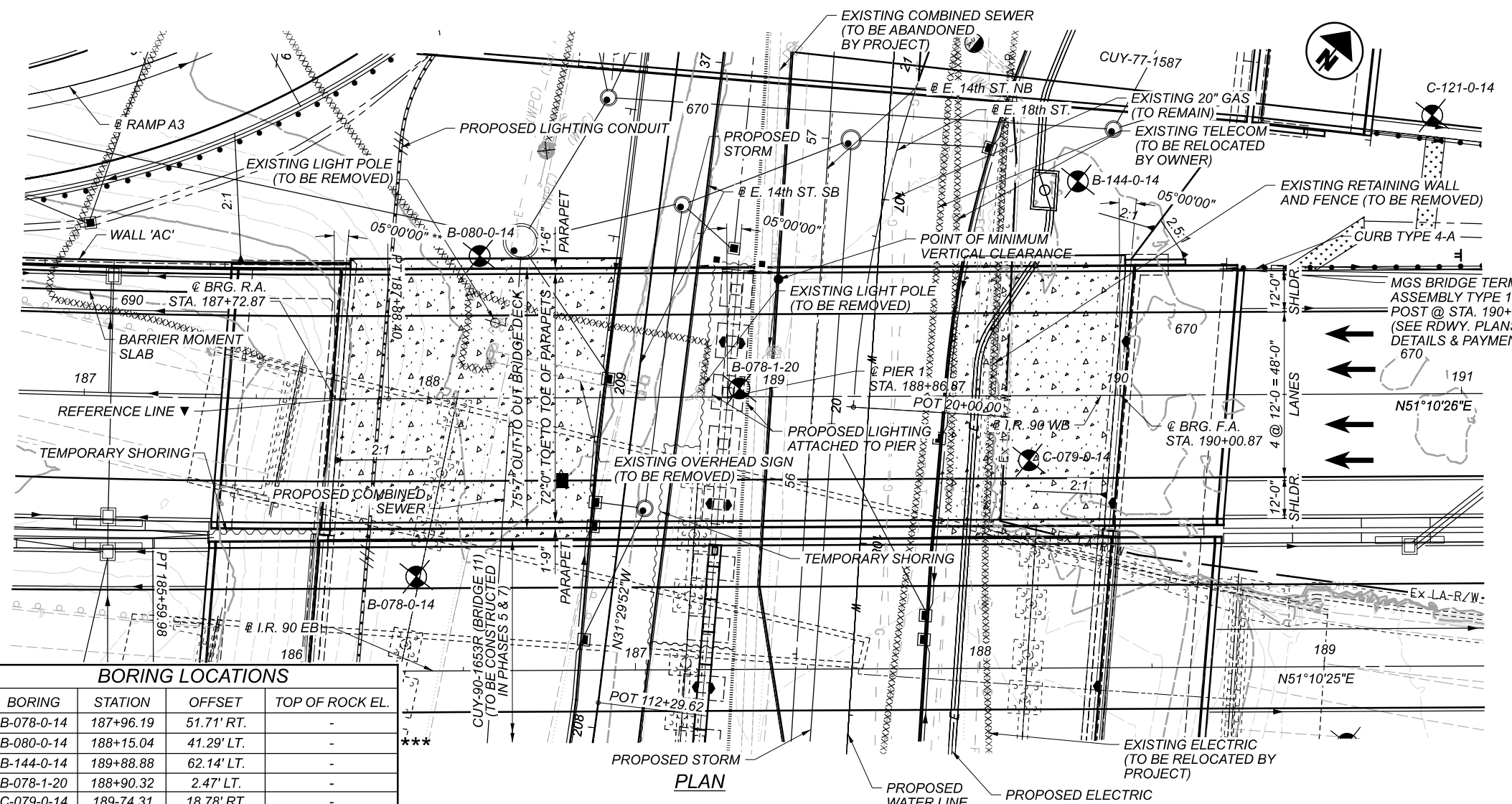
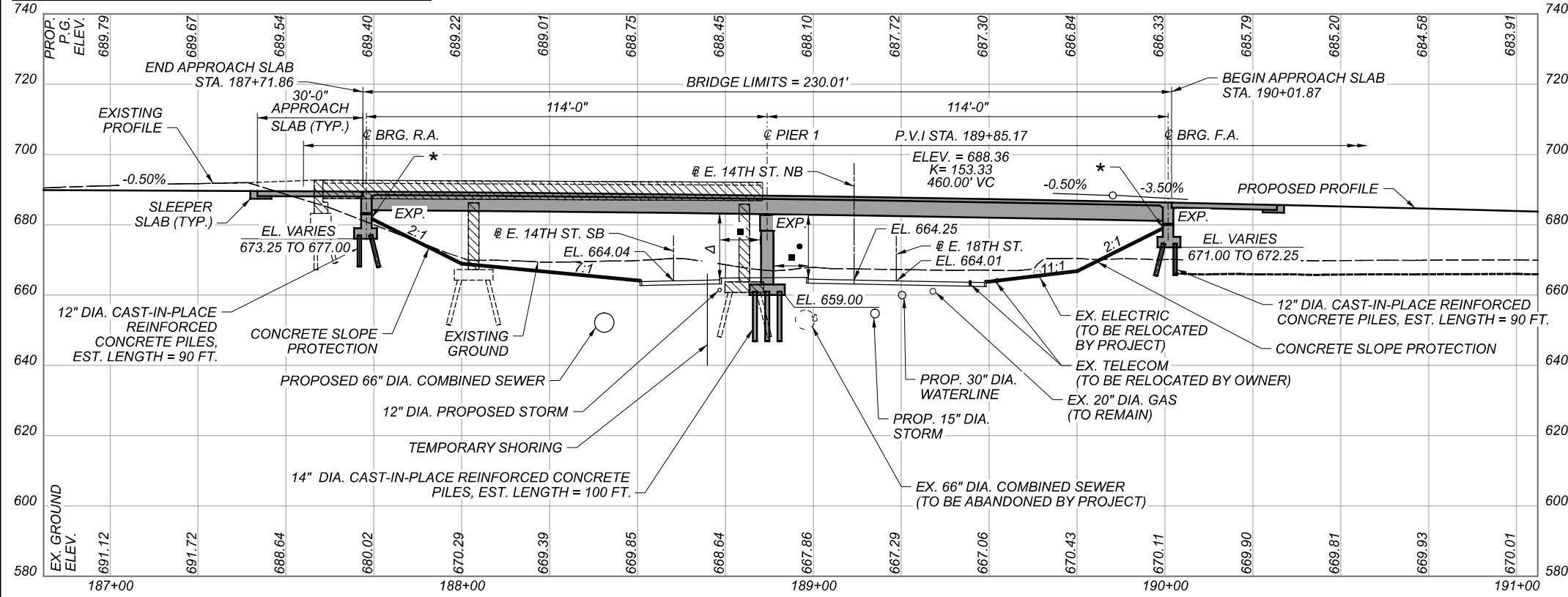


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BORING LOCATIONS			
BORING	STATION	OFFSET	TOP OF ROCK EL.
B-078-0-14	187+96.19	51.71' RT.	-
B-080-0-14	188+15.04	41.29' LT.	-
B-144-0-14	189+88.88	62.14' LT.	-
B-078-1-20	188+90.32	2.47' LT.	-
C-079-0-14	189-74.31	18.78' RT.	-



PROFILE ALONG @ I.R. 90 WB

BENCHMARK DATA

BM-59 STA. 188+46.10, ELEV. 660.15, OFFSET 342.36' RT., @ I.R. 90 WB, MAG NAIL AT NOSE OF DRAINAGE CHANNEL
 BM-61 STA. 183+21.08, ELEV. 674.03, OFFSET 454.85' LT., @ I.R. 90 WB, RAILROAD SPIKE IN NORTH FACE OF POWER/LIGHT POLE
 BM-62 STA. 191+78.84, ELEV. 672.11, OFFSET 484.13' LT., @ I.R. 90 WB, 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 ADT = 12,420 (EB & WB)
 2035 ADT = 148,000 (EB & WB) 2035 ADT = 13,320 (EB & WB)
 DIRECTIONAL DISTRIBUTION = 52%

LEGEND

- ⊙ BORING LOCATION
- ▨ - PORTIONS OF EXISTING STRUCTURE TO BE REMOVED
- 15'-6" REQUIRED MINIMUM VERTICAL CLEARANCE
- 16'-11 1/4" ACTUAL MINIMUM VERTICAL CLEARANCE (INTERIM AND FINAL)
- △ 15'-6" REQUIRED MINIMUM VERTICAL CLEARANCE
- △ 17'-3 3/4" ACTUAL MINIMUM VERTICAL CLEARANCE (INTERIM AND FINAL)
- 4'-0" REQUIRED MINIMUM HORIZONTAL CLEARANCE
- 9'-4" ACTUAL MINIMUM HORIZONTAL CLEARANCE (E 14TH ST. NB & SB)
- ▼ REFERENCE LINE (N51°10'25"E) EXTENSION OF @ I.R. 90 WB FROM PT STA. 187+88.40 TO @ BRG. R.A.
- * = TOP OF SLOPE ELEV. = VARIES FROM 679.48 TO 682.25 (R.A.)
 TOP OF SLOPE ELEV. = VARIES FROM 676.37 TO 678.36 (F.A.)
- ** = MEASURED FROM @ BRGS. R.A. TO REFERENCE CHORD
- *** = SUBGRADE BORING

EXISTING STRUCTURE (EB-7)

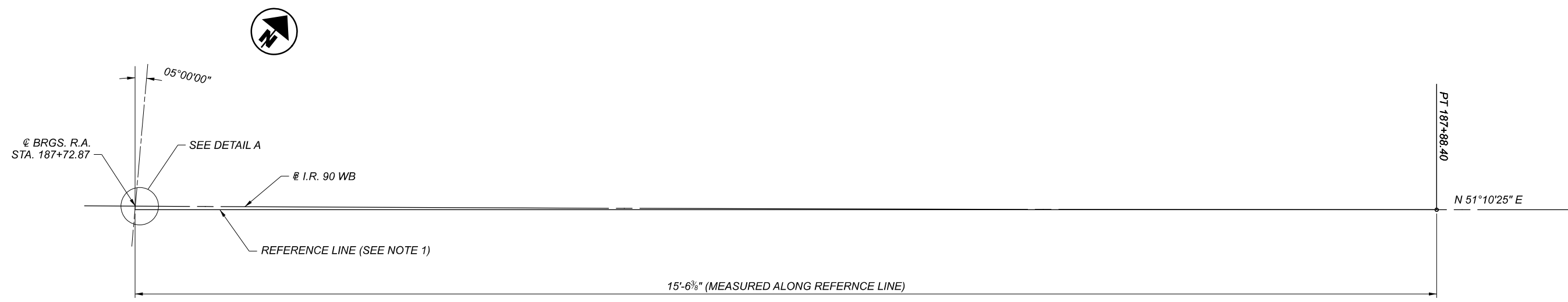
TYPE: CONTINUOUS STEEL GIRDERS WITH REINFORCED CONCRETE DECK AND SUBSTRUCTURE
 SPANS: 55'-0", 88'-6", 99'-0" & 60'-0" ± c/c BEARINGS MEASURED ALONG @ I.R. 90 AND REFERENCE LINE
 ROADWAY: VARIES
 LOADING: CF-2000 - ADEQUATE FOR AASHTO ALTERNATE LOADING
 SKEW: VARIES
 WEARING SURFACE: 1" MONOLITHIC CONCRETE
 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

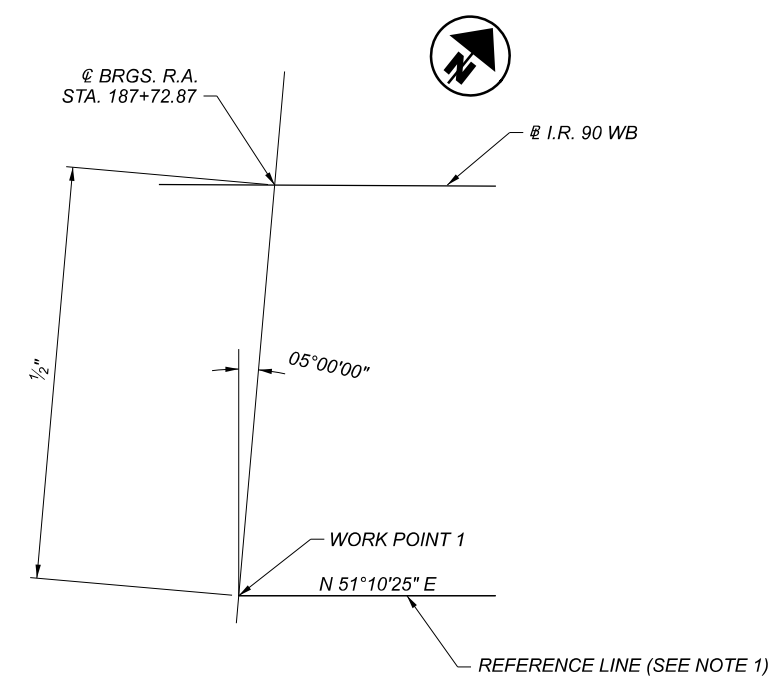
TYPE: 2 SPAN CONTINUOUS STEEL PLATE GIRDERS WITH REINFORCED CONCRETE DECK AND REINFORCED CONCRETE SUBSTRUCTURE WITH SEMI-INTEGRAL ABUTMENTS SUPPORTED ON PILES
 SPANS: 114'-0" & 114'-0" c/c BRGS. MEASURED ALONG @ I.R. 90 WB
 ROADWAY: 72'-0" TOE/TOE PARAPET
 LOADING: HL93 AND 60 PSF FUTURE WEARING SURFACE
 SKEW: 5°00'00" LF (R.A. FROM REFERENCE LINE)
 5°00'00" LF (PIER 1 AND F.A. FROM @ I.R. 90 WB)
 WEARING SURFACE: 1" MONOLITHIC CONCRETE
 APPROACH SLABS: 30' LONG (AS-1-15, AS-2-15) (MODIFIED)
 ALIGNMENT: HORIZONTALLY CURVED (Dc = 02°00'00" LEFT) TO TANGENT
 SUPERELEVATION: VARIES
 DECK AREA: 17,384 SF
 COORDINATES: LATITUDE N41°29'46.70"
 LONGITUDE W81°40'41.57"

SITE PLAN
 CUY-90-1653L (BRIDGE 10)
 I.R. 90 WB OVER CR-721 (E. 14TH ST.)

SFN	1807901
DESIGN AGENCY	BURGESS & NIPLE 100 WEST ERIE STREET PARANVILLE, OHIO 44077
DESIGNER/CHECKER	MAB BCS
REVIEWER	DWL
PROJECT ID	82382
SUBSET	TOTAL
1	47
SHEET	TOTAL
1607	2339



BRIDGE LAYOUT DIAGRAM



DETAIL A

CURVE PI090W-02 DATA

P.I. = Sta. 183+70.18
 $\Delta = 16^\circ 51' 04''$ LT
 $D_c = 02^\circ 00' 00''$
 $R = 2,864.79'$
 $T = 424.34'$
 $L = 842.55'$
 $E = 31.26'$
 $e_{max} = 0.045$
 $V = 60$ mph

NOTES:

1. REFERENCE LINE IS THE EXTENDED TANGENT OF
 @ I.R. 90 WB FROM STA. 187+88.40 TO THE @ BRGS. R.A.

BRIDGE LAYOUT DIAGRAM
 CUY-90-1653L (BRIDGE 10)
 I.R. 90 WB OVER CR-721 (E. 14TH ST.)

SFN	1807901
DESIGN AGENCY	BURGESS & NIPLE 100 WEST FIRE STREET PAINESVILLE, OHIO 44077
DESIGNER	CHECKER
MAB	BCS
REVIEWER	DWL 05/24/22
PROJECT ID	82382
SUBSET	TOTAL
2	47
SHEET	TOTAL
1608	2339

STRUCTURE GENERAL NOTES:

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 01-21-22

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
(CIP REINFORCED CONCRETE PILES)

DECK PROTECTION METHOD:

EPOXY COATED REINFORCING STEEL
2½" 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 OHIO 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 2.68 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".

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 PHASES 5 AND 7 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 203 EMBANKMENT, AS PER PLAN:

PLACE AND COMPACT EMBANKMENT MATERIAL IN SIX INCH (6") LIFTS FOR THE CONSTRUCTION OF THE APPROACH EMBANKMENT.

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

THE DESIGN SHOWN ON THE PLANS FOR TEMPORARY SUPPORT OF EXCAVATION IS ONE REPRESENTATIVE DESIGN THAT MAY BE USED TO CONSTRUCT THE PROJECT. THE CONTRACTOR MAY CONSTRUCT THE DESIGN SHOWN ON THE PLANS FOR BRIDGE #10 REAR ABUTMENT AND PIER TEMPORARY SHORING 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.

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 325 KIPS PER PILE FOR THE REAR ABUTMENT PILES. THE ULTIMATE BEARING VALUE IS 362 KIPS PER PILE FOR THE PIER 1 PILES. THE ULTIMATE BEARING VALUE IS 253 KIPS PER PILE FOR THE FORWARD ABUTMENT PILES.

REAR ABUTMENT PILES:

38 - 12" DIA. CAST-IN-PLACE REINFORCED CONCRETE PILES 90 FEET LONG, ORDER LENGTH 1 DYNAMIC LOAD TESTING ITEM AND 1 RESTRIKE ITEM.

PIER 1 PILES:

33 - 14" DIA. CAST-IN-PLACE REINFORCED CONCRETE PILES 100 FEET LONG, ORDER LENGTH 1 DYNAMIC LOAD TESTING ITEM AND 1 RESTRIKE ITEM.

FORWARD ABUTMENT PILES:

27 - 12" DIA. CAST-IN-PLACE REINFORCED CONCRETE PILES 90 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:

- ___ KIPS PER 12" DIA. CIP PILE FOR THE REAR ABUTMENT PILES
- ___ KIPS PER 14" DIA. CIP PILE FOR THE PIER 1 PILES
- ___ 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: 9:40:59 PM USER: Gregory.Henler pwc:\mb-us-pw-bentley.com\mb-us-pw-03\Documents\Cleveland_OH101_P\Projects\ODOT\Dist12\282382400-Engineering\Structures\SFN_1807901_Sheets\82382_SFN_1807901_SIN001.dgn

GENERAL NOTES - 1
CUY-90-1653L (BRIDGE 10)
I.R. 90 WB OVER CR-721 (E. 14TH ST.)

SFN
1807901

DESIGN AGENCY

BURGESS & NIPLE
100 WEST GINE STREET
PAINESVILLE, OHIO 44077

DESIGNER CHECKER
MAB JAA

REVIEWER
DWL 05/24/22

PROJECT ID
82382

SUBSET TOTAL
3 47

SHEET TOTAL
1609 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 (EPOXY-URETHANE), AS PER PLAN:
 THE ADDITIONAL LABOR REQUIRED TO SEAL THE FORM LINER RELIEF SHALL BE INCLUDED IN THIS ITEM. TO ACCOUNT FOR THE SURFACE VARIATIONS DUE TO THE FORM LINERS, AN EXTRA 20 PERCENT HAS BEEN ADDED TO THE SEALING QUANTITIES FOR THE PURPOSE OF ESTIMATING.

TINT SO THE FINAL COLOR IS ALPACA 7022 (SHERWIN WILLIAMS).

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 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
B - BASELINE
BOT. - BOTTOM
BRG. - BEARING
BRGS. - BEARINGS
BTA - BRIDGE TERMINAL ASSEMBLY
C - 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
N.P.C.P.P - NON-PERFORATED CORRUGATED PLASTIC PIPE
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 |
|--|--|

GENERAL NOTES - 2
 CUY-90-1653L (BRIDGE 10)
 I.R. 90 WB OVER CR-721 (E. 14TH ST.)

SFN	1807901
DESIGN AGENCY	
BURGESS & NIPLE 100 WEST ERIE STREET PAINESVILLE, OHIO 44077	
DESIGNER	CHECKER
MAB	JAA
REVIEWER	
DWL 05/24/22	
PROJECT ID	
82382	
SUBSET	TOTAL
4	47
SHEET	
1610	2339

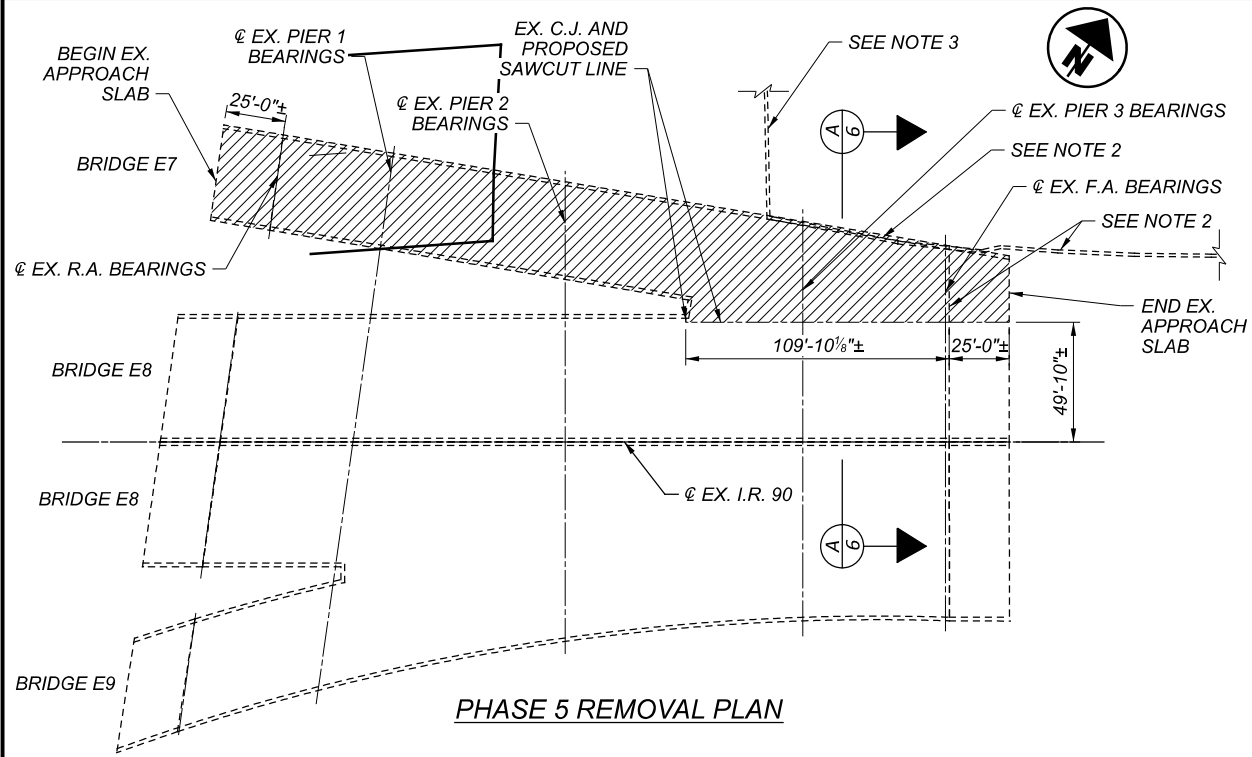
ESTIMATED QUANTITIES										
ITEM	ITEM EXT.	TOTAL	UNIT	DESCRIPTION	ABUTMENTS	PIERS	SUPER.	GENERAL	REF. SHEET	
202	11003	LS	-	STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN					3/47	
202	22900		SY	APPROACH SLAB REMOVED						
202	32800		SY	CONCRETE SLOPE PROTECTION REMOVED						
503	11101	LS	-	COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN					3/47	
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					4/47	
512	10101		SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE), AS PER PLAN						
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						
516	13600		SF	1" PREFORMED EXPANSION JOINT FILLER						
516	13900		SF	2" PREFORMED EXPANSION JOINT FILLER						
516	14020		FT	SEMI-INTEGRAL ABUTMENT EXPANSION JOINT SEAL					4/47	
516	44201		EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN (BEARING: 1'-2" x 1'-5" x 2 15/16", LOAD PLATE: 1'-3" x 1'-6" x 1 1/2" AND 1'-7" x 11" x 1 1/2")					29/47	
516	44201		EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN (BEARING: 1'-6" x 2'-0 1/2" x 3 1/4", BEVELED LOAD PLATE: 1'-7" x 2'-1 1/2")					30/47	
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					3/47	
523	20501		EACH	RESTRIKE, AS PER PLAN					3/47	
526	30011		SY	REINFORCED CONCRETE APPROACH SLABS WITH QC/QA (T=17"), AS PER PLAN					4/47	
526	90031		FT	TYPE C INSTALLATION, AS PER PLAN					4/47	
601	21000		SY	CONCRETE SLOPE PROTECTION						
625	33000		EACH	STRUCTURE GROUNDING SYSTEM						

NOTES:

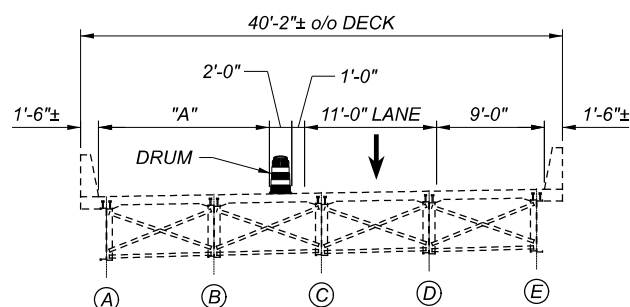
- ITEM 513 STRUCTURAL STEEL MEMBERS, LEVEL 4: THIS TOTAL WEIGHT IS BASED ON THE USE OF TYPE A CROSSFRAMES. PROVIDE THE UNIT COST FOR STRUCTURAL STEEL USING THE TOTAL WEIGHT PROVIDED, REGARDLESS OF ANY CHANGE TO THE TOTAL WEIGHT RESULTING FROM THE SELECTION OF TYPE B OR TYPE C CROSSFRAMES IN LIEU OF TYPE A.

ESTIMATED QUANTITIES
 CUY-90-1653L (BRIDGE 10)
 I.R. 90 WB OVER CR-721 (E. 14TH ST.)

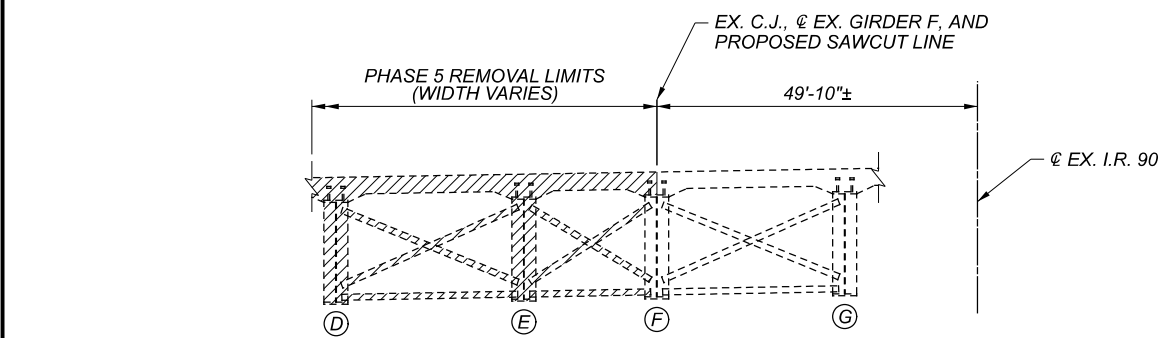
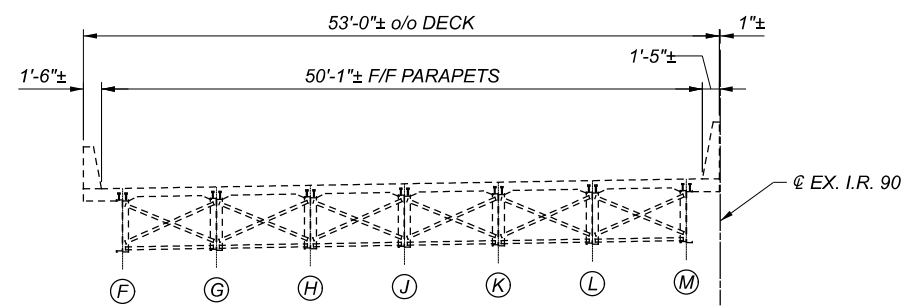
SFN	1807901
DESIGN AGENCY	
BURGESS & NIPLE 100 WEST FIRE STREET PAINESVILLE, OHIO 44077	
DESIGNER	CHECKER
MAB	JAA
REVIEWER	
DWL	05/24/22
PROJECT ID	82382
SUBSET	TOTAL
5	47
SHEET	TOTAL
1611	2339



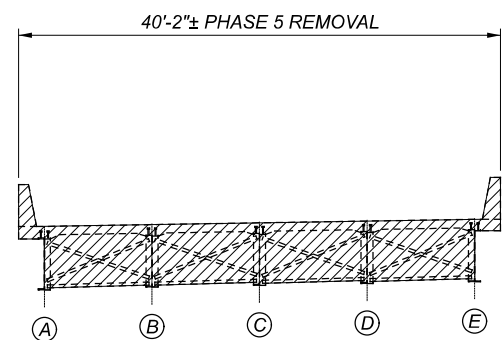
PHASE 5 REMOVAL PLAN



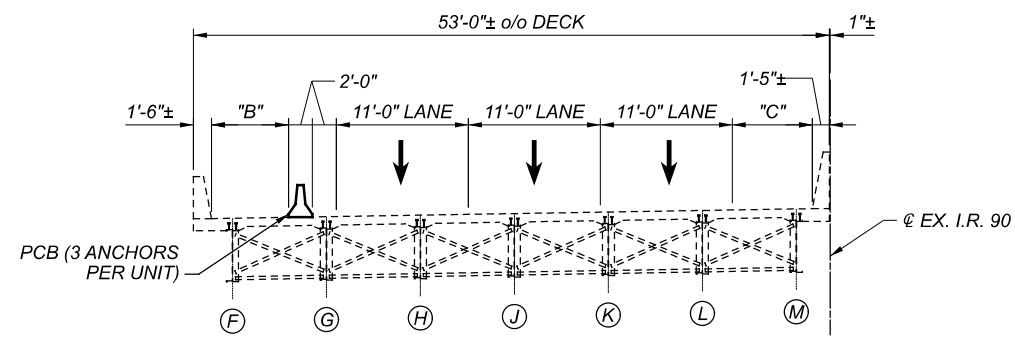
PHASE 4 MOT



SECTION A-A



PHASE 5 REMOVAL AND MOT

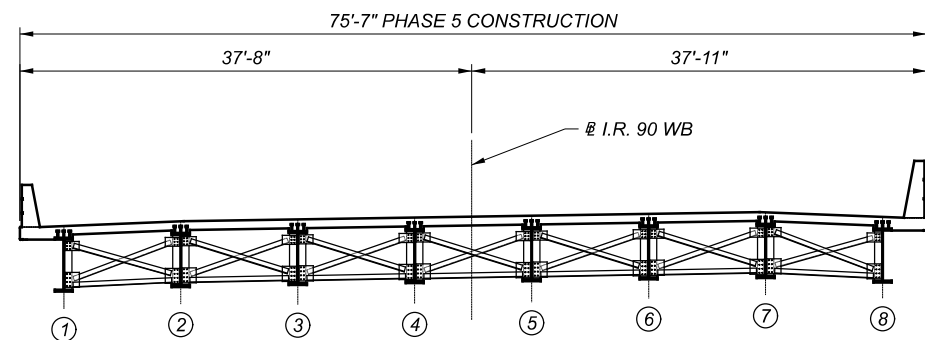


LEGEND:

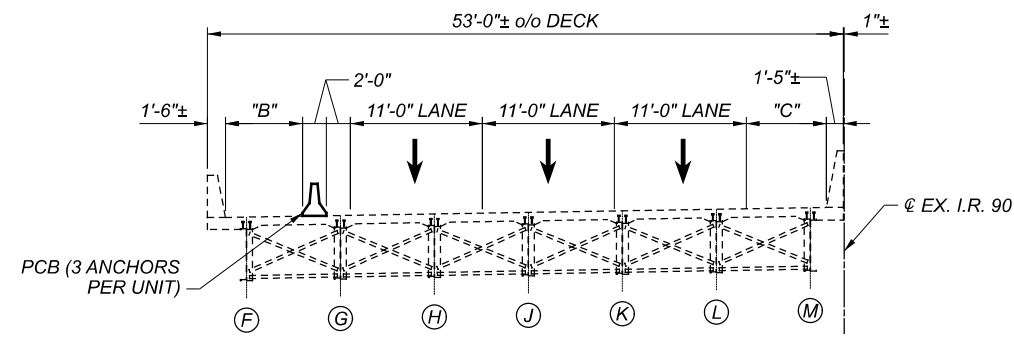
- = PHASE 5 REMOVAL
- (A) = EXISTING GIRDER LETTER
- (1) = PROPOSED GIRDER NUMBER
- "A" = VARIES FROM 12'-0"± TO 16'-6"±
- "B" = VARIES FROM 6'-5"± TO 6'-7"±
- "C" = VARIES FROM 4'-9"± TO 6'-7"±

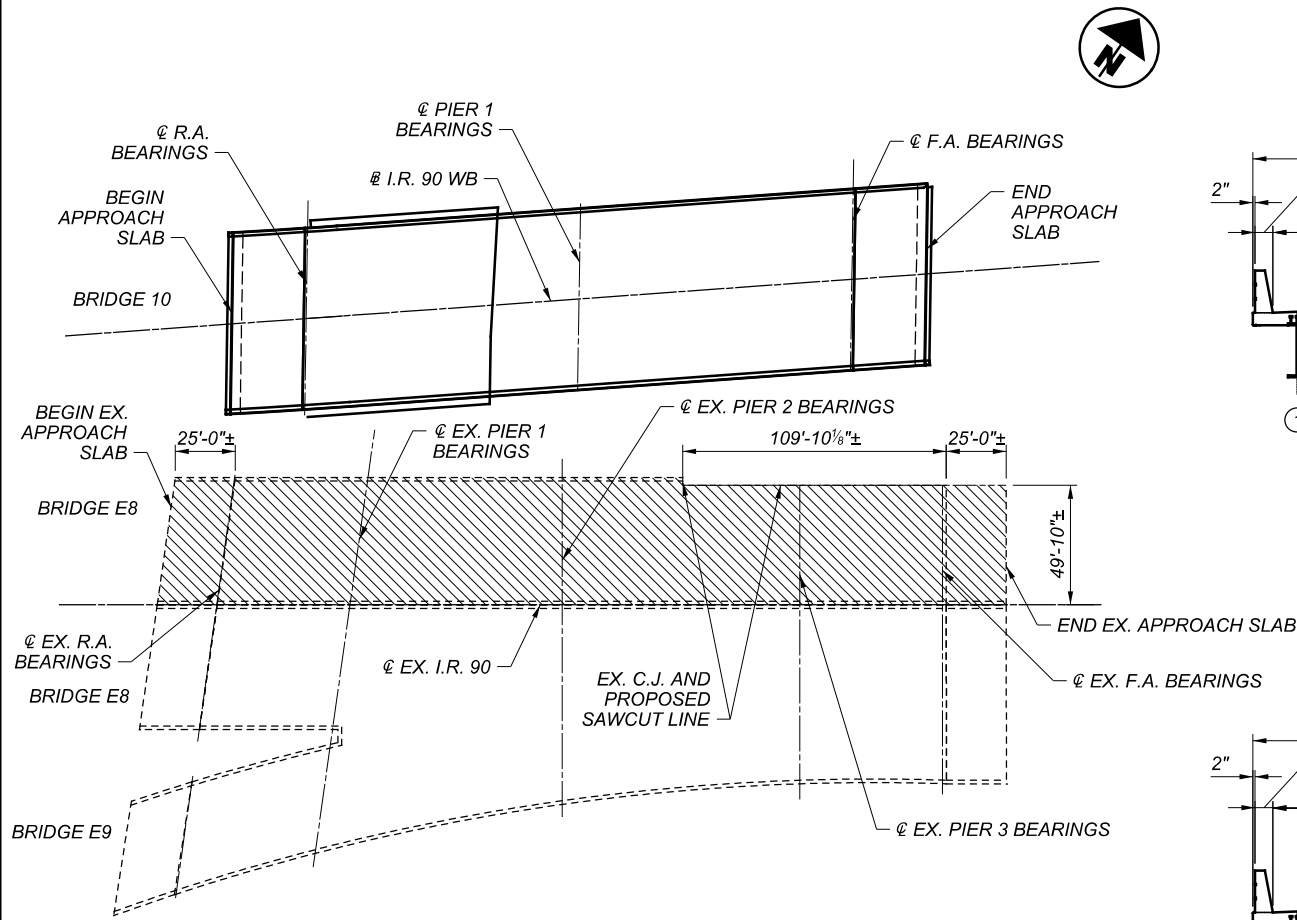
NOTES:

1. SEE SHEETS 1658 & 1659/2339 FOR PHASED MOT AND CONSTRUCTION OF PROPOSED BRIDGE 11 AND FOR PHASED MOT AND REMOVAL OF EXISTING BRIDGES E8 AND E9 SOUTH OF @ EX. I.R. 90.
2. EXISTING BRIDGE E7 FORWARD ABUTMENT AND RETAINING WALLS ADJACENT TO I.R.90 SHALL NOT BE REMOVED IN PHASE 5. THEY SHALL BE REMOVED ALONG WITH THE NORTHERN PORTIONS OF EXISTING BRIDGE E8 IN PHASE 7. SEE SHEET 8/47 FOR FURTHER REMOVAL DETAILS.
3. REMOVE RETAINING WALL ADJACENT TO EAST 14TH ST. PRIOR TO PHASE 5.

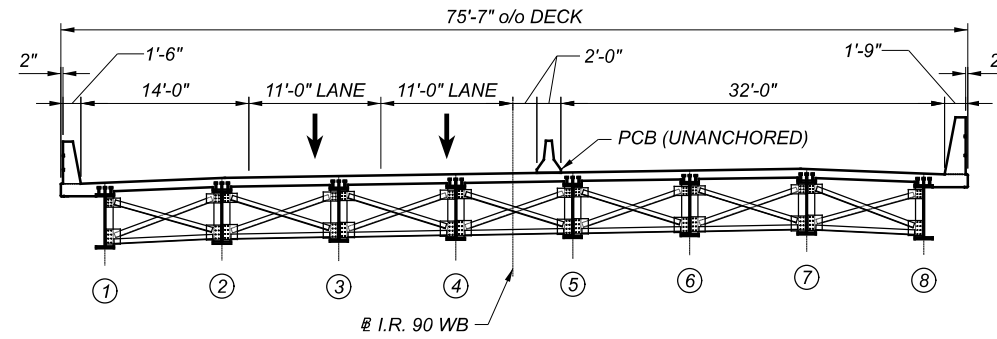


PHASE 5 CONSTRUCTION AND MOT

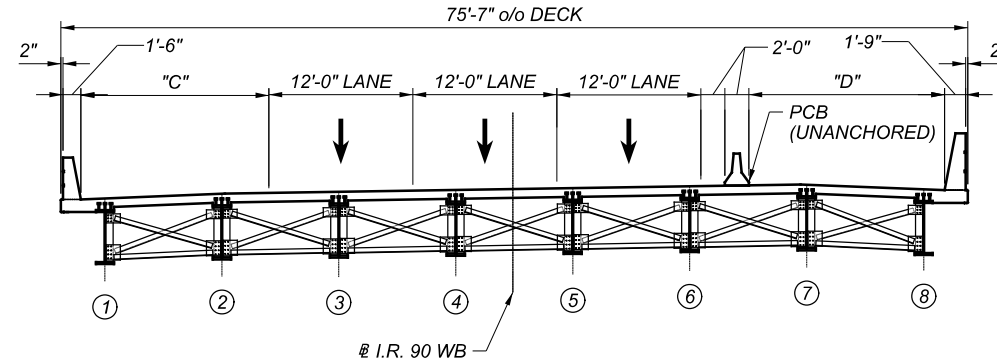
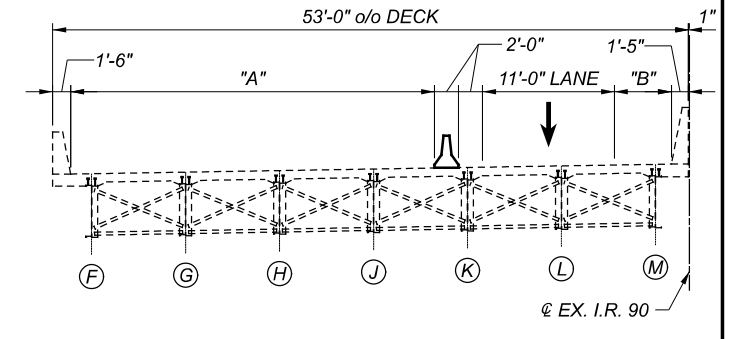




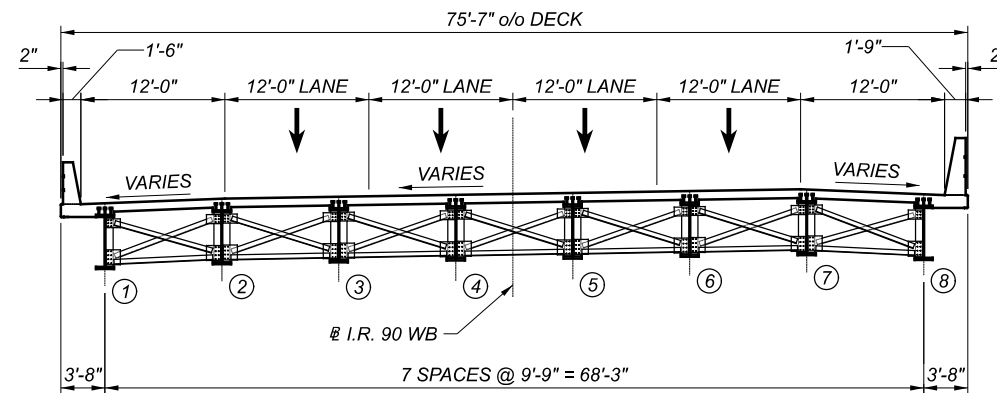
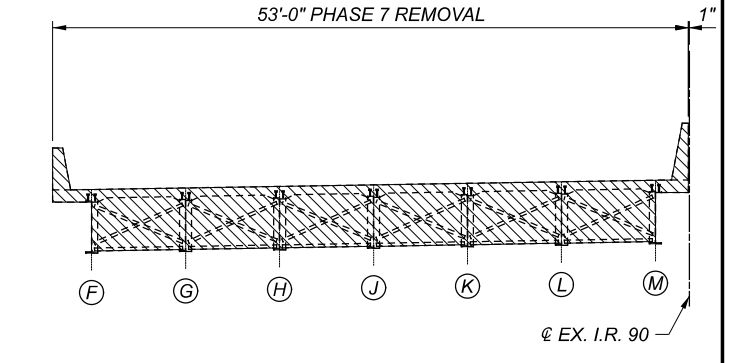
PHASE 7 REMOVAL PLAN



PHASE 6 MOT



PHASE 7 REMOVAL AND MOT



FINAL CONDITION

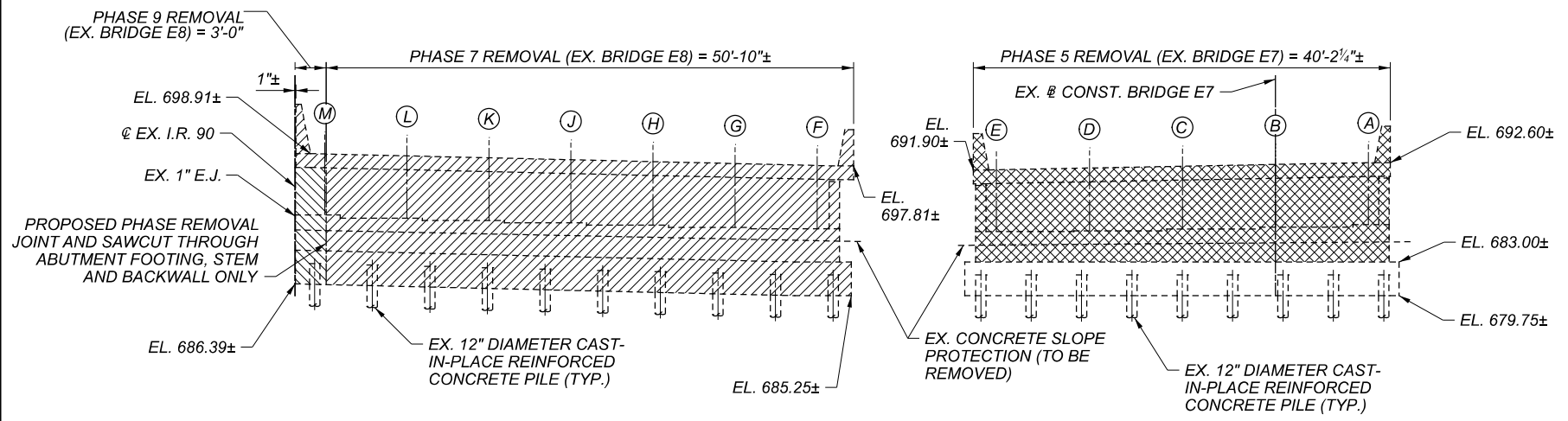
LEGEND:

- = PHASE 7 REMOVAL
- = EXISTING GIRDER LETTER
- = PROPOSED GIRDER NUMBER
- "A" = VARIES FROM 28'-6"± TO 30'-7"±
- "B" = VARIES FROM 4'-6"± TO 8'-9"±
- "C" = VARIES FROM 12'-6" TO 16'-4"
- "D" = VARIES FROM 15'-8" TO 19'-6"

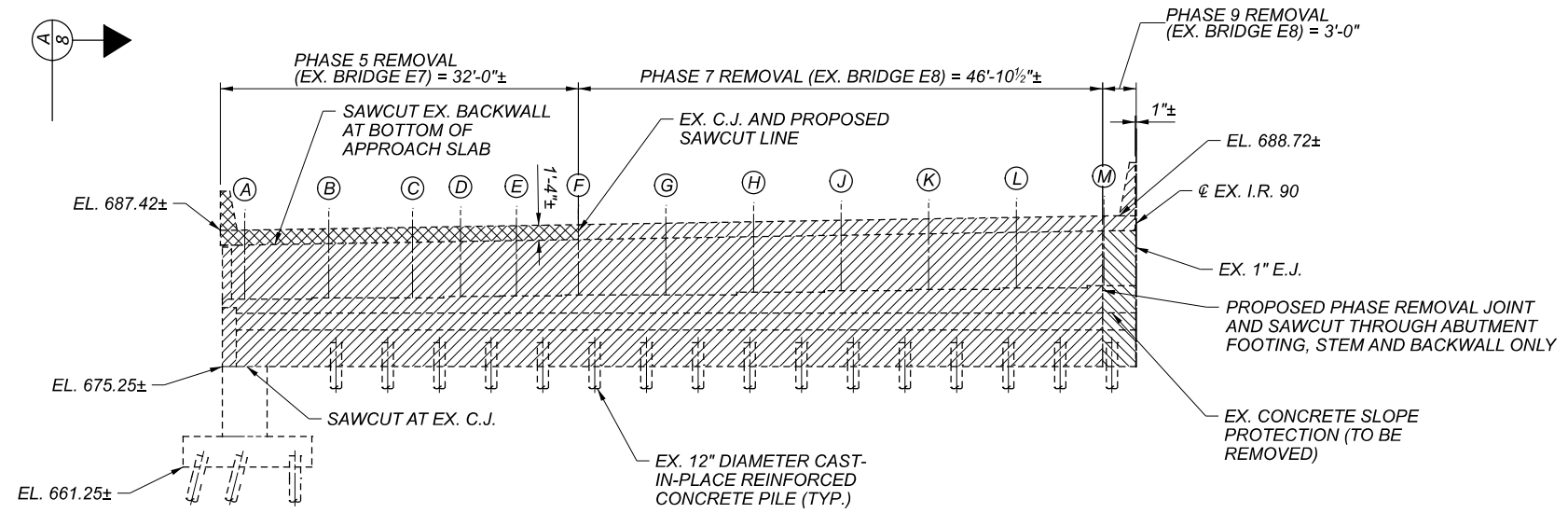
NOTES:

1. SEE SHEETS 1658 & 1659/2339 FOR PHASED MOT AND CONSTRUCTION OF PROPOSED BRIDGE 11 AND FOR PHASED MOT AND REMOVAL OF EXISTING BRIDGES E8 AND E9 SOUTH OF @ EX. I.R. 90.

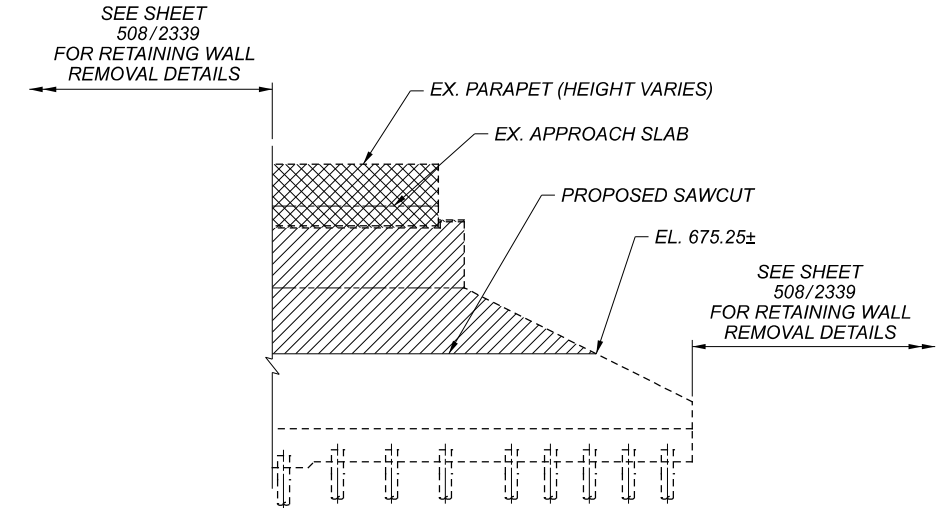
SFN	1807901
DESIGN AGENCY	BURGESS & NIPLE 100 WEST ERIE STREET PARADESVILLE, OHIO 44077
DESIGNER	KMA
CHECKER	JAA
REVIEWER	DWL
DATE	05/24/22
PROJECT ID	82382
SUBSET	7
TOTAL	47
SHEET	1613
TOTAL	2339



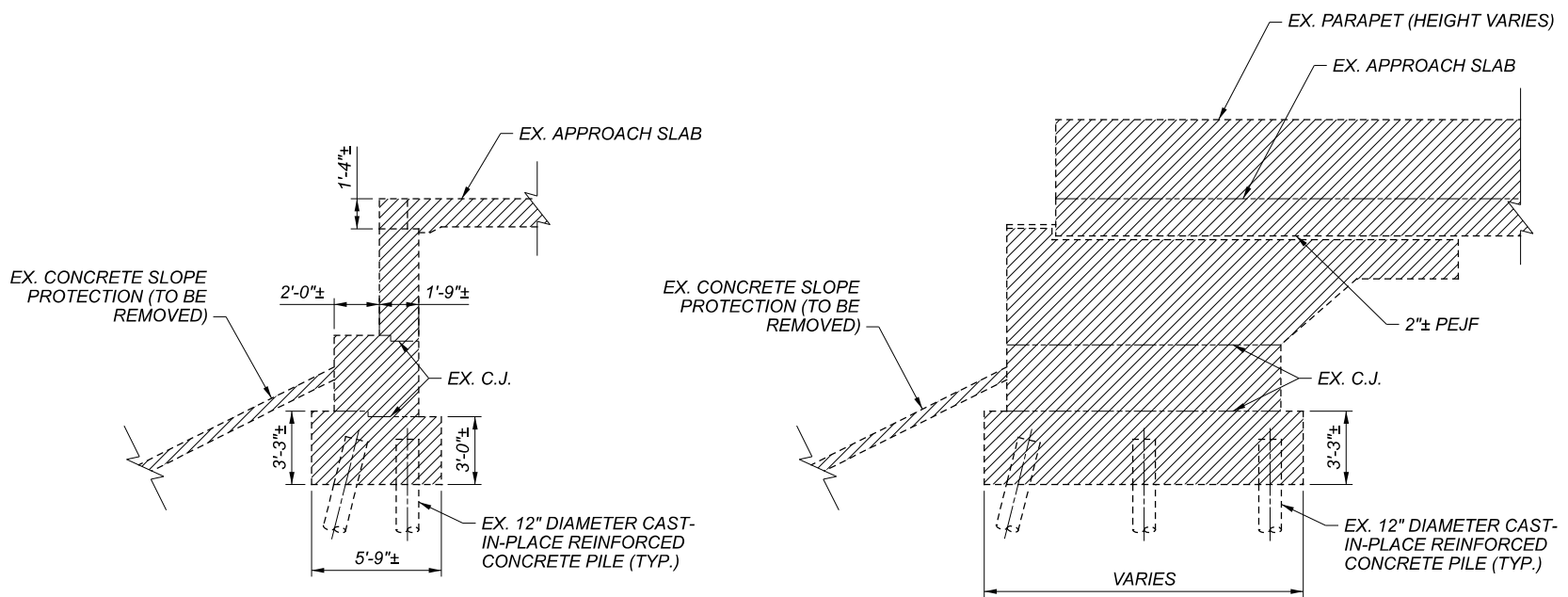
REAR ABUTMENT PHASED REMOVAL ELEVATION



FORWARD ABUTMENT PHASED REMOVAL ELEVATION

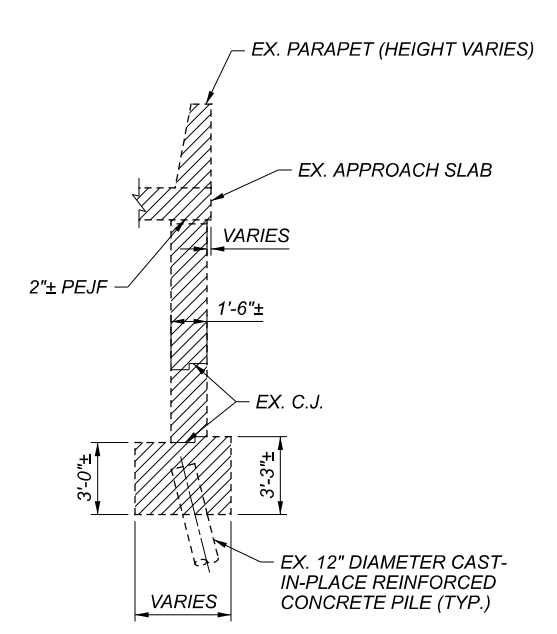


VIEW A-A



TYPICAL ABUTMENT SECTION

TYPICAL WINGWALL ELEVATION



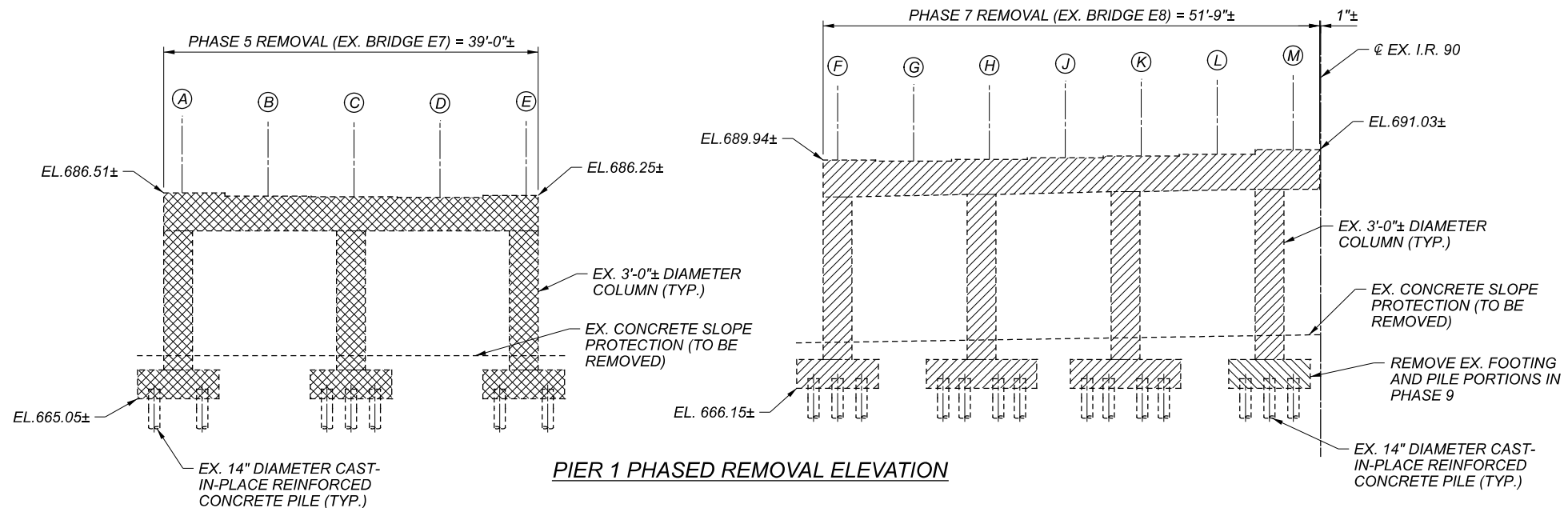
TYPICAL WINGWALL SECTION

- LEGEND:**
- = PHASE 5 REMOVAL
 - = PHASE 7 REMOVAL
 - = PHASE 9 REMOVAL
 - = EXISTING GIRDER LETTER

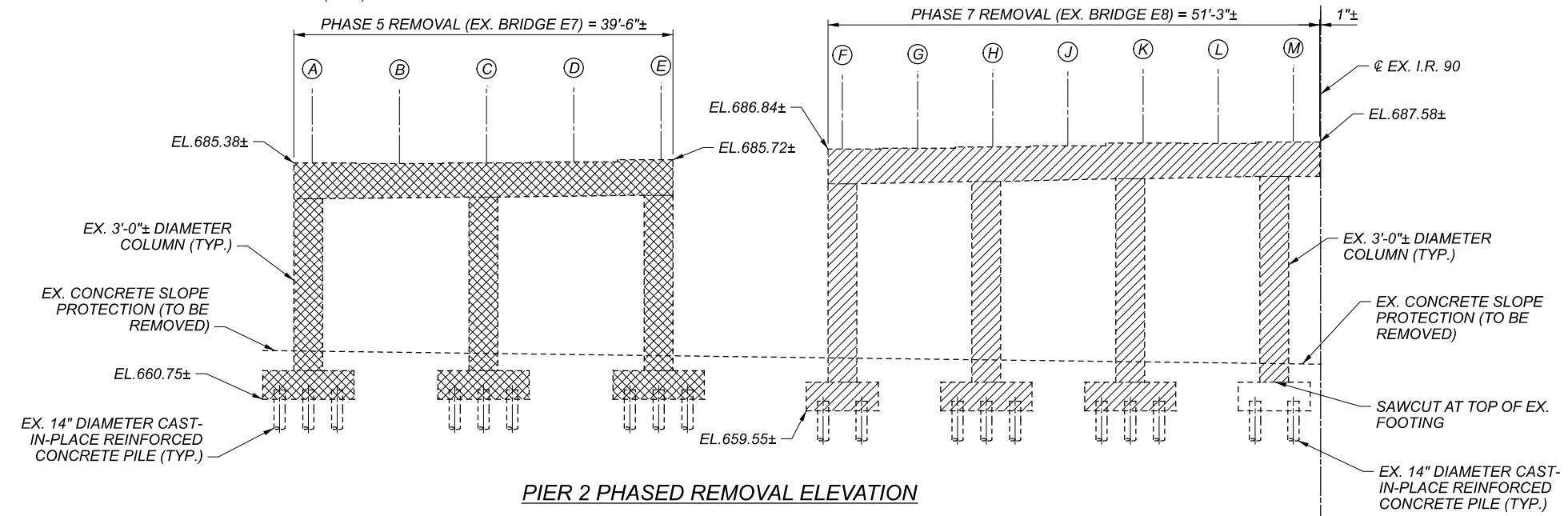
- NOTES:**
- SEE SHEET 1660/2339 FOR PHASED REMOVAL OF EXISTING BRIDGE E8 PORTIONS SOUTH OF & EX. I.R. 90 AND EXISTING BRIDGE E9.

ABUTMENT PHASED REMOVAL DETAILS
 CUY-90-1653L (BRIDGE 10)
 I.R. 90 WB OVER CR-721 (E. 14TH ST.)

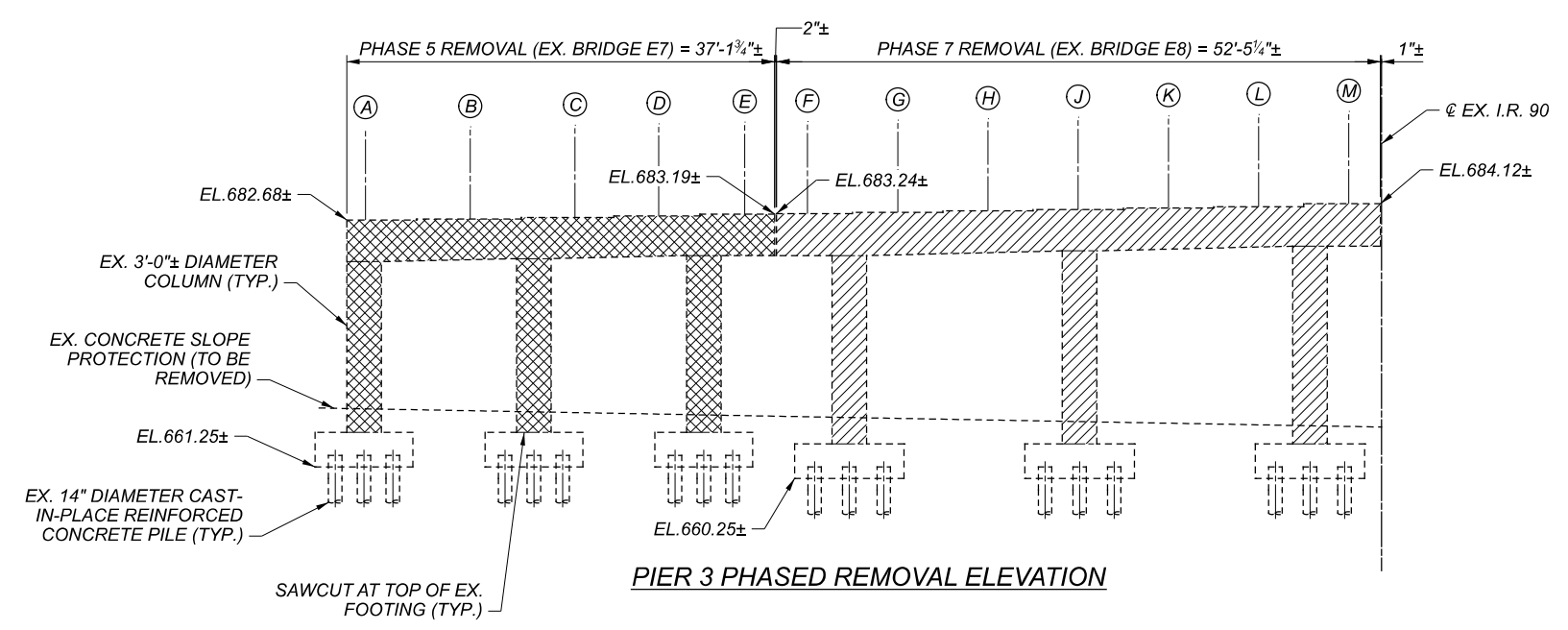
SFN	1807901
DESIGN AGENCY	
BURGESS & NIPLE 100 WEST ERIE STREET PARANVILLE, OHIO 44077	
DESIGNER	CHECKER
KMA	JAA
REVIEWER	DWL
PROJECT ID	82382
SUBSET	TOTAL
8	47
SHEET	TOTAL
1614	2339



PIER 1 PHASED REMOVAL ELEVATION



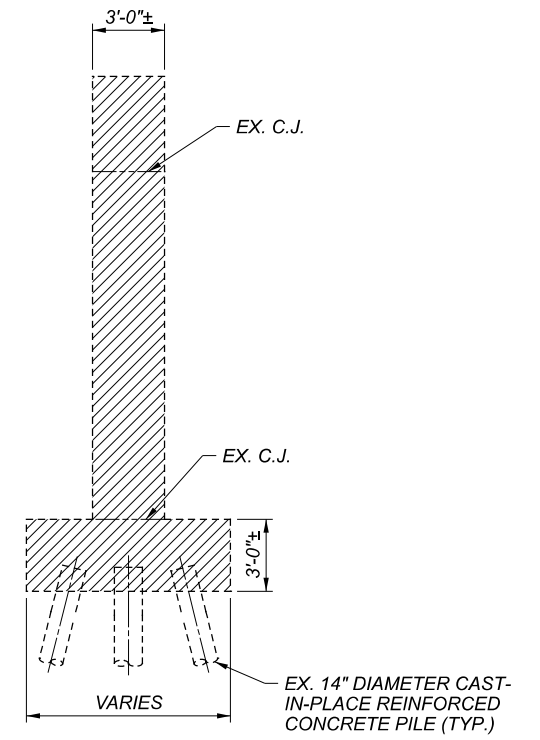
PIER 2 PHASED REMOVAL ELEVATION



PIER 3 PHASED REMOVAL ELEVATION

- LEGEND:**
- = PHASE 5 REMOVAL
 - = PHASE 7 REMOVAL
 - = PHASE 9 REMOVAL
 - (A) = EXISTING GIRDER LETTER

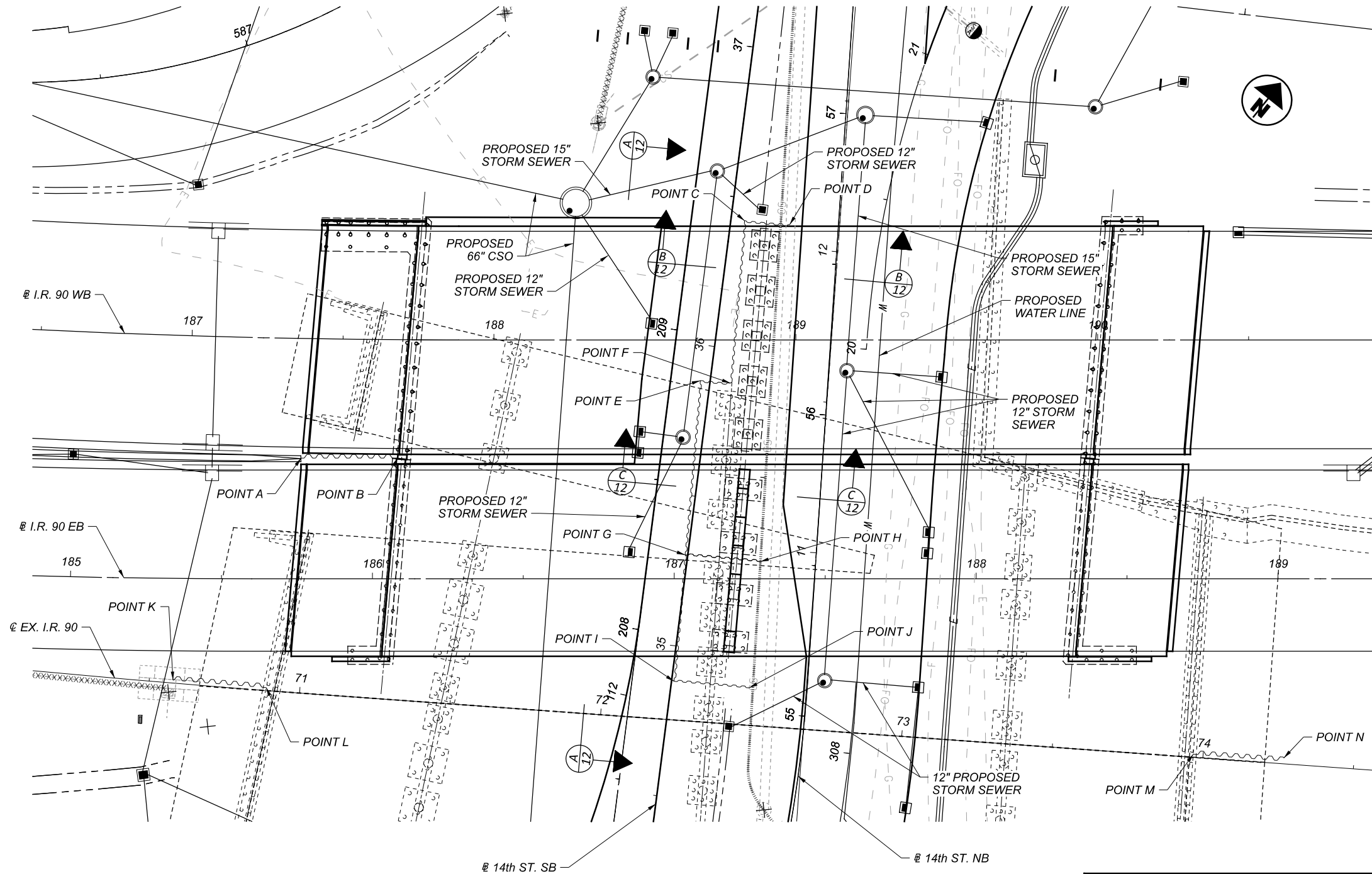
- NOTES:**
- SEE SHEET 1661/2339 FOR PHASED REMOVAL OF EXISTING BRIDGE E8 PORTIONS SOUTH OF & EX. I.R. 90 AND EXISTING BRIDGE E9.



TYPICAL PIER SECTION

PIER PHASED REMOVAL DETAILS
 CUY-90-1653L (BRIDGE 10)
 I.R. 90 WB OVER CR-721 (E. 14TH ST.)

SFN	1807901
DESIGN AGENCY	BURGESS & NIPLE 100 WEST ERIE STREET PARANVILLE, OHIO 44077
DESIGNER	CHECKER
KMA	JAA
REVIEWER	DWL 05/24/22
PROJECT ID	82382
SUBSET	TOTAL
9	47
SHEET	TOTAL
1615	2339



TEMPORARY SHORING LAYOUT PLAN

- NOTES:**
- SEE SHEETS 1617, 1618, 1662/2339 FOR SHORING DETAILS.
 - THE CONSTRUCTION SEQUENCE ON THIS SHEET IS NOT EXHAUSTIVE AND IS MEANT AS A GUIDE AND FOR INFORMATION PURPOSES ONLY. THE CONTRACTOR SHALL REFER AND COMPLY WITH MOT SEQUENCE OF CONSTRUCTION ON SHEETS 74- 80/2339.

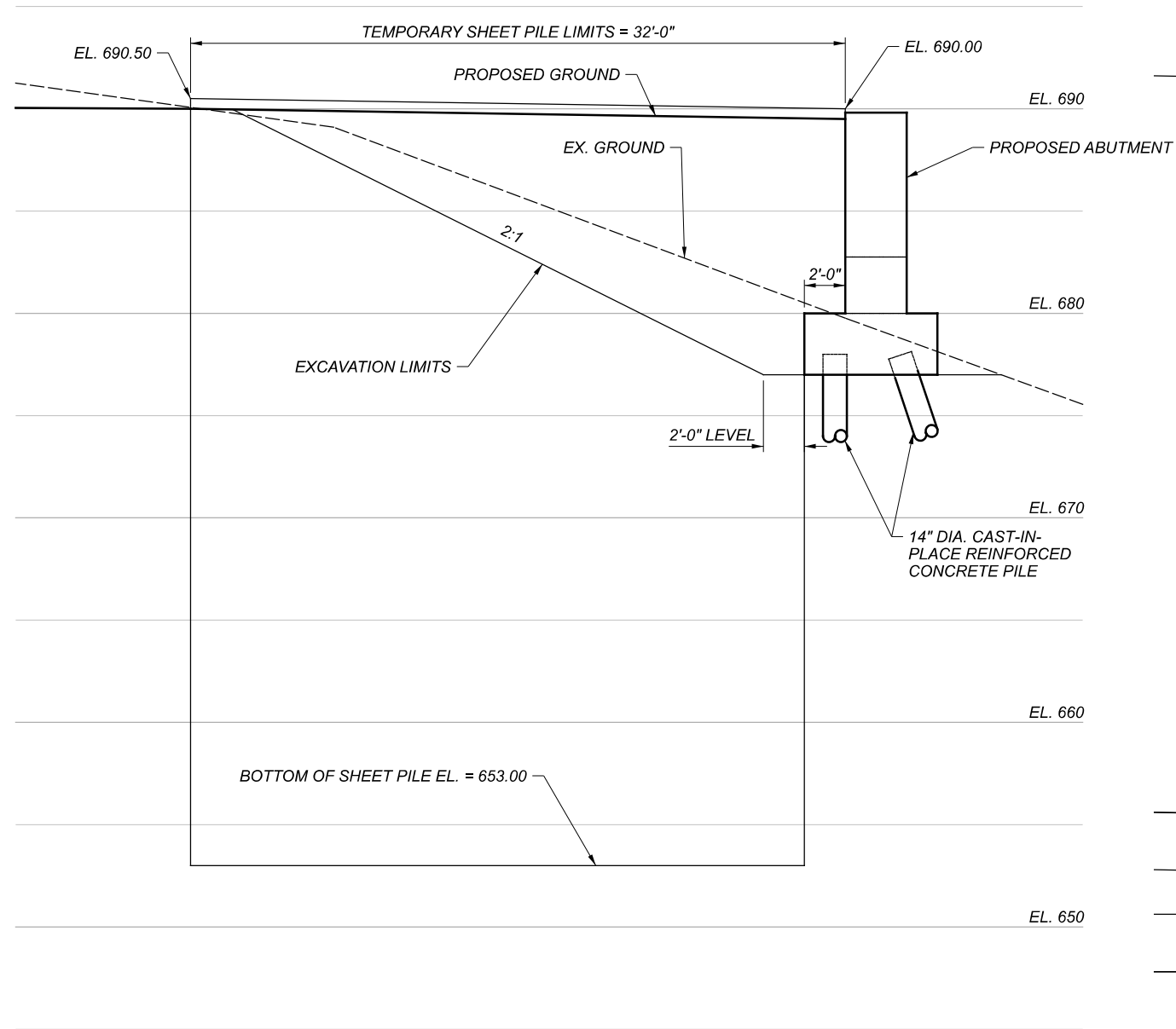
PROPOSED CONSTRUCTION SEQUENCE:

- PRE-PHASE 5:**
- REMOVE PORTIONS OF EX. RETAINING WALL PARALLEL TO EAST 14TH ST.
 - CONSTRUCT PROPOSED ROADWAY, UTILITIES, DRAINAGE, AND GRADING OF PROPOSED EAST 14TH ST. NB AND SB.
- PHASE 5:**
- REMOVE PHASE 5 PORTIONS OF EX. BRIDGE E7 SUPERSTRUCTURE, APPROACH SLABS, PIER 1 AND 3, AND REAR ABUTMENT.
 - INSTALL ABUTMENT SHORING SEGMENT A-B. INSTALL PIER SHORING SEGMENTS C-D, C-F, E-F, E-G, AND G-H.
 - REMOVE PHASE 5 PORTIONS OF EX. BRIDGE E7 PIER 2.
 - CONSTRUCT PROPOSED BRIDGE 10 SUBSTRUCTURE AND TWO NORTHERNMOST PIER FOOTINGS AND COLUMNS FOR PROPOSED BRIDGE 11 PIER 1.
 - REMOVE PIER SHORING SEGMENTS C-D, C-F, E-F, AND E-G.
 - CONSTRUCT PROPOSED BRIDGE 10 SUPERSTRUCTURE AND APPROACH SLABS.
- PHASE 7:**
- REMOVE PHASE 7 PORTIONS OF EX. BRIDGE E8 SUPERSTRUCTURE AND APPROACH SLABS.
 - INSTALL PIER SHORING SEGMENTS G-I AND I-J. INSTALL SHORING SEGMENTS K-L AND M-N AT EX. BRIDGE E8 REAR AND FORWARD ABUTMENTS.
 - REMOVE PHASE 7 PORTIONS OF EX. BRIDGE E7 FORWARD ABUTMENT, PHASE 7 PORTIONS OF EX. BRIDGE E8 SUBSTRUCTURE, AND RETAINING WALL PARALLEL TO EX. I.R.90.
 - CONSTRUCT PROPOSED BRIDGE 11 SUBSTRUCTURES INCLUDING THE REMAINING PIER 1 FOOTINGS AND COLUMNS. REMOVE ABUTMENT SHORING SEGMENT A-B. REMOVE PIER SHORING SEGMENTS G-H, G-I, AND I-J.
 - CONSTRUCT PROPOSED BRIDGE 11 SUPERSTRUCTURE AND APPROACH SLABS.
- PHASE 9:**
- REMOVE PHASE 9 PORTIONS OF EX. BRIDGE E8 INCLUDING PIER 1 FOOTINGS AS INDICATED AND PHASE 9 PORTIONS OF EX. BRIDGE E9. REMOVE SHORING SEGMENTS K-L AND M-N.

TEMPORARY SHORING INFORMATION						
LOCATION POINT	SHORING TYPE	ALIGNMENT	STATION	OFFSET	TOP OF SHORING EL.	BOTTOM OF SHORING EL.
A	STEEL SHEET PILE	BL I.R. 90 WB	187+36.86	39.63' RT	690.50	653.00
B	STEEL SHEET PILE	BL I.R. 90 WB	187+68.39	39.23' RT	690.00	653.00
C	STEEL SHEET PILE	BL 14TH ST. NB	56+62.38	31.11' LT	666.00	640.00
D	STEEL SHEET PILE	BL 14TH ST. NB	56+62.08	16.12' LT	666.00	640.00
E	STEEL SHEET PILE	BL 14TH ST. NB	56+08.59	42.19' LT	666.00	640.00
F	STEEL SHEET PILE	BL 14TH ST. NB	56+08.39	32.19' LT	666.00	640.00
G	STEEL SHEET PILE	BL 14TH ST. NB	55+50.60	43.35' LT	666.00	640.00
H	STEEL SHEET PILE	BL 14TH ST. NB	55+50.10	18.36' LT	666.00	640.00
I	STEEL SHEET PILE	BL 14TH ST. NB	55+08.25	44.18' LT	666.00	640.00
J	STEEL SHEET PILE	BL 14TH ST. NB	55+07.94	19.18' LT	666.00	640.00
K	STEEL SHEET PILE	CL EX. I.R. 90			700.00	660.00
L	STEEL SHEET PILE	CL EX. I.R. 90		SEE SHEET 1662/2339	699.50	660.00
M	STEEL SHEET PILE	CL EX. I.R. 90			689.50	649.00
N	STEEL SHEET PILE	CL EX. I.R. 90			688.50	649.00

TEMPORARY SHORING LAYOUT PLAN
 CUY-90-1653L (BRIDGE 10)
 I.R. 90 WB OVER CR-721 (E. 14TH ST.)

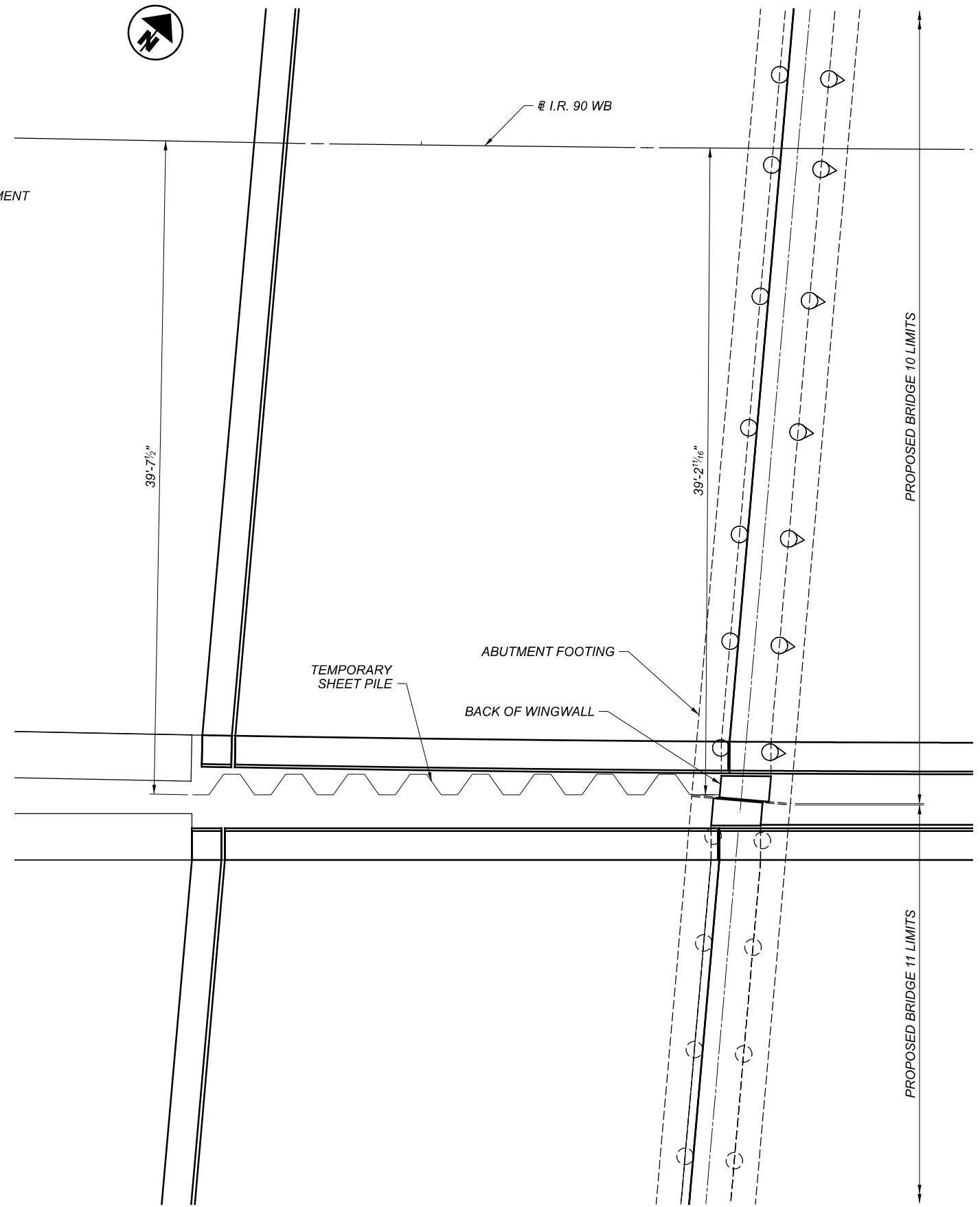
SFN 1807901
 DESIGN AGENCY
BURGESS & NIPLE
 100 WEST ERIE STREET
 PAINESVILLE, OHIO 44077
 DESIGNER CHECKER
 KMA JAA
 REVIEWER
 DWL 05/24/22
 PROJECT ID
 82382
 SUBSET TOTAL
 10 47
 SHEET TOTAL
 1616 2339



REAR ABUTMENT ELEVATION (BRIDGE 10)

NOTES:

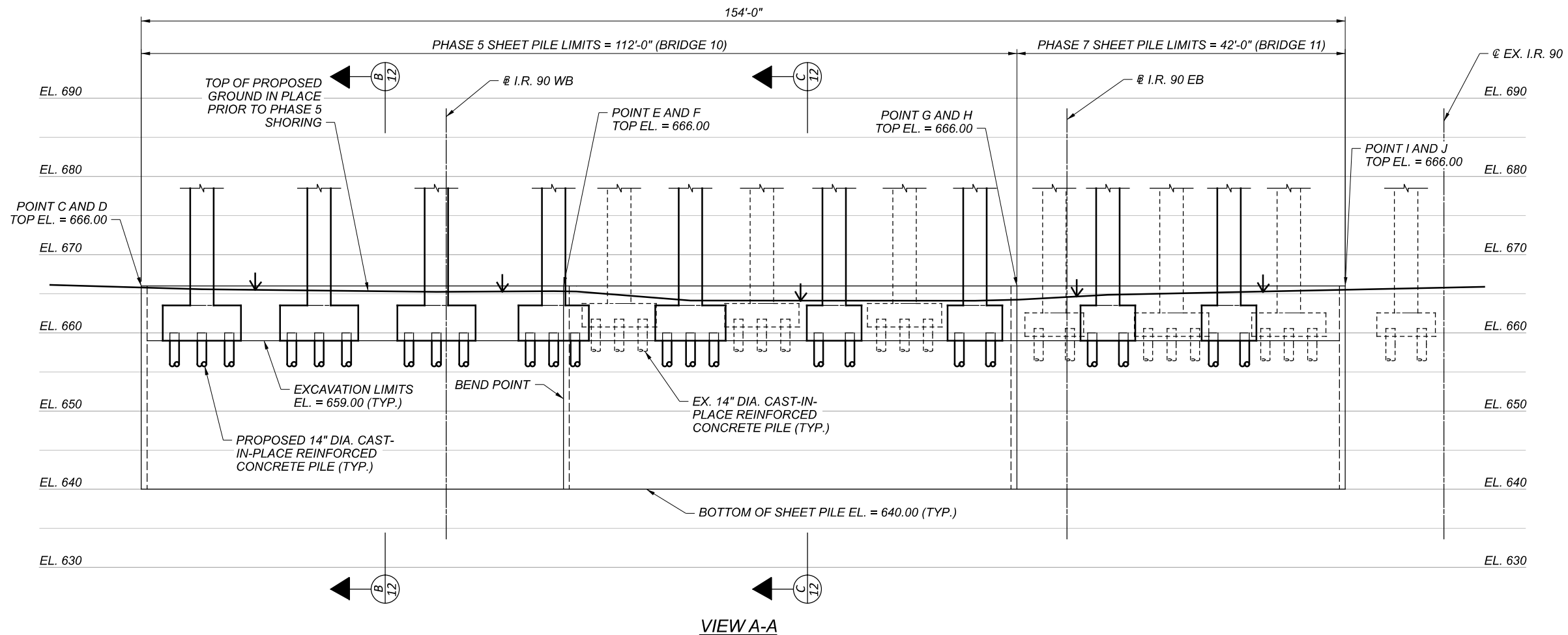
- SEE SHEET 10/47 FOR SHORING LAYOUT PLAN AND OTHER INFORMATION.
- TEMPORARY STEEL SHEET PILING SHALL HAVE A MINIMUM STRENGTH OF 39 KSI AND SHALL HAVE A MINIMUM SECTION MODULUS OF 48 IN³ AND A MINIMUM MOMENT OF INERTIA OF 361 IN⁴. PAYMENT FOR SHEET PILING, INCLUDING REMOVAL OF ALL COMPONENTS AFTER NO 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.



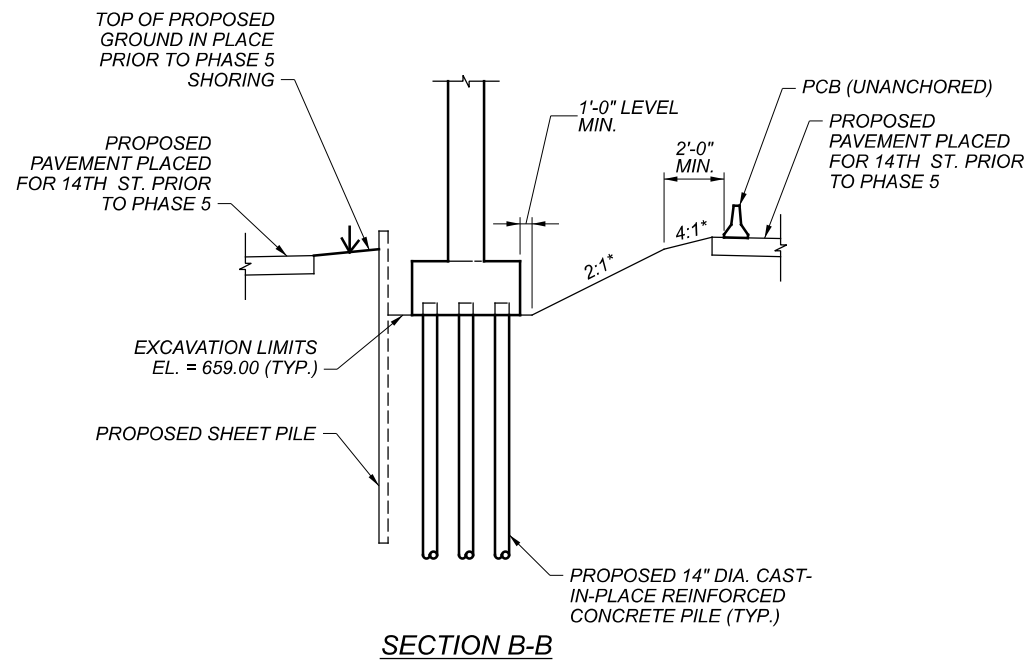
REAR ABUTMENT PLAN (BRIDGE 10)

REAR ABUTMENT TEMPORARY SHORING DETAILS
 CUY-90-1653L (BRIDGE 10)
 I.R. 90 WB OVER CR-721 (E. 14TH ST.)

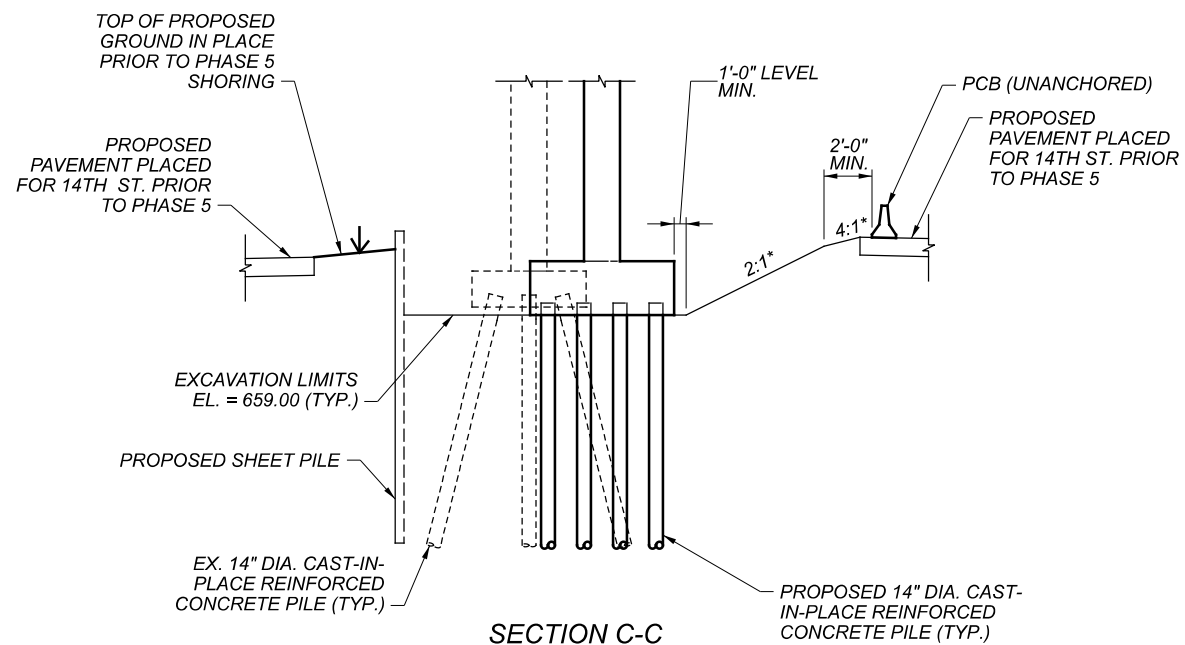
SFN	1807901
DESIGN AGENCY	
BURGESS & NIPLE 100 WEST ERIE STREET PARANVILLE, OHIO 44277	
DESIGNER	CHECKER
KMA	JAA
REVIEWER	DWL 05/24/22
PROJECT ID	82382
SUBSET	TOTAL
11	47
SHEET	TOTAL
1617	2339



VIEW A-A



SECTION B-B



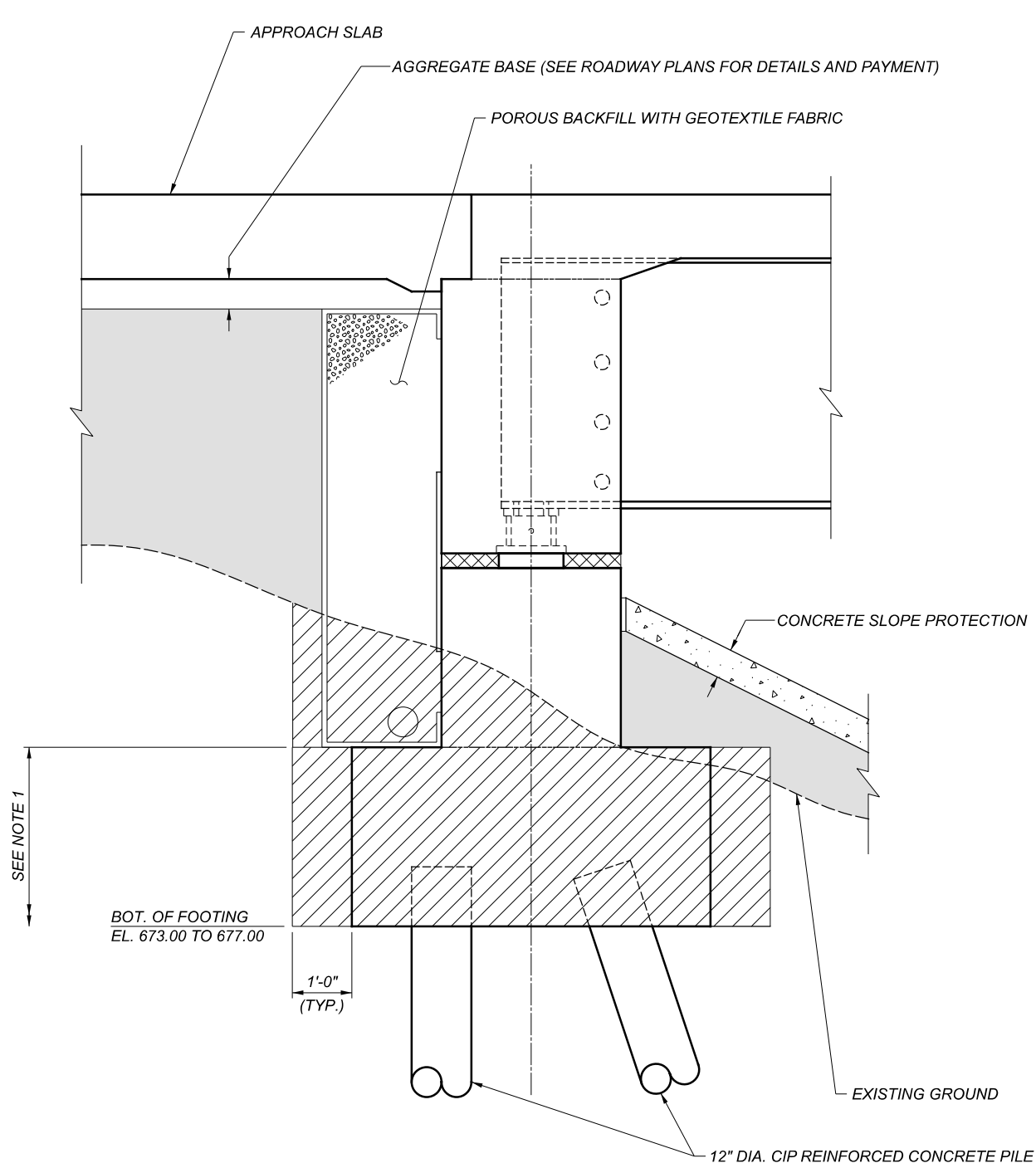
SECTION C-C

LEGEND:

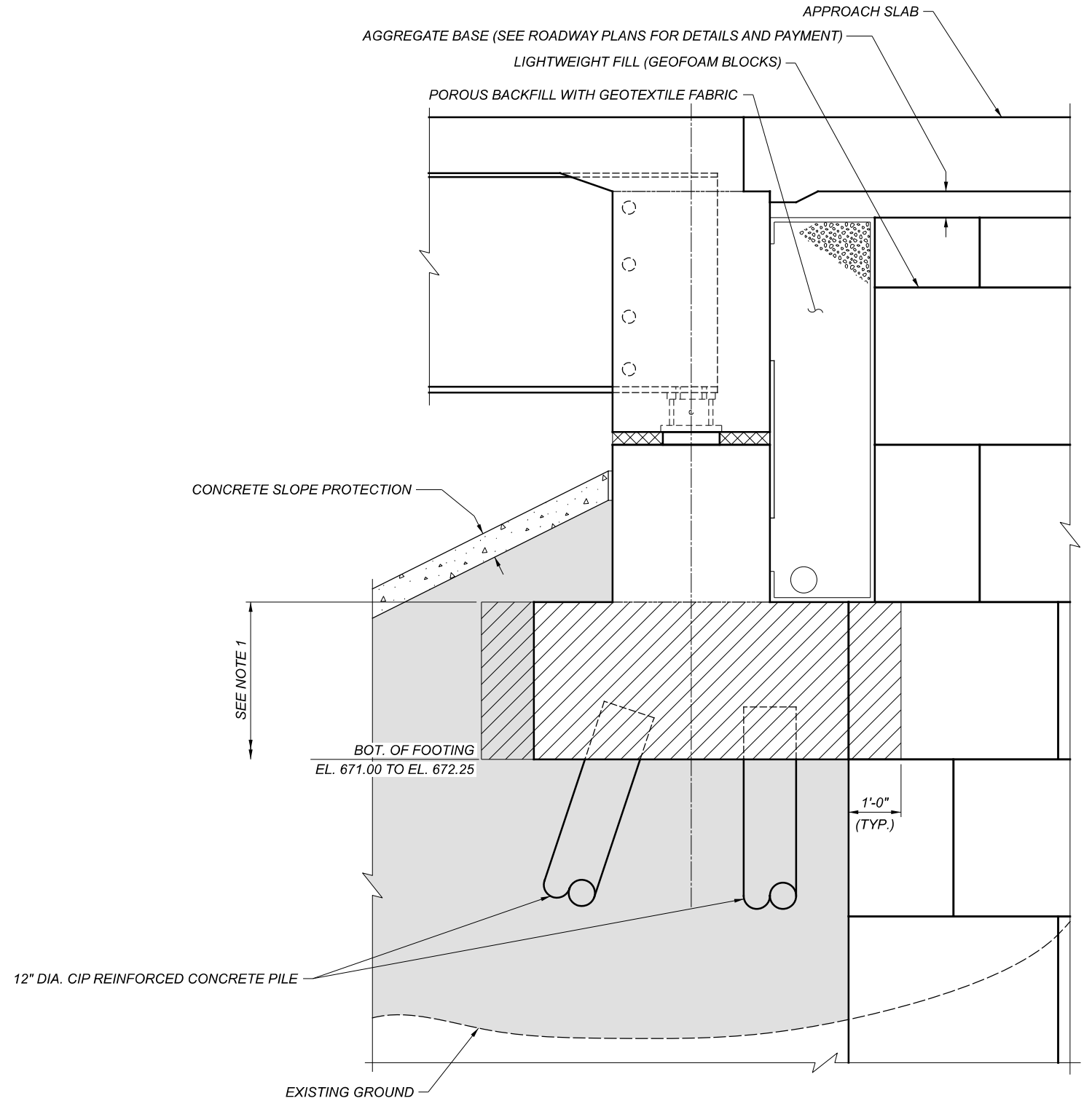
* = OR FLATTER

NOTES:

- SEE SHEET 10/47 FOR LOCATION OF SECTION CUTS.
- TEMPORARY STEEL SHEET PILING AT THE PIER SHALL HAVE A MINIMUM STRENGTH OF 39 KSI AND SHALL HAVE A MINIMUM SECTION MODULUS OF 18 IN³ AND A MINIMUM MOMENT OF INERTIA OF 84 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.



EXCAVATION AND EMBANKMENT DIAGRAM - REAR ABUTMENT



EXCAVATION AND EMBANKMENT DIAGRAM - FORWARD ABUTMENT

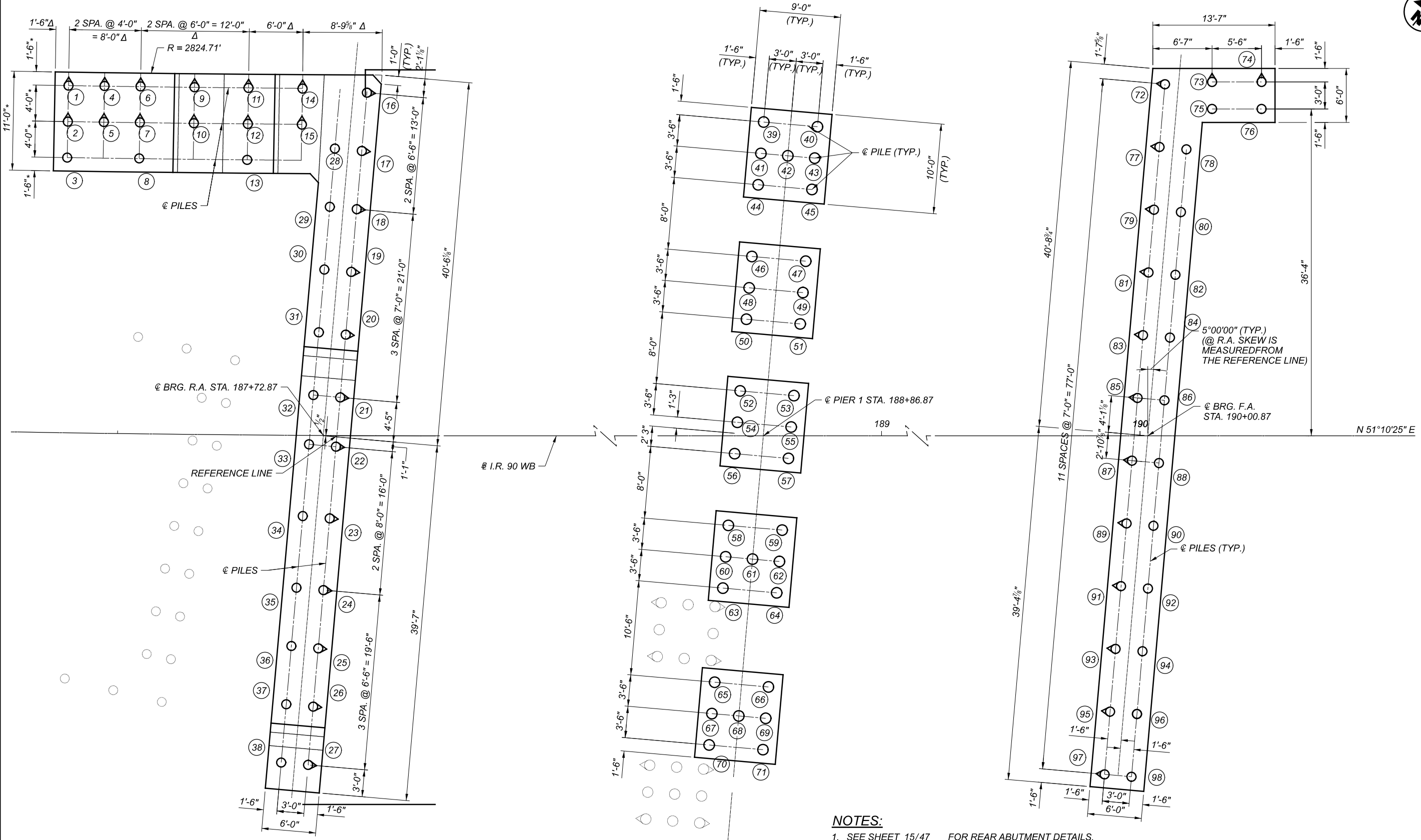
LEGEND:

- = 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.

SFN		1807901	
DESIGN AGENCY			
BURGESS & NIPLE			
100 WEST FIRE STREET PAINESVILLE, OHIO 44077			
DESIGNER	CHECKER		
MAB	BCS		
REVIEWER		DWL 05/24/22	
PROJECT ID			
82382			
SUBSET	TOTAL		
13	47		
SHEET		TOTAL	
1619	2339		



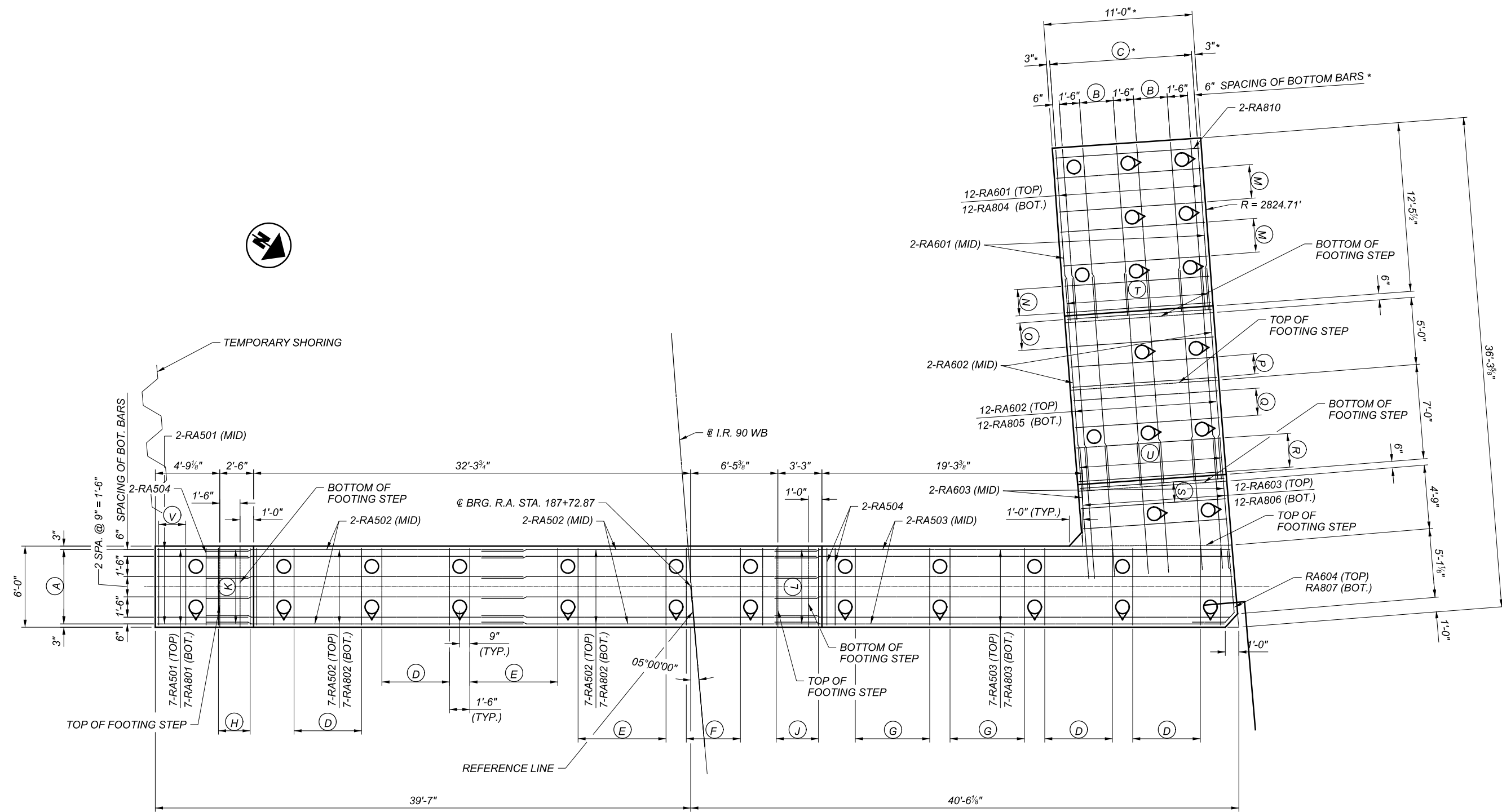
FOUNDATION PLAN

- 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
 - * = MEASURED RADIALLY
 - Δ = MEASURED ALONG @ PILES AT R=2826.21'

- NOTES:**
1. SEE SHEET 15/47 FOR REAR ABUTMENT DETAILS.
 2. SEE SHEETS 24/47 AND 25/47 FOR PIER 1 DETAILS.
 3. SEE SHEET 20/47 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. HORIZONTAL DIMENSIONS AT THE REAR ABUTMENT ARE MEASURED TO THE REFERENCE LINE.

FOUNDATION PLAN
 CUY-90-1653L (BRIDGE 10)
 I.R. 90 WB OVER CR-721 (E. 14TH ST.)

SFN	1807901
DESIGN AGENCY	
BURGESS & NIPLE 100 WEST FIRE STREET PAINESVILLE, OHIO 44077	
DESIGNER	CHECKER
MAB	BCS
REVIEWER	
DWL	05/24/22
PROJECT ID	82382
SUBSET	TOTAL
14	47
SHEET	TOTAL
1620	2339



REAR ABUTMENT FOOTING PLAN

LEGEND:

- | | | |
|---|--|--|
| (A) = 6 SPACES @ 11" = 5'-6" (TOP BAR SPACING) | (H) = 1 S.O. 4-RA505 (TOP & BOT.) @ 9" = 2'-3" | (P) = 1 S.O. 3-RA812 (TOP & BOT.) @ 9" = 1'-6" |
| (B) = 3 SPACES @ 10" = 2'-6" | (J) = 1 S.O. 4-RA506 (TOP & BOT.) @ 1'-0" MAX. = 3'-3" | (Q) = 3 SETS OF 2-RA813 @ 1'-0" = 2'-0" |
| (C) = 11 SPACES @ 1'-0" MAX. = 10'-6" (TOP BAR SPACING) | (K) = 7-RA808 (BOTTOM) | (R) = 4 SETS OF 2-RA813 @ 10" = 2'-6" |
| (D) = 6 SETS OF 2-RA504 @ 1'-0" = 5'-0" | (L) = 7-RA809 (BOTTOM) | (S) = 1 S.O. 3-RA814 (TOP & BOT.) @ 9" = 1'-6" |
| (E) = 8 SETS OF 2-RA504 @ 1'-0" MAX. = 6'-6" | (M) = 4 SETS OF 2-RA810 @ 10" = 2'-6" | (T) = 12-RA814 (BOTTOM) |
| (F) = 5 SETS OF 2-RA504 @ 1'-0" = 4'-0" | (N) = 3 SETS OF 2-RA810 @ 1'-0" = 2'-0" | (U) = 12-RA815 (BOTTOM) |
| (G) = 7 SETS OF 2-RA504 @ 11" = 5'-6" | (O) = 1 S.O. 3-RA811 (TOP & BOT.) @ 1'-0" = 2'-0" | (V) = 3 SETS OF 2-RA504 @ 1'-0" = 2'-0" |

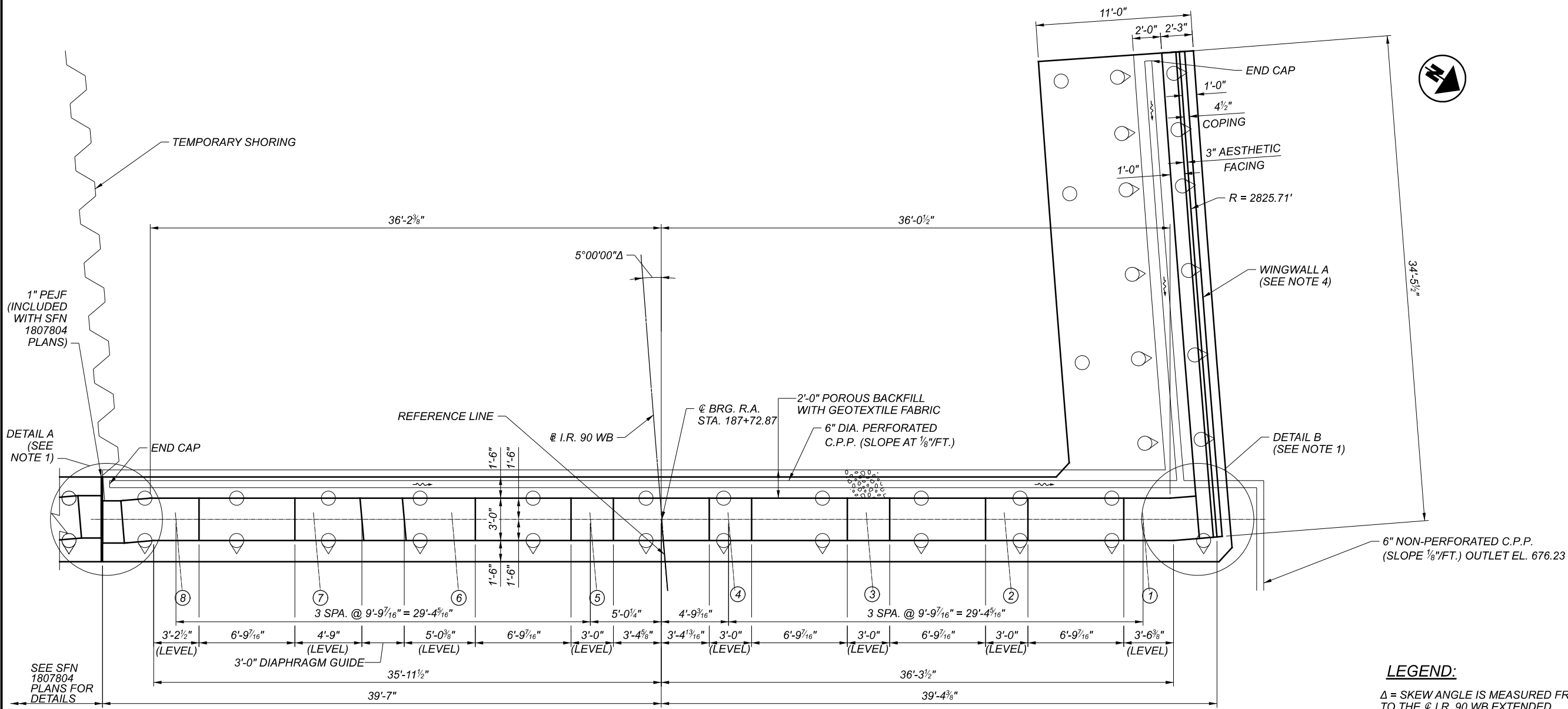
* = MEASURED RADially

NOTES:

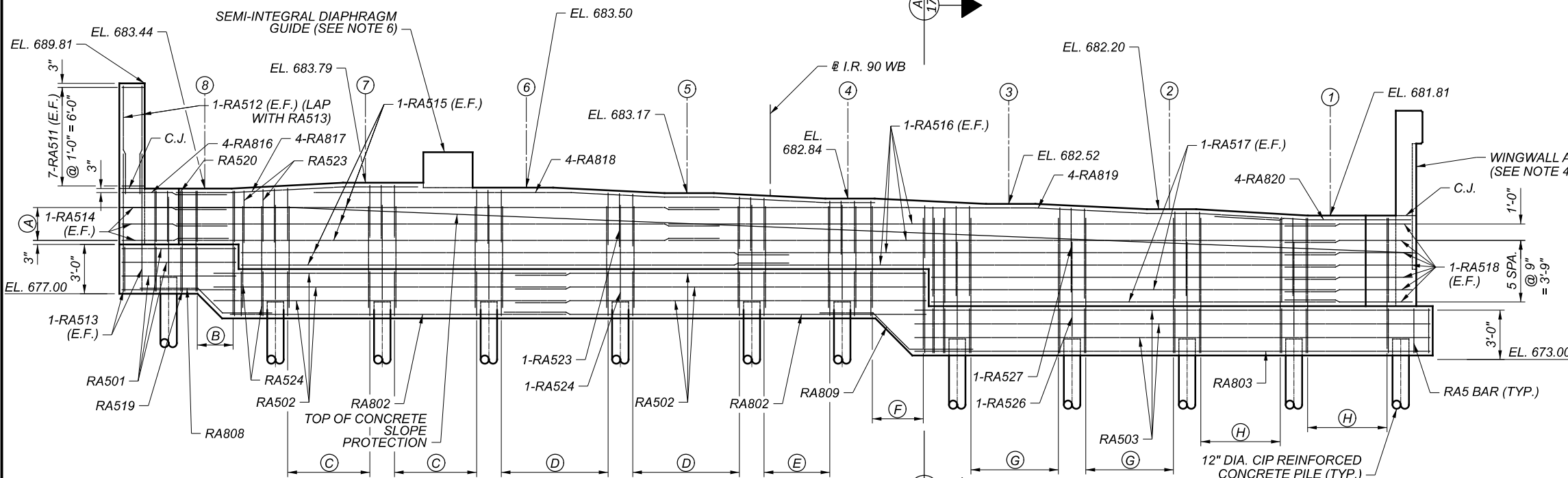
- SEE SHEET 14/47 FOR FOUNDATION LAYOUT.
- SEE SHEET 16/47 FOR REAR ABUTMENT PLAN AND ELEVATION.
- MINIMUM REINFORCING LAP LENGTHS:
 #5 VERTICAL = 2'-5"
 #5 HORIZONTAL = 3'-1"
 #8 = 3'-9"
- HORIZONTAL DIMENSIONS AND SKEW ANGLE ARE MEASURED TO THE REFERENCE LINE.

REAR ABUTMENT FOOTING PLAN
 CUY-90-1653L (BRIDGE 10)
 I.R. 90 WB OVER CR-721 (E. 14TH ST.)

SFN	1807901
DESIGN AGENCY	
DESIGNER	CHECKER
MAB	BCS
REVIEWER	
DWL	06/21/22
PROJECT ID	82382
SUBSET	TOTAL
15	47
SHEET	TOTAL
1621	2339



PLAN



ELEVATION

LEGEND:

Δ = SKEW ANGLE IS MEASURED FROM @ BRG. R.A. TO THE @ I.R. 90 WB EXTENDED

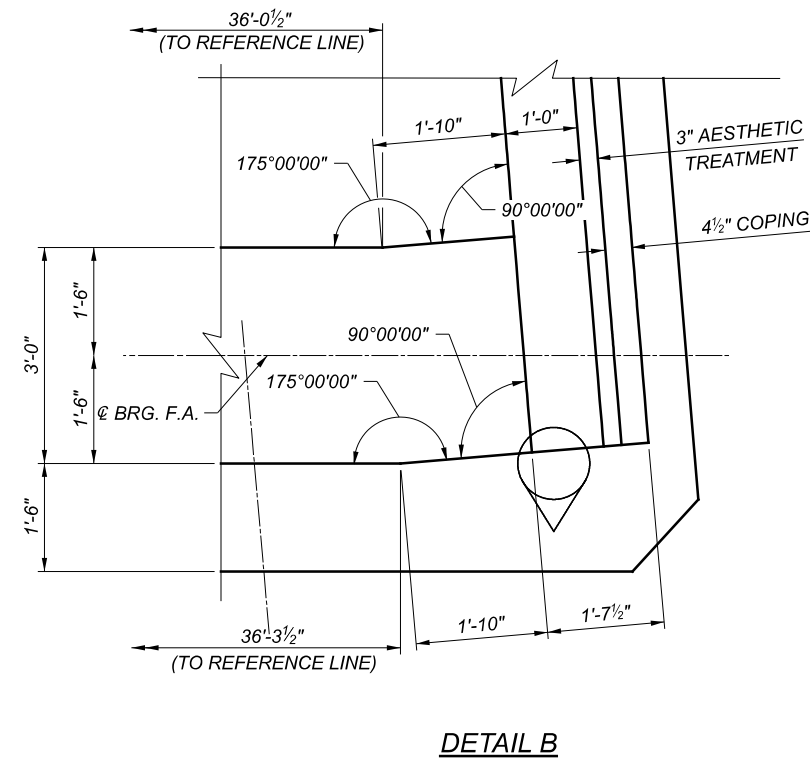
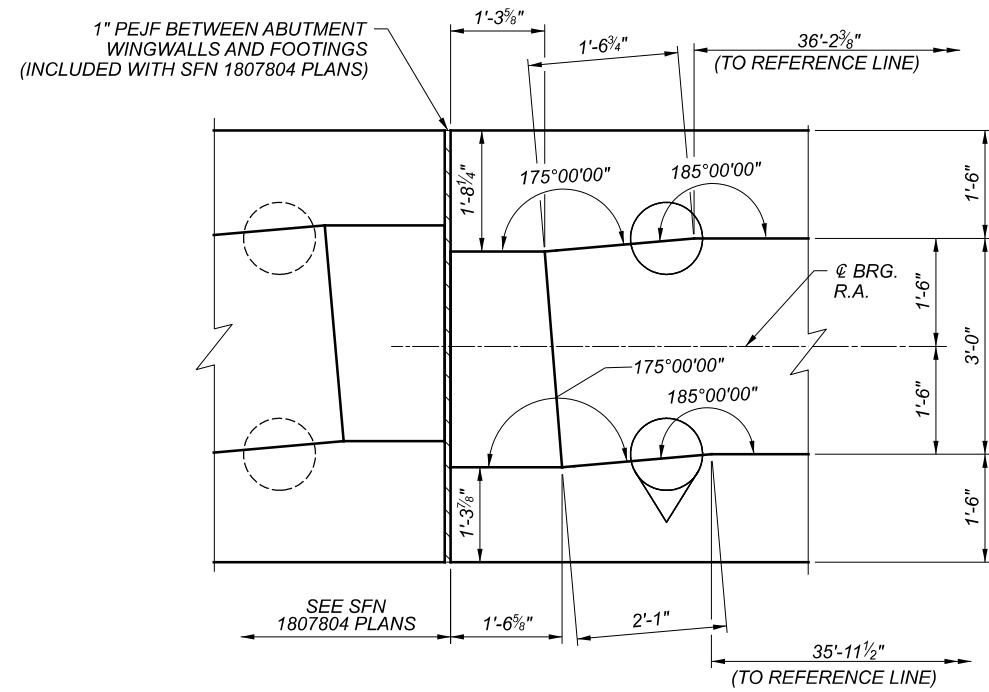
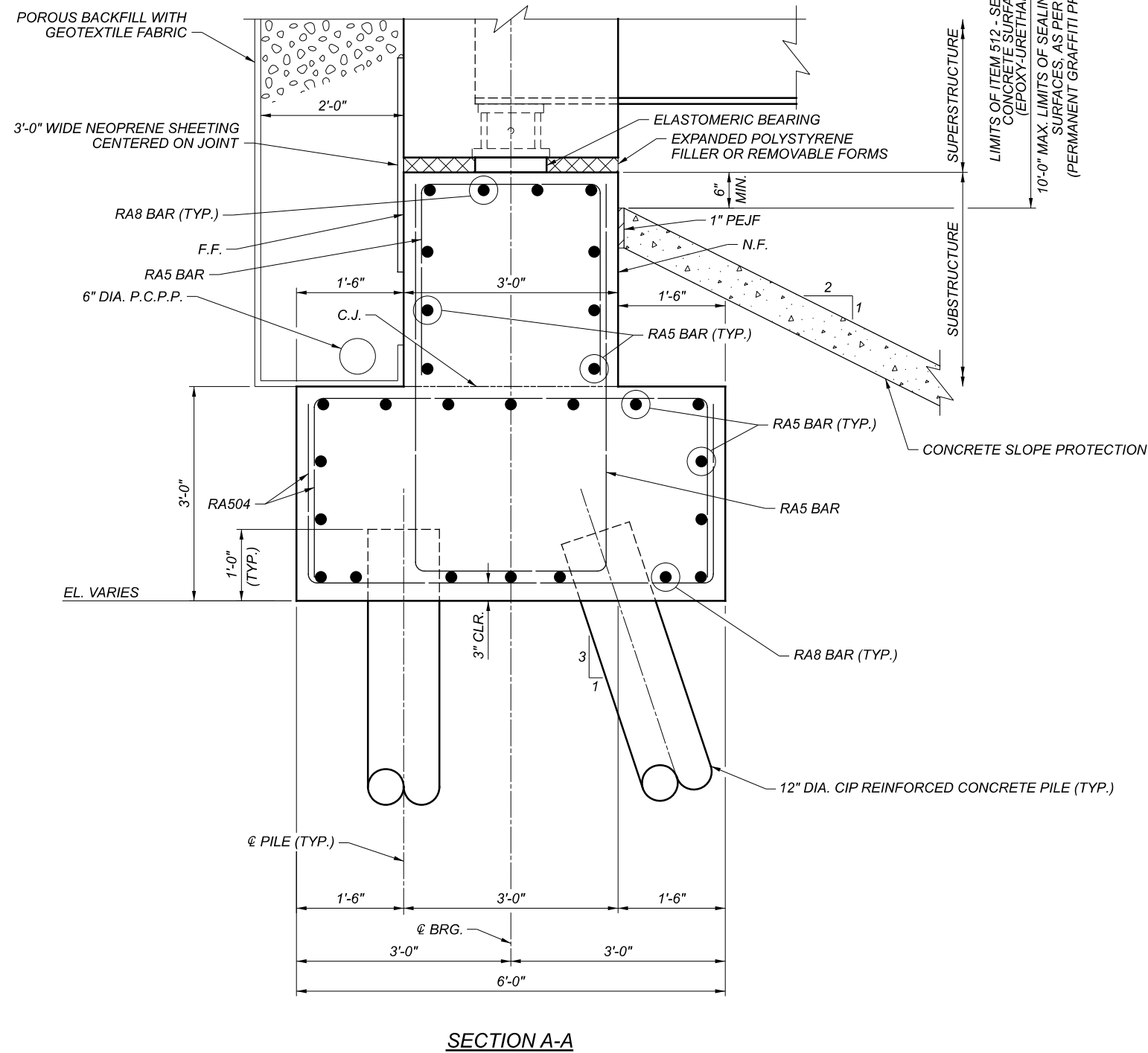
- (A) = 2 SPACES @ 1'-0" = 2'-0"
- (B) = 1 S.O. 4-RA521 & 4-RA522 @ 9" = 2'-3"
- (C) = 6-RA523 & 6-RA524 @ 1'-0" = 5'-0"
- (D) = 8-RA523 & 8-RA524 @ 1'-0" MAX. = 6'-6"
- (E) = 5-RA523 & 5-RA524 @ 1'-0" = 4'-0"
- (F) = 1 S.O. 4-RA525 & 4-RA523 @ 1'-0" MAX. = 3'-3"
- (G) = 5-RA526 & 5-RA527 @ 11" = 5'-6"
- (H) = 5-RA526 & 5-RA527 @ 1'-0" = 5'-0"

NOTES:

1. SEE SHEET 17/47 FOR DETAILS A AND B.
2. SEE SHEET 15/47 FOR REAR ABUTMENT FOOTING PLAN.
3. SEE SHEET 17/47 FOR SECTION A-A.
4. SEE SHEET 18/47 FOR WINGWALL A DETAILS.
5. MINIMUM REINFORCING LAP LENGTHS:
#5 VERTICAL = 2'-5"
#5 HORIZONTAL = 3'-1"
#8 = 5'-4"
6. SEE STANDARD BRIDGE DRAWING SICD-2-14 FOR ADDITIONAL DETAILS.
7. SEE STANDARD BRIDGE DRAWING SICD-1-21 FOR ADDITIONAL DETAILS.

REAR ABUTMENT PLAN AND ELEVATION
CUY-90-1653L (BRIDGE 10)
I.R. 90 WB OVER CR-721 (E. 14TH ST.)

SFN		1807901
DESIGN AGENCY		BURGESS & NIPLE 100 WEST GIRE STREET PAINESVILLE, OHIO 44077
DESIGNER	CHECKER	
MAB	BCS	
REVIEWER		DWL 06/21/22
PROJECT ID		82382
SUBSET	TOTAL	
16	47	
SHEET		TOTAL
1622	2339	

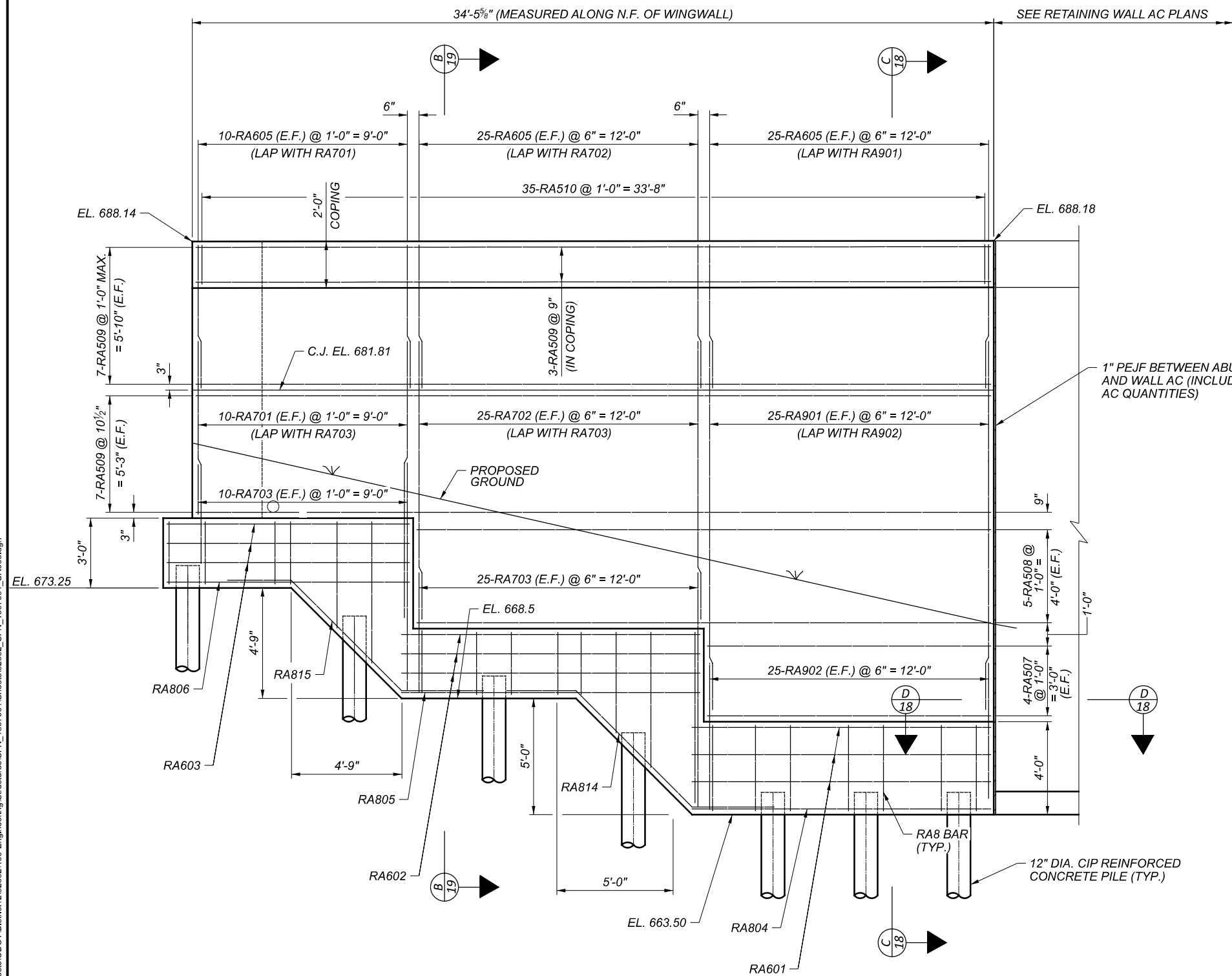


NOTES:

1. SEE SHEET 16/47 FOR LOCATION OF SECTION A-A.
2. SEE STANDARD BRIDGE DRAWING SICD-1-21 FOR ADDITIONAL DETAILS.

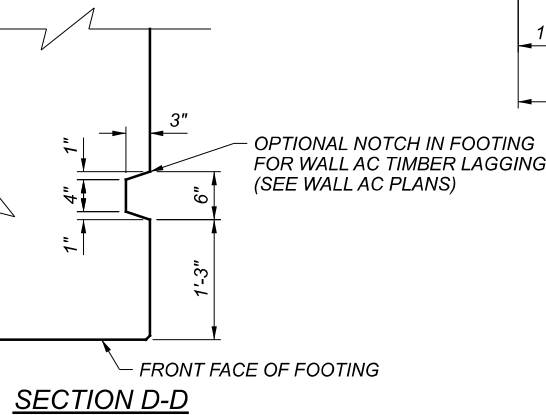
REAR ABUTMENT DETAILS
 CUY-90-1653L (BRIDGE 10)
 I.R. 90 WB OVER CR-721 (E. 14TH ST.)

SFN	1807901
DESIGN AGENCY	BURGESS & NIPLE 100 WEST ERIE STREET PAINESVILLE, OHIO 44077
DESIGNER	MAB
CHECKER	BCS
REVIEWER	DWL
DATE	06/21/22
PROJECT ID	82382
SUBSET	17
TOTAL	47
SHEET	1623
TOTAL	2339

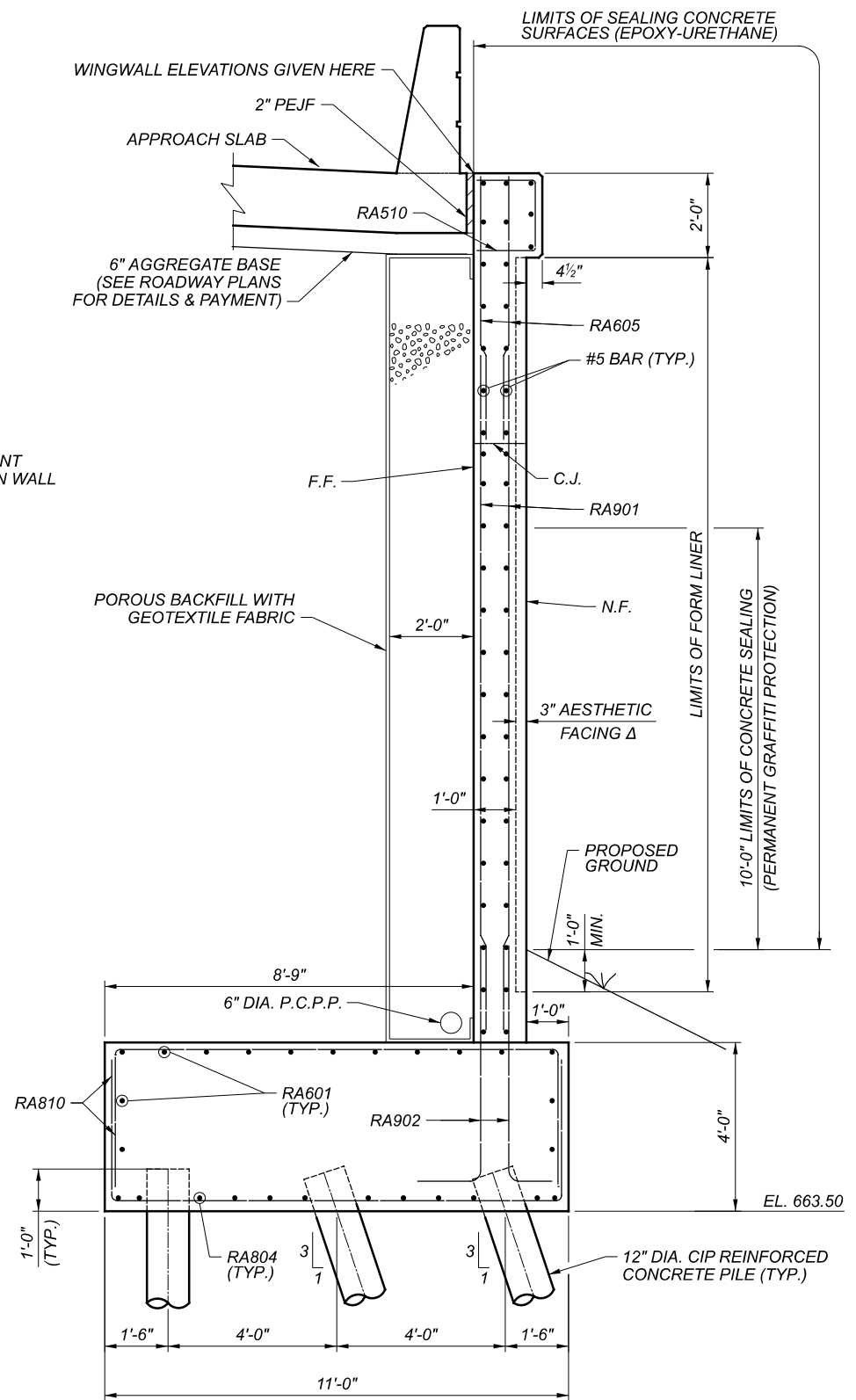


WINGWALL A DEVELOPED ELEVATION

LEGEND:
 Δ = SEE LANDSCAPE PLANS FOR ADDITIONAL DETAILS



SECTION D-D

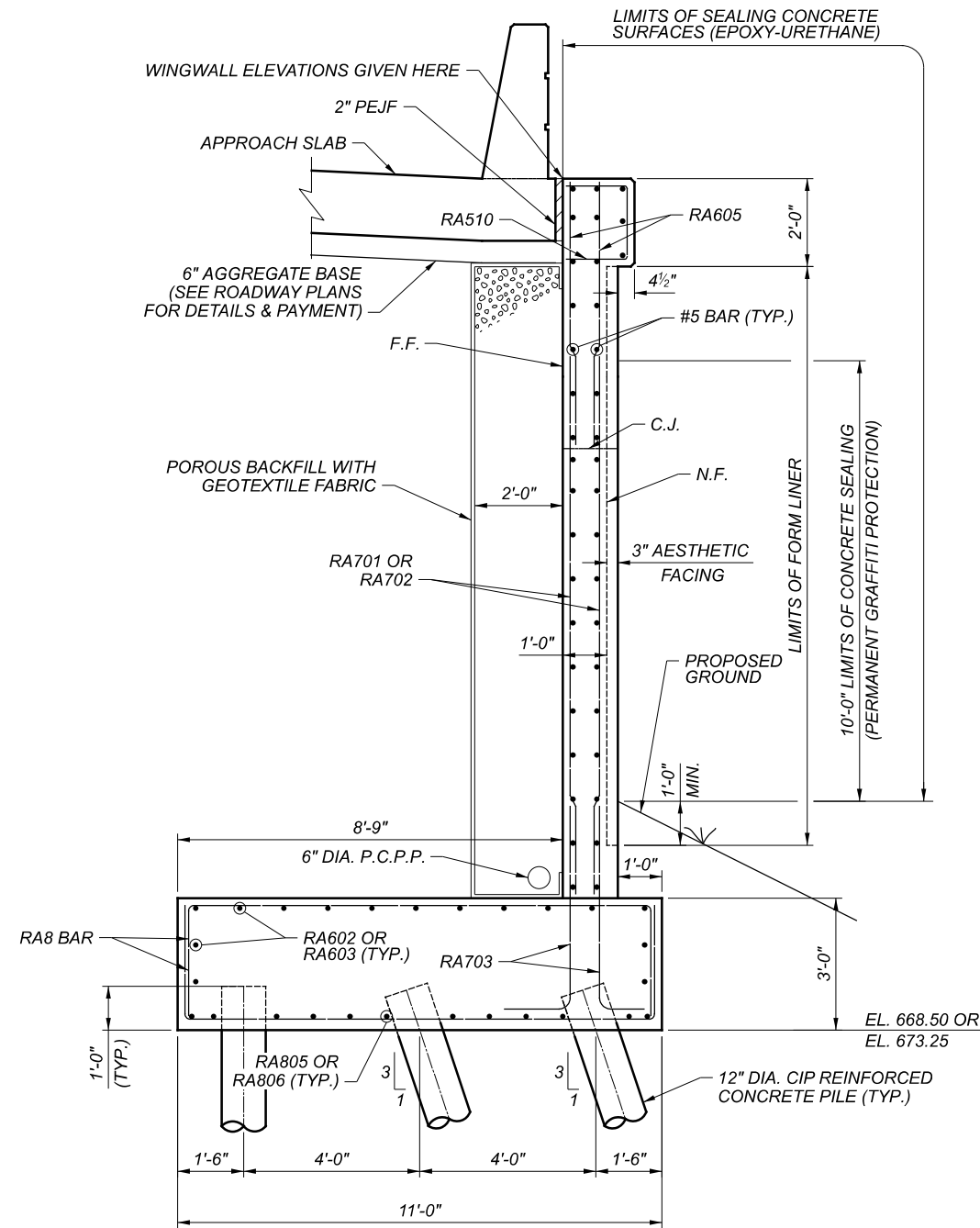


SECTION C-C

- NOTES:**
- SEE SHEET 16/47 FOR REAR ABUTMENT PLAN AND ELEVATION.
 - SEE SHEET 19/47 FOR SECTION B-B.
 - MINIMUM REINFORCING LAP LENGTHS:
 #5 = 2'-5"
 #7 = 4'-2"
 #9 = 5'-10"
 - SEE STANDARD BRIDGE DRAWING SICD-1-21 FOR ADDITIONAL DETAILS.

REAR ABUTMENT WINGWALL DETAILS - 1
 CUY-90-1653L (BRIDGE 10)
 I.R. 90 WB OVER CR-721 (E. 14TH ST.)

SFN	1807901
DESIGN AGENCY	BURGESS & NIPLE 100 WEST BIRCH STREET PAINESVILLE, OHIO 44077
DESIGNER	MAB
CHECKER	BCS
REVIEWER	DWL
DATE	06/21/22
PROJECT ID	82382
SUBSET	18
TOTAL	47
SHEET	1624
TOTAL	2339

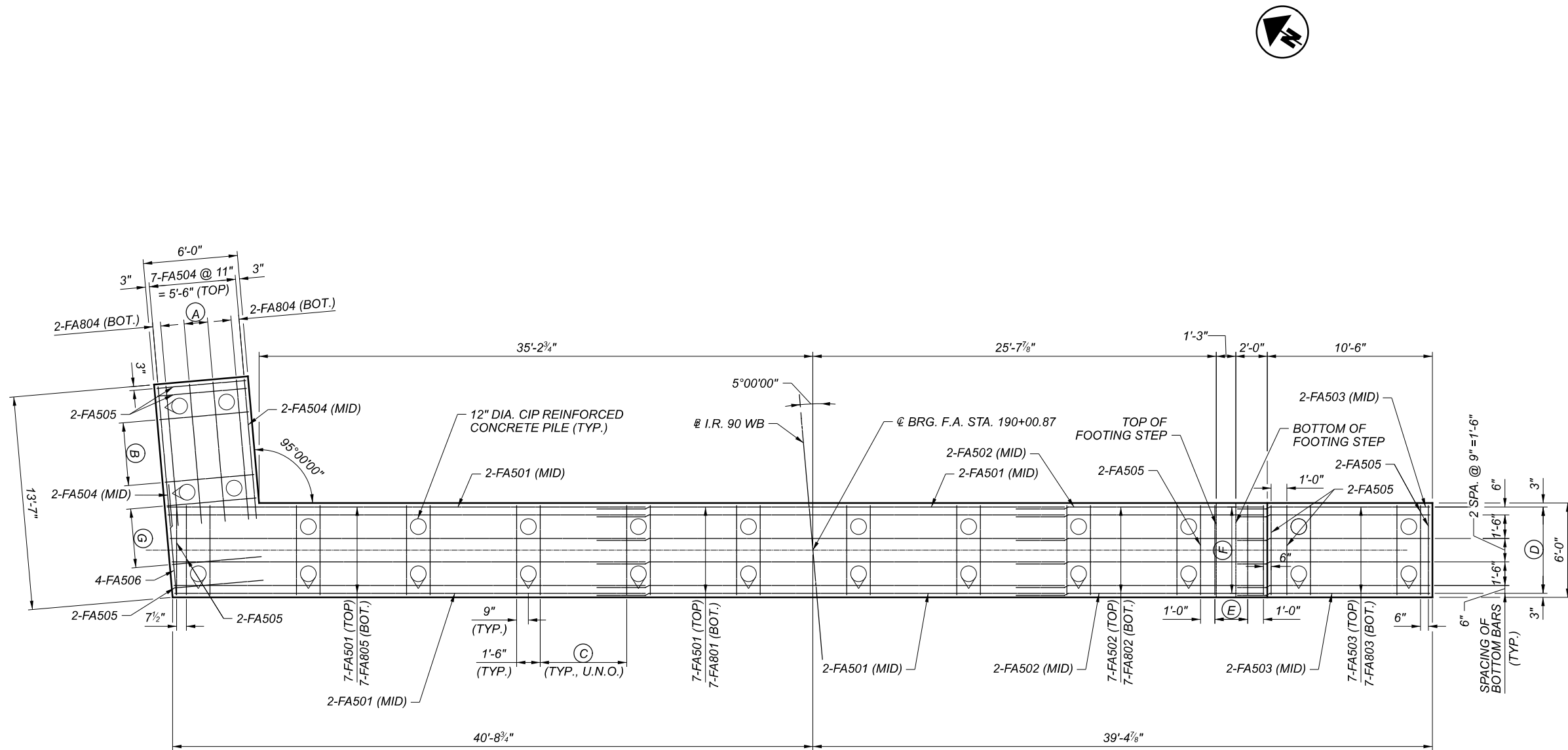


SECTION B-B

NOTES:

- SEE SHEET 18/47 FOR LOCATION OF SECTION B-B.
- TURN GEOTEXTILE FABRIC UP 6" AT BASE OF WALL AND DOWN 6" AT TOP OF WALL.

SFN	
1807901	
DESIGN AGENCY	
BURGESS & NIPLE 100 WEST ERIE STREET PAINESVILLE, OHIO 44077	
DESIGNER	CHECKER
MAB	BCS
REVIEWER	
DWL 06/21/22	
PROJECT ID	
82382	
SUBSET	TOTAL
19	47
SHEET	TOTAL
1625	2339



FORWARD ABUTMENT FOOTING PLAN

LEGEND:

- (A) = 3-FA804 (BOT.) @ 9" = 1'-6"
- (B) = 5 SETS OF 2-FA505 @ 1'-0" = 4'-0"
- (C) = 7 SETS OF 2-FA505 @ 11" = 5'-6"
- (D) = 6 SPACES @ 11" = 5'-6" (TYP. TOP BAR SPACING)
- (E) = 1 S.O. 3-FA506 (T&B) @ 1'-0" = 2'-0"
- (F) = 7-FA806 (BOT.)
- (G) = 5 SETS OF 2-FA505 @ 11" = 3'-8"

NOTES:

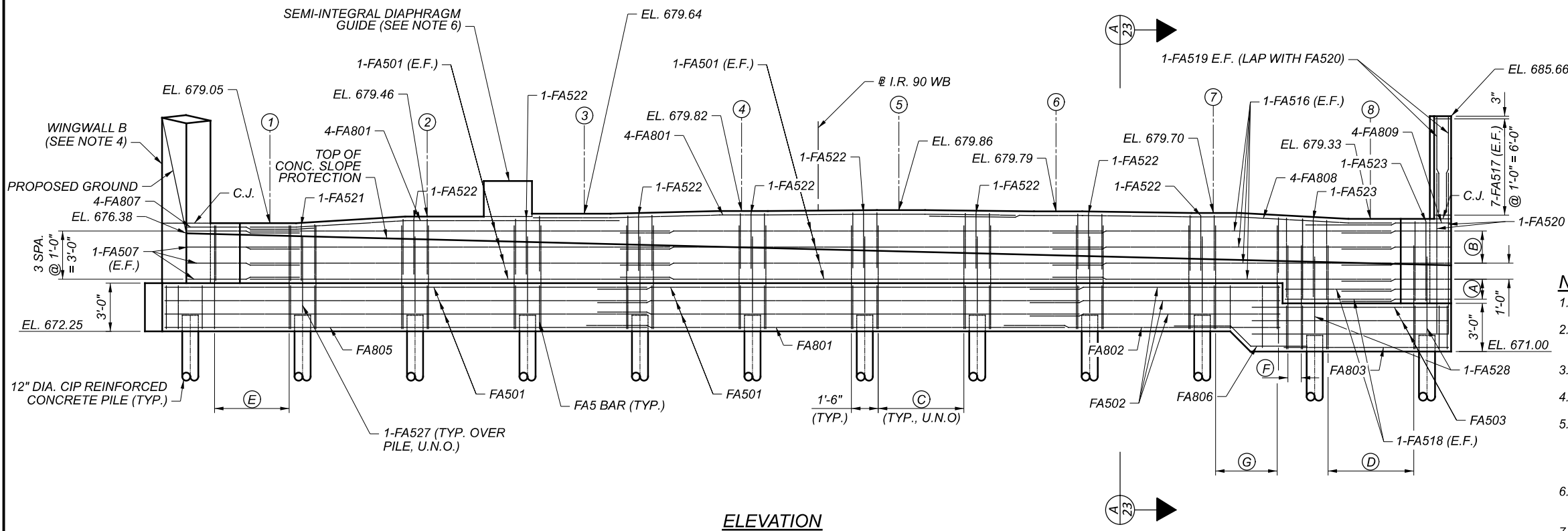
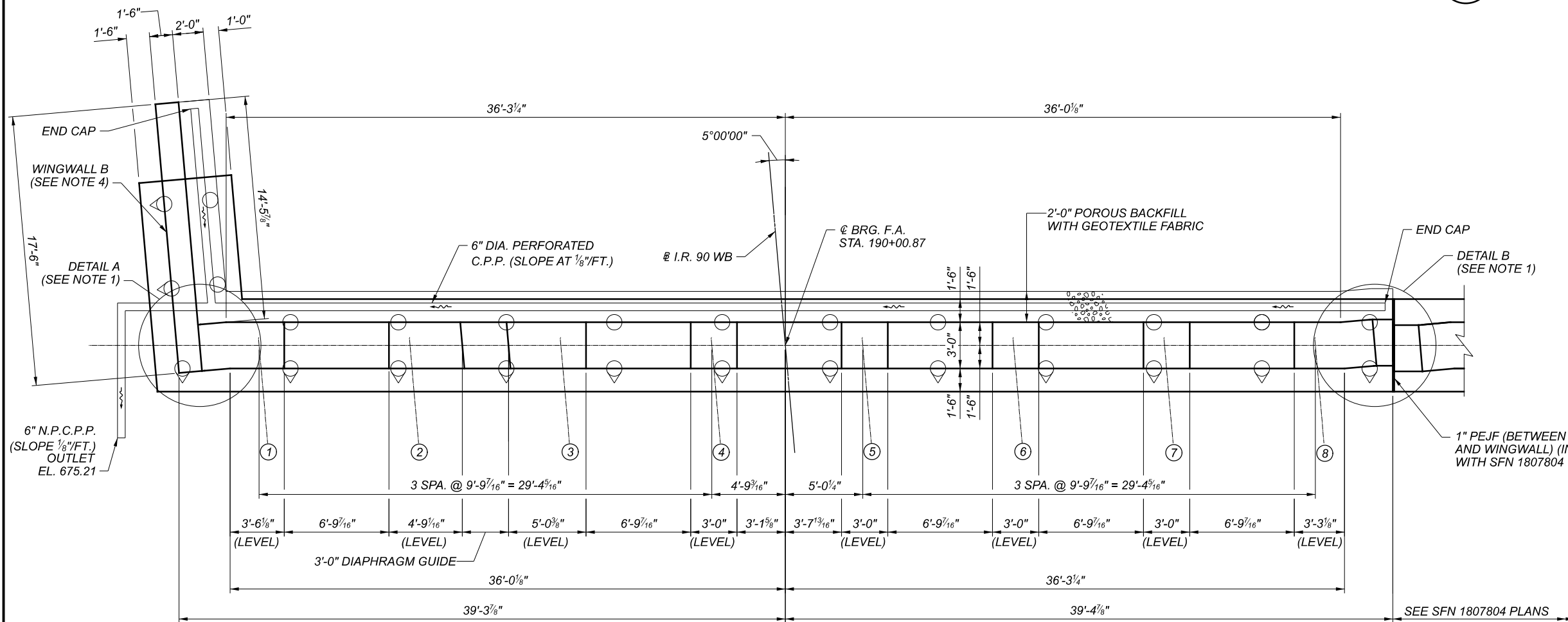
1. SEE SHEET 14/47 FOR FOUNDATION LAYOUT.
2. SEE SHEET 21/47 FOR FORWARD ABUTMENT PLAN AND ELEVATION.
3. MINIMUM REINFORCING LAP LENGTHS:
 #5 VERTICAL = 2'-5"
 #5 HORIZONTAL = 3'-1"
 #8 = 3'-9"

FORWARD ABUTMENT FOOTING PLAN
 CUY-90-1653L (BRIDGE 10)
 I.R. 90 WB OVER CR-721 (E. 14TH ST.)

SFN	1807901
DESIGN AGENCY	
BURGESS & NIPLE 100 WEST EIRE STREET PAINESVILLE, OHIO 44077	
DESIGNER	CHECKER
MAB	BCS
REVIEWER	
DWL	06/21/22
PROJECT ID	82382
SUBSET	TOTAL
20	47
SHEET	TOTAL
1626	2339

CUY-90-16.28 (CCG3A)

MODEL: Sheet PAPER: 17x11 (in.) DATE: 6/22/2022 TIME: 9:45:19 PM USER: Gregory.Hentler
 p:\mb-us-pw-bentley.com\us-pw-03\Documents\Cleveland_OH\01_Projects\ODOT\Dist12\28232400-Engineering\Structures\SFN_1807901_SFN_001.dgn

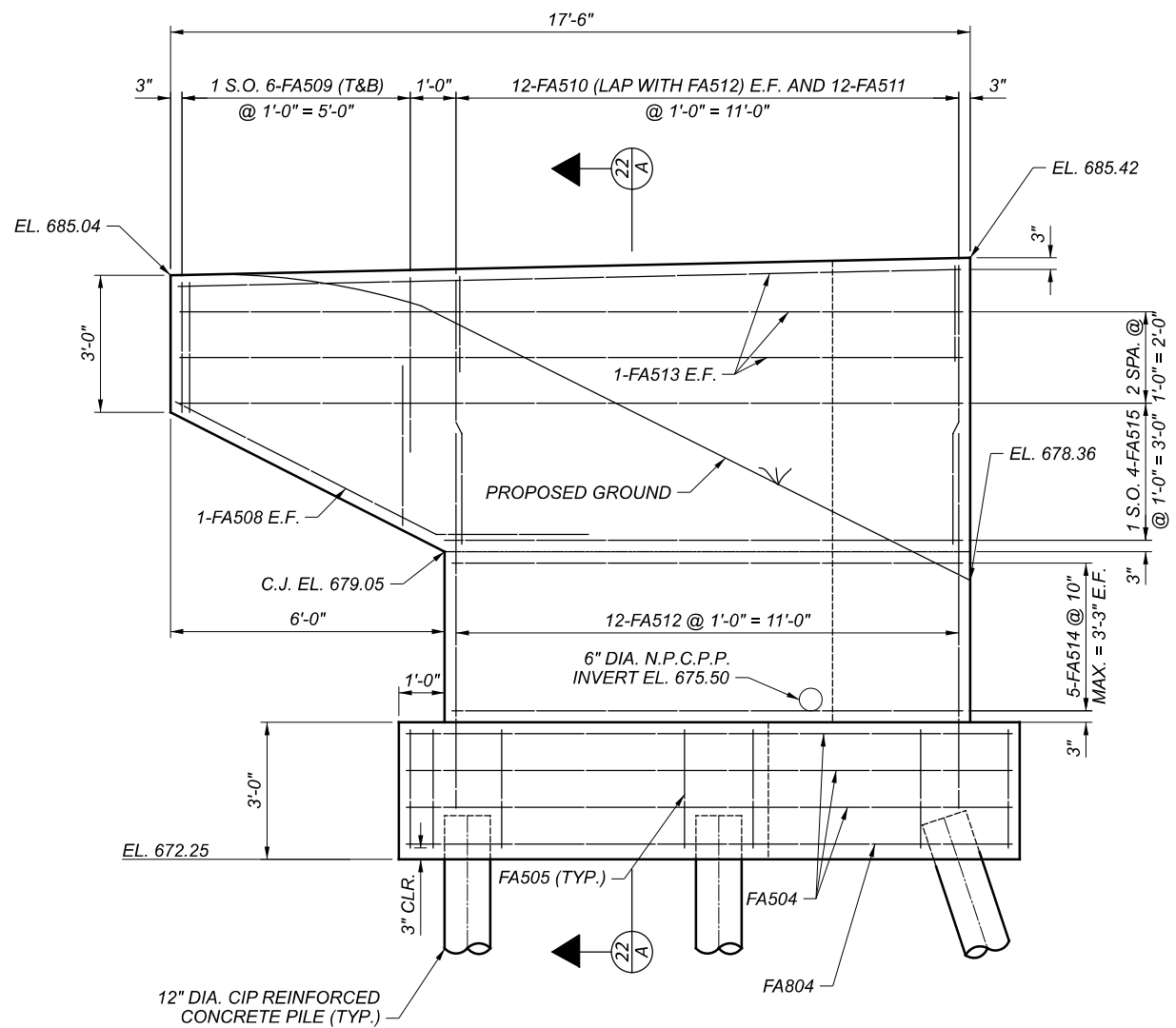


- LEGEND:**
- (A) = 3-FA523 (E.F.) @ 7 1/2" = 1'-3"
 - (B) = 3-FA523 (E.F.) @ 1'-0" = 2'-0"
 - (C) = 7-FA524 & 7-FA525 @ 11" = 5'-6"
 - (D) = 7-FA524 & 7-FA526 @ 11" = 5'-6"
 - (E) = 6-FA524 & 6-FA525 @ 1'-0" MAX. = 4'-6"
 - (F) = 2-FA524 & 2-FA526 @ 1'-0" = 1'-0"
 - (G) = 5-FA524 & 1 S.O. 5-FA529 @ 1'-0" = 4'-0"
 - (#) = GIRDER DESIGNATION

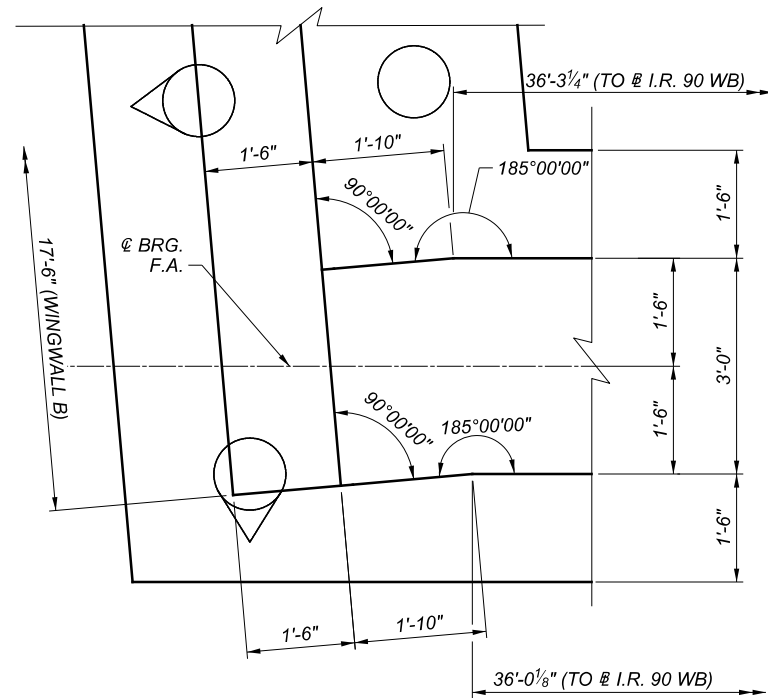
- NOTES:**
1. SEE SHEET 22/47 FOR DETAILS A AND B.
 2. SEE SHEET 20/47 FOR FORWARD ABUTMENT FOOTING PLAN.
 3. SEE SHEET 23/47 FOR SECTION A-A.
 4. SEE SHEET 22/47 FOR WINGWALL B DETAILS.
 5. MINIMUM REINFORCING LAP LENGTHS:
 #5 VERTICAL = 2'-5"
 #5 HORIZONTAL = 3'-1"
 #8 = 5'-4"
 6. SEE STANDARD BRIDGE DRAWING SICD-2-14 FOR ADDITIONAL DETAILS.
 7. SEE STANDARD BRIDGE DRAWING SICD-1-21 FOR ADDITIONAL DETAILS.

FORWARD ABUTMENT PLAN AND ELEVATION
 CUY-90-1653L (BRIDGE 10)
 I.R. 90 WB OVER CR-721 (E. 14TH ST.)

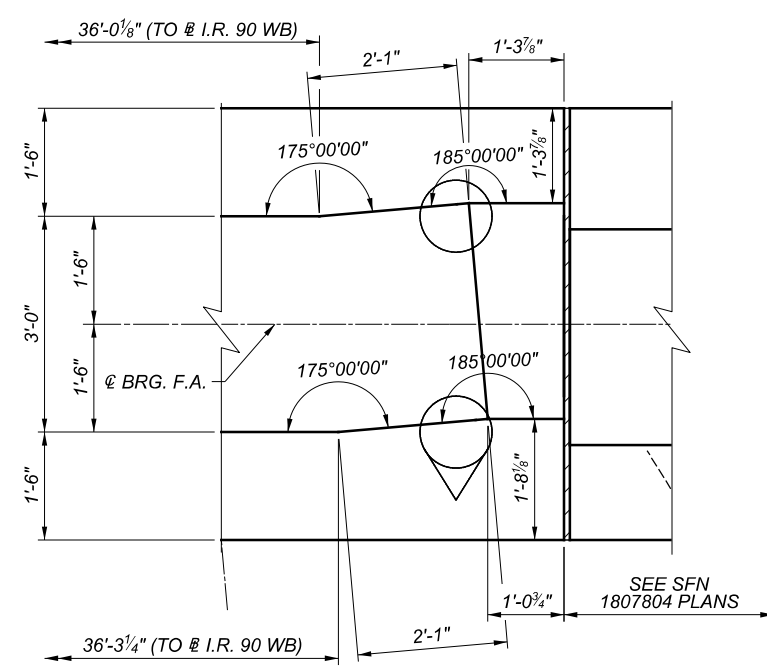
SFN	1807901
DESIGN AGENCY	BURGESS & NIPLE 100 WEST ONE STREET PAINESVILLE, OHIO 44077
DESIGNER	MAB
CHECKER	BCS
REVIEWER	DWL
PROJECT ID	82382
SUBSET	21
TOTAL	47
SHEET	1627
TOTAL	2339



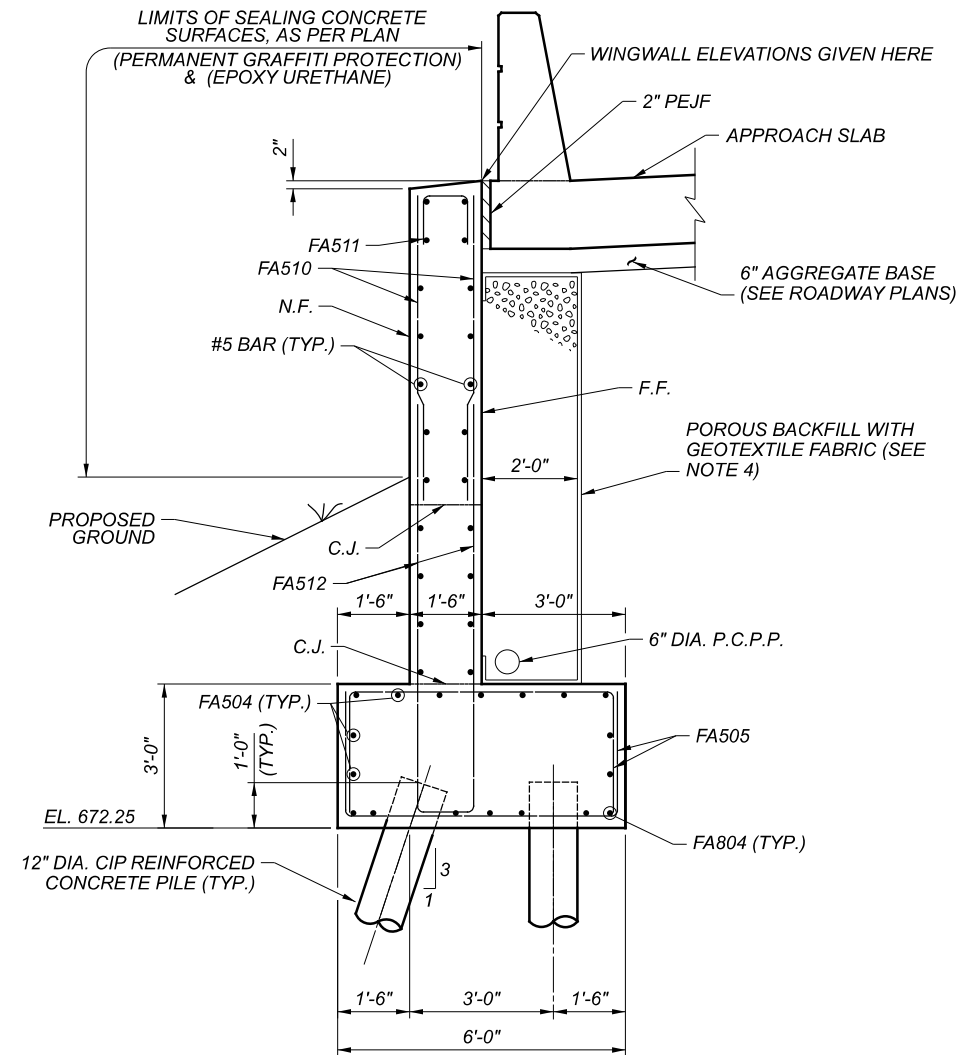
WINGWALL B ELEVATION



DETAIL A
 (REINFORCING NOT SHOWN)



DETAIL B
 (REINFORCING NOT SHOWN)



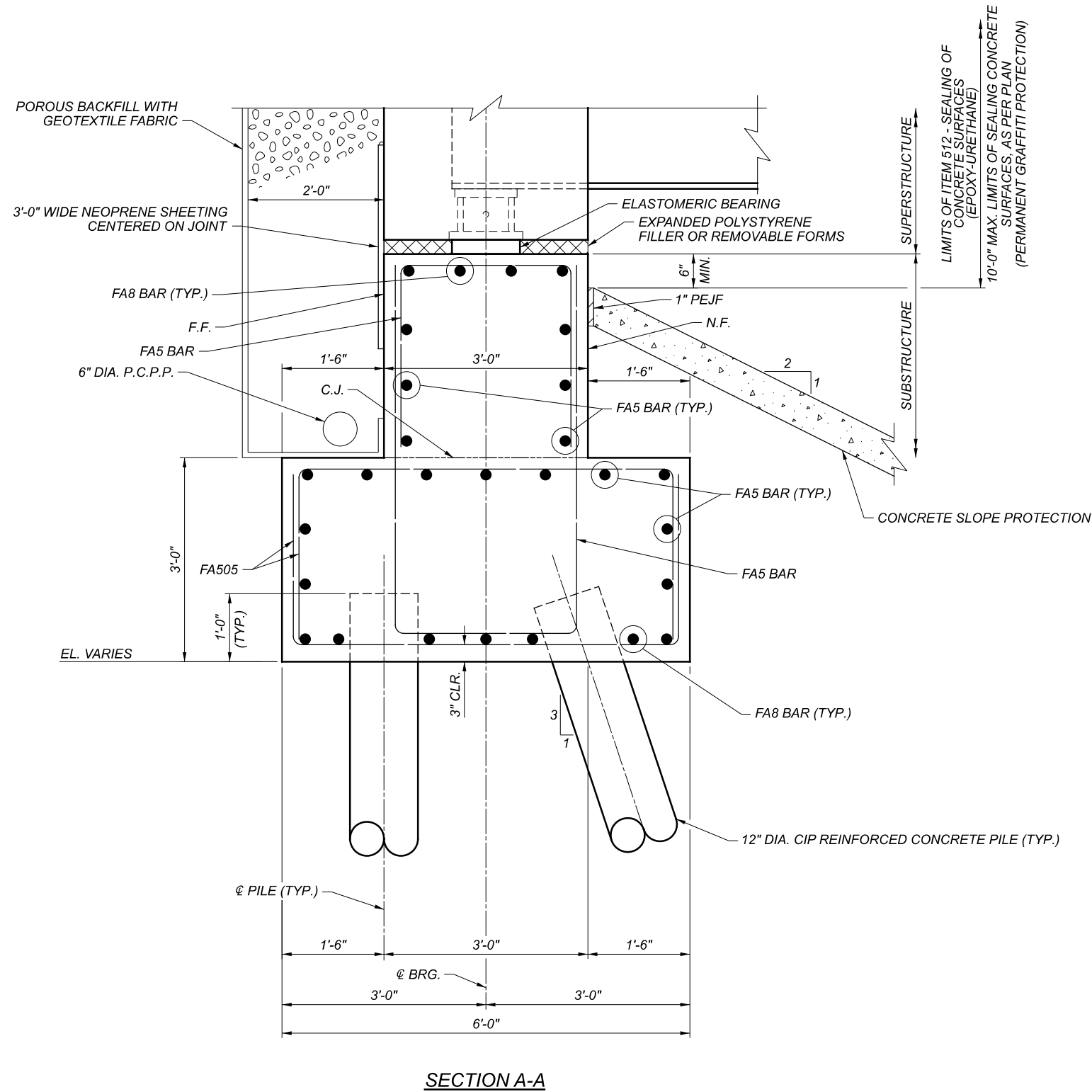
SECTION A-A

(LIGHTWEIGHT GEOFOAM BLOCKS NOT SHOWN)

NOTES:

- SEE SHEET 21/47 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.

SFN	1807901
DESIGN AGENCY	BURGESS & NIPLE 100 WEST ERIE STREET PAINESVILLE, OHIO 44077
DESIGNER	MAB
CHECKER	BCS
REVIEWER	DWL
PROJECT ID	82382
SUBSET	22
TOTAL	47
SHEET	1628
TOTAL	2339

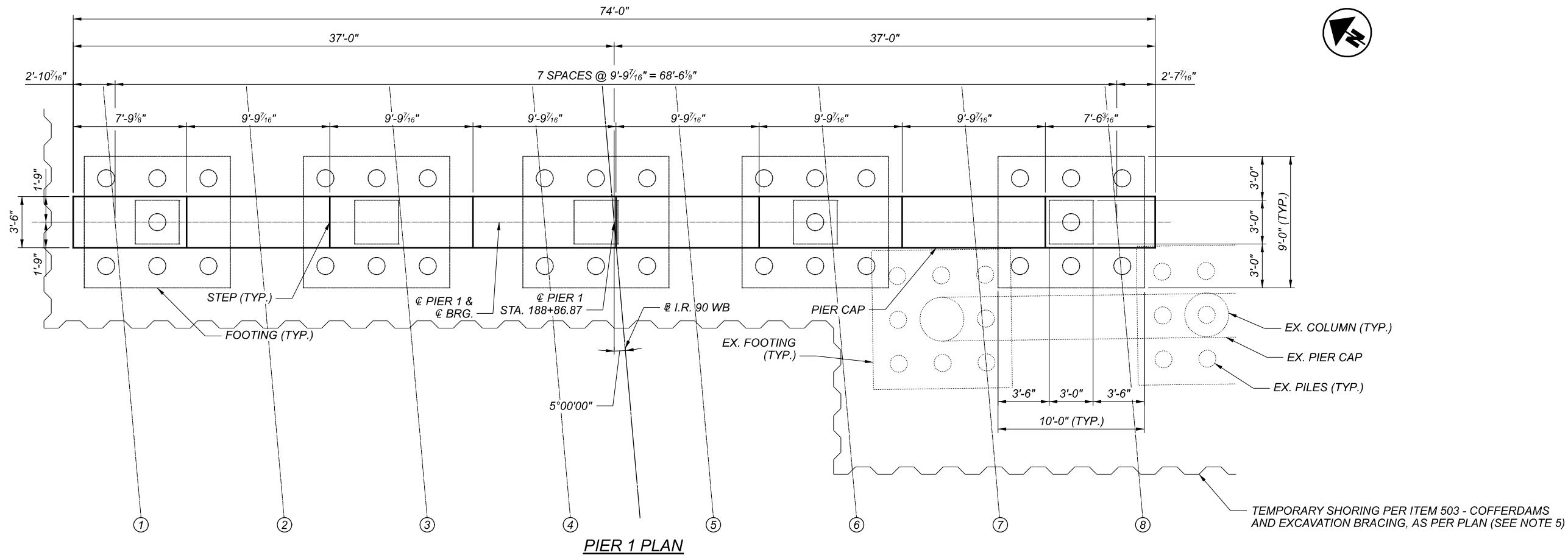


NOTES:

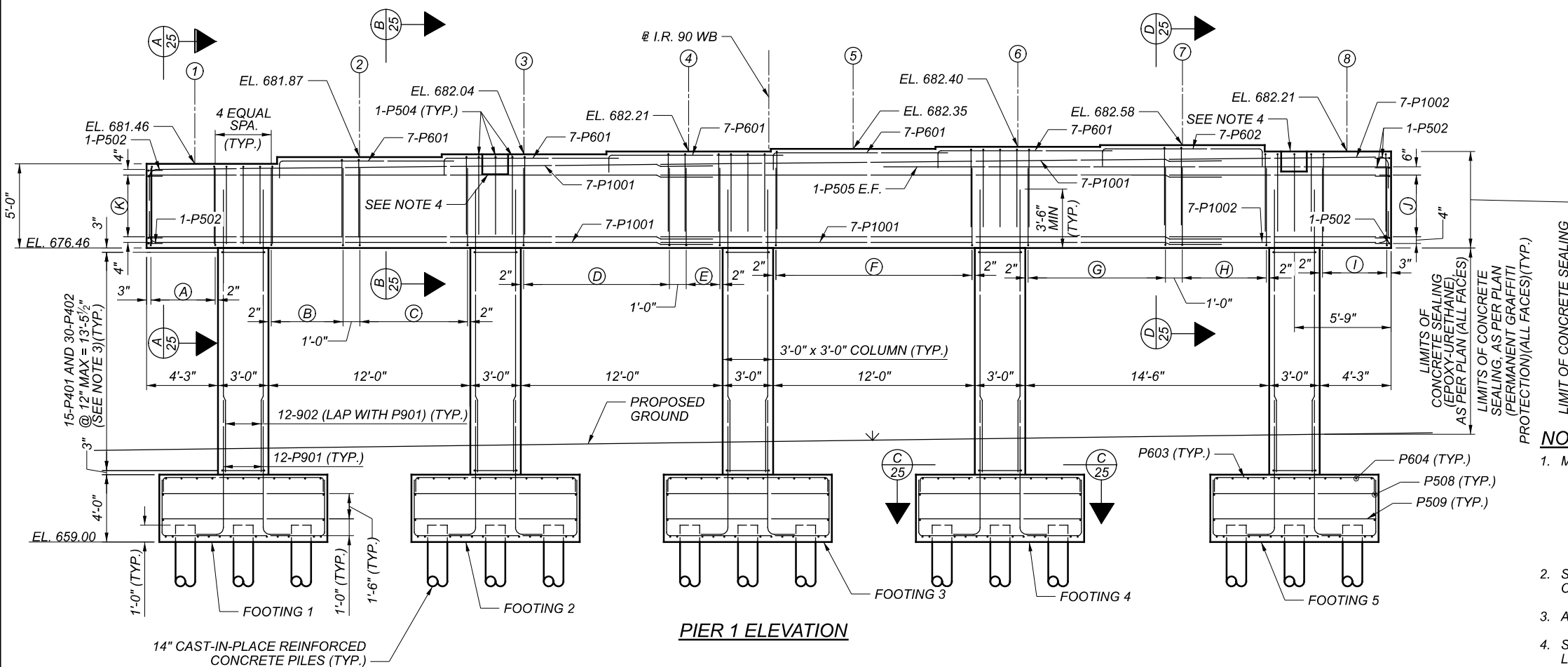
1. SEE SHEET 21/47 FOR LOCATION OF SECTION A-A.

FORWARD ABUTMENT DETAILS
 CUY-90-1653L (BRIDGE 10)
 I.R. 90 WB OVER CR-721 (E. 14TH ST.)

SFN	1807901
DESIGN AGENCY	
BURGESS & NIPLE 100 WEST FIRE STREET PAINESVILLE, OHIO 44077	
DESIGNER	CHECKER
MAB	BCS
REVIEWER	
DWL 06/21/22	
PROJECT ID	
82382	
SUBSET	TOTAL
23	47
SHEET	TOTAL
1629	2339



PIER 1 PLAN



PIER 1 ELEVATION

LEGEND:

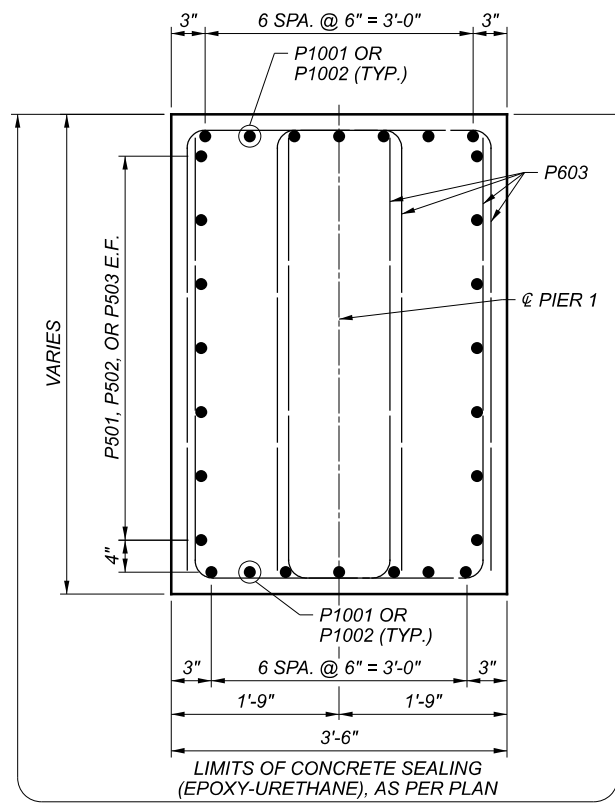
- (#) = GIRDER NUMBER
- (A) = 13 SETS OF 4-P601 @ 4" = 3'-10"
- (B) = 6 SETS OF 4-P601 @ 11" = 4'-3"
- (C) = 10 SETS OF 2-P601 @ 9" = 6'-5"
- (D) = 22 SETS OF 4-P601 @ 5" = 8'-8"
- (E) = 5 SETS OF 4-P601 @ 6" = 2'-0"
- (F) = 17 SETS OF 4-P601 @ 9" = 11'-8"
- (G) = 9 SETS OF 4-P601 @ 12" = 8'-2"
- (H) = 10 SETS OF 4-P601 @ 7" = 5'-0"
- (I) = 11 SETS OF 4-P601 @ 5" = 3'-10"
- (J) = 7-P503 E.F. (LAP WITH P501) AND 7-P502 (LAP WITH P503) @ 8" = 3'-8"
- (K) = 7-P501 E.F. (2 LENGTHS) AND 7-P502 (LAP WITH P501) @ 8" = 3'-8"

NOTES:

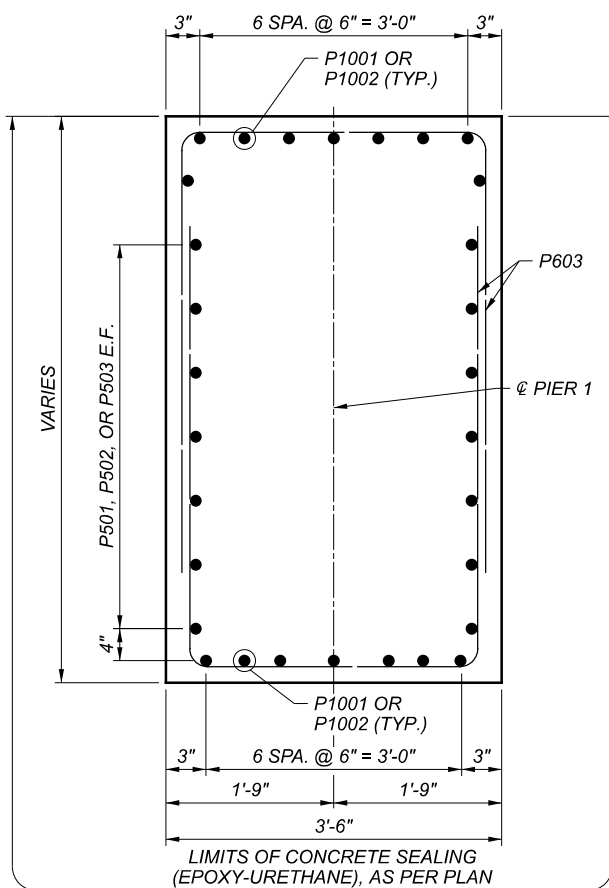
1. MINIMUM LAP LENGTHS:
 #5 = 3'-1"
 #6 = 3'-7"
 #7 = 3'-4"
 #8 = 5'-8"
 #9 = 4'-3"
 #10 = 7'-4"
2. SEE SHEET 25/47 FOR PIER 1 FOOTING DETAILS, SECTIONS A-A, B-B, C-C, AND D-D.
3. ALTERNATE HOOKED END OF P402 BAR AT EACH LEVEL.
4. SEE LIGHTING PLANS FOR LOCATION AND DETAILS FOR PROPOSED LIGHTING ATTACHED TO STRUCTURE.
5. SEE SHEET 25/\$10TOR FOR PIER TEMPORARY SHORING DETAILS.

PIER 1 PLAN AND ELEVATION
 CUY-90-1653L (BRIDGE 10)
 I.R. 90 WB OVER CR-721 (E. 14TH ST.)

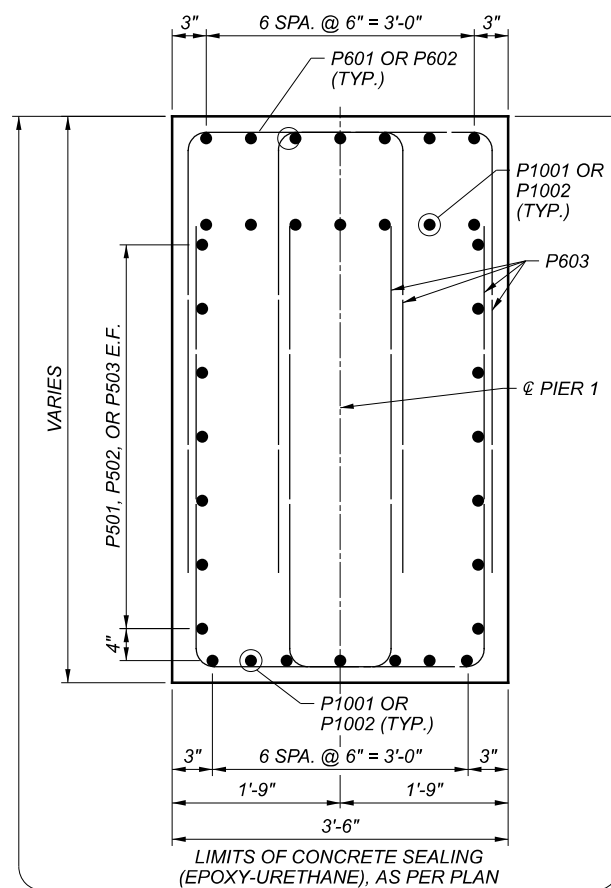
SFN	1807901
DESIGN AGENCY	
BURGESS & NIPLE 100 WEST ERIE STREET, PAINESVILLE, OHIO 44077	
DESIGNER/CHECKER	DBH/JAA
REVIEWER	DWL
PROJECT ID	82382
SUBSET	24
TOTAL	47
SHEET	1630
TOTAL	2339



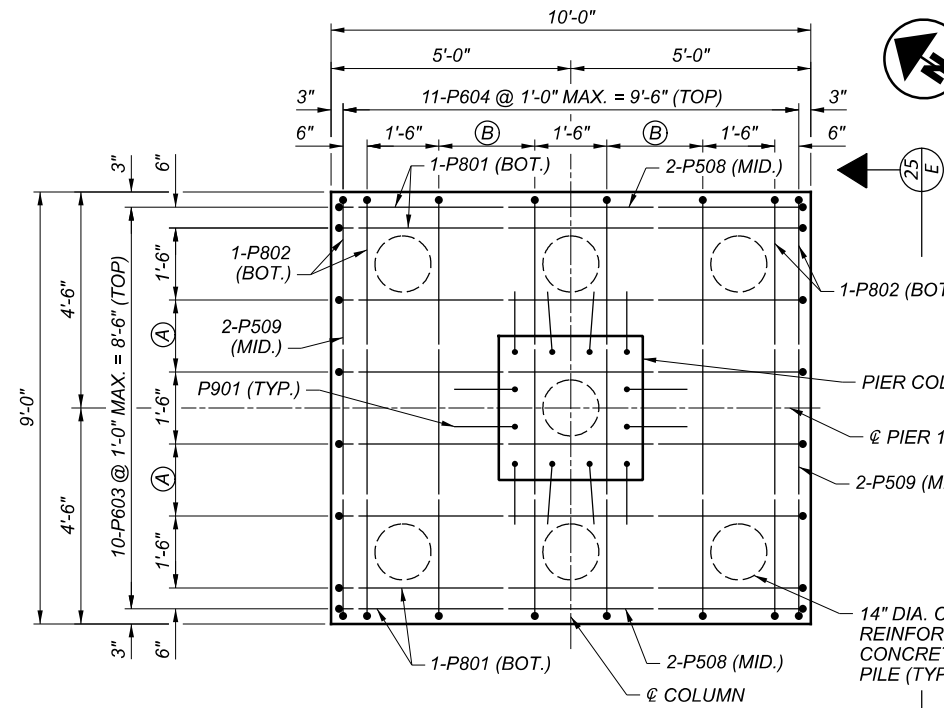
SECTION A-A



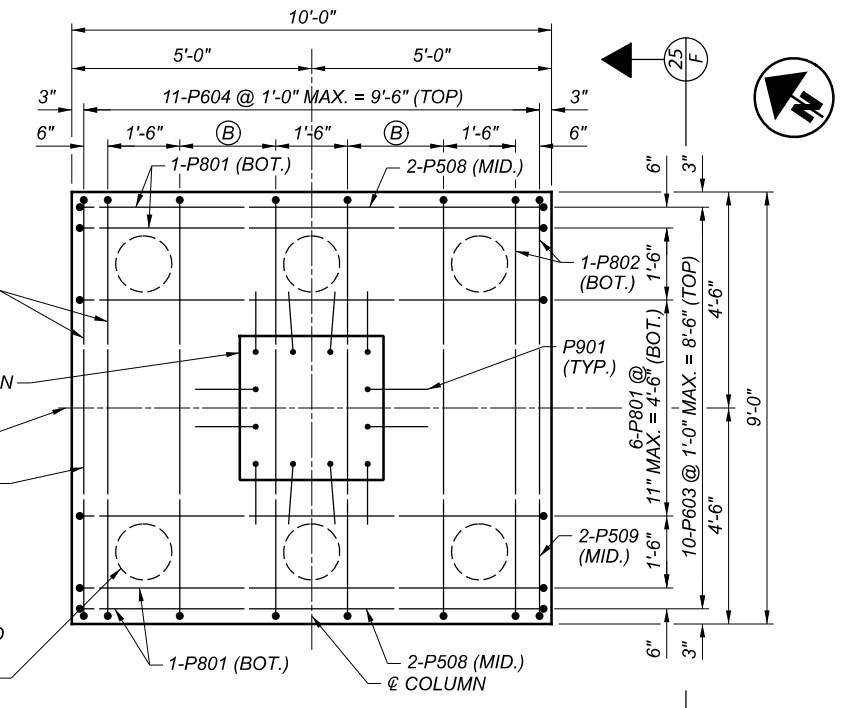
SECTION B-B



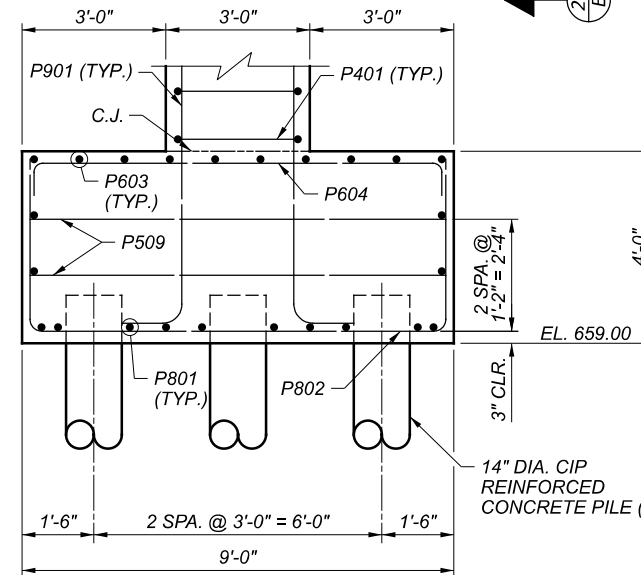
SECTION D-D



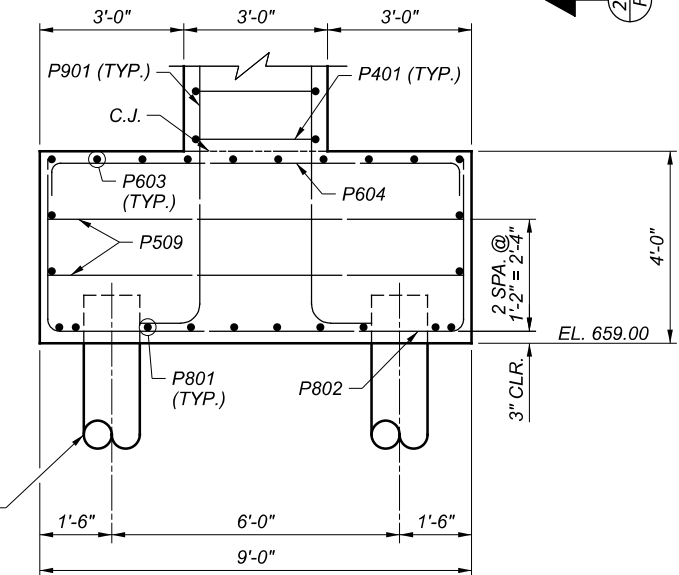
FOOTING 1 PLAN
(FOOTINGS 4 AND 5 SIMILAR)



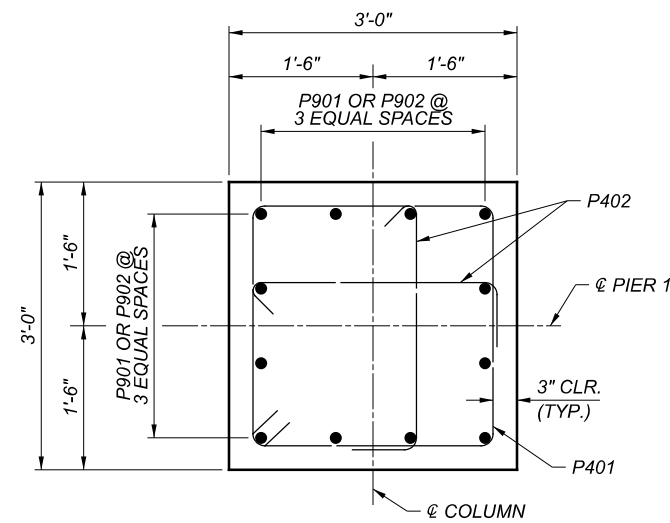
FOOTING 2 PLAN
(FOOTING 3 SIMILAR)



VIEW E-E



VIEW F-F



SECTION C-C

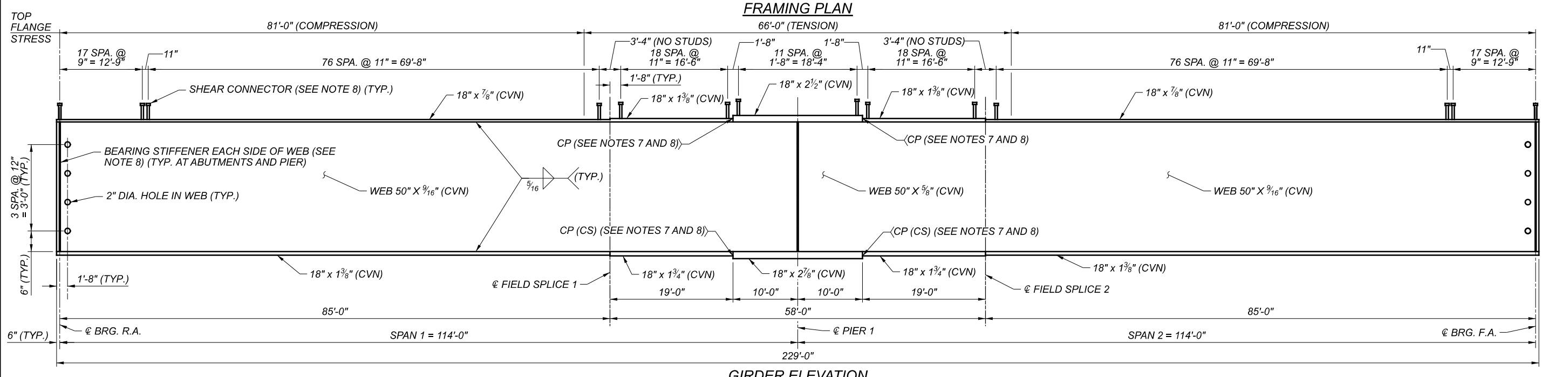
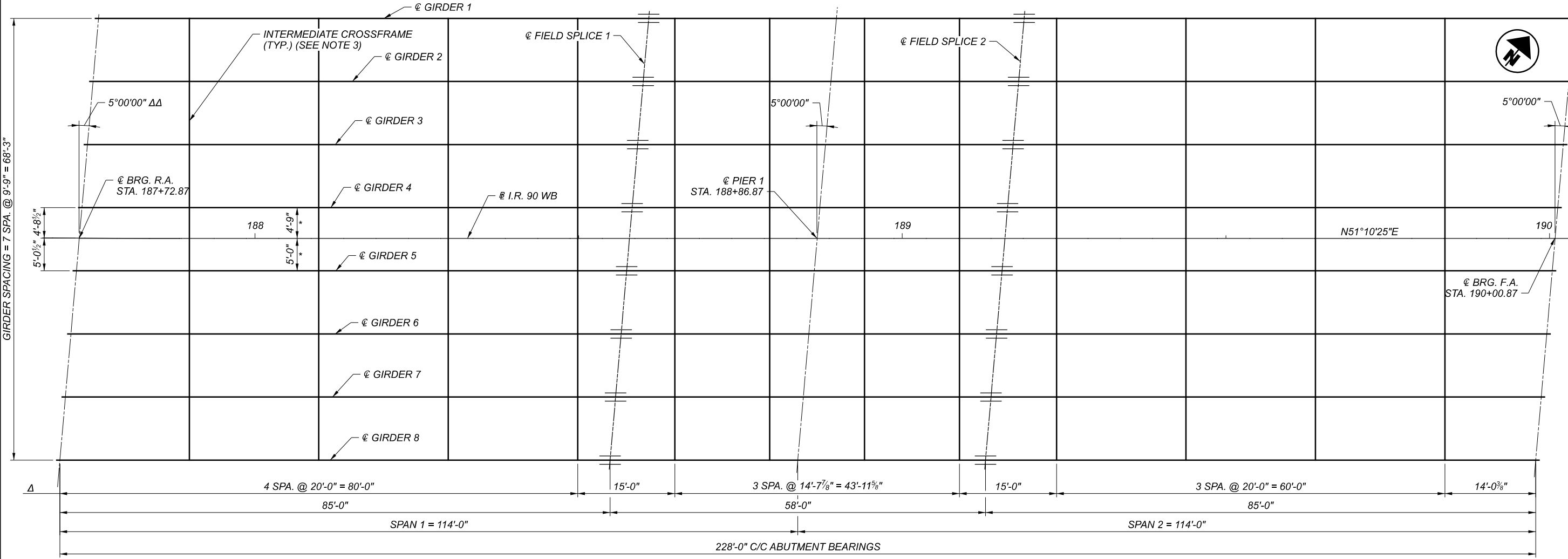
LEGEND:

- (A) = 3-P801 @ 9" = 1'-6" (BOT.)
- (B) = 4-P802 @ 8" = 2'-0" (BOT.)

NOTES:

1. SEE SHEET 24/47 FOR ADDITIONAL DETAILS AND LOCATIONS OF SECTIONS A-A, B-B, C-C, AND D-D.

SFN	1807901
DESIGN AGENCY	BURGESS & NIPLE 100 WEST FIRE STREET PAINESVILLE, OHIO 44077
DESIGNER/CHECKER	DBH/JAA
REVIEWER	DWL 6/22/2022
PROJECT ID	82382
SUBSET	25
TOTAL	47
SHEET	1631
TOTAL	2339



LEGEND:

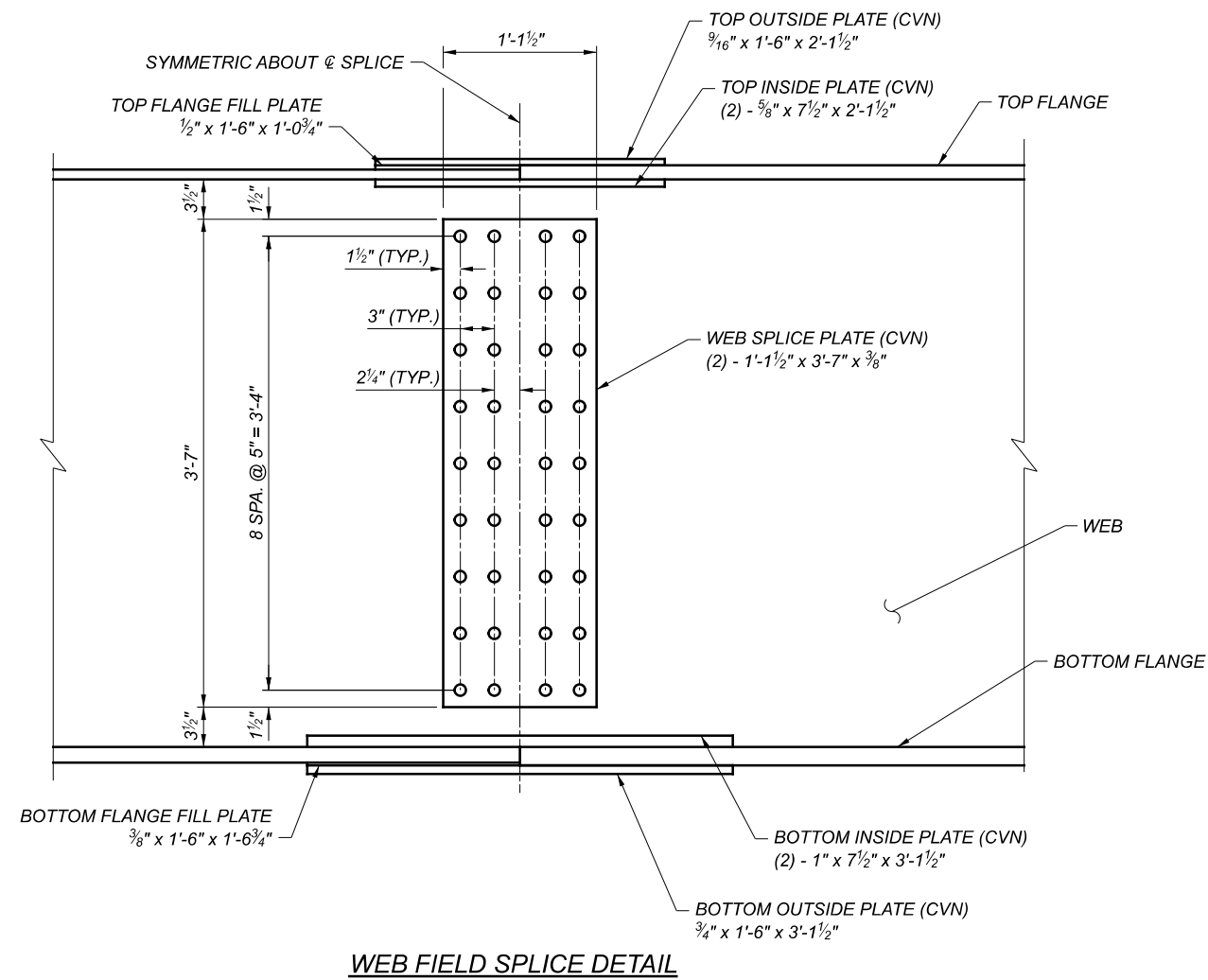
Δ = INTERMEDIATE CROSSFRAME SPACING MEASURED ALONG @ GIRDER 8.
 ΔΔ = MEASURED FROM REFERENCE LINE
 * = @ STA. 187+88.40
 CP = COMPLETE JOINT PENETRATION WELD
 CS = WELD SUBJECT TO COMPRESSIVE STRESS ONLY.

NOTES:

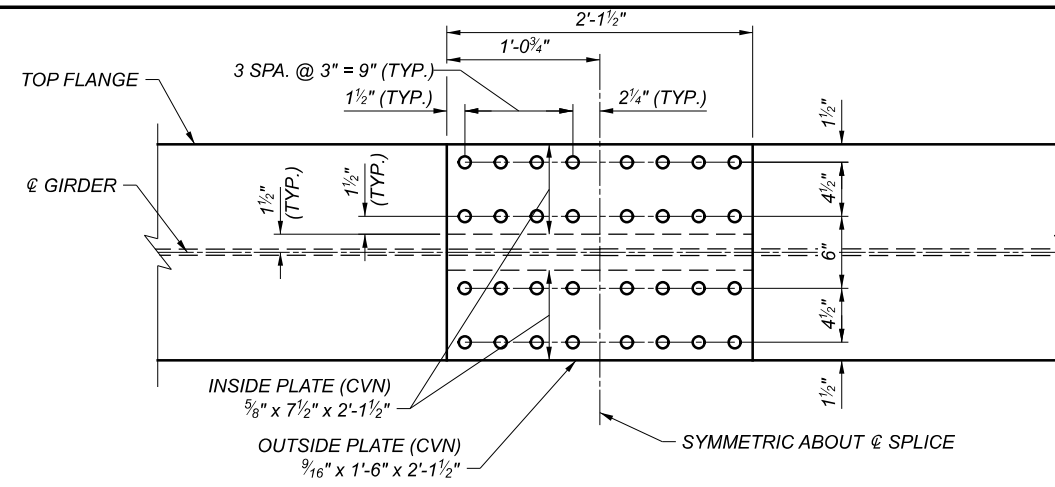
- WHERE A SHAPE IS DESIGNATED (CVN), FURNISH MATERIAL THAT MEETS MINIMUM NOTCH TOUGHNESS REQUIREMENTS AS SPECIFIED IN CMS 711.01.
- WELD ATTACHMENT OF SUPPORTS FOR CONCRETE DECK FINISHING MACHINE TO AREAS OF THE FASCIA GIRDER FLANGES DESIGNATED "COMPRESSION". DO NOT WELD ATTACHMENTS TO AREAS DESIGNATED "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 ALABASTER 7008 (SHERWIN WILLIAMS).
- COMPLETE JOINT PENETRATION WELDS SHALL BE GROUND SMOOTH IN THE LONGITUDINAL DIRECTION TO REMOVE WELD REINFORCEMENT.
- SEE SHEET 27/47 FOR ADDITIONAL GIRDER DETAILS.
- ADJUST SHEAR CONNECTOR SPACING LOCALLY AS REQUIRED TO CLEAR FLANGE SHOP SPLICE.

FRAMING PLAN AND GIRDER ELEVATION
 CUY-90-1653L (BRIDGE 10)
 I.R. 90 WB OVER CR-721 (E. 14TH ST.)

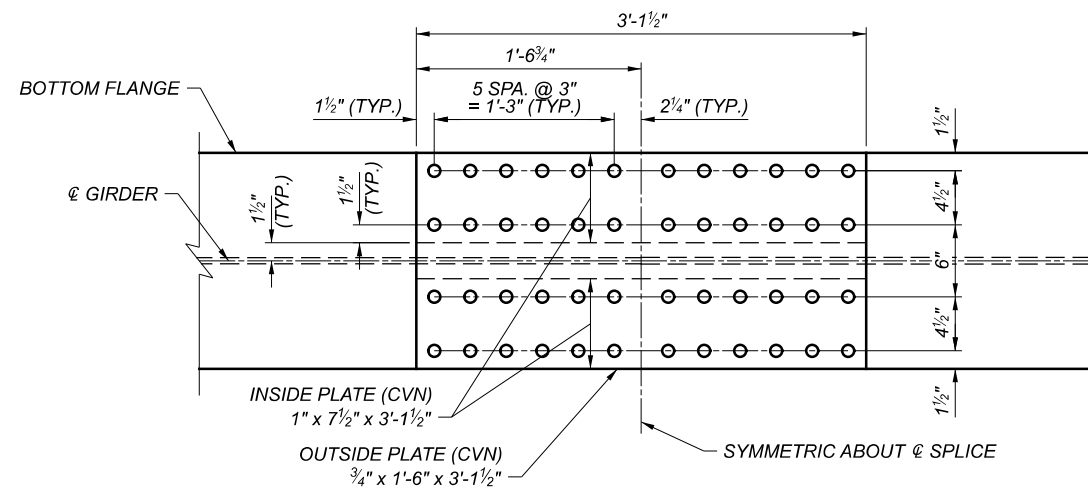
SFN	1807901
DESIGN AGENCY	
BURGESS & NIPLE	
100 WEST FIRE STREET	
PAINEVILLE, OHIO 44077	
DESIGNER	CHECKER
MAB	BCS
REVIEWER	
DWL	05/24/22
PROJECT ID	82382
SUBSET	TOTAL
26	47
SHEET	TOTAL
1632	2339



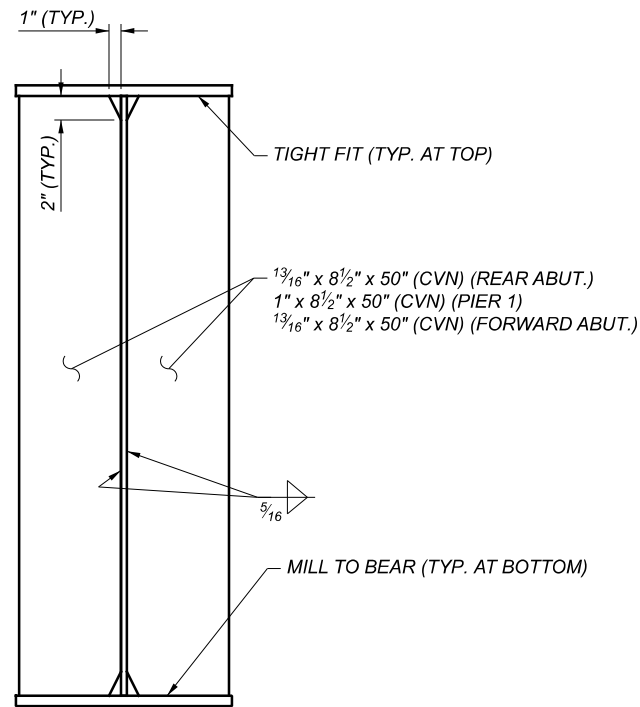
WEB FIELD SPLICE DETAIL



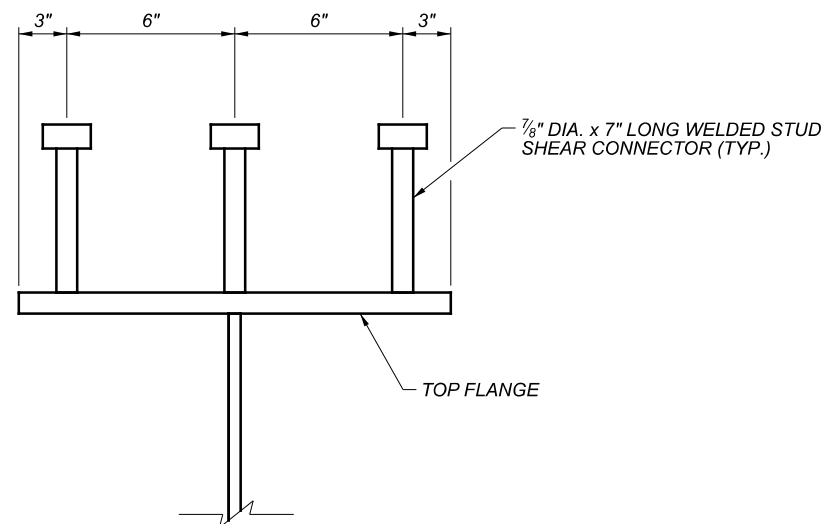
TOP FLANGE FIELD SPLICE DETAIL



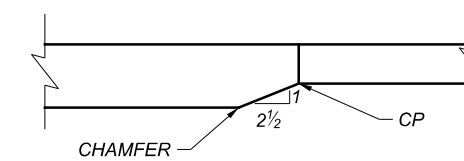
BOTTOM FLANGE FIELD SPLICE DETAIL



BEARING STIFFENER DETAIL



SHEAR CONNECTOR DETAIL

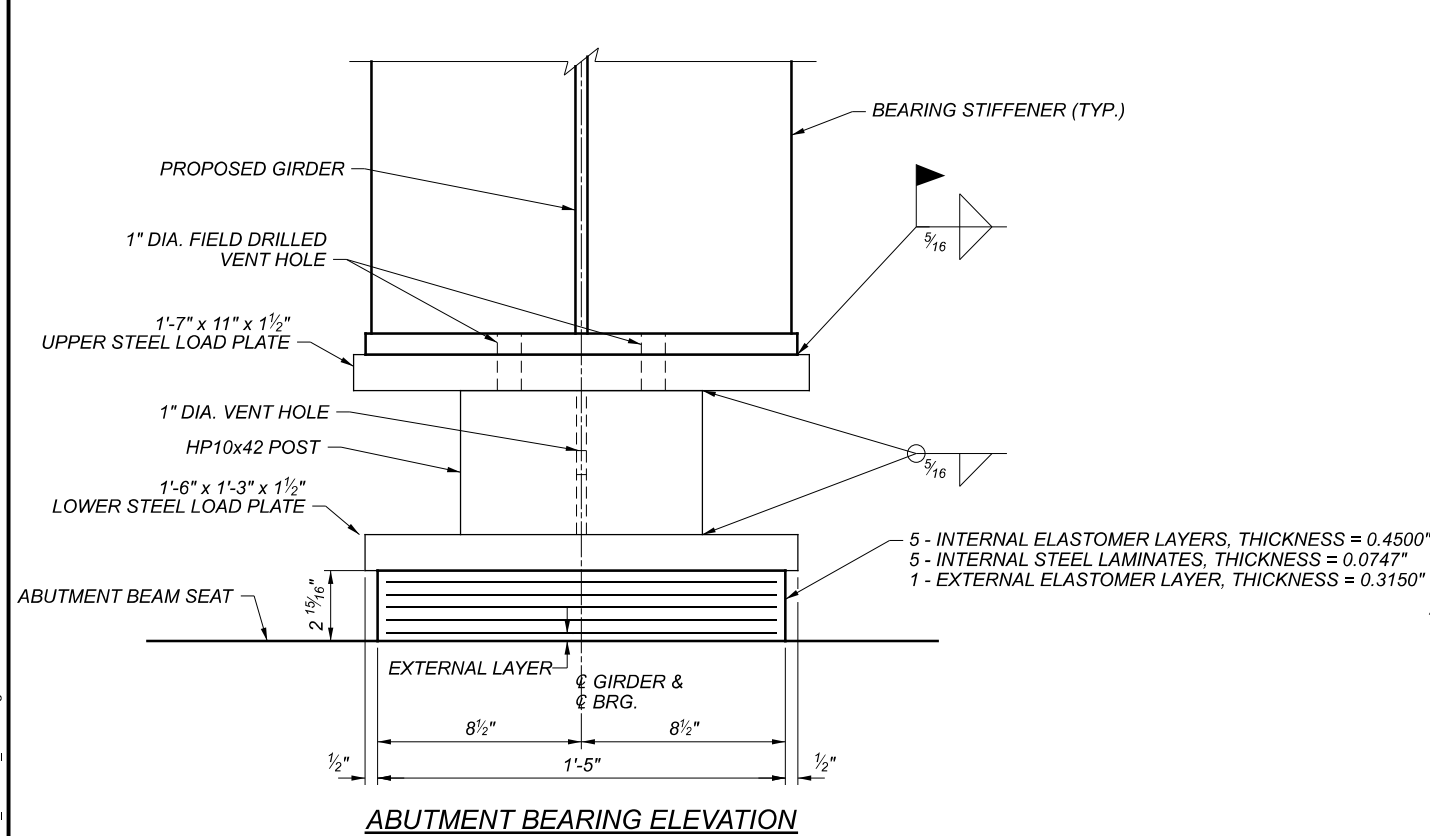


FLANGE SHOP SPLICE DETAIL
(BOTTOM FLANGE SHOWN, TOP FLANGE SIMILAR)

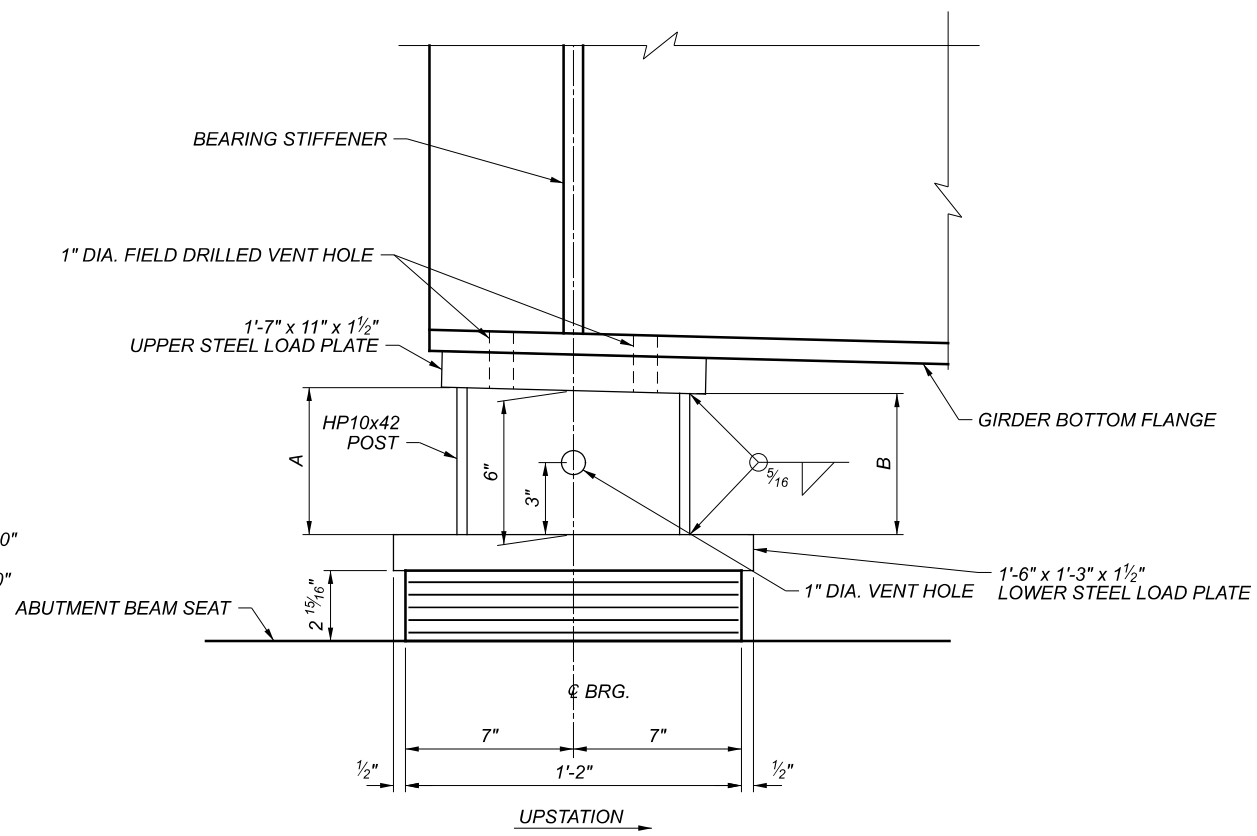
NOTES:

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.

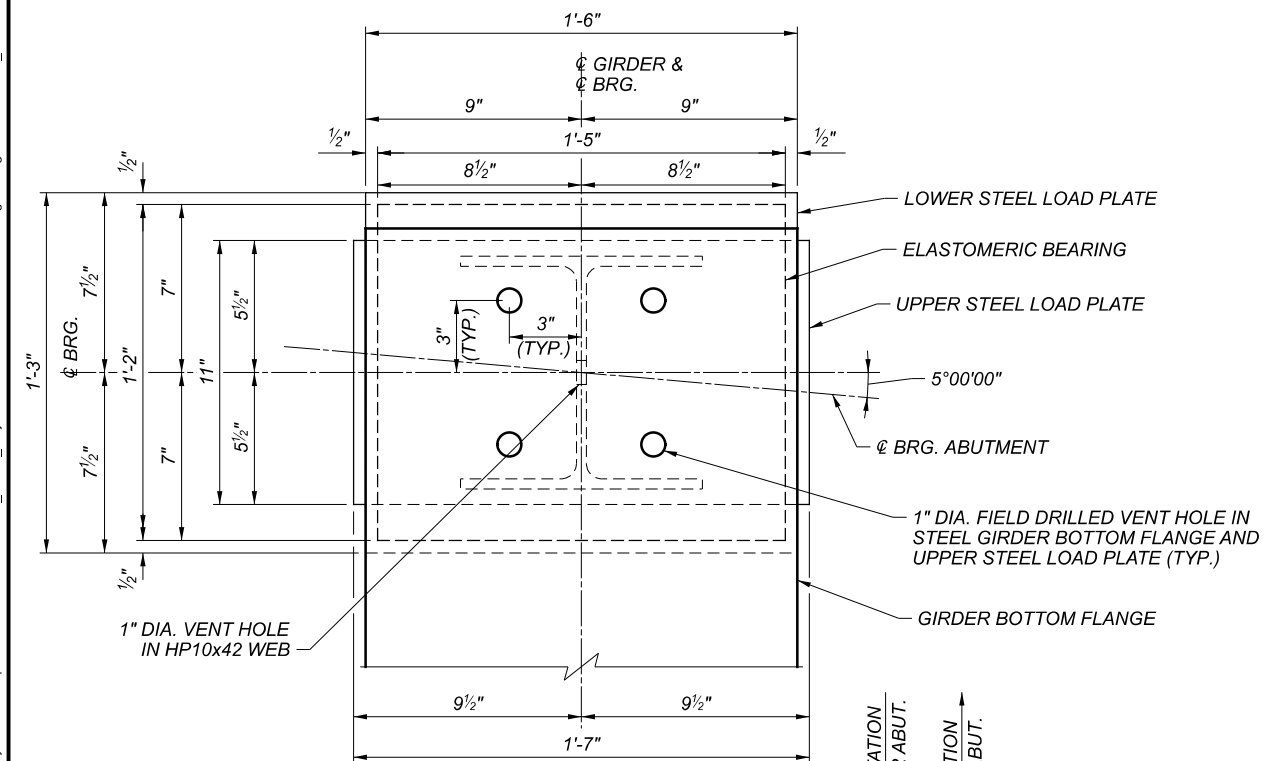
SFN	1807901
DESIGN AGENCY	BURGESS & NIPLE 100 WEST GIRE STREET PAINESVILLE, OHIO 44077
DESIGNER	MAB
CHECKER	BCS
REVIEWER	DWL
DATE	05/24/22
PROJECT ID	82382
SUBSET	27
TOTAL	47
SHEET	1633
TOTAL	2339



ABUTMENT BEARING ELEVATION



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



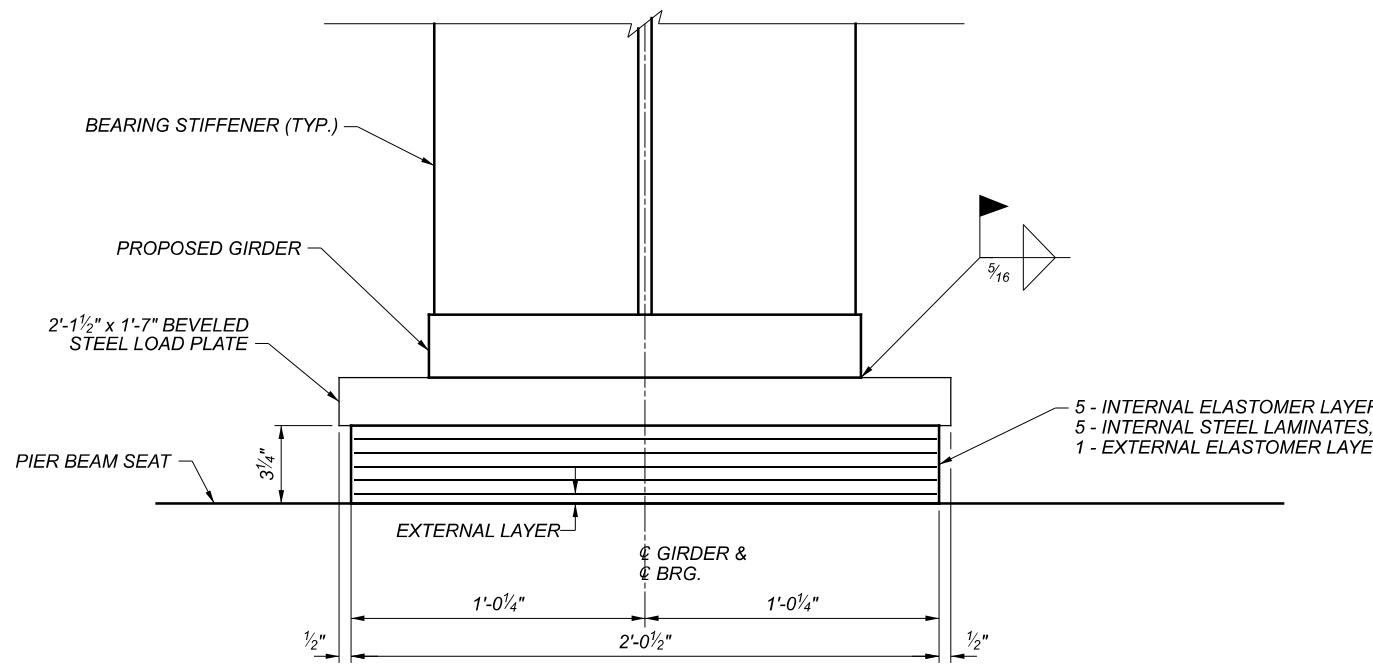
ABUTMENT BEARING PLAN
 (BEARING STIFFENER AND GIRDER WEB NOT SHOWN FOR CLARITY)

ELASTOMERIC BEARING DATA							
LOCATION	TYPE	NO. REQ'D.	REACTION (KIPS)		MAX DESIGN LOAD (KIPS)	A B	
			DL	LL**			
REAR ABUT.	EXP.	8	142	98	240	SEE TABLE	
FWD. ABUT.	EXP.	8	142	98	240	5 7/8"	6 1/8"

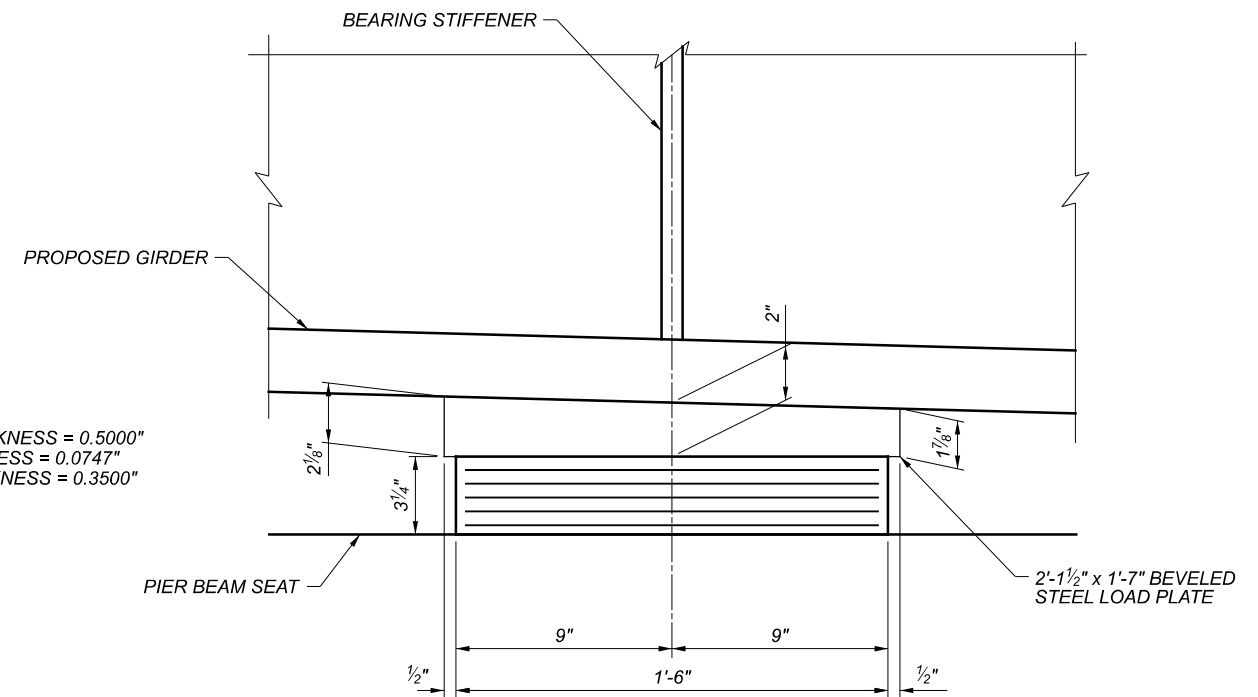
GIRDER #	A	B
G1 - G2	5 15/16"	6 1/16"
G3 - G8	6"	6"

LEGEND:
 ** = LIVE LOAD WITHOUT IMPACT

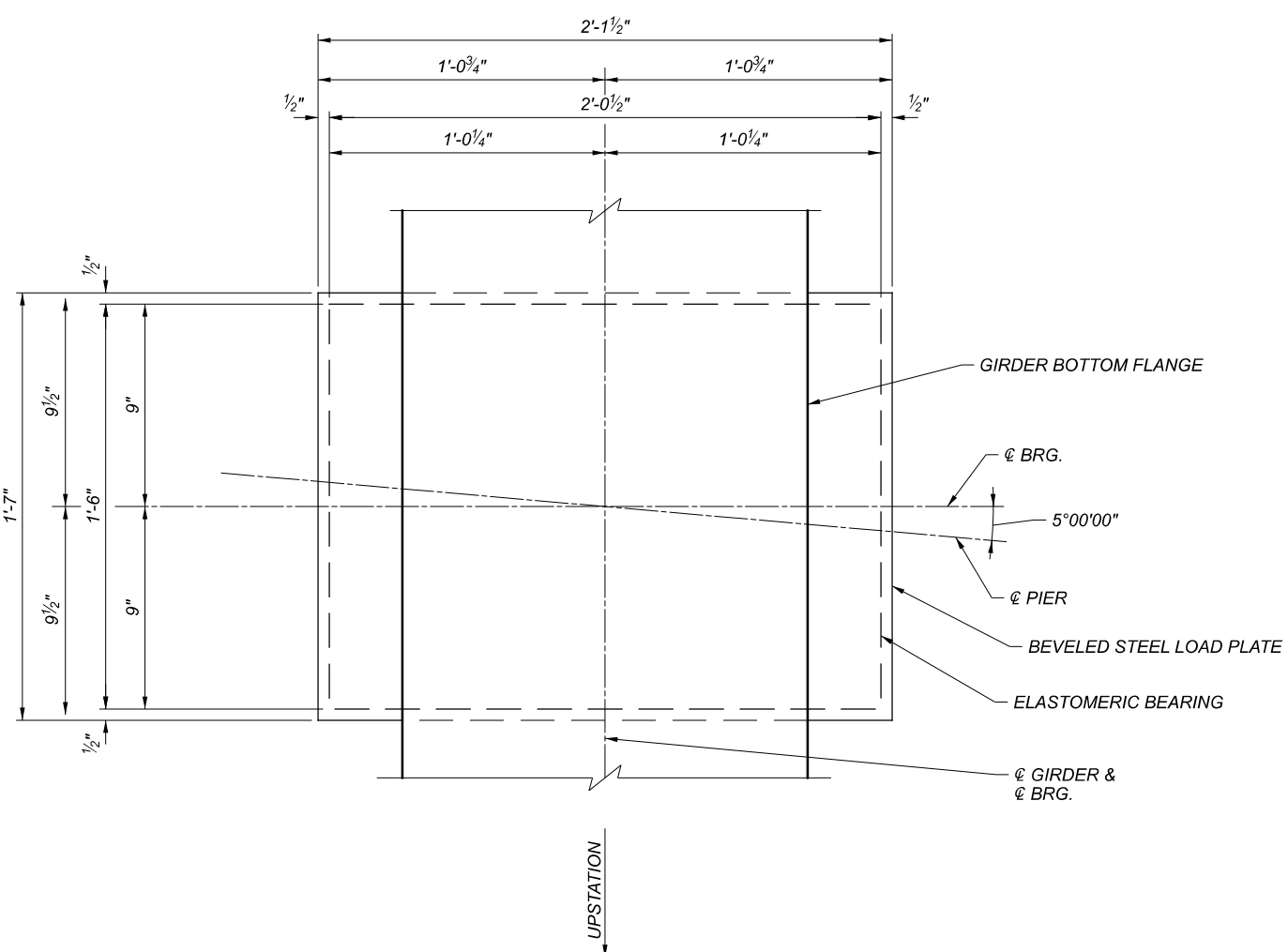
- NOTES:**
- PRIOR TO SHIPPING EACH BEARING ASSEMBLY SHALL BE SHOP MARKED WITH THE FOLLOWING INFORMATION: TOP, UPSTATION DIRECTION, LOCATION, AND GIRDER NUMBER. ALL MARKS SHALL BE PERMANENT AND BE VISIBLE AFTER THE BEARING IS INSTALLED.
 - UPPER AND LOWER STEEL LOAD PLATES AND HP POSTS SHALL BE ASTM 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.



PIER BEARING ELEVATION



UPSTATION
PIER BEARING SIDE ELEVATION



PIER BEARING PLAN

(BEARING STIFFENER AND GIRDER WEB NOT SHOWN FOR CLARITY)

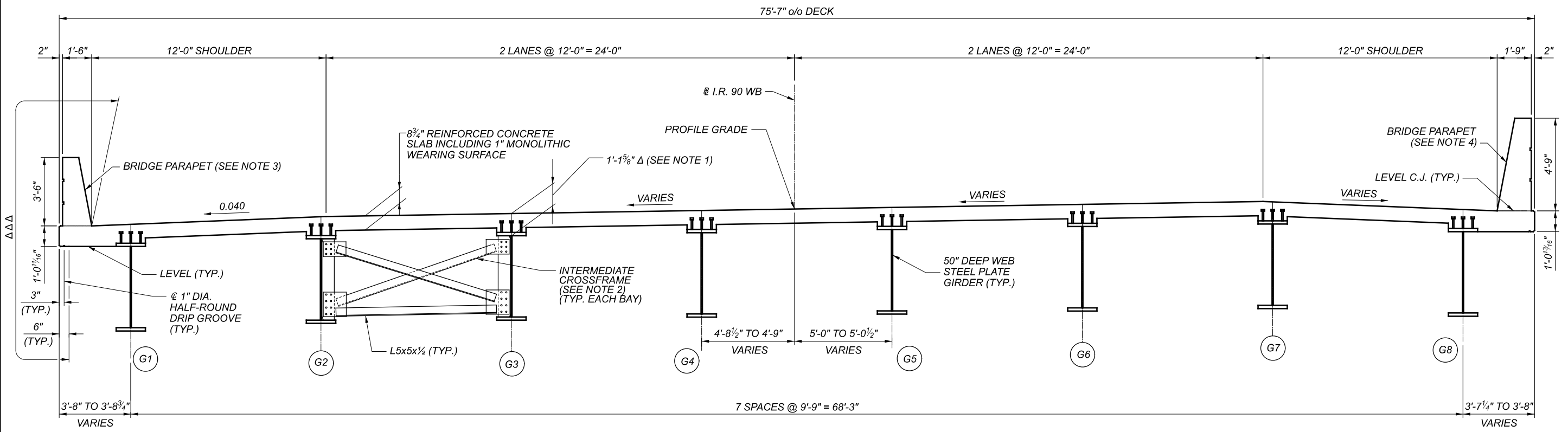
ELASTOMERIC BEARING DATA					
LOCATION	TYPE	NO. REQ'D.	REACTION (KIPS)		MAX DESIGN LOAD (KIPS)
			DL	LL**	
PIER 1	EXP.	8	375	184	559

LEGEND:
 ** = LIVE LOAD WITHOUT IMPACT

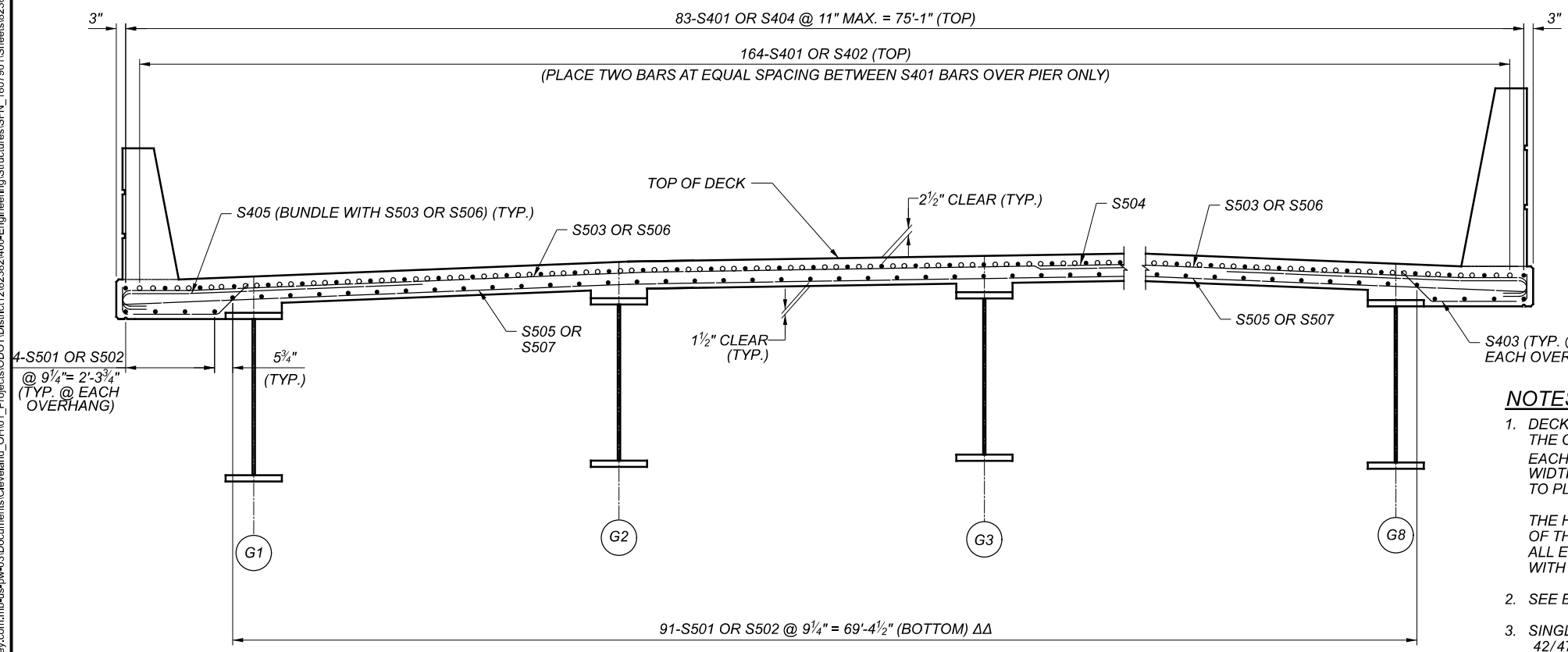
- NOTES:**
- PRIOR TO SHIPPING EACH BEARING ASSEMBLY SHALL BE SHOP MARKED WITH THE FOLLOWING INFORMATION: TOP, UPSTATION DIRECTION, LOCATION, AND GIRDER NUMBER. ALL MARKS SHALL BE PERMANENT AND BE VISIBLE AFTER THE BEARING IS INSTALLED.
 - STEEL LOAD PLATES SHALL BE ASTM A709 GRADE 50 STEEL. THE STEEL 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.

SFN	1807901
DESIGN AGENCY	
DESIGNER	CHECKER
DBH	BCS
REVIEWER	
DWL	05/24/22
PROJECT ID	82382
SUBSET	TOTAL
30	47
SHEET	TOTAL
1636	2339

BURGESS & NIPLE
 100 WEST FIRE STREET
 PAINESVILLE, OHIO 44077



TRANSVERSE SECTION



DECK SLAB REINFORCING STEEL DETAILS
 (CROSSFRAMES AND SHEAR STUDS NOT SHOWN)
 (PARAPET REINFORCING STEEL DETAILS NOT SHOWN)

LEGEND:

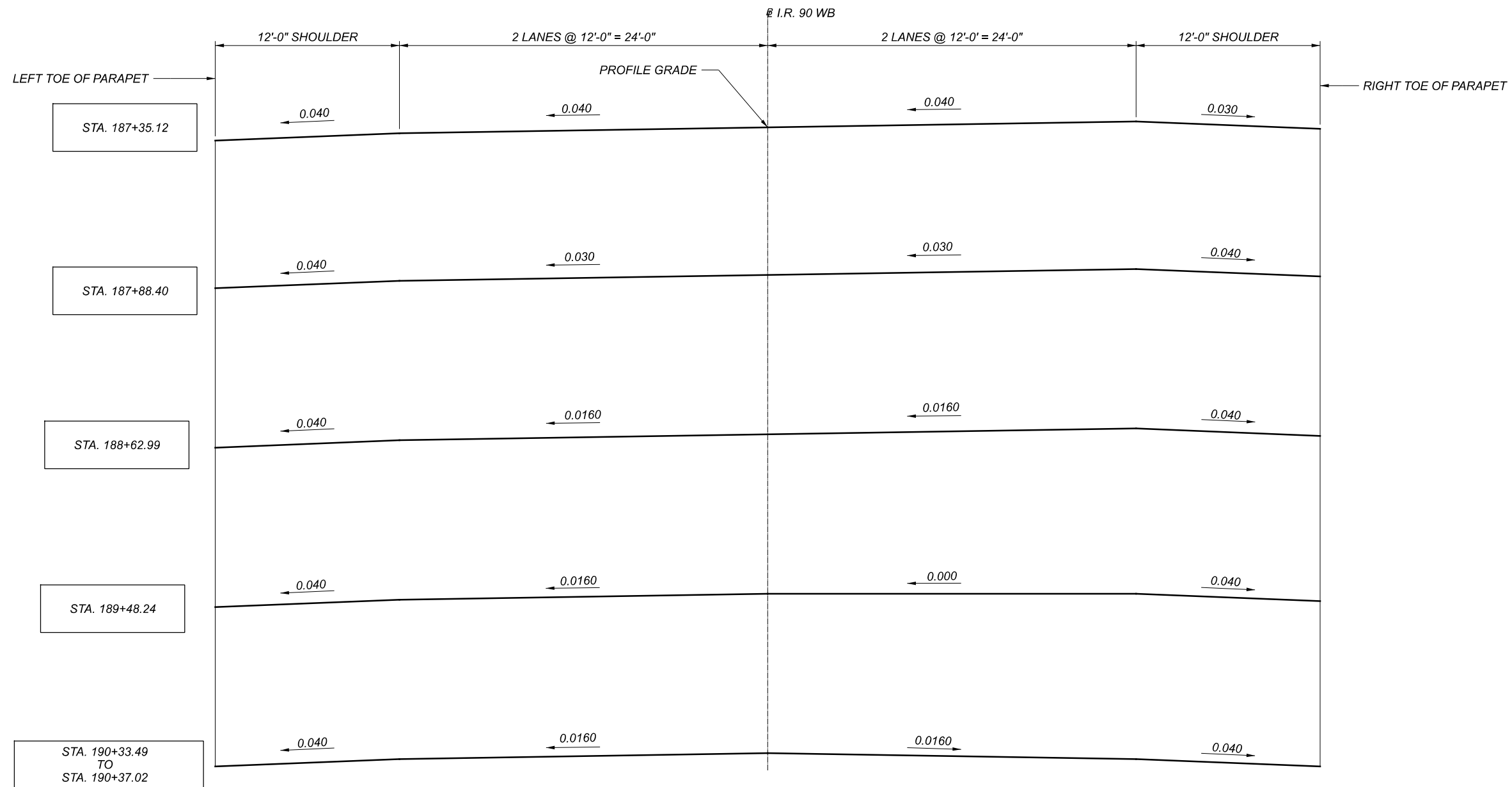
- Δ = MEASURED FROM TOP OF DECK TO TOP OF WEB (TYP.)
- ΔΔ = ADJUST BAR SPACING AS NEEDED TO CLEAR SHEAR STUDS
- ΔΔΔ = LIMITS OF ITEM 512 - SEALING OF CONCRETE SURFACES (EPOXY URETHANE) (TYP.)
- Ⓜ = GIRDER NUMBER

NOTES:

1. 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 7/8" 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.
2. SEE BRIDGE STANDARD DRAWING GSD-1-19 FOR INTERMEDIATE CROSSFRAME DETAILS.
3. SINGLE SLOPE CONCRETE BRIDGE PARAPET PER BRIDGE STANDARD DRAWING SBR-1-20. SEE SHEETS 42/47 TO 43/47 FOR PARAPET DETAILS.
4. SINGLE SLOPE CONCRETE BRIDGE PARAPET PER BRIDGE STANDARD DRAWING SBR-2-20. SEE SHEETS 35/42 TO 36/47 FOR PARAPET DETAILS.
5. SEE SHEET 32/47 FOR SUPERELEVATION TRANSITION DIAGRAM.

TRANSVERSE SECTION
 CUY-90-1653L (BRIDGE 10)
 I.R. 90 WB OVER CR-721 (E. 14TH ST.)

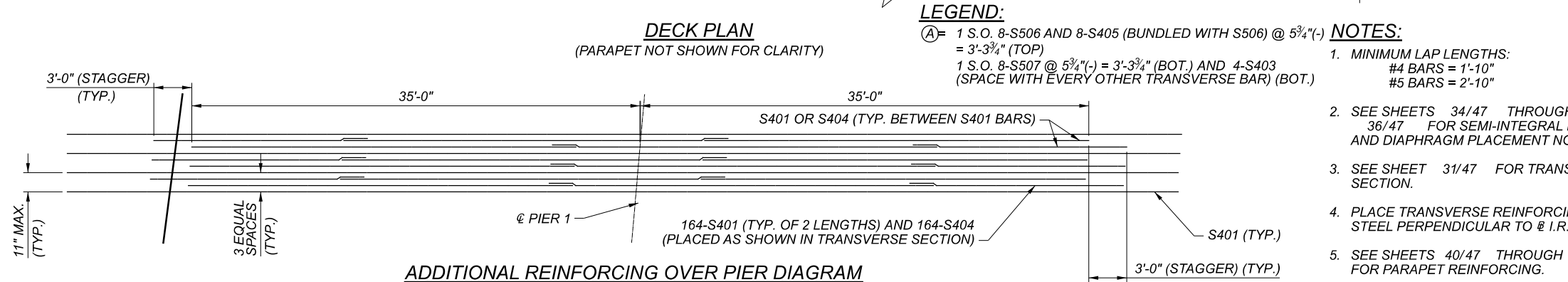
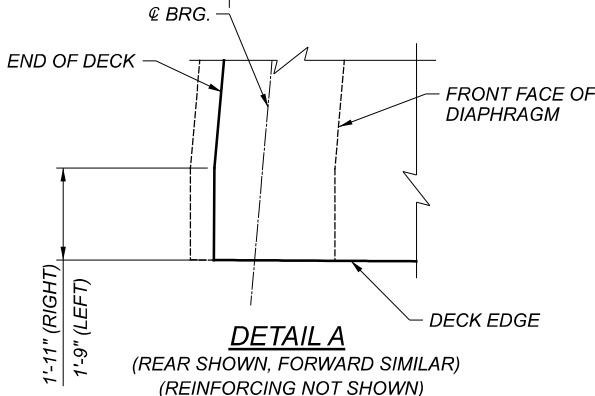
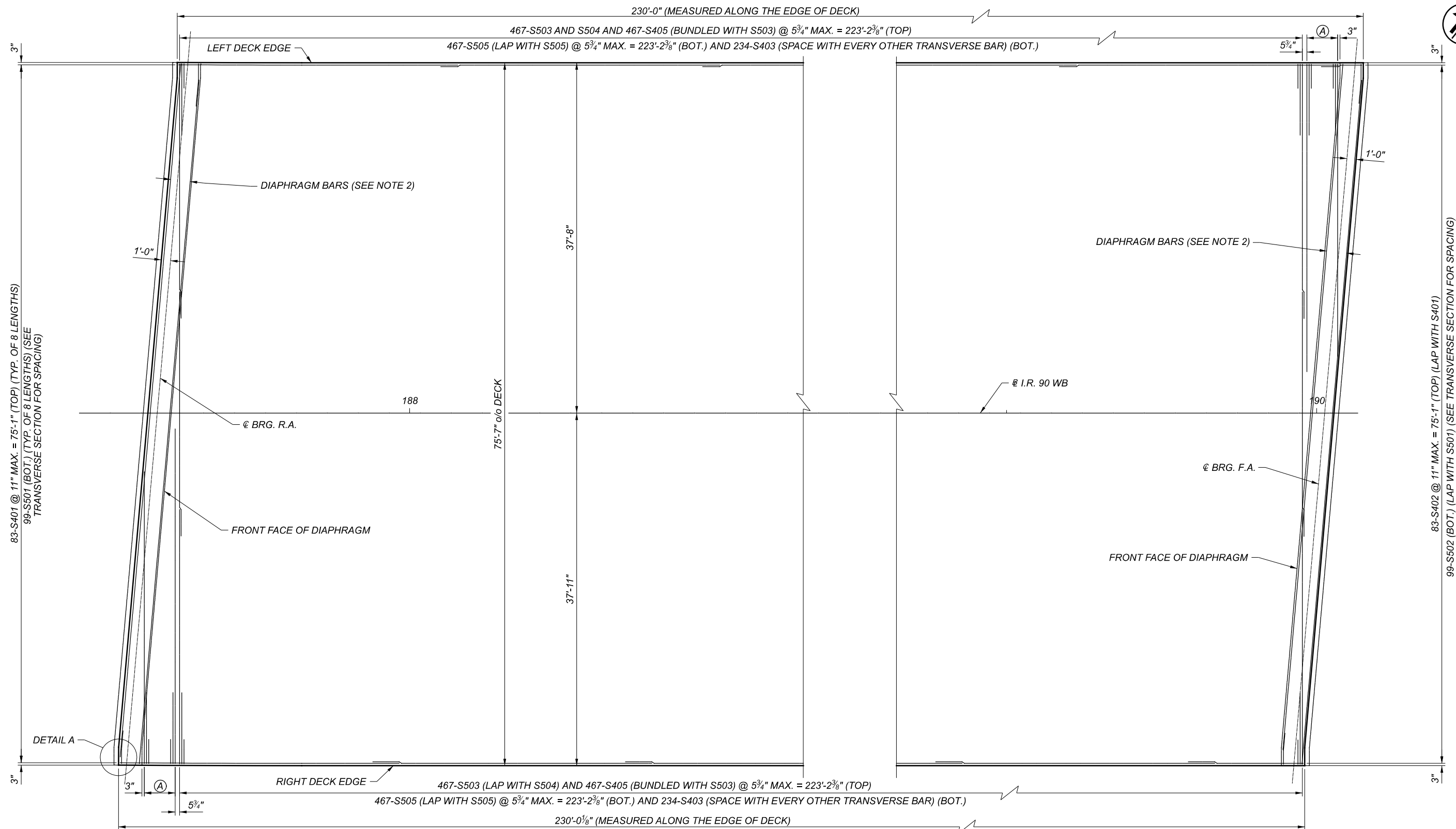
SFN	1807901
DESIGN AGENCY	BURGESS & NIPLE 100 WEST ERIE STREET PARANVILLE, OHIO 44077
DESIGNER	MAB
CHECKER	BCS
REVIEWER	DWL
DATE	05/24/22
PROJECT ID	82382
SUBSET	31
TOTAL	47
SHEET	1637
TOTAL	2339



SUPERELEVATION TRANSITION DIAGRAM

SUPERELEVATION TRANSITION DIAGRAM
 CUY-90-1653L (BRIDGE 10)
 I.R. 90 WB OVER CR-721 (E. 14TH ST.)

SFN	
1807901	
DESIGN AGENCY	
BURGESS & NIPLE <small>100 WEST FINE STREET PAINESVILLE, OHIO 44077</small>	
DESIGNER	CHECKER
MAB	BCS
REVIEWER	
DWL 05/24/22	
PROJECT ID	
82382	
SUBSET	TOTAL
32	47
SHEET	TOTAL
1638	2339



LEGEND:
 (A) = 1 S.O. 8-S506 AND 8-S405 (BUNDLED WITH S506) @ 5 3/4" (-)
 = 3'-3 3/4" (TOP)
 1 S.O. 8-S507 @ 5 3/4" (-) = 3'-3 3/4" (BOT.) AND 4-S403
 (SPACE WITH EVERY OTHER TRANSVERSE BAR) (BOT.)

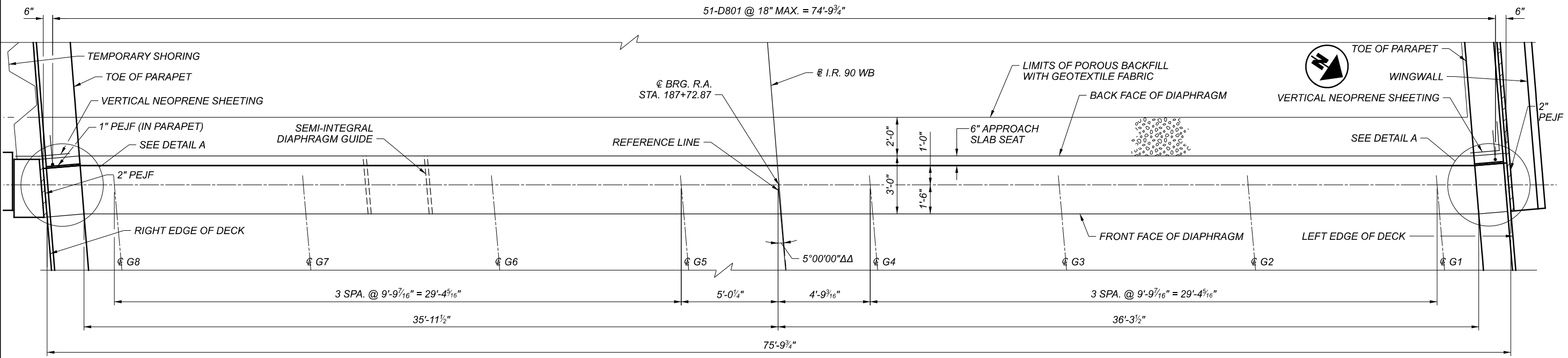
- NOTES:**
- MINIMUM LAP LENGTHS:
 #4 BARS = 1'-10"
 #5 BARS = 2'-10"
 - SEE SHEETS 34/47 THROUGH 36/47 FOR SEMI-INTEGRAL DETAILS AND DIAPHRAGM PLACEMENT NOTE.
 - SEE SHEET 31/47 FOR TRANSVERSE SECTION.
 - PLACE TRANSVERSE REINFORCING STEEL PERPENDICULAR TO @ I.R. 90 WB.
 - SEE SHEETS 40/47 THROUGH 43/47 FOR PARAPET REINFORCING.

DECK PLAN
CUY-90-1653L (BRIDGE 10)
I.R. 90 EB OVER CR-721 (E. 14TH ST.)

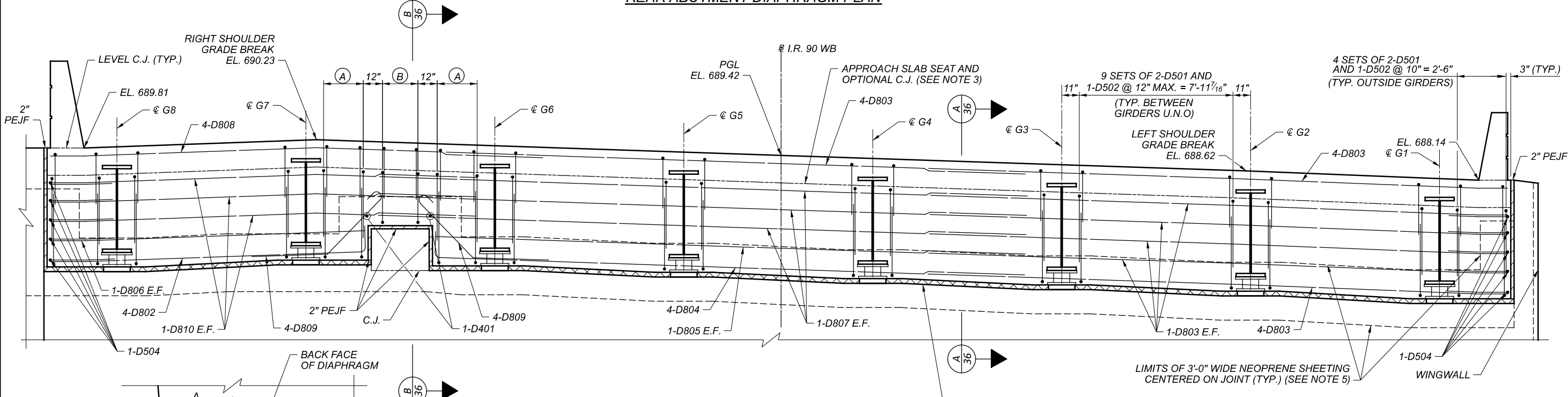
SFN		1807901	
DESIGN AGENCY			
BURGESS & NIPLE			
<small>100 WEST ERIE STREET PAINESVILLE, OHIO 44077</small>			
DESIGNER	CHECKER		
MAB	BCS		
REVIEWER		DWL 05/24/22	
PROJECT ID			
82382			
SUBSET	TOTAL		
33	47		
SHEET		TOTAL	
1639	2339		

CUY-90-16.28 (CCG3A)

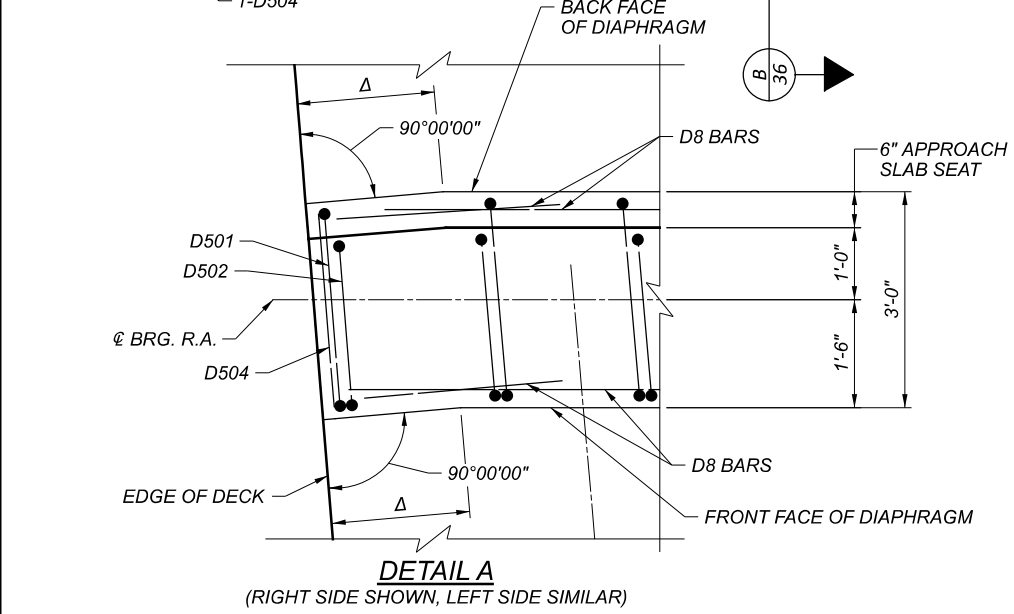
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REAR ABUTMENT DIAPHRAGM PLAN



REAR ABUTMENT DIAPHRAGM ELEVATION



DETAIL A
 (RIGHT SIDE SHOWN, LEFT SIDE SIMILAR)

LEGEND:
 (A) = 3 SETS OF 2-D501 AND 1-D502 @ 1'-0 1/2" = 2'-1"
 (B) = 3 SETS OF 1-D503 AND 1-D502 @ 1'-0" MAX. = 1'-11 7/16"
 Δ = 1'-11" (RIGHT), 1'-8" (LEFT)
 Δ Δ = MEASURED TO REFERENCE LINE

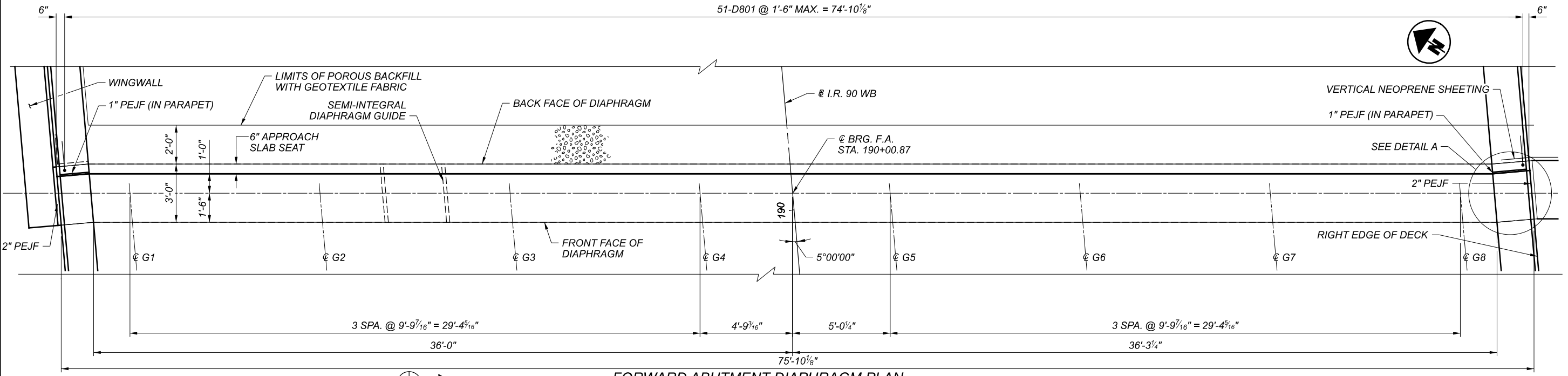
- NOTES:**
- SEE ODOT STANDARD BRIDGE DRAWINGS SICD-1-21 FOR DETAILS NOT SHOWN.
 - MINIMUM LAP LENGTHS:
 #5 BARS = 2'-3"
 #8 BARS = 5'-0"
 - PLACE THE DIAPHRAGM CONCRETE ENCASING THE STRUCTURAL MEMBER ENDS WITH THE DECK CONCRETE OR AT LEAST 48 HOURS BEFORE PLACEMENT OF THE DECK CONCRETE. IF PLACED SEPARATELY, LOCATE A HORIZONTAL CONSTRUCTION JOINT IN THE DIAPHRAGM AS SHOWN ON SICD-1-21 FOR STEEL SUPERSTRUCTURES AND PLACE REMAINING DIAPHRAGM CONCRETE WITH THE DECK.
 - ALL VERTICAL REINFORCING SHALL BE PLACED PARALLEL TO GIRDERS.
 - 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.
 - SEE SHEET 36/47 FOR SECTIONS A-A AND B-B.
 - ALL ABUTMENT DIAPHRAGM CONCRETE SHALL BE ITEM 511 - CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK.
 - HORIZONTAL DIMENSIONS ARE MEASURED TO THE REFERENCE LINE.

REAR ABUTMENT DIAPHRAGM PLAN AND ELEVATION
 CUY-90-1653L (BRIDGE 10)
 I.R. 90 WB OVER CR-721 (E. 14TH ST.)

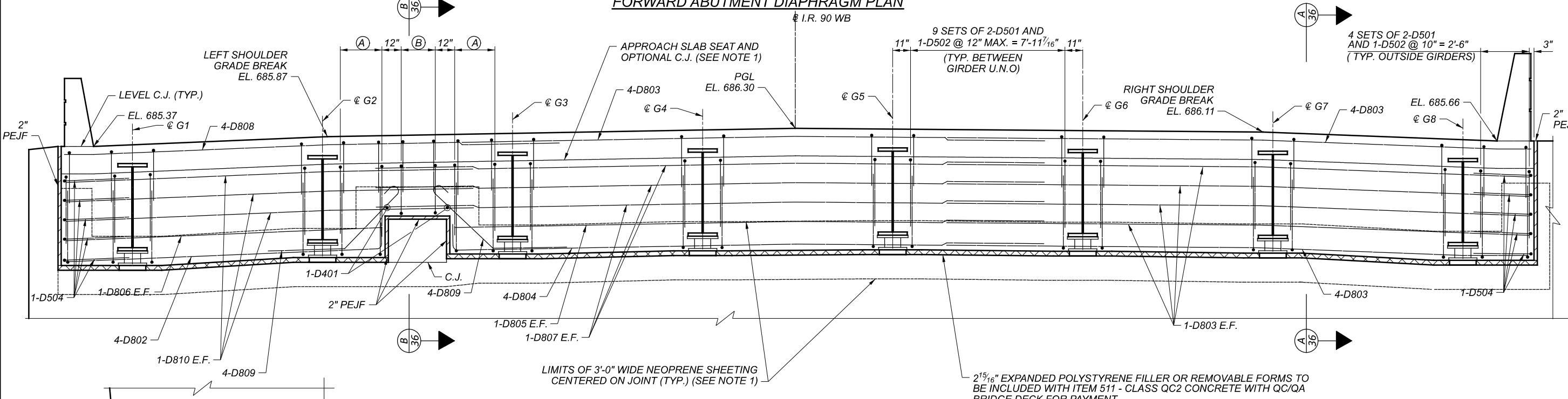
SFN	1807901
DESIGN AGENCY	
BURGESS & NIPLE 100 WEST FIRE STREET PAINESVILLE, OHIO 44077	
DESIGNER	CHECKER
MAB	BCS
REVIEWER	
DWL	05/24/22
PROJECT ID	
82382	
SUBSET	TOTAL
34	47
SHEET	
TOTAL	
1640	2339

CUY-90-16.28 (CCG3A)

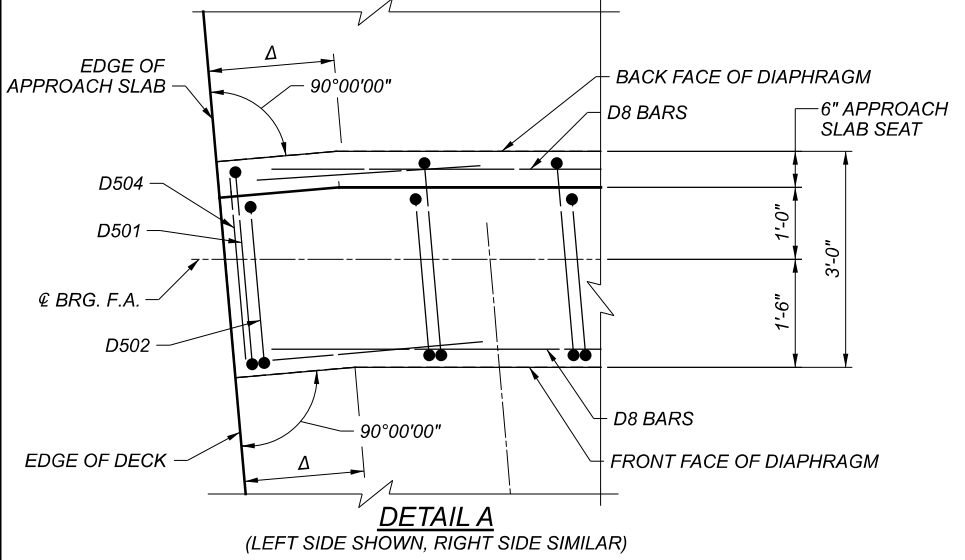
MODEL: Sheet PAPER SIZE: 17x11 (in.) DATE: 6/22/2022 TIME: 9:46:44 PM USER: Gregory.Hentler
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FORWARD ABUTMENT DIAPHRAGM PLAN



FORWARD ABUTMENT DIAPHRAGM ELEVATION



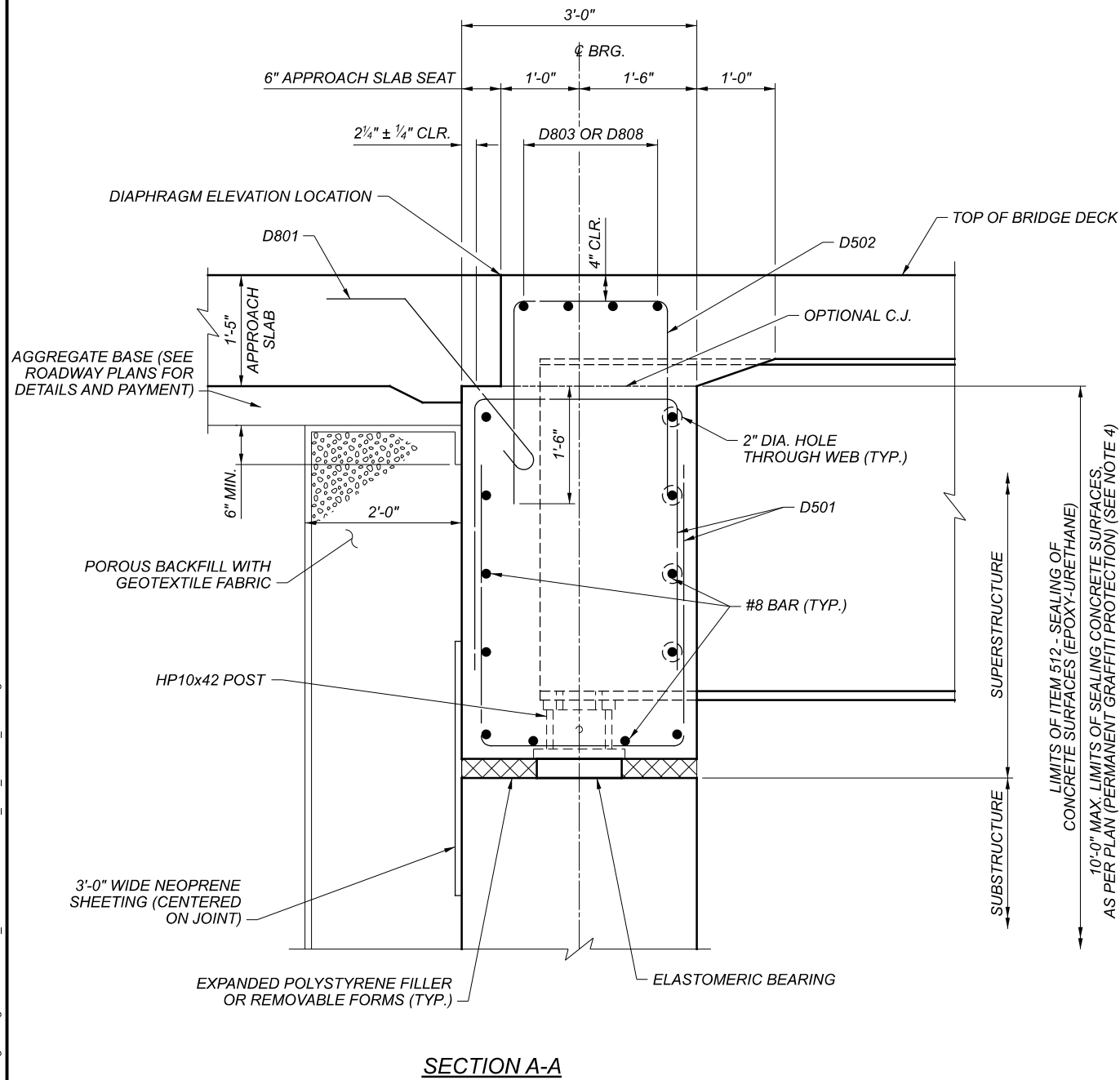
DETAIL A
(LEFT SIDE SHOWN, RIGHT SIDE SIMILAR)

- LEGEND:**
- (A) = 3 SETS OF 2-D501 AND 1-D502 @ 1-0 1/2" = 2'-1"
 - (B) = 3 SETS OF 1-D503 AND 1-D502 @ 1'-0" MAX. = 1'-11 7/16"
- Δ = 1'-8" (LEFT), 1'-11" (RIGHT)

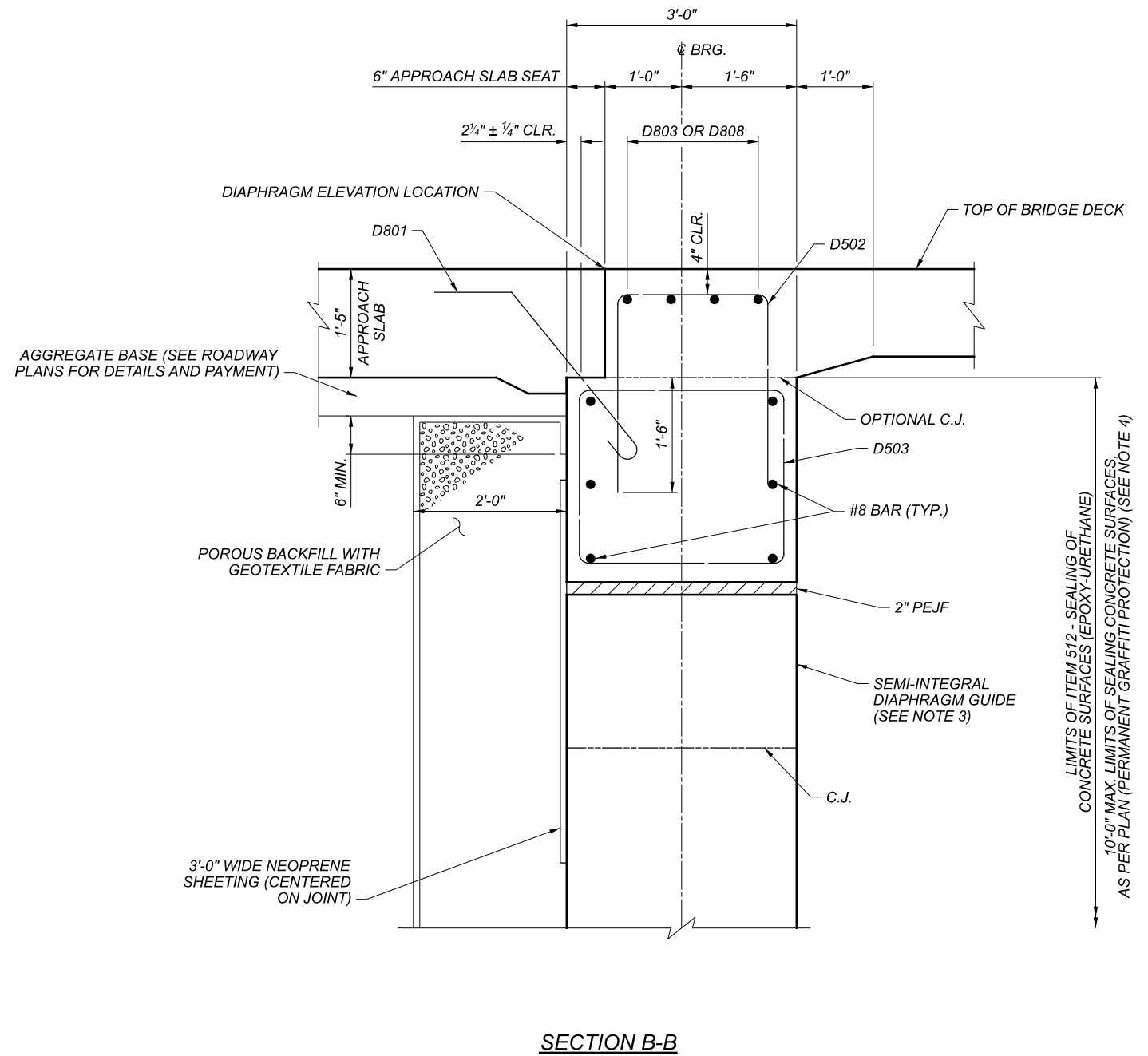
- NOTES:**
1. SEE SHEET 34/47 FOR NOTES.
 2. SEE SHEET 36/47 FOR SECTIONS A-A AND B-B.

FORWARD ABUTMENT DIAPHRAGM PLAN AND ELEVATION
 CUY-90-1653L (BRIDGE 10)
 I.R. 90 WB OVER CR-721 (E. 14TH ST.)

SFN	1807901
DESIGN AGENCY	
BURGESS & NIPLE	
100 WEST FIRE STREET PAINESVILLE, OHIO 44077	
DESIGNER	CHECKER
MAB	BCS
REVIEWER	
DWL	05/24/22
PROJECT ID	82382
SUBSET	TOTAL
35	47
SHEET	TOTAL
1641	2339



SECTION A-A



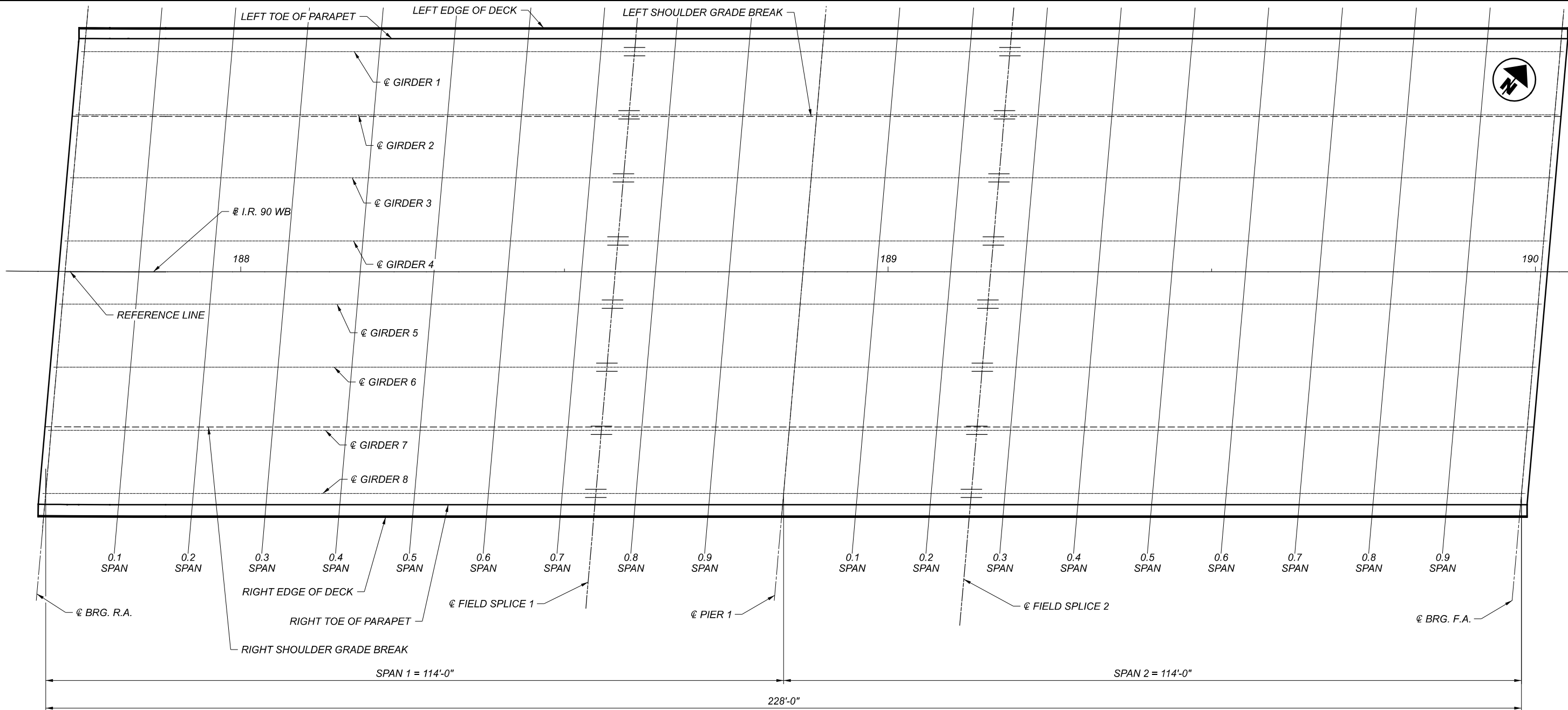
SECTION B-B

NOTES:

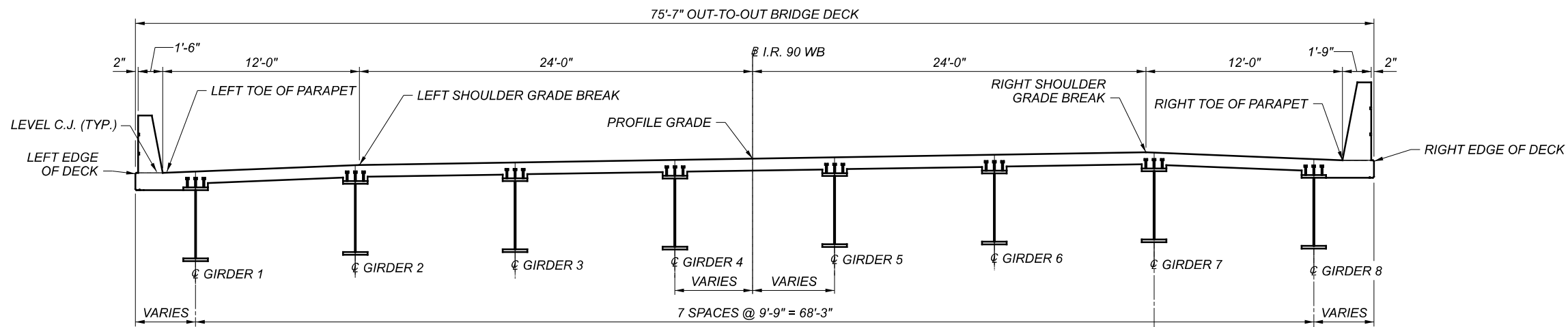
1. PAYMENT FOR NEOPRENE SHEETING WILL BE INCLUDED WITH ITEM 516 - SEMI-INTEGRAL ABUTMENT EXPANSION JOINT SEAL.
2. SEE STANDARD BRIDGE DRAWING SICD-1-21 FOR DETAILS NOT SHOWN.
3. SEE STANDARD BRIDGE DRAWING SICD-2-14 FOR DIAPHRAGM GUIDE DETAILS.
4. THE 10'-0" MAXIMUM LIMIT OF THE PERMANENT GRAFFITI PROTECTION IS MEASURED FROM THE TOP OF THE CONCRETE SLOPE PROTECTION.

ABUTMENT DIAPHRAGM DETAILS
 CUY-90-1653L (BRIDGE 10)
 I.R. 90 WB OVER CR-721 (E. 14TH ST.)

SFN	1807901
DESIGN AGENCY	
BURGESS & NIPLE 100 WEST FIRE STREET PAINESVILLE, OHIO 44077	
DESIGNER	CHECKER
MAB	BCS
REVIEWER	
DWL 05/24/22	
PROJECT ID	
82382	
SUBSET	TOTAL
36	47
SHEET	
TOTAL	
1642	2339



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



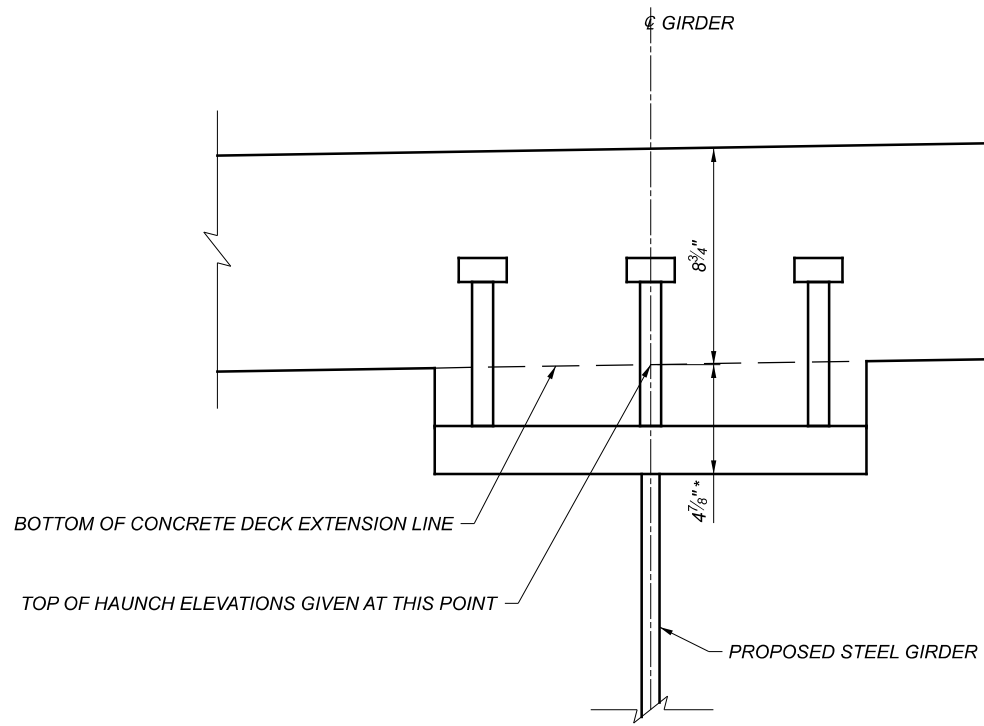
CRITICAL BRIDGE POINTS TRANSVERSE SECTION
 (FOR USE WITH SCREED, TOP OF HAUNCH, AND
 FINAL DECK SURFACE ELEVATION TABLES)

CRITICAL BRIDGE POINT LOCATIONS
 CUY-90-1653L (BRIDGE 10)
 I.R. 90 WB OVER CR-721 (E. 14TH ST.)

SFN	1807901
DESIGN AGENCY	
BURGESS & NIPLE 100 WEST FIRE STREET PAINESVILLE, OHIO 44077	
DESIGNER	CHECKER
MAB	BCS
REVIEWER	
DWL	05/24/22
PROJECT ID	82382
SUBSET	TOTAL
37	47
SHEET	TOTAL
1643	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	187+75.69	687.49	187+87.23	687.52	187+98.64	687.53	188+10.04	687.52	188+21.44	687.48	188+32.84	687.41	188+44.24	687.32	188+55.64	687.20	188+60.84	687.15	188+67.04	687.07	188+78.44	686.89	188+89.84	686.73
GIRDER 2	187+74.87	687.88	187+86.37	687.92	187+97.79	687.93	188+09.19	687.93	188+20.59	687.89	188+31.99	687.82	188+43.39	687.72	188+54.79	687.61	188+59.99	687.55	188+66.19	687.47	188+77.59	687.30	188+88.99	687.13
GIRDER 3	187+74.06	688.20	187+85.52	688.22	187+96.94	688.22	188+08.34	688.19	188+19.74	688.13	188+31.14	688.04	188+42.54	687.93	188+53.94	687.79	188+59.14	687.73	188+65.34	687.64	188+76.74	687.47	188+88.14	687.31
GIRDER 4	187+73.25	688.53	187+84.67	688.52	187+96.09	688.50	188+07.49	688.45	188+18.89	688.37	188+30.29	688.26	188+41.69	688.13	188+53.09	687.97	188+58.29	687.90	188+64.49	687.81	188+75.89	687.64	188+87.29	687.48
GIRDER 5	187+72.45	688.85	187+83.84	688.83	187+95.23	688.79	188+06.63	688.72	188+18.03	688.62	188+29.43	688.49	188+40.83	688.33	188+52.23	688.16	188+57.43	688.07	188+63.63	687.97	188+75.03	687.79	188+86.43	687.62
GIRDER 6	187+71.66	689.18	187+83.00	689.14	187+94.38	689.07	188+05.78	688.99	188+17.18	688.87	188+28.58	688.72	188+39.98	688.54	188+51.38	688.35	188+56.58	688.25	188+62.78	688.14	188+74.18	687.94	188+85.58	687.75
GIRDER 7	187+70.87	689.47	187+82.17	689.41	187+93.53	689.33	188+04.93	689.22	188+16.33	689.09	188+27.73	688.92	188+39.13	688.72	188+50.53	688.51	188+55.73	688.41	188+61.93	688.28	188+73.33	688.06	188+84.73	687.85
GIRDER 8	187+70.08	689.12	187+81.35	689.04	187+92.67	688.94	188+04.07	688.83	188+15.47	688.69	188+26.87	688.53	188+38.27	688.33	188+49.67	688.12	188+54.87	688.02	188+61.07	687.90	188+72.47	687.69	188+83.87	687.48

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	188+89.84	686.73	189+01.24	686.58	189+12.64	686.44	189+18.84	686.36	189+24.04	686.29	189+35.44	686.14	189+46.84	685.98	189+58.24	685.78	189+69.64	685.56	189+81.04	685.31	189+92.44	685.03	190+03.84	684.74
GIRDER 2	188+88.99	687.13	189+00.39	686.98	189+11.79	686.84	189+17.99	686.77	189+23.19	686.71	189+34.59	686.56	189+45.99	686.39	189+57.39	686.20	189+68.79	685.98	189+80.19	685.72	189+91.59	685.44	190+02.99	685.15
GIRDER 3	188+88.14	687.31	188+99.54	687.16	189+10.94	687.02	189+17.14	686.94	189+22.34	686.88	189+33.74	686.74	189+45.14	686.57	189+56.54	686.38	189+67.94	686.16	189+79.34	685.90	189+90.74	685.62	190+02.14	685.33
GIRDER 4	188+87.29	687.48	188+98.69	687.33	189+10.09	687.19	189+16.29	687.11	189+21.49	687.05	189+32.89	686.91	189+44.29	686.74	189+55.69	686.55	189+67.09	686.33	189+78.49	686.08	189+89.89	685.80	190+01.29	685.50
GIRDER 5	188+86.43	687.62	188+97.83	687.46	189+09.23	687.31	189+15.43	687.23	189+20.63	687.17	189+32.03	687.01	189+43.43	686.84	189+54.83	686.63	189+66.23	686.40	189+77.63	686.14	189+89.03	685.85	190+00.43	685.54
GIRDER 6	188+85.58	687.75	188+96.98	687.57	189+08.38	687.40	189+14.58	687.31	189+19.78	687.23	189+31.18	687.06	189+42.58	686.86	189+53.98	686.64	189+65.38	686.39	189+76.78	686.11	189+88.18	685.80	189+99.58	685.47
GIRDER 7	188+84.73	687.85	188+96.13	687.65	189+07.53	687.46	189+13.73	687.36	189+18.93	687.28	189+30.33	687.08	189+41.73	686.87	189+53.13	686.63	189+64.53	686.36	189+75.93	686.06	189+87.33	685.73	189+98.73	685.38
GIRDER 8	188+83.87	687.48	188+95.27	687.28	189+06.67	687.09	189+12.87	686.99	189+18.07	686.90	189+29.47	686.70	189+40.87	686.49	189+52.27	686.24	189+63.67	685.98	189+75.07	685.68	189+86.47	685.35	189+97.87	685.01



HAUNCH DETAIL

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

NOTES:

- SEE SHEET 37/47 FOR CRITICAL BRIDGE POINT ELEVATION LOCATIONS.
- 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-90-1653L (BRIDGE 10)
 I.R. 90 WB OVER CR-721 (E. 14TH ST.)

SFN	1807901
DESIGN AGENCY	
BURGESS & NIPLE 100 WEST FIRE STREET PAINESVILLE, OHIO 44077	
DESIGNER	CHECKER
MAB	BCS
REVIEWER	
DWL 05/24/22	
PROJECT ID	
82382	
SUBSET	TOTAL
38	47
SHEET	
TOTAL	
1644	2339

CUY-90-16.28 (CCG3A)

MODEL: Sheet PAPER SIZE: 17x11 (in.) DATE: 6/22/2022 TIME: 9:47:08 PM USER: Gregory.Hentler p:\vmb-eup-pw-bentley.com\mb-us-pw-03\Documents\Cleveland_OH\01_Projects\ODOT\District12\28232400-Engineering\Structures\SFN_1807901_S5006.dgn

Table with columns: ELEVATION LINE, CENTERLINE BRG. R.A., SPAN 1 (0.1-0.9), FIELD SPLICE 1, CENTERLINE PIER 1. Rows include LEFT TOE OF PARAPET, LEFT SHOULDER GRADE BREAK, BASELINE I.R. 90 WB AND PGL, RIGHT SHOULDER GRADE BREAK, RIGHT TOE OF PARAPET.

Table with columns: ELEVATION LINE, CENTERLINE PIER 1, SPAN 2 (0.1-0.9), FIELD SPLICE 2, CENTERLINE BRG. F.A. Rows include LEFT TOE OF PARAPET, LEFT SHOULDER GRADE BREAK, BASELINE I.R. 90 WB AND PGL, RIGHT SHOULDER GRADE BREAK, RIGHT TOE OF PARAPET.

Table with columns: ELEVATION LINE, CENTERLINE BRG. R.A., SPAN 1 (0.1-0.9), FIELD SPLICE 1, CENTERLINE PIER 1. Rows include LEFT TOE OF PARAPET, GIRDER 1-8, LEFT SHOULDER GRADE BREAK, RIGHT SHOULDER GRADE BREAK, RIGHT TOE OF PARAPET.

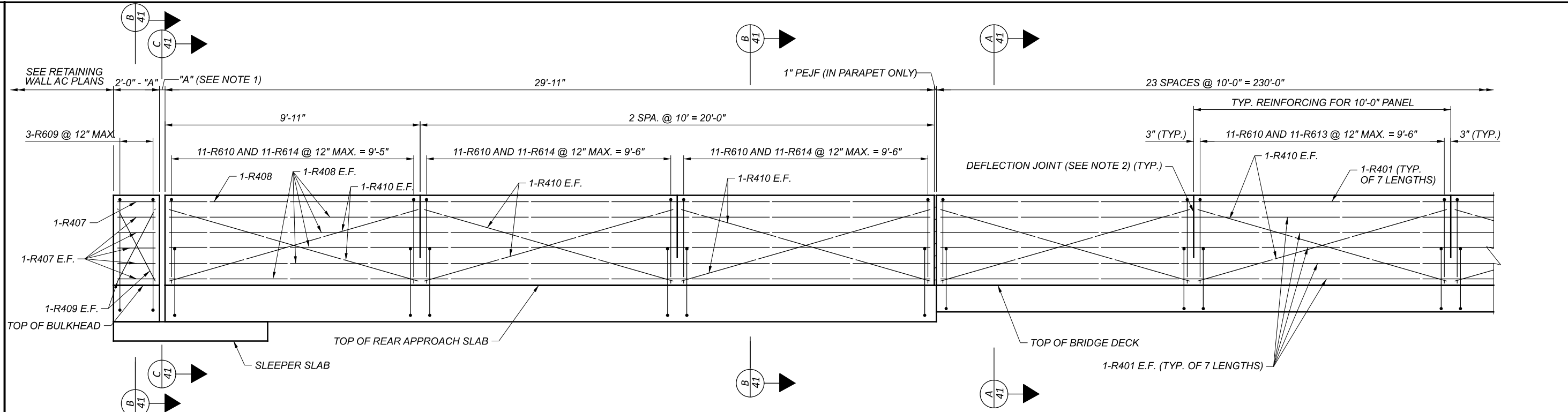
Table with columns: ELEVATION LINE, CENTERLINE PIER 1, SPAN 2 (0.1-0.9), FIELD SPLICE 2, CENTERLINE BRG. F.A. Rows include LEFT TOE OF PARAPET, GIRDER 1-8, LEFT SHOULDER GRADE BREAK, RIGHT SHOULDER GRADE BREAK, RIGHT TOE OF PARAPET.

NOTES:

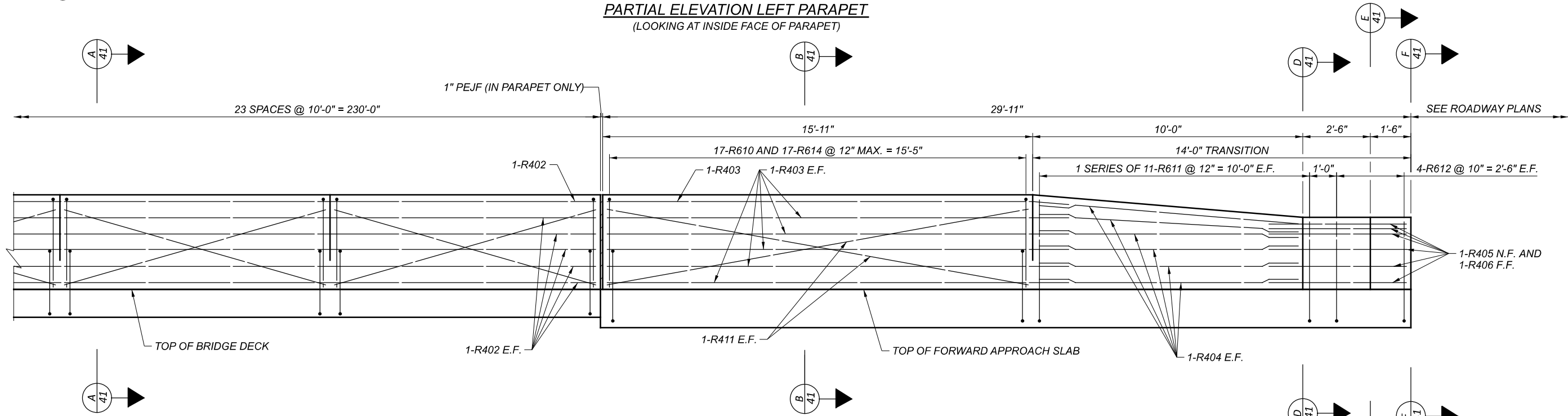
- 1. SEE SHEET 37/47 FOR CRITICAL BRIDGE POINT ELEVATION LOCATIONS.
2. SCREED ELEVATIONS SHOWN REPRESENT THE THEORETICAL DECK SURFACE ELEVATION PRIOR TO DEFLECTIONS CAUSED BY DECK PLACEMENT AND OTHER ANTICIPATED DEAD LOADS.
3. FINAL DECK SURFACE ELEVATIONS SHOWN REPRESENT THE DECK SURFACE ELEVATION AFTER ALL ANTICIPATED DEAD LOAD DEFLECTIONS HAVE OCCURRED.

SCREED AND FINAL DECK SURFACE ELEVATIONS
CUY-90-1653L (BRIDGE 10)
I.R. 90 WB OVER CR-721 (E. 14TH ST.)

Table with columns: SFN, DESIGN AGENCY, DESIGNER/CHECKER, REVIEWER, PROJECT ID, SUBSET, SHEET. Values include 1807901, BURGESS & NIPLE, DBH/BCS, DWL 05/24/22, 82382, 39/47, 1645/2339.



PARTIAL ELEVATION LEFT PARAPET
 (LOOKING AT INSIDE FACE OF PARAPET)



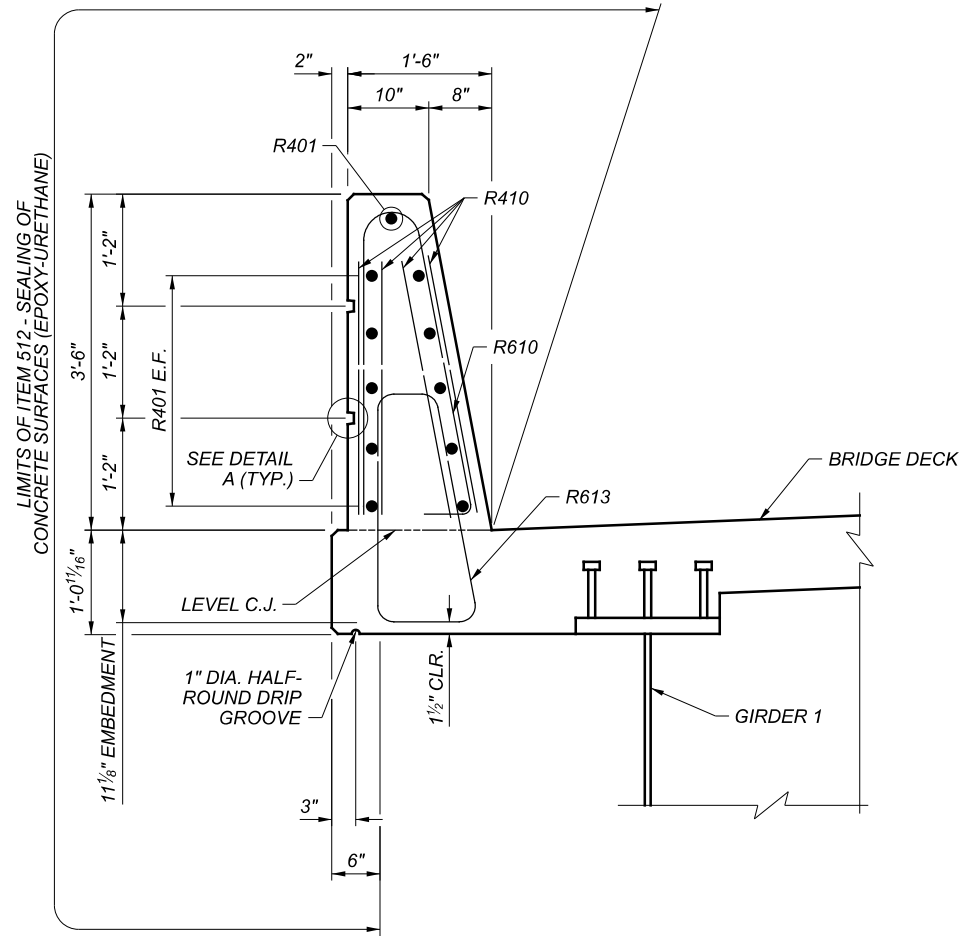
PARTIAL ELEVATION LEFT PARAPET
 (LOOKING AT INSIDE FACE OF PARAPET)

NOTES:

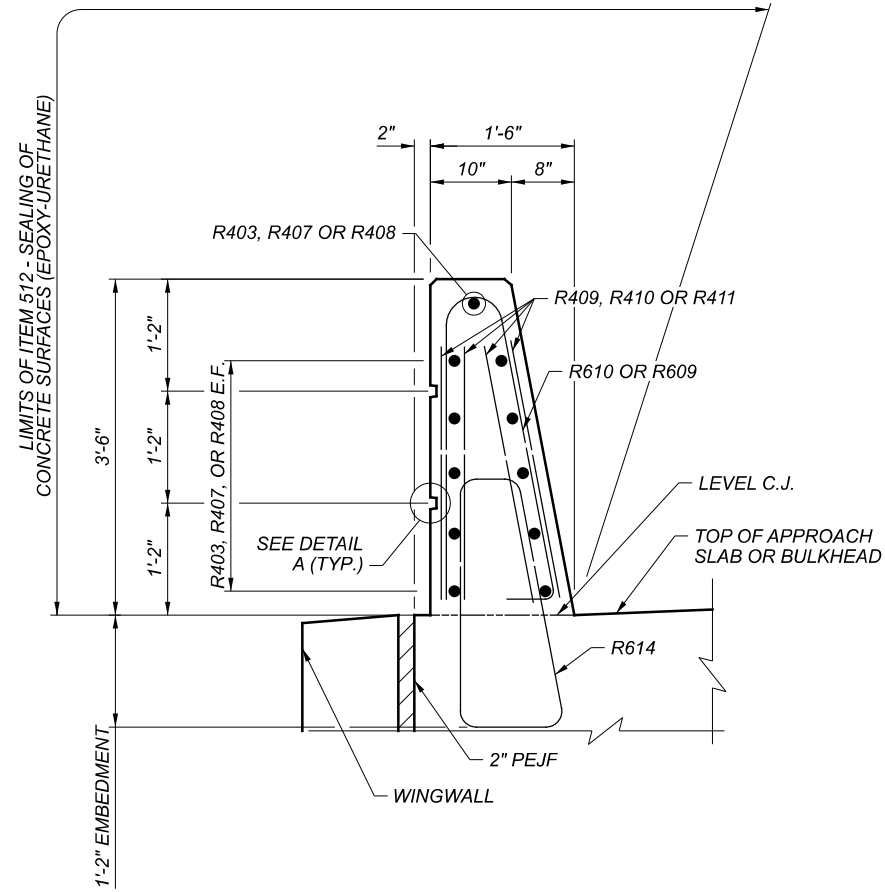
- SEE STANDARD BRIDGE DRAWING AS-2-15 FOR ADDITIONAL DETAILS.
- SEE STANDARD BRIDGE DRAWING SBR-1-20 FOR ADDITIONAL DETAILS.
- FOR SECTIONS A-A, B-B, C-C, D-D, AND E-E SEE SHEET 41/47.
- MINIMUM LAP LENGTHS:
 #4 GFRP = 1'-1"
 #6 GFRP = 1'-8"

LEFT PARAPET ELEVATION
 CUY-90-1653L (BRIDGE 10)
 I.R. 90 WB OVER CR-721 (E. 14TH ST.)

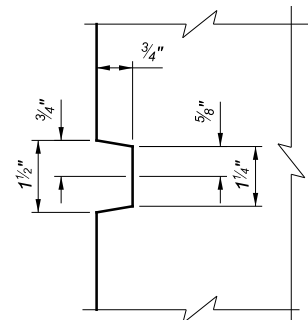
SFN	1807901
DESIGN AGENCY	BURGESS & NIPLE 100 WEST FINE STREET PAINESVILLE, OHIO 44077
DESIGNER	DBH
CHECKER	BCS
REVIEWER	DWL
DATE	05/24/22
PROJECT ID	82382
SUBSET	40
TOTAL	47
SHEET	1646
TOTAL	2339



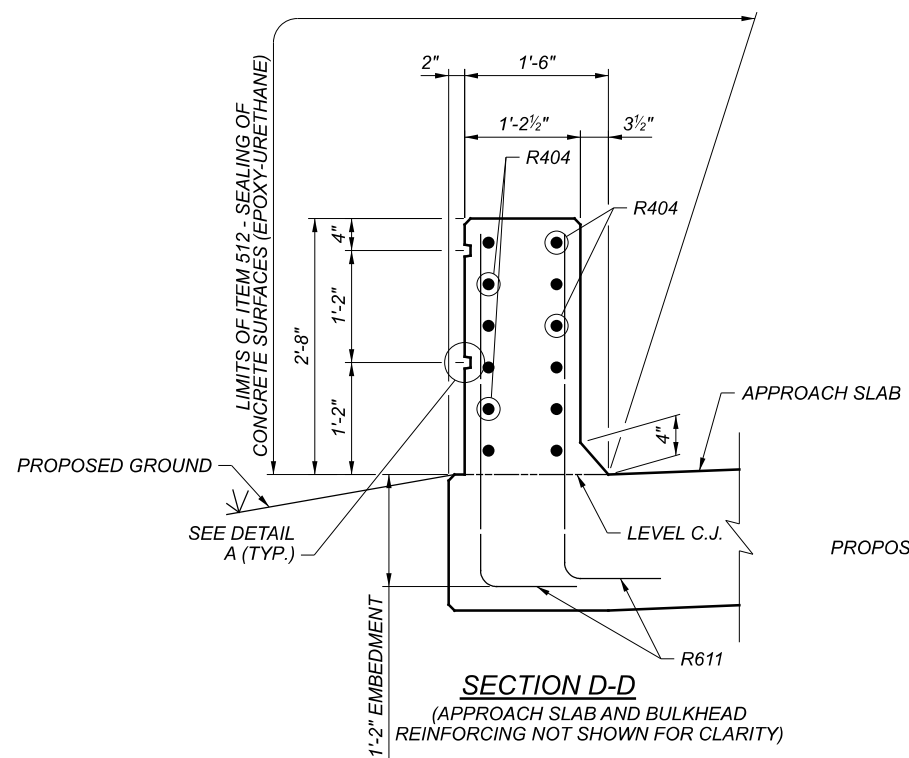
SECTION A-A
 (DECK SLAB REINFORCING NOT SHOWN FOR CLARITY)



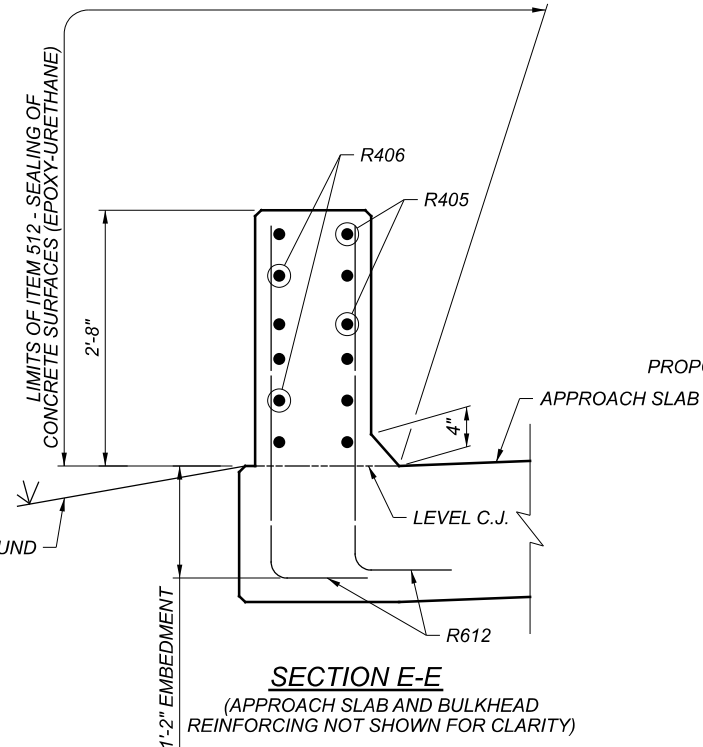
SECTION B-B
 (APPROACH SLAB AND BULKHEAD REINFORCING NOT SHOWN FOR CLARITY)



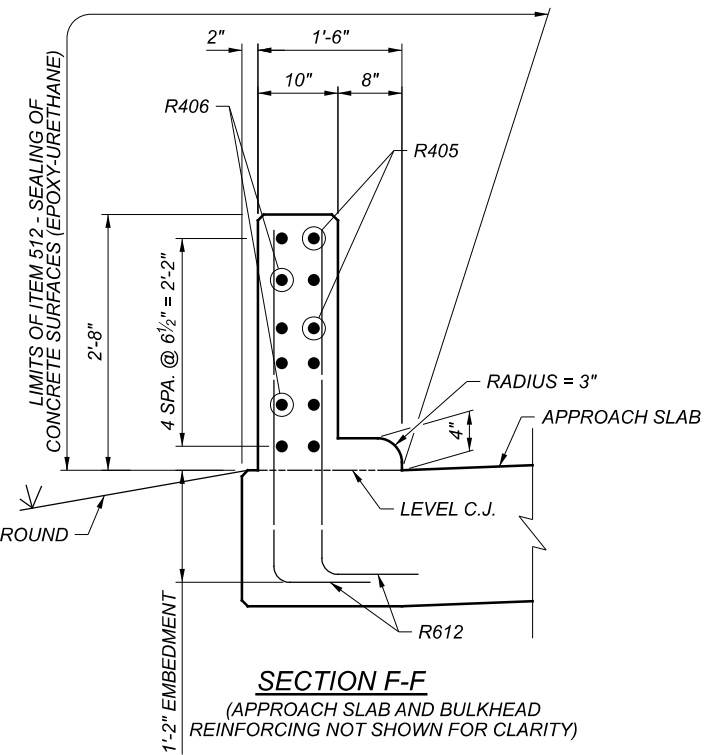
DETAIL A



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



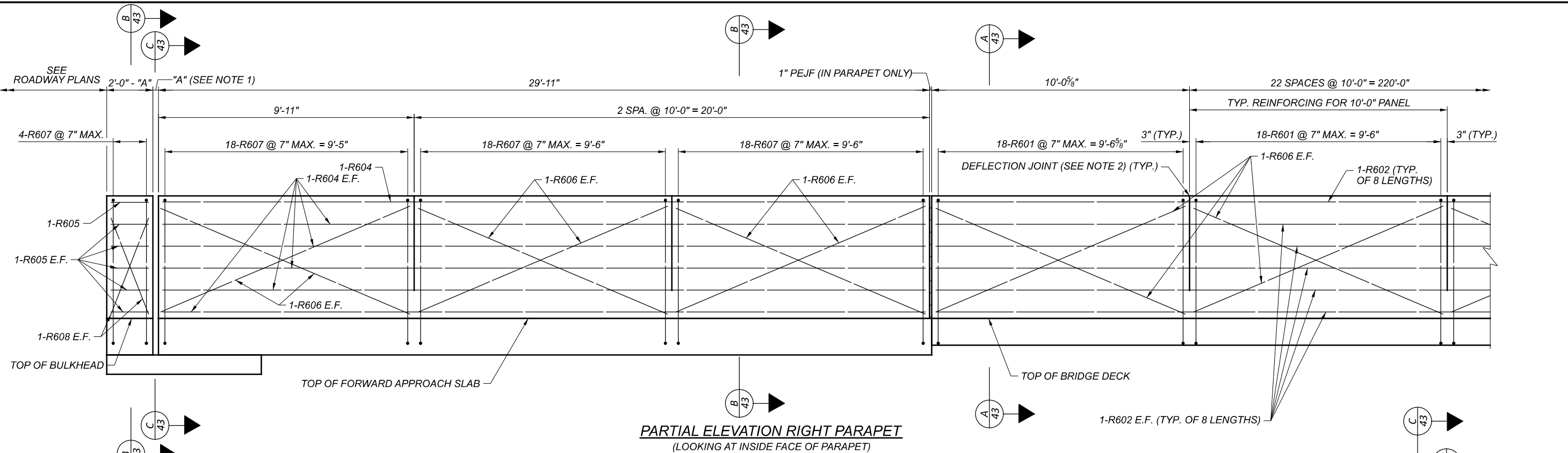
SECTION E-E
 (APPROACH SLAB AND BULKHEAD REINFORCING NOT SHOWN FOR CLARITY)



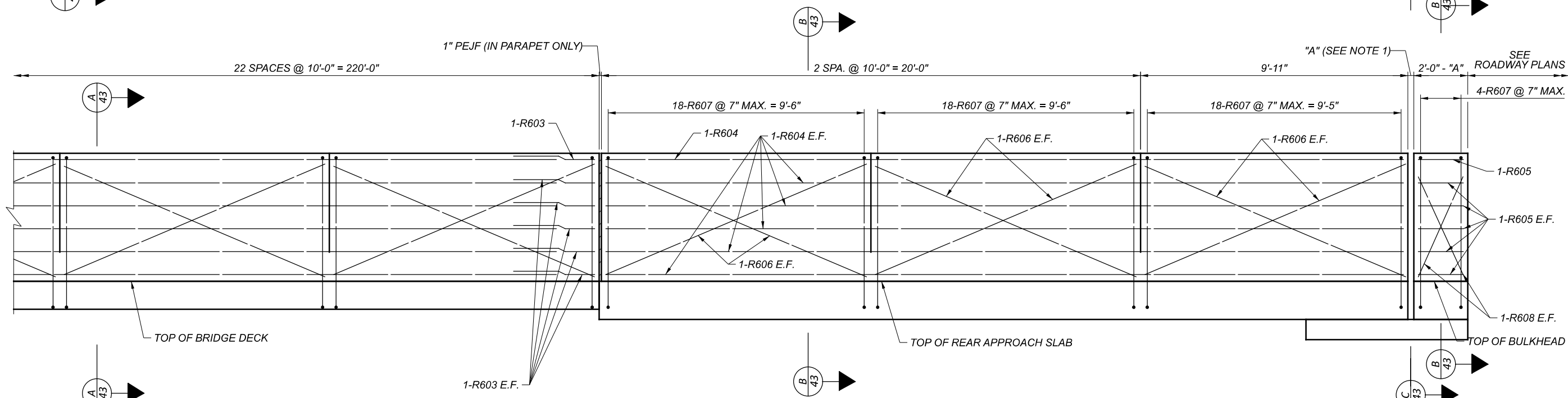
SECTION F-F
 (APPROACH SLAB AND BULKHEAD REINFORCING NOT SHOWN FOR CLARITY)

NOTES:

- SEE STANDARD BRIDGE DRAWING AS-2-15 FOR ADDITIONAL DETAILS.
- SEE SHEET 40/47 FOR LOCATION OF SECTION CUTS AND ADDITIONAL NOTES.



PARTIAL ELEVATION RIGHT PARAPET
 (LOOKING AT INSIDE FACE OF PARAPET)



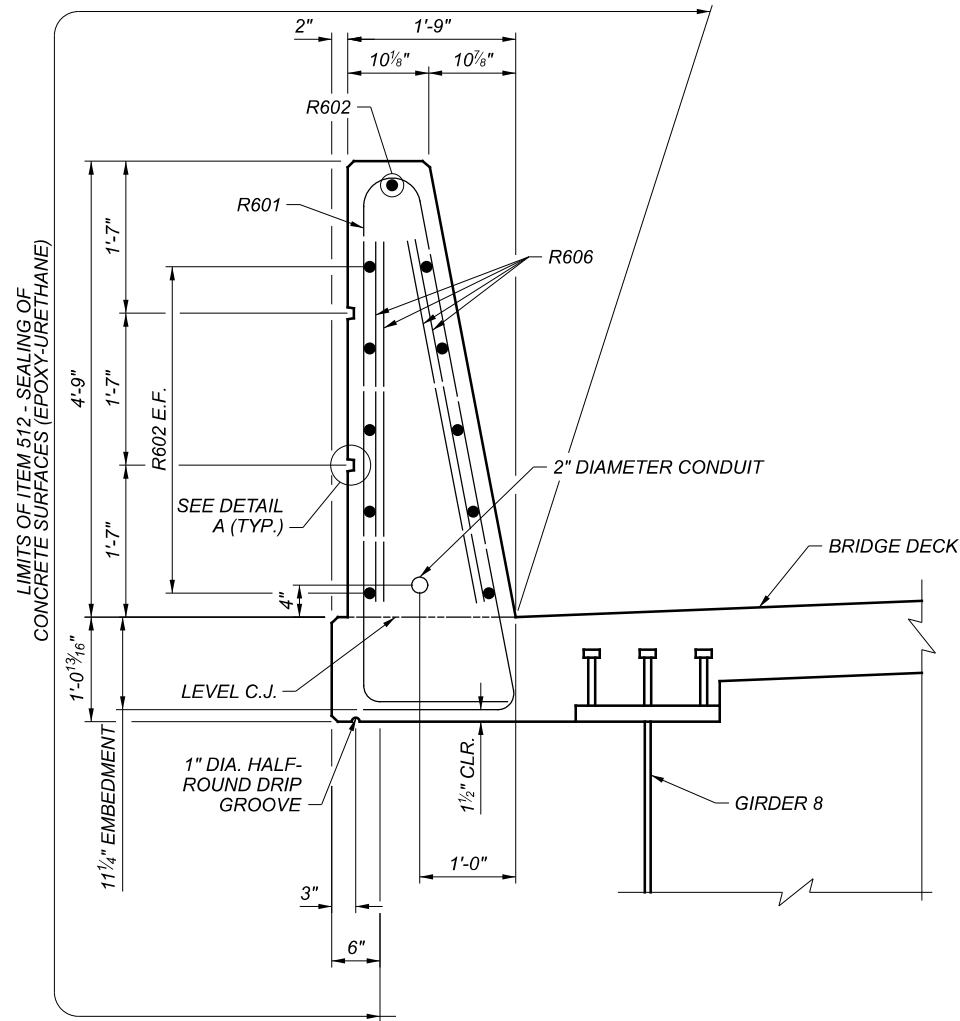
PARTIAL ELEVATION RIGHT PARAPET
 (LOOKING AT INSIDE FACE OF PARAPET)

NOTES:

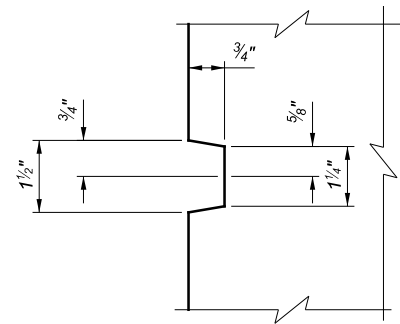
- SEE STANDARD BRIDGE DRAWING AS-2-15 FOR ADDITIONAL DETAILS.
- SEE STANDARD BRIDGE DRAWING SBR-2-20 FOR ADDITIONAL DETAILS.
- FOR SECTIONS A-A, B-B, C-C AND DEFLECTION JOINT DETAIL SEE SHEET 43/47
- MINIMUM LAP LENGTHS:
 #6 GFRP = 1'-8"

RIGHT RAILING ELEVATION
 CUY-90-1653L (BRIDGE 10)
 I.R. 90 WB OVER CR-721 (E. 14TH ST.)

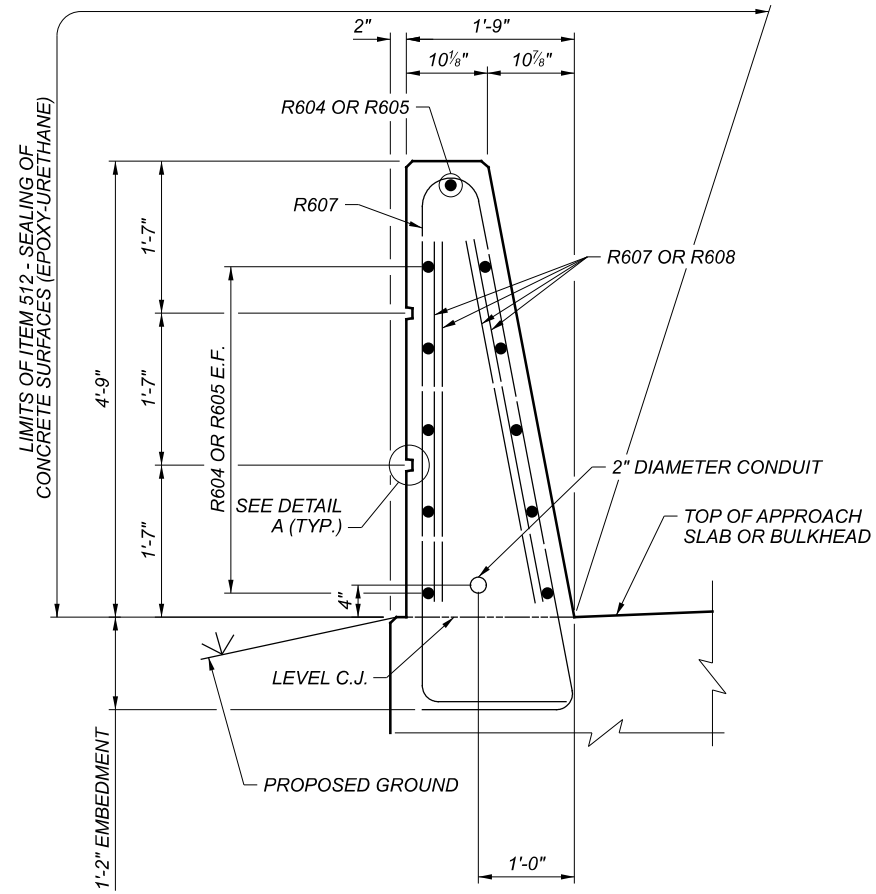
SFN	1807901
DESIGN AGENCY	BURGESS & NIPLE 100 WEST FIRE STREET PAINESVILLE, OHIO 44077
DESIGNER	DBH
CHECKER	BCS
REVIEWER	DWL
DATE	05/24/22
PROJECT ID	82382
SUBSET	42
TOTAL	47
SHEET	1648
TOTAL	2339



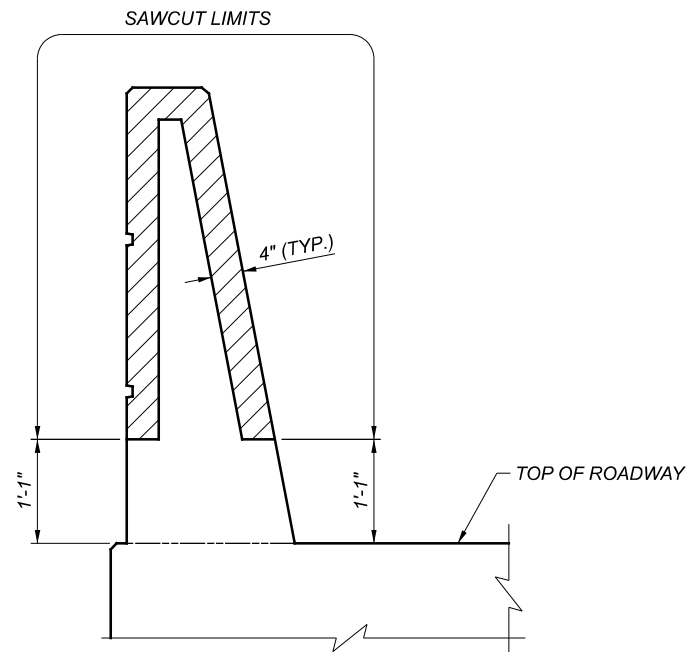
SECTION A-A
(DECK SLAB REINFORCEMENT NOT SHOWN FOR CLARITY)



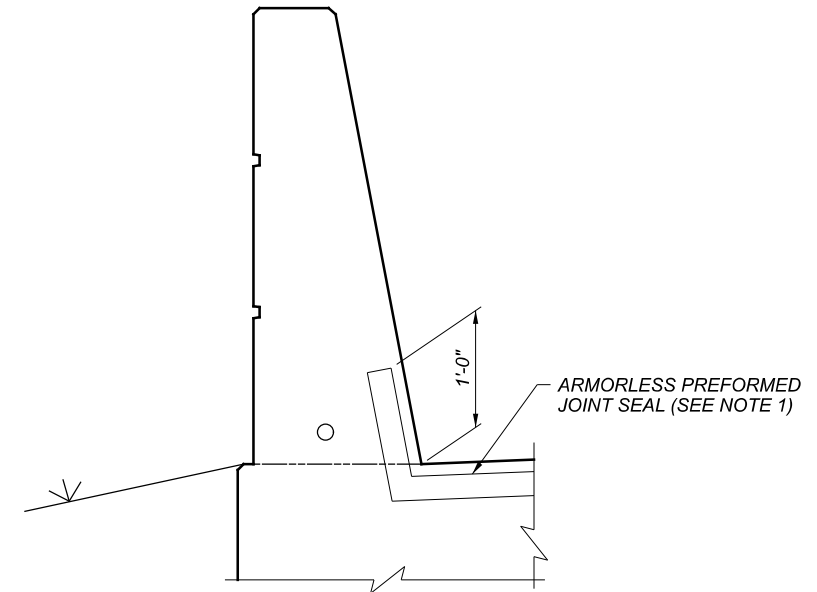
DETAIL A



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



DEFLECTION JOINT DETAIL



SECTION C-C

NOTES:

- SEE STANDARD BRIDGE DRAWING AS-2-15 FOR ADDITIONAL DETAILS.
- SEE SHEET 42/47 FOR LOCATION OF SECTION CUTS AND ADDITIONAL NOTES.



REAR
 (MOMENT SLAB NOT SHOWN FOR CLARITY;
 SEE RETAINING WALL AC PLANS FOR DETAILS AND PAYMENT)

APPROACH SLAB PLAN

FORWARD

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



- NOTES:**
- SEE SHEET 45/47 FOR SECTION A-A.
 - SEE BRIDGE STANDARD DRAWINGS AS-1-15 AND AS-2-15 FOR STANDARD REINFORCING AND INFORMATION NOT SHOWN.
 - SEE SHEETS 40/47 THROUGH 43/47 FOR PARAPET DETAILS.
 - SEE SHEET 32/47 FOR SUPERELEVATION TRANSITION DIAGRAM.

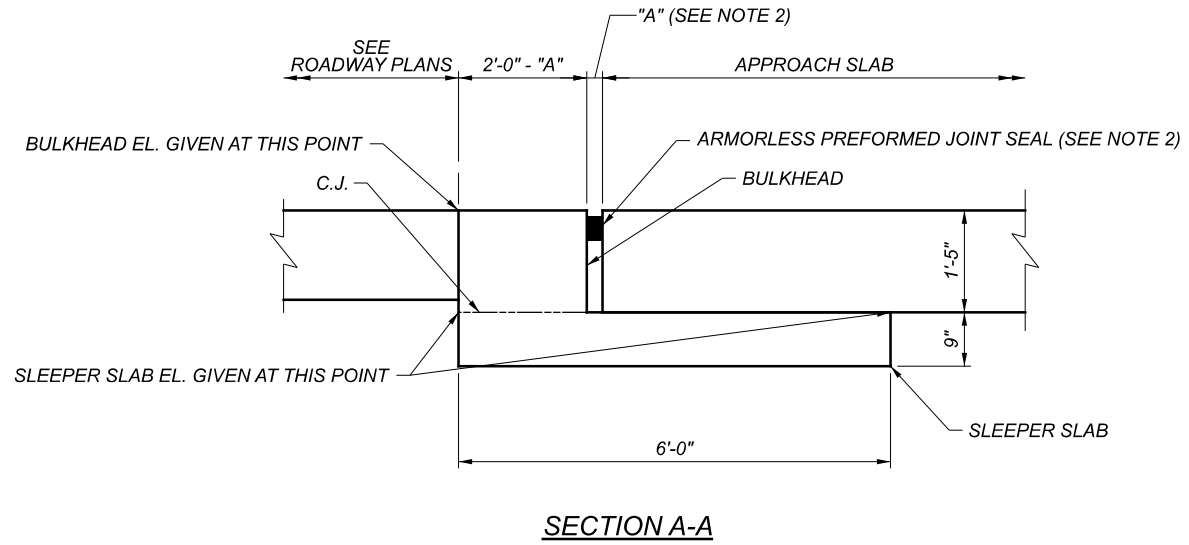
APPROACH SLAB PLAN
 CUY-90-1653L (BRIDGE 10)
 I.R. 90 WB OVER CR-721 (E. 14TH ST.)

SFN	1807901
DESIGN AGENCY	BURGESS & NIPLE 100 WEST FIRE STREET PAINESVILLE, OHIO 44077
DESIGNER	DBH
CHECKER	BCS
REVIEWER	DWL
DATE	05/24/22
PROJECT ID	82382
SUBSET	44
TOTAL	47
SHEET	1650
TOTAL	2339

APPROACH SLAB DATA			
POINT	STA.	OFFSET.	EL.
K	187+44.46	36.00' LT.	688.17
L	187+43.59	24.00' LT.	688.65
M	187+40.17	24.00' RT.	690.52
N	187+39.33	36.00' RT.	690.16
U	187+74.84	36.00' LT.	688.14
V	187+73.84	24.00' LT.	688.62
W	187+69.92	24.00' RT.	690.23
X	187+68.96	36.00' RT.	689.81
Y	190+05.01	36.00' LT.	685.36
Z	190+03.97	24.00' LT.	685.86
AA	189+99.76	24.00' RT.	686.10
BB	189+98.72	36.00' RT.	685.65
HH	190+35.01	36.00' LT.	684.69
II	190+33.97	24.00' LT.	685.20
JJ	190+29.76	24.00' RT.	685.31
KK	190+28.72	36.00' RT.	684.86

BULKHEAD DATA			
POINT	STA.	OFFSET.	EL.
A	187+42.42	36.00' LT.	688.17
B	187+41.56	24.00' LT.	688.65
C	187+39.86	0.00'	689.59
D	187+38.18	24.00' RT.	690.54
E	187+37.35	36.00' RT.	690.18
RR	190+37.02	36.00' LT.	684.65
SS	190+35.98	24.00' LT.	685.15
TT	190+33.87	0.00'	685.58
UU	190+31.77	24.00' RT.	685.26
WW	190+30.72	36.00' RT.	684.80

SLEEPER SLAB DATA			
POINT	STA.	OFFSET.	EL.
A	187+42.42	36.00' LT.	686.75
B	187+41.56	24.00' LT.	687.23
C	187+39.86	0.00'	688.17
D	187+38.18	24.00' RT.	689.12
E	187+37.35	36.00' RT.	688.77
O	187+48.52	36.00' LT.	686.75
P	187+47.63	24.00' LT.	687.23
R	187+45.87	0.00'	688.14
S	187+44.15	24.00' RT.	689.07
T	187+43.29	36.00' RT.	688.70
CC	190+31.00	36.00' LT.	683.37
DD	190+29.95	24.00' LT.	683.87
EE	190+27.85	0.00'	684.31
FF	190+25.75	24.00' RT.	684.00
GG	190+24.70	36.00' RT.	683.55
RR	190+37.02	36.00' LT.	683.23
SS	190+35.98	24.00' LT.	683.73
TT	190+33.87	0.00'	684.17
UU	190+31.77	24.00' RT.	683.84
WW	190+30.72	36.00' RT.	683.39



NOTES:

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

SFN	1807901
DESIGN AGENCY	BURGESS & NIPLE 100 WEST EIRE STREET PAINESVILLE, OHIO 44077
DESIGNER	DBH
CHECKER	BCS
REVIEWER	DWL
DATE	05/24/22
PROJECT ID	82382
SUBSET	45
TOTAL	47
SHEET	1651
TOTAL	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.

REINFORCING STEEL LIST 1 OF 2
CUY-90-1653L (BRIDGE 10)
I.R. 90 WB OVER CR-721 (E. 14TH ST.)

SFN 1807804

DESIGN AGENCY



DESIGNER MAB CHECKER JAA

REVIEWER DWL 05/24/22

PROJECT ID 82382

SUBSET TOTAL 46 47

SHEET TOTAL 1652 2339

CUY-90-16.28 (CCG3A)

MODEL: Sheet PAPER SIZE: 17x11 (in.) DATE: 6/22/2022 TIME: 9:47:57 PM USER: Gregory.Hentler
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NOTES:

- 1. SEE SHEET 46/47 FOR NOTES.

REINFORCING STEEL LIST 2 OF 2
CUY-90-1653L (BRIDGE 10)
I.R. 90 WB OVER CR-721 (E. 14TH ST.)

SFN
1807901

DESIGN AGENCY



DESIGNER	CHECKER
MAB	JAA

REVIEWER
DWL 05/24/22

PROJECT ID
82382

SUBSET	TOTAL
47	47

SHEET	TOTAL
1653	2339