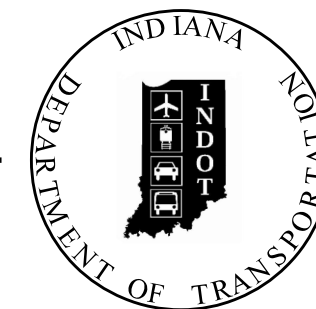


PROJECT	DESIGNATION
1400090	1700403 & 1700404
CONTRACT	BRIDGE FILE
R-37820	050-36-05106 CEBL & CWBL

INDIANA DEPARTMENT OF TRANSPORTATION



STRUCTURE	TYPE	SPAN AND SKEW	OVER	STATION
050-36-05106 CEBL & CWBL	Continuous Reinforced Concrete Slab Bridge	3 Spans: 22'-6", 30'-0", 22'-6" Skew: 10°00' Rt.	Sandy Branch Creek	107+90.00 Line "C"

KIN DESIGNATION NUMBERS	
DES. NO.	DESCRIPTION
1400090	U.S. 50 PAVEMENT RECONSTRUCTION
1400197	U.S. 50/U.S. 31 INTERSECTION IMPROVEMENT
1500153	I-65/U.S.50 RAMP EXTENSION
1801163	I-65 BRIDGE OVER U.S. 50 - I65-049-04253 DNBL
1801169	I-65 BRIDGE OVER U.S. 50 - I65-049-04253-D5BL
1902195	U.S. 50 PEDESTRIAN/BIKE SHARED USE PATH

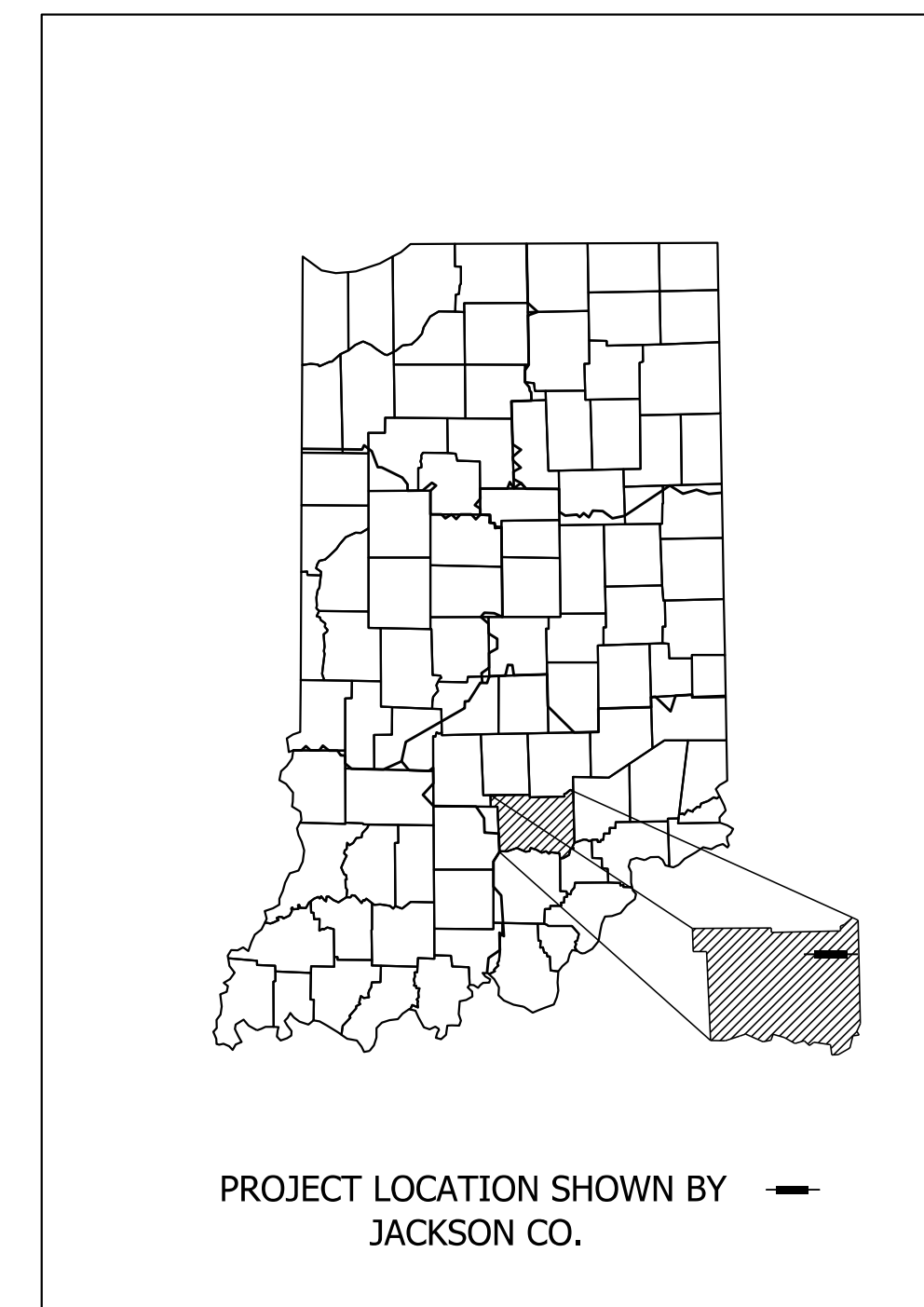
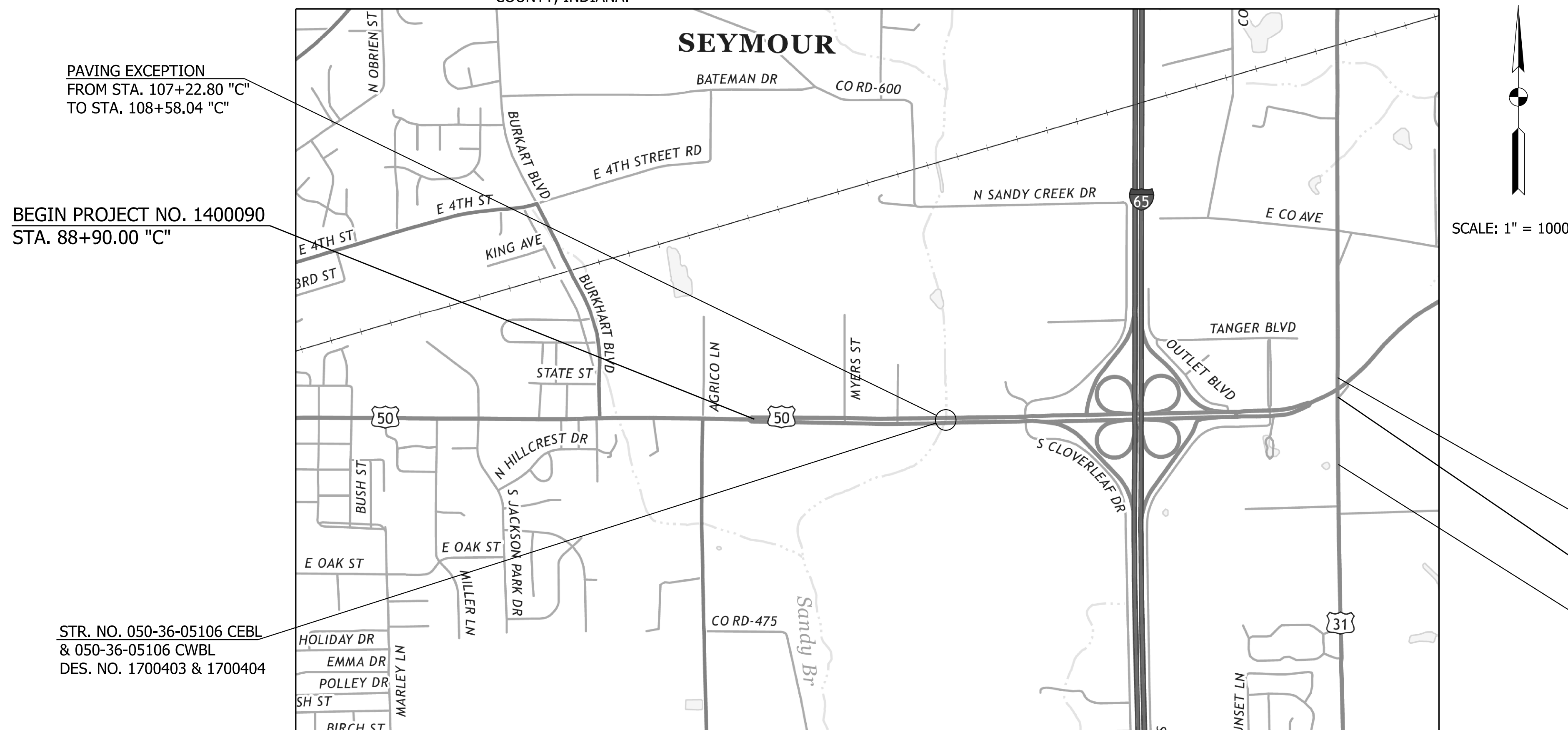
TRAFFIC DATA		U.S. 50
A.A.D.T.	(2019)	28,530 V.P.D.
A.A.D.T.	(2039)	30,500 V.P.D.
D.H.V.	(2039)	2,519 V.P.H.
DIRECTIONAL DISTRIBUTION		41.45 %
TRUCKS		5 % A.A.D.T. 3 % D.H.V.
DESIGN DATA		
DESIGN SPEED	45 M.P.H.	
PROJECT DESIGN CRITERIA	RECONSTRUCTION (4R) (NON-FREEWAY)	
FUNCTIONAL CLASSIFICATION	PRINCIPAL ARTERIAL	
RURAL/URBAN	URBAN (INTERMEDIATE)	
TERRAIN	LEVEL	
ACCESS CONTROL	NONE	

BRIDGE REHABILITATION PLANS FOR SPANS OVER 20 FEET

ROUTE: U.S. 50 AT: RP 104+67
PROJECT NO. 1400090 P.E. R/W
1400090 CONST.

NO ADDITIONAL RIGHT-OF-WAY
REQUIRED FOR THIS PROJECT

BRIDGE WIDENING & PARTIAL BRIDGE DECK OVERLAY ON U.S. 50 OVER SANDY BRANCH CREEK.
LOCATED 0.46 MILES WEST OF I-65 IN SECTION 15, T-6-N, R-6-E, JACKSON TOWNSHIP, JACKSON
COUNTY, INDIANA.



LATITUDE: 38° 57' 29" N LONGITUDE: 85° 51' 07" W

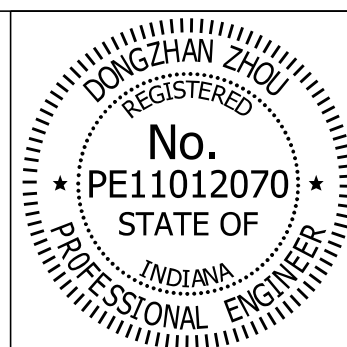
BRIDGE LENGTH:	0.015 MI.
ROADWAY LENGTH:	1.245 MI.
TOTAL LENGTH:	1.260 MI.
MAX. GRADE:	1.08 %

LOCATION MAP

INDIANA DEPARTMENT OF TRANSPORTATION
STANDARD SPECIFICATIONS DATED 2020
TO BE USED WITH THESE PLANS



Michael Baker International, Inc.
3815 River Crossing Parkway, Suite 20
Indianapolis, IN 46240
Tel: 317-663-8430 Fax: 317-663-8410
www.mbakerial.com



PLANS PREPARED BY: Michael Baker International, Inc. 317-663-8430 PHONE NUMBER
CERTIFIED BY: *Dongzhan Zhou* 10/25/2019 DATE
APPROVED FOR LETTING: *Stephanie J. Wagner* 1/5/2020 DATE
INDIANA DEPARTMENT OF TRANSPORTATION

BRIDGE FILE	
050-36-05106 CEBL & CWBL	
DESIGNATION	
1700403 & 1700404	
SURVEY BOOK	SHEETS
	1 of 24
CONTRACT	PROJECT
R-37820	1400090

UTILITIES

AT&T - DISTRIBUTION
2042 ALTA AVE
LOUISVILLE, KY 40205
MIKE JAGGERS
502-553-0561
mj0302@att.com

CMN-RUS, INC.
3701 COMMUNICATIONS WAY
EVANSVILLE, IN 47715
KENT HEURING
812-759-7967
FiberDesignEngineering@qservco.com

COMCAST (SEYMOUR)
1470 JACKSON STREET
COLUMBUS, IN 47201
DAN NIENABER
812-373-2165

DUKE ENERGY
390 N. MAIN STREET
MARTINSVILLE, IN 46151
TIM UмбаUGH
765-349-4012
tim.umbaugh@duke-energy.com

FRONTIER
8001 WEST JEFFERSON BLVD
FORT WAYNE, IN 46804
JOE SARLL
260-461-3324
joseph.a.sarll@ftr.com

IN AMERICAN WATER (SEYMOUR)
555 E. COUNTY LINE RD
GREENWOOD, IN 46143
RANDY WINSTON
317-807-2465
indianagis@amwater.com
CITY OF SEYMOUR (SANITARY)

INDIANA FIBER NETWORK, LLC
5520 W. 76th STREET
INDIANAPOLIS, IN 46268
SHAWN WRIGHT
317-777-7119
swright@ifncom.net

SEYMOUR WATER POLLUTION CONTROL FACILITY
605 KNOLL LANE
NANCY, KY 42544
NATHAN FREY
812-927-0867

SMITHVILLE TELEPHONE (BARTHOLOMEW COUNTY)
1600 W. TEMPERANCE STREET
ELLETTSVILLE, IN 47429-0728
JACK HILLENBERG
812-876-9103
jackh@smithville.com

VECTREN (COLUMBUS)
2520 LINCOLN DR.
CLARKSVILLE, IN 47129
MARY BARBER
812-948-4952
mbarber@vectren.com

ZAYO BANDWIDTH
625 EAST 11th STREET
INDIANAPOLIS, IN 46202
JOHN SENESE
317-524-5711
jsenes@zayo.com

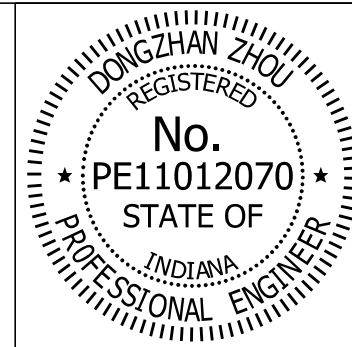
INDEX

SHEET NO.	SUBJECT
1	TITLE
2	INDEX
3 - 4	ROADWAY TYPICAL SECTIONS
5	MAINTENANCE OF TRAFFIC
6 - 7	SOIL BORINGS
8	PUMP AROUND & DEWATERING DETAIL
9	EROSION CONTROL DETAIL
10	LAYOUT
11 - 12	GENERAL PLAN
13	END BENT NO. 1 & 4 DETAILS
14	PIER NO. 2 & 3 DETAILS
15 - 17	SUPERSTRUCTURE DETAILS
18	RAILING DETAILS
19	SIDEWALK DETAILS
20 - 23	APPROACH SLAB DETAILS
24	SUMMARY OF QUANTITIES

REVISIONS

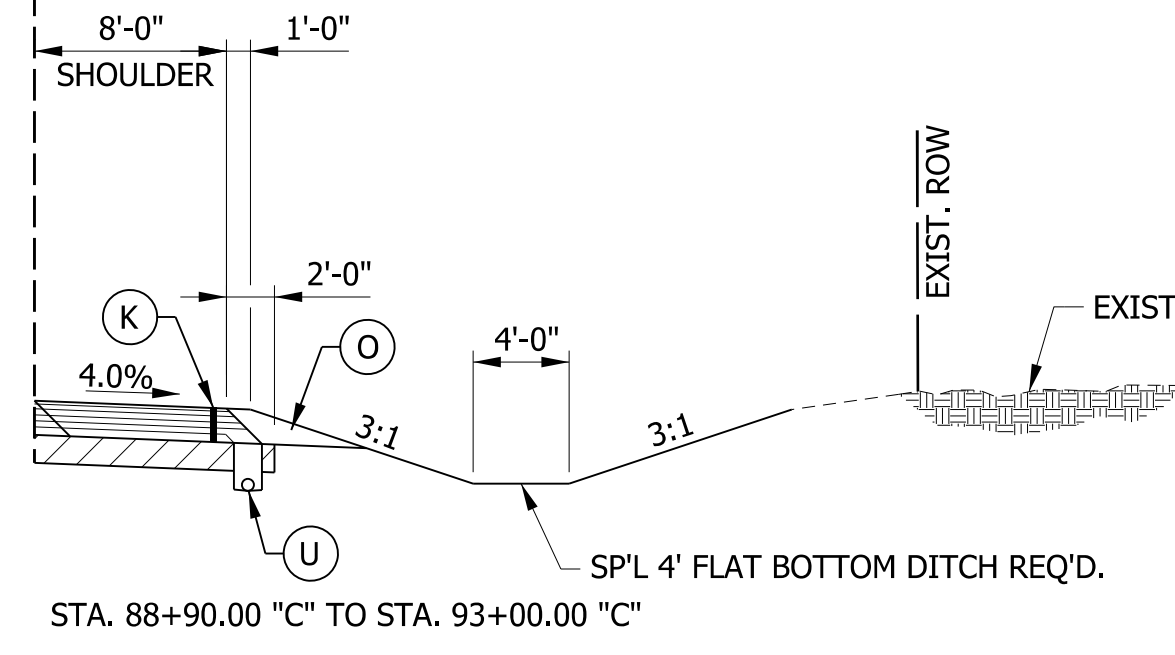
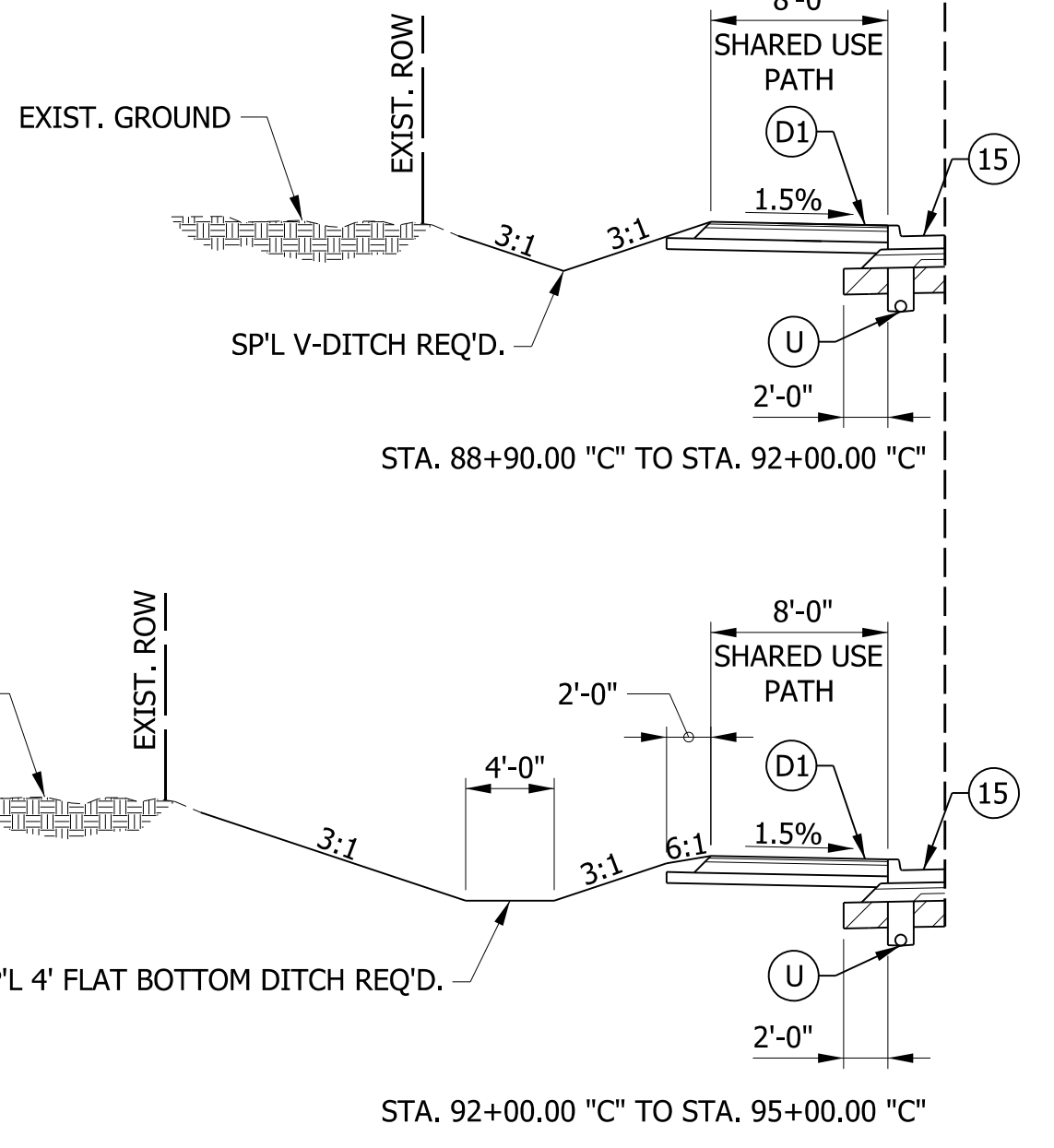
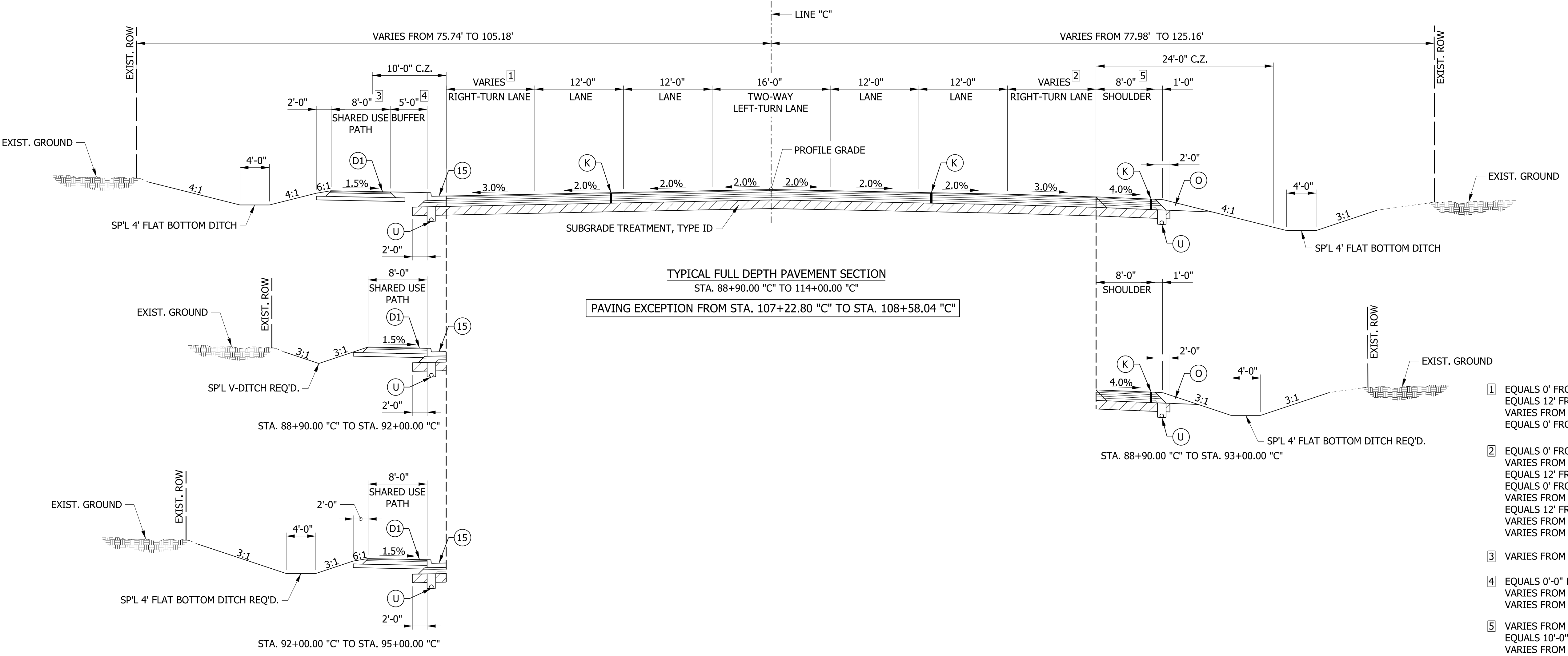
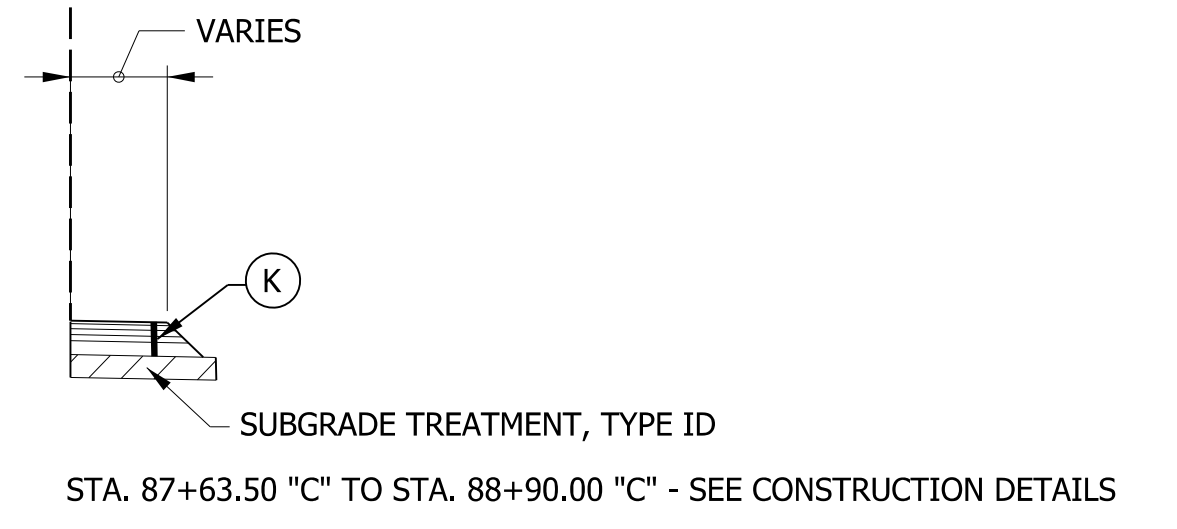
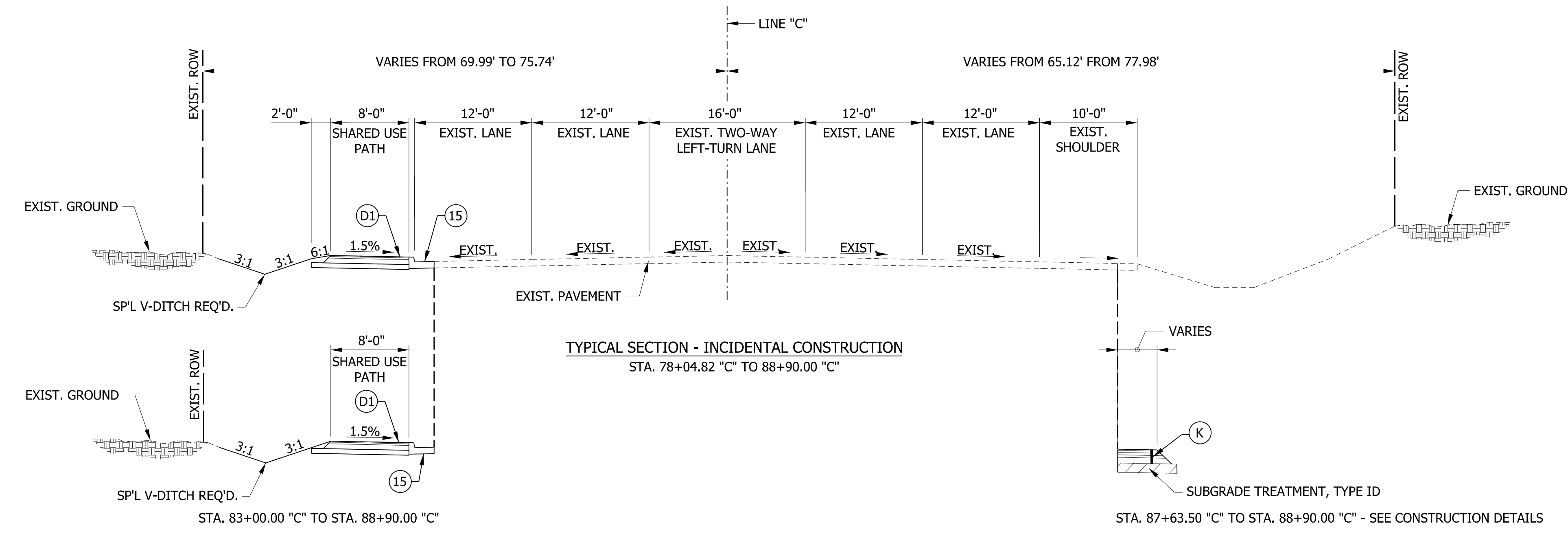
SHEET NO.	DATE	REVISED

DATE	REVISION



RECOMMENDED FOR APPROVAL	10/25/2019 DATE
DESIGN ENGINEER	
DESIGNED: AMR	DRAWN: JLR
CHECKED: DZ	CHECKED: DZ

INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE BRIDGE FILE 050-36-05106 CEBL & CWBL DESIGNATION 1700403 & 1700404
INDEX	
SURVEY BOOK	SHEETS 2 OF 24
CONTRACT R-37820	PROJECT 1400090

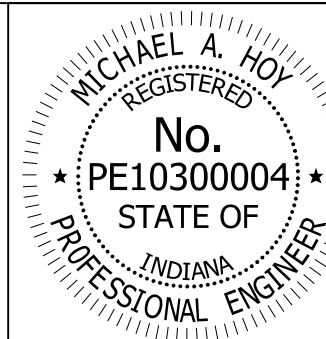


LEGEND

- (D1) 140 #/SYD QC/QA-HMA, 2, 64, SURFACE, 9.5 MM ON
220 #/SYD QC/QA-HMA, 2, 64, SURFACE, 12.5 MM ON
6" COMPACTED AGGREGATE NO. 53, BASE ON
SUBGRADE TREATMENT TYPE III
- (K) 165 #/SYD QC/QA-HMA, 3, 70, SURFACE, 9.5 mm ON
275 #/SYD QC/QA-HMA, 3, 70, INTERMEDIATE, 19.0 mm ON
330 #/SYD QC/QA-HMA, 3, 64, BASE, 19.0 mm ON
330 #/SYD QC/QA-HMA, 3, 64, BASE, 19.0 mm ON
300 #/SYD QC/QA-HMA, 4, 76, INTERMEDIATE, 19.0 mm - OG ON
4" COMPACTED AGGREGATE NO. 53 ON
SUBGRADE TREATMENT TYPE 1D
- (O) COMPACTED AGGREGATE NO. 53
- (U) UNDERDRAIN
- (15) MOD. COMBINED CONCRETE CURB & GUTTER
- (22) CONCRETE CENTER CURB, TYPE D

- 1 EQUALS 0' FROM STA. 88+90.00 "C" TO 96+01.47 "C"
EQUALS 12' FROM STA. 96+01.47 "C" TO 96+60.00 "C"
VARIES FROM 12' TO 0' FROM STA. 96+60.00 "C" TO 97+60.00 "C"
EQUALS 0' FROM STA. 97+60.00 "C" TO 114+00.00 "C"
- 2 EQUALS 0' FROM STA. 88+90.00 "C" TO 89+45.00 "C"
VARIES FROM 0' TO 12' FROM STA. 89+45.00 "C" TO 90+45.00 "C"
EQUALS 12' FROM STA. 90+45.00 "C" TO 94+20.00 "C"
EQUALS 0' FROM STA. 94+20.00 "C" TO 107+79.55 "C"
VARIES FROM 0' TO 12' FROM STA. 107+79.55 "C" TO STA. 109+79.55 "C"
EQUALS 12' FROM STA. 109+79.55 "C" TO 111+13.62 "C"
VARIES FROM 12' TO 18.94' FROM STA. 111+13.62 "C" TO STA. 112+15.09 "C"
VARIES FROM 18.94' TO 12' FROM STA. 112+15.09 "C" TO STA. 114+00.00 "C"
- 3 VARIES FROM STA. 106+13.44 "C" TO STA. 109+91.62 "C" - SEE CONSTRUCTION DETAILS
- 4 EQUALS 0'-0" FROM STA. 88+90.00 "C" TO 96+60.00 "C"
VARIES FROM 0'-0" TO 5'-0" FROM STA. 96+60.00 "C" TO 97+60.00 "C"
VARIES FROM STA. 106+13.44 "C" TO STA. 109+91.62 "C" - SEE CONSTRUCTION DETAILS
- 5 VARIES FROM STA. 89+00 "C" TO STA. 90+26 "C" - SEE CONSTRUCTION DETAILS
EQUALS 10'-0" FROM STA. 105+57.44 "C" TO 106+10.02 "C"
VARIES FROM 10'-0" TO 15'-0" FROM STA. 106+10.02 "C" TO 107+21.92 "C"
VARIES FROM 15'-5" TO 10'-0" FROM STA. 108+46.14 "C" TO 109+18.93 "C"
EQUALS 10'-0" FROM STA. 109+18.93 TO STA. 112+48.49 "C"

FROM DES. 1400090 ROADWAY PLAN SET
FOR INFORMATION ONLY



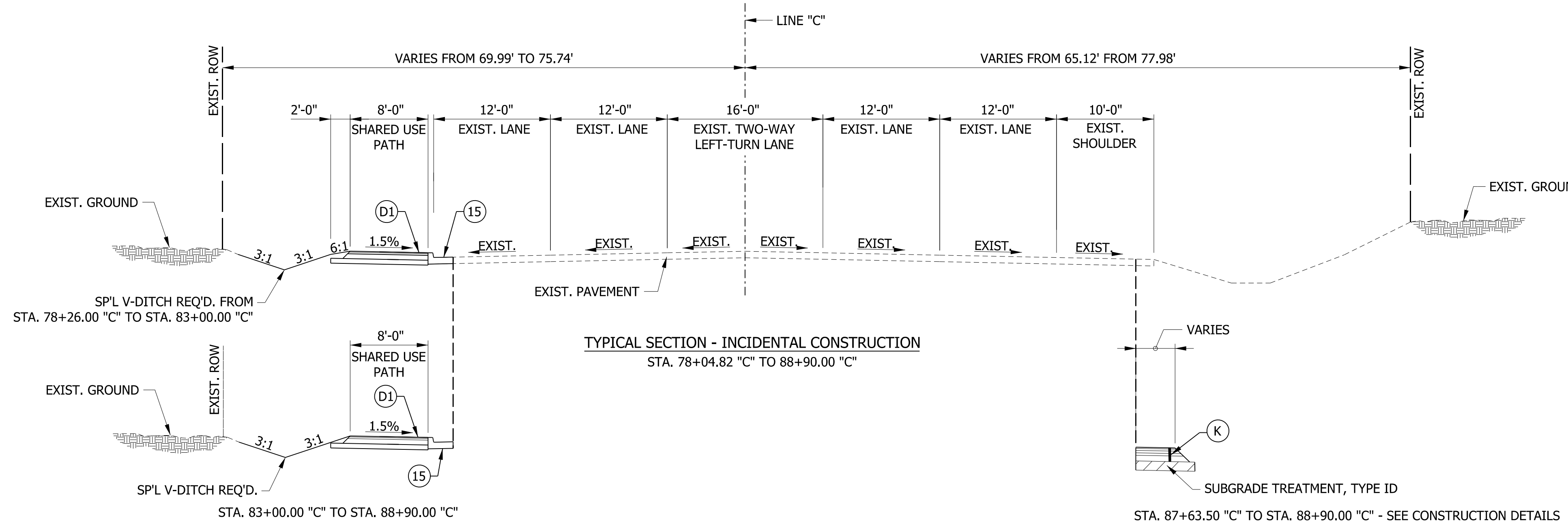
RECOMMENDED FOR APPROVAL *Michael A. Hoy* 11/5/2019
DESIGN ENGINEER DATE

DESIGNED: MAE DRAWN: JWM
CHECKED: LDW CHECKED: MAE

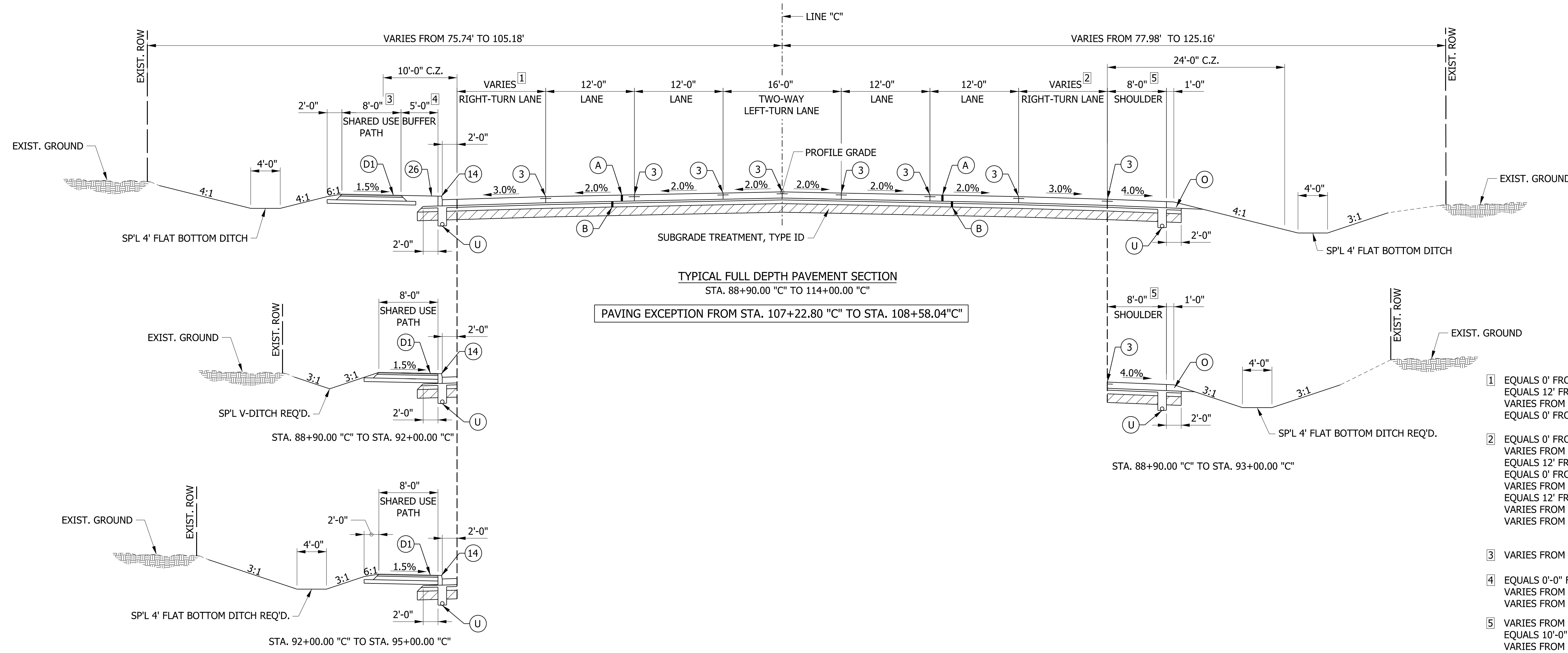
INDIANA
DEPARTMENT OF TRANSPORTATION

TYPICAL SECTION
HMA ALTERNATIVE

HORIZONTAL SCALE 1/8" = 1'-0"	BRIDGE FILE 050-36-05106 CEBL & CWBL
VERTICAL SCALE 1/8" = 1'-0"	DESIGNATION 1700403 & 1700404
SURVEY BOOK	SHEETS 3 of 24
CONTRACT R-37820	PROJECT 1400090



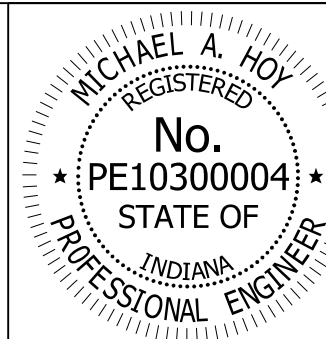
- LEGEND**
- (D1) 140 #/SYD QC/QA-HMA, 2, 64, SURFACE, 9.5 MM ON 220 #/SYD QC/QA-HMA, 2, 64, SURFACE, 12.5 MM ON 6" COMPACTED AGGREGATE NO. 53, BASE ON SUBGRADE TREATMENT TYPE III
 - (A) 10" QC/QA-PCCP WITH D-1 JOINTS SPACED AT 15' WITH 1.5" DIAMETER DOWEL BARS SPACED AT 12"
 - (B) SUBBASE FOR PCCP (3" COMPACTED AGGREGATE, NO. 8 DRAINAGE LAYER ON 6" COMPACTED AGGREGATE NO. 53)
 - (O) COMPACTED AGGREGATE NO. 53
 - (U) UNDERDRAIN
 - (3) LONGITUDINAL JOINT OR LONGITUDINAL CONSTR. JOINT
 - (14) INTEGRAL CONCRETE CURB
 - (15) MOD. COMBINED CONCRETE CURB & GUTTER
 - (22) CONCRETE CENTER CURB, TYPE D



PAVING EXCEPTION FROM STA. 107+22.80 "C" TO STA. 108+58.04"C"

- 1) EQUALS 0' FROM STA. 88+90.00 "C" TO 96+01.47 "C"
EQUALS 12' FROM STA. 96+01.47 "C" TO 96+60.00 "C"
VARIES FROM 12' TO 0' FROM STA. 96+60.00 "C" TO 97+60.00 "C"
EQUALS 0' FROM STA. 97+60.00 "C" TO 114+00.00 "C"
- 2) EQUALS 0' FROM STA. 88+90.00 "C" TO 89+45.00 "C"
VARIES FROM 0' TO 12' FROM STA. 89+45.00 "C" TO 90+45.00 "C"
EQUALS 12' FROM STA. 90+45.00 "C" TO 94+20.00 "C"
EQUALS 0' FROM STA. 94+20.00 "C" TO 107+79.55 "C"
VARIES FROM 0' TO 12' FROM STA. 107+79.55 "C" TO STA. 109+79.55 "C"
EQUALS 12' FROM STA. 109+79.55 "C" TO 111+13.62 "C"
VARIES FROM 12' TO 18.94' FROM STA. 111+13.62 "C" TO STA. 112+15.09 "C"
VARIES FROM 18.94' TO 12' FROM STA. 112+15.09 "C" TO STA. 114+00.00 "C"
- 3) VARIES FROM STA. 106+13.44 "C" TO STA. 109+91.62 "C" - SEE CONSTRUCTION DETAILS
- 4) EQUALS 0'-0" FROM STA. 88+90.00 "C" TO 96+60.00 "C"
VARIES FROM 0'-0" TO 5'-0" FROM STA. 96+60.00 "C" TO 97+60.00 "C"
VARIES FROM STA. 106+13.44 "C" TO STA. 109+91.62 "C" - SEE CONSTRUCTION DETAILS
- 5) VARIES FROM STA. 89+00 "C" TO STA. 90+26 "C" - SEE CONSTRUCTION DETAILS
EQUALS 10'-0" FROM STA. 105+57.44 "C" TO 106+10.02 "C"
VARIES FROM 10'-0" TO 15'-0" FROM STA. 106+10.02 "C" TO 107+21.92 "C"
VARIES FROM 15'-5" TO 10'-0" FROM STA. 108+46.14 "C" TO 109+18.93 "C"
EQUALS 10'-0" FROM STA. 109+18.93 TO STA. 112+48.49 "C"

**FROM DES. 1400090 ROADWAY PLAN SET
FOR INFORMATION ONLY**

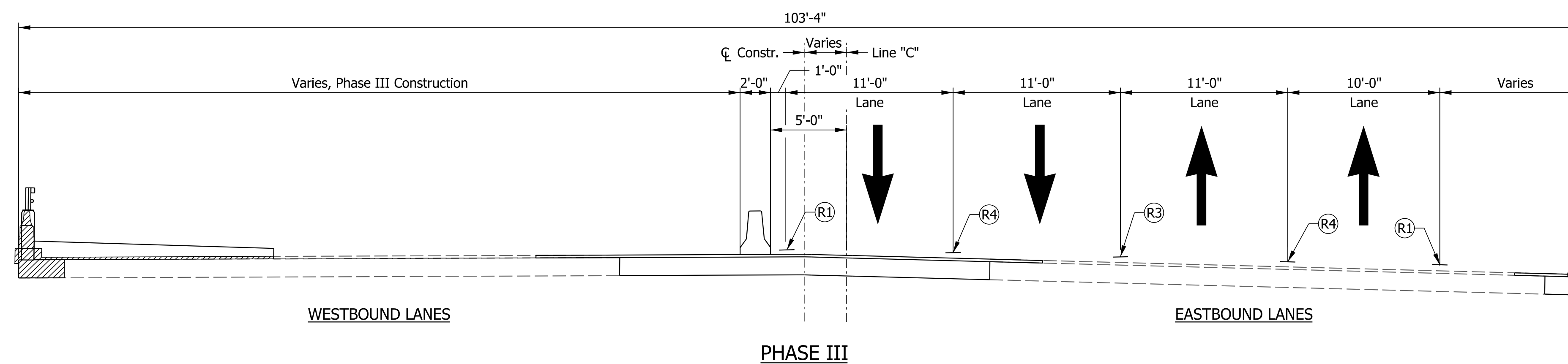
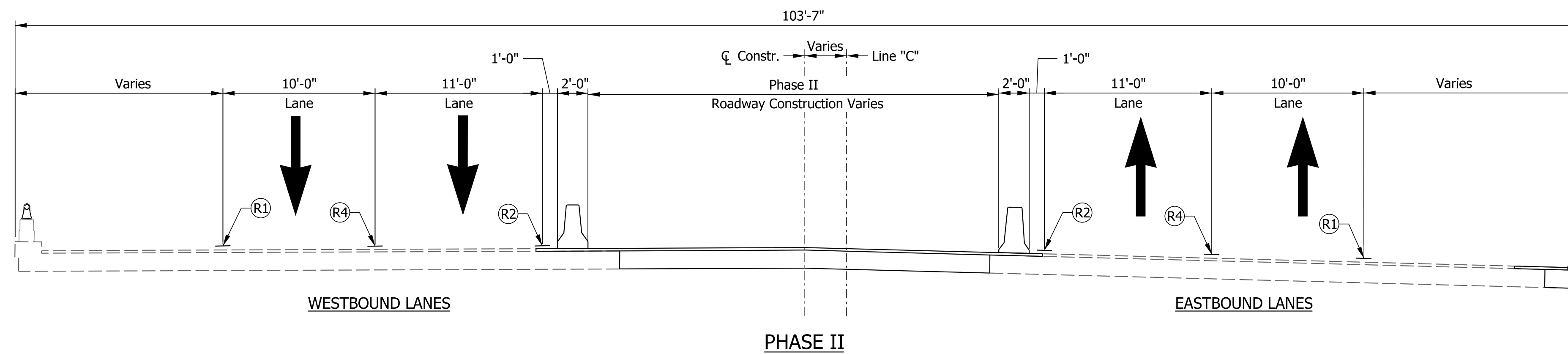
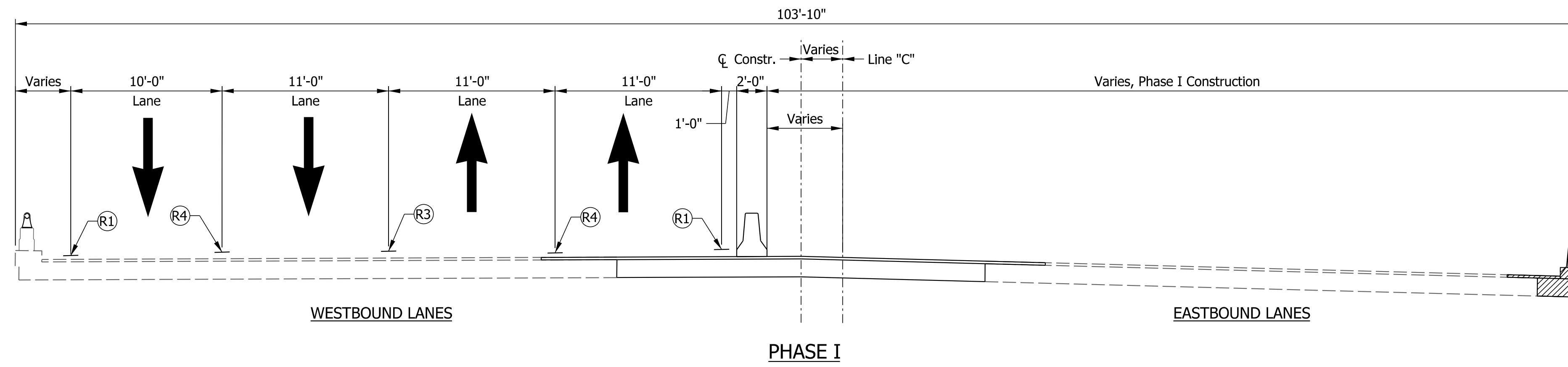
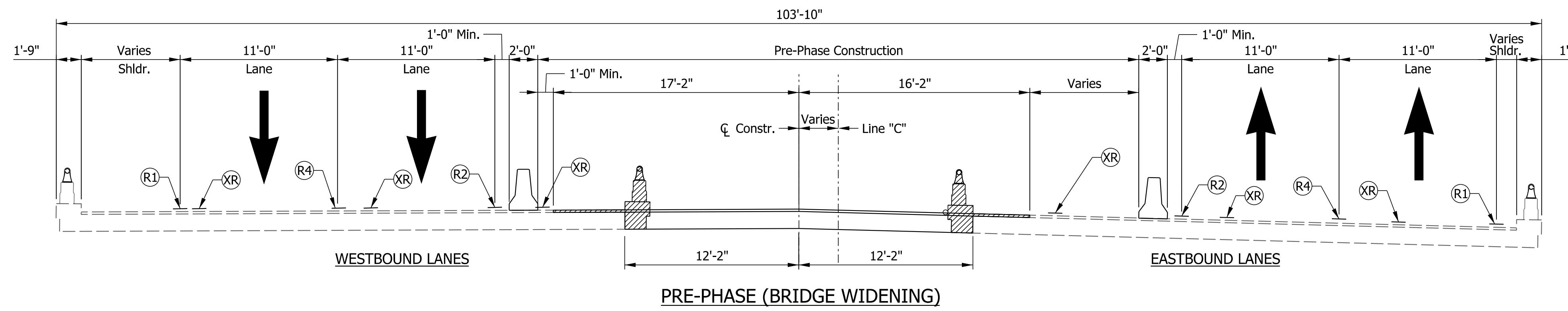


RECOMMENDED FOR APPROVAL	<i>Michael A. Hoy</i>	DESIGN ENGINEER	11/5/2019	DATE
DESIGNED:	MAE	DRAWN:	JWM	
CHECKED:	LDW	CHECKED:	MAE	

INDIANA
DEPARTMENT OF TRANSPORTATION

**TYPICAL SECTION
PCCP ALTERNATIVE**

HORIZONTAL SCALE	BRIDGE FILE
1/8" = 1'-0"	050-36-05106 CEBL & CWBL
VERTICAL SCALE	DESIGNATION
1/8" = 1'-0"	1700403 & 1700404
SURVEY BOOK	SHEETS
	4 of 24
CONTRACT	PROJECT
R-37820	1400090



LEGEND

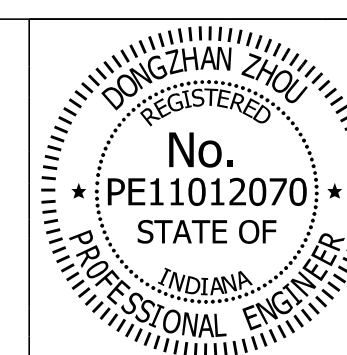
- LIMITS OF REMOVAL
- TEMPORARY TRAFFIC BARRIER, ANCHORED, TYPE 2
- DIRECTION OF TRAFFIC
- (R1) TEMP. PAVEMENT MARKING, REMOVABLE, 4 IN., (WHITE)
- (R2) TEMP. PAVEMENT MARKING, REMOVABLE, 4 IN., (YELLOW)
- (R3) TEMP. PAVEMENT MARKING, REMOVABLE, 4 IN., (YELLOW, DOUBLE)
- (R4) TEMP. PAVEMENT MARKING, REMOVABLE, 4 IN., (WHITE, BROKEN)
- (XR) EXIST. PAVEMENT MARKING TO BE REMOVED

NOTES:

1. For additional Maintenance of Traffic Details, See Roadway Plans, Des. No. 1400090.

CONSTRUCTION ZONE DESIGN SPEED = 35 MPH

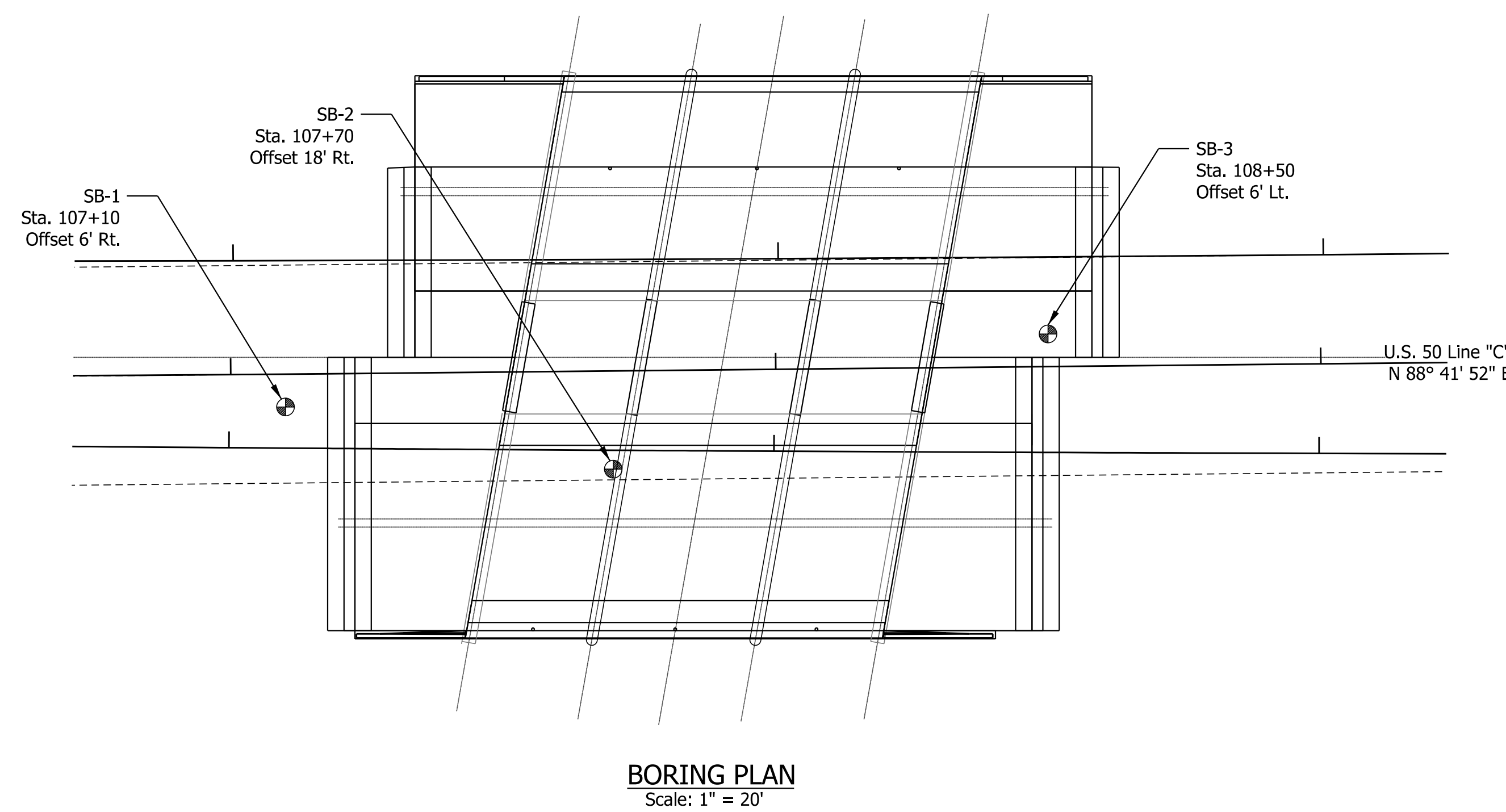
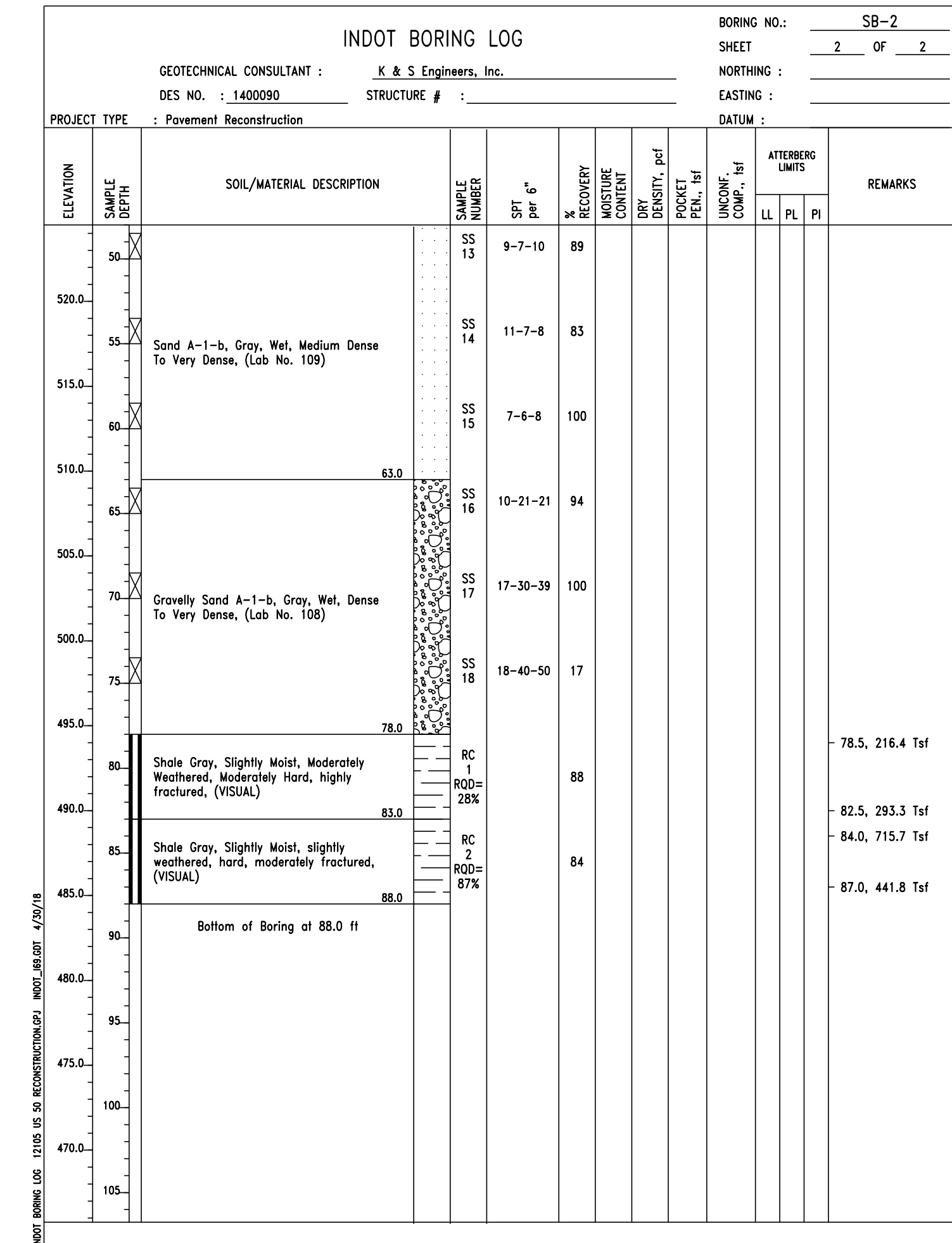
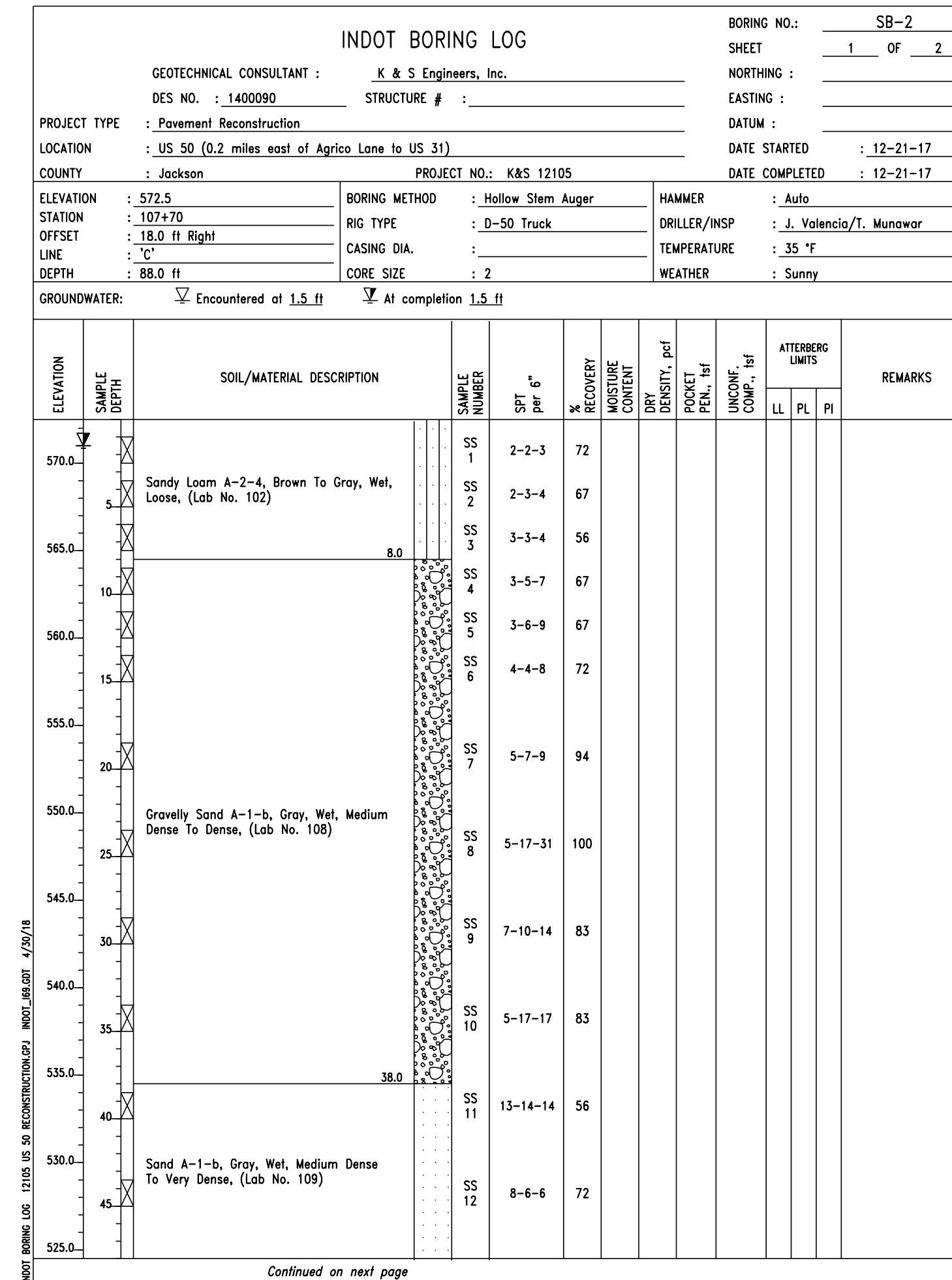
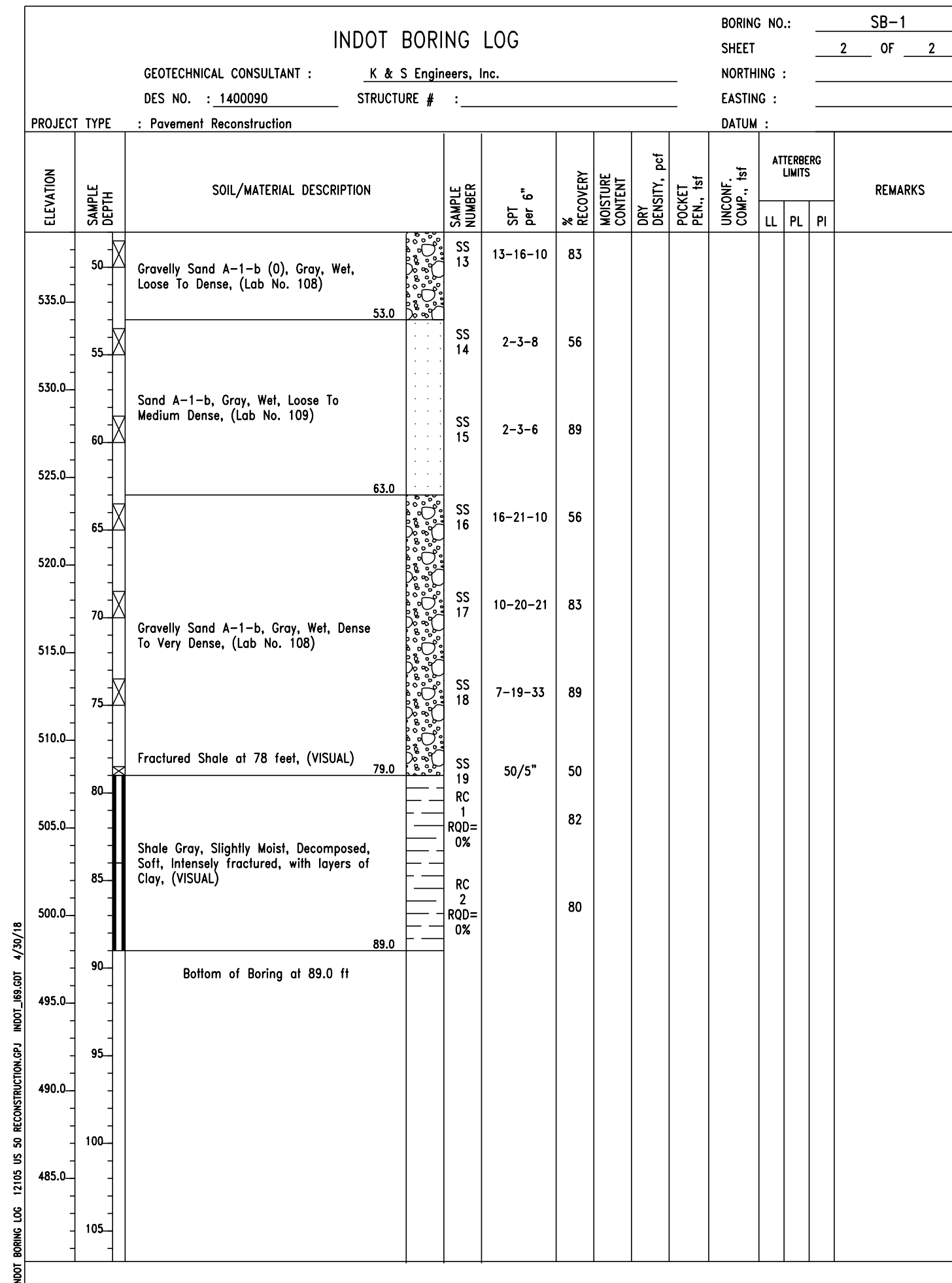
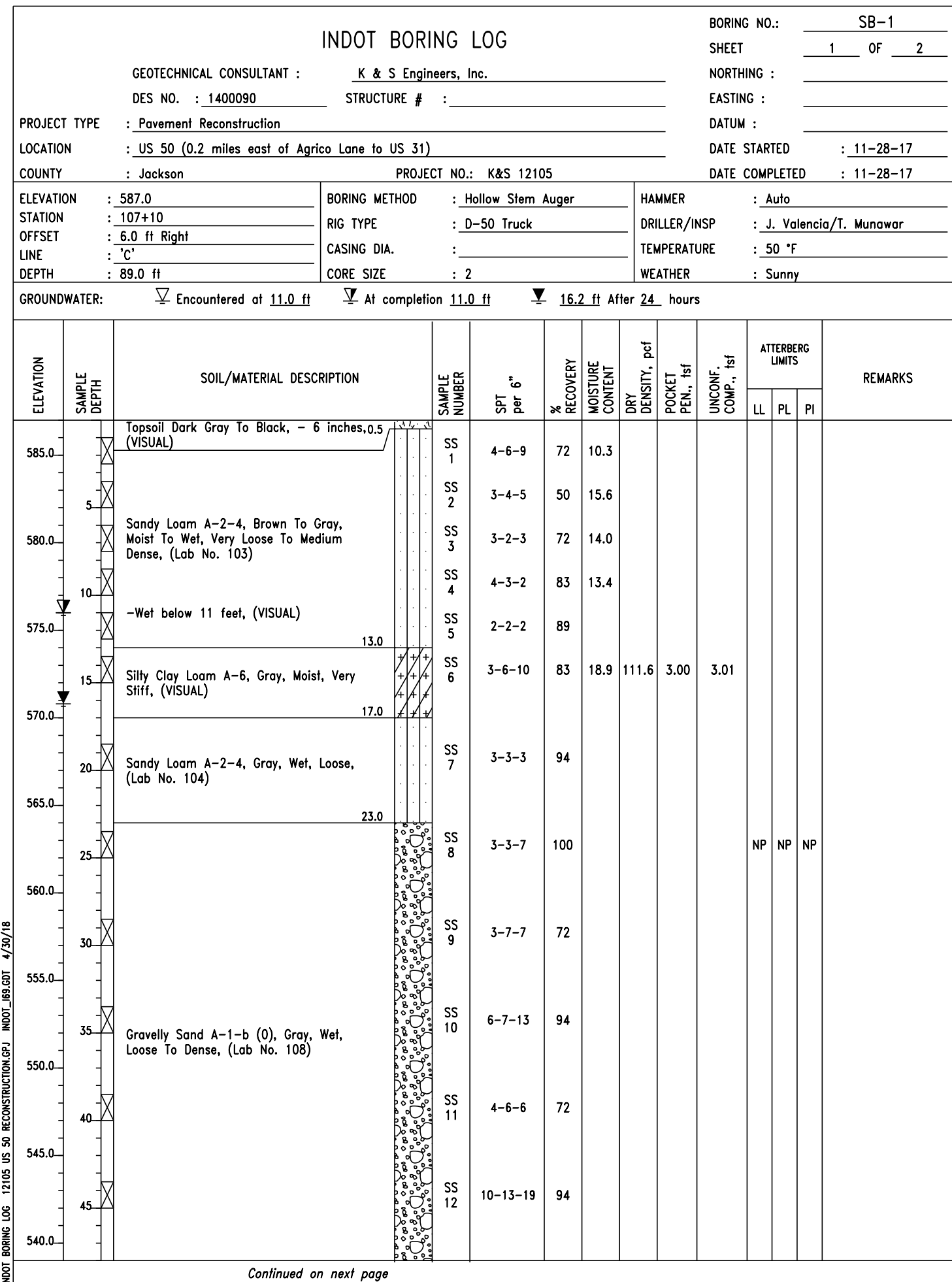
DATE	REVISION



RECOMMENDED FOR APPROVAL	<i>Dongzhan Zhou</i>	10/25/2019 DATE
DESIGNED: AMR	DRAWN: SWB	
CHECKED: DZ	CHECKED: DZ	

INDIANA DEPARTMENT OF TRANSPORTATION	
MAINTENANCE OF TRAFFIC	

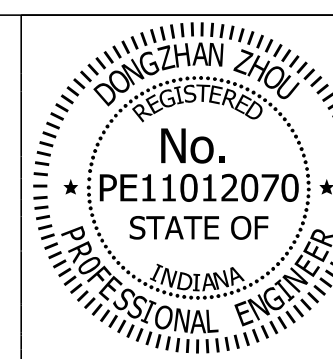
HORIZONTAL SCALE 3/16" = 1'-0"	BRIDGE FILE 050-36-05106 CEBL & CWBL
VERTICAL SCALE 3/16" = 1'-0"	DESIGNATION 1700403 & 1700404
SURVEY BOOK	SHEETS
CONTRACT R-37820	5 OF 24
	PROJECT 1400090



	Bent No. 1	Pier No. 2	Pier No. 3	Bent No. 4
Pile Size, Type & Grade	14 in SEC x 0.25 in min, Grade 3	14 in SEC x 0.25 in min, Grade 3	14 in SEC x 0.25 in min, Grade 3	14 in SEC x 0.25 in min, Grade 3
Design (Service) Loads (kips)	50	75	75	50
Factor of Safety	2.5	2.5	2.5	2.5
Downdrag (kips)	0	0	0	0
Scour (kips)	0	10	10	0
Tip Relaxation (kips)	0	0	0	0
Ultimate Pile Load (kips)	125	198	198	125
Estimated Pile Tip Elevations	551.5	513.5	513.5	553.0
Testing Method	The Dynamic (Gates) Formula per INDOT Standard Specifications Section 701.05 (a) is required. Restrike shall be after 3 days. Testing of 1 pile per bent/pier location is required.			

NOTES:
1. For additional soil boring details, see sheet 7.

DATE	REVISION



RECOMMENDED FOR APPROVAL *Dongzhan Zhou* 10/25/2019
DESIGN ENGINEER DATE

DESIGNED: AMR DRAWN: JLR
CHECKED: DZ CHECKED: DZ

INDIANA
DEPARTMENT OF TRANSPORTATION

SOIL BORINGS

HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	050-36-05106 CEBL & CWBL
VERTICAL SCALE	DESIGNATION
AS NOTED	1700403 & 1700404
SURVEY BOOK	SHEETS
-	6 OF 24
CONTRACT	PROJECT
R-37820	1400090

FILES

INDOT BORING LOG

BORING NO.: SB-3
SHEET: 1 OF 2

GEOTECHNICAL CONSULTANT: K & S Engineers, Inc.
 DES NO.: 1400090 STRUCTURE #: _____
 PROJECT TYPE: Pavement Reconstruction
 LOCATION: US 50 (0.2 miles east of Agric Lane to US 31)
 COUNTY: Jackson PROJECT NO.: K&S 12105 DATE STARTED: 12-19-17
 DATE COMPLETED: 12-19-17

ELEVATION: 586.8	BORING METHOD: Hollow Stem Auger	HAMMER: Auto
STATION: 108+50	RIG TYPE: D-50 Truck	DRILLER/INSP: J. Valencia/T. Munawar
OFFSET: 1.5.0 ft Left	CASING DIA.: _____	TEMPERATURE: 40 °F
LINE: "C"	CORE SIZE: 2	WEATHER: Cloudy
DEPTH: 91.0 ft		

GROUNDWATER: Encountered at 11.0 ft At completion 11.5 ft 16.5 ft After 24 hours

ELEVATION	SAMPLE DEPTH	SOIL/MATERIAL DESCRIPTION	SAMPLE NUMBER	SPT Per 6"	RECOVERY %	MOISTURE CONTENT	UNSAT. DENSITY	POCKET PEN. tsf	UNCORR. COMP. tsf	ATTERBERG LIMITS			REMARKS
										LL	PL	PI	
585.0	5	Topsoil Dark Gray To Black, -- 4 inches, 0.3 (VISUAL)	SS 1	2-3-4	72	9.1							
			SS 2	2-7-8	78	10.1							
580.0	10	Sandy Loam A-2-4, Brown To Gray, Moist To Wet, Very Loose To Medium Dense, (Lab No. 103)	SS 3	5-5-5	78	11.2							
			SS 4	2-2-3	78								
			SS 5	2-2-3	89								
575.0	15	13.0	SS 6	1-2-4	83	21.2	108.1	1.00	1.25				
			SS 7	2-3-4	72								
570.0	20	17.0	SS 8	2-4-4	100								
			SS 9	6-12-12	67								
560.0	30	Gravelly Sand A-1-b, Bluish Gray To Gray, Wet, Loose To Medium Dense, (Lab No. 108)	SS 10	4-10-14	72								
550.0	40		SS 11	1-4-7	67								
545.0	45		SS 12	22-34-41	89								
540.0	50	Sand A-1-b (0), Gray, Wet, Dense To Very Dense, (Lab No. 109)											

Continued on next page

INDOT BORING LOG

BORING NO.: SB-3
SHEET: 2 OF 2

GEOTECHNICAL CONSULTANT: K & S Engineers, Inc.
 DES NO.: 1400090 STRUCTURE #: _____
 PROJECT TYPE: Pavement Reconstruction
 LOCATION: US 50 (0.2 miles east of Agric Lane to US 31)
 COUNTY: Jackson PROJECT NO.: K&S 12105 DATE STARTED: 12-19-17
 DATE COMPLETED: 12-19-17

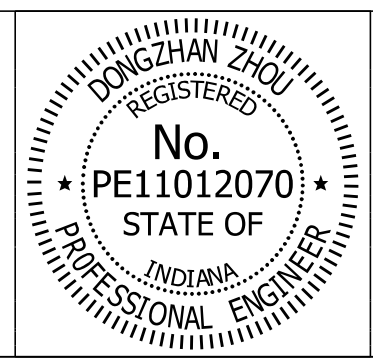
ELEVATION: 586.8	BORING METHOD: Hollow Stem Auger	HAMMER: Auto
STATION: 108+50	RIG TYPE: D-50 Truck	DRILLER/INSP: J. Valencia/T. Munawar
OFFSET: 1.5.0 ft Left	CASING DIA.: _____	TEMPERATURE: 40 °F
LINE: "C"	CORE SIZE: 2	WEATHER: Cloudy
DEPTH: 91.0 ft		

GROUNDWATER: Encountered at 11.0 ft At completion 11.5 ft 16.5 ft After 24 hours

ELEVATION	SAMPLE DEPTH	SOIL/MATERIAL DESCRIPTION	SAMPLE NUMBER	SPT Per 6"	RECOVERY %	MOISTURE CONTENT	UNSAT. DENSITY	POCKET PEN. tsf	UNCORR. COMP. tsf	ATTERBERG LIMITS			REMARKS
										LL	PL	PI	
535.0	55		SS 13	11-19-32	0								
		Sand A-1-b (0), Gray, Wet, Dense To Very Dense, (Lab No. 109)	SS 14	12-23-35	94							NP	NP
			SS 15	10-17-32	56								
530.0	60		SS 16	7-22-39	56								
		Gravelly Sand A-1-b, Gray, Wet, Dense To Very Dense, (Lab No. 108)	SS 17	21-22-23	83								
			SS 18	18-22-31	67								
			SS 19	18-50/5"	44								
515.0	75												
		Sand A-1-b, Gray, Wet, Very Dense, with Shale Fragments, (Lab No. 109)											
			RC										81.5, 745.0 Tsf
			RC										84.0, 475.1 Tsf
510.0	80												
		Shale Gray, slightly moist, slightly weathered, hard, slightly fractured, (VISUAL)											
			RC										88.5, 429.3 Tsf
			RC										90.0, 357.8 Tsf
		Bottom of Boring at 91.0 ft											

NOTES:
 1. For Boring Plan and Soil & Foundation Design Data, see sheet 6.

DATE	REVISION

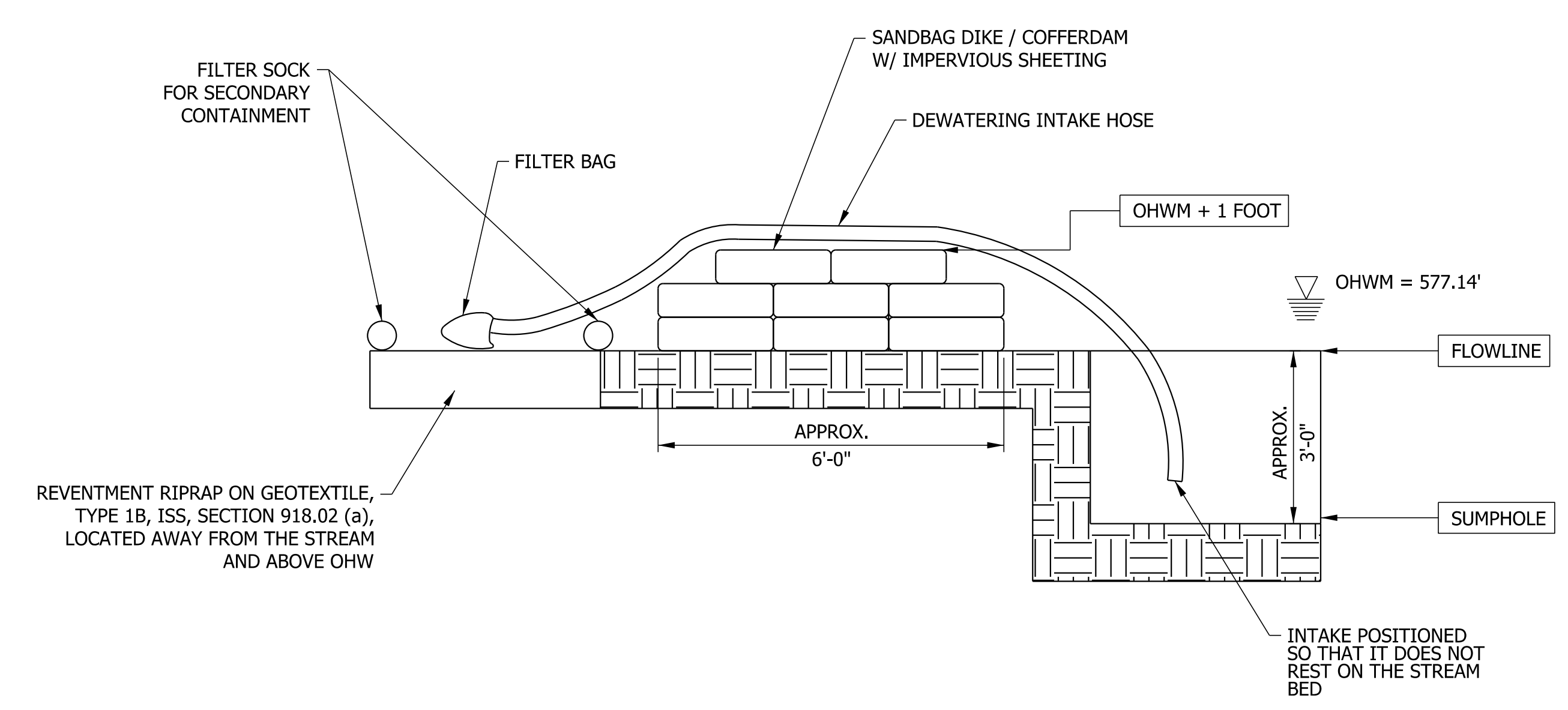
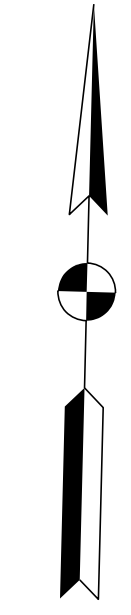
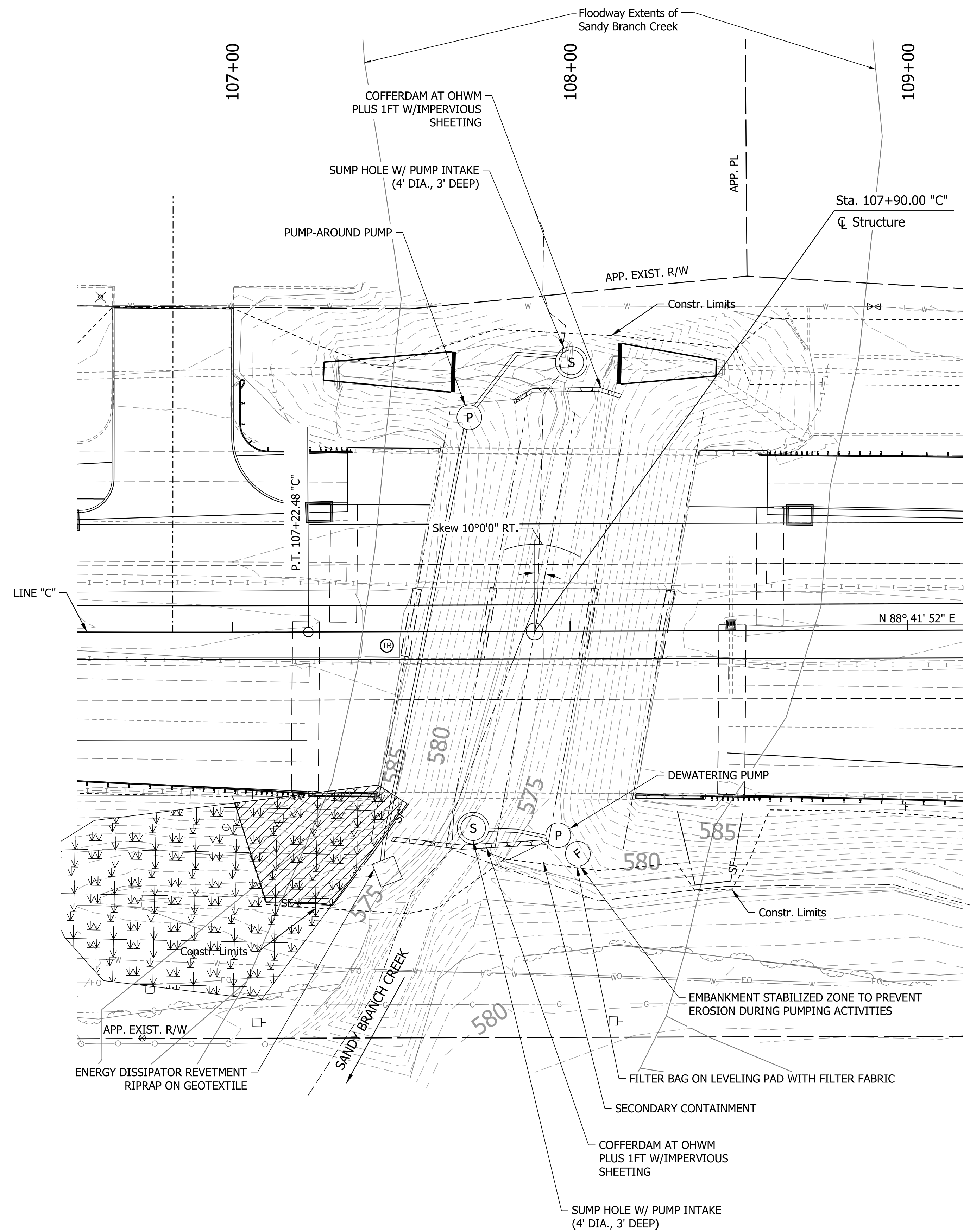


RECOMMENDED FOR APPROVAL	<i>Dongzhan Zhou</i>	10/25/2019
	DESIGN ENGINEER	DATE
DESIGNED:	AMR	DRAWN: JLR
CHECKED:	DZ	CHECKED: DZ

INDIANA DEPARTMENT OF TRANSPORTATION

SOIL BORINGS

HORIZONTAL SCALE	BRIDGE FILE
NONE	050-36-05106 CEBL & CWBL
VERTICAL SCALE	DESIGNATION
NONE	1700403 & 1700404
SURVEY BOOK	SHEETS
	7 OF 24
CONTRACT	PROJECT
R-37820	1400090



COFFERDAM / SUMP HOLE DETAIL
SCALE: N.T.S.

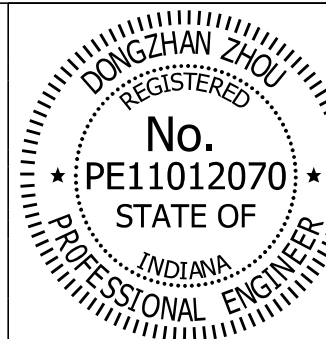
LEGEND

- EXISTING WETLANDS
- MULCH STABILIZATION

NOTES:

1. Contractor shall field verify existing pipe conditions and existing pipe dimensions prior to ordering materials.
2. Contractor shall remove debris, fill voids, and correct deformities.
3. Contractor shall field verify the location of all utilities.
4. Contractor shall abide by permit conditions in the jurisdictional waters.
5. Contractor shall minimize r/w clearing and soil disturbance.
6. Contractor shall perpetuate existing drainage.
7. Contractor shall adjust dimensions and slopes as directed by the project engineer to conform to the existing terrain and provide positive drainage.
8. The Erosion Control Pay Items are included with the Roadway project under DES. 1400090.
9. See Special Provisions submitted under DES. 1400090 for the Pump Around payment details.

DATE	REVISION



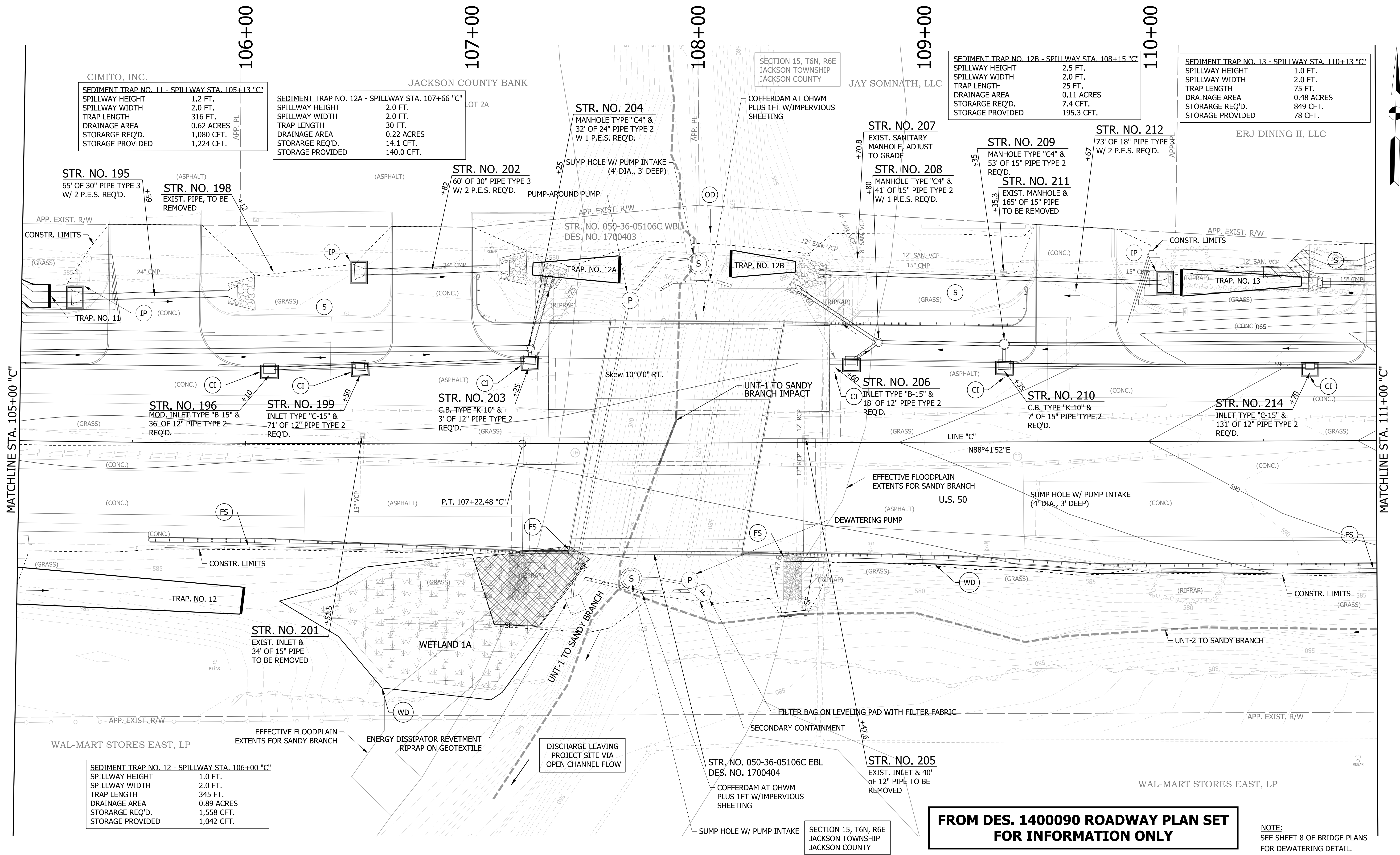
RECOMMENDED FOR APPROVAL	<i>Dongzhan Zhou</i>	DESIGN ENGINEER	10/25/2019	DATE
DESIGNED:	NDS	DRAWN:	JLR	
CHECKED:	DZ	CHECKED:	DZ	

INDIANA
DEPARTMENT OF TRANSPORTATION

PUMP AROUND & DEWATERING DETAIL

HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	050-36-05106 CEBL & CWBL
VERTICAL SCALE	DESIGNATION
1" = 20'	1700403 & 1700404
SURVEY BOOK	SHEETS
	8 OF 24
CONTRACT	PROJECT
R-37820	1400090

FILES



CIMITO, INC.

SEDIMENT TRAP NO. 11 - SPILLWAY STA. 105+13 "C"	
SPILLWAY HEIGHT	1.2 FT.
SPILLWAY WIDTH	2.0 FT.
TRAP LENGTH	316 FT.
DRAINAGE AREA	0.62 ACRES
STORAGE REQ'D.	1,080 CFT.
STORAGE PROVIDED	1,224 CFT.

JACKSON COUNTY BANK

SEDIMENT TRAP NO. 12A - SPILLWAY STA. 107+66 "C"	
SPILLWAY HEIGHT	2.0 FT.
SPILLWAY WIDTH	2.0 FT.
TRAP LENGTH	30 FT.
DRAINAGE AREA	0.22 ACRES
STORAGE REQ'D.	14.1 CFT.
STORAGE PROVIDED	140.0 CFT.

JAY SOMNATH, LLC

SEDIMENT TRAP NO. 12B - SPILLWAY STA. 108+15 "C"	
SPILLWAY HEIGHT	2.5 FT.
SPILLWAY WIDTH	2.0 FT.
TRAP LENGTH	25 FT.
DRAINAGE AREA	0.11 ACRES
STORAGE REQ'D.	7.4 CFT.
STORAGE PROVIDED	195.3 CFT.

ERJ DINING II, LLC

SEDIMENT TRAP NO. 13 - SPILLWAY STA. 110+13 "C"	
SPILLWAY HEIGHT	1.0 FT.
SPILLWAY WIDTH	2.0 FT.
TRAP LENGTH	75 FT.
DRAINAGE AREA	0.48 ACRES
STORAGE REQ'D.	849 CFT.
STORAGE PROVIDED	78 CFT.

WAL-MART STORES EAST, LP

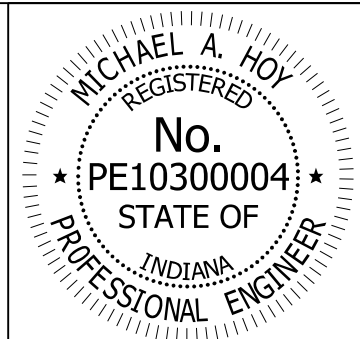
SEDIMENT TRAP NO. 12 - SPILLWAY STA. 106+00 "C"	
SPILLWAY HEIGHT	1.0 FT.
SPILLWAY WIDTH	2.0 FT.
TRAP LENGTH	345 FT.
DRAINAGE AREA	0.89 ACRES
STORAGE REQ'D.	1,558 CFT.
STORAGE PROVIDED	1,042 CFT.

FROM DES. 140090 ROADWAY PLAN SET FOR INFORMATION ONLY

NOTE:
SEE SHEET 8 OF BRIDGE PLANS FOR DEWATERING DETAIL.

LEGEND

(S) TEMPORARY SEED MIXTURE	(OD) OFFSITE DRAINAGE ENTERING PROJECT SITE	[Hatched Box] MULCH STABILIZATION	[Wavy Line Box] EXISTING WETLANDS
(CI) CURB INLET PROTECTION	(SF) TEMPORARY SILT FENCE	[Cross-hatched Box] EROSION CONTROL BLANKET	[Dashed Line] EXISTING WATERWAY
(IP) DITCH INLET PROTECTION	(WD) WETLAND/WATERWAY DELINEATION	[Diagonal Line Box] WETLAND IMPACTS RESEED WITH WETLAND SEED MIXTURE	[Solid Line] WATERWAY IMPACT
(FS) FILTER SOCK	(RD) MOD. RIPRAP CHECK DAM		



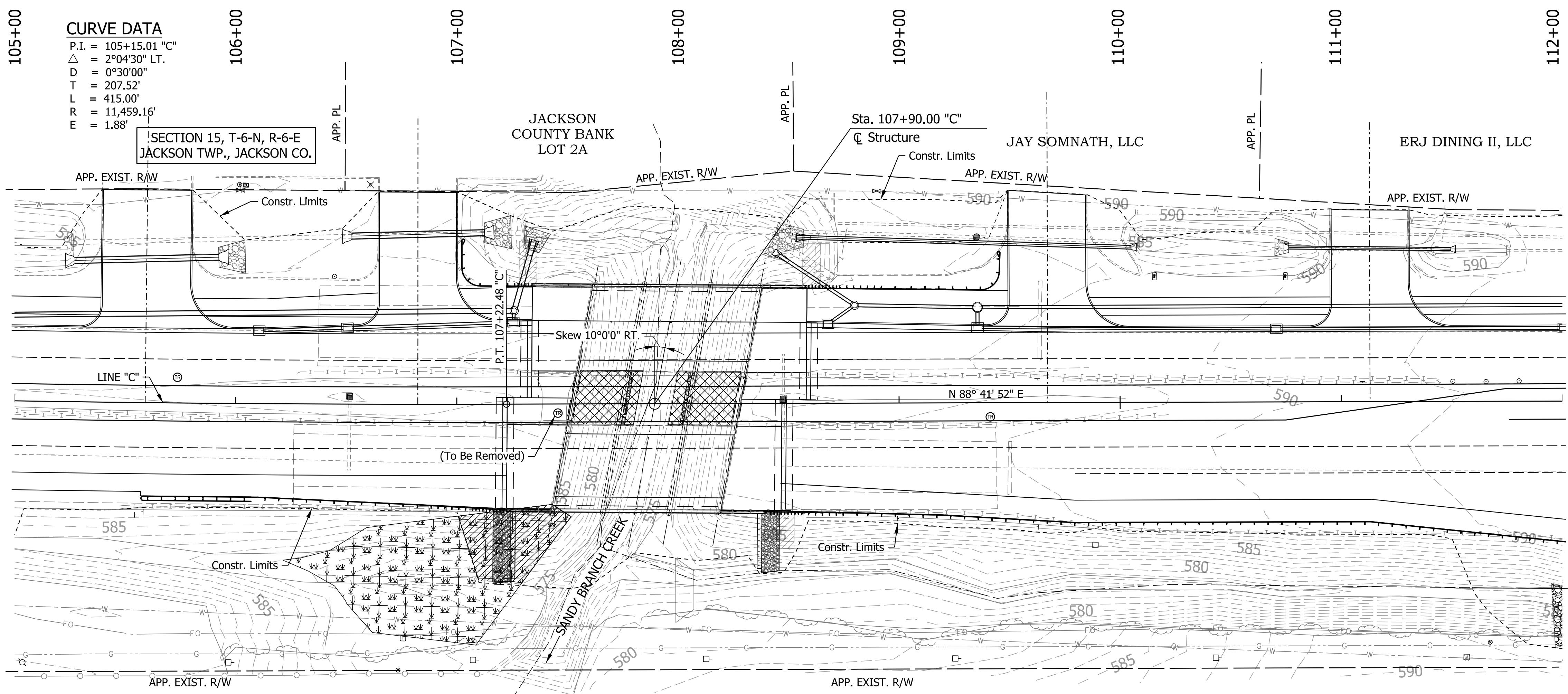
RECOMMENDED FOR APPROVAL	<i>Michael A. Hoy</i>	DESIGN ENGINEER	11/5/2019	DATE
DESIGNED:	MAE	DRAWN:	JWM	
CHECKED:	LDW	CHECKED:	MAE	

INDIANA
DEPARTMENT OF TRANSPORTATION

**EROSION CONTROL DETAIL
LINE "C"**

HORIZONTAL SCALE	BRIDGE FILE
1"=20'	050-36-05106 CEBL & CWBL
VERTICAL SCALE	DESIGNATION
N/A	1700403 & 1700404
SURVEY BOOK	SHEETS
	9 of 24
CONTRACT	PROJECT
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CURVE DATA
 P.I. = 105+15.01 "C"
 Δ = 2°04'30" LT.
 D = 0°30'00"
 T = 207.52'
 L = 415.00'
 R = 11,459.16'
 E = 1.88'



EXISTING STRUCTURE
 The Existing Structures are Reinforced Concrete Slab Bridges. The Bridges have three spans at 22'-6", 30'-0" and 22'-6". The Structures have a 10°00'00" RT. skew with a 38'-0" Clear Roadway. Plans for the Existing Structures are on file with the INDOT Central Office as Bridge Files 050-L-5106, 050-36-5106A & 050-36-05106 BEBL & BWBL.

HYDRAULIC DATA
 Design Discharge, Q_{100} = 1020 cfs.
 Elevation @ Q_{100} (downstream face) = 578.45 ft.
 Velocity @ Q_{100} (avg) = 7.05 ft./sec.
 Drainage Area = 1.64 sq. mi.

HYDRAULIC SCOUR DATA
 Q_{100} = 1020 cfs.
 Q_{100} Elevation = 578.45 ft.
 Q_{100} Contraction Scour Depth = 0.00 ft.
 Q_{100} Total Scour Depth = 12.81 ft.
 Q_{100} Low Scour Elevation = 558.87 ft.
 Q_{100} Max. Velocity = 9.89 ft./sec.
 Flow Line Elevation = 571.68 ft.

EARTHWORK SUMMARY

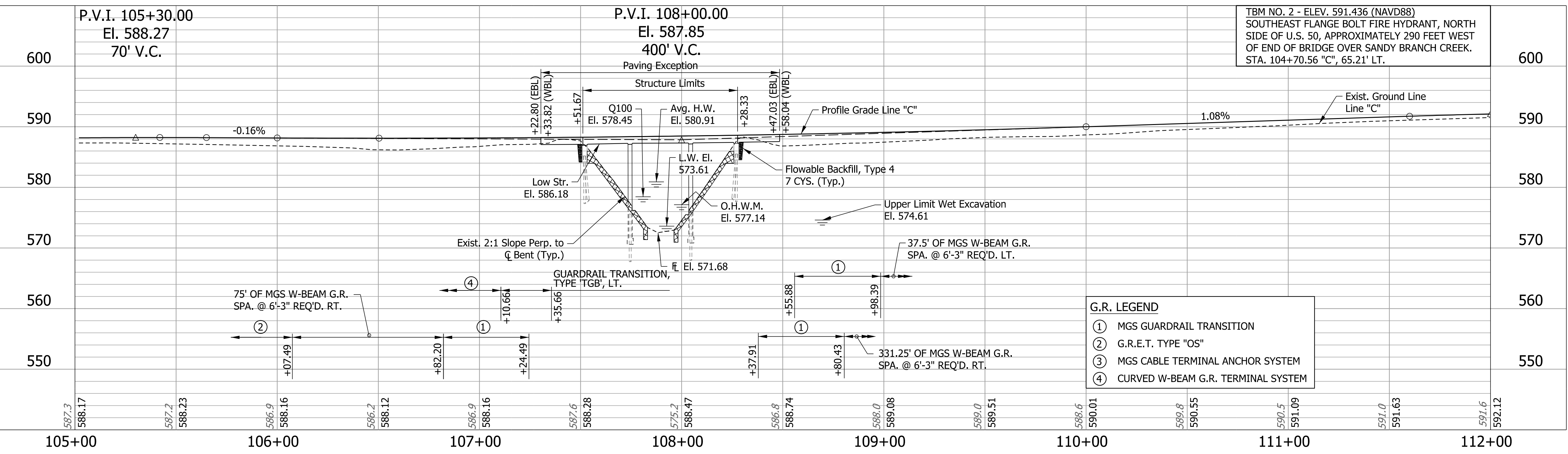
Excavation, Wet	40 CYS.
Excavation, Dry	24 CYS.
Common Excavation	525 CYS.

LEGEND

Indicates Limits of 3' Class I Riprap over Geotextiles for Riprap, Type IA. (Est. Qty. = 188 Tons of Class I Riprap over 190 Sys of Geotextiles for Riprap, Type IA)

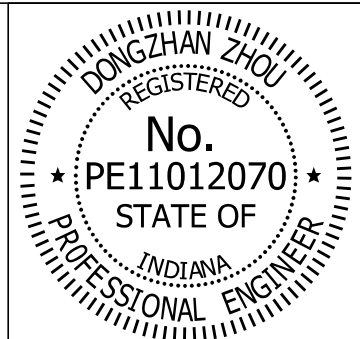
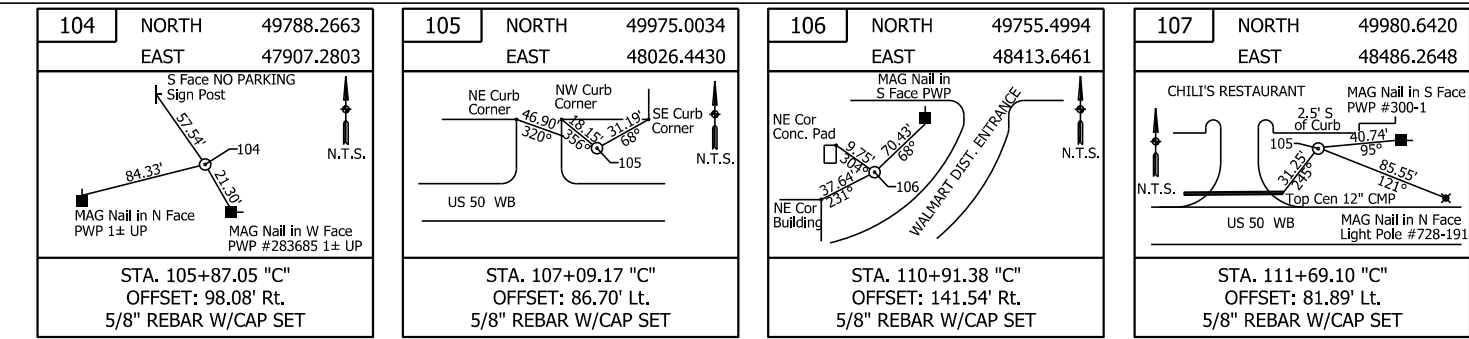
Indicates Limits of 18" wide Wildlife Passage

SECTION 15, T-6-N, R-6-E
 JACKSON TWP., JACKSON CO. WAL-MART STORES EAST. LP



- NOTES:**
- For guardrail limits and side ditch grades, see road plan and profile sheet.
 - For alignment references, benchmarks and topo references, see road plans.
 - For utilities, see sheet 2.

CONTINUOUS REINFORCED CONCRETE SLAB BRIDGE
 3 SPANS: 22'-6", 30'-0", 22'-6"
 85'-1" CLEAR ROADWAY; SKEW: 10°00'00" RT.
 U.S. 50 OVER SANDY BRANCH CREEK
 JACKSON COUNTY



RECOMMENDED FOR APPROVAL: *Dongzhan Zhou* DESIGN ENGINEER 10/25/2019 DATE

DESIGNED: AMR DRAWN: SWB
 CHECKED: DZ CHECKED: DZ

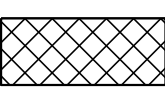
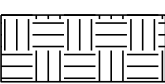
INDIANA DEPARTMENT OF TRANSPORTATION
 LAYOUT

HORIZONTAL SCALE	BRIDGE FILE
1"=30'	050-36-05106 CEBL & CWBL
VERTICAL SCALE	DESIGNATION
1"=10'	1700403 & 1700404
SURVEY BOOK	SHEETS
	10 of 24
CONTRACT	PROJECT
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LEGEND

- ① Remove existing interior pier stem noses at Pier No. 2 & 3. Widen piers and footings in kind to connect the existing substructures.
- ② Widen end bents in kind at Bent No. 1 & 4 and connect existing end bents.
- ③ Construct riprap slope walls at the widening portions of end bents. Install riprap scour protection at the widening portions of piers.
- ④ Remove 1'-9" of the existing concrete slabs copings, bridge railings and approach guardrail transitions at the median.
- ⑤ Remove existing overlay & Mill 1/4" of existing slab 4'-0" EB & 5'-0" WB from the removal line.
- ⑥ Widen the bridge slabs to connect the existing superstructures.
- ⑦ Provide variable depth LMC overlay on the new slab, and 4'-0" EB & 5'-0" WB portion of existing slabs to match the existing cross slope.
- ⑧ Remove existing approach slab, approach slab extensions and curbs.
- ⑨ Widen RCBA to the median to match new slab construction. Surface seal widened RCBA.
- ⑩ Construct new approach slab and approach slab extensions. Surface seal new approach slab.
- ⑪ Remove and replace existing bridge railings, approach guardrail transitions, and 3'-0" of existing slab on the north coping of the westbound structure with modified railing PS-1, and modified railing transition TPS-1 and modified approach slab extension.
- ⑫ Remove 13'-9" of existing bridge deck overlay and place new 15'-9" wide sidewalk on the north side of the westbound structure and approach slabs to align with the approaching roadway curbs.
- ⑬ 6" Full Depth Field Drilled holes in concrete to install 5" PVC Pipe Schedule 40 thru the existing slab.
- ⑭ Remove and replace existing bridge railings, approach guardrail transitions, and 3'-0" of existing slab on the south coping of the eastbound structure with modified railing FT, and railing transition TFT and modified approach slab extension.
- ⑮ Repeat Item 5 & 7 on the reconstruction portion of the eastbound structure.
- ⑯ Install 6" PVC deck drain.
- ⑰ Surface seal the bridge copings, railings, railing transitions and sidewalk.
- ⑱ Install barrier delineators.
- ⑲ Install embedded galvanic anodes along the interfaces of existing and new concrete.
- ⑳ Install riprap drainage turnout.
- ㉑ Install sleeper slab.
- ㉒ Replace existing Bronze Bench Marker.
- ㉓ 18" wide Wildlife Passage.
- ㉔ Remove the fallen riprap in stream to promote unobstructed aquatic organism passage.
- ㉕ Provide Terminal Joint, Type HMA or PCCP (Exp. Length = 63 ft) with Pre-Compressed Foam Joints.

LEGEND

-  Indicates Limits of 3' Class I Riprap over Geotextiles for Riprap, Type IA
-  Indicates Limits of 18" wide Wildlife Passage

GENERAL NOTES

Reinforcing steel cover shall be 1" in top and 1" minimum in bottom of slab, and 2" in all other parts unless noted.

These plans were prepared according to current survey datum (N.A.V.D. 1988).

Existing bridge elevations shall be checked by the contractor to ensure proper fit of new concrete to existing concrete.

Contractor shall check all dimensions and conditions in the field and report any errors or discrepancies to the engineer and assume responsibility for their correctness and the fit of the new part to the old.

DESIGN DATA

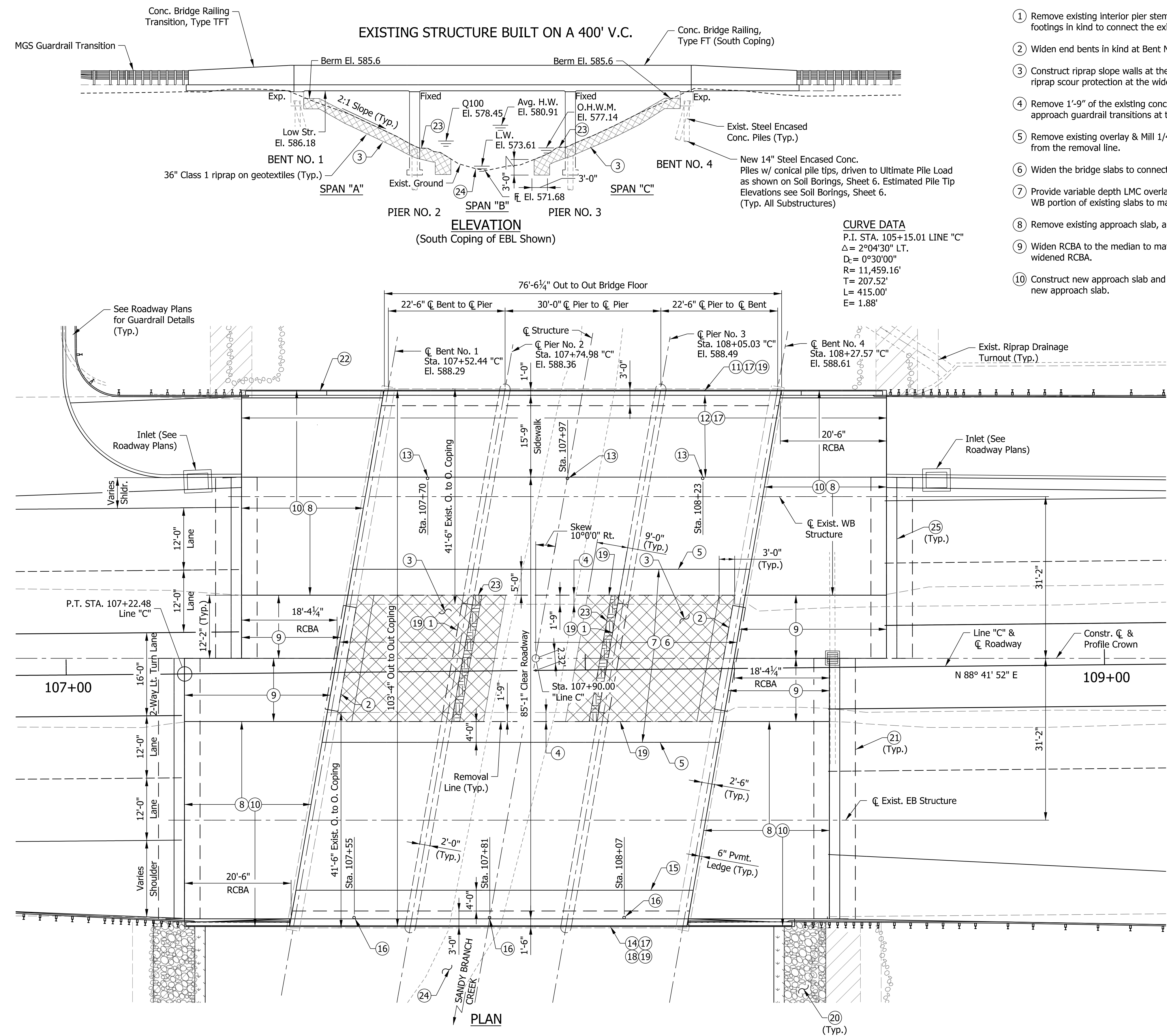
Originally designed for HS 20-44 loading in accordance with the 1961 AASHTO specifications.

Superstructure and substructure designed for HS-20 loading with impact and distribution of loads in accordance with AASHTO Standard Specifications for Highway Bridges, 17th Edition, 2002.

The slab designed for 14" minimum structural thickness with proposed overlay as shown on plans.

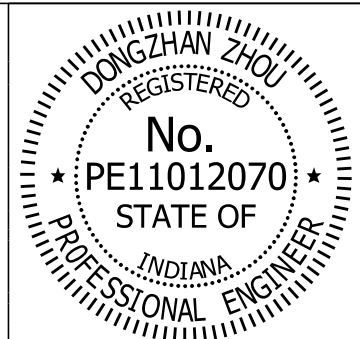
UNIT STRESSES:
 Class "C" concrete: $f_c = 4,000$ psi
 Class "B" concrete: $f_c = 3,000$ psi
 Class "A" concrete: $f_c = 3,500$ psi
 Reinforcing steel: $F_y = 60,000$ psi

CONTINUOUS REINFORCED CONCRETE SLAB BRIDGE
 3 SPANS: 22'-6", 30'-0", 22'-6"
 85'-1" CLEAR ROADWAY SKEW: 10°00'00" RT.
 U.S. 50 OVER SANDY BRANCH CREEK
 JACKSON COUNTY



CURVE DATA
 P.I. STA. 105+15.01 LINE "C"
 $\Delta = 2^\circ 04' 30''$ LT.
 $D_c = 0^\circ 30' 00''$
 $R = 11,459.16'$
 $T = 207.52'$
 $L = 415.00'$
 $E = 1.88'$

DATE	REVISION



RECOMMENDED FOR APPROVAL: *Dongzhan Zhou* 10/25/2019
 DESIGN ENGINEER DATE

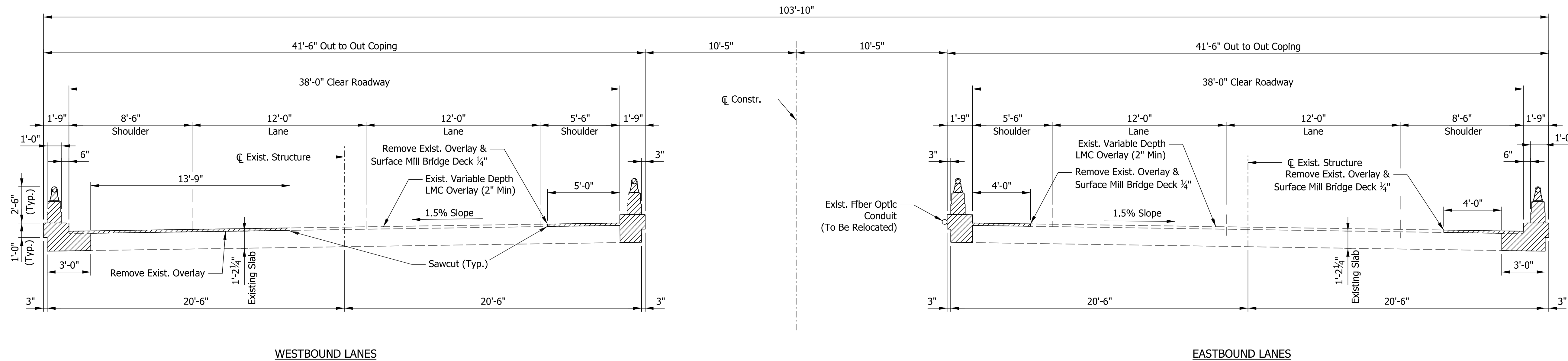
DESIGNED: AMR DRAWN: JLR
 CHECKED: DZ CHECKED: DZ

INDIANA
 DEPARTMENT OF TRANSPORTATION

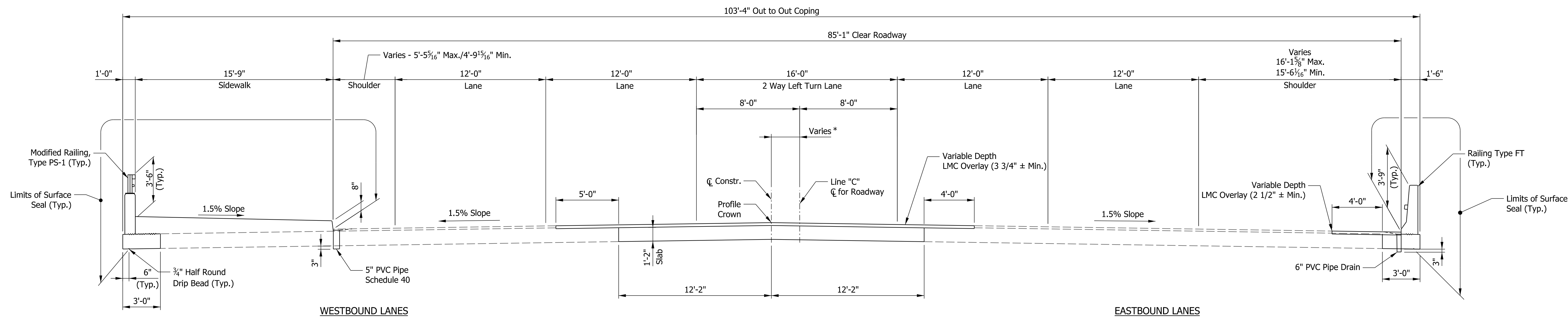
GENERAL PLAN

HORIZONTAL SCALE	BRIDGE FILE
$\frac{1}{2}'' = 1'-0''$	050-36-05106 CEBL & CWBL
VERTICAL SCALE	DESIGNATION
$\frac{3}{8}'' = 1'-0''$	1700403 & 1700404
SURVEY BOOK	SHEETS
	11 OF 24
CONTRACT	PROJECT
R-37820	1400090

SFILES

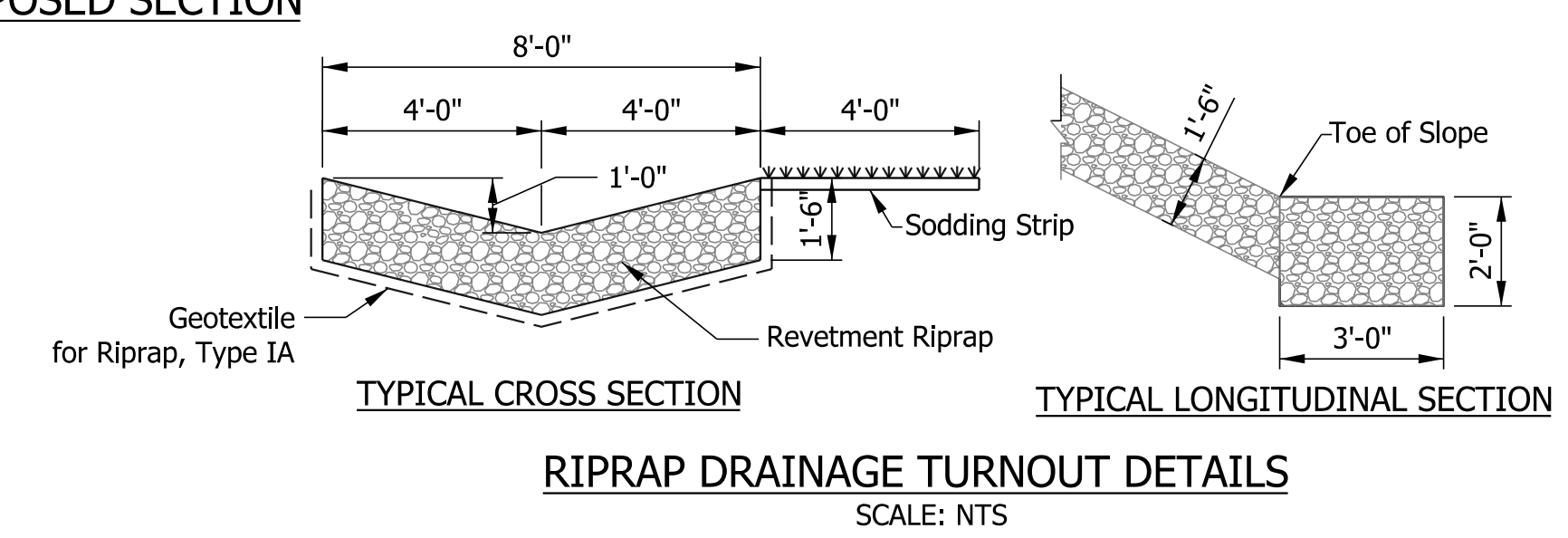
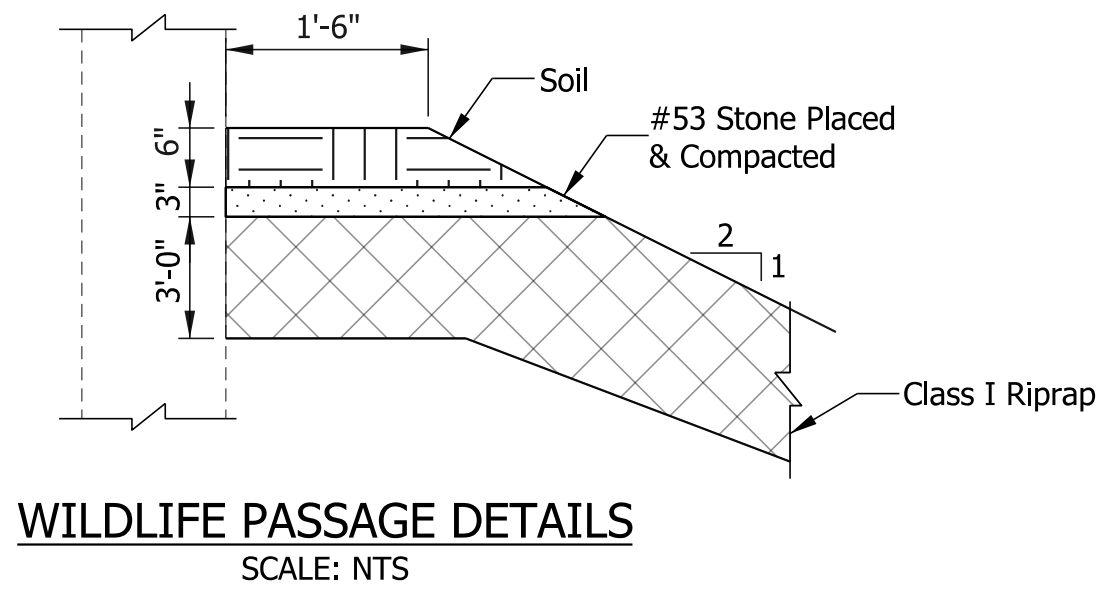


TYPICAL EXISTING SECTION



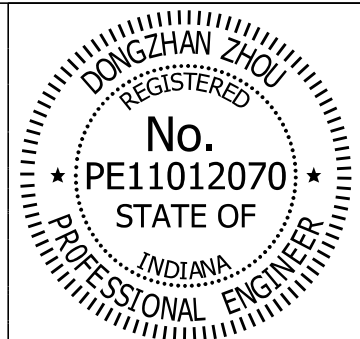
TYPICAL PROPOSED SECTION

LEGEND
 Hatching shows limits of removal.
 * 2'-8 1/2" @ Sta. 107+51.67, Line "C"
 1'-11 1/16" @ Sta. 108+28.33, Line "C"



CONTINUOUS REINFORCED CONCRETE SLAB BRIDGE
 3 SPANS: 22'-6", 30'-0", 22'-6"
 85'-1" CLEAR ROADWAY; SKEW: 10°00' RT.
 U.S. 50 OVER SANDY BRANCH CREEK
 JACKSON COUNTY

DATE	REVISION

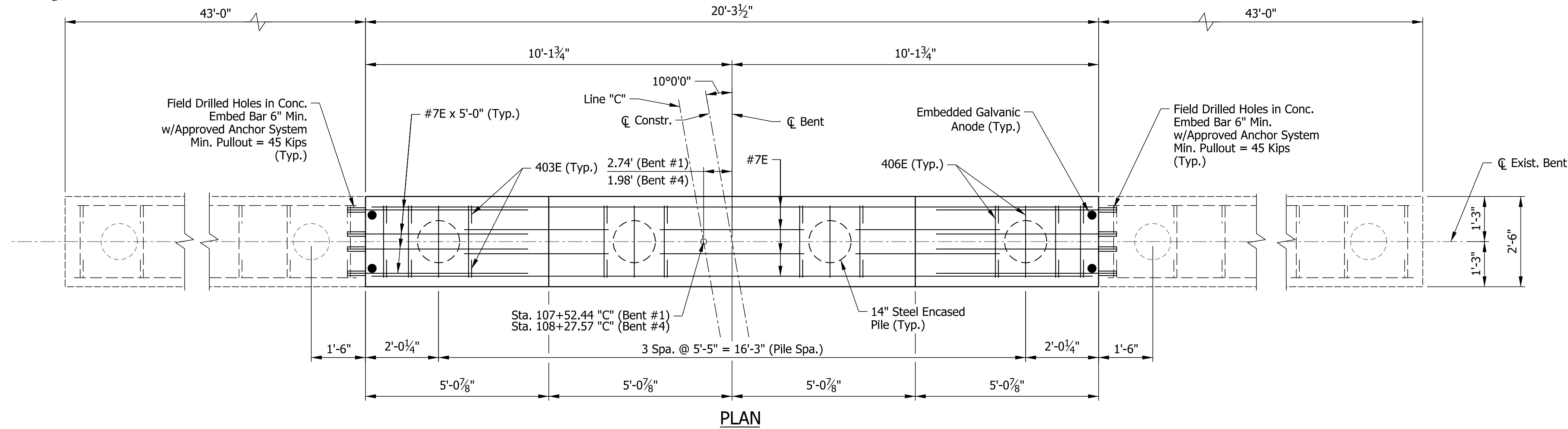
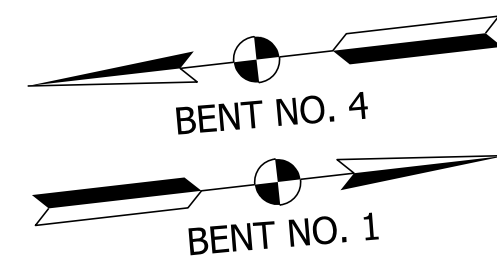


RECOMMENDED FOR APPROVAL: *Dongzhan Zhou* 10/25/2019
 DESIGN ENGINEER DATE
 DESIGNED: AMR DRAWN: JLR
 CHECKED: DZ CHECKED: AMR

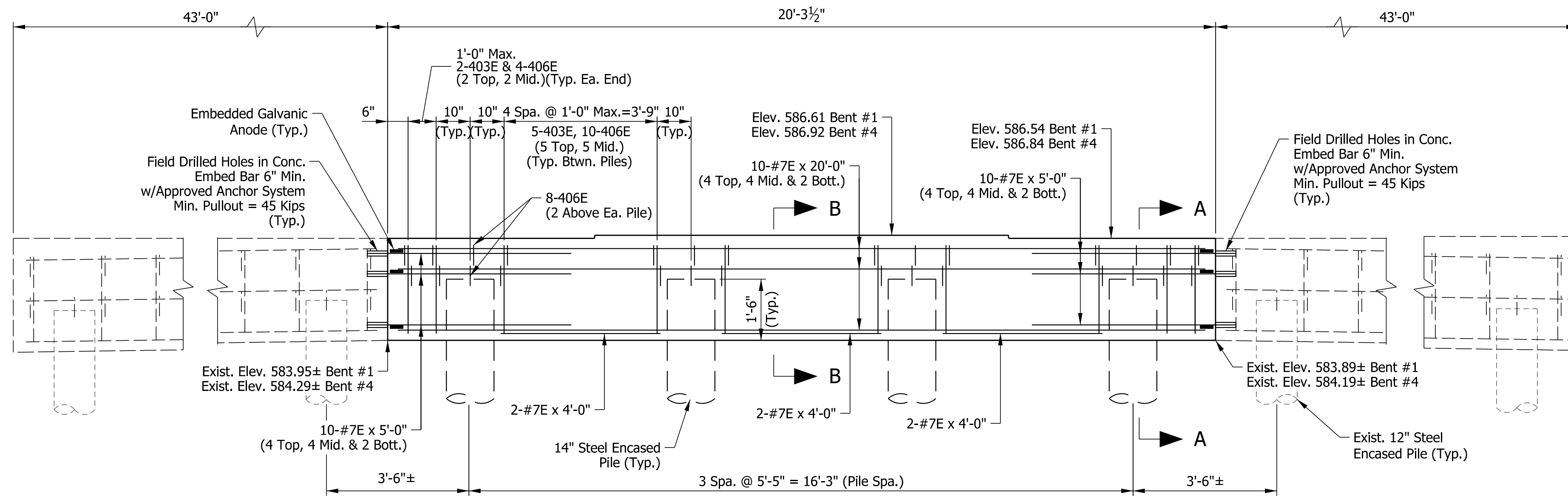
INDIANA
 DEPARTMENT OF TRANSPORTATION
 TYPICAL SECTIONS

HORIZONTAL SCALE	BRIDGE FILE
1/4" = 1'-0"	050-36-05106 CEBL & CWBL
VERTICAL SCALE	DESIGNATION
1/4" = 1'-0"	1700403 & 1700404
SURVEY BOOK	SHEETS
	12 OF 24
CONTRACT	PROJECT
R-37820	1400090

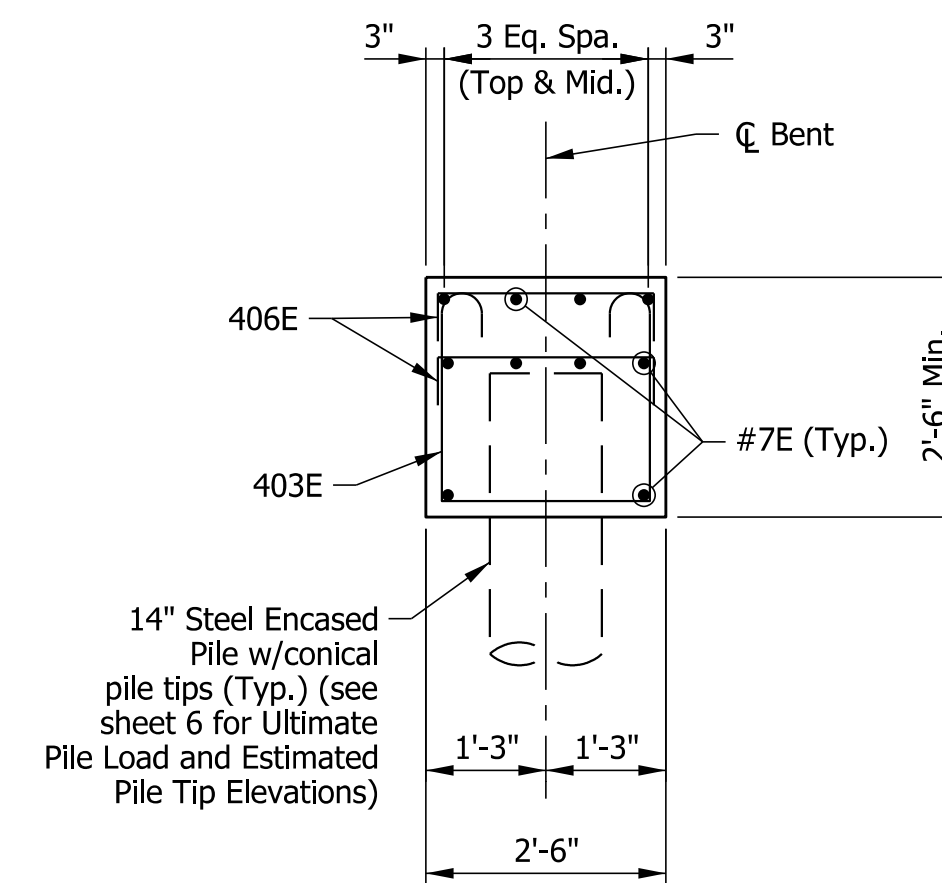
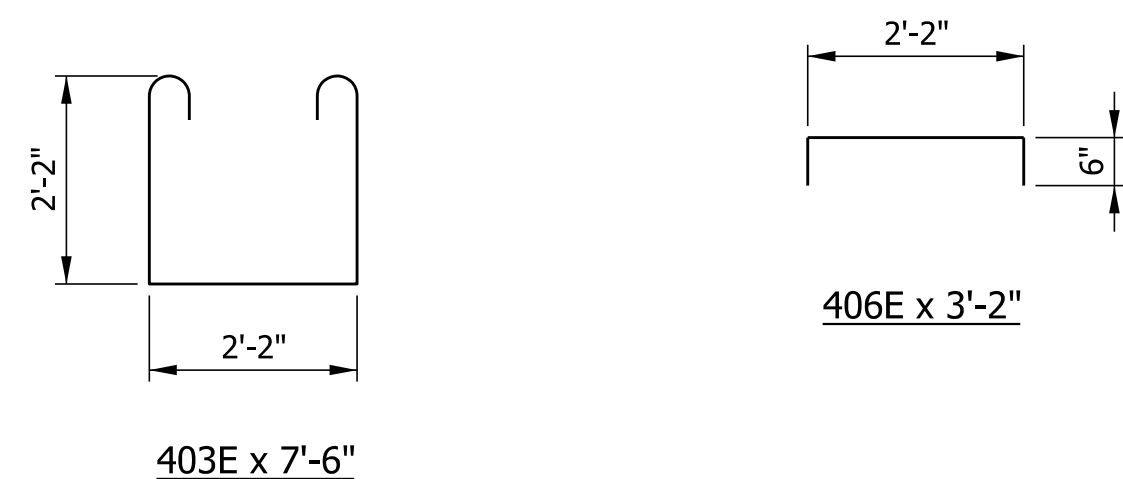
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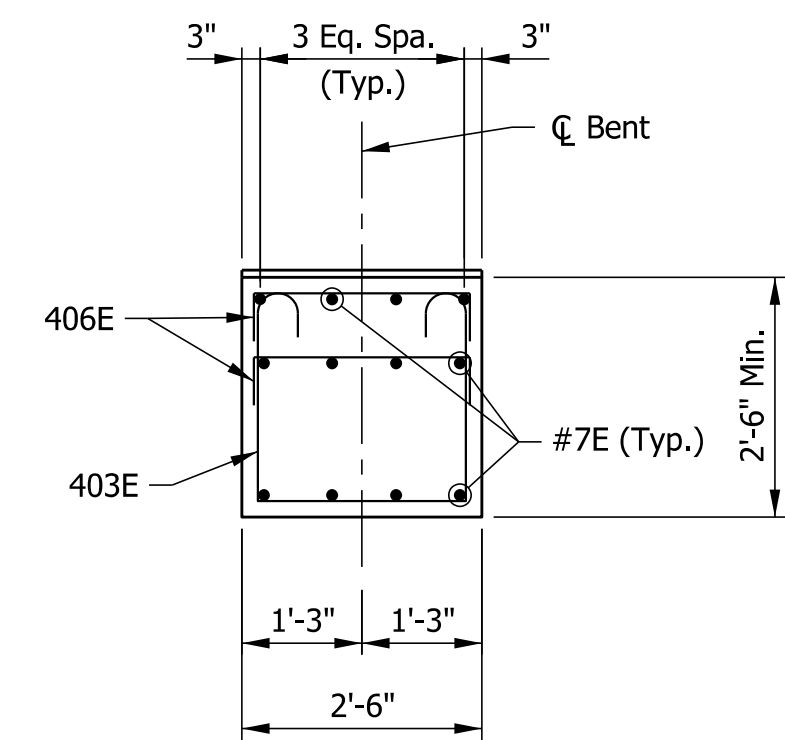
PLAN



ELEVATION



SECTION A-A



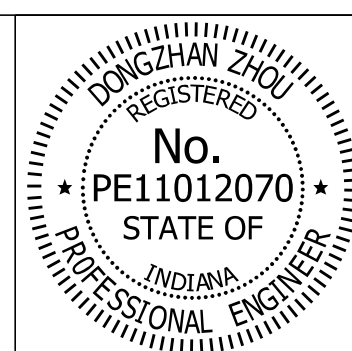
SECTION B-B

BILL OF MATERIALS END BENT NO. 1 (END BENT NO. 4 SAME)			
EPOXY-COATED REINFORCING STEEL			
SIZE OR MARK	NO. OF BARS	LENGTH (FT. - IN.)	WEIGHT (LBS.)
Pre-phase			
#7E	10	20'-0"	
#7E	20	5'-0"	
#7E	6	4'-0"	
Total #7E Bars			663
Pre-phase			
403E	19	7'-6"	
406E	46	3'-2"	
Total #4E Bars			193
Total Epoxy-Coated Reinforcing Steel			856
CONCRETE			
Concrete Class C in Cap			5.0 Cys
Total Concrete, Class C			5.0 Cys
MISCELLANEOUS			
Field Drilled Holes in Concrete			20 Ea
Embed Galvanic Anodes			12 Ea
Pile, Steel Pile, 0.25 in., 14 in., 3 @ 34 Lft			102 Ft
Test Pile, Indicator, Production, 1 @ 44 Lft			44 Ft
Test Pile, Indicator, Restrike			1 Ea
Conical Pile Tip, 14 in.			4 Ea

NOTES:

- All reinforcing in End Bents to be Epoxy Coated.
- For Reinforcing Bar Notes, see Std. Dwg. E 703-BRST-01.

DATE	REVISION

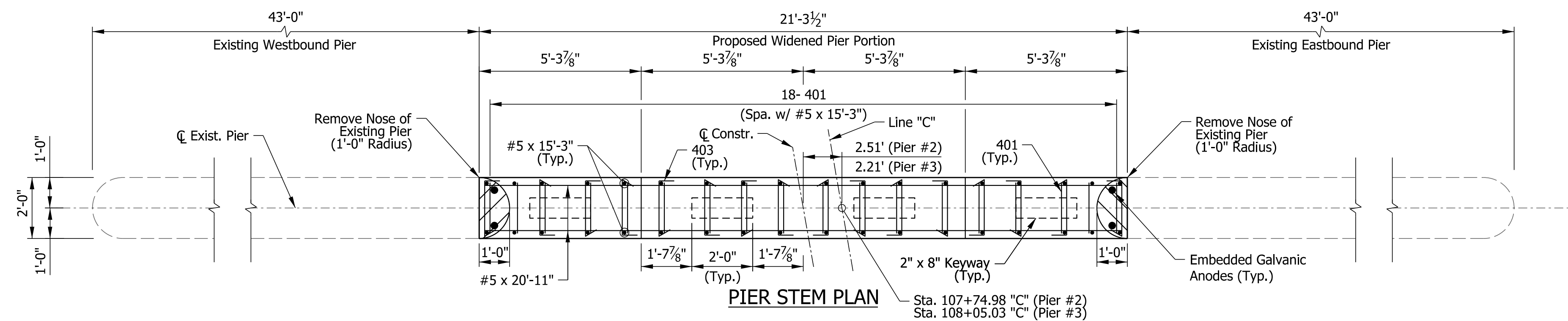


RECOMMENDED FOR APPROVAL	<i>Dongzhan Zhou</i>	DESIGN ENGINEER	10/25/2019
DESIGNED:	AMR	DRAWN:	JLR
CHECKED:	DZ	CHECKED:	DZ

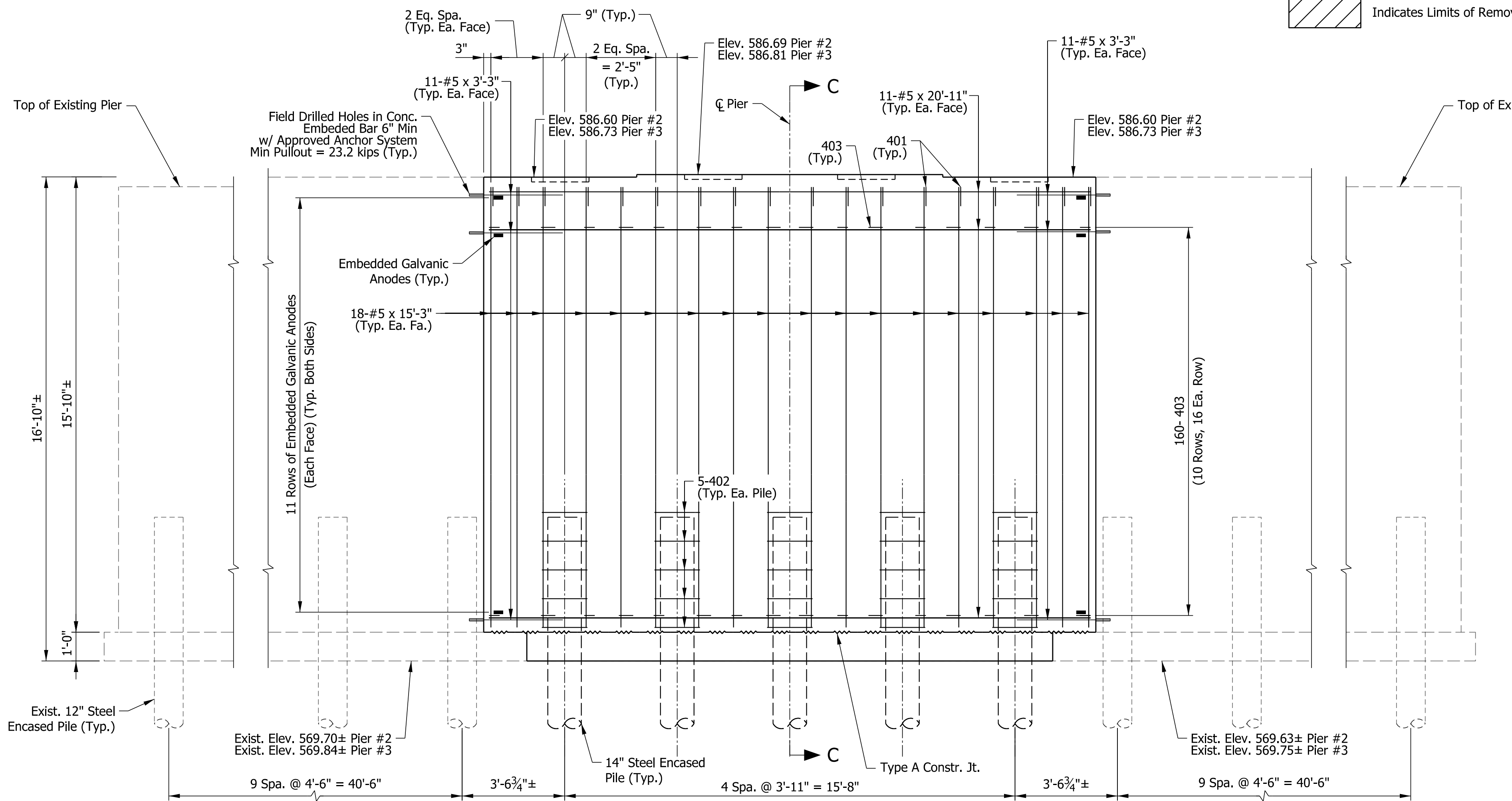
INDIANA
DEPARTMENT OF TRANSPORTATION

END BENT NO. 1 & 4 DETAILS

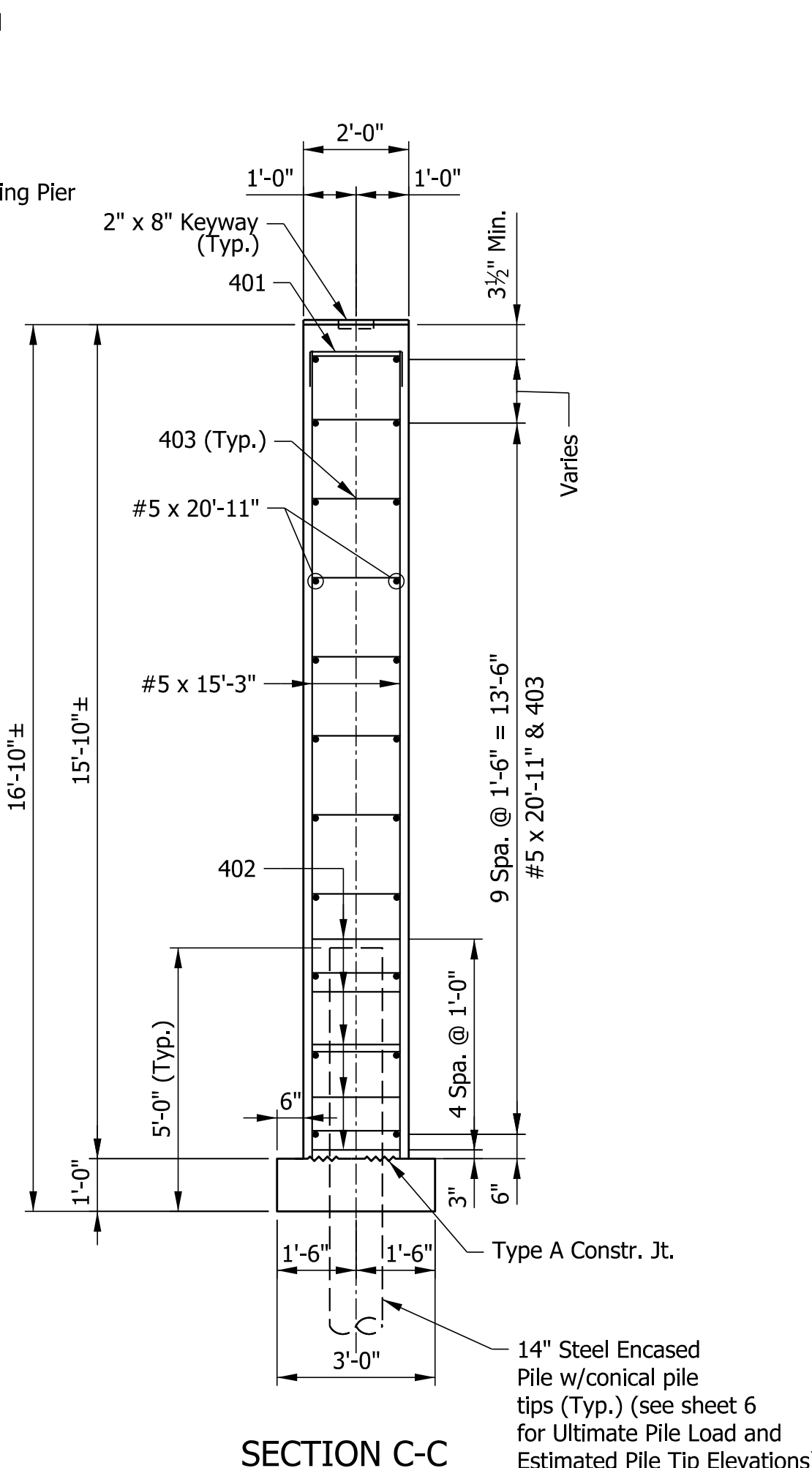
HORIZONTAL SCALE	BRIDGE FILE
1/2" = 1'-0"	050-36-05106 CEBL & CWBL
VERTICAL SCALE	DESIGNATION
1/2" = 1'-0"	1700403 & 1700404
SURVEY BOOK	SHEETS
	13 OF 24
CONTRACT	PROJECT
R-37820	1400090



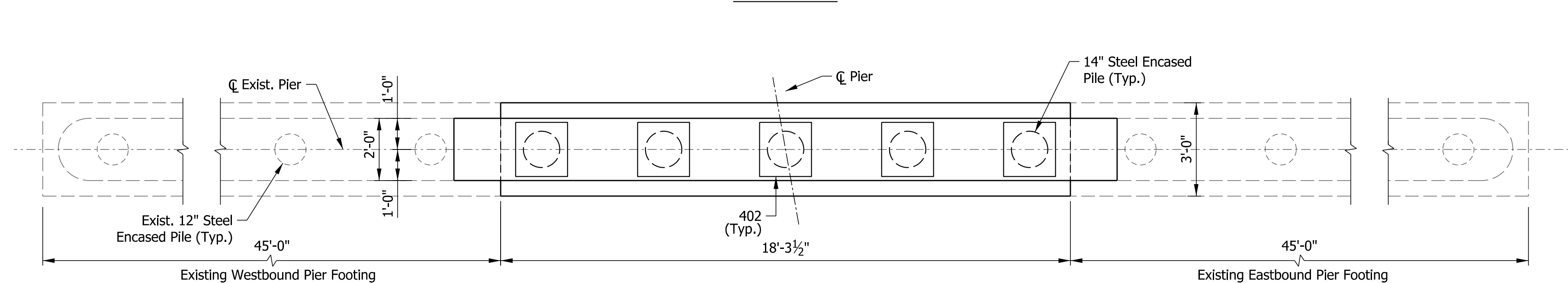
PIER STEM PLAN



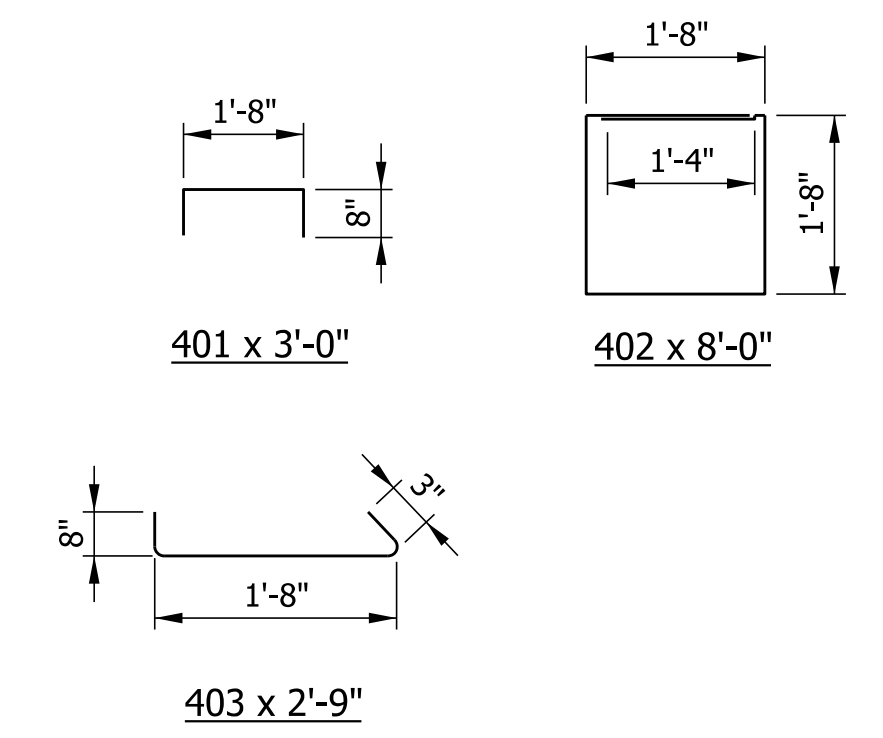
ELEVATION



SECTION C-C



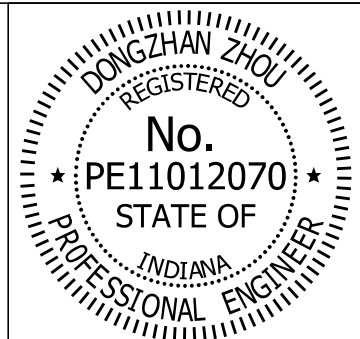
PIER FOOTING PLAN



BILL OF MATERIALS PIER NO. 2 (PIER NO. 3 SAME)			
REINFORCING STEEL			
SIZE OR MARK	NO. OF BARS	LENGTH (FT. - IN.)	WEIGHT (LBS.)
Pre-phase			
#5	22	20'-11"	
#5	36	15'-3"	
#5	44	3'-3"	
Total #5 Bars			1202
Pre-phase			
401	18	3'-0"	
402	25	8'-0"	
403	160	2'-9"	
Total #4 Bars			464
Total Reinforcing Steel			1666
CONCRETE			
Concrete, Class A in Substructure			25.3 Cys
Concrete, Class B in Footings			2.1 Cys
MISCELLANEOUS			
Field Drilled Holes in Concrete			44 Ea
Embedded Galvanic Anodes			44 Ea
Pile, Steel Pile, 0.25 in., 14 in., 4 @ 62 Lft			248 Ft
Test Pile, Indicator, Production, 1 @ 72 Lft			72 Ft
Test Pile, Indicator, Restrike			1 Ea
Conical Pile Tip, 14 in.			5 Ea

NOTES:
1. For Reinforcing Bar Notes, see Std. Dwg. E 703-BRST-01.

DATE	REVISION



RECOMMENDED FOR APPROVAL: *Dongzhan Zhou*
DESIGN ENGINEER
10/25/2019 DATE

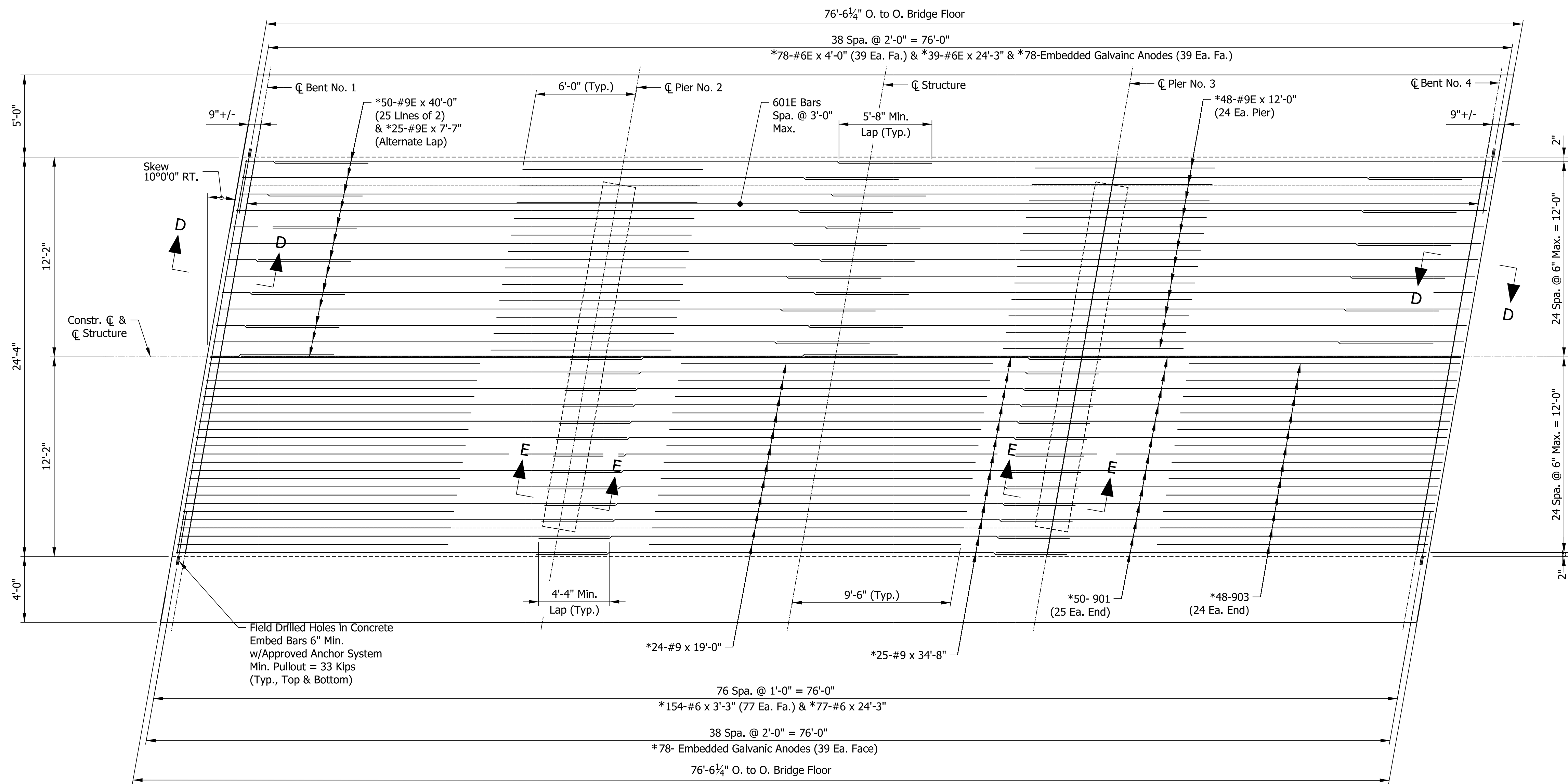
DESIGNED: AMR DRAWN: HL/JLR
CHECKED: DZ CHECKED: DZ

INDIANA
DEPARTMENT OF TRANSPORTATION

PIER NO. 2 & 3 DETAILS

HORIZONTAL SCALE		BRIDGE FILE	
3/8" = 1'-0"		050-36-05106 CEBL & CWBL	
VERTICAL SCALE		DESIGNATION	
3/8" = 1'-0"		1700403 & 1700404	
SURVEY BOOK		SHEETS	
		14	OF 24
CONTRACT		PROJECT	
R-37820			1400090

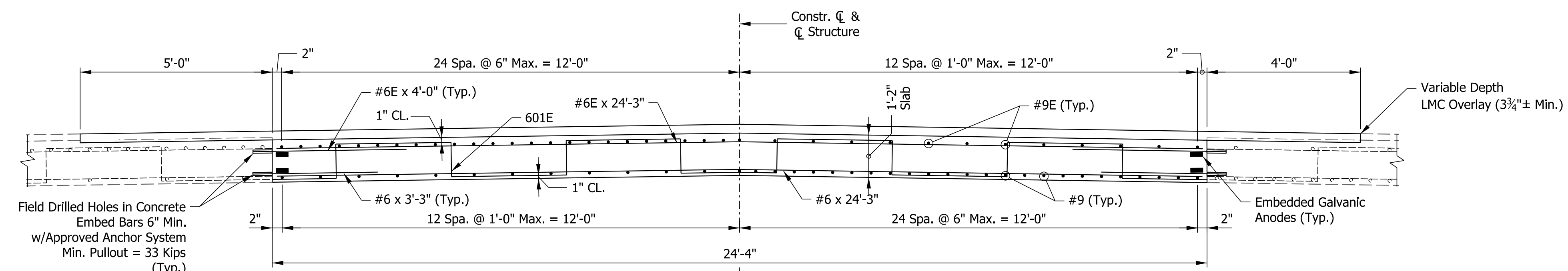
TOP HALF SHOWING TOP REINFORCING



BOTTOM HALF SHOWING BOTTOM REINFORCING

*Indicates Total Number of Bars in Median Slab

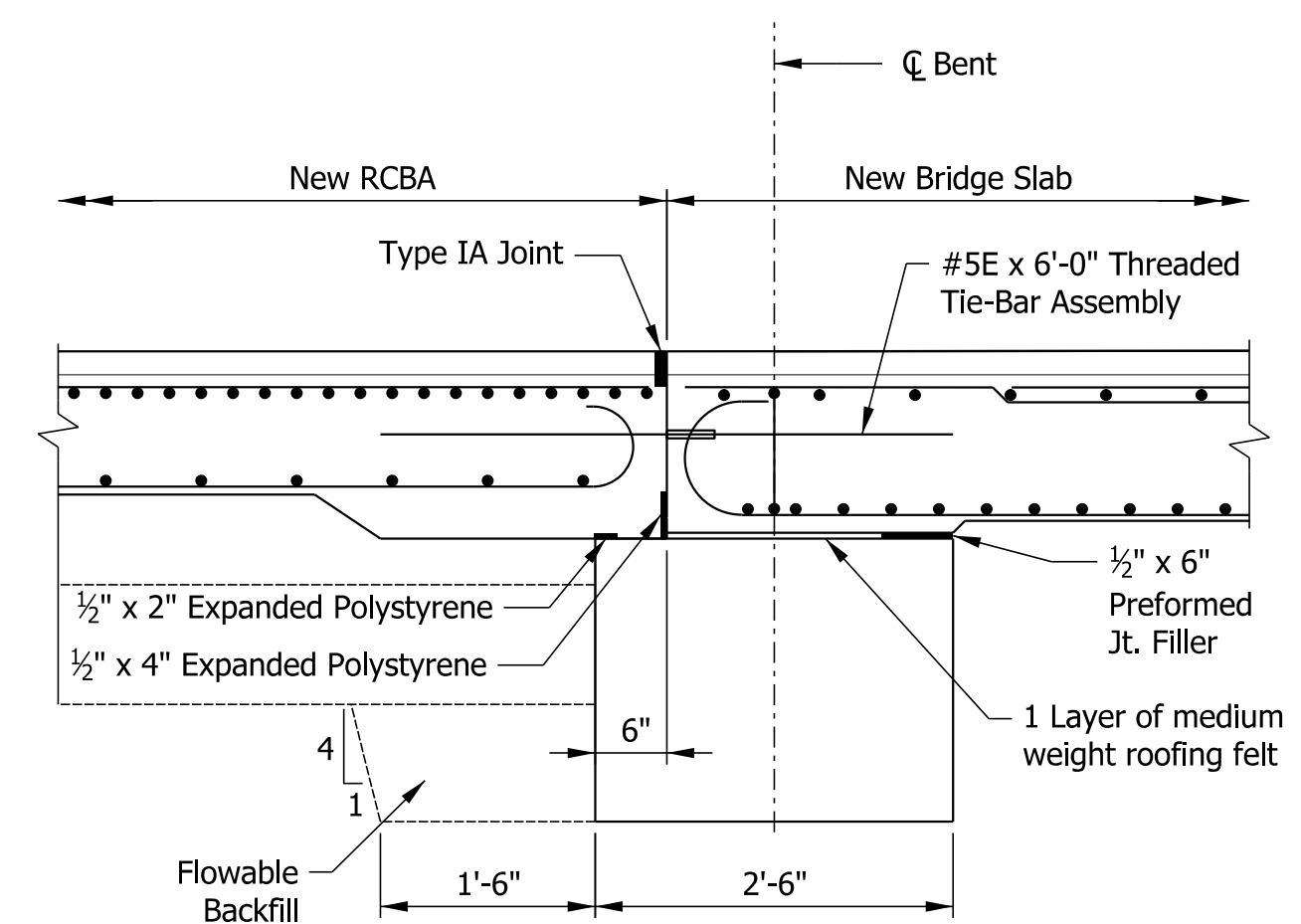
PLAN
SCALE: 1/4" = 1'-0"



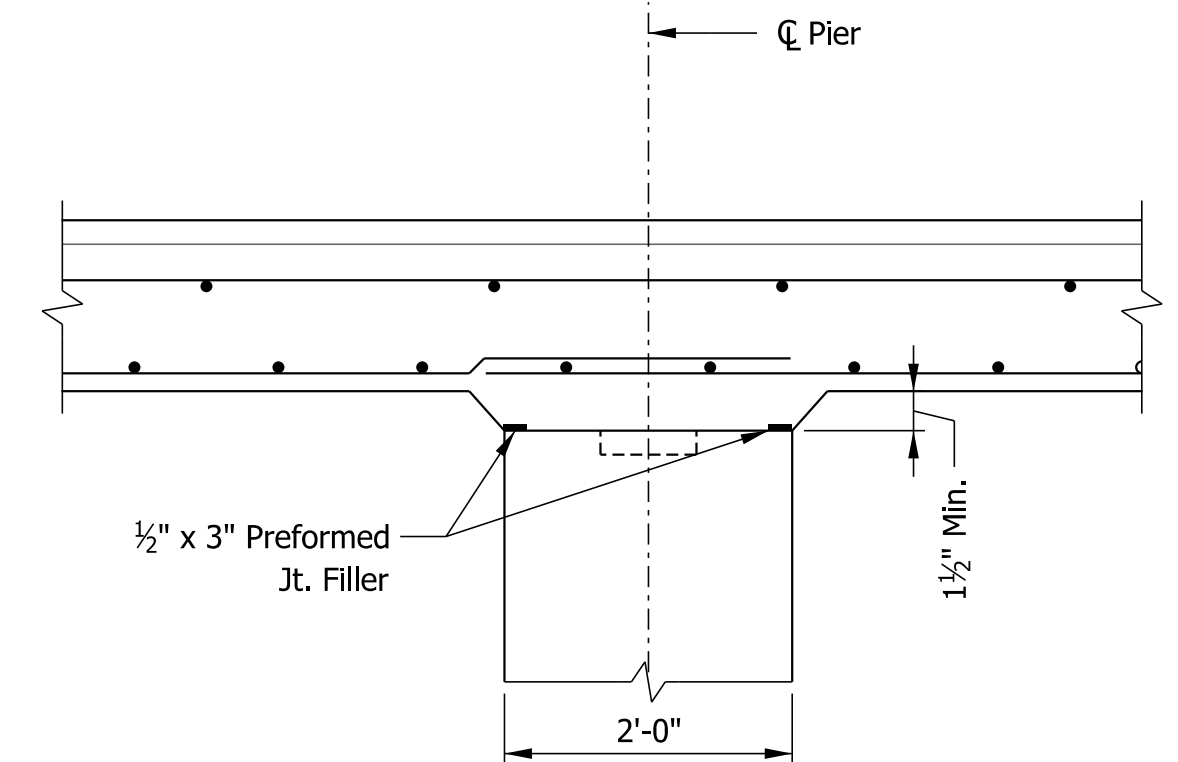
LEFT HALF SHOWN @ PIER

RIGHT HALF SHOWN @ MID-SPAN

TYPICAL SECTION
SCALE: 1/2" = 1'-0"



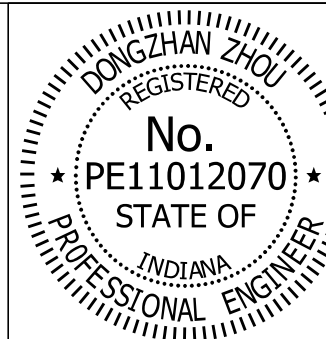
SECTION D-D
SCALE: 3/4" = 1'-0"



SECTION E-E
SCALE: 3/4" = 1'-0"

NOTES:
1. For additional details & Bill of Materials, see sheet 17.

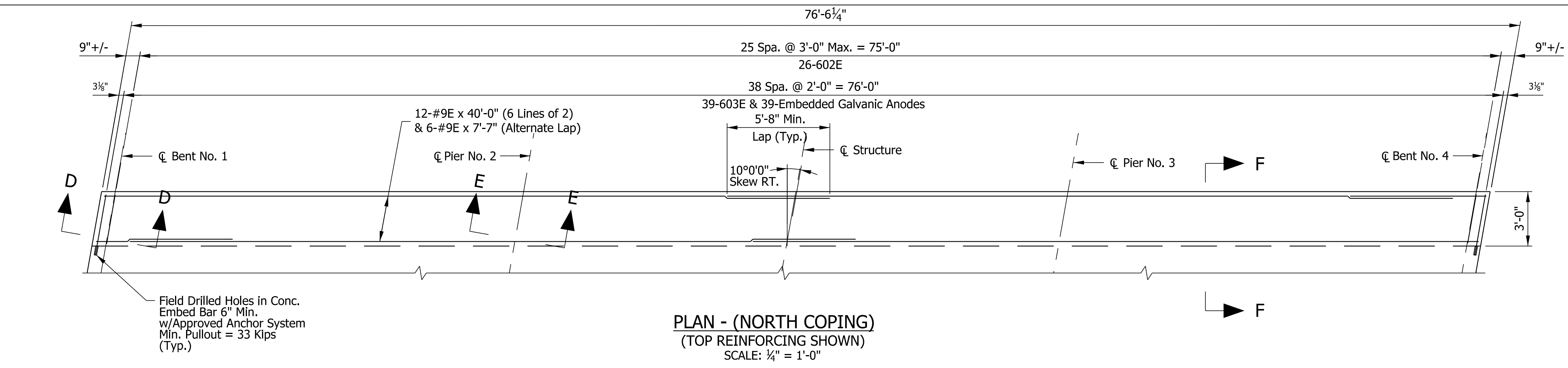
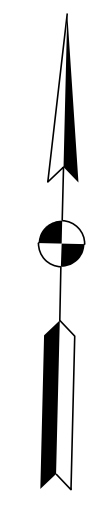
DATE	REVISION



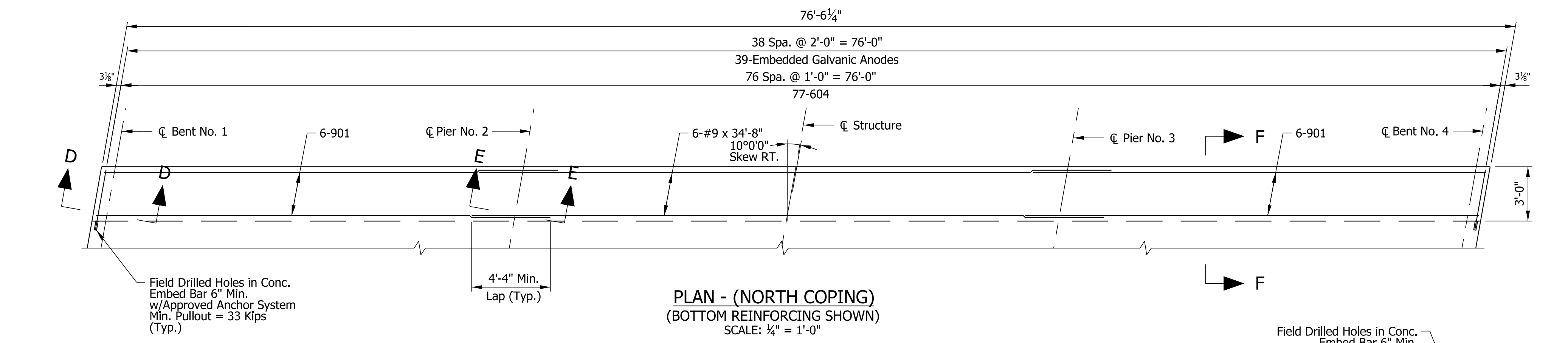
RECOMMENDED FOR APPROVAL: *Dongzhan Zhou* DESIGN ENGINEER 10/25/2019 DATE
 DESIGNED: AMR DRAWN: JLR
 CHECKED: DZ CHECKED: DZ

INDIANA DEPARTMENT OF TRANSPORTATION
 SUPERSTRUCTURE DETAILS

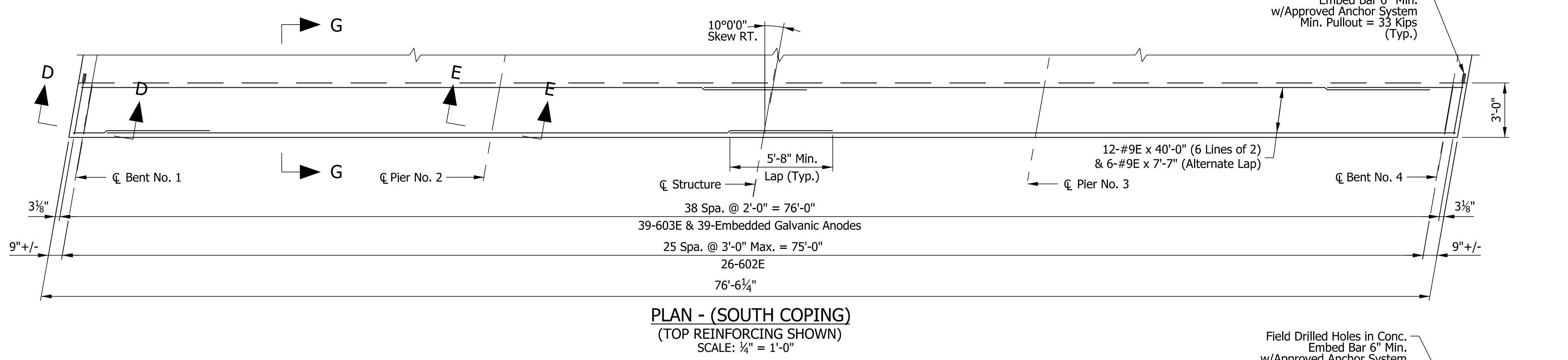
HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	050-36-05106 CEBL & CWBL
VERTICAL SCALE	DESIGNATION
AS NOTED	1700403 & 1700404
SURVEY BOOK	SHEETS
	15 OF 24
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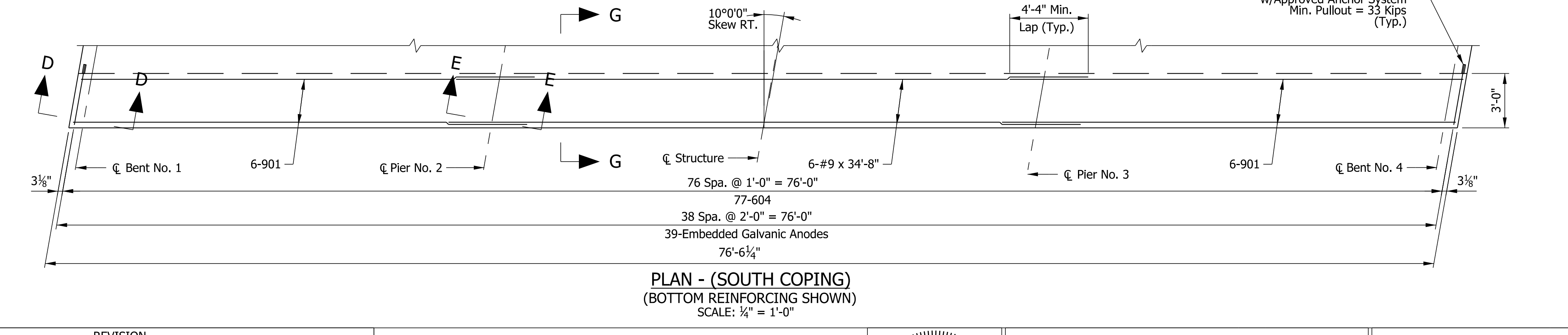
PLAN - (NORTH COPING)
(TOP REINFORCING SHOWN)
SCALE: 1/4" = 1'-0"



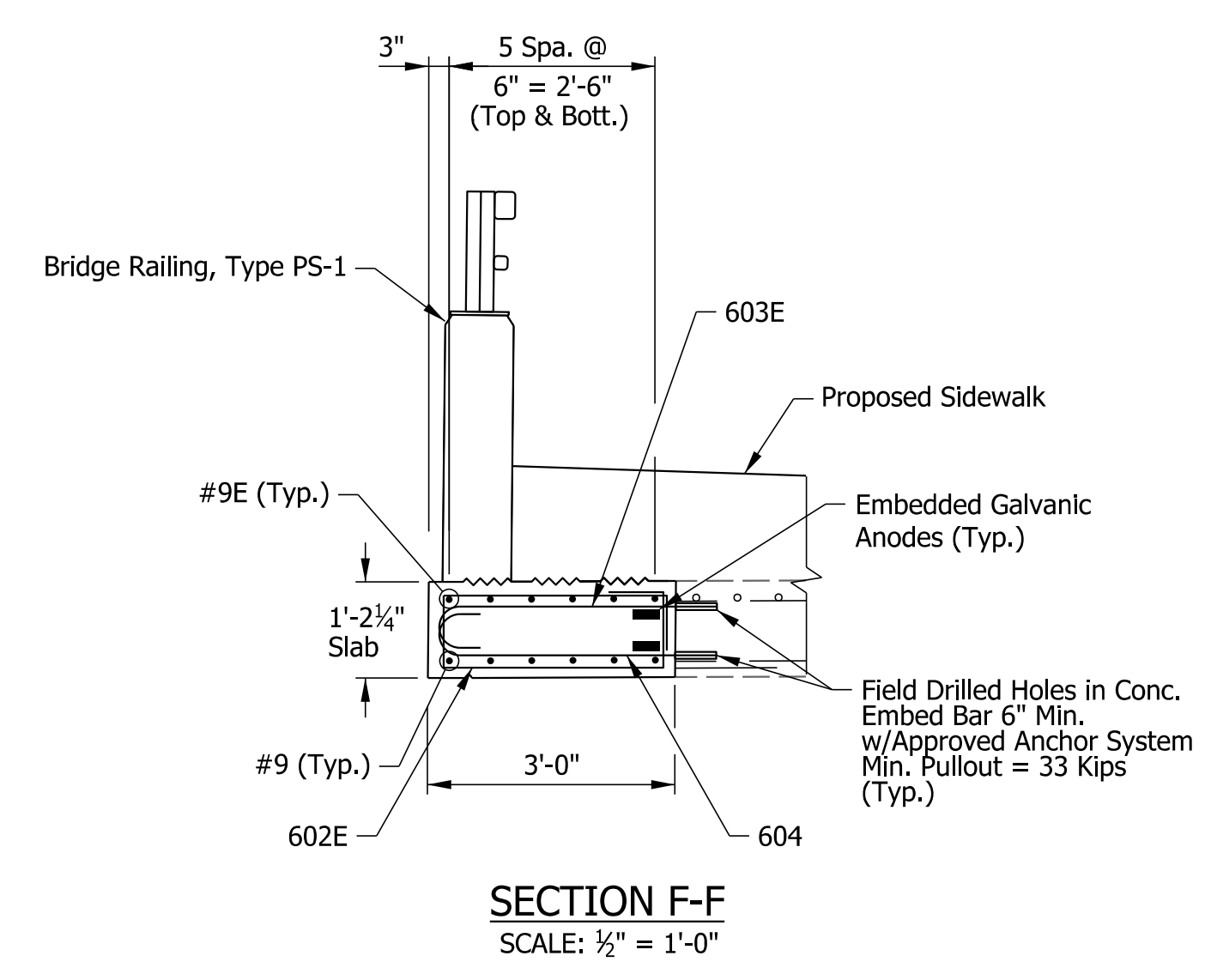
PLAN - (NORTH COPING)
(BOTTOM REINFORCING SHOWN)
SCALE: 1/4" = 1'-0"



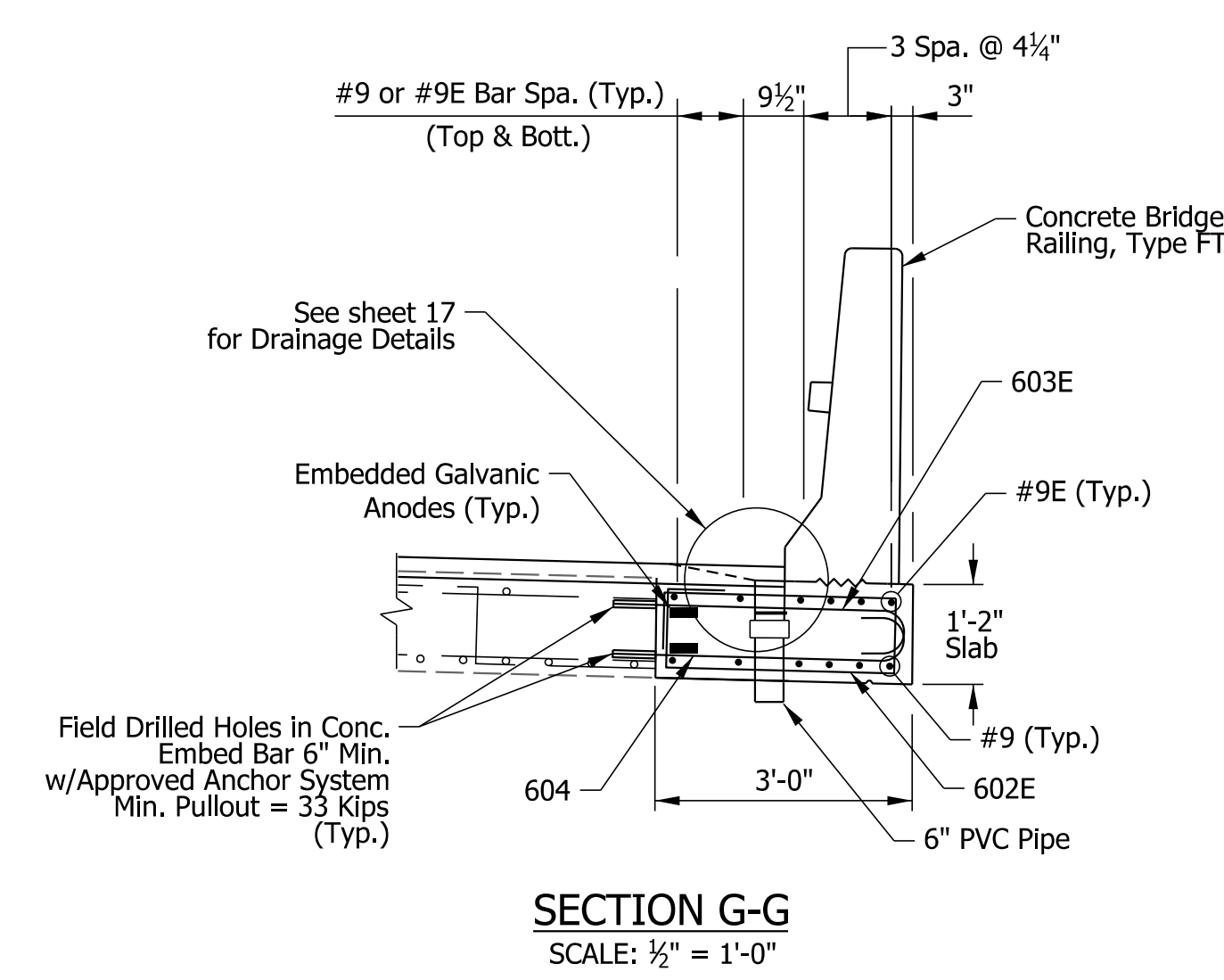
PLAN - (SOUTH COPING)
(TOP REINFORCING SHOWN)
SCALE: 1/4" = 1'-0"



PLAN - (SOUTH COPING)
(BOTTOM REINFORCING SHOWN)
SCALE: 1/4" = 1'-0"



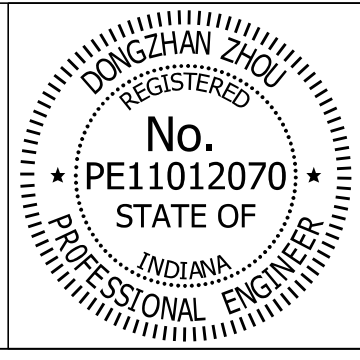
SECTION F-F
SCALE: 1/2" = 1'-0"



SECTION G-G
SCALE: 1/2" = 1'-0"

- NOTES:**
1. For Railing Details, See Sheet 18.
 2. For Drainage Details and Bill of Materials, See Sheet 17.
 3. For Additional Superstructure Details, See Sheets 15 & 17.
 4. For Section D-D & E-E, See Sheet 15.

DATE	REVISION



RECOMMENDED FOR APPROVAL: *Dongzhan Zhou* DESIGN ENGINEER 10/25/2019 DATE

DESIGNED: AMR DRAWN: JLR

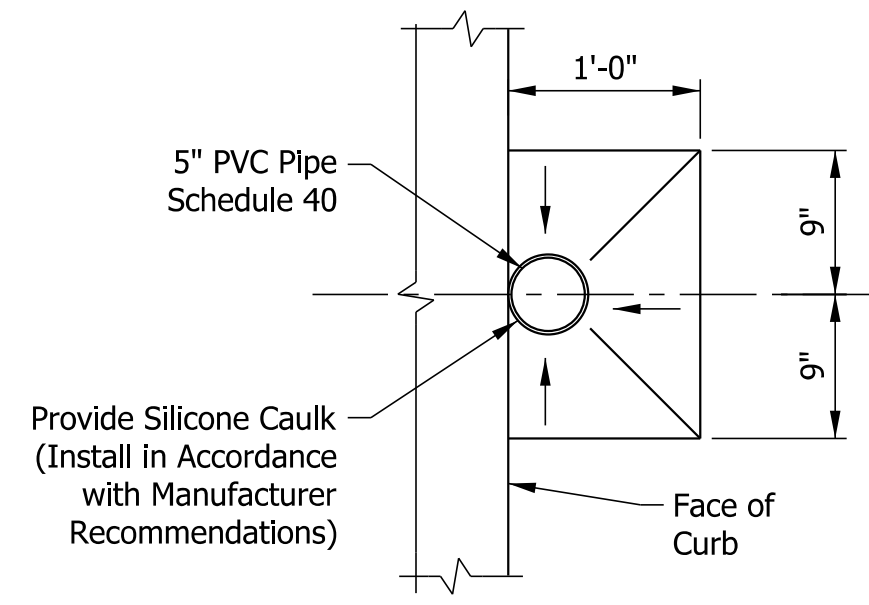
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INDIANA DEPARTMENT OF TRANSPORTATION

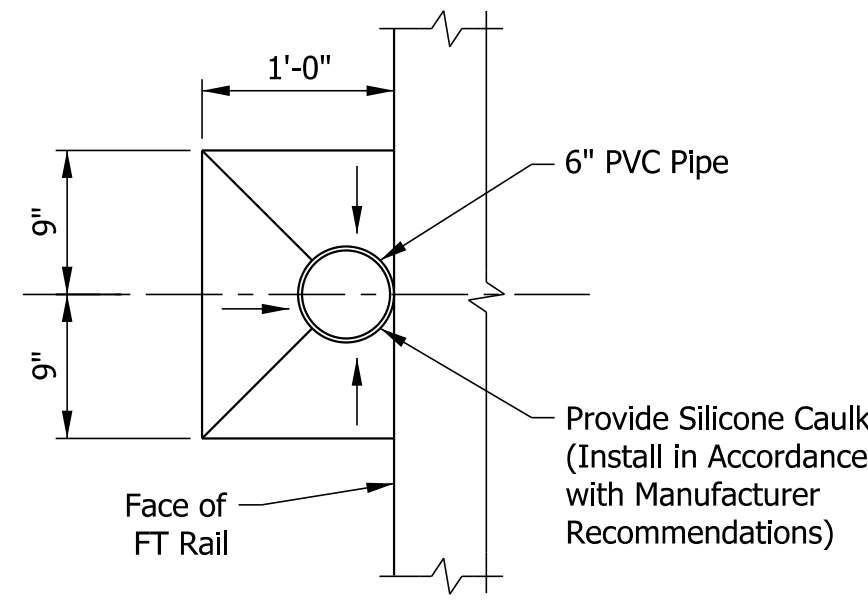
SUPERSTRUCTURE DETAILS

HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	050-36-05106 CEBL & CWBL
VERTICAL SCALE	DESIGNATION
AS NOTED	1700403 & 1700404
SURVEY BOOK	SHEETS
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SPILLES

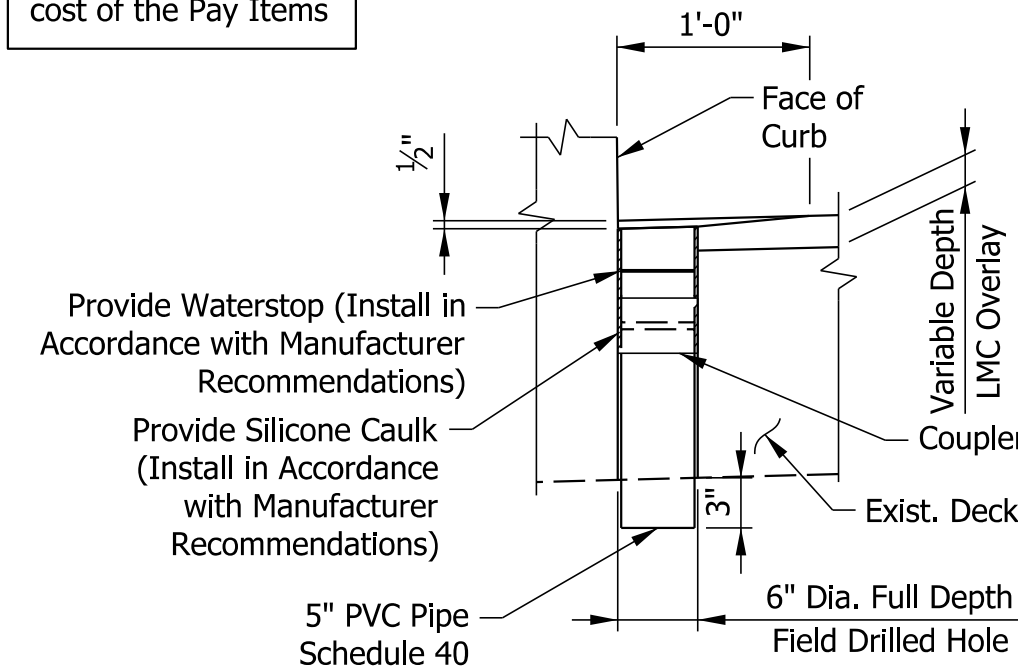


PLAN

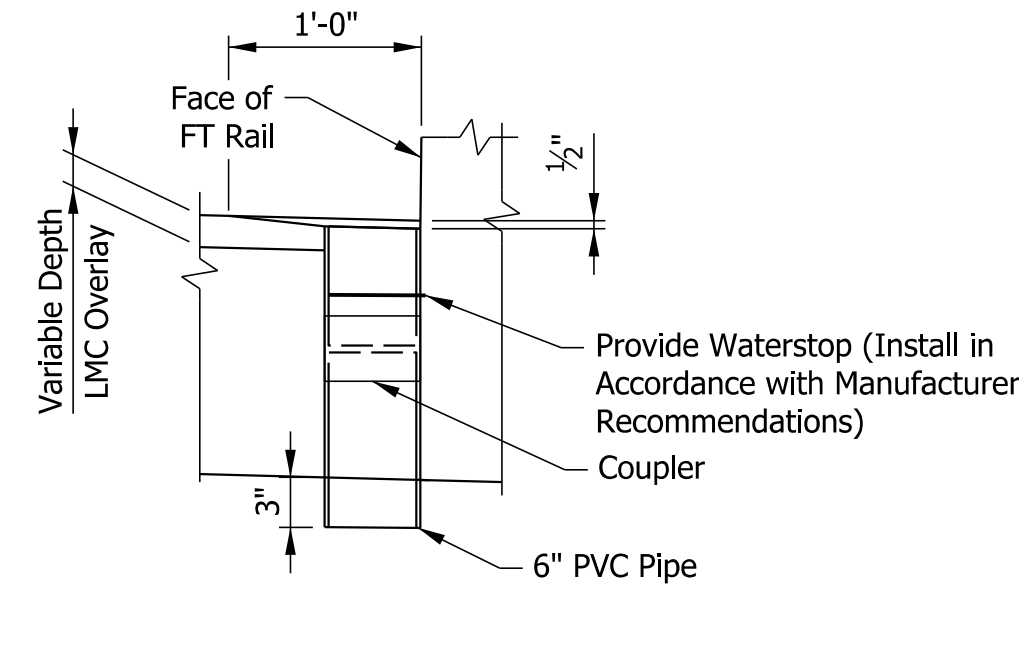


PLAN

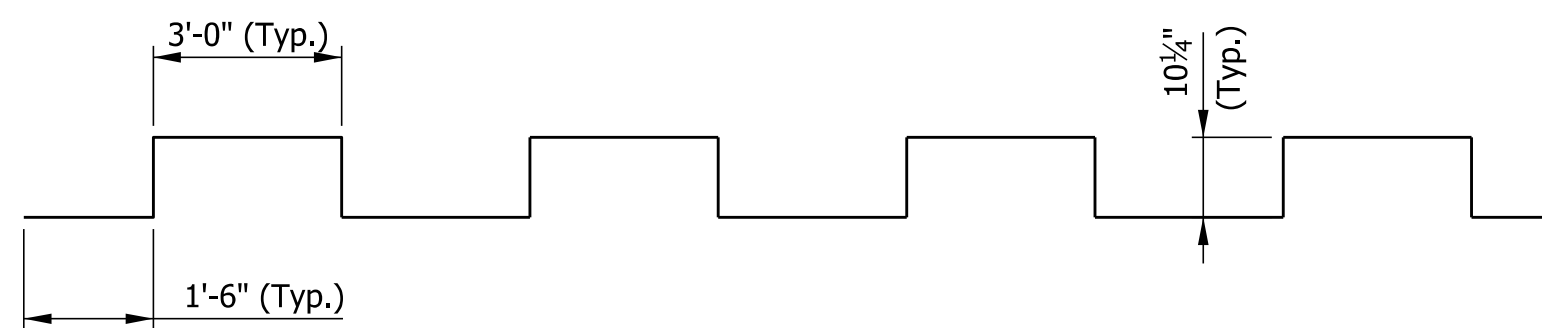
The Cost of forms, curing and finishing shall be included in the cost of the Pay Items



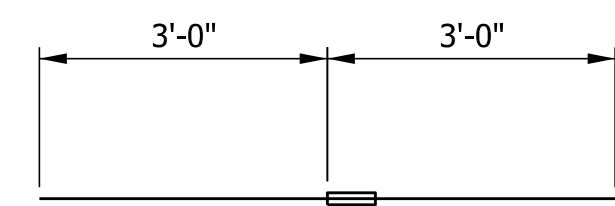
DRAINAGE DETAIL @ CURB
SCALE: 1" = 1'-0"



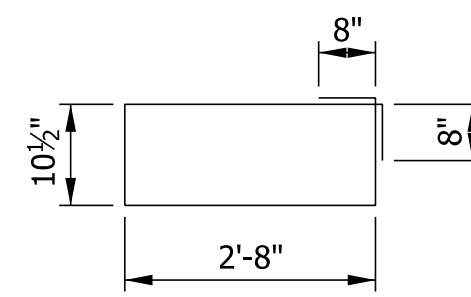
DRAINAGE DETAIL @ FT RAIL
SCALE: 1" = 1'-0"



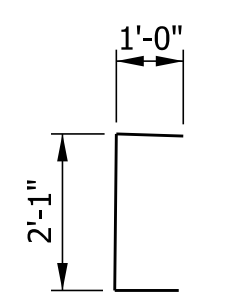
601E x 30'-10"



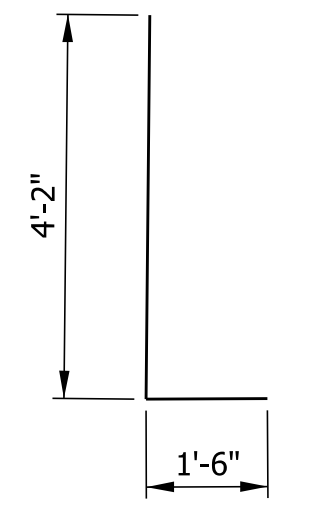
#5E x 6'-0" THREADED TIE-BAR ASSEMBLY



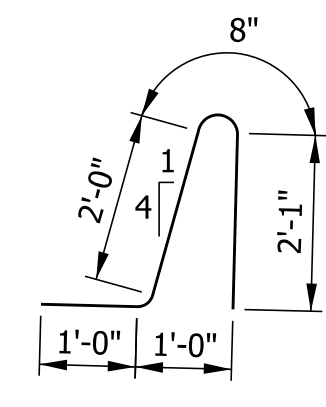
602E x 8'-5"



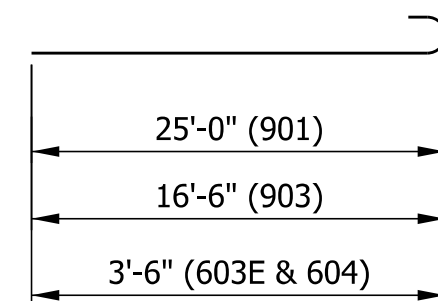
501E x 4'-1"



4705E x 5'-8"



5701E x 6'-0"



603E x 4'-2"
604 x 4'-2"
901 x 26'-3"
903 x 17'-9"

BILL OF MATERIALS SUPERSTRUCTURE (PRE-PHASE)

EPOXY-COATED REINFORCING STEEL			
SIZE OR MARK	NO. OF BARS	LENGTH (FT. - IN.)	WEIGHT (LBS.)
#9E	50	40'-0"	
#9E	48	12'-0"	
#9E	25	7'-7"	
Total #9E Bars			9403
601E	26	30'-10"	
#6E	39	24'-3"	
#6E	78	4'-0"	
Total #6E Bars			3094
Total Epoxy-Coated Reinforcing Steel			12497

REINFORCING STEEL			
SIZE OR MARK	NO. OF BARS	LENGTH (FT. - IN.)	WEIGHT (LBS.)
901	50	26'-3"	
903	48	17'-9"	
#9	25	34'-8"	
#9	24	19'-0"	
Total #9 Bars			11857
#6	77	24'-3"	
#6	154	3'-3"	
Total #6 Bars			3557
Total Reinforcing Steel			15414

CONCRETE	
Concrete Class "C" in Deck	83.2 Cys
Total Concrete, Class C	83.2 Cys

MISCELLANEOUS	
Field Drilled Holes in Concrete	232 Ea
Embedded Galvanic Anodes	156 Ea
Threaded Tie Bar Assembly	26 Ea
Bridge Deck Overlay	284.0 Sys
Bridge Deck Overlay, Additional LMC	3.2 Sys
Bridge Deck Overlay, Additional Surface Prep	9 Lft
Transverse Grooving	284.0 Sys
Bridge Deck, Remove Existing Overlay	77.0 Sys

BILL OF MATERIALS SUPERSTRUCTURE (PHASE I)

EPOXY-COATED REINFORCING STEEL			
SIZE OR MARK	NO. OF BARS	LENGTH (FT. - IN.)	WEIGHT (LBS.)
#9E	12	40'-0"	
#9E	6	7'-7"	
Total #9E Bars			1787
602E	26	8'-5"	
603E	39	4'-2"	
Total #6E Bars			573
5701E	115	6'-0"	
Total #5E Bars			720
Total Epoxy-Coated Reinforcing Steel			3080

REINFORCING STEEL			
SIZE OR MARK	NO. OF BARS	LENGTH (FT. - IN.)	WEIGHT (LBS.)
901	12	26'-3"	
#9	6	34'-8"	
Total #9 Bars			1779
604	77	4'-2"	
Total #6 Bars			482
Total Reinforcing Steel			2261

CONCRETE	
Concrete Class "C" in Deck	10.3 Cys
Total Concrete, Class C	10.3 Cys

MISCELLANEOUS	
Field Drilled Holes in Concrete	116 Ea
Embedded Galvanic Anodes	78 Ea
Bridge Deck Overlay	47.0 Sys
Bridge Deck Overlay, Additional LMC	0.6 Sys
Bridge Deck Overlay, Additional Surface Prep	4 Lft
Transverse Grooving	47.0 Sys
Bridge Deck, Remove Existing Overlay	35.0 Sys
Surface Seal	142 Sft

BILL OF MATERIALS SUPERSTRUCTURE (PHASE III)

EPOXY-COATED REINFORCING STEEL			
SIZE OR MARK	NO. OF BARS	LENGTH (FT. - IN.)	WEIGHT (LBS.)
#9E	12	40'-0"	
#9E	6	7'-7"	
Total #9E Bars			1787
602E	26	8'-5"	
603E	39	4'-2"	
Total #6E Bars			573
501E	77	4'-1"	
Total #5E Bars			328
Total Epoxy-Coated Reinforcing Steel			3559

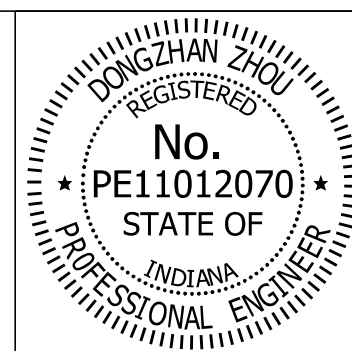
REINFORCING STEEL			
SIZE OR MARK	NO. OF BARS	LENGTH (FT. - IN.)	WEIGHT (LBS.)
4705E	230	5'-8"	
Total #4E Bars			871
Total Epoxy-Coated Reinforcing Steel			3559

CONCRETE	
Concrete Class "C" in Deck	10.5 Cys
Total Concrete, Class C	10.5 Cys

MISCELLANEOUS	
Field Drilled Holes in Concrete	116 Ea
6" Full Depth Field Drilled Holes in Concrete	3 Ea
Embedded Galvanic Anodes	78 Ea
Bridge Deck, Remove Existing Overlay	117.0 Sys
Surface Seal	142 Sft

- NOTES:**
- For Superstructure Details, See Sheets 15 & 16.
 - For additional details on pipe and drain, see Std. Dwg. E 704-SBFD-01.

DATE	REVISION



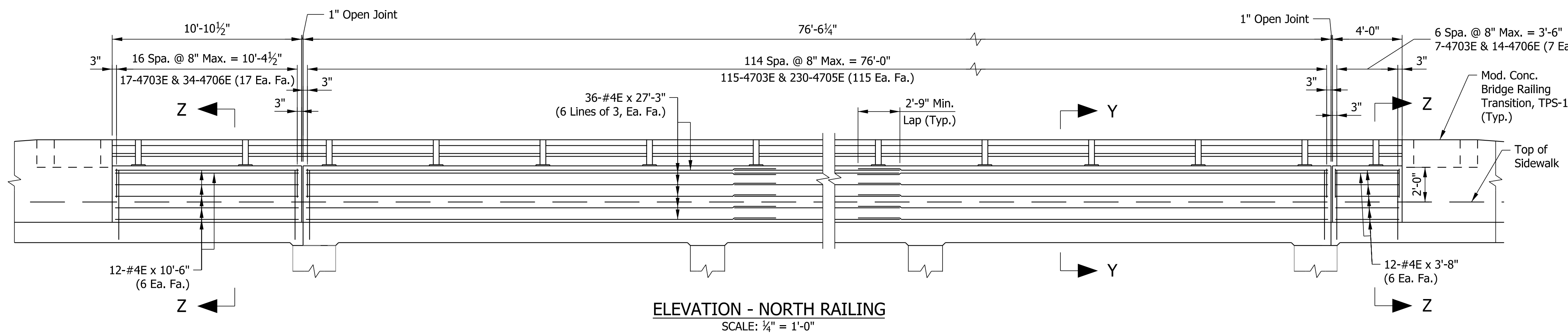
RECOMMENDED FOR APPROVAL	<i>Dongzhan Zhou</i>	10/25/2019
DESIGNED:	AMR	DRAWN:
CHECKED:	DZ	CHECKED:

INDIANA
DEPARTMENT OF TRANSPORTATION

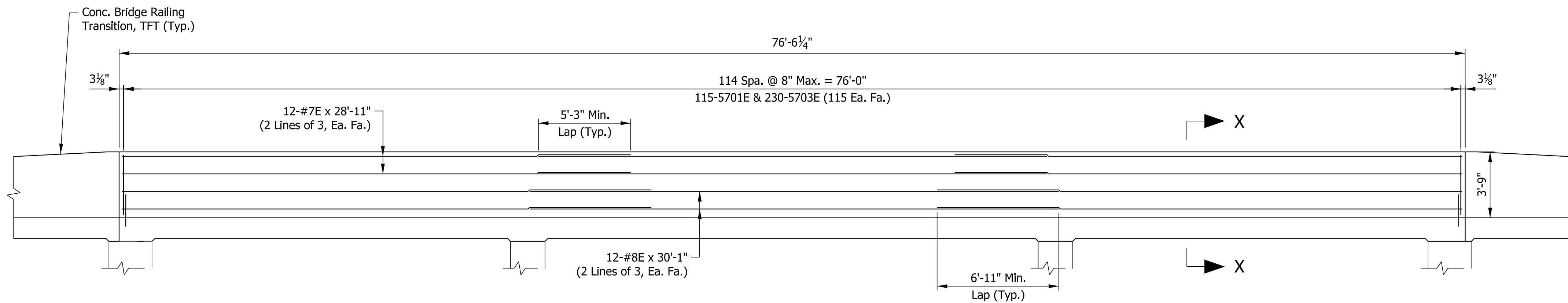
SUPERSTRUCTURE DETAILS

HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	050-36-05106 CEBL & CWBL
VERTICAL SCALE	DESIGNATION
AS NOTED	1700403 & 1700404
SURVEY BOOK	SHEETS
	17 OF 24
CONTRACT	PROJECT
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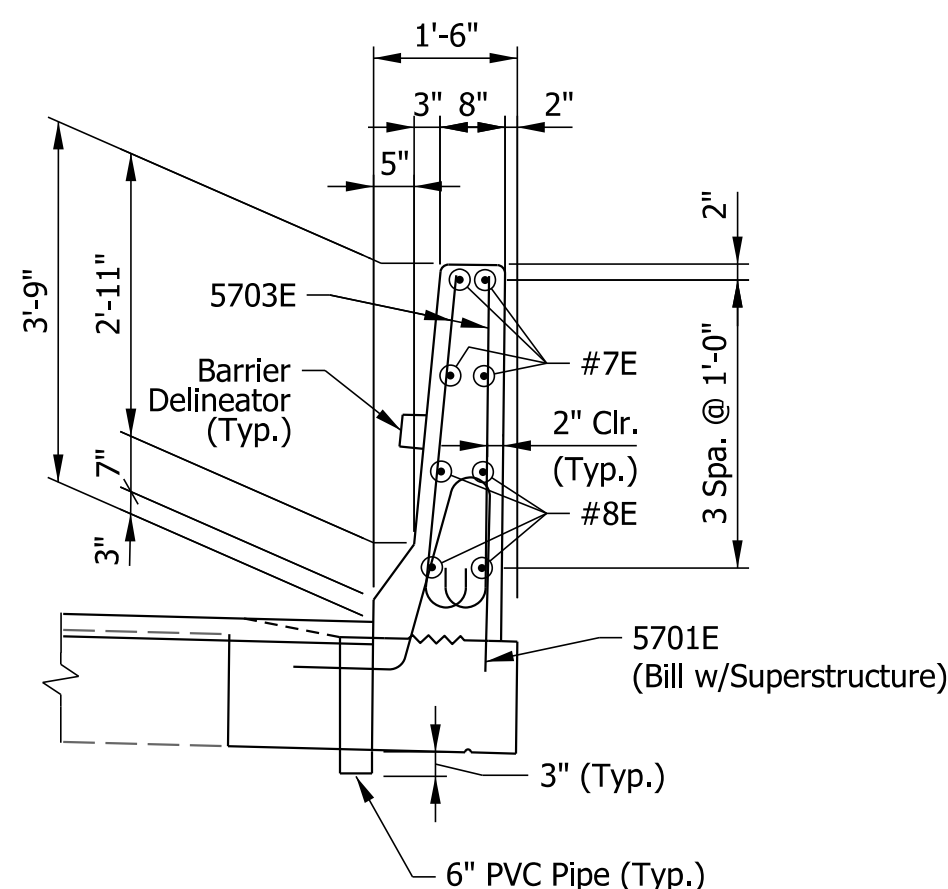
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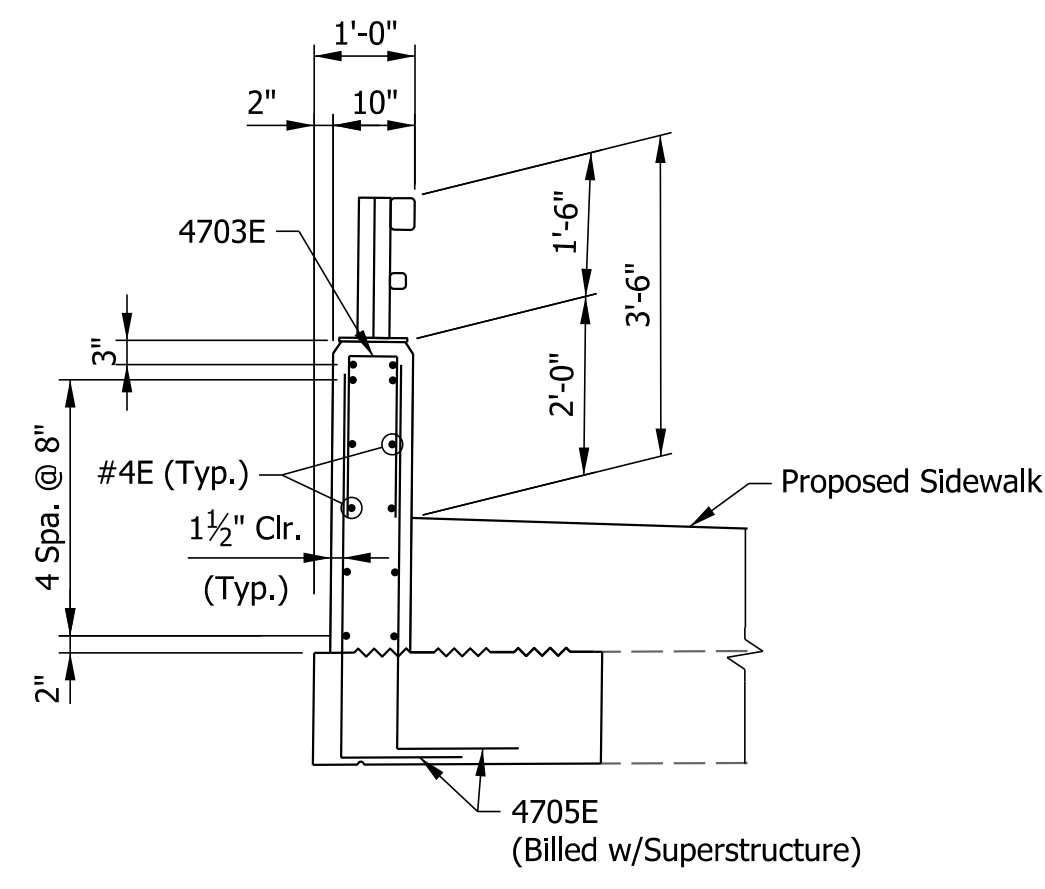
ELEVATION - NORTH RAILING
SCALE: 1/4" = 1'-0"



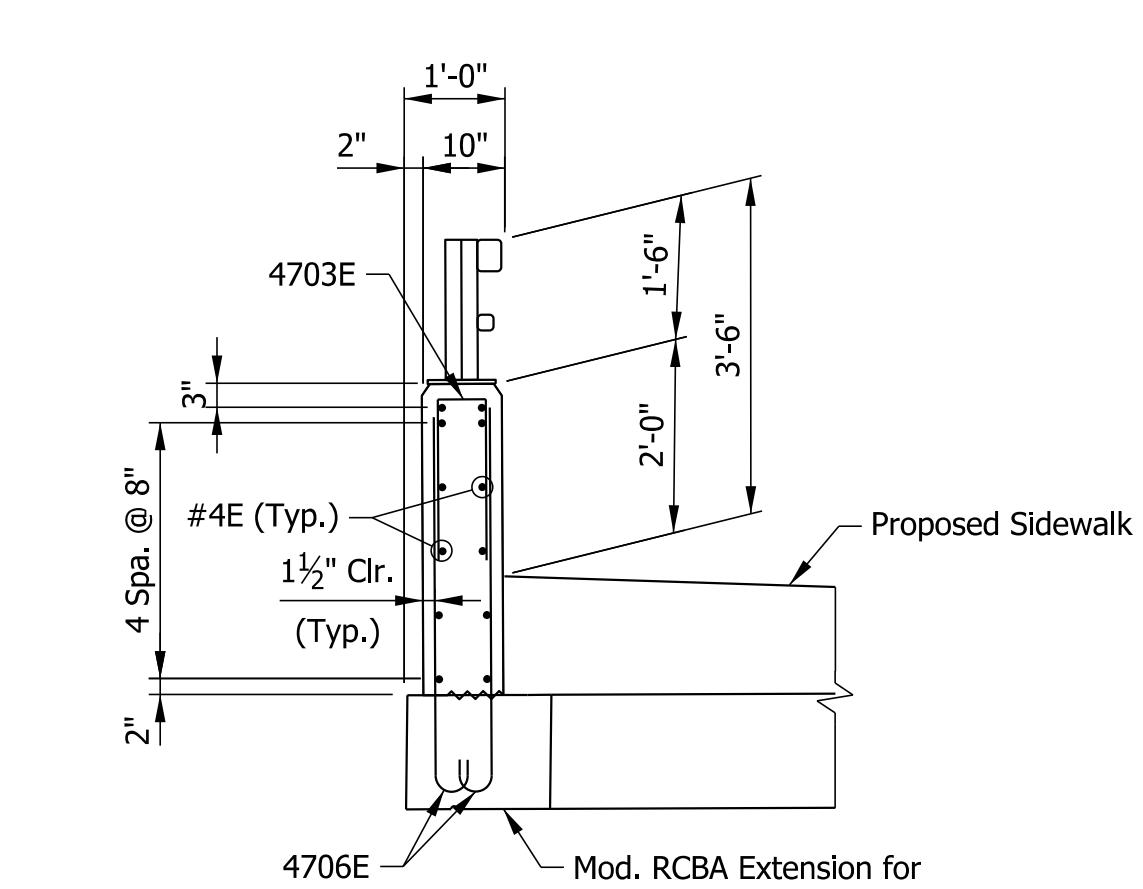
ELEVATION - SOUTH RAILING
SCALE: 1/4" = 1'-0"



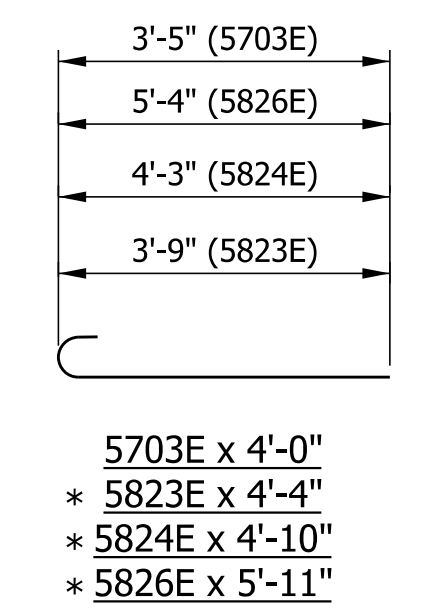
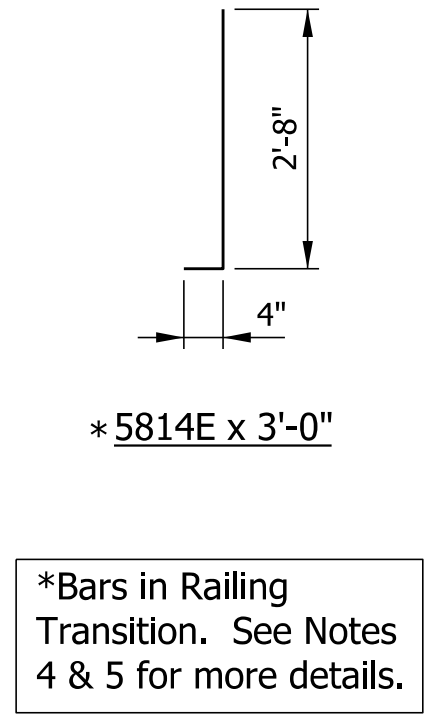
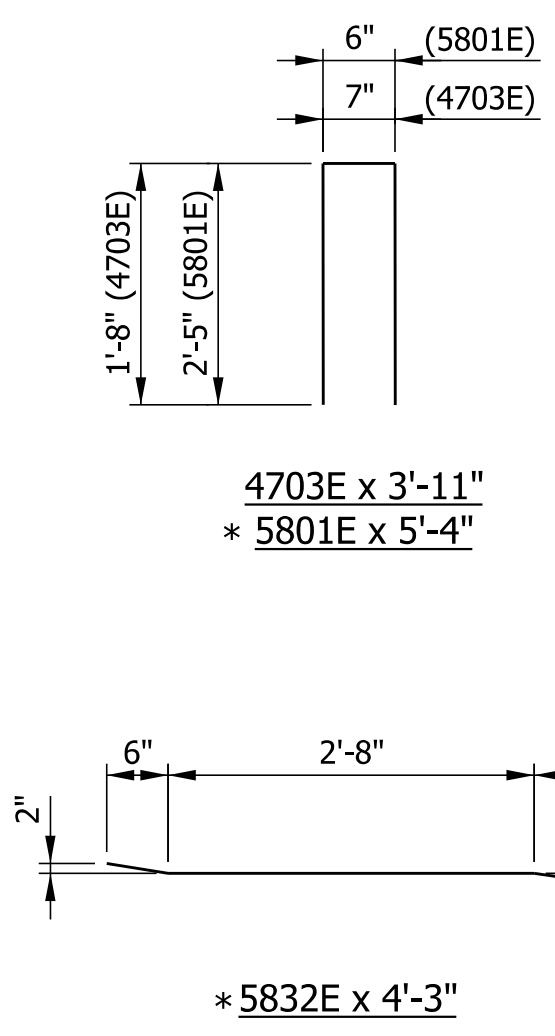
SECTION X-X
SCALE: 1/2" = 1'-0"



SECTION Y-Y
SCALE: 1/2" = 1'-0"



SECTION Z-Z
SCALE: 1/2" = 1'-0"

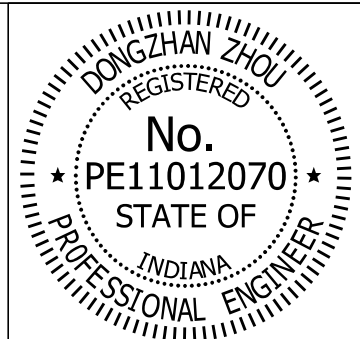


BILL OF MATERIALS BRIDGE RAILING, TYPE FT			
EPOXY-COATED REINFORCING STEEL			
SIZE OR MARK	NO. OF BARS	LENGTH (FT. - IN.)	WEIGHT (LBS.)
Phase I #8E	12	30'-1"	
Total #8E Bars			964
Phase I #7E	12	28'-11"	
Total #7E Bars			710
Phase I 5703E	230	4'-0"	
Total #5E Bars			960
Railing Transition Type TFT			1724
Total Epoxy-Coated Reinforcing Steel			4358
CONCRETE			
Railing Type FT			10.3 Cys
Railing Transition Type TFT			4.4 Cys
Total Concrete, Class C			14.7 Cys
MISCELLANEOUS			
Barrier Delineators			4 Ea
Surface Seal			908 Sft

BILL OF MATERIALS BRIDGE RAILING, TYPE PS-1			
EPOXY-COATED REINFORCING STEEL			
SIZE OR MARK	NO. OF BARS	LENGTH (FT. - IN.)	WEIGHT (LBS.)
Phase III * 5801E	50	5'-4"	
* 5814E	34	3'-0"	
* 5823E	34	4'-4"	
* 5824E	100	4'-10"	
* 5826E	34	5'-11"	
* 5832E	6	4'-3"	
* #5E	8	10'-9"	
* #5E	12	8'-0"	
* #5E	28	6'-0"	
* #5E	8	4'-3"	
Total #5E Bars			1680
Railing Transition Type TFT			
Total Epoxy-Coated Reinforcing Steel			2813
CONCRETE			
Railing Type PS-1			9.6 Cys
Mod. Railing Transition Type TPS-1			4.3 Cys
Total Concrete, Class C			13.9 Cys
MISCELLANEOUS			
Railing Steel PS-1			100 Lft
Surface Seal			842 Sft

- NOTES:**
- For additional FT Railing details, See Std. Dwg E 706-BRSF-02.
 - For additional PS-1 Railing details, See Std. Dwg. E 706-BRPP-03.
 - For Drainage Details, See Sheet 17.
 - For Additional FT Transition Details, See Std. Dwg. E 706-TTFT-01 thru 03.
 - For Additional PS-1 Transition Details, See Std. Dwg. E 706-TTPP-05 thru 06.

DATE	REVISION



RECOMMENDED FOR APPROVAL: *Dongzhan Zhou* DESIGN ENGINEER 10/25/2019 DATE

DESIGNED: AMR DRAWN: JLR

CHECKED: DZ CHECKED: DZ

INDIANA DEPARTMENT OF TRANSPORTATION

RAILING DETAILS

HORIZONTAL SCALE		BRIDGE FILE	
AS NOTED		050-36-05106 CEBL & CWBL	
VERTICAL SCALE		DESIGNATION	
AS NOTED		1700403 & 1700404	
SURVEY BOOK		SHEETS	
		18	OF 24
CONTRACT		PROJECT	
R-37820		1400090	

BILL OF MATERIALS SIDEWALK

EPOXY-COATED REINFORCING STEEL

SIZE OR MARK	NO. OF BARS	LENGTH (FT. - IN.)	WEIGHT (LBS.)
Phase III			
506E	77	2'-3"	
#5E	16	40'-0"	
#5E	16	37'-9"	
#5E	79	15'-9"	
#5E	46	15'-6"	
#5E	32	14'-3"	
#5E	32	12'-3"	
#5E	1	11'-0"	
#5E	1	9'-5"	
#5E	1	5'-3"	
#5E	1	3'-9"	

Total #5E Bars 4435

Total Epoxy-Coated Reinforcing Steel 4435

CONCRETE

8" Sidewalk 81.3 Cys

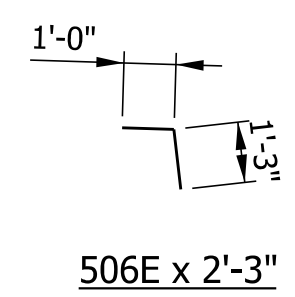
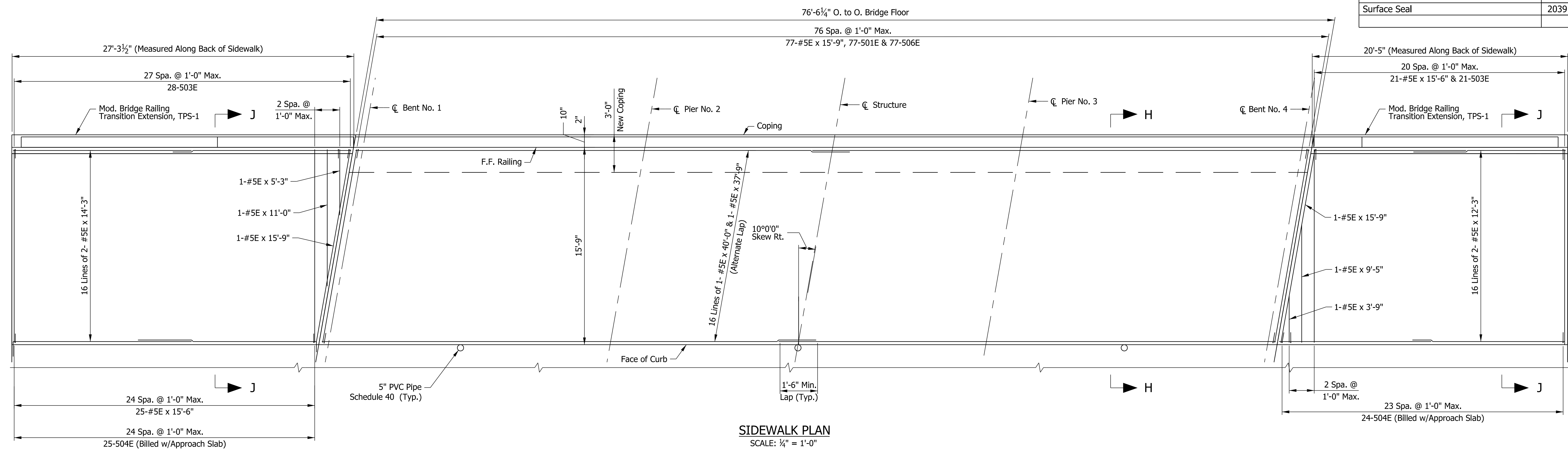
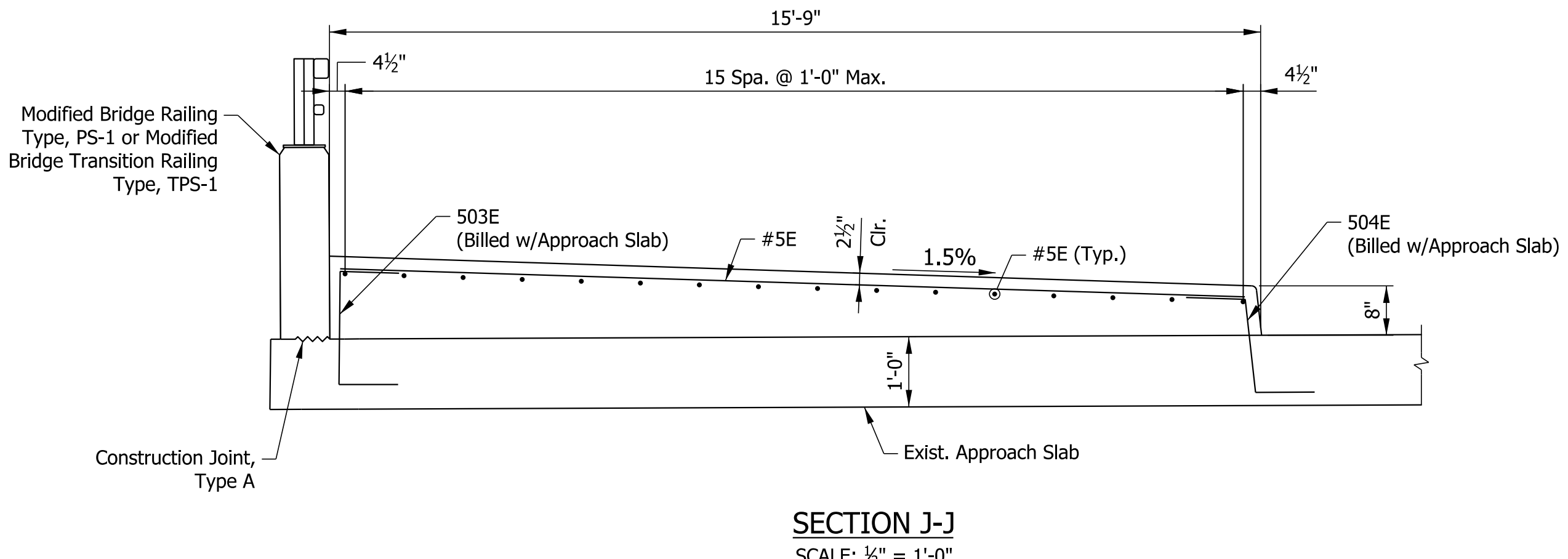
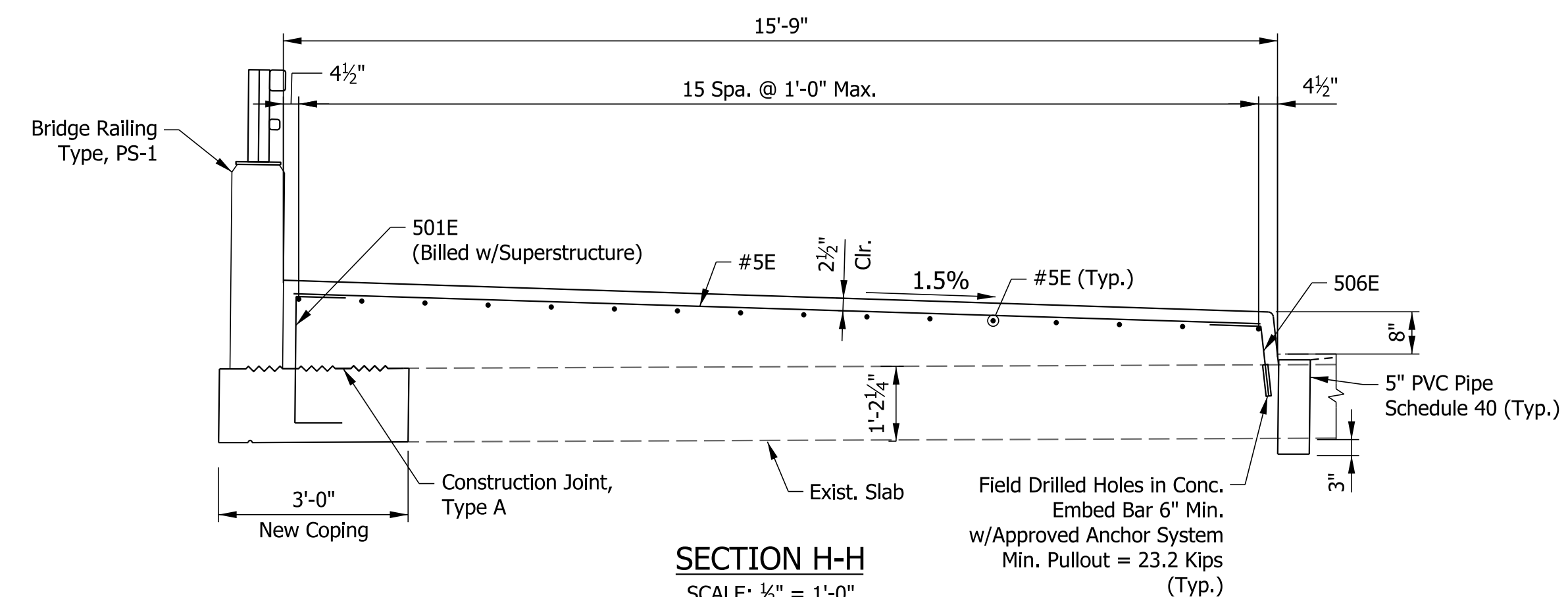
Total Concrete, Class C 81.3 Cys

MISCELLANEOUS

Field Drilled Holes in Concrete 77 Ea

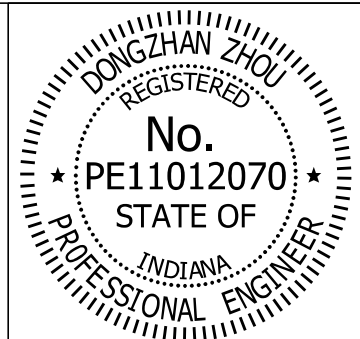
Embedded Galvanic Anodes 63 Ea

Surface Seal 2039 Sft



NOTES:
1. For Drainage Details, See Sheet 17.

DATE	REVISION



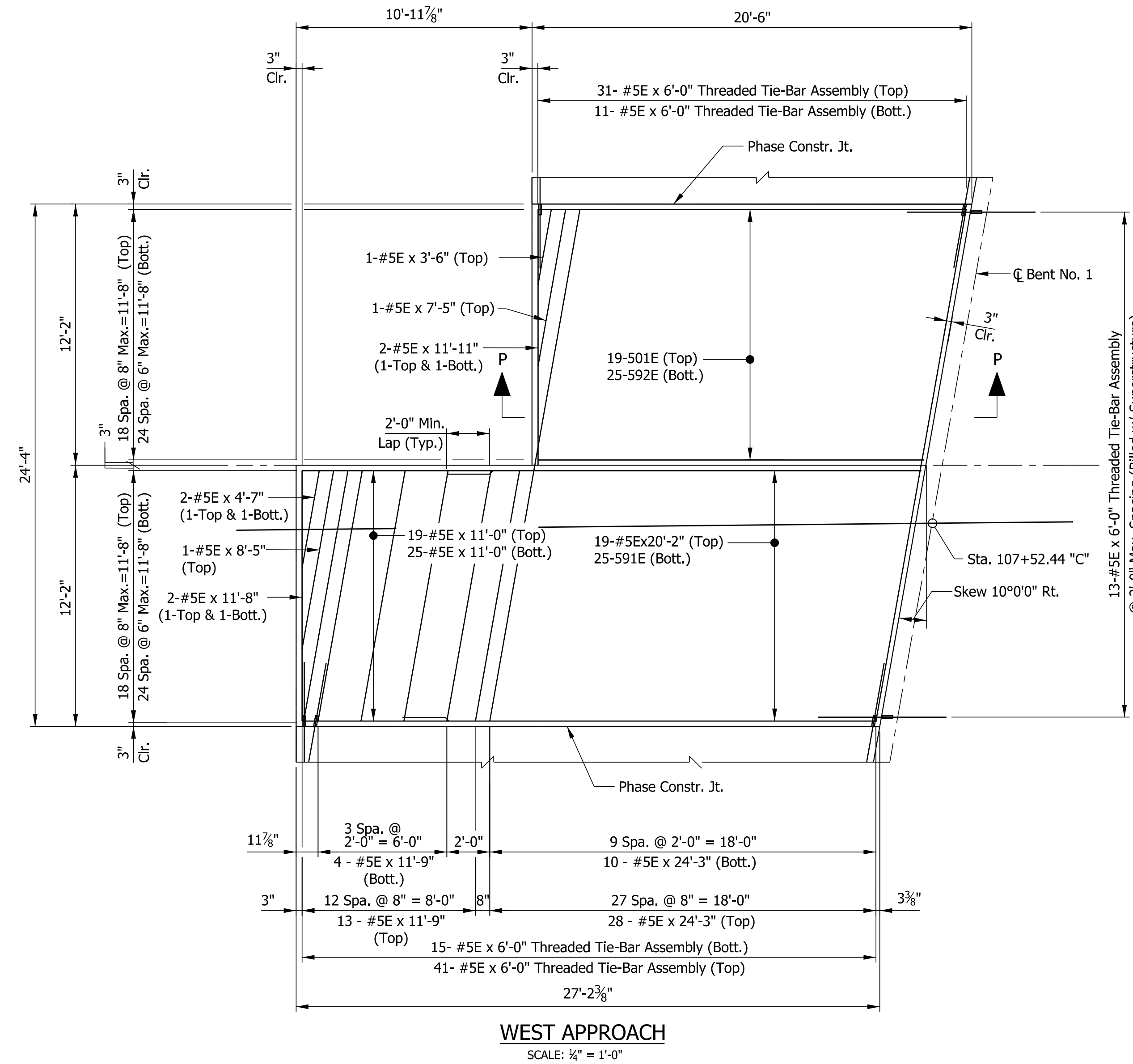
RECOMMENDED FOR APPROVAL: *Dongzhan Zhou* 10/25/2019
DESIGN ENGINEER DATE

DESIGNED: AMR DRAWN: JLR
CHECKED: DZ CHECKED: DZ

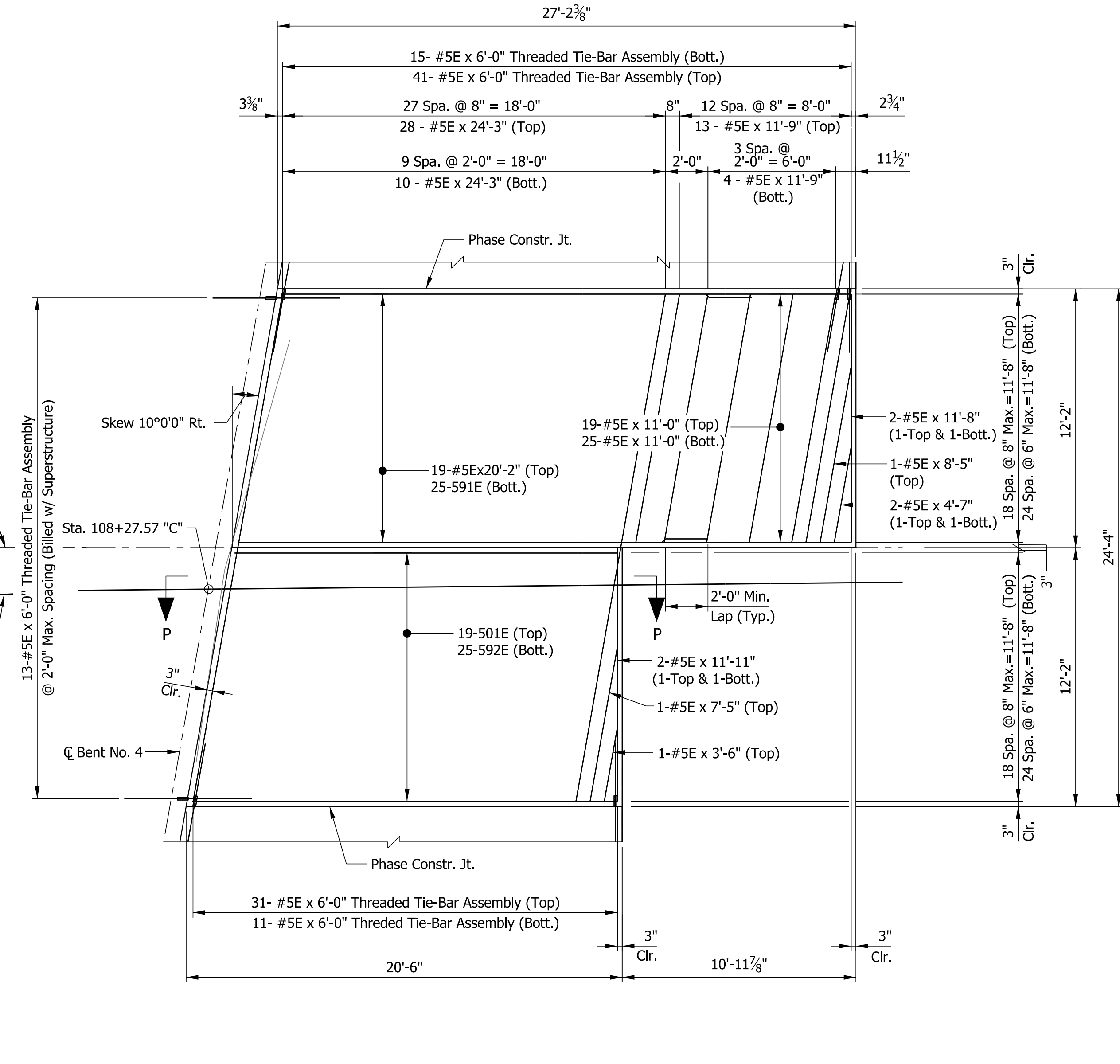
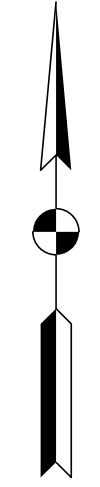
INDIANA DEPARTMENT OF TRANSPORTATION

SIDEWALK DETAILS

HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	050-36-05106 CEBL & CWBL
VERTICAL SCALE	DESIGNATION
AS NOTED	1700403 & 1700404
SURVEY BOOK	SHEETS
	19 OF 24
CONTRACT	PROJECT
R-37820	1400090



WEST APPROACH
SCALE: 1/4" = 1'-0"

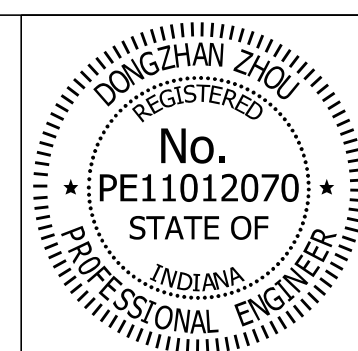


EAST APPROACH
SCALE: 1/4" = 1'-0"

NOTES:

- For additional details, Notes & Bill of Materials, see Sheets 21 thru 23.

DATE	REVISION



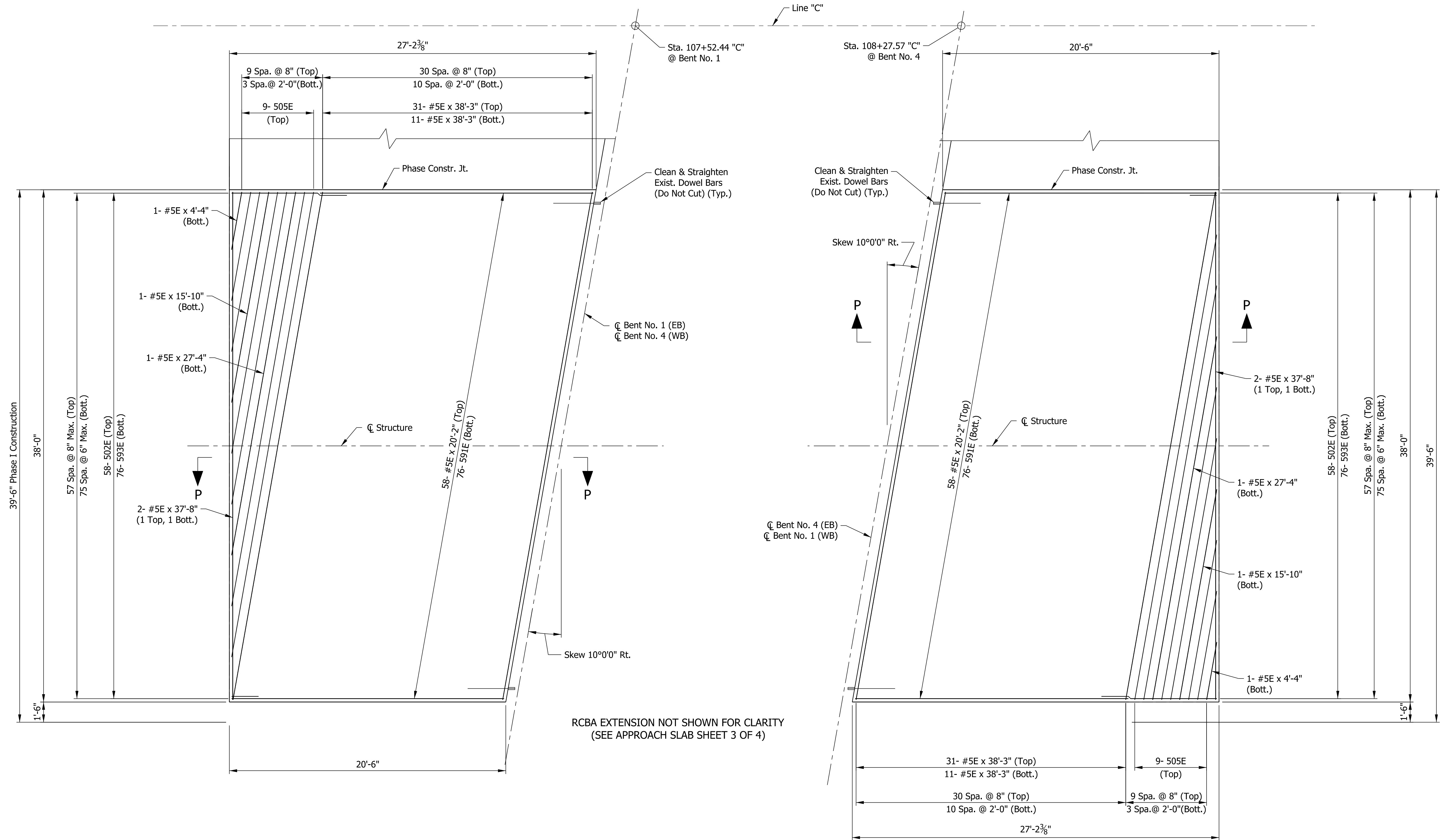
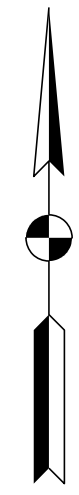
RECOMMENDED FOR APPROVAL	<i>Dongzhan Zhou</i>	DESIGN ENGINEER	10/25/2019	DATE
DESIGNED:	AMR	DRAWN:	JLR	
CHECKED:	DZ	CHECKED:	DZ	

INDIANA
DEPARTMENT OF TRANSPORTATION

APPROACH SLAB DETAILS
SHEET 1 OF 4

HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	050-36-05106 CEBL & CWBL
VERTICAL SCALE	DESIGNATION
AS NOTED	1700403 & 1700404
SURVEY BOOK	SHEETS
	20 OF 24
CONTRACT	PROJECT
R-37820	1400090

FILES

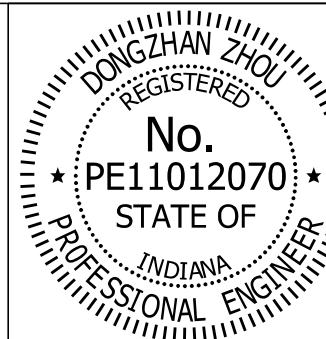


WEST APPROACH (EASTBOUND LANES)
 EAST APPROACH (WESTBOUND LANES)
 (SAME BY 180° ROTATION)
 SCALE: 1/4" = 1'-0"

EAST APPROACH (EASTBOUND LANES)
 WEST APPROACH (WESTBOUND LANES)
 (SAME BY 180° ROTATION)
 SCALE: 1/4" = 1'-0"

NOTES:
 1. For Additional Details, Notes & Bill of Materials, See Sheets 20, 22 & 23.

DATE	REVISION

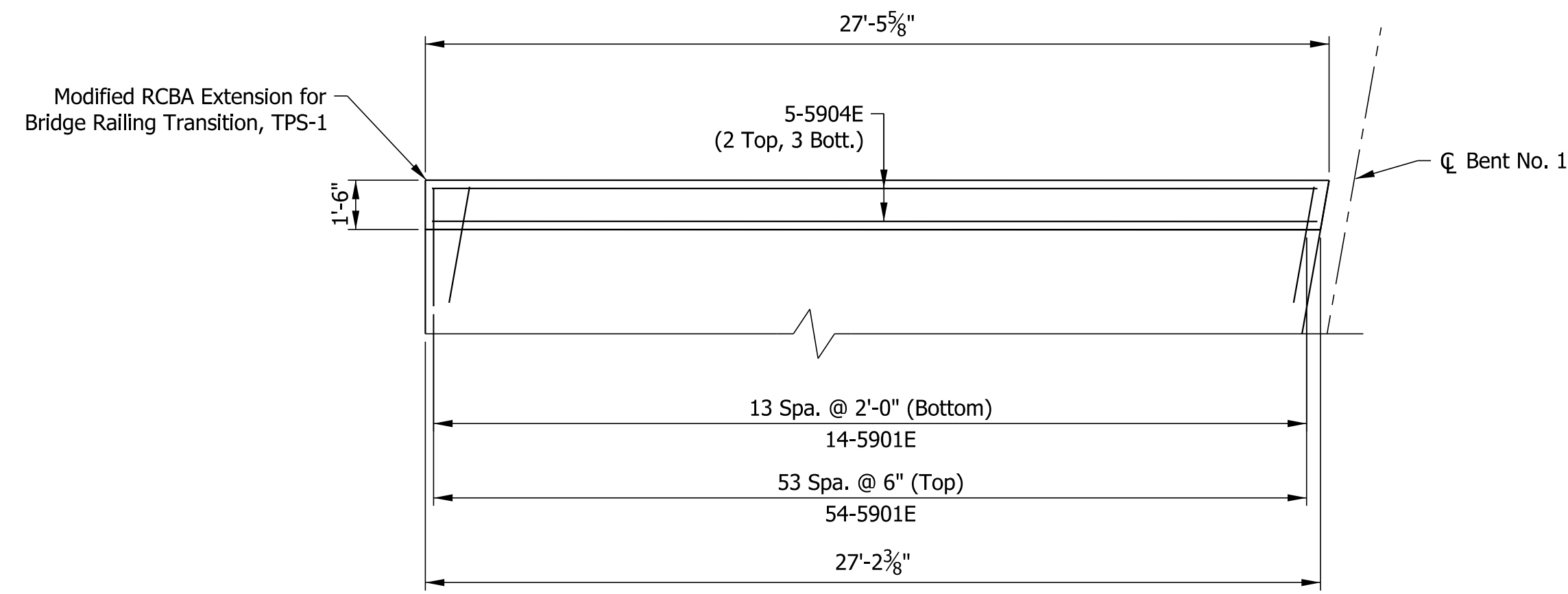
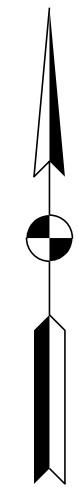


RECOMMENDED FOR APPROVAL	<i>Dongzhan Zhou</i>	DESIGN ENGINEER	10/25/2019
DESIGNED:	AMR	DRAWN:	JLR
CHECKED:	DZ	CHECKED:	DZ

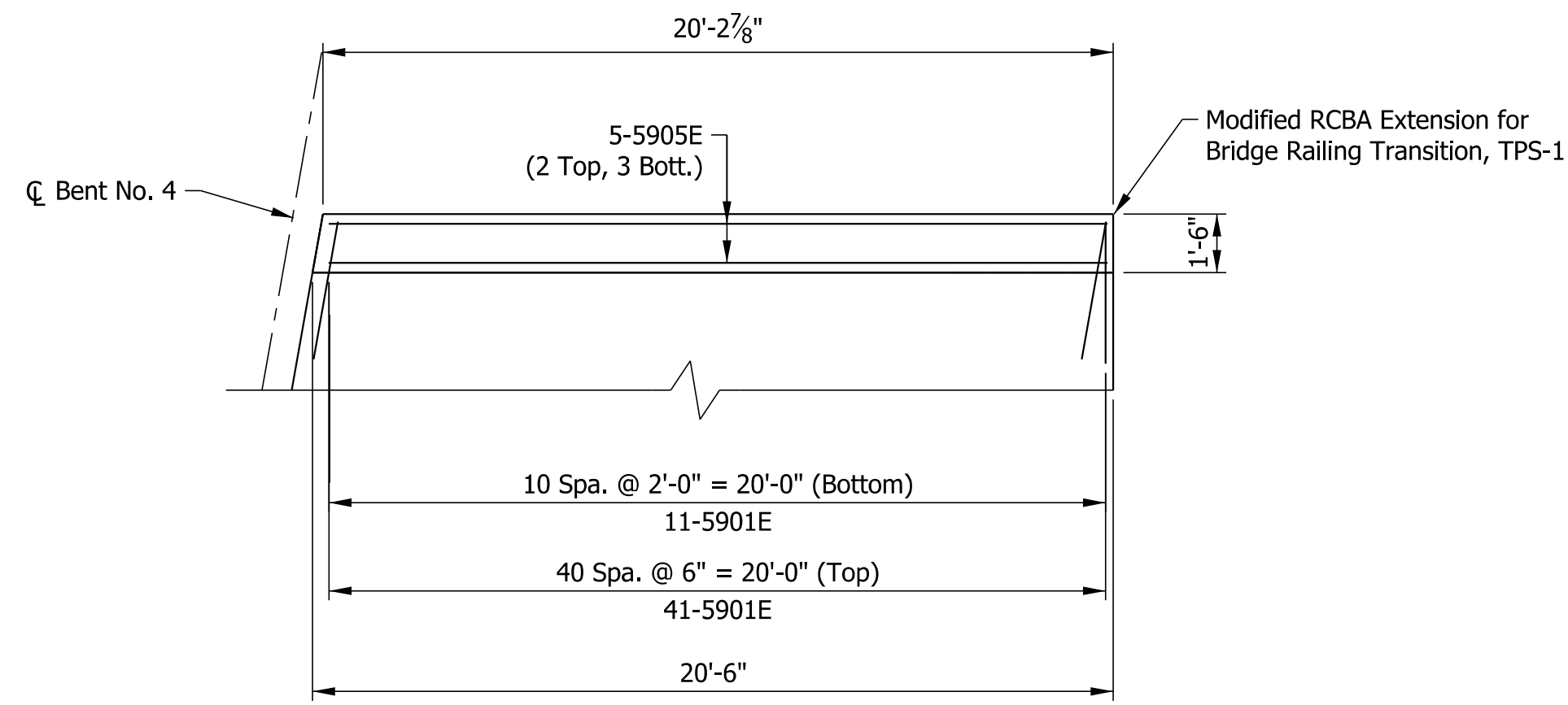
INDIANA
 DEPARTMENT OF TRANSPORTATION
 APPROACH SLAB DETAILS
 SHEET 2 OF 4

HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	050-36-05106 CEBL & CWBL
VERTICAL SCALE	DESIGNATION
AS NOTED	1700403 & 1700404
SURVEY BOOK	SHEETS
	21 OF 24
CONTRACT	PROJECT
R-37820	1400090

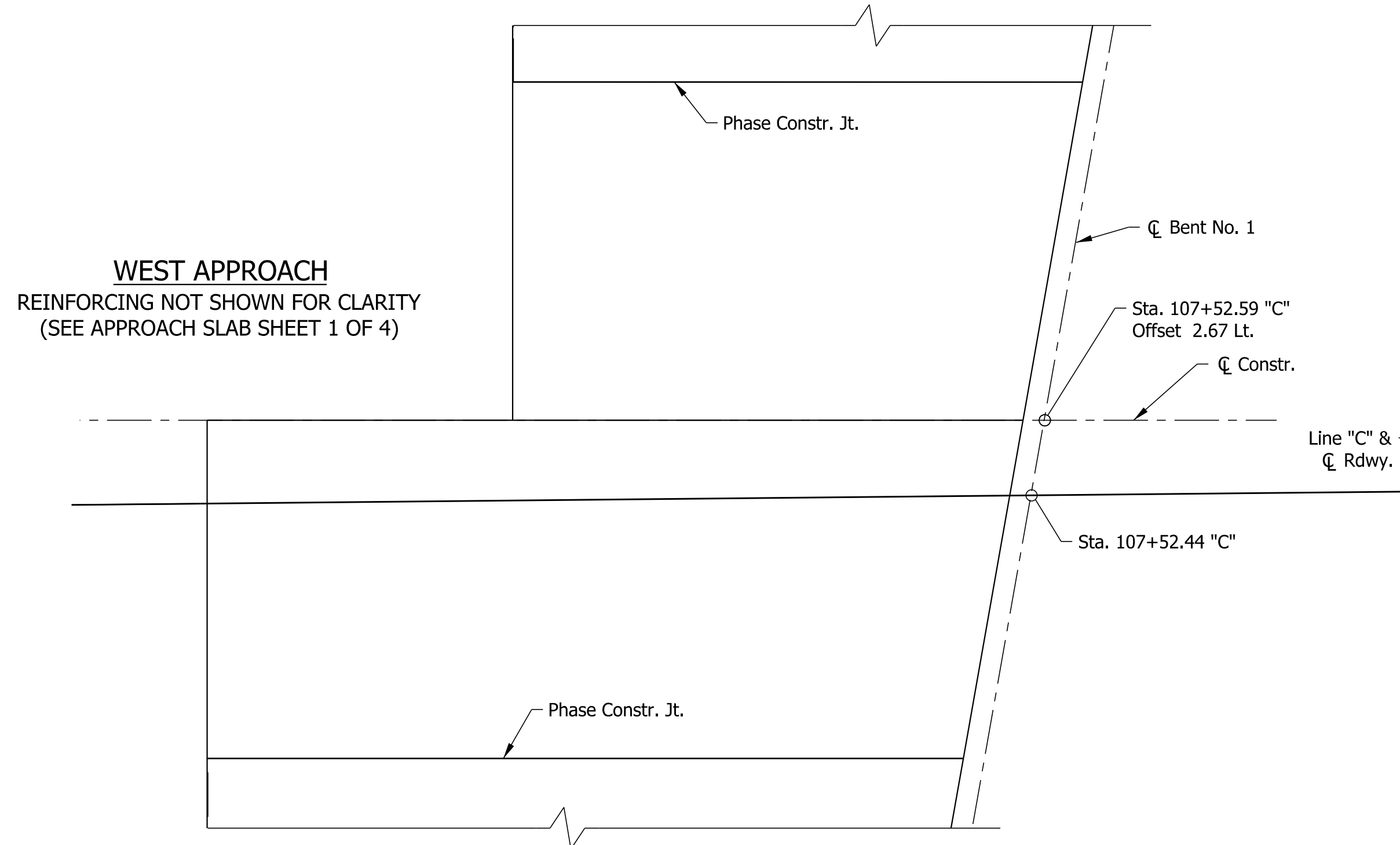
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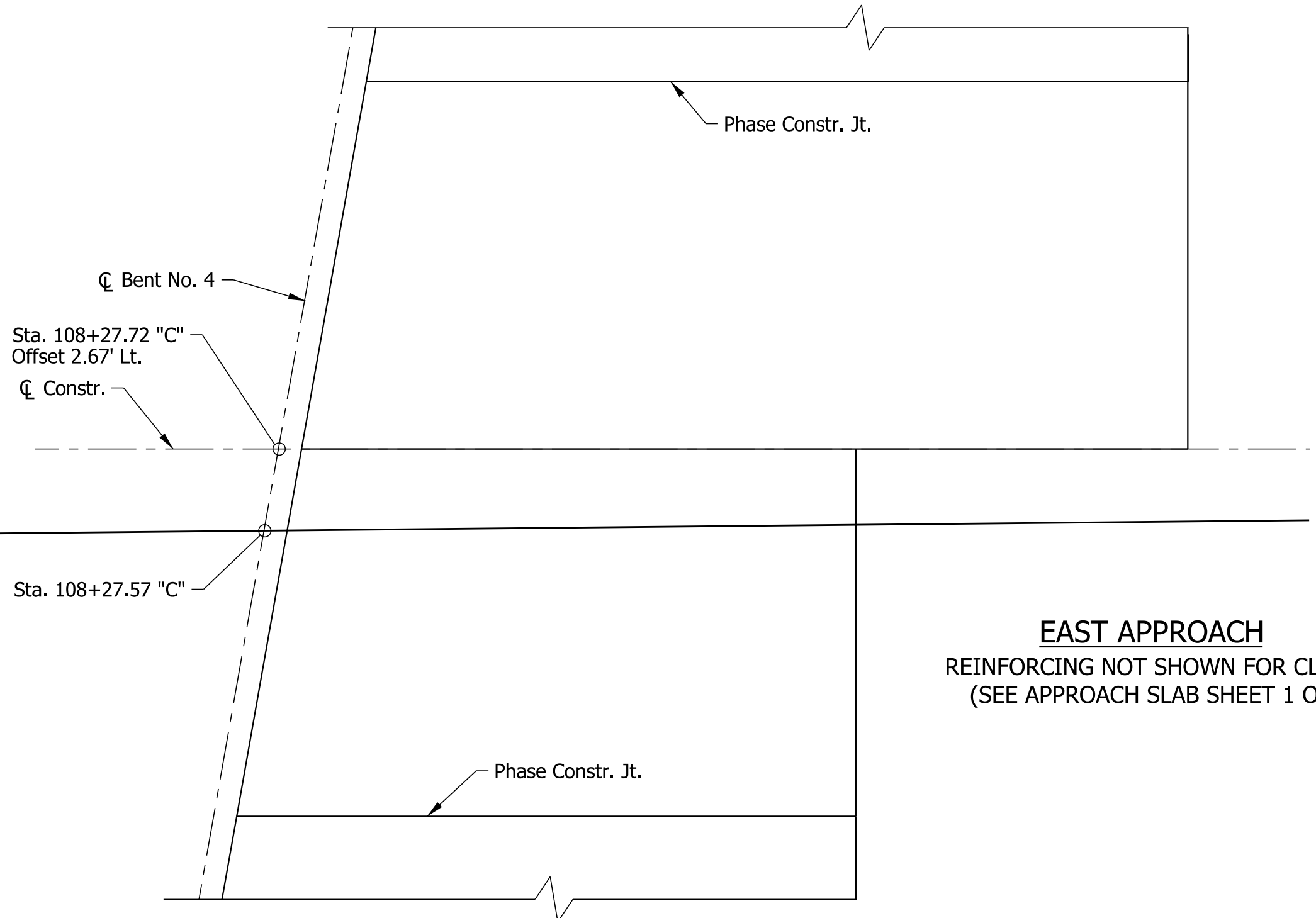
NORTHWEST APPROACH



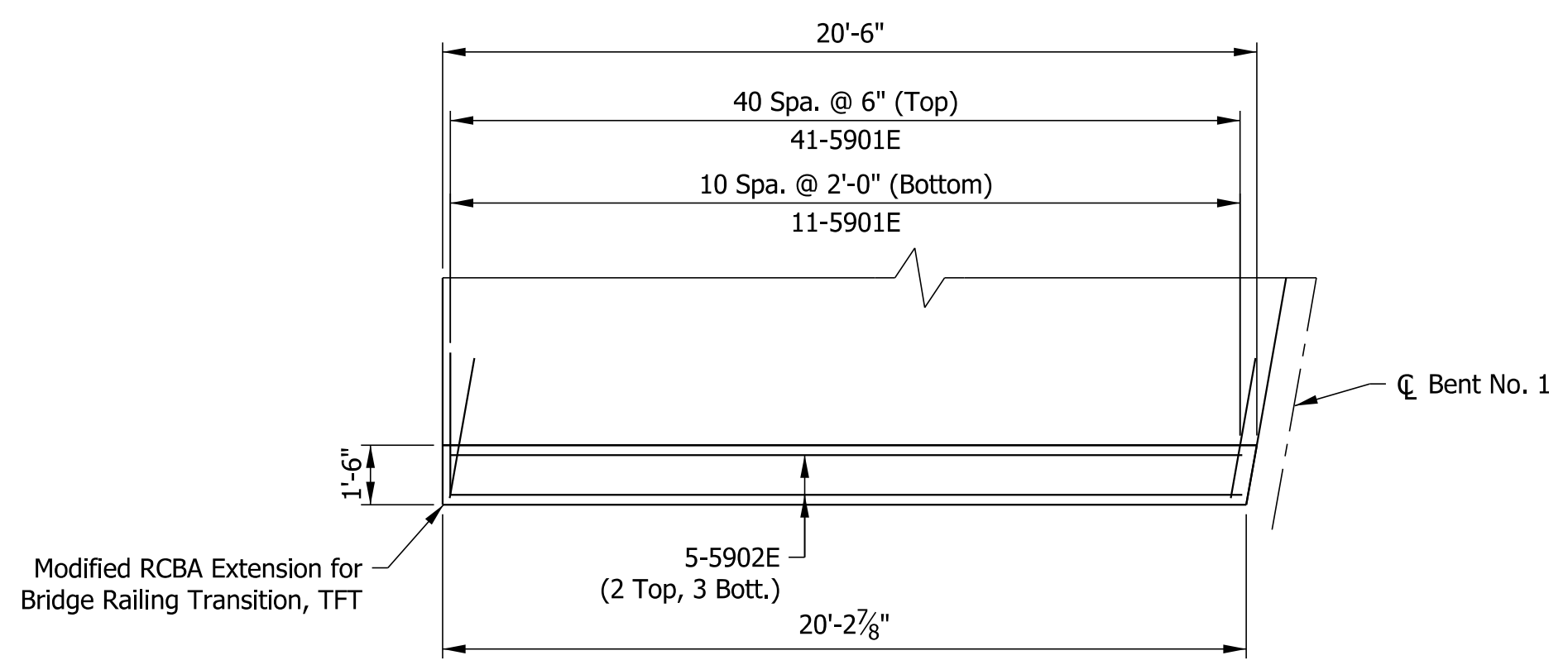
NORTHEAST APPROACH



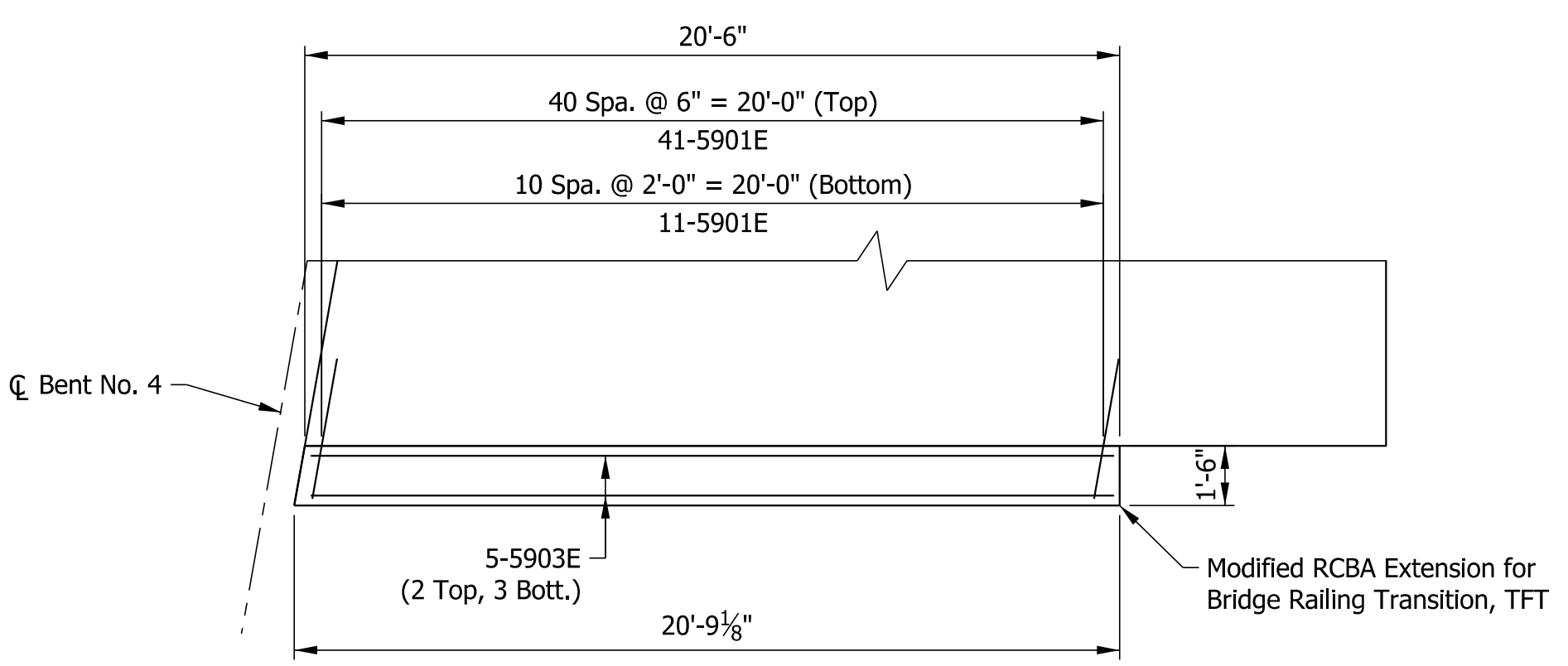
WEST APPROACH
REINFORCING NOT SHOWN FOR CLARITY
(SEE APPROACH SLAB SHEET 1 OF 4)



EAST APPROACH
REINFORCING NOT SHOWN FOR CLARITY
(SEE APPROACH SLAB SHEET 1 OF 4)



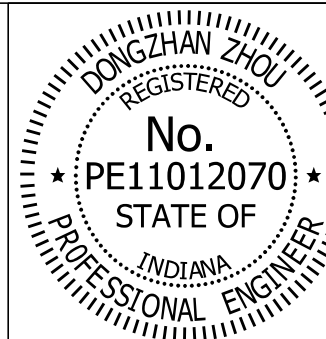
SOUTHWEST APPROACH



SOUTHEAST APPROACH

NOTES:
1. For Additional Details, Notes & Bill of Materials, See Sheets 20, 21 & 23.

DATE	REVISION



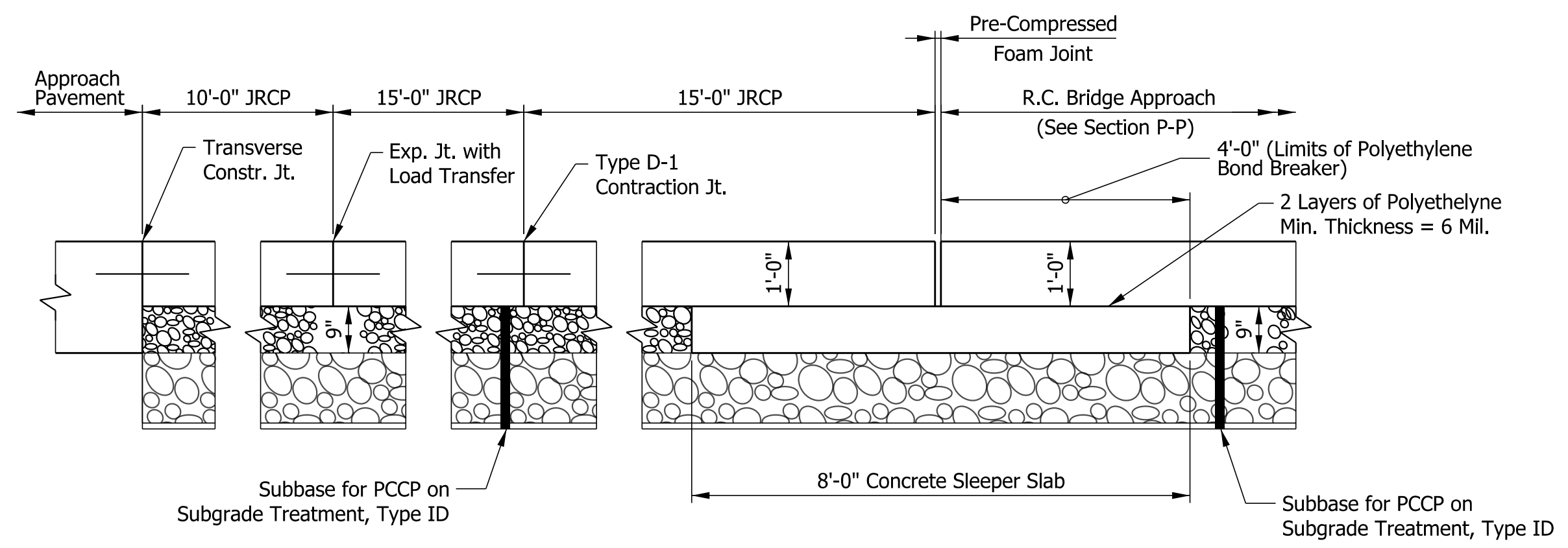
RECOMMENDED FOR APPROVAL	<i>Dongzhan Zhou</i>	10/25/2019
DESIGNED:	AMR	DRAWN:
CHECKED:	DZ	CHECKED:

INDIANA
DEPARTMENT OF TRANSPORTATION

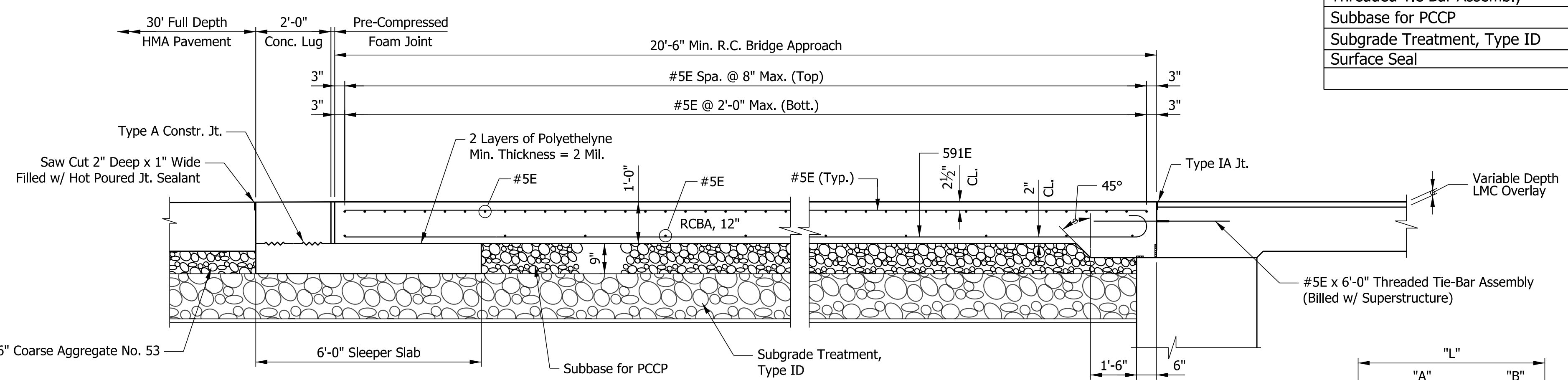
APPROACH SLAB DETAILS
SHEET 3 OF 4

HORIZONTAL SCALE	BRIDGE FILE
1/4" = 1'-0"	050-36-05106 CEBL & CWBL
VERTICAL SCALE	DESIGNATION
1/4" = 1'-0"	1700403 & 1700404
SURVEY BOOK	SHEETS
	22 OF 24
CONTRACT	PROJECT
R-37820	1400090

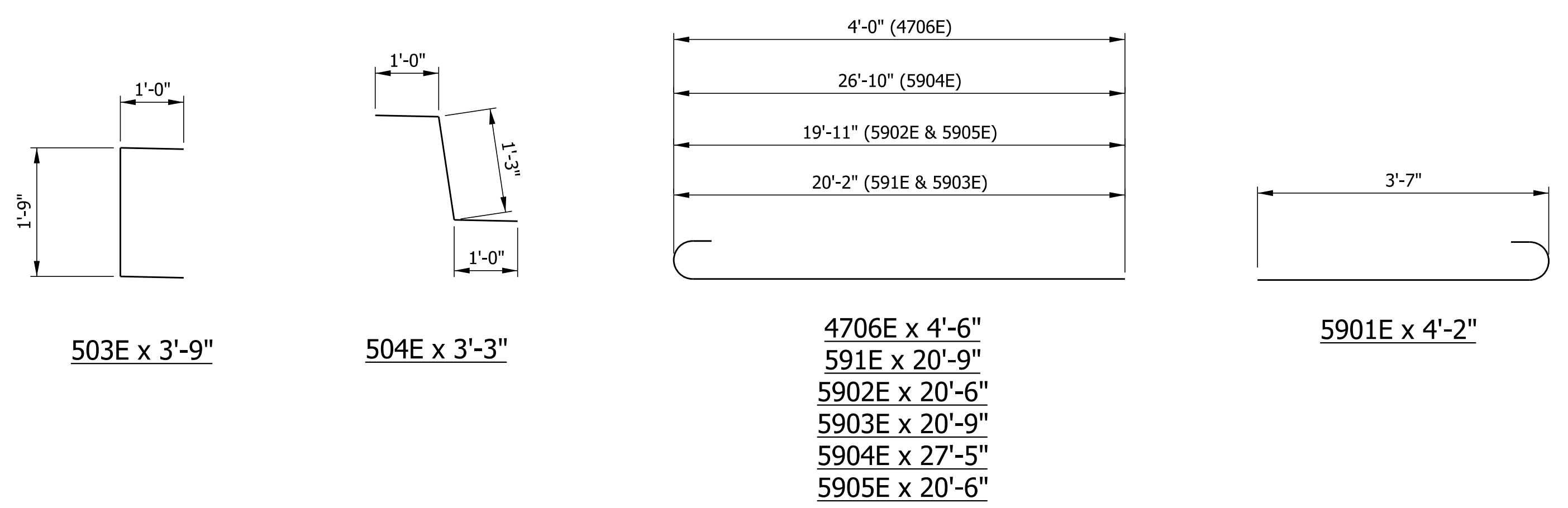
SPFILES



TERMINAL JOINT, TYPE PCCP
NOT TO SCALE



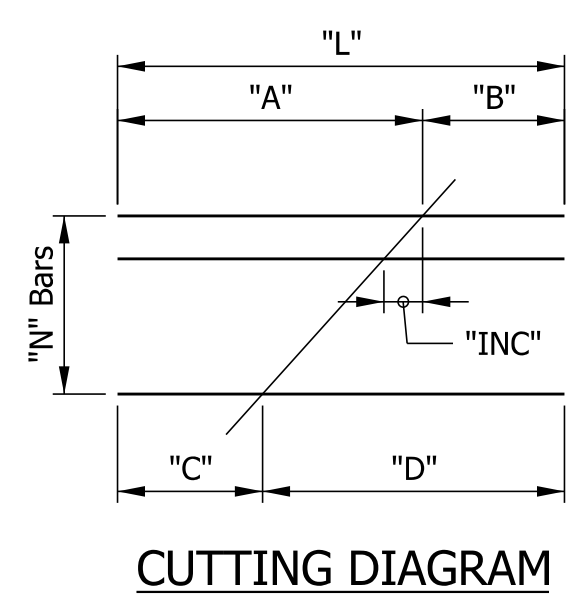
SECTION P-P
NOT TO SCALE



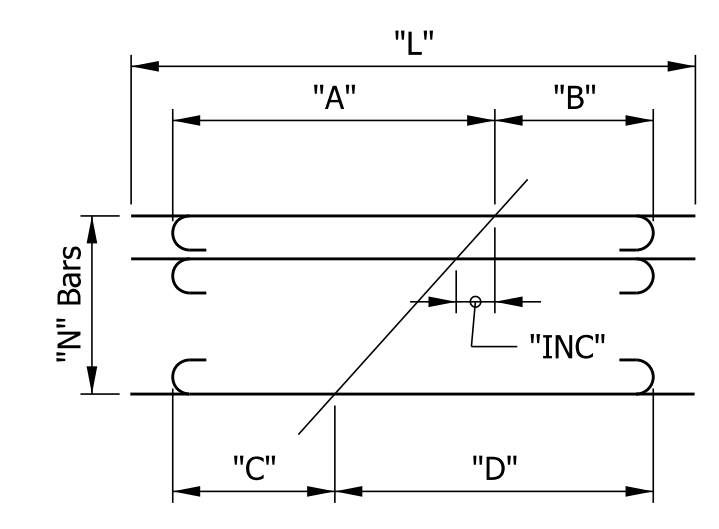
BILL OF MATERIALS R.C. BRIDGE APPROACHES (PRE-PHASE)			
EPOXY-COATED REINFORCING STEEL			
SIZE OR MARK	NO. OF BARS	LENGTH (FT. - IN.)	WEIGHT (LBS.)
501E	19	38'-0"	
591E	50	20'-9"	
592E	25	39'-2"	
#5E	76	24'-3"	
#5E	38	20'-2"	
#5E	4	11'-11"	
#5E	34	11'-9"	
#5E	4	11'-8"	
#5E	88	11'-0"	
#5E	2	8'-5"	
#5E	2	7'-5"	
#5E	4	4'-7"	
#5E	2	3'-6"	
Total Epoxy-Coated Reinforcing Steel			7163
CONCRETE			
RCBA, 12"			129.0 Sys
Total RCBA			129.0 Sys
MISCELLANEOUS			
Threaded Tie Bar Assembly			196 Ea
Subbase for PCCP			33.0 Cys
Subgrade Treatment, Type ID			129.0 Sys
Surface Seal			1161 Sft

BILL OF MATERIALS R.C. BRIDGE APPROACHES (PHASE I)			
EPOXY-COATED REINFORCING STEEL			
SIZE OR MARK	NO. OF BARS	LENGTH (FT. - IN.)	WEIGHT (LBS.)
502E	58	10'-6"	
505E	9	39'-4"	
591E	152	20'-9"	
593E	76	10'-6"	
5901E	104	4'-2"	
5902E	5	20'-6"	
5903E	5	20'-9"	
#5E	84	38'-3"	
#5E	4	37'-8"	
#5E	2	27'-4"	
#5E	116	20'-2"	
#5E	2	15'-10"	
#5E	2	4'-4"	
Total Epoxy-Coated Reinforcing Steel			11841
CONCRETE			
RCBA, 12"			201.5 Sys
RCBA, Extensions			7.0 Sys
Total RCBA			208.5 Sys
MISCELLANEOUS			
Subbase for PCCP			52.5 Cys
Subgrade Treatment, Type ID			208.5 Sys
Surface Seal			1813 Sft
Concrete Bridge Railing Transition, TFT			2 Ea

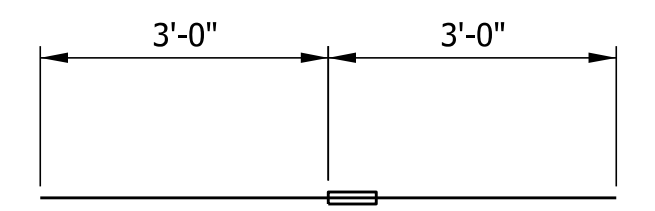
BILL OF MATERIALS R.C. BRIDGE APPROACHES (PHASE III)			
EPOXY-COATED REINFORCING STEEL			
SIZE OR MARK	NO. OF BARS	LENGTH (FT. - IN.)	WEIGHT (LBS.)
502E	58	10'-6"	
503E	49	3'-9"	
504E	49	3'-3"	
505E	9	39'-4"	
591E	152	20'-9"	
5901E	120	4'-2"	
5904E	5	27'-5"	
5905E	5	20'-6"	
#5E	84	38'-3"	
#5E	4	37'-8"	
#5E	2	27'-4"	
#5E	116	20'-2"	
#5E	2	15'-10"	
#5E	2	4'-4"	
Total #5E Bars			11471
CONCRETE			
4706E	48	4'-6"	
Total #4E Bars			145
Total Epoxy-Coated Reinforcing Steel			11616
CONCRETE			
RCBA, 12"			201.5 Sys
RCBA, Extensions			8.0 Sys
Total RCBA			209.5 Sys
MISCELLANEOUS			
Subbase for PCCP			52.5 Cys
Subgrade Treatment, Type ID			209.5 Sys
Surface Seal			1813 Sft
Concrete Bridge Railing Transition, TPS-1, Mod.			2 Ea



CUTTING DIAGRAM



CUTTING DIAGRAM
(592E BARS ONLY)

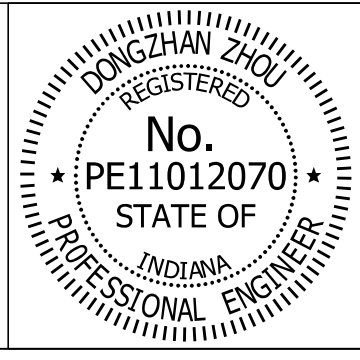


#5E x 6'-0" THREADED TIE-BAR ASSEMBLY

CUTTING DIAGRAM VALUES								
APPROACH SLABS								
BAR	"N"	"L"	"A"	"B"	"C"	"D"	"INC"	DESCRIPTION
501E	19	38'-0"	20'-0"	18'-0"	18'-0"	20'-0"	1 5/16"	19-501E x 38'-0" (Cuts 38 Bars)
502E	58	10'-6"	8'-6"	2'-0"	2'-0"	8'-6"	1 3/8"	58-502E x 10'-6" (Cuts 116 Bars)
505E	9	39'-4"	35'-0"	4'-4"	4'-4"	35'-0"	3'-4 7/8"	9-505E x 39'-4" (Cuts 18 Bars)
592E	25	39'-2"	20'-0"	18'-0"	18'-0"	20'-0"	1"	25-592E x 39'-2" (Cuts 50 Bars)
593E	76	10'-6"	8'-6"	2'-0"	2'-0"	8'-6"	13/16"	76-593E x 10'-6" (Cuts 152 Bars)

- NOTES:**
- For additional RCBA Slab Details, see sheets 20 thru 22.
 - All reinforcing bars shall be epoxy-coated.
 - For Approach Slab Details, see Std. Dwg. E 609-RCBA-01 thru 03.
 - For RCBA Extensions used with Bridge Railing Transitions, see Std. Dwg. E 609-TBAE-01 thru 02.
 - For Additional FT Transitions Details, see Std. Dwg. E 706-TTFT-01 thru 03.
 - For Additional PS-1 Transition Details, see Std. Dwg. E 706-TTTP-05 thru 06.
 - For Terminal Joint details, see RSP E 503-R-692d.

DATE	REVISION



RECOMMENDED FOR APPROVAL: *Dongzhan Zhou* 10/25/2019
DESIGN ENGINEER DATE

DESIGNED: AMR DRAWN: JLR
CHECKED: DZ CHECKED: DZ

INDIANA DEPARTMENT OF TRANSPORTATION

APPROACH SLAB DETAILS
SHEET 4 OF 4

HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	050-36-05106 CEBL & CWBL
VERTICAL SCALE	DESIGNATION
AS NOTED	1700403 & 1700404
SURVEY BOOK	SHEETS
	23 OF 24
CONTRACT	PROJECT
R-37820	1400090

SUMMARY OF BRIDGE QUANTITIES

ITEM	CONCRETE, CLASS A, SUBSTR.	CONCRETE, CLASS B, FOOTINGS	CONCRETE, CLASS C, SUPERSTR.	CONCRETE, CLASS C, SUBSTR.	RAILING, CONCRETE, CLASS C TYPE FT	RAILING, CONCRETE, CLASS C TYPE PS-1	RAILING, STEEL TYPE PS-1	REINF. BARS, PLAIN	BARRIER, DELINEATOR	REINF. BARS, EPOXY COATED	FIELD DRILLED HOLES IN CONCRETE	PILES						EXCAVATION, COMMON	EXCAVATION, WET	EXCAVATION, DRY	THREADED TIE BAR ASSEMBLY, EPOXY COATED	CONCRETE BRIDGE RAILING TRANSITION, 1FT	CONCRETE BRIDGE RAILING TRANSITION, 1PS-1	BRIDGE DECK, REMOVE EXISTING CONCRETE OVERLAY	SURFACE MILLING *	BRIDGE DECK OVERLAY, LATEX MODIFIED	BRIDGE DECK OVERLAY, ADDITIONAL LMC **	BRIDGE DECK OVERLAY, ADDITIONAL SURFACE PREP **	TRANSVERSE GROOVING	REINF. CONC. BRIDGE APPROACH (12 IN)	SUBBASE FOR PCCP	SUBGRADE TREATMENT, TYPE ID	EMBEDDED GALVANIC ANODE	SURFACE SEAL ***					
												PILE, STEEL PIPE, 0.25 IN, 14 IN	TEST PILE, INDICATOR, RESTRIKE	CONICAL PILE TIP, 14 IN.	TEST PILE, INDICATOR, PRODUCTION	NO	LFT																		EACH	EACH	NO	LFT	CYS
SUPERSTRUCTURE																																							
PRE-PHASE			83.2					15414		12497	232																											156	
PHASE I			10.3					2261		3080	116												26			77.0	77.0	284.0	3.2	9	284.0						78	142	
PHASE III			10.5					2261		3559	119															35.0	35.0	47.0	0.6	4	47.0						78	142	
SIDEWALK (PHASE III)			81.3							4435	77																										63	2039	
CONCRETE BRIDGE RAILING PHASE I					10.3				4	4358													2															908	
CONCRETE BRIDGE RAILING PHASE III						9.6	100			2813													2															842	
R.C. BRIDGE APPROACHES																																							
R.C. BRIDGE APPROACHES (PRE-PHASE)										7163								118.5		196														129.0	33.0	129.0		1161	
R.C. BRIDGE APPROACHES & EXTENSIONS (PHASE I)										11841								191.0																208.5	52.5	208.5		1813	
R.C. BRIDGE APPROACHES & EXTENSIONS (PHASE III)										11616								192.0																209.5	52.5	209.5		1813	
BENT NO. 1 (PRE-PHASE)				5.0						856	20	3	102	1	4	1	44	10.5																				12	
PIER NO. 2 (PRE-PHASE)	25.3	2.1						1666			44	4	248	1	5	1	72		20.1	14.0																		44	
PIER NO. 3 (PRE-PHASE)	25.3	2.1						1666			44	4	248	1	5	1	72		19.9	10.0																		44	
BENT NO. 4 (PRE-PHASE)				5.0						856	20	3	102	1	4	1	44	13.0																				12	
TOTALS	50.6	4.2	185.3	10.0	10.3	9.6	100	23268	4	63074	672	14	700	4	18	4	232	525.0	40.0	24.0	222	2	2	229.0	112.0	331.0	3.8	13	331.0	547.0	138.0	547.0	487	8859					

* For Information Only
 ** Estimated Quantity, to be paid as "DOL"
 *** Estimated Quantity, to be paid for as "LSUM"

FILES

DATE	REVISION		RECOMMENDED FOR APPROVAL DESIGN ENGINEER 10/25/2019 DATE	INDIANA DEPARTMENT OF TRANSPORTATION SUMMARY OF QUANTITIES	HORIZONTAL SCALE	BRIDGE FILE
			NONE		050-36-05106 CEBL & CWBL	
			VERTICAL SCALE		DESIGNATION	
			NONE		1700403 & 1700404	
			SURVEY BOOK		SHEETS	
			24 OF 24			
		CONTRACT	PROJECT			
		R-37820	1400090			