	2.94	2.88	2.50	1.88	1.15	0.46	0.00	0.07	0.05	0.26	0.50	0.69	0.78	0.75	0.60	0.33	0.00
	B	0.00	1.18	2.18	2.88	3.20	3.14	2.73	2.06	1.26	0.51	0.00	0.09	0.02	0.24	0.49	0.69	0.80	0.77	0.62	0.34	0.00
	C	0.00	1.27	2.35	3.10	3.45	3.39	2.95	2.23	1.37	0.56	0.00	0.11	0.01	0.21	0.47	0.68	0.80	0.78	0.62	0.35	0.00
	D	0.00	1.36	2.51	3.32	3.70	3.64	3.17	2.39	1.47	0.60	0.00	0.14	0.05	0.17	0.44	0.66	0.79	0.78	0.63	0.35	0.00

DEAD LOAD DEFLECTION DIAGRAM AND DEFLECTION SCHEDULE

DECK SLAB ELEVATION SCHEDULE AT 10TH POINTS

GIRDER	BRNG.	0.1L	0.2L	0.3L	0.4L	0.5L	0.6L	0.7L	0.8L	0.9L	BRNG.
	SPAN 3										
A	1320.43	1319.85	1319.22	1318.59	1317.92	1317.24	1316.61	1315.97	1315.30	1314.61	1313.90
B	1320.62	1320.08	1319.49	1318.89	1318.27	1317.63	1317.00	1316.36	1315.69	1315.00	1314.29
C	1320.30	1319.76	1319.20	1319.21	1318.02	1317.39	1316.75	1316.08	1315.39	1314.68	1314.68
D	1320.49	1319.99	1319.47	1319.40	1318.37	1317.78	1317.14	1316.47	1315.78	1315.07	1315.07
	SPAN 4										
A	1313.90	1319.51	1318.98	1318.42	1317.84	1317.24	1316.61	1315.97	1315.31	1314.69	1314.05
B	1314.29	1319.90	1319.37	1318.81	1318.23	1317.63	1317.00	1316.36	1315.69	1315.04	1314.37
C	1314.68	1320.29	1319.76	1319.20	1318.62	1318.02	1317.39	1316.75	1316.08	1315.39	1314.68
D	1315.07	1320.68	1320.15	1319.59	1319.01	1318.41	1317.78	1317.14	1316.47	1315.74	1315.00

* NOTE: INCLUDES ALLOWANCE FOR GRADE AND DEAD LOAD DEFLECTIONS.

Preliminary Plans

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 — OKLAHOMA COUNTY

BRIDGE "M" — RAMP "M" AT I-35 & I-240 INTERCHANGE

PLATE GIRDER DETAILS SPANS 3 AND 4

(SHEET 1 OF 2)

STATE JOB NO. 09032(106) SHEET NO. B246

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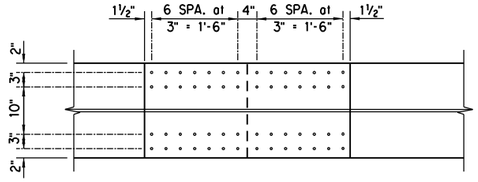
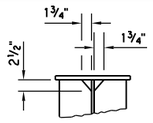
DESCRIPTION	REVISIONS	DATE



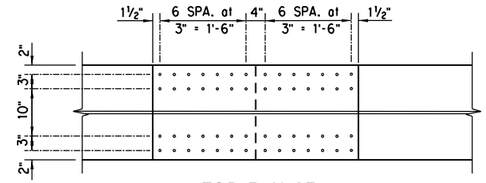
TOP FLANGE



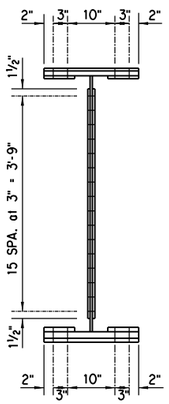
TYP. CORNER CLIP

(ALL STIFFENERS TOP AND BOTTOM)

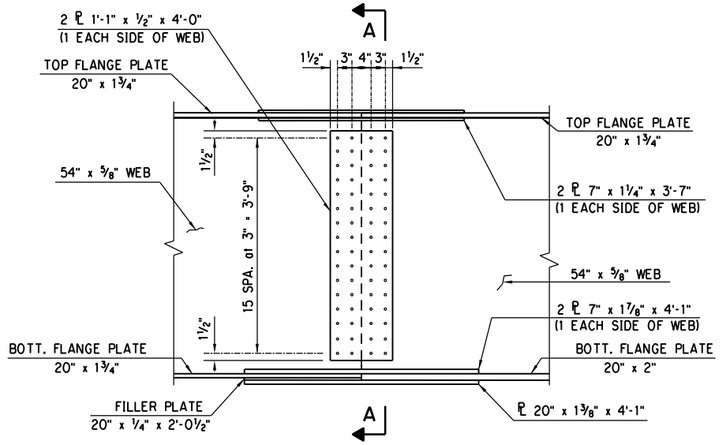
NOTE: TERMINATE FILLET WELDS ⅜" FROM THE EDGE OF CLIPPED CORNERS OF ALL STIFFENER PLATES AND NON-CLIPPED CORNERS OF INTERMEDIATE DIAPHRAGM STIFFENERS. WRAP FILLET WELDS AROUND NON-CLIPPED CORNERS OF BEARING STIFFENERS.



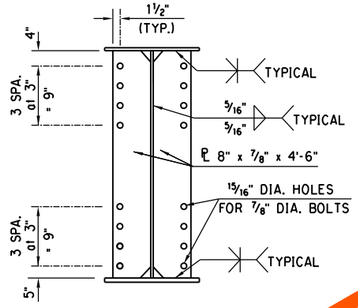
TOP FLANGE



SECTION A-A

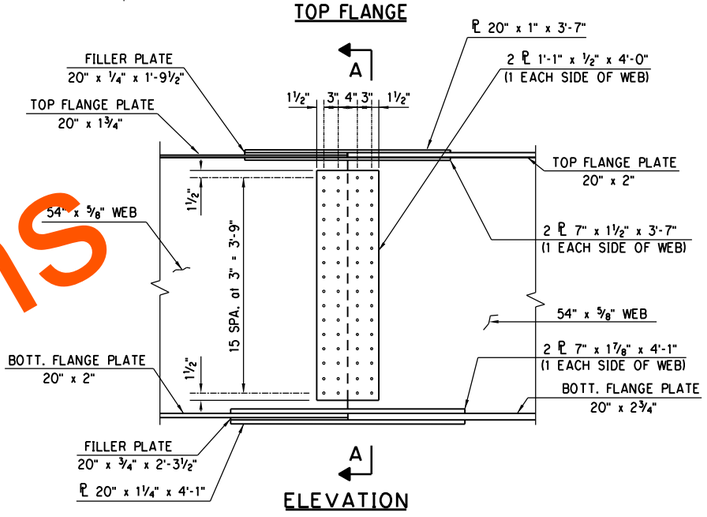


ELEVATION

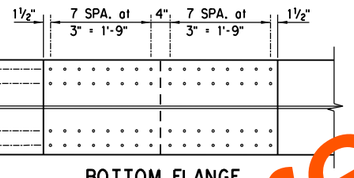


BEARING STIFFENER
PIER NO. 3 AND ABUT. NO 2

SECTION A-A

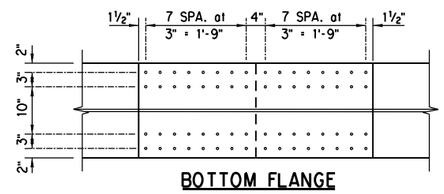


ELEVATION



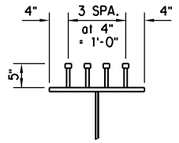
BOTTOM FLANGE

BOLTED FIELD SPLICE TYPE A DETAIL



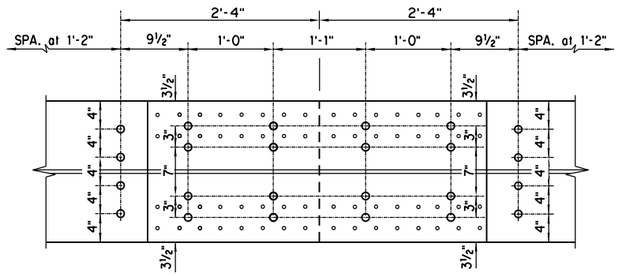
BOTTOM FLANGE

BOLTED FIELD SPLICE TYPE B DETAIL



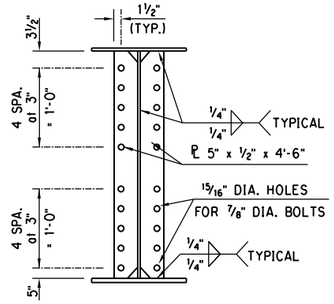
STUD
SHEAR CONNECTORS

(4 - ⅞" DIA. x 5" STUDS)

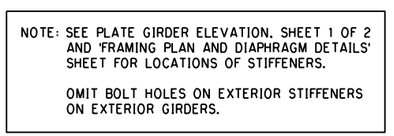


STUD SPACING THROUGH FIELD SPLICE

(TYPICAL)



INTERMEDIATE STIFFENER



BEARING STIFFENER
PIER NO. 4

NOTE: SEE PLATE GIRDER ELEVATION, SHEET 1 OF 2 AND 'FRAMING PLAN AND DIAPHRAGM DETAILS' SHEET FOR LOCATIONS OF STIFFENERS.

OMIT BOLT HOLES ON EXTERIOR STIFFENERS ON EXTERIOR GIRDERS.

NOTES:

ALL GIRDER, STIFFENER AND SPLICE PLATES SHALL BE AASHTO M270, (ASTM A709) GRADE 50W.

ALL GIRDER, STIFFENER AND SPLICE PLATES SHALL CONFORM TO THE NON-FRACTURE CRITICAL CHARPY V-NOTCH TESTED FOR ZONE 2.

USE SHEAR CONNECTORS CONFORMING TO AASHTO M169 (ASTM A108), GRADE 1015, 1018, 1020.

PROVIDE WELDING WITH WEATHERING CHARACTERISTICS.

ALL BOLTS SHALL BE ⅞" DIA. ASTM A325 TYPE 3 WITH HEAVY HEX NUTS, HARDENED CIRCULAR WASHERS, AND 15/16" DIA. HOLES, UNLESS OTHERWISE NOTED.

SPLICE BOLTS SHALL BE PLACED WITH HEADS ON THE OUTSIDE FACE OF EXTERIOR GIRDERS AND ON BOTTOM OF GIRDER FLANGES.

BOLT THREADS MUST BE EXCLUDED FROM FIELD SPLICE SHEAR PLANES.

NO FIELD WELDING TO GIRDERS WILL BE ALLOWED EXCEPT AS SHOWN ON PLANS.

GIRDERS ARE SHOWN AND DIMENSIONED WITH TOP FLANGE IN THE HORIZONTAL POSITION. VERTICAL CURVATURE AND EFFECTS OF DEAD LOAD DEFLECTION HAVE NOT BEEN TAKEN INTO CONSIDERATION. SHOP DRAWINGS SHALL INCLUDE BLOCKING DIAGRAM FOR EACH GIRDER SHOWING ALL ADJUSTMENTS NECESSARY FOR DEAD LOAD DEFLECTION AND VERTICAL CURVATURE. THE WEB PLATES SHALL BE FABRICATED WITH CAMBER FOR DEAD LOAD DEFLECTION AND VERTICAL CURVATURE.

PHASE 2 OKLAHOMA COUNTY

BRIDGE "M" RAMP "M" AT I-35 & I-240 INTERCHANGE

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PLATE GIRDER DETAILS SPANS 3 AND 4

(SHEET 2 OF 2)

STATE JOB NO. 09032(06) SHEET NO. B247

Preliminary

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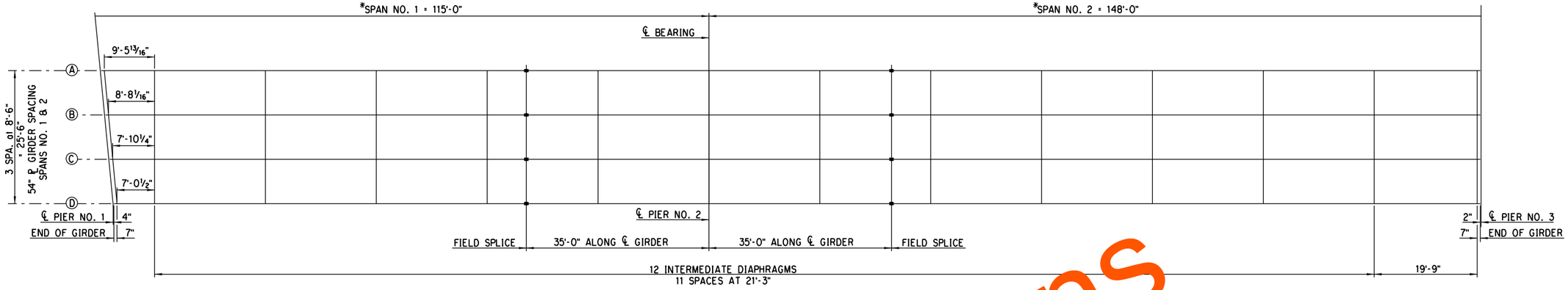
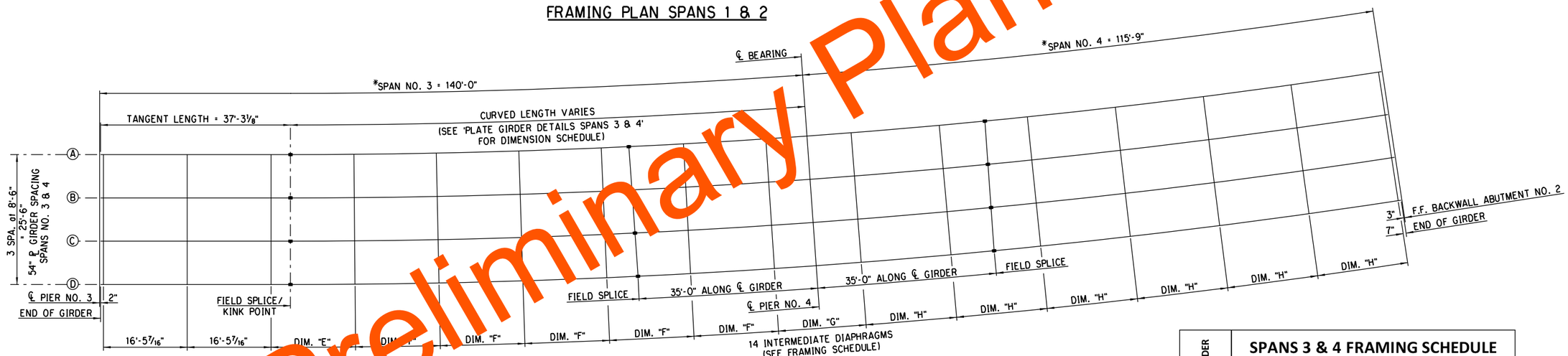
*NOTE: SPAN LENGTH IS ALONG ℄ RAMP "M"

DESCRIPTION	REVISIONS	DATE

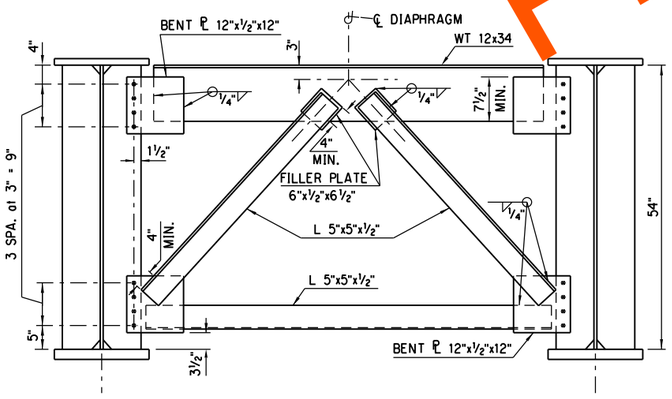


FRAMING PLAN SPANS 1 & 2

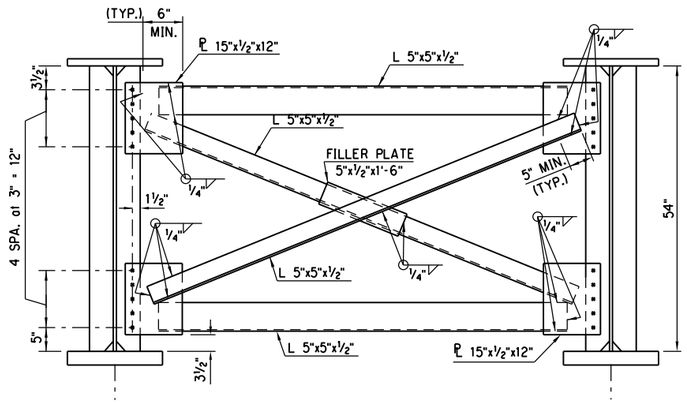


FRAMING PLAN SPANS 3 & 4

GIRDER	SPANS 3 & 4 FRAMING SCHEDULE			
	DIM "E"	DIM "F"	DIM "G"	DIM "H"
A	16'-2 3/4"	16'-1 7/8"	16'-9 3/16"	17'-4 1/4"
B	16'-3 5/8"	16'-3 1/16"	16'-10 3/8"	17'-5 1/2"
C	16'-4 1/2"	16'-4 1/4"	16'-11 7/16"	17'-6 3/4"
D	16'-5 7/16"	16'-5 7/16"	17'-0 9/16"	17'-8"



END DIAPHRAGMS
(ABUTMENT AND PIERS NO. 1 & 3)
(M270 GRADE 50W STEEL)



INTERMEDIATE DIAPHRAGMS
(INCLUDES PIER 2)
(M270 GRADE 50W STEEL)

Preliminary Plans

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 — OKLAHOMA COUNTY
BRIDGE "M" — RAMP "M" AT I-35 & I-240 INTERCHANGE

FRAMING PLAN AND DIAPHRAGM DETAILS

STATE JOB NO. 09032(106) SHEET NO. B248

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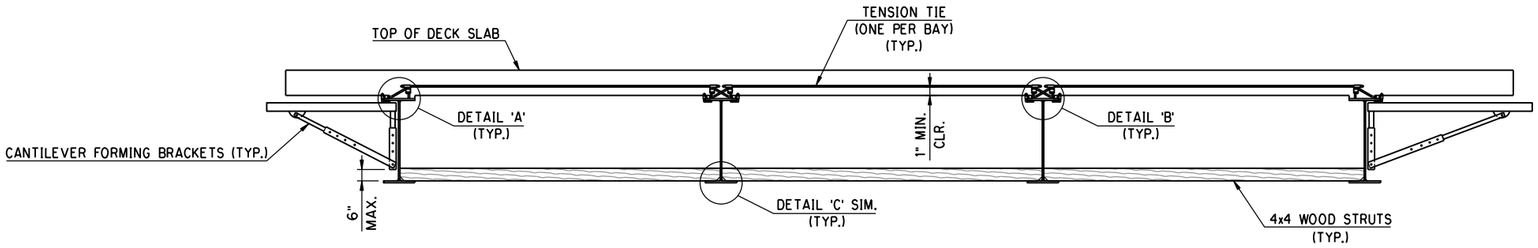
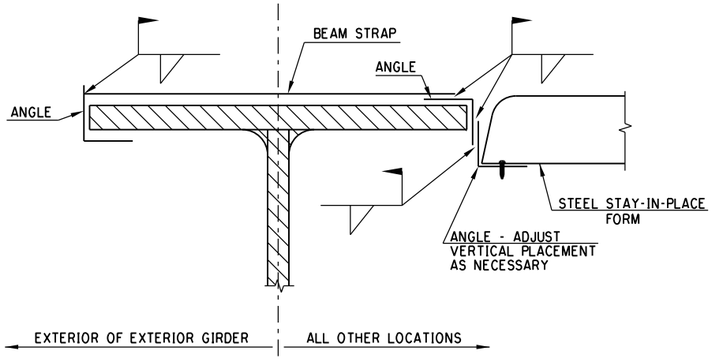
REVISIONS		
DESCRIPTION		DATE



GIRDER BRACING FOR DECK SLAB PLACEMENT

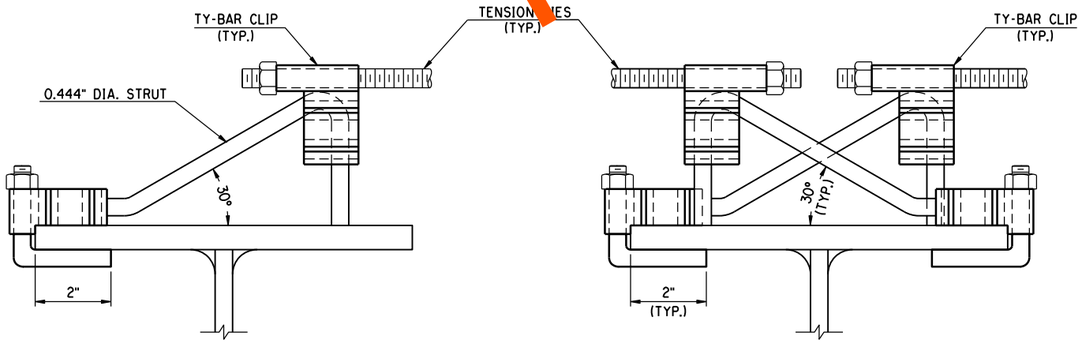
BRACING SYSTEM SHOWN FOR ILLUSTRATION PURPOSES ONLY. ALTERNATIVE SYSTEMS MAY BE CONSIDERED. SEE GENERAL NOTES FOR DESIGN REQUIREMENTS AND LIMITATIONS.

NOTE: SPACING OF FORMING BRACES, TENSION TIES AND HARDWOOD STRUTS TO BE DETERMINED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF OKLAHOMA FOR THE LOADS ANTICIPATED DURING CONSTRUCTION. SEE GENERAL NOTES FOR ADDITIONAL DETAILS.



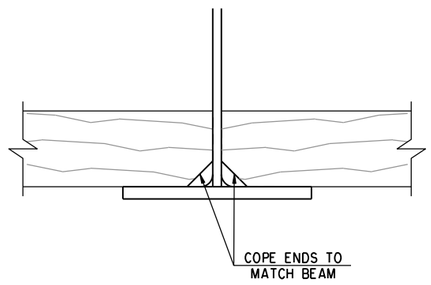
STEEL STAY-IN-PLACE FORMS FLANGE CONNECTION DETAIL

REPORT ANY ARC STRIKE, WELD SPLATTER OR WELDING ON TOP FLANGE TO BRIDGE ENGINEER IMMEDIATELY.



DETAIL 'A'

DETAIL 'B'



DETAIL 'C'

Preliminary Plans

BRACING NOTES

SUBMIT DRAWINGS OF THE BRACING SYSTEM TO THE BRIDGE ENGINEER FOR APPROVAL. BRACING SYSTEMS OTHER THAN THAT SHOWN MAY BE USED IF DESIGN CALCULATIONS AND DRAWINGS OF THE PROPOSED BRACING SYSTEM ARE SUBMITTED TO AND APPROVED BY THE BRIDGE ENGINEER. DRAWINGS AND CALCULATIONS OF THE PROPOSED SYSTEM SHALL BE SIGNED AND SEALED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF OKLAHOMA. DO NOT PLACE SLAB CONCRETE UNTIL BRACING SYSTEM IS APPROVED. THE DEPARTMENT CONSIDERS ALL COST FOR BRACING TO BE INCLUDED IN OTHER ITEMS OF WORK.

USE ADJUSTABLE CANTILEVER FORMING BRACKETS AT EXTERIOR BEAMS CAPABLE OF BEING ADJUSTED DURING THE PLACEMENT OF DECK SLAB CONCRETE IN ORDER TO MAINTAIN PROPER GRADES AT THE DECK OVERHANG. IF SHIMS ARE TO BE USED TO ADJUST THE FORMING BRACKETS, PROVIDE THE BRIDGE ENGINEER A METHOD TO PREDICT CRUSH AND SETTLEMENT OF SHIMS. BEAR THE LEG BRACE OF THE BRACKETS ON THE BEAM WEB WITHIN 6 INCHES OF THE BOTTOM FLANGE.

TENSION TIES SHALL BE A MINIMUM #4 EPOXY-COATED REINFORCING STEEL BARS WITH THREADED ENDS OR ½" DIA. GALVANIZED ALL-THREAD, FURNISHED BY THE CONTRACTOR. THE TENSION TIES SHALL BE PLACED PERPENDICULAR TO THE GIRDERS. TENSION TIES SHALL BE ATTACHED TO THE TOP FLANGE OF GIRDERS BY MEANS OF TY-BAR CLIPS AS SHOWN ON THE DETAILS. WELDING OF CLIPS TO THE TOP FLANGE OF GIRDERS WILL NOT BE PERMITTED.

WOOD STRUTS SHALL BE HARDWOOD OR OF AN EQUIVALENT STRENGTH MATERIAL. WEDGE STRUTS BETWEEN GIRDER WEBS WITHIN 6" OF THE BOTTOM FLANGE OF EACH GIRDER. LOCATE WOOD STRUTS WHERE THE TOP OF THE GIRDERS ARE TIED TOGETHER WITH TENSION TIES.

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 — OKLAHOMA COUNTY

BRIDGE "M" — RAMP "M" AT I-35 & I-240 INTERCHANGE

GIRDER BRACING DETAILS

STATE JOB NO. 09032(106) SHEET NO. B249

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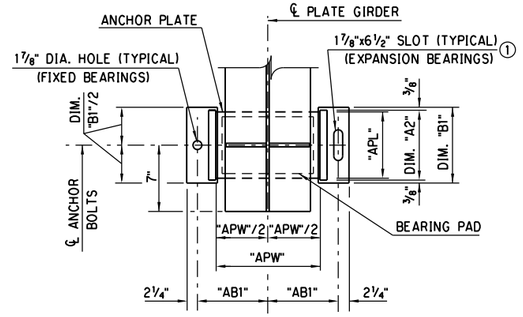
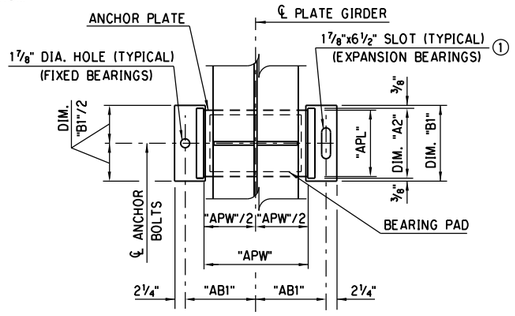
DESCRIPTION	REVISIONS	DATE

NOTE: ANCHOR BOLTS OMITTED FROM PLAN VIEW FOR CLARITY.



PLAN



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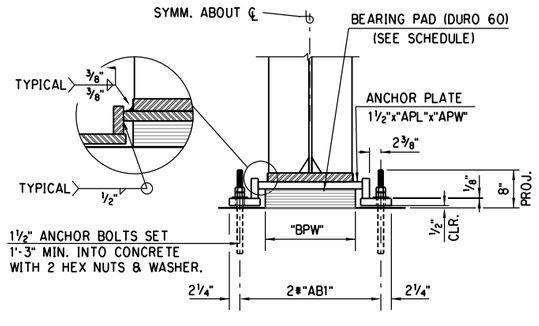

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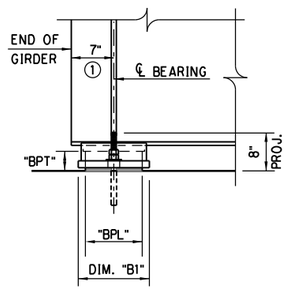
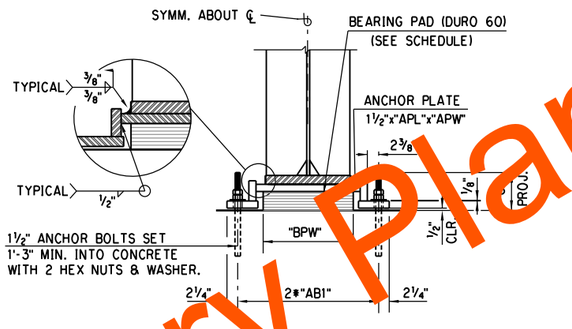


SIDE VIEW

(SEE SCHEDULE FOR DIMENSIONS)

DETAILS OF END BEARING ASSEMBLY



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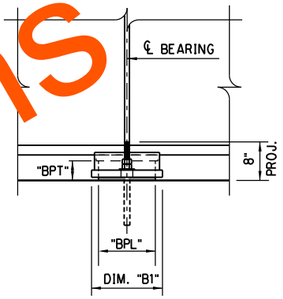
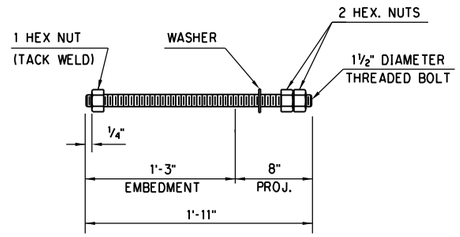


SIDE VIEW

(SEE SCHEDULE FOR DIMENSIONS)

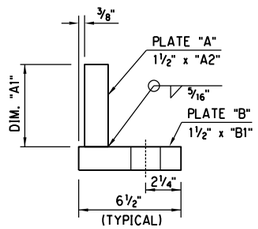
DETAILS OF CONTINUOUS BEARING ASSEMBLY

① ANCHOR BOLTS SHALL BE CENTERED IN SLOTS DURING SETTING OF BEAMS. DIMENSION MAY VARY DEPENDING ON TEMPERATURE AT THE TIME OF BEAM SETTING.



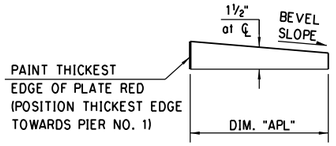
DETAIL OF BEARING ANCHOR BOLT

(SEE SEC. 724.05 OF THE STANDARD SPECIFICATIONS.)



(SEE SCHEDULE FOR DIMENSIONS)

BUILT-UP CONTACT ANGLE DETAIL



(SEE SCHEDULE FOR DIMENSIONS)

BEVELED ANCHOR PLATE DETAILS

BEARING PAD, ANCHOR ASSEMBLY AND ANCHOR BOLT SCHEDULE

		DUROMETER BEARING PAD									1 1/2" ANCHOR PLATE			1 1/2" BUILT-UP CONTACT ANGLE			
					COVER		INNER		LAMINATES					PLATE "A"		PLATE "B"	
SPAN	LOCATION	THICKNESS "BP"	LENGTH "BPL"	WIDTH "BPW"	NO.	THICK.	NO.	THICK.	NO.	THICK.	LENGTH DIM."APL"	WIDTH DIM."APW"	BEVEL	DIM "A1"	DIM "A2"	DIM "B1"	DIM "AB1"
1 & 2	**PIER 1	4 1/8"	10"	1'-0"	2	1/4"	7	3/8"	8	1/8"	11"	2'-0"	1.50%	4 1/4"	1'-0 1/4"	1'-1"	1'-3 7/8"
	PIER 2	5 1/8"	1'-0"	1'-6"	2	1/4"	9	3/8"	10	1/8"	1'-1"	2'-0"	3.00%	5 1/4"	1'-2 1/4"	1'-3"	1'-3 7/8"
	PIER 3	4 1/8"	10"	1'-0"	2	1/4"	7	3/8"	8	1/8"	11"	2'-0"	3.50%	4 1/4"	1'-0 1/4"	1'-1"	1'-3 7/8"
3 & 4	PIER 3	5 1/8"	10"	1'-3"	2	1/4"	9	3/8"	10	1/8"	11"	2'-0"	3.50%	5 1/4"	1'-0 1/4"	1'-1"	1'-3 7/8"
	PIER 4	5 5/8"	1'-0"	1'-6"	2	1/4"	10	3/8"	11	1/8"	1'-1"	2'-0"	3.50%	5 3/4"	1'-2 1/4"	1'-3"	1'-3 7/8"
	ABUT. 2	4 1/8"	10"	1'-3"	2	1/4"	7	3/8"	8	1/8"	11"	2'-0"	3.50%	4 1/4"	1'-0 1/4"	1'-1"	1'-3 7/8"

**PIER 1 IS PIER 8, BRIDGE "B"

BEARING ASSEMBLY NOTES:

PROVIDE STRUCTURAL STEEL ANCHOR PLATES AND BUILT-UP CONTACT PLATES IN ACCORDANCE WITH ASTM A240 (AUSTENITIC STAINLESS STEEL TYPE 316, CHARPY V-NOTCH TESTING NOT REQUIRED). FOR ANCHOR BOLTS, PROVIDE CONTINUOUSLY THREADED BARS IN ACCORDANCE WITH ASTM A320, CLASS 2, GRADE B8M (AUSTENITIC STAINLESS STEEL, TYPE 316, CHARPY V-NOTCH TESTING NOT REQUIRED). USE AUSTENITIC STAINLESS STEEL NUTS AND WASHERS CONFORMING TO ASTM A194, GRADE 8M AND ASTM A320, RESPECTIVELY. PERFORM ALL WELDING CONSISTENT WITH PROCEDURES FOR STAINLESS STEEL. SEE SEC 724.05 OF THE STANDARD SPECIFICATIONS.

Preliminary Plans

	PHASE 2		OKLAHOMA COUNTY
DESIGN		BRIDGE "M"	RAMP "M" AT I-35 & I-240 INTERCHANGE
DRAWN		BEARING ASSEMBLY DETAILS	
CHECKED			
APPROVED			
SQUAD	POE	STATE JOB NO. 09032(106)	SHEET NO. B250

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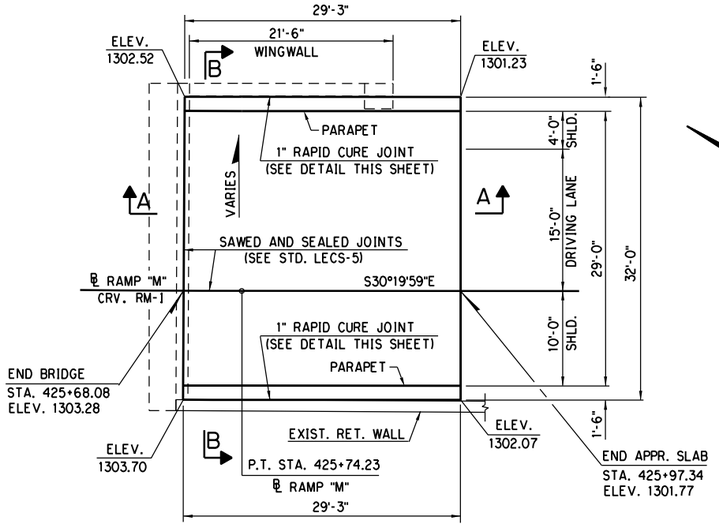
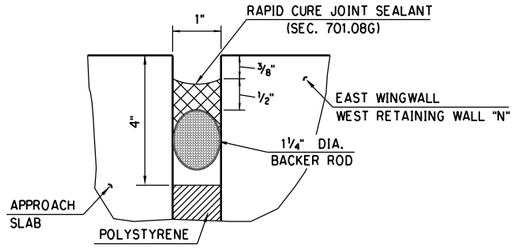
REVISIONS		
DESCRIPTION		DATE

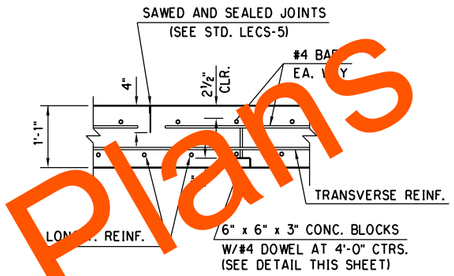


APPROACH SLAB PLAN

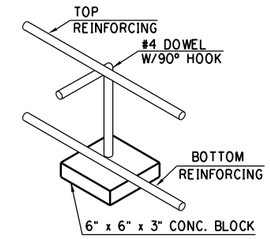


DETAIL OF RAPID CURE JOINT AT WALLS

FOR BACKER ROD AND JOINT SEALER GENERAL NOTES REFER TO STD. LECS-5.

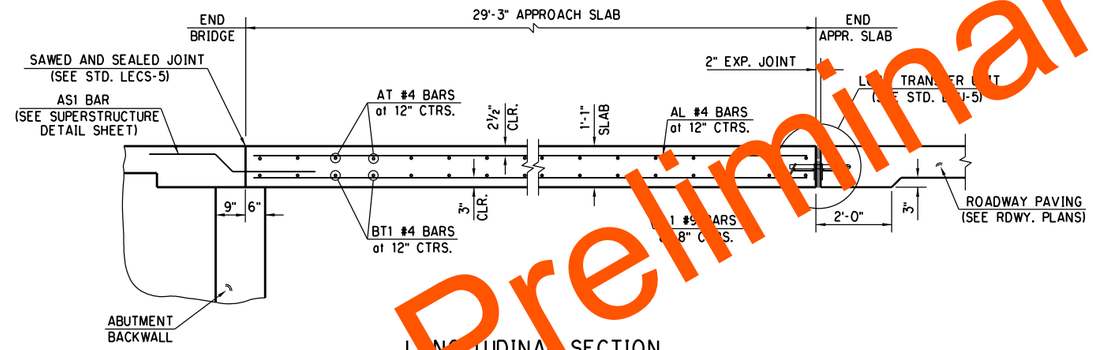


DETAIL OF SAWED JOINT AND DOWEL BLOCK

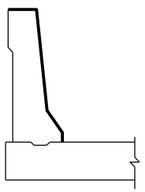


DOWEL BLOCK

NOTE: CONTRACTOR MAY USE APPROVED HIGH CHAIRS WITH SAND PLATES (HCP) AND 6" x 6" x 3" PLAIN CONCRETE BLOCKS IN LIEU OF DOWEL BLOCKS SHOWN. SPACING SHALL BE 4'-0" MAX. ON CTRS.



LONGITUDINAL SECTION SECTION A - A

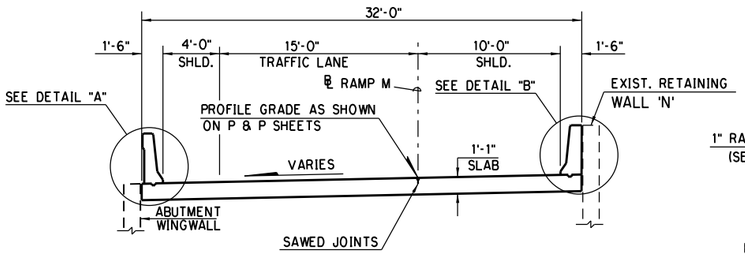


WATER REPELLENT SURFACE TREATMENT

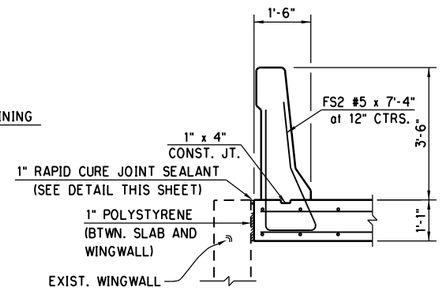
SURFACES INDICATED WITH HEAVY LINES SHALL BE TREATED WITH A PENETRATING WATER REPELLENT SURFACE TREATMENT.

NOTE: FOR DETAILS OF PARAPET SEE ODOT STD. FSHP-42-2

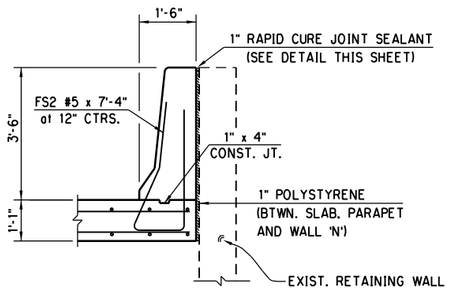
QUANTITIES		
ITEM	UNIT	ABUT. 1
APPROACH SLAB	S.Y.	104.0
SAW-CUT GROOVING	S.Y.	94.3
42" F-SHAPED PARAPET	L.F.	58.5
WATER REPELLENT (VISUALLY INSPECTED)	S.Y.	29



TYPICAL SECTION SECTION B - B



DETAIL "A"



DETAIL "B"

NOTES:

CONCRETE FOR APPROACH SLABS SHALL BE CLASS AA. REINFORCING STEEL SHALL BE GRADE 60.

ALL COST OF MATERIALS, LABOR, AND INCIDENTALS NECESSARY TO COMPLETE THE WORK AS SHOWN SHALL BE INCLUDED IN THE UNIT PRICE BID PER SQUARE YARD OF APPROACH SLAB. THIS PRICE BID SHALL INCLUDE THE COST OF LOAD TRANSFER UNIT, POLYSTYRENE, RAPID CURE JOINT SEALANT, BACKER RODS, SAWING, DOWEL BLOCKS, CLASS AA CONCRETE AND EPOXY COATED REINFORCING STEEL (INCLUDING FS2 PARAPET BARS).

ALL COST OF PARAPET SHALL BE INCLUDED IN PRICE BID PER LINEAR FOOT OF "42" F-SHAPED PARAPET". THIS PRICE SHALL INCLUDE COST OF ALL FS1, FH1 AND FH2 EPOXY COATED REINFORCING STEEL. PARAPET SHALL BE FULL HEIGHT FOR THE LENGTH OF THE APPROACH SLAB. WEST PARAPET SHALL BE CAST AGAINST RETAINING WALL "N", AS SHOWN IN DETAIL "B" ON THIS SHEET, AND WILL DIFFER FROM STD. FSHP-42-2 AS SHOWN.

Preliminary Plans

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 — OKLAHOMA COUNTY
BRIDGE "M" — RAMP "M" AT I-35 & I-240 INTERCHANGE

APPROACH SLAB DETAILS

(SHEET 1 OF 2)

STATE JOB NO. 09032(106) SHEET NO. B251

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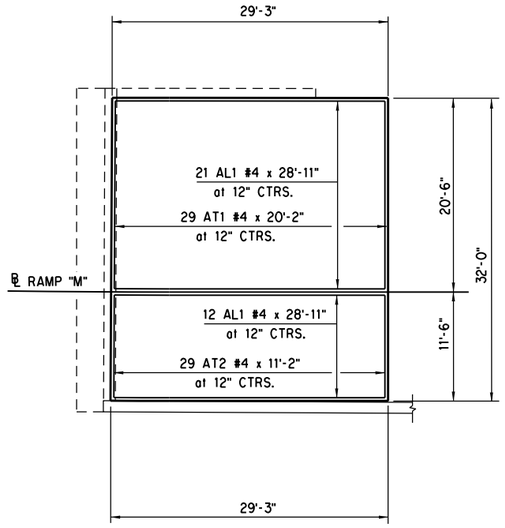
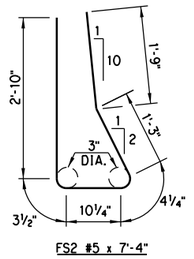
REVISIONS		
DESCRIPTION		DATE



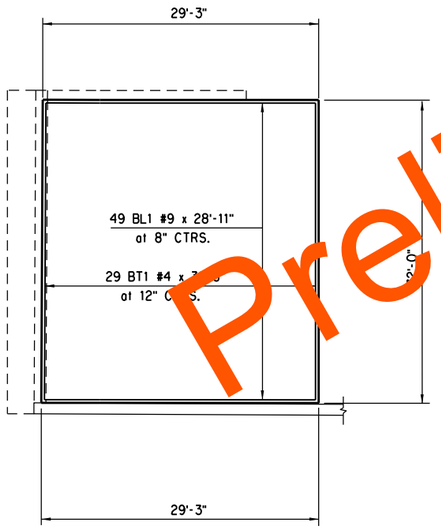
TOP MAT REINFORCING PLAN



FS2 #5 x 7'-4"

NOTE: FS2 BARS SHALL BE TIED IN PLACE BEFORE POURING THE CONCRETE FOR THE APPROACH SLAB.

NOTE: ALL REINFORCEMENT BAR DIMENSIONS ARE OUT TO OUT.



BOTTOM MAT REINFORCING PLAN

BAR LIST - EPOXY COATED
(FOR INFORMATION ONLY)

MARK	NO.	SIZE	FORM	SPACING	LENGTH
AL1	33	#4	STR.	12" C/C	28'-11"
AT1	29	#4	STR.	12" C/C	20'-2"
AT2	29	#4	STR.	12" C/C	11'-2"
BL1	49	#9	STR.	8" C/C	28'-11"
BT1	29	#4	STR.	12" C/C	31'-8"
FS2	58	#5	BNT.	12 C/C	7'-4"

Preliminary Plans

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 OKLAHOMA COUNTY
BRIDGE "M" RAMP "M" AT I-35 & I-240 INTERCHANGE

APPROACH SLAB DETAILS
(SHEET 2 OF 2)

STATE JOB NO. 09032(106) SHEET NO. B252

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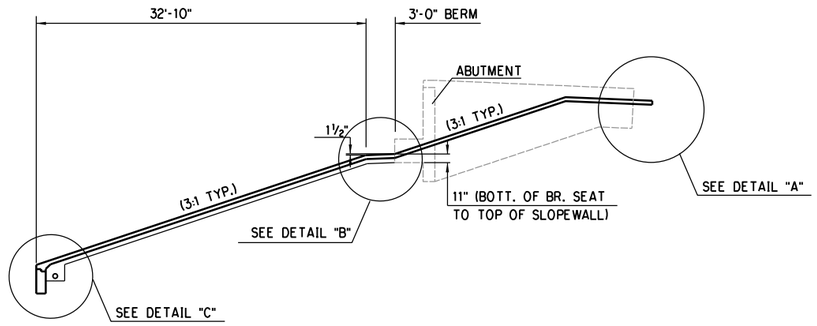
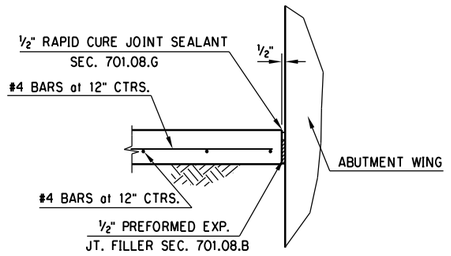
DESCRIPTION	REVISIONS	DATE



NORTH TYPICAL SECTION AT ABUTMENT

NOTE: FOR DETAILS A, B, AND C.
SEE SHEET 2 OF 2



SECTION A-A
(TYPICAL AT WINGWALLS)

SLOPE WALL QUANTITIES		
ITEM	UNIT	TOTAL
SLOPE WALL (5")	S.Y.	210
6" PERFORATED PIPE UNDERDRAIN ROUND	L.F.	40
① 6" NON-PERF. PIPE UNDERDRAIN RND.	L.F.	60

① NON-PERFORATED PIPE SHALL BE CONNECTED TO PERFORATED PIPE AND EXTENDED OUTSIDE THE GROUND LINE TO DRAIN, AS DIRECTED IN THE FIELD BY THE ENGINEER. PLACE A RODENT SCREEN AT OUTLET END OF PIPE IN ACCORDANCE WITH PUD-4.

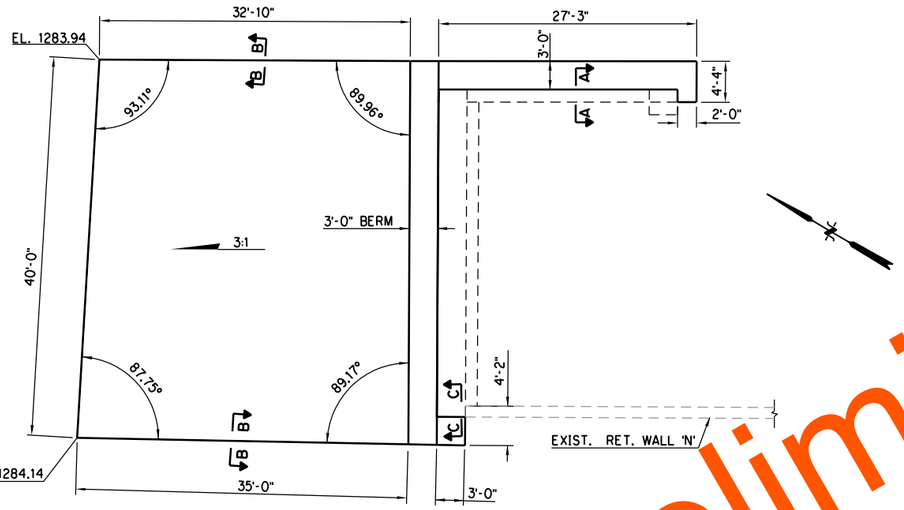
SLOPE WALL NOTES:

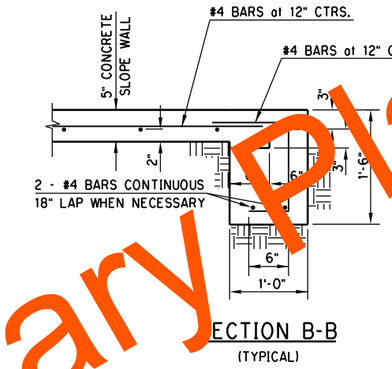
1. ALL CONCRETE IN THE SLOPE WALL SHALL BE CLASS A CONCRETE AND SHALL BE POURED IN THE DRY. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH SECTIONS [illegible] AND 610 OF THE STANDARD SPECIFICATIONS.

2. NO HORIZONTAL CONSTRUCTION JOINTS WILL BE PERMITTED IN THE SLOPE WALL. FINAL NUMBER AND LOCATION OF VERTICAL CONSTRUCTION JOINTS WILL BE DETERMINED IN THE FIELD BY THE ENGINEER.

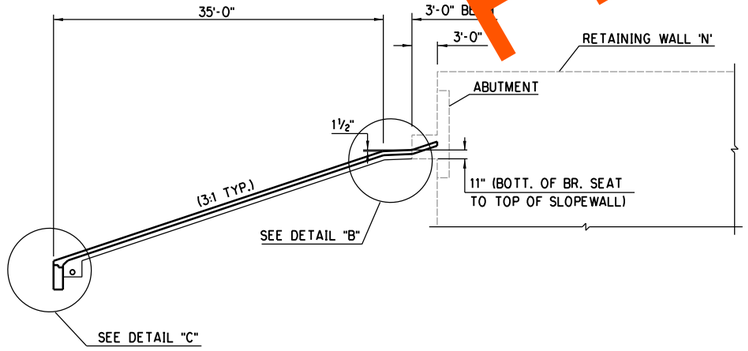
3. SURFACE AREA OF TOE AND EDGES OF SLOPE WALL INCLUDED IN PAY QUANTITY SHOWN.

4. ALL COSTS OF THE JOINT SEALER AND FILLER, REINFORCING STEEL, CONCRETE, EXCAVATION, FILTER SAND AND COARSE UNDERDRAIN COVER MATERIAL, LABOR, FORMS AND INCIDENTALS NECESSARY TO COMPLETE THE WORK AS SHOWN, SHALL BE INCLUDED IN THE CONTRACT PRICE BID FOR "SLOPE WALL (5")".

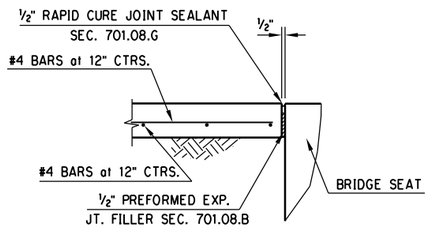




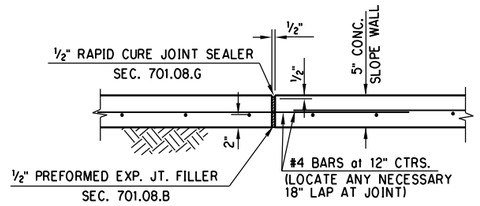
SECTION B-B
(TYPICAL)



SOUTH TYPICAL SECTION AT ABUTMENT



SECTION C-C
(TYPICAL AT WINGWALLS)



VERTICAL CONSTRUCTION JOINT DETAIL

Preliminary Plans

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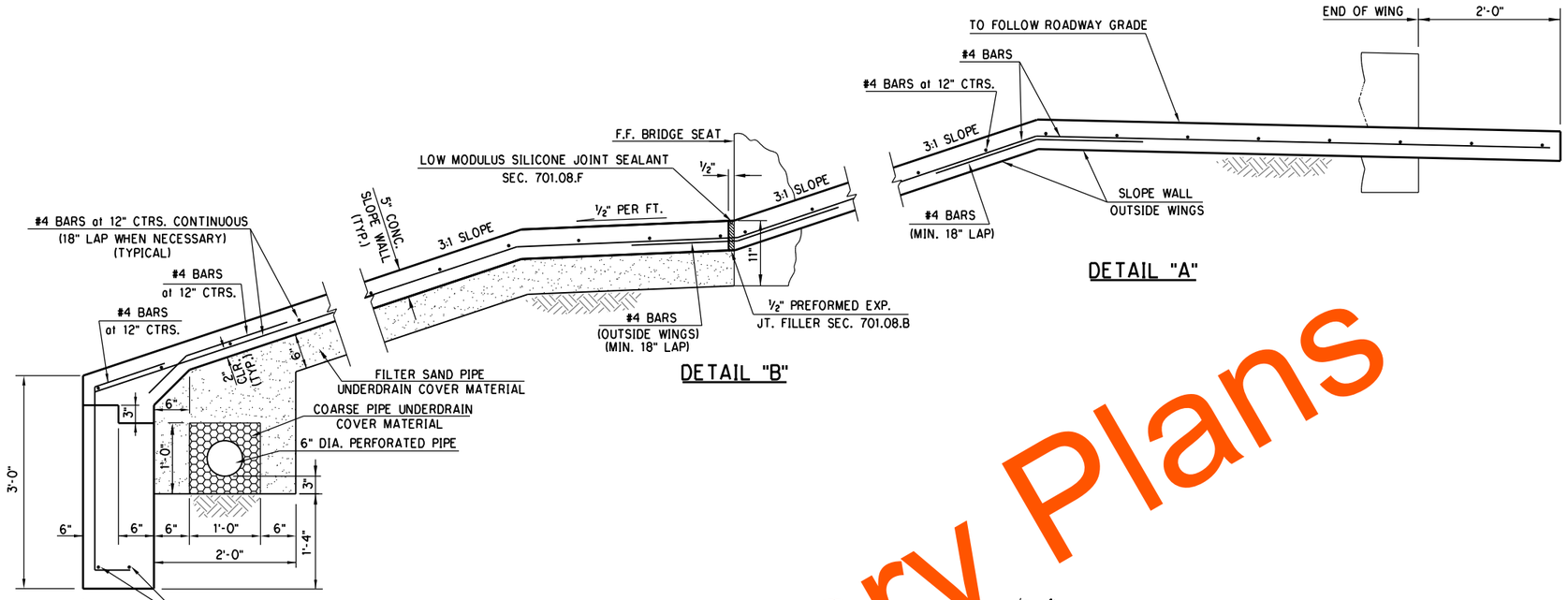
DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 OKLAHOMA COUNTY
BRIDGE "M" RAMP "M" AT I-35 & I-240 INTERCHANGE

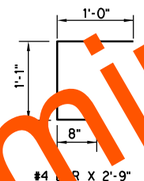
SLOPE WALL DETAILS
(SHEET 1 OF 2)

STATE JOB NO. 09032(106) SHEET NO. B253

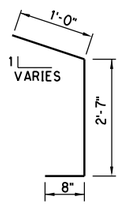
DESCRIPTION	REVISIONS	DATE



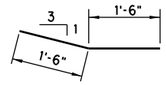
Preliminary Plans



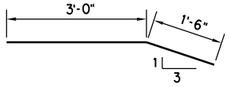
#4 BAR X 2'-9"
EDGE FOOTING BAR



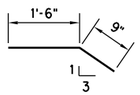
#4 BAR X 4'-3"
TOE FOOTING BAR



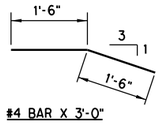
#4 BAR X 3'-0"
BRIDGE SEAT BAR
(OUTSIDE WINGS)



#4 BAR X 4'-6"
TOP OF SLOPE BAR



#4 BAR X 2'-3"
BOTTOM OF SLOPE BAR



#4 BAR X 3'-0"
TOP OF WING BAR

NOTE: ALL BAR BEND DIMENSIONS
ARE OUT TO OUT.

DESIGN		
DRAWN		
CHECKED		
APPROVED		
SQUAD	POE	

PHASE 2 — OKLAHOMA COUNTY
BRIDGE "M" — RAMP "M" AT I-35 & I-240 INTERCHANGE

SLOPE WALL DETAILS

(SHEET 2 OF 2)

STATE JOB NO. 09032(06) SHEET NO. B254

5/31/2022 3:31:04 PM
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