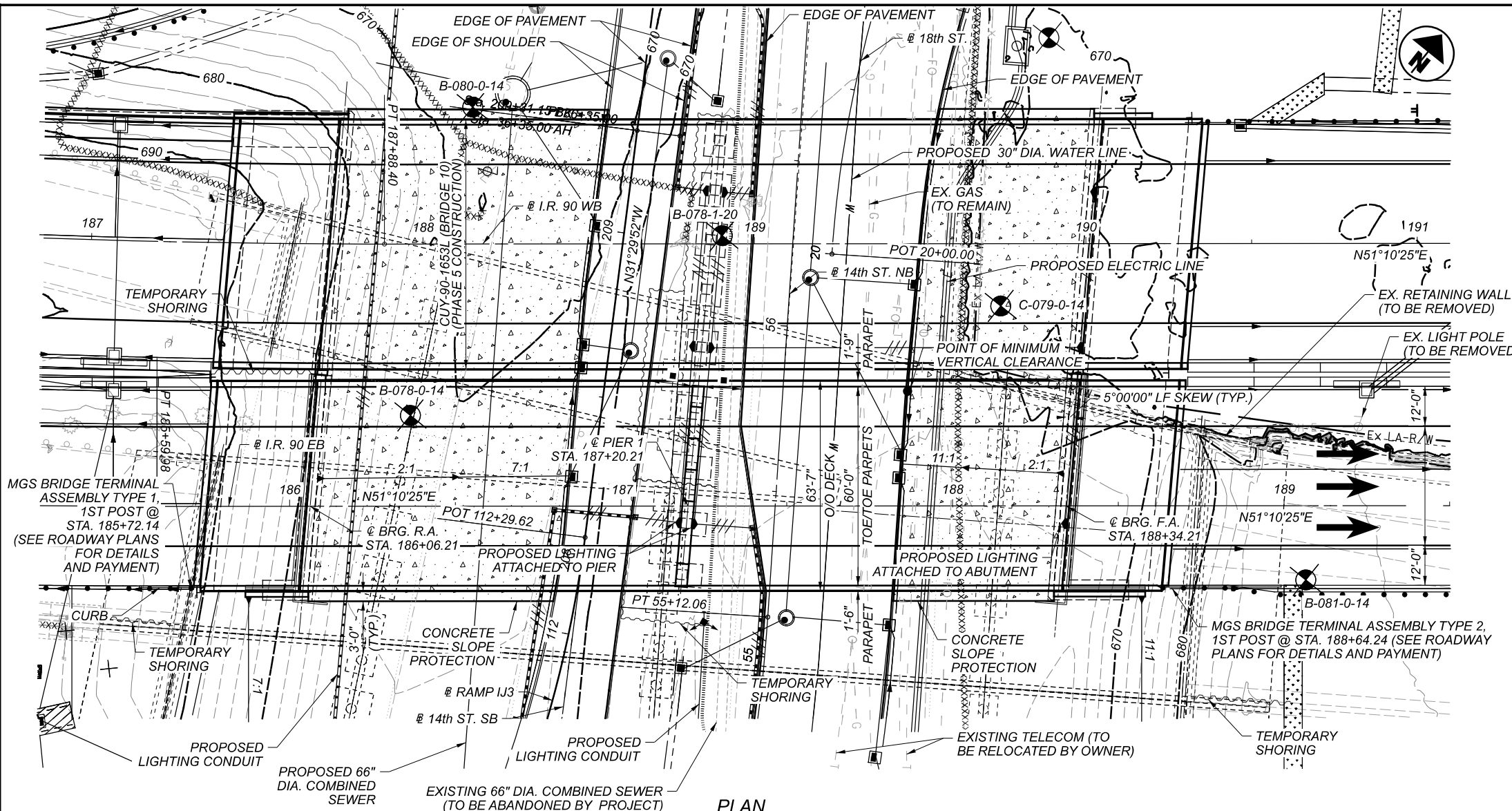
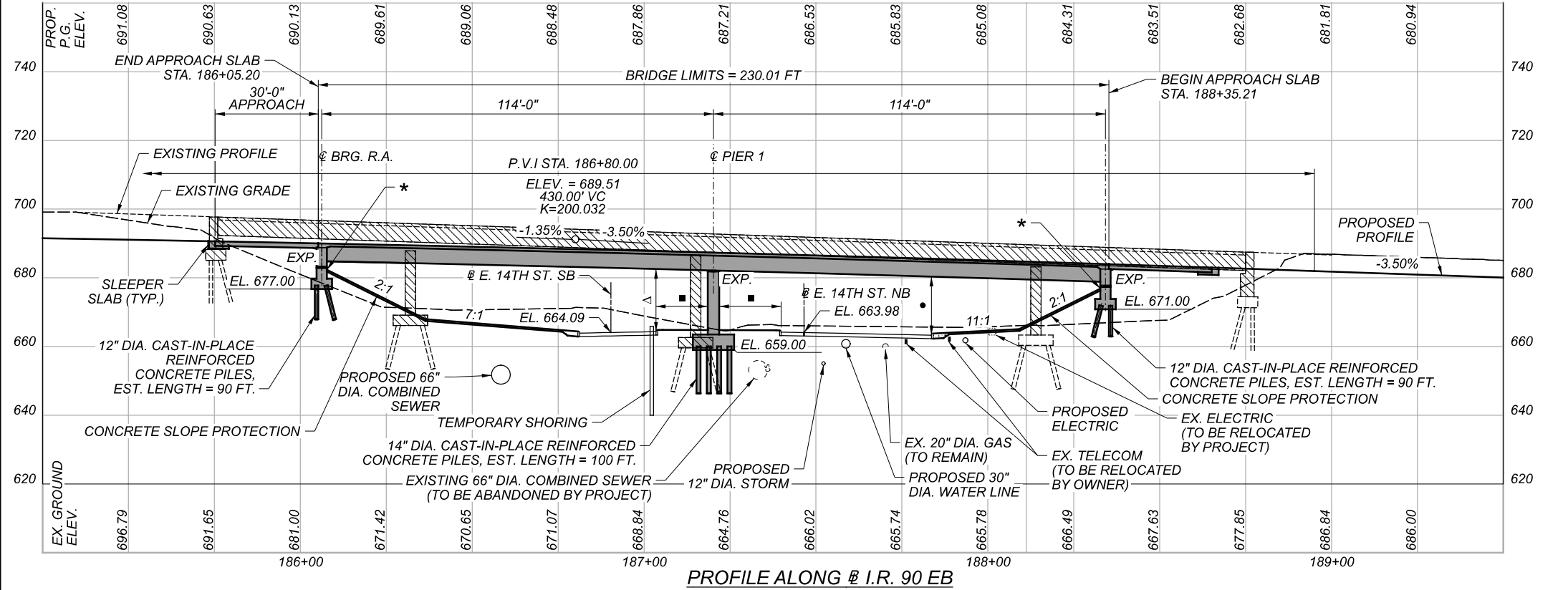


CUY-90-16-28 (CCG3A)

MODEL: 82382_SFN_000011_SFN002_PAPER SIZE: 17x11 (in.) DATE: 6/22/2022 TIME: 10:06:52 PM USER: Gregory Heitler
 p:\b-c-pw-bentley.com\p-cw-03\Documents\Cleveland_OH101_Projects\ODOT\Bridges\1282382\400-Engineering\Structures\SFN_1807804_SFN_1807804_SP002.dgn



PLAN



PROFILE ALONG @ I.R. 90 EB

BENCHMARK DATA

BM-59 STA. 188+86.37, ELEV. 660.15, OFFSET 263.25' RT., @ I.R. 90 EB, MAG NAIL AT NOSE OF DRAINAGE CHANNEL
 BM-61 STA. 181+52.67, ELEV. 674.03, OFFSET 541.05' LT., @ I.R. 90 EB, RAILROAD SPIKE IN NORTH FACE OF POWER/LIGHT POLE
 BM-62 STA. 190+19.10, ELEV. 672.11, OFFSET 563.24' LT., @ I.R. 90 EB, RAILROAD SPIKE IN EAST FACE OF POWER/LIGHT POLE

FOR ADDITIONAL BENCHMARK INFORMATION SEE ROADWAY PLANS.

NOTES

EARTHWORK LIMITS SHOWN ARE APPROXIMATE. ACTUAL SLOPES SHALL CONFORM TO PLAN CROSS SECTIONS.
 DESIGN TRAFFIC:
 2015 ADT = 138,000 (EB & WB) 2015 ADTT = 12,420 (EB & WB)
 2035 ADT = 148,000 (EB & WB) 2035 ADTT = 13,320 (EB & WB)
 DIRECTIONAL DISTRIBUTION = 52%
 SEE SHEET 2/42 FOR BORING LOCATIONS.

LEGEND

- ⊕ BORING LOCATION
- ▭ - PORTION OF EXISTING STRUCTURE TO BE REMOVED
- 15'-6" REQUIRED MINIMUM VERTICAL CLEARANCE
- △ 16'-2" ACTUAL MINIMUM VERTICAL CLEARANCE (INTERIM & FINAL)
- ▲ 15'-6" REQUIRED MINIMUM VERTICAL CLEARANCE
- ▴ 17'-5" ACTUAL MINIMUM VERTICAL CLEARANCE (INTERIM & FINAL)
- 4'-0" REQUIRED MINIMUM HORIZONTAL CLEARANCE
- ▮ 12'-10" ACTUAL MINIMUM HORIZONTAL CLEARANCE (E. 14TH ST. SB)
- ▮ 11'-3" ACTUAL MINIMUM HORIZONTAL CLEARANCE (E. 14TH ST. NB)
- * = TOP OF SLOPE ELEV. = VARIES FROM 682.12 TO 683.12 (R.A.)
 TOP OF SLOPE ELEV. = VARIES FROM 676.37 TO 676.66 (F.A.)

EXISTING STRUCTURE (EB-8 & EB-9)

TYPE: CONTINUOUS STEEL GIRDERS WITH REINFORCED CONCRETE DECK AND SUBSTRUCTURE
 SPANS: 55'-0", 88'-6", 99'-0" & 60'-0" ± c/c BEARINGS MEASURED ALONG @ I.R. 90 AND REFERENCE LINE
 ROADWAY: VARIES
 LOADING: CF 2000 - ADEQUATE FOR AASHTO ALTERNATE LOADING
 SKEW: VARIES
 WEARING SURFACE: 1" MONLITHIC CONCRETE
 APPROACH SLABS: AS-1-81 (MODIFIED) (25' LONG)
 ALIGNMENT: CURVE 1°30'00" LT. AND TANGENT
 CROWN: VARIES
 STRUCTURE FILE NUMBER: 1807919, 1807900 AND 1807803
 DATE BUILT: 1963, REHAB 1977 & 2011
 DISPOSITION: TO BE REMOVED

PROPOSED STRUCTURE

TYPE: 2 SPAN CONTINUOUS STEEL PLATE GIRDERS WITH REINFORCED CONCRETE DECK, REINFORCED CONCRETE PIERS ON PILES AND REINFORCED CONCRETE SEMI-INTEGRAL ABUTMENTS ON PILES
 SPANS: 114'-0" & 114'-0" c/c BEARINGS MEASURED ALONG @ I.R. 90 EB
 ROADWAY: 60'-0" TOE/TOE PARAPET
 LOADING: HL93 AND 60 PSF FUTURE WEARING SURFACE
 SKEW: 5°00'00" LF
 WEARING SURFACE: 1" MONLITHIC CONCRETE
 APPROACH SLABS: 30' FT LONG (AS-1-15, AS-2-15) (MODIFIED)
 ALIGNMENT: TANGENT
 SUPERELEVATION: VARIES
 DECK AREA: 14,624 SF
 COORDINATES: LATITUDE N 41°29'46.01"
 LONGITUDE W 81°40'40.98"

SITE PLAN
 CUY-90-1653R (BRIDGE 11)
 I.R. 90 EB OVER CR-721 (E. 14TH ST.)

SFN	1807804
DESIGN AGENCY	BURGESS & NIPLE 100 WEST ERIE STREET PARANVILLE, OHIO 44077
DESIGNER/CHECKER	BCS / MAB
REVIEWER	DWL 05/24/22
PROJECT ID	82382
SUBSET	1 / 42
SHEET	1654 / 2339

STRUCTURE GENERAL NOTES:

BORING LOCATIONS			
BORING	STATION	OFFSET	T.O.R. EL.
B-078-0-14	186+36.46	27.40' LT.	-
B-080-0-14	186+55.31	120.40' LT.	-
B-081-0-14	189+06.57	22.37 RT.	-
B-144-0-14	188+29.15	141.24' LT.	-
B-078-1-20	187+30.59	81.58' LT.	-
C-079-0-14	188+14.58	60.33' LT.	-

B-080-0-14 AND B-081-0-14 ARE SUBGRADE BORINGS

REFER TO THE FOLLOWING STANDARD DRAWINGS:

AS-1-15 REVISED 07-17-15
 AS-2-15 REVISED 01-18-19
 GSD-1-19 REVISED 01-15-21
 SBR-1-20 REVISED 07-17-20
 SBR-2-20 REVISED 01-15-21
 SICD-1-21 REVISED 01-21-22
 SICD-2-14 REVISED 01-15-21

AND TO THE FOLLOWING SUPPLEMENTAL SPECIFICATIONS:

800 DATED 05-02-22

DESIGN SPECIFICATIONS:

THIS STRUCTURE CONFORMS TO THE 9TH EDITION OF THE "LRFD BRIDGE DESIGN SPECIFICATIONS" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 2019 AND THE ODOT BRIDGE DESIGN MANUAL, 2020.

OPERATIONAL IMPORTANCE:

A LOAD MODIFIER OF 1.05 HAS BEEN ASSUMED FOR THE DESIGN OF THIS STRUCTURE IN ACCORDANCE WITH THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, ARTICLE 1.3.5 AND THE ODOT BRIDGE DESIGN MANUAL.

DESIGN LOADING:

HL-93
 FUTURE WEARING SURFACE (FWS) OF 0.060 KSF

DESIGN DATA:

CONCRETE CLASS QC2 - COMPRESSIVE STRENGTH 4.5 KSI (SUPERSTRUCTURE)
 CONCRETE CLASS QC1 - COMPRESSIVE STRENGTH 4.0 KSI (SUBSTRUCTURE)
 REINFORCING STEEL - MINIMUM YIELD STRENGTH 60 KSI
 STRUCTURAL STEEL - ASTM A709 GRADE 50 - YIELD STRENGTH 50 KSI
 STRUCTURAL STEEL - ASTM A252, GRADE 2 - YIELD STRENGTH 35 KSI (14" DIAMETER CIP REINFORCED CONCRETE PILES)

DECK PROTECTION METHOD:

EPOXY COATED REINFORCING STEEL
 2 1/2" CONCRETE COVER

MONOLITHIC WEARING SURFACE:

MONOLITHIC WEARING SURFACE IS ASSUMED, FOR DESIGN PURPOSES, TO BE ONE INCH (1") THICK.

MAINTENANCE OF TRAFFIC:

SEE THE ROADWAY PLANS FOR MAINTENANCE OF TRAFFIC REQUIREMENTS.

EXISTING STRUCTURE VERIFICATION:

DETAILS AND DIMENSIONS SHOWN ON THESE PLANS PERTAINING TO THE EXISTING STRUCTURE HAVE BEEN OBTAINED FROM PLANS OF THE EXISTING STRUCTURE AND/OR FIELD MEASUREMENTS. THEY ARE INDICATIVE OF THE EXISTING STRUCTURE AND PROPOSED WORK, BUT THEY SHALL BE CONSIDERED TENTATIVE AND APPROXIMATE. THE CONTRACTOR IS REFERRED TO CMS SECTION 102.05, 105.02, AND 513.04. BASE CONTRACT BID PRICES UPON A RECOGNITION OF THE UNCERTAINTIES DESCRIBED ABOVE AND UPON A PREBID EXAMINATION OF THE EXISTING STRUCTURES. HOWEVER, THE DEPARTMENT WILL PAY FOR ALL PROJECT WORK BASED UPON ACTUAL DETAILS AND DIMENSIONS THAT HAVE BEEN VERIFIED IN THE FIELD.

EXISTING STRUCTURE PLANS:

CONSTRUCTION PLANS FOR EXISTING STRUCTURES ARE ON FILE AT THE DEPARTMENT OF TRANSPORTATION DISTRICT 12 OFFICE, 5500 E. 98TH ST., GARFIELD HEIGHTS, OHIO AND ARE AVAILABLE FOR REFERENCE.

CONCRETE COVER FOR REINFORCING STEEL:

MINIMUM CONCRETE COVER FOR ALL REINFORCING BARS SHALL BE TWO INCHES (2") UNLESS SHOWN OTHERWISE IN THE PLANS.

DECK PLACEMENT DESIGN ASSUMPTIONS:

THE FOLLOWING ASSUMPTIONS OF CONSTRUCTION MEANS AND METHODS WERE MADE FOR THE ANALYSIS AND DESIGN OF THE SUPERSTRUCTURE. THE CONTRACTOR IS RESPONSIBLE FOR THE DESIGN OF THE FALSEWORK SUPPORT SYSTEM WITHIN THESE PARAMETERS AND WILL ASSUME RESPONSIBILITY FOR SUPERSTRUCTURE ANALYSIS FOR DEVIATION FOR THESE DESIGN ASSUMPTIONS.

AN EIGHT WHEEL FINISHING MACHINE WITH A MAXIMUM WHEEL LOAD OF 2.54 KIPS.

A MINIMUM OUT-TO-OUT WHEEL SPACING AT EACH END OF THE MACHINE OF 103".

A MAXIMUM SPACING OF OVERHANG FALSEWORK BRACKETS OF 48".

A MAXIMUM DISTANCE FROM THE CENTERLINE OF THE FASCIA GIRDER TO THE FACE OF THE SAFETY HANDRAIL OF 65".

ADDITIONAL SOILS INFORMATION

IN ADDITION TO THE SOIL BORING INFORMATION GIVEN IN THE PLANS, THE STRUCTURE FOUNDATION EXPLORATION REPORT NO. _____ PREPARED BY NATIONAL ENGINEERING AND ARCHITECTURAL SERVICES (NEAS), INC. DATED ___/___/2022 HAS BEEN INCLUDED FOR REFERENCE.

SEQUENCE OF CONSTRUCTION

SEE MOT NOTES IN ROADWAY PLANS.

ITEM 202 - PORTIONS OF STRUCTURE REMOVED OVER 20 FOOT SPAN, AS PER PLAN:

THIS ITEM SHALL INCLUDE THE ELEMENTS INDICATED IN THE PLANS AND GENERAL NOTES AND THAT ARE NOT SEPERATELY LISTED FOR PAYMENT. LIMITS OF REMOVAL SHALL BE AS SHOWN ON THE PLANS FOR REMOVAL PHASE 9 OR AS DIRECTED BY THE ENGINEER. ITEMS TO BE REMOVED INCLUDE THE SUBSTRUCTURE FOUNDATION PILES THAT INTERFERE WITH NEW CONSTRUCTION, AND MISCELLANEOUS ITEMS THAT ARE NOT SHOWN TO BE INCORPORATED INTO THE FINAL CONSTRUCTION AND ARE DIRECTED TO BE REMOVED BY THE ENGINEER. SUBMIT WORKING DRAWINGS AND CALCULATION IN ACCORDANCE WITH CMS 501.05.

ALL CONCRETE, REINFORCING STEEL, ASPHALT, ETC. REMOVED FROM THE STRUCTURE AND NOT REUSED SHALL, UNLESS OTHERWISE SPECIFIED, BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED BY HIM/HER FROM THE SITE. THE MATERIALS SHALL NOT BE PERMITTED TO REMAIN ON SITE, WITHIN THE RIGHT-OF-WAY OR ELSEWHERE UNLESS SPECIFIED BY THE ENGINEER.

ITEM 503 - COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN:

THE DESIGN SHOWN ON THE PLANS FOR TEMPORARY SUPPORT OF EXCAVATION AT BRIDGE E8 ABUTMENTS IS ONE REPRESENTATIVE DESIGN THAT MAY BE USED TO CONSTRUCT THE PROJECT. THE CONTRACTOR MAY CONSTRUCT THE DESIGN SHOWN ON THE PLANS OR PREPARE AN ALTERNATE DESIGN TO SUPPORT THE SIDES OF EXCAVATIONS. IF CONSTRUCTING AN ALTERNATE DESIGN FOR TEMPORARY SUPPORT OF EXCAVATION, PREPARE AND PROVIDE PLANS IN ACCORDANCE WITH CMS 501.05. THE DEPARTMENT WILL PAY FOR THE TEMPORARY SUPPORT OF EXCAVATION AT THE CONTRACT LUMP SUM PRICE FOR COFFERDAMS AND EXCAVATION BRACING. THE DEPARTMENT WILL NOT MAKE ADDITIONAL PAYMENT FOR AN ALTERNATE DESIGN.

SEE SHEET 1618/2339 FOR PIER TEMPORARY SHORING DETAILS.

PILE DRIVING CONSTRAINTS:

PRIOR TO DRIVING PILES, CONSTRUCT THE SPILL THROUGH SLOPES AND THE BRIDGE APPROACH EMBANKMENT BEHIND THE ABUTMENTS UP TO THE LEVEL OF THE SUBGRADE ELEVATION FOR A MINIMUM DISTANCE OF TWO HUNDRED FEET (200') BEHIND THE ABUTMENT. DO NOT BEGIN THE EXCAVATION FOR THE ABUTMENT FOOTINGS AND THE INSTALLATION OF THE ABUTMENT PILES UNTIL AFTER THE ABOVE REQUIRED EMBANKMENT HAS BEEN CONSTRUCTED AND A ___ CALENDAR DAY WAITING PERIOD HAS ELAPSED. THE ENGINEER MAY ADJUST THE LENGTH OF THE WAITING PERIOD BASED ON SETTLEMENT PLATFORM READINGS. AFTER THE SPECIFIED WAITING PERIOD HAS ELAPSED, DRIVE ABUTMENT PILES TO THE UBV.

PILE DESIGN LOADS (ULTIMATE BEARING VALUE):

THE ULTIMATE BEARING VALUE IS 316 KIPS PER PILE FOR THE REAR ABUTMENT PILES. THE ULTIMATE BEARING VALUE IS 385 KIPS PER PILE FOR THE PIER 1 PILES. THE ULTIMATE BEARING VALUE IS 309 KIPS PER PILE FOR THE FORWARD ABUTMENT PILES.

REAR ABUTMENT PILES:

23 - 12" DIA. CAST-IN-PLACE REINFORCED CONCRETE PILES 95 FEET LONG, ORDER LENGTH 1 DYNAMIC LOAD TESTING ITEM AND 1 RESTRIKE ITEM.

PIER 1 PILES:

32 - 14" DIA. CAST-IN-PLACE REINFORCED CONCRETE PILES 105 FEET LONG, ORDER LENGTH 1 DYNAMIC LOAD TESTING ITEM AND 1 RESTRIKE ITEM.

FORWARD ABUTMENT PILES:

26 - 12" DIA. CAST-IN-PLACE REINFORCED CONCRETE PILES 95 FEET LONG, ORDER LENGTH 1 DYNAMIC LOAD TESTING ITEM AND 1 RESTRIKE ITEM.

PILES DRIVEN TO FULL ESTIMATED LENGTH WITH PILE/SOIL SETUP:

THE ULTIMATE BEARING VALUE (UBV) IS:

316 KIPS PER 12" DIA. CIP PILE FOR THE REAR ABUTMENT PILES
 385 KIPS PER 14" DIA. CIP PILE FOR THE PIER 1 PILES
 309 KIPS PER 12" DIA. CIP PILE FOR THE FORWARD ABUTMENT PILES

PART OF THE UBV WILL BE ACHIEVED THROUGH PILE/SOIL SETUP, WHICH IS A TIME DEPENDENT INCREASE IN RESISTANCE THAT OCCURS IN SOME SOILS.

NOTIFY THE ENGINEER AT LEAST 5 DAYS BEFORE DRIVING PILES SO THAT THE ENGINEER CAN NOTIFY THE DISTRICT GEOTECHNICAL ENGINEER, THE OFFICE OF CONSTRUCTION ADMINISTRATION, AND THE OFFICE OF GEOTECHNICAL ENGINEERING.

DRIVE THE FIRST TWO PILES IN EACH SUBSTRUCTURE TO THE FULL ESTIMATED LENGTH OF:

- ___ FEET PER REAR ABUTMENT PILE
- ___ FEET PER PIER 1 PILE
- ___ FEET PER FORWARD ABUTMENT PILE

PERFORM DYNAMIC LOAD TESTING ON BOTH PILES WHILE DRIVING. AFTER DRIVING AND TESTING THE FIRST TWO PILES, DRIVE THE REMAINING PILES IN THE SUBSTRUCTURE TO THE SAME DEPTH AS THE FIRST TWO PILES. AFTER DRIVING ALL PILES TO THE ESTIMATED LENGTH, CEASE ALL DRIVING OPERATIONS AT THE SUBSTRUCTURE FOR A PERIOD OF ___ DAYS. INCLUDE THE WAITING PERIOD AS A SEPARATE ACTIVITY IN THE PROFESS SCHEDULE. AFTER THE WAITING PERIOD, PERFORM PILE RESTRIKES ON BOTH OF THE FIRST TWO PILES (ONE RESTRIKE ITEM).

SUBMIT ALL TEST RESULTS TO THE ENGINEER. IF THE RESTRIKE TEST RESULTS INDICATE THAT BOTH PILES ACHIEVED THE REQUIRED UBV, ALL PILES IN THE SUBSTRUCTURE MAY BE ACCEPTED BY THE ENGINEER.

IF THE RESTRIKE TEST RESULTS INDICATE THAT EITHER OF THE TWO PILES DID NOT ACHIEVE THE REQUIRED UBV, IMMEDIATELY NOTIFY THE ENGINEER SO THAT THE ENGINEER CAN NOTIFY THE DISTRICT GEOTECHNICAL ENGINEER, THE OFFICE OF CONSTRUCTION ADMINISTRATION, AND THE OFFICE OF GEOTECHNICAL ENGINEERING. THE ENGINEER WILL REVIEW THE TEST RESULTS AND ESTABLISH ADDITIONAL RESTRIKE TESTING OR DRIVING CRITERIA FOR THE PILING IN THE SUBSTRUCTURE WITH ASSISTANCE OF THE DISTRICT GEOTECHNICAL ENGINEER, THE OFFICE OF CONSTRUCTION ADMINISTRATION, AND THE OFFICE OF GEOTECHNICAL ENGINEERING.

IF DIRECTED BY THE ENGINEER, PERFORM ADDITIONAL RESTRIKE TESTING OR DRIVE ALL PILES IN THE SUBSTRUCTURE TO THE ESTABLISHED DRIVING CRITERIA. THE DEPARTMENT WILL PAY FOR SPLICING OF THE PILES BEYOND THE ESTIMATED LENGTH PROVIDED IN THE PLANS UNDER CMS 109.05 WITH A NEGOTIATED PRICE PER SPLICE.

THE PLAN NOTE INCLUDES A QUANTITY OF ONE EACH ITEM 523 DYNAMIC LOAD TESTING, AS PER PLAN AND A QUANTITY OF ONE EACH ITEM 523 RESTRIKE, AS PER PLAN PER EACH SUBSTRUCTURE UNIT.

CUY-90-16.28 (CCG3A)

MODEL: Sheet PAPER SIZE: 17x11 (in.) DATE: 6/22/2022 TIME: 10:07:36 PM USER: Gregory, Heather
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GENERAL NOTES SHEET 1 OF 2
 CUY-90-1653R (BRIDGE 11)
 I.R. 90 EB OVER CR-721 (E. 14TH ST.)

SFN	1807804
DESIGN AGENCY	
BURGESS & NIPLE 100 WEST GINE STREET PAINESVILLE, OHIO 44077	
DESIGNER	CHECKER
BCS	JAA
REVIEWER	
DWL 05/24/22	
PROJECT ID	
82382	
SUBSET	TOTAL
2	42
SHEET	
TOTAL	
1655	2339

STRUCTURE GENERAL NOTES (CONTINUED):

ITEM 511 - CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK (PARAPET), AS PER PLAN:
 THE EXTERIOR FACE OF THE BRIDGE PARAPET SHALL HAVE A GROOVE PATTERN APPLIED THAT MATCHES THE DETAILS SHOWN IN THE PLANS. THIS ITEM SHALL INCLUDE ALL MATERIALS, EQUIPMENT, AND LABOR NECESSARY TO CONSTRUCT THE PARAPET AND THE GROOVE PATTERN. THIS ITEM SHALL ALSO INCLUDE THE PARAPET ON THE APPROACH SLABS AND BULKHEADS.

ITEM 512 - SEALING OF CONCRETE SURFACES, AS PER PLAN, (PERMANENT GRAFFITI PROTECTION):

APPLY A PERMANENT GRAFFITI COATING QUALIFIED ACCORDING TO SUPPLEMENT 1083 THAT IS COMPATIBLE WITH THE CONCRETE SEALER OVER WHICH IT IS APPLIED. APPLY THE GRAFFITI COATING IN ACCORDANCE WITH THE MANUFACTURER'S PRINTED INSTRUCTIONS.

ITEM 512 - SEALING OF CONCRETE SURFACES (EPOXY-URETHANE), AS PER PLAN:
 THE FINAL COLOR OF SEALING SHALL BE SHERWIN-WILLIAMS ALPACA 7022.

ITEM 516 - ARMORLESS PREFORMED JOINT SEAL, AS PER PLAN:
 INSTALL SEAL FOR EACH JOINT IN ONE CONTINUOUS PIECE.

ITEM 526 - REINFORCED CONCRETE APPROACH SLABS (T=17"), AS PER PLAN:

THE REQUIREMENTS OF CMS 511.03 AND 511.04 SHALL APPLY TO THIS ITEM OF WORK. THIS ITEM SHALL INCLUDE, BUT IS NOT LIMITED TO THE CONCRETE AND STEEL REINFORCEMENT NECESSARY TO FORM AND PLACE THE APPROACH SLABS AS SHOWN IN THE PLANS. PAYMENT FOR THIS ITEM SHALL ALSO INCLUDE THE ITEMS LISTED ON STANDARD DRAWING AS-1-15 AND ALL OTHER NECESSARY MATERIALS, LABOR, AND EQUIPMENT AND SHALL BE INCLUDED IN THE UNIT PRICE PER SQUARE YARD FOR ITEM 526 - REINFORCED CONCRETE APPROACH SLABS WITH QC/QA (T=17"), AS PER PLAN.

THE COST OF THE PARAPET ON THE APPROACH SLABS SHALL BE INCLUDED WITH ITEM 509 AND ITEM 511 - CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK (PARAPET), AS PER PLAN.

ITEM 526 - TYPE C INSTALLATION, AS PER PLAN:

THE REQUIREMENTS OF CMS 511.03 AND 511.04 SHALL APPLY TO THIS ITEM OF WORK. THIS ITEM SHALL INCLUDE, BUT IS NOT LIMITED TO THE CONCRETE, STEEL REINFORCEMENT, AND ARMORLESS PREFORMED JOINT SEAL NECESSARY TO FORM AND PLACE THE SLEEPER SLABS AND BULKHEADS AS SHOWN IN THE PLANS. PAYMENT FOR THIS ITEM SHALL ALSO INCLUDE THE ITEMS LISTED ON STANDARD DRAWING AS-2-15 AND ALL OTHER NECESSARY MATERIALS, LABOR, AND EQUIPMENT AND SHALL BE INCLUDED IN THE UNIT PRICE PER FOOT FOR ITEM 526 - TYPE C SLEEPER SLABS, AS PER PLAN.

THE COST OF THE PARAPET ON THE BULKHEADS SHALL BE INCLUDED WITH ITEM 509 AND ITEM 511 - CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK (PARAPET), AS PER PLAN.

ABBREVIATIONS:

THE FOLLOWING ABBREVIATIONS HAVE BEEN USED THROUGHOUT THESE PLANS TO INDICATE THE DESIGNATIONS CONTAINED IN THE LEGEND BELOW:

- | | |
|--|--|
| ABUT. - ABUTMENT
APPR. - APPROACH
@ - BASELINE
BOT. - BOTTOM
BRG. - BEARING
BRGS. - BEARINGS
BTA - BRIDGE TERMINAL ASSEMBLY
@ - CENTERLINE
C/C - CENTER TO CENTER
CIP - CAST-IN-PLACE
C.J. - CONSTRUCTION JOINT
CLR. - CLEARANCE
CP - COMPLETE PENETRATION BUTT WELD
CMS - CONSTRUCTION AND MATERIAL SPECIFICATIONS
CONC. - CONCRETE
CONST. - CONSTRUCTION
C.P.P. - CORRUGATED PLASTIC PIPE
CS - INDICATES BUTT WELD SUBJECT TO COMPRESSIVE STRESSES ONLY
CU YD - CUBIC YARD
CVN - CHARPY V-NOTCH TESTING
DIA. - DIAMETER
E.F. - EACH FACE
ELEV., EL. - ELEVATION
EQ. - EQUAL
EX. - EXISTING
EXP. - EXPANSION
F.A. - FORWARD ABUTMENT
F.F. - FAR FACE
F/F - FACE TO FACE
F.S. - FIELD SPLICE
FT/FT - FOOT PER FOOT
FTG. - FOOTING
FWD. - FORWARD
GEN. - GENERAL
INT. - INTEGRAL
LF - LEFT FORWARD
LT. - LEFT
MAX. - MAXIMUM
M.E. - MATCH EXISTING
MIN. - MINIMUM
MISC. - MISCELLANEOUS
MOT - MAINTENANCE OF TRAFFIC | N.F. - NEAR FACE
NO./# - NUMBER
O/O - OUT TO OUT
P.C.P.P. - PERFORATED CORRUGATED PLASTIC PIPE
P.E.J.F. - PREFORMED EXPANSION JOINT FILLER
PG - PROFILE GRADE
PGL - PROFILE GRADE LINE
PROP. - PROPOSED
PT - POINT OF TANGENCY
PVC - POINT OF VERTICAL CURVATURE
PVI - POINT OF VERTICAL INTERSECTION
PVT - POINT OF VERTICAL TANGENCY
R. - RADIUS
R.A. - REAR ABUTMENT
RCP - ROCK CHANNEL PROTECTION
RF - RIGHT FORWARD
RT. - RIGHT
R/W - RIGHT OF WAY
SAN. - SANITARY
SER. - SERIES
SHLDR. - SHOULDER
SHT. - SHEET
S.O. - SERIES OF
SPA. - SPACES OR SPACING
SR - STATE ROUTE
STA. - STATION
STD. - STANDARD
STM. - STORM
STR. - STRAIGHT
TBM - TEMPORARY BENCH MARK
TEMP. - TEMPORARY
T.O.S. - TOE OF SLOPE
T/PARAPET - TOE OF PARAPET
T/T - TOE TO TOE
TYP. - TYPICAL
U.G. - UNDERGROUND
U.N.O - UNLESS NOTED OTHERWISE
VAR. - VARIES
VC - VERTICAL CURVE
VERT. - VERTICAL
W/O - WITHOUT |
|--|--|

SFN	1807804
DESIGN AGENCY	
BURGESS & NIPLE 100 WEST ERIE STREET PAINESVILLE, OHIO 44077	
DESIGNER	CHECKER
BCS	JAA
REVIEWER	
DWL	05/24/22
PROJECT ID	
	82382
SUBSET	TOTAL
3	42
SHEET	TOTAL
1656	2339

ESTIMATED QUANTITIES									
ITEM	ITEM EXT.	TOTAL	UNIT	DESCRIPTION	ABUTMENTS	PIERS	SUPER.	GENERAL	REF. SHEET
202	11003	LS	-	STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN					2/42
202	22900		SY	APPROACH SLAB REMOVED					
202	32800		SY	CONCRETE SLOPE PROTECTION REMOVED					
503	11101	LS	-	COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN					2/42
503	21300	LS	-	UNCLASSIFIED EXCAVATION					
505	11100	LS	-	PILE DRIVING EQUIPMENT MOBILIZATION					
507	00500		FT	12" CAST-IN-PLACE REINFORCED CONCRETE PILES, DRIVEN					
507	00550		FT	12" CAST-IN-PLACE REINFORCED CONCRETE PILES, FURNISHED					
507	00600		FT	14" CAST-IN-PLACE REINFORCED CONCRETE PILES, DRIVEN					
507	00650		FT	14" CAST-IN-PLACE REINFORCED CONCRETE PILES, FURNISHED					
509	10000		LB	EPOXY COATED REINFORCING STEEL					
509	30020		FT	NO. 4 GFRP DEFORMED BARS					
509	30040		FT	NO. 6 GFRP DEFORMED BARS					
511	33500		EACH	SEMI-INTEGRAL DIAPHRAGM GUIDE					
511	34446		CY	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK					
511	34451		CY	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK (PARAPET), AS PER PLAN					
511	41012		CY	CLASS QC1 CONCRETE WITH QC/QA, PIER ABOVE FOOTINGS					
511	44112		CY	CLASS QC1 CONCRETE WITH QC/QA, ABUTMENT NOT INCLUDING FOOTING					
511	46512		CY	CLASS QC1 CONCRETE WITH QC/QA, FOOTING					
512	10001		SY	SEALING OF CONCRETE SURFACES, AS PER PLAN, PERMANENT GRAFFITI PROTECTION					3/42
512	10101		SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE), AS PER PLAN					3/42
513	10280		LB	STRUCTURAL STEEL MEMBERS, LEVEL 4					
513	20000		EACH	WELDED STUD SHEAR CONNECTORS					
514	00800		LB	FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT					
514	00850		LB	FIELD PAINTING STRUCTURAL STEEL, FINISH COAT					
516	10011		FT	ARMORLESS PREFORMED JOINT SEAL, AS PER PLAN					3/42
516	13600		SF	1" PREFORMED EXPANSION JOINT FILLER					
516	13900		SF	2" PREFORMED EXPANSION JOINT FILLER					
516	14000		SF	PREFORMED EXPANSION JOINT FILLER, MISC.: 4" THICK					
516	14020		FT	SEMI-INTEGRAL ABUTMENT EXPANSION JOINT SEAL					
516	44201		EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN (BEARING: 1'-0 1/2" x 1'-5" x 3", LOAD PLATE: 1'-1 1/2" x 1'-6" x 1 1/2" AND 1'-7" x 11" x 1 1/2")					24/42
516	44201		EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN (BEARING: 1'-5" x 2'-0 1/2" x 3 1/8", BEVELED LOAD PLATE: 1'-6" x 2'-1 1/2")					25/42
518	21200		CY	POROUS BACKFILL WITH GEOTEXTILE FABRIC					
518	40000		FT	6" PERFORATED CORRUGATED PLASTIC PIPE					
518	40010		FT	6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS					
523	20001		EACH	DYNAMIC LOAD TESTING, AS PER PLAN					2/42
523	20501		EACH	RESTRIKE, AS PER PLAN					2/42
526	30011		SY	REINFORCED CONCRETE APPROACH SLABS WITH QC/QA (T=17"), AS PER PLAN					3/42
526	90031		FT	TYPE C INSTALLATION, AS PER PLAN					3/42
601	21000		SY	CONCRETE SLOPE PROTECTION					
625	33000		EACH	STRUCTURE GROUNDING SYSTEM					

NOTES:

- ITEM 513 STRUCTURAL STEEL MEMBERS, LEVEL 4: THIS TOTAL WEIGHT IS BASED ON THE USE OF TYPE A CROSSFRAMES. PROVIDE THE UNIT COST FOR STRUCTURAL STEEL USING THE TOTAL WEIGHT PROVIDED, REGARDLESS OF ANY CHANGE TO THE TOTAL WEIGHT RESULTING FROM THE SELECTION OF TYPE B OR TYPE C CROSSFRAMES IN LIEU OF TYPE A.
- SEE SHEET 1618/2339 FOR PIER TEMPORARY SHORING DETAILS AND PAYMENT.

ESTIMATED QUANTITIES
 CUY-90-1653R (BRIDGE 11)
 I.R. 90 EB OVER CR-721 (E. 14TH ST.)

SFN	1807804
DESIGNER	BCS
CHECKER	JAA
REVIEWER	DWL 05/24/22
PROJECT ID	82382
SUBSET	4
TOTAL	42
SHEET	1657
TOTAL	2339

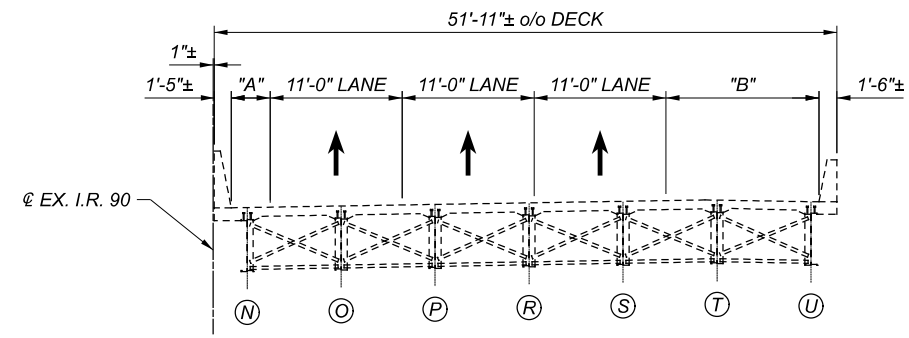
BURGESS & NIPLE
 100 WEST FIRE STREET
 PAINESVILLE, OHIO 44077

LEGEND:

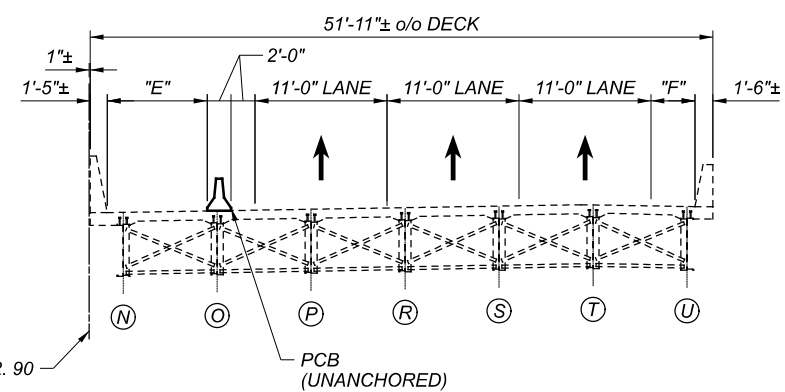
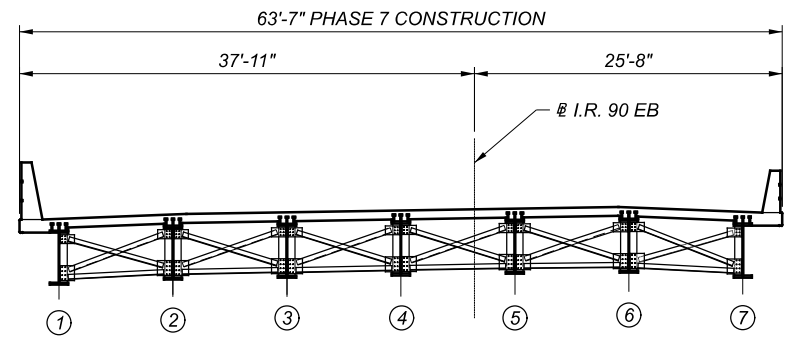
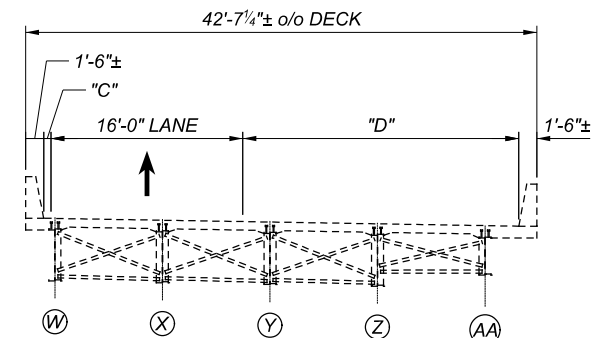
- (A) = EXISTING GIRDER LETTER
- (1) = PROPOSED GIRDER NUMBER
- "A" = VARIES FROM 3'-3"± TO 3'-11"±
- "B" = VARIES FROM 12'-3"± TO 12'-9"±
- "C" = VARIES FROM 1'-2"± TO 8'-0"±
- "D" = VARIES FROM 22'-8"± TO 23'-0"±
- "E" = VARIES FROM 3'-11"± TO 12'-4"±
- "F" = VARIES FROM 3'-6"± TO 12'-3"±
- "G" = VARIES FROM 3'-11"± TO 7'-9"±
- "H" = VARIES FROM 30'-3"± TO 34'-1"±
- "I" = VARIES FROM 4'-11"± TO 23'-3"±
- "J" = VARIES FROM 0'-0"± TO 37'-5"±

NOTES:

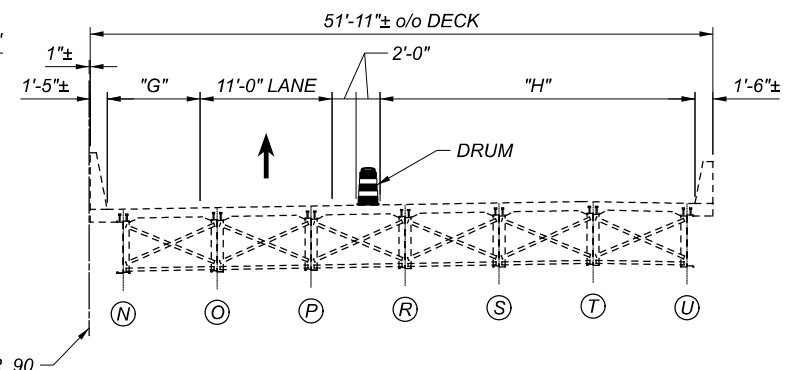
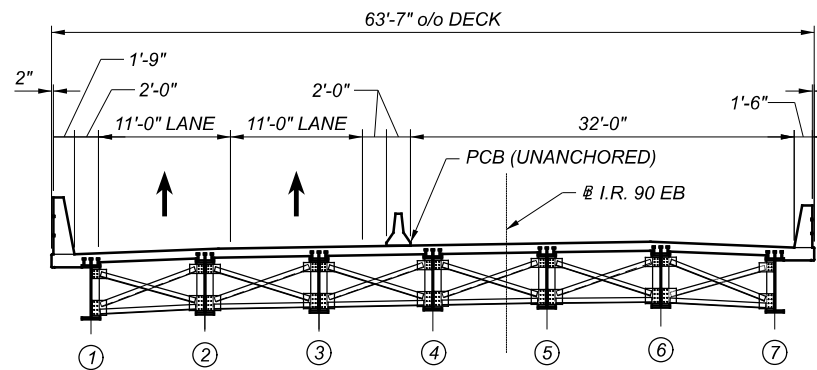
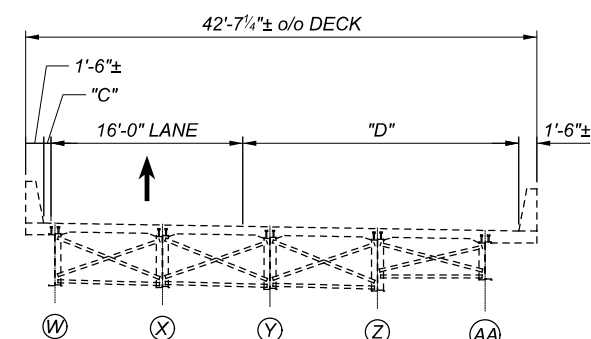
1. SEE SHEETS 1612 & 1613/2339 FOR PHASED MOT AND CONSTRUCTION OF PROPOSED BRIDGE 10 AND FOR PHASED MOT AND REMOVAL OF EXISTING BRIDGES E7 AND E8 NORTH OF @ EX. I.R. 90.



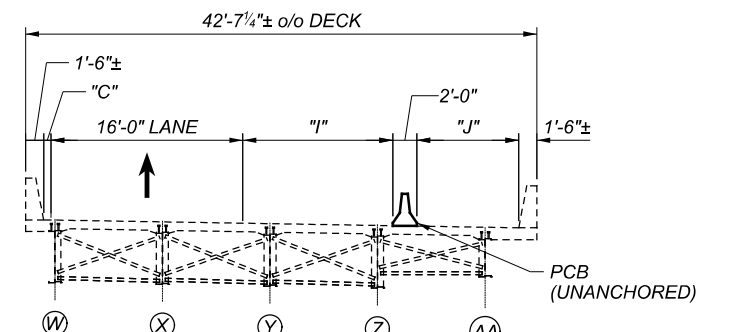
PHASE 2 MOT

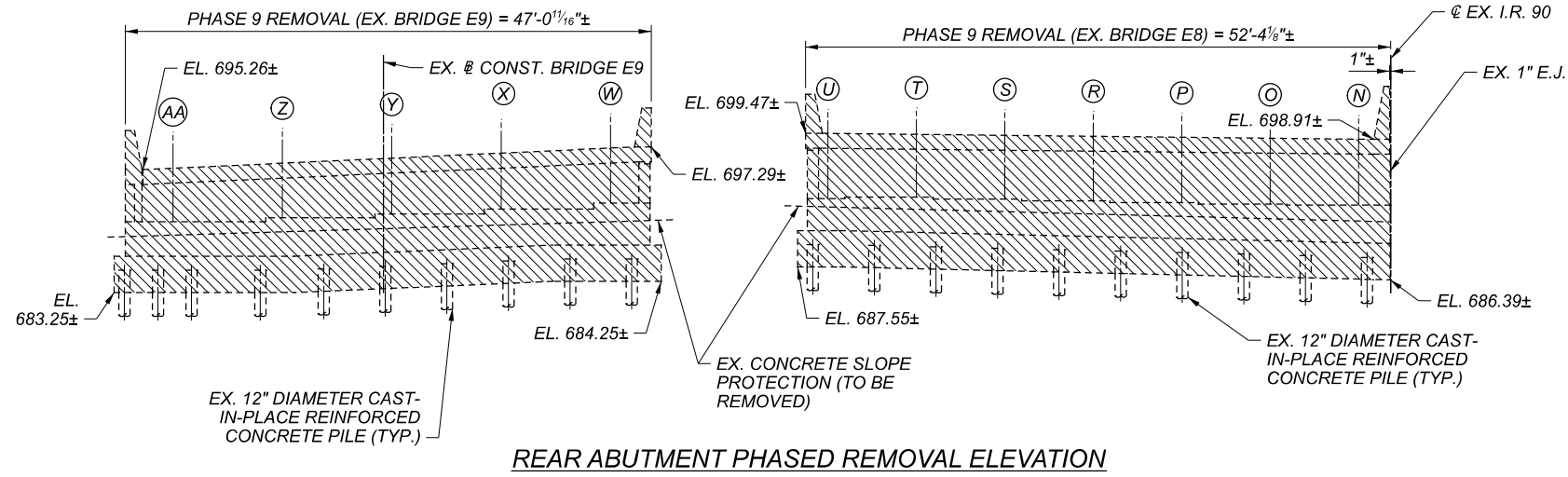


PHASE 7 CONSTRUCTION AND MOT

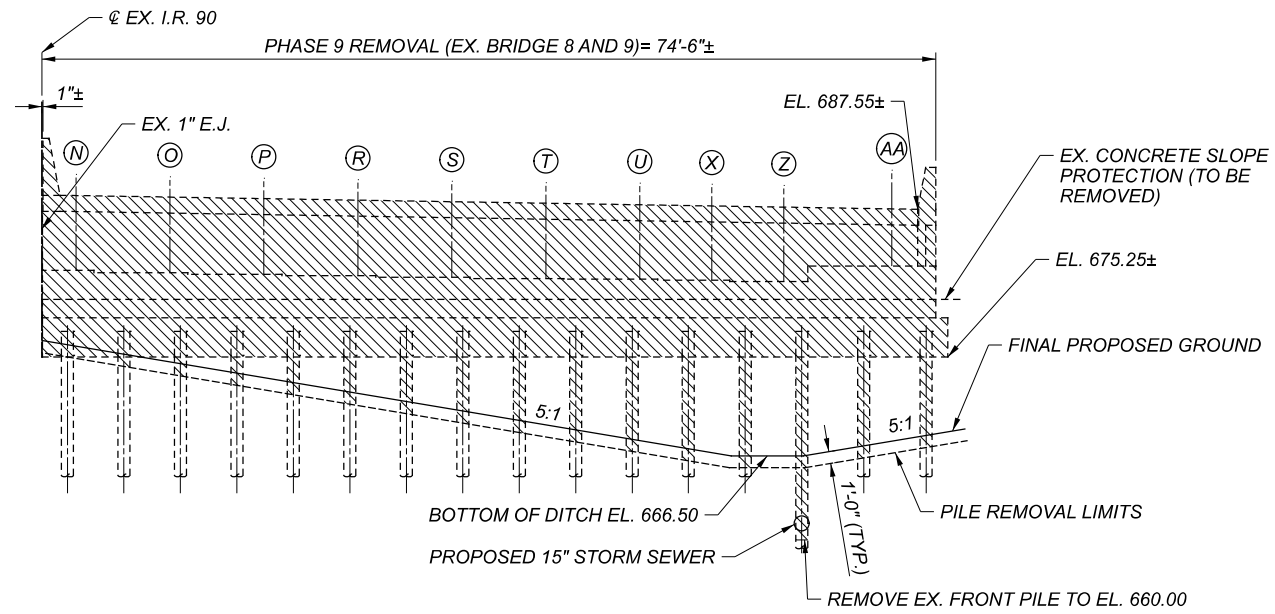


PHASE 8 MOT

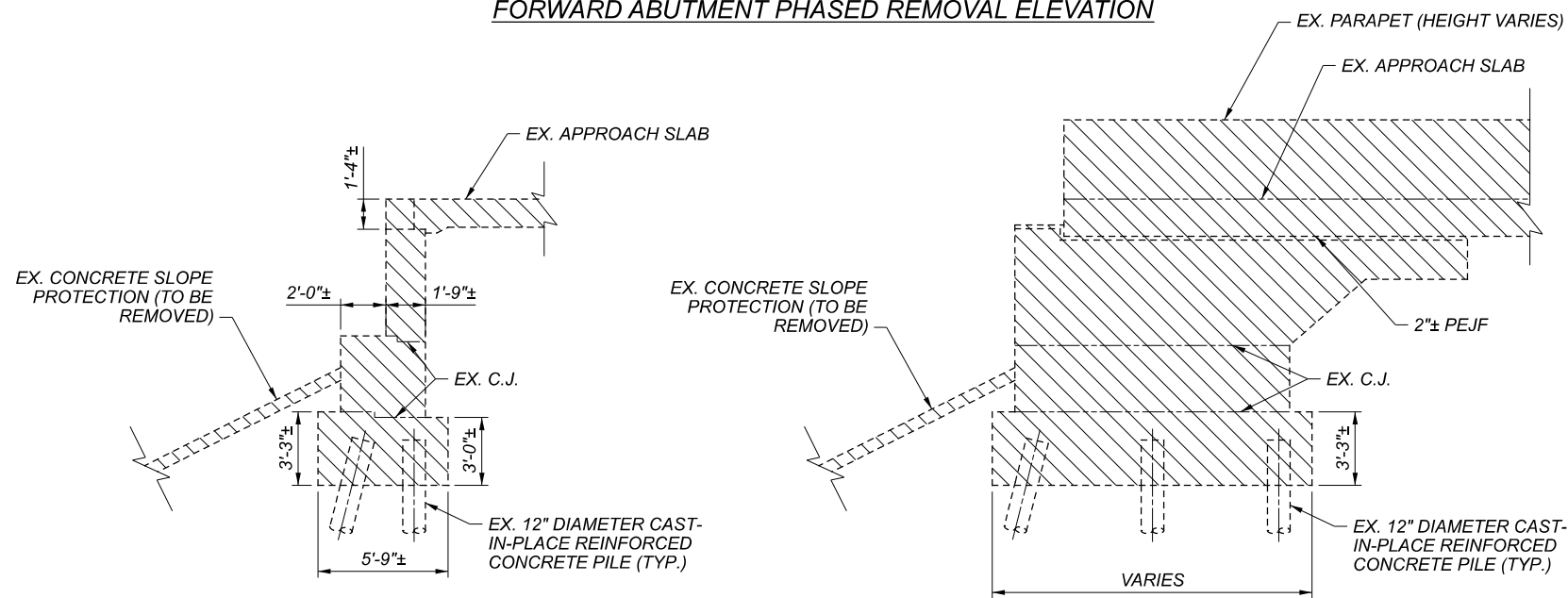




REAR ABUTMENT PHASED REMOVAL ELEVATION

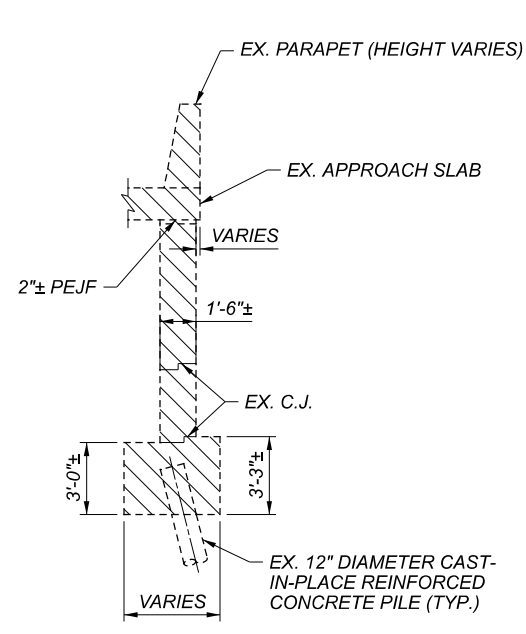


FORWARD ABUTMENT PHASED REMOVAL ELEVATION



TYPICAL ABUTMENT SECTION

TYPICAL WINGWALL ELEVATION



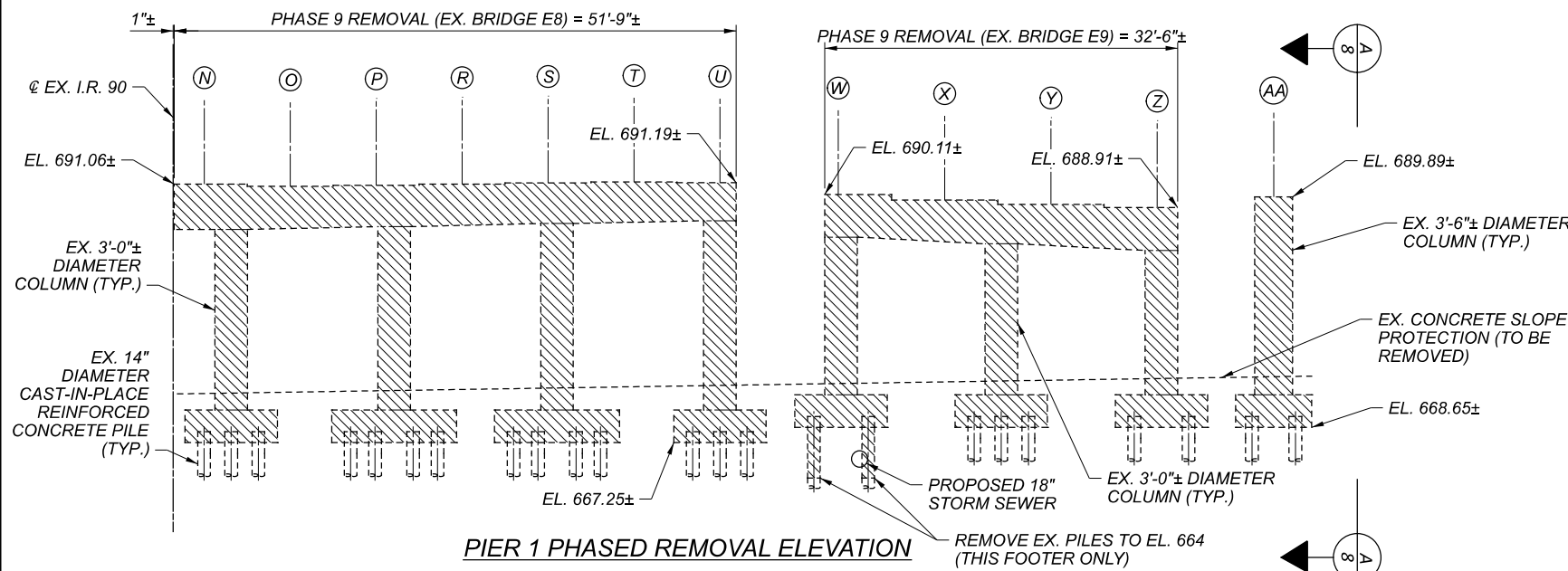
TYPICAL WINGWALL SECTION

LEGEND:

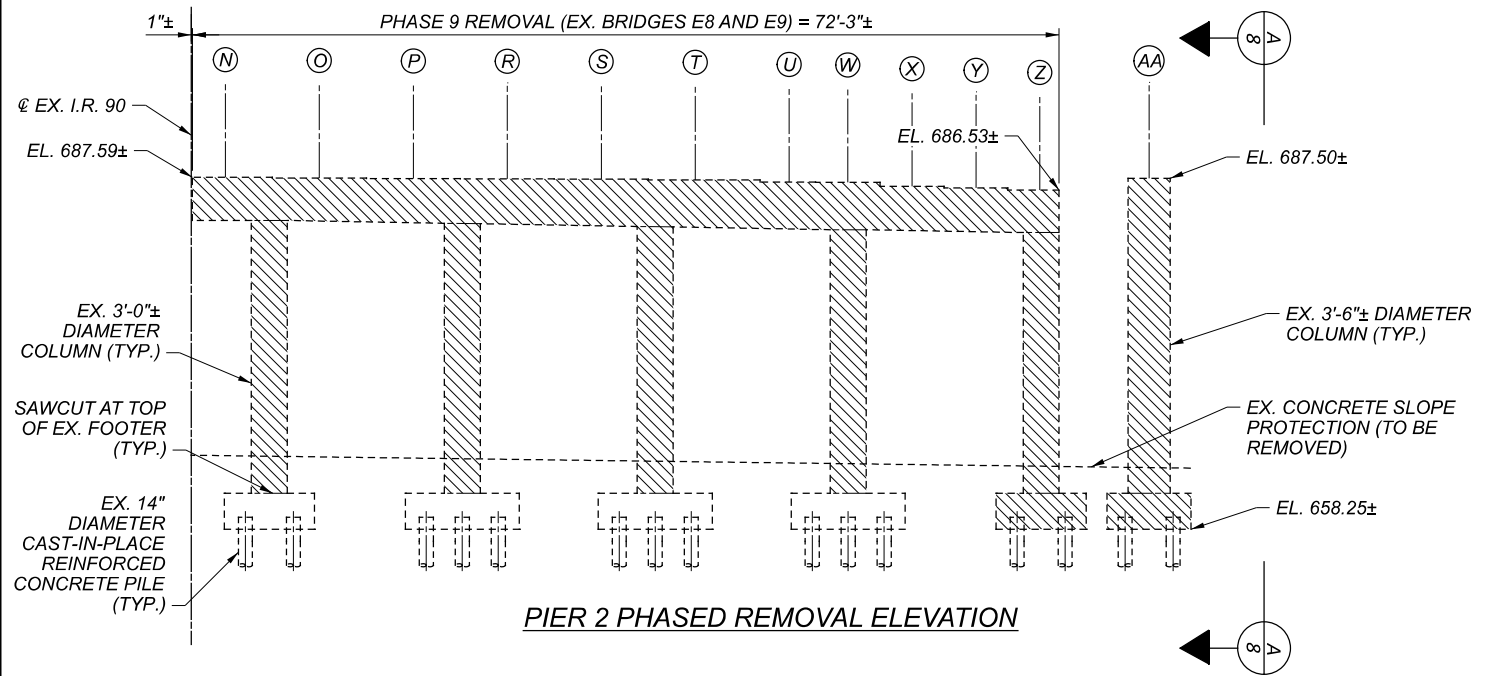
- = PHASE 9 REMOVAL
- = EXISTING GIRDER LETTER

NOTES:

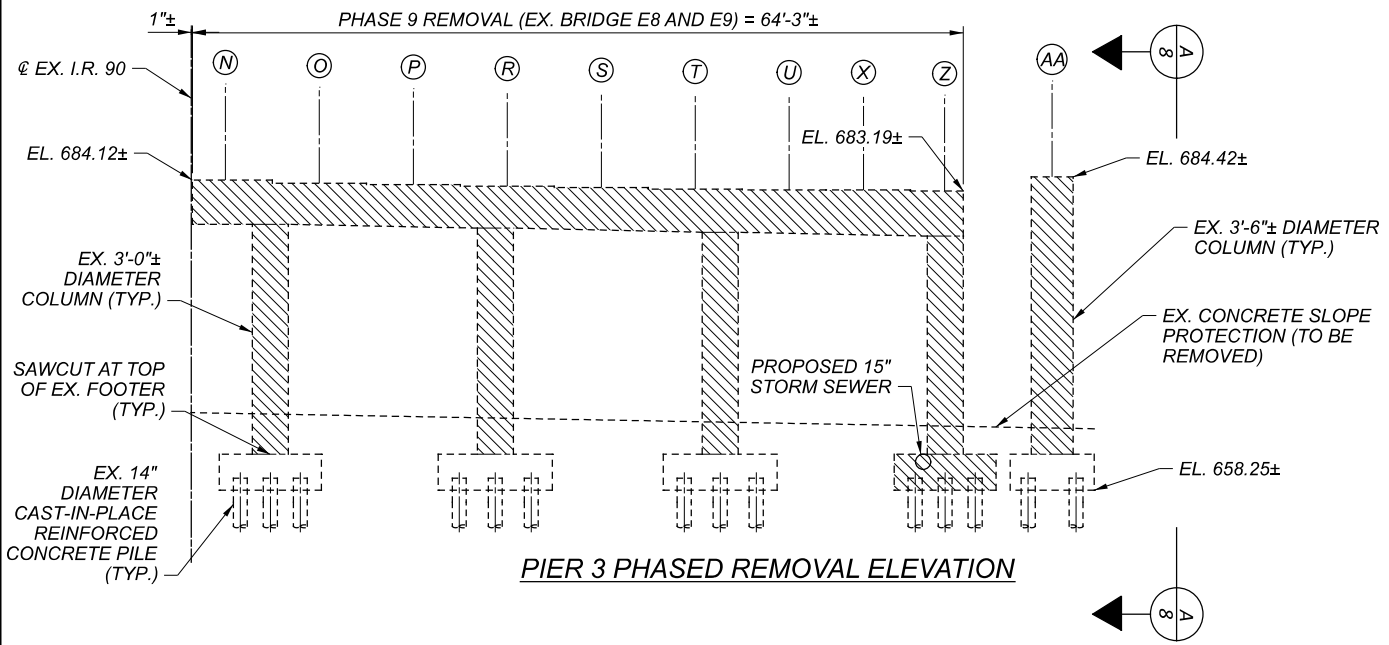
1. SEE SHEET 1614/2339 FOR PHASED REMOVAL OF EXISTING BRIDGE E8 PORTIONS NORTH OF & EX. I.R. 90 AND EXISTING BRIDGE E7.



PIER 1 PHASED REMOVAL ELEVATION



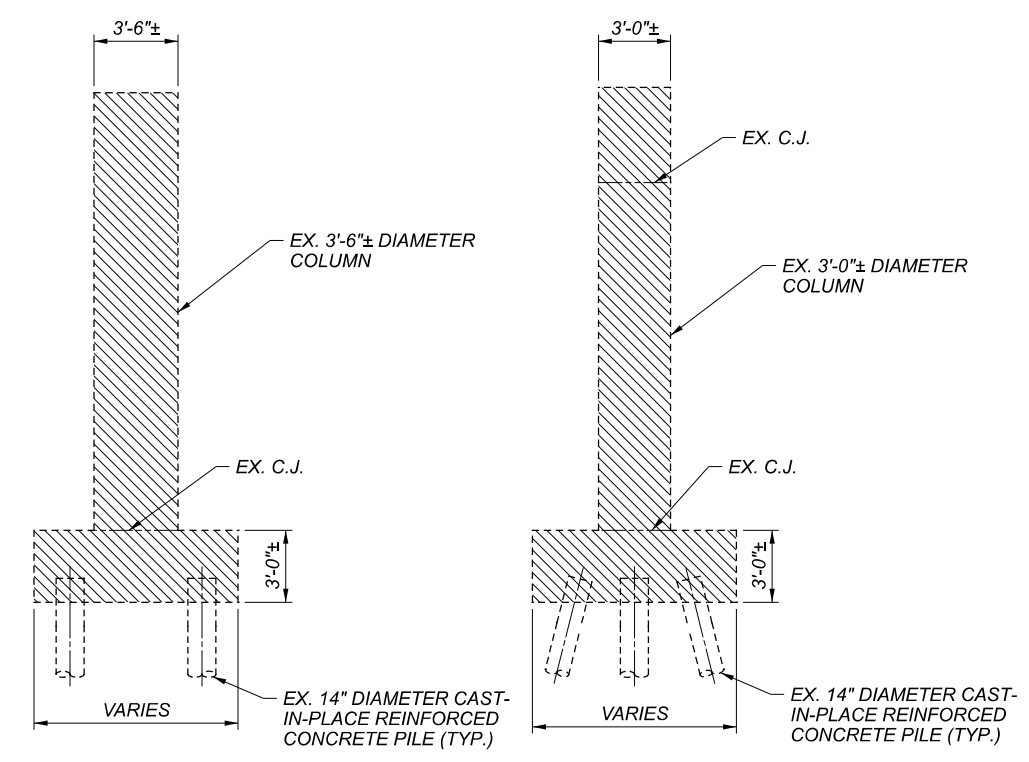
PIER 2 PHASED REMOVAL ELEVATION



PIER 3 PHASED REMOVAL ELEVATION

LEGEND:
 = PHASE 9 REMOVAL
 = EXISTING GIRDER LETTER

NOTES:
 1. SEE SHEET 1615/2339 FOR PHASED REMOVAL OF EXISTING BRIDGE E8 PORTIONS NORTH OF & EX. I.R. 90 AND EXISTING BRIDGE E7.



VIEW A-A

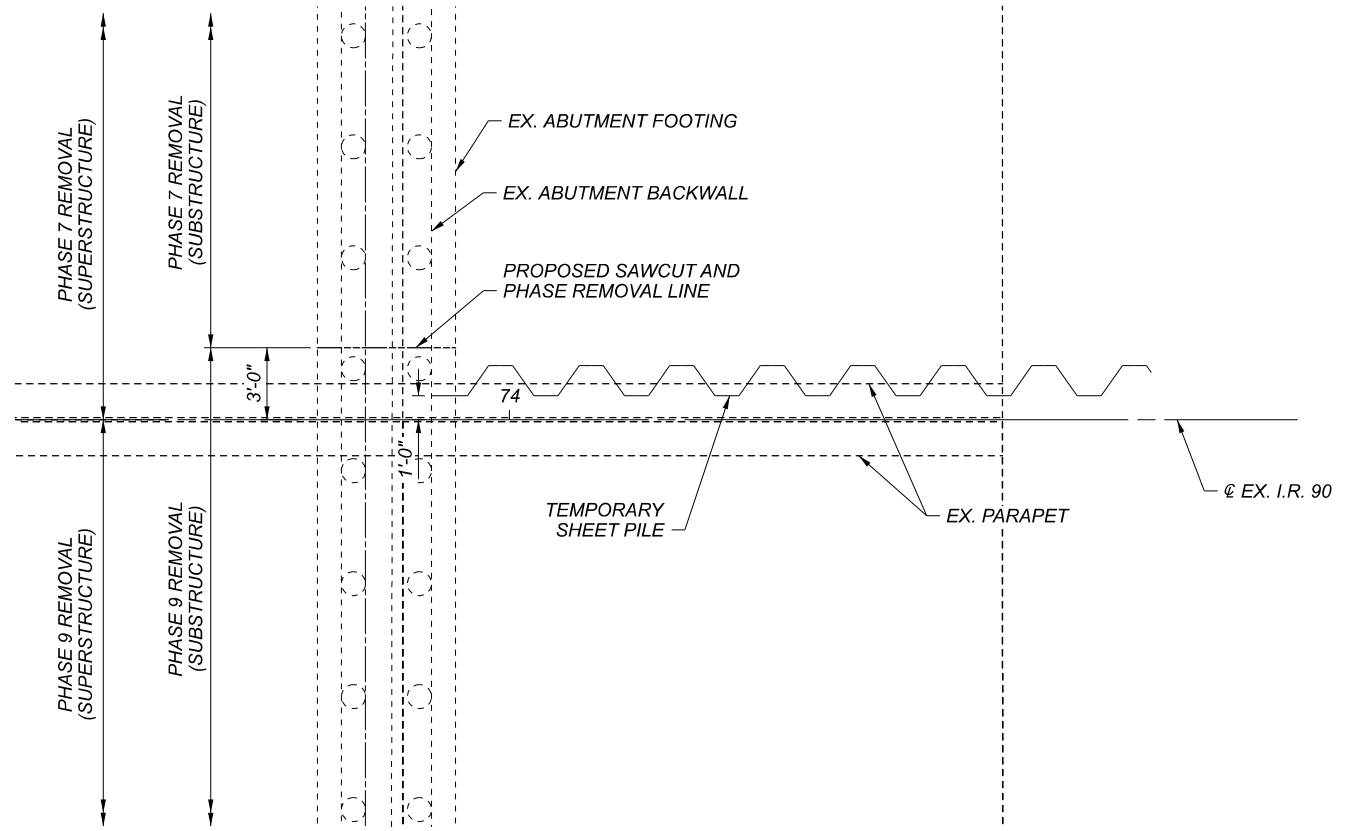
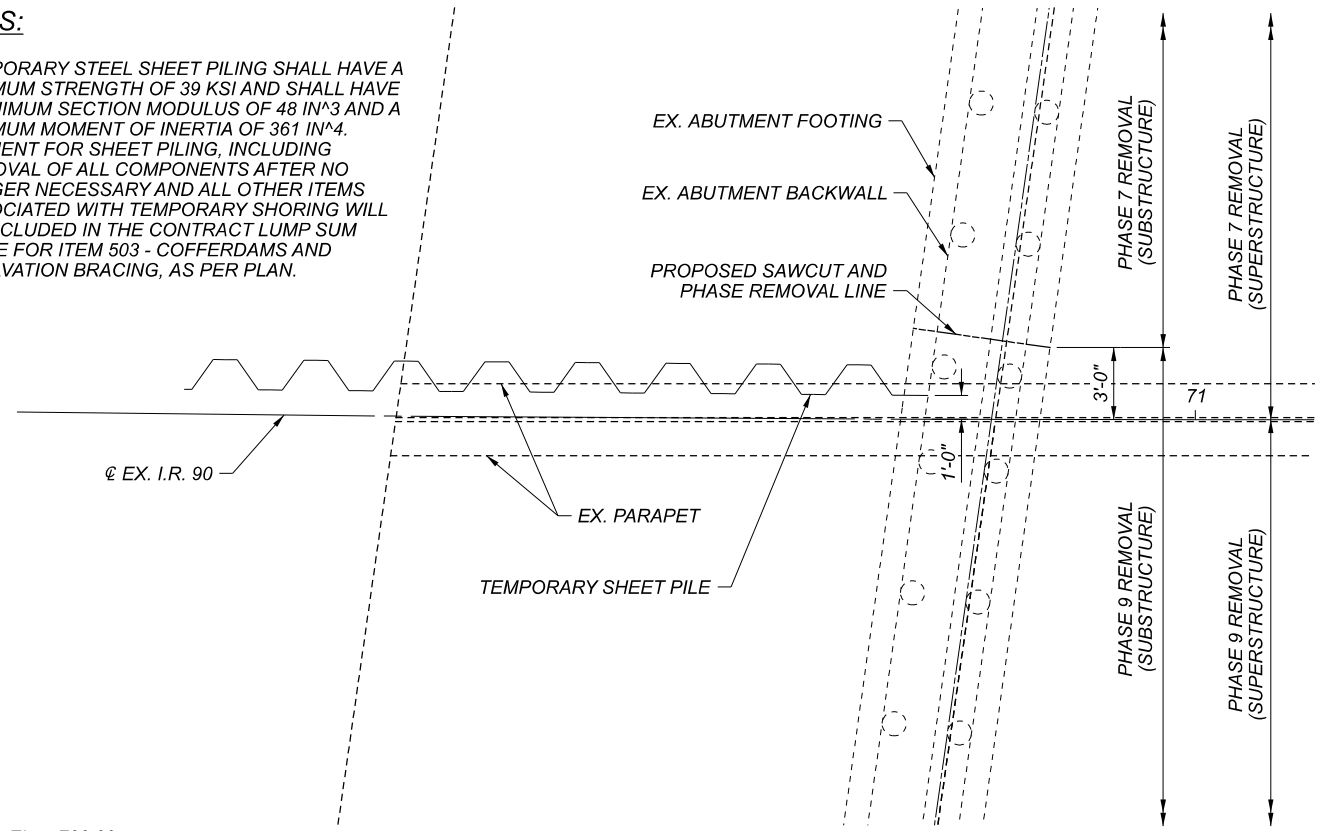
TYPICAL PIER SECTION

PIER PHASED REMOVAL DETAILS
 CUY-90-1653R (BRIDGE 11)
 I.R. 90 EB OVER CR-721 (E. 14TH ST.)

SFN	1807804
DESIGN AGENCY	BURGESS & NIPLE 100 WEST EIRE STREET PARANVILLE, OHIO 44077
DESIGNER	CHECKER
KMA	JAA
REVIEWER	DWL 05/24/22
PROJECT ID	82382
SUBSET	TOTAL
8	42
SHEET	TOTAL
1661	2339

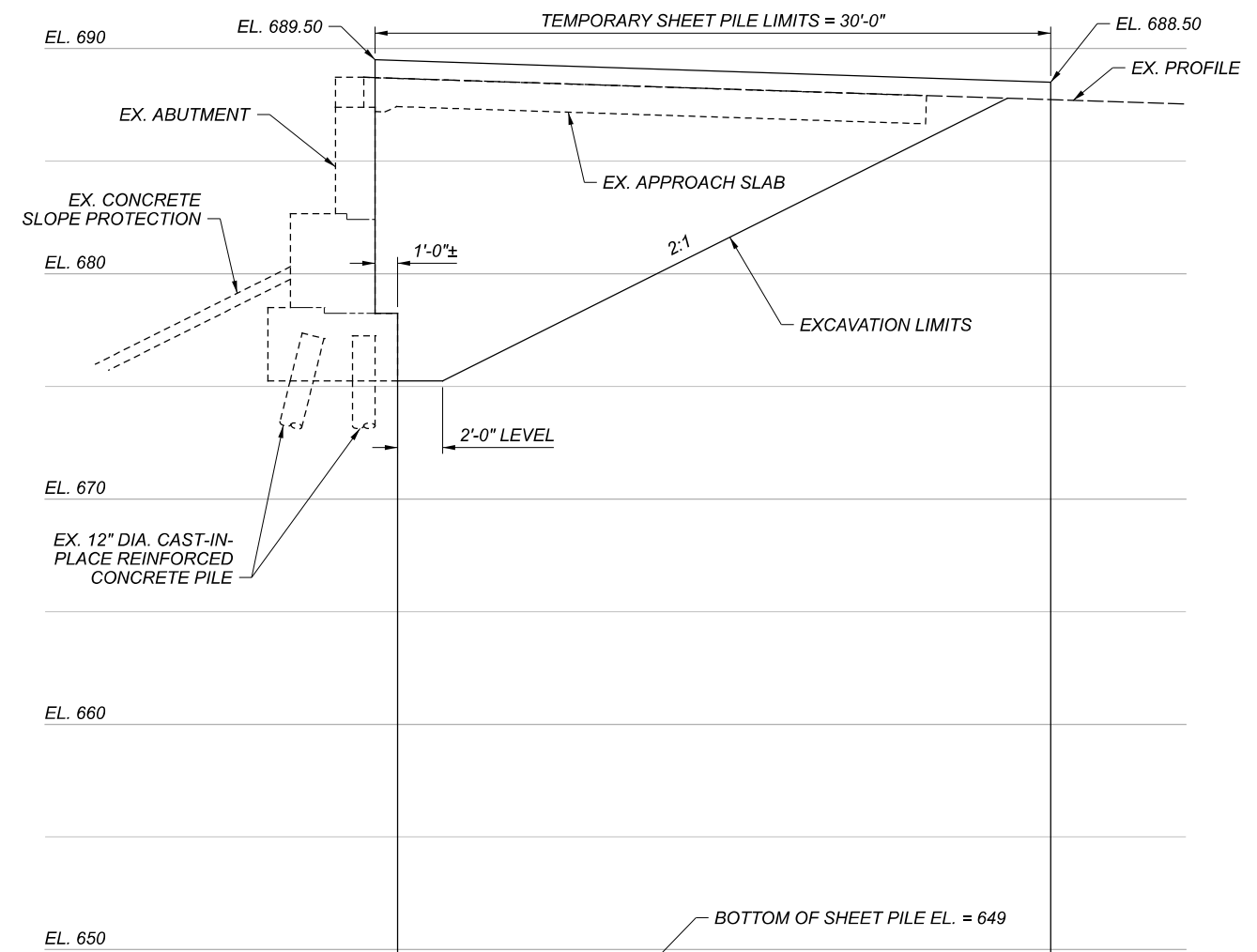
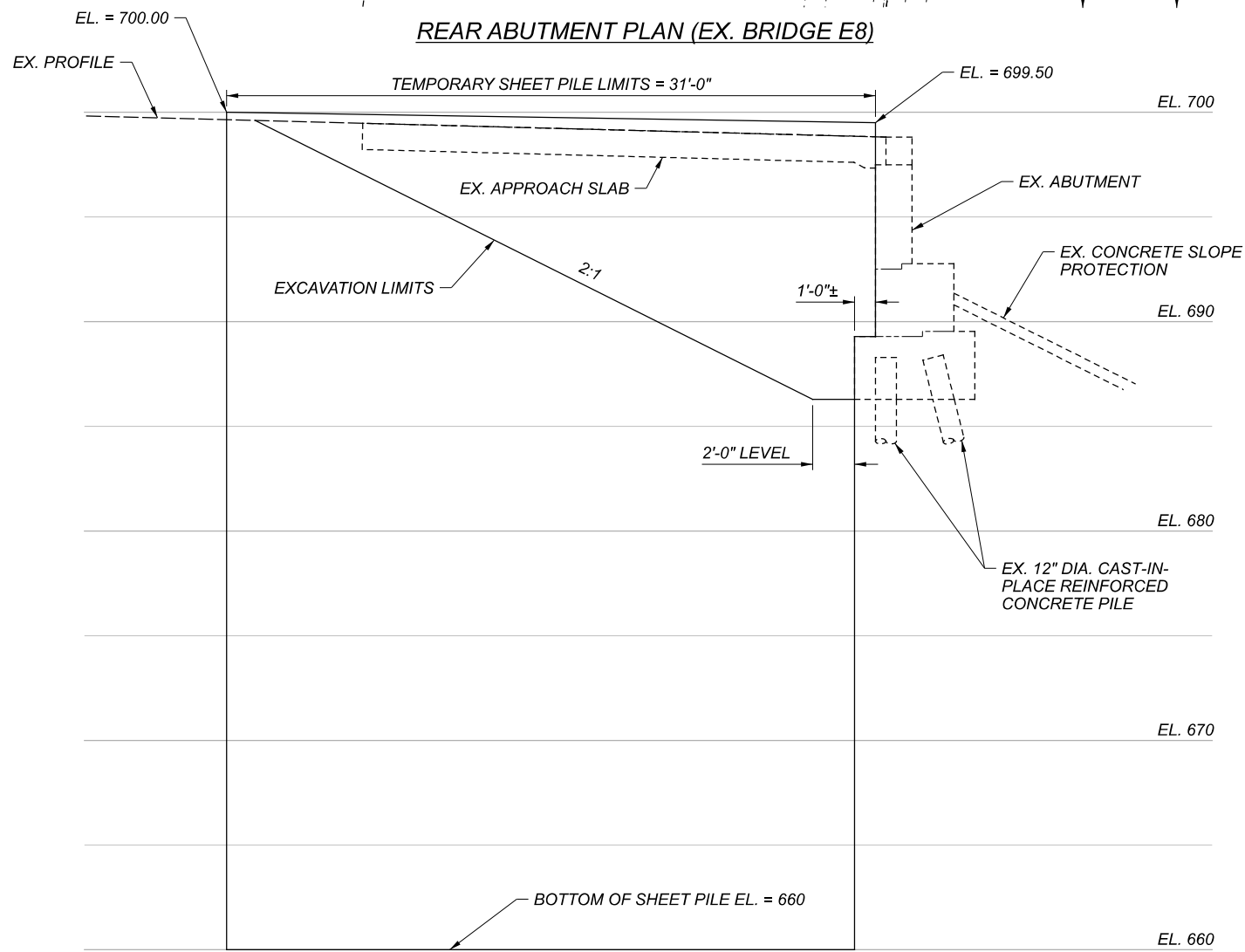
NOTES:

1. TEMPORARY STEEL SHEET PILING SHALL HAVE A MINIMUM STRENGTH OF 39 KSI AND SHALL HAVE A MINIMUM SECTION MODULUS OF 48 IN³ AND A MINIMUM MOMENT OF INERTIA OF 361 IN⁴. PAYMENT FOR SHEET PILING, INCLUDING REMOVAL OF ALL COMPONENTS AFTER NO LONGER NECESSARY AND ALL OTHER ITEMS ASSOCIATED WITH TEMPORARY SHORING WILL BE INCLUDED IN THE CONTRACT LUMP SUM PRICE FOR ITEM 503 - COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN.



REAR ABUTMENT PLAN (EX. BRIDGE E8)

FORWARD ABUTMENT PLAN (EX. BRIDGE E8)



REAR ABUTMENT ELEVATION (EX. BRIDGE E8)

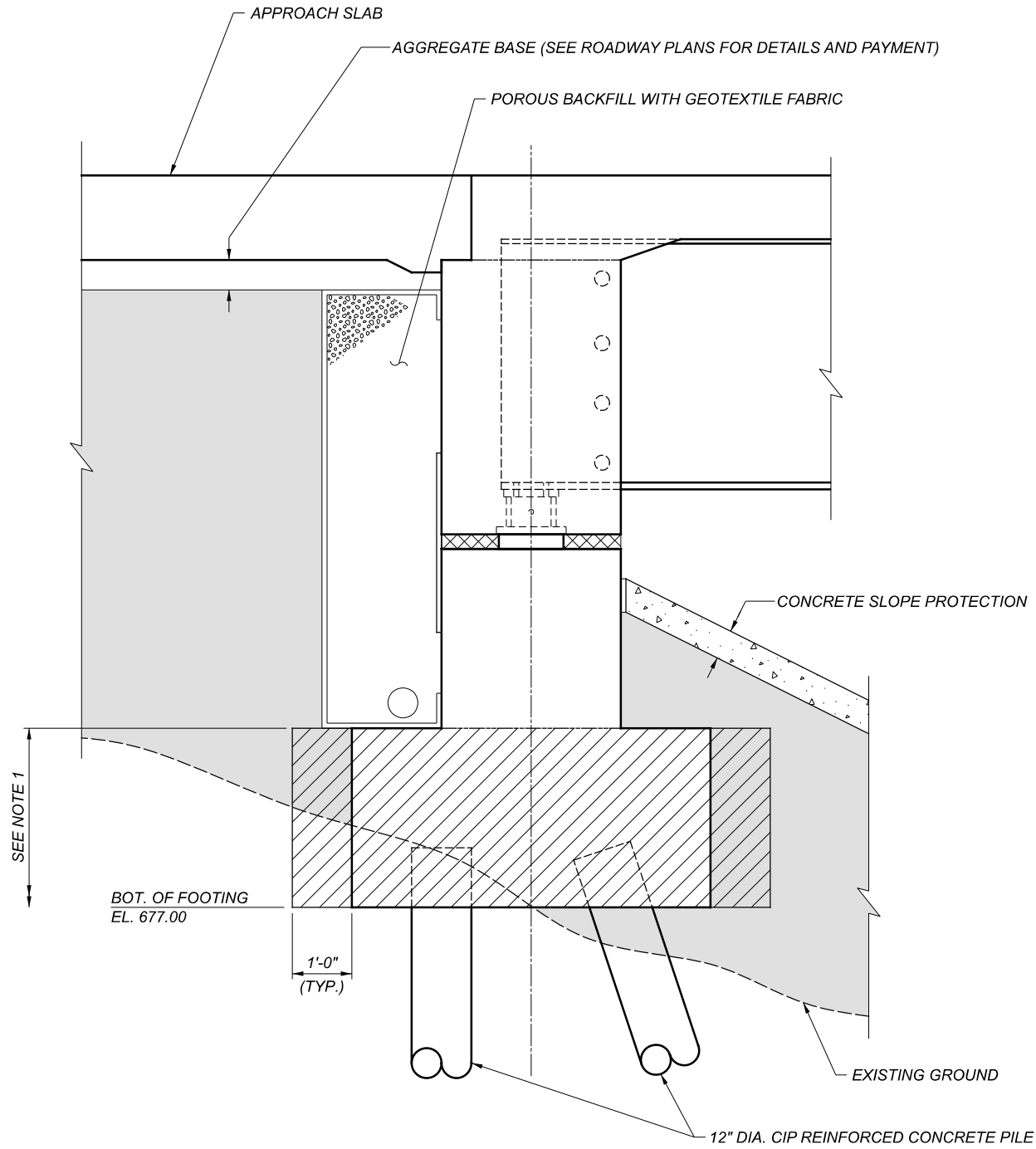
FORWARD ABUTMENT ELEVATION (EX. BRIDGE E8)

CUY-90-16.28 (CCG3A)

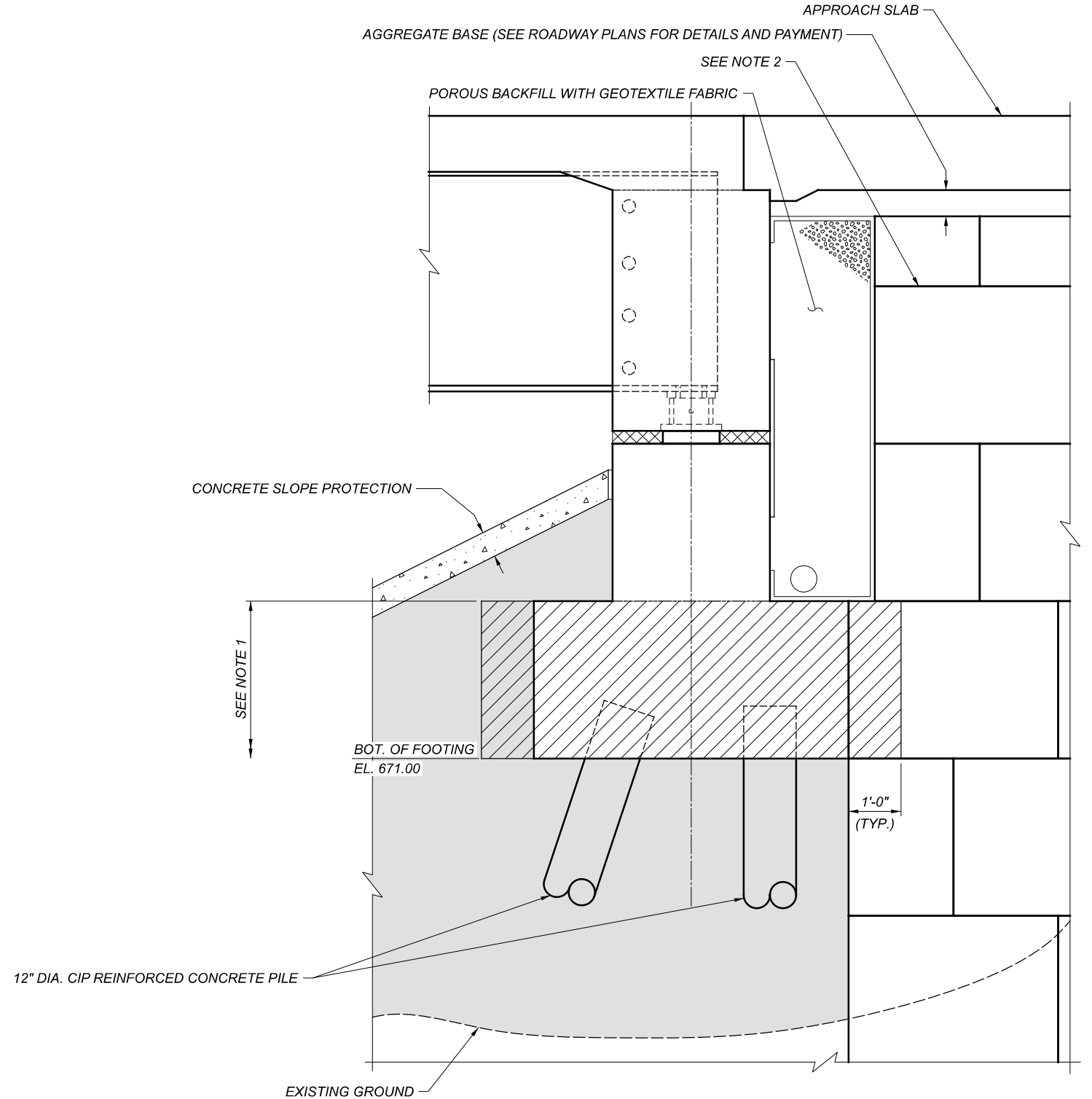
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EXISTING ABUTMENT TEMPORARY SHORING DETAILS
 CUY-90-1653R (BRIDGE 11)
 I.R. 90 EB OVER CR-721 (E. 14TH ST.)

SFN	1807804
DESIGN AGENCY	
BURGESS & NIPLE	
100 WEST ERIE STREET PARANVILLE, OHIO 44277	
DESIGNER	CHECKER
KMA	JAA
REVIEWER	
DWL	05/24/22
PROJECT ID	82382
SUBSET	TOTAL
9	42
SHEET	TOTAL
1662	2339



EXCAVATION AND EMBANKMENT DIAGRAM - REAR ABUTMENT



EXCAVATION AND EMBANKMENT DIAGRAM - FORWARD ABUTMENT

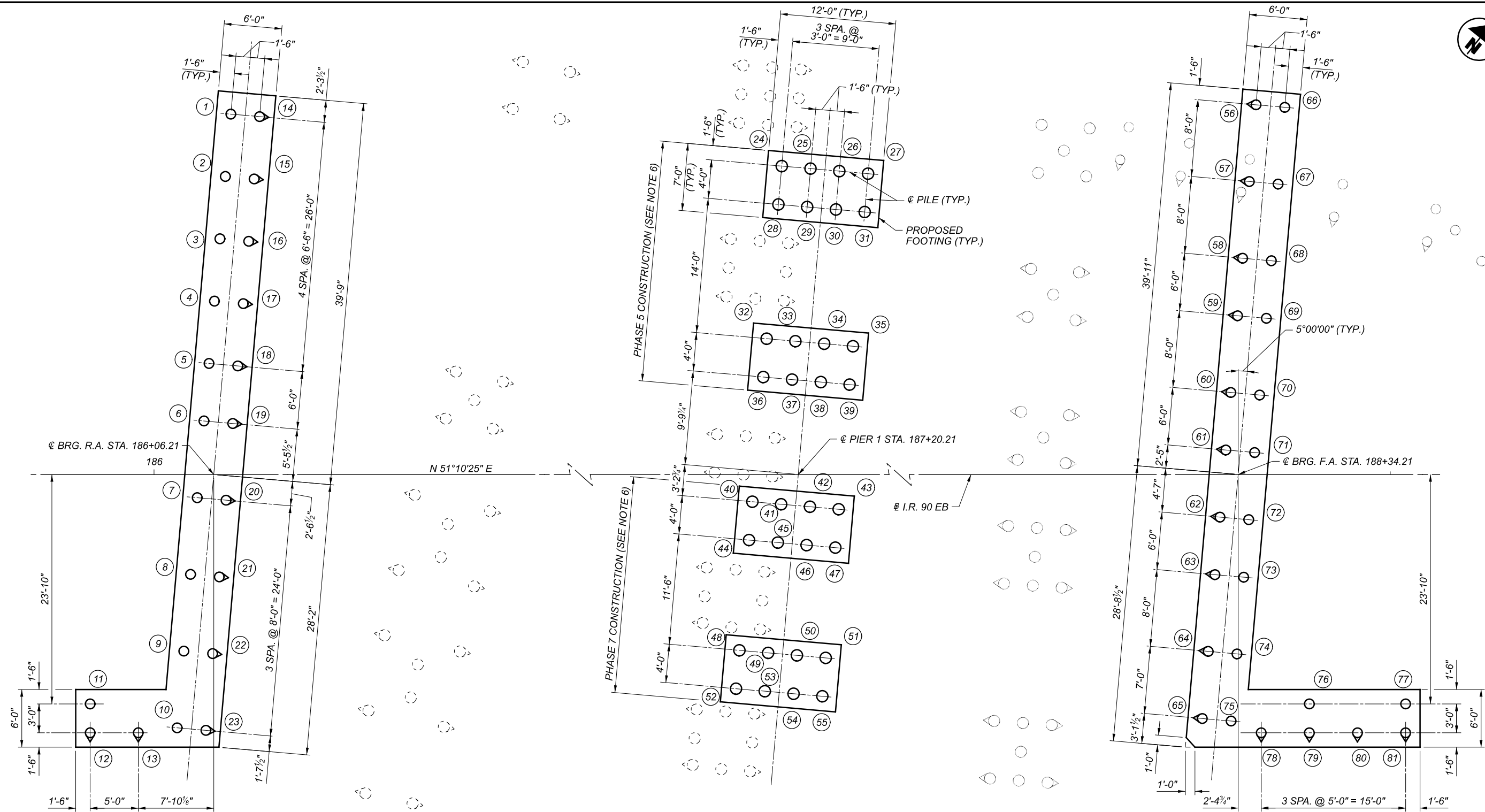
LEGEND:

- = LIMITS OF ITEM 203 - EMBANKMENT, AS PER PLAN
SEE ROADWAY PLANS FOR ADDITIONAL DETAILS AND PAYMENT
- = LIMITS OF ITEM 503 - UNCLASSIFIED EXCAVATION

NOTES:

1. SEE GENERAL NOTES FOR REQUIREMENTS REGARDING CONSTRUCTION OF EMBANKMENT BELOW TOP OF FOOTING, AND REQUIRED WAITING PERIOD PRIOR TO DRIVING PILES.
2. LIGHTWEIGHT FILL (GEOFOAM BLOCKS) OR ITEM 203 - EMBANKMENT, AS PER PLAN BEHIND FORWARD ABUTMENT. FOR LIMITS OF LIGHTWEIGHT FILL AND EMBANKMENT SEE ROADWAY PLANS.

SFN		1807804	
DESIGN AGENCY			
BURGESS & NIPLE			
100 WEST ERIE STREET PAINESVILLE, OHIO 44077			
DESIGNER	CHECKER		
BCS	MAB		
REVIEWER			
DWL 05/24/22			
PROJECT ID			
82382			
SUBSET	TOTAL		
10	42		
SHEET			
TOTAL			
1663	2339		



FOUNDATION PLAN
 (EXISTING FOOTINGS NOT SHOWN FOR CLARITY)

LEGEND:

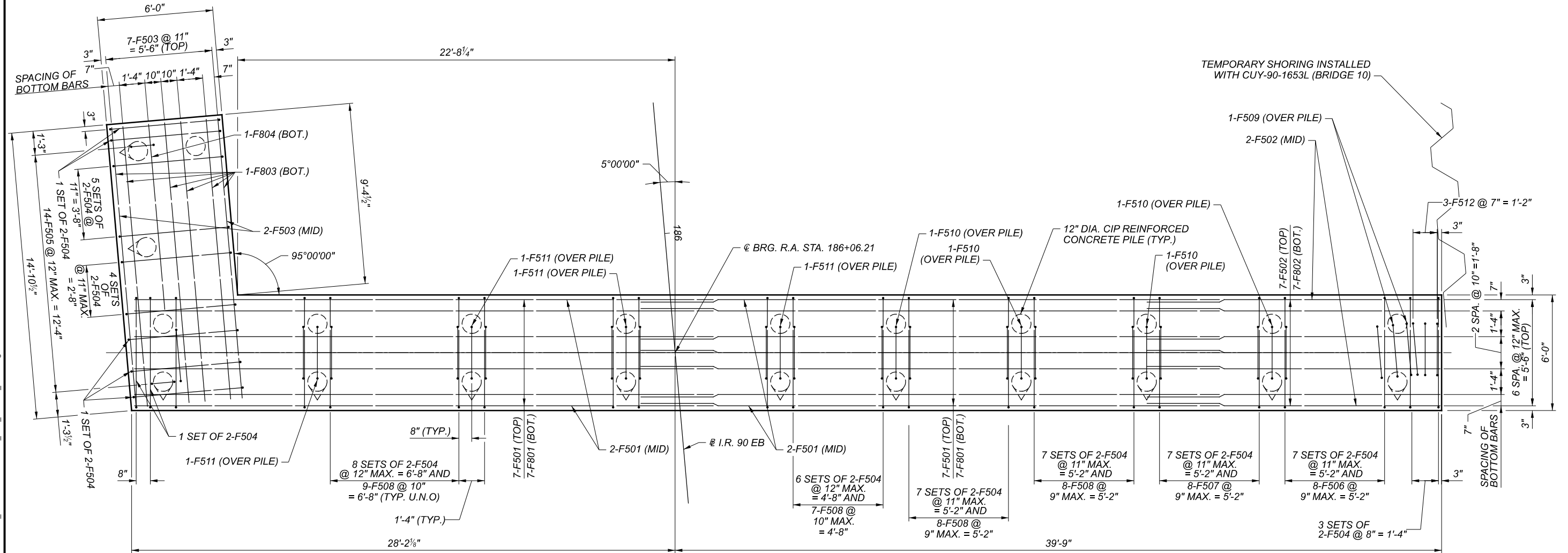
- = PROP. 12" DIA. CIP REINFORCED CONCRETE PILE (ABUTMENTS)
- ◐ = PROP. 12" DIA. CIP REINFORCED CONCRETE PILE (BATTERED 3V:1H) (ABUTMENTS)
- = PROP. 14" DIA. CIP REINFORCED CONCRETE PILE (PIER 1)
- = EX. 14" DIA. CIP REINFORCED CONCRETE PILE
- ◐ = EX. 14" DIA. CIP REINFORCED CONCRETE PILE (BATTERED 4V:1H)
- ## = PROP. PILE NUMBER

NOTES:

1. SEE SHEET 12/42 FOR REAR ABUTMENT DETAILS.
2. SEE SHEETS 20/42 AND 19/42 FOR PIER 1 DETAILS.
3. SEE SHEET 15/42 FOR FORWARD ABUTMENT DETAILS.
4. EXISTING PILES ARE SHOWN BASED ON RECORD PLANS. CONTRACTOR SHALL VERIFY EXISTING PILE LOCATION PRIOR TO PROPOSED PILE DRIVING OPERATIONS. ANY CONFLICTS WITH THE PROPOSED WORK SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER IN A TIMELY MANNER.
5. WHERE AN EXISTING PILE CONFLICTS WITH A PROPOSED FOOTING, CUT THE PILE OFF TO 1'-0" BELOW THE PROPOSED BOTTOM OF FOOTING. THIS IS TO BE INCLUDED WITH ITEM 202 - PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN FOR PAYMENT.
6. SEE SHEET 1618/2339 FOR PIER TEMPORARY SHORING DETAILS.

FOUNDATION PLAN
CUY-90-1653R (BRIDGE 11)
I.R. 90 EB OVER CR-721 (E. 14TH ST.)

SFN	
1807804	
DESIGN AGENCY	
BURGESS & NIPLE 100 WEST FIRE STREET PAINESVILLE, OHIO 44077	
DESIGNER	CHECKER
BCS	MAB
REVIEWER	
DWL 05/24/22	
PROJECT ID	
82382	
SUBSET	TOTAL
11	42
SHEET	
TOTAL	
1664	2339



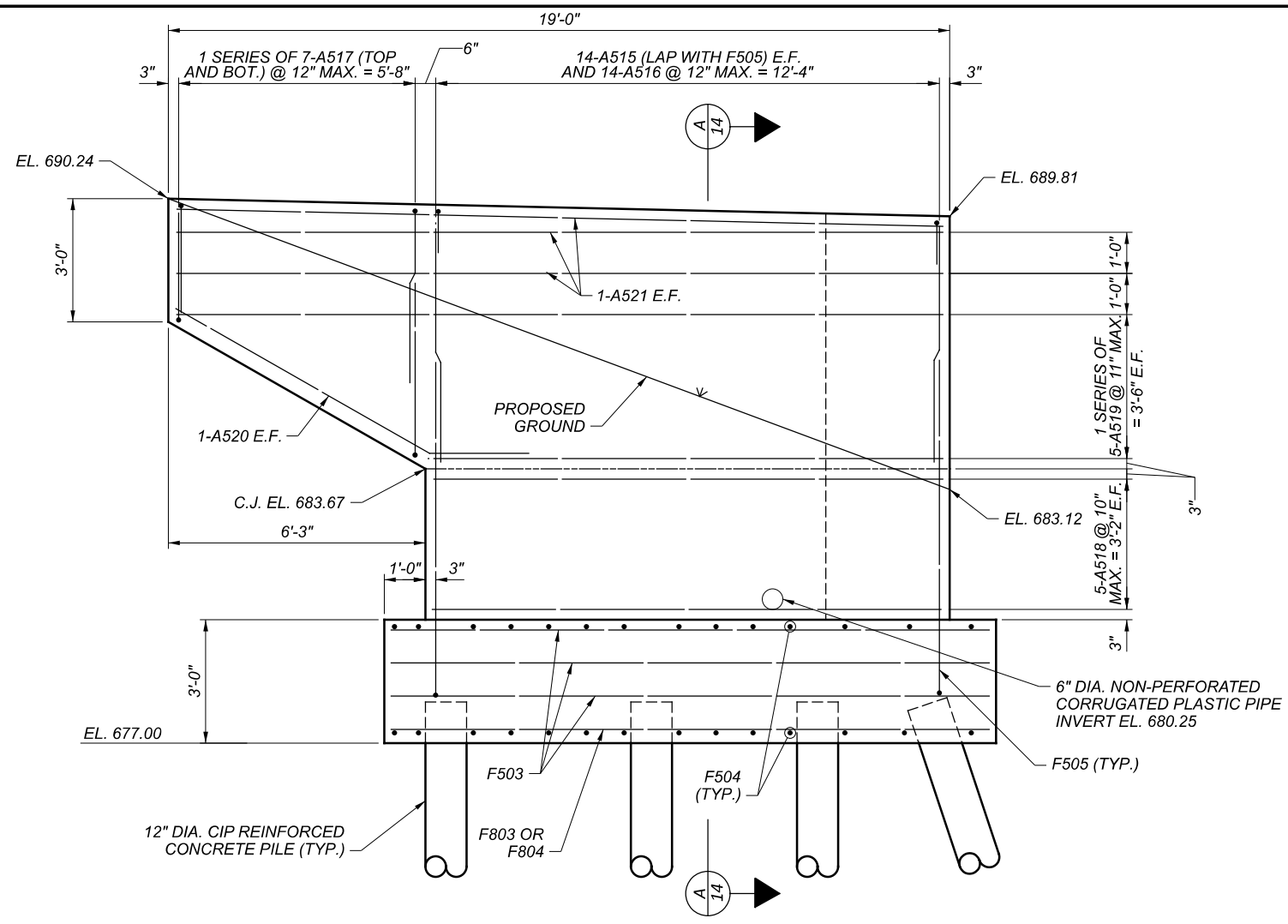
REAR ABUTMENT FOOTING PLAN

NOTES:

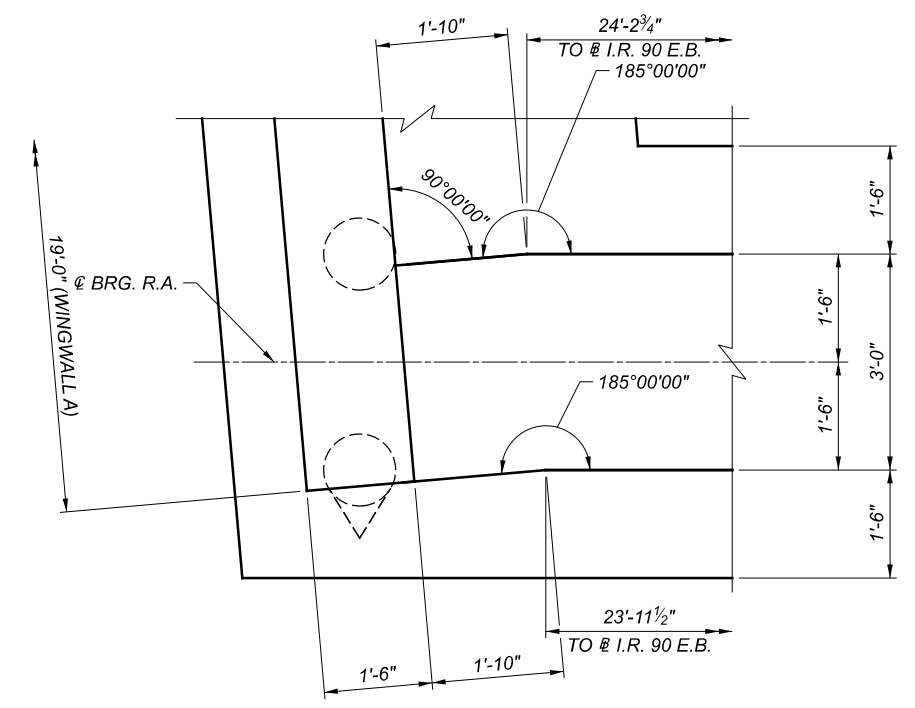
- SEE SHEET 11/42 FOR FOUNDATION LAYOUT.
- SEE SHEET 13/42 FOR REAR ABUTMENT PLAN AND ELEVATION.
- MINIMUM REINFORCING LAP LENGTHS:
 #5 VERTICAL = 2'-5"
 #5 HORIZONTAL = 3'-1"
 #8 = 3'-9"

REAR ABUTMENT FOOTING PLAN
 CUY-90-1653R (BRIDGE 11)
 I.R. 90 EB OVER CR-721 (E. 14TH ST.)

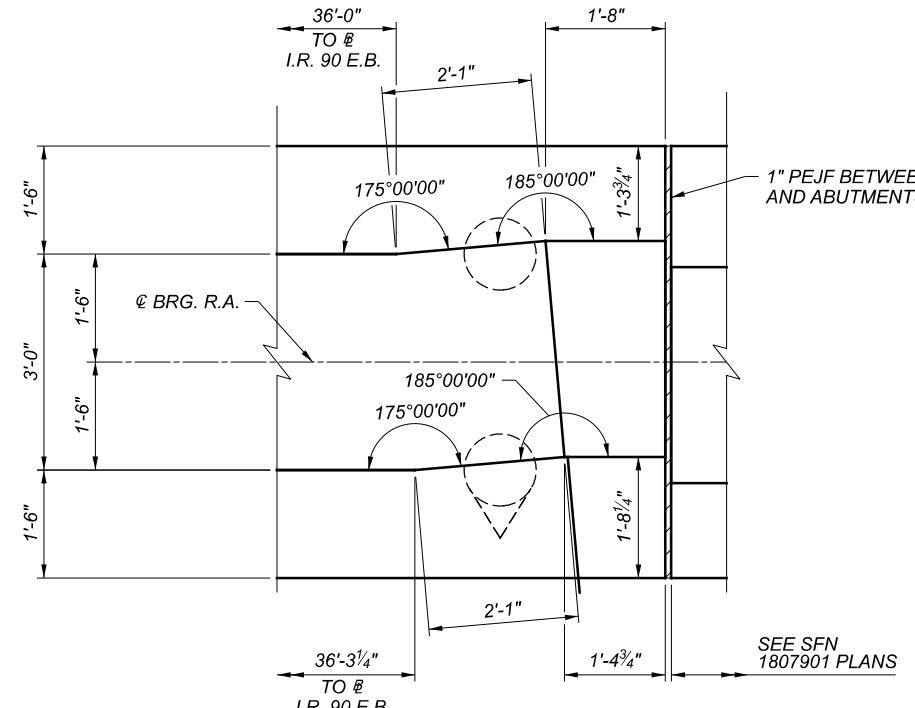
SFN	1807804
DESIGN AGENCY	
BURGESS & NIPLE 100 WEST FIRE STREET PAINESVILLE, OHIO 44077	
DESIGNER	CHECKER
BCS	MAB
REVIEWER	
DWL	05/24/22
PROJECT ID	82382
SUBSET	TOTAL
12	42
SHEET	TOTAL
1665	2339



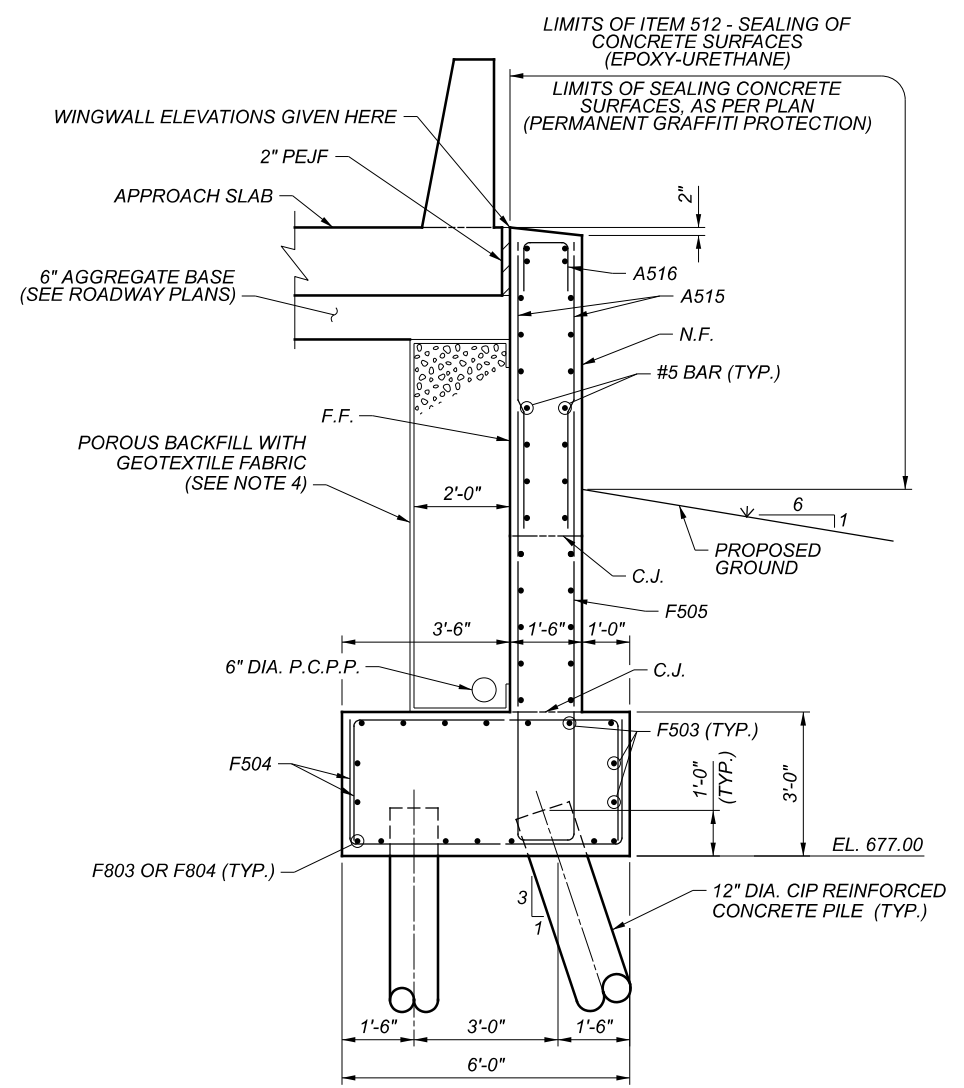
WINGWALL A ELEVATION



DETAIL A
(REINFORCING NOT SHOWN)



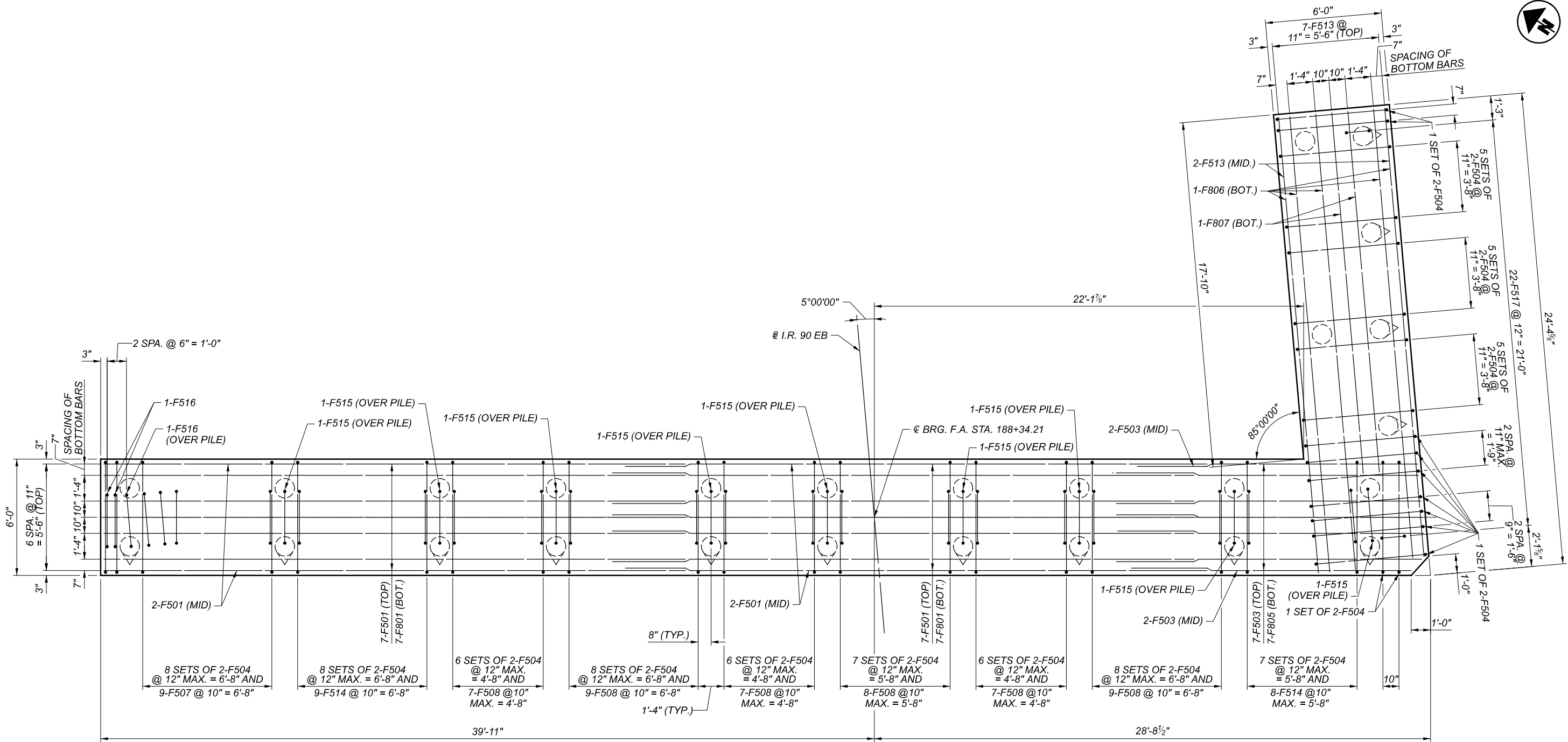
DETAIL B
(REINFORCING NOT SHOWN)



SECTION A-A

- NOTES:**
- SEE SHEET 13/42 FOR REAR ABUTMENT PLAN AND ELEVATION AND LOCATION OF DETAILS A AND B.
 - MINIMUM REINFORCING LAP LENGTHS:
#5 = 2'-5"
 - SEE STANDARD BRIDGE DRAWING SICD-1-21 FOR ADDITIONAL DETAILS.
 - TURN GEOTEXTILE FABRIC UP 6" AT BASE OF WALL AND DOWN 6" AT TOP OF WALL.

SFN	1807804
DESIGN AGENCY	BURGESS & NIPLE 100 WEST FIRE STREET PAINESVILLE, OHIO 44077
DESIGNER	BCS
CHECKER	MAB
REVIEWER	DWL
DATE	05/24/22
PROJECT ID	82382
SUBSET	14
TOTAL	42
SHEET	1667
TOTAL	2339



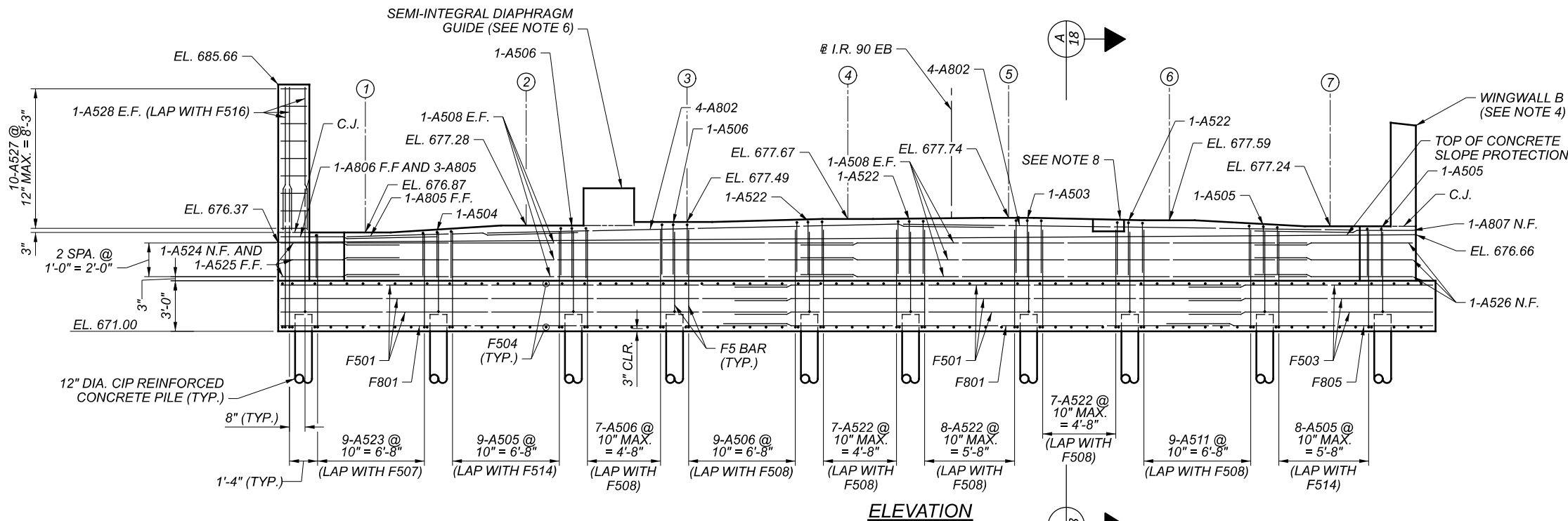
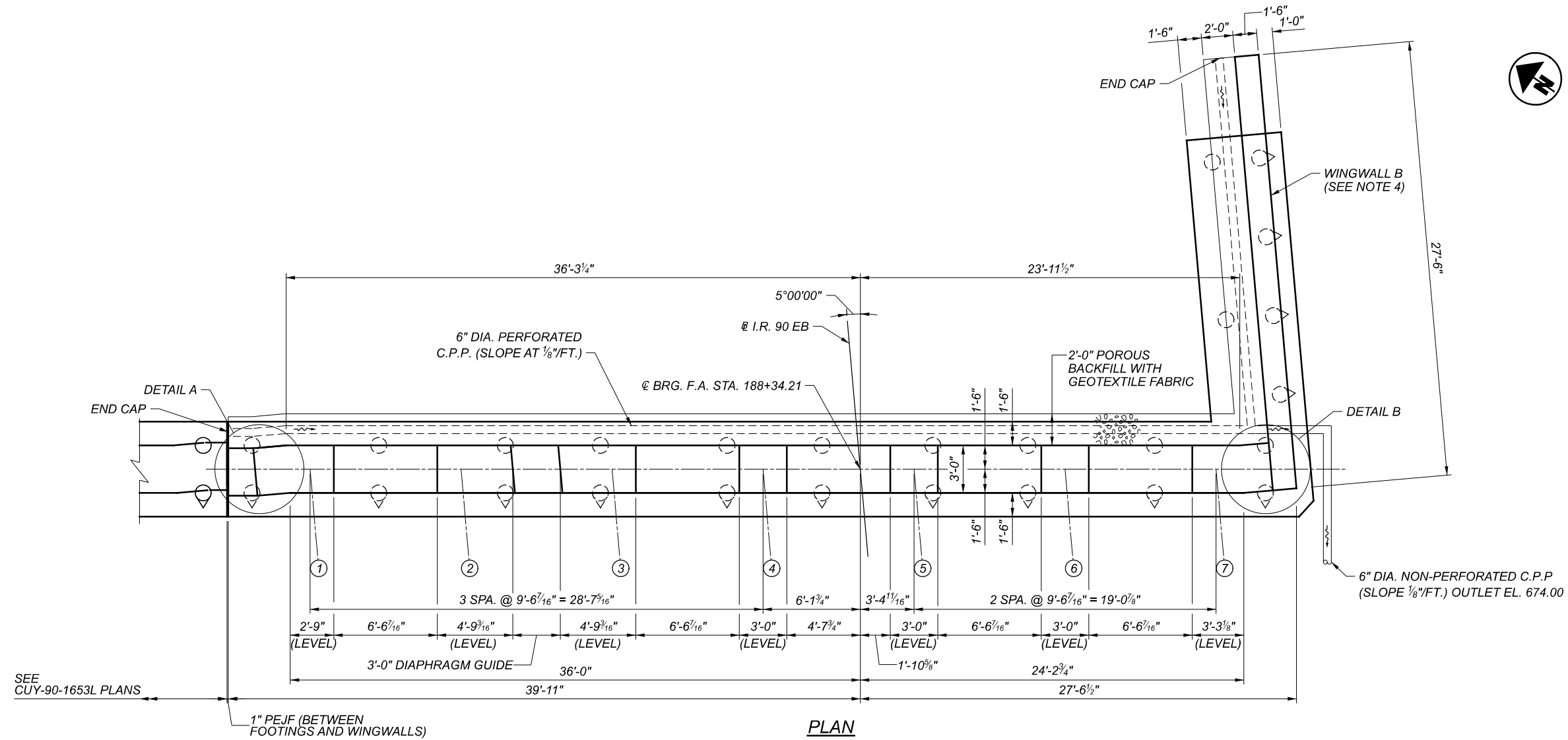
FORWARD ABUTMENT FOOTING PLAN

NOTES:

1. SEE SHEET 11/42 FOR FOUNDATION LAYOUT.
2. SEE SHEET 16/42 FOR FORWARD ABUTMENT PLAN AND ELEVATION.
3. MINIMUM REINFORCING LAP LENGTHS:
 #5 VERTICAL = 2'-5"
 #5 HORIZONTAL = 3'-1"
 #8 = 3'-9"

FORWARD ABUTMENT FOOTING PLAN
 CUY-90-1653R (BRIDGE 11)
 I.R. 90 EB OVER CR-721 (E. 14TH ST.)

SFN	1807804
DESIGN AGENCY	
BURGESS & NIPLE 100 WEST ERIE STREET PAINESVILLE, OHIO 44077	
DESIGNER	CHECKER
BCS	MAB
REVIEWER	
DWL	05/24/22
PROJECT ID	82382
SUBSET	TOTAL
15	42
SHEET	TOTAL
1668	2339



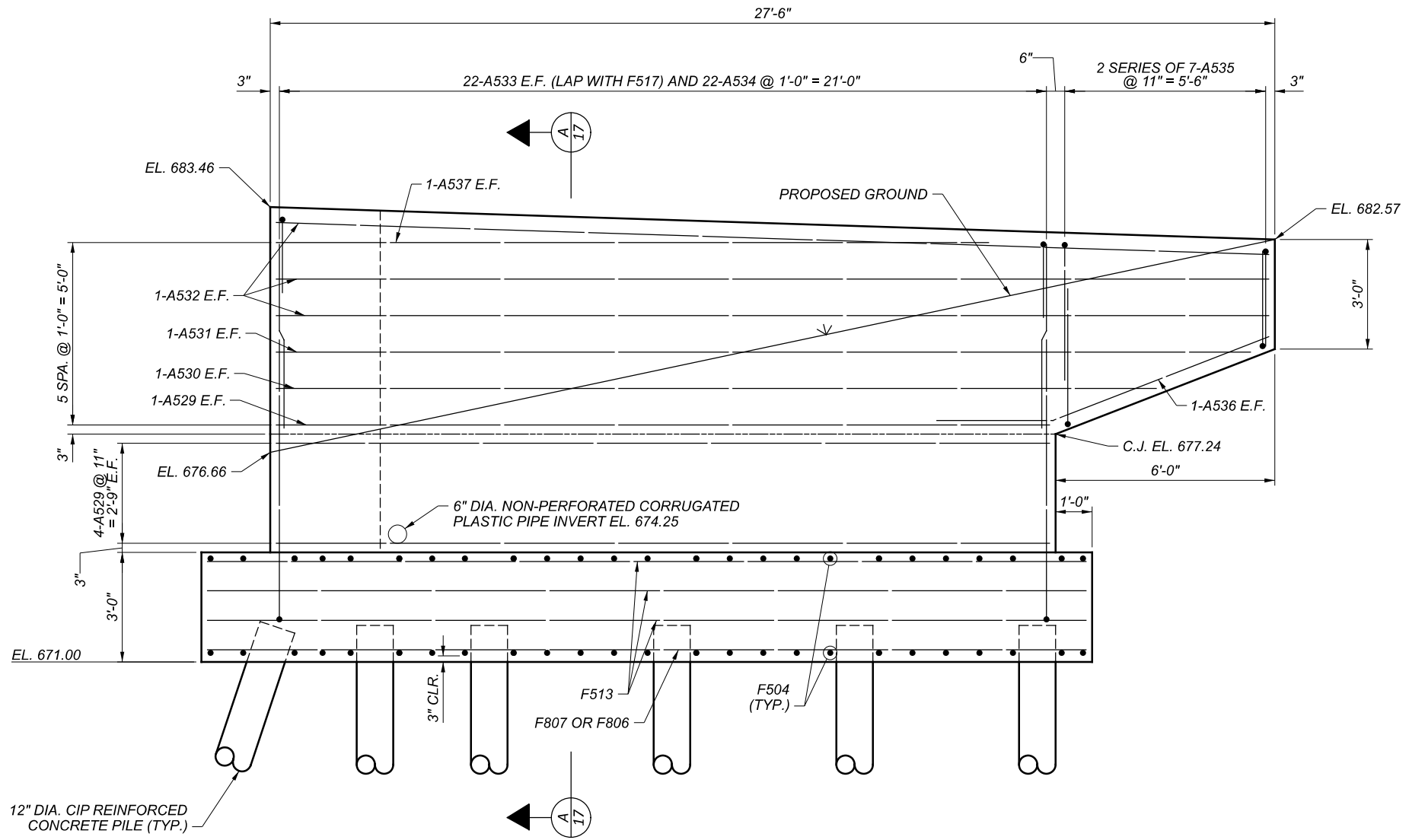
LEGEND:
 # = GIRDER NUMBER

- NOTES:**
- SEE SHEET 17/42 FOR DETAILS A AND B.
 - SEE SHEET 15/42 FOR FORWARD ABUTMENT FOOTING PLAN.
 - SEE SHEET 18/42 FOR SECTION A-A.
 - SEE SHEET 17/42 FOR WINGWALL B DETAILS.
 - MINIMUM REINFORCING LAP LENGTHS:
 #5 VERTICAL = 2'-5"
 #5 HORIZONTAL = 3'-1"
 #8 = 5'-4"
 - SEE STANDARD BRIDGE DRAWING SICD-2-14 FOR ADDITIONAL DETAILS.
 - SEE STANDARD BRIDGE DRAWING SICD-1-21 FOR ADDITIONAL DETAILS.
 - SEE LIGHTING PLANS FOR LOCATION AND DETAILS FOR LIGHTING ATTACHED TO STRUCTURE.

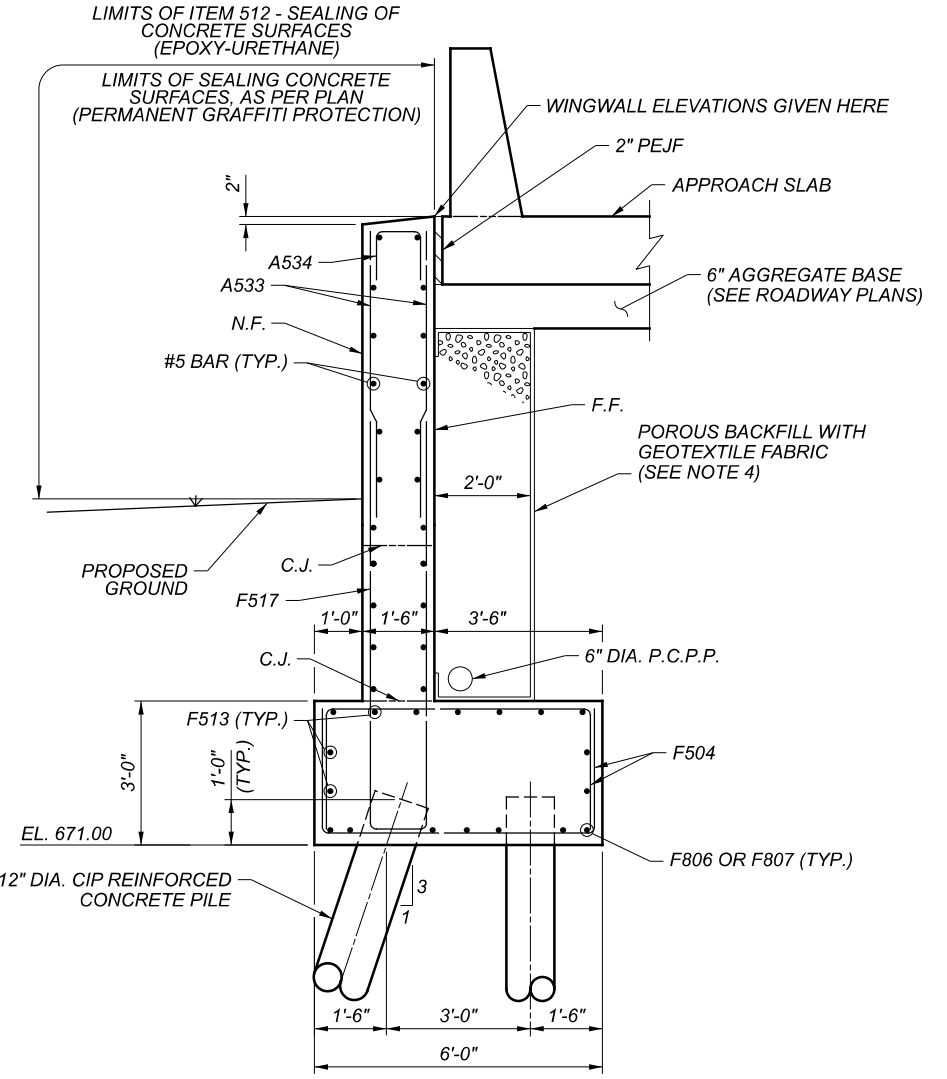
FORWARD ABUTMENT PLAN AND ELEVATION
 CUY-90-1653R (BRIDGE 11)
 I.R. 90 EB OVER CR-721 (E. 14TH ST.)

SFN	1807804
DESIGN AGENCY	BCS MAB
DESIGNER/CHECKER	BCS MAB
REVIEWER	DWL 05/24/22
PROJECT ID	82382
SUBSET	TOTAL
16	42
SHEET	TOTAL
1669	2339

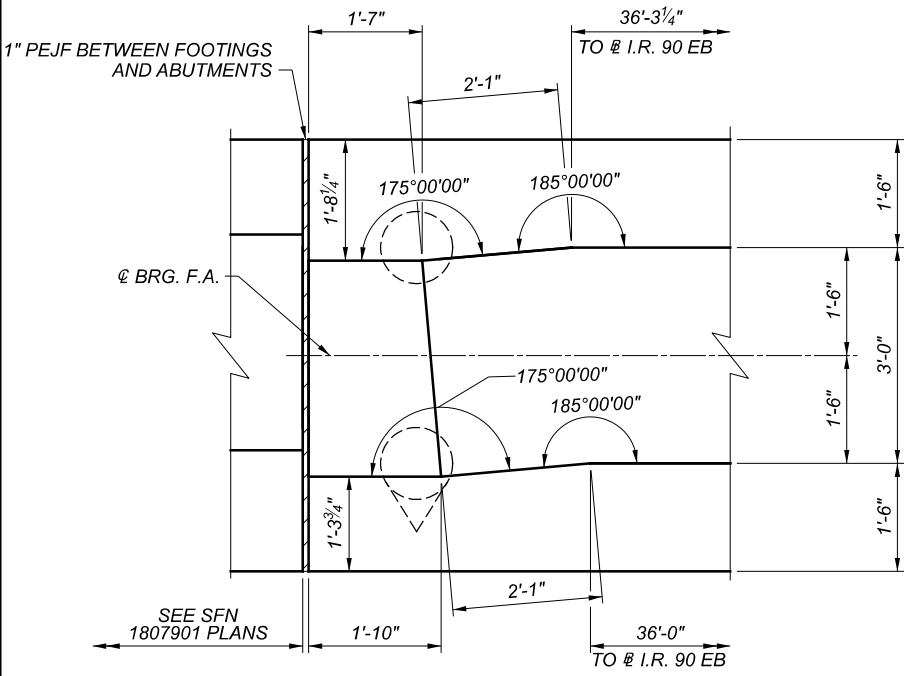
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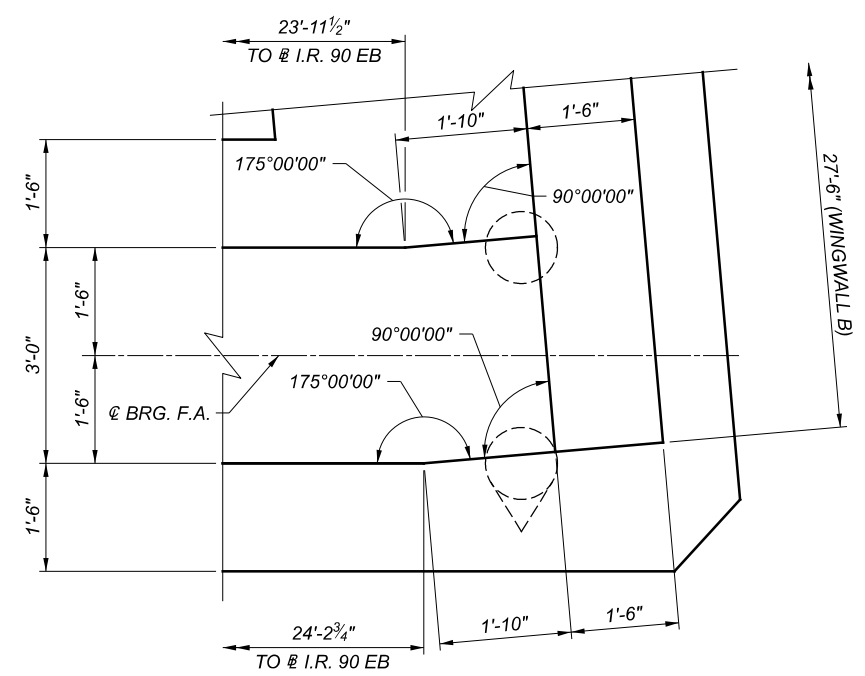
WINGWALL B ELEVATION



SECTION A-A



DETAIL A
(REINFORCING NOT SHOWN)

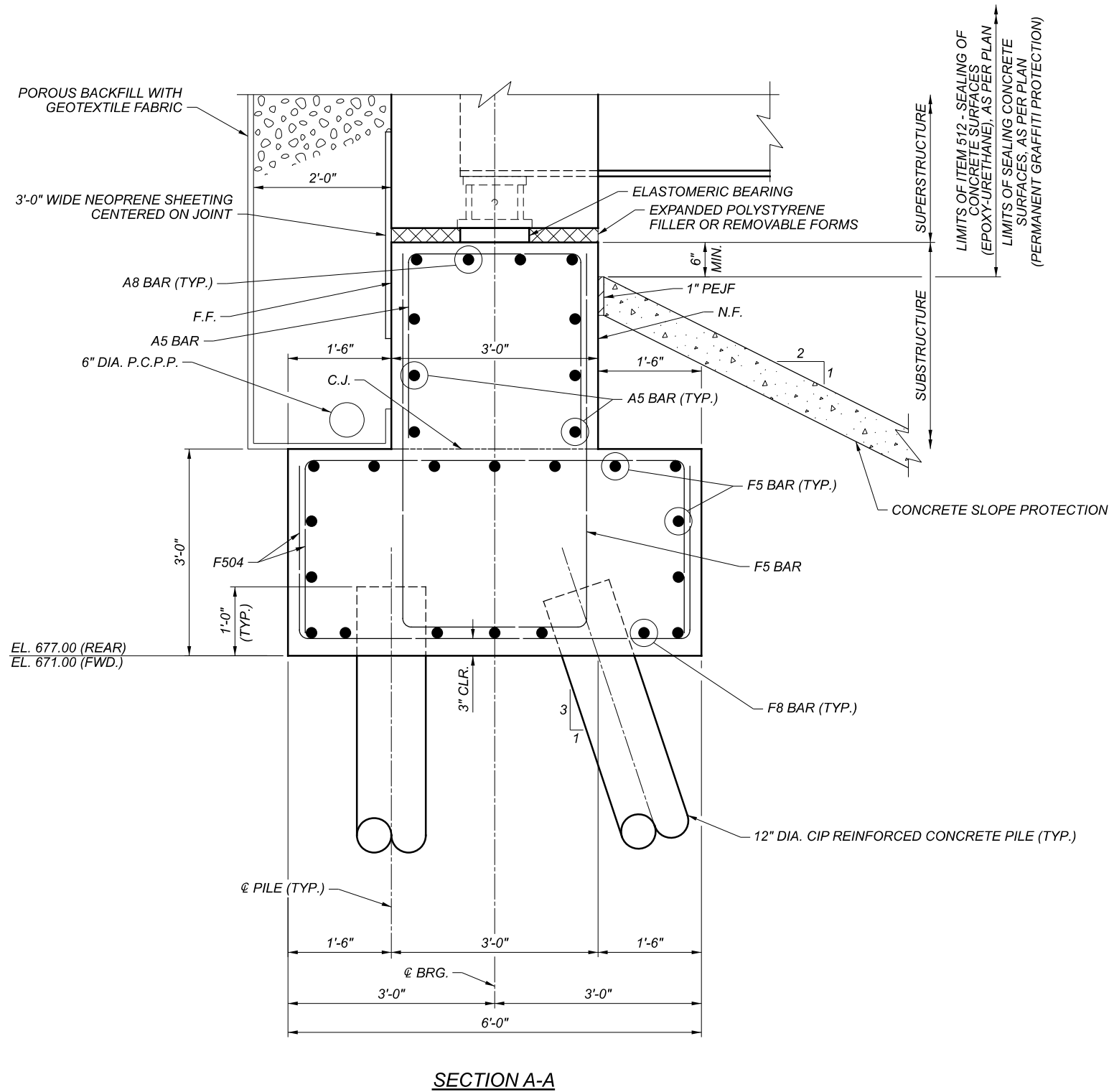


DETAIL B
(REINFORCING NOT SHOWN)

- NOTES:**
- SEE SHEET 16/42 FOR FORWARD ABUTMENT PLAN AND ELEVATION.
 - MINIMUM REINFORCING LAP LENGTHS:
#5 VERTICAL = 2'-5"
 - SEE STANDARD BRIDGE DRAWING SICD-1-21 FOR ADDITIONAL DETAILS.
 - TURN GEOTEXTILE FABRIC UP 6" AT BASE OF WALL AND DOWN 6" AT TOP OF WALL.

FORWARD ABUTMENT WINGWALL AND DETAILS
 CUY-90-1653R (BRIDGE 11)
 I.R. 90 EB OVER CR-721 (E. 14TH ST.)

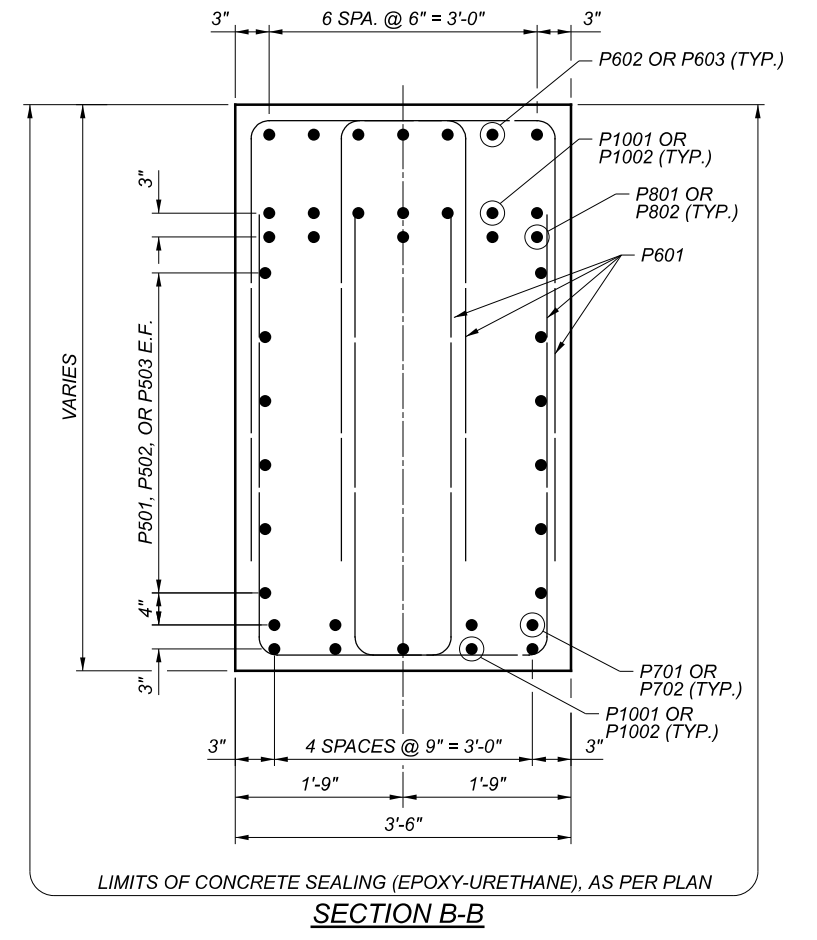
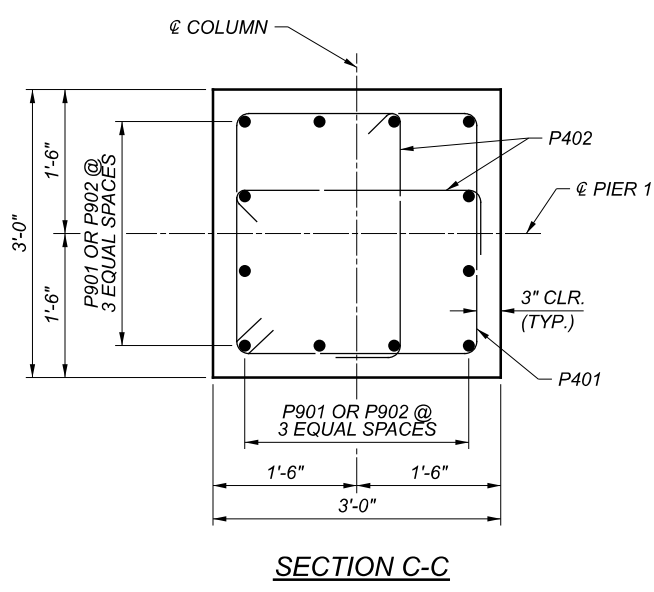
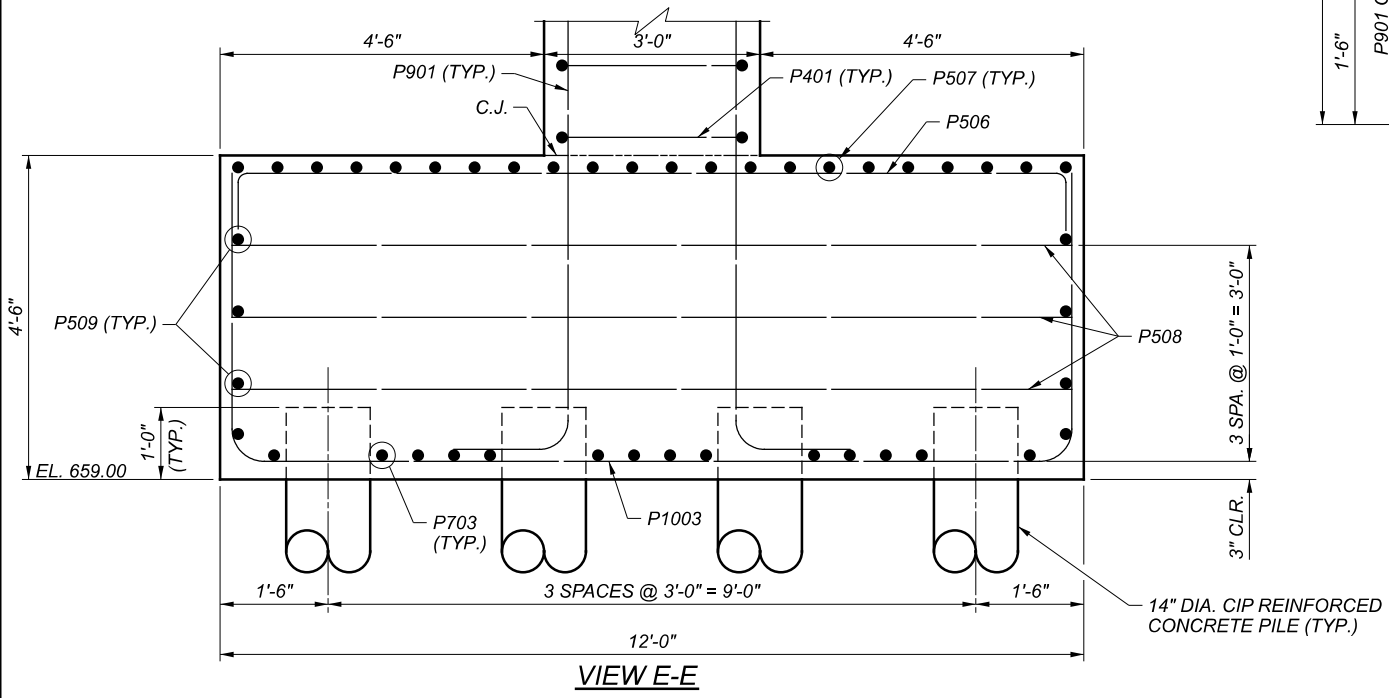
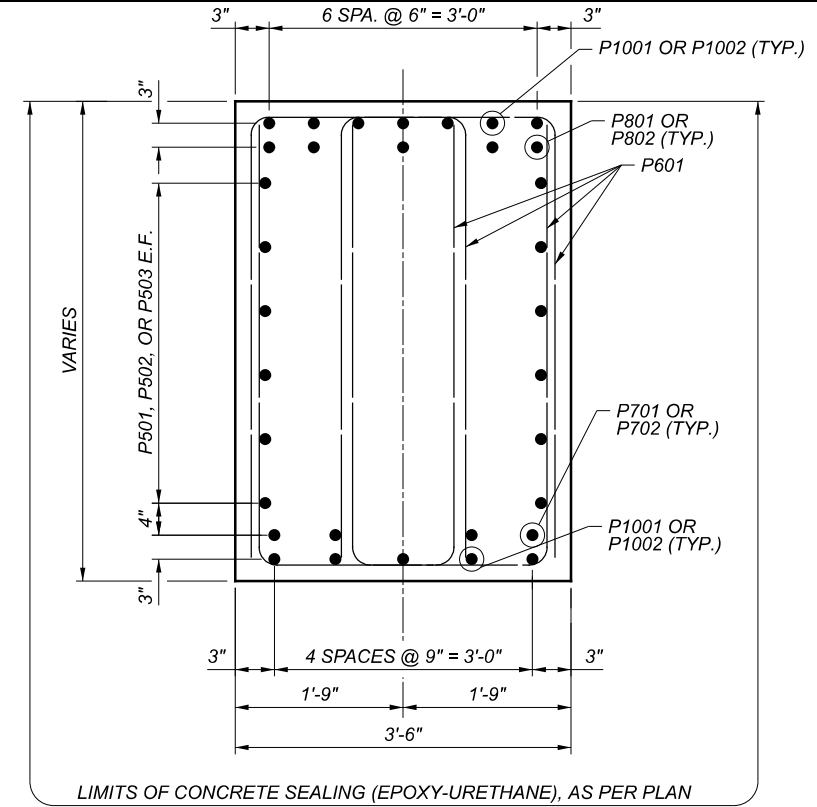
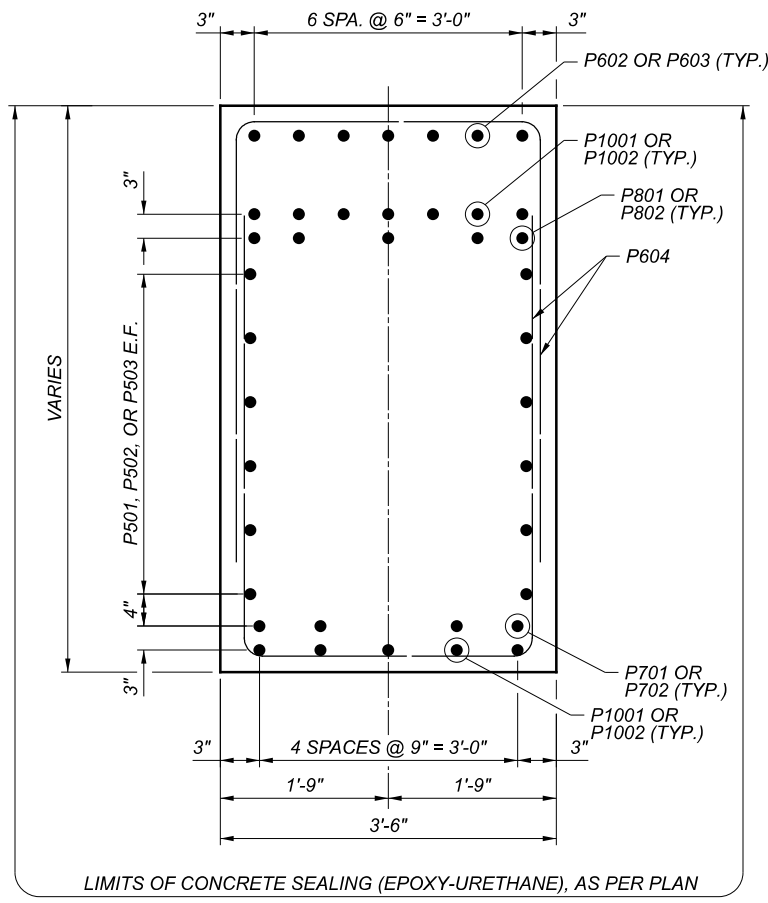
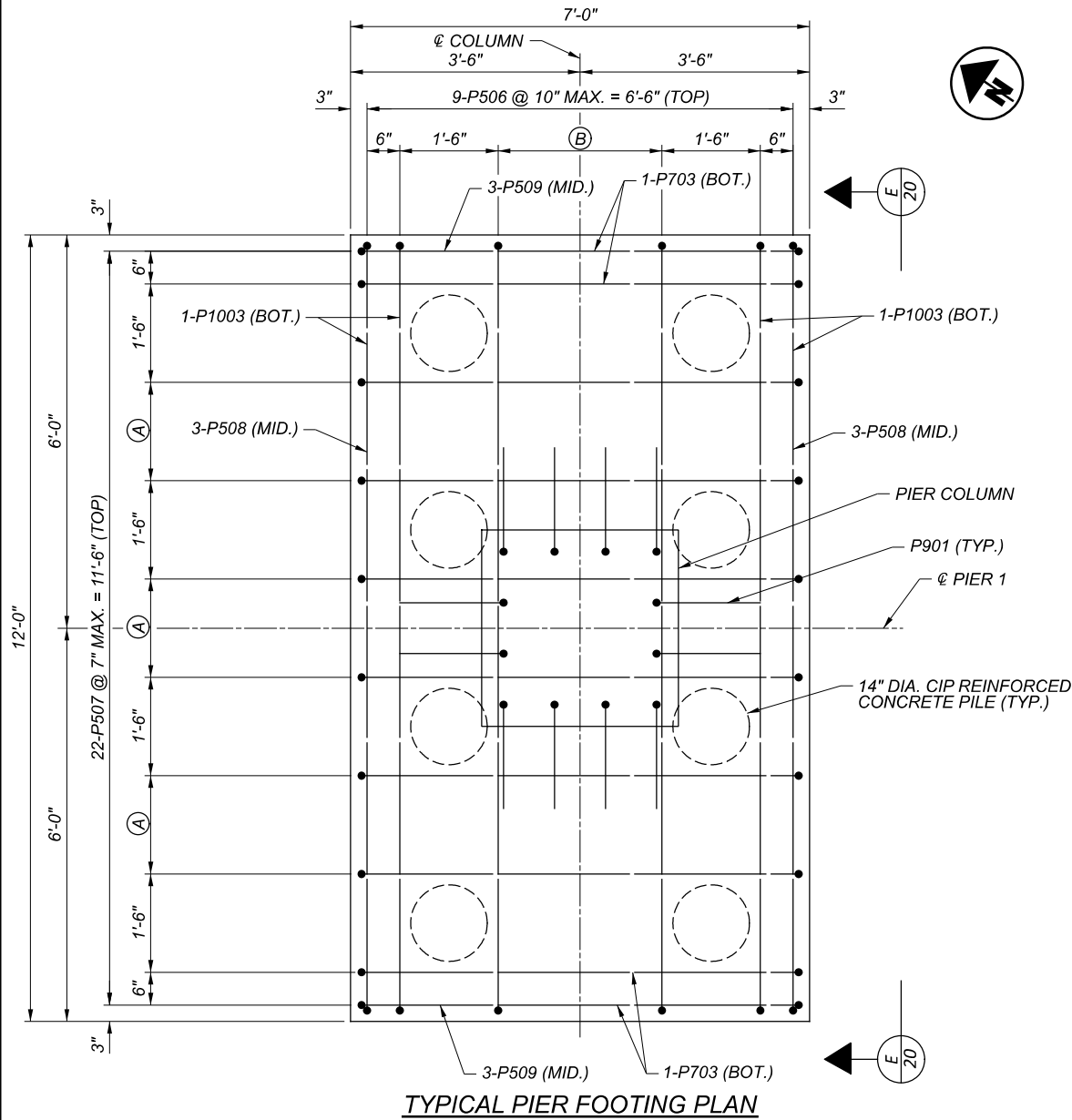
SFN	1807804
DESIGN AGENCY	BURGESS & NIPLE 100 WEST EIRE STREET PAINESVILLE, OHIO 44077
DESIGNER	BCS
CHECKER	MAB
REVIEWER	DWL
DATE	05/24/22
PROJECT ID	82382
SUBSET	17
TOTAL	42
SHEET	1670
TOTAL	2339



NOTES:

- SEE SHEET 13/42 AND 16/42 FOR LOCATION OF SECTION A-A.
- SEE STANDARD BRIDGE DRAWING SICD-1-21 FOR ADDITIONAL DETAILS.

SFN	1807804
DESIGN AGENCY	
BURGESS & NIPLE 100 WEST ERIE STREET PAINESVILLE, OHIO 44077	
DESIGNER	CHECKER
BCS	MAB
REVIEWER	
DWL	05/24/22
PROJECT ID	82382
SUBSET	TOTAL
18	42
SHEET	TOTAL
1671	2339



LEGEND:

- (A) = 4-P703 @ 6" = 1'-6" (BOT.)
- (B) = 7-P1003 @ 5" = 2'-6" (BOT.)

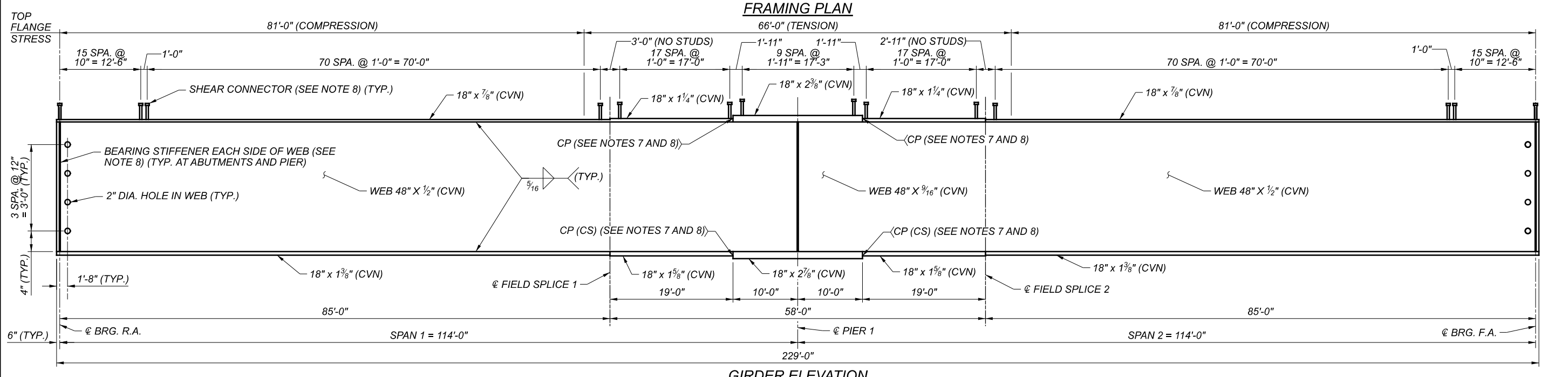
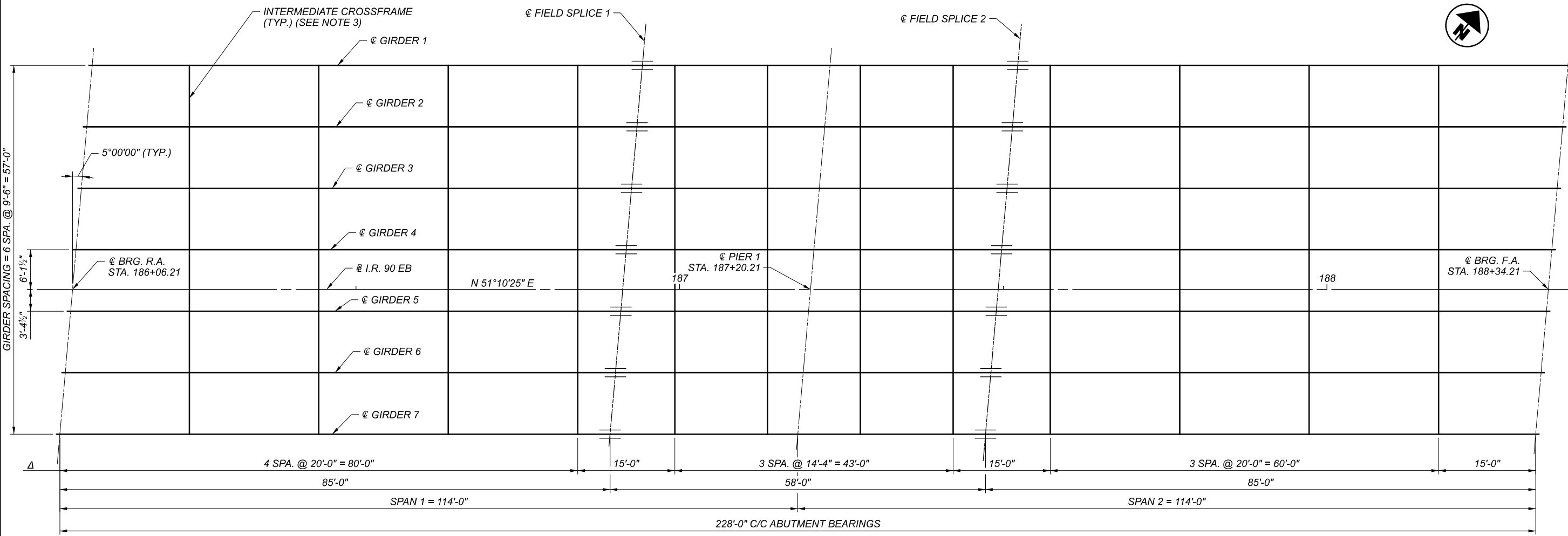
NOTES:

1. SEE SHEET 19/42 FOR ADDITIONAL DETAILS AND LOCATIONS OF SECTIONS A-A, B-B, C-C, AND D-D.

SFN	1807804
DESIGN AGENCY	BURGESS & NIPLE 100 WEST ERIE STREET PAINESVILLE, OHIO 44077
DESIGNER	BCS
CHECKER	MAB
REVIEWER	DWL
DATE	05/24/22
PROJECT ID	82382
SUBSET	20
TOTAL	42
SHEET	1673
TOTAL	2339

CUY-90-16.28 (CCG3A)

MODEL: Sheet PAPER: 17x11 (in.) DATE: 6/22/2022 TIME: 10:10:51 PM USER: Gregory, Heather
 p:\c\mb-pw\benley.com\mb-us-pw-03\Documents\Cleveland_OH\01_Projects\ODOT\Bridges\128238240-Engineering\Structures\SFN_1807804_SS002.dgn



LEGEND:

Δ = INTERMEDIATE CROSSFRAME SPACING MEASURED ALONG ϕ GIRDER 7.
 CS = WELD SUBJECT TO COMPRESSIVE STRESS ONLY.
 CP = COMPLETE JOINT PENETRATION WELD.

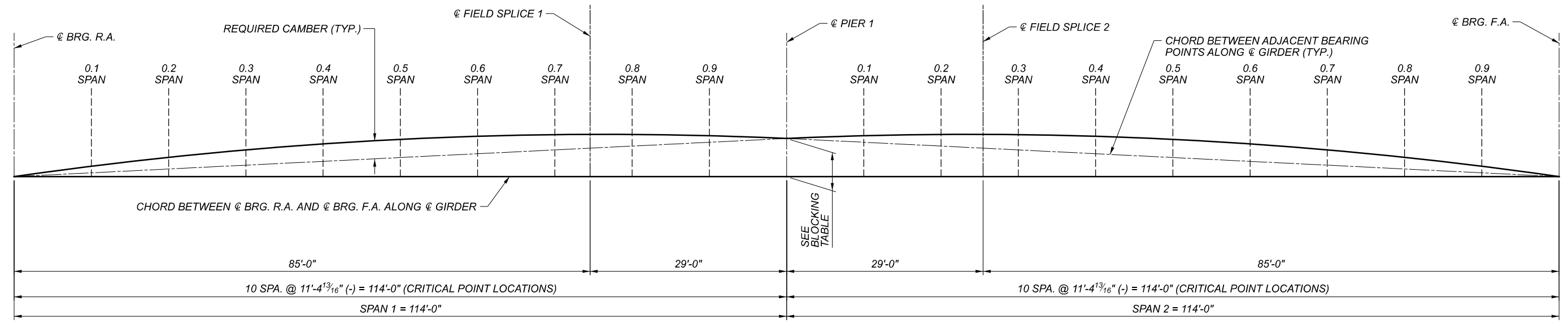
NOTES:

- WHERE A SHAPE IS DESIGNATED (CVN), FURNISH MATERIAL THAT MEETS MINIMUM NOTCH TOUGHNESS REQUIREMENTS AS SPECIFIED IN CMS 711.01.
- WELD ATTACHMENT OF SUPPORTS FOR CONCRETE DECK FINISHING MACHINE TO AREAS OF THE FASCIA GIRDER FLANGES DESIGNATED "COMPRESSION". DO NOT WELD ATTACHMENTS TO AREAS DESIGNATED "TENSION". FILLET WELDS TO COMPRESSION FLANGES SHALL BE AT LEAST 1" FROM EDGE OF FLANGE, BE NO MORE THAN 2" LONG, AND BE AT LEAST 1/4" FOR THICKNESS UP TO 3/4" OR 5/16" FOR GREATER THAN 3/4" THICK.
- SEE STANDARD BRIDGE DRAWING GSD-1-19 FOR INTERMEDIATE CROSSFRAME DETAILS. THE ESTIMATED QUANTITY FOR STRUCTURAL STEEL IS BASED ON THE USE OF TYPE A CROSSFRAMES.
- CROSSFRAME CONNECTION PLATES NOT SHOWN IN GIRDER ELEVATION. SEE FRAMING PLAN FOR LOCATIONS.
- ALL DIMENSIONS ARE HORIZONTAL AND REQUIRE ADJUSTMENT FOR CAMBER AND FINISHED GRADE.
- ALL STRUCTURAL STEEL SHALL BE ASTM A709 GRADE 50 AND SHALL BE SHOP PRIMED AND FIELD PAINTED PER CMS 514. TOP COAT SHALL BE SHERWIN-WILLIAMS ALABASTER 7008.
- COMPLETE JOINT PENETRATION WELDS SHALL BE GROUND SMOOTH IN THE LONGITUDINAL DIRECTION TO REMOVE WELD REINFORCEMENT.
- SEE SHEET 23/42 FOR ADDITIONAL GIRDER DETAILS.
- ADJUST SHEAR CONNECTOR SPACING LOCALLY AS REQUIRED TO CLEAR FLANGE SHOP SPLICE.

FRAMING PLAN AND GIRDER ELEVATION
 CUY-90-1653R (BRIDGE 11)
 I.R. 90 EB OVER CR-721 (E. 14TH ST.)

SFN	1807804
DESIGN AGENCY	
BURGESS & NIPLE 100 WEST GINE STREET PAINESVILLE, OHIO 44077	
DESIGNER	CHECKER
BCS	MAB
REVIEWER	
DWL 05/24/22	
PROJECT ID	
82382	
SUBSET	TOTAL
21	42
SHEET	
TOTAL	
1674	2339

MODEL: Sheet PAPER SIZE: 17x11 (in.) DATE: 6/22/2022 TIME: 10:10:57 PM USER: Gregory, Heather
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CAMBER AND BLOCKING DIAGRAM
(NOT TO SCALE)

DESCRIPTION	CENTERLINE BRG. R.A.	SPAN 1											CENTERLINE PIER 1	SPAN 2											CENTERLINE BRG. F.A.
		0.1	0.2	0.3	0.4	0.5	0.6	0.7	FIELD SPLICE 1	0.8	0.9	0.1		0.2	FIELD SPLICE 2	0.3	0.4	0.5	0.6	0.7	0.8	0.9			
DEFLECTION DUE TO WEIGHT OF STEEL (A)	0.00	0.15	0.27	0.35	0.38	0.36	0.29	0.20	0.15	0.10	0.02	0.00	0.03	0.11	0.16	0.20	0.30	0.37	0.39	0.36	0.28	0.15	0.00		
DEFLECTION DUE TO REMAINING DEAD LOAD (B)	0.00	0.73	1.33	1.72	1.86	1.74	1.40	0.93	0.72	0.46	0.12	0.00	0.12	0.46	0.72	0.93	1.40	1.73	1.86	1.72	1.33	0.73	0.00		
ADJUSTMENT FOR VERTICAL CURVATURE (C)	0.00	0.79	1.50	2.04	1.98	1.85	1.63	1.34	1.18	0.97	0.52	0.00	0.35	0.62	0.74	0.82	0.94	0.97	0.94	0.82	0.62	0.35	0.00		
TOTAL CAMBER (A+B+C)	0.00	1.67	3.10	4.11	4.22	3.94	3.32	2.47	2.05	1.53	0.67	0.00	0.50	1.19	1.61	1.95	2.63	3.07	3.18	2.90	2.23	1.23	0.00		

BLOCKING TABLE	
GIRDER	PIER 1 (IN.)
1	4.77
2	4.79
3	4.49
4	4.14
5	3.82
6	3.62
7	3.63

DESCRIPTION	CENTERLINE BRG. R.A.	SPAN 1											CENTERLINE PIER 1	SPAN 2											CENTERLINE BRG. F.A.
		0.1	0.2	0.3	0.4	0.5	0.6	0.7	FIELD SPLICE 1	0.8	0.9	0.1		0.2	FIELD SPLICE 2	0.3	0.4	0.5	0.6	0.7	0.8	0.9			
DEFLECTION DUE TO WEIGHT OF STEEL (A)	0.00	0.16	0.30	0.38	0.42	0.39	0.32	0.21	0.16	0.10	0.02	0.00	0.03	0.11	0.17	0.22	0.32	0.40	0.42	0.39	0.30	0.16	0.00		
DEFLECTION DUE TO REMAINING DEAD LOAD (B)	0.00	0.74	1.35	1.74	1.88	1.76	1.42	0.94	0.73	0.47	0.12	0.00	0.12	0.47	0.73	0.94	1.42	1.76	1.88	1.74	1.35	0.74	0.00		
ADJUSTMENT FOR VERTICAL CURVATURE (C)	0.00	0.78	1.49	2.07	2.01	1.87	1.65	1.35	1.19	0.98	0.53	0.00	0.35	0.62	0.74	0.82	0.94	0.97	0.94	0.82	0.62	0.35	0.00		
TOTAL CAMBER (A+B+C)	0.00	1.68	3.13	4.19	4.30	4.01	3.38	2.51	2.08	1.55	0.67	0.00	0.51	1.20	1.64	1.98	2.67	3.12	3.23	2.95	2.27	1.25	0.00		

DESCRIPTION	CENTERLINE BRG. R.A.	SPAN 1											CENTERLINE PIER 1	SPAN 2											CENTERLINE BRG. F.A.
		0.1	0.2	0.3	0.4	0.5	0.6	0.7	FIELD SPLICE 1	0.8	0.9	0.1		0.2	FIELD SPLICE 2	0.3	0.4	0.5	0.6	0.7	0.8	0.9			
DEFLECTION DUE TO WEIGHT OF STEEL (A)	0.00	0.16	0.30	0.38	0.42	0.39	0.32	0.21	0.16	0.10	0.02	0.00	0.03	0.11	0.17	0.22	0.32	0.40	0.42	0.39	0.30	0.16	0.00		
DEFLECTION DUE TO REMAINING DEAD LOAD (B)	0.00	0.74	1.35	1.74	1.88	1.76	1.42	0.94	0.73	0.47	0.12	0.00	0.12	0.47	0.73	0.94	1.42	1.76	1.88	1.74	1.35	0.74	0.00		
ADJUSTMENT FOR VERTICAL CURVATURE (C)	0.00	0.63	1.18	1.65	1.65	1.57	1.41	1.18	1.04	0.86	0.47	0.00	0.35	0.62	0.74	0.82	0.94	0.97	0.94	0.82	0.62	0.35	0.00		
TOTAL CAMBER (A+B+C)	0.00	1.53	2.82	3.78	3.94	3.71	3.14	2.33	1.93	1.43	0.62	0.00	0.51	1.20	1.64	1.98	2.67	3.12	3.23	2.95	2.27	1.25	0.00		

DESCRIPTION	CENTERLINE BRG. R.A.	SPAN 1											CENTERLINE PIER 1	SPAN 2											CENTERLINE BRG. F.A.
		0.1	0.2	0.3	0.4	0.5	0.6	0.7	FIELD SPLICE 1	0.8	0.9	0.1		0.2	FIELD SPLICE 2	0.3	0.4	0.5	0.6	0.7	0.8	0.9			
DEFLECTION DUE TO WEIGHT OF STEEL (A)	0.00	0.16	0.30	0.38	0.42	0.39	0.32	0.21	0.16	0.10	0.02	0.00	0.03	0.11	0.17	0.22	0.32	0.40	0.42	0.39	0.30	0.16	0.00		
DEFLECTION DUE TO REMAINING DEAD LOAD (B)	0.00	0.74	1.35	1.74	1.88	1.76	1.42	0.94	0.73	0.47	0.12	0.00	0.12	0.47	0.73	0.94	1.42	1.76	1.88	1.74	1.35	0.74	0.00		
ADJUSTMENT FOR VERTICAL CURVATURE (C)	0.00	0.46	0.84	1.14	1.22	1.21	1.13	0.96	0.86	0.72	0.40	0.00	0.35	0.62	0.74	0.82	0.94	0.97	0.94	0.82	0.62	0.35	0.00		
TOTAL CAMBER (A+B+C)	0.00	1.36	2.48	3.27	3.52	3.36	2.86	2.12	1.75	1.29	0.54	0.00	0.51	1.20	1.64	1.98	2.67	3.12	3.23	2.95	2.27	1.25	0.00		

DESCRIPTION	CENTERLINE BRG. R.A.	SPAN 1											CENTERLINE PIER 1	SPAN 2											CENTERLINE BRG. F.A.
		0.1	0.2	0.3	0.4	0.5	0.6	0.7	FIELD SPLICE 1	0.8	0.9	0.1		0.2	FIELD SPLICE 2	0.3	0.4	0.5	0.6	0.7	0.8	0.9			
DEFLECTION DUE TO WEIGHT OF STEEL (A)	0.00	0.16	0.30	0.38	0.42	0.39	0.32	0.21	0.16	0.10	0.02	0.00	0.03	0.11	0.17	0.22	0.32	0.40	0.42	0.39	0.30	0.16	0.00		
DEFLECTION DUE TO REMAINING DEAD LOAD (B)	0.00	0.74	1.35	1.74	1.88	1.76	1.42	0.94	0.73	0.47	0.12	0.00	0.12	0.47	0.73	0.94	1.42	1.76	1.88	1.74	1.35	0.74	0.00		
ADJUSTMENT FOR VERTICAL CURVATURE (C)	0.00	0.35	0.62	0.82	0.94	0.98	0.94	0.82	0.74	0.62	0.35	0.00	0.33	0.59	0.70	0.77	0.87	0.89	0.84	0.70	0.49	0.28	0.00		
TOTAL CAMBER (A+B+C)	0.00	1.25	2.27	2.95	3.23	3.12	2.67	1.92	1.63	1.19	0.50	0.00	0.49	1.17	1.59	1.93	2.61	3.04	3.13	2.83	2.14	1.18	0.00		

DESCRIPTION	CENTERLINE BRG. R.A.	SPAN 1											CENTERLINE PIER 1	SPAN 2											CENTERLINE BRG. F.A.
		0.1	0.2	0.3	0.4	0.5	0.6	0.7	FIELD SPLICE 1	0.8	0.9	0.1		0.2	FIELD SPLICE 2	0.3	0.4	0.5	0.6	0.7	0.8	0.9			
DEFLECTION DUE TO WEIGHT OF STEEL (A)	0.00	0.16	0.30	0.38	0.42	0.39	0.32	0.21	0.16	0.10	0.02	0.00	0.03	0.11	0.17	0.22	0.32	0.40	0.42	0.39	0.30	0.16	0.00		
DEFLECTION DUE TO REMAINING DEAD LOAD (B)	0.00	0.74	1.35	1.74	1.88	1.76	1.42	0.94	0.73	0.47	0.12	0.00	0.12	0.47	0.73	0.94	1.42	1.76	1.88	1.74	1.35	0.74	0.00		
ADJUSTMENT FOR VERTICAL CURVATURE (C)	0.00	0.35	0.63	0.82	0.94	0.98	0.94	0.82	0.74	0.63	0.35	0.00	0.29	0.51	0.60	0.65	0.71	0.69	0.60	0.42	0.17	0.10	0.00		
TOTAL CAMBER (A+B+C)	0.00	1.25	2.27	2.95	3.23	3.12	2.67	1.98	1.63	1.20	0.50	0.00	0.45	1.09	1.49	1.81	2.45	2.84	2.89	2.55	1.82	1.00	0.00		

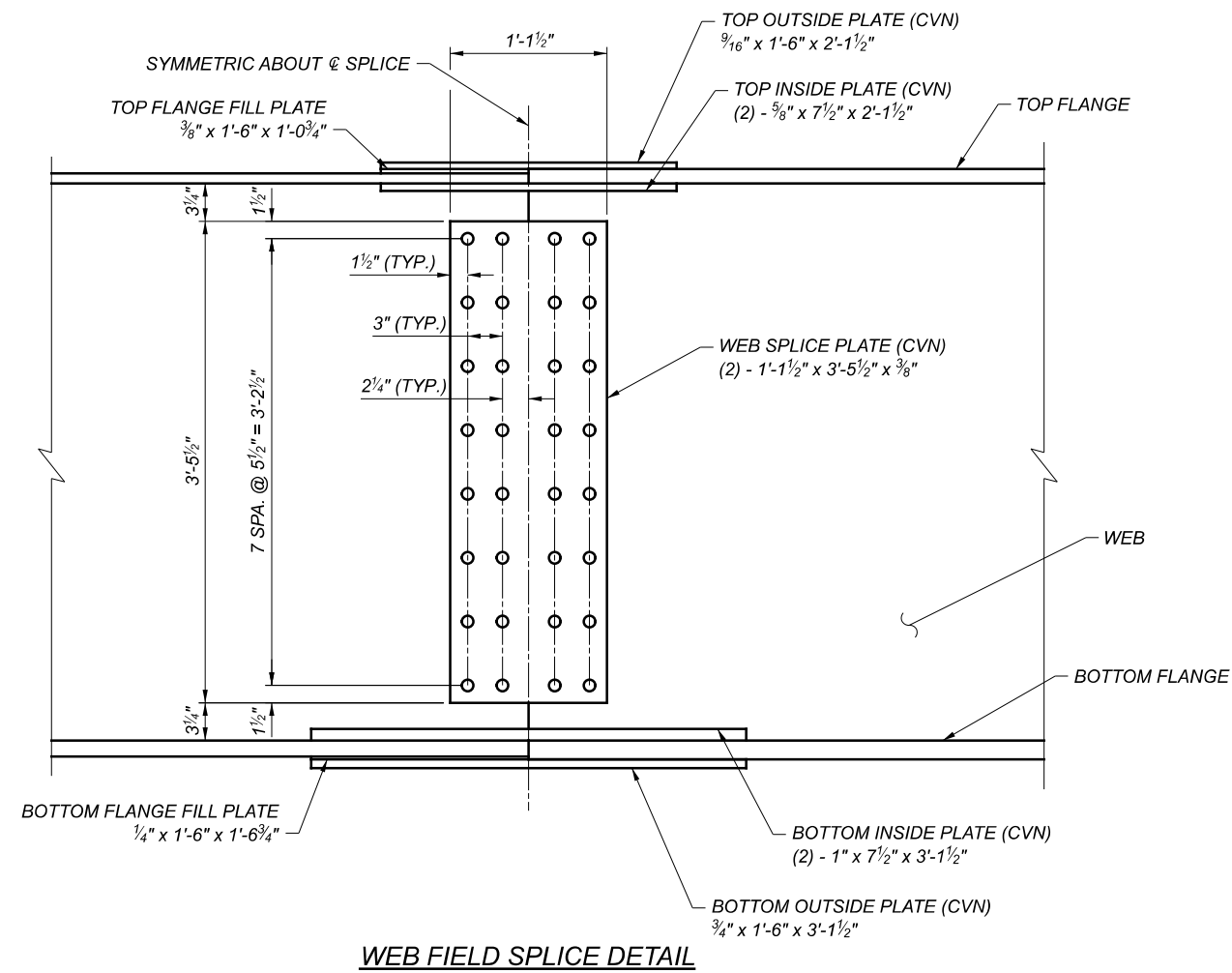
DESCRIPTION	CENTERLINE BRG. R.A.	SPAN 1											CENTERLINE PIER 1	SPAN 2											CENTERLINE BRG. F.A.
		0.1	0.2	0.3	0.4	0.5	0.6	0.7	FIELD SPLICE 1	0.8	0.9	0.1		0.2	FIELD SPLICE 2	0.3	0.4	0.5	0.6	0.7	0.8	0.9			
DEFLECTION DUE TO WEIGHT OF STEEL (A)	0.00	0.15	0.27	0.35	0.38	0.36	0.29	0.20	0.15	0.10	0.02	0.00	0.03	0.11	0.16	0.20	0.30	0.37	0.39	0.36	0.28	0.15	0.00		
DEFLECTION DUE TO REMAINING DEAD LOAD (B)	0.00	0.73	1.33	1.72	1.86	1.74	1.40	0.93	0.72	0.46	0.12	0.00	0.12	0.46	0.72	0.93	1.40	1.73	1.86	1.72	1.33	0.73	0.00		
ADJUSTMENT FOR VERTICAL CURVATURE (C)	0.00	0.35	0.63	0.82	0.94	0.98	0.94	0.82	0.74	0.63	0.35	0.00	0.30	0.52	0.60	0.66	0.72	0.70	0.61	0.44	0.19	0.10	0.00		
TOTAL CAMBER (A+B+C)	0.00	1.23	2.23	2.90	3.18	3.07	2.63	1.95	1.61	1.18	0.49	0.00	0.45	1.08	1.48	1.79	2.41	2.80	2.85	2.52	1.80	0.98	0.00		

- NOTES:**
1. POSITIVE CAMBER VALUES INDICATE CAMBER ABOVE CHORD BETWEEN ADJACENT BEARINGS. NEGATIVE CAMBER VALUES INDICATE CAMBER BELOW CHORD BETWEEN ADJACENT BEARINGS.
 2. ALL CHORDS REFERENCED TO TOP OF WEB.

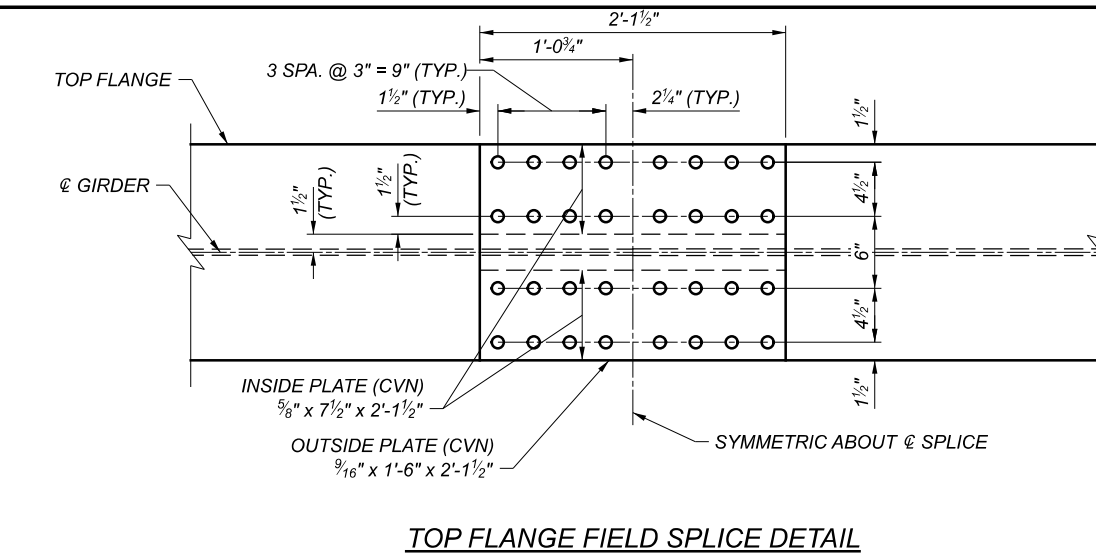
CAMBER TABLE AND BLOCKING DIAGRAM
 CUY-90-1653R (BRIDGE 11)
 I.R. 90 EB OVER CR-721 (E. 14TH ST.)

SFN	1807804
DESIGN AGENCY	
DESIGNER	BCS
CHECKER	MAB
REVIEWER	
DW/ 05/24/22	
PROJECT ID	82382
SUBSET	TOTAL
22	42
SHEET	TOTAL
1675	2339

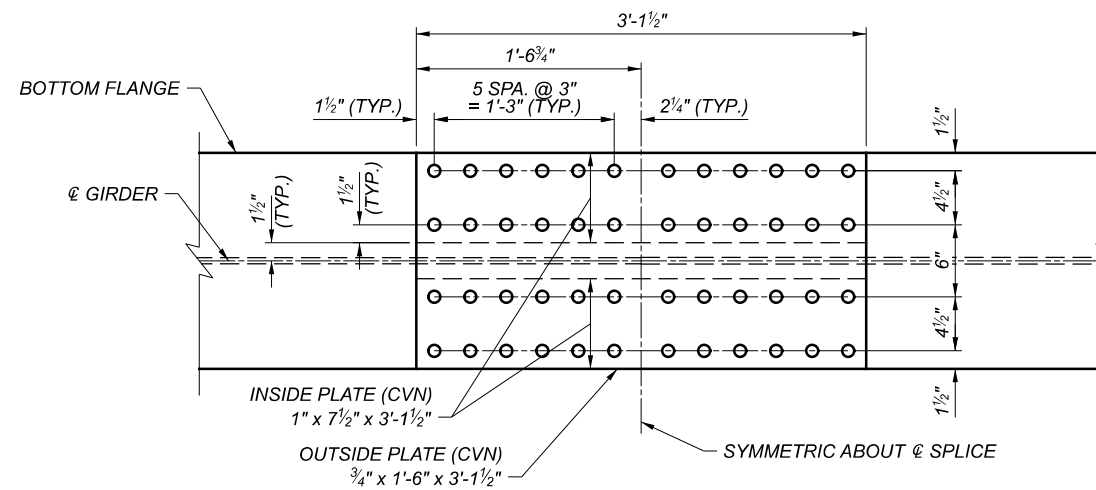
BURGESS & NIPLÉ
 100 WEST ERIE STREET
 PAINESVILLE, OHIO 44077



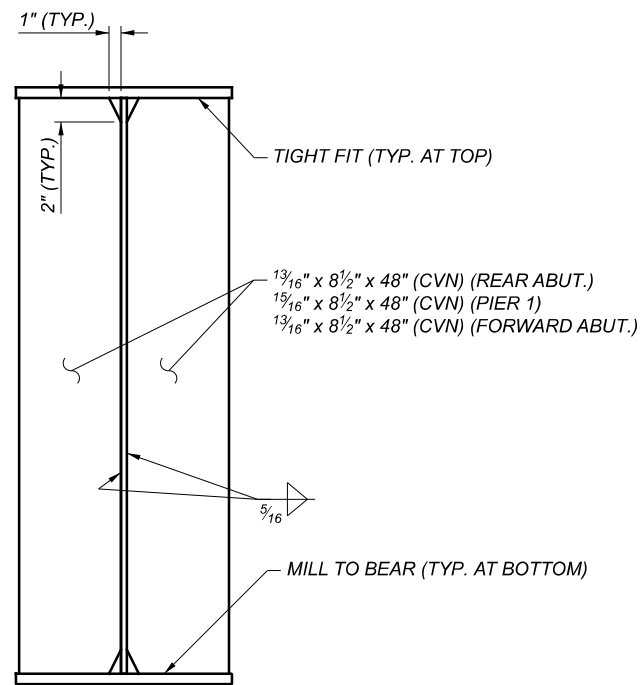
WEB FIELD SPLICE DETAIL



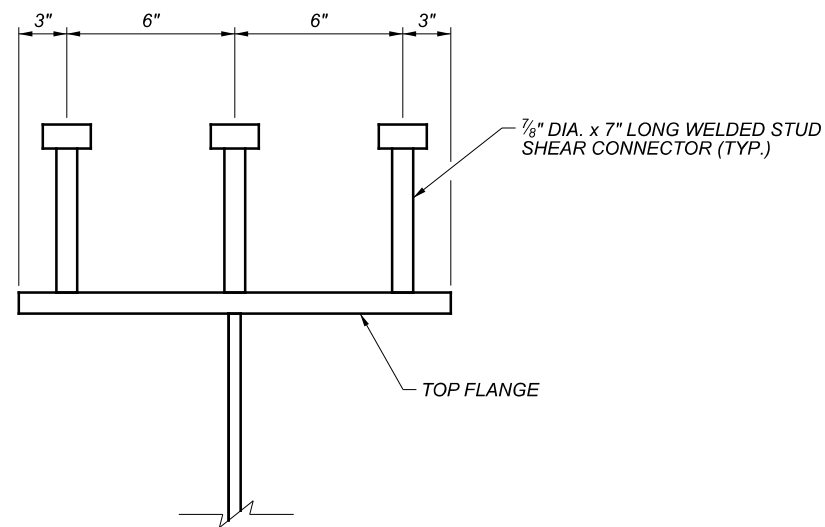
TOP FLANGE FIELD SPLICE DETAIL



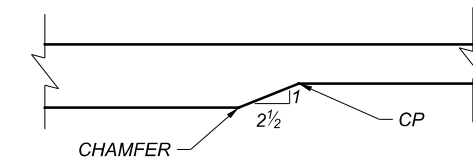
BOTTOM FLANGE FIELD SPLICE DETAIL



BEARING STIFFENER DETAIL



SHEAR CONNECTOR DETAIL

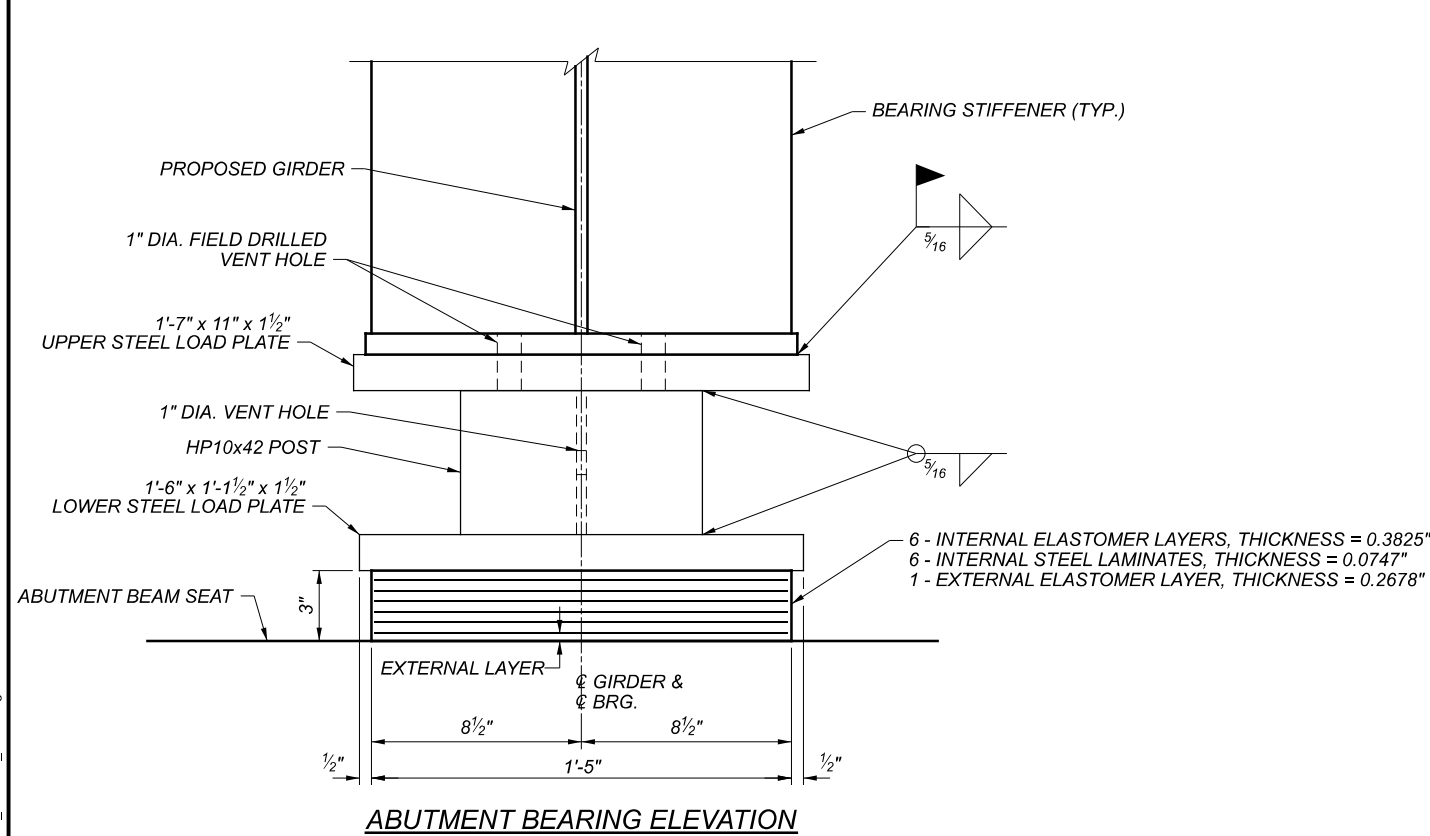


FLANGE SHOP SPLICE DETAIL
(BOTTOM FLANGE SHOWN, TOP FLANGE SIMILAR)

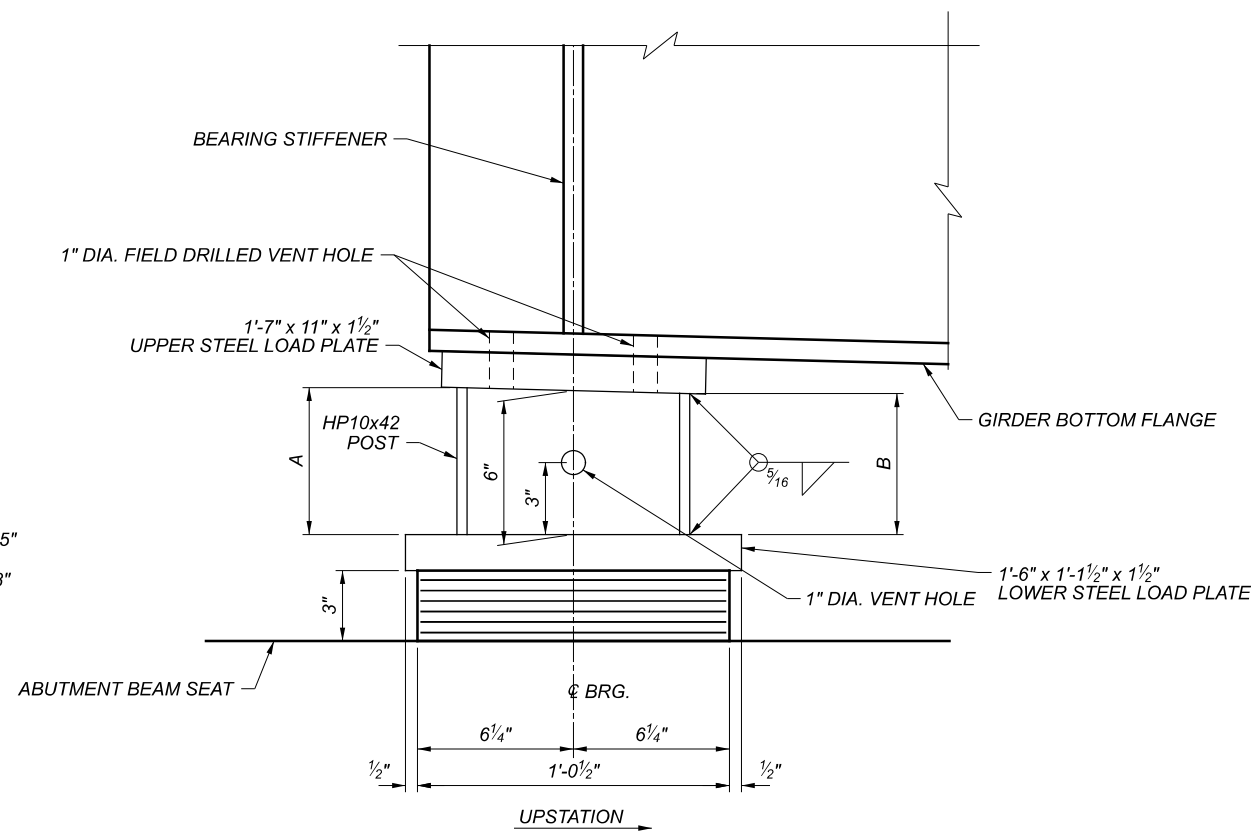
NOTES:

1. WHERE A SHAPE IS DESIGNATED (CVN), FURNISH MATERIAL THAT MEETS MINIMUM NOTCH TOUGHNESS REQUIREMENTS AS SPECIFIED IN CMS 711.01.
2. ALL STRUCTURAL STEEL SHALL BE ASTM A709 GRADE 50.
3. INSTALL STIFFENERS ACCORDING TO CMS 513.13.
4. HIGH STRENGTH BOLTS SHALL BE 1" DIAMETER.
5. ALL BOLTS, NUTS, AND WASHERS SHALL BE ASTM F3125 GRADE A325, TYPE I.
6. SPLICE PLATES HAVE BEEN DESIGNED FOR BOLT THREADS TO BE INCLUDED IN THE SHEAR PLAN AT ALL CONNECTIONS.

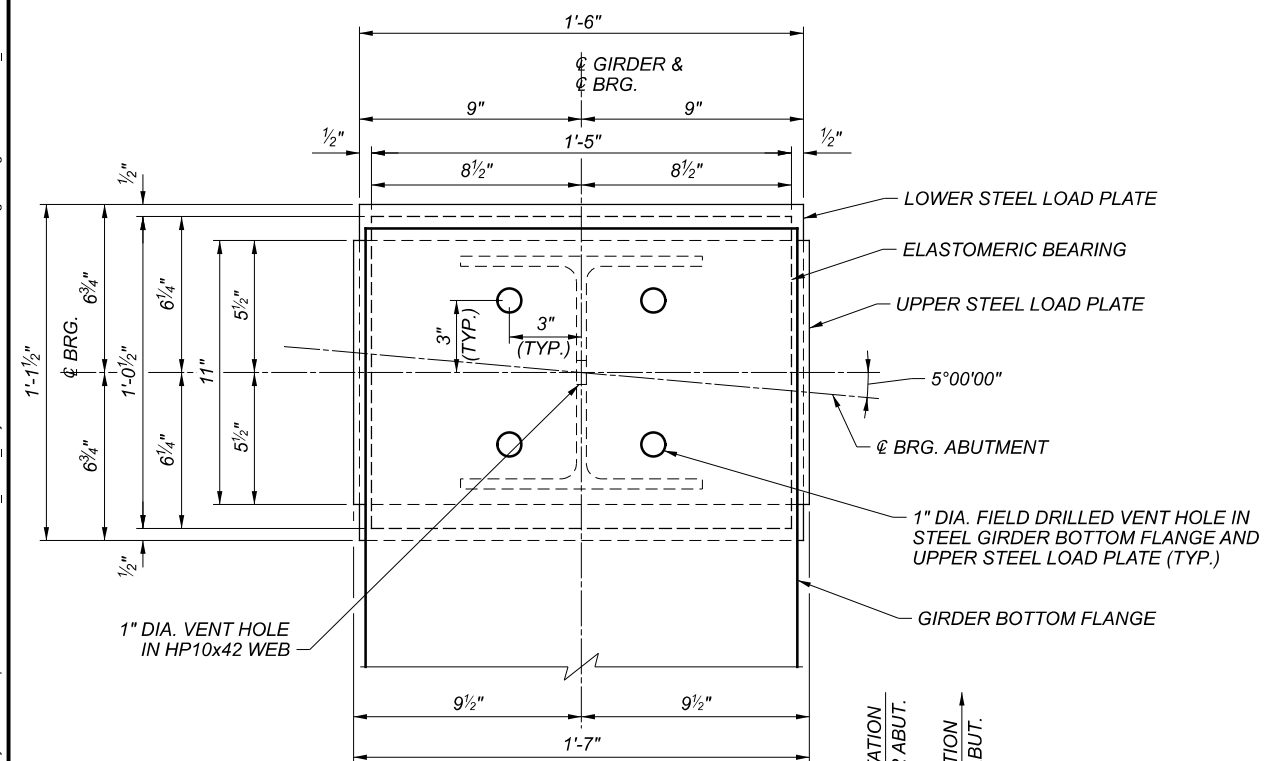
SFN	1807804
DESIGN AGENCY	BURGESS & NIPLE 100 WEST GIRE STREET PAINESVILLE, OHIO 44077
DESIGNER	BCS
CHECKER	MAB
REVIEWER	DWL
DATE	05/24/22
PROJECT ID	82382
SUBSET	23
TOTAL	42
SHEET	1676
TOTAL	2339



ABUTMENT BEARING ELEVATION



ABUTMENT BEARING SIDE ELEVATION
 (REAR ABUTMENT SHOWN, FORWARD ABUTMENT SIMILAR)



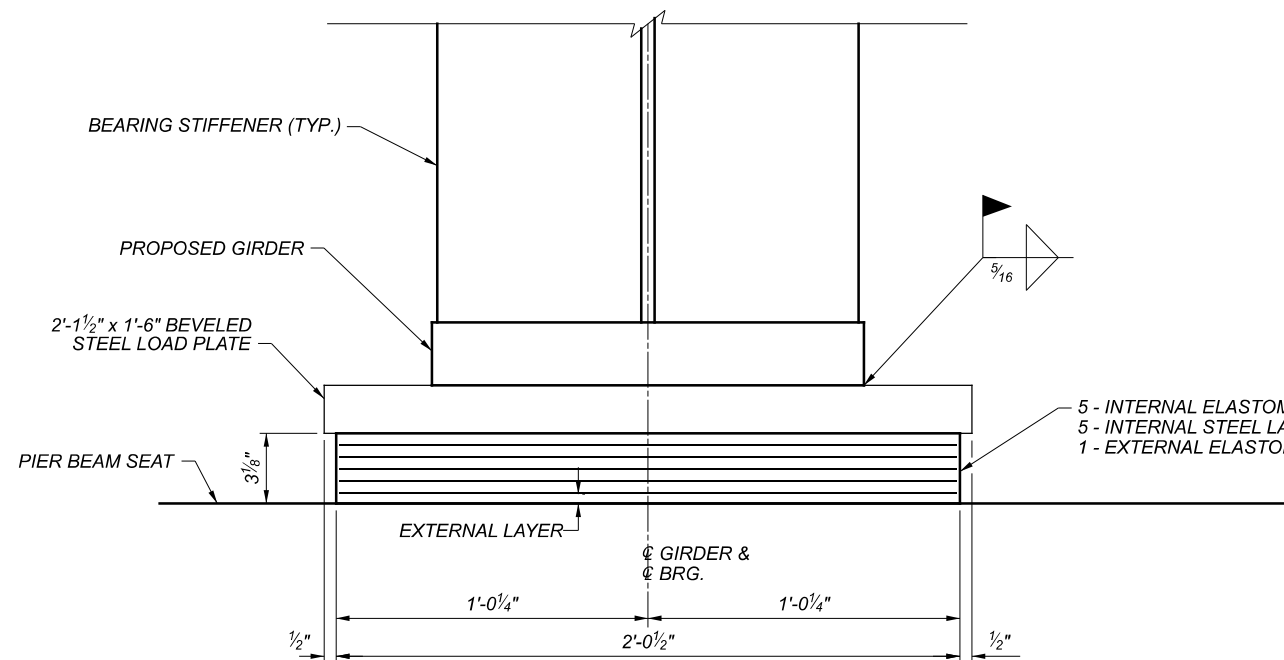
ABUTMENT BEARING PLAN
 (BEARING STIFFENER AND GIRDER WEB NOT SHOWN FOR CLARITY)

ELASTOMERIC BEARING DATA							
LOCATION	TYPE	NO. REQ'D.	REACTION (KIPS)		MAX. DESIGN LOAD (KIPS)	A	B
			DL	LL**			
REAR ABUT.	EXP.	7	135	96	231	6 3/8"	5 7/8"
FWD. ABUT.	EXP.	7	135	96	231	5 13/16"	6 3/16"

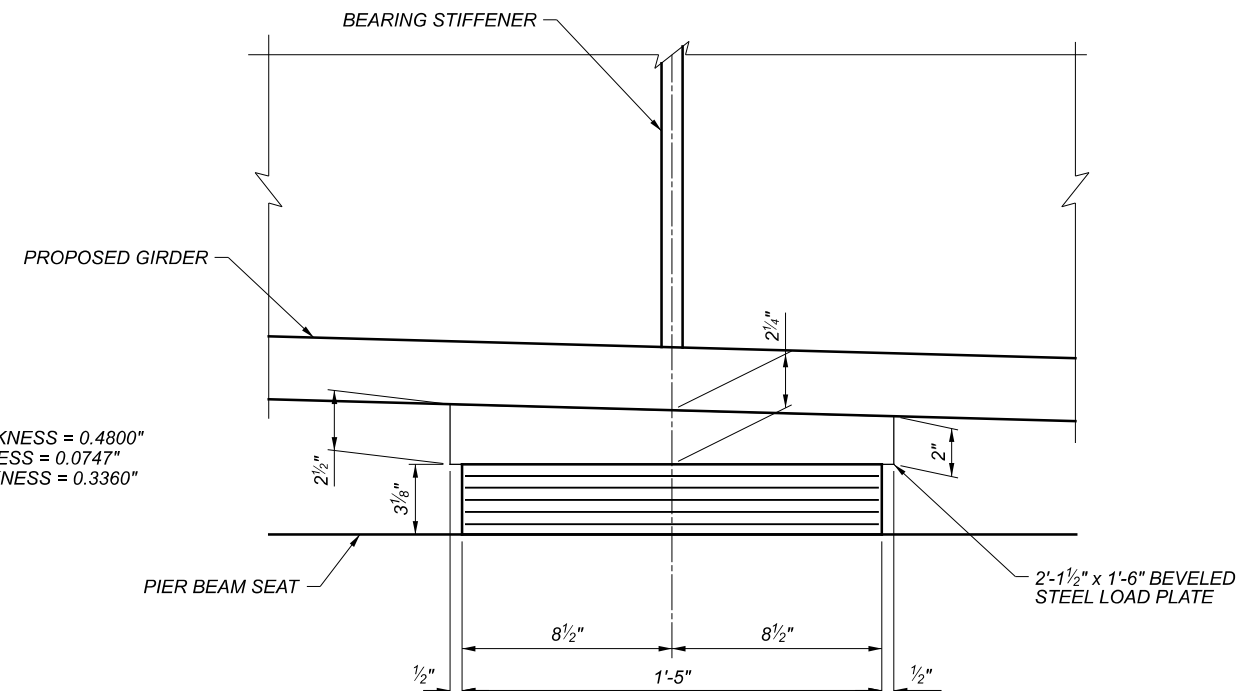
LEGEND:
 ** = LIVE LOAD WITHOUT IMPACT

- NOTES:**
- PRIOR TO SHIPPING EACH BEARING ASSEMBLY SHALL BE SHOP MARKED WITH THE FOLLOWING INFORMATION: TOP, UPSTATION DIRECTION, LOCATION, AND GIRDER NUMBER. ALL MARKS SHALL BE PERMANENT AND BE VISIBLE AFTER THE BEARING IS INSTALLED.
 - UPPER AND LOWER STEEL LOAD PLATES AND HP POSTS SHALL BE ASTM A709 GRADE 50 STEEL. THE LOWER STEEL LOAD PLATES SHALL BE BONDED BY VULCANIZATION TO THE ELASTOMER DURING THE MOLDING PROCESS.
 - ELASTOMERIC BEARINGS: THE ELASTOMER SHALL HAVE A HARDNESS OF 50 DUROMETER. THE BEARINGS WERE DESIGNED IN ACCORDANCE WITH SECTION 14.7.6 (METHOD A) OF AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS. THE LONG-TERM COMPRESSION PROOF TEST (AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, DIVISION II, SECTION 18.7.2.6) IS NOT REQUIRED.
 - BASIS OF PAYMENT: THE UNIT BID PRICE SHALL INCLUDE ALL MATERIALS, LABOR, TESTING, AND INCIDENTALS NECESSARY TO FURNISH AND INSTALL LAMINATED ELASTOMERIC BEARINGS, INCLUDING LOAD PLATES, HP POSTS, AND MISC. HARDWARE. PAYMENT WILL BE AT THE UNIT PRICE FOR ITEM 516 - EACH, ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN.

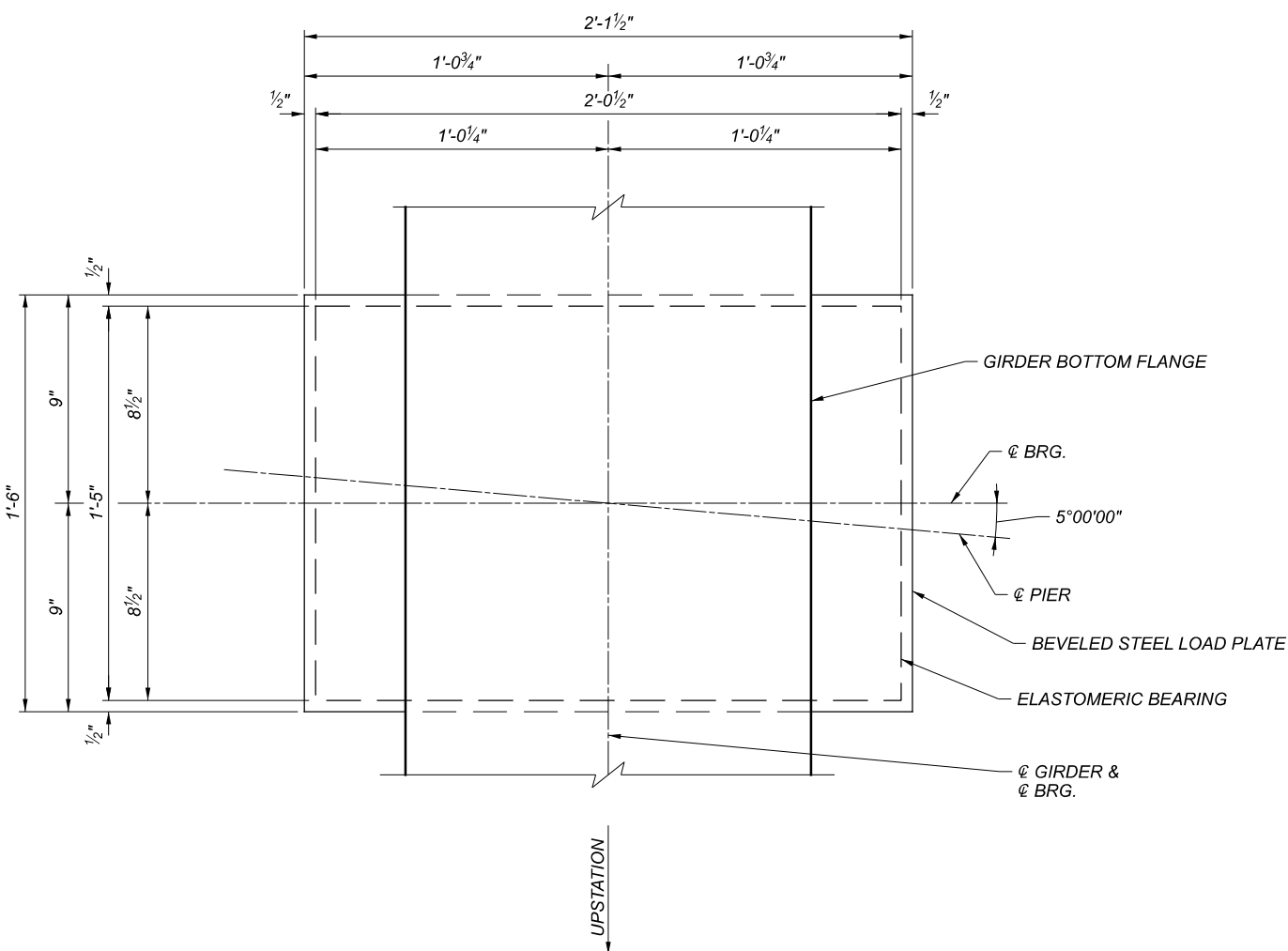
SFN	1807804
DESIGN AGENCY	BURGESS & NIPLE 100 WEST GINE STREET PAINESVILLE, OHIO 44077
DESIGNER	BCS
CHECKER	MAB
REVIEWER	DWL 05/24/22
PROJECT ID	82382
SUBSET	24
TOTAL	42
SHEET	1677
TOTAL	2339



PIER BEARING ELEVATION



UPSTATION
PIER BEARING SIDE ELEVATION



PIER BEARING PLAN

(BEARING STIFFENER AND GIRDER WEB NOT SHOWN FOR CLARITY)

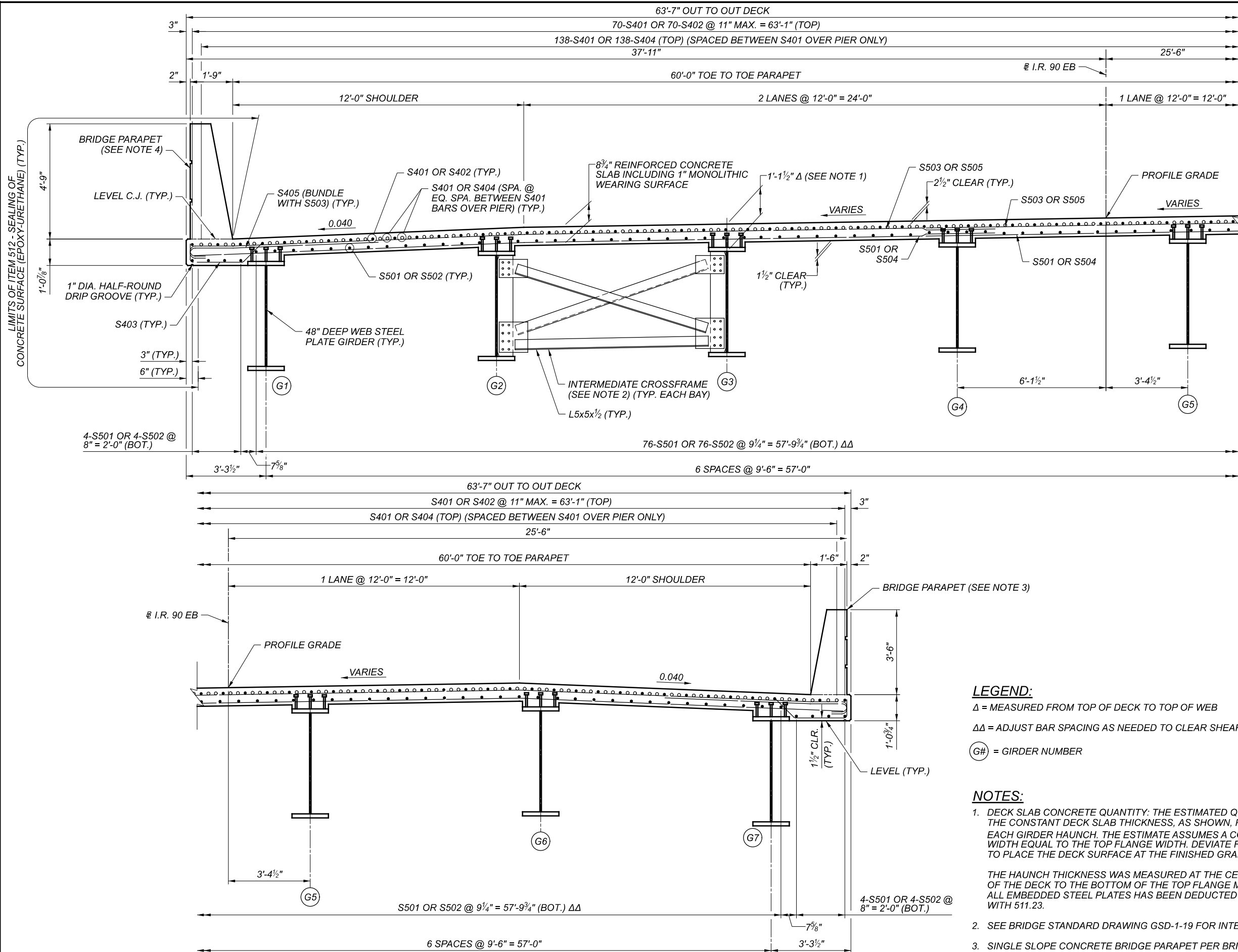
ELASTOMERIC BEARING DATA					
LOCATION	TYPE	NO. REQ'D.	REACTION (KIPS)		MAX. DESIGN LOAD (KIPS)
			DL	LL**	
PIER 1	EXP.	7	334	180	514

LEGEND:

** = LIVE LOAD WITHOUT IMPACT

NOTES:

- PRIOR TO SHIPPING EACH BEARING ASSEMBLY SHALL BE SHOP MARKED WITH THE FOLLOWING INFORMATION: TOP, UPSTATION DIRECTION, LOCATION, AND GIRDER NUMBER. ALL MARKS SHALL BE PERMANENT AND BE VISIBLE AFTER THE BEARING IS INSTALLED.
- STEEL LOAD PLATES SHALL BE ASTM A709 GRADE 50 STEEL. THE STEEL LOAD PLATES SHALL BE BONDED BY VULCANIZATION TO THE ELASTOMER DURING THE MOLDING PROCESS.
- ELASTOMERIC BEARINGS: THE ELASTOMER SHALL HAVE A HARDNESS OF 50 DUROMETER. THE BEARINGS WERE DESIGNED IN ACCORDANCE WITH SECTION 14.7.6 (METHOD A) OF AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS. THE LONG-TERM COMPRESSION PROOF TEST (AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, DIVISION II, SECTION 18.7.2.6) IS NOT REQUIRED.
- BASIS OF PAYMENT: THE UNIT BID PRICE SHALL INCLUDE ALL MATERIALS, LABOR, TESTING, AND INCIDENTALS NECESSARY TO FURNISH AND INSTALL LAMINATED ELASTOMERIC BEARINGS, INCLUDING LOAD PLATES, AND MISC. HARDWARE. PAYMENT WILL BE AT THE UNIT PRICE FOR ITEM 516 - EACH, ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN.



TRANSVERSE SECTION
 (PARAPET REINFORCING NOT SHOWN)

LEGEND:

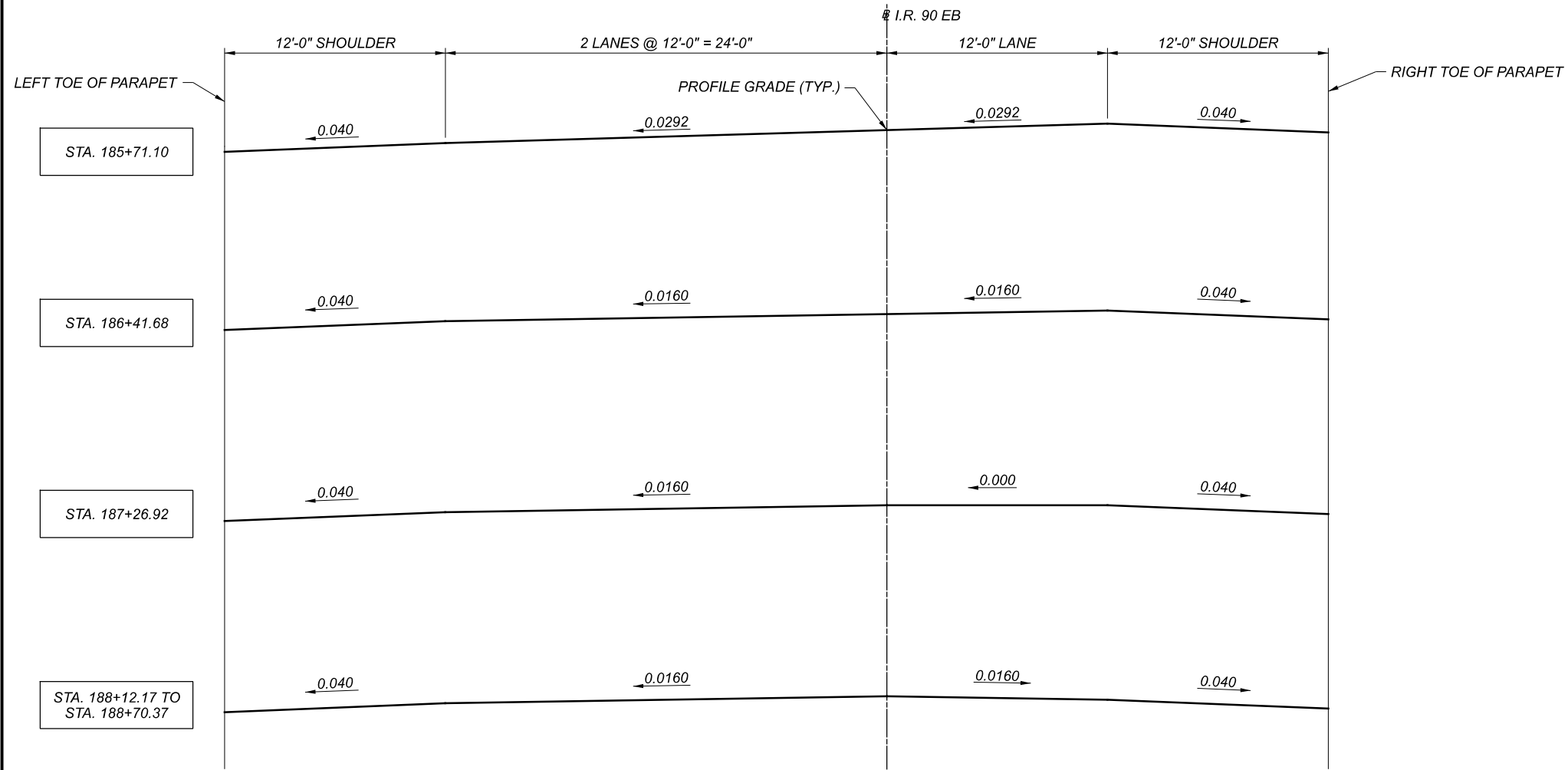
- Δ = MEASURED FROM TOP OF DECK TO TOP OF WEB
- ΔΔ = ADJUST BAR SPACING AS NEEDED TO CLEAR SHEAR STUDS
- (G#) = GIRDER NUMBER

NOTES:

- DECK SLAB CONCRETE QUANTITY: THE ESTIMATED QUANTITY OF DECK SLAB CONCRETE IS BASED ON THE CONSTANT DECK SLAB THICKNESS, AS SHOWN, PLUS THE QUANTITY OF CONCRETE THAT FORMS EACH GIRDER HAUNCH. THE ESTIMATE ASSUMES A CONSTANT HAUNCH THICKNESS OF 4 3/4" AND A WIDTH EQUAL TO THE TOP FLANGE WIDTH. DEVIATE FROM THIS HAUNCH THICKNESS AS NECESSARY TO PLACE THE DECK SURFACE AT THE FINISHED GRADE.
 THE HAUNCH THICKNESS WAS MEASURED AT THE CENTERLINE OF THE GIRDER, FROM THE SURFACE OF THE DECK TO THE BOTTOM OF THE TOP FLANGE MINUS THE DECK SLAB THICKNESS. THE AREA OF ALL EMBEDDED STEEL PLATES HAS BEEN DEDUCTED FROM THE HAUNCH QUANTITY IN ACCORDANCE WITH 511.23.
- SEE BRIDGE STANDARD DRAWING GSD-1-19 FOR INTERMEDIATE CROSSFRAME DETAILS.
- SINGLE SLOPE CONCRETE BRIDGE PARAPET PER BRIDGE STANDARD DRAWING SBR-1-20. SEE SHEETS 37/42 TO 38/42 FOR PARAPET DETAILS.
- SINGLE SLOPE CONCRETE BRIDGE PARAPET PER BRIDGE STANDARD DRAWING SBR-2-20. SEE SHEETS 35/42 TO 36/42 FOR PARAPET DETAILS.
- SEE SHEET 27/42 FOR SUPERELEVATION TRANSITION DIAGRAM.

TRANSVERSE SECTION
 CUY-90-1653R (BRIDGE 11)
 I.R. 90 EB OVER CR-721 (E. 14TH ST.)

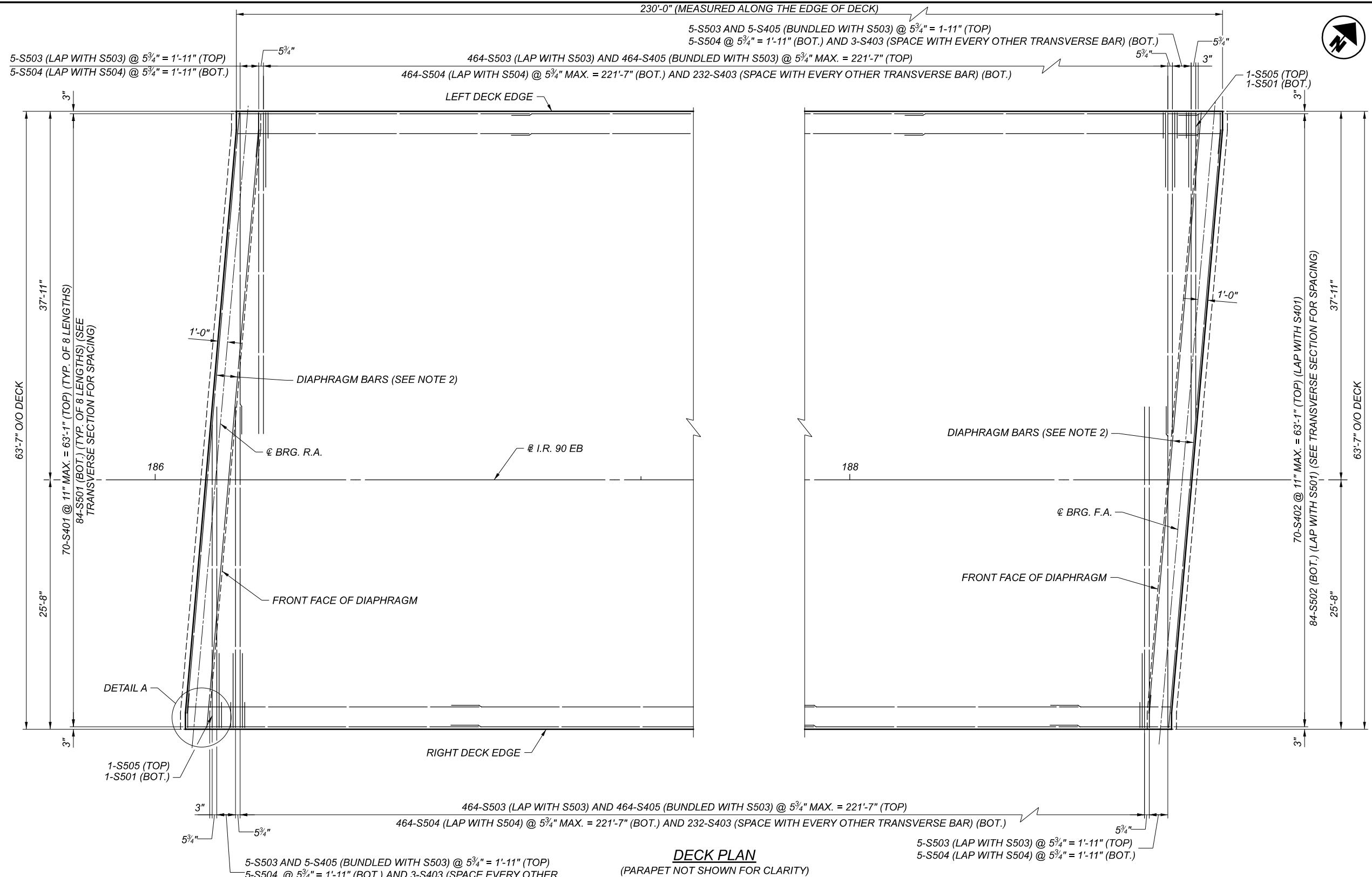
SFN	1807804
DESIGN AGENCY	BURGESS & NIPLE 100 WEST ERIE STREET PAINESVILLE, OHIO 44077
DESIGNER	BCS
CHECKER	MAB
REVIEWER	DWL 05/24/22
PROJECT ID	82382
SUBSET	26
TOTAL	42
SHEET	1679
TOTAL	2339



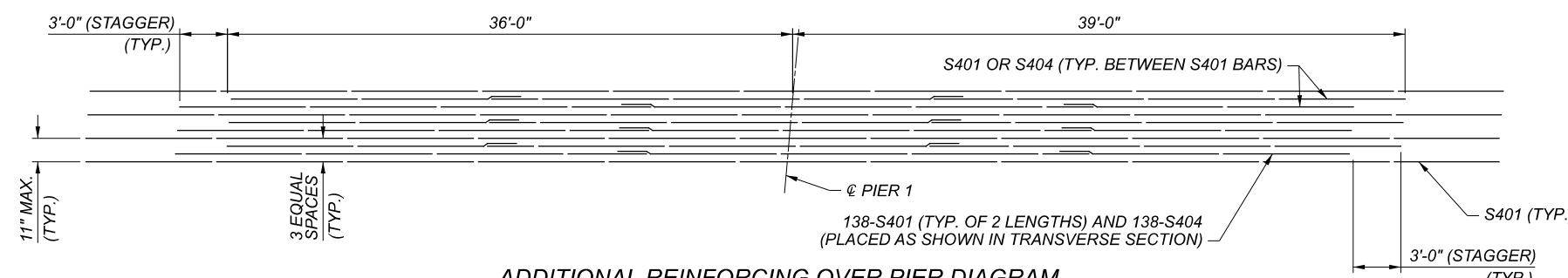
SUPERELEVATION TRANSITION DIAGRAM

SUPERELEVATION TRANSITION DIAGRAM
 CUY-90-1653R (BRIDGE 11)
 I.R. 90 EB OVER CR-721 (E. 14TH ST.)

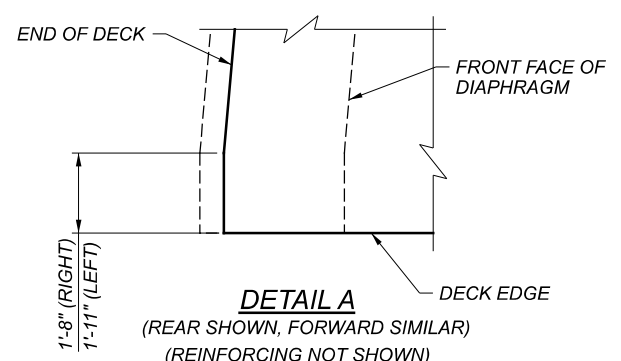
SFN	1807804
DESIGN AGENCY	
BURGESS & NIPLE <small>100 WEST ERIE STREET PAINESVILLE, OHIO 44077</small>	
DESIGNER	CHECKER
BCS	MAB
REVIEWER	
DWL 05/24/22	
PROJECT ID	
82382	
SUBSET	TOTAL
27	42
SHEET	TOTAL
1680	2339



DECK PLAN
(PARAPET NOT SHOWN FOR CLARITY)



ADDITIONAL REINFORCING OVER PIER DIAGRAM

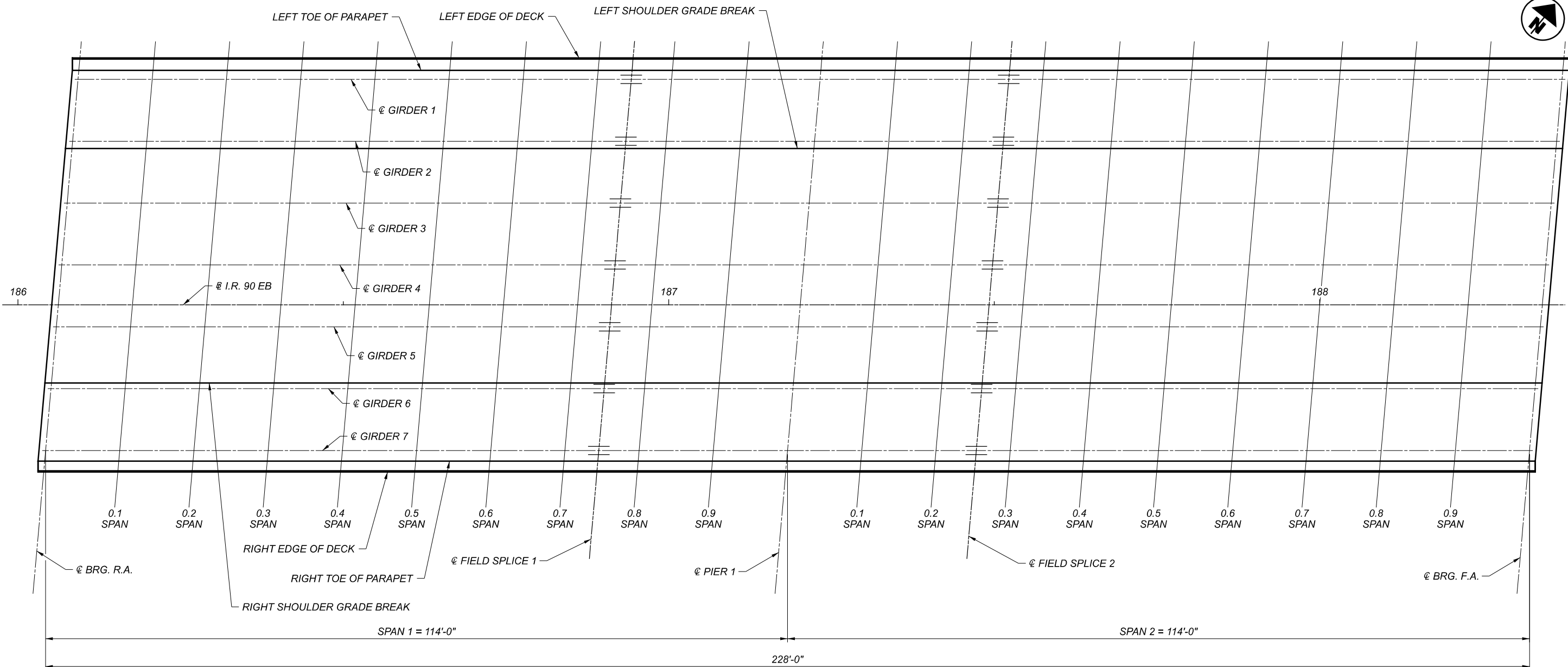


DETAIL A
(REAR SHOWN, FORWARD SIMILAR)
(REINFORCING NOT SHOWN)

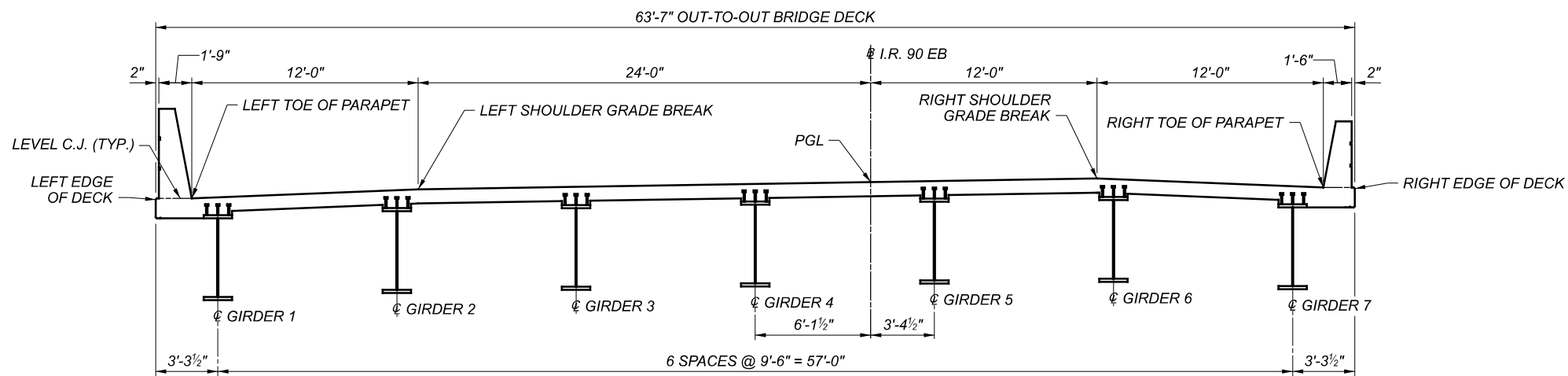
- NOTES:**
1. MINIMUM LAP LENGTHS:
 #4 BARS = 1'-10"
 #5 BARS = 2'-10"
 2. SEE SHEETS 32/42 THROUGH 34/42 FOR SEMI-INTEGRAL DETAILS AND DIAPHRAGM PLACEMENT NOTE.
 3. SEE SHEET 26/42 FOR TRANSVERSE SECTION.
 4. PLACE TRANSVERSE REINFORCING STEEL PERPENDICULAR TO @ I.R. 90 EB.
 5. SEE SHEETS 35/42 THROUGH 38/42 FOR PARAPET REINFORCING.

DECK PLAN
CUY-90-1653R (BRIDGE 11)
I.R. 90 EB OVER CR-721 (E. 14TH ST.)

SFN		1807804	
DESIGN AGENCY			
BURGESS & NIPLE		<small>100 WEST ERIE STREET PAINESVILLE, OHIO 44077</small>	
DESIGNER	CHECKER	REVIEWER	
BCS	MAB	DWL	05/24/22
PROJECT ID			
82382			
SUBSET	TOTAL	SHEET	TOTAL
28	42	1681	2339



CRITICAL BRIDGE POINTS PLAN
 (FOR USE WITH SCREED, TOP OF HAUNCH, AND FINAL DECK SURFACE ELEVATION TABLES)



CRITICAL BRIDGE POINTS TRANSVERSE SECTION
 (FOR USE WITH SCREED, TOP OF HAUNCH, AND FINAL DECK SURFACE ELEVATION TABLES)

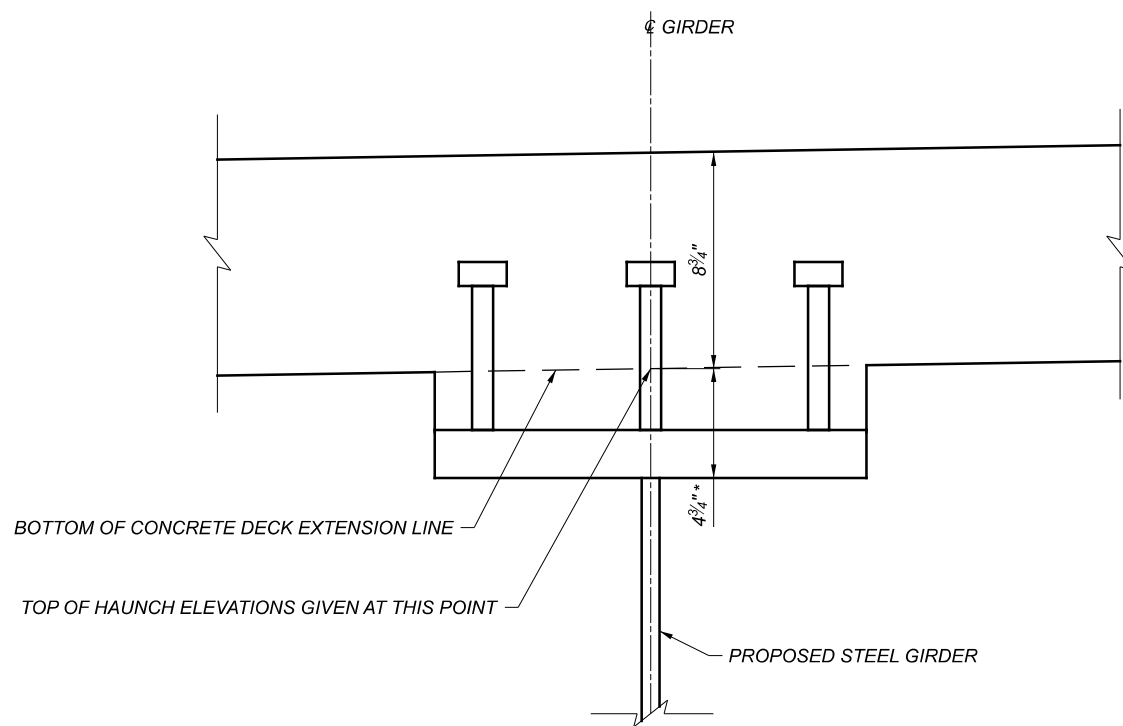


CRITICAL BRIDGE POINTS LOCATIONS
 CUY-90-1653R (BRIDGE 11)
 I.R. 90 EB OVER CR-721 (E. 14TH ST.)

SFN	1807804
DESIGN AGENCY	
BURGESS & NIPLE 100 WEST FIRE STREET PAINESVILLE, OHIO 44077	
DESIGNER	CHECKER
BCS	MAB
REVIEWER	
DWL	05/24/22
PROJECT ID	82382
SUBSET	TOTAL
29	42
SHEET	TOTAL
1682	2339

ELEVATION LINE	TOP OF HAUNCH ELEVATIONS																							
	CENTERLINE BRG. R.A.		SPAN 1																		CENTERLINE PIER 1			
	STA.	EL.	0.1		0.2		0.3		0.4		0.5		0.6		0.7		FIELD SPLICE 1		0.8		0.9		STA.	EL.
GIRDER 1	186+09.24	688.26	186+20.64	688.13	186+32.04	687.99	186+43.44	687.81	186+54.84	687.57	186+66.24	687.29	186+77.64	686.99	186+89.04	686.67	186+94.24	686.53	187+00.44	686.35	187+11.84	686.03	187+23.24	685.72
GIRDER 2	186+08.41	688.66	186+19.81	688.53	186+31.21	688.39	186+42.61	688.21	186+54.01	687.97	186+65.41	687.69	186+76.81	687.39	186+88.21	687.07	186+93.41	686.93	186+99.61	686.75	187+11.01	686.43	187+22.41	686.12
GIRDER 3	186+07.58	688.90	186+18.98	688.76	186+30.38	688.60	186+41.78	688.41	186+53.18	688.16	186+64.58	687.89	186+75.98	687.59	186+87.38	687.27	186+92.58	687.13	186+98.78	686.95	187+10.18	686.63	187+21.58	686.32
GIRDER 4	186+06.75	689.13	186+18.15	688.97	186+29.55	688.79	186+40.95	688.58	186+52.35	688.34	186+63.75	688.06	186+75.15	687.76	186+86.55	687.45	186+91.75	687.30	186+97.95	687.12	187+09.35	686.80	187+20.75	686.50
GIRDER 5	186+05.91	689.36	186+17.31	689.18	186+28.71	688.98	186+40.11	688.75	186+51.51	688.50	186+62.91	688.22	186+74.31	687.91	186+85.71	687.59	186+90.91	687.44	186+97.11	687.26	187+08.51	686.94	187+19.91	686.62
GIRDER 6	186+05.08	689.54	186+16.48	689.34	186+27.88	689.12	186+39.28	688.88	186+50.68	688.61	186+62.08	688.31	186+73.48	687.99	186+84.88	687.64	186+90.08	687.49	186+96.28	687.30	187+07.68	686.95	187+19.08	686.62
GIRDER 7	186+04.25	689.18	186+15.65	688.98	186+27.05	688.76	186+38.45	688.52	186+49.85	688.25	186+61.25	687.95	186+72.65	687.63	186+84.05	687.29	186+89.25	687.13	186+95.45	686.94	187+06.85	686.60	187+18.25	686.27

ELEVATION LINE	TOP OF HAUNCH ELEVATIONS																							
	CENTERLINE PIER 1		SPAN 2																		CENTERLINE BRG. F.A.			
	STA.	EL.	0.1		0.2		FIELD SPLICE 2		0.3		0.4		0.5		0.6		0.7		0.8		0.9		STA.	EL.
GIRDER 1	187+23.24	685.72	187+34.64	685.43	187+46.04	685.14	187+52.24	684.99	187+57.44	684.87	187+68.84	684.58	187+80.24	684.28	187+91.64	683.95	188+03.04	683.60	188+14.44	683.22	188+25.84	682.81	188+37.24	682.39
GIRDER 2	187+22.41	686.12	187+33.81	685.83	187+45.21	685.55	187+51.41	685.40	187+56.61	685.27	187+68.01	684.99	187+79.41	684.68	187+90.81	684.36	188+02.21	684.00	188+13.61	683.62	188+25.01	683.22	188+36.41	682.79
GIRDER 3	187+21.58	686.32	187+32.98	686.03	187+44.38	685.75	187+50.58	685.60	187+55.78	685.47	187+67.18	685.19	187+78.58	684.89	187+89.98	684.56	188+01.38	684.21	188+12.78	683.83	188+24.18	683.42	188+35.58	683.00
GIRDER 4	187+20.75	686.50	187+32.15	686.20	187+43.55	685.92	187+49.75	685.77	187+54.95	685.65	187+66.35	685.36	187+77.75	685.06	187+89.15	684.74	188+00.55	684.39	188+11.95	684.00	188+23.35	683.60	188+34.75	683.18
GIRDER 5	187+19.91	686.62	187+31.31	686.32	187+42.71	686.04	187+48.91	685.88	187+54.11	685.75	187+65.51	685.46	187+76.91	685.15	187+88.31	684.82	187+99.71	684.46	188+11.11	684.07	188+22.51	683.67	188+33.91	683.25
GIRDER 6	187+19.08	686.62	187+30.48	686.30	187+41.88	686.00	187+48.08	685.84	187+53.28	685.70	187+64.68	685.39	187+76.08	685.06	187+87.48	684.71	187+98.88	684.34	188+10.28	683.93	188+21.68	683.52	188+33.08	683.10
GIRDER 7	187+18.25	686.27	187+29.65	685.95	187+41.05	685.64	187+47.25	685.48	187+52.45	685.34	187+63.85	685.03	187+75.25	684.71	187+86.65	684.36	187+98.05	683.98	188+09.45	683.58	188+20.85	683.17	188+32.25	682.75



HAUNCH DETAIL

* = TOP OF WEB TO BOTTOM OF CONCRETE DECK EXTENSION LINE

NOTES:

1. SEE SHEET 29/42 FOR CRITICAL BRIDGE POINT ELEVATION LOCATIONS.
2. TOP OF HAUNCH ELEVATIONS SHOWN REPRESENT THE THEORETICAL LOCATION OF THE BOTTOM OF THE DECK ABOVE THE ϕ OF GIRDER HAUNCH PRIOR TO DEFLECTION CAUSED BY DECK PLACEMENT AND OTHER ANTICIPATED DEAD LOADS.

TOP OF HAUNCH ELEVATIONS AND DETAILS
 CUY-90-1653R (BRIDGE 11)
 I.R. 90 EB OVER CR-721 (E. 14TH ST.)

SFN
1807804

DESIGN AGENCY

BURGESS & NIPLE
 100 WEST FIRE STREET
 PAINESVILLE, OHIO 44077

DESIGNER CHECKER
 BCS MAB

REVIEWER
 DWL 05/24/22

PROJECT ID
 82382

SUBSET TOTAL
 30 42

SHEET TOTAL
 1683 2339

CUY-90-16.28 (CCG3A)

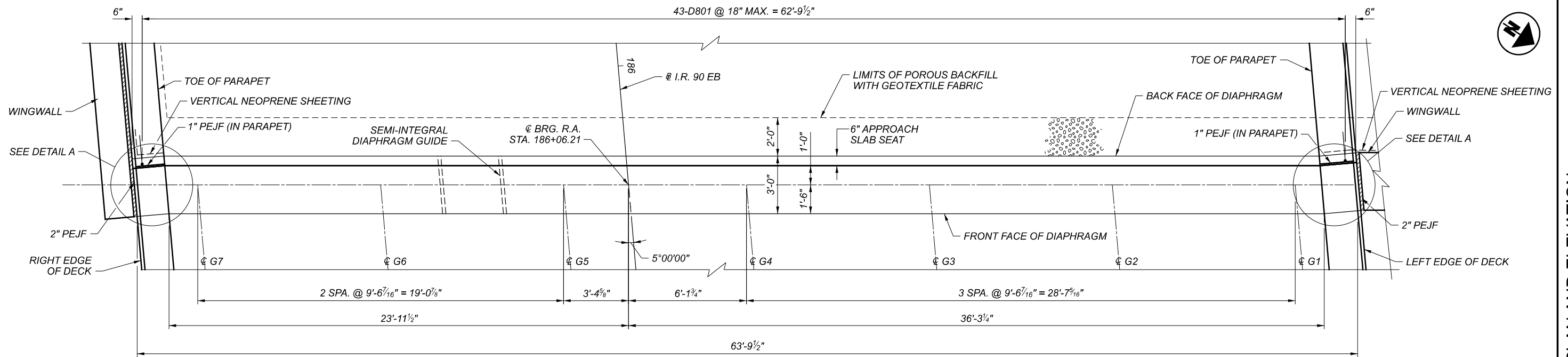
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SCREED ELEVATIONS																								
ELEVATION LINE	CENTERLINE BRG. R.A.		SPAN 1																		CENTERLINE PIER 1			
			0.1		0.2		0.3		0.4		0.5		0.6		0.7		FIELD SPLICE 1		0.8				0.9	
	STA.	EL.	STA.	EL.	STA.	EL.	STA.	EL.	STA.	EL.	STA.	EL.	STA.	EL.	STA.	EL.	STA.	EL.	STA.	EL.	STA.	EL.	STA.	EL.
LEFT TOE OF PARAPET	186+09.36	688.93	186+20.76	688.81	186+32.16	688.66	186+43.56	688.48	186+54.96	688.24	186+66.36	687.96	186+77.76	687.66	186+89.16	687.34	186+94.36	687.20	187+00.56	687.02	187+11.96	686.70	187+23.36	686.39
LEFT SHOULDER GRADE BREAK	186+08.31	689.43	186+19.71	689.30	186+31.11	689.16	186+42.51	688.99	186+53.91	688.74	186+65.31	688.47	186+76.71	688.17	186+88.11	687.85	186+93.31	687.70	186+99.51	687.53	187+10.91	687.21	187+22.31	686.90
BASELINE I.R. 90 EB AND PGL	186+06.21	690.01	186+17.61	689.83	186+29.01	689.64	186+40.41	689.42	186+51.81	689.17	186+63.21	688.90	186+74.61	688.60	186+86.01	688.29	186+91.21	688.14	186+97.41	687.96	187+08.81	687.65	187+20.21	687.34
RIGHT SHOULDER GRADE BREAK	186+05.16	690.30	186+16.56	690.10	186+27.96	689.88	186+39.36	689.64	186+50.76	689.37	186+62.16	689.07	186+73.56	688.75	186+84.96	688.41	186+90.16	688.25	186+96.36	688.06	187+07.76	687.72	187+19.16	687.38
RIGHT TOE OF PARAPET	186+04.11	689.85	186+15.51	689.65	186+26.91	689.43	186+38.31	689.19	186+49.71	688.91	186+61.11	688.62	186+72.51	688.29	186+83.91	687.95	186+89.11	687.80	186+95.31	687.61	187+06.71	687.26	187+18.11	686.93

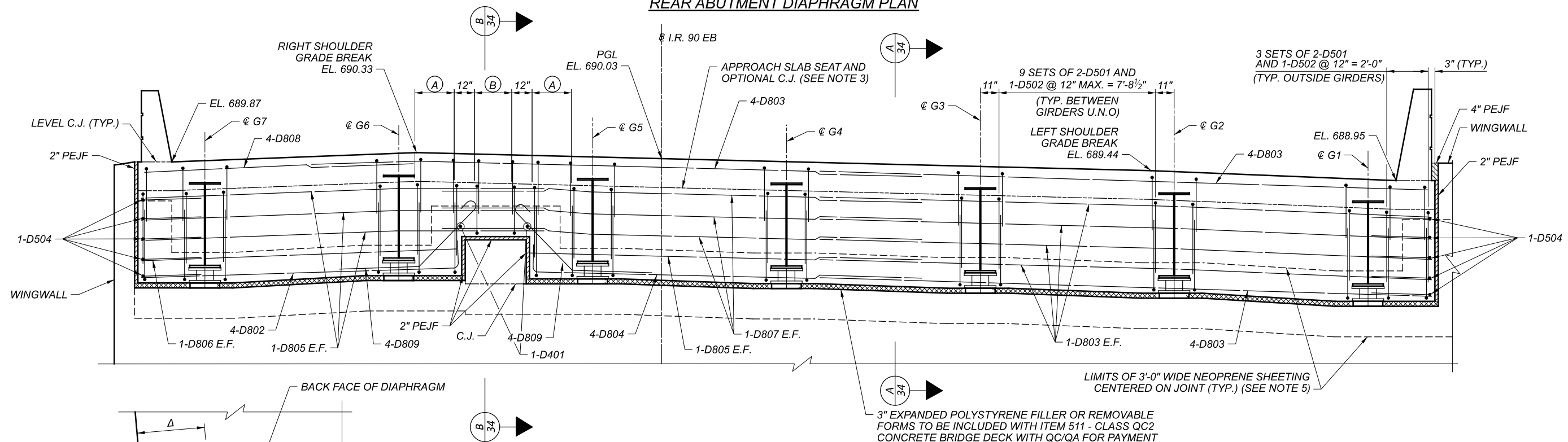
SCREED ELEVATIONS																								
ELEVATION LINE	CENTERLINE PIER 1		SPAN 2																		CENTERLINE BRG. F.A.			
			0.1		0.2		FIELD SPLICE 2		0.3		0.4		0.5		0.6		0.7		0.8				0.9	
	STA.	EL.	STA.	EL.	STA.	EL.	STA.	EL.	STA.	EL.	STA.	EL.	STA.	EL.	STA.	EL.	STA.	EL.	STA.	EL.	STA.	EL.	STA.	EL.
LEFT TOE OF PARAPET	187+23.36	686.39	187+34.76	686.10	187+46.16	685.82	187+52.36	685.66	187+57.56	685.54	187+68.96	685.25	187+80.36	684.95	187+91.76	684.62	188+03.16	684.27	188+14.56	683.89	188+25.96	683.48	188+37.36	683.06
LEFT SHOULDER GRADE BREAK	187+22.31	686.90	187+33.71	686.61	187+45.11	686.32	187+51.31	686.17	187+56.51	686.05	187+67.91	685.76	187+79.31	685.46	187+90.71	685.14	188+02.11	684.78	188+13.51	684.40	188+24.91	683.99	188+36.31	683.57
BASELINE I.R. 90 EB AND PGL	187+20.21	687.34	187+31.61	687.05	187+43.01	686.77	187+49.21	686.62	187+54.41	686.49	187+65.81	686.21	187+77.21	685.91	187+88.61	685.58	188+00.01	685.23	188+11.41	684.85	188+22.81	684.44	188+34.21	684.02
RIGHT SHOULDER GRADE BREAK	187+19.16	687.38	187+30.56	687.07	187+41.96	686.76	187+48.16	686.60	187+53.36	686.46	187+64.76	686.15	187+76.16	685.83	187+87.56	685.48	187+98.96	685.10	188+10.36	684.69	188+21.76	684.28	188+33.16	683.86
RIGHT TOE OF PARAPET	187+18.11	686.93	187+29.51	686.62	187+40.91	686.31	187+47.11	686.15	187+52.31	686.01	187+63.71	685.70	187+75.11	685.38	187+86.51	685.03	187+97.91	684.65	188+09.31	684.25	188+20.71	683.84	188+32.11	683.42

FINAL TOP OF DECK SURFACE ELEVATIONS																								
ELEVATION LINE	CENTERLINE BRG. R.A.		SPAN 1																		CENTERLINE PIER 1			
			0.1		0.2		0.3		0.4		0.5		0.6		0.7		FIELD SPLICE 1		0.8				0.9	
	STA.	EL.	STA.	EL.	STA.	EL.	STA.	EL.	STA.	EL.	STA.	EL.	STA.	EL.	STA.	EL.	STA.	EL.	STA.	EL.	STA.	EL.	STA.	EL.
LEFT TOE OF PARAPET	186+09.36	688.93	186+20.76	688.75	186+32.16	688.55	186+43.56	688.34	186+54.96	688.08	186+66.36	687.82	186+77.76	687.54	186+89.16	687.27	186+94.36	687.14	187+00.56	686.98	187+11.96	686.69	187+23.36	686.39
GIRDER 1	186+09.24	688.99	186+20.64	688.80	186+32.04	688.61	186+43.44	688.40	186+54.84	688.14	186+66.24	687.87	186+77.64	687.60	186+89.04	687.32	186+94.24	687.20	187+00.44	687.04	187+11.84	686.75	187+23.24	686.45
GIRDER 2	186+08.41	689.38	186+19.81	689.20	186+31.21	689.00	186+42.61	688.80	186+54.01	688.54	186+65.41	688.27	186+76.81	688.00	186+88.21	687.72	186+93.41	687.60	186+99.61	687.44	187+11.01	687.15	187+22.41	686.85
LEFT SHOULDER GRADE BREAK	186+08.31	689.43	186+19.71	689.24	186+31.11	689.05	186+42.51	688.84	186+53.91	688.59	186+65.31	688.32	186+76.71	688.05	186+88.11	687.77	186+93.31	687.64	186+99.51	687.49	187+10.91	687.20	187+22.31	686.90
GIRDER 3	186+07.58	689.63	186+18.98	689.43	186+30.38	689.21	186+41.78	689.00	186+53.18	688.74	186+64.58	688.47	186+75.98	688.20	186+87.38	687.92	186+92.58	687.80	186+98.78	687.64	187+10.18	687.35	187+21.58	687.05
GIRDER 4	186+06.75	689.86	186+18.15	689.63	186+29.55	689.40	186+40.95	689.16	186+52.35	688.91	186+63.75	688.64	186+75.15	688.37	186+86.55	688.10	186+91.75	687.97	186+97.95	687.81	187+09.35	687.52	187+20.75	687.23
BASELINE I.R. 90 EB AND PGL	186+06.21	690.01	186+17.61	689.77	186+29.01	689.53	186+40.41	689.28	186+51.81	689.02	186+63.21	688.75	186+74.61	688.48	186+86.01	688.21	186+91.21	688.08	186+97.41	687.92	187+08.81	687.64	187+20.21	687.34
GIRDER 5	186+05.91	690.09	186+17.31	689.85	186+28.71	689.59	186+40.11	689.34	186+51.51	689.07	186+62.91	688.80	186+74.31	688.52	186+85.71	688.24	186+90.91	688.11	186+97.11	687.95	187+08.51	687.65	187+19.91	687.35
RIGHT SHOULDER GRADE BREAK	186+05.16	690.30	186+16.56	690.04	186+27.96	689.77	186+39.36	689.50	186+50.76	689.21	186+62.16	688.93	186+73.56	688.63	186+84.96	688.33	186+90.16	688.19	186+96.36	688.02	187+07.76	687.71	187+19.16	687.38
GIRDER 6	186+05.08	690.27	186+16.48	690.01	186+27.88	689.74	186+39.28	689.46	186+50.68	689.18	186+62.08	688.89	186+73.48	688.60	186+84.88	688.30	186+90.08	688.16	186+96.28	687.99	187+07.68	687.67	187+19.08	687.35
GIRDER 7	186+04.25	689.91	186+15.65	689.65	186+27.05	689.38	186+38.45	689.10	186+49.85	688.82	186+61.25	688.53	186+72.65	688.24	186+84.05	687.94	186+89.25	687.80	186+95.45	687.63	187+06.85	687.32	187+18.25	686.99
RIGHT TOE OF PARAPET	186+04.11	689.85	186+15.51	689.59	186+26.91	689.32	186+38.31	689.04	186+49.71	688.76	186+61.11	688.47	186+72.51	688.18	186+83.91	687.88	186+89.11	687.74	186+95.31	687.57	187+06.71	687.25	187+18.11	686.93

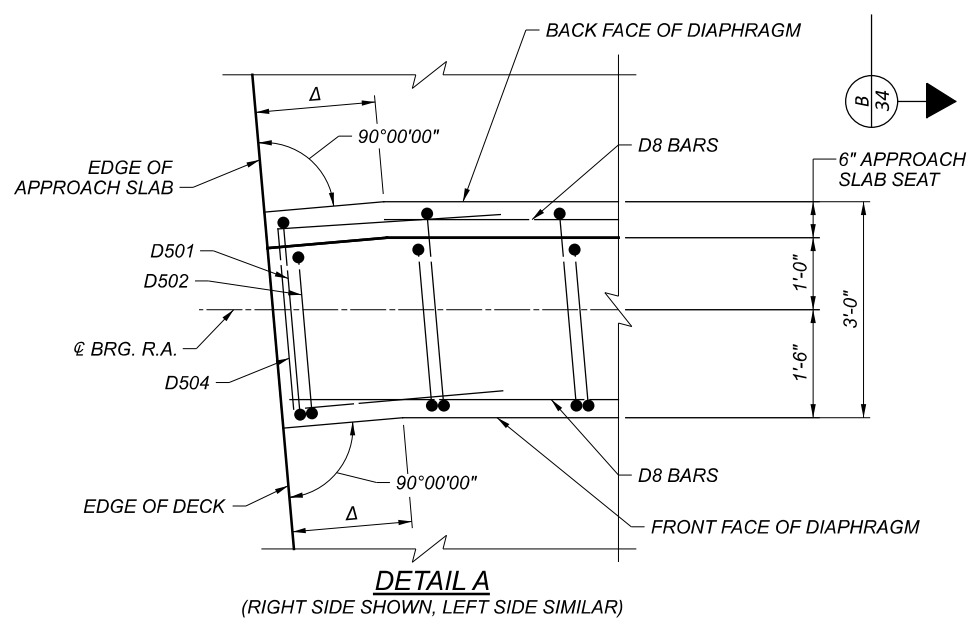
FINAL TOP OF DECK SURFACE ELEVATIONS																								
ELEVATION LINE	CENTERLINE PIER 1		SPAN 2																		CENTERLINE BRG. F.A.			
			0.1		0.2		FIELD SPLICE 2		0.3		0.4		0.5		0.6		0.7		0.8				0.9	
	STA.	EL.	STA.	EL.	STA.	EL.	STA.	EL.	STA.	EL.	STA.	EL.	STA.	EL.	STA.	EL.	STA.	EL.	STA.	EL.	STA.	EL.	STA.	EL.
LEFT TOE OF PARAPET	187+23.36	686.39	187+34.76	686.09	187+46.16	685.78	187+52.36	685.60	187+57.56	685.46	187+68.96	685.14	187+80.36	684.80	187+91.76	684.47	188+03.16	684.12	188+14.56	683.77	188+25.96	683.42	188+37.36	683.06
GIRDER 1	187+23.24	686.45	187+34.64	686.15	187+46.04	685.83	187+52.24	685.66	187+57.44	685.52	187+68.84	685.19	187+80.24	684.86	187+91.64	684.53	188+03.04	684.18	188+14.44	683.83	188+25.84	683.48	188+37.24	683.11
GIRDER 2	187+22.41	686.85	187+33.81	686.55	187+45.21	686.24	187+51.41	686.07	187+56.61	685.92	187+68.01	685.60	187+79.41	685.27	187+90.81	684.93	188+02.21	684.59	188+13.61	684.24	188+25.01	683.88	188+36.41	683.52
LEFT SHOULDER GRADE BREAK	187+22.31	686.90	187+33.71	686.60	187+45.11	686.29	187+51.31	686.11	187+56.51	685.97	187+67.91	685.65	187+79.31	685.32	187+90.71	684.98	188+02.11	684.64	188+13.51	684.29	188+24.91	683.93	188+36.31	683.57
GIRDER 3	187+21.58	687.05	187+32.98	686.75	187+44.38	686.44	187+50.58	686.27	187+55.78	686.12	187+67.18	685.80	187+78.58	685.47	187+89.98	685.14	188+01.38	684.79	188+12.78	684.44	188+24.18	684.09	188+35.58	683.73
GIRDER 4	187+20.75	687.23	187+32.15	686.92	187+43.55	686.61	187+49.75	686.44	187+54.95	686.30	187+66.35	685.98	187+77.75	685.65	187+89.15	685.31	188+00.55	684.97	188+11.95	684.62	188+23.35	684.27	188+34.75	683.91
BASELINE I.R. 90 EB AND PGL	187+20.21	687.34	187+31.61	687.04	187+43.01	686.73	187+49.21	686.56	187+54.41	686.41	187+65.81	686.09	187+77.21	685.76	187+88.61	685.43	188+00.01	685.08	188+11.41	684.74	188+22.81	684.38	188+34.21	684.02
GIRDER 5	187+19.91	687.35	187+31.31	687.04	187+42.71	686.73	187+48.91	686.55	187+54.11	686.40	187+65.51	686.07	187+76.91	685.74	187+88.31	685.40	187+99.71	685.05	188+11.11	684.69	188+22.51	684.34	188+33.91	683.98
RIGHT SHOULDER GRADE BREAK	187+19.16	687.38	187+30.56	687.06																				



REAR ABUTMENT DIAPHRAGM PLAN



REAR ABUTMENT DIAPHRAGM ELEVATION



DETAIL A

(RIGHT SIDE SHOWN, LEFT SIDE SIMILAR)

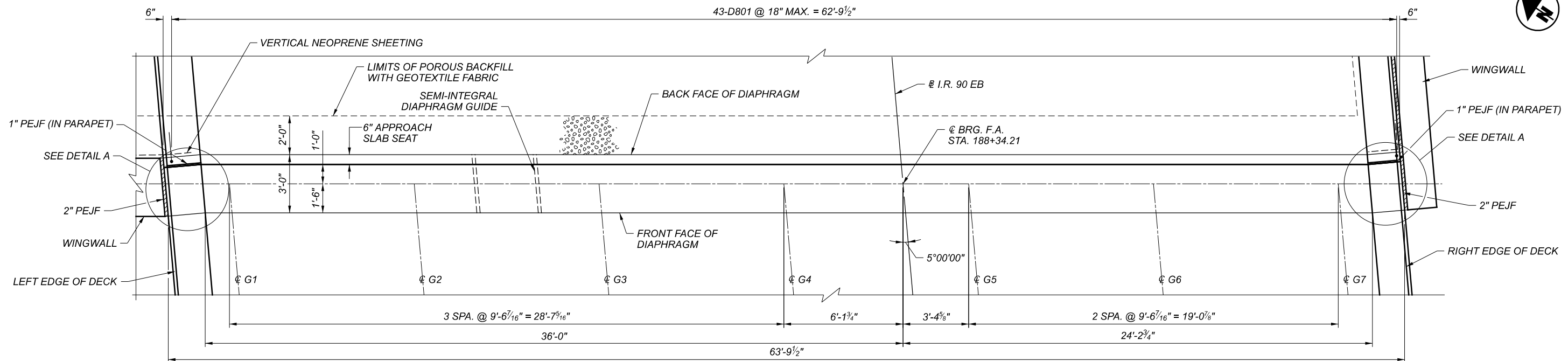
LEGEND:

- (A) = 3 SETS OF 2-D501 AND 1-D502 @ 12" = 2'-0"
- (B) = 3 SETS OF 1-D503 AND 1-D502 @ 11" = 1'-10"
- Δ = 1'-8" (RIGHT), 1'-11" (LEFT)

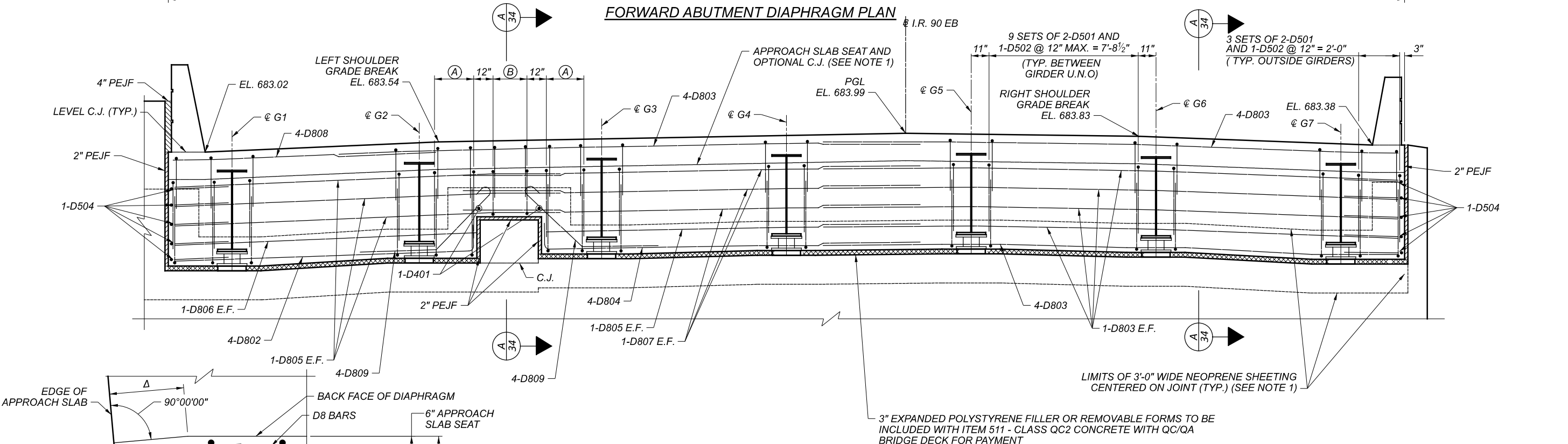
NOTES:

1. SEE ODOT STANDARD BRIDGE DRAWINGS SICD-1-21 FOR DETAILS NOT SHOWN.
2. MINIMUM LAP LENGTHS:
 #5 BARS = 2'-3"
 #8 BARS = 5'-0"
3. PLACE THE DIAPHRAGM CONCRETE ENCASEING THE STRUCTURAL MEMBER ENDS WITH THE DECK CONCRETE OR AT LEAST 48 HOURS BEFORE PLACEMENT OF THE DECK CONCRETE. IF PLACED SEPARATELY, LOCATE A HORIZONTAL CONSTRUCTION JOINT IN THE DIAPHRAGM AS SHOWN IN SICD-1-21 FOR STEEL SUPERSTRUCTURES AND PLACE REMAINING DIAPHRAGM CONCRETE WITH THE DECK.
4. ALL VERTICAL REINFORCING SHALL BE PLACED PARALLEL TO GIRDERS.
5. NEOPRENE SHEETING UPPER LIMIT AT DIAPHRAGM TO WINGWALL JOINT SHALL BE 6" BELOW APPROACH SLAB SEAT. PAYMENT FOR NEOPRENE SHEETING SHALL BE INCLUDED WITH ITEM 516 - SEMI-INTEGRAL ABUTMENT EXPANSION JOINT SEAL.
6. SEE SHEET 34/42 FOR SECTIONS A-A AND B-B.
7. ALL ABUTMENT DIAPHRAGM CONCRETE SHALL BE ITEM 511 - CLASS QC2 CONCRETE BRIDGE DECK WITH QC/QA.

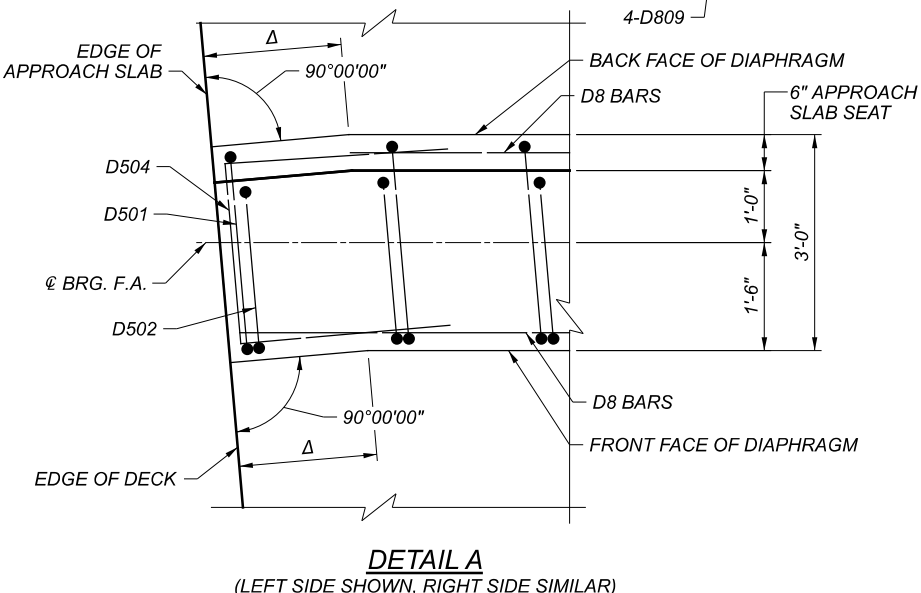
SFN	1807804
DESIGN AGENCY	
DESIGNER	BCS
CHECKER	MAB
REVIEWER	DWL
DATE	05/24/22
PROJECT ID	82382
SUBSET	32
TOTAL	42
SHEET	1685
TOTAL	2339



FORWARD ABUTMENT DIAPHRAGM PLAN



FORWARD ABUTMENT DIAPHRAGM ELEVATION



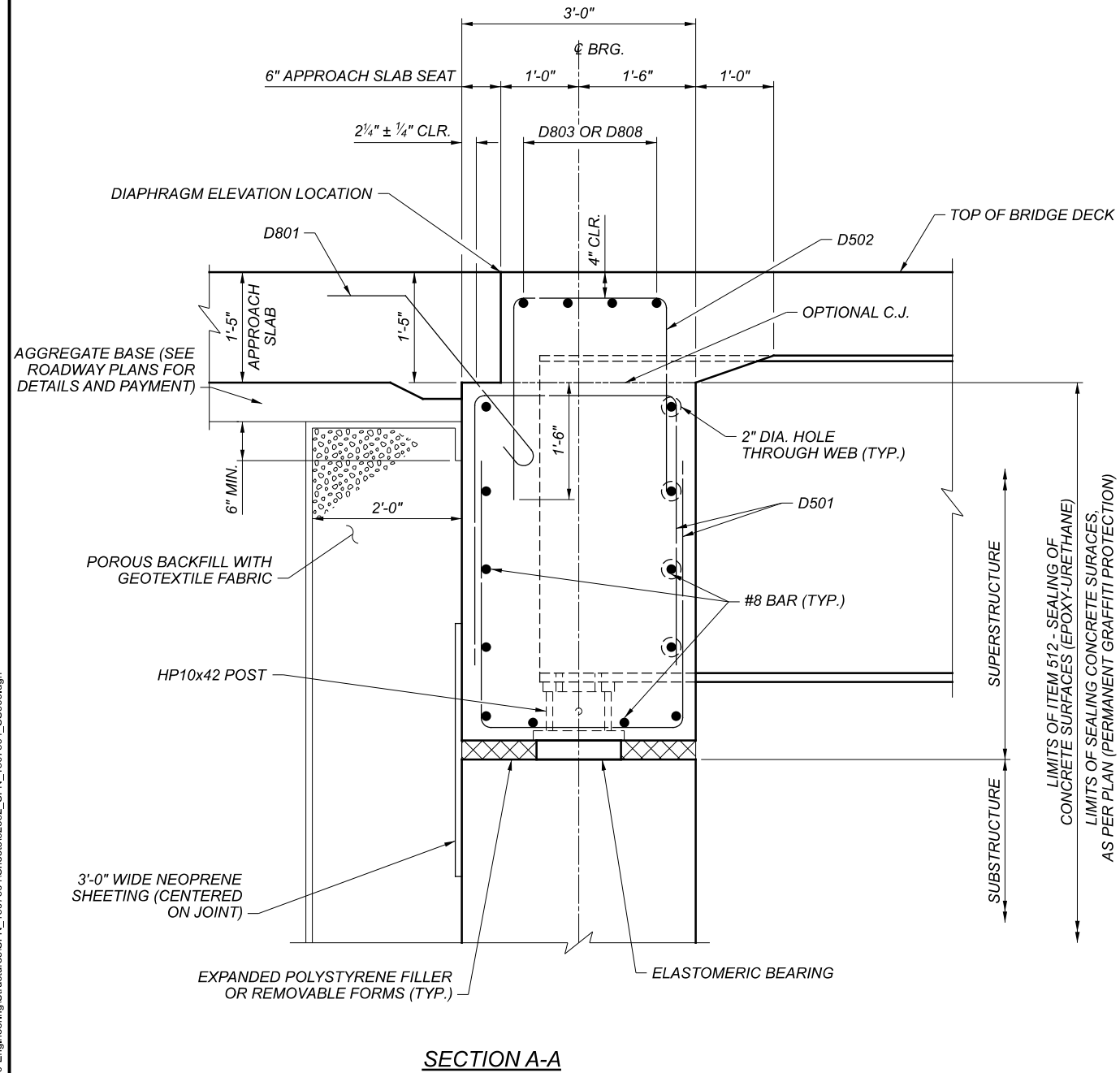
DETAIL A
(LEFT SIDE SHOWN, RIGHT SIDE SIMILAR)

LEGEND:
 (A) = 3 SETS OF 2-D501 AND 1-D502 @ 12" = 2'-0"
 (B) = 3 SETS OF 1-D503 AND 1-D502 @ 11" = 1'-10"
 Δ = 1'-11" (LEFT), 1'-8" (RIGHT)

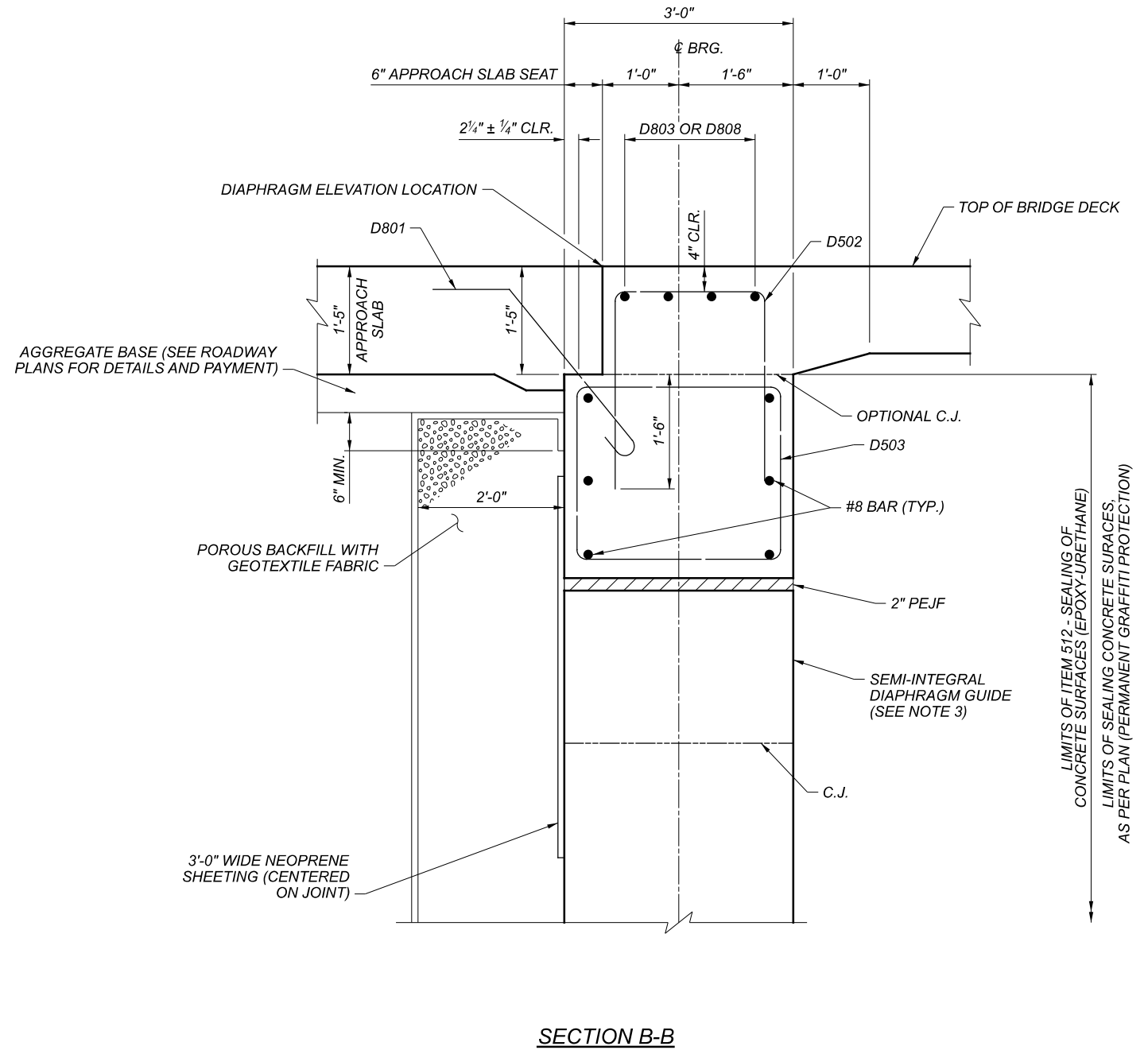
NOTES:
 1. SEE SHEET 32/42 FOR NOTES.
 2. SEE SHEET 34/42 FOR SECTIONS A-A AND B-B.

FORWARD ABUTMENT DIAPHRAGM PLAN AND ELEVATION
 CUY-90-1653R (BRIDGE 11)
 I.R. 90 EB OVER CR-721 (E. 14TH ST.)

SFN	1807804
DESIGN AGENCY	
DESIGNER	BCS
CHECKER	MAB
REVIEWER	DWL
DATE	05/24/22
PROJECT ID	82382
SUBSET	33
TOTAL	42
SHEET	1686
TOTAL	2339



SECTION A-A



SECTION B-B

NOTES:

1. PAYMENT FOR NEOPRENE SHEETING WILL BE INCLUDED WITH ITEM 516 - SEMI-INTEGRAL ABUTMENT EXPANSION JOINT SEAL.
2. SEE STANDARD BRIDGE DRAWING SICD-1-21 FOR DETAILS NOT SHOWN.
3. SEE STANDARD BRIDGE DRAWING SICD-2-14 FOR DIAPHRAGM GUIDE DETAILS.

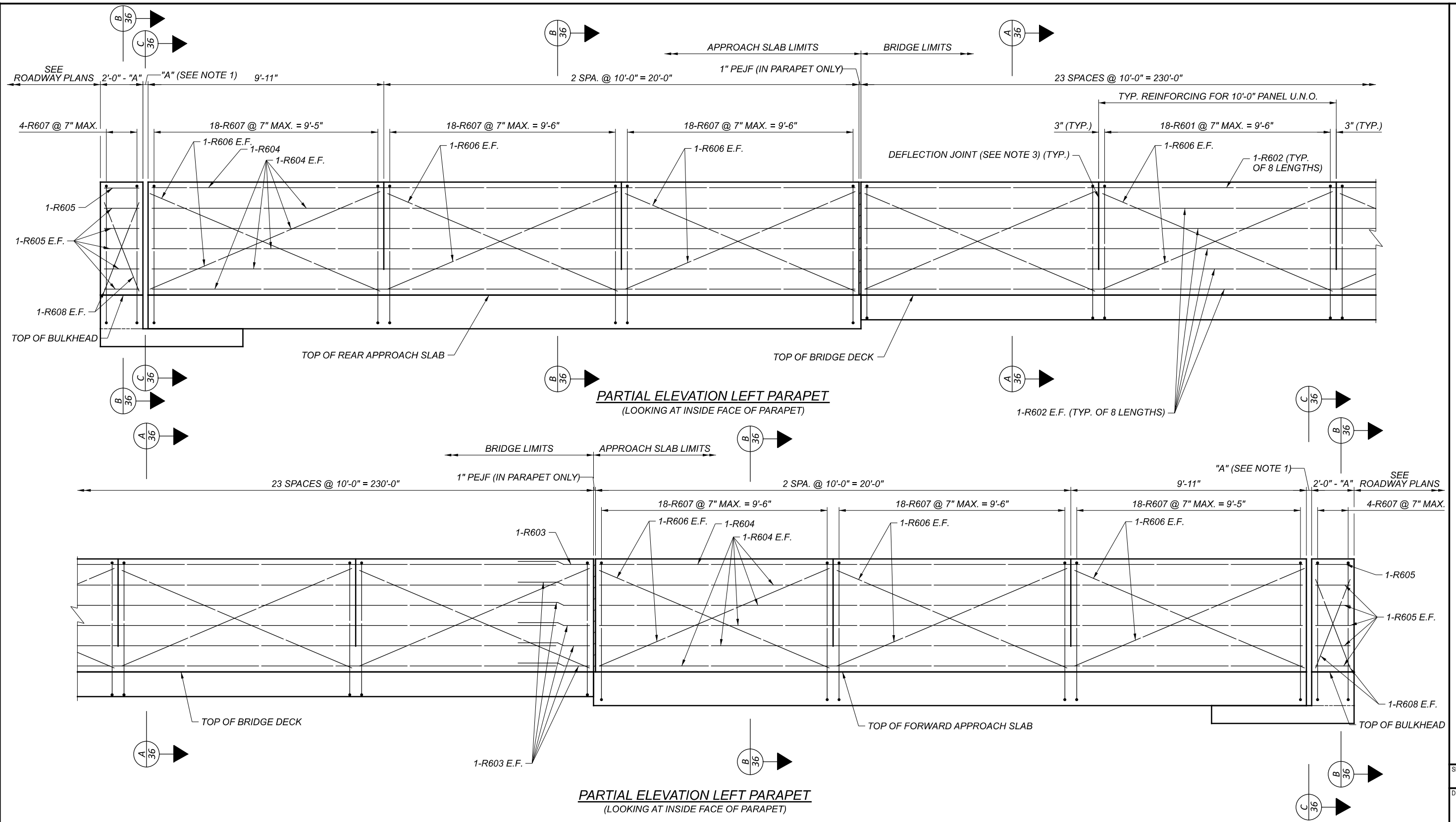
ABUTMENT DIAPHRAGM DETAILS
 CUY-90-1653R (BRIDGE 11)
 I.R. 90 EB OVER CR-721 (E. 14TH ST.)

SFN	1807804
DESIGN AGENCY	
DESIGNER	BCS
CHECKER	MAB
REVIEWER	DWL
DATE	05/24/22
PROJECT ID	82382
SUBSET	TOTAL
34	42
SHEET	TOTAL
1687	2339

BURGESS & NIPLE
 100 WEST FINE STREET
 PAINESVILLE, OHIO 44077

CUY-90-16.28 (CCG3A)

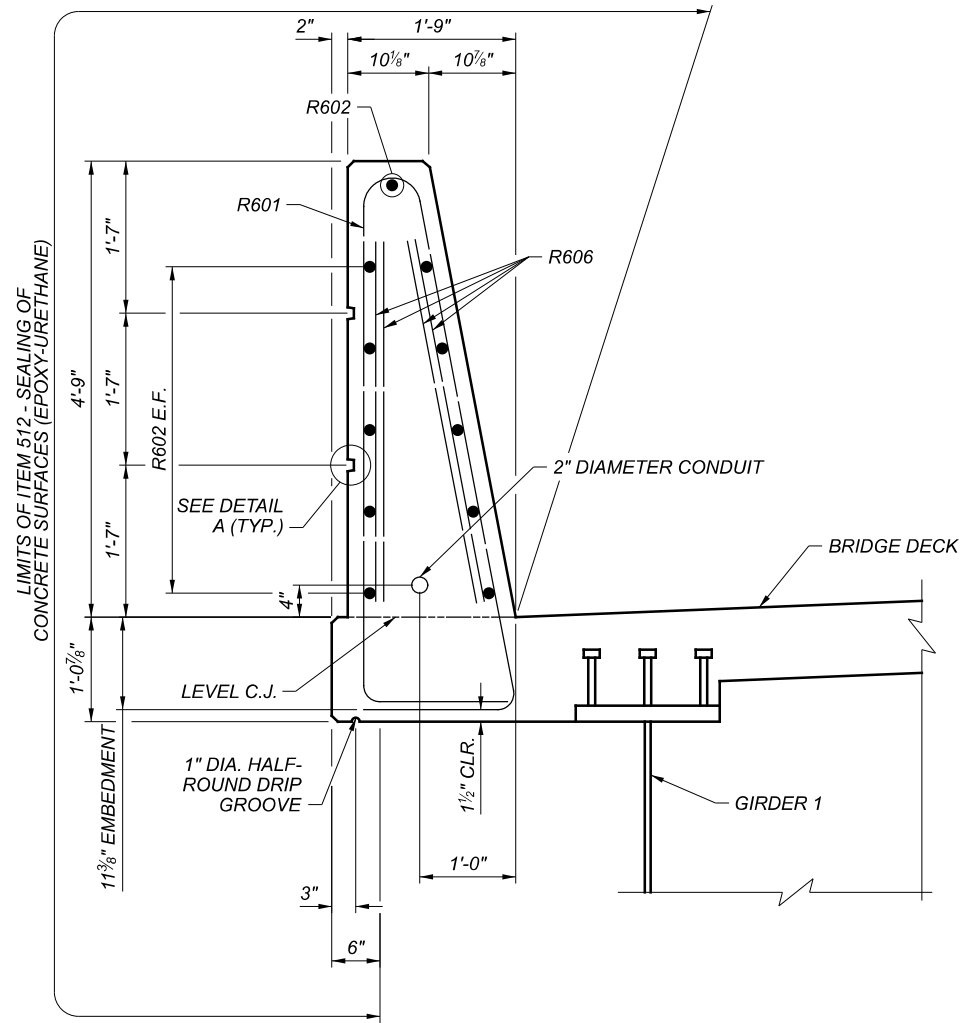
MODEL: Sheet PAPER: 17x11 (in.) DATE: 6/22/2022 TIME: 10:12:18 PM USER: Gregory, Heather
 p:\mb-us-pw-bentley.com\mb-us-pw-03\Documents\Cleveland_OH\01_Projects\ODOT\Dist\128238240-Engineering\Structures\SFN_1807804_SAF001.dgn



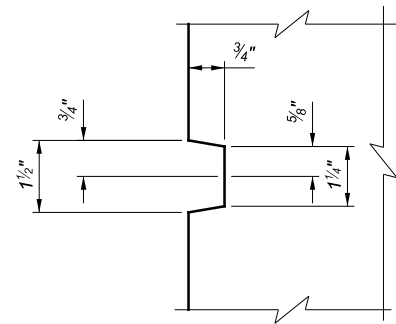
LEFT PARAPET ELEVATION
 CUY-90-1653R (BRIDGE 11)
 I.R. 90 EB OVER CR-721 (E. 14TH ST.)

SFN	1807804
DESIGN AGENCY	BURGESS & NIPLE 100 WEST FINE STREET PAINESVILLE, OHIO 44077
DESIGNER	BCS
CHECKER	MAB
REVIEWER	DWL
DATE	05/24/22
PROJECT ID	82382
SUBSET	35
TOTAL	42
SHEET	1688
TOTAL	2339

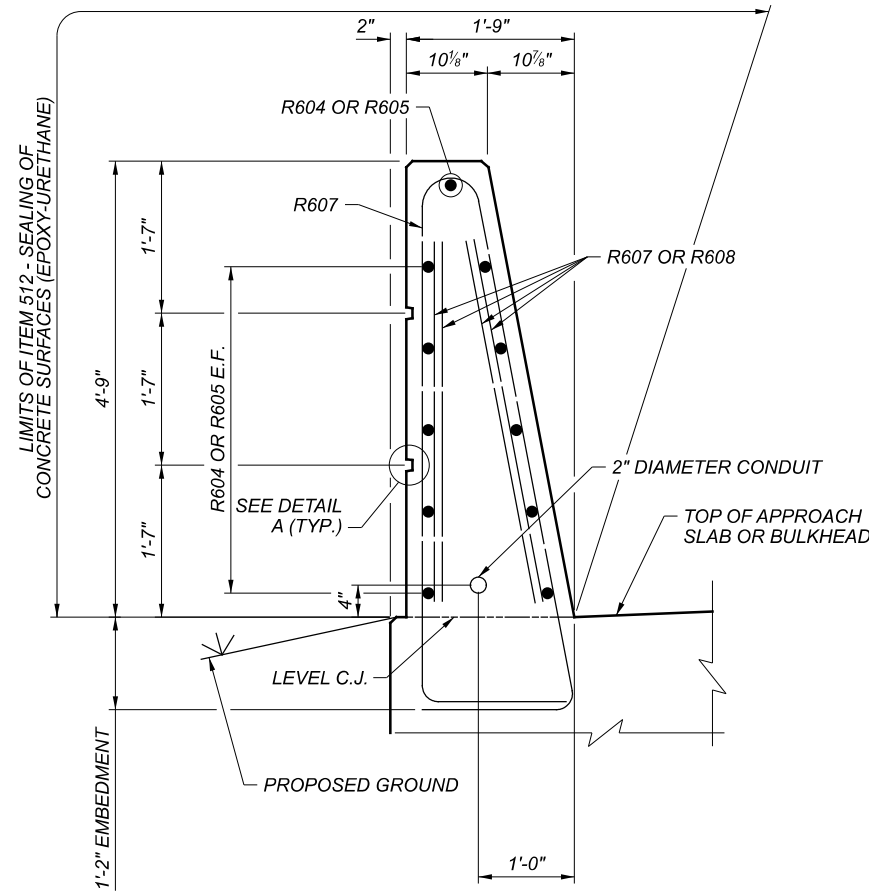
- NOTES:**
- SEE STANDARD BRIDGE DRAWING AS-2-15 FOR ADDITIONAL DETAILS.
 - SEE STANDARD BRIDGE DRAWING SBR-2-20 FOR ADDITIONAL DETAILS.
 - SEE SHEET 36/42 FOR SECTIONS A-A, B-B, C-C, AND DEFLECTION JOINT DETAIL.
 - MINIMUM LAP LENGTHS:
#6 GFRP = 1'-8"



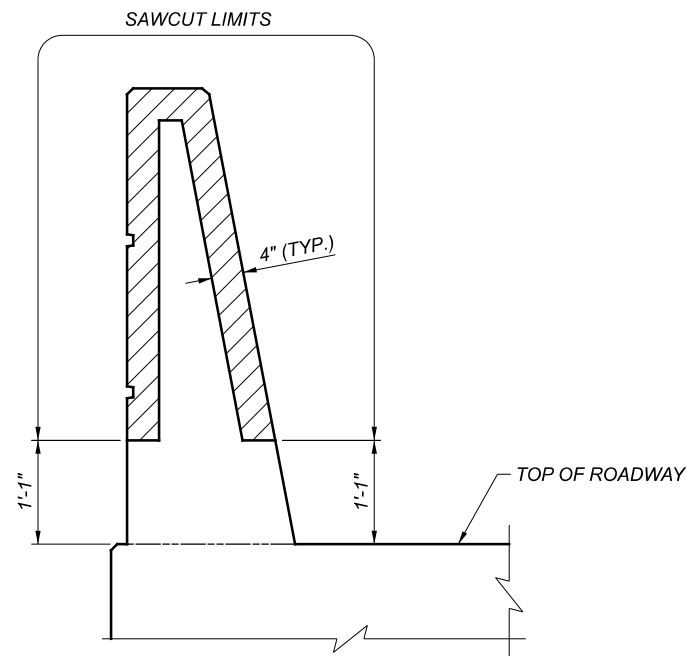
SECTION A-A
 (DECK SLAB REINFORCING
 STEEL NOT SHOWN FOR CLARITY)



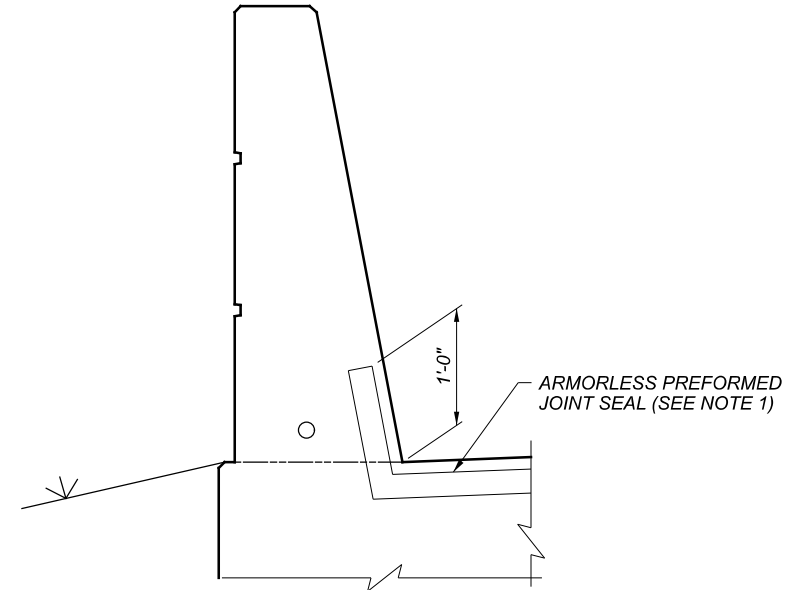
DETAIL A



SECTION B-B
 (APPROACH SLAB AND BULKHEAD REINFORCING
 STEEL NOT SHOWN FOR CLARITY)



DEFLECTION JOINT DETAIL



SECTION C-C

NOTES:

- SEE STANDARD BRIDGE DRAWING AS-2-15 FOR ADDITIONAL DETAILS.
- SEE SHEET 35/42 FOR LOCATION OF SECTION CUTS AND ADDITIONAL NOTES.

LEFT PARAPET DETAILS
 CUY-90-1653R (BRIDGE 11)
 I.R. 90 EB OVER CR-721 (E. 14TH ST.)

SFN
 1807804

DESIGN AGENCY

**BURGESS
 & NIPLE**
 100 WEST FIRE STREET
 PAINESVILLE, OHIO 44077

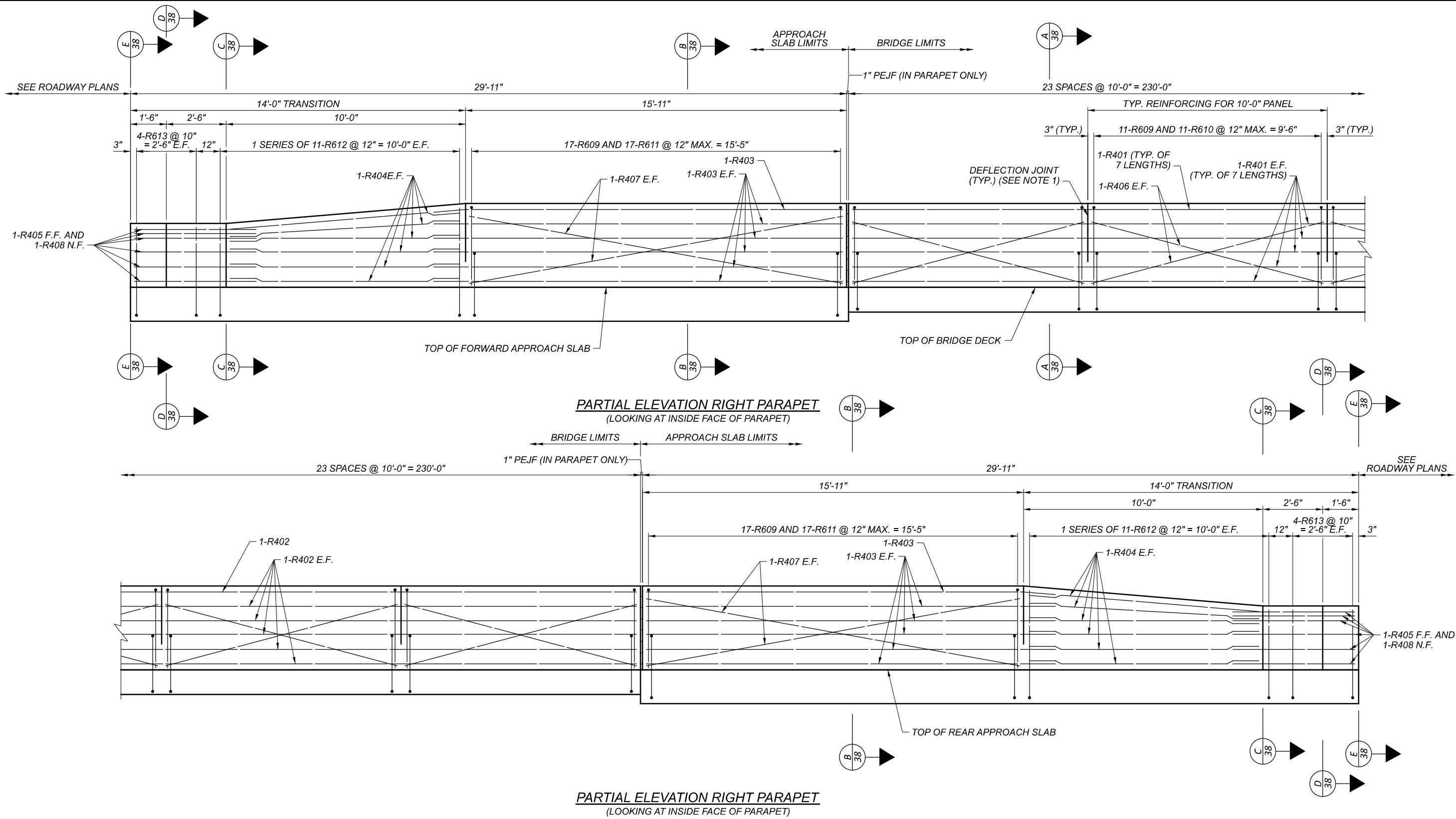
DESIGNER CHECKER
 BCS MAB

REVIEWER
 DWL 05/24/22

PROJECT ID
 82382

SUBSET TOTAL
 36 42

SHEET TOTAL
 1689 2339

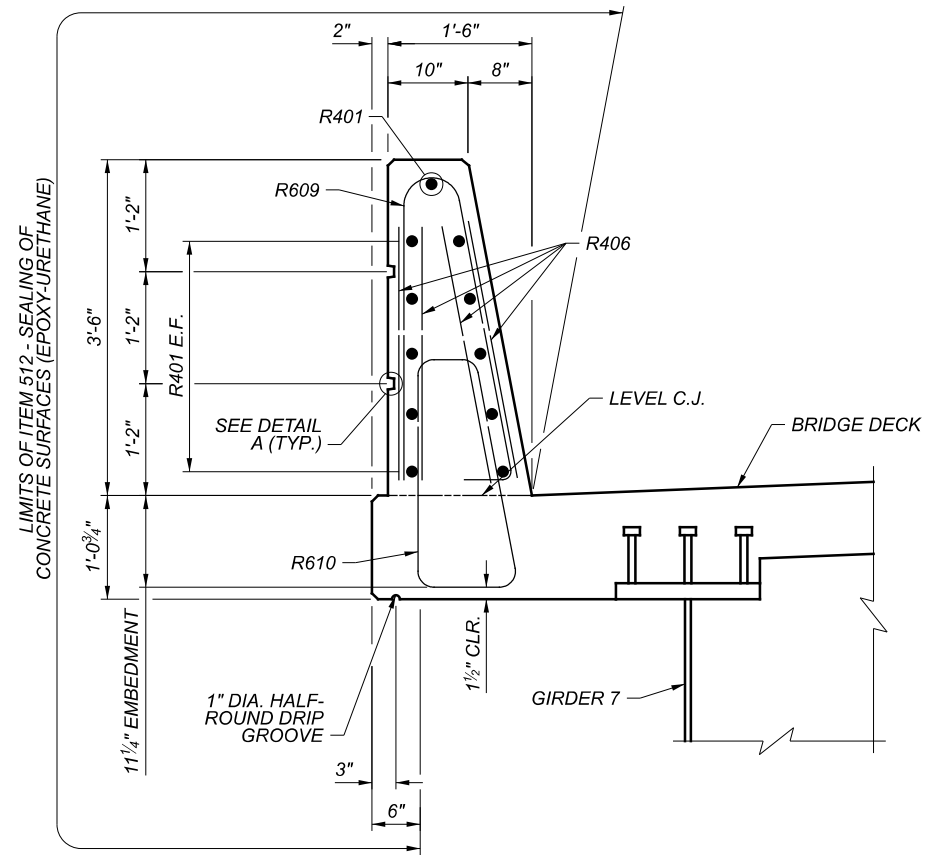


NOTES:

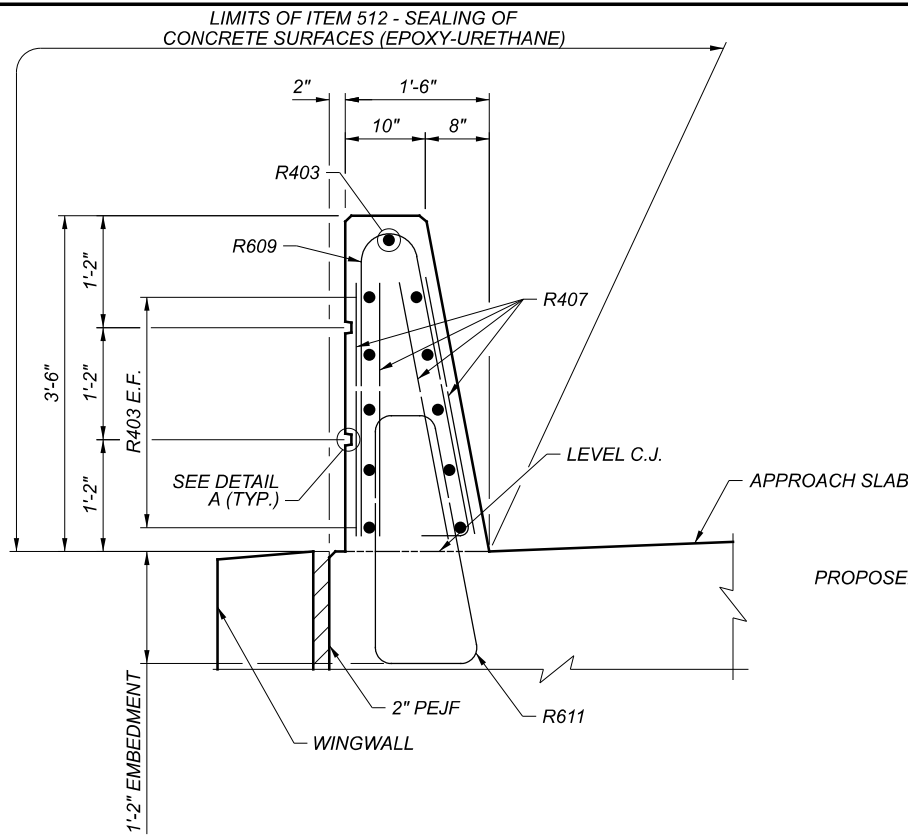
- SEE STANDARD BRIDGE DRAWING SBR-1-20 FOR ADDITIONAL DETAILS.
- SEE SHEET 38/42 FOR SECTIONS A-A, B-B, C-C, D-D, AND E-E.
- MINIMUM LAP LENGTHS:
#4 GFRP = 1'-1"

RIGHT PARAPET ELEVATION
 CUY-90-1653R (BRIDGE 11)
 I.R. 90 EB OVER CR-721 (E. 14TH ST.)

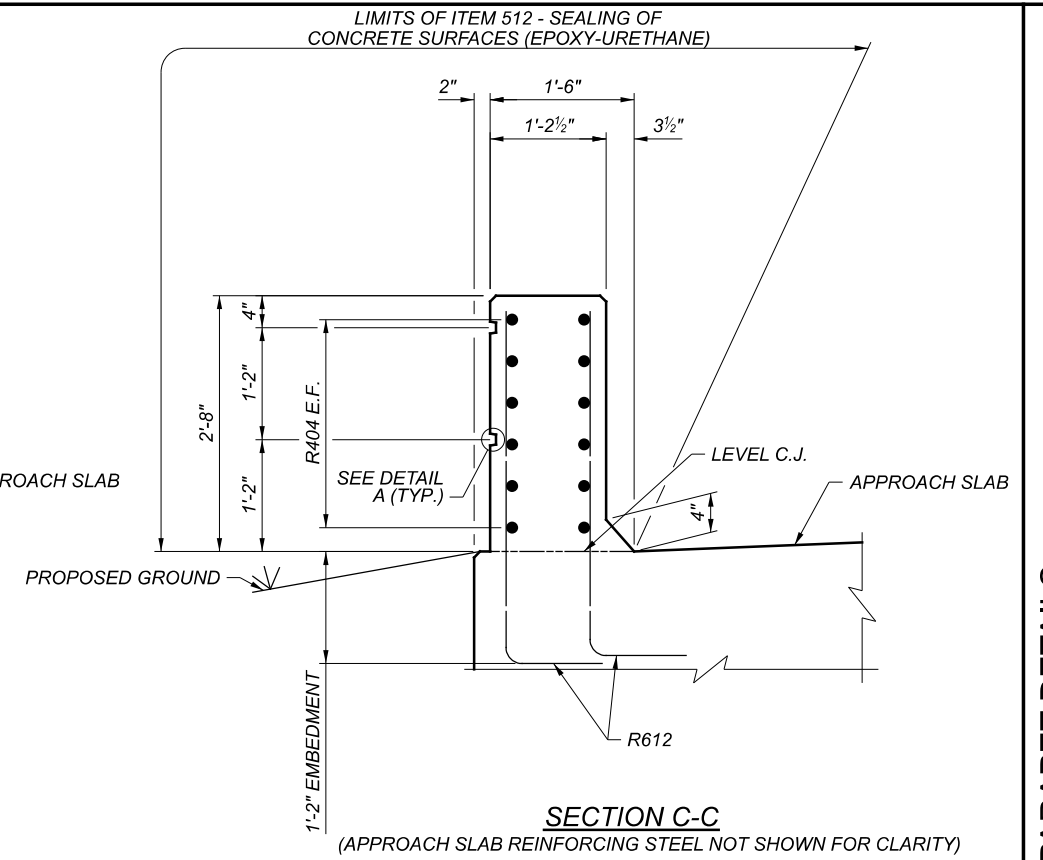
SFN	1807804
DESIGN AGENCY	BURGESS & NIPLE 100 WEST EIRE STREET PAINESVILLE, OHIO 44077
DESIGNER	BCS
CHECKER	MAB
REVIEWER	DWL
DATE	05/24/22
PROJECT ID	82382
SUBSET	37
TOTAL	42
SHEET	1690
TOTAL	2339



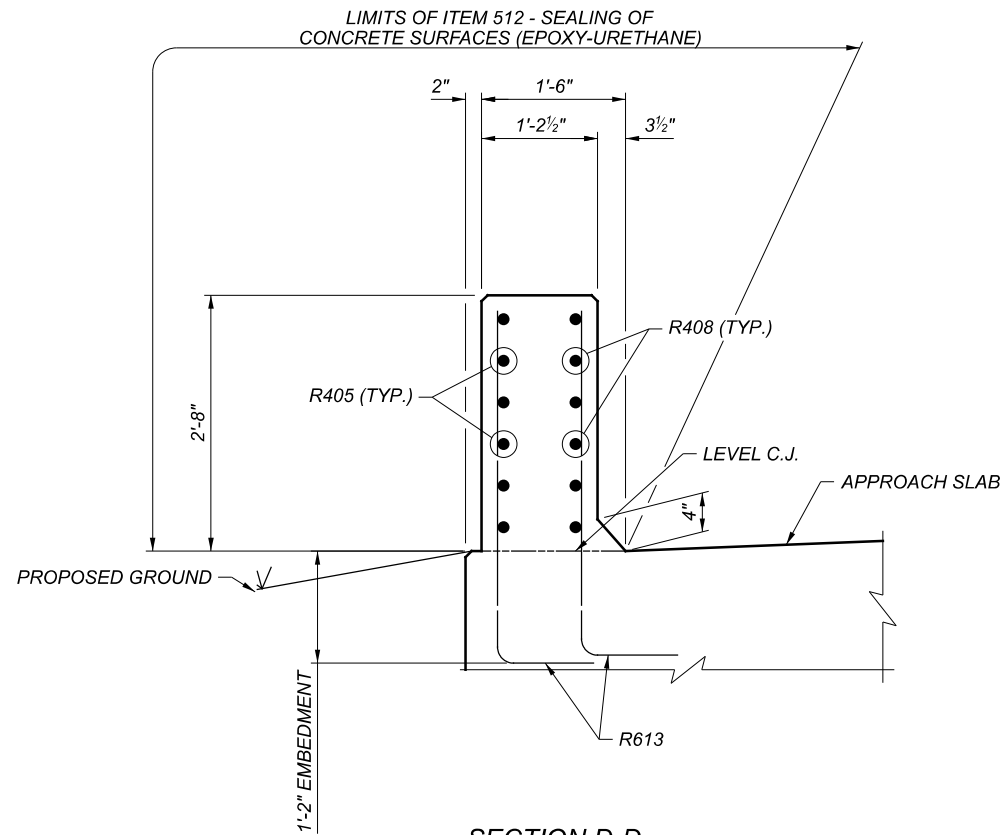
SECTION A-A
 (DECK SLAB REINFORCING STEEL NOT SHOWN FOR CLARITY)



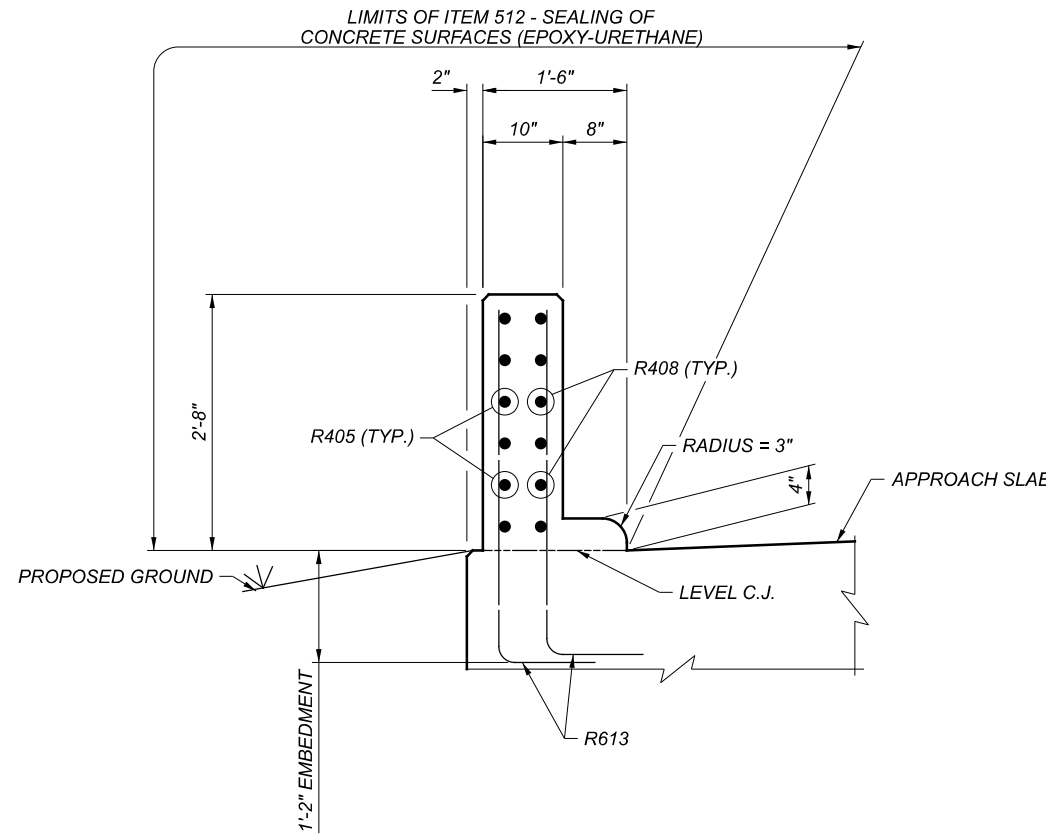
SECTION B-B
 (APPROACH SLAB REINFORCING STEEL NOT SHOWN FOR CLARITY)



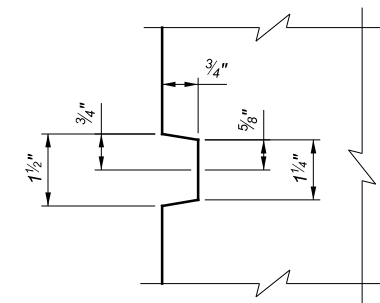
SECTION C-C
 (APPROACH SLAB REINFORCING STEEL NOT SHOWN FOR CLARITY)



SECTION D-D
 (APPROACH SLAB REINFORCING STEEL NOT SHOWN FOR CLARITY)



SECTION E-E
 (APPROACH SLAB REINFORCING STEEL NOT SHOWN FOR CLARITY)

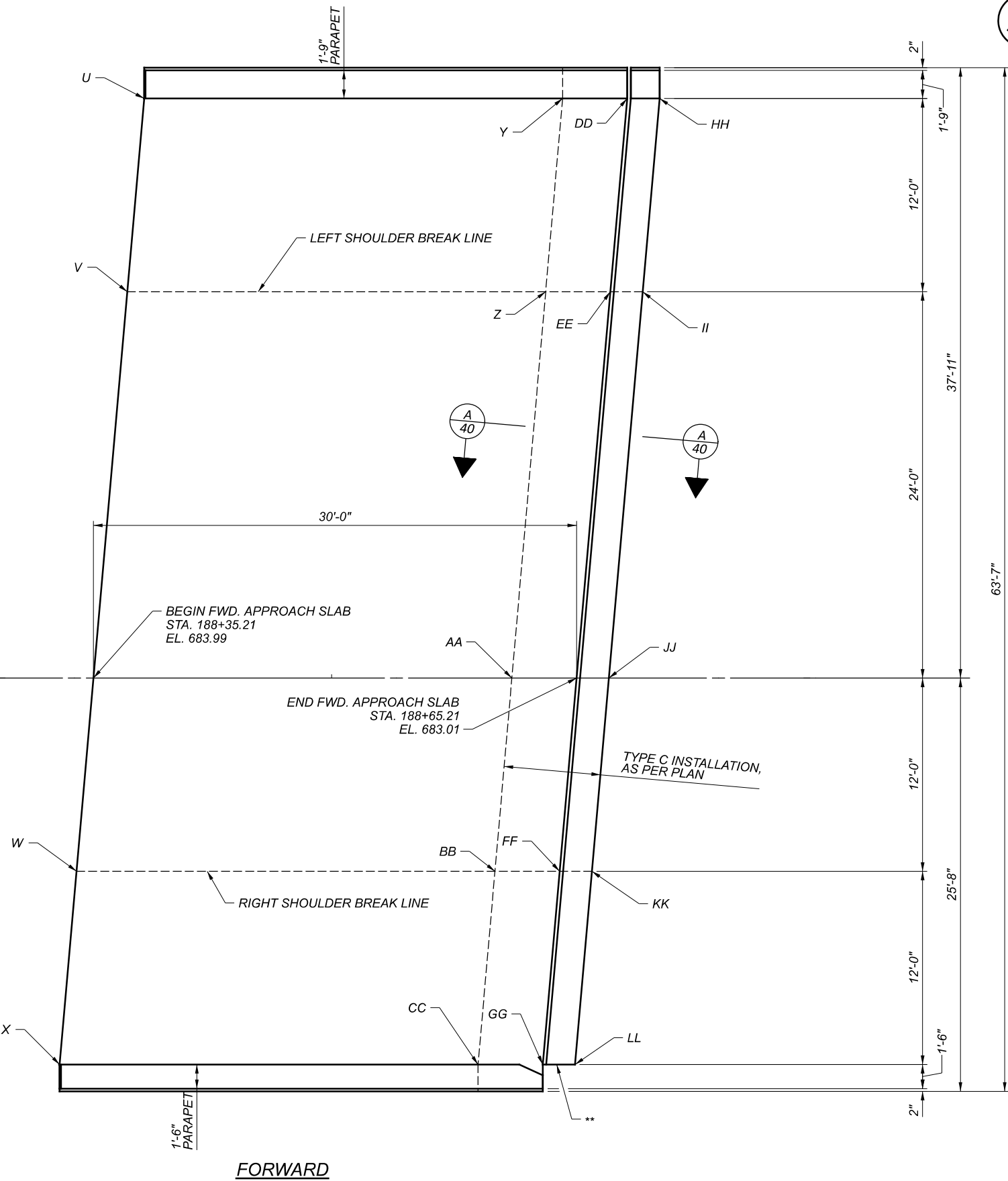
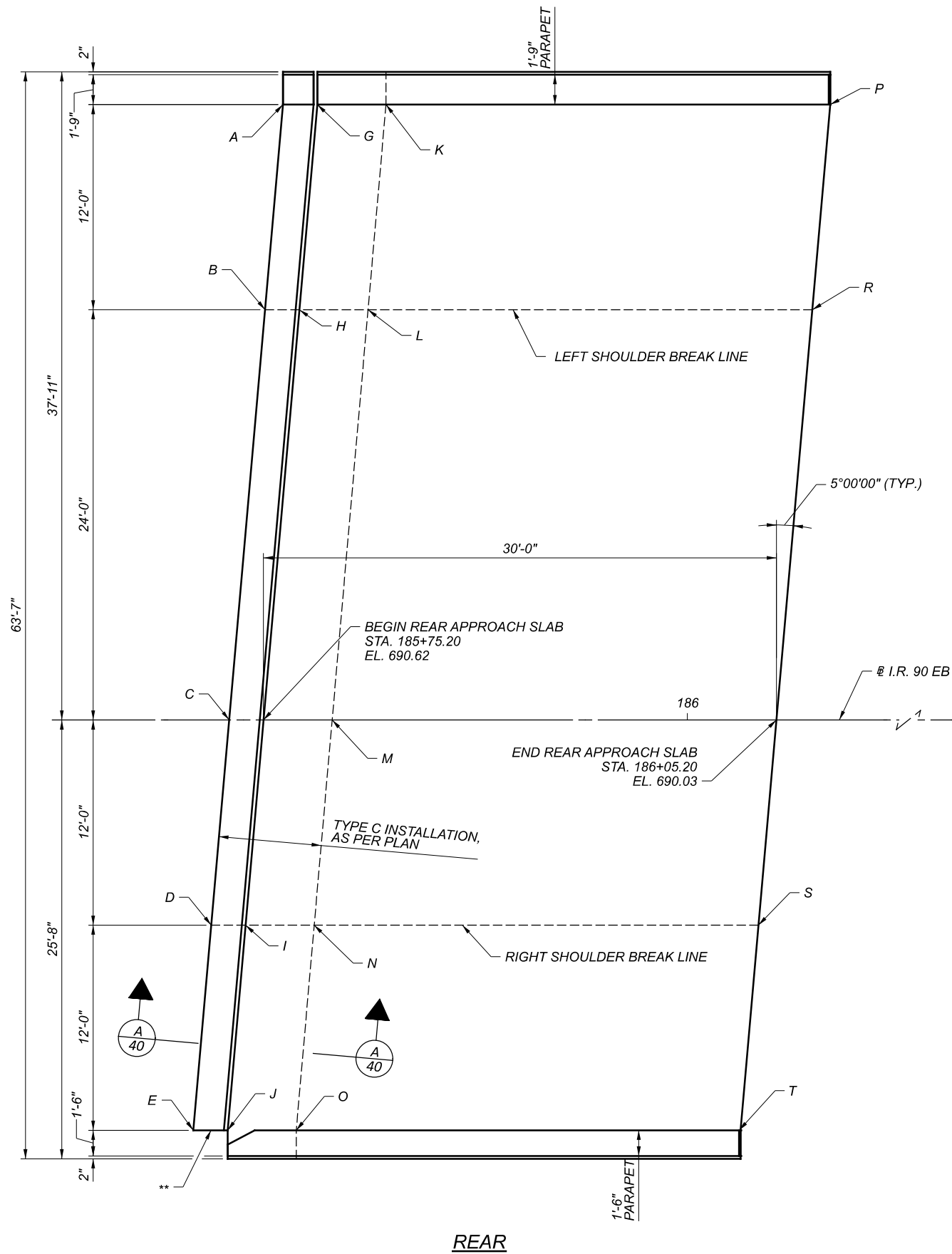


DETAIL A

NOTES:

- SEE SHEET 37/42 FOR LOCATION OF SECTION CUTS AND ADDITIONAL NOTES.

SFN	1807804
DESIGN AGENCY	BURGESS & NIPLE 100 WEST ERIE STREET PAINESVILLE, OHIO 44077
DESIGNER	BCS
CHECKER	MAB
REVIEWER	DWL
DATE	05/24/22
PROJECT ID	82382
SUBSET	38
TOTAL	42
SHEET	1691
TOTAL	2339



APPROACH SLAB PLAN

** = 1'-8" x 2'-0" NOTCH IN SLEEPER SLAB FOR GUARDRAIL POST

NOTES:

- SEE SHEET 40/42 FOR SECTIONS A-A, B-B, AND TYPE C INSTALLATION, AS PER PLAN DETAILS AND ELEVATION TABLES.
- SEE BRIDGE STANDARD DRAWINGS AS-1-15 AND AS-2-15 FOR REINFORCING AND INFORMATION NOT SHOWN.
- SEE SHEETS 35/42 THROUGH 38/42 FOR PARAPET DETAILS.
- SEE SHEET 27/42 FOR SUPERELEVATION TRANSITION DIAGRAM.
- FOR CALCULATING REINFORCING STEEL BAR LENGTHS FOR SLEEPER SLABS PER STANDARD DRAWING AS-2-15, SHEET 9/14, USE APPROACH SLAB WIDTH, W2 OF 60'-0" AND USE A SKEW ANGLE OF 5°. FIELD CUT BARS AT NOTCH IN SLEEPER SLAB AS NEEDED TO PROVIDE 3" CLEAR COVER. REPAIR FIELD CUT BAR ENDS PER CMS 509.



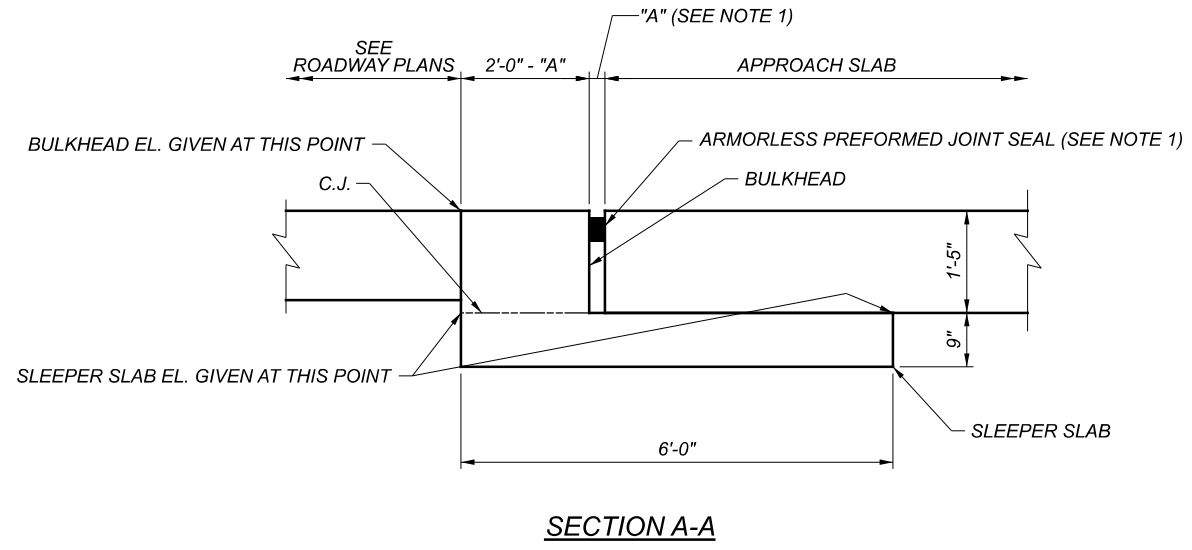
APPROACH SLAB PLAN
 CUY-90-1653R (BRIDGE 11)
 I.R. 90 EB OVER CR-721 (E. 14TH ST.)

SFN	1807804
DESIGN AGENCY	BURGESS & NIPLE 100 WEST FIRE STREET PAINESVILLE, OHIO 44077
DESIGNER	BCS
CHECKER	MAB
REVIEWER	DWL 05/24/22
PROJECT ID	82382
SUBSET	39
TOTAL	42
SHEET	1692
TOTAL	2339

APPROACH SLAB DATA			
POINT	STA.	OFFSET	EL.
G	185+78.35	36.00' LT.	689.41
H	185+77.30	24.00' LT.	689.91
I	185+74.15	12.00' RT.	690.99
J	185+73.10	24.00' RT.	690.53
P	186+08.35	36.00' LT.	688.95
R	186+07.30	24.00' LT.	689.45
S	186+04.15	12.00' RT.	690.33
T	186+03.10	24.00' RT.	689.87
U	188+38.36	36.00' LT.	683.02
V	188+37.31	24.00' LT.	683.54
W	188+34.13	12.00' RT.	683.83
X	188+33.11	24.00' RT.	683.38
DD	188+68.36	36.00' LT.	682.04
EE	188+67.31	24.00' LT.	682.55
FF	188+64.16	12.00' RT.	682.85
GG	188+63.11	24.00' RT.	682.40

BULKHEAD DATA			
POINT	STA.	OFFSET	EL.
A	185+76.35	36.00' LT.	689.44
B	185+75.30	24.00' LT.	689.94
C	185+73.20	0.00'	690.66
D	185+72.15	12.00' RT.	691.03
E	185+71.10	24.00' RT.	690.57
HH	188+70.37	36.00' LT.	681.97
II	188+69.32	24.00' LT.	682.48
JJ	188+67.22	0.00'	682.94
KK	188+66.17	12.00' RT.	682.78
LL	188+65.12	24.00' RT.	682.34

SLEEPER SLAB DATA			
POINT	STA.	OFFSET	EL.
A	185+76.35	36.00' LT.	688.02
B	185+75.30	24.00' LT.	688.52
C	185+73.20	0.00'	689.24
D	185+72.15	12.00' RT.	689.61
E	185+71.10	24.00' RT.	689.15
K	185+82.37	36.00' LT.	687.93
L	185+81.32	24.00' LT.	688.43
M	185+79.22	0.00'	689.13
N	185+78.17	12.00' RT.	689.48
O	185+77.12	24.00' RT.	689.03
Y	188+64.35	36.00' LT.	680.75
Z	188+63.30	24.00' LT.	681.27
AA	188+61.20	0.00'	681.72
BB	188+60.15	12.00' RT.	681.56
CC	188+59.10	24.00' RT.	681.12
HH	188+70.37	36.00' LT.	680.55
II	188+69.32	24.00' LT.	681.06
JJ	188+67.22	0.00'	681.52
KK	188+66.17	12.00' RT.	681.36
LL	188+65.12	24.00' RT.	680.92



NOTES:

- SEE STANDARD BRIDGE DRAWING AS-2-15 FOR ADDITIONAL DETAILS.
- OFFSET IS MEASURED FROM @ I.R. 90 EB.

APPROACH SLAB DETAILS
 CUY-90-1653R (BRIDGE 11)
 I.R. 90 EB OVER CR-721 (E. 14TH ST.)

SFN	1807804
DESIGN AGENCY	BURGESS & NIPLE 100 WEST FINE STREET PAINESVILLE, OHIO 44077
DESIGNER	CHECKER
BCS	MAB
REVIEWER	DWL 05/24/22
PROJECT ID	82382
SUBSET	TOTAL
40	42
SHEET	TOTAL
1693	2339

NOTES:

1. BAR SIZE: THE BAR SIZE IS INDICATED IN THE BAR MARK. THE MARK BEGINS WITH ONE OR TWO LETTERS THAT IDENTIFY THE BAR LOCATION. THE NEXT ONE OR TWO DIGITS ARE THE BAR SIZE. THE FINAL TWO DIGITS ARE THE SEQUENCE NUMBERS.

EXAMPLE: A501
A = ABUTMENT
5 = #5 BAR
01 = SEQUENCE NUMBER

- 2. BAR DIMENSIONS SHOWN ARE OUT TO OUT UNLESS NOTED OTHERWISE.
- 3. ALL STEEL REINFORCING IS TO BE EPOXY COATED.
- 4. STD. WRITTEN IN PLACE OF A DIMENSION INDICATES A STANDARD BEND AT THE END OF A BAR.
- 5. STR. IN THE BAR TYPE COLUMN INDICATES A STRAIGHT BAR.
- 6. RAD. INDICATES THE INSIDE RADIUS UNLESS OTHERWISE NOTED.
- 7. INCR. INDICATES THE LENGTH INCREMENT FOR SERIES BARS.

SFN 1807804

DESIGN AGENCY



DESIGNER	CHECKER
BCS	MAB

REVIEWER	
DWL	05/24/22

PROJECT ID	
82382	

SUBSET	TOTAL
41	42

SHEET	TOTAL
1694	2339

CUY-90-16.28 (CCG3A)

MODEL: Sheet PAPER SIZE: 17x11 (in.) DATE: 6/22/2022 TIME: 10:13:00 PM USER: Gregory, Heather
p:\mb-us-pw\beniley.com\mb-us-pw-03\Documents\Cleveland_OH\01_Projects\ODOT\Dist\12,82382\40P-Eng\Reinf\Structures\SFN_1807804_Sheets\82382_SFN_1807804_SL002.dgn

NOTES:

1. SEE SHEET 41/42 FOR NOTES.

REINFORCING STEEL LIST 2 OF 2
CUY-90-1653R (BRIDGE 11)
I.R. 90 EB OVER CR-721 (E. 14TH ST.)

SFN
1807804

DESIGN AGENCY

**BURGESS
& NIPLE**
100 WEST ERIE STREET
PAINESVILLE, OHIO 44077

DESIGNER	CHECKER
BCS	MAB

REVIEWER
DWL 05/24/22

PROJECT ID
82382

SUBSET	TOTAL
42	42

SHEET	TOTAL
1695	2339